



TEST REPORT

Report Number: 13335182-E5V2

Applicant : APPLE INC.
1 APPLE PARK WAY
CUPERTINO, CA 95014, U.S.A

Model : A2342

FCC ID : BCG-E3548A

EUT Description : SMARTPHONE

Test Standard(s) : FCC 47 CFR PART 15 SUBPART E

Date of Issue:
September 29, 2020

Prepared by:
UL Verification Services Inc.
47173 Benicia Street
Fremont, CA 94538 U.S.A.
TEL: (510) 319-4000
FAX: (510) 661-0888

REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	9/21/2020	Initial Issue	Vien Tran

TABLE OF CONTENTS

REPORT REVISION HISTORY	2
TABLE OF CONTENTS	3
1. ATTESTATION OF TEST RESULTS	5
2. TEST RESULT SUMMARY	6
3. TEST METHODOLOGY	6
4. FACILITIES AND ACCREDITATION	6
5. DECISION RULES AND MEASUREMENT UNCERTAINTY	7
5.1. METROLOGICAL TRACEABILITY	7
5.2. DECISION RULES.....	7
5.3. MEASUREMENT UNCERTAINTY.....	7
6. EQUIPMENT UNDER TEST	8
6.1. EUT DESCRIPTION	8
6.2. MAXIMUM OUTPUT POWER.....	8
6.3. DESCRIPTION OF AVAILABLE ANTENNAS	11
6.4. SOFTWARE AND FIRMWARE.....	11
6.5. WORST-CASE CONFIGURATION AND MODE	12
6.6. DESCRIPTION OF TEST SETUP.....	13
7. MEASUREMENT METHOD.....	18
8. TEST AND MEASUREMENT EQUIPMENT	19
9. ANTENNA PORT TEST RESULTS	20
9.1. ON TIME AND DUTY CYCLE.....	20
9.2. 26 dB AND 99% BANDWIDTH	25
9.2.1. 802.11n HT20 MODE IN THE 5.2 GHz BAND	25
9.2.2. 802.11n HT40 MODE IN THE 5.2 GHz BAND	28
9.2.3. 802.11ac VHT80 MODE IN THE 5.2 GHz BAND	30
9.2.4. 802.11ax HE20 MODE IN THE 5.2 GHz BAND	32
9.2.5. 802.11ax HE40 MODE IN THE 5.2 GHz BAND	38
9.2.6. 802.11ax HE80 MODE IN THE 5.2 GHz BAND	44
9.2.7. 802.11n HT20 MODE IN THE 5.3 GHz BAND	50
9.2.8. 802.11n HT40 MODE IN THE 5.3 GHz BAND	52
9.2.9. 802.11ac VHT80 MODE IN THE 5.3 GHz BAND	54
9.2.10. 802.11ax HE20 MODE IN THE 5.3 GHz BAND	56
9.2.11. 802.11ax HE40 MODE IN THE 5.3 GHz BAND	62
9.2.12. 802.11ax HE80 MODE IN THE 5.3 GHz BAND	68

9.2.13.	802.11n HT20 MODE IN THE 5.6 GHz BAND	74
9.2.14.	802.11n HT40 MODE IN THE 5.6 GHz BAND	76
9.2.15.	802.11ac VHT80 MODE IN THE 5.6 GHz BAND	78
9.2.16.	802.11ax HE20 MODE IN THE 5.6 GHz BAND	80
9.2.17.	802.11ax HE40 MODE IN THE 5.6 GHz BAND	86
9.2.18.	802.11ax HE80 MODE IN THE 5.6 GHz BAND	92
9.2.19.	802.11n HT20 MODE IN THE 5.8 GHz BAND	98
9.2.20.	802.11n HT40 MODE IN THE 5.8 GHz BAND	100
9.2.21.	802.11ac VHT80 MODE IN THE 5.8 GHz BAND	102
9.2.22.	802.11ax HE20 MODE IN THE 5.8 GHz BAND	104
9.2.23.	802.11ax HE40 MODE IN THE 5.8 GHz BAND	110
9.2.24.	802.11ax HE80 MODE IN THE 5.8 GHz BAND	116
9.3.	6 dB BANDWIDTH.....	122
9.3.1.	802.11n HT20 MODE IN THE 5.8 GHz BAND	123
9.3.2.	802.11n HT40 MODE IN THE 5.8 GHz BAND	125
9.3.3.	802.11ac VHT80 MODE IN THE 5.8 GHz BAND	127
9.3.4.	802.11ax HE20 MODE IN THE 5.8 GHz BAND	129
9.3.5.	802.11ax HE40 MODE IN THE 5.8 GHz BAND	135
9.3.6.	802.11ax HE80 MODE IN THE 5.8 GHz BAND	141
9.4.	OUTPUT POWER AND PSD.....	147
9.4.1.	802.11n HT20 MODE IN THE 5.2 GHz BAND	149
9.4.2.	802.11n HT40 MODE IN THE 5.2 GHz BAND	152
9.4.3.	802.11ac VHT80 MODE IN THE 5.2 GHz BAND	155
9.4.4.	802.11ax HE20 MODE IN THE 5.2 GHz BAND	158
9.4.5.	802.11ax HE40 MODE IN THE 5.2 GHz BAND	170
9.4.6.	802.11ax HE80 MODE IN THE 5.2 GHz BAND	182
9.4.7.	802.11n HT20 MODE IN THE 5.3 GHz BAND	194
9.4.8.	802.11n HT40 MODE IN THE 5.3 GHz BAND	197
9.4.9.	802.11ac VHT80 MODE IN THE 5.3 GHz BAND	200
9.4.10.	802.11ax HE20 MODE IN THE 5.3 GHz BAND	203
9.4.11.	802.11ax HE40 MODE IN THE 5.3 GHz BAND	215
9.4.12.	802.11ax HE80 MODE IN THE 5.3 GHz BAND	227
9.4.13.	802.11n HT20 MODE IN THE 5.6 GHz BAND	239
9.4.14.	802.11n HT40 MODE IN THE 5.6 GHz BAND	242
9.4.15.	802.11ac VHT80 MODE IN THE 5.6 GHz BAND	245
9.4.16.	802.11ax HE20 MODE IN THE 5.6 GHz BAND	248
9.4.17.	802.11ax HE40 MODE IN THE 5.6 GHz BAND	260
9.4.18.	802.11ax HE80 MODE IN THE 5.6 GHz BAND	272
9.4.19.	802.11n HT20 MODE IN THE 5.8 GHz BAND	284
9.4.20.	802.11n HT40 MODE IN THE 5.8 GHz BAND	287
9.4.21.	802.11ac VHT80 MODE IN THE 5.8 GHz BAND	290
9.4.22.	802.11ax HE20 MODE IN THE 5.8 GHz BAND	293
9.4.23.	802.11ax HE40 MODE IN THE 5.8 GHz BAND	305
9.4.24.	802.11ax HE80 MODE IN THE 5.8 GHz BAND	317
10.	SETUP PHOTOS.....	329

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: APPLE INC.
1 APPLE PARK WAY
CUPERTINO, CA 95014, U.S.A

EUT DESCRIPTION: SMARTPHONE

MODEL: A2342

SERIAL NUMBER: G6TCQ01TQ897, G6TCQ02KQ897

DATE TESTED: MARCH 26, 2020 – AUGUST 27, 2020

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart E	Complies
ISED RSS-247 Issue 2	Complies
ISED RSS-GEN Issue 5	Complies

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise.

This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of the U.S. government.

Approved & Released For
UL Verification Services Inc. By:



Chin Pang
Senior Engineer
Consumer Technology Division
UL Verification Services Inc.

Prepared By:



Chris Xiong
Test Engineer
Consumer Technology Division
UL Verification Services Inc.

2. TEST RESULT SUMMARY

FCC Clause	ISED Clause	Requirement	Result	Comment
See Comment		Duty Cycle	Reporting purposes only	Per ANSI C63.10, Section 12.2.
See Comment	RSS-GEN 6.7	26dB BW/99% OBW	Reporting purposes only	Per ANSI C63.10 Sections 6.9.2 and 6.9.3
15.407 (e)	RSS-247 6.2.4.1	6 dB BW	Complies	None.
15.407 (a) (1-4), (h) (1)	RSS-247 6.2	Output Power	Complies	None.
15.407 (a) (1-3, 5)	RSS-247 6.2	PSD	Complies	None.
15.209, 15.205, 15.407 (b)	RSS-GEN 8.9, 8.10, RSS-247 6.2	Radiated Emissions	Complies	None.
15.207	RSS-Gen 8.8	AC Mains Conducted Emissions	Complies	None.

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with:

- FCC CFR 47 Part 2
- FCC CFR 47 Part 15
- FCC KDB 662911 D01 v02r01
- FCC KDB 789033 D02 v02r01
- FCC KDB 644545 D03 v01
- ANSI C63.10-2013

4. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 and 47266 Benicia Street, and 47658 Kato Road, Fremont, California, USA. Line conducted emissions are measured only at the 47173 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

47173 Benicia Street	47266 Benicia Street	47658 Kato Rd.
☒ Chamber A (IC:2324B-1)	☐ Chamber D (IC:22541-1)	☒ Chamber I (IC: 2324A-5)
☐ Chamber B (IC:2324B-2)	☒ Chamber E (IC:22541-2)	☐ Chamber J (IC: 2324A-6)
☐ Chamber C (IC:2324B-3)	☐ Chamber F (IC:22541-3)	☐ Chamber K (IC: 2324A-1)
	☐ Chamber G (IC:22541-4)	☒ Chamber L (IC: 2324A-3)
	☒ Chamber H (IC:22541-5)	☐ Chamber M (IC: 2324A-2)

The above test sites and facilities are covered under FCC Test Firm Registration # 208313. Chambers above are covered under Industry Canada company address and respective code.

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0

5. DECISION RULES AND MEASUREMENT UNCERTAINTY

5.1. METROLOGICAL TRACEABILITY

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, with a maximum time between calibrations of one year or the manufacturers' recommendation, whichever is less, and where applicable is traceable to recognized national standards.

5.2. DECISION RULES

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4:2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

5.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	U _{Lab}
Worst Case Conducted Disturbance, 9KHz to 0.15 MHz	3.39 dB
Worst Case Conducted Disturbance, 0.15 to 30 MHz	3.07 dB
Worst Case Radiated Disturbance, 9KHz to 30 MHz	2.52 dB
Worst Case Radiated Disturbance, 30 to 1000 MHz	4.88 dB
Worst Case Radiated Disturbance, 1000 to 18000 MHz	4.24 dB
Worst Case Radiated Disturbance, 18000 to 26000 MHz	4.37 dB
Worst Case Radiated Disturbance, 26000 to 40000 MHz	5.17 dB

Uncertainty figures are valid to a confidence level of 95%.

6. EQUIPMENT UNDER TEST

6.1. EUT DESCRIPTION

The Apple iPhone is a smartphone with multimedia functions (music, application support, and video), cellular GSM, GPRS, EGPRS, UMTS, LTE, 5G, CDMA, IEEE 802.11a/b/g/n/ac/ax, Bluetooth, Ultra-Wideband, GPS, NFC and WPT. All models support at least one UICC based SIM. The second SIM is either an UICC based p-SIM (physical SIM) or e-SIM (electronic SIM). The device supports a built-in inductive charging transmitter and receiver. The rechargeable battery is not user accessible.

6.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

5.2 GHz BAND (FCC)

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5.2 GHz band, 1TX			
5180-5240	802.11a	Covered by 802.11n HT20 1TX	
5180-5240	802.11n HT20	20.84	121.34
5190-5230	802.11n HT40	21.19	131.52
5180-5240	802.11ac VHT20	Covered by 802.11n HT20 1TX	
5190-5230	802.11ac VHT40	Covered by 802.11n HT40 1TX	
5210	802.11ac VHT80	15.29	33.81
5180-5240	802.11ax HE20	20.88	122.46
5190-5230	802.11ax HE40	21.41	138.36
5210	802.11ax HE80	15.22	33.27
5.2 GHz band, 2TX			
5180-5240	802.11n HT20 CDD	20.92	123.59
5180-5240	802.11n HT20 SDM/STBC	Covered by 802.11n HT20 2TX CDD	
5190-5230	802.11n HT40 CDD	22.91	195.43
5190-5230	802.11n HT40 SDM/STBC	Covered by 802.11n HT40 2TX CDD	
5180-5240	802.11ac VHT20 SDM/STBC/CDD	Covered by 802.11n HT20 2TX CDD	
5190-5230	802.11ac VHT40 SDM/STBC/CDD	Covered by 802.11n HT40 2TX CDD	
5210	802.11ac VHT80 CDD	17.20	52.48
5210	802.11ac VHT80 SDM/STBC	Covered by 802.11ac VHT80 2TX CDD	
5180-5240	802.11ax HE20 OFDMA	20.83	121.06
5190-5230	802.11ax HE40 OFDMA	22.59	181.55
5210	802.11ax HE80 OFDMA	17.18	52.24

5.3 GHz BAND (FCC)

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5.3 GHz band, 1TX			
5260 - 5320	802.11a	Covered by 802.11n HT20 1TX	
5260 - 5320	802.11n HT20	20.61	115.08
5270 - 5310	802.11n HT40	21.19	131.52
5260 - 5320	802.11ac VHT20	Covered by 802.11n HT20 1TX	
5270 - 5310	802.11ac VHT40	Covered by 802.11n HT40 1TX	
5290	802.11ac VHT80	15.71	37.24
5260 - 5320	802.11ax HE20	20.86	121.90
5270 - 5310	802.11ax HE40	21.22	132.43
5290	802.11ax HE80	15.74	37.50
5.3 GHz band, 2TX			
5260 - 5320	802.11n HT20 CDD	20.68	116.95
5260 - 5320	802.11n HT20 SDM/STBC	Covered by 802.11n HT40 2TX CDD	
5270 - 5310	802.11n HT40 CDD	22.69	185.78
5270 - 5310	802.11n HT40 SDM/STBC	Covered by 802.11n HT40 2TX CDD	
5260 - 5320	802.11ac VHT20 SDM/STBC/CDD	Covered by 802.11n HT20 2TX CDD	
5270 - 5310	802.11ac VHT40 SDM/STBC/CDD	Covered by 802.11n HT40 2TX CDD	
5290	802.11ac VHT80 CDD	18.17	65.61
5290	802.11ac VHT80 SDM/STBC	Covered by 802.11ac VHT80 2TX CDD	
5260 - 5320	802.11n HT20 CDD MCS0	Covered by 802.11n HT20 2TX CDD	
5260 - 5320	802.11n HT20 STBC MCS0	Covered by 802.11n HT20 2TX CDD	
5270 - 5310	802.11n HT40 CDD MCS0	Covered by 802.11n HT40 2TX CDD	
5270 - 5310	802.11n HT40 STBC MCS0	Covered by 802.11n HT40 2TX CDD	
5260 - 5320	802.11ax HE20 OFDMA	20.65	116.14
5270 - 5310	802.11ax HE40 OFDMA	22.69	185.78
5290	802.11ax HE80 OFDMA	17.64	58.08

5.6 GHz BAND (FCC)

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5.6 GHz band, 1TX			
5500-5720	802.11a	Covered by 802.11n HT20 1TX	
5500-5720	802.11n HT20	20.72	118.03
5510-5710	802.11n HT40	21.50	141.25
5500-5720	802.11ac VHT20	Covered by 802.11n HT20 1TX	
5510-5710	802.11ac VHT40	Covered by 802.11n HT40 1TX	
5530-5690	802.11ac VHT80	21.26	133.66
5500-5720	802.11ax HE20	20.87	122.18
5510-5710	802.11ax HE40	21.39	137.72
5530-5690	802.11ax HE80	21.34	136.14
5.6 GHz band, 2TX			
5500-5720	802.11n HT20 CDD	20.98	125.31
5500-5720	802.11n HT20 SDM/STBC	Covered by 802.11n HT40 2TX CDD	
5510-5710	802.11n HT40 CDD	22.99	199.07
5510-5710	802.11n HT40 SDM/STBC	Covered by 802.11n HT40 2TX CDD	
5500-5720	802.11ac VHT20 SDM/STBC/CDD	Covered by 802.11n HT20 2TX CDD	
5510-5710	802.11ac VHT40 SDM/STBC/CDD	Covered by 802.11n HT40 2TX CDD	
5530-5690	802.11ac VHT80 CDD	23.11	204.64
5530-5690	802.11ac VHT80 SDM/STBC	Covered by 802.11ac VHT80 2TX CDD	
5500-5720	802.11ax HE20 OFDMA	20.90	123.03
5510-5710	802.11ax HE40 OFDMA	22.90	194.98
5530-5690	802.11ax HE80 OFDMA	22.82	191.43

5.8 GHz BAND (FCC)

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5.8 GHz band, 1TX			
5745-5825	802.11a	Covered by 802.11n HT20 1TX	
5745-5825	802.11n HT20	21.39	137.72
5755-5795	802.11n HT40	21.49	140.93
5745-5825	802.11ac VHT20	Covered by 802.11n HT20 1TX	
5755-5795	802.11ac VHT40	Covered by 802.11n HT40 1TX	
5775	802.11ac VHT80	21.45	139.64
5745-5825	802.11ax HE20	21.41	138.36
5755-5795	802.11ax HE40	21.41	138.36
5775	802.11ax HE80	21.38	137.40
5.8 GHz band, 2TX			
5745-5825	802.11n HT20 CDD	24.29	268.53
5745-5825	802.11n HT20 SDM/STBC	Covered by 802.11n HT40 2TX CDD	
5755-5795	802.11n HT40 CDD	24.27	267.30
5755-5795	802.11n HT40 SDM/STBC	Covered by 802.11n HT40 2TX CDD	
5745-5825	802.11ac VHT20 STM/STBC/CDD	Covered by 802.11n HT20 2TX CDD	
5755-5795	802.11ac VHT40 STM/STBC/CDD	Covered by 802.11n HT40 2TX CDD	
5775	802.11ac VHT80 CDD	23.37	217.27
5775	802.11ac VHT80 SDM/STBC	Covered by 802.11ac VHT80 2TX CDD	
5745-5825	802.11ax HE20 OFDMA	24.26	266.69
5755-5795	802.11ax HE40 OFDMA	24.25	266.07
5775	802.11ax HE80 OFDMA	22.90	194.98

6.3. DESCRIPTION OF AVAILABLE ANTENNAS

Frequency Range	ANT 6 (Core 0)	ANT 5 (Core 1)
5180 - 5240	-5.7	-6.3
5260 - 5320	-3.1	-7.3
5500 - 5720	-4.7	-2.1
5745 - 5825	-4.7	-3.2

6.4. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was WiFi FW Version: 20_10_619_14

6.5. WORST-CASE CONFIGURATION AND MODE

The fundamental of the EUT was investigated in three orthogonal orientations X, Y and Z on ANT 6 and ANT 5 it was determined that Y (Landscape) orientation was the worst-case orientation for ANT 6 and 2TX; and X (Flatbed) orientation was the worst case for ANT 5.

For radiated harmonics spurious below 1GHz, 1-18GHz L/M/H channels, 18-40GHz, and power line conducted emissions were performed with the EUT set at the 2TX OFDMA mode among the OFDMA/SDM modes and 2TX HE mode with power setting equal or higher than SISO modes as worst-case scenario.

Radiated band edge, harmonic, and spurious emissions from 1GHz to 18GHz were performed with the EUT was set to transmit at highest power on Low/Middle/High channels.

Below 1GHz tests were performed with EUT connected to AC power adapter as the worst case; and for above 1GHz, the worst-case configuration reported was tested with EUT only. For AC line conducted emission, test was investigated with AC power adapter and with laptop.

There were no emissions found below 30MHz within 20dB of the limit.

The output power and psd for the 802.11 ax mode were investigated between all different tones, and we found that the highest tone had the highest output power and lowest tone had the highest PSD readings. Therefore, full testing was performed on both the highest and lowest tones.

For simultaneous transmission with the Bluetooth was investigated, no noticeable emission was found.

Investigated worst-case data rates as listed below were:

802.11n HT20mode: MCS0 & MCS7 for Band Edge
802.11n HT40mode: MCS0 & MCS7 for Band Edge
802.11ac VHT80 mode: MCS0 & MCS9 for Band Edge
802.11ax HE20/HE40/HE80 FULL RU & RU26: MCS0 & MCS11 for Band Edge

There are two vendors of the WiFi/Bluetooth radio modules: variant 1 and variant 2. The Wi-Fi/Bluetooth radio modules have the same mechanical outline (e.g., the same package dimension and pin-out layout), use the same on-board antenna matching circuit, have an identical antenna structure, and are built and tested to conform to the same specifications and to operate within the same tolerances.

Baseline testing was performed on the two variants to determine the worst case on all conducted power and radiated emissions.

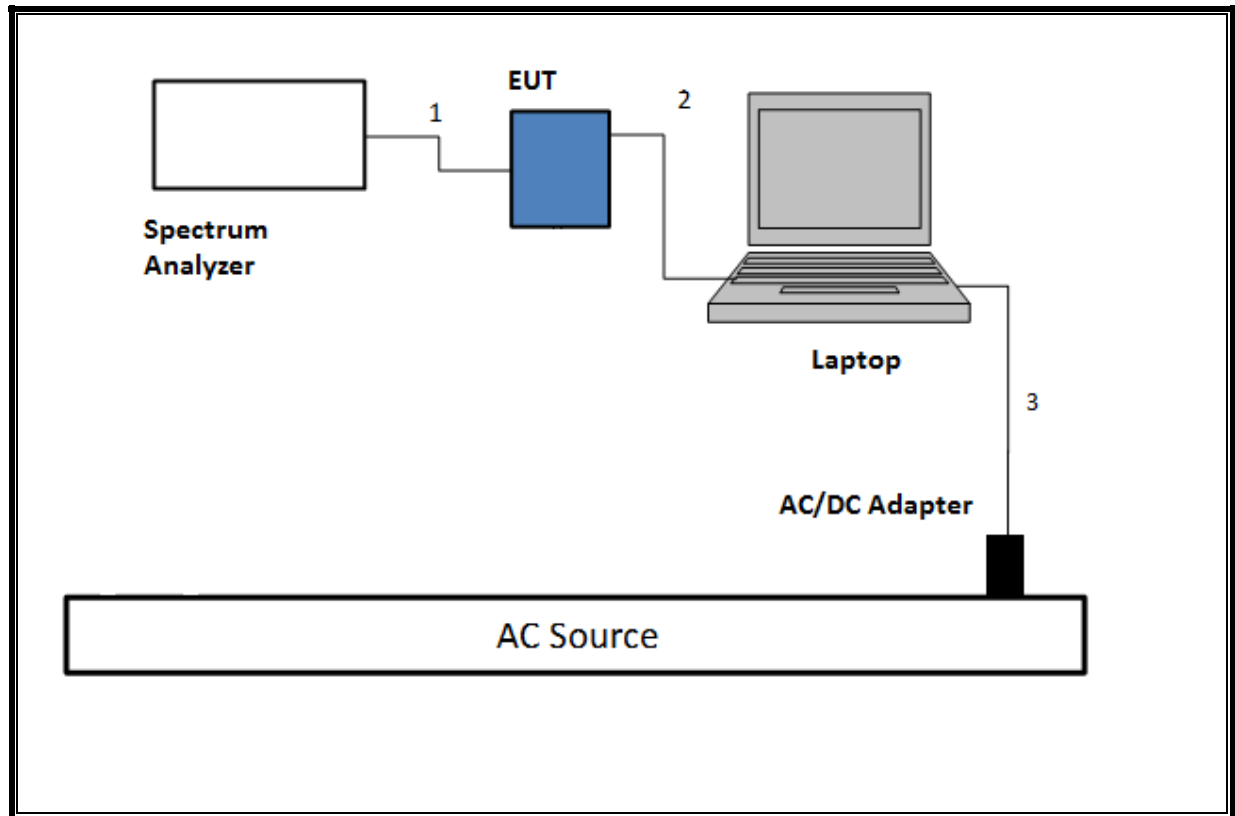
6.6. DESCRIPTION OF TEST SETUP

SUPPORT TEST EQUIPMENT						
Description		Manufacturer	Model	Serial Number		FCC ID/ DoC
Laptop		Apple	A1502	HRP003436		QDS-BRCM1080
Laptop AC/DC adapter		Liteon Technology	PA-1450-BA1	B123		NA
EUT AC/DC adapter		Apple	A1385	D29325SM03XDHLHC9		NA
I/O CABLES (RF CONDUCTED TEST)						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	Antenna	1	SMA	Un-shielded	0.2	To spectrum Analyzer
2	USB	1	USB	Shielded	1.0	N/A
3	AC	1	AC	Un-shielded	2	N/A
I/O CABLES (RF RADIATED TEST)						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	AC	1	AC	Un-shielded	2	N/A
2	USB	1	USB	Un-shielded	1	N/A

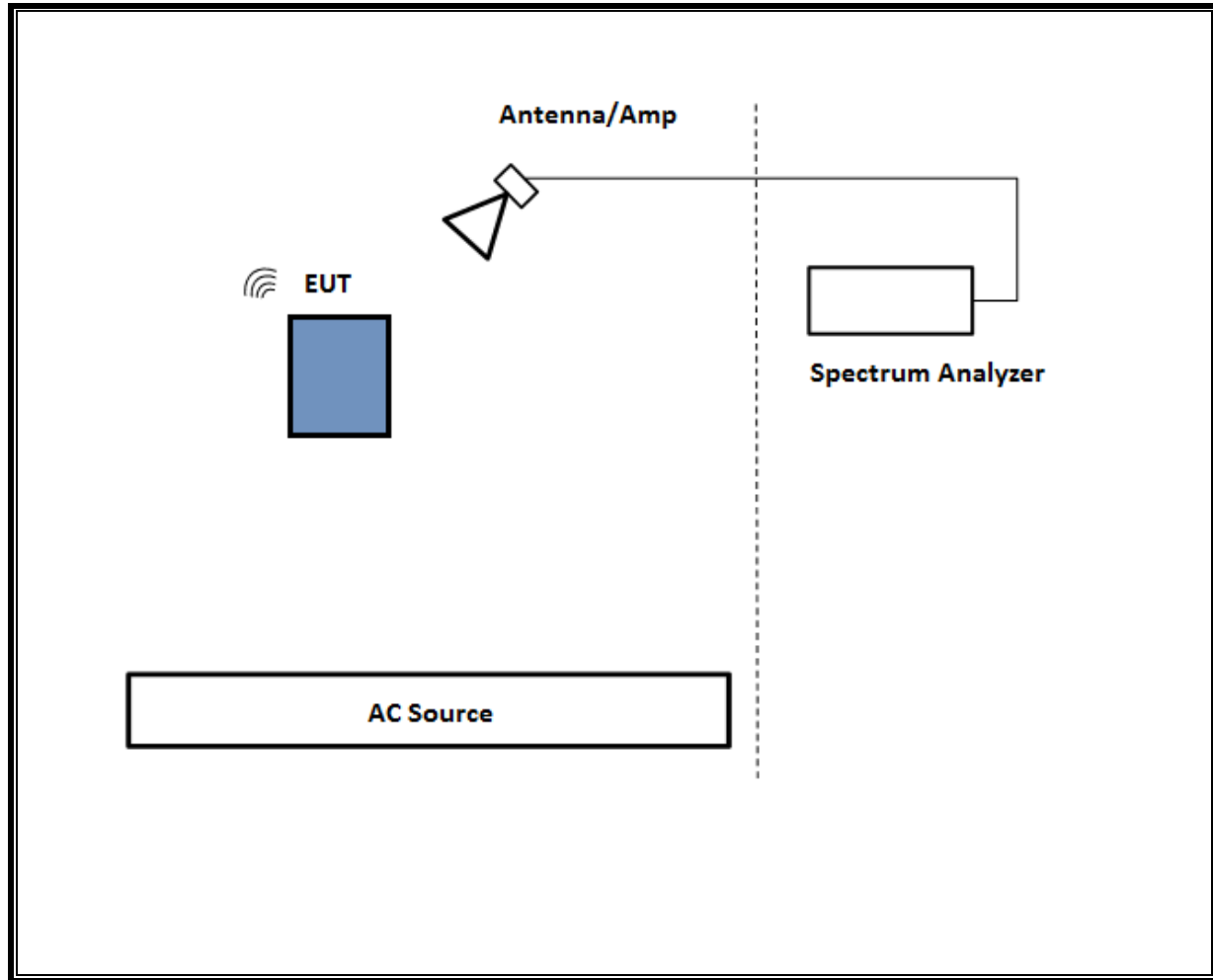
TEST SETUP - CONDUCTED TESTS

The EUT was tested connected to a host Laptop via USB cable adapter and spectrum analyzer to antenna port. Test software exercised the EUT.

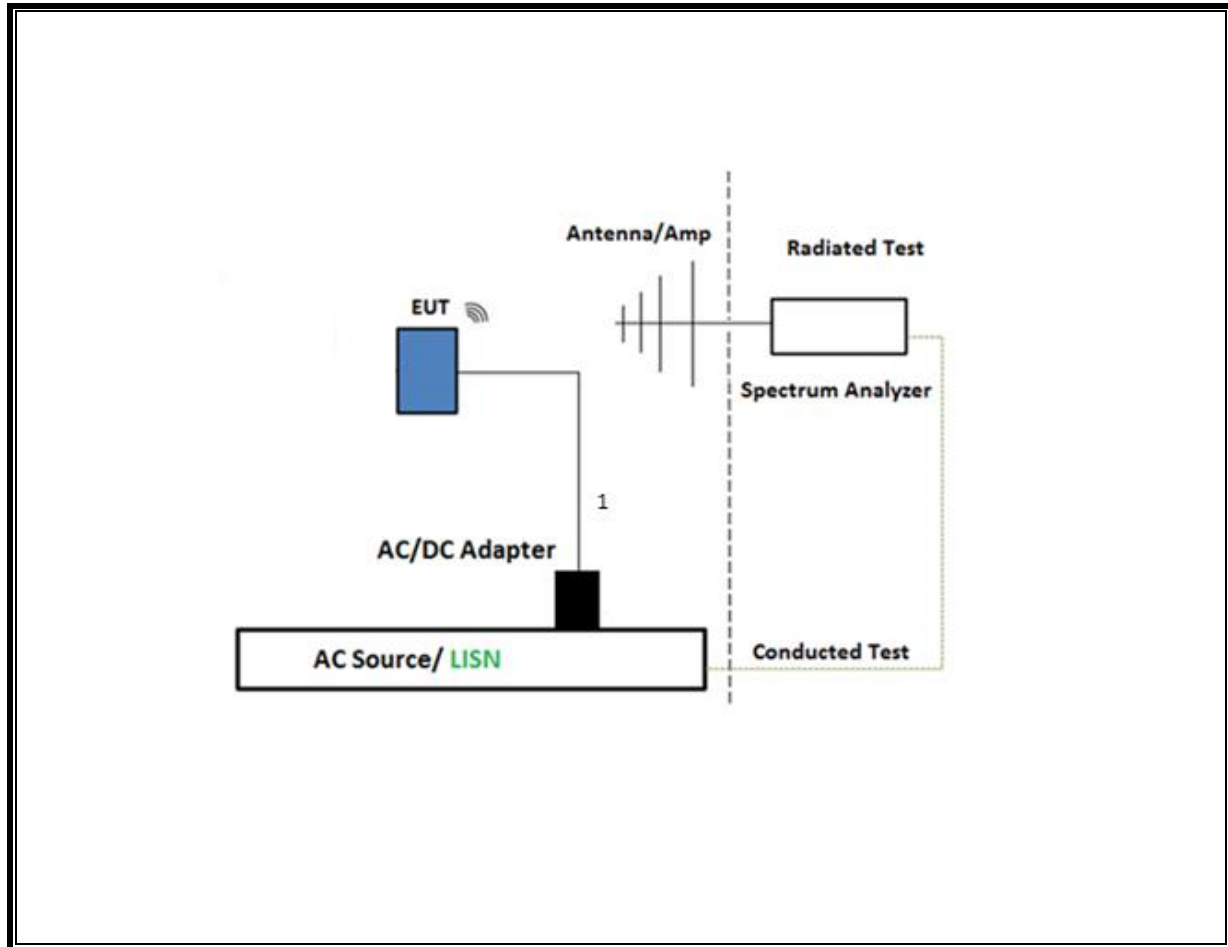
SETUP DIAGRAM



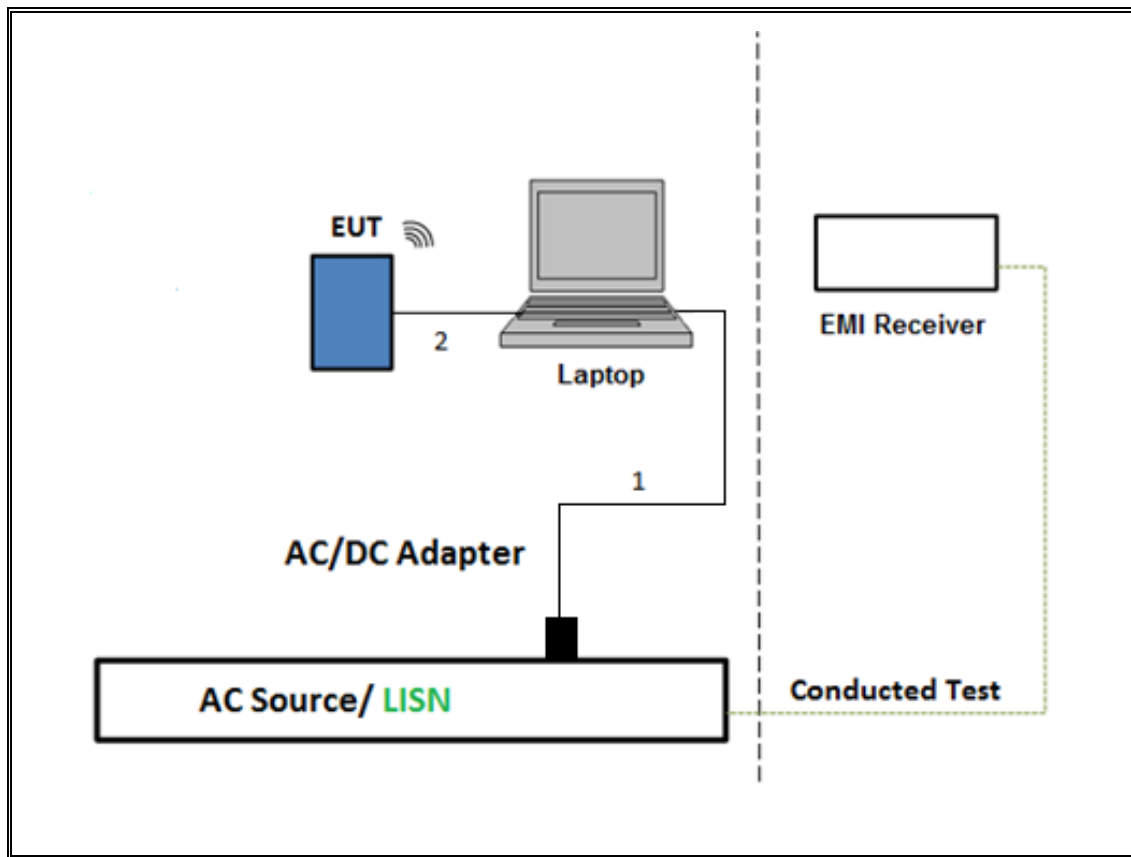
SETUP DIAGRAM FOR RADIATED TESTS Above 1GHz



SETUP DIAGRAM FOR Below 1GHz and AC LINE CONDUCTED TEST



TEST SETUP- AC LINE CONDUCTED: LAPTOP CONFIGURATION



7. MEASUREMENT METHOD

On Time and Duty Cycle: KDB 789033 D02 v02r01, Section B.

6 dB Emission BW: KDB 789033 D02 v02r01, Section C.2

26 dB Emission BW: KDB 789033 D02 v02r01, Section C.1

99% Occupied BW: KDB 789033 D02 v02r01, Section D.

Conducted Output Power: KDB 789033 D02 v02r01

Power Spectral Density: KDB 789033 D02 v02r01, Section F

Unwanted emissions in restricted bands: KDB 789033 D02 v02r01, Sections G.3, G.4, G.5, and G.6.

Unwanted emissions in non-restricted bands: KDB 789033 D02 v02r01, Sections G.3, G.4, and G.5.

AC Power Line Conducted Emissions: ANSI C63.10-2013, Section 6.2.

Radiated Spurious Emissions Below 30MHz: ANSI C63.10-2013 Section 6.4

8. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment were utilized for the tests documented in this report:

TEST EQUIPMENT LIST					
Description	Manufacturer	Model	ID Num	Cal Due	Last Cal
Antenna, Horn 1-18GHz	ETS Lindgren	3117	T346	07/20/2021	07/20/2020
*Amplifier, 1 to 18GHz	Miteq	AFS42-00101800-25-S-42	T931	05/11/2020	05/11/2019
Spectrum Analyzer, PXA, 3Hz to 44GHz	Agilent (Keysight) Technologies	N9030A	T459	01/23/2021	01/23/2020
Amplifier, 1 to 18GHz	Miteq	AFS42-00101800-25-S-42	T1165	05/18/2021	05/18/2020
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	T863	11/01/2020	11/01/2019
Amplifier, 1 to 18GHz, 35dB	Amplical	AFS42-00101800-25-S-42	T1567	01/24/2021	01/24/2020
Antenna, Horn 1-18GHz	ETS Lindgren	3117	T712	03/09/2021	03/09/2020
Amplifier, 1 to 18GHz	Amplical	AMP1G18-35	138301	01/14/2021	01/14/2020
Spectrum Analyzer, PXA 3Hz to 44GHz	Keysight	N9030A	T907	01/22/2021	01/22/2020
Antenna, Horn 1-18GHz	ETS Lindgren	3117	T344	05/26/2021	05/26/2020
Amplifier, 1 to 18GHz, 35dB	AMPLICAL	AMP1G18-35	T1569	01/30/2021	01/30/2020
Amplifier, 1 to 18GHz, 35dB	AMPLICAL	AMP1G18-35	T1569	01/30/2021	01/30/2020
*Antenna, Broadband Hybrid, 30-2000MHz	Sunol Sciences	JB1	T130	08/09/2020	08/09/2019
*Amplifier, 10KHz to 1GHz, 32dB	Sonoma	310N	T285	06/06/2020	06/06/2019
EMI Test Receiver	Rohde & Schwarz	ESW44	Pre0179372	02/25/2021	02/25/2020
EMI Test Receiver	Rohde & Schwarz	ESW44	Pre0179522	02/20/2021	02/20/2020
Antenna Horn, 18 to 26GHz	ARA	SWH-28	T125	04/17/2021	04/17/2020
Antenna, Horn 26.5 to 40GHz	ARA	MWH-2640/B	PRE0182203	04/17/2021	04/17/2020
Pre-Amp 18-26GHz	Agilent Technology	8449B	T404	04/08/2021	04/08/2020
Spectrum Analyzer, PXA, 3Hz to 44GHz	Agilent (Keysight) Technologies	N9030A	T1454	01/23/2021	01/23/2020
Power Meter, P-series single channel	Keysight	N1911A	PRE0126090	01/21/2021	01/21/2020
Power Sensor	Keysight	N1921A	T1226	02/13/2021	02/13/2020
Antenna, Active Loop 9kHz-30MHz	ETS-Lindgren	6502	T1683	04/28/2021	04/28/2020

AC Line Conducted					
Description	Manufacturer	Model	ID Num	Cal Due	Last Cal
EMI Test Receiver 9kHz-7GHz	Rohde & Schwarz	ESR	T1436	02/20/2021	02/20/2020
Power Cable, Line Conducted Emissions	UL	PR1	T861	10/27/2020	10/27/2019
LISN for Conducted Emissions CISPR-16	FISCHER CUSTOM COMMUNICATIONS	FCC-LISN-50/250-25-2-01	PRE0186446	01/23/2021	01/23/2020
UL AUTOMATION SOFTWARE					
Radiated Software	UL	UL EMC	Ver 9.5, Mar 6, 2020		
Conducted Software	UL	UL EMC	2020.2.26		
AC Line Conducted Software	UL	UL EMC	Ver 9.5, February 21, 2020		

*Testing is completed before equipment expiration date.

9. ANTENNA PORT TEST RESULTS

9.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

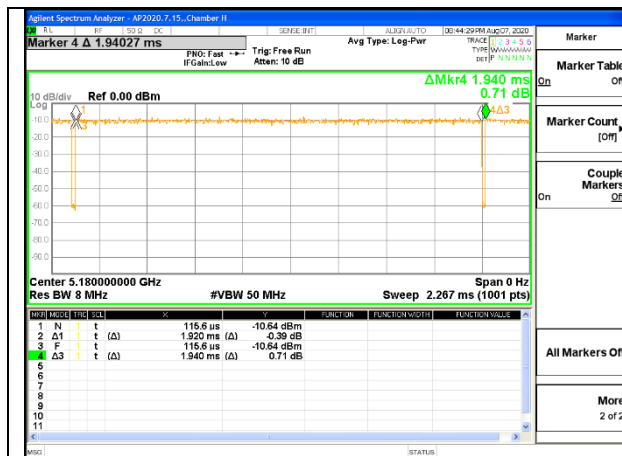
PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method.

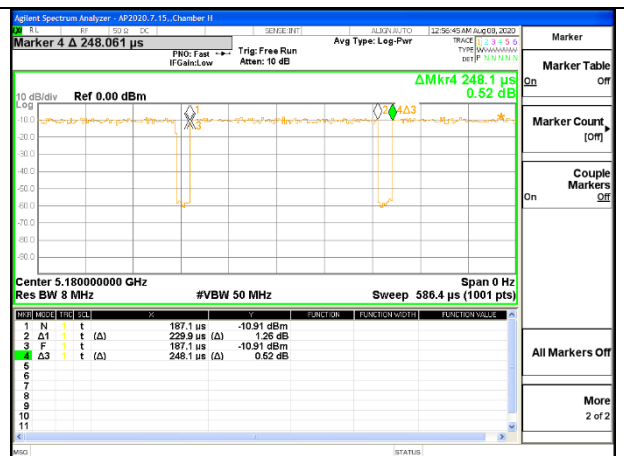
ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
5GHz Band						
802.11n HT20 1Tx MCS0	1.920	1.940	0.990	98.97%	0.00	0.010
802.11n HT20 1Tx MCS7	0.230	0.248	0.927	92.66%	0.33	4.350
802.11n HT20 CDD MCS0	0.982	1.005	0.977	97.74%	0.10	1.018
802.11n HT20 CDD MCS7	0.136	0.155	0.874	87.44%	0.58	7.364
802.11n HT40 1Tx MCS0	0.940	0.962	0.977	97.71%	0.10	1.064
802.11n HT40 1Tx MCS7	0.128	0.148	0.863	86.27%	0.64	7.843
802.11n HT40 CDD MCS0	0.494	0.515	0.959	95.92%	0.18	2.024
802.11n HT40 CDD MCS7	0.087	0.108	0.812	81.22%	0.90	11.453
802.11ac VHT80 1Tx MCS0	0.458	0.480	0.956	95.56%	0.20	2.182
802.11ac VHT80 1Tx MCS9	0.072	0.092	0.781	78.06%	1.08	13.910
802.11ac VHT80 CDD MCS0	0.255	0.277	0.920	92.05%	0.36	3.928
802.11ac VHT80 CDD MCS9	0.060	0.080	0.743	74.32%	1.29	16.773
802.11ax HE20 1Tx, MCS0	1.560	1.581	0.987	98.67%	0.00	0.010
802.11ax HE20 1Tx, MCS11	1.560	1.581	0.987	98.67%	0.00	0.010
802.11ax HE20 OFDMA, MCS0	1.560	1.580	0.987	98.73%	0.00	0.010
802.11ax HE20 OFDMA, MCS11	1.560	1.580	0.987	98.73%	0.00	0.010
802.11ax HE40 1Tx, MCS0	1.544	1.566	0.986	98.60%	0.00	0.010
802.11ax HE40 1Tx, MCS11	1.546	1.568	0.986	98.60%	0.00	0.010
802.11ax HE40 OFDMA, MCS0	1.540	1.570	0.981	98.09%	0.00	0.010
802.11ax HE40 OFDMA, MCS11	1.540	1.570	0.981	98.09%	0.00	0.010
802.11ax HE80 1Tx, MCS0	1.473	1.494	0.986	98.59%	0.00	0.010
802.11ax HE80 1Tx, MCS11	1.473	1.494	0.986	98.59%	0.00	0.010
802.11ax HE80 OFDMA, MCS0	1.456	1.479	0.984	98.44%	0.00	0.010
802.11ax HE80 OFDMA, MCS11	1.472	1.505	0.978	97.81%	0.10	0.679

DUTY CYCLE PLOTS



DUTY CYCLE 802.11n HT20 1Tx MCS0



DUTY CYCLE 802.11n HT20 1Tx MCS7



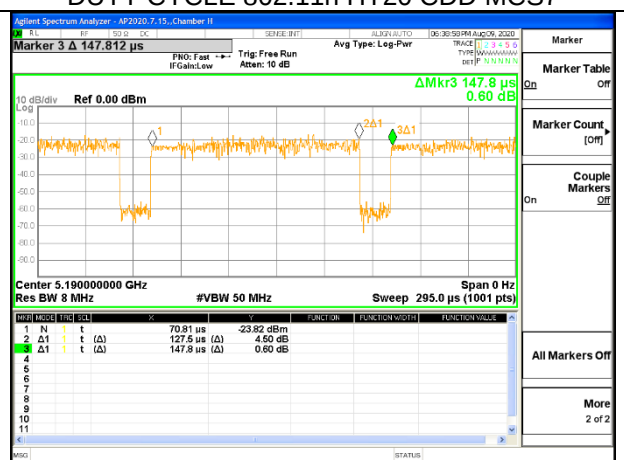
DUTY CYCLE 802.11n HT20 CDD MCS0



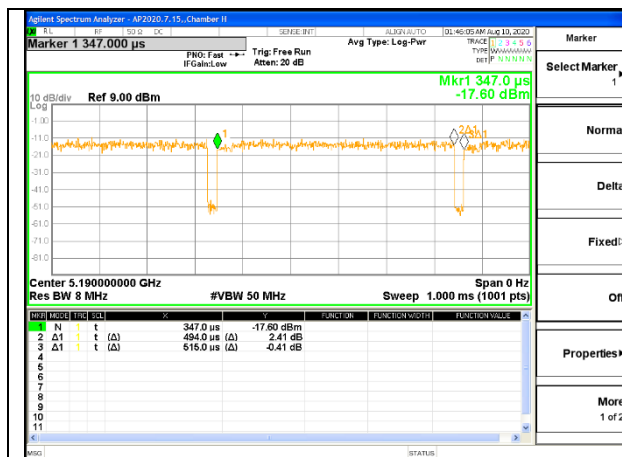
DUTY CYCLE 802.11n HT20 CDD MCS7



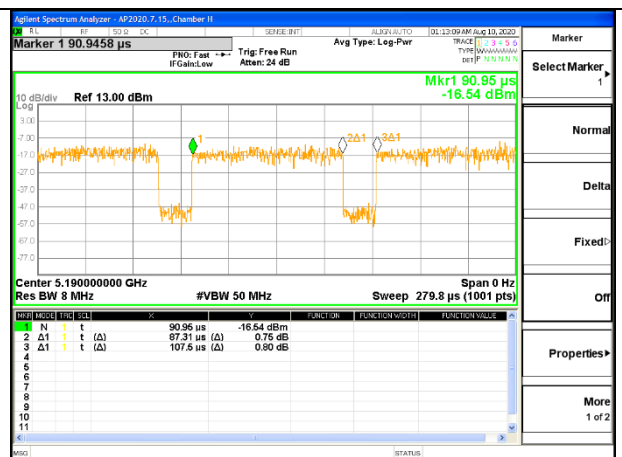
DUTY CYCLE 802.11n HT40 1Tx MCS0



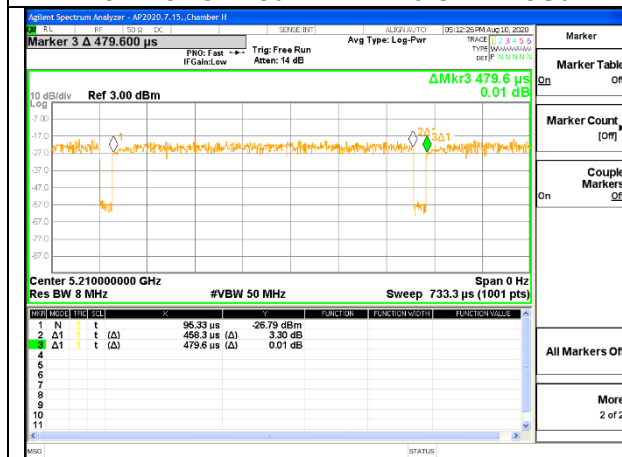
DUTY CYCLE 802.11n HT40 1Tx MCS7



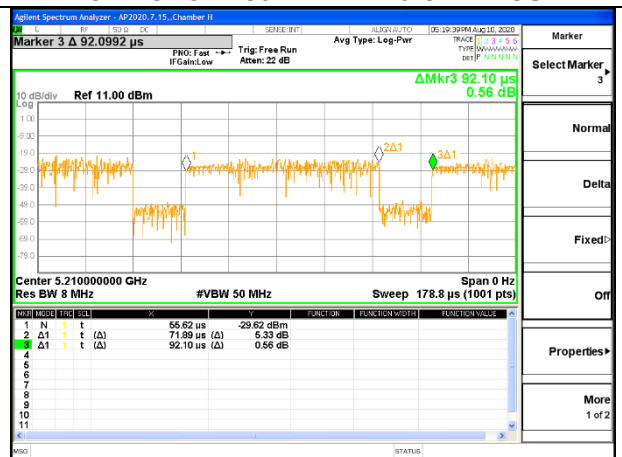
DUTY CYCLE 802.11n HT40 CDD MCS0



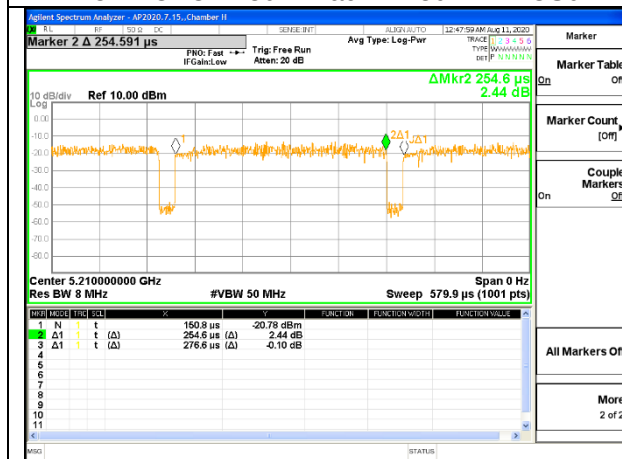
DUTY CYCLE 802.11n HT40 CDD MCS7



DUTY CYCLE 802.11ac VHT80 1Tx MCS0



DUTY CYCLE 802.11ac VHT80 1Tx MCS9



DUTY CYCLE 802.11ac VHT80 CDD MCS0



DUTY CYCLE 802.11ac VHT80 CDD MCS9



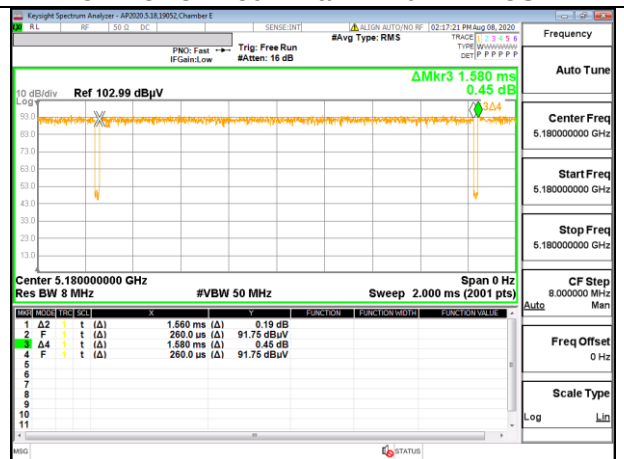
DUTY CYCLE 802.11ax HE20 1Tx MCS0



DUTY CYCLE 802.11ax HE20 1Tx MCS11



DUTY CYCLE 802.11ax HE20 OFDMA MCS0



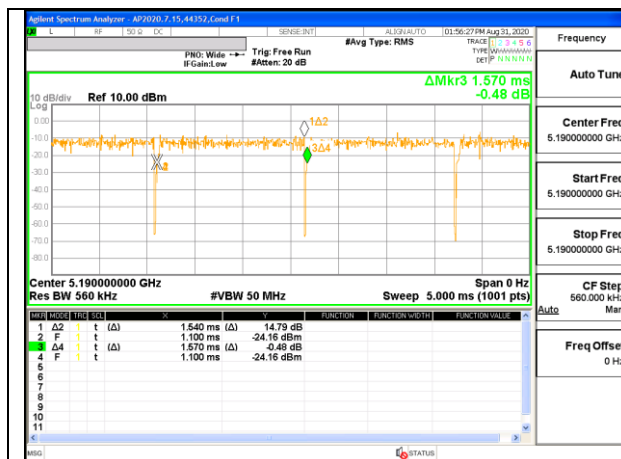
DUTY CYCLE 802.11ax HE20 OFDMA MCS11



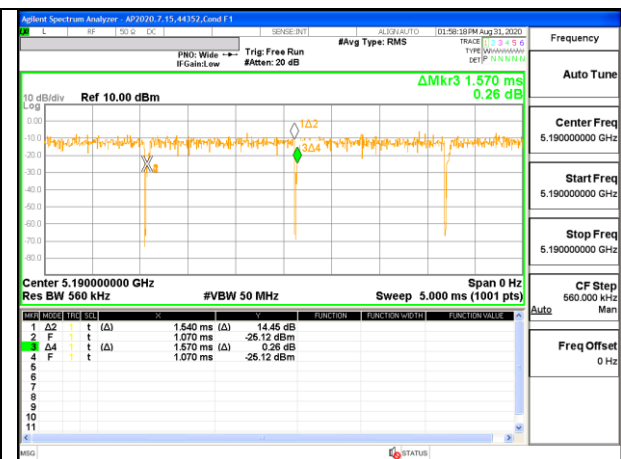
DUTY CYCLE 802.11ax HE40 1Tx MCS0



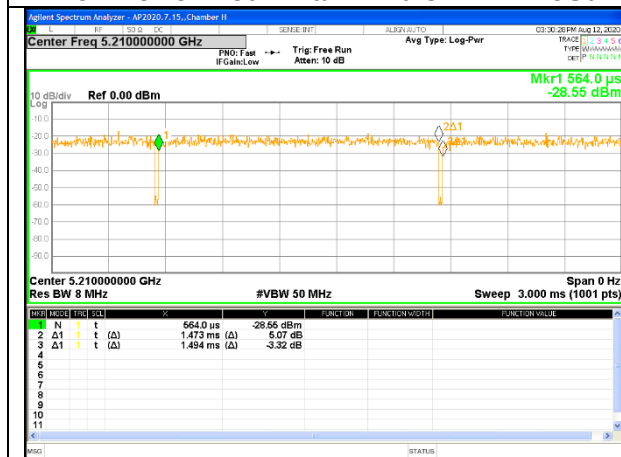
DUTY CYCLE 802.11ax HE40 1Tx MCS11



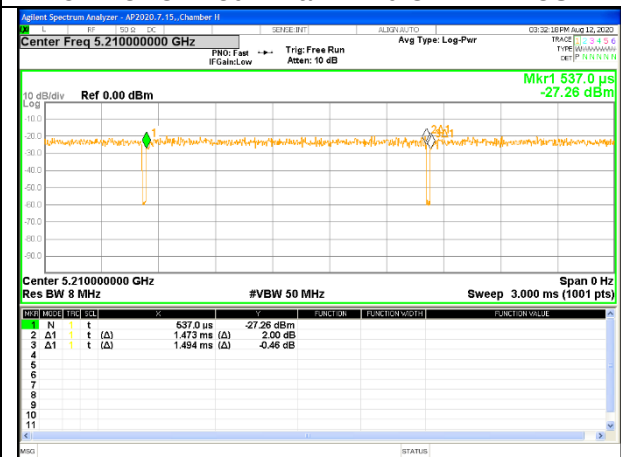
DUTY CYCLE 802.11ax HE40 OFDMA MCS0



DUTY CYCLE 802.11ax HE40 OFDMA MCS11



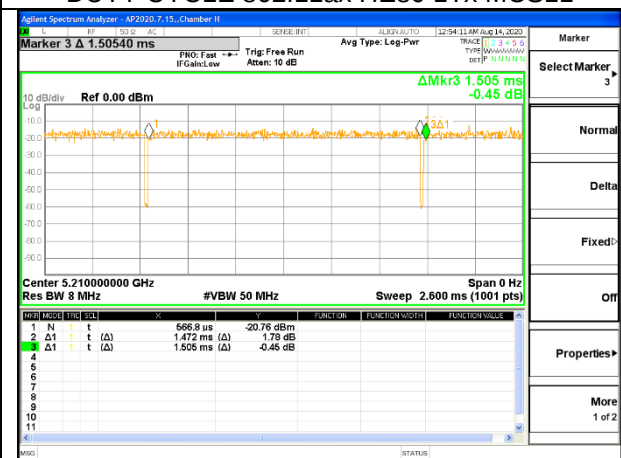
DUTY CYCLE 802.11ax HE80 1Tx MCS0



DUTY CYCLE 802.11ax HE80 1Tx MCS11



DUTY CYCLE 802.11ax HE80 OFDMA MCS0



DUTY CYCLE 802.11ax HE80 OFDMA MCS11

9.2. 26 dB AND 99% BANDWIDTH LIMITS

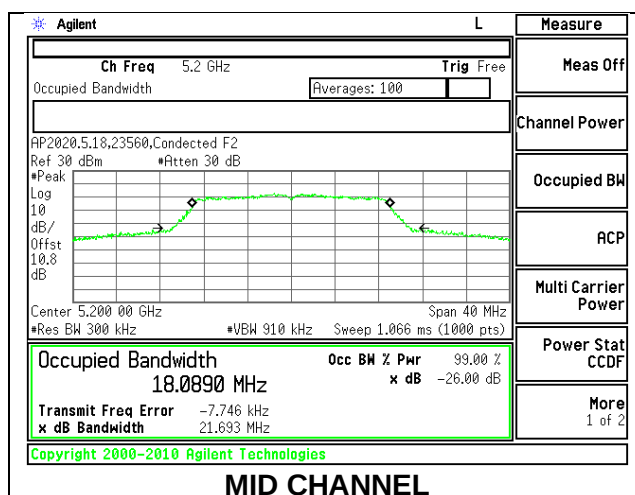
None; for reporting purposes only.

RESULTS

9.2.1. 802.11n HT20 MODE IN THE 5.2 GHz BAND

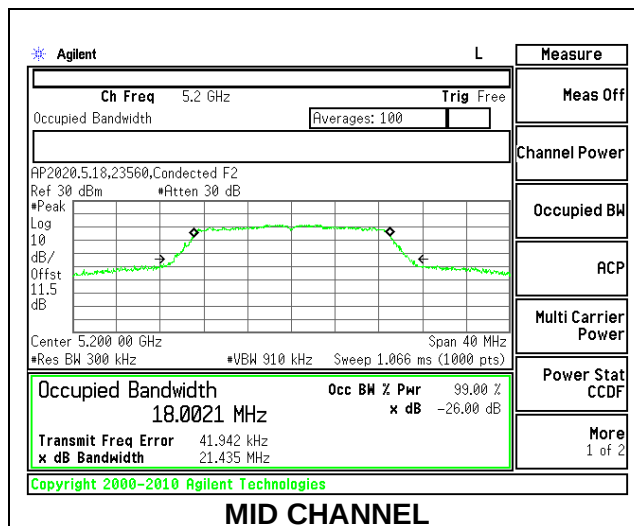
1TX ANT 6 MODE

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5180	21.363	17.9659
Mid	5200	21.693	18.0890
High	5240	21.359	18.0011



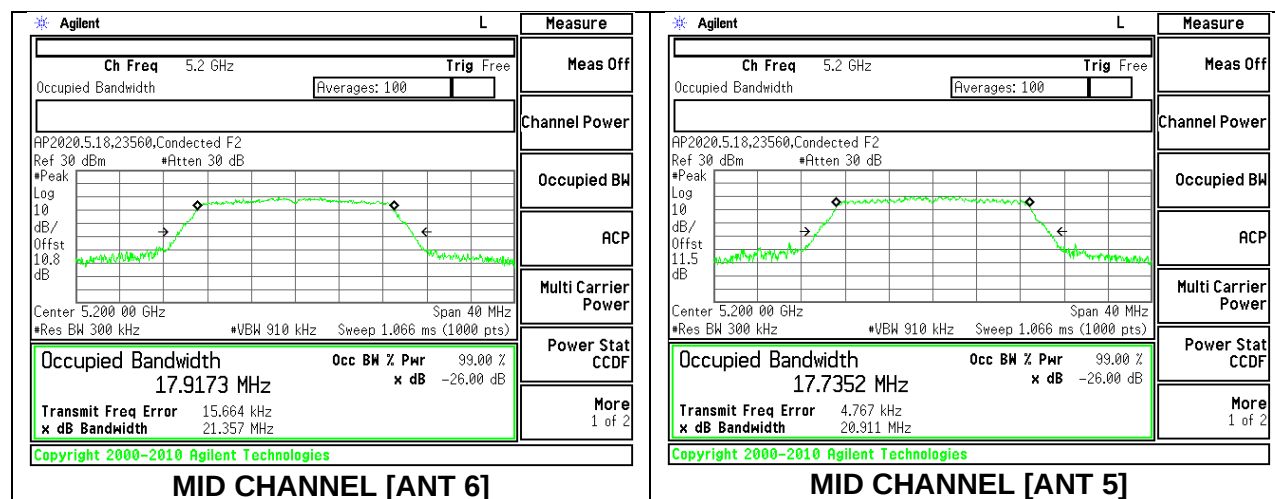
1TX ANT 5 MODE

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5180	21.262	17.9191
Mid	5200	21.435	18.0021
High	5240	21.517	17.9870



2TX ANT 6 + ANT 5 CDD MODE

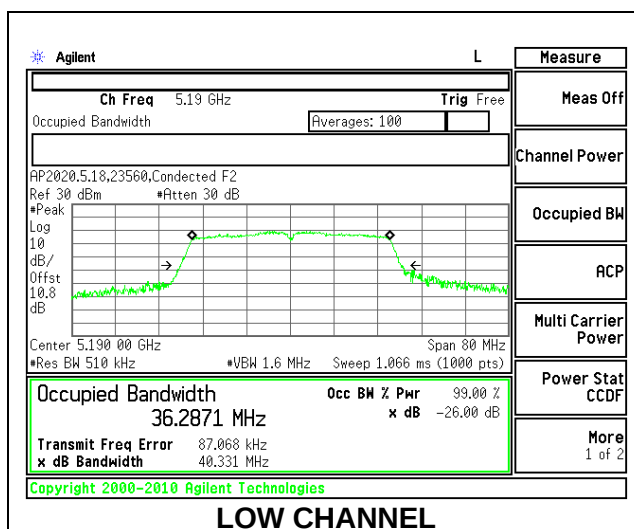
Channel	Frequency (MHz)	26dB Bandwidth ANT 6 (MHz)	26dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5180	21.277	21.014	17.8732	17.7670
Mid	5200	21.357	20.911	17.9173	17.7352
High	5240	21.253	20.980	17.9235	17.7482



9.2.2. 802.11n HT40 MODE IN THE 5.2 GHz BAND

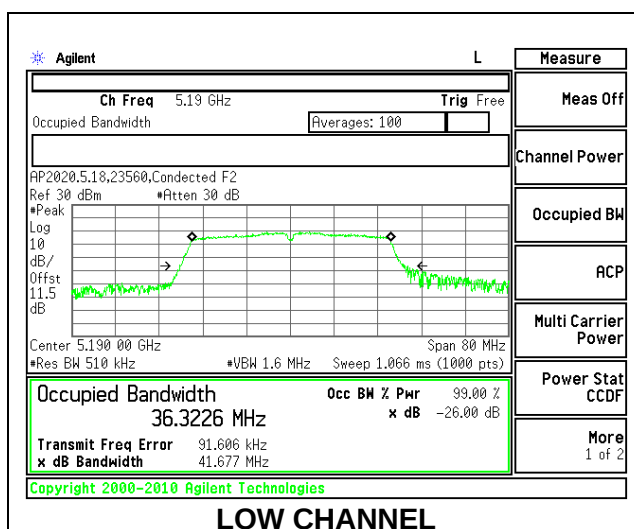
1TX ANT 6 MODE

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5190	40.331	36.2871
High	5230	41.289	36.5745



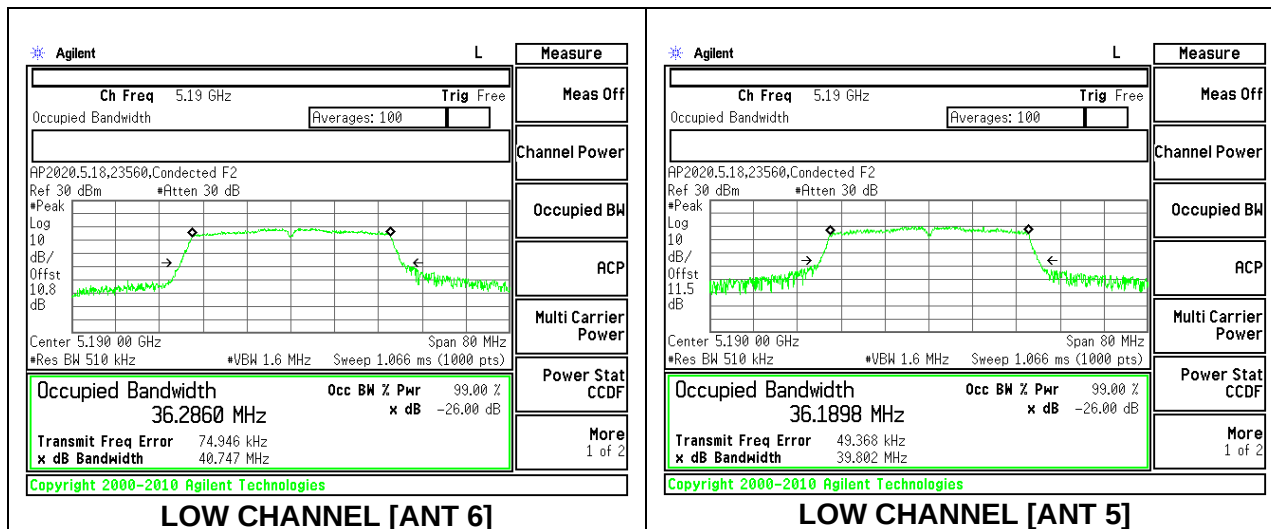
1TX ANT 5 MODE

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5190	41.677	36.3226
High	5230	41.303	36.5141



2TX ANT 6 + ANT 5 CDD MODE

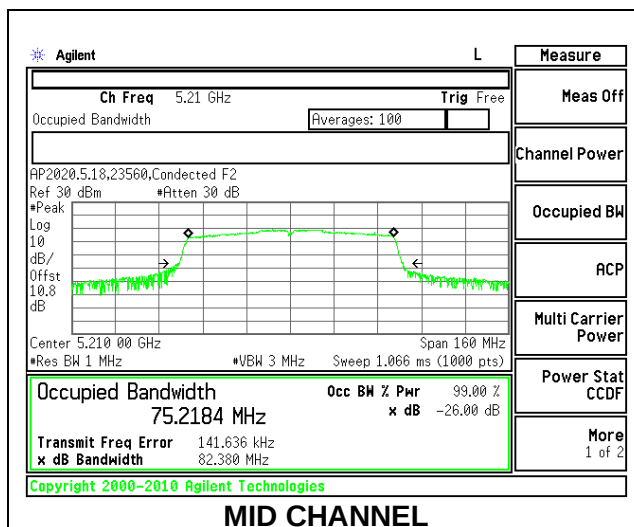
Channel	Frequency (MHz)	26dB Bandwidth ANT 6 (MHz)	26dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5190	40.747	39.802	36.2860	36.1898
High	5230	40.723	40.058	36.3966	36.2211



9.2.3. 802.11ac VHT80 MODE IN THE 5.2 GHz BAND

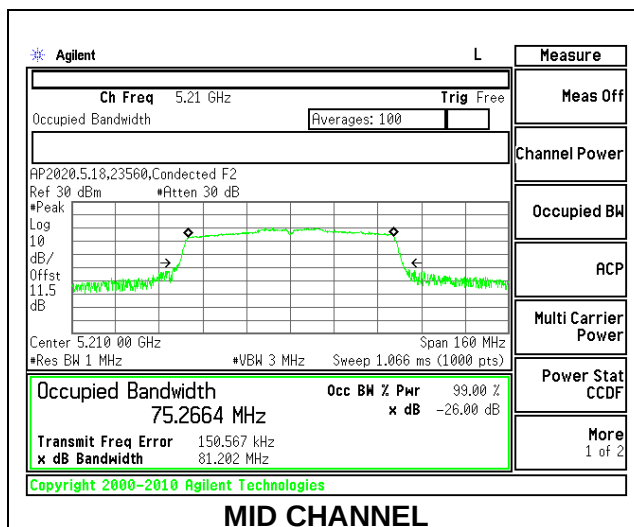
1TX ANT 6 MODE

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Mid	5210	82.380	75.2184



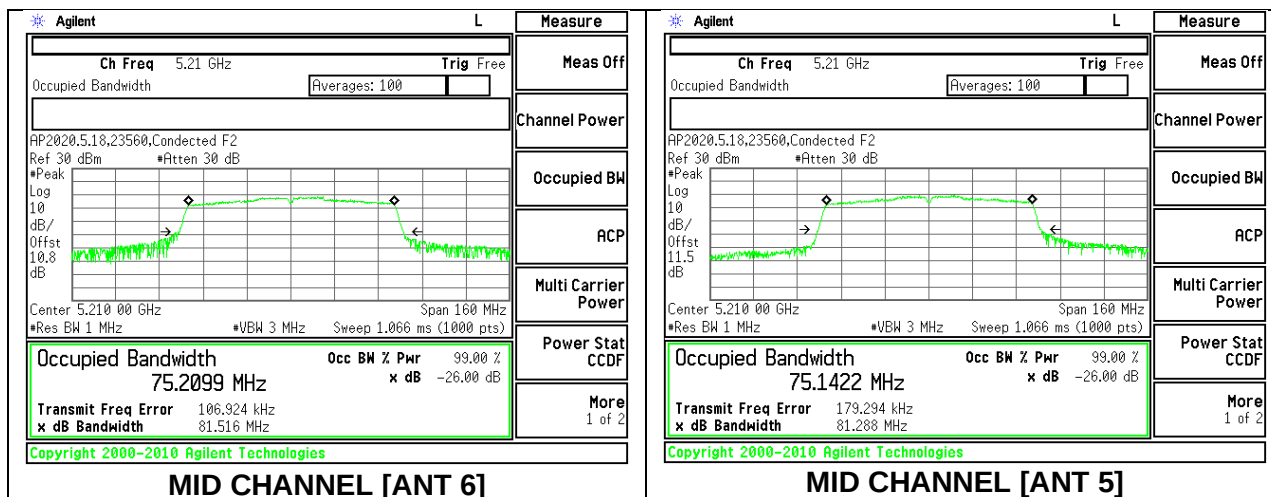
1TX ANT 5 MODE

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Mid	5210	81.202	75.2664



2TX ANT 6 + ANT 5 CDD MODE

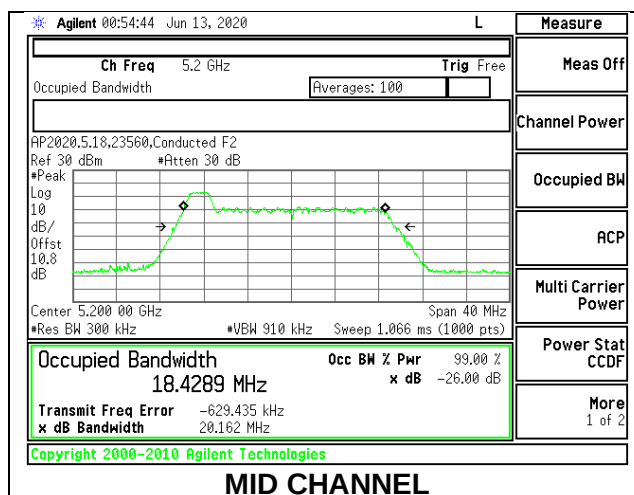
Channel	Frequency (MHz)	26dB Bandwidth ANT 6 (MHz)	26dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Mid	5210	85.516	81.288	75.2099	75.1422



9.2.4. 802.11ax HE20 MODE IN THE 5.2 GHz BAND

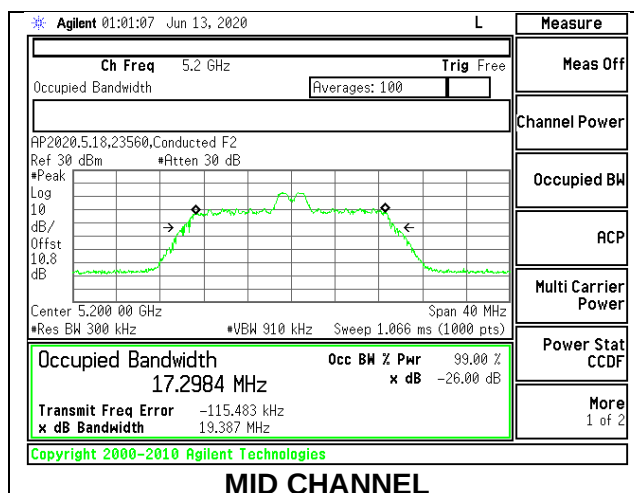
1TX ANT 6 MODE: 26 Tones, RU Index 0

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5180	20.206	18.4412
Mid	5200	20.162	18.4289
High	5240	20.010	18.3827



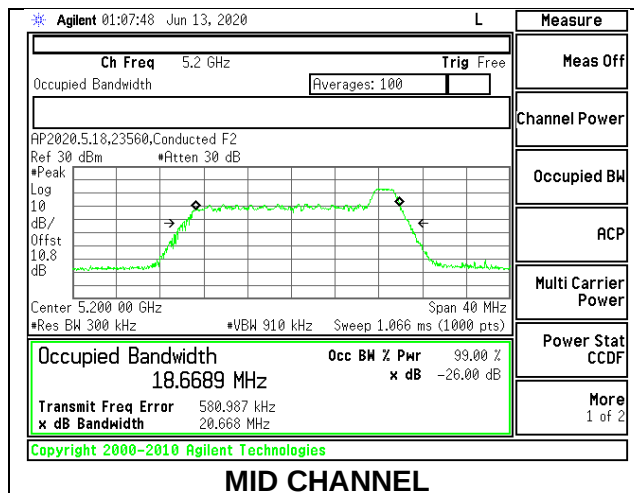
1TX ANT 6 MODE: 26 Tones, RU Index 4

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5180	19.341	17.3068
Mid	5200	19.387	17.2984
High	5240	19.468	17.3288



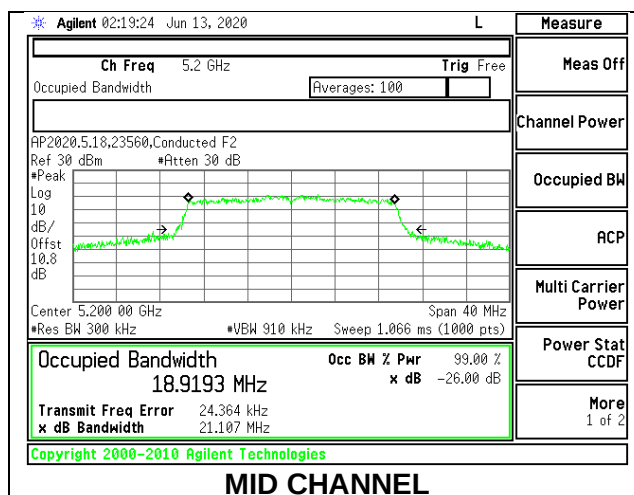
1TX ANT 6 MODE: 26 Tones, RU Index 8

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5180	20.603	18.5843
Mid	5200	20.668	18.6689
High	5240	20.645	18.7852



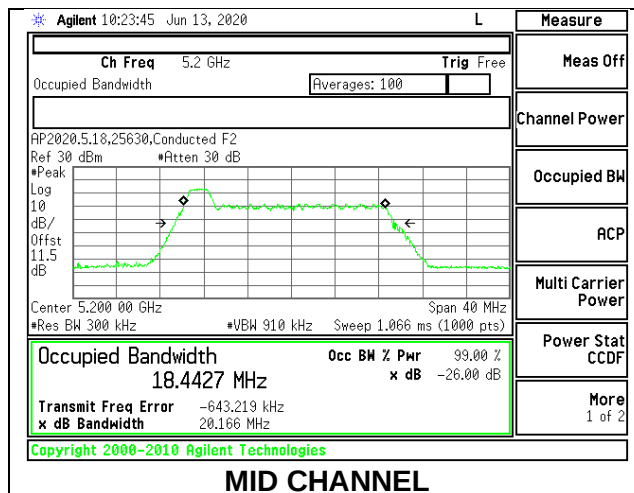
1TX ANT 6 MODE: 242 Tones, RU Index 61

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5180	21.677	18.9661
Mid	5200	21.107	18.9193
High	5240	21.186	18.9952



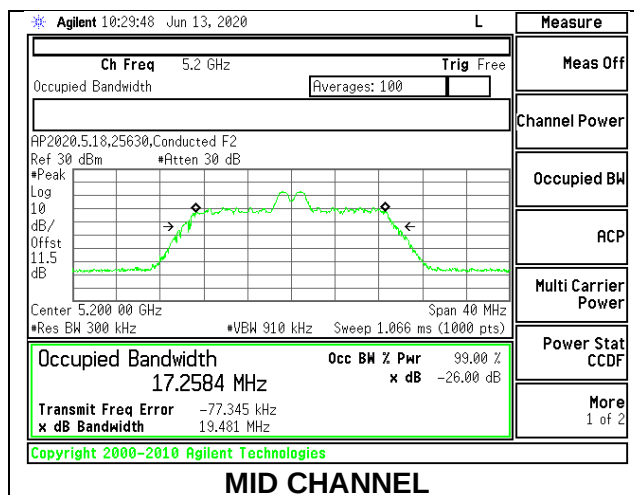
1TX ANT 5 MODE: 26 Tones, RU Index 0

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5180	20.198	18.4505
Mid	5200	20.166	18.4427
High	5240	20.168	18.3988



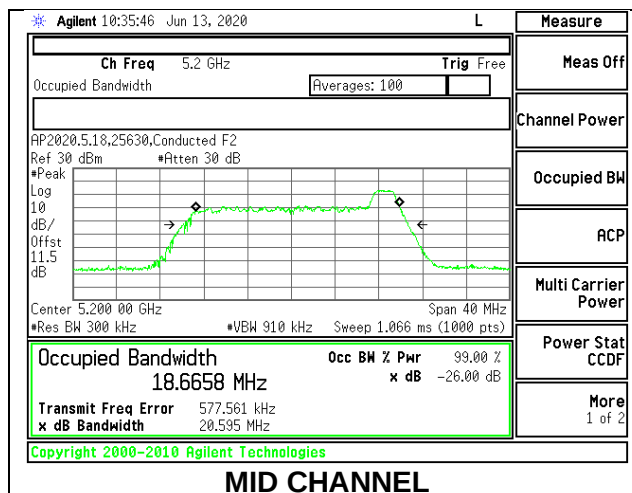
1TX ANT 5 MODE: 26 Tones, RU Index 4

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5180	19.445	17.2999
Mid	5200	19.481	17.2584
High	5240	19.399	17.3092



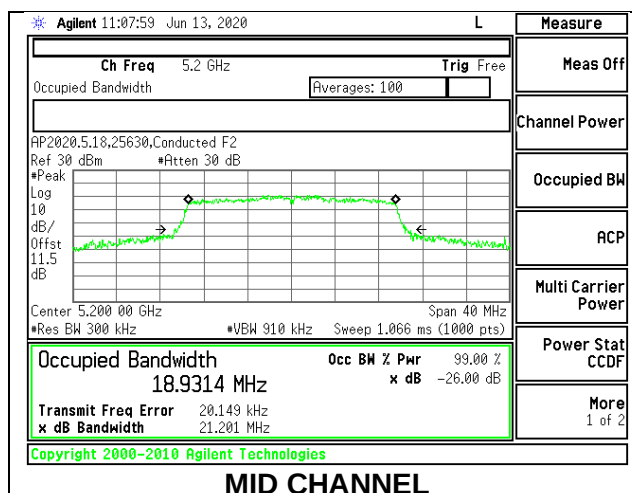
1TX ANT 5 MODE: 26 Tones, RU Index 8

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5180	20.718	18.5713
Mid	5200	20.595	18.6658
High	5240	20.726	18.6780



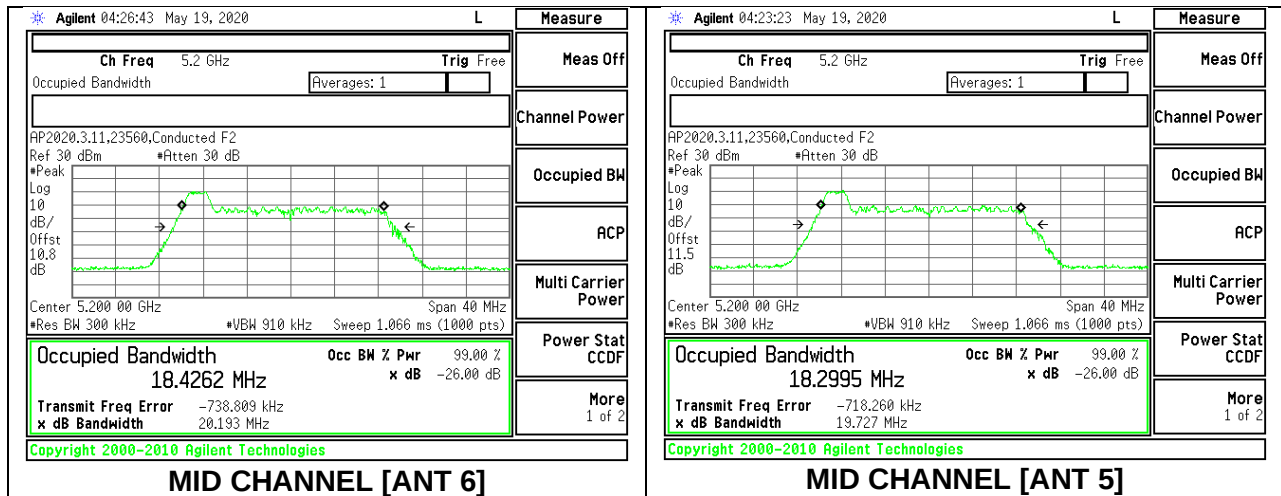
1TX ANT 5 MODE: 242 Tones, RU Index 61

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5180	21.244	18.9622
Mid	5200	21.201	18.9314
High	5240	22.625	18.9515



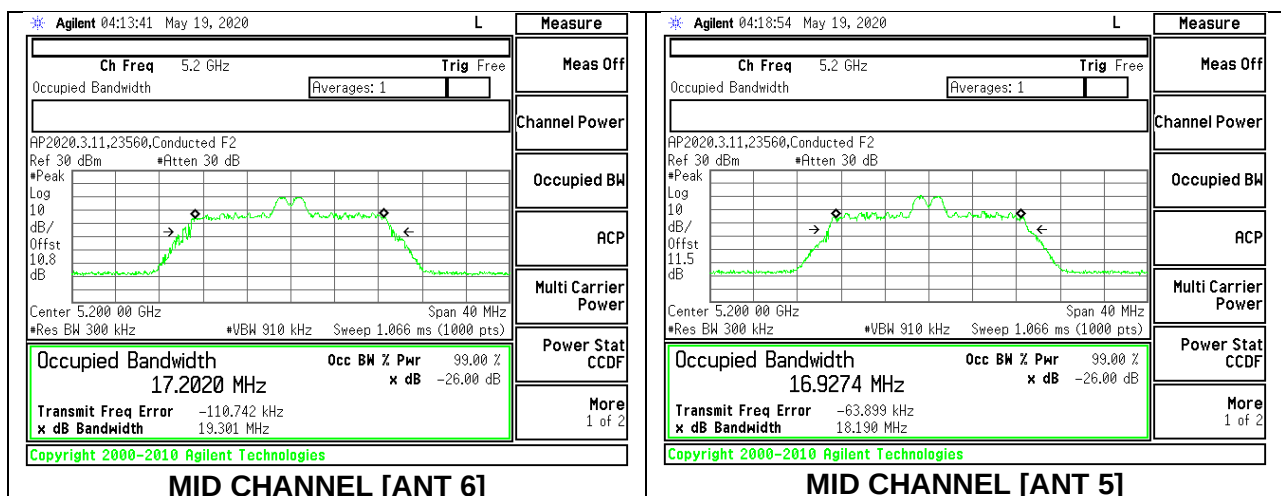
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 0

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5180	20.212	19.897	18.4375	18.3672
Mid	5200	20.193	19.727	18.4262	18.2995
High	5240	20.131	19.753	18.4013	18.3014



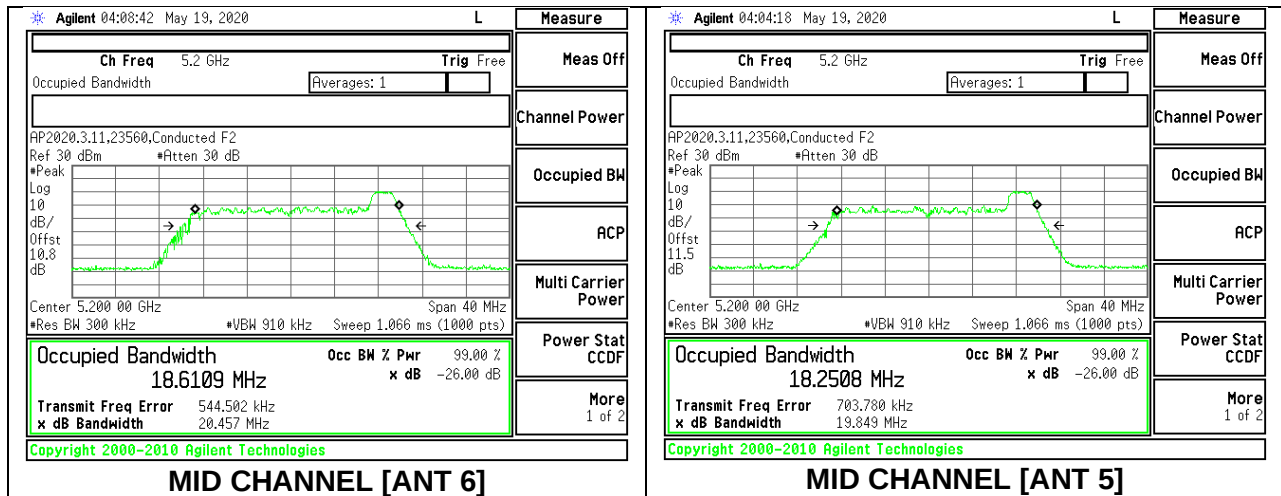
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 4

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5180	19.298	18.132	17.2087	16.8571
Mid	5200	19.301	18.190	17.2020	16.9274
High	5240	19.341	18.263	17.2597	16.9525



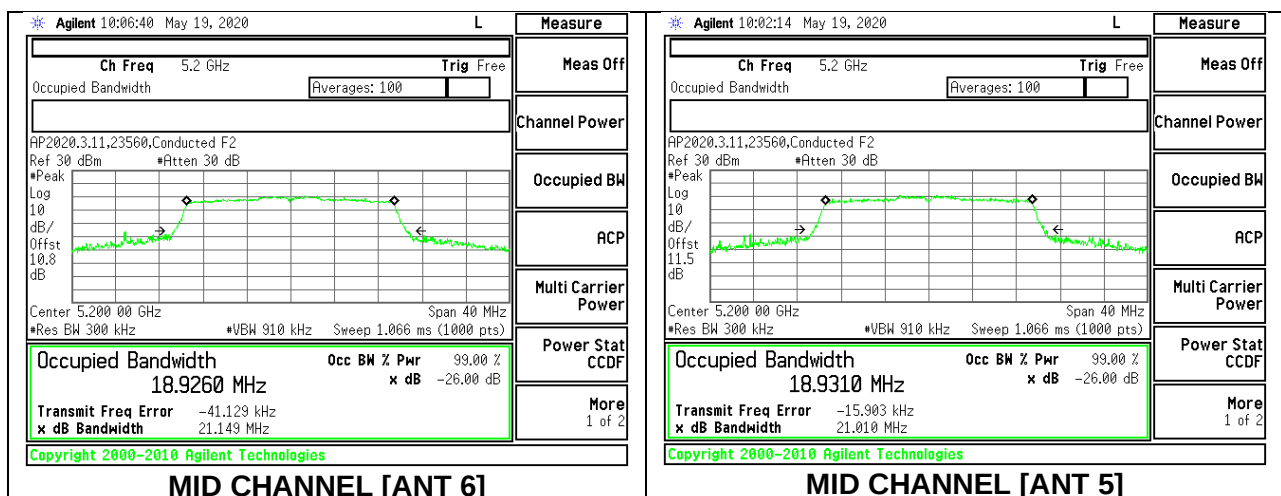
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 8

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5180	20.626	19.831	18.7072	18.3935
Mid	5200	20.457	19.849	18.6109	18.2508
High	5240	20.580	19.770	18.6426	18.4090



2TX ANT 6 + ANT 5 OFDMA MODE: 242 Tones, RU Index 61

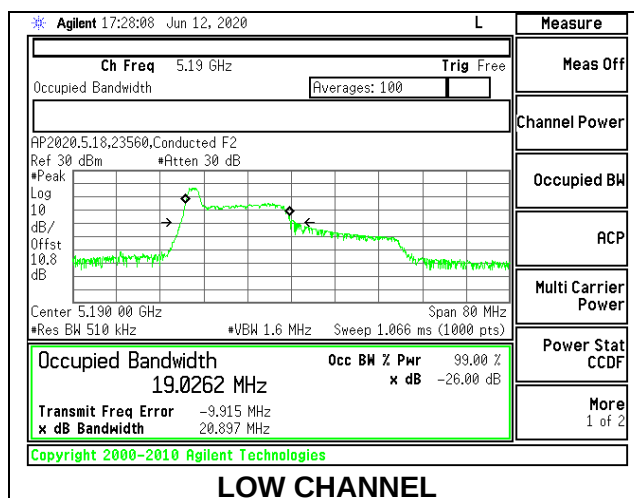
Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5180	21.268	20.966	18.9110	18.9505
Mid	5200	21.149	21.010	18.9260	18.9310
High	5240	21.385	20.901	18.9280	18.9141



9.2.5. 802.11ax HE40 MODE IN THE 5.2 GHz BAND

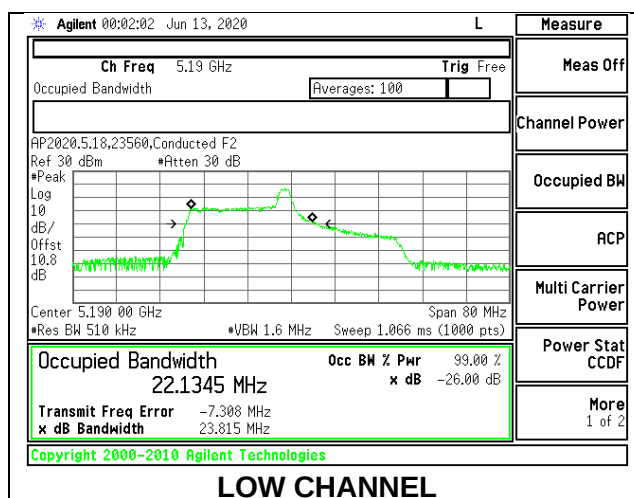
1TX ANT 6 MODE: 26 Tones, RU Index 0

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5190	20.897	19.0262
High	5230	20.591	18.7954



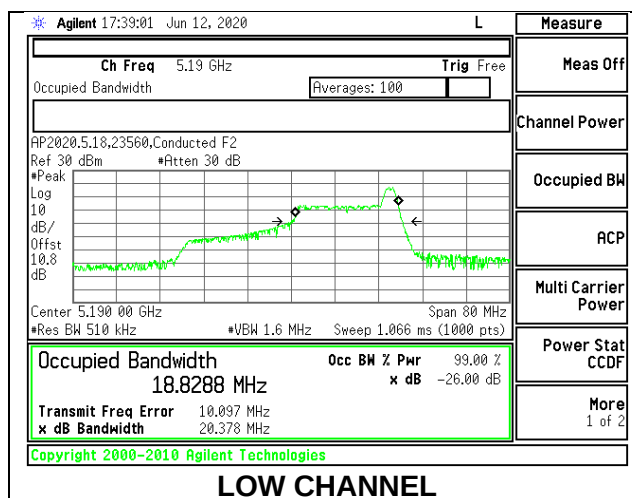
1TX ANT 6 MODE: 26 Tones, RU Index 8

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5190	23.815	22.1345
High	5230	23.730	21.9375



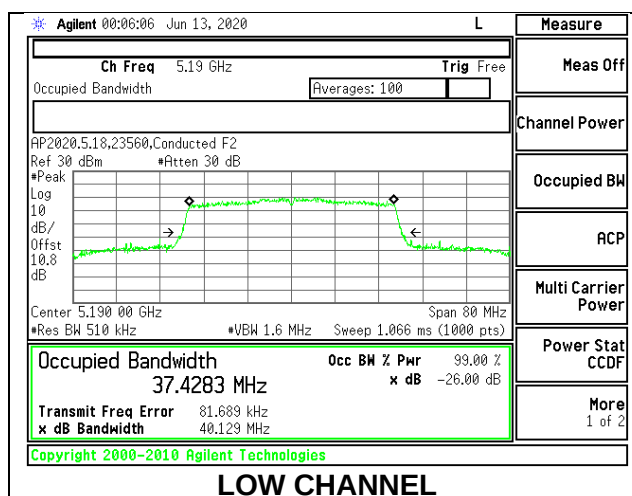
1TX ANT 6 MODE: 26 Tones, RU Index 17

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5190	20.378	18.8288
High	5230	20.507	18.9059



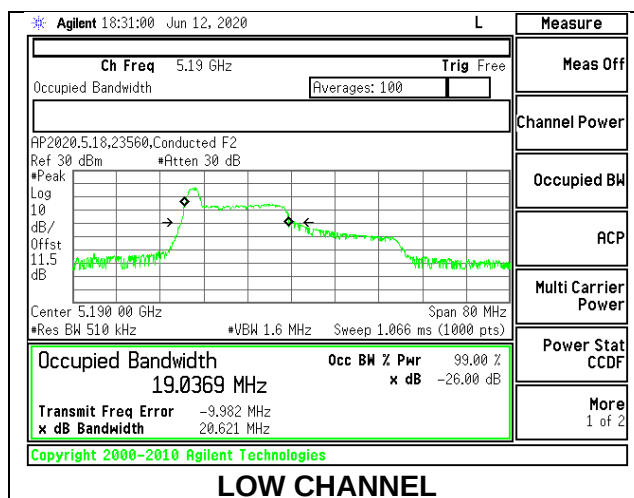
1TX ANT 6 MODE: 484 Tones, RU Index 65

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5190	40.129	37.4283
High	5230	40.273	37.4856



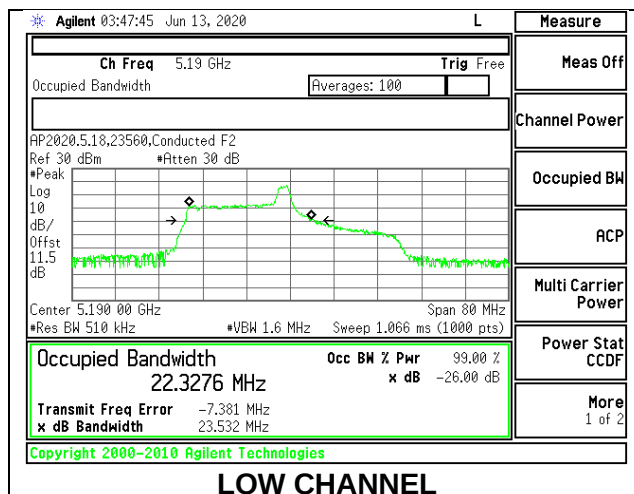
1TX ANT 5 MODE: 26 Tones, RU Index 0

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5190	20.621	19.0369
High	5230	21.036	18.9463



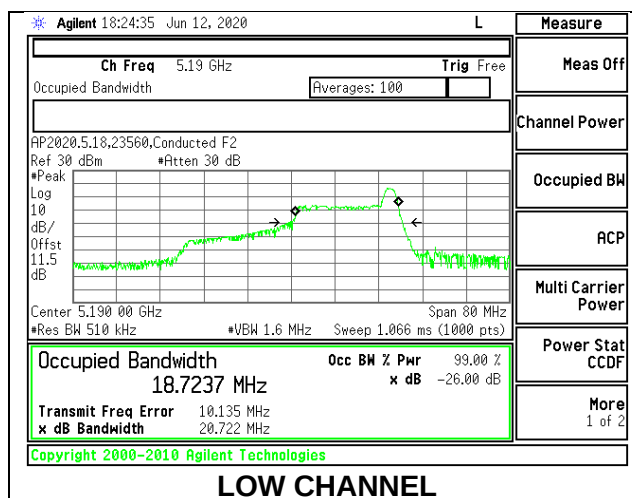
1TX ANT 5 MODE: 26 Tones, RU Index 8

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5190	23.532	22.3276
High	5230	23.495	21.7845



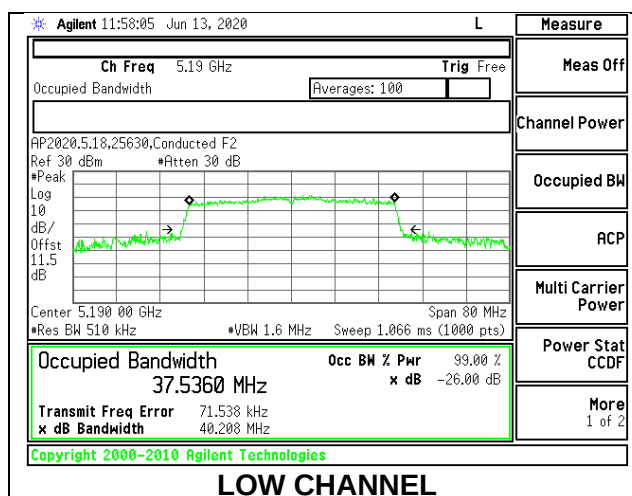
1TX ANT 5 MODE: 26 Tones, RU Index 17

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5190	20.722	18.7237
High	5230	20.971	19.2039



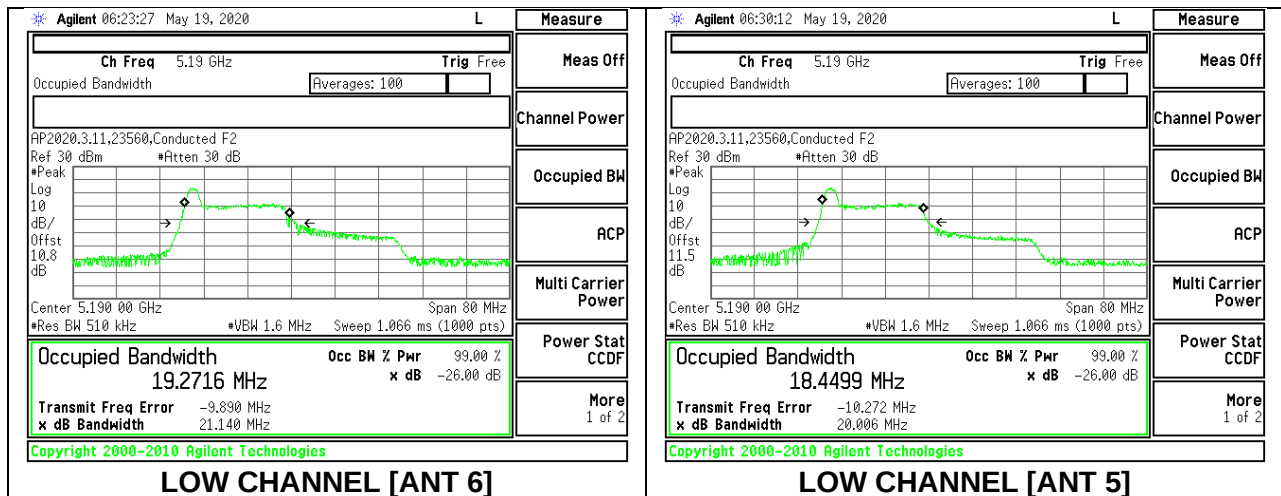
1TX ANT 5 MODE: 484 Tones, RU Index 65

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5190	40.208	37.5360
High	5230	40.299	37.6030



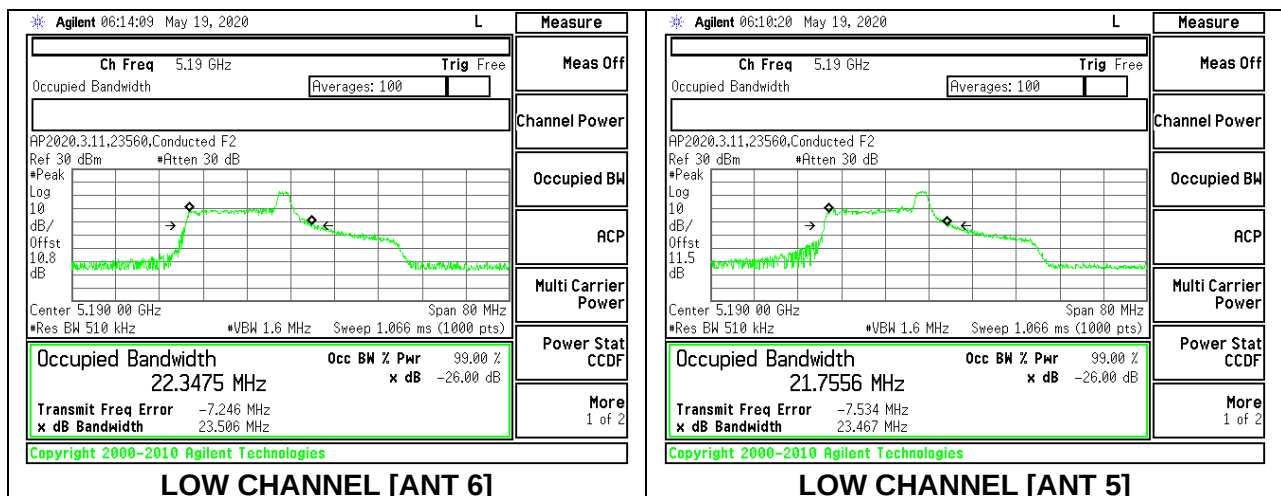
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 0

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5190	21.140	20.006	19.2716	18.4499
High	5230	20.556	19.762	18.8959	18.3233



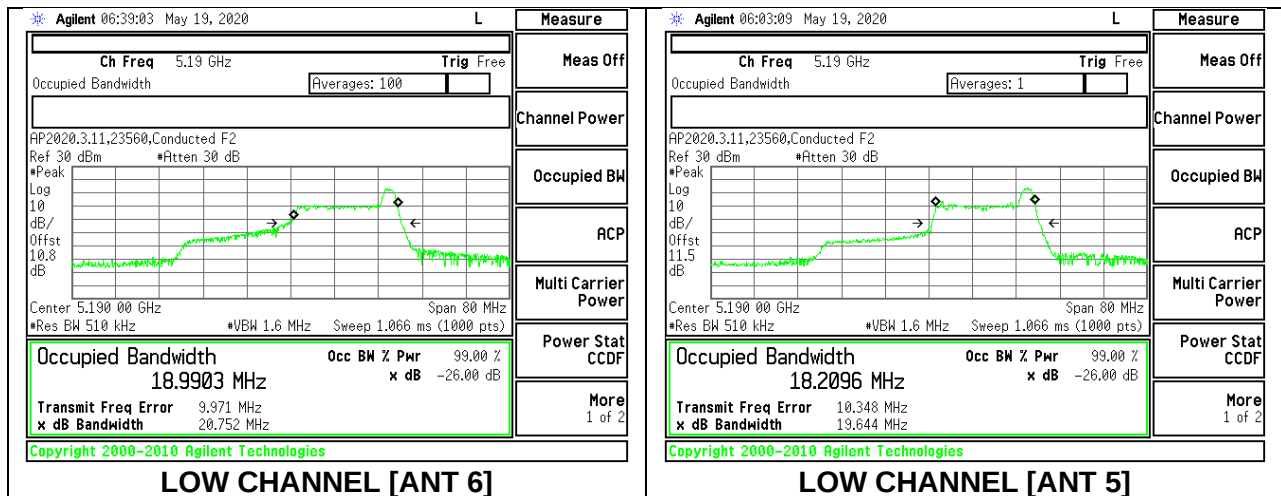
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 8

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5190	23.506	23.467	22.3475	21.7556
High	5230	23.795	23.656	21.9207	21.6589



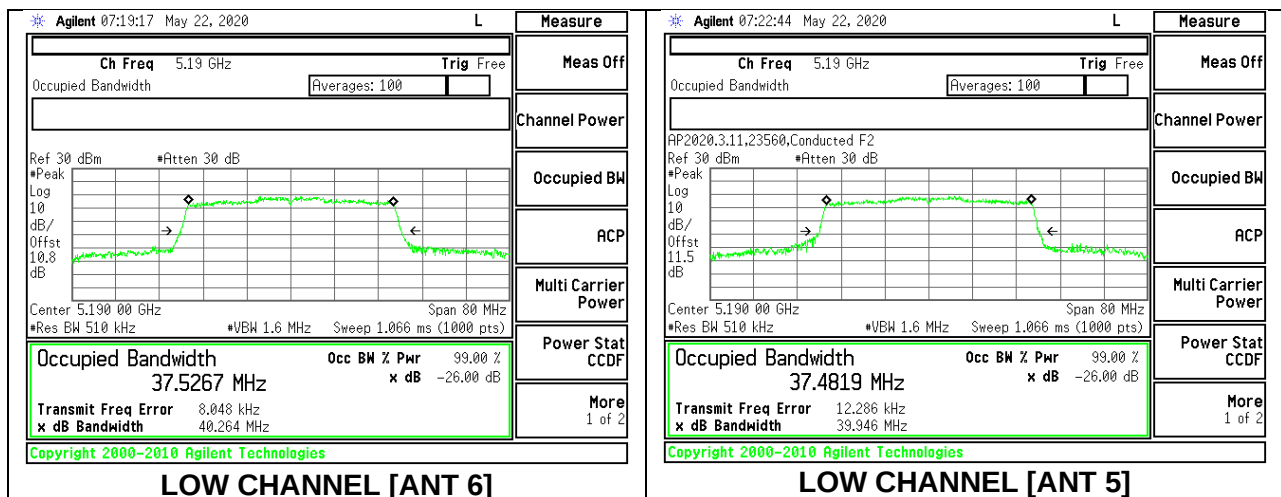
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 17

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5190	20.752	19.644	18.9903	18.2096
High	5230	21.157	19.630	18.9691	18.2653



2TX ANT 6 + ANT 5 OFDMA MODE: 484 Tones, RU Index 65

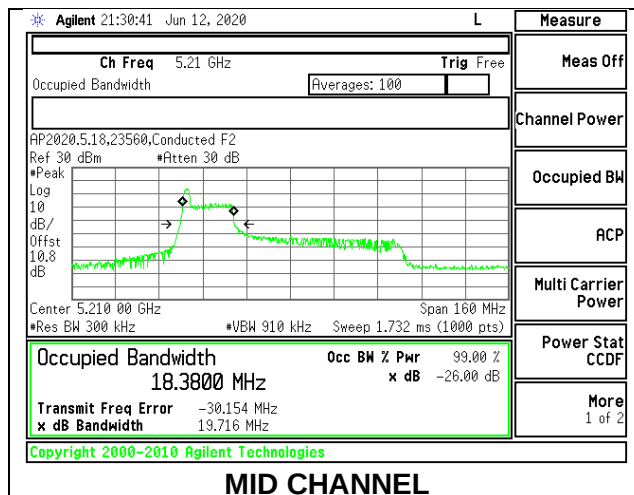
Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5190	40.264	39.946	37.5267	37.4819
High	5230	40.601	40.126	37.6866	37.5662



9.2.6. 802.11ax HE80 MODE IN THE 5.2 GHZ BAND

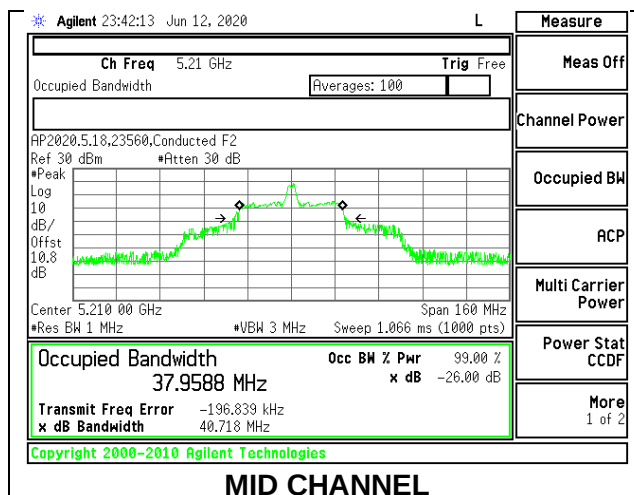
1TX ANT 6 MODE: 26 Tones, RU Index 0

Channel	Frequency	26 dB Bandwidth	99% Bandwidth
	(MHz)	(MHz)	(MHz)
Mid	5210	19.716	18.3800



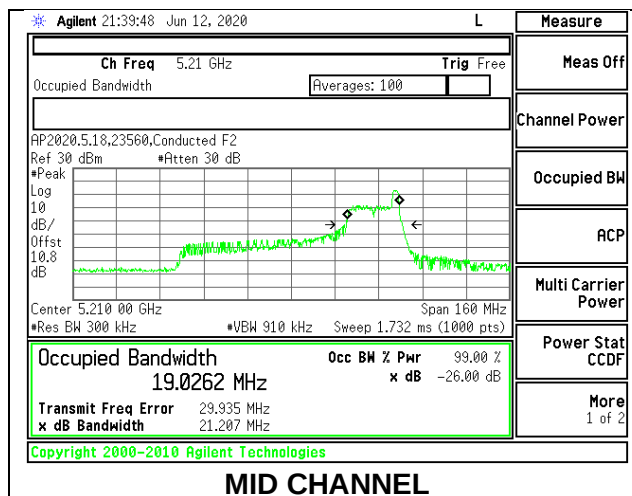
1TX ANT 6 MODE: 26 Tones, RU Index 18

Channel	Frequency	26 dB Bandwidth	99% Bandwidth
	(MHz)	(MHz)	(MHz)
Mid	5210	40.718	37.9588



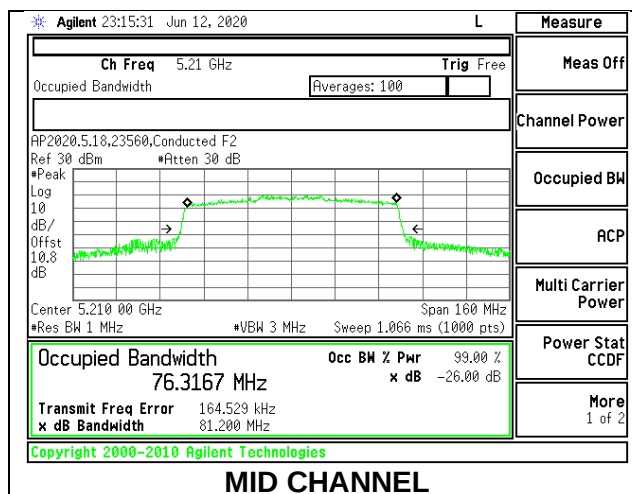
1TX ANT 6 MODE: 26 Tones, RU Index 36

Channel	Frequency	26 dB Bandwidth	99% Bandwidth
	(MHz)	(MHz)	(MHz)
Mid	5210	21.207	19.0262



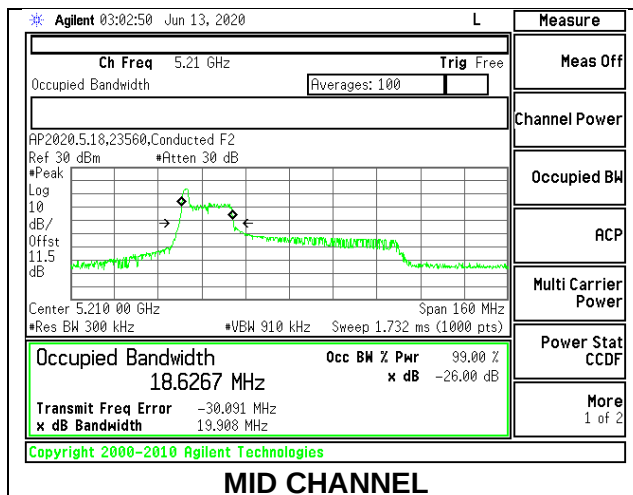
1TX ANT 6 MODE: 996 Tones, RU Index 67

Channel	Frequency	26 dB Bandwidth	99% Bandwidth
	(MHz)	(MHz)	(MHz)
Mid	5210	81.200	76.3167



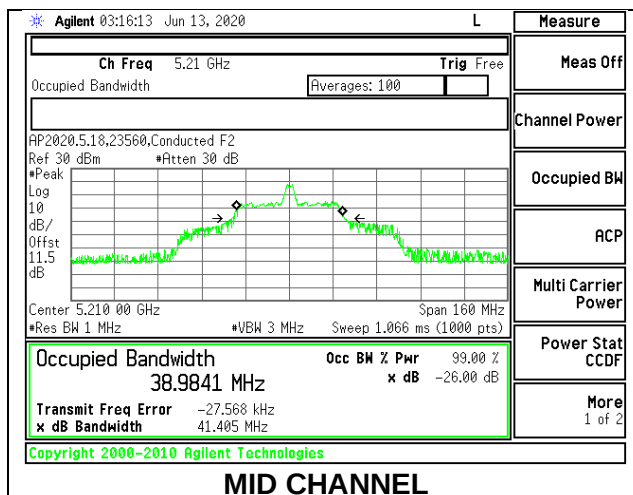
1TX ANT 5 MODE: 26 Tones, RU Index 0

Channel	Frequency	26 dB Bandwidth	99% Bandwidth
	(MHz)	(MHz)	(MHz)
Mid	5210	19.908	18.627



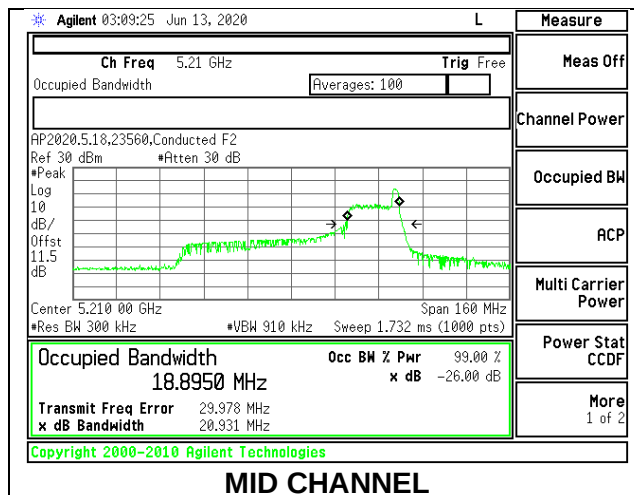
1TX ANT 5 MODE: 26 Tones, RU Index 18

Channel	Frequency	26 dB Bandwidth	99% Bandwidth
	(MHz)	(MHz)	(MHz)
Mid	5210	41.405	38.984



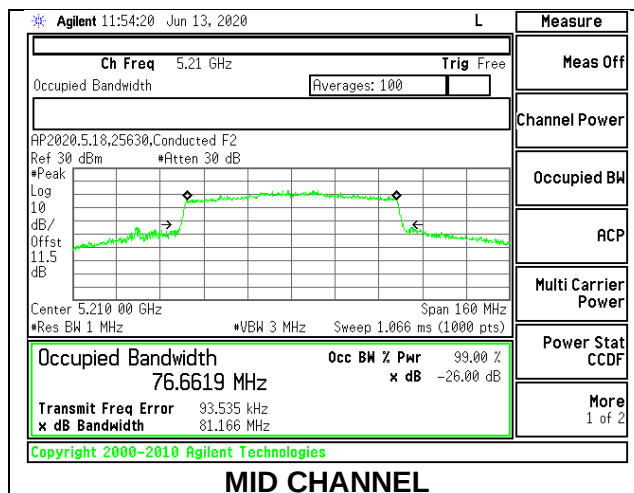
1TX ANT 5 MODE: 26 Tones, RU Index 36

Channel	Frequency	26 dB Bandwidth	99% Bandwidth
	(MHz)	(MHz)	(MHz)
Mid	5210	20.931	18.8950



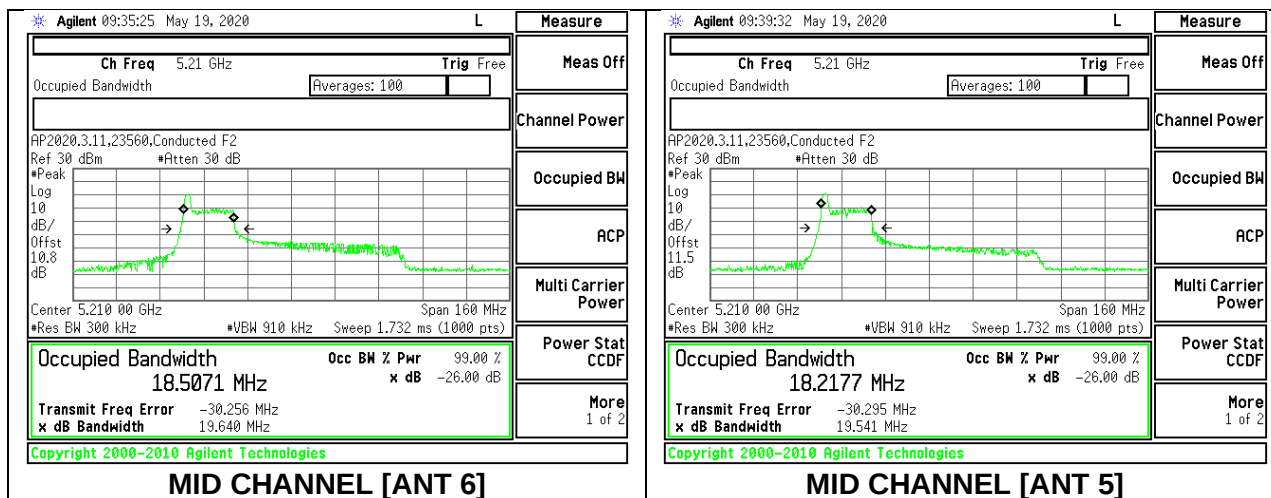
1TX ANT 5 MODE: 996 Tones, RU Index 67

Channel	Frequency	26 dB Bandwidth	99% Bandwidth
	(MHz)	(MHz)	(MHz)
Mid	5210	81.166	76.6619



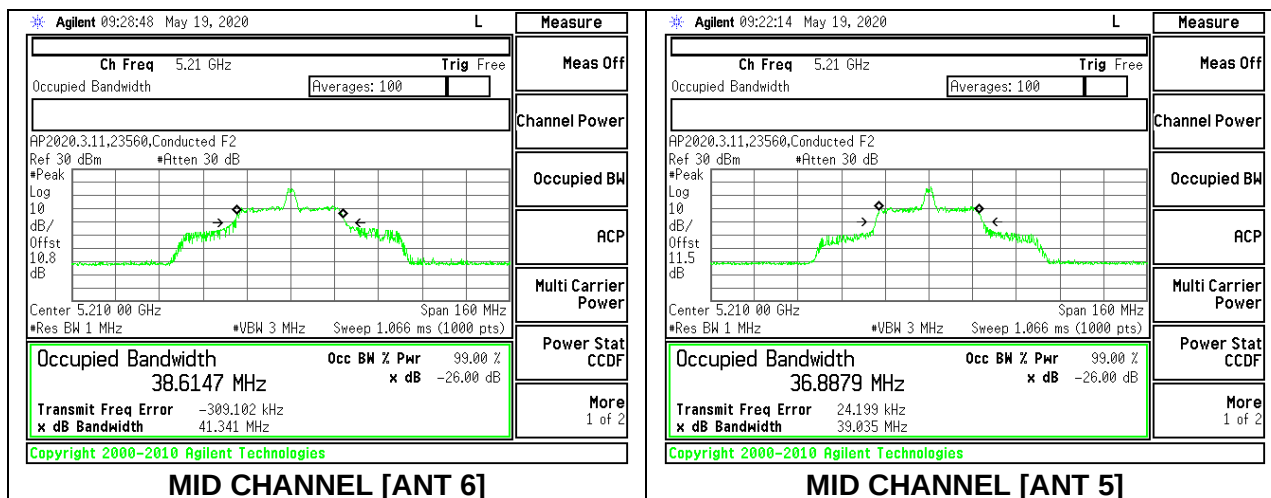
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 0

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Mid	5210	19.640	19.541	18.507	18.218



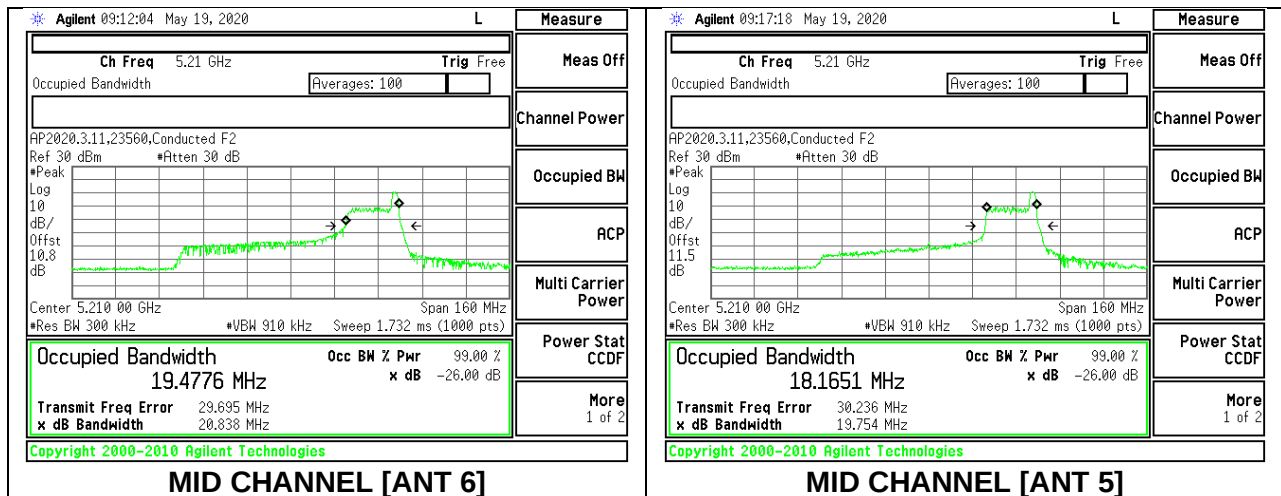
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 18

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Mid	5210	41.341	39.035	38.615	36.888



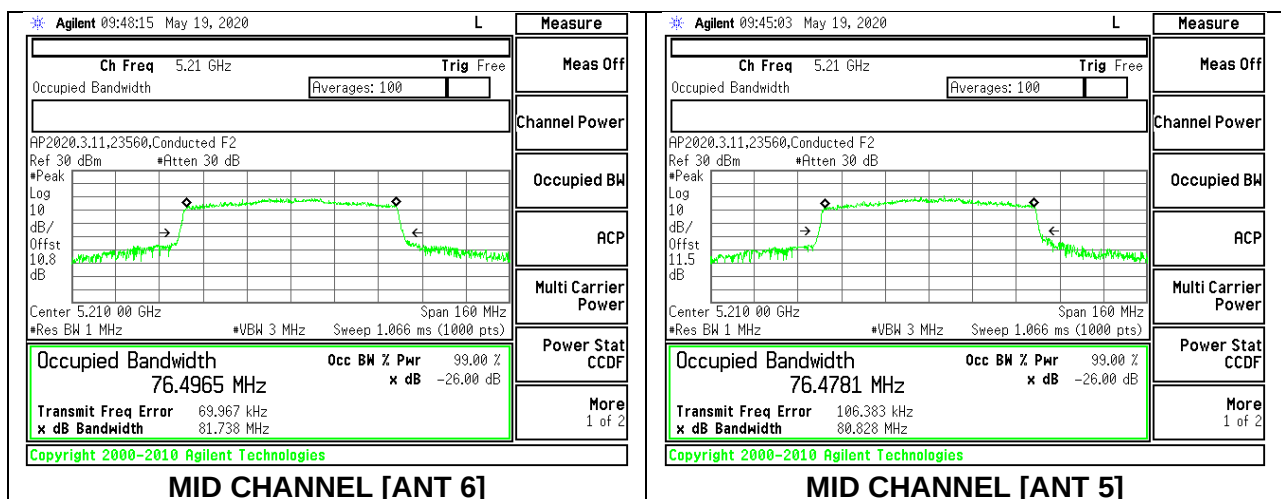
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 36

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Mid	5210	20.838	19.754	19.478	18.165



2TX ANT 6 + ANT 5 OFDMA MODE: 996 Tones, RU Index 67

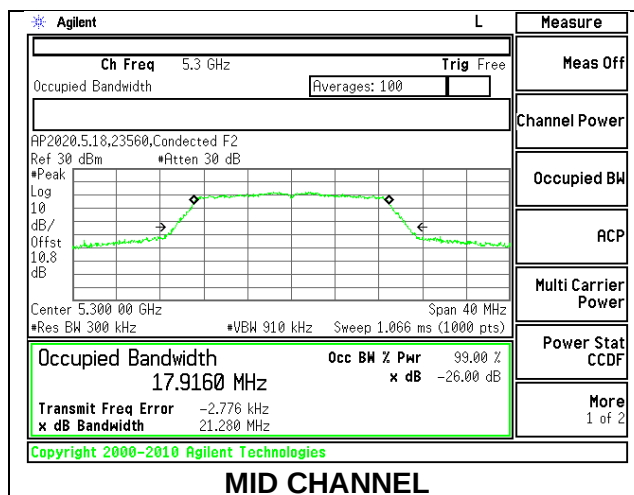
Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Mid	5210	81.738	80.828	76.4965	76.4781



9.2.7. 802.11n HT20 MODE IN THE 5.3 GHz BAND

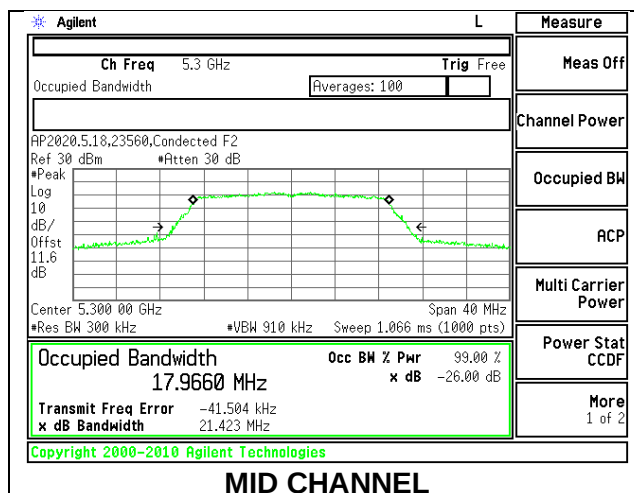
1TX ANT 6 MODE

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5260	21.353	17.9311
Mid	5300	21.280	17.9160
High	5320	21.187	17.9125



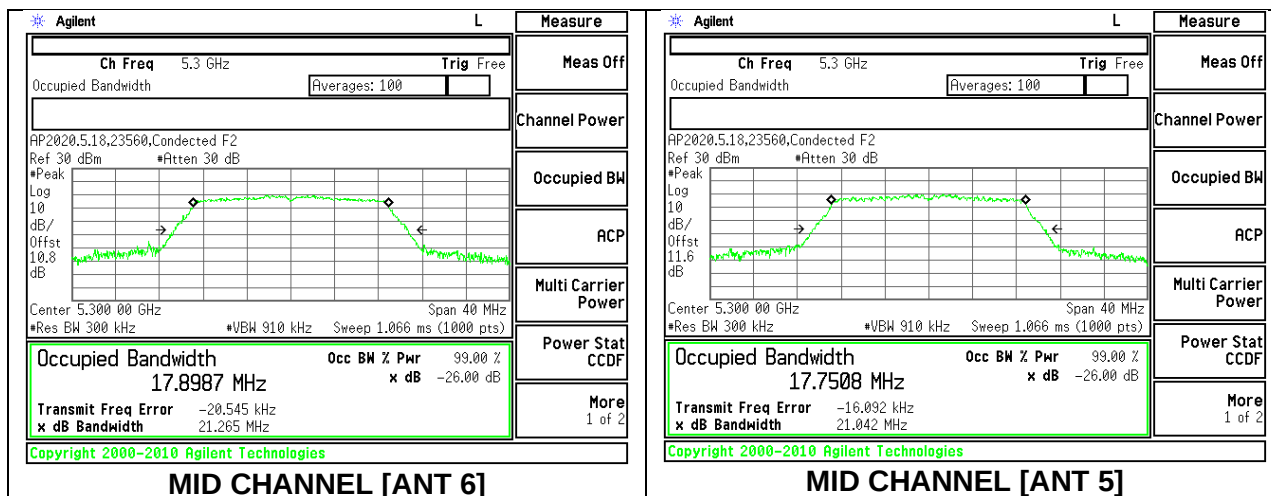
1TX ANT 5 MODE

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5260	21.251	17.9468
Mid	5300	21.423	17.9660
High	5320	21.226	17.9401



2TX ANT 6 + ANT 5 CDD MODE

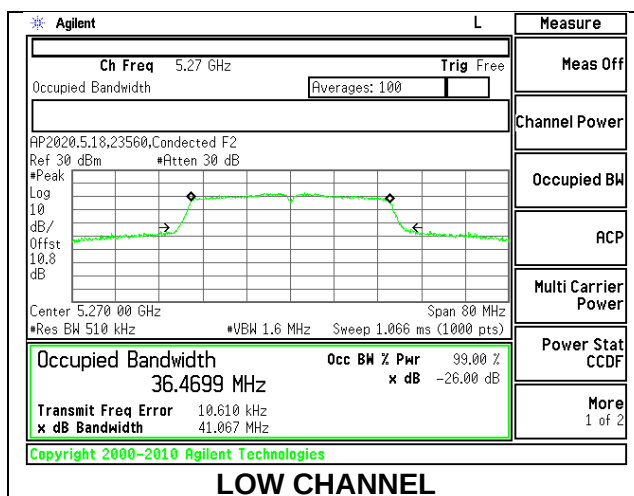
Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5260	21.207	21.084	17.9155	17.7384
Mid	5300	21.265	21.042	17.8987	17.7508
High	5320	21.217	21.250	17.8958	17.7570



9.2.8. 802.11n HT40 MODE IN THE 5.3 GHz BAND

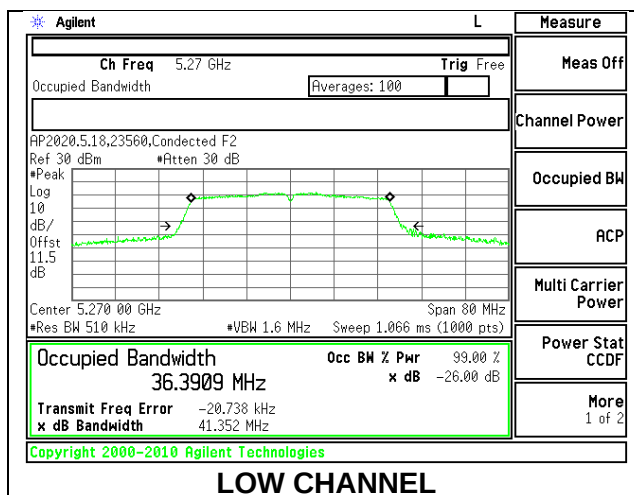
1TX ANT 6 MODE

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5270	41.067	36.4699
High	5310	41.150	36.3237



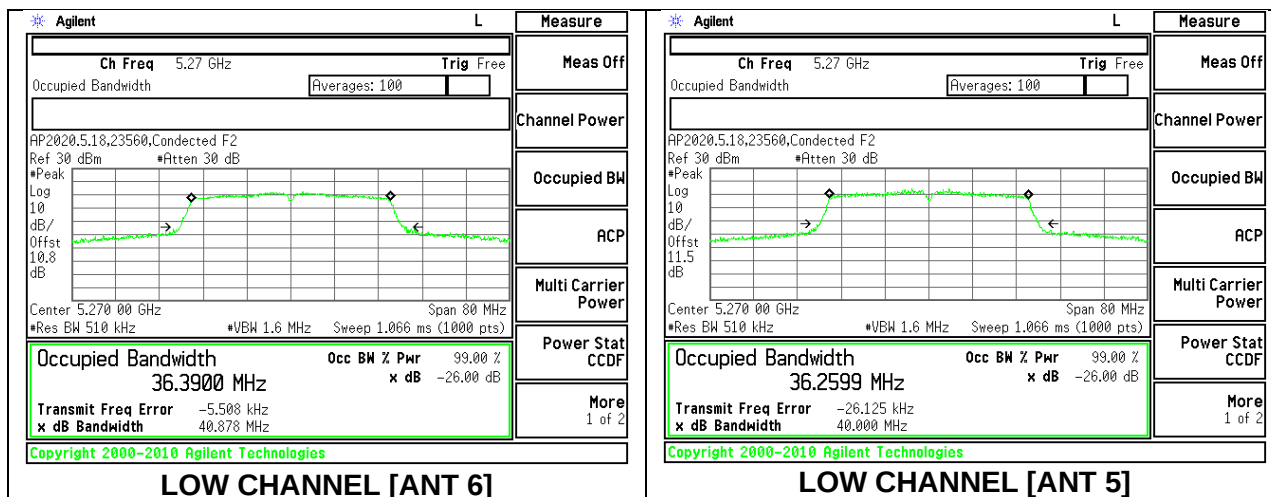
1TX ANT 5 MODE

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5270	41.352	36.3909
High	5310	40.980	36.3820



2TX ANT 6 + ANT 5 CDD MODE

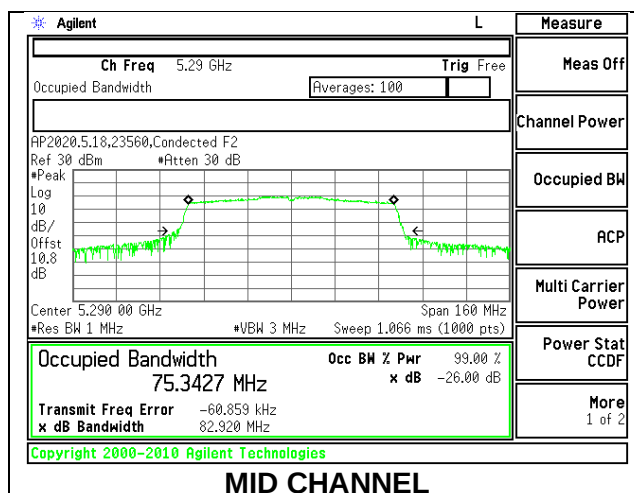
Channel	Frequency (MHz)	26dB Bandwidth ANT 6 (MHz)	26dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5270	40.878	40.000	36.3900	36.2599
High	5310	41.443	39.955	36.3581	36.2665



9.2.9. 802.11ac VHT80 MODE IN THE 5.3 GHz BAND

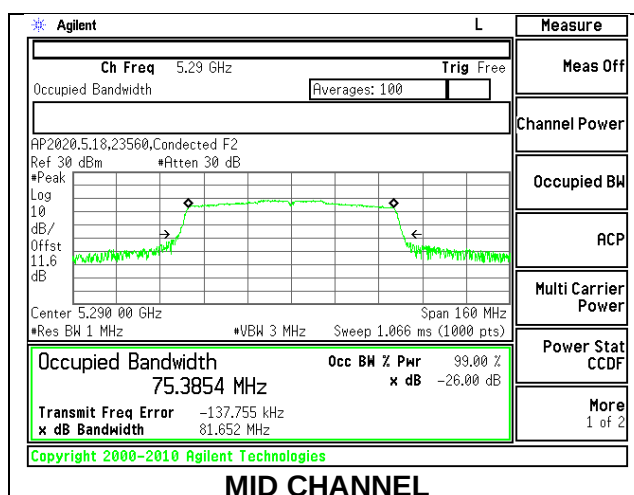
1TX ANT 6 MODE

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Mid	5290	82.920	75.3427



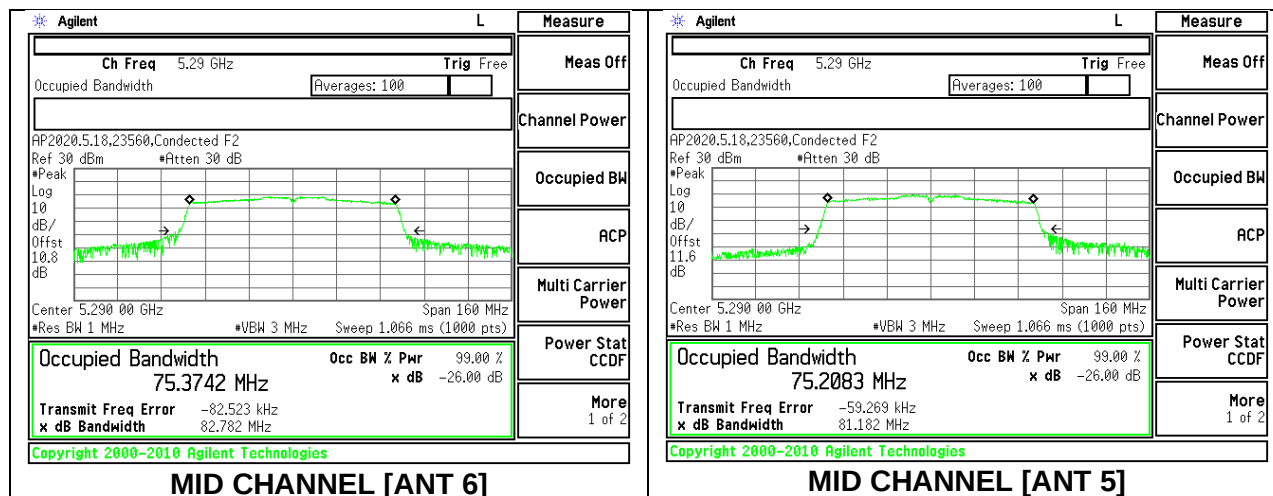
1TX ANT 5 MODE

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Mid	5290	81.652	75.3854



2TX ANT 6 + ANT 5 CDD MODE

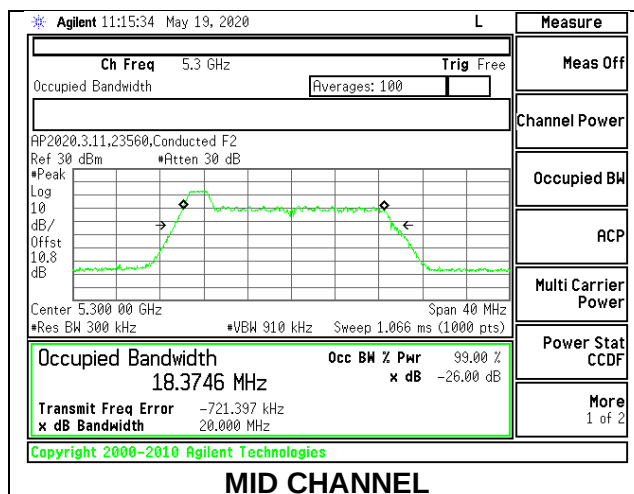
Channel	Frequency (MHz)	26dB Bandwidth ANT 6 (MHz)	26dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Mid	5290	82.782	81.182	75.3742	75.2083



9.2.10. 802.11ax HE20 MODE IN THE 5.3 GHz BAND

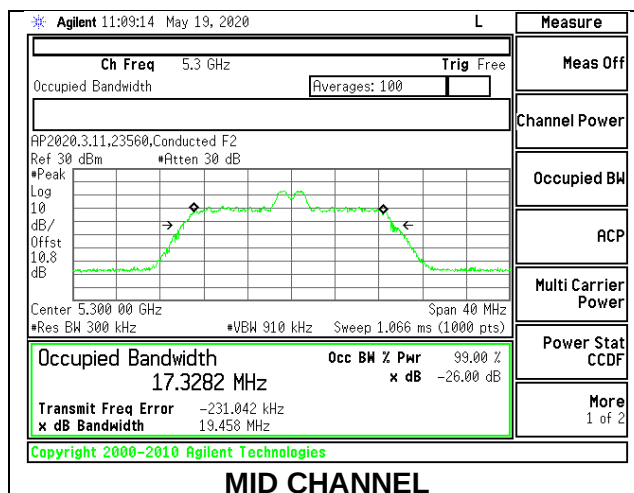
1TX ANT 6 MODE: 26 Tones, RU Index 0

Channel	Frequency	26 dB Bandwidth	99% Bandwidth
	(MHz)	(MHz)	(MHz)
Low	5260	20.137	18.4293
Mid	5300	20.000	18.3746
High	5320	20.152	18.4353



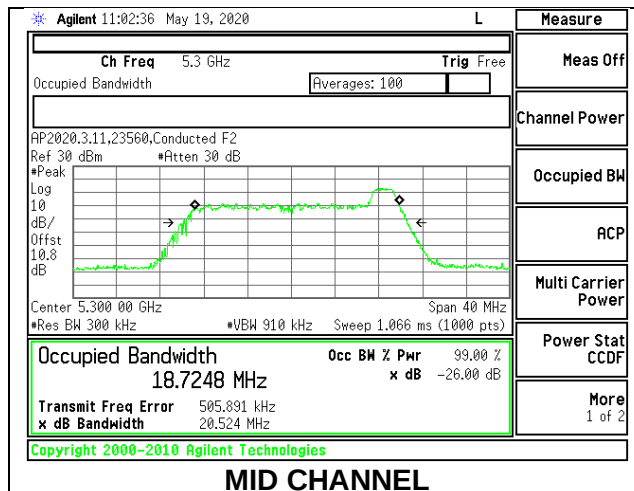
1TX ANT 6 MODE: 26 Tones, RU Index 4

Channel	Frequency	26 dB Bandwidth	99% Bandwidth
	(MHz)	(MHz)	(MHz)
Low	5260	19.385	17.2756
Mid	5300	19.458	17.3282
High	5320	19.327	17.3294



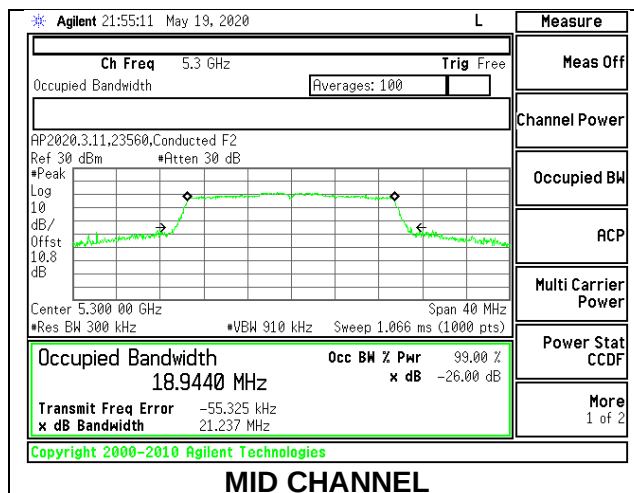
1TX ANT 6 MODE: 26 Tones, RU Index 8

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5260	20.685	18.6142
Mid	5300	20.524	18.7248
High	5320	20.671	18.7546



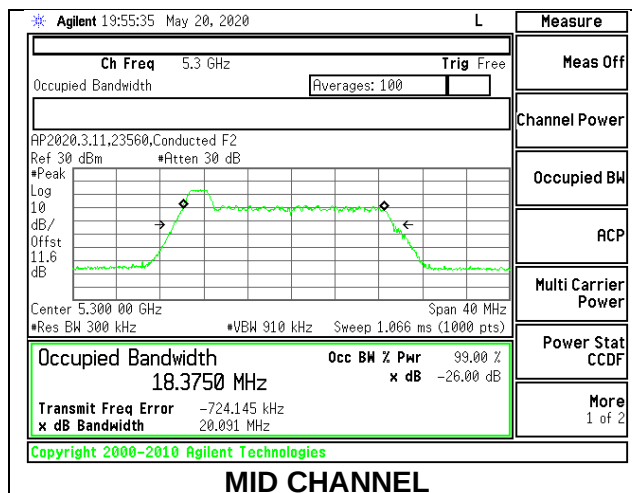
1TX ANT 6 MODE: 242 Tones, RU Index 61

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5260	21.240	18.9893
Mid	5300	21.237	18.9440
High	5320	21.182	18.9341



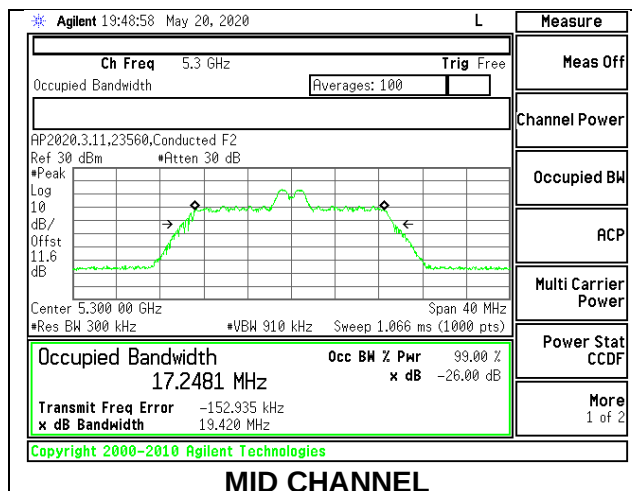
1TX ANT 5 MODE: 26 Tones, RU Index 0

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5260	20.171	18.4039
Mid	5300	20.091	18.3750
High	5320	20.091	18.3930



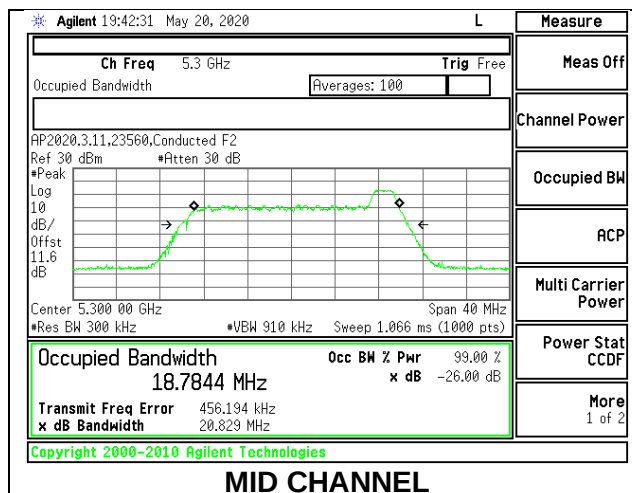
1TX ANT 5 MODE: 26 Tones, RU Index 4

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5260	19.395	17.2946
Mid	5300	19.420	17.2481
High	5320	19.446	17.3671



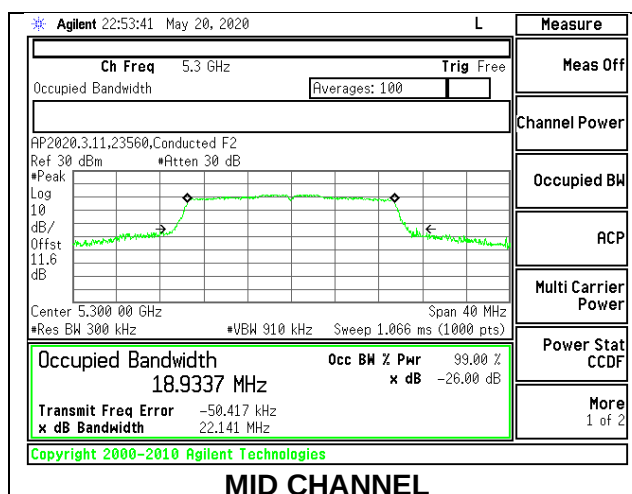
1TX ANT 5 MODE: 26 Tones, RU Index 8

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5260	20.741	18.7572
Mid	5300	20.829	18.7844
High	5320	20.721	18.7893



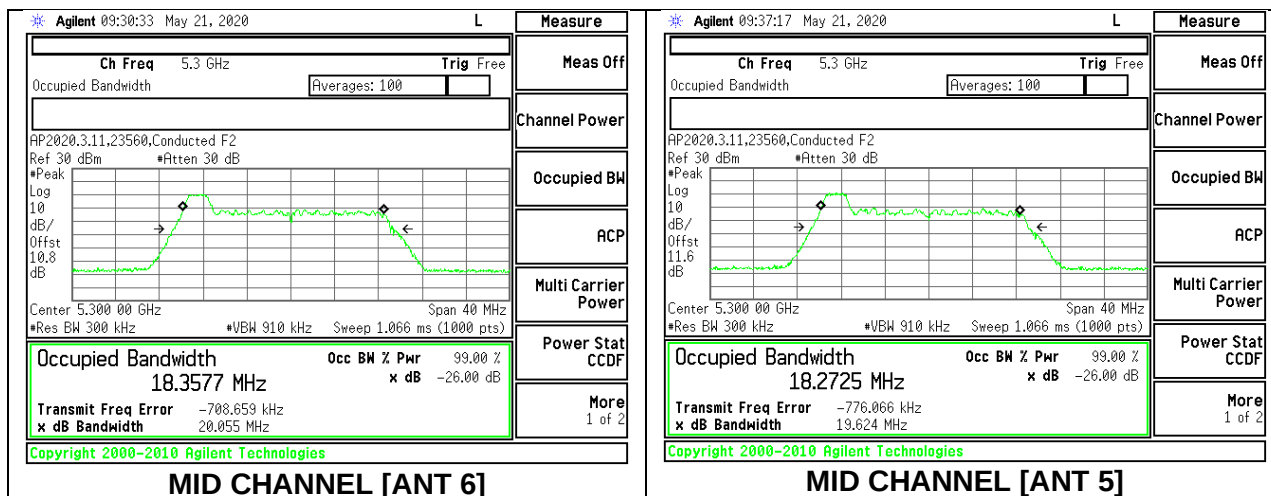
1TX ANT 5 MODE: 242 Tones, RU Index 61

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5260	21.160	18.9201
Mid	5300	22.141	18.9337
High	5320	21.248	18.9271



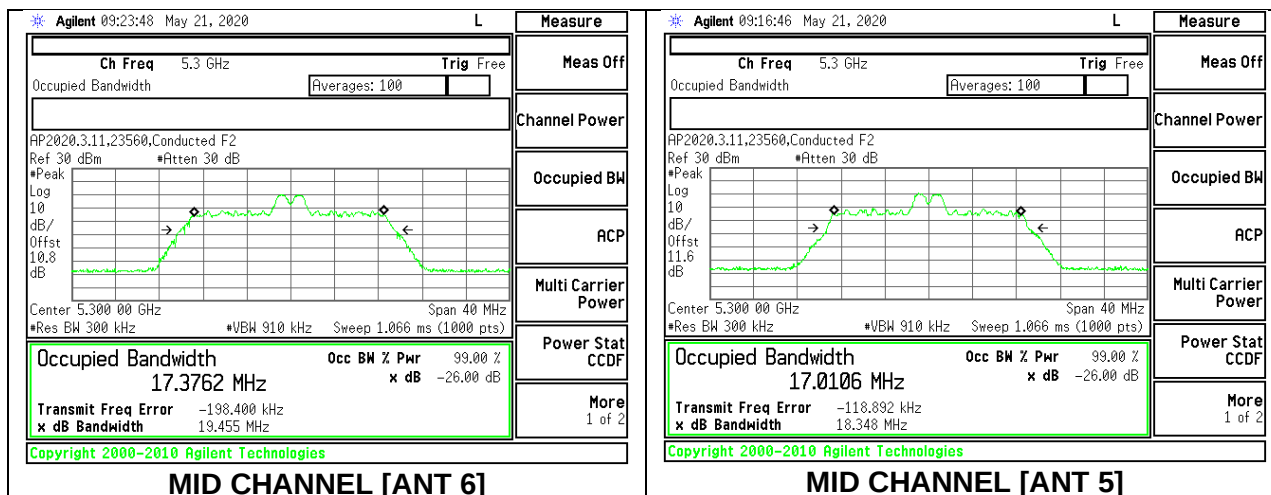
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 0

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5260	20.135	19.734	18.4265	18.2914
Mid	5300	20.055	19.624	18.3577	18.2725
High	5320	20.139	19.687	18.7322	18.3069



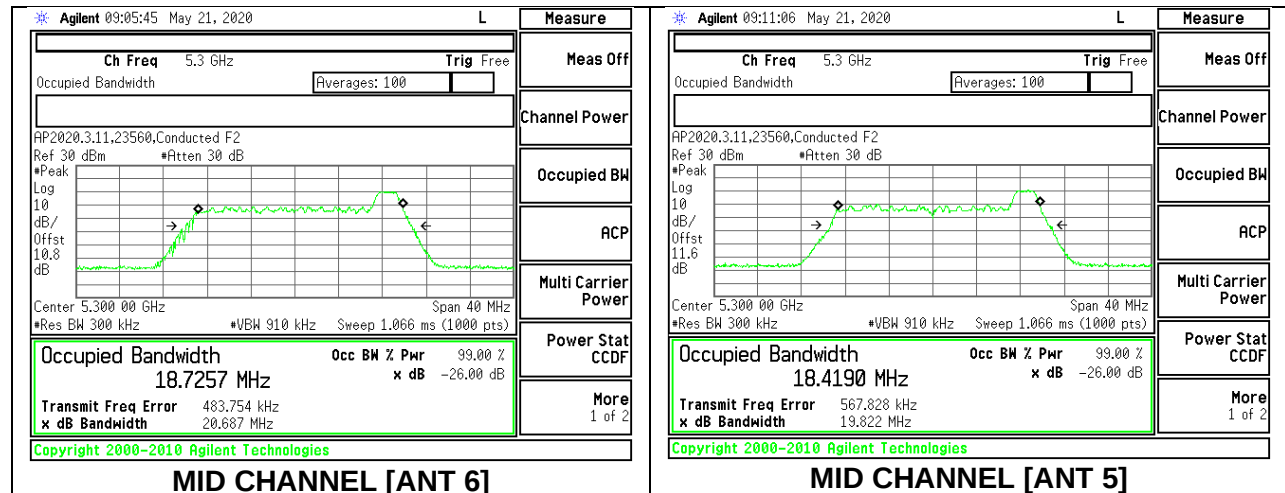
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 4

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5260	19.429	18.371	17.2363	16.9800
Mid	5300	19.455	18.348	17.3762	17.0106
High	5320	19.327	18.360	17.2948	17.0040



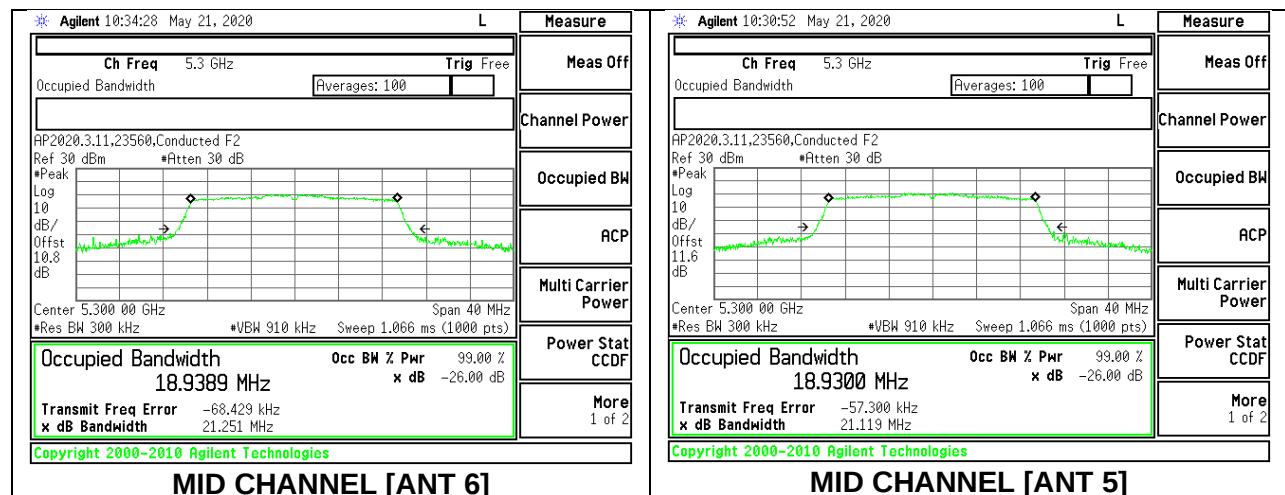
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 8

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5260	20.699	19.884	18.7479	18.4311
Mid	5300	20.687	19.822	18.7257	18.4190
High	5320	20.491	19.925	18.6024	18.3698



2TX ANT 6 + ANT 5 OFDMA MODE: 242 Tones, RU Index 61

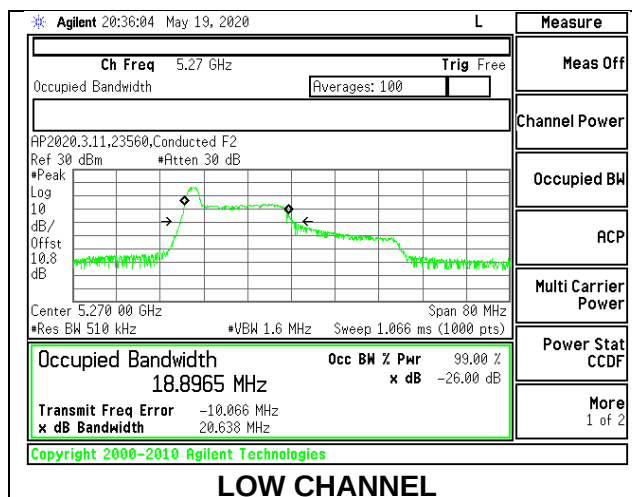
Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5260	21.327	20.969	18.9256	18.8960
Mid	5300	21.251	21.119	18.9389	18.9300
High	5320	21.314	21.058	18.9622	18.9396



9.2.11. 802.11ax HE40 MODE IN THE 5.3 GHz BAND

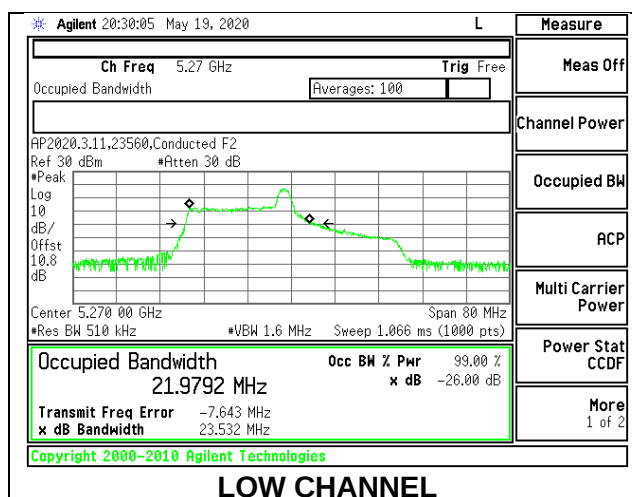
1TX ANT 6 MODE: 26 Tones, RU Index 0

Channel	Frequency	26 dB Bandwidth	99% Bandwidth
	(MHz)	(MHz)	(MHz)
Low	5270	20.638	18.8965
High	5310	20.289	18.7483



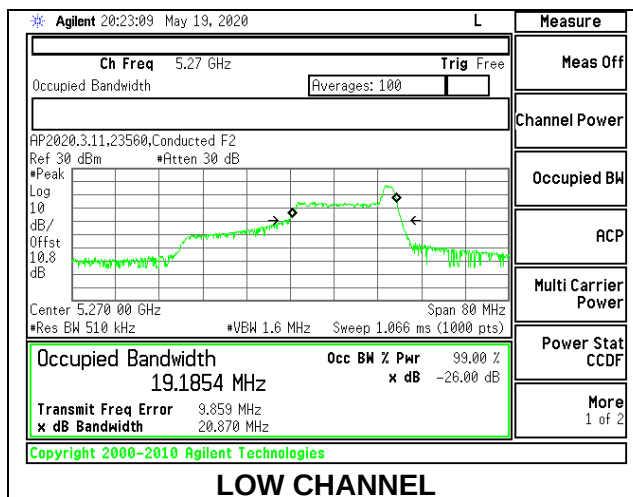
1TX ANT 6 MODE: 26 Tones, RU Index 8

Channel	Frequency	26 dB Bandwidth	99% Bandwidth
	(MHz)	(MHz)	(MHz)
Low	5270	23.532	21.9792
High	5310	24.103	22.0643



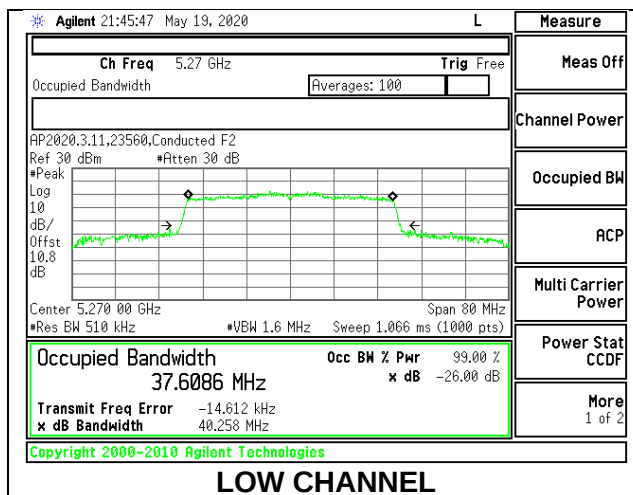
1TX ANT 6 MODE: 26 Tones, RU Index 17

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5270	20.870	19.1854
High	5310	20.602	19.0437



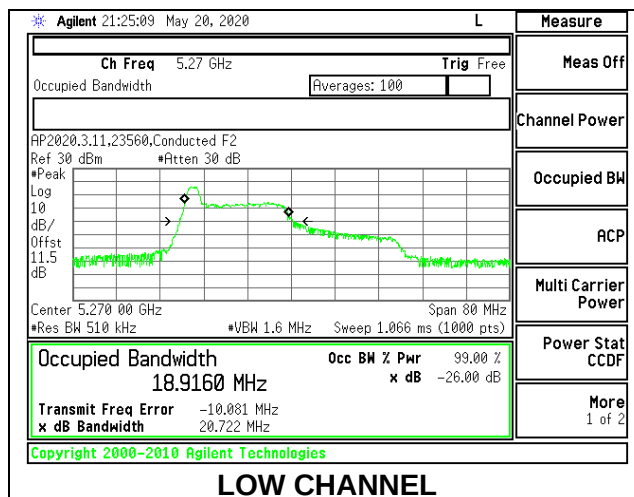
1TX ANT 6 MODE: 484 Tones, RU Index 65

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5270	40.258	37.6086
High	5310	40.513	37.5016



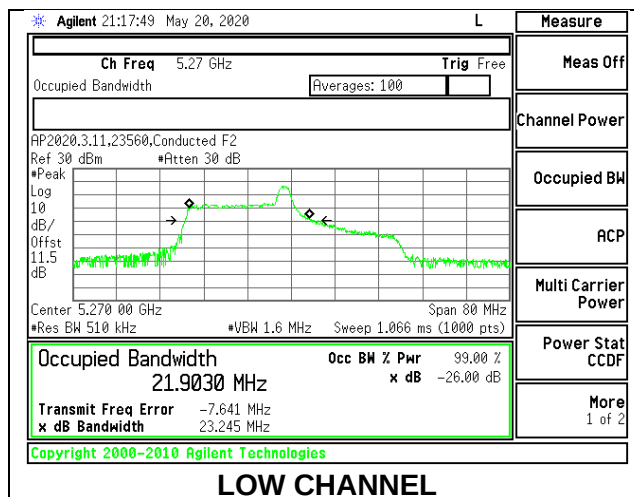
1TX ANT 5 MODE: 26 Tones, RU Index 0

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5270	20.722	18.9160
High	5310	20.659	18.6481



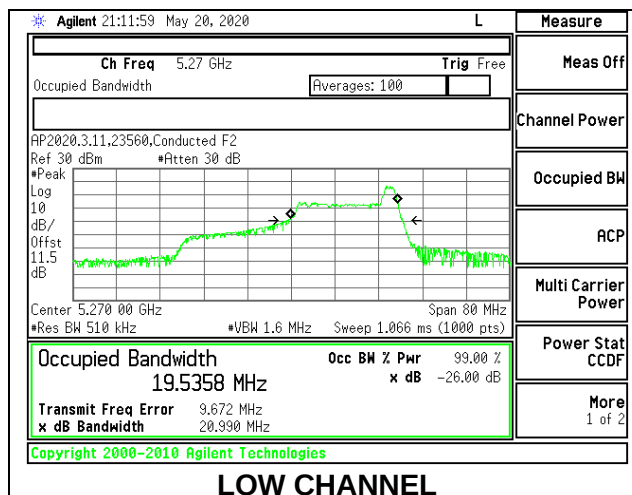
1TX ANT 5 MODE: 26 Tones, RU Index 8

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5270	23.245	21.9030
High	5310	24.039	21.9117



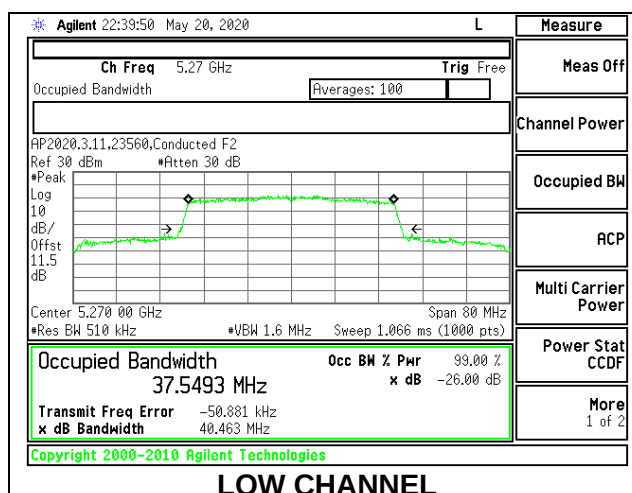
1TX ANT 5 MODE: 26 Tones, RU Index 17

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5270	20.990	19.5358
High	5310	21.070	19.6067



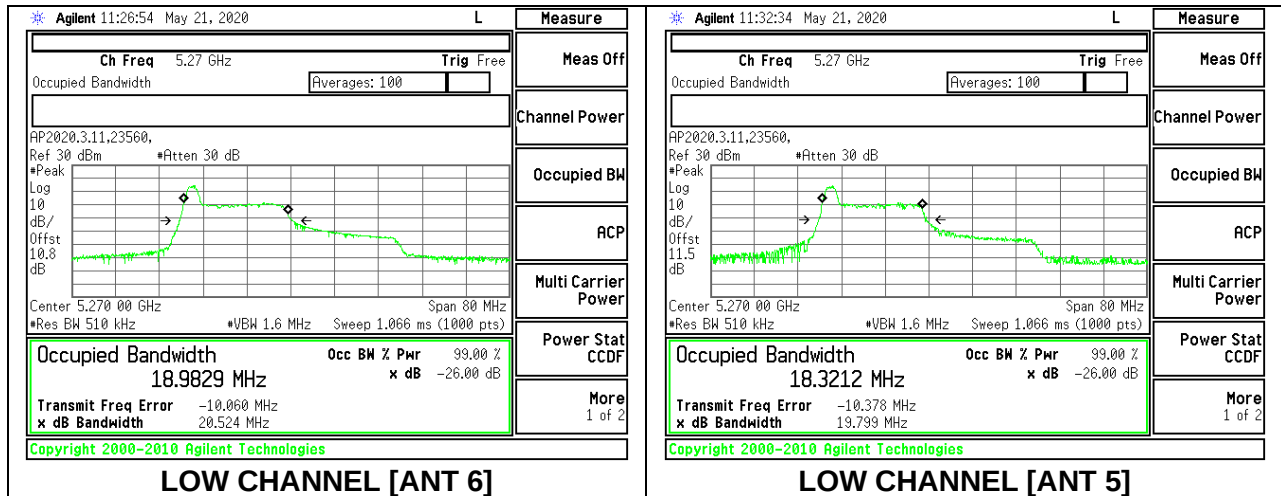
1TX ANT 5 MODE: 484 Tones, RU Index 65

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5270	40.463	37.5493
High	5310	40.344	37.5165



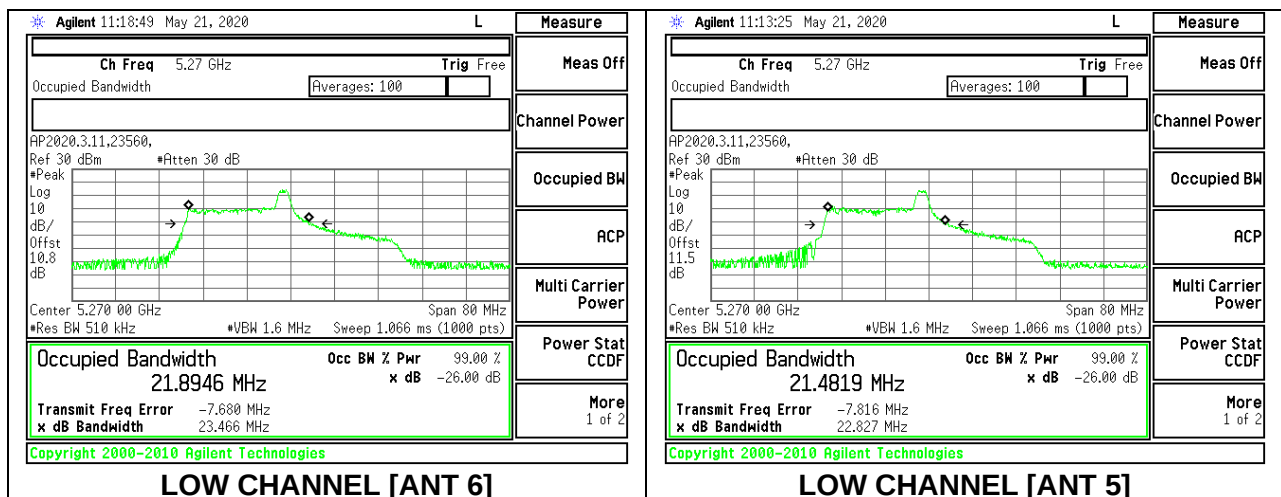
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 0

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5270	20.524	19.799	18.9829	18.3212
High	5310	20.381	19.884	18.4747	18.2223



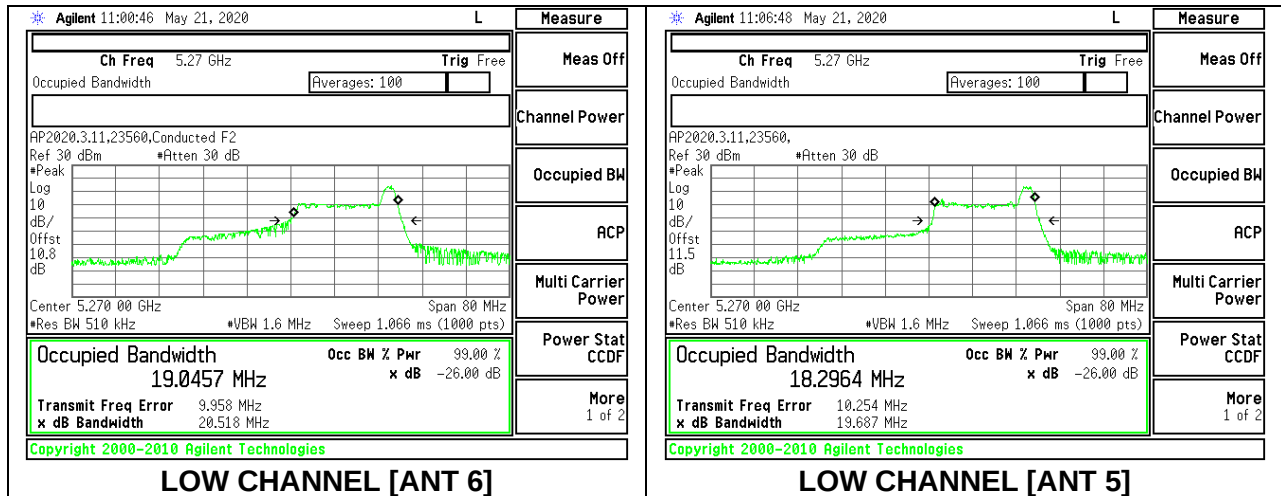
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 8

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5270	23.466	22.827	21.8946	21.4819
High	5310	23.677	23.691	21.9378	21.6410



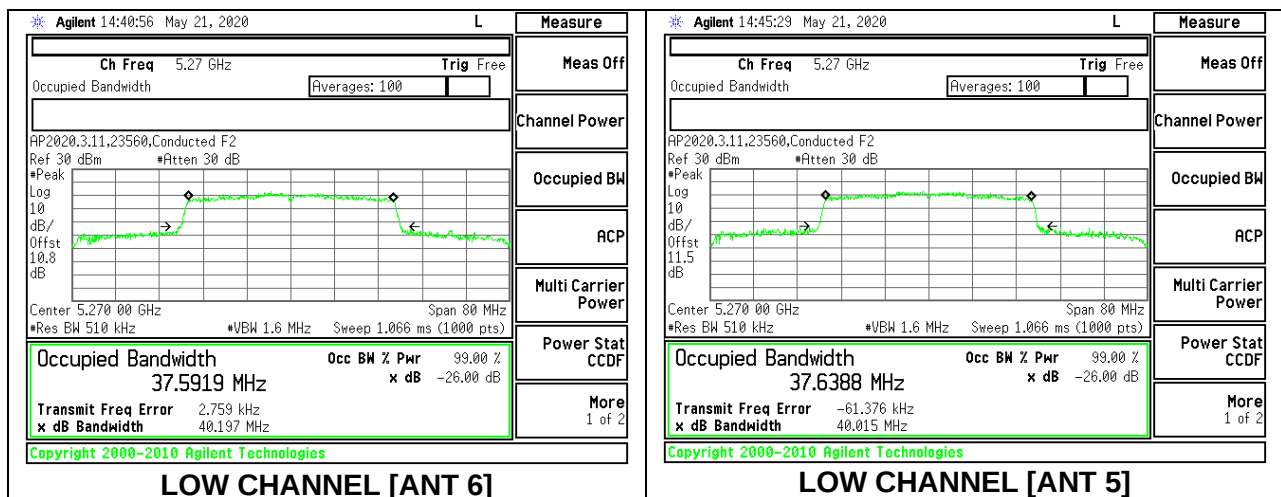
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 17

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5270	20.518	19.687	19.0457	18.2964
High	5310	20.004	19.470	18.8688	18.2678



2TX ANT 6 + ANT 5 OFDMA MODE: 484 Tones, RU Index 65

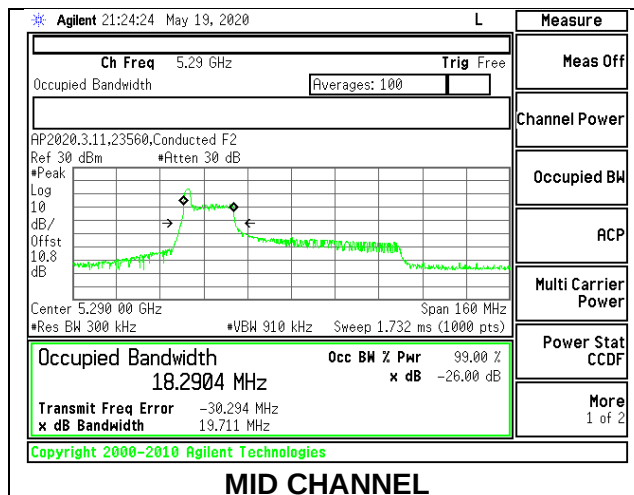
Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5270	40.197	40.015	37.5919	37.6388
High	5310	40.460	40.089	37.5808	37.5039



9.2.12. 802.11ax HE80 MODE IN THE 5.3 GHz BAND

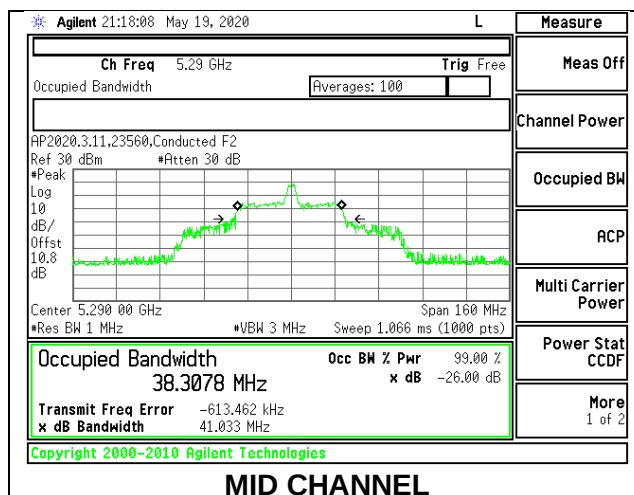
1TX ANT 6 MODE: 26 Tones, RU Index 0

Channel	Frequency	26 dB Bandwidth	99% Bandwidth
	(MHz)	(MHz)	(MHz)
Mid	5290	19.711	18.2904



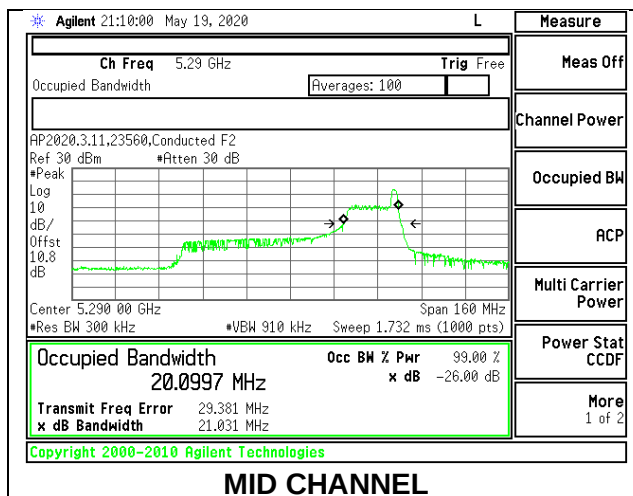
1TX ANT 6 MODE: 26 Tones, RU Index 18

Channel	Frequency	26 dB Bandwidth	99% Bandwidth
	(MHz)	(MHz)	(MHz)
Mid	5290	41.033	38.3078



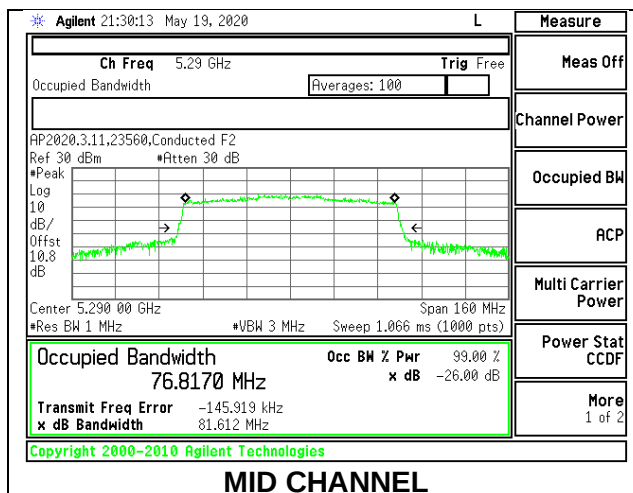
1TX ANT 6 MODE: 26 Tones, RU Index 36

Channel	Frequency	26 dB Bandwidth	99% Bandwidth
	(MHz)	(MHz)	(MHz)
Mid	5290	21.031	20.097



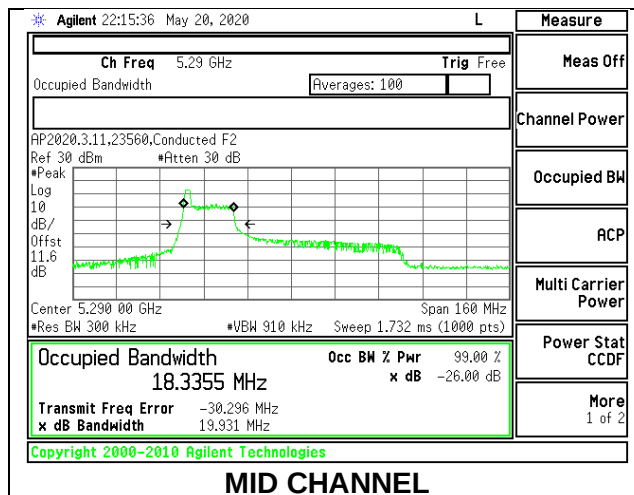
1TX ANT 6 MODE: 996 Tones, RU Index 67

Channel	Frequency	26 dB Bandwidth	99% Bandwidth
	(MHz)	(MHz)	(MHz)
Mid	5290	81.612	76.8170



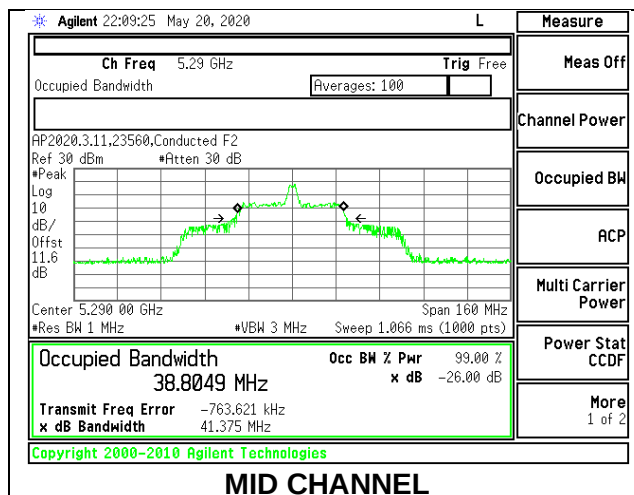
1TX ANT 5 MODE: 26 Tones, RU Index 0

Channel	Frequency	26 dB Bandwidth	99% Bandwidth
	(MHz)	(MHz)	(MHz)
Mid	5290	19.931	18.3355



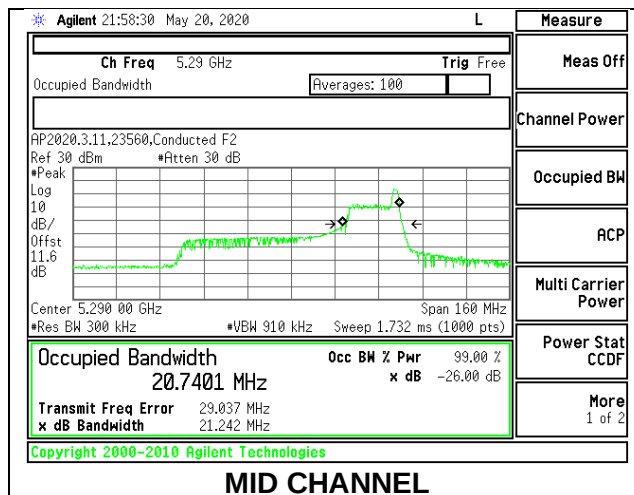
1TX ANT 5 MODE: 26 Tones, RU Index 18

Channel	Frequency	26 dB Bandwidth	99% Bandwidth
	(MHz)	(MHz)	(MHz)
Mid	5290	41.375	38.8049



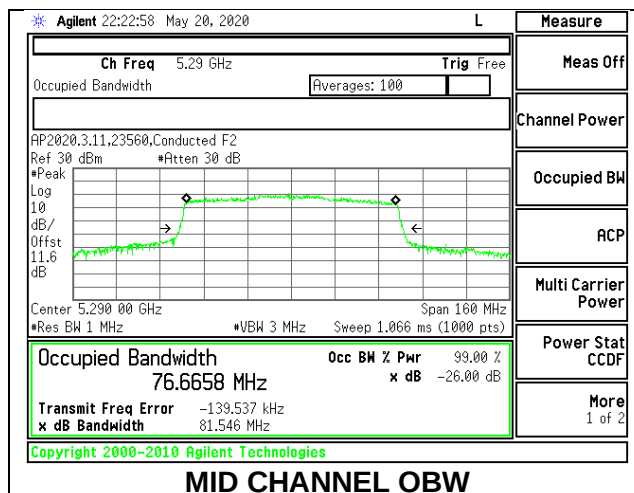
1TX ANT 5 MODE: 26 Tones, RU Index 36

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Mid	5290	21.242	20.7401



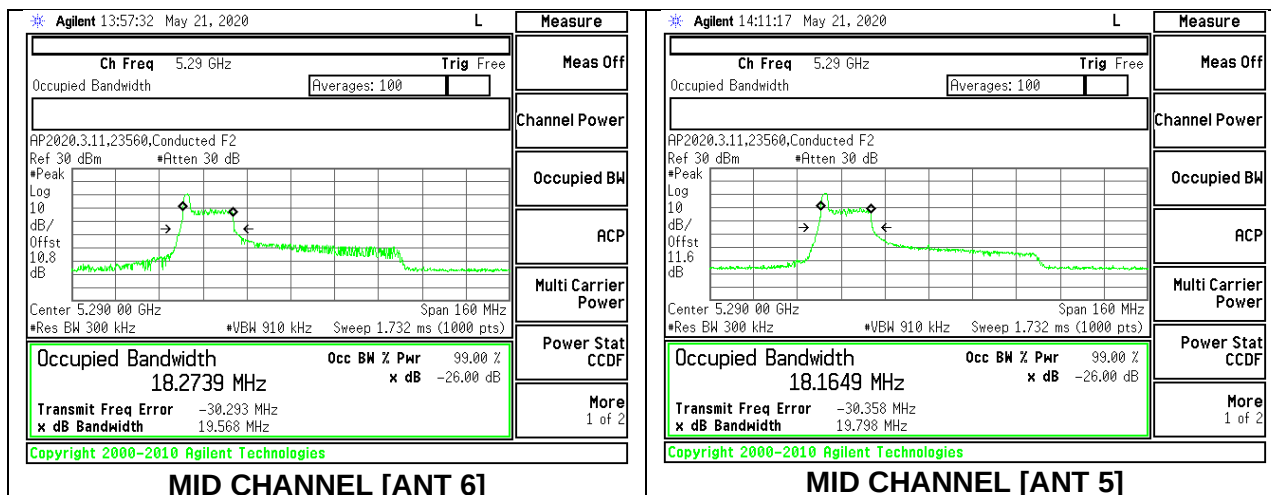
1TX ANT 5 MODE: 996 Tones, RU Index 67

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Mid	5290	81.546	76.6658



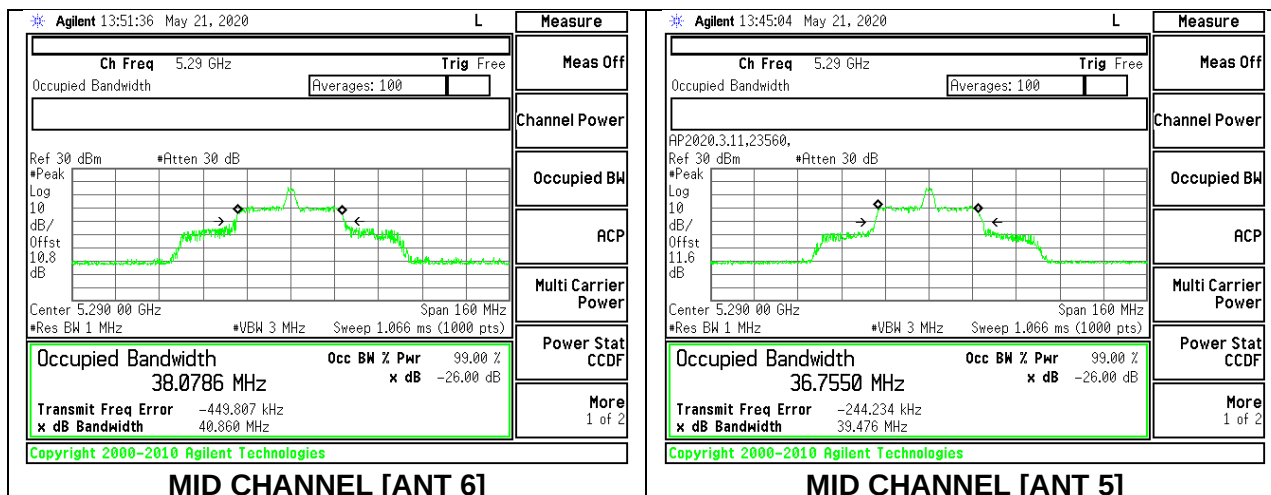
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 0

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Mid	5290	19.568	19.798	18.2739	18.1649



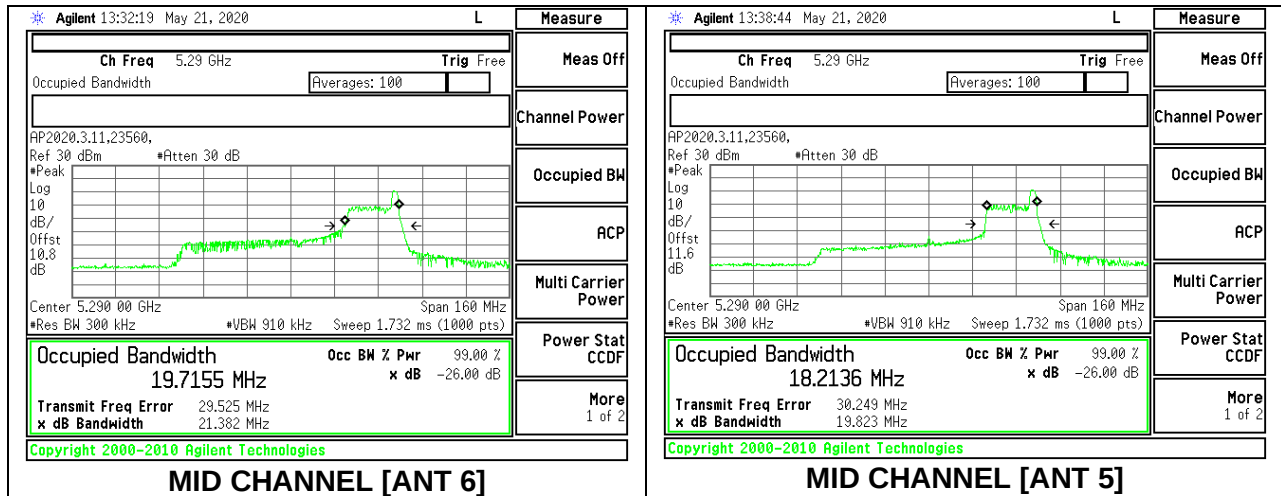
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 18

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Mid	5290	40.860	39.476	38.0786	36.7550



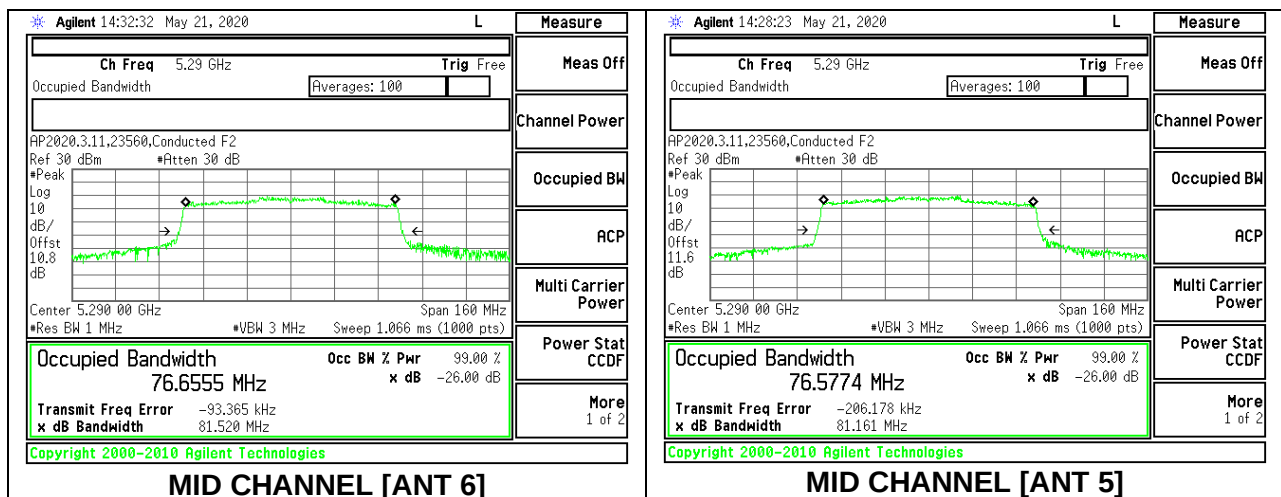
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 36

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Mid	5290	21.382	19.823	19.7155	18.2136



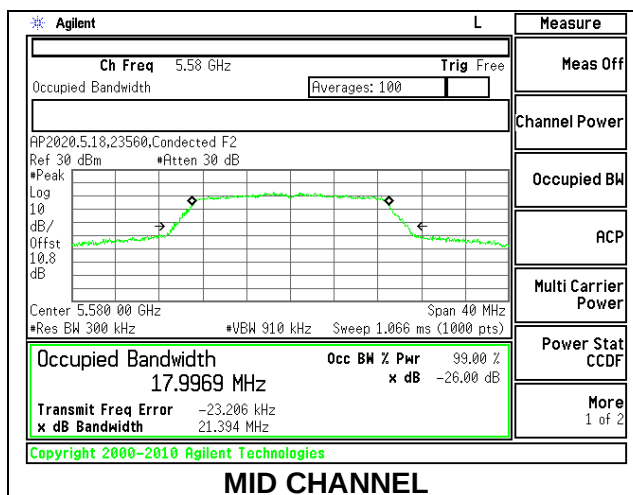
2TX ANT 6 + ANT 5 OFDMA MODE: 996 Tones, RU Index 67

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Mid	5290	81.520	81.161	76.6555	76.5774



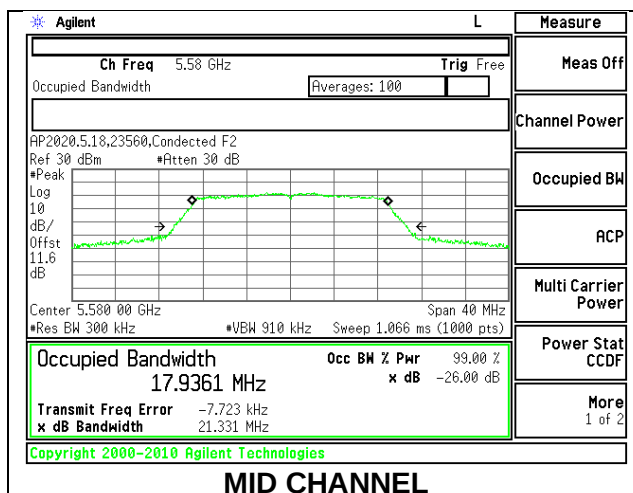
9.2.13. 802.11n HT20 MODE IN THE 5.6 GHz BAND
1TX ANT 6 MODE

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5500	21.247	17.9166
Mid	5580	21.394	17.9969
High	5700	21.133	17.8868
144	5720	21.372	17.9196



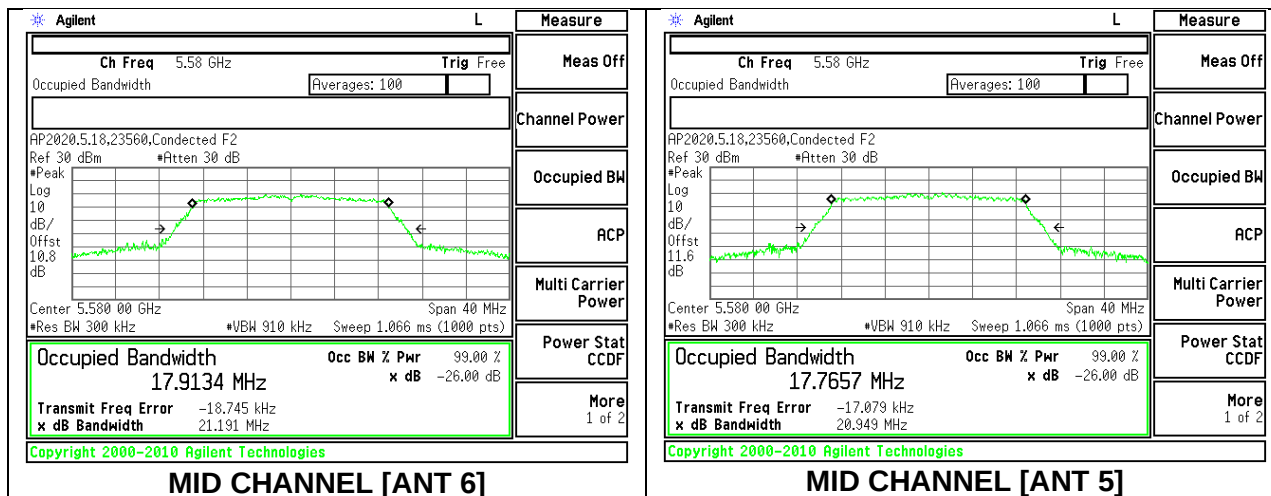
1TX ANT 5 MODE

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5500	21.203	17.9209
Mid	5580	21.331	17.9361
High	5700	21.183	17.9494
144	5720	21.389	17.9849



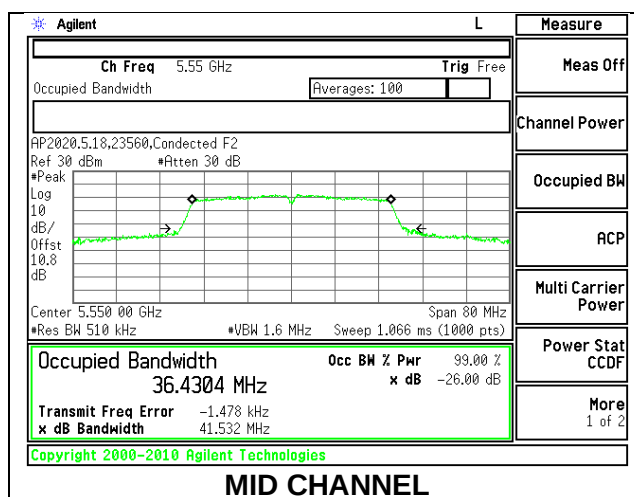
2TX ANT 6 + ANT 5 CDD MODE

Channel	Frequency (MHz)	26dB Bandwidth ANT 6 (MHz)	26dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5500	21.071	20.947	17.9296	17.7661
Mid	5580	21.191	20.949	17.9134	17.7657
High	5700	21.349	20.841	17.9270	17.7539
144	5720	21.230	20.960	17.9250	17.7420



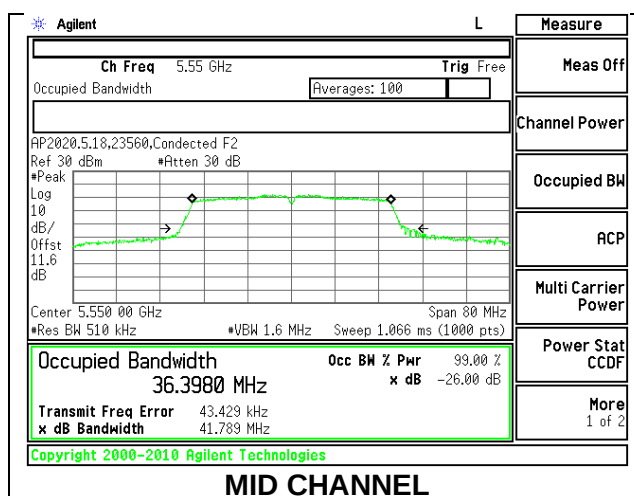
9.2.14. 802.11n HT40 MODE IN THE 5.6 GHz BAND
1TX ANT 6 MODE

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5510	41.250	36.3393
Mid	5550	41.532	36.4304
High	5670	42.867	36.4337
142	5710	43.153	36.4361



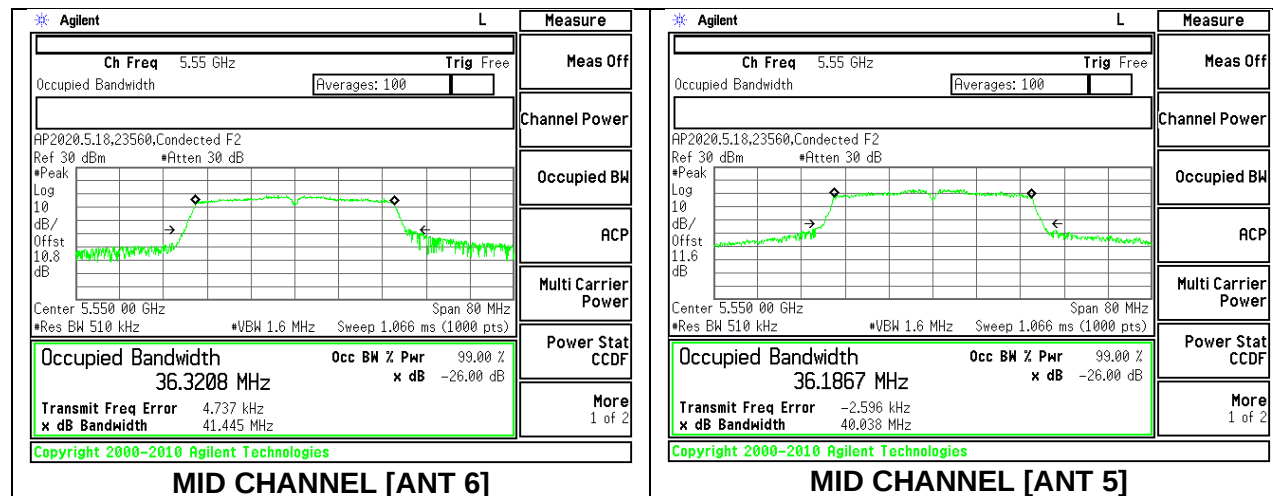
1TX ANT 5 MODE

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5510	41.825	36.3442
Mid	5550	41.789	36.3980
High	5670	42.989	36.4247
142	5710	41.148	36.4779



2TX ANT 6 + ANT 5 CDD MODE

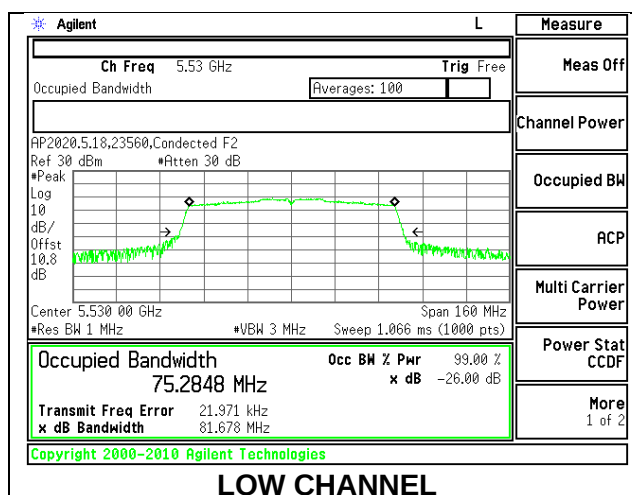
Channel	Frequency (MHz)	26dB Bandwidth ANT 6 (MHz)	26dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5510	41.513	39.871	36.3826	36.1493
Mid	5550	41.445	40.038	36.3208	36.1867
High	5670	41.399	39.890	36.4097	36.2137
142	5710	40.480	39.850	36.2550	36.1610



9.2.15. 802.11ac VHT80 MODE IN THE 5.6 GHz BAND

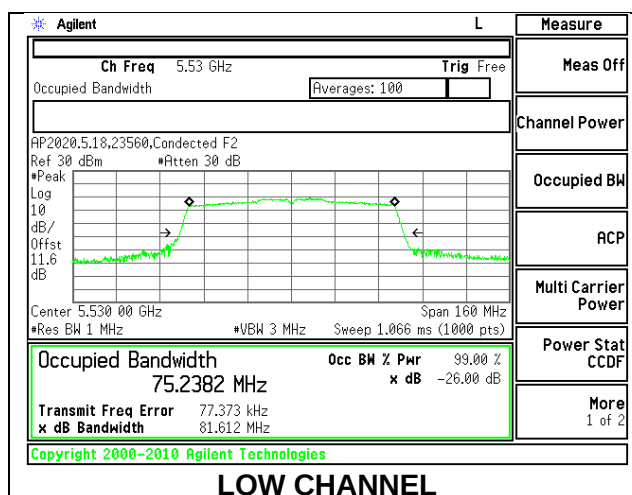
1TX ANT 6 MODE

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5530	81.678	75.2848
High	5610	81.742	75.5097
138	5690	82.081	75.4808



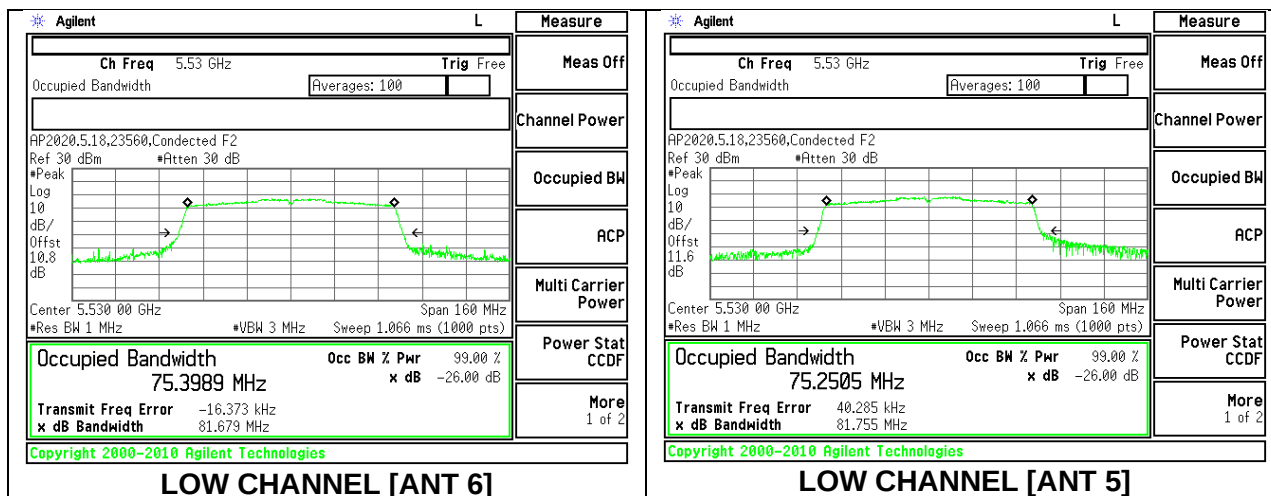
1TX ANT 5 MODE

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5530	81.612	75.2382
High	5610	82.342	75.4491
138	5690	82.597	75.6673



2TX ANT 6 + ANT 5 CDD MODE

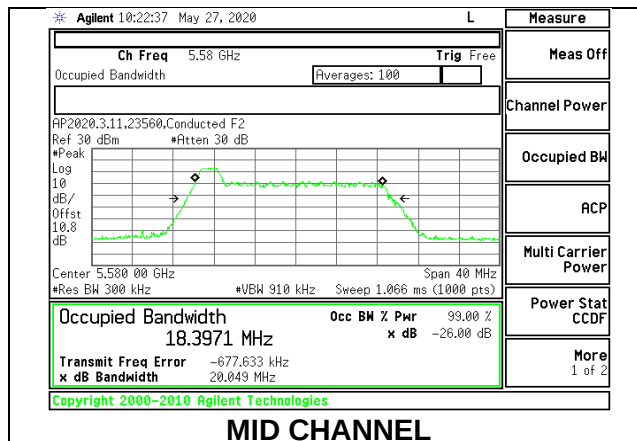
Channel	Frequency (MHz)	26dB Bandwidth ANT 6 (MHz)	26dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5530	81.679	81.755	75.3989	75.2505
High	5610	82.181	81.782	75.4376	75.3756
138	5690	82.020	87.820	75.6310	75.7380



9.2.16. 802.11ax HE20 MODE IN THE 5.6 GHz BAND

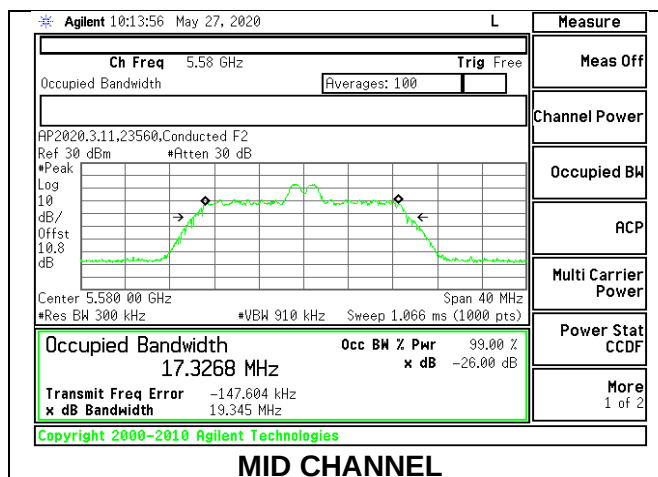
1TX ANT 6 MODE: 26 Tones, RU Index 0

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5500	20.073	18.4238
Mid	5580	20.049	18.3971
High	5700	20.098	18.4438
144	5720	20.033	18.4035



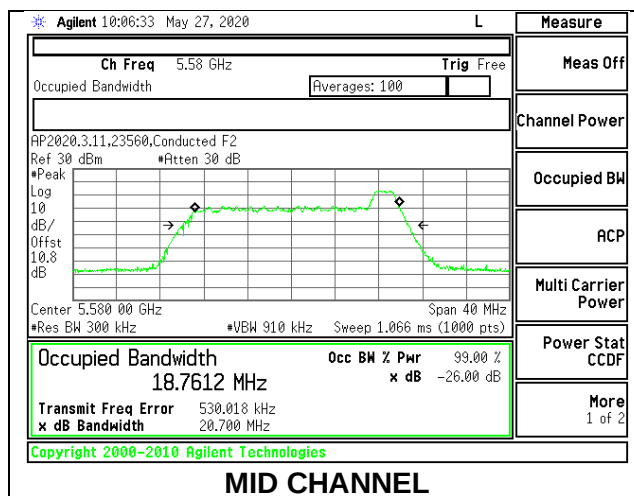
1TX ANT 6 MODE: 26 Tones, RU Index 4

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5500	19.454	17.3578
Mid	5580	19.345	17.3268
High	5700	19.269	17.3296
144	5720	19.444	17.3338



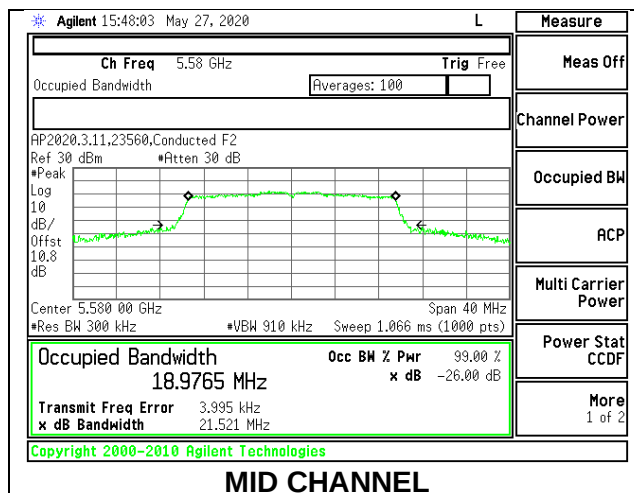
1TX ANT 6 MODE: 26 Tones, RU Index 8

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5500	20.578	18.6334
Mid	5580	20.700	18.7612
High	5700	20.717	18.6740
144	5720	20.602	18.7392



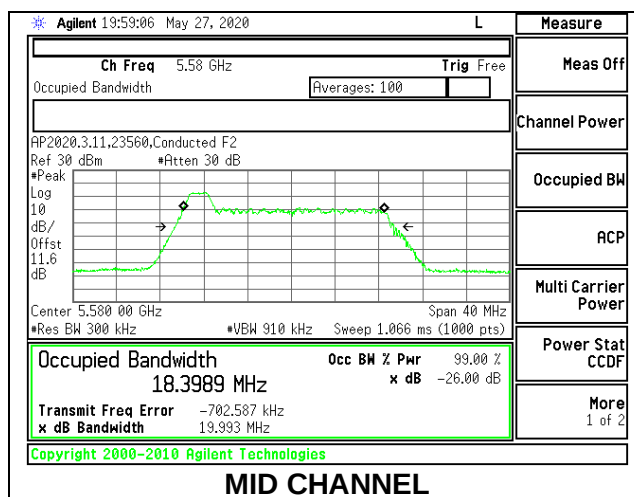
1TX ANT 6 MODE: 242 Tones, RU Index 61

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5500	21.182	18.9529
Mid	5580	21.521	18.9765
High	5700	21.152	18.9034
144	5720	21.252	18.9505



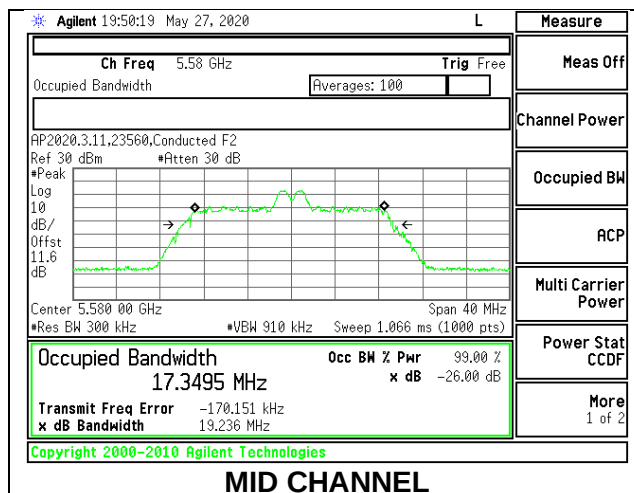
1TX ANT 5 MODE: 26 Tones, RU Index 0

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5500	20.141	18.4329
Mid	5580	19.993	18.3989
High	5700	20.115	18.4041
144	5720	20.055	18.3905



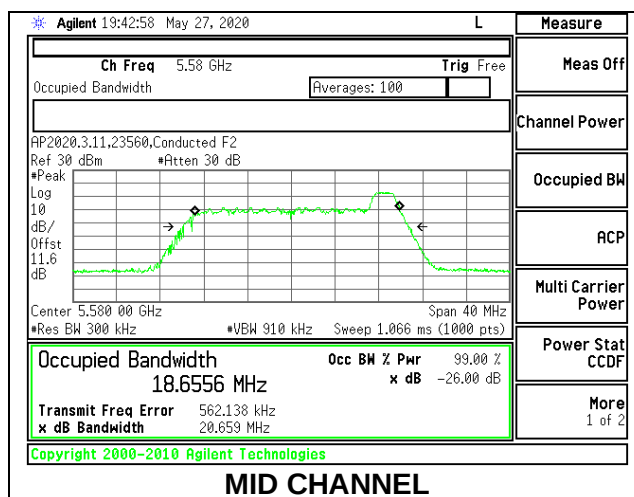
1TX ANT 5 MODE: 26 Tones, RU Index 4

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5500	19.266	17.3197
Mid	5580	19.236	17.3495
High	5700	19.342	17.2620
144	5720	19.373	17.3109



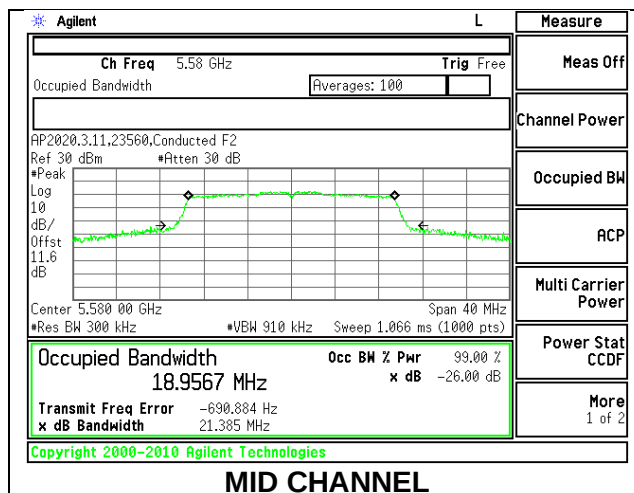
1TX ANT 5 MODE: 26 Tones, RU Index 8

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5500	20.458	18.6775
Mid	5580	20.659	18.6556
High	5700	20.646	18.7090
144	5720	20.551	18.6582



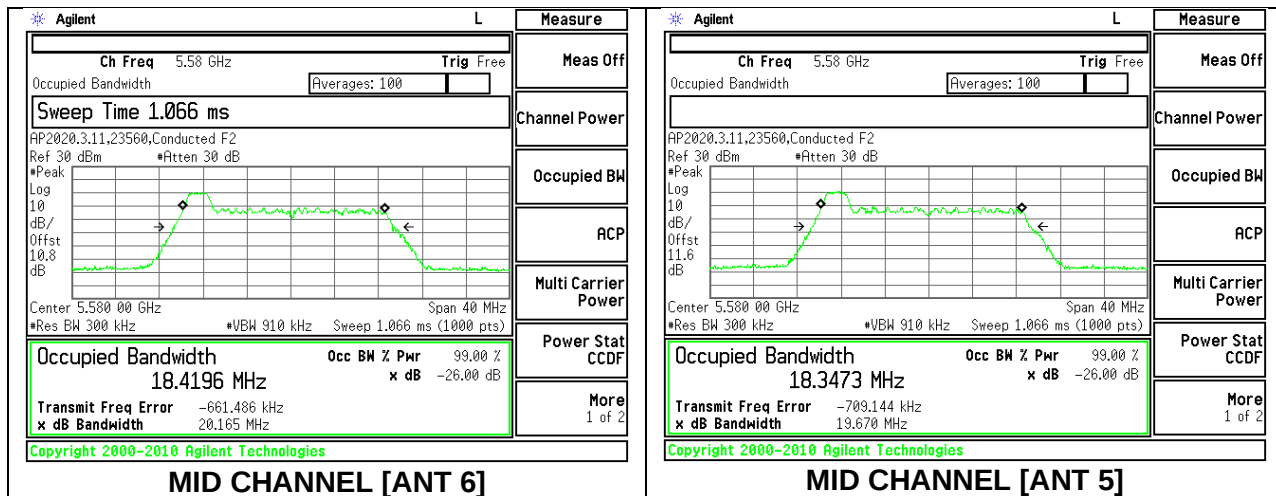
1TX ANT 5 MODE: 242 Tones, RU Index 61

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5500	21.180	18.9306
Mid	5580	21.385	18.9567
High	5700	21.141	18.9152
144	5720	21.403	18.9772



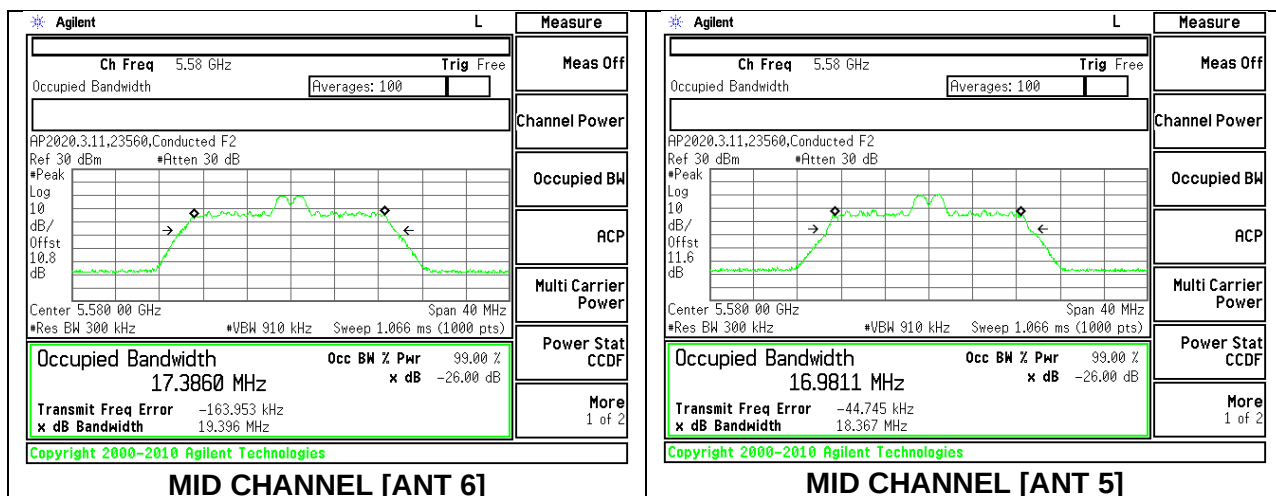
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 0

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5500	20.072	19.766	18.4160	18.3626
Mid	5580	20.165	19.670	18.4196	18.3473
High	5700	20.141	19.895	18.4244	18.3343
144	5720	20.141	19.847	18.4122	18.3326



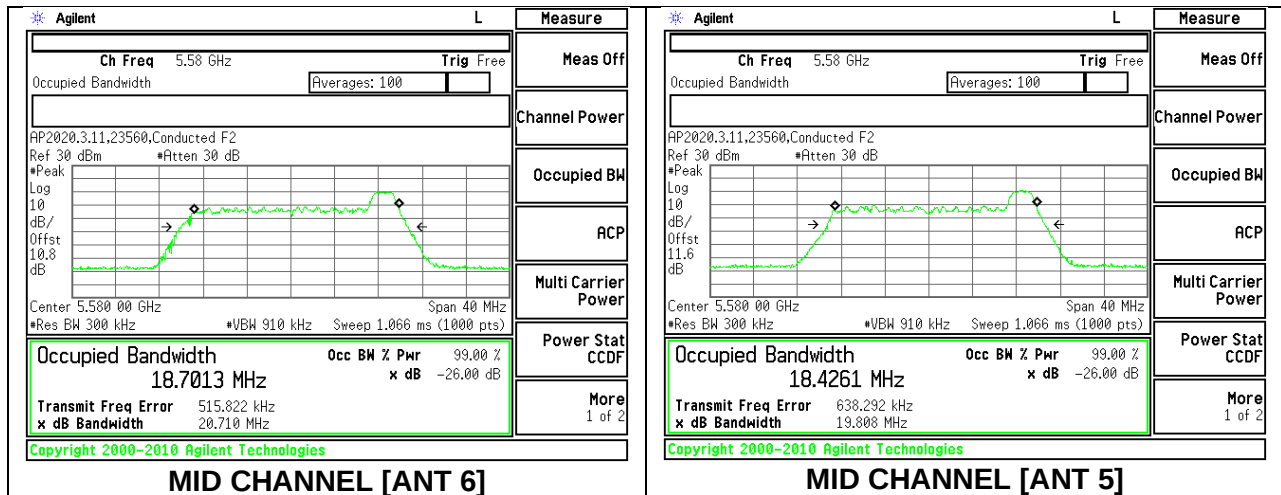
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 4

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5500	19.403	18.289	17.3344	16.9894
Mid	5580	19.396	18.367	17.3860	16.9811
High	5700	19.395	18.333	17.3938	17.0052
144	5720	19.223	18.310	17.3396	17.0211



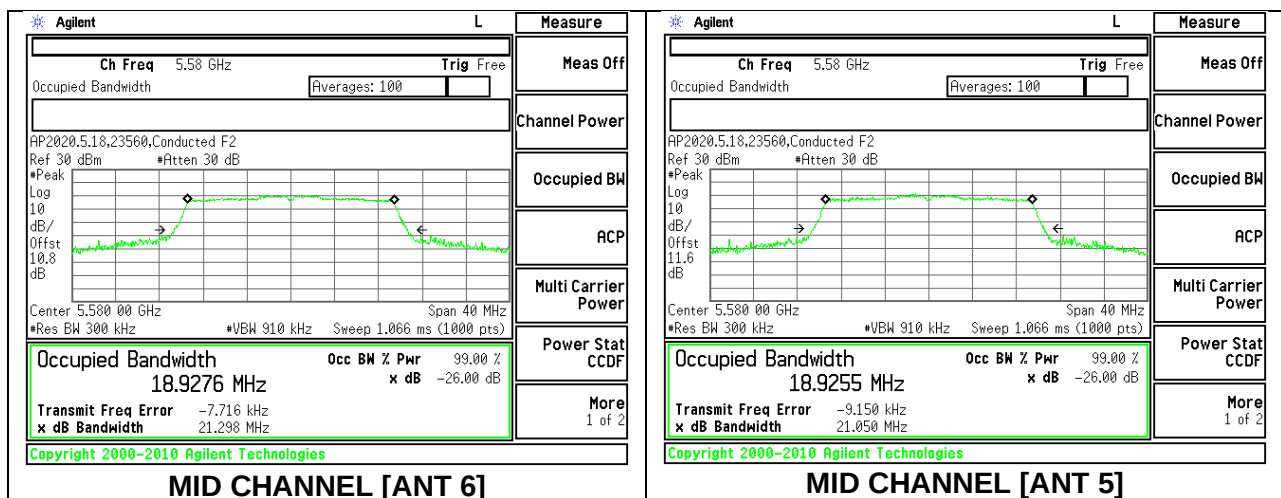
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 8

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5500	20.677	19.769	18.6872	18.3212
Mid	5580	20.710	19.808	18.7013	18.4261
High	5700	20.761	19.900	18.6913	18.3946
144	5720	20.710	19.891	18.6765	18.4235



2TX ANT 6 + ANT 5 OFDMA MODE: 242 Tones, RU Index 61

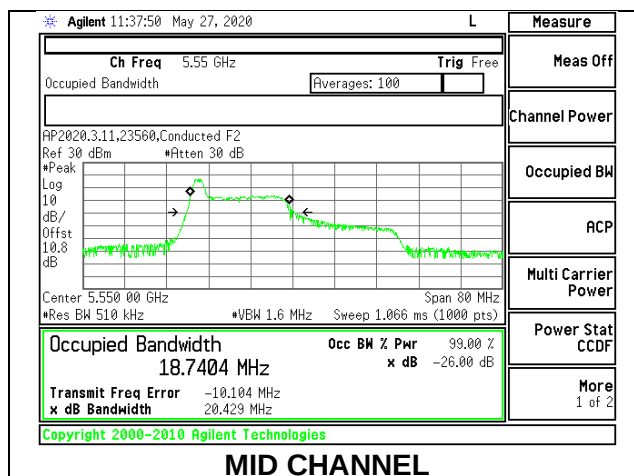
Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5500	21.193	21.033	18.9632	18.9084
Mid	5580	21.298	21.050	18.9276	18.9255
High	5700	21.268	20.703	18.9179	18.9012
144	5720	21.205	20.942	18.9414	18.9190



9.2.17. 802.11ax HE40 MODE IN THE 5.6 GHz BAND

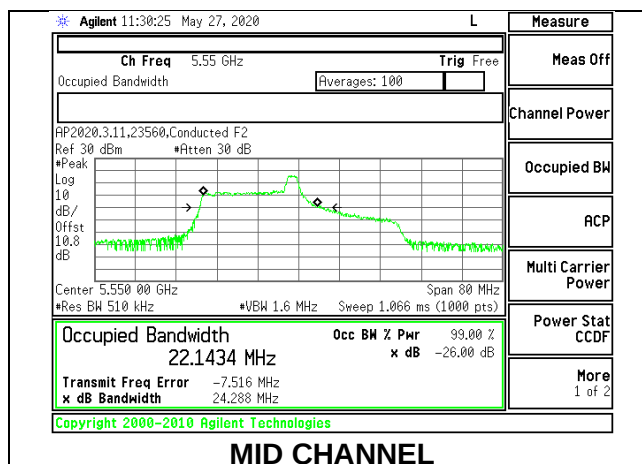
1TX ANT 6 MODE: 26 Tones, RU Index 0

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5510	20.812	18.9392
Mid	5550	20.429	18.7404
High	5670	20.782	18.9147
142	5710	20.920	18.6896



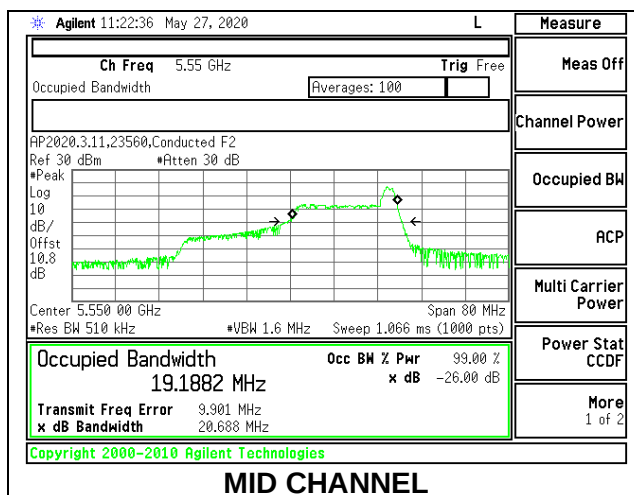
1TX ANT 6 MODE: 26 Tones, RU Index 8

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5510	23.630	22.1613
Mid	5550	24.288	22.1434
High	5670	23.485	22.1865
142	5710	24.431	22.2286



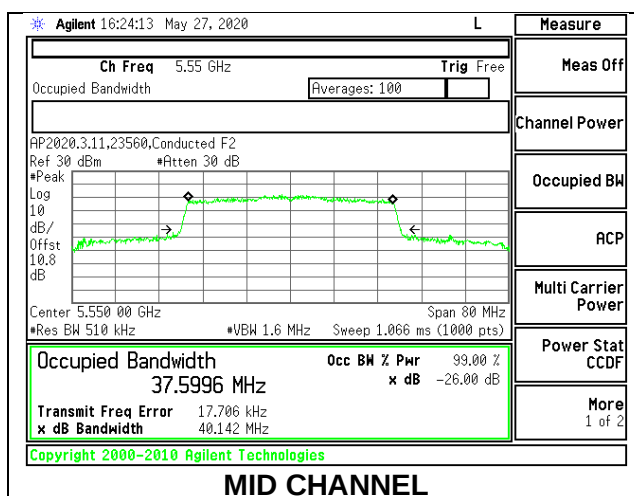
1TX ANT 6 MODE: 26 Tones, RU Index 17

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5510	20.546	19.1033
Mid	5550	20.688	19.1882
High	5670	20.518	18.7695
142	5710	20.602	18.9178



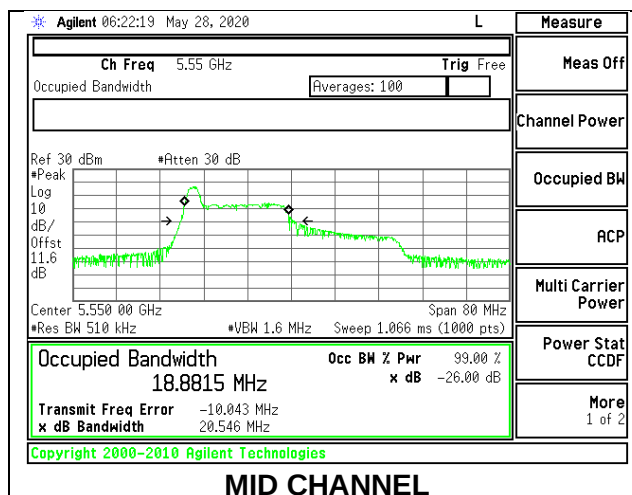
1TX ANT 6 MODE: 484 Tones, RU Index 65

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5510	40.286	37.5099
Mid	5550	40.142	37.5996
High	5670	40.210	37.5613
142	5710	40.213	37.6354



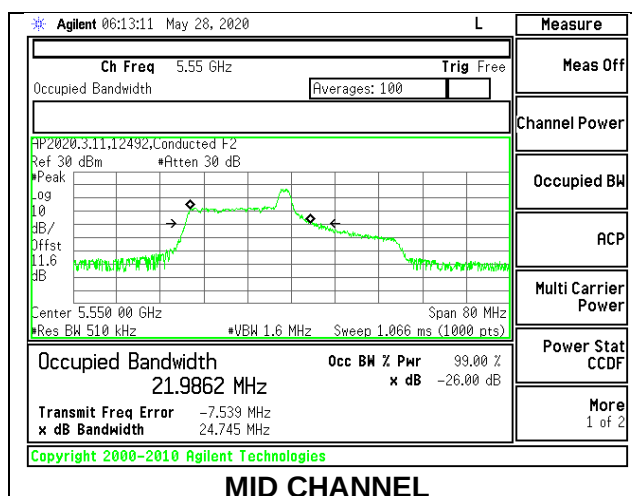
1TX ANT 5 MODE: 26 Tones, RU Index 0

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5510	20.471	18.9324
Mid	5550	20.546	18.8815
High	5670	20.647	18.7294
142	5710	20.594	18.7971



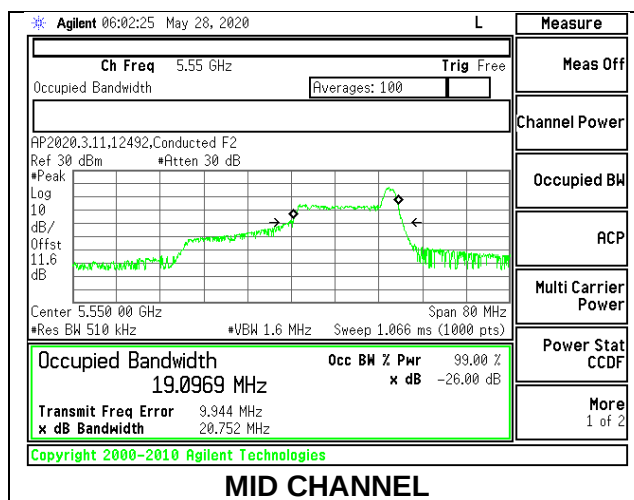
1TX ANT 5 MODE: 26 Tones, RU Index 8

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5510	24.247	22.1132
Mid	5550	24.745	21.9862
High	5670	24.410	22.1882
142	5710	23.855	22.3338



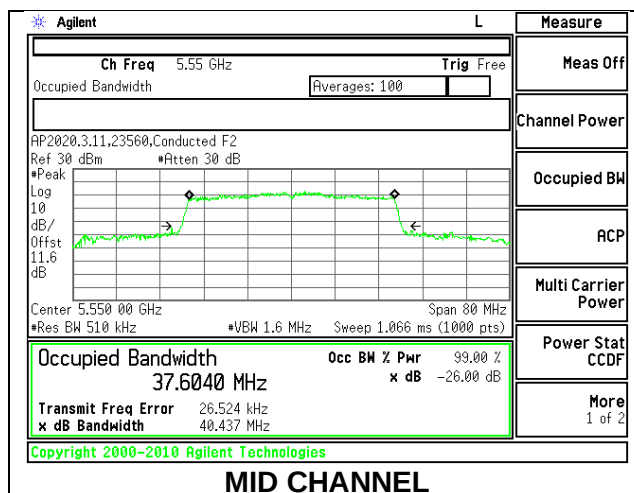
1TX ANT 5 MODE: 26 Tones, RU Index 17

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5510	20.653	19.0193
Mid	5550	20.752	19.0969
High	5670	20.618	19.1997
142	5710	20.652	18.8262



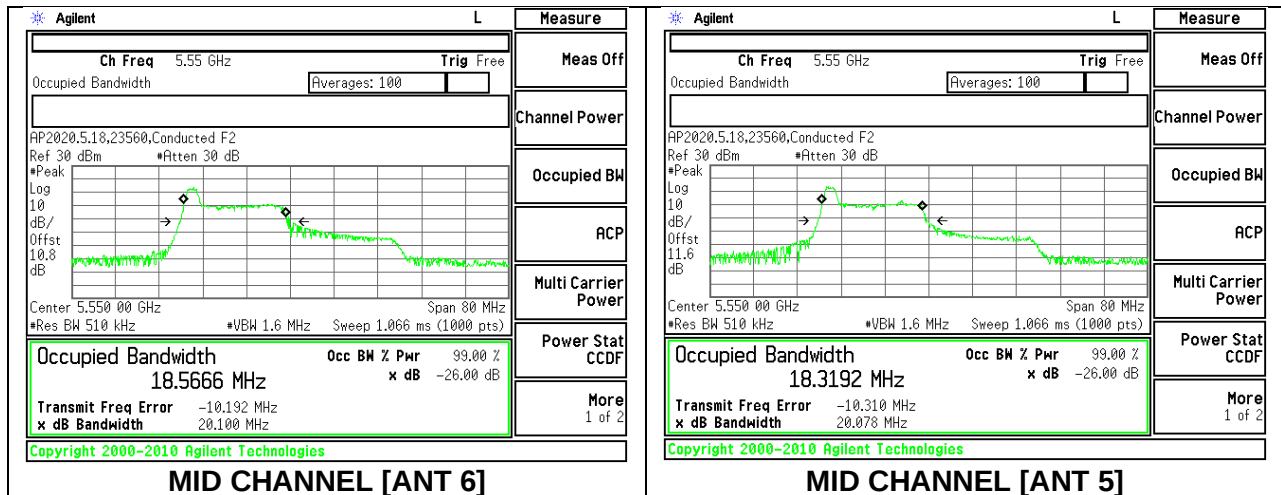
1TX ANT 5 MODE: 484 Tones, RU Index 65

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5510	40.415	37.5592
Mid	5550	40.437	37.6040
High	5670	40.392	37.6344
142	5710	40.380	37.6661



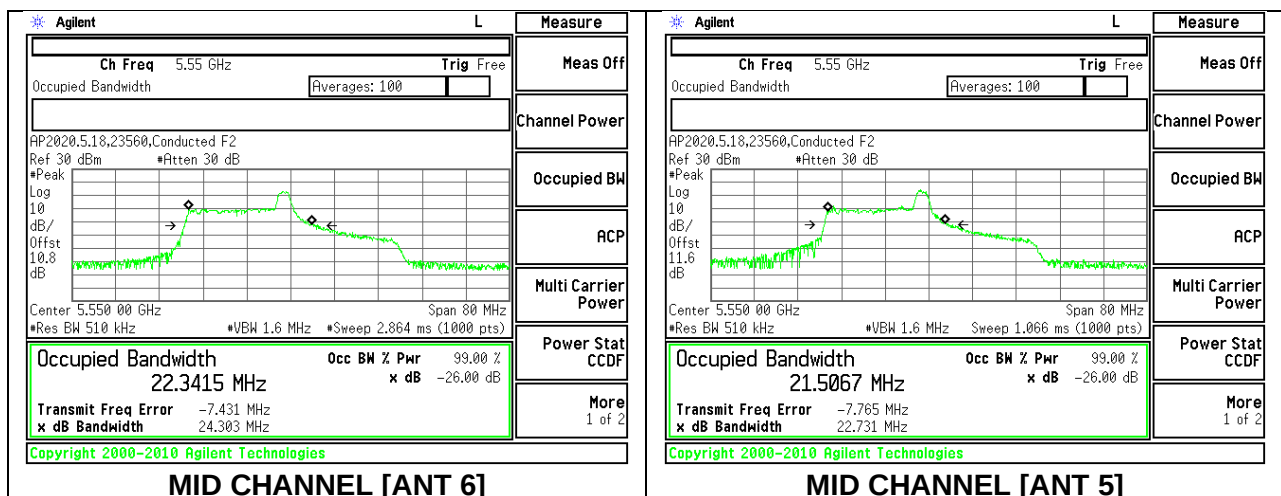
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 0

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5510	20.612	19.891	18.8227	18.3815
Mid	5550	20.100	20.078	18.5666	18.3192
High	5670	20.641	20.059	18.9470	18.3391
142	5710	20.644	18.407	19.9720	18.3513



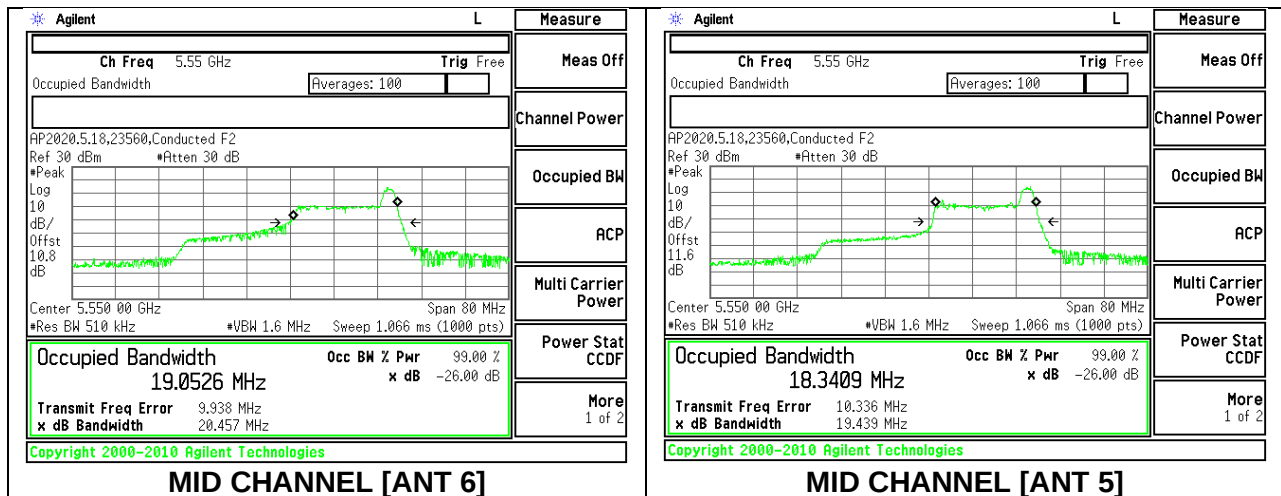
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 8

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5510	23.109	23.253	22.0571	21.7264
Mid	5550	24.303	22.731	22.3415	21.5067
High	5670	23.642	23.618	22.2122	21.6750
142	5710	23.799	23.232	22.3327	21.8494



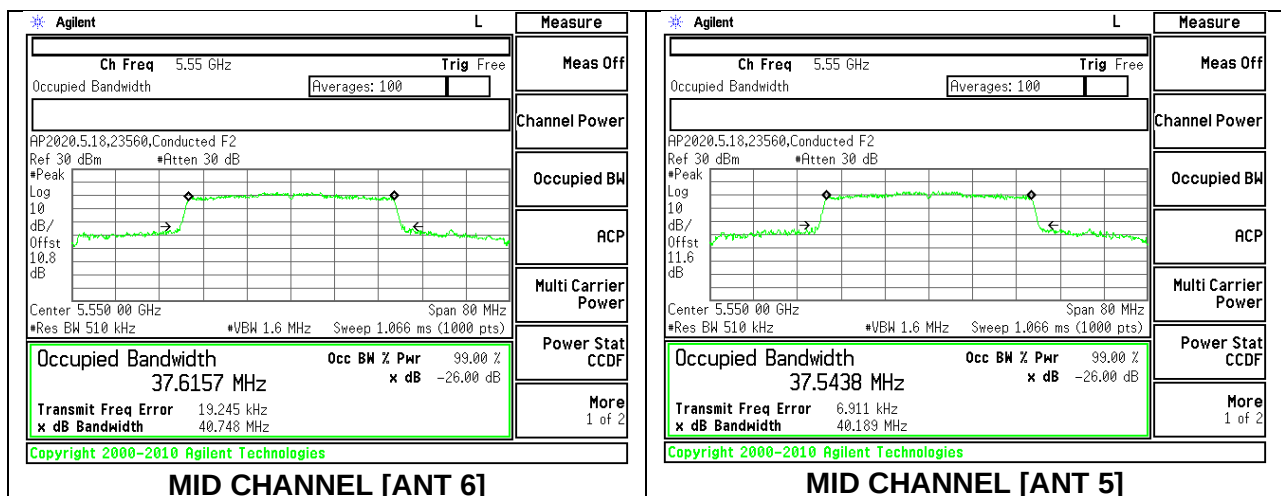
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 17

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5510	20.630	19.668	18.7327	18.2538
Mid	5550	20.457	19.439	19.0526	18.3409
High	5670	20.519	19.555	18.9206	18.3094
142	5710	20.479	19.413	18.7743	18.2455



2TX ANT 6 + ANT 5 OFDMA MODE: 484 Tones, RU Index 65

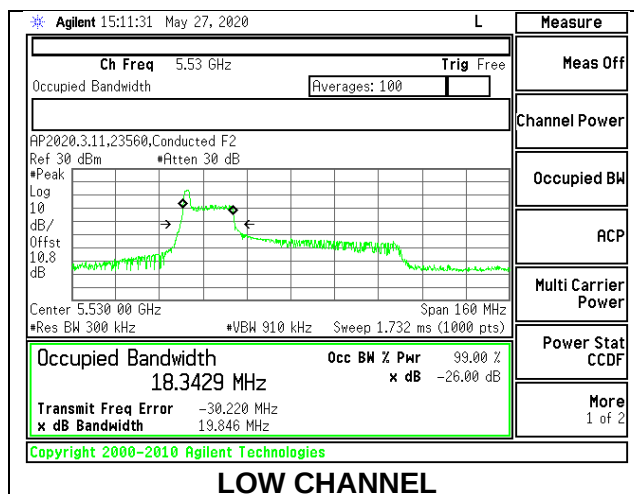
Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5510	40.323	40.231	37.5114	37.5141
Mid	5550	40.748	40.189	37.6157	37.5438
High	5670	40.419	40.168	37.5788	37.5566
142	5710	41.402	40.250	37.6824	37.5850



9.2.18. 802.11ax HE80 MODE IN THE 5.6 GHz BAND

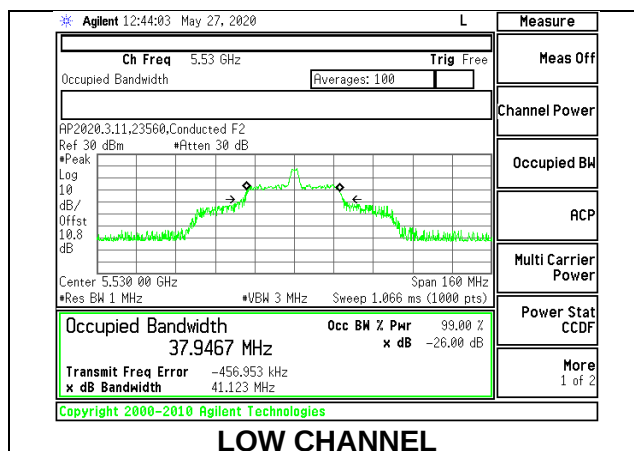
1TX ANT 6 MODE: 26 Tones, RU Index 0

Channel	Frequency	26 dB Bandwidth	99% Bandwidth
	(MHz)	(MHz)	(MHz)
Low	5530	19.846	18.3429
High	5610	20.101	18.2453
138	5690	19.698	18.2362



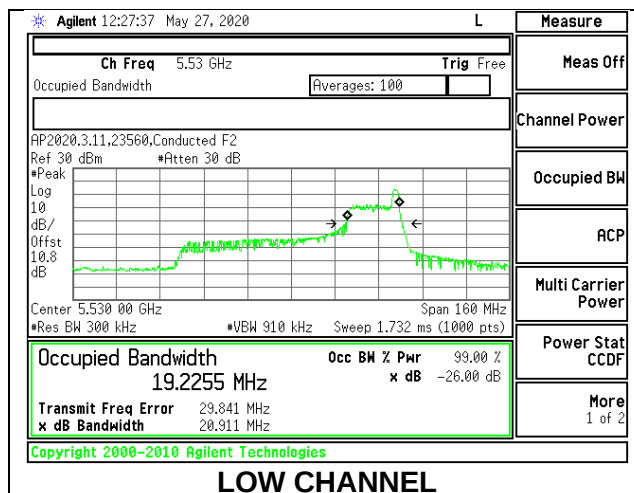
1TX ANT 6 MODE: 26 Tones, RU Index 18

Channel	Frequency	26 dB Bandwidth	99% Bandwidth
	(MHz)	(MHz)	(MHz)
Low	5530	41.123	37.9467
High	5610	40.603	37.9936
138	5690	41.541	38.4520



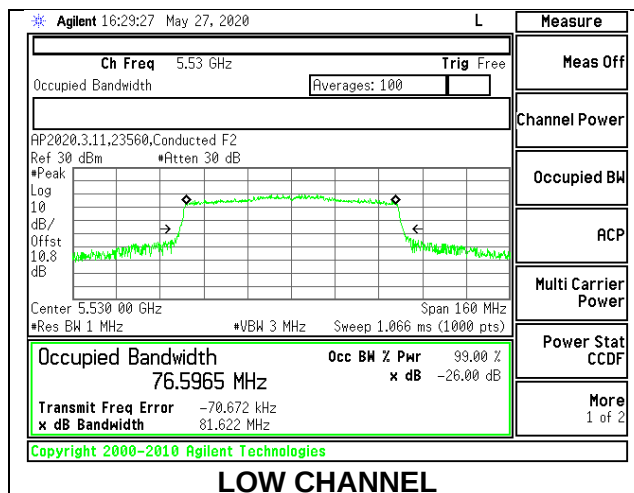
1TX ANT 6 MODE: 26 Tones, RU Index 36

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5530	20.911	19.2255
High	5610	21.083	19.8203
138	5690	20.714	19.0957



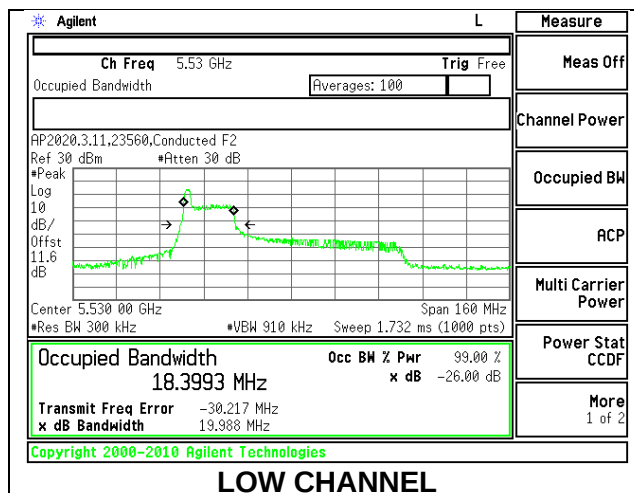
1TX ANT 6 MODE: 996 Tones, RU Index 67

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5530	81.622	76.5965
High	5610	81.294	76.9508
138	5690	81.427	76.7757



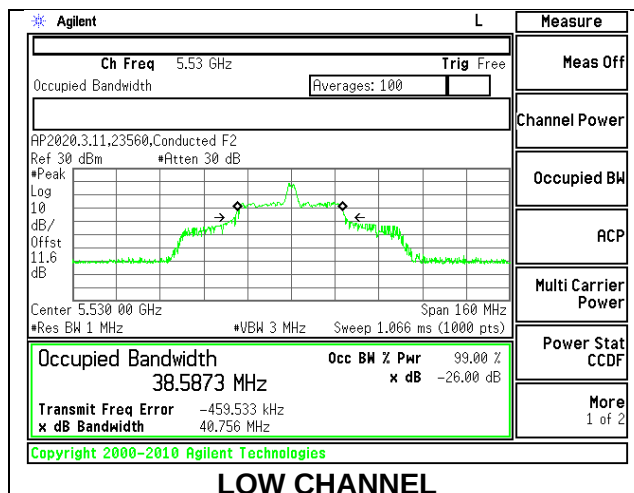
1TX ANT 5 MODE: 26 Tones, RU Index 0

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5530	19.988	18.3993
High	5610	19.540	18.1700
138	5690	19.879	18.3071



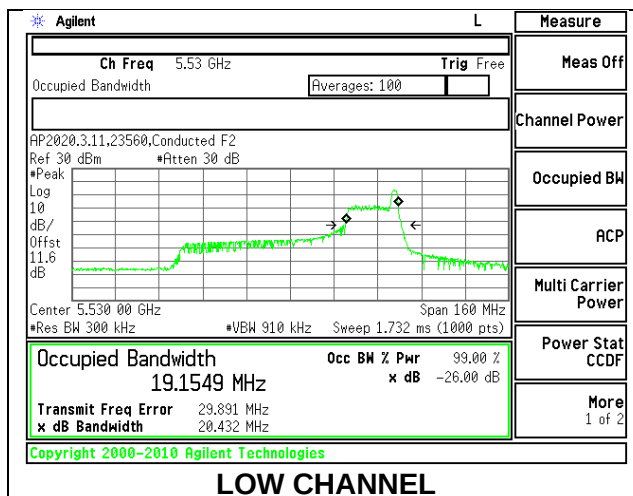
1TX ANT 5 MODE: 26 Tones, RU Index 18

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5530	40.756	38.5873
High	5610	40.470	38.7017
138	5690	40.818	38.4046



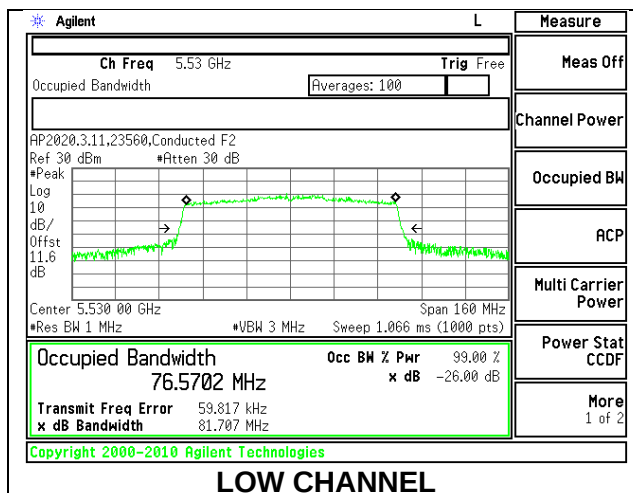
1TX ANT 5 MODE: 26 Tones, RU Index 36

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5530	20.432	19.1549
High	5610	21.040	19.6625
138	5690	20.965	19.0954



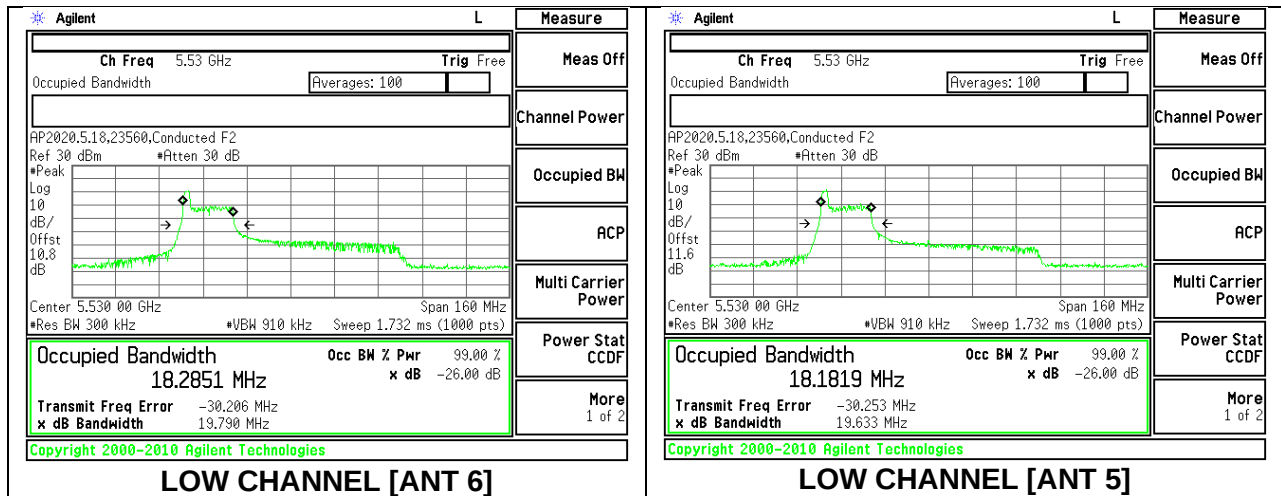
1TX ANT 5 MODE: 996 Tones, RU Index 67

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5530	81.707	76.5702
High	5610	81.500	76.9063
138	5690	81.704	76.9199



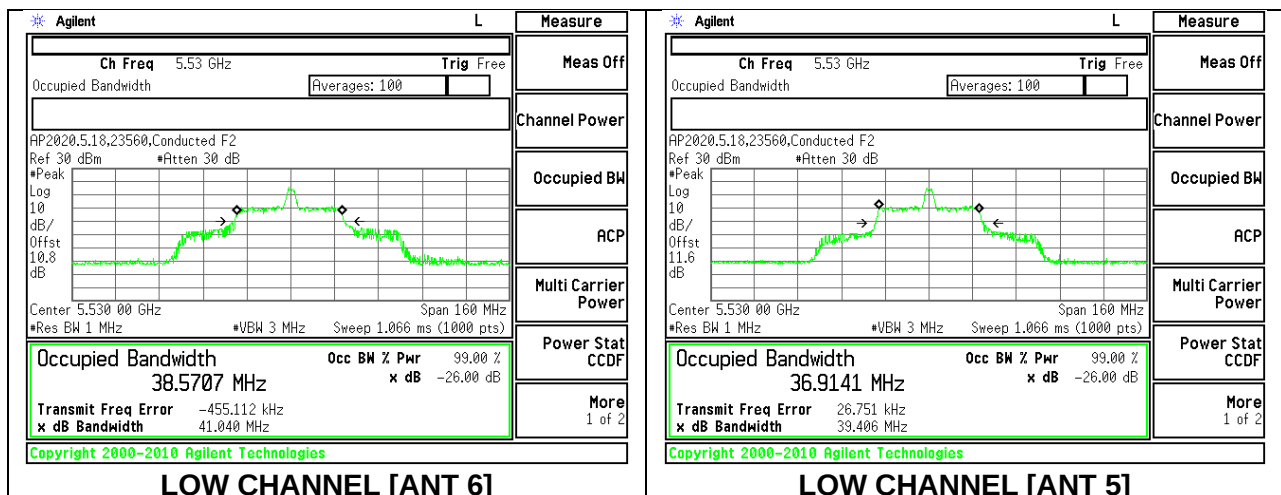
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 0

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5530	19.790	19.633	18.2851	18.1819
High	5610	19.751	19.771	18.2392	18.1496
138	5690	20.248	19.616	18.4694	18.1035



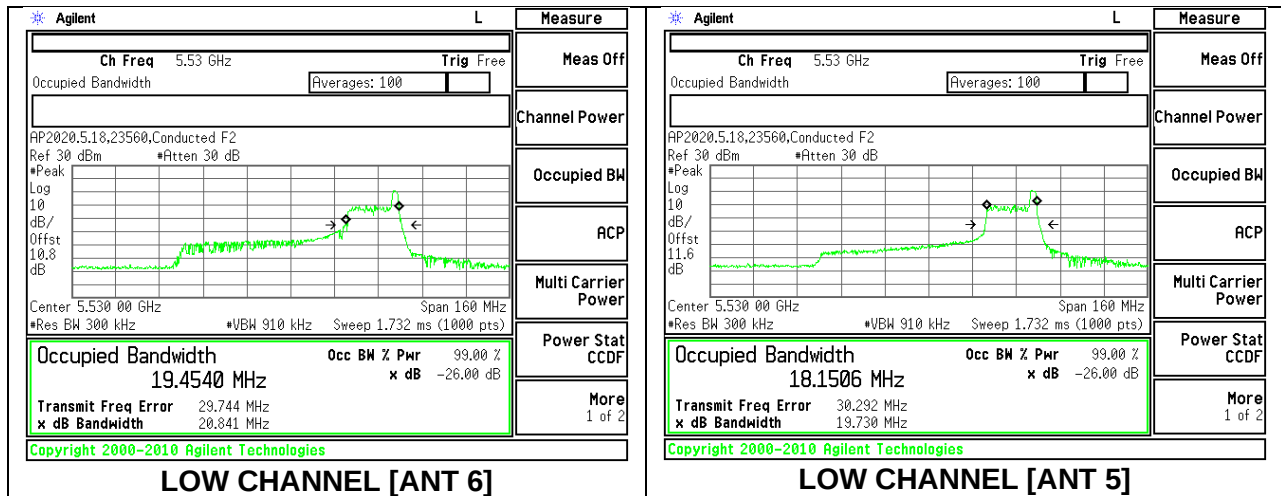
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 18

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5530	41.541	39.406	38.4520	36.9141
High	5610	42.422	39.424	38.8569	36.9277
138	5690	41.229	38.932	38.1424	36.9838



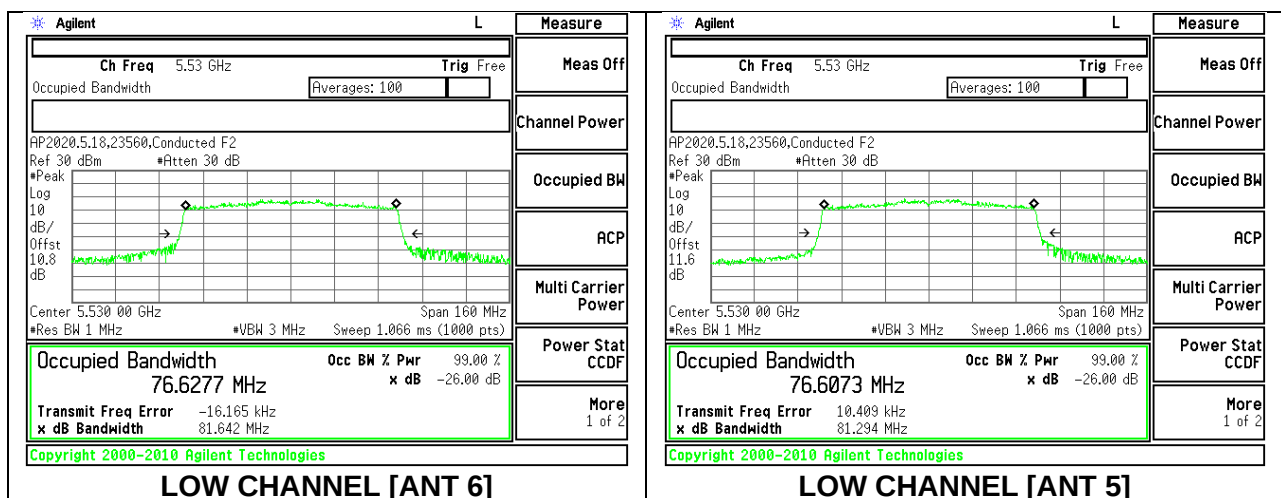
2TX ANT 6 + ANT 5 OFDMA MODE: 26 Tones, RU Index 36

Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5530	20.841	19.730	19.4540	18.1506
High	5610	20.922	19.670	19.7737	18.2180
138	5690	20.942	19.591	19.1972	18.1884



2TX ANT 6 + ANT 5 OFDMA MODE: 996 Tones, RU Index 67

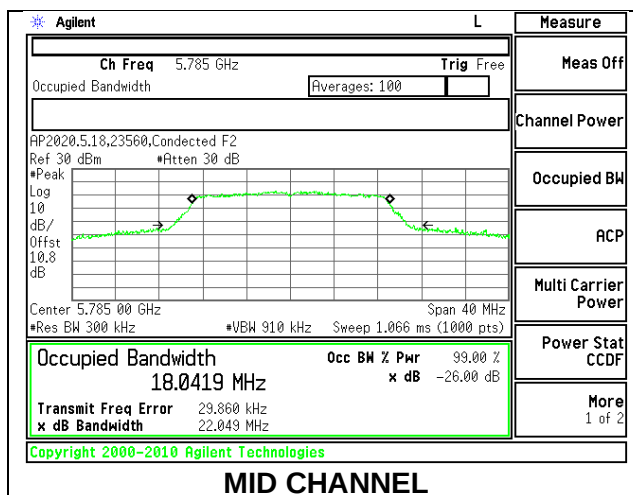
Channel	Frequency (MHz)	26 dB Bandwidth ANT 6 (MHz)	26 dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5530	81.642	81.294	76.6277	76.6073
High	5610	81.329	81.378	76.8404	76.8409
138	5690	81.778	81.486	76.8343	76.8546



9.2.19. 802.11n HT20 MODE IN THE 5.8 GHz BAND

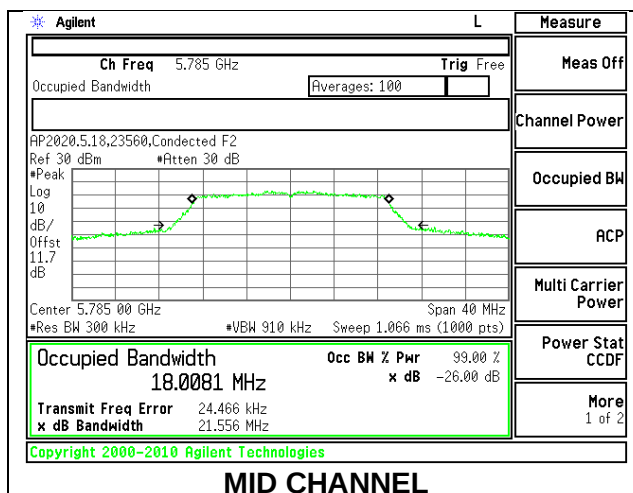
1TX ANT 6 MODE

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5745	21.483	18.0037
Mid	5785	22.049	18.0419
High	5825	21.426	17.9766



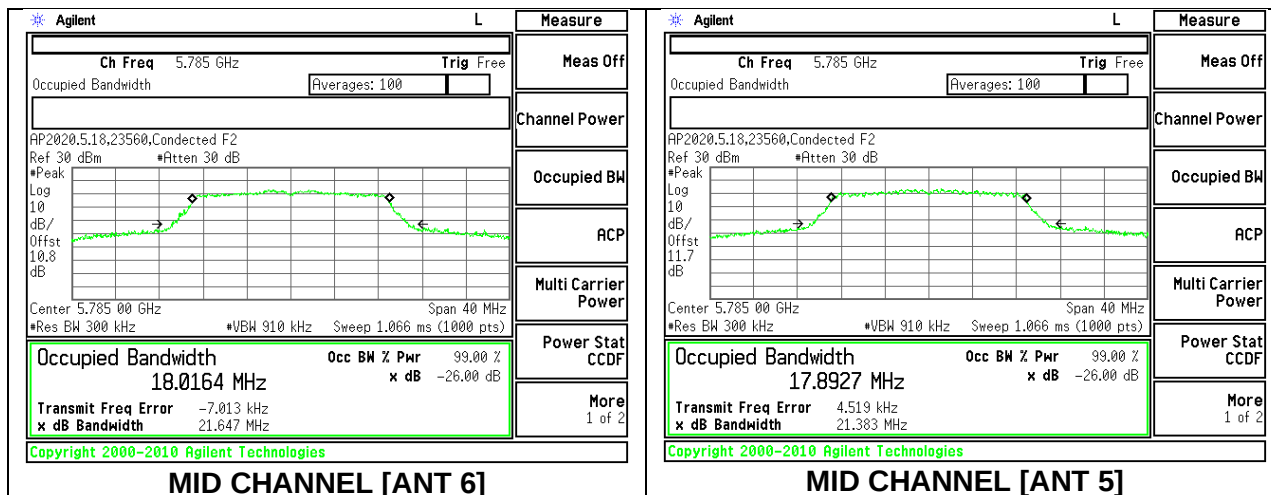
1TX ANT 5 MODE

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5745	21.412	18.0831
Mid	5785	21.556	18.0081
High	5825	21.554	17.9839



2TX ANT 6 + ANT 5 CDD MODE

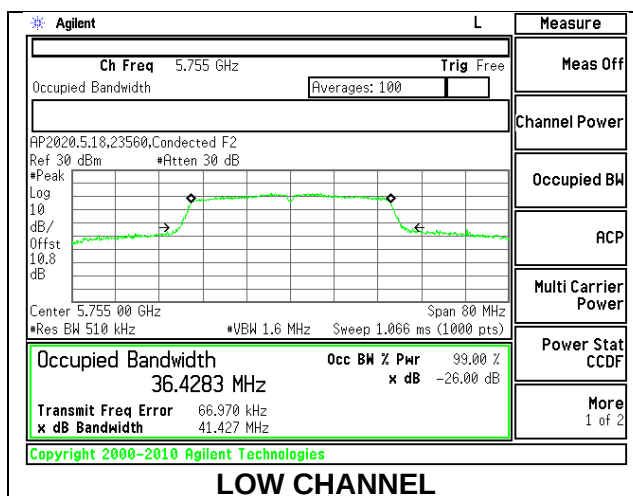
Channel	Frequency (MHz)	26dB Bandwidth ANT 6 (MHz)	26dB Bandwidth ANT 5 (MHz)	99% Bandwidth ANT 6 (MHz)	99% Bandwidth ANT 5 (MHz)
Low	5745	21.556	21.925	18.0541	17.8935
Mid	5785	21.647	21.383	18.0164	17.8927
High	5825	21.679	21.125	18.1118	17.9526



9.2.20. 802.11n HT40 MODE IN THE 5.8 GHz BAND

1TX ANT 6 MODE

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5755	41.427	36.4283
High	5795	41.407	36.4781



1TX ANT 5 MODE

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5755	42.783	36.5039
High	5795	41.727	36.3976

