



**FCC 47 CFR PART 15 SUBPART E
ISED CANADA RSS-247 ISSUE 1**

CERTIFICATION TEST REPORT

FOR

NETWORK SURVEILLANCE CAMERA

HVIN: r1

PMN: AXIS M3045-WV

FCC ID: PNB-AXISM3045-WV

IC: 3919A-M3045WV

REPORT NUMBER: 11197251-E2

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**Prepared for
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NVLAP Lab code: 200246-0

Revision History

Ver.	Issue Date	Revisions	Revised By
1	2016-07-18	Initial Issue	Brian Kiewra
2	2016-07-22	Added model numbers and EUT descriptive detail. Added Line Conducted Emissions setup diagram and revised serial number.	Brian Kiewra
3	2016-08-11	Removed model variants, added HVIN and PMN and editorial changes to references.	Brian Kiewra

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Axis Communications AB
Emdalavagen 14
Lund, Sweden, SE-223 69

EUT DESCRIPTION: Network Surveillance Camera

HVIN: r1
PMN: AXIS M3045-WV

SERIAL NUMBER: 00408C186CE0

DATE TESTED: 2016-04-26 to 2016-06-28

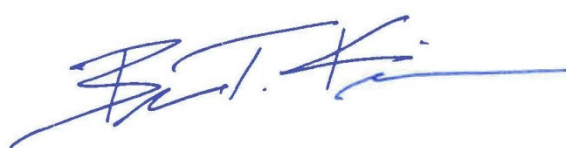
APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart E	Pass
INDUSTRY CANADA (ISED CANADA) RSS-247 Issue 1	Pass
INDUSTRY CANADA (ISED CANADA) RSS-GEN Issue 4	Pass

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

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL 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, any agency of the Federal Government, or any agency of any government.

Approved & Released
For UL LLC By:

Prepared By:



Jeffrey Moser
EMC Program Manager
UL – Consumer Technology Division

Brian Kiewra
WiSE 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, RSS-GEN Issue 4, RSS-247 Issue 1.

3. FACILITIES AND ACCREDITATION

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

12 Laboratory Dr., RTP, NC 27709	
☐	Chamber A
☒	Chamber C

2800 Suite B Perimeter Park Dr., Morrisville, NC 27560	
☐	Chamber NORTH
☒	Chamber SOUTH

The onsite chambers are covered under ISED Canada company address code 2180C with site numbers 2180C -1 through 2180C-4, respectively.

UL LLC (RTP) is accredited by NVLAP, Laboratory Code 200246-0. The full scope of accreditation can be viewed at <http://www.nist.gov/nvlap/>.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

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

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

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

4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Total RF power, conducted	$\pm 0.45 \text{ dB}$
RF power density, conducted	$\pm 1.5 \text{ dB}$
Spurious emissions, conducted	$\pm 2.94 \text{ dB}$
All emissions, radiated up to 40 GHz	$\pm 5.36 \text{ dB}$
Temperature	$\pm 0.07^\circ\text{C}$
Humidity	$\pm 2.26\% \text{ RH}$
DC and low frequency voltages	$\pm 1.27\%$
Conducted Emissions (0.150-30MHz)	$\pm 2.37\text{dB}$

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a network surveillance camera that contains an 802.11 a/b/g/n and Bluetooth transceivers, manufactured by AXIS Communications AB, Lund, SWEDEN. For 5GHz operation, the EUT only operates in the 5.2 GHz band.

The EUT is provided with an Axis PS-U05 rev. 1 power supply.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5180 - 5240	802.11a	13.1	20.42
5180 - 5240	802.11n HT20	12.12	16.29
5190 - 5230	802.11n HT40	12.45	17.58

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an internal inverted-f type antenna.

Peak antenna gain is +0.6 dBi for 2.5 GHz and +4.4 dBi for 5 GHz.

5.4. SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was *6.15_beta54*.

Special test firmware used for EMC was *15+snapshot_20160511* (this firmware allows for simultaneously operation for Bluetooth and WLAN in order to reduce test set-ups).

5.5. WORST-CASE CONFIGURATION AND MODE

Radiated emission and power line conducted emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.

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

Based on the baseline scan, the worst-case data rates 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
Laptop	Lenovo	T440	RTP1014PC015NUR	NA

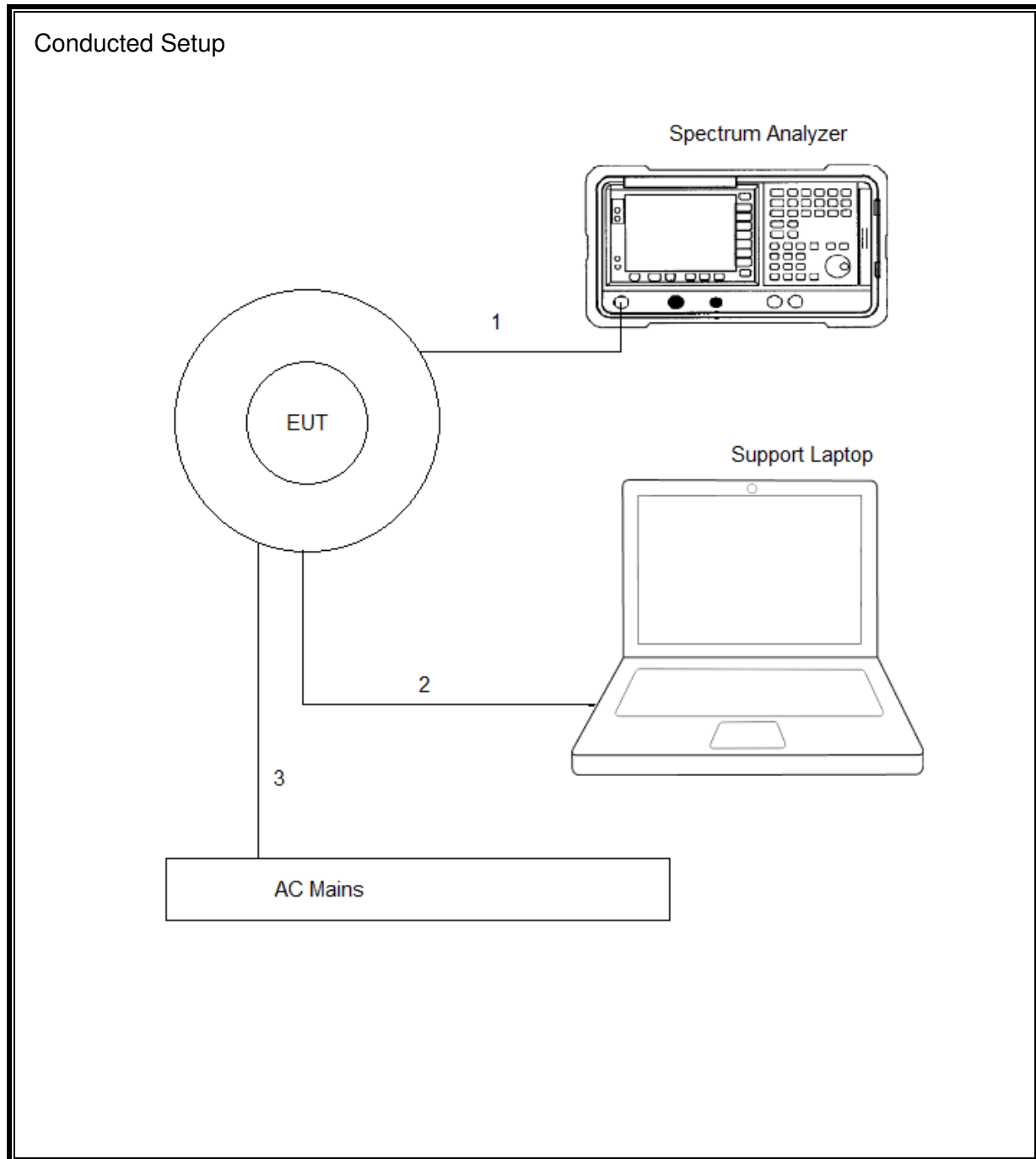
I/O CABLES

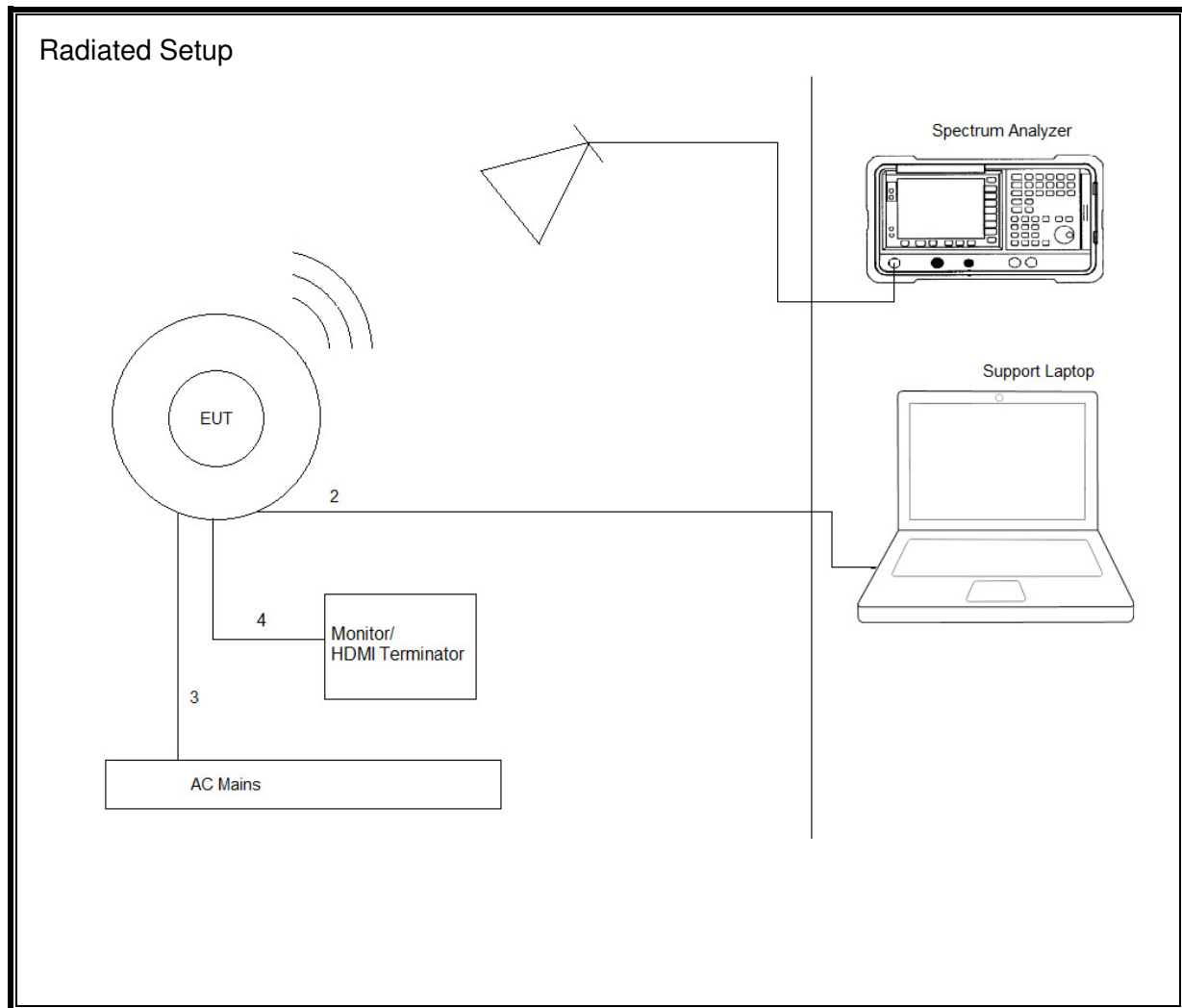
I/O Cable List					
Cable No	Port	# of Identical ports	Connector Type	Cable Length (m)	Remarks
1	Antenna Port	1	EUT	<1m	NA
2	Ethernet	1	RJ45	>1m	CAT5E
3	AC Mains	1	AC	>1m	NA
4	HDMI	1	HDMI	>1m	NA

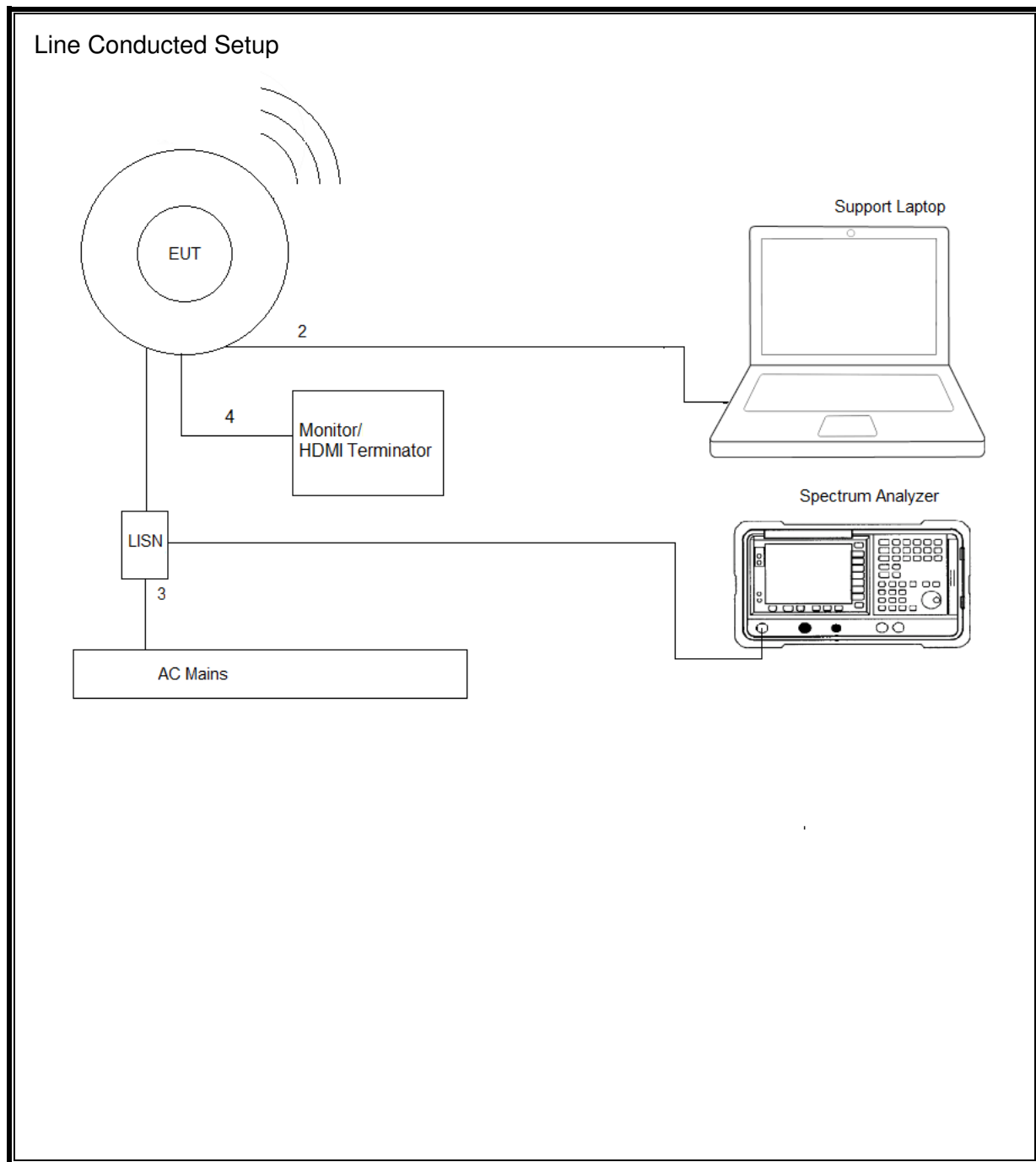
TEST SETUP

Test software exercised the radio card.

SETUP DIAGRAM FOR TESTS







6. 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 (E-field) – Chamber C

Equip. ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
	30-1000 MHz Range				
AT0075	Hybrid Broadband Antenna	Sunol Sciences Corp.	JB3	2015-06-10	2016-06-30
	1-18 GHz				
AT0062	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2015-08-25	2016-08-31
	18-40GHz				
AT0063	Horn Antenna, 18-26.5GHz	ARA	MWH-1826/B	2015-08-27	2016-08-31
AT0061	Horn Antenna, 26-40GHz	ARA	MWH-2640/B	2015-08-27	2016-08-31
	Gain-Loss Chains				
C-SAC01	Gain-loss string: 0.009-1000MHz	Various	Various	2016-01-18	2017-01-31
C-SAC02	Gain-loss string: 1-18GHz	Various	Various	2016-01-28	2017-01-31
C-SAC03	Gain-loss string: 18-40GHz	Various	Various	2015-09-27	2016-09-30
	Receiver & Software				
SA0016	Spectrum Analyzer	Agilent	PXA N903A	2015-08-26	2016-08-31
SOFTEMI	EMI Software	UL	Version 9.5	NA	NA
	Additional Equipment used				
HI0082	Temp/Humid/Pressure Meter	Cole-Parmer	99760-00	2016-04-26	2017-04-26
981217 (5A288)	9kHz – 30MHz Loop Antenna	EMCO	6507	2015-12-03	2016-12-31

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

Equip. ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
AT0074	Hybrid Broadband Antenna	Sunol Sciences Corp.	JB3	2016-06-07	2017-06-30
S-SAC02	Gain-loss string: 30-1000MHz	Various	Various	2016-06-26	2017-06-30
SA0025	Spectrum Analyzer	Agilent	N9030A	2016-03-17	2017-03-31
SA0026 (18-40GHz RSE)	Spectrum Analyzer	Agilent	N9030A	2016-02-24	2017-02-28
SOFTEMI	EMI Software	UL	Version 9.5	NA	NA
HI0050	Temp/Humid/Pressure Meter	Cole-Parmer	99760-00	2015-07-01	2016-07-31

Test Equipment Used - Wireless Conducted Measurement Equipment

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
	Conducted Room 1				
72822 (SA0019)	Spectrum Analyzer	Agilent Technologies	E4446A	2015-09-02	2016-09-30
SA0026	Spectrum Analyzer	Agilent	N9030A	2016-02-24	2017-02-28
PWM004	RF Power Meter	Keysight Technologies	N1911A	2015-06-08	2016-06-30
PWS004	Peak and Avg Power Sensor, 50MHz to 6GHz	Keysight Technologies	E9323A	2015-06-05	2016-06-30
HI0079	Temp/Humid/Pressure Meter	Springfield	PreciseTemp	2015-07-01	2016-07-31
MM0167	True RMS Multimeter	Agilent	U1232A	2015-08-17	2016-08-31
	Conducted Room 2				
SA0020	Spectrum Analyzer	Agilent Technologies	E4446A	2016-03-22	2017-03-31
SA0026	Spectrum Analyzer	Agilent	N9030A	2016-02-24	2017-02-28
PWM003	RF Power Meter	Keysight Technologies	N1911A	2015-06-08	2016-06-30
PWS003	Peak and Avg Power Sensor, 50MHz to 6GHz	Keysight Technologies	E9323A	2015-06-05	2016-06-30
HI0080	Temp/Humid/Pressure Meter	Springfield	PreciseTemp	2015-07-01	2016-07-31
MM0168	True RMS Multimeter	Agilent	U1232A	2015-08-17	2016-08-31
T1024	EMPower USB RF Power Sensor, 10MHz to 6GHz	ETS Lindgren	7002-006	2015-10-01	2016-10-01

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

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
CBL077	Coax cable, RG223, N-male to BNC-male, 20-ft.	Pasternack	PE3476-240	2016-06-15	2017-06-30
HI0079	Temp/Humid/Pressure Meter	Springfield Precision	PreciseTemp	2015-07-01	2016-07-31
LISN003	LISN, 50-ohm/50-uH, 2-conductor, 25A	Fischer Custom Com.	FCC-LISN-50-25-2-01-550V	2015-08-24	2016-08-31
LISN008	LISN, 50-ohm/50-uH, 2-conductor, 25A (For support gear only.)	Solar Electronics	8012-50-R-24-BNC	2015-09-03	2016-09-30
MM0167	Multi-meter	Agilent	U1232A	2015-08-17	2016-08-31
PRE0101521 (75141)	EMI Test Receiver 9kHz-7GHz	Rohde & Schwarz	ESCI 7	2015-08-26	2016-08-31
TL001	Transient Limiter, 0.009-30MHz	Com-Power	LIT-930A	2016-06-09	2017-06-30
PS214	AC Power Source	Elgar	CW2501M (s/n 1523A02396)	NA	NA
PS215	AC Power Source	Elgar	CW2501M (s/n 1523A02397)	NA	NA
SOFTEMI	EMI Software	UL	Version 9.5	NA	NA
CDECABLE001	ANSI C63.4 1m extension cable.	UL	Per Annex B of ANSI C63.4	2016-06-04	2017-06-30

7. MEASUREMENT METHODS

Duty Cycle: KDB 789033 D02 v01r02, section B.

26 dB Emission BW: KDB 789033 D02 v01r02, Section C.

99% Occupied BW: KDB 789033 D02 v01r02, Section D.

Conducted Output Power: KDB 789033 D02 v01r02, Section E.3.a (Method PM).

Power Spectral Density: KDB 789033 D02 v01r02, Section F (Method SA-2).

Unwanted emissions in restricted bands: KDB 789033 D02 v01r02, Sections G.3, G.4, G.5, and G.6.

Unwanted emissions in non-restricted bands: KDB 789033 D02 v01r02, Sections G.3, G.4, and G.5.

General Radiated Emissions: ANSI C63.10:2013 Sections 6.3-6.6

Line Conducted Emissions: ANSI C63.10:2013 Sections 6.2

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.

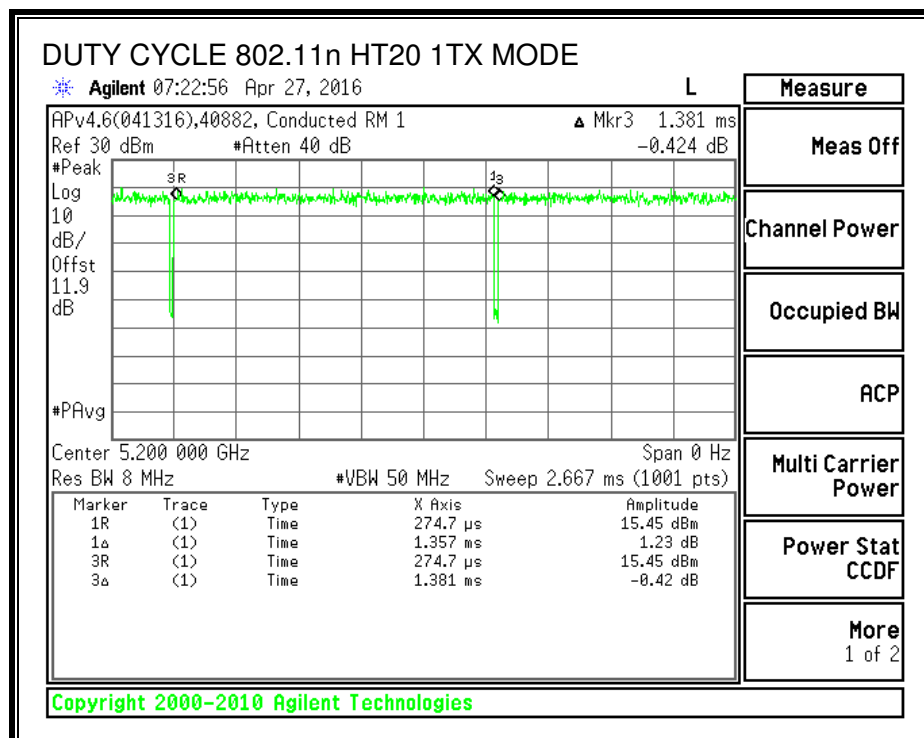
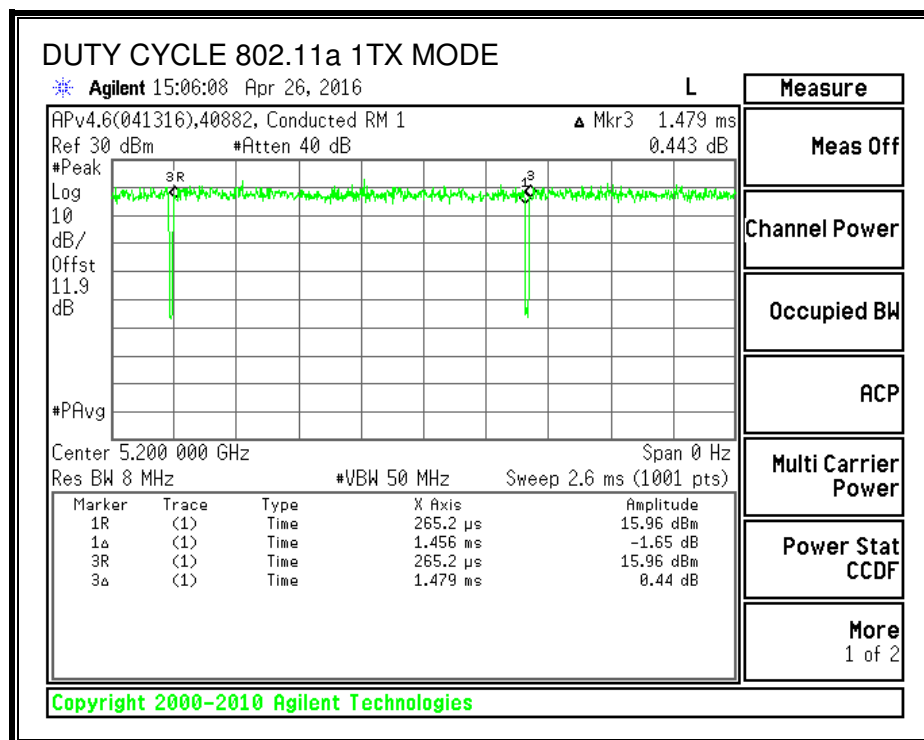
ON TIME AND DUTY CYCLE RESULTS

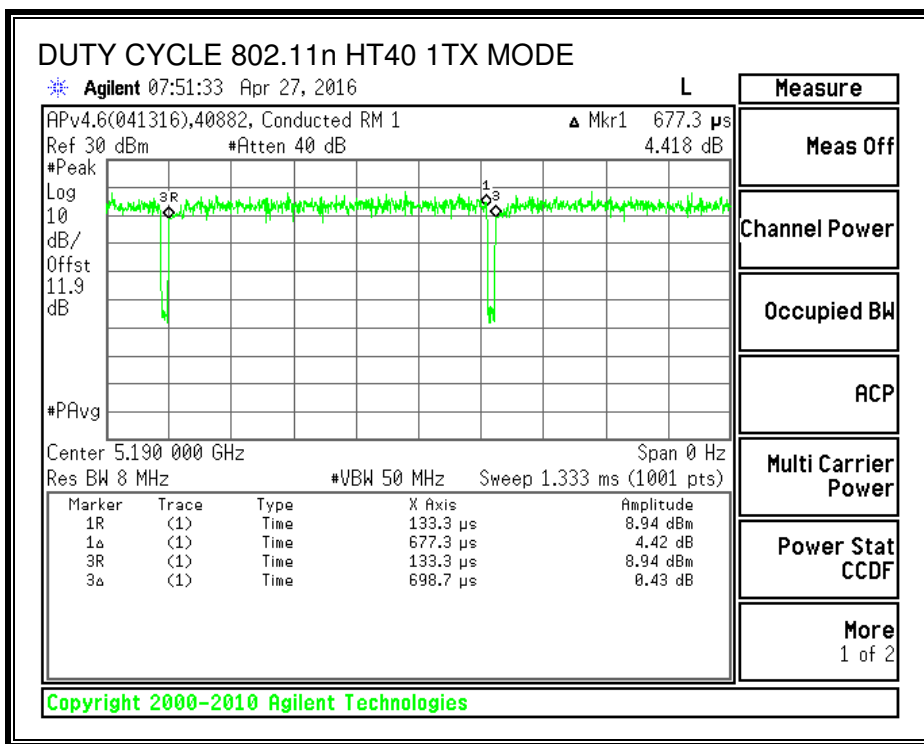
Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
802.11a 1TX	1.456	1.479	0.984	98.44%	0.00	0.010
802.11n HT20 1TX	1.357	1.381	0.983	98.26%	0.00	0.010
802.11n HT40 1TX	0.677	0.699	0.969	96.94%	0.14	1.476

Test Performed: Jeff Cabrera

Test Date: 2016-04-26 to 2016-04-27

DUTY CYCLE PLOTS





8.2. 802.11a MODE IN THE 5.2 GHz BAND

8.2.1. 26 dB BANDWIDTH

LIMITS

None; for reporting purposes only. Tested per FCC §15.403 (i)

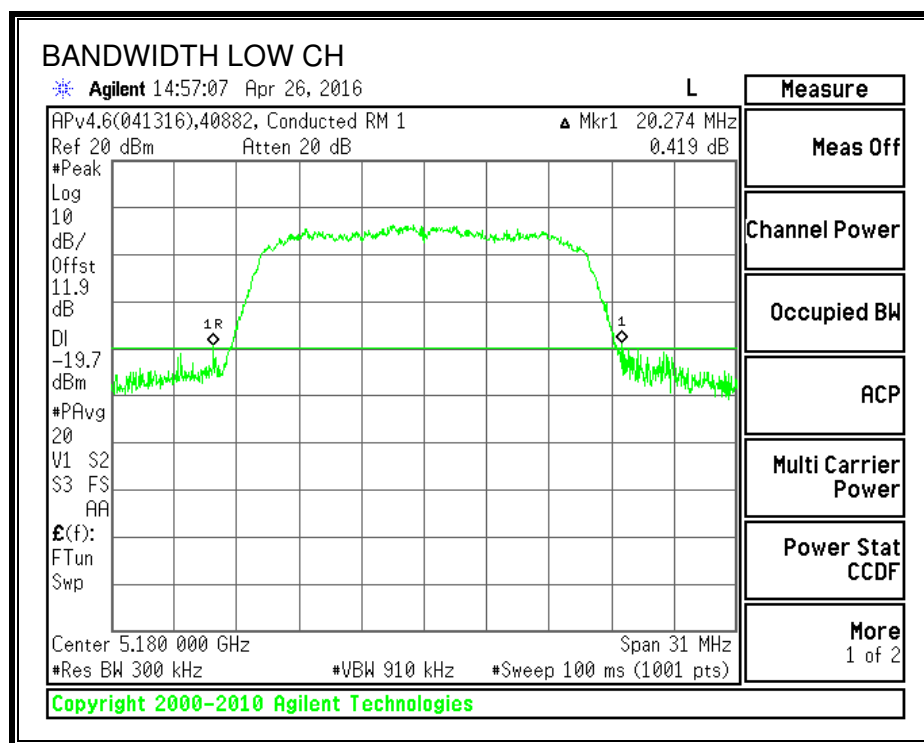
RESULTS

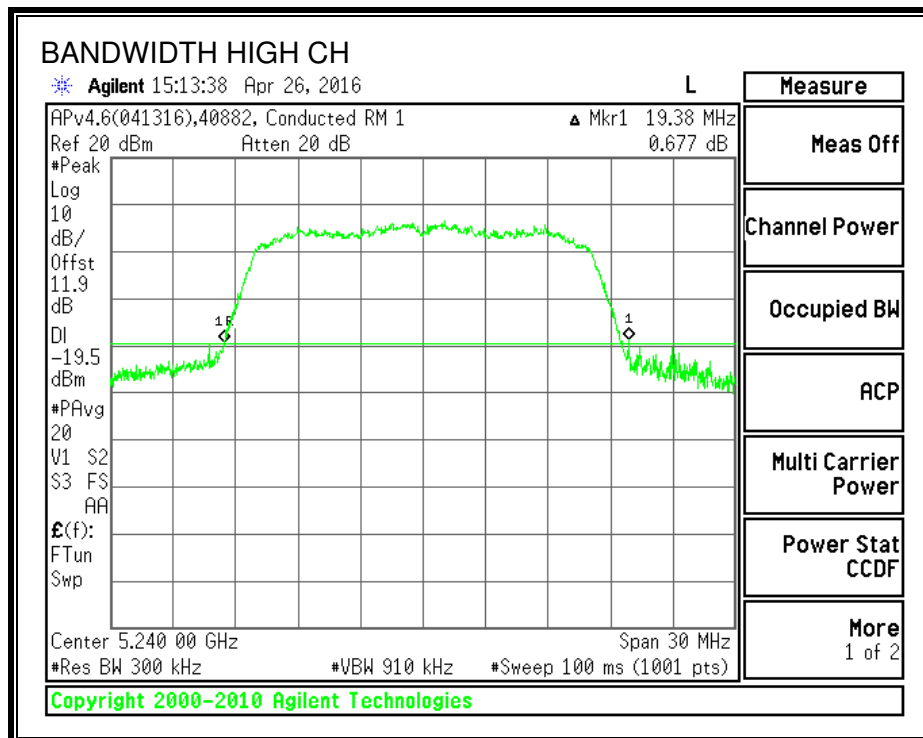
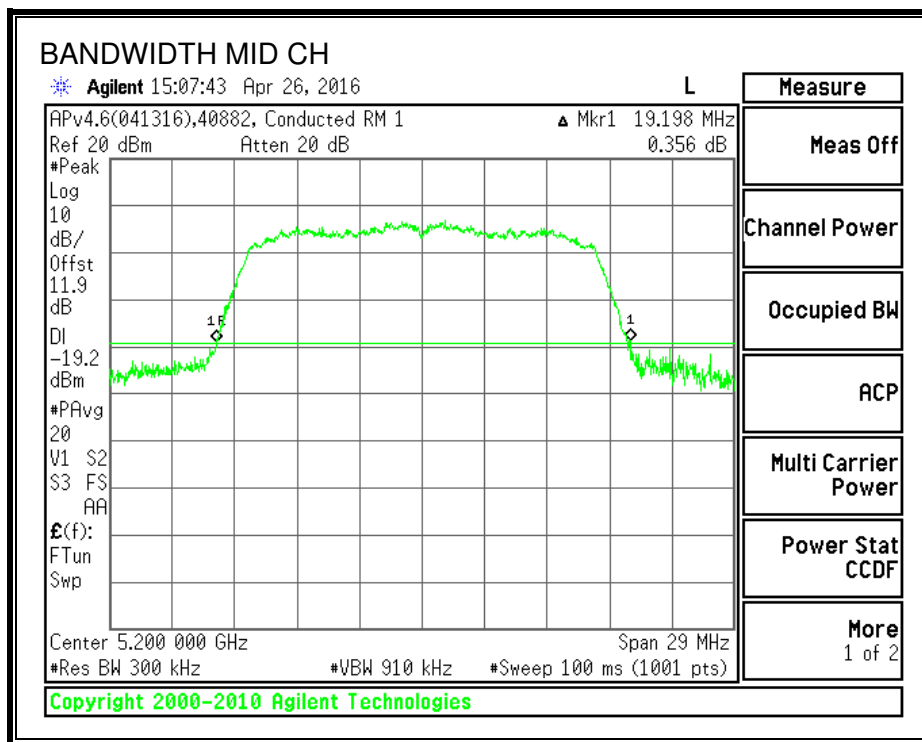
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5180	20.27
Mid	5200	19.20
High	5240	19.38

Test Performed: Jeff Cabrera

Test Date: 2016-04-26

26 dB BANDWIDTH





8.2.2. 99% BANDWIDTH

LIMITS

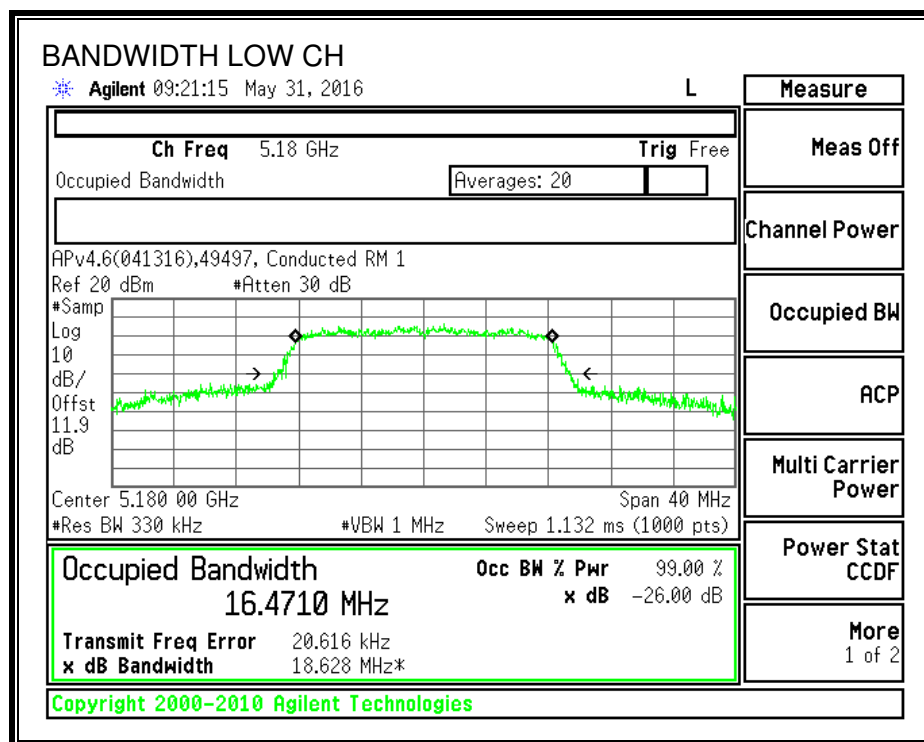
RSS-Gen Clause 6.6, RSS-247 6.2.1 (2)

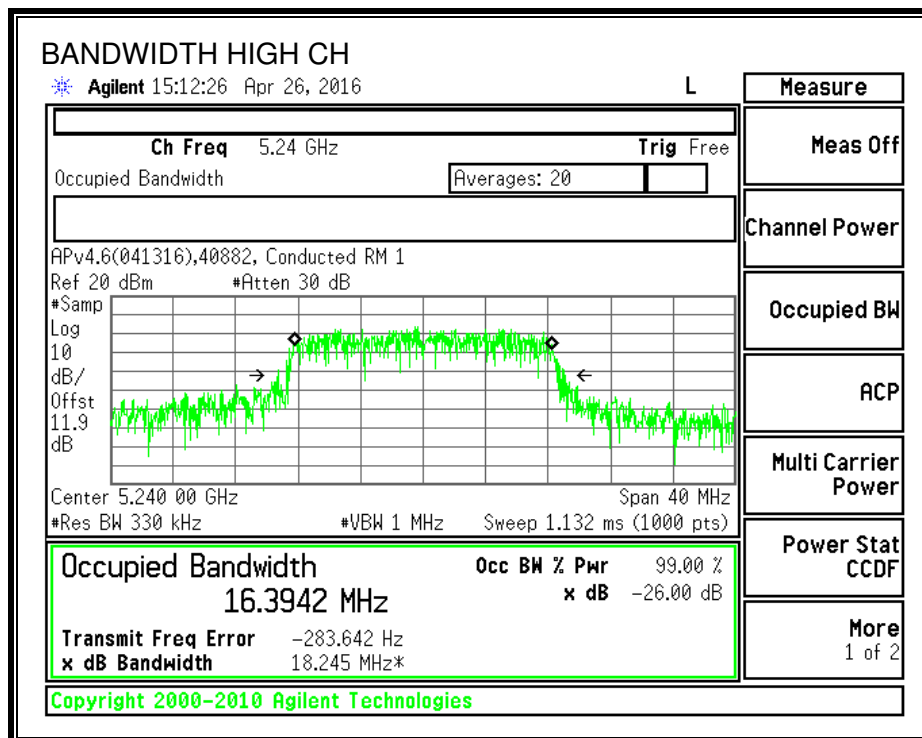
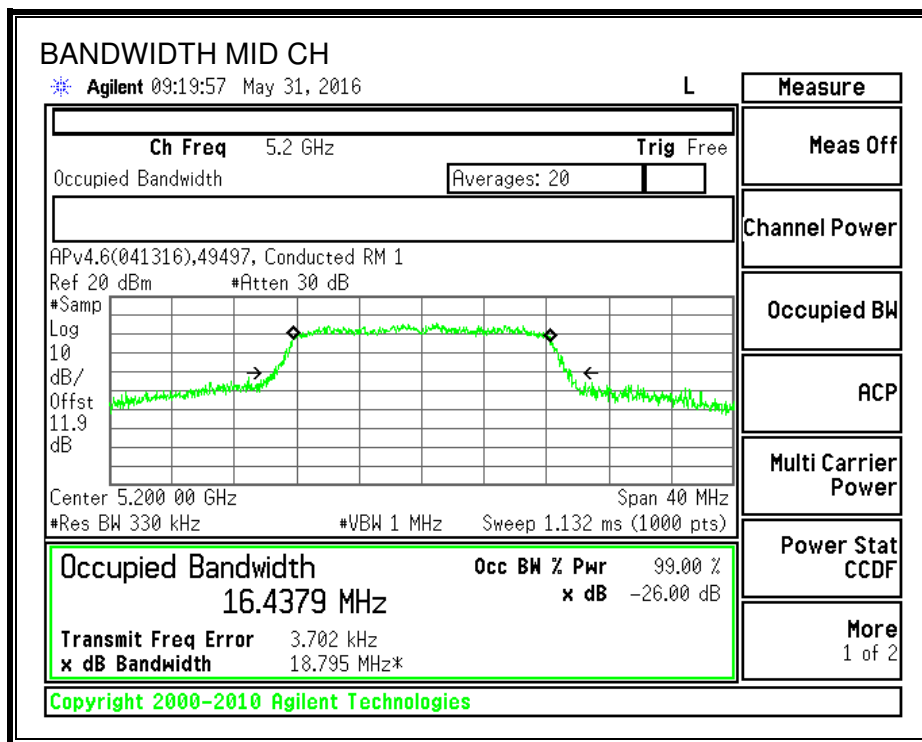
RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)	Maximum Ch Freq	Does Ch. Freq. Fall in UNII 2A? Y/N
Low	5180	16.4710	5188.236	N
Mid	5200	16.4379	5208.219	N
High	5240	16.3942	5248.197	N

Test Performed: Jeff Cabrera/Mark Learner
Test Date: 2016-04-26/2016-05-31

99% BANDWIDTH





8.2.3. OUTPUT POWER AND PSD

LIMITS

FCC §15.407 (a) (1)

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

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

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple colocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

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

DIRECTIONAL ANTENNA GAIN

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

RESULTS

Test Performed: Jeff Cabrera

Test Date: 2016-04-26

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
Low	5180	4.40	4.40	24.00	11.00
Mid	5200	4.40	4.40	24.00	11.00
High	5240	4.40	4.40	24.00	11.00

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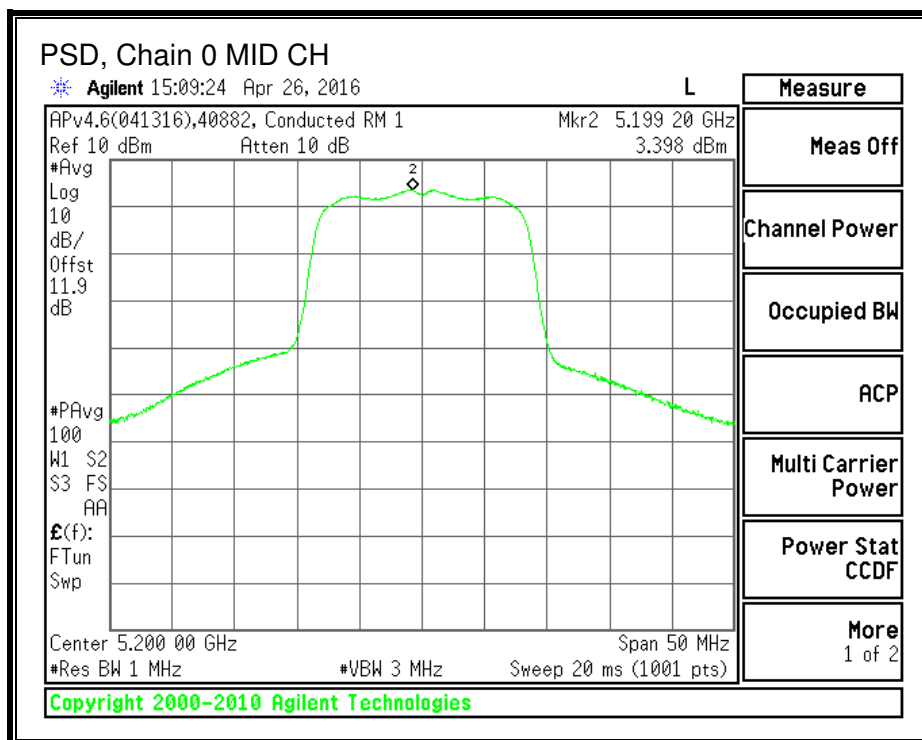
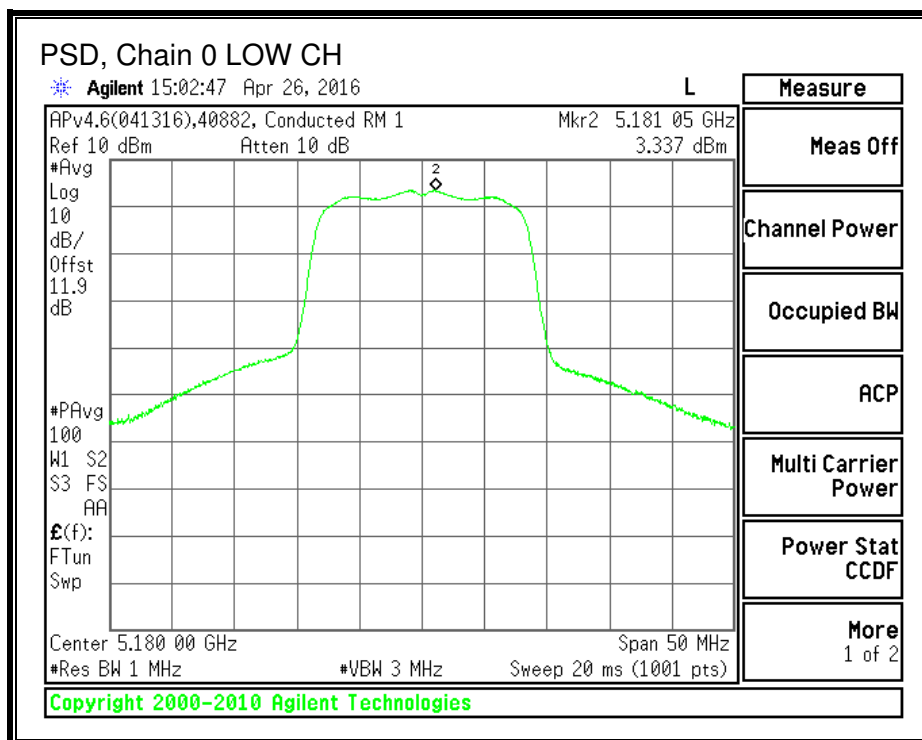
Output Power Results

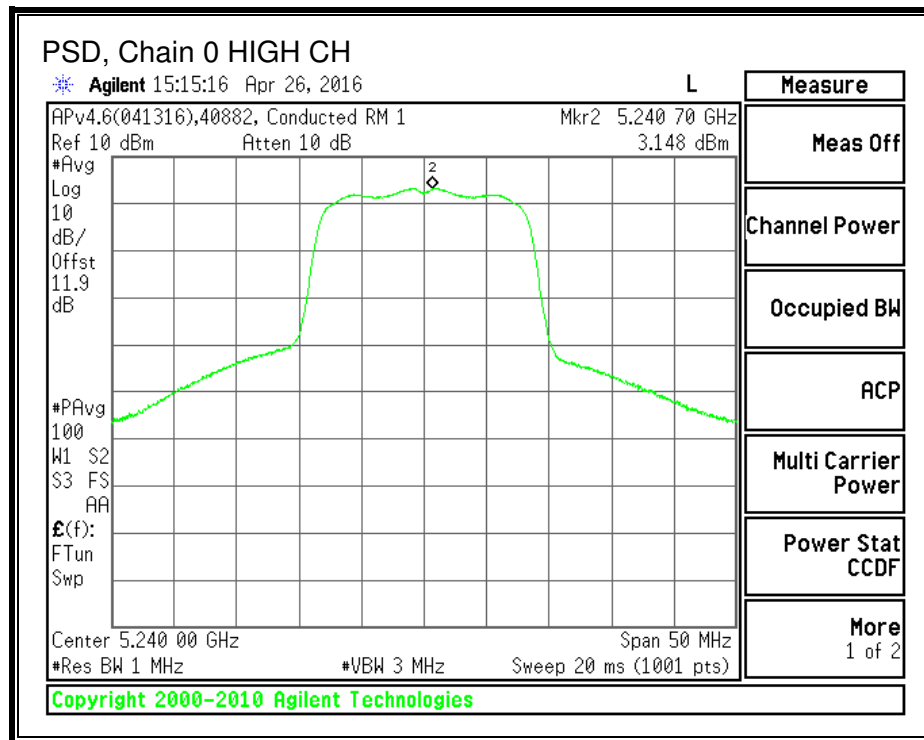
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	13.05	13.05	24.00	-10.95
Mid	5200	13.10	13.10	24.00	-10.90
High	5240	12.87	12.87	24.00	-11.13

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5180	3.34	3.34	11.00	-7.66
Mid	5200	3.40	3.40	11.00	-7.60
High	5240	3.15	3.15	11.00	-7.85

OUTPUT POWER AND PSD, Chain 0





8.2.1. OUTPUT POWER AND PPSD (IC)

LIMITS

IC RSS-247 6.2.1 (1)

The maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10} B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

DIRECTIONAL ANTENNA GAIN

The TX chains are uncorrelated and the antenna gain is the same for each chain. The directional gain is equal to the antenna gain.

RESULTS - 802.11a, 5.2 GHz band

Test Performed: Jeff Cabrera

Test Date: 2016-04-26

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5180	16.471	4.40
Mid	5200	16.438	4.40
High	5240	16.394	4.40

Limits

Channel	Frequency (MHz)	IC EIRP Limit (dBm)	IC eirp PSD Limit (dBm)
Low	5180	22.17	10.00
Mid	5200	22.16	10.00
High	5240	22.15	10.00

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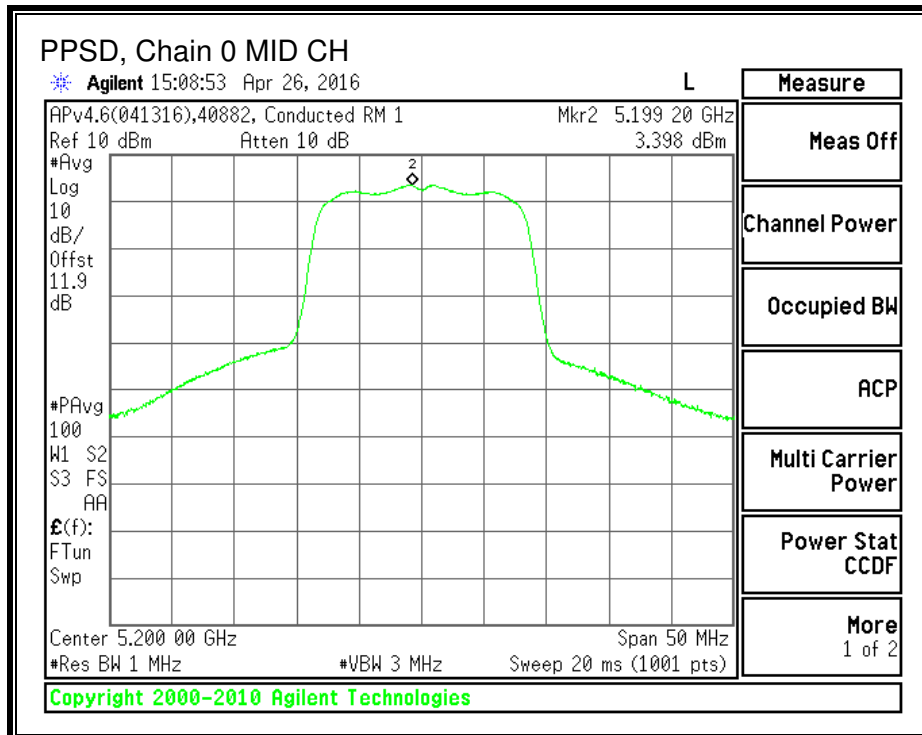
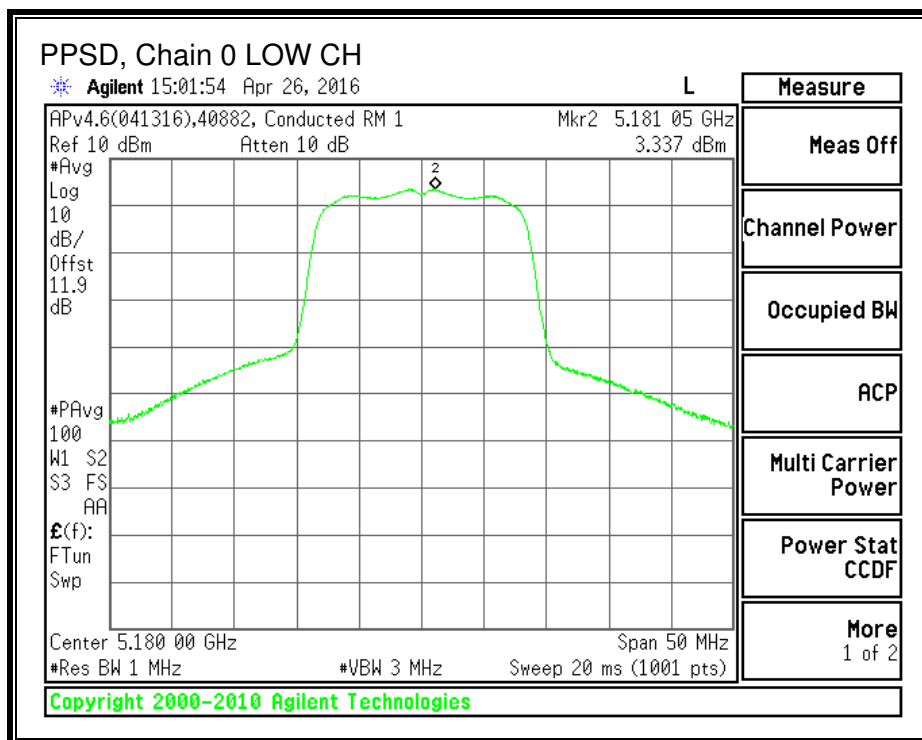
Output Power Results

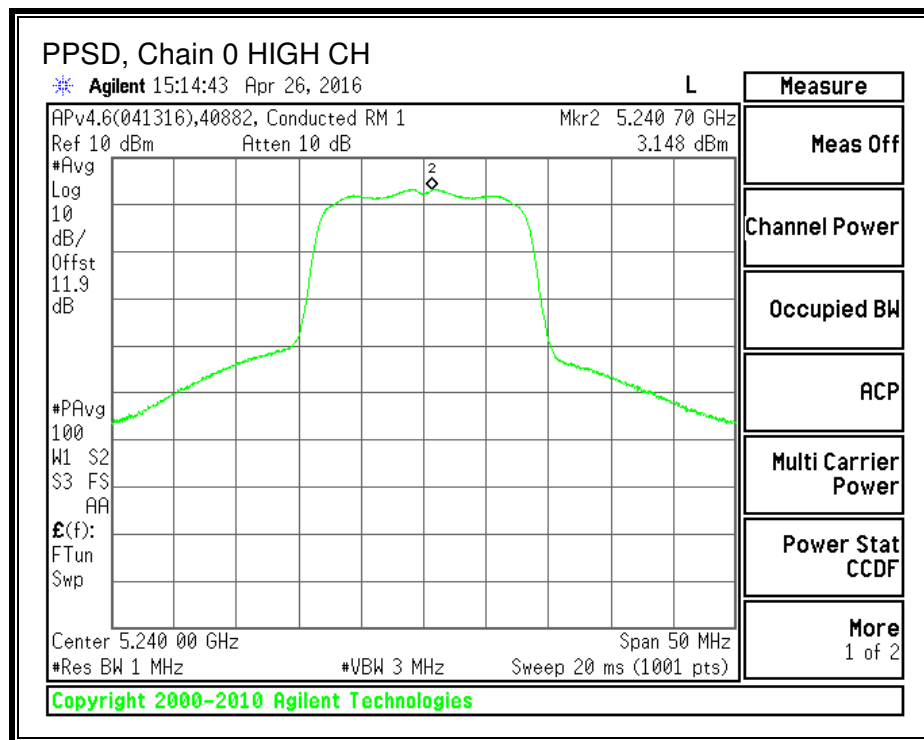
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd EIRP (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	13.05	17.45	22.17	-4.72
Mid	5200	13.10	17.50	22.16	-4.66
High	5240	12.87	17.27	22.15	-4.88

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd EIRP PSD (dBm)	PPSD Limit (dBm)	PSD Margin (dB)
Low	5180	3.34	7.74	10.00	-2.26
Mid	5200	3.40	7.80	10.00	-2.20
High	5240	3.15	7.55	10.00	-2.45

PPSD





8.3. 802.11n HT20 MODE IN THE 5.2 GHz BAND

8.3.1. 26 dB BANDWIDTH

LIMITS

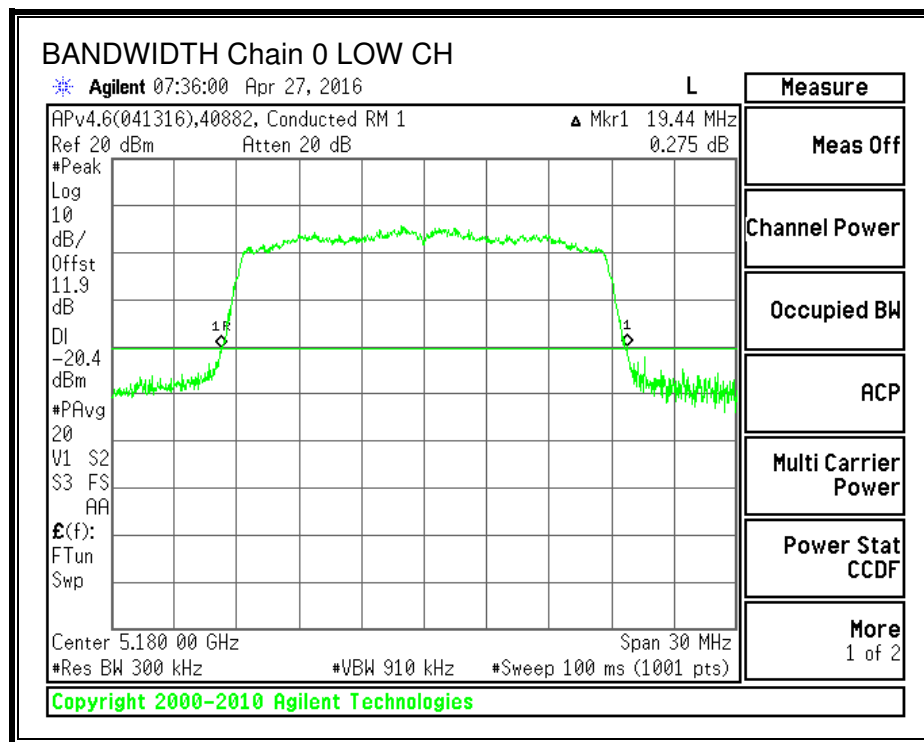
None; for reporting purposes only. Tested per FCC §15.403 (i)

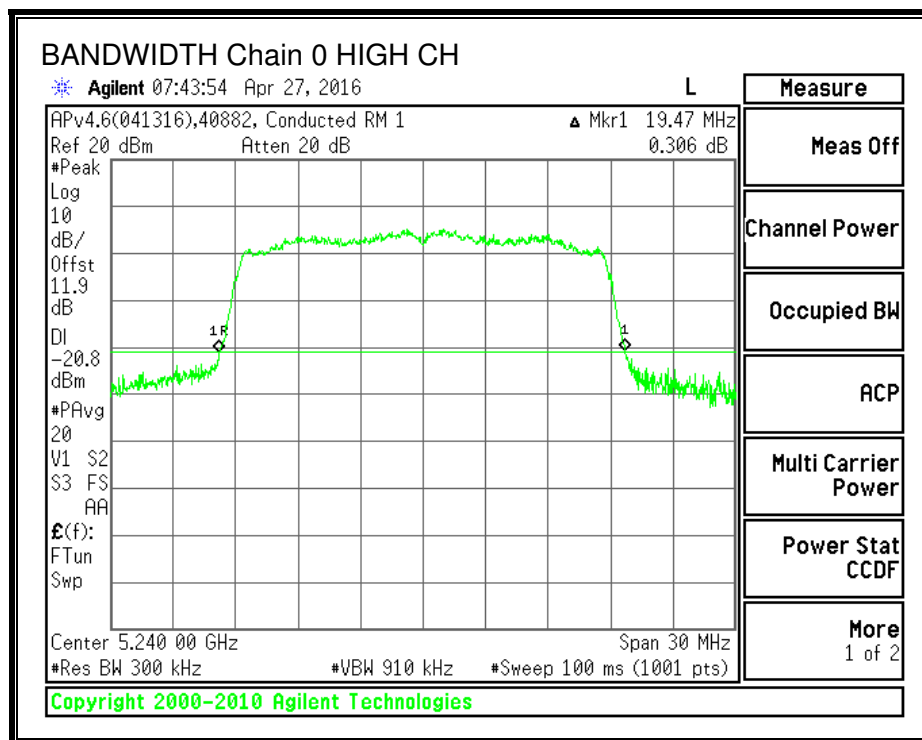
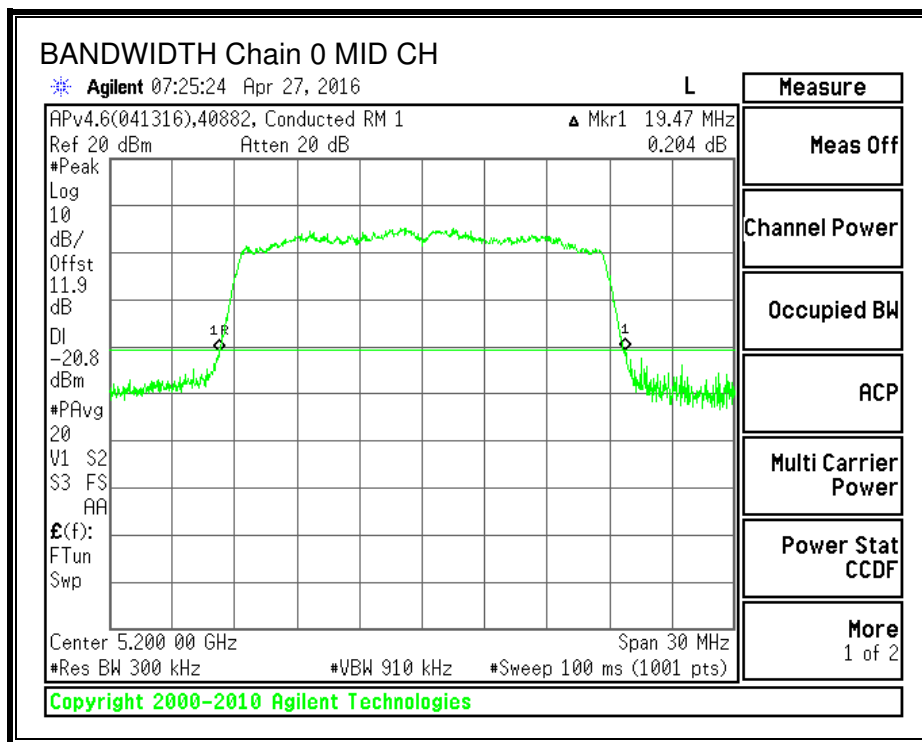
RESULTS

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)
Low	5180	19.44
Mid	5200	19.47
High	5240	19.47

Test Performed: Jeff Cabrera
Test Date: 2016-04-27

26 dB BANDWIDTH, Chain 0





8.3.2. 99% BANDWIDTH

LIMITS

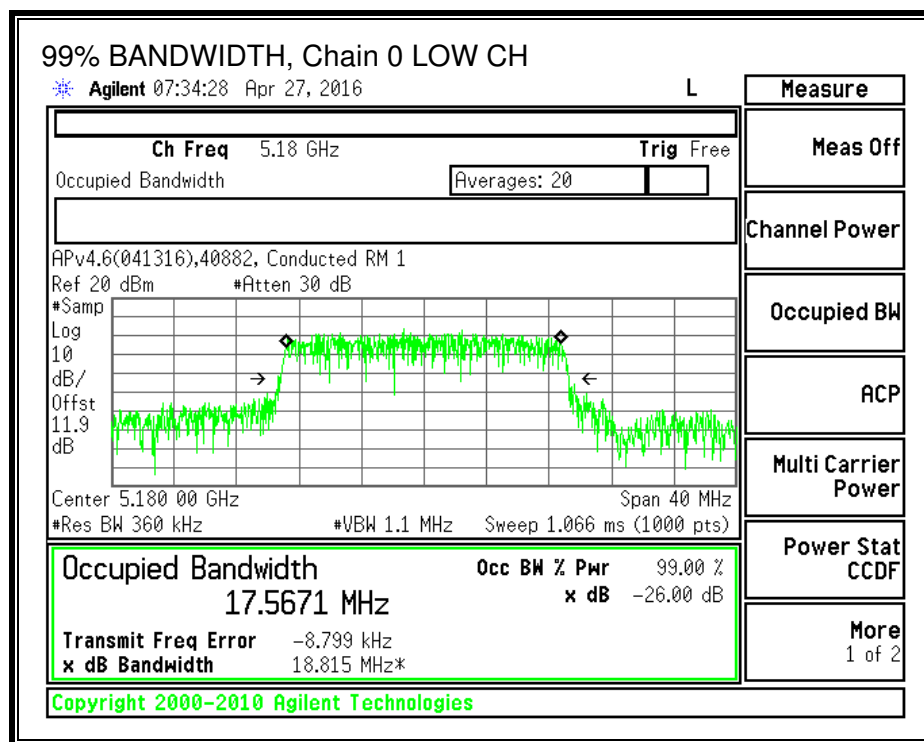
RSS-Gen Clause 6.6, RSS-247 6.2.1 (2)

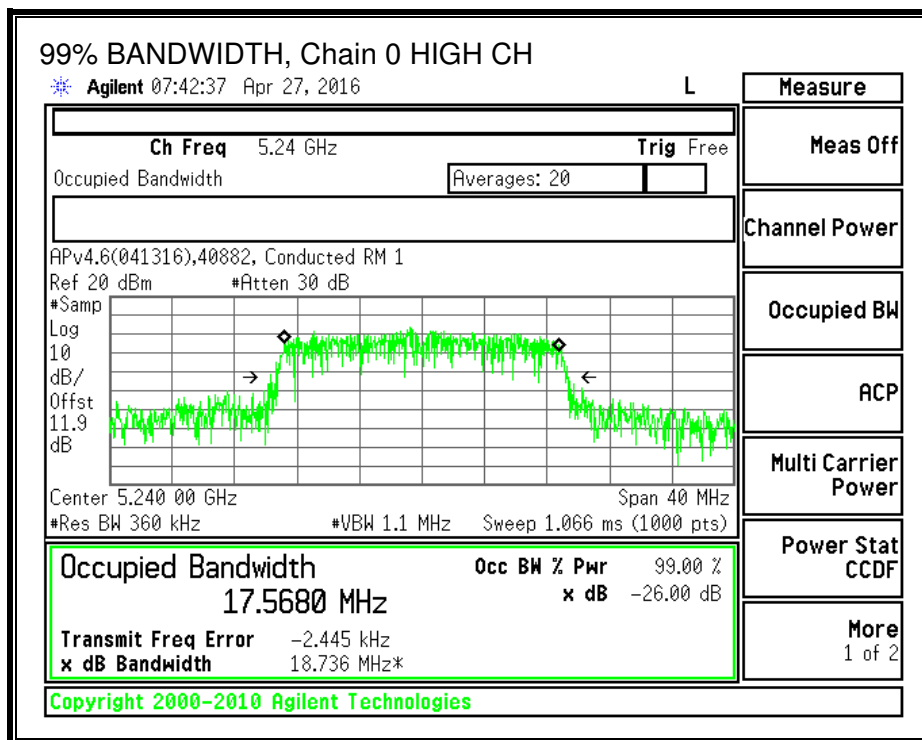
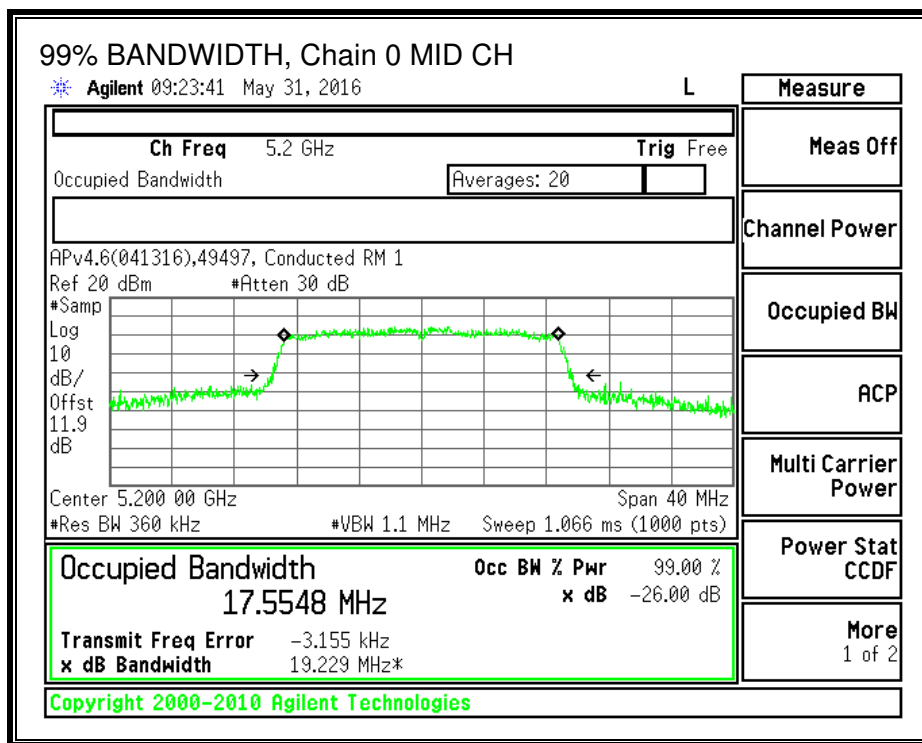
RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)	Maximum Ch Freq	Does Ch. Freq. Fall in UNII 2A? Y/N
Low	5180	17.5671	5188.784	N
Mid	5200	17.5548	5208.777	N
High	5240	17.5680	5248.784	N

Test Performed: Jeff Cabrera/Mark Learner
Test Date: 2016-04-27/2016-05-31

99% BANDWIDTH, Chain 0





8.3.3. OUTPUT POWER AND PSD

LIMITS

FCC §15.407 (a) (1)

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

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

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

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

DIRECTIONAL ANTENNA GAIN

The TX chains are uncorrelated and the antenna gain is the same for each chain. The directional gain is equal to the antenna gain.

RESULTS

Test Performed: Jeff Cabrera

Test Date: 2016-04-27

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
Low	5180	4.40	4.40	24.00	11.00
Mid	5200	4.40	4.40	24.00	11.00
High	5240	4.40	4.40	24.00	11.00

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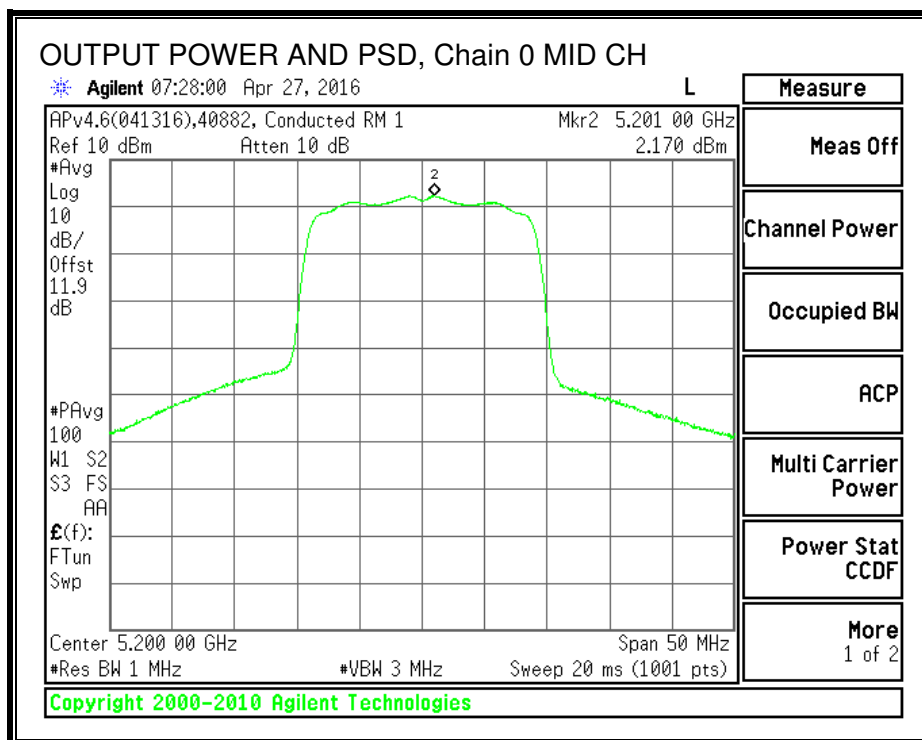
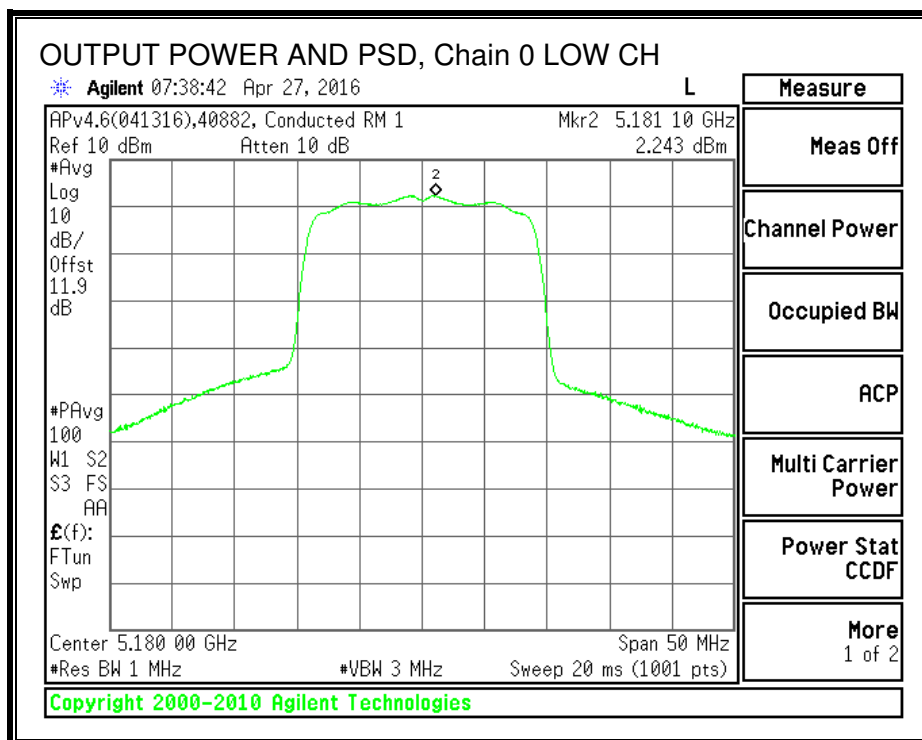
Output Power Results

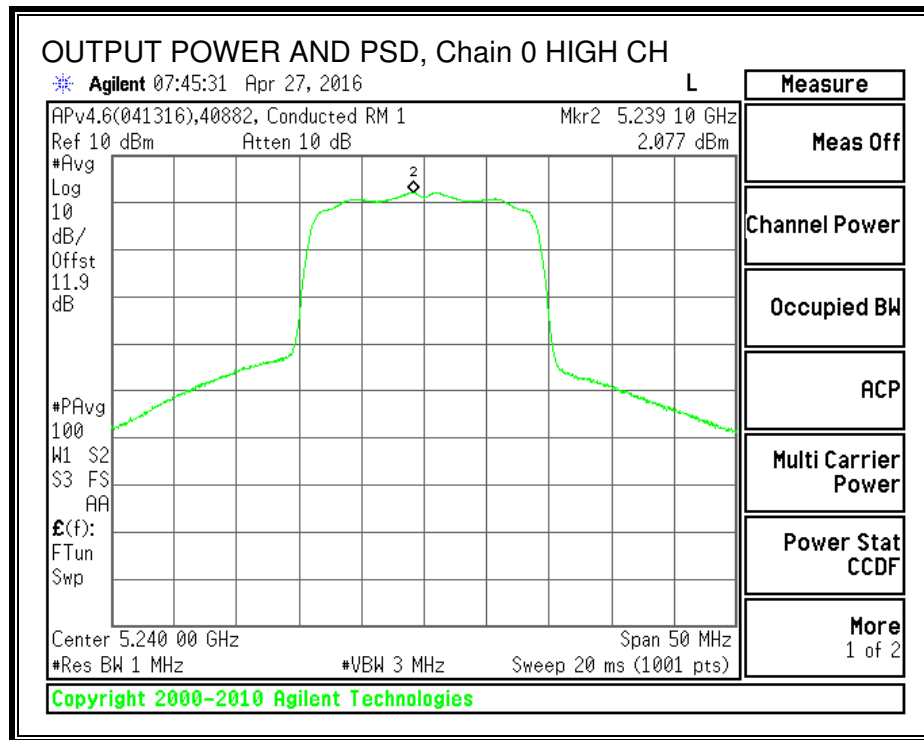
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	12.05	12.05	24.00	-11.95
Mid	5200	12.12	12.12	24.00	-11.88
High	5240	11.77	11.77	24.00	-12.23

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5180	2.24	2.24	11.00	-8.76
Mid	5200	2.17	2.17	11.00	-8.83
High	5240	2.08	2.08	11.00	-8.92

OUTPUT POWER AND PSD, Chain 0





8.3.1. OUTPUT POWER AND PPSD (IC)

LIMITS

IC RSS-247 6.2.1 (1)

The maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10} B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

DIRECTIONAL ANTENNA GAIN

The TX chains are uncorrelated and the antenna gain is the same for each chain. The directional gain is equal to the antenna gain.

RESULTS - 802.11nHT20, 5.2 GHz band

Test Performed: Jeff Cabrera

Test Date: 2016-04-27

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5180	17.567	4.40
Mid	5200	17.555	4.40
High	5240	17.568	4.40

Limits

Channel	Frequency (MHz)	IC EIRP Limit (dBm)	IC eirp PSD Limit (dBm)
Low	5180	22.45	10.00
Mid	5200	22.44	10.00
High	5240	22.45	10.00

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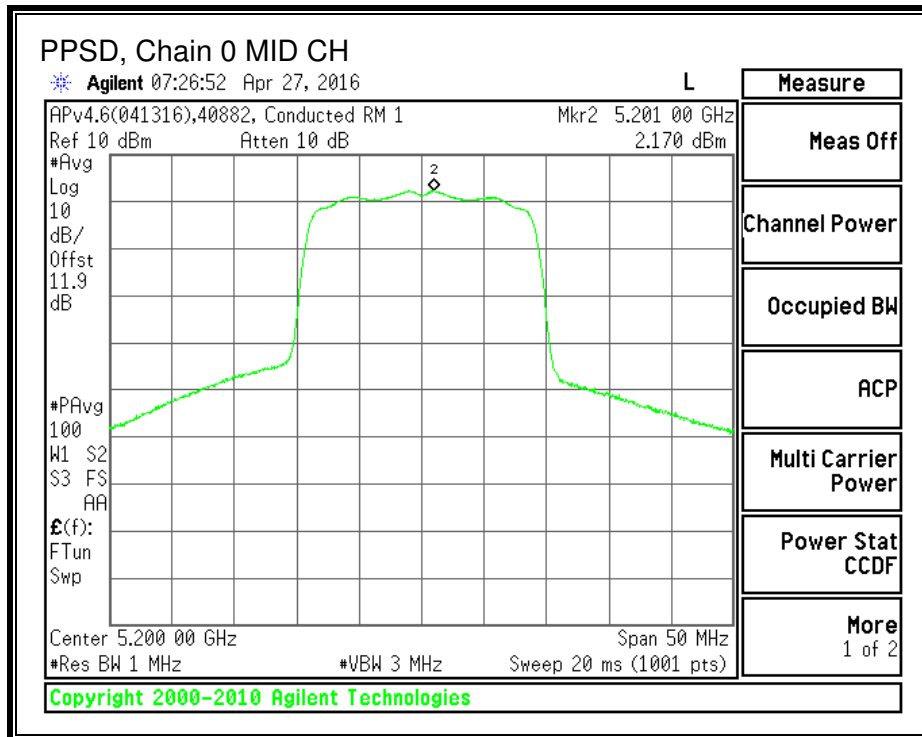
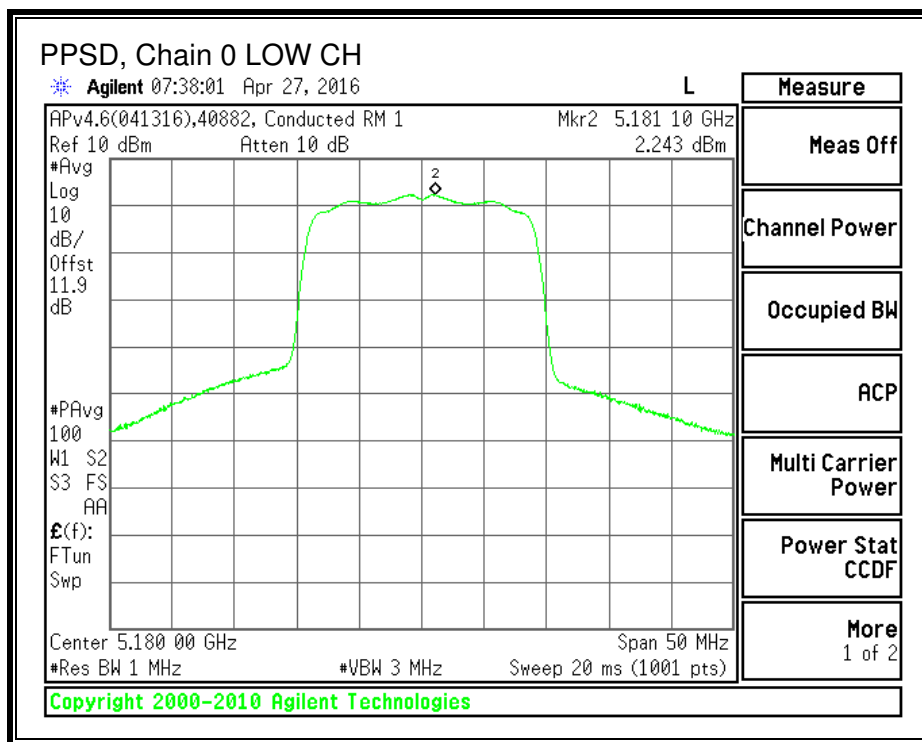
Output Power Results

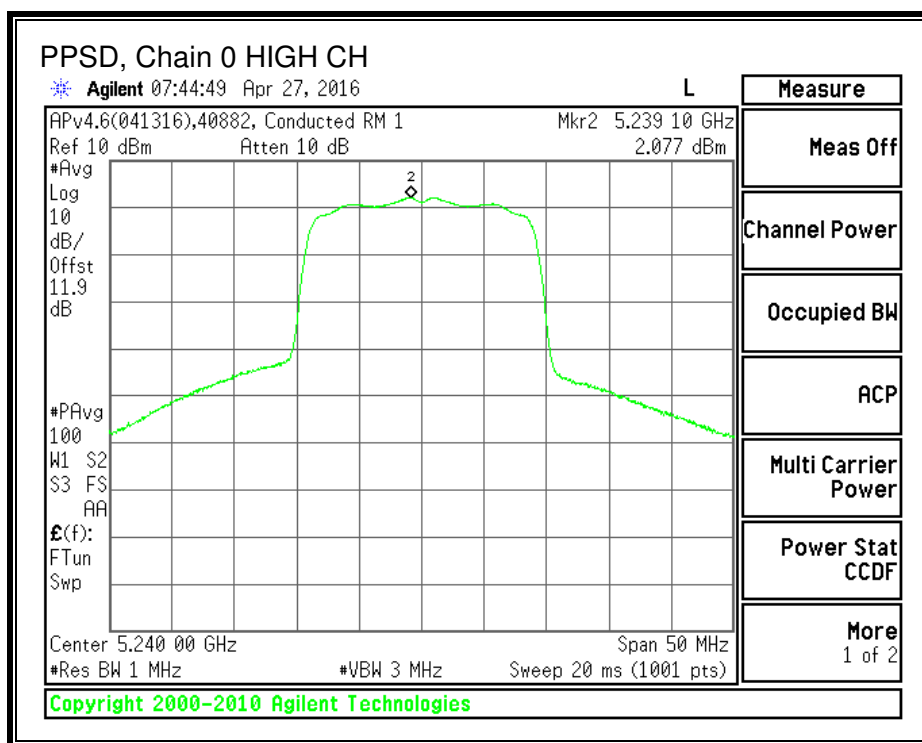
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd EIRP (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	12.05	16.45	22.45	-6.00
Mid	5200	12.12	16.52	22.44	-5.92
High	5240	11.77	16.17	22.45	-6.28

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd EIRP PSD (dBm)	PPSD Limit (dBm)	PSD Margin (dB)
Low	5180	2.24	6.64	10.00	-3.36
Mid	5200	2.17	6.57	10.00	-3.43
High	5240	2.08	6.48	10.00	-3.52

PPSD





8.4. 802.11n HT40 MODE IN THE 5.2 GHz BAND

8.4.1. 26 dB BANDWIDTH

LIMITS

None; for reporting purposes only. Tested per FCC §15.403 (i)

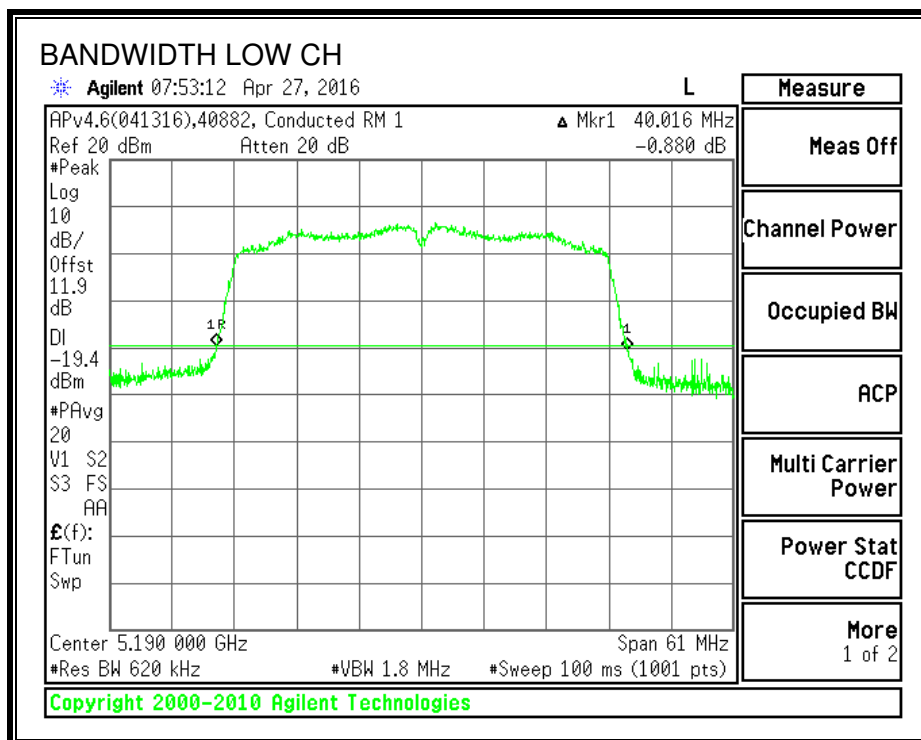
RESULTS

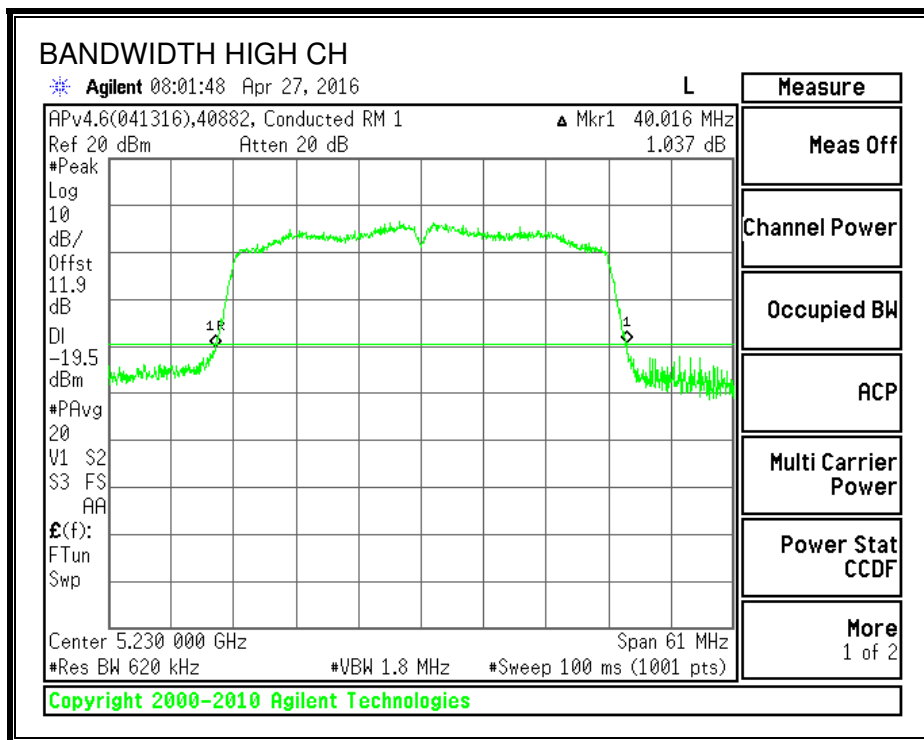
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5190	40.02
High	5230	40.02

Test Performed: Jeff Cabrera

Test Date: 2016-04-27

26 dB BANDWIDTH





8.4.2. 99% BANDWIDTH

LIMITS

RSS-Gen Clause 6.6, RSS-247 6.2.1 (2)

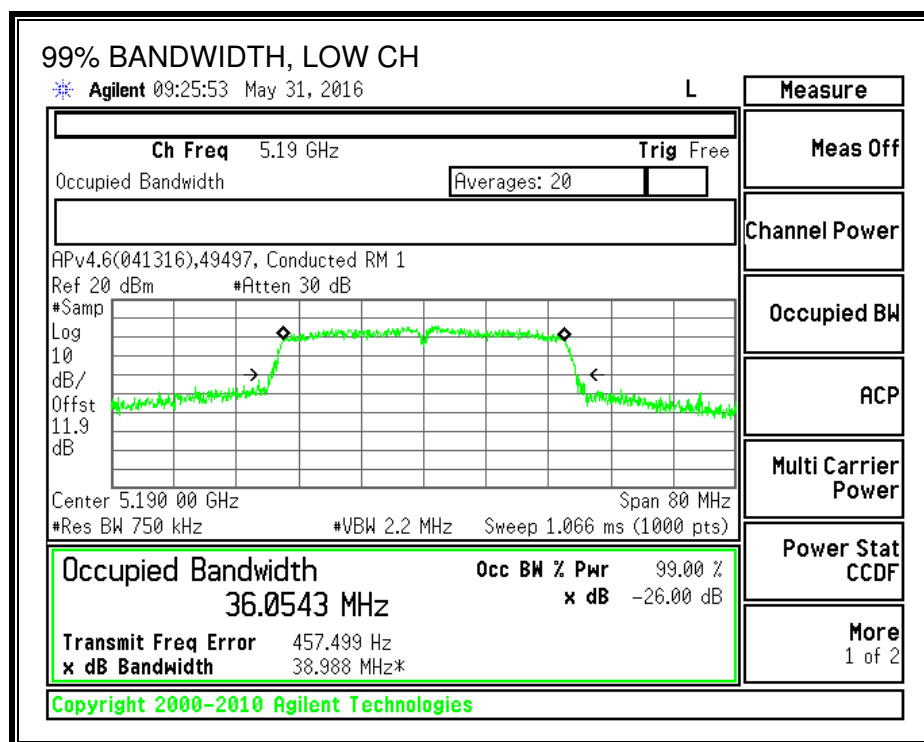
RESULTS

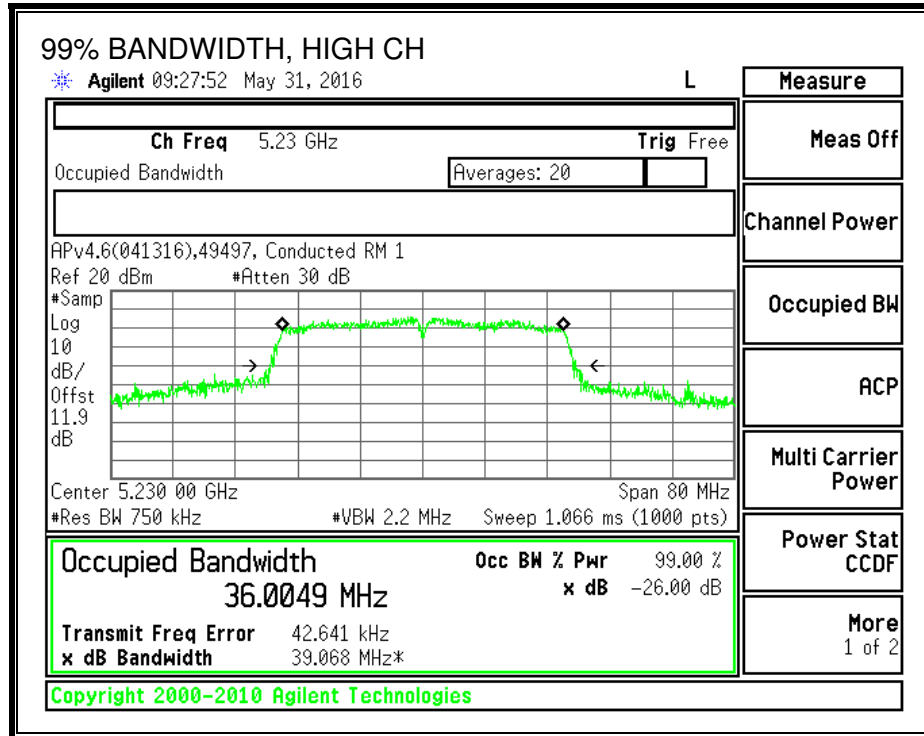
Channel	Frequency (MHz)	99% Bandwidth (MHz)	Maximum Ch Freq	Does Ch. Freq. Fall in UNII 2A? Y/N
Low	5190	36.0543	5208.027	N
High	5230	36.0049	5248.002	N

Test Performed: Mark Learner

Test Date: 2016-05-31

99% BANDWIDTH





8.4.3. OUTPUT POWER AND PSD

LIMITS

FCC §15.407 (a) (1)

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

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

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple colocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

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

DIRECTIONAL ANTENNA GAIN

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

RESULTS

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
Low	5190	4.40	4.40	24.00	11.00
High	5230	4.40	4.40	24.00	11.00

Duty Cycle CF (dB)	0.14	Included in Calculations of Corr'd Power & PSD
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Output Power Results

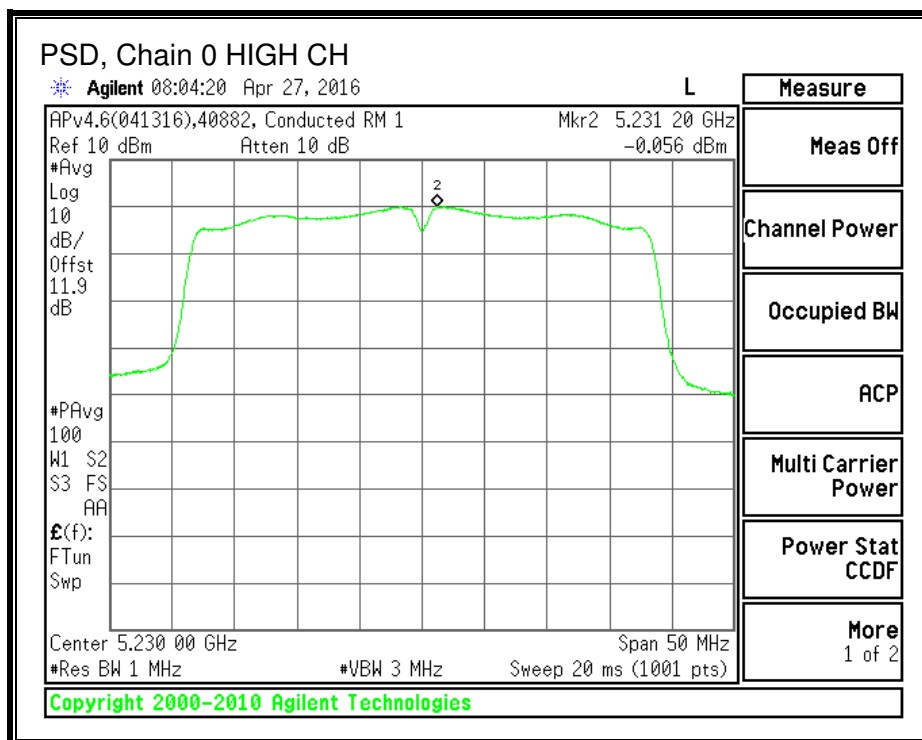
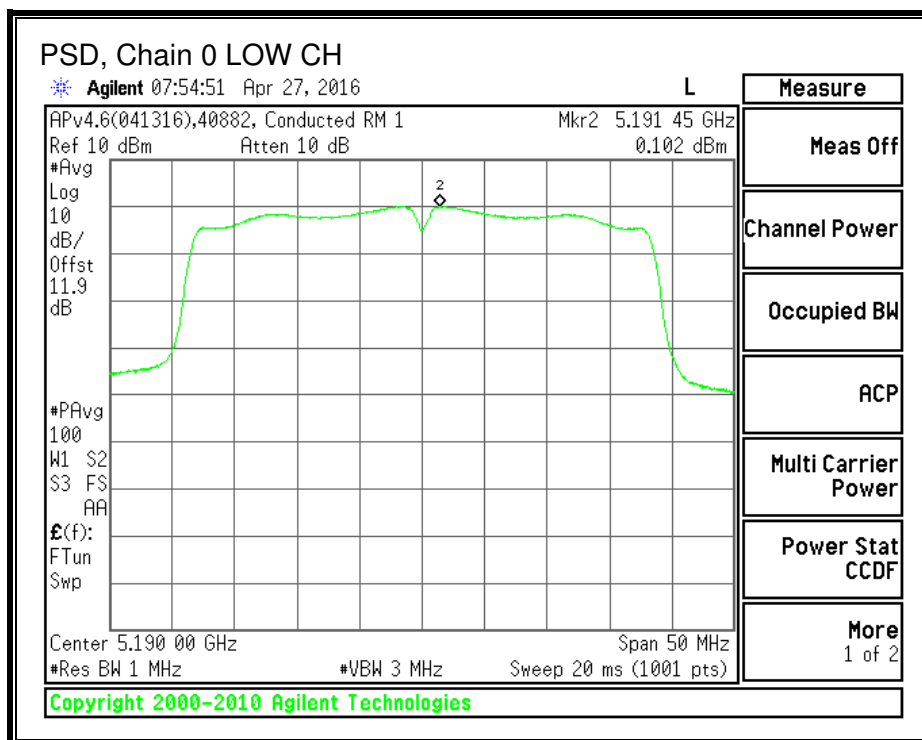
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5190	12.31	12.45	24.00	-11.55
High	5230	12.27	12.41	24.00	-11.59

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5190	0.10	0.24	11.00	-10.76
High	5230	-0.06	0.08	11.00	-10.92

Test Performed: Jeff Cabrera
Test Date: 2016-04-27

OUTPUT POWER AND PSD, Chain 0



8.4.1. OUTPUT POWER AND PPSD (IC)

LIMITS

IC RSS-247 6.2.1 (1)

The maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10} B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

DIRECTIONAL ANTENNA GAIN

The TX chains are uncorrelated and the antenna gain is the same for each chain. The directional gain is equal to the antenna gain.

RESULTS - 802.11a, 5.2 GHz band

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5190	36.054	4.40
High	5230	36.005	4.40

Limits

Channel	Frequency (MHz)	IC EIRP Limit (dBm)	IC eirp PSD Limit (dBm)
Low	5190	23.00	10.00
High	5230	23.00	10.00

Duty Cycle CF (dB)	0.14	Included in Calculations of Corr'd Power & PSD
--------------------	------	--

Output Power Results

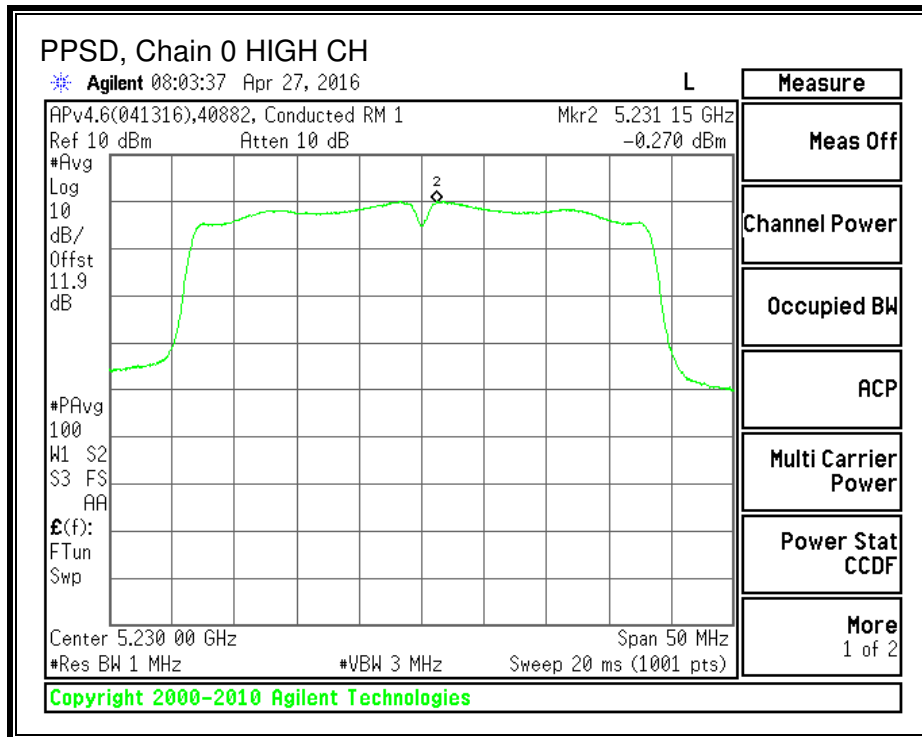
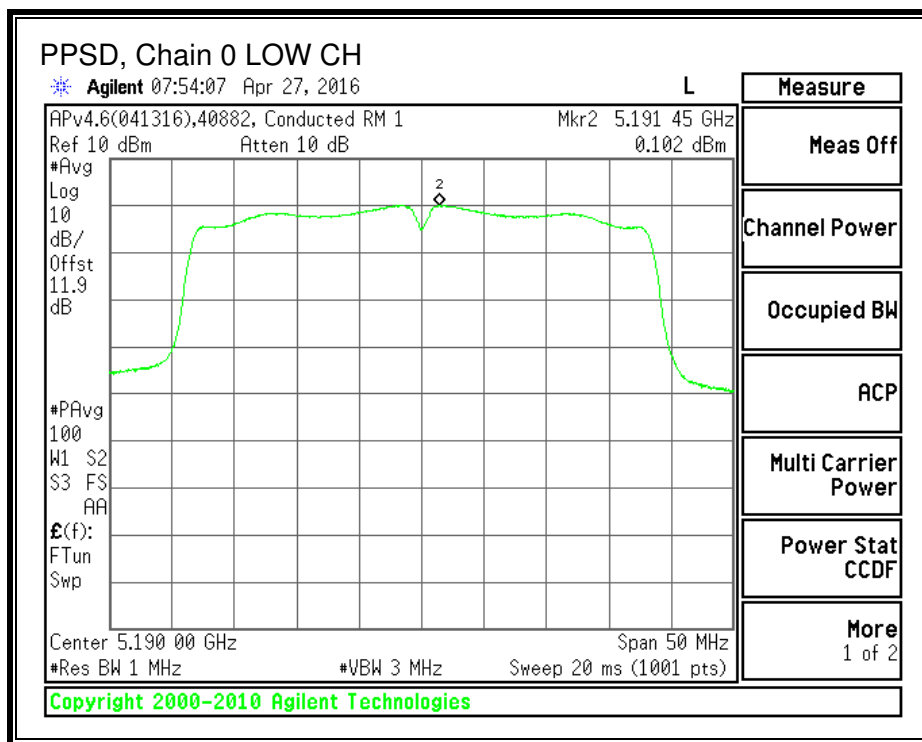
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd EIRP (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5190	12.31	16.85	23.00	-6.15
High	5230	12.27	16.81	23.00	-6.19

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd EIRP PSD (dBm)	PPSD Limit (dBm)	PSD Margin (dB)
Low	5190	0.10	4.64	10.00	-5.36
High	5230	-0.27	4.27	10.00	-5.73

Test Performed: Jeff Cabrera
Test Date: 2016-04-27

PPSD



9. RADIATED TEST RESULTS

9.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205, §15.209, §15.407 (b) (1)

IC RSS-GEN Clause 8.9 (Transmitter), RSS-247 6.2.1 (2)

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

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for 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.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and as applicable for average measurements. For this evaluation, RMS Power Averaging was used and the resolution/video bandwidth settings were 1MHz/3MHz.

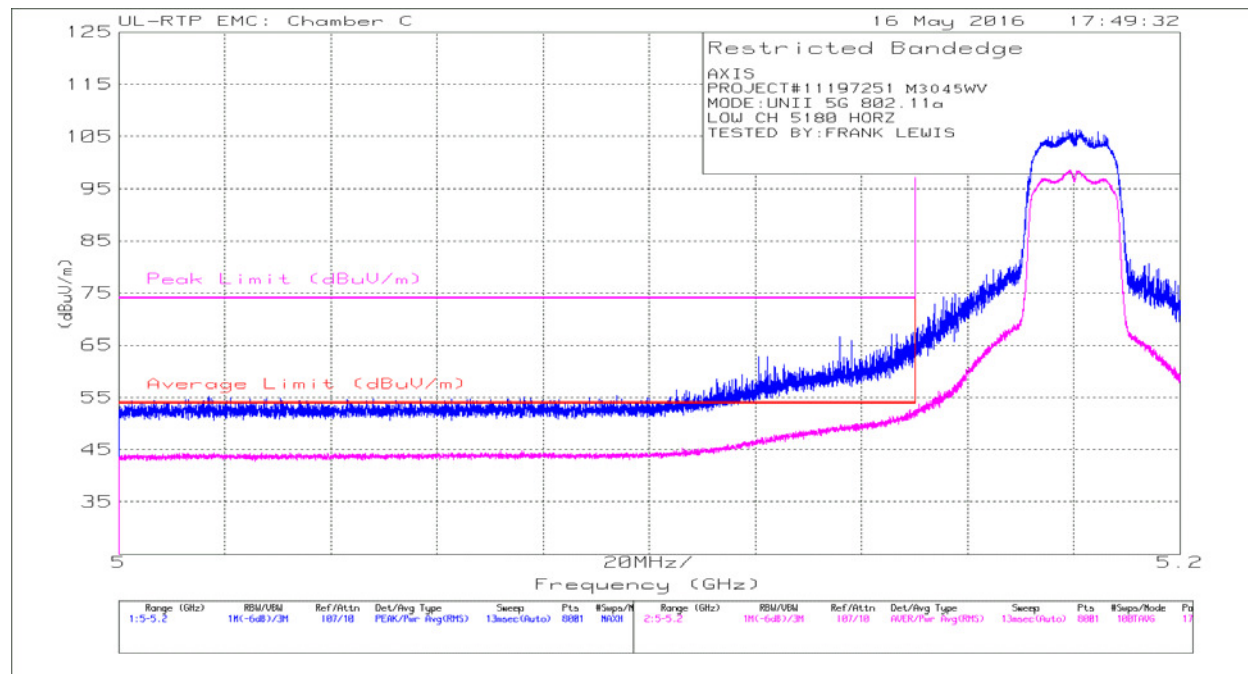
The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

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.

9.2. TRANSMITTER 1-18 GHz

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

RESTRICTED BANDEDGE (LOW CHANNEL)

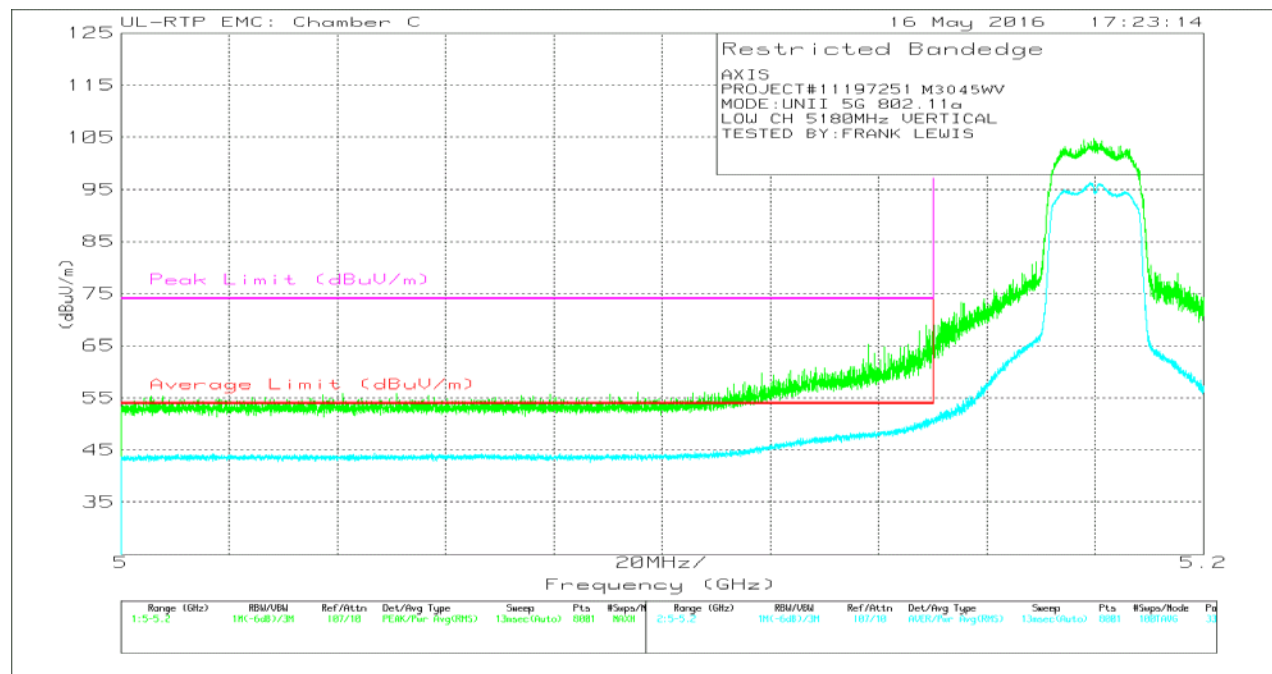


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF (dB/m)	Amp/Cbl/Fltr/Pad	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 5.15	56.51	Pk	34.3	-23.3	0	67.51	-	-	74	-6.49	175	275	H
4	* 5.149	41.62	RMS	34.3	-23.3	0	52.62	54	-1.38	-	-	175	275	H
1	5.15	52.93	Pk	34.3	-23.3	0	63.93	-	-	74	-10.07	175	275	H
3	5.15	41.07	RMS	34.3	-23.3	0	52.07	54	-1.93	-	-	175	275	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection



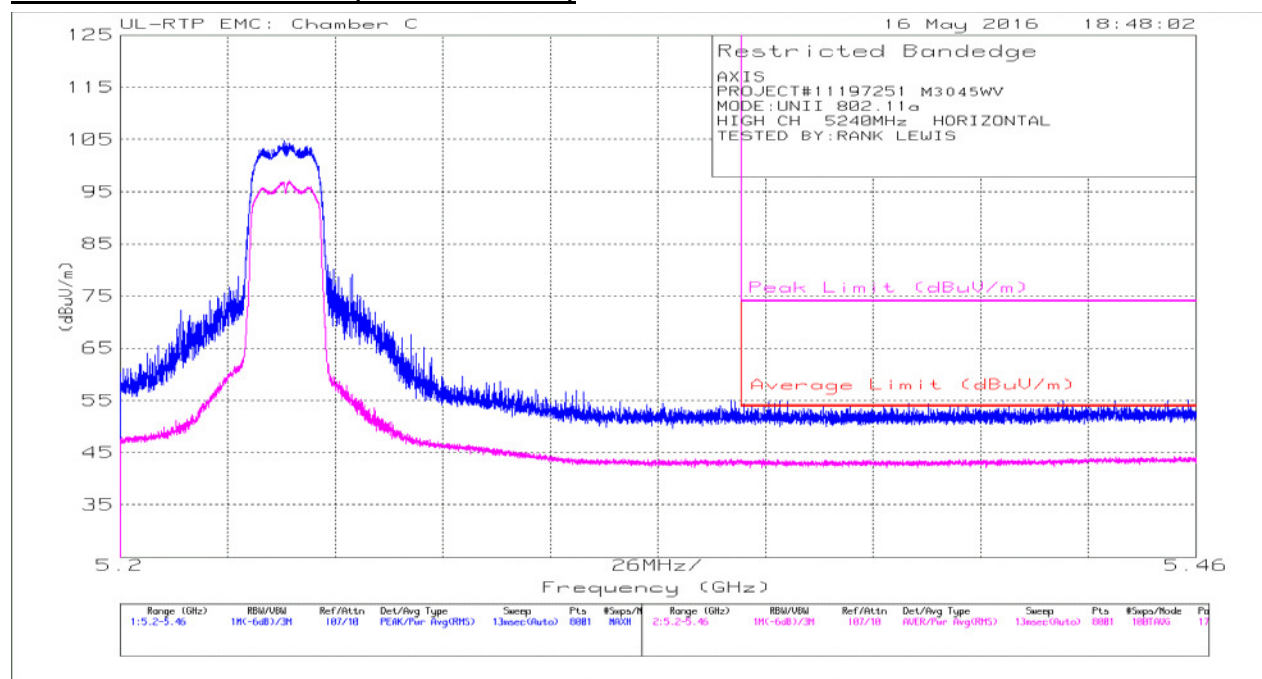
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF (dB/m)	Amp/Cbl/Filtr/Pad	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 5.149	57.96	Pk	34.3	-23.3	0	68.96	-	-	74	-5.04	339	128	V
4	* 5.149	40.12	RMS	34.3	-23.3	0	51.12	54	-2.88	-	-	339	128	V
1	5.15	54.26	Pk	34.3	-23.3	0	65.26	-	-	74	-8.74	339	128	V
3	5.15	39.48	RMS	34.3	-23.3	0	50.48	54	-3.52	-	-	339	128	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEGE (HIGH CHANNEL)

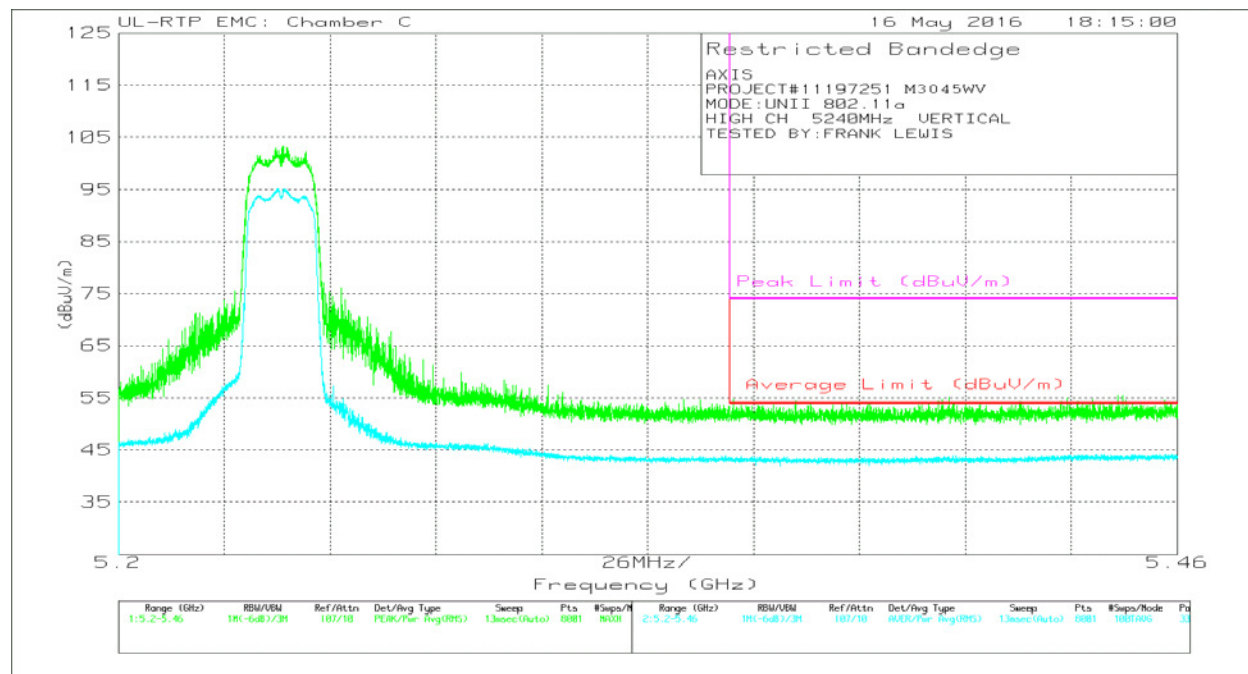


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF (dB/m)	Amp/Cbl/ Ftr/Pad	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	39.56	Pk	34.7	-22.8	0	51.46	-	-	74	-22.54	172	256	H
2	* 5.458	42.54	Pk	34.7	-22.1	0	55.14	-	-	74	-18.86	172	256	H
3	* 5.35	31.06	RMS	34.7	-22.8	0	42.96	54	-11.04	-	-	172	256	H
4	* 5.455	31.74	RMS	34.7	-22.1	0	44.34	54	-9.66	-	-	172	256	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection



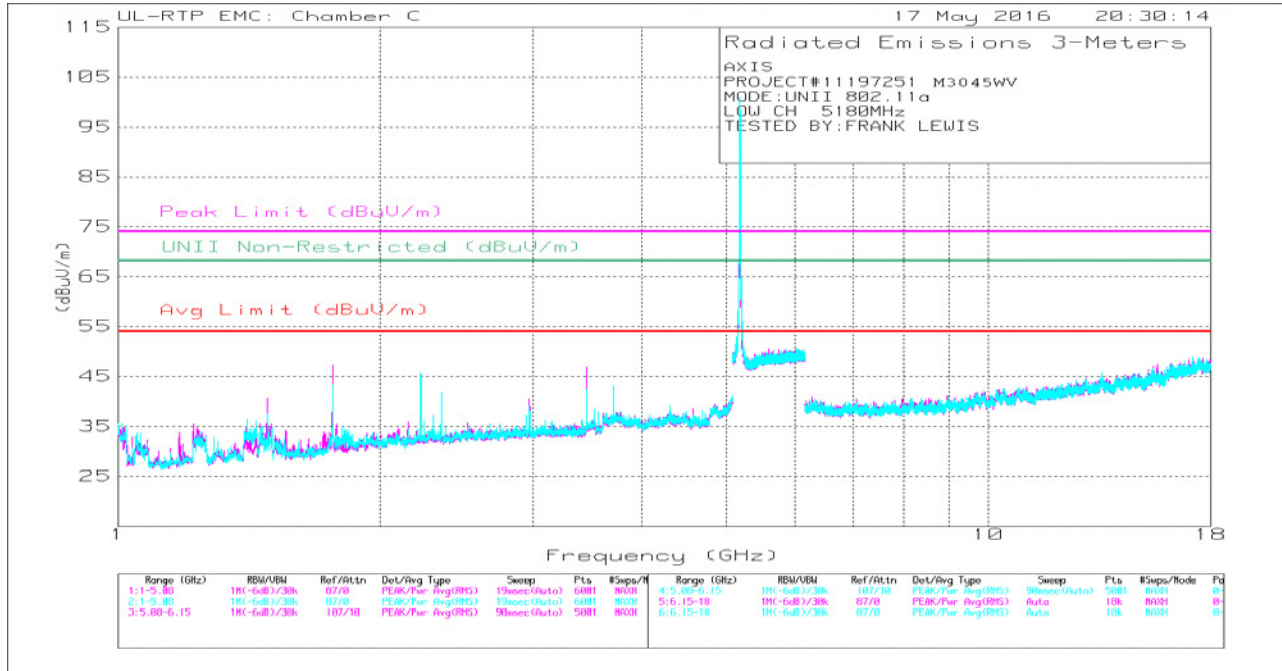
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF (dB/m)	Amp/Cbl/Filtr/Pad	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	41.57	Pk	34.7	-22.8	0	53.47	-	-	74	-20.53	335	276	V
2	* 5.447	42.91	Pk	34.7	-22.1	0	55.51	-	-	74	-18.49	335	276	V
3	* 5.35	31.66	RMS	34.7	-22.8	0	43.56	54	-10.44	-	-	335	276	V
4	* 5.456	31.69	RMS	34.7	-22.1	0	44.29	54	-9.71	-	-	335	276	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

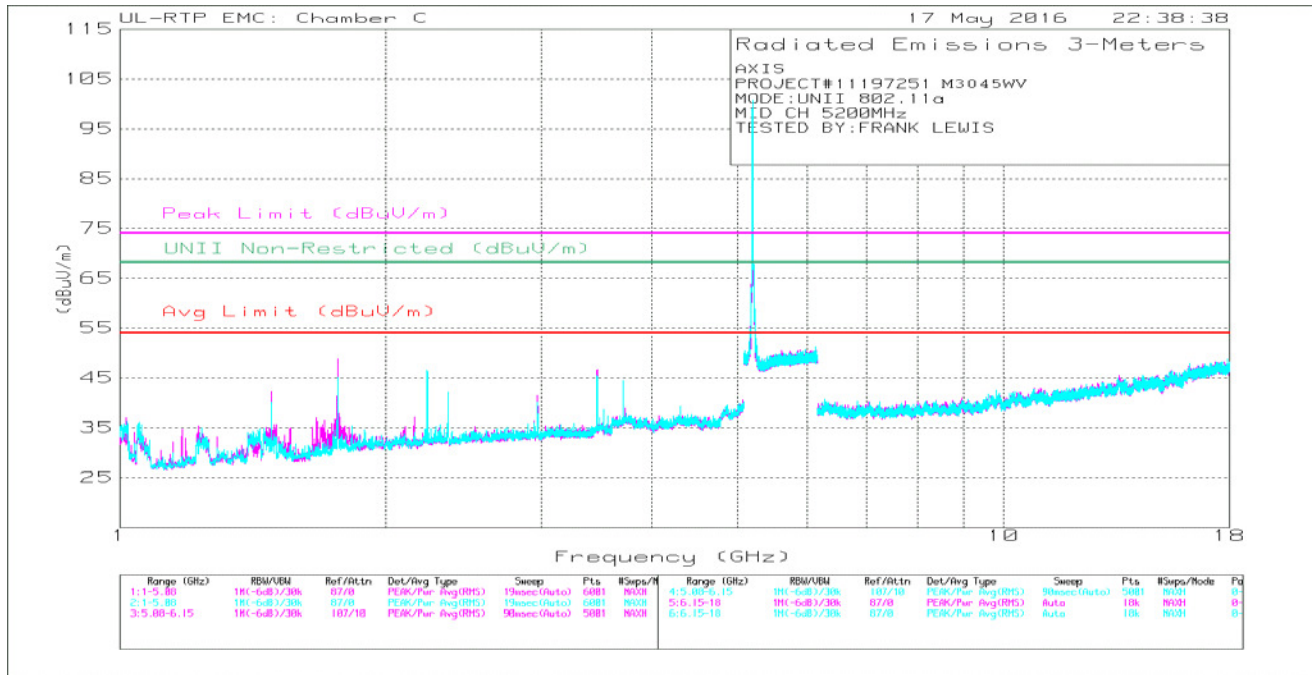
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS



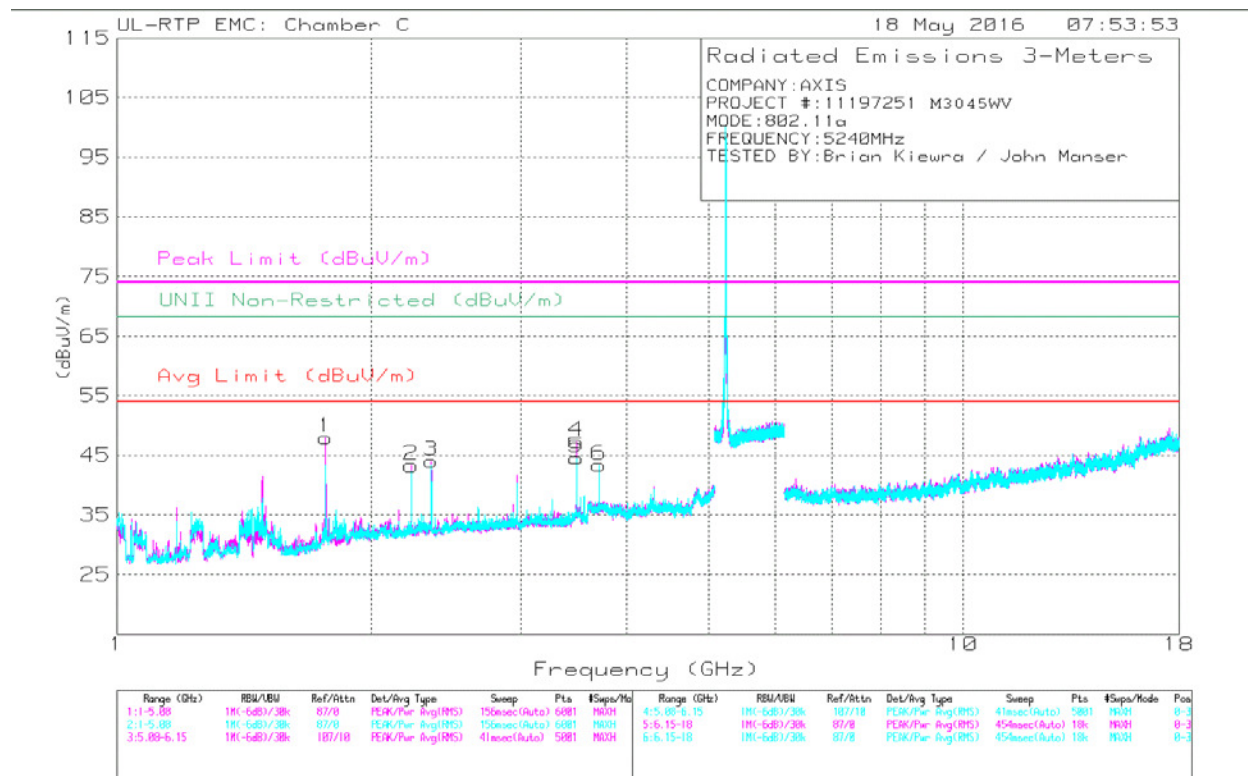
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF (dB/m)	Amp/Cbl/Filtr/Pad	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.221	55.11	PK-U	28.3	-39.6	0	43.81	-	-	74	-30.19	-	-	294	253	H
	* 1.221	38.76	ADR	28.3	-39.6	0	27.46	54	-26.54	-	-	-	-	294	253	H
2	* 1.485	56.45	PK-U	28.1	-38.6	0	45.95	-	-	74	-28.05	-	-	355	147	H
	* 1.485	48.38	ADR	28.1	-38.6	0	37.88	54	-16.12	-	-	-	-	355	147	H
4	* 2.227	57.05	PK-U	31.8	-37	0	51.85	-	-	74	-22.15	-	-	299	123	H
	* 2.227	49.28	ADR	31.8	-37	0	44.08	54	-9.92	-	-	-	-	299	123	H
5	* 2.352	49.89	PK-U	32	-36.6	0	45.29	-	-	74	-28.71	-	-	149	239	H
	* 2.352	41.41	ADR	32	-36.6	0	36.81	54	-17.19	-	-	-	-	149	239	H
8	* 3.712	49.53	PK-U	33.4	-34.7	0	48.23	-	-	74	-25.77	-	-	217	229	H
	* 3.712	39.89	ADR	33.4	-34.7	0	38.59	54	-15.41	-	-	-	-	217	229	H
9	* 17.961	32.76	PK-U	41.2	-19.9	0	54.06	-	-	74	-19.94	-	-	350	122	H
	* 17.959	20.86	ADR	41.2	-19.9	0	42.16	54	-11.84	-	-	-	-	350	122	H
10	* 1.003	63.5	PK-U	26.9	-39.9	0	50.5	-	-	74	-23.5	-	-	331	172	V
	* 1	42.66	ADR	26.9	-39.9	0	29.66	54	-24.34	-	-	-	-	331	172	V
11	* 1.443	56.43	PK-U	28	-38.6	0	45.83	-	-	74	-28.17	-	-	339	186	V
	* 1.442	37.92	ADR	28	-38.7	0	27.22	54	-26.78	-	-	-	-	339	186	V
12	* 1.485	53.8	PK-U	28.1	-38.6	0	43.3	-	-	74	-30.7	-	-	153	102	V
	* 1.485	46.2	ADR	28.1	-38.6	0	35.7	54	-18.3	-	-	-	-	153	102	V
14	* 2.227	57.69	PK-U	31.8	-37	0	52.49	-	-	74	-21.51	-	-	236	187	V
	* 2.227	49.78	ADR	31.8	-37	0	44.58	54	-9.42	-	-	-	-	236	187	V
15	* 2.352	53.82	PK-U	32	-36.6	0	49.22	-	-	74	-24.78	-	-	213	229	V
	* 2.352	45.37	ADR	32	-36.6	0	40.77	54	-13.23	-	-	-	-	213	229	V
18	* 3.712	50.68	PK-U	33.4	-34.7	0	49.38	-	-	74	-24.62	-	-	152	198	V
	* 3.712	40.73	ADR	33.4	-34.7	0	39.43	54	-14.57	-	-	-	-	152	198	V
19	* 17.826	32.97	PK-U	41.3	-20.4	0	53.87	-	-	74	-20.13	-	-	91	295	V
	* 17.828	21.28	ADR	41.3	-20.4	0	42.18	54	-11.82	-	-	-	-	91	295	V
3	1.764	63.05	PK-U	29.8	-38	0	54.85	-	-	-	-	68.2	-13.35	170	159	H
6	2.969	51.38	PK-U	32.8	-35.1	0	49.08	-	-	-	-	68.2	-19.12	174	117	H
7	3.453	51.76	PK-U	33	-33.7	0	51.06	-	-	-	-	68.2	-17.14	27	301	H
13	1.764	60.71	PK-U	29.8	-38	0	52.51	-	-	-	-	68.2	-15.69	199	288	V
16	2.969	48.82	PK-U	32.8	-35.2	0	46.42	-	-	-	-	68.2	-21.78	164	190	V
17	3.453	48.98	PK-U	33	-33.7	0	48.28	-	-	-	-	68.2	-19.92	313	279	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak (KDB 789033 II.G.5)
ADR - U-NII AD primary method, RMS average (KDB 789033 II.G.6c)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF (dB/m)	Amp/Cbl/ Fitr/Pad	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	* 1.02	60.7	PK-U	26.9	-40	0	47.6	-	-	74	-26.4	-	-	264	207	H
	* 1.02	44.14	ADR	26.9	-40	0	31.04	54	-22.96	-	-	-	-	264	207	H
2	* 1.238	55.73	PK-U	28.3	-39.5	0	44.53	-	-	74	-29.47	-	-	301	210	H
	* 1.235	39.59	ADR	28.3	-39.5	0	28.39	54	-25.61	-	-	-	-	301	210	H
3	* 1.485	60.6	PK-U	28.1	-38.6	0	50.1	-	-	74	-23.9	-	-	306	203	H
	* 1.485	50.26	ADR	28.1	-38.6	0	39.76	54	-14.24	-	-	-	-	306	203	H
5	* 2.227	57.24	PK-U	31.8	-37	0	52.04	-	-	74	-21.96	-	-	297	104	H
	* 2.227	49.63	ADR	31.8	-37	0	44.43	54	-9.57	-	-	-	-	297	104	H
6	* 2.352	52.24	PK-U	32	-36.6	0	47.64	-	-	74	-26.36	-	-	287	182	H
	* 2.352	42.03	ADR	32	-36.6	0	37.43	54	-16.57	-	-	-	-	287	182	H
9	* 3.712	50.22	PK-U	33.4	-34.7	0	48.92	-	-	74	-25.08	-	-	239	336	H
	* 3.712	40.48	ADR	33.4	-34.7	0	39.18	54	-14.82	-	-	-	-	239	336	H
10	* 1.04	52.42	PK-U	26.8	-40.1	0	39.12	-	-	74	-34.88	-	-	146	154	V
	* 1.039	41.91	ADR	26.8	-40.1	0	28.61	54	-25.39	-	-	-	-	146	154	V
11	* 1.239	55.25	PK-U	28.3	-39.5	0	44.05	-	-	74	-29.95	-	-	63	197	V
	* 1.241	38.72	ADR	28.3	-39.4	0	27.62	54	-26.38	-	-	-	-	63	197	V
12	* 1.485	56.76	PK-U	28.1	-38.6	0	46.26	-	-	74	-27.74	-	-	150	101	V
	* 1.485	49.06	ADR	28.1	-38.6	0	38.56	54	-15.44	-	-	-	-	150	101	V
14	* 2.227	58.87	PK-U	31.8	-37	0	53.67	-	-	74	-20.33	-	-	339	345	V
	* 2.227	51.35	ADR	31.8	-37	0	46.15	54	-7.85	-	-	-	-	339	345	V
15	* 2.352	54.37	PK-U	32	-36.6	0	49.77	-	-	74	-24.23	-	-	223	213	V
	* 2.352	45.36	ADR	32	-36.6	0	40.76	54	-13.24	-	-	-	-	223	213	V
18	* 3.712	51.02	PK-U	33.4	-34.7	0	49.72	-	-	74	-24.28	-	-	305	252	V
	* 3.712	41.15	ADR	33.4	-34.7	0	39.85	54	-14.15	-	-	-	-	305	252	V
4	1.764	64.18	PK-U	29.8	-38	0	55.98	-	-	-	-	68.2	-12.22	168	173	H
16	2.971	52.17	PK-U	32.8	-35.2	0	49.77	-	-	-	-	68.2	-18.43	175	152	H
17	3.467	51.48	PK-U	33.4	-33.9	0	50.98	-	-	-	-	68.2	-17.22	16	234	H
13	1.764	59.22	PK-U	29.9	-38	0	51.12	-	-	-	-	68.2	-17.08	223	109	V
7	2.97	49.39	PK-U	32.8	-35.2	0	46.99	-	-	-	-	68.2	-21.21	254	174	V
8	3.467	50.93	PK-U	33.4	-33.9	0	50.43	-	-	-	-	68.2	-17.77	300	300	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak (KDB 789033 II.G.5)
ADR - U-NII AD primary method, RMS average (KDB 789033 II.G.6c)

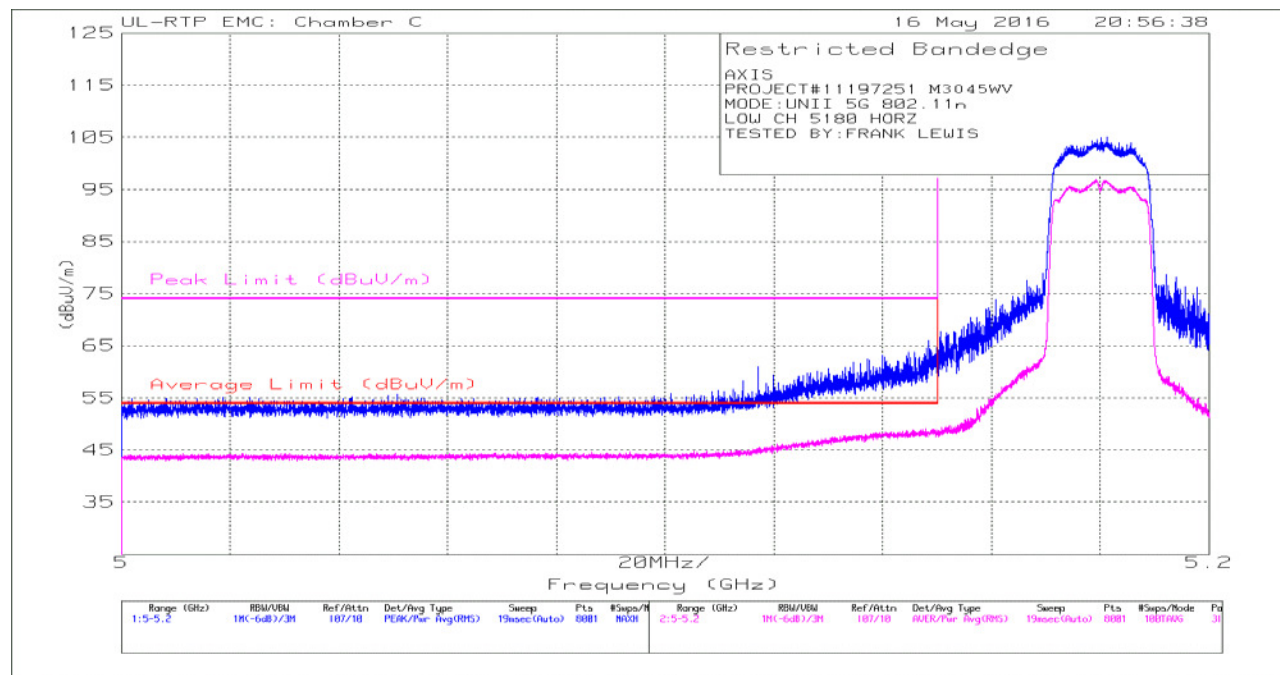


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF (dB/m)	Amp/Cbl/ Filt/Pad	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.227	54.63	PK-U	31.8	-37	0	49.43	-	-	74	-24.57	-	-	324	124	H
	* 2.227	46.66	ADR	31.8	-37	0	41.46	54	-12.54	-	-	-	-	324	124	H
3	* 2.352	54.67	PK-U	32	-36.6	0	50.07	-	-	74	-23.93	-	-	130	232	H
	* 2.352	46.49	ADR	32	-36.6	0	41.89	54	-12.11	-	-	-	-	130	232	H
6	* 3.712	49.65	PK-U	33.4	-34.7	0	48.35	-	-	74	-25.65	-	-	133	129	V
	* 3.712	39.86	ADR	33.4	-34.7	0	38.56	54	-15.44	-	-	-	-	133	129	V
1	1.764	60.77	PK-U	29.8	-38	0	52.57	-	-	-	-	68.2	-15.63	172	128	H
4	3.493	50.91	PK-U	34.2	-34.3	0	50.81	-	-	-	-	68.2	-17.39	27	303	H
5	3.493	49.28	PK-U	34.1	-34.3	0	49.08	-	-	-	-	68.2	-19.12	314	310	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak (KDB 789033 II.G.5)
ADR - U-NII AD primary method, RMS average (KDB 789033 II.G.6c)

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

RESTRICTED BANDEDGE (LOW CHANNEL)

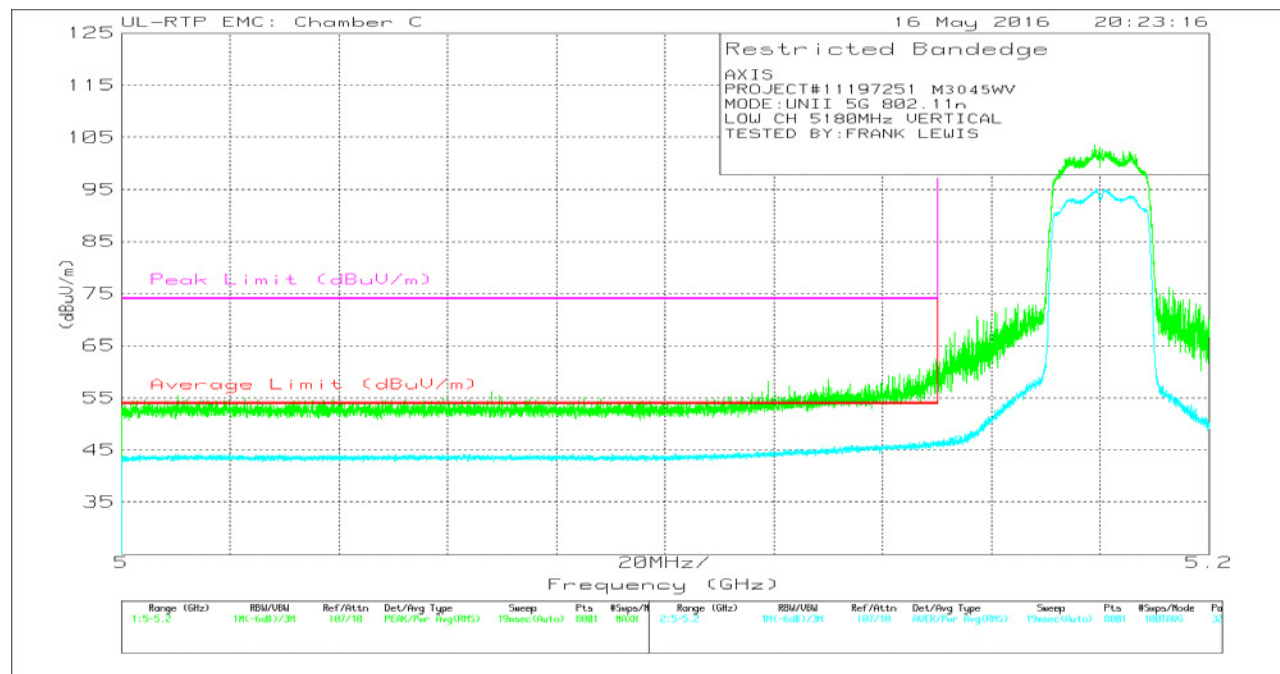


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF (dB/m)	Amp/Cbl/ Fltr/Pad	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 5.148	55.15	Pk	34.3	-23.3	0	66.15	-	-	74	-7.85	31	310	H
4	* 5.148	38.1	RMS	34.3	-23.3	0	49.1	54	-4.9	-	-	31	310	H
1	5.15	49.3	Pk	34.3	-23.3	0	60.3	-	-	74	-13.7	31	310	H
3	5.15	37.29	RMS	34.3	-23.3	0	48.29	54	-5.71	-	-	31	310	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection



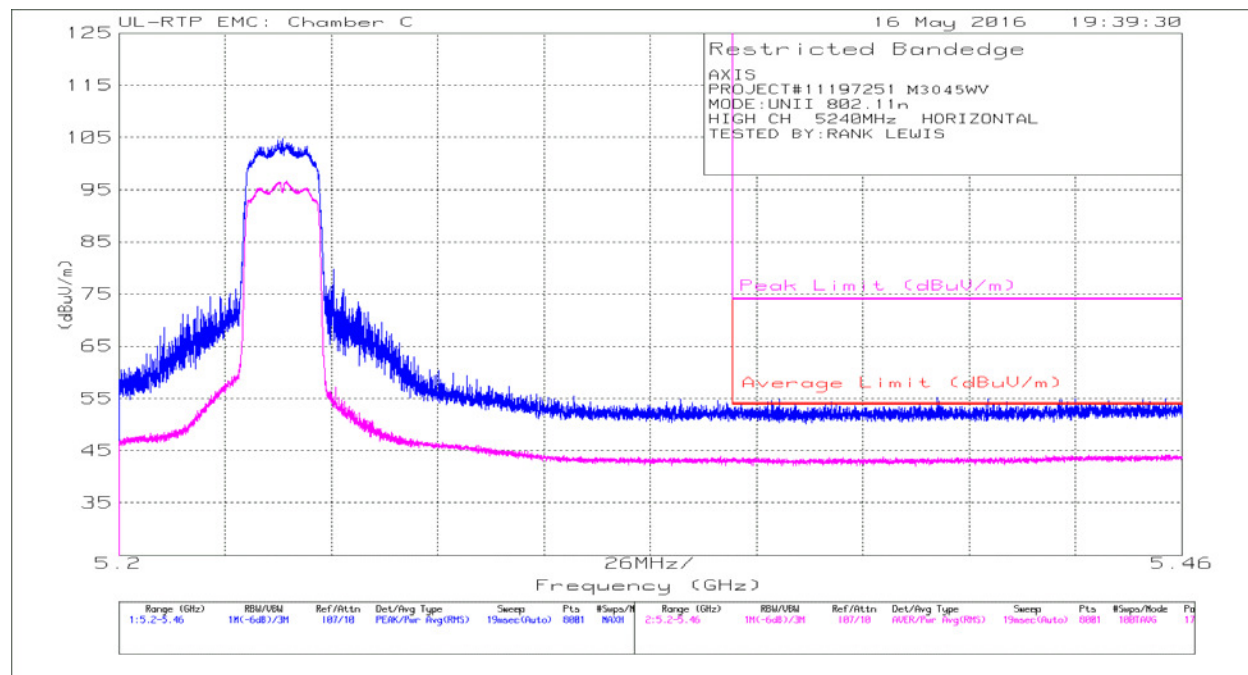
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF (dB/m)	Amp/Cbl/ Ftr/Pad	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 5.15	51.45	Pk	34.3	-23.3	0	62.45	-	-	74	-11.55	323	184	V
4	* 5.149	35.82	RMS	34.3	-23.3	0	46.82	54	-7.18	-	-	323	184	V
1	5.15	47.99	Pk	34.3	-23.3	0	58.99	-	-	74	-15.01	323	184	V
3	5.15	35.29	RMS	34.3	-23.3	0	46.29	54	-7.71	-	-	323	184	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

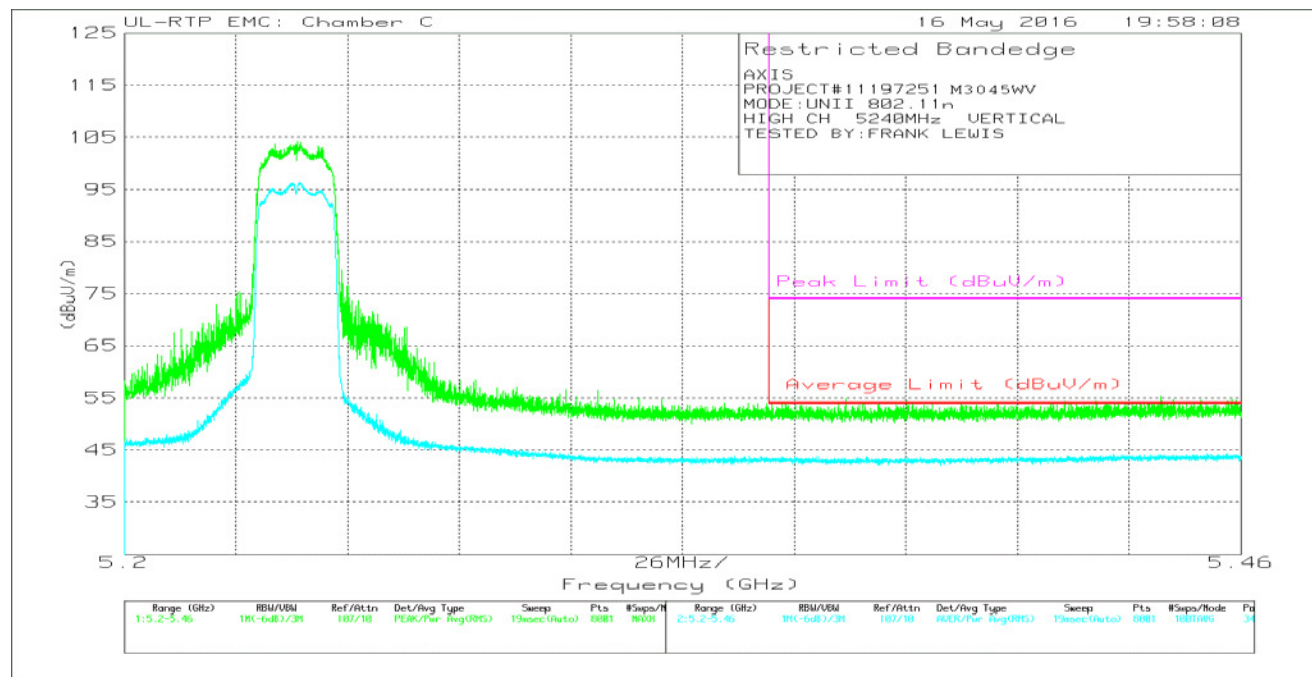


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF (dB/m)	Amp/Cbl/ Filt/Pad	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	40.38	Pk	34.7	-22.8	0	52.28	-	-	74	-21.72	175	256	H
2	* 5.4	43.26	Pk	34.6	-22.6	0	55.26	-	-	74	-18.74	175	256	H
3	* 5.35	31.23	RMS	34.7	-22.8	0	43.13	54	-10.87	-	-	175	256	H
4	* 5.455	31.69	RMS	34.7	-22.1	0	44.29	54	-9.71	-	-	175	256	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection



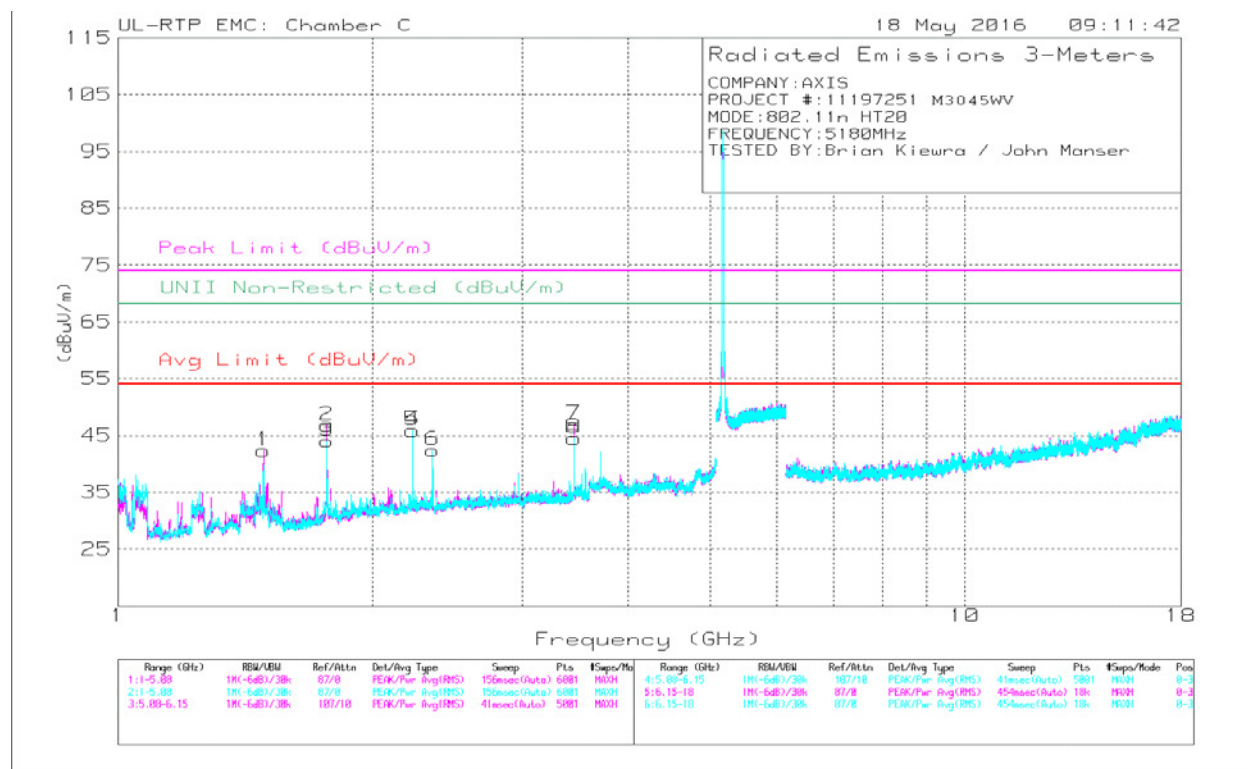
Marker	Frequency (GHz)	Meter Reading (dBUV)	Det	AF (dB/m)	Amp/Cbl/Filtr/Pad	DC Corr (dB)	Corrected Reading (dBUV/m)	Average Limit (dBUV/m)	Margin (dB)	Peak Limit (dBUV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	40.19	Pk	34.7	-22.8	0	52.09	-	-	74	-21.91	341	244	V
2	* 5.441	42.88	Pk	34.7	-22.2	0	55.38	-	-	74	-18.62	341	244	V
3	* 5.35	31.04	RMS	34.7	-22.8	0	42.94	54	-11.06	-	-	341	244	V
4	* 5.457	31.8	RMS	34.7	-22.1	0	44.4	54	-9.6	-	-	341	244	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

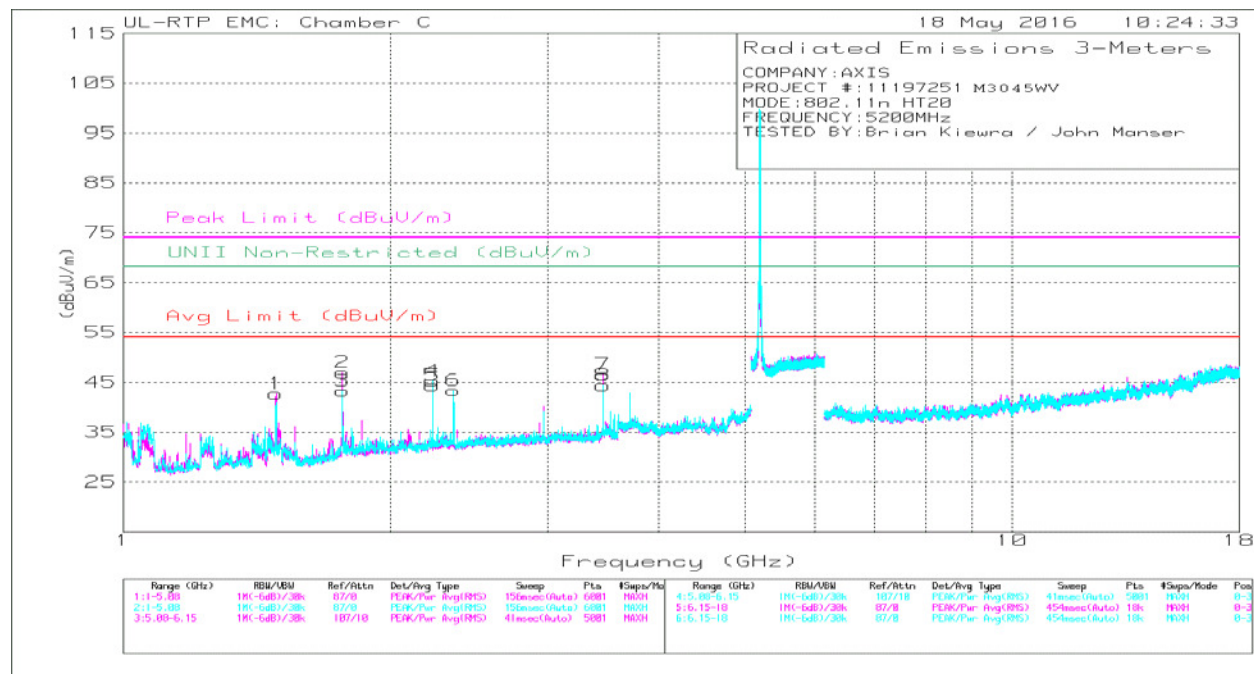


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF (dB/m)	Amp/Cbl /Filtr/Pad	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.485	59.29	PK-U	28.1	-38.6	0	48.79	-	-	74	-25.21	-	-	166	124	H
	* 1.485	52.37	ADR	28.1	-38.6	0	41.87	54	-12.13	-	-	-	-	166	124	H
5	* 2.227	55.62	PK-U	31.8	-37	0	50.42	-	-	74	-23.58	-	-	220	208	H
	* 2.227	47.65	ADR	31.8	-37	0	42.45	54	-11.55	-	-	-	-	220	208	H
4	* 2.227	57.09	PK-U	31.8	-37	0	51.89	-	-	74	-22.11	-	-	345	340	V
	* 2.227	49.65	ADR	31.8	-37	0	44.45	54	-9.55	-	-	-	-	345	340	V
6	* 2.352	54.02	PK-U	32	-36.6	0	49.42	-	-	74	-24.58	-	-	212	258	V
	* 2.352	45.05	ADR	32	-36.6	0	40.45	54	-13.55	-	-	-	-	212	258	V
2	1.764	60.87	PK-U	29.8	-38	0	52.67	-	-	-	-	68.2	-15.53	181	163	H
3	1.764	57.5	PK-U	29.8	-38	0	49.3	-	-	-	-	68.2	-18.9	104	199	V
7	3.453	51.37	PK-U	33	-33.7	0	50.67	-	-	-	-	68.2	-17.53	24	267	H
8	3.453	50.04	PK-U	33	-33.7	0	49.34	-	-	-	-	68.2	-18.86	301	239	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak (KDB 789033 II.G.5)

ADR - U-NII AD primary method, RMS average (KDB 789033 II.G.6c)

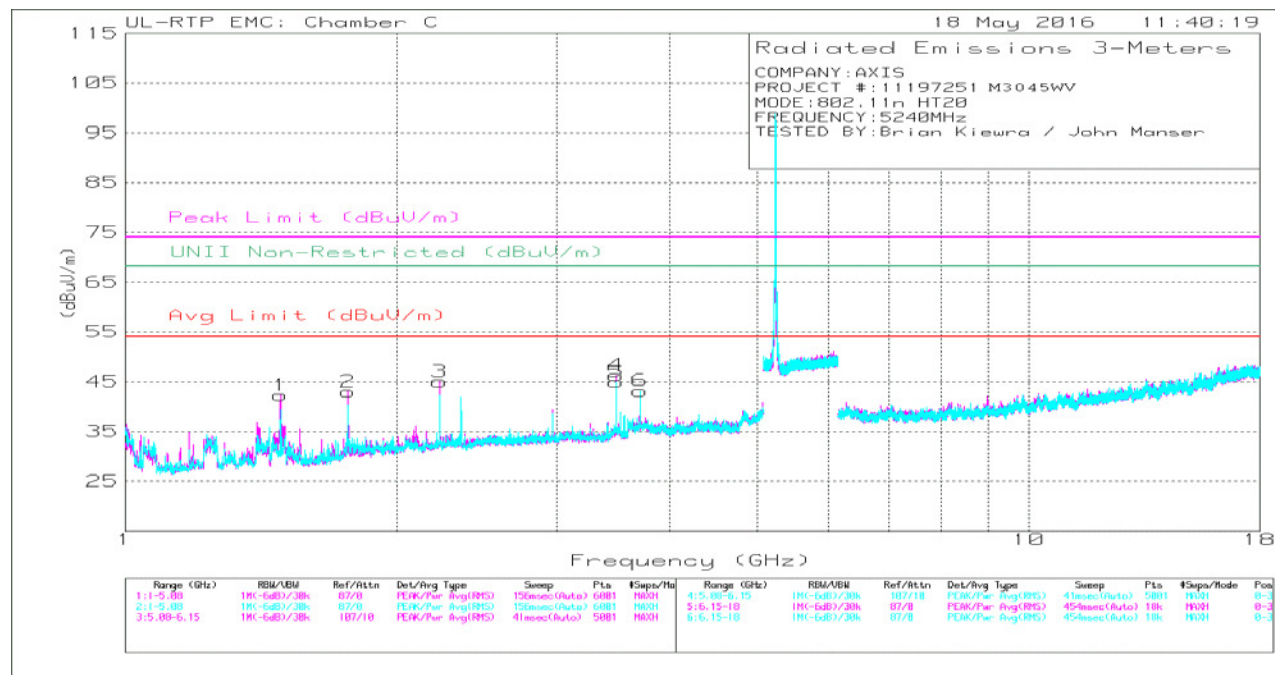


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF (dB/m)	Amp/Cbl/ Fltr/Pad	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.485	59.39	PK-U	28.1	-38.6	0	48.89	-	-	74	-25.11	-	-	159	124	H
	* 1.485	52.77	ADR	28.1	-38.6	0	42.27	54	-11.73	-	-	-	-	159	124	H
5	* 2.227	56.62	PK-U	31.8	-37	0	51.42	-	-	74	-22.58	-	-	298	161	H
	* 2.227	48.43	ADR	31.8	-37	0	43.23	54	-10.77	-	-	-	-	298	161	H
4	* 2.228	57.75	PK-U	31.8	-37	0	52.55	-	-	74	-21.45	-	-	343	363	V
	* 2.227	50.17	ADR	31.8	-37	0	44.97	54	-9.03	-	-	-	-	343	363	V
6	* 2.352	54.27	PK-U	32	-36.6	0	49.67	-	-	74	-24.33	-	-	222	200	V
	* 2.352	45.54	ADR	32	-36.6	0	40.94	54	-13.06	-	-	-	-	222	200	V
2	1.764	61.16	PK-U	29.9	-38	0	53.06	-	-	-	-	68.2	-15.14	173	149	H
3	1.764	57.86	PK-U	29.8	-38	0	49.66	-	-	-	-	68.2	-18.54	208	310	V
8	3.467	51.11	PK-U	33.4	-33.9	0	50.61	-	-	-	-	68.2	-17.59	25	254	H
7	3.467	49.66	PK-U	33.4	-33.9	0	49.16	-	-	-	-	68.2	-19.04	298	299	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak (KDB 789033 II.G.5)

ADR - U-NII AD primary method, RMS average (KDB 789033 II.G.6c)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF (dB/m)	Amp/Cbl/ Fltr/Pad	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	* 1.485	59.94	PK-U	28.1	-38.6	0	49.44	-	-	74	-24.56	-	-	162	115	H
	* 1.485	52.95	ADR	28.1	-38.6	0	42.45	54	-11.55	-	-	-	-	162	115	H
3	* 2.227	56.29	PK-U	31.8	-37	0	51.09	-	-	74	-22.91	-	-	324	101	H
	* 2.227	47.86	ADR	31.8	-37	0	42.66	54	-11.34	-	-	-	-	324	101	H
6	* 3.711	48.44	PK-U	33.4	-34.7	0	47.14	-	-	74	-26.86	-	-	133	110	V
	* 3.712	38.33	ADR	33.4	-34.7	0	37.03	54	-16.97	-	-	-	-	133	110	V
2	1.764	56.44	PK-U	29.9	-38	0	48.34	-	-	-	-	68.2	-19.86	179	138	H
4	3.493	50.5	PK-U	34.2	-34.3	0	50.4	-	-	-	-	68.2	-17.8	17	275	H
5	3.493	49.99	PK-U	34.2	-34.3	0	49.89	-	-	-	-	68.2	-18.31	300	283	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

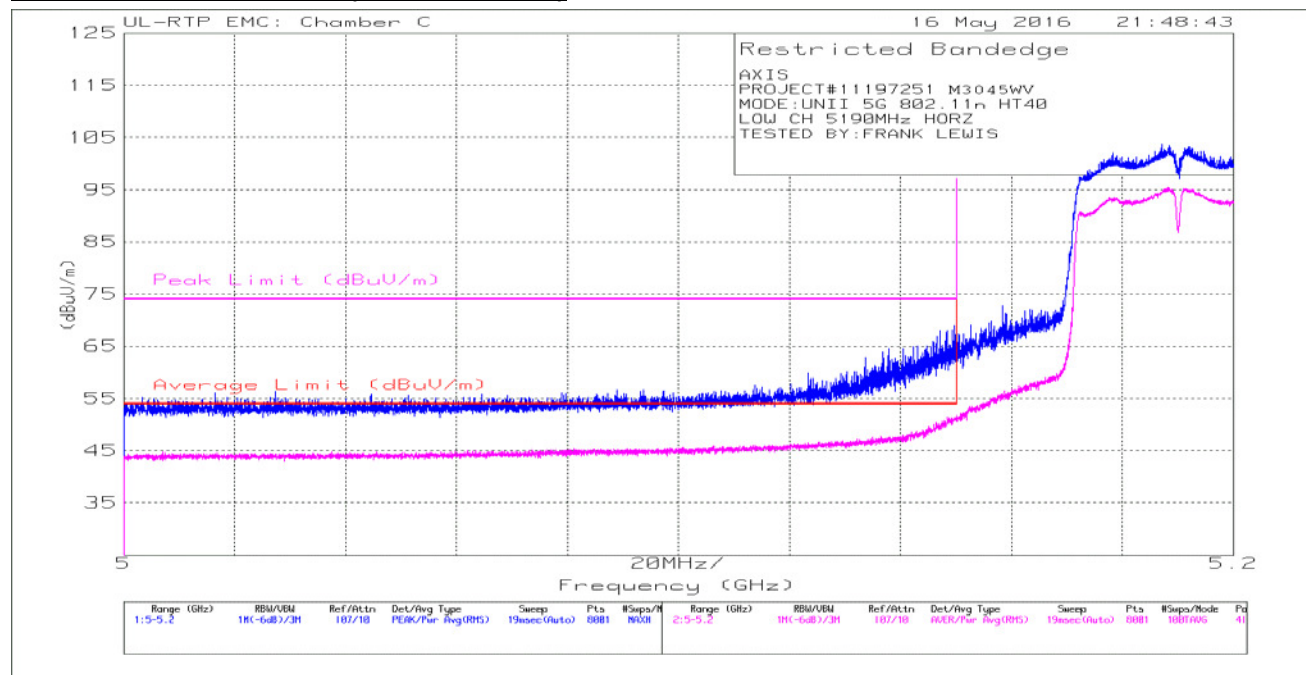
Pk - Peak detector

PK-U - U-NII: Maximum Peak (KDB 789033 II.G.5)

ADR - U-NII AD primary method, RMS average (KDB 789033 II.G.6c)

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

RESTRICTED BANDEDGE (LOW CHANNEL)

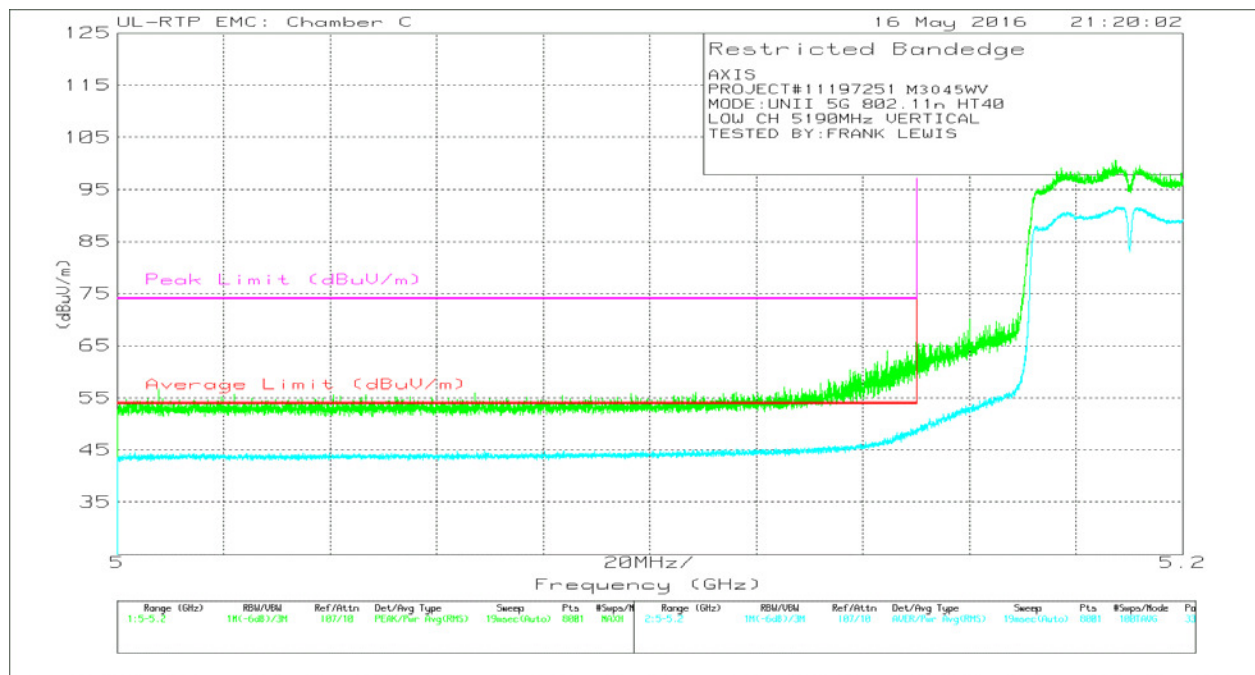


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF (dB/m)	Amp/Cbl/Filtr/Pad	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 5.15	57.99	Pk	34.3	-23.3	0	68.99	-	-	74	-5.01	41	327	H
4	* 5.148	40.37	RMS	34.3	-23.3	.14	51.51	54	-2.49	-	-	41	327	H
1	5.15	53.22	Pk	34.3	-23.3	0	64.22	-	-	74	-9.78	41	327	H
3	5.15	40.63	RMS	34.3	-23.3	.14	51.77	54	-2.23	-	-	41	327	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection



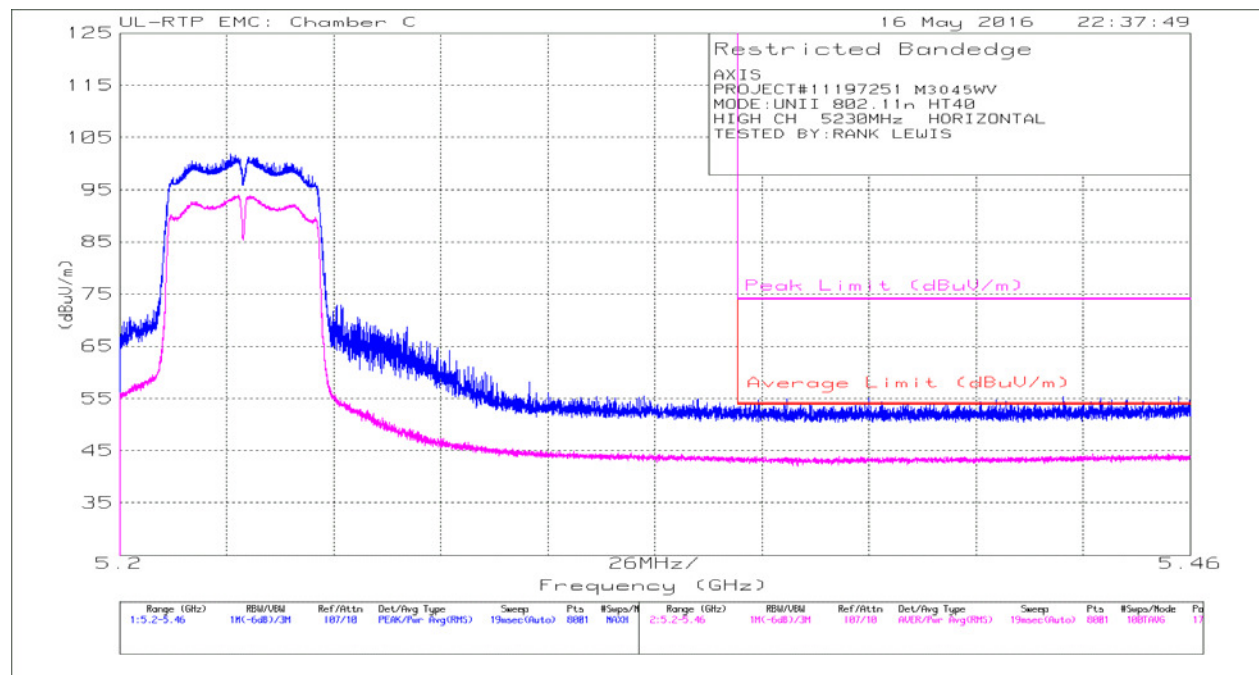
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF (dB/m)	Amp/Cbl/Fitr/Pad	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 5.15	54.73	Pk	34.3	-23.3	0	65.73	-	-	74	-8.27	338	180	V
4	* 5.149	37.98	RMS	34.3	-23.3	.14	49.12	54	-4.88	-	-	338	180	V
1	5.15	48.23	Pk	34.3	-23.3	0	59.23	-	-	74	-14.77	338	180	V
3	5.15	37.7	RMS	34.3	-23.3	.14	48.84	54	-5.16	-	-	338	180	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

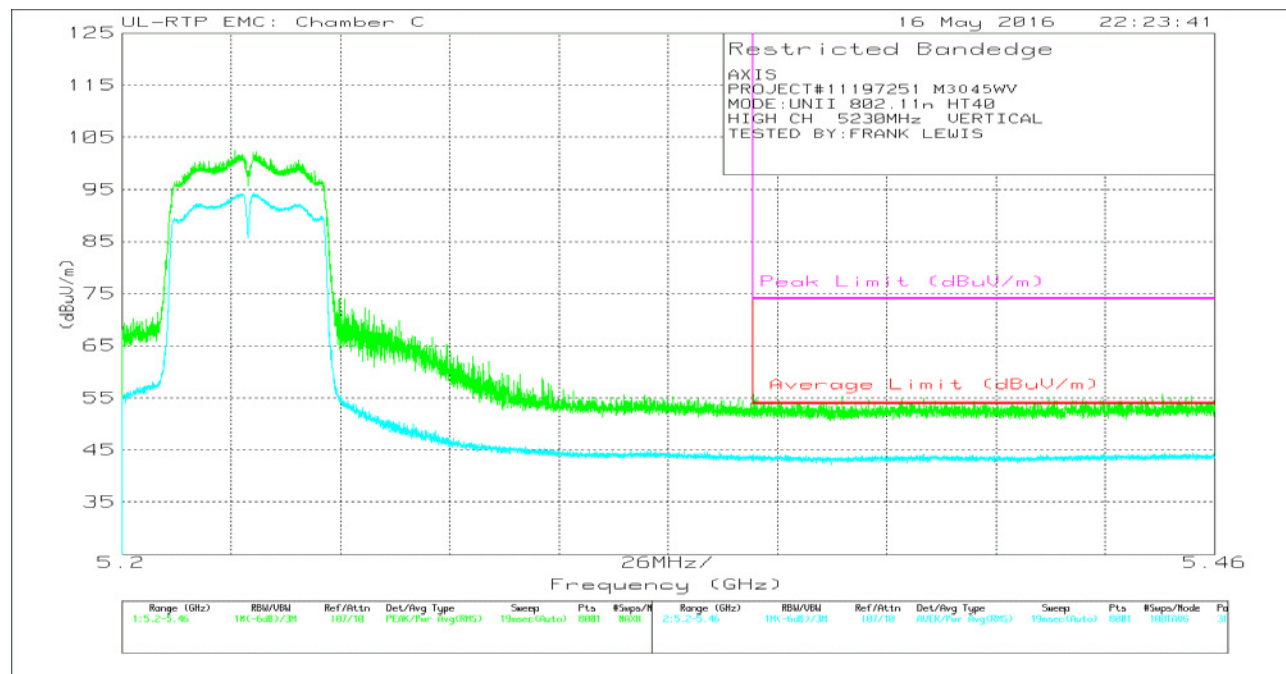


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF (dB/m)	Amp/Cbl/ Ftr/Pad	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	40.19	Pk	34.7	-22.8	0	52.09	-	-	74	-21.91	175	284	H
2	* 5.457	42.75	Pk	34.7	-22.1	0	55.35	-	-	74	-18.65	175	284	H
3	* 5.35	31.21	RMS	34.7	-22.8	.14	43.25	54	-10.75	-	-	175	284	H
4	* 5.456	31.71	RMS	34.7	-22.1	.14	44.45	54	-9.55	-	-	175	284	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

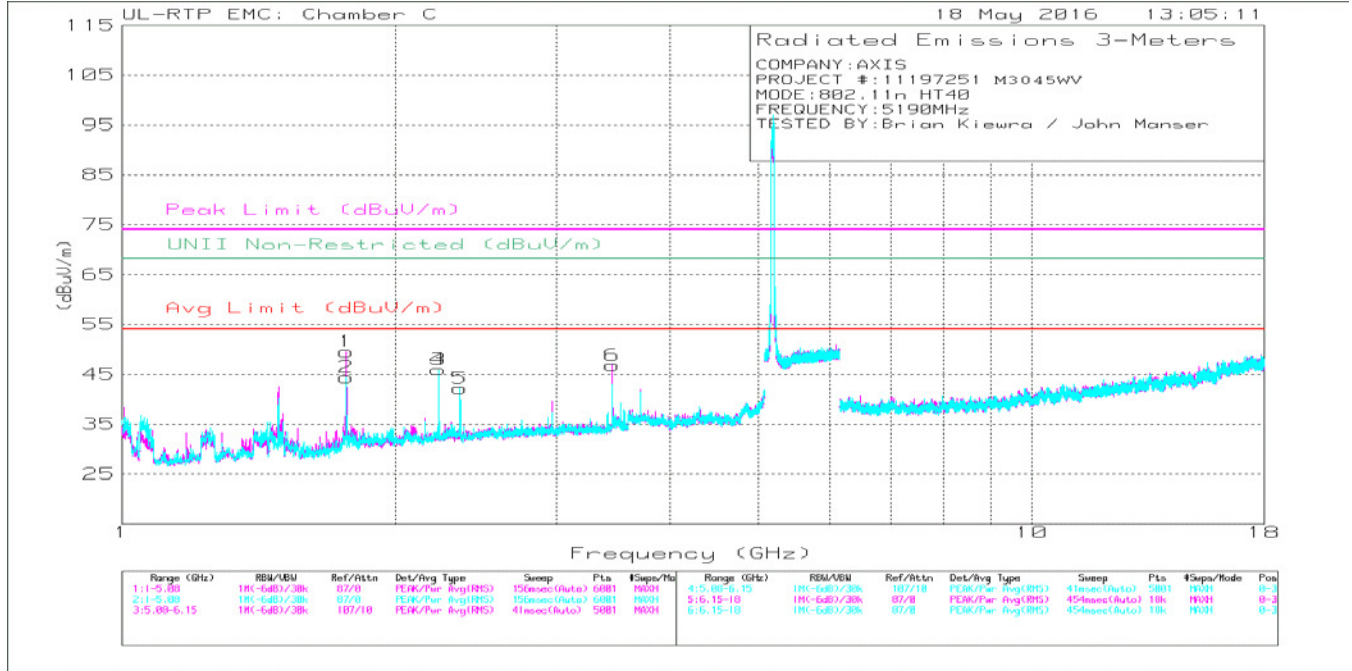
RMS - RMS detection



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF (dB/m)	Amp/Cbl/ Fltr/Pad	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	* 5.35	41.21	Pk	34.7	-22.8	0	53.11	-	-	74	-20.89	318	107	V
2	* 5.448	43.2	Pk	34.7	-22.1	0	55.8	-	-	74	-18.2	318	107	V
3	* 5.35	31.49	RMS	34.7	-22.8	.14	43.53	54	-10.47	-	-	318	107	V
4	* 5.448	31.75	RMS	34.7	-22.1	.14	44.49	54	-9.51	-	-	318	107	V

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

HARMONICS AND SPURIOUS EMISSIONS

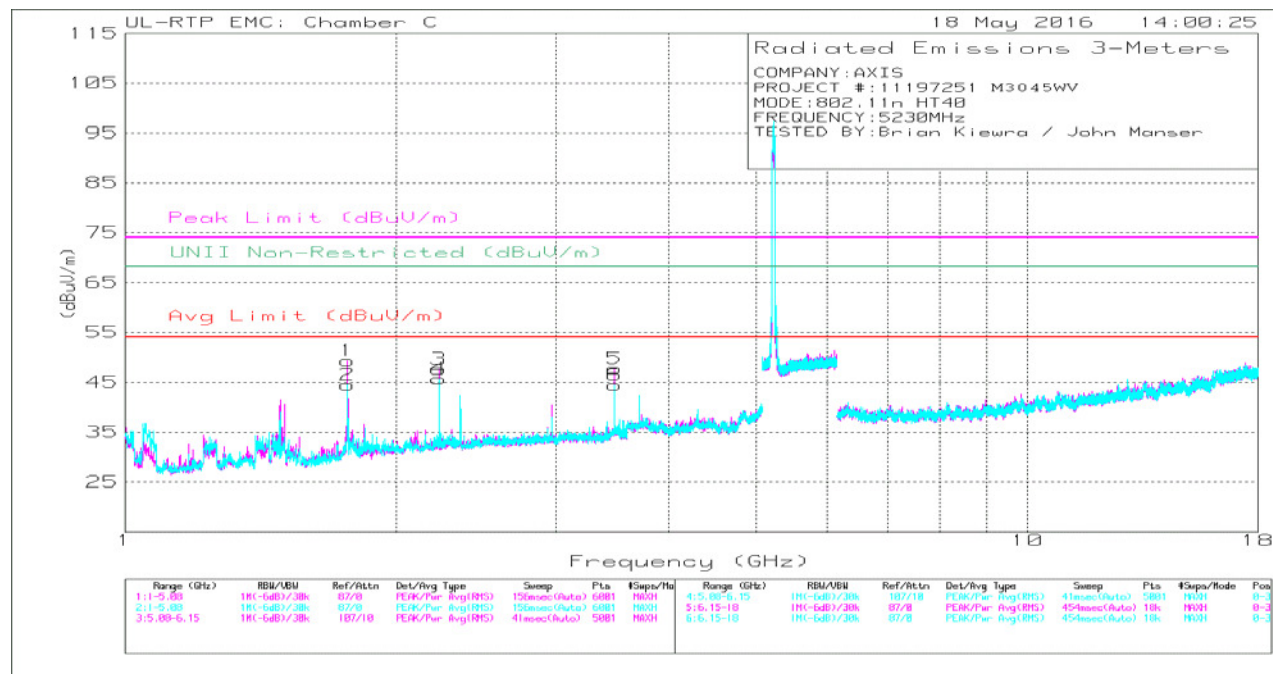


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF (dB/m)	Amp/Cbl/Filtr/Pad	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	* 2.228	56.62	PK-U	31.8	-37	0	51.42	-	-	74	-22.58	-	-	298	106	H
	* 2.227	48.79	ADR	31.8	-37	.14	43.73	54	-10.27	-	-	-	-	298	106	H
4	* 2.228	57.75	PK-U	31.8	-37	0	52.55	-	-	74	-21.45	-	-	213	203	V
	* 2.227	49.55	ADR	31.8	-37	.14	44.49	54	-9.51	-	-	-	-	213	203	V
5	* 2.352	53.81	PK-U	32	-36.6	0	49.21	-	-	74	-24.79	-	-	219	214	V
	* 2.352	45.44	ADR	32	-36.6	.14	40.98	54	-13.02	-	-	-	-	219	214	V
1	1.764	64.43	PK-U	29.8	-38	0	56.23	-	-	-	-	68.2	-11.97	176	127	H
2	1.764	58.39	PK-U	29.8	-38	0	50.19	-	-	-	-	68.2	-18.01	100	101	V
6	3.46	50.87	PK-U	33.2	-33.8	0	50.27	-	-	-	-	68.2	-17.93	30	266	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak (KDB 789033 II.G.5)

ADR - U-NII AD primary method, RMS average (KDB 789033 II.G.6c)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF (dB/m)	Amp/Cbl/ Fltr/Pad	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
3	* 2.228	58.01	PK-U	31.8	-37	0	52.81	-	-	74	-21.19	-	-	300	125	H
	* 2.227	50.47	ADR	31.8	-37	.14	45.41	54	-8.59	-	-	-	-	300	125	H
4	* 2.227	57.67	PK-U	31.8	-37	0	52.47	-	-	74	-21.53	-	-	209	248	V
	* 2.227	49.89	ADR	31.8	-37	.14	44.83	54	-9.17	-	-	-	-	209	248	V
1	1.764	63.76	PK-U	29.9	-38	0	55.66	-	-	-	-	68.2	-12.54	176	179	H
2	1.764	59.55	PK-U	29.9	-38	0	51.45	-	-	-	-	68.2	-16.75	96	103	V
5	3.487	51.46	PK-U	34	-34.1	0	51.36	-	-	-	-	68.2	-16.84	18	277	H
6	3.487	50.25	PK-U	34	-34.1	0	50.15	-	-	-	-	68.2	-18.05	300	255	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

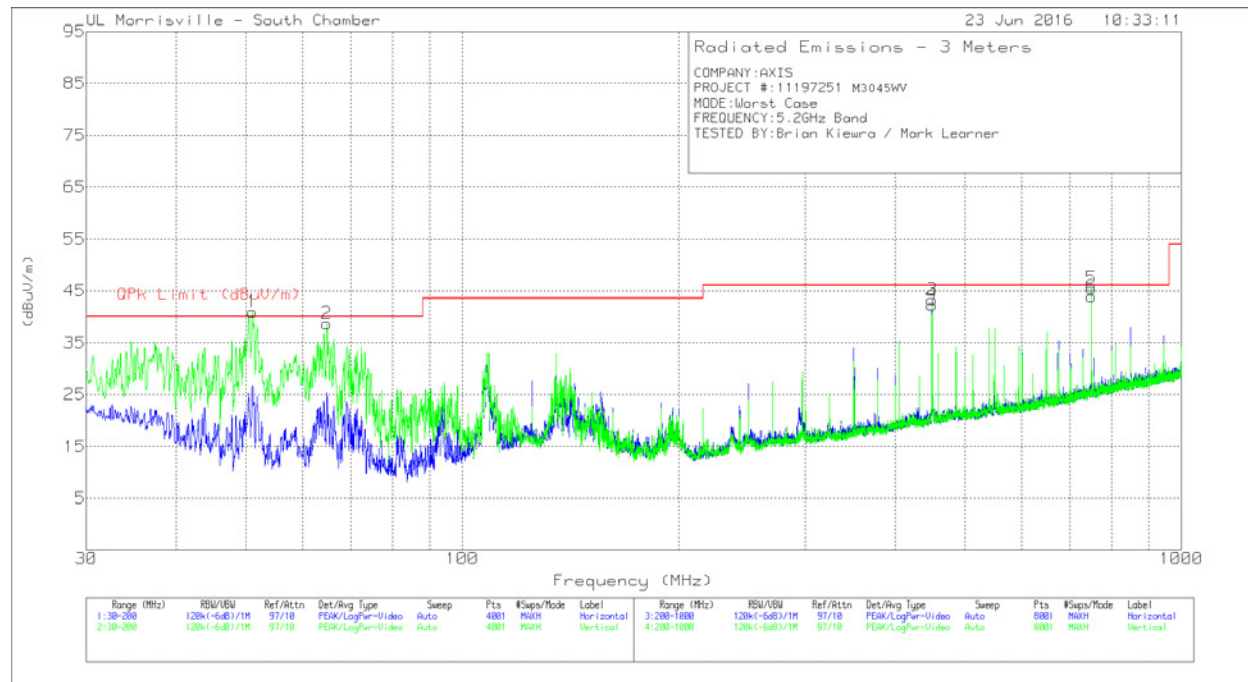
Pk - Peak detector

PK-U - U-NII: Maximum Peak (KDB 789033 II.G.5)

ADR - U-NII AD primary method, RMS average (KDB 789033 II.G.6c)

9.3. WORST-CASE BELOW 1 GHz

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION)

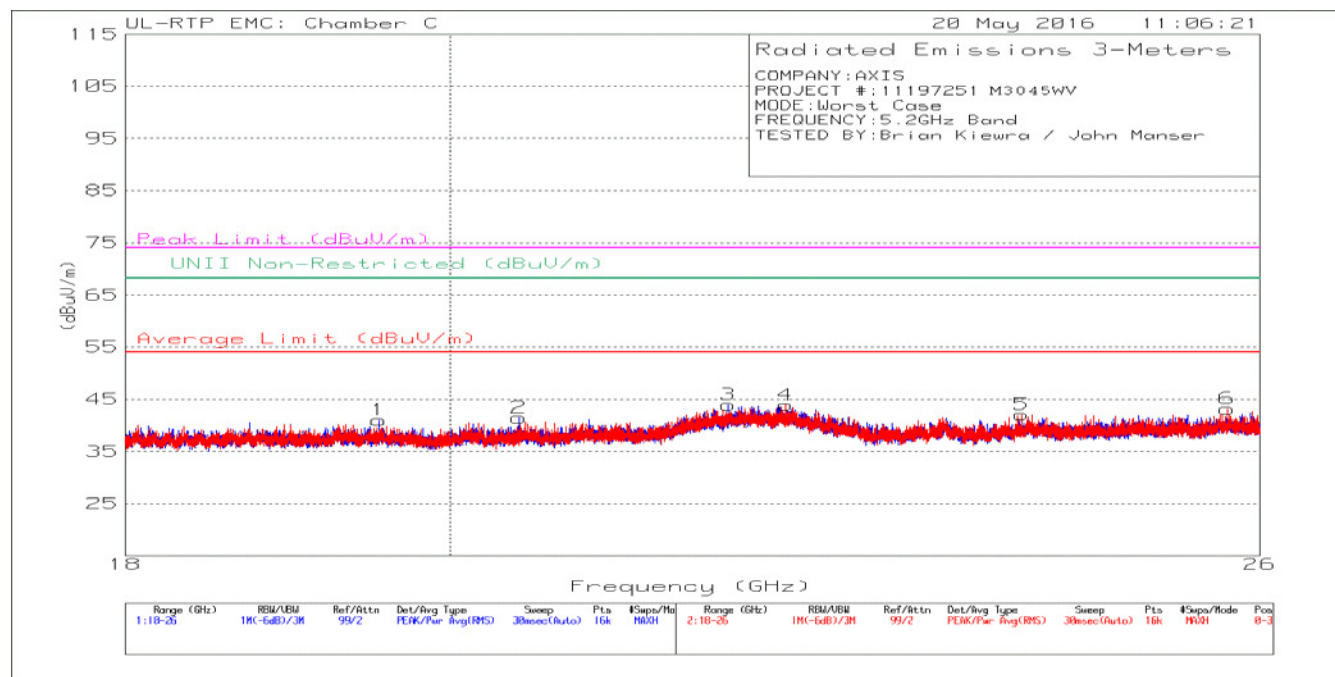


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AT0074 AF (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	51.074	58.14	Qp	12.3	-31.6	38.84	40	-1.16	165	108	V
2	64.7779	56.65	Qp	12.2	-31.4	37.45	40	-2.55	242	124	V
3	450.0091	50.8	Qp	21.2	-29	43	46.02	-3.02	189	191	H
4	450.0096	50.16	Qp	21.2	-29	42.36	46.02	-3.66	313	113	V
6	750.0168	46.52	Qp	25.2	-28	43.72	46.02	-2.3	118	102	H
5	750.0144	47.84	Qp	25.2	-28	45.04	46.02	-.98	154	102	V

Qp - Quasi-Peak detector

9.4. WORST-CASE 18-40GHz

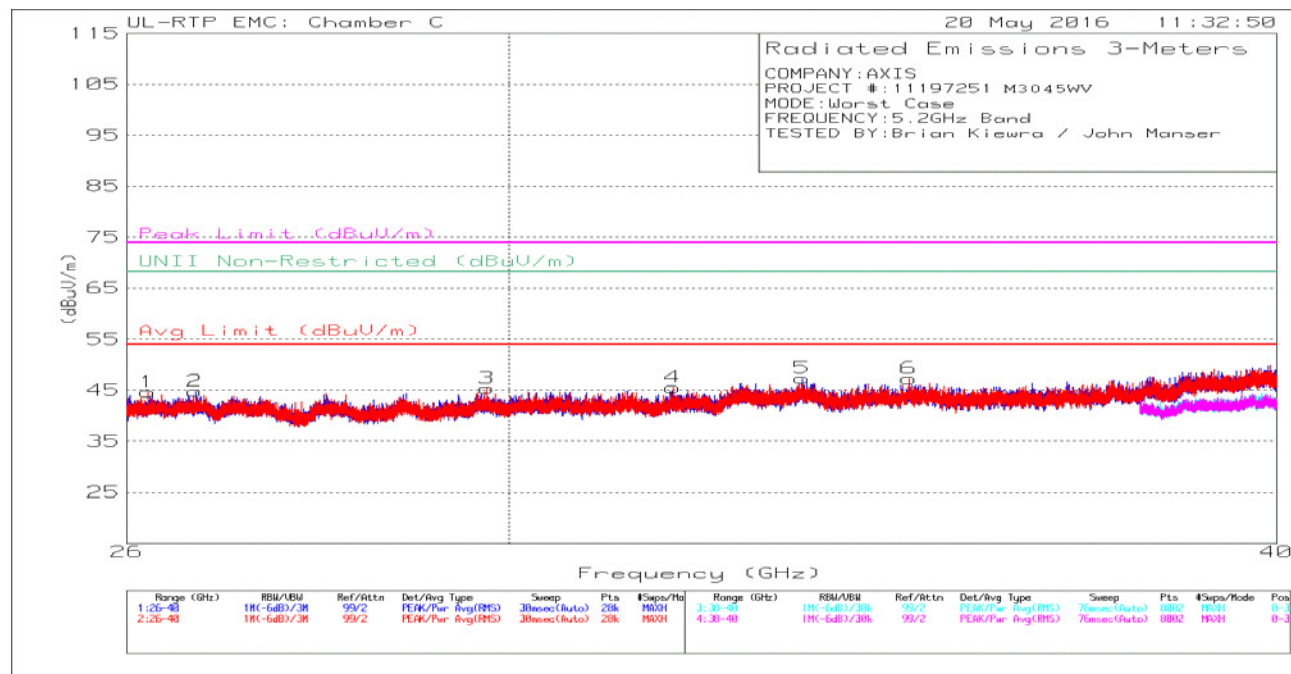
SPURIOUS EMISSIONS 18 to 26GHz (WORST-CASE CONFIGURATION)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF (dB/m)	Amp/Cbl (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 19.542	49.51	Pk	32.4	-40.9	0	41.01	54	-12.99	74	-32.99	68.2	-27.19	0-360	200	H
2	* 20.452	49.28	Pk	33.1	-40.9	0	41.48	54	-12.52	74	-32.52	68.2	-26.72	0-360	150	H
4	* 22.298	48.12	Pk	36.3	-40.5	0	43.92	54	-10.08	74	-30.08	68.2	-24.28	0-360	101	V
3	21.887	48.67	Pk	36	-40.7	0	43.97	54	-10.03	74	-30.03	68.2	-24.23	0-360	200	H
5	24.07	48.37	Pk	33.6	-39.9	0	42.07	54	-11.93	74	-31.93	68.2	-26.13	0-360	101	V
6	25.727	47.01	Pk	34.1	-37.9	0	43.21	54	-10.79	74	-30.79	68.2	-24.99	0-360	251	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF (dB/m)	Amp/ Cbl (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	26.206	46.99	Pk	35.2	-37.5	0	44.69	54	-9.31	74	-29.31	68.2	-23.51	0-360	101	V
2	26.674	46.51	Pk	35.7	-37.4	0	44.81	54	-9.19	74	-29.19	68.2	-23.39	0-360	250	H
3	29.756	45.09	Pk	36.2	-35.9	0	45.39	54	-8.61	74	-28.61	68.2	-22.81	0-360	251	V
4	31.907	43.86	Pk	36.7	-35	0	45.56	54	-8.44	74	-28.44	68.2	-22.64	0-360	201	V
5	33.488	45.66	Pk	37	-35.3	0	47.36	54	-6.64	74	-26.64	68.2	-20.84	0-360	200	H
6	34.857	45.6	Pk	37.4	-35.7	0	47.3	54	-6.7	74	-26.7	68.2	-20.9	0-360	251	V

Pk - Peak detector

10. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

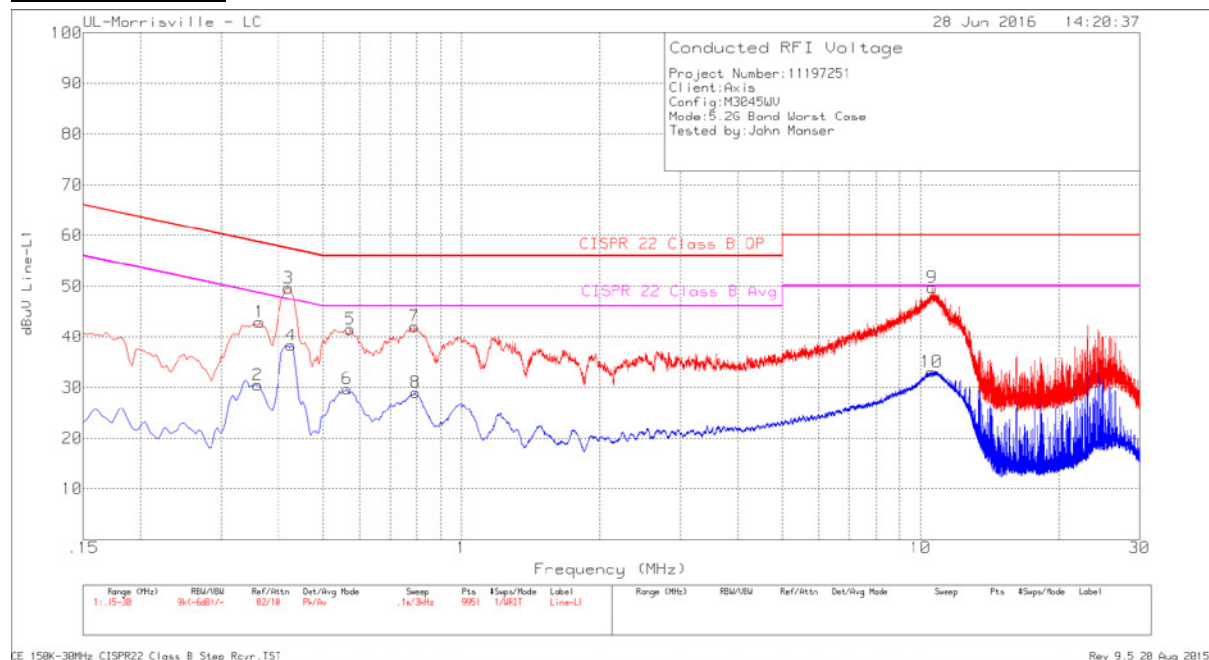
FCC §15.207 (a)

RSS-Gen 7.2.2

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56 *	56 to 46 *
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

LINE 1 RESULTS

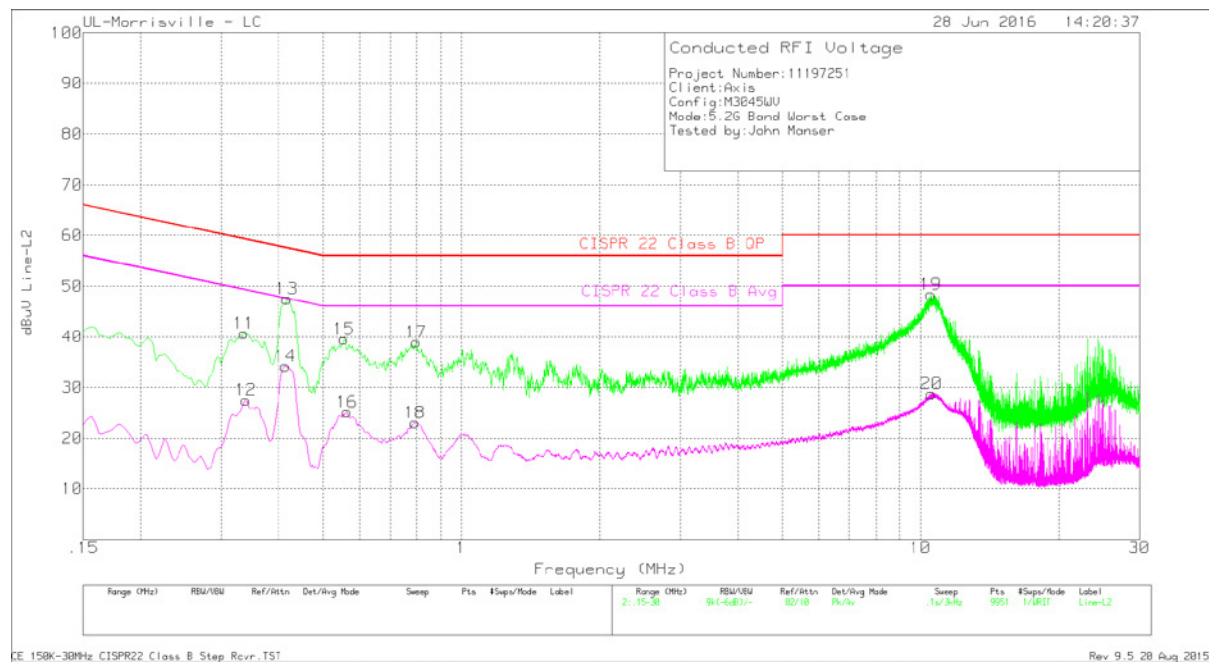


Range 1: Line-L1 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VCF [dB]	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit	Margin (dB)	AVE Limit	Margin (dB)
1	.363	32.8	Pk	.1	10	42.9	58.66	-15.76	-	-
2	.36	20.39	Av	.1	10	30.49	-	-	48.73	-18.24
3	.42	39.55	Pk	.1	10	49.65	57.45	-7.8	-	-
4	.426	28.23	Av	.1	10	38.33	-	-	47.33	-9
5	.573	31.51	Pk	.1	10	41.61	56	-14.39	-	-
6	.564	19.65	Av	.1	10	29.75	-	-	46	-16.25
7	.789	32.03	Pk	0	10	42.03	56	-13.97	-	-
8	.795	18.96	Av	0	10	28.96	-	-	46	-17.04
9	10.602	39.4	Pk	.1	10.3	49.8	60	-10.2	-	-
10	10.56	22.67	Av	.1	10.3	33.07	-	-	50	-16.93

Pk - Peak detector

Av - Average detection

LINE 2 RESULTS



Range 2: Line-L2 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VCF [dB]	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit	Margin (dB)	AVE Limit	Margin (dB)
11	.336	30.62	Pk	.1	10	40.72	59.3	-18.58	-	-
12	.339	17.37	Av	.1	10	27.47	-	-	49.23	-21.76
13	.417	37.41	Pk	.1	10	47.51	57.51	-10	-	-
14	.414	24.12	Av	.1	10	34.22	-	-	47.57	-13.35
15	.555	29.56	Pk	0	10	39.56	56	-16.44	-	-
16	.564	15.17	Av	0	10	25.17	-	-	46	-20.83
17	.798	28.95	Pk	0	10	38.95	56	-17.05	-	-
18	.792	13.11	Av	0	10	23.11	-	-	46	-22.89
19	10.536	37.96	Pk	.1	10.3	48.36	60	-11.64	-	-
20	10.554	18.32	Av	.1	10.3	28.72	-	-	50	-21.28

Pk - Peak detector

Av - Average detection