CERTIFICATION TEST REPORT

Report Number. : R12480294-E1

Applicant	:	Honeywell International, Inc. 2 Corporate Center Drive Melville, NY 11747, USA
Model	:	RCHT9610WFW2004
FCC ID	:	HS9-THX321WF01
IC	:	573R-THX321WF01
EUT Description	:	Wireless Thermostat
Test Standard(s)	:	FCC 47 CFR PART 15 SUBPART E ISED RSS-247 ISSUE 2 ISED RSS-GEN ISSUE 5

Date Of Issue:
23 January 2019

Prepared by:
UL LLC
12 Laboratory Dr.
Research Triangle Park, NC 27709 U.S.A.
TEL: (919) 549-1400

NVLAP TESTING
NVLAP Lab code: 200246-0

REPORT REVISION HISTORY

Ver.	Issue Date	Revisions	Revised By
1	2018-12-03	Initial Issue	Brian T. Kiewra
2	2018-12-05	Revised model number on cover page and section 1.	Brian T. Kiewra
3	2019-01-07	- Revised max. power in Section 5.2. - Added complete Antenna 2 data to section 8. - Clarified the limits in section 9.1.10 – 9.1.12 were dBm/MHz.	Brian T. Kiewra
4	2019-01-23	- Removed Straddle channel testing	Brian T. Kiewra

UL LLC
12 Laboratory Dr., RTP, NC 27709; USA TEL:(919) 549-1400

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Honeywell International, Inc.
2 Corporate Center Drive
Melville, NY 11747, USA

EUT DESCRIPTION: Wireless Thermostat

MODEL: RCHT9610WFW2004

SERIAL NUMBER: 1781837, 1781838

DATE TESTED: 2018-11-04 to 2019-01-07

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

UL LLC 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 LLC and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL LLC 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, or any agency of the U.S. government.

Approved & Released
For UL LLC By:

Jeffrey Moser
Operations Leader
UL – Consumer Technology Division

Prepared By:

Brian T. Kiewra
Project Engineer
UL – Consumer Technology Division

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.10: 2013, KDB 789033 D02 v02r01, KDB662911 D01 v02r01, KDB644545 D03, RSS-GEN Issue 5, RSS-247 Issue 2.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 12 Laboratory Drive, Research Triangle Park, NC 27709, USA and 2800 Perimeter Park Dr., Suite B, Morrisville, NC 27560, USA. 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.

12 Laboratory Dr.	2800 Perimeter Park Dr.
☐ Chamber A (ISED:2180C-1)	☒ Chamber North (ISED:2180C-3)
☐ Chamber C (ISED:2180C-2)	☒ Chamber South (ISED:2180C-4)

UL LLC (RTP) is accredited by NVLAP, Laboratory Code 200246-0

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

RADIATED EMISSIONS

Where relevant, the following sample calculation is provided:
Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)
36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

MAINS CONDUCTED EMISSIONS

Where relevant, the following sample calculation is provided:
Final Voltage (dBuV) = Measured Voltage (dBuV) + Cable Loss (dB) + Limiter Factor (dB) + LISN Insertion Loss.
36.5 dBuV + 0 dB +10.1 dB+ 0 dB = 46.6 dBuV

4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Radio Frequency (Spectrum Analyzer)	141.2 Hz
Occupied Channel Bandwidth	2.00%
RF output power, conducted	1.3 dB (PK), 0.45 dB (AV)
Power Spectral Density, conducted	2.47 dB
Unwanted Emissions, conducted	3.05 dB
All emissions, radiated	5.17 dB
DC Supply voltages	1.70%

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

5. EQUIPMENT UNDER TEST

5.1. EUT DESCRIPTION

The EUT is a wireless thermostat with 802.11a/n (HT20 and HT40).

5.2. 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	14.76	29.92
5180-5240	802.11n HT20	13.97	24.95
5190-5230	802.11n HT40	12.07	16.11

5.2 GHz BAND (ISED)

Frequency Range (MHz)	Mode	EIRP (dBm)	Output Power (mW)
5.2 GHz band, 1TX			
5180-5240	802.11a	15.70	37.15
5180-5240	802.11n HT20	14.91	30.97
5190-5230	802.11n HT40	13.01	20.00

5.3/5.6/5.8 GHz BAND (FCC/ISED)

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5.3 GHz band, 1TX			
5260 - 5320	802.11a	14.57	28.64
5260 - 5320	802.11n HT20	12.83	19.19
5270 - 5310	802.11n HT40	11.78	15.07
5.6 GHz band, 1TX			
5500-5700	802.11a	14.51	28.25
5500-5700	802.11n HT20	13.12	20.51
5510-5670	802.11n HT40	12.40	17.38
5.8 GHz band, 1TX			
5745-5825	802.11a	13.94	24.77
5745-5825	802.11n HT20	12.96	19.77
5755-5795	802.11n HT40	12.17	16.48

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes the following antennas:.

Band of Operation MHz	Antenna 1 dBi	Antenna 2 dBi
5150-5250	-0.10	0.94
5250-5350	-0.10	0.94
5500-5700	-0.10	0.94
5745-5850	-0.10	0.94

5.4. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was v00.03.07.00

The test utility software used during testing was XTR Software.

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 and PSD 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,Z, it was determined that the Y axis was worst-case orientation for antenna 1 and the X axis was worst-case orientation for antenna 2. Therefore, all final radiated testing was performed with the EUT in Y orientation for antenna 1 and in X orientation for antenna 2.

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

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

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
Power Supply	CUI, Inc.	48A-24-500	NA	NA

I/O CABLES

I/O Cable List						
Cable No.	**Port**	**# of Identical Ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	1	1	Barrel	Mains	<3m	Provided DC power

TEST SETUP

The EUT is configured as a standalone unit.

SETUP DIAGRAMS

Please refer to R12480294-EP1 for setup diagrams

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 and ANSI C63.10 Section 6.9.2

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

Conducted Output Power: KDB 789033 D02 v01r01, Section E.3.b (Method PM-G).

Power Spectral Density: KDB 789033 D02 v02r01, Section F.

Unwanted emissions in restricted bands: KDB 789033 D02 v02r01, Sections G.1, G.3, G.4, G.5, and G.6.

Unwanted emissions in non-restricted bands: KDB 789033 D02 v02r01, Sections G.1, G.3, G.4, and G.5.

AC Mains: ANSI C63.10:2013 Section 6.2

UL LLC
12 Laboratory Dr., RTP, NC 27709; USA TEL:(919) 549-1400

7. TEST AND MEASUREMENT EQUIPMENT

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

Test Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville - North Chamber)

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
0.009-30MHz (Loop Ant.)					
AT0079	Active Loop Antenna	ETS-Lindgren	6502	2018-01-02	2019-01-02
30-1000 MHz					
AT0073	Hybrid Broadband Antenna	Sunol Sciences Corp.	JB3	2018-08-06	2019-08-06
1-18 GHz					
AT0072	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2018-04-30	2019-04-30
18-40 GHz					
AT0063	Horn Antenna, 18-26.5GHz	ARA	MWH-1826/B	2018-10-17	2019-10-17
AT0061	Horn Antenna, 26-40GHz	ARA	MWH-2640/B	2018-10-17	2019-10-17
Gain-Loss Chains					
N-SAC01	Gain-loss string: 0.009-30MHz	Various	Various	2018-09-06	2019-09-06
N-SAC02	Gain-loss string: 25-1000MHz	Various	Various	2018-05-20	2019-05-20
N-SAC03	Gain-loss string: 1-18GHz	Various	Various	2018-03-23	2019-03-23
N-SAC04	Gain-loss string: 18-40GHz	Various	Various	2018-09-30	2019-03-31
Receiver & Software					
SA0027	Spectrum Analyzer	Agilent	N9030A	2018-04-04	2019-04-04
SOFTEMI	EMI Software	UL	Version 9.5	NA	NA
Additional Equipment used					
s/n 161024690	Environmental Meter	Fisher Scientific	15-077-963	2016-12-21	2018-12-21

Note – All radiated testing performed prior to 2018-12-21.

Test Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville - South Chamber)

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
1-18 GHz					
AT0069	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2018-04-30	2019-04-30
Gain-Loss Chains					
S-SAC03	Gain-loss string: 1-18GHz	Various	Various	2018-03-20	2019-03-20
Receiver & Software					
SA0026	Spectrum Analyzer	Agilent	N9030A	2018-03-20	2019-03-20
Additional Equipment used					
s/n 161024887	Environmental Meter	Fisher Scientific	15-077-963	2016-12-23	2018-12-23

Note – All radiated testing performed prior to 2018-12-21 .

Test Equipment Used - Wireless Conducted Measurement Equipment

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
T177 (PRE0079253)	Spectrum Analyzer	Agilent Technologies	E4446A	2018-04-12	2019-04-12
SA0019 (72822) (PRE0101715)	Spectrum Analyzer	Agilent Technologies	E4446A	2018-11-09	2019-11-09
PWM004 (PRE0137346)	RF Power Meter	Keysight Technologies	N1911A	2018-07-30	2019-07-30
PWS005	Peak and Avg Power Sensor, 50MHz to 18GHz	Keysight Technologies	N1921A	2018-04-26	2019-04-26
SN 161024885	Environmental Meter	Fisher Scientific	15-077-963	2016-12-23	2018-12-23
SN 161016511	Environmental Meter	Fisher Scientific	15-077-963	2016-12-21	2018-12-21
SN 181562858	Environmental Meter	Fisher Scientific	14-650-118	2018-09-04	2020-09-04

Test Equipment Used - Line-Conducted Emissions – Voltage (Morrisville – Conducted 1)

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
CBL087	Coax cable, RG223, N-male to BNC-male, 20-ft.	Pasternack	PE3W06143-240	2018-06-19	2019-06-19
s/n 161016511	Environmental Meter	Fisher Scientific	15-077-963	2016-12-21	2018-12-21
LISN003	LISN, 50-ohm/50-uH, 2-conductor, 25A	Fischer Custom Com.	FCC-LISN-50-25-2-01-550V	2018-08-21	2019-08-21
PRE0101521 (75141)	EMI Test Receiver 9kHz-7GHz	Rohde & Schwarz	ESCI 7	2018-08-22	2019-08-22
TL001	Transient Limiter, 0.009-30MHz	Com-Power	LIT-930A	2018-06-13	2019-06-13
PS215	AC Power Source	Elgar	CW2501M (s/n 1523A02397)	NA	NA
SOFTEMI	EMI Software	UL	Version 9.5	NA	NA

Note – All line conducted testing performed prior to 2018-12-21.

8. ANTENNA PORT TEST RESULTS

8.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

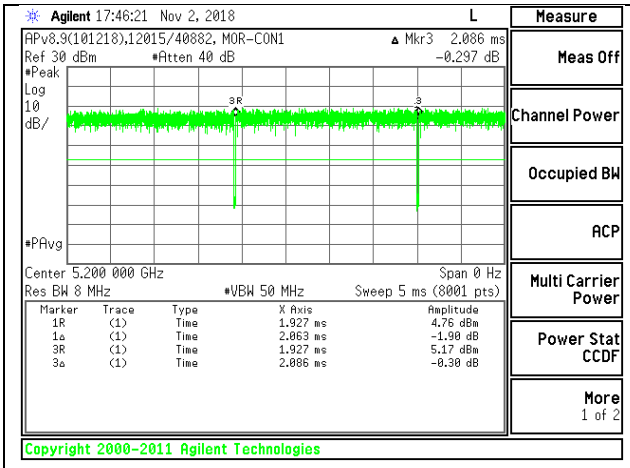
PROCEDURE

KDB 789033 Zero-Span Spectrum Analyzer Method.

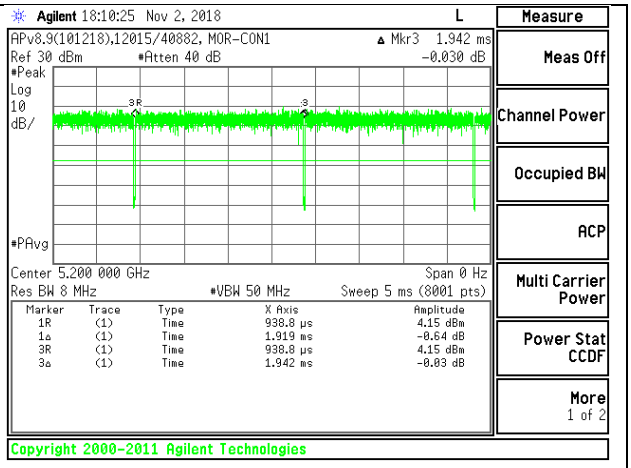
ON TIME AND DUTY CYCLE RESULTS

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 1TX	2.063	2.086	0.989	98.90%	0.00	0.010
802.11n HT20 1TX	1.919	1.942	0.988	98.82%	0.00	0.010
802.11n HT40 1TX	0.944	0.965	0.978	97.80%	0.10	1.060

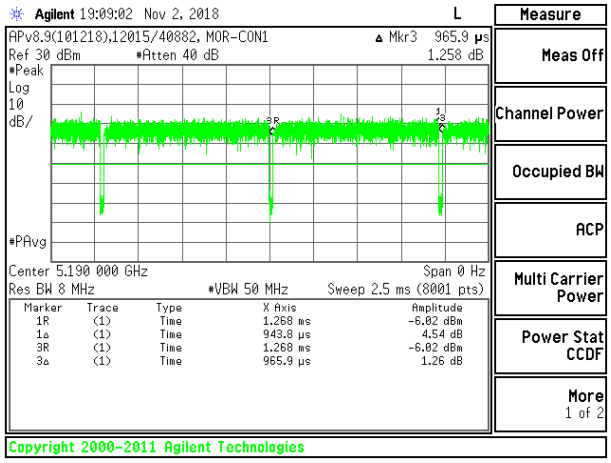
DUTY CYCLE PLOTS



DUTY CYCLE 802.11a 1TX MODE



DUTY CYCLE 802.11n HT20 1TX MODE



DUTY CYCLE 802.11n HT40 1TX MODE

8.2. 26 dB BANDWIDTH

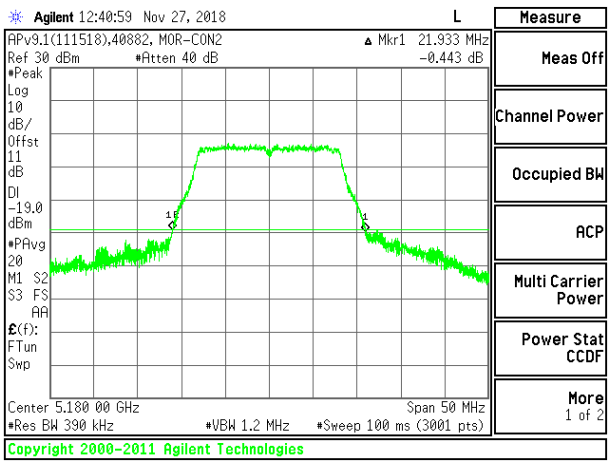
LIMITS

None; for reporting purposes only.

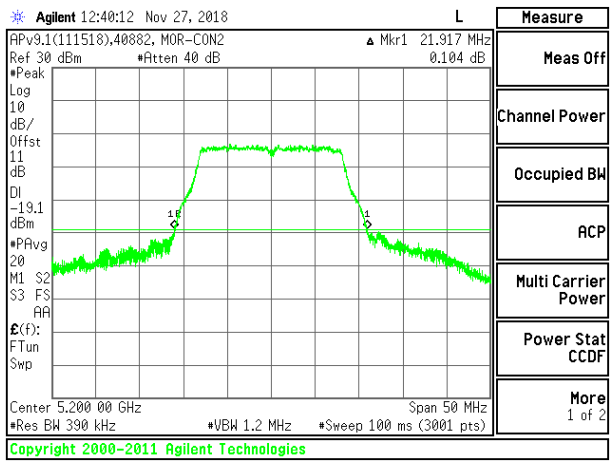
RESULTS

8.2.1. 802.11a MODE IN THE 5.2 GHz BAND – ANTENNA 1

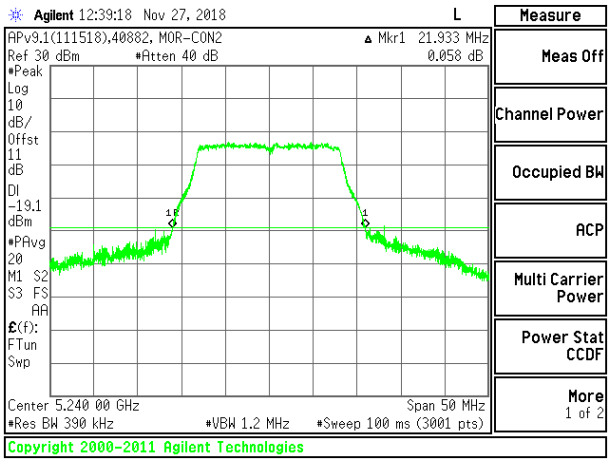
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5180	21.933
Mid	5200	21.917
High	5240	21.933



LOW CHANNEL



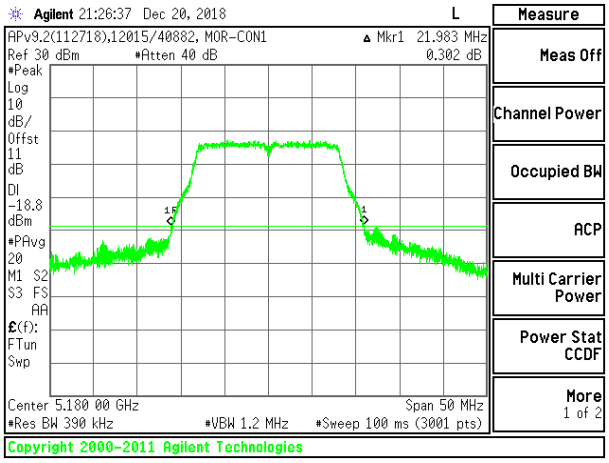
MID CHANNEL



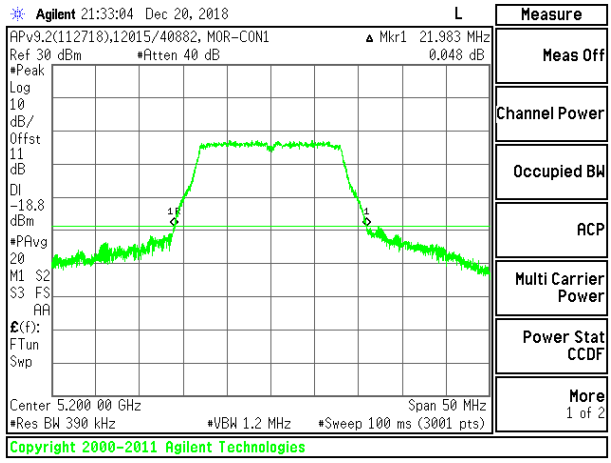
HIGH CHANNEL

8.2.2. 802.11a MODE IN THE 5.2 GHz BAND – ANTENNA 2

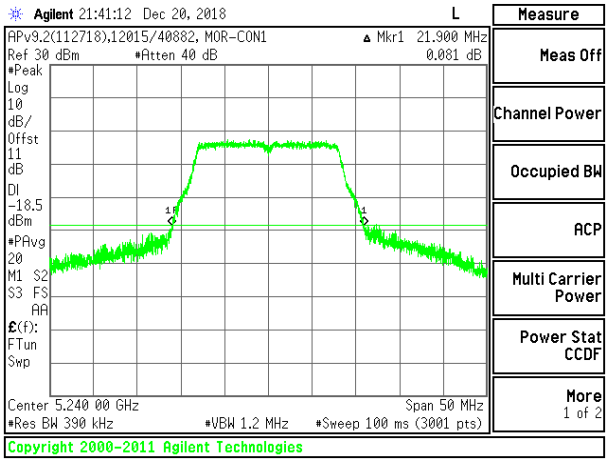
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5180	21.983
Mid	5200	21.983
High	5240	21.900



LOW CHANNEL



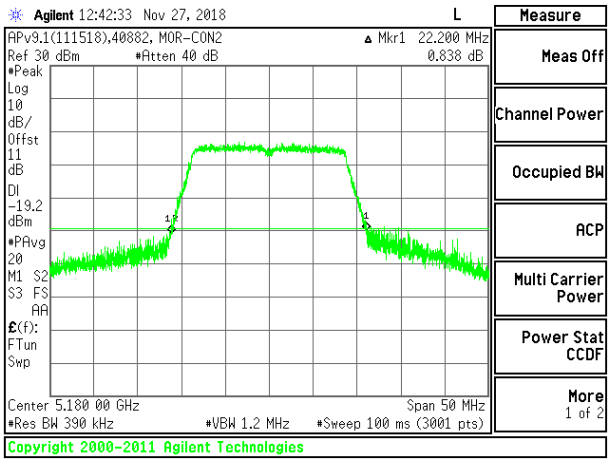
MID CHANNEL



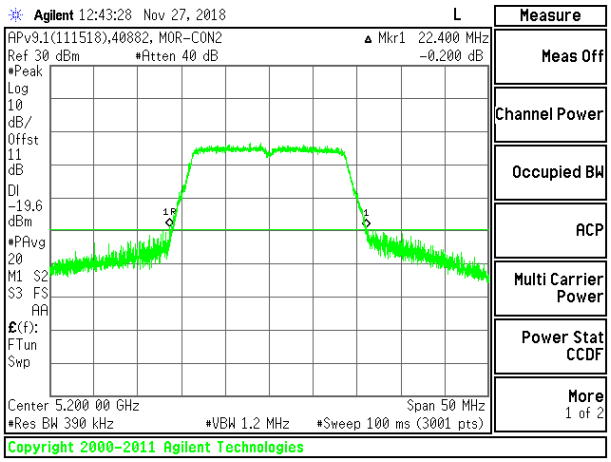
HIGH CHANNEL

8.2.3. 802.11n HT20 MODE IN THE 5.2 GHz BAND – ANTENNA 1

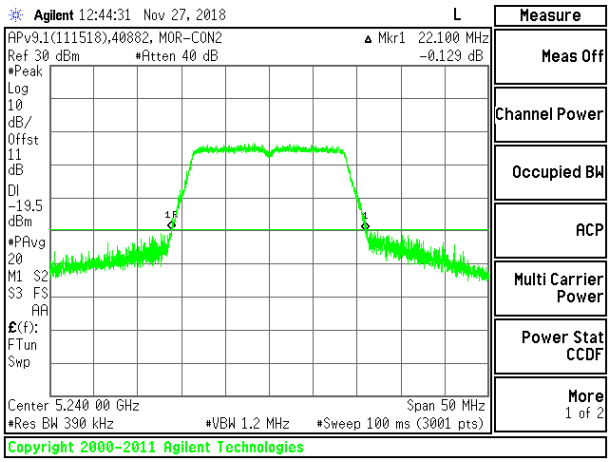
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5180	22.200
Mid	5200	22.400
High	5240	22.100



LOW CHANNEL



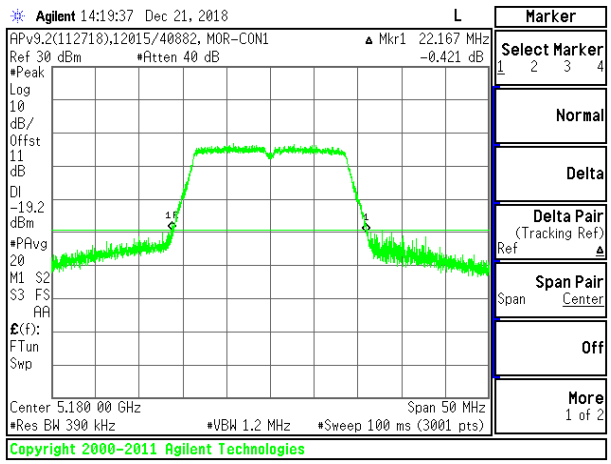
MID CHANNEL



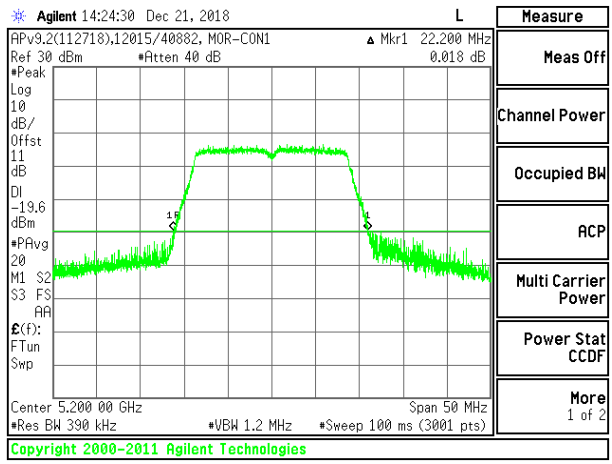
HIGH CHANNEL

8.2.4. 802.11n HT20 MODE IN THE 5.2 GHz BAND – ANTENNA 2

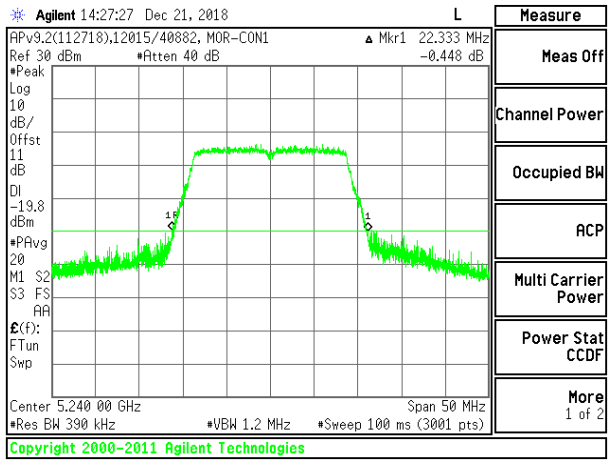
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5180	22.167
Mid	5200	22.200
High	5240	22.333



LOW CHANNEL



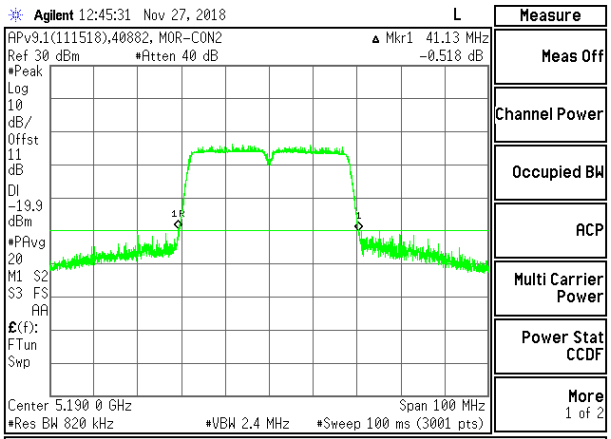
MID CHANNEL



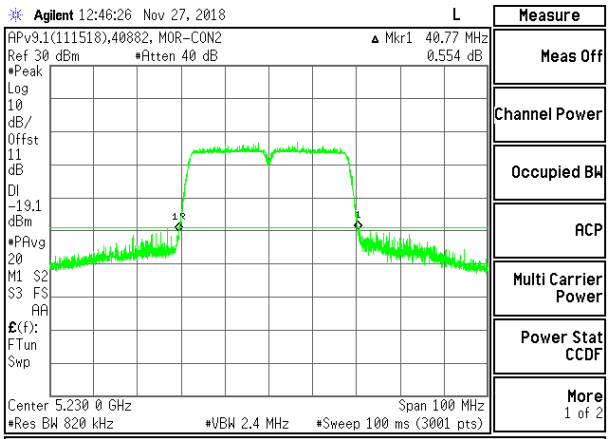
HIGH CHANNEL

8.2.5. 802.11n HT40 MODE IN THE 5.2 GHz BAND – ANTENNA 1

Channel	Frequency (MHz)	26dB Bandwidth (MHz)
Low	5190	41.13
High	5230	40.77



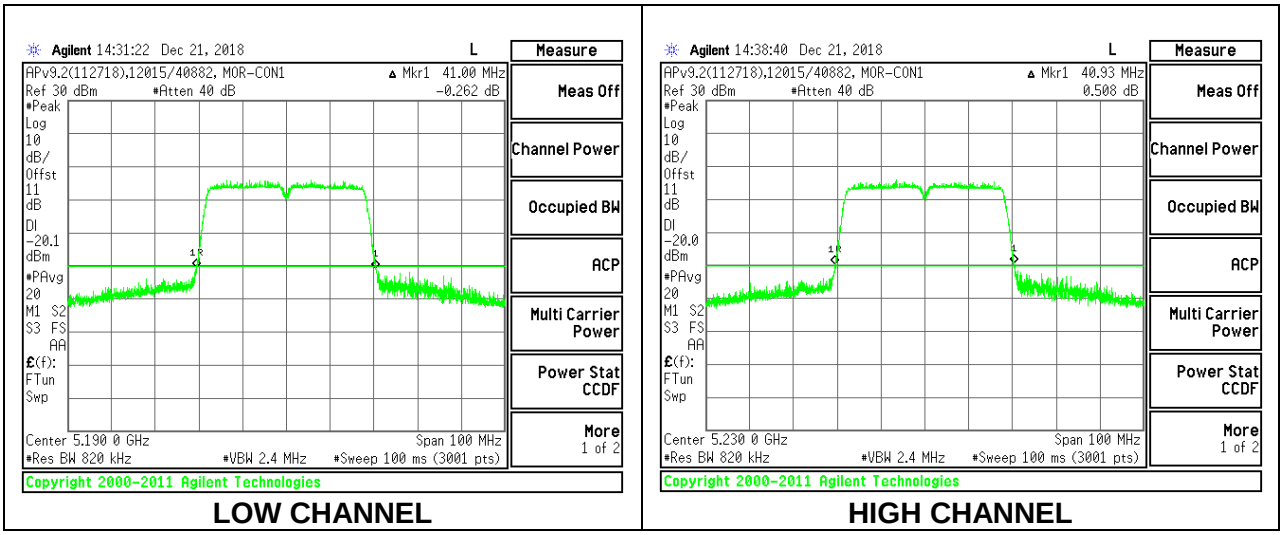
LOW CHANNEL



HIGH CHANNEL

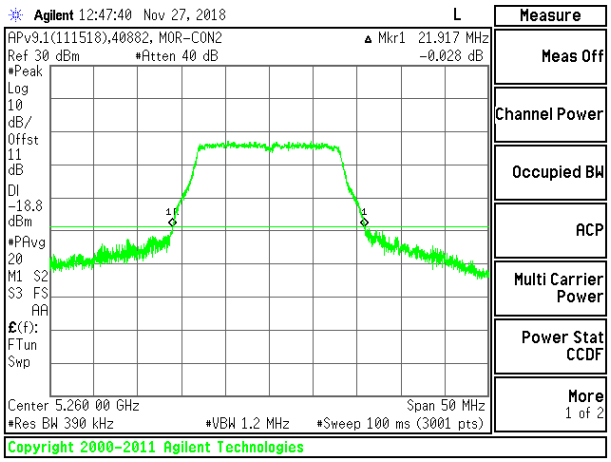
8.2.6. 802.11n HT40 MODE IN THE 5.2 GHz BAND – ANTENNA 2

Channel	Frequency (MHz)	26dB Bandwidth (MHz)
Low	5190	41.00
High	5230	40.93

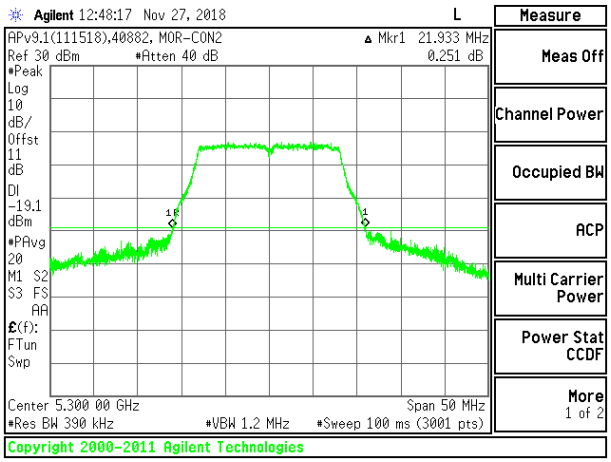


8.2.7. 802.11a MODE IN THE 5.3 GHz BAND – ANTENNA 1

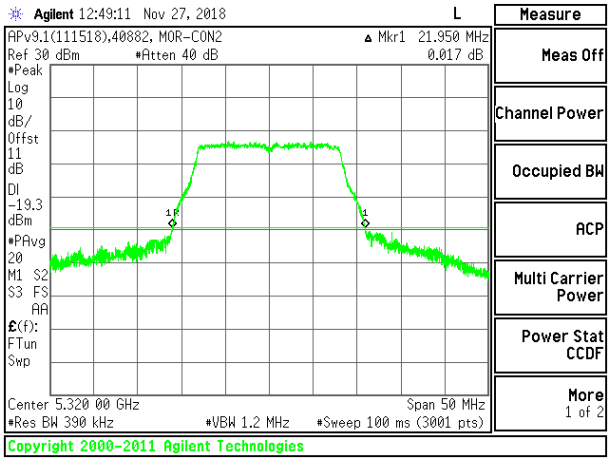
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5260	21.917
Mid	5300	21.933
High	5320	21.950



LOW CHANNEL



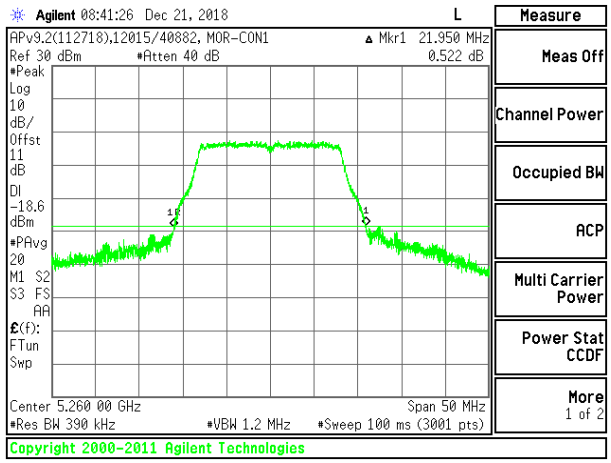
MID CHANNEL



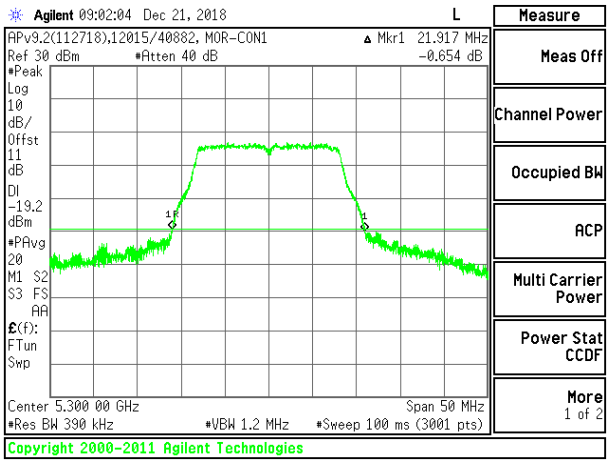
HIGH CHANNEL

8.2.8. 802.11a MODE IN THE 5.3 GHz BAND – ANTENNA 2

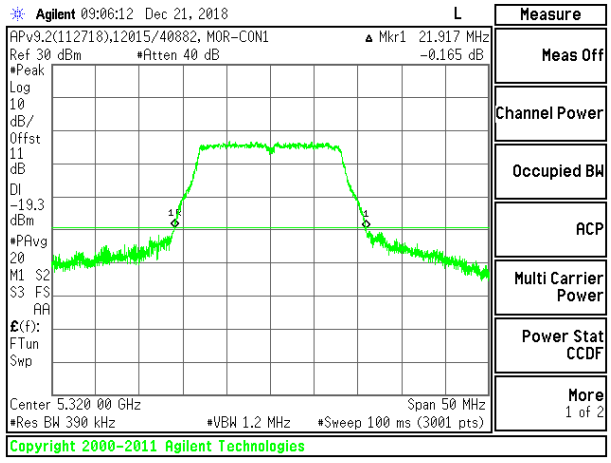
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5260	21.950
Mid	5300	21.917
High	5320	21.917



LOW CHANNEL



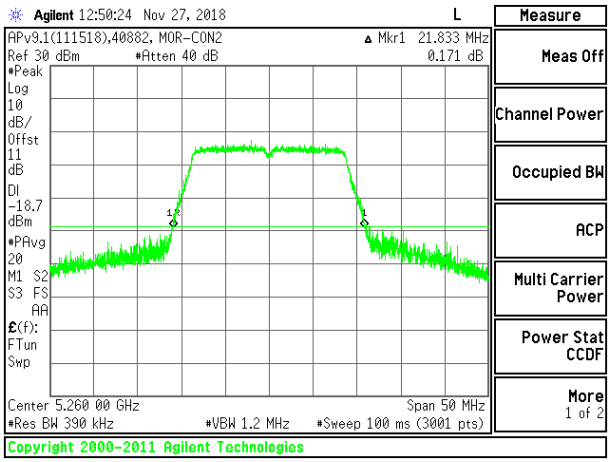
MID CHANNEL



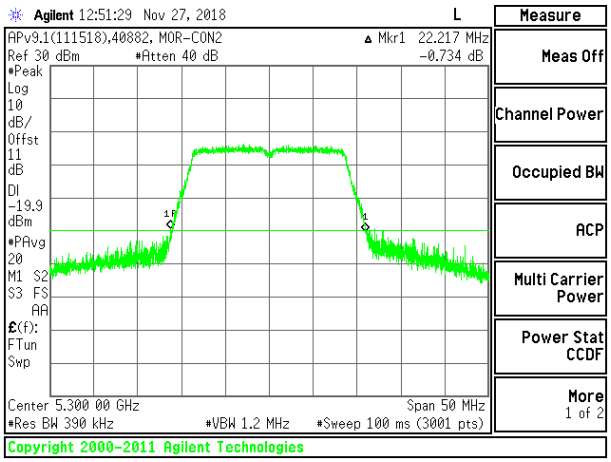
HIGH CHANNEL

8.2.9. 802.11n HT20 MODE IN THE 5.3 GHz BAND – ANTENNA 1

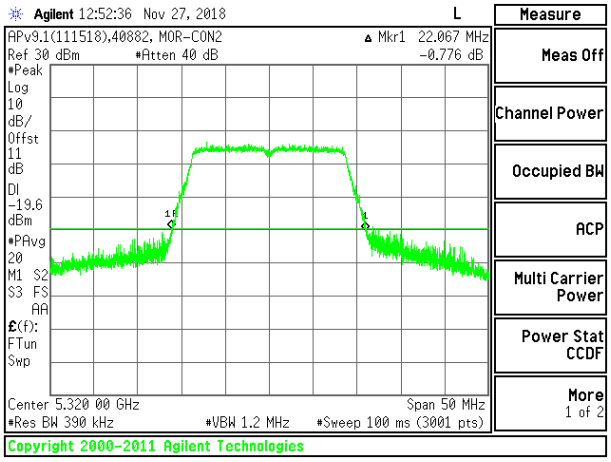
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5260	21.833
Mid	5300	22.217
High	5320	22.067



LOW CHANNEL



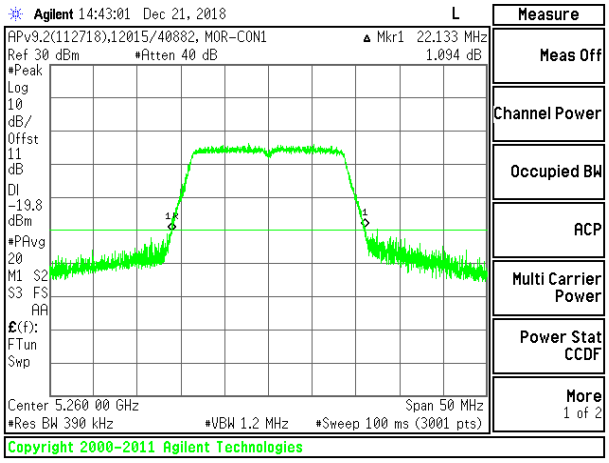
MID CHANNEL



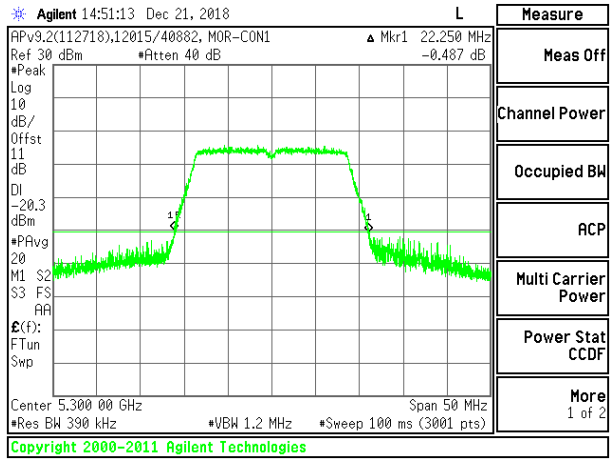
HIGH CHANNEL

8.2.10. 802.11n HT20 MODE IN THE 5.3 GHz BAND – ANTENNA 2

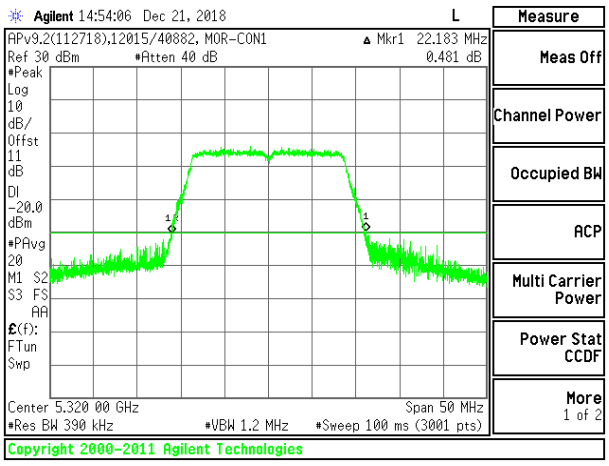
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5260	22.133
Mid	5300	22.250
High	5320	22.183



LOW CHANNEL



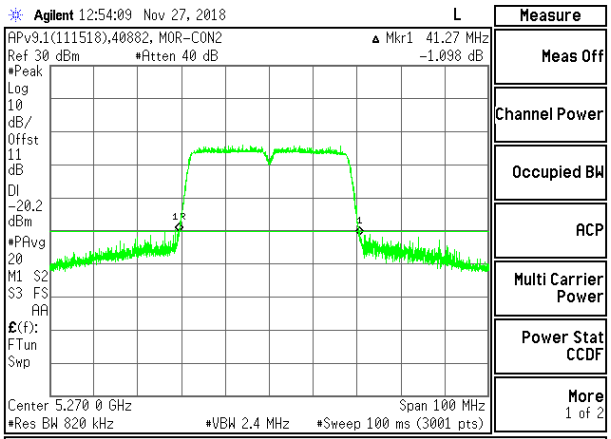
MID CHANNEL



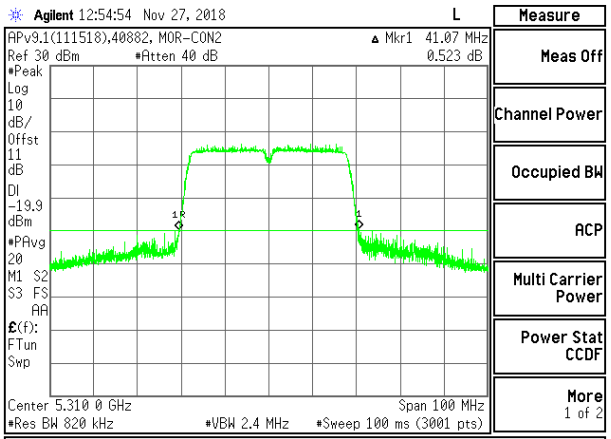
HIGH CHANNEL

8.2.11. 802.11n HT40 MODE IN THE 5.3 GHz BAND – ANTENNA 1

Channel	Frequency (MHz)	26dB Bandwidth (MHz)
Low	5270	41.27
High	5310	41.07



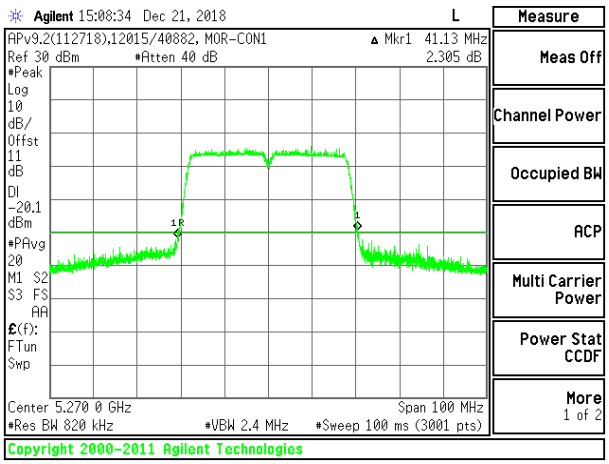
LOW CHANNEL



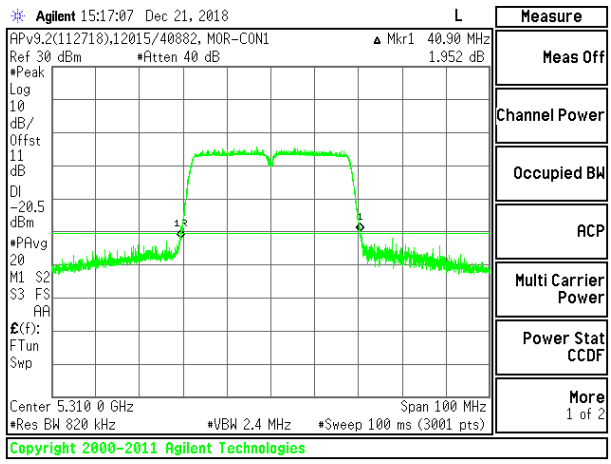
HIGH CHANNEL

8.2.12. 802.11n HT40 MODE IN THE 5.3 GHz BAND – ANTENNA 2

Channel	Frequency (MHz)	26dB Bandwidth (MHz)
Low	5270	41.13
High	5310	40.90



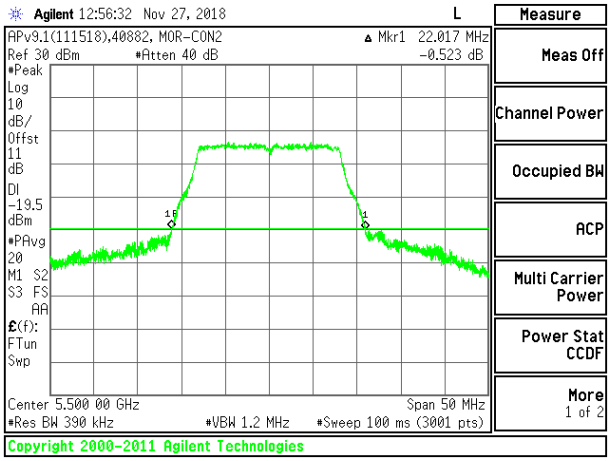
LOW CHANNEL



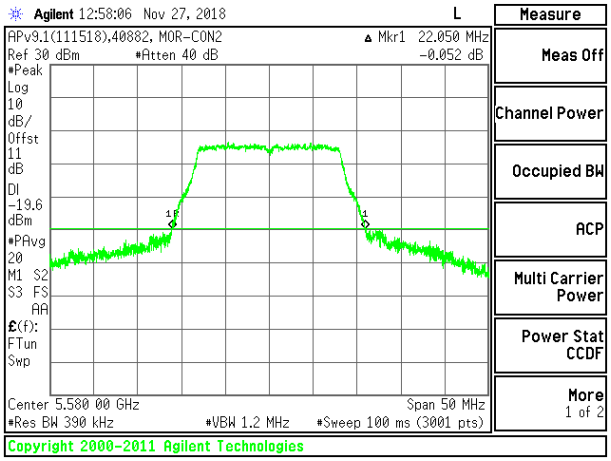
HIGH CHANNEL

8.2.13. 802.11a MODE IN THE 5.6 GHz BAND – ANTENNA 1

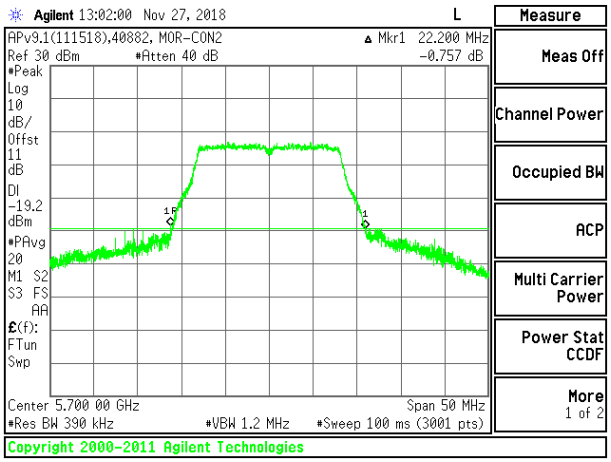
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5500	22.017
Mid	5580	22.050
High	5700	22.200



LOW CHANNEL



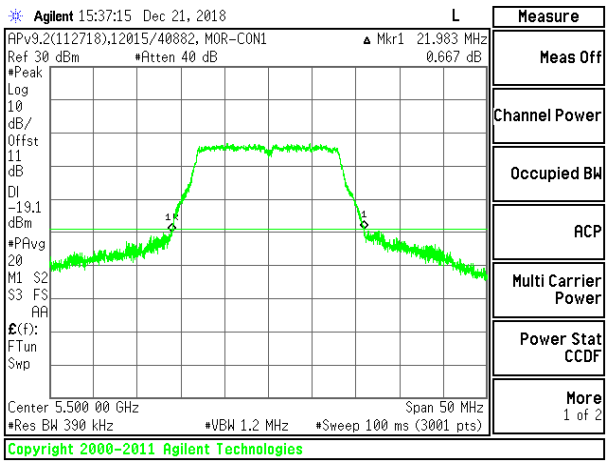
MID CHANNEL



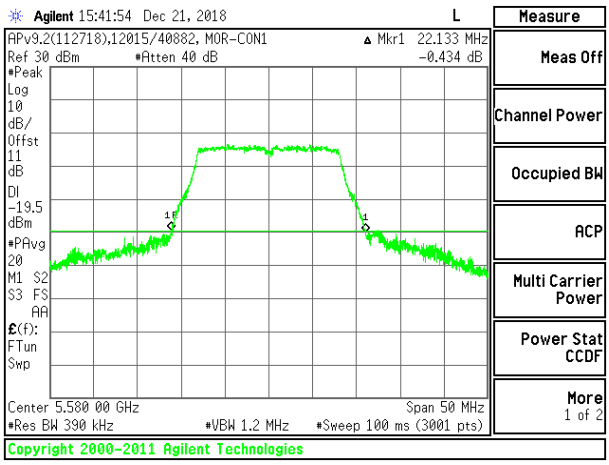
HIGH CHANNEL

8.2.14. 802.11a MODE IN THE 5.6 GHz BAND – ANTENNA 2

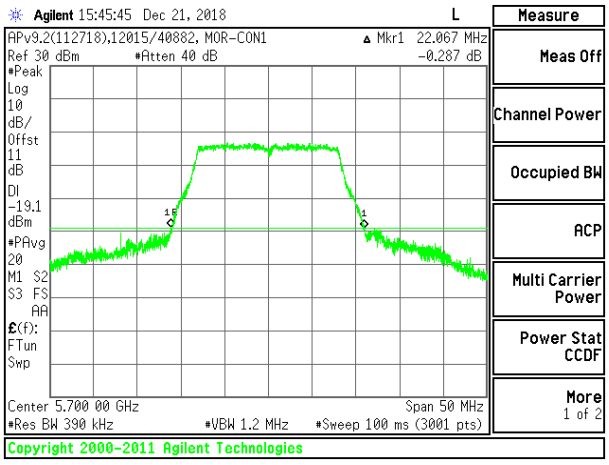
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5500	21.983
Mid	5580	22.133
High	5700	22.067



LOW CHANNEL



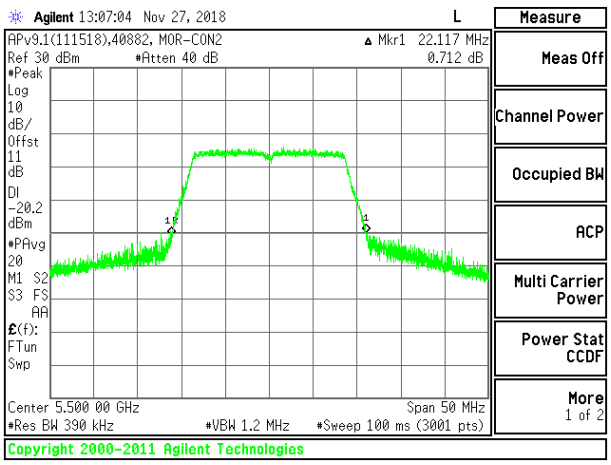
MID CHANNEL



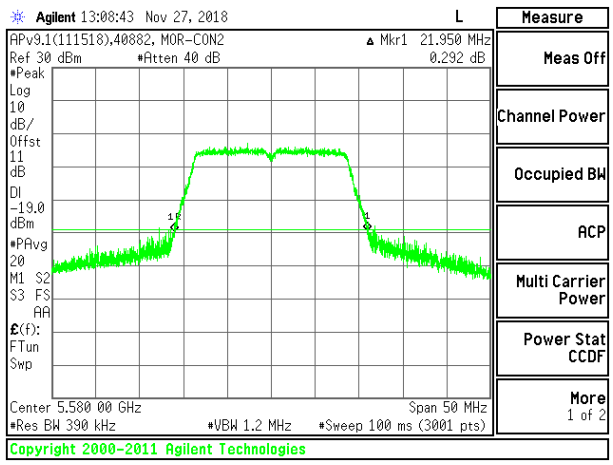
HIGH CHANNEL

8.2.15. 802.11n HT20 MODE IN THE 5.6 GHz BAND – ANTENNA 1

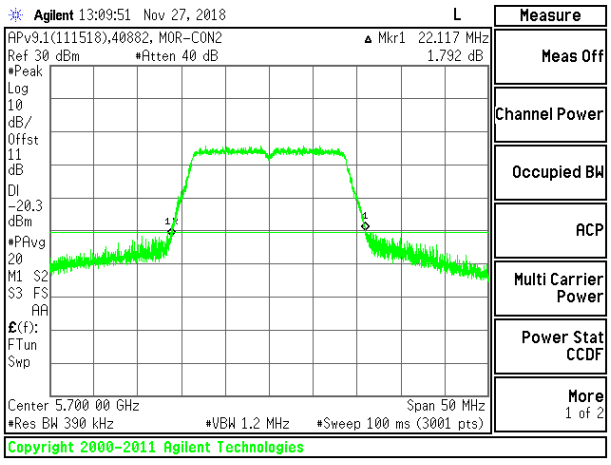
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5500	22.117
Mid	5580	21.950
High	5700	22.117



LOW CHANNEL



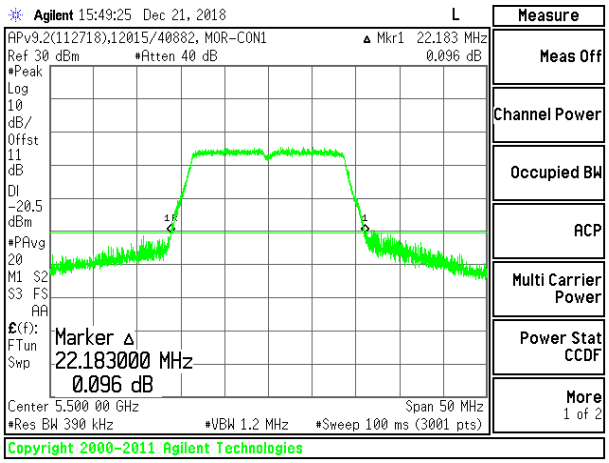
MID CHANNEL



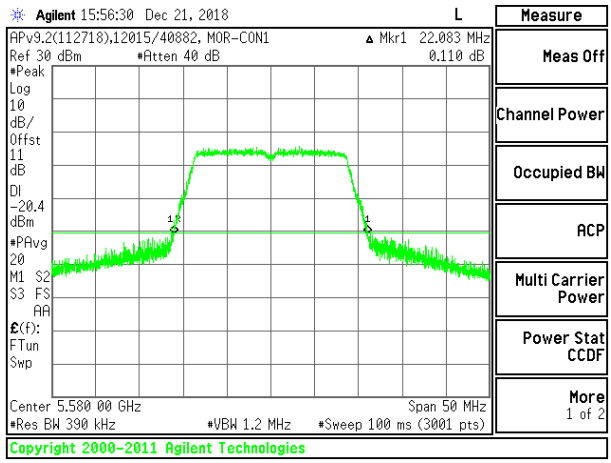
HIGH CHANNEL

8.2.16. 802.11n HT20 MODE IN THE 5.6 GHz BAND – ANTENNA 2

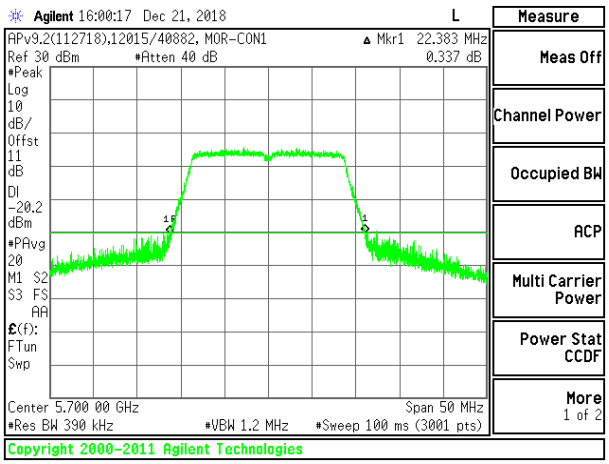
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5500	22.183
Mid	5580	22.083
High	5700	22.383



LOW CHANNEL



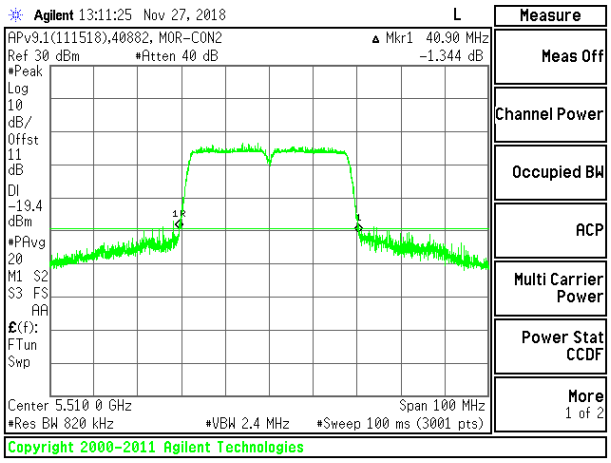
MID CHANNEL



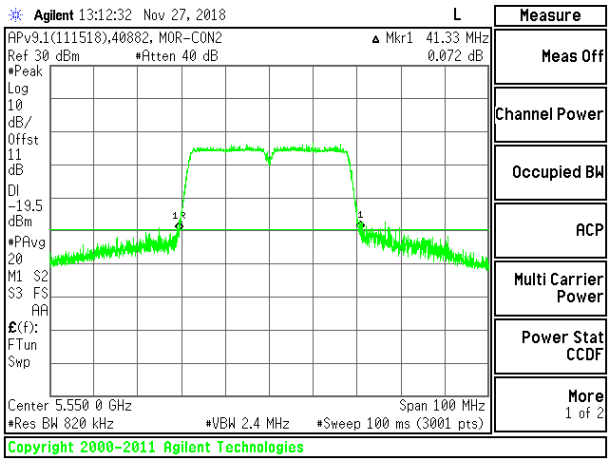
HIGH CHANNEL

8.2.17. 802.11n HT40 MODE IN THE 5.6 GHz BAND – ANTENNA 1

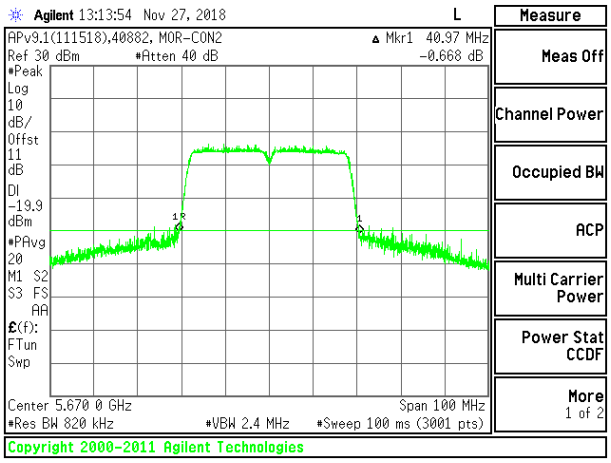
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5510	40.90
Mid	5550	41.33
High	5670	40.97



LOW CHANNEL



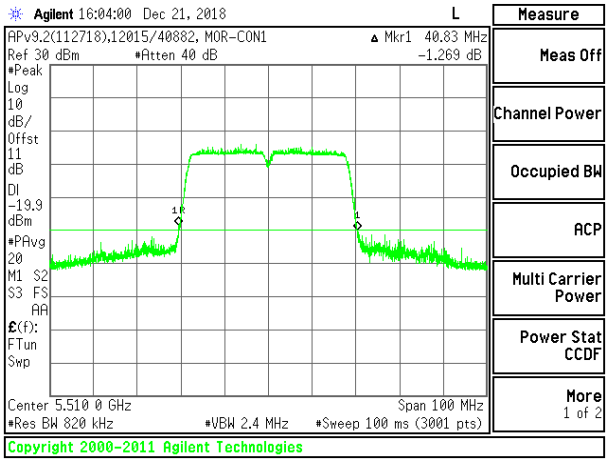
MID CHANNEL



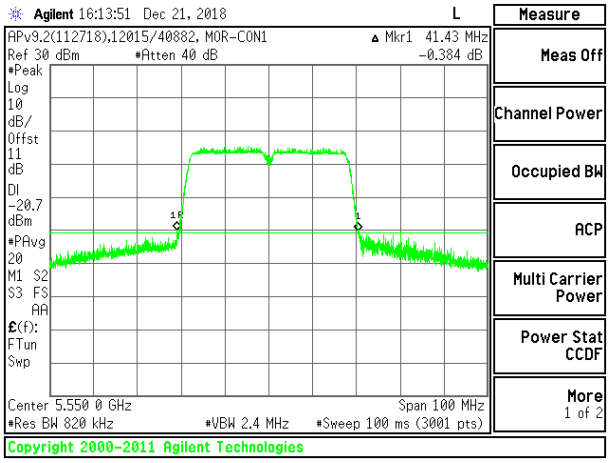
HIGH CHANNEL

8.2.18. 802.11n HT40 MODE IN THE 5.6 GHz BAND – ANTENNA 2

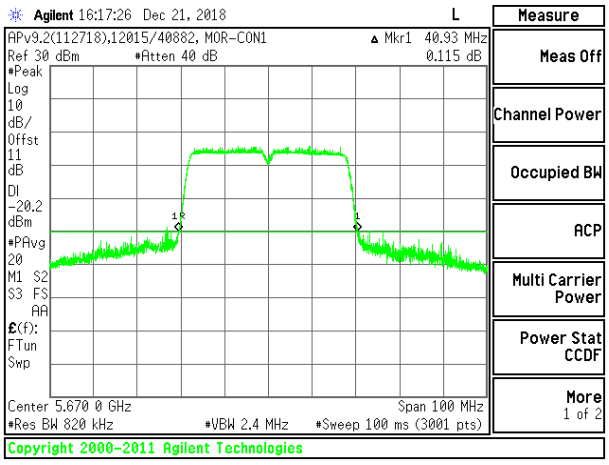
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5510	40.83
Mid	5550	41.43
High	5670	40.93



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

8.3. 99% BANDWIDTH

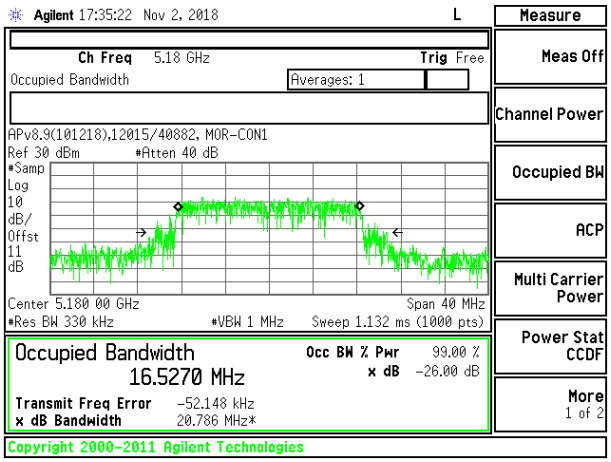
LIMITS

None; for reporting purposes only.

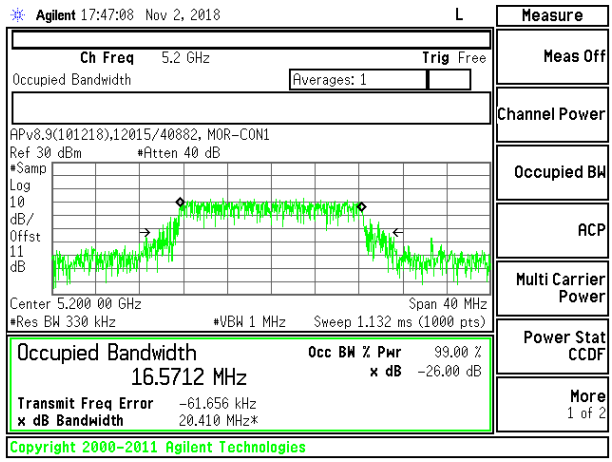
RESULTS

8.3.1. 802.11a MODE IN THE 5.2 GHz BAND – ANTENNA 1

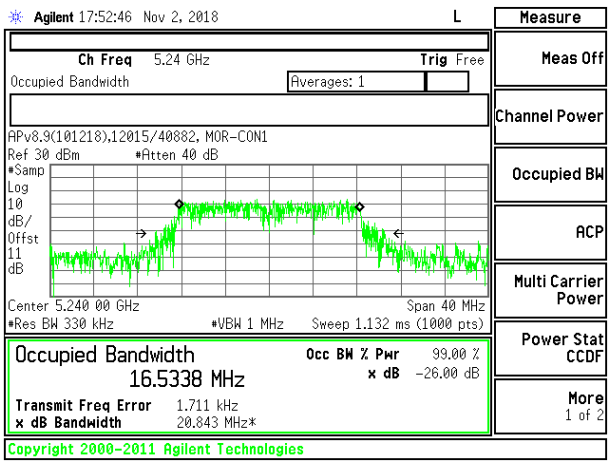
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5180	16.5270
Mid	5200	16.5712
High	5240	16.5338



LOW CHANNEL



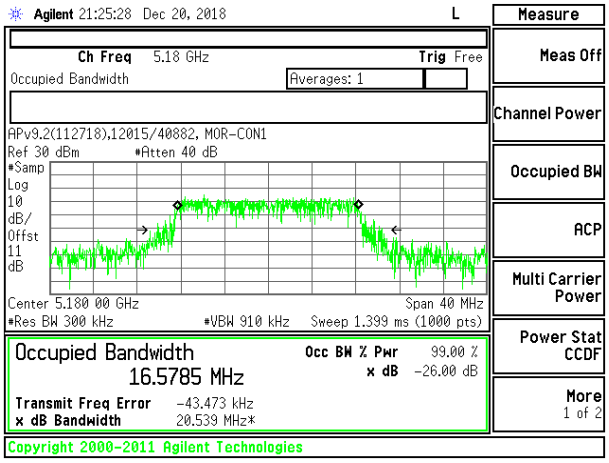
MID CHANNEL



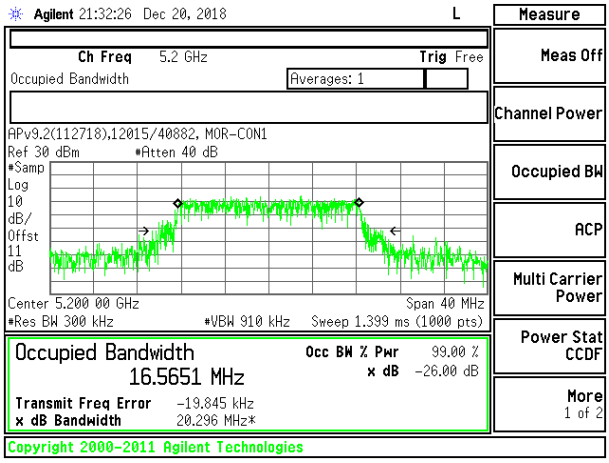
HIGH CHANNEL

8.3.2. 802.11a MODE IN THE 5.2 GHz BAND – ANTENNA 2

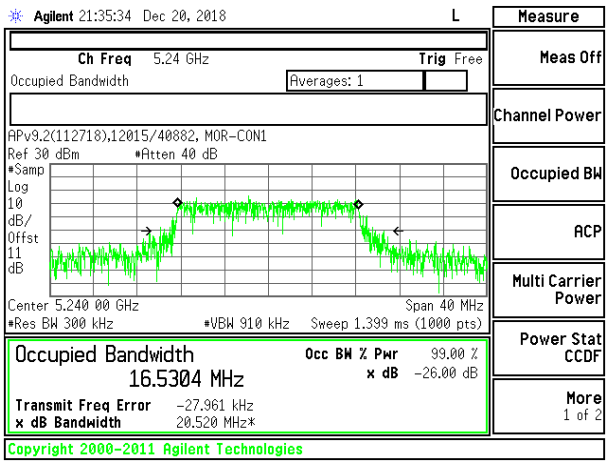
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5180	16.5785
Mid	5200	16.5651
High	5240	16.5304



LOW CHANNEL



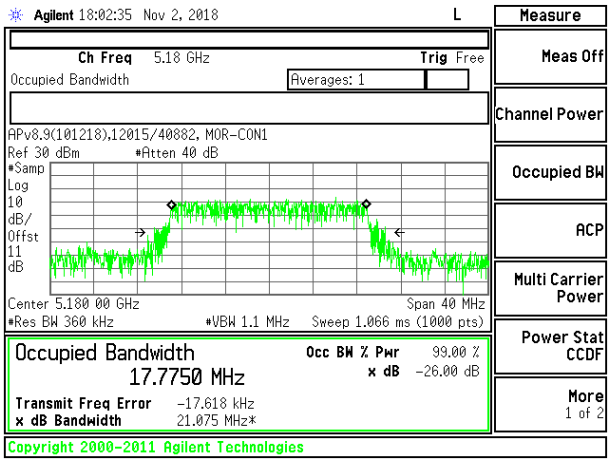
MID CHANNEL



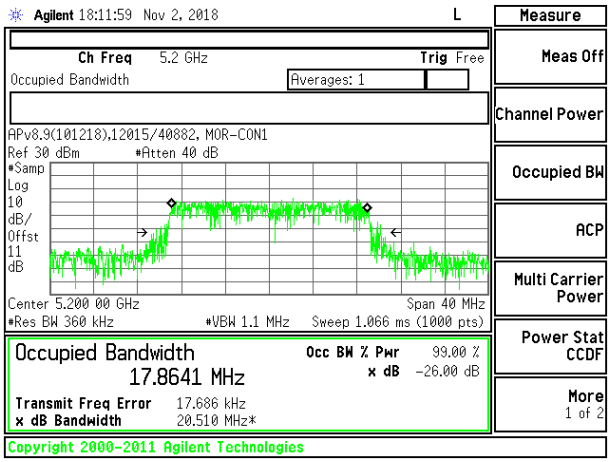
HIGH CHANNEL

8.3.3. 802.11n HT20 MODE IN THE 5.2 GHz BAND – ANTENNA 1

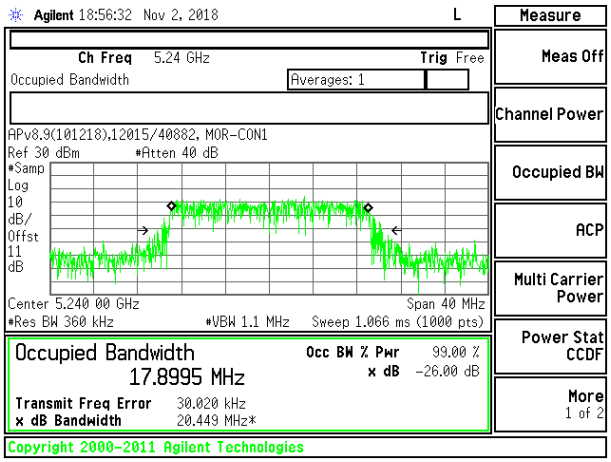
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5180	17.7750
Mid	5200	17.8641
High	5240	17.8995



LOW CHANNEL



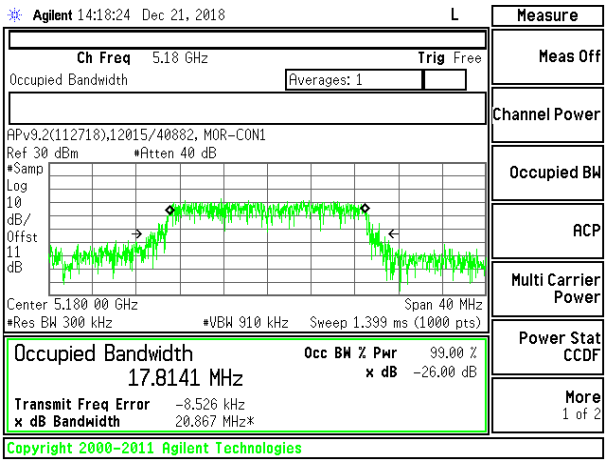
MID CHANNEL



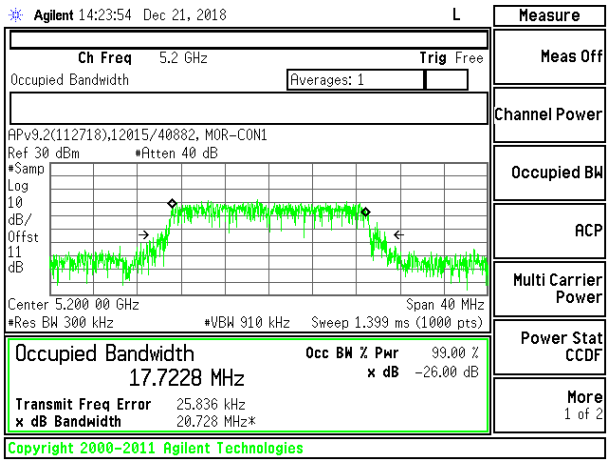
HIGH CHANNEL

8.3.4. 802.11n HT20 MODE IN THE 5.2 GHz BAND – ANTENNA 2

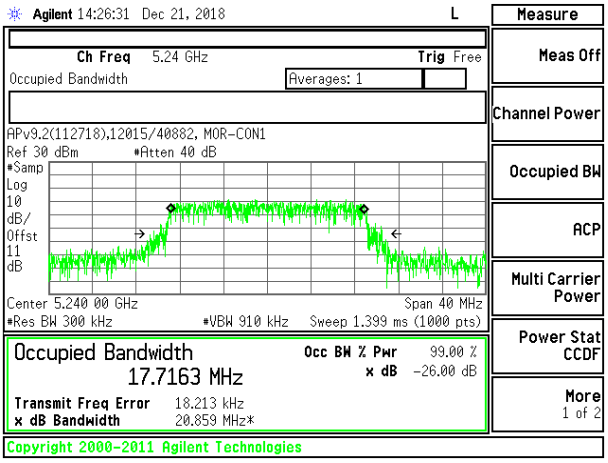
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5180	17.8141
Mid	5200	17.7228
High	5240	17.7163



LOW CHANNEL



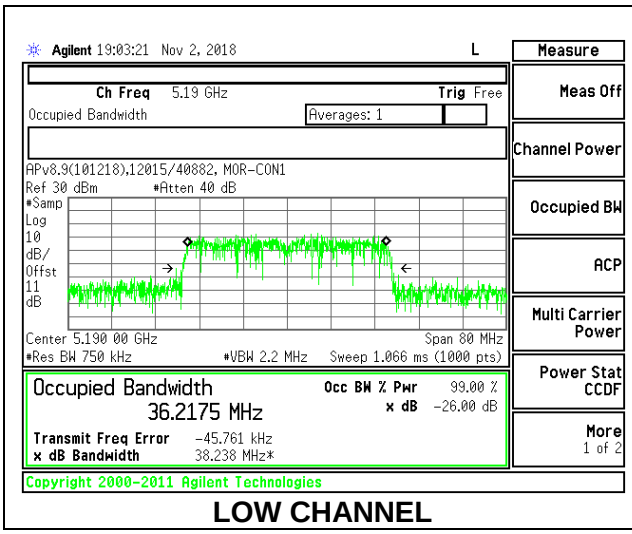
MID CHANNEL



HIGH CHANNEL

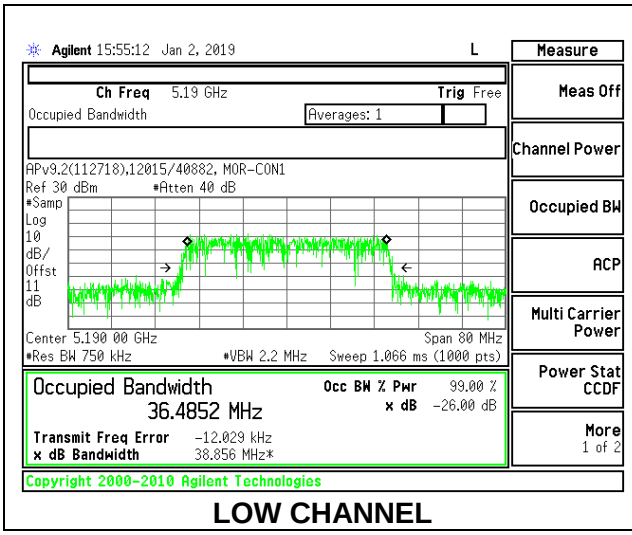
8.3.5. 802.11n HT40 MODE IN THE 5.2 GHz BAND – ANTENNA 1

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5190	36.2175
High	5230	36.3243

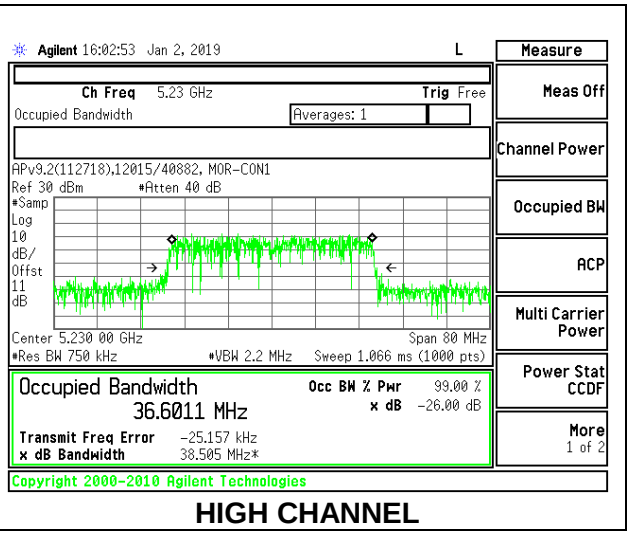


8.3.6. 802.11n HT40 MODE IN THE 5.2 GHz BAND – ANTENNA 2

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5190	36.4852
High	5230	36.6011



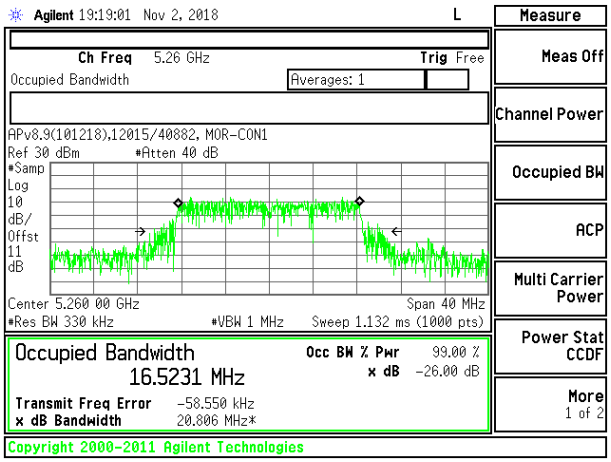
LOW CHANNEL



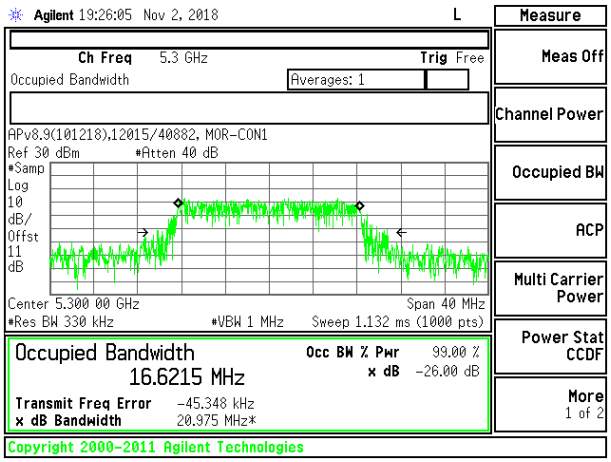
HIGH CHANNEL

8.3.7. 802.11a MODE IN THE 5.3 GHz BAND – ANTENNA 1

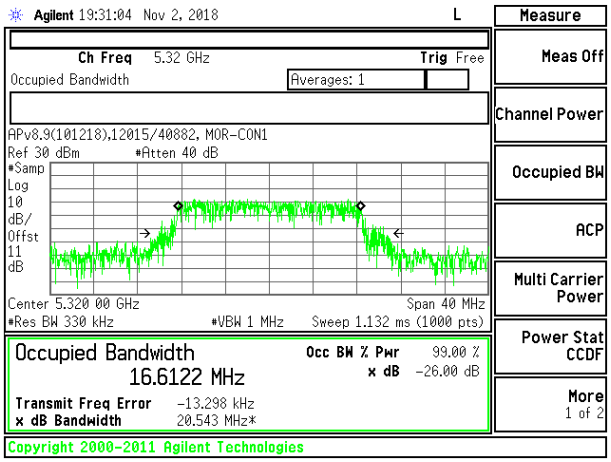
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5260	16.5231
Mid	5300	16.6215
High	5320	16.6122



LOW CHANNEL



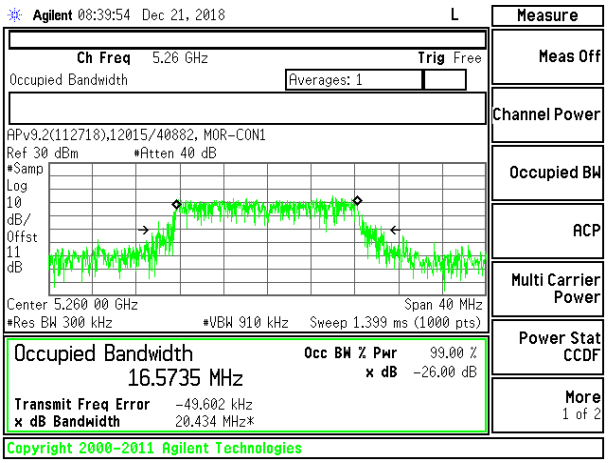
MID CHANNEL



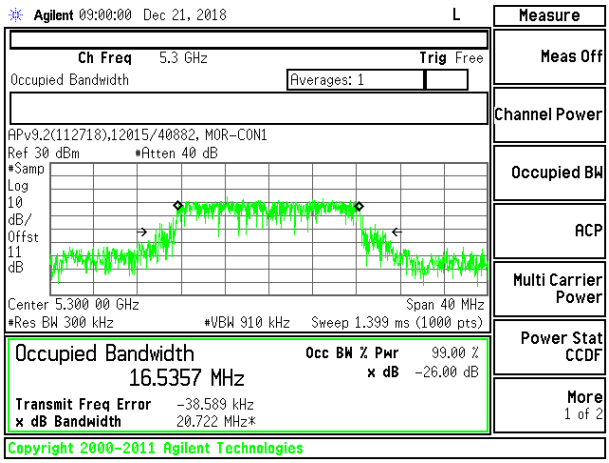
HIGH CHANNEL

8.3.8. 802.11a MODE IN THE 5.3 GHz BAND – ANTENNA 2

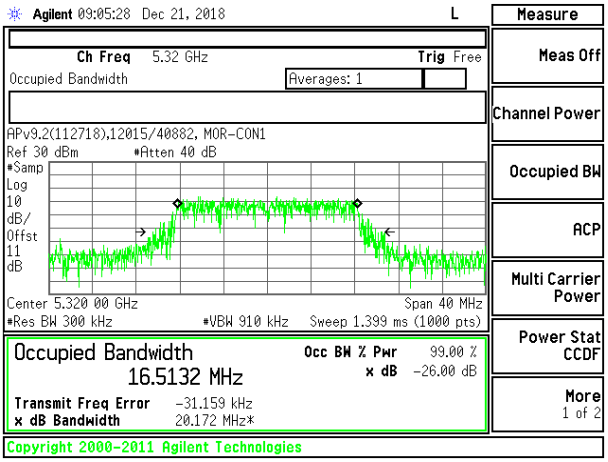
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5260	16.5735
Mid	5300	16.5357
High	5320	16.5132



LOW CHANNEL



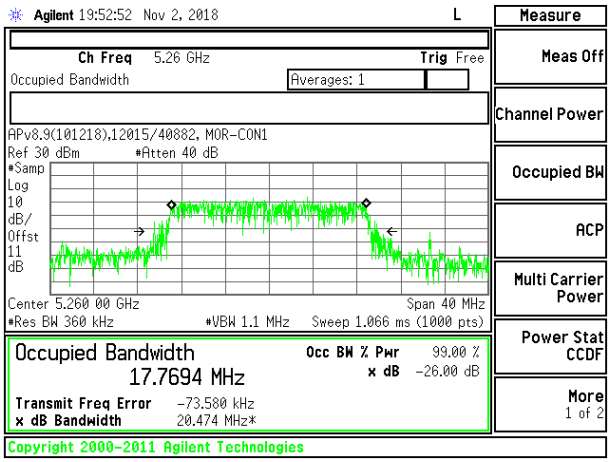
MID CHANNEL



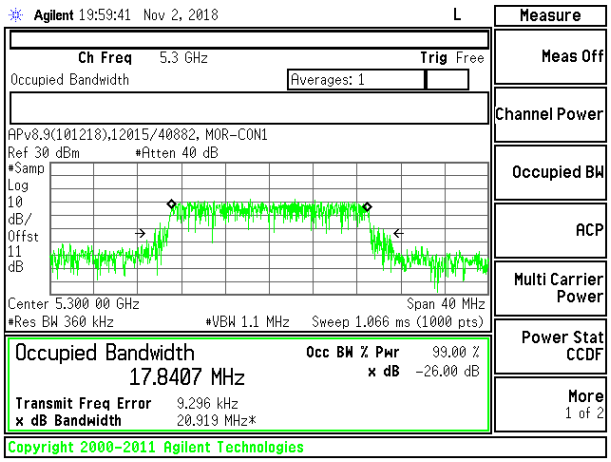
HIGH CHANNEL

8.3.9. 802.11n HT20 MODE IN THE 5.3 GHz BAND – ANTENNA 1

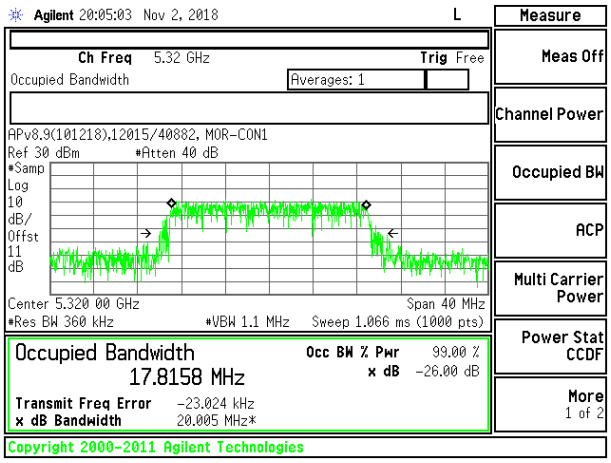
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5260	17.7694
Mid	5300	17.8407
High	5320	17.8158



LOW CHANNEL



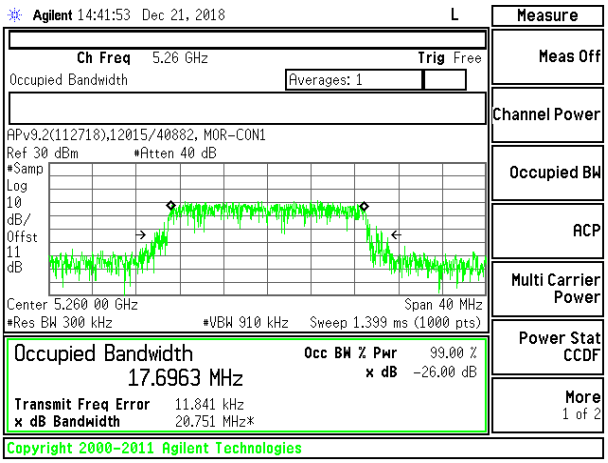
MID CHANNEL



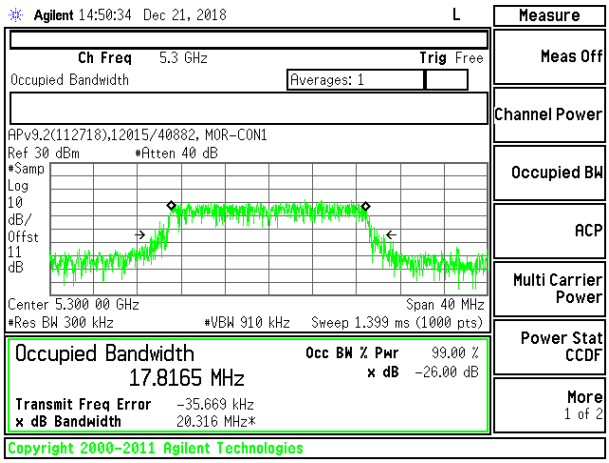
HIGH CHANNEL

8.3.10. 802.11n HT20 MODE IN THE 5.3 GHz BAND – ANTENNA 2

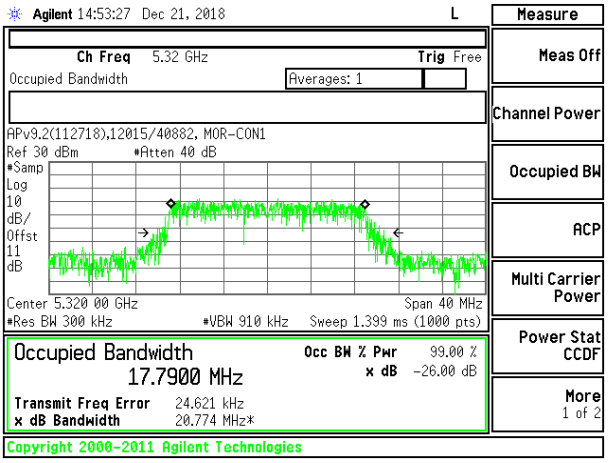
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5260	17.6963
Mid	5300	17.8165
High	5320	17.7900



LOW CHANNEL



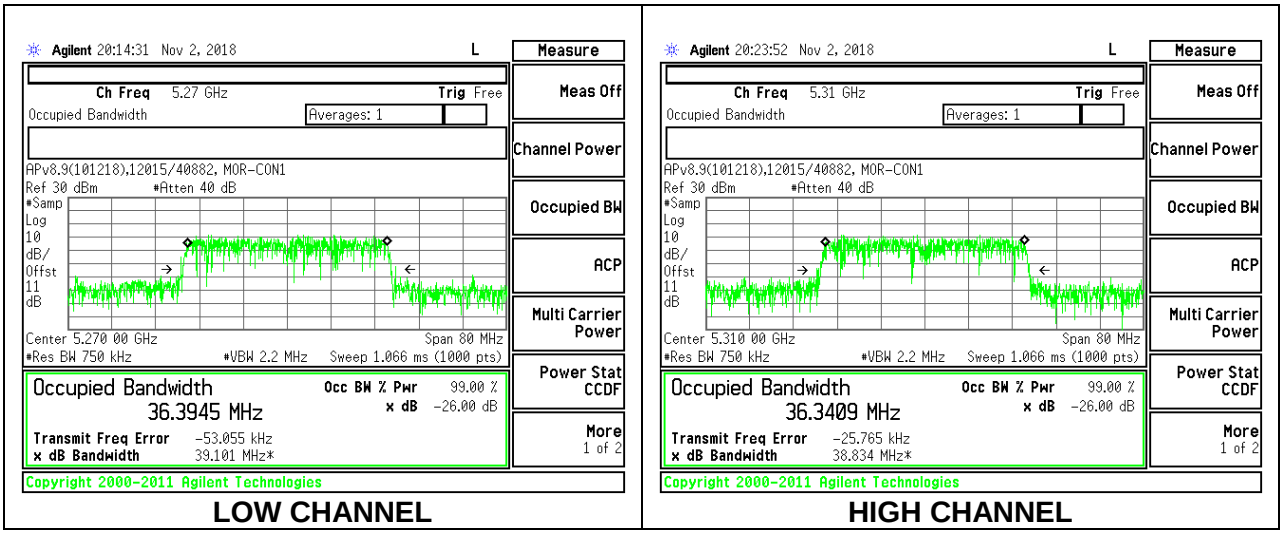
MID CHANNEL



HIGH CHANNEL

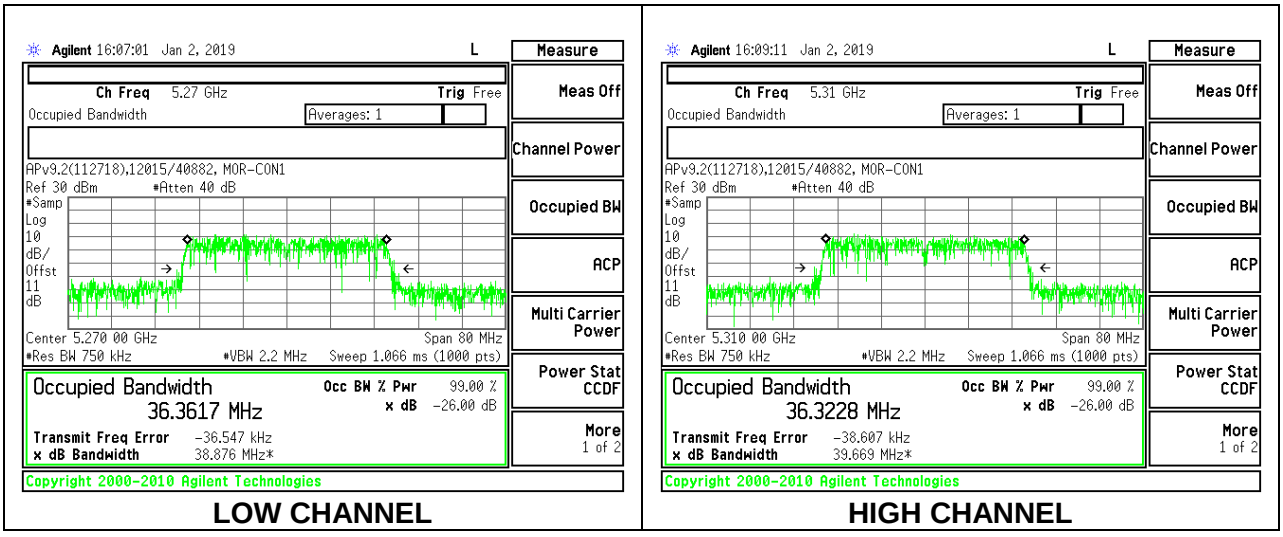
8.3.11. 802.11n HT40 MODE IN THE 5.3 GHz BAND – ANTENNA 1

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5270	36.3945
High	5310	36.3409



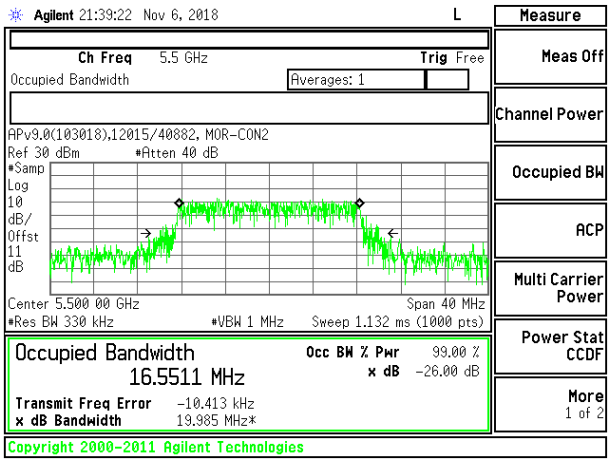
8.3.12. 802.11n HT40 MODE IN THE 5.3 GHz BAND – ANTENNA 2

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5270	36.3617
High	5310	36.3228

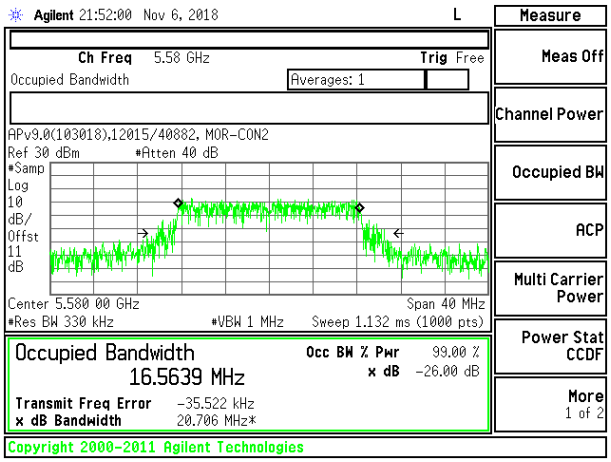


8.3.13. 802.11a MODE IN THE 5.6 GHz BAND – ANTENNA 1

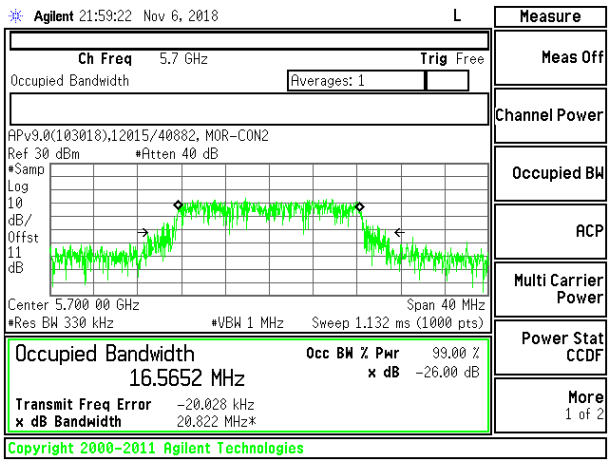
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5500	16.5511
Mid	5580	16.5639
High	5700	16.5652



LOW CHANNEL



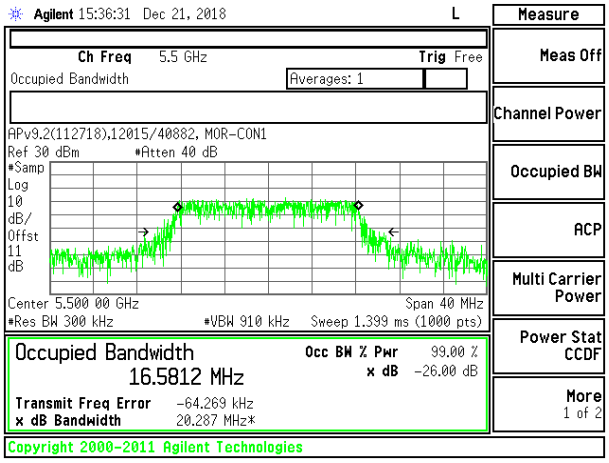
MID CHANNEL



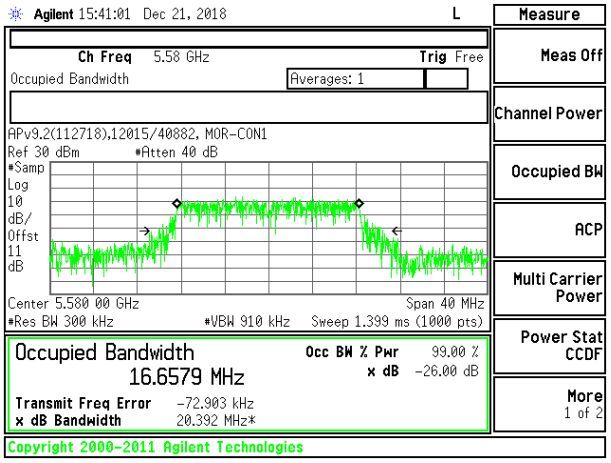
HIGH CHANNEL

8.3.14. 802.11a MODE IN THE 5.6 GHz BAND – ANTENNA 2

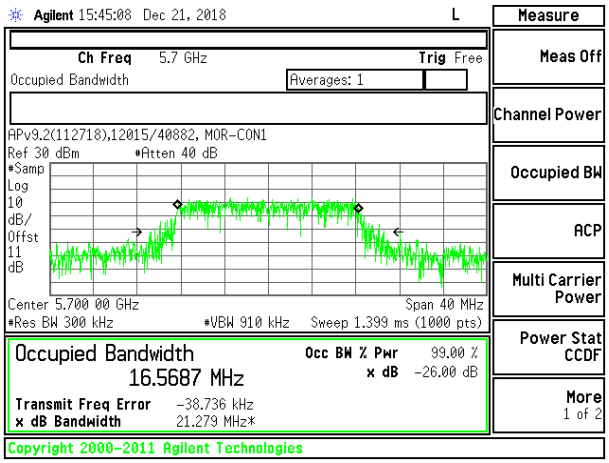
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5500	16.5812
Mid	5580	16.6579
High	5700	16.5687



LOW CHANNEL



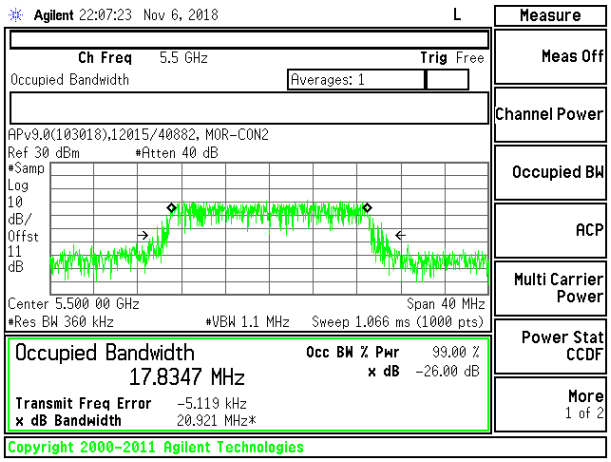
MID CHANNEL



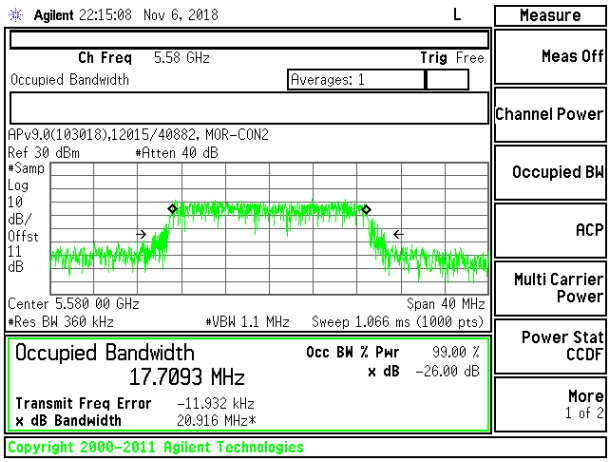
HIGH CHANNEL

8.3.15. 802.11n HT20 MODE IN THE 5.6 GHz BAND – ANTENNA 1

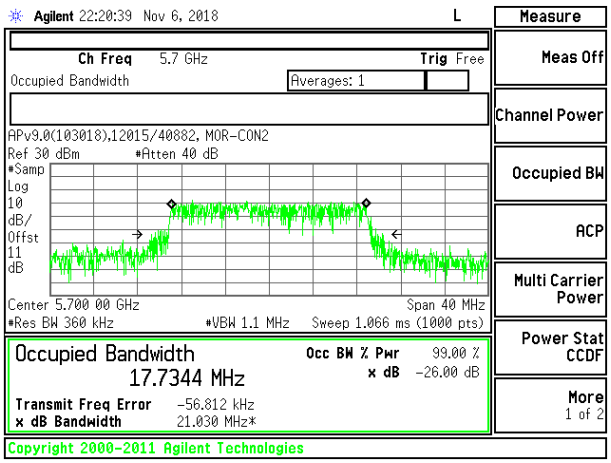
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5500	17.8347
Mid	5580	17.7093
High	5700	17.7344



LOW CHANNEL



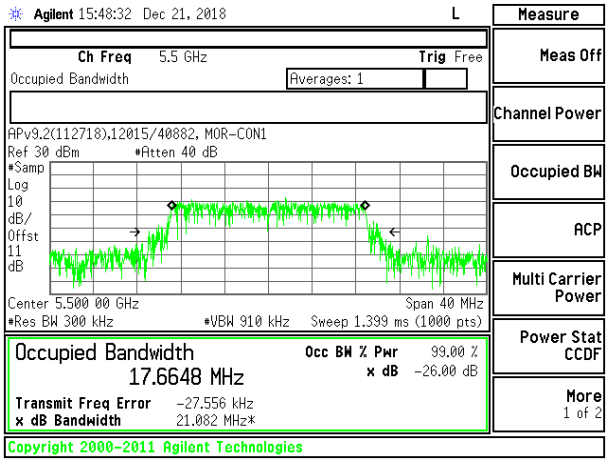
MID CHANNEL



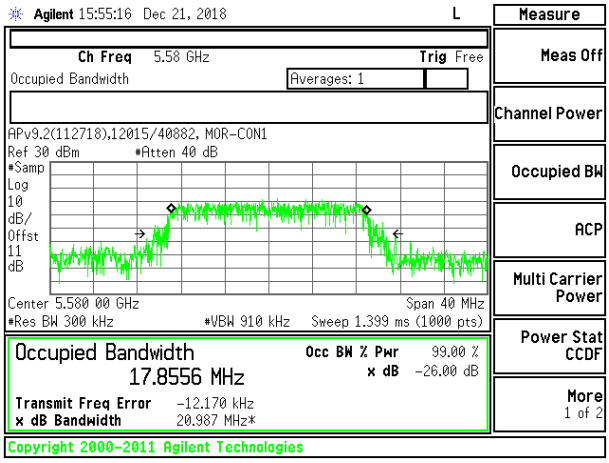
HIGH CHANNEL

8.3.16. 802.11n HT20 MODE IN THE 5.6 GHz BAND – ANTENNA 2

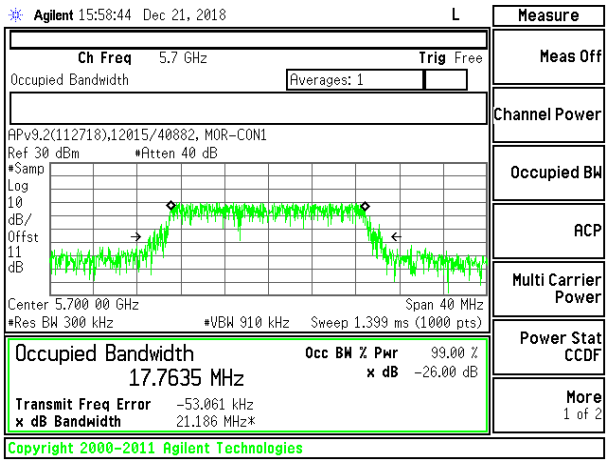
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5500	17.6648
Mid	5580	17.8556
High	5700	17.7635



LOW CHANNEL



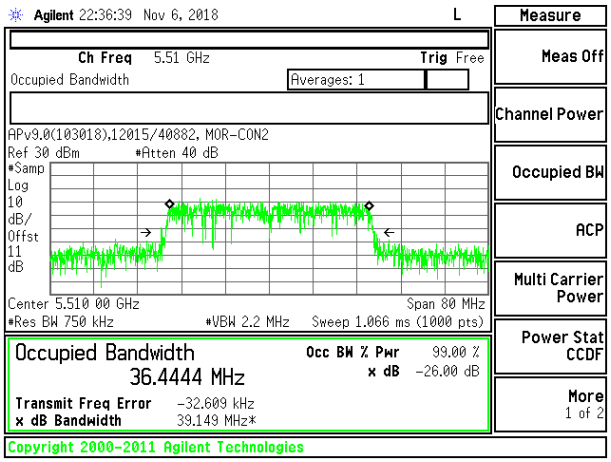
MID CHANNEL



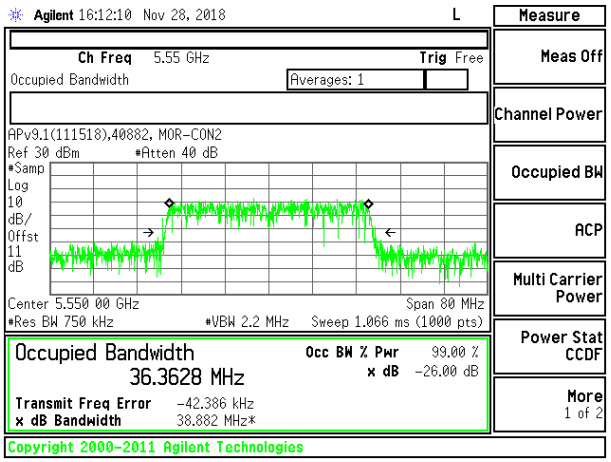
HIGH CHANNEL

8.3.17. 802.11n HT40 MODE IN THE 5.6 GHz BAND – ANTENNA 1

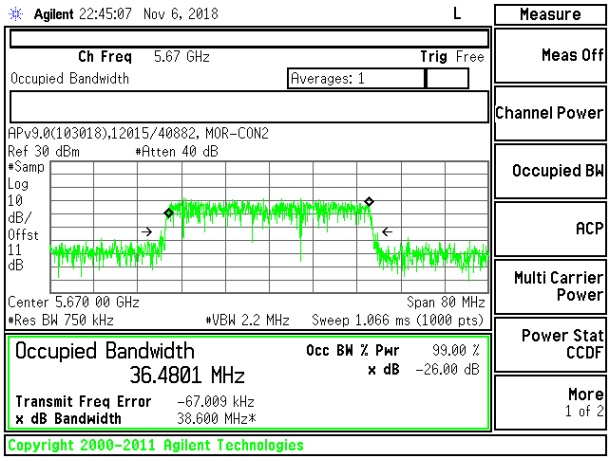
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5510	36.4440
Mid	5550	36.3628
High	5670	36.4800



LOW CHANNEL



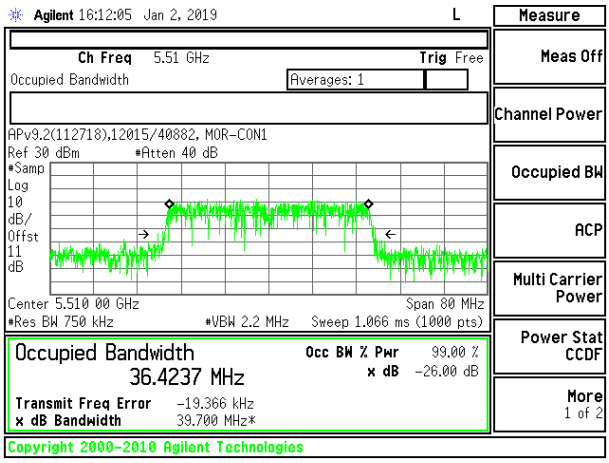
MID CHANNEL



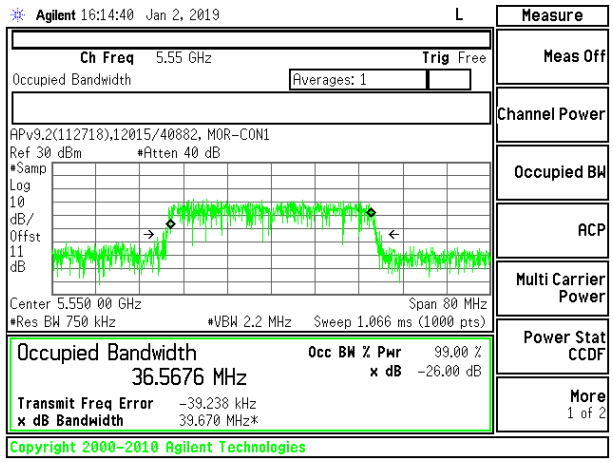
HIGH CHANNEL

8.3.18. 802.11n HT40 MODE IN THE 5.6 GHz BAND – ANTENNA 2

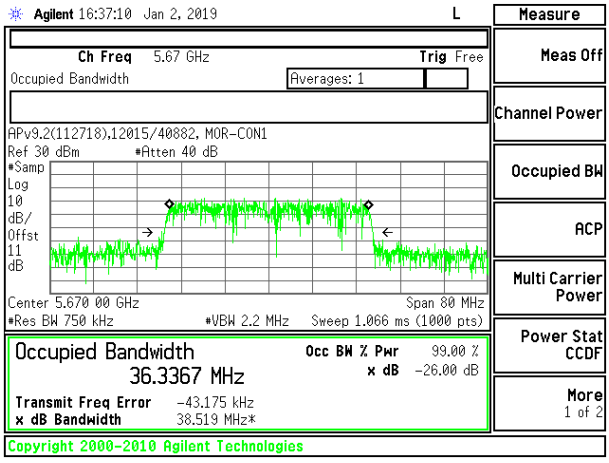
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5510	36.4237
Mid	5550	36.5676
High	5670	36.3367



LOW CHANNEL



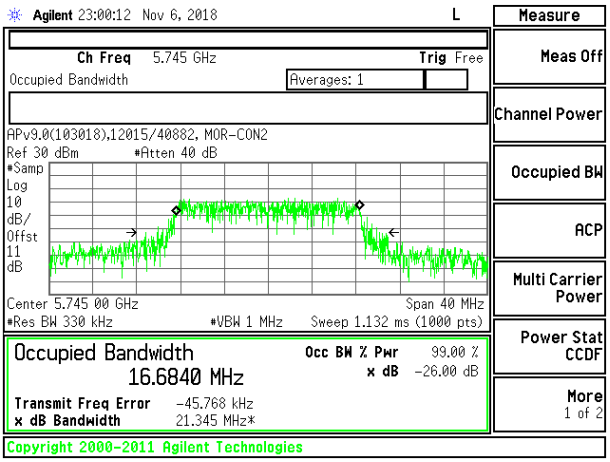
MID CHANNEL



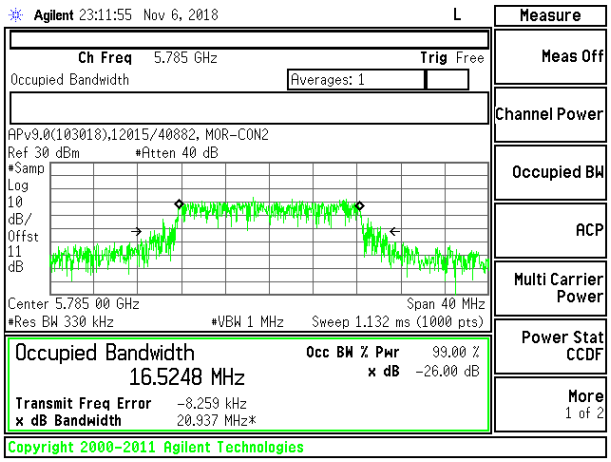
HIGH CHANNEL

8.3.19. 802.11a MODE IN THE 5.8 GHz BAND – ANTENNA 1

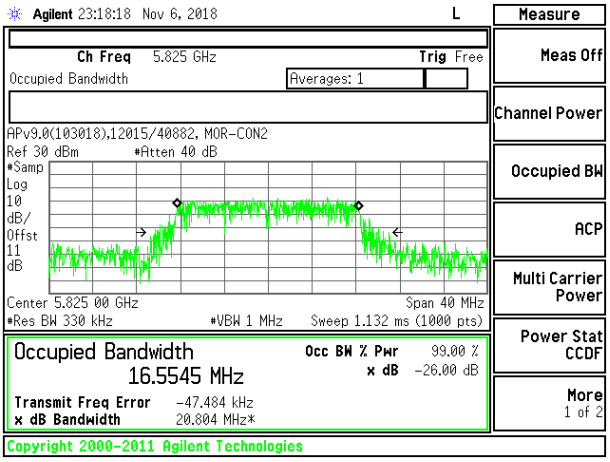
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5745	16.6840
Mid	5785	16.5248
High	5825	16.5545



LOW CHANNEL



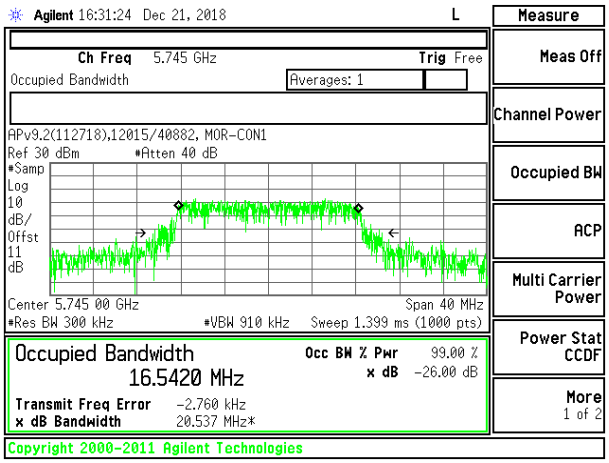
MID CHANNEL



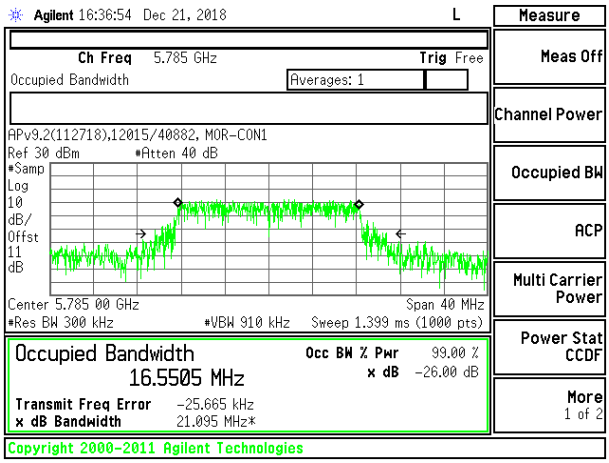
HIGH CHANNEL

8.3.20. 802.11a MODE IN THE 5.8 GHz BAND – ANTENNA 2

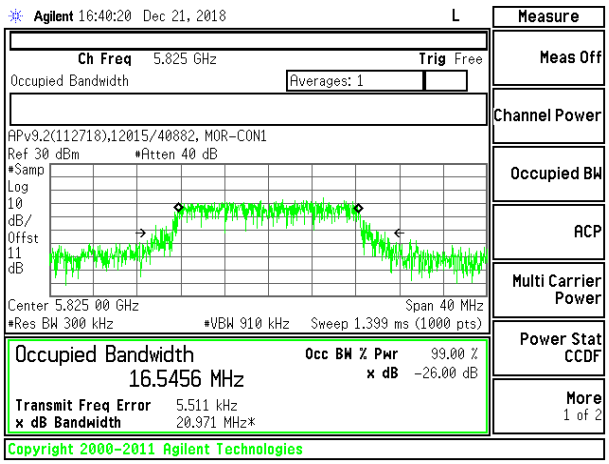
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5745	16.5420
Mid	5785	16.5505
High	5825	16.5456



LOW CHANNEL



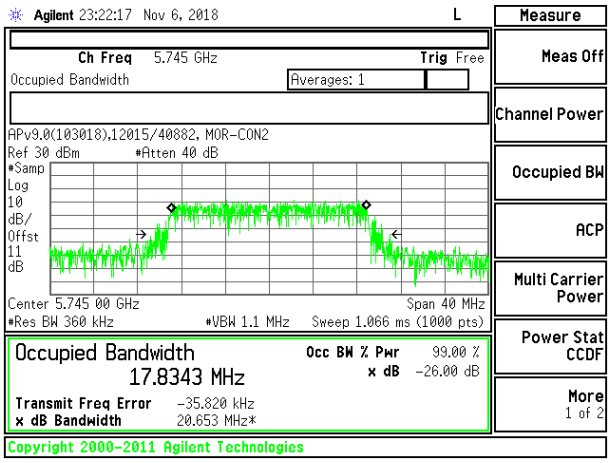
MID CHANNEL



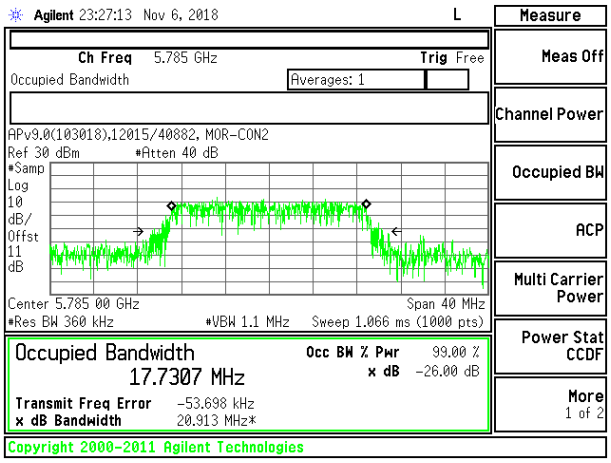
HIGH CHANNEL

8.3.21. 802.11n HT20 MODE IN THE 5.8 GHz BAND – ANTENNA 1

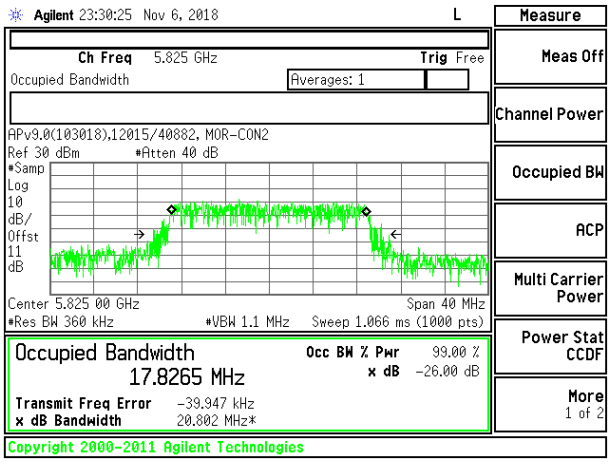
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5745	17.8343
Mid	5785	17.7307
High	5825	17.8265



LOW CHANNEL



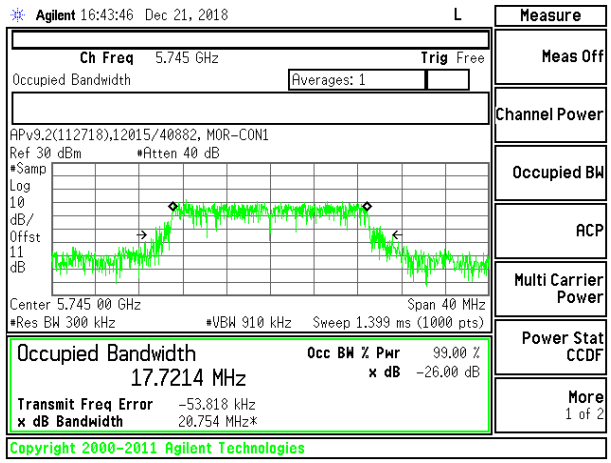
MID CHANNEL



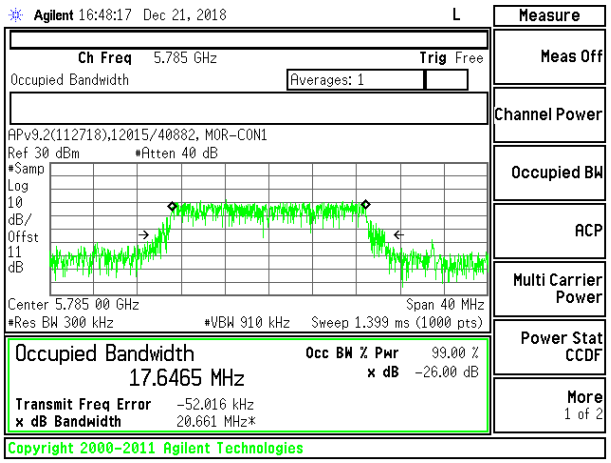
HIGH CHANNEL

8.3.22. 802.11n HT20 MODE IN THE 5.8 GHz BAND – ANTENNA 2

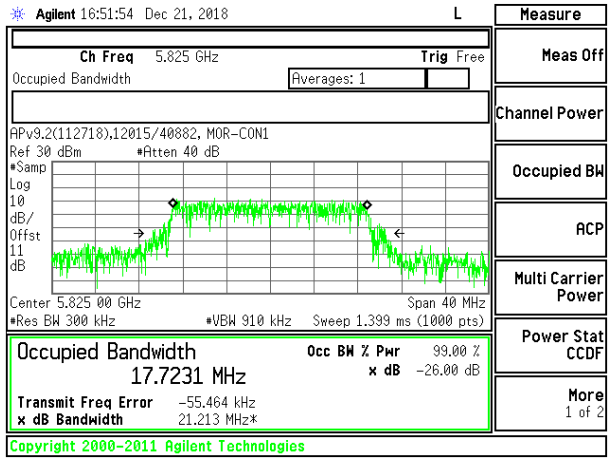
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5745	17.7214
Mid	5785	17.6465
High	5825	17.7231



LOW CHANNEL



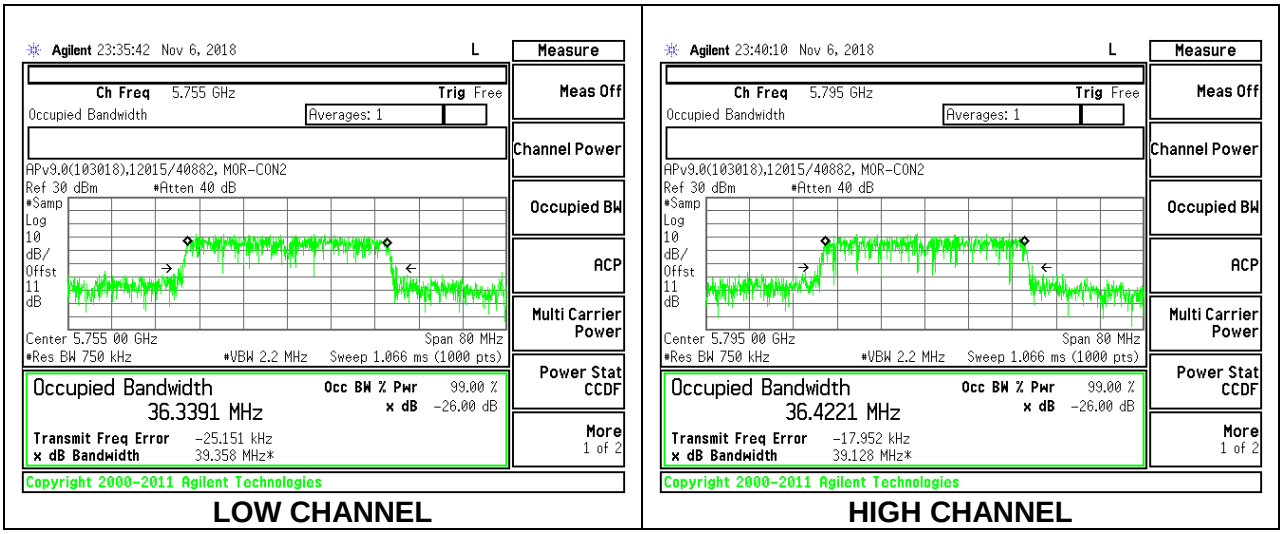
MID CHANNEL



HIGH CHANNEL

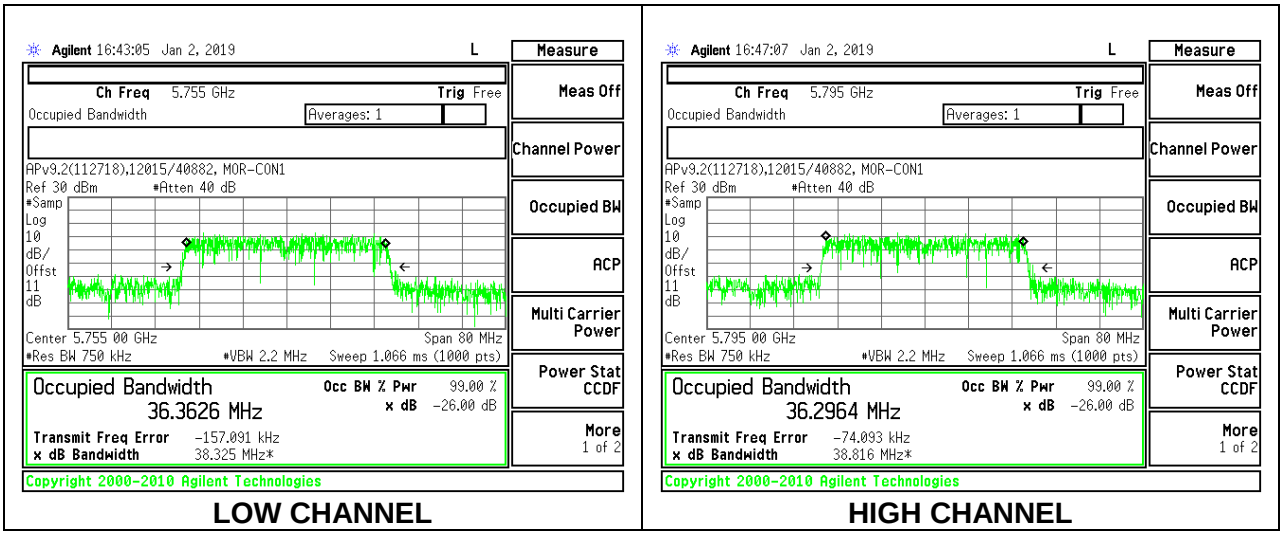
8.3.23. 802.11n HT40 MODE IN THE 5.8 GHz BAND – ANTENNA 1

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5755	36.3391
High	5795	36.4221



8.3.24. 802.11n HT40 MODE IN THE 5.8 GHz BAND – ANTENNA 2

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5755	36.3626
High	5795	36.2964



8.4. 6 dB BANDWIDTH

LIMITS

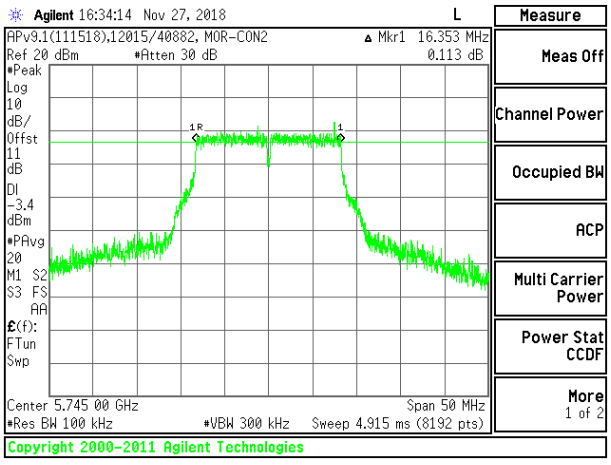
FCC §15.407 (e)
RSS-247 6.2.4.1

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

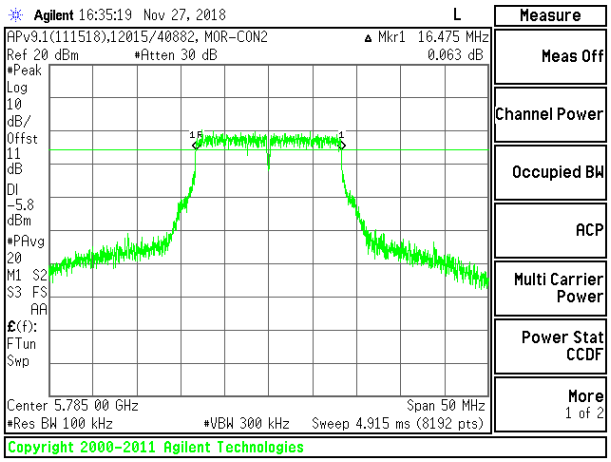
RESULTS

8.4.1. 802.11a MODE IN THE 5.8 GHz BAND – ANTENNA 1

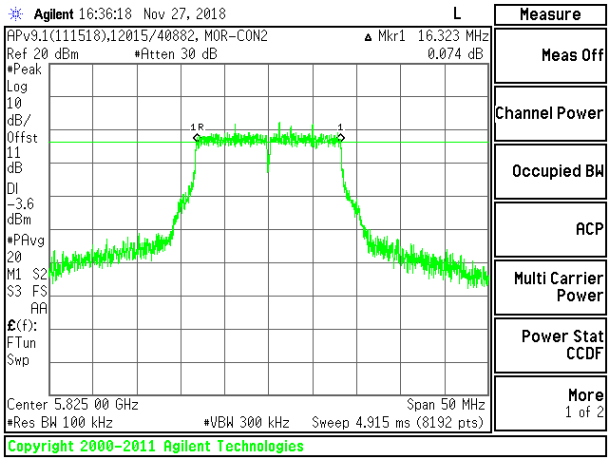
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	16.353	0.5
Mid	5785	16.475	0.5
High	5825	16.323	0.5



LOW CHANNEL



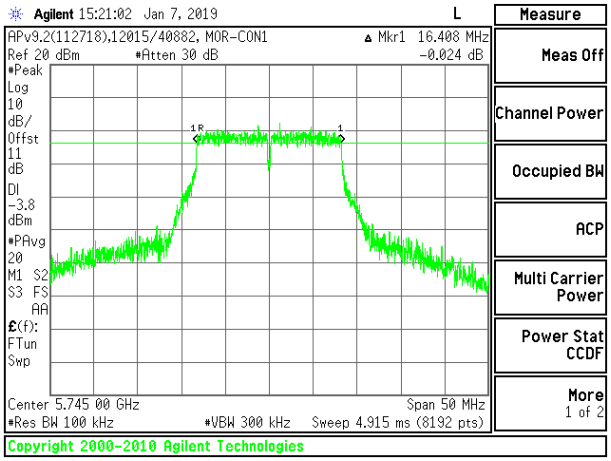
MID CHANNEL



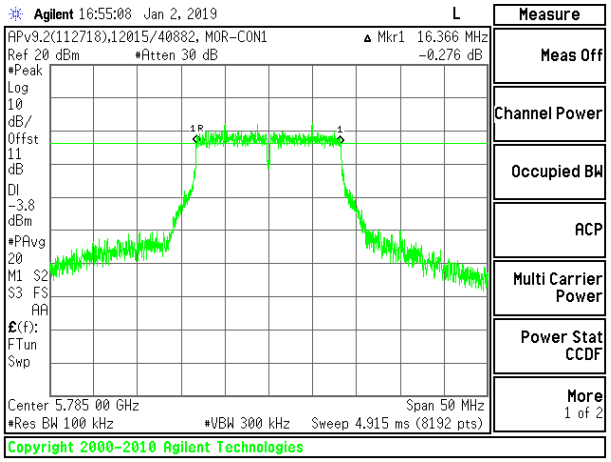
HIGH CHANNEL

8.4.2. 802.11a MODE IN THE 5.8 GHz BAND – ANTENNA 2

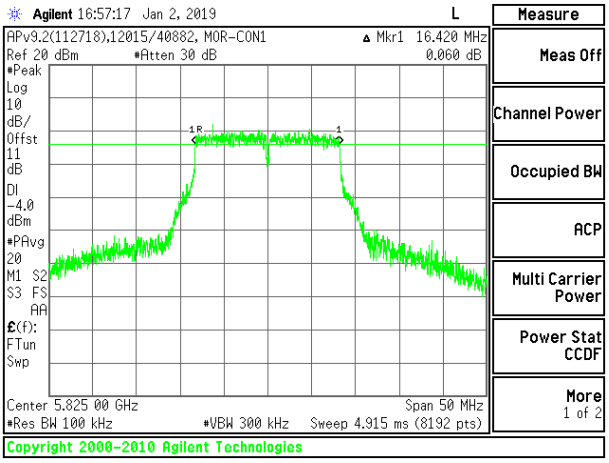
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	16.408	0.5
Mid	5785	16.366	0.5
High	5825	16.420	0.5



LOW CHANNEL



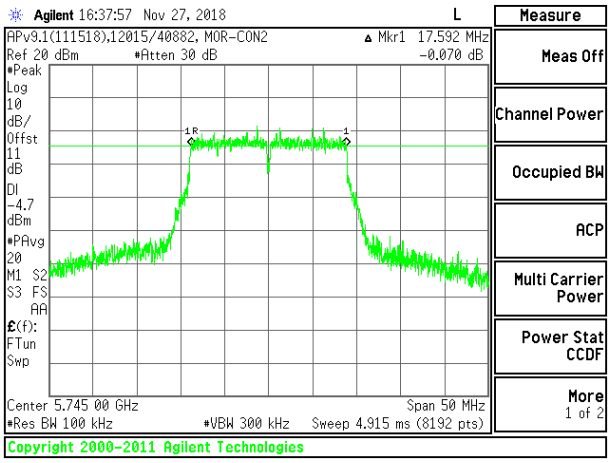
MID CHANNEL



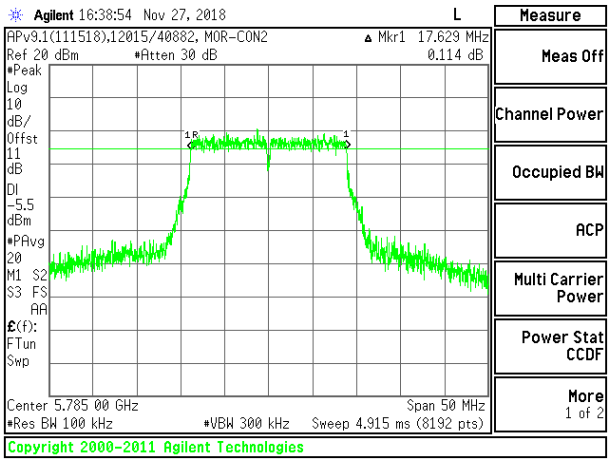
HIGH CHANNEL

8.4.3. 802.11n HT20 MODE IN THE 5.8 GHz BAND – ANTENNA 1

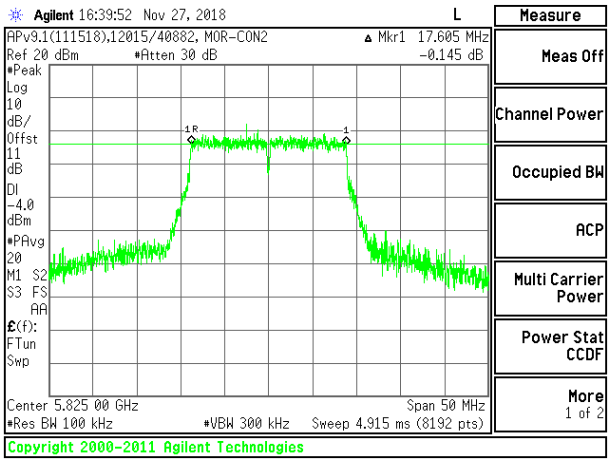
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	17.592	0.5
Mid	5785	17.629	0.5
High	5825	17.605	0.5



LOW CHANNEL



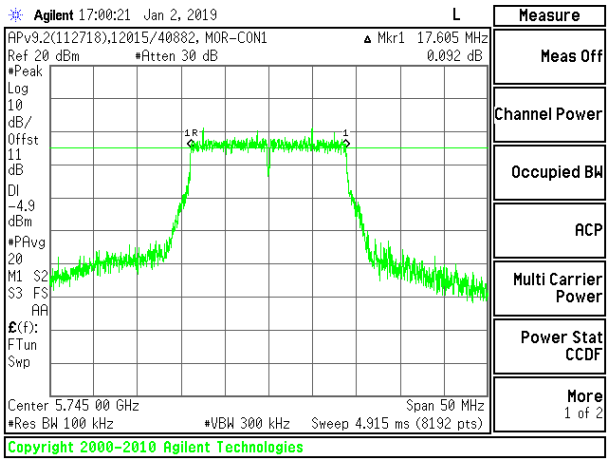
MID CHANNEL



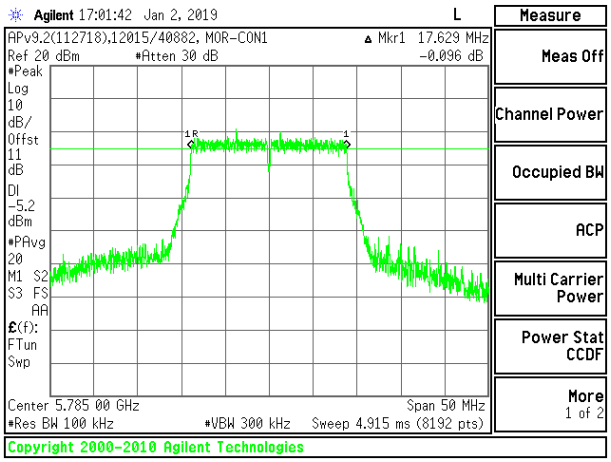
HIGH CHANNEL

8.4.4. 802.11n HT20 MODE IN THE 5.8 GHz BAND – ANTENNA 2

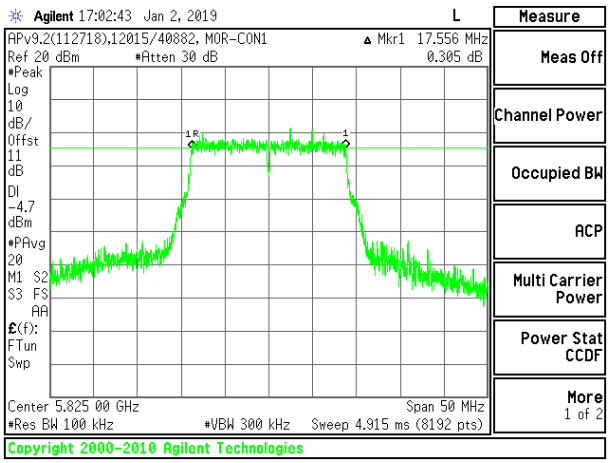
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	17.605	0.5
Mid	5785	17.629	0.5
High	5825	17.556	0.5



LOW CHANNEL



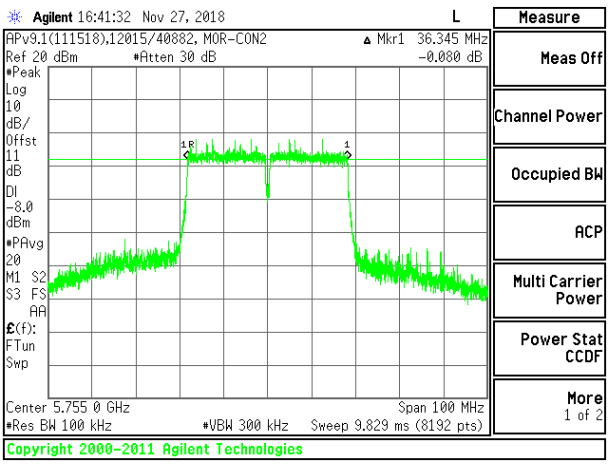
MID CHANNEL



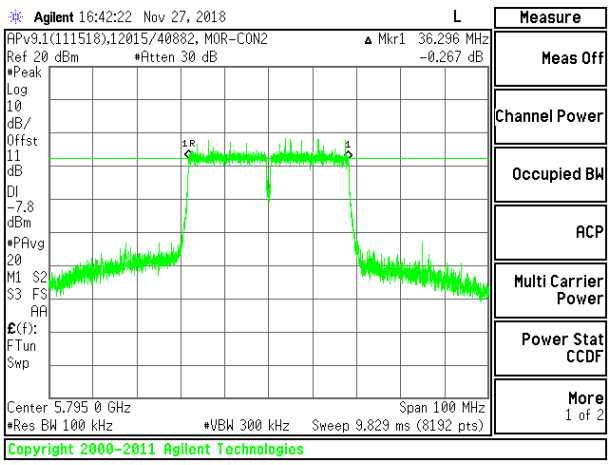
HIGH CHANNEL

8.4.5. 802.11n HT40 MODE IN THE 5.8 GHz BAND – ANTENNA 1

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5755	36.345	0.5
High	5795	36.296	0.5



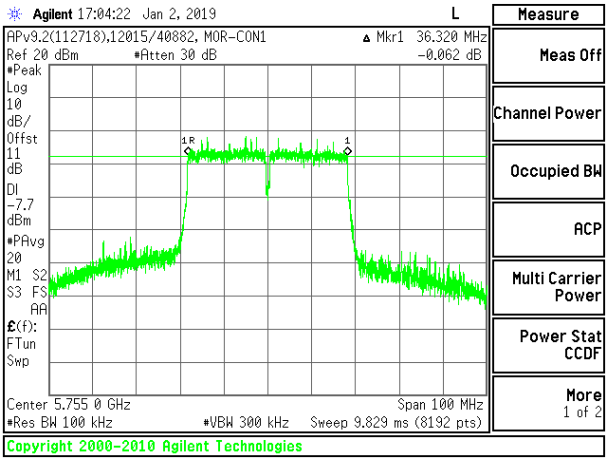
LOW CHANNEL



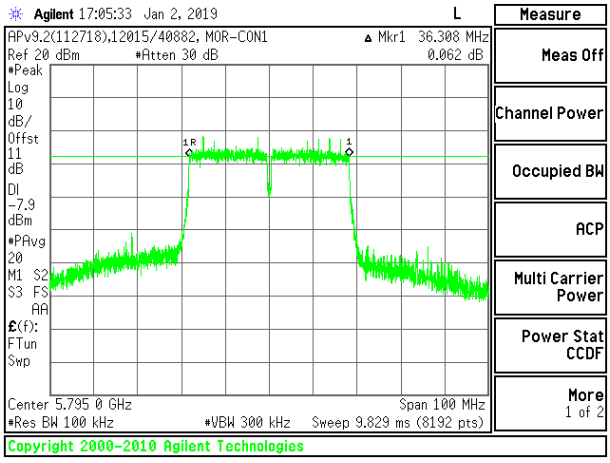
HIGH CHANNEL

8.4.6. 802.11n HT40 MODE IN THE 5.8 GHz BAND – ANTENNA 2

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5755	36.320	0.5
High	5795	36.308	0.5



LOW CHANNEL



HIGH CHANNEL

8.5. OUTPUT POWER, PSD AND TPC

LIMITS

FCC §15.407 (a)

(1) Band 5.15–5.25 GHz

(iv) For 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.

(2) 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 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.

(3) 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.

FCC §15.407 (h) (1)

Transmit power control (TPC). U-NII devices operating in the 5.25-5.35 GHz band and the 5.47-5.725 GHz band shall employ a TPC mechanism. The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm. A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.

RSS-247

Band 5.15-5.25 GHz (6.2.1.1)
The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10B, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

Band 5.25-5.35 GHz (6.2.2.1)
The maximum conducted output power shall not exceed 250 mW or 11 + 10 log10B, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log10B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

Bands 5.47-5.6 GHz and 5.65-5.725 GHz (6.2.3.1)
The maximum conducted output power shall not exceed 250 mW or 11 + 10 log10B, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log10B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

Band 5.725-5.85 GHz (6.2.4.1)
The maximum conducted output power shall not exceed 1 W. The 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 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 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).

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

TEST INFORMATION

Power
Date: 2018-11-05, 2018-12-21
Project: 12480294
Tester: 40882, 12015/40882

PSD
Date: 2018-11-12 to 2018-11-27, 2018-12-21
Project: 12480294
Tester: 12015 and 40882, 12015/40882

DIRECTIONAL ANTENNA GAIN

For 1 TX:
There is only one transmitter output therefore the directional gain is equal to the antenna gain.
EUT is SISO with 2 antennas for diversity. Worst-case antenna gain of 0.94 dBi used.

UL LLC
12 Laboratory Dr., RTP, NC 27709; USA TEL:(919) 549-1400

RESULTS

8.5.1. 802.11a MODE IN THE 5.2 GHz BAND – ANTENNA 1

FCC+ISED

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5180	16.5270	0.94
Mid	5200	16.5712	0.94
High	5240	16.5338	0.94

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	ISED EIRP Limit (dBm)	Max ISED Power (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm/1MHz)	ISED eirp PSD Limit (dBm/1MHz)	PSD Limit (dBm/1MHz)
Low	5180	24.00	22.18	21.24	21.24	11.00	10.00	9.06
Mid	5200	24.00	22.19	21.25	21.25	11.00	10.00	9.06
High	5240	24.00	22.18	21.24	21.24	11.00	10.00	9.06

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

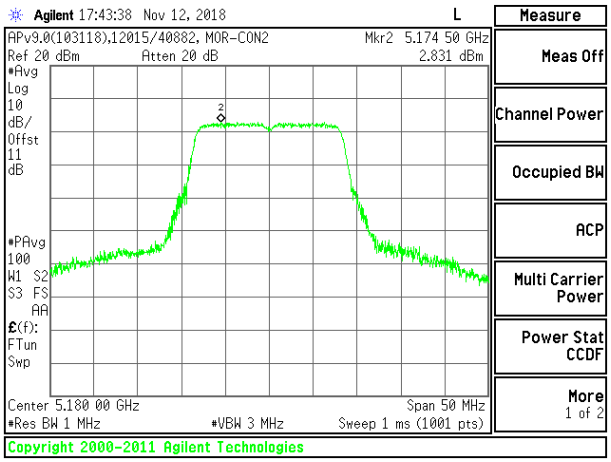
Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)	Total Corr'd EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
Low	5180	13.21	13.21	21.24	-8.03	14.15	22.18	-8.03
Mid	5200	13.18	13.18	21.25	-8.07	14.12	22.19	-8.07
High	5240	13.46	13.46	21.24	-7.78	14.40	22.18	-7.78

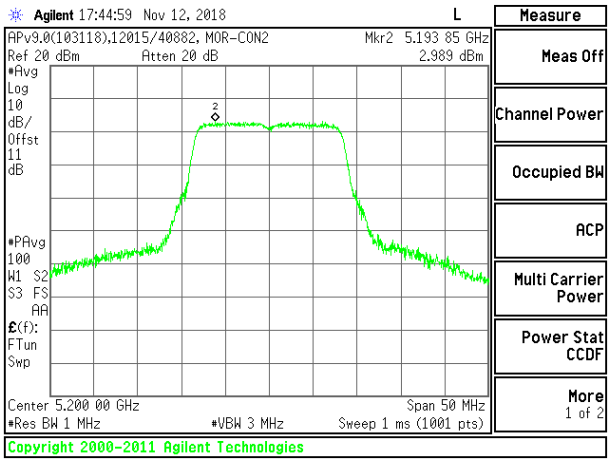
PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)	Total Corr'd EIRP PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5180	2.831	2.831	9.06	-6.23	3.771	10.00	-6.23
Mid	5200	2.989	2.989	9.06	-6.07	3.929	10.00	-6.07
High	5240	3.304	3.304	9.06	-5.76	4.244	10.00	-5.76

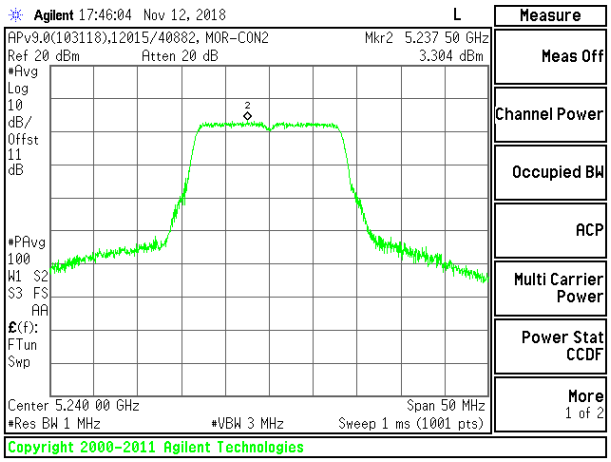
Note: Power measurements were gated average. Therefore no correction factor required.



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

8.5.2. 802.11a MODE IN THE 5.2 GHz BAND – ANTENNA 2

FCC+ISED

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5180	16.5785	0.94
Mid	5200	16.5651	0.94
High	5240	16.5304	0.94

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	ISED EIRP Limit (dBm)	Max ISED Power (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm/1MHz)	ISED eirp PSD Limit (dBm/1MHz)	PSD Limit (dBm/1MHz)
Low	5180	24.00	22.20	21.26	21.26	11.00	10.00	9.06
Mid	5200	24.00	22.19	21.25	21.25	11.00	10.00	9.06
High	5240	24.00	22.18	21.24	21.24	11.00	10.00	9.06

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

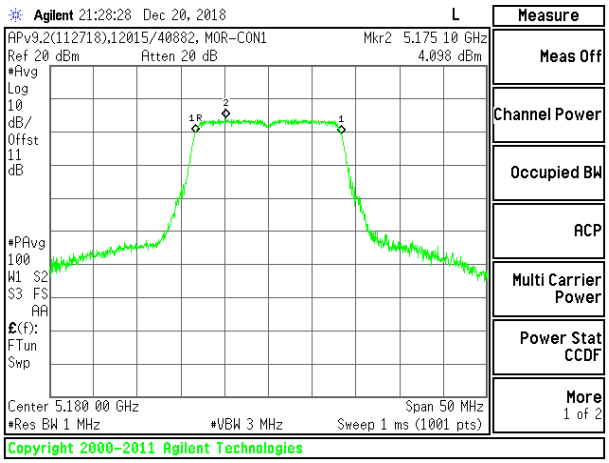
Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)	Total Corr'd EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
Low	5180	14.73	14.73	21.26	-6.53	15.67	22.20	-6.53
Mid	5200	14.76	14.76	21.25	-6.49	15.70	22.19	-6.49
High	5240	14.67	14.67	21.24	-6.57	15.61	22.18	-6.57

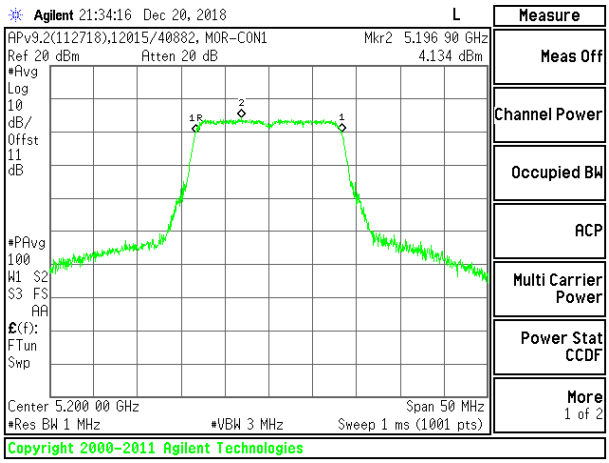
PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)	Total Corr'd EIRP PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5180	4.098	4.098	9.06	-4.96	5.038	10.00	-4.96
Mid	5200	4.134	4.134	9.06	-4.93	5.074	10.00	-4.93
High	5240	3.987	3.987	9.06	-5.07	4.927	10.00	-5.07

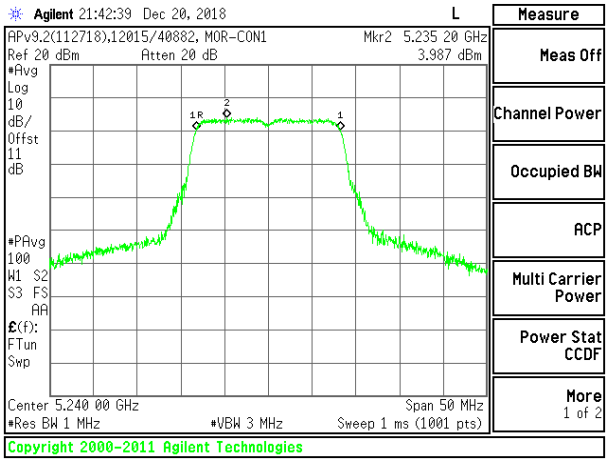
Note: Power measurements were gated average. Therefore no correction factor required.



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

8.5.3. 802.11n HT20 MODE IN THE 5.2 GHz BAND – ANTENNA 1

FCC+ISED

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5180	17.7750	0.94
Mid	5200	17.8641	0.94
High	5240	17.8995	0.94

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	ISED EIRP Limit (dBm)	Max ISED Power (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm/ 1MHz)	ISED eirp PSD Limit (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)
Low	5180	24.00	22.50	21.56	21.56	11.00	10.00	9.06
Mid	5200	24.00	22.52	21.58	21.58	11.00	10.00	9.06
High	5240	24.00	22.53	21.59	21.59	11.00	10.00	9.06

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

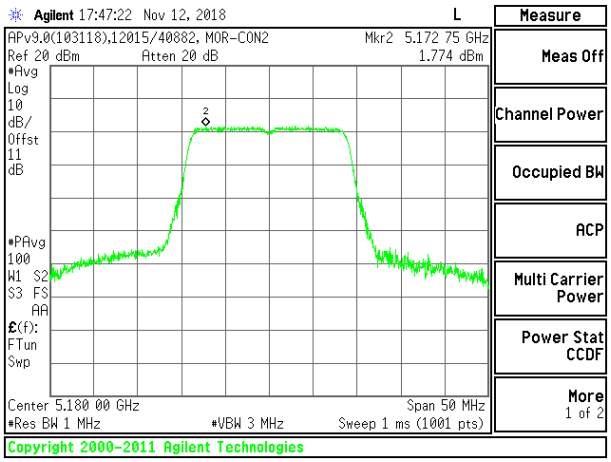
Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)	Total Corr'd EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
Low	5180	12.22	12.22	21.56	-9.34	13.16	22.50	-9.34
Mid	5200	11.90	11.90	21.58	-9.68	12.84	22.52	-9.68
High	5240	12.47	12.47	21.59	-9.12	13.41	22.53	-9.12

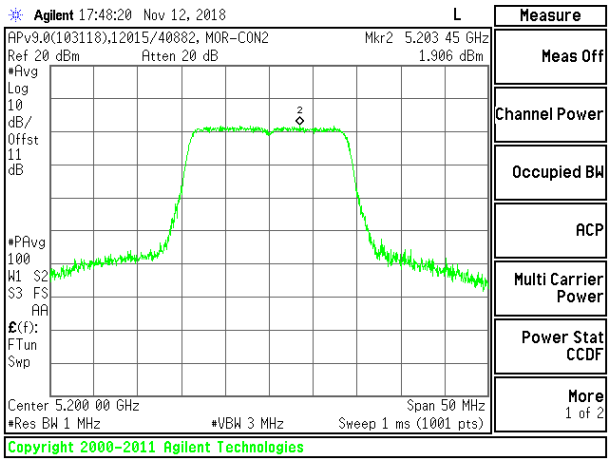
PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)	Total Corr'd EIRP PSD (dBm/1 MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5180	1.774	1.774	9.06	-7.29	2.714	10.00	-7.29
Mid	5200	1.906	1.906	9.06	-7.15	2.846	10.00	-7.15
High	5240	1.792	1.792	9.06	-7.27	2.732	10.00	-7.27

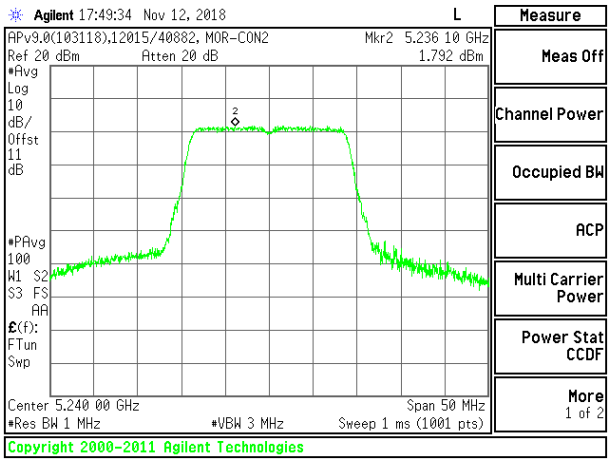
Note: Power measurements were gated average. Therefore no correction factor required.



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

8.5.4. 802.11n HT20 MODE IN THE 5.2 GHz BAND – ANTENNA 2

FCC+ISED

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5180	17.8141	0.94
Mid	5200	17.7228	0.94
High	5240	17.7163	0.94

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	ISED EIRP Limit (dBm)	Max ISED Power (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm/ 1MHz)	ISED eirp PSD Limit (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)
Low	5180	24.00	22.51	21.57	21.57	11.00	10.00	9.06
Mid	5200	24.00	22.49	21.55	21.55	11.00	10.00	9.06
High	5240	24.00	22.48	21.54	21.54	11.00	10.00	9.06

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

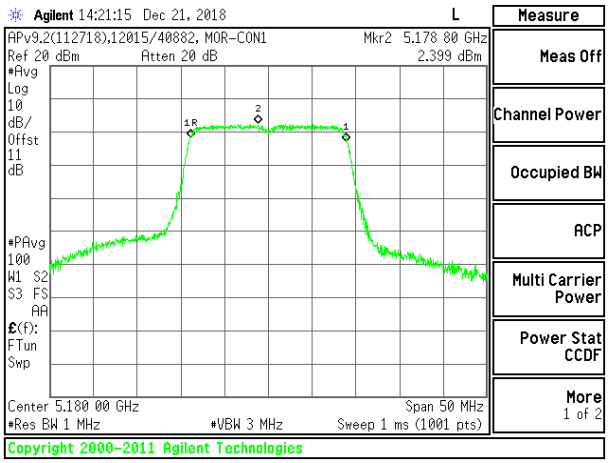
Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)	Total Corr'd EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
Low	5180	13.97	13.97	21.57	-7.60	14.91	22.51	-7.60
Mid	5200	13.44	13.44	21.55	-8.11	14.38	22.49	-8.11
High	5240	13.43	13.43	21.54	-8.11	14.37	22.48	-8.11

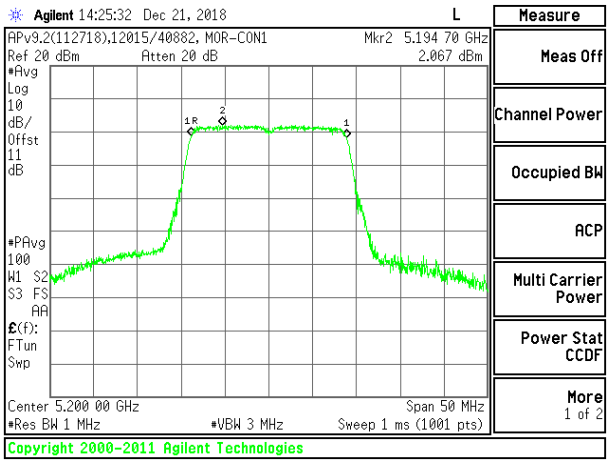
PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)	Total Corr'd EIRP PSD (dBm/1 MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5180	2.399	2.399	9.06	-6.66	3.339	10.00	-6.66
Mid	5200	2.067	2.067	9.06	-6.99	3.007	10.00	-6.99
High	5240	2.548	2.548	9.06	-6.51	3.488	10.00	-6.51

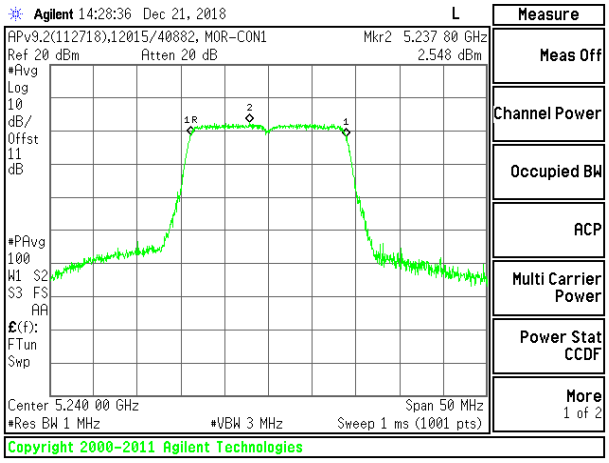
Note: Power measurements were gated average. Therefore no correction factor required.



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

8.5.5. 802.11n HT40 MODE IN THE 5.2 GHz BAND – ANTENNA 1

FCC+ISED

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5190	36.2175	0.94
High	5230	36.3243	0.94

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	ISED EIRP Limit (dBm)	Max ISED Power (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm/ 1MHz)	ISED eirp PSD Limit (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)
Low	5190	24.00	23.00	22.06	22.06	11.00	10.00	9.06
High	5230	24.00	23.00	22.06	22.06	11.00	10.00	9.06

Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd Power & PSD

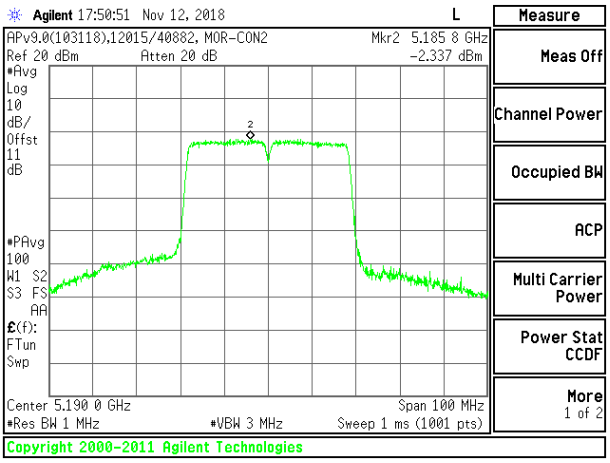
Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)	Total Corr'd EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
Low	5190	10.70	10.70	22.06	-11.36	11.64	23.00	-11.36
High	5230	11.15	11.15	22.06	-10.91	12.09	23.00	-10.91

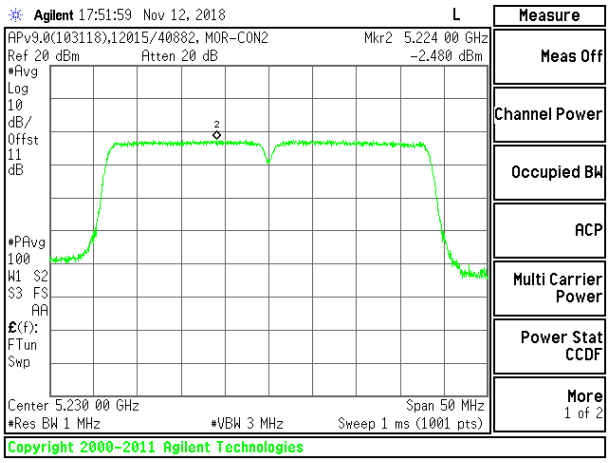
PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)	Total Corr'd EIRP PSD (dBm/1 MHz)	EIRP PSD Limit (dBm/ 1MHz)	EIRP PSD Margin (dB)
Low	5190	-2.337	-2.237	9.06	-11.30	-1.297	10.00	-11.30
High	5230	-2.480	-2.380	9.06	-11.44	-1.440	10.00	-11.44

Note: Power measurements were gated average. Therefore no correction factor required.



LOW CHANNEL



HIGH CHANNEL

8.5.6. 802.11n HT40 MODE IN THE 5.2 GHz BAND – ANTENNA 2

FCC+ISED

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5190	36.4852	0.94
High	5230	36.6011	0.94

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	ISED EIRP Limit (dBm)	Max ISED Power (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm/ 1MHz)	ISED eirp PSD Limit (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)
Low	5190	24.00	23.00	22.06	22.06	11.00	10.00	9.06
High	5230	24.00	23.00	22.06	22.06	11.00	10.00	9.06

Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd Power & PSD

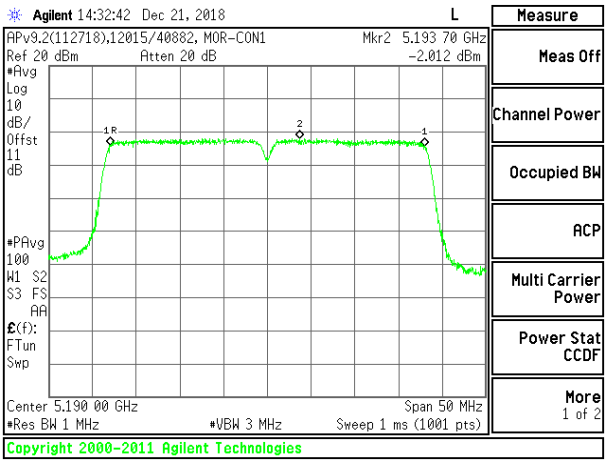
Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)	Total Corr'd EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
Low	5190	12.07	12.07	22.06	-9.99	13.01	23.00	-9.99
High	5230	12.03	12.03	22.06	-10.03	12.97	23.00	-10.03

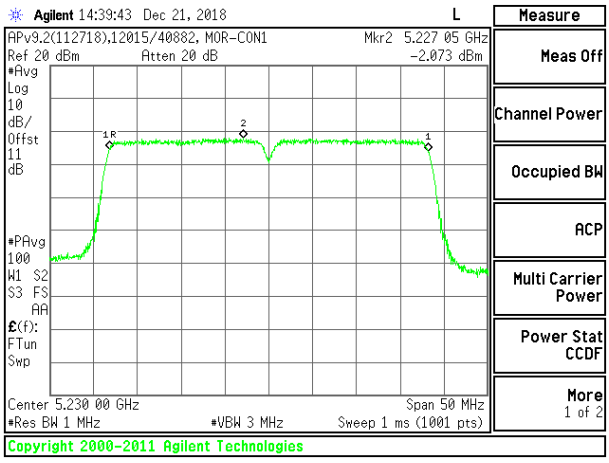
PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)	Total Corr'd EIRP PSD (dBm/1 MHz)	EIRP PSD Limit (dBm/ 1MHz)	EIRP PSD Margin (dB)
Low	5190	-2.012	-1.912	9.06	-10.97	-0.972	10.00	-10.97
High	5230	-2.073	-1.973	9.06	-11.03	-1.033	10.00	-11.03

Note: Power measurements were gated average. Therefore no correction factor required.



LOW CHANNEL



HIGH CHANNEL

8.5.7. 802.11a MODE IN THE 5.3 GHz BAND – ANTENNA 1

FCC

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	21.92	0.94	24.00	11.00
Mid	5300	21.93	0.94	24.00	11.00
High	5320	21.95	0.94	24.00	11.00

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

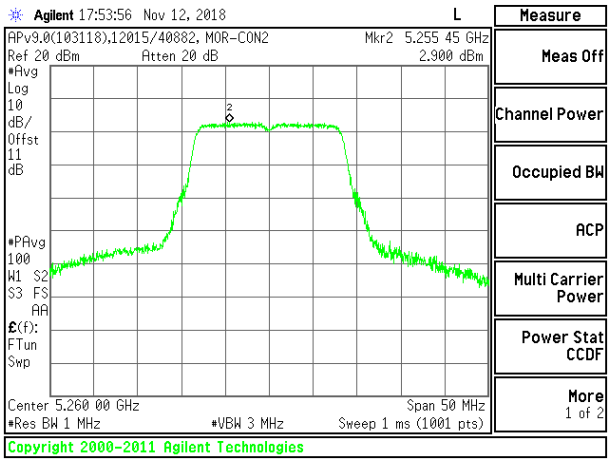
Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	13.83	13.83	24.00	-10.17
Mid	5300	13.38	13.38	24.00	-10.62
High	5320	13.74	13.74	24.00	-10.26

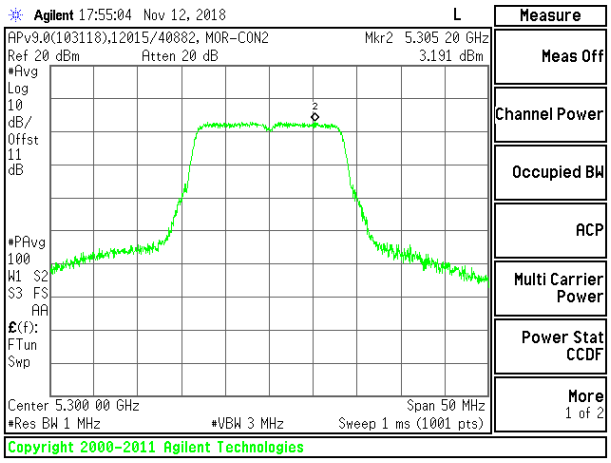
PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5260	2.900	2.900	11.00	-8.10
Mid	5300	3.191	3.191	11.00	-7.81
High	5320	2.865	2.865	11.00	-8.14

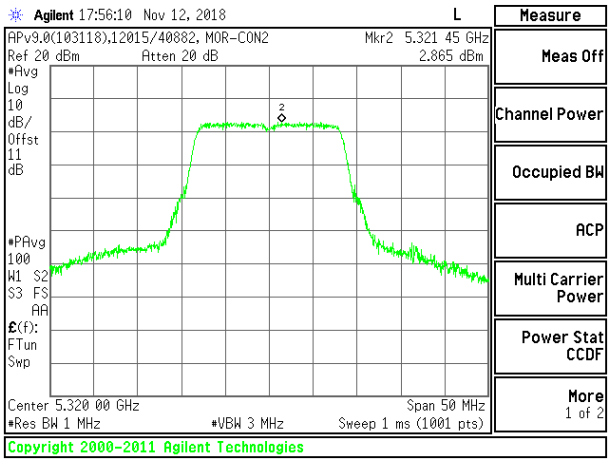
Note: Power measurements were gated average. Therefore no correction factor required.



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

ISED (Power)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Low	5260	16.5231	0.94	23.18	11.00
Mid	5300	16.6215	0.94	23.21	11.00
High	5320	16.6122	0.94	23.20	11.00

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

Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	13.83	13.83	23.18	-9.35
Mid	5300	13.38	13.38	23.21	-9.83
High	5320	13.74	13.74	23.20	-9.46

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5260	2.900	2.900	11.00	-8.10
Mid	5300	3.191	3.191	11.00	-7.81
High	5320	2.865	2.865	11.00	-8.14

Note: Power measurements were gated average. Therefore no correction factor required.

ISED (EIRP)

Bandwidth, Antenna Gain and Limits

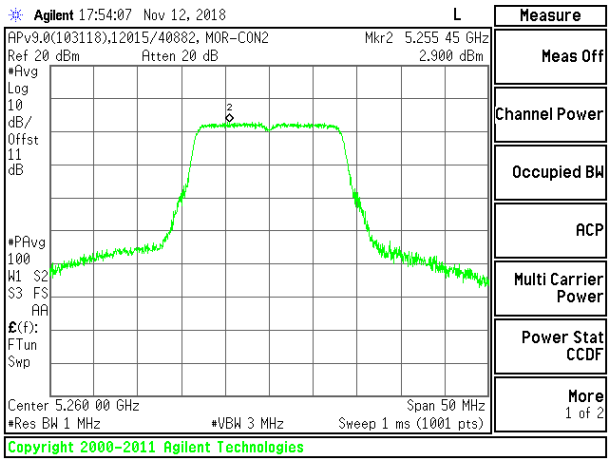
Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Ant Gain (dBi)	EIRP Limit (dBm)
Low	5260	16.5231	0.94	29.18
Mid	5300	16.6215	0.94	29.21
High	5320	16.6122	0.94	29.20

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

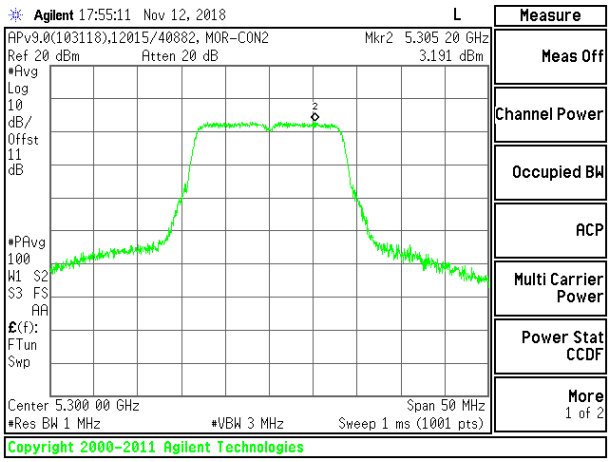
Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
Low	5260	13.83	14.77	29.18	-14.41
Mid	5300	13.38	14.32	29.21	-14.89
High	5320	13.74	14.68	29.20	-14.52

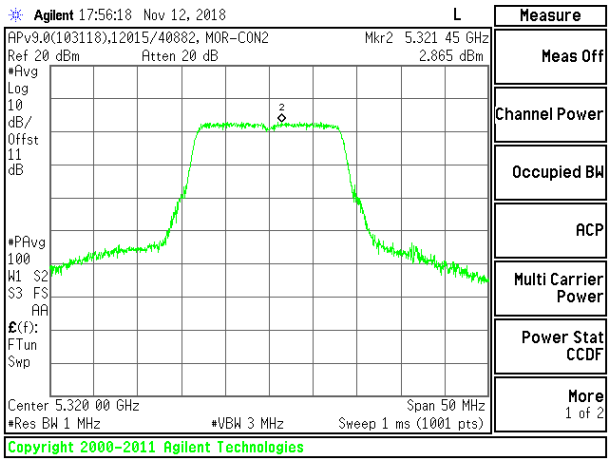
Note: Power measurements were gated average. Therefore no correction factor required.



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

FCC+ISED (TPC)

TPC Limits

Channel	Frequency (MHz)	Limit EIRP (dBm)	Directional Gain (dBi)	Limit Cond (dBm)
Low	5260	24	0.94	23.06
Mid	5300	24	0.94	23.06
High	5320	24	0.94	23.06

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

TPC Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Corr'd Power (dBm)	Cond Limit (dBm)	Margin (dB)
Low	5260	13.83	13.83	23.06	-9.23
Mid	5300	13.38	13.38	23.06	-9.68
High	5320	13.74	13.74	23.06	-9.32

Note - EIRP is less than 500 mW, therefore no TPC is required.

8.5.8. 802.11a MODE IN THE 5.3 GHz BAND – ANTENNA 2

FCC

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	21.950	0.94	24.00	11.00
Mid	5300	21.917	0.94	24.00	11.00
High	5320	21.917	0.94	24.00	11.00

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

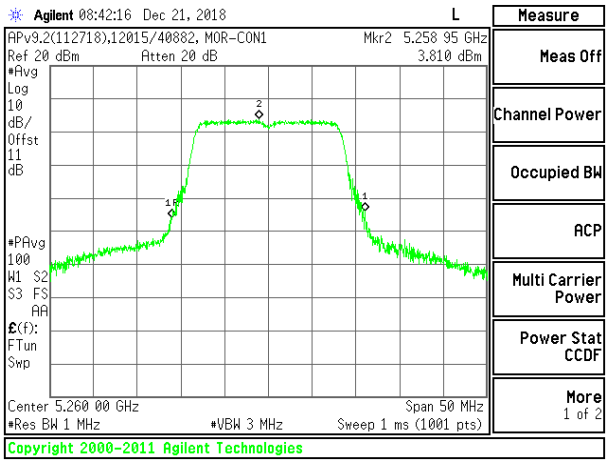
Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	14.49	14.49	24.00	-9.51
Mid	5300	14.57	14.57	24.00	-9.43
High	5320	14.52	14.52	24.00	-9.48

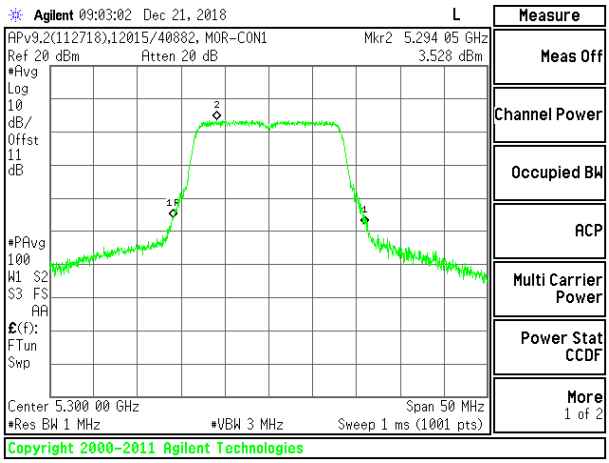
PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5260	3.810	3.810	11.00	-7.19
Mid	5300	3.528	3.528	11.00	-7.47
High	5320	3.669	3.669	11.00	-7.33

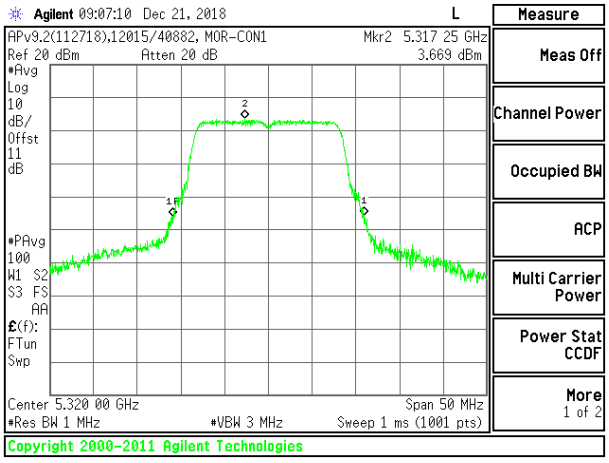
Note: Power measurements were gated average. Therefore no correction factor required.



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

ISED (Power)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Low	5260	16.5735	0.94	23.19	11.00
Mid	5300	16.5357	0.94	23.18	11.00
High	5320	16.5132	0.94	23.18	11.00

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

Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	14.49	14.49	23.19	-8.70
Mid	5300	14.57	14.57	23.18	-8.61
High	5320	14.52	14.52	23.18	-8.66

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5260	3.810	3.810	11.00	-7.19
Mid	5300	3.528	3.528	11.00	-7.47
High	5320	3.669	3.669	11.00	-7.33

Note: Power measurements were gated average. Therefore no correction factor required.

ISED (EIRP)

Bandwidth, Antenna Gain and Limits

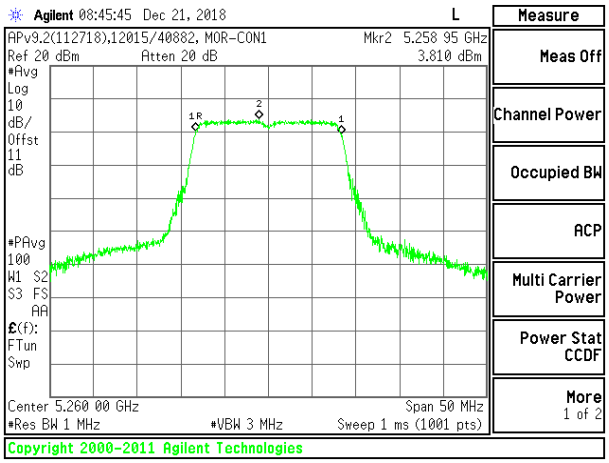
Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Ant Gain (dBi)	EIRP Limit (dBm)
Low	5260	16.5735	0.94	29.19
Mid	5300	16.5357	0.94	29.18
High	5320	16.5132	0.94	29.18

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

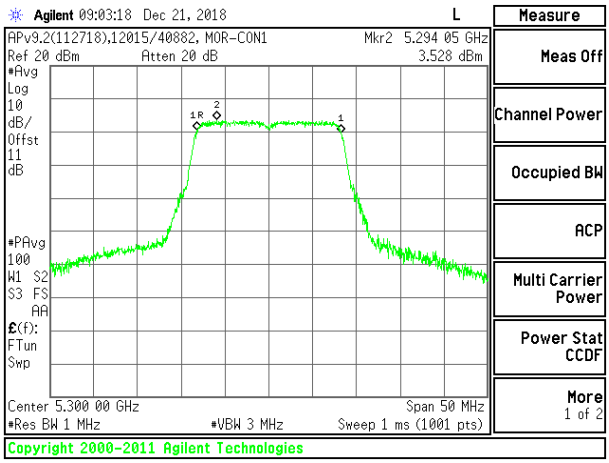
Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
Low	5260	14.49	15.43	29.19	-13.76
Mid	5300	14.57	15.51	29.18	-13.67
High	5320	14.52	15.46	29.18	-13.72

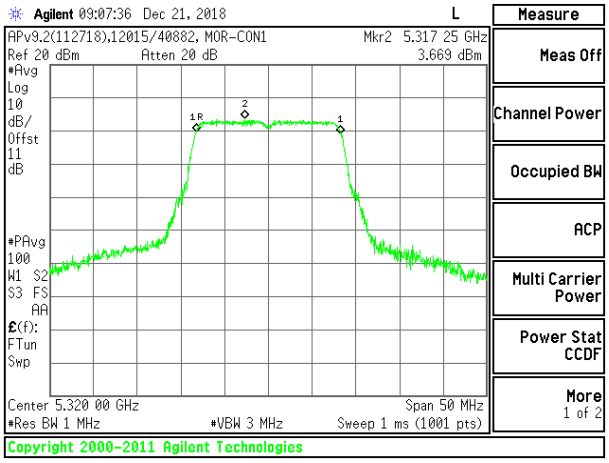
Note: Power measurements were gated average. Therefore no correction factor required.



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

FCC+ISED (TPC)

TPC Limits

Channel	Frequency (MHz)	Limit EIRP (dBm)	Directional Gain (dBi)	Limit Cond (dBm)
Low	5260	24	0.94	23.06
Mid	5300	24	0.94	23.06
High	5320	24	0.94	23.06

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

TPC Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Corr'd Power (dBm)	Cond Limit (dBm)	Margin (dB)
Low	5260	14.49	14.49	23.06	-8.57
Mid	5300	14.57	14.57	23.06	-8.49
High	5320	14.52	14.52	23.06	-8.54

Note - EIRP is less than 500 mW, therefore no TPC is required.

UL LLC
12 Laboratory Dr., RTP, NC 27709; USA TEL:(919) 549-1400

8.5.9. 802.11n HT20 MODE IN THE 5.3 GHz BAND – ANTENNA 1

FCC

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	21.833	0.94	24.00	11.00
Mid	5300	22.217	0.94	24.00	11.00
High	5320	22.067	0.94	24.00	11.00

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

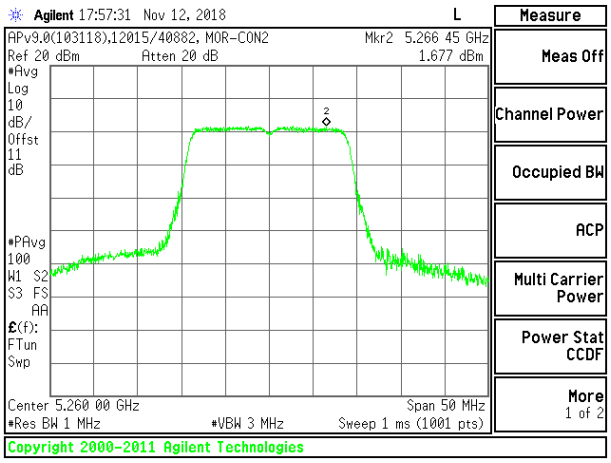
Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	11.92	11.92	24.00	-12.08
Mid	5300	11.74	11.74	24.00	-12.26
High	5320	11.94	11.94	24.00	-12.06

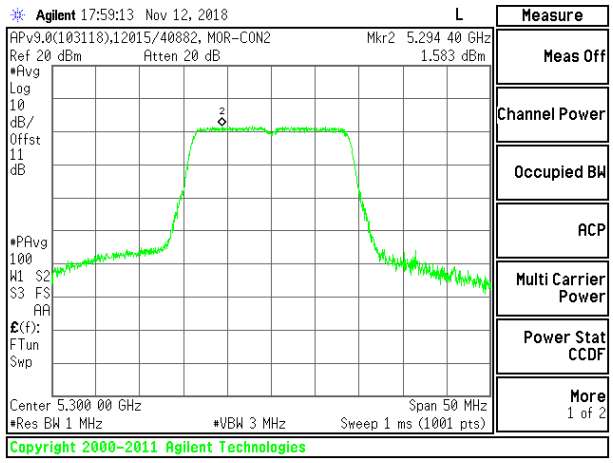
PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5260	1.677	1.677	11.00	-9.32
Mid	5300	1.583	1.583	11.00	-9.42
High	5320	1.667	1.667	11.00	-9.33

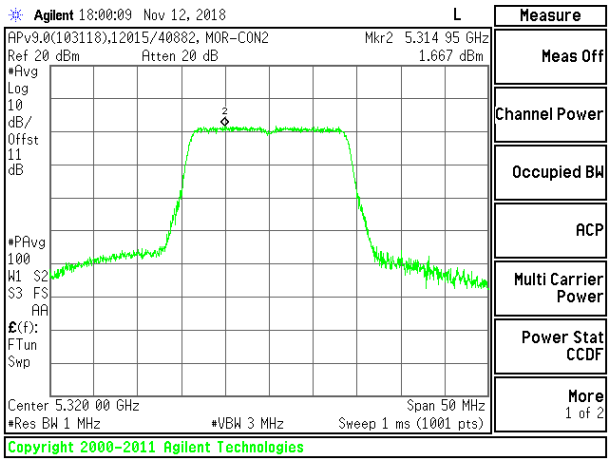
Note: Power measurements were gated average. Therefore no correction factor required.



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

ISED (Power)

Power

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Low	5260	17.7694	0.94	23.50	11.00
Mid	5300	17.8407	0.94	23.51	11.00
High	5320	17.8158	0.94	23.51	11.00

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

Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	11.92	11.92	23.50	-11.58
Mid	5300	11.74	11.74	23.51	-11.77
High	5320	11.94	11.94	23.51	-11.57

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5260	1.677	1.677	11.00	-9.32
Mid	5300	1.583	1.583	11.00	-9.42
High	5320	1.667	1.667	11.00	-9.33

Note: Power measurements were gated average. Therefore no correction factor required.

ISED (EIRP)

Bandwidth, Antenna Gain and Limits

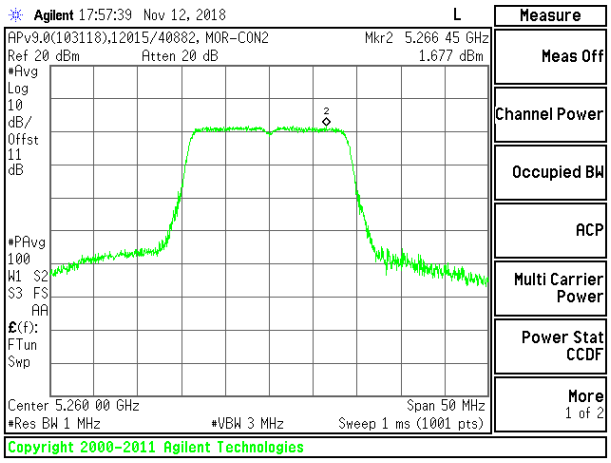
Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Ant Gain (dBi)	EIRP Limit (dBm)
Low	5260	17.7694	0.94	29.50
Mid	5300	17.8407	0.94	29.51
High	5320	17.8158	0.94	29.51

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

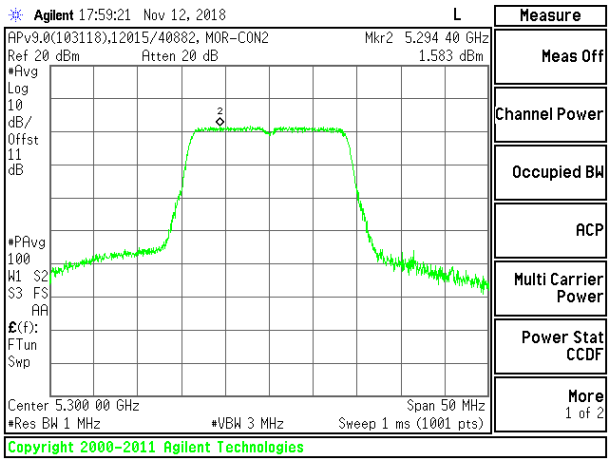
Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
Low	5260	11.92	12.86	29.50	-16.64
Mid	5300	11.74	12.68	29.51	-16.83
High	5320	11.94	12.88	29.51	-16.63

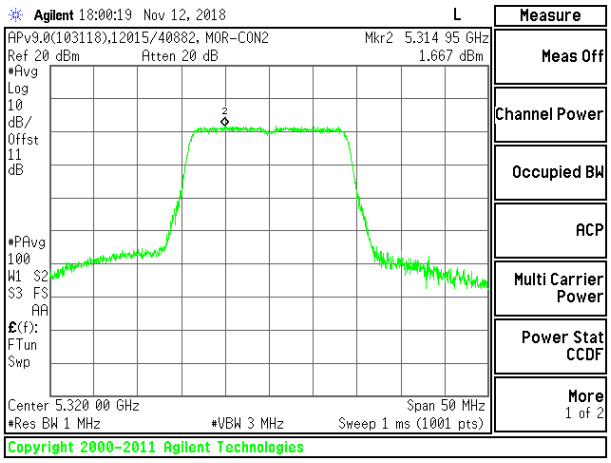
Note: Power measurements were gated average. Therefore no correction factor required.



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

FCC+ISED (TPC)

TPC Limits

Channel	Frequency (MHz)	Limit EIRP (dBm)	Directional Gain (dBi)	Limit Cond (dBm)
Low	5260	24	0.94	23.06
Mid	5300	24	0.94	23.06
High	5320	24	0.94	23.06

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

TPC Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Corr'd Power (dBm)	Cond Limit (dBm)	Margin (dB)
Low	5260	11.92	11.92	23.06	-11.14
Mid	5300	11.74	11.74	23.06	-11.32
High	5320	11.94	11.94	23.06	-11.12

Note – EIRP is less than 500 mW, therefore no TPC is required.

8.5.10. 802.11n HT20 MODE IN THE 5.3 GHz BAND – ANTENNA 2

FCC

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	22.133	0.94	24.00	11.00
Mid	5300	22.250	0.94	24.00	11.00
High	5320	22.183	0.94	24.00	11.00

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

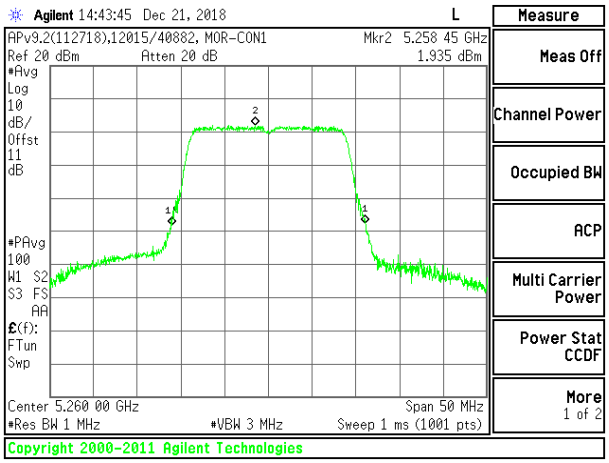
Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	12.83	12.83	24.00	-11.17
Mid	5300	12.77	12.77	24.00	-11.23
High	5320	12.81	12.81	24.00	-11.19

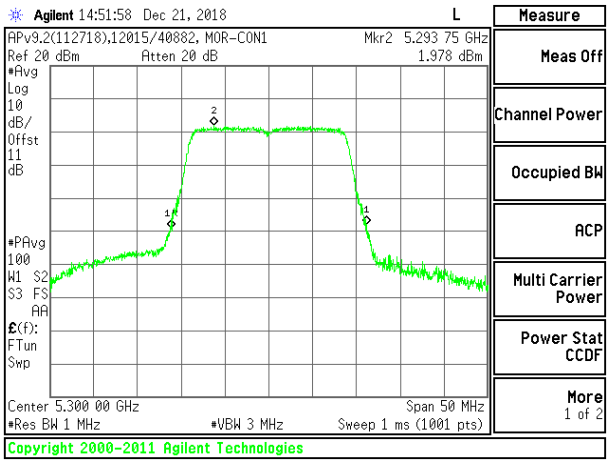
PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5260	1.935	1.935	11.00	-9.07
Mid	5300	1.978	1.978	11.00	-9.02
High	5320	1.971	1.971	11.00	-9.03

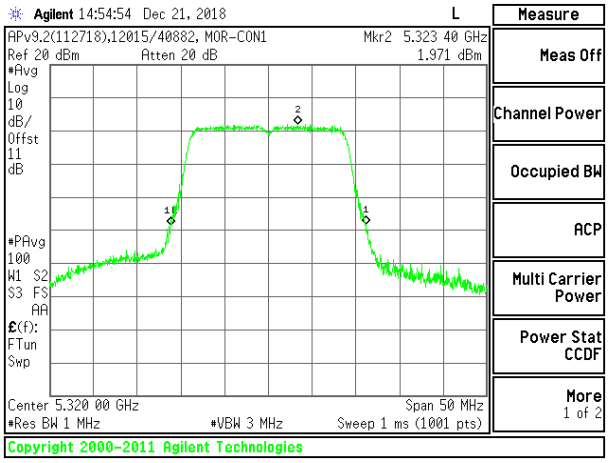
Note: Power measurements were gated average. Therefore no correction factor required.



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

ISED (Power)

Power

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Low	5260	17.6963	0.94	23.48	11.00
Mid	5300	17.8165	0.94	23.51	11.00
High	5320	17.7900	0.94	23.50	11.00

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

Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	12.83	12.83	23.48	-10.65
Mid	5300	12.77	12.77	23.51	-10.74
High	5320	12.81	12.81	23.50	-10.69

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5260	1.935	1.935	11.00	-9.07
Mid	5300	1.978	1.978	11.00	-9.02
High	5320	1.971	1.971	11.00	-9.03

Note: Power measurements were gated average. Therefore no correction factor required.

ISED (EIRP)

Bandwidth, Antenna Gain and Limits

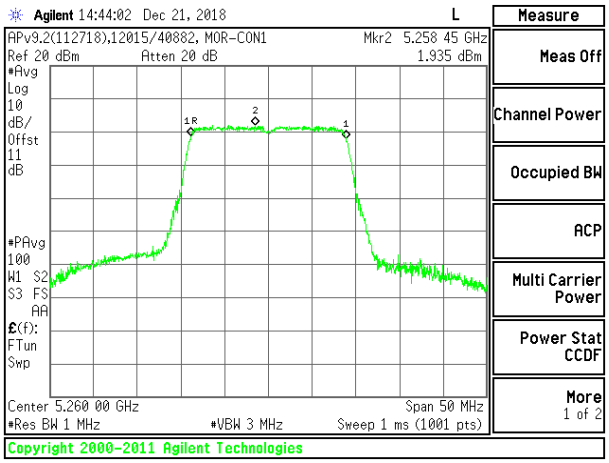
Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Ant Gain (dBi)	EIRP Limit (dBm)
Low	5260	17.6963	0.94	29.48
Mid	5300	17.8165	0.94	29.51
High	5320	17.7900	0.94	29.50

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

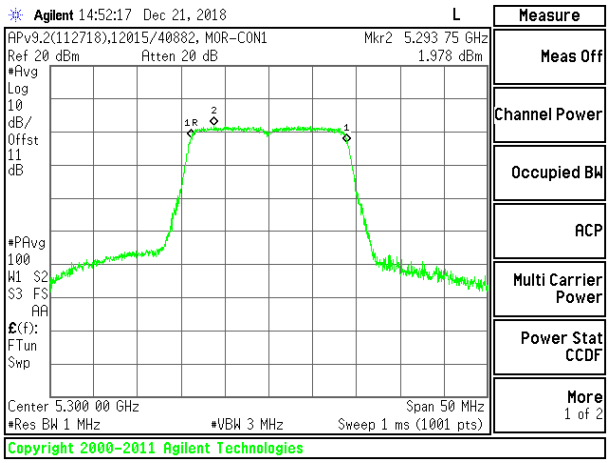
Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
Low	5260	12.83	13.77	29.48	-15.71
Mid	5300	12.77	13.71	29.51	-15.80
High	5320	12.81	13.75	29.50	-15.75

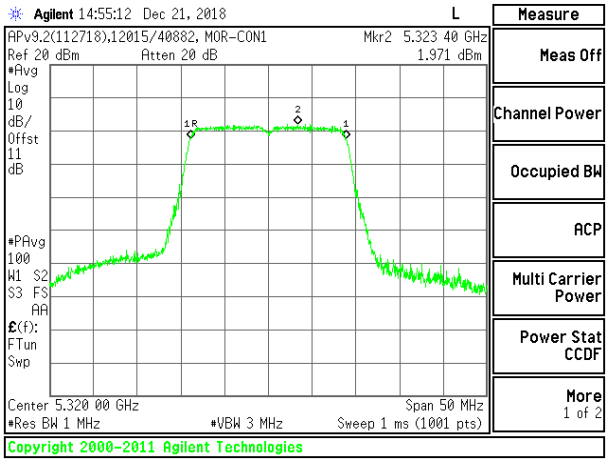
Note: Power measurements were gated average. Therefore no correction factor required.



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

FCC+ISED (TPC)

TPC Limits

Channel	Frequency (MHz)	Limit EIRP (dBm)	Directional Gain (dBi)	Limit Cond (dBm)
Low	5260	24	0.94	23.06
Mid	5300	24	0.94	23.06
High	5320	24	0.94	23.06

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

TPC Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Corr'd Power (dBm)	Cond Limit (dBm)	Margin (dB)
Low	5260	12.83	12.83	23.06	-10.23
Mid	5300	12.77	12.77	23.06	-10.29
High	5320	12.81	12.81	23.06	-10.25

Note – EIRP is less than 500 mW, therefore no TPC is required.

UL LLC
12 Laboratory Dr., RTP, NC 27709; USA TEL:(919) 549-1400

8.5.11. 802.11n HT40 MODE IN THE 5.3 GHz BAND – ANTENNA 1

FCC

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	41.27	0.94	24.00	11.00
High	5310	41.07	0.94	24.00	11.00

Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd PSD

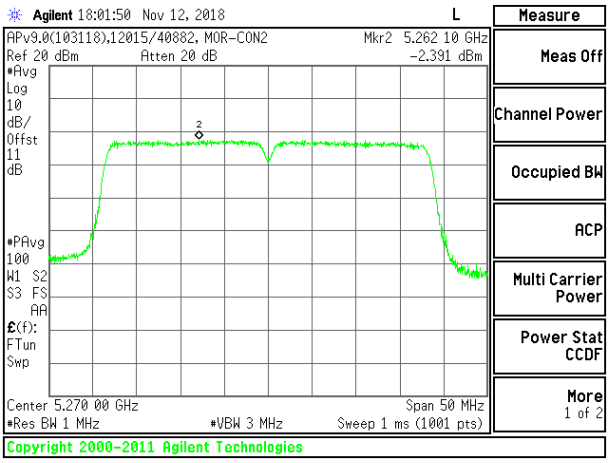
Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5270	10.71	10.71	24.00	-13.29
High	5310	10.74	10.74	24.00	-13.26

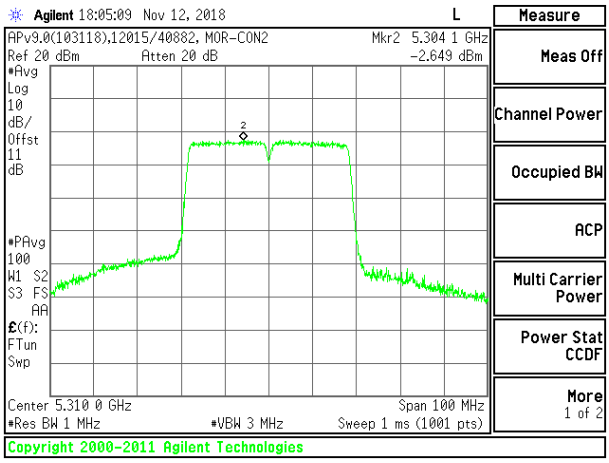
PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5270	-2.391	-2.29	11.00	-13.29
High	5310	-2.649	-2.55	11.00	-13.55

Note: Power measurements were gated average. Therefore no correction factor required.



LOW CHANNEL



HIGH CHANNEL

ISED (Power)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Low	5270	36.3945	0.94	24.00	11.00
High	5310	36.3409	0.94	24.00	11.00

Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd PSD

Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5270	10.71	10.71	24.00	-13.29
High	5310	10.74	10.74	24.00	-13.26

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5270	-2.3910	-2.2910	11.00	-13.29
High	5310	-2.6490	-2.5490	11.00	-13.55

Note: Power measurements were gated average. Therefore no correction factor required.

ISED (EIRP)

Bandwidth, Antenna Gain and Limits

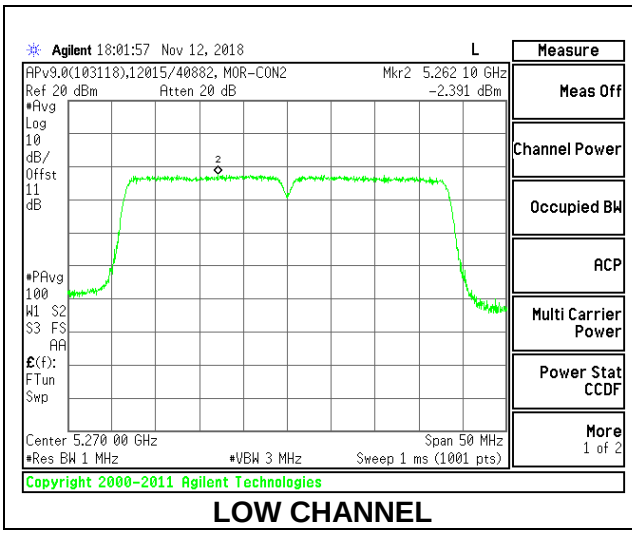
Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Ant Gain (dBi)	EIRP Limit (dBm)
Low	5270	36.3945	0.94	30.00
High	5310	36.3409	0.94	30.00

Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd Power & PSD

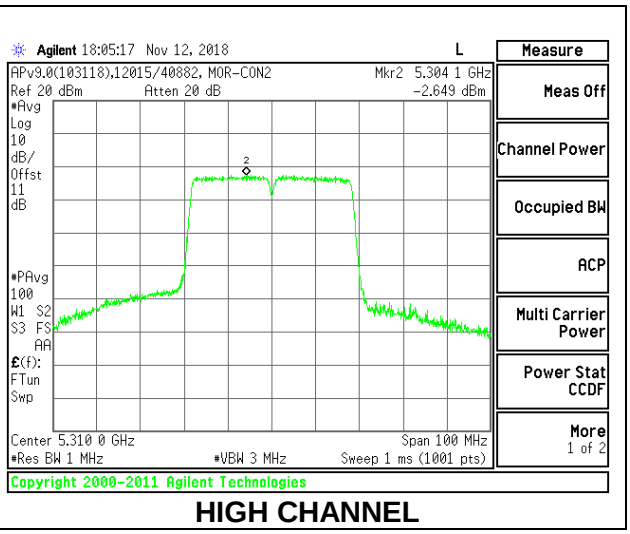
Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
Low	5270	10.71	11.75	30.00	-18.25
High	5310	10.74	11.78	30.00	-18.22

Note: Power measurements were gated average. Therefore no correction factor required.



LOW CHANNEL



HIGH CHANNEL

FCC+ISED (TPC)

TPC Limits

Channel	Frequency (MHz)	Limit EIRP (dBm)	Directional Gain (dBi)	Limit Cond (dBm)
Low	5270	24	0.94	23.06
High	5310	24	0.94	23.06

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

TPC Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Corr'd Power (dBm)	Cond Limit (dBm)	Margin (dB)
Low	5270	10.71	10.71	23.06	-12.35
High	5310	10.74	10.74	23.06	-12.32

Note – Power measurements were gated average. Therefore no correction factor required. Additionally, EIRP is less than 500 mW, therefore no TPC is required.

8.5.12. 802.11n HT40 MODE IN THE 5.3 GHz BAND – ANTENNA 2

FCC

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	41.1300	0.94	24.00	11.00
High	5310	40.9000	0.94	24.00	11.00

Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd PSD

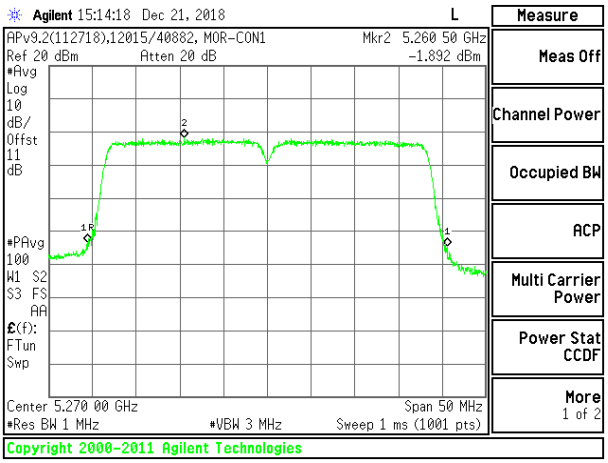
Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5270	11.78	11.78	24.00	-12.22
High	5310	11.71	11.71	24.00	-12.29

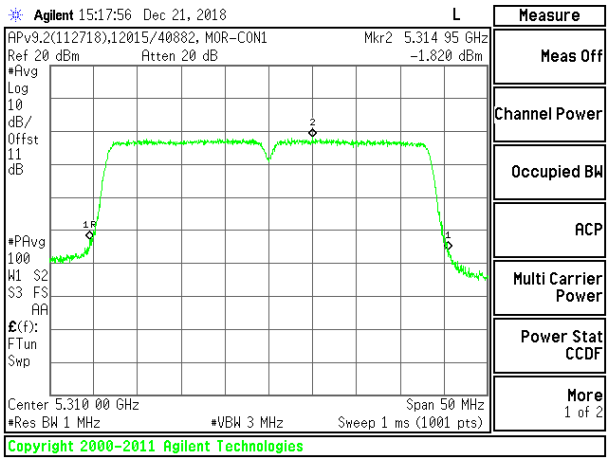
PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5270	-1.892	-1.79	11.00	-12.79
High	5310	-1.820	-1.72	11.00	-12.72

Note: Power measurements were gated average. Therefore no correction factor required.



LOW CHANNEL



HIGH CHANNEL

ISED (Power)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Low	5270	36.3617	0.94	24.00	11.00
High	5310	36.3228	0.94	24.00	11.00

Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd PSD

Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5270	11.78	11.78	24.00	-12.22
High	5310	11.71	11.71	24.00	-12.29

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5270	-1.892	-1.7920	11.00	-12.79
High	5310	-1.820	-1.7200	11.00	-12.72

Note: Power measurements were gated average. Therefore no correction factor required.

ISED (EIRP)

Bandwidth, Antenna Gain, and Limits

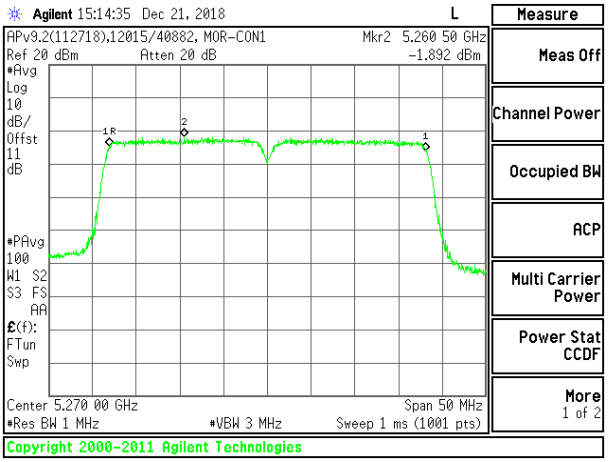
Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Ant. Gain (dBi)	EIRP Limit (dBm)
Low	5270	36.3617	0.94	30.00
High	5310	36.3228	0.94	30.00

Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd Power & PSD

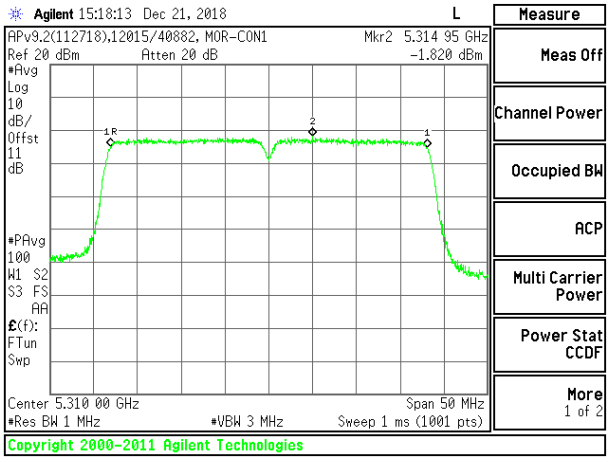
Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
Low	5270	11.78	12.82	30.00	-17.18
High	5310	11.71	12.75	30.00	-17.25

Note: Power measurements were gated average. Therefore no correction factor required.



LOW CHANNEL



HIGH CHANNEL

FCC+ISED (TPC)

TPC Limits

Channel	Frequency (MHz)	Limit EIRP (dBm)	Directional Gain (dBi)	Limit Cond (dBm)
Low	5270	24	0.94	23.06
High	5310	24	0.94	23.06

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

TPC Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Corr'd Power (dBm)	Cond Limit (dBm)	Margin (dB)
Low	5270	11.78	11.78	23.06	-11.28
High	5310	11.71	11.71	23.06	-11.35

Note – Power measurements were gated average. Therefore no correction factor required. Additionally, EIRP is less than 500 mW, therefore no TPC is required.

UL LLC
12 Laboratory Dr., RTP, NC 27709; USA TEL:(919) 549-1400

8.5.13. 802.11a MODE IN THE 5.6 GHz BAND – ANTENNA 1

FCC+ISED

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5500	22.0170	16.5511	0.94
Mid	5580	22.0500	16.5639	0.94
High	5700	22.2000	16.5652	0.94

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm/1MHz)	ISED PSD Limit (dBm/1MHz)	PSD Limit (dBm/1MHz)
Low	5500	24.00	23.19	29.19	23.19	11.00	11.00	11.00
Mid	5580	24.00	23.19	29.19	23.19	11.00	11.00	11.00
High	5700	24.00	23.19	29.19	23.19	11.00	11.00	11.00

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

Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	13.560	13.56	23.19	-9.63
Mid	5580	12.820	12.82	23.19	-10.37
High	5700	13.230	13.23	23.19	-9.96

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5500	2.578	2.578	11.00	-8.42
Mid	5580	2.729	2.729	11.00	-8.27
High	5700	2.596	2.596	11.00	-8.40

Note: Power measurements were gated average. Therefore no correction factor required.

ISED (EIRP)

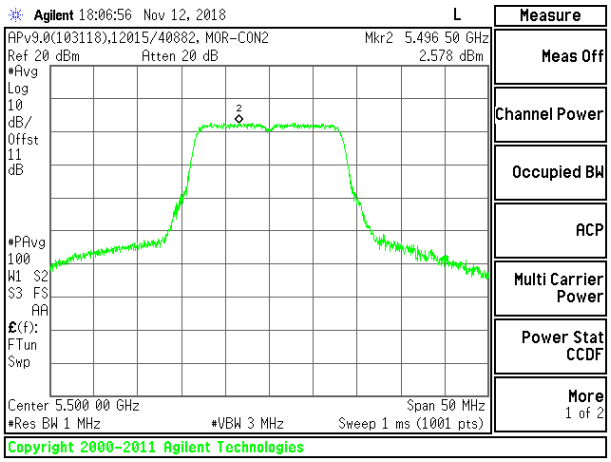
Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Ant. Gain (dBi)	EIRP Limit (dBm)
Low	5500	16.5511	0.94	29.19
Mid	5580	16.5639	0.94	29.19
High	5700	16.5652	0.94	29.19

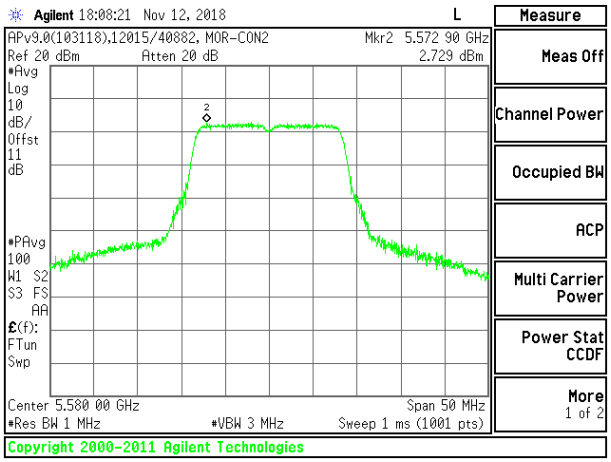
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

Output Power Results

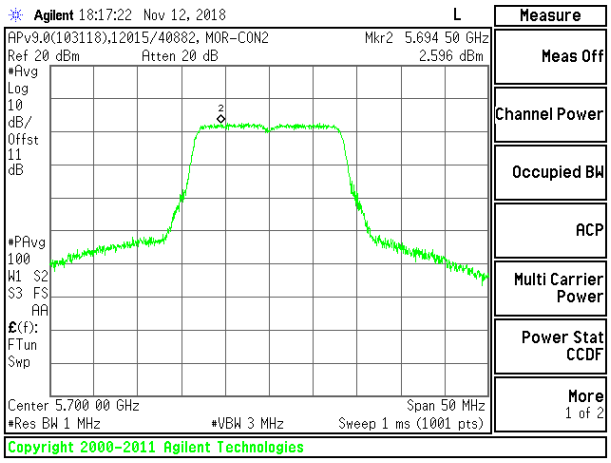
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
Low	5500	13.560	14.50	29.19	-14.69
Mid	5580	12.820	13.76	29.19	-15.43
High	5700	13.230	14.17	29.19	-15.02



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

FCC+ISED (TPC)

TPC Limits

Channel	Frequency (MHz)	Limit EIRP (dBm)	Directional Gain (dBi)	Limit Cond (dBm)
Low	5500	24	0.94	23.06
Mid	5580	24	0.94	23.06
High	5700	24	0.94	23.06

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

TPC Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Corr'd Power (dBm)	Cond Limit (dBm)	Margin (dB)
Low	5500	13.560	13.56	23.06	-9.50
Mid	5580	12.820	12.82	23.06	-10.24
High	5700	13.230	13.23	23.06	-9.83

Note – Additionally, EIRP is less than 500 mW, therefore no TPC is required.

8.5.14. 802.11a MODE IN THE 5.6 GHz BAND – ANTENNA 2

FCC+ISED

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5500	21.9830	16.5812	0.94
Mid	5580	22.1330	16.6579	0.94
High	5700	22.0670	16.5687	0.94

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm/1MHz)	ISED PSD Limit (dBm/1MHz)	PSD Limit (dBm/1MHz)
Low	5500	24.00	23.20	29.20	23.20	11.00	11.00	11.00
Mid	5580	24.00	23.22	29.22	23.22	11.00	11.00	11.00
High	5700	24.00	23.19	29.19	23.19	11.00	11.00	11.00

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

Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	14.510	14.51	23.20	-8.69
Mid	5580	14.360	14.36	23.22	-8.86
High	5700	14.180	14.18	23.19	-9.01

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5500	3.329	3.329	11.00	-7.67
Mid	5580	3.222	3.222	11.00	-7.78
High	5700	3.481	3.481	11.00	-7.52

Note: Power measurements were gated average. Therefore no correction factor required.

ISED (EIRP)

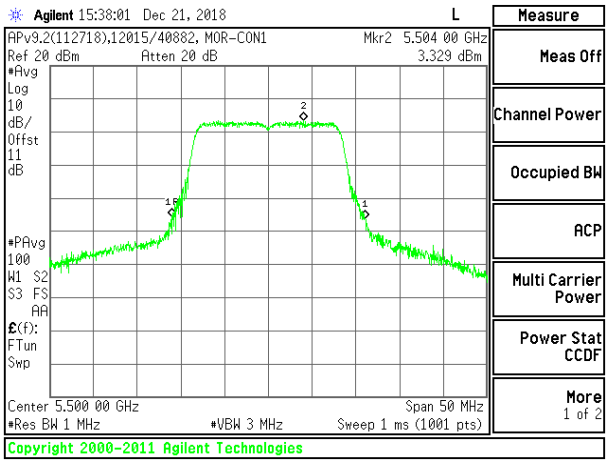
Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Ant. Gain (dBi)	EIRP Limit (dBm)
Low	5500	16.5812	0.94	29.20
Mid	5580	16.6579	0.94	29.22
High	5700	16.5687	0.94	29.19

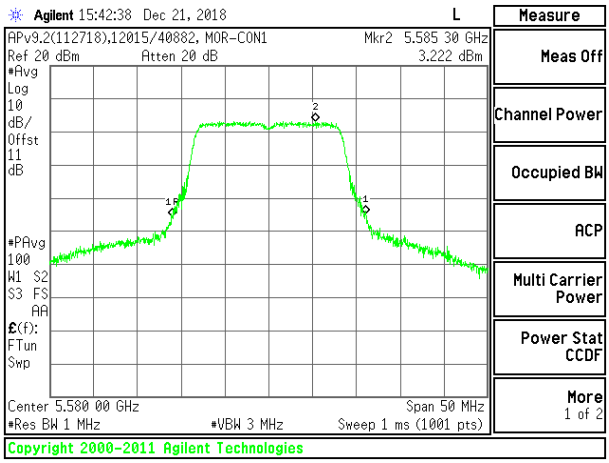
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

Output Power Results

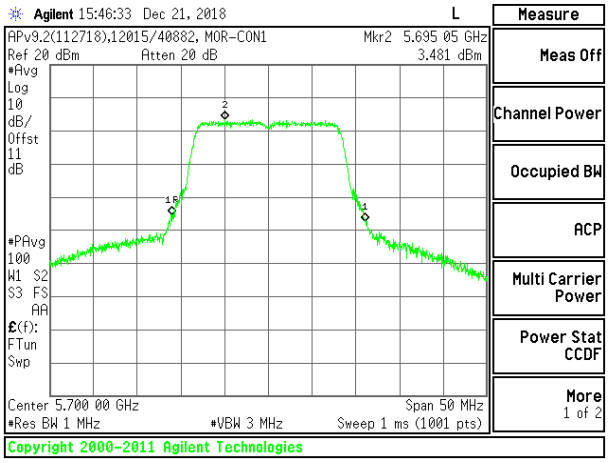
Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
Low	5500	14.510	15.45	29.20	-13.75
Mid	5580	14.360	15.30	29.22	-13.92
High	5700	14.180	15.12	29.19	-14.07



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

FCC+ISED (TPC)

TPC Limits

Channel	Frequency (MHz)	Limit EIRP (dBm)	Directional Gain (dBi)	Limit Cond (dBm)
Low	5500	24	0.94	23.06
Mid	5580	24	0.94	23.06
High	5700	24	0.94	23.06

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

TPC Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Corr'd Power (dBm)	Cond Limit (dBm)	Margin (dB)
Low	5500	14.510	14.51	23.06	-8.55
Mid	5580	14.360	14.36	23.06	-8.70
High	5700	14.180	14.18	23.06	-8.88

Note – Additionally, EIRP is less than 500 mW, therefore no TPC is required.

8.5.15. 802.11n HT20 MODE IN THE 5.6 GHz BAND – ANTENNA 1

FCC+ISED

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5500	22.1170	17.8347	0.94
Mid	5580	21.9500	17.7093	0.94
High	5700	22.1170	17.7344	0.94

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm/1MHz)	ISED PSD Limit (dBm/1MHz)	PSD Limit (dBm/1MHz)
Low	5500	24.00	23.51	29.51	23.51	11.00	11.00	11.00
Mid	5580	24.00	23.48	29.48	23.48	11.00	11.00	11.00
High	5700	24.00	23.49	29.49	23.49	11.00	11.00	11.00

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

Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	12.380	12.38	23.51	-11.13
Mid	5580	11.940	11.94	23.48	-11.54
High	5700	12.100	12.10	23.49	-11.39

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5500	1.543	1.543	11.00	-9.46
Mid	5580	1.742	1.742	11.00	-9.26
High	5700	1.428	1.428	11.00	-9.57

Note: Power measurements were gated average. Therefore no correction factor required.

ISED (EIRP)

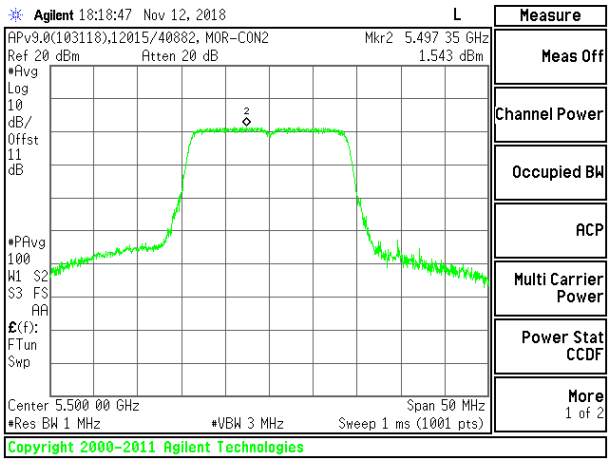
Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Ant. Gain (dBi)	EIRP Limit (dBm)
Low	5500	17.8347	0.94	29.51
Mid	5580	17.7093	0.94	29.48
High	5700	17.7344	0.94	29.49

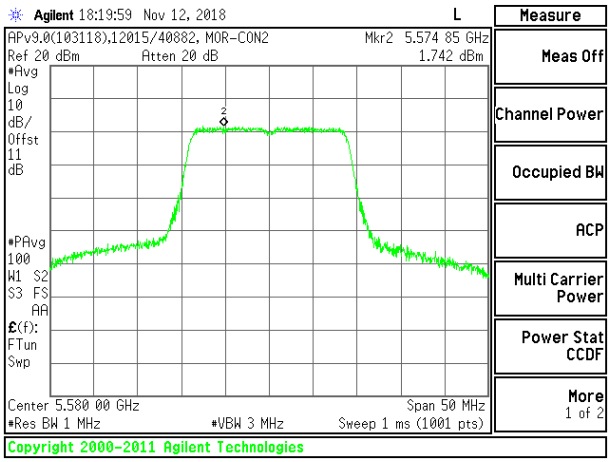
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

Output Power Results

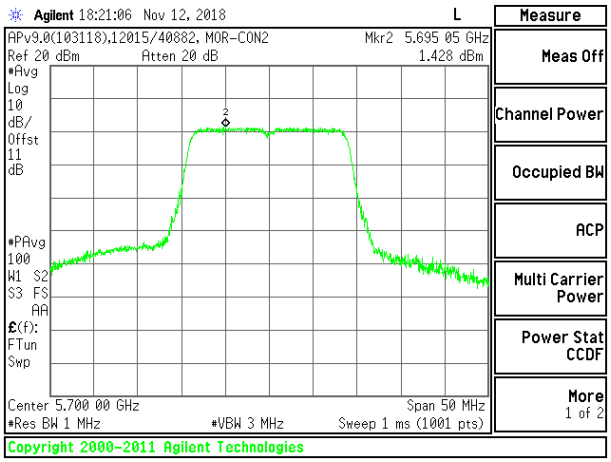
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
Low	5500	12.380	13.32	29.51	-16.19
Mid	5580	11.940	12.88	29.48	-16.60
High	5700	12.100	13.04	29.49	-16.45



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

FCC+ISED (TPC)

TPC Limits

Channel	Frequency (MHz)	Limit EIRP (dBm)	Directional Gain (dBi)	Limit Cond (dBm)
Low	5500	24	0.94	23.06
Mid	5580	24	0.94	23.06
High	5700	24	0.94	23.06

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

TPC Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Corr'd Power (dBm)	Cond Limit (dBm)	Margin (dB)
Low	5500	12.38	12.38	23.06	-10.68
Mid	5580	11.94	11.94	23.06	-11.12
High	5700	12.10	12.10	23.06	-10.96

Note – EIRP is less than 500 mW, therefore no TPC is required.

8.5.16. 802.11n HT20 MODE IN THE 5.6 GHz BAND – ANTENNA 2

FCC+ISED

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5500	22.1830	17.6648	0.94
Mid	5580	22.0830	17.8556	0.94
High	5700	22.3830	17.7635	0.94

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm/1MHz)	ISED PSD Limit (dBm/1MHz)	PSD Limit (dBm/1MHz)
Low	5500	24.00	23.47	29.47	23.47	11.00	11.00	11.00
Mid	5580	24.00	23.52	29.52	23.52	11.00	11.00	11.00
High	5700	24.00	23.50	29.50	23.50	11.00	11.00	11.00

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

Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	13.12	13.12	23.47	-10.35
Mid	5580	13.04	13.04	23.52	-10.48
High	5700	12.84	12.84	23.50	-10.66

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5500	1.873	1.873	11.00	-9.13
Mid	5580	1.405	1.405	11.00	-9.60
High	5700	1.338	1.338	11.00	-9.66

Note: Power measurements were gated average. Therefore no correction factor required.

ISED (EIRP)

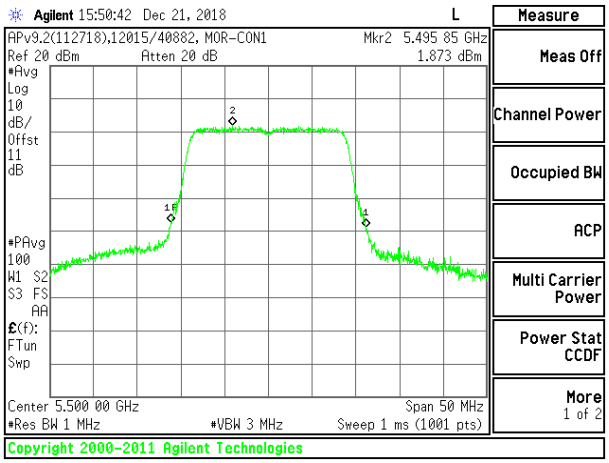
Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Ant. Gain (dBi)	EIRP Limit (dBm)
Low	5500	17.6648	0.94	29.47
Mid	5580	17.8556	0.94	29.52
High	5700	17.7635	0.94	29.50

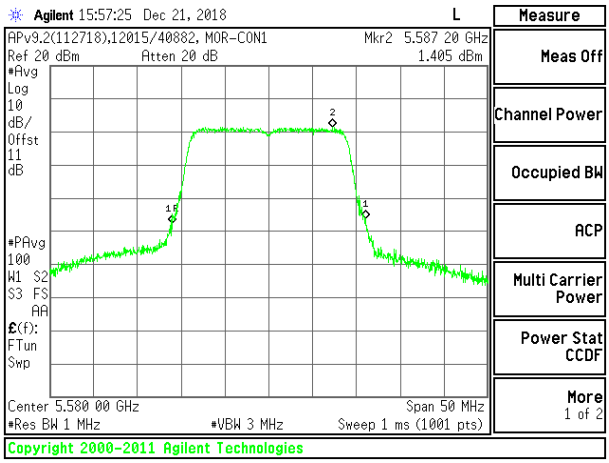
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

Output Power Results

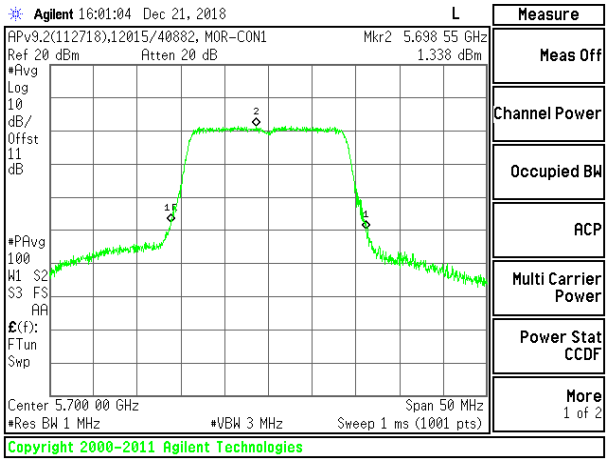
Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
Low	5500	13.12	14.06	29.47	-15.41
Mid	5580	13.04	13.98	29.52	-15.54
High	5700	12.84	13.78	29.50	-15.72



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

FCC+ISED (TPC)

TPC Limits

Channel	Frequency (MHz)	Limit EIRP (dBm)	Directional Gain (dBi)	Limit Cond (dBm)
Low	5500	24	0.94	23.06
Mid	5580	24	0.94	23.06
High	5700	24	0.94	23.06

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

TPC Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Corr'd Power (dBm)	Cond Limit (dBm)	Margin (dB)
Low	5500	13.12	13.12	23.06	-9.94
Mid	5580	13.04	13.04	23.06	-10.02
High	5700	12.84	12.84	23.06	-10.22

Note – EIRP is less than 500 mW, therefore no TPC is required.

8.5.17. 802.11n HT40 MODE IN THE 5.6 GHz BAND – ANTENNA 1

FCC+ISED

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5510	40.0900	36.4444	0.94
Mid	5550	41.3300	36.3628	0.94
High	5670	40.9700	36.4801	0.94

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm/ 1MHz)	ISED PSD Limit (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)
Low	5510	24.00	24.00	30.00	24.00	11.00	11.00	11.00
Mid	5550	24.00	24.00	30.00	24.00	11.00	11.00	11.00
High	5670	24.00	24.00	30.00	24.00	11.00	11.00	11.00

Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd PSD

Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	11.180	11.18	24.00	-12.82
Mid	5550	11.940	11.94	24.00	-12.06
High	5670	11.400	11.40	24.00	-12.60

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5510	-2.123	-2.023	11.00	-13.02
Mid	5550	-2.067	-1.967	11.00	-12.97
High	5670	-2.005	-1.905	11.00	-12.91

Note: Power measurements were gated average. Therefore no correction factor required.

ISED (EIRP)

Bandwidth, Antenna Gain, and Limits

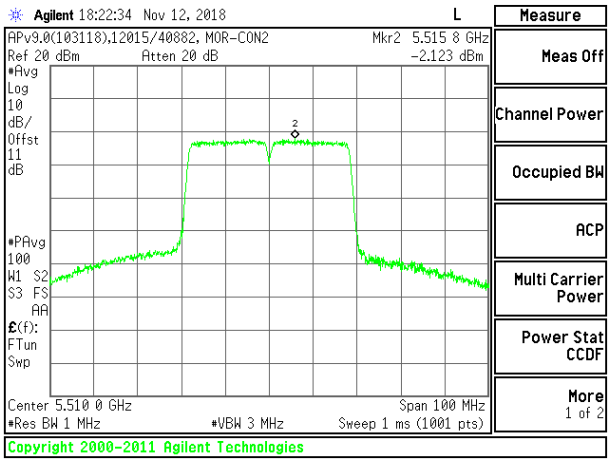
Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Ant. Gain (dBi)	EIRP Limit (dBm)
Low	5510	36.4444	0.94	30.00
Mid	5550	36.3628	0.94	30.00
High	5670	36.4801	0.94	30.00

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

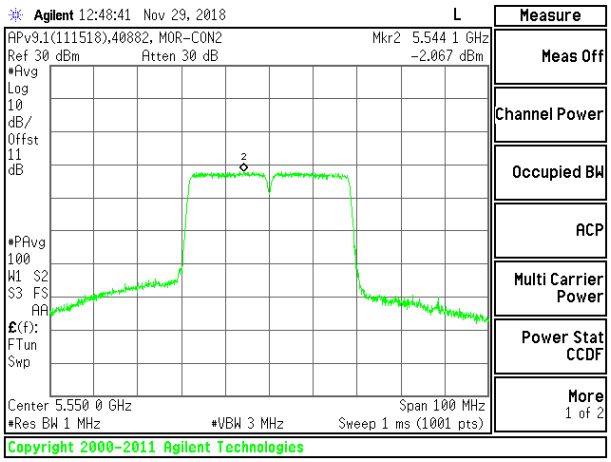
Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
Low	5510	11.180	12.12	30.00	-17.88
Mid	5550	11.940	12.88	30.00	-17.12
High	5670	11.400	12.34	30.00	-17.66

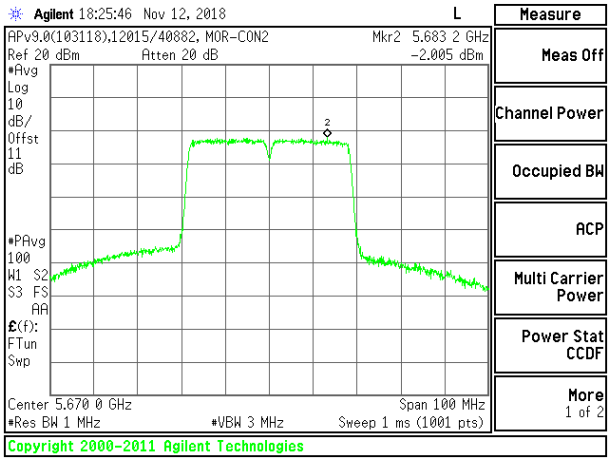
Note: Power measurements were gated average. Therefore no correction factor required for power.



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

FCC+ISED (TPC)

TPC Limits

Channel	Frequency (MHz)	Limit EIRP (dBm)	Directional Gain (dBi)	Limit Cond (dBm)
Low	5510	24	0.94	23.06
Mid	5550	24	0.94	23.06
High	5670	24	0.94	23.06

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

TPC Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Corr'd Power (dBm)	Cond Limit (dBm)	Margin (dB)
Low	5510	11.18	11.18	23.06	-11.88
Mid	5550	11.94	11.94	23.06	-11.12
High	5670	11.40	11.40	23.06	-11.66

Note – Power measurements were gated average. Therefore no correction factor required. Additionally, EIRP is less than 500 mW, therefore no TPC is required.

8.5.18. 802.11n HT40 MODE IN THE 5.6 GHz BAND – ANTENNA 2

FCC+ISED

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5510	40.83	36.4237	0.94
Mid	5550	41.43	36.5676	0.94
High	5670	40.93	36.3367	0.94

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm/ 1MHz)	ISED PSD Limit (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)
Low	5510	24.00	24.00	30.00	24.00	11.00	11.00	11.00
Mid	5550	24.00	24.00	30.00	24.00	11.00	11.00	11.00
High	5670	24.00	24.00	30.00	24.00	11.00	11.00	11.00

Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd PSD

Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	12.260	12.26	24.00	-11.74
Mid	5550	12.400	12.40	24.00	-11.60
High	5670	12.370	12.37	24.00	-11.63

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5510	-2.420	-2.320	11.00	-13.32
Mid	5550	-2.024	-1.924	11.00	-12.92
High	5670	-2.109	-2.009	11.00	-13.01

Note: Power measurements were gated average. Therefore no correction factor required.

ISED (EIRP)

Bandwidth, Antenna Gain, and Limits

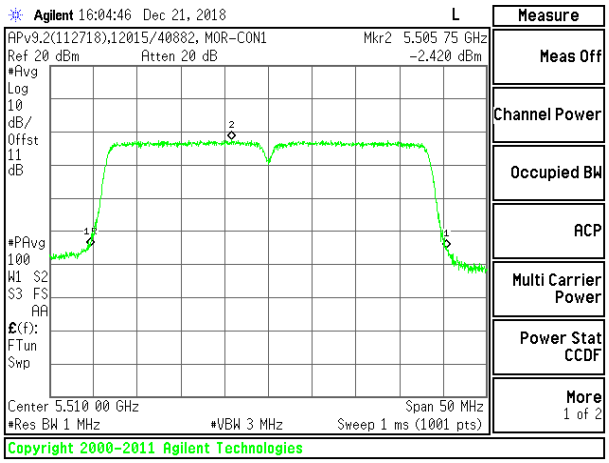
Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Ant. Gain (dBi)	EIRP Limit (dBm)
Low	5510	36.4237	0.94	30.00
Mid	5550	36.5676	0.94	30.00
High	5670	36.3367	0.94	30.00

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

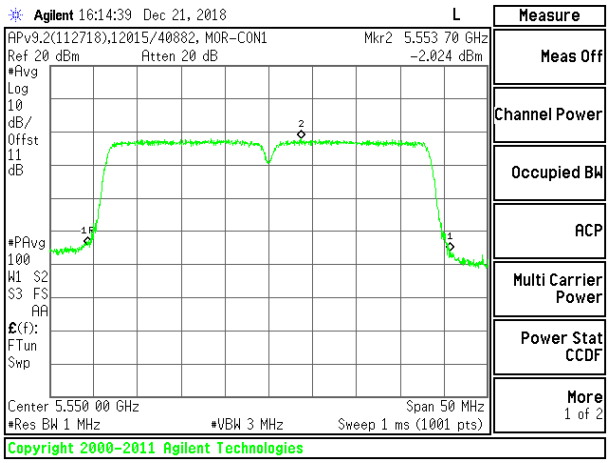
Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
Low	5510	12.260	13.20	30.00	-16.80
Mid	5550	12.400	13.34	30.00	-16.66
High	5670	12.370	13.31	30.00	-16.69

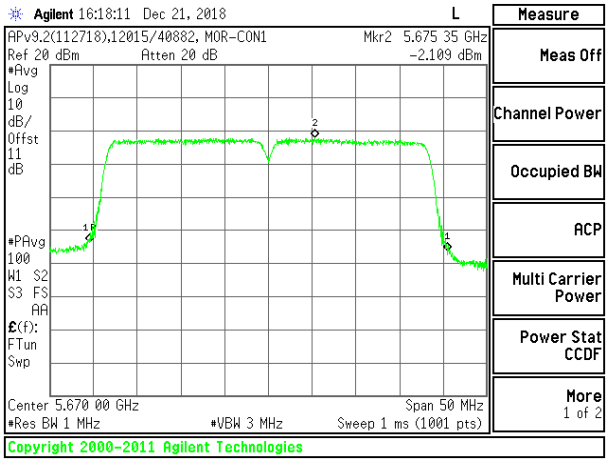
Note: Power measurements were gated average. Therefore no correction factor required for power.



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

FCC+ISED (TPC)

TPC Limits

Channel	Frequency (MHz)	Limit EIRP (dBm)	Directional Gain (dBi)	Limit Cond (dBm)
Low	5510	24	0.94	23.06
Mid	5550	24	0.94	23.06
High	5670	24	0.94	23.06

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

TPC Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Corr'd Power (dBm)	Cond Limit (dBm)	Margin (dB)
Low	5510	12.26	12.26	23.06	-10.80
Mid	5550	12.40	12.40	23.06	-10.66
High	5670	12.37	12.37	23.06	-10.69

Note – Power measurements were gated average. Therefore no correction factor required. Additionally, EIRP is less than 500 mW, therefore no TPC is required.

UL LLC
12 Laboratory Dr., RTP, NC 27709; USA TEL:(919) 549-1400

8.5.19. 802.11a MODE IN THE 5.8 GHz BAND – ANTENNA 1

FCC+ISED

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC/ISED Power Limit (dBm)	FCC/ISED PSD Limit (dBm/ 1MHz)
Low	5745	0.94	30.00	30.00
Mid	5785	0.94	30.00	30.00
High	5825	0.94	30.00	30.00

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

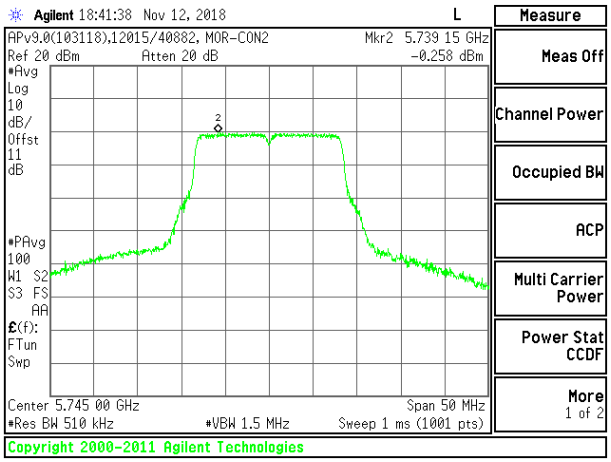
Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	12.92	12.92	30.00	-17.08
Mid	5785	12.75	12.75	30.00	-17.25
High	5825	12.62	12.62	30.00	-17.38

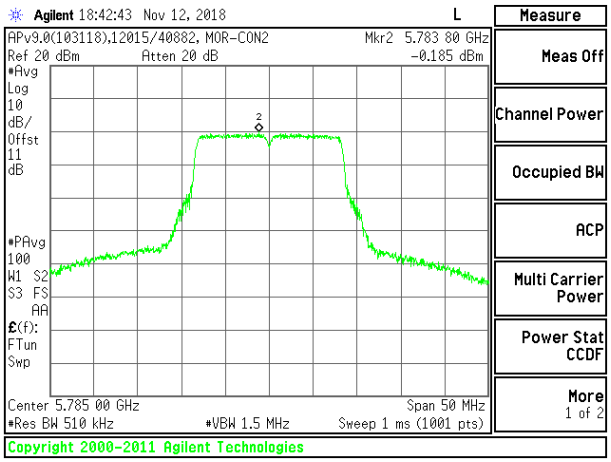
PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5745	-0.258	-0.258	30.00	-30.26
Mid	5785	-0.185	-0.185	30.00	-30.19
High	5825	-0.312	-0.312	30.00	-30.31

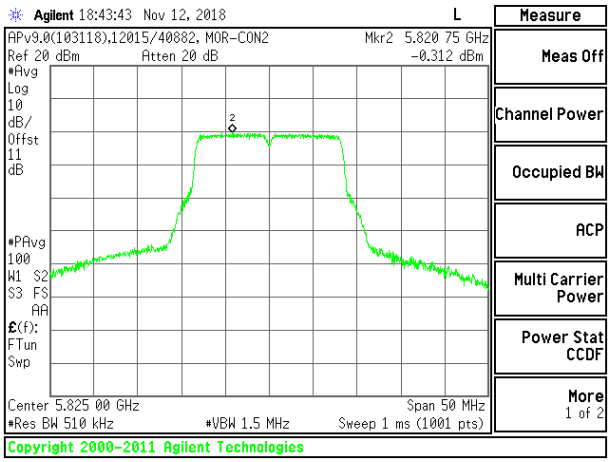
Note: Power measurements were gated average. Therefore no correction factor required.



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

8.5.20. 802.11a MODE IN THE 5.8 GHz BAND – ANTENNA 2

FCC+ISED

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC/ISED Power Limit (dBm)	FCC/ISED PSD Limit (dBm/ 1MHz)
Low	5745	0.94	30.00	30.00
Mid	5785	0.94	30.00	30.00
High	5825	0.94	30.00	30.00

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

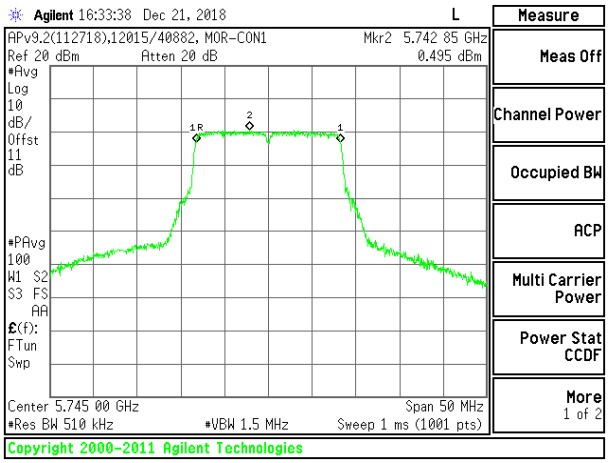
Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	13.94	13.94	30.00	-16.06
Mid	5785	13.91	13.91	30.00	-16.09
High	5825	13.83	13.83	30.00	-16.17

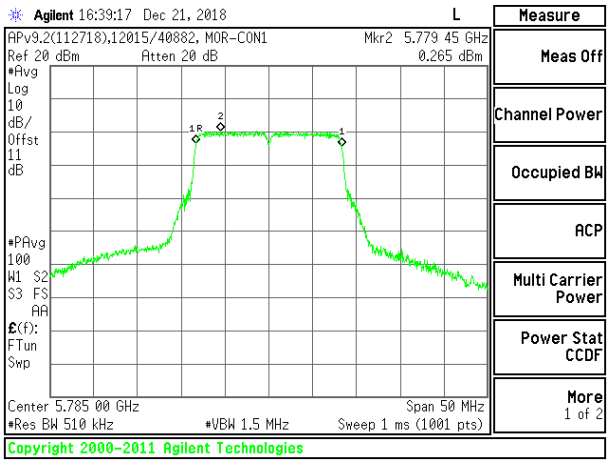
PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5745	0.495	0.495	30.00	-29.51
Mid	5785	0.265	0.265	30.00	-29.74
High	5825	0.286	0.286	30.00	-29.71

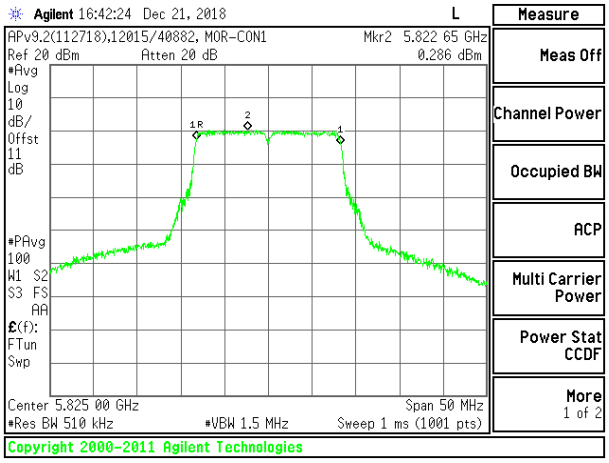
Note: Power measurements were gated average. Therefore no correction factor required.



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

8.5.21. 802.11n HT20 MODE IN THE 5.8 GHz BAND – ANTENNA 1

FCC+ISED

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC/ISED Power Limit (dBm)	FCC/ISED PSD Limit (dBm/ 1MHz)
Low	5745	0.94	30.00	30.00
Mid	5785	0.94	30.00	30.00
High	5825	0.94	30.00	30.00

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

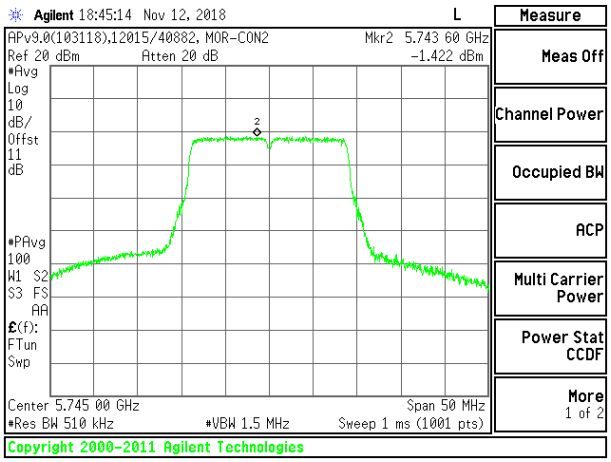
Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	11.81	11.81	30.00	-18.19
Mid	5785	11.70	11.70	30.00	-18.30
High	5825	11.33	11.33	30.00	-18.67

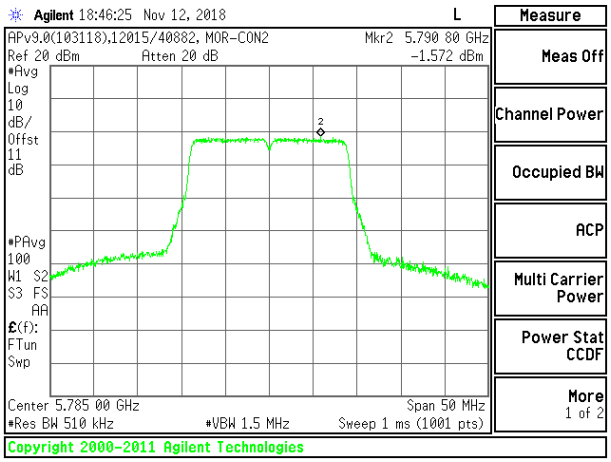
PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5745	-1.422	-1.422	30.00	-31.42
Mid	5785	-1.572	-1.572	30.00	-31.57
High	5825	-1.537	-1.537	30.00	-31.54

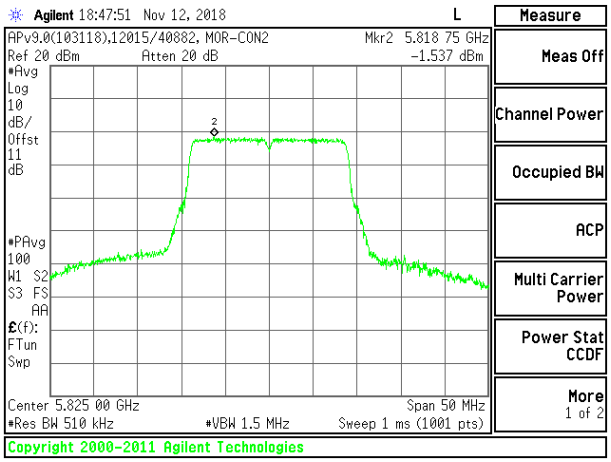
Note: Power measurements were gated average. Therefore no correction factor required.



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

8.5.22. 802.11n HT20 MODE IN THE 5.8 GHz BAND – ANTENNA 2

FCC+ISED

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC/ISED Power Limit (dBm)	FCC/ISED PSD Limit (dBm/ 1MHz)
Low	5745	0.94	30.00	30.00
Mid	5785	0.94	30.00	30.00
High	5825	0.94	30.00	30.00

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

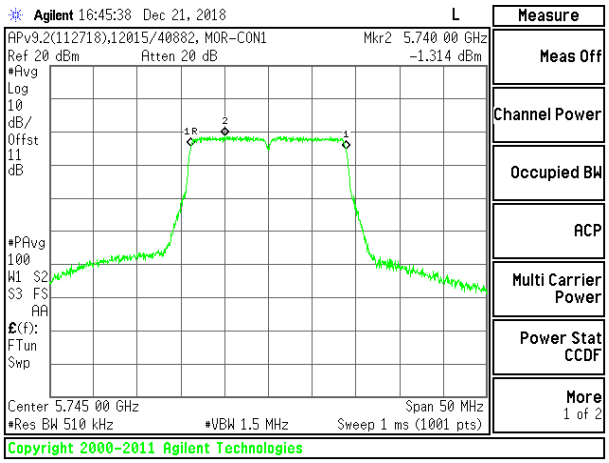
Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	12.70	12.70	30.00	-17.30
Mid	5785	12.51	12.51	30.00	-17.49
High	5825	12.96	12.96	30.00	-17.04

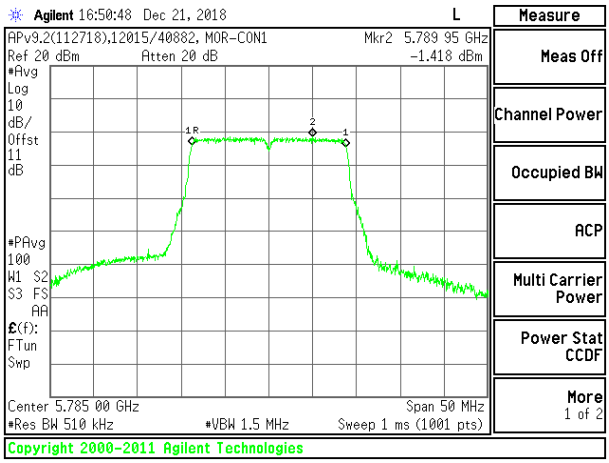
PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5745	-1.314	-1.314	30.00	-31.31
Mid	5785	-1.418	-1.418	30.00	-31.42
High	5825	-1.164	-1.164	30.00	-31.16

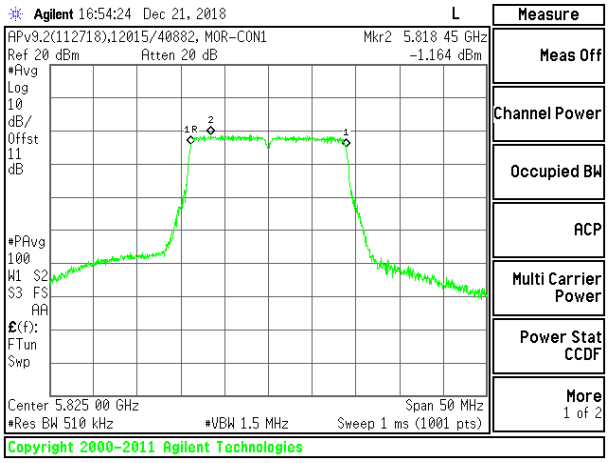
Note: Power measurements were gated average. Therefore no correction factor required.



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

8.5.23. 802.11n HT40 MODE IN THE 5.8 GHz BAND – ANTENNA 1

FCC+ISED

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC/ISE Power Limit (dBm)	FCC/ISED PSD Limit (dBm/ 1MHz)
Low	5755	0.94	30.00	30.00
High	5795	0.94	30.00	30.00

Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd PSD

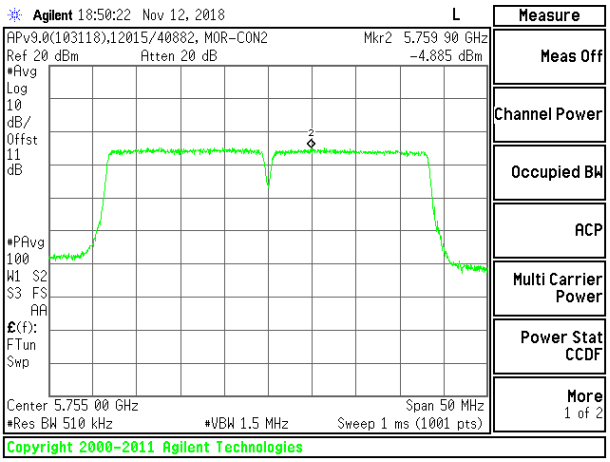
Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	11.42	11.42	30.00	-18.58
High	5795	11.39	11.39	30.00	-18.61

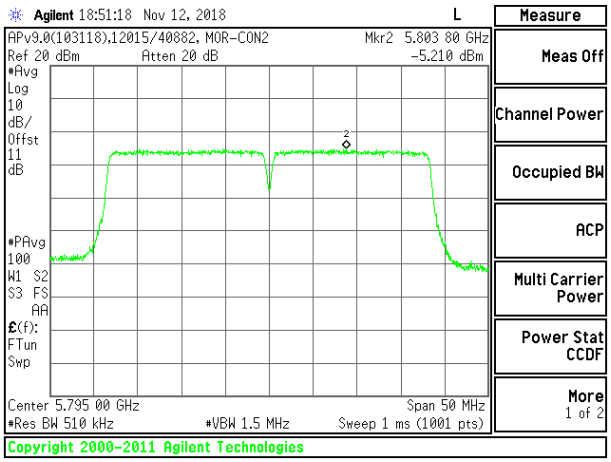
PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5755	-4.885	-4.785	30.00	-34.79
High	5795	-5.210	-5.110	30.00	-35.11

Note: Power measurements were gated average. Therefore no correction factor required.



LOW CHANNEL



HIGH CHANNEL

8.5.24. 802.11n HT40 MODE IN THE 5.8 GHz BAND – ANTENNA 2

FCC+ISED

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC/ISE Power Limit (dBm)	FCC/ISED PSD Limit (dBm/ 1MHz)
Low	5755	0.94	30.00	30.00
High	5795	0.94	30.00	30.00

Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd PSD

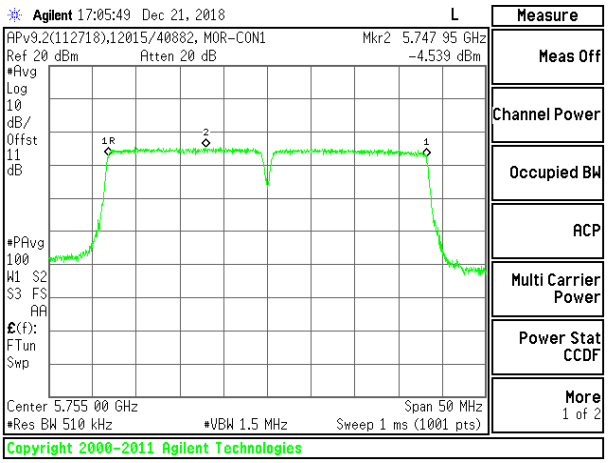
Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	12.17	12.17	30.00	-17.83
High	5795	12.11	12.11	30.00	-17.89

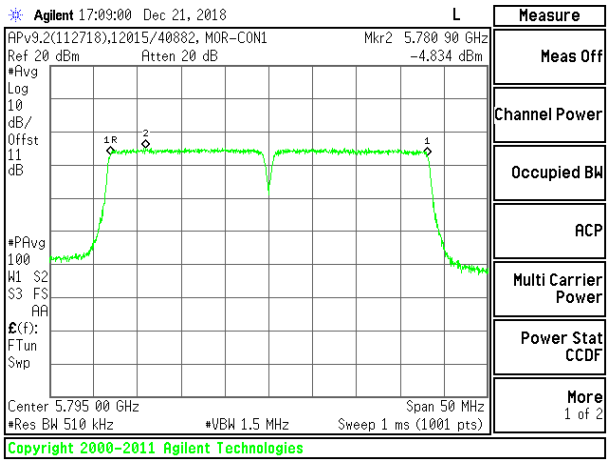
PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5755	-4.539	-4.439	30.00	-34.44
High	5795	-4.834	-4.734	30.00	-34.73

Note: Power measurements were gated average. Therefore no correction factor required.



LOW CHANNEL



HIGH CHANNEL

9. RADIATED TEST RESULTS

LIMITS

FCC §15.205 and §15.209 -Restricted bands
FCC §15.407(b)(1-4) -Unrestricted bands

After January 01, 2019 for Outside of the Restricted Bands Emissions

RSS 247 Issue 2 Sections
6.2.1.2 (for 5150-5250 MHz band)
6.2.2.2 (for 5250-5350 MHz band)
6.2.3.2 (for 5470-5600 MHz and 5650-5725 MHz bands)
6.2.4.2 (for 5725-5850 MHz band)

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
0.009-0.490	2400/F(kHz) @ 300 m	-
0.490-1.705	24000/F(kHz) @ 30 m	-
1.705 - 30	30 @ 30m	-
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 below 1GHz measurements and 1.5 m above the ground plane for above 1GHz measurements. The antenna to EUT distance is 3 meters.

For measurements below 1 GHz the resolution bandwidth is set to 120 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements for the 30-1000 MHz range, 9 kHz for peak detection measurements or 9 kHz for quasi-peak detection measurements for the 0.15-30 MHz range and 200 Hz for peak detection measurements or 200 Hz for quasi-peak detection measurements for the 9 to 150 kHz range. Peak detection is used unless otherwise noted as quasi-peak.

From 1-18 GHz, a prescan is performed at 1MHz resolution bandwidth and 30 kHz video bandwidth to identify frequencies of interest.

For final peak measurements above 1 GHz, the resolution bandwidth is set to 1 MHz and the video bandwidth is set to 3 MHz. For final average measurements above 1GHz, the resolution bandwidth and video bandwidth are set as described in ANSI C63.10:2013 for the applicable measurement. The particular averaging method used for this test program was by RMS Averaging.

The spectrum from 1 to 18 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band. For below 1GHz and above 18 GHz, the worst-case channel was measured, based on power and PSD.

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.

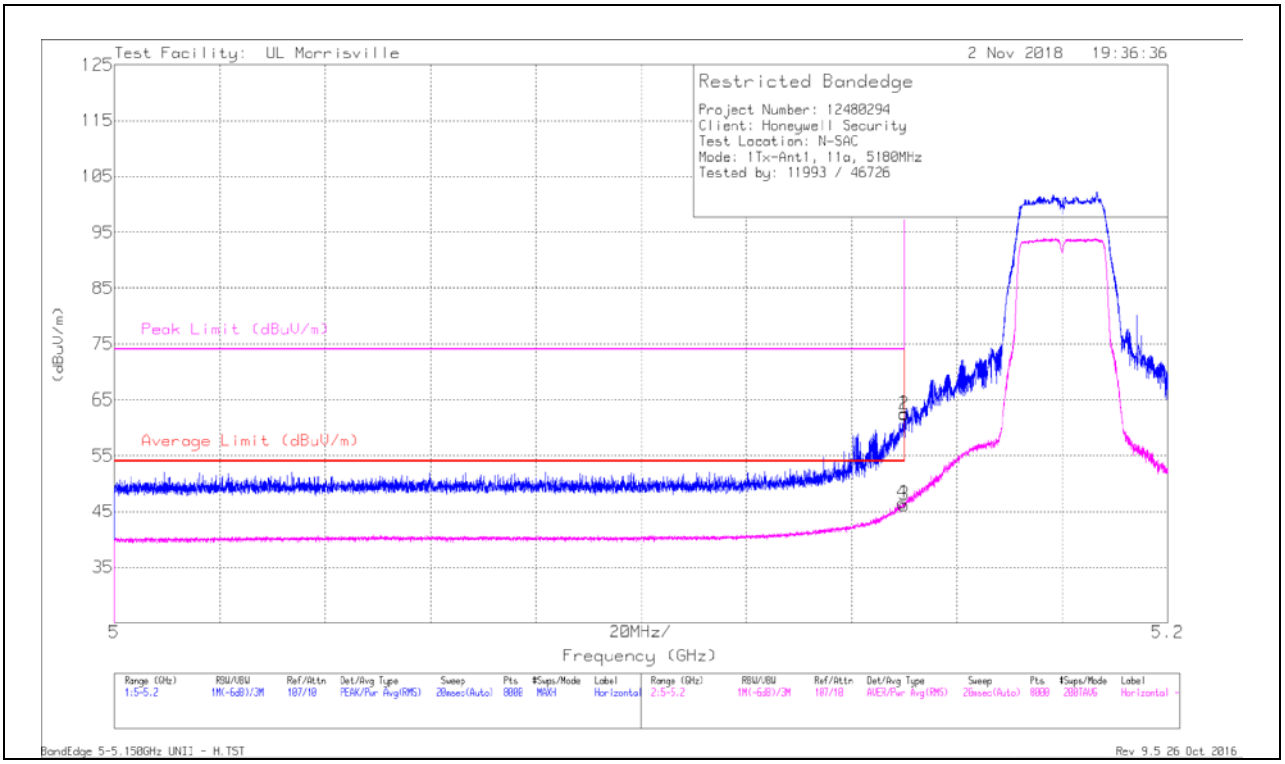
9.1. TRANSMITTER ABOVE 1 GHz

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

1TX Antenna 1 MODE

BANDEDGE (LOW CHANNEL)

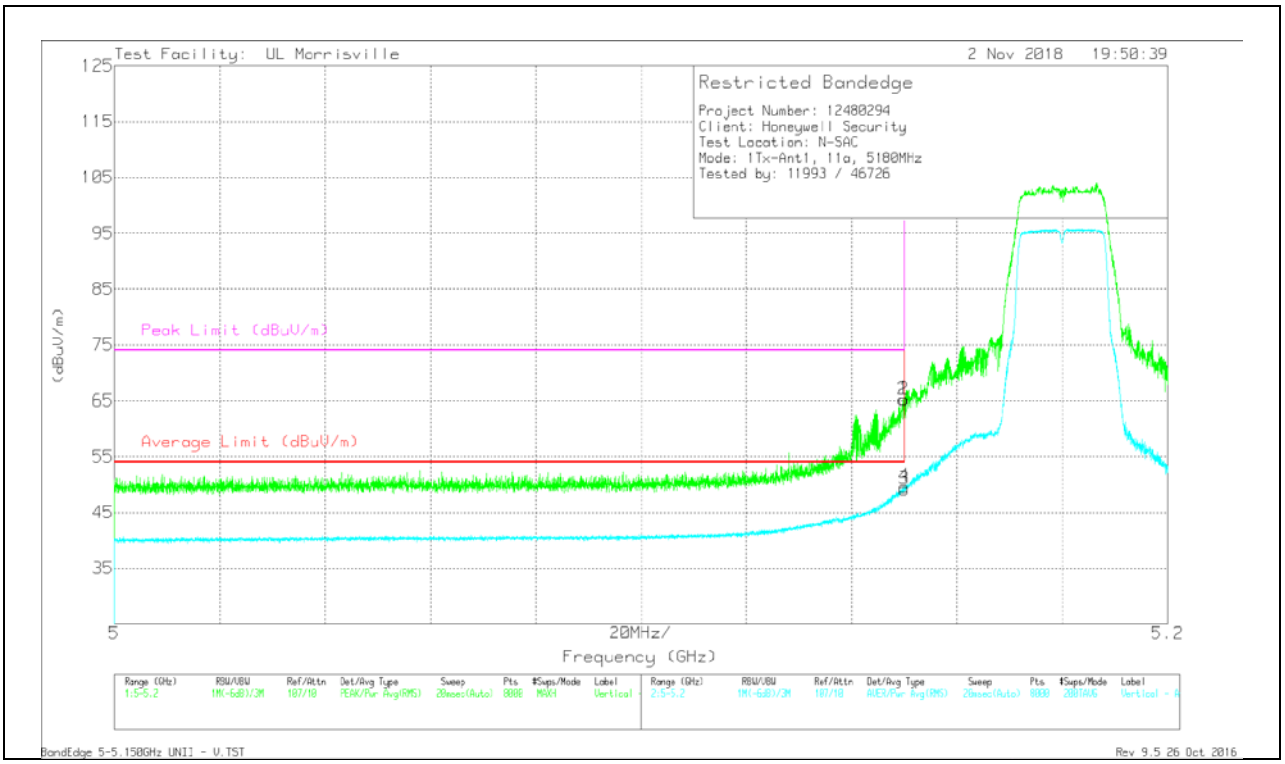
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 AF (dB/m)	Amp/Cbl/Fltr/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	51.08	Pk	34.2	-22.7	62.58	-	-	74	-11.42	102	295	H
2	* ** 5.15	50.9	Pk	34.2	-22.7	62.4	-	-	74	-11.6	102	295	H
3	* ** 5.15	34.7	RMS	34.2	-22.7	46.2	54	-7.8	-	-	102	295	H
4	* ** 5.15	35.13	RMS	34.2	-22.8	46.53	54	-7.47	-	-	102	295	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
** - indicates frequency in Taiwan NCC LP0002 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT



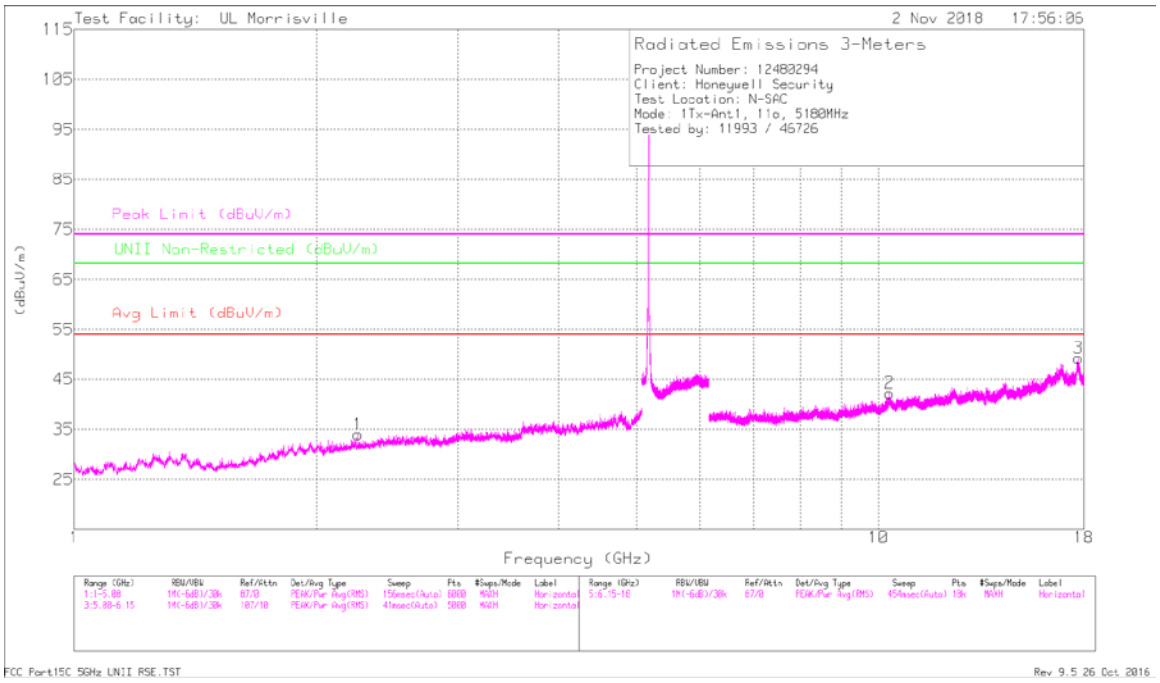
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 AF (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 5.15	53.77	Pk	34.2	-22.7	65.27	-	-	74	-8.73	352	260	V
2	* ** 5.15	53.71	Pk	34.2	-22.7	65.21	-	-	74	-8.79	352	260	V
3	* ** 5.15	37.68	RMS	34.2	-22.7	49.18	54	-4.82	-	-	352	260	V
4	* ** 5.15	38.11	RMS	34.2	-22.7	49.61	54	-4.39	-	-	352	260	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
** - indicates frequency in Taiwan NCC LP0002 Restricted Band
Pk - Peak detector
RMS - RMS detection

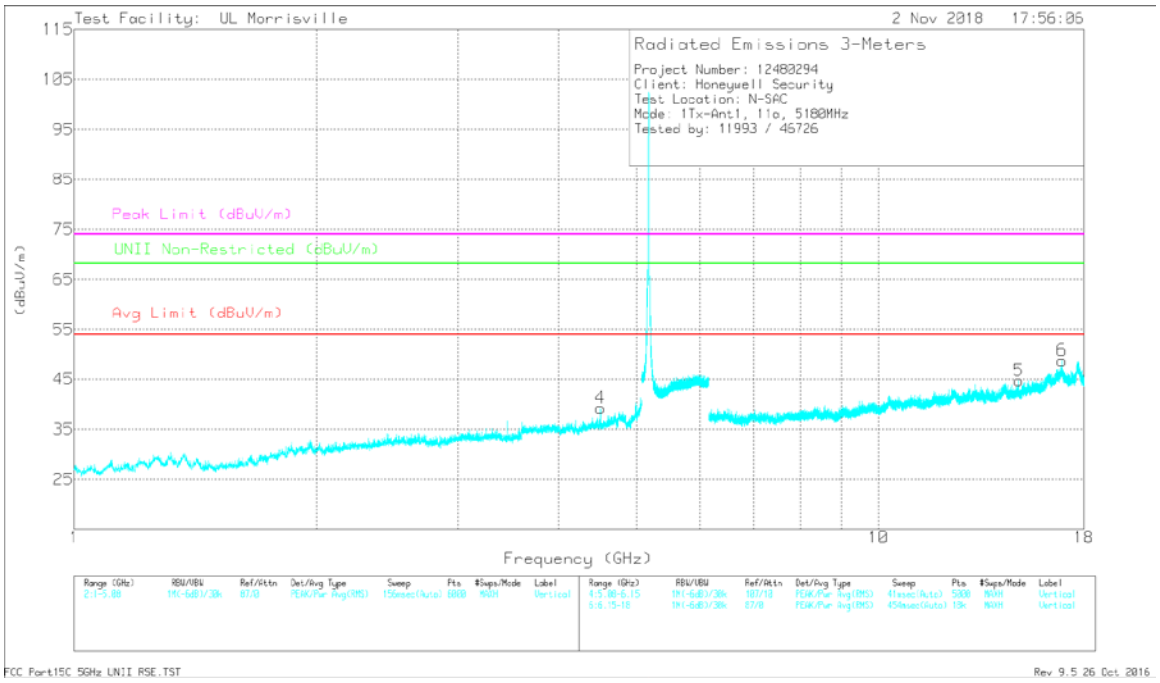
UL LLC
12 Laboratory Dr., RTP, NC 27709; USA TEL:(919) 549-1400

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

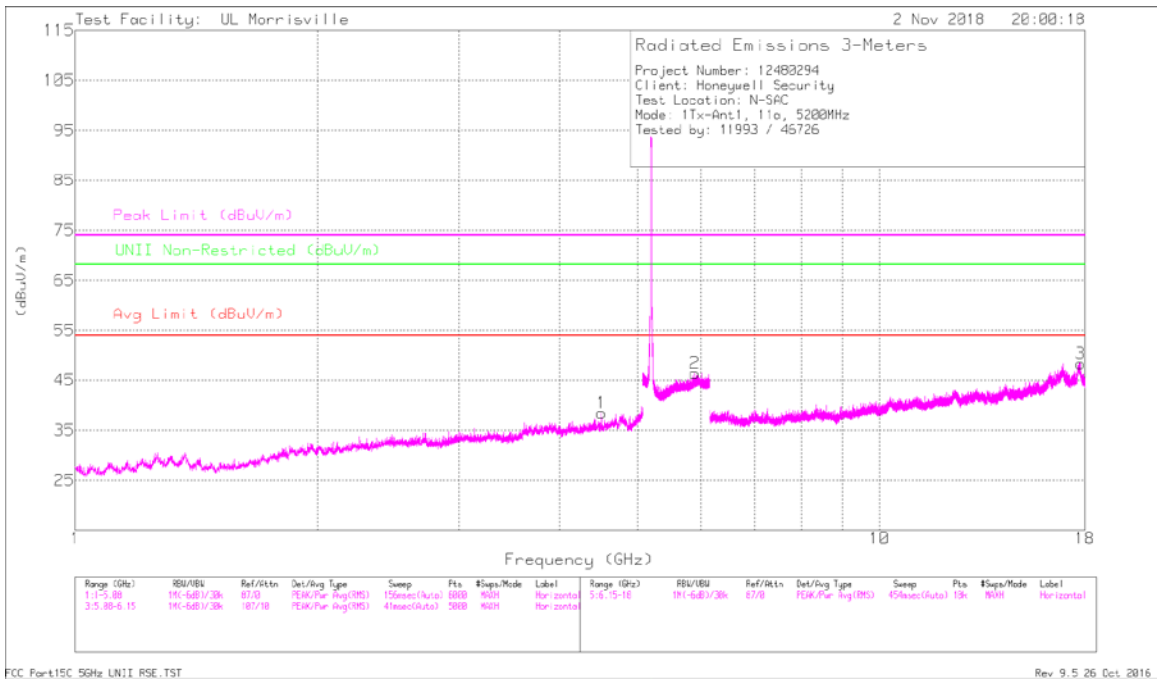
RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 AF (dB/m)	Amp/Cbl/Fltr/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	* ** 2.251	42.33	PK-U	31.7	-34.8	39.23	-	-	74	-34.77	-	-	104	363	H
	* ** 2.254	30.38	ADR	31.7	-34.8	27.28	54	-26.72	-	-	-	-	104	363	H
3	* ** 17.724	33.67	PK-U	41.5	-21.1	54.07	-	-	74	-19.93	-	-	232	288	H
	* ** 17.726	22.58	ADR	41.5	-21.1	42.98	54	-11.02	-	-	-	-	232	288	H
2	10.323	35.24	PK-U	37.3	-25.2	47.34	-	-	-	-	68.2	-20.86	251	215	H
4	* ** 4.514	45.08	PK-U	33.9	-32.7	46.28	-	-	74	-27.72	-	-	180	299	V
	* ** 4.514	37.49	ADR	33.9	-32.7	38.69	54	-15.31	-	-	-	-	180	299	V
5	14.946	37.02	PK-U	39.5	-26.9	49.62	-	-	-	-	68.2	-18.58	52	130	V
6	16.924	36.37	PK-U	41.4	-24.3	53.47	-	-	-	-	68.2	-14.73	348	271	V

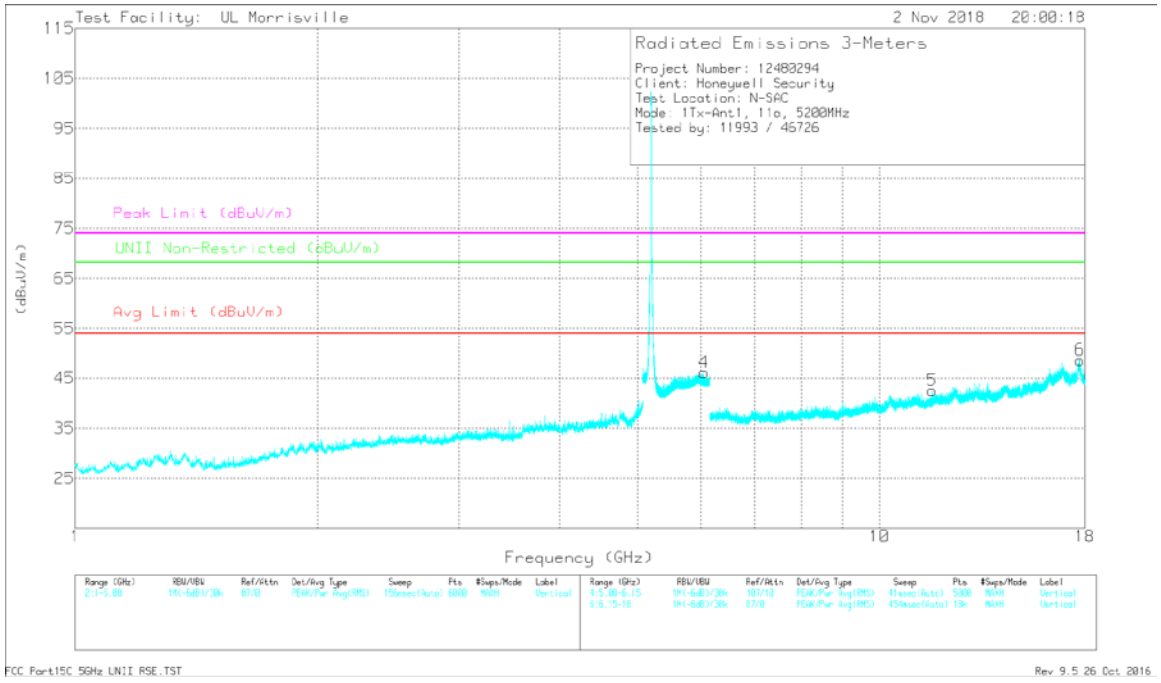
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
** - indicates frequency in Taiwan NCC LP0002 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

UL LLC
12 Laboratory Dr., RTP, NC 27709; USA TEL:(919) 549-1400

MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

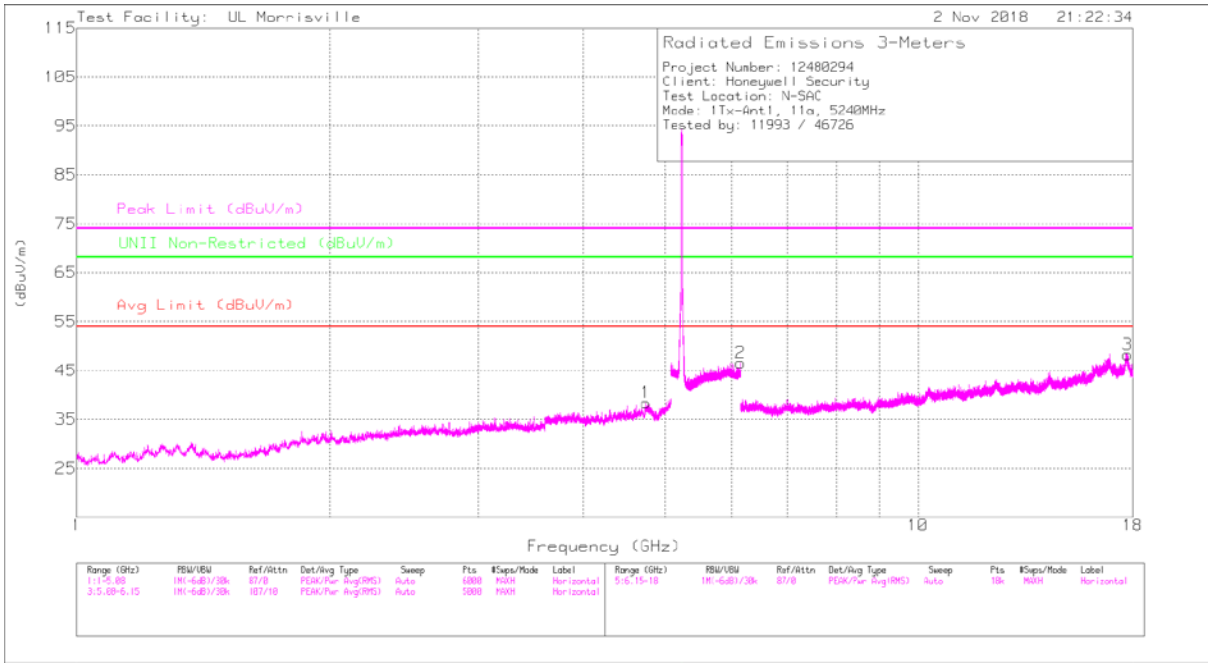
RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 AF (dB/m)	Amp/Cbl/Fltr/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	* ** 4.514	43.78	PK-U	33.9	-32.7	44.98	-	-	74	-29.02	-	-	194	243	H
	* ** 4.514	35.74	ADR	33.9	-32.7	36.94	54	-17.06	-	-	-	-	194	243	H
3	* ** 17.79	33.87	PK-U	41.6	-22.7	52.77	-	-	74	-21.23	-	-	63	119	H
	* ** 17.788	22.76	ADR	41.6	-22.6	41.76	54	-12.24	-	-	-	-	63	119	H
2	5.891	39.07	PK-U	34.9	-22.3	51.67	-	-	-	-	68.2	-16.53	4	110	H
5	* ** 11.618	35.15	PK-U	38.3	-26.7	46.75	-	-	74	-27.25	-	-	183	350	V
	* ** 11.619	23.96	ADR	38.3	-26.7	35.56	54	-18.44	-	-	-	-	183	350	V
6	* ** 17.743	33.72	PK-U	41.5	-21	54.22	-	-	74	-19.78	-	-	98	330	V
	* ** 17.742	22.6	ADR	41.5	-21	43.1	54	-10.9	-	-	-	-	98	330	V
4	6.048	37.98	PK-U	35.1	-21.8	51.28	-	-	-	-	68.2	-16.92	0	165	V

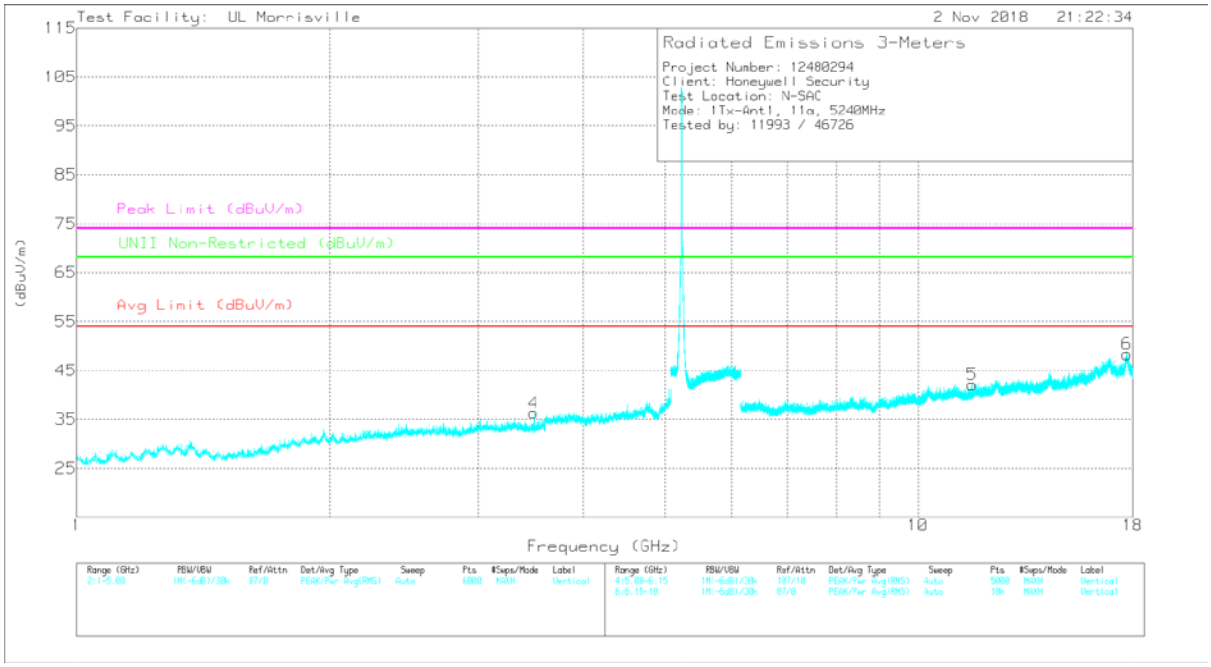
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
** - indicates frequency in Taiwan NCC LP0002 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

UL LLC
12 Laboratory Dr., RTP, NC 27709; USA TEL:(919) 549-1400

HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 AF (dB/m)	Amp/Cbl/Fltr/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	* ** 4.748	42.22	PK-U	34.1	-32	44.32	-	-	74	-29.68	-	-	201	228	H
	* ** 4.749	30.57	ADR	34.1	-32	32.67	54	-21.33	-	-	-	-	201	228	H
3	* ** 17.74	33.95	PK-U	41.5	-21	54.45	-	-	74	-19.55	-	-	315	353	H
	* ** 17.742	22.6	ADR	41.5	-21	43.1	54	-10.9	-	-	-	-	315	353	H
5	* ** 11.601	35.38	PK-U	38.3	-26.7	46.98	-	-	74	-27.02	-	-	133	383	V
	* ** 11.602	24.02	ADR	38.3	-26.8	35.52	54	-18.48	-	-	-	-	133	383	V
6	* ** 17.727	33.77	PK-U	41.5	-21.1	54.17	-	-	74	-19.83	-	-	150	237	V
	* ** 17.728	22.62	ADR	41.5	-21	43.12	54	-10.88	-	-	-	-	150	237	V
4	3.493	43.4	PK-U	32.8	-33.5	42.7	-	-	-	-	68.2	-25.5	174	157	V
2	6.148	37.57	PK-U	35.3	-21.5	51.37	-	-	-	-	68.2	-16.83	11	281	H

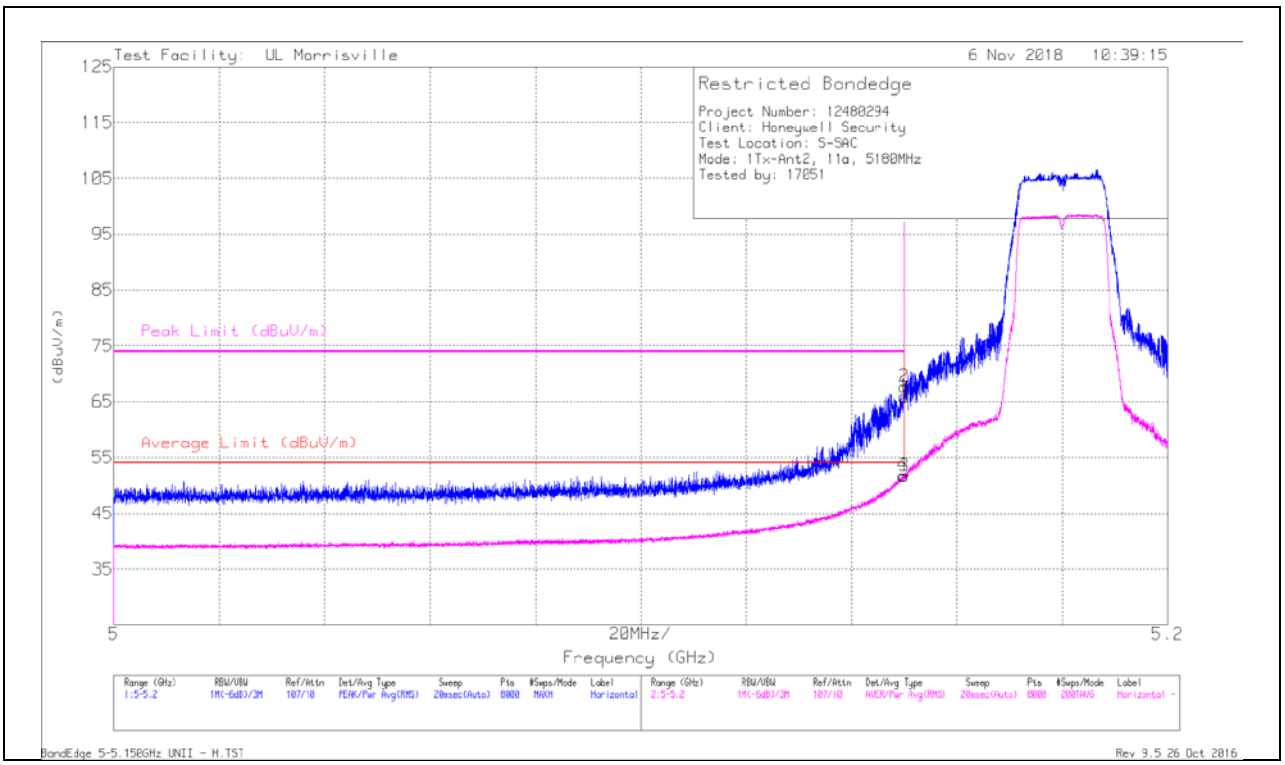
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
** - indicates frequency in Taiwan NCC LP0002 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

UL LLC
12 Laboratory Dr., RTP, NC 27709; USA TEL:(919) 549-1400

1TX Antenna 2 MODE

BANDEDGE (LOW CHANNEL)

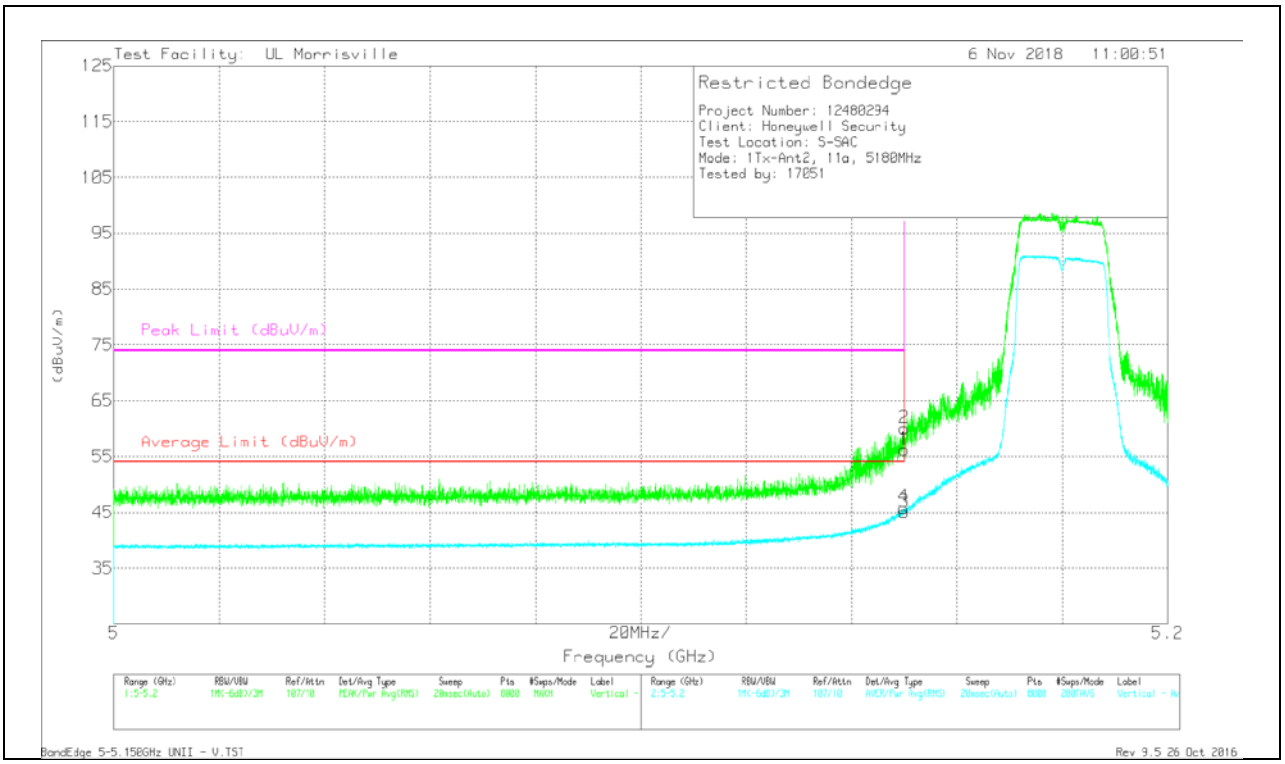
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0069 AF (dB/m)	Amp/Cbl/Fltr/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	54.51	Pk	34.1	-22.7	65.91	-	-	74	-8.09	181	102	H
2	* 5.15	56.27	Pk	34.1	-22.7	67.67	-	-	74	-6.33	181	102	H
3	* 5.15	40.32	RMS	34.1	-22.7	51.72	54	-2.28	-	-	181	102	H
4	* 5.15	40.41	RMS	34.1	-22.7	51.81	54	-2.19	-	-	181	102	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT



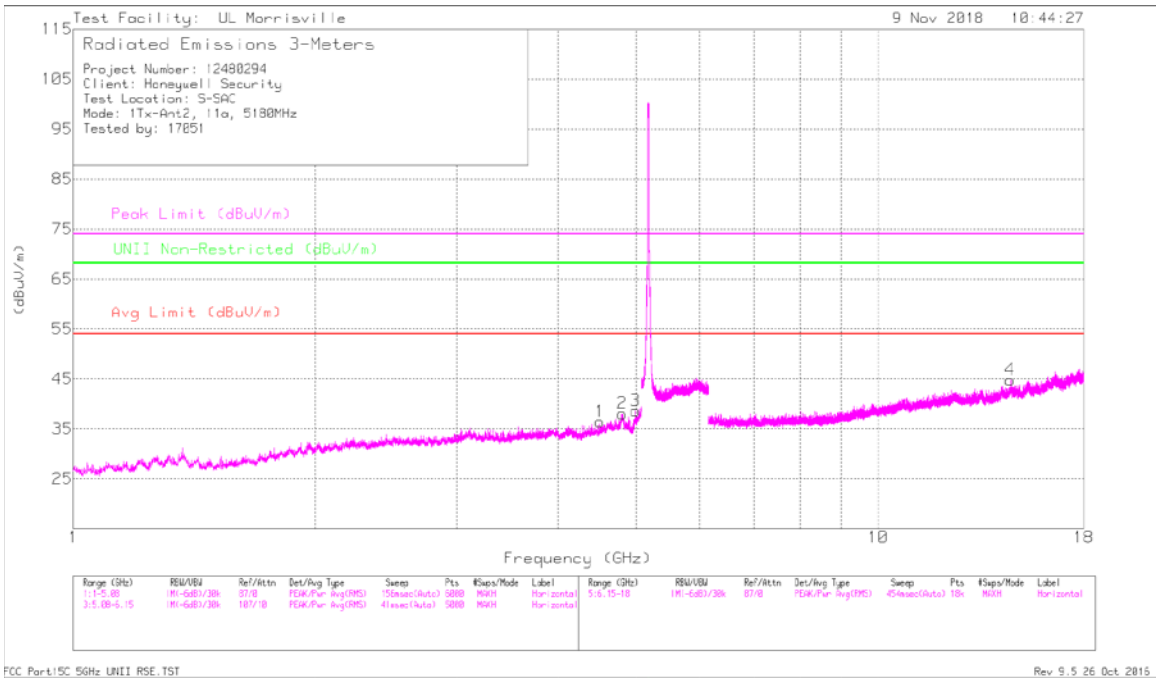
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0069 AF (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	44.86	Pk	34.1	-22.7	56.26	-	-	74	-17.74	217	105	V
2	* 5.15	48.66	Pk	34.1	-22.7	60.06	-	-	74	-13.94	217	105	V
3	* 5.15	33.69	RMS	34.1	-22.7	45.09	54	-8.91	-	-	217	105	V
4	* 5.15	34.46	RMS	34.1	-22.7	45.86	54	-8.14	-	-	217	105	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

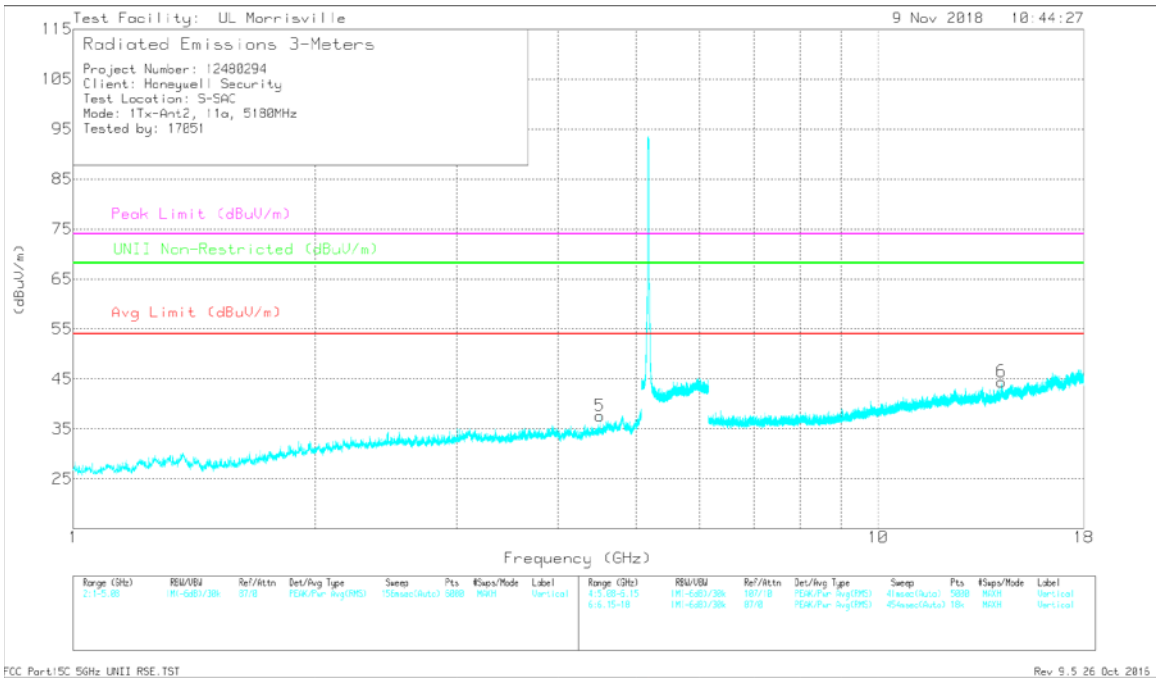
UL LLC
12 Laboratory Dr., RTP, NC 27709; USA TEL:(919) 549-1400

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



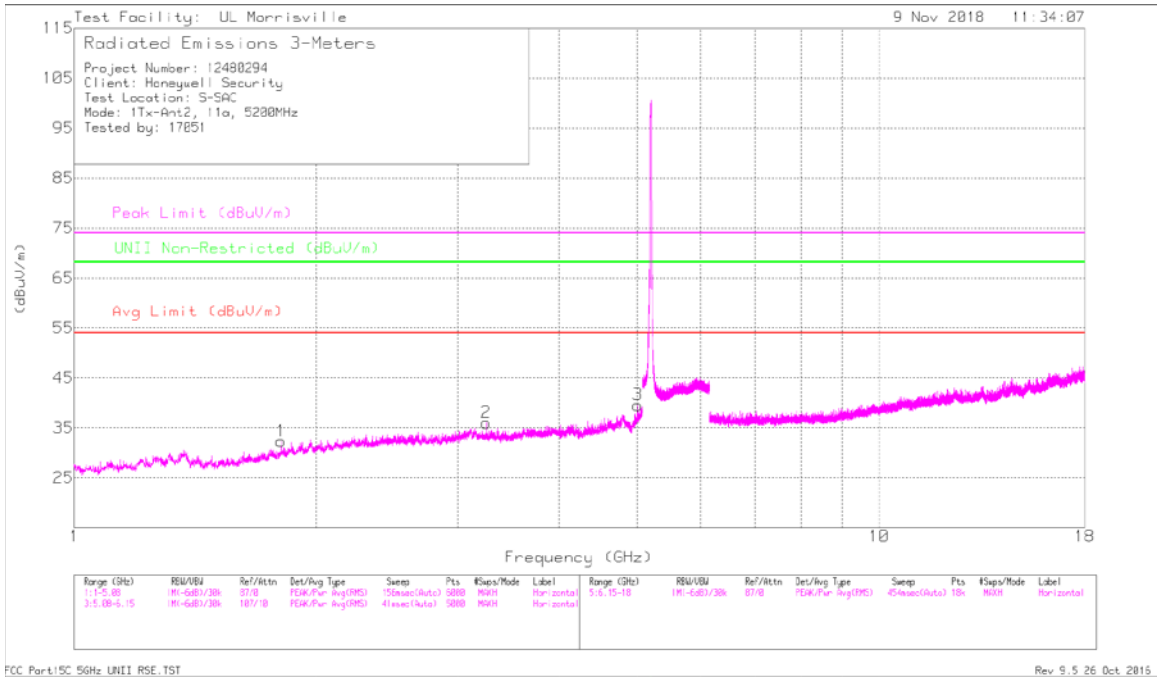
VERTICAL

RADIATED EMISSIONS

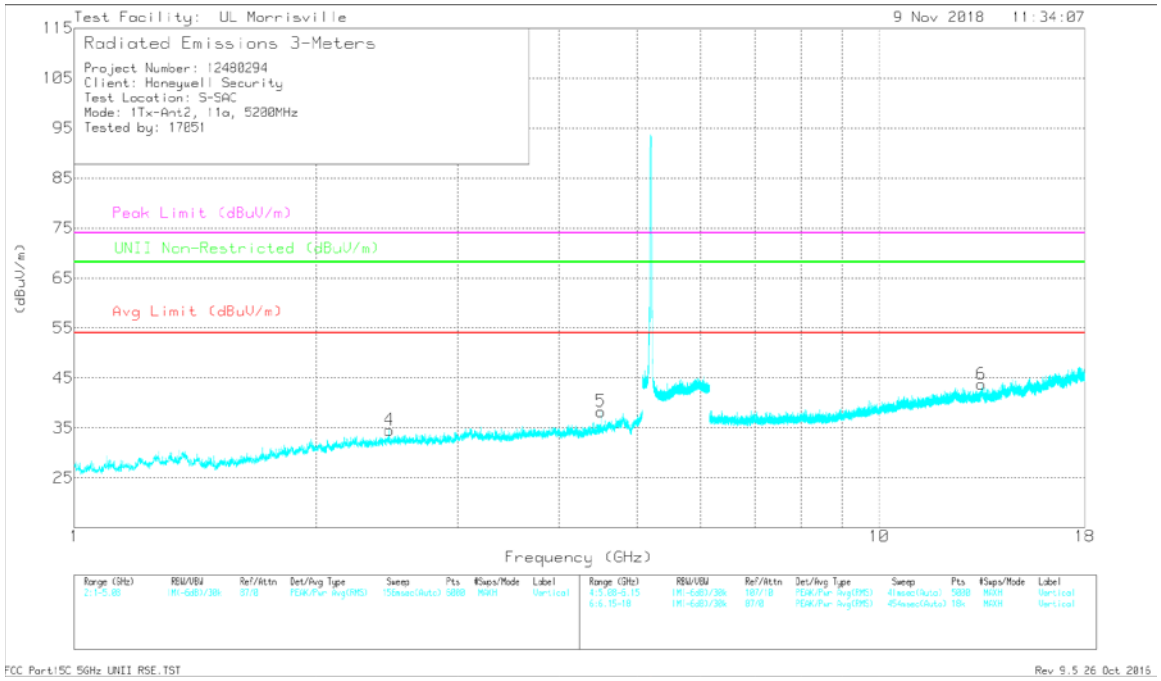
Frequency (GHz)	Meter Reading (dBuV)	Det	AT0069 AF (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.514	42.67	PK-U	33.8	-32.2	44.27	-	-	74	-29.73	-	-	184	210	H
* 4.514	33.24	ADR	33.8	-32.2	34.84	54	-19.16	-	-	-	-	184	210	H
* 4.803	40.91	PK-U	34	-31	43.91	-	-	74	-30.09	-	-	260	213	H
* 4.803	29.8	ADR	34	-31	32.8	54	-21.2	-	-	-	-	260	213	H
* 4.996	42.63	PK-U	34	-30.1	46.53	-	-	74	-27.47	-	-	261	116	H
* 4.996	31.41	ADR	34	-30.1	35.31	54	-18.69	-	-	-	-	261	116	H
* 4.514	43.36	PK-U	33.8	-32.2	44.96	-	-	74	-29.04	-	-	21	100	V
* 4.514	35.24	ADR	33.8	-32.2	36.84	54	-17.16	-	-	-	-	21	100	V
14.236	33.25	PK-U	39	-22.6	49.65	-	-	-	-	68.2	-18.55	251	165	V
14.588	33.01	PK-U	39.6	-22.7	49.91	-	-	-	-	68.2	-18.29	291	191	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

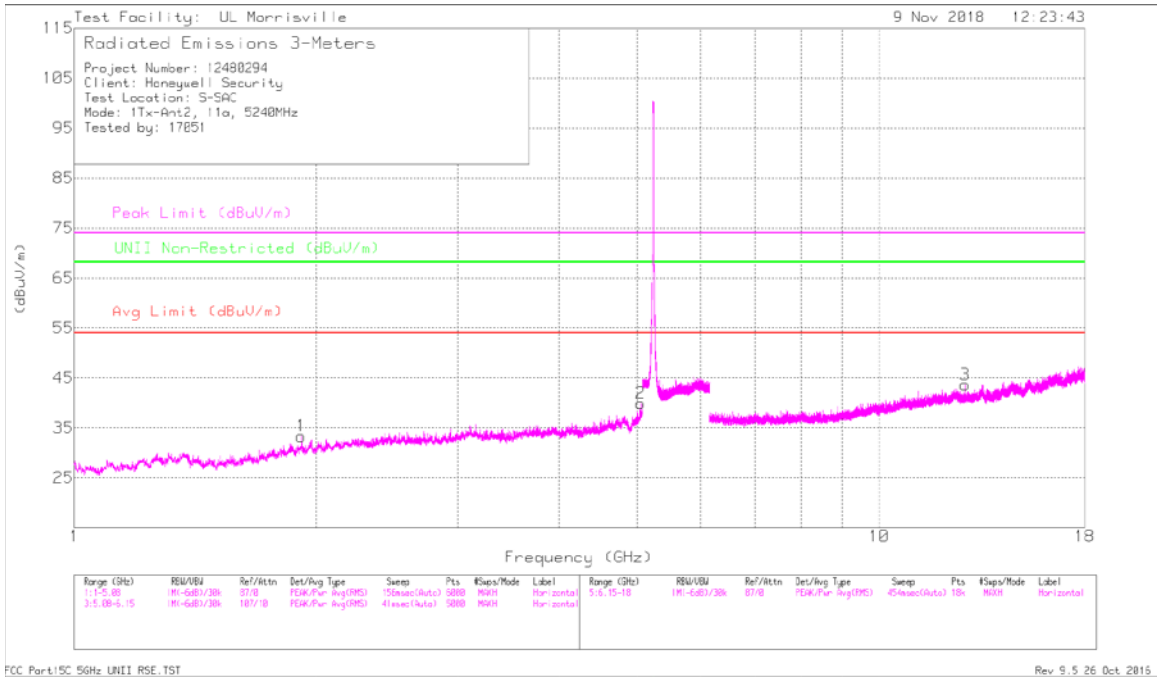
RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AT0069 AF (dB/m)	Amp/Cbl/Fltr/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
* 5.014	43.35	PK-U	34	-30	47.35	-	-	74	-26.65	-	-	260	124	H
* 5.015	31.59	ADR	34	-30	35.59	54	-18.41	-	-	-	-	260	124	H
* 4.514	43.19	PK-U	33.8	-32.2	44.79	-	-	74	-29.21	-	-	23	101	V
* 4.514	35.12	ADR	33.8	-32.2	36.72	54	-17.28	-	-	-	-	23	101	V
* 13.388	33.69	PK-U	39.1	-24	48.79	-	-	74	-25.21	-	-	309	164	V
* 13.387	22.53	ADR	39.1	-24.1	37.53	54	-16.47	-	-	-	-	309	164	V
1.805	42.36	PK-U	30.1	-34.8	37.66	-	-	-	-	68.2	-30.54	99	140	H
2.465	43.82	PK-U	32.3	-34.1	42.02	-	-	-	-	68.2	-26.18	75	101	V
3.249	42.13	PK-U	32.8	-33.5	41.43	-	-	-	-	68.2	-26.77	152	216	H

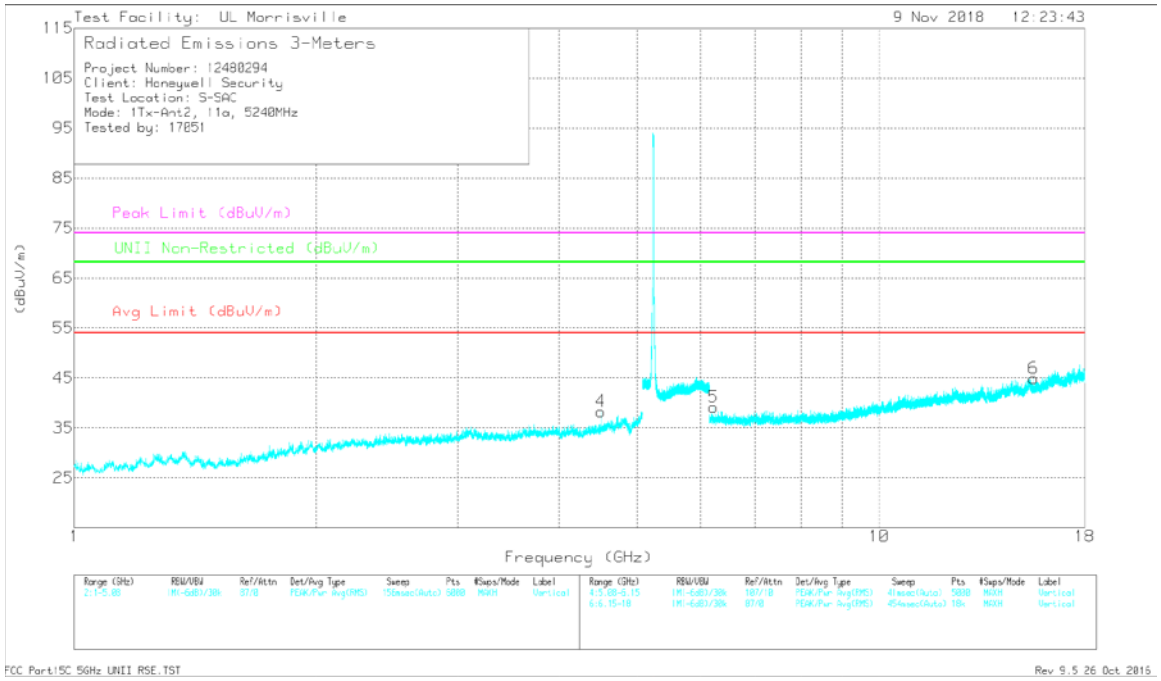
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

UL LLC
12 Laboratory Dr., RTP, NC 27709; USA TEL:(919) 549-1400

HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AT0069 AF (dB/m)	Amp/Cbl/Fltr/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
* 5.051	41.3	PK-U	34	-29.3	46	-	-	74	-28	-	-	261	124	H
* 5.054	30.9	ADR	34	-29.3	35.6	54	-18.4	-	-	-	-	261	124	H
* 4.514	43.58	PK-U	33.8	-32.2	45.18	-	-	74	-28.82	-	-	22	100	V
* 4.514	35.37	ADR	33.8	-32.2	36.97	54	-17.03	-	-	-	-	22	100	V
* 15.549	34.02	PK-U	40.1	-24.5	49.62	-	-	74	-24.38	-	-	102	274	V
* 15.552	22.53	ADR	40.1	-24.5	38.13	54	-15.87	-	-	-	-	102	274	V
1.915	42.55	PK-U	30.5	-34.2	38.85	-	-	-	-	68.2	-29.35	152	155	H
6.229	37.62	PK-U	35.4	-29.4	43.62	-	-	-	-	68.2	-24.58	333	120	V
12.776	34.13	PK-U	39	-25.1	48.03	-	-	-	-	68.2	-20.17	156	288	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

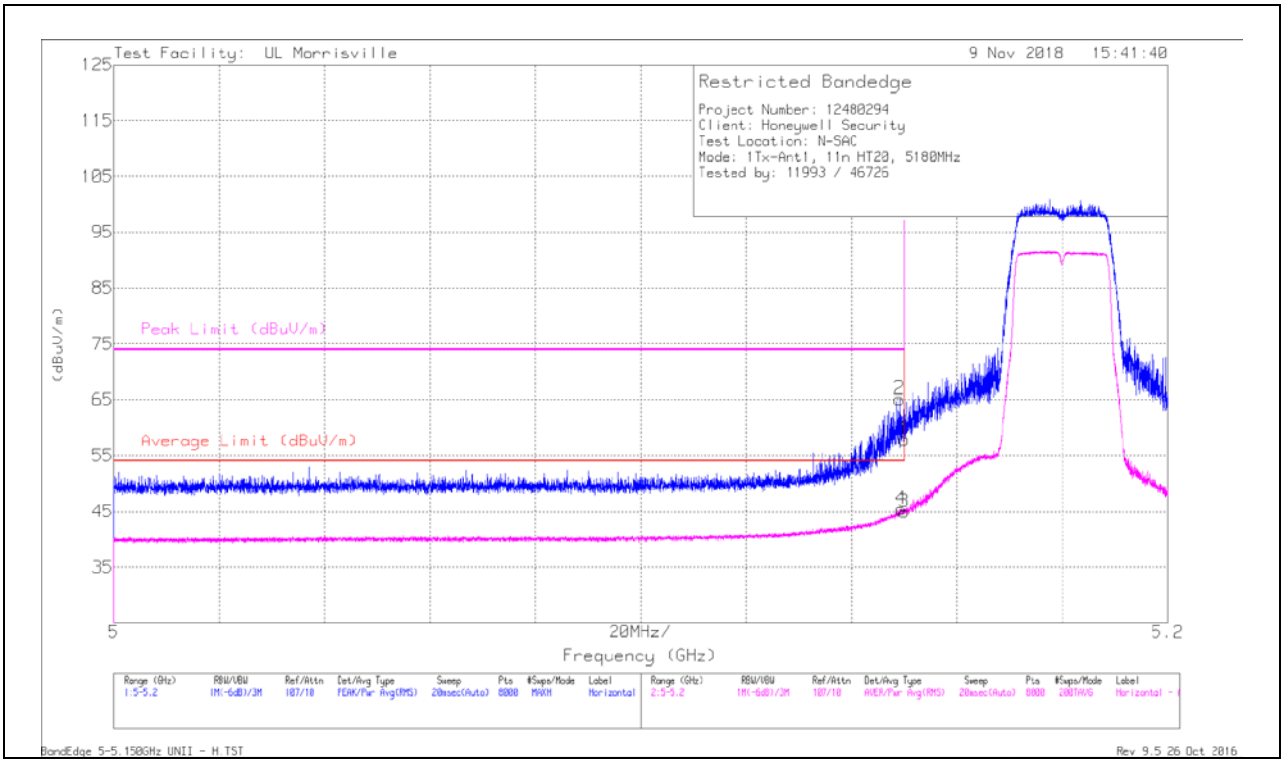
UL LLC
12 Laboratory Dr., RTP, NC 27709; USA TEL:(919) 549-1400

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

1TX Antenna 1 MODE

BANDEDGE (LOW CHANNEL)

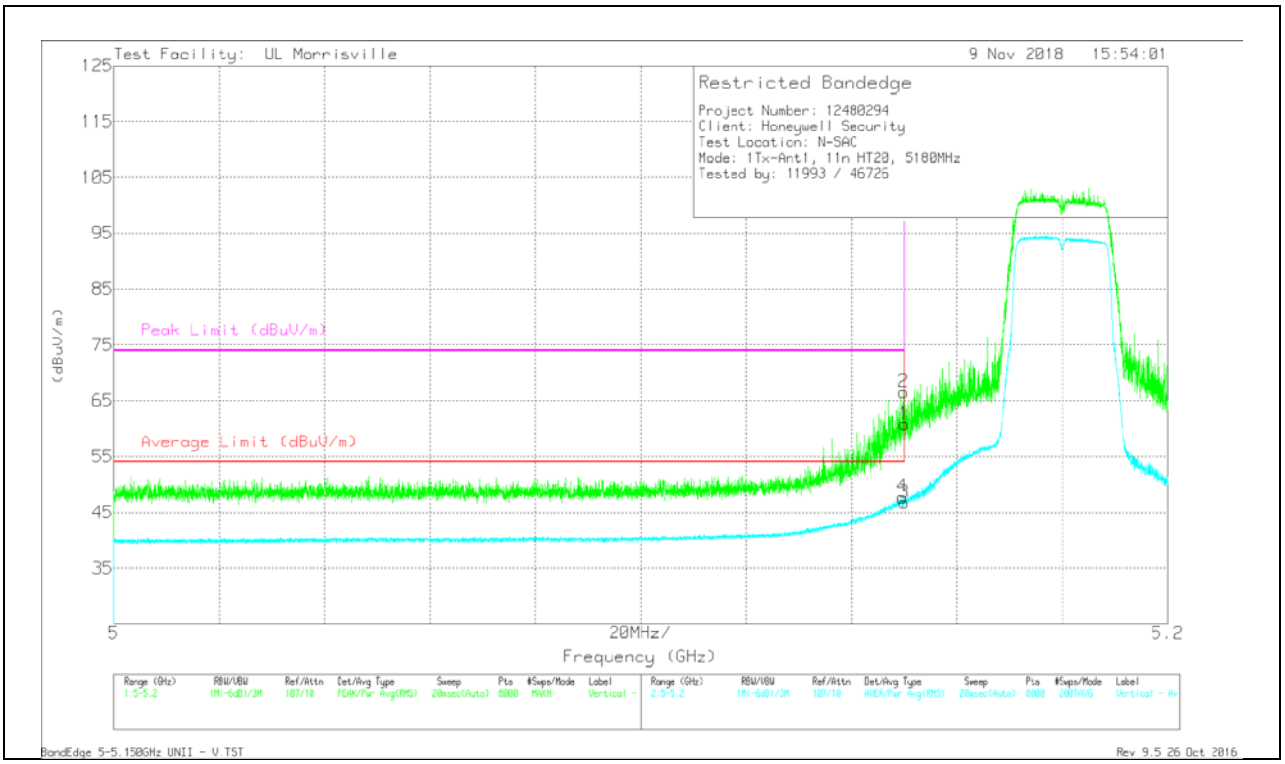
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 AF (dB/m)	Amp/Cbl/Fltr/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	46.41	Pk	34.2	-22.7	57.91	-	-	74	-16.09	92	291	H
2	* ** 5.149	53.74	Pk	34.2	-22.8	65.14	-	-	74	-8.86	92	291	H
3	* ** 5.15	33.44	RMS	34.2	-22.7	44.94	54	-9.06	-	-	92	291	H
4	* ** 5.149	34.01	RMS	34.2	-22.8	45.41	54	-8.59	-	-	92	291	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
** - indicates frequency in Taiwan NCC LP0002 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT

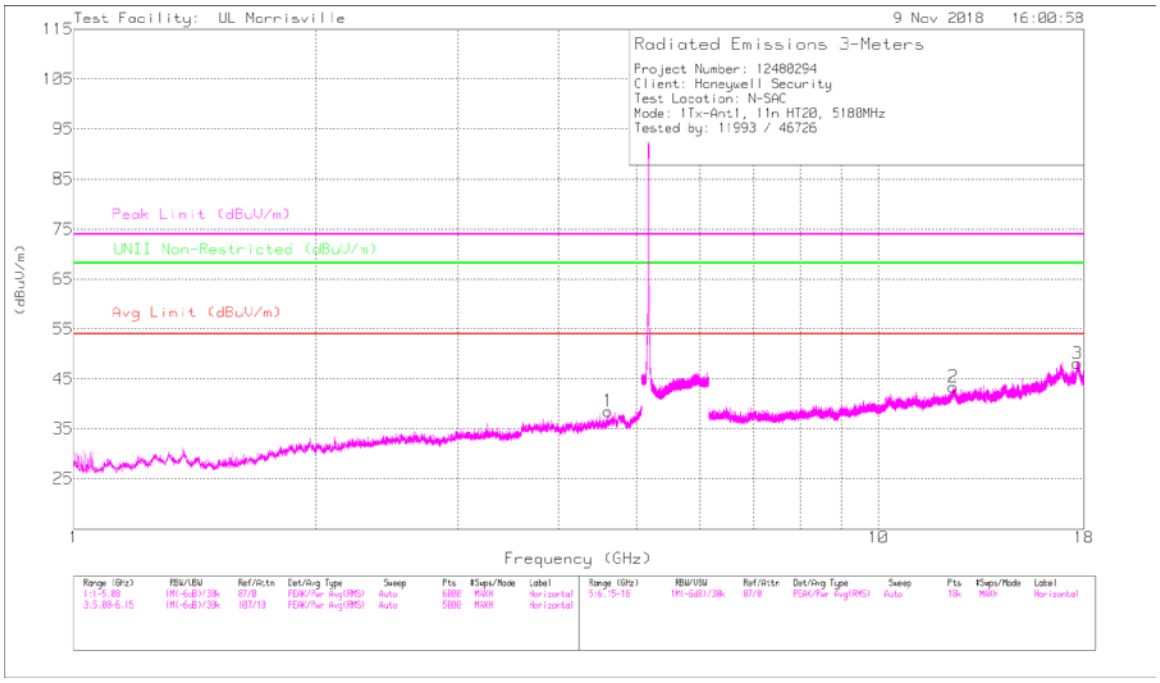


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 AF (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 5.15	49.25	Pk	34.2	-22.7	60.75	-	-	74	-13.25	2	290	V
2	* ** 5.15	55.07	Pk	34.2	-22.7	66.57	-	-	74	-7.43	2	290	V
3	* ** 5.15	35.24	RMS	34.2	-22.7	46.74	54	-7.26	-	-	2	290	V
4	* ** 5.15	36.32	RMS	34.2	-22.8	47.72	54	-6.28	-	-	2	290	V

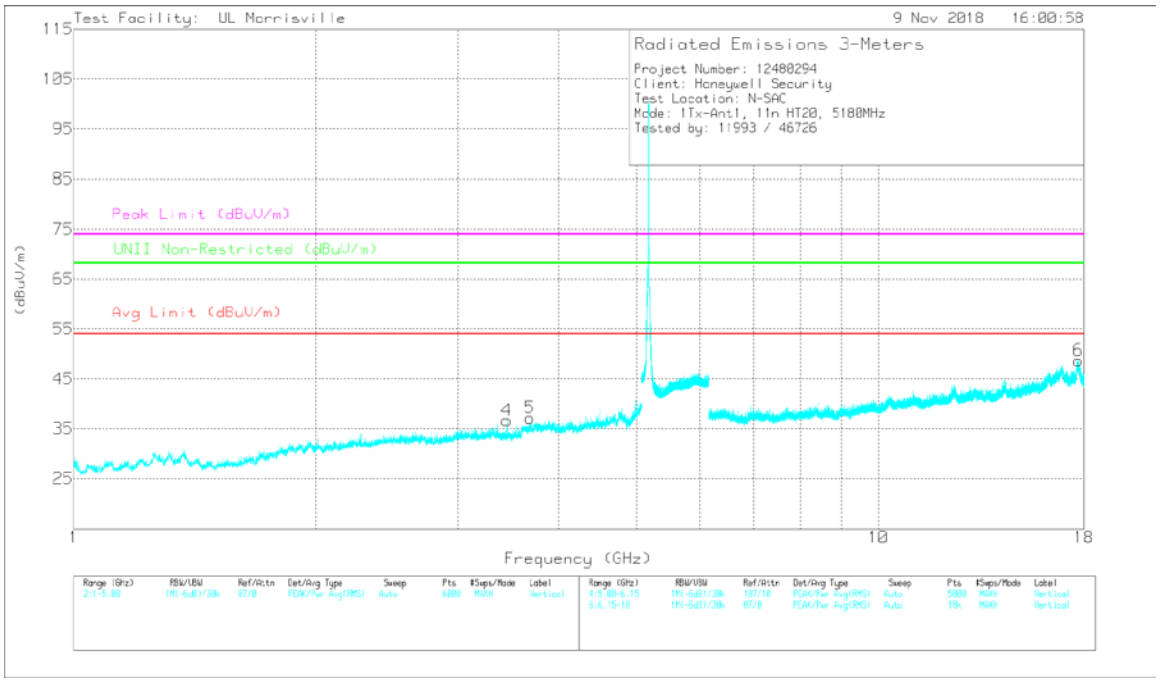
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
** - indicates frequency in Taiwan NCC LP0002 Restricted Band
Pk - Peak detector
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

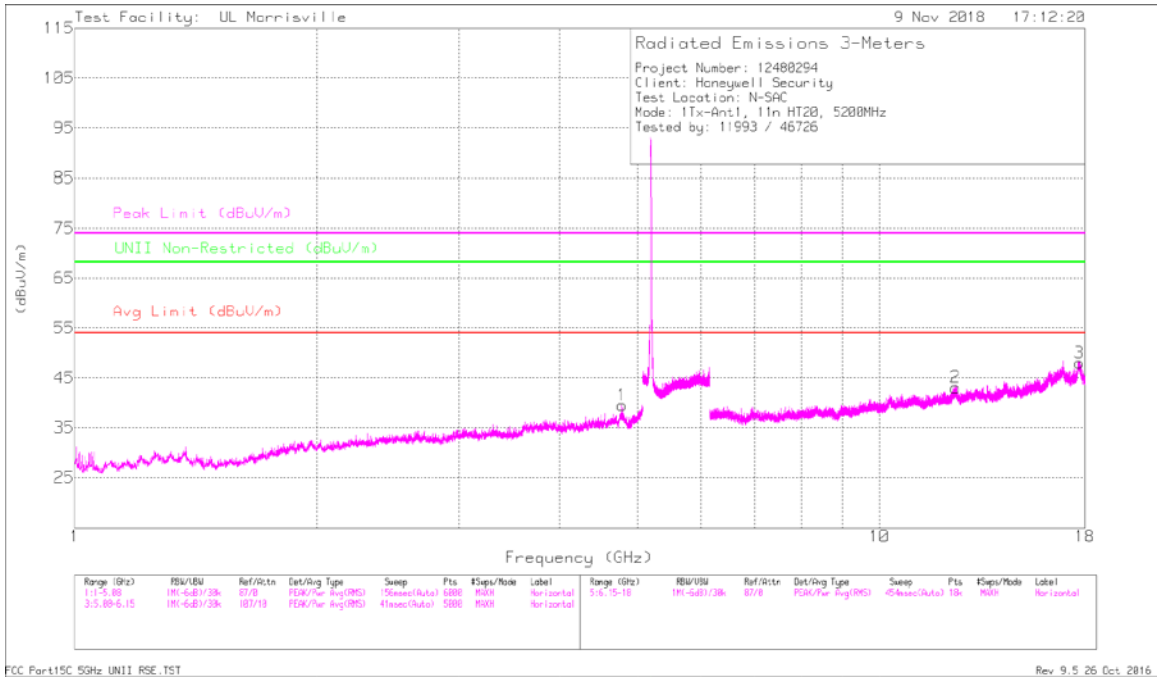
RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 AF (dB/m)	Amp/Cbl/Fltr/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	* ** 4.613	41.12	PK-U	34.1	-31.9	43.32	-	-	74	-30.68	-	-	278	103	H
	* ** 4.611	29.58	ADR	34.1	-32	31.68	54	-22.32	-	-	-	-	278	103	H
5	* ** 3.687	42.22	PK-U	33.2	-32.8	42.62	-	-	74	-31.38	-	-	335	389	V
	* ** 3.689	30.3	ADR	33.2	-32.8	30.7	54	-23.3	-	-	-	-	335	389	V
2	* ** 12.387	35.41	PK-U	38.9	-25.5	48.81	-	-	74	-25.19	-	-	260	218	H
	* ** 12.385	23.92	ADR	38.9	-25.6	37.22	54	-16.78	-	-	-	-	260	218	H
6	* ** 17.708	34.76	PK-U	41.6	-21.7	54.66	-	-	74	-19.34	-	-	89	187	V
	* ** 17.708	22.5	ADR	41.6	-21.7	42.4	54	-11.6	-	-	-	-	89	187	V
4	3.453	44.42	PK-U	32.8	-33.5	43.72	-	-	-	-	68.2	-24.48	281	123	V
3	17.672	35.17	PK-U	41.6	-21.9	54.87	-	-	-	-	68.2	-13.33	119	204	H

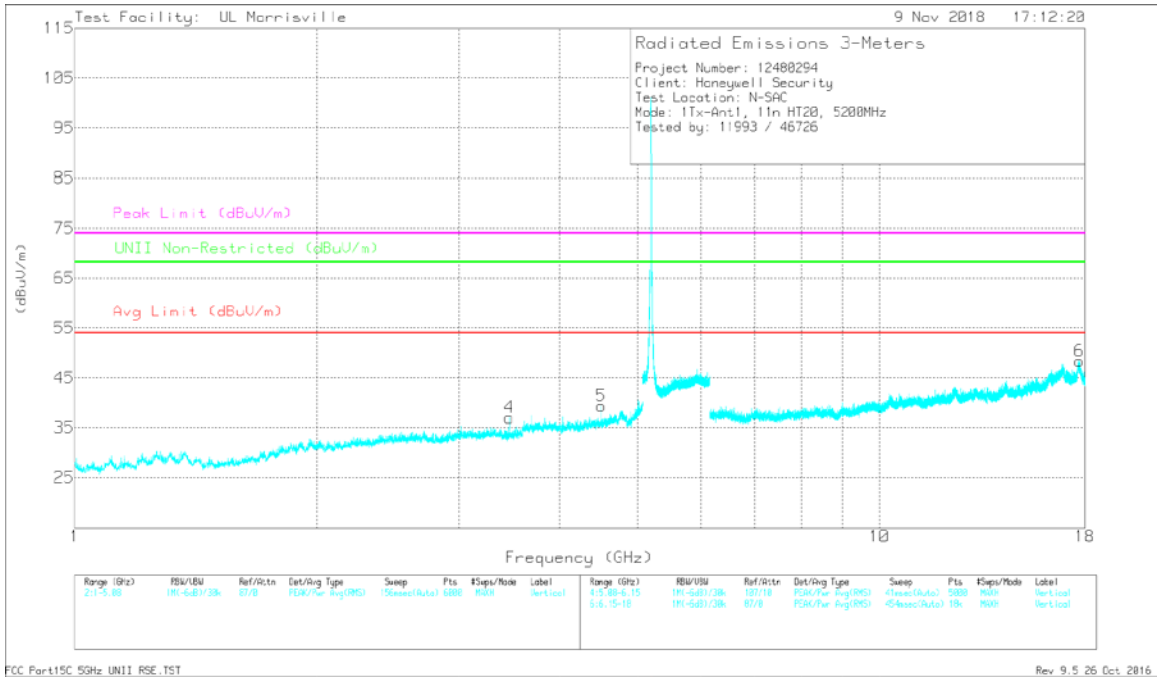
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
** - indicates frequency in Taiwan NCC LP0002 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

UL LLC
12 Laboratory Dr., RTP, NC 27709; USA TEL:(919) 549-1400

MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

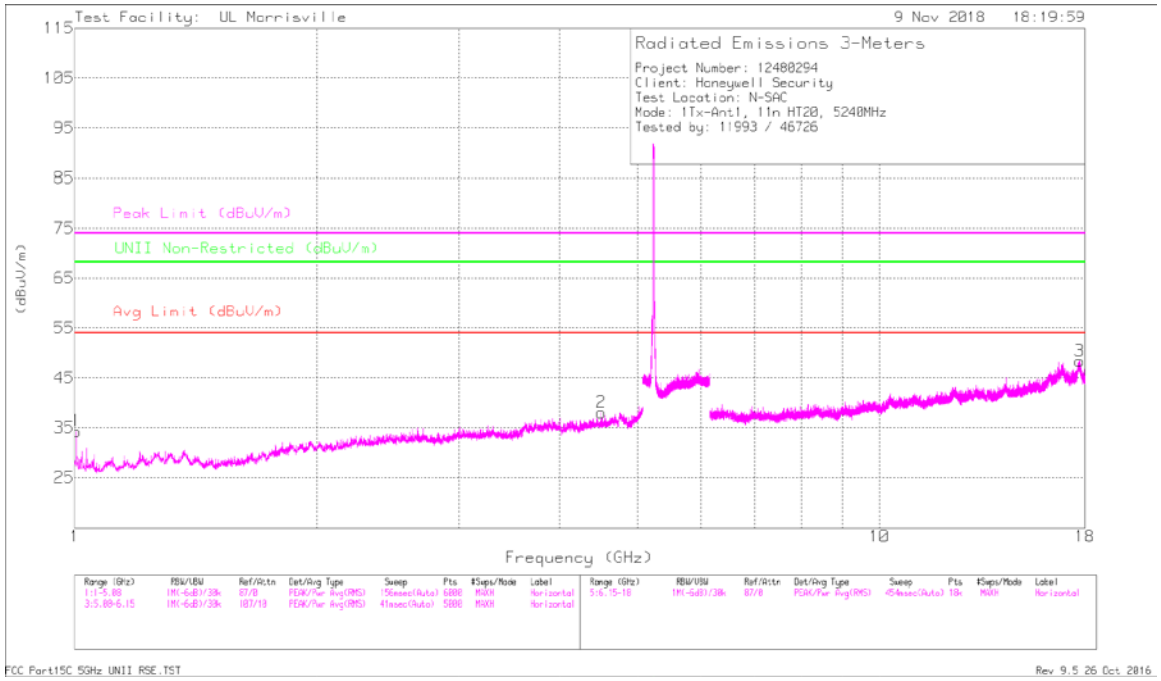
RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 AF (dB/m)	Amp/Cbl/Fltr/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	* ** 4.788	41.8	PK-U	34.1	-31.4	44.5	-	-	74	-29.5	-	-	259	218	H
	* ** 4.788	29.84	ADR	34.1	-31.4	32.54	54	-21.46	-	-	-	-	259	218	H
2	* ** 12.421	35.87	PK-U	38.9	-25.2	49.57	-	-	74	-24.43	-	-	154	144	H
	* ** 12.422	23.82	ADR	38.9	-25.2	37.52	54	-16.48	-	-	-	-	154	144	H
3	* ** 17.722	34.63	PK-U	41.5	-21.2	54.93	-	-	74	-19.07	-	-	121	266	H
	* ** 17.722	22.43	ADR	41.5	-21.2	42.73	54	-11.27	-	-	-	-	121	266	H
5	* ** 4.514	44.65	PK-U	33.9	-32.7	45.85	-	-	74	-28.15	-	-	327	219	V
	* ** 4.514	37.14	ADR	33.9	-32.7	38.34	54	-15.66	-	-	-	-	327	219	V
6	* ** 17.728	33.87	PK-U	41.5	-21.1	54.27	-	-	74	-19.73	-	-	1	151	V
	* ** 17.727	22.49	ADR	41.5	-21.1	42.89	54	-11.11	-	-	-	-	1	151	V
4	3.466	44.19	PK-U	32.8	-33.7	43.29	-	-	-	-	68.2	-24.91	178	136	V

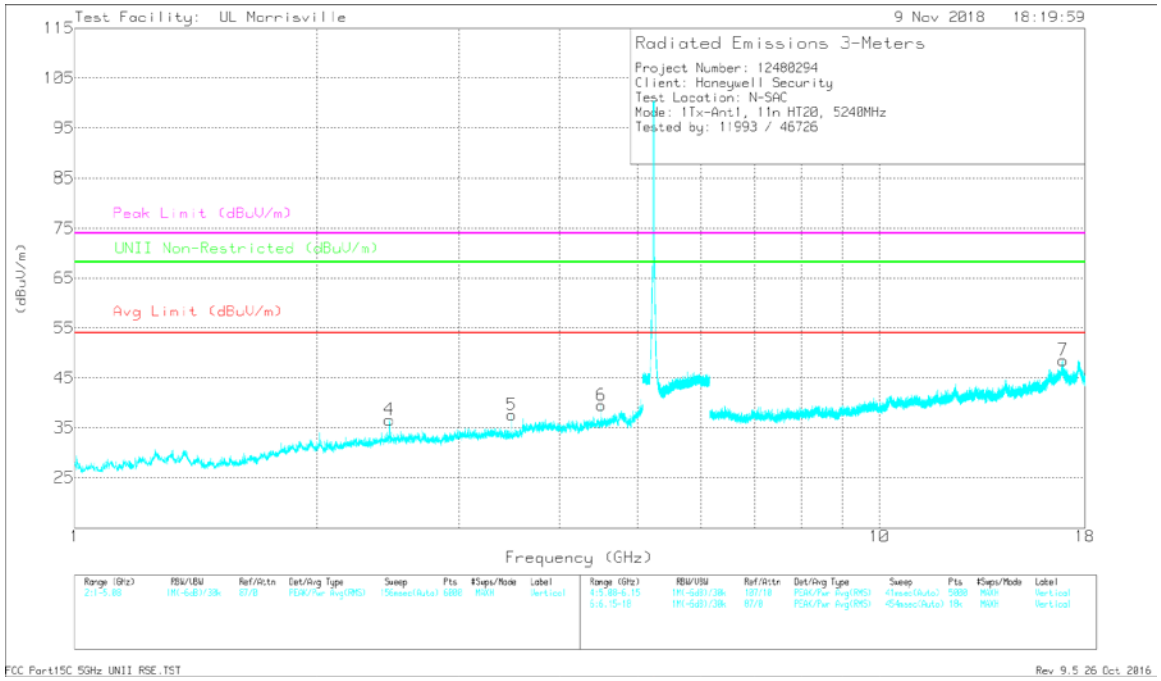
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
** - indicates frequency in Taiwan NCC LP0002 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

UL LLC
12 Laboratory Dr., RTP, NC 27709; USA TEL:(919) 549-1400

HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 AF (dB/m)	Amp/Cbl/Fltr/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	* ** 1.005	49.19	PK-U	27.8	-37.4	39.59	-	-	74	-34.41	-	-	184	150	H
	* ** 1.005	34.61	ADR	27.8	-37.4	25.01	54	-28.99	-	-	-	-	184	150	H
2	* ** 4.514	43.32	PK-U	33.9	-32.7	44.52	-	-	74	-29.48	-	-	183	325	H
	* ** 4.514	35.1	ADR	33.9	-32.7	36.3	54	-17.7	-	-	-	-	183	325	H
6	* ** 4.514	44.85	PK-U	33.9	-32.7	46.05	-	-	74	-27.95	-	-	327	263	V
	* ** 4.514	37.85	ADR	33.9	-32.7	39.05	54	-14.95	-	-	-	-	327	263	V
3	* ** 17.732	33.89	PK-U	41.5	-21	54.39	-	-	74	-19.61	-	-	67	194	H
	* ** 17.731	22.64	ADR	41.5	-21	43.14	54	-10.86	-	-	-	-	67	194	H
4	2.461	43.2	PK-U	32.3	-34.4	41.1	-	-	-	-	68.2	-27.1	182	385	V
5	3.493	43.82	PK-U	32.8	-33.5	43.12	-	-	-	-	68.2	-25.08	182	104	V
7	16.91	36.37	PK-U	41.5	-23.7	54.17	-	-	-	-	68.2	-14.03	17	196	V

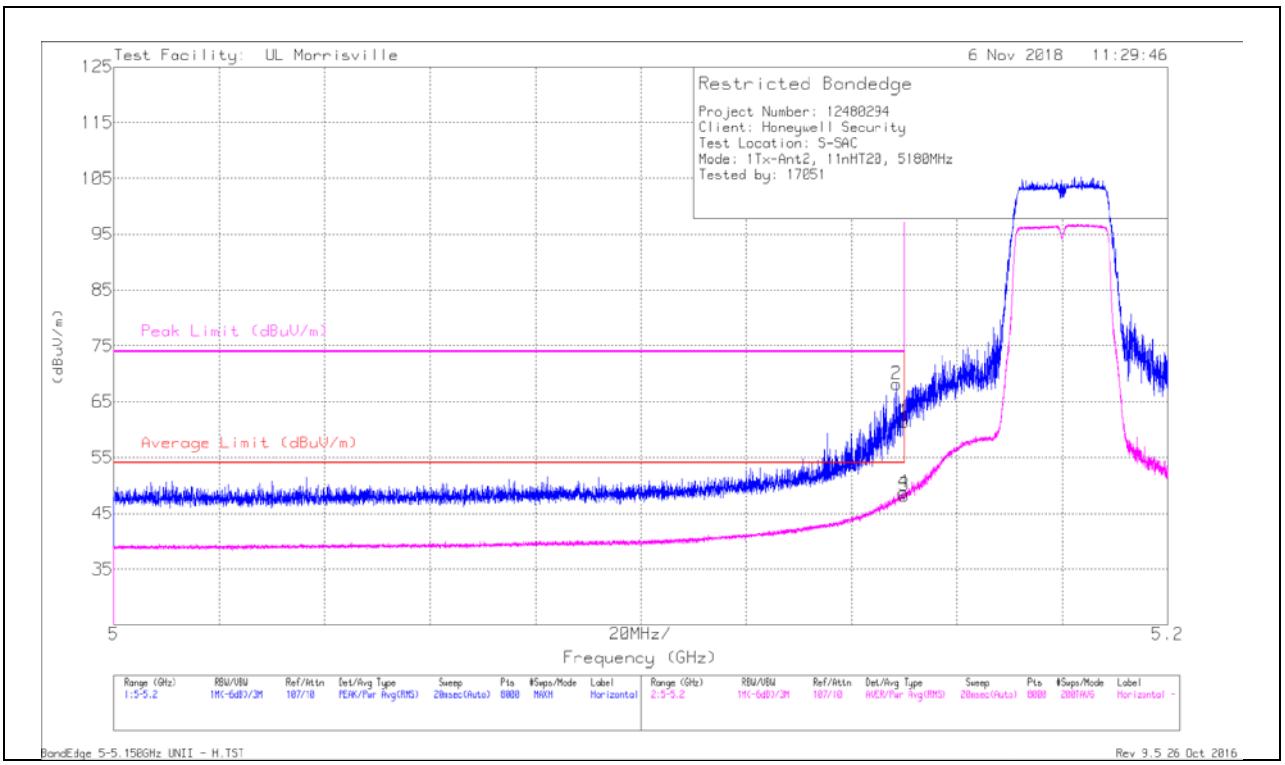
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
** - indicates frequency in Taiwan NCC LP0002 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

UL LLC
12 Laboratory Dr., RTP, NC 27709; USA TEL:(919) 549-1400

1TX Antenna 2 MODE

BANDEDGE (LOW CHANNEL)

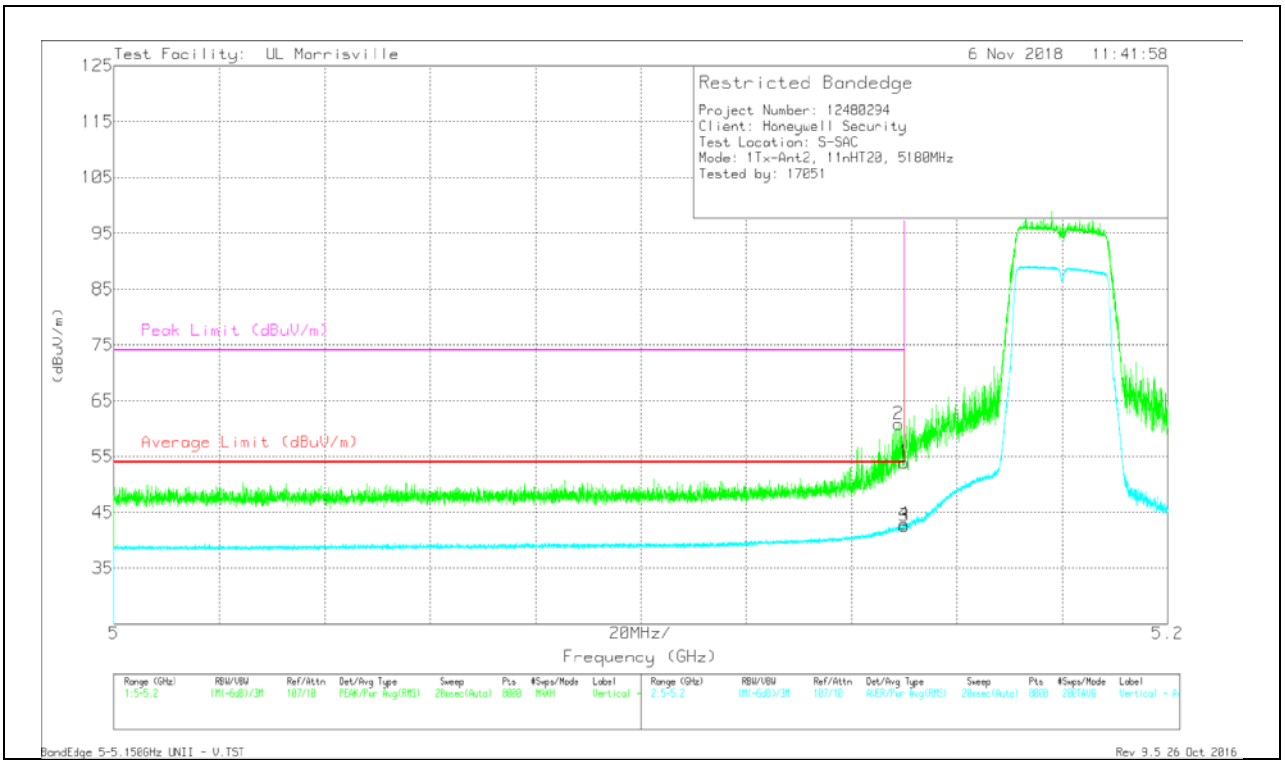
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0069 AF (dB/m)	Amp/Cbl/ Fltr/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	50.01	Pk	34.1	-22.7	61.41	-	-	74	-12.59	181	102	H
2	* 5.148	56.78	Pk	34.1	-22.7	68.18	-	-	74	-5.82	181	102	H
3	* 5.15	36.78	RMS	34.1	-22.7	48.18	54	-5.82	-	-	181	102	H
4	* 5.15	37.31	RMS	34.1	-22.7	48.71	54	-5.29	-	-	181	102	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT

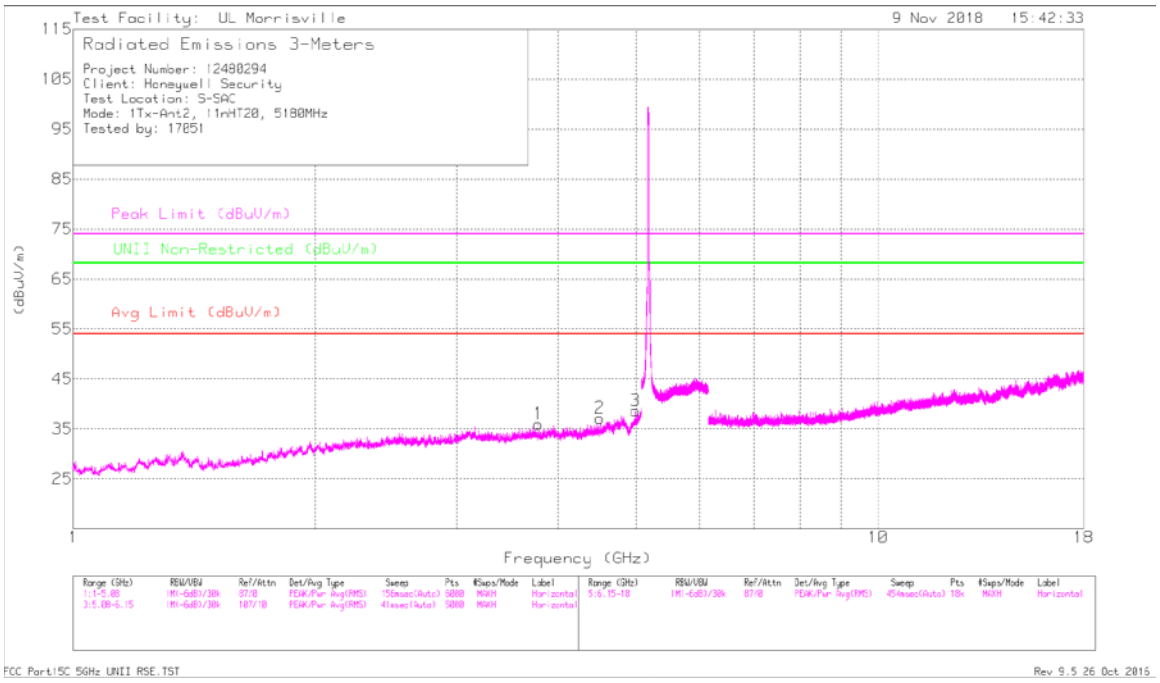


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0069 AF (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	42.54	Pk	34.1	-22.7	53.94	-	-	74	-20.06	218	105	V
2	* 5.149	49.41	Pk	34.1	-22.7	60.81	-	-	74	-13.19	218	105	V
3	* 5.15	31.14	RMS	34.1	-22.7	42.54	54	-11.46	-	-	218	105	V
4	* 5.15	31.48	RMS	34.1	-22.7	42.88	54	-11.12	-	-	218	105	V

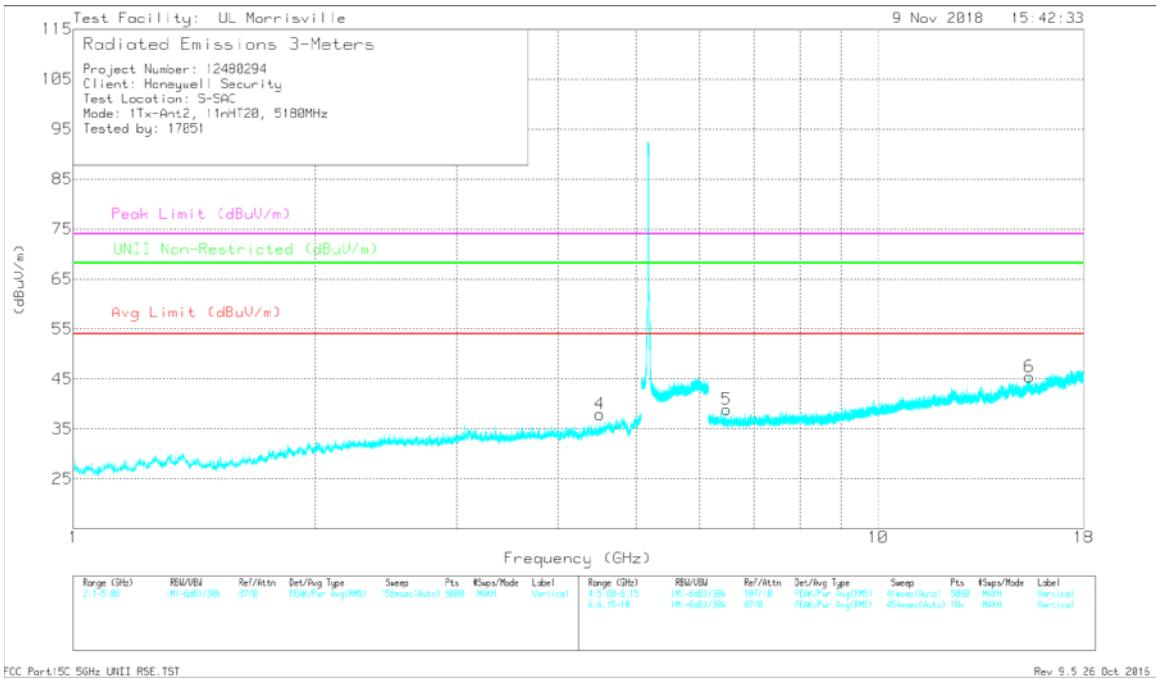
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

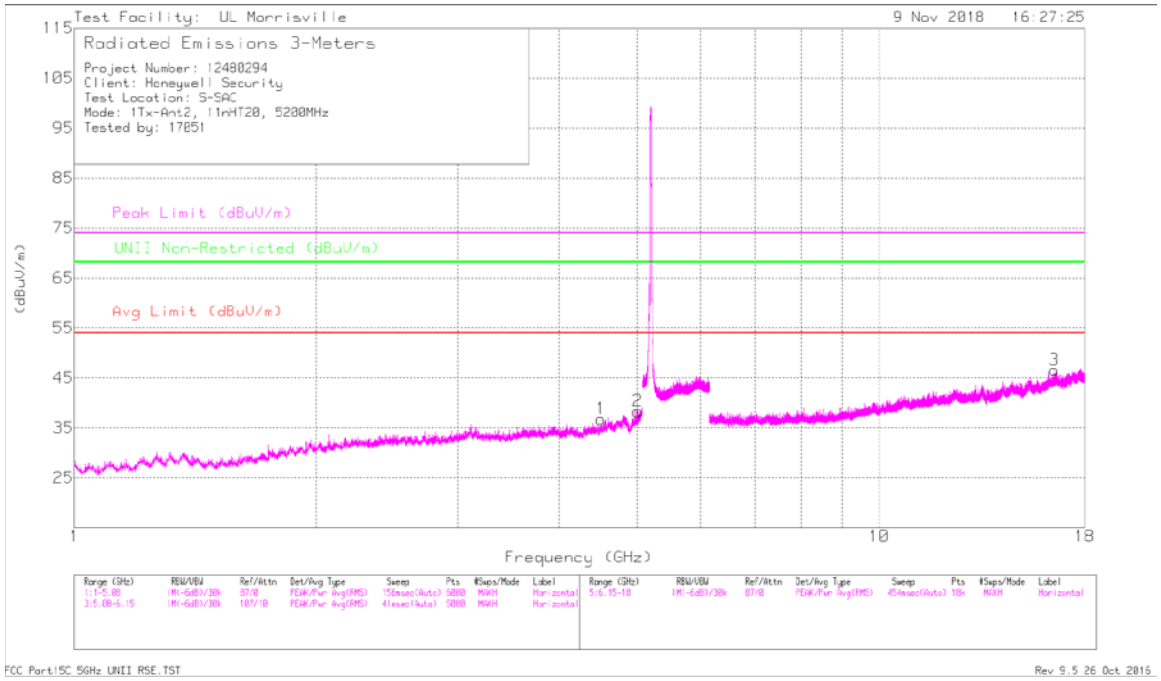
RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AT0069 AF (dB/m)	Amp/Cbl/Fltr/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
* 3.786	40.58	PK-U	33.4	-33	40.98	-	-	74	-33.02	-	-	252	236	H
* 3.784	28.68	ADR	33.4	-33	29.08	54	-24.92	-	-	-	-	252	236	H
* 4.514	42.46	PK-U	33.8	-32.2	44.06	-	-	74	-29.94	-	-	182	212	H
* 4.514	33.36	ADR	33.8	-32.2	34.96	54	-19.04	-	-	-	-	182	212	H
* 4.997	41.65	PK-U	34	-30.1	45.55	-	-	74	-28.45	-	-	260	124	H
* 4.996	30.89	ADR	34	-30.1	34.79	54	-19.21	-	-	-	-	260	124	H
* 4.514	43.55	PK-U	33.8	-32.2	45.15	-	-	74	-28.85	-	-	21	100	V
* 4.514	35.29	ADR	33.8	-32.2	36.89	54	-17.11	-	-	-	-	21	100	V
* 15.4	33.02	PK-U	40	-22.4	50.62	-	-	74	-23.38	-	-	65	128	V
* 15.399	21.29	ADR	40	-22.4	38.89	54	-15.11	-	-	-	-	65	128	V
6.481	36.76	PK-U	35.4	-28.8	43.36	-	-	-	-	68.2	-24.84	290	296	V

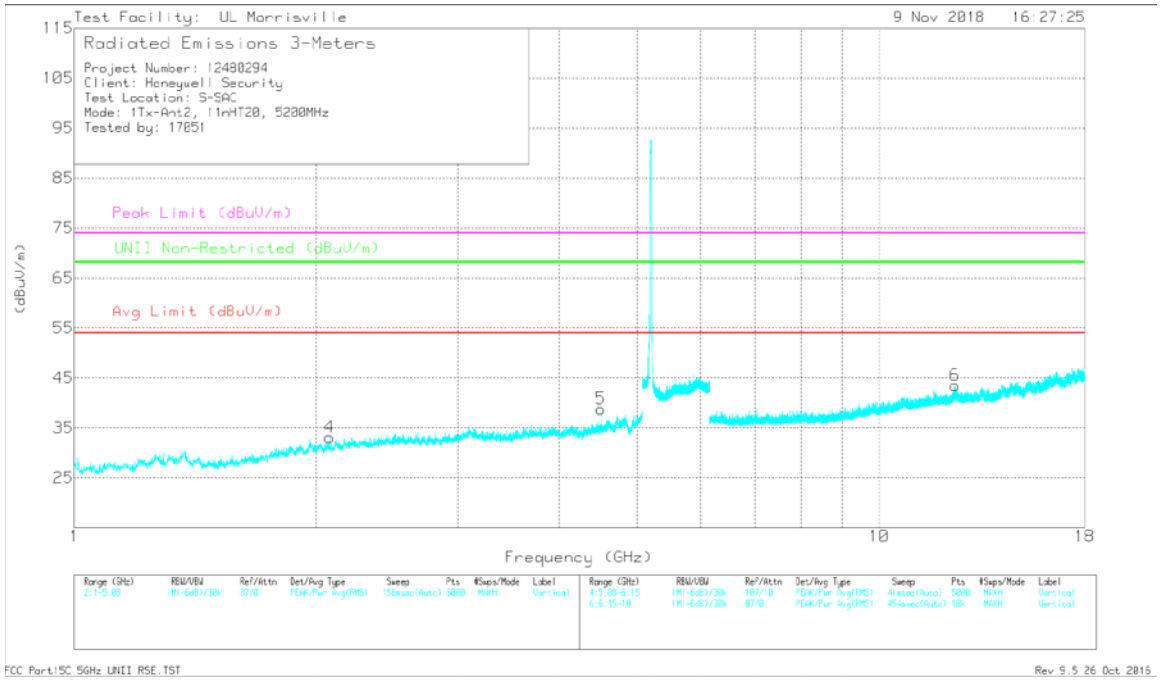
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

UL LLC
12 Laboratory Dr., RTP, NC 27709; USA TEL:(919) 549-1400

MID CHANNEL RESULTS



HORIZONTAL



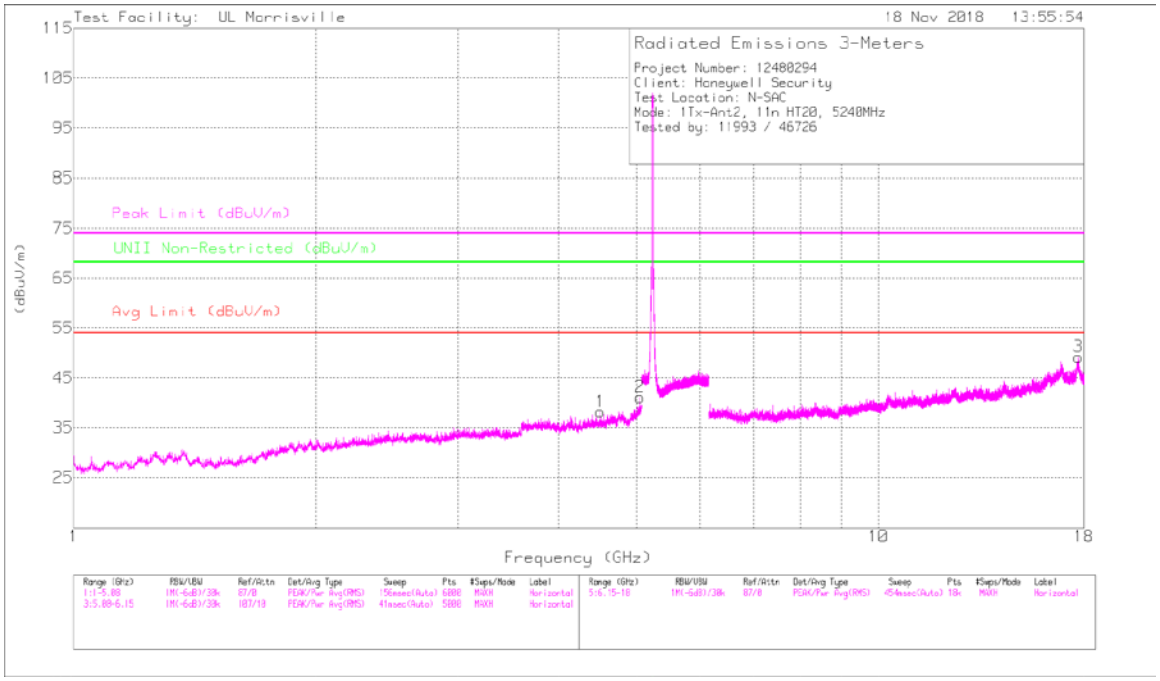
VERTICAL

RADIATED EMISSIONS

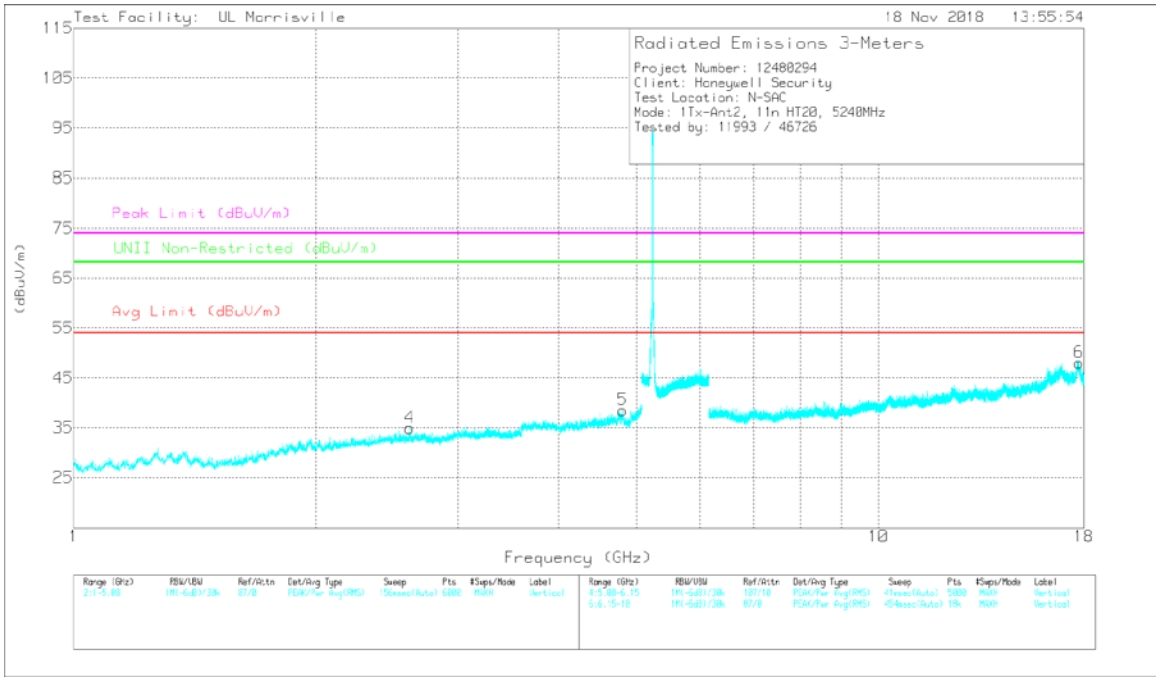
Frequency (GHz)	Meter Reading (dBuV)	Det	AT0069 AF (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.514	42.41	PK-U	33.8	-32.2	44.01	-	-	74	-29.99	-	-	182	212	H
* 4.514	33.34	ADR	33.8	-32.2	34.94	54	-19.06	-	-	-	-	182	212	H
* 5.015	41.8	PK-U	34	-30	45.8	-	-	74	-28.2	-	-	260	124	H
* 5.016	30.92	ADR	34	-30	34.92	54	-19.08	-	-	-	-	260	124	H
* 4.514	43.08	PK-U	33.8	-32.2	44.68	-	-	74	-29.32	-	-	21	101	V
* 4.514	35.23	ADR	33.8	-32.2	36.83	54	-17.17	-	-	-	-	21	101	V
* 12.421	33.32	PK-U	38.8	-23.8	48.32	-	-	74	-25.68	-	-	47	108	V
* 12.418	21.91	ADR	38.8	-23.8	36.91	54	-17.09	-	-	-	-	47	108	V
2.074	41.72	PK-U	31.2	-34.5	38.42	-	-	-	-	68.2	-29.78	6	143	V
16.511	34.87	PK-U	41.2	-23.4	52.67	-	-	-	-	68.2	-15.53	105	281	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-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	AT0072 AF (dB/m)	Amp/Cbl/Fltr/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	* ** 4.514	43.74	PK-U	33.9	-32.7	44.94	-	-	74	-29.06	-	-	360	281	H
	* ** 4.514	34.6	ADR	33.9	-32.7	35.8	54	-18.2	-	-	-	-	360	281	H
2	* ** 5.053	44.93	PK-U	34.2	-31.3	47.83	-	-	74	-26.17	-	-	311	125	H
	* ** 5.054	34.19	ADR	34.2	-31.2	37.19	54	-16.81	-	-	-	-	311	125	H
5	* ** 4.805	41.63	PK-U	34.1	-31.1	44.63	-	-	74	-29.37	-	-	275	172	V
	* ** 4.807	30.12	ADR	34.1	-31.1	33.12	54	-20.88	-	-	-	-	275	172	V
3	* ** 17.735	34.39	PK-U	41.5	-21	54.89	-	-	74	-19.11	-	-	62	218	H
	* ** 17.733	22.55	ADR	41.5	-21	43.05	54	-10.95	-	-	-	-	62	218	H
6	* ** 17.744	34.52	PK-U	41.5	-21	55.02	-	-	74	-18.98	-	-	90	144	V
	* ** 17.744	22.55	ADR	41.5	-21	43.05	54	-10.95	-	-	-	-	90	144	V
4	2.615	42.16	PK-U	32.5	-34.3	40.36	-	-	-	-	68.2	-27.84	193	116	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
** - indicates frequency in Taiwan NCC LP0002 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

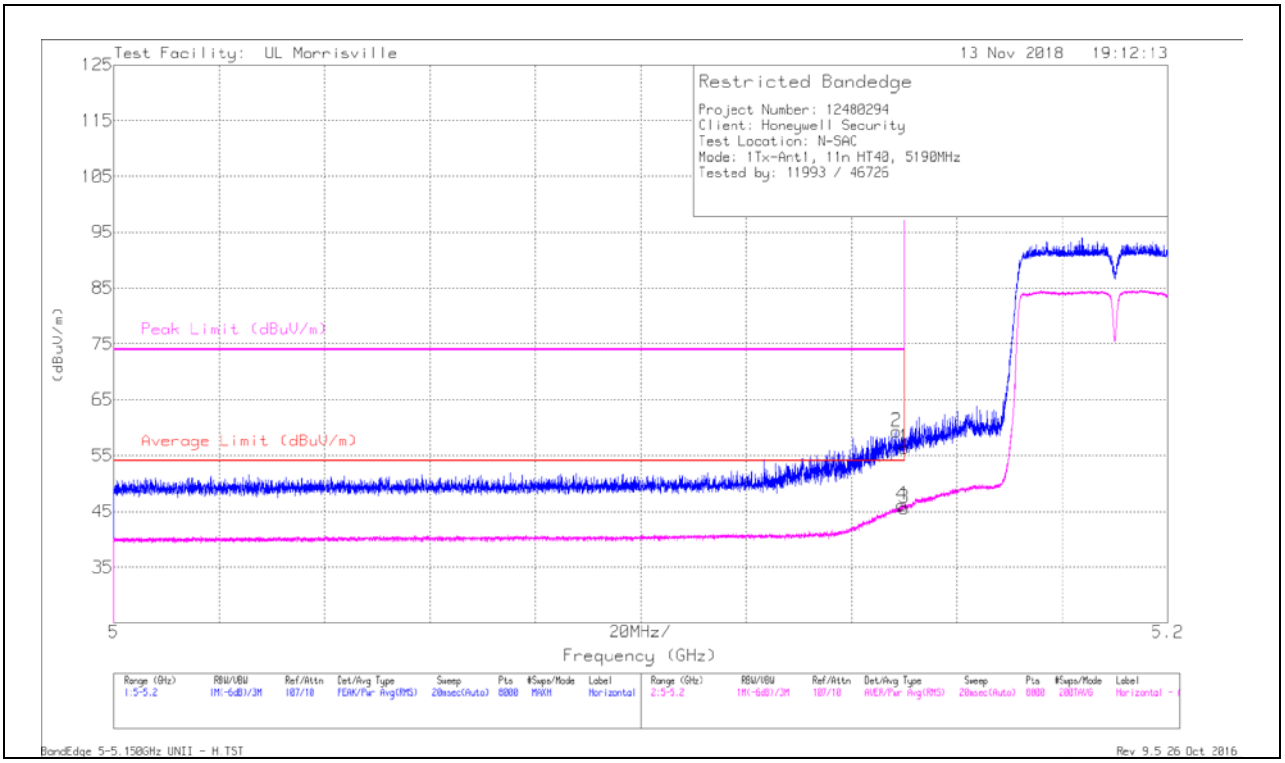
UL LLC
12 Laboratory Dr., RTP, NC 27709; USA TEL:(919) 549-1400

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

1TX Antenna 1 MODE

BANDEDGE (LOW CHANNEL)

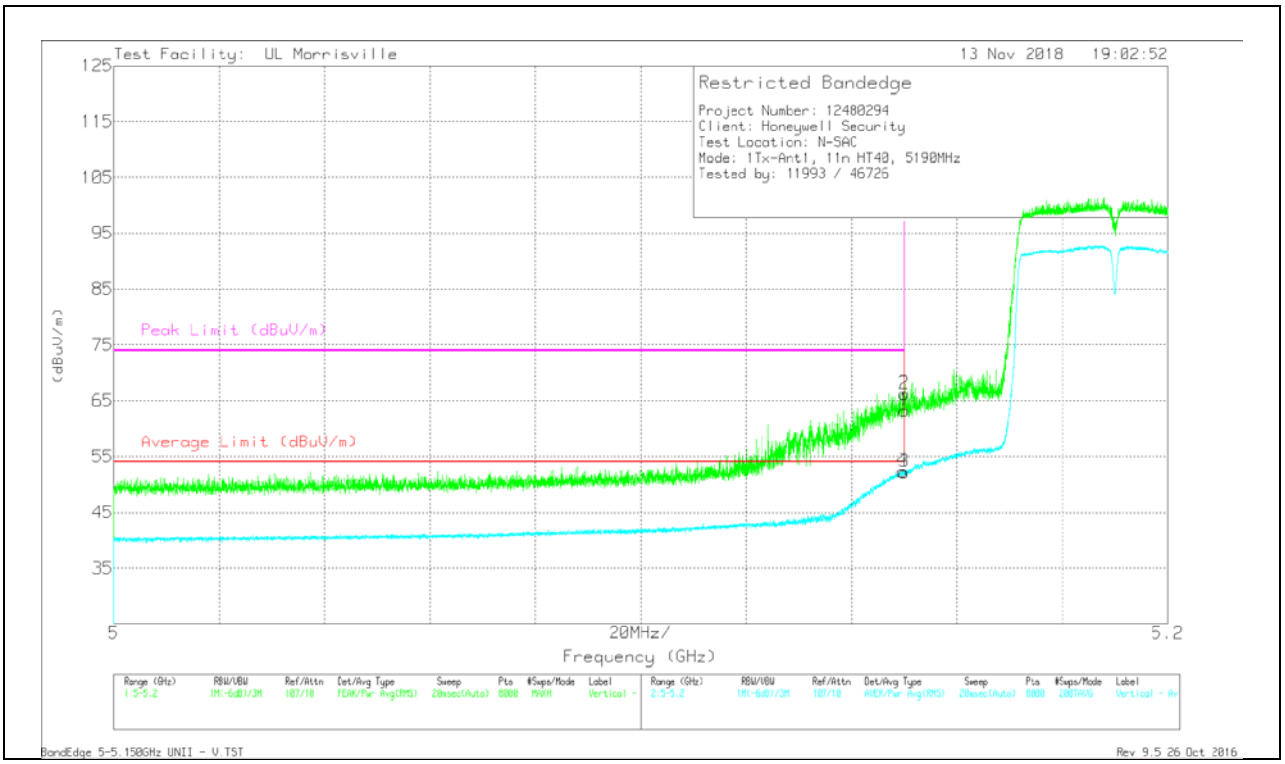
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 AF (dB/m)	Amp/Cbl/Fltr/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	44.92	Pk	34.2	-22.7	0	56.42	-	-	74	-17.58	132	212	H
2	* ** 5.149	47.95	Pk	34.2	-22.8	0	59.35	-	-	74	-14.65	132	212	H
3	* ** 5.15	34.02	RMS	34.2	-22.7	.1	45.62	54	-8.38	-	-	132	212	H
4	* ** 5.15	34.7	RMS	34.2	-22.8	.1	46.2	54	-7.8	-	-	132	212	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
** - indicates frequency in Taiwan NCC LP0002 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT

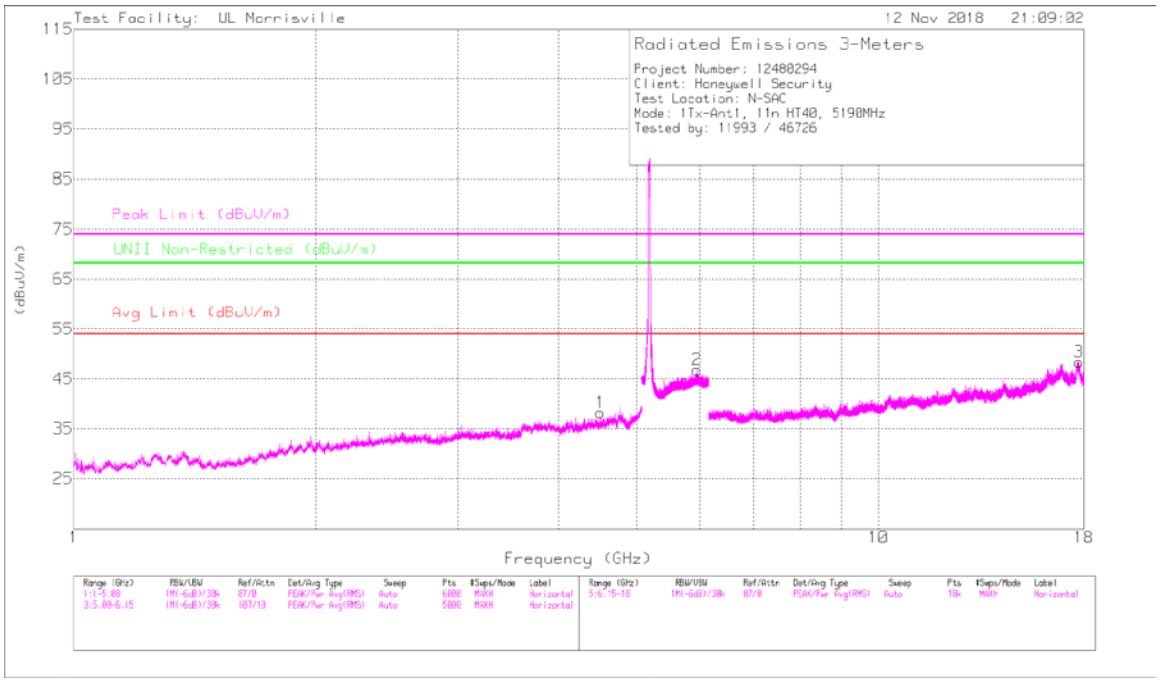


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 AF (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 5.15	51.75	Pk	34.2	-22.7	0	63.25	-	-	74	-10.75	356	248	V
2	* ** 5.15	54.74	Pk	34.2	-22.7	0	66.24	-	-	74	-7.76	356	248	V
3	* ** 5.15	40.65	RMS	34.2	-22.7	.1	52.25	54	-1.75	-	-	356	248	V
4	* ** 5.15	40.77	RMS	34.2	-22.7	.1	52.37	54	-1.63	-	-	356	248	V

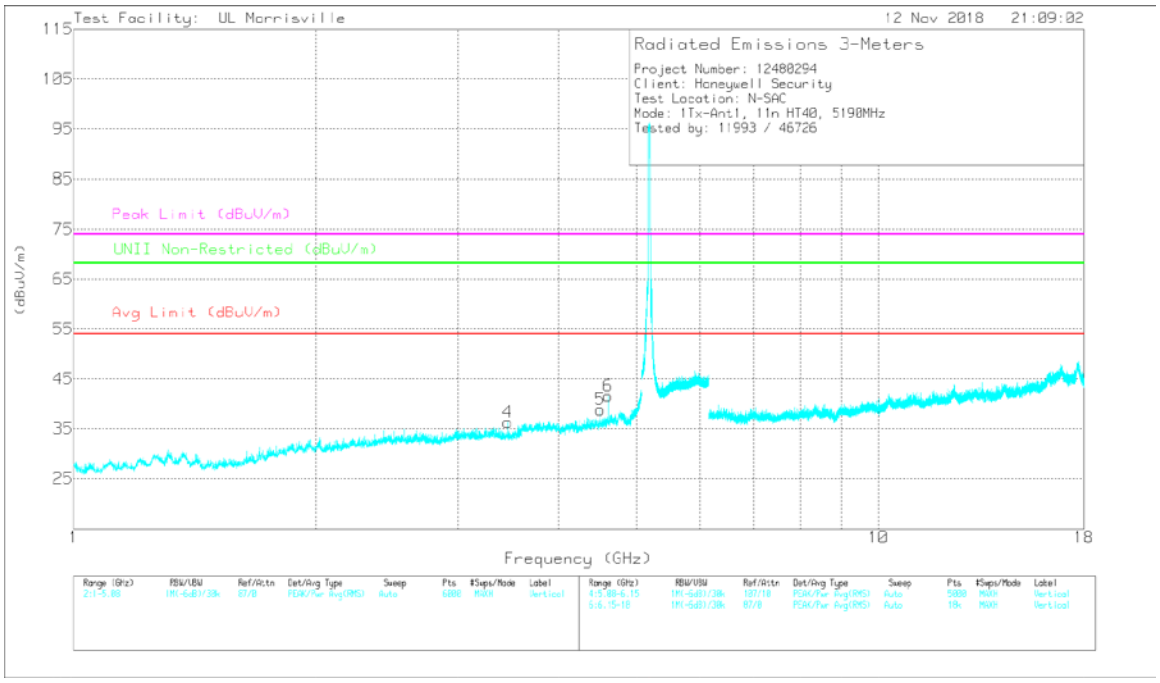
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
** - indicates frequency in Taiwan NCC LP0002 Restricted Band
Pk - Peak detector
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

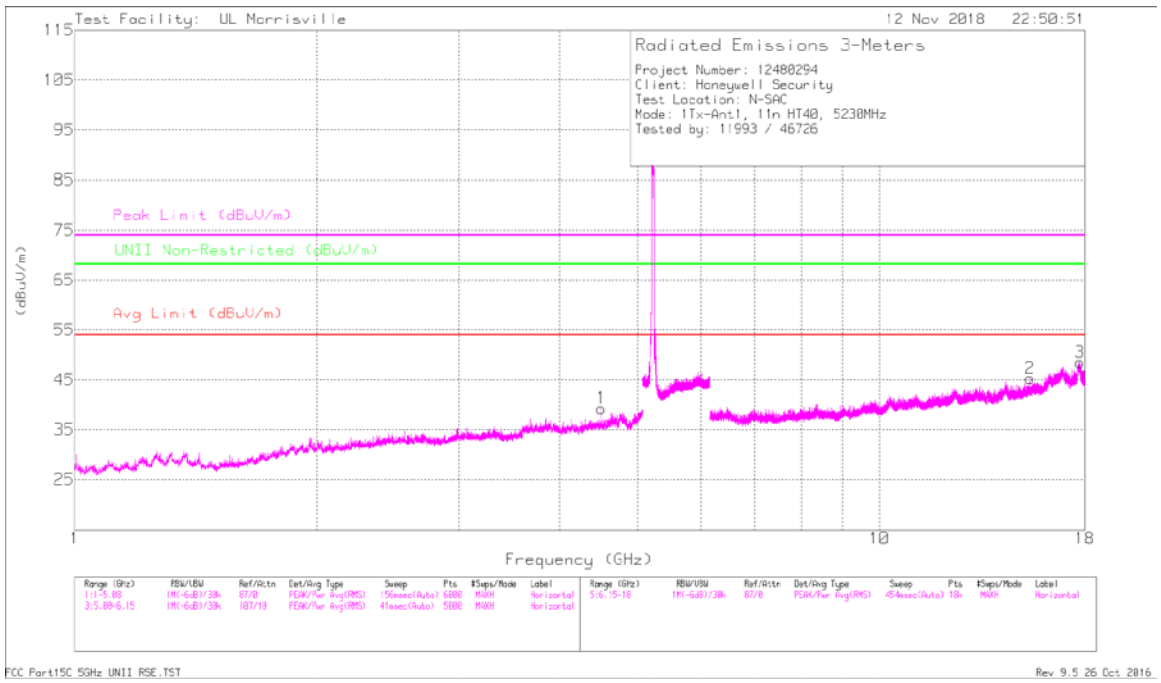
RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 AF (dB/m)	Amp/Cbl/Fltr/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	* ** 4.514	44.51	PK-U	33.9	-32.7	0	45.71	-	-	74	-28.29	-	-	66	361	H
	* ** 4.514	34.53	ADR	33.9	-32.7	.1	35.83	54	-18.17	-	-	-	-	66	361	H
5	* ** 4.514	43.89	PK-U	33.9	-32.7	0	45.09	-	-	74	-28.91	-	-	325	115	V
	* ** 4.514	36.01	ADR	33.9	-32.7	.1	37.31	54	-16.69	-	-	-	-	325	115	V
6	* ** 4.614	44.3	PK-U	34.1	-31.9	0	46.5	-	-	74	-27.5	-	-	55	250	V
	* ** 4.613	35.95	ADR	34.1	-31.9	.1	38.25	54	-15.75	-	-	-	-	55	250	V
3	* ** 17.738	34.07	PK-U	41.5	-21	0	54.57	-	-	74	-19.43	-	-	184	145	H
	* ** 17.739	22.64	ADR	41.5	-21	.1	43.24	54	-10.76	-	-	-	-	184	145	H
4	3.46	44.1	PK-U	32.8	-33.6	0	43.3	-	-	-	-	68.2	-24.9	98	142	V
2	5.949	38.61	PK-U	34.9	-22.1	0	51.41	-	-	-	-	68.2	-16.79	321	312	H

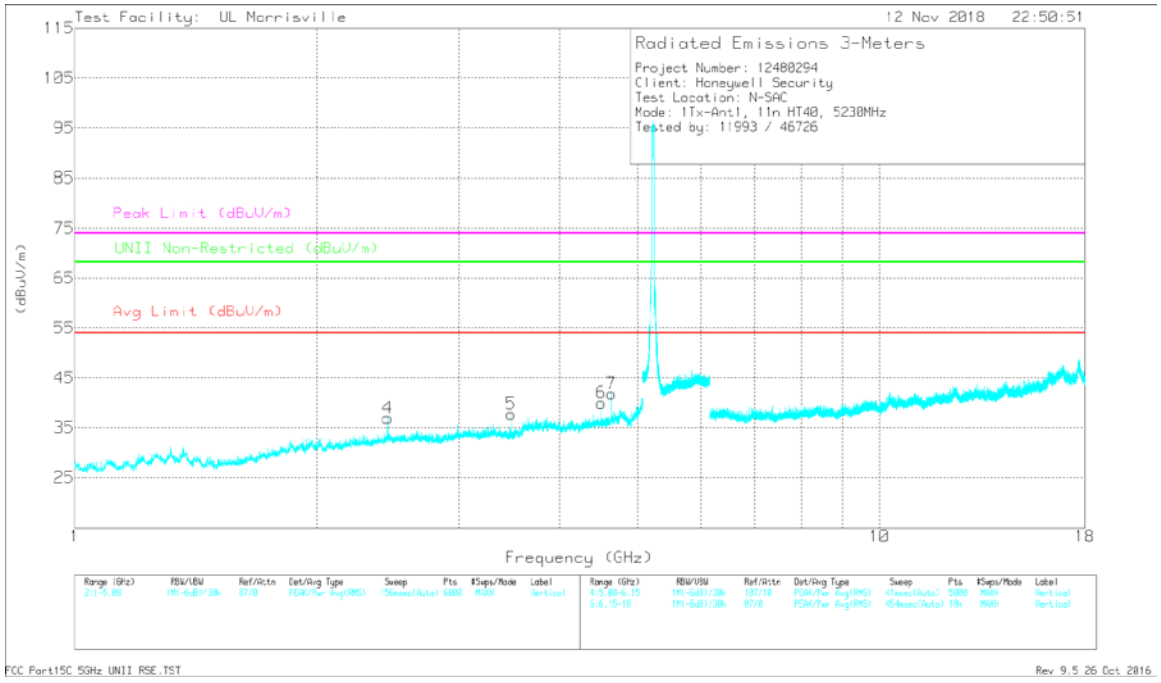
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
** - indicates frequency in Taiwan NCC LP0002 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

UL LLC
12 Laboratory Dr., RTP, NC 27709; USA TEL:(919) 549-1400

HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 AF (dB/m)	Amp/Cbl/Fltr/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	* ** 4.514	43.76	PK-U	33.9	-32.7	0	44.96	-	-	74	-29.04	-	-	76	320	H
	* ** 4.514	34.67	ADR	33.9	-32.7	.1	35.97	54	-18.03	-	-	-	-	76	320	H
6	* ** 4.514	44.4	PK-U	33.9	-32.7	0	45.6	-	-	74	-28.4	-	-	321	109	V
	* ** 4.514	36.49	ADR	33.9	-32.7	.1	37.79	54	-16.21	-	-	-	-	321	109	V
7	* ** 4.649	44.46	PK-U	34	-31.5	0	46.96	-	-	74	-27.04	-	-	58	224	V
	* ** 4.649	35.59	ADR	34	-31.5	.1	38.19	54	-15.81	-	-	-	-	58	224	V
2	* ** 15.383	36.83	PK-U	40.1	-26.8	0	50.13	-	-	74	-23.87	-	-	192	260	H
	* ** 15.381	25.13	ADR	40.1	-26.8	.1	38.53	54	-15.47	-	-	-	-	192	260	H
3	* ** 17.745	33.59	PK-U	41.5	-21	0	54.09	-	-	74	-19.91	-	-	227	208	H
	* ** 17.742	22.59	ADR	41.5	-21	.1	43.19	54	-10.81	-	-	-	-	227	208	H
4	2.448	42.56	PK-U	32.2	-34.3	0	40.46	-	-	-	-	68.2	-27.74	286	347	V
5	3.487	44.22	PK-U	32.8	-33.6	0	43.42	-	-	-	-	68.2	-24.78	4	111	V

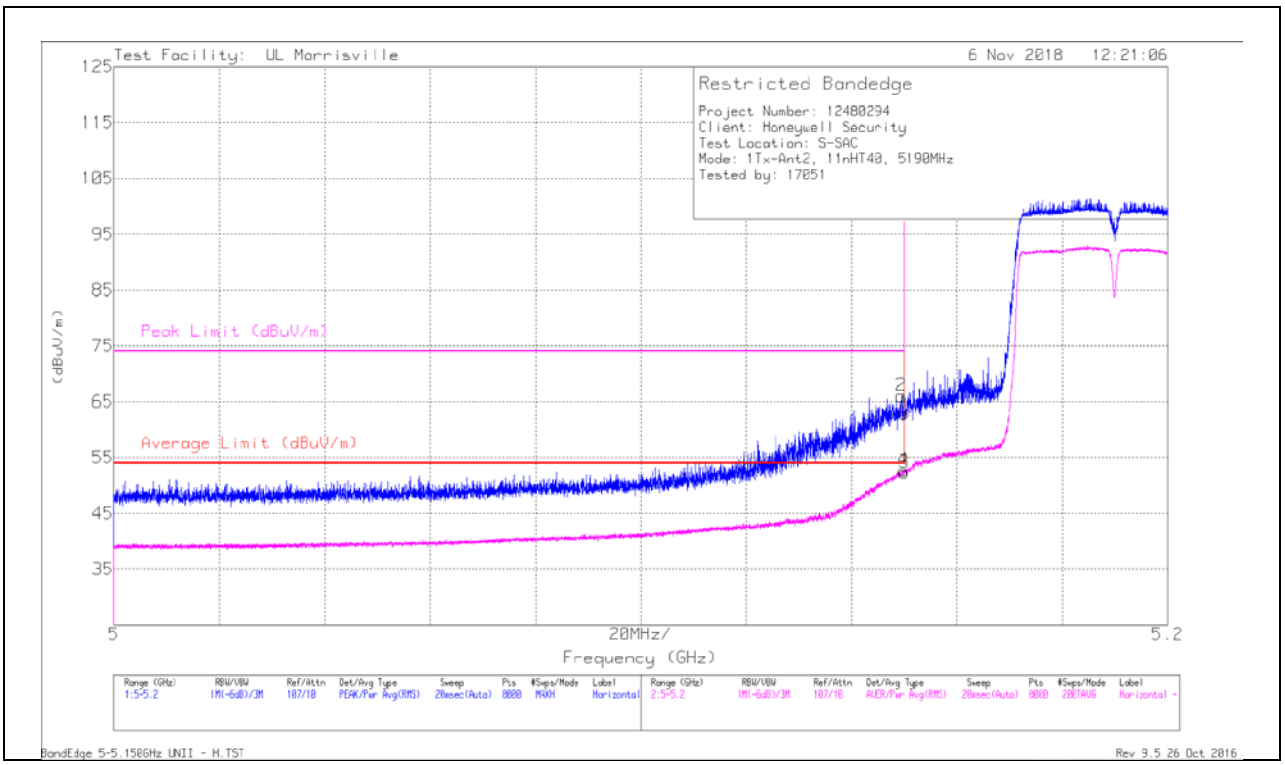
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
** - indicates frequency in Taiwan NCC LP0002 Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

UL LLC
12 Laboratory Dr., RTP, NC 27709; USA TEL:(919) 549-1400

1TX Antenna 2 MODE

BANDEDGE (LOW CHANNEL)

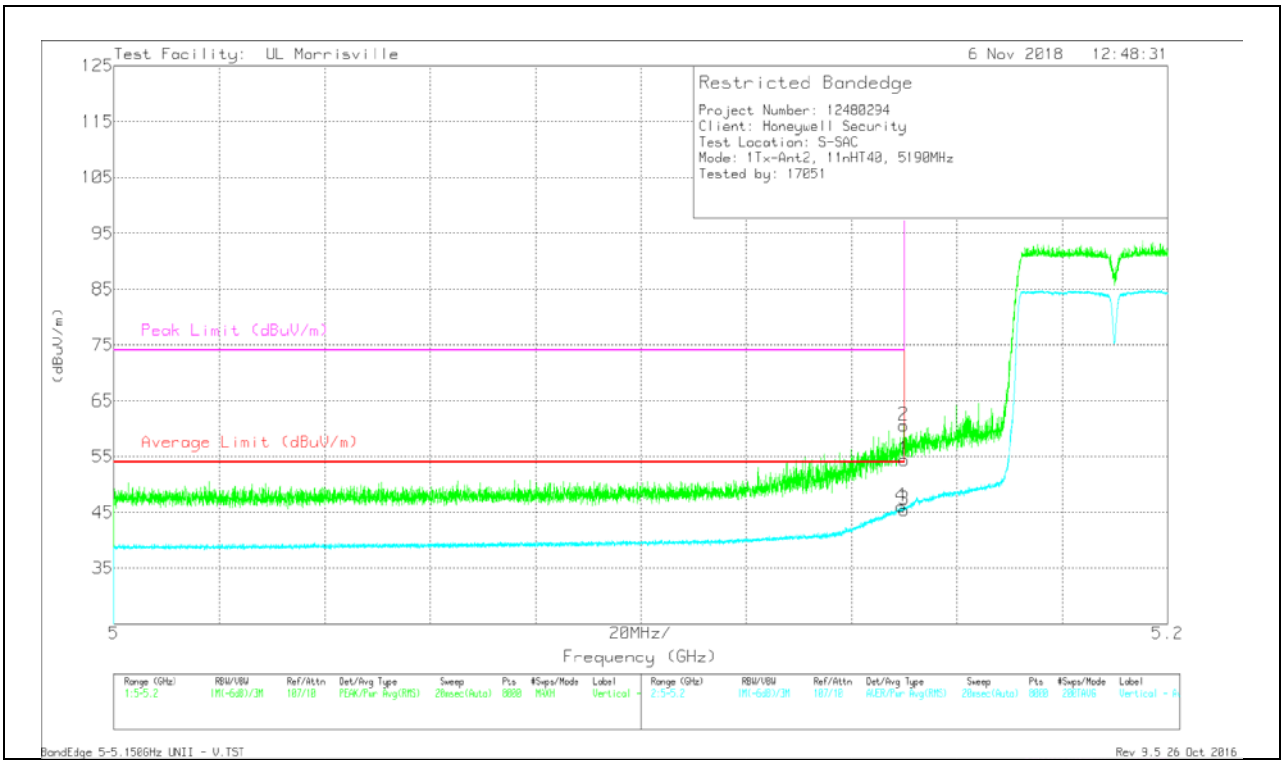
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0069 AF (dB/m)	Amp/Cbl/Fltr/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	51.51	Pk	34.1	-22.7	0	62.91	-	-	74	-11.09	181	104	H
2	* 5.149	54.63	Pk	34.1	-22.7	0	66.03	-	-	74	-7.97	181	104	H
3	* 5.15	40.94	RMS	34.1	-22.7	.1	52.44	54	-1.56	-	-	181	104	H
4	* 5.15	41.31	RMS	34.1	-22.7	.1	52.81	54	-1.19	-	-	181	104	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0069 AF (dB/m)	Amp/Cbl/Fltr/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	43.08	Pk	34.1	-22.7	0	54.48	-	-	74	-19.52	219	106	V
2	* 5.15	49.2	Pk	34.1	-22.7	0	60.6	-	-	74	-13.4	219	106	V
3	* 5.15	34.11	RMS	34.1	-22.7	.1	45.61	54	-8.39	-	-	219	106	V
4	* 5.149	34.73	RMS	34.1	-22.7	.1	46.23	54	-7.77	-	-	219	106	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection