



CERTIFICATION TEST REPORT

Report Number. : 12440598-E5V1

Applicant : Samsung Electronics Co., Ltd.
129 Samsung-Ro, Yeongtong-Gu,
Suwon-Si, Gyeonggi-Do, 16677, Korea

Models : SM-A750GN/DS and SM-A750GN

FCC ID : A3LSMA750GN

EUT Description : GSM/WCDMA/LTE Phone with BT, DTS/UNII a/b/g/n/ac, ANT+
and NFC

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

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Prepared by:
UL Verification Services Inc.
47173 Benicia Street
Fremont, CA 94538 U.S.A.
TEL: (510) 771-1000
FAX: (510) 661-0888



NVLAP Lab code: 200065-0

REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	8/20/2018	Initial Issue	

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Samsung Electronics Co., Ltd.
129 Samsung-Ro, Yeongtong-Gu,
Suwon-Si, Gyeonggi-Do, 16677, Korea

EUT DESCRIPTION: GSM/WCDMA/LTE Phone with BT, DTS/UNII a/b/g/n/ac, ANT+
and NFC

MODELS: SM-A750GN/DS and SM-A750GN

SERIAL NUMBER: Conducted: R38K70KQF9N, R38K70KQGDH
Radiated: R38K70KQFNY, R38K70KQFAH, R38K70KQF8A

DATE TESTED: August 6 – 16, 2018

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart E	Complies

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Verification Services Inc. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. 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:



DAN CORONIA
CONSUMER TECHNOLOGY DIVISION
OPERATIONS LEADER
UL Verification Services Inc.

Reviewed By:



STEVEN TRAN
CONSUMER TECHNOLOGY DIVISION
TEST ENGINEER
UL Verification Services Inc.

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, FCC 14-30, FCC KDB 905462 D06 v02, FCC KDB 789033 D02 v02r01, ANSI C63.10-2013, FCC 06-96, FCC KDB 905462 D02 and D03.

3. 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)	

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

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

$$\begin{aligned} \text{Field Strength (dBuV/m)} &= \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \\ &\text{Cable Loss (dB)} - \text{Preamp Gain (dB)} \\ 36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} &= 28.9 \text{ dBuV/m} \end{aligned}$$

4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Worst Case Conducted Disturbance, 9KHz to 0.15 MHz	3.84 dB
Worst Case Conducted Disturbance, 0.15 to 30 MHz	3.65 dB
Worst Case Radiated Disturbance, 9KHz to 30 MHz	3.15 dB
Worst Case Radiated Disturbance, 30 to 1000 MHz	5.36 dB
Worst Case Radiated Disturbance, 1000 to 18000 MHz	4.32 dB
Worst Case Radiated Disturbance, 18000 to 26000 MHz	4.45 dB
Worst Case Radiated Disturbance, 26000 to 40000 MHz	5.24 dB

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

5. EQUIPMENT UNDER TEST

5.1. EUT DESCRIPTION

The EUT is a GSM/WCDMA/LTE phone with BT, DTS/UNII a/b/g/n/ac, ANT+ and NFC.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

5.2 GHz BAND

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5.2 GHz band, 1TX			
5180-5240	802.11a	15.62	36.48
5180-5240	802.11n HT20	15.68	36.98
5190-5230	802.11n HT40	13.61	22.96
5210	802.11ac VHT80	10.44	11.07

5.3 GHz BAND

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5.3 GHz band, 1TX			
5260 - 5320	802.11a	14.95	31.26
5260 - 5320	802.11n HT20	14.79	30.13
5270 - 5310	802.11n HT40	13.86	24.32
5290	802.11ac VHT80	12.62	18.28

5.6 GHz BAND

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5.6 GHz band, 1TX			
5500-5720	802.11a	15.12	32.51
5500-5720	802.11n HT20	15.01	31.70
5510-5710	802.11n HT40	13.88	24.43
5530-5690	802.11ac VHT80	13.27	21.23

5.8 GHz BAND

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5.8 GHz band, 1TX			
5745-5825	802.11a	15.10	32.36
5745-5825	802.11n HT20	14.95	31.26
5755-5795	802.11n HT40	13.57	22.75
5775	802.11ac VHT80	12.81	19.10

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an internal antenna, with the following maximum gains:

Frequency (GHz)	Peak Antenna Gain (dBi)
5180-5240	-6.90
5260-5320	-6.90
5500-5700	-4.31
5725-5850	-5.88

5.4. SOFTWARE AND FIRMWARE

The test utility software used during testing was A750GN.001

5.5. WORST-CASE CONFIGURATION AND MODE

Radiated emissions below 1GHz, above 18GHz, and power line conducted emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.

Band edge and radiated emissions between 1GHz and 18GHz were performed with the EUT set to transmit at the highest power on low, middle and high channels.

The fundamental of the EUT was investigated in three orthogonal orientations X,Y and Z it was determined that X orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in X orientation.

Worst-case data rates as provided by the client were:

802.11a mode: 6 Mbps
802.11n HT20mode: MCS0
802.11n HT40mode: MCS0
802.11ac VHT80 mode: MCS0

802.11ac VHT20 and VHT40 mode are different from 802.11nHT20 and HT40 only in control messages and have the same power settings.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC Adapter	Samsung	EP-TA50EWE	DW3J719AS/A-E	N/A
Earphone	Samsung	N/A	N/A	N/A

I/O CABLES (CONDUCTED TEST)

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	Antenna	1	RF	Shielded	0.2	To spectrum Analyzer
2	USB	1	USB	Un-shielded	1	EUT to AC Mains

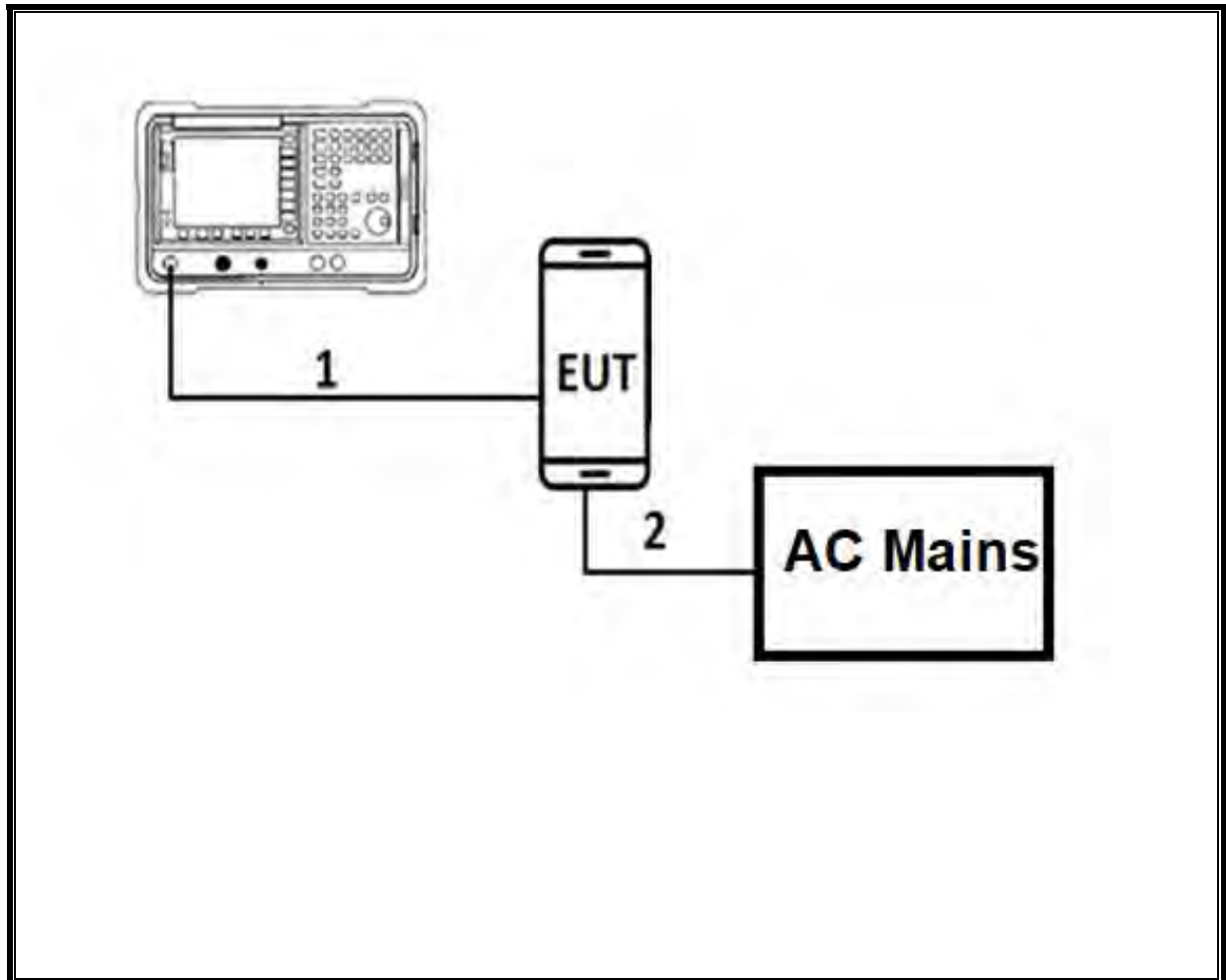
I/O CABLES (RADIATED AND CONDUCTED EMISSIONS)

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	USB	1	USB	Shielded	1	N/A
2	earphone	1	3.5mm	Un-shielded	1	N/A

TEST SETUP

The EUT is a stand alone. Test software exercised the radio card.

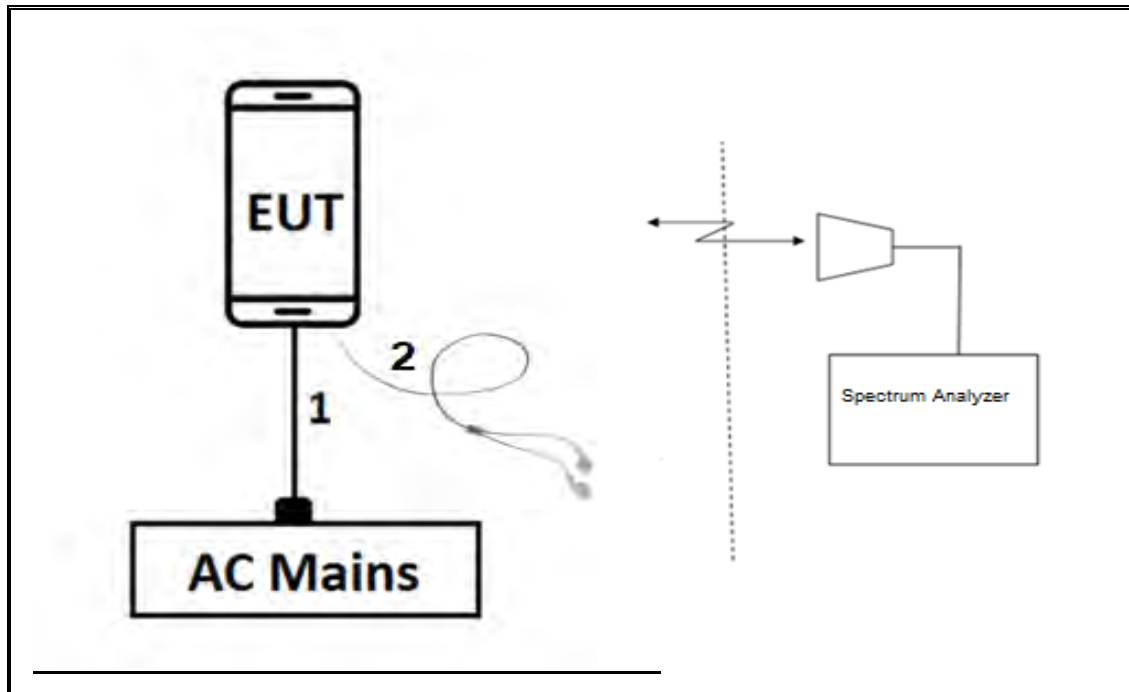
CONDUCTED TEST SETUP DIAGRAM



TEST SETUP

For conducted tests: the EUT was Stand alone. The test software exercises the radio.

RADIATED AND AC LINE CONDUCTED EMISSIONS SETUP DIAGRAM



TEST SETUP

For radiated tests: EUT is Stand alone. The test software exercises the radio.

6. 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, Section E.3.b (Method PM-G) and KDB 789033 D02 v02r01, Section E.2.b (Method SA-1)

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.

7. TEST AND MEASUREMENT EQUIPMENT

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

TEST EQUIPMENT LIST				
Description	Manufacturer	Model	ID Num	Cal Due
Amplifier, 100kHz to 1GHz, 32dB	Hewlet Packard	8447D	T10	02/14/2019
Antenna, Broadband Hybrid, 30MHz to 2000MHz	Sunol Sciences Corp.	JB1	T407	05/10/2019
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	T862	05/24/2019
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	T345	04/25/2019
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	T344	04/30/2019
Amplifier, 1 to 18GHz, 35dB	AMPLICAL	AMP1G18-35	T1569	06/03/2019
RF Amplifier	MITEQ	AFS42-00101800-25-S-42	T1165	04/23/2019
RF Amplifier	MITEQ	AFS42-00101800-25-S-42	171460	08/01/2019
Amplifier, 1 to 7.0GHz, 20.0dB Gain minimum, 6dB NF	AMPLICAL	AMP1G7-20-27	T1563	06/03/2019
Amplifier, 1 to 7.0GHz, 20.0dB Gain minimum, 6dB NF	AMPLICAL	AMP1G7-20-27	T1370	06/12/2019
Amplifier 1-8GHz 30dB gain	L3 Narda	AMF-4D-01000800-30-29P	167494	08/01/2019
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	PRE0179367	04/25/2019
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	PRE0179377	05/03/2019
Spectrum Analyzer, PSA, 3Hz to 44GHz	Agilent (Keysight) Technologies	N9030A	T1466	04/16/2019
Spectrum Analyzer, PXA, 3Hz to 44GHz	Agilent (Keysight) Technologies	N9030A	T1450	02/05/2019
Spectrum Analyzer, PXA, 3Hz to 44GHz	Agilent (Keysight) Technologies	N9030A	T1113	12/21/2018
Spectrum Analyzer, PSA, 3Hz to 44GHz	Agilent (Keysight) Technologies	N9030A	T1454	01/08/2019
Spectrum Analyzer, PSA, 3Hz to 44GHz	Agilent (Keysight) Technologies	N9030A	T200	11/18/2018
Power Meter, P-series single channel	Agilent (Keysight) Technologies	N1911A	T1269	04/05/2019
Power Sensor, P-series, 50MHz to 18GHz, Wideband	Agilent (Keysight) Technologies	N1921A	T1225	04/10/2019
Antenna, Active Loop 9kHz-30MHz	Com-Power Corp.	AL-130R	T1866	10/10/2018
18 - 26.5 GHz Horn Antenna	Seavey Division	MWH-1826/B	T89	01/18/2019
26.5 - 40 GHz Horn Antenna	ARA	MWH-2640/B	T90	08/25/2018
Pre-Amp 1-26.5 GHz	Agilent	8449B	T404	03/09/2019
Pre-Amp, 26-40GHz	MITEQ	NSTTA2640-35-HG	T1864	03/09/2019
EMI Reciever	Rohde & Schwarz	ESR	T1436	02/21/2019
L.I.S.N.	FCC INC.	FCC LISN 50/250	T1310	06/15/2019
L.I.S.N.	FCC INC.	FCC LISN 50/250	T24	03/06/2019
Thermometer - Digital	Control Company	14-650-118	PRE0177862	02/22/2019

Test Software List			
Description	Manufacturer	Model	Version
Radiated Software	UL	UL EMC	Rev 9.5, Jun 22, 2018
Antenna Port Software	UL	UL RF	Ver 8.7, Aug 9, 2018

8. ANTENNA PORT TEST RESULTS

8.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

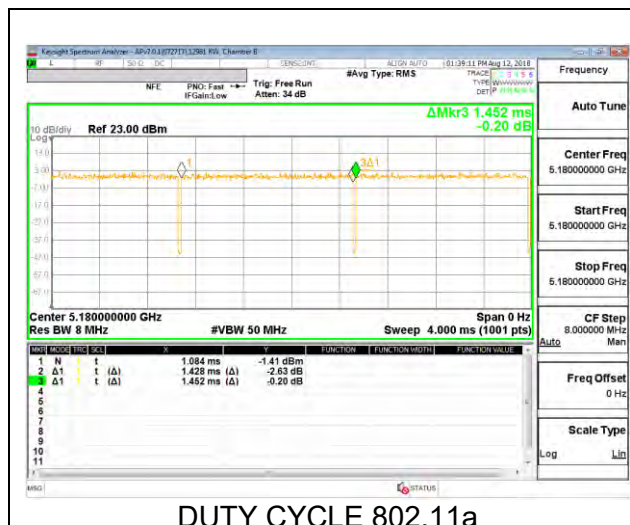
PROCEDURE

KDB 789033 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)
802.11a	1.428	1.452	0.983	98.35%	0.00	0.010
802.11n HT20	1.336	1.360	0.982	98.24%	0.00	0.010
802.11n HT40	0.664	0.690	0.962	96.23%	0.17	1.506
802.11ac VHT80	0.332	0.358	0.927	92.74%	0.33	3.012

DUTY CYCLE PLOTS



DUTY CYCLE 802.11a



DUTY CYCLE 802.11n HT20



DUTY CYCLE 802.11n HT40



DUTY CYCLE 802.11ac VHT80

8.2. 26 dB BANDWIDTH

LIMITS

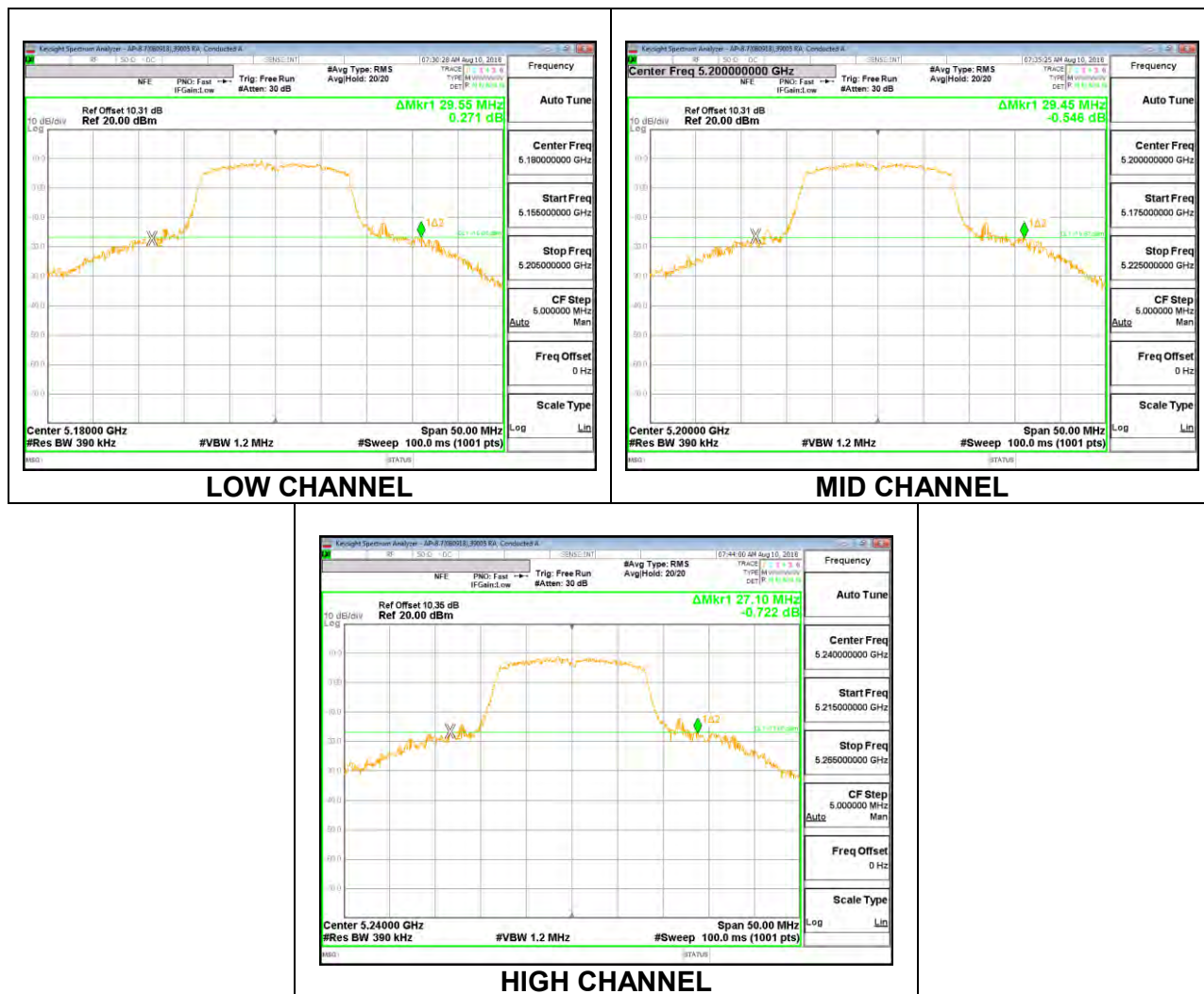
None; for reporting purposes only.

RESULTS

8.2.1. 802.11a MODE IN THE 5.2 GHz BAND

1TX Antenna 1 MODE

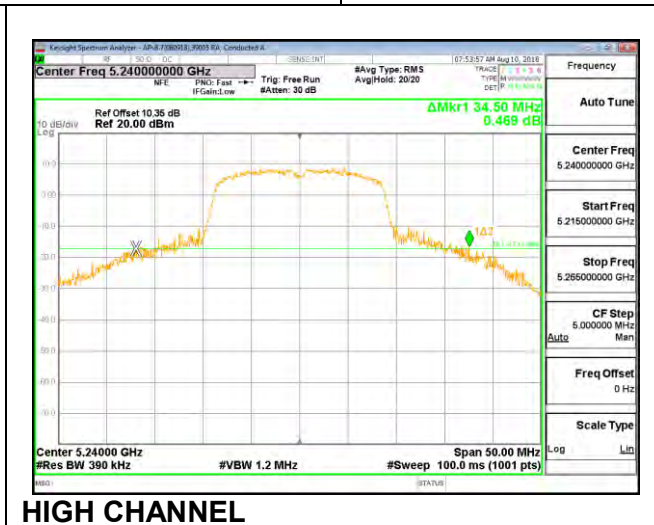
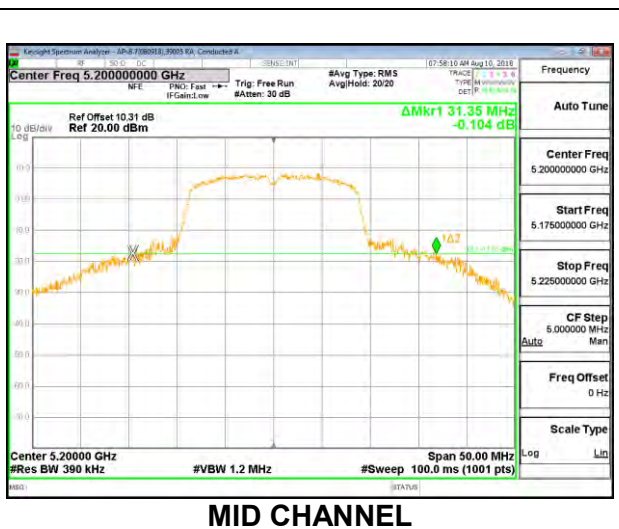
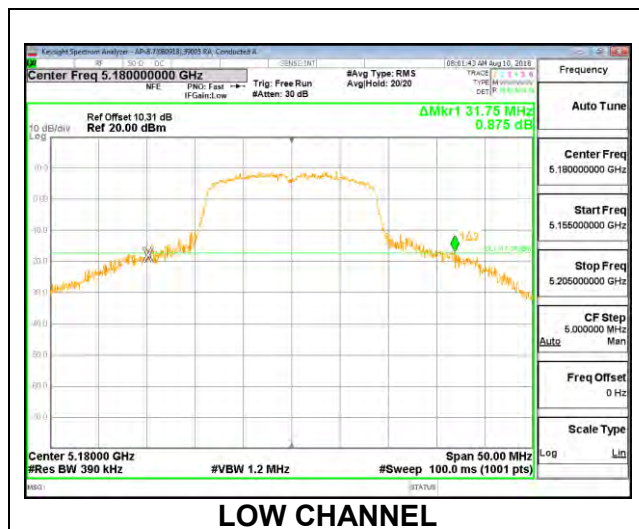
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5180	29.55
Mid	5200	29.45
High	5240	27.10



8.2.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

1TX Antenna 1 MODE

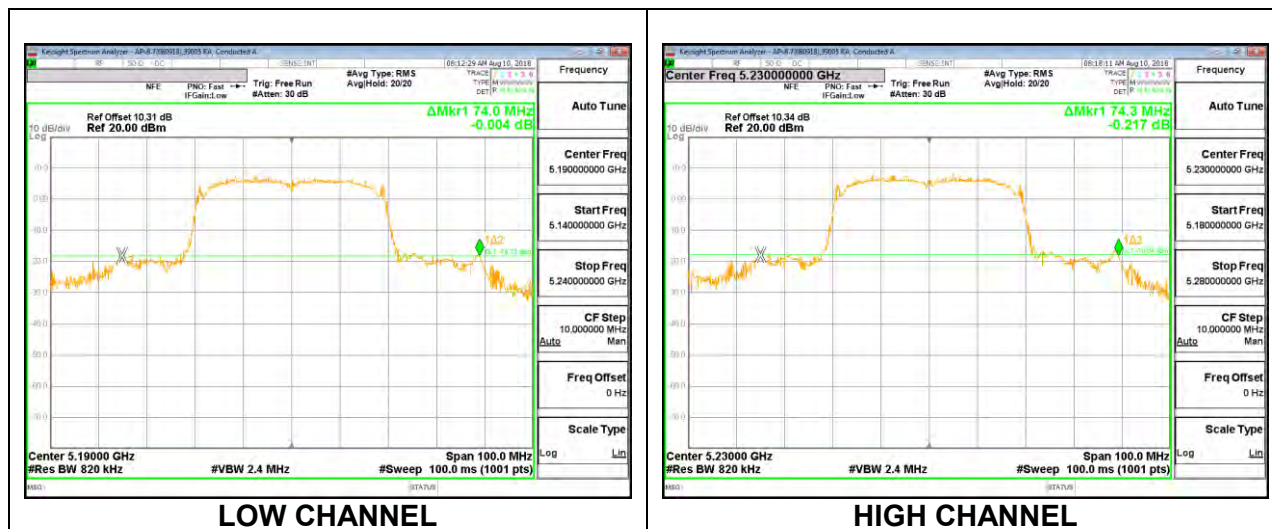
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5180	31.75
Mid	5200	31.35
High	5240	34.50



8.2.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

1TX Antenna 1 MODE

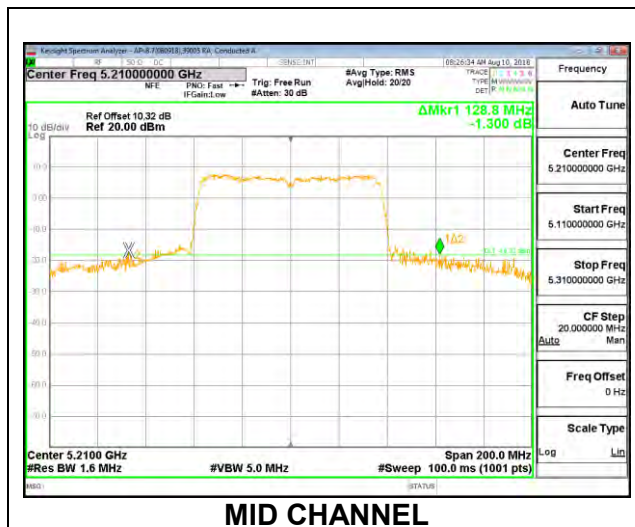
Channel	Frequency	26dB Bandwidth
	(MHz)	(MHz)
Low	5190	74.00
High	5230	74.30



8.2.4. 802.11ac VHT80 MODE IN THE 5.2 GHz BAND

1TX Antenna 1 MODE

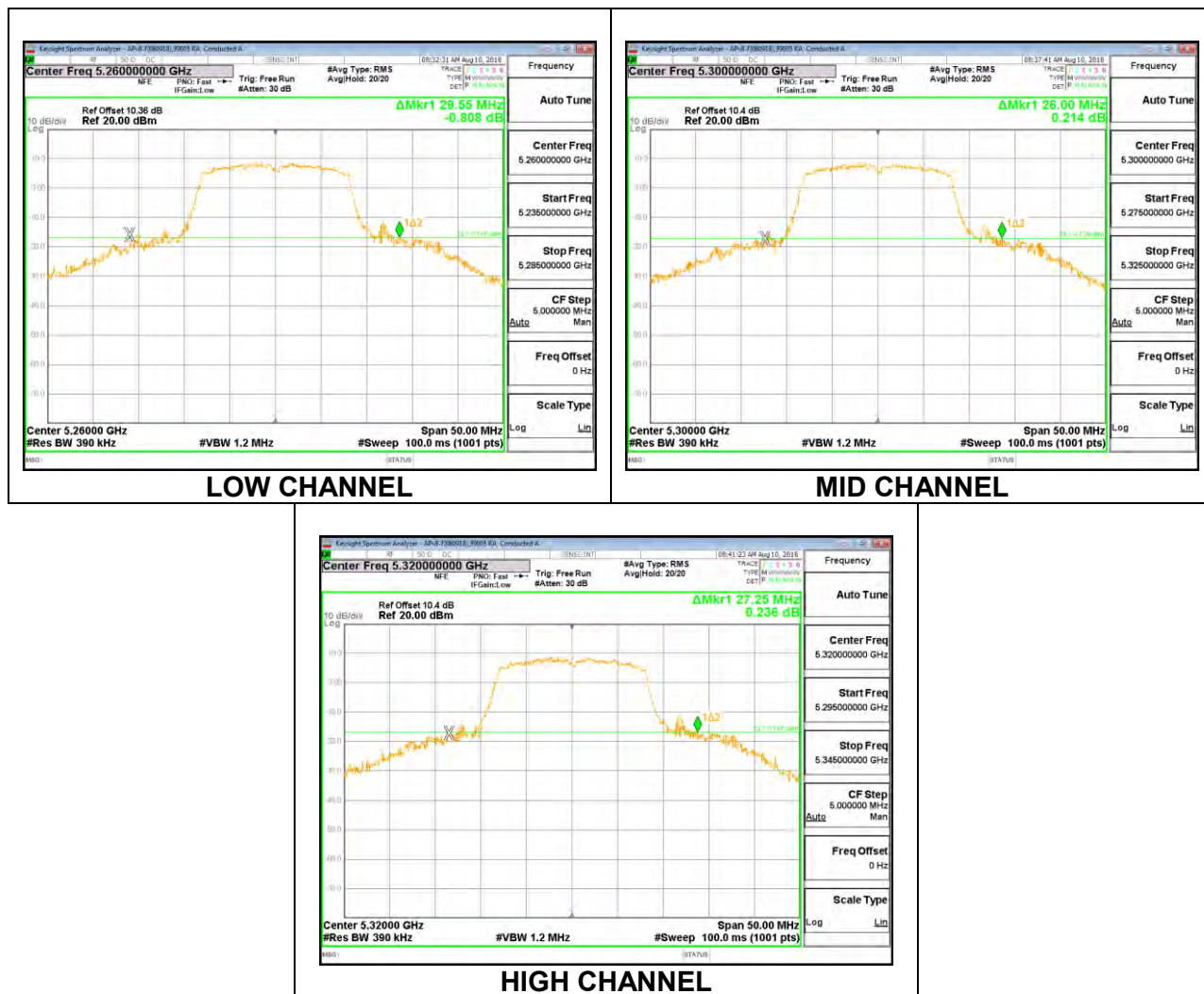
Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Mid	5210	128.80



8.2.5. 802.11a MODE IN THE 5.3 GHz BAND

1TX Antenna 1 MODE

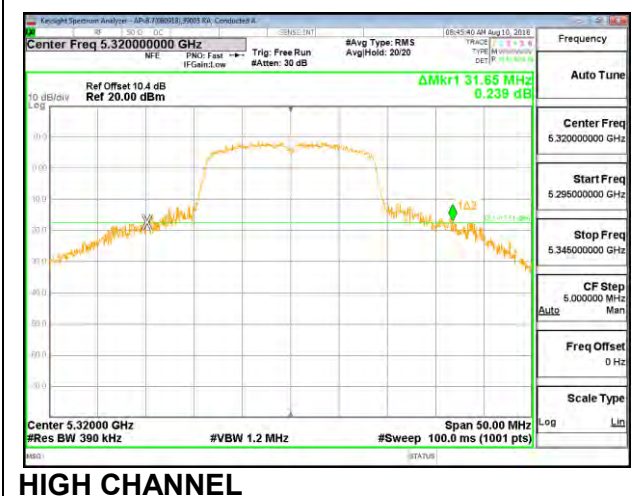
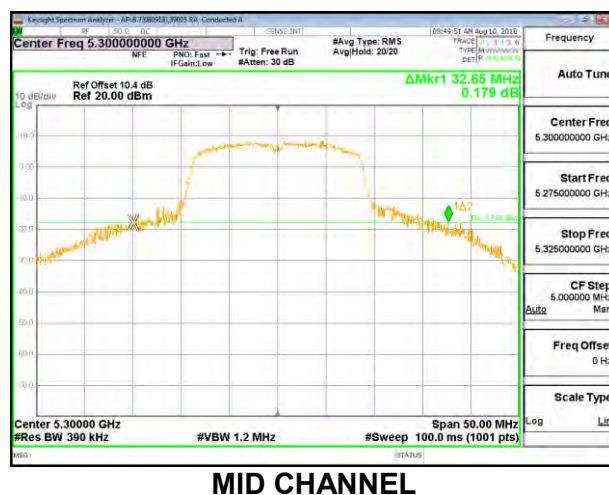
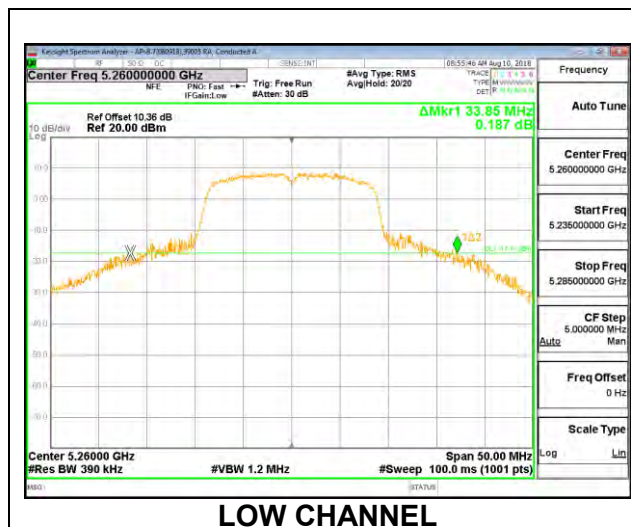
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5260	29.55
Mid	5300	26.00
High	5320	27.25



8.2.6. 802.11n HT20 MODE IN THE 5.3 GHz BAND

1TX Antenna 1 MODE

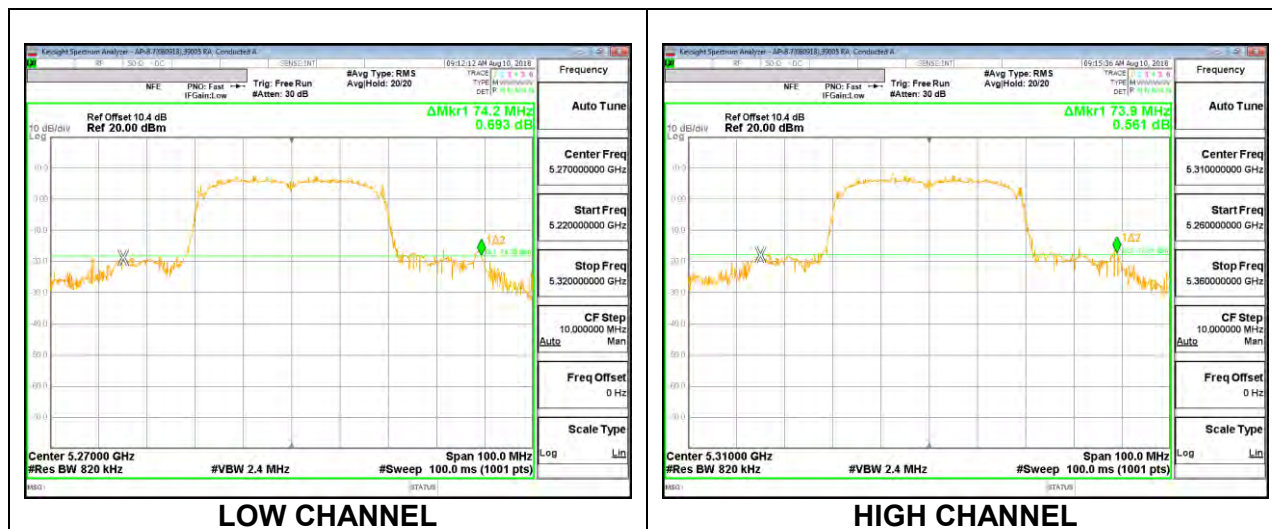
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5260	33.85
Mid	5300	32.65
High	5320	31.65



8.2.7. 802.11n HT40 MODE IN THE 5.3 GHz BAND

1TX Antenna 1 MODE

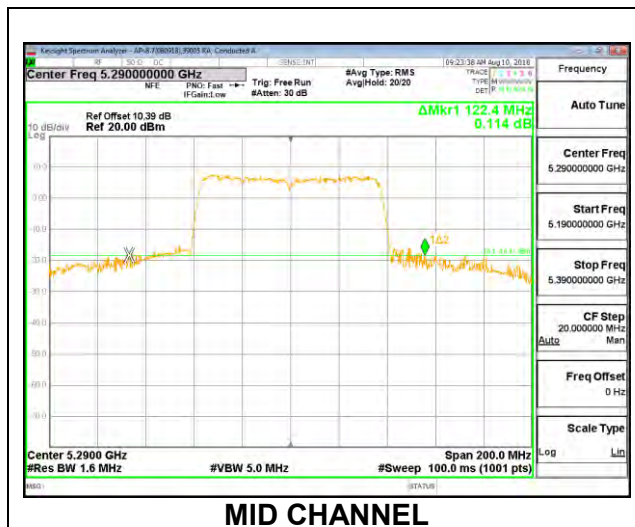
Channel	Frequency (MHz)	26dB Bandwidth (MHz)
Low	5270	74.20
High	5310	73.90



8.2.8. 802.11ac VHT80 MODE IN THE 5.3 GHz BAND

1TX Antenna 1 MODE

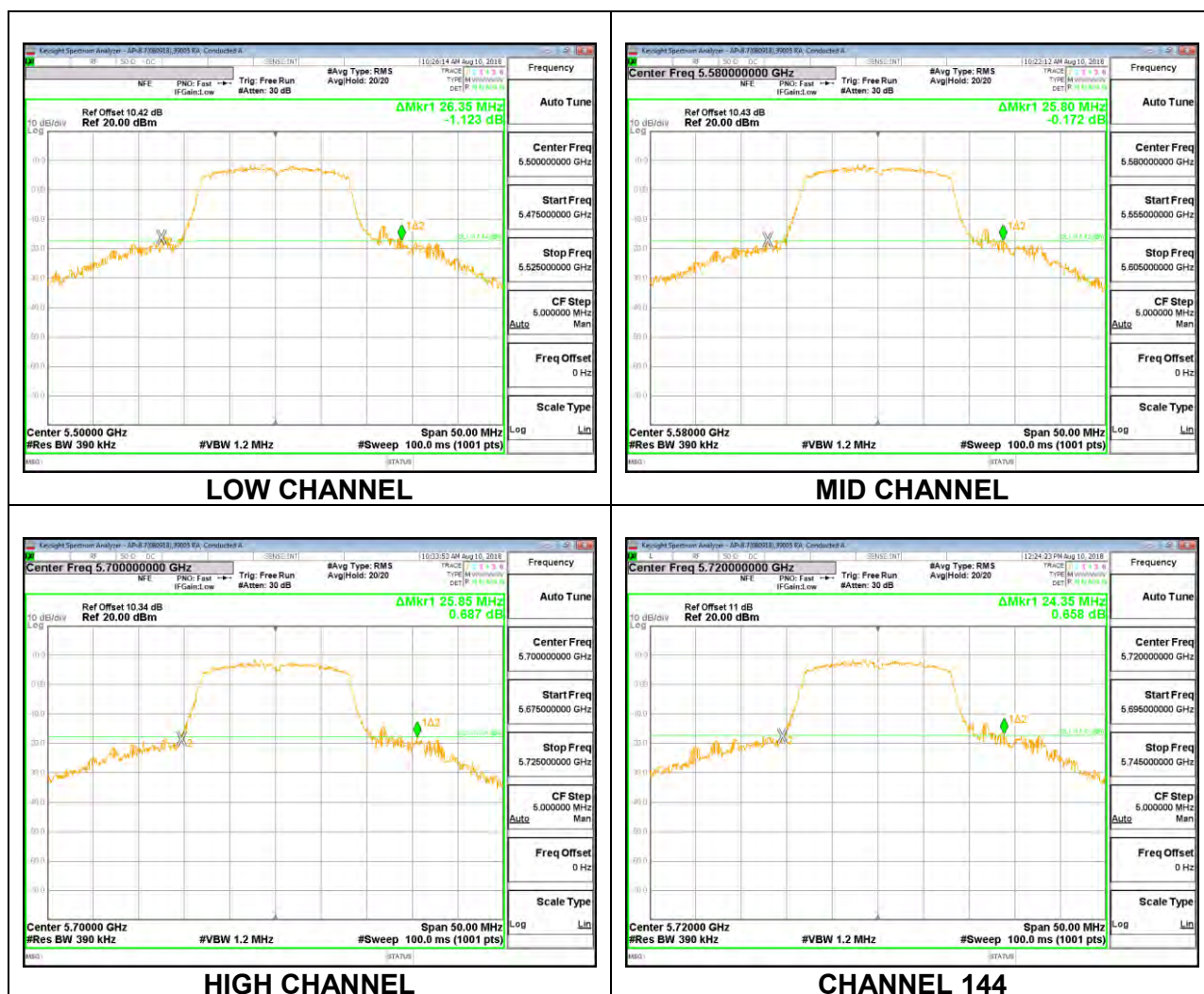
Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Mid	5290	122.40



8.2.9. 802.11a MODE IN THE 5.6 GHz BAND

1TX Antenna 1 MODE

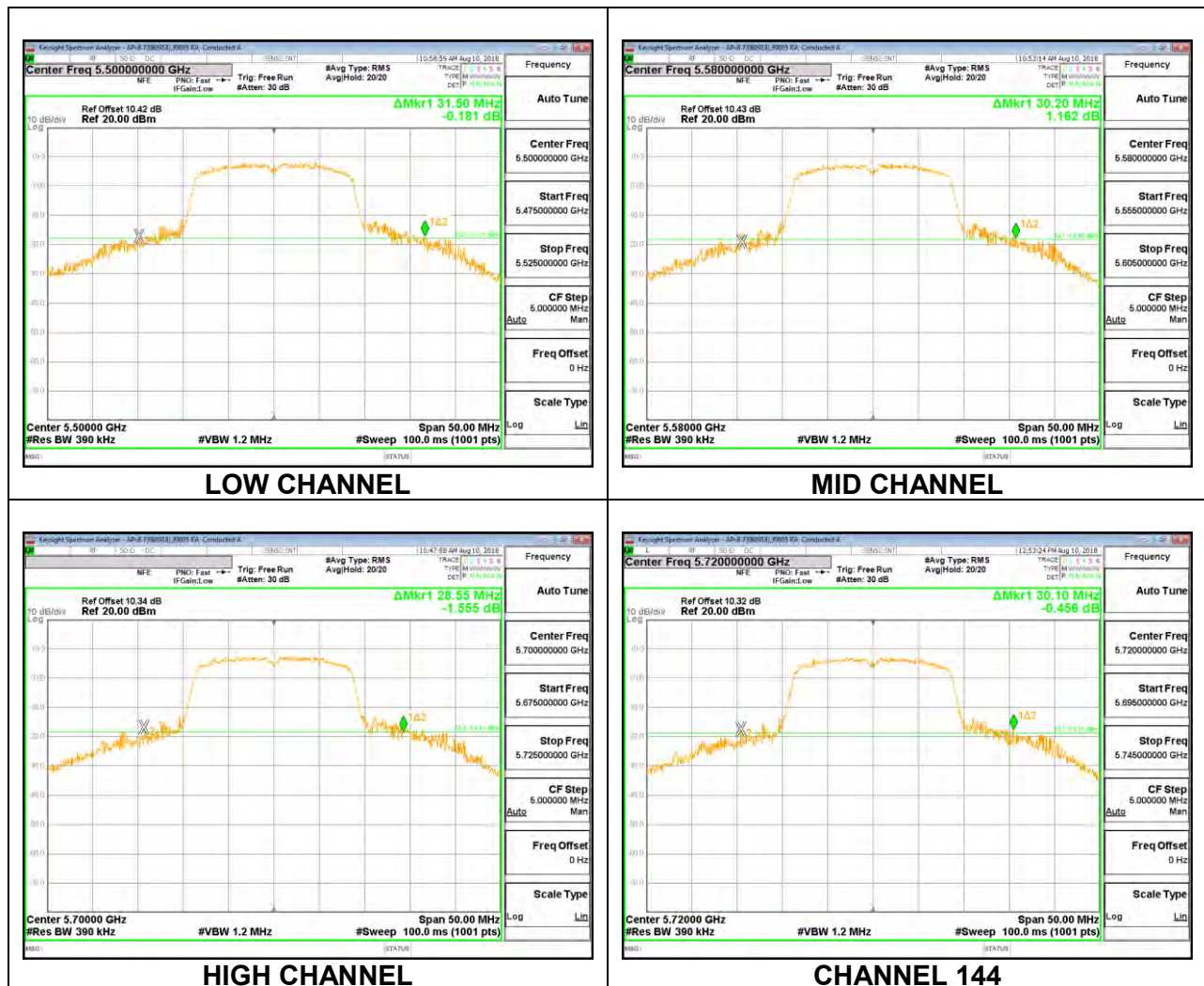
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5500	26.35
Mid	5580	25.80
High	5700	25.85
144	5720	24.35



8.2.10. 802.11n HT20 MODE IN THE 5.6 GHz BAND

1TX Antenna 1 MODE

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5500	31.50
Mid	5580	30.20
High	5700	28.55
144	5720	30.10



8.2.11. 802.11n HT40 MODE IN THE 5.6 GHz BAND

1TX Antenna 1 MODE

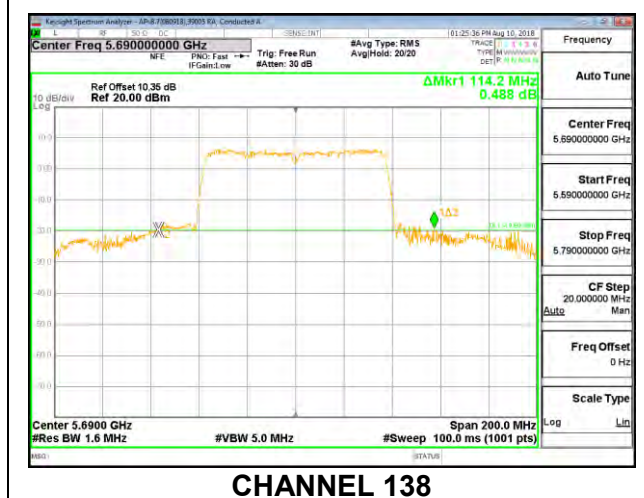
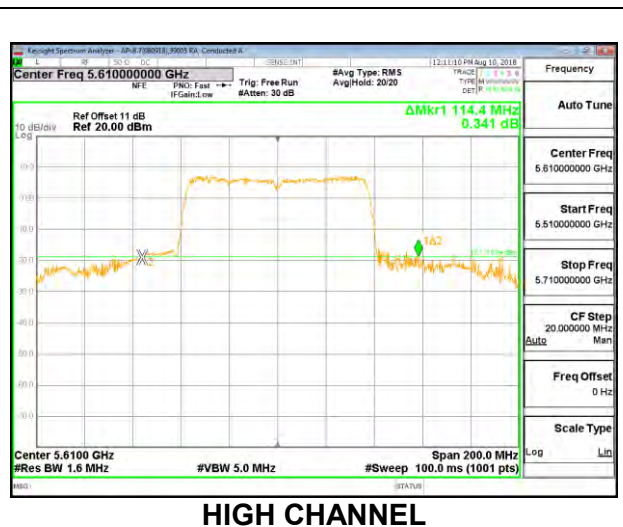
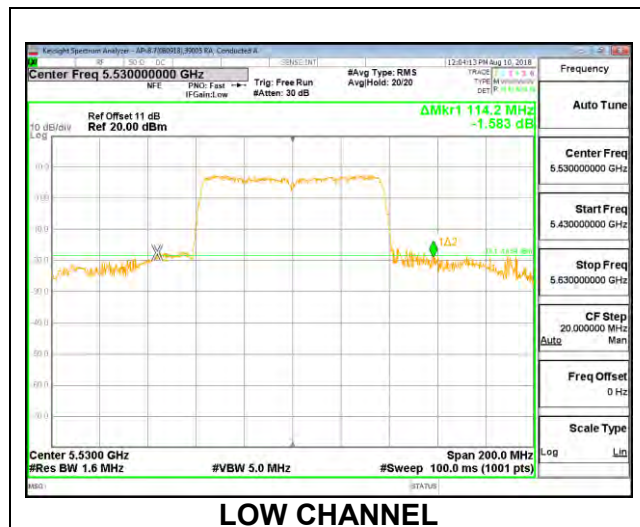
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5510	61.80
Mid	5550	61.20
High	5670	60.80
142	5710	44.20



8.2.12. 802.11ac VHT80 MODE IN THE 5.6 GHz BAND

1TX Antenna 1 MODE

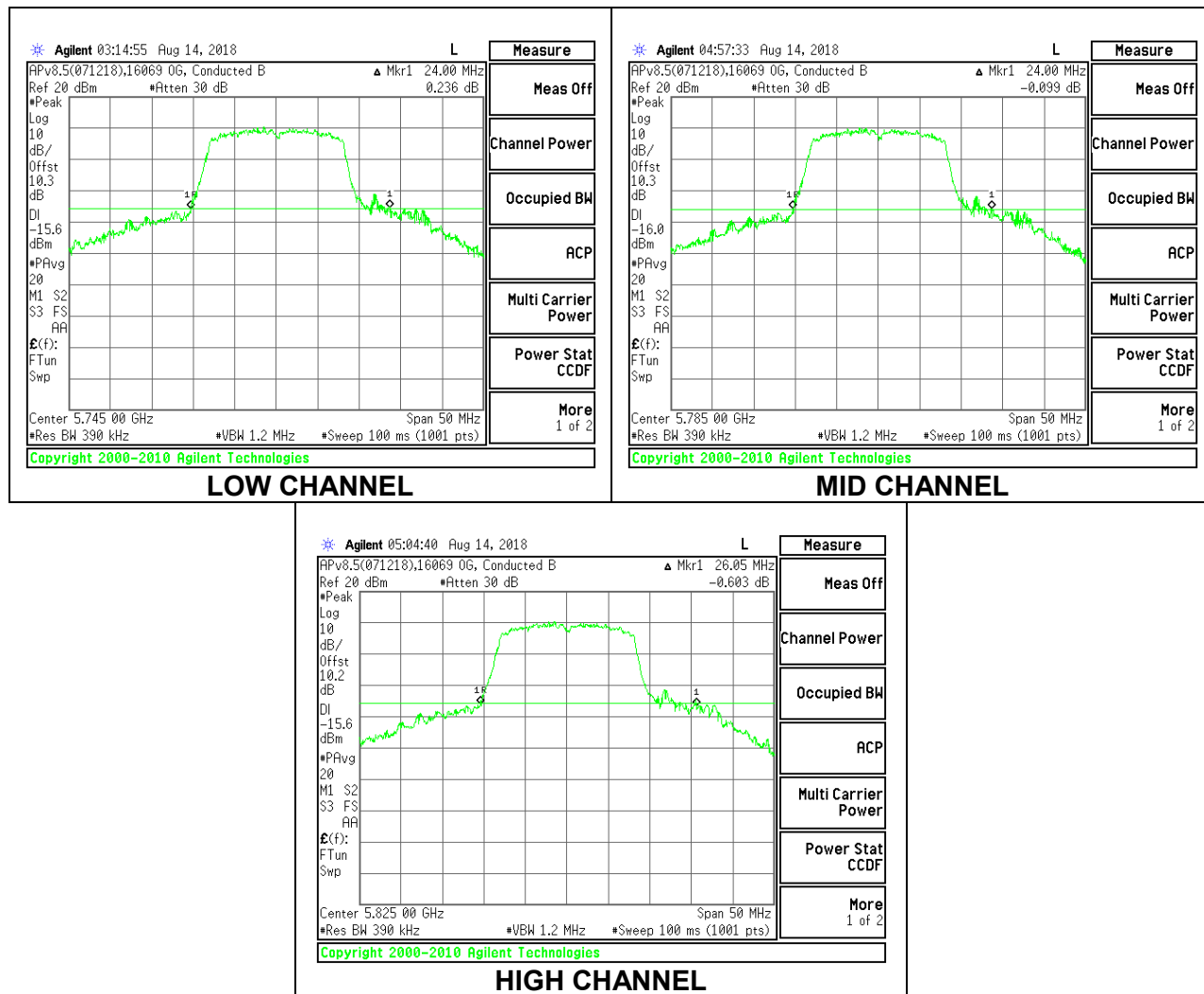
Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Low	5530	114.20
High	5610	114.40
138	5690	114.20



8.2.13. 802.11a MODE IN THE 5.8 GHz BAND

1TX Antenna 1 MODE

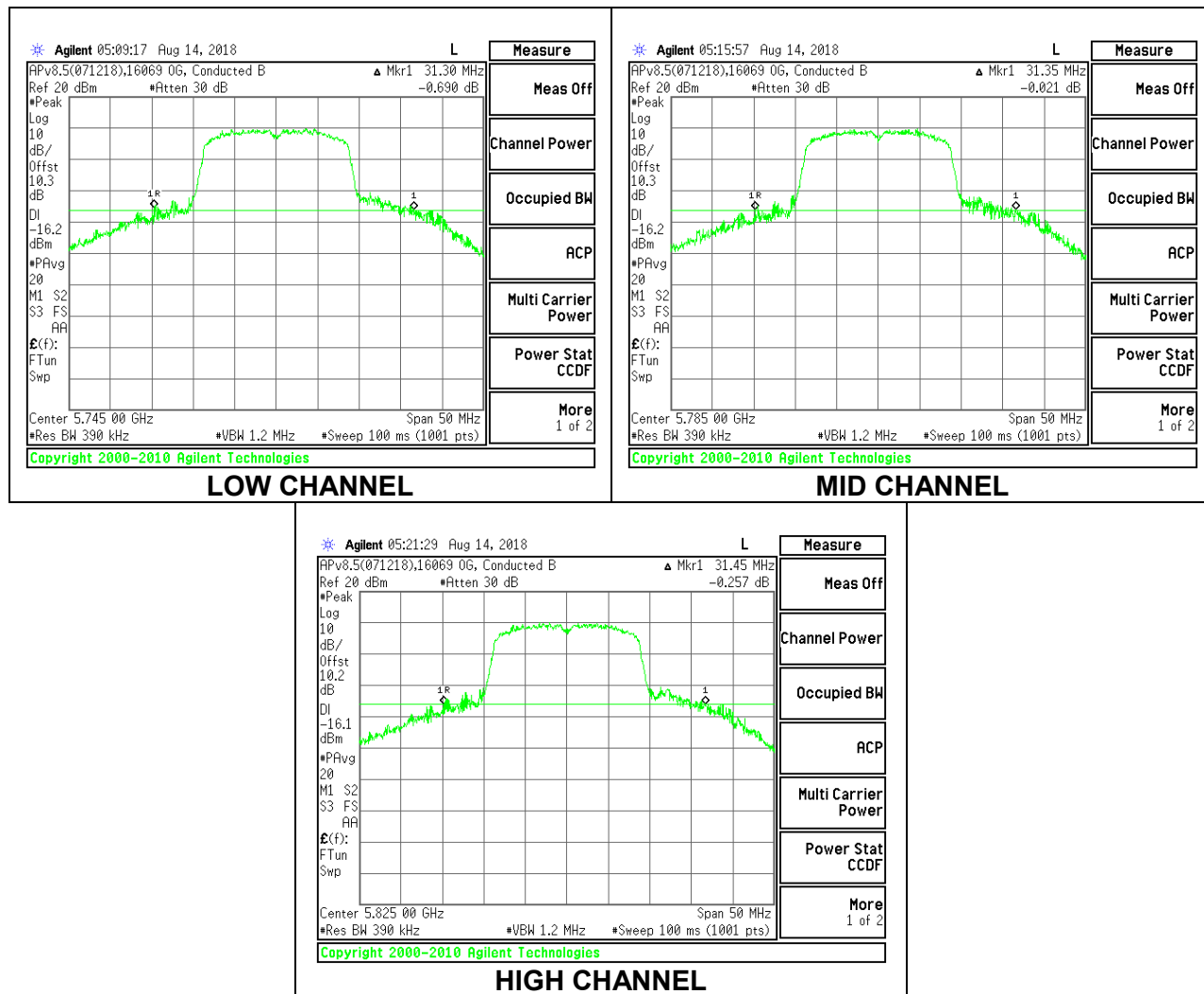
Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Low	5745	24.00
Mid	5785	24.00
High	5825	26.05



8.2.14. 802.11n HT20 MODE IN THE 5.8 GHz BAND

1TX Antenna 1 MODE

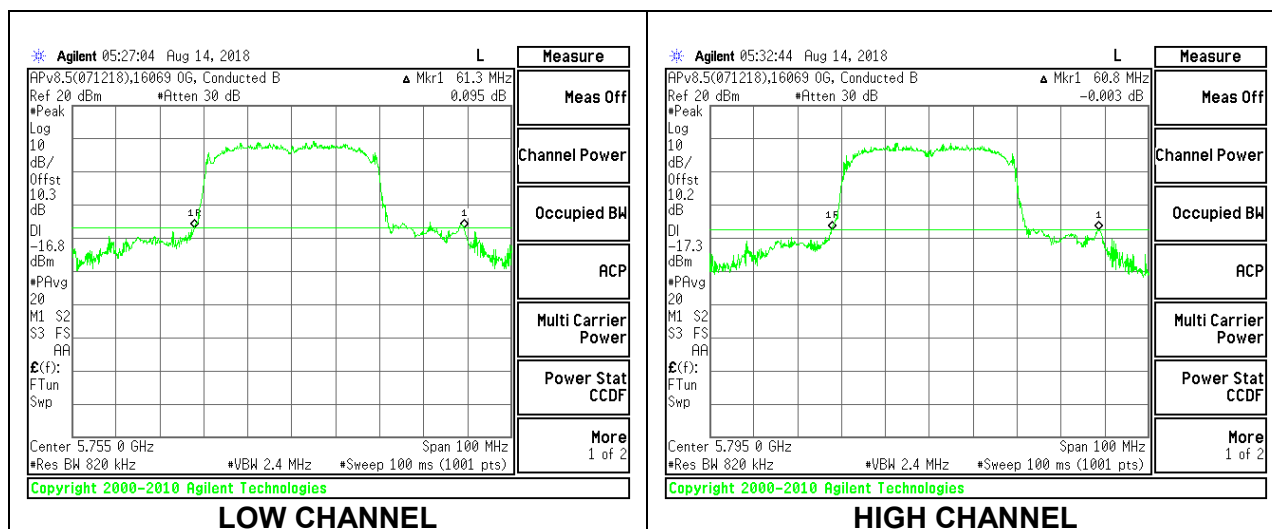
Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Low	5745	31.30
Mid	5785	31.35
High	5825	31.45



8.2.15. 802.11n HT40 MODE IN THE 5.8 GHz BAND

1TX Antenna 1 MODE

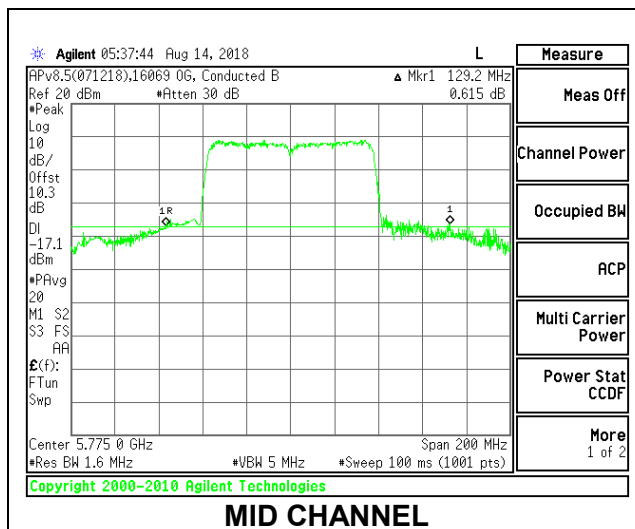
Channel	Frequency	26dB Bandwidth
	(MHz)	(MHz)
Low	5755	61.30
High	5795	60.80



8.2.16. 802.11ac VHT80 MODE IN THE 5.8 GHz BAND

1TX Antenna 1 MODE

Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Mid	5775	129.20



8.3. 99% BANDWIDTH

LIMITS

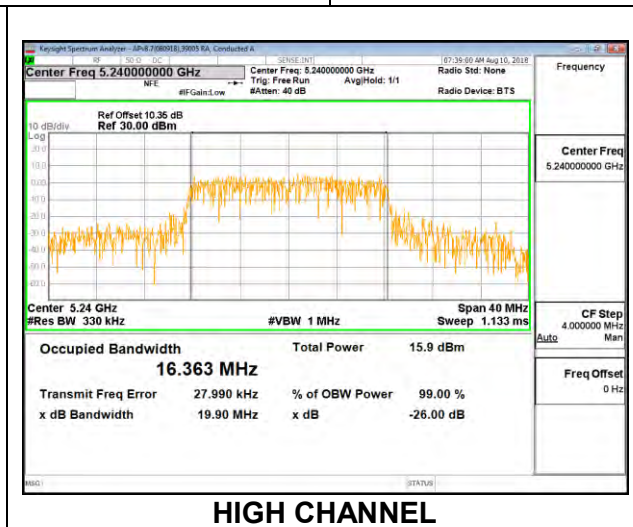
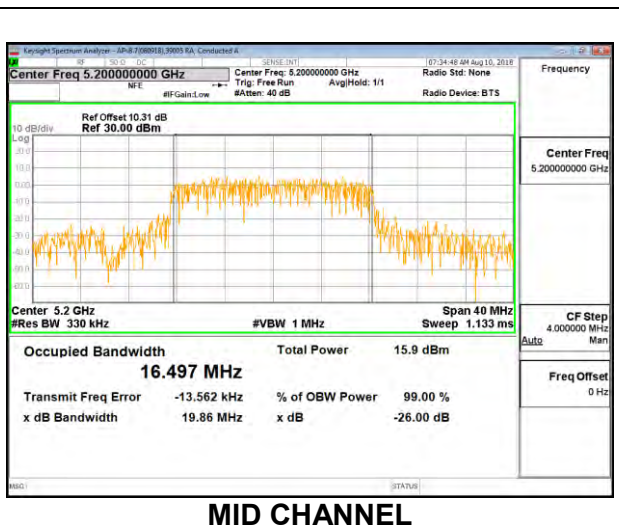
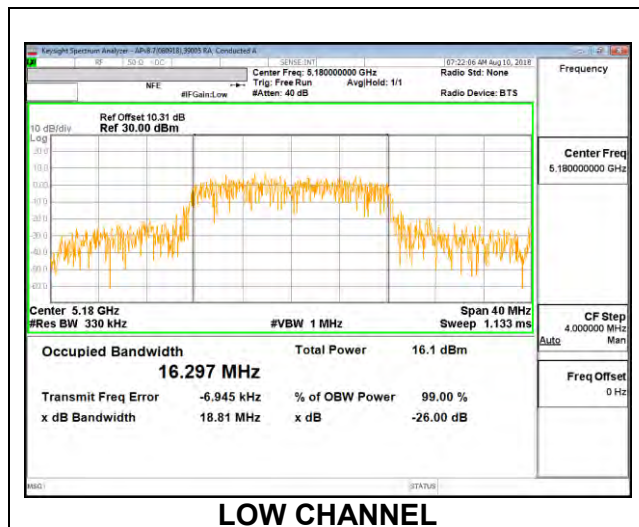
None; for reporting purposes only.

RESULTS

8.3.1. 802.11a MODE IN THE 5.2 GHz BAND

1TX Antenna 1 MODE

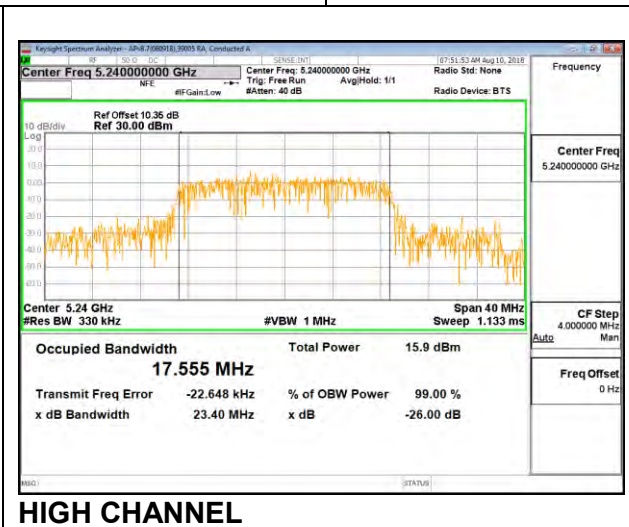
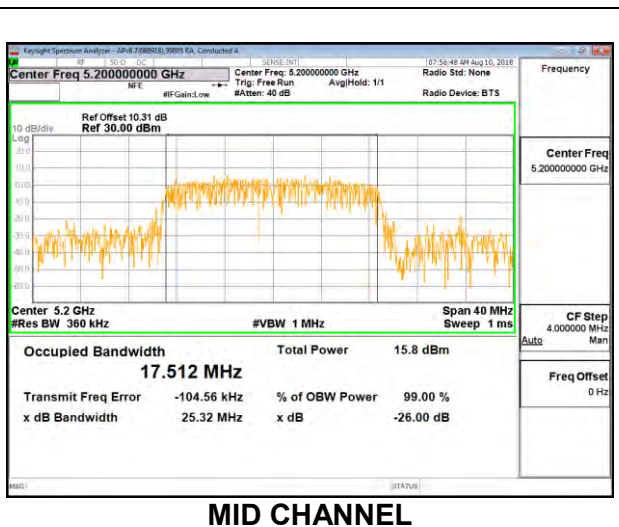
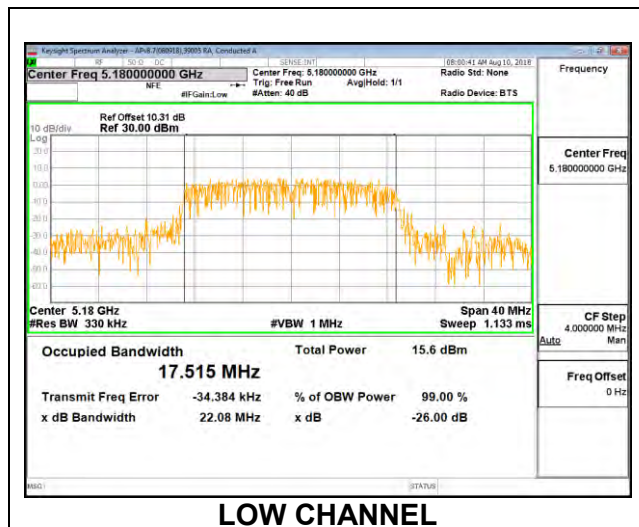
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5180	16.2970
Mid	5200	16.4970
High	5240	16.3630



8.3.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

1TX Antenna 1 MODE

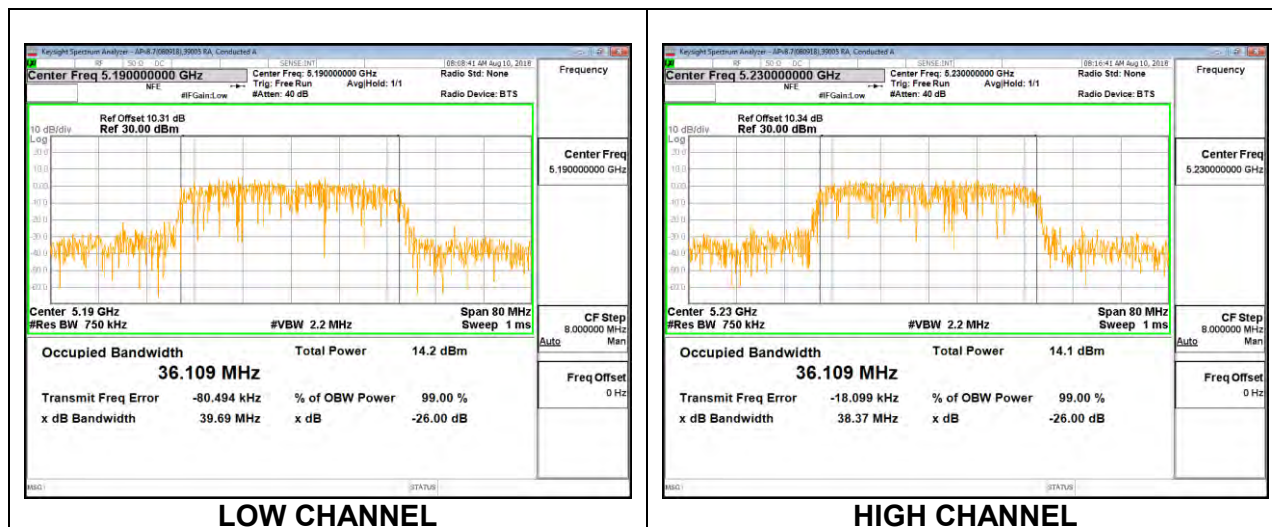
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5180	17.5150
Mid	5200	17.5120
High	5240	17.5550



8.3.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

1TX Antenna 1 MODE

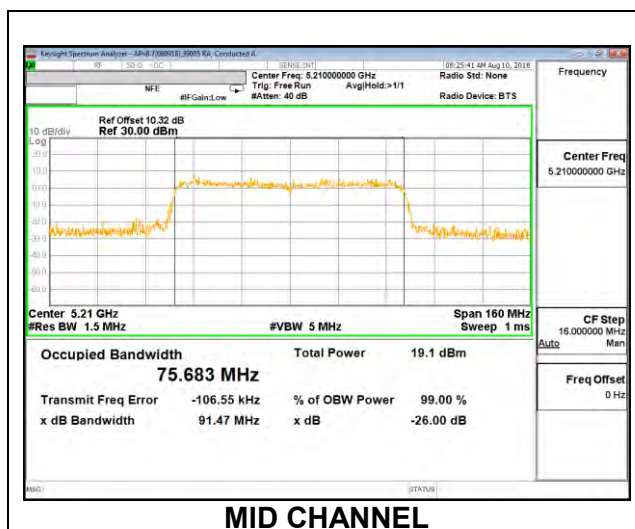
Channel	Frequency	99% Bandwidth
	(MHz)	(MHz)
Low	5190	36.1090
High	5230	36.1090



8.3.4. 802.11ac VHT80 MODE IN THE 5.2 GHz BAND

1TX Antenna 1 MODE

Channel	Frequency	99% Bandwidth
	(MHz)	(MHz)
Mid	5210	75.6830

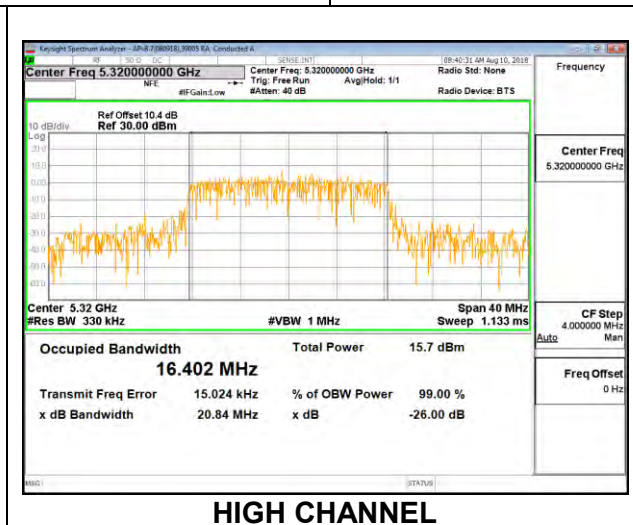
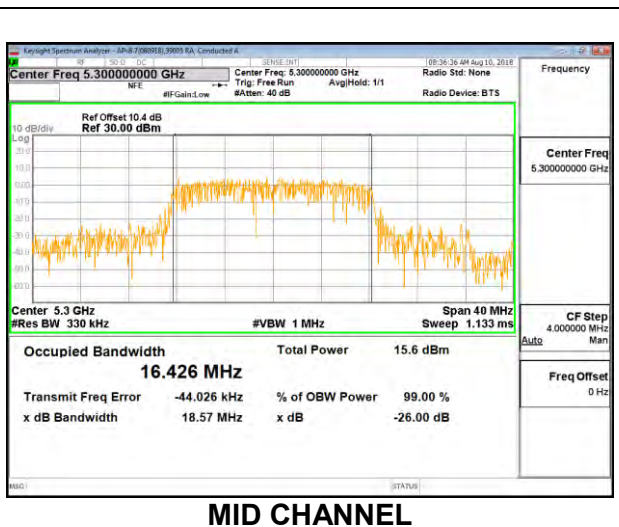
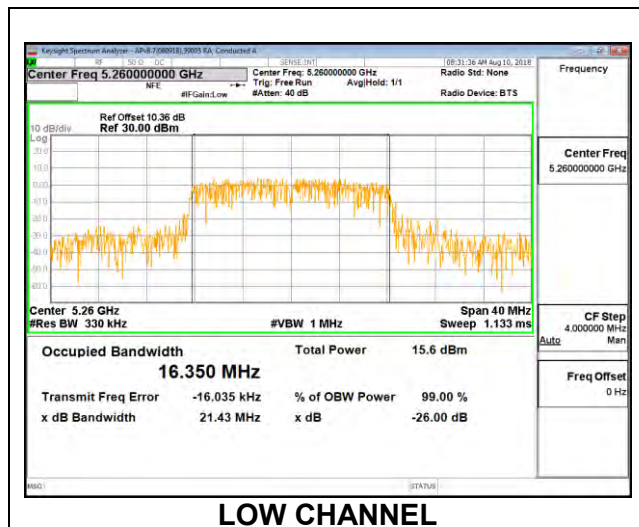


MID CHANNEL

8.3.5. 802.11a MODE IN THE 5.3 GHz BAND

1TX Antenna 1 MODE

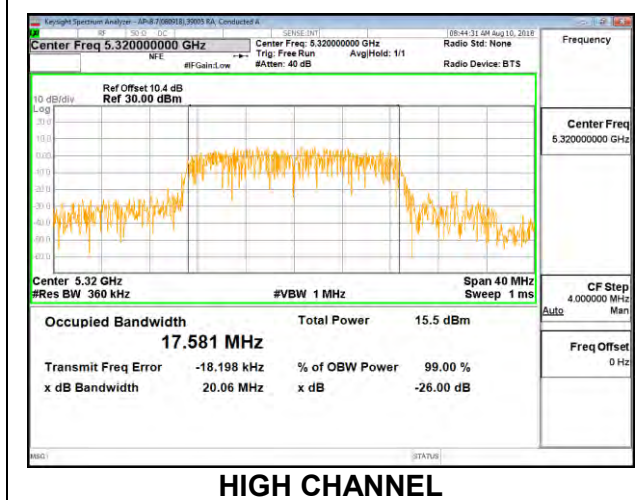
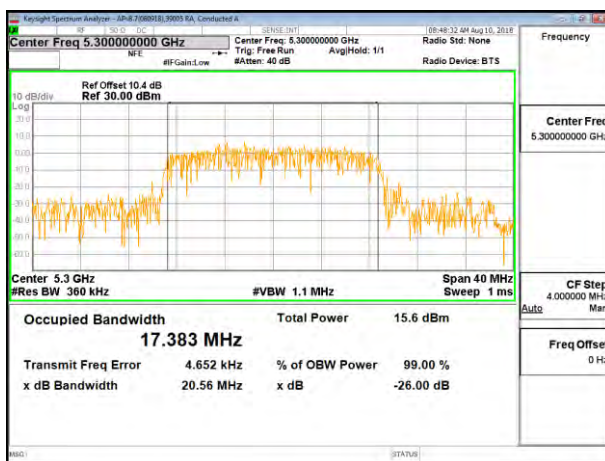
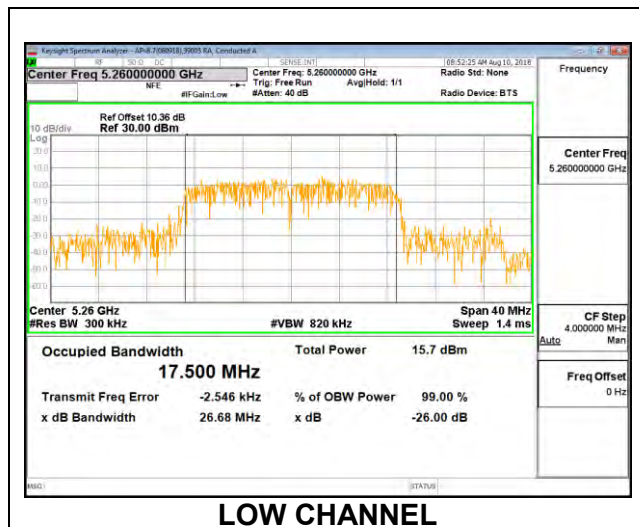
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5260	16.3500
Mid	5300	16.4260
High	5320	16.4020



8.3.6. 802.11n HT20 MODE IN THE 5.3 GHz BAND

1TX Antenna 1 MODE

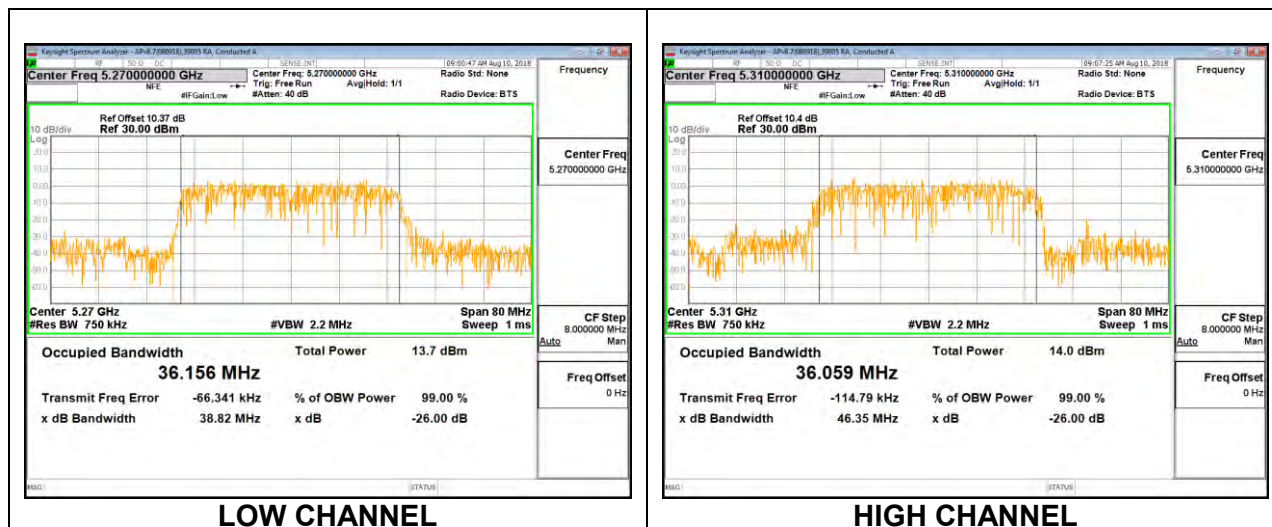
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5260	17.5000
Mid	5300	17.3830
High	5320	17.5810



8.3.7. 802.11n HT40 MODE IN THE 5.3 GHz BAND

1TX Antenna 1 MODE

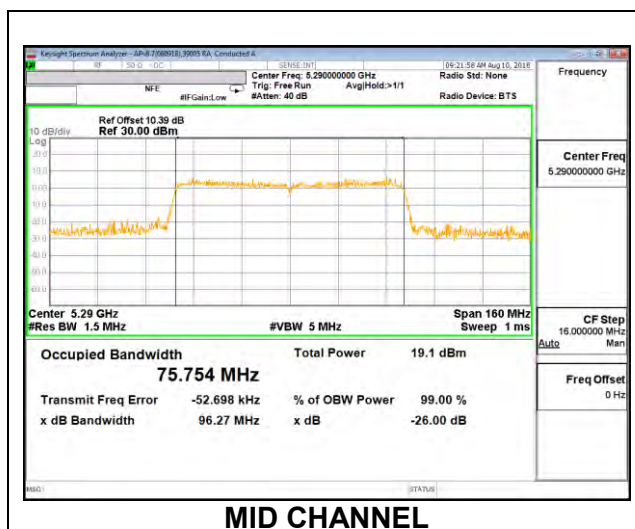
Channel	Frequency	99% Bandwidth
	(MHz)	(MHz)
Low	5270	36.1560
High	5310	36.0590



8.3.8. 802.11ac VHT80 MODE IN THE 5.3 GHz BAND

1TX Antenna 1 MODE

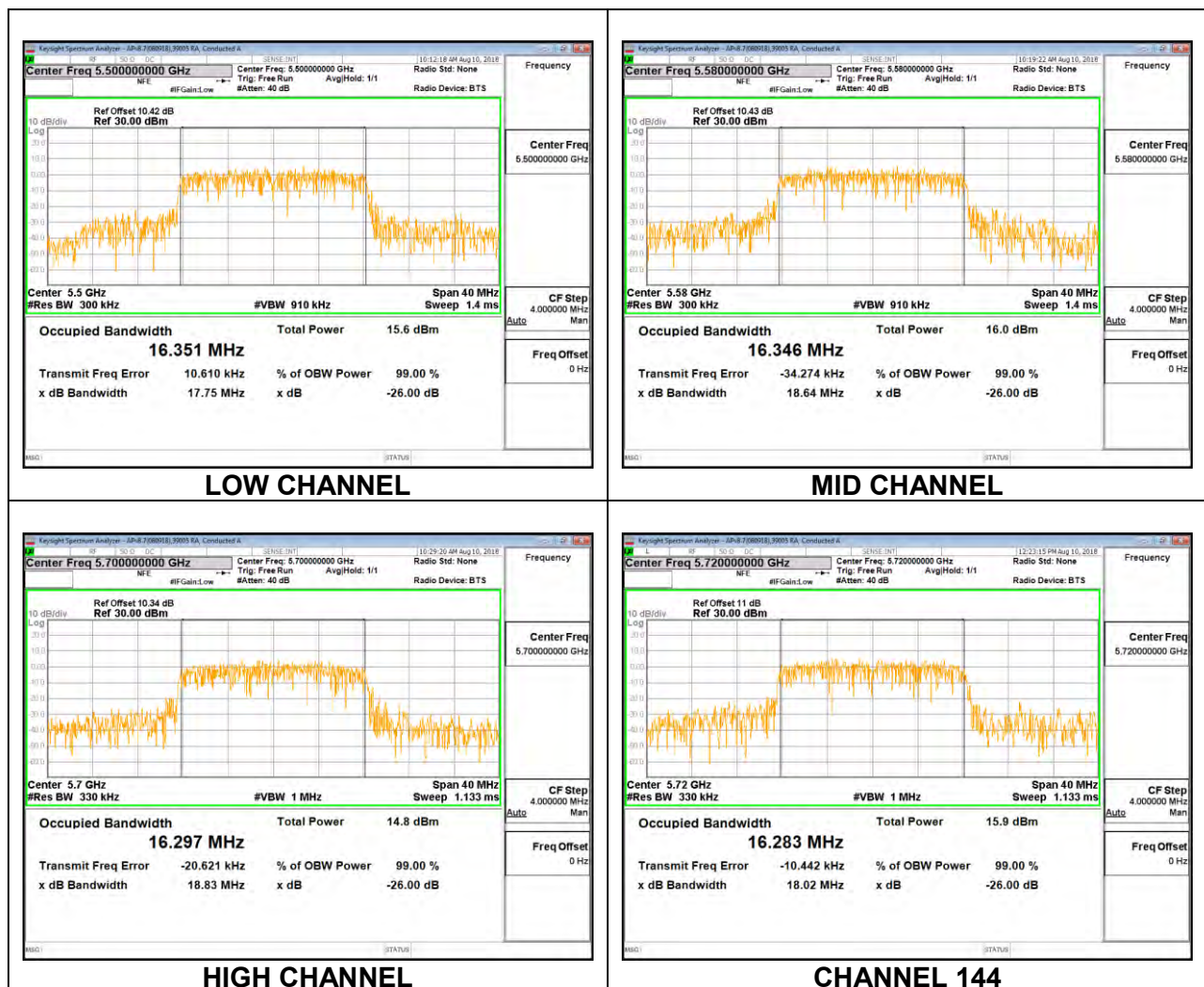
Channel	Frequency	99% Bandwidth
	(MHz)	(MHz)
Mid	5290	75.7540



8.3.9. 802.11a MODE IN THE 5.6 GHz BAND

1TX Antenna 1 MODE

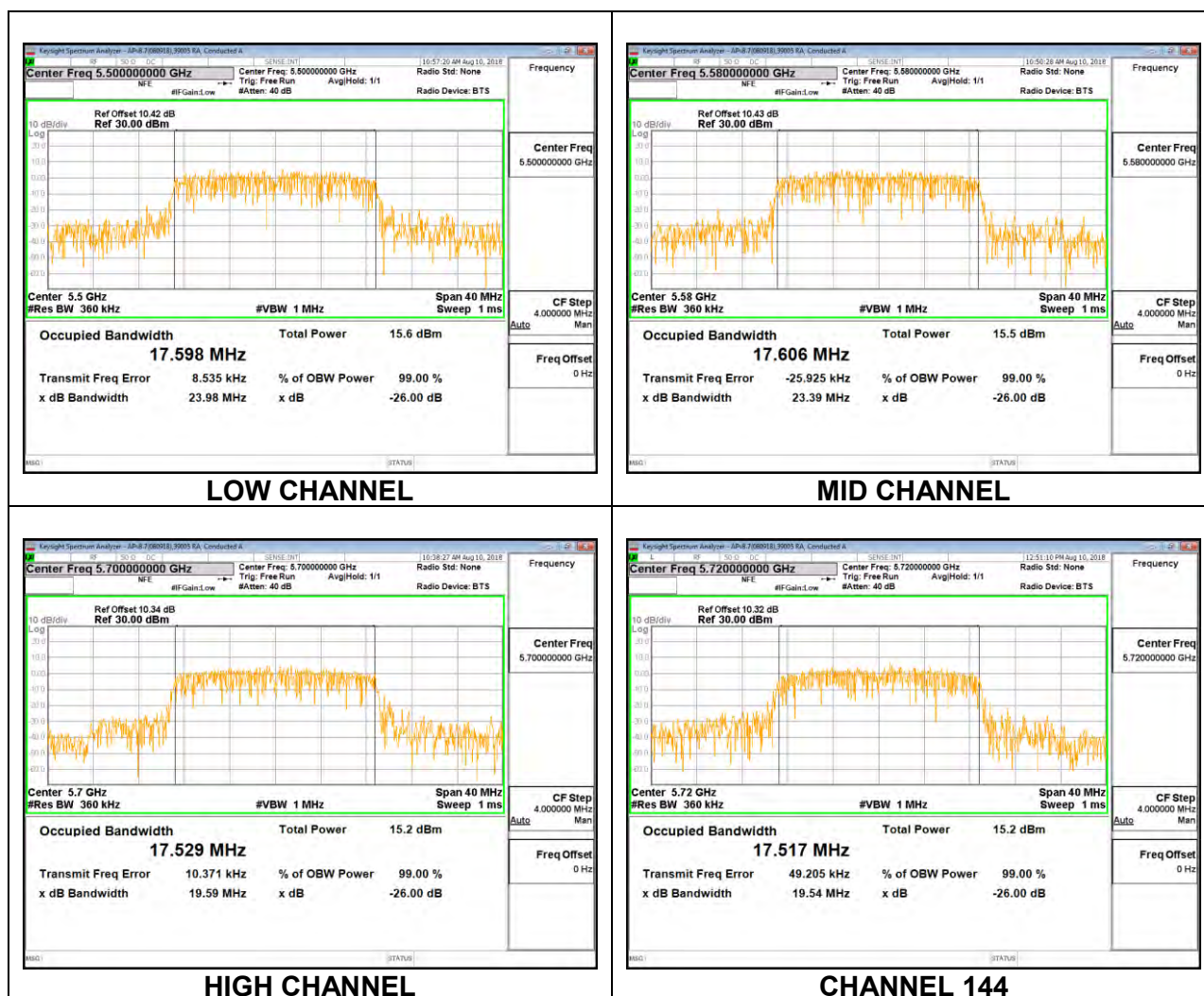
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5500	16.3510
Mid	5580	16.3460
High	5700	16.2970
144	5720	16.2830



8.3.10. 802.11n HT20 MODE IN THE 5.6 GHz BAND

1TX Antenna 1 MODE

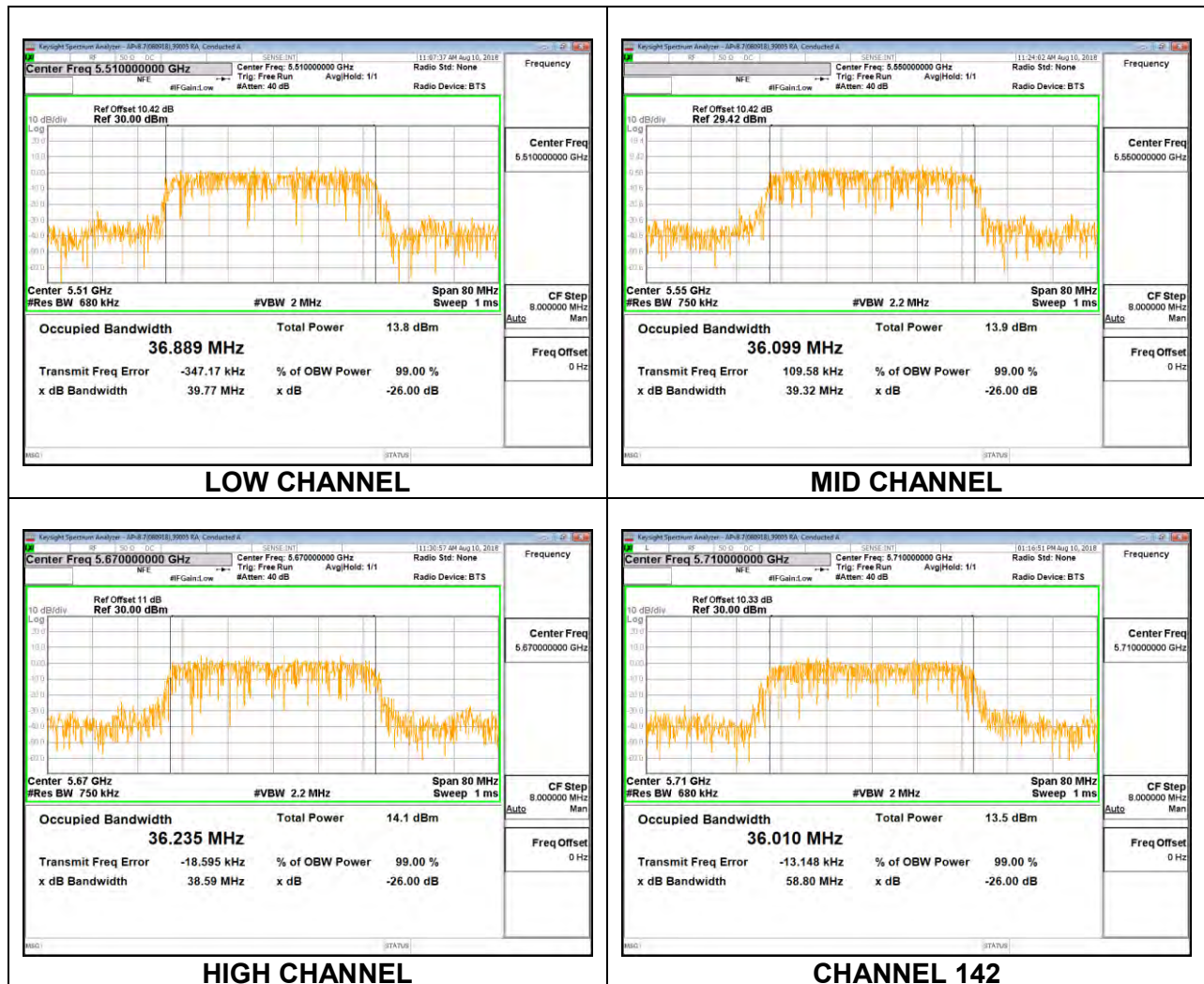
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5500	17.5980
Mid	5580	17.6060
High	5700	17.5290
144	5720	17.5170



8.3.11. 802.11n HT40 MODE IN THE 5.6 GHz BAND

1TX Antenna 1 MODE

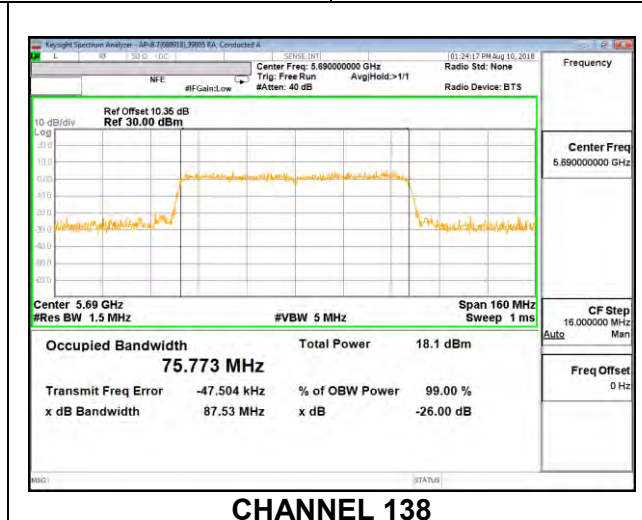
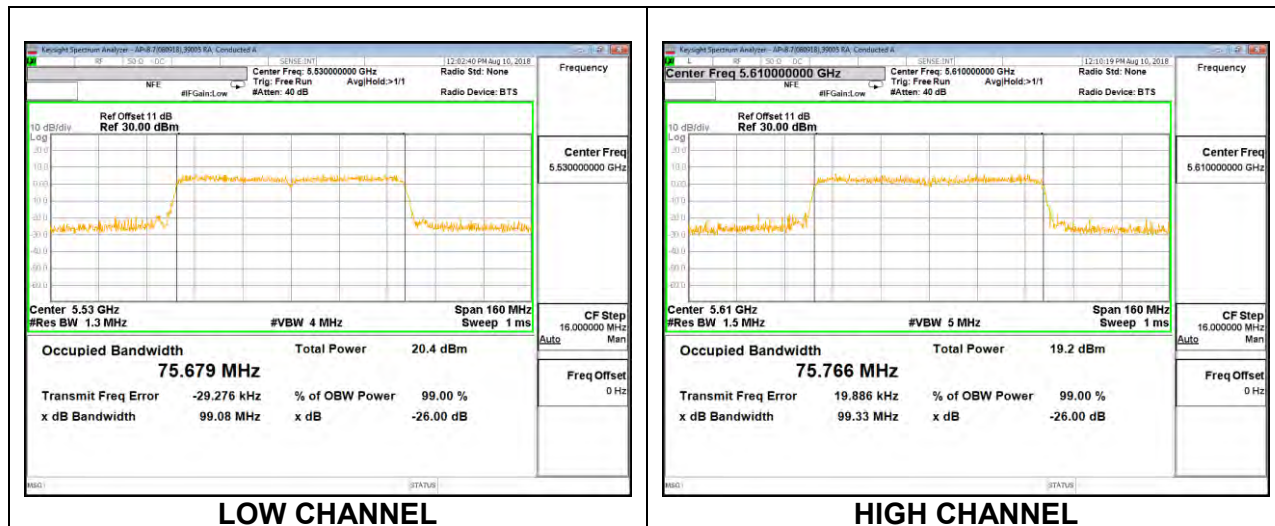
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5510	36.8890
Mid	5550	36.0990
High	5670	36.2350
142	5710	36.0100



8.3.12. 802.11ac VHT80 MODE IN THE 5.6 GHz BAND

1TX Antenna 1 MODE

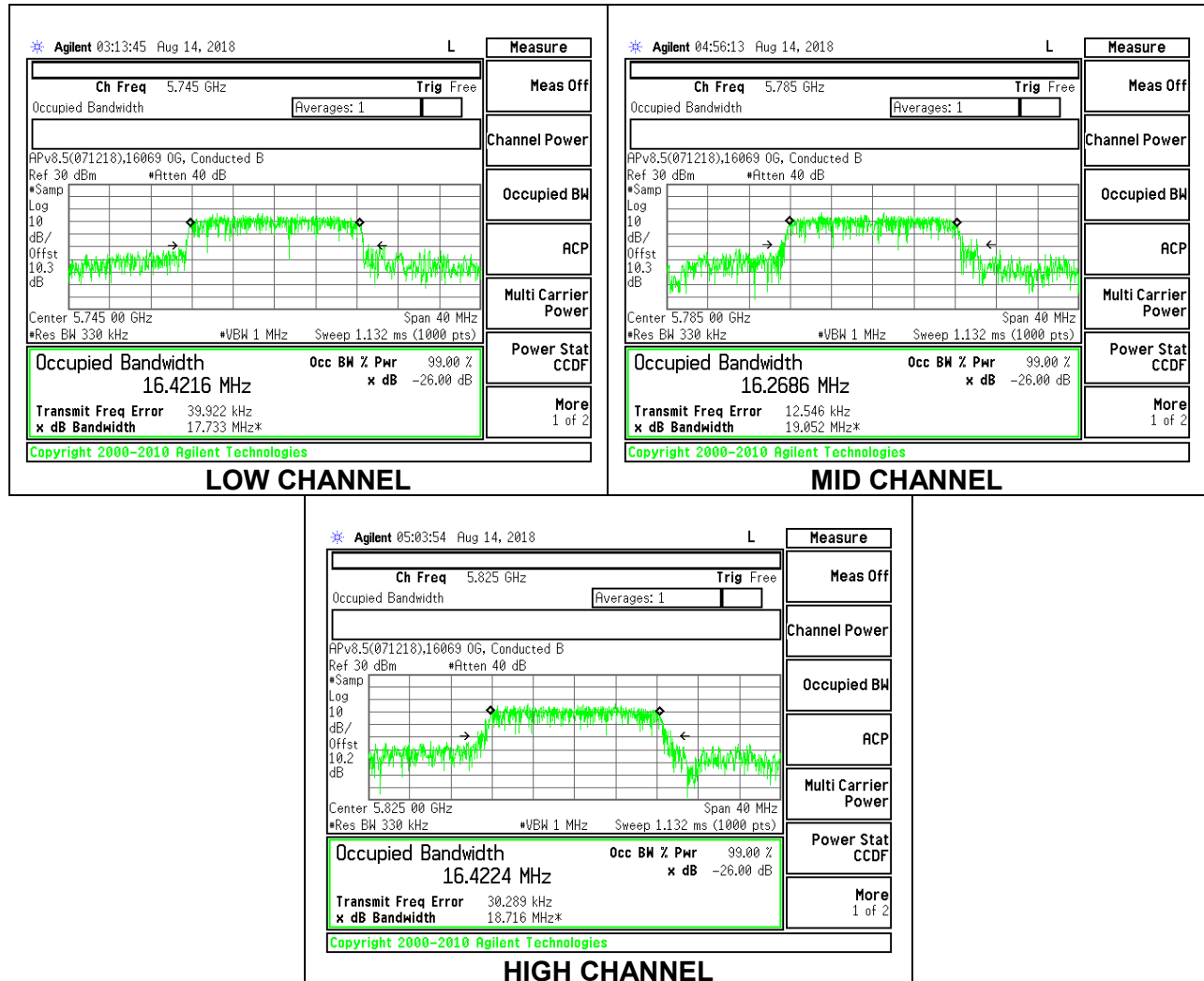
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5530	75.6790
High	5610	75.7660
138	5690	75.7730



8.3.13. 802.11a MODE IN THE 5.8 GHz BAND

1TX Antenna 1 MODE

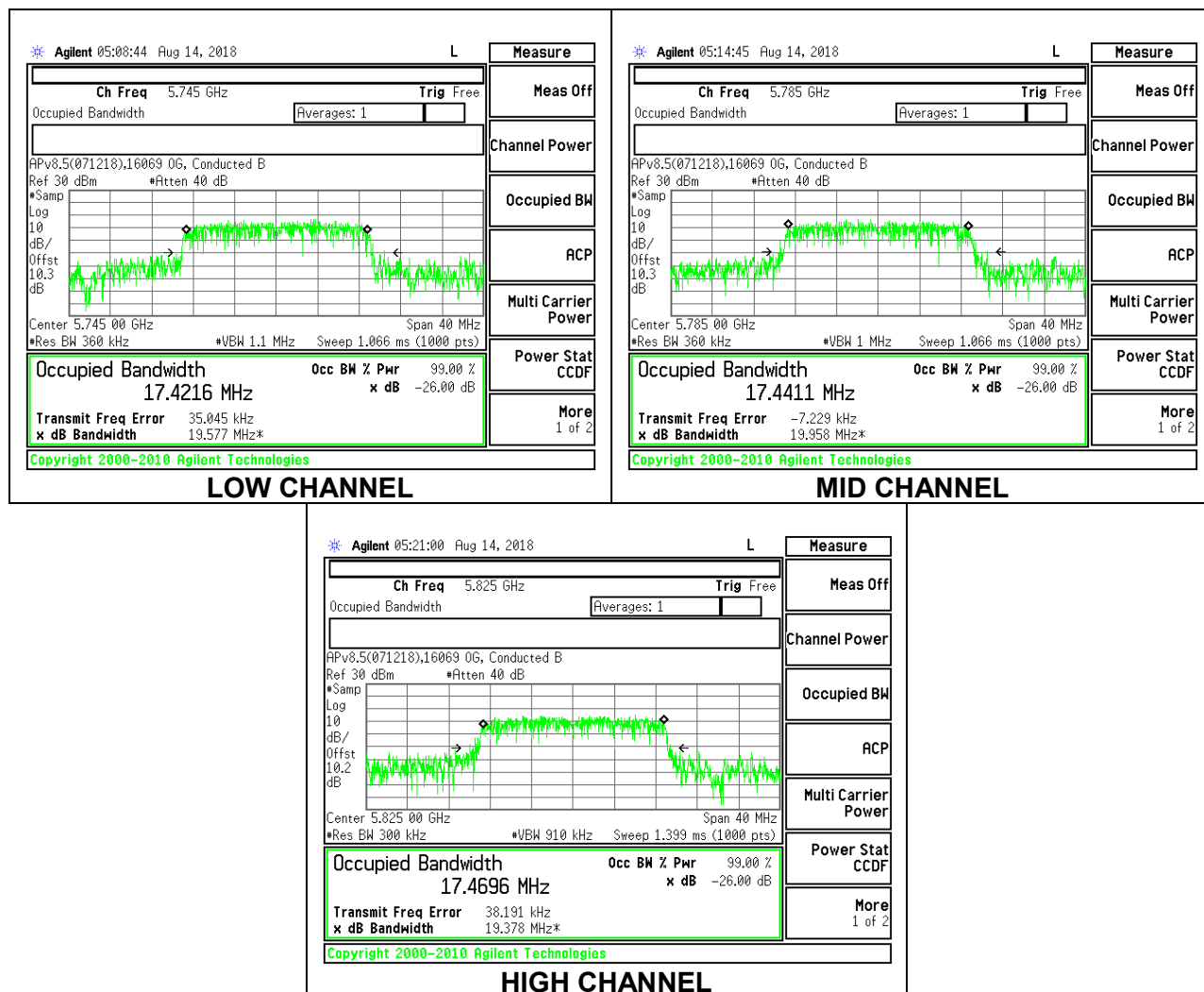
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5745	16.4216
Mid	5785	16.2686
High	5825	16.4220



8.3.14. 802.11n HT20 MODE IN THE 5.8 GHz BAND

1TX Antenna 1 MODE

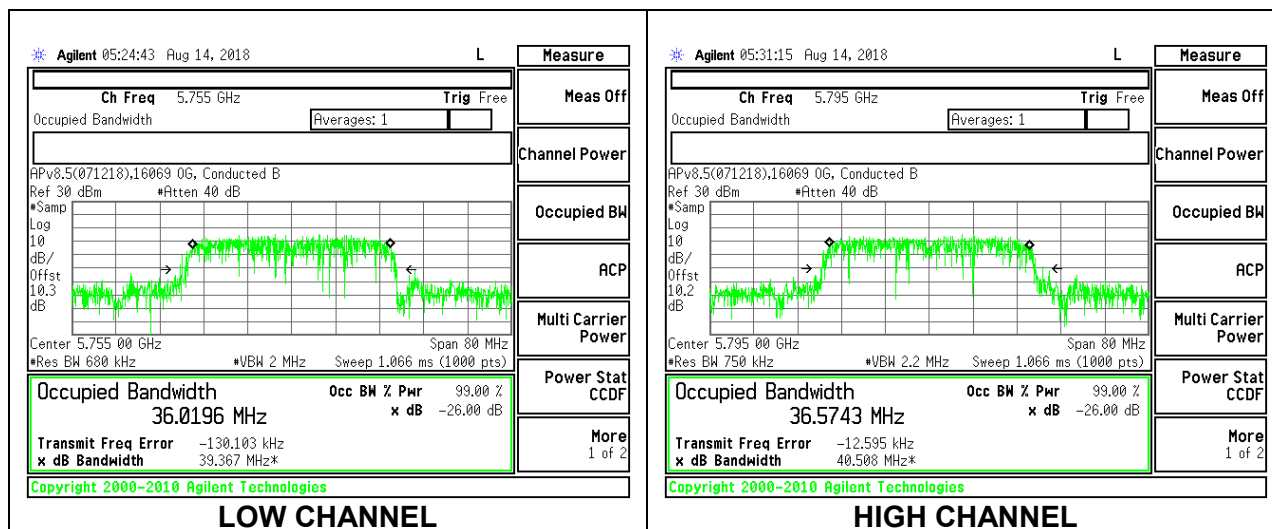
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5745	17.4216
Mid	5785	17.4411
High	5825	17.4700



8.3.15. 802.11n HT40 MODE IN THE 5.8 GHz BAND

1TX Antenna 1 MODE

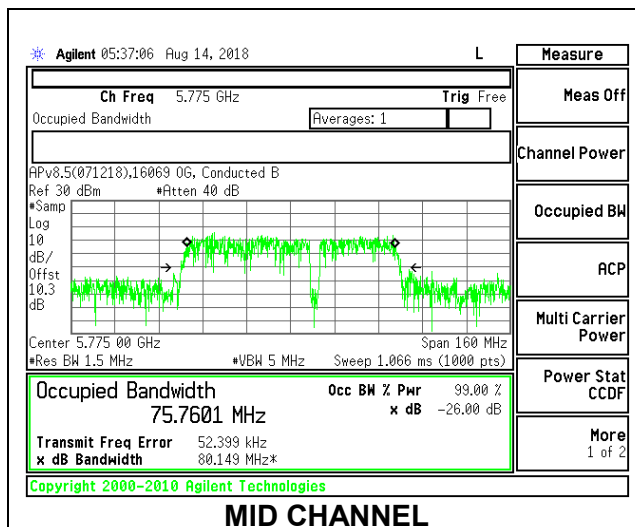
Channel	Frequency	99% Bandwidth
	(MHz)	(MHz)
Low	5755	36.0196
High	5795	36.5743



8.3.16. 802.11ac VHT80 MODE IN THE 5.8 GHz BAND

1TX Antenna 1 MODE

Channel	Frequency	99% Bandwidth
	(MHz)	(MHz)
Mid	5775	75.7601



8.4. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

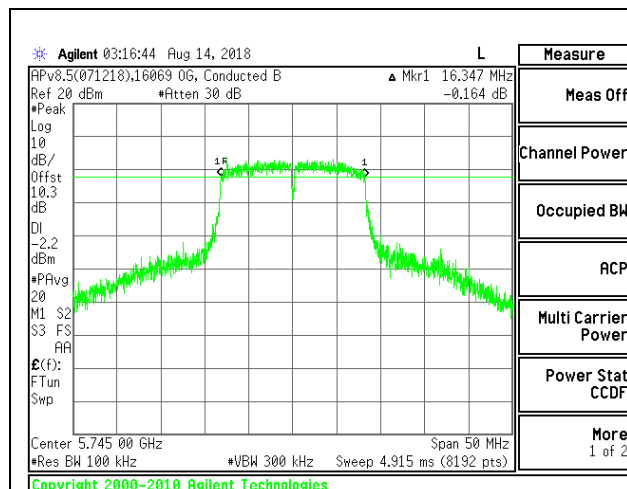
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

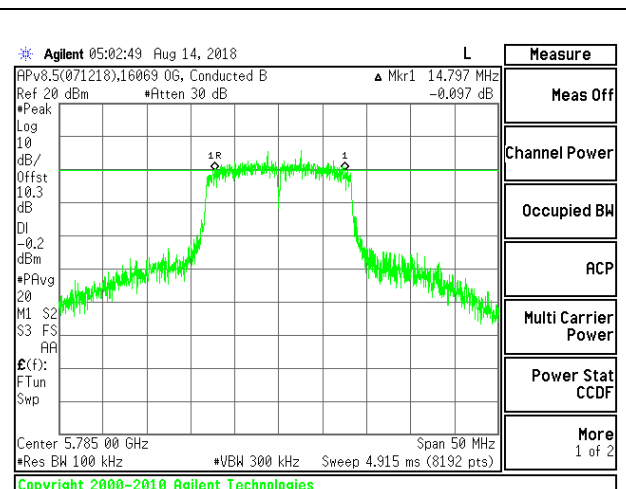
8.4.1. 802.11a MODE IN THE 5.8 GHz BAND

1TX Antenna 1 MODE

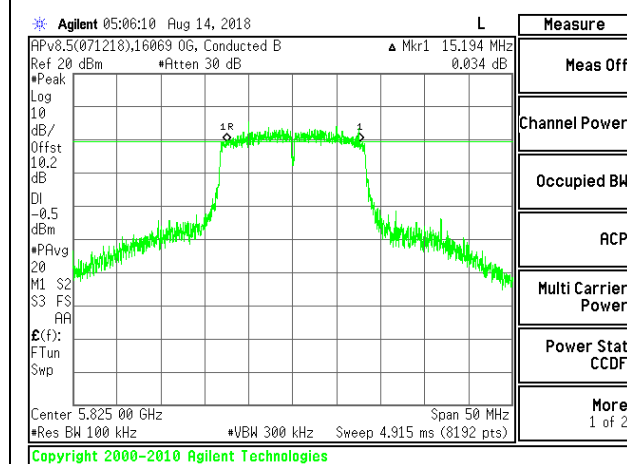
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	16.3470	0.5
Mid	5785	14.7970	0.5
High	5825	15.1940	0.5
144	5720	3.1700	0.5



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

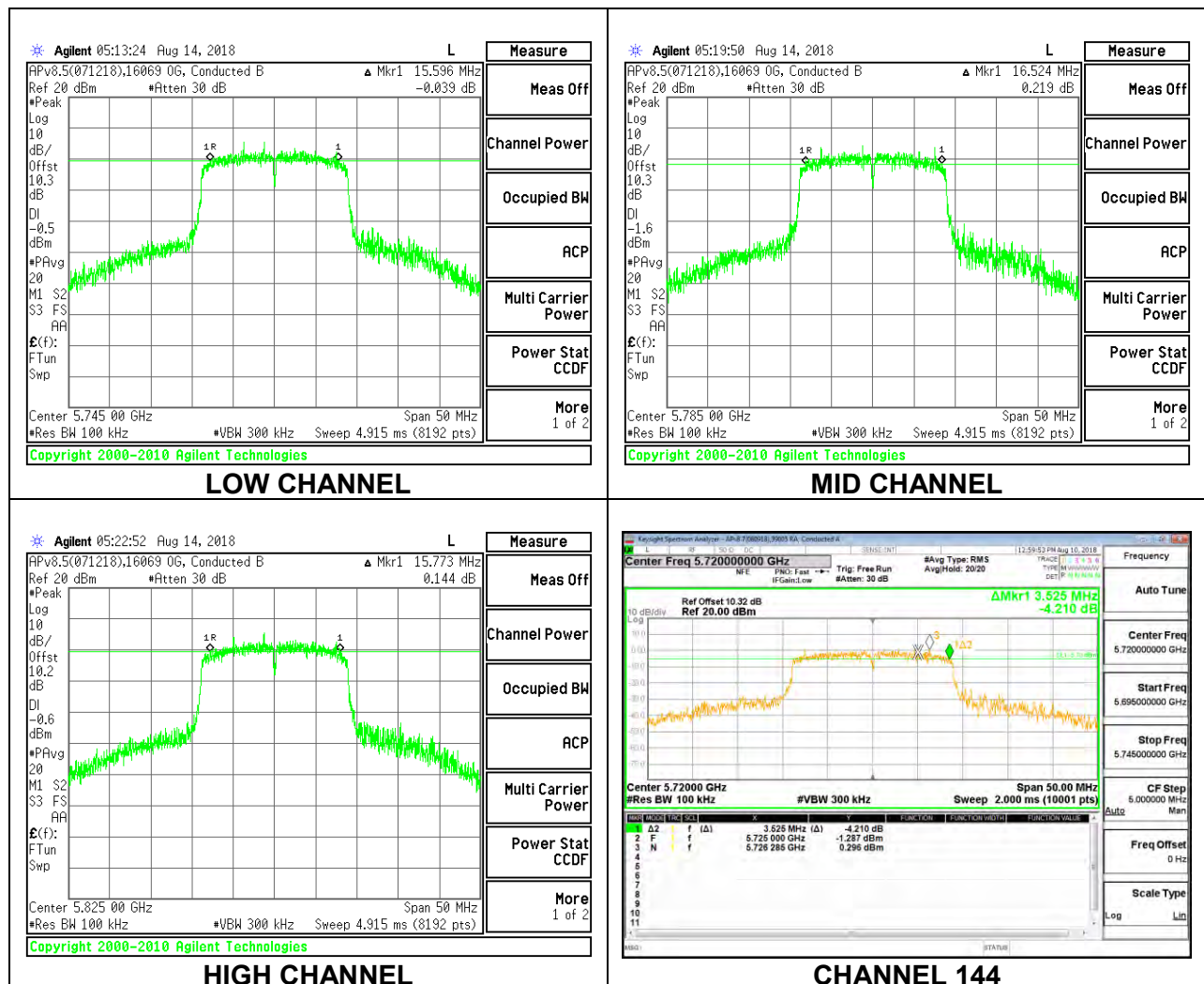


CHANNEL 144

8.4.2. 802.11n HT20 MODE IN THE 5.8 GHz BAND

1TX Antenna 1 MODE

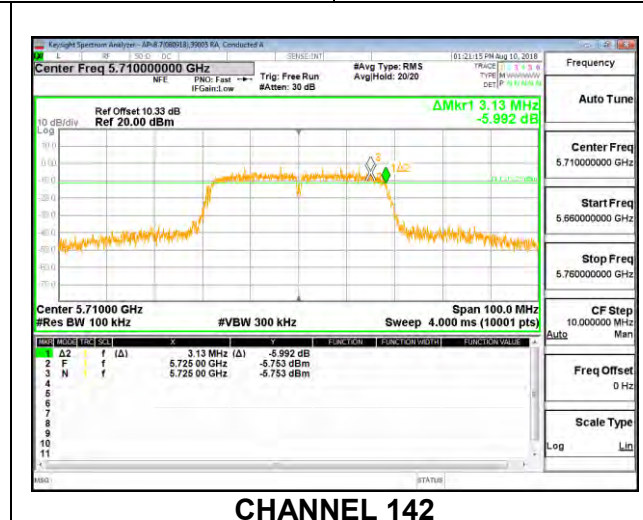
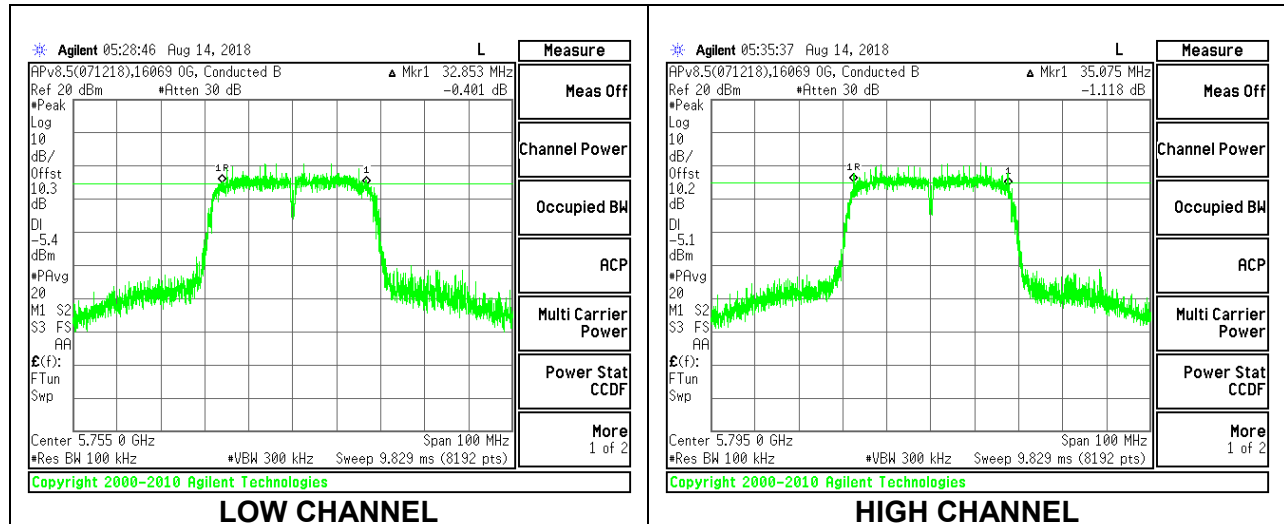
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	15.5960	0.5
Mid	5785	16.5240	0.5
High	5825	15.7730	0.5
144	5720	3.5250	0.5



8.4.3. 802.11n HT40 MODE IN THE 5.8 GHz BAND

1TX Antenna 1 MODE

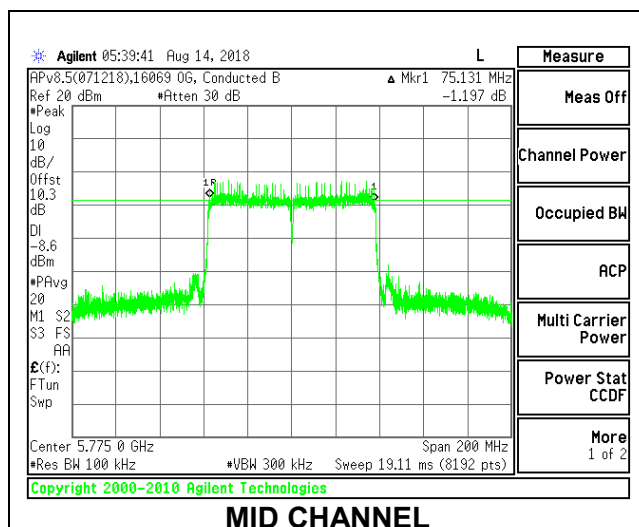
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5755	32.8530	0.5
High	5795	35.0750	0.5
142	5710	3.1300	0.5



8.4.4. 802.11ac VHT80 MODE IN THE 5.8 GHz BAND

1TX Antenna 1 MODE

Channel	Frequency	6 dB Bandwidth	Minimum Limit
	(MHz)	(MHz)	(MHz)
Mid	5775	75.1310	0.5
138	5690	3.2200	0.5



8.1. OUTPUT POWER AND PSD

LIMITS

FCC §15.407

Band 5.15–5.25 GHz

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Bands 5.25-5.35 GHz and 5.47-5.725 GHz

The maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Band 5.725-5.85 GHz

The maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information.

TEST PROCEDURE

The measurement method used for output power is KDB 789033 D02 v02r01, Section E.3.b (Method PM-G) and for straddles channels KDB 789033 D02 v02r01, Section E.2.b (Method SA-1) was used.

The measurement method used for power spectral density is KDB 789033 D02 v02r01, Section F

DIRECTIONAL ANTENNA GAIN

For 1 TX:

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

RESULTS

8.1.1. 802.11a MODE IN THE 5.2 GHz BAND

1TX Antenna 1 MODE

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5180	-6.90	24.00	11.00
Mid	5200	-6.90	24.00	11.00
High	5240	-6.90	24.00	11.00

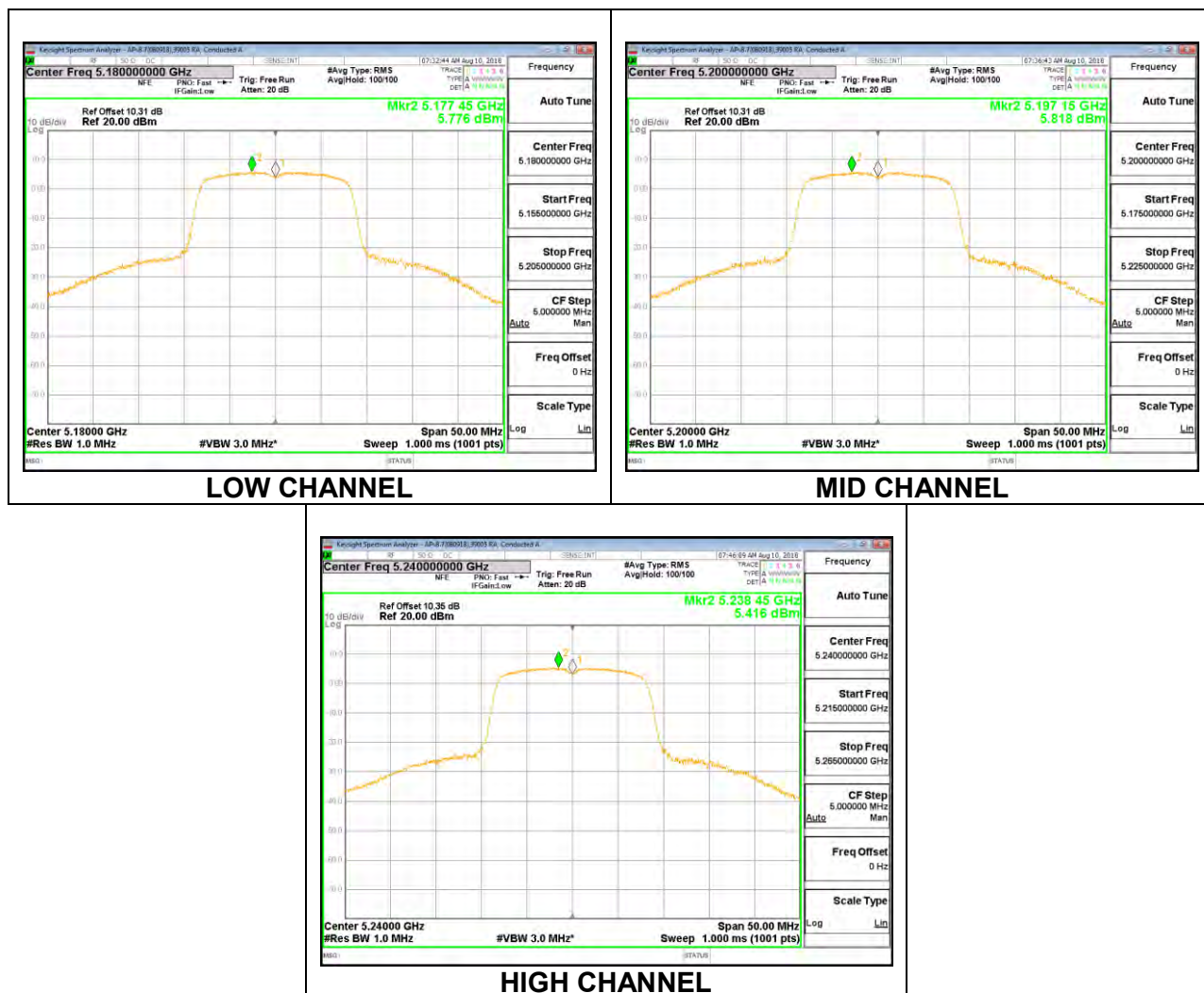
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
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Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	15.40	15.40	24.00	-8.60
Mid	5200	15.28	15.28	24.00	-8.72
High	5240	15.62	15.62	24.00	-8.38

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5180	5.776	5.78	11.00	-5.22
Mid	5200	5.818	5.82	11.00	-5.18
High	5240	5.416	5.42	11.00	-5.58



8.1.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

1TX Antenna 1 MODE

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5180	-6.90	24.00	11.00
Mid	5200	-6.90	24.00	11.00
High	5240	-6.90	24.00	11.00

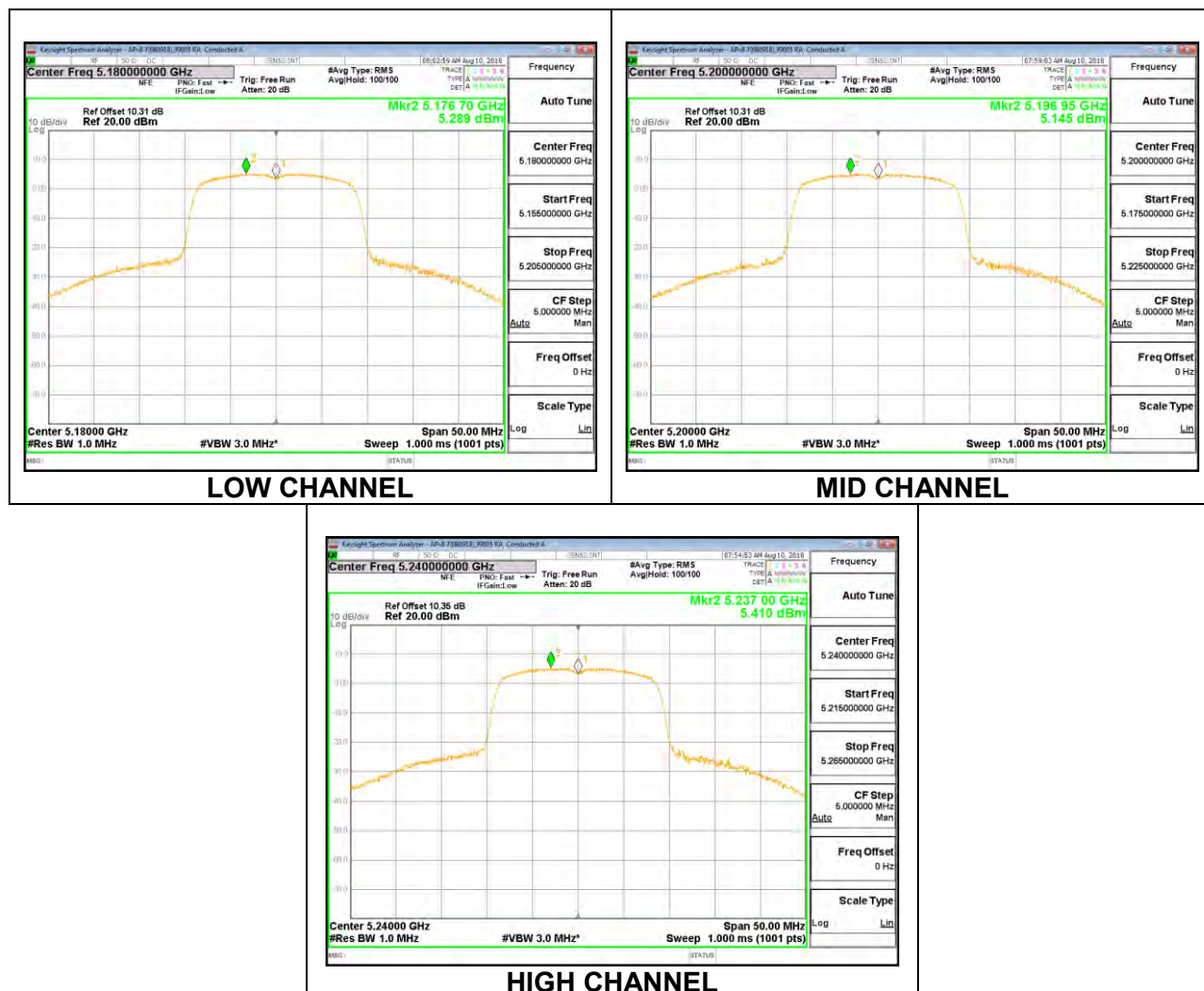
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
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Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	15.33	15.33	24.00	-8.67
Mid	5200	15.31	15.31	24.00	-8.69
High	5240	15.68	15.68	24.00	-8.32

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5180	5.289	5.29	11.00	-5.71
Mid	5200	5.145	5.15	11.00	-5.86
High	5240	5.410	5.41	11.00	-5.59



8.1.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

1TX Antenna 1 MODE

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5190	-6.90	24.00	11.00
High	5230	-6.90	24.00	11.00

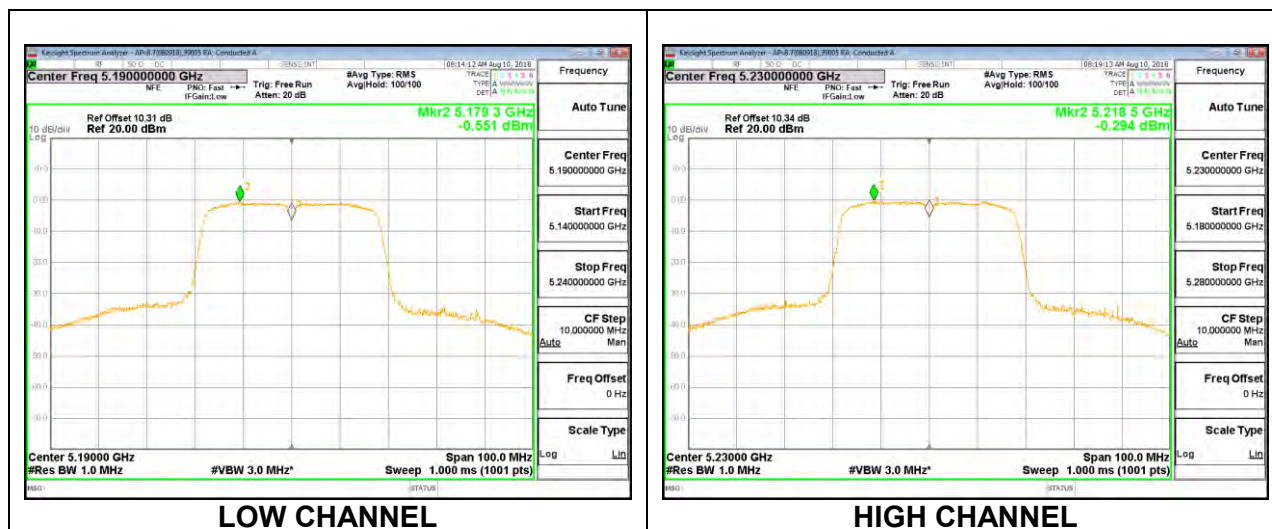
Duty Cycle CF (dB)	0.17	Included in Calculations of Corr'd Power & PSD
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Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5190	13.61	13.61	24.00	-10.39
High	5230	13.54	13.54	24.00	-10.46

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5190	-0.551	-0.38	11.00	-11.38
High	5230	-0.294	-0.12	11.00	-11.12



8.1.4. 802.11ac VHT80 MODE IN THE 5.2 GHz BAND

1TX Antenna 1 MODE

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Mid	5210	-6.90	24.00	11.00

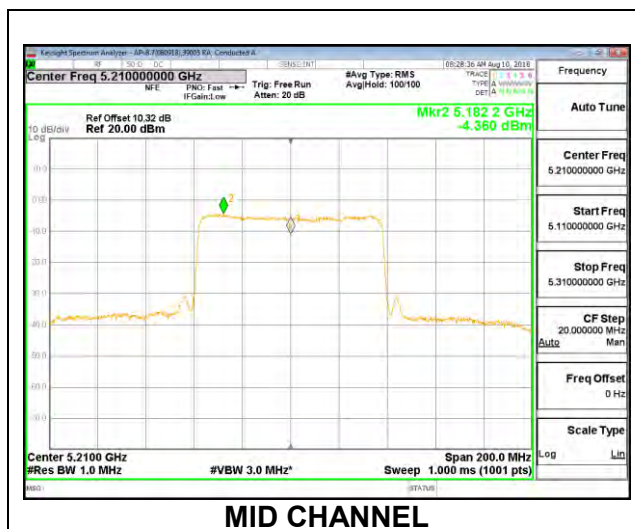
Duty Cycle CF (dB)	0.33	Included in Calculations of Corr'd Power & PSD
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Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5210	9.47	9.47	24.00	-14.53

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Mid	5210	-4.360	-4.03	11.00	-15.03



8.1.5. 802.11a MODE IN THE 5.3 GHz BAND

1TX Antenna 1 MODE

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Low	5260	29.55	-6.90	24.00	11.00
Mid	5300	26.00	-6.90	24.00	11.00
High	5320	27.25	-6.90	24.00	11.00

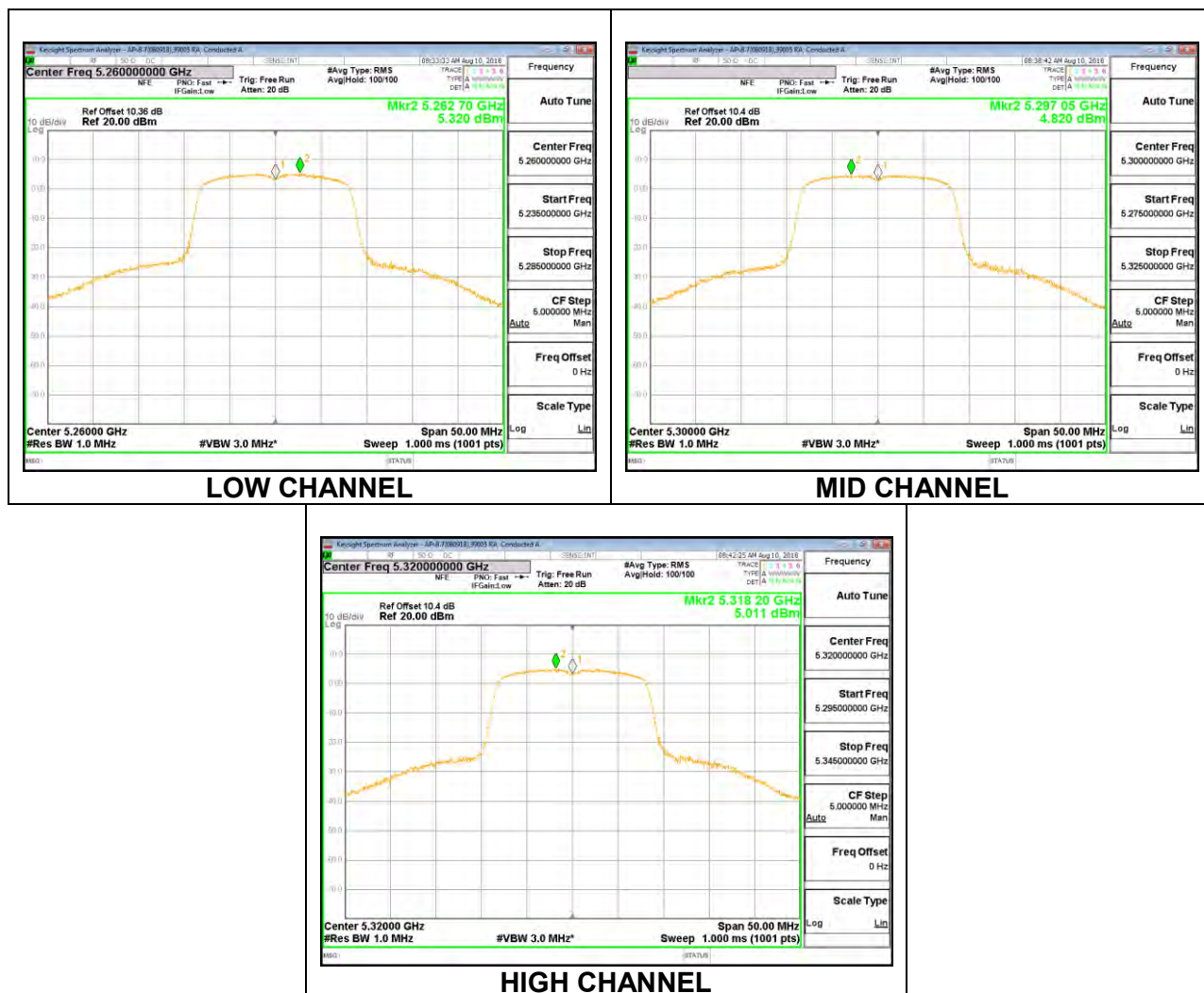
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
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Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	14.88	14.88	24.00	-9.12
Mid	5300	14.95	14.95	24.00	-9.05
High	5320	14.87	14.87	24.00	-9.13

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5260	5.320	5.32	11.00	-5.68
Mid	5300	4.820	4.82	11.00	-6.18
High	5320	5.011	5.01	11.00	-5.99



8.1.6. 802.11n HT20 MODE IN THE 5.3 GHz BAND

1TX Antenna 1 MODE

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Low	5260	33.85	-6.90	24.00	11.00
Mid	5300	32.65	-6.90	24.00	11.00
High	5320	31.65	-6.90	24.00	11.00

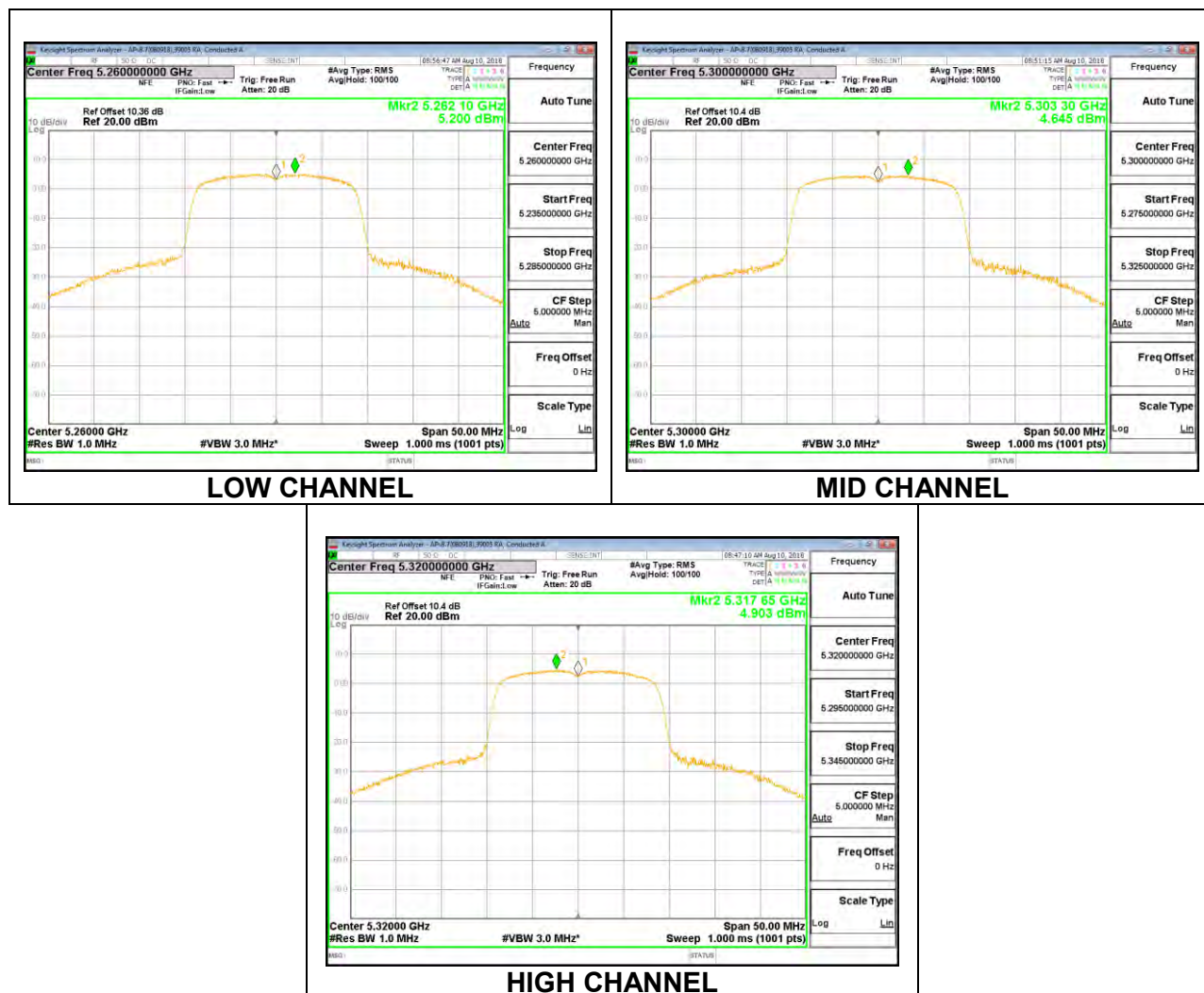
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
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Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	14.76	14.76	24.00	-9.24
Mid	5300	14.79	14.79	24.00	-9.21
High	5320	14.69	14.69	24.00	-9.31

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5260	5.200	5.20	11.00	-5.80
Mid	5300	4.645	4.65	11.00	-6.36
High	5320	4.903	4.90	11.00	-6.10



8.1.7. 802.11n HT40 MODE IN THE 5.3 GHz BAND

1TX Antenna 1 MODE

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Low	5270	61.30	-6.90	24.00	11.00
High	5310	73.90	-6.90	24.00	11.00

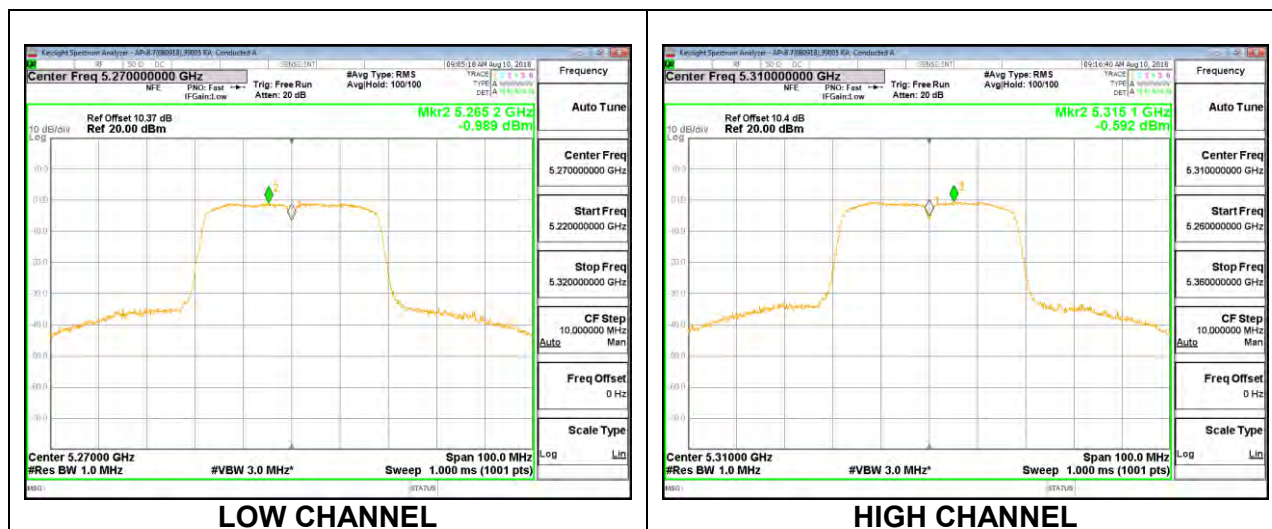
Duty Cycle CF (dB)	0.17	Included in Calculations of Corr'd PSD
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Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5270	13.75	13.75	24.00	-10.25
High	5310	13.86	13.86	24.00	-10.14

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5270	-0.989	-0.82	11.00	-11.82
High	5310	-0.592	-0.42	11.00	-11.42



8.1.8. 802.11ac VHT80 MODE IN THE 5.3 GHz BAND

1TX Antenna 1 MODE

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Mid	5290	122.40	-6.90	24.00	11.00

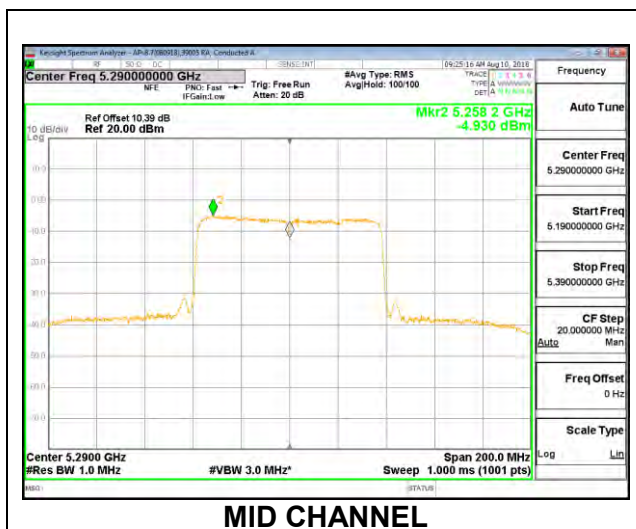
Duty Cycle CF (dB)	0.33	Included in Calculations of Corr'd PSD
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Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5290	12.62	12.62	24.00	-11.38

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Mid	5290	-4.930	-4.60	11.00	-15.60



8.1.9. 802.11a MODE IN THE 5.6 GHz BAND

1TX Antenna 1 MODE

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5500	26.35	-4.31	24.00	11.00
Mid	5580	25.80	-4.31	24.00	11.00
High	5700	25.85	-4.31	24.00	11.00
144	5720	24.35	-4.31	24.00	11.00

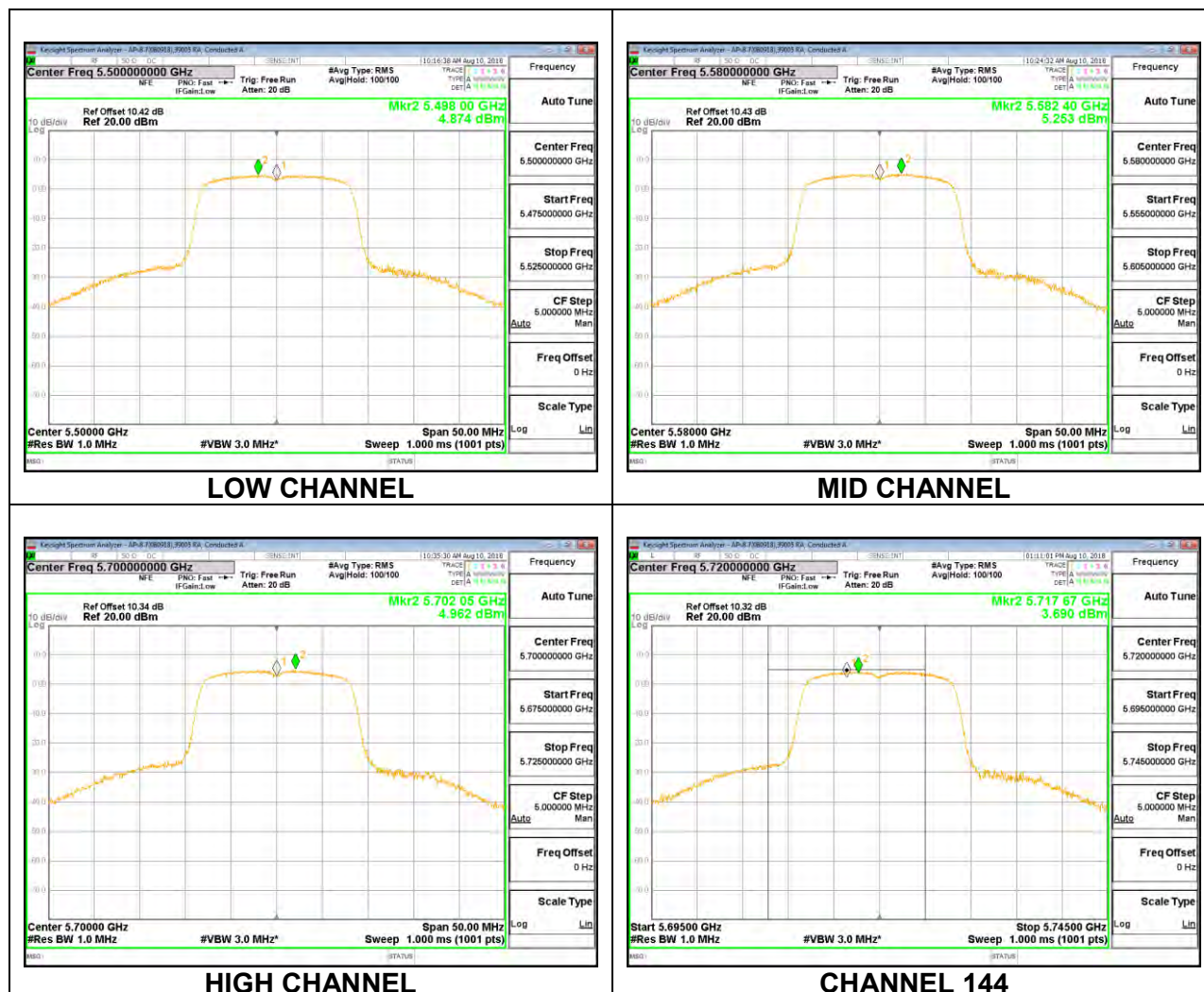
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD
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Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	15.05	15.05	24.00	-8.95
Mid	5580	15.02	15.02	24.00	-8.98
High	5700	15.12	15.12	24.00	-8.88
144	5720	14.98	14.98	24.00	-9.02

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5500	4.874	4.87	11.00	-6.13
Mid	5580	5.253	5.25	11.00	-5.75
High	5700	4.962	4.96	11.00	-6.04
144	5720	3.690	3.69	11.00	-7.31



8.1.10. 802.11n HT20 MODE IN THE 5.6 GHz BAND

1TX Antenna 1 MODE

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5500	31.5	-4.31	24.00	11.00
Mid	5580	30.2	-4.31	24.00	11.00
High	5700	30.75	-4.31	24.00	11.00
144	5720	30.10	-4.31	24.00	11.00

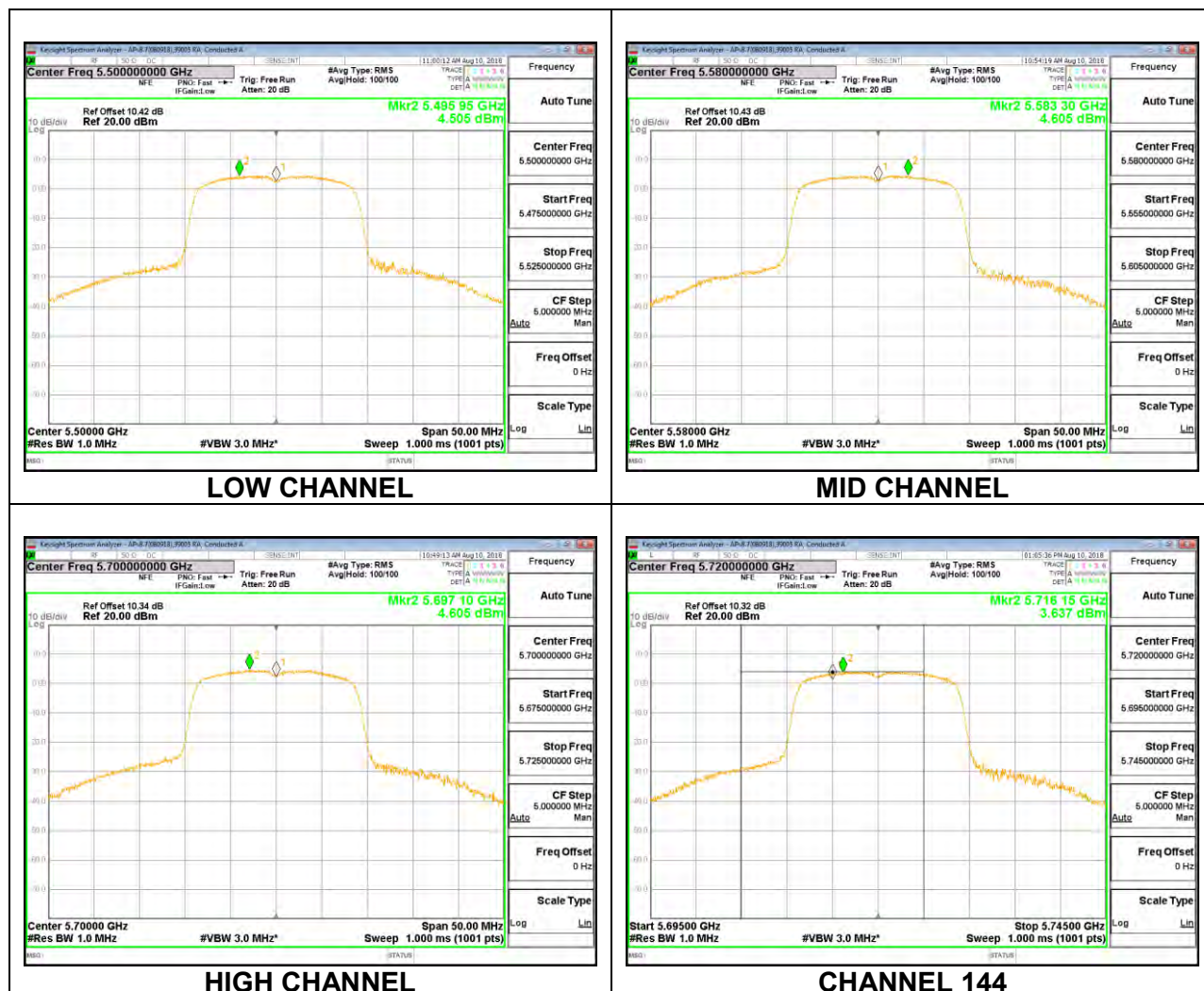
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD
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Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	14.66	14.66	24.00	-9.34
Mid	5580	14.81	14.81	24.00	-9.19
High	5700	14.96	14.96	24.00	-9.04
144	5720	15.01	15.01	24.00	-8.99

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5500	4.505	4.51	11.00	-6.50
Mid	5580	4.605	4.61	11.00	-6.40
High	5700	4.605	4.61	11.00	-6.40
144	5720	3.637	3.64	11.00	-7.36



8.1.11. 802.11n HT40 MODE IN THE 5.6 GHz BAND

1TX Antenna 1 MODE

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5510	61.8	-4.31	24.00	11.00
Mid	5550	61.2	-4.31	24.00	11.00
High	5670	60.8	-4.31	24.00	11.00
142	5710	44.20	-4.31	24.00	11.00

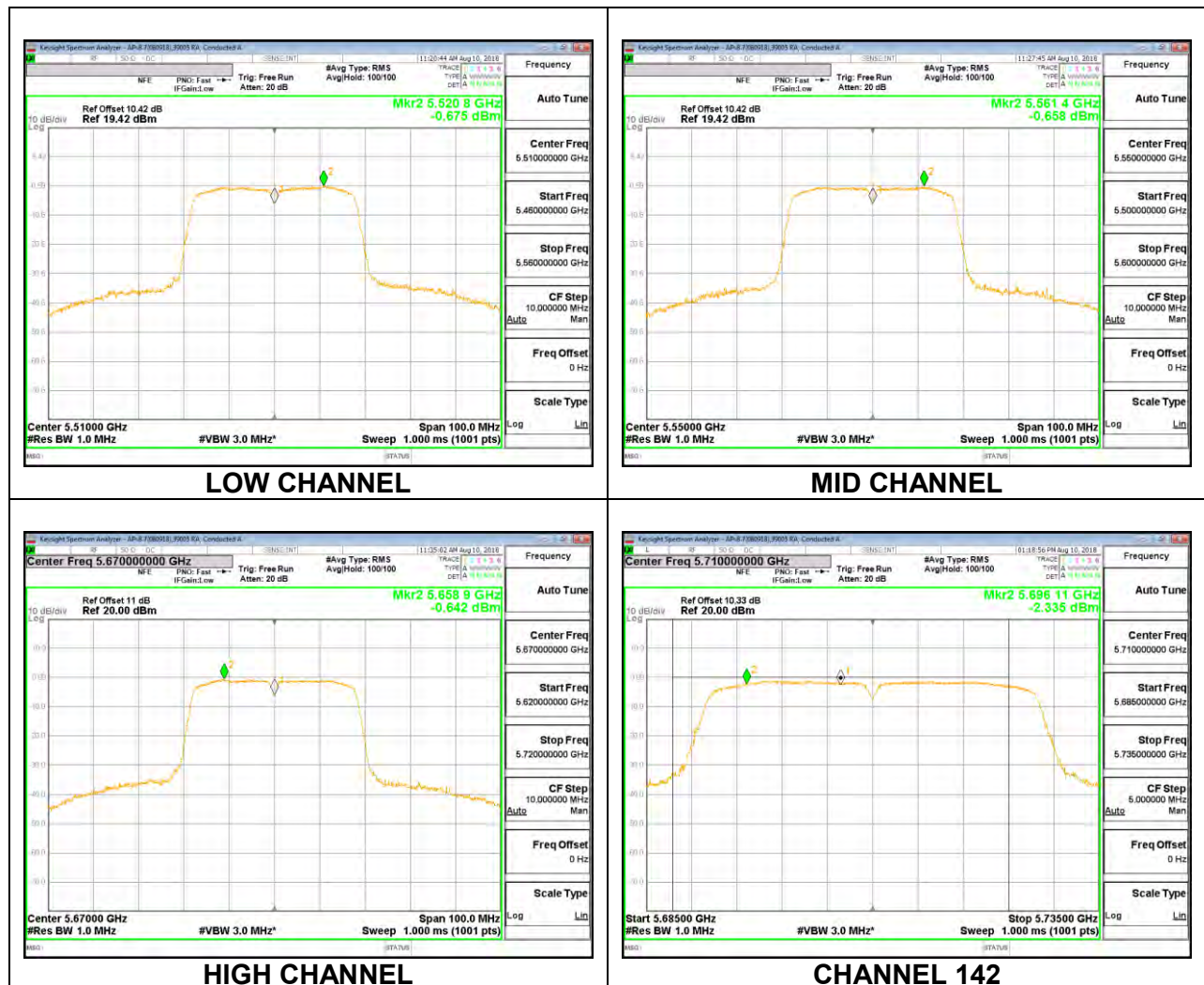
Duty Cycle CF (dB)	0.17	Included in Calculations of Corr'd Power & PSD
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Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	13.39	13.39	24.00	-10.61
Mid	5550	13.57	13.57	24.00	-10.43
High	5670	13.77	13.77	24.00	-10.23
142	5710	13.71	13.88	24.00	-10.12

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5510	-0.675	-0.51	11.00	-11.51
Mid	5550	-0.658	-0.49	11.00	-11.49
High	5670	-0.642	-0.47	11.00	-11.47
142	5710	-2.335	-2.17	11.00	-13.17



8.1.12. 802.11ac VHT80 MODE IN THE 5.6 GHz BAND

1TX Antenna 1 MODE

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5530	114.2	-4.31	24.00	11.00
High	5610	114.4	-4.31	24.00	11.00
138	5690	114.20	-4.31	24.00	11.00

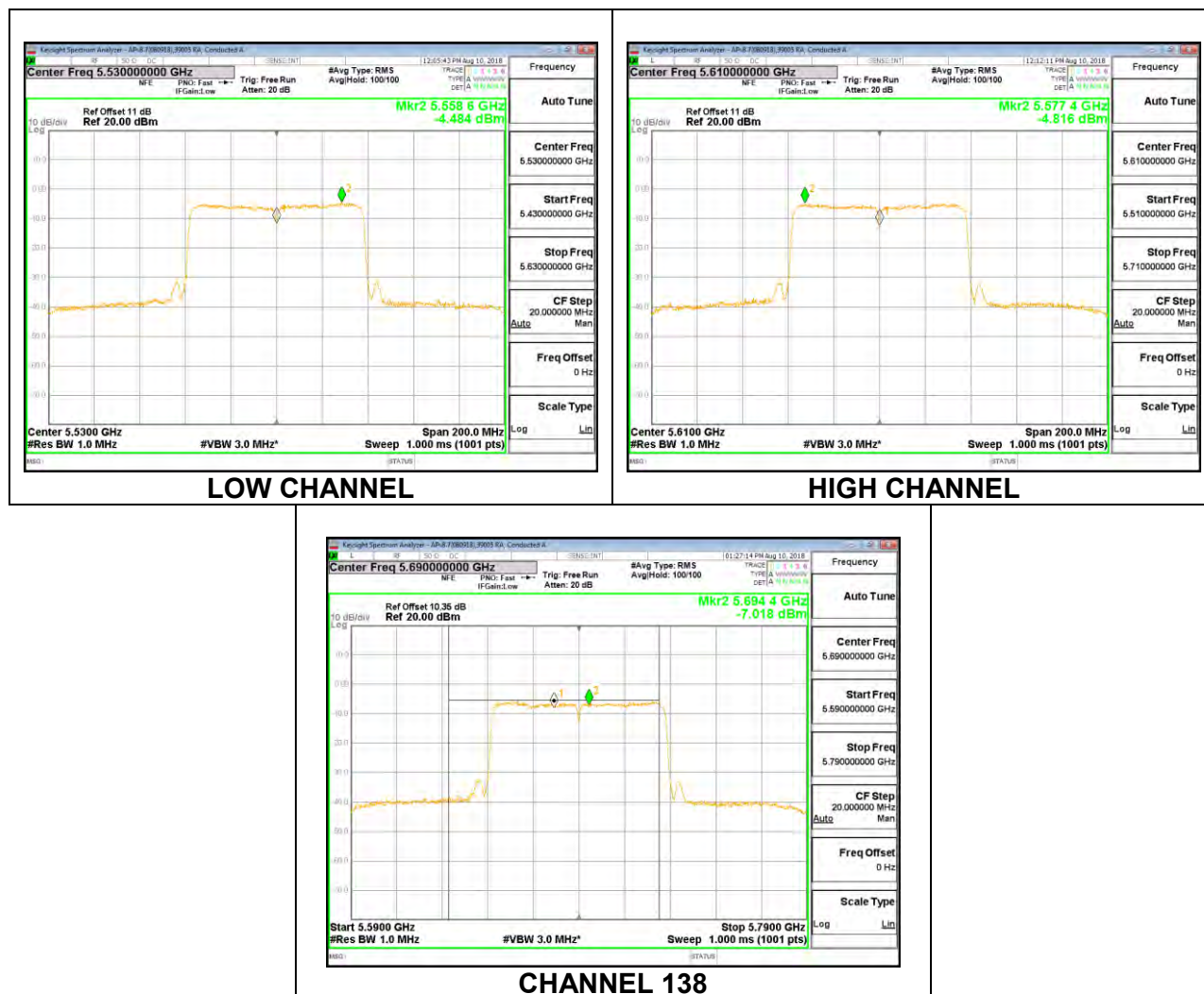
Duty Cycle CF (dB)	0.33	Included in Calculations of Corr'd Power & PSD
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Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5530	12.86	12.86	24.00	-11.14
High	5610	12.91	12.91	24.00	-11.09
138	5690	12.94	13.27	24.00	-10.73

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5530	-4.484	-4.15	11.00	-15.15
High	5610	-4.816	-4.49	11.00	-15.49
138	5690	-7.018	-6.69	11.00	-17.69



8.1.13. 802.11a MODE IN THE 5.8 GHz BAND

1TX Antenna 1 MODE

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5745	-5.88	30.00	30.00
Mid	5785	-5.88	30.00	30.00
High	5825	-5.88	30.00	30.00

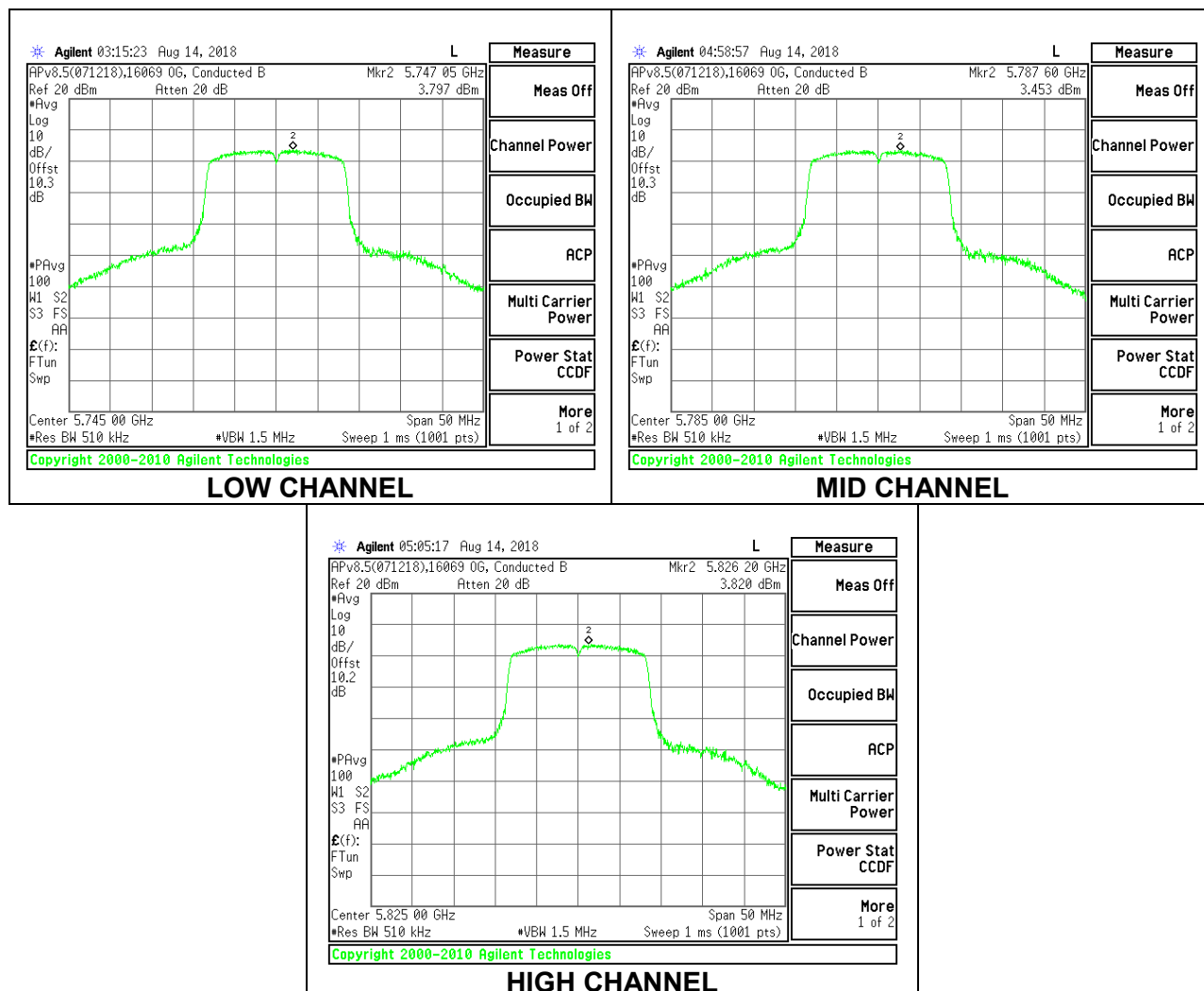
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD
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Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	15.10	15.10	30.00	-14.90
Mid	5785	15.05	15.05	30.00	-14.95
High	5825	15.01	15.01	30.00	-14.99

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5745	3.797	3.797	30.00	-26.20
Mid	5785	3.453	3.453	30.00	-26.55
High	5825	3.820	3.820	30.00	-26.18



8.1.14. 802.11n HT20 MODE IN THE 5.8 GHz BAND

1TX Antenna 1 MODE

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5745	-5.88	30.00	30.00
Mid	5785	-5.88	30.00	30.00
High	5825	-5.88	30.00	30.00

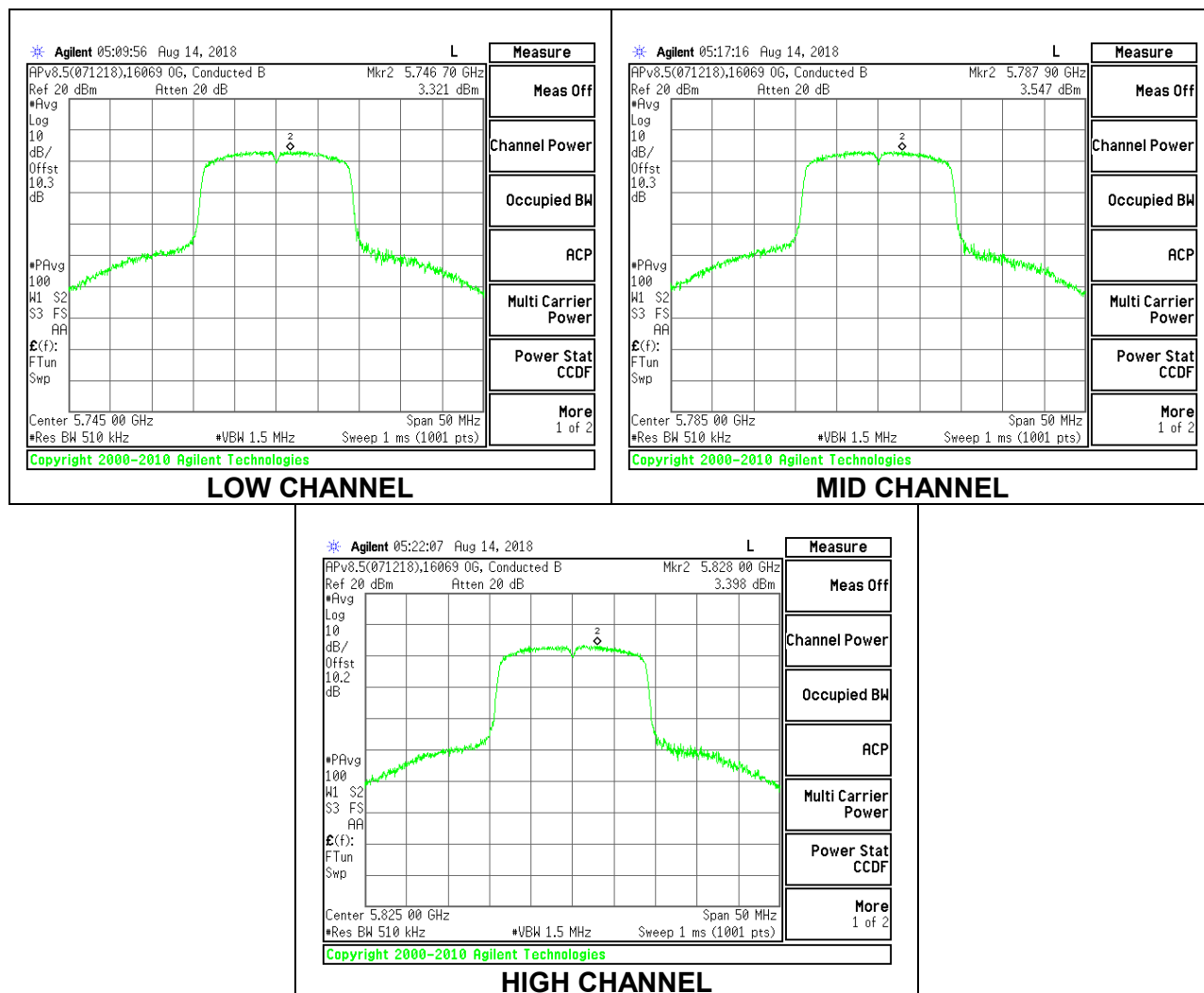
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD
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Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	14.84	14.84	30.00	-15.16
Mid	5785	14.88	14.88	30.00	-15.12
High	5825	14.95	14.95	30.00	-15.05

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5745	3.321	3.321	30.00	-26.68
Mid	5785	3.547	3.547	30.00	-26.45
High	5825	3.398	3.398	30.00	-26.60



8.1.15. 802.11n HT40 MODE IN THE 5.8 GHz BAND

1TX Antenna 1 MODE

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5755	-5.88	30.00	30.00
High	5795	-5.88	30.00	30.00

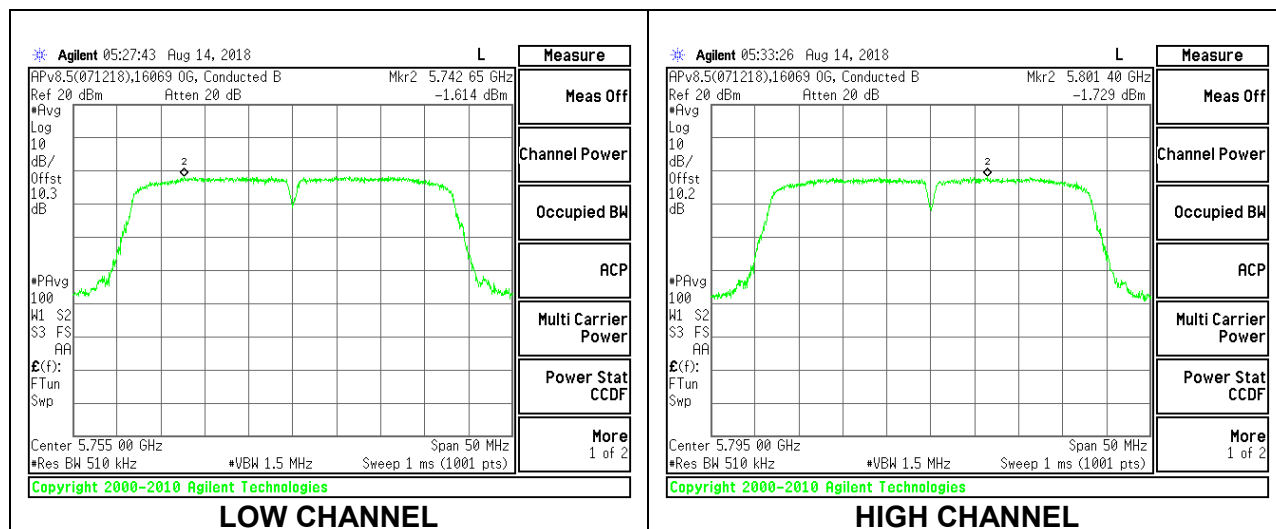
Duty Cycle CF (dB)	0.17	Included in Calculations of Corr'd Power & PSD
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Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	13.44	13.44	30.00	-16.56
High	5795	13.57	13.57	30.00	-16.43

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5755	-1.614	-1.444	30.00	-31.44
High	5795	-1.729	-1.559	30.00	-31.56



8.1.16. 802.11ac VHT80 MODE IN THE 5.8 GHz BAND

1TX Antenna 1 MODE

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Mid	5775	-5.88	30.00	30.00

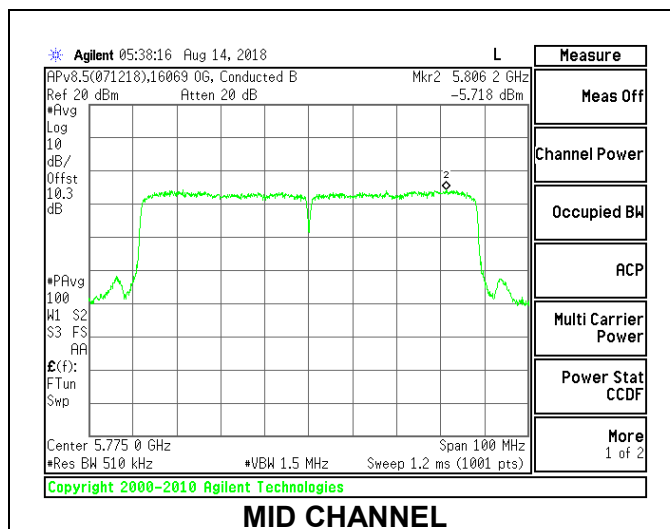
Duty Cycle CF (dB)	0.33	Included in Calculations of Corr'd Power & PSD
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Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5775	12.81	12.81	30.00	-17.19

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Mid	5775	-5.718	-5.388	30.00	-35.39



9. RADIATED TEST RESULTS

LIMITS

FCC §15.205 and §15.209 -Restricted bands

FCC §15.407(b)(1-3) -Un-Restricted bands

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For pre-scans above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 30 KHz for peak measurements.

For final measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and as applicable for average measurements.

The spectrum from 30 MHz to 1GHz and 18GHz to 40 GHz is investigated with the transmitter set to transmit at the channel with highest output power as worst-case scenario. 1GHz to 18GHz was set to the lowest, middle, and highest channels in the 5 GHz bands.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

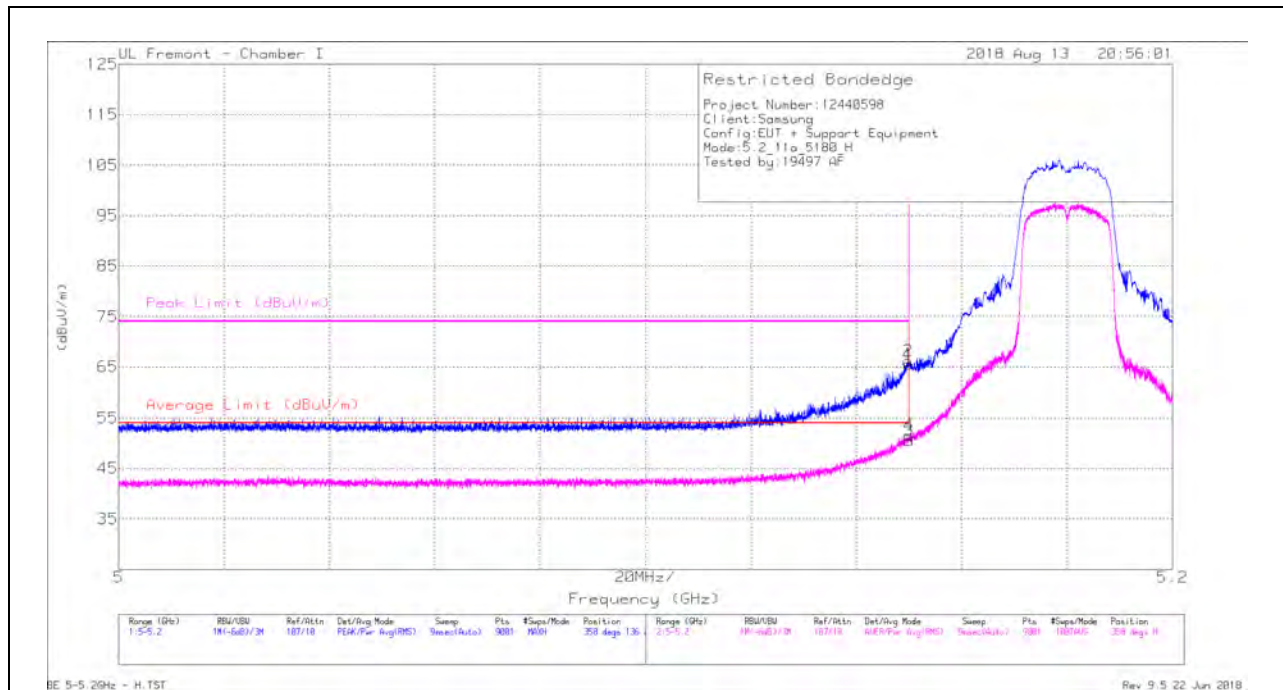
9.1. TRANSMITTER ABOVE 1 GHz

9.1.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.2 GHz BAND

1TX Antenna 1 MODE

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Trace Markers

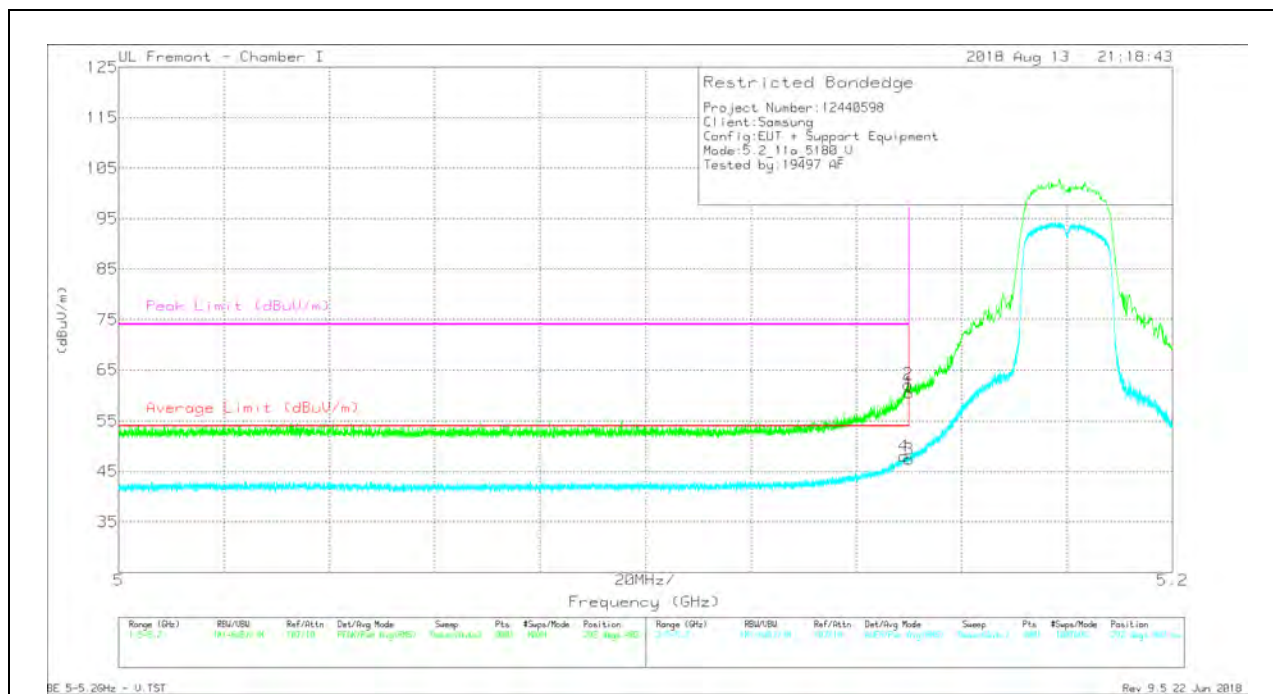
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	50.11	Pk	34.4	-19	0	65.51	-	-	74	-8.49	358	136	H
2	* 5.15	50.74	Pk	34.4	-19	0	66.14	-	-	74	-7.86	358	136	H
3	* 5.15	35.09	RMS	34.4	-19	0	50.49	54	-3.51	-	-	358	136	H
4	* 5.15	36.19	RMS	34.4	-19	0	51.59	54	-2.41	-	-	358	136	H

* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	45.17	Pk	34.4	-19	60.57	-	-	74	-13.43	292	402	V
2	* 5.15	46.77	Pk	34.4	-19	62.17	-	-	74	-11.83	292	402	V
3	* 5.15	32.09	RMS	34.4	-19	47.49	54	-6.51	-	-	292	402	V
4	* 5.149	32.66	RMS	34.4	-19	48.06	54	-5.94	-	-	292	402	V

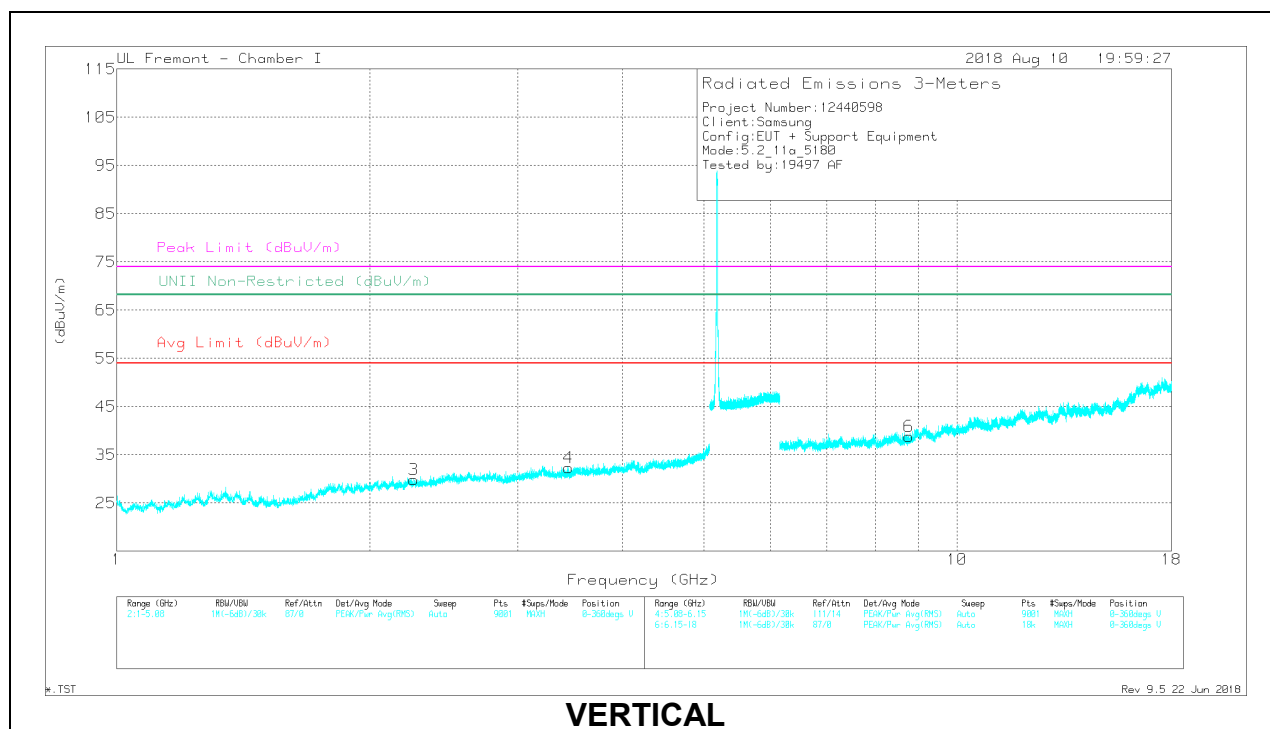
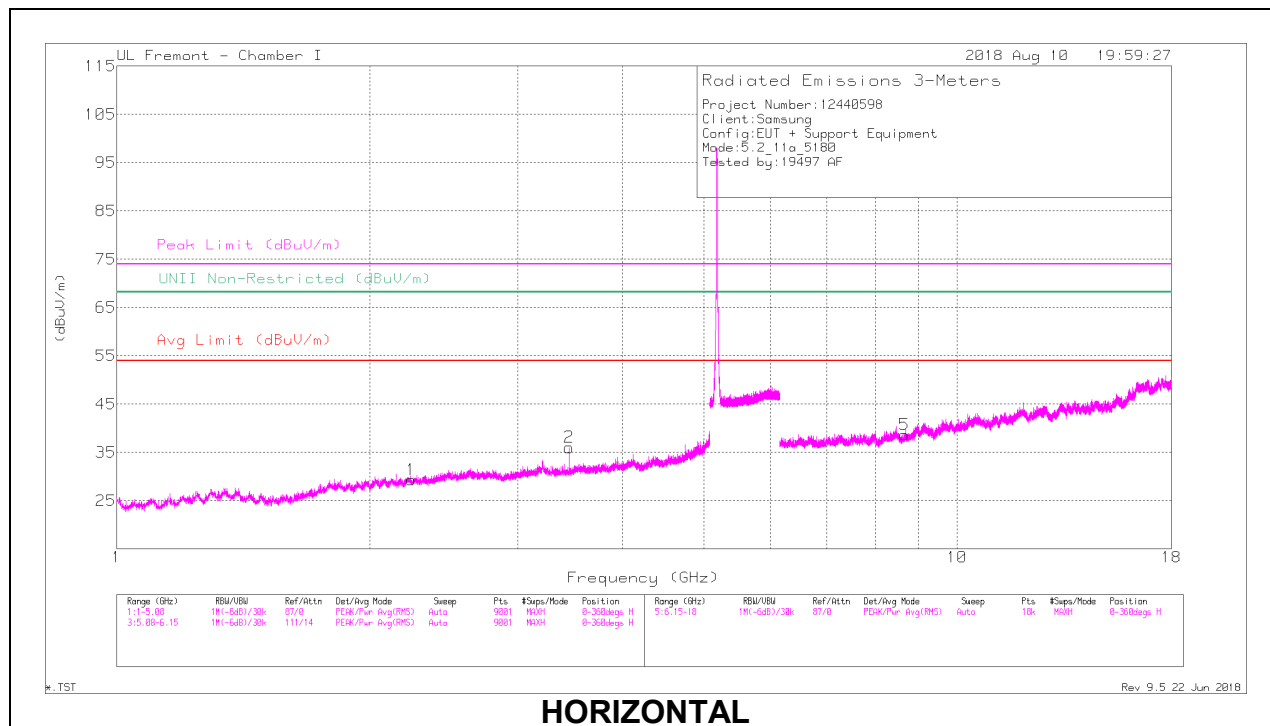
* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



RADIATED EMISSIONS

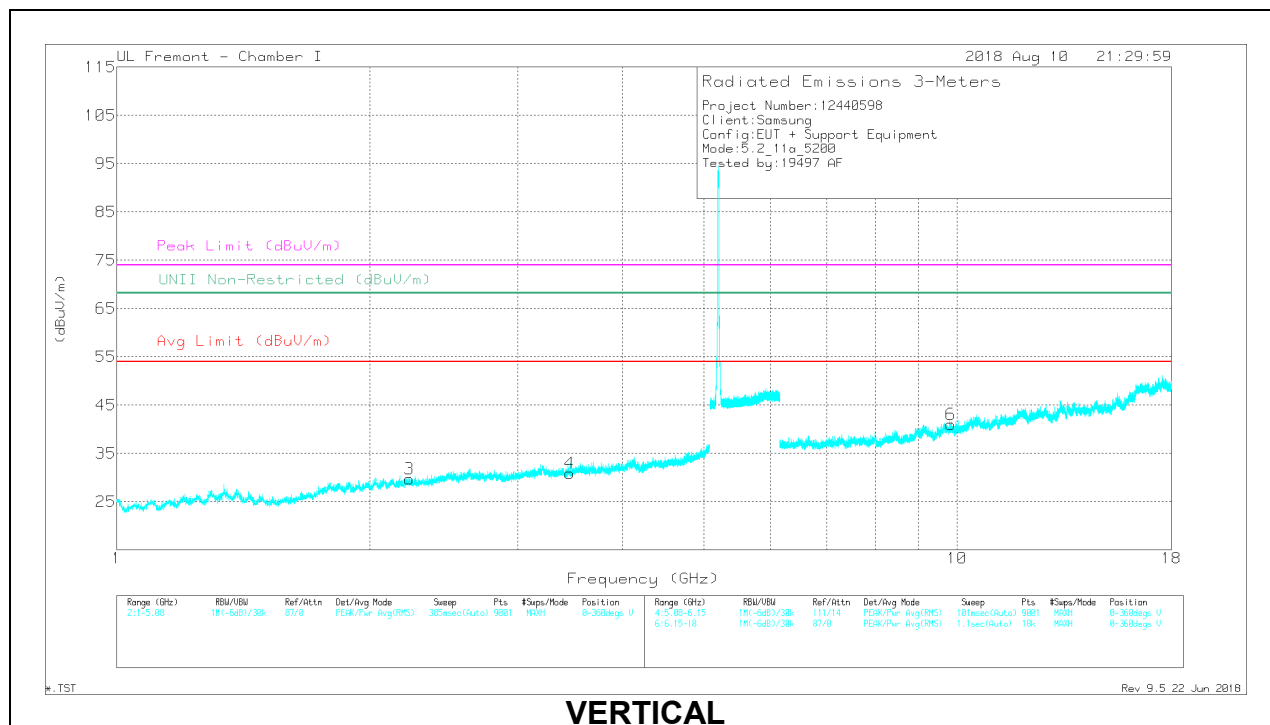
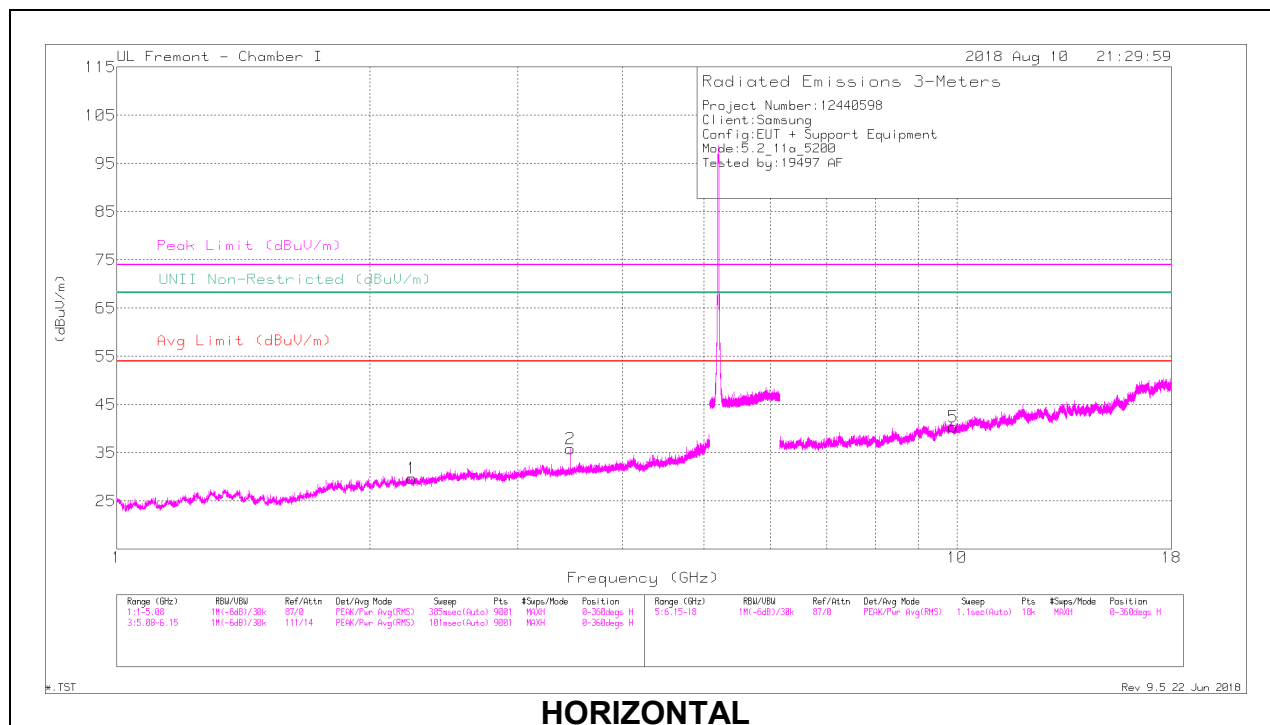
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.24	37.17	PK-U	31.5	-32	36.67	-	-	74	-37.33	-	-	353	169	H
	* 2.242	28	ADR	31.5	-32	27.5	54	-26.5	-	-	-	-	353	169	H
2	3.453	38.13	PK-U	32.7	-30.4	40.43	-	-	-	-	68.2	-27.77	4	203	H
3	* 2.259	36.96	PK-U	31.4	-31.8	36.56	-	-	74	-37.44	-	-	209	242	V
	* 2.258	27.74	ADR	31.4	-31.8	27.34	54	-26.66	-	-	-	-	209	242	V
4	3.448	36.01	PK-U	32.7	-30.3	38.41	-	-	-	-	68.2	-29.79	299	376	V
5	8.661	28.76	PK-U	35.9	-18.4	46.26	-	-	-	-	68.2	-21.94	302	350	H
6	8.766	28.54	PK-U	36	-18.9	45.64	-	-	-	-	68.2	-22.56	147	116	V

* - indicates frequency in CFR47 Pt 15 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

MID CHANNEL RESULTS



RADIATED EMISSIONS

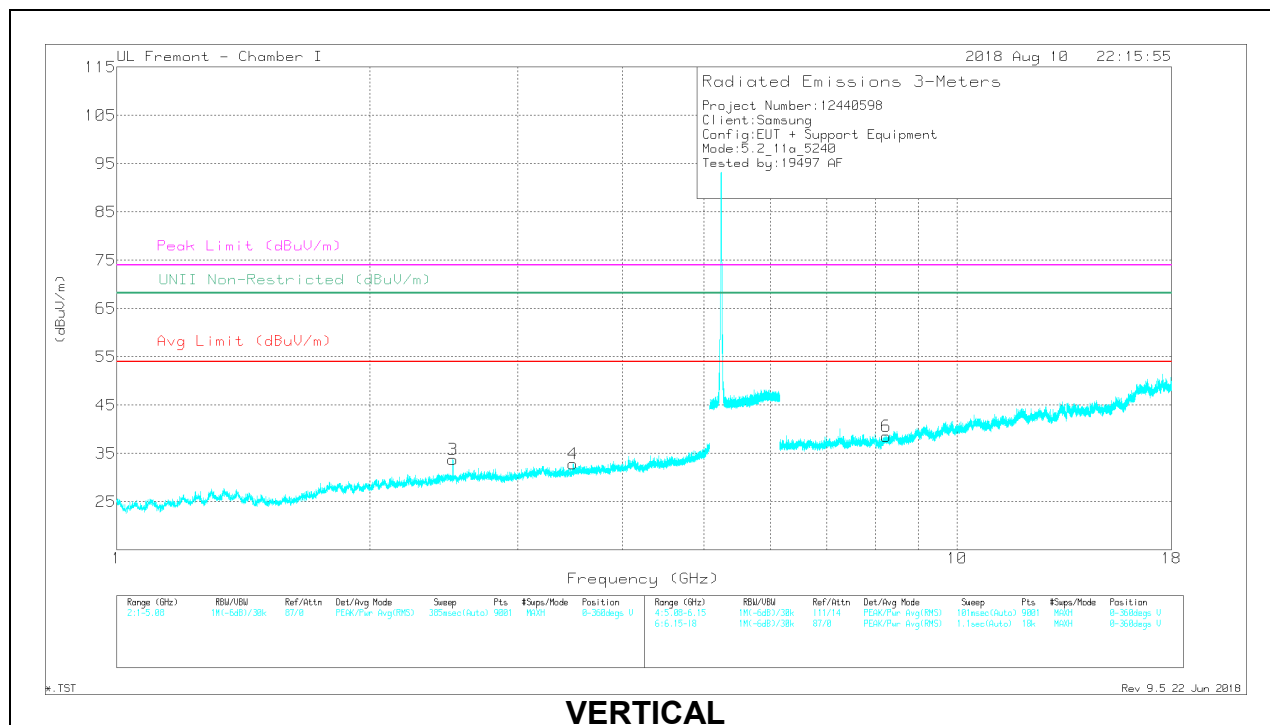
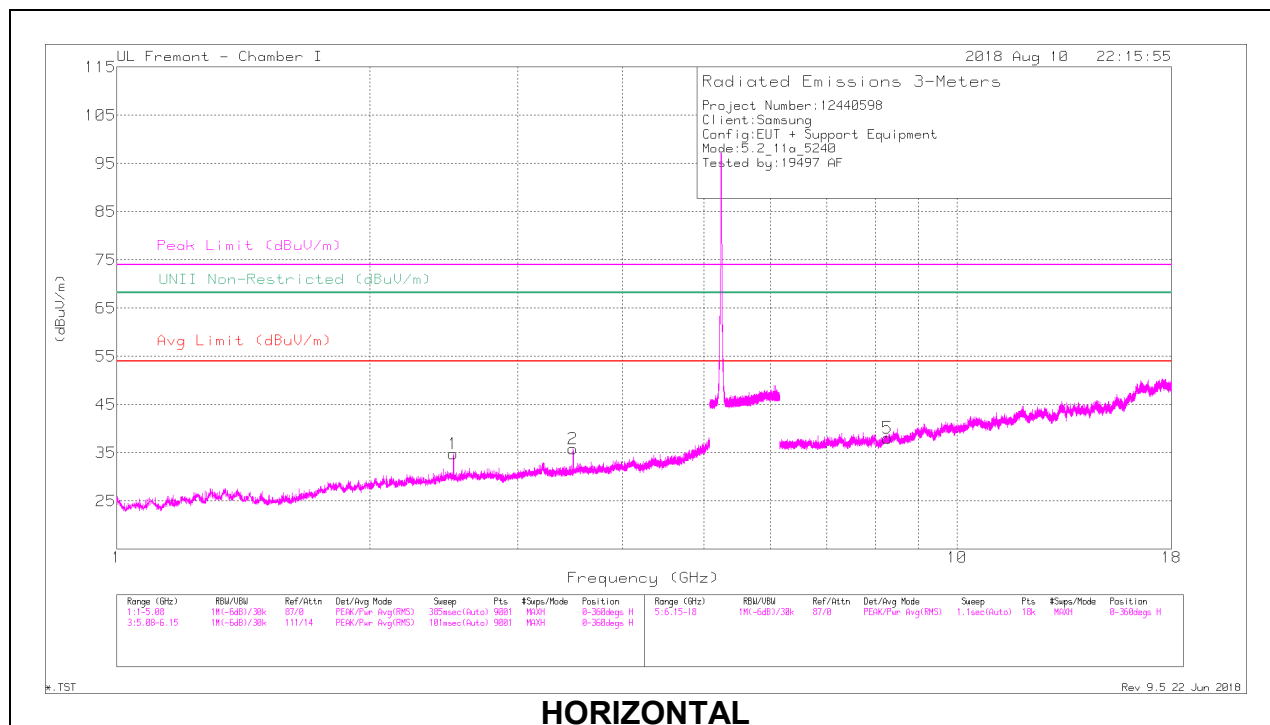
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.245	37.32	PK-U	31.5	-32	36.82	-	-	74	-37.18	-	-	6	149	H
	* 2.245	27.41	ADR	31.5	-32	26.91	54	-27.09	-	-	-	-	6	149	H
2	-3.467	38.83	PK-U	32.7	-30.6	40.93	-	-	-	-	68.2	-27.27	21	304	H
3	* 2.229	38.02	PK-U	31.5	-31.8	37.72	-	-	74	-36.28	-	-	6	258	V
	* 2.232	27.76	ADR	31.5	-31.9	27.36	54	-26.64	-	-	-	-	6	258	V
4	3.46	36.02	PK-U	32.7	-30.5	38.22	-	-	-	-	68.2	-29.98	201	336	V
5	9.899	28.02	PK-U	37	-17.6	47.42	-	-	-	-	68.2	-20.78	260	389	H
6	9.835	28.77	PK-U	37	-17	48.77	-	-	-	-	68.2	-19.43	111	343	V

* - indicates frequency in CFR47 Pt 15 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

HIGH CHANNEL RESULTS



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.515	37.35	PK-U	32.4	-31.7	38.05	-	-	-	-	68.2	-30.15	299	250	H
2	3.493	39.27	PK-U	32.8	-30.3	41.77	-	-	-	-	68.2	-26.43	353	141	H
3	2.511	40.02	PK-U	32.4	-31.6	40.82	-	-	-	-	68.2	-27.38	0	297	V
4	3.493	36.19	PK-U	32.8	-30.3	38.69	-	-	-	-	68.2	-29.51	168	107	V
5	* 8.271	29.21	PK-U	35.8	-19.6	45.41	-	-	74	-28.59	-	-	87	153	H
	* 8.271	19.65	ADR	35.8	-19.6	35.85	54	-18.15	-	-	-	-	87	153	H
6	* 8.237	29.1	PK-U	35.7	-19.5	45.3	-	-	74	-28.7	-	-	189	260	V
	* 8.237	20.13	ADR	35.7	-19.5	36.33	54	-17.67	-	-	-	-	189	260	V

* - indicates frequency in CFR47 Pt 15 Restricted Band

PK-U - U-NII: Maximum Peak

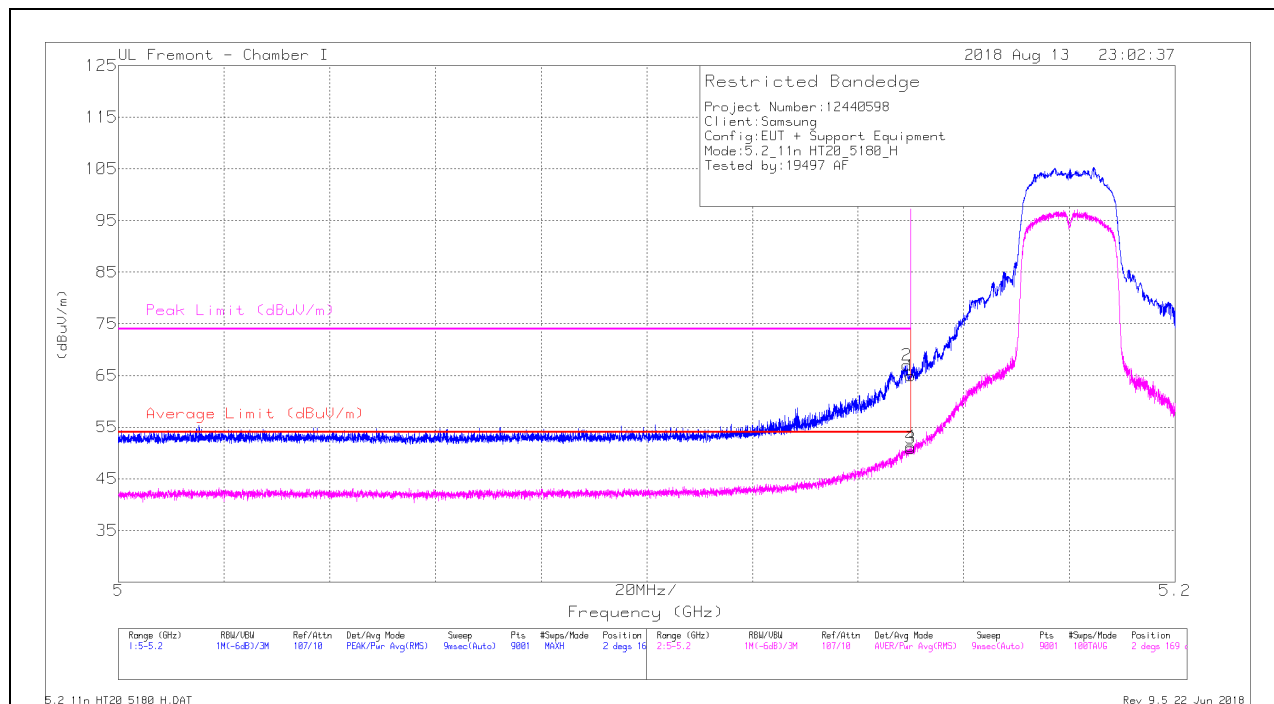
ADR - U-NII AD primary method, RMS average

9.1.2. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.2 GHz BAND

1TX Antenna 1 MODE

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Trace Markers

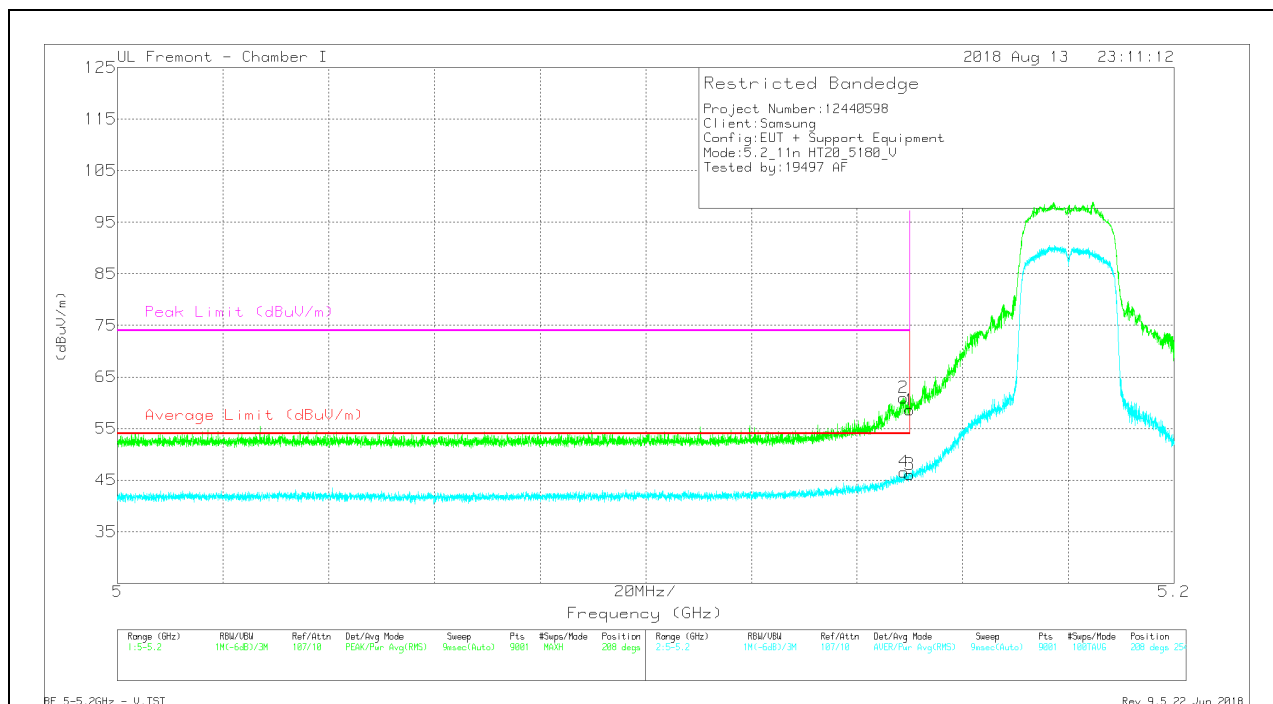
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	49.53	Pk	34.4	-19	0	64.93	-	-	74	-9.07	2	169	H
2	* 5.149	51.58	Pk	34.4	-19	0	66.98	-	-	74	-7.02	2	169	H
3	* 5.15	35.49	RMS	34.4	-19	0	50.89	54	-3.11	-	-	2	169	H
4	* 5.15	35.88	RMS	34.4	-19	0	51.28	54	-2.72	-	-	2	169	H

* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cb/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	43.17	Pk	34.4	-19	58.57	-	-	74	-15.43	208	254	V
2	* 5.149	45.58	Pk	34.4	-19	60.98	-	-	74	-13.02	208	254	V
3	* 5.15	30.69	RMS	34.4	-19	46.09	54	-7.91	-	-	208	254	V
4	* 5.149	31.2	RMS	34.4	-19	46.6	54	-7.4	-	-	208	254	V

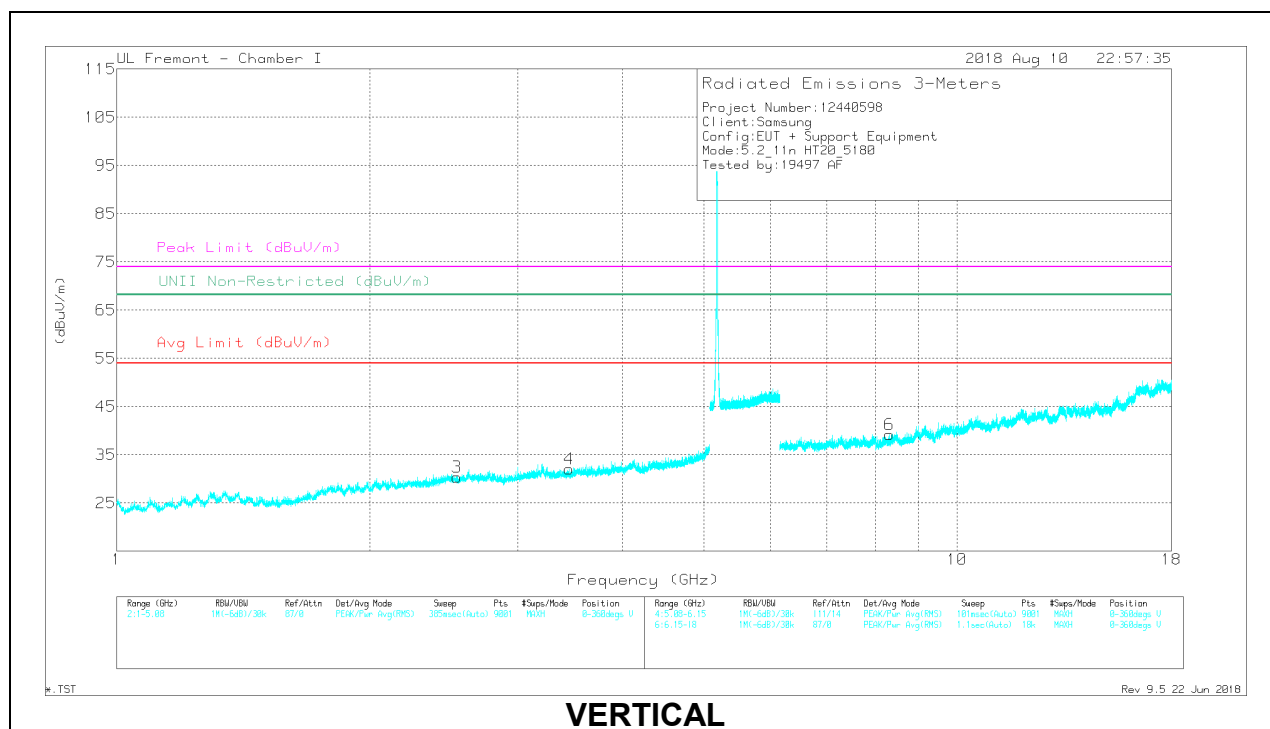
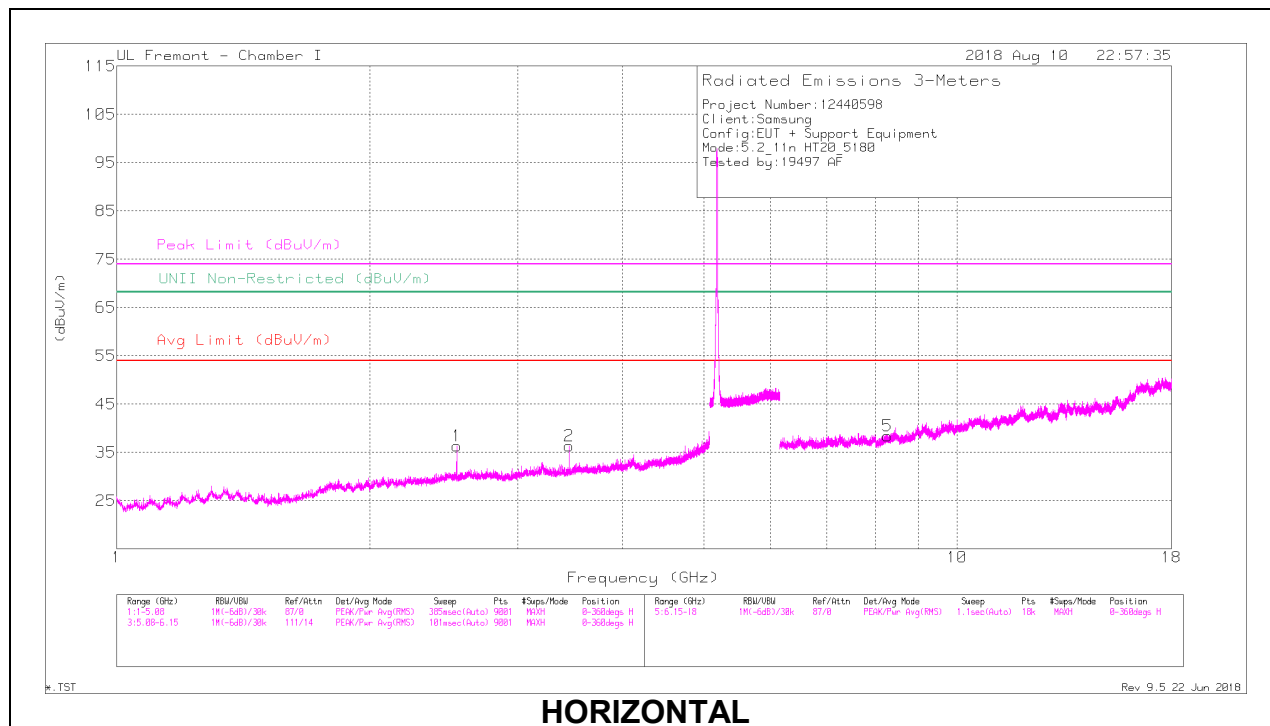
* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



RADIATED EMISSIONS

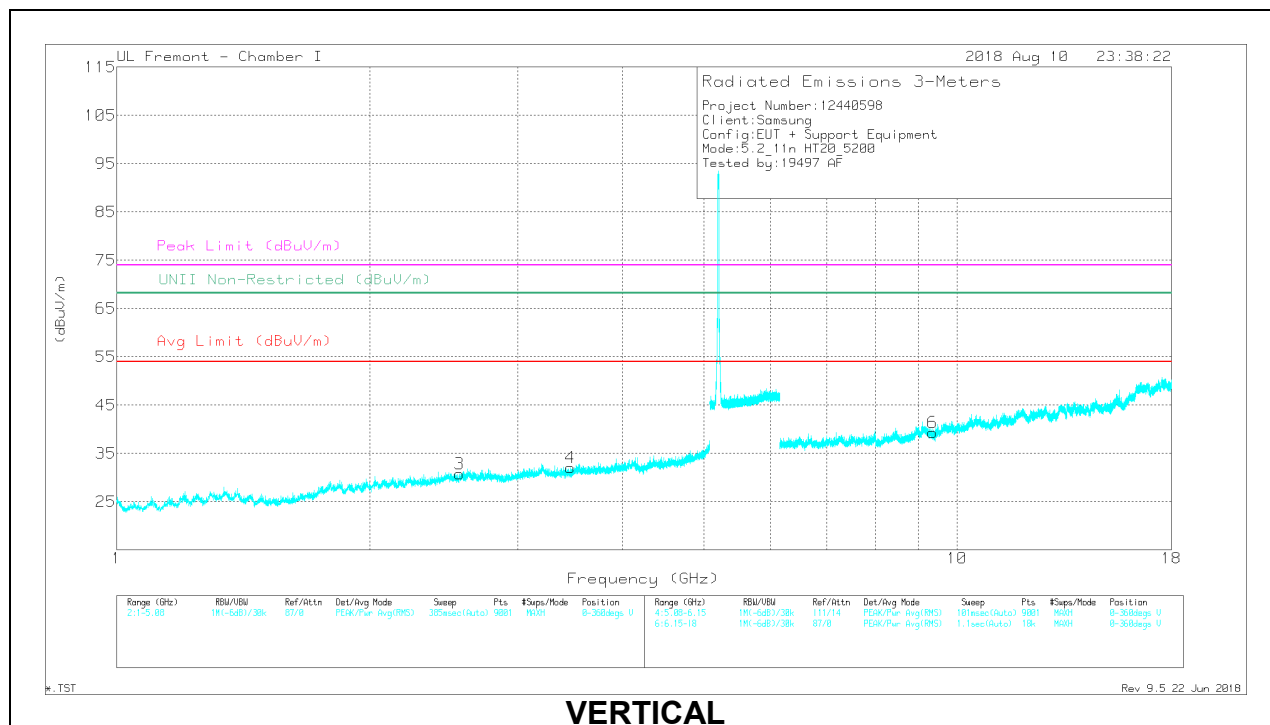
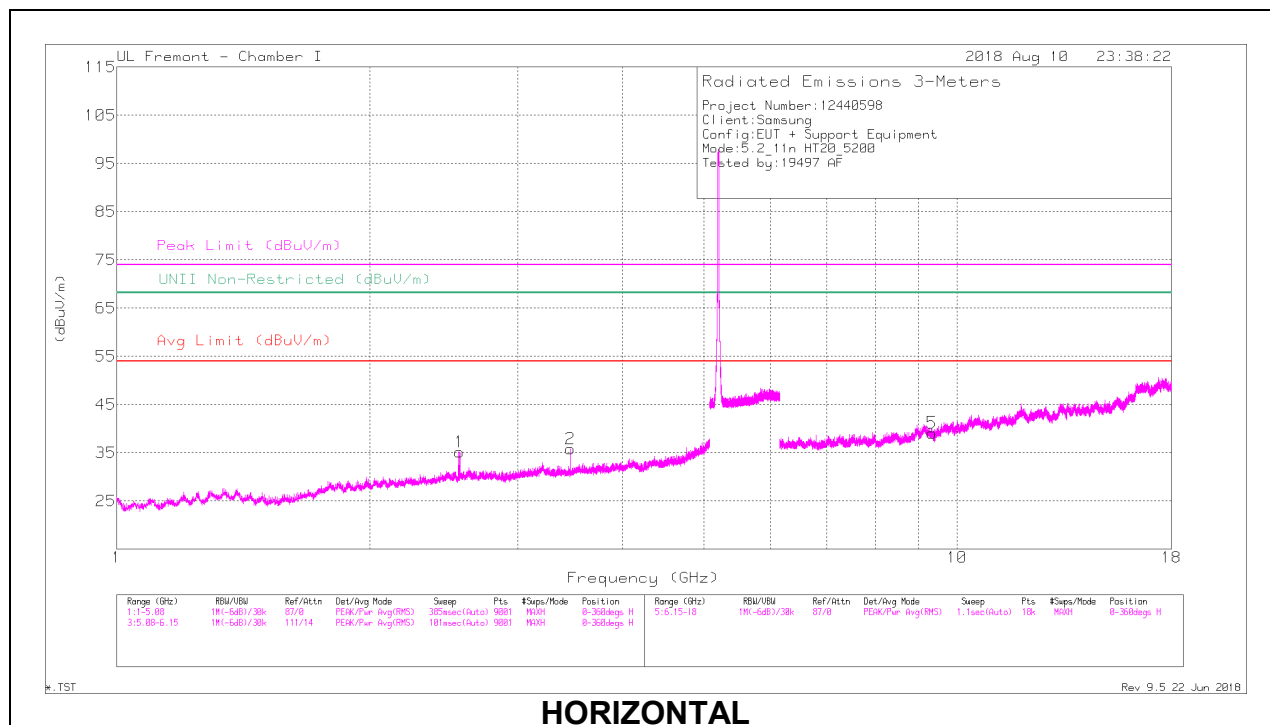
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.538	36.6	PK-U	32.3	-31.6	37.3	-	-	-	-	68.2	-30.9	195	354	H
2	3.453	38.13	PK-U	32.7	-30.4	40.43	-	-	-	-	68.2	-27.77	356	140	H
3	2.539	37.36	PK-U	32.3	-31.6	38.06	-	-	-	-	68.2	-30.14	46	363	V
4	3.453	36.42	PK-U	32.7	-30.4	38.72	-	-	-	-	68.2	-29.48	342	169	V
5	* 8.268	29.7	PK-U	35.7	-19.6	45.8	-	-	74	-28.2	-	-	179	144	H
	* 8.271	19.94	ADR	35.8	-19.6	36.14	54	-17.86	-	-	-	-	179	144	H
6	* 8.308	29.45	PK-U	35.8	-19.7	45.55	-	-	74	-28.45	-	-	126	328	V
	* 8.31	20.33	ADR	35.8	-19.7	36.43	54	-17.57	-	-	-	-	126	328	V

* - indicates frequency in CFR47 Pt 15 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

MID CHANNEL RESULTS



RADIATED EMISSIONS

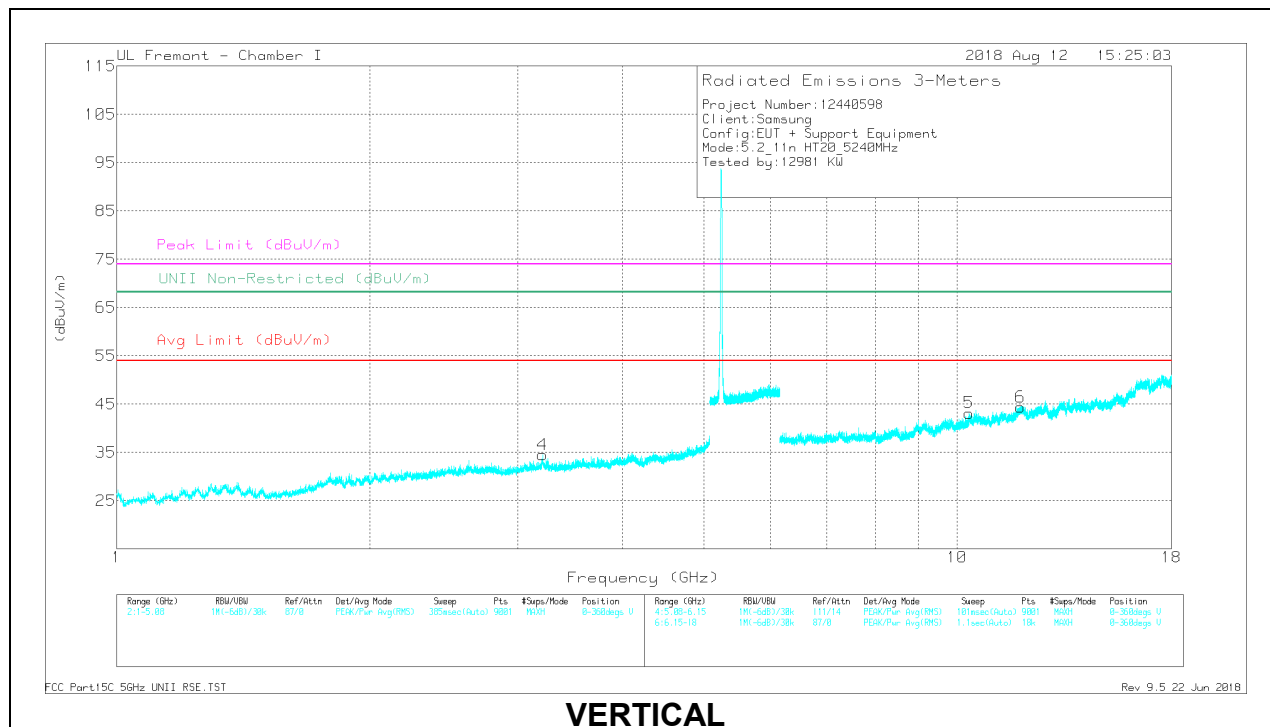
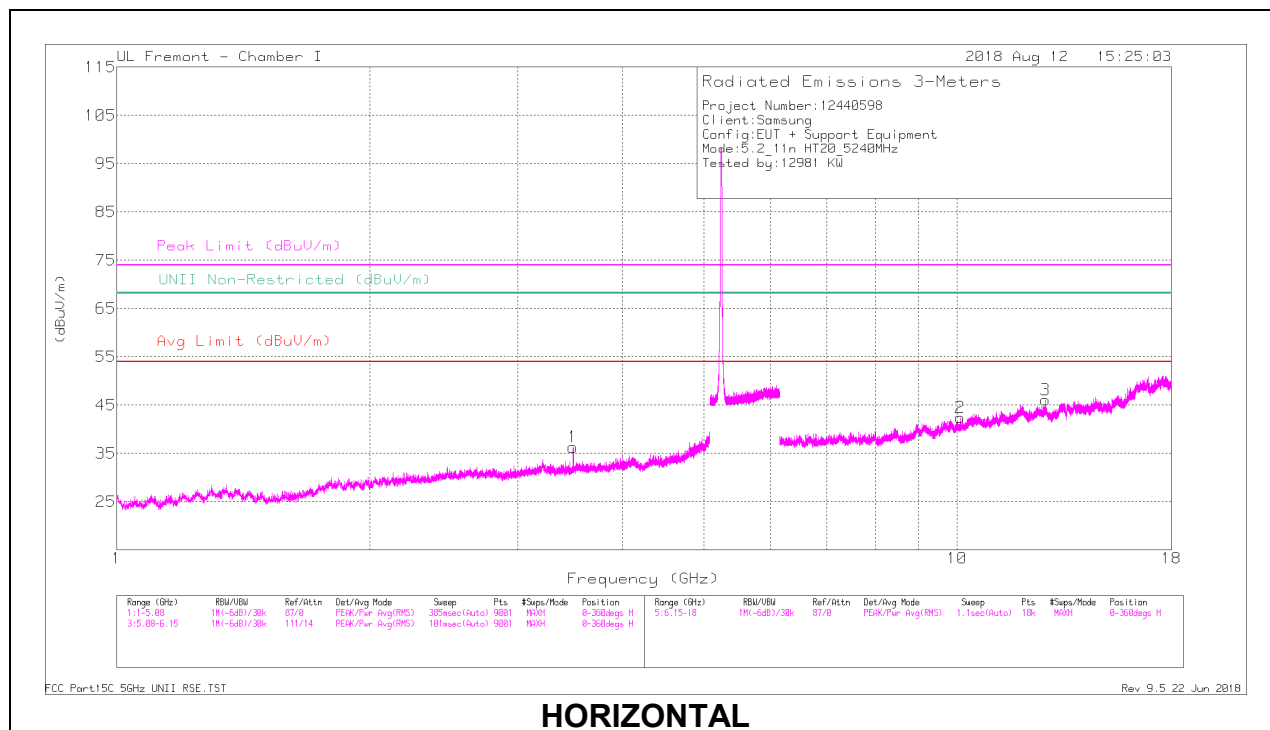
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.559	37.63	PK-U	32.4	-31.4	38.63	-	-	-	-	68.2	-29.57	49	274	H
2	3.467	39.13	PK-U	32.7	-30.6	41.23	-	-	-	-	68.2	-26.97	32	255	H
3	2.561	36.94	PK-U	32.4	-31.4	37.94	-	-	-	-	68.2	-30.26	19	143	V
4	3.467	37.01	PK-U	32.7	-30.6	39.11	-	-	-	-	68.2	-29.09	337	175	V
5	* 9.336	28.66	PK-U	36.4	-17.7	47.36	-	-	74	-26.64	-	-	161	116	H
	* 9.333	18.63	ADR	36.4	-17.7	37.33	54	-16.67	-	-	-	-	161	116	H
6	* 9.352	28.44	PK-U	36.4	-17.9	46.94	-	-	74	-27.06	-	-	248	273	V
	* 9.35	19.07	ADR	36.4	-17.8	37.67	54	-16.33	-	-	-	-	248	273	V

* - indicates frequency in CFR47 Pt 15 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

HIGH CHANNEL RESULTS



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.493	39.32	PK-U	32.8	-30.3	41.82	-	-	-	-	68.2	-26.38	226	103	H
4	3.211	36.84	PK-U	33.7	-29.8	40.74	-	-	-	-	68.2	-27.46	157	330	V
2	10.092	28.22	PK-U	37.1	-16.9	48.42	-	-	-	-	68.2	-19.78	42	344	H
3	12.745	28.08	PK-U	39.1	-15.9	51.28	-	-	-	-	68.2	-16.92	276	382	H
5	10.343	28.6	PK-U	37.4	-16.6	49.4	-	-	-	-	68.2	-18.8	239	170	V
6	* 11.904	29.98	PK-U	38.7	-16.6	52.08	-	-	74	-21.92	-	-	28	276	V
	* 11.903	19.89	ADR	38.7	-16.6	41.99	54	-12.01	-	-	-	-	28	276	V

* - indicates frequency in CFR47 Pt 15 Restricted Band

PK-U - U-NII: Maximum Peak

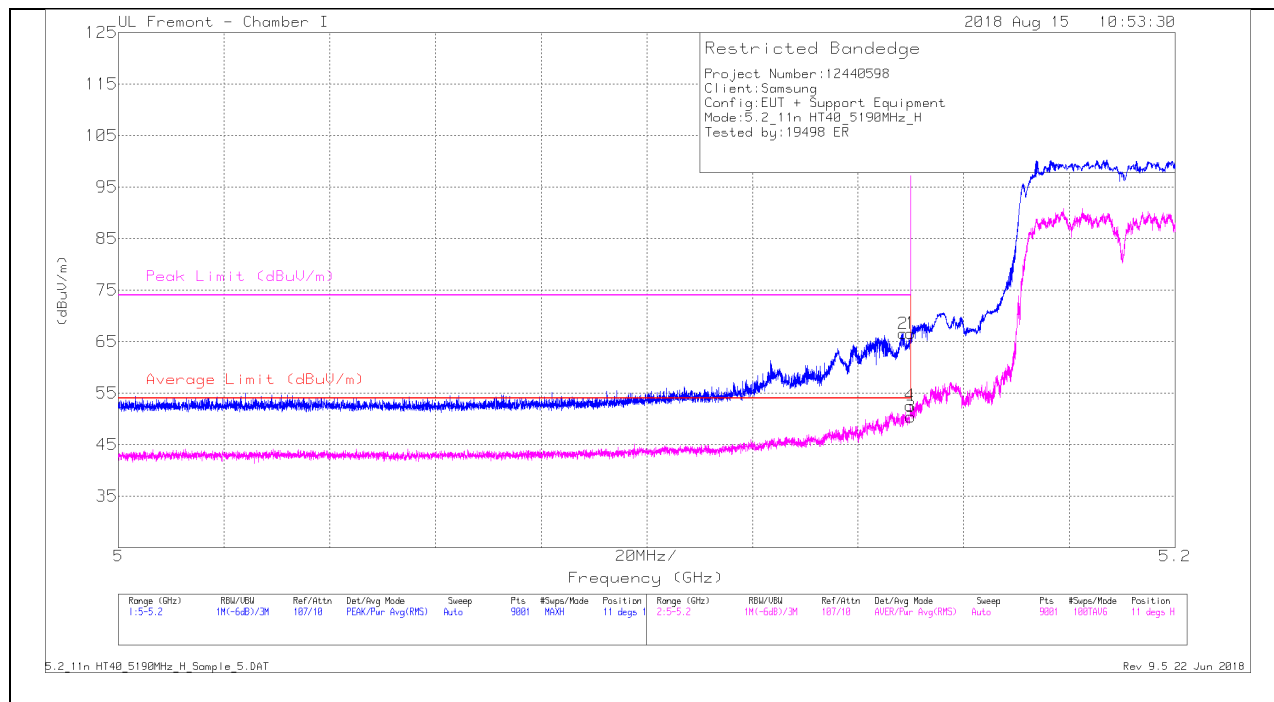
ADR - U-NII AD primary method, RMS average

9.1.3. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.2 GHz BAND

1TX Antenna 1 MODE

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Trace Markers

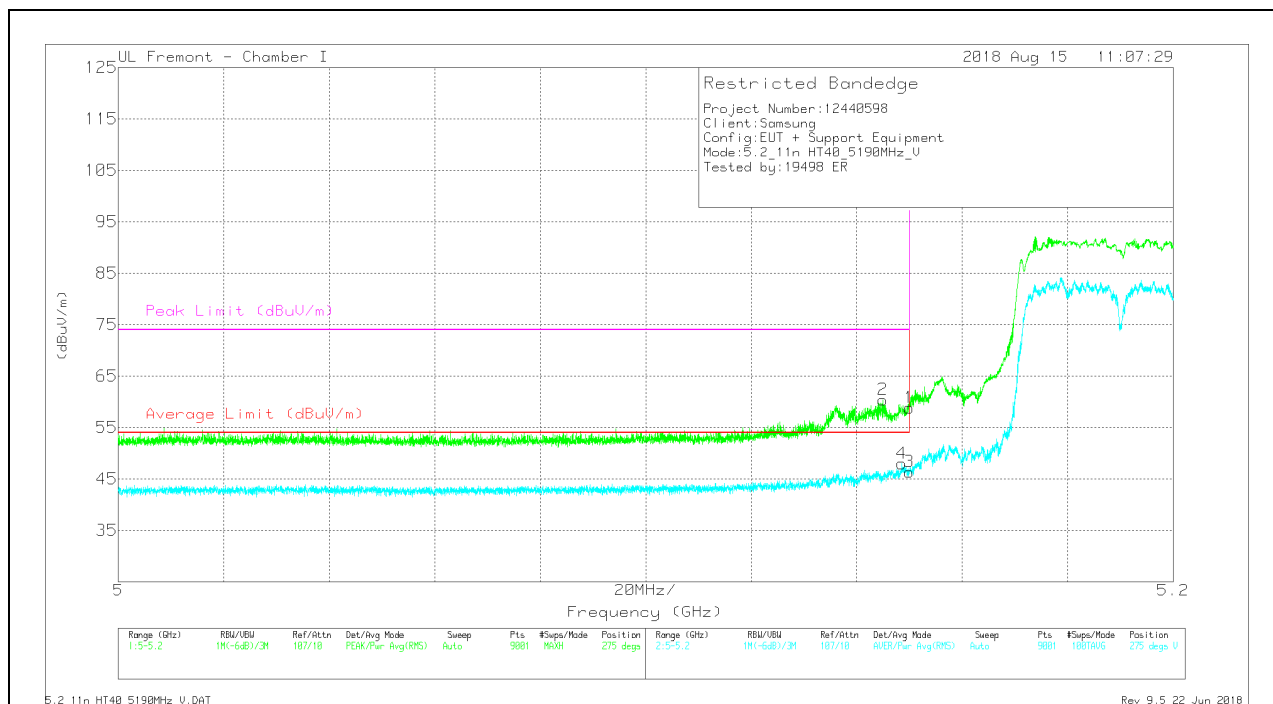
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T62 (dB/m)	Amp/Ch/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
1	* 5.15	51.21	Pk	34.4	-19	0	66.61	-	-	74	-7.39	11	125	H
2	* 5.148	51.16	Pk	34.4	-19	0	66.56	-	-	74	-7.44	11	125	H
3	* 5.15	33.96	RMS	34.4	-19	.17	49.53	54	-4.47	-	-	11	125	H
4	* 5.15	36.12	RMS	34.4	-19	.17	51.69	54	-2.31	-	-	11	125	H

* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AFT862 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	43.45	Pk	34.4	-19	0	58.85	-	-	74	-15.15	275	248	V
2	* 5.145	45.13	Pk	34.4	-19.1	0	60.43	-	-	74	-13.57	275	248	V
3	* 5.15	29.91	RMS	34.4	-19	.17	45.48	54	-8.52	-	-	275	248	V
4	* 5.149	31.53	RMS	34.4	-19	.17	47.1	54	-6.9	-	-	275	248	V

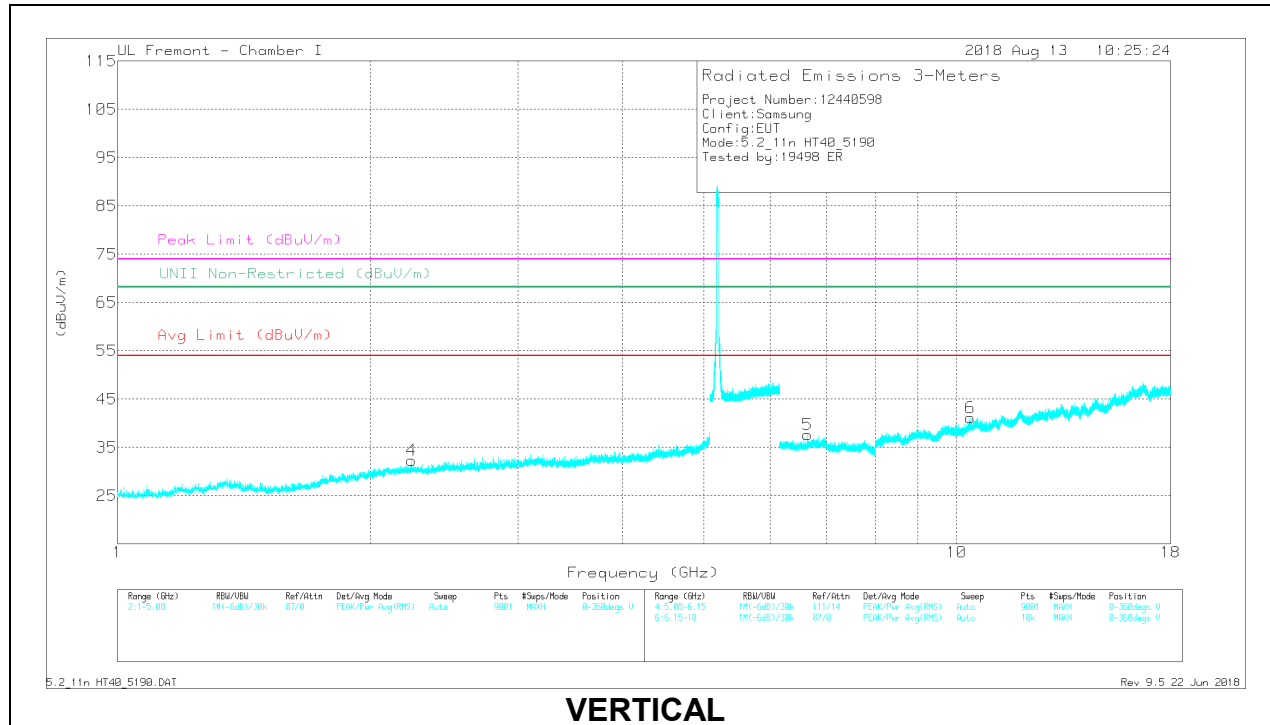
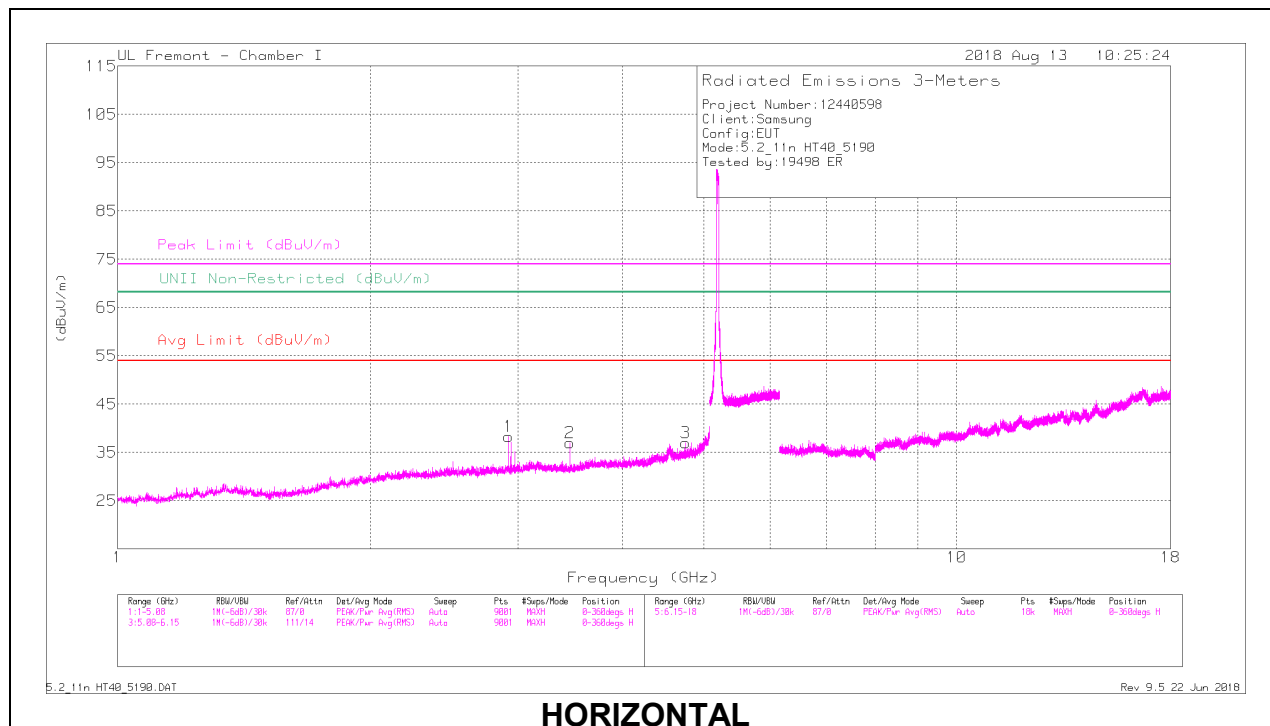
* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



RADIATED EMISSIONS

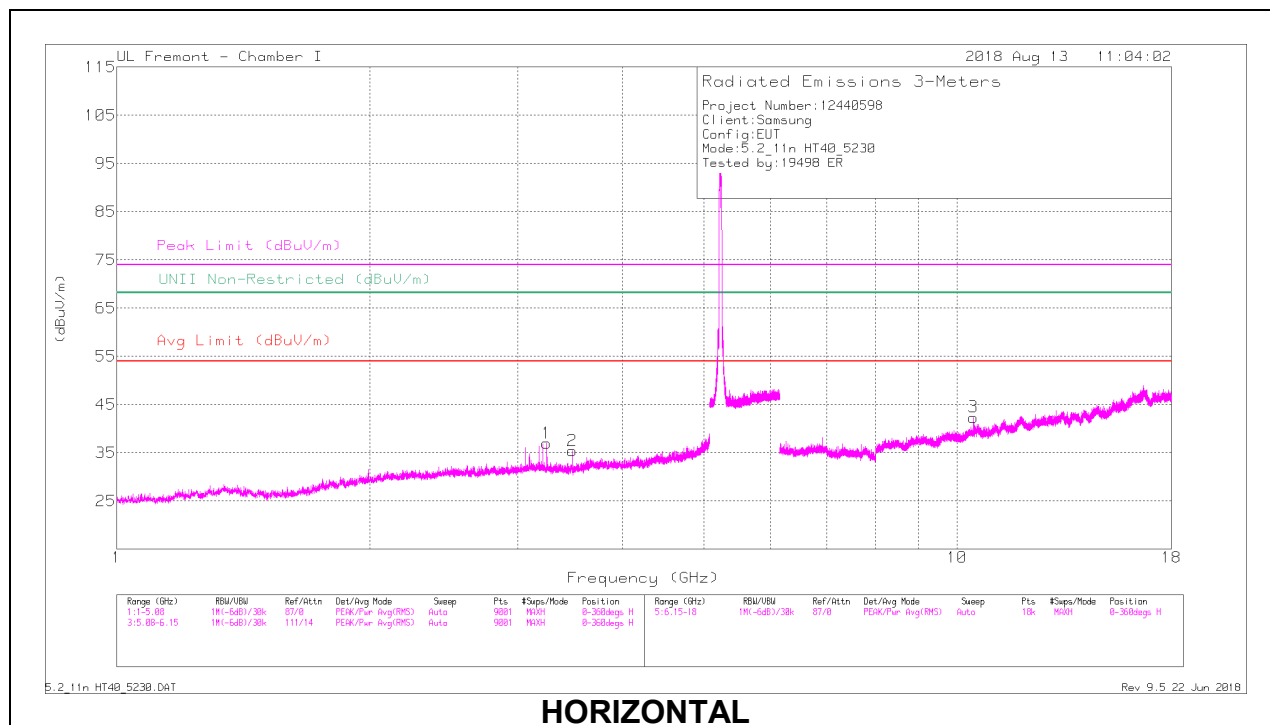
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.926	41.18	PK-U	32.5	-33.9	0	39.78	-	-	-	-	68.2	-28.42	290	129	H
2	3.46	43.32	PK-U	32.6	-32.8	0	43.12	-	-	-	-	68.2	-25.08	275	110	H
3	* 4.757	41	PK-U	34.1	-30.1	0	45	-	-	74	-29	-	-	60	127	H
	* 4.757	31.01	ADR	34.1	-30.1	.17	35.18	54	-18.82	-	-	-	-	60	127	H
4	* 2.24	39.3	PK-U	31.9	-35.1	0	36.1	-	-	74	-37.9	-	-	163	148	V
	* 2.241	32.21	ADR	31.9	-35.1	.17	29.18	54	-24.82	-	-	-	-	163	148	V
5	6.647	33.49	PK-U	35.5	-27.3	0	41.69	-	-	-	-	68.2	-26.51	331	139	V
6	10.38	33.91	PK-U	37.4	-23	0	48.31	-	-	-	-	68.2	-19.89	40	109	V

* - indicates frequency in CFR47 Pt 15 Restricted Band

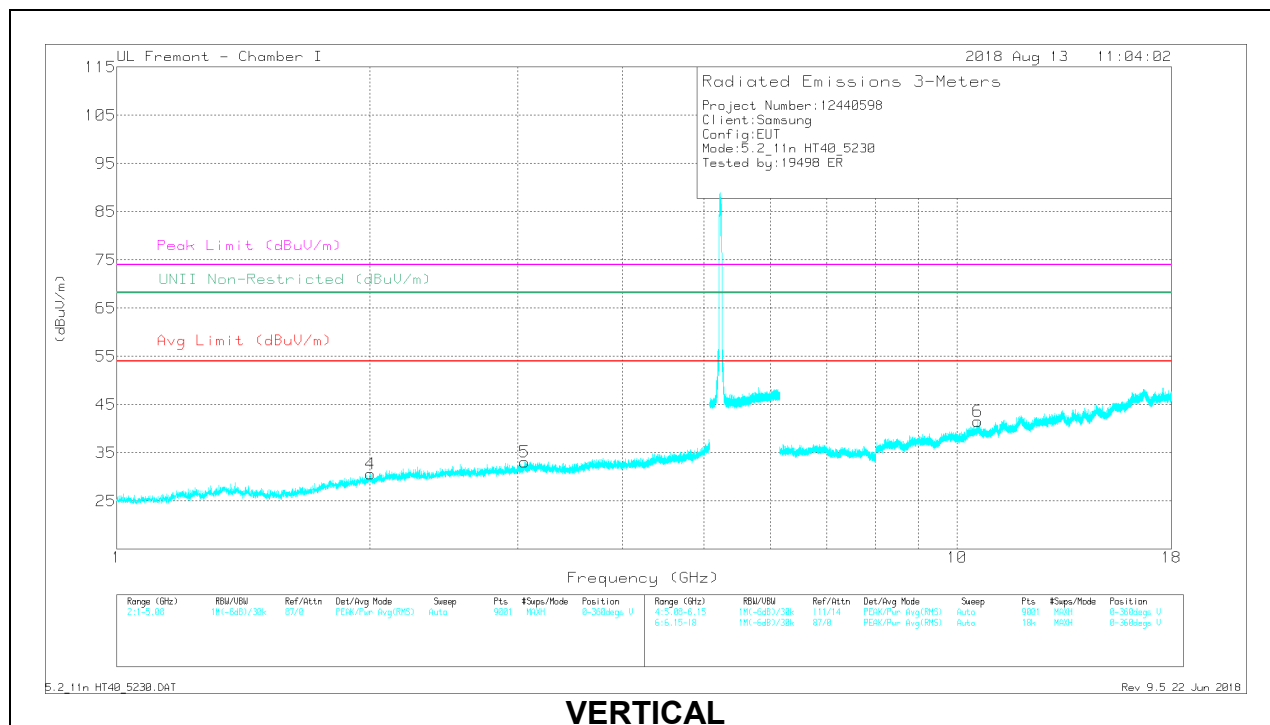
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Filtz/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.25	40.68	PK-U	32.9	-32.9	0	40.68	-	-	-	-	68.2	-27.52	159	125	H
2	3.487	40.69	PK-U	32.6	-32.6	0	40.69	-	-	-	-	68.2	-27.51	236	144	H
4	2.007	40.34	PK-U	31	-35.2	0	36.14	-	-	-	-	68.2	-32.06	316	123	V
5	3.06	41.25	PK-U	32.9	-34.1	0	40.05	-	-	-	-	68.2	-28.15	323	192	V
3	10.461	30.51	PK-U	37.5	-22.9	0	45.11	-	-	-	-	68.2	-23.09	91	213	H
6	10.583	31.14	PK-U	37.7	-22.3	0	46.54	-	-	-	-	68.2	-21.66	22	133	V

* - indicates frequency in CFR47 Pt 15 Restricted Band

PK-U - U-NII: Maximum Peak

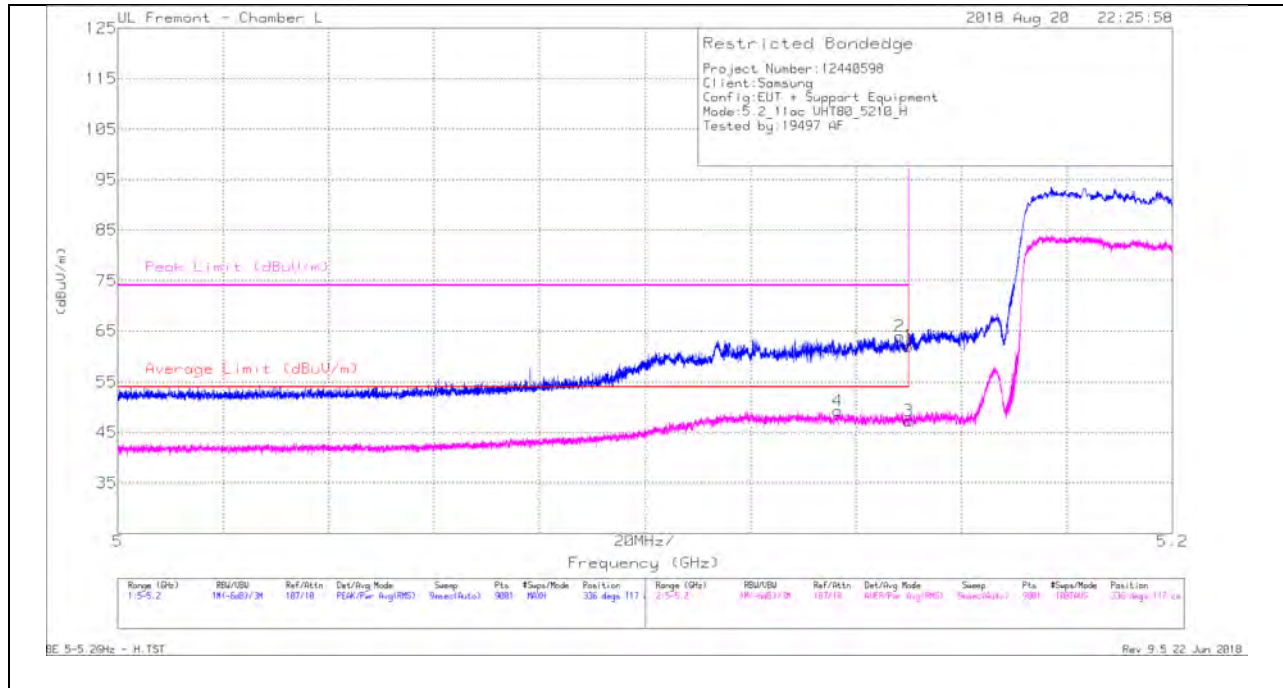
ADR - U-NII AD primary method, RMS average

9.1.4. TX ABOVE 1 GHz 802.11ac VHT80 MODE IN THE 5.2 GHz BAND

1TX Antenna 1 MODE

BANDEDGE (MID CHANNEL)

HORIZONTAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cbl/Filtr/ Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	46.91	Pk	34.4	-19.2	0	62.11	-	-	74	-11.89	336	117	H
2	* 5.148	48.72	Pk	34.4	-19.2	0	63.92	-	-	74	-10.08	336	117	H
3	* 5.15	31.73	RMS	34.4	-19.2	.33	47.26	54	-6.74	-	-	336	117	H
4	* 5.136	33.8	RMS	34.4	-19.2	.33	49.33	54	-4.67	-	-	336	117	H

* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection