

<b>Prüfbericht - Nr.:</b> 19660227 001		Seite 1 von 262 Page 1 of 262			
Test Report No.:					
<b>Auftraggeber:</b> Ulterius Technologies, LLC <i>Client:</i> 1625 North Waterfront Parkway Suite 250 Wichita, KS 67206-6641 United States					
<b>Gegenstand der Prüfung:</b> Flat Data Network (FDN) <i>Test item:</i>					
<b>Bezeichnung:</b> FDN40-4, FDN40-6, <i>Identification:</i> FDN40-6P		<b>Serien-Nr.:</b> <i>Serial No.</i>	Engineering Sample		
<b>Wareneingangs-Nr.:</b> 1803138977 <i>Receipt No.:</i>		<b>Eingangsdatum:</b> 02.05.2016 <i>Date of receipt:</i>			
<b>Prüfort:</b> Refer Page 4 of 262 for test facilities <i>Testing location:</i>					
<b>Prüfgrundlage:</b> FCC Part 15, Subpart E <i>Test specification:</i> ANSI C63.10-2013					
<b>Prüfergebnis:</b> Der Prüfgegenstand entspricht oben genannter Prüfgrundlage(n). <i>Test Result:</i> The tests item passed the test specification(s).					
<b>Prüflaboratorium:</b> TÜV Rheinland (India) Pvt. Ltd. <i>Testing Laboratory:</i> 82/A, 3rd Main, West Wing, Electronic City Phase 1 Hosur Road, Bangalore – 560 100. India FCC Registration No.: 176555					
geprüft / tested by:		kontrolliert / reviewed by:			
23.05.2016 Vinay N Sr. Engineer		30.05.2016 Raghavendra Kulkarni Sr. Manager			
Datum Date	Name/Stellung Name/Position	Unterschrift Signature	Datum Date	Name/Stellung Name/Position	Unterschrift Signature
<b>Sonstiges /Other Aspects:</b> FCC ID: 2ADJ8-FDN40					
<b>Abkürzungen:</b> P(pass) = entspricht Prüfgrundlage F(fail) = entspricht nicht Prüfgrundlage N/A = nicht anwendbar N/T = nicht getestet			<b>Abbreviations:</b> P(pass) = passed F(fail) = failed N/A = not applicable N/T = not tested		
<b>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</b> <i>This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.</i>					

TÜV Rheinland India Pvt. Ltd. 82/A, 3rd Main, West Wing Electronic City Phase 1, Hosur Road, Bangalore-560100, India Tel.:  
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## Test Result Summary

Clause	Test Item	Result
FCC part 15.407 (a)	Emission Bandwidth (26dB Bandwidth), Minimum Emission Bandwidth (6dB Bandwidth) & 99 Percent Occupied Bandwidth	Pass
FCC Part 15.407 (a)	Maximum Conducted Output Power	Pass
FCC Part 15.407 (a)	Maximum Power Spectral Density (PSD)	Pass
FCC 15.209/15.205/15.407 (b)	Radiated Spurious Emissions, Restricted bands of operation & Unwanted Emission	Pass

**Note:** Conducted measurements are done according to the procedure given in KDB 789033 D02 General UNII Test Procedures New Rules v01r02 & 662911 D01 Multiple Transmitter Output v02r01.

\* -> Device exclusively used in vehicle only, it will operates on vehicle battery & internal back up battery only.

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**Appendix 1: Test Setup Photo**

**Appendix 2: EUT External Photo**

**Appendix 3: EUT Internal Photo**

**Appendix 4: FCC Label and Label Location**

**Appendix 5: Block Diagram**

**Appendix 6: Specification of EUT**

**Appendix 7: Schematic Diagrams**

**Appendix 8: Bill of Material**

**Appendix 9: User Manual**

**Appendix 10: Maximum Permissible Exposure Calculation**

## List of Test and Measurement Instruments

Equipment	Manufacturer	Model Name	Serial Number	Calibration Due Date	Periodicity	Used for Test Items
EMI Test Receiver	Rohde & Schwarz	ESU 40	100288	23.11.2016	Yearly	Spurious Radiated Emissions
Broadband Antenna	Frankonia	ALX-4000-806	ALX-4000-806	20.01.2017	Yearly	
Active Loop Antenna	Frankonia	LAX-10	LAX-10-800	22.12.2016	Yearly	
Broadband Horn Antenna	Frankonia	HAX-18	HAX18-802	14.03.2017	Yearly	
Emission Horn Antenna	ETS Lindgren	116706	00107323	02.11.2016	Yearly	
Anechoic Chamber	Frankonia	-	-	-	-	Antenna - Port Conducted Tests
Spectrum Analyser	Agilent Technologies	E4407B	US41192772	23.04.2017	Yearly	
Signal Analyzer	Rohde & Schwarz	FSV7	101644	07.12.1016	Yearly	

### Testing Facilities:

- 1) TUV Rheinland (India) Private Limited  
108 , Beside ISBR Business School,  
Electronic city Phase I  
Bangalore - 560 100

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## General Product Information

### Product Function and Intended Use

Multi Service Business Gateway that provides routing, switching, security services for SMB, ROBO, etc. type Access CPE environments.

### Ratings and System Details

Operating Frequency	5150 – 5250 MHz 5725 – 5850 MHz	
No. of channel	Refer page 6, Table 2	
Channel Spacing	20 MHz, 40MHz	
Transmitted Power	802.11a/n/ac 20MHz	21.59 dBm / <b>144.54mW</b>
	802.11n/ac 40MHz	16.30 dBm / <b>42.68mW</b>
	802.11/ac 80MHz	15.53 dBm / <b>35.73mW</b>
Data Rate	802.11n/ac : MCS0 – MCS7 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps	
Number of antenna	3	
Antenna Gain	3dBi @2.4GHz 5dBi @5GHz	
Supply Voltage	12V from Power Adaptor	
Dimensions	250mm (L) x 250mm (W) x50mm (H)	
Environmental Condition	Operating temperature is 0°C to 50°C Storage temperature is -10° to 70°C	

### Test Conditions:

Supply Voltage: 12VDC form Power Adaptor supplied along with this product

### Environmental conditions:

Temperature: +23 ° C

RH: 62%

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## Test Set-up and Operation Mode

### Principle of Configuration Selection

Transmission was enabled with 100% duty cycle transmission on low, mid and high channel.

### Test Operation and Test Software

Test software was used to enable the continuous transmission, changing channels (low/mid/high) and data rates on the EUT for the tests in this report.

### Special Accessories and Auxiliary Equipment

- None

### Countermeasures to achieve EMC Compliance

- None

### Test Modes – Data Rates and Modulations

For Radiated spurious emissions, the tests were performed for all data rates and only worst case results are reported in this report.

### Antenna Port measurements are performed on the following paths

Path A – J203 Connector –ANT1

Path B – J202 Connector – ANT2

Path C – J201 Connector – ANT3

### List of Antenna: Table 1

Manufacturer	Antenna Type	Antenna Part No.	Operating Frequency (GHz)
Premiertek	Monopole Antenna	ANT-5DBI-DUAL	2.4 & 5

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**Table of Carrier frequencies Table 2:**

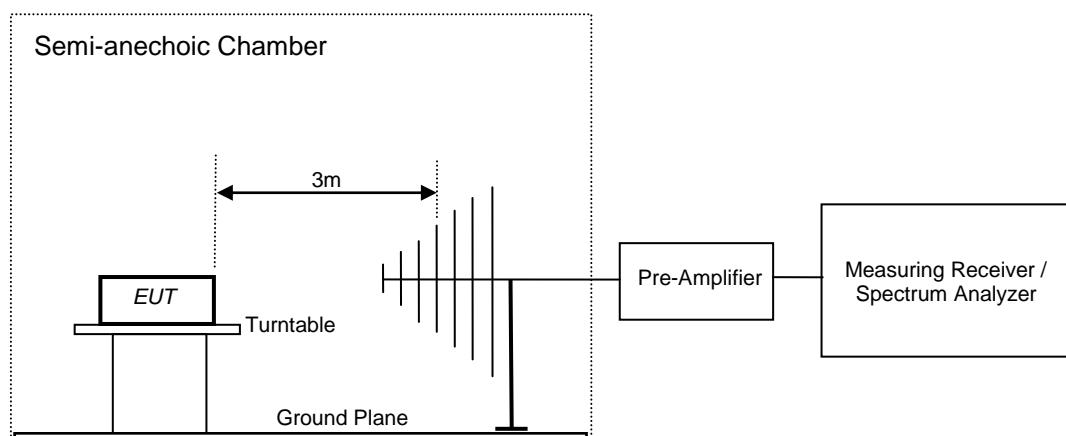
Frequency Band	Channel No.	Frequency (MHz)
<b>5GHz Band – 20MHz Bandwidth Channel List</b>		
5150 – 5250 MHz	36	5180
	40	5200
	44	5220
	48	5240
5725 – 5850MHz	149	5745
	143	5765
	157	5785
	161	5805
	165	5825
<b>5GHz Band – 40MHz Bandwidth Channel List</b>		
5150 – 5250 MHz	38	5190
	46	5230
5725 – 5850MHz	151	5755
	159	5795
<b>5GHz Band – 80MHz Bandwidth Channel List</b>		
5150 – 5250 MHz	42	5210
5725 – 5850MHz	155	5775

## Test Methodology

### Radiated Emission Test

The radiated emission measurement was performed according to the procedures in ANSI C63.10-2013. The equipment under test (EUT) was placed at the middle of the 80 cm high turntable, and the EUT is 3 meters far from the measuring antenna for below 1GHz & The equipment under test (EUT) was placed at the middle of the 1.5m high turntable, and the EUT is 3 meters far from the measuring antenna for above 1GHz. The turntable was rotated 360° for obtaining the maximum emission. The height of the measuring antennas was scanned between 1m and 4m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations. Repeat the measurement steps until the maximum emissions were obtained. The measurement above 1000MHz was performed by horn antenna. The measurement below 30MHz was performed by loop antenna.

The EUT was rotated around the X-, Y-, and Z-Axis and the results from worst case axis are recorded.



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## Test Results

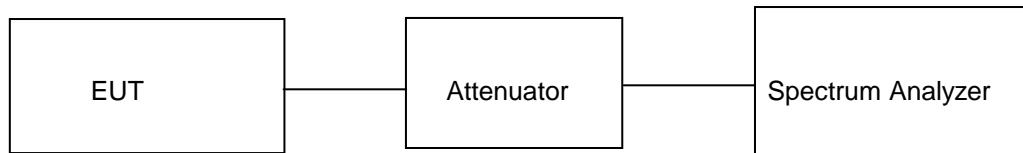
### Emission Bandwidth (26dB) & OBW Result

**Section 15.407(a)  
Pass**

Test Specification  
Measurement Bandwidth (RBW)

FCC Part 15 Subpart E  
300 kHz

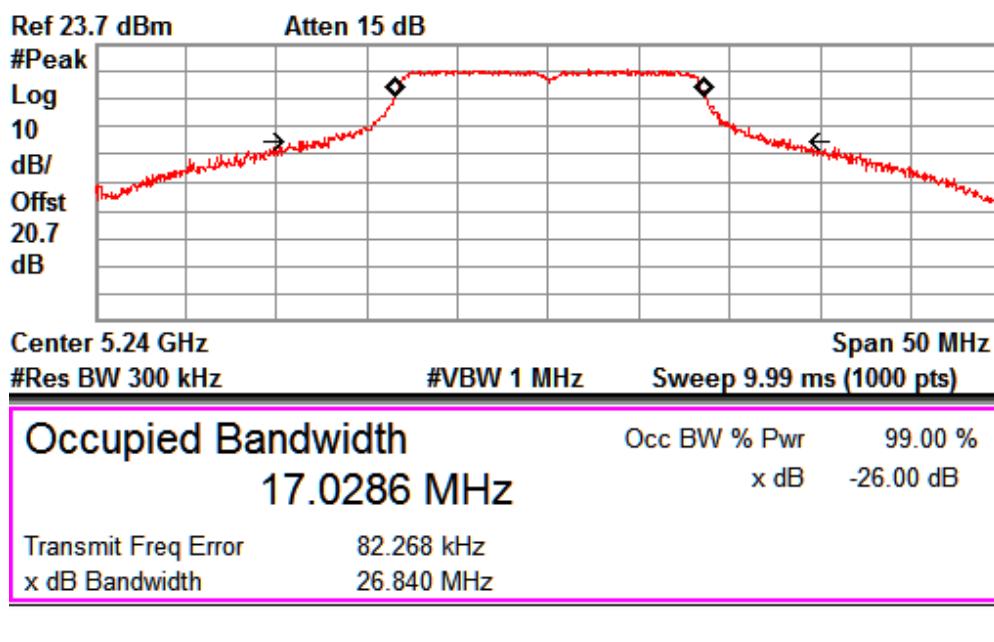
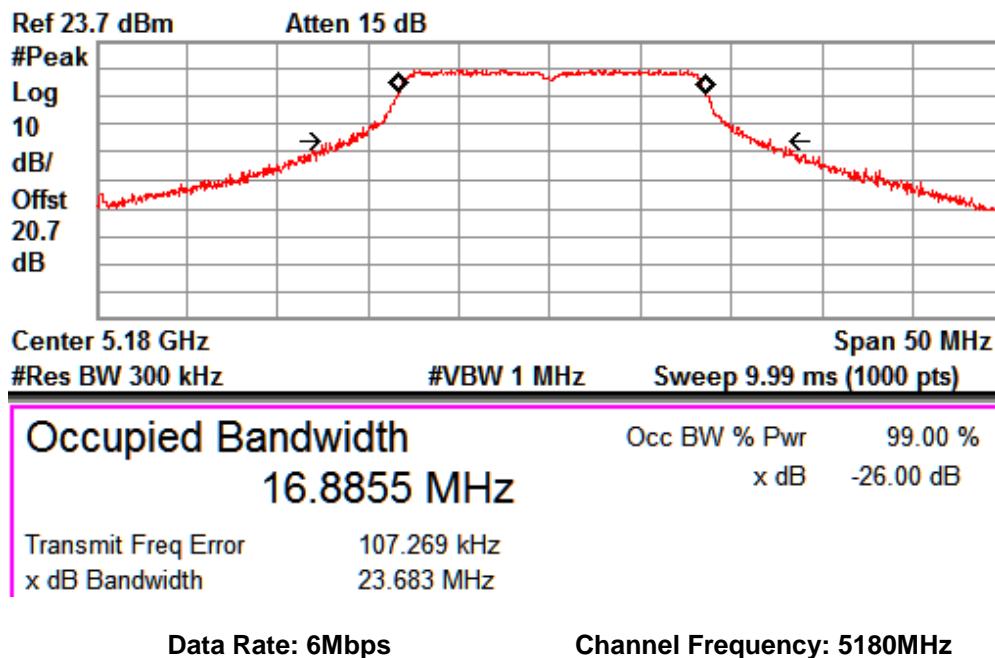
#### Test Method:

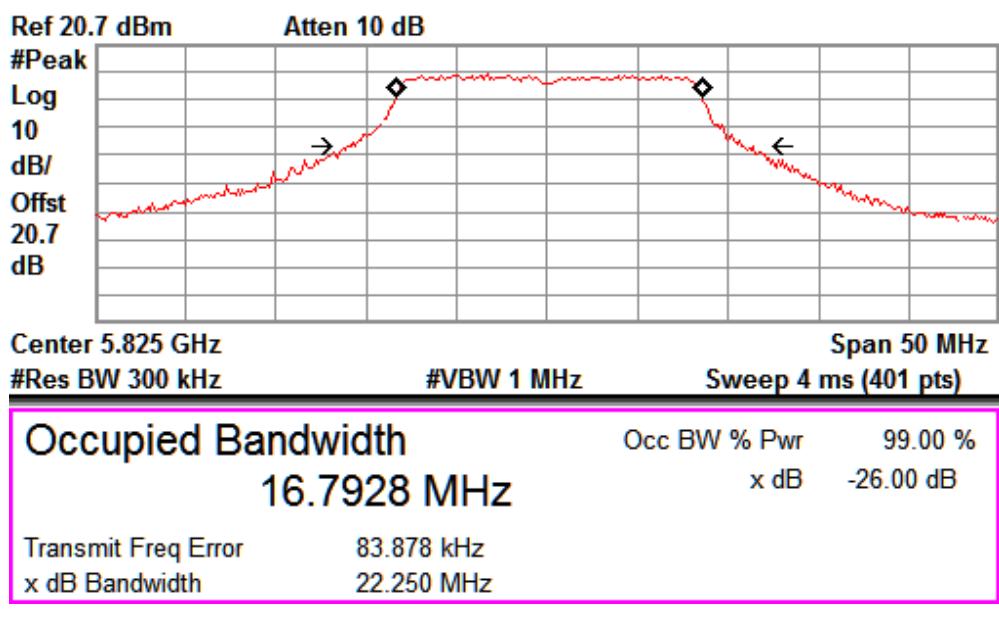
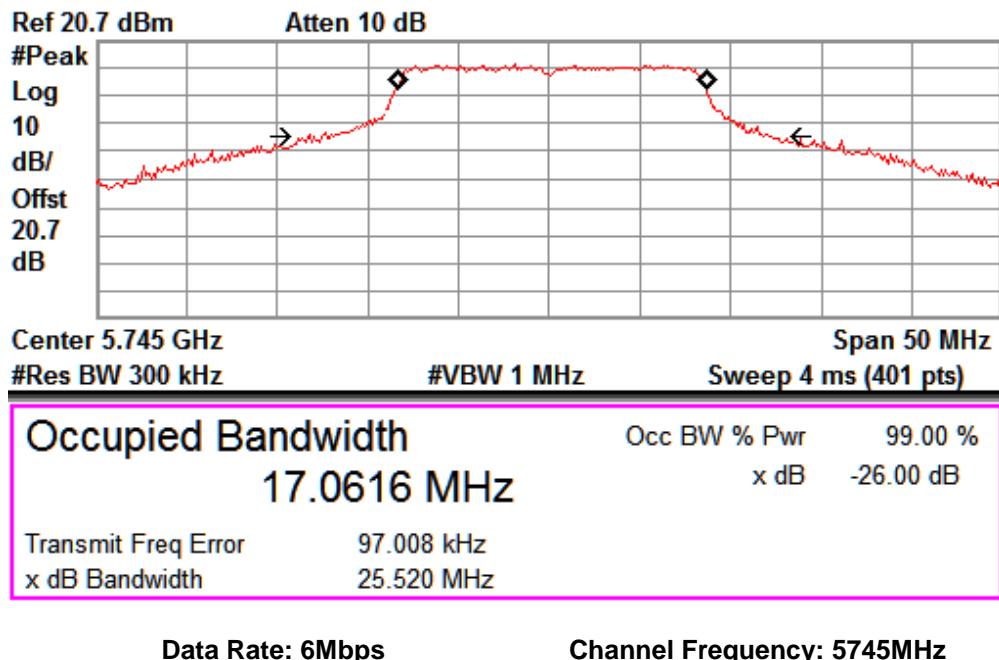


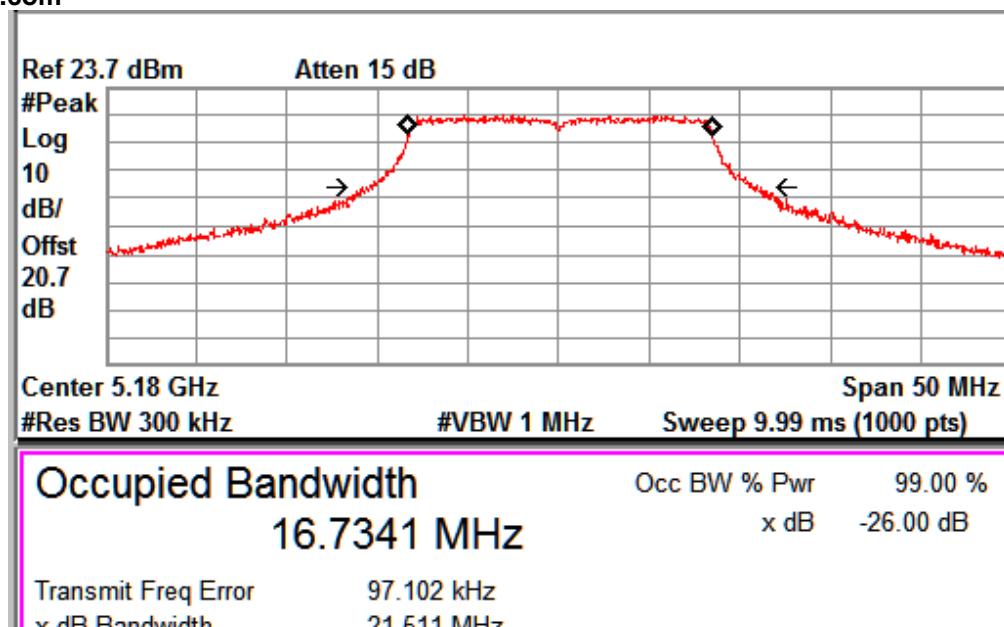
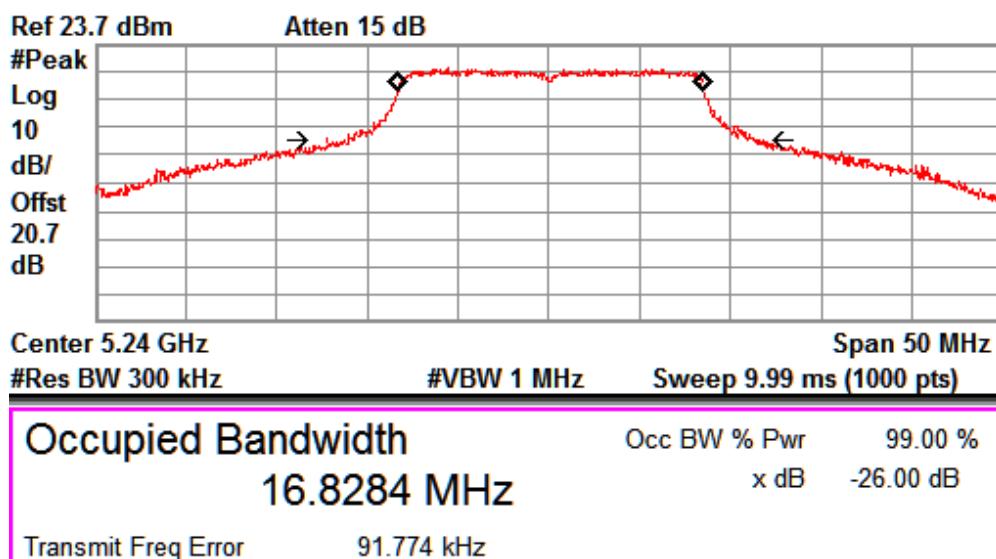
Note: Attenuator (20dB) + cable loss (0.7dB) = 20.7dB Considered in the test result

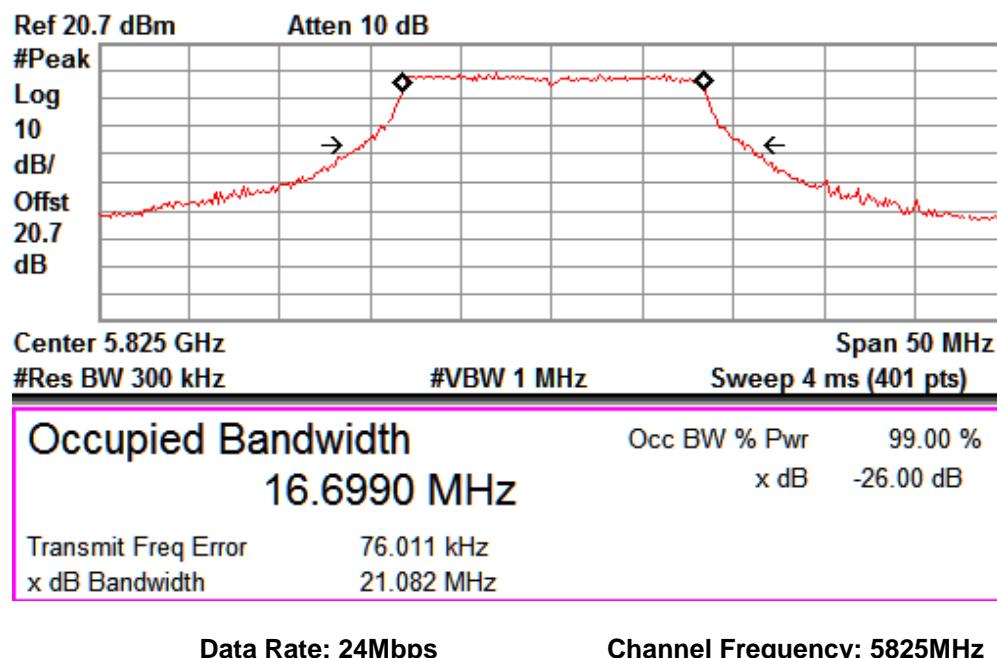
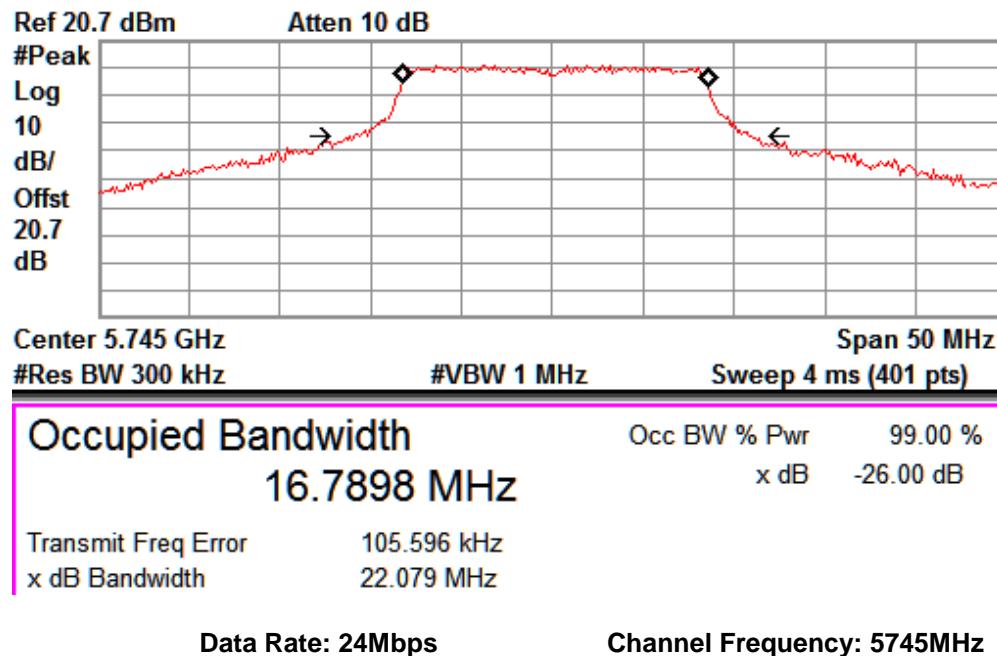
**Note:** Worst case test results are reported

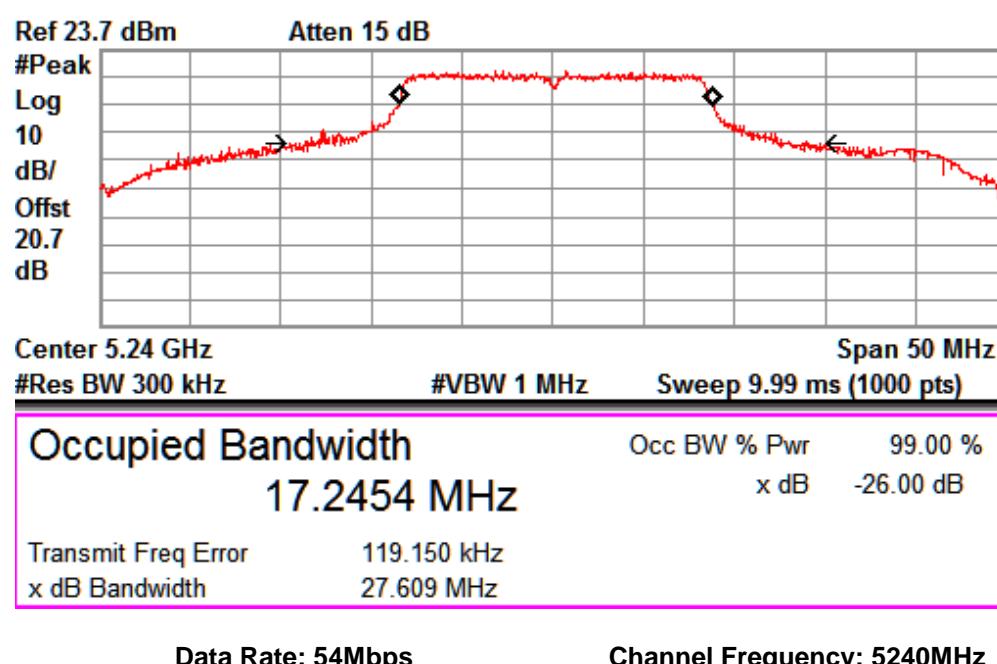
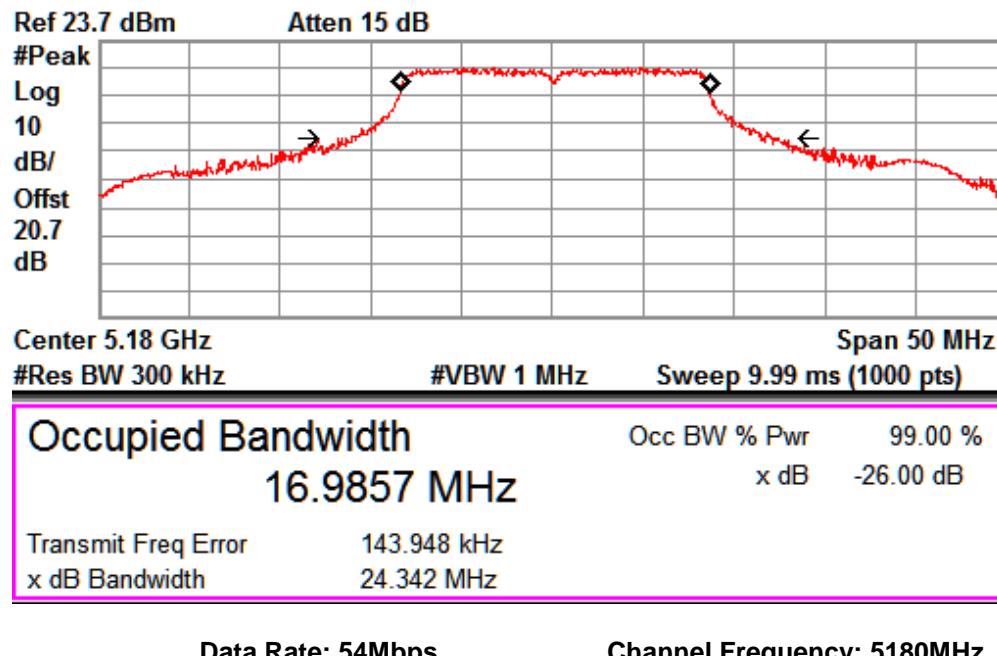
<b>IEEE802.11 a_20MHz Channel</b>				
<b>Data Rate (Mbps)</b>	<b>Channel. No</b>	<b>Frequency (MHz)</b>	<b>EBW (MHz)</b>	<b>OBW (MHz)</b>
6	36	5180	23.68	16.88
	48	5240	26.84	17.02
	149	5745	25.52	17.06
	165	5825	22.25	16.79
24	36	5180	21.51	16.73
	48	5240	23.41	16.82
	149	5745	22.07	16.78
	165	5825	21.08	16.69
54	36	5180	24.34	16.98
	48	5240	27.60	17.24
	149	5745	24.36	17.03
	165	5825	23.21	16.91

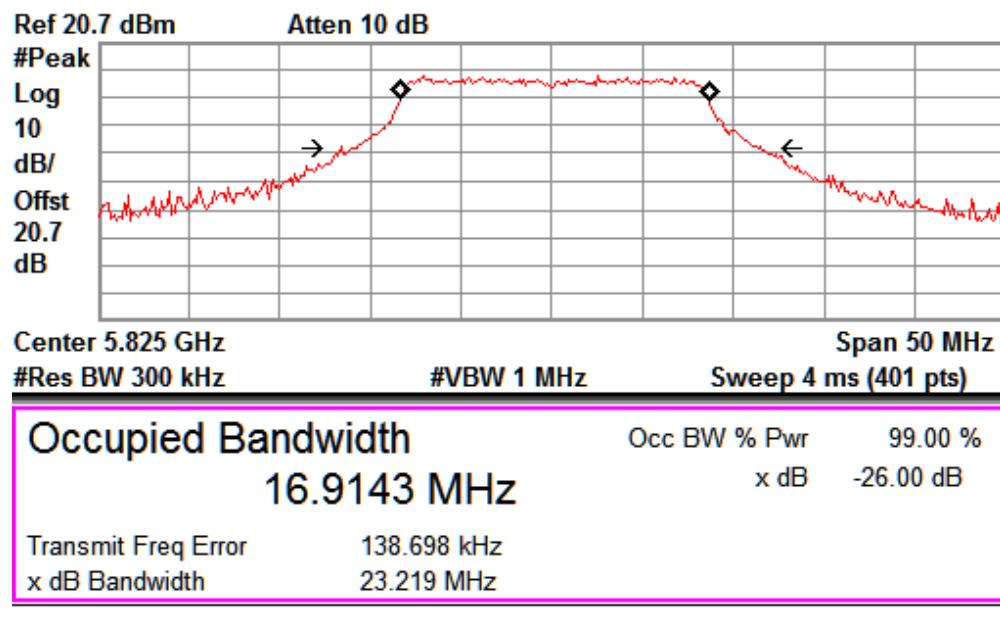
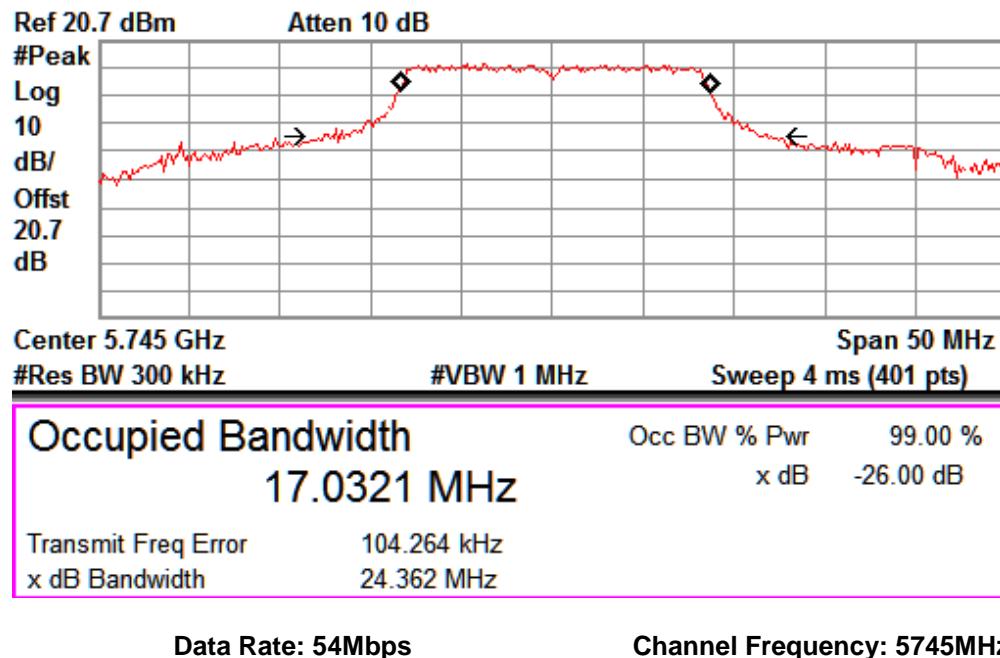




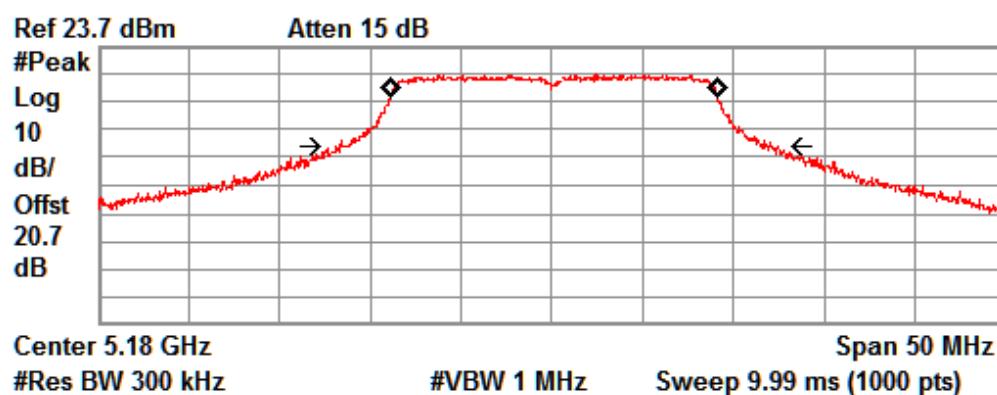

**Data Rate: 24Mbps**
**Channel Frequency: 5180MHz**

**Data Rate: 24Mbps**
**Channel Frequency: 5240MHz**





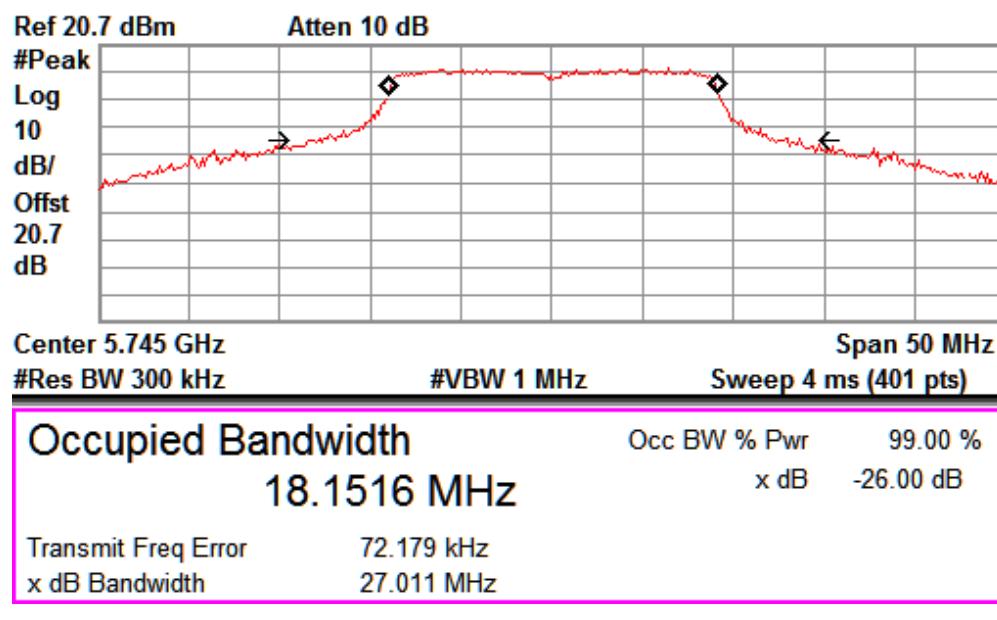
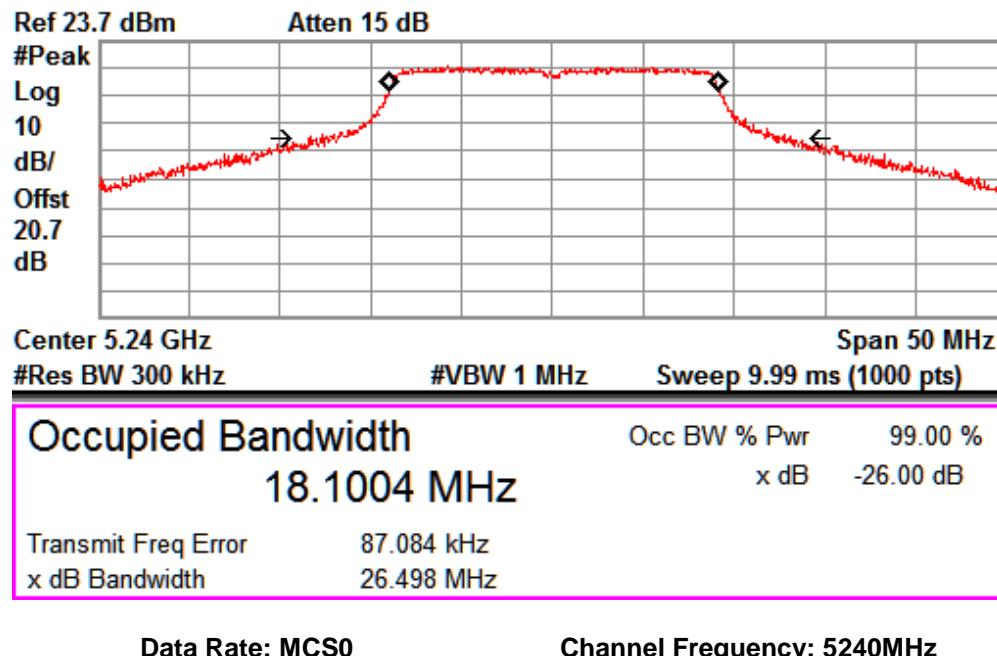


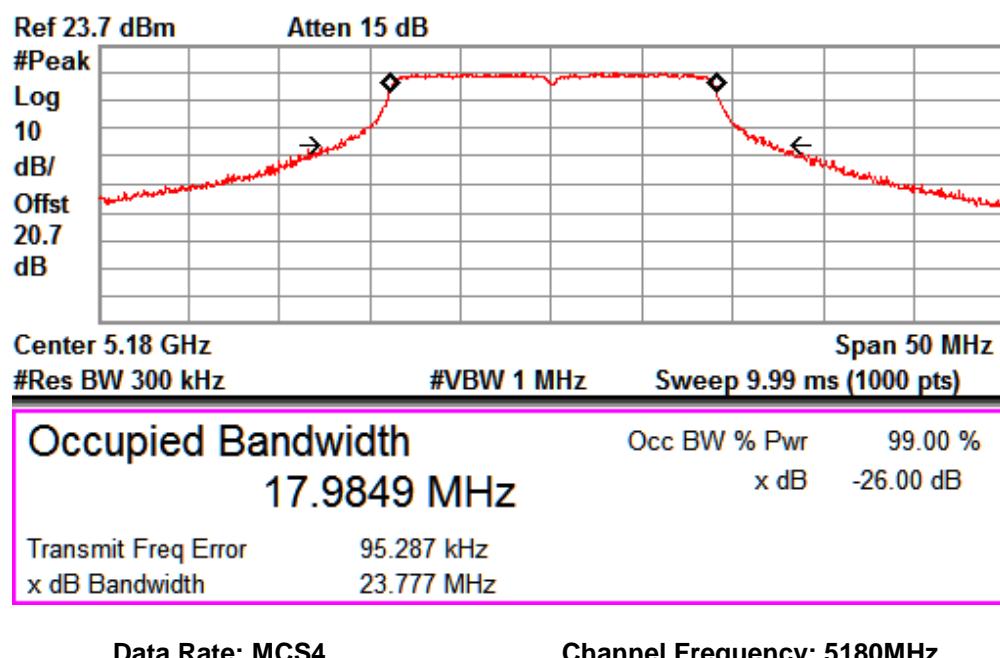
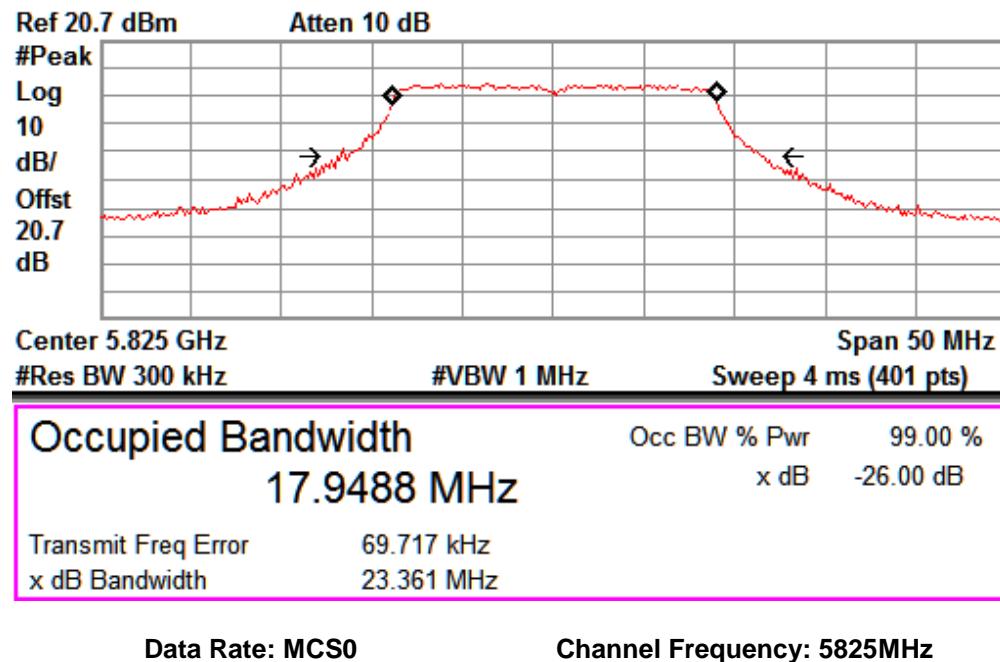
<b>IEEE802.11 nHT20</b>				
<b>Data Rate (Mbps)</b>	<b>Channel. No</b>	<b>Frequency (MHz)</b>	<b>EBW (MHz)</b>	<b>OBW (MHz)</b>
MCS0	36	5180	23.69	17.95
	48	5240	26.49	18.10
	149	5745	27.01	18.15
	165	5825	23.36	17.94
MCS4	36	5180	23.77	17.98
	48	5240	25.06	17.97
	149	5745	23.31	17.97
	165	5825	22.21	17.90
MCS7	36	5180	25.91	18.13
	48	5240	34.70	18.36
	149	5745	26.08	18.18
	165	5825	23.10	17.98

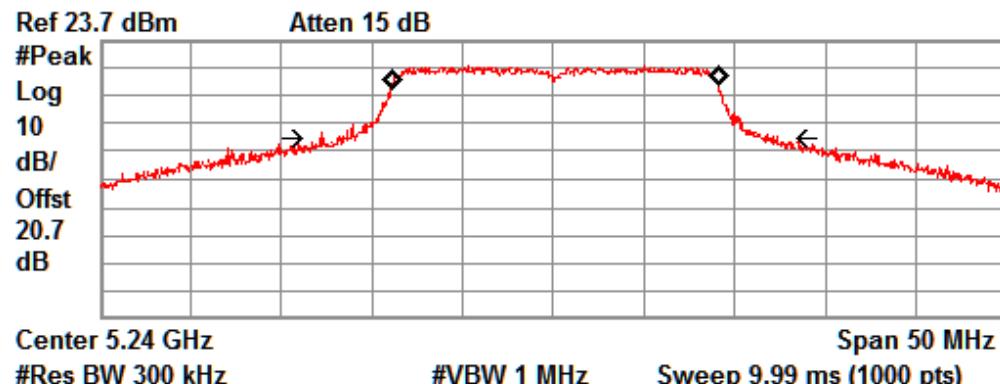


<b>Occupied Bandwidth</b>	Occ BW % Pwr	99.00 %
<b>17.9580 MHz</b>	x dB	-26.00 dB
Transmit Freq Error	95.241 kHz	
x dB Bandwidth	23.693 MHz	

**Data Rate: MCS0**
**Channel Frequency: 5180MHz**

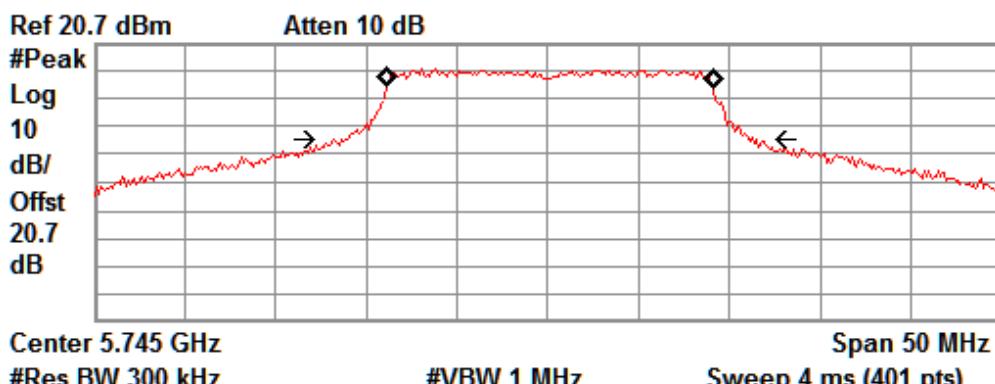
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<b>Occupied Bandwidth</b>	Occ BW % Pwr	99.00 %
<b>17.9776 MHz</b>	x dB	-26.00 dB

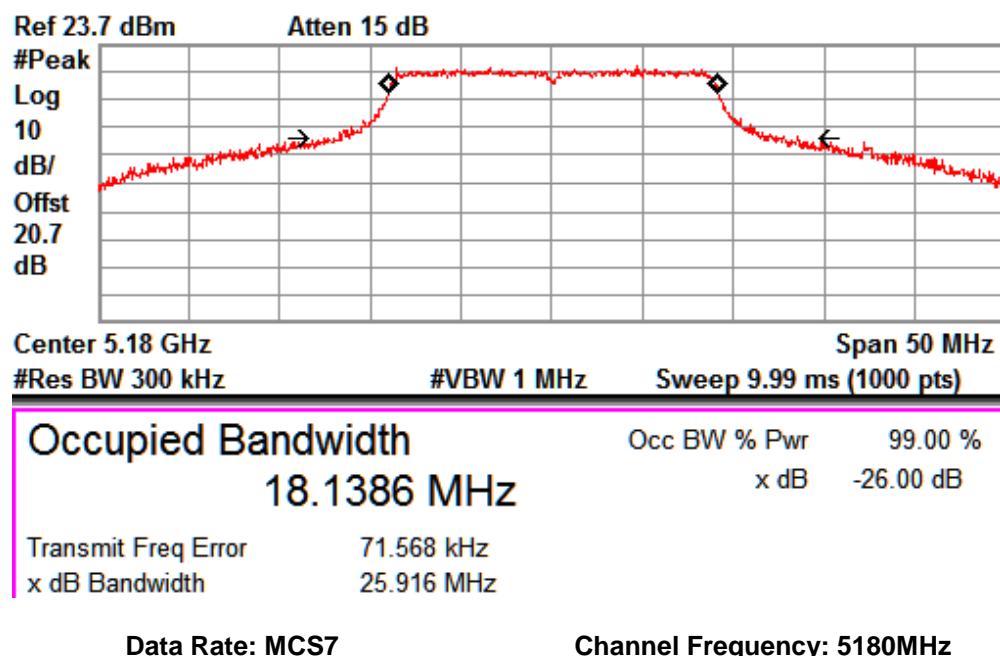
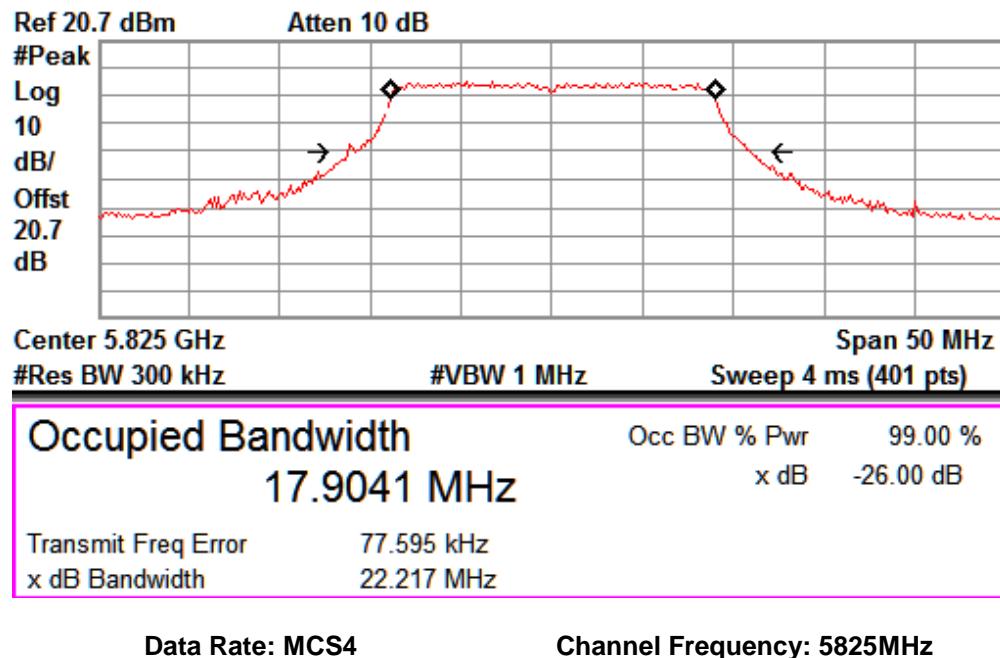
Transmit Freq Error	92.165 kHz
x dB Bandwidth	25.065 MHz

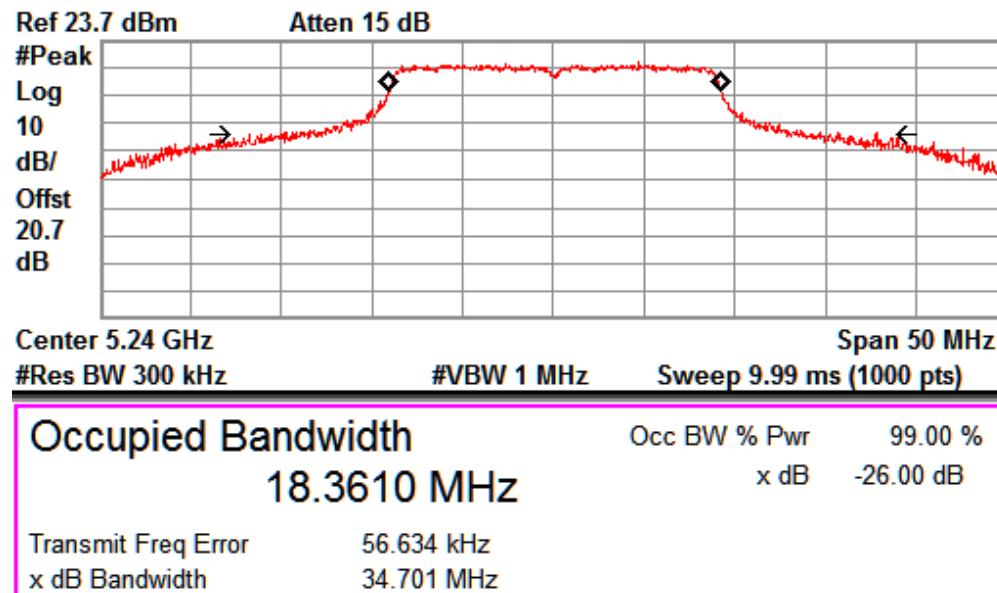
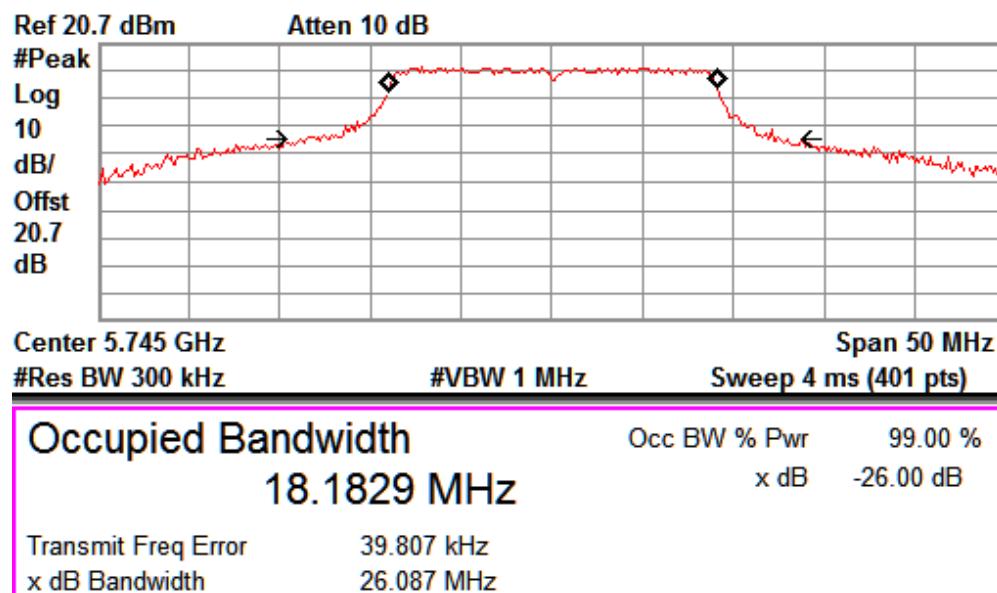
**Data Rate: MCS4**
**Channel Frequency: 5240MHz**


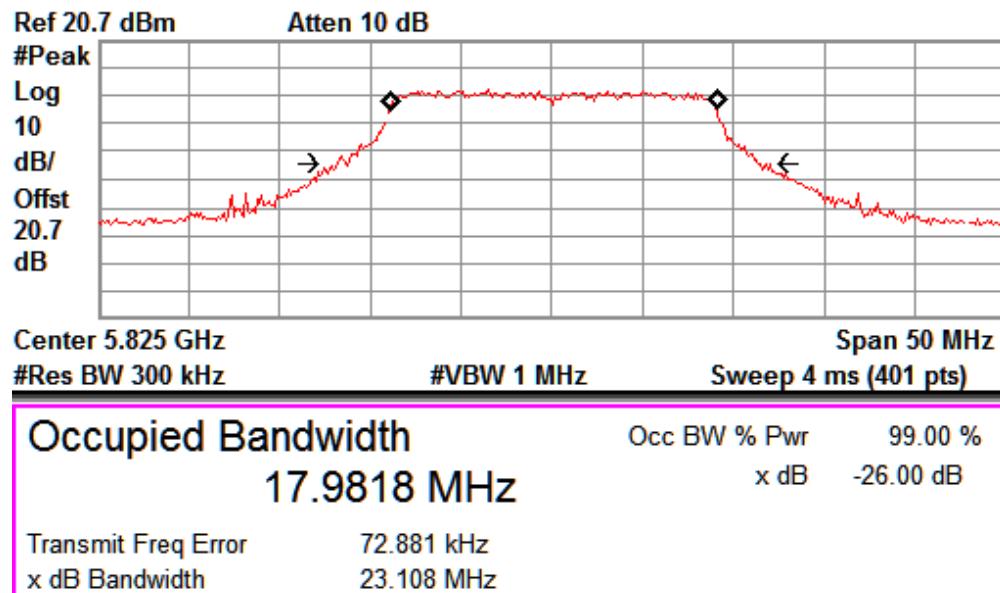
<b>Occupied Bandwidth</b>	Occ BW % Pwr	99.00 %
<b>17.9703 MHz</b>	x dB	-26.00 dB

Transmit Freq Error	119.843 kHz
x dB Bandwidth	23.311 MHz

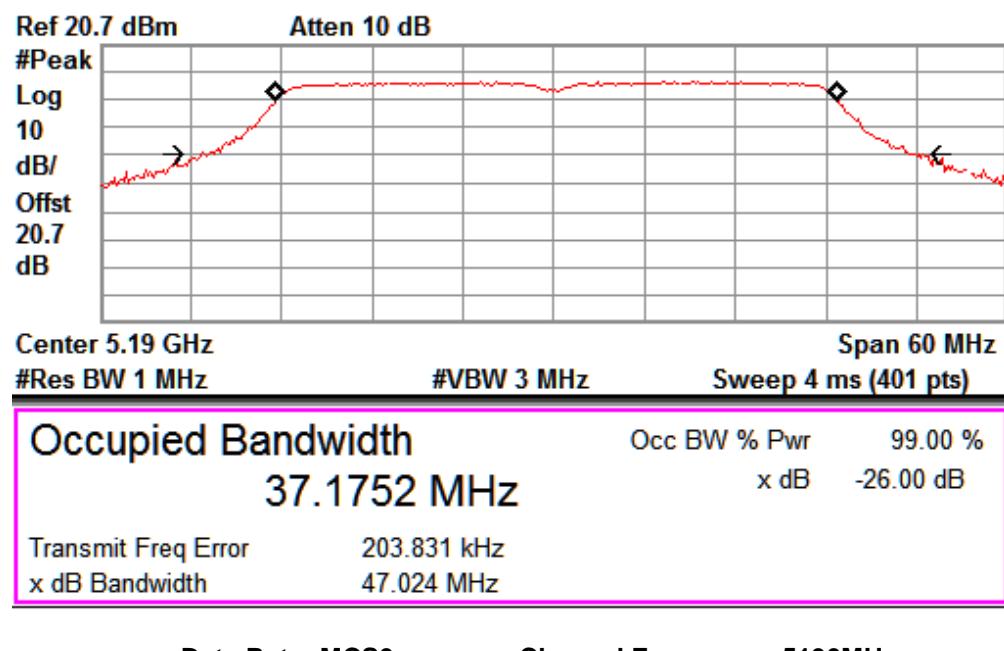
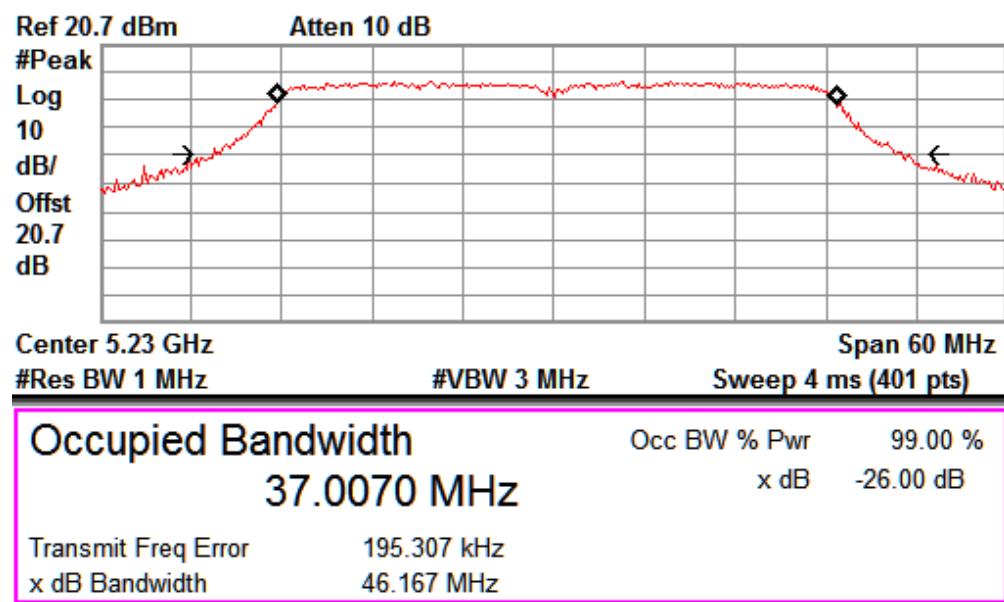
**Data Rate: MCS4**
**Channel Frequency: 5745MHz**

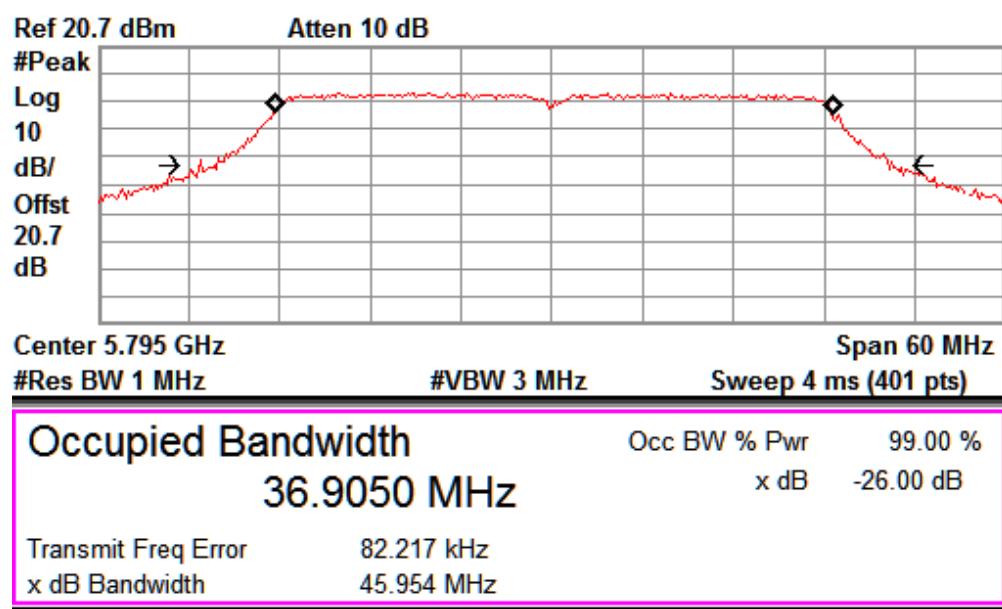
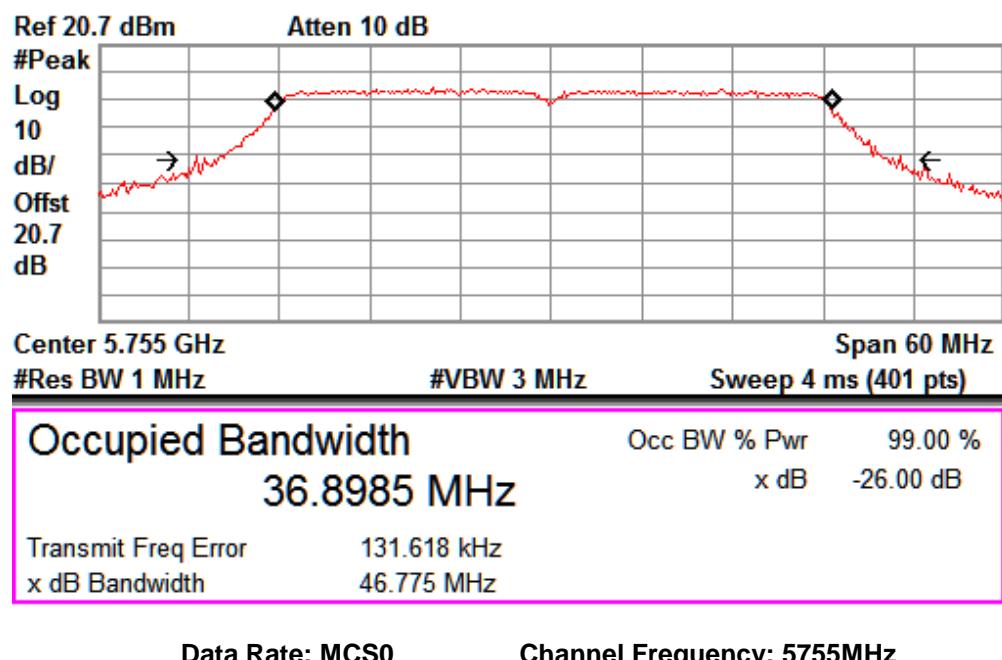



**Data Rate: MCS7**
**Channel Frequency: 5240MHz**

**Data Rate: MCS7**
**Channel Frequency: 5745MHz**

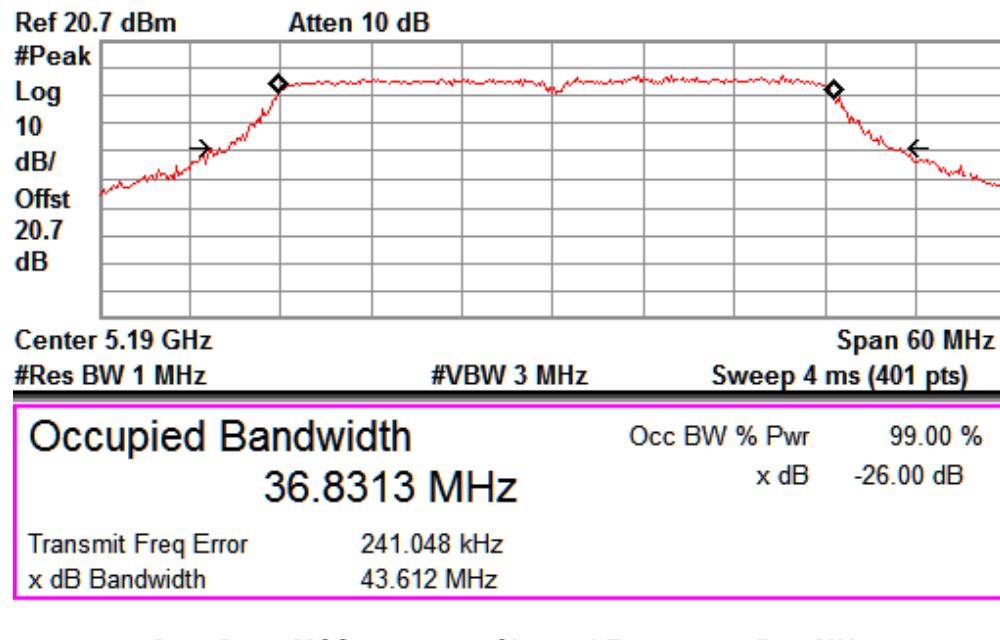

**Data Rate: MCS7**
**Channel Frequency: 5825MHz**

<b>IEEE802.11n HT40</b>				
<b>Data Rate (Mbps)</b>	<b>Channel. No</b>	<b>Frequency (MHz)</b>	<b>EBW (MHz)</b>	<b>OBW (MHz)</b>
MCS0	38	5190	47.02	37.17
	46	5230	46.16	37
	151	5755	46.77	36.89
	159	5795	45.95	36.90
MCS4	38	5190	43.61	36.83
	46	5230	44.08	36.75
	151	5755	44.14	36.90
	159	5795	44.31	36.84
MCS7	38	5190	47.85	37.03
	46	5230	46.47	36.95
	151	5755	46.66	36.98
	159	5795	45.83	37.08


**Data Rate: MCS0**
**Channel Frequency: 5190MHz**

**Data Rate: MCS0**
**Channel Frequency: 5230MHz**

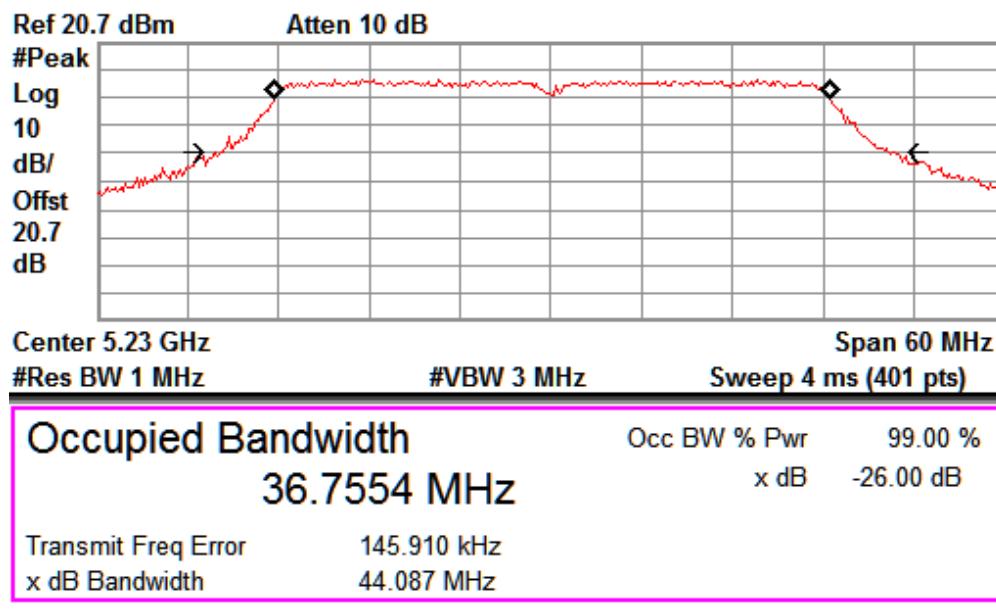
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Data Rate: MCS0      Channel Frequency: 5795MHz

[www.tuv.com](http://www.tuv.com)


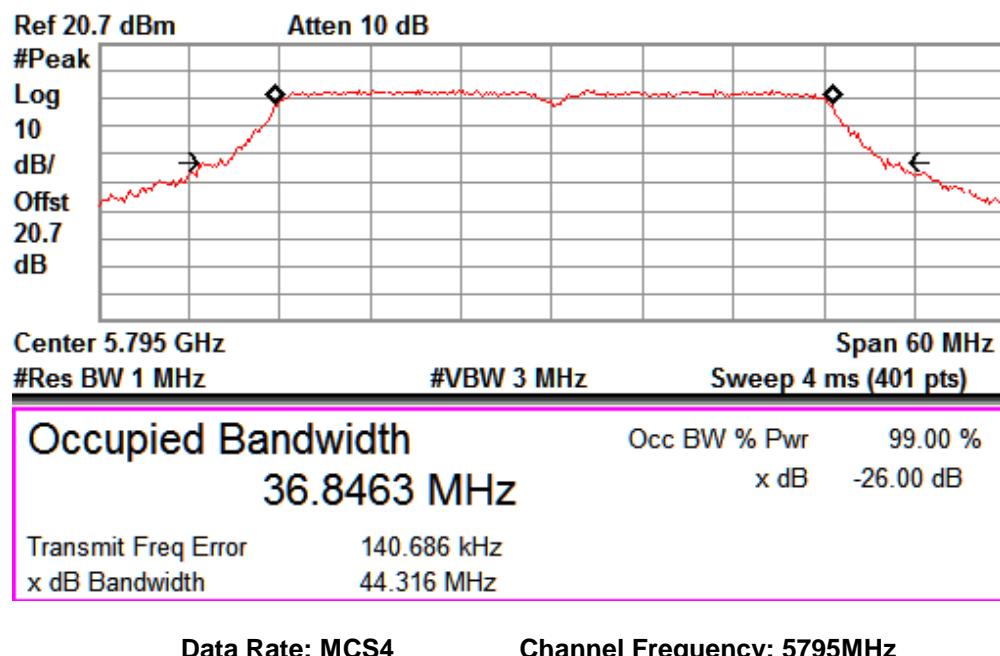
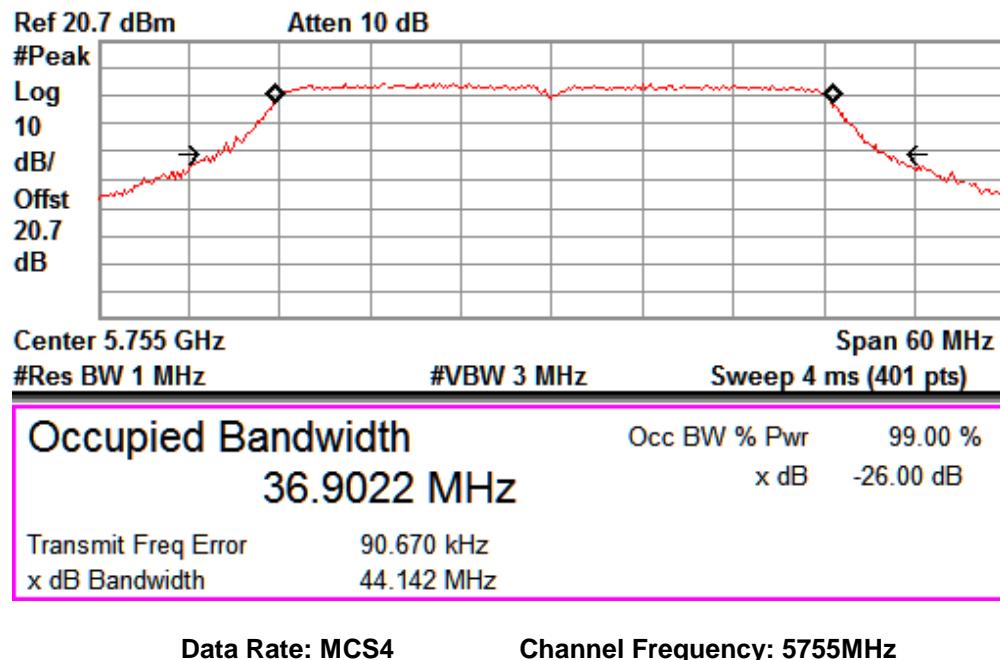
Data Rate: MCS4

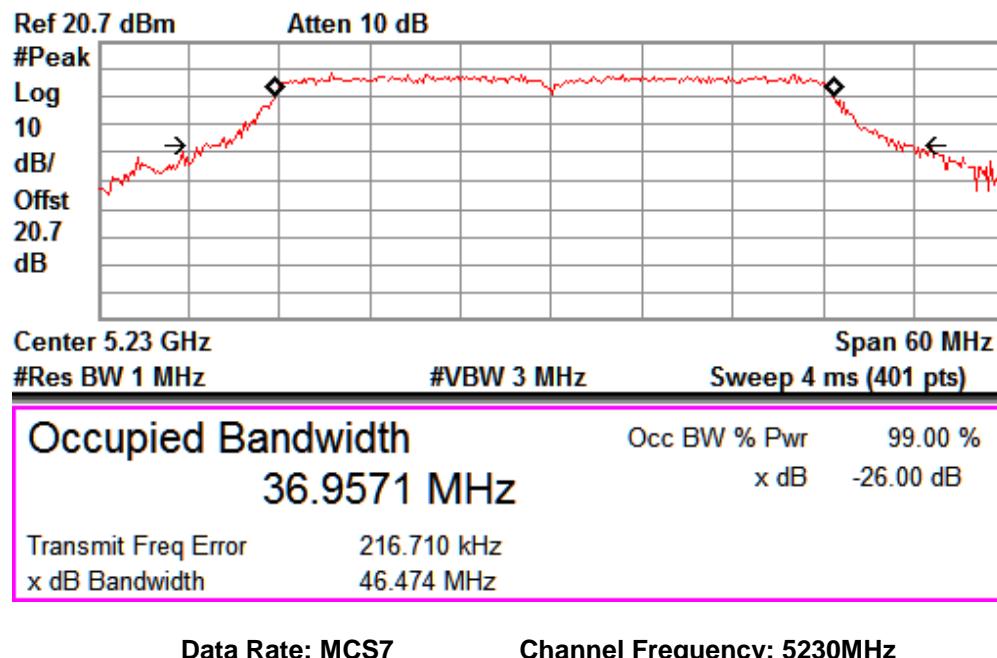
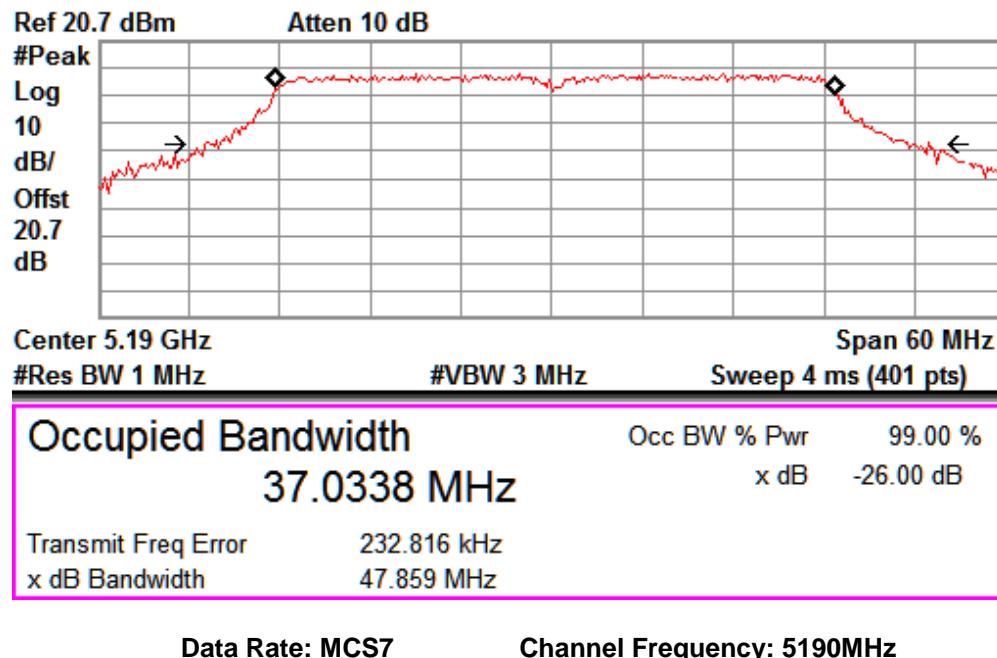
Channel Frequency: 5190MHz

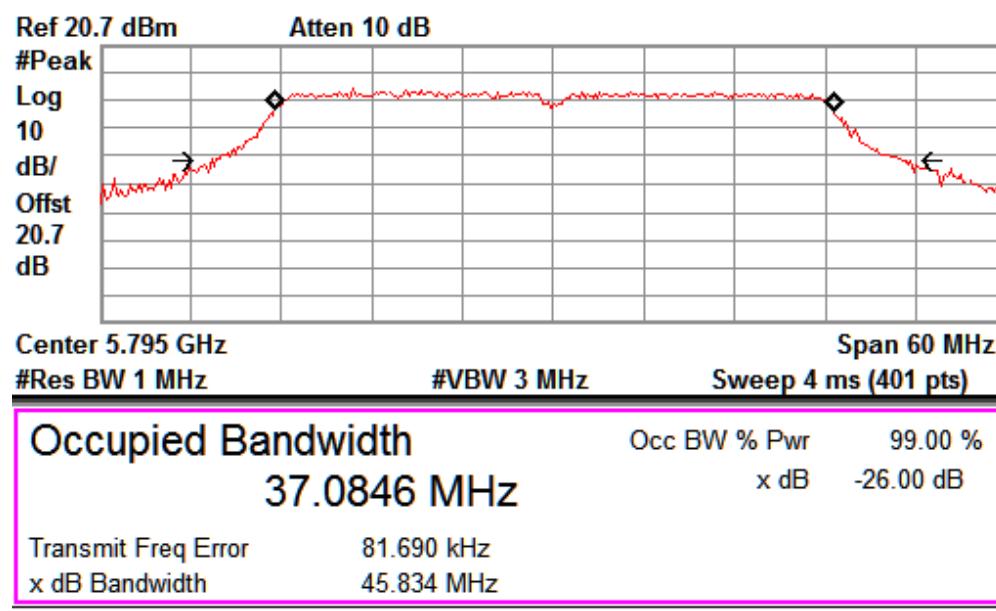
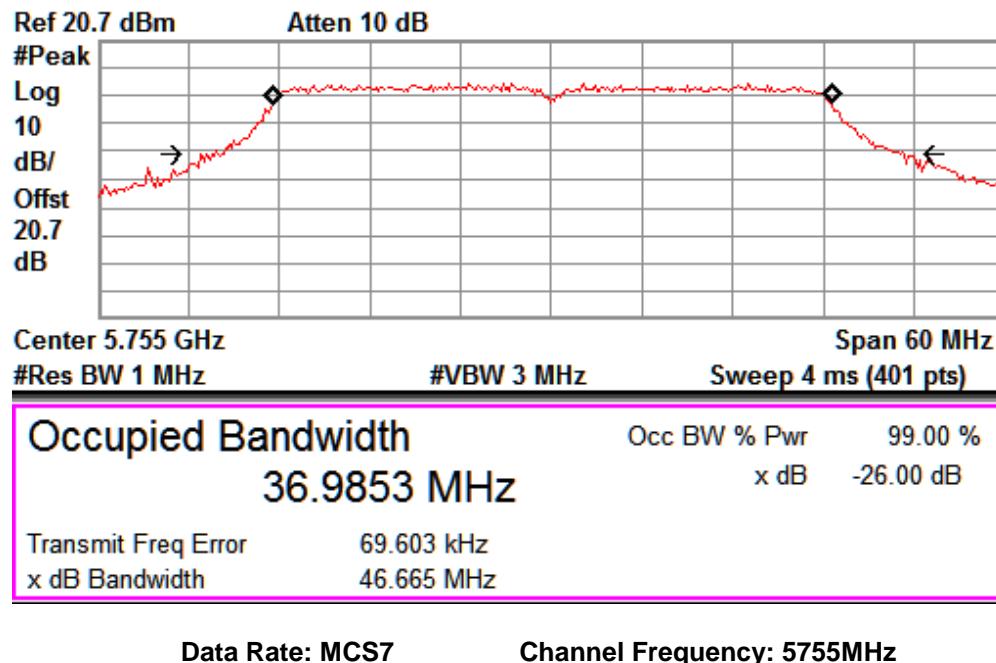


Data Rate: MCS4

Channel Frequency: 5230MHz

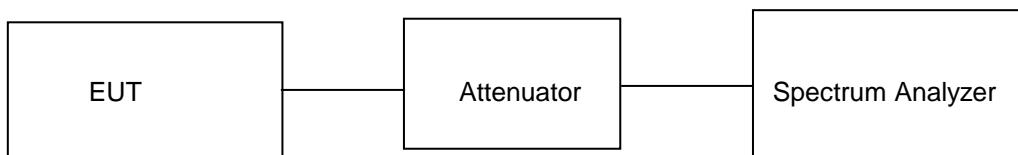
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**Maximum conducted output power  
Result**
**Section 15.407(a)  
Pass**

Test Specification	FCC Part 15 Subpart E
Measurement Bandwidth (RBW)	1 MHz
Requirement	The maximum conducted output power over the frequency band of operation shall not exceed the 24dBm in 5.15-5.25 GHz & 30dBm in 5.725-5.85 GHz.

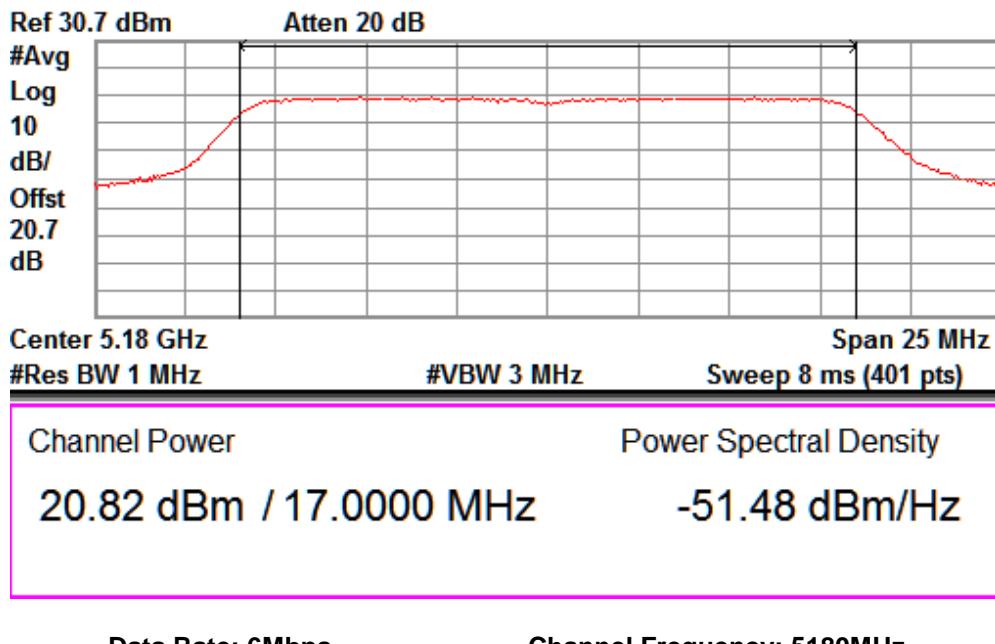
**Test Method:**


**Note:** For measurement of Maximum conducted output power, method SA-1 Alternative was used, Attenuator (20dB) + cable loss (0.7dB) = 20.7dB Considered in the test result.

**Test Results for Path A:**

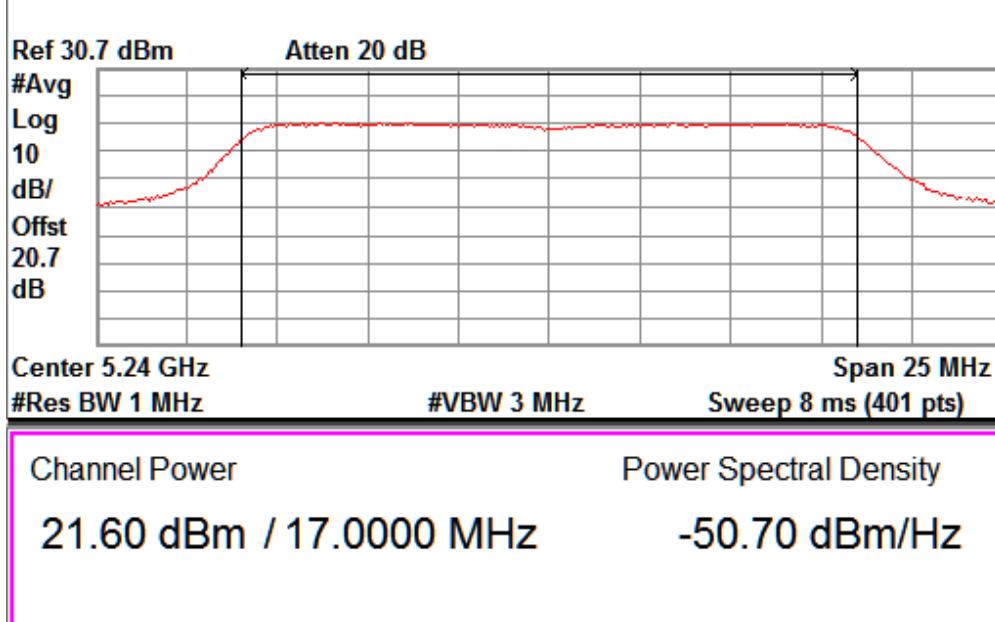
<b>IEEE802.11a 20MHz Channel</b>				
<b>Data Rate (Mbps)</b>	<b>Channel No.</b>	<b>Frequency (MHz)</b>	<b>Average Output power (dBm)</b>	<b>Average Power (mW)</b>
<b>6</b>	36	5180	20.82	120.78
	48	5240	21.6	144.54
	149	5745	10.97	12.50
	165	5825	08.83	07.63
<b>24</b>	36	5180	19.79	95.27
	48	5240	20.99	125.60
	149	5745	10.48	11.16
	165	5825	08.53	07.12
<b>54</b>	36	5180	019.7	93.32
	48	5240	20.93	123.87
	149	5745	09.75	09.44
	165	5825	07.64	05.80

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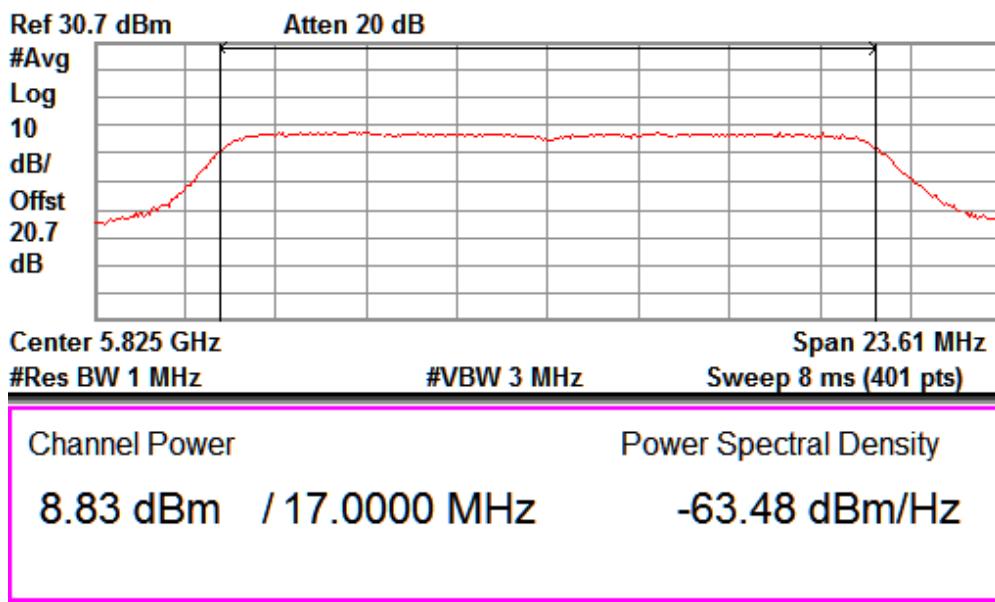
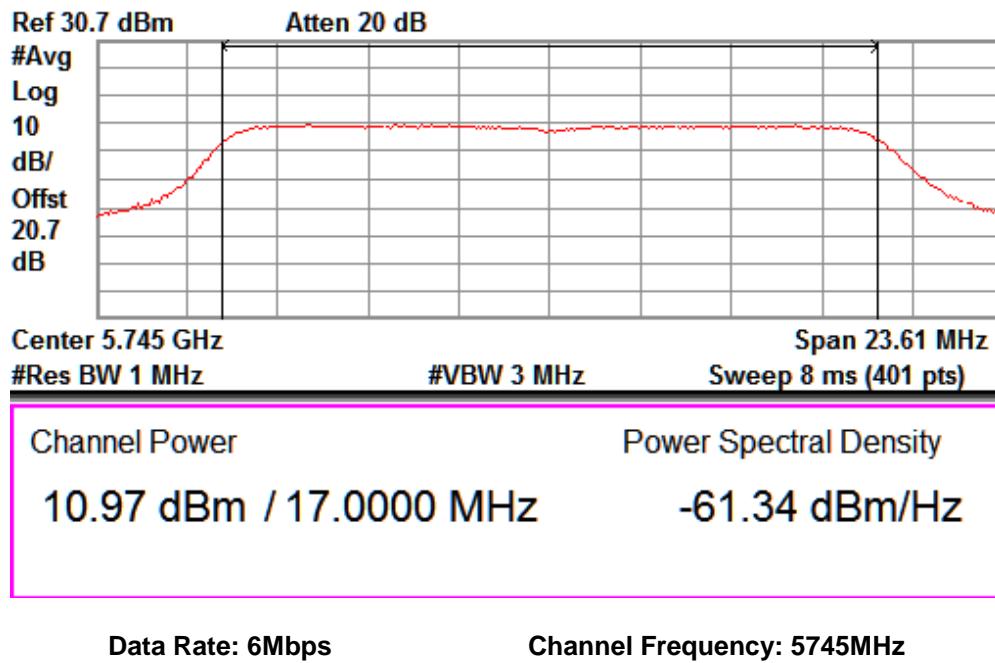
Data Rate: 6Mbps

Channel Frequency: 5180MHz



Data Rate: 6Mbps

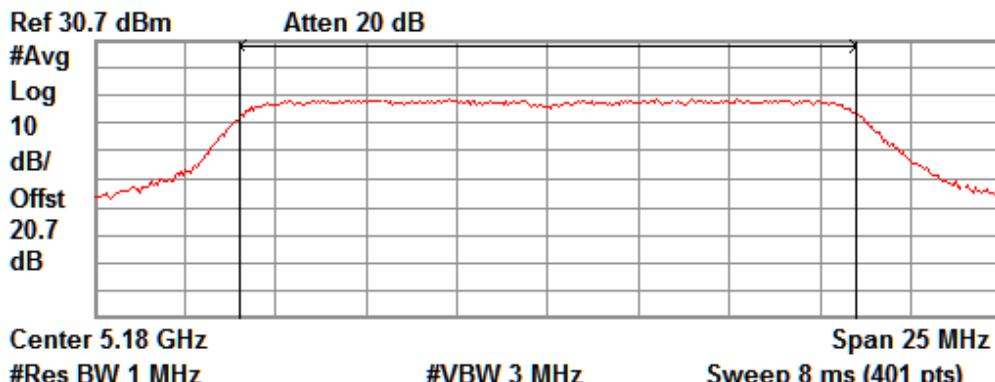
Channel Frequency: 5240MHz



Data Rate: 6Mbps

Channel Frequency: 5825MHz

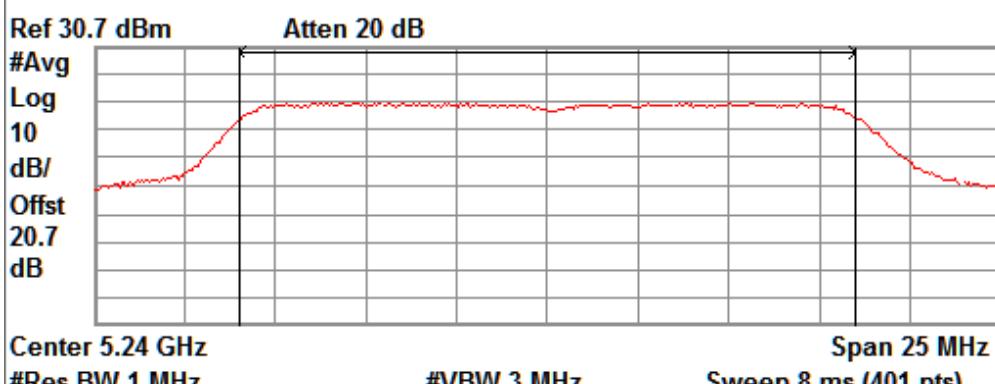
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Channel Power	Power Spectral Density
19.79 dBm / 17.0000 MHz	-52.51 dBm/Hz

Data Rate: 24Mbps

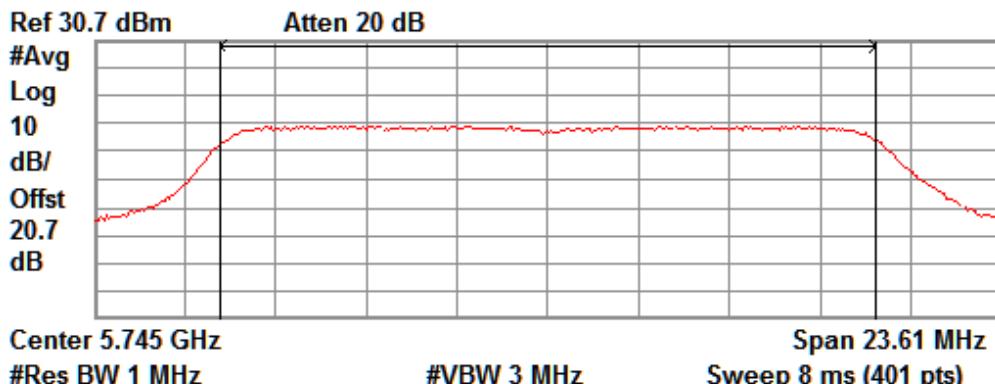
Channel Frequency: 5180MHz



Channel Power	Power Spectral Density
20.99 dBm / 17.0000 MHz	-51.31 dBm/Hz

Data Rate: 24Mbps

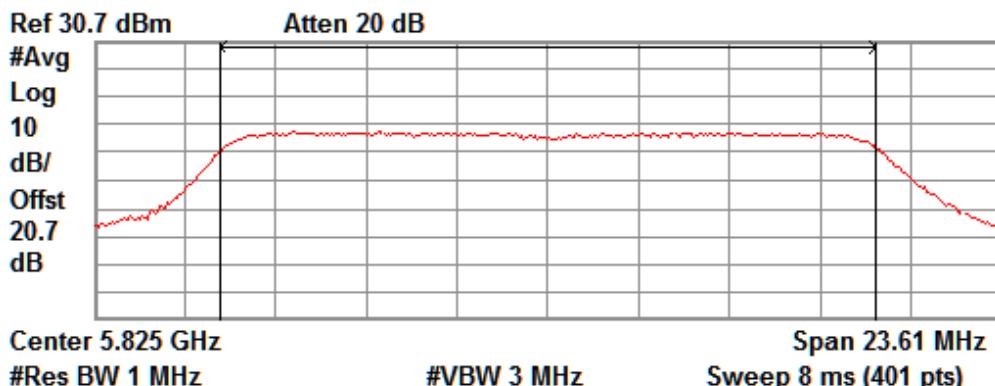
Channel Frequency: 5240MHz



Channel Power	Power Spectral Density
10.48 dBm / 17.0000 MHz	-61.82 dBm/Hz

Data Rate: 24Mbps

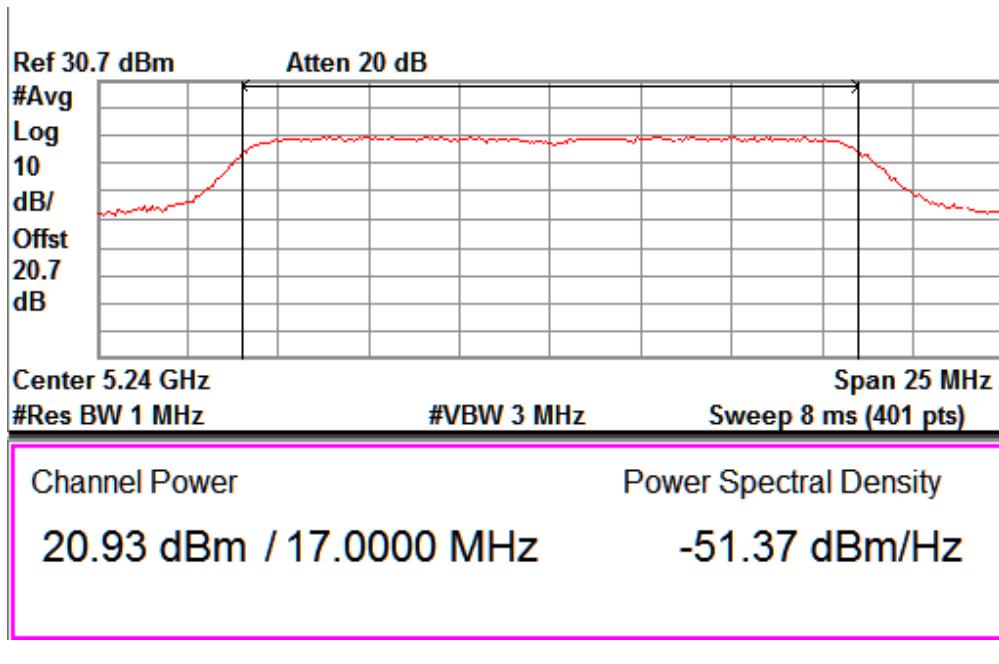
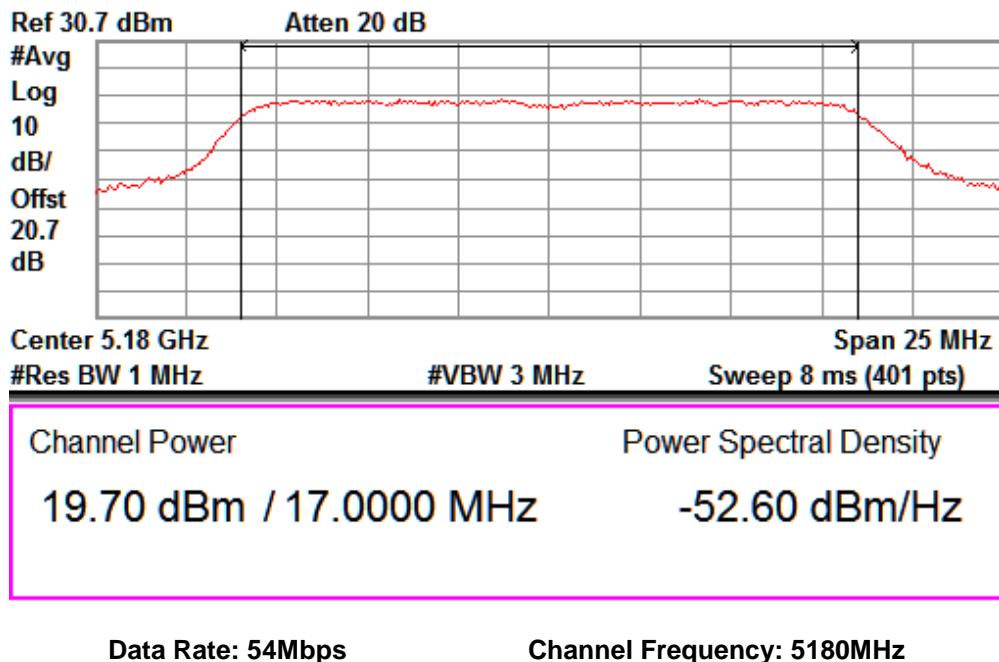
Channel Frequency: 5745MHz

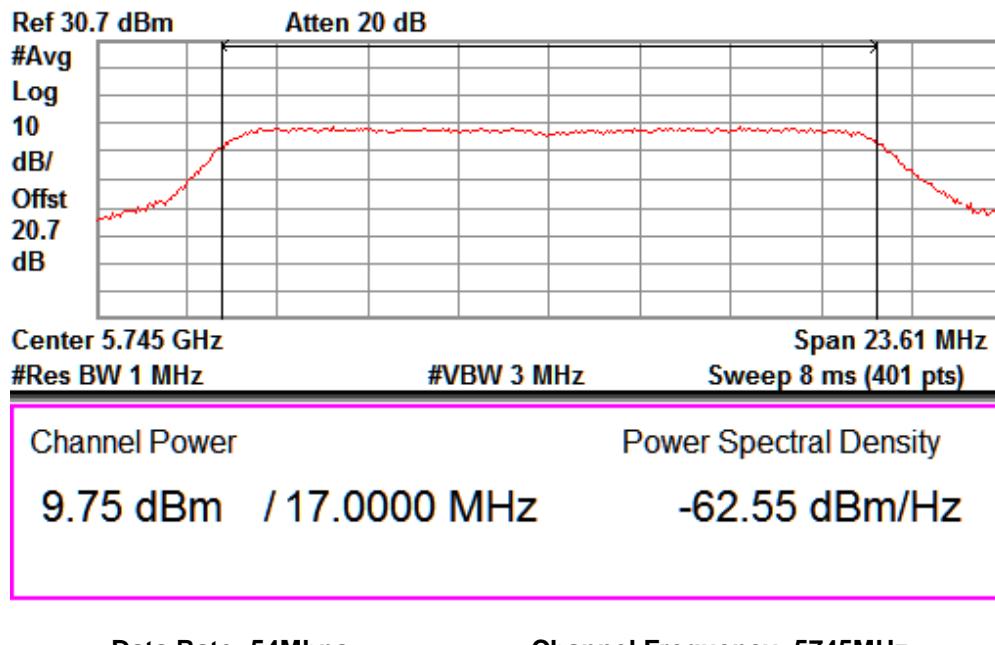
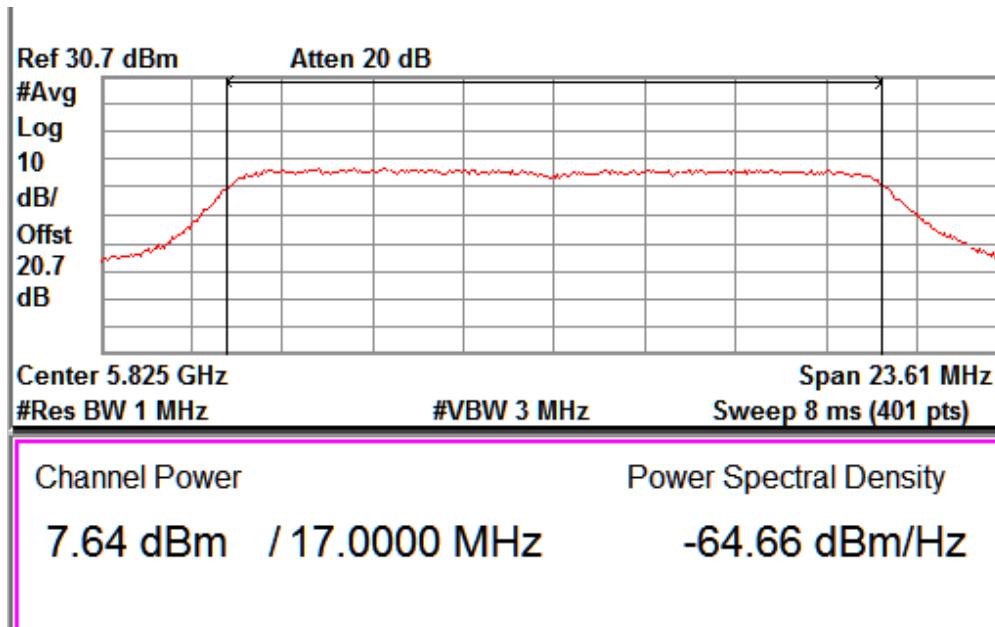


Channel Power	Power Spectral Density
8.53 dBm / 17.0000 MHz	-63.78 dBm/Hz

Data Rate: 24Mbps

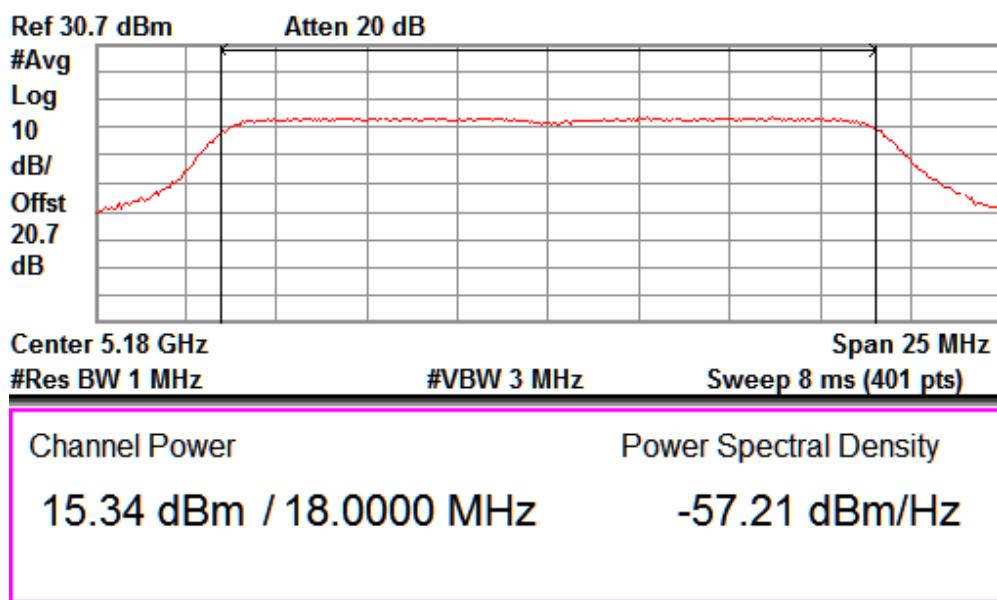
Channel Frequency: 5825MHz

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**Data Rate: 54Mbps**
**Channel Frequency: 5745MHz**

**Data Rate: 54Mbps**
**Channel Frequency: 5825MHz**

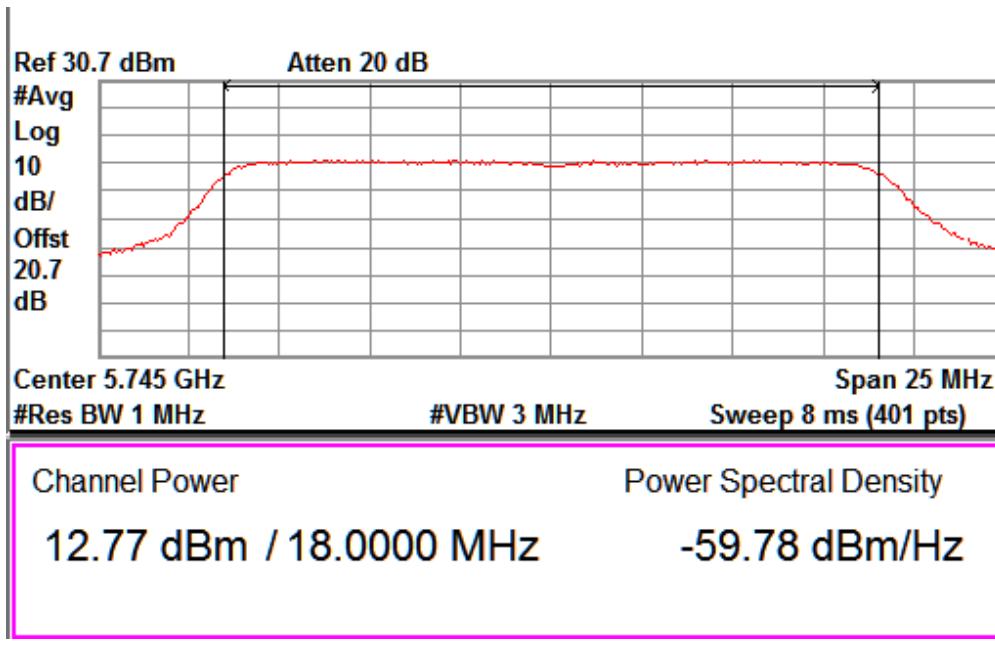
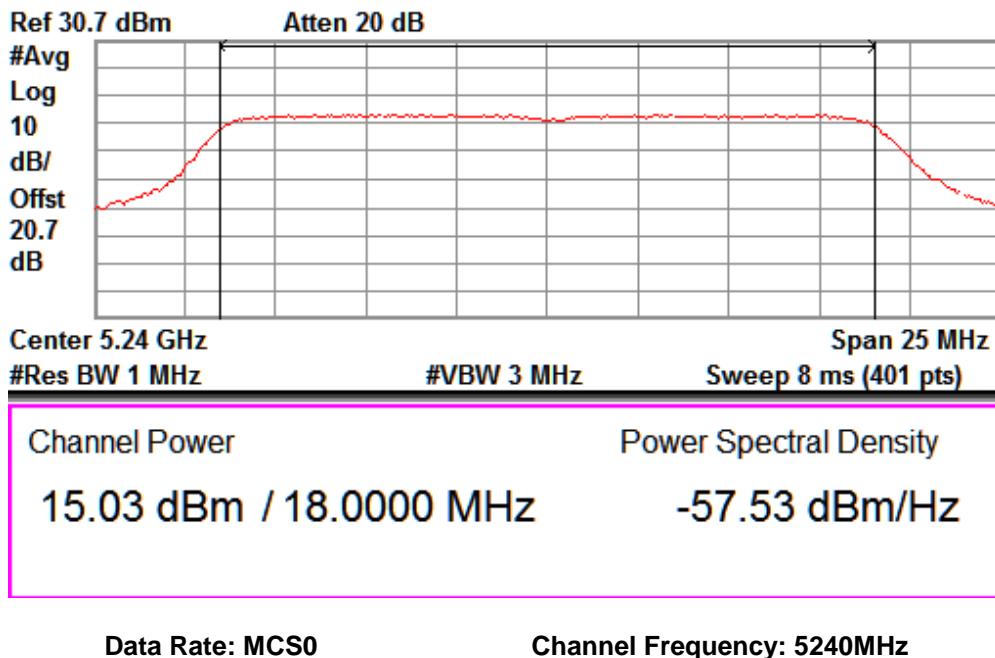
### Test Results for Path A

<b>IEEE802.11n HT20</b>				
<b>Data Rate (Mbps)</b>	<b>Channel No.</b>	<b>Frequency (MHz)</b>	<b>Average Output power (dBm)</b>	<b>Average Power (mW)</b>
MCS0	36	5180	15.34	34.19
	48	5240	15.03	31.84
	149	5745	12.77	18.92
	165	5825	10.07	10.16
MCS4	36	5180	14.12	25.82
	48	5240	13.8	23.98
	149	5745	12.19	16.55
	165	5825	9.59	9.09
MCS7	36	5180	13.61	22.96
	48	5240	13.27	21.23
	149	5745	11.84	15.27
	165	5825	9.05	8.03

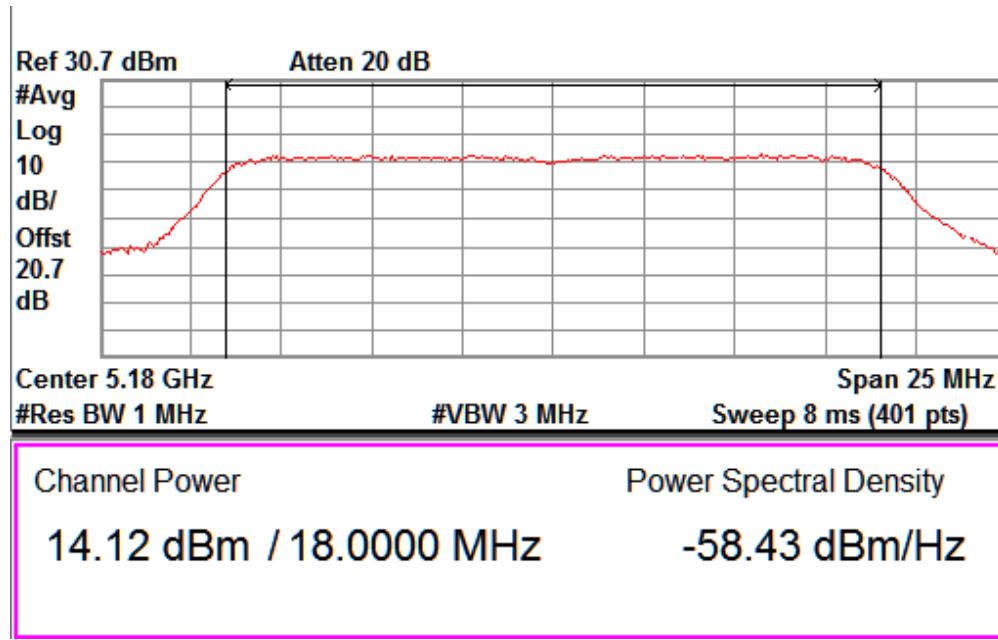
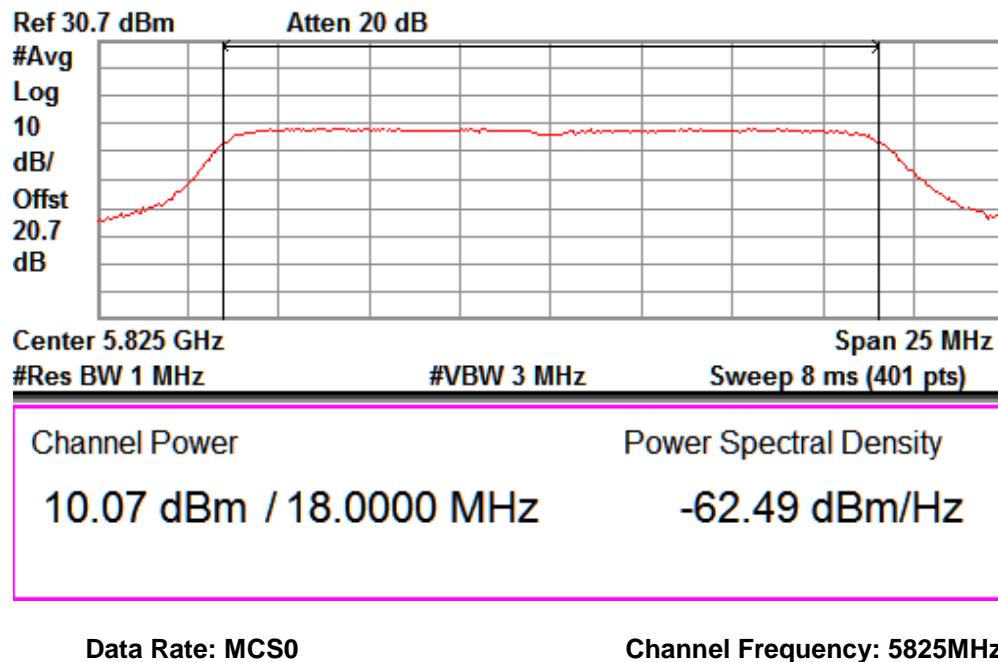


Data Rate: MCS0

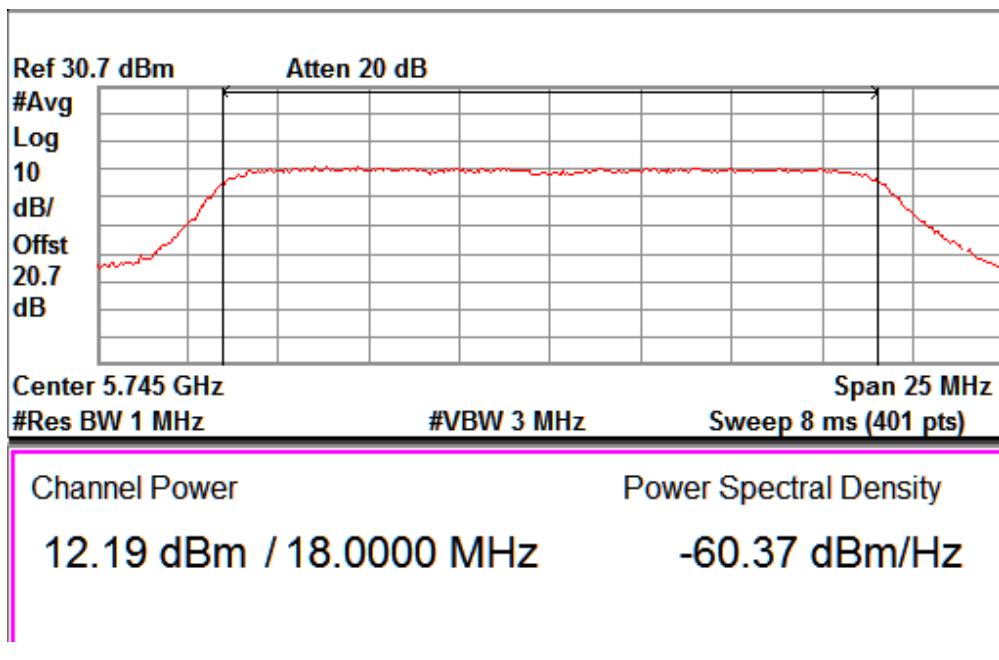
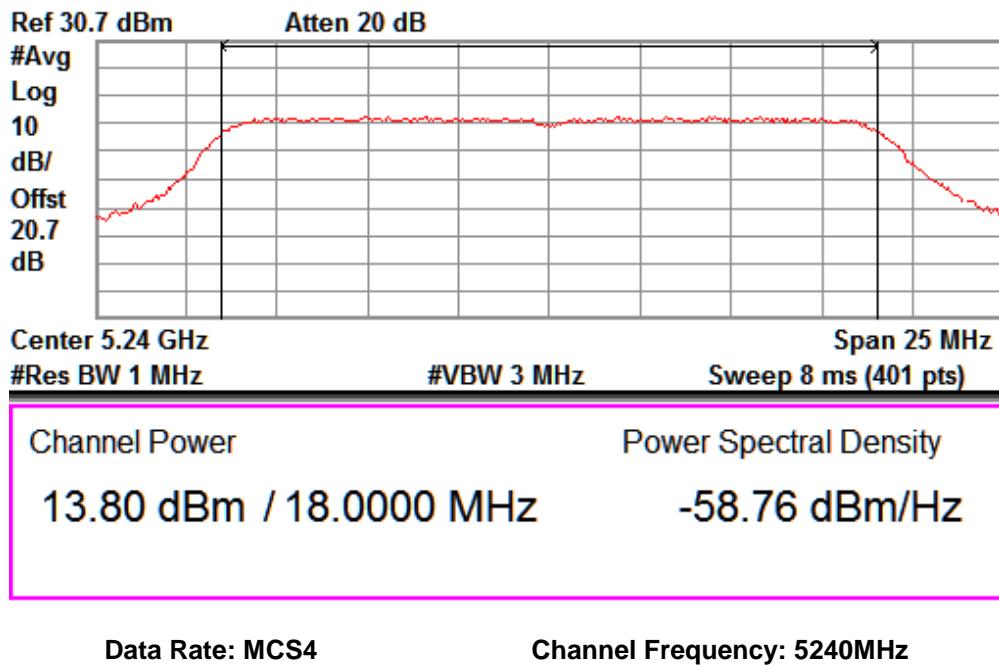
Channel Frequency: 5180MHz



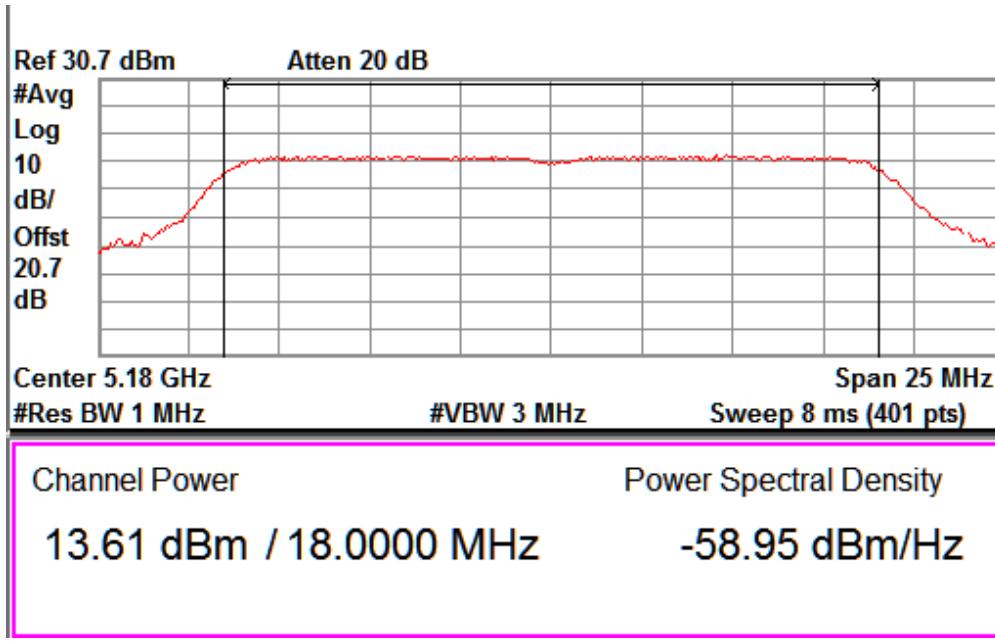
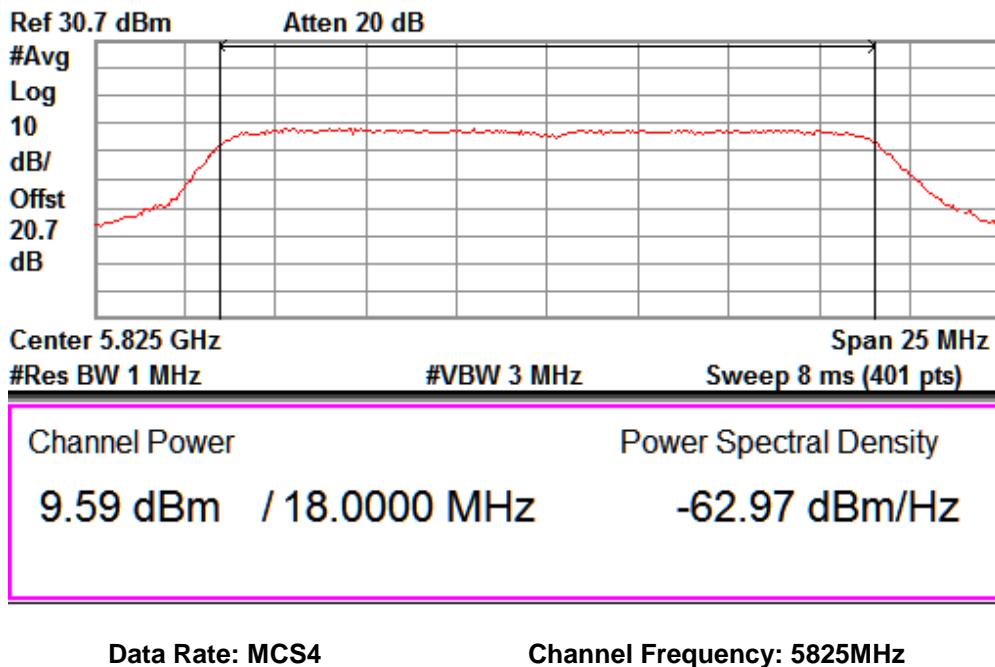
www.tuv.com

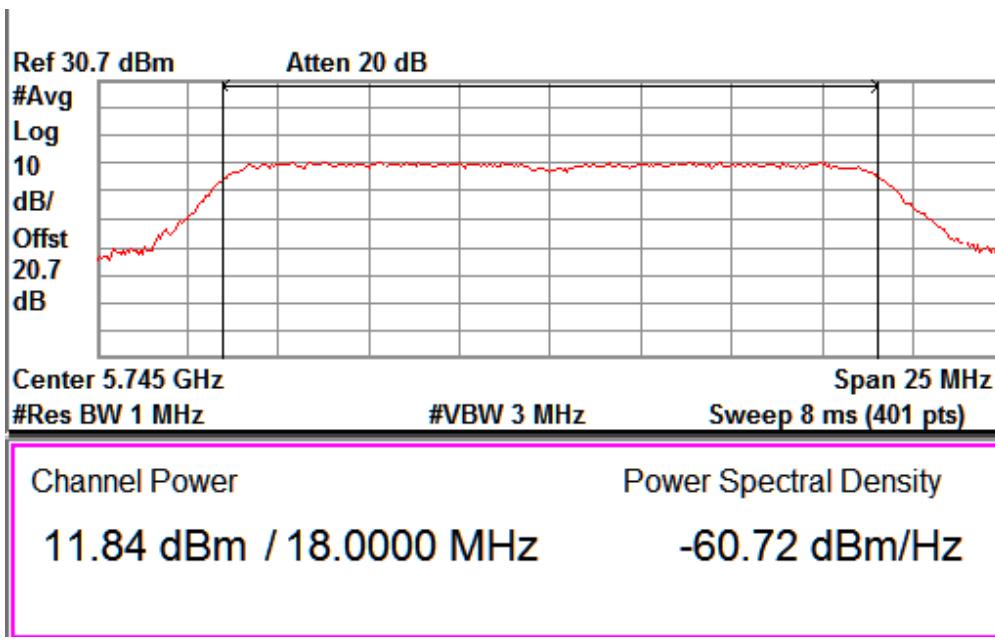
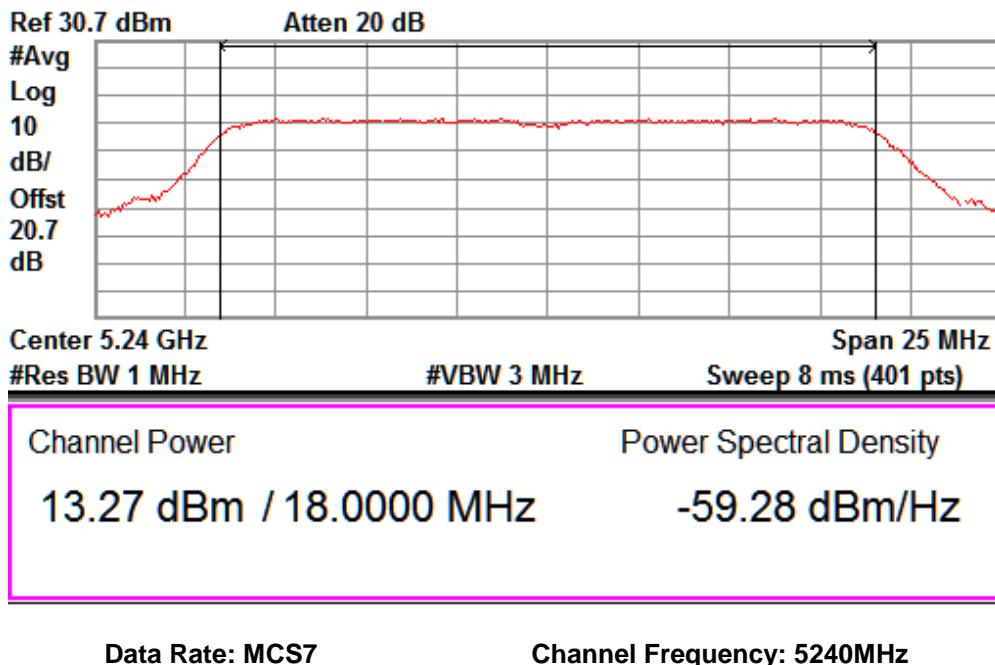


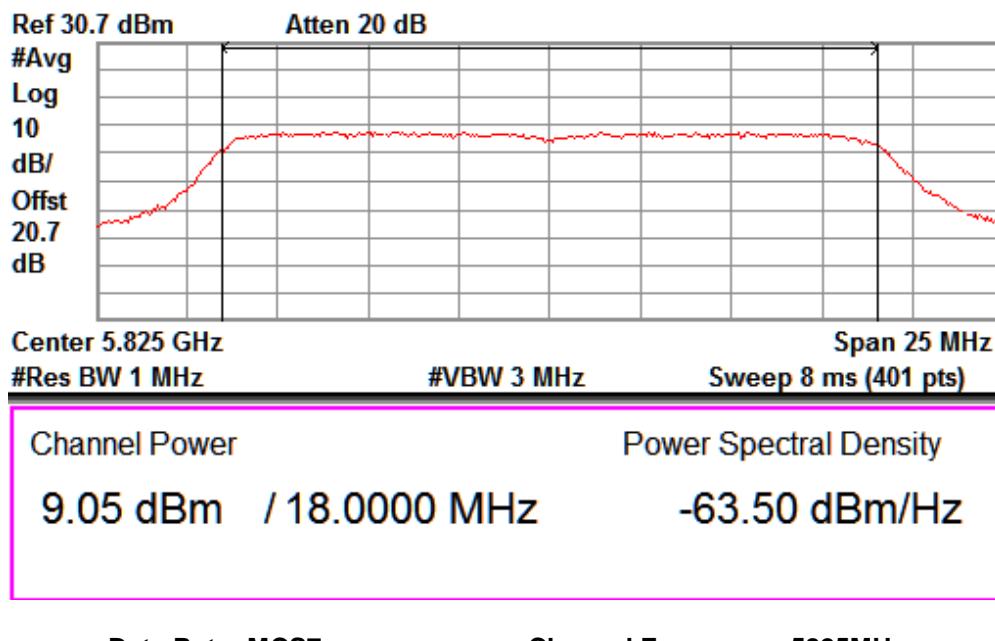
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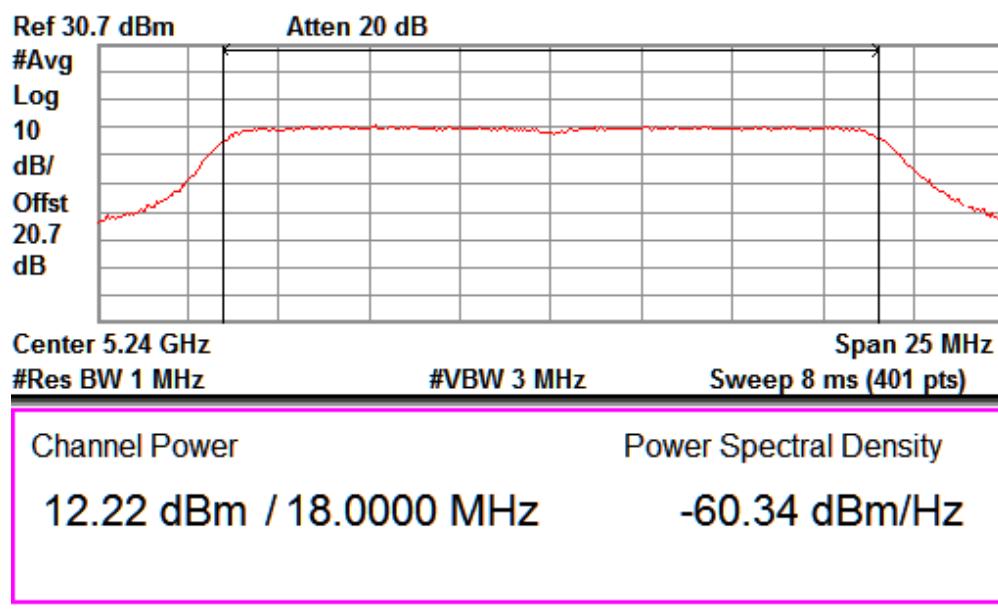
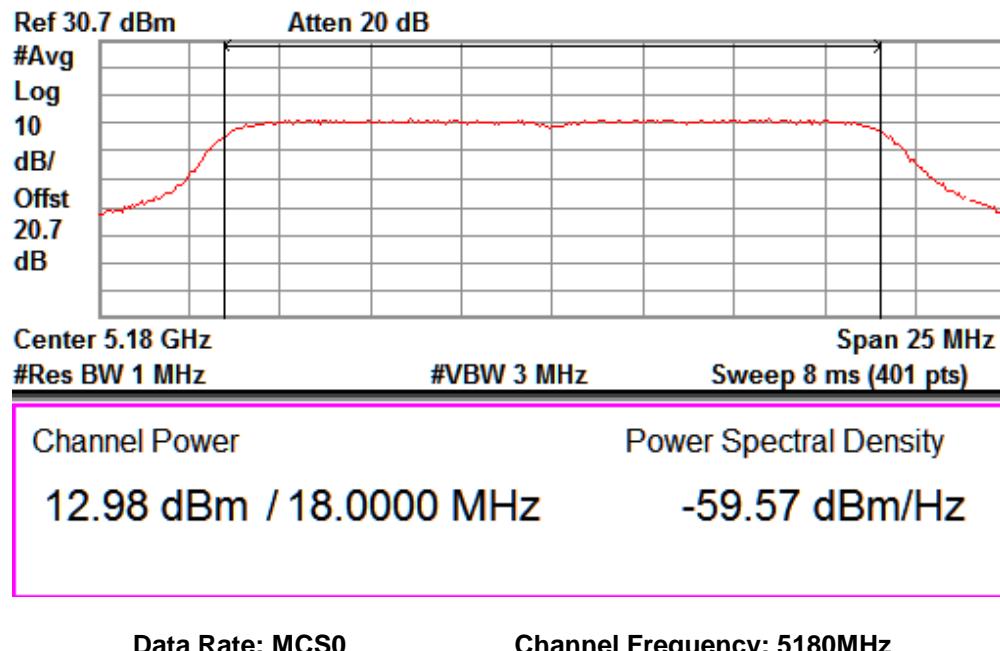




#### **Test Results for Path B:**

IEEE802.11n HT20				
Data Rate (Mbps)	Channel No.	Frequency (MHz)	Average Output power (dBm)	Average Power (mW)
MCS0	36	5180	12.98	19.86
	48	5240	12.22	16.67
	149	5745	11.56	14.32
	165	5825	10.01	10.02
MCS4	36	5180	12.39	17.33
	48	5240	12.16	16.44
	149	5745	11.09	12.85
	165	5825	9.4	8.70
MCS7	36	5180	11.27	13.39
	48	5240	9.63	9.18
	149	5745	9.53	8.97
	165	5825	9.02	7.97

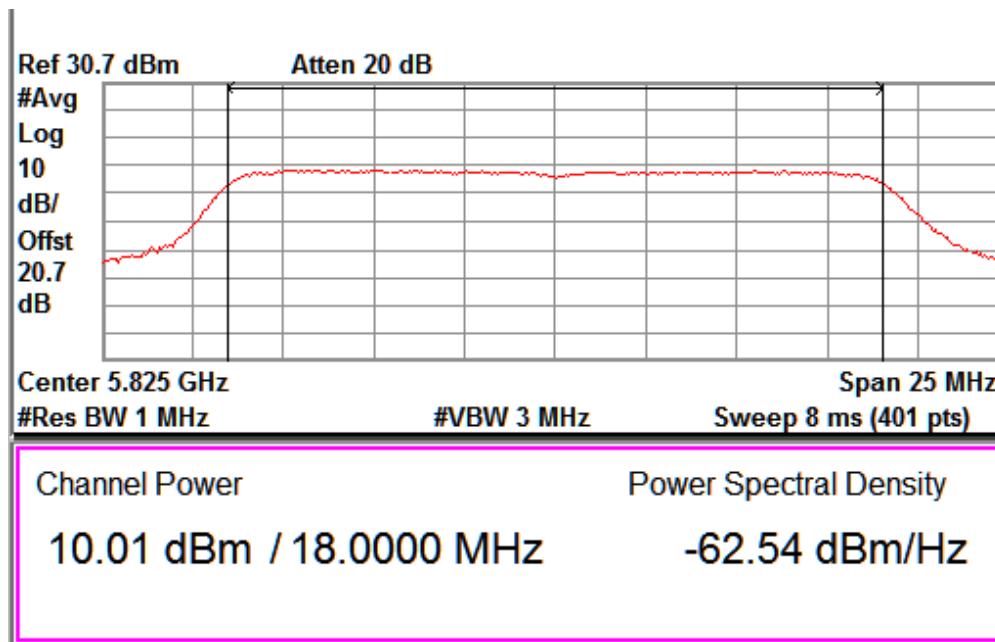
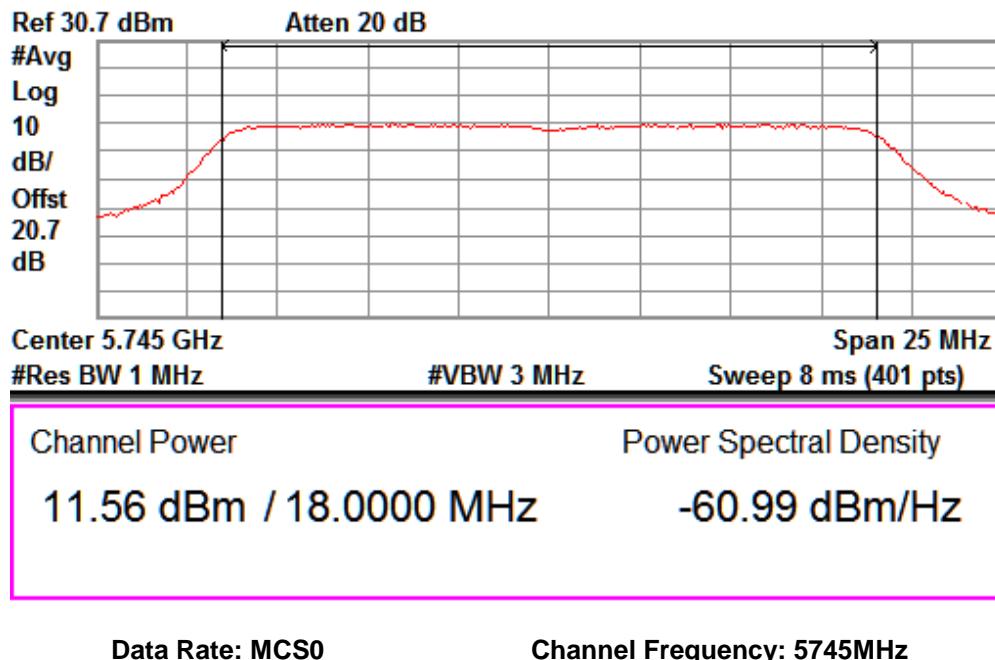
www.tuv.com

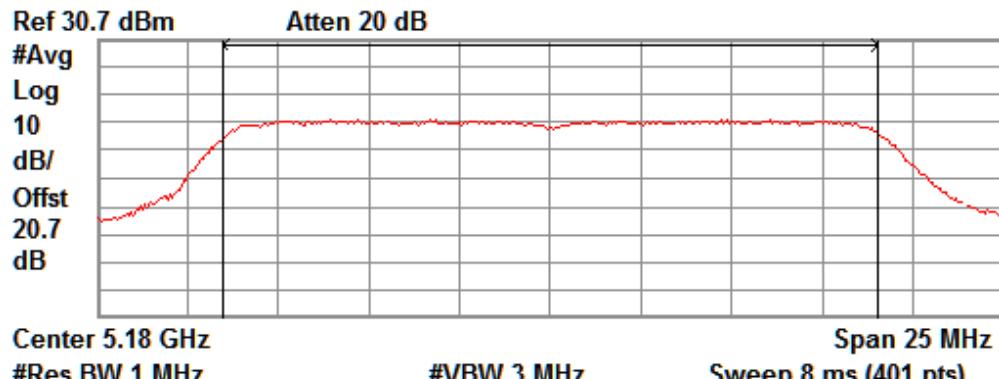


Data Rate: MCS0

Channel Frequency: 5240MHz

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Channel Power

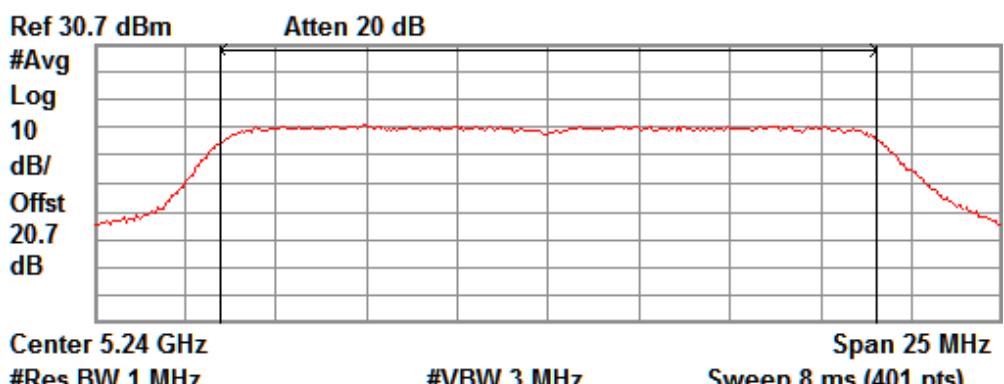
12.39 dBm / 18.0000 MHz

Power Spectral Density

-60.17 dBm/Hz

Data Rate: MCS4

Channel Frequency: 5180MHz



Channel Power

12.16 dBm / 18.0000 MHz

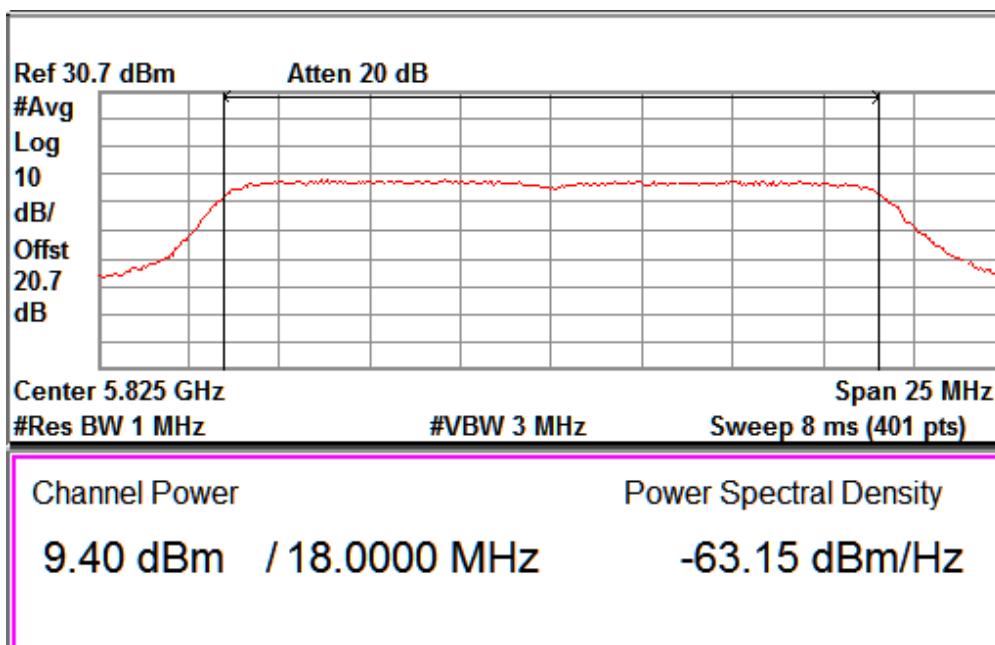
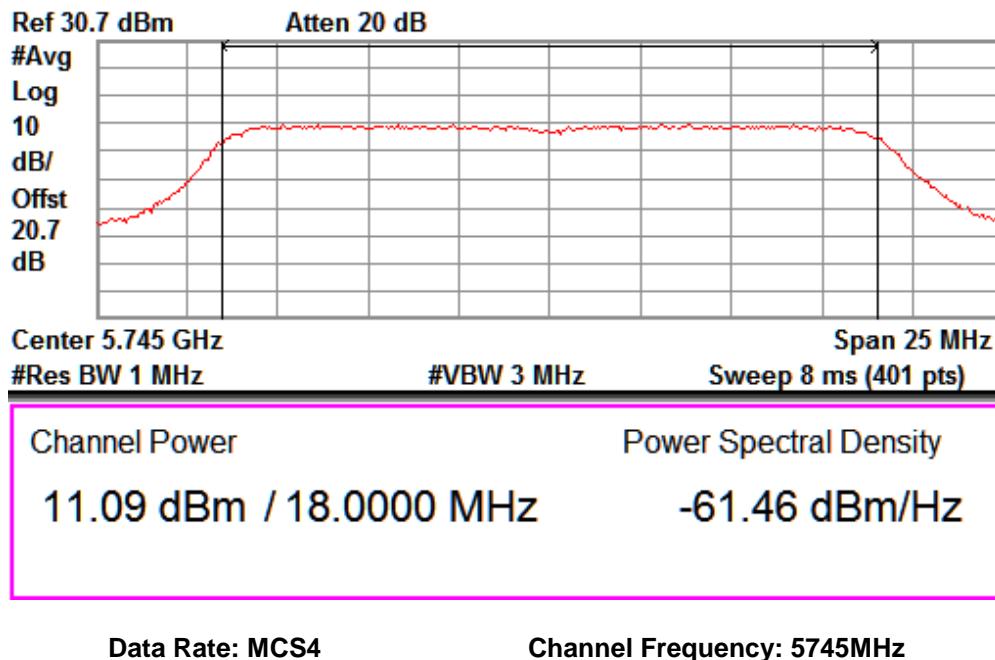
Power Spectral Density

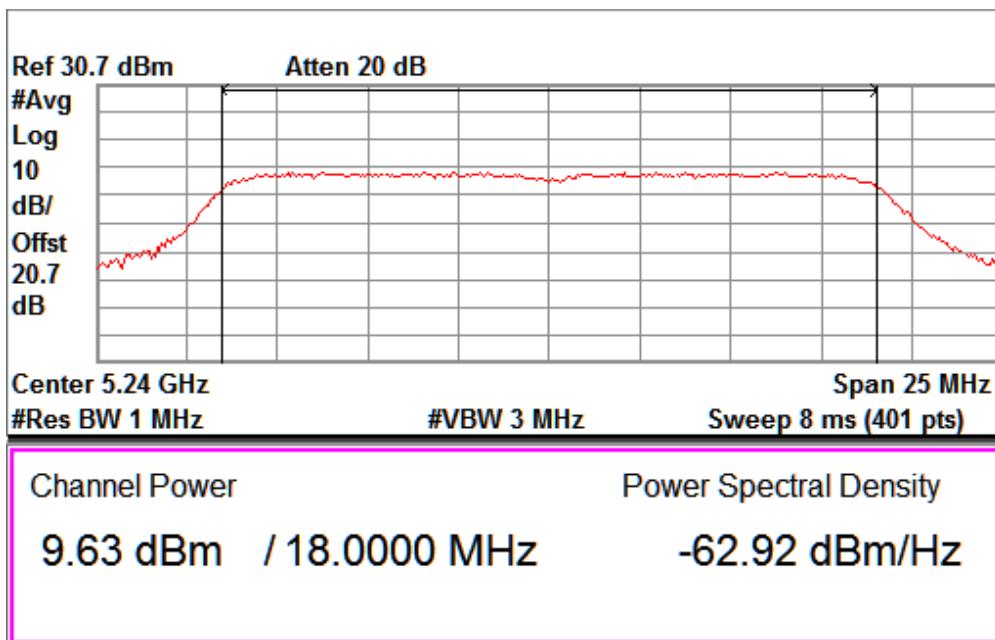
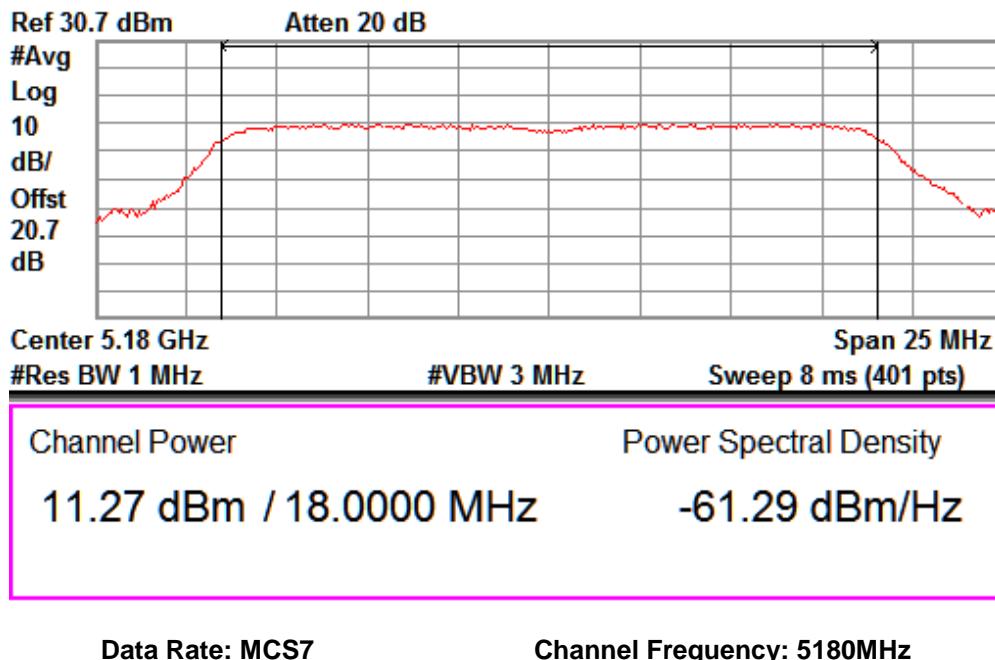
-60.39 dBm/Hz

Data Rate: MCS4

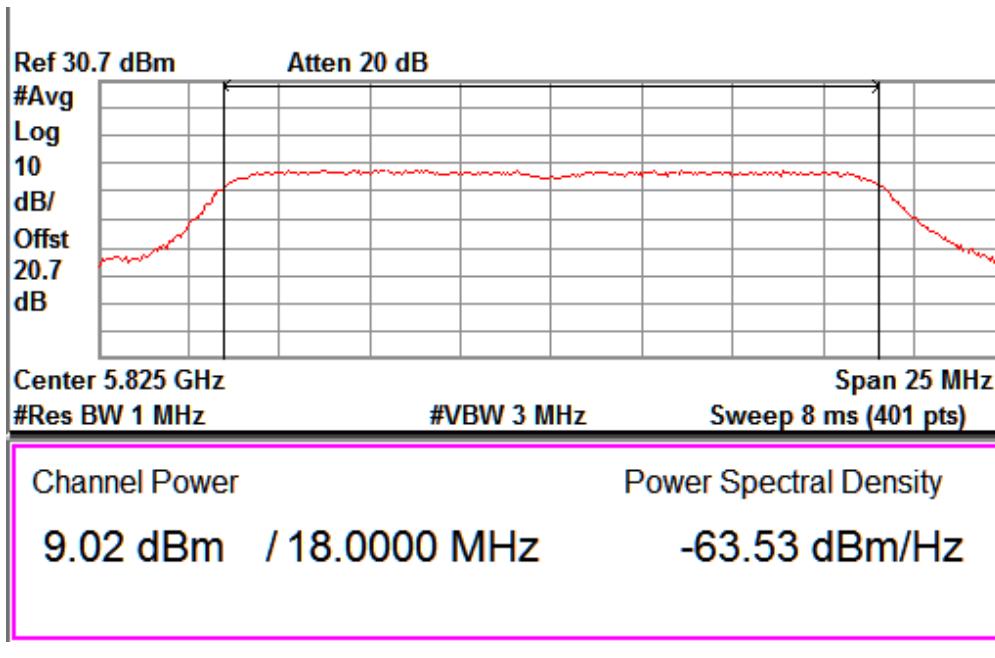
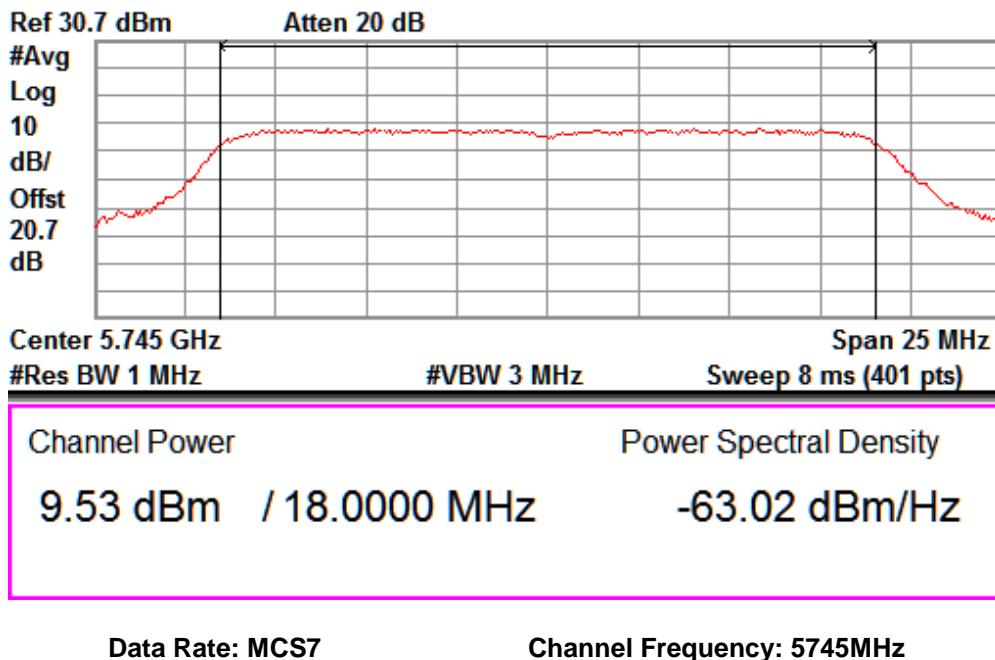
Channel Frequency: 5240MHz

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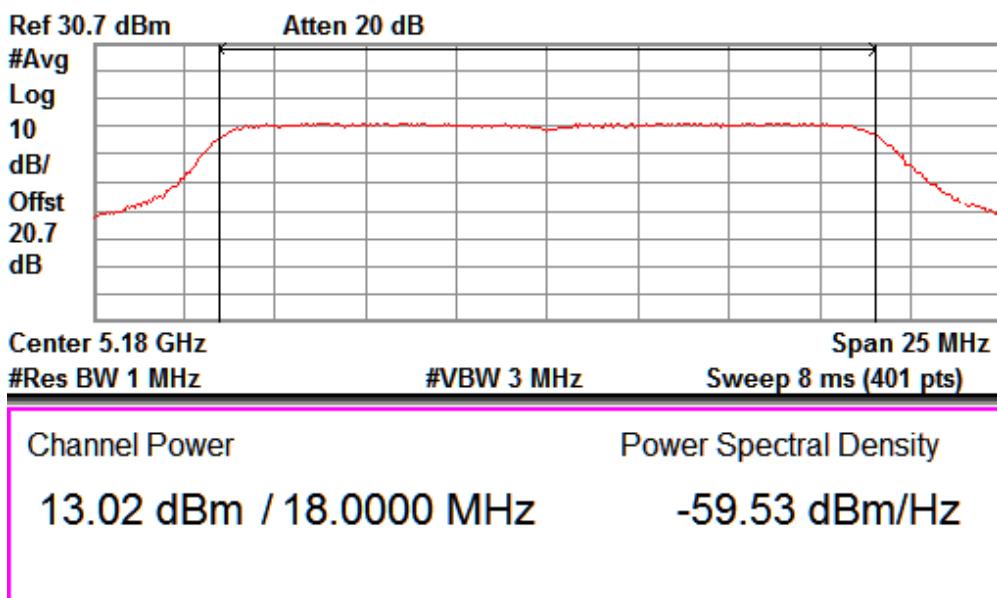


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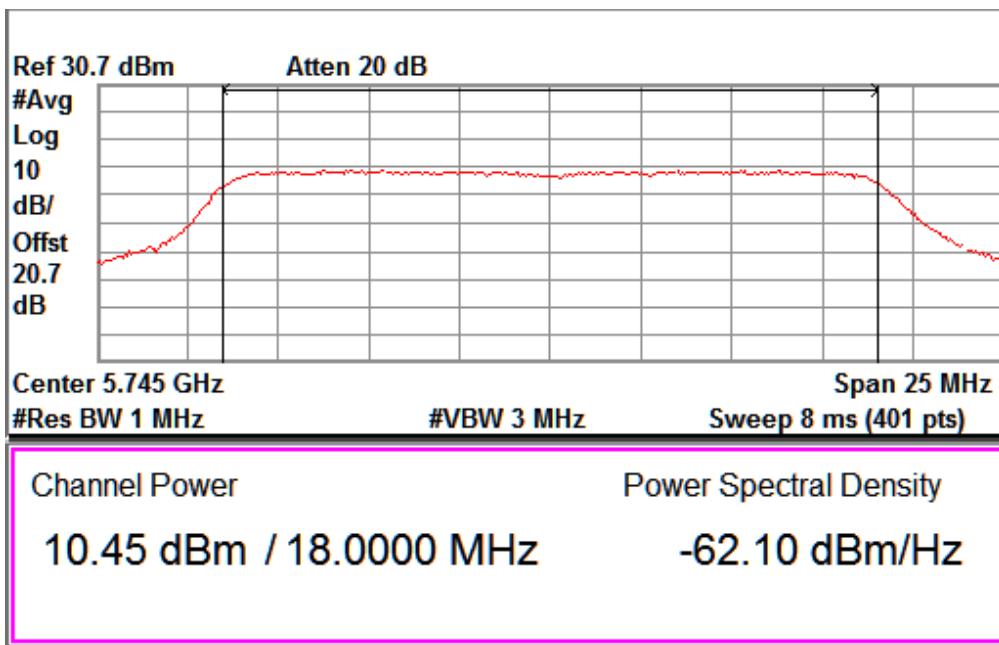
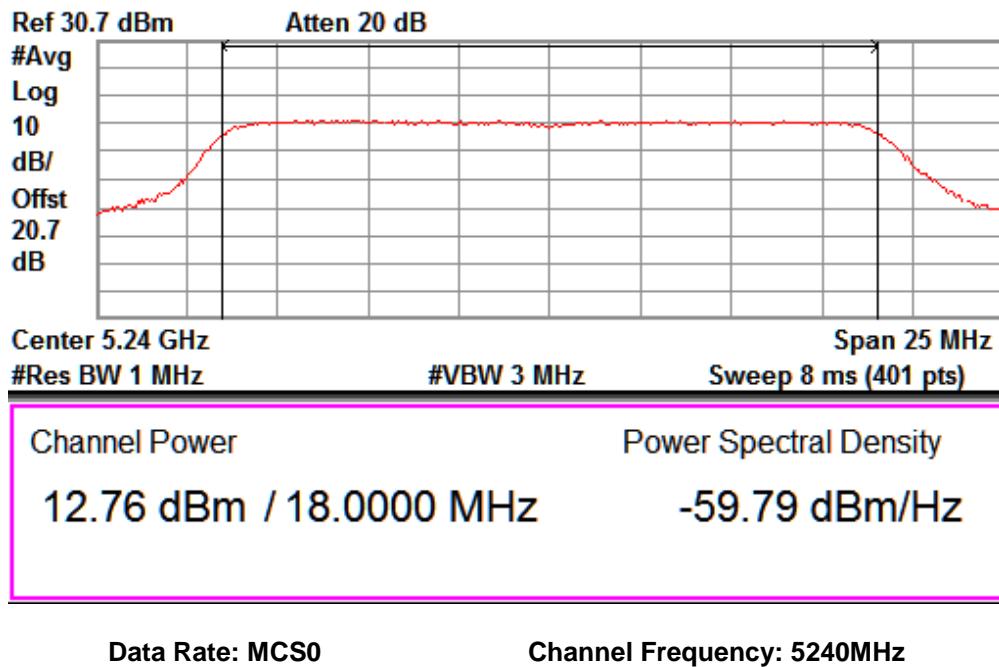


**Test Results for Path C:**

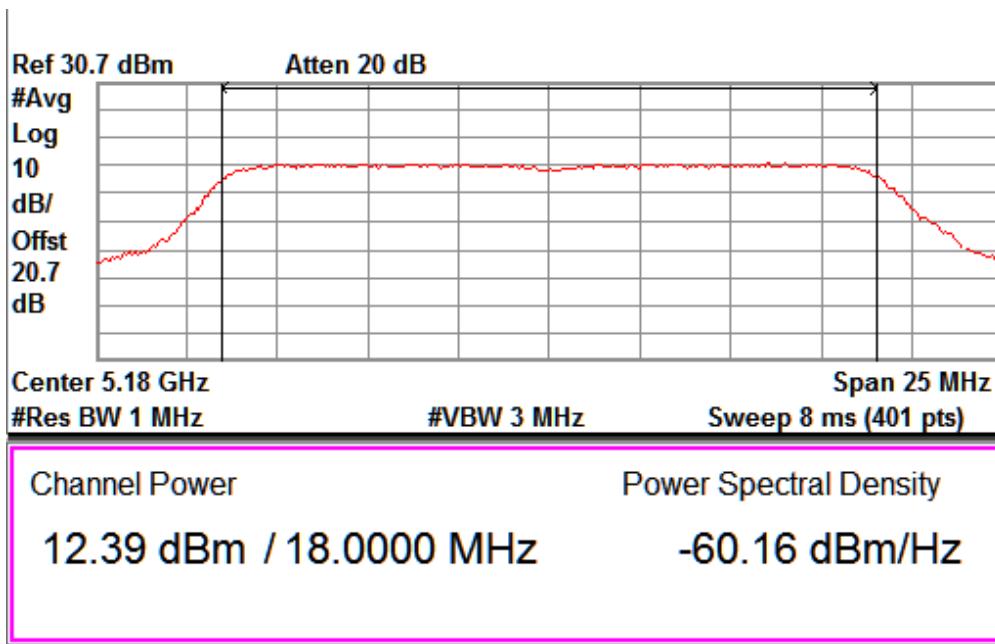
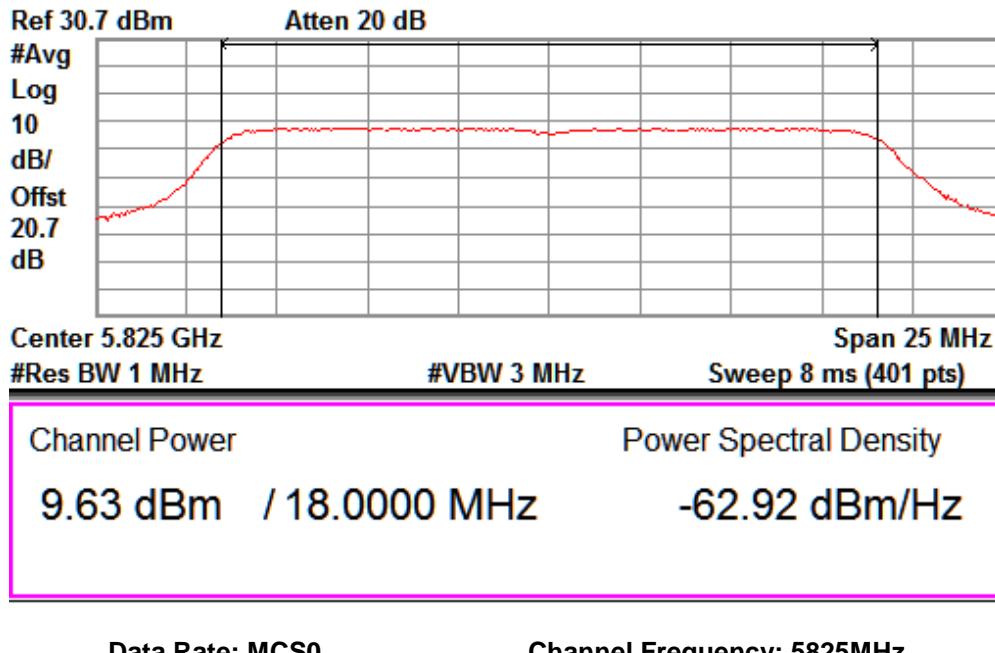
<b>IEEE802.11n HT20</b>				
<b>Data Rate (Mbps)</b>	<b>Channel No.</b>	<b>Frequency (MHz)</b>	<b>Average Output power (dBm)</b>	<b>Average Power (mW)</b>
MCS0	36	5180	13.02	20.04
	48	5240	12.76	18.87
	149	5745	10.45	11.09
	165	5825	9.63	9.18
MCS4	36	5180	12.39	17.33
	48	5240	12.76	18.87
	149	5745	9.8	9.54
	165	5825	8.62	7.27
MCS7	36	5180	11.76	14.99
	48	5240	9.63	9.18
	149	5745	9.33	8.57
	165	5825	8.62	7.27


**Data Rate: MCS0**
**Channel Frequency: 5180MHz**

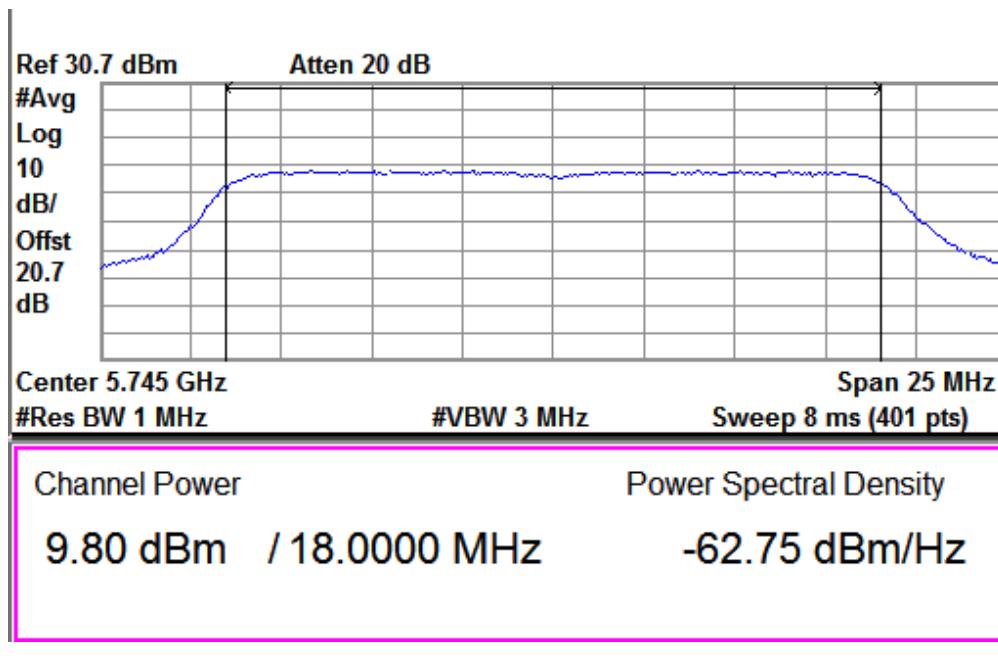
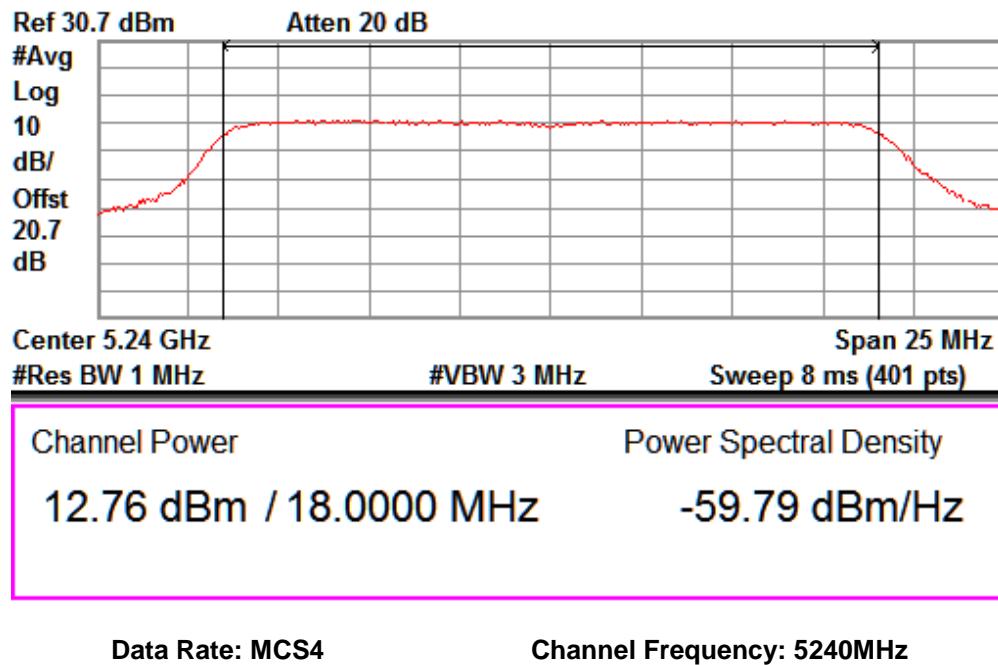
www.tuv.com



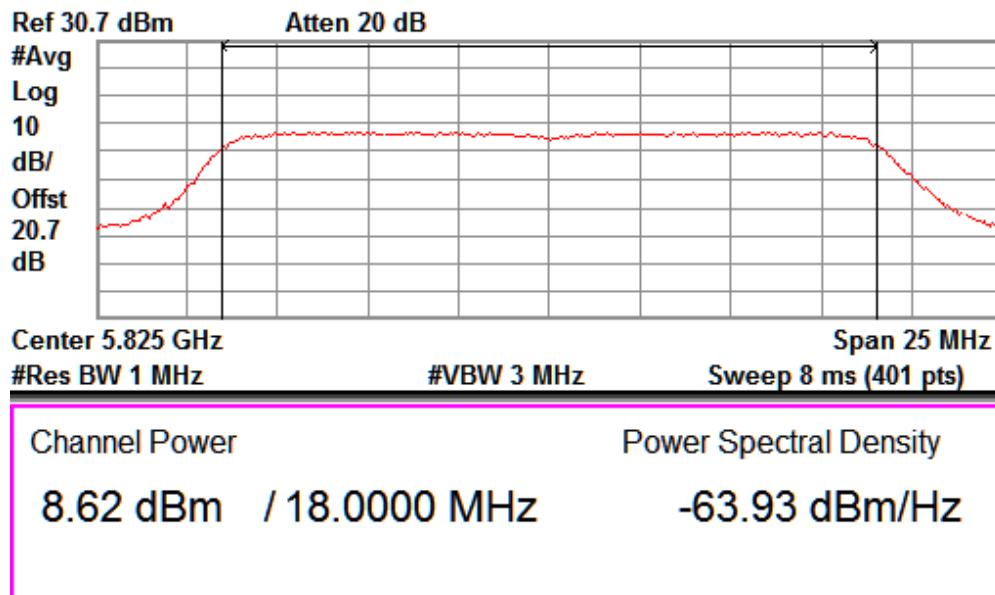
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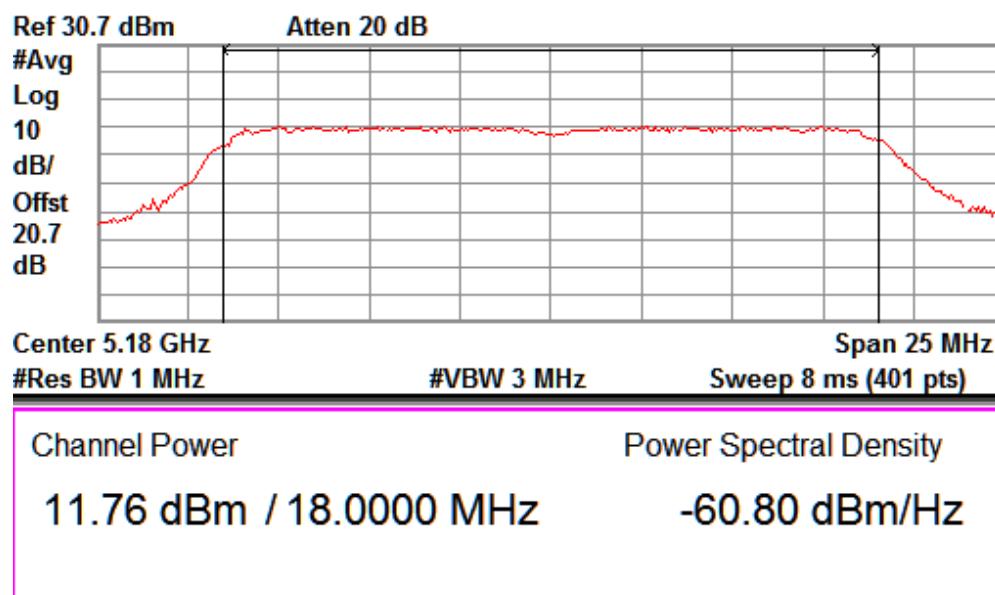


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Data Rate: MCS4

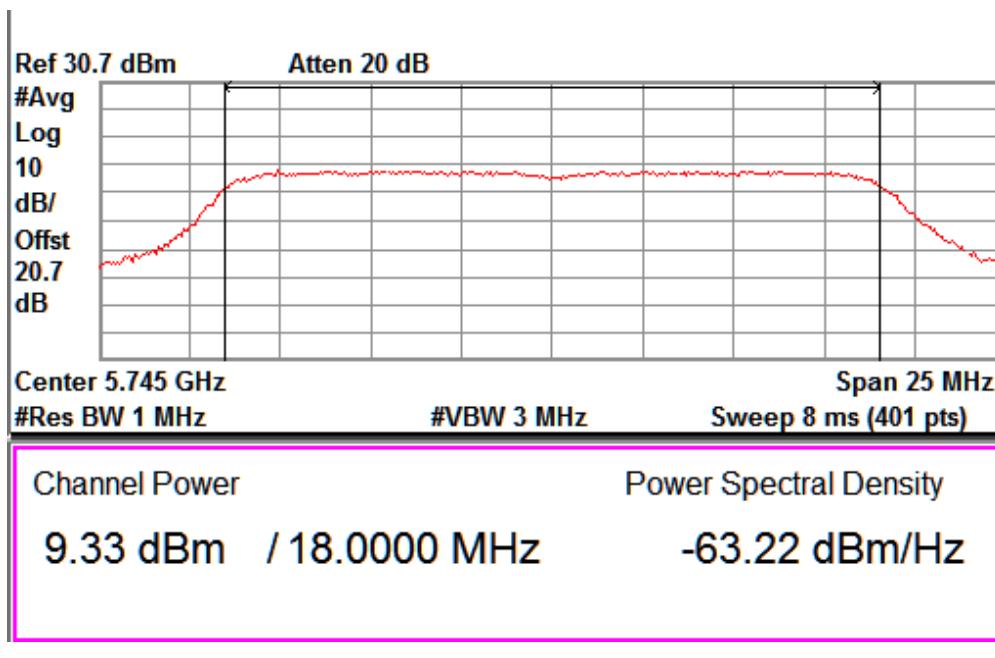
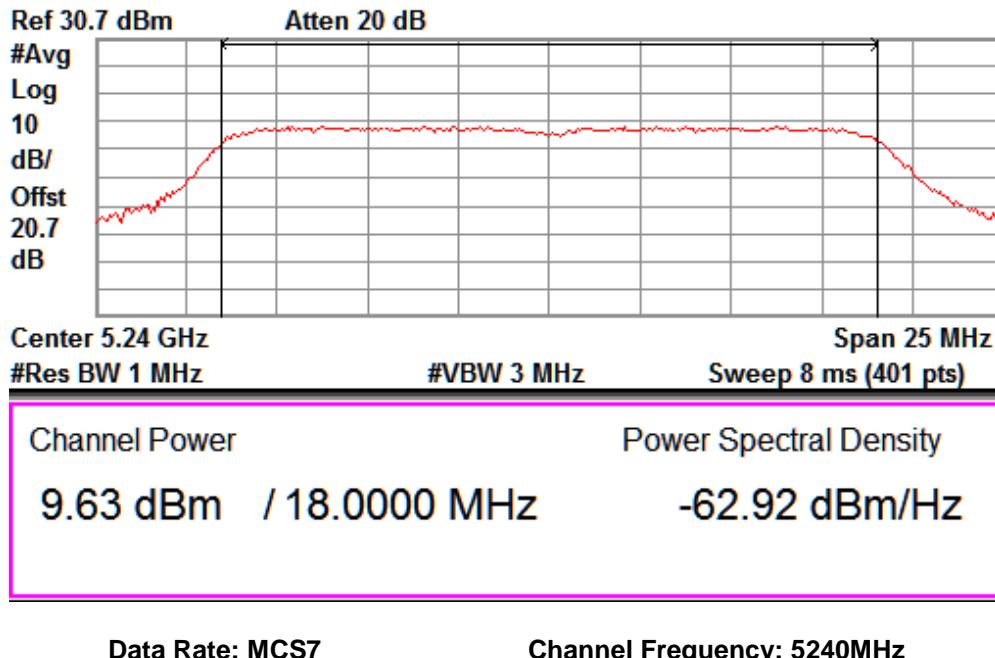
Channel Frequency: 5825MHz

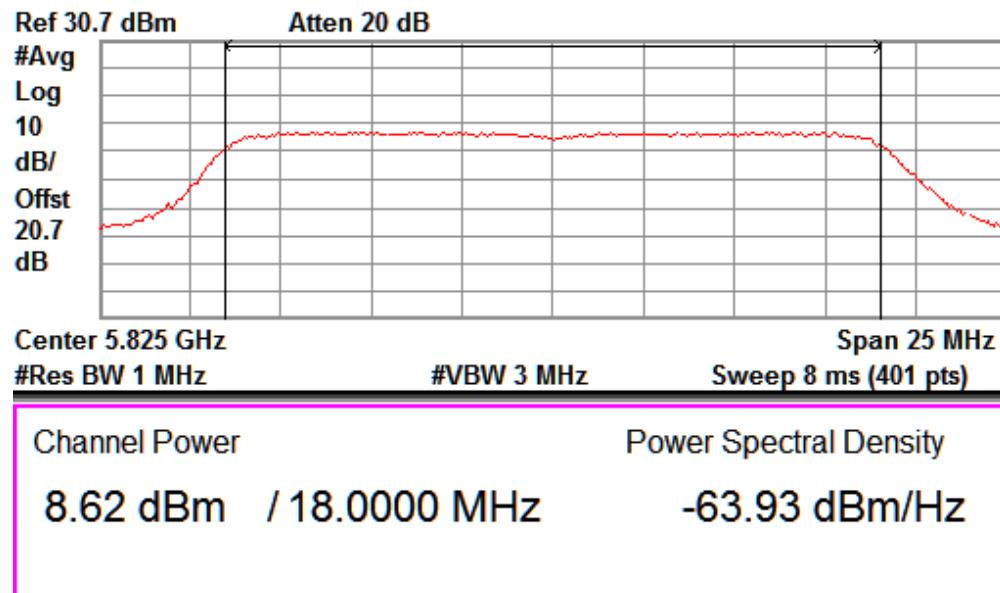


Data Rate: MCS7

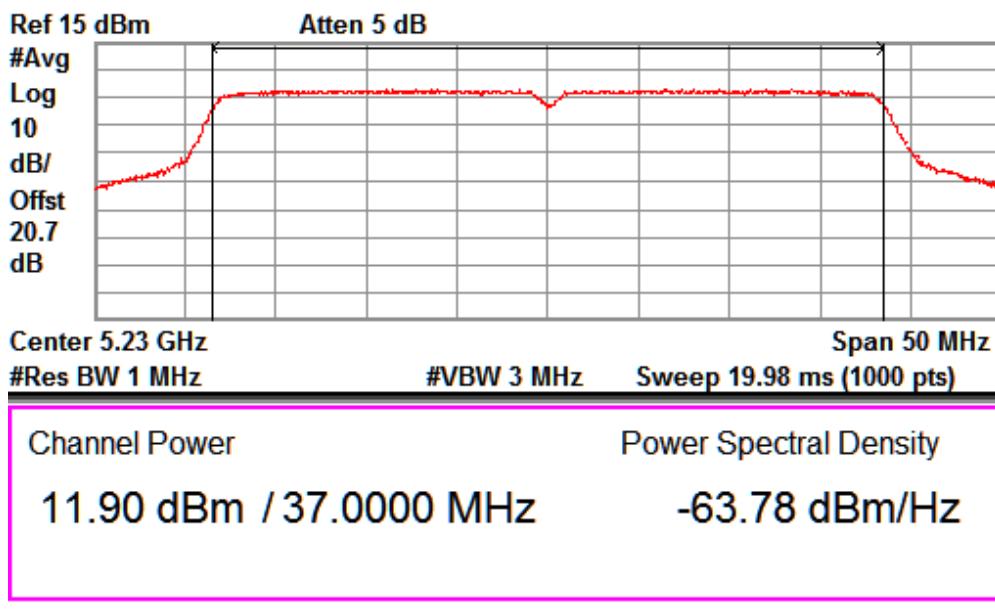
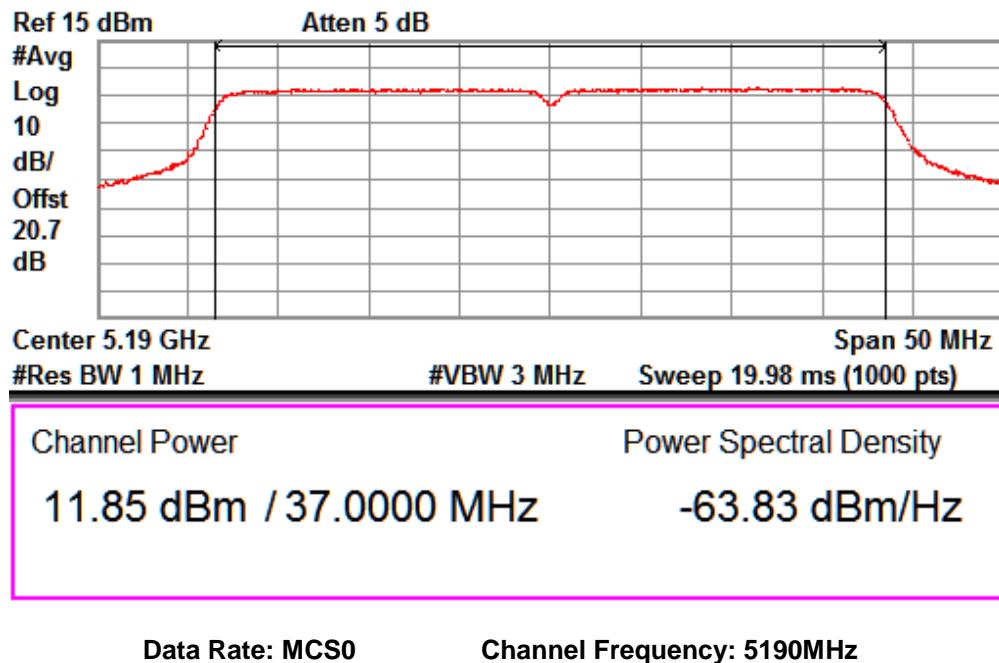
Channel Frequency: 5180MHz

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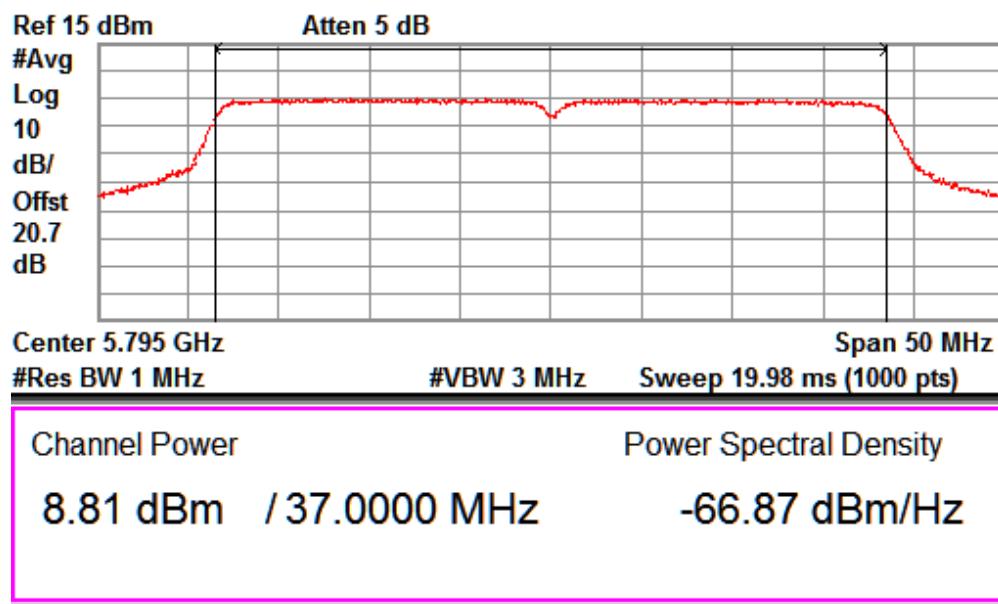
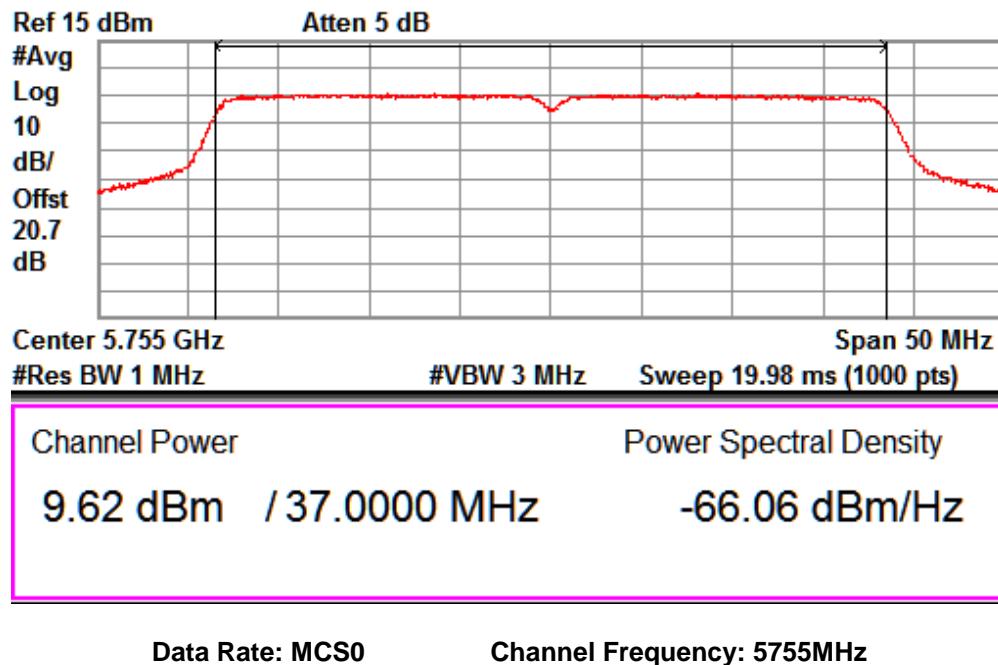

**Data Rate: MCS7**
**Channel Frequency: 5825MHz**
**Test results for Path A**

<b>IEEE802.11n HT40</b>				
<b>Data Rate (Mbps)</b>	<b>Channel No.</b>	<b>Frequency (MHz)</b>	<b>Average Output power (dBm)</b>	<b>Average Power (mW)</b>
MCS0	38	5190	11.85	15.31
	46	5230	11.9	15.48
	151	5755	9.62	9.16
	159	5795	8.81	7.60
MCS4	38	5190	10.65	11.61
	46	5230	10.71	11.77
	151	5755	8.54	7.14
	159	5795	7.75	5.95
MCS7	38	5190	11.85	15.31
	46	5230	11.67	14.68
	151	5755	8.24	6.66
	159	5795	7.41	5.50



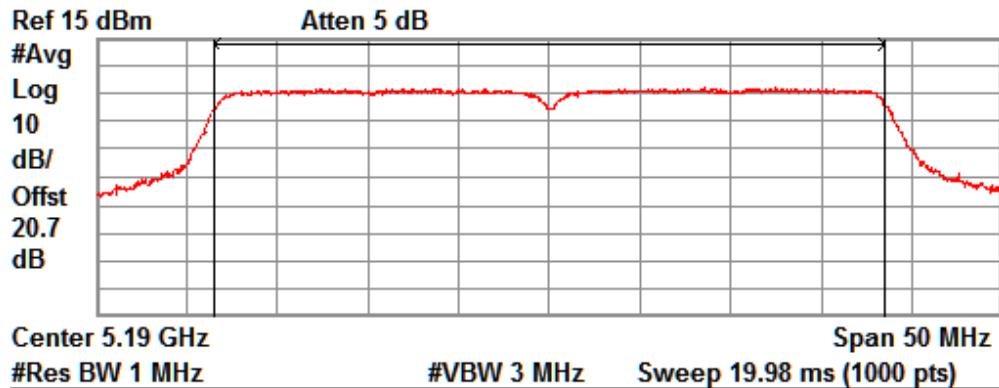
Data Rate: MCS0      Channel Frequency: 5230MHz

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Data Rate: MCS0 Channel Frequency: 5795MHz

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Channel Power

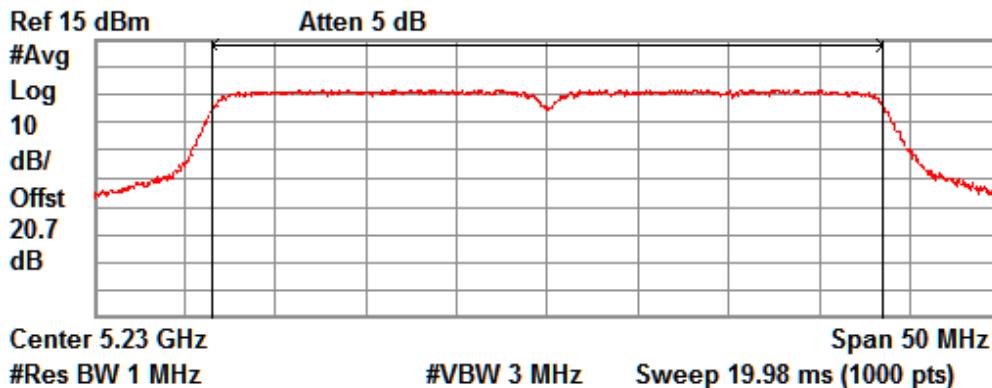
10.65 dBm / 37.0000 MHz

Power Spectral Density

-65.03 dBm/Hz

Data Rate: MCS4

Channel Frequency: 5190MHz



Channel Power

10.71 dBm / 37.0000 MHz

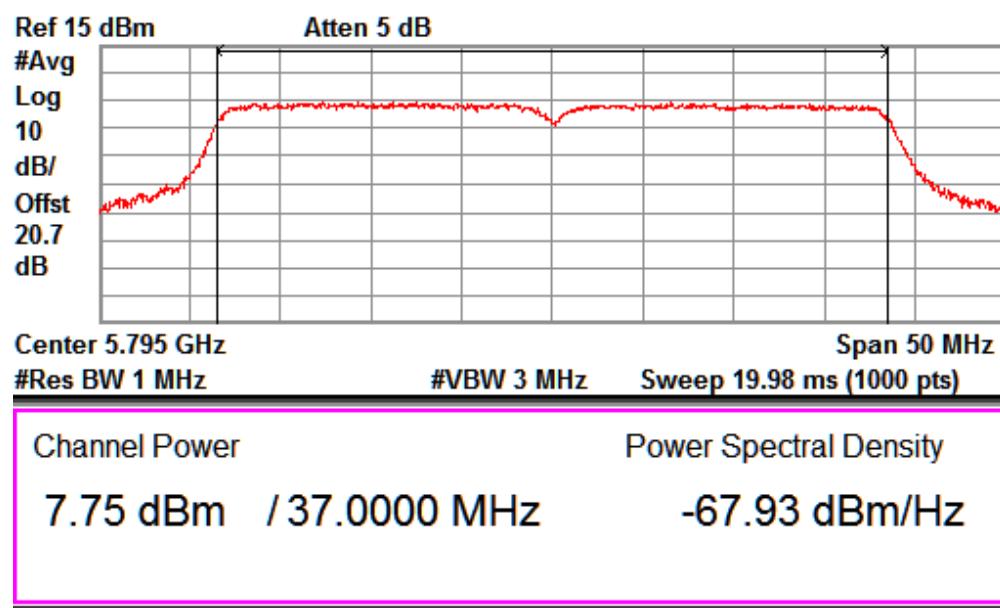
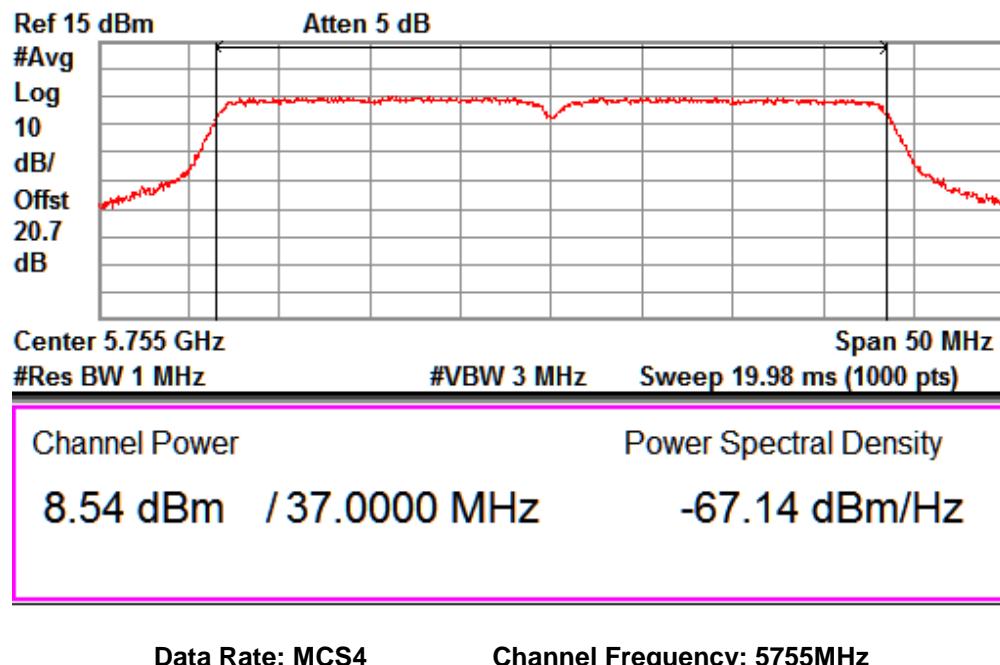
Power Spectral Density

-64.97 dBm/Hz

Data Rate: MCS4

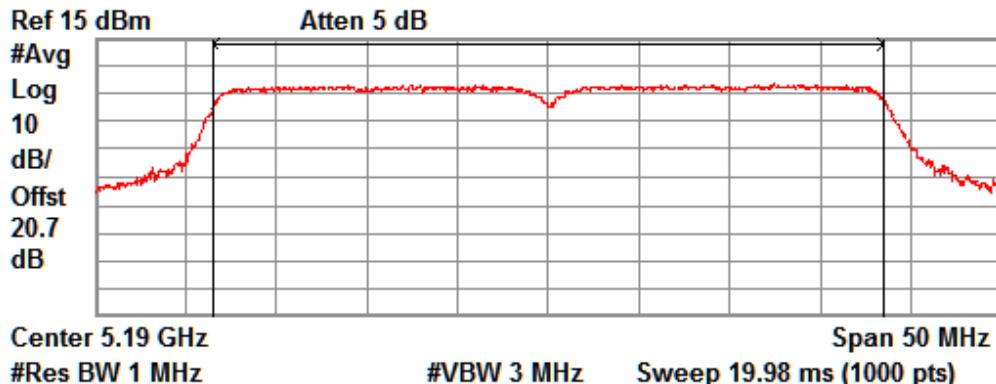
Channel Frequency: 5230MHz

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Data Rate: MCS4      Channel Frequency: 5795MHz

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Channel Power

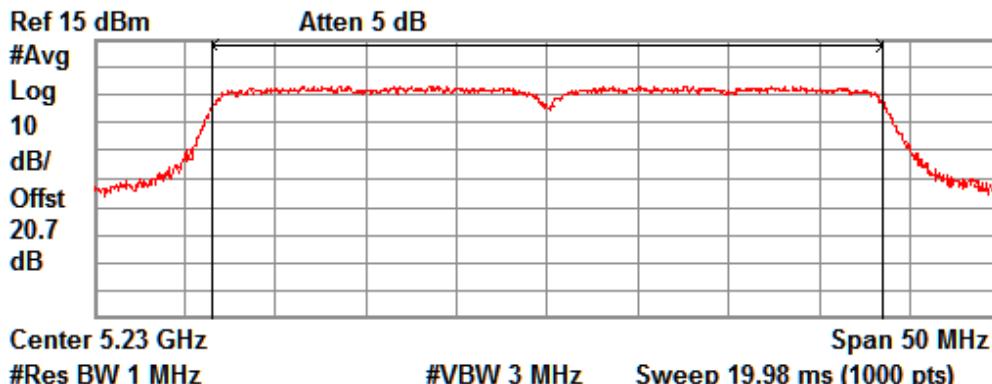
11.85 dBm / 37.0000 MHz

Power Spectral Density

-63.83 dBm/Hz

Data Rate: MCS7

Channel Frequency: 5190MHz



Channel Power

11.67 dBm / 37.0000 MHz

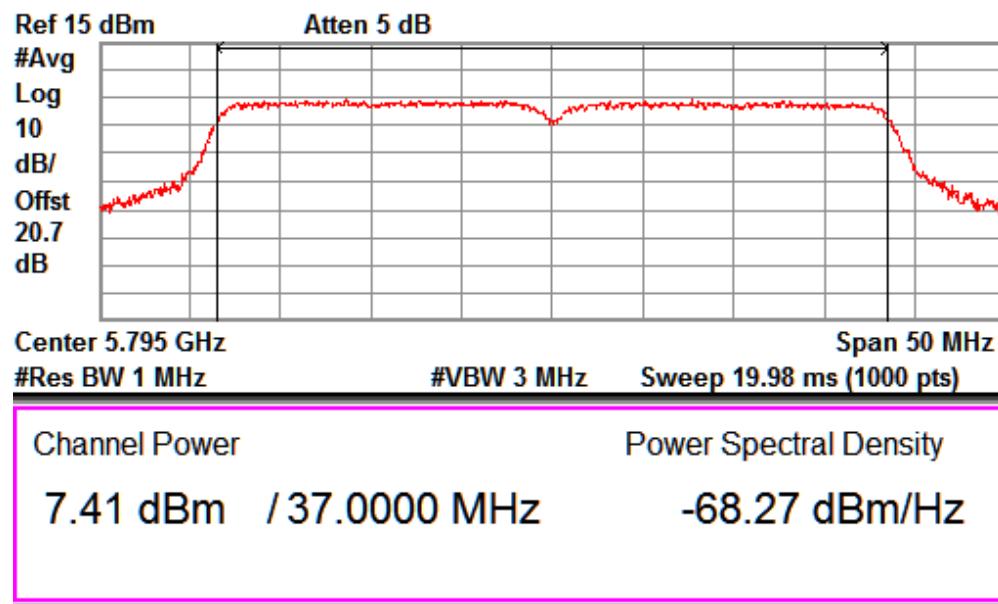
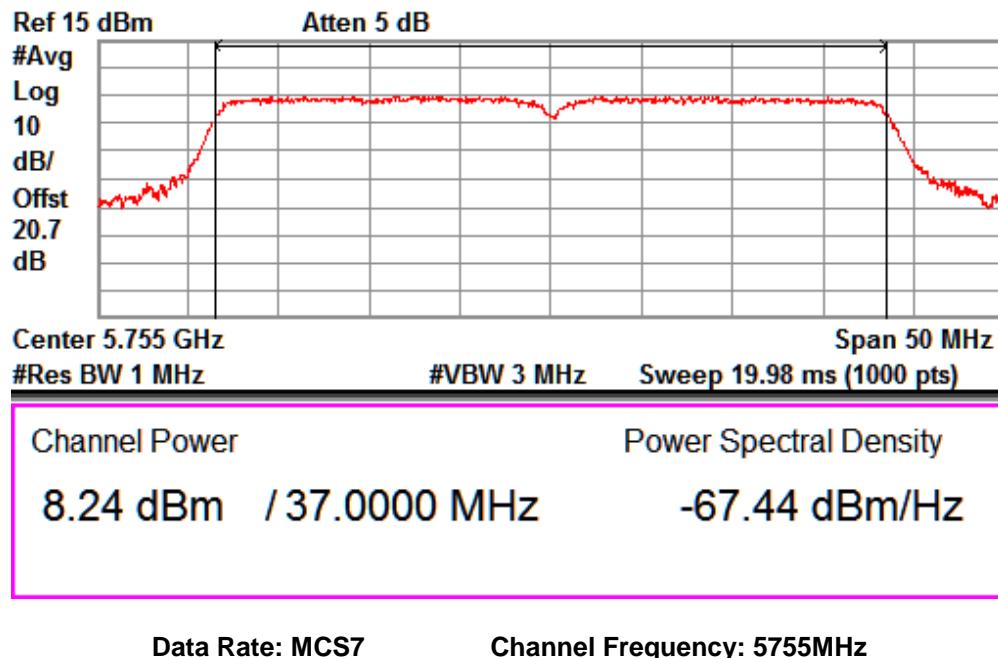
Power Spectral Density

-64.01 dBm/Hz

Data Rate: MCS7

Channel Frequency: 5230MHz

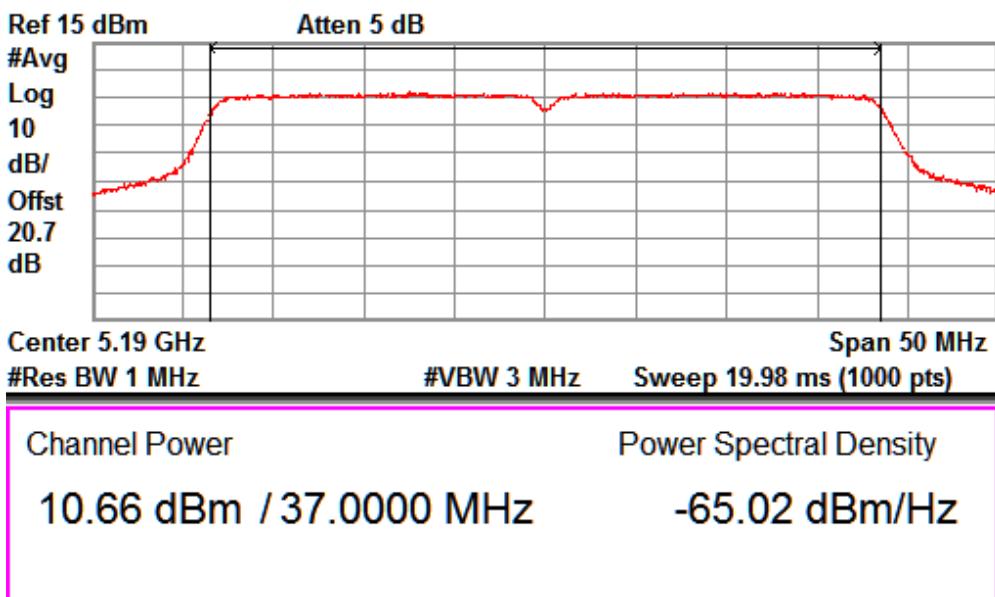
www.tuv.com



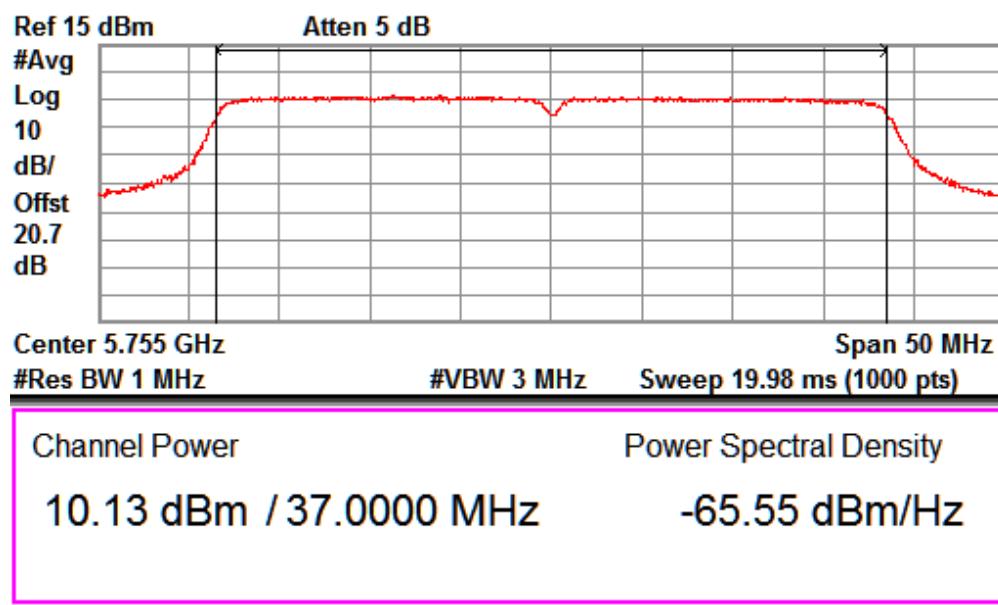
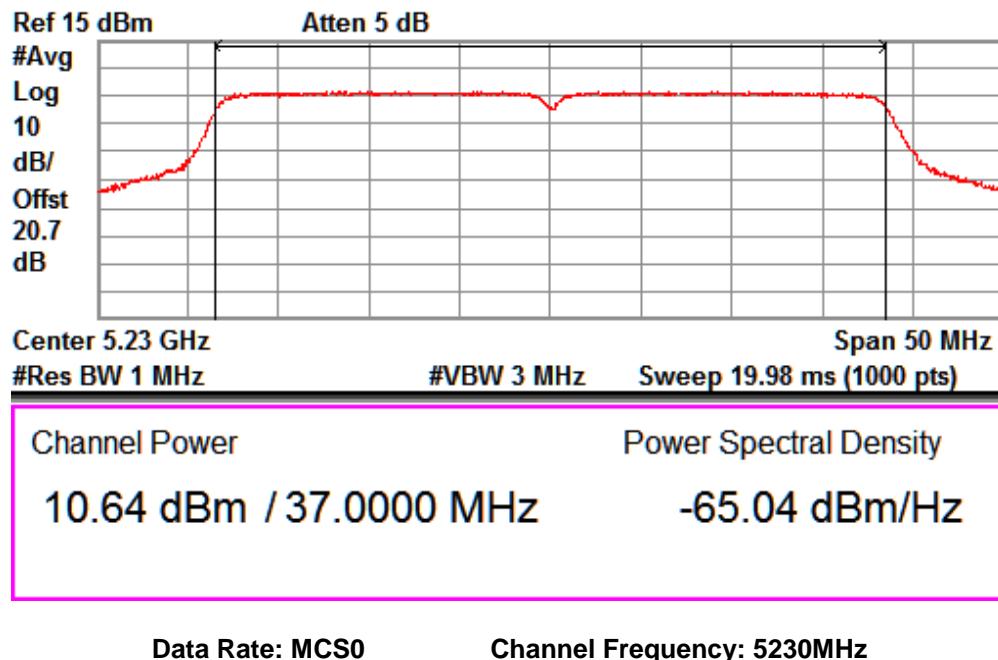
Data Rate: MCS7 Channel Frequency: 5795MHz

**Test results for Path B**

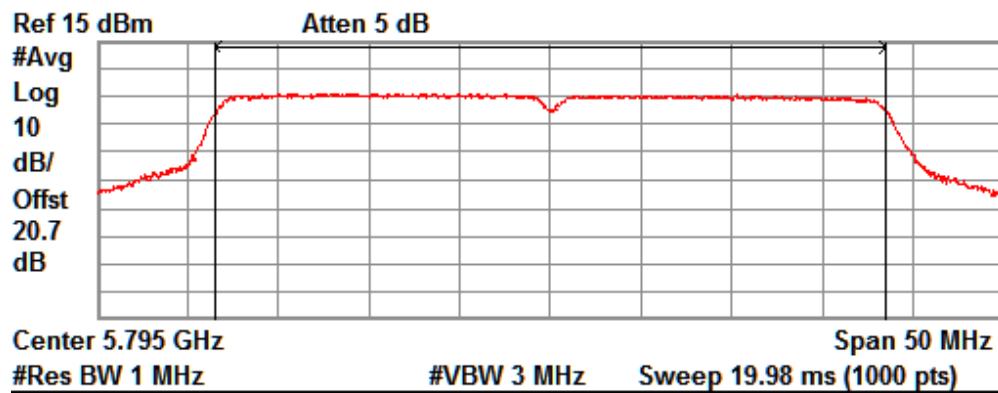
<b>IEEE802.11n HT40</b>				
<b>Data Rate (Mbps)</b>	<b>Channel No.</b>	<b>Frequency (MHz)</b>	<b>Average Output power (dBm)</b>	<b>Average Power (mW)</b>
MCS0	38	5190	10.66	11.64
	46	5230	10.64	11.58
	151	5755	10.13	10.30
	159	5795	9.9	9.77
MCS4	38	5190	9.44	8.79
	46	5230	9.48	8.87
	151	5755	9.11	8.14
	159	5795	8.87	7.70
MCS7	38	5190	9.1	8.12
	46	5230	9.03	7.99
	151	5755	8.79	7.56
	159	5795	8.6	7.24


**Data Rate: MCS0**
**Channel Frequency: 5190MHz**

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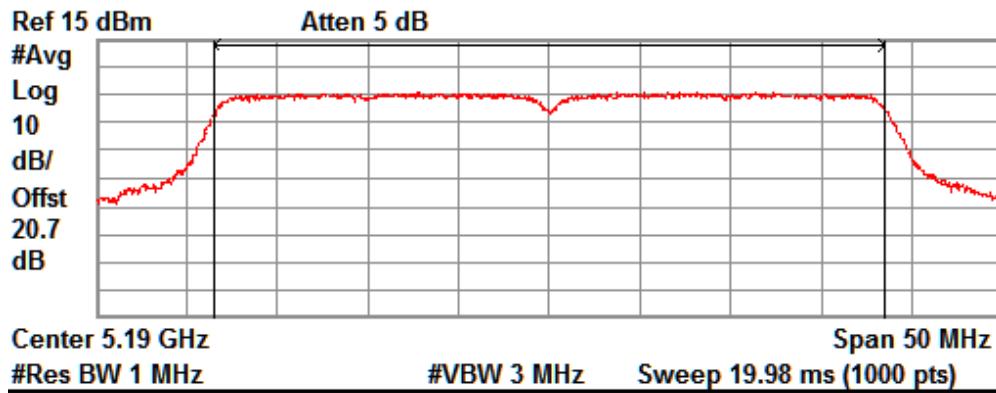
www.tuv.com



Channel Power	Power Spectral Density
9.90 dBm / 37.0000 MHz	-65.78 dBm/Hz

Data Rate: MCS0

Channel Frequency: 5795MHz

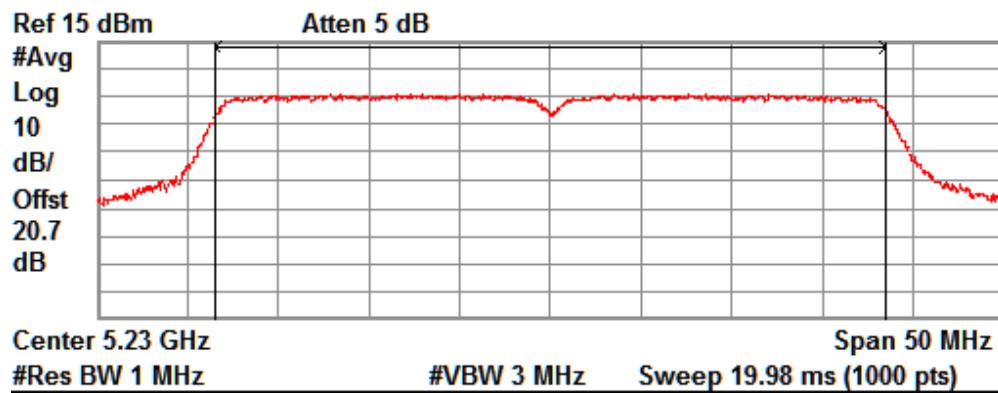


Channel Power	Power Spectral Density
9.44 dBm / 37.0000 MHz	-66.25 dBm/Hz

Data Rate: MCS4

Channel Frequency: 5190MHz

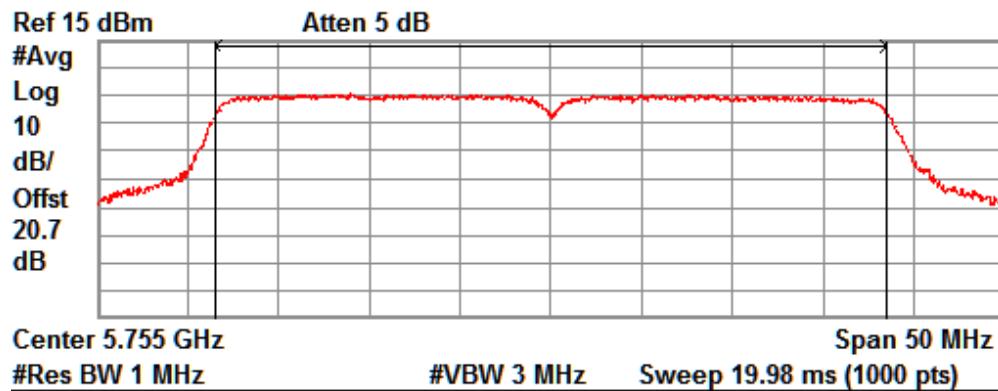
www.tuv.com



Channel Power	Power Spectral Density
9.48 dBm / 37.0000 MHz	-66.20 dBm/Hz

Data Rate: MCS4

Channel Frequency: 5230MHz

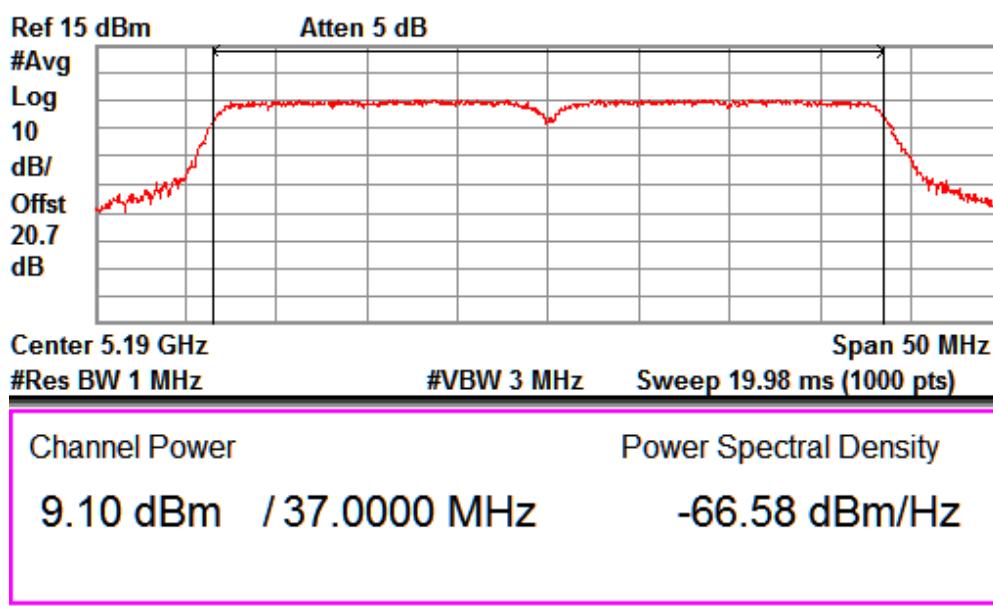
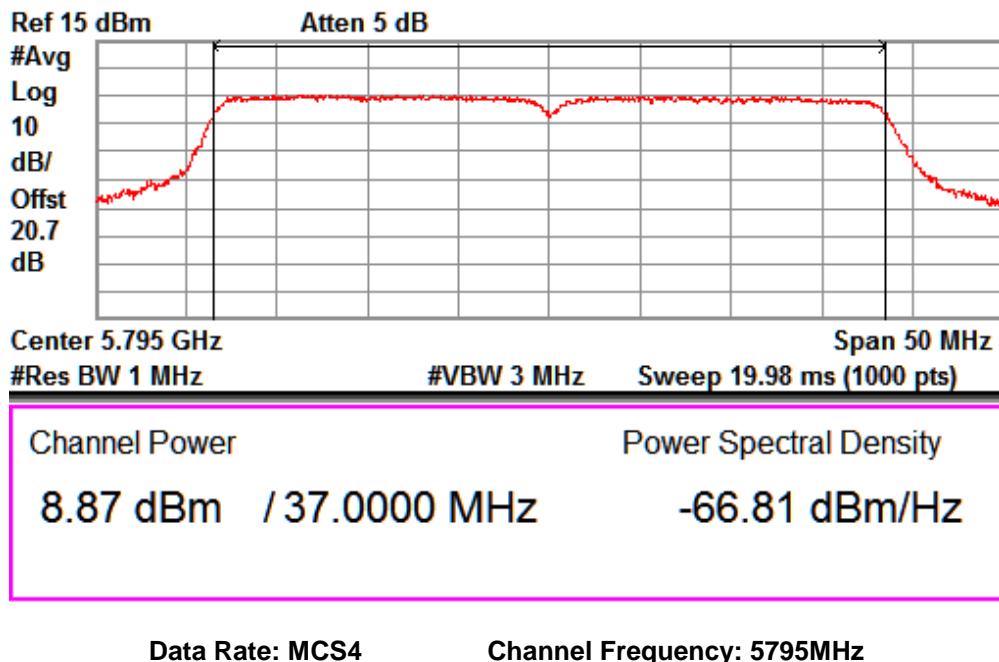


Channel Power	Power Spectral Density
9.11 dBm / 37.0000 MHz	-66.58 dBm/Hz

Data Rate: MCS4

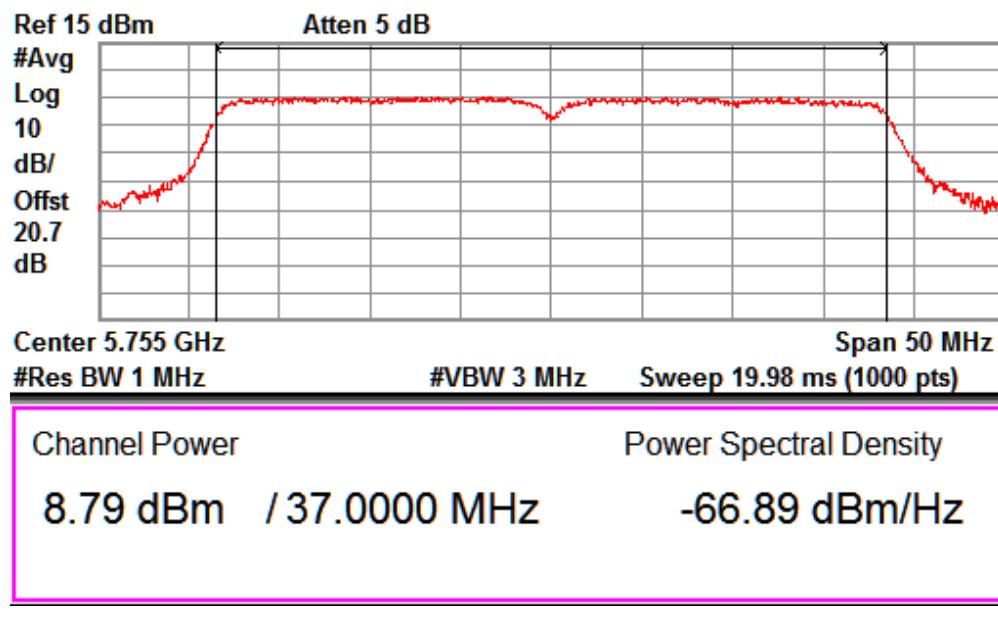
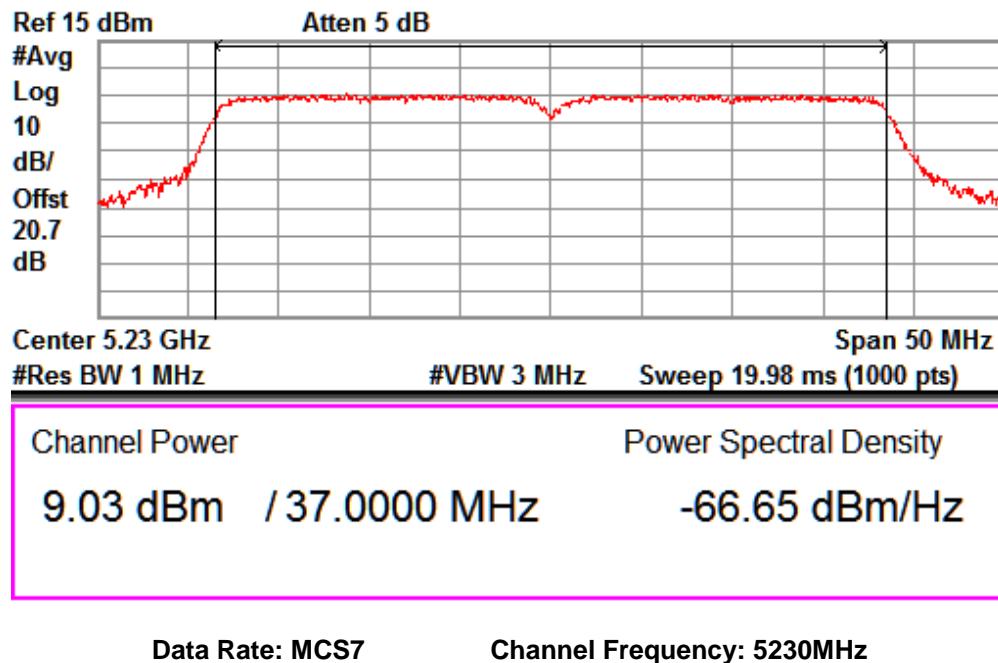
Channel Frequency: 5755MHz

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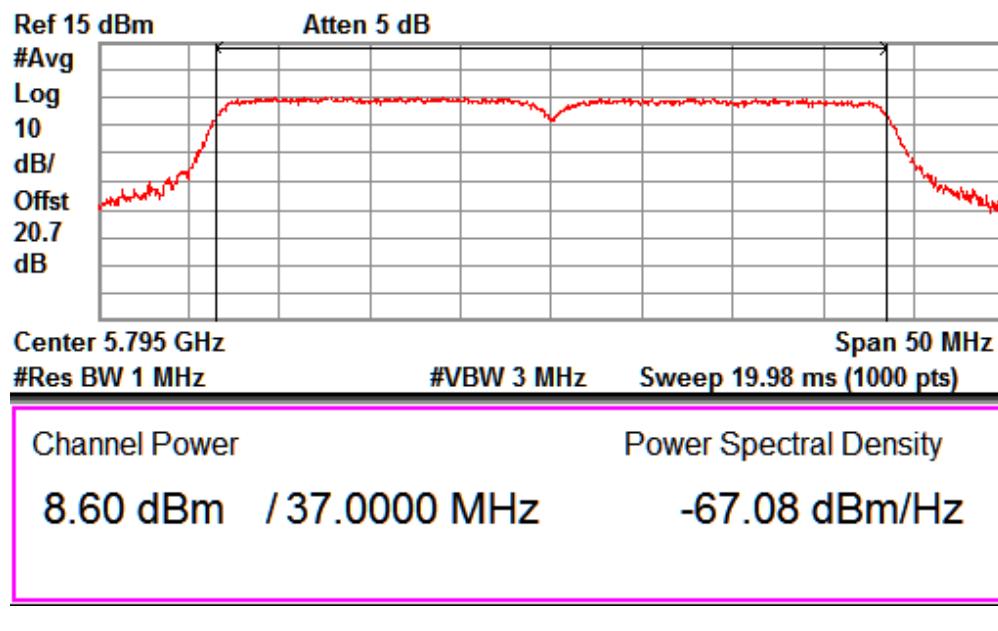


Data Rate: MCS7      Channel Frequency: 5190MHz

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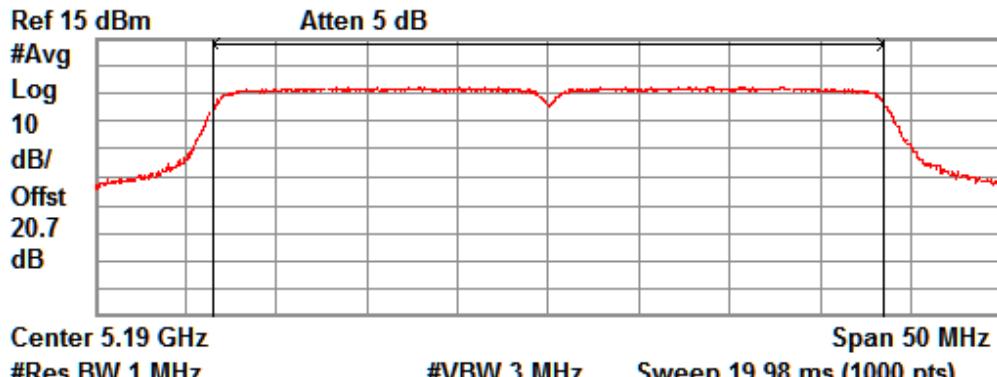


Data Rate: MCS7 Channel Frequency: 5755MHz


**Data Rate: MCS7**
**Channel Frequency: 5795MHz**
**Test results for Path C**

<b>IEEE802.11n HT40</b>				
<b>Data Rate (Mbps)</b>	<b>Channel No.</b>	<b>Frequency (MHz)</b>	<b>Average Output power (dBm)</b>	<b>Average Power (mW)</b>
MCS0	38	5190	11.34	13.61
	46	5230	11.36	13.67
	151	5755	9.98	9.95
	159	5795	9.46	8.83
MCS4	38	5190	10.14	10.32
	46	5230	10.2	10.47
	151	5755	8.9	7.76
	159	5795	8.41	6.93
MCS7	38	5190	9.74	9.41
	46	5230	9.81	9.57
	151	5755	8.54	7.14
	159	5795	8.06	6.39

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Channel Power

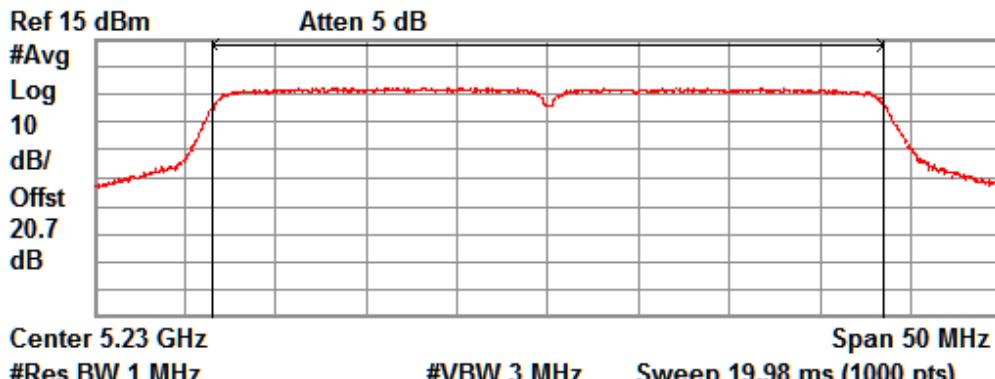
11.34 dBm / 37.0000 MHz

Power Spectral Density

-64.34 dBm/Hz

Data Rate: MCS0

Channel Frequency: 5190MHz



Channel Power

11.36 dBm / 37.0000 MHz

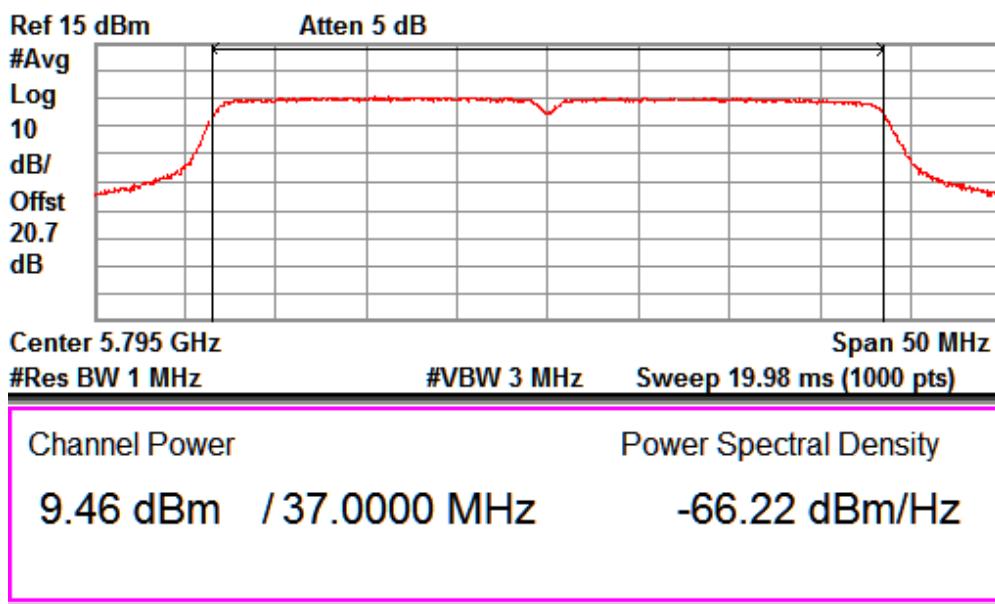
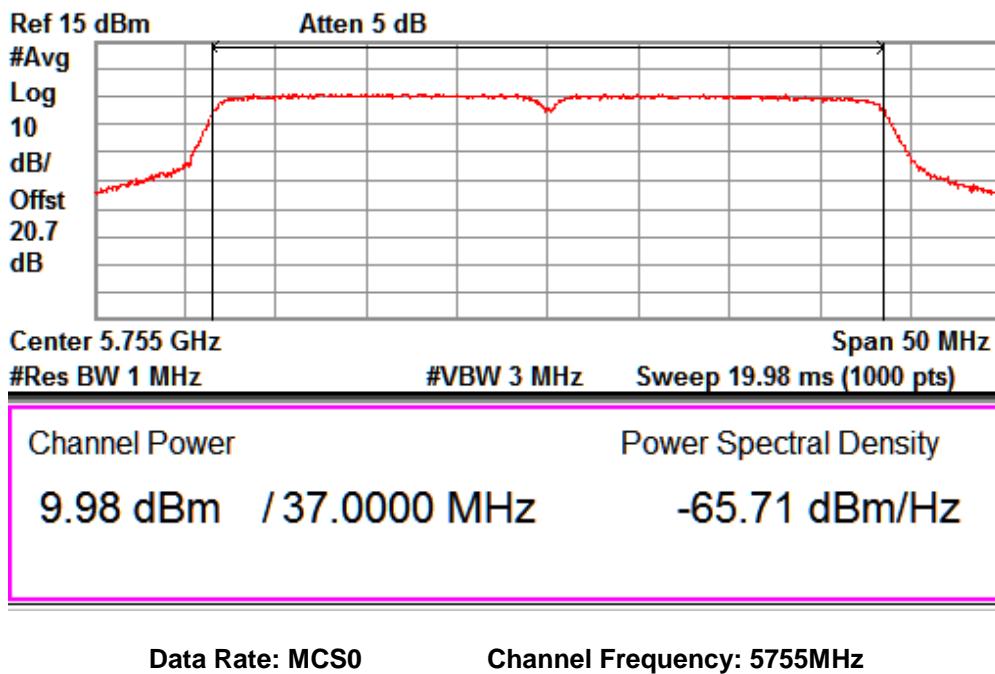
Power Spectral Density

-64.32 dBm/Hz

Data Rate: MCS0

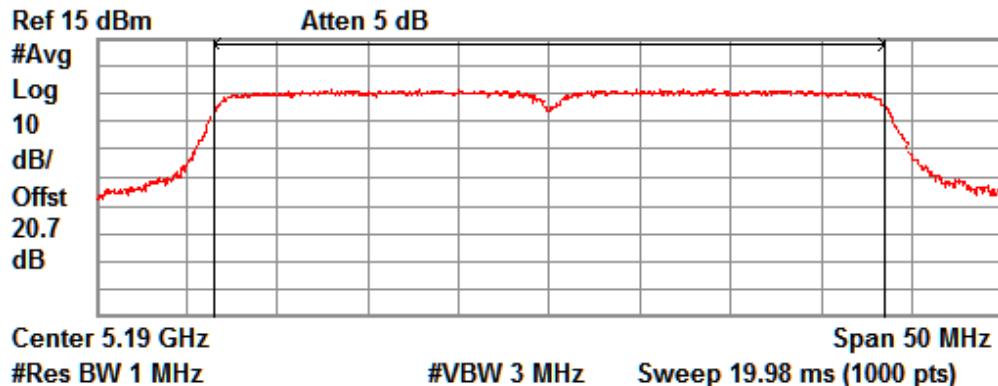
Channel Frequency: 5230MHz

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Data Rate: MCS0      Channel Frequency: 5795MHz

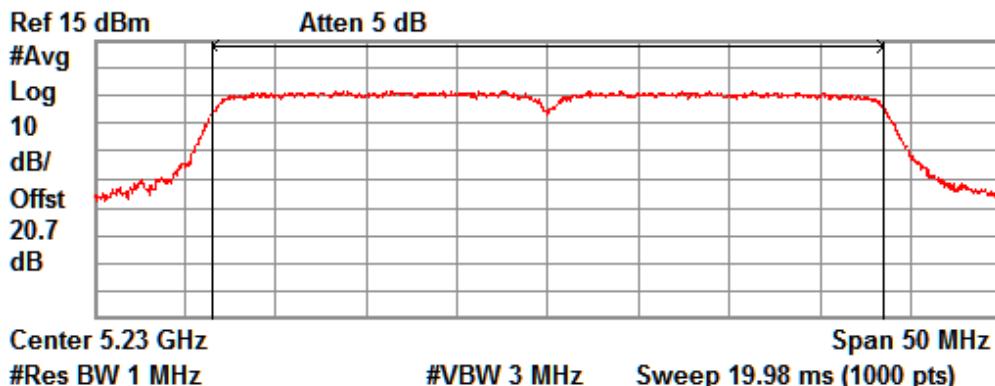
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Channel Power	Power Spectral Density
10.14 dBm / 37.0000 MHz	-65.54 dBm/Hz

Data Rate: MCS4

Channel Frequency: 5190MHz

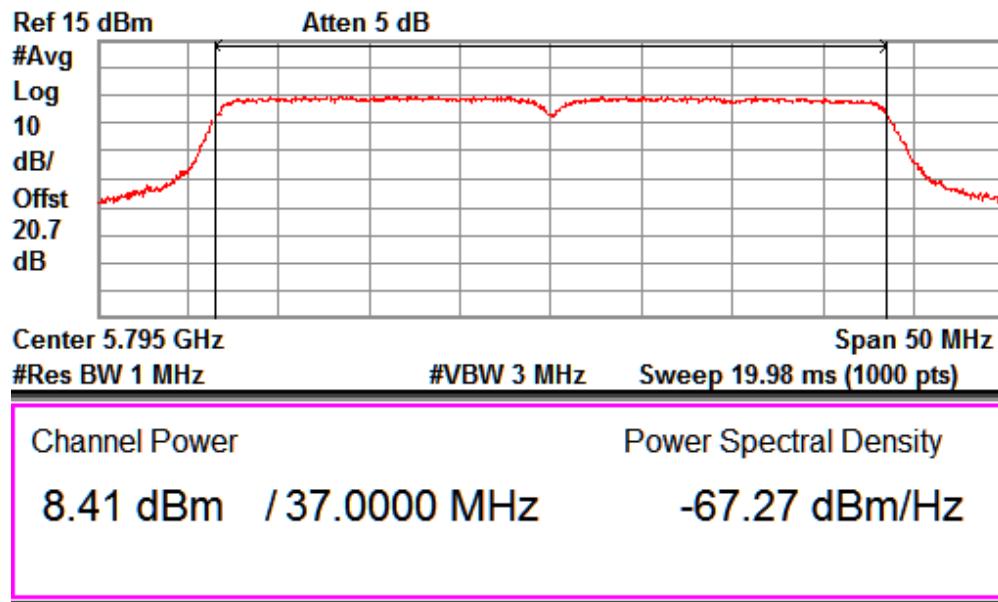
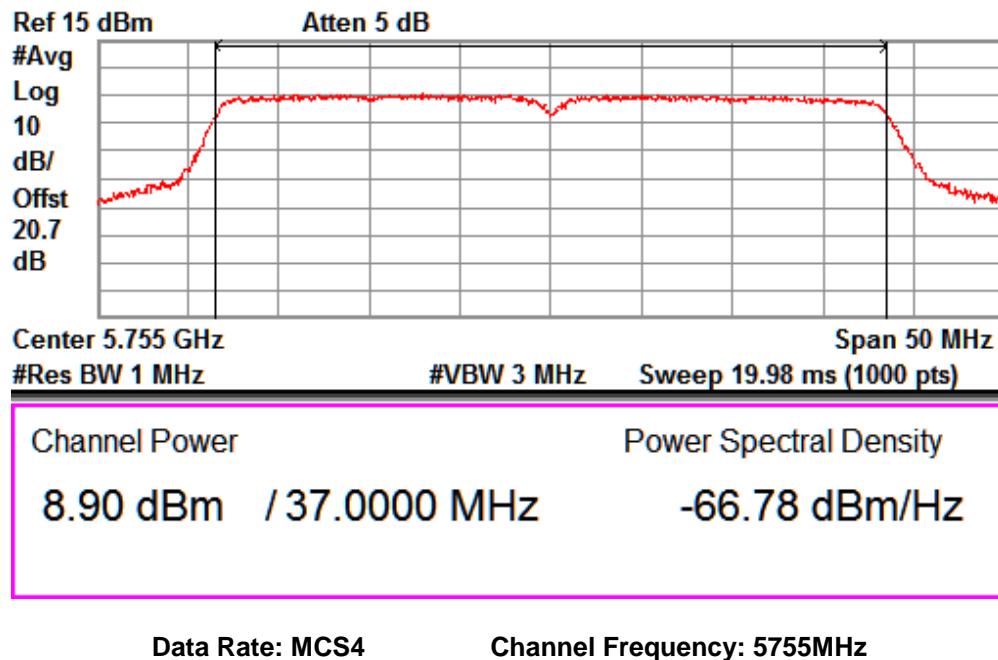


Channel Power	Power Spectral Density
10.20 dBm / 37.0000 MHz	-65.48 dBm/Hz

Data Rate: MCS4

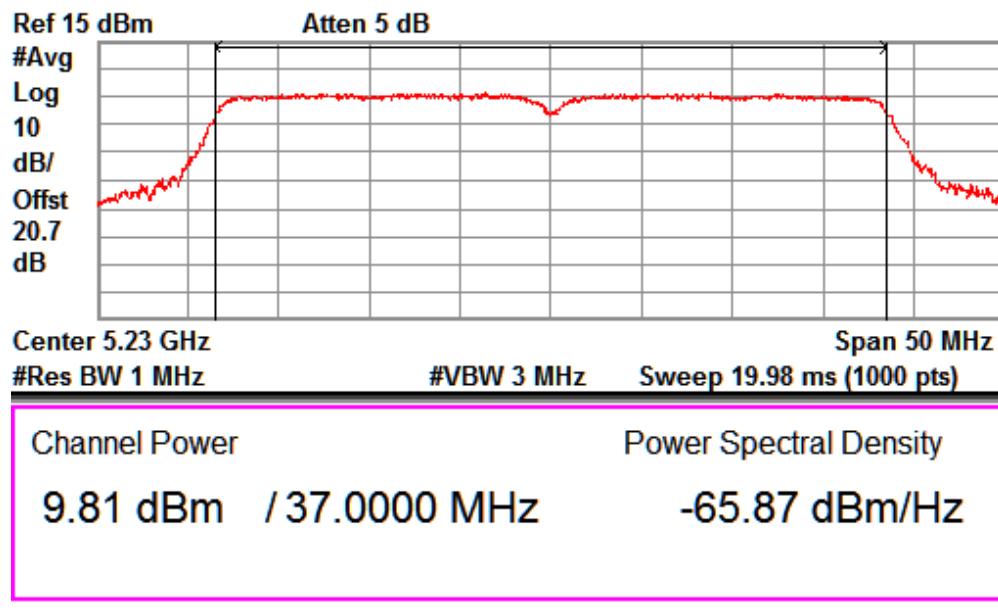
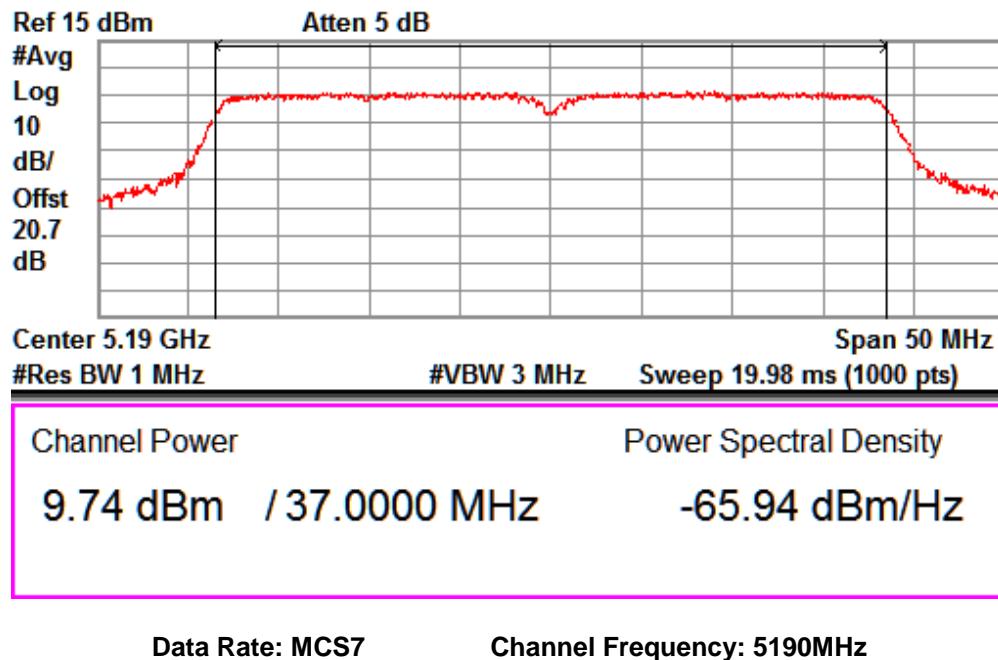
Channel Frequency: 5230MHz

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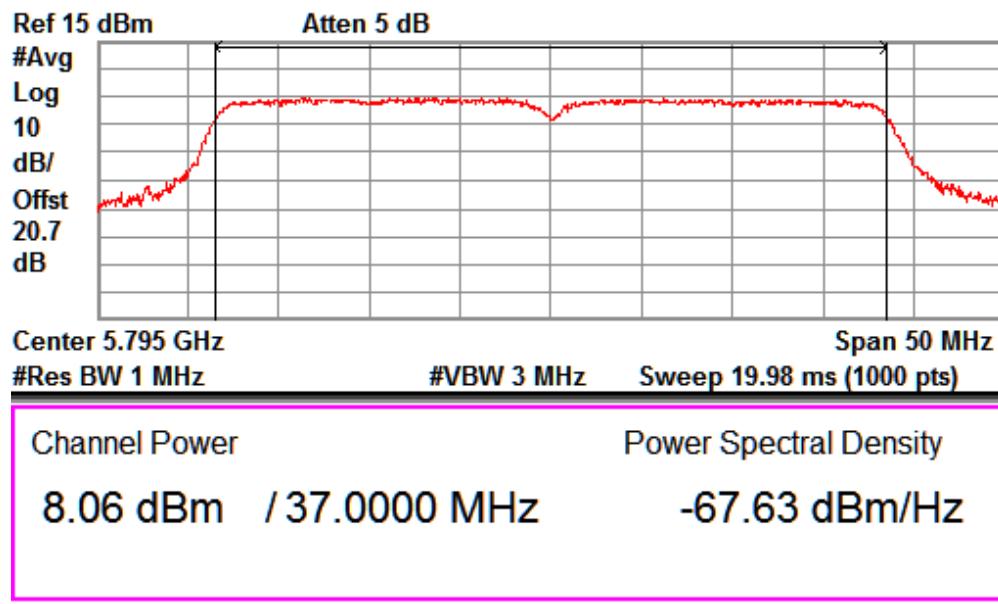
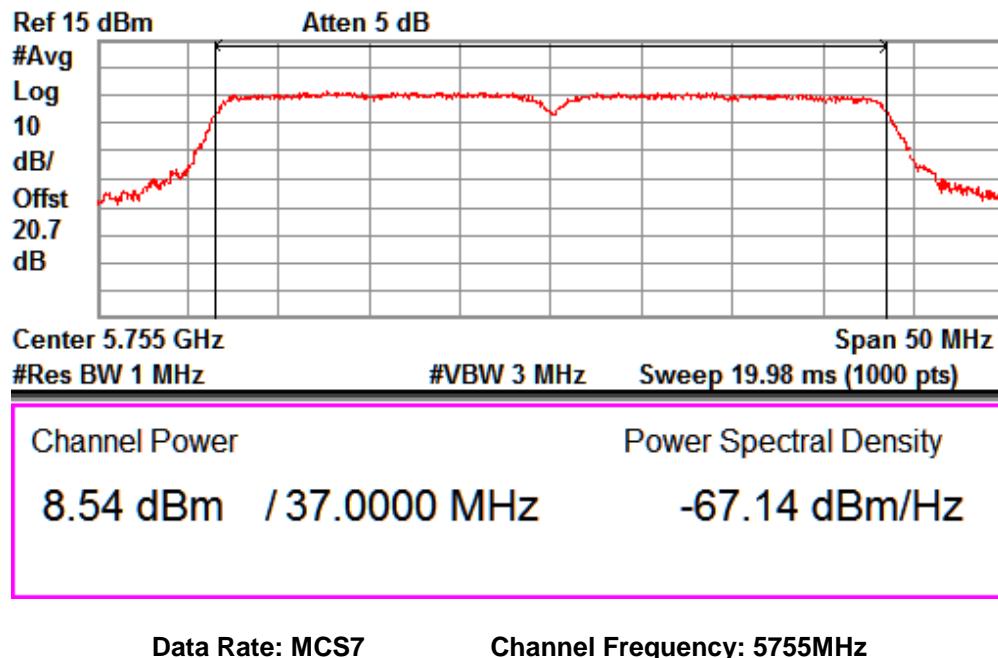
Data Rate: MCS4 Channel Frequency: 5795MHz

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Data Rate: MCS7      Channel Frequency: 5230MHz

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Data Rate: MCS7      Channel Frequency: 5795MHz

<b>IEEE802.11n 20MHz Channel</b>								
<b>Data Rate (Mbps)</b>	<b>Channel No</b>	<b>Channel frequency (MHz)</b>	<b>Average Power (mW) Path A</b>	<b>Average Power (mW) Path B</b>	<b>Average Power (mW) Path C</b>	<b>Total Average Power (mW)</b>	<b>Total Average Power (dBm)</b>	<b>Limit (dBm)</b>
<b>MCS0</b>	36	5180	34.19	19.86	20.04	74.10	18.69	<b>24</b>
	48	5240	31.84	16.67	18.87	67.39	18.28	<b>24</b>
	149	5745	18.92	14.32	11.09	44.33	16.46	<b>26.23</b>
	165	5825	10.16	10.02	9.18	29.36	14.67	<b>26.23</b>
<b>MCS4</b>	36	5180	25.82	17.33	17.33	60.49	17.81	<b>24</b>
	48	5240	23.98	16.44	18.87	59.31	17.73	<b>24</b>
	149	5745	16.55	12.85	9.54	38.96	15.90	<b>26.23</b>
	165	5825	9.09	8.70	7.27	25.08	13.99	<b>26.23</b>
<b>MCS7</b>	36	5180	22.96	13.39	14.99	51.35	17.10	<b>24</b>
	48	5240	21.23	9.18	9.18	39.59	15.97	<b>24</b>
	149	5745	15.27	8.97	8.57	32.82	15.16	<b>26.23</b>
	165	5825	8.03	7.97	7.27	23.29	13.67	<b>26.23</b>

<b>IEEE802.11n 40MHz Channel</b>								
<b>Data Rate (Mbps)</b>	<b>Channel No</b>	<b>Channel frequency (MHz)</b>	<b>Average Power (mW) Path A</b>	<b>Average Power (mW) Path B</b>	<b>Average Power (mW) Path C</b>	<b>Total Average Power (mW)</b>	<b>Total Average Power (dBm)</b>	<b>Limit (dBm)</b>
<b>MCS0</b>	36	5180	15.31	11.64	13.61	40.56	16.08	<b>24</b>
	48	5240	15.48	11.58	13.67	40.75	16.10	<b>24</b>
	149	5745	9.16	10.30	9.95	29.42	14.68	<b>26.23</b>
	165	5825	7.60	9.77	8.83	26.20	14.18	<b>26.23</b>
<b>MCS4</b>	36	5180	11.61	8.79	10.32	30.73	14.87	<b>24</b>
	48	5240	11.77	8.87	10.47	31.11	14.93	<b>24</b>
	149	5745	7.14	8.14	7.76	23.05	13.62	<b>26.23</b>
	165	5825	5.95	7.70	6.93	20.59	13.13	<b>26.23</b>
<b>MCS7</b>	36	5180	15.31	8.12	9.41	32.85	15.16	<b>24</b>
	48	5240	14.68	7.99	9.57	32.25	15.08	<b>24</b>
	149	5745	6.66	7.56	7.14	21.38	13.30	<b>26.23</b>
	165	5825	5.50	7.24	6.39	19.14	12.82	<b>26.23</b>

**Note:** Antenna gain for the frequency band 5725-5850MHz is 5dBi,  
 Directional gain = Antenna Gain+10\*log ((NANT) dBi, = 3.4+10\*log (3) =9.77dBi is more than 6dBi & hence  
 power limit will be reduced by Pout= PLimit - ( G<sub>Tx</sub> -6) = 30-(9.77-6) =26.23 dBm

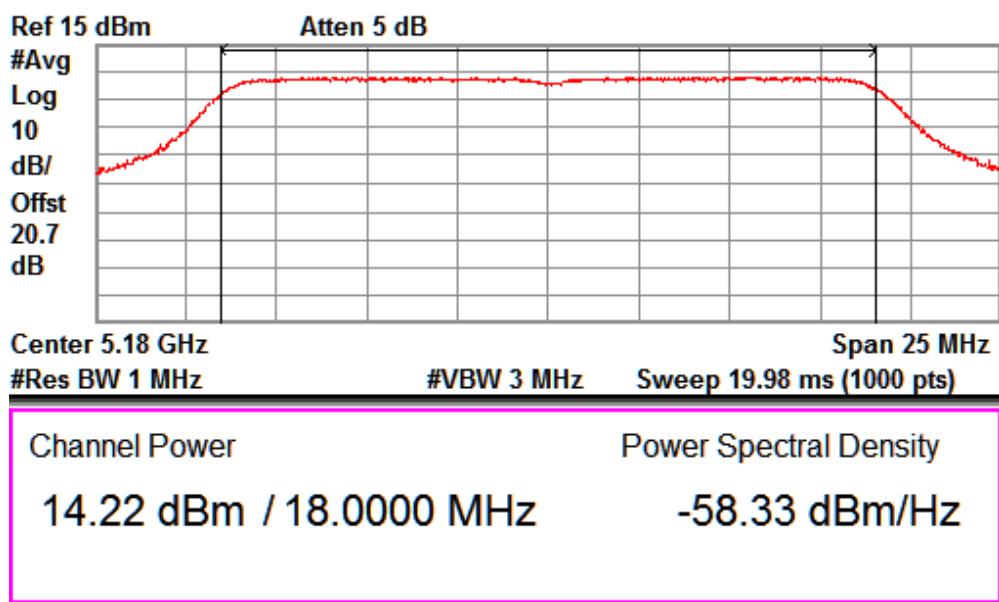
P<sub>Out</sub> is the maximum conducted output power in dBm,

P<sub>Limit</sub> is the output power limit in dBm,

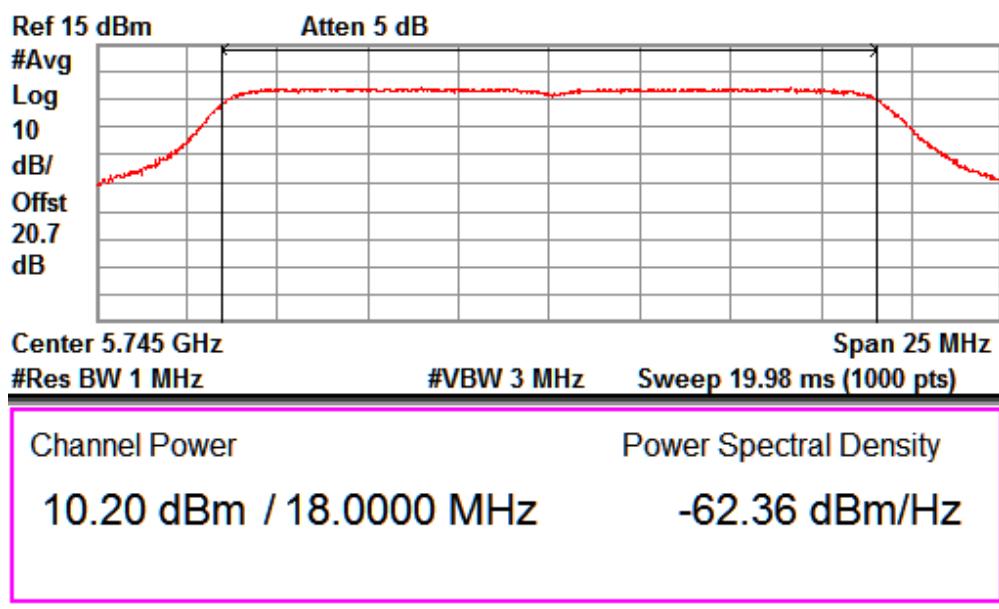
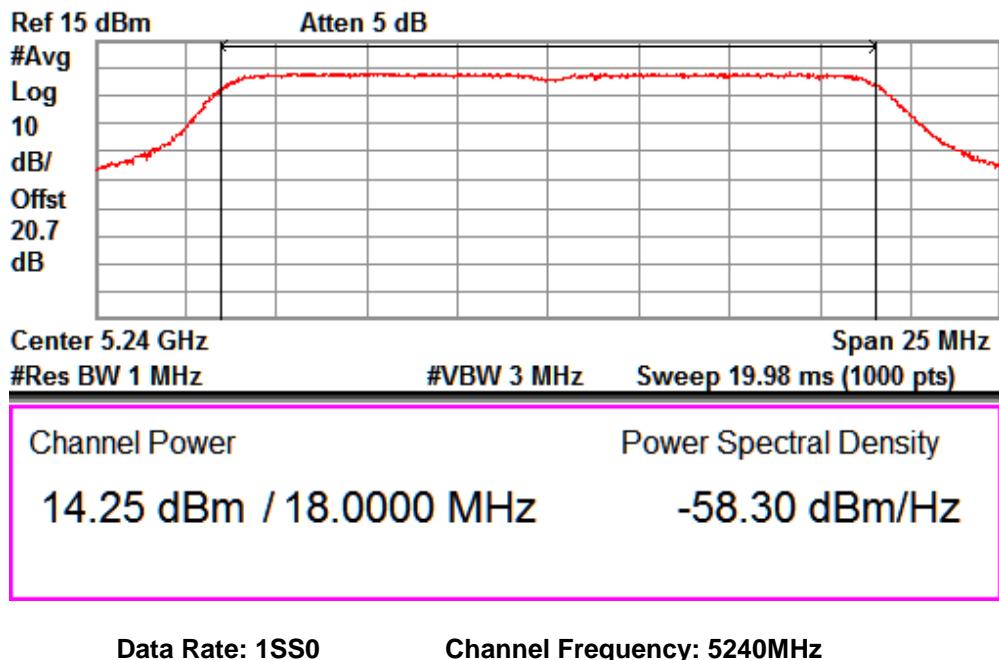
G<sub>Tx</sub> is the maximum transmitting antenna directional gain in dBi

**Test results for Path A**

<b>IEEE802.11ac HT20</b>				
<b>Data Rate (Mbps)</b>	<b>Channel No.</b>	<b>Frequency (MHz)</b>	<b>Average Output power (dBm)</b>	<b>Average Power (mW)</b>
1SS0	36	5180	14.22	26.42
	48	5240	14.25	26.60
	149	5745	10.2	10.47
	165	5825	8.37	6.87
1SS3	36	5180	13.28	21.28
	48	5240	13.34	21.57
	149	5745	9.76	9.46
	165	5825	8.05	6.38
1SS6	36	5180	12.38	17.29
	48	5240	12.53	17.90
	149	5745	8.99	7.92
	165	5825	7.2	5.24

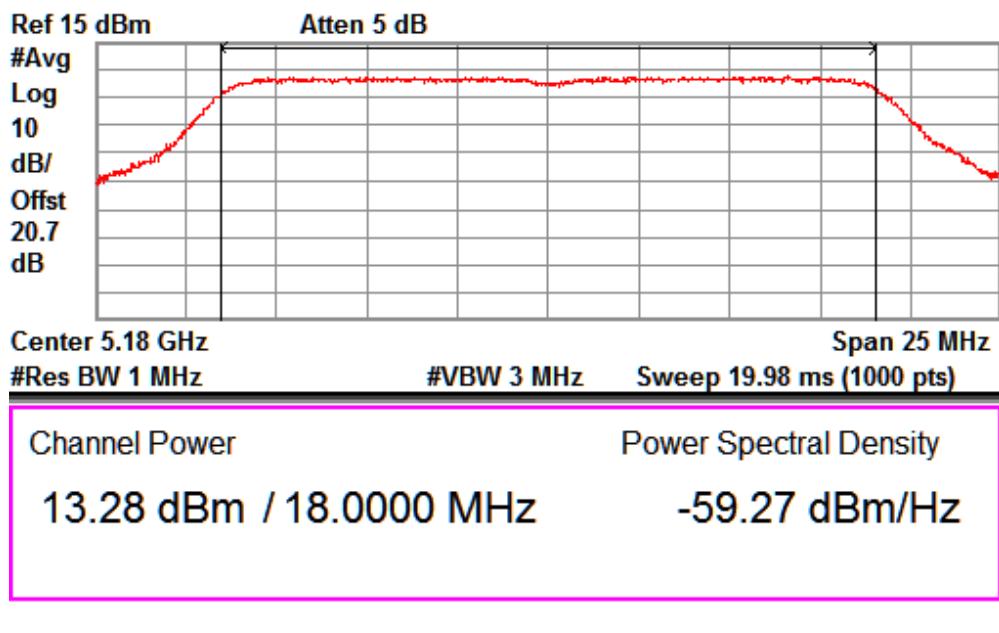
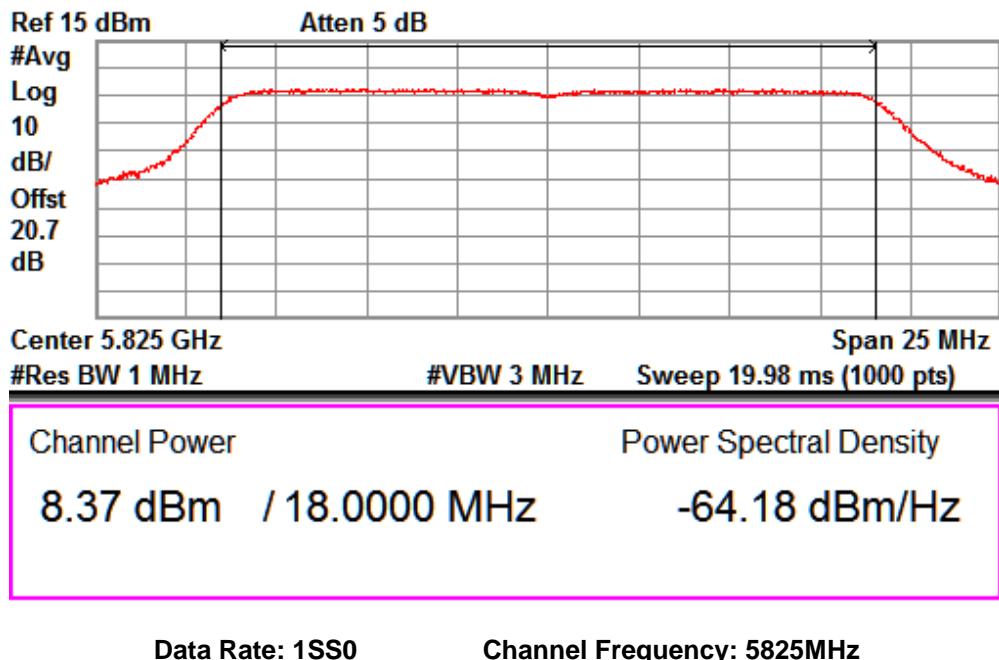

**Data Rate: 1SS0**
**Channel Frequency: 5180MHz**

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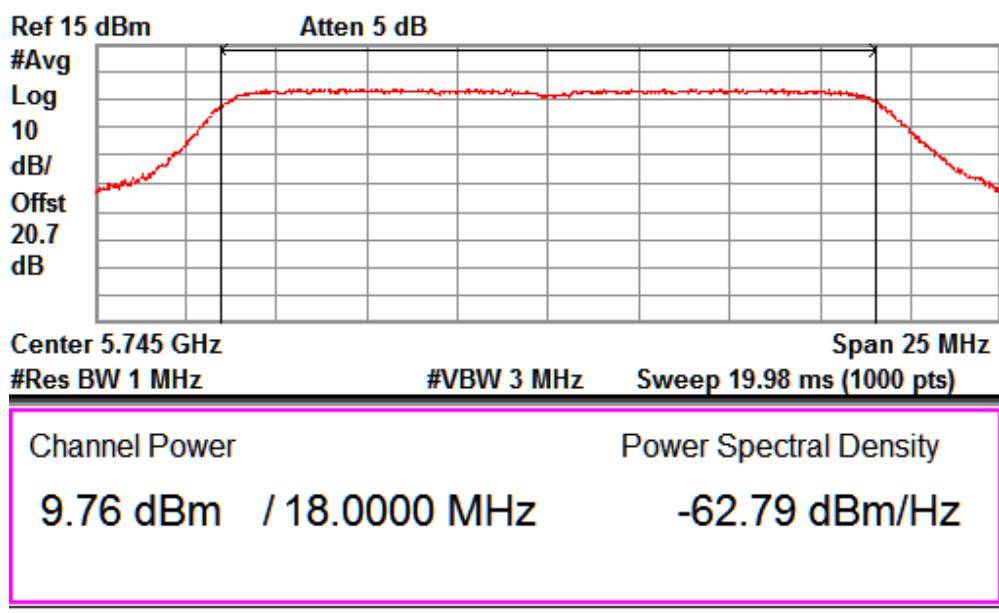
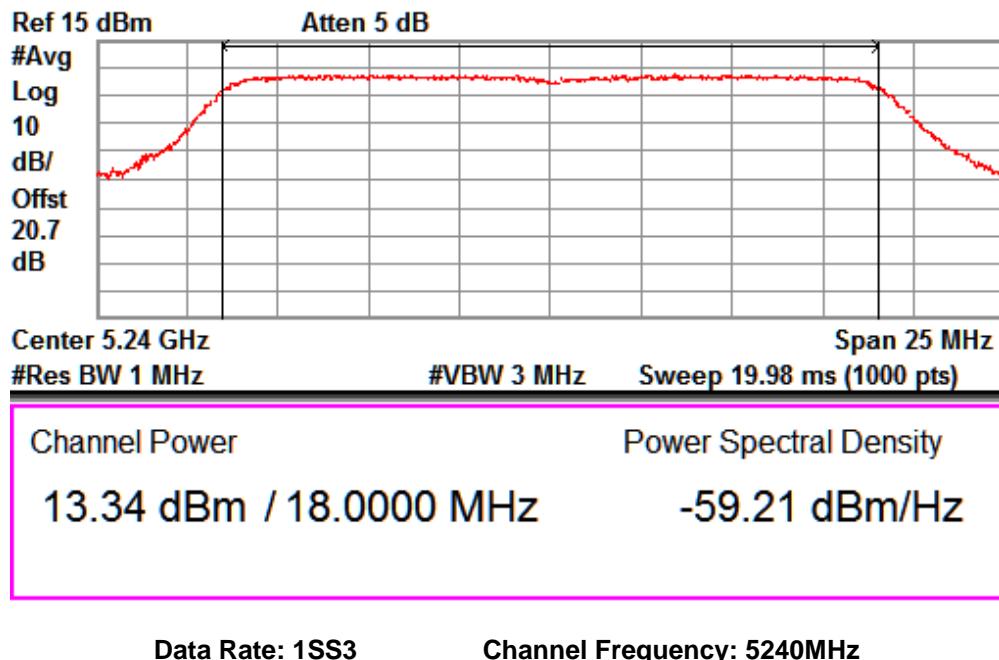


Data Rate: 1SS0      Channel Frequency: 5745MHz

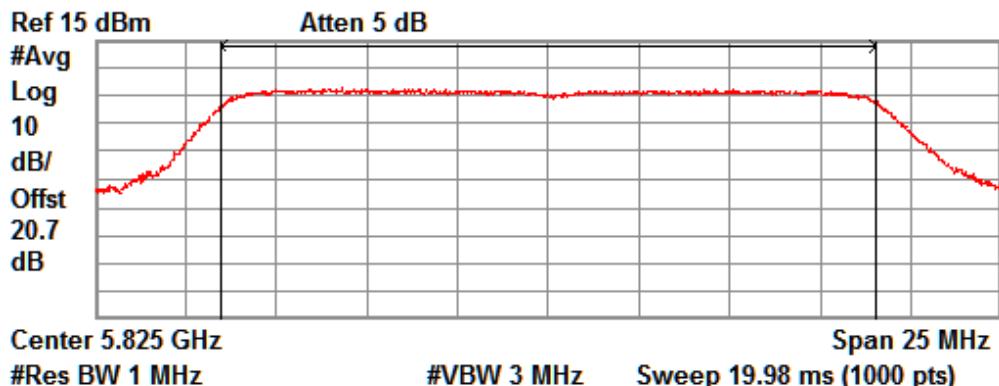
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Data Rate: 1SS3 Channel Frequency: 5745MHz



Channel Power

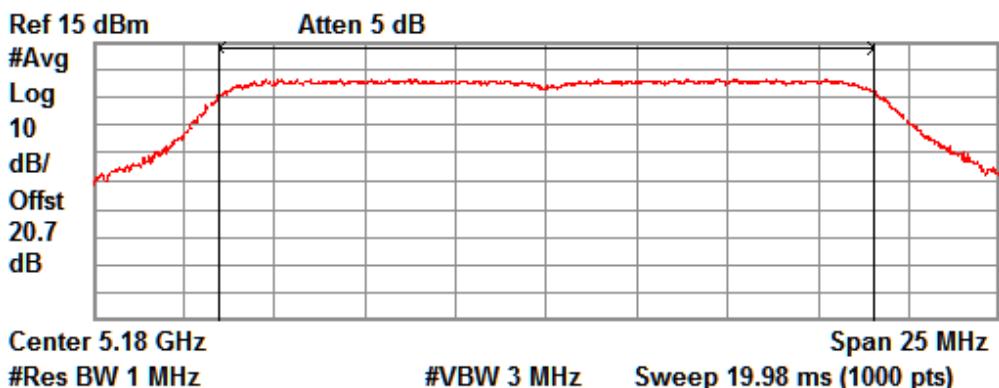
Power Spectral Density

8.05 dBm / 18.0000 MHz

-64.50 dBm/Hz

Data Rate: 1SS3

Channel Frequency: 5825MHz



Channel Power

Power Spectral Density

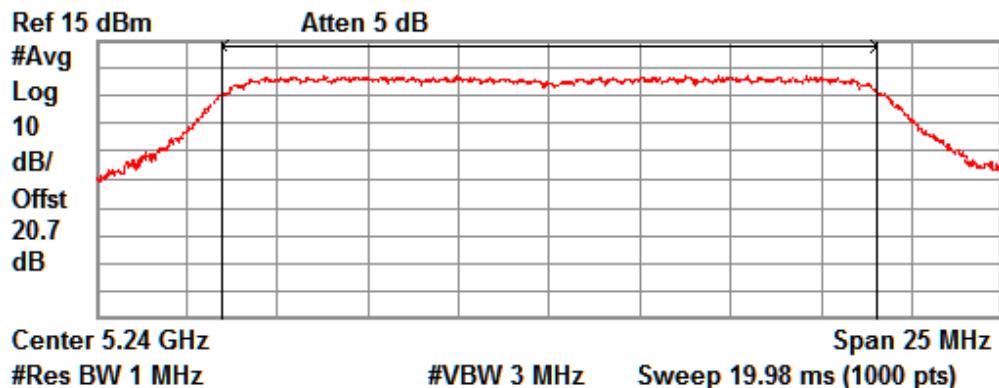
12.38 dBm / 18.0000 MHz

-60.17 dBm/Hz

Data Rate: 1SS6

Channel Frequency: 5180MHz

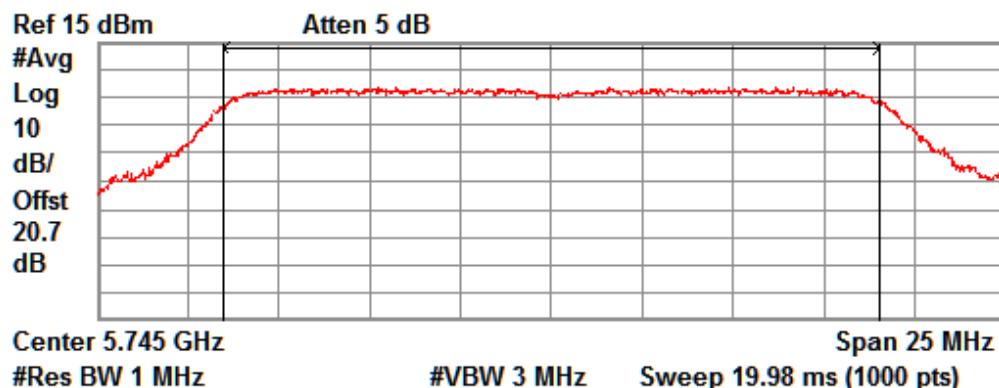
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Channel Power	Power Spectral Density
12.53 dBm / 18.0000 MHz	-60.02 dBm/Hz

Data Rate: 1SS6

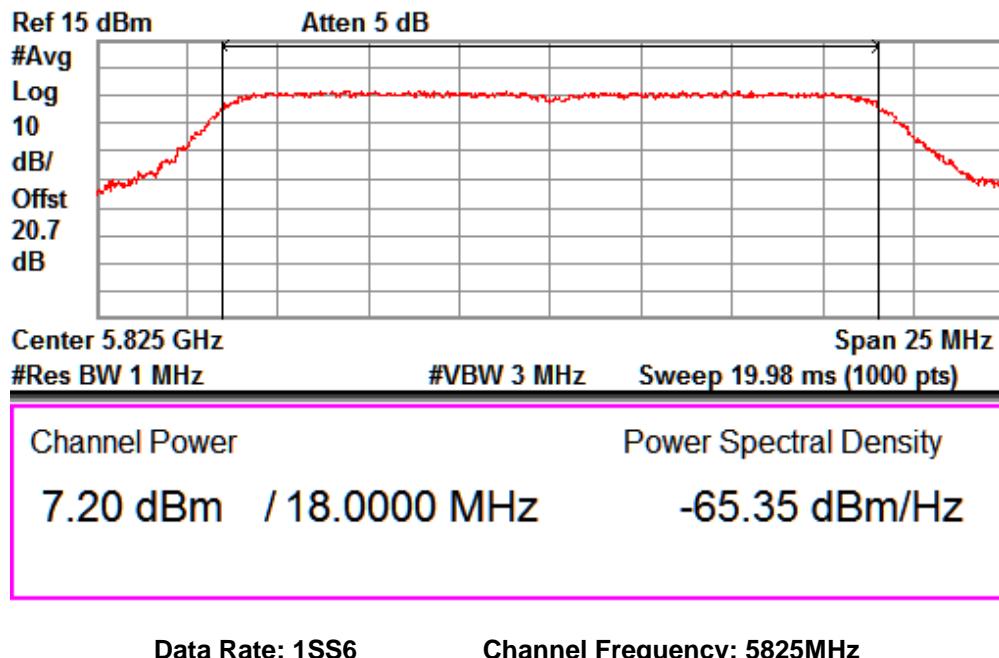
Channel Frequency: 5240MHz



Channel Power	Power Spectral Density
8.99 dBm / 18.0000 MHz	-63.56 dBm/Hz

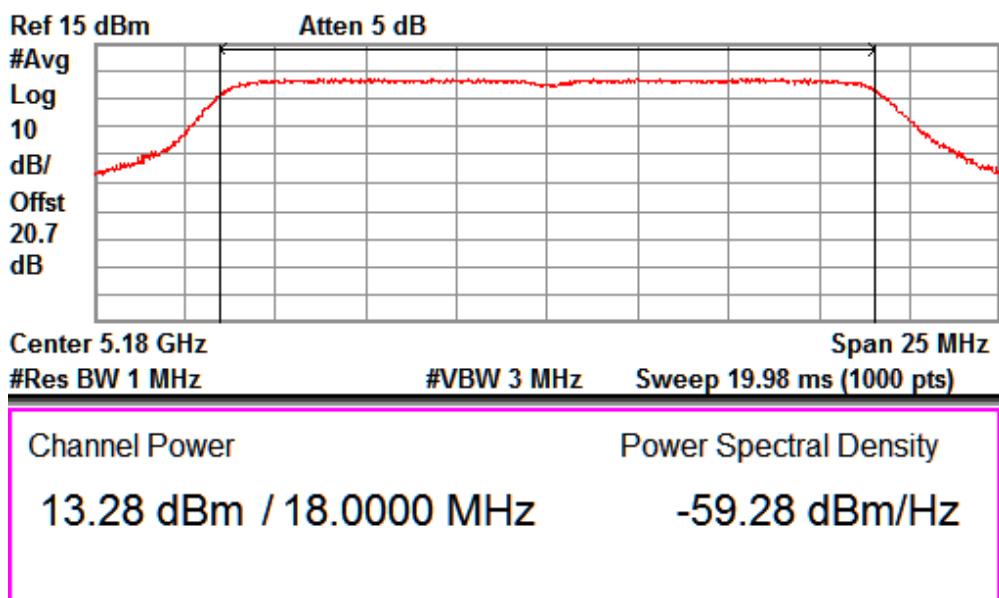
Data Rate: 1SS6

Channel Frequency: 5745MHz



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**Test results for Path B**

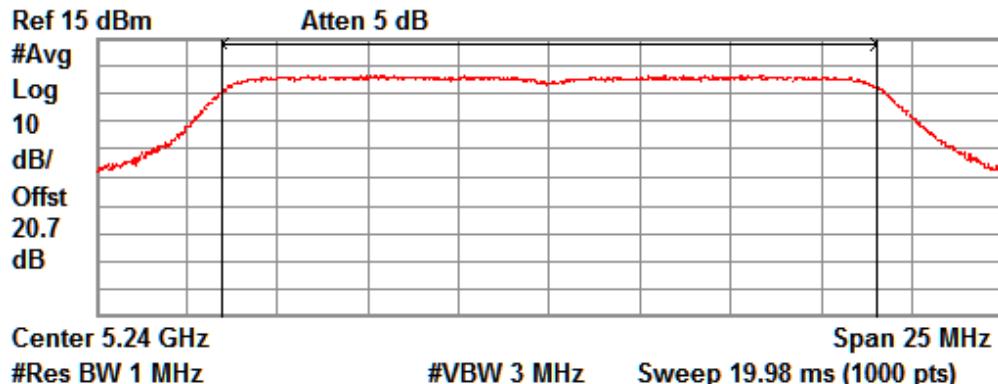
<b>IEEE802.11ac HT20</b>				
<b>Data Rate (Mbps)</b>	<b>Channel No.</b>	<b>Frequency (MHz)</b>	<b>Average Output power (dBm)</b>	<b>Average Power (mW)</b>
1SS0	36	5180	13.28	21.28
	48	5240	12.43	17.49
	149	5745	11.8	15.13
	165	5825	10.44	11.06
1SS3	36	5180	12.95	19.72
	48	5240	12.7	18.62
	149	5745	11.51	14.15
	165	5825	10.02	10.04
1SS6	36	5180	11.43	13.89
	48	5240	9.79	9.52
	149	5745	9.8	9.54
	165	5825	9.26	8.43



**Data Rate: 1SS0**

**Channel Frequency: 5180MHz**

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Channel Power

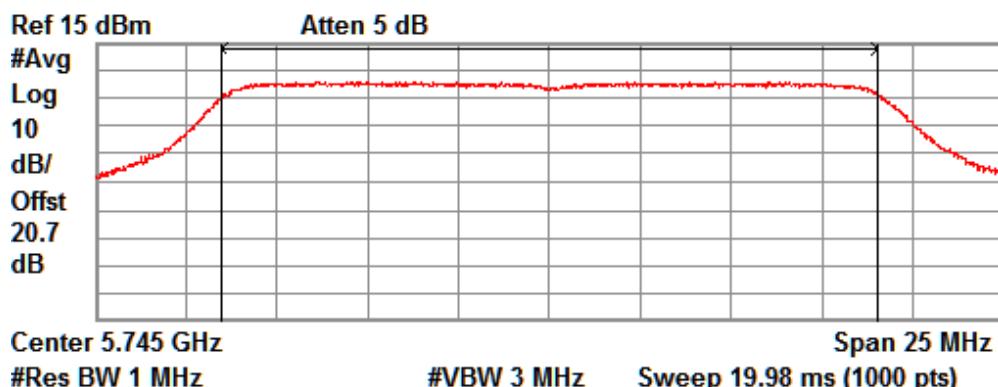
12.43 dBm / 18.0000 MHz

Power Spectral Density

-60.12 dBm/Hz

Data Rate: 1SS0

Channel Frequency: 5240MHz



Channel Power

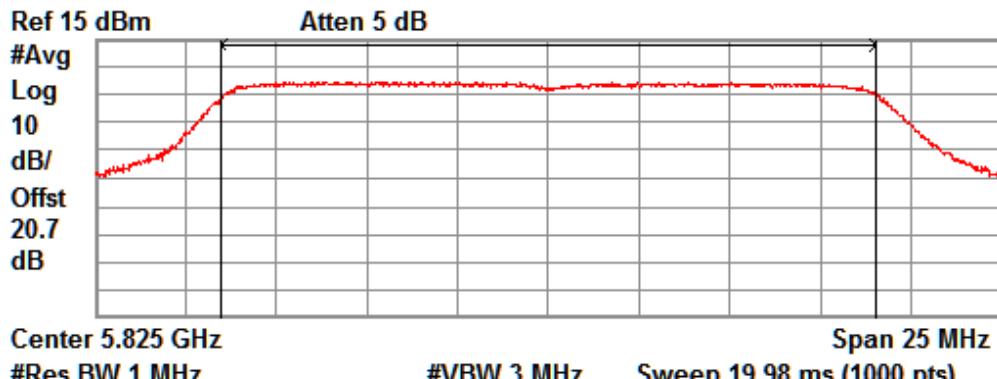
11.80 dBm / 18.0000 MHz

Power Spectral Density

-60.76 dBm/Hz

Data Rate: 1SS0

Channel Frequency: 5745MHz



Channel Power

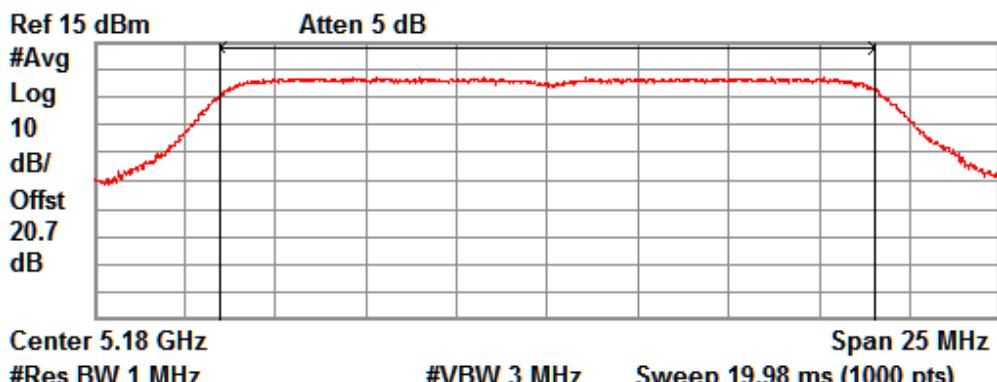
10.44 dBm / 18.0000 MHz

Power Spectral Density

-62.11 dBm/Hz

Data Rate: 1SS0

Channel Frequency: 5825MHz



Channel Power

12.95 dBm / 18.0000 MHz

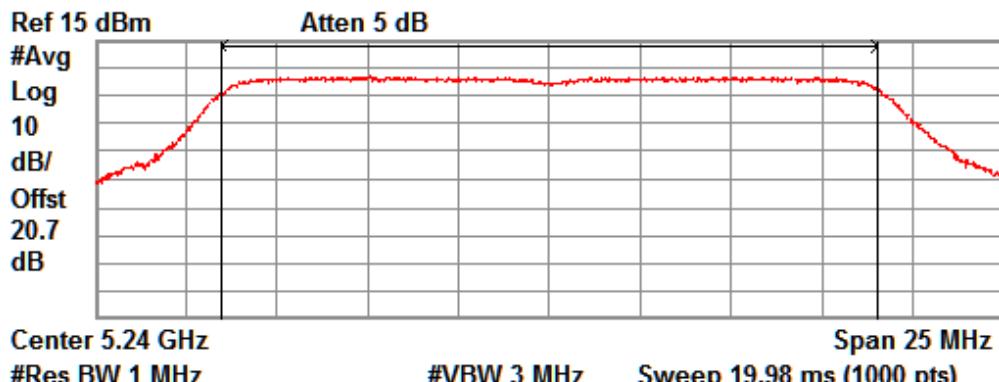
Power Spectral Density

-59.61 dBm/Hz

Data Rate: 1SS3

Channel Frequency: 5180MHz

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Channel Power

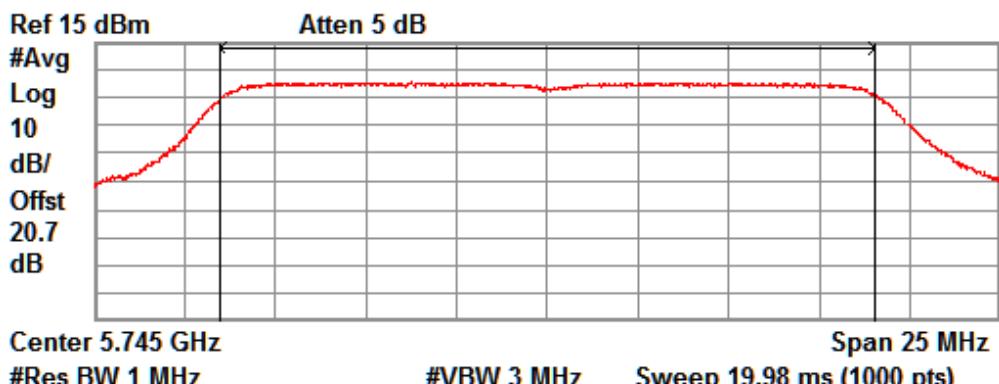
12.70 dBm / 18.0000 MHz

Power Spectral Density

-59.85 dBm/Hz

Data Rate: 1SS3

Channel Frequency: 5240MHz



Channel Power

11.51 dBm / 18.0000 MHz

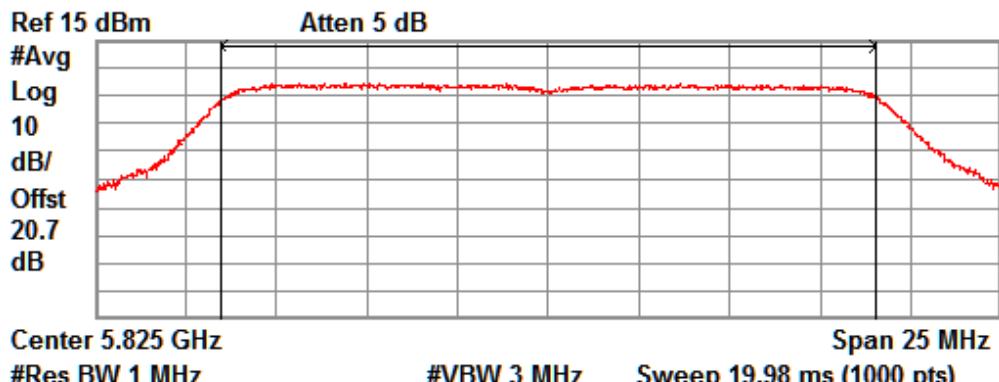
Power Spectral Density

-61.04 dBm/Hz

Data Rate: 1SS3

Channel Frequency: 5745MHz

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Channel Power

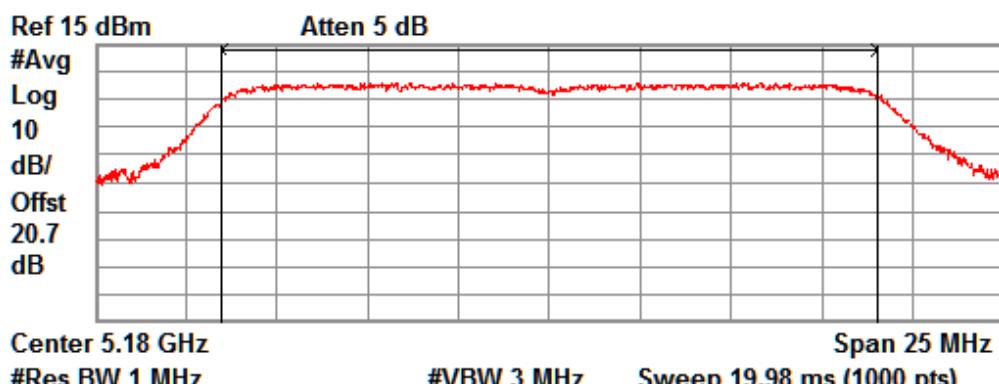
10.02 dBm / 18.0000 MHz

Power Spectral Density

-62.53 dBm/Hz

Data Rate: 1SS3

Channel Frequency: 5825MHz



Channel Power

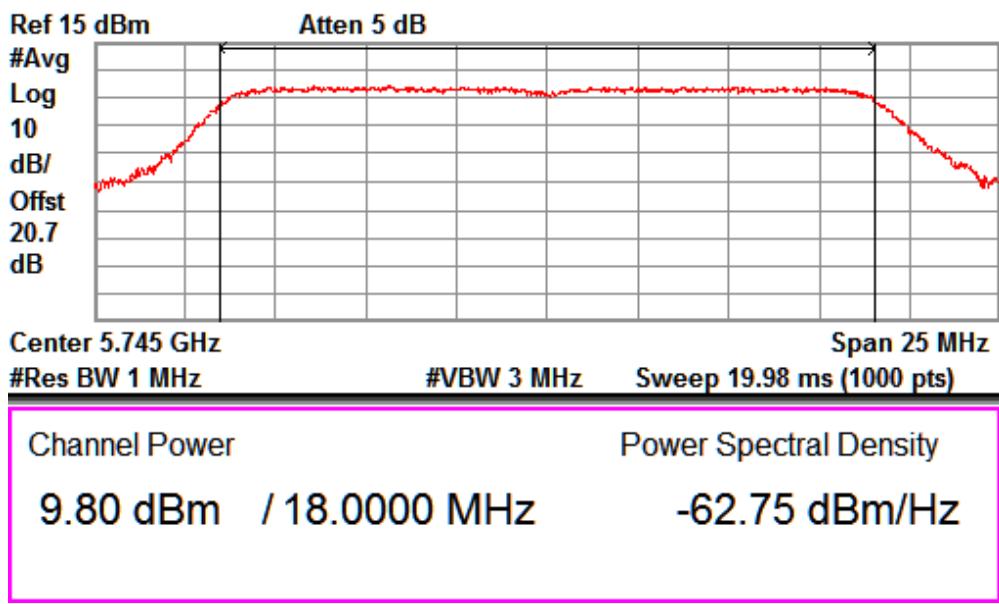
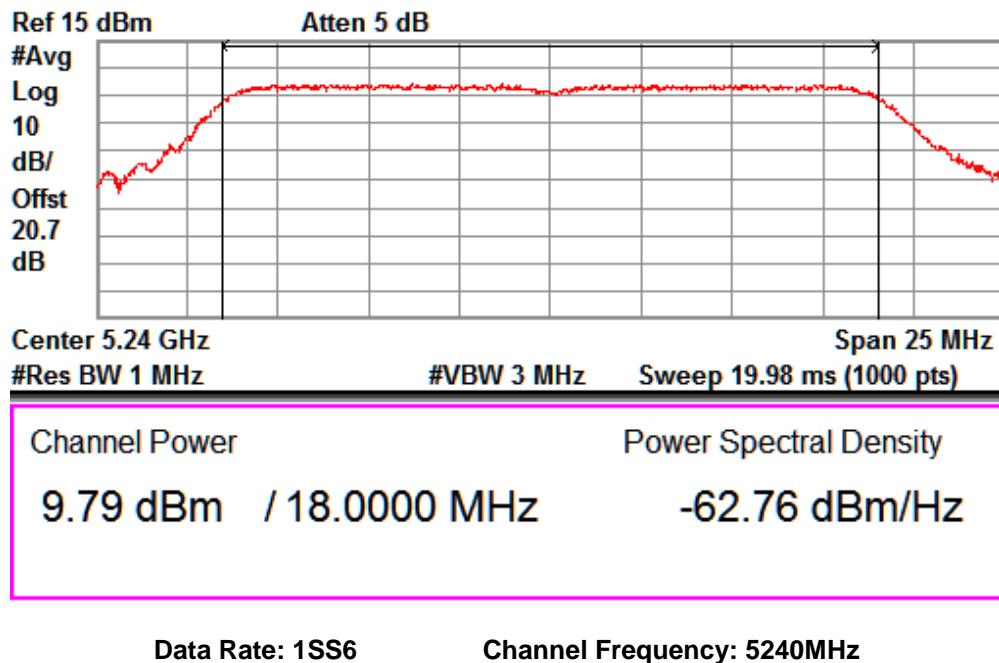
11.43 dBm / 18.0000 MHz

Power Spectral Density

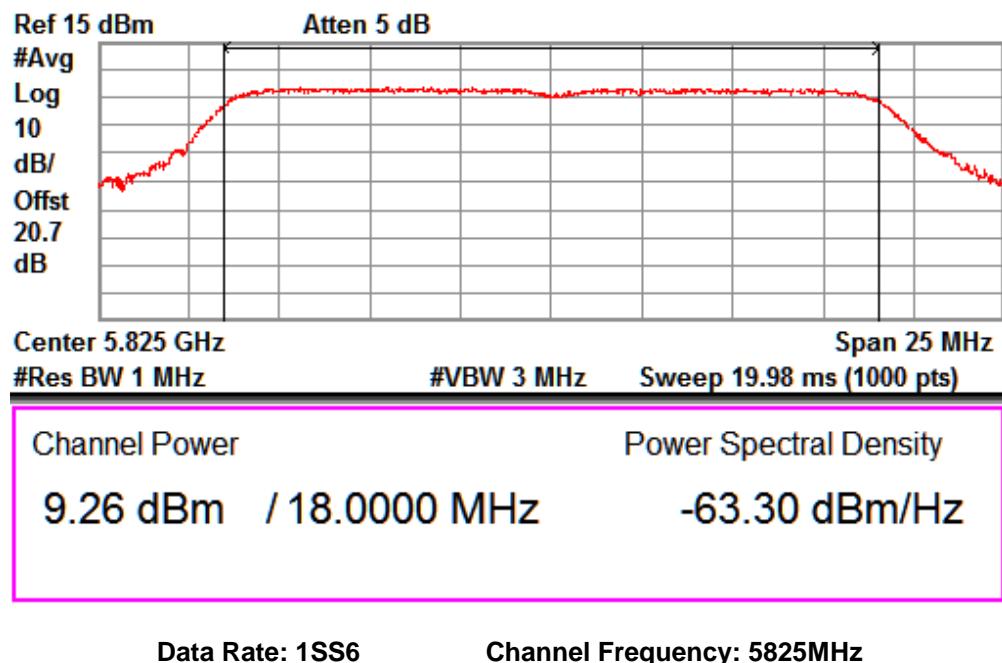
-61.12 dBm/Hz

Data Rate: 1SS6

Channel Frequency: 5180MHz

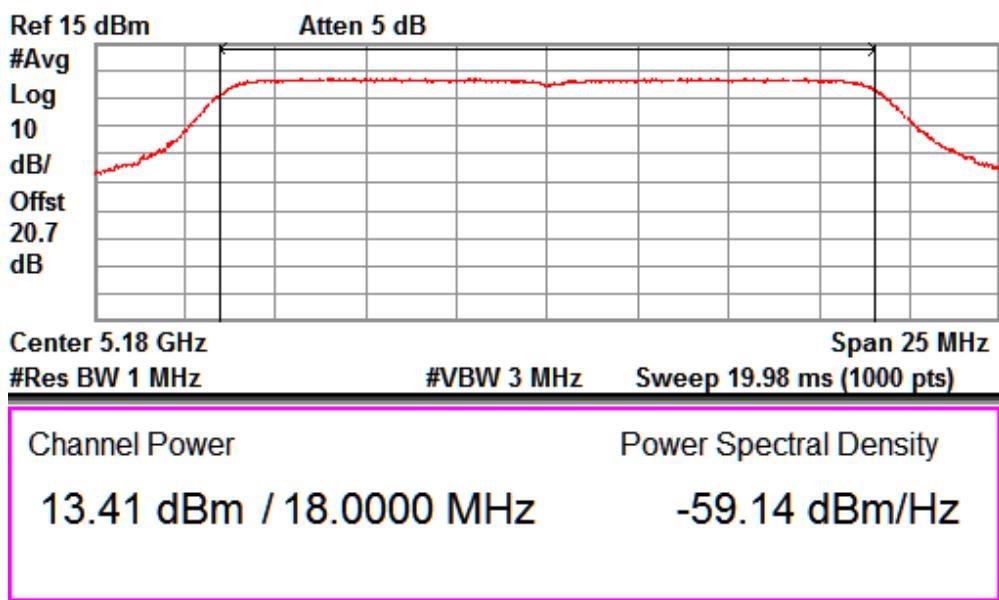


Data Rate: 1SS6      Channel Frequency: 5745MHz



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**Test results for Path C**

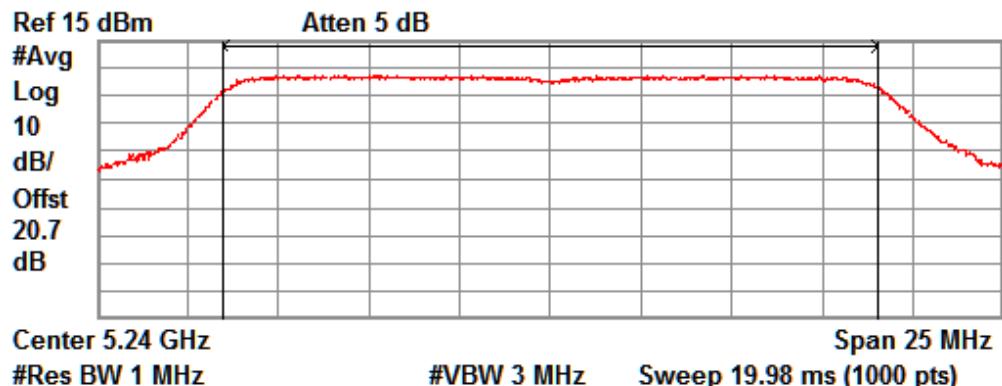
<b>IEEE802.11ac HT20</b>				
<b>Data Rate (Mbps)</b>	<b>Channel No.</b>	<b>Frequency (MHz)</b>	<b>Average Output power (dBm)</b>	<b>Average Power (mW)</b>
1SS0	36	5180	13.41	21.92
	48	5240	13.24	21.08
	149	5745	10.44	11.06
	165	5825	10	10
1SS3	36	5180	13.04	20.13
	48	5240	12.81	19.09
	149	5745	10.12	10.28
	165	5825	9.19	8.29
1SS6	36	5180	12.1	16.21
	48	5240	11.92	15.55
	149	5745	9.34	8.59
	165	5825	8.73	7.46



**Data Rate: 1SS0**

**Channel Frequency: 5180MHz**

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Channel Power

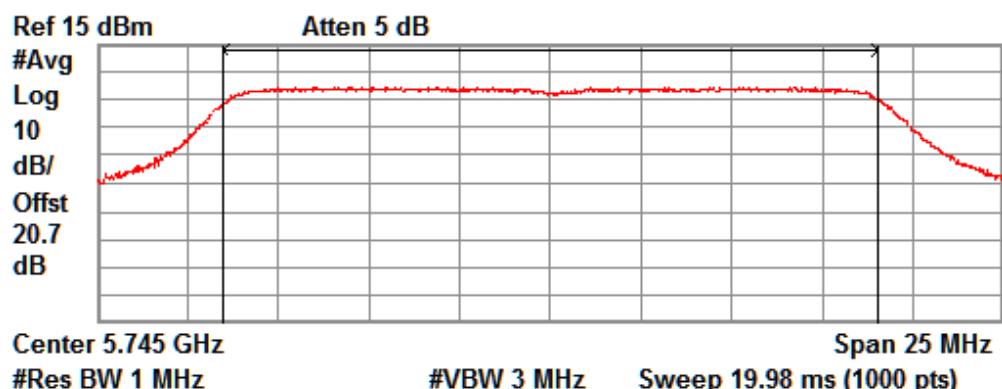
13.24 dBm / 18.0000 MHz

Power Spectral Density

-59.31 dBm/Hz

Data Rate: 1SS0

Channel Frequency: 5240MHz



Channel Power

10.44 dBm / 18.0000 MHz

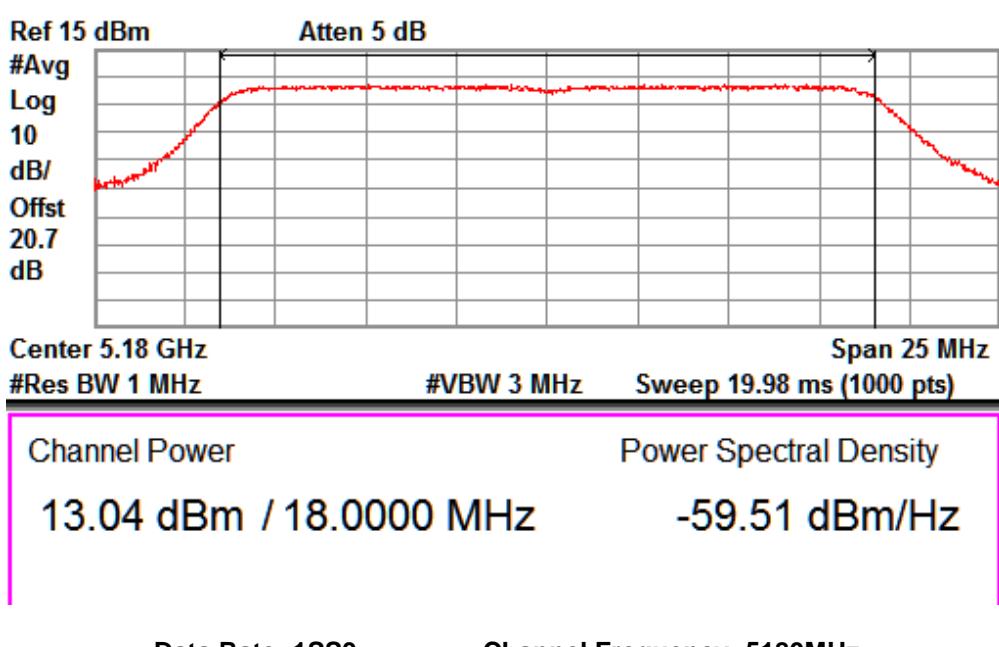
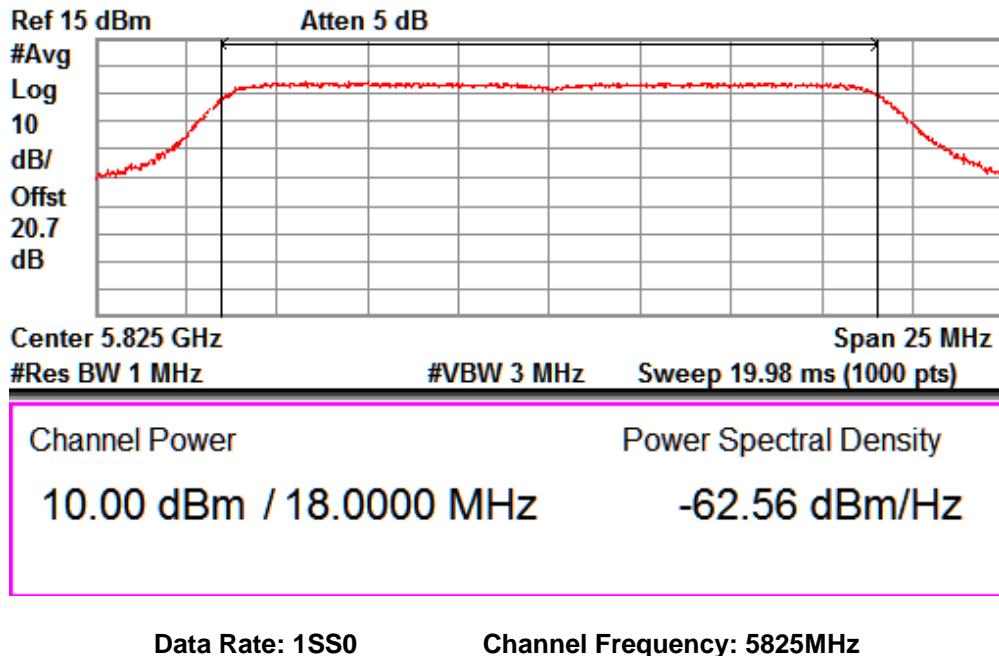
Power Spectral Density

-62.11 dBm/Hz

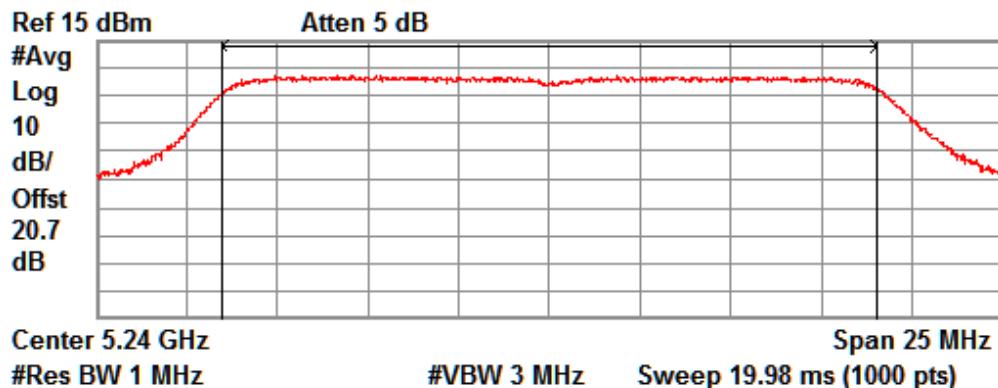
Data Rate: 1SS0

Channel Frequency: 5745MHz

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Channel Power

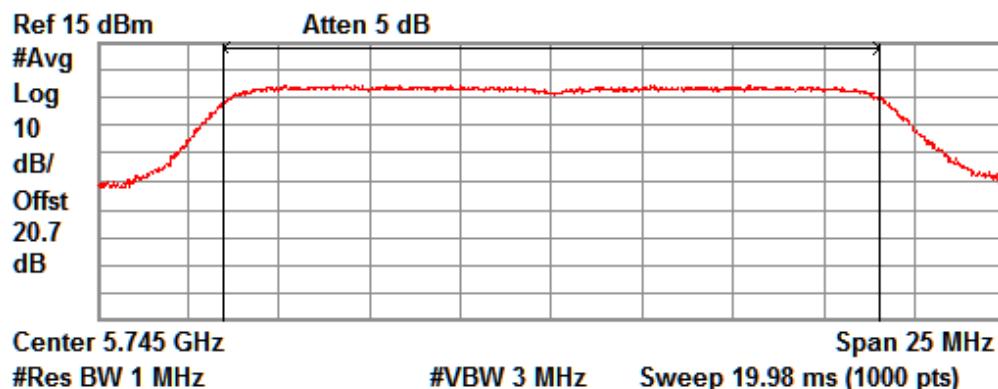
12.81 dBm / 18.0000 MHz

Power Spectral Density

-59.74 dBm/Hz

Data Rate: 1SS3

Channel Frequency: 5240MHz



Channel Power

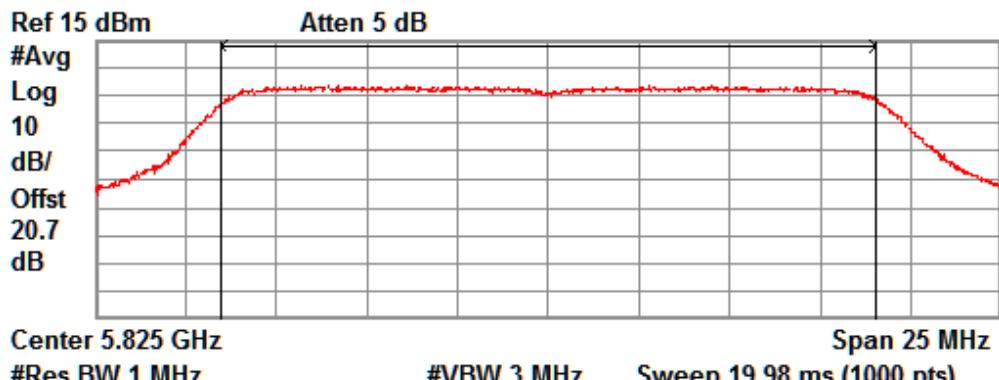
10.12 dBm / 18.0000 MHz

Power Spectral Density

-62.43 dBm/Hz

Data Rate: 1SS3

Channel Frequency: 5745MHz



Channel Power

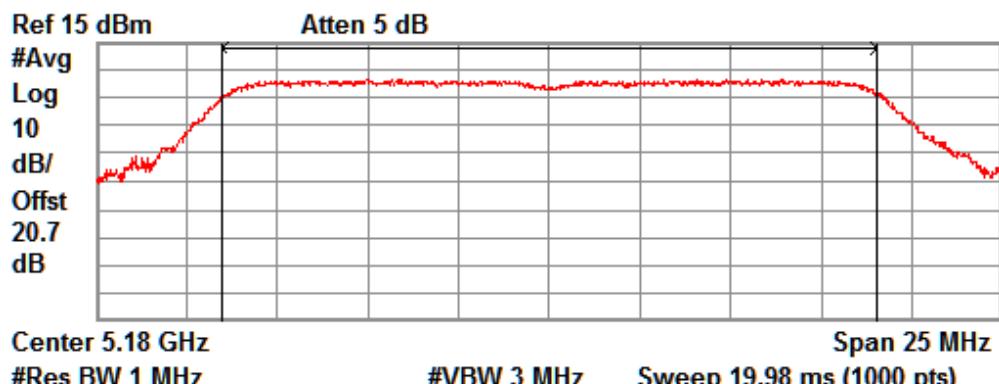
9.19 dBm / 18.0000 MHz

Power Spectral Density

-63.37 dBm/Hz

Data Rate: 1SS3

Channel Frequency: 5825MHz



Channel Power

12.10 dBm / 18.0000 MHz

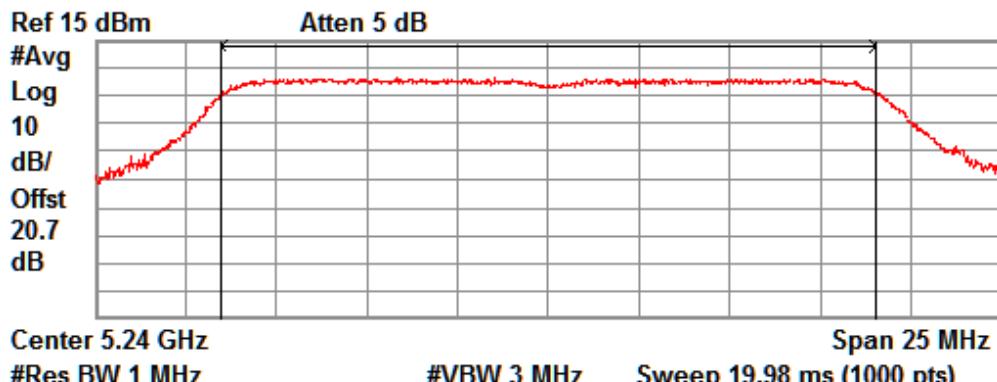
Power Spectral Density

-60.45 dBm/Hz

Data Rate: 1SS6

Channel Frequency: 5180MHz

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Channel Power

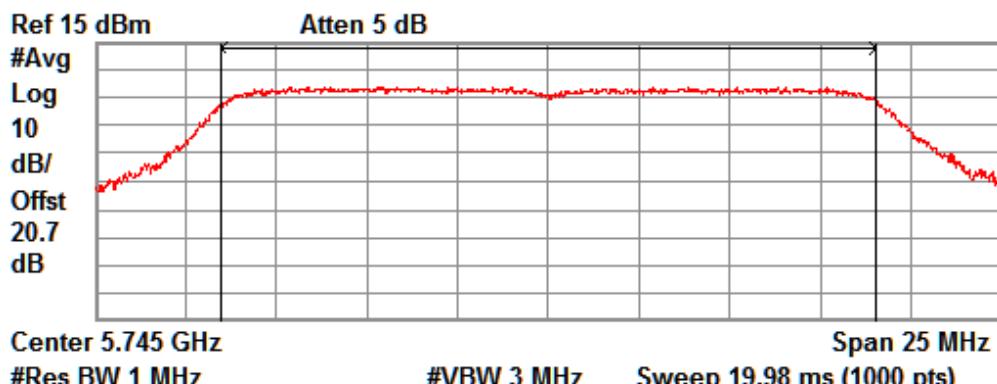
11.92 dBm / 18.0000 MHz

Power Spectral Density

-60.63 dBm/Hz

Data Rate: 1SS6

Channel Frequency: 5240MHz



Channel Power

9.34 dBm / 18.0000 MHz

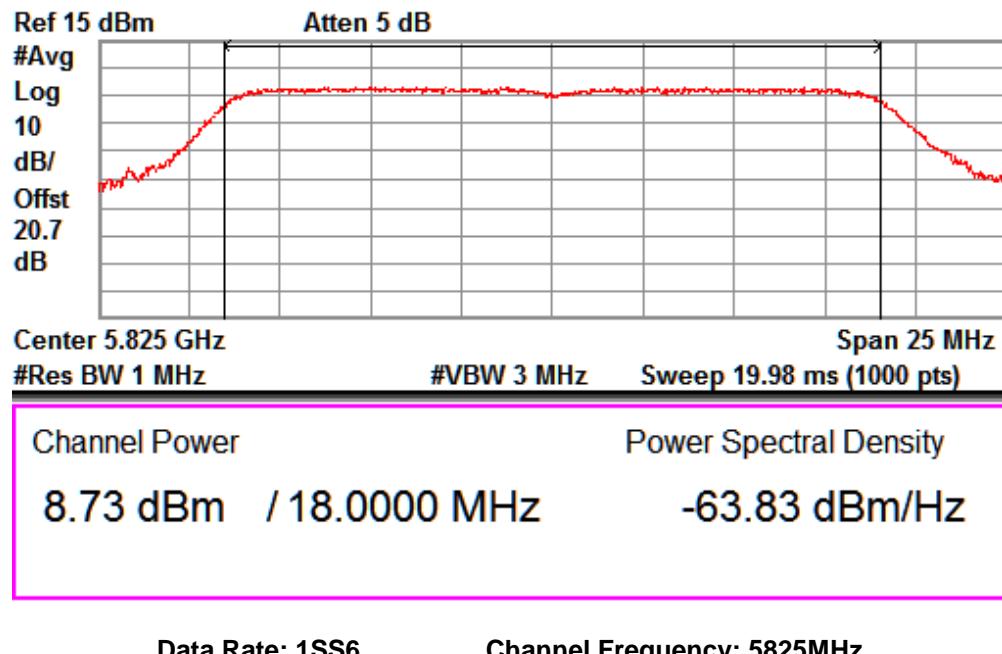
Power Spectral Density

-63.21 dBm/Hz

Data Rate: 1SS6

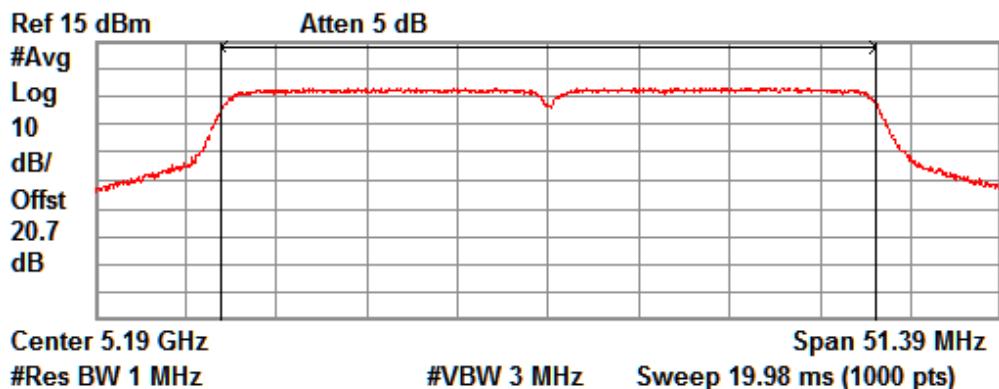
Channel Frequency: 5745MHz

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Test results for Path A

<b>IEEE802.11ac HT40</b>				
<b>Data Rate (Mbps)</b>	<b>Channel No.</b>	<b>Frequency (MHz)</b>	<b>Average Output power (dBm)</b>	<b>Average Power (mW)</b>
1SS0	38	5190	12.14	16.36
	46	5230	12.26	16.82
	151	5755	9.65	9.22
	159	5795	8.8	7.58
1SS3	38	5190	11.41	13.83
	46	5230	11.52	14.19
	151	5755	8.97	7.88
	159	5795	8.14	6.51
1SS6	38	5190	11.41	13.83
	46	5230	11.83	15.24
	151	5755	8.19	6.59
	159	5795	8.14	6.51



Channel Power

Power Spectral Density

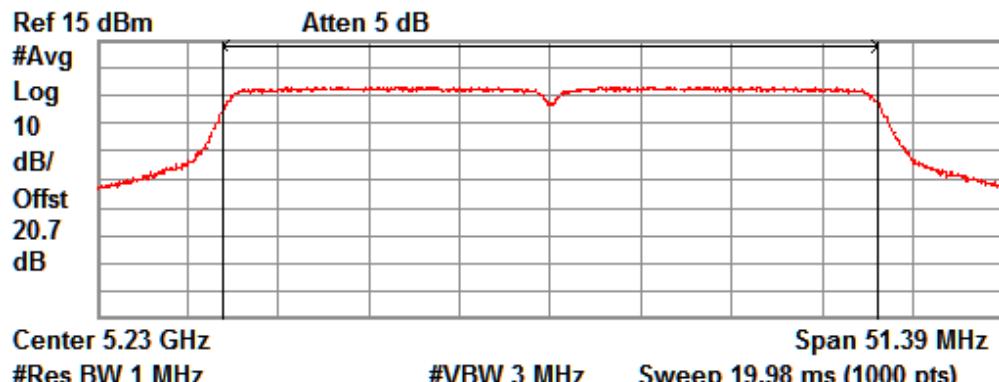
12.14 dBm / 37.0000 MHz

-63.54 dBm/Hz

Data Rate: 1SS0

Channel Frequency: 5190MHz

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Channel Power

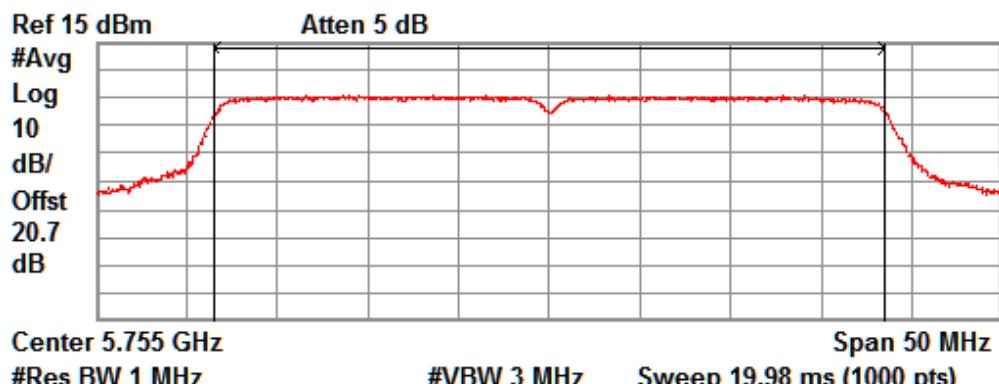
12.26 dBm / 37.0000 MHz

Power Spectral Density

-63.42 dBm/Hz

Data Rate: 1SS0

Channel Frequency: 5230MHz



Channel Power

9.65 dBm / 37.0000 MHz

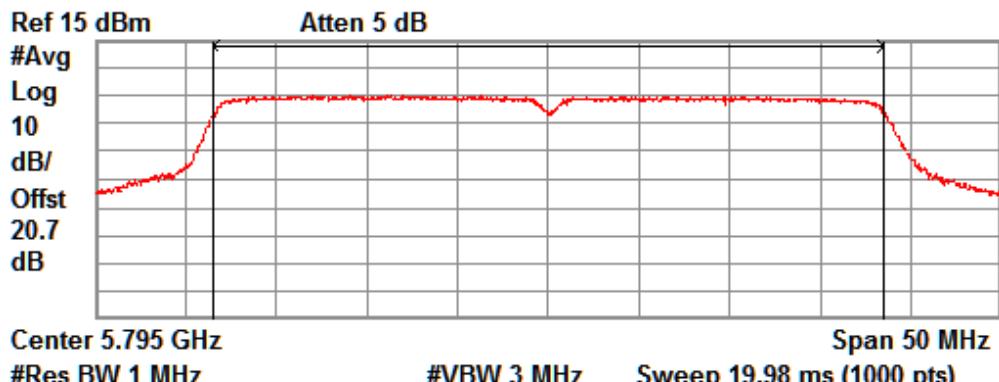
Power Spectral Density

-66.04 dBm/Hz

Data Rate: 1SS0

Channel Frequency: 5755MHz

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Channel Power

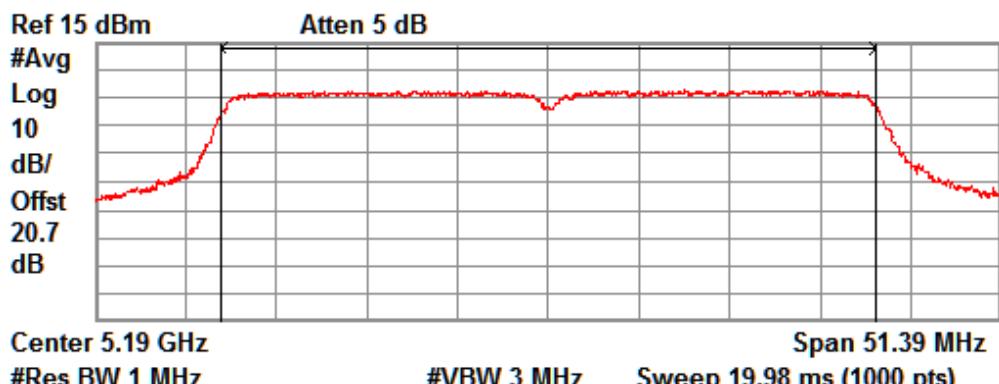
8.80 dBm / 37.0000 MHz

Power Spectral Density

-66.88 dBm/Hz

Data Rate: 1SS0

Channel Frequency: 5795MHz



Channel Power

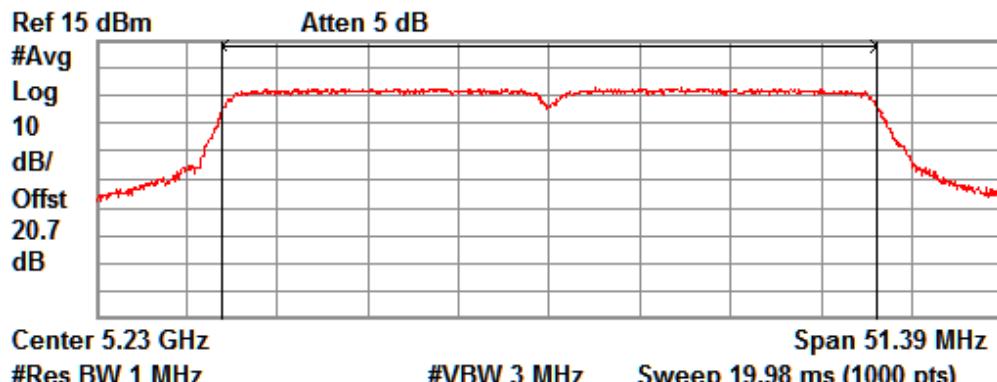
11.41 dBm / 37.0000 MHz

Power Spectral Density

-64.27 dBm/Hz

Data Rate: 1SS3

Channel Frequency: 5190MHz



Channel Power

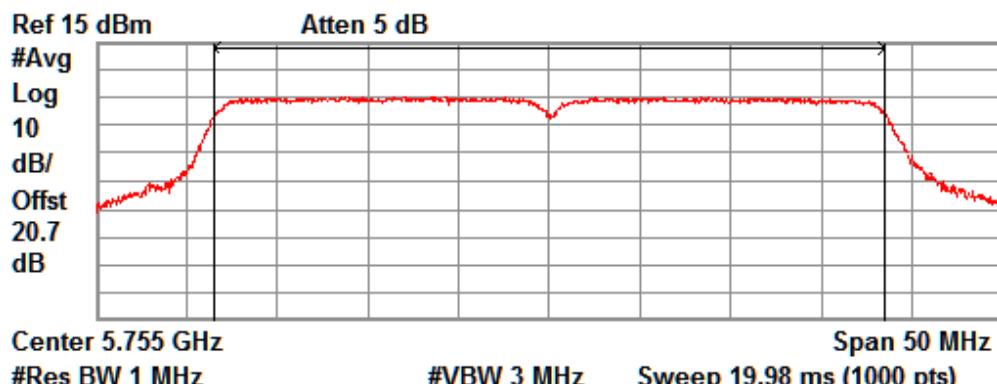
11.52 dBm / 37.0000 MHz

Power Spectral Density

-64.16 dBm/Hz

Data Rate: 1SS3

Channel Frequency: 5230MHz



Channel Power

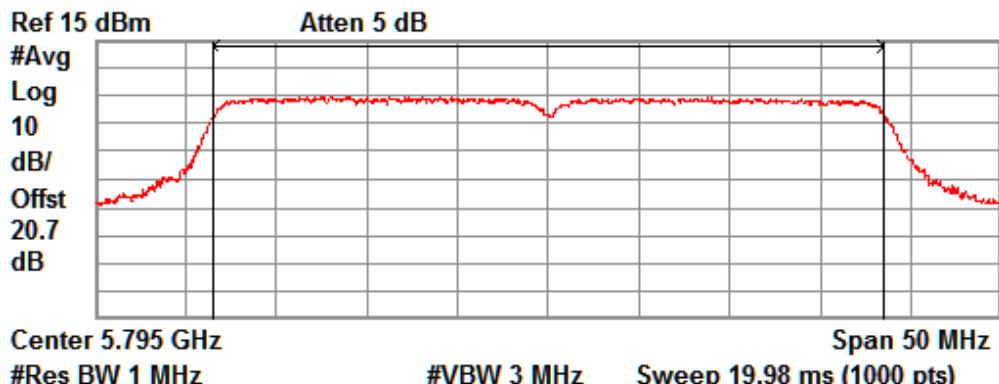
8.97 dBm / 37.0000 MHz

Power Spectral Density

-66.72 dBm/Hz

Data Rate: 1SS3

Channel Frequency: 5755MHz



Channel Power

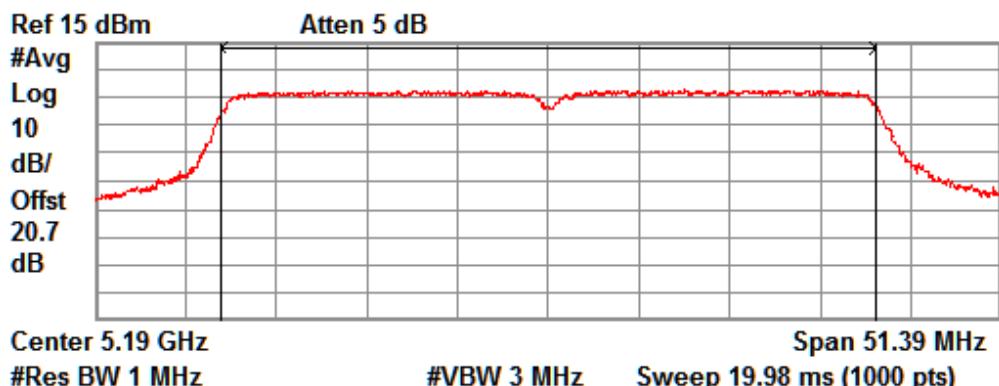
8.14 dBm / 37.0000 MHz

Power Spectral Density

-67.54 dBm/Hz

Data Rate: 1SS3

Channel Frequency: 5795MHz



Channel Power

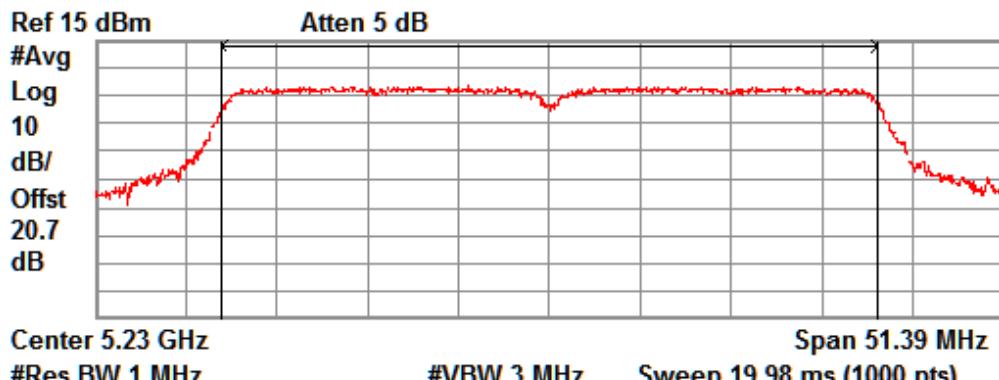
11.41 dBm / 37.0000 MHz

Power Spectral Density

-64.27 dBm/Hz

Data Rate: 1SS6

Channel Frequency: 5190MHz



Channel Power

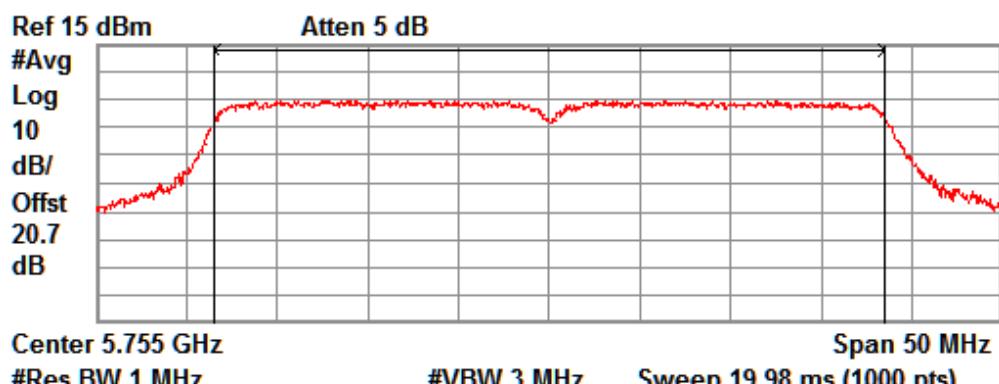
11.83 dBm / 37.0000 MHz

Power Spectral Density

-63.86 dBm/Hz

Data Rate: 1SS6

Channel Frequency: 5230MHz



Channel Power

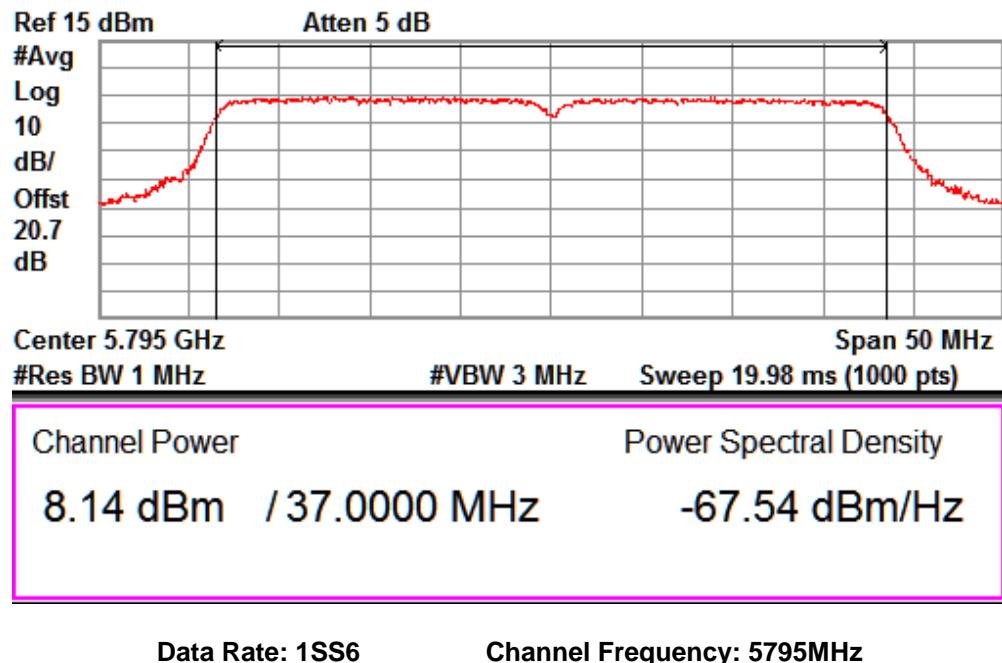
8.19 dBm / 37.0000 MHz

Power Spectral Density

-67.50 dBm/Hz

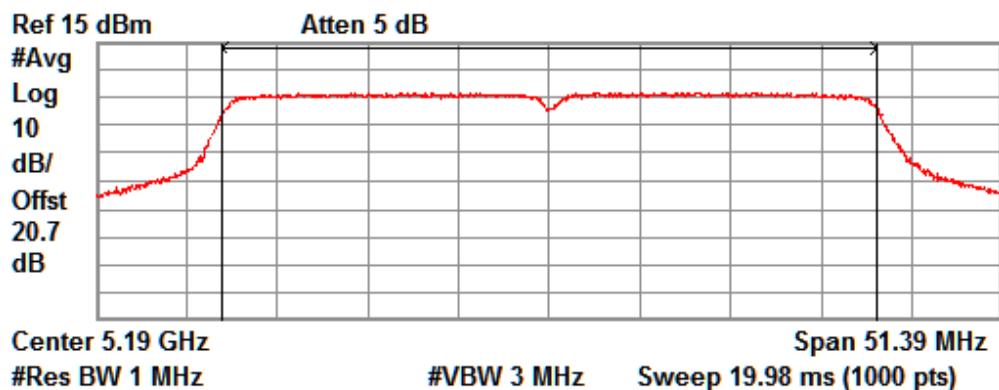
Data Rate: 1SS6

Channel Frequency: 5755MHz



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Test results for Path B

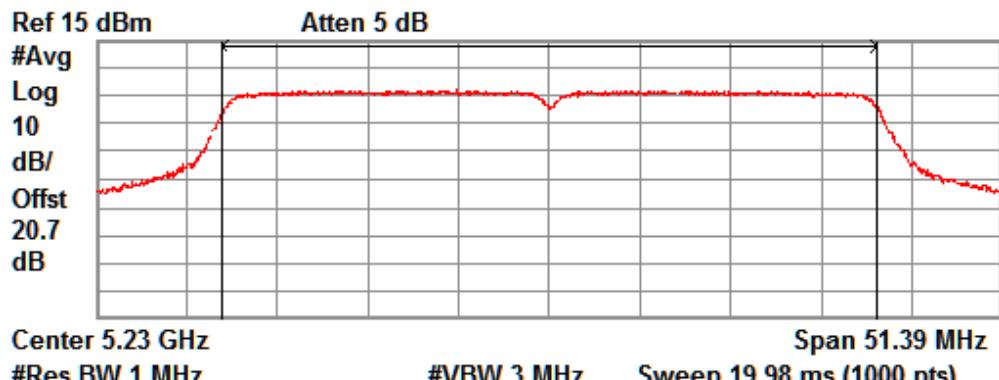
<b>IEEE802.11ac HT40</b>				
<b>Data Rate (Mbps)</b>	<b>Channel No.</b>	<b>Frequency (MHz)</b>	<b>Average Output power (dBm)</b>	<b>Average Power (mW)</b>
1SS0	38	5190	10.75	11.88
	46	5230	10.81	12.05
	151	5755	10.22	10.51
	159	5795	9.93	9.84
1SS3	38	5190	10.01	10.02
	46	5230	10.08	10.18
	151	5755	9.56	9.03
	159	5795	9.25	8.41
1SS6	38	5190	9.25	8.41
	46	5230	9.18	8.27
	151	5755	8.8	7.58
	159	5795	8.54	7.14



Channel Power	Power Spectral Density
10.75 dBm / 37.0000 MHz	-64.93 dBm/Hz

Data Rate: 1SS0

Channel Frequency: 5190MHz



Channel Power

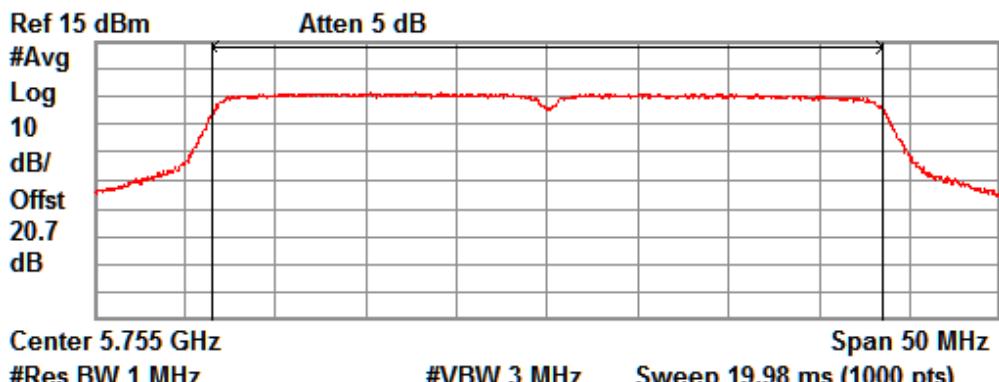
10.81 dBm / 37.0000 MHz

Power Spectral Density

-64.87 dBm/Hz

Data Rate: 1SS0

Channel Frequency: 5230MHz



Channel Power

10.22 dBm / 37.0000 MHz

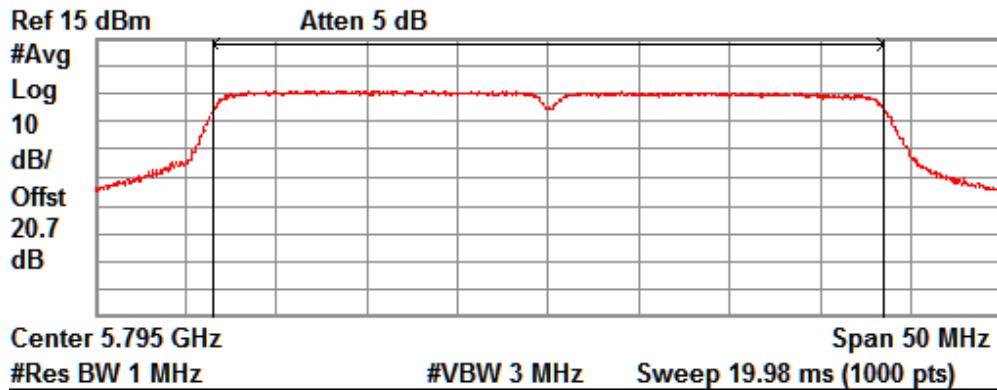
Power Spectral Density

-65.46 dBm/Hz

Data Rate: 1SS0

Channel Frequency: 5755MHz

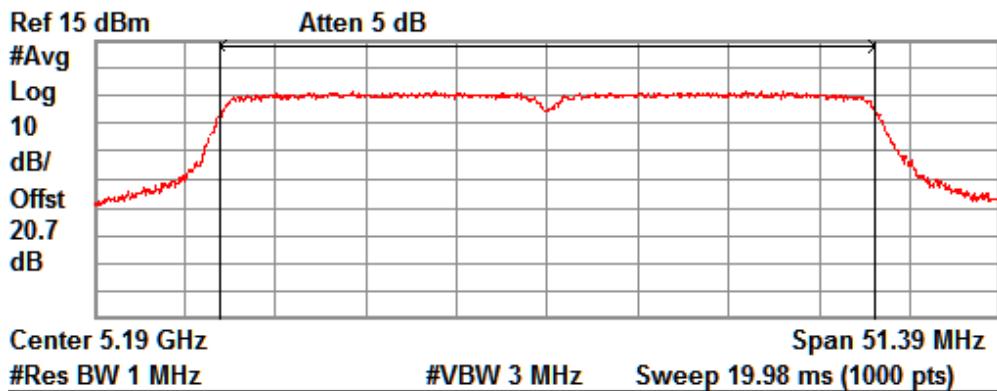
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Channel Power	Power Spectral Density
9.93 dBm / 37.0000 MHz	-65.75 dBm/Hz

Data Rate: 1SS0

Channel Frequency: 5795MHz

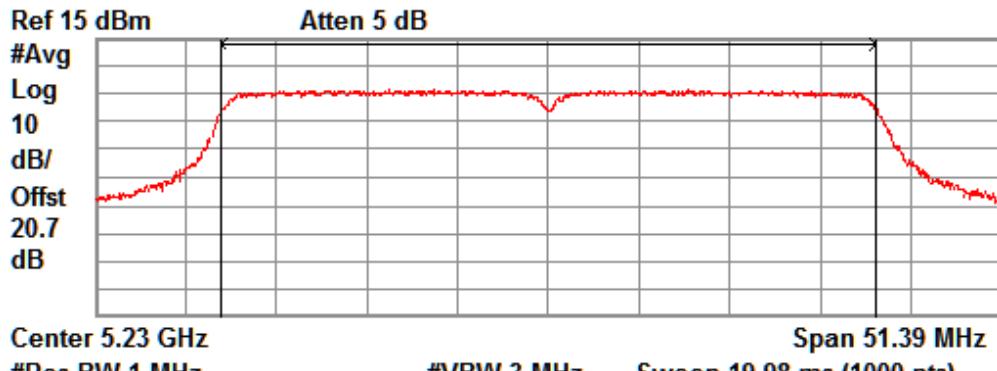


Channel Power	Power Spectral Density
10.01 dBm / 37.0000 MHz	-65.67 dBm/Hz

Data Rate: 1SS3

Channel Frequency: 5190MHz

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Channel Power

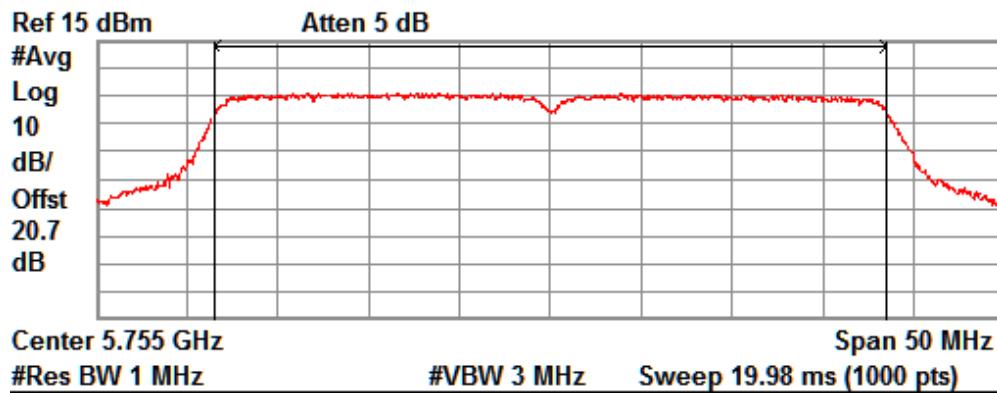
10.08 dBm / 37.0000 MHz

Power Spectral Density

-65.60 dBm/Hz

Data Rate: 1SS3

Channel Frequency: 5230MHz



Channel Power

9.56 dBm / 37.0000 MHz

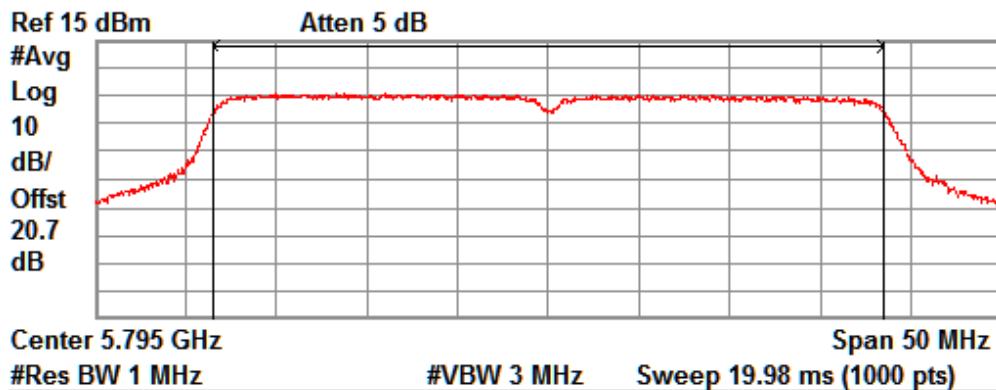
Power Spectral Density

-66.13 dBm/Hz

Data Rate: 1SS3

Channel Frequency: 5755MHz

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Channel Power

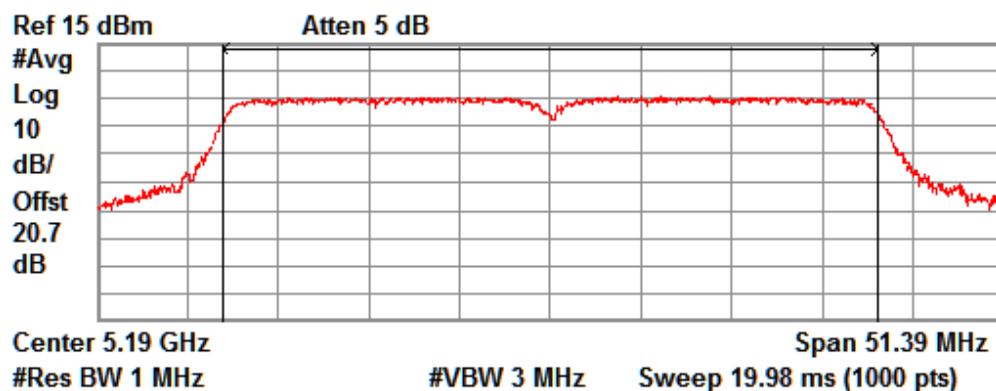
9.25 dBm / 37.0000 MHz

Power Spectral Density

-66.43 dBm/Hz

Data Rate: 1SS3

Channel Frequency: 5795MHz



Channel Power

9.25 dBm / 37.0000 MHz

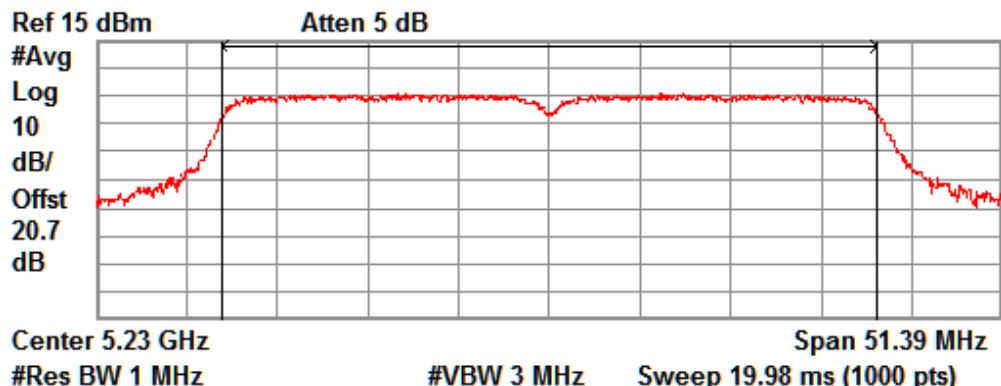
Power Spectral Density

-66.43 dBm/Hz

Data Rate: 1SS6

Channel Frequency: 5190MHz

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Channel Power

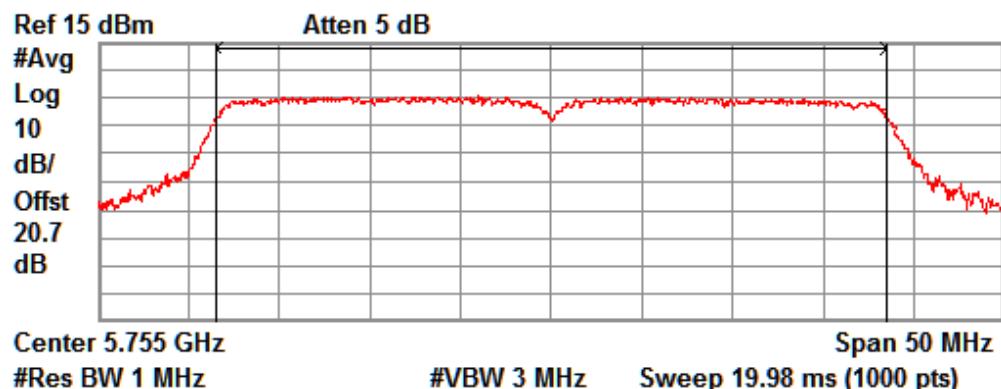
9.18 dBm / 37.0000 MHz

Power Spectral Density

-66.50 dBm/Hz

Data Rate: 1SS6

Channel Frequency: 5230MHz



Channel Power

8.80 dBm / 37.0000 MHz

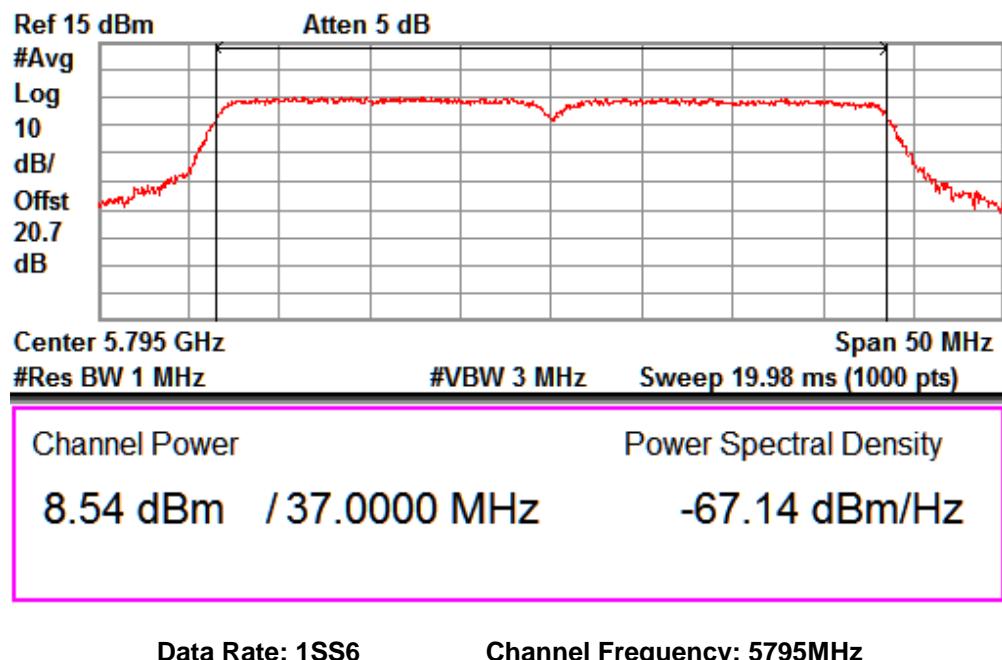
Power Spectral Density

-66.88 dBm/Hz

Data Rate: 1SS6

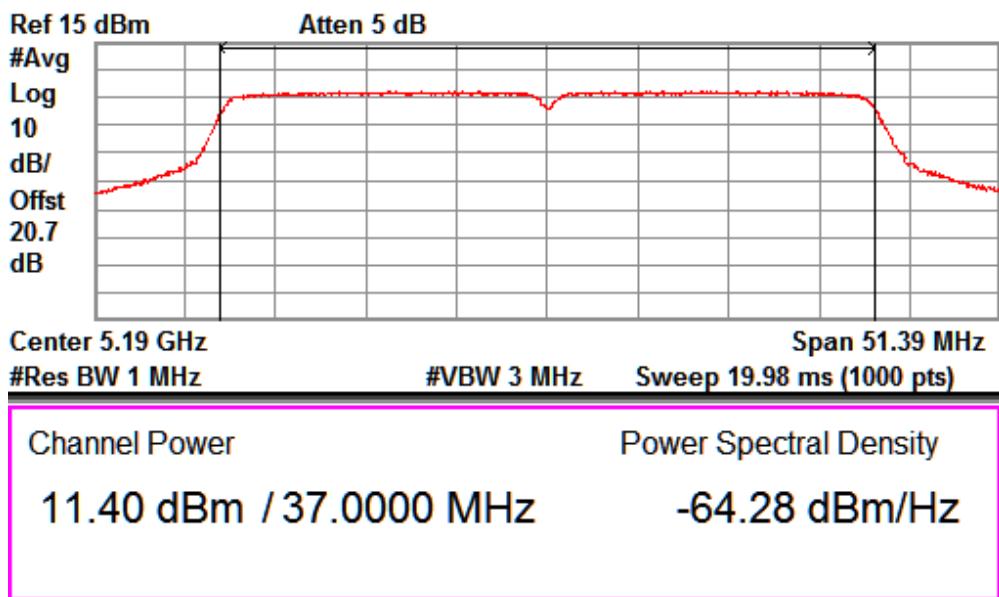
Channel Frequency: 5755MHz

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**Test results for Path C**

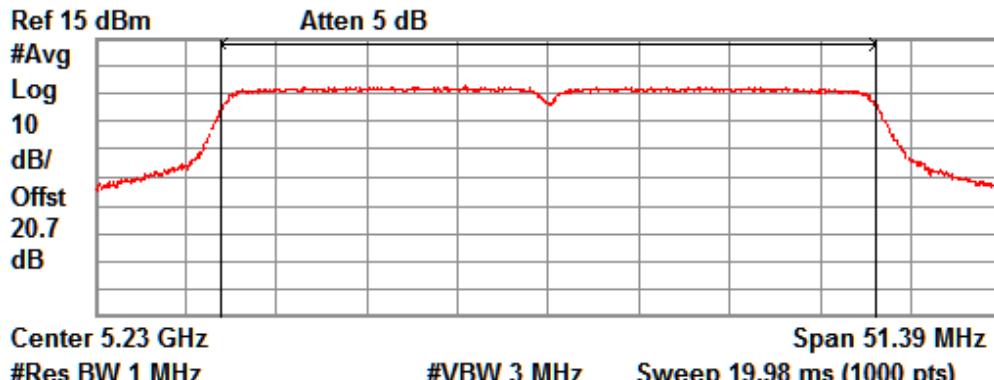
<b>IEEE802.11ac HT40</b>				
<b>Data Rate (Mbps)</b>	<b>Channel No.</b>	<b>Frequency (MHz)</b>	<b>Average Output power (dBm)</b>	<b>Average Power (mW)</b>
1SS0	38	5190	11.4	13.80
	46	5230	11.4	13.80
	151	5755	9.97	9.93
	159	5795	9.51	8.93
1SS3	38	5190	10.62	11.53
	46	5230	10.63	11.56
	151	5755	9.28	8.47
	159	5795	8.89	7.74
1SS6	38	5190	9.78	9.50
	46	5230	9.8	9.54
	151	5755	8.54	7.14
	159	5795	8.14	6.51



**Data Rate: 1SS0**

**Channel Frequency: 5190MHz**

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Channel Power

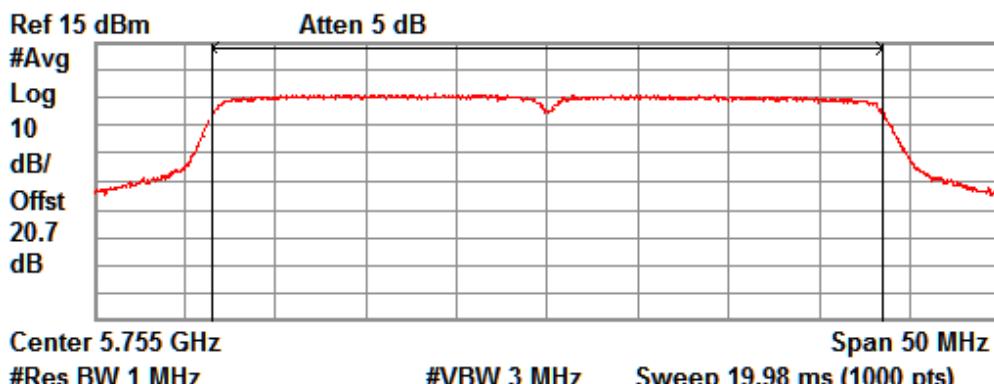
11.40 dBm / 37.0000 MHz

Power Spectral Density

-64.28 dBm/Hz

Data Rate: 1SS0

Channel Frequency: 5230MHz



Channel Power

9.97 dBm / 37.0000 MHz

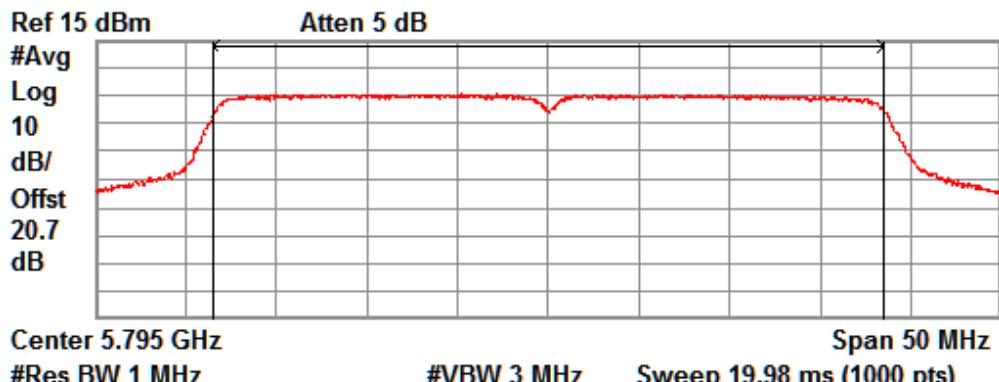
Power Spectral Density

-65.72 dBm/Hz

Data Rate: 1SS0

Channel Frequency: 5755MHz

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Channel Power

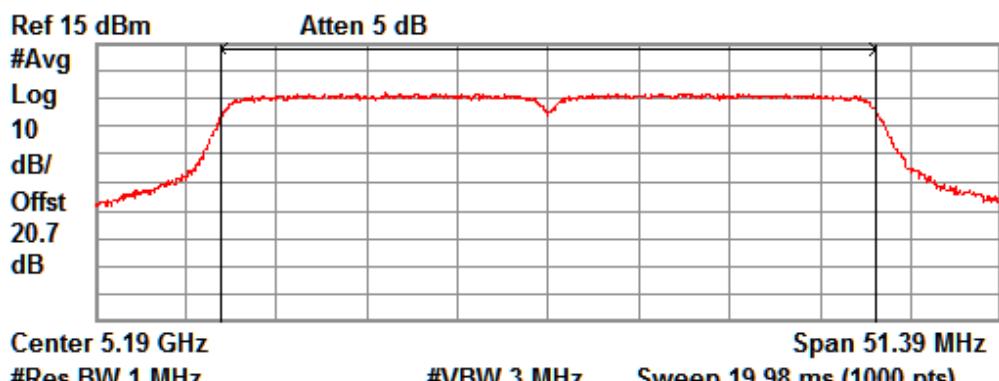
9.51 dBm / 37.0000 MHz

Power Spectral Density

-66.18 dBm/Hz

Data Rate: 1SS0

Channel Frequency: 5795MHz



Channel Power

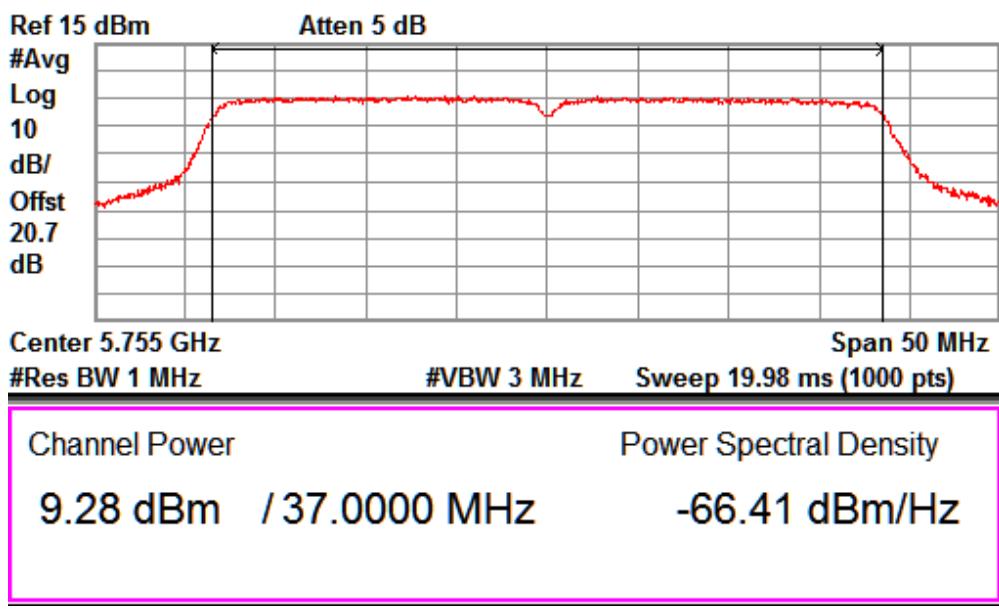
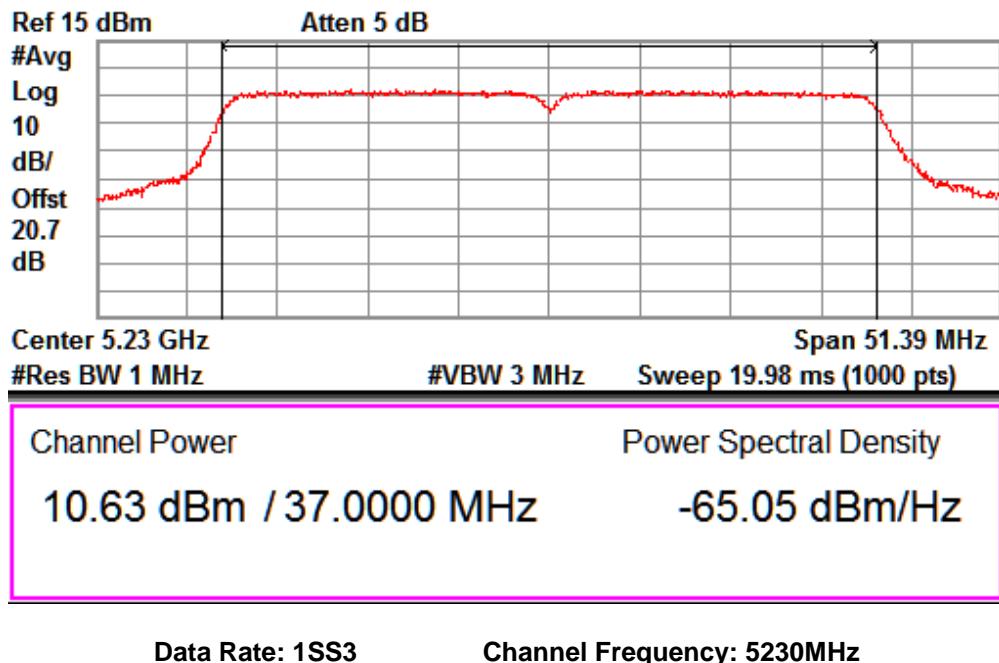
10.62 dBm / 37.0000 MHz

Power Spectral Density

-65.06 dBm/Hz

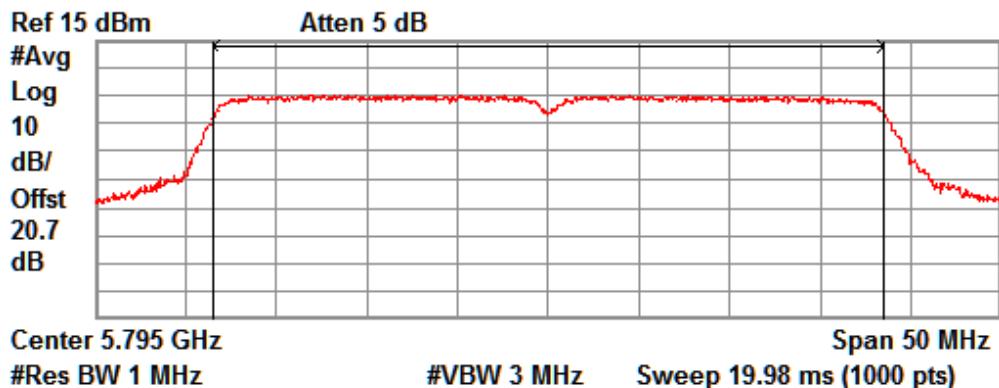
Data Rate: 1SS3

Channel Frequency: 5190MHz



Data Rate: 1SS3      Channel Frequency: 5755MHz

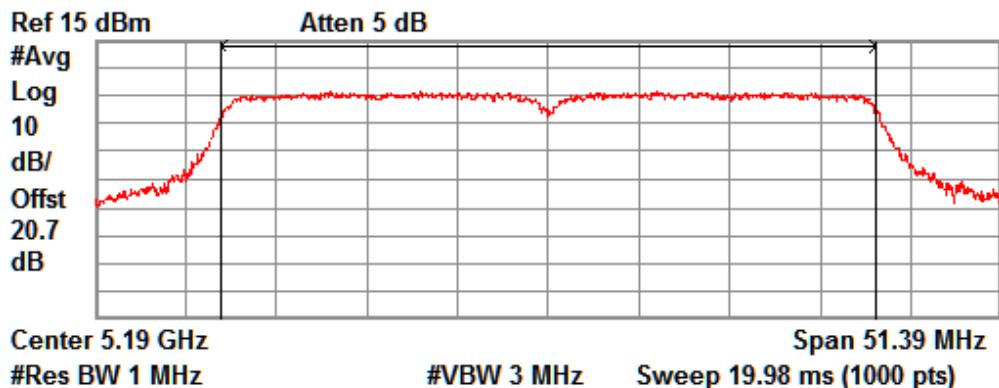
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Channel Power	Power Spectral Density
8.89 dBm / 37.0000 MHz	-66.79 dBm/Hz

Data Rate: 1SS3

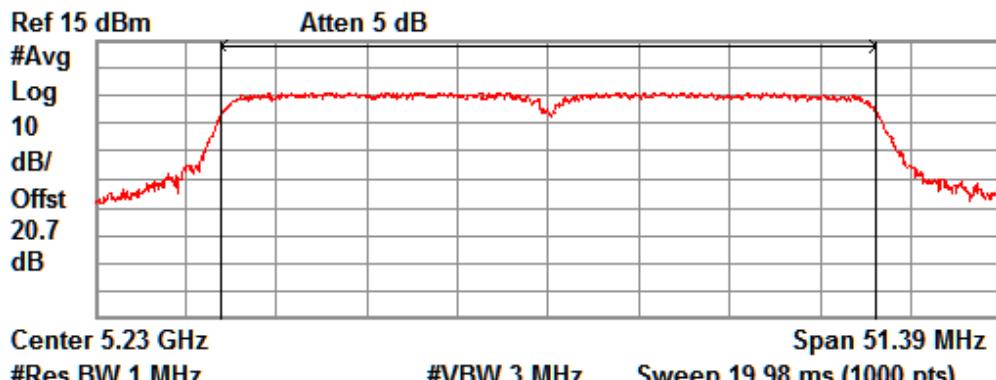
Channel Frequency: 5795MHz



Channel Power	Power Spectral Density
9.78 dBm / 37.0000 MHz	-65.90 dBm/Hz

Data Rate: 1SS6

Channel Frequency: 5190MHz



Channel Power

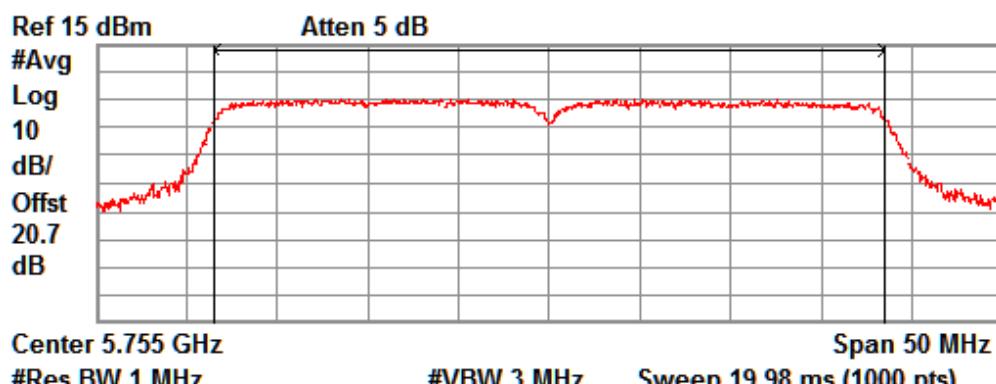
9.80 dBm / 37.0000 MHz

Power Spectral Density

-65.88 dBm/Hz

Data Rate: 1SS6

Channel Frequency: 5230MHz



Channel Power

8.54 dBm / 37.0000 MHz

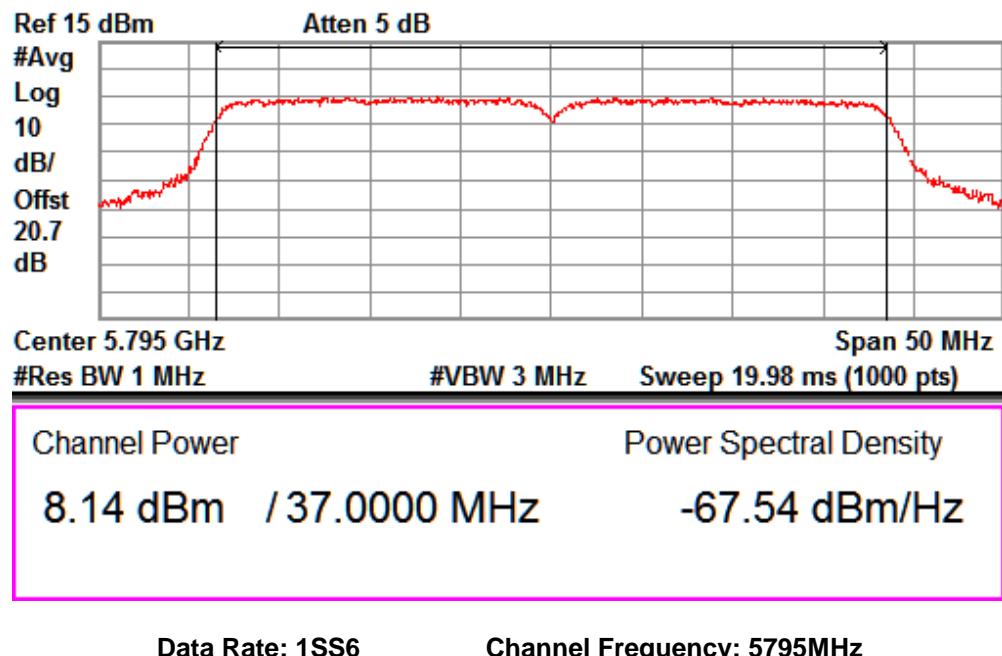
Power Spectral Density

-67.14 dBm/Hz

Data Rate: 1SS6

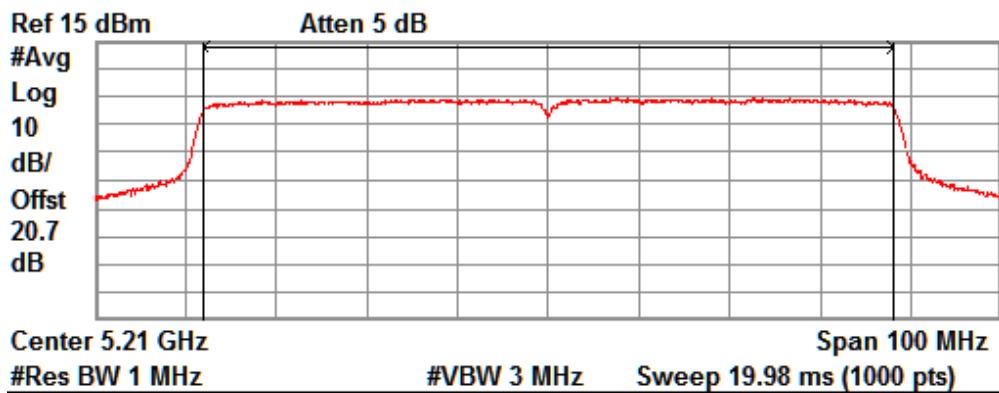
Channel Frequency: 5755MHz

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Test results for Path A

<b>IEEE802.11ac HT80</b>				
<b>Data Rate (Mbps)</b>	<b>Channel No.</b>	<b>Frequency (MHz)</b>	<b>Average Output power (dBm)</b>	<b>Average Power (mW)</b>
1SS0	42	5210	11.38	13.74
	155	5775	6.72	4.69
1SS3	42	5210	10.08	10.18
	155	5775	5.53	3.57
1SS6	42	5210	11.36	13.62
	155	5775	5.34	3.41

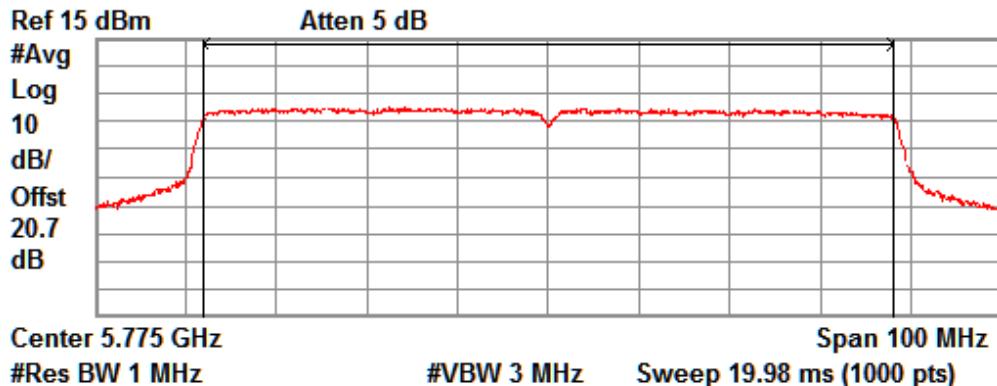


Channel Power <b>11.38 dBm / 76.0000 MHz</b>	Power Spectral Density <b>-67.43 dBm/Hz</b>
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Data Rate: 1SS0

Channel Frequency: 5210MHz

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Channel Power

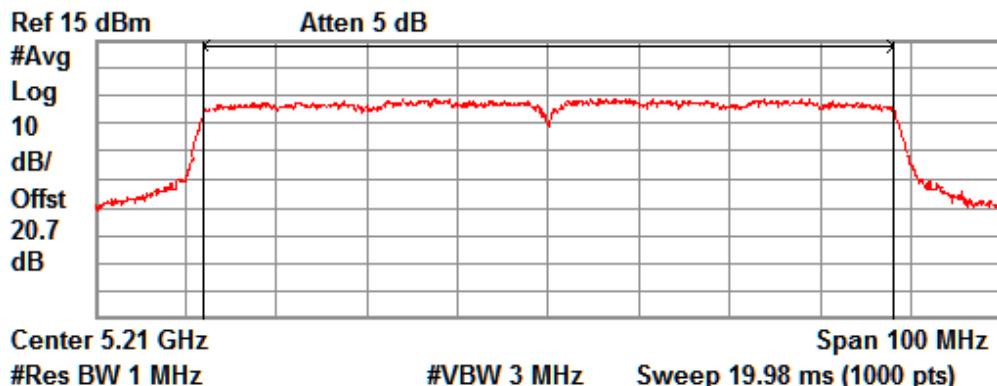
6.72 dBm / 76.0000 MHz

Power Spectral Density

-72.09 dBm/Hz

Data Rate: 1SS0

Channel Frequency: 5775MHz



Channel Power

10.08 dBm / 76.0000 MHz

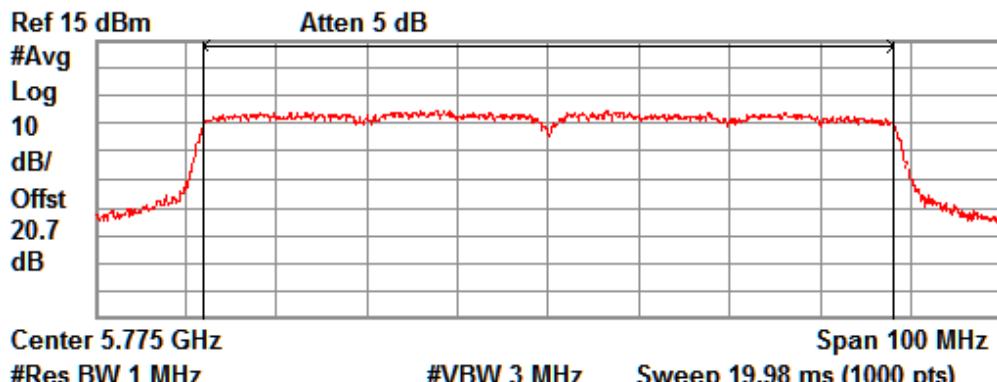
Power Spectral Density

-68.73 dBm/Hz

Data Rate: 1SS3

Channel Frequency: 5210MHz

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Channel Power

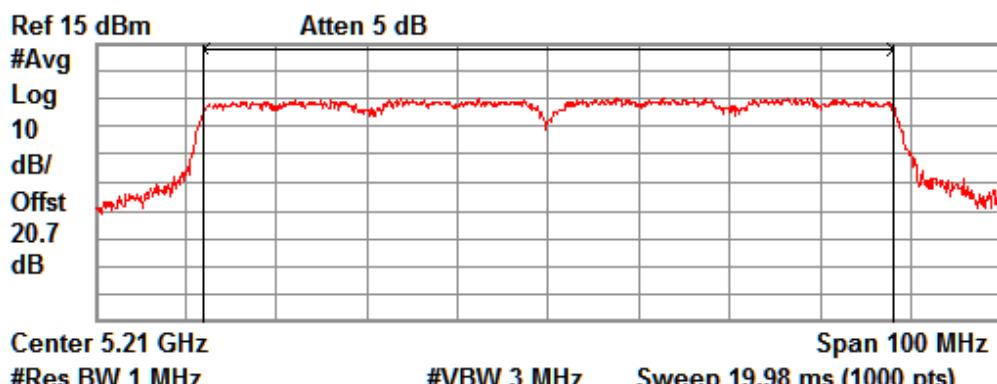
5.53 dBm / 76.0000 MHz

Power Spectral Density

-73.28 dBm/Hz

Data Rate: 1SS3

Channel Frequency: 5775MHz



Channel Power

11.36 dBm / 76.0000 MHz

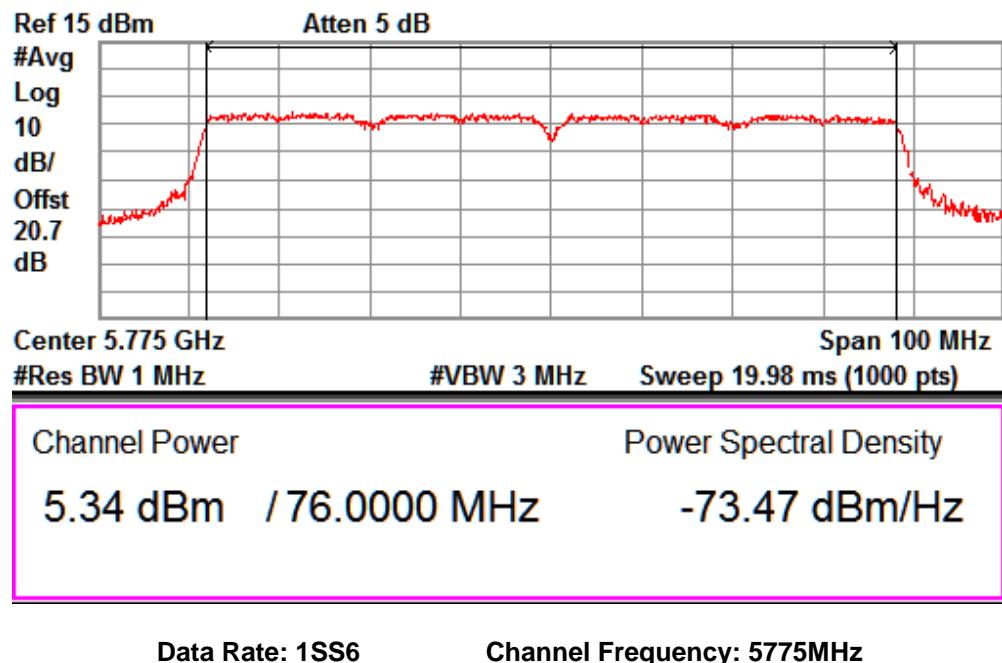
Power Spectral Density

-67.45 dBm/Hz

Data Rate: 1SS6

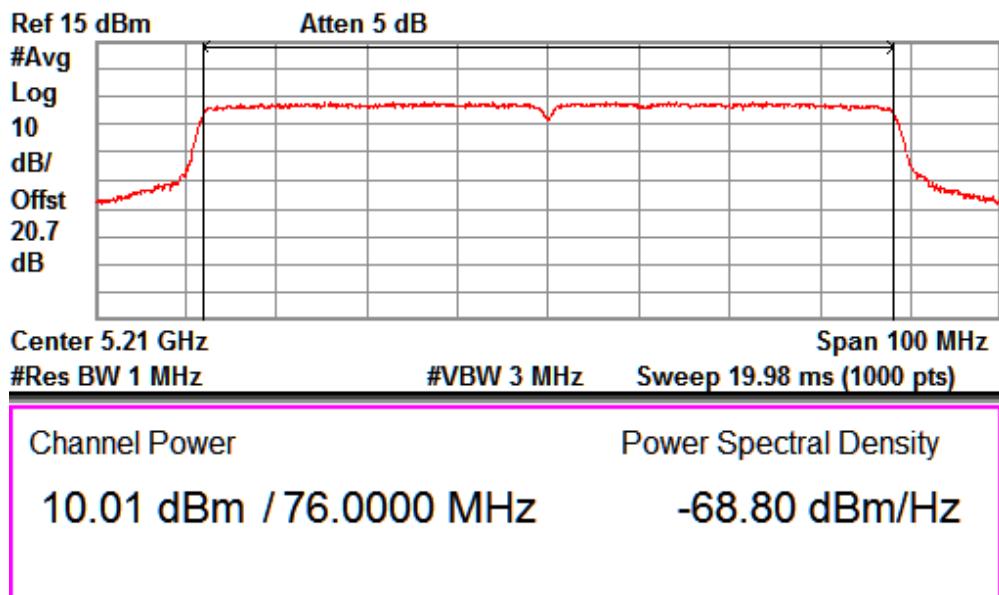
Channel Frequency: 5210Hz

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Test results for Path B

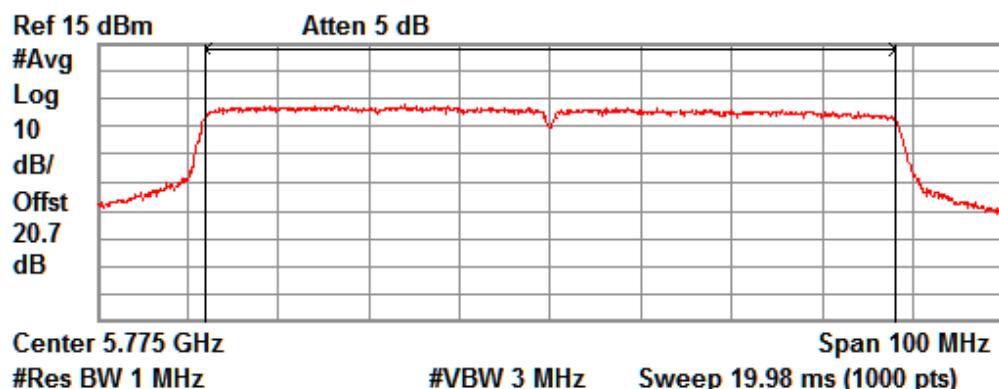
<b>IEEE802.11ac HT80</b>				
<b>Data Rate (Mbps)</b>	<b>Channel No.</b>	<b>Frequency (MHz)</b>	<b>Average Output power (dBm)</b>	<b>Average Power (mW)</b>
1SS0	42	5210	10.01	10.02
	155	5775	8.81	7.60
1SS3	42	5210	8.75	7.49
	155	5775	7.68	5.86
1SS6	42	5210	8.39	6.90
	155	5775	7.47	5.58



Data Rate: 1SS0

Channel Frequency: 5210MHz

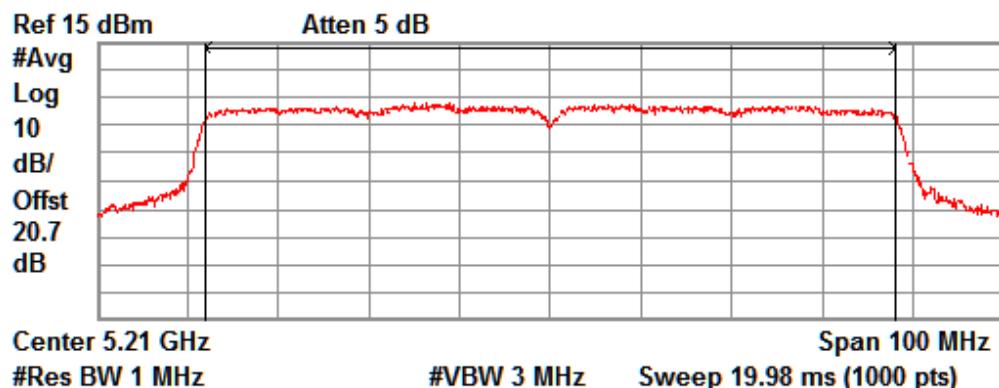
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Channel Power	Power Spectral Density
8.81 dBm / 76.0000 MHz	-70.00 dBm/Hz

Data Rate: 1SS0

Channel Frequency: 5775MHz

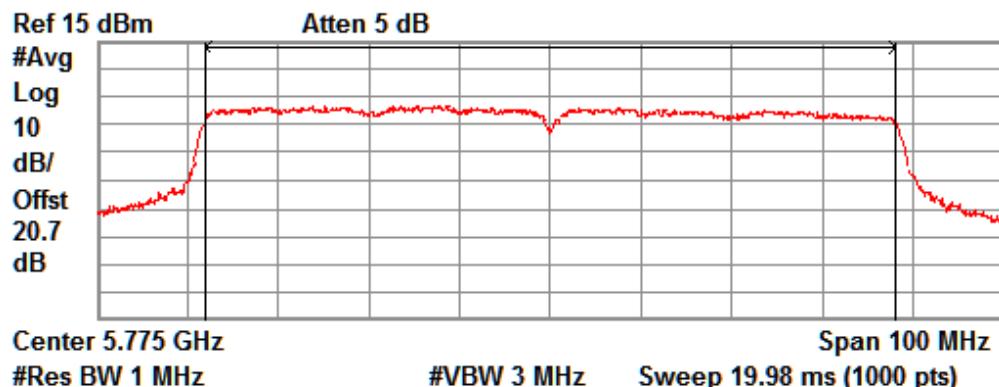


Channel Power	Power Spectral Density
8.75 dBm / 76.0000 MHz	-70.06 dBm/Hz

Data Rate: 1SS3

Channel Frequency: 5210MHz

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Channel Power

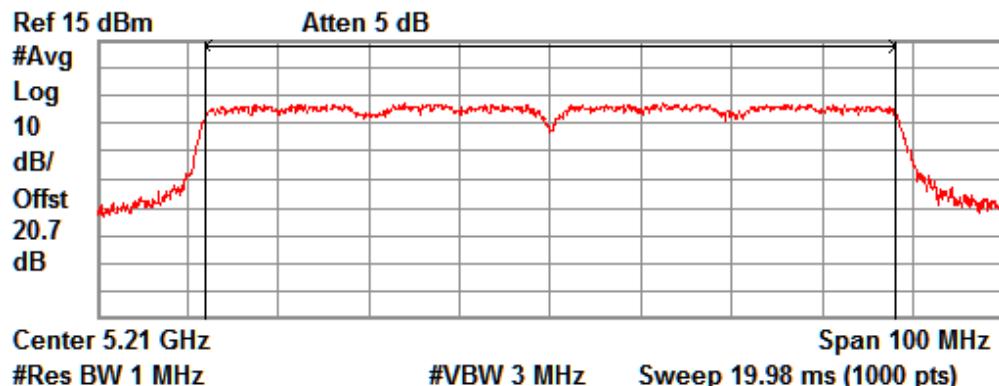
7.68 dBm / 76.0000 MHz

Power Spectral Density

-71.13 dBm/Hz

Data Rate: 1SS3

Channel Frequency: 5775MHz



Channel Power

8.39 dBm / 76.0000 MHz

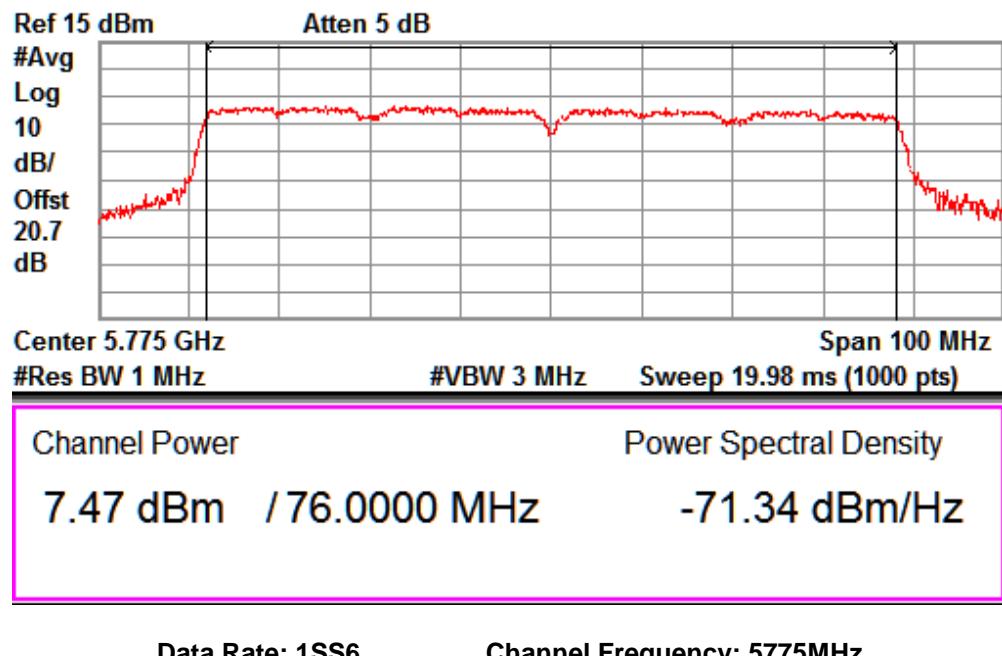
Power Spectral Density

-70.41 dBm/Hz

Data Rate: 1SS6

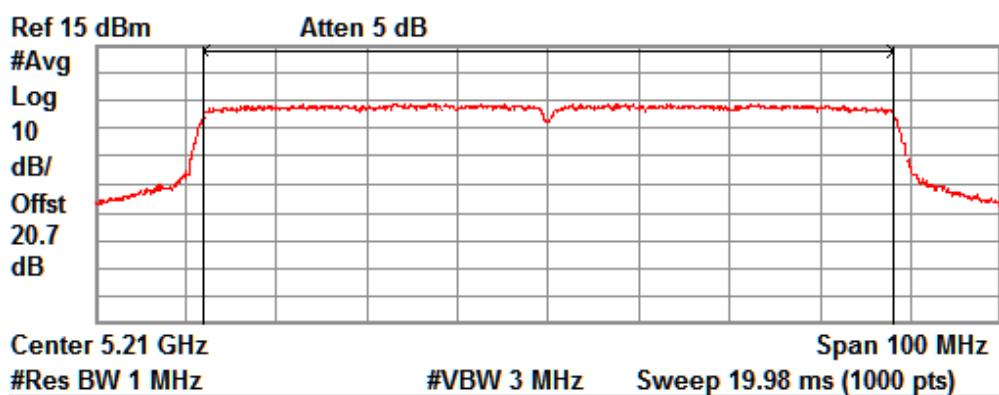
Channel Frequency: 5210Hz

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Test results for Path C

<b>IEEE802.11ac HT80</b>				
<b>Data Rate (Mbps)</b>	<b>Channel No.</b>	<b>Frequency (MHz)</b>	<b>Average Output power (dBm)</b>	<b>Average Power (mW)</b>
1SS0	42	5210	10.78	11.96
	155	5775	9.1	8.12
1SS3	42	5210	9.47	8.85
	155	5775	7.85	6.09
1SS6	42	5210	9.16	8.24
	155	5775	7.64	5.80



Channel Power

Power Spectral Density

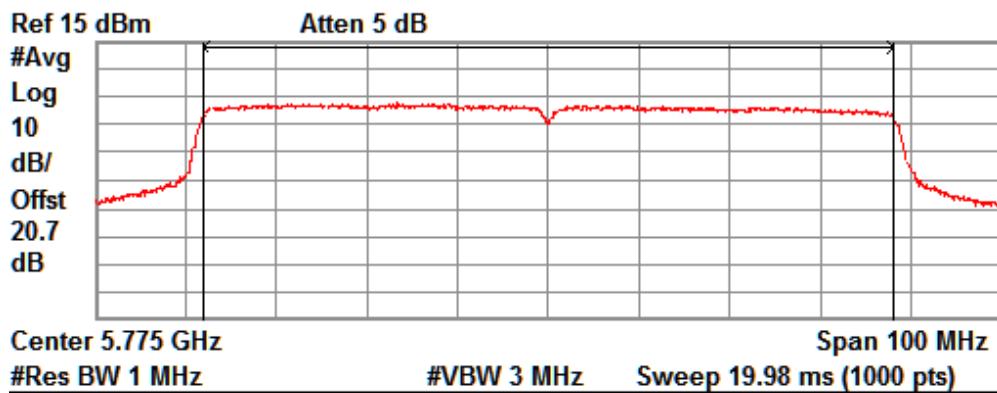
10.78 dBm / 76.0000 MHz

-68.03 dBm/Hz

Data Rate: 1SS0

Channel Frequency: 5210MHz

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Channel Power

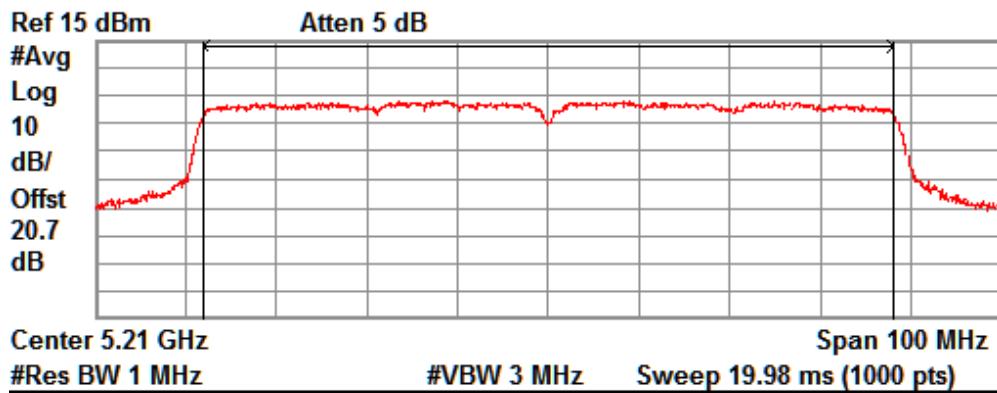
9.10 dBm / 76.0000 MHz

Power Spectral Density

-69.71 dBm/Hz

Data Rate: 1SS0

Channel Frequency: 5775MHz



Channel Power

9.47 dBm / 76.0000 MHz

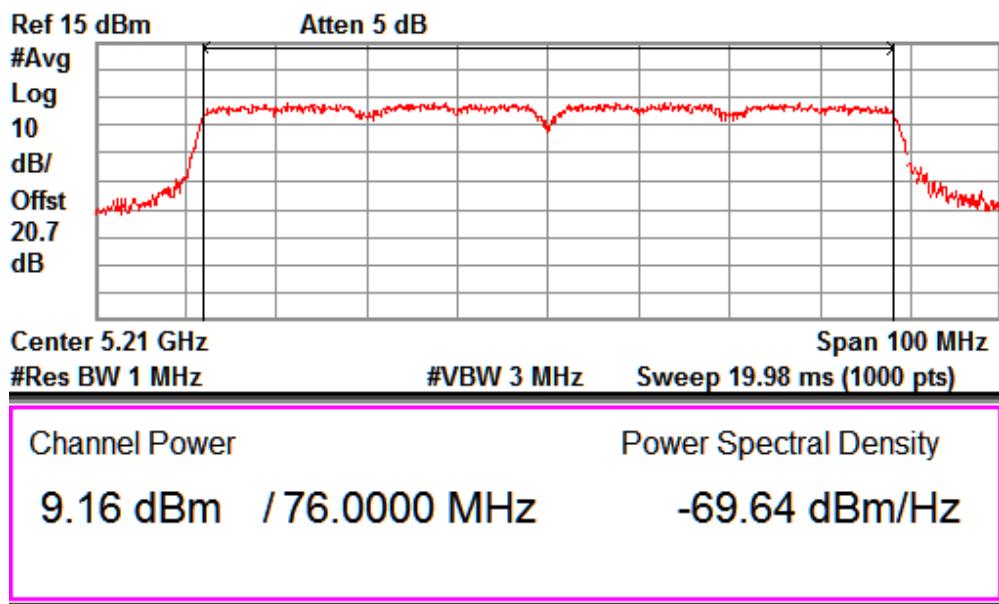
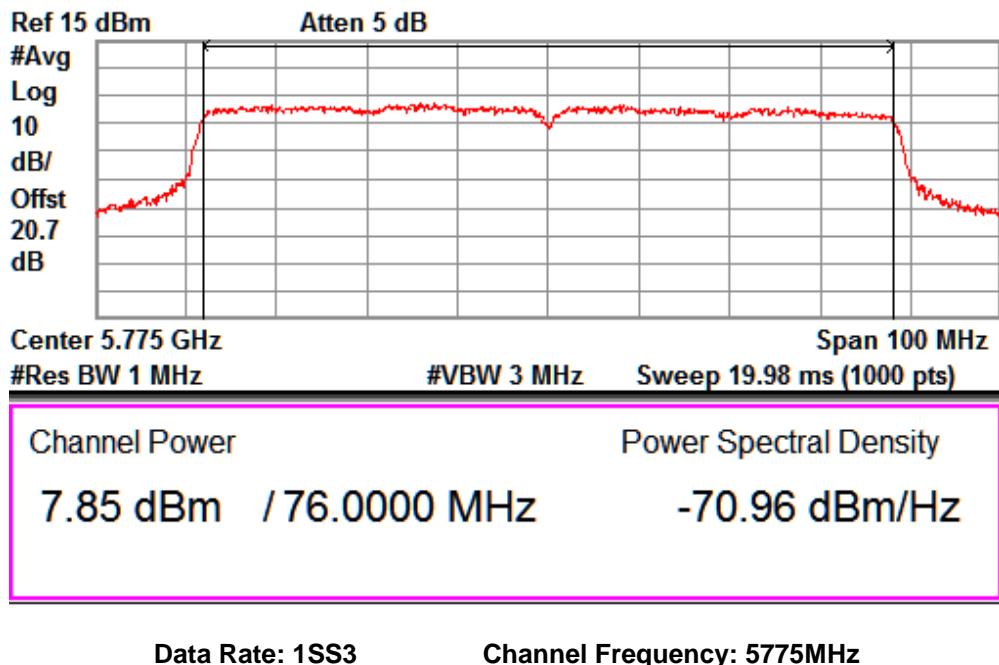
Power Spectral Density

-69.34 dBm/Hz

Data Rate: 1SS3

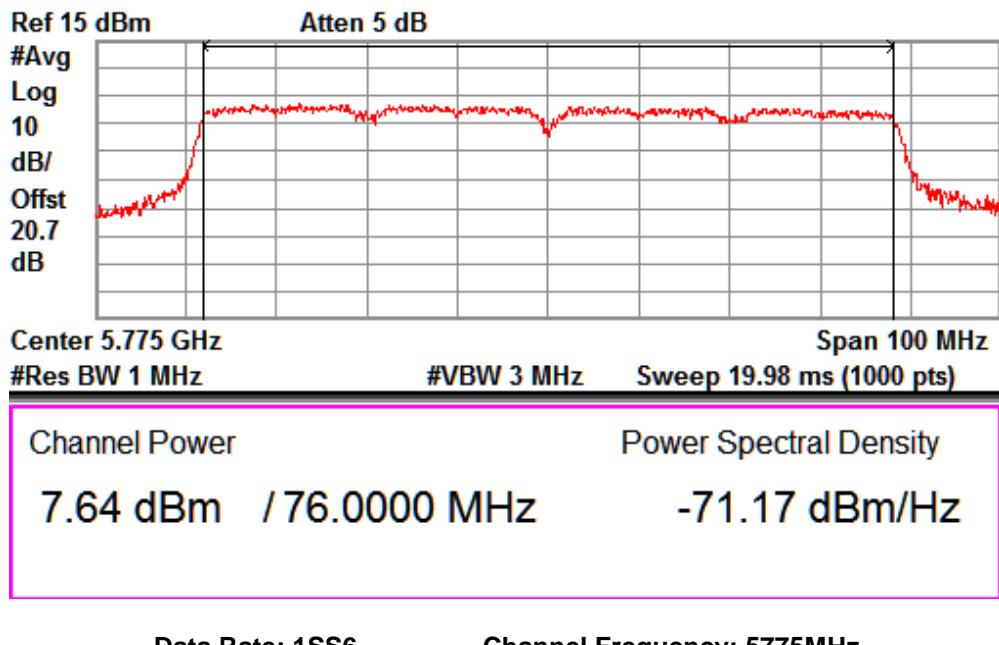
Channel Frequency: 5210MHz

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Data Rate: 1SS6

Channel Frequency: 5210Hz


**Data Rate: 1SS6**
**Channel Frequency: 5775MHz**

IEEE802.11ac 20MHz Channel								
Data Rate (Mbps)	Channel No	Channel frequency (MHz)	Average Power (mW) Path A	Average Power (mW) Path B	Average Power (mW) Path C	Total Average Power (mW)	Total Average Power (dBm)	Limit (dBm)
1SS0	36	5180	26.42	21.28	21.92	69.63	18.42	24
	48	5240	26.60	17.49	21.08	65.19	18.14	24
	149	5745	10.47	15.13	11.06	36.67	15.64	26.23
	165	5825	6.87	11.06	10	27.93	14.46	26.23
1SS3	36	5180	21.28	19.72	20.13	61.14	17.86	24
	48	5240	21.57	18.62	19.09	59.29	17.73	24
	149	5745	9.46	14.15	10.28	33.90	15.30	26.23
	165	5825	6.38	10.04	8.29	24.72	13.93	26.23
1SS6	36	5180	17.29	13.89	16.21	47.41	16.75	24
	48	5240	17.90	9.52	15.55	42.99	16.33	24
	149	5745	7.92	9.54	8.59	26.06	14.16	26.23
	165	5825	5.24	8.43	7.46	21.14	13.25	26.23

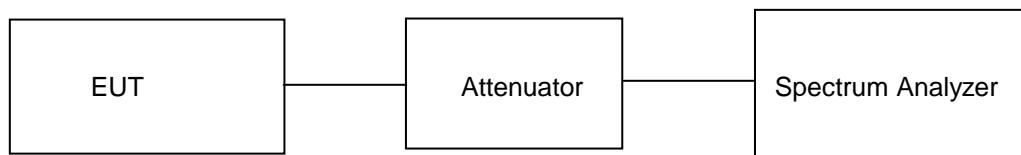
<b>IEEE802.11ac 40MHz Channel</b>								
<b>Data Rate (Mbps)</b>	<b>Channel No</b>	<b>Channel frequency (MHz)</b>	<b>Average Power (mW) Path A</b>	<b>Average Power (mW) Path B</b>	<b>Average Power (mW) Path C</b>	<b>Total Average Power (mW)</b>	<b>Total Average Power (dBm)</b>	<b>Limit (dBm)</b>
1SS0	38	5190	16.36	11.88	13.80	42.05	16.23	<b>24</b>
	46	5230	16.82	12.05	13.80	42.68	16.30	<b>24</b>
	151	5755	9.22	10.51	9.93	29.67	14.72	<b>26.23</b>
	159	5795	7.58	9.84	8.93	26.35	14.20	<b>26.23</b>
1SS3	38	5190	13.83	10.02	11.53	35.39	15.48	<b>24</b>
	46	5230	14.19	10.18	11.56	35.93	15.55	<b>24</b>
	151	5755	7.88	9.03	8.47	25.39	14.04	<b>26.23</b>
	159	5795	6.51	8.41	7.74	22.67	13.55	<b>26.23</b>
1SS6	38	5190	13.83	8.41	9.50	31.75	15.01	<b>24</b>
	46	5230	15.24	8.27	9.54	33.06	15.19	<b>24</b>
	151	5755	6.59	7.58	7.14	21.32	13.28	<b>26.23</b>
	159	5795	6.51	7.14	6.51	20.17	13.04	<b>26.23</b>

<b>IEEE802.11ac 80MHz Channel</b>								
<b>Data Rate (Mbps)</b>	<b>Channel No</b>	<b>Channel frequency (MHz)</b>	<b>Average Power (mW) Path A</b>	<b>Average Power (mW) Path B</b>	<b>Average Power (mW) Path C</b>	<b>Total Average Power (mW)</b>	<b>Total Average Power (dBm)</b>	<b>Limit (dBm)</b>
1SS0	42	5210	13.74	10.02	11.96	35.73	15.53	<b>24</b>
	155	5775	4.69	7.60	8.12	20.43	13.10	<b>24</b>
1SS3	42	5210	10.18	7.49	8.85	26.53	14.23	<b>24</b>
	155	5775	3.57	5.86	6.09	15.52	11.91	<b>26.23</b>
1SS6	42	5210	13.62	6.90	8.24	28.82	14.59	<b>24</b>
	155	5775	3.41	5.58	5.80	14.81	11.70	<b>26.23</b>

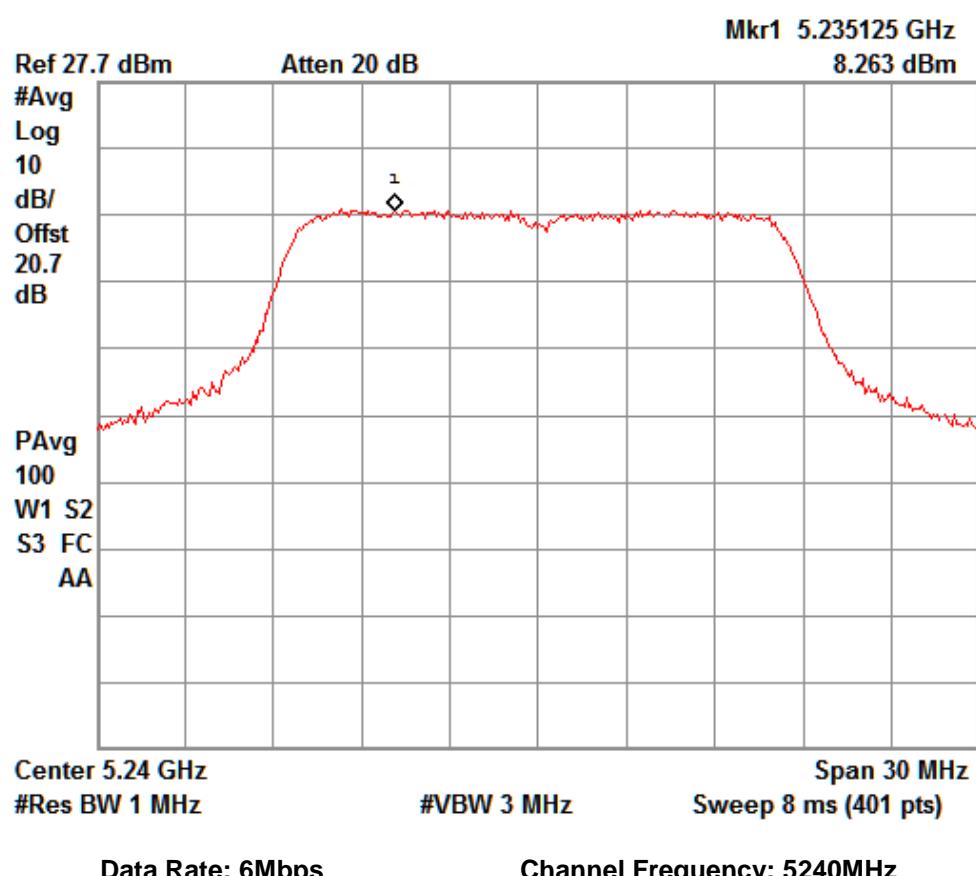
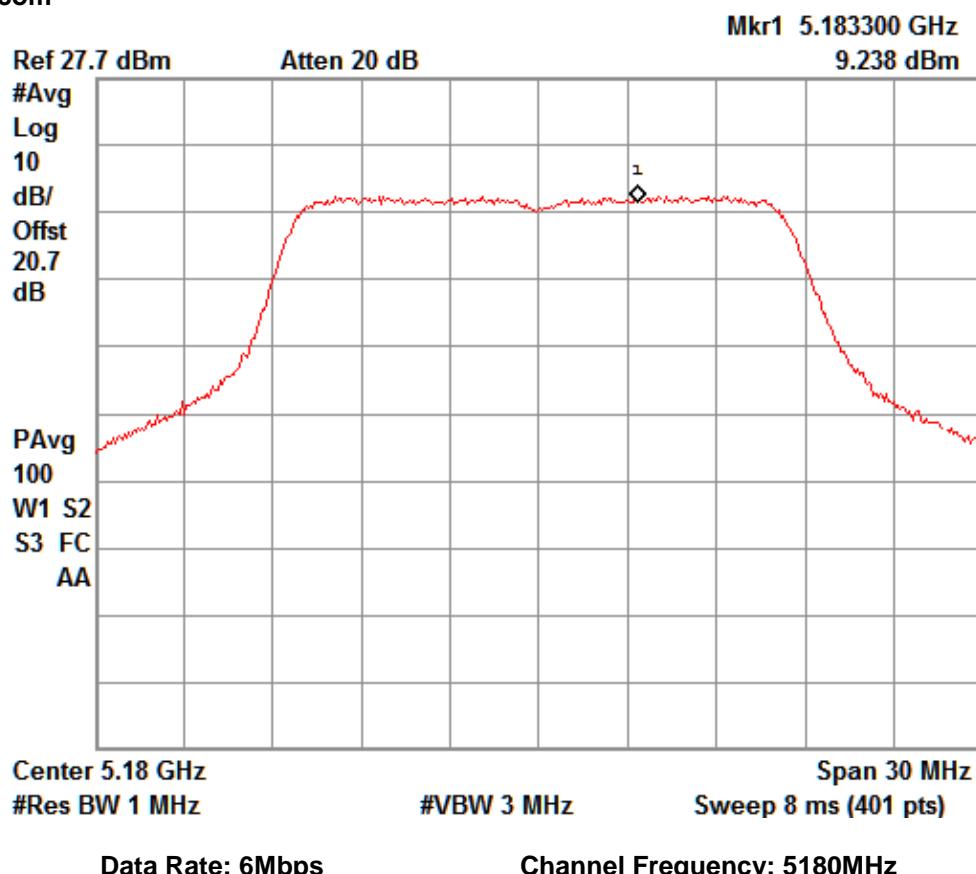
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**Maximum power spectral density  
Result**
**Section 15.407 (a)  
Pass**

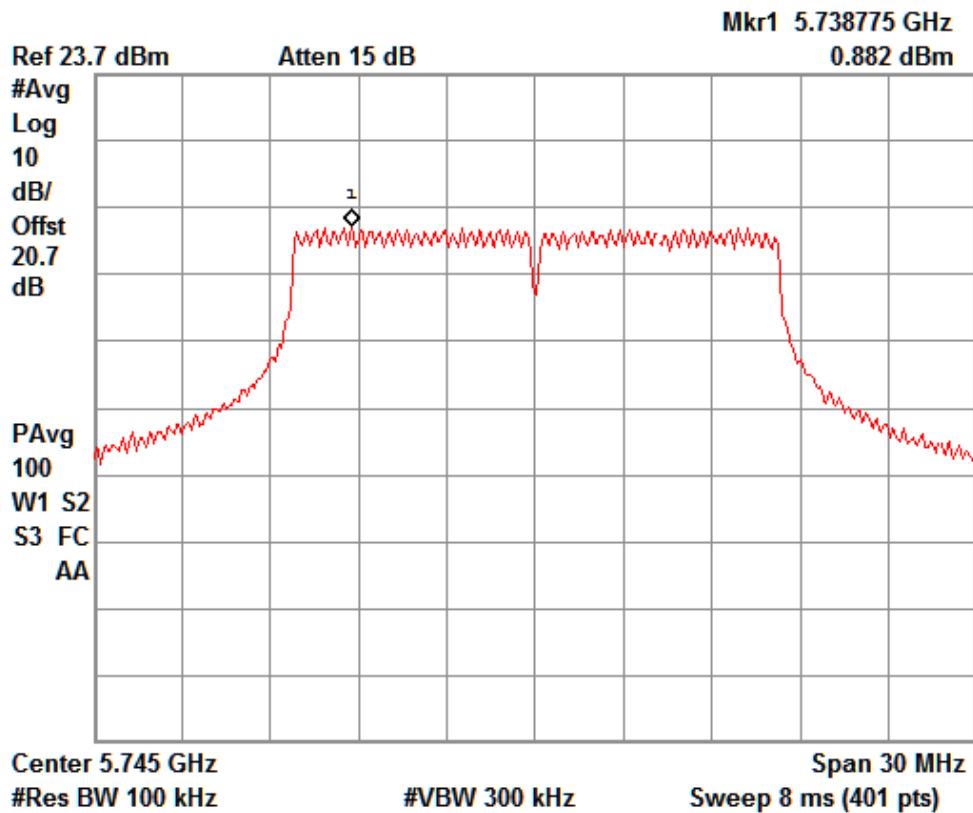
**Test Specification Requirement** FCC Part 15 Subpart E  
**the power spectral density shall not exceed as per limit mentioned in limit table measured at in any 1-MHz band**

Note: Attenuator (20dB) + cable loss (0.7dB) =20. 7 dB Considered in the test results for the band 5150-5250MHz & For the frequency range 5725 -5850MHz, 14dB considered in the test results (Maximum Measured PSD specified in 500kHz).

**Test Method:**

**Test Results:**

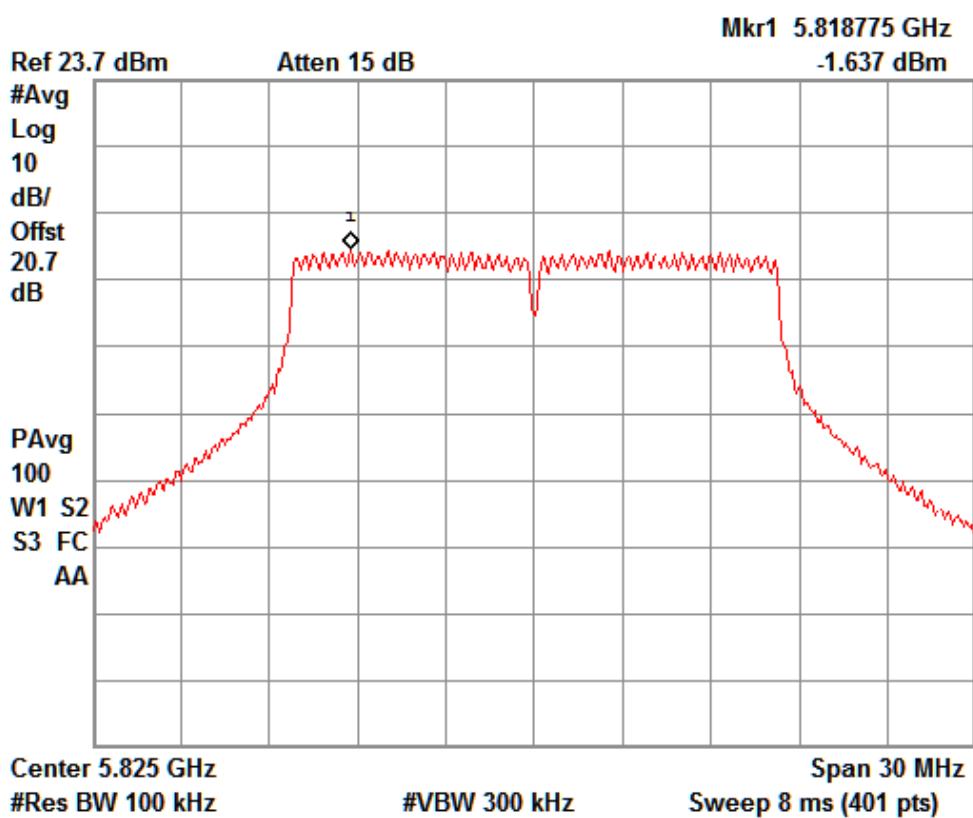
Data Rate (Mbps)	Channel No.	Frequency (MHz)	Measured PSD (dBm)	Limit (dB)
6	36	5180	9.23	11
	48	5240	8.26	11
	149	5745	0.88	30
	165	5825	-1.63	30
24	36	5180	8.08	11
	48	5240	9.90	11
	149	5745	-0.04	30
	165	5825	-2.69	30
54	36	5180	7.93	11
	48	5240	9.07	11
	149	5745	0.05	30
	165	5825	-3.31	30

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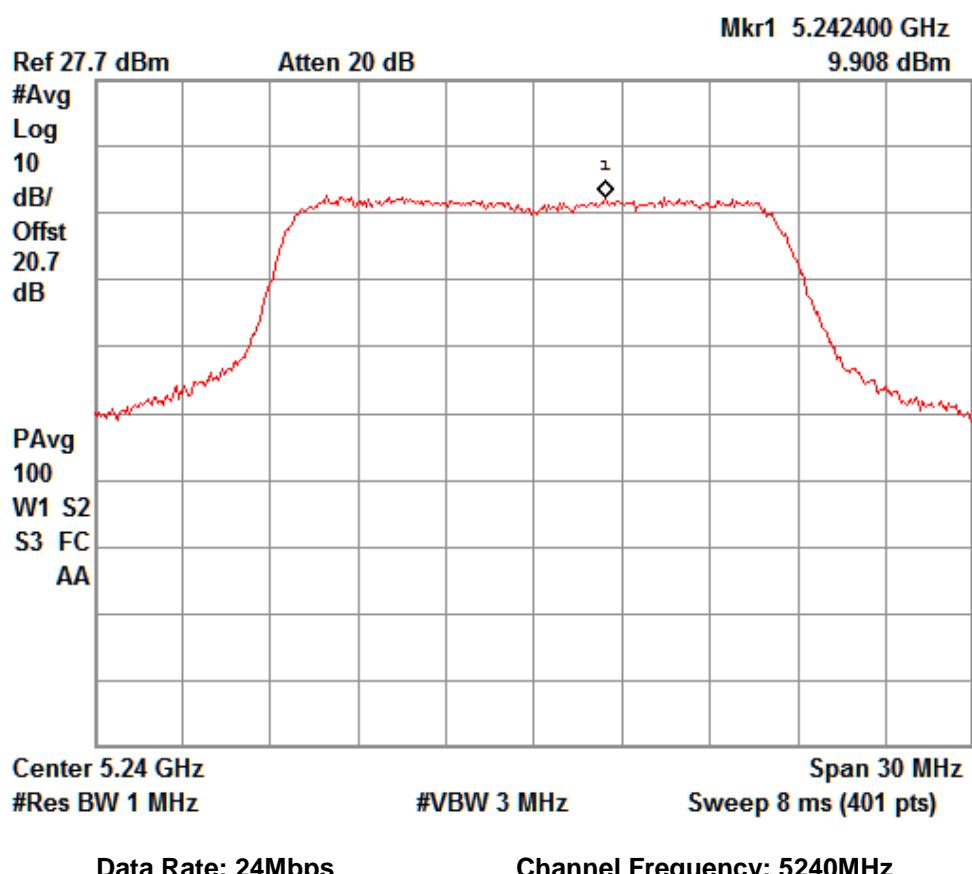
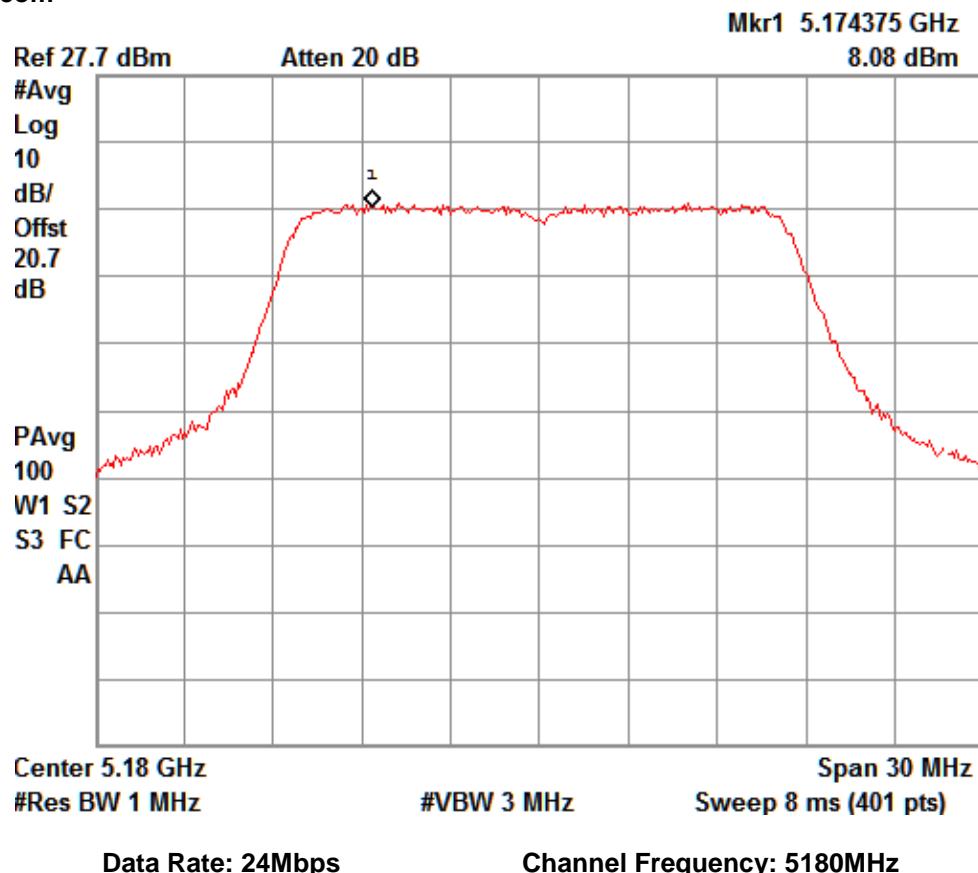
Data Rate: 6Mbps

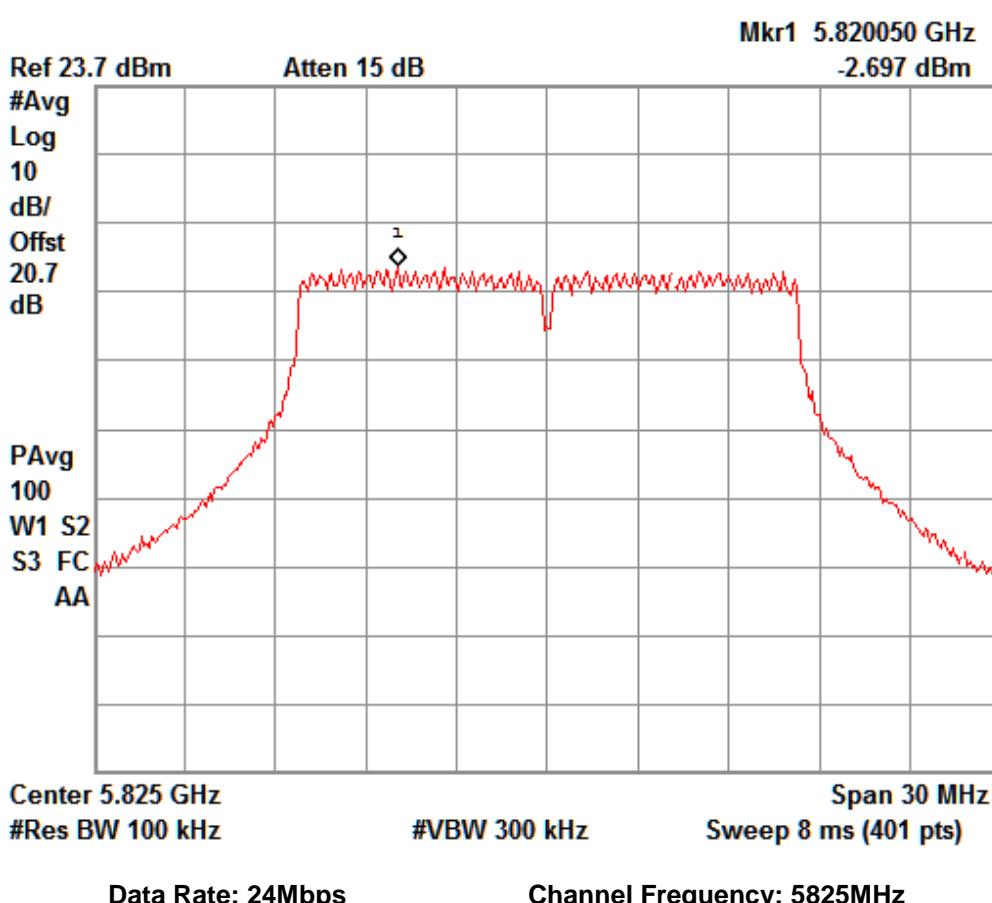
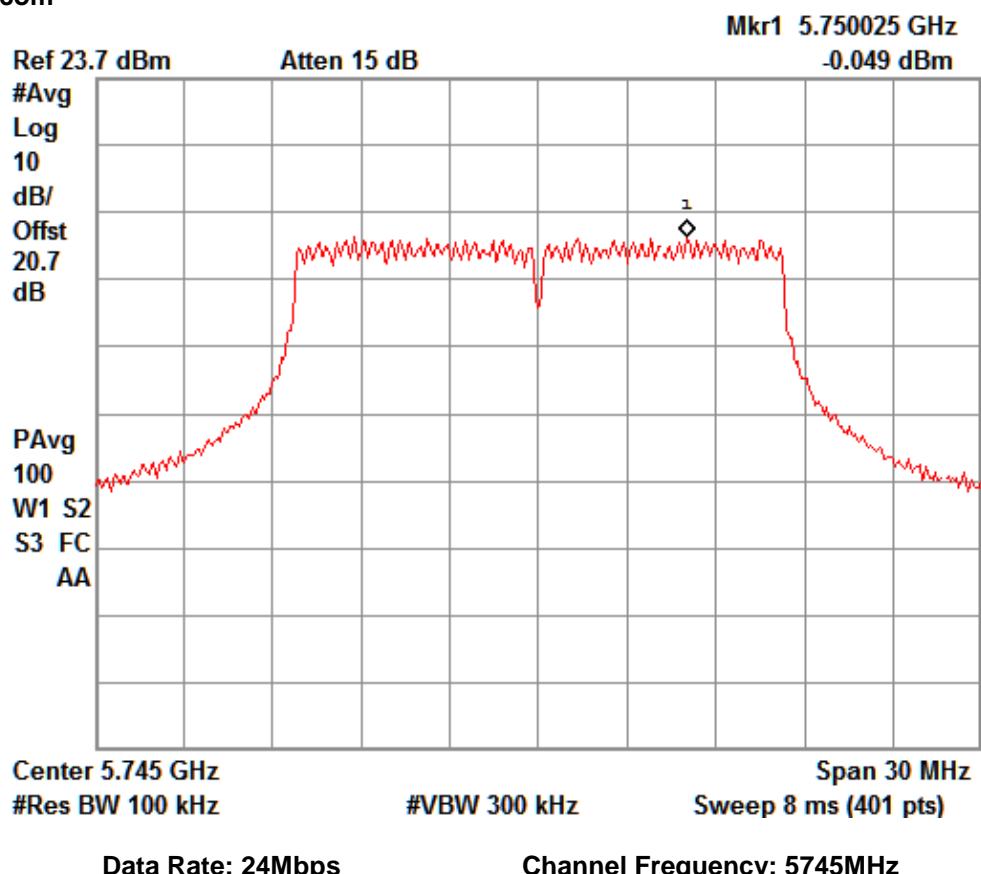
Channel Frequency: 5745MHz

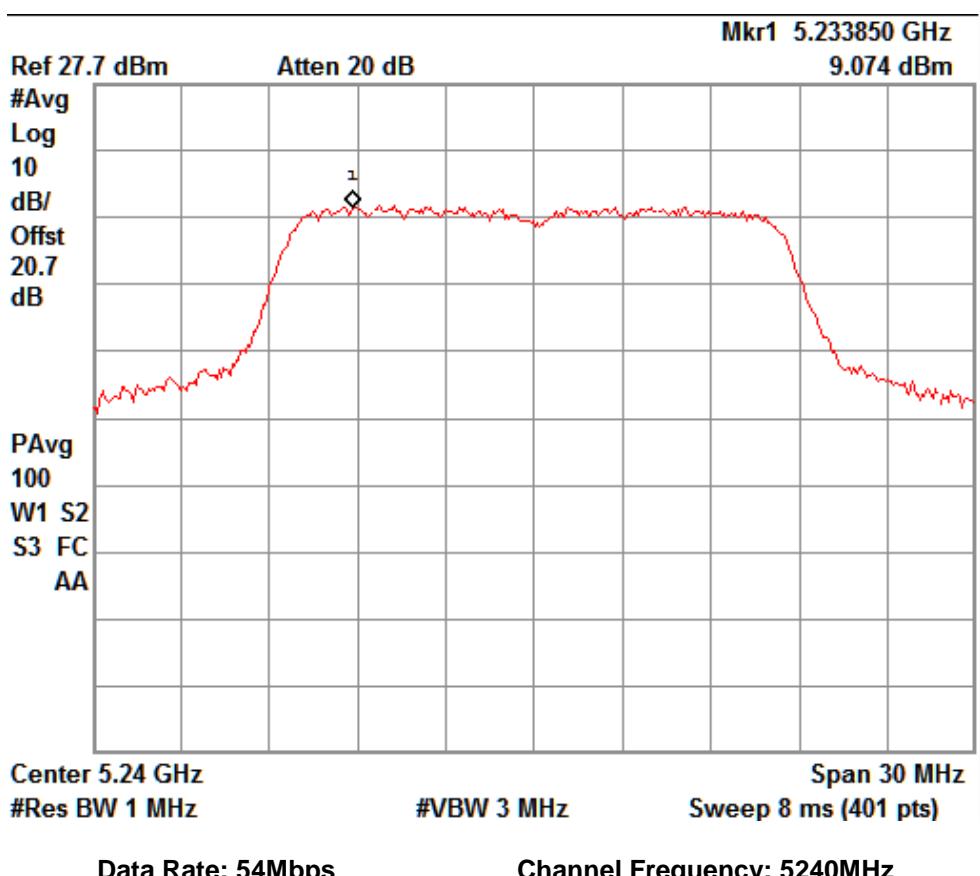
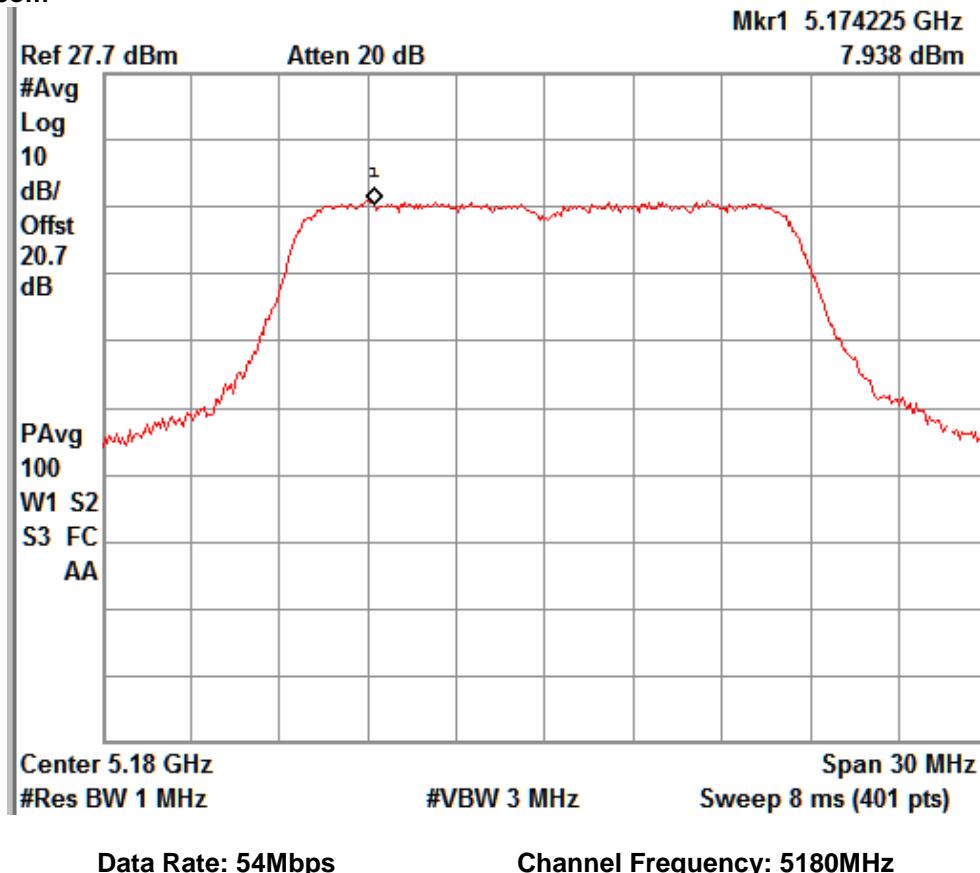


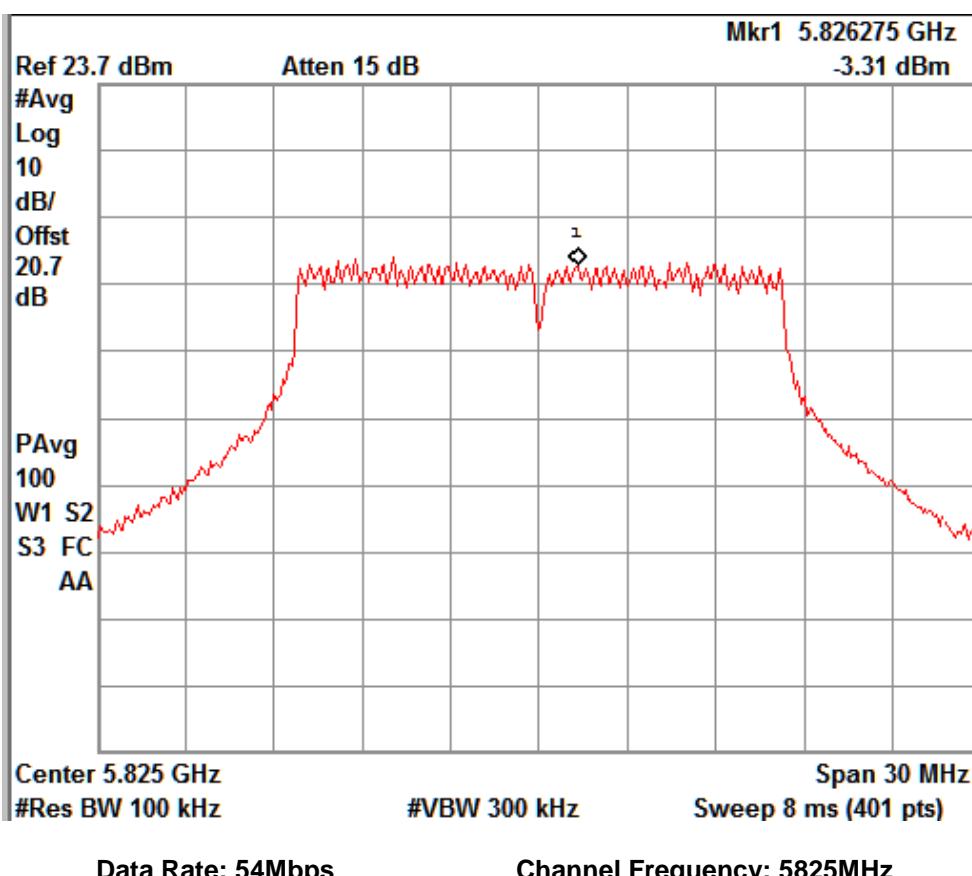
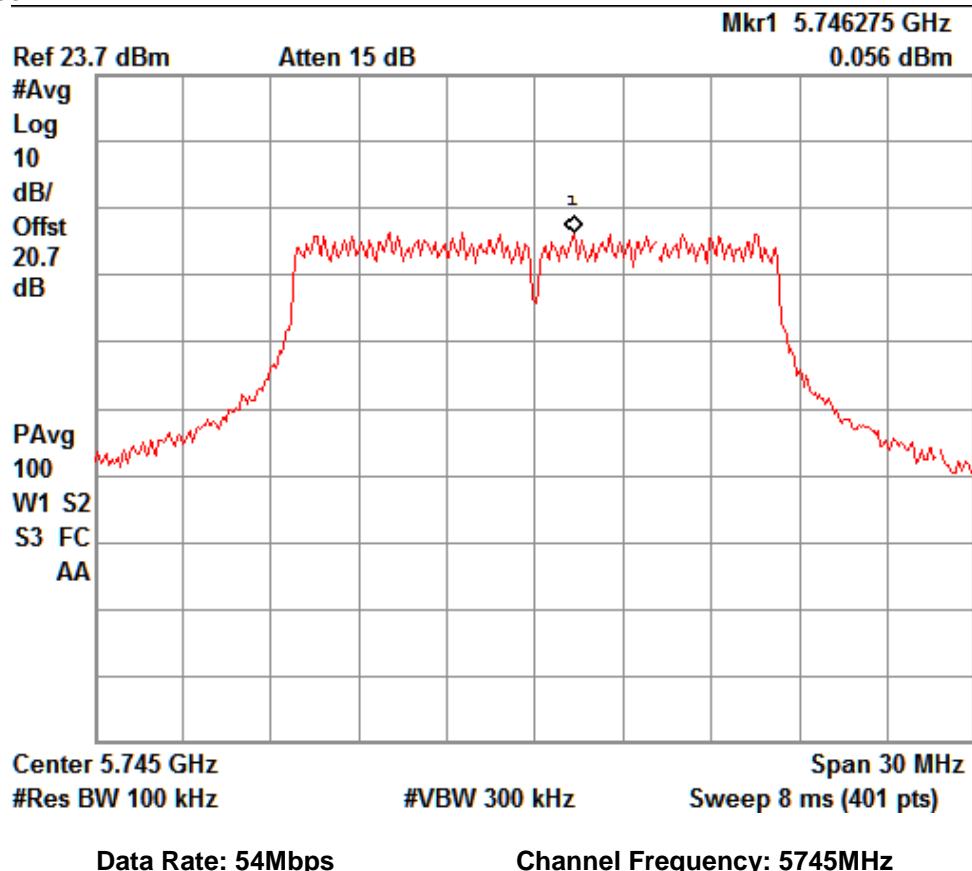
Data Rate: 6Mbps

Channel Frequency: 5825MHz

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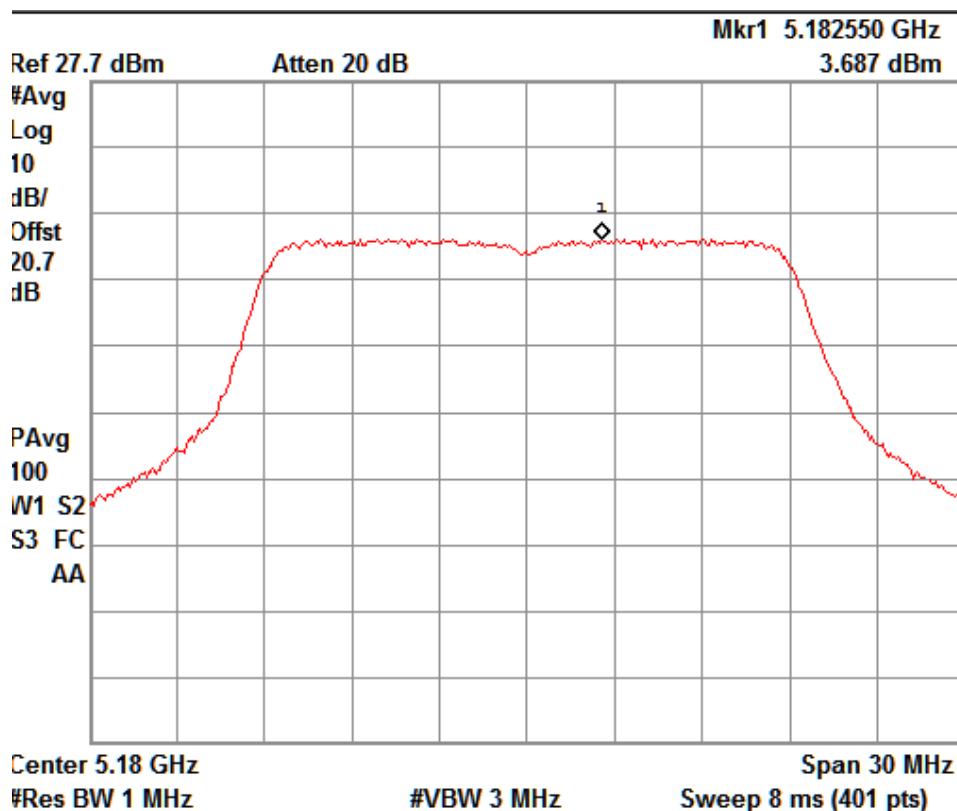
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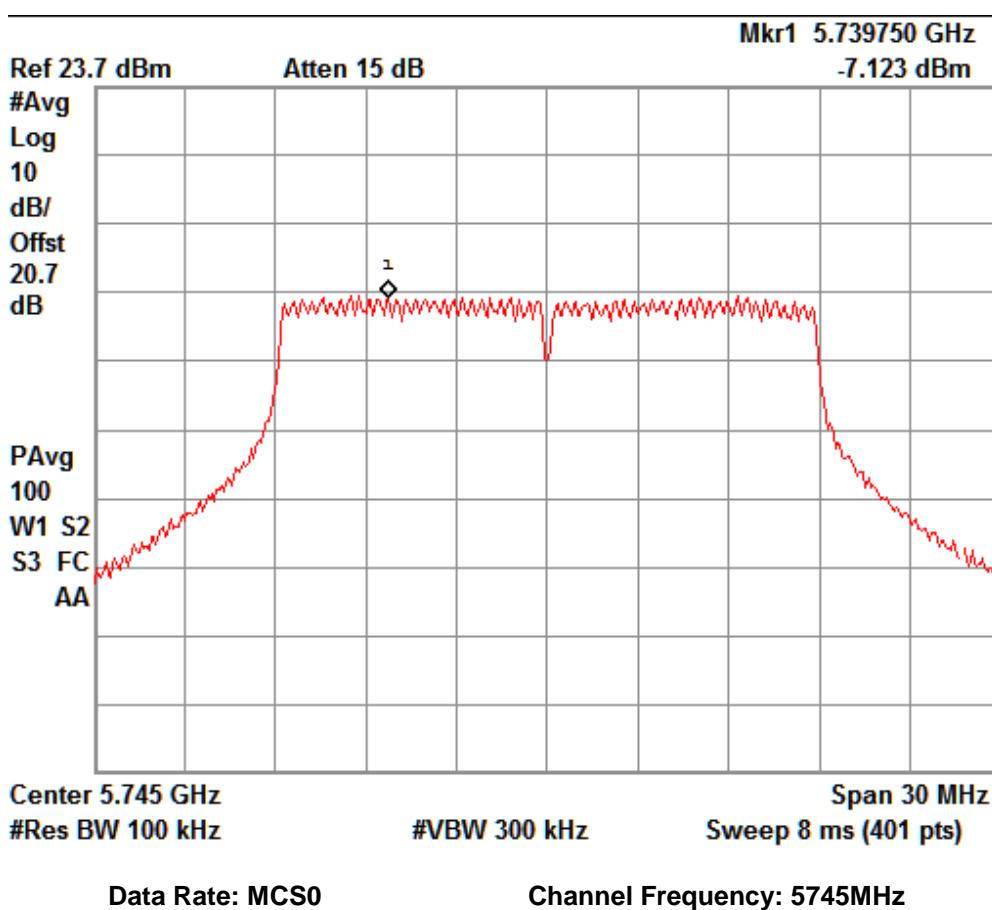
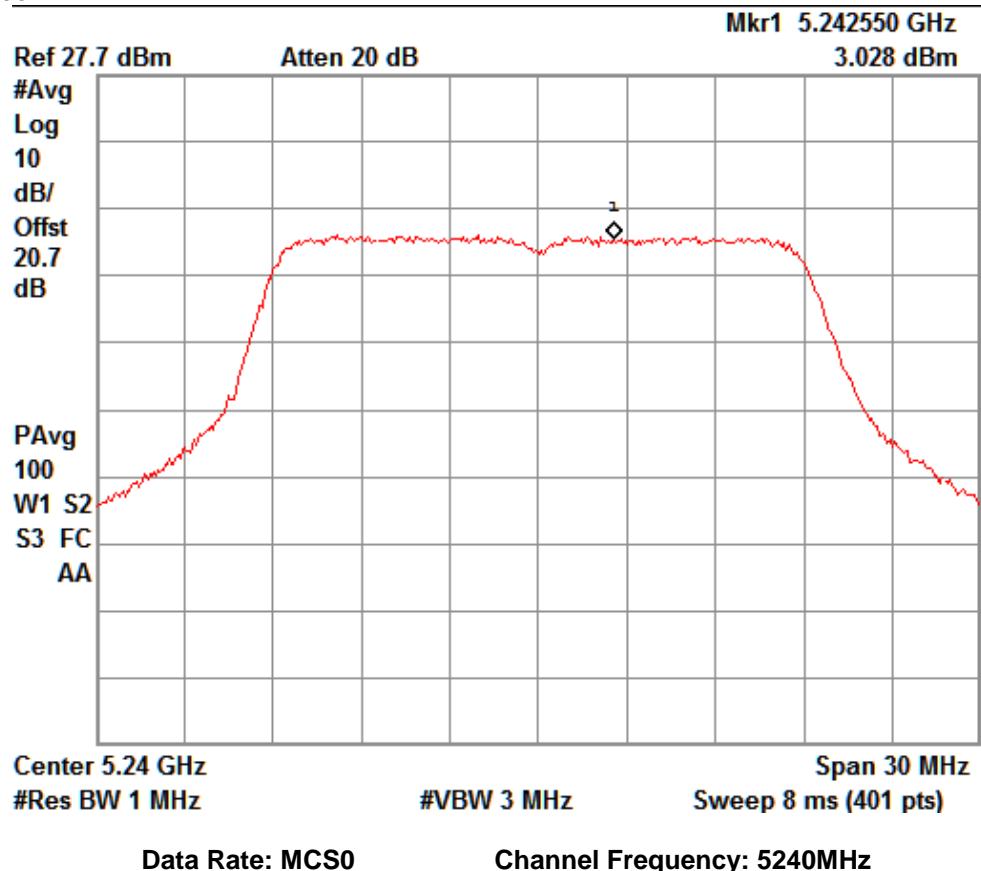
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**Test Results for Path A**

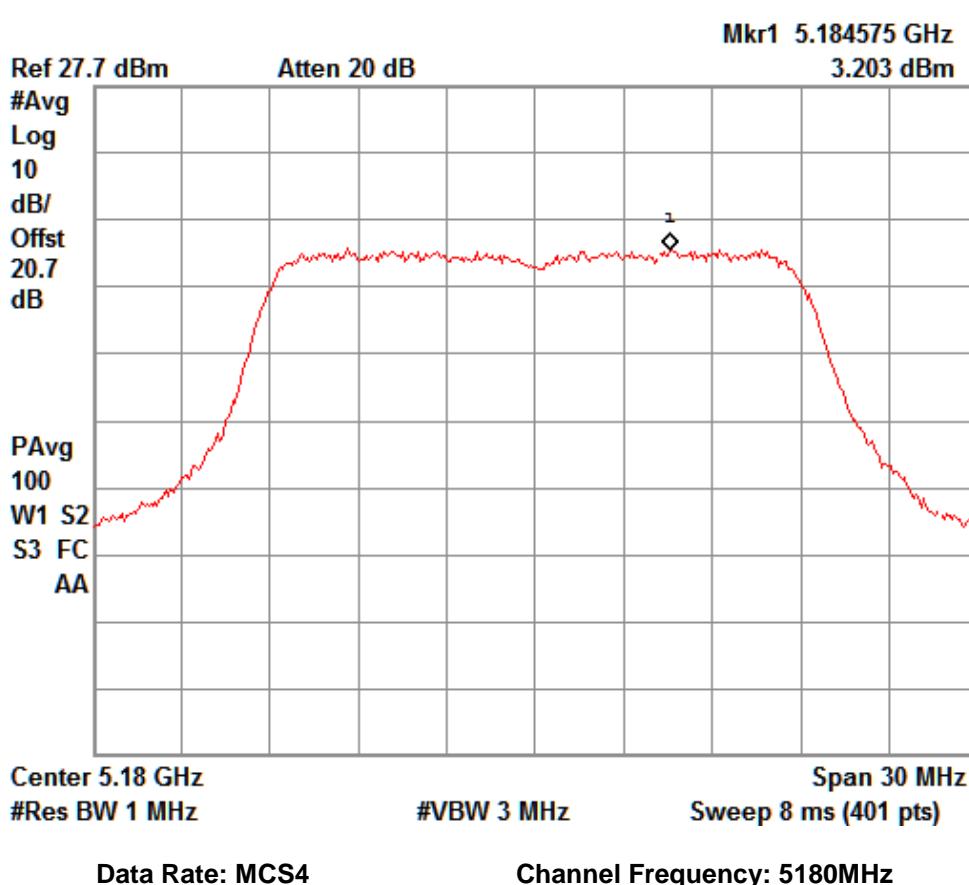
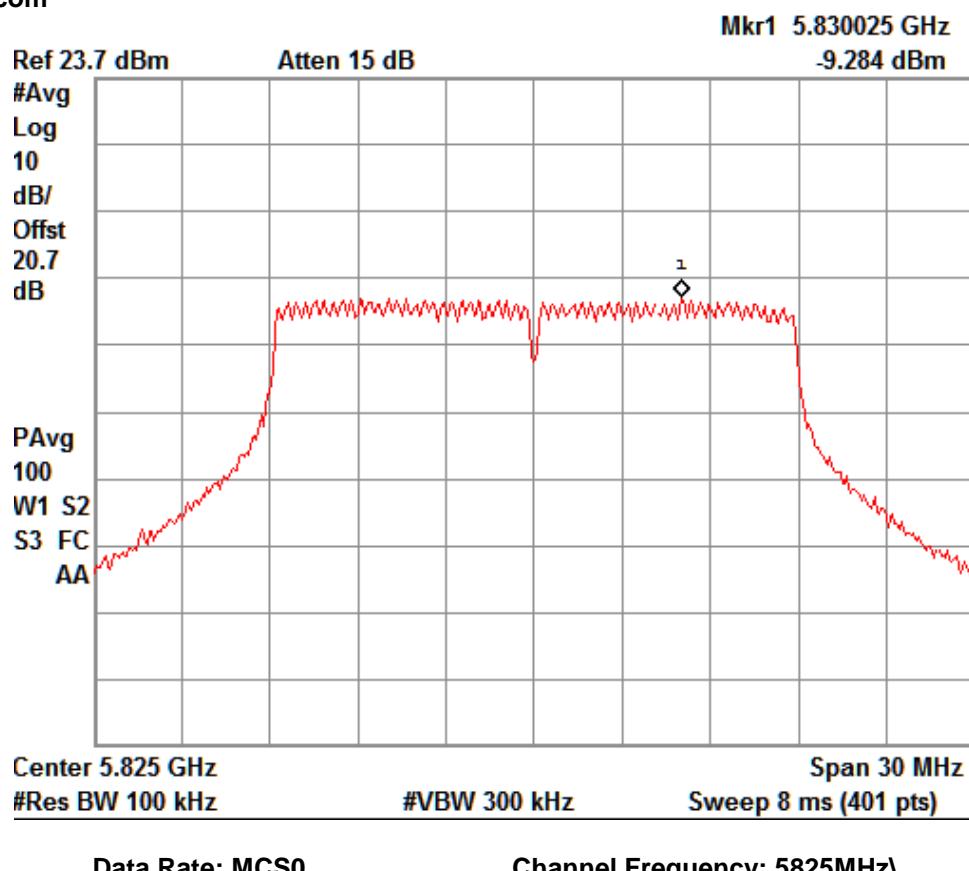
<b>IEEE802.11n HT20</b>						
<b>Data Rate (Mbps)</b>	<b>Channel No.</b>	<b>Frequency (MHz)</b>	<b>Measured PSD (dBm)</b>	<b>Measure &amp; Add <math>10^{\log(3)}</math></b>	<b>Total PSD (dBm)</b>	<b>Limit (dB)</b>
MCS0	36	5180	3.687	4.77	8.457	11
	48	5240	3.028	4.77	7.798	11
	149	5745	-7.123	4.77	-2.353	30
	165	5825	-9.284	4.77	-4.514	30
MCS4	36	5180	3.203	4.77	7.973	11
	48	5240	2.915	4.77	7.685	11
	149	5745	-6.635	4.77	-1.865	30
	165	5825	-9.131	4.77	-4.361	30
MCS7	36	5180	1.072	4.77	5.842	11
	48	5240	1.376	4.77	6.146	11
	149	5745	-6.995	4.77	-2.225	30
	165	5825	-9.181	4.77	-4.411	30

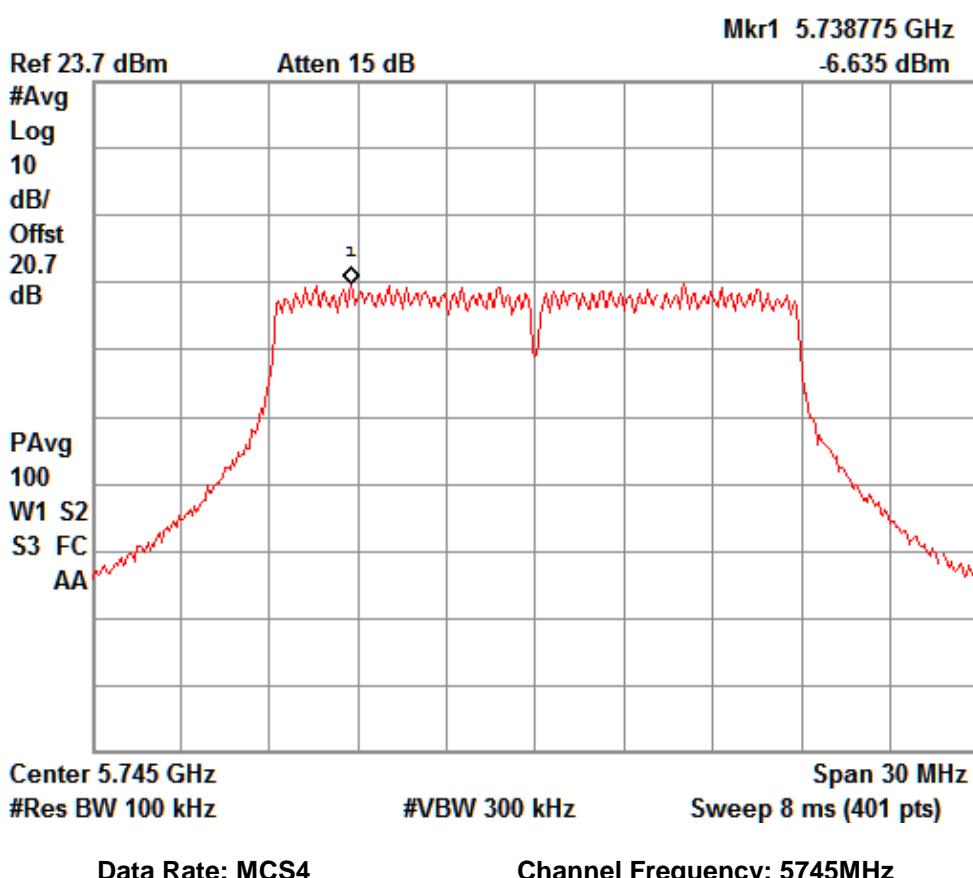
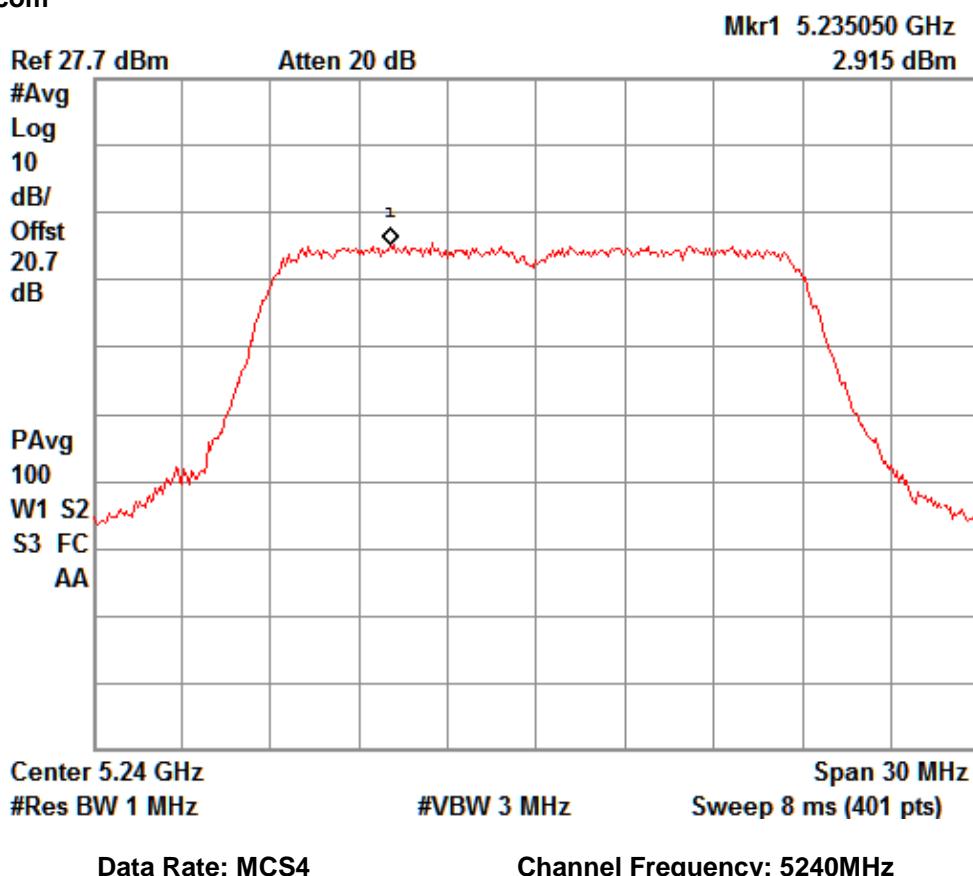


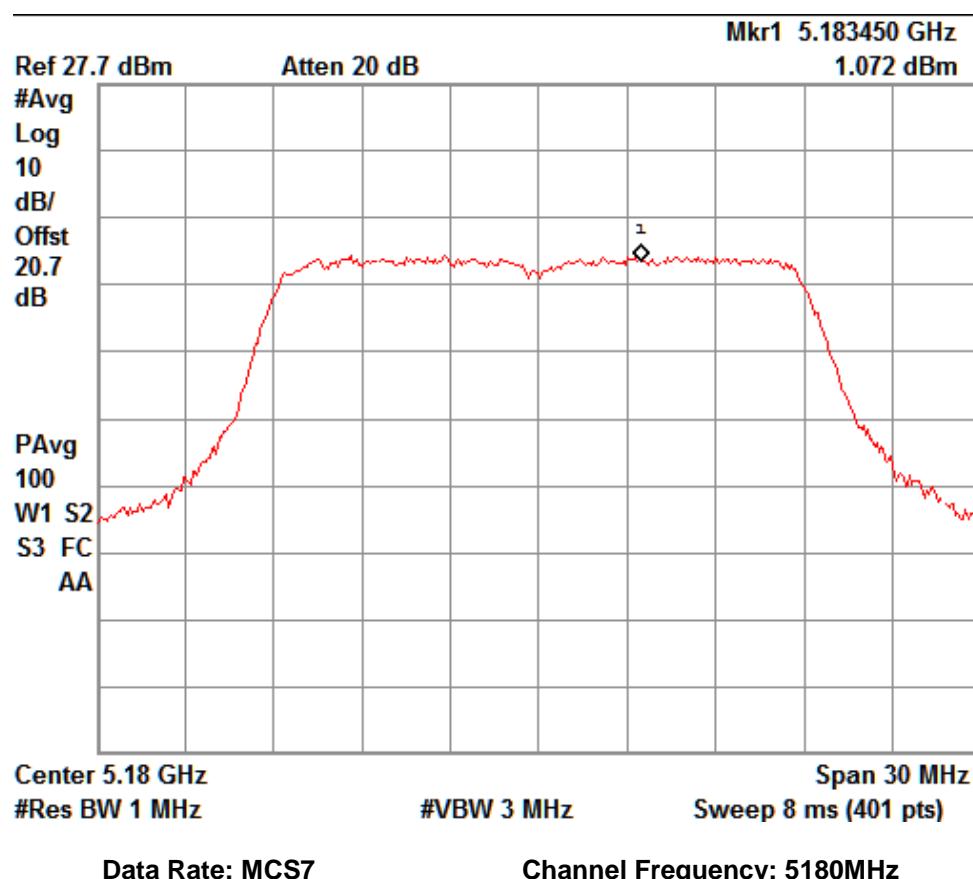
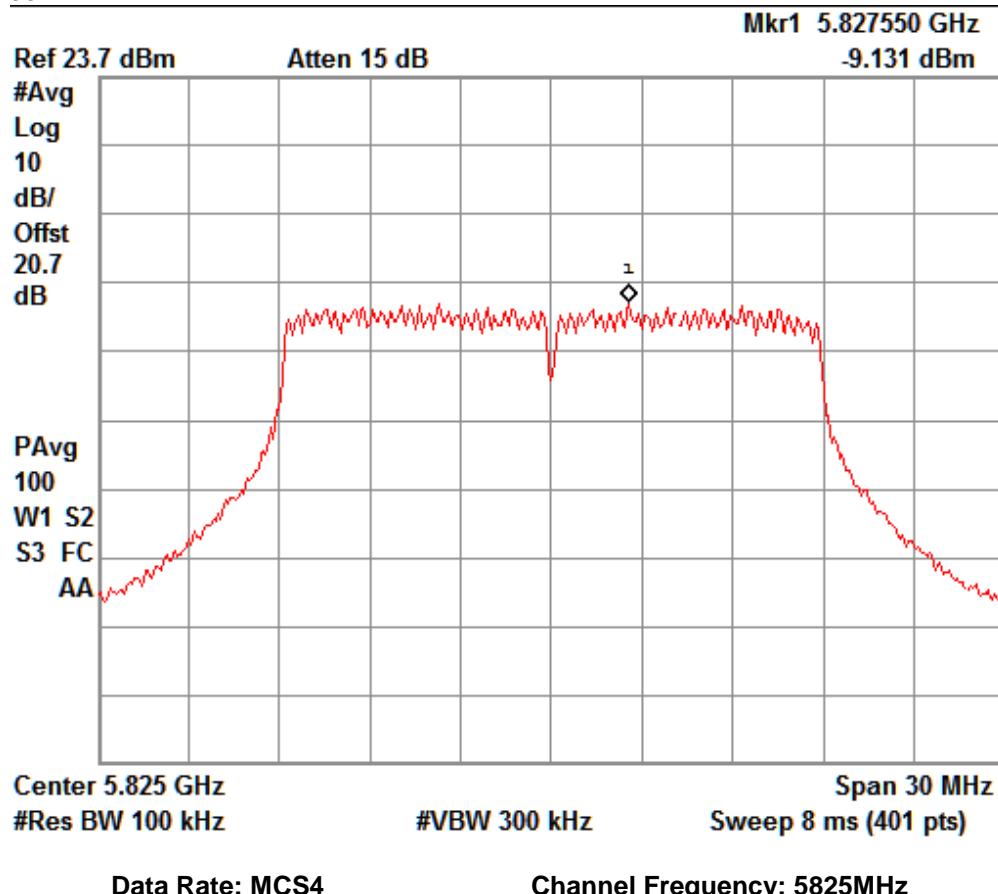
**Data Rate: MCS0**

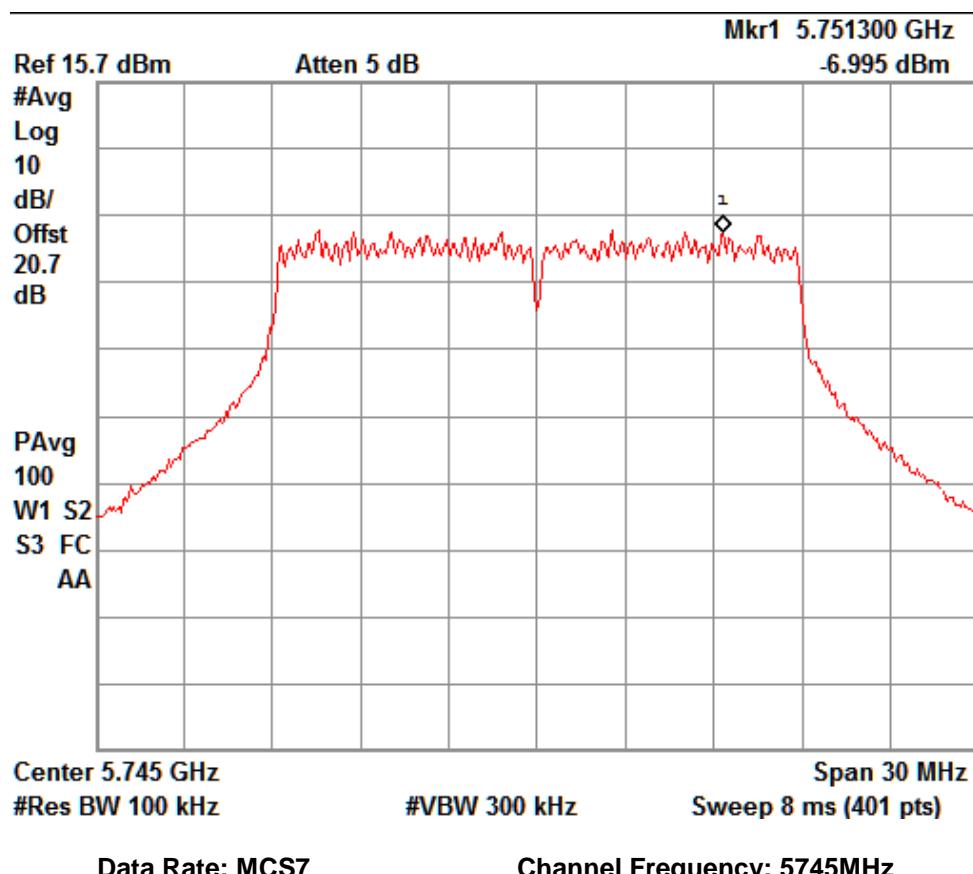
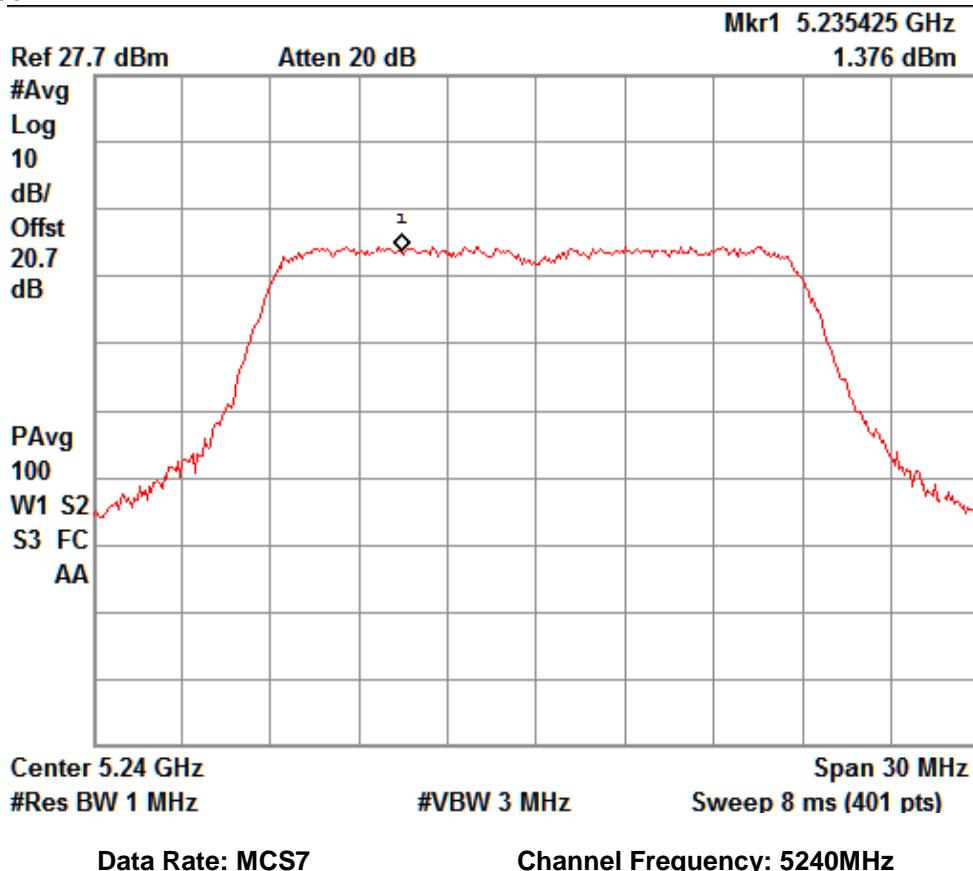
**Channel Frequency: 5180MHz**

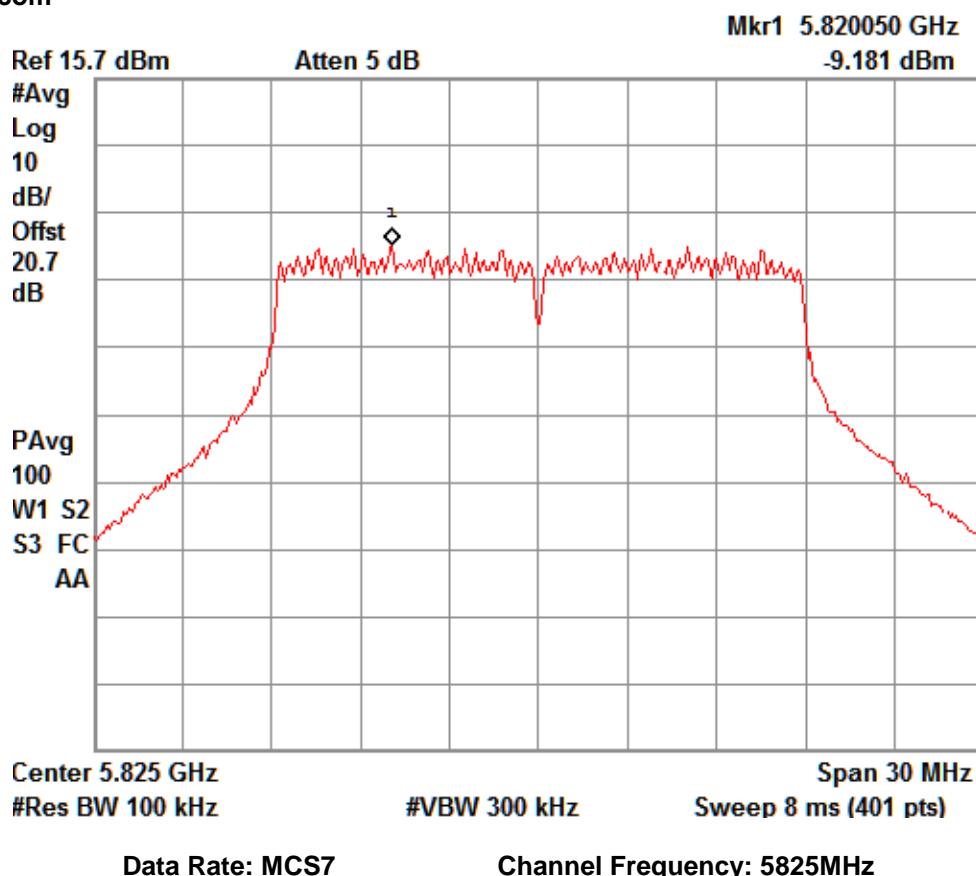
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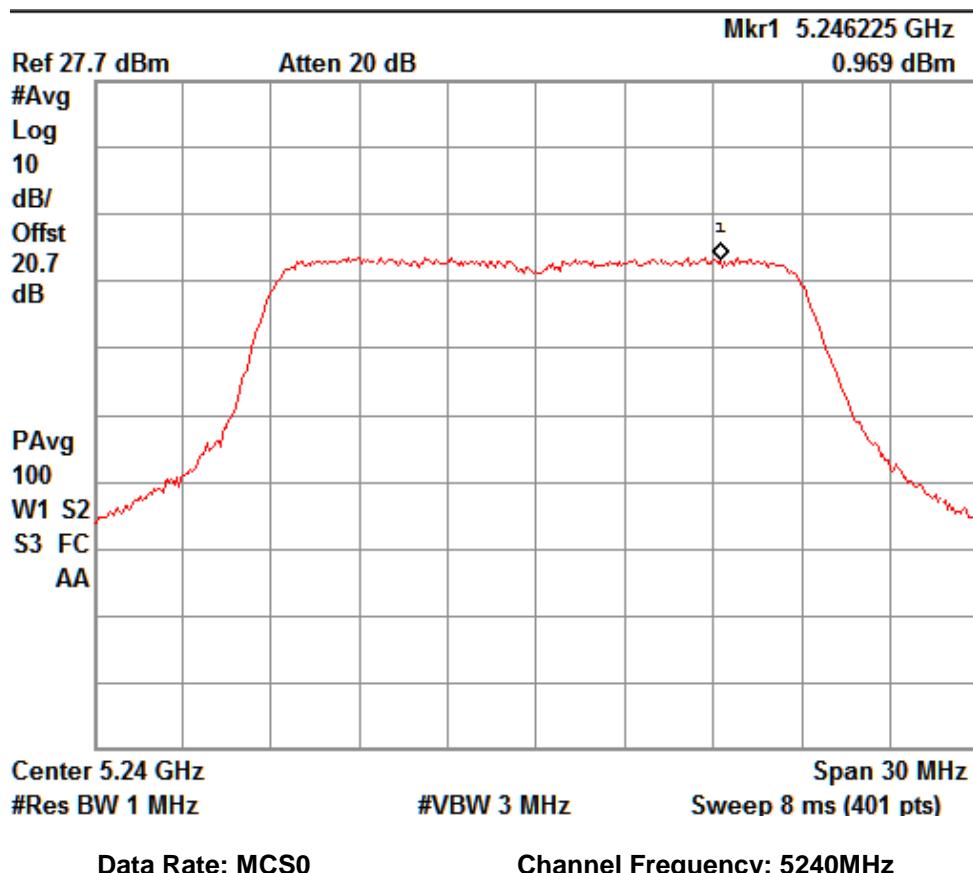
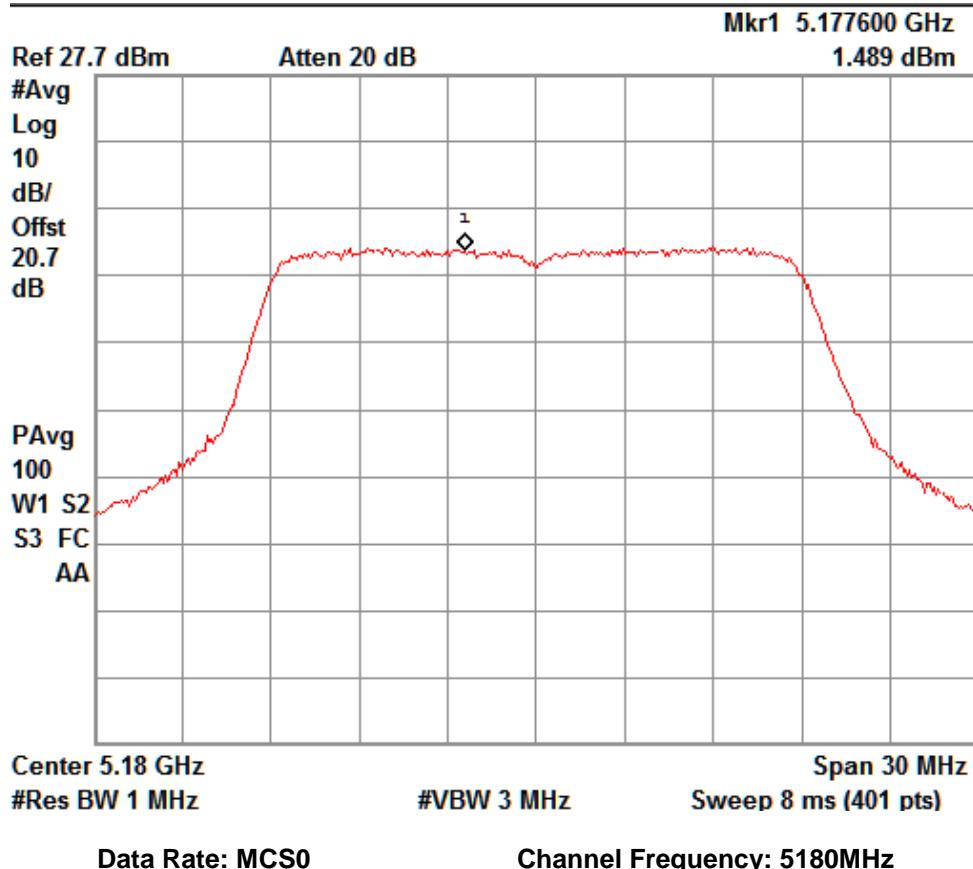
[www.tuv.com](http://www.tuv.com)


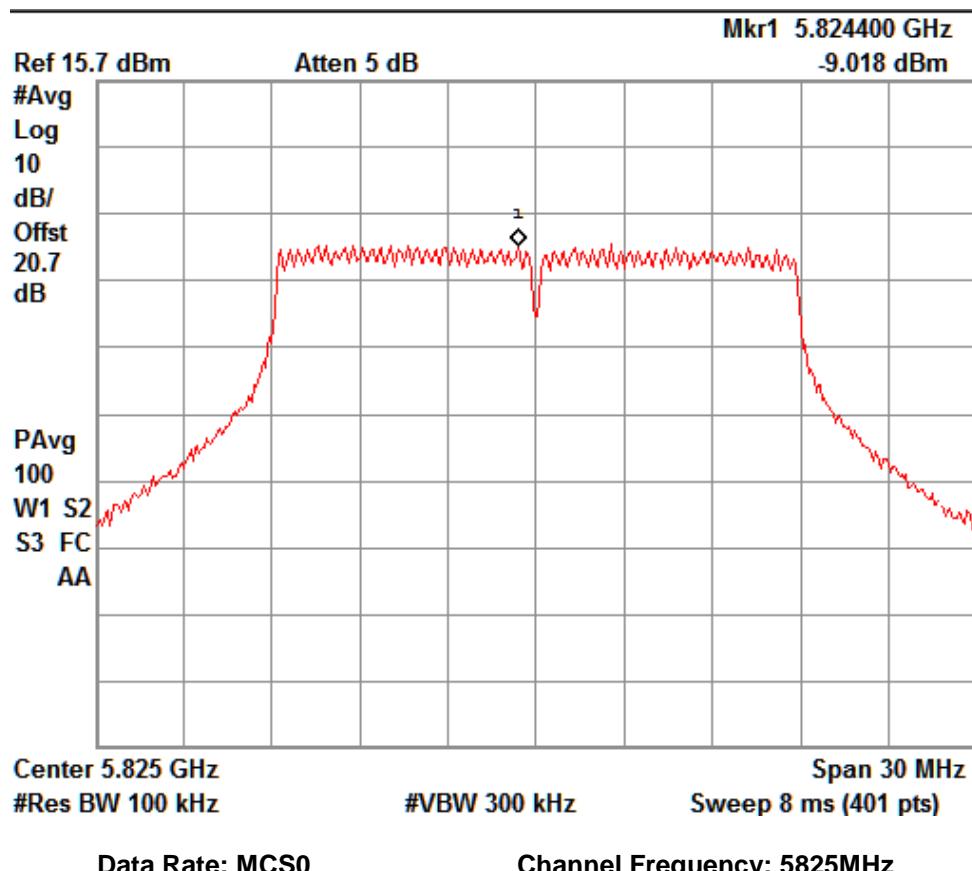
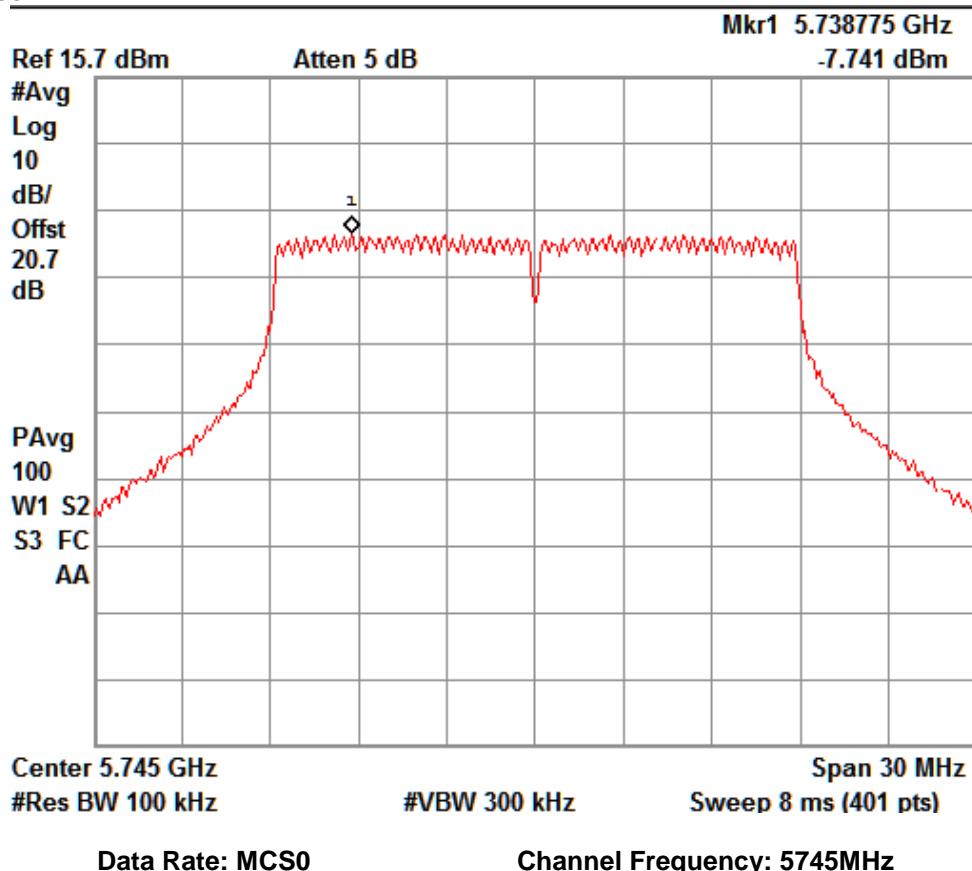
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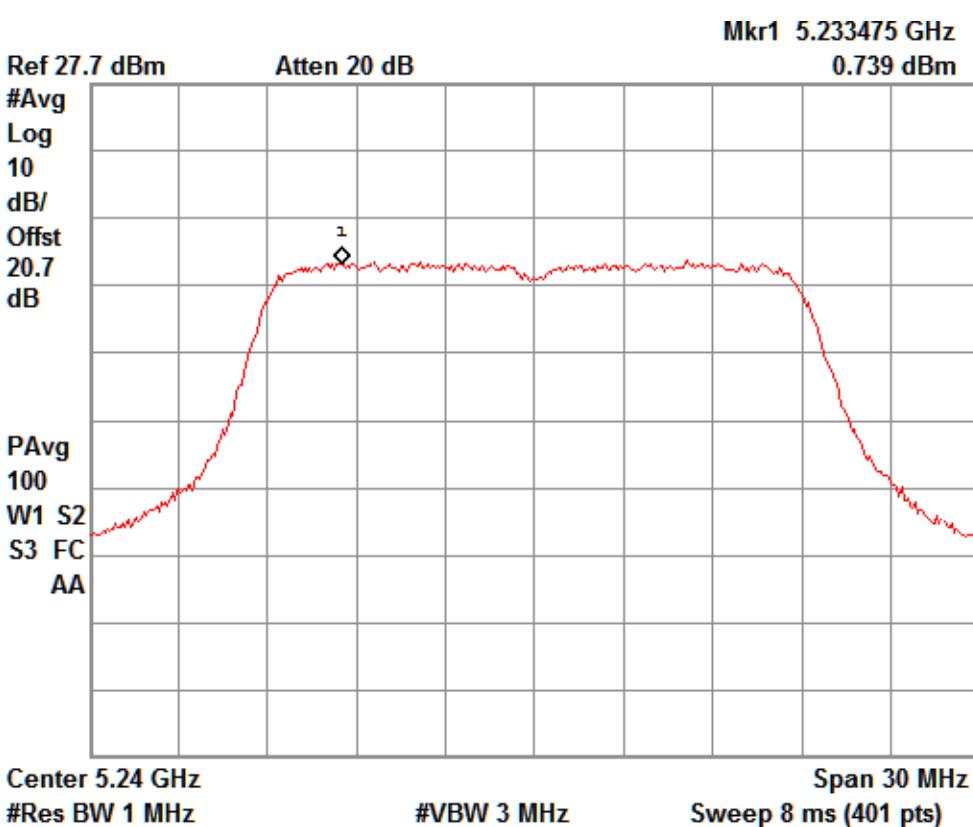
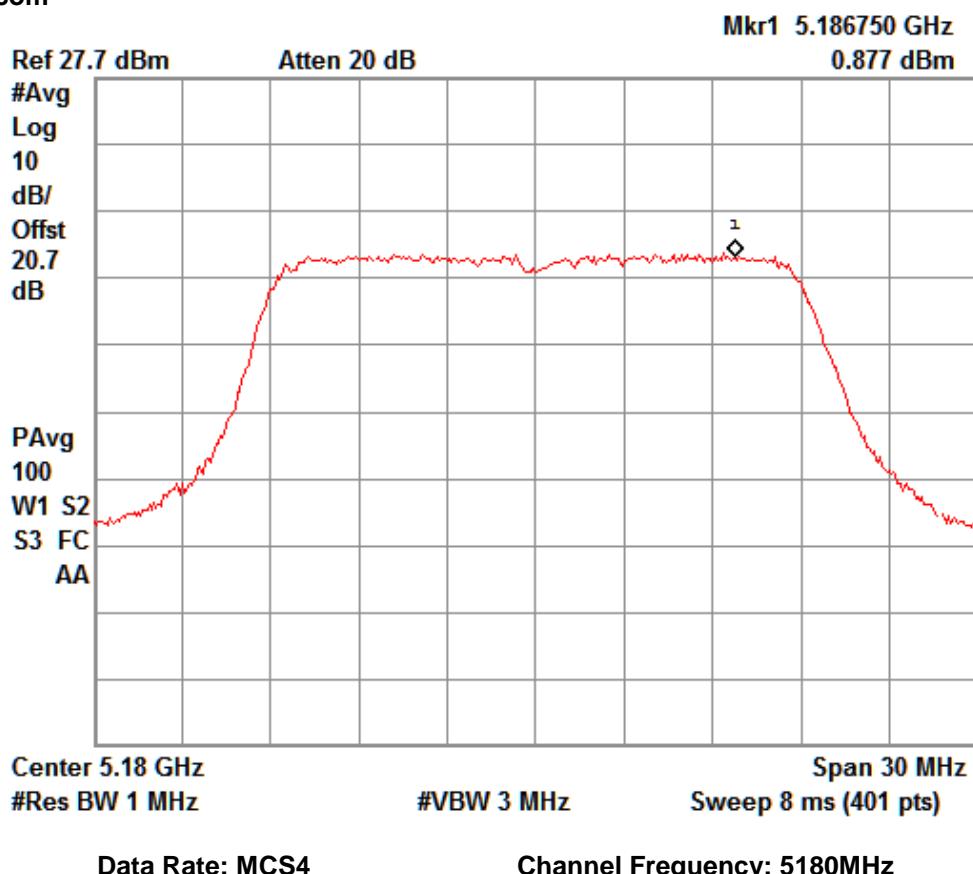


### Test Results for Path B

IEEE802.11n HT20						
Data Rate (Mbps)	Channel No.	Frequency (MHz)	Measured PSD (dBm)	Measure & Add $10^{\log(3)}$	Total PSD (dBm)	Limit (dB)
MCS0	36	5180	1.489	4.77	6.259	11
	48	5240	0.969	4.77	5.739	11
	149	5745	-7.741	4.77	-2.971	30
	165	5825	-9.018	4.77	-4.248	30
MCS4	36	5180	0.877	4.77	5.647	11
	48	5240	0.739	4.77	5.509	11
	149	5745	-7.242	4.77	-2.472	30
	165	5825	-8.166	4.77	-3.396	30
MCS7	36	5180	-0.005	4.77	4.765	11
	48	5240	-1.023	4.77	3.747	11
	149	5745	-8.671	4.77	-3.901	30
	165	5825	-9.207	4.77	-4.437	30

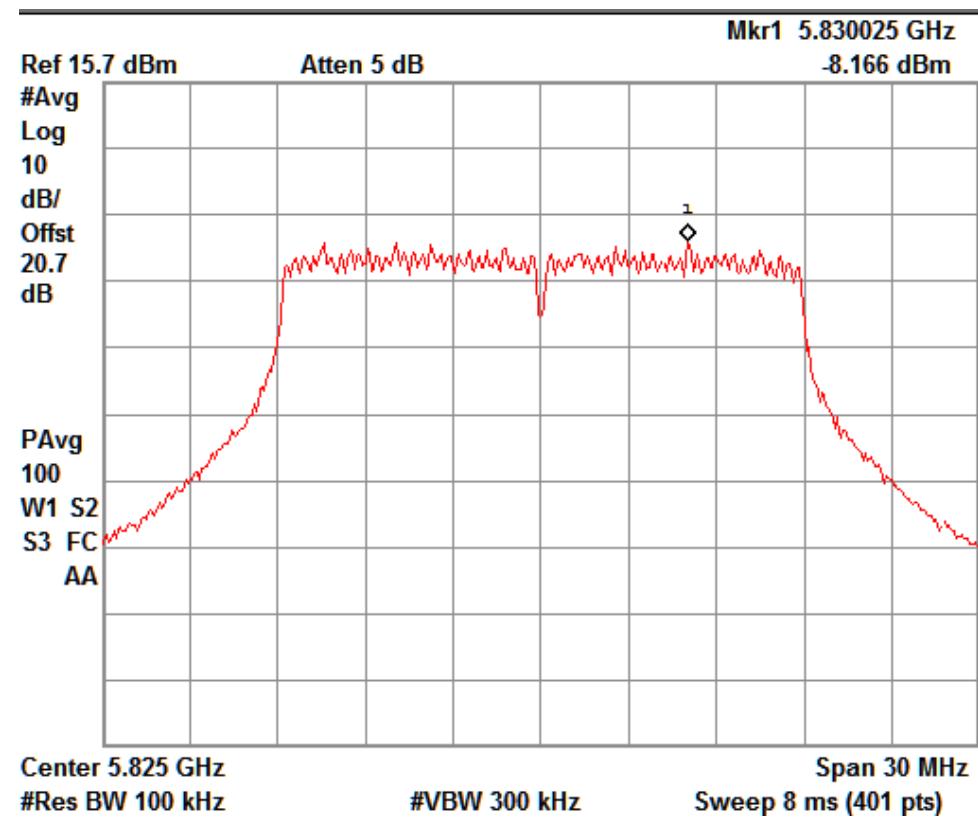
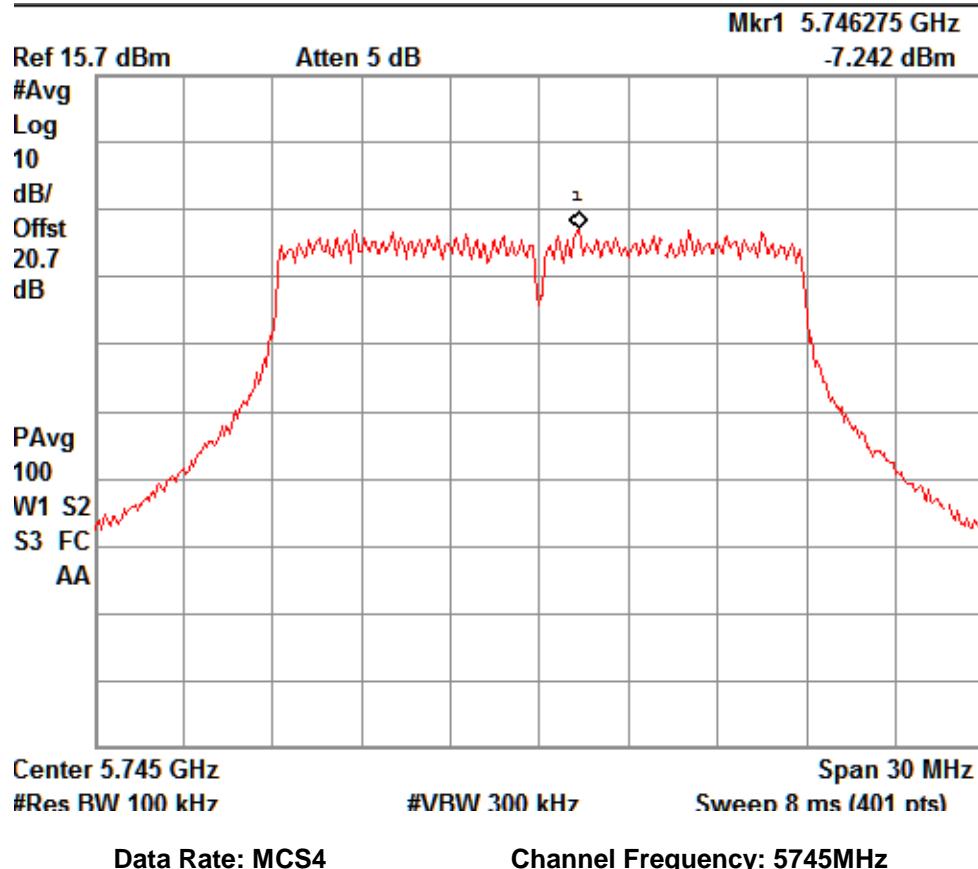




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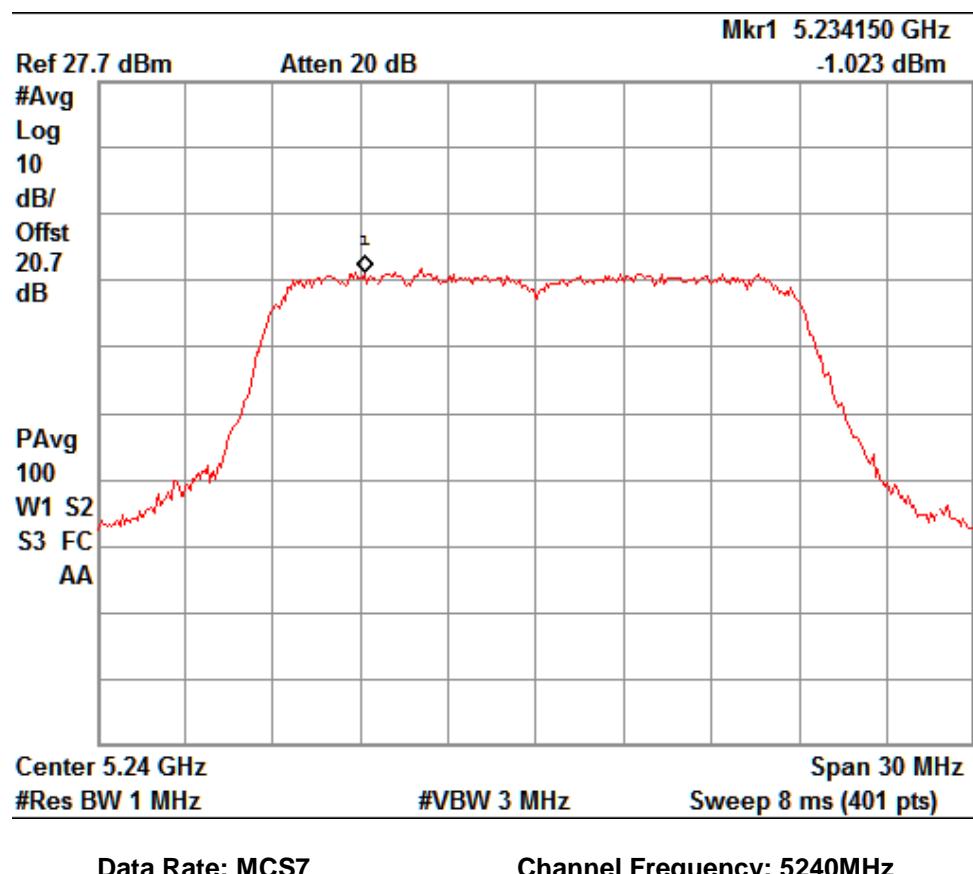
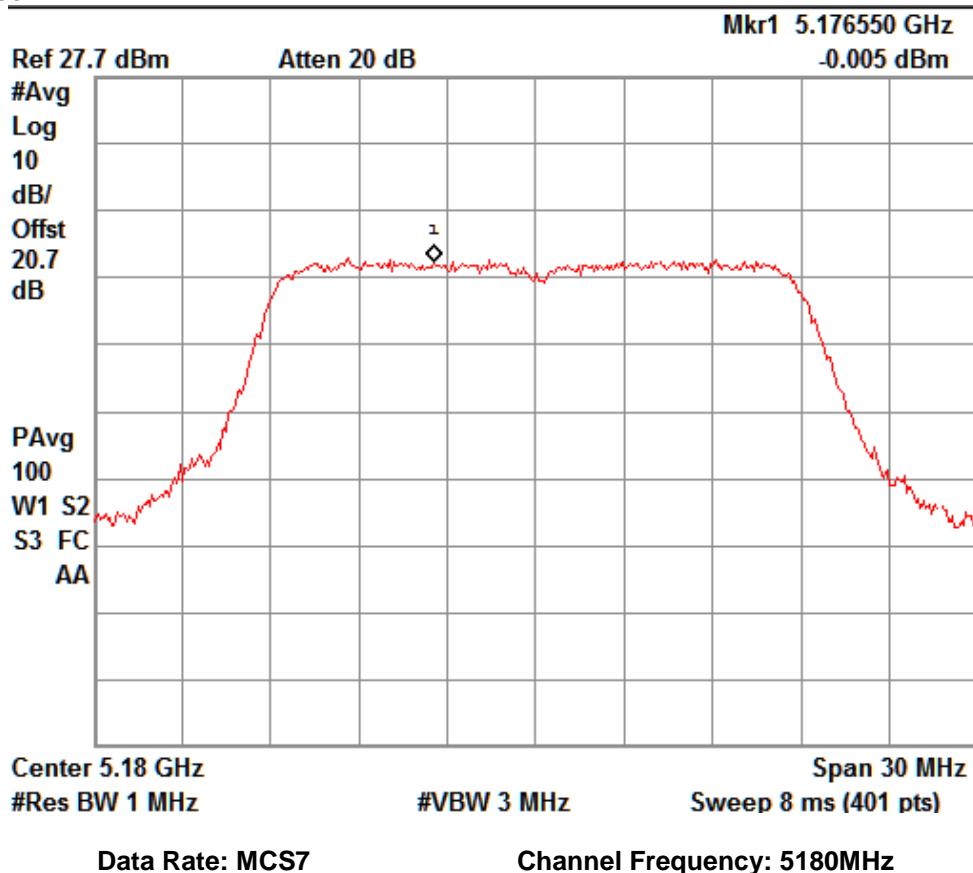
Data Rate: MCS4

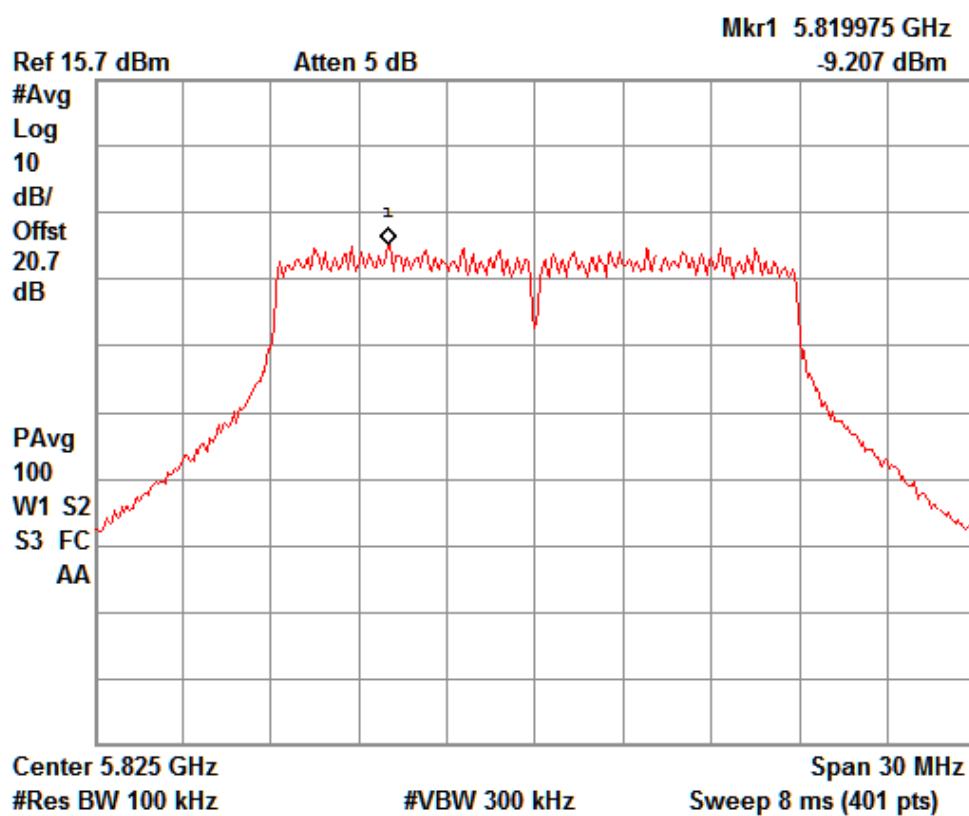
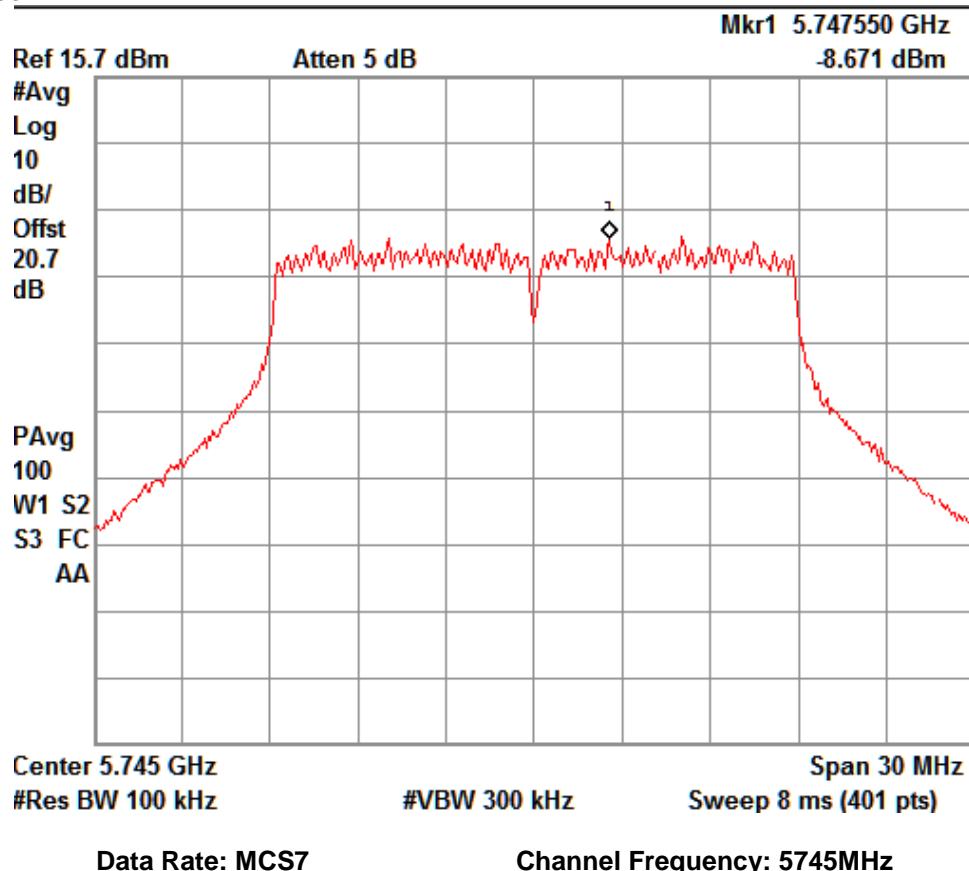
Channel Frequency: 5240MHz

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Data Rate: MCS4

Channel Frequency: 5825MHz



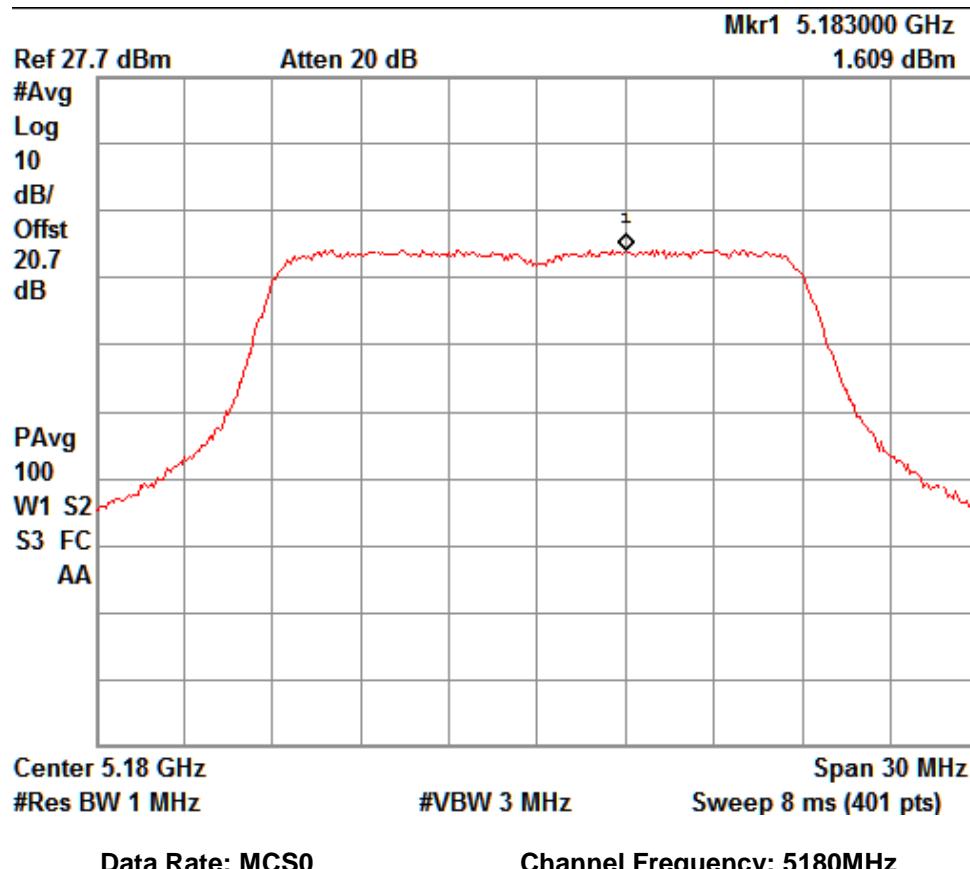


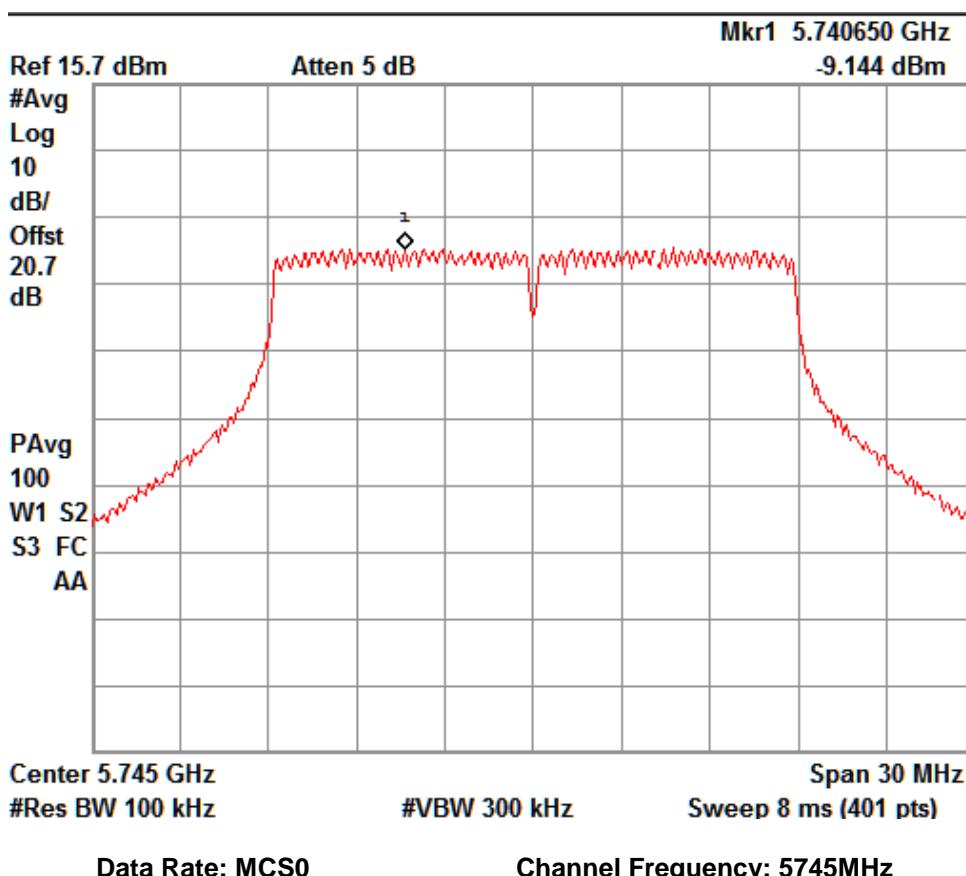
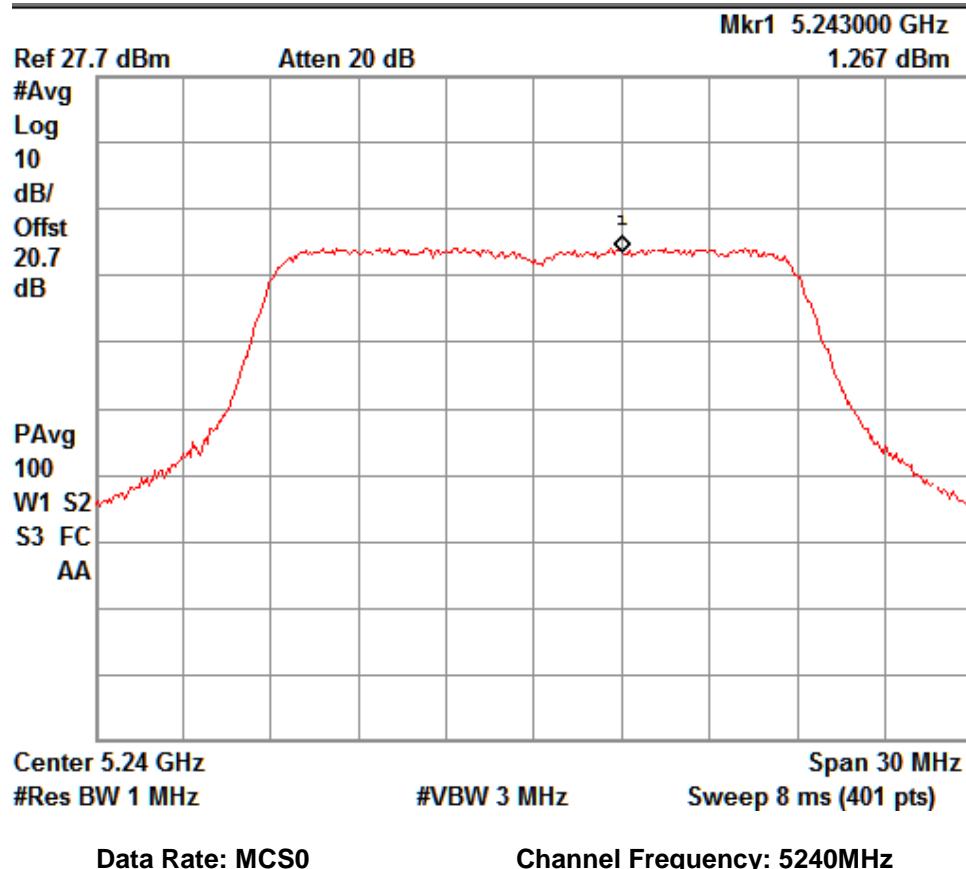
Data Rate: MCS7

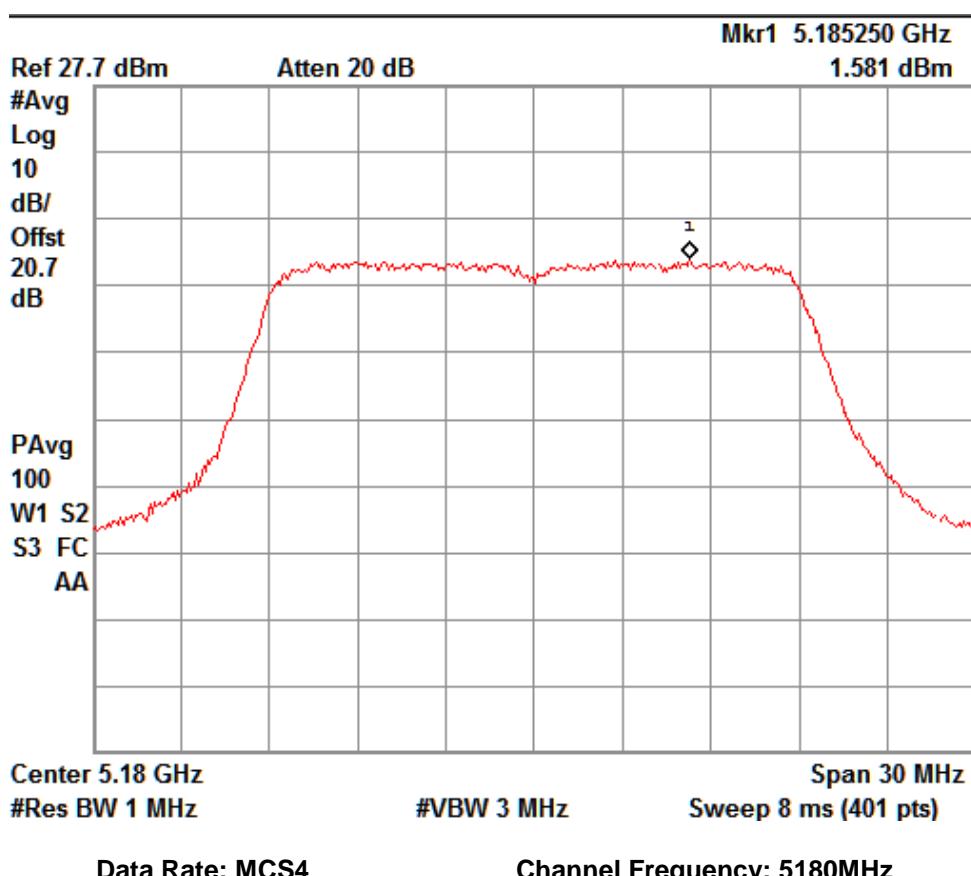
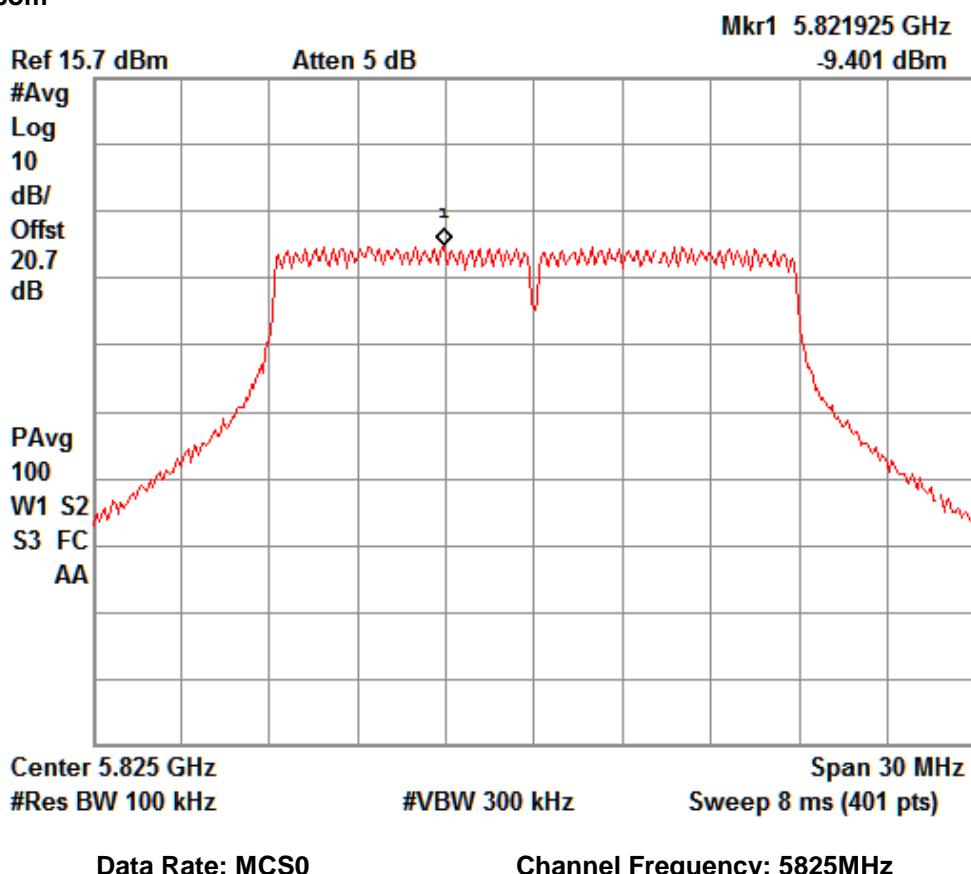
Channel Frequency: 5825MHz

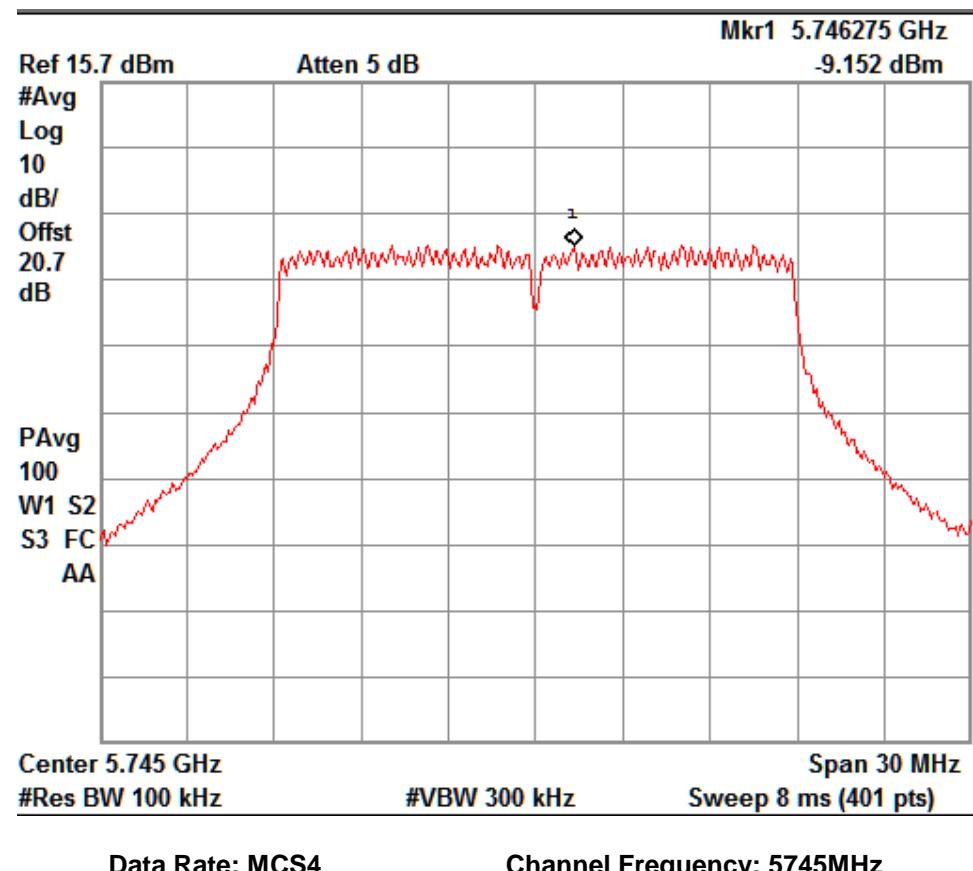
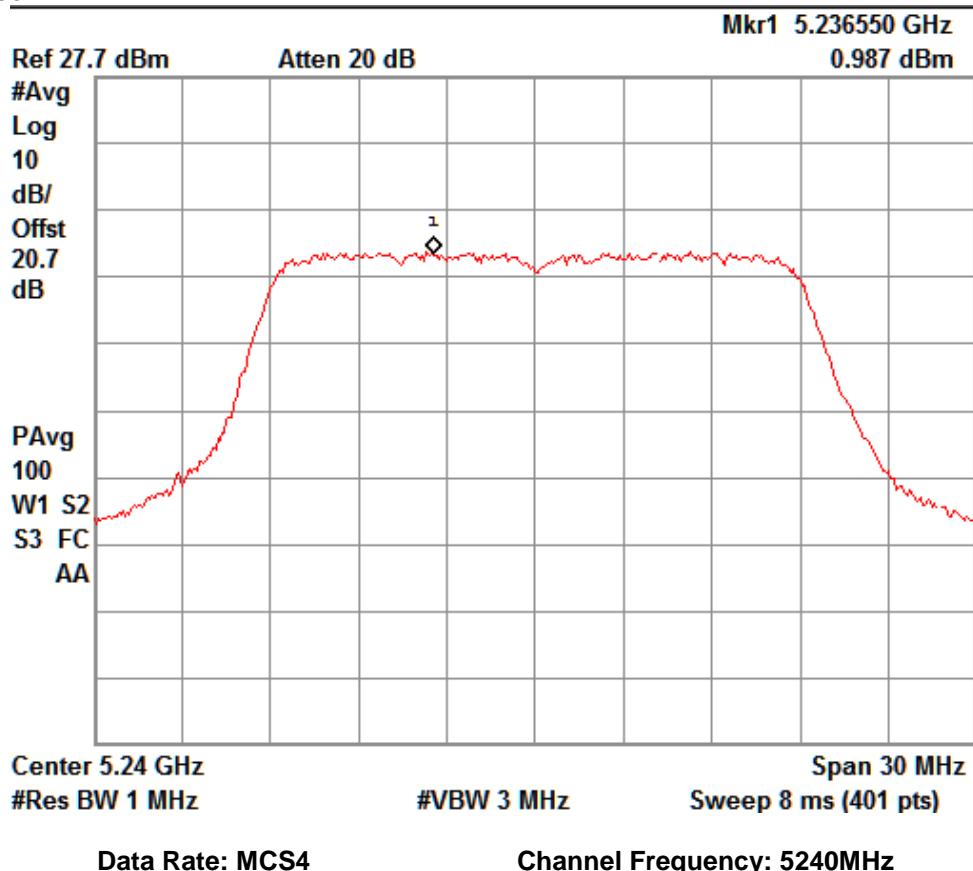
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**Test Results for Path C**

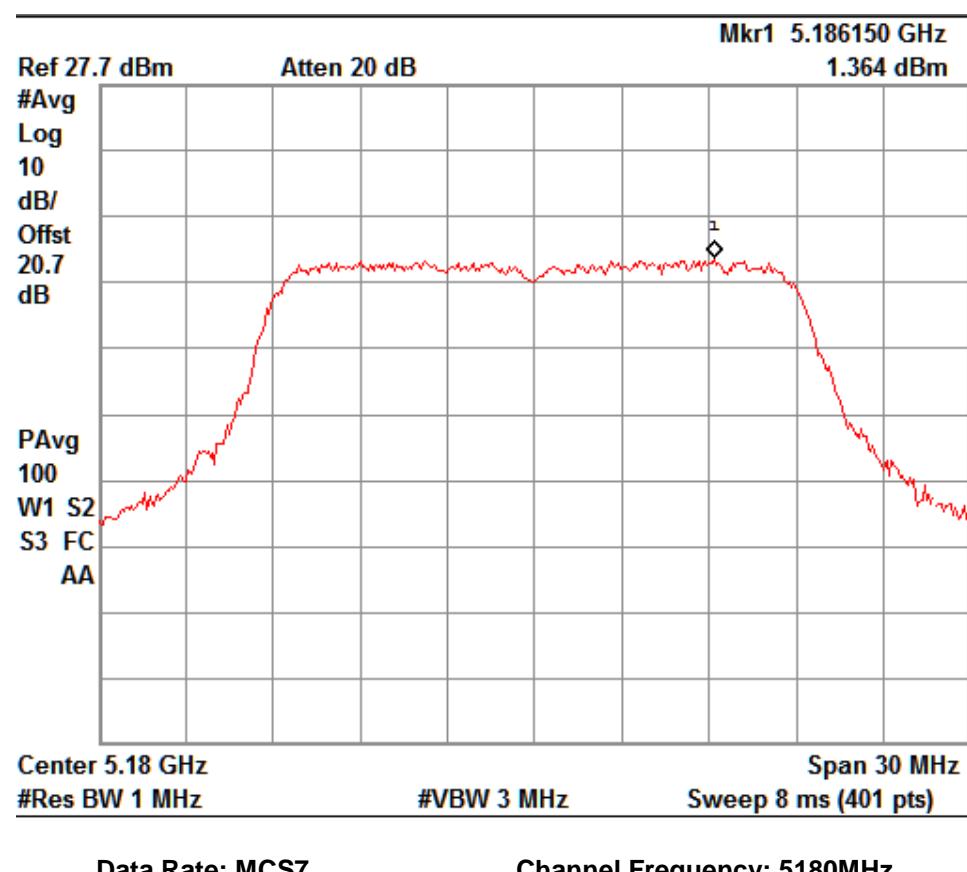
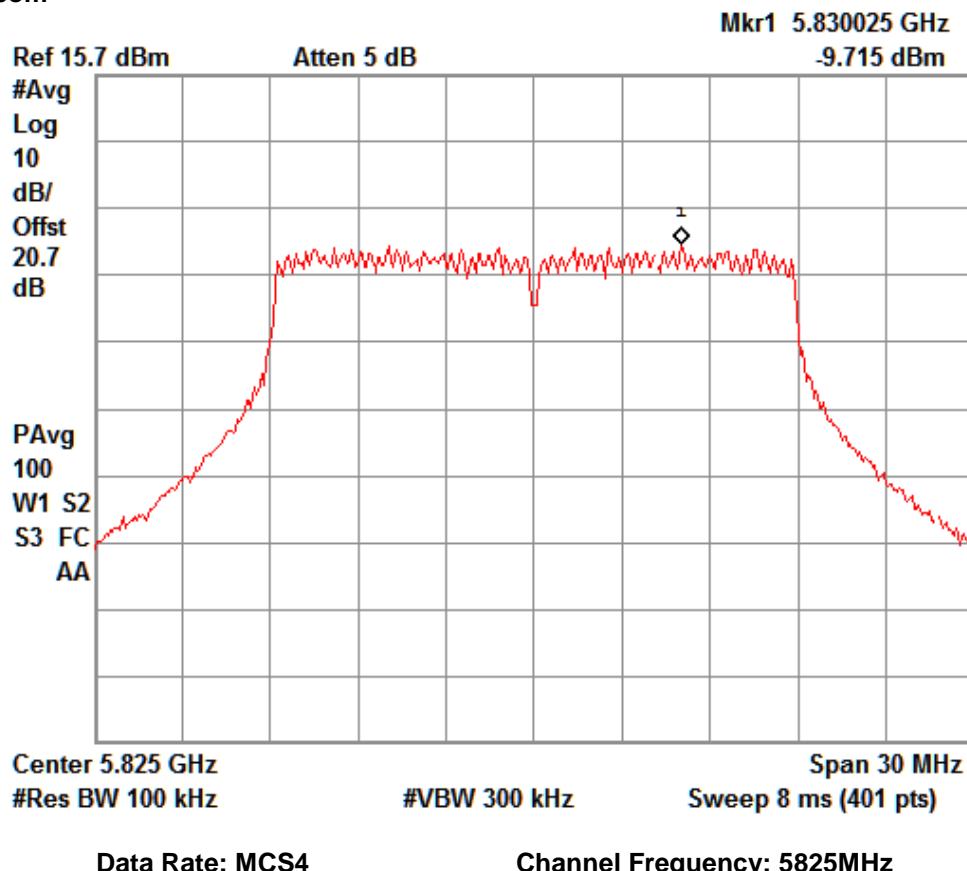
<b>IEEE802.11n HT20</b>						
<b>Data Rate (Mbps)</b>	<b>Channel No.</b>	<b>Frequency (MHz)</b>	<b>Measured PSD (dBm)</b>	<b>Measure &amp; Add <math>10^{\log(3)}</math></b>	<b>Total PSD (dBm)</b>	<b>Limit (dB)</b>
MCS0	36	5180	1.609	4.77	6.379	11
	48	5240	1.267	4.77	6.037	11
	149	5745	-9.144	4.77	-4.374	30
	165	5825	-9.401	4.77	-4.631	30
MCS4	36	5180	1.581	4.77	6.351	11
	48	5240	0.987	4.77	5.757	11
	149	5745	-9.152	4.77	-4.382	30
	165	5825	-9.715	4.77	-4.945	30
MCS7	36	5180	1.364	4.77	6.134	11
	48	5240	0.421	4.77	5.191	11
	149	5745	-8.61	4.77	-3.84	30
	165	5825	-9.235	4.77	-4.465	30

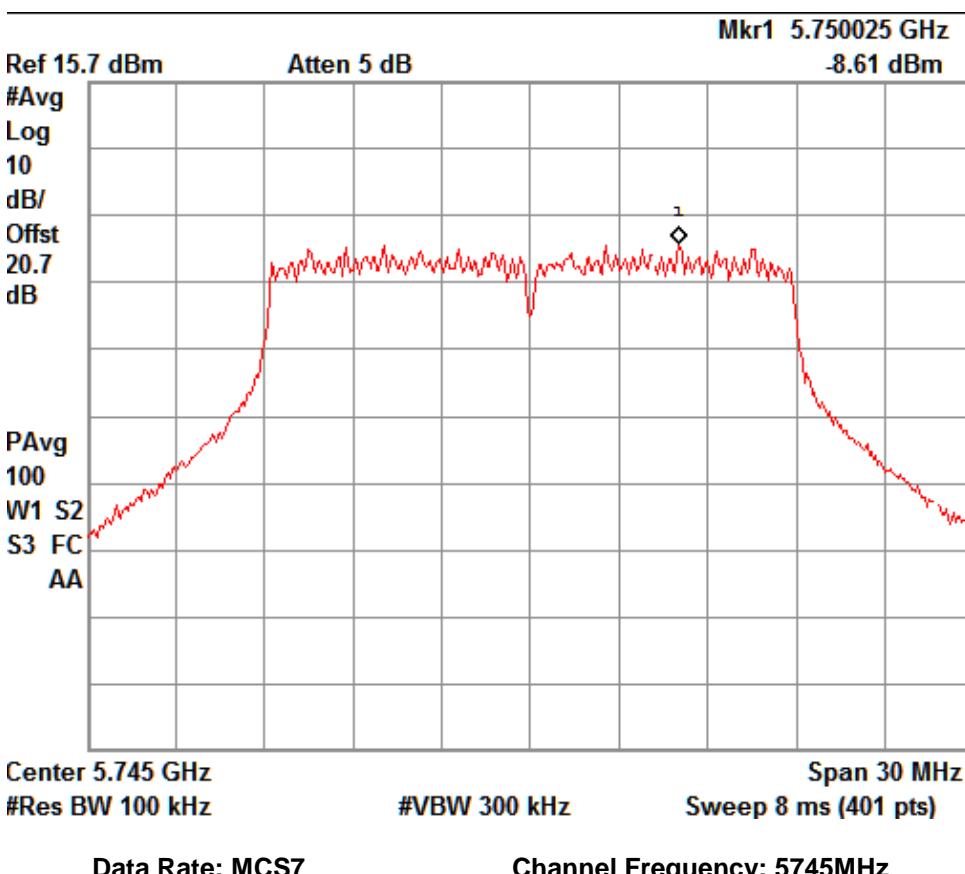
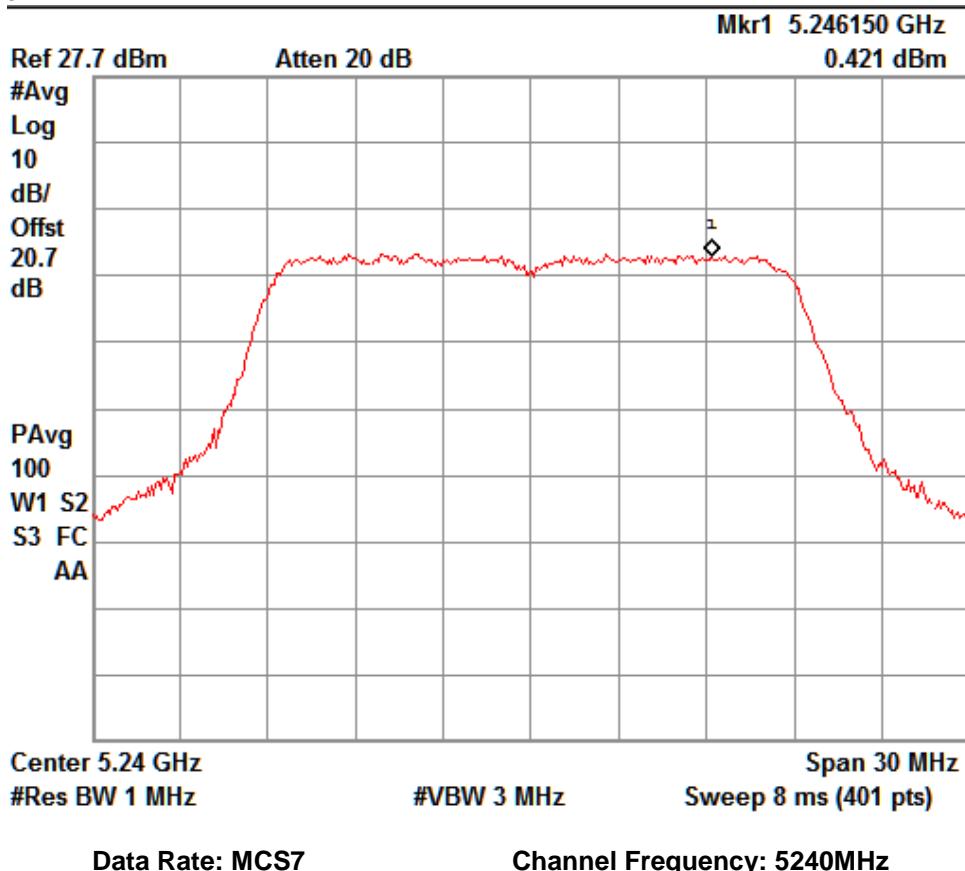


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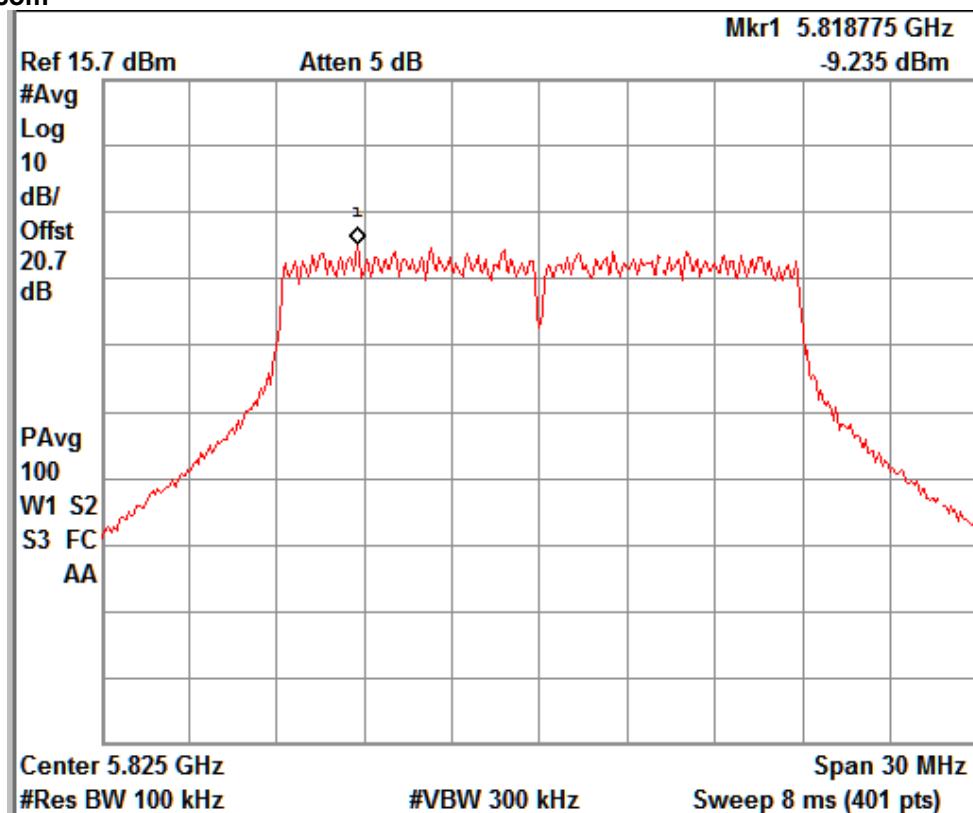
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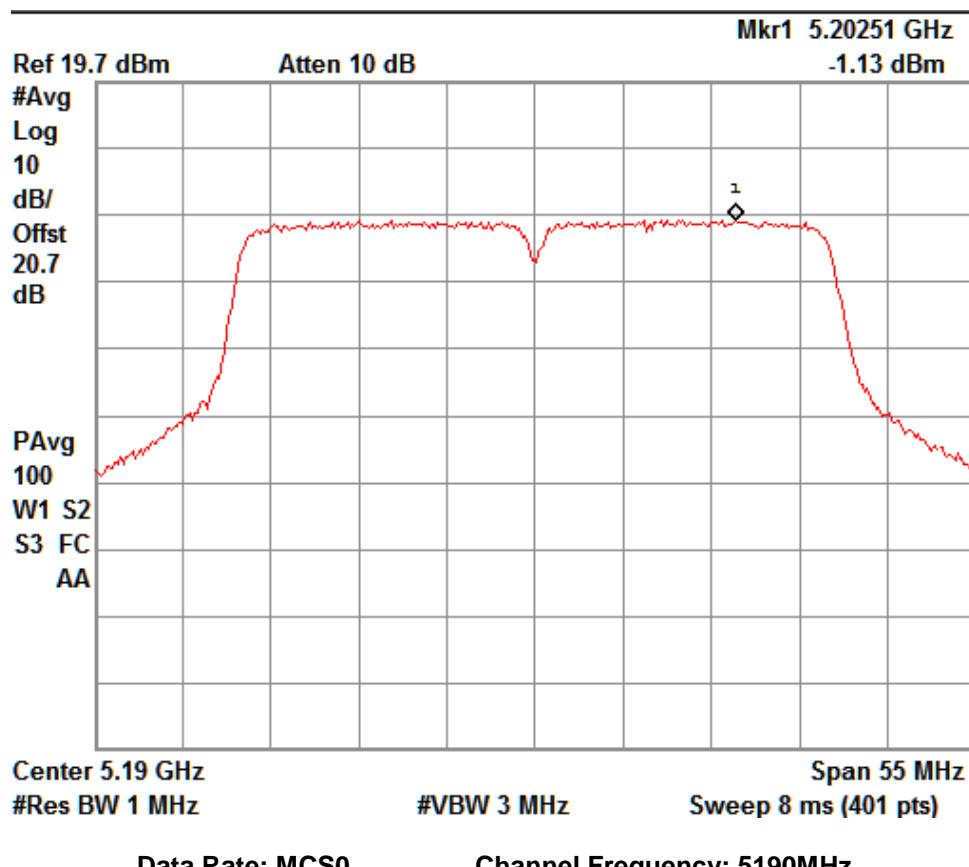


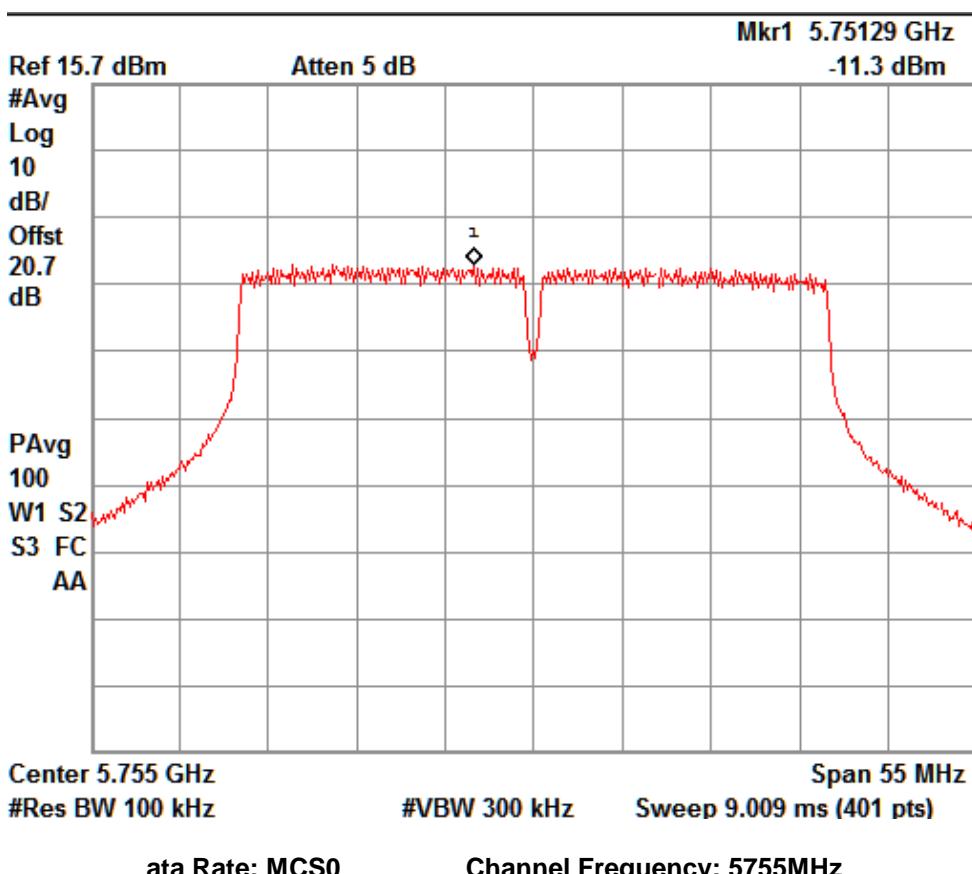
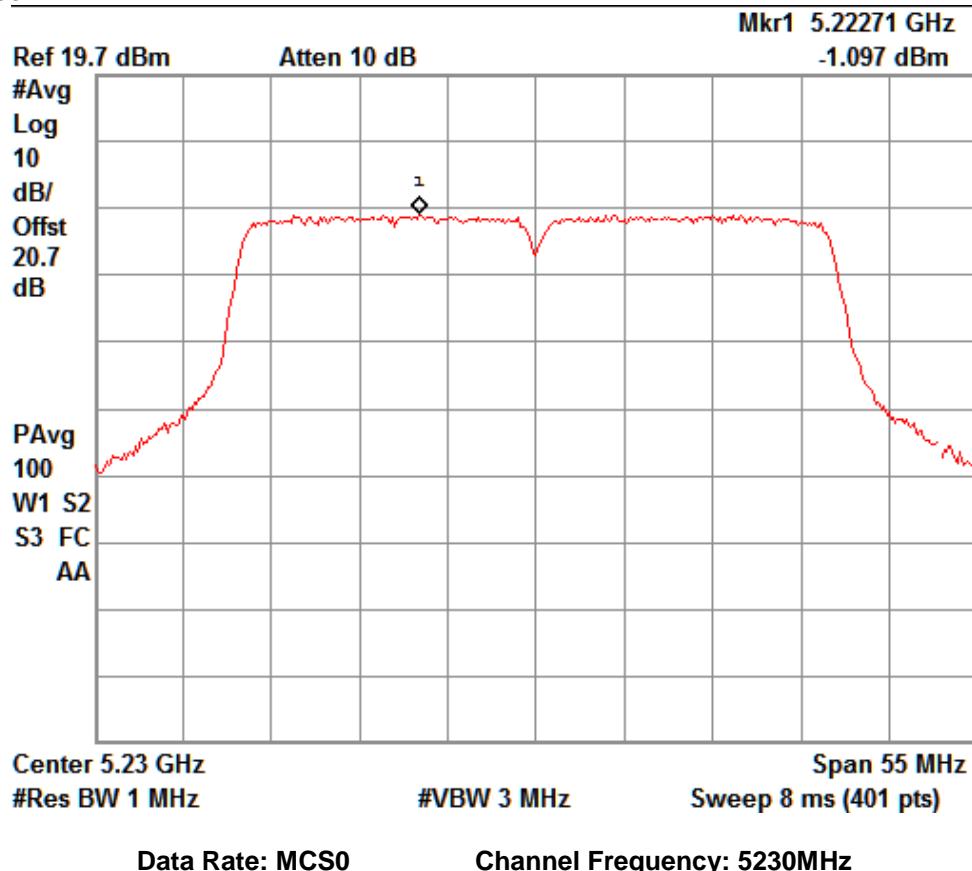
Data Rate: MCS7

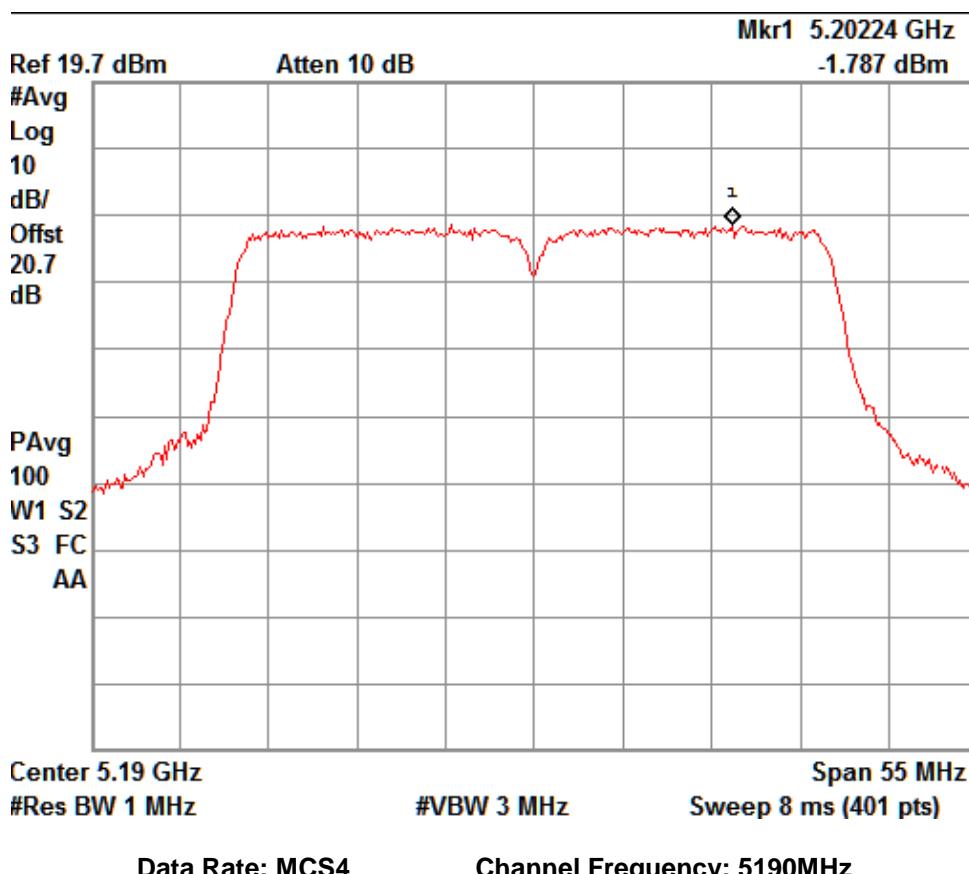
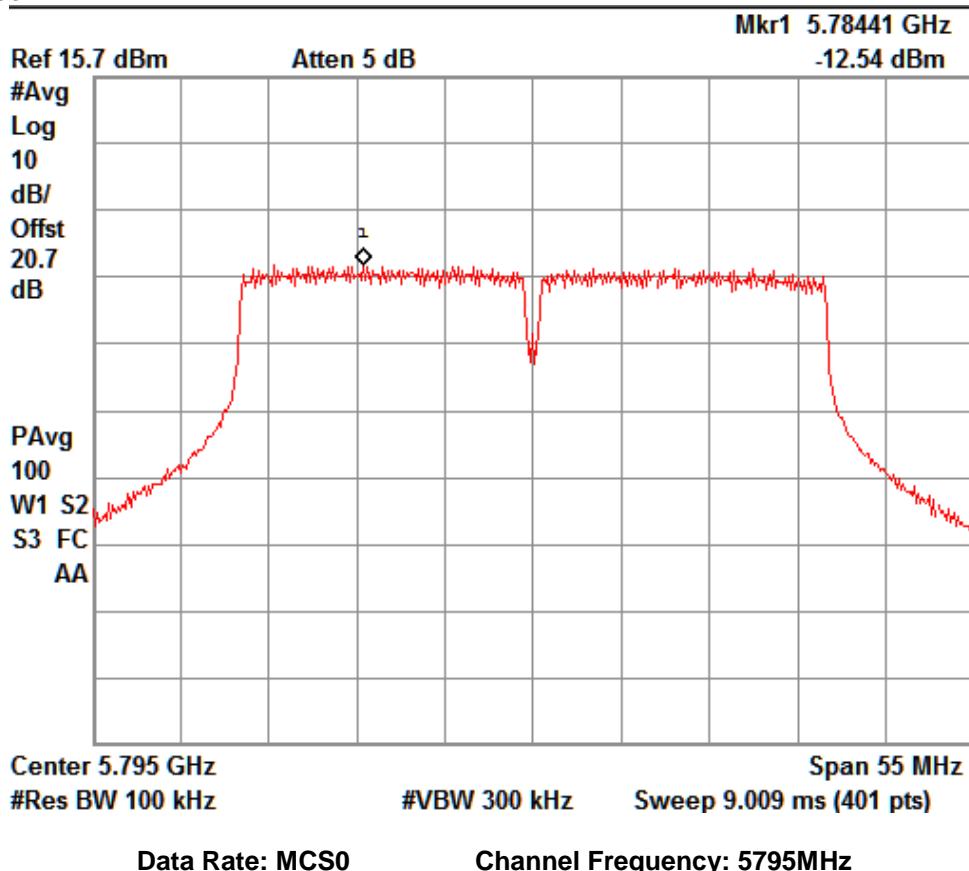
Channel Frequency: 5825MHz

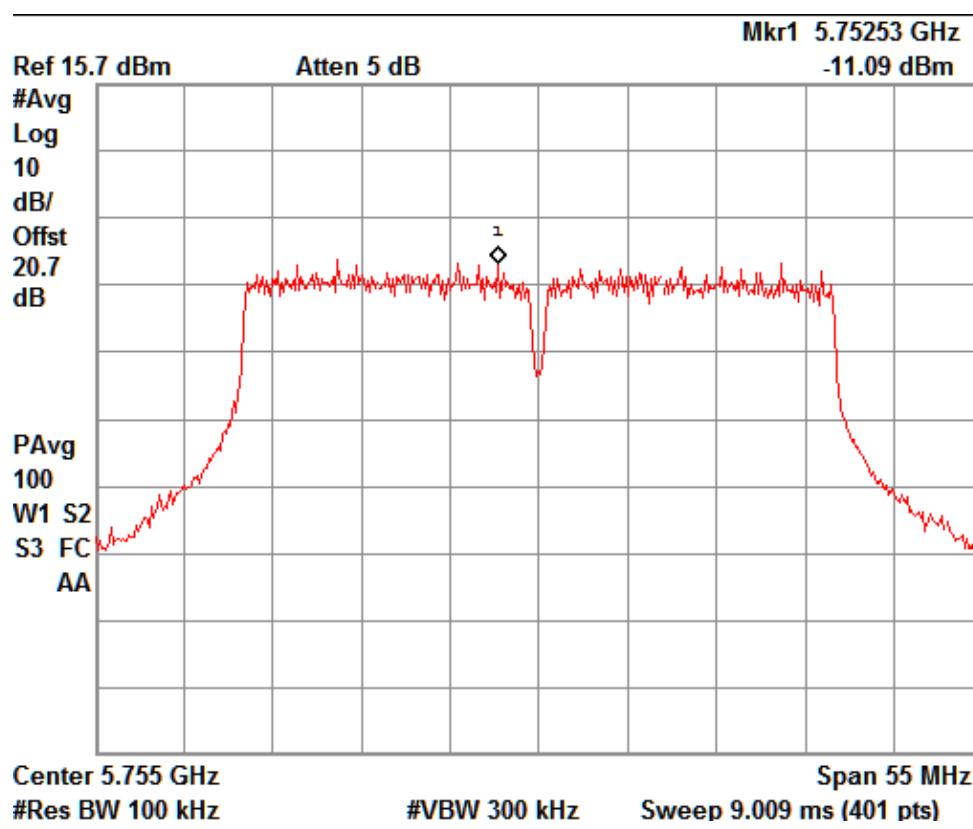
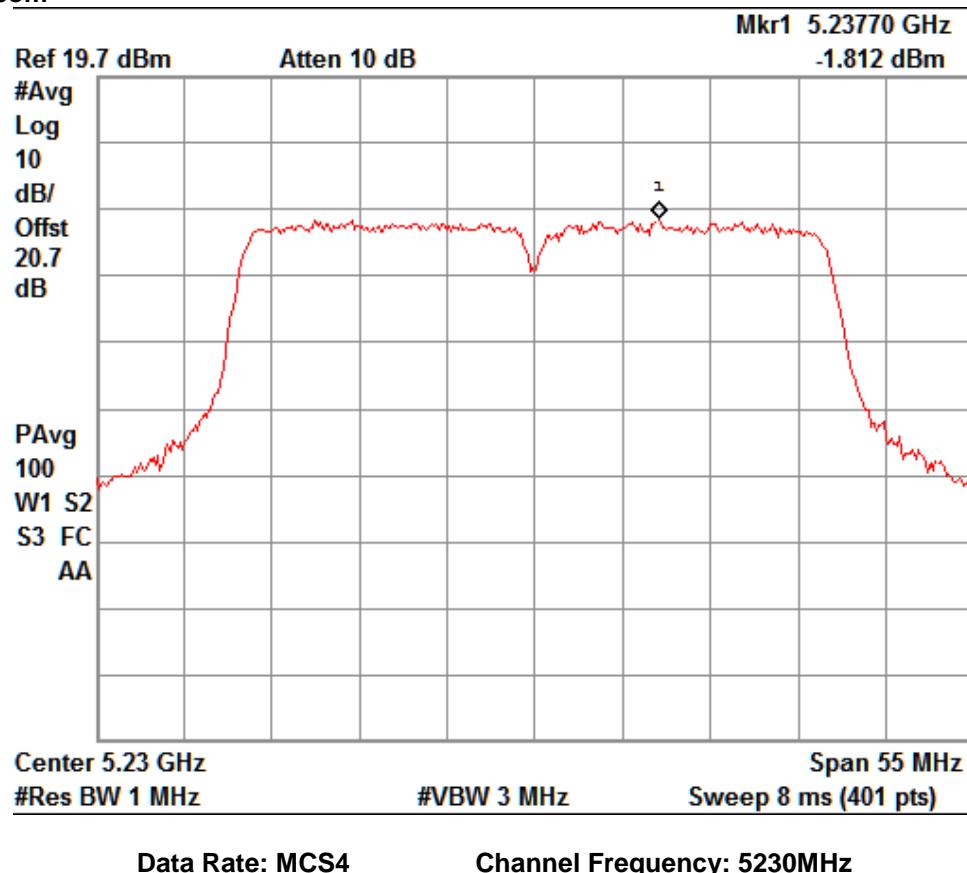
**Test Results for path A**

IEEE802.11n HT40						
Data Rate (Mbps)	Channel No.	Frequency (MHz)	Measured PSD (dBm)	Measure & Add $10^{\log(3)}$	Total PSD (dBm)	Limit (dB)
MCS0	38	5190	-1.13	4.77	3.64	11
	46	5230	-1.097	4.77	3.673	11
	151	5755	-11.3	4.77	-6.53	30
	159	5795	-12.54	4.77	-7.77	30
MCS4	38	5190	-1.787	4.77	2.983	11
	46	5230	-1.812	4.77	2.958	11
	151	5755	-11.09	4.77	-6.32	30
	159	5795	-12.24	4.77	-7.47	30
MCS7	38	5190	-0.08	4.77	4.69	11
	46	5230	-1.93	4.77	2.84	11
	151	5755	-10.97	4.77	-6.2	30
	159	5795	-11.97	4.77	-7.2	30



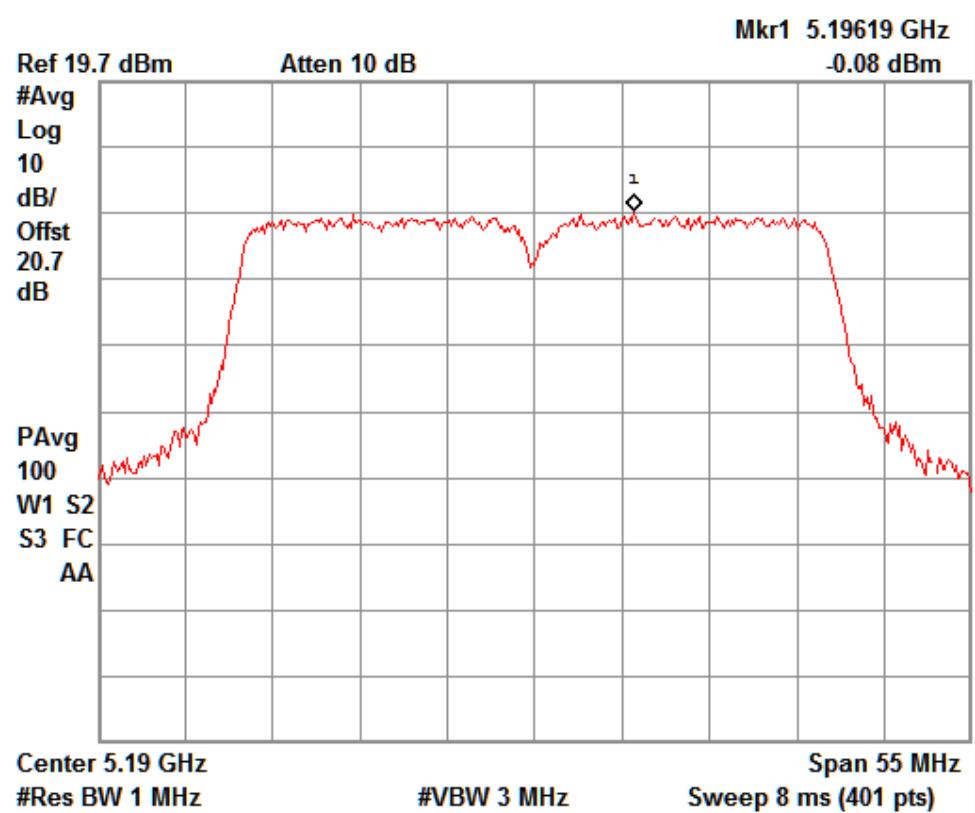
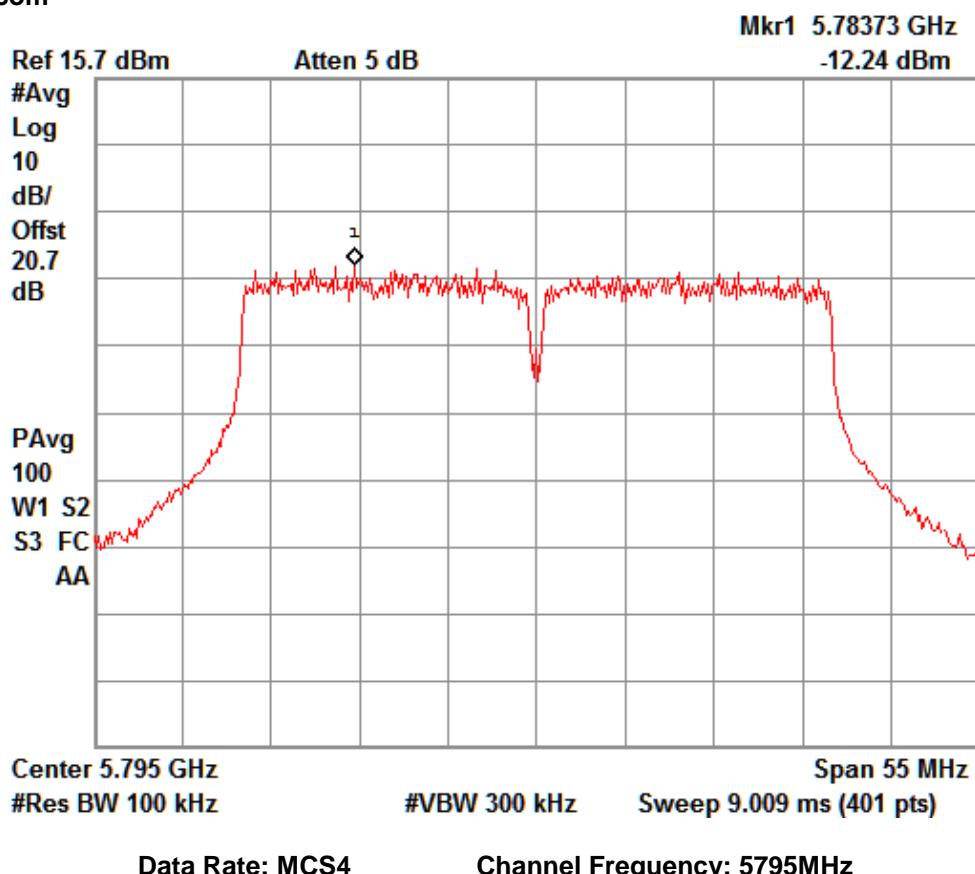
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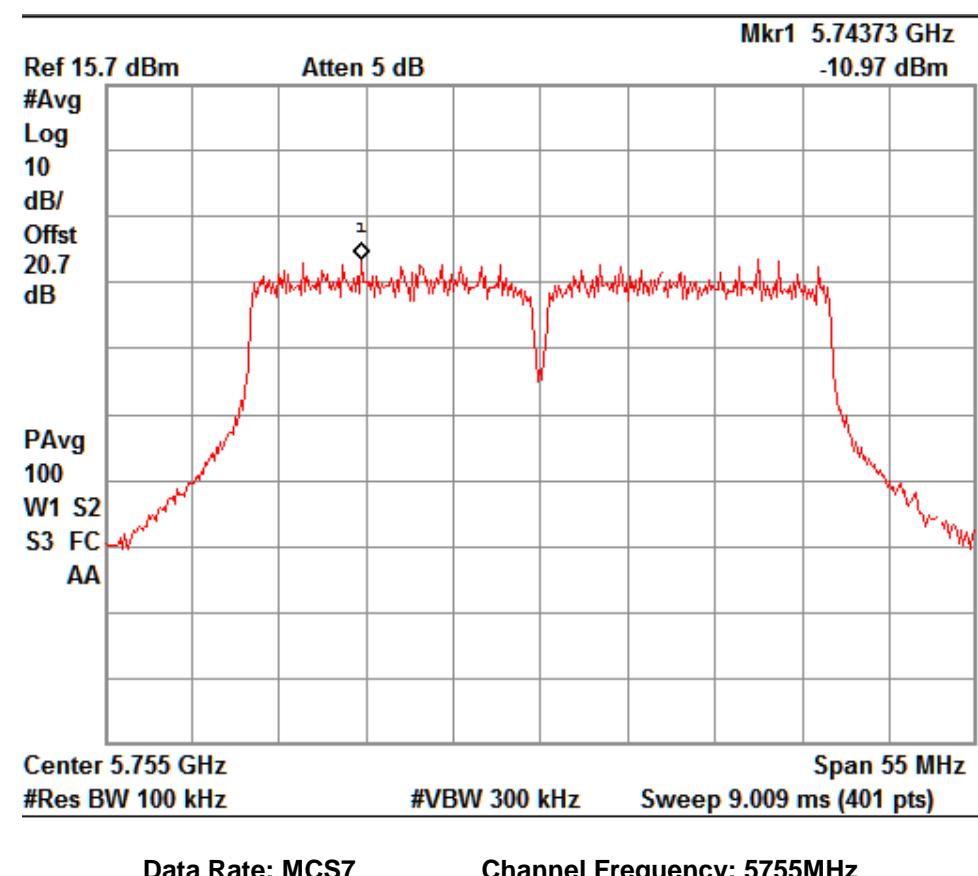
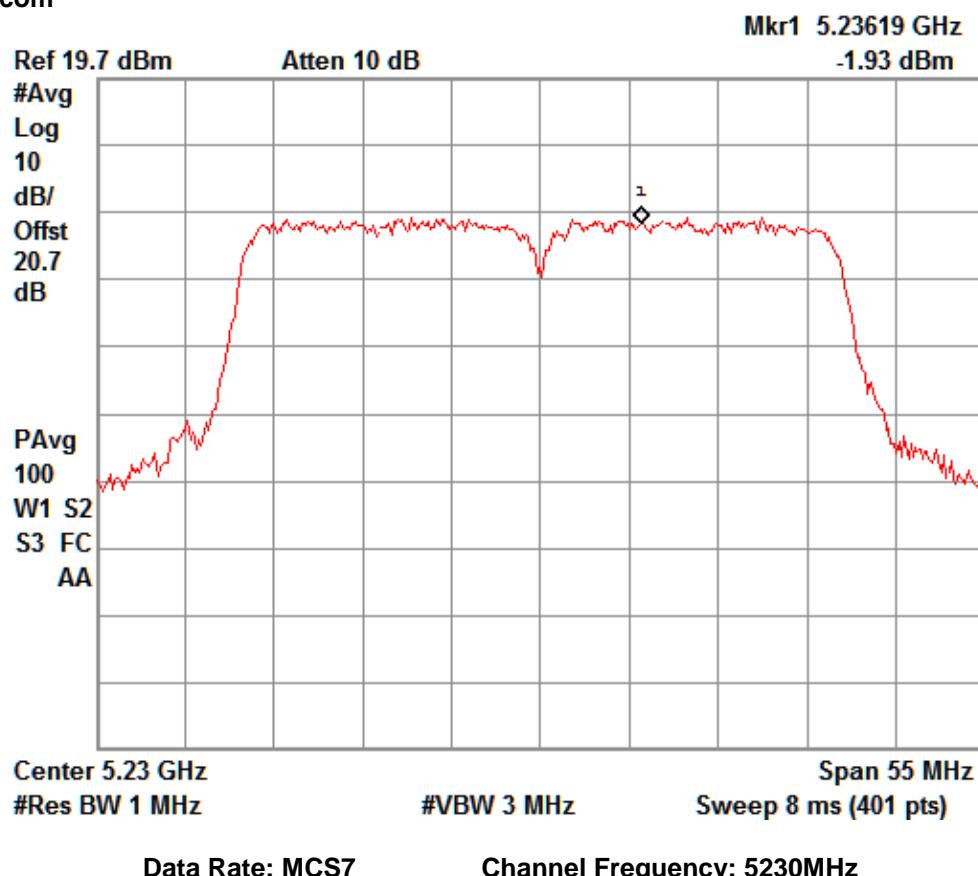
Data Rate: MCS4

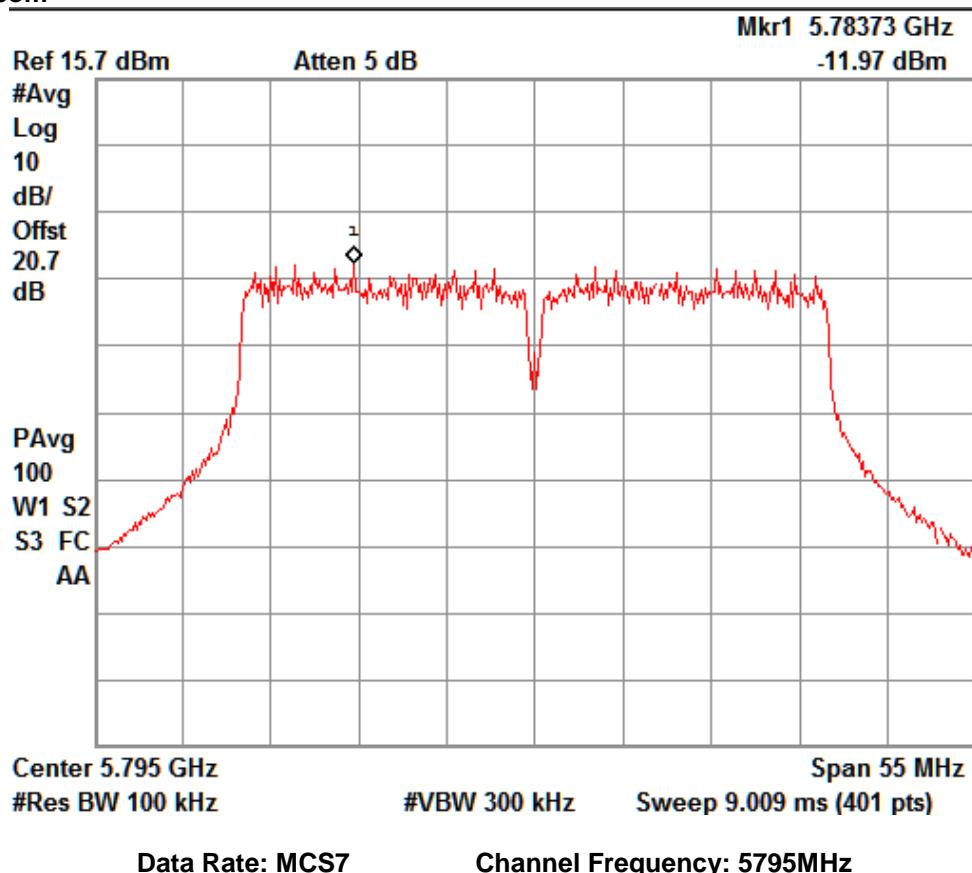
Channel Frequency: 5755MHz

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Data Rate: MCS7

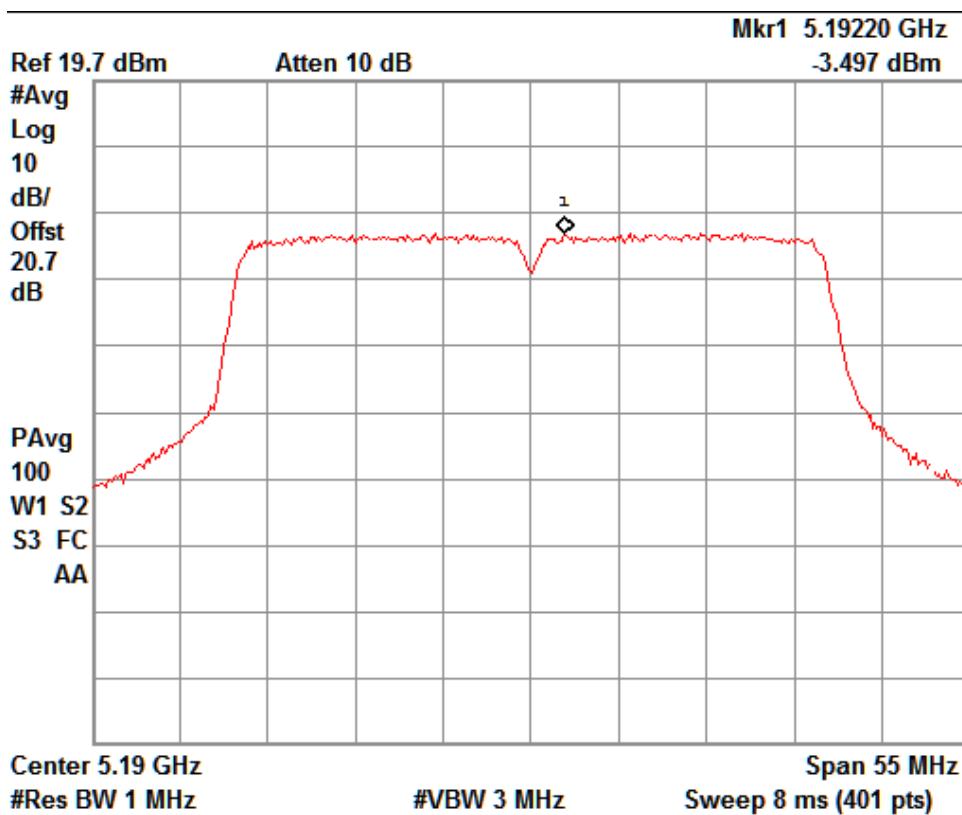
Channel Frequency: 5190MHz

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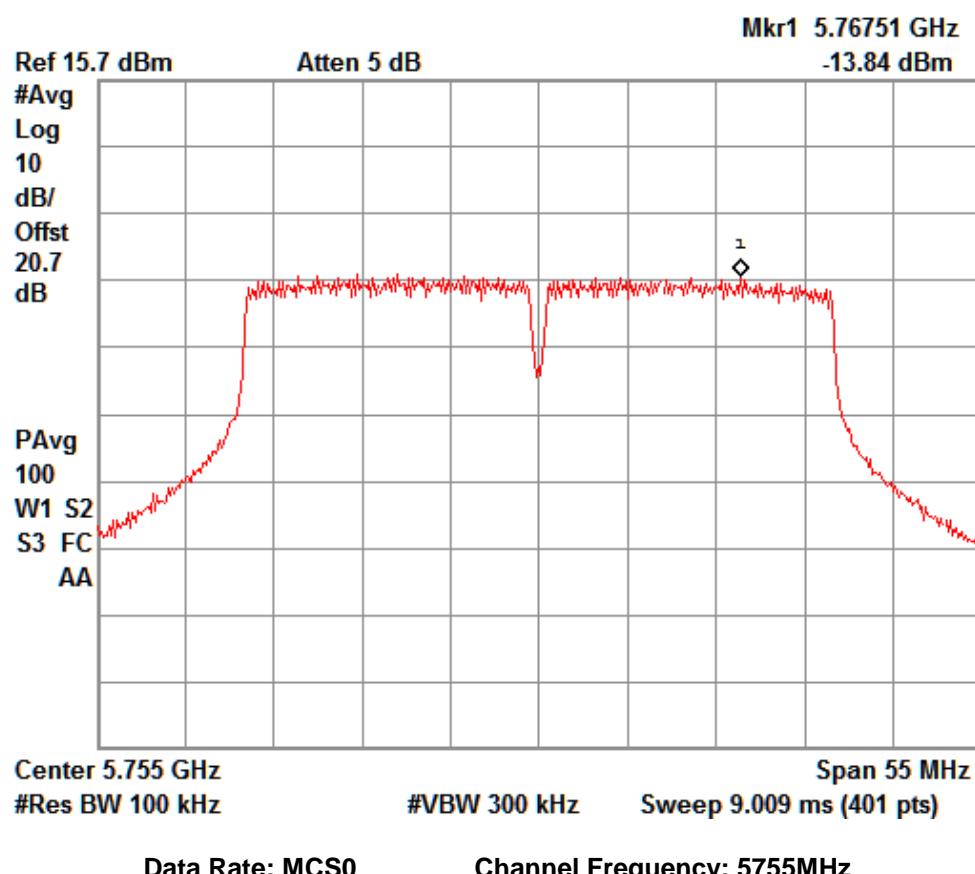
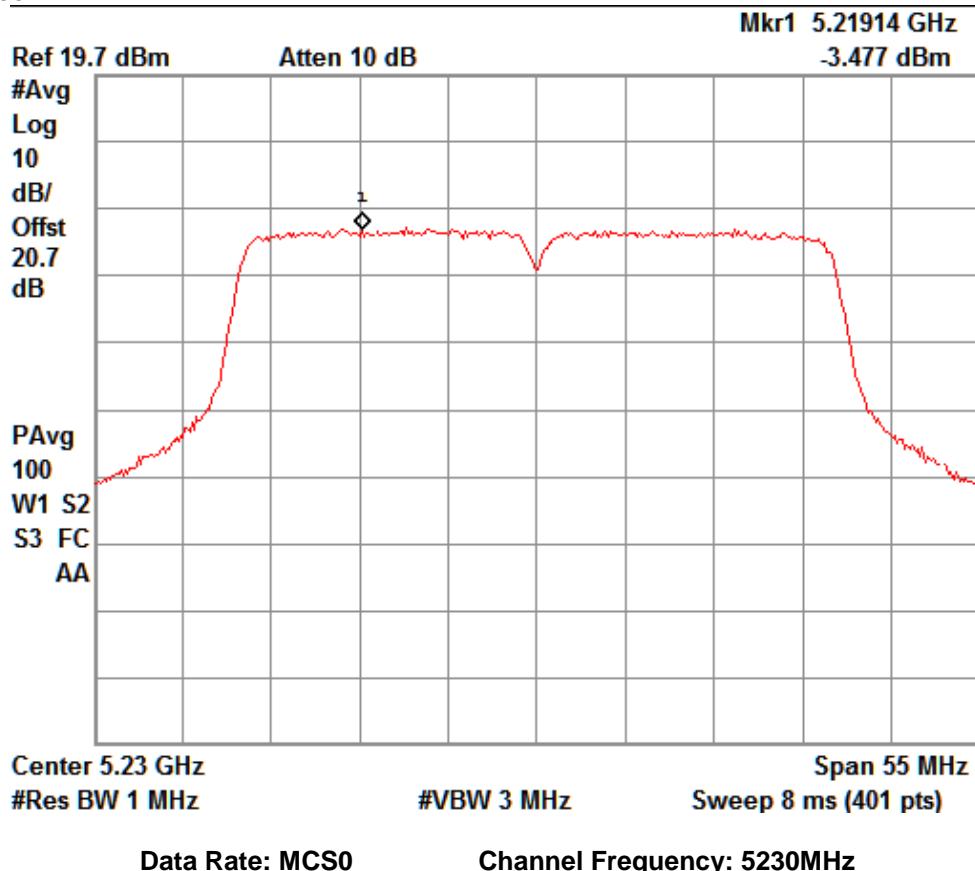
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Test Results for path B

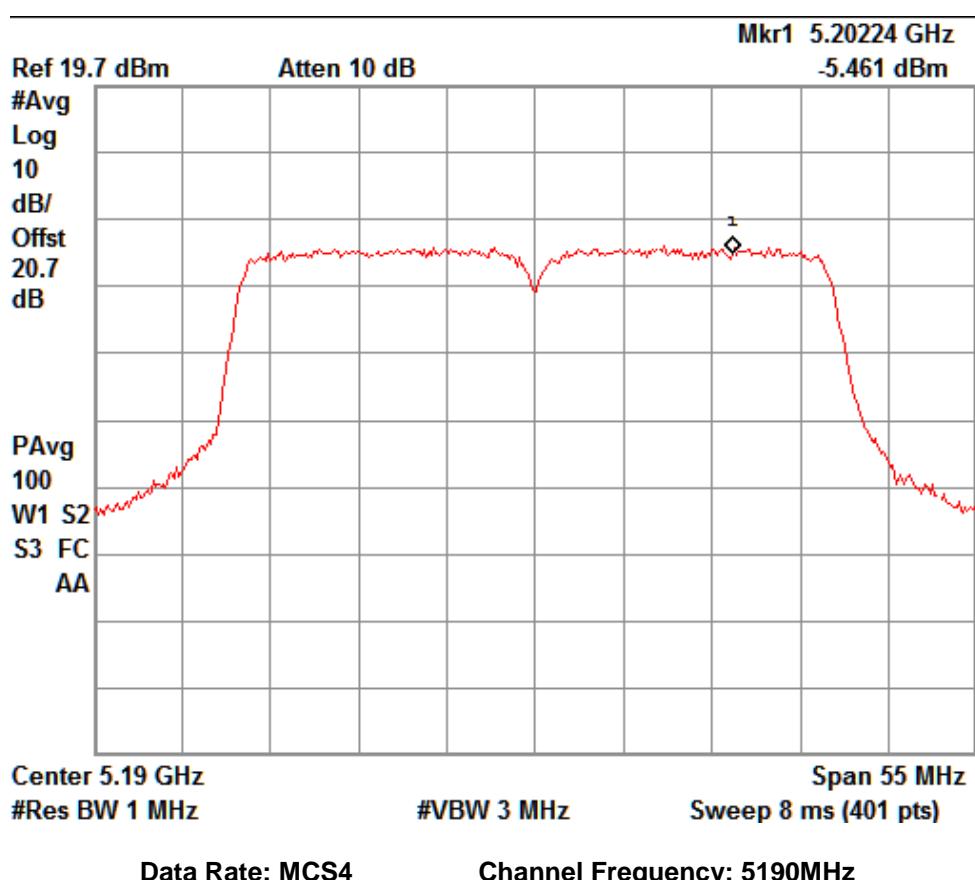
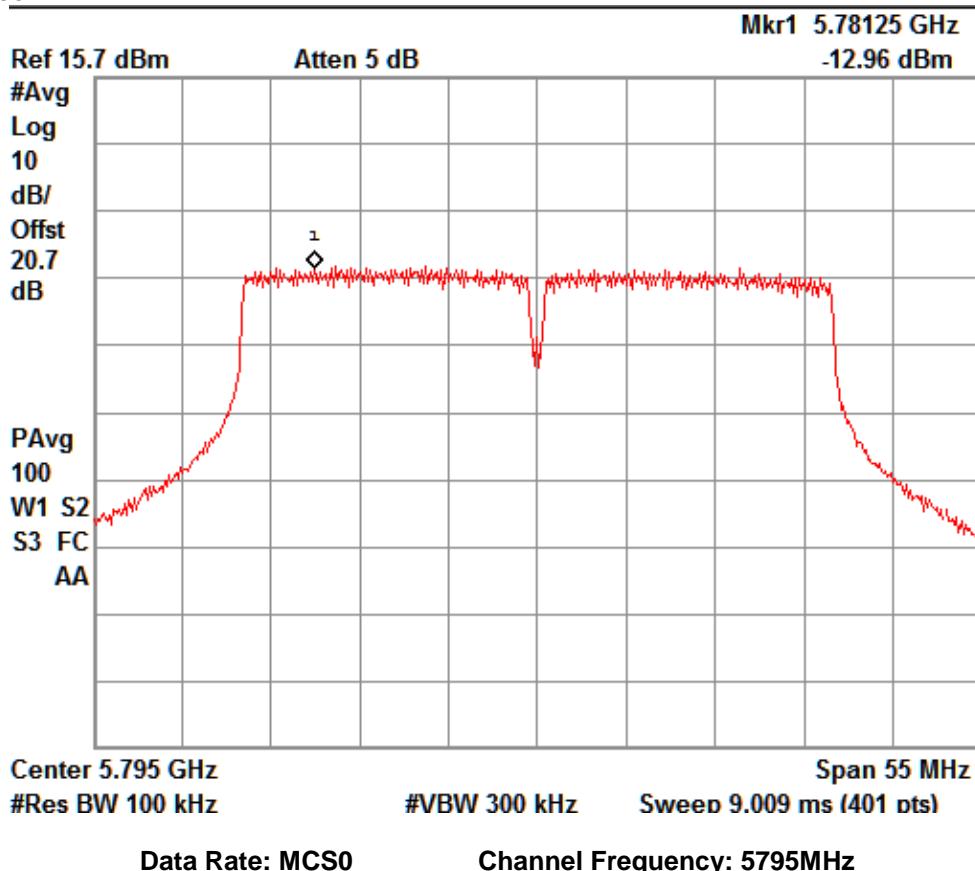
IEEE802.11n HT40						
Data Rate (Mbps)	Channel No.	Frequency (MHz)	Measured PSD (dBm)	Measure & Add $10^{\log(3)}$	Total PSD (dBm)	Limit (dB)
MCS0	38	5190	-3.497	4.77	1.273	11
	46	5230	-3.477	4.77	1.293	11
	151	5755	-13.84	4.77	-9.07	30
	159	5795	-12.96	4.77	-8.19	30
MCS4	38	5190	-5.461	4.77	-0.691	11
	46	5230	-4.571	4.77	0.199	11
	151	5755	-12.32	4.77	-7.55	30
	159	5795	-12.2	4.77	-7.43	30
MCS7	38	5190	-5.249	4.77	-0.479	11
	46	5230	-4.819	4.77	-0.049	11
	151	5755	-11.67	4.77	-6.9	30
	159	5795	-11.85	4.77	-7.08	30

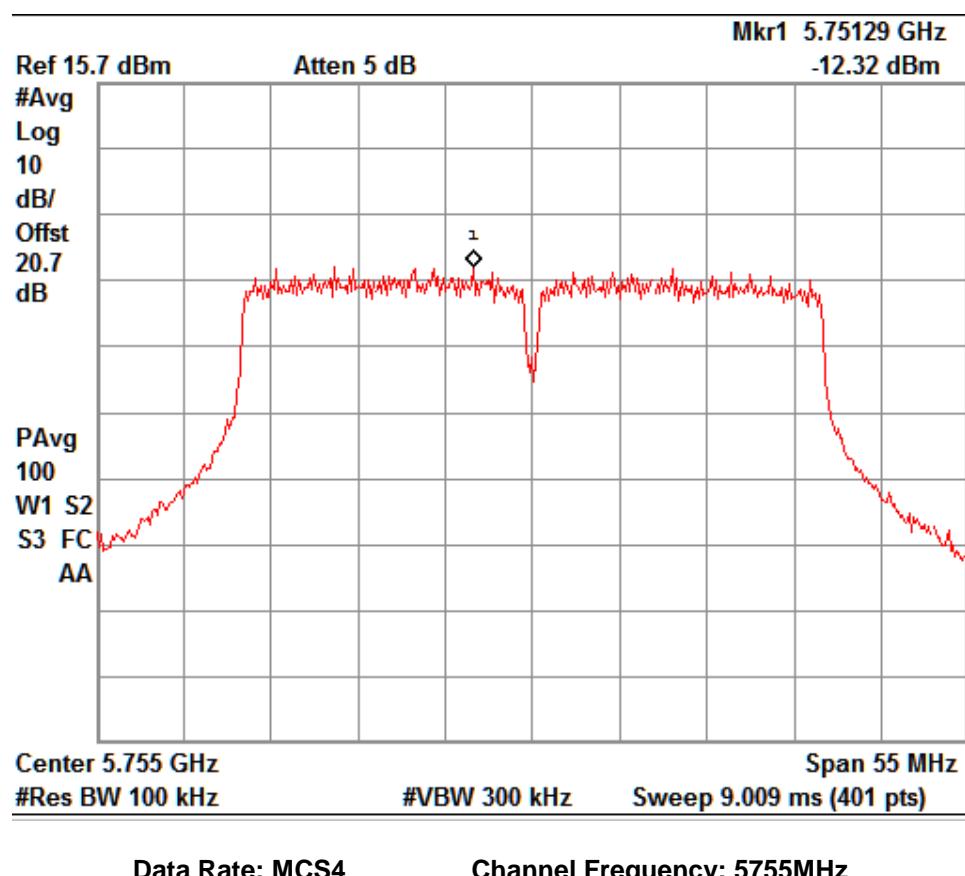
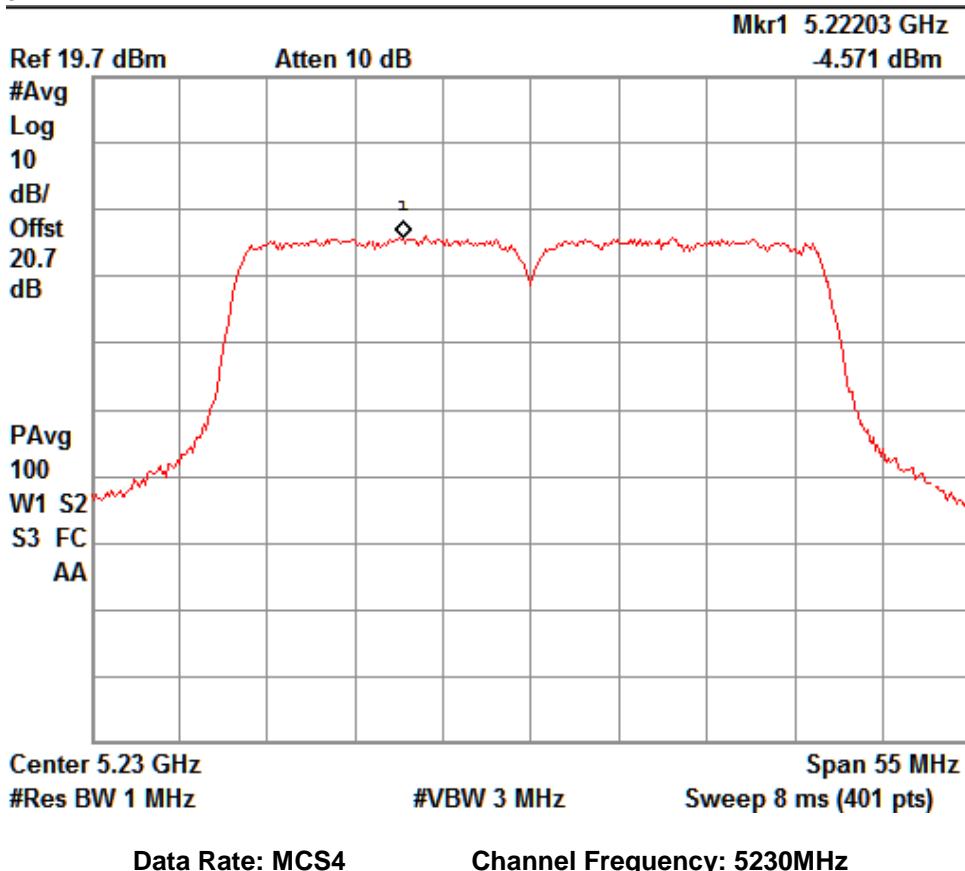


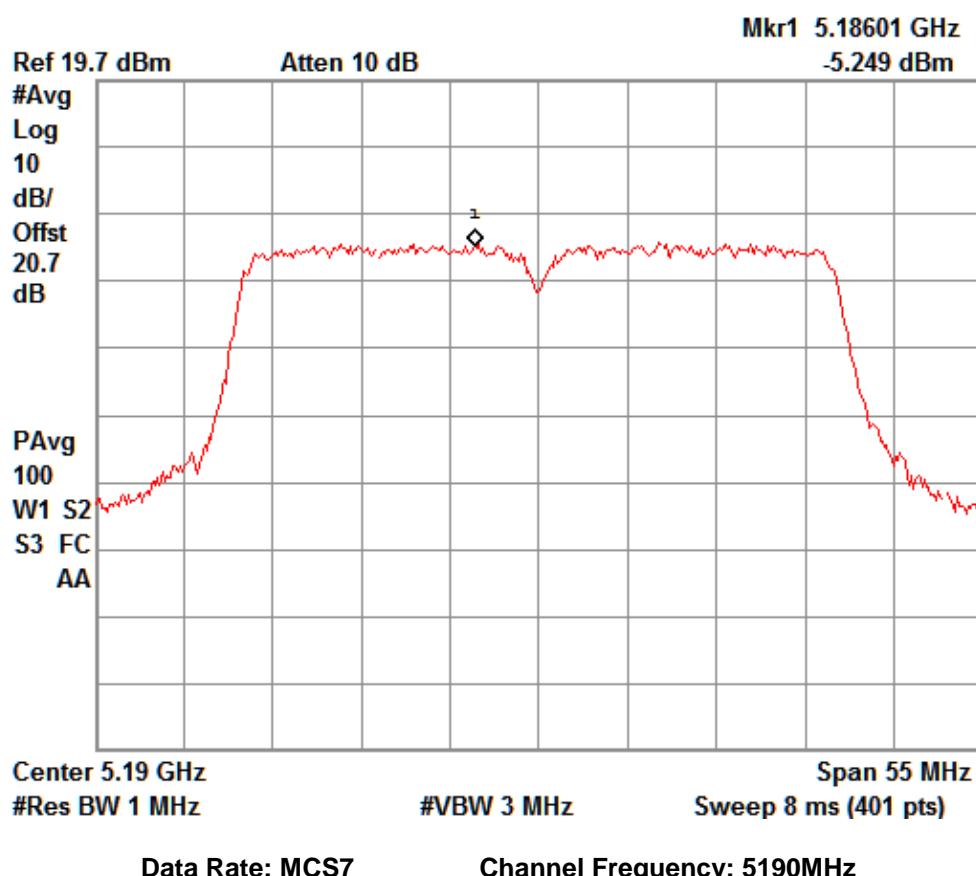
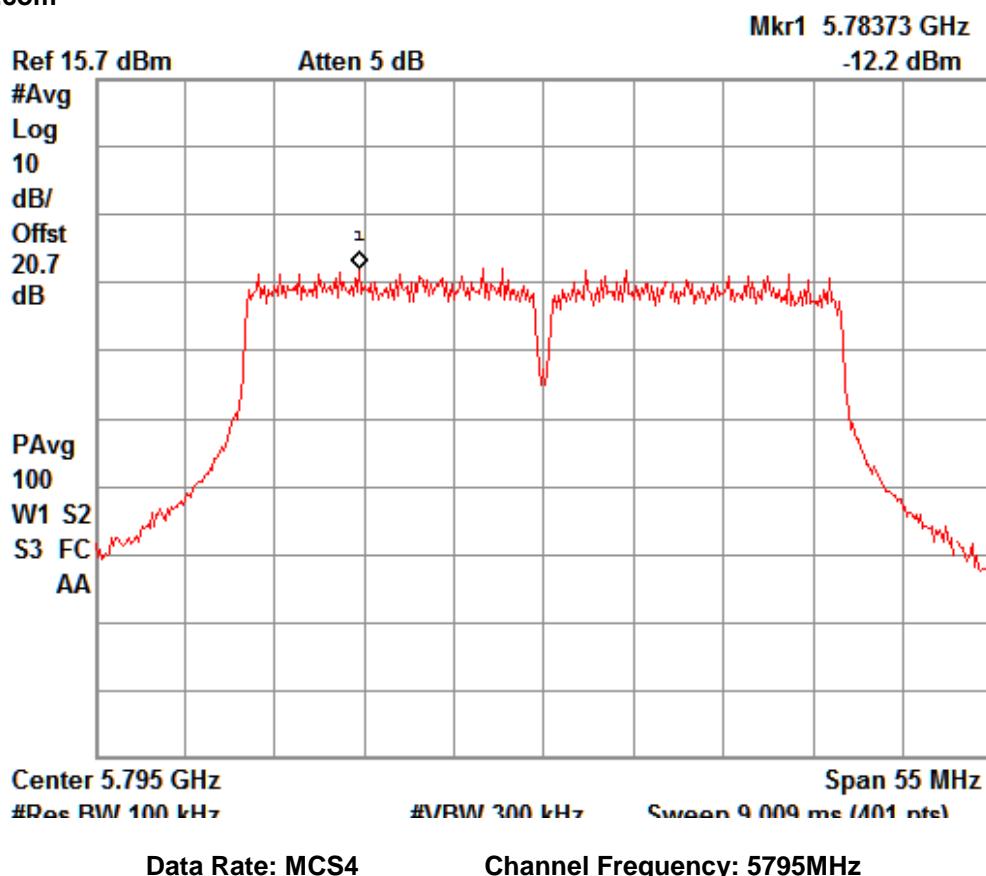
Data Rate: MCS0

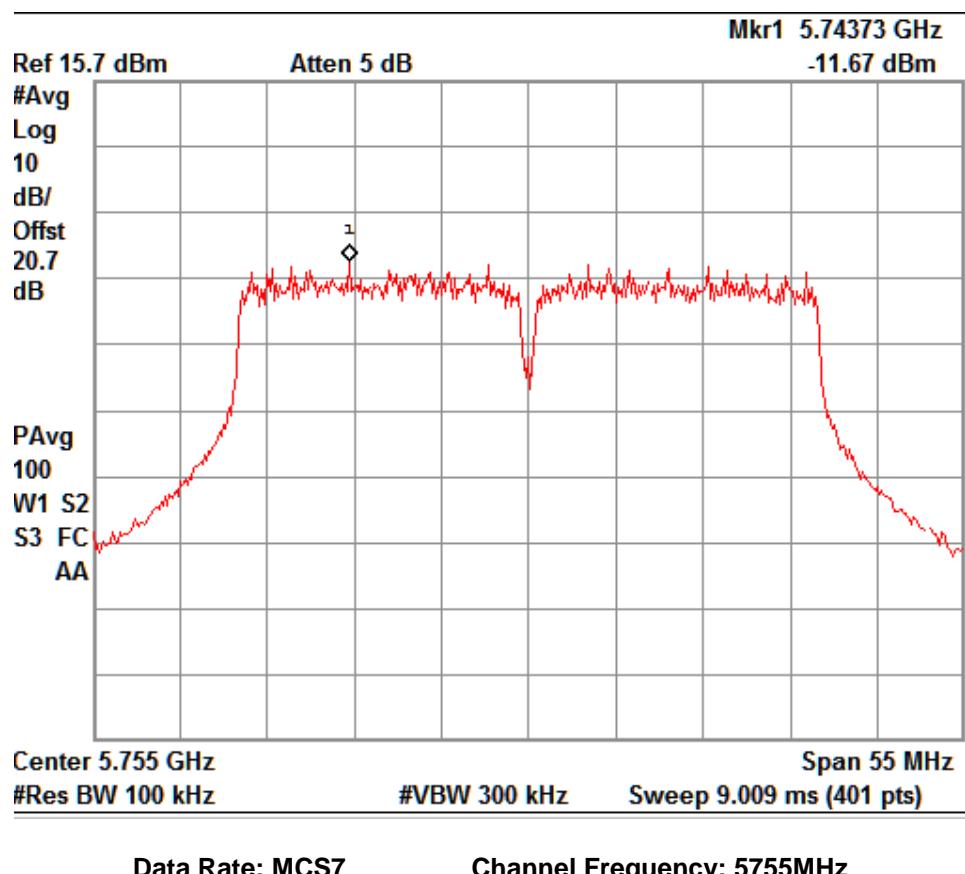
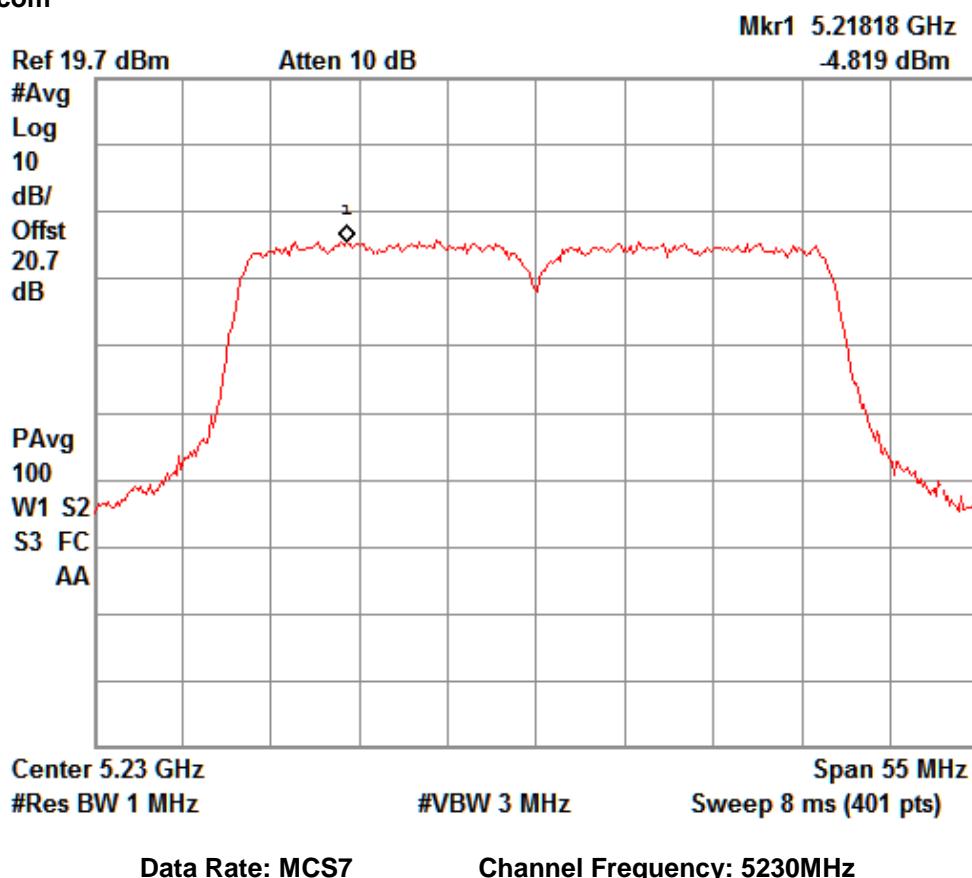
Channel Frequency: 5190MHz

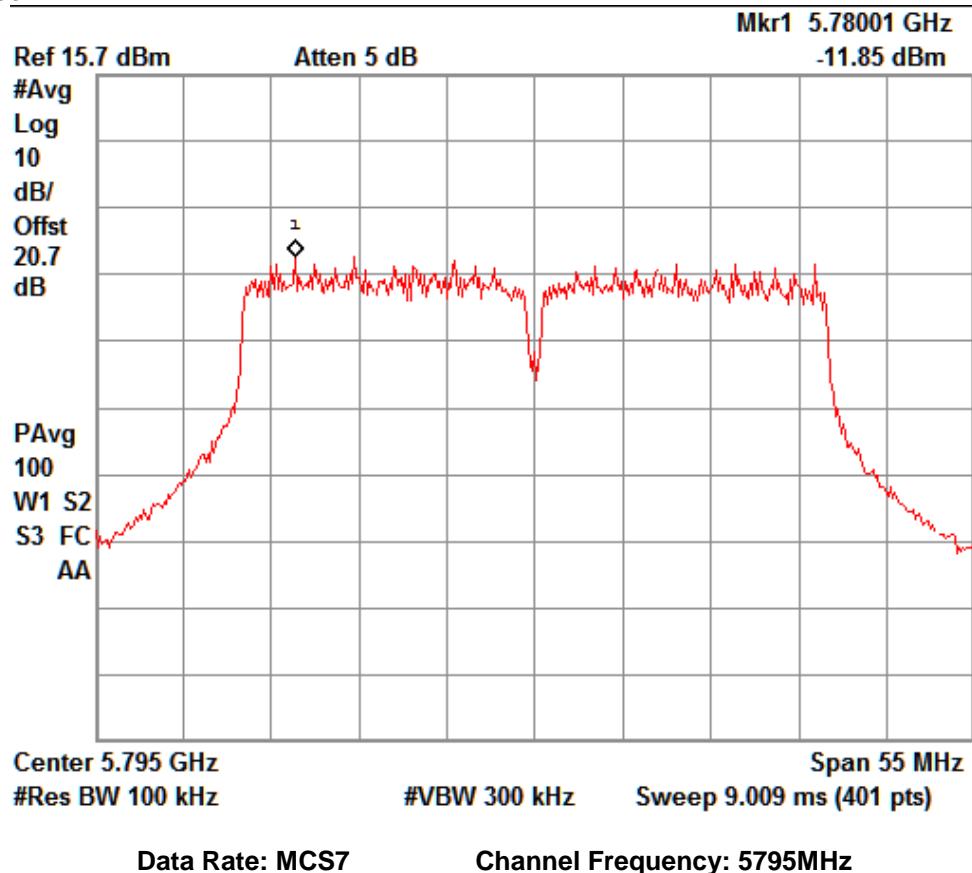
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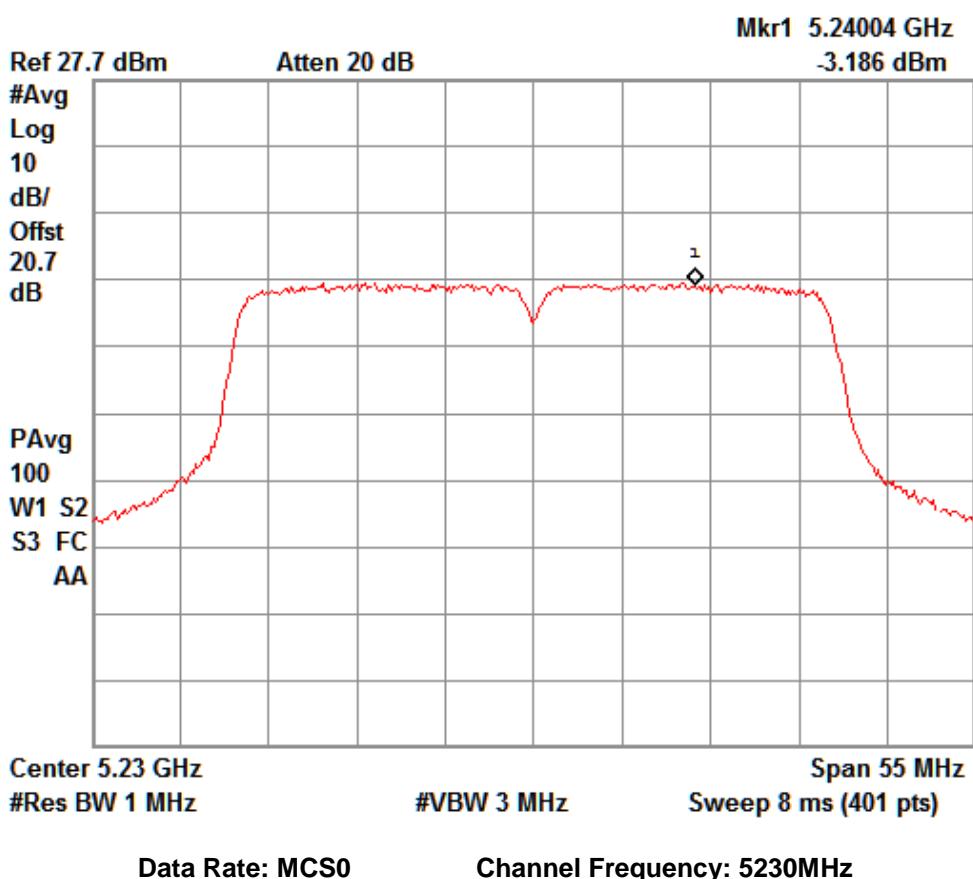
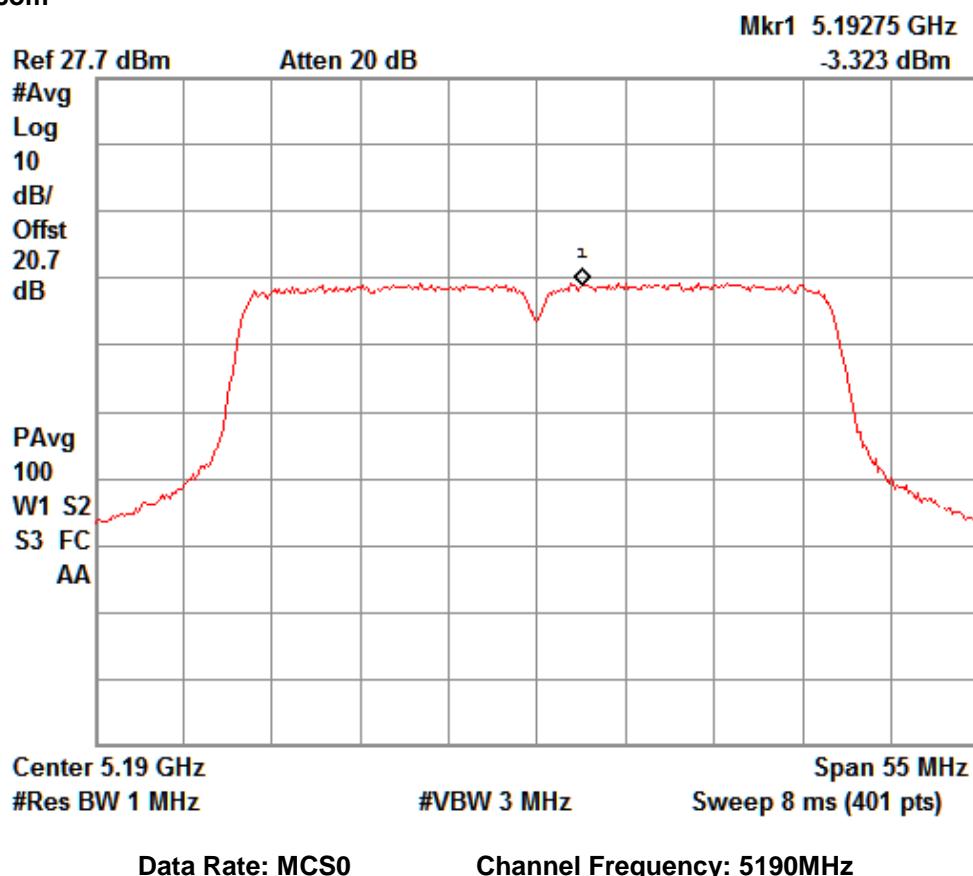
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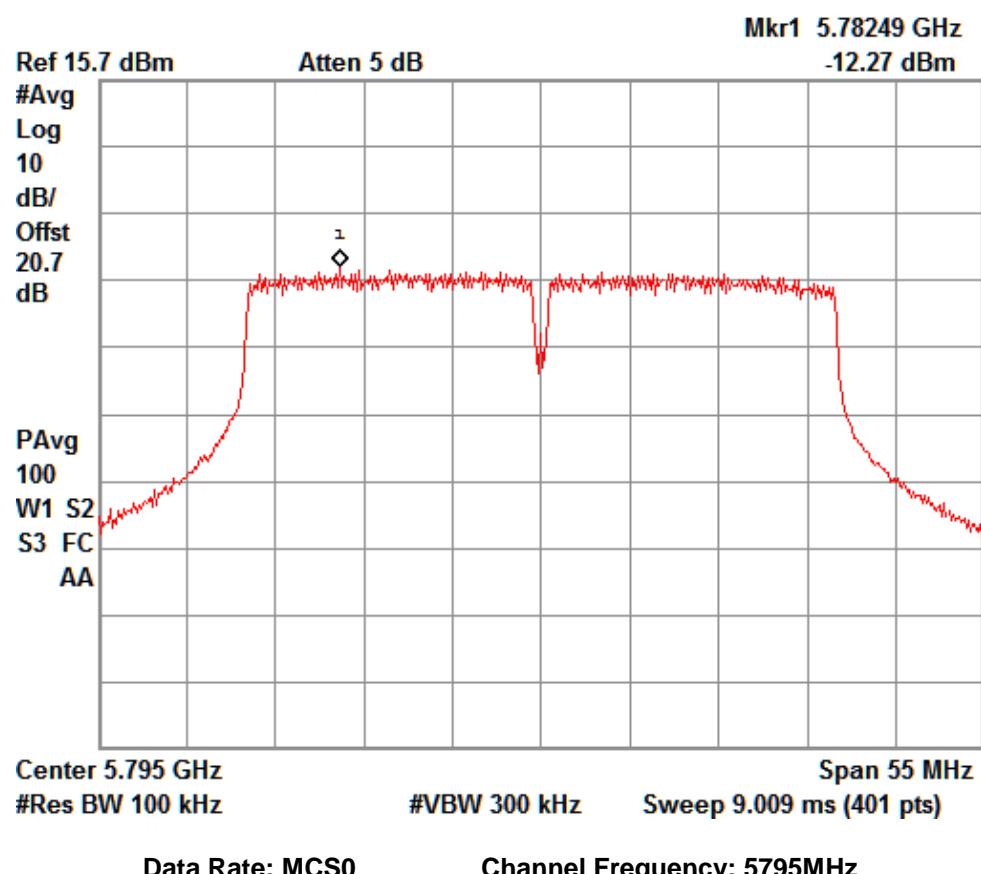
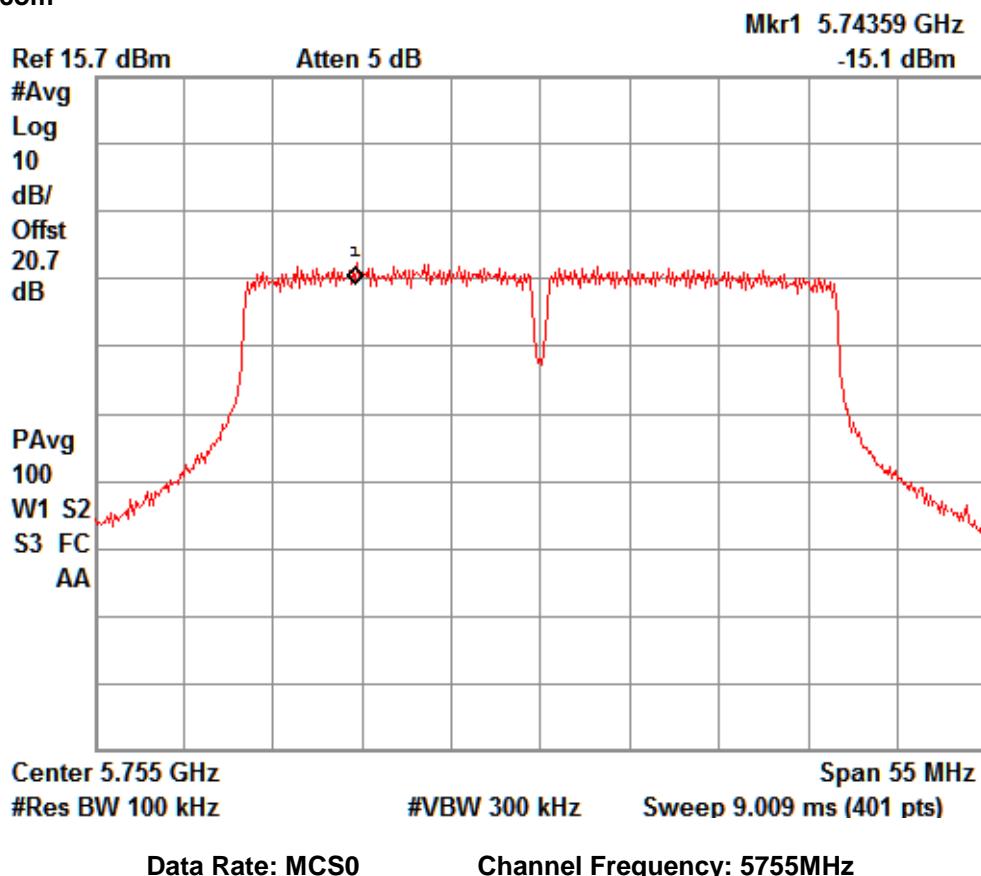
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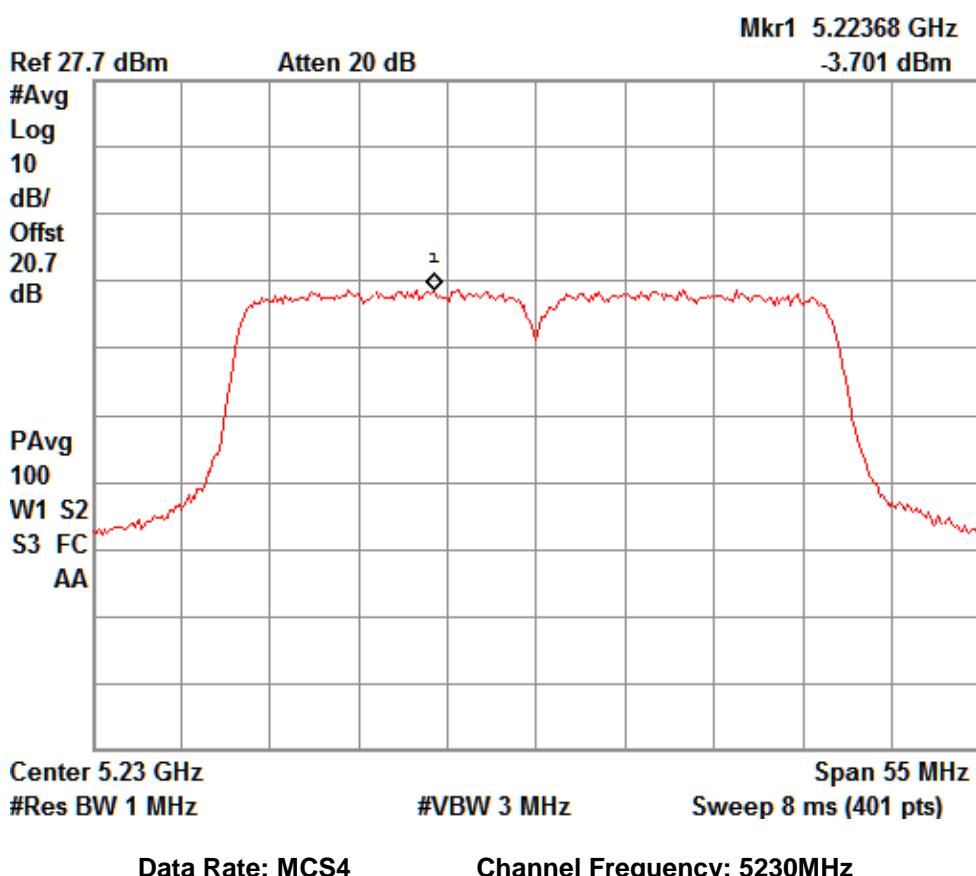
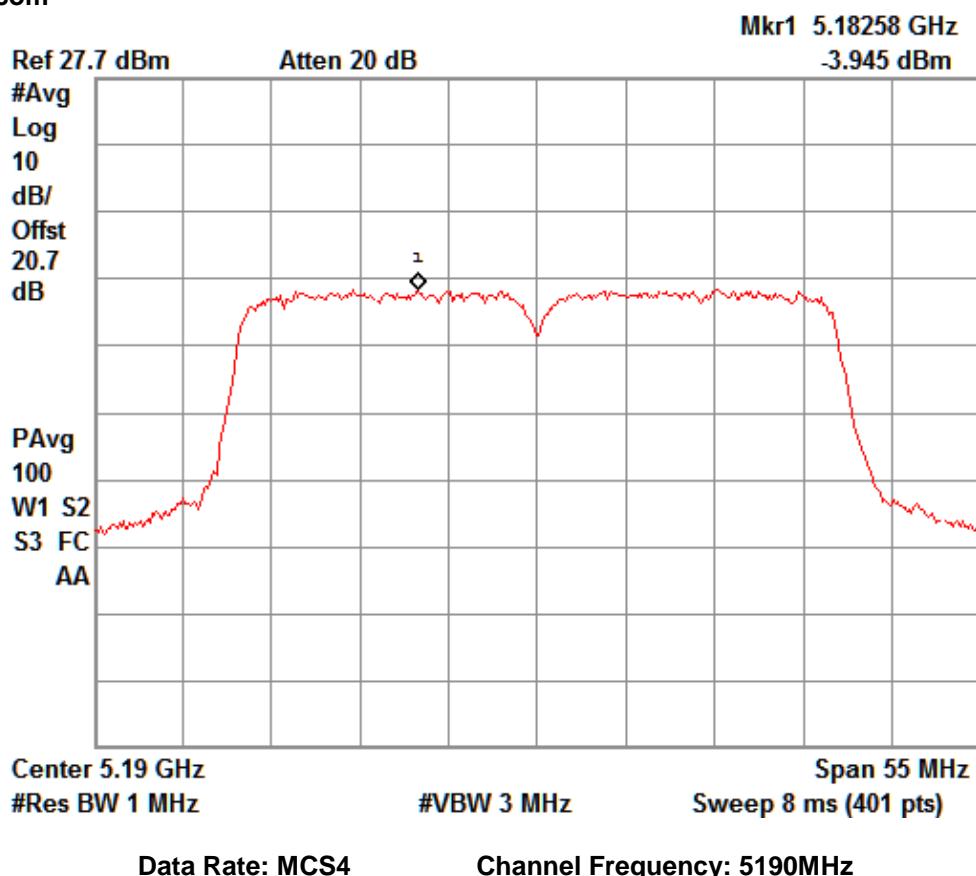


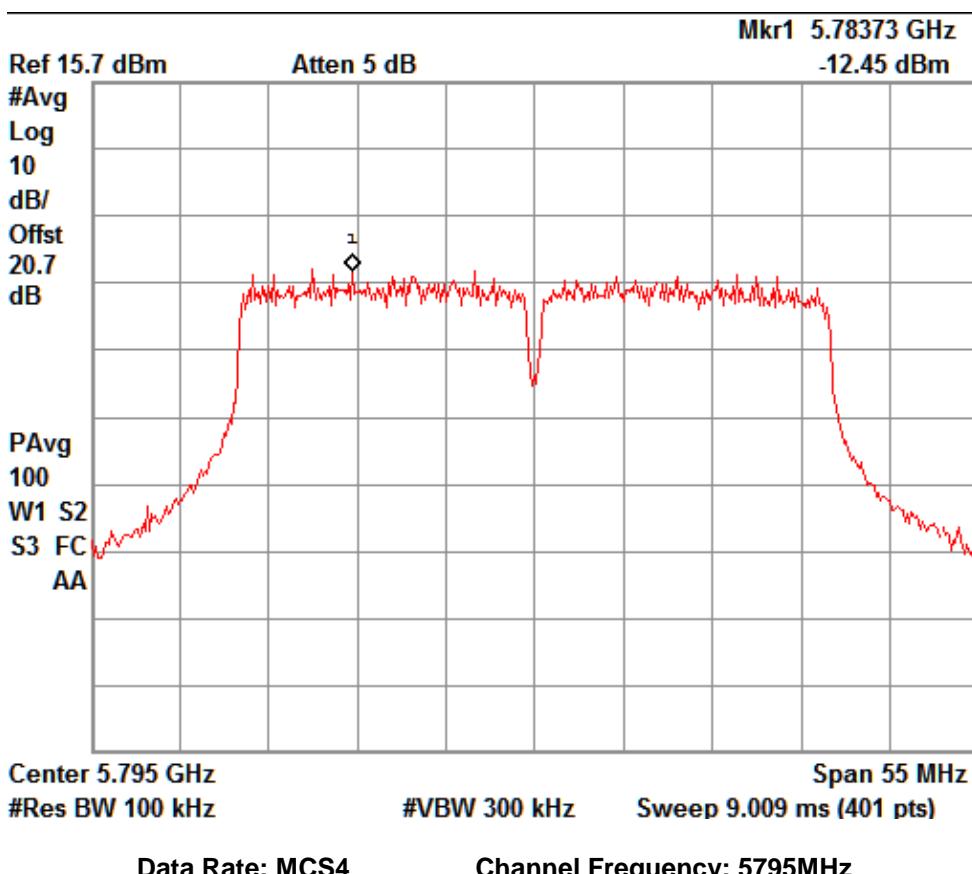
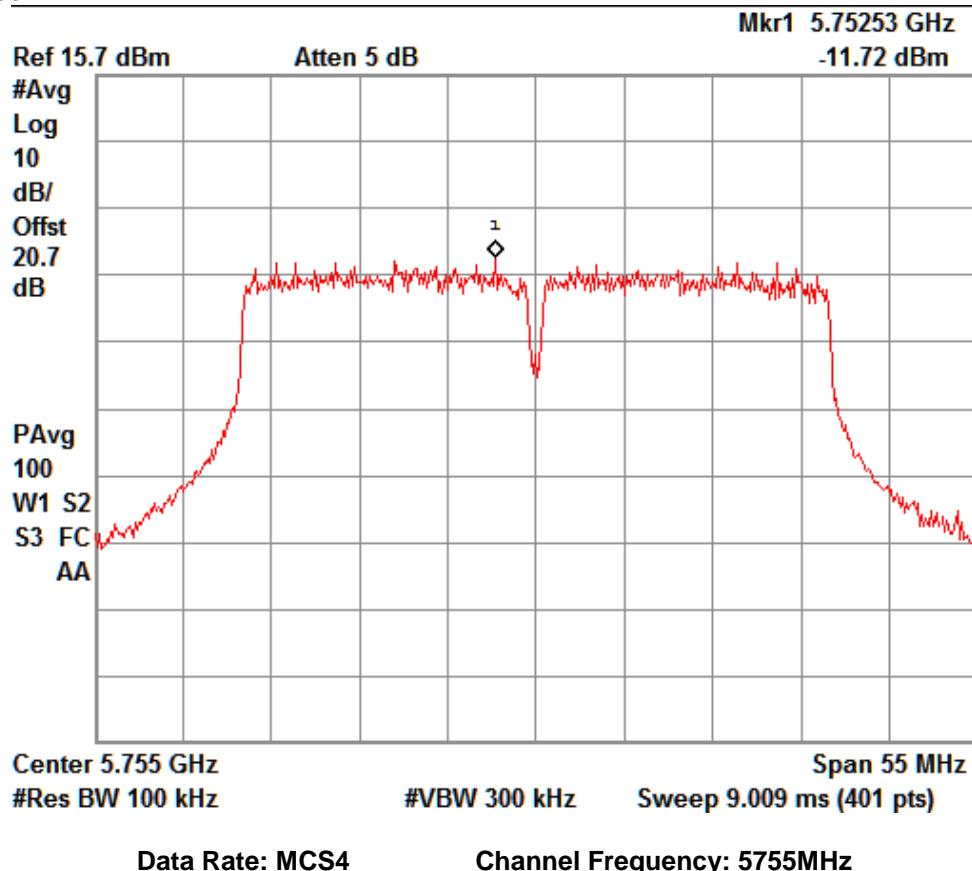
### Test Results for path C

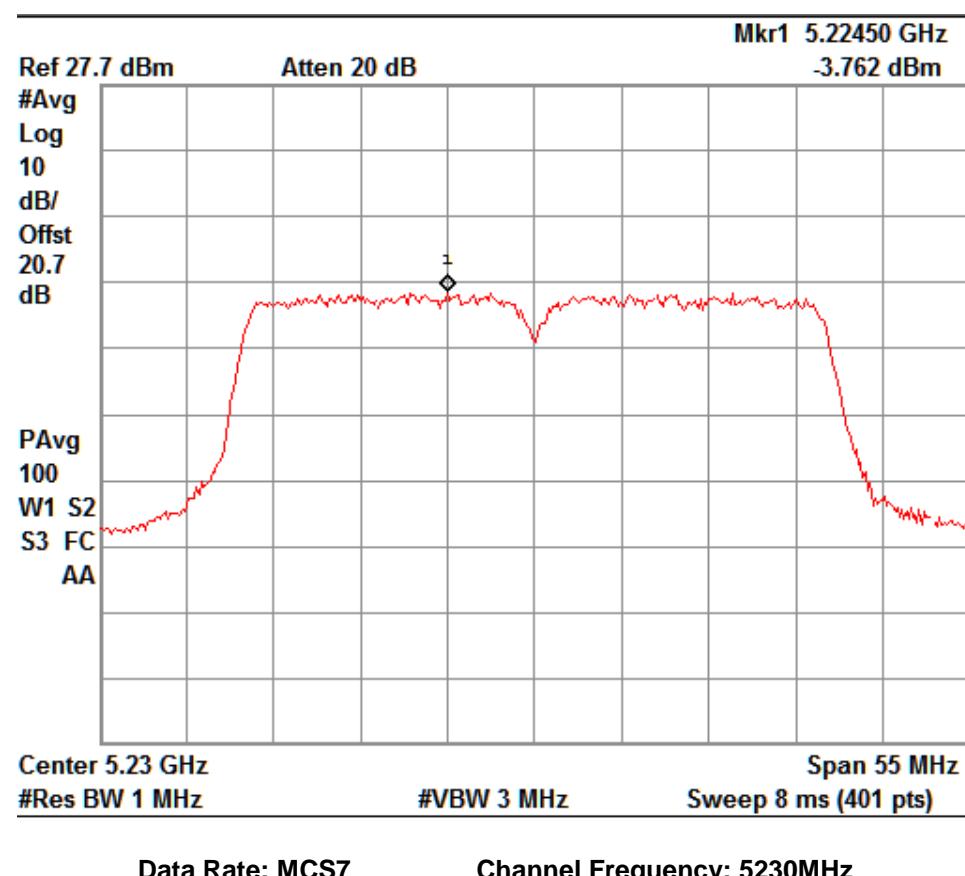
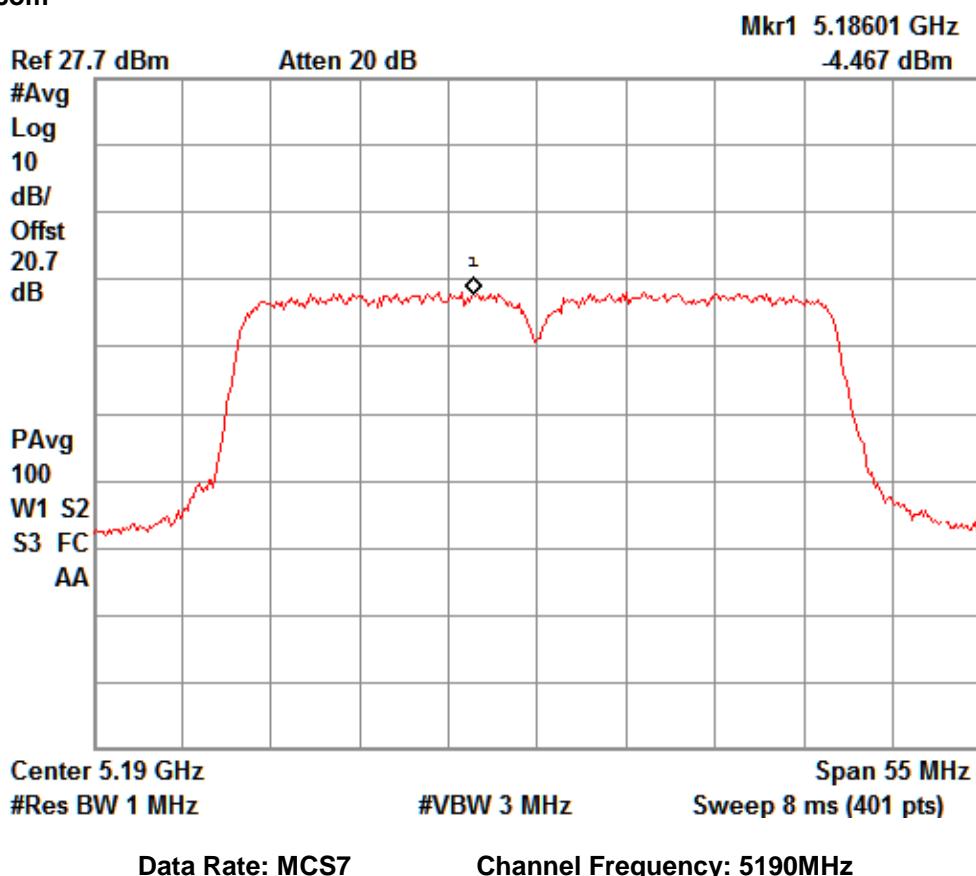
IEEE802.11n HT40						
Data Rate (Mbps)	Channel No.	Frequency (MHz)	Measured PSD (dBm)	Measure & Add $10^{\ast}\log(3)$	Total PSD (dBm)	Limit (dB)
MCS0	38	5190	-3.323	4.77	1.447	11
	46	5230	-3.186	4.77	1.584	11
	151	5755	-15.1	4.77	-10.33	30
	159	5795	-12.27	4.77	-7.5	30
MCS4	38	5190	-3.945	4.77	0.825	11
	46	5230	-3.701	4.77	1.069	11
	151	5755	-11.72	4.77	-6.95	30
	159	5795	-12.45	4.77	-7.68	30
MCS7	38	5190	-4.467	4.77	0.303	11
	46	5230	-3.762	4.77	1.008	11
	151	5755	-11.95	4.77	-7.18	30
	159	5795	-12.61	4.77	-7.84	30

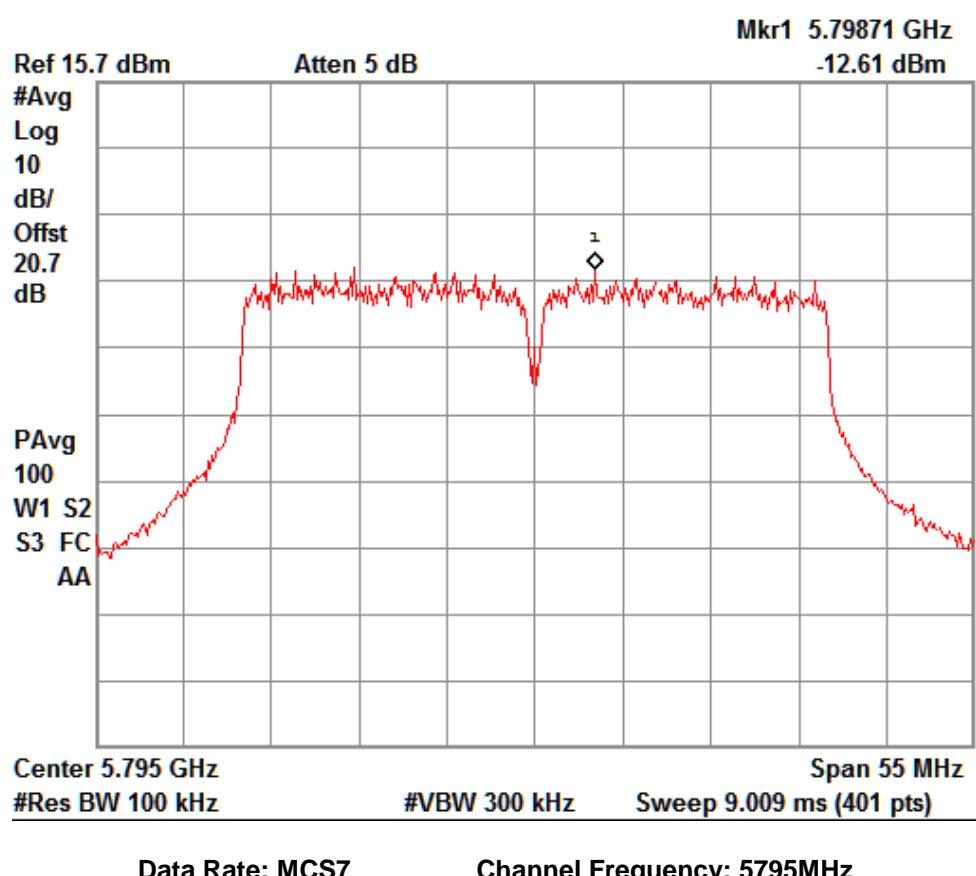
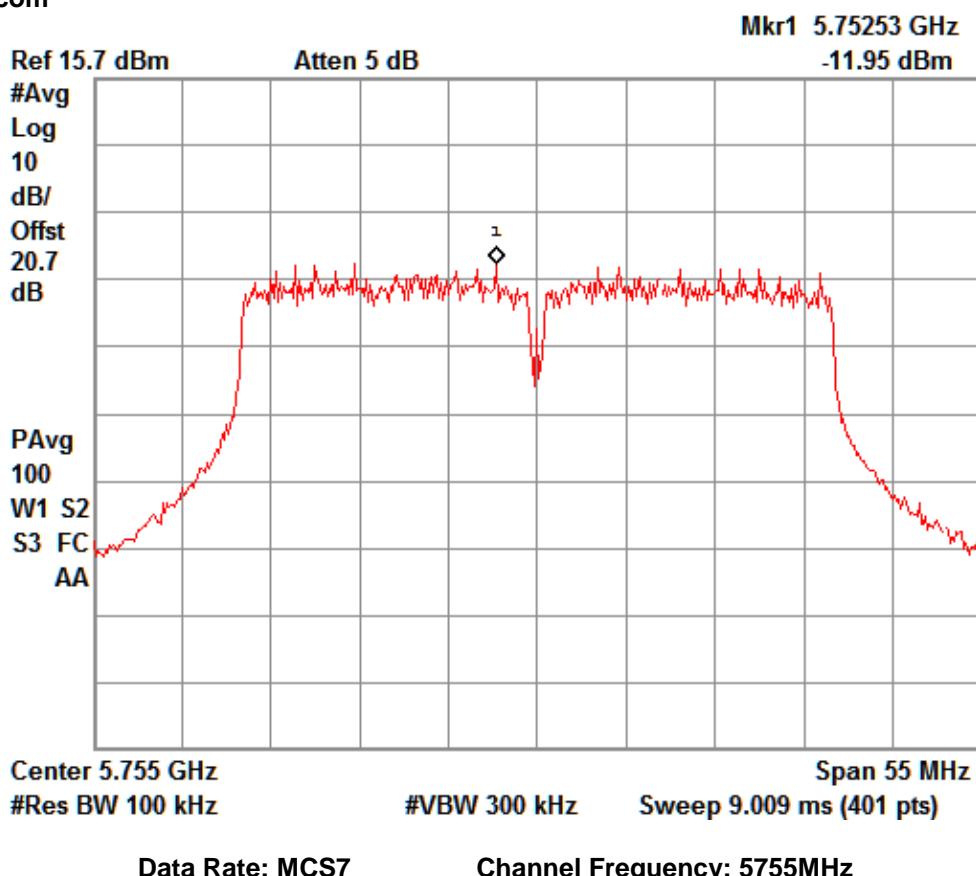
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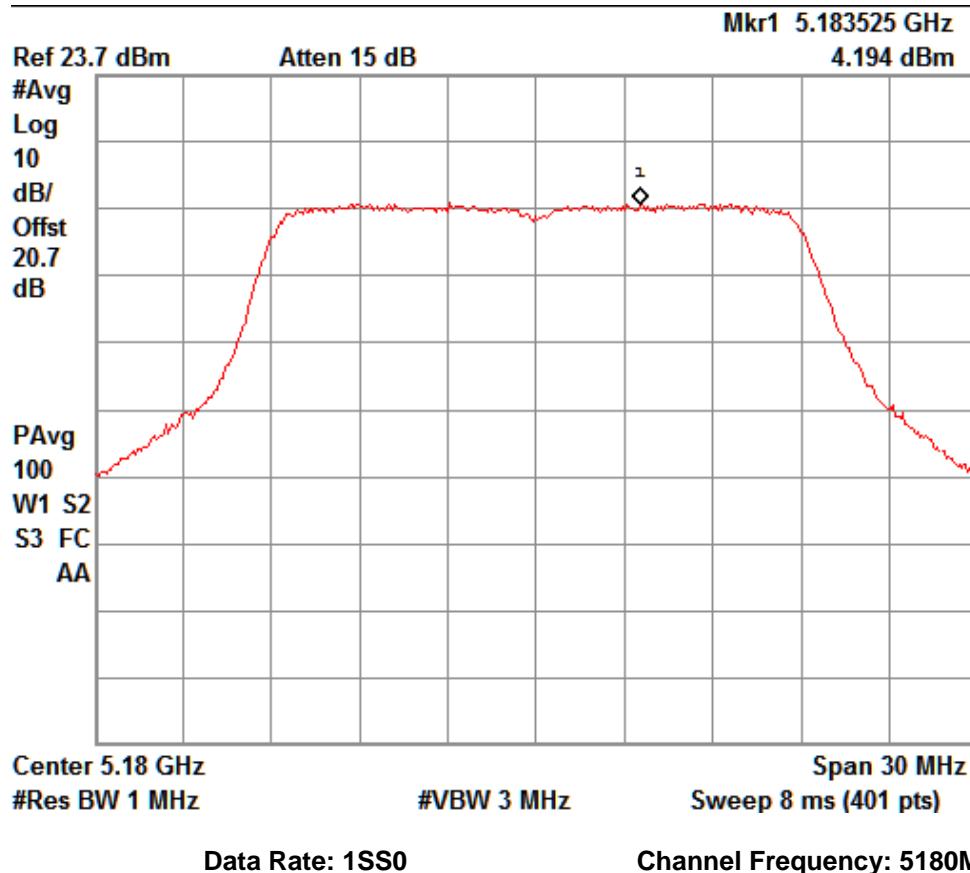
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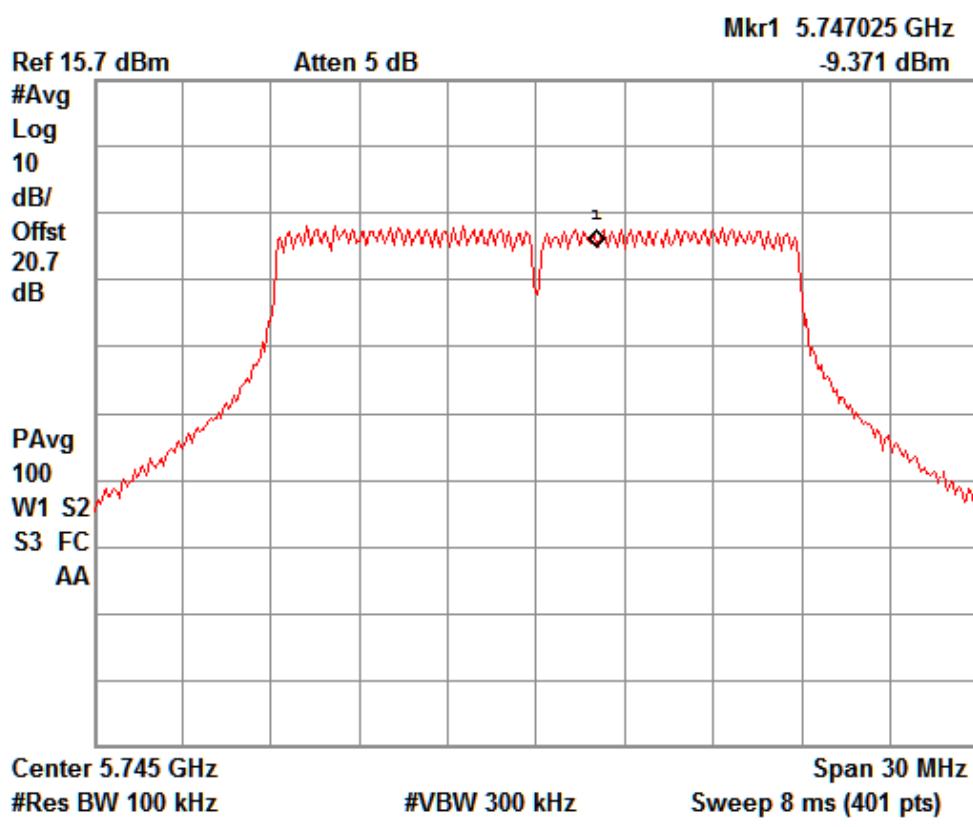
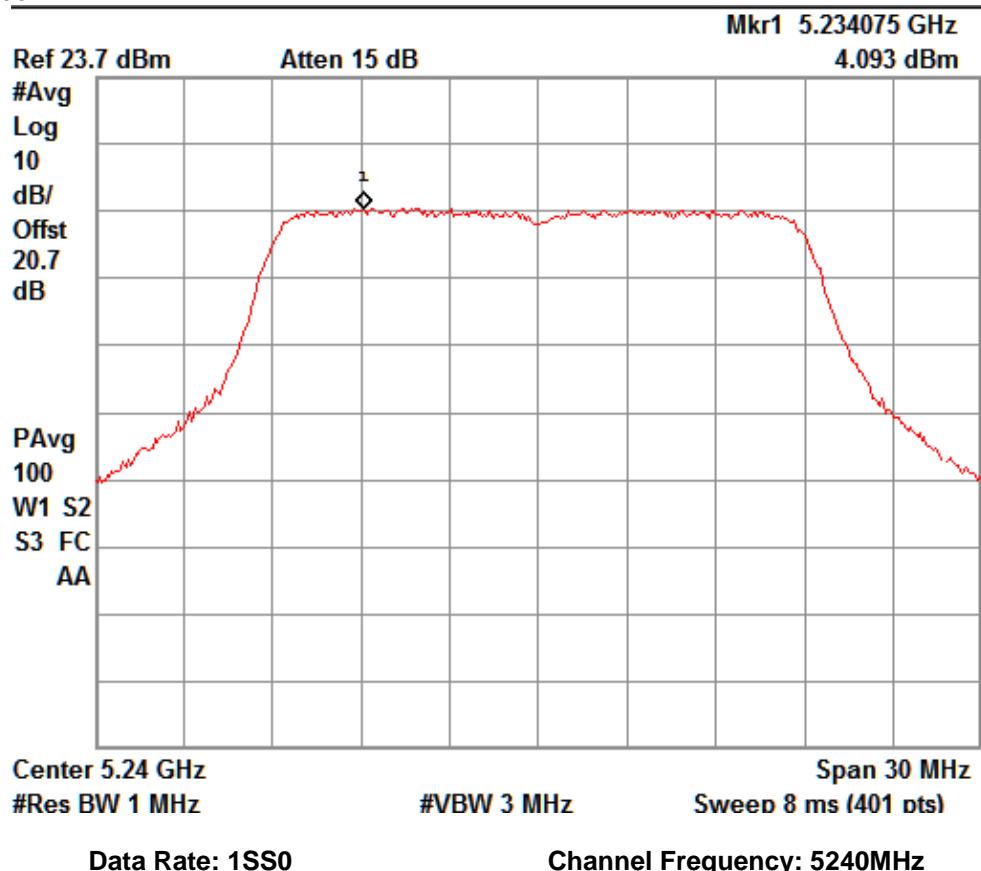
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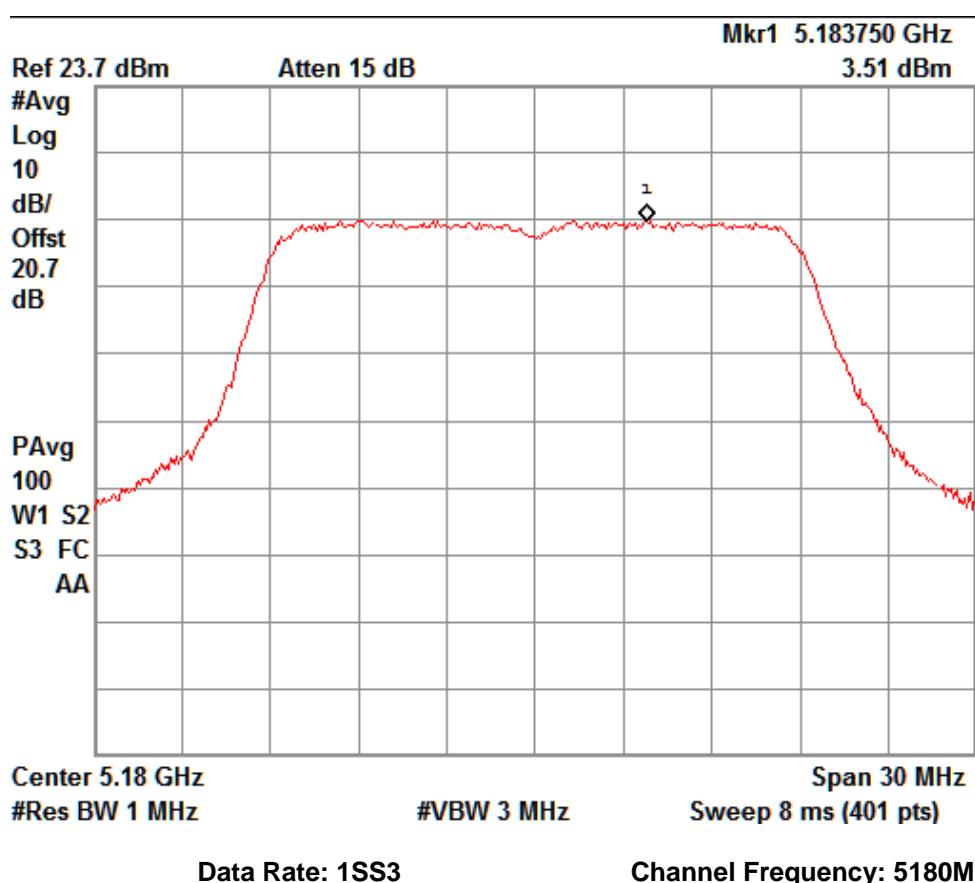
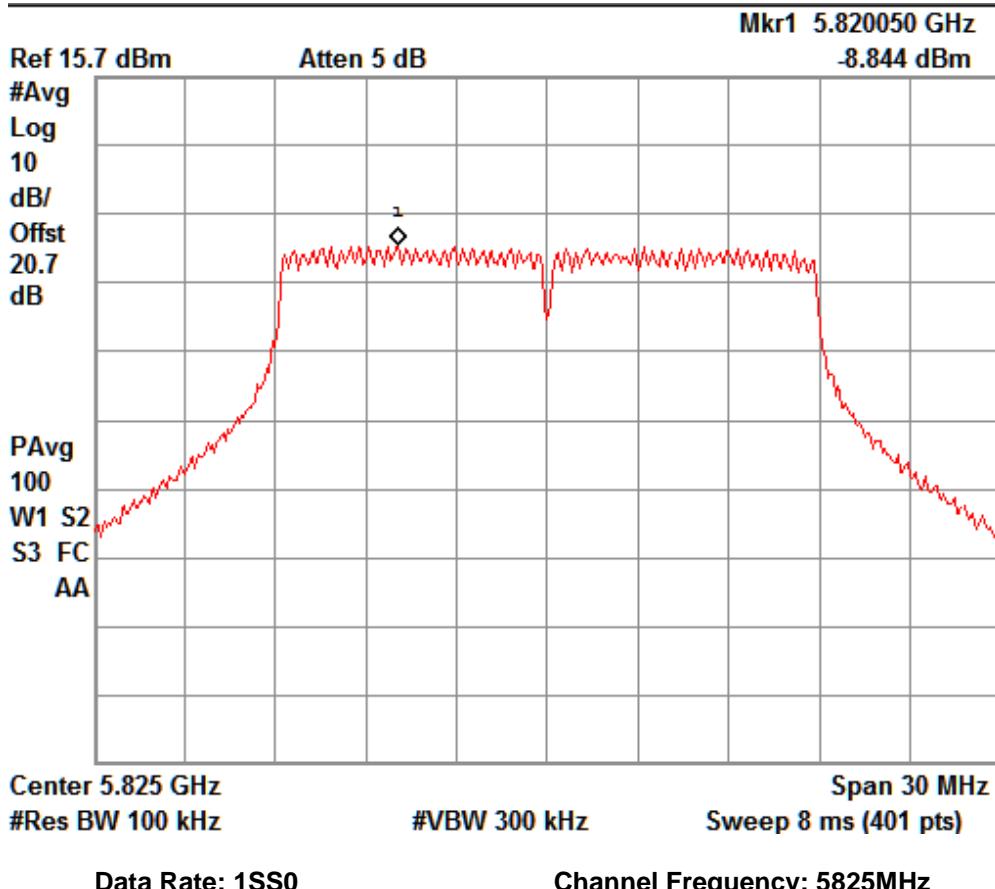
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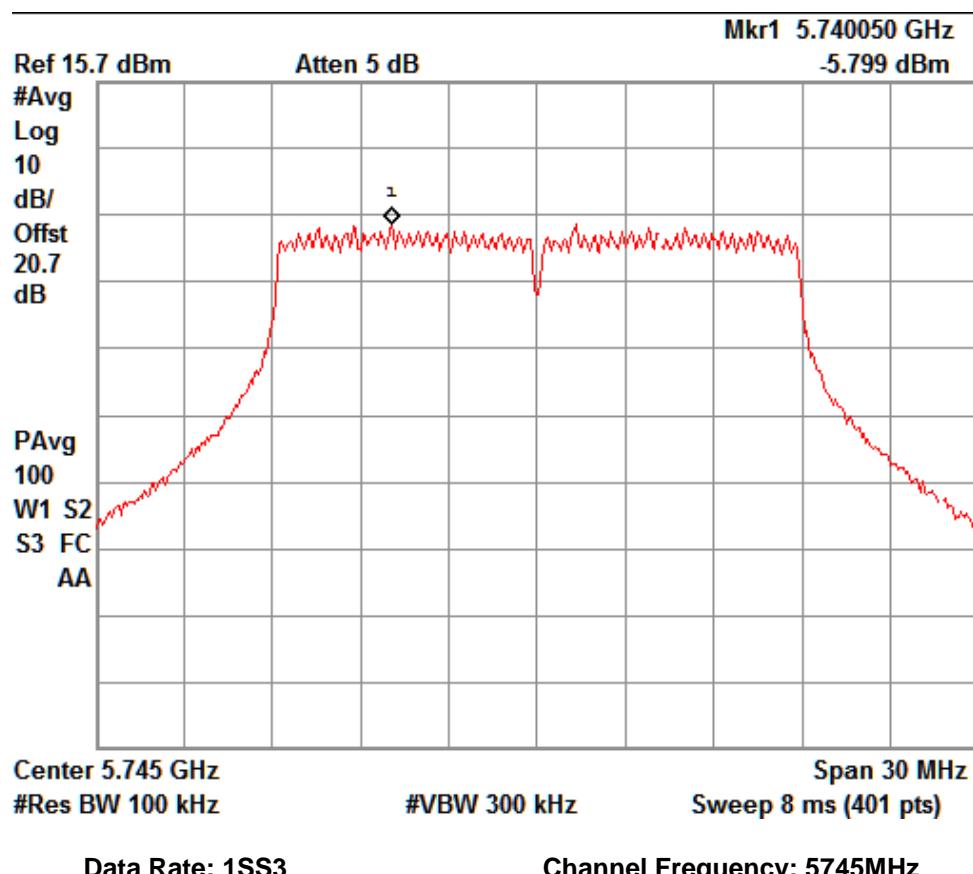
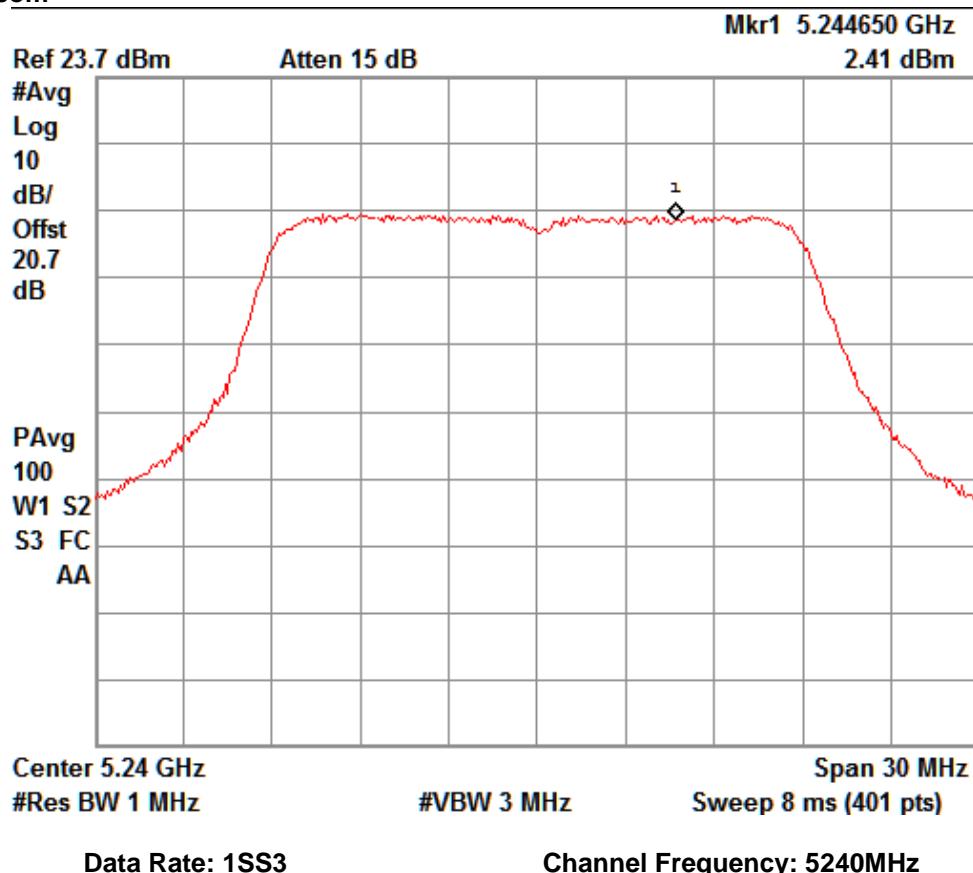
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Test Results for path A

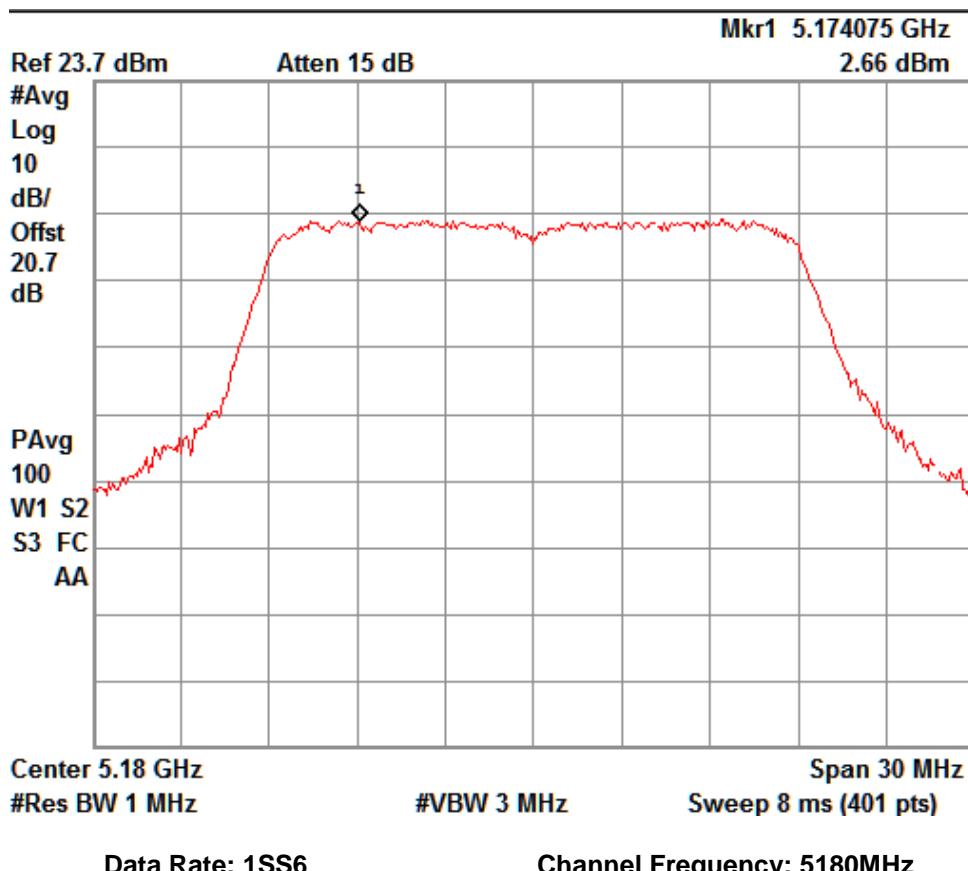
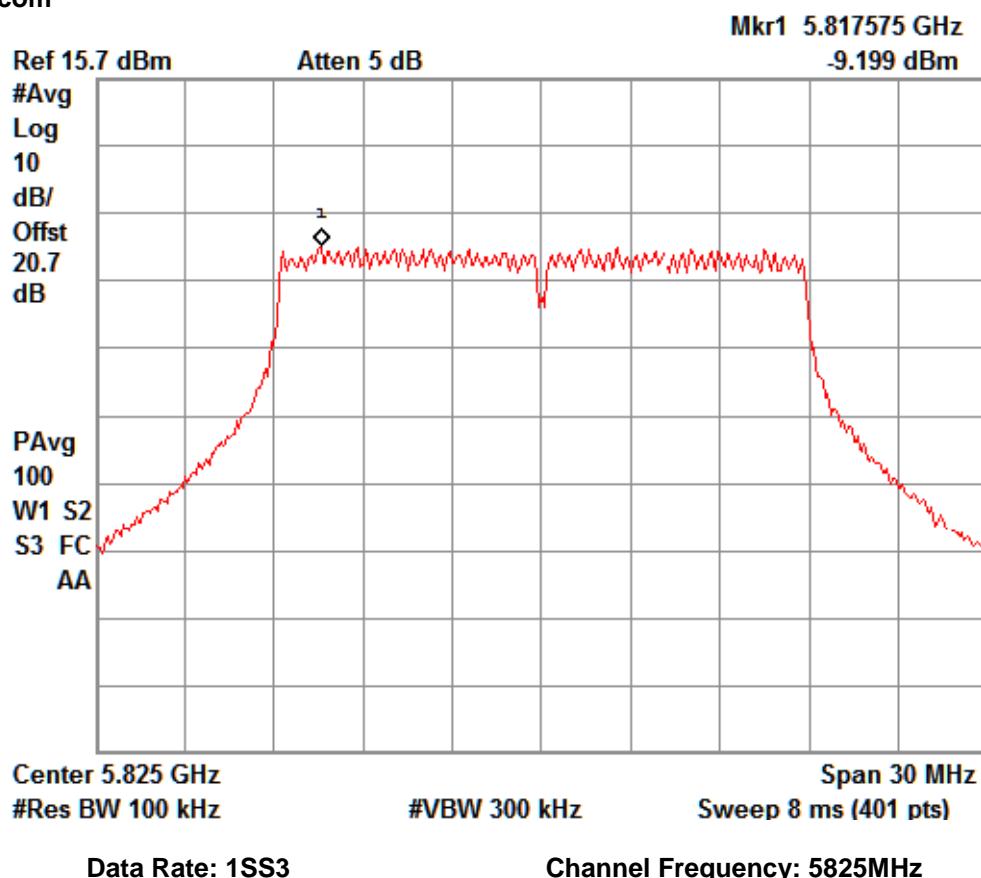
IEEE802.11ac HT20						
Data Rate (Mbps)	Channel No.	Frequency (MHz)	Measured PSD (dBm)	Measure & Add $10^{\log(3)}$	Total PSD (dBm)	Limit (dB)
1SS0	36	5180	4.194	4.77	8.964	11
	48	5240	4.093	4.77	8.863	11
	149	5745	-9.371	4.77	-4.601	30
	165	5825	-8.844	4.77	-4.074	30
1SS3	36	5180	3.51	4.77	8.28	11
	48	5240	2.41	4.77	7.18	11
	149	5745	-5.799	4.77	-1.029	30
	165	5825	-9.199	4.77	-4.429	30
1SS6	36	5180	2.66	4.77	7.43	11
	48	5240	1.85	4.77	6.62	11
	149	5745	-8.297	4.77	-3.527	30
	165	5825	-9.677	4.77	-4.907	30

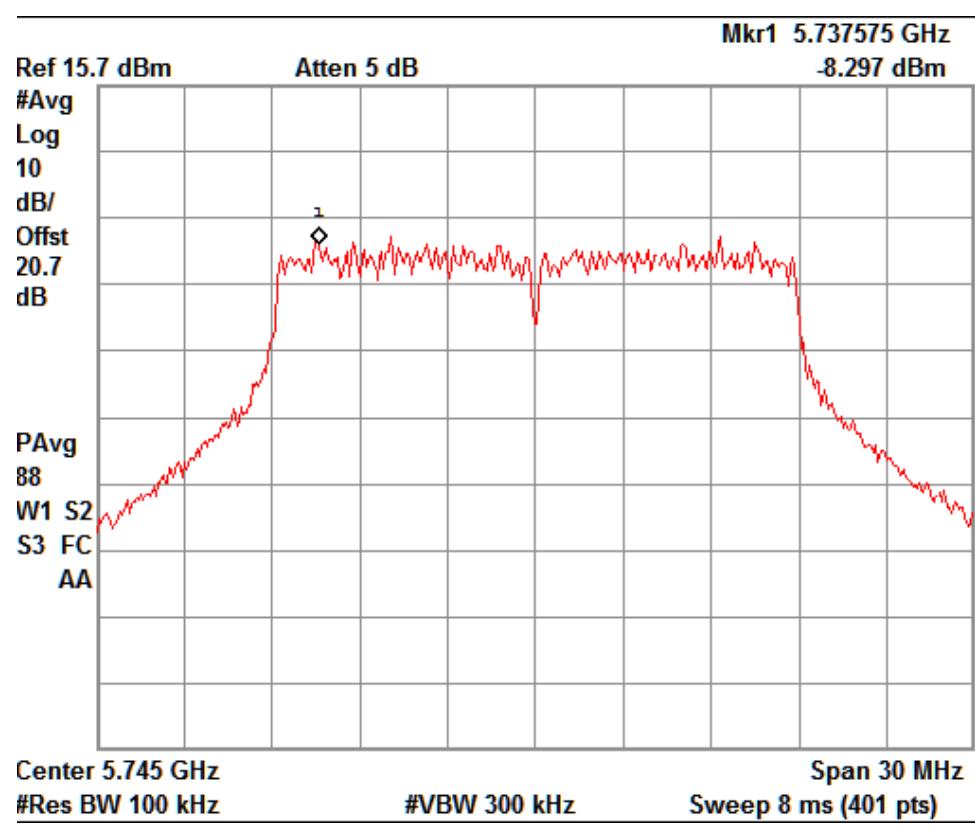
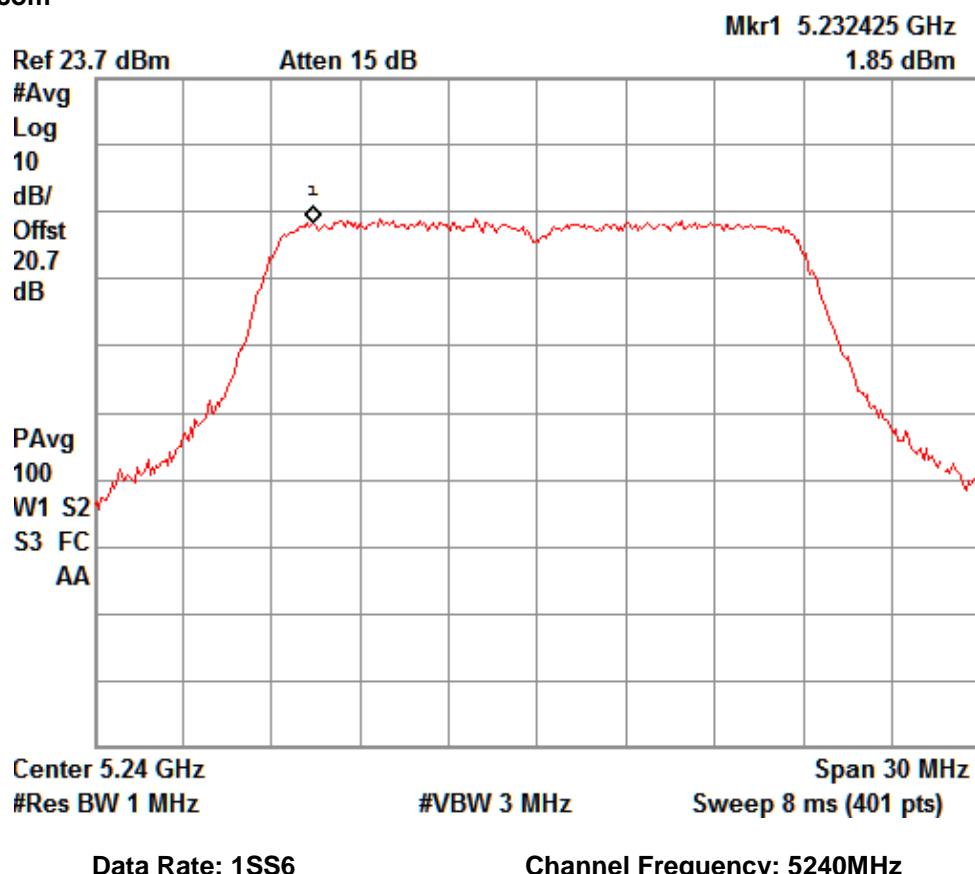






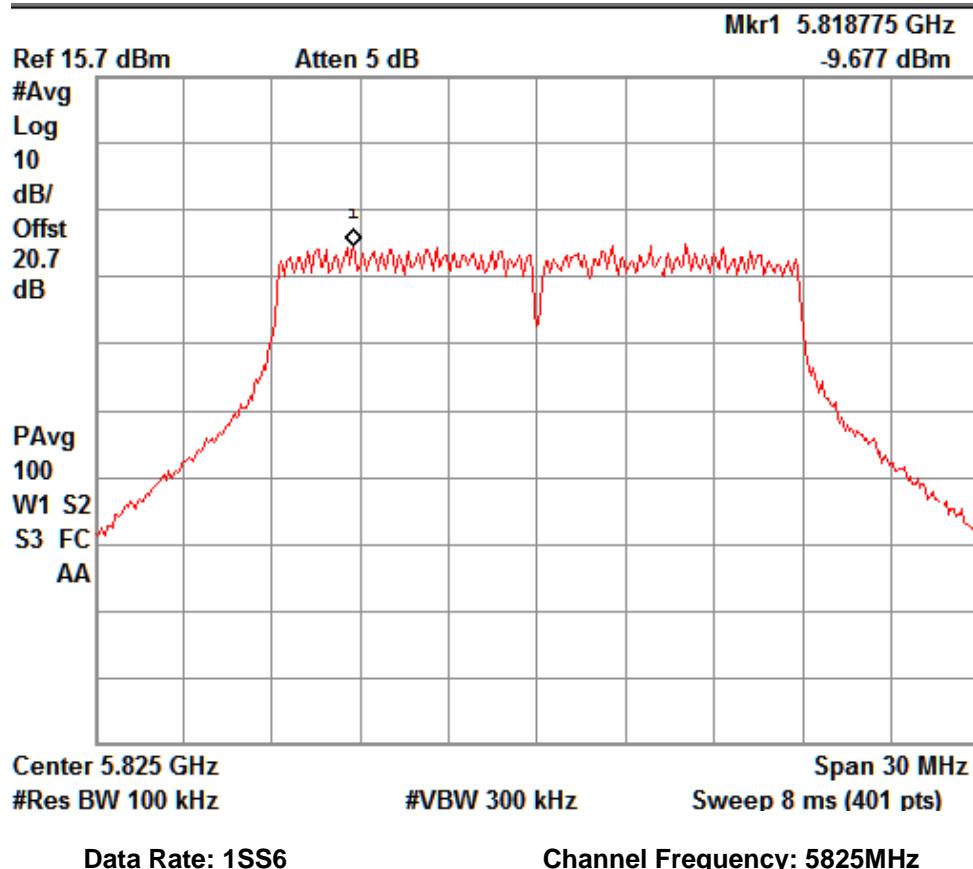
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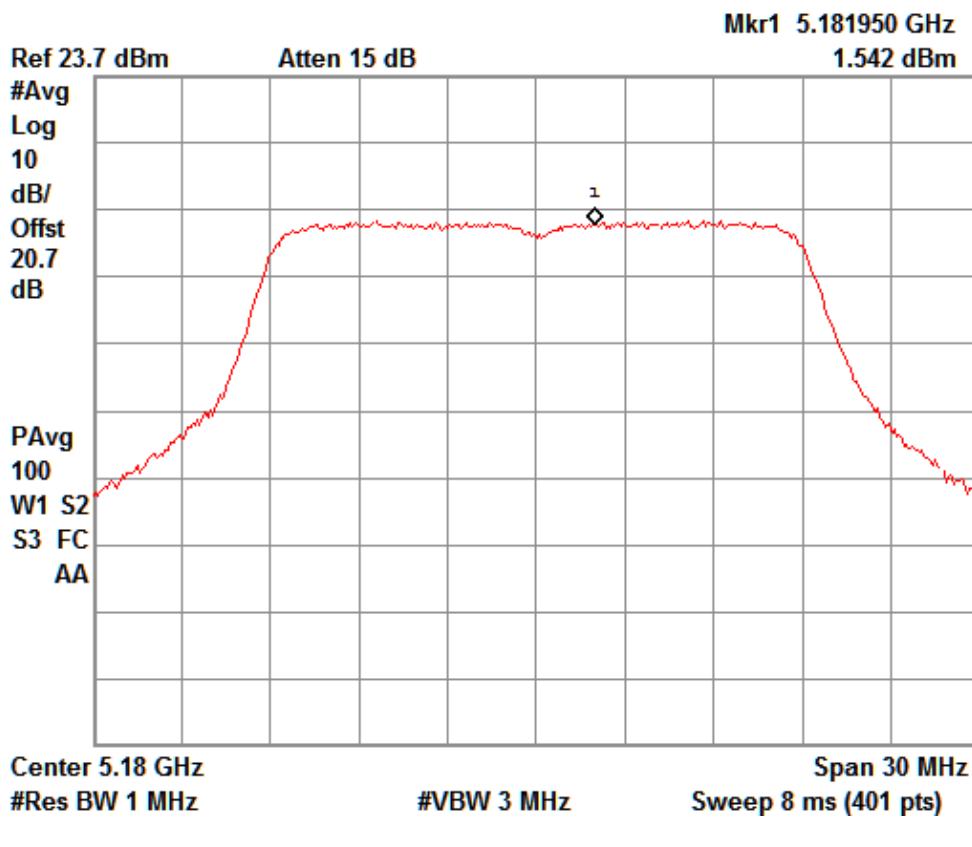
Data Rate: 1SS6

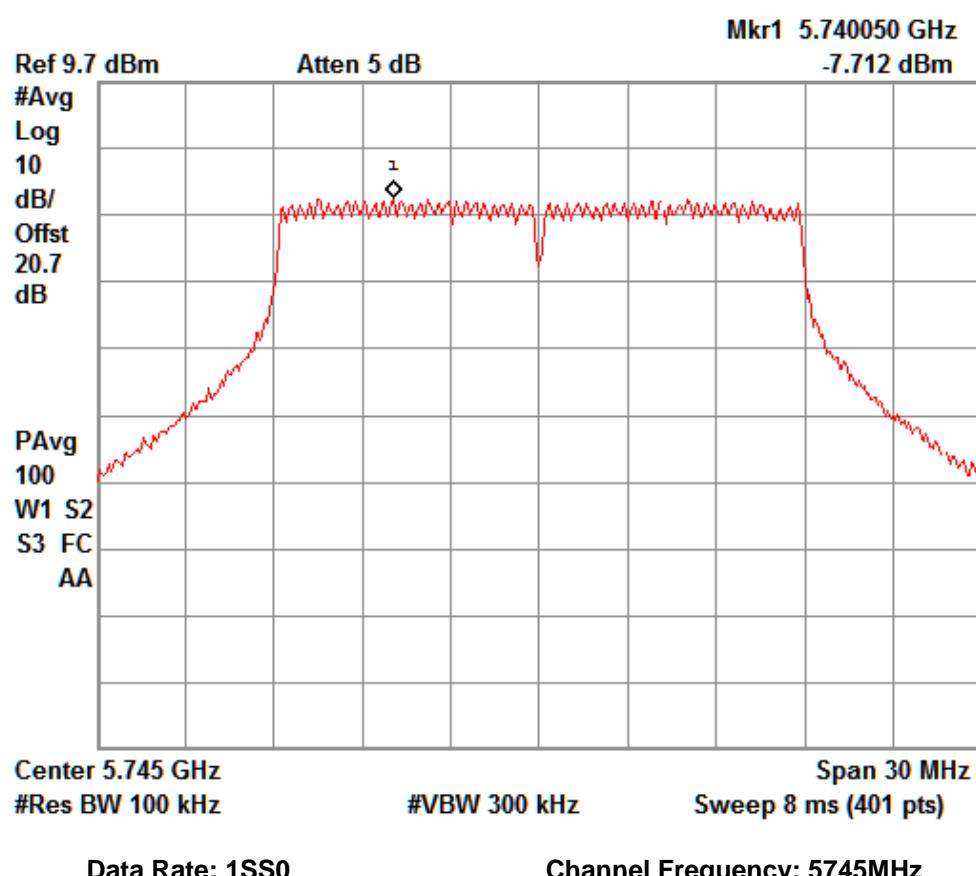
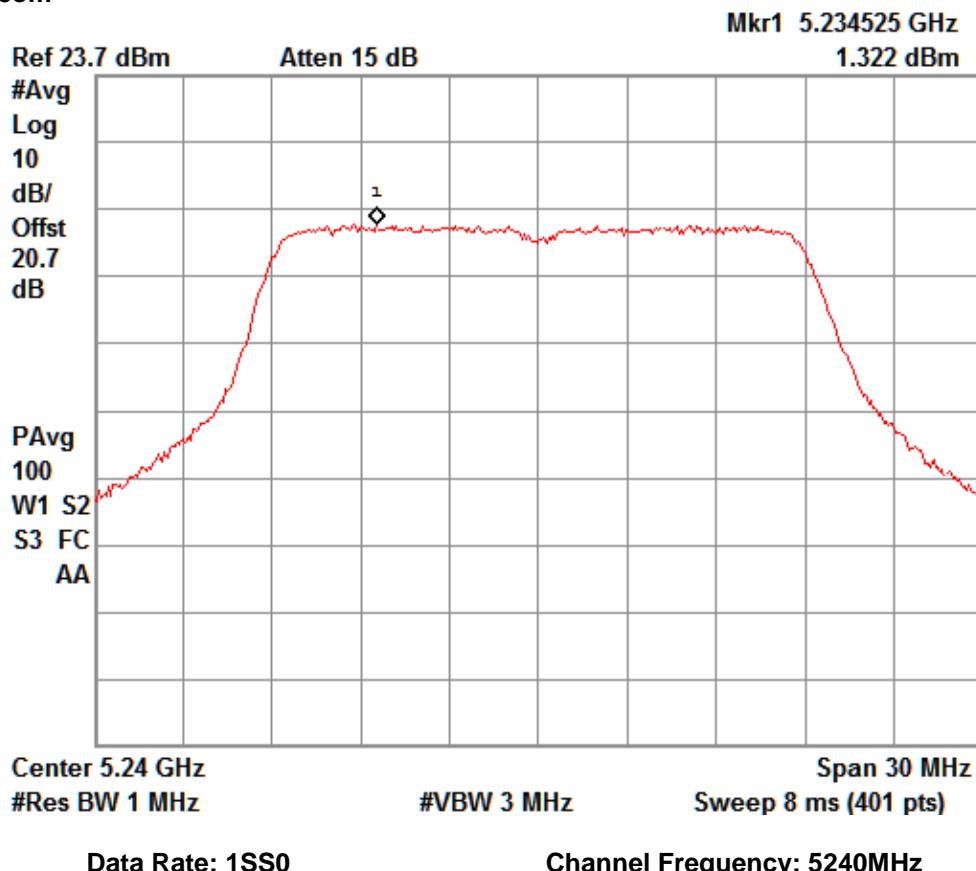
Channel Frequency: 5745MHz

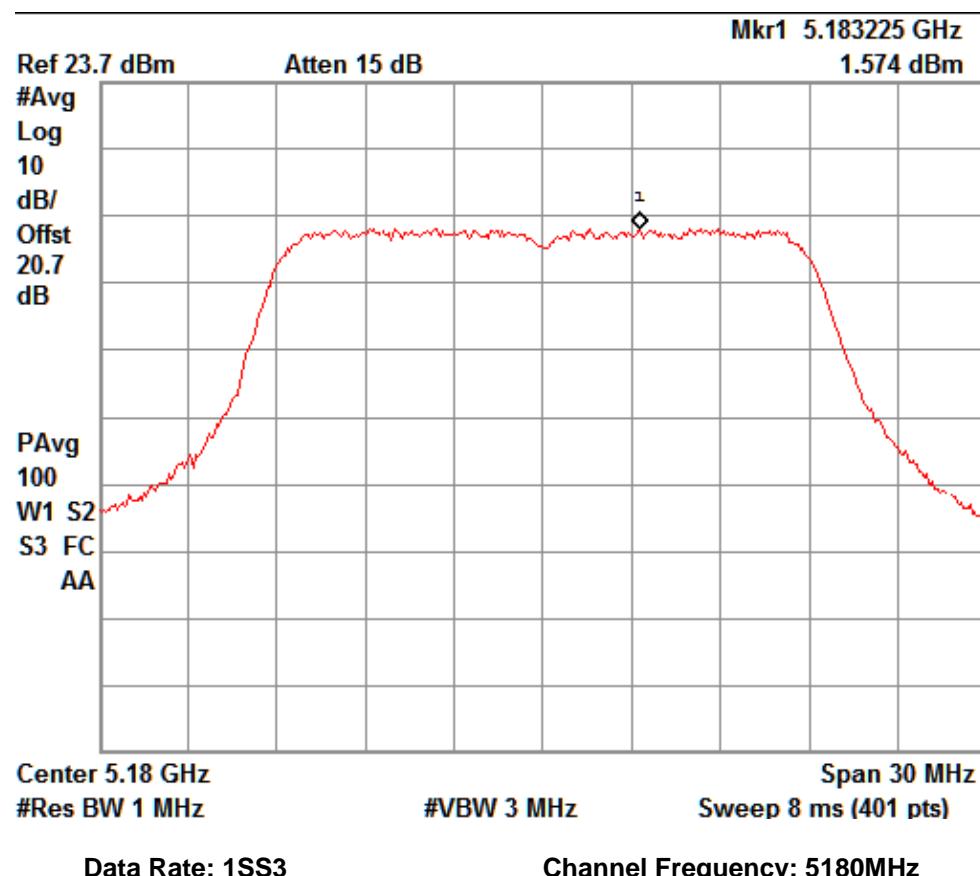
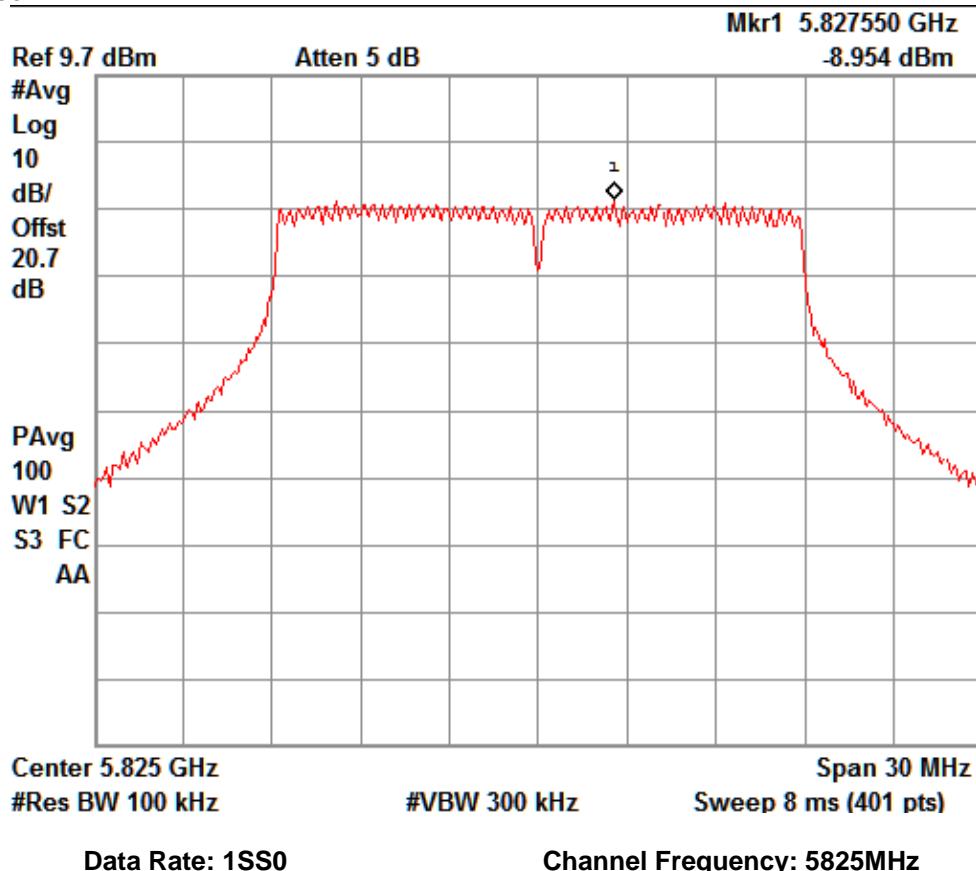


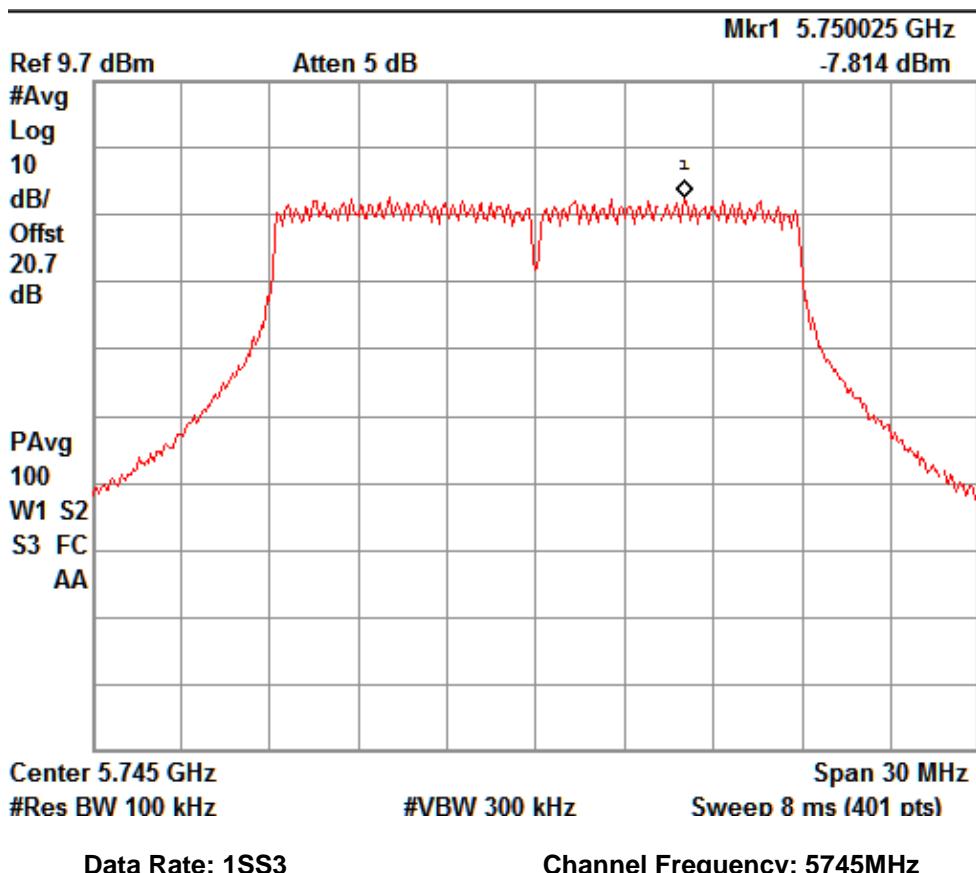
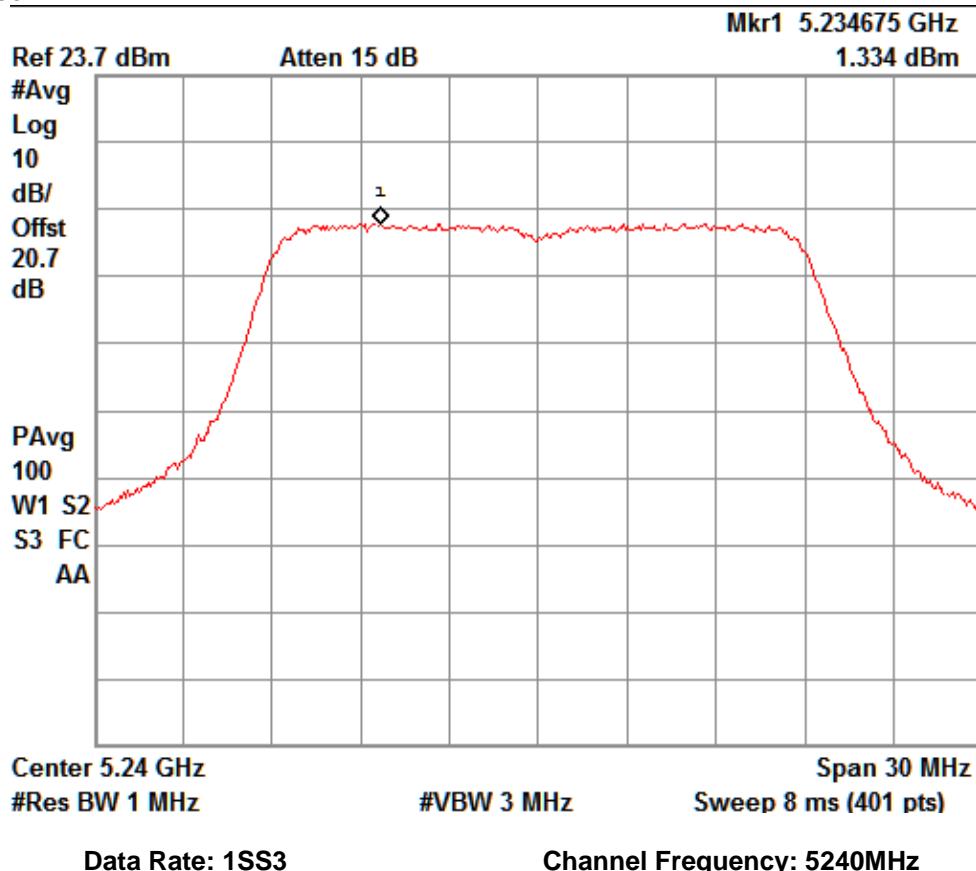
**Test Results for path B**

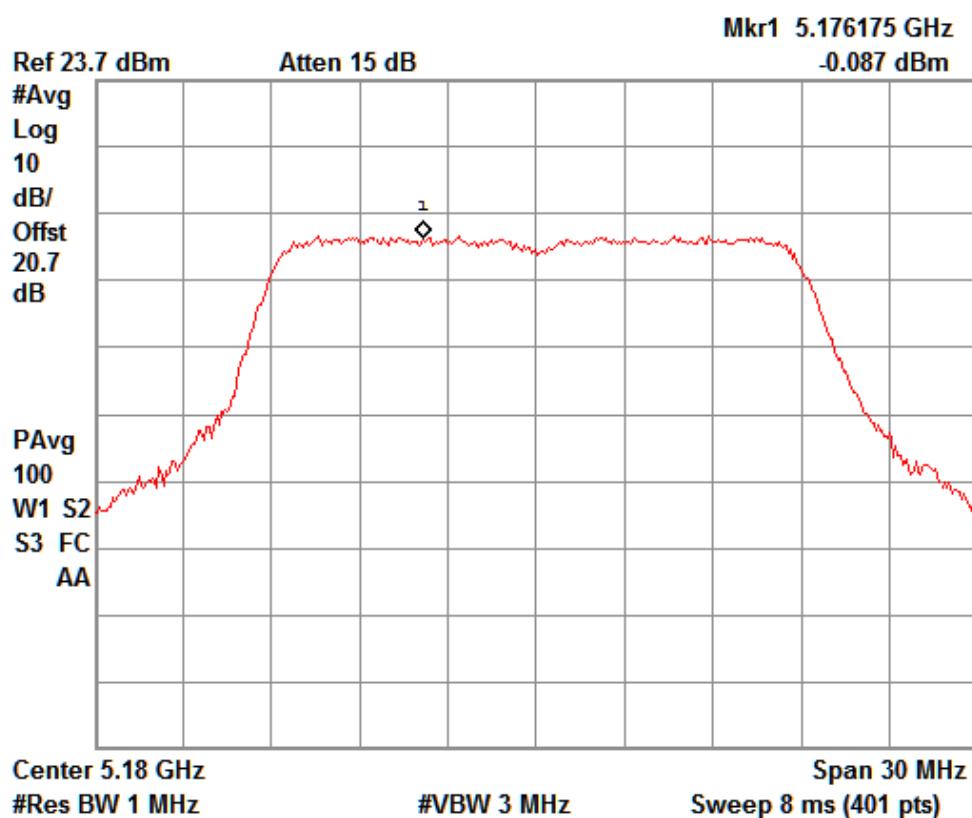
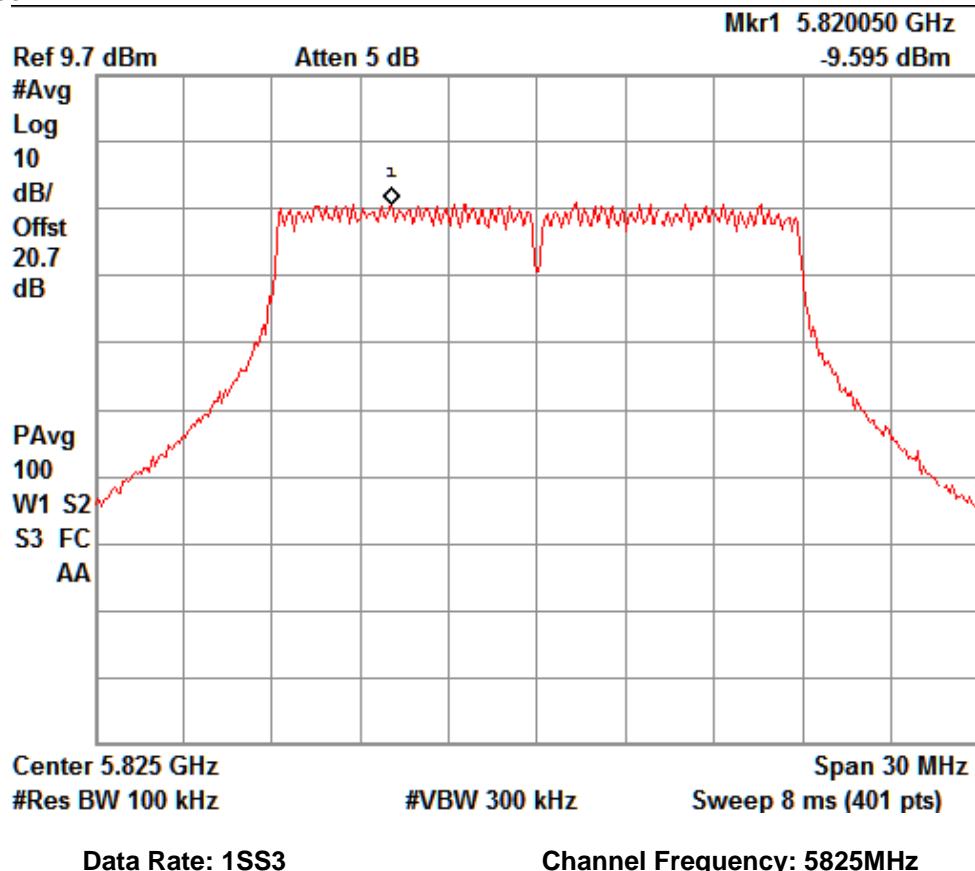
IEEE802.11ac HT20						
Data Rate (Mbps)	Channel No.	Frequency (MHz)	Measured PSD (dBm)	Measure & Add $10^{\log(3)}$	Total PSD (dBm)	Limit (dB)
1SS0	36	5180	1.542	4.77	6.312	11
	48	5240	1.322	4.77	6.092	11
	149	5745	-7.712	4.77	-2.942	30
	165	5825	-8.954	4.77	-4.184	30
1SS3	36	5180	1.574	4.77	6.344	11
	48	5240	1.334	4.77	6.104	11
	149	5745	-7.814	4.77	-3.044	30
	165	5825	-9.595	4.77	-4.825	30
1SS6	36	5180	-0.087	4.77	4.683	11
	48	5240	-1.691	4.77	3.079	11
	149	5745	-9.659	4.77	-4.889	30
	165	5825	-9.615	4.77	-4.845	30

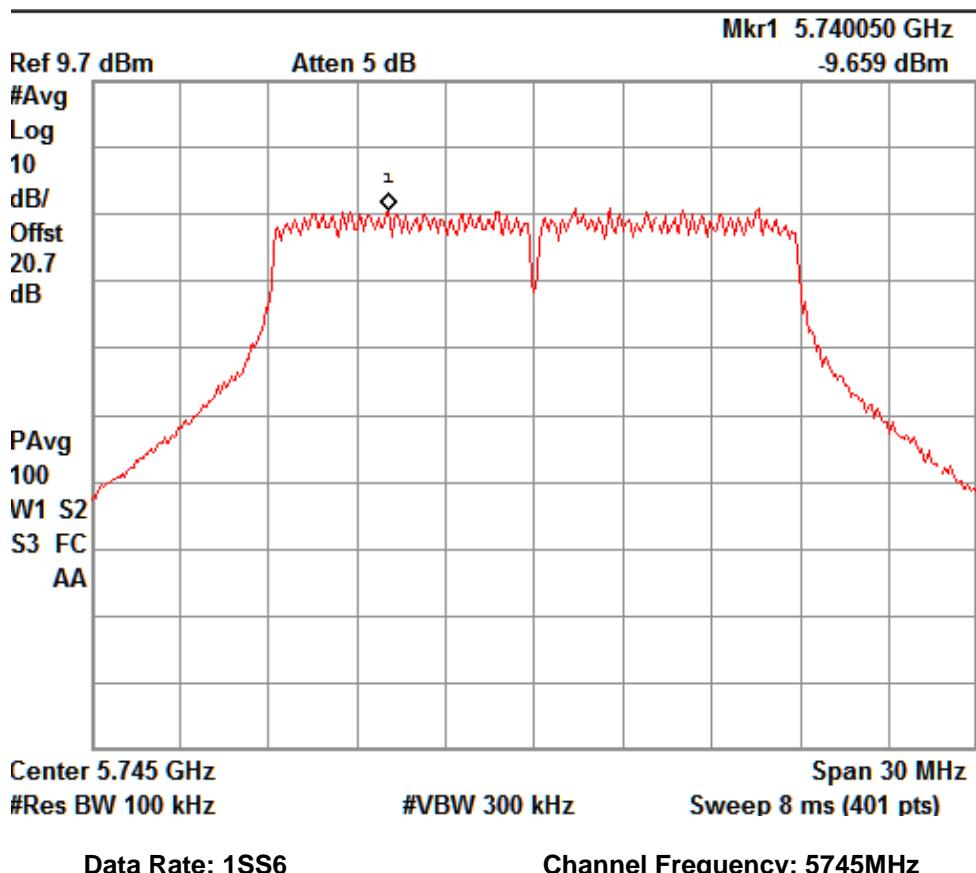
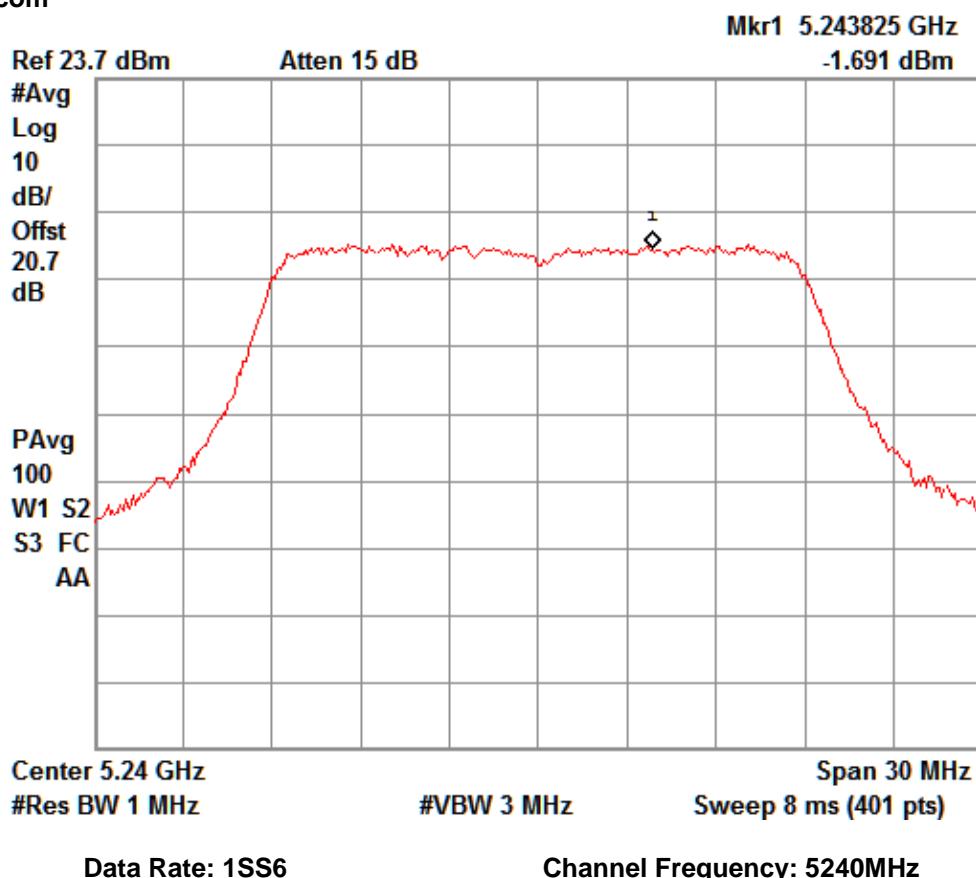


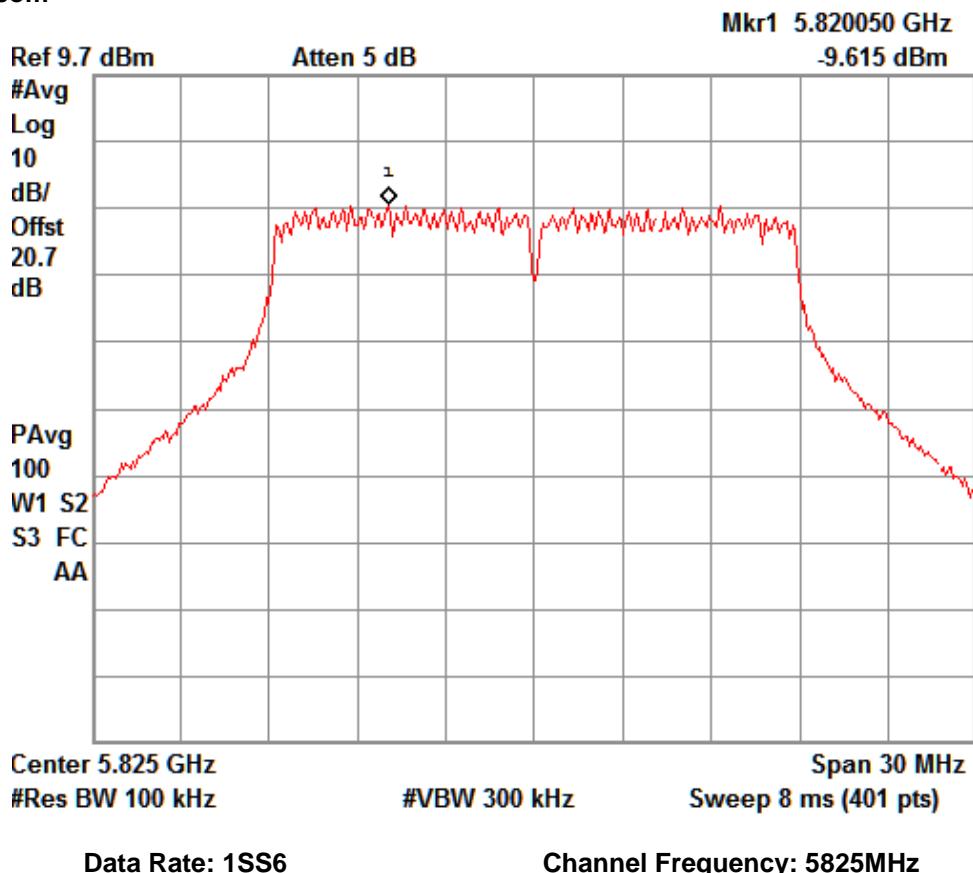
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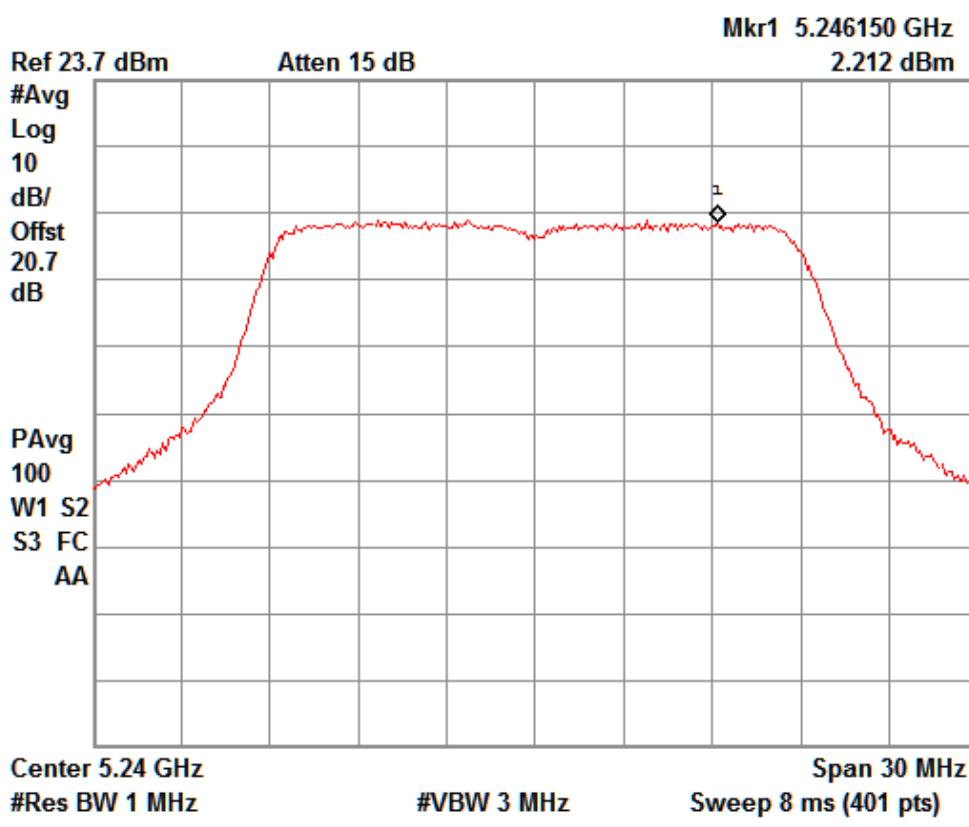
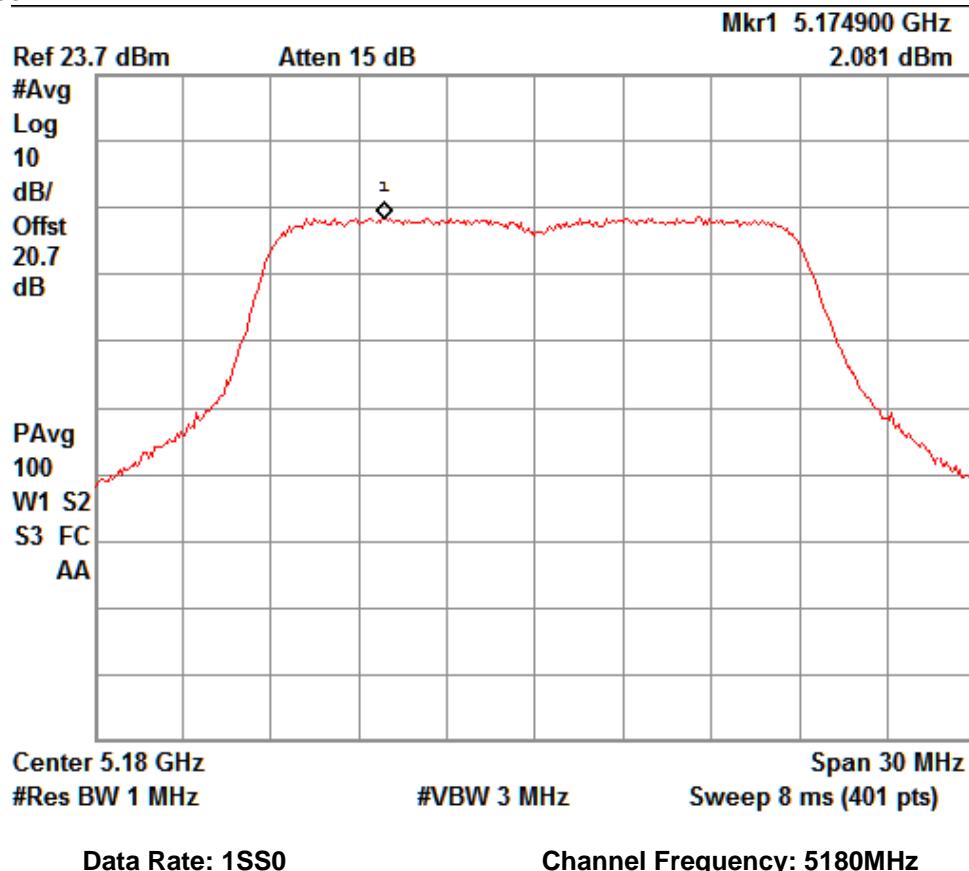


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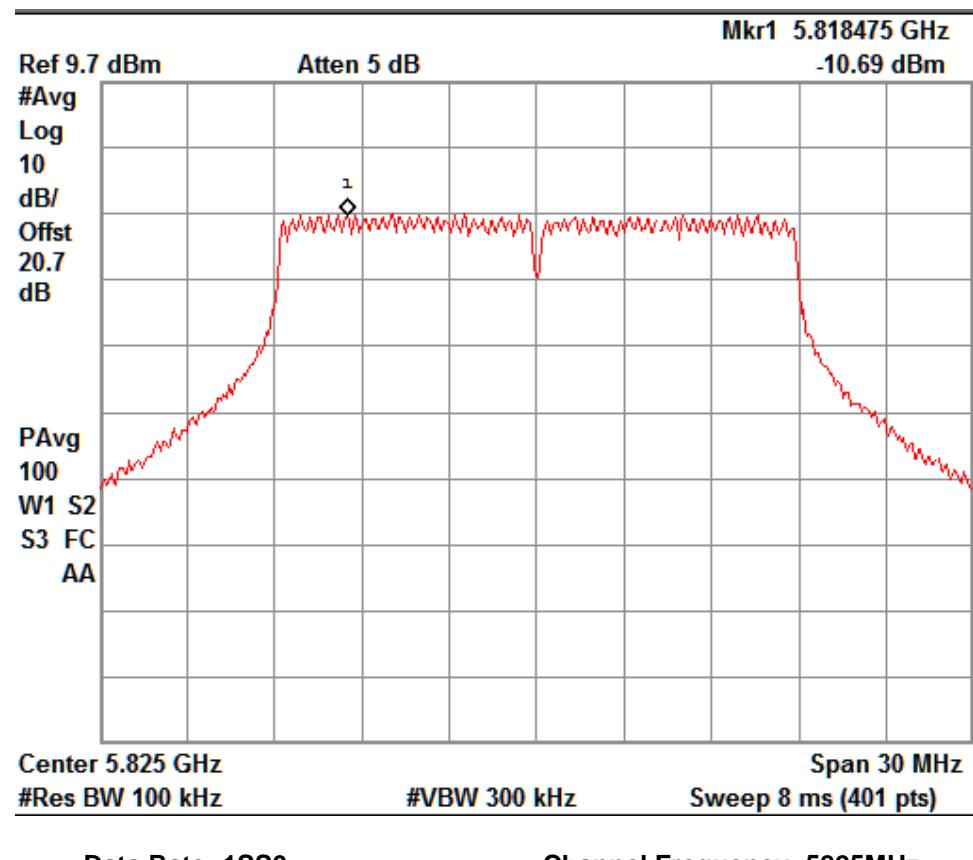
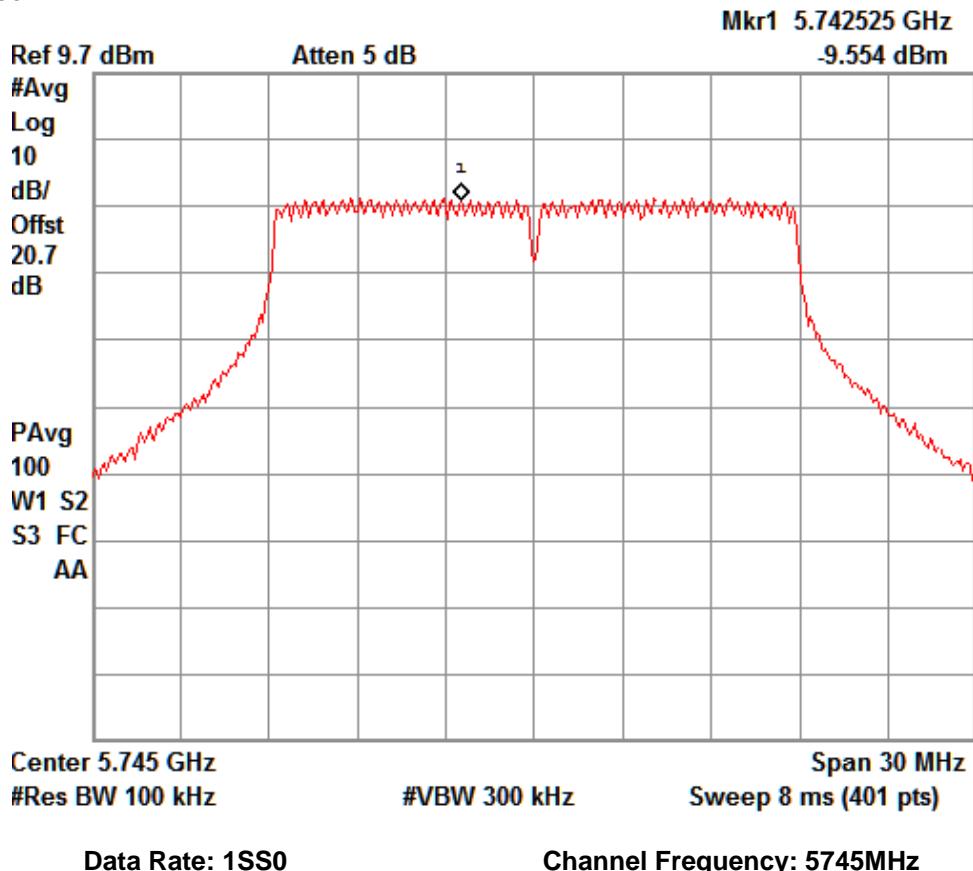
### Test Results for path C

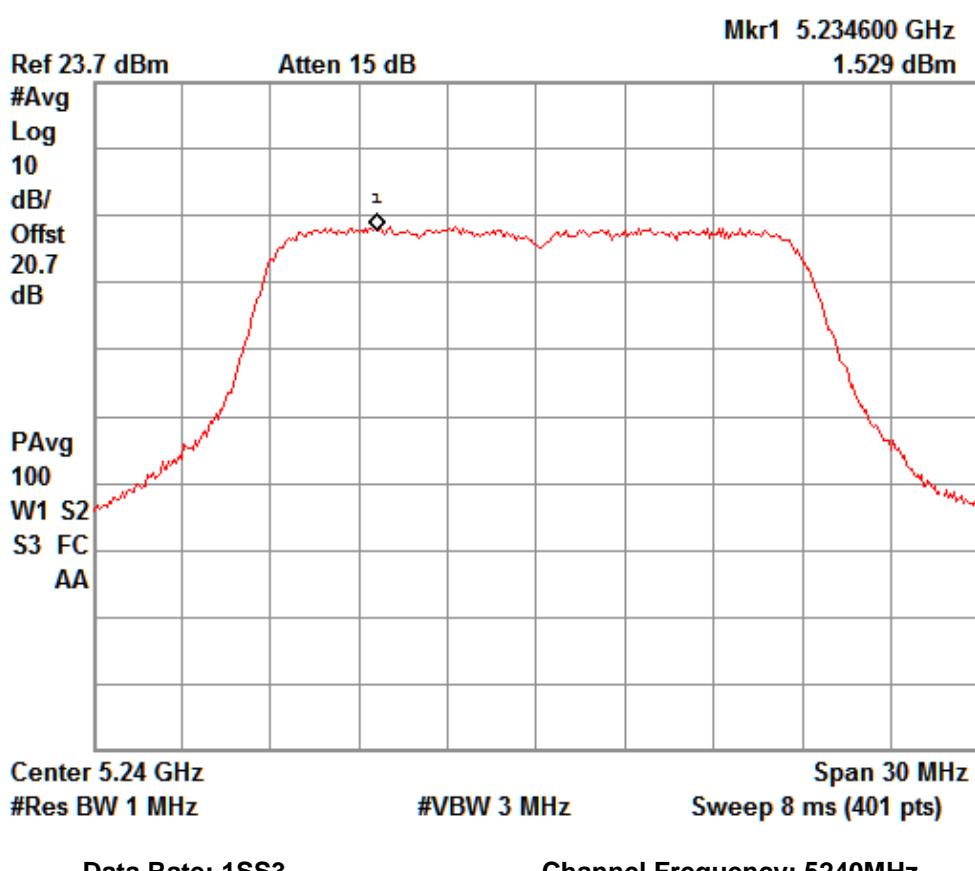
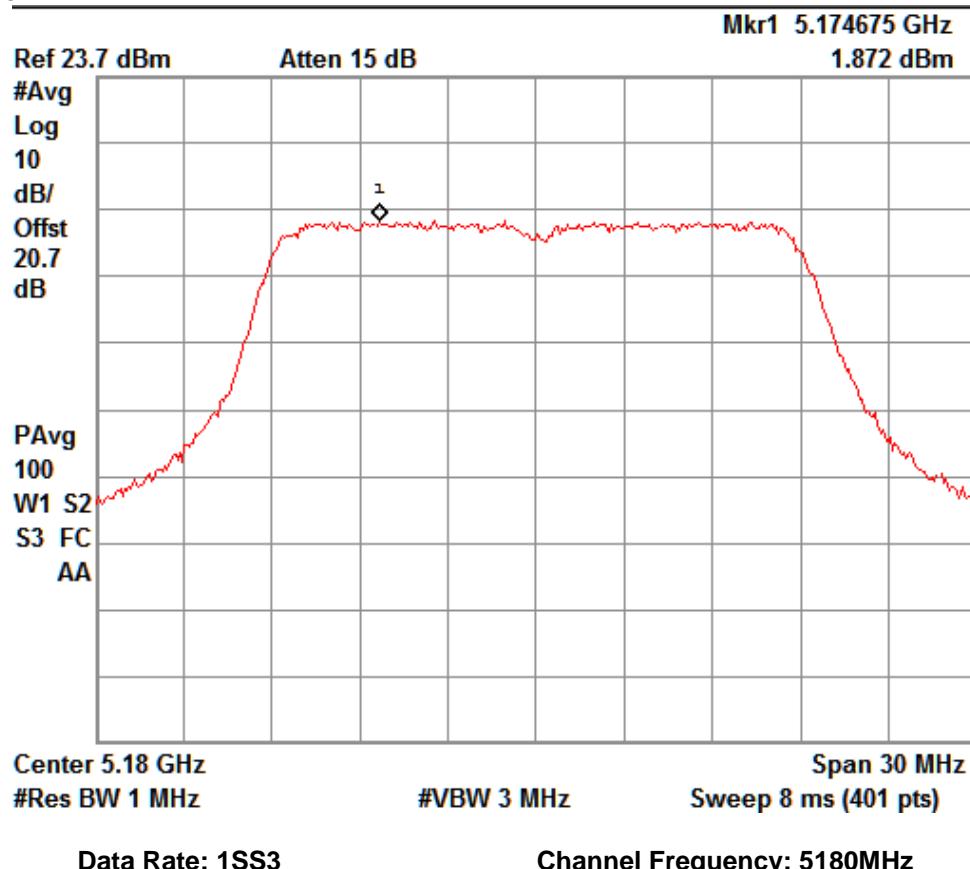
IEEE802.11ac HT20						
Data Rate (Mbps)	Channel No.	Frequency (MHz)	Measured PSD (dBm)	Measure & Add $10^{\log(3)}$	Total PSD (dBm)	Limit (dB)
1SS0	36	5180	2.081	4.77	6.851	11
	48	5240	2.212	4.77	6.982	11
	149	5745	-9.554	4.77	-4.784	30
	165	5825	-10.69	4.77	-5.92	30
1SS3	36	5180	1.872	4.77	6.642	11
	48	5240	1.529	4.77	6.299	11
	149	5745	-8.78	4.77	-4.01	30
	165	5825	-10.18	4.77	-5.41	30
1SS6	36	5180	1.177	4.77	5.947	11
	48	5240	0.572	4.77	5.342	11
	149	5745	-8.658	4.77	-3.888	30
	165	5825	-10.33	4.77	-5.56	30

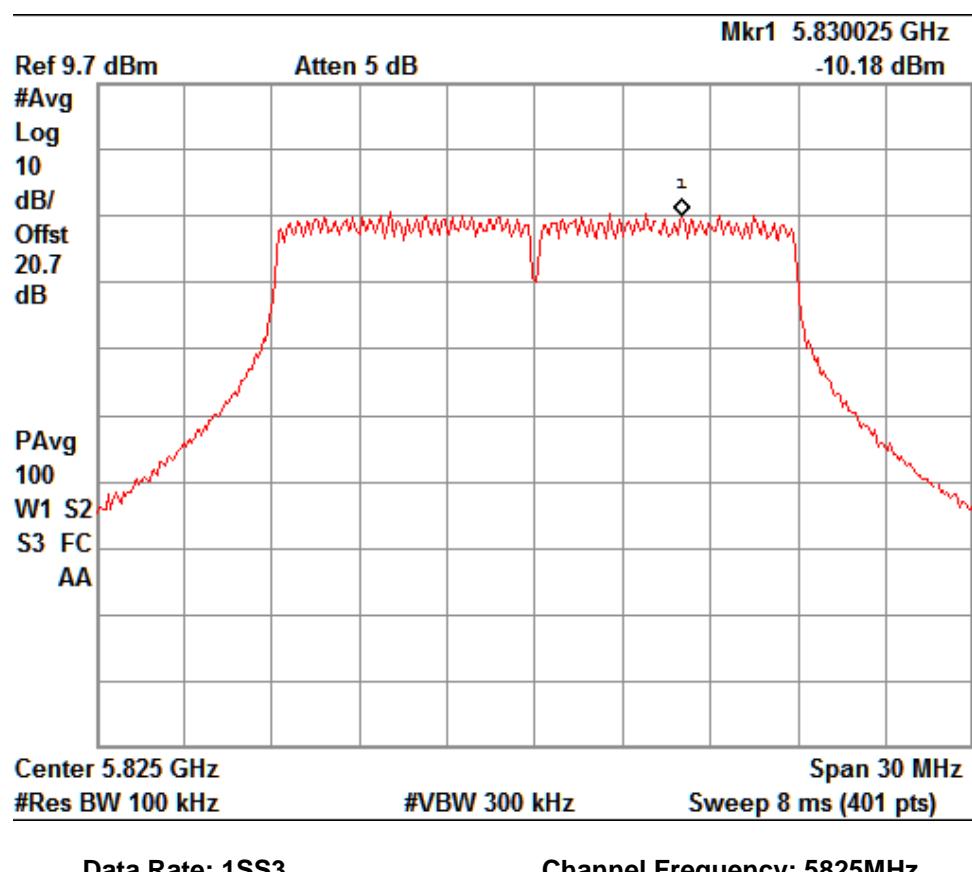
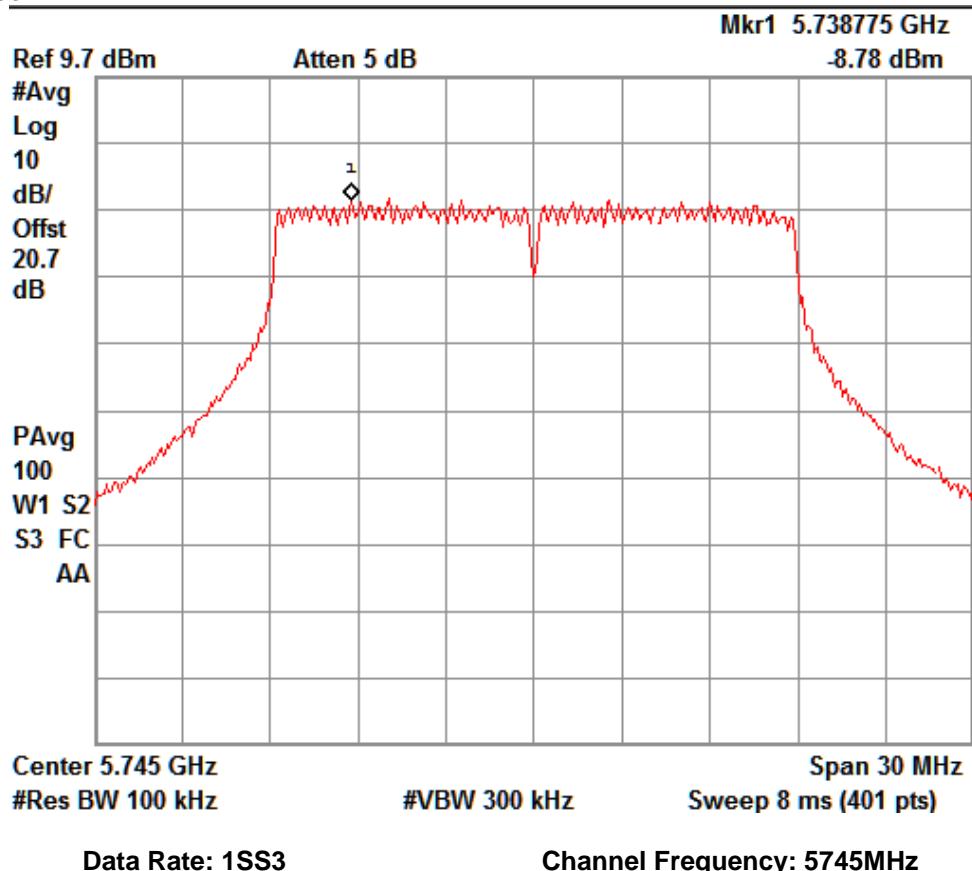


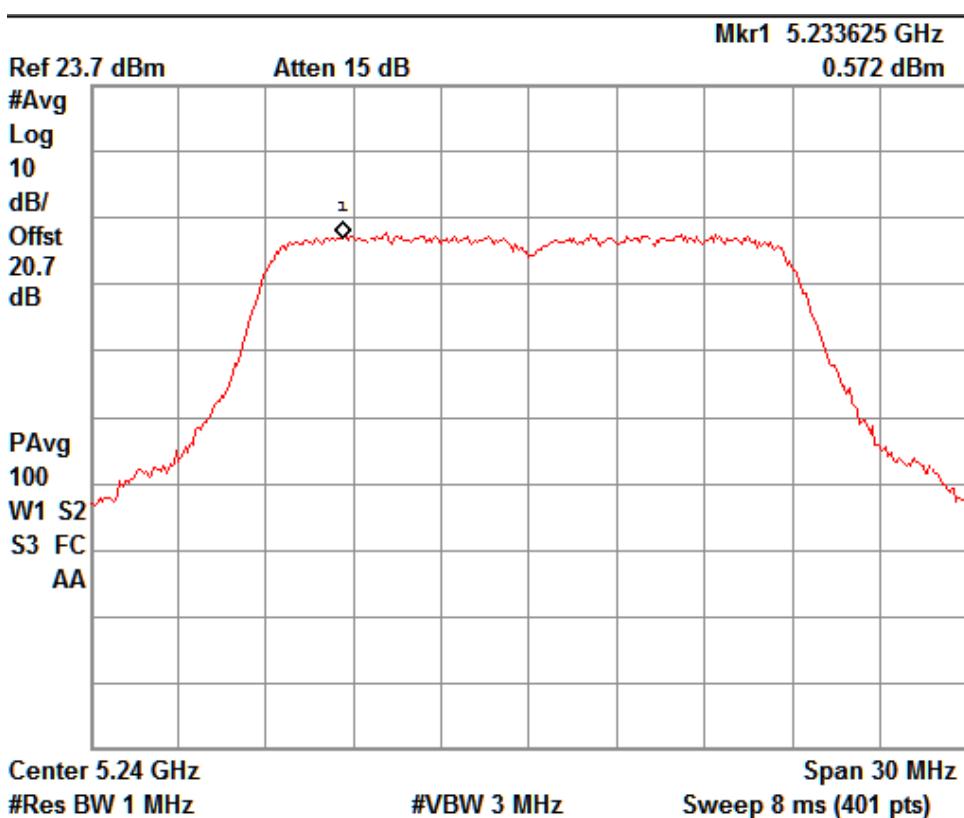
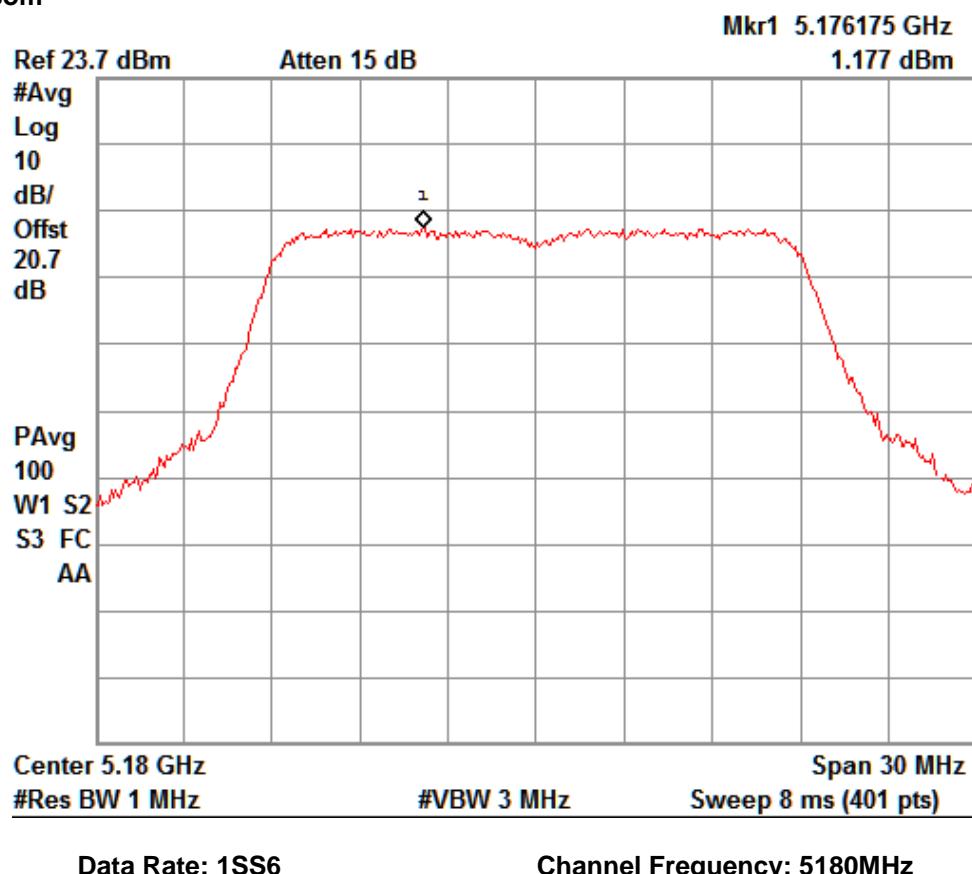
Data Rate: 1SS0

Channel Frequency: 5240MHz

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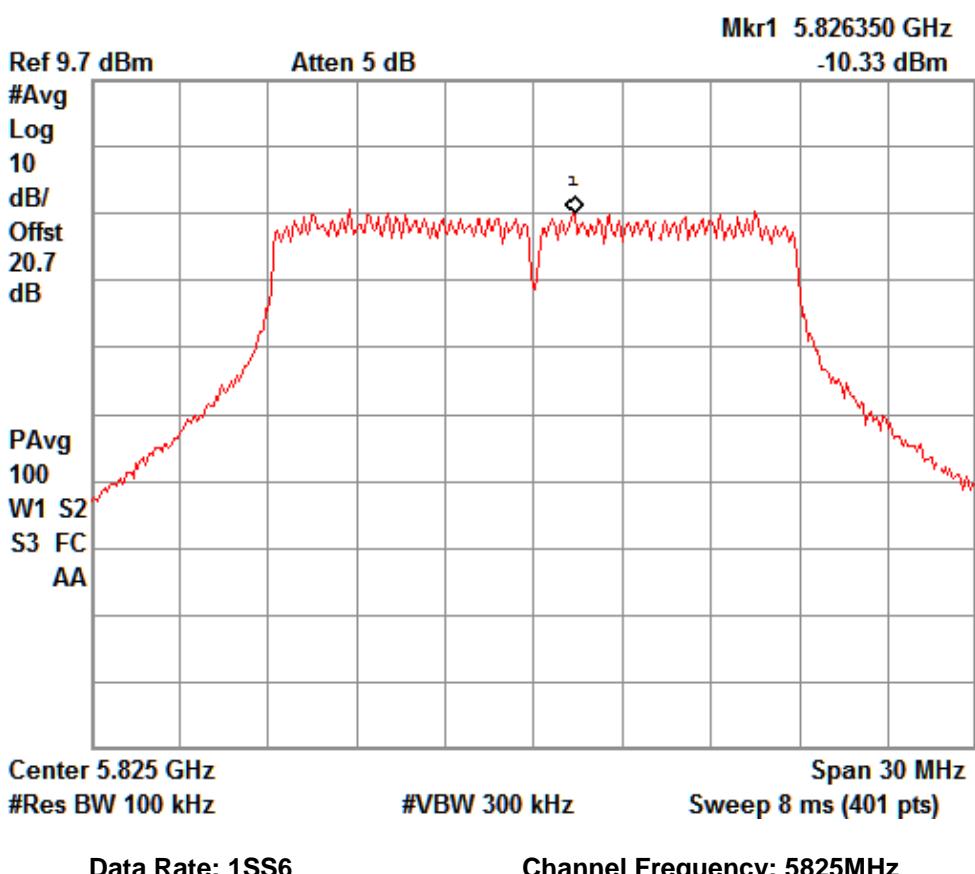
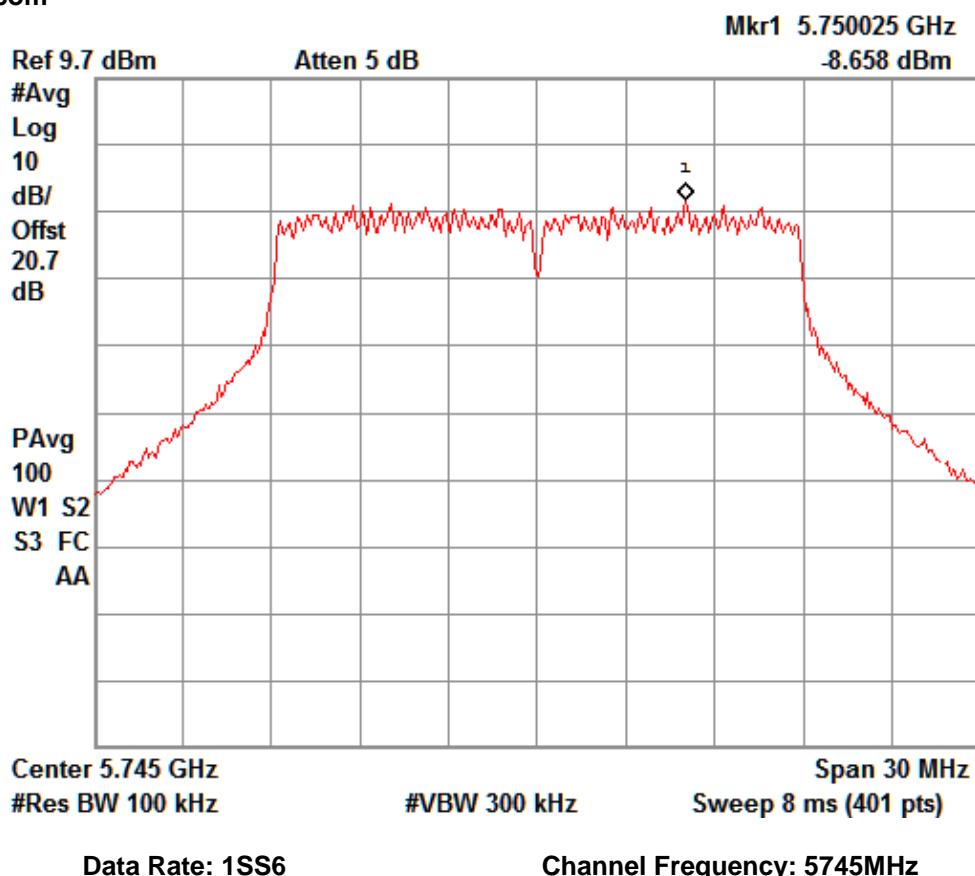


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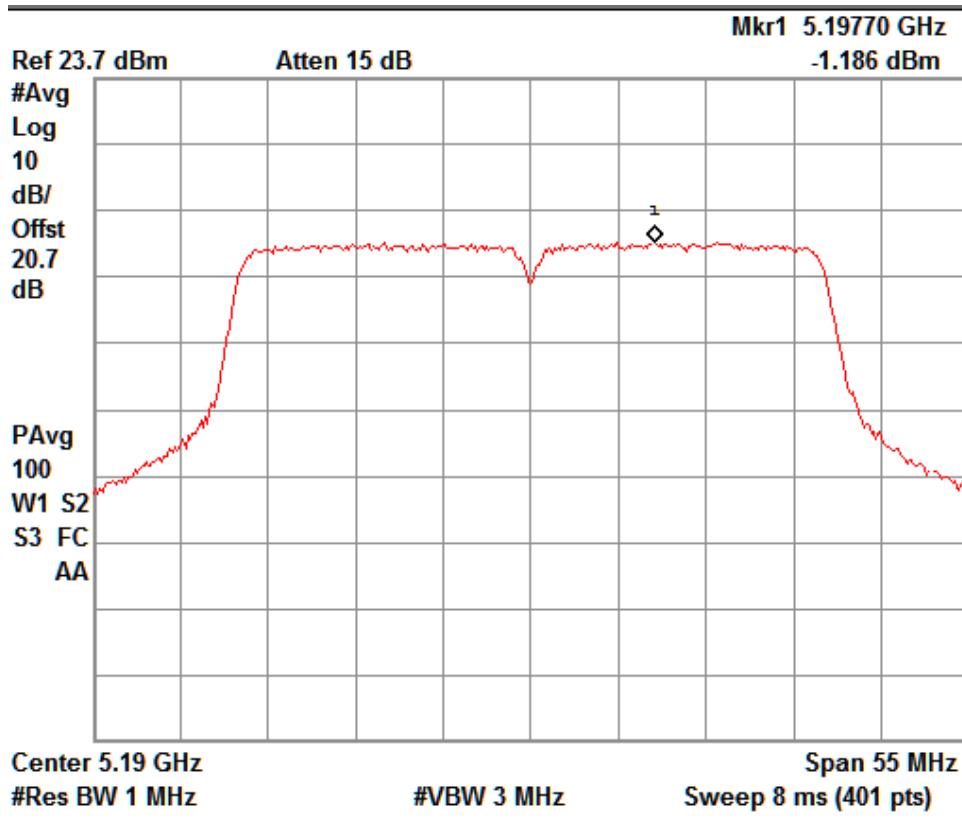
Data Rate: 1SS6

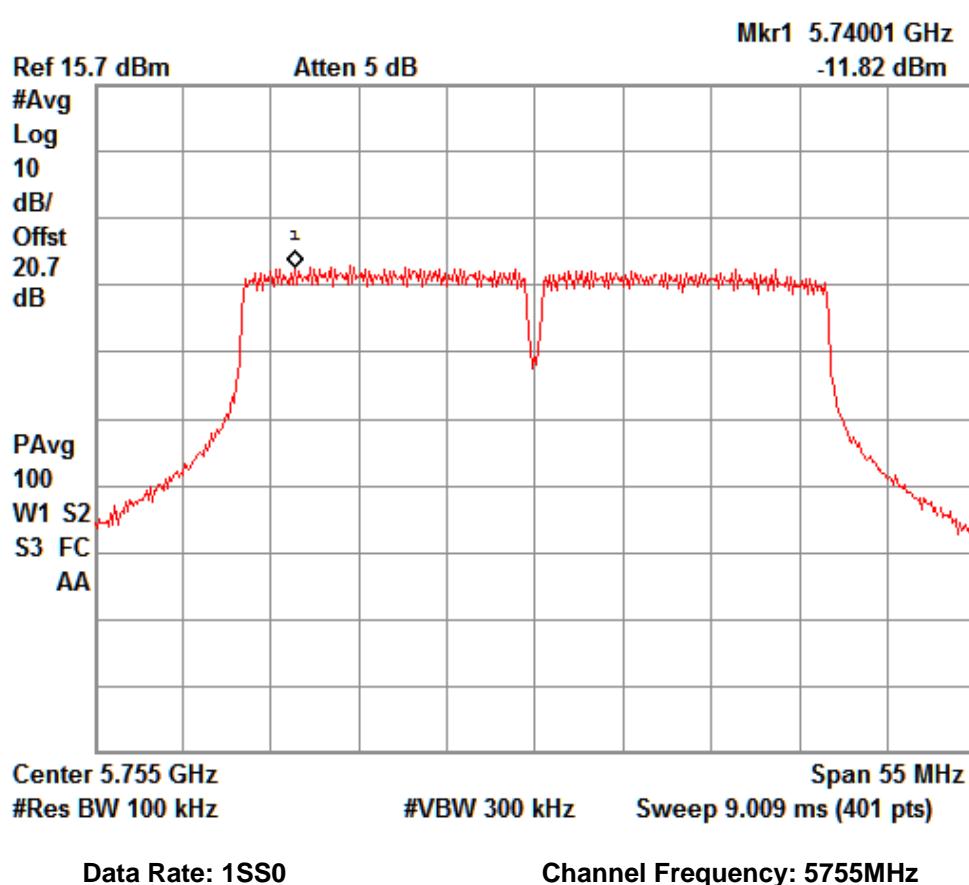
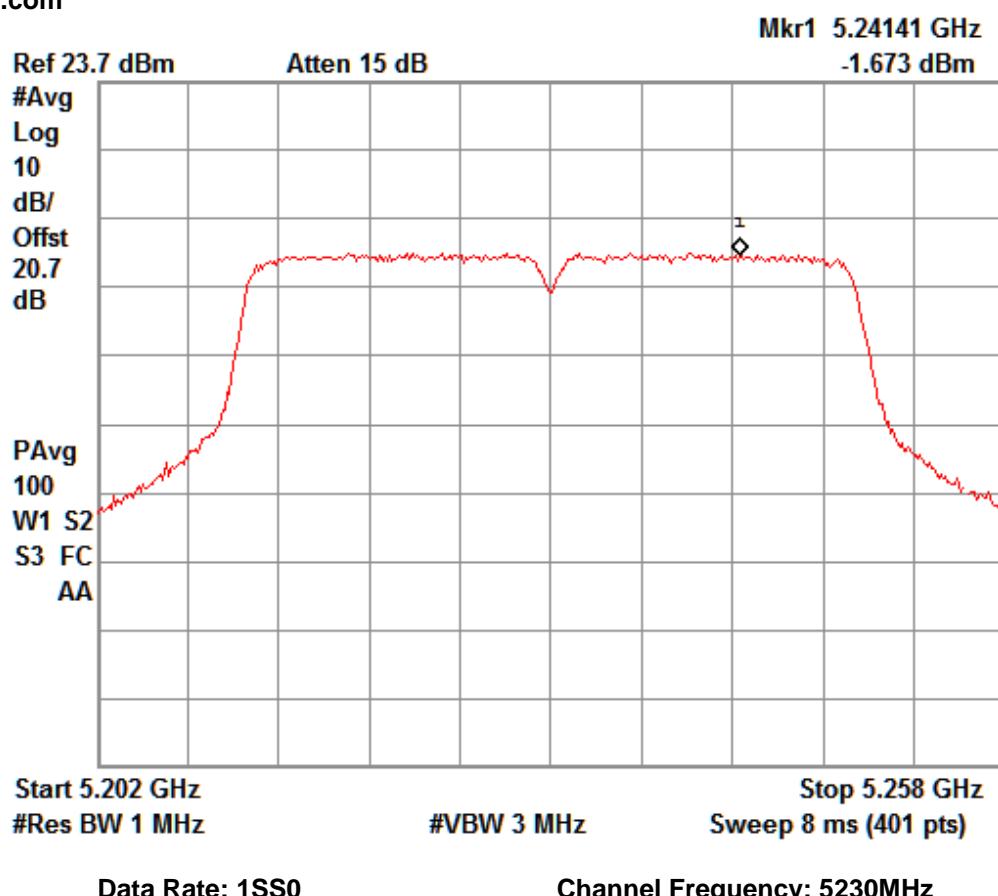
Channel Frequency: 5240MHz

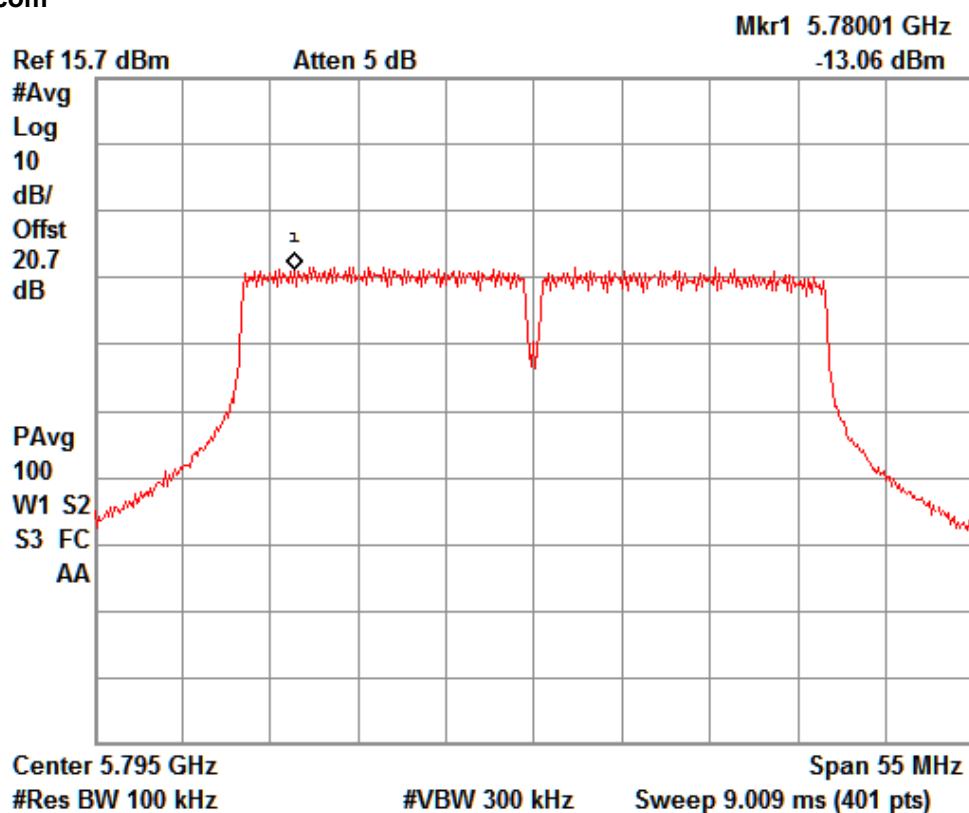
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Test Results for path A

IEEE802.11ac HT40						
Data Rate (Mbps)	Channel No.	Frequency (MHz)	Measured PSD (dBm)	Measure & Add $10^{\log(3)}$	Total PSD (dBm)	Limit (dB)
1SS0	38	5190	-1.186	4.77	3.584	11
	46	5230	-1.673	4.77	3.097	11
	151	5755	-11.82	4.77	-7.05	30
	159	5795	-13.06	4.77	-8.29	30
1SS3	38	5190	-1.582	4.77	3.188	11
	46	5230	-2.372	4.77	2.398	11
	151	5755	-11.94	4.77	-7.17	30
	159	5795	-11.73	4.77	-6.96	30
1SS6	38	5190	-1.147	4.77	3.623	11
	46	5230	-0.975	4.77	3.795	11
	151	5755	-10.82	4.77	-6.05	30
	159	5795	-12.62	4.77	-7.85	30

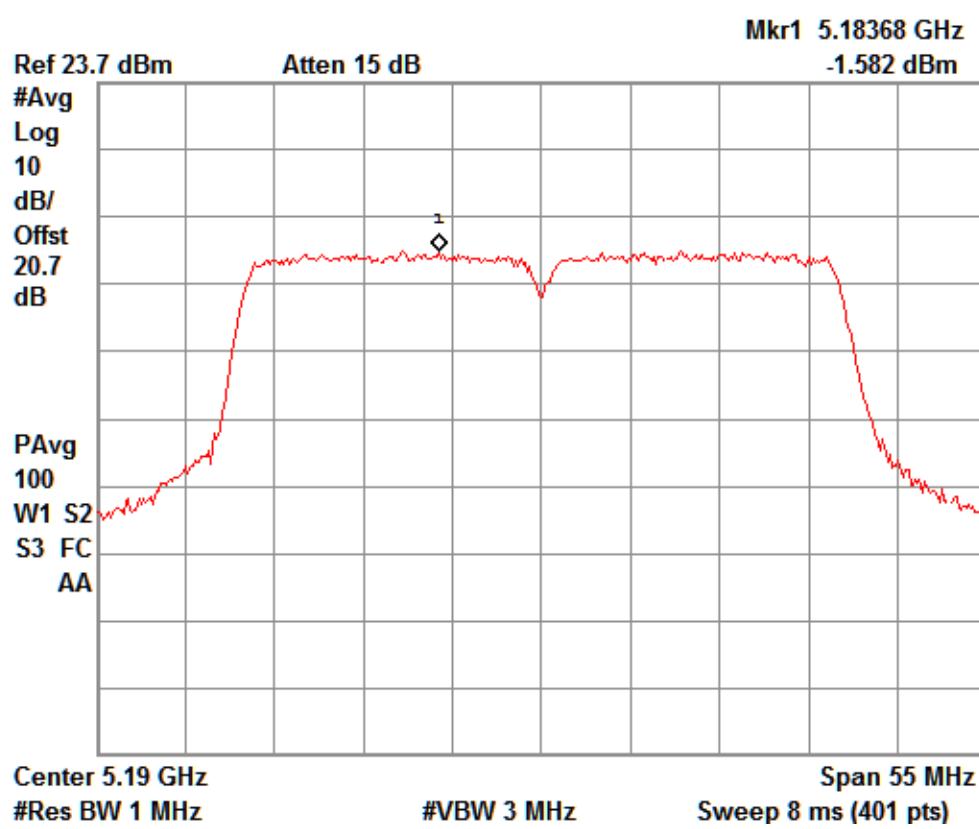


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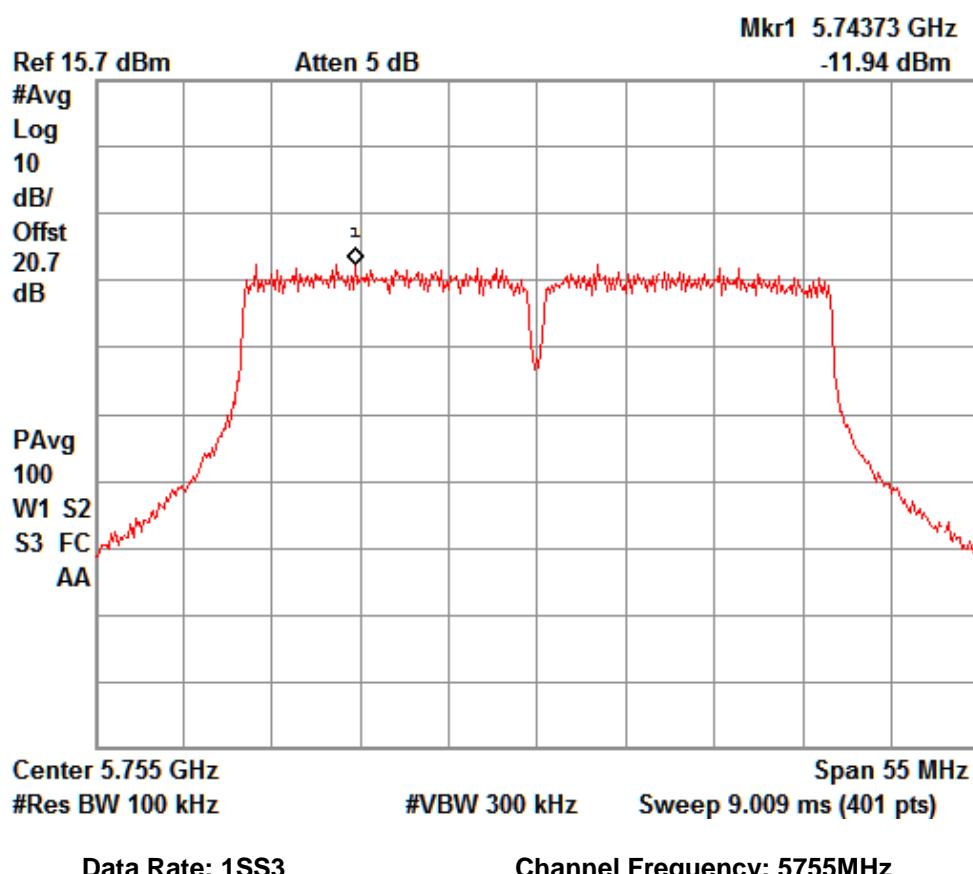
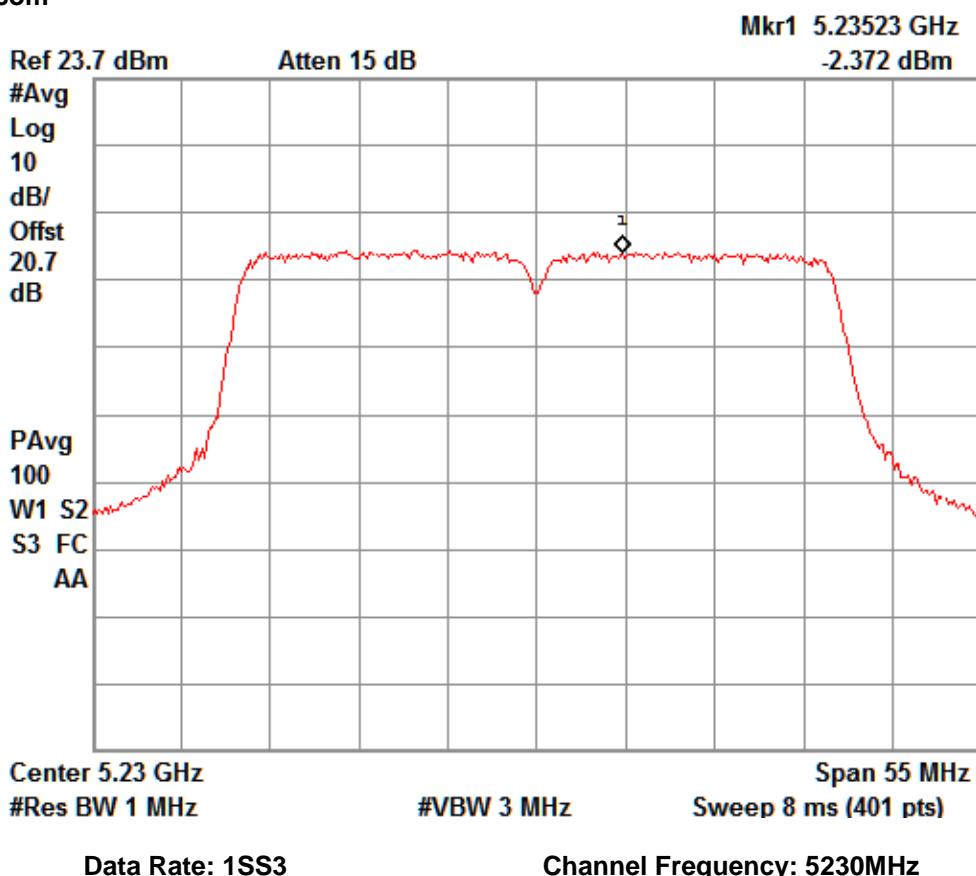
Data Rate: 1SS0

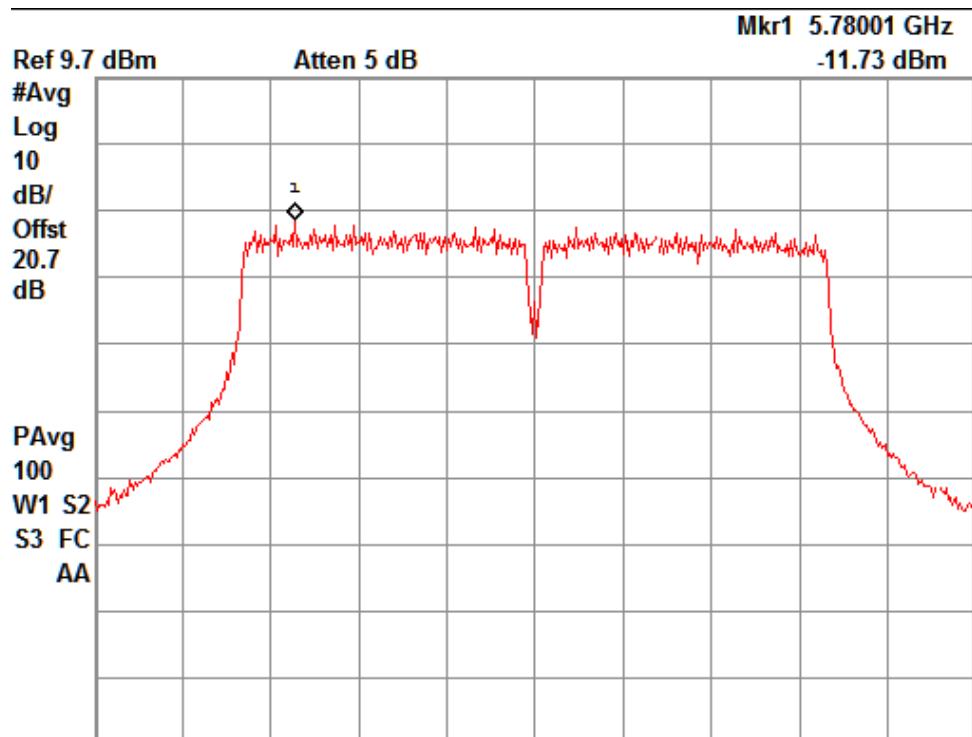
Channel Frequency: 5795MHz



Data Rate: 1SS3

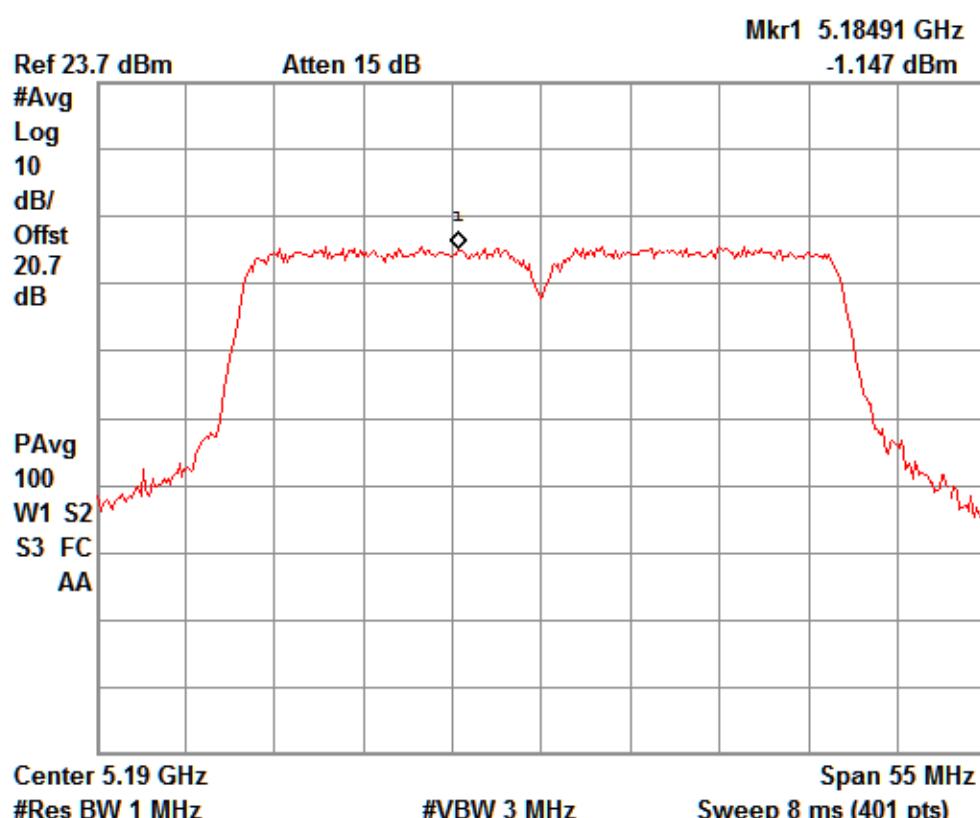
Channel Frequency: 5190MHz

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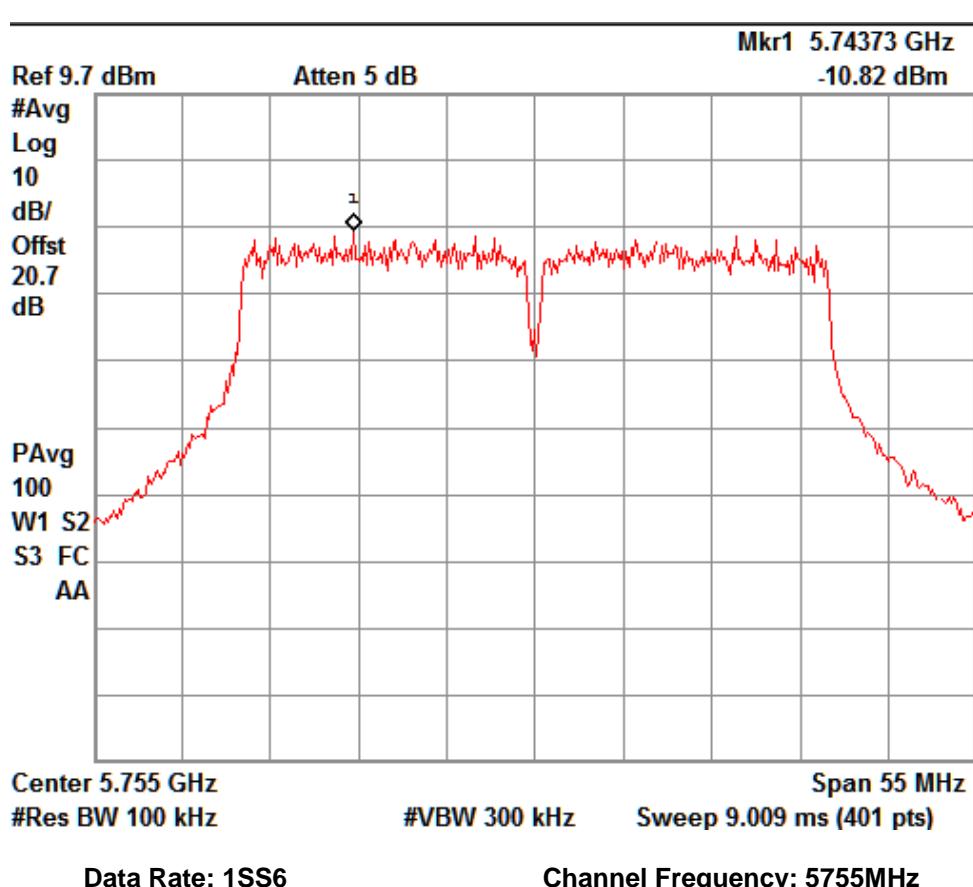
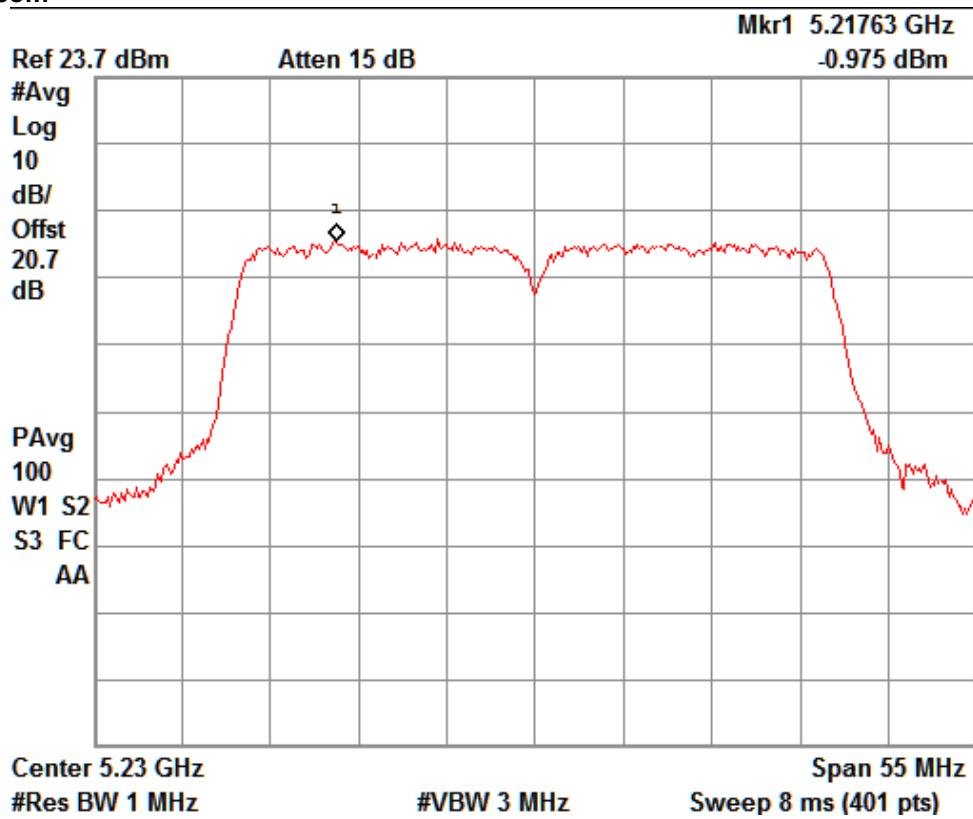
Data Rate: 1SS3

Channel Frequency: 5795MHz

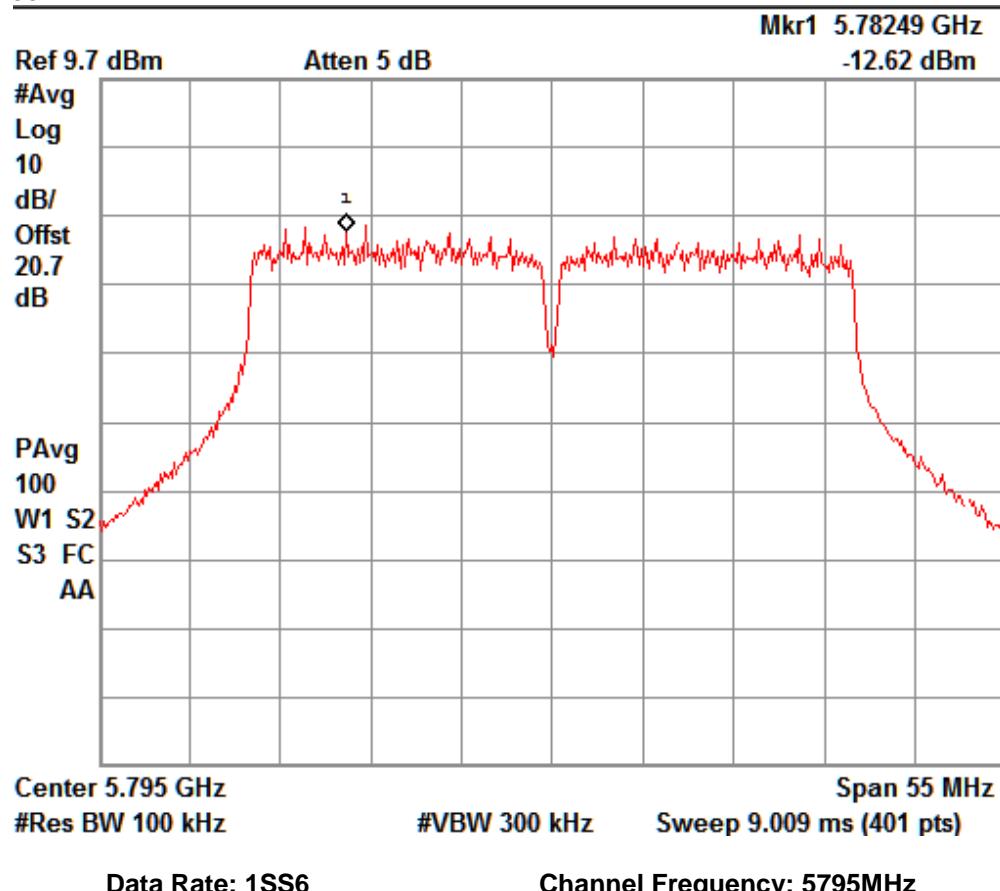


Data Rate: 1SS6

Channel Frequency: 5190MHz

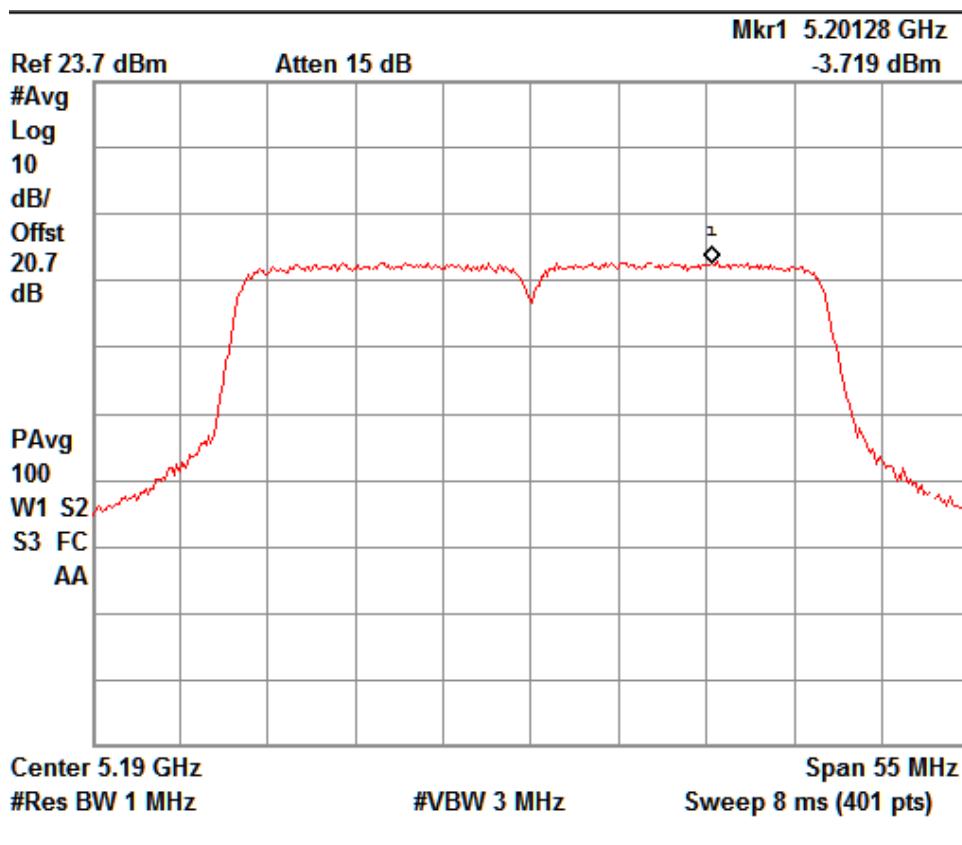
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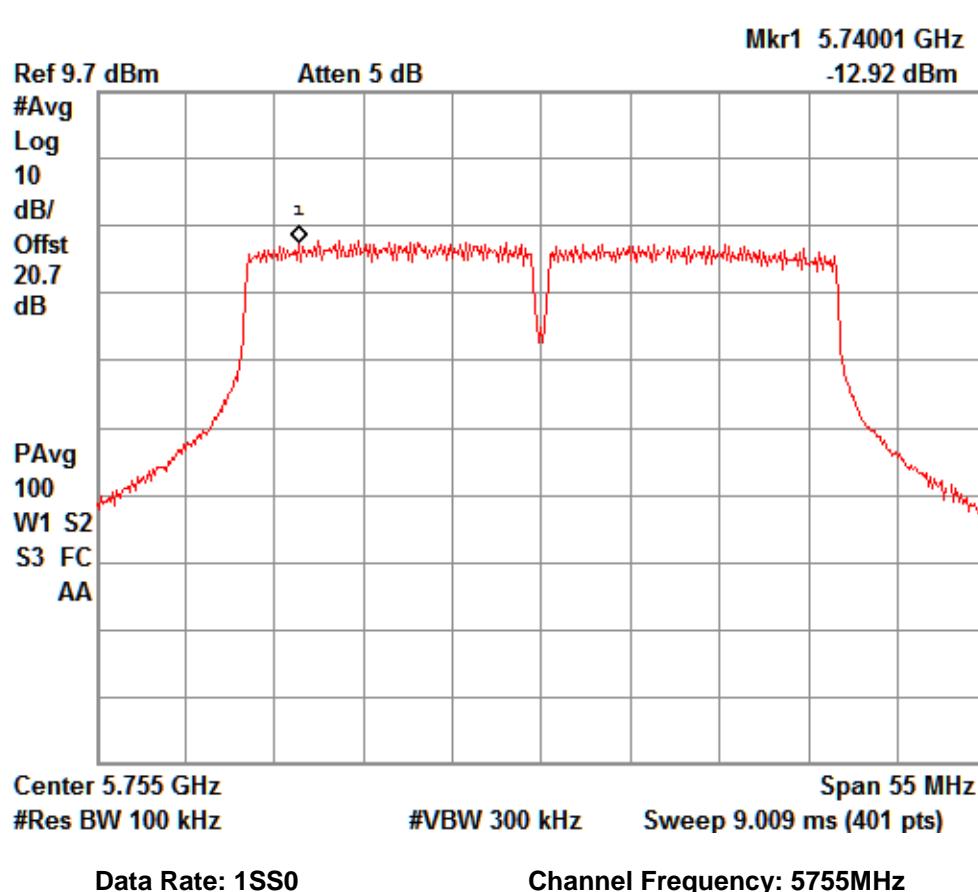
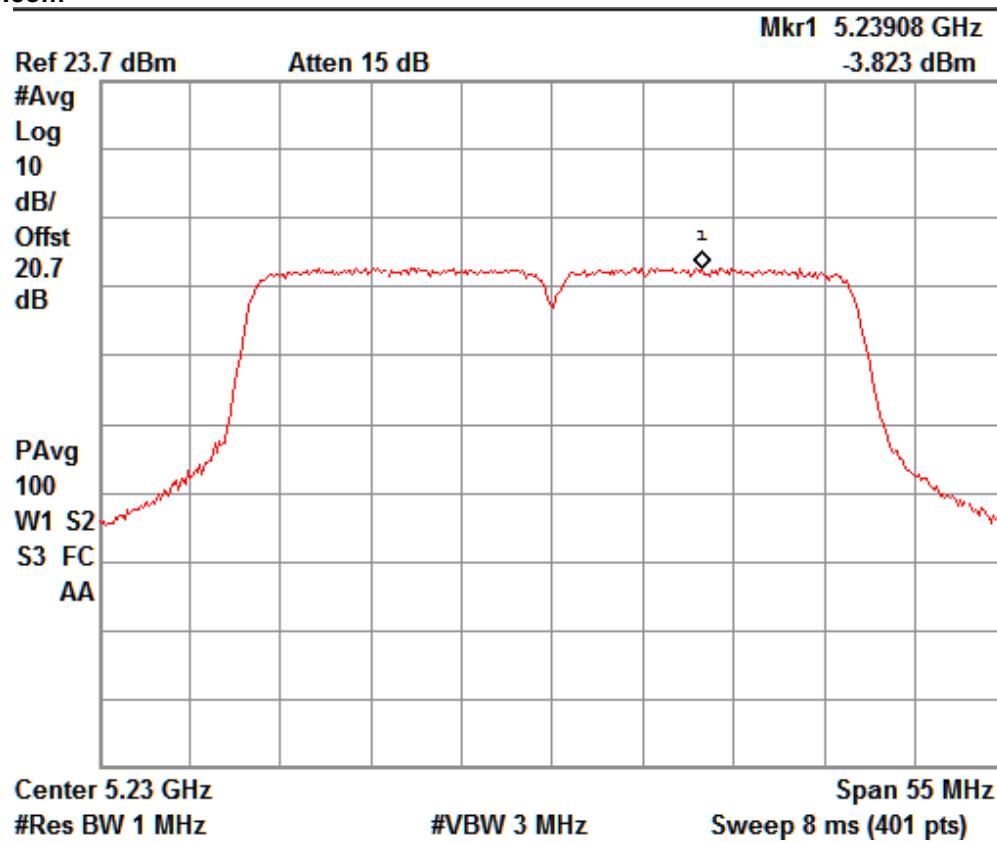
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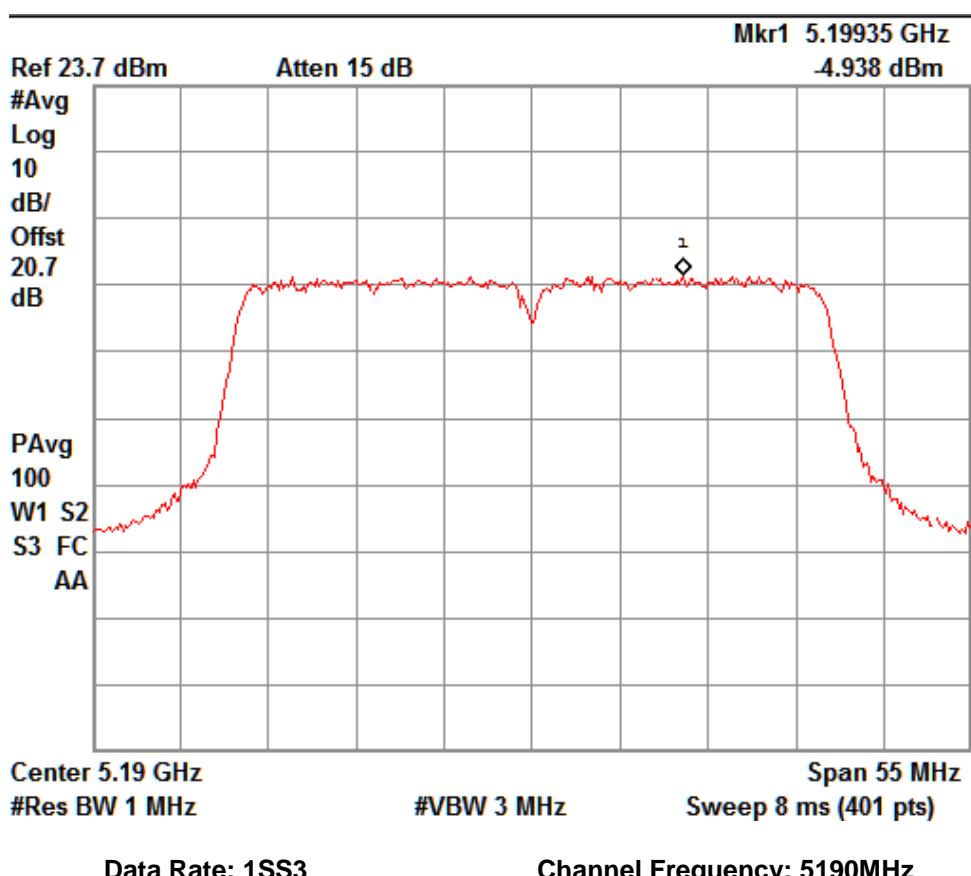
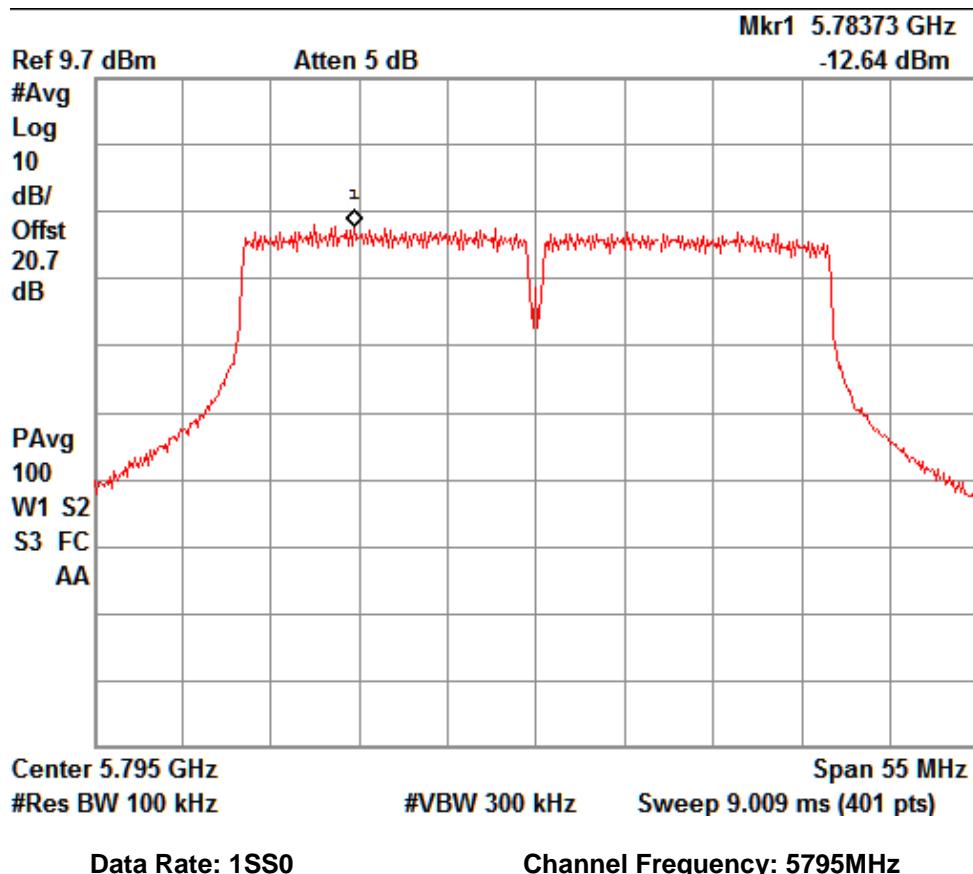


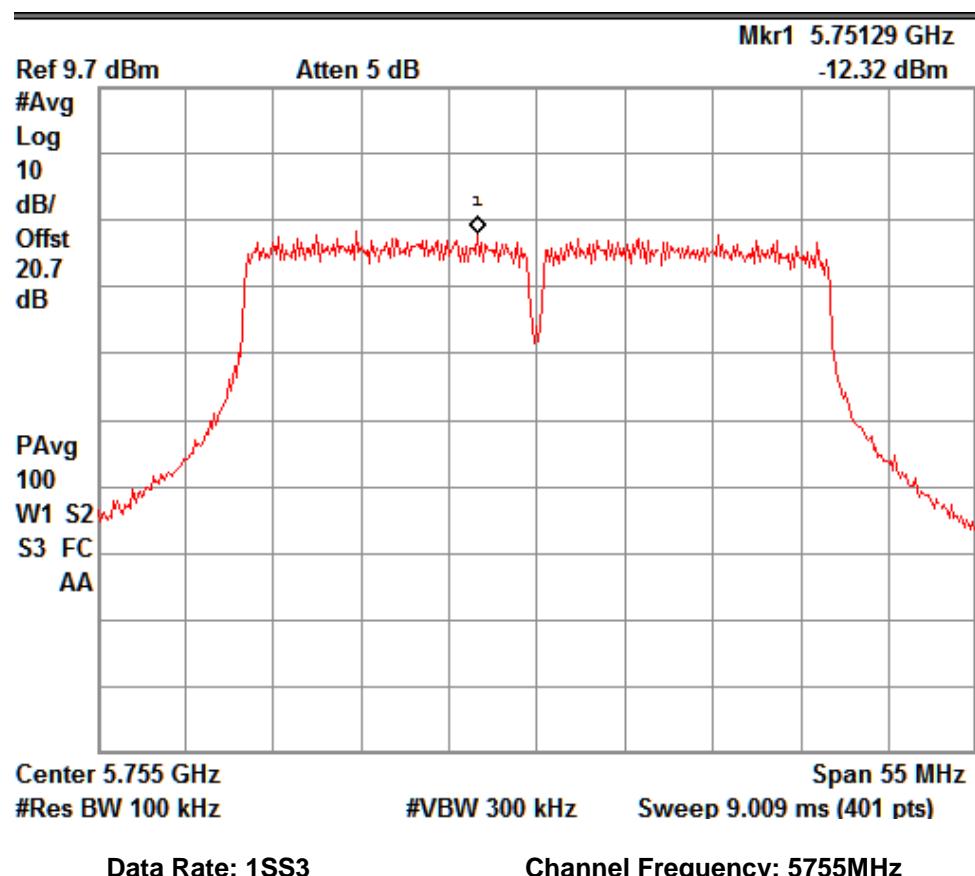
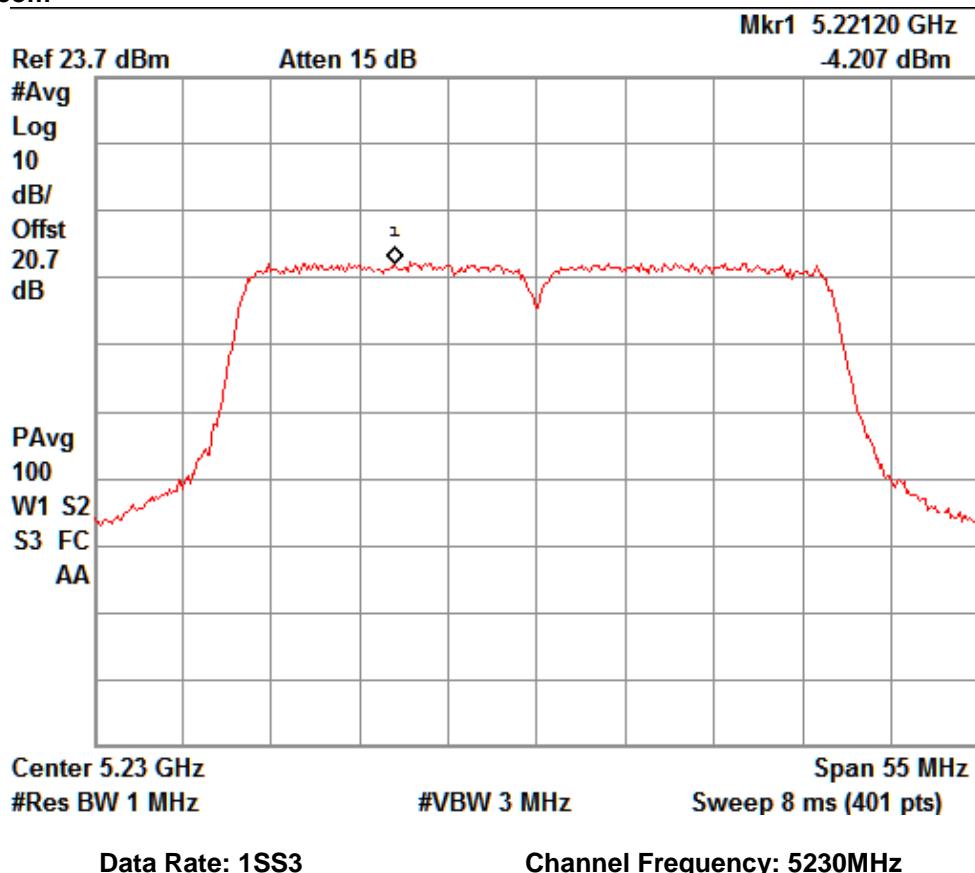
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Test Results for path B

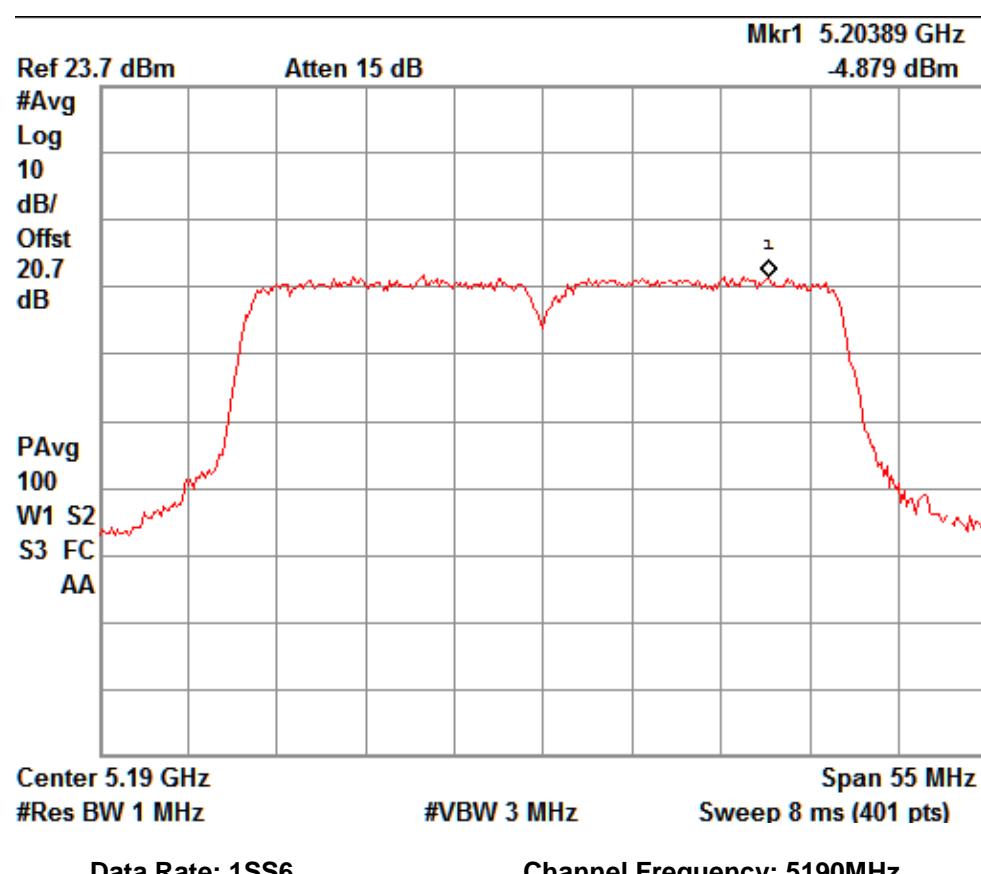
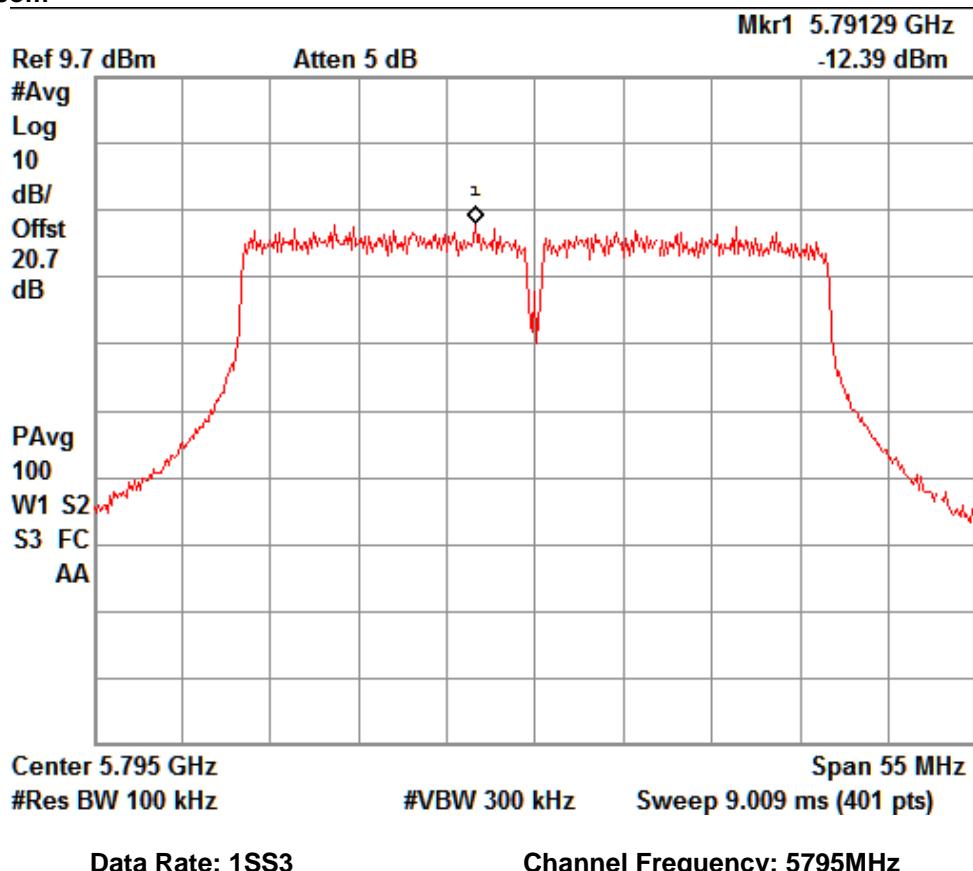
IEEE802.11ac HT40						
Data Rate (Mbps)	Channel No.	Frequency (MHz)	Measured PSD (dBm)	Measure & Add $10^{\log(3)}$	Total PSD (dBm)	Limit (dB)
1SS0	38	5190	-3.719	4.77	1.051	11
	46	5230	-3.823	4.77	0.947	11
	151	5755	-12.92	4.77	-8.15	30
	159	5795	-12.64	4.77	-7.87	30
1SS3	38	5190	-4.938	4.77	-0.168	11
	46	5230	-4.207	4.77	0.563	11
	151	5755	-12.32	4.77	-7.55	30
	159	5795	-12.39	4.77	-7.62	30
1SS6	38	5190	-4.879	4.77	-0.109	11
	46	5230	-4.875	4.77	-0.105	11
	151	5755	-12	4.77	-7.23	30
	159	5795	-12.05	4.77	-7.28	30

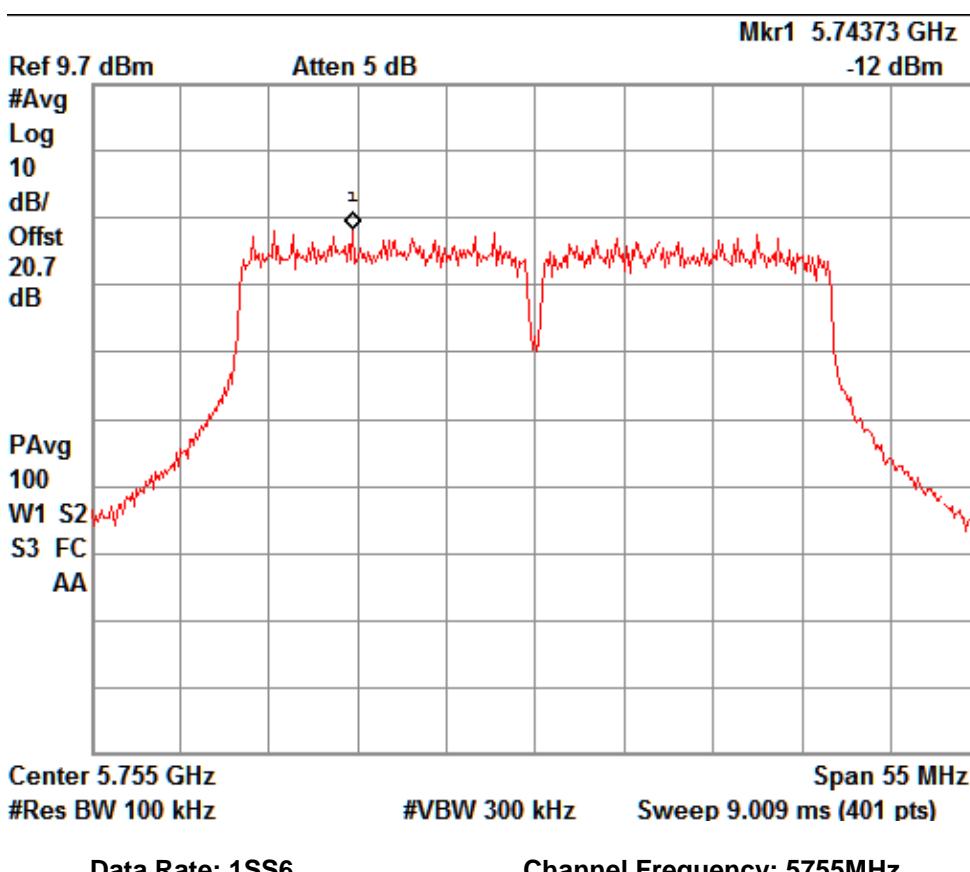
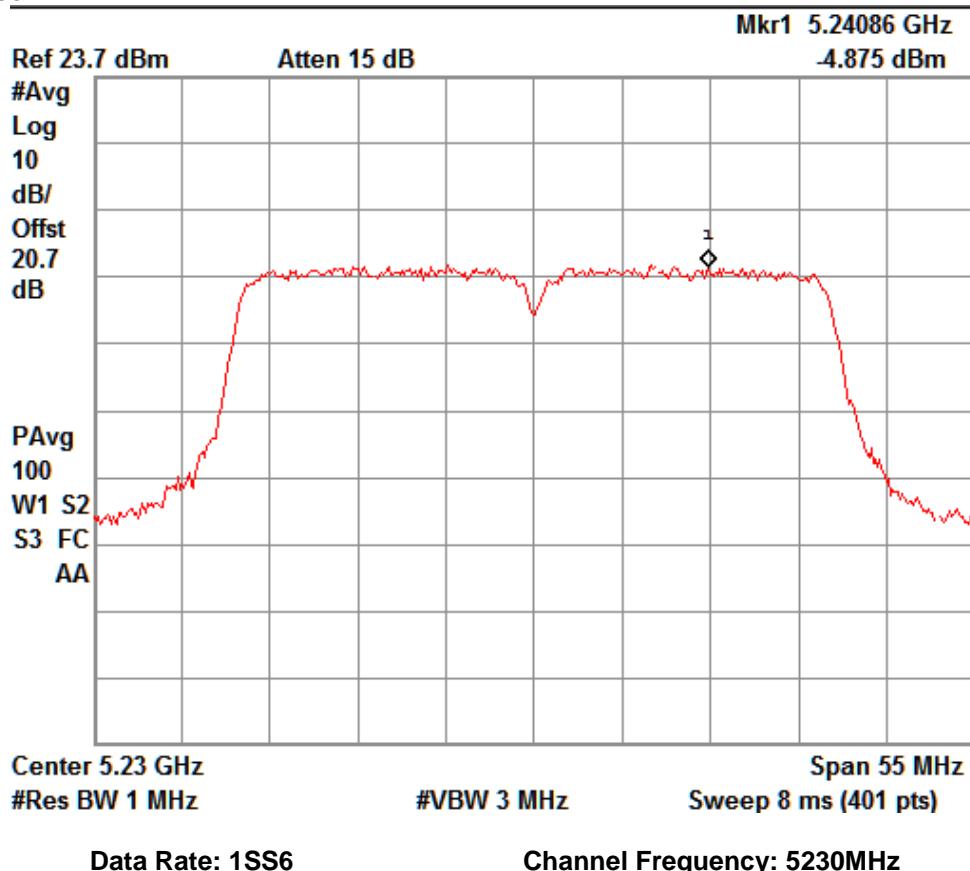


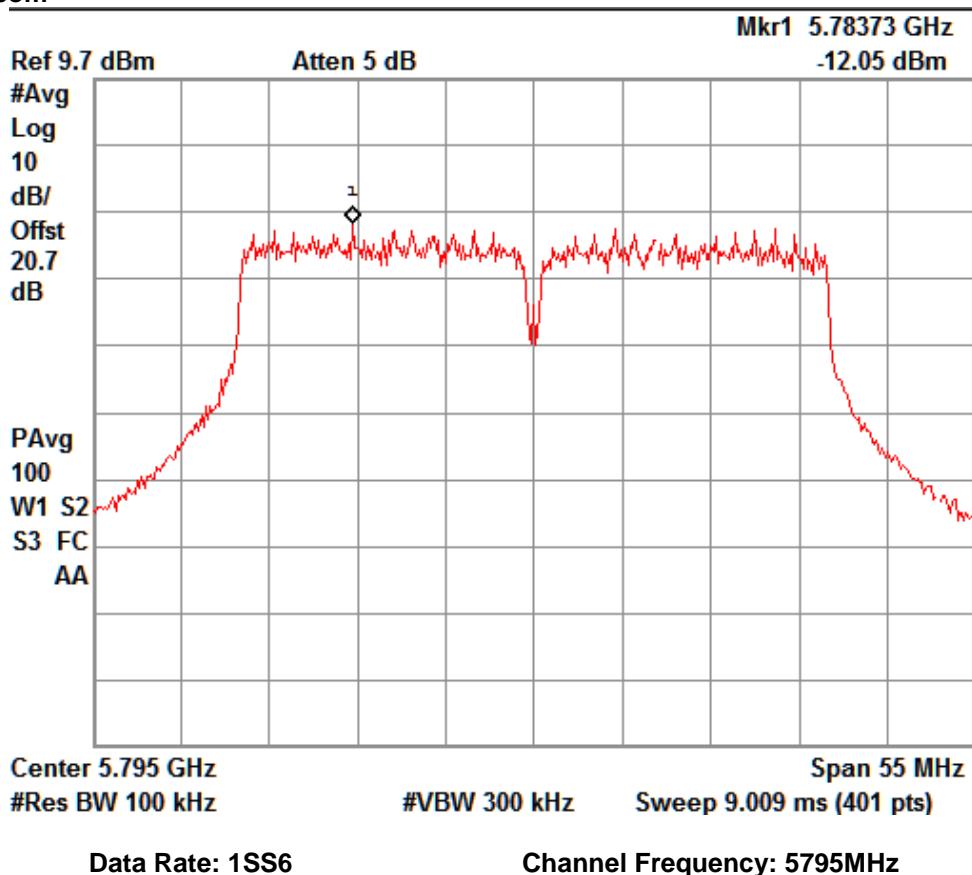




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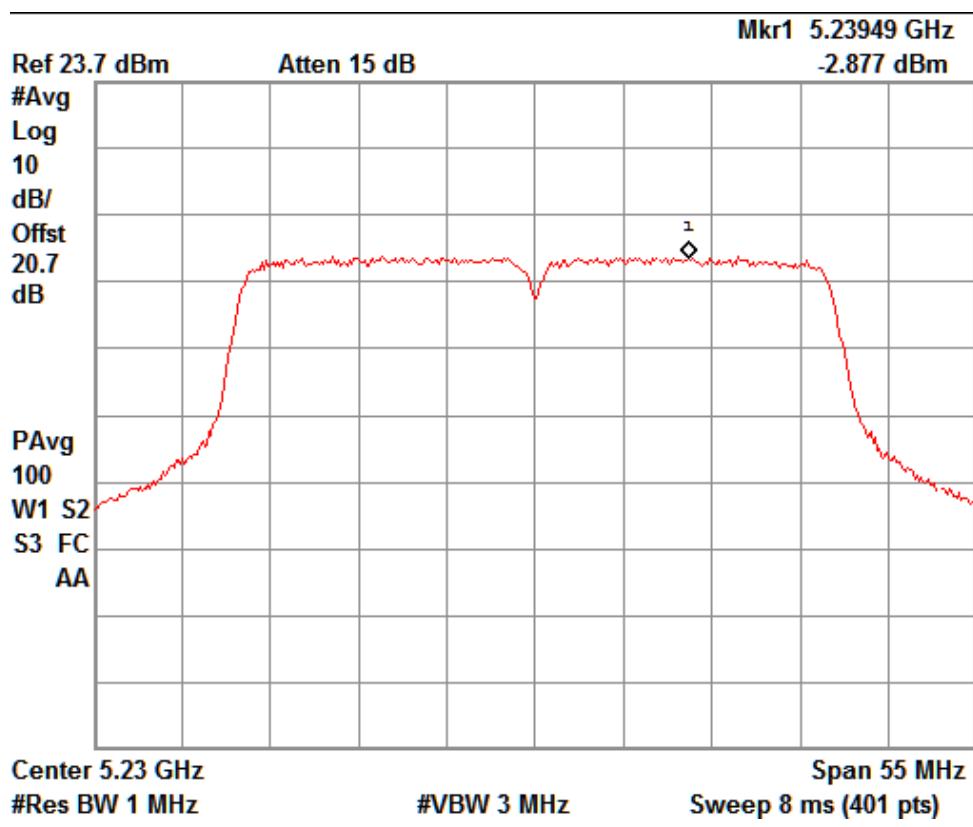
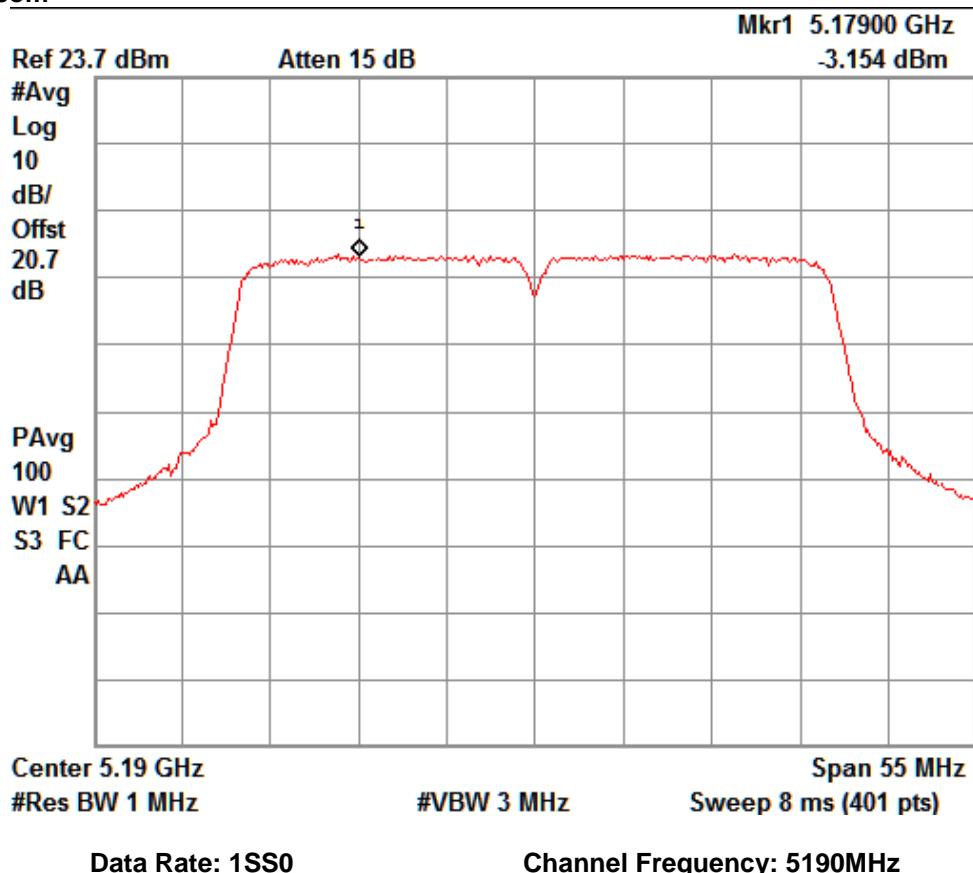
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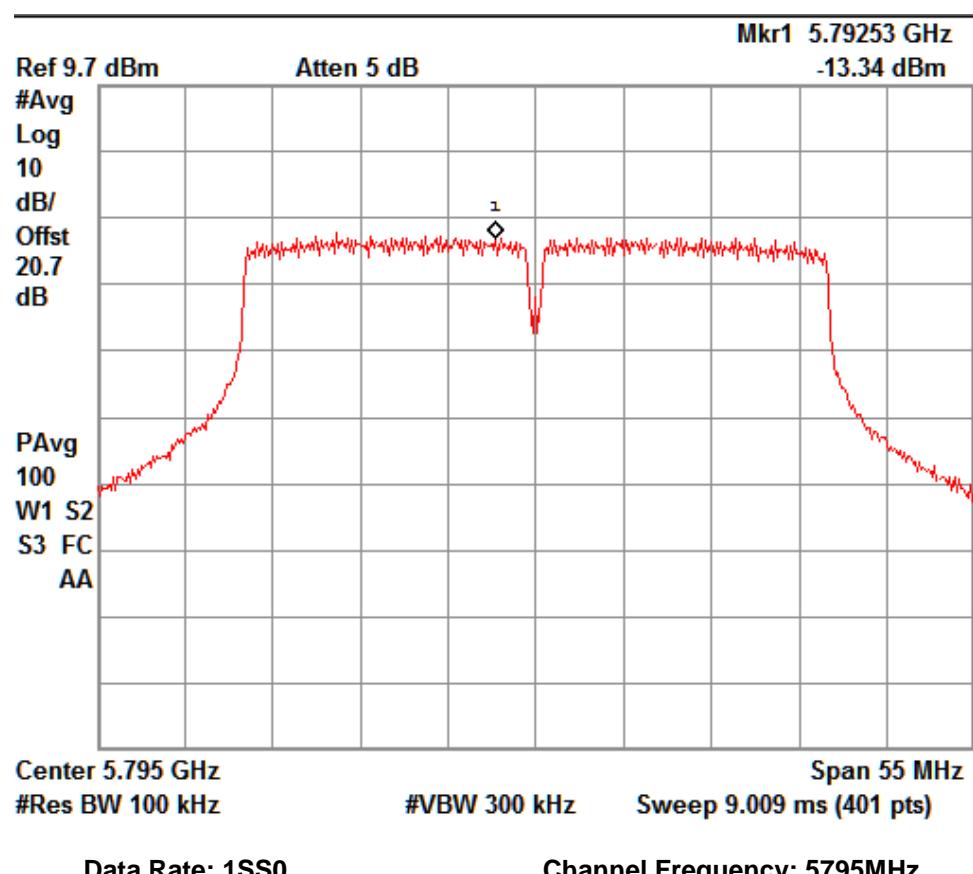
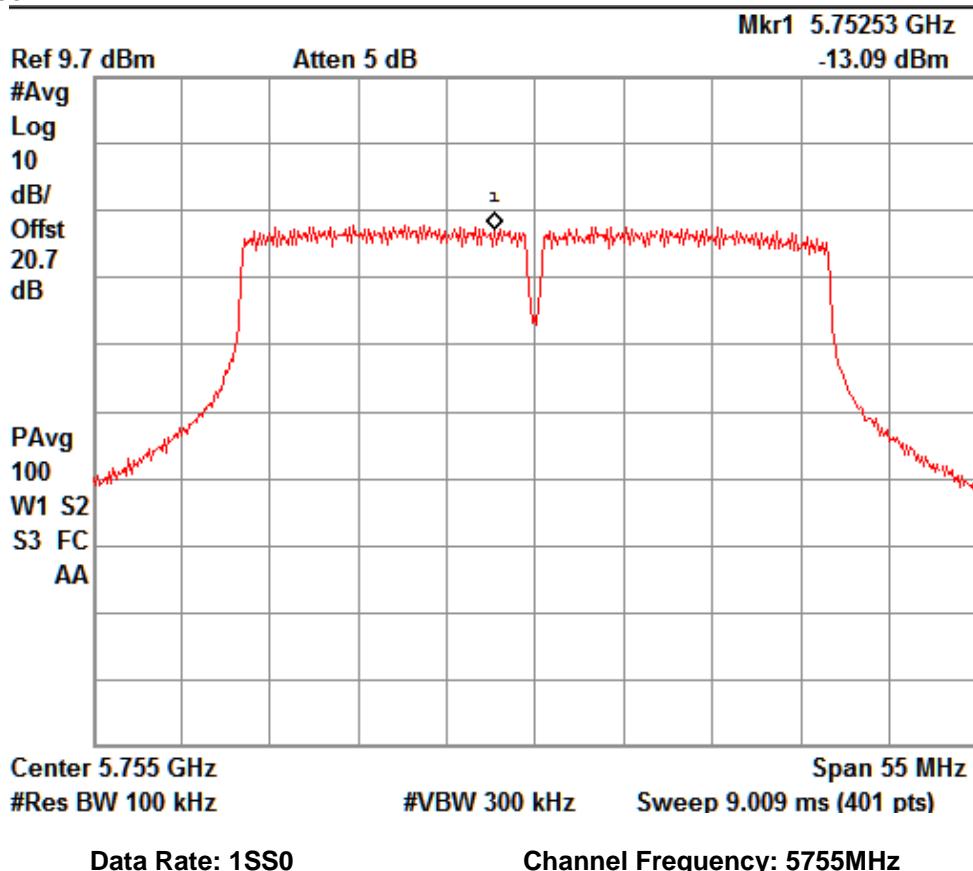


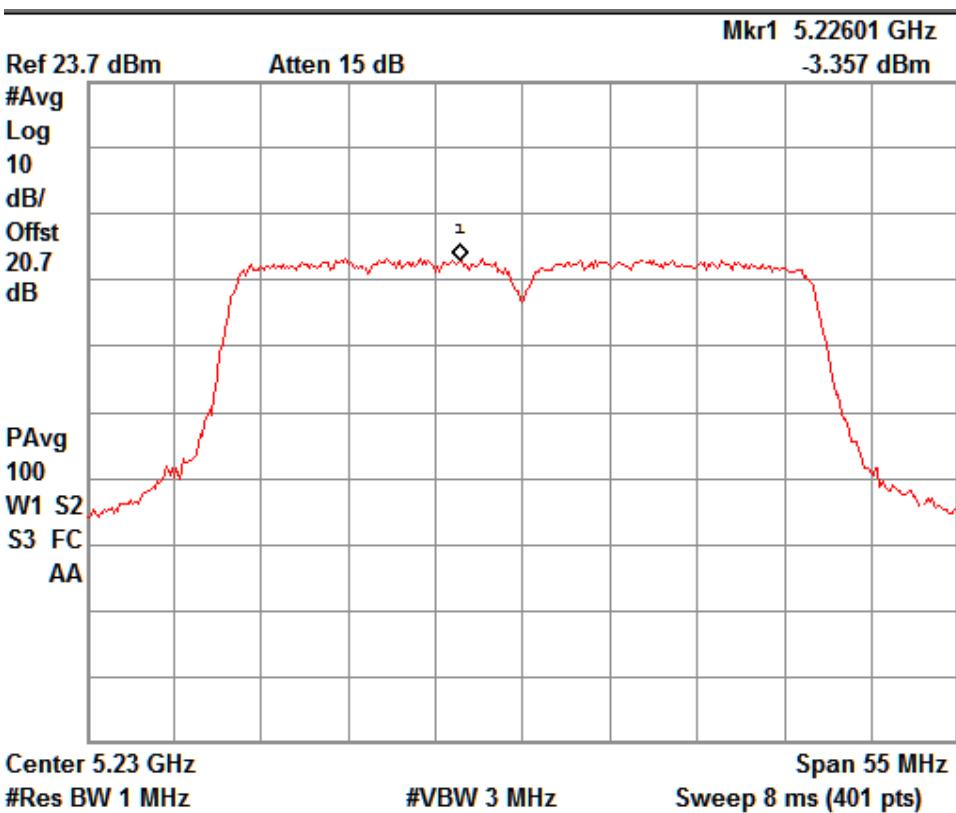
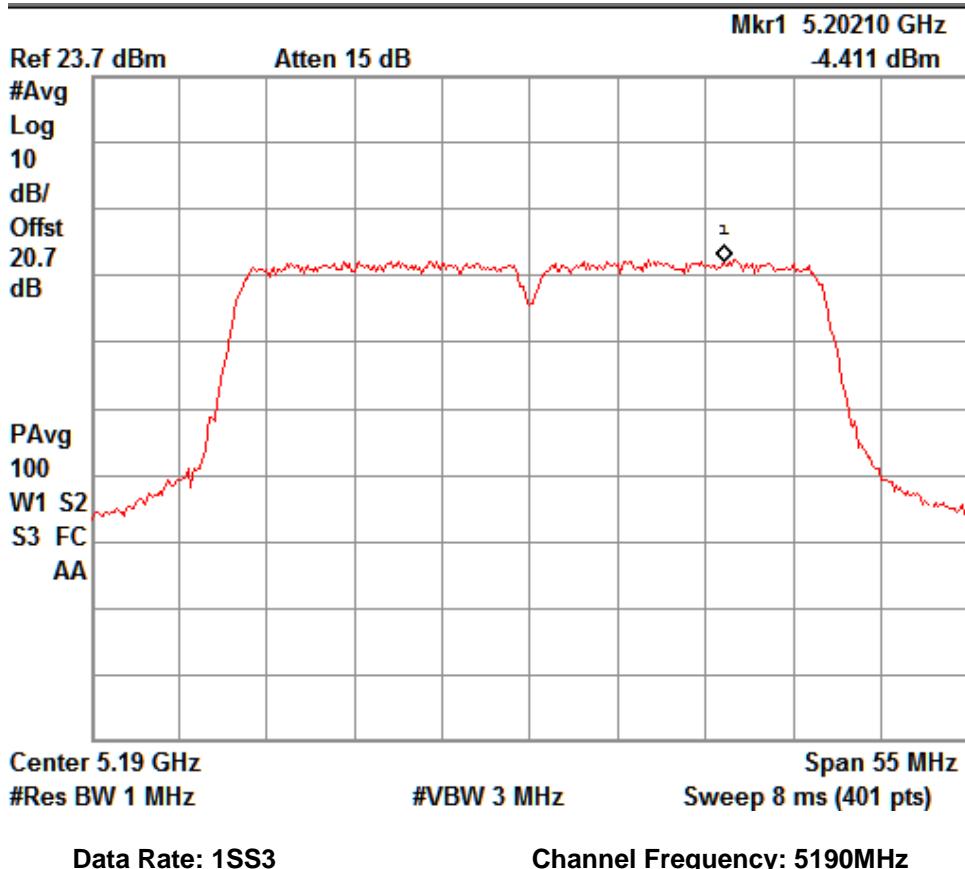


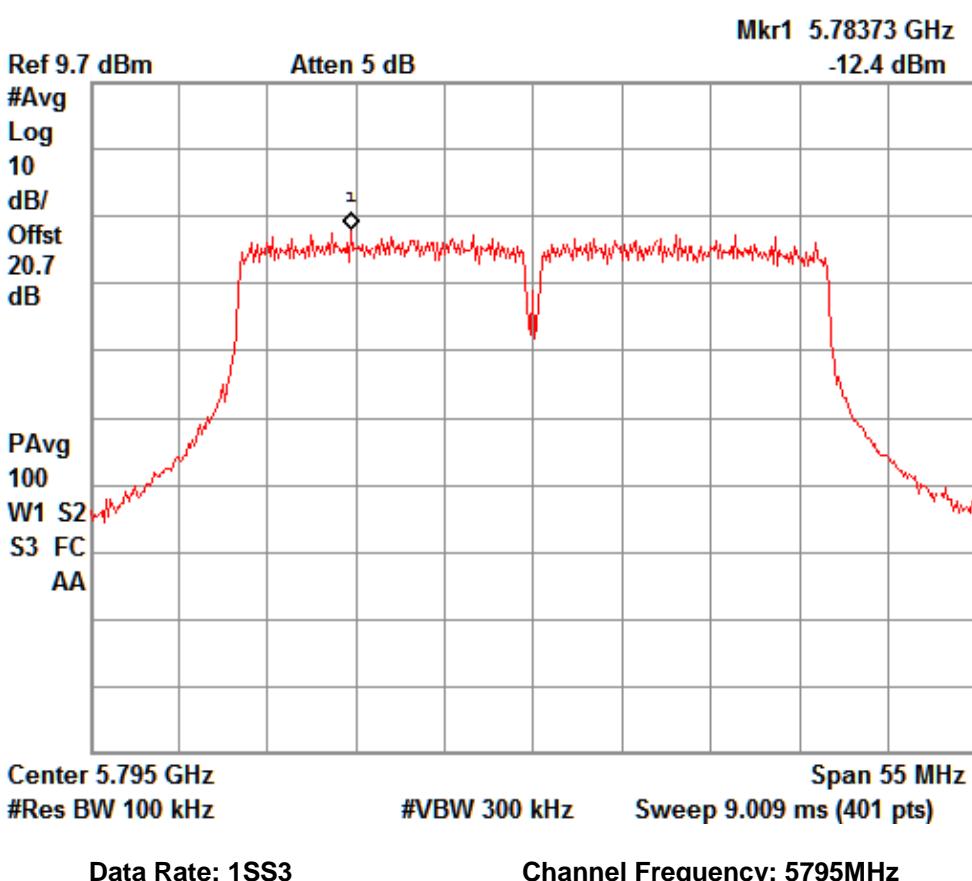
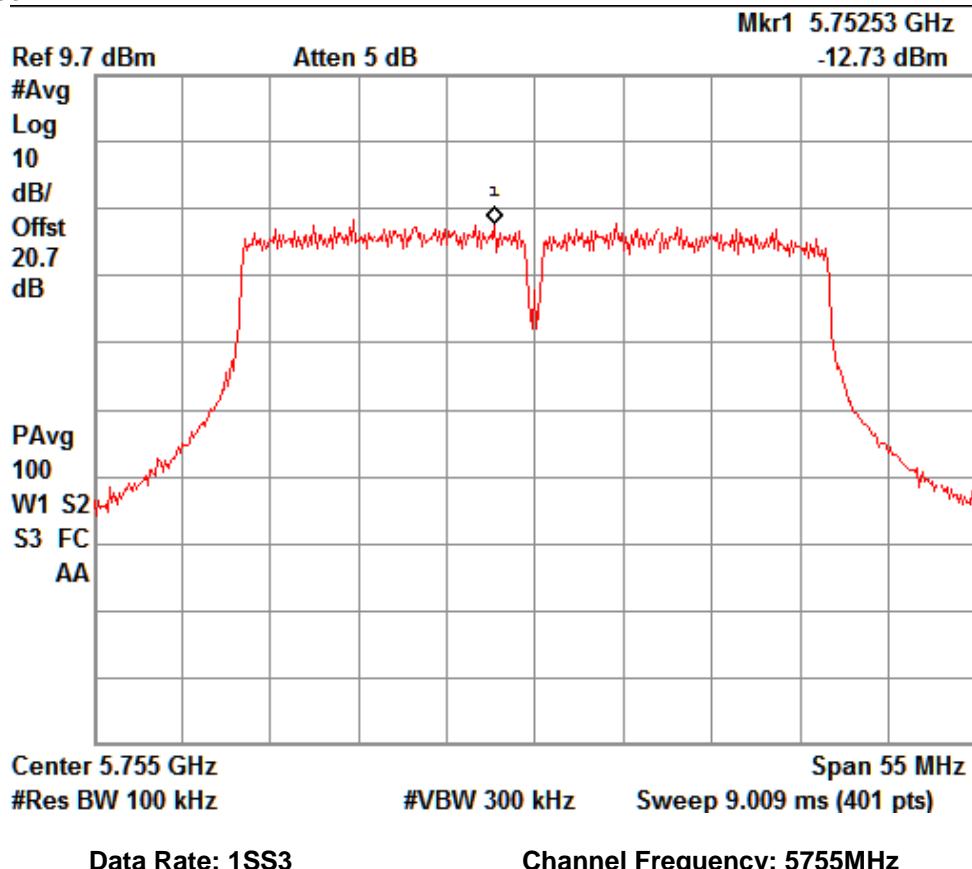
#### Test Results for path C

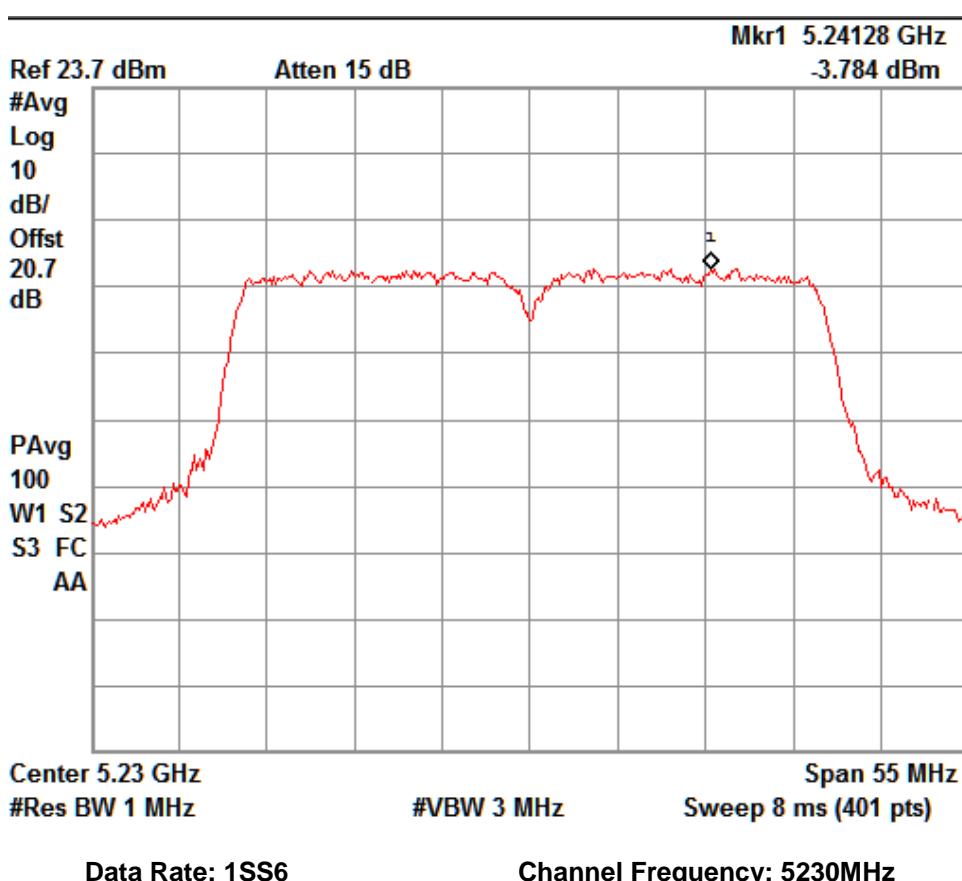
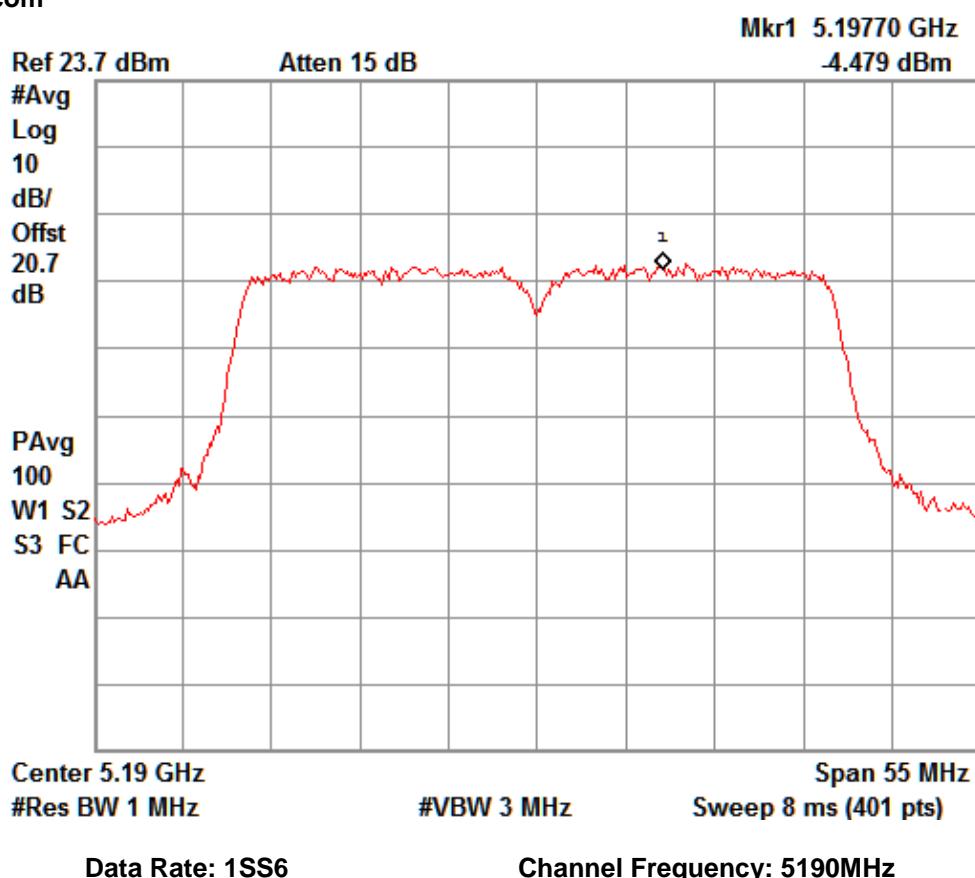
IEEE802.11ac HT40						
Data Rate (Mbps)	Channel No.	Frequency (MHz)	Measured PSD (dBm)	Measure & Add $10^{\log(3)}$	Total PSD (dBm)	Limit (dB)
1SS0	38	5190	-3.154	4.77	1.616	11
	46	5230	-2.877	4.77	1.893	11
	151	5755	-13.09	4.77	-8.32	30
	159	5795	-13.34	4.77	-8.57	30
1SS3	38	5190	-4.411	4.77	0.359	11
	46	5230	-3.357	4.77	1.413	11
	151	5755	-12.73	4.77	-7.96	30
	159	5795	-12.4	4.77	-7.63	30
1SS6	38	5190	-4.479	4.77	0.291	11
	46	5230	-3.874	4.77	0.896	11
	151	5755	-12.02	4.77	-7.25	30
	159	5795	-12.21	4.77	-7.44	30

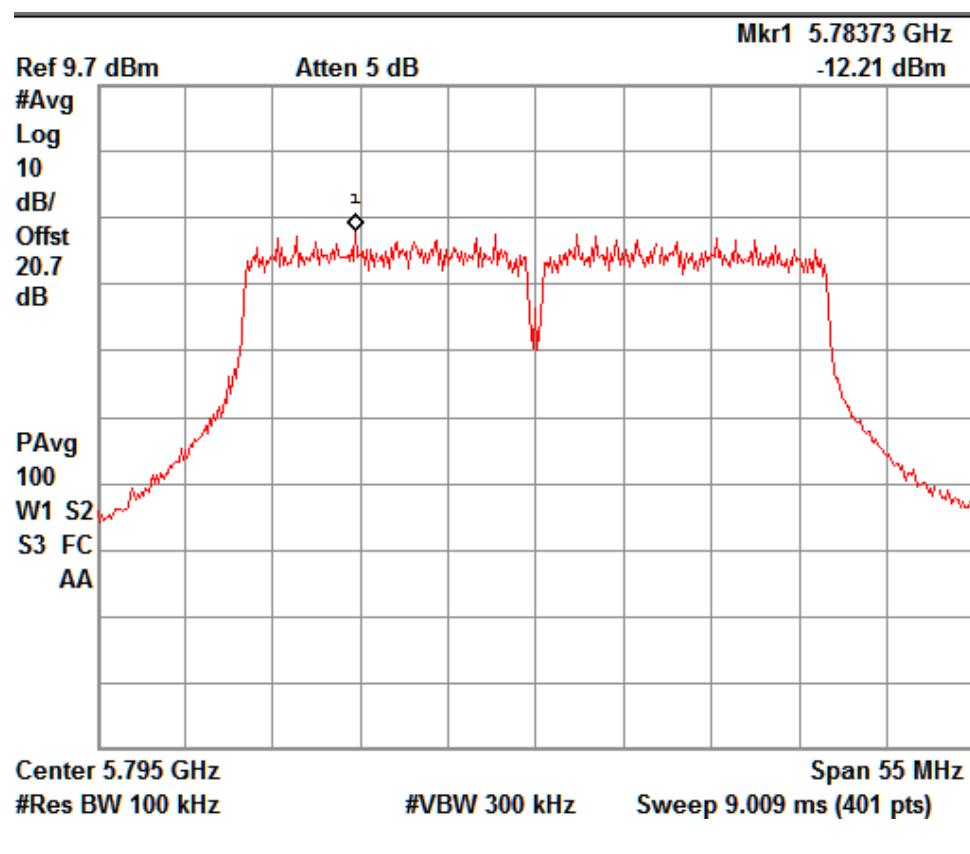
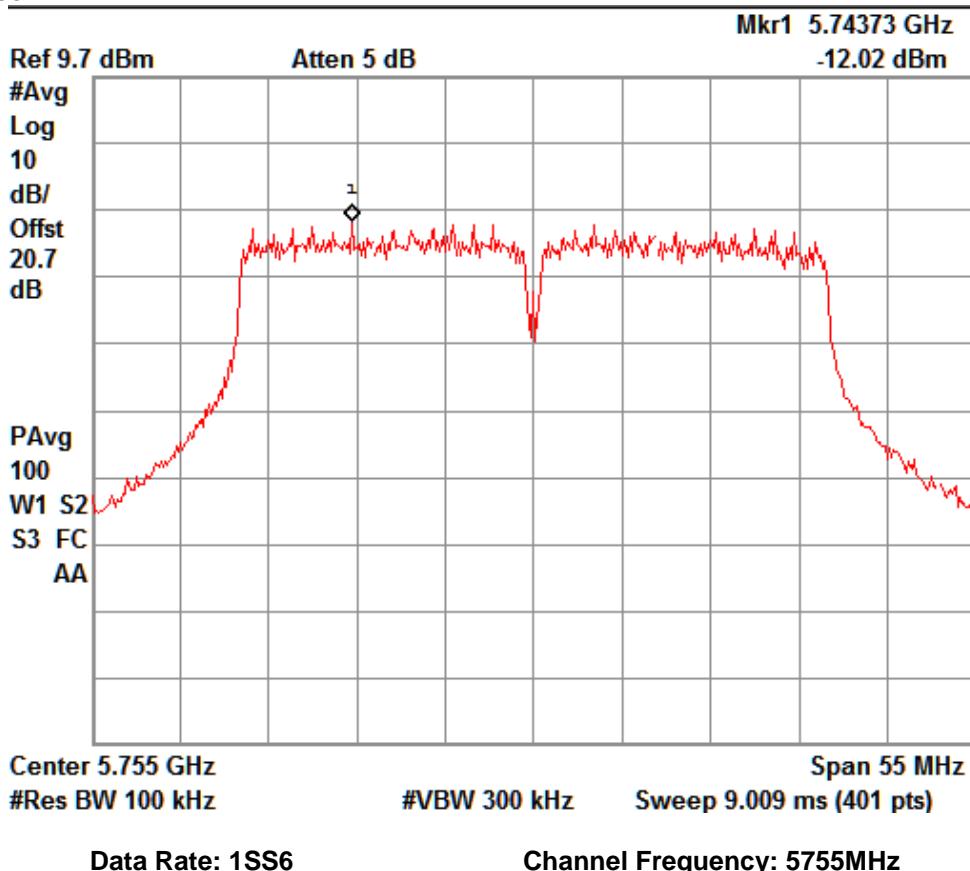
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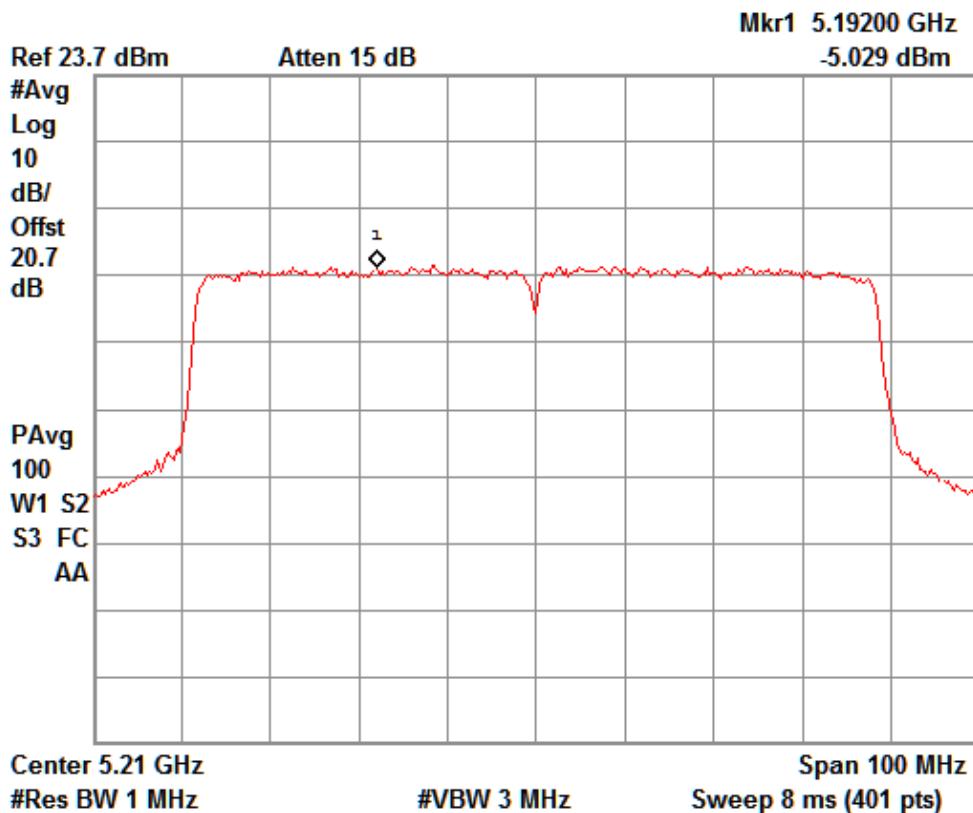
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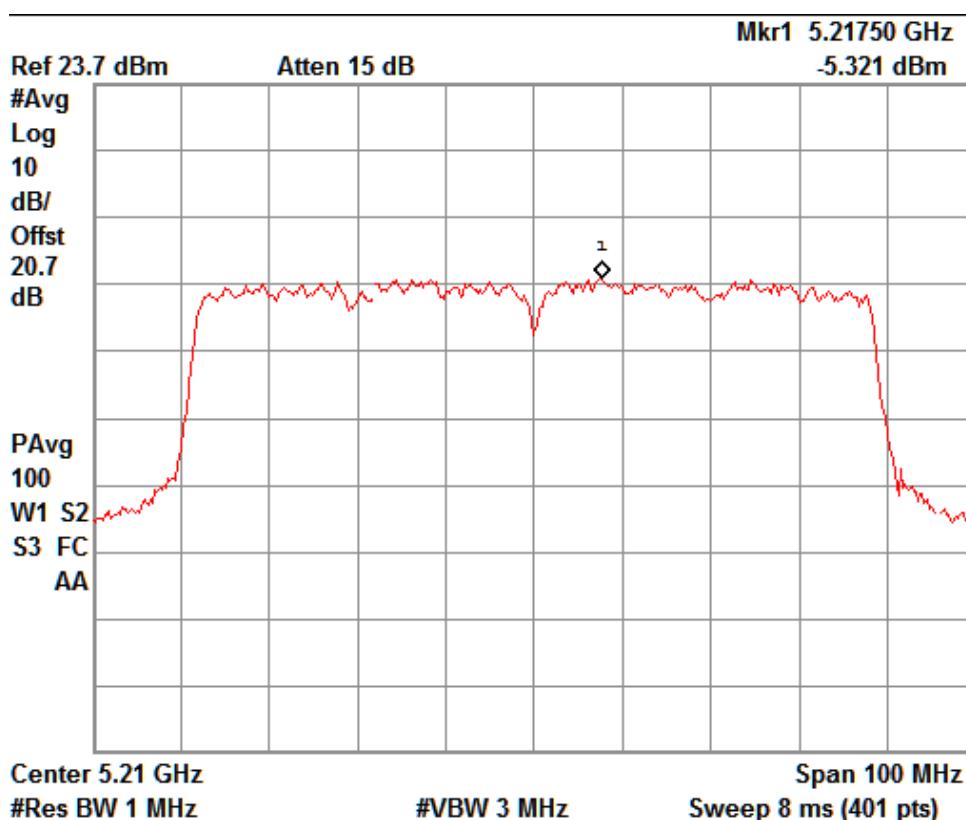
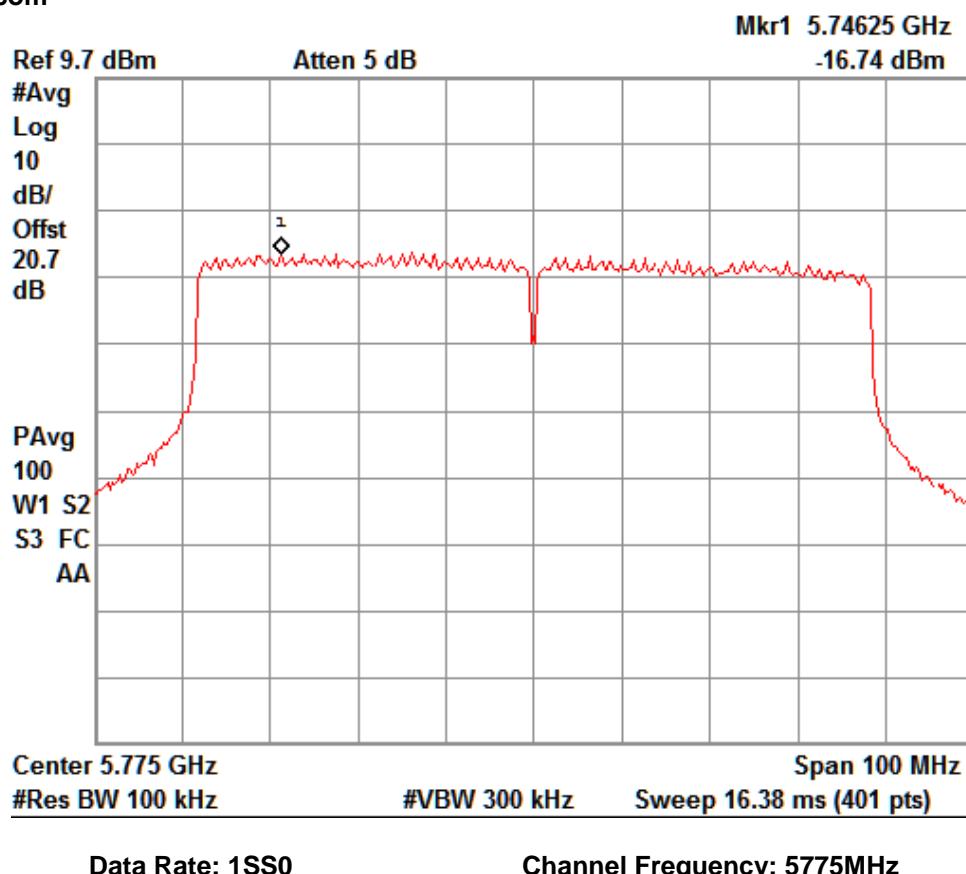
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Test Results for path A

IEEE802.11ac HT80						
Data Rate (Mbps)	Channel No.	Frequency (MHz)	Measured PSD (dBm)	Measure & Add $10^{\log(3)}$	Total PSD (dBm)	Limit (dB)
1SS0	42	5210	-5.029	4.77	-0.259	11
	155	5775	-16.74	4.77	-11.97	11
1SS3	42	5210	-5.321	4.77	-0.551	11
	155	5775	-16.7	4.77	-11.93	11
1SS6	42	5210	-3.845	4.77	0.925	11
	155	5775	-16.11	4.77	-11.34	11



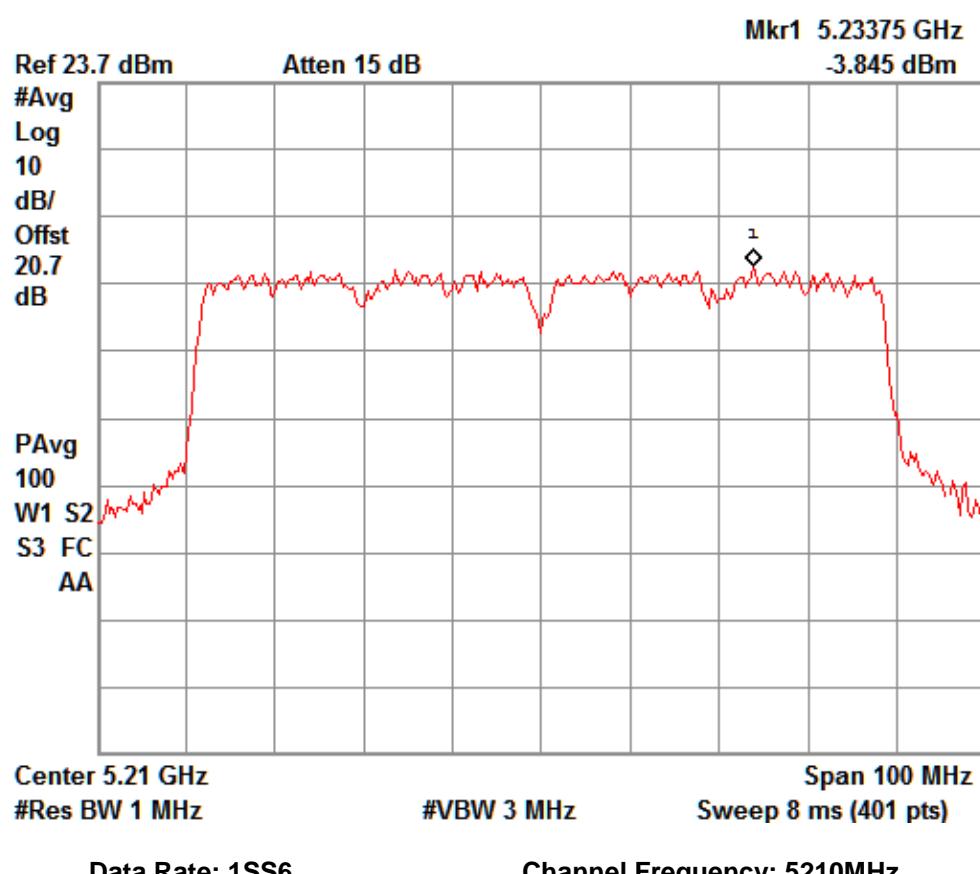
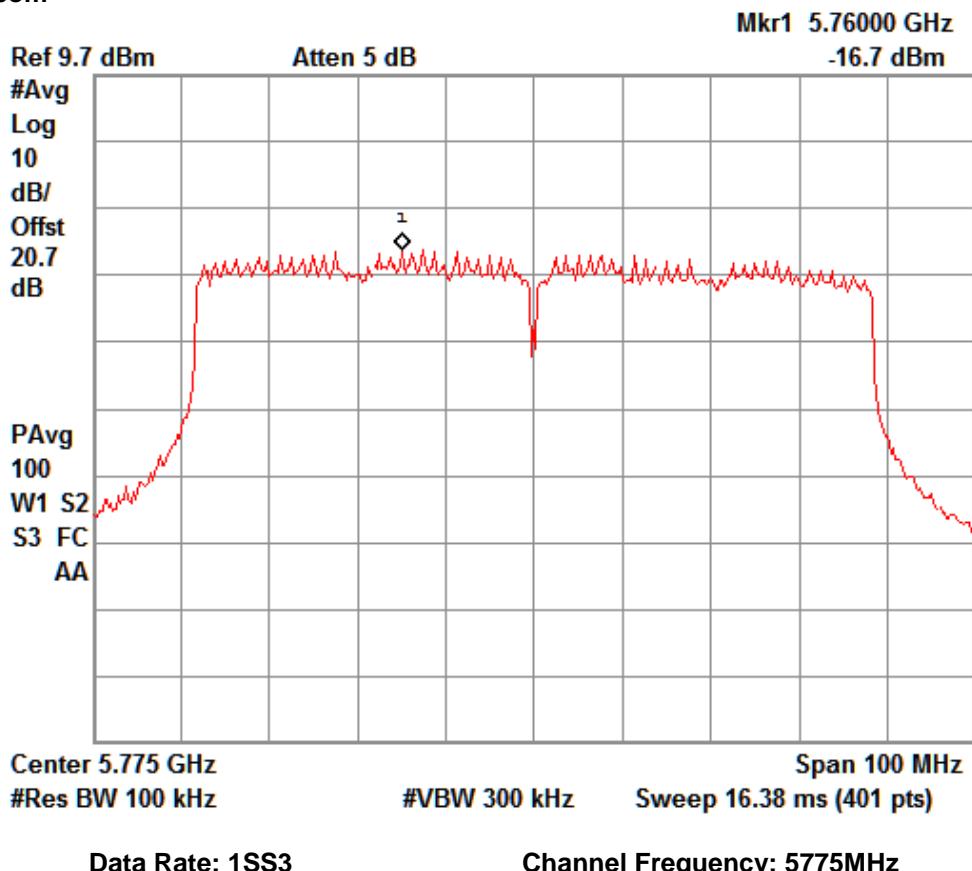
Data Rate: 1SS0

Channel Frequency: 5210MHz

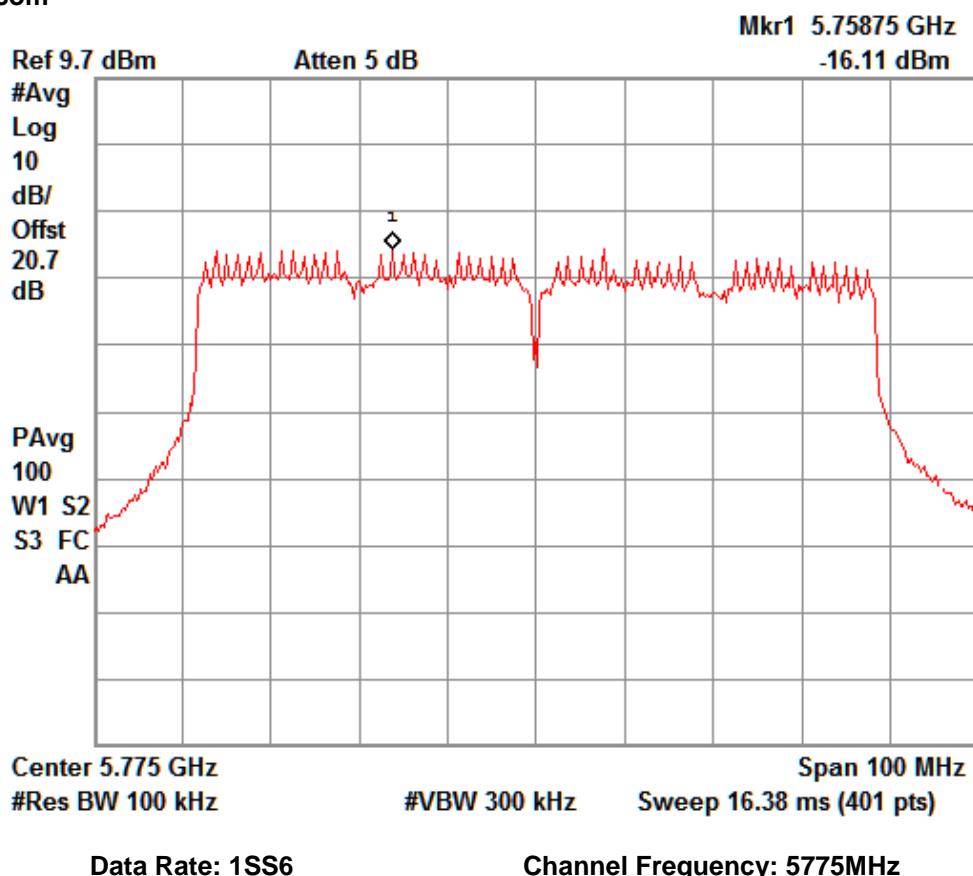
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Data Rate: 1SS3

Channel Frequency: 5210MHz

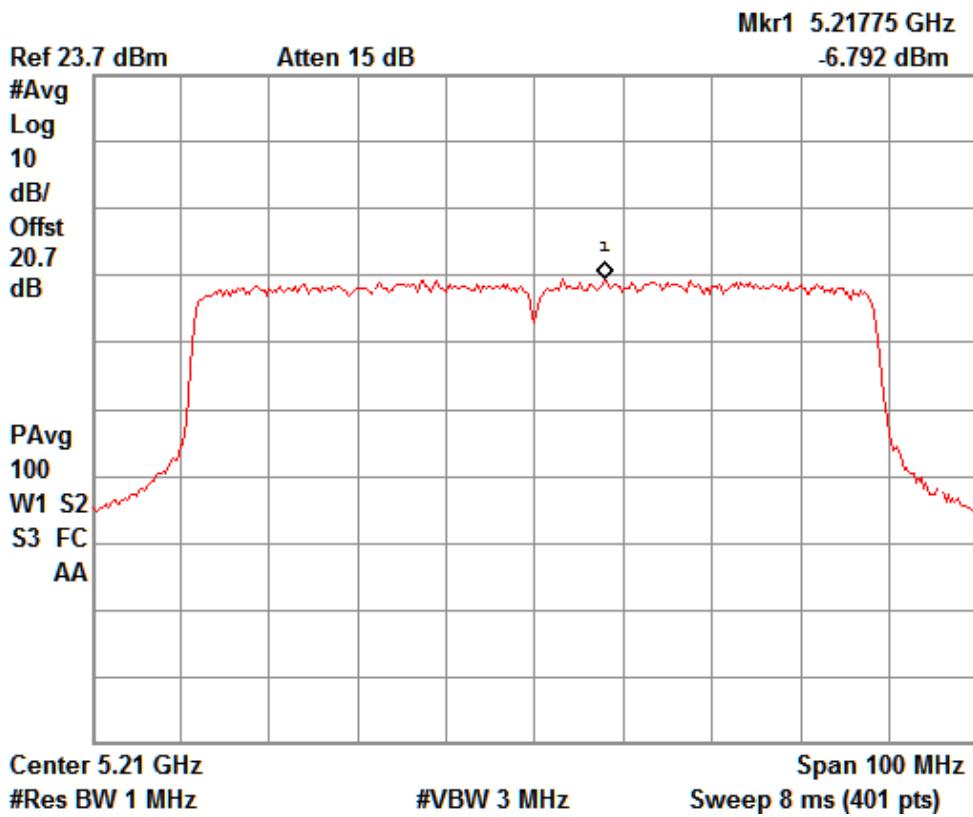
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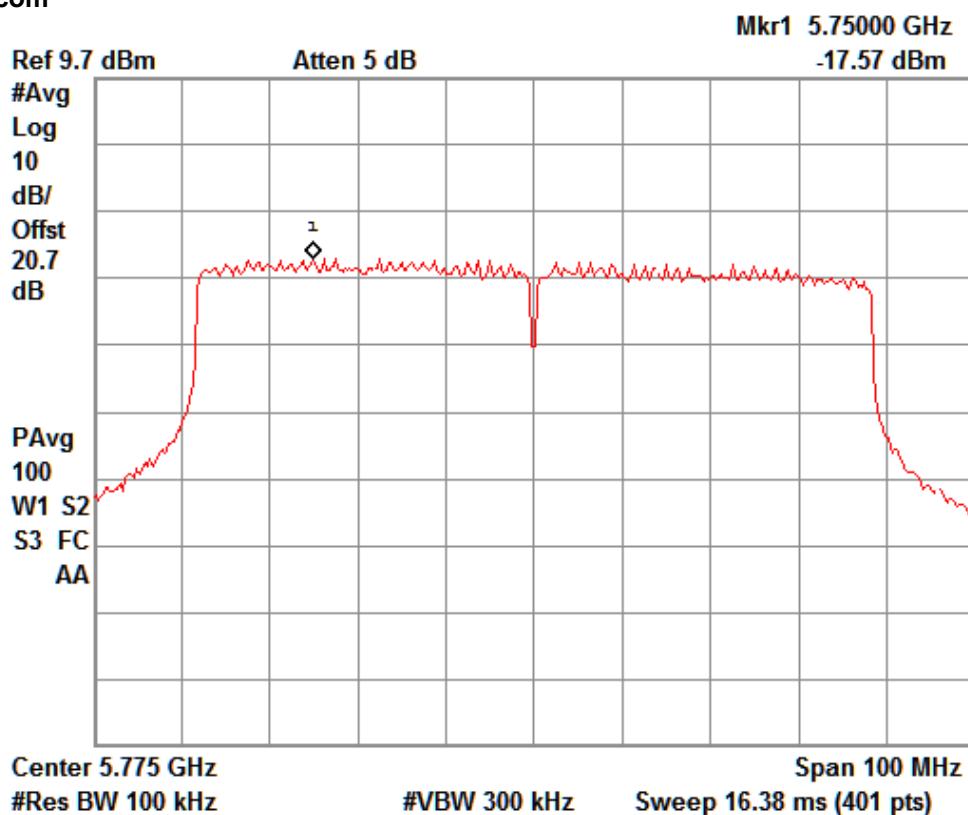
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**Test Results for path B**

<b>IEEE802.11ac HT80</b>						
<b>Data Rate (Mbps)</b>	<b>Channel No.</b>	<b>Frequency (MHz)</b>	<b>Measured PSD (dBm)</b>	<b>Measure &amp; Add <math>10^{\log(3)}</math></b>	<b>Total PSD (dBm)</b>	<b>Limit (dB)</b>
1SS0	42	5210	-6.792	4.77	-2.022	11
	155	5775	-17.57	4.77	-12.8	11
1SS3	42	5210	-8.136	4.77	-3.366	11
	155	5775	-16.5	4.77	-11.73	11
1SS6	42	5210	-8.618	4.77	-3.848	11
	155	5775	-16.47	4.77	-11.7	11



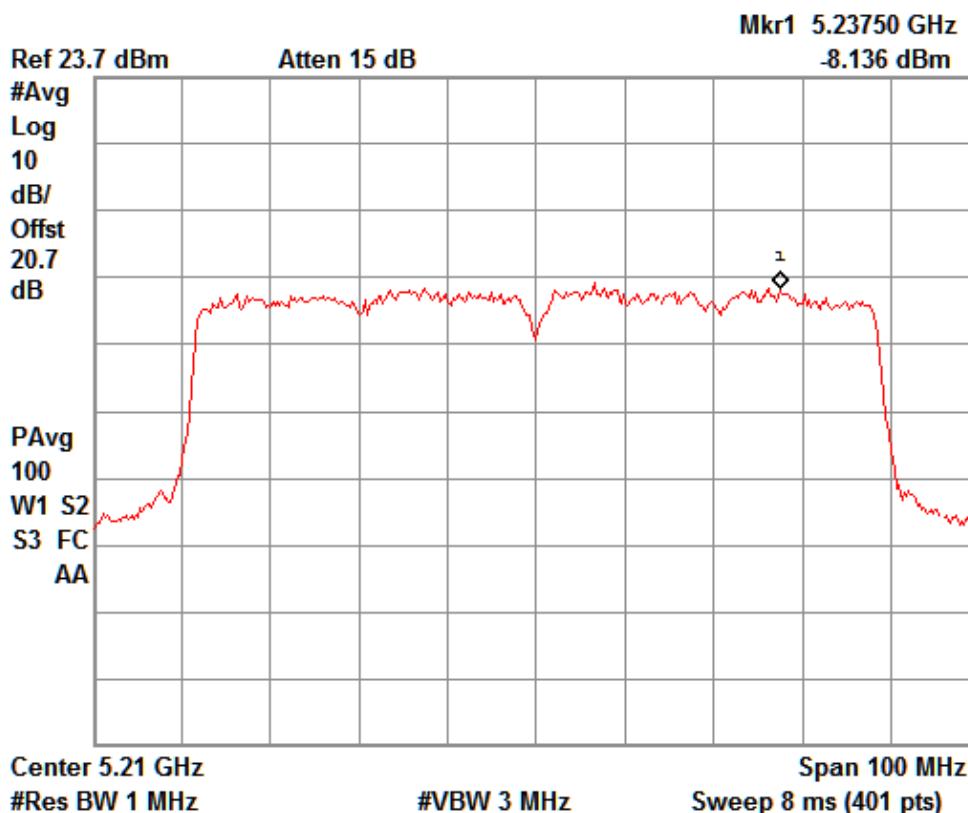
**Data Rate: 1SS0**

**Channel Frequency: 5210MHz**

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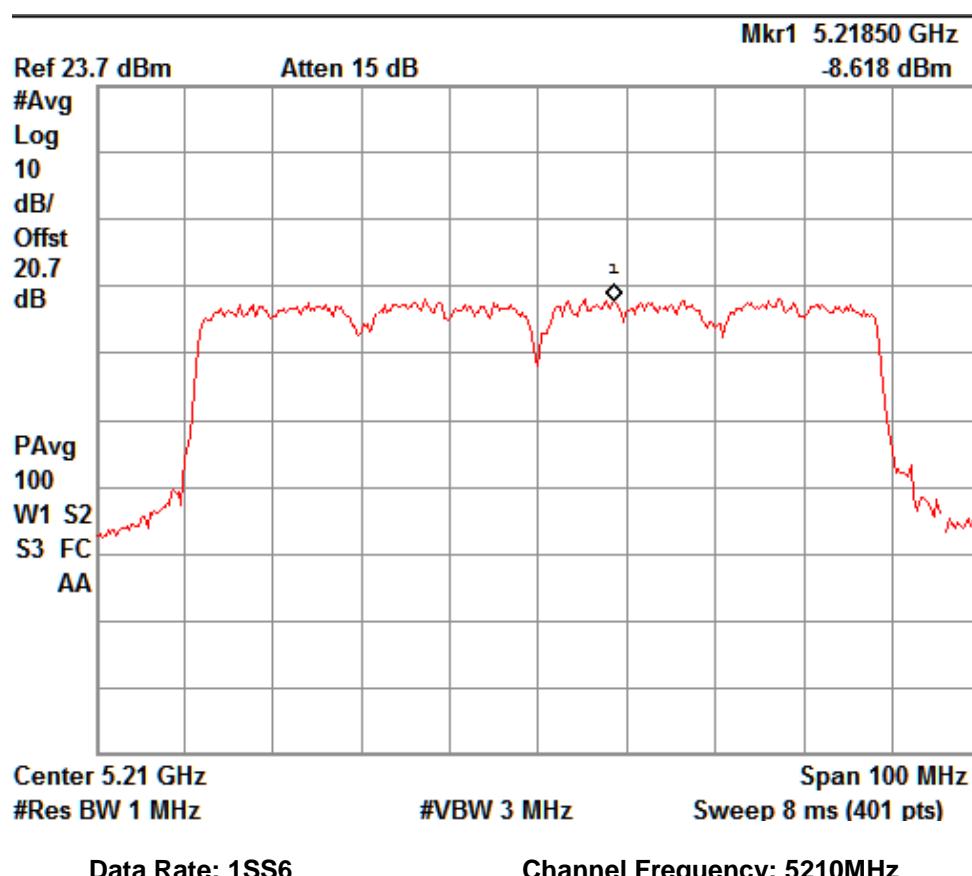
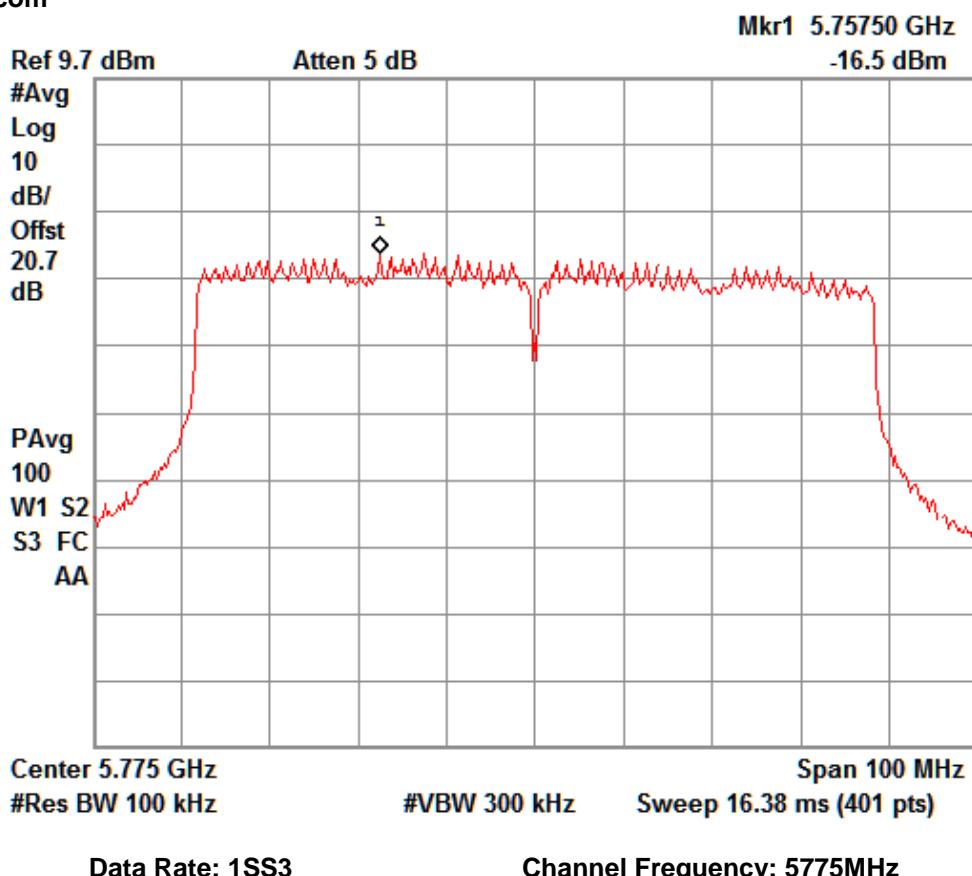
Data Rate: 1SS0

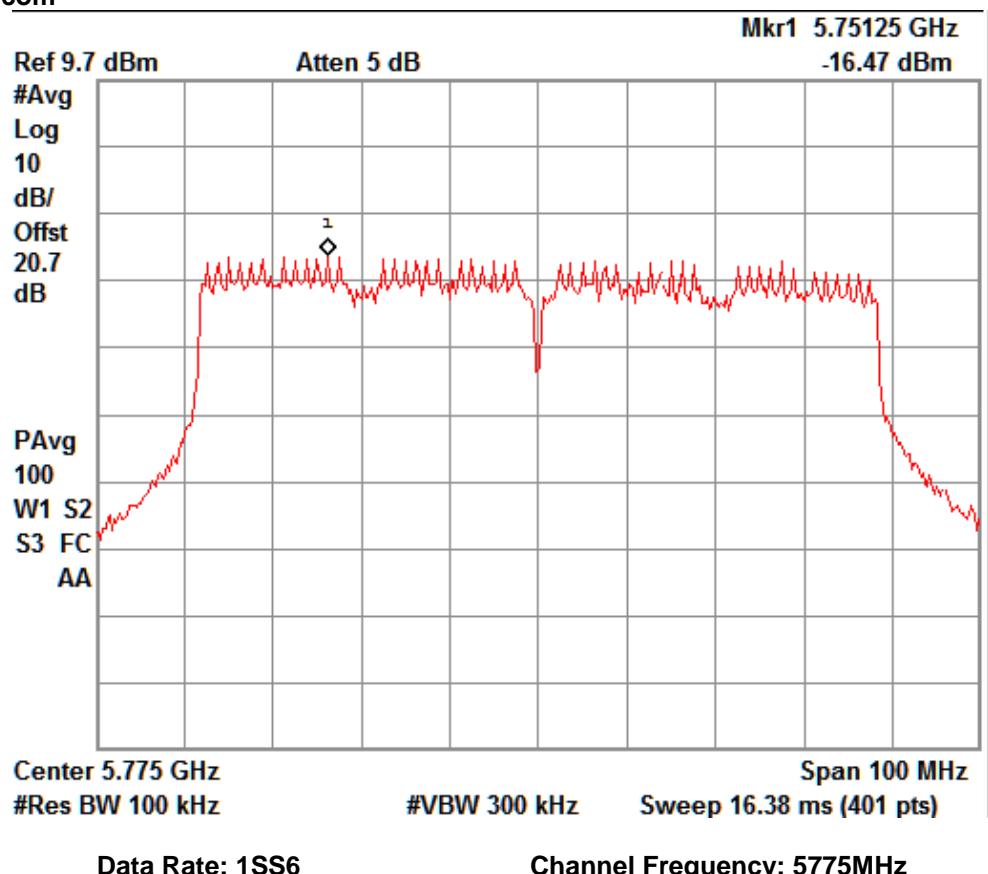
Channel Frequency: 5775MHz



Data Rate: 1SS3

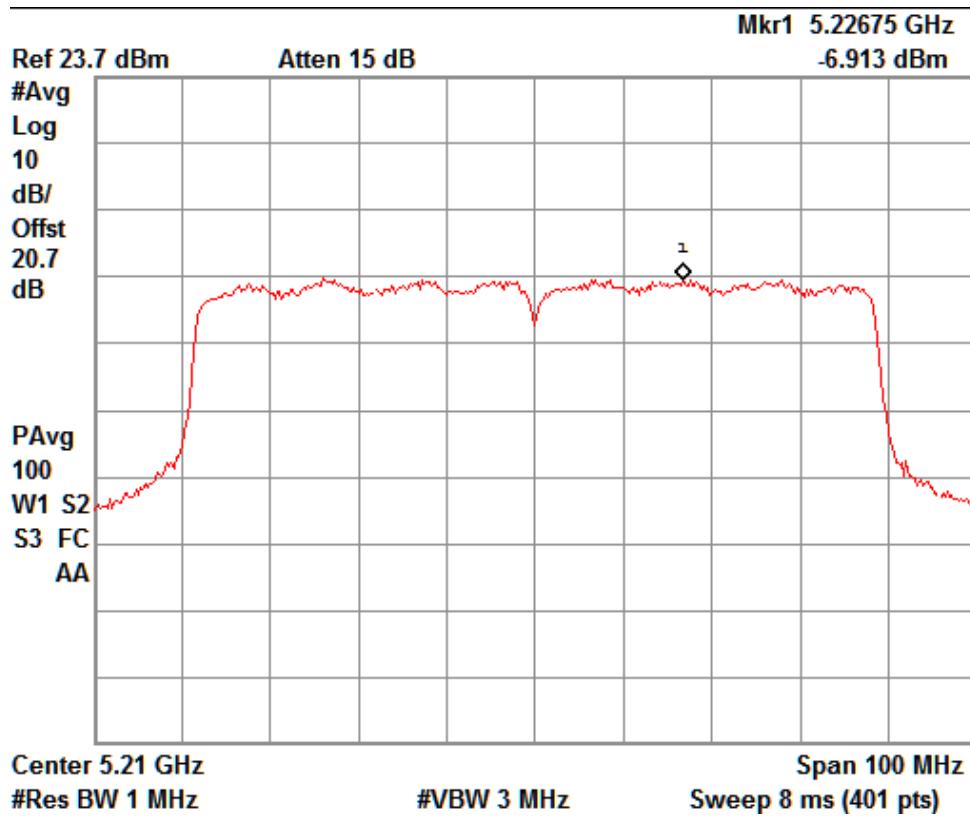
Channel Frequency: 5210MHz

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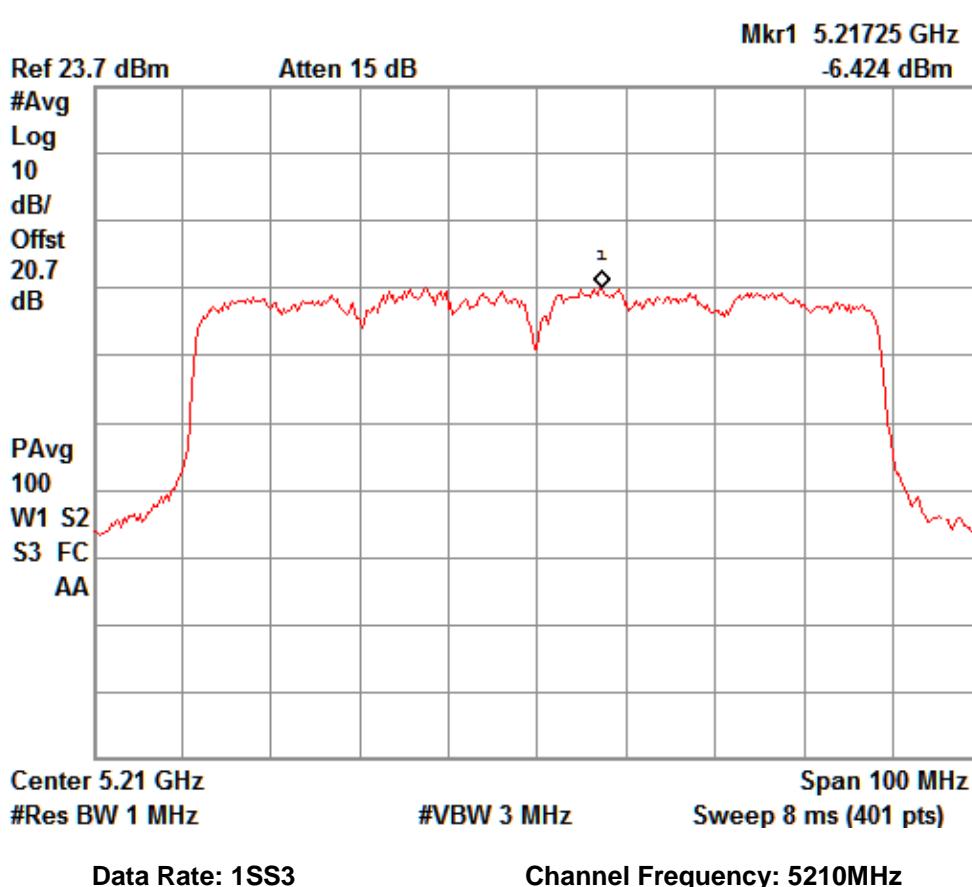
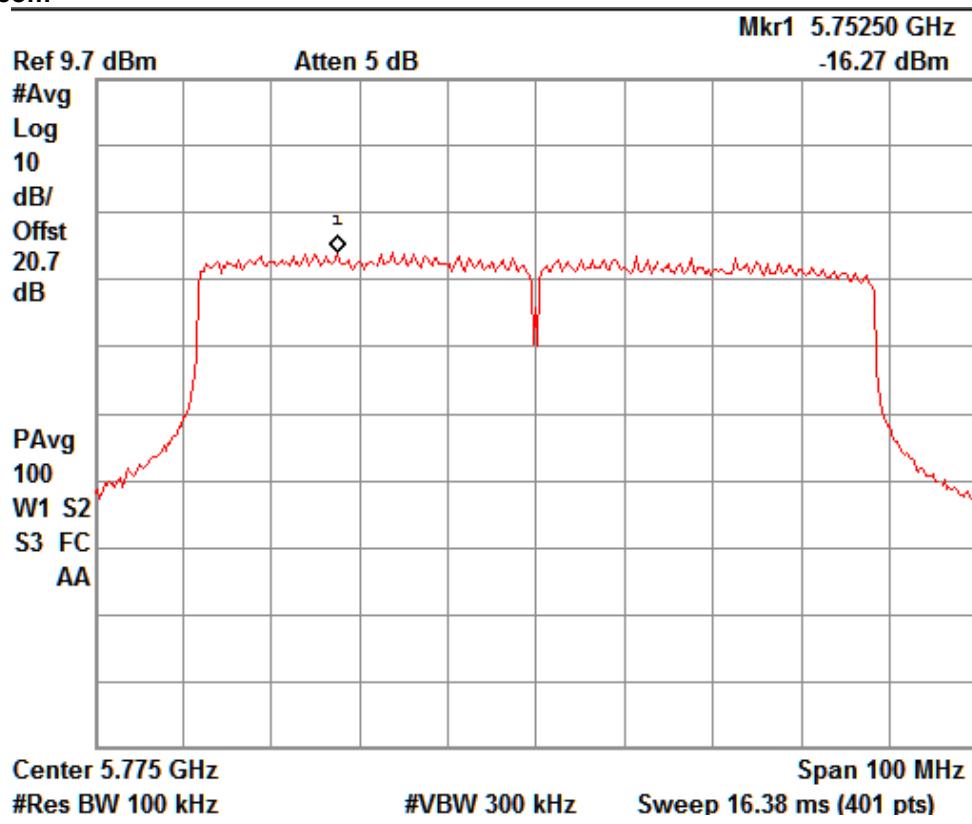
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**Test Results for path C**

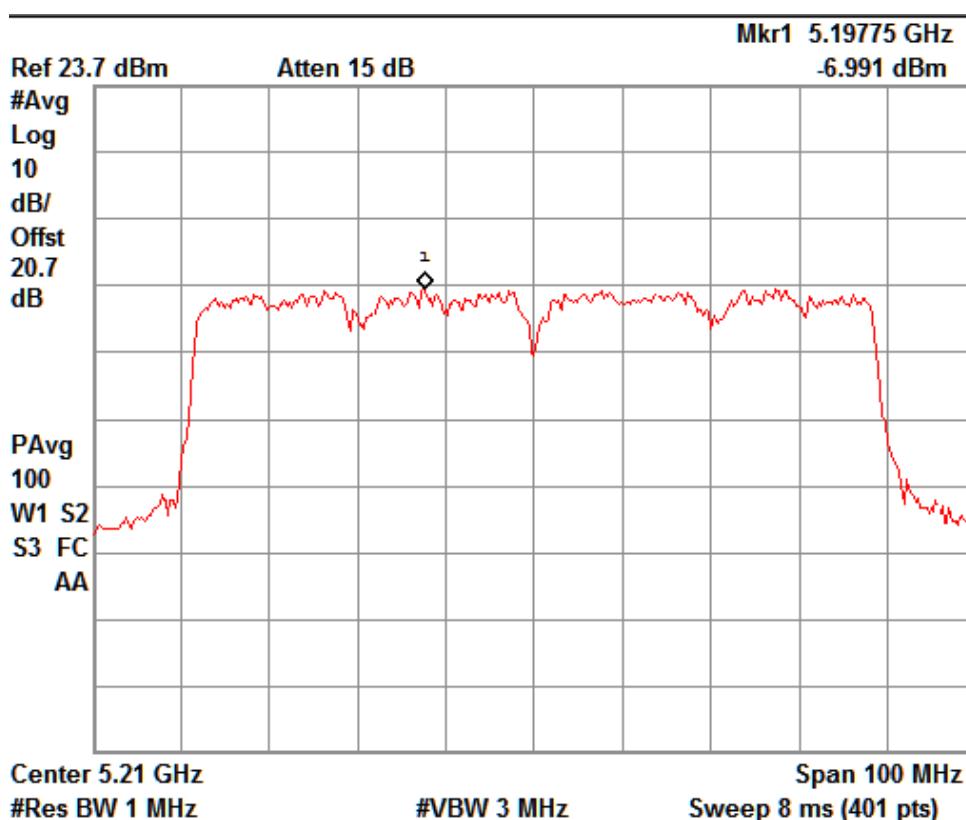
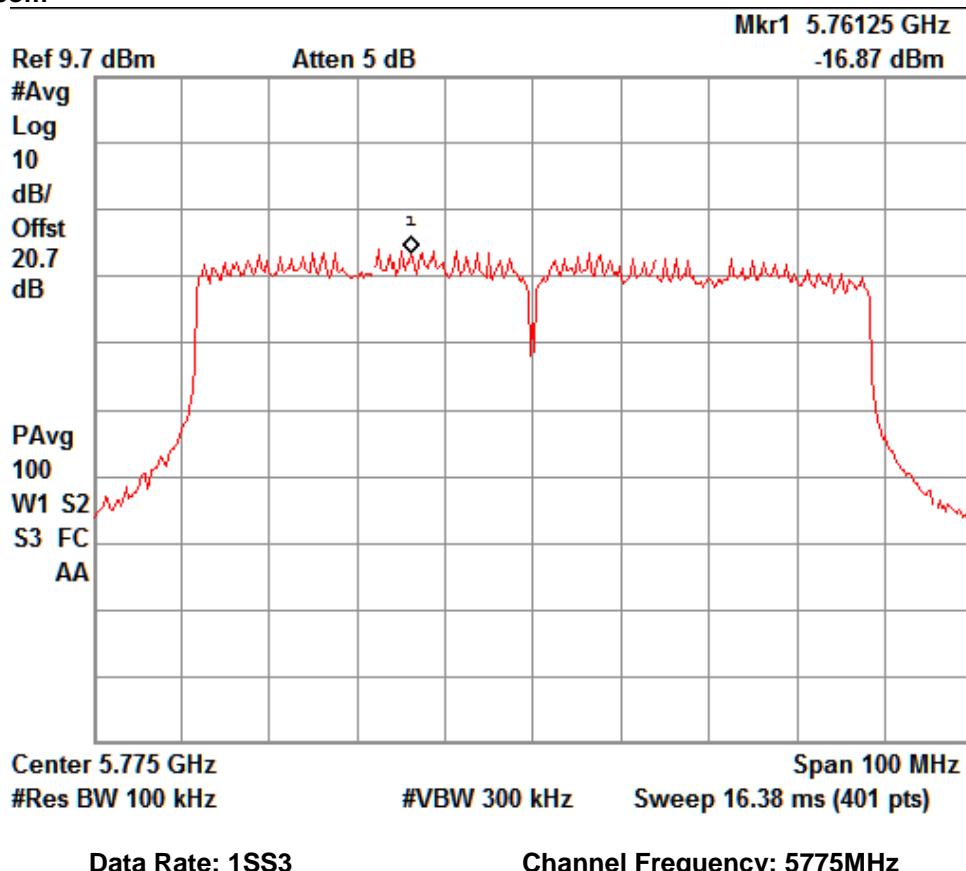
<b>IEEE802.11ac HT80</b>						
<b>Data Rate (Mbps)</b>	<b>Channel No.</b>	<b>Frequency (MHz)</b>	<b>Measured PSD (dBm)</b>	<b>Measure &amp; Add <math>10^{\log(3)}</math></b>	<b>Total PSD (dBm)</b>	<b>Limit (dB)</b>
1SS0	42	5210	-6.913	4.77	-2.143	11
	155	5775	-16.27	4.77	-11.5	11
1SS3	42	5210	-6.424	4.77	-1.654	11
	155	5775	-16.87	4.77	-12.1	11
1SS6	42	5210	-6.991	4.77	-2.221	11
	155	5775	-15.81	4.77	-11.04	11



**Data Rate: 1SS0**

**Channel Frequency: 5210MHz**

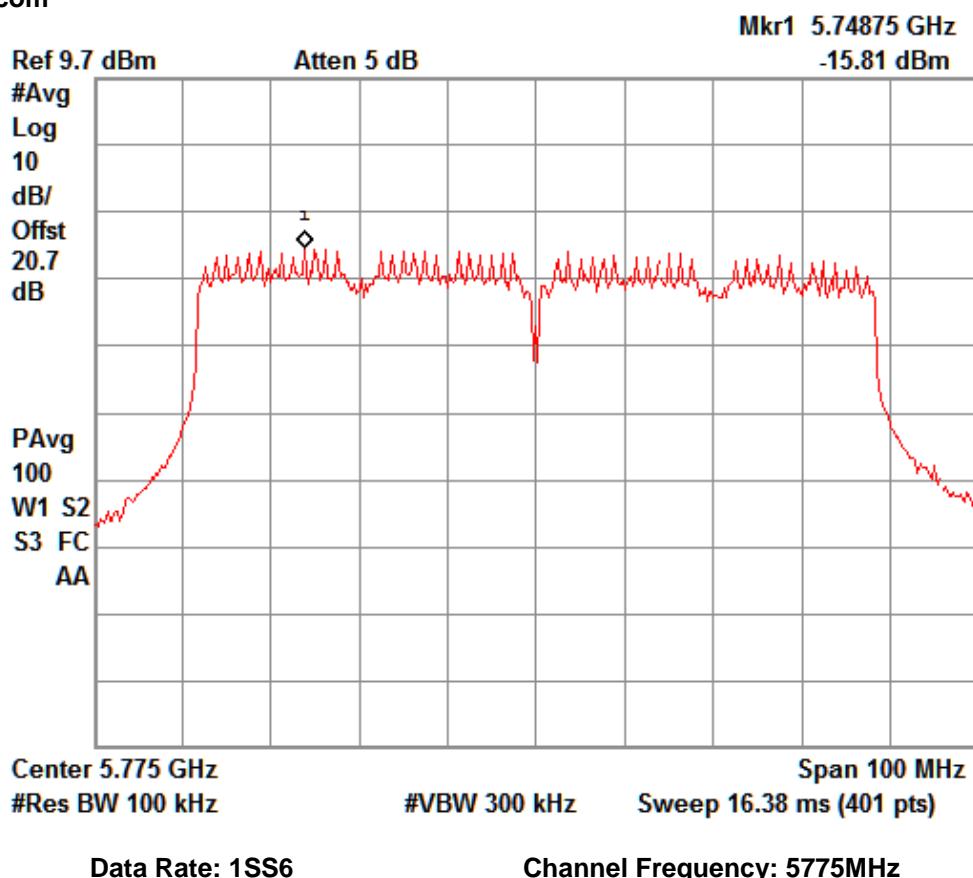


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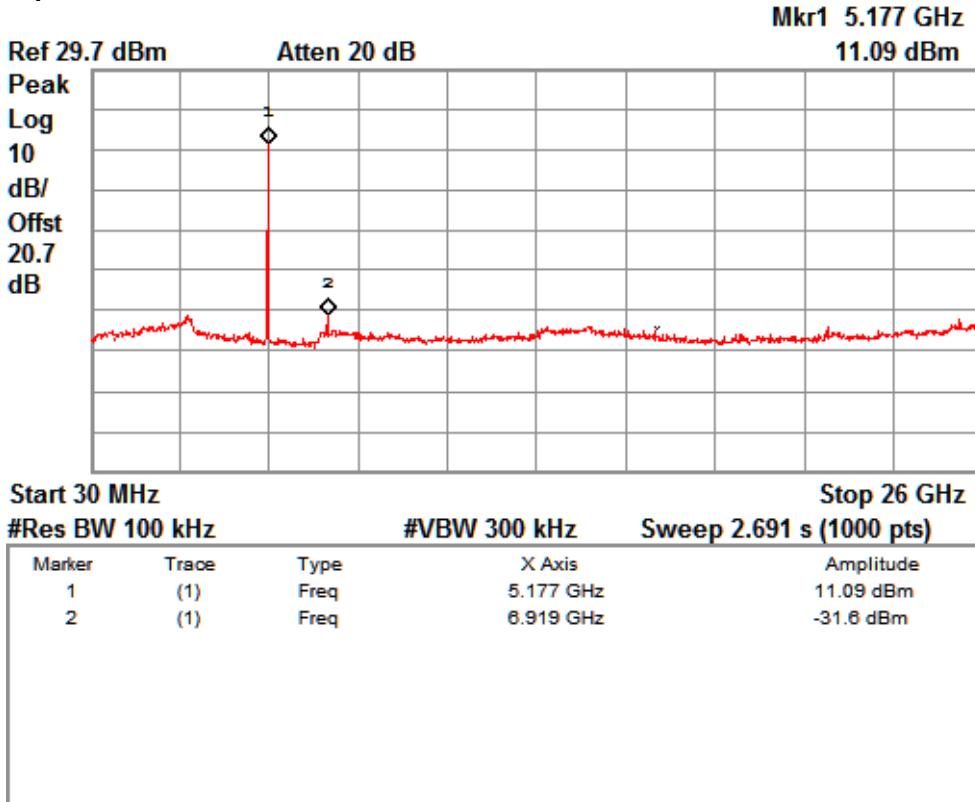
Data Rate: 1SS6

Channel Frequency: 5210MHz

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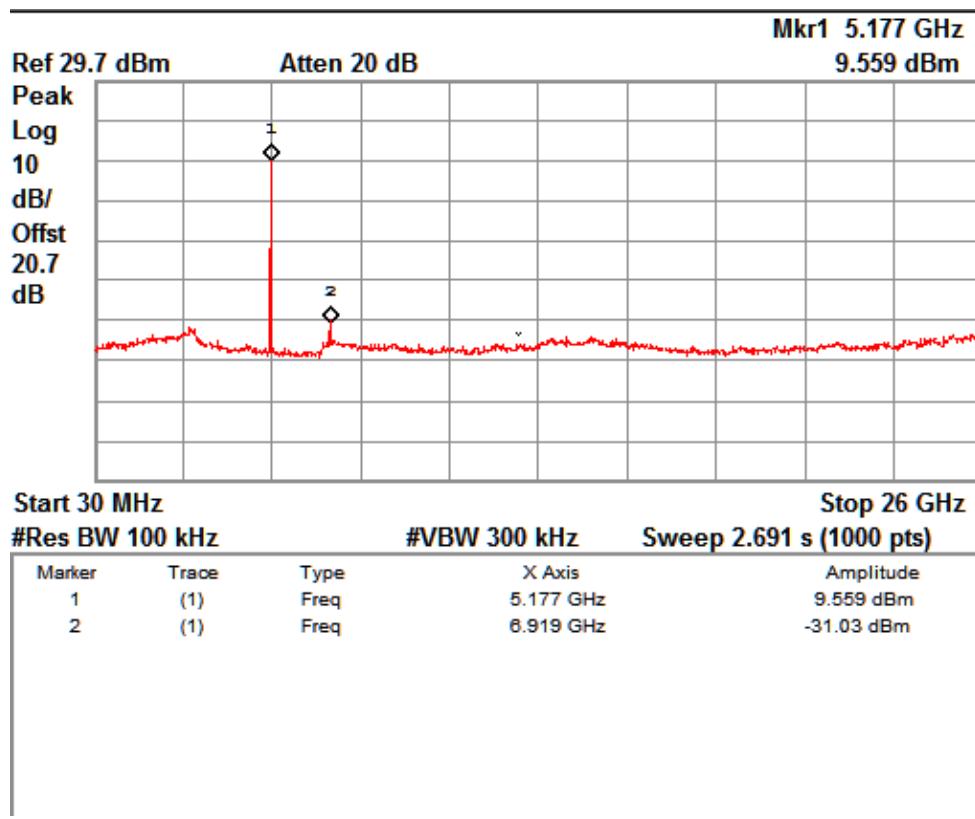


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**Conducted Spurious Emission**



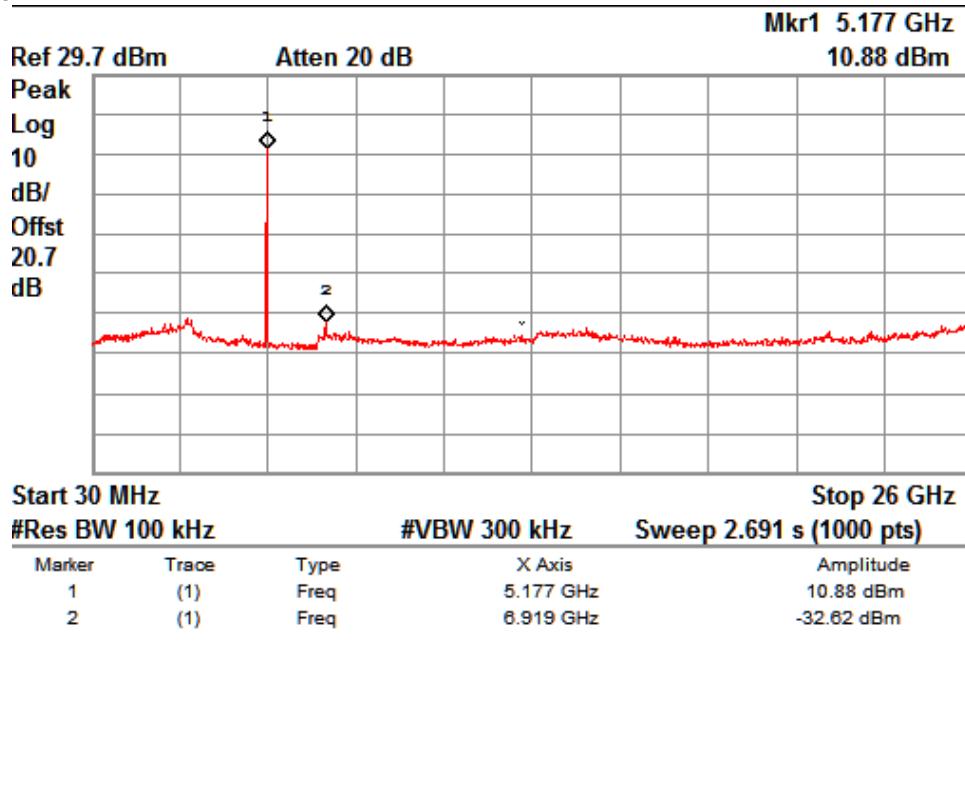
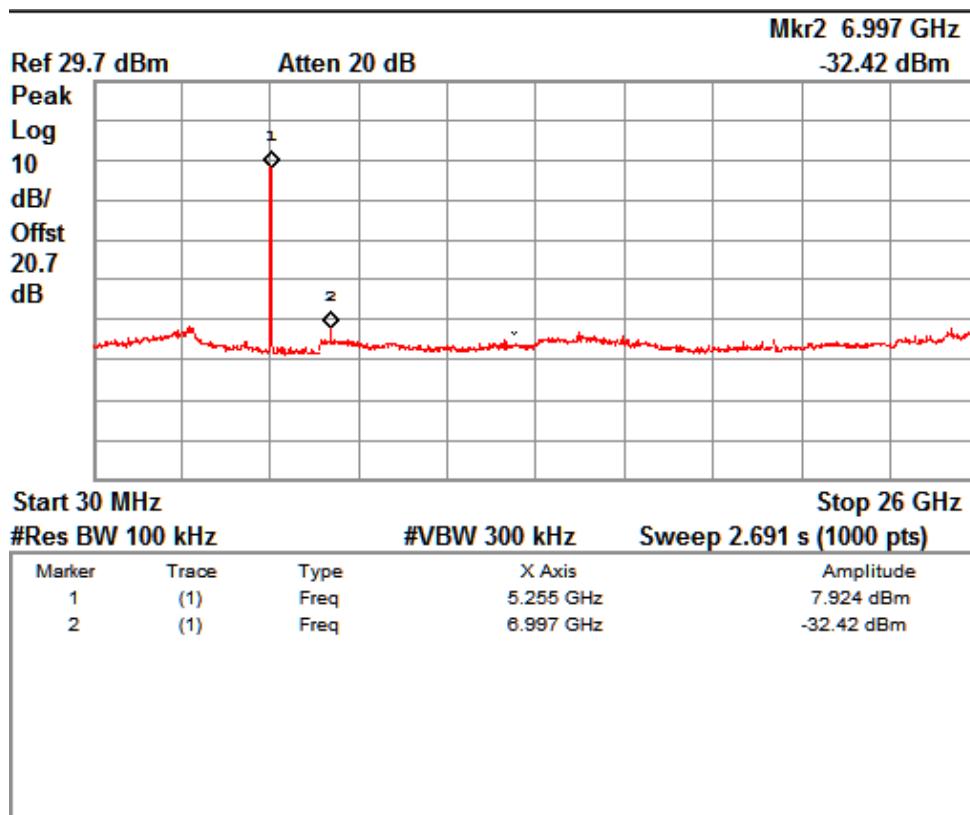
Data Rate: 6MBPS

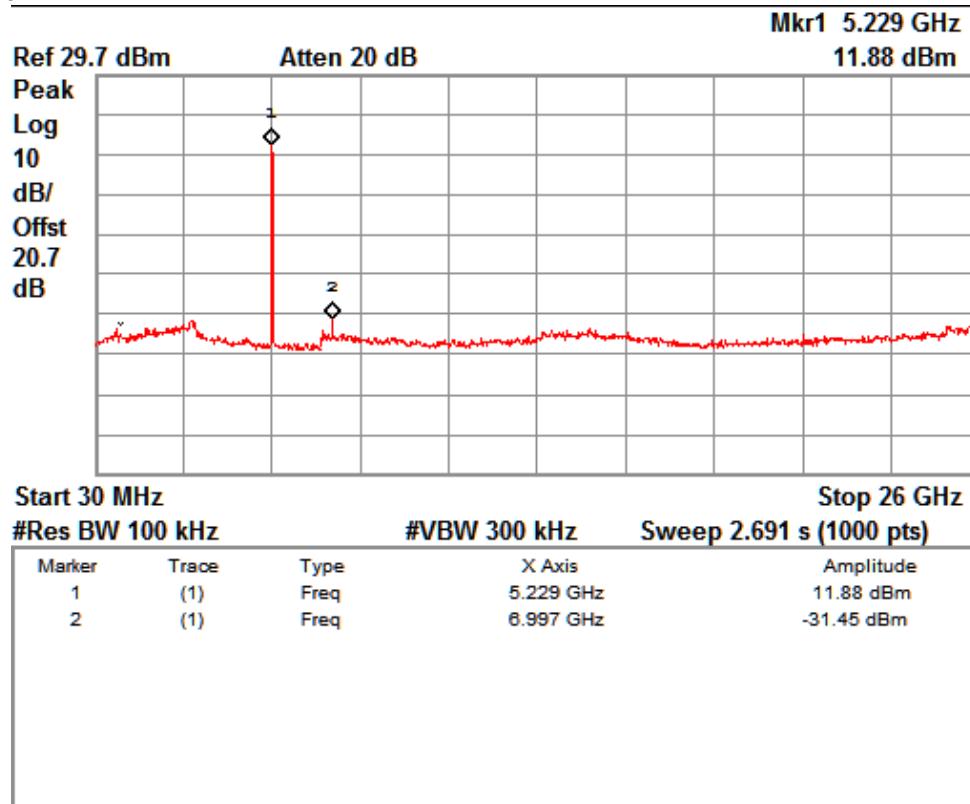
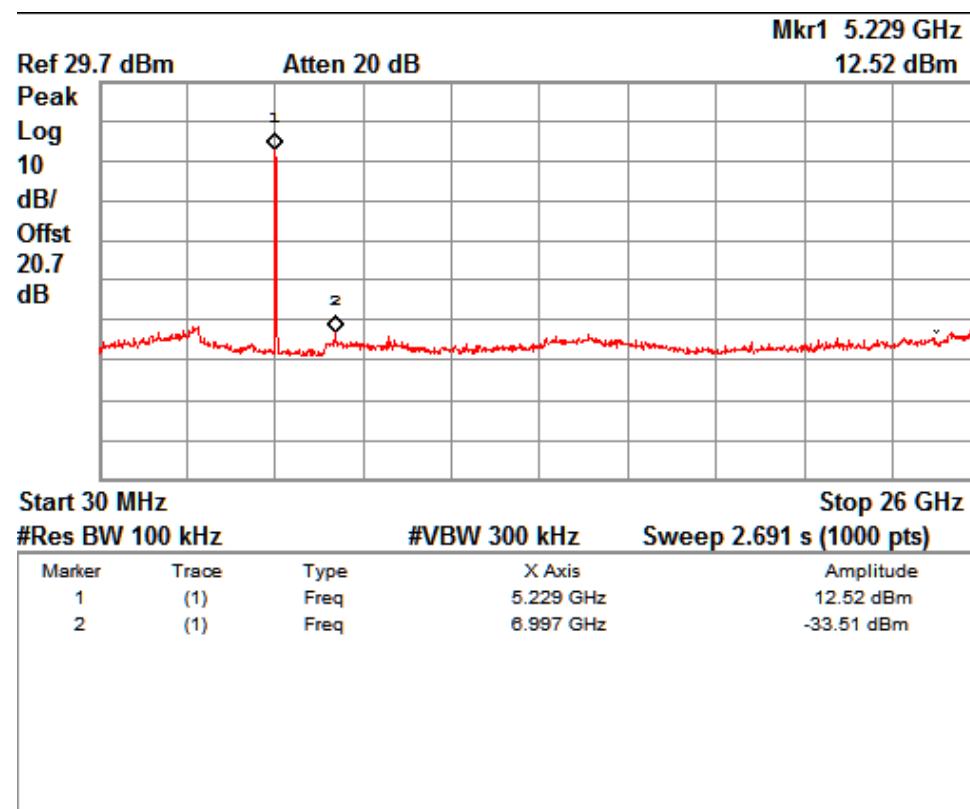
Channel Frequency: 5180MHz

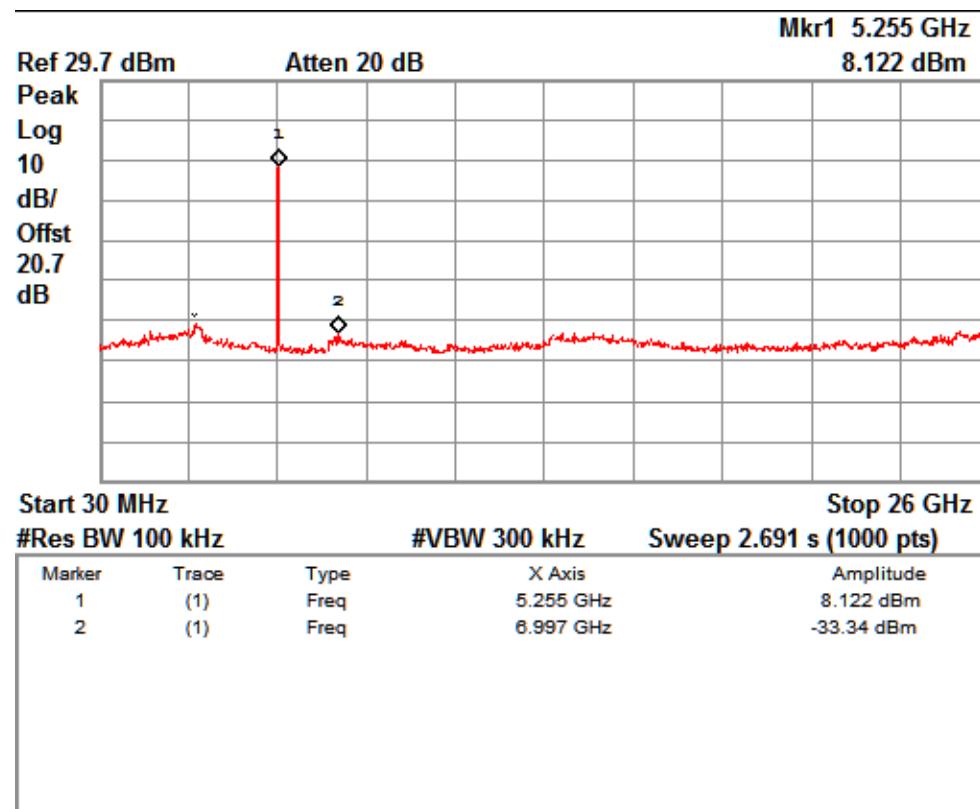
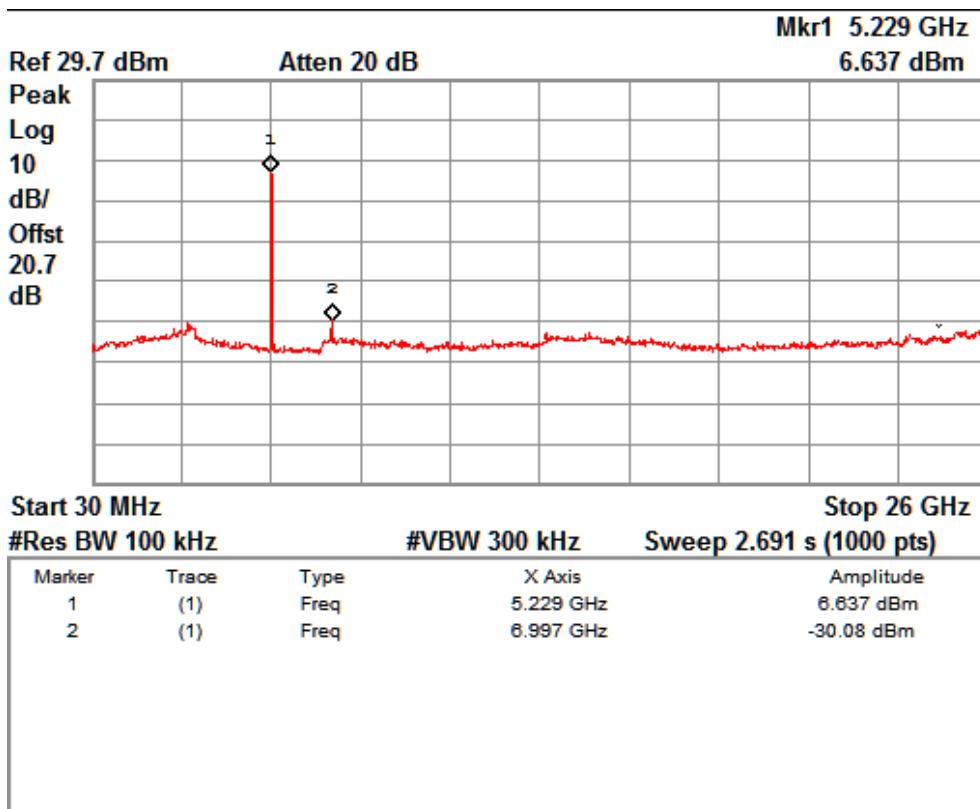


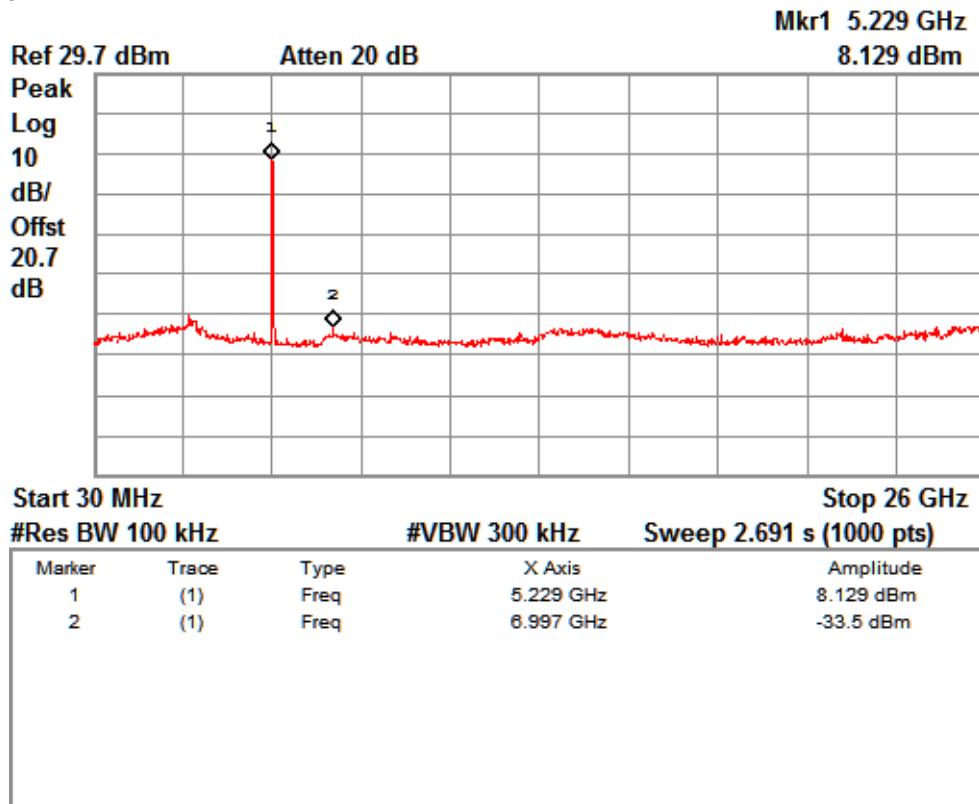
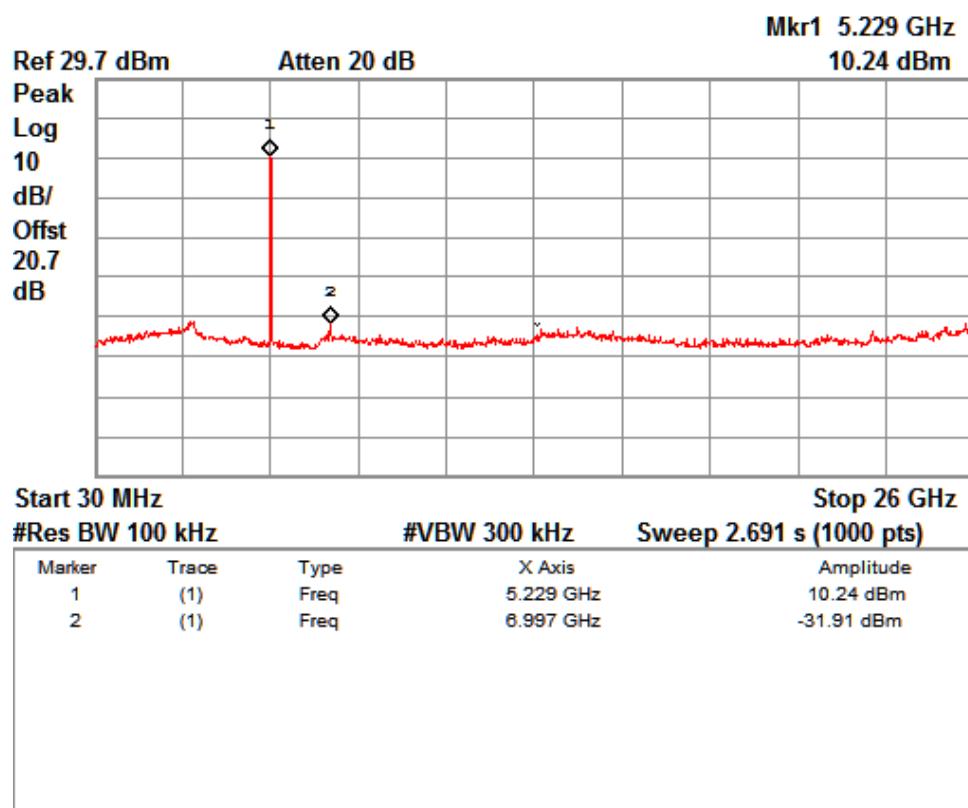
Data Rate: 24MBPS

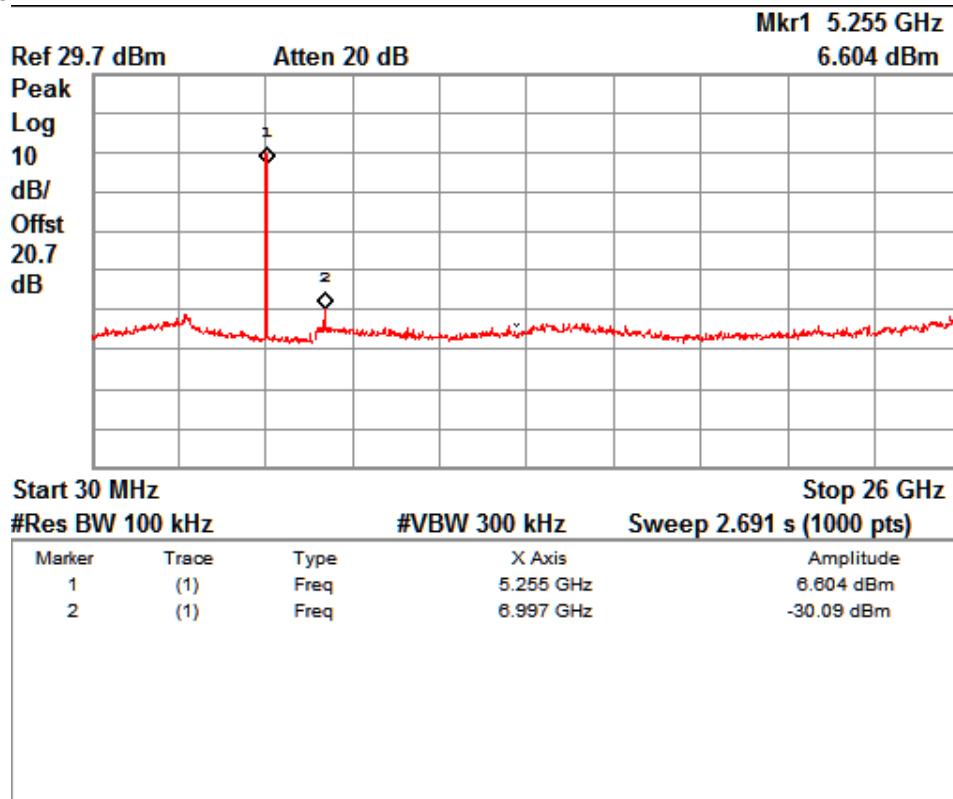
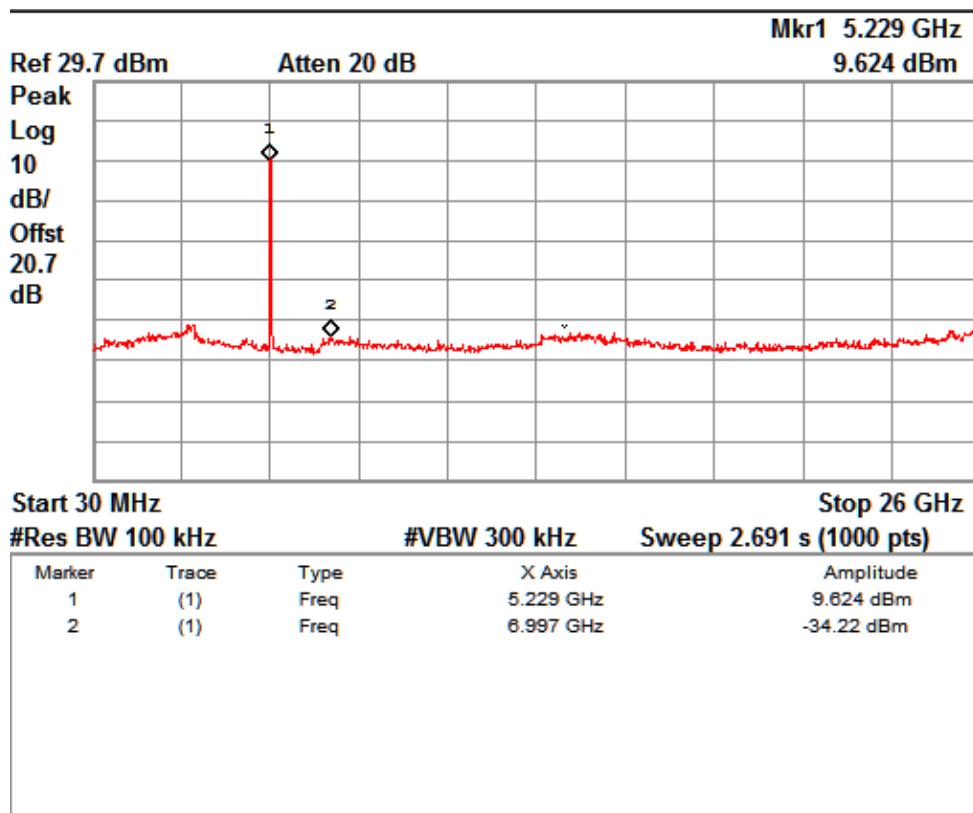
Channel Frequency: 5180MHz

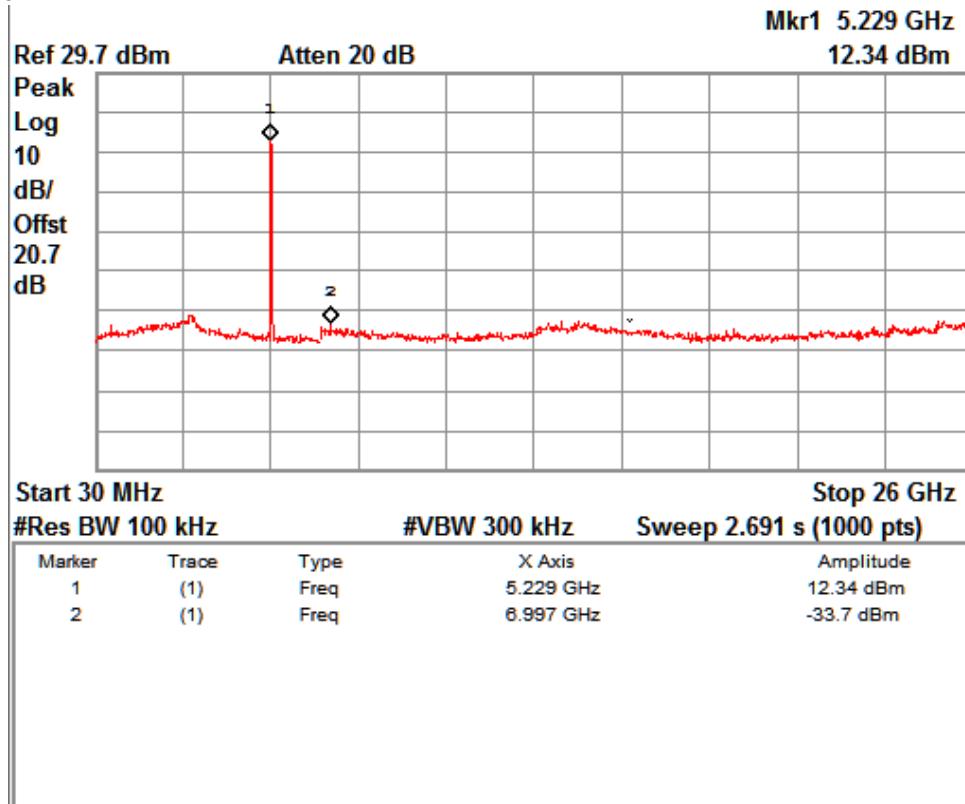
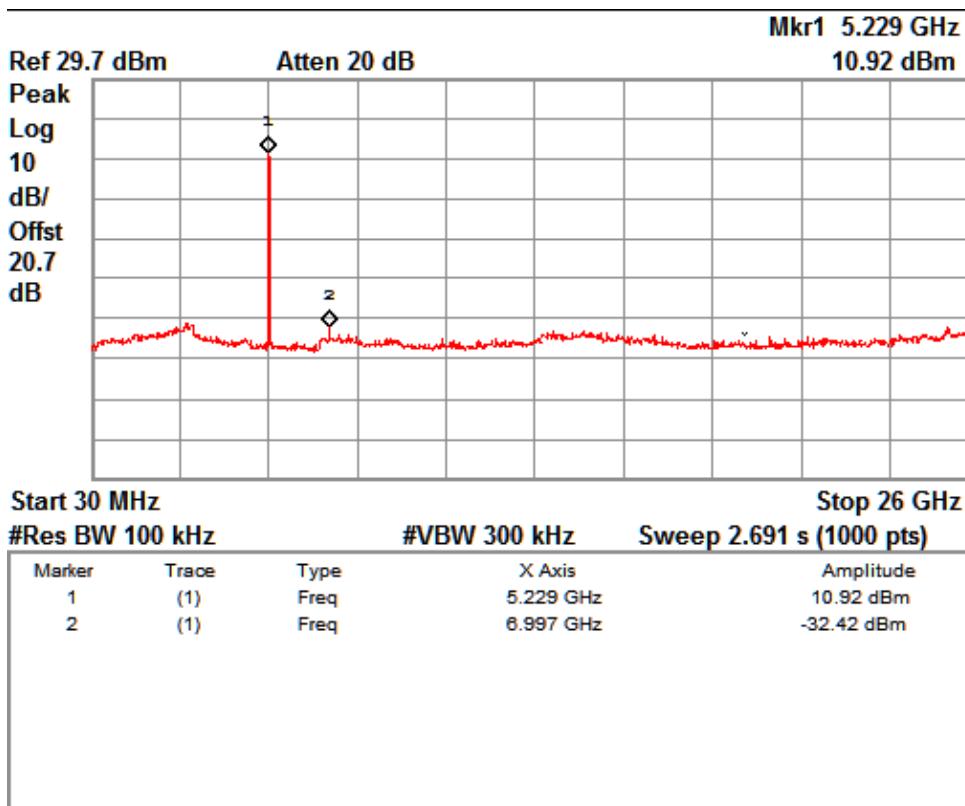
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**Data Rate: 54Mbps**
**Channel Frequency: 5180MHz**

**Data Rate: 6Mbps**
**Channel Frequency: 5240MHz**

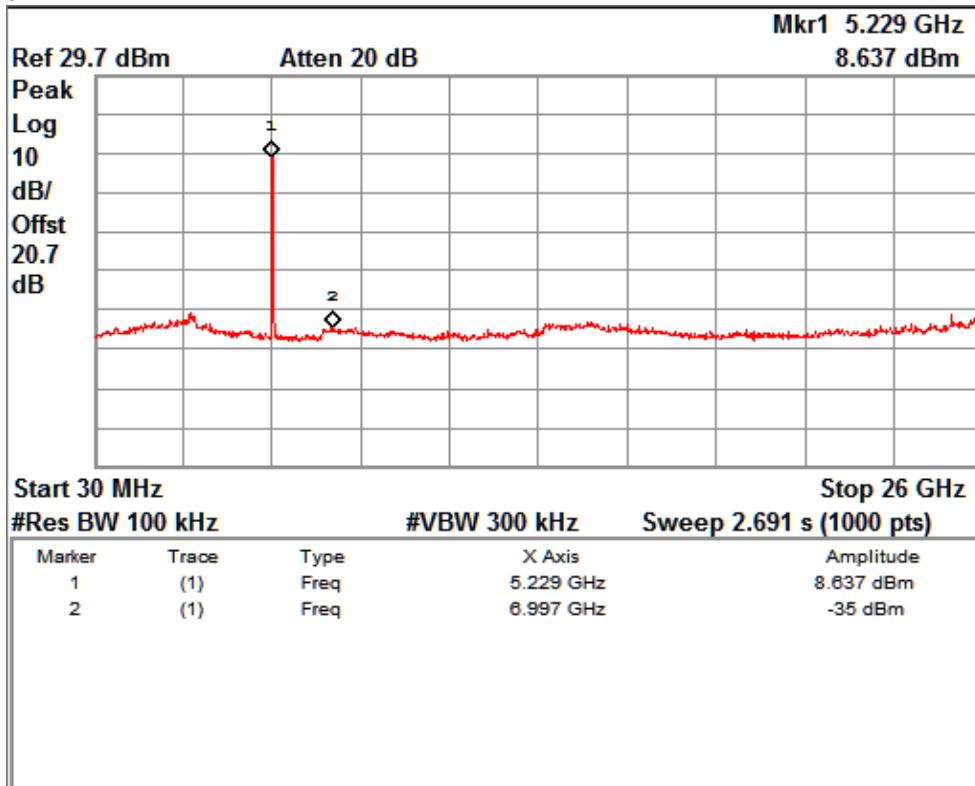
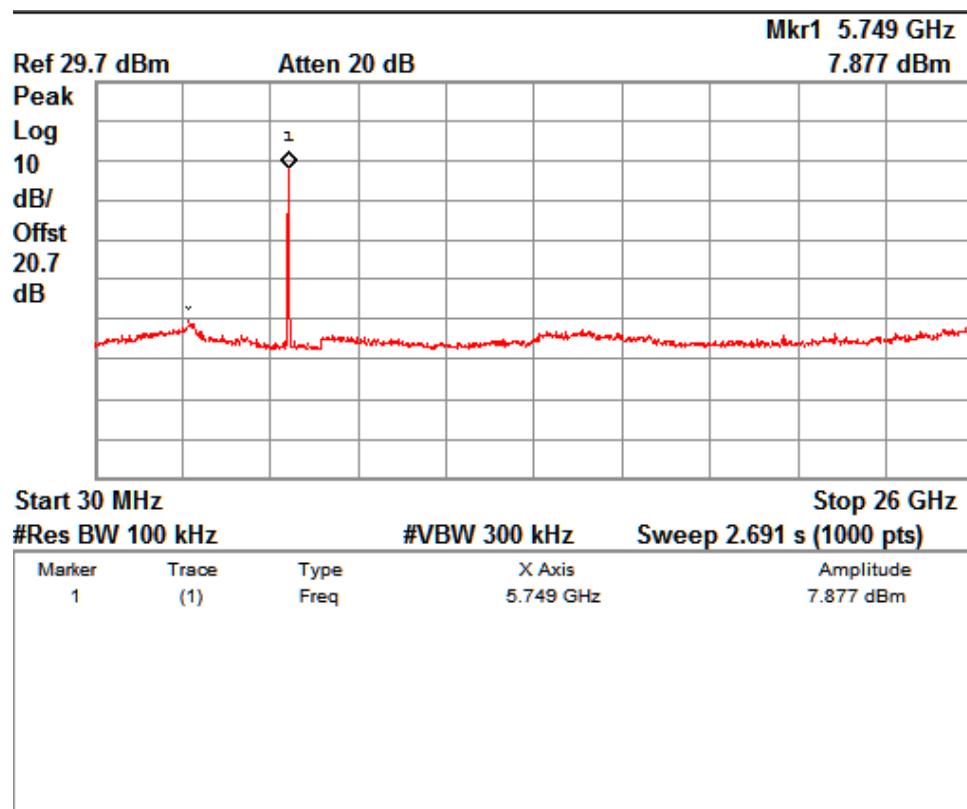
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**Data Rate: 24MBPS**
**Channel Frequency: 5240MHz**

**Data Rate: 54MBPS**
**Channel Frequency: 5240MHz**

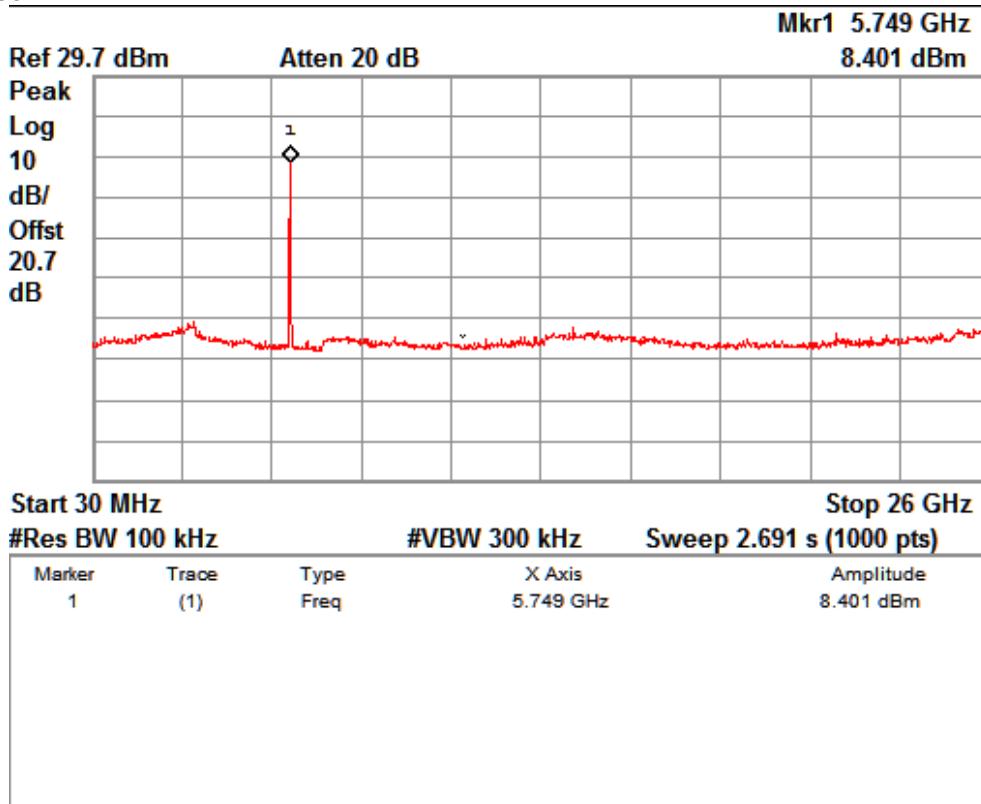
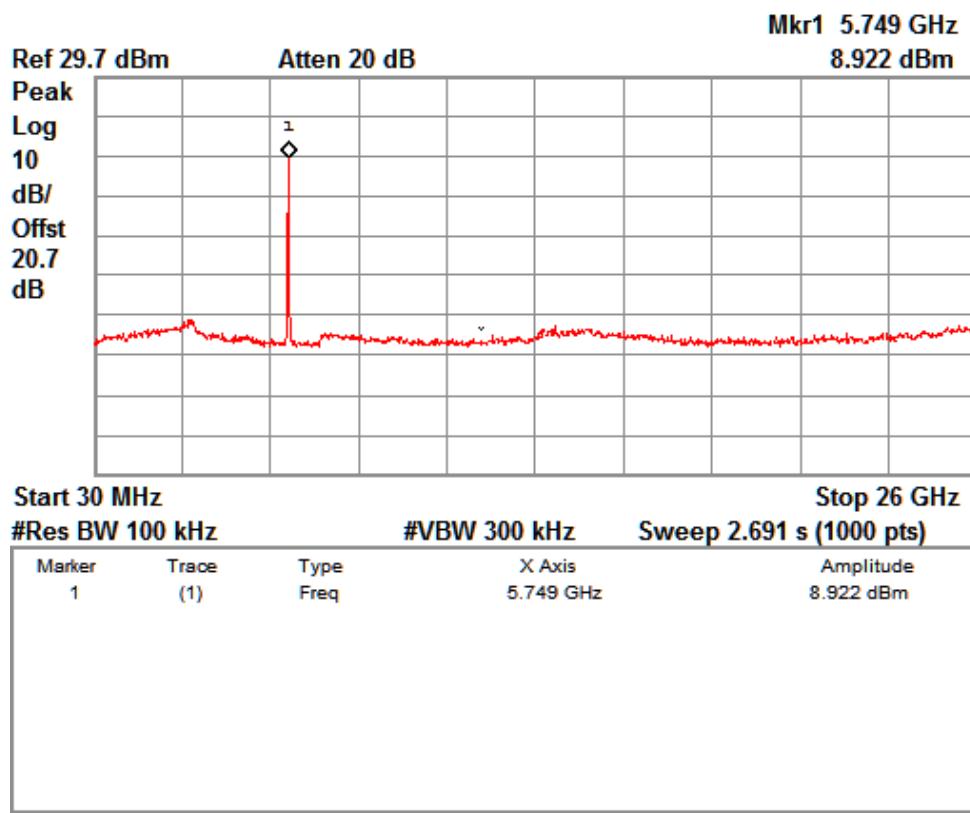

**Data Rate: MCS0**
**Channel Frequency: 5240MHz path A**

**Data Rate: MCS0**
**Channel Frequency: 5240MHz path B**

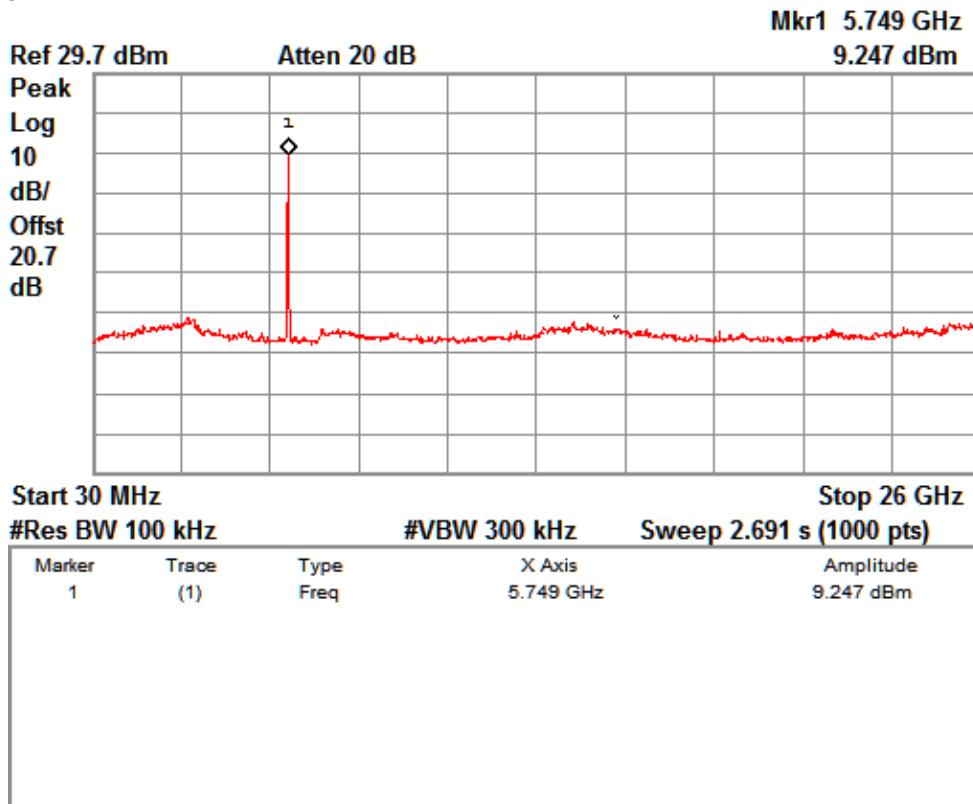
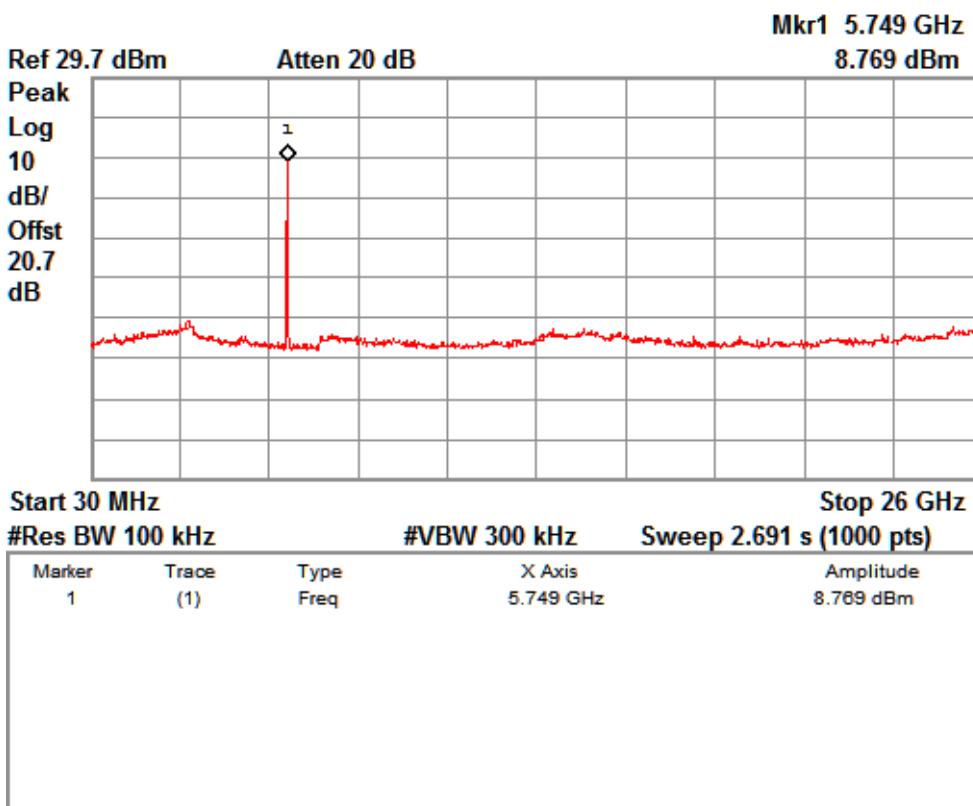
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**Data Rate: MCS0**
**Channel Frequency: 5240MHz path C**

**Data Rate: MCS4**
**Channel Frequency: 5240MHz path A**

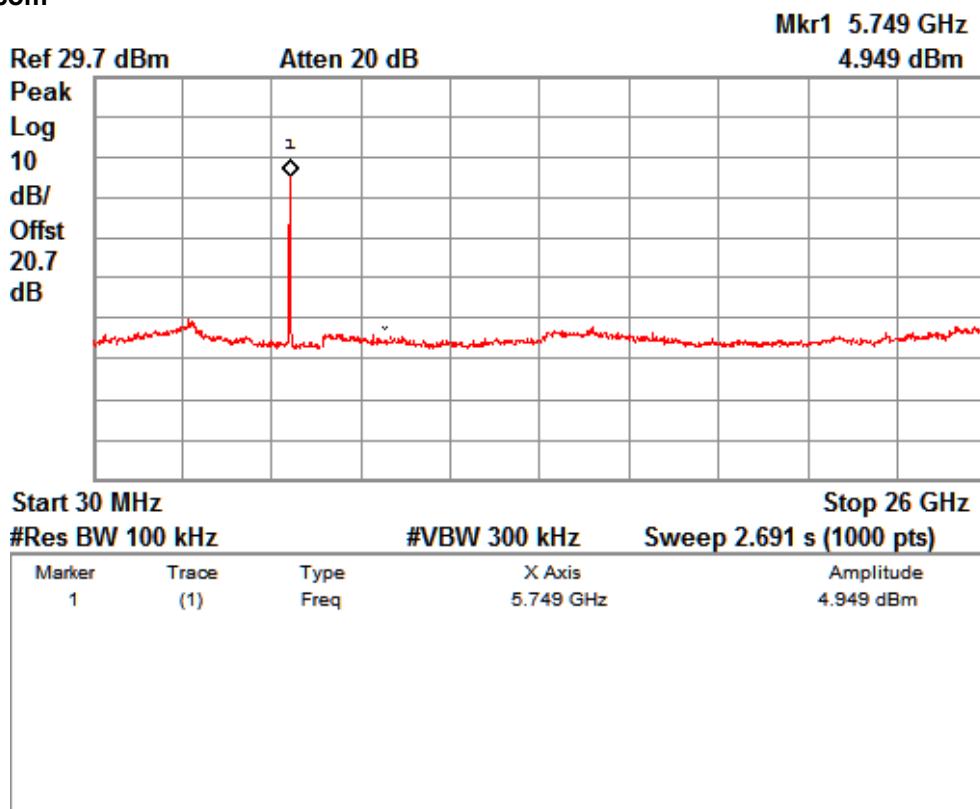
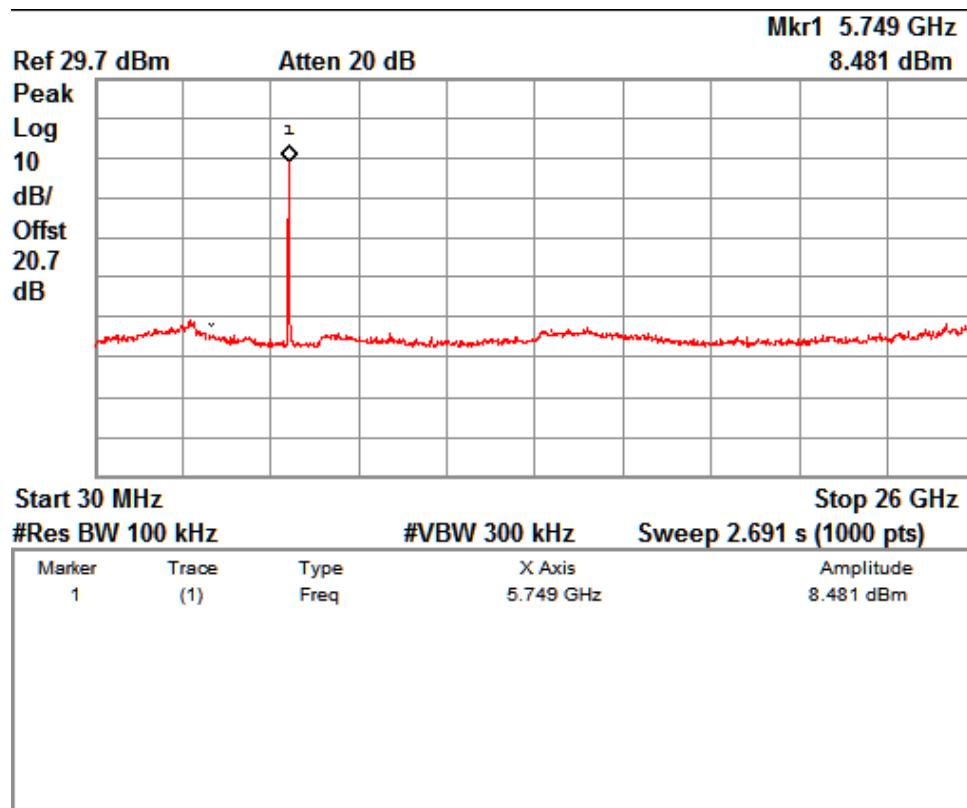
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**Data Rate: MCS4**
**Channel Frequency: 5240MHz path B**

**Data Rate: MCS4**
**Channel Frequency: 5240MHz path C**

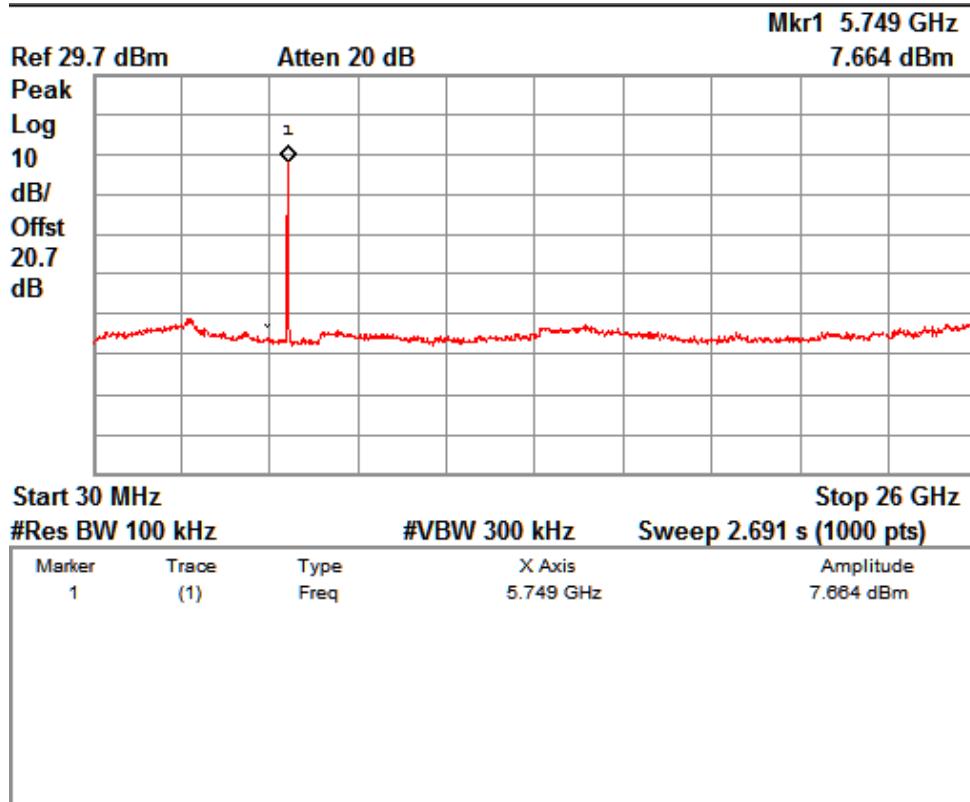
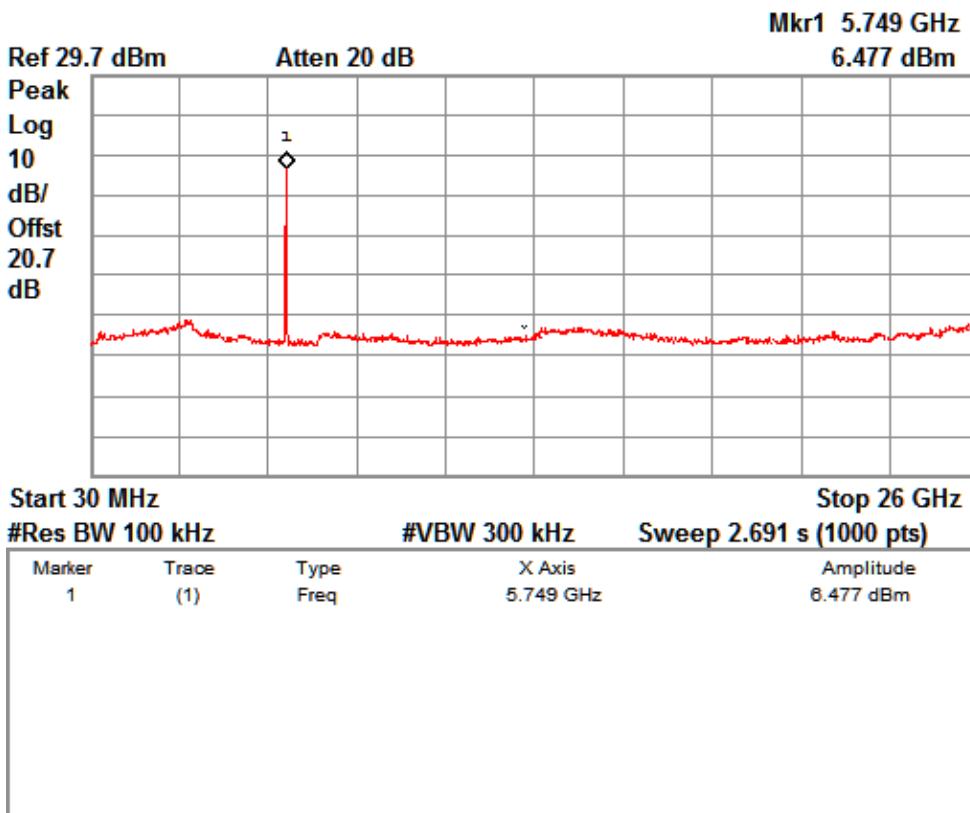
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**Data Rate: MCS7**
**Channel Frequency: 5240MHz path A**

**Data Rate: MCS7**
**Channel Frequency: 5240MHz path B**

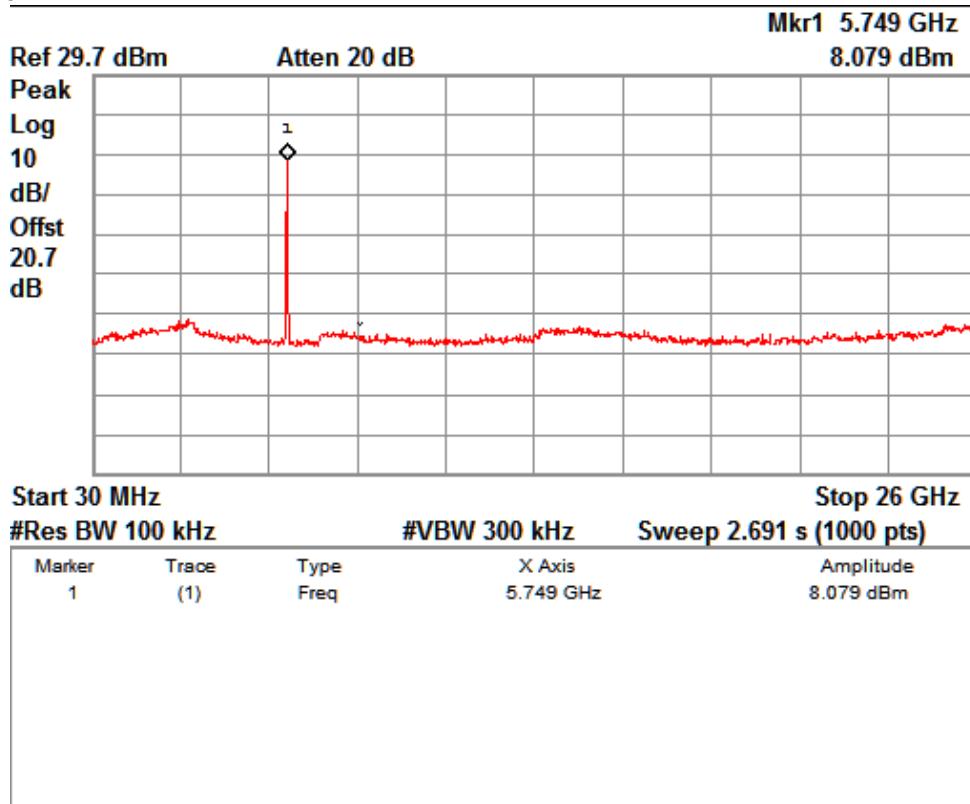
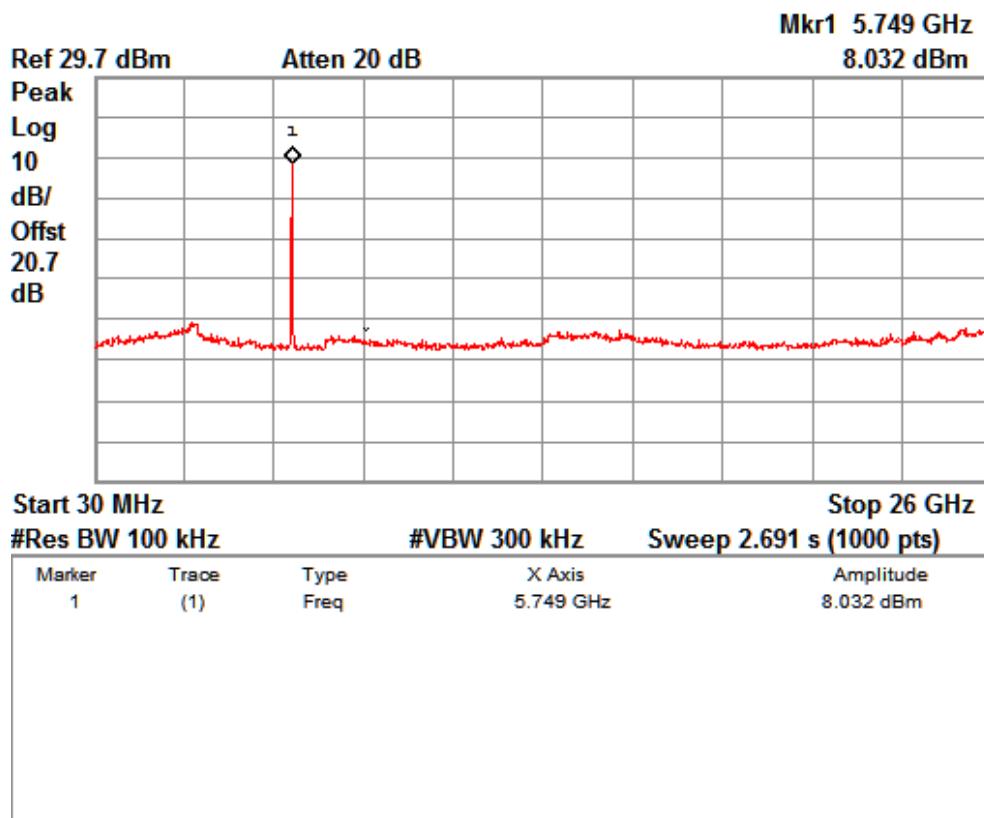
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**Data Rate: MCS7**
**Channel Frequency: 5240MHz path C**

**Data Rate: 6MBPS**
**Channel Frequency: 5745MHz**

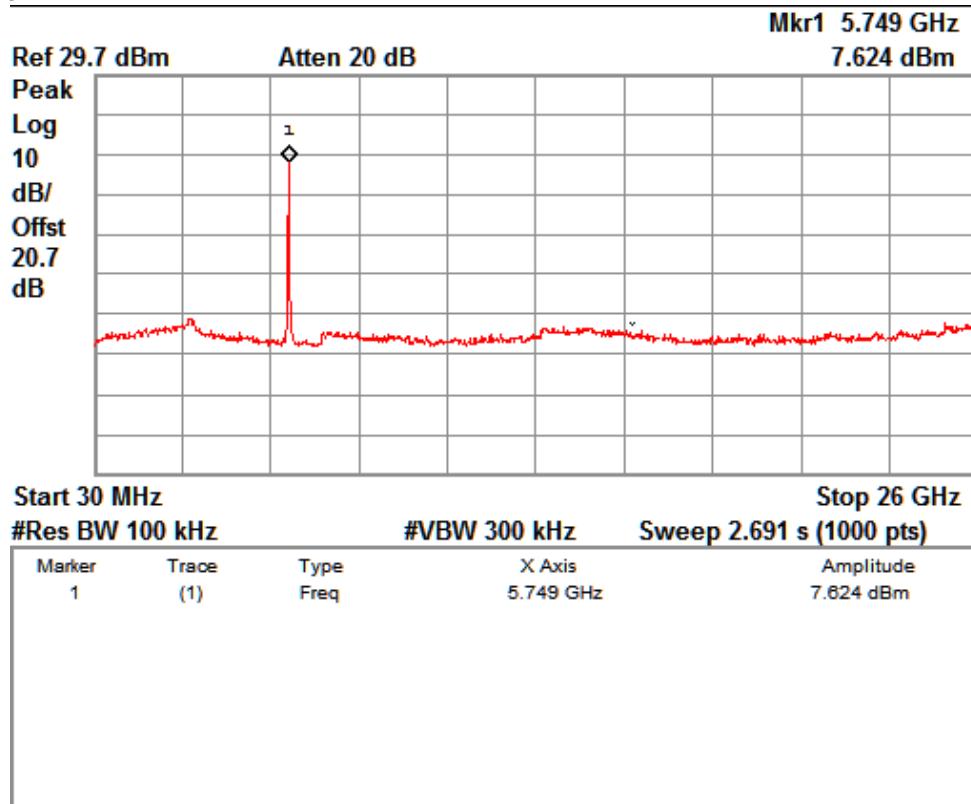
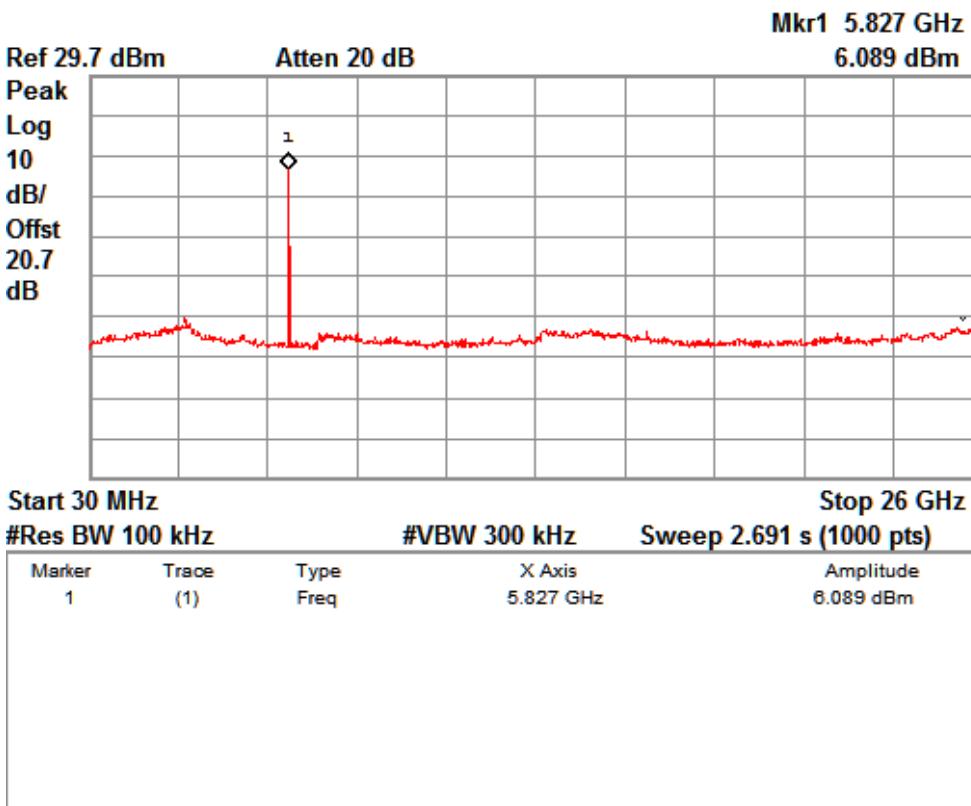
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**Data Rate: 24MBPS**
**Channel Frequency: 5745MHz**

**Data Rate: 54MBPS**
**Channel Frequency: 5745MHz**

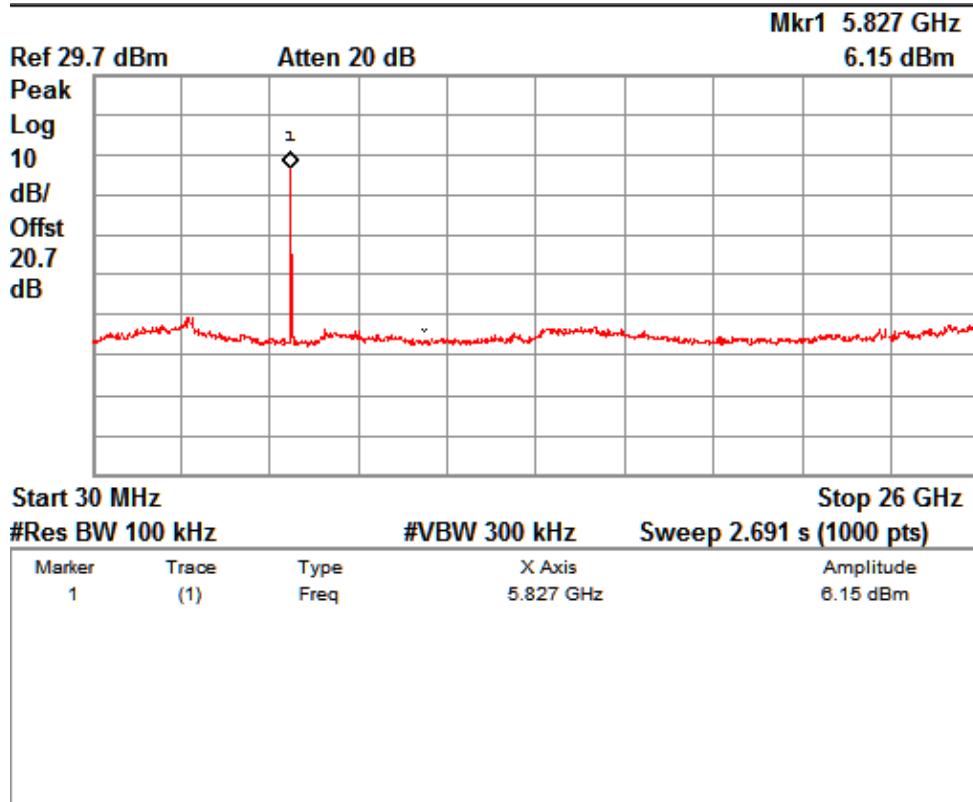
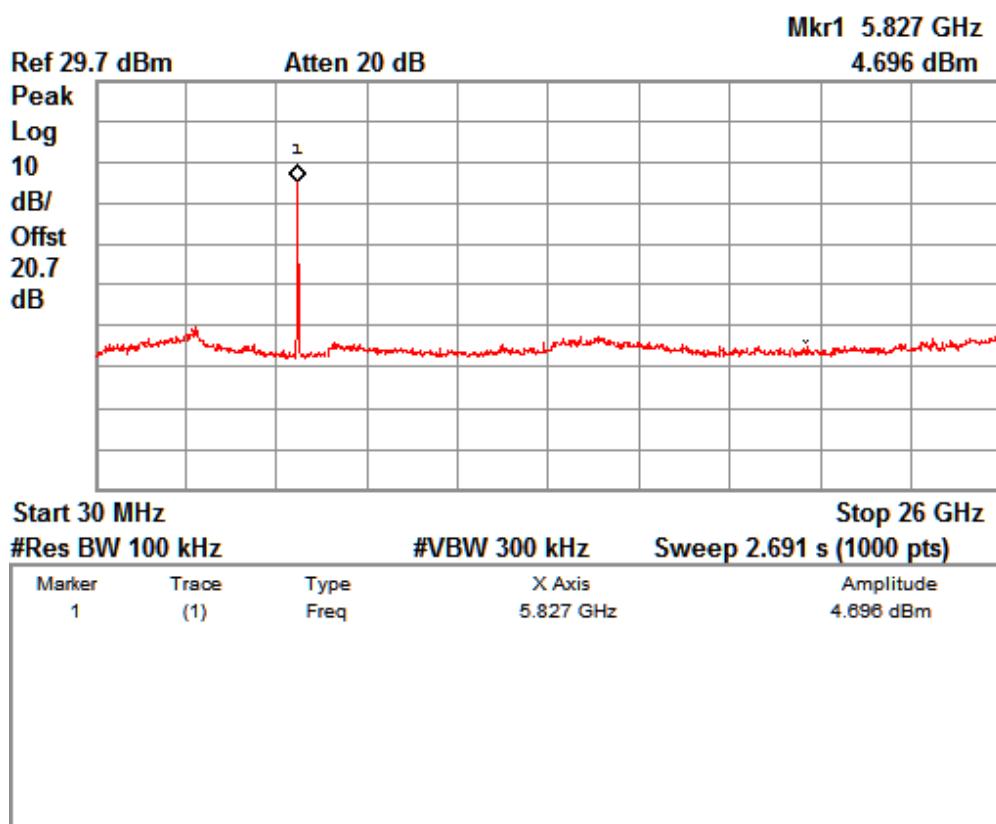
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**Data Rate: MCS0**
**Channel Frequency: 5745MHz path A**

**Data Rate: MCS0**
**Channel Frequency: 5745MHz path B**

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**Data Rate: MCS0**
**Channel Frequency: 5745MHz path C**

**Data Rate: MCS4**
**Channel Frequency: 5745MHz path A**

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**Data Rate: MCS4**
**Channel Frequency: 5745MHz path B**

**Data Rate: MCS4**
**Channel Frequency: 5745MHz path C**

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**Data Rate: MCS7**
**Channel Frequency: 5745MHz path A**

**Data Rate: MCS7**
**Channel Frequency: 5745MHz path B**

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**Data Rate: MCS7**
**Channel Frequency: 5745MHz path C**

**Data Rate: 6MBPS**
**Channel Frequency: 5825MHz**

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**Data Rate: 24MBPS**
**Channel Frequency: 5825MHz**

**Data Rate: 54MBPS**
**Channel Frequency: 5825MHz**

**Radiated Spurious Emissions,  
Restricted bands of operation &  
Unwanted Emission****Section 15.209 /15.205/15.407 (b) (6)****Result****Pass**

Test Specification	FCC Part 15 Subpart E
Test Method	ANSI C63.10-2013
Measurement Location	Semi Anechoic Chamber
Measuring Distance	3m
Detection	QP for frequency below 1GHz, Peak/Average for frequency above 1GHz
Requirement	Should Comply with the limits stated in the below table.

**Limit for Radiated Emission of Section 15.209:**

Frequency (MHz)	Field strength ( $\mu$ V/m)	Field strength (dB $\mu$ V/m)	Distance of Measurement (m)
0.009 – 0.490	2400/F(kHz)	48.50 – 13.80	300*
0.490 – 1.705	24000/F(kHz)	33.80 – 23.00	30*
1.705 -30	30	29.54	30*
30-88	100	40.0	3
88-216	150	43.5	3
216-960	200	46.0	3
Above 960	500	54.0	3

Remark: \* the limit shows in the table above of frequency range 0.009 – 0.490, 0.490 – 1.705 MHz and 1.705-30MHz is at 300 meter, 30 meter and 30 meter range respectively, which corresponds To 88.50 – 53.80, 53.80 – 43.00 and 49.5dB $\mu$ V/m at 3m range by extrapolation calculation and The measurement of loop antenna

The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz Radiated emission limits in these three bands are based on measurements employing an average detector.

## Test results:

### For frequency Range 9kHz – 30MHz

No emissions found in this frequency range.

### For the Frequency range 30MHz -1GHz

Polarization	Frequency(MHz)	Field Strength (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
Horizontal	66.48	35.09	40.00	-4.91
	499.99	37.93	46.00	-8.07
Vertical	62.48	33.71	40.00	6.29
	149.98	36.66	43.50	-6.84
	249.99	41.70	46.00	-4.30
	499.99	42.55	46.00	-3.45

Worst case test results for the frequencies in the range 1 GHz 40 GHz are reported in below table.

IEEE 802.11a Mode Data Rate ->6Mbps						
Frequency Bands	Ch No./ Frequency	Polarization	Frequency (MHz)	Field Strength (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
5150-5250 (UNII -1)	36 (5180MHz)	Vertical	5150 (Pk)	67.33	74	-6.67
			5150 (Av)	51.76	54	-2.24
			5180 (Pk)	109.85	*	-
			5180 (Av)	100.65	*	-
			10360(Pk)	65.64	74	-8.36
			10360(Av)	53.67	54	-0.33
	165 (5825MHz)	Horizontal	5150 (Pk)	69.93	74	-4.07
			5150 (Av)	53.41	54	-0.59
			5180 (Pk)	111.55	*	-
			5180 (Av)	102.32	*	-
			10360(Pk)	66.2	74	-7.8
			10360(Av)	52.92	54	-1.08
5725-5850 (UNII-3)	165 (5825MHz)	Vertical	5825 (Pk)	109.17	*	-
			5825 (Av)	99.84	*	-
			5850 (Pk)	65.66	74	-8.34
			5850 (Av)	49.75	54	-4.25
			11650(Pk)	67.41	74	-6.59
			11650(Av)	53.8	54	-0.2

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			Horizontal	5825 (Pk)	105.56	*	-
				5825 (Av)	95.83	*	-
				5850 (Pk)	60.59	74	-13.41
				5850 (Av)	45.44	54	-8.56
				11650(Pk)	66.56	74	-7.44
				11650(Av)	53.67	54	-0.33

**IEEE 802.11a Mode Data Rate ->24Mbps**

Frequency Bands	Ch No./ Frequency	Polarization	Frequency (MHz)	Field Strength (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
5150-5250 (UNII -1)	36 (5180MHz)	Vertical	5150 (Pk)	66.34	74	-7.66
			5150 (Av)	49.39	54	-4.61
			5180 (Pk)	109.5	*	-
			5180 (Av)	98.77	*	-
			10360(Pk)	65.64	74	-8.36
			10360(Av)	53.67	54	-0.33
		Horizontal	5150 (Pk)	61.63	74	-12.37
			5150 (Av)	45.45	54	-8.55
			5180 (Pk)	103.85	*	-
			5180 (Av)	93.06	*	-
			10360(Pk)	66.2	74	-7.8
			10360(Av)	52.92	54	-1.08
5725-5850 (UNII-3)	165 (5825MHz)	Vertical	5825 (Pk)	109.56	*	-
			5825 (Av)	98.41	*	-
			5850 (Pk)	65.33	74	-8.67
			5850 (Av)	49.77	54	-4.23
			11650(Pk)	67.41	74	-6.59
			11650(Av)	53.8	54	-0.2
		Horizontal	5825 (Pk)	105.67	*	-
			5825 (Av)	94.74	*	-
			5850 (Pk)	59.9	74	-14.1
			5850 (Av)	46.01	54	-7.99
			11650(Pk)	66.56	74	-7.44
			11650(Av)	53.67	54	-0.33

<b>IEEE 802.11a Mode Data Rate -&gt;54Mbps</b>						
<b>Frequency Bands</b>	<b>Ch No./ Frequency</b>	<b>Polarization</b>	<b>Frequency (MHz)</b>	<b>Field Strength (dB<math>\mu</math>V/m)</b>	<b>Limit (dB<math>\mu</math>V/m)</b>	<b>Margin (dB)</b>
5150-5250 (UNII -1)	36 (5180MHz)	Vertical	5150 (Pk)	68.21	74	-5.79
			5150 (Av)	50.23	54	-3.77
			5180 (Pk)	111.52	*	-
			5180 (Av)	98.84	*	-
			10360(Pk)	65.64	74	-8.36
			10360(Av)	53.67	54	-0.33
		Horizontal	5150 (Pk)	65.17	74	-8.83
			5150 (Av)	47.88	54	-6.12
			5180 (Pk)	107.54	*	-
			5180 (Av)	95.47	*	-
			10360(Pk)	66.2	74	-7.8
			10360(Av)	52.92	54	-1.08
5725-5850 (UNII-3)	165 (5825MHz)	Vertical	5825 (Pk)	108.38	*	-
			5825 (Av)	95.45	*	-
			5850 (Pk)	69.4	74	-4.6
			5850 (Av)	43.91	54	-10.09
			11650(Pk)	67.41	74	-6.59
			11650(Av)	53.8	54	-0.2
		Horizontal	5825 (Pk)	104.19	*	-
			5825 (Av)	91.83	*	-
			5850 (Pk)	64.42	74	-9.58
			5850 (Av)	41.77	54	-12.23
			11650(Pk)	66.56	74	-7.44
			11650(Av)	53.67	54	-0.33

<b>IEEE 802.11n Mode HT 20 Data Rate -&gt;MCS0</b>						
<b>Frequency Bands</b>	<b>Ch No./ Frequency</b>	<b>Polarization</b>	<b>Frequency (MHz)</b>	<b>Field Strength (dB<math>\mu</math>V/m)</b>	<b>Limit (dB<math>\mu</math>V/m)</b>	<b>Margin (dB)</b>
5150-5250 (UNII -1)	36 (5180MHz)	Vertical	5150 (Pk)	65.22	74	-8.78
			5150 (Av)	50.94	54	-3.06
			5180 (Pk)	112.7	*	-
			5180 (Av)	103.51	*	-
			10360(Pk)	66.37	74	-7.63
			10360(Av)	52.47	54	-1.53
		Horizontal	5150 (Pk)	67.58	74	-6.42
			5150 (Av)	51.66	54	-2.34
			5180 (Pk)	110.65	*	-
			5180 (Av)	100.68	*	-
			10360(Pk)	65.87	74	-8.13
			10360(Av)	52.48	54	-1.52
5725-5850 (UNII-3)	165 (5825MHz)	Vertical	5825 (Pk)	113.08	*	-
			5825 (Av)	103.94	*	-
			5850 (Pk)	63.48	74	-10.52
			5850 (Av)	48.47	54	-5.53
			11650(Pk)	67.67	74	-6.33
			11650(Av)	53.71	54	-0.29
		Horizontal	5825 (Pk)	104.2	*	-
			5825 (Av)	95.36	*	-
			5850 (Pk)	55.7	74	-18.3
			5850 (Av)	41.38	54	-12.62
			11650(Pk)	66.64	74	-7.36
			11650(Av)	53.68	54	-0.32

<b>IEEE 802.11n Mode HT 20 Data Rate -&gt;MCS4</b>						
<b>Frequency Bands</b>	<b>Ch No./ Frequency</b>	<b>Polarization</b>	<b>Frequency (MHz)</b>	<b>Field Strength (dB<math>\mu</math>V/m)</b>	<b>Limit (dB<math>\mu</math>V/m)</b>	<b>Margin (dB)</b>

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5150-5250 (UNII -1)	36 (5180MHz)	Vertical	5150 (Pk)	67.84	74	-6.16
			5150 (Av)	51.34	54	-2.66
			5180 (Pk)	114.71	*	-
			5180 (Av)	103.23	*	-
			10360(Pk)	66.37	74	-7.63
			10360(Av)	52.47	54	-1.53
		Horizontal	5150 (Pk)	65.87	74	-8.13
			5150 (Av)	49.41	54	-4.59
			5180 (Pk)	113.23	*	-
			5180 (Av)	101.44	*	-
			10360(Pk)	65.87	74	-8.13
			10360(Av)	52.48	54	-1.52
5725-5850 (UNII-3)	165 (5825MHz)	Vertical	5825 (Pk)	116.12	*	-
			5825 (Av)	104.41	*	-
			5850 (Pk)	61.16	74	-12.84
			5850 (Av)	49.16	54	-4.84
			11650(Pk)	67.67	74	-6.33
			11650(Av)	53.71	54	-0.29
		Horizontal	5825 (Pk)	106.25	*	-
			5825 (Av)	94.94	*	-
			5850 (Pk)	52.71	74	-21.29
			5850 (Av)	42	54	-12
			11650(Pk)	66.64	74	-7.36
			11650(Av)	53.68	54	-0.32

IEEE 802.11n Mode HT 20 Data Rate ->MCS7						
Frequency Bands	Ch No./ Frequency	Polarization	Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
5150-5250 (UNII -1)	36 (5180MHz)	Vertical	5150 (Pk)	71.65	74	-2.35
			5150 (Av)	53.4	54	-0.6
			5180 (Pk)	115.93	*	-
			5180 (Av)	103.77	*	-
			10360(Pk)	66.37	74	-7.63
		Horizontal	10360(Av)	52.47	54	-1.53
			5150 (Pk)	67.53	74	-6.47
			5150 (Av)	50.06	54	-3.94
			5180 (Pk)	113.85	*	-
			5180 (Av)	101.83	*	-
5725-5850 (UNII-3)	165 (5825MHz)	Vertical	10360(Pk)	65.87	74	-8.13
			10360(Av)	52.48	54	-1.52
			5825 (Pk)	113.7	*	-
			5825 (Av)	100.95	*	-
			5850 (Pk)	59.48	74	-14.52
		Horizontal	5850 (Av)	45.09	54	-8.91
			11650(Pk)	67.67	74	-6.33
			11650(Av)	53.71	54	-0.29

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			5850 (Pk)	52.99	74	-21.01
			5850 (Av)	40.67	54	-13.33
			11650(Pk)	66.64	74	-7.36
			11650(Av)	53.68	54	-0.32

**IEEE 802.11n Mode HT 40 Data Rate ->MCS0**

Frequency Bands	Ch No./Frequency	Polarization	Frequency (MHz)	Field Strength (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
5150-5250 (UNII -1)	38 (5190MHz)	Vertical	5150 (Pk)	65.2	74	-8.8
			5150 (Av)	51.04	54	-2.96
			5190 (Pk)	106.83	*	-
			5190 (Av)	96.47	*	-
			10380(Pk)	65.43	74	-8.57
			10380(Av)	52.34	54	-1.66
		Horizontal	5150 (Pk)	63	74	-11
			5150 (Av)	49.87	54	-4.13
			5190 (Pk)	103.38	*	-
			5190 (Av)	94.02	*	-
			10380(Pk)	65.21	74	-8.79
			10380(Av)	52.31	54	-1.69
5725-5850 (UNII-3)	163 (5815MHz)	Vertical	5815 (Pk)	110.64	*	-
			5815 (Av)	100.84	*	-
			5850 (Pk)	56.35	74	-17.65
			5850 (Av)	44.66	54	-9.34
			11630(Pk)	65.43	74	-8.57
			11630(Av)	52.34	54	-1.66
		Horizontal	5815 (Pk)	101.66	*	-
			5815 (Av)	92.73	*	-
			5850 (Pk)	51.43	74	-22.57
			5850 (Av)	40.19	54	-13.81
			11630(Pk)	65.21	74	-8.79
			11630(Av)	52.31	54	-1.69

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<b>IEEE 802.11n Mode HT 40 Data Rate -&gt;MCS4</b>						
<b>Frequency Bands</b>	<b>Ch No./ Frequency</b>	<b>Polarization</b>	<b>Frequency (MHz)</b>	<b>Field Strength (dBµV/m)</b>	<b>Limit (dBµV/m)</b>	<b>Margin (dB)</b>
5150-5250 (UNII -1)	38 (5190MHz)	Vertical	5150 (Pk)	62.94	74	-11.06
			5150 (Av)	48.24	54	-5.76
			5190 (Pk)	106.83	*	-
			5190 (Av)	94.34	*	-
			10380(Pk)	65.43	74	-8.57
			10380(Av)	52.34	54	-1.66
		Horizontal	5150 (Pk)	60.63	74	-13.37
			5150 (Av)	46.25	54	-7.75
			5190 (Pk)	103.45	*	-
			5190 (Av)	91.4	*	-
			10380(Pk)	65.21	74	-8.79
			10380(Av)	52.31	54	-1.69
5725-5850 (UNII-3)	163 (5815MHz)	Vertical	5815 (Pk)	112.02	*	-
			5815 (Av)	99.46	*	-
			5850 (Pk)	57.14	74	-16.86
			5850 (Av)	44.54	54	-9.46
			11630(Pk)	65.43	74	-8.57
			11630(Av)	52.34	54	-1.66
		Horizontal	5815 (Pk)	102.59	*	-
			5815 (Av)	91.05	*	-
			5850 (Pk)	52.91	74	-21.09
			5850 (Av)	40.48	54	-13.52
			11630(Pk)	65.21	74	-8.79
			11630(Av)	52.31	54	-1.69

<b>IEEE 802.11n Mode HT 40 Data Rate -&gt;MCS7</b>						
<b>Frequency Bands</b>	<b>Ch No./ Frequency</b>	<b>Polarization</b>	<b>Frequency (MHz)</b>	<b>Field Strength (dBµV/m)</b>	<b>Limit (dBµV/m)</b>	<b>Margin (dB)</b>
5150-5250 (UNII -1)	38 (5190MHz)	Vertical	5150 (Pk)	65.71	74	-8.29
			5150 (Av)	47.8	54	-6.2
			5190 (Pk)	107.65	*	-
			5190 (Av)	93.49	*	-
			10380(Pk)	65.43	74	-8.57
			10380(Av)	52.34	54	-1.66
		Horizontal	5150 (Pk)	66.22	74	-7.78
			5150 (Av)	48.11	54	-5.89
			5190 (Pk)	103.31	*	-
			5190 (Av)	90.82	*	-

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			10380(Pk)	65.21	74	-8.79
			10380(Av)	52.31	54	-1.69
5725-5850 (UNII-3)	163 (5815MHz)	Vertical	5815 (Pk)	112.4	*	-
			5815 (Av)	97.76	*	-
			5850 (Pk)	55.5	74	-18.5
			5850 (Av)	42.63	54	-11.37
			11630(Pk)	65.43	74	-8.57
			11630(Av)	52.34	54	-1.66
		Horizontal	5815 (Pk)	102.75	*	-
			5815 (Av)	88.26	*	-
			5850 (Pk)	50.85	74	-23.15
			5850 (Av)	39.69	54	-14.31
			11630(Pk)	65.21	74	-8.79
			11630(Av)	52.31	54	-1.69

**IEEE 802.11ac Mode HT 20 Data Rate ->6.5Mbps**

Frequency Bands	Ch No./ Frequency	Polarization	Frequency (MHz)	Field Strength (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
5150-5250 (UNII -1)	36 (5180MHz)	Vertical	5150 (Pk)	66.04	74	-7.96
			5150 (Av)	51.53	54	-2.47
			5180 (Pk)	113.2	*	-
			5180 (Av)	104.01	*	-
			10360(Pk)	66.25	74	-7.75
			10360(Av)	52.48	54	-1.52
		Horizontal	5150 (Pk)	66.25	74	-7.75
			5150 (Av)	50.55	54	-3.45
			5180 (Pk)	109.35	*	-
			5180 (Av)	101.15	*	-
			10360(Pk)	65.26	74	-8.74
			10360(Av)	52.47	54	-1.53
5725-5850 (UNII-3)	165 (5825MHz)	Vertical	5825 (Pk)	115.35	*	-
			5825 (Av)	105.69	*	-
			5850 (Pk)	59.66	74	-14.34
			5850 (Av)	48.4	54	-5.6
			11650(Pk)	67.5	74	-6.5

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			11650(Av)	53.71	54	-0.29
		Horizontal	5825 (Pk)	105.96	*	-
			5825 (Av)	97.24	*	-
			5850 (Pk)	51.64	74	-22.36
			5850 (Av)	41.66	54	-12.34
			11650(Pk)	66.54	74	-7.46
			11650(Av)	53.64	54	-0.36

**IEEE 802.11ac Mode HT 20 Data Rate ->26Mbps**

Frequency Bands	Ch No./ Frequency	Polarization	Frequency (MHz)	Field Strength (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
5150-5250 (UNII -1)	36 (5180MHz)	Vertical	5150 (Pk)	65.9	74	-8.1
			5150 (Av)	51.19	54	-2.81
			5180 (Pk)	113.32	*	-
			5180 (Av)	102.46	*	-
			10360(Pk)	66.25	74	-7.75
			10360(Av)	52.48	54	-1.52
		Horizontal	5150 (Pk)	67.03	74	-6.97
			5150 (Av)	51.06	54	-2.94
			5180 (Pk)	109.62	*	-
			5180 (Av)	99.81	*	-
			10360(Pk)	65.26	74	-8.74
			10360(Av)	52.47	54	-1.53
5725-5850 (UNII-3)	165 (5825MHz)	Vertical	5825 (Pk)	115.91	*	-
			5825 (Av)	105.05	*	-
			5850 (Pk)	61.19	74	-12.81
			5850 (Av)	49.07	54	-4.93
			11650(Pk)	67.5	74	-6.5
			11650(Av)	53.71	54	-0.29
		Horizontal	5825 (Pk)	106.16	*	-
			5825 (Av)	95.93	*	-
			5850 (Pk)	54.31	74	-19.69
			5850 (Av)	42.58	54	-11.42
			11650(Pk)	66.54	74	-7.46
			11650(Av)	53.64	54	-0.36

**IEEE 802.11ac Mode HT 20 Data Rate ->58.5Mbps**

Frequency Bands	Ch No./ Frequency	Polarization	Frequency (MHz)	Field Strength (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)

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5150-5250 (UNII -1)	36 (5180MHz)	Vertical	5150 (Pk)	69.53	74	-4.47
			5150 (Av)	51.09	54	-2.91
			5180 (Pk)	113.98	*	-
			5180 (Av)	101.48	*	-
			10360(Pk)	66.25	74	-7.75
			10360(Av)	52.48	54	-1.52
		Horizontal	5150 (Pk)	69.37	74	-4.63
			5150 (Av)	50.99	54	-3.01
			5180 (Pk)	110.53	*	-
			5180 (Av)	98.85	*	-
			10360(Pk)	65.26	74	-8.74
			10360(Av)	52.47	54	-1.53
5725-5850 (UNII-3)	165 (5825MHz)	Vertical	5825 (Pk)	111.86	*	-
			5825 (Av)	99.2	*	-
			5850 (Pk)	59.45	74	-14.55
			5850 (Av)	44.87	54	-9.13
			11650(Pk)	67.5	74	-6.5
			11650(Av)	53.71	54	-0.29
		Horizontal	5825 (Pk)	102.89	*	-
			5825 (Av)	90.87	*	-
			5850 (Pk)	53.51	74	-20.49
			5850 (Av)	40.78	54	-13.22
			11650(Pk)	66.54	74	-7.46
			11650(Av)	53.64	54	-0.36

**IEEE 802.11ac Mode HT 40 Data Rate ->6.5Mbps**

Frequency Bands	Ch No./ Frequency	Polarization	Frequency (MHz)	Field Strength (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
5150-5250 (UNII -1)	38 (5190MHz)	Vertical	5150 (Pk)	64.59	74	-9.41
			5150 (Av)	51.65	54	-2.35
			5190 (Pk)	105.75	*	-
			5190 (Av)	96.55	*	-
			10380(Pk)	66.25	74	-7.75
			10380(Av)	52.48	54	-1.52
		Horizontal	5150 (Pk)	62.14	74	-11.86
			5150 (Av)	46.62	54	-7.38
			5190 (Pk)	104.34	*	-
			5190 (Av)	94.43	*	-
			10380(Pk)	65.26	74	-8.74
			10380(Av)	52.47	54	-1.53
5725-5850 (UNII-3)	159 (5795MHz)	Vertical	5795 (Pk)	111.3	*	-
			5795 (Av)	100.95	*	-

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			5850 (Pk)	55.78	74	-18.22
			5850 (Av)	45.06	54	-8.94
			11590(Pk)	67.5	74	-6.5
			11590(Av)	53.71	54	-0.29
Horizontal			5795 (Pk)	102.07	*	-
			5795 (Av)	92.71	*	-
			5850 (Pk)	53.14	74	-20.86
			5850 (Av)	40.46	54	-13.54
			11590(Pk)	66.54	74	-7.46
			11590(Av)	53.64	54	-0.36

**IEEE 802.11ac Mode HT 40 Data Rate ->26Mbps**

Frequency Bands	Ch No./ Frequency	Polarization	Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
5150-5250 (UNII -1)	38 (5190MHz)	Vertical	5150 (Pk)	63.36	74	-10.64
			5150 (Av)	48.49	54	-5.51
			5190 (Pk)	107.19	*	-
			5190 (Av)	94.99	*	-
			10380(Pk)	66.25	74	-7.75
			10380(Av)	52.48	54	-1.52
		Horizontal	5150 (Pk)	65.3	74	-8.7
			5150 (Av)	49.41	54	-4.59
			5190 (Pk)	104.26	*	-
			5190 (Av)	91.8	*	-
			10380(Pk)	65.26	74	-8.74
			10380(Av)	52.47	54	-1.53
5725-5850 (UNII-3)	159 (5795MHz)	Vertical	5795 (Pk)	111.63	*	-
			5795 (Av)	99.44	*	-
			5850 (Pk)	57.97	74	-16.03
			5850 (Av)	45.42	54	-8.58
			11590(Pk)	67.5	74	-6.5
			11590(Av)	53.71	54	-0.29
		Horizontal	5795 (Pk)	103.16	*	-
			5795 (Av)	91.38	*	-
			5850 (Pk)	53.37	74	-20.63
			5850 (Av)	40.33	54	-13.67
			11590(Pk)	66.54	74	-7.46
			11590(Av)	53.64	54	-0.36

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<b>IEEE 802.11ac Mode HT 40 Data Rate -&gt;58.5Mbps</b>						
<b>Frequency Bands</b>	<b>Ch No./ Frequency</b>	<b>Polarization</b>	<b>Frequency (MHz)</b>	<b>Field Strength (dB<math>\mu</math>V/m)</b>	<b>Limit (dB<math>\mu</math>V/m)</b>	<b>Margin (dB)</b>
5150-5250 (UNII -1)	38 (5190MHz)	Vertical	5150 (Pk)	65.45	74	-8.55
			5150 (Av)	47.73	54	-6.27
			5190 (Pk)	108.47	*	-
			5190 (Av)	94.1	*	-
			10380(Pk)	66.25	74	-7.75
			10380(Av)	52.48	54	-1.52
		Horizontal	5150 (Pk)	66.92	74	-7.08
			5150 (Av)	49.06	54	-4.94
			5190 (Pk)	103.2	*	-
			5190 (Av)	90.6	*	-
			10380(Pk)	65.26	74	-8.74
			10380(Av)	52.47	54	-1.53
5725-5850 (UNII-3)	159 (5795MHz)	Vertical	5795 (Pk)	111.63	*	-
			5795 (Av)	99.44	*	-
			5850 (Pk)	57.97	74	-16.03
			5850 (Av)	45.42	54	-8.58
			11590(Pk)	67.5	74	-6.5
			11590(Av)	53.71	54	-0.29
		Horizontal	5795 (Pk)	103.16	*	-
			5795 (Av)	91.38	*	-
			5850 (Pk)	53.37	74	-20.63
			5850 (Av)	40.33	54	-13.67
			11590(Pk)	66.54	74	-7.46
			11590(Av)	53.64	54	-0.36

<b>IEEE 802.11ac Mode HT 80 Data Rate -&gt;6.5Mbps</b>						
<b>Frequency Bands</b>	<b>Ch No./ Frequency</b>	<b>Polarization</b>	<b>Frequency (MHz)</b>	<b>Field Strength (dB<math>\mu</math>V/m)</b>	<b>Limit (dB<math>\mu</math>V/m)</b>	<b>Margin (dB)</b>
5150-5250 (UNII -1)	42 (5210MHz)	Vertical	5150 (Pk)	63.46	74	-10.54
			5150 (Av)	49.06	54	-4.94
			5210 (Pk)	99.52	*	-
			5210 (Av)	88.54	*	-
			10420(Pk)	66.25	74	-7.75
			10420(Av)	52.48	54	-1.52
		Horizontal	5150 (Pk)	61.73	74	-12.27
			5150 (Av)	48.06	54	-5.94
			5210 (Pk)	95.66	*	-
			5210 (Av)	84.55	*	-

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			10420(Pk)	65.26	74	-8.74
			10420(Av)	52.47	54	-1.53
5725-5850 (UNII-3)	155 (5775MHz)	Vertical	5775 (Pk)	107.3	*	-
			5775 (Av)	96.64	*	-
			5850 (Pk)	60.9	74	-13.1
			5850 (Av)	47.73	54	-6.27
			11550(Pk)	67.5	74	-6.5
			11550(Av)	53.71	54	-0.29
		Horizontal	5775 (Pk)	98.19	*	-
			5775 (Av)	87.45	*	-
			5850 (Pk)	54.57	74	-19.43
			5850 (Av)	40.82	54	-13.18
			11550(Pk)	66.54	74	-7.46
			11550(Av)	53.64	54	-0.36

**IEEE 802.11ac Mode HT 80 Data Rate ->26Mbps**

Frequency Bands	Ch No./ Frequency	Polarization	Frequency (MHz)	Field Strength (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
5150-5250 (UNII -1)	42 (5210MHz)	Vertical	5150 (Pk)	62.97	74	-11.03
			5150 (Av)	45.63	54	-8.37
			5210 (Pk)	101.25	*	-
			5210 (Av)	87.63	*	-
			10420(Pk)	66.25	74	-7.75
			10420(Av)	52.48	54	-1.52
		Horizontal	5150 (Pk)	59.25	74	-14.75
			5150 (Av)	44.43	54	-9.57
			5210 (Pk)	97.84	*	-
			5210 (Av)	83.54	*	-
			10420(Pk)	65.26	74	-8.74
			10420(Av)	52.47	54	-1.53
5725-5850 (UNII-3)	155 (5775MHz)	Vertical	5775 (Pk)	108.65	*	-
			5775 (Av)	94.48	*	-
			5850 (Pk)	63.74	74	-10.26
			5850 (Av)	47.43	54	-6.57
			11550(Pk)	67.5	74	-6.5
			11550(Av)	53.71	54	-0.29
		Horizontal	5775 (Pk)	99.19	*	-

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			5775 (Av)	85.91	*	-
			5850 (Pk)	54.23	74	-19.77
			5850 (Av)	41.7	54	-12.3
			11550(Pk)	66.54	74	-7.46
			11550(Av)	53.64	54	-0.36

IEEE 802.11ac Mode HT 80 Data Rate ->58.5Mbps						
Frequency Bands	Ch No./ Frequency	Polarization	Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
5150-5250 (UNII -1)	42 (5210MHz)	Vertical	5150 (Pk)	65.85	74	-8.15
			5150 (Av)	46.79	54	-7.21
			5210 (Pk)	102.02	*	-
			5210 (Av)	87.29	*	-
			10420(Pk)	66.25	74	-7.75
			10420(Av)	52.48	54	-1.52
		Horizontal	5150 (Pk)	64.68	74	-9.32
			5150 (Av)	44.9	54	-9.1
			5210 (Pk)	98.2	*	-
			5210 (Av)	83.6	*	-
			10420(Pk)	65.26	74	-8.74
			10420(Av)	52.47	54	-1.53
5725-5850 (UNII-3)	155 (5775MHz)	Vertical	5775 (Pk)	106.52	*	-
			5775 (Av)	92.09	*	-
			5850 (Pk)	62.12	74	-11.88
			5850 (Av)	46.57	54	-7.43
			11550(Pk)	67.5	74	-6.5
			11550(Av)	53.71	54	-0.29
		Horizontal	5775 (Pk)	98.73	*	-
			5775 (Av)	84.32	*	-
			5850 (Pk)	54.57	74	-19.43
			5850 (Av)	41.34	54	-12.66
			11550(Pk)	66.54	74	-7.46
			11550(Av)	53.64	54	-0.36

**Note:** No harmonics emissions were found.

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\* - -> Fundamental Frequency

P-->Peak detector

AV-->Average Detector

\*\*\*END OF TEST REPORT\*\*\*