



# TEST REPORT

**Report Number. :** R13335074-E8

**Applicant :** eero LLC  
660 3<sup>rd</sup> Street  
4<sup>th</sup> Floor  
San Francisco, CA 94107  
United States

**Model :** K010001

**FCC ID :** 2AEM4-30317

**IC :** 20631-30317

**EUT Description :** Wireless router for home and small office

**Test Standard(s) :** FCC 47 CFR PART 15 SUBPART E (EXCEPT DFS)  
ISED RSS-247 ISSUE 2  
ISED RSS-GEN ISSUE 5

**Date Of Issue:**  
2020-09-22

**Prepared by:**  
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NVLAP Lab code: 200246-0

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## REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	2020-08-10	Initial Issue	Niklas Haydon
V2	2020-09-22	Updated statement on simultaneous transmission	Niklas Haydon

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# 1. ATTESTATION OF TEST RESULTS

**COMPANY NAME:** eero LLC  
660 3rd Street  
4th Floor  
San Francisco, CA 94107  
United States

**EUT DESCRIPTION:** Wireless router for home and small office

**MODEL:** K010001

**SERIAL NUMBER:** ZU12WF5, KA58-0400-4W00-00CG

**SAMPLE RECEIPT DATE:** 2020-06-02

**DATE TESTED:** 2020-06-26 to 2020-07-13

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

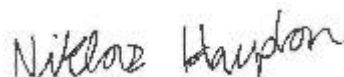
UL LLC tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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, any agency of the Federal Government, or any agency of the U.S. government.

Approved & Released For  
UL Verification Services Inc. By:

Prepared By:



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Dan Coronia  
Operations Leader  
Consumer Technology Division  
UL Verification Services Inc.

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Niklas Haydon  
Operations Leader  
Consumer Technology Division  
UL LLC

## 2. TEST RESULT SUMMARY

FCC Clause	ISED Clause	Requirement	Result	Comment
See Comment		Duty Cycle	Reporting purposes only.	Per ANSI C63.10, Section 12.2.
See Comment	RSS-GEN 6.7	26dB BW/99% OBW	Reporting purposes only.	Per ANSI C63.10 Sections 6.9.2 and 6.9.3
15.407 (e)	RSS-247 6.2.4.1	6 dB BW	Compliant.	None.
15.407 (a) (1-4), (h) (1)	RSS-247 6.2	Output Power	Compliant.	None.
15.407 (a) (1-3, 5)	RSS-247 6.2	PSD	Compliant.	None.
15.209, 15.205, 15.407 (b)	RSS-GEN 8.9, 8.10, RSS-247 6.2	Radiated Emissions	Compliant.	See UL LLC report R13335074-E12 for worst case radiated emisisions.
15.207	RSS-Gen 8.8	AC Mains Conducted Emissions	Not performed.	See UL LLC report R13335074-E12.

### 3. TEST METHODOLOGY

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

- FCC CFR 47 Part 2
- FCC CFR 47 Part 15,
- FCC KDB 662911 D01 v02r01,
- FCC KDB 905462 D02 v02/D03 v01r02/D06 v02
- FCC KDB 789033 D02 v02r01,
- ANSI C63.10-2013,
- RSS-GEN Issue 5
- RSS-247 Issue 2

### 4. 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.
<b>Site Code: 2180C</b>	
<input type="checkbox"/> Chamber A RTP	<input checked="" type="checkbox"/> North Chamber
<input checked="" type="checkbox"/> Chamber C RTP	<input checked="" type="checkbox"/> South Chamber

The above test sites and facilities are covered under FCC Test Firm Registration # 703469. Chambers above are covered under Industry Canada company address and respective code.

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



## 5. DECISION RULES AND MEASUREMENT UNCERTAINTY

### 5.1. METROLOGICAL TRACEABILITY

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

### 5.2. DECISION RULES

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

### 5.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	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	1.94 dB
All emissions, radiated	5.17 dB
Conducted Emissions (0.150-30MHz) - LISN	3.07 dB
Temperature	2.26°C
Humidity	6.79%
DC Supply voltages	1.70%
Time	3.39%

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

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## 5.4. 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)

$$36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} = 28.9 \text{ dBuV/m}$$

### **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.

$$36.5 \text{ dBuV} + 0 \text{ dB} + 10.1 \text{ dB} + 0 \text{ dB} = 46.6 \text{ dBuV}$$

## 6. EQUIPMENT UNDER TEST

### 6.1. EUT DESCRIPTION

The EUT is a wireless router for home and small office.

### 6.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

#### 5.2 GHz BAND (FCC)

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
<b>5.2 GHz band, 2TX</b>			
5180-5240	802.11a CDD	24.96	313.33
5180-5240	802.11n HT20 CDD	23.32	214.78
5190-5230	802.11n HT40 CDD	22.67	184.93
5210	802.11ac VHT80 CDD	21.39	137.72

#### 5.2 GHz BAND (IC)

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
<b>5.2 GHz band, 2TX</b>			
5180-5240	802.11a CDD	12.11	16.26
5180-5240	802.11n HT20 CDD	12.94	19.68
5190-5230	802.11n HT40 CDD	16.03	40.09
5210	802.11ac VHT80 CDD	18.74	74.82

### 6.3. DESCRIPTION OF AVAILABLE ANTENNAS

Frequency Range	Max Gain (dBi)
5.2 GHz U-N11-1 wlan CH0	4.3
5.2 GHz U-N11-1 wlan CH1	3.4

**NOTE:**

Antenna 1 = Chain 0 = ANT3 = CH0

Antenna 2 = Chain 1 = ANT6 = CH1

### 6.4. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was eeroQSDK version builder@4162cb4b0759.

The test utility software used during testing was QRCT v4.0.00163.0.

### 6.5. 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 and data rate with highest power spectral density across all data rates as worst-case scenario. Please refer to UL LLC report R13335074-E12 for this data.

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 EUT only operates in one orientation X, therefore, all final radiated testing was performed with the EUT in X orientation.

Worst-case data rates were:

802.11a mode: 6 Mbps

802.11n HT20mode: MCS0

802.11n HT40mode: MCS0

802.11ac VHT80 mode: MCS0

Simultaneous transmission of the following combinations was investigated and there were not any non-conformances found:

802.15.4 radio, 2.4 WLAN radio, and 5.8 WLAN radio

802.15.4 radio, 5.2 WLAN radio, and 5.8 WLAN radio

BLE radio, 2.4 WLAN radio, and 5.8 WLAN radio

BLE radio, 5.2 WLAN radio, and 5.8 WLAN radio

## 6.6. DESCRIPTION OF TEST SETUP

### SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
Laptop PC	Dell	Latitude E6430	J29SNX1	N/A
Laptop PC	Dell	Latitude E5450	HRR5N72	N/A
AC adapter (EUT)	Foxlink	C210001	A019F0000171	N/A
AC adapter (EUT)	RF Tech	C210001	A027A0000361	N/A

### I/O CABLES

I/O Cable List						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	DC In	1	USB-C	Unshielded	1.5	Cable captured to AC power supply
2	LAN	2	RJ45-unshielded	Unshielded	15	Includes 1.7m cable that accompanied the EUT

### TEST SETUP

The EUT is connected to a test laptop during the tests. Test software exercised the radio card.

### SETUP DIAGRAMS

Please refer to R13335074-EP1 for setup diagrams.

## **7. MEASUREMENT METHOD**

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

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

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

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

Conducted Output Power: KDB 789033 D02 v02r01, Section II. E.3.b (Method PM-G) and KDB 789033 D02 v02r01, Section E.2.b (Method SA-1)

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

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

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

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

## 8. 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)

Equip. ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
	<b>1-18 GHz</b>				
AT0072	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2020-04-27	2021-04-27
	<b>Gain-Loss Chains</b>				
N-SAC03	Gain-loss string: 1-18GHz	Various	Various	2020-03-15	2021-03-15
	<b>Receiver &amp; Software</b>				
SA0025	Spectrum Analyzer	Agilent	N9030A	2020-03-17	2021-03-17
SA0027	Spectrum Analyzer	Agilent	N9030A	2020-06-10	2021-06-10
SOFTEMI	EMI Software	UL	Version 9.5	NA	NA
	<b>Additional Equipment used</b>				
s/n 181474341	Environmental Meter	Fisher Scientific	15-077-963	2018-07-27	2020-07-27

### Test Equipment Used - Antenna Port Conducted Measurement Equipment

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
72822	Spectrum Analyzer	Agilent Technologies	E4446A	2020-01-02	2021-01-02
PWM003	RF Power Meter	Keysight Technologies	N1911A	2019-08-23	2020-08-23
PWS002	Peak and Avg Power Sensor, 50MHz to 18GHz	Keysight Technologies	E1921A	2019-08-23	2020-08-23
SN 181562858	Environmental Meter	Fisher Scientific	14-650-118	2018-09-04	2020-09-04
76022	DC Regulated Power Supply	Circuit Specialists	CSI3005X5	N/A	N/A
SOFTEMI	EMC Software	UL	Version 2020.3.11 and 2020.4.17	NA	NA

Test Equipment Used - Radiated Disturbance Emissions (E-field) – Chamber C

Equip. ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
	<b>1-18 GHz</b>				
AT0062	HORN Antenna	ETS-Lindgren	3117	2020-01-30	2021-01-30
	<b>Gain-Loss Chains</b>				
C-SAC02	Gain-loss string: 1-18GHz	Various	Various	2020-03-03	2021-03-03
C-SAC02 Path 7	Gain-loss string 1-7GHz	Various	Various	2020-04-03	2021-04-03
	<b>Receiver &amp; Software</b>				
SA0018	Spectrum Analyzer	Agilent	PXA (N9030A)	2020-03-02	2021-03-02
SOFTEMI	EMI Software	UL	Version 9.5	NA	NA
	<b>Additional Equipment used</b>				
HI0085	Temp/Humid/Pressure Meter	EXTECH	SD700	2020-04-20	2021-04-30

NOTES:

1. For equipment listed above that was calibrated during the testing period, please note the equipment was used for testing after calibration.
2. For equipment listed above that has a calibration due date during the testing period, the testing was completed before the equipment expiration date.



## 9. ANTENNA PORT TEST RESULTS

### 9.1. ON TIME AND DUTY CYCLE

#### LIMITS

None; for reporting purposes only.

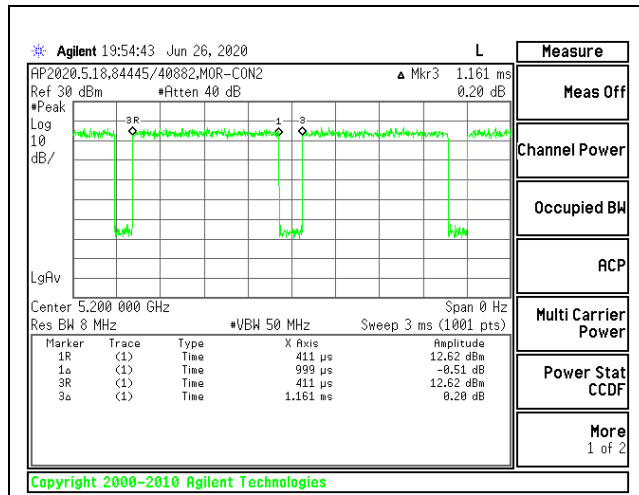
#### PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method.

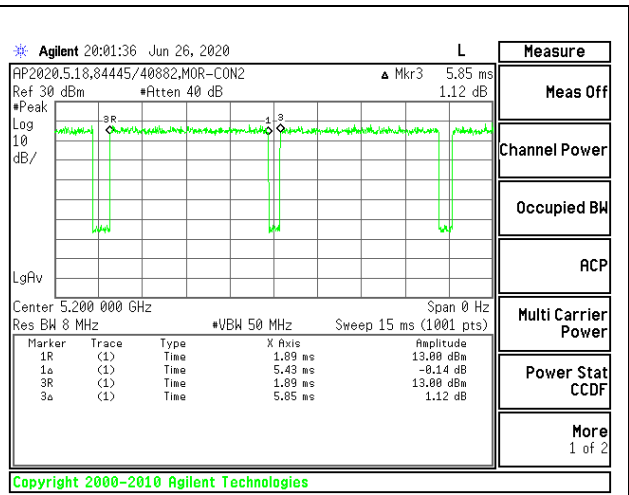
#### ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB) - Conducted	Duty Cycle Correction Factor (dB) - Radiated	1/B Minimum VBW (kHz)
802.11a CDD	0.999	1.161	0.860	86.05%	0.65	1.31	1.001
802.11n HT20 CDD	5.430	5.850	0.928	92.82%	0.32	0.65	0.184
802.11n HT40 CDD	5.375	5.700	0.943	94.30%	0.25	0.51	0.186
802.11ac VHT80 CDD	5.325	5.700	0.934	93.42%	0.30	0.59	0.188

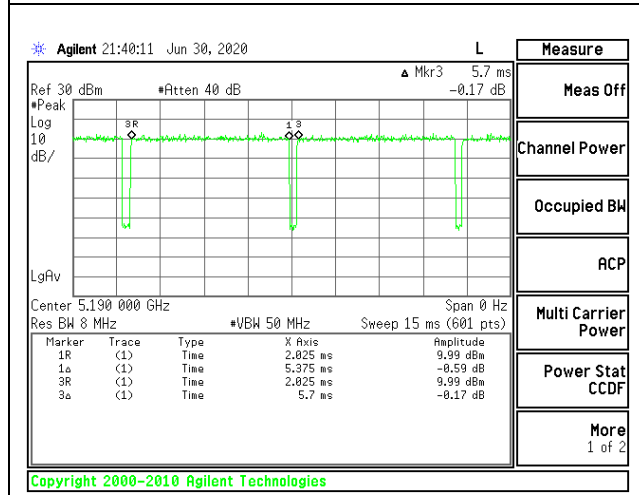
DUTY CYCLE PLOTS



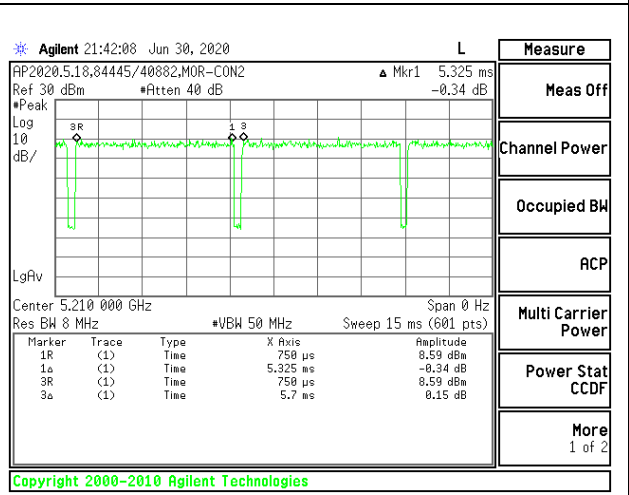
DUTY CYCLE 802.11a CDD MODE



DUTY CYCLE 802.11n HT20 CDD MODE



DUTY CYCLE 802.11n HT40 CDD MODE



DUTY CYCLE 802.11ac VHT80 CDD MODE

## 9.2. 26 dB BANDWIDTH

### LIMITS

None; for reporting purposes only.

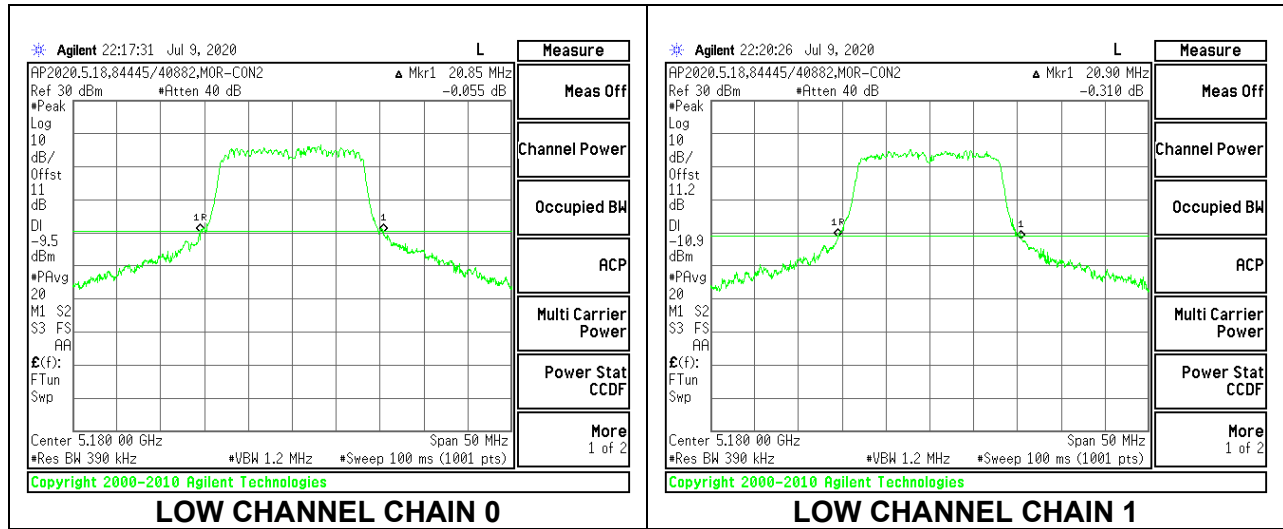
### RESULTS

### 9.2.1. 802.11a MODE IN THE 5.2 GHz BAND

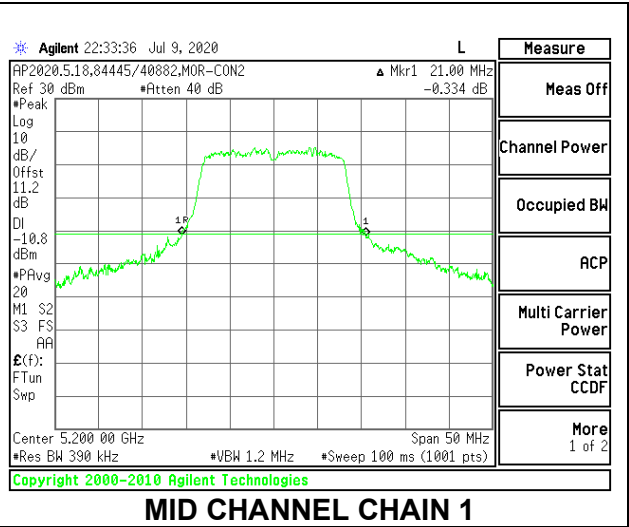
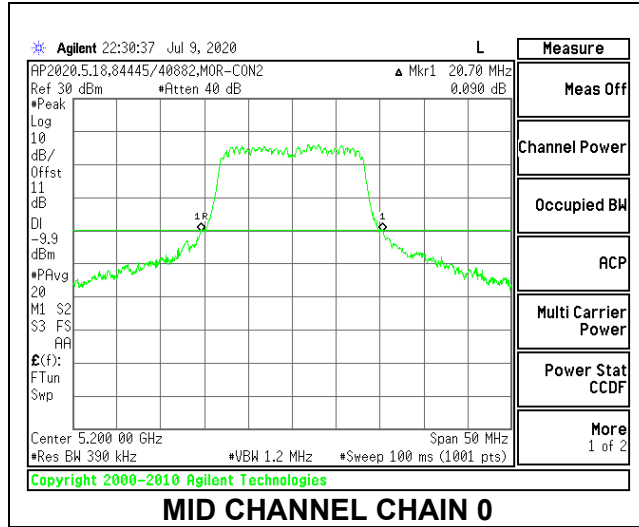
#### 2TX Antenna 1 + Antenna 2 CDD MODE

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 1 (MHz)	26 dB Bandwidth Antenna 2 (MHz)
Low	5180	20.85	20.90
Mid	5200	20.70	21.00
High	5240	20.75	21.00

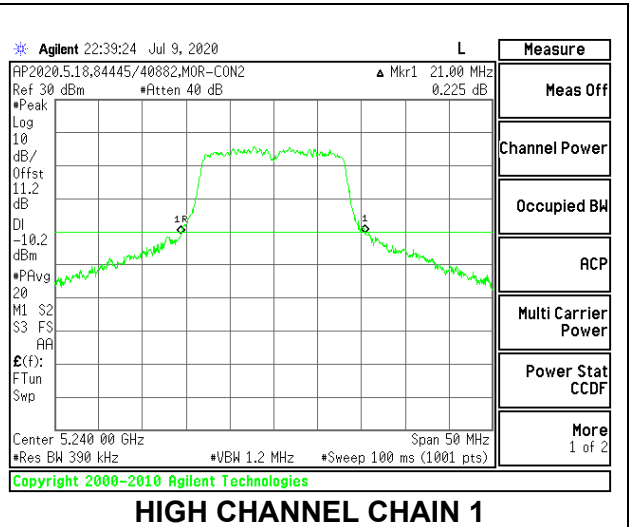
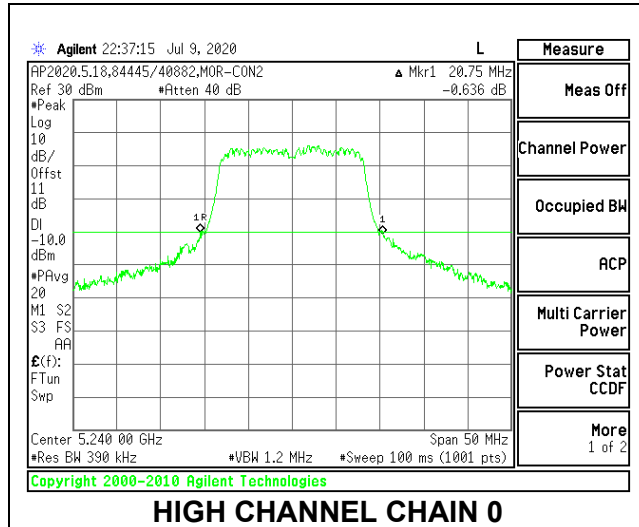
#### LOW CHANNEL



**MID CHANNEL**



**HIGH CHANNEL**

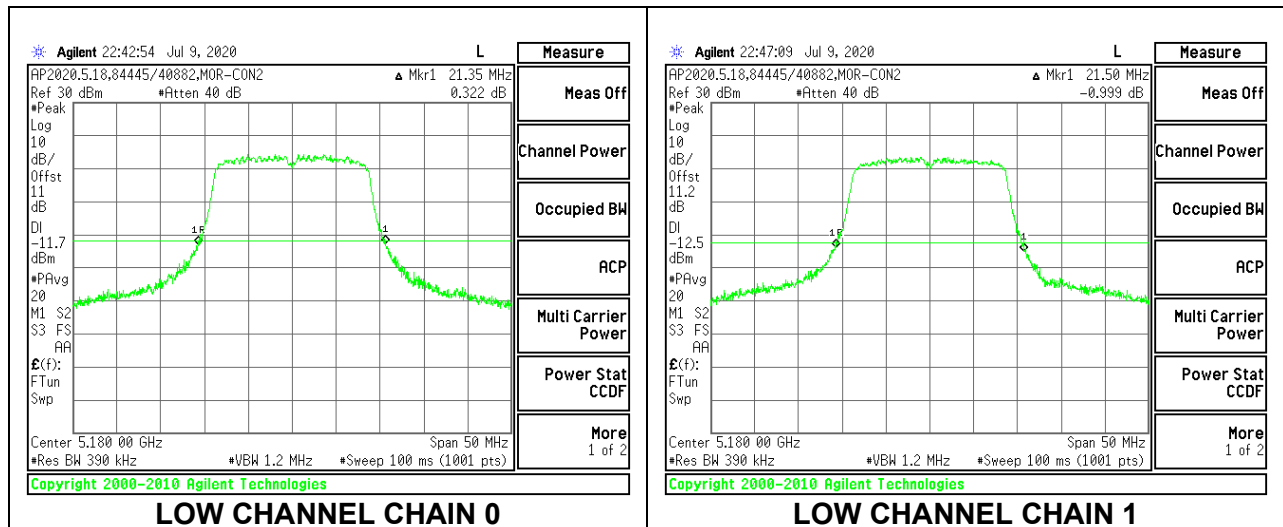


### 9.2.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

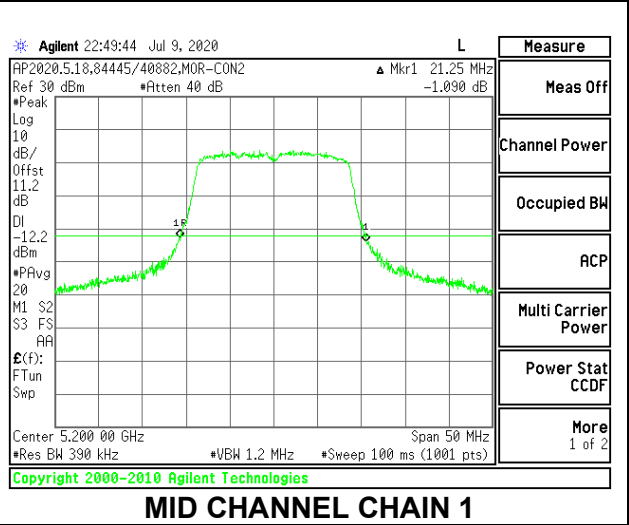
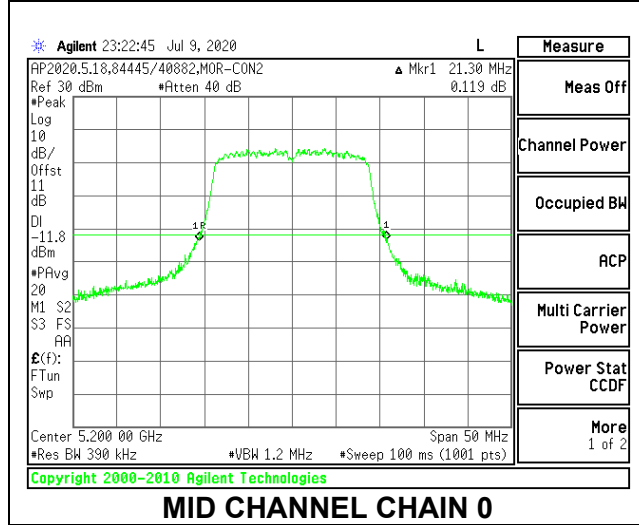
#### 2TX Antenna 1 + Antenna 2 CDD MODE

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 1 (MHz)	26 dB Bandwidth Antenna 2 (MHz)
Low	5180	21.35	21.50
Mid	5200	21.30	21.25
High	5240	21.15	21.40

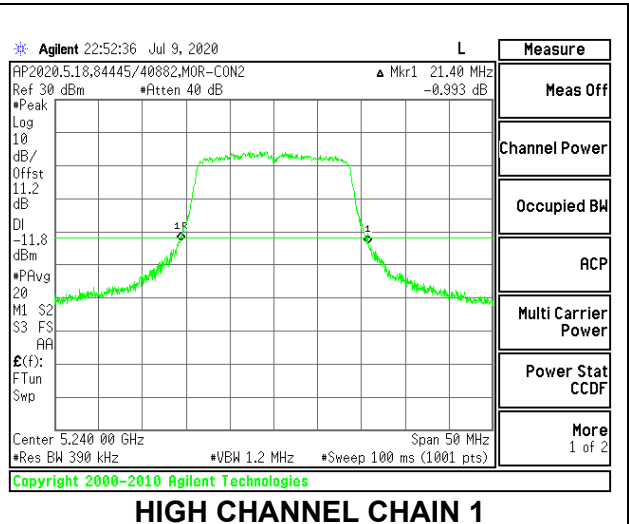
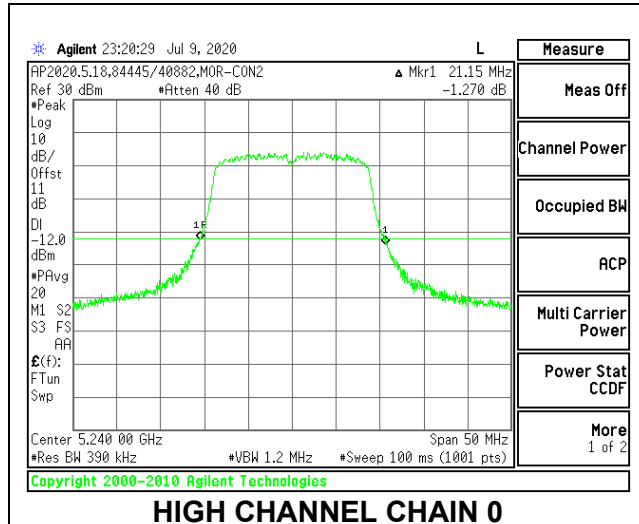
#### LOW CHANNEL



**MID CHANNEL**



**HIGH CHANNEL**

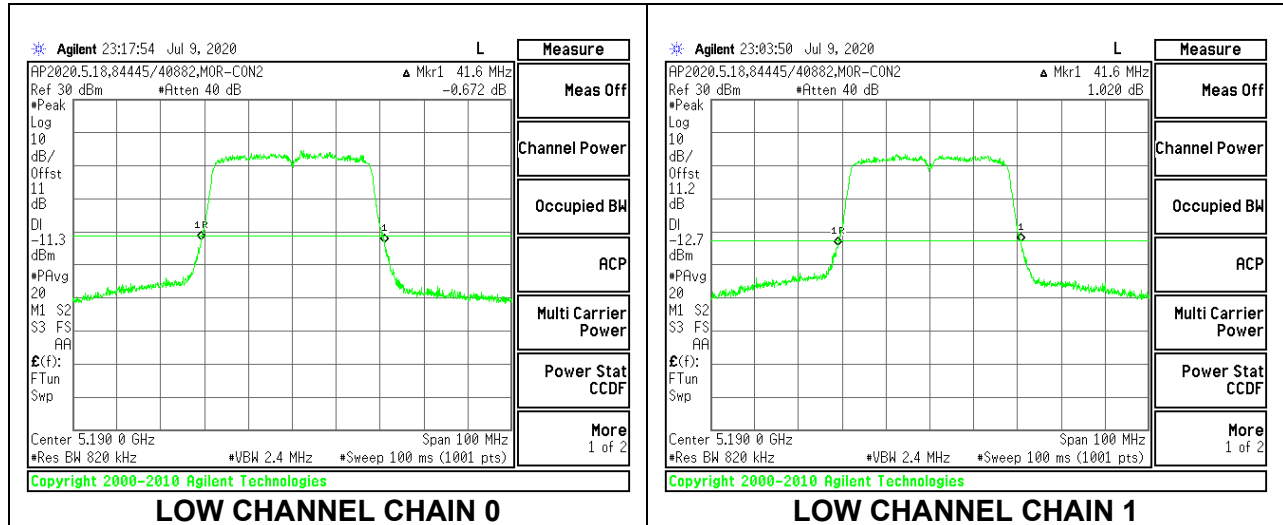


### 9.2.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

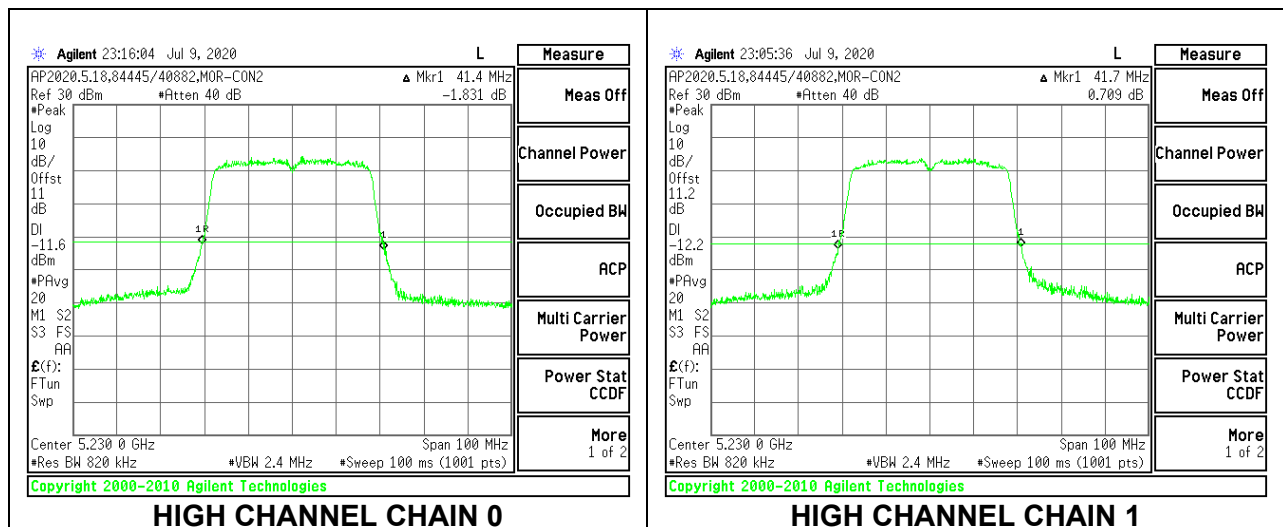
#### 2TX Antenna 1 + Antenna 2 CDD MODE

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 1 (MHz)	26 dB Bandwidth Antenna 2 (MHz)
Low	5190	41.60	41.60
High	5230	41.40	41.70

#### LOW CHANNEL



#### HIGH CHANNEL



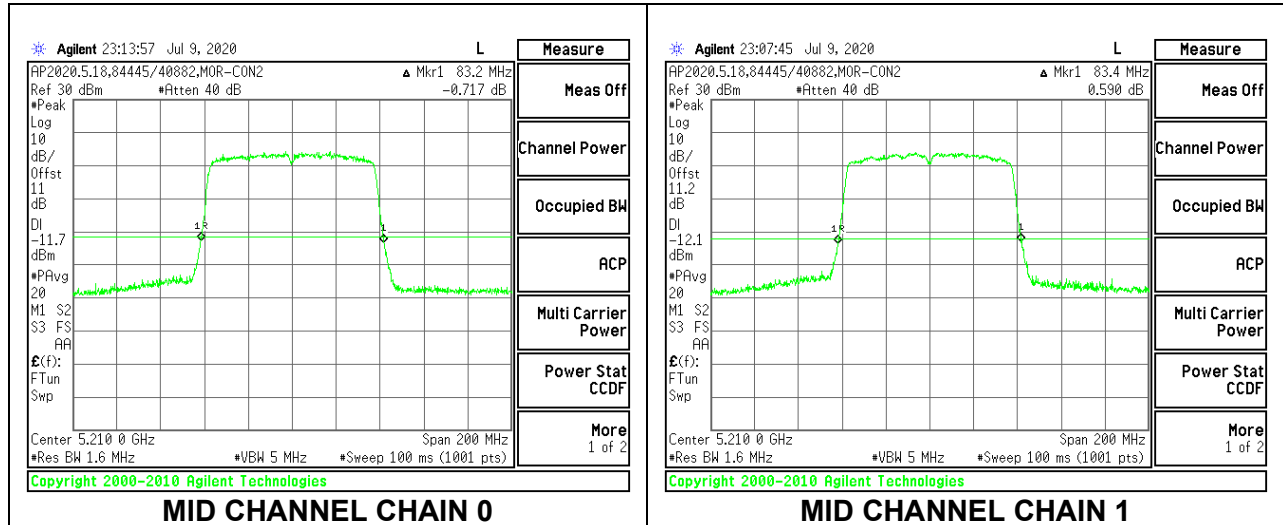


### 9.2.4. 802.11ac VHT80 MODE IN THE 5.2 GHz BAND

#### 2TX Antenna 1 + Antenna 2 CDD MODE

Channel	Frequency (MHz)	26 dB Bandwidth Antenna 1 (MHz)	26 dB Bandwidth Antenna 2 (MHz)
Mid	5210	83.20	83.40

#### MID CHANNEL



### 9.3. **99% BANDWIDTH**

#### **LIMITS**

None; for reporting purposes only.

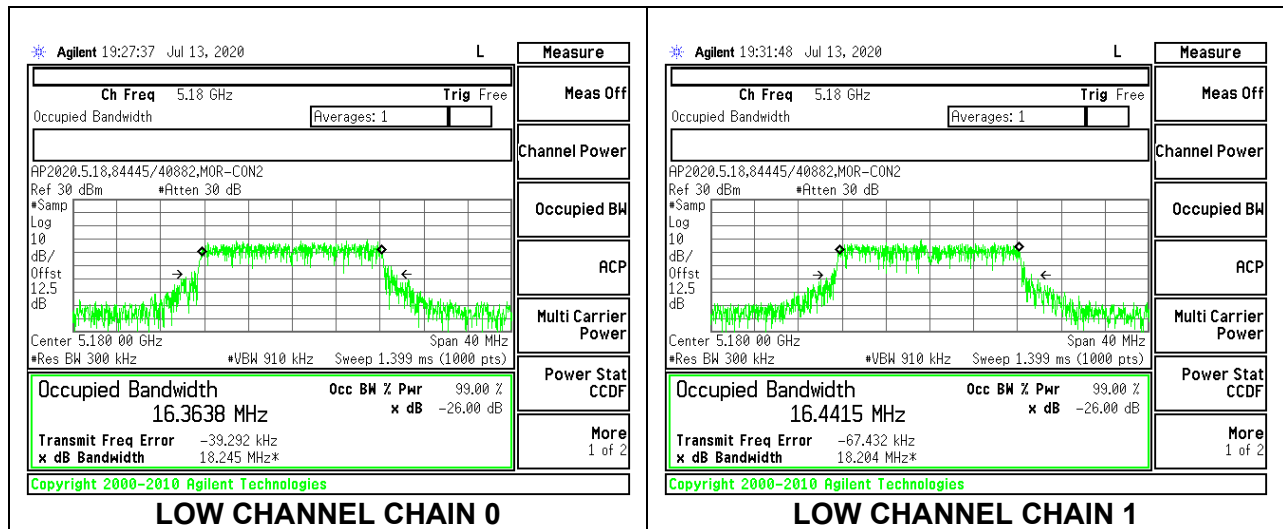
#### **RESULTS**

### 9.3.1. 802.11a MODE IN THE 5.2 GHz BAND

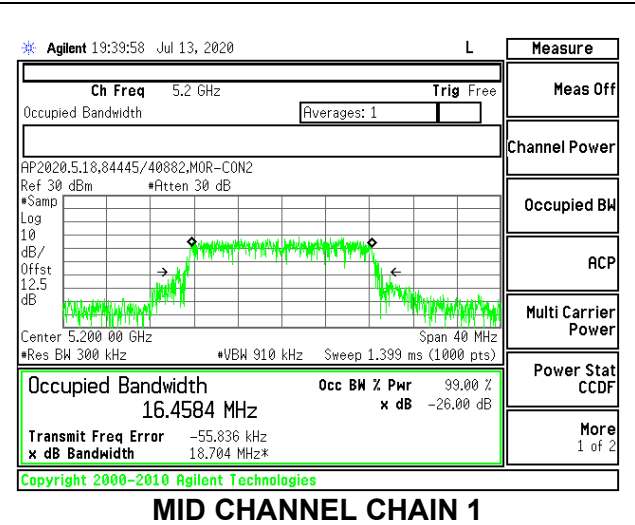
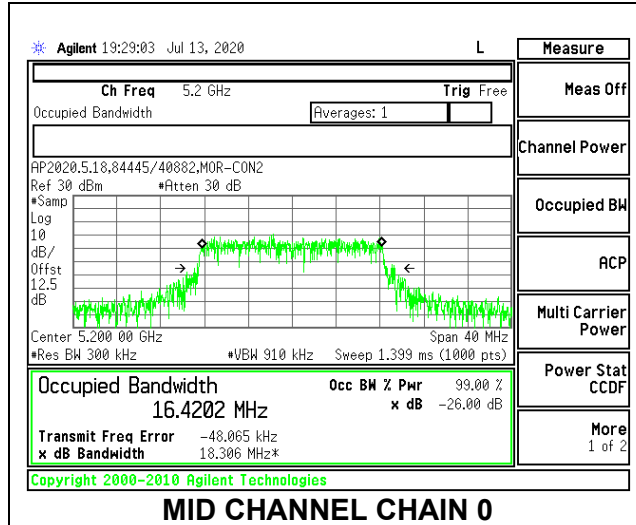
#### 2TX Antenna 1 + Antenna 2 CDD MODE

Channel	Frequency (MHz)	99% Bandwidth Antenna 1 (MHz)	99% Bandwidth Antenna 2 (MHz)
Low	5180	16.3638	16.4415
Mid	5200	16.4202	16.4584
High	5240	16.4740	16.3890

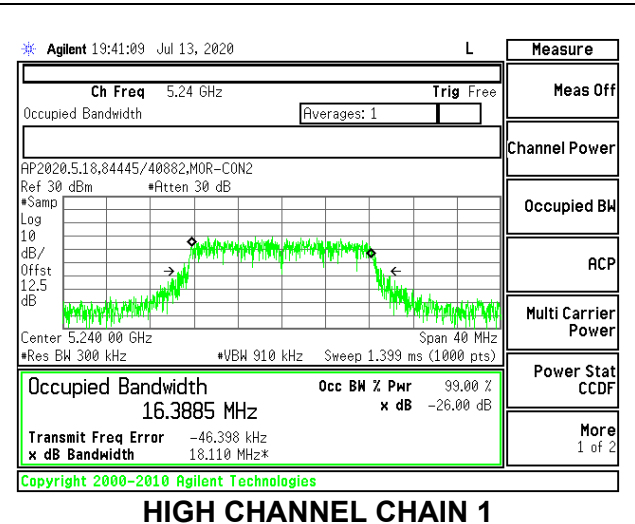
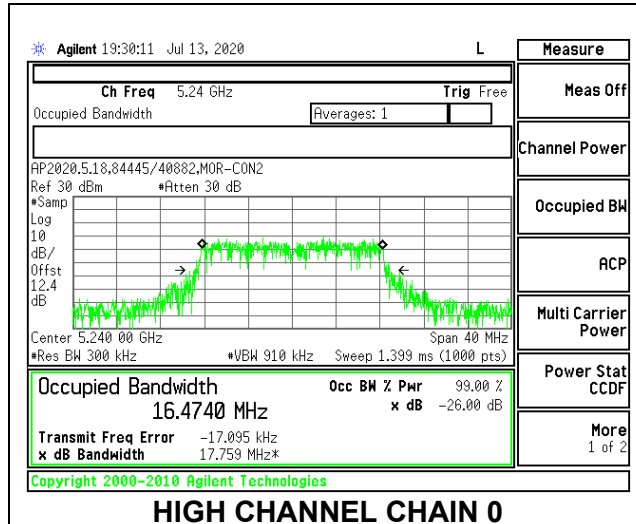
#### LOW CHANNEL



### MID CHANNEL



### HIGH CHANNEL

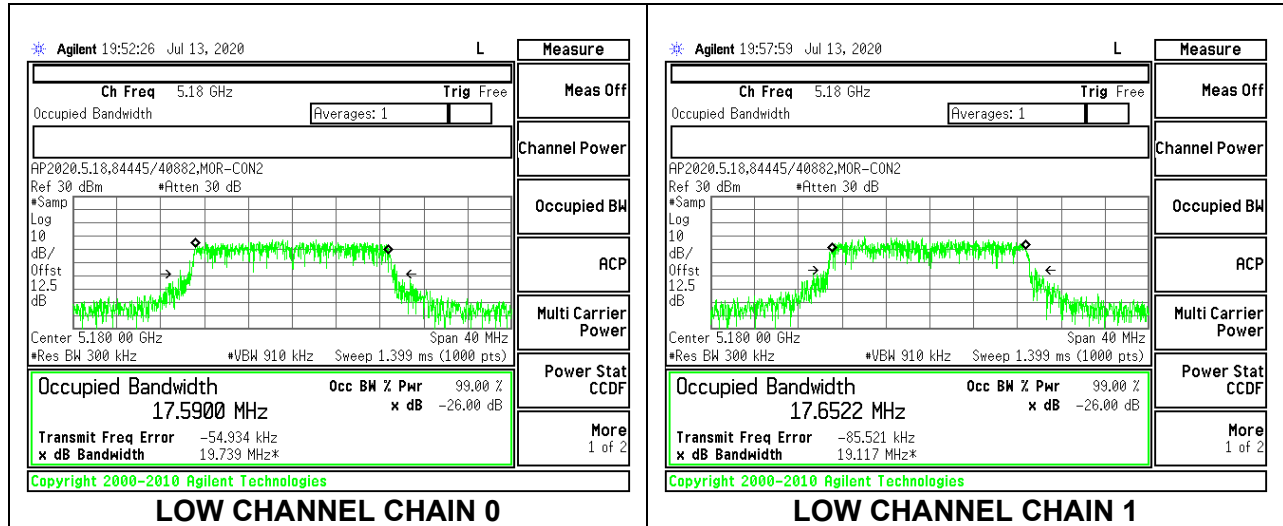


**9.3.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND**

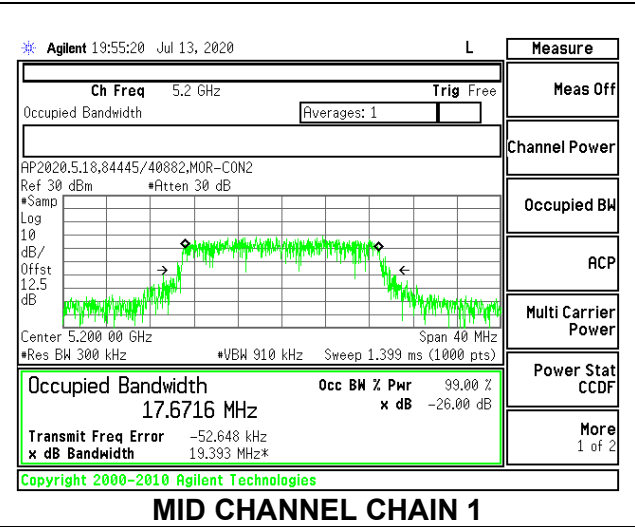
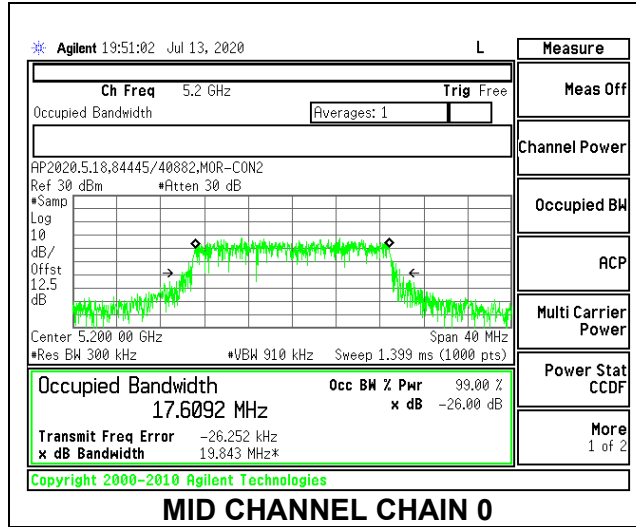
**2TX Antenna 1 + Antenna 2 CDD MODE**

Channel	Frequency (MHz)	99% Bandwidth Antenna 1 (MHz)	99% Bandwidth Antenna 2 (MHz)
Low	5180	17.5890	17.6520
Mid	5200	17.6090	17.6720
High	5240	17.6380	17.6880

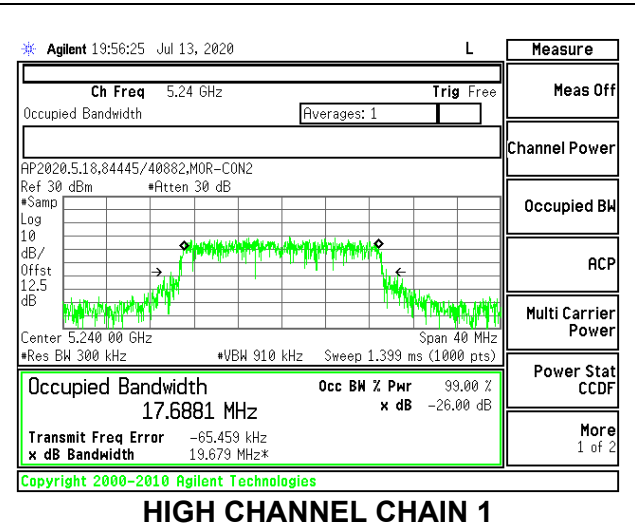
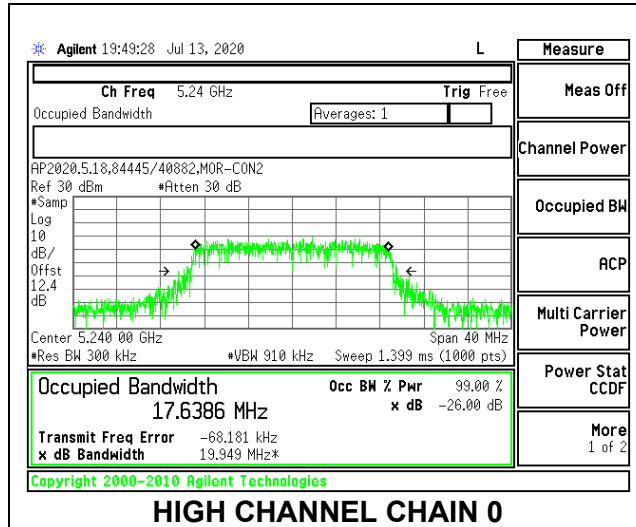
**LOW CHANNEL**



**MID CHANNEL**



**HIGH CHANNEL**

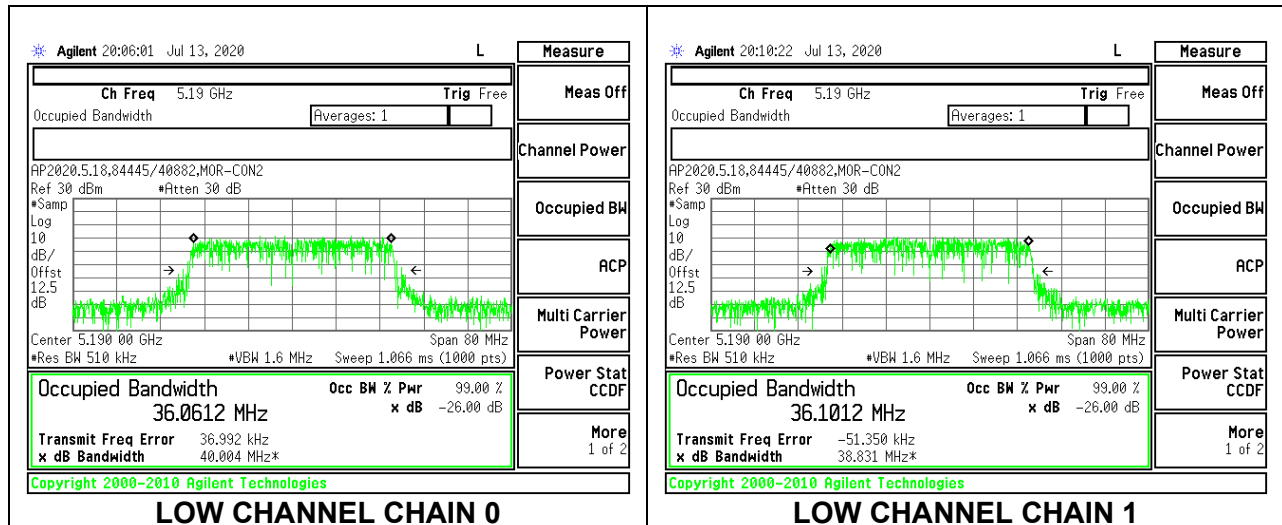


### 9.3.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

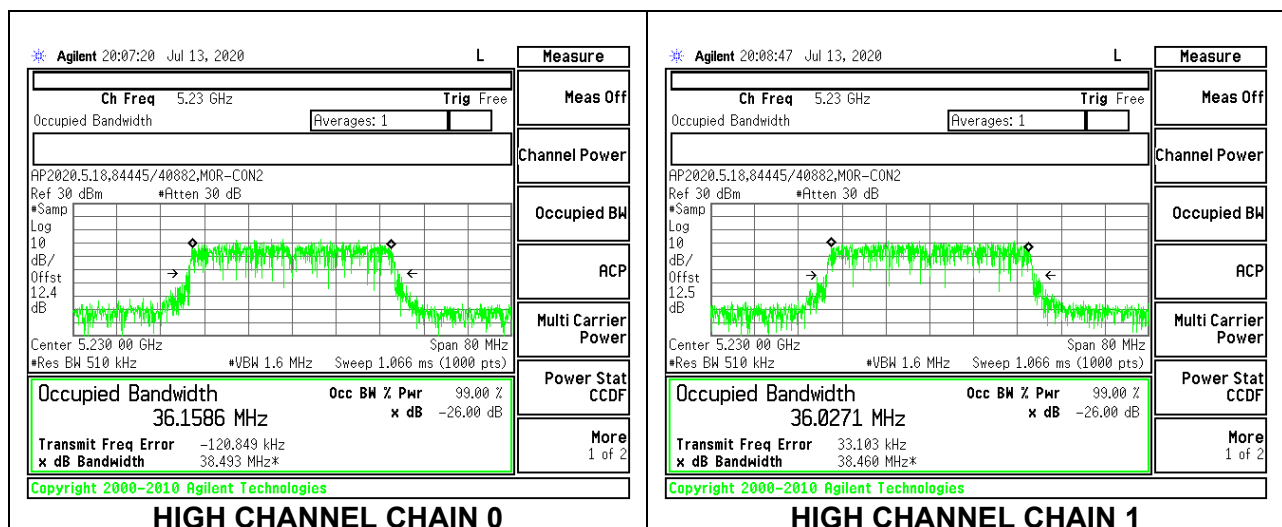
#### 2TX Antenna 1 + Antenna 2 CDD MODE

Channel	Frequency (MHz)	99% Bandwidth Antenna 1 (MHz)	99% Bandwidth Antenna 2 (MHz)
Low	5190	36.0610	36.1012
High	5230	36.1586	36.0271

#### LOW CHANNEL



#### HIGH CHANNEL

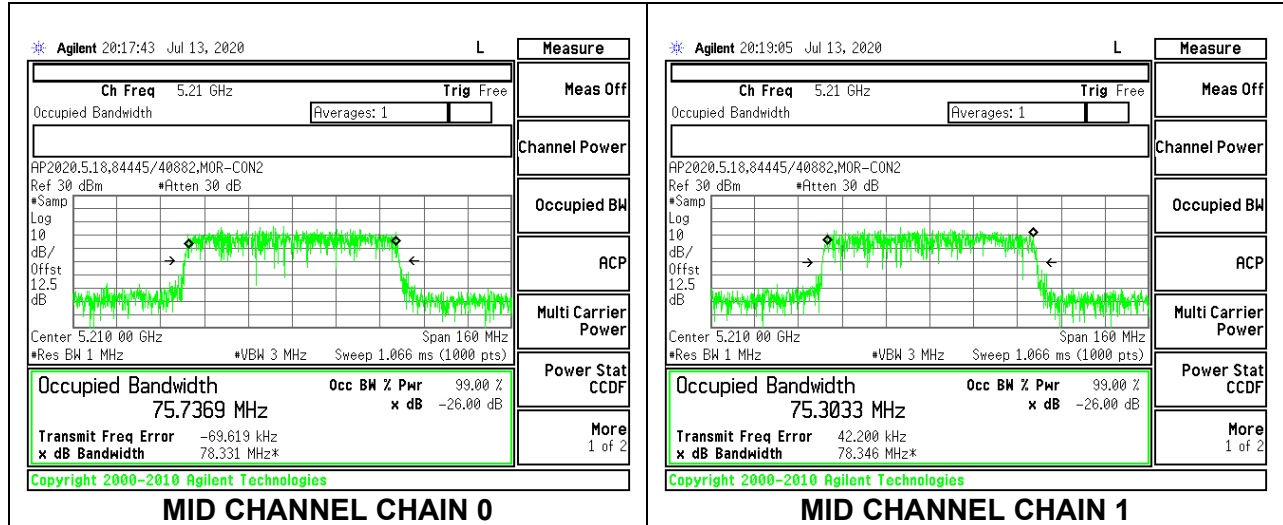


### 9.3.4. 802.11ac VHT80 MODE IN THE 5.2 GHz BAND

#### 2TX Antenna 1 + Antenna 2 CDD MODE

Channel	Frequency (MHz)	99% Bandwidth Antenna 1 (MHz)	99% Bandwidth Antenna 2 (MHz)
Mid	5210	75.7369	75.3033

#### MID CHANNEL





## 9.4. OUTPUT POWER AND PSD

### LIMITS

#### **FCC §15.407**

##### **Band 5.15–5.25 GHz**

(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.

#### **RSS-247**

##### **Band 5.15-5.25 GHz**

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 megahertz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

### TEST PROCEDURE

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

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

**DIRECTIONAL ANTENNA GAIN**

For 2 TX:

Tx chains are uncorrelated for power and correlated for PSD due to the device supporting CDD in all MIMO modes. The directional gains are as follows:

<b>Band (GHz)</b>	<b>Chain 0 Antenna Gain (dBi)</b>	<b>Chain 1 Antenna Gain (dBi)</b>	<b>Uncorrelated Chains Directional Gain (dBi)</b>	<b>Correlated Chains Directional Gain (dBi)</b>
5.2	4.30	3.40	3.87	6.87

**RESULTS**

**9.4.1. 802.11a MODE IN THE 5.2 GHz BAND**

**2TX Antenna 1 + Antenna 2 CDD MODE (FCC) AP**

<b>Test Engineer:</b>	84740 / 44389
<b>Test Date:</b>	2020-07-09

**Antenna Gain and Limits**

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Low	5180	3.87	6.87	30.00	16.13
Mid	5200	3.87	6.87	30.00	16.13
High	5240	3.87	6.87	30.00	16.13

<b>Duty Cycle CF (dB)</b>	0.65	Included in Calculations of Corr'd PSD
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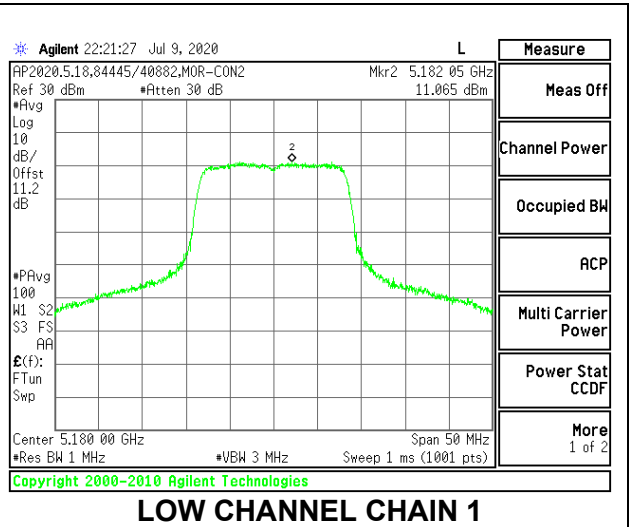
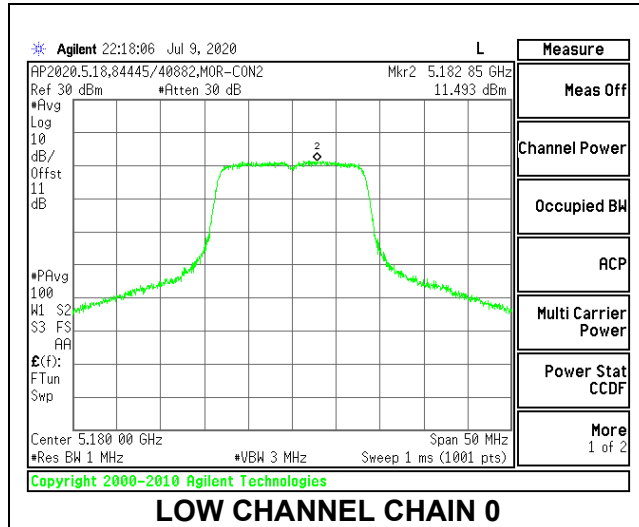
**Output Power Results**

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	21.97	21.39	24.70	30.00	-5.30
Mid	5200	21.96	21.42	24.71	30.00	-5.29
High	5240	21.97	21.92	24.96	30.00	-5.04

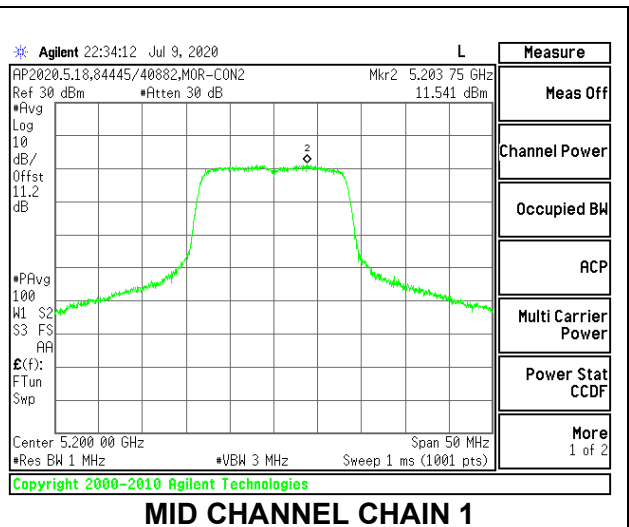
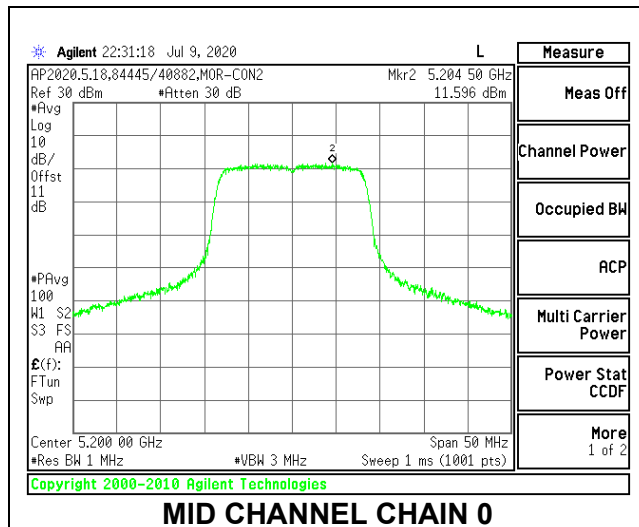
**PSD Results**

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/1MHz)	Antenna 2 Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5180	11.49	11.07	14.95	16.13	-1.18
Mid	5200	11.60	11.54	15.23	16.13	-0.90
High	5240	11.29	11.61	15.12	16.13	-1.01

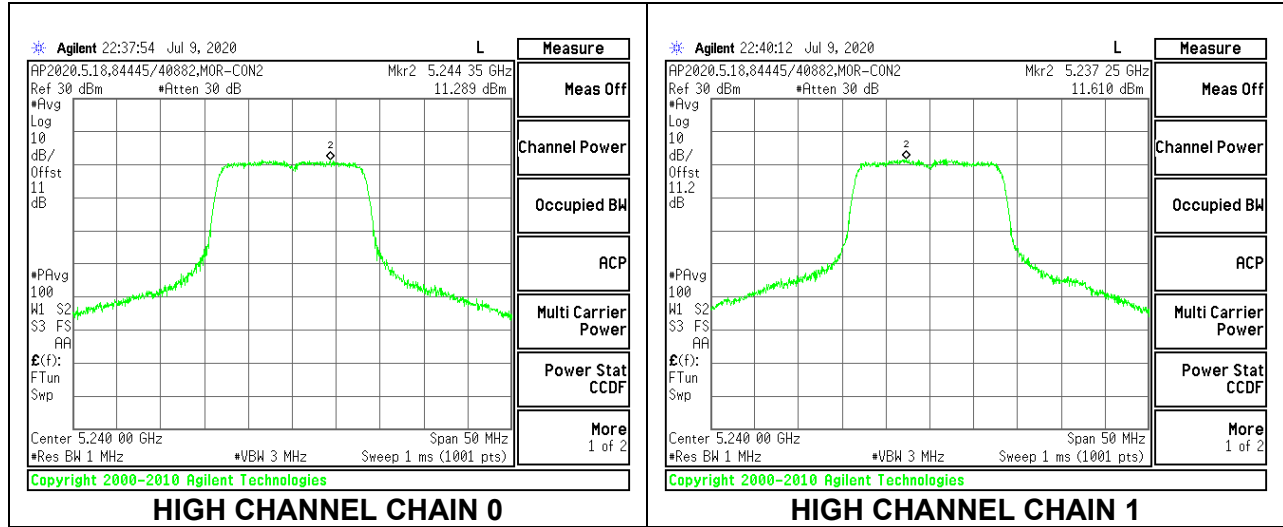
### LOW CHANNEL



### MID CHANNEL



### HIGH CHANNEL



**2TX Antenna 1 + Antenna 2 CDD MODE (IC)**

<b>Test Engineer:</b>	84740 / 44389
<b>Test Date:</b>	2020-07-13

**Bandwidth, Antenna Gain, and Limits**

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	EIRP Power Limit (dBm)	Power Limit (dBm)	EIRP PSD Limit (dBm/1MHz)	PSD Limit (dBm/1MHz)
Low	5180	16.3638	3.87	6.87	22.14	18.27	10.00	3.13
Mid	5200	16.4202	3.87	6.87	22.15	18.28	10.00	3.13
High	5240	16.4740	3.87	6.87	22.17	18.30	10.00	3.13

<b>Duty Cycle CF (dB)</b>	0.65	<b>Included in Calculations of Corr'd PSD</b>
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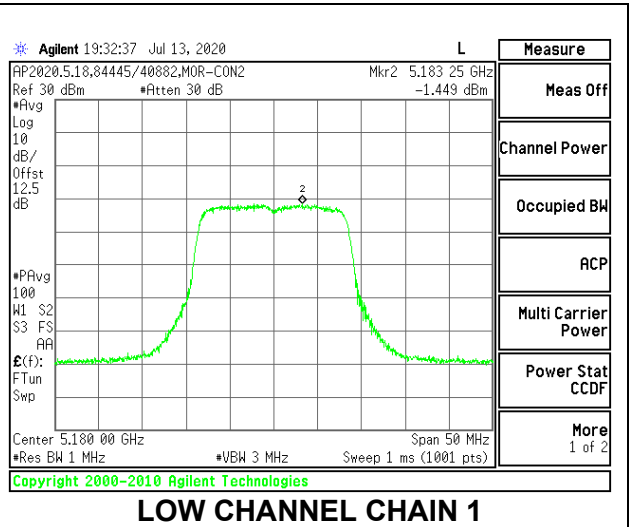
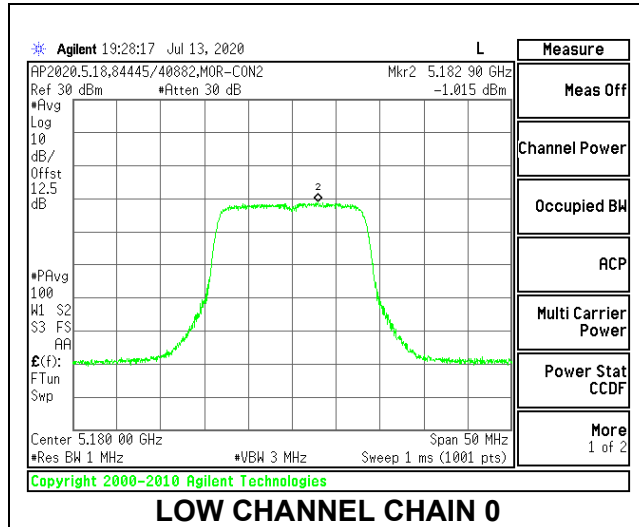
**Output Power Results**

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	9.49	8.67	12.11	18.27	-6.16
Mid	5200	9.09	8.76	11.94	18.28	-6.35
High	5240	8.90	9.01	11.97	18.30	-6.33

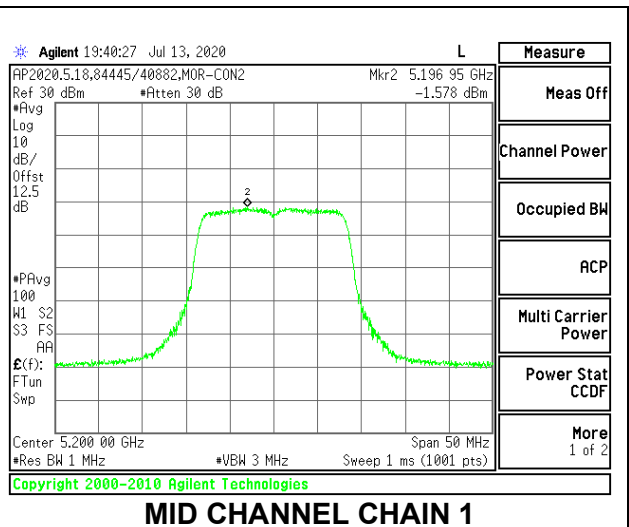
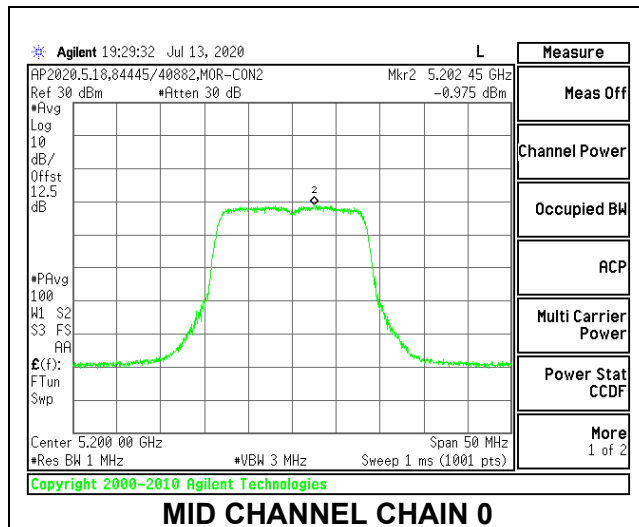
**PSD Results**

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/1MHz)	Antenna 2 Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5180	-1.02	-1.45	2.44	3.13	-0.69
Mid	5200	-0.98	-1.58	2.40	3.13	-0.73
High	5240	-1.58	-1.31	2.22	3.13	-0.91

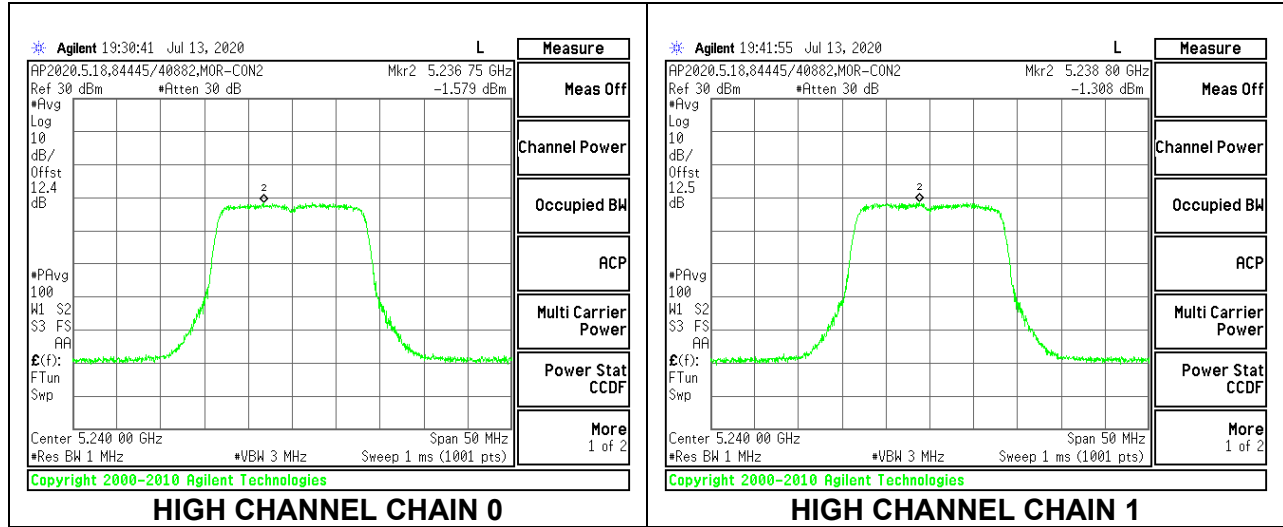
### LOW CHANNEL



### MID CHANNEL



### HIGH CHANNEL





**9.4.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND**

**2TX Antenna 1 + Antenna 2 CDD MODE (FCC) AP**

<b>Test Engineer:</b>	84740 / 44389
<b>Test Date:</b>	2020-07-09

**Antenna Gain and Limits**

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5180	3.87	6.87	30.00	16.13
Mid	5200	3.87	6.87	30.00	16.13
High	5240	3.87	6.87	30.00	16.13

<b>Duty Cycle CF (dB)</b>	0.32	<b>Included in Calculations of Corr'd PSD</b>
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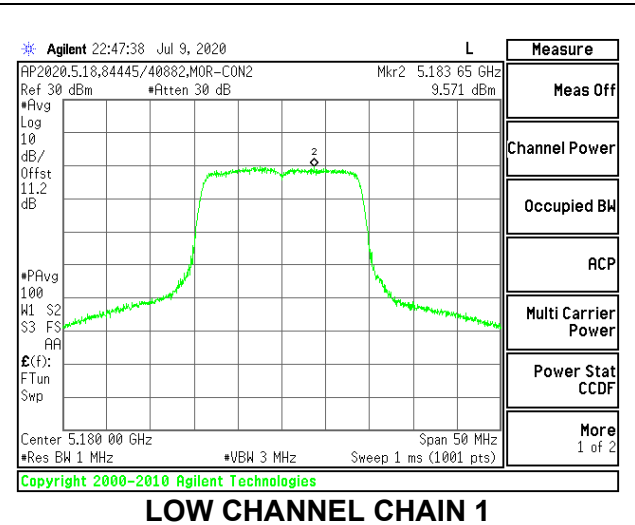
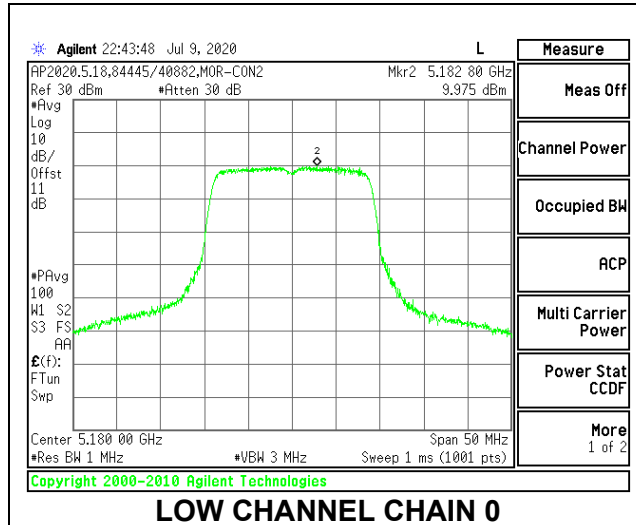
**Output Power Results**

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	20.50	19.93	23.23	30.00	-6.77
Mid	5200	20.45	20.12	23.30	30.00	-6.70
High	5240	20.38	20.24	23.32	30.00	-6.68

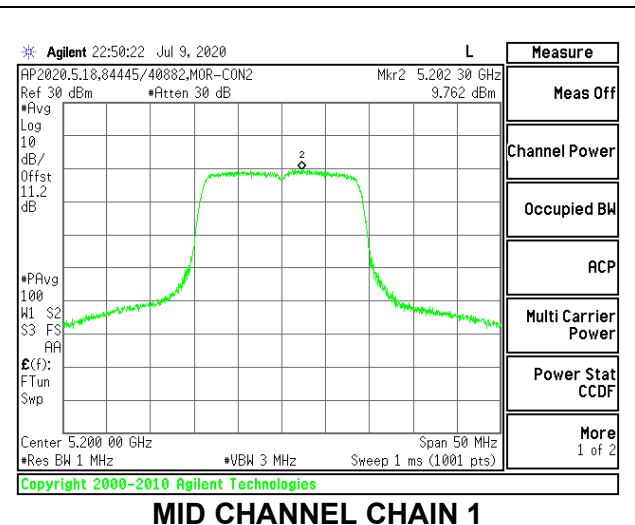
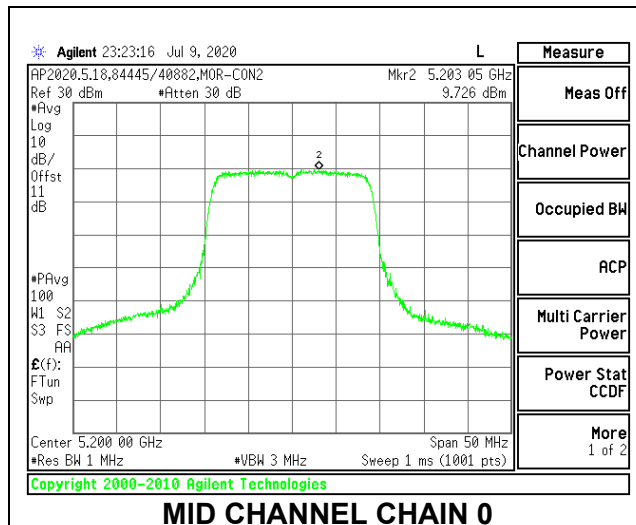
**PSD Results**

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/1MHz)	Antenna 2 Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5180	9.98	9.57	13.11	16.13	-3.02
Mid	5200	9.73	9.76	13.08	16.13	-3.05
High	5240	9.80	9.96	13.21	16.13	-2.92

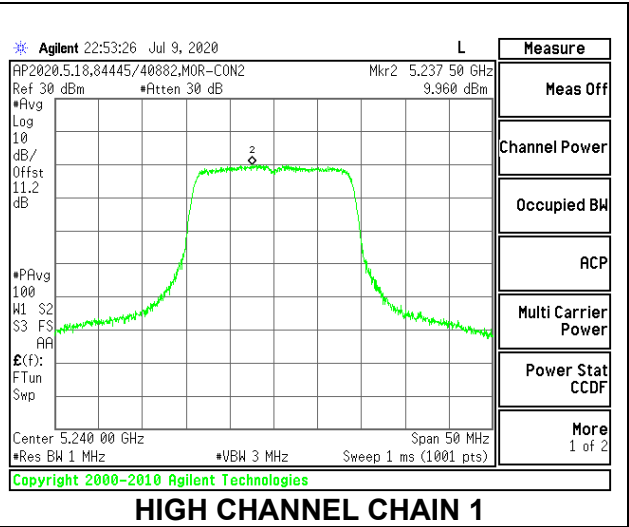
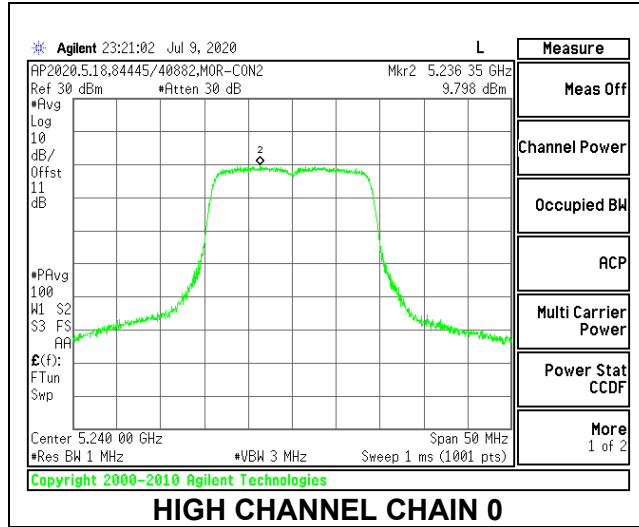
### LOW CHANNEL



### MID CHANNEL



**HIGH CHANNEL**



**2TX Antenna 1 + Antenna 2 CDD MODE (IC)**

<b>Test Engineer:</b>	84740 / 44389
<b>Test Date:</b>	2020-07-13

**Bandwidth, Antenna Gain, and Limits**

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	EIRP Power Limit (dBm)	Power Limit (dBm)	EIRP PSD Limit (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)
Low	5180	17.5900	3.87	6.87	22.45	18.58	10.00	3.13
Mid	5200	17.6092	3.87	6.87	22.46	18.59	10.00	3.13
High	5240	17.6386	3.87	6.87	22.46	18.59	10.00	3.13

<b>Duty Cycle CF (dB)</b>	0.32	<b>Included in Calculations of Corr'd PSD</b>
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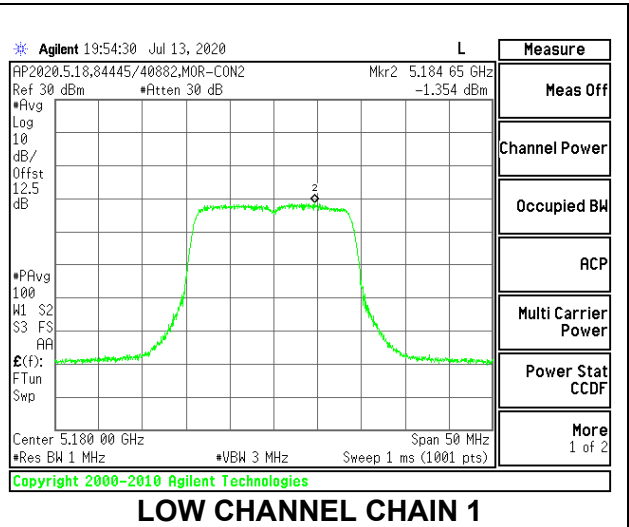
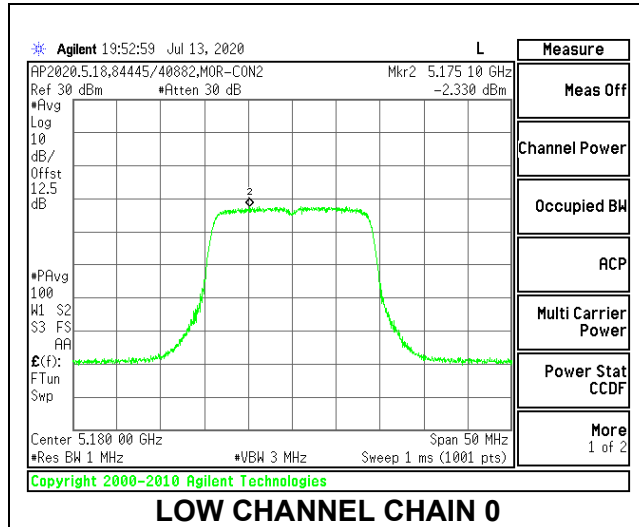
**Output Power Results**

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	10.15	9.49	12.84	18.58	-5.74
Mid	5200	10.21	9.62	12.94	18.59	-5.65
High	5240	9.88	9.80	12.85	18.59	-5.74

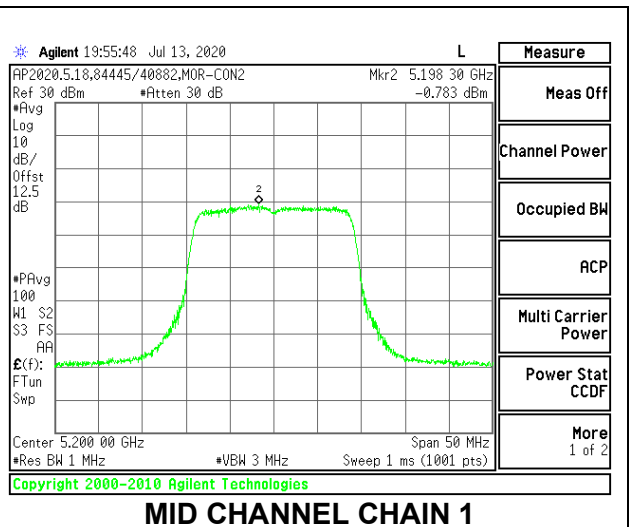
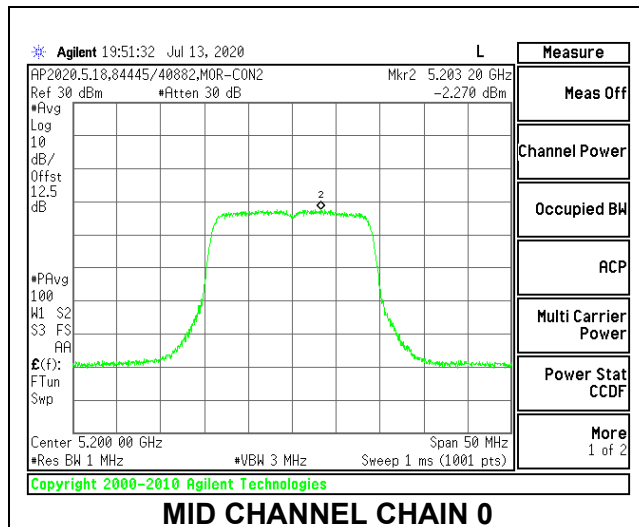
**PSD Results**

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/1MHz)	Antenna 2 Meas PSD (dBm/1MHz)	Total Corr'd D (dBm/1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5180	-2.33	-1.35	1.52	3.13	-1.61
Mid	5200	-2.27	-0.78	1.87	3.13	-1.26
High	5240	-1.09	-0.76	2.42	3.13	-0.71

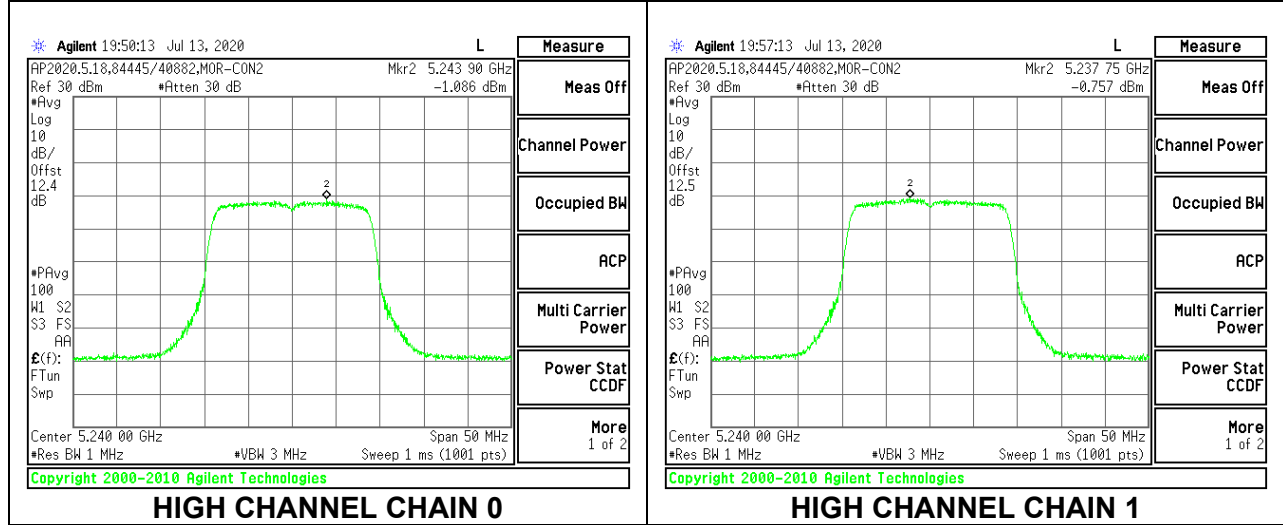
### LOW CHANNEL



### MID CHANNEL



### HIGH CHANNEL



**9.4.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND**

**2TX Antenna 1 + Antenna 2 CDD MODE (FCC) AP**

<b>Test Engineer:</b>	84740 / 44389
<b>Test Date:</b>	2020-07-09

**Antenna Gain and Limits**

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5190	3.87	6.87	30.00	16.13
High	5230	3.87	6.87	30.00	16.13

<b>Duty Cycle CF (dB)</b>	0.26	<b>Included in Calculations of Corr'd PSD</b>
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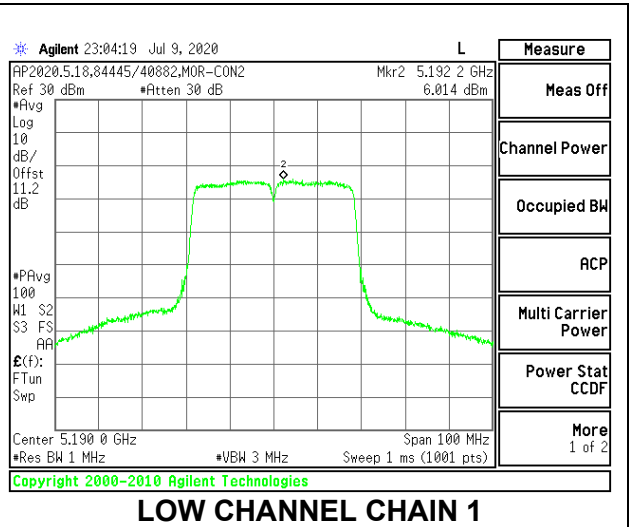
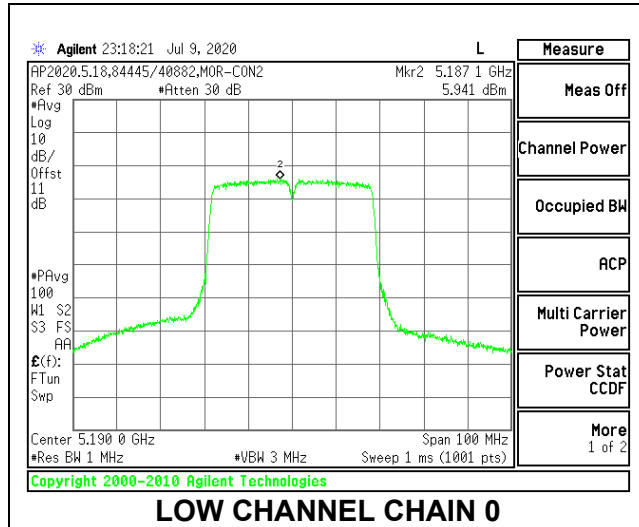
**Output Power Results**

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5190	19.87	19.21	22.56	30.00	-7.44
High	5230	19.63	19.69	22.67	30.00	-7.33

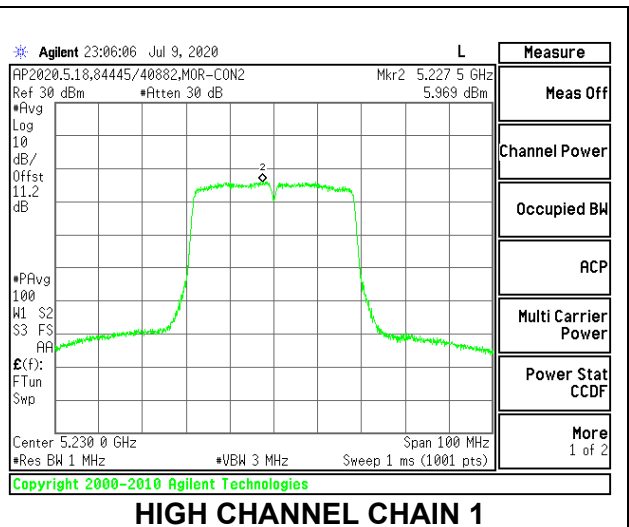
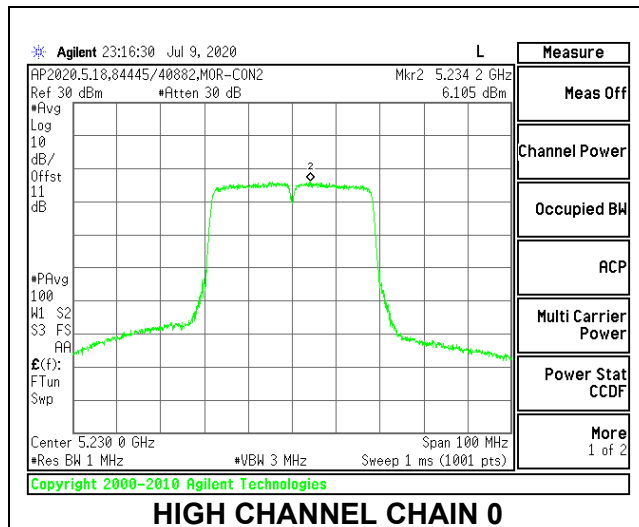
**PSD Results**

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 1MHz)	Antenna 2 Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5190	5.94	6.01	9.24	16.13	-6.89
High	5230	6.11	5.97	9.30	16.13	-6.83

### LOW CHANNEL



### HIGH CHANNEL





**2TX Antenna 1 + Antenna 2 CDD MODE (IC)**

<b>Test Engineer:</b>	84740 / 44389
<b>Test Date:</b>	2020-07-13

**Bandwidth, Antenna Gain, and Limits**

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	EIRP Power Limit (dBm)	Power Limit (dBm)	EIRP PSD Limit (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)
Low	5190	36.0612	3.87	6.87	23.00	19.13	10.00	3.13
High	5230	36.1586	3.87	6.87	23.00	19.13	10.00	3.13

<b>Duty Cycle CF (dB)</b>	0.26	<b>Included in Calculations of Corr'd PSD</b>
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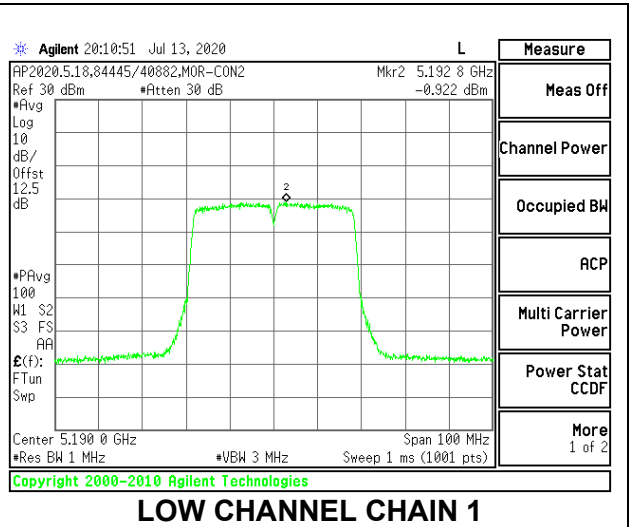
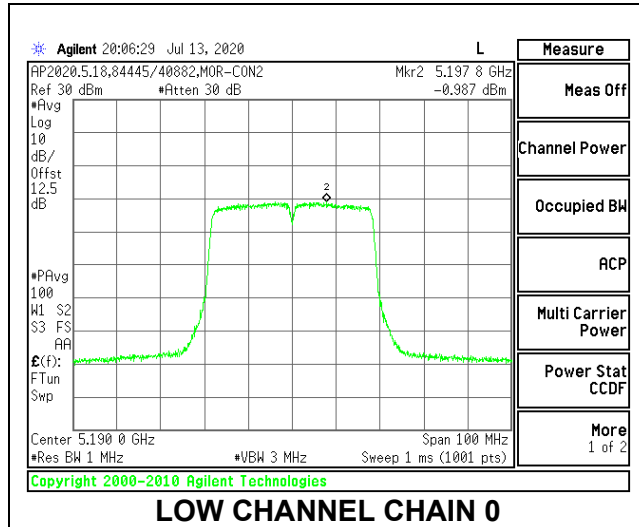
**Output Power Results**

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5190	13.00	12.57	15.80	19.13	-3.33
High	5230	13.20	12.83	16.03	19.13	-3.10

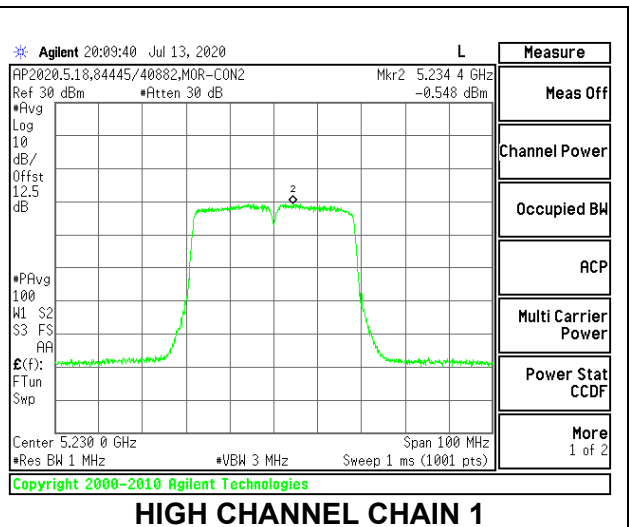
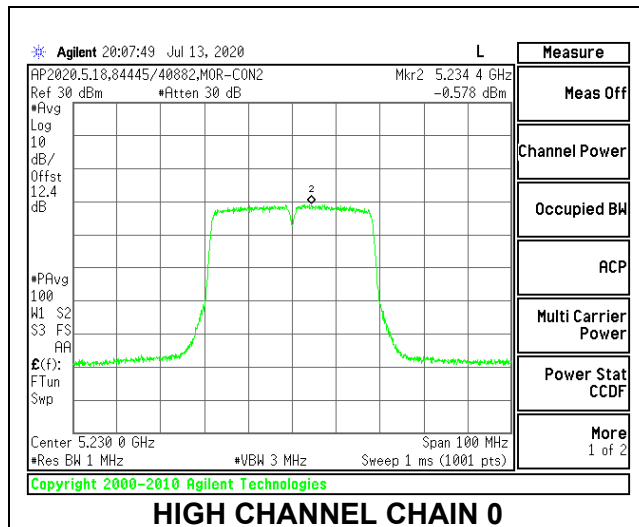
**PSD Results**

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 1MHz)	Antenna 2 Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5190	-0.99	-0.92	2.31	3.13	-0.82
High	5230	-0.58	-0.55	2.70	3.13	-0.43

### LOW CHANNEL



### HIGH CHANNEL



**9.4.4. 802.11ac VHT80 MODE IN THE 5.2 GHz BAND**

**2TX Antenna 1 + Antenna 2 CDD MODE (FCC) AP**

<b>Test Engineer:</b>	84740 / 44389
<b>Test Date:</b>	2020-07-09

**Antenna Gain and Limits**

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Mid	5210	3.87	6.87	30.00	16.13

<b>Duty Cycle CF (dB)</b>	0.30	<b>Included in Calculations of Corr'd PSD</b>
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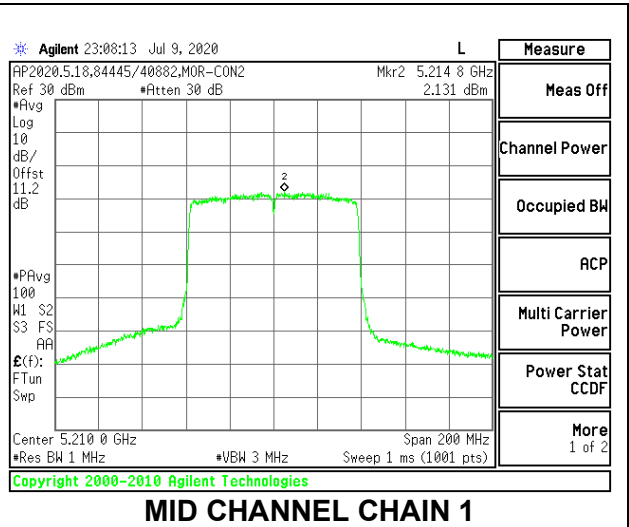
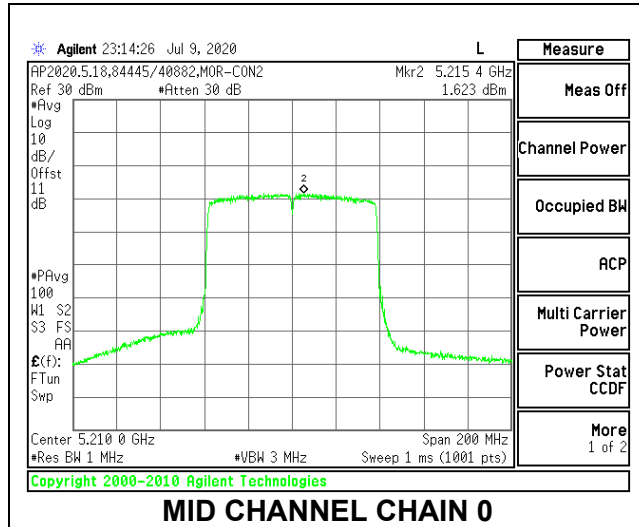
**Output Power Results**

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5210	18.49	18.27	21.39	30.00	-8.61

**PSD Results**

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 1MHz)	Antenna 2 Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Mid	5210	1.62	2.13	5.19	16.13	-10.94

### MID CHANNEL



**2TX Antenna 1 + Antenna 2 CDD MODE (IC)**

<b>Test Engineer:</b>	84740 / 44389
<b>Test Date:</b>	2020-07-13

**Bandwidth, Antenna Gain, and Limits**

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	EIRP Power Limit (dBm)	Power Limit (dBm)	EIRP PSD Limit (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)
Mid	5210	75.7369	3.87	6.87	23.00	19.13	10.00	3.13

<b>Duty Cycle CF (dB)</b>	0.30	<b>Included in Calculations of Corr'd PSD</b>
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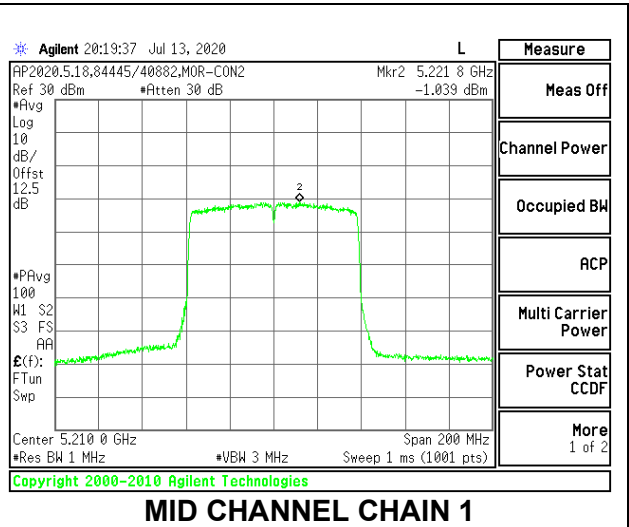
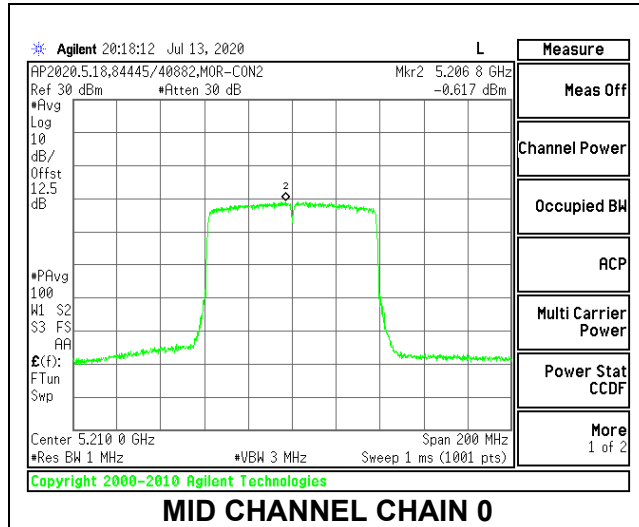
**Output Power Results**

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5210	15.86	15.60	18.74	19.13	-0.39

**PSD Results**

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 1MHz)	Antenna 2 Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Mid	5210	-0.62	-1.04	2.48	3.13	-0.65

### MID CHANNEL



## 10. RADIATED TEST RESULTS

### LIMITS

FCC §15.205 and §15.209 -Restricted bands  
FCC §15.407(b)(1-3) -Un-Restricted 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
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

### TEST PROCEDURE

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

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

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

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

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

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

3D antenna use - For below 30MHz testing, investigation was done on three antenna orientations (parallel, perpendicular, and ground-parallel).

**KDB 414788 Open Field Site(OFS) and Chamber Correlation Justification**

Base on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.

OFS and chamber correlation testing had been performed and chamber measured test result is the worst case test result.



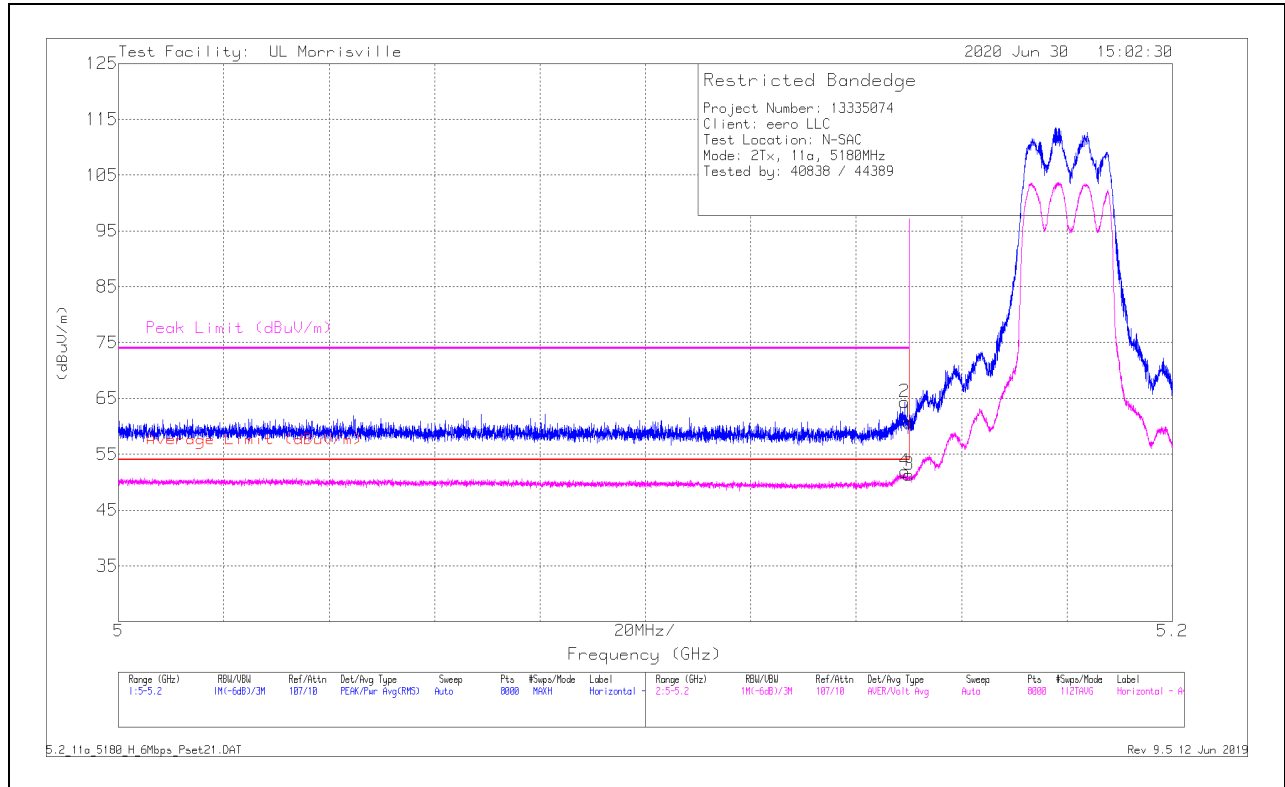
## 10.1. TRANSMITTER ABOVE 1 GHz

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

#### 2TX Antenna 1 + Antenna 2 CDD MODE

#### BANDEDGE (LOW CHANNEL)

#### HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB/(m)	Amp/Cbl/Filtr/Pad (dB)	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	*** 5.14999	38.21	Pk	34.2	-21.7	10	0	60.71	-	-	74	-13.29	299	231	H
2	*** 5.14917	41.85	Pk	34.2	-21.7	10	0	64.35	-	-	74	-9.65	299	231	H
3	*** 5.14999	27.5	ADV	34.2	-21.7	10	1.31	51.31	54	-2.69	-	-	299	231	H
4	*** 5.14919	28.08	ADV	34.2	-21.7	10	1.31	51.89	54	-2.11	-	-	299	231	H

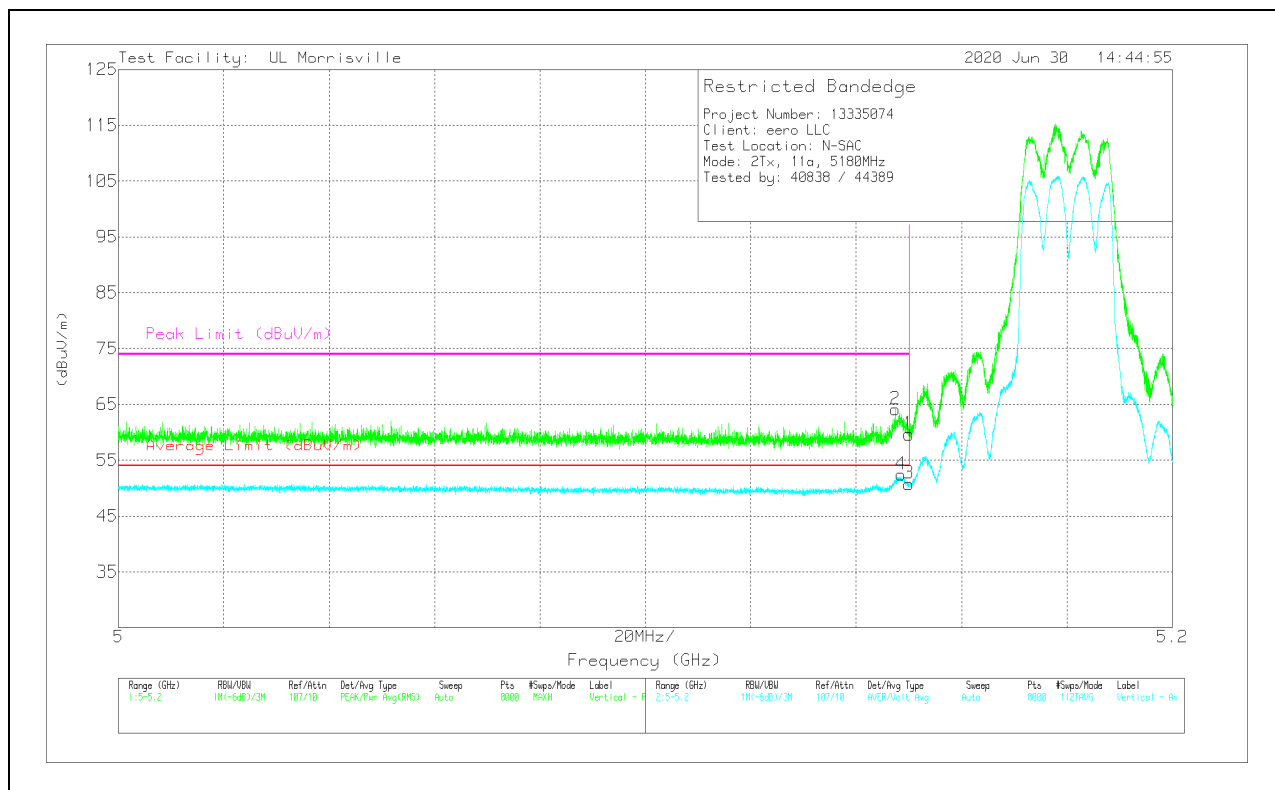
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

\*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

### VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB/(m)	Amp/Cbl/Filtr/Pad (dB)	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	* ** 5.14999	37.14	Pk	34.2	-21.7	10	0	59.64	-	-	74	-14.36	71	187	V
2	* ** 5.14742	41.6	Pk	34.2	-21.7	10	0	64.1	-	-	74	-9.9	71	187	V
3	* ** 5.14999	26.96	ADV	34.2	-21.7	10	1.31	50.77	54	-3.23	-	-	71	187	V
4	* ** 5.14849	28.6	ADV	34.2	-21.7	10	1.31	52.41	54	-1.59	-	-	71	187	V

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

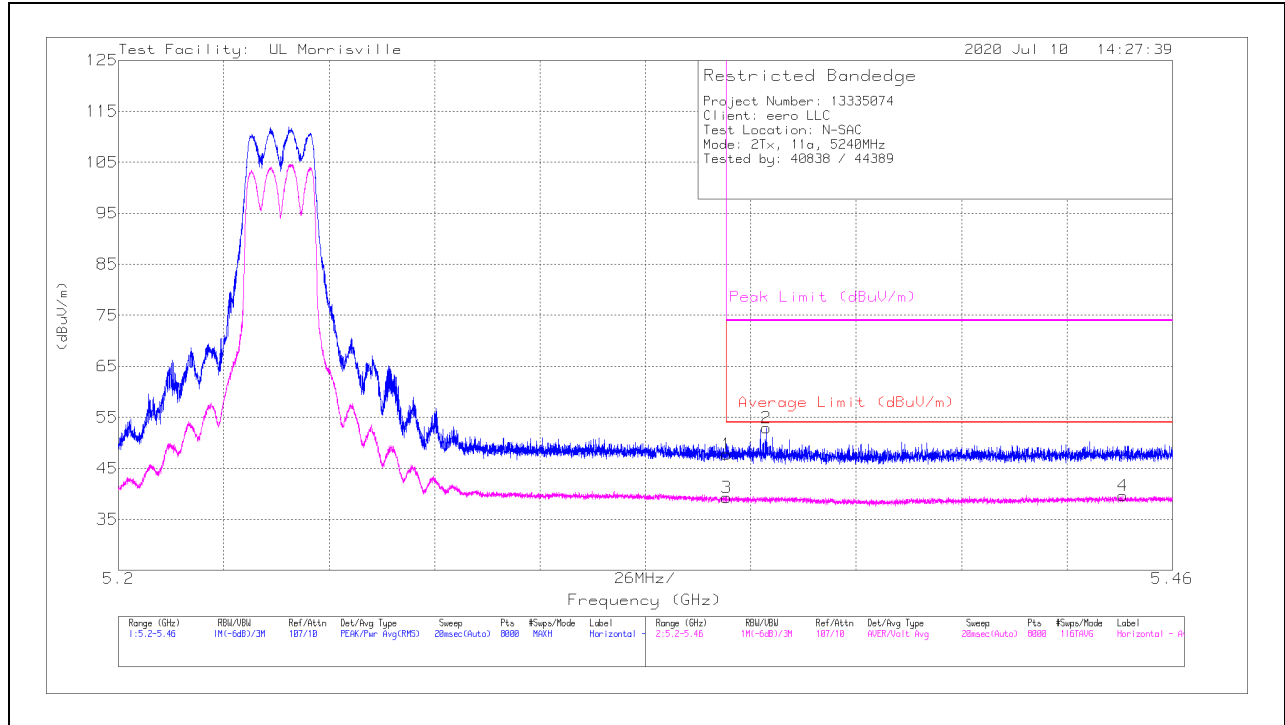
\*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

**BANDEDGE (HIGH CHANNEL)**

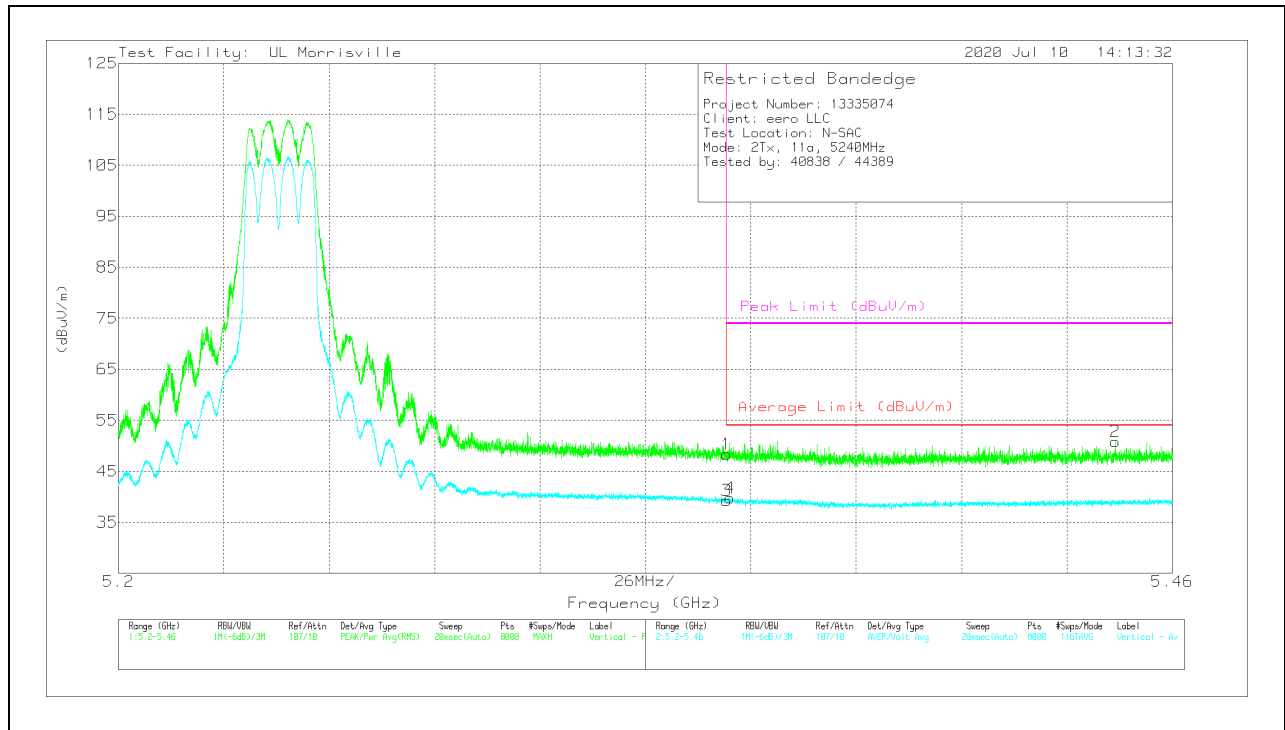
**HORIZONTAL RESULT**



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 5.35001	35.43	Pk	34.4	-22.1	0	47.73	-	-	74	-26.27	291	285	H
2	* ** 5.35989	40.6	Pk	34.4	-22.1	0	52.9	-	-	74	-21.1	291	285	H
3	* ** 5.35001	25.64	ADV	34.4	-22.1	1.31	39.25	54	-14.75	-	-	291	285	H
4	* ** 5.44778	26.04	ADV	34.3	-22	1.31	39.65	54	-14.35	-	-	291	285	H

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 \*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band  
 Pk - Peak detector  
 ADV - Linear Voltage Average

### VERTICAL RESULT

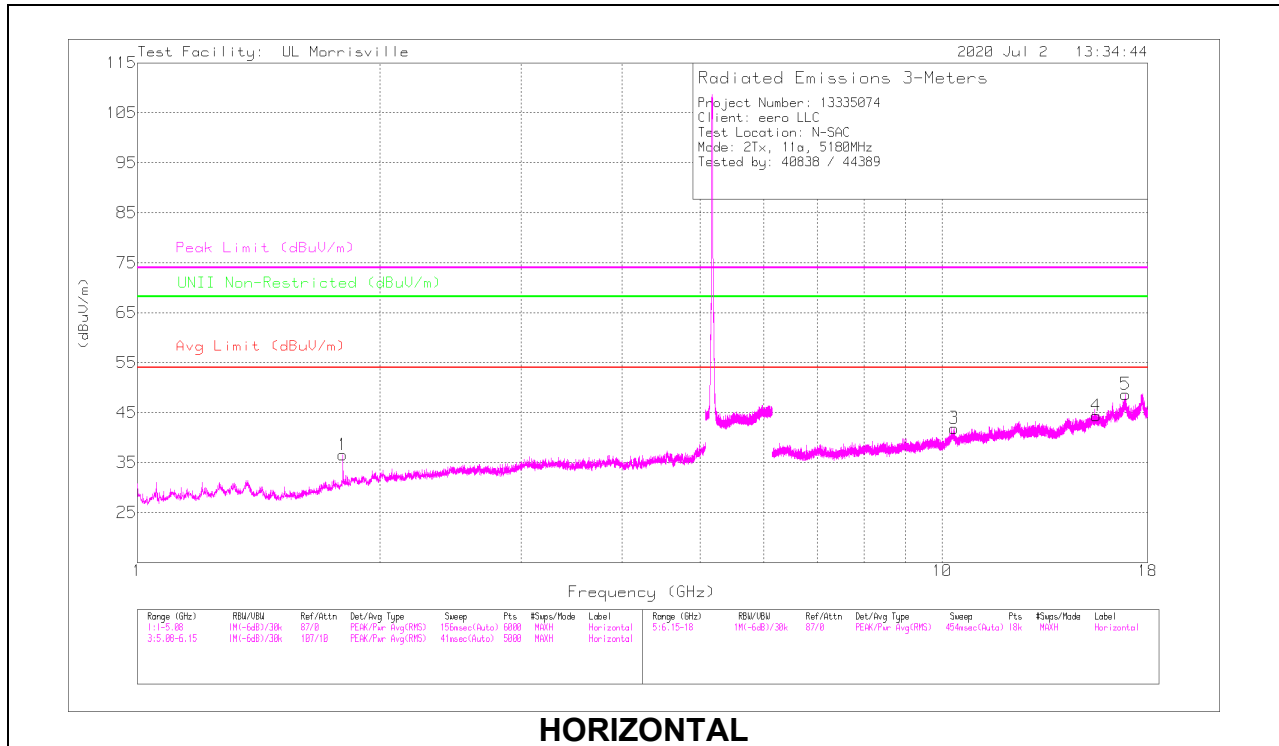


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB/(m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 5.35001	36.04	Pk	34.4	-22.1	0	48.34	-	-	74	-25.66	218	324	V
2	* ** 5.44599	38.56	Pk	34.3	-22	0	50.86	-	-	74	-23.14	218	324	V
3	* ** 5.35001	25.67	ADV	34.4	-22.1	1.31	39.28	54	-14.72	-	-	218	324	V
4	* ** 5.35088	26.19	ADV	34.4	-22.1	1.31	39.8	54	-14.2	-	-	218	324	V

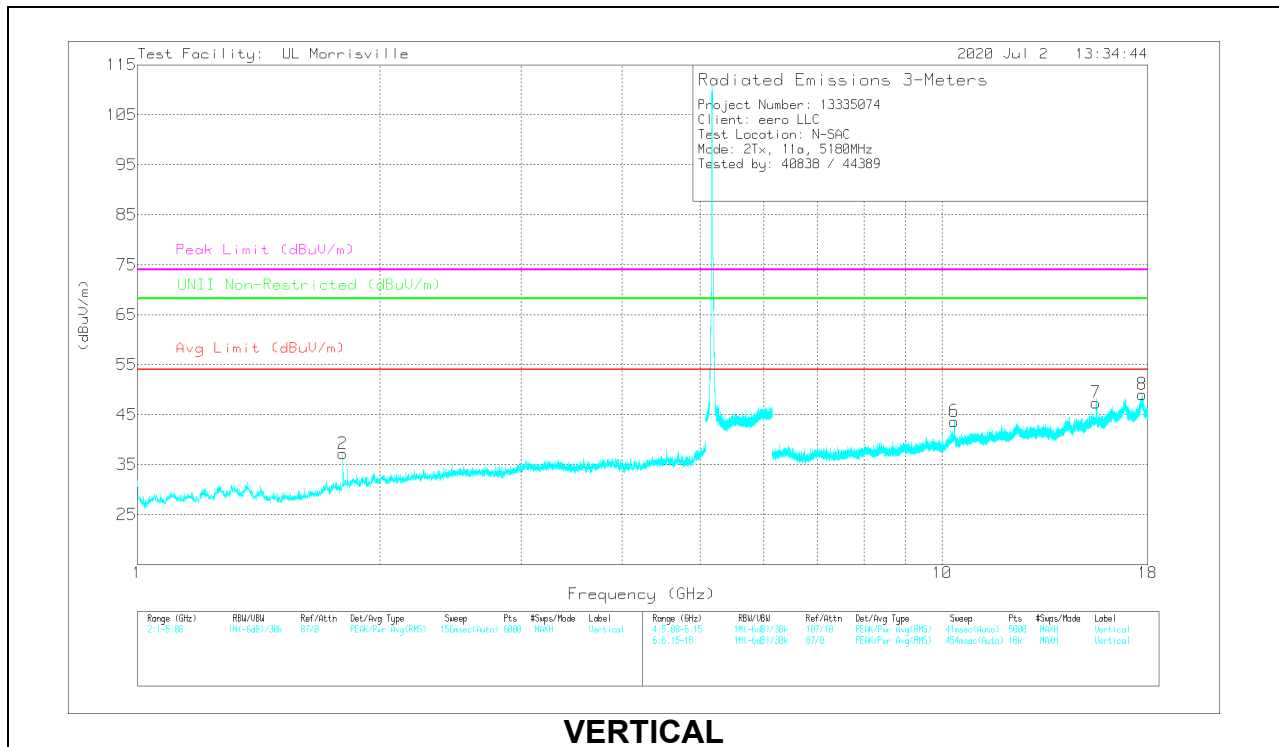
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 \*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band  
 Pk - Peak detector  
 ADV - Linear Voltage Average

**HARMONICS AND SPURIOUS EMISSIONS**

**LOW CHANNEL RESULTS**



**HORIZONTAL**



**VERTICAL**

**RADIATED EMISSIONS**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB(/m)	Amp/Cbl/Fitr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	*** 15.54011	35.59	PK-U	40.1	-24.3	0	51.39	-	-	74	-22.61	-	-	239	223	H
	*** 15.53965	22.66	ADV	40.1	-24.3	1.31	39.77	54	-14.23	-	-	-	-	239	223	H
7	*** 15.52869	41.16	PK-U	40.1	-24.2	0	57.06	-	-	74	-16.94	-	-	315	119	V
	*** 15.53048	26.74	ADV	40.1	-24.2	1.31	43.95	54	-10.05	-	-	-	-	315	119	V
8	*** 17.73202	33.19	PK-U	41.7	-19.7	0	55.19	-	-	74	-18.81	-	-	60	361	V
	*** 17.73522	20.63	ADV	41.7	-19.6	1.31	44.04	54	-9.96	-	-	-	-	60	361	V
1	1.79988	49.98	PK-U	30.2	-35.3	0	44.88	-	-	-	-	68.2	-23.32	17	389	V
2	1.80006	50.05	PK-U	30.2	-35.3	0	44.95	-	-	-	-	68.2	-23.25	257	176	H
3	10.35639	34.44	PK-U	37.5	-24.9	0	47.04	-	-	-	-	68.2	-21.16	187	349	H
6	10.35642	38.41	PK-U	37.5	-24.9	0	51.01	-	-	-	-	68.2	-17.19	260	204	V
5	16.90303	34.94	PK-U	41.5	-22.4	0	54.04	-	-	-	-	68.2	-14.16	171	343	H

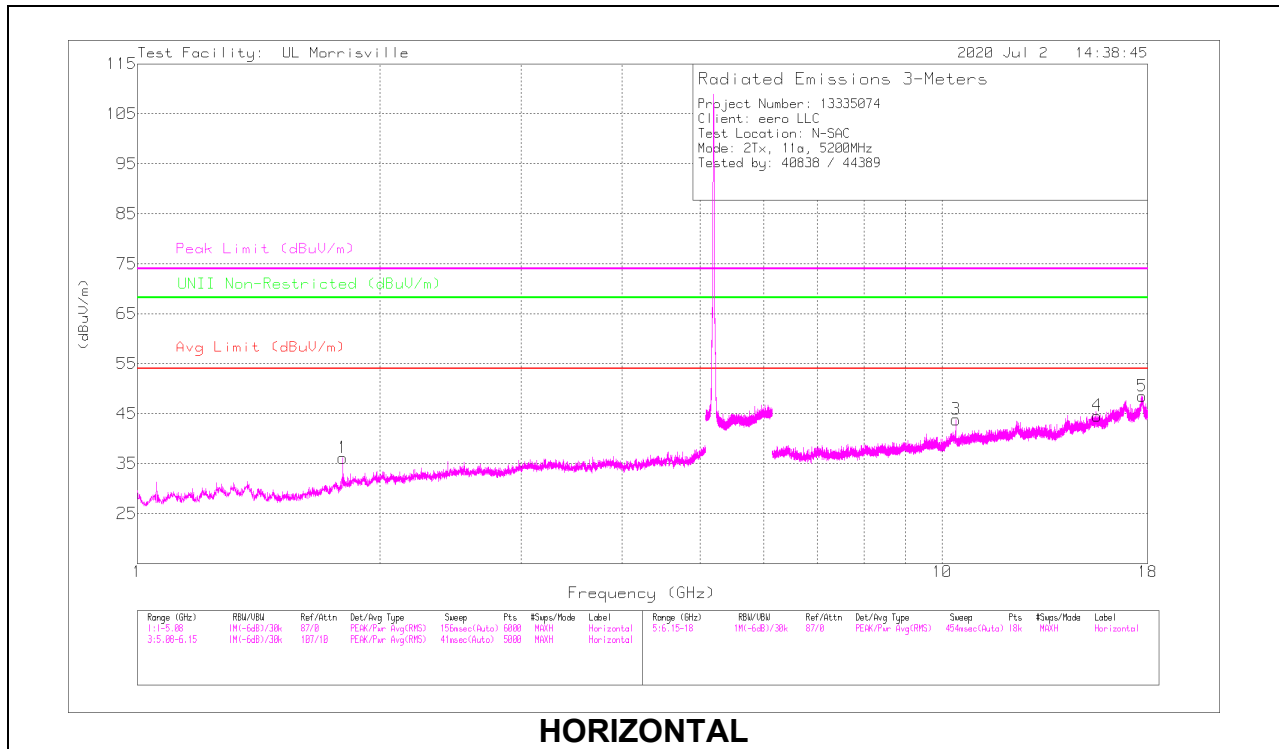
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

\*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band

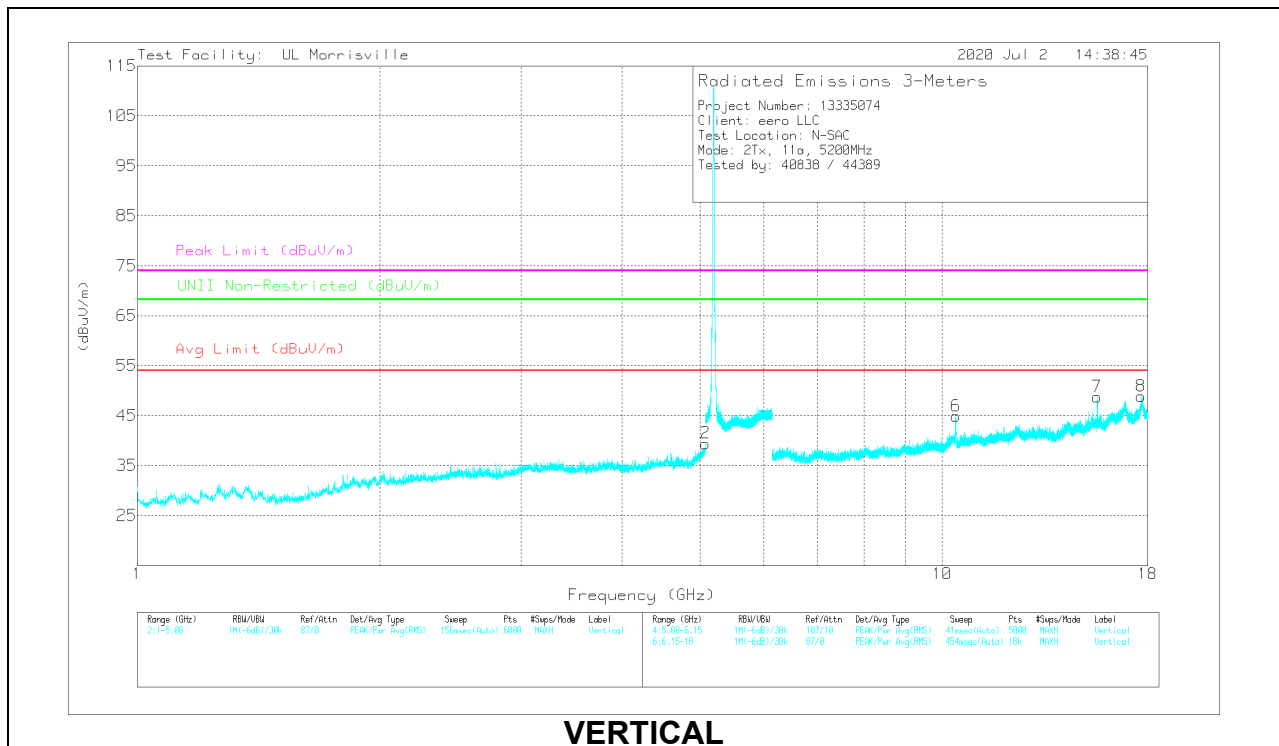
PK-U - Maximum Peak

ADV - Linear Voltage Average

### MID CHANNEL RESULTS



**HORIZONTAL**



**VERTICAL**

**RADIATED EMISSIONS**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB(/m)	Amp/Cbl/Fitr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	*** 5.07851	39.95	PK-U	34.2	-29.2	0	44.95	-	-	74	-29.05	-	-	238	133	V
	** 5.0762	27.45	ADV	34.2	-29.3	1.31	33.66	54	-20.34	-	-	-	-	238	133	V
4	*** 15.58959	39.65	PK-U	40.2	-25.8	0	54.05	-	-	74	-19.95	-	-	250	114	H
	*** 15.59076	24.99	ADV	40.2	-25.8	1.31	40.7	54	-13.3	-	-	-	-	250	114	H
5	*** 17.71122	33.13	PK-U	41.6	-20.3	0	54.43	-	-	74	-19.57	-	-	151	246	H
	*** 17.71286	20.5	ADV	41.6	-20.2	1.31	43.21	54	-10.79	-	-	-	-	151	246	H
7	*** 15.5918	40.2	PK-U	40.2	-25.9	0	54.5	-	-	74	-19.5	-	-	353	252	V
	*** 15.59293	25.72	ADV	40.2	-25.9	1.31	41.33	54	-12.67	-	-	-	-	353	252	V
1	1.80019	48.53	PK-U	30.2	-35.3	0	43.43	-	-	-	-	68.2	-24.77	271	143	H
3	10.3942	37.2	PK-U	37.5	-25.7	0	49	-	-	-	-	68.2	-19.2	73	104	H
6	10.40046	39.18	PK-U	37.5	-25.6	0	51.08	-	-	-	-	68.2	-17.12	254	272	V
8	17.65801	33.29	PK-U	41.7	-22	0	52.99	-	-	-	-	68.2	-15.21	192	171	V

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

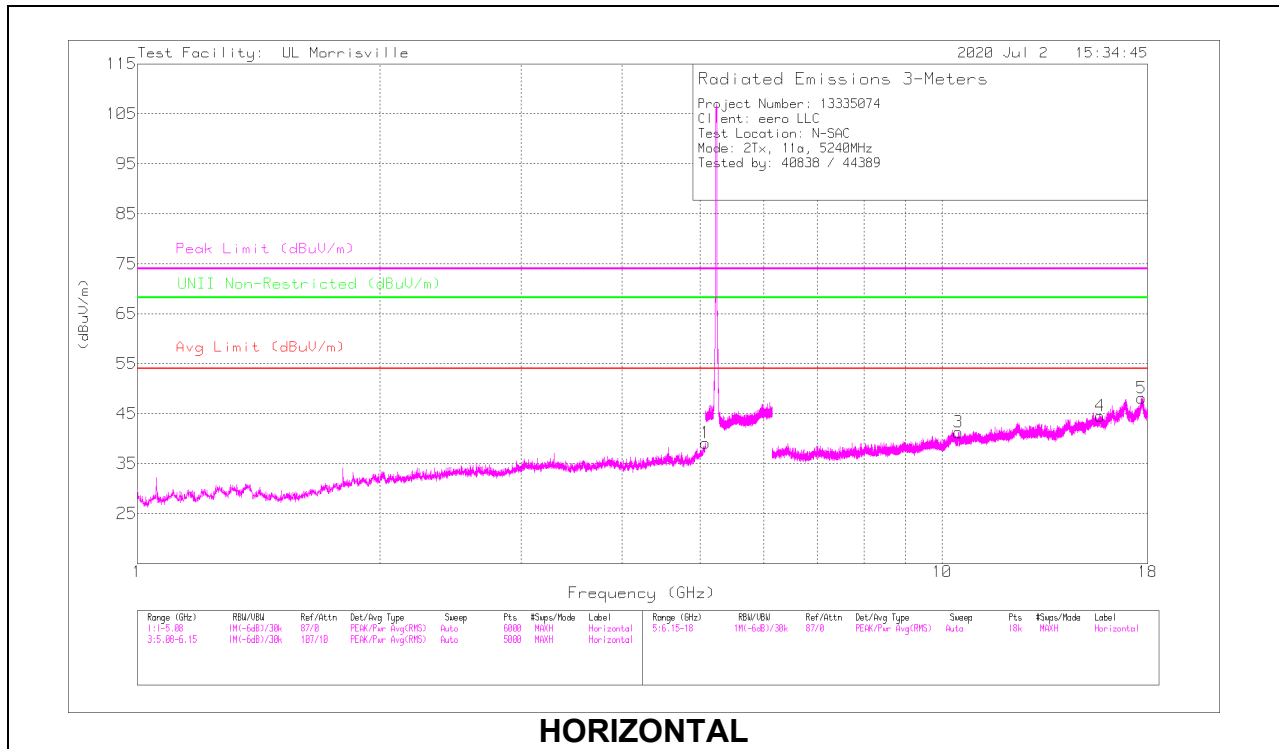
\*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK-U - Maximum Peak

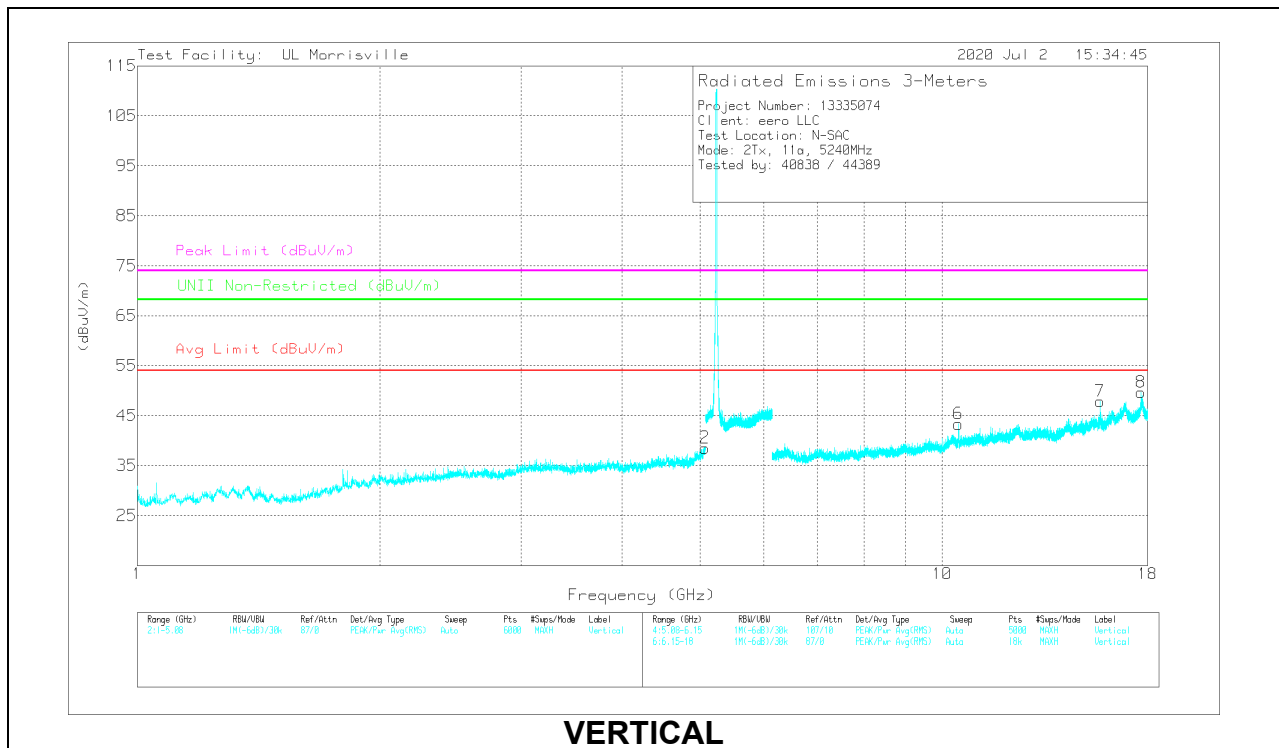
ADV - Linear Voltage Average



### HIGH CHANNEL RESULTS



**HORIZONTAL**



**VERTICAL**

**RADIATED EMISSIONS**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB(/m)	Amp/Cbl/Fitr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 5.07923	39.89	PK-U	34.3	-29.1	0	45.09	-	-	74	-28.91	-	-	2	283	H
	* ** 5.077	27.45	ADV	34.2	-29.3	1.31	33.66	54	-20.34	-	-	-	-	2	283	H
2	* ** 5.074	40.7	PK-U	34.2	-29.5	0	45.4	-	-	74	-28.6	-	-	244	398	V
	* ** 5.07383	27.64	ADV	34.2	-29.5	1.31	33.65	54	-20.35	-	-	-	-	244	398	V
4	* ** 15.71081	35.67	PK-U	40.1	-25	0	50.77	-	-	74	-23.23	-	-	159	379	H
	* ** 15.71142	23.22	ADV	40.1	-25	1.31	39.63	54	-14.37	-	-	-	-	159	379	H
7	* ** 15.71768	39.63	PK-U	40	-24.9	0	54.73	-	-	74	-19.27	-	-	3	270	V
	* ** 15.71707	25.62	ADV	40	-24.9	1.31	42.03	54	-11.97	-	-	-	-	3	270	V
3	10.47315	40.41	PK-U	37.6	-26.5	0	51.51	-	-	-	-	68.2	-16.69	302	243	V
6	10.47459	36.17	PK-U	37.6	-26.5	0	47.27	-	-	-	-	68.2	-20.93	146	319	H
8	17.66708	34.38	PK-U	41.7	-21.5	0	54.58	-	-	-	-	68.2	-13.62	8	389	V
5	17.68743	34.08	PK-U	41.8	-20.9	0	54.98	-	-	-	-	68.2	-13.22	288	131	H

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

\*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK-U - Maximum Peak

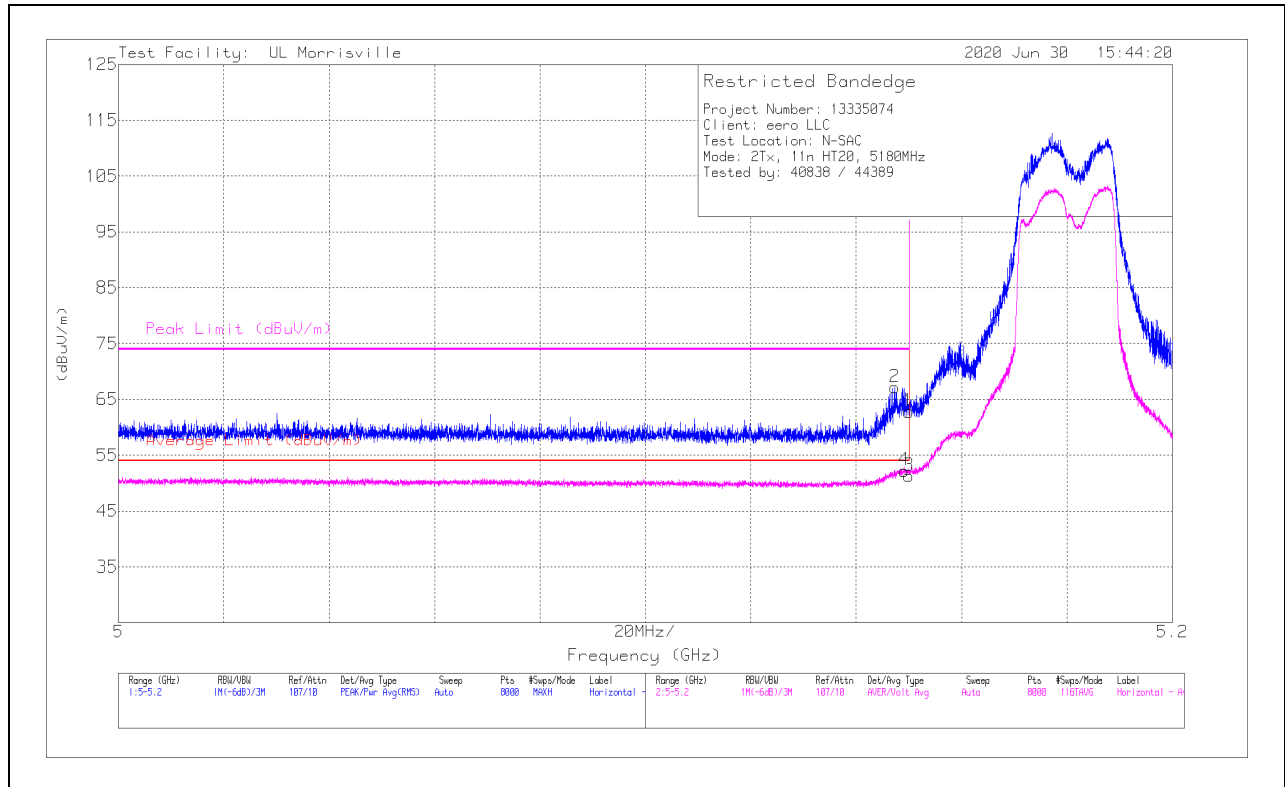
ADV - Linear Voltage Average

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

**2TX Antenna 1 + Antenna 2 CDD MODE**

**BANDEDGE (LOW CHANNEL)**

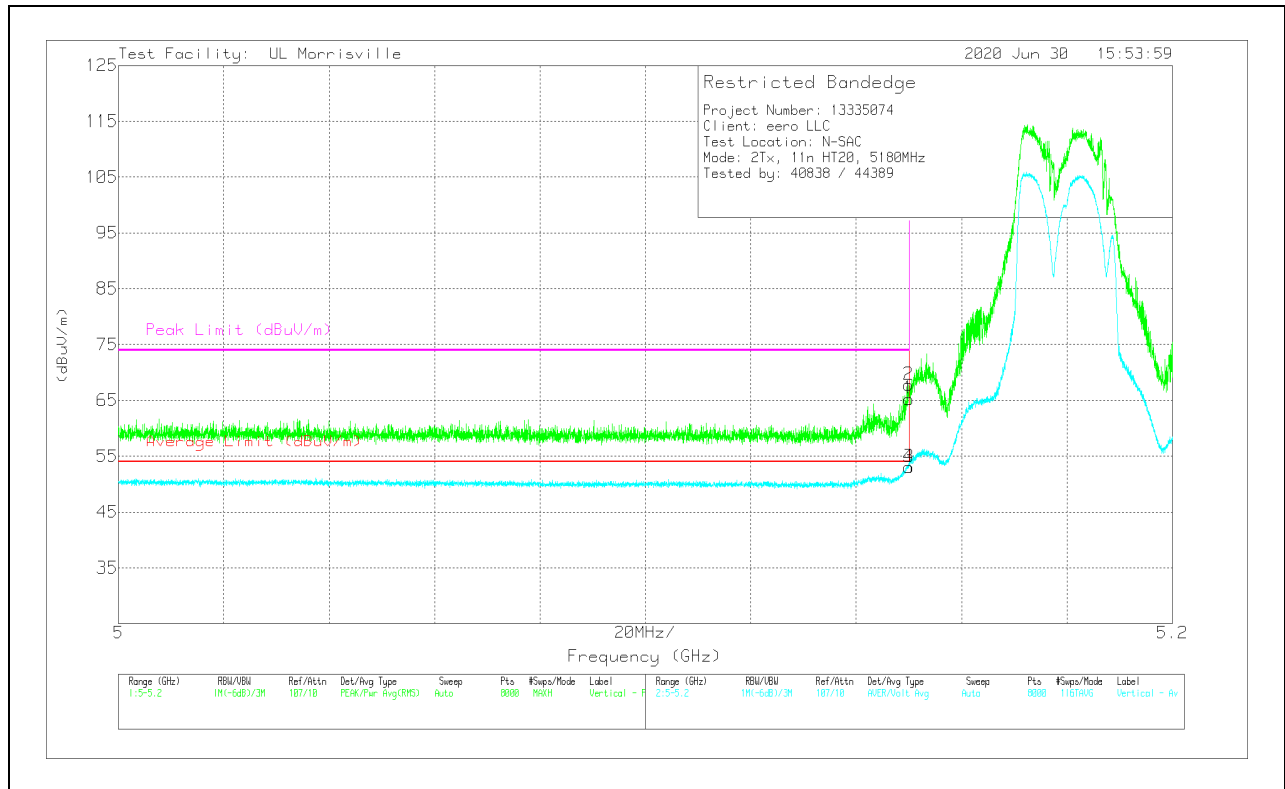
**HORIZONTAL RESULT**



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB(/m)	Amp/Cbl/Filtr/Pad (dB)	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	* ** 5.14999	40.33	Pk	34.2	-21.7	10	0	62.83	-	-	74	-11.17	299	274	H
2	* ** 5.14734	44.68	Pk	34.2	-21.7	10	0	67.18	-	-	74	-6.82	299	274	H
3	* ** 5.14999	28.17	ADV	34.2	-21.7	10	.65	51.32	54	-2.68	-	-	299	274	H
4	* ** 5.14909	29.1	ADV	34.2	-21.7	10	.65	52.25	54	-1.75	-	-	299	274	H

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 \*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band  
 Pk - Peak detector  
 ADV - Linear Voltage Average

### VERTICAL RESULT

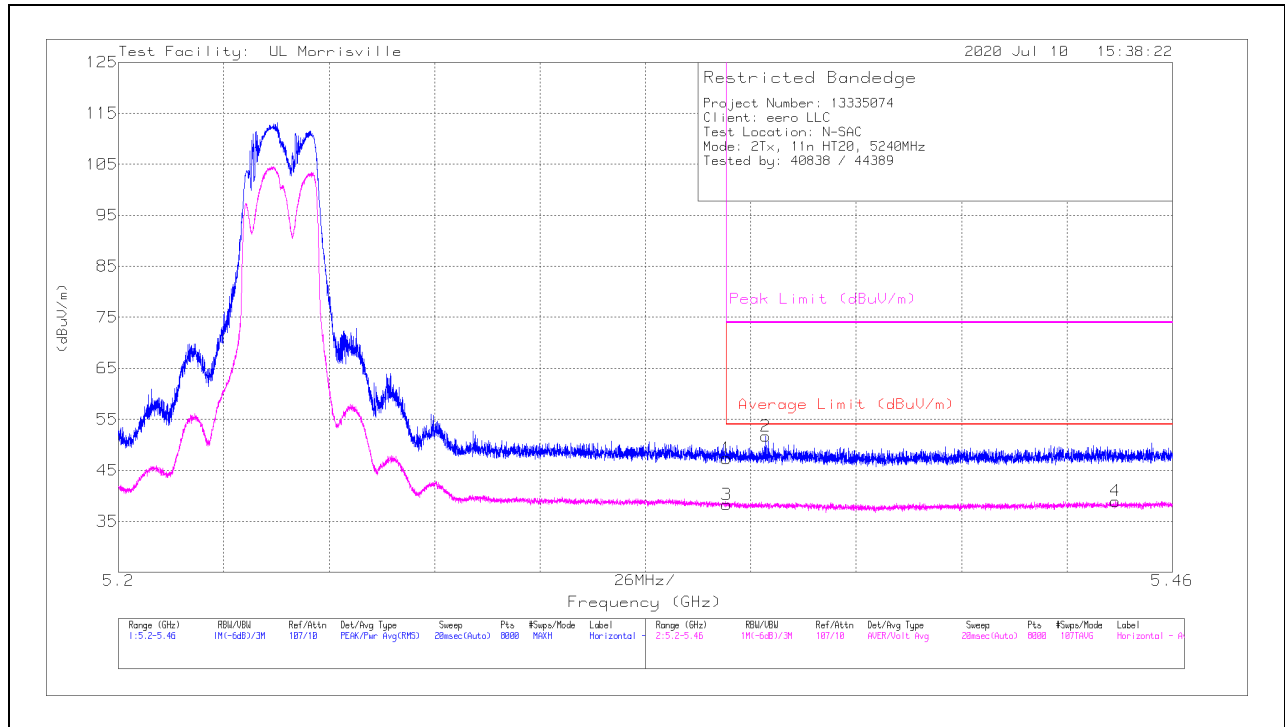


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB/(m)	Amp/Cbl/Filtr/Pad (dB)	Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 5.14999	42.78	Pk	34.2	-21.7	10	0	65.28	-	-	74	-8.72	223	245	V
2	* ** 5.14989	45.29	Pk	34.2	-21.7	10	0	67.79	-	-	74	-6.21	223	245	V
3	* ** 5.14999	29.89	ADV	34.2	-21.7	10	.65	53.04	54	-96	-	-	223	245	V
4	* ** 5.14997	29.92	ADV	34.2	-21.7	10	.65	53.07	54	-93	-	-	223	245	V

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 \*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band  
 Pk - Peak detector  
 ADV - Linear Voltage Average

**BANDEDGE (HIGH CHANNEL)**

**HORIZONTAL RESULT**



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 5.35001	35.05	Pk	34.4	-22.1	0	47.35	-	-	74	-26.65	313	254	H
2	* ** 5.35963	39.38	Pk	34.4	-22.1	0	51.68	-	-	74	-22.32	313	254	H
3	* ** 5.35001	25.33	ADV	34.4	-22.1	.65	38.28	54	-15.72	-	-	313	254	H
4	* ** 5.44596	26.02	ADV	34.3	-22	.65	38.97	54	-15.03	-	-	313	254	H

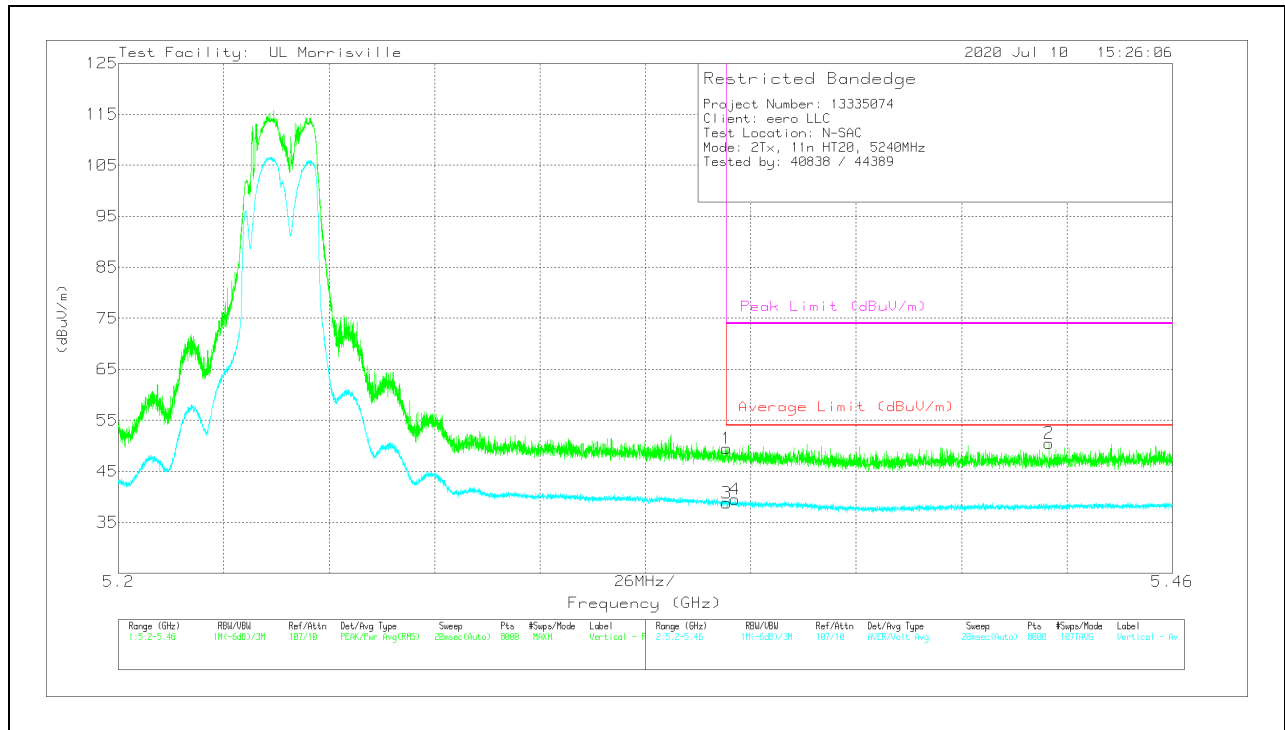
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

\*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

### VERTICAL RESULT

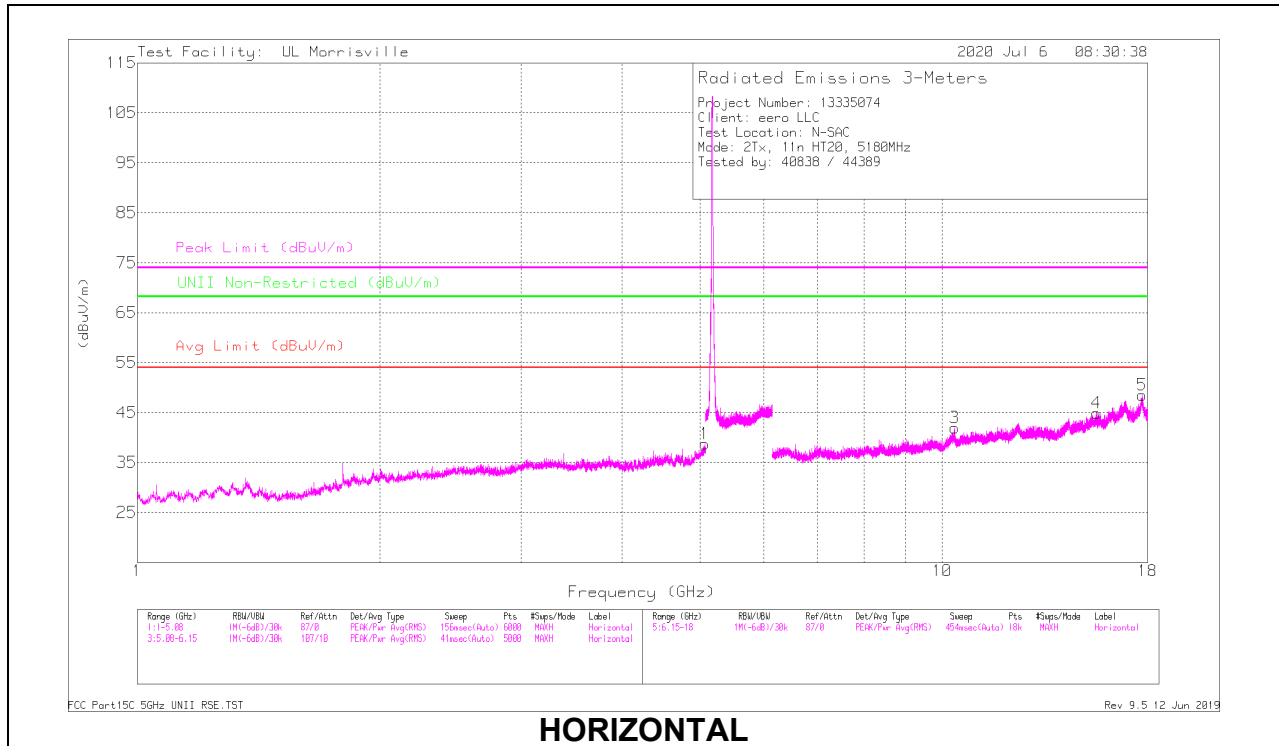


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB/(m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 5.35001	37.21	Pk	34.4	-22.1	0	49.51	-	-	74	-24.49	225	258	V
2	* ** 5.42958	38.11	Pk	34.4	-22	0	50.51	-	-	74	-23.49	225	258	V
3	* ** 5.35001	25.83	ADV	34.4	-22.1	.65	38.78	54	-15.22	-	-	225	258	V
4	* ** 5.35205	26.54	ADV	34.4	-22.1	.65	39.49	54	-14.51	-	-	225	258	V

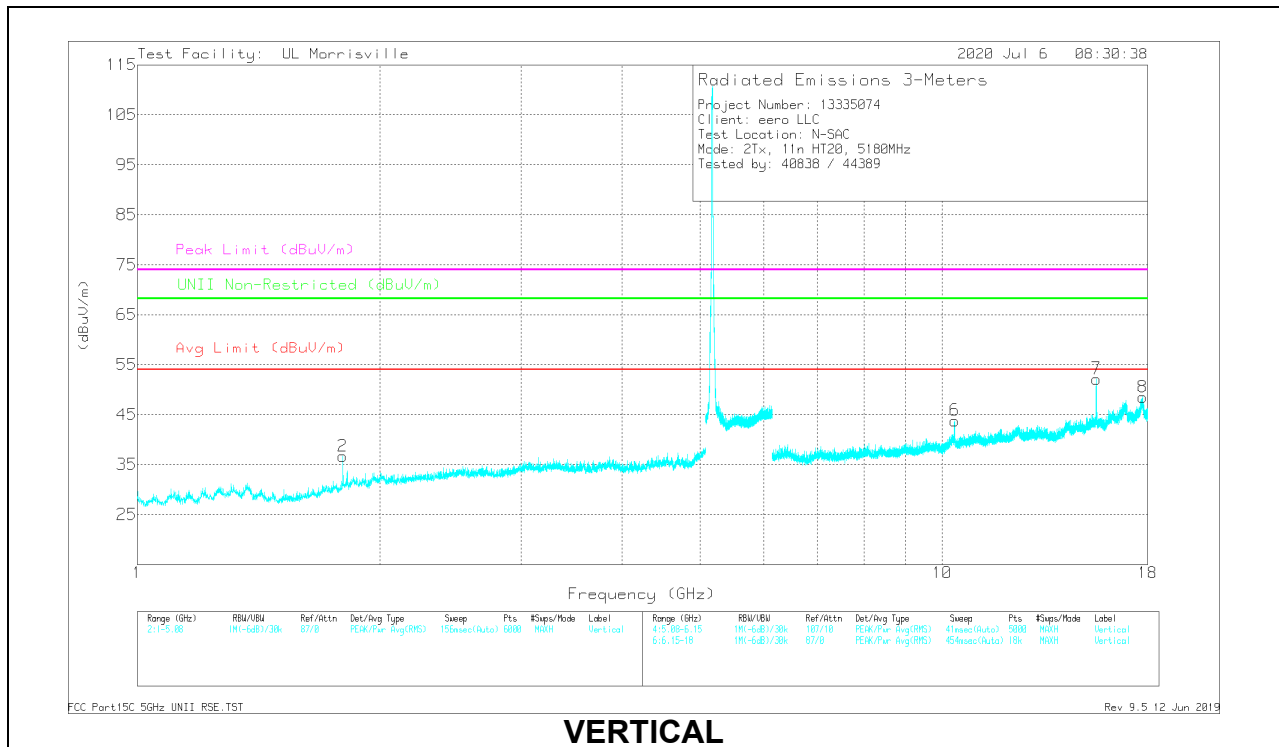
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 \*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band  
 Pk - Peak detector  
 ADV - Linear Voltage Average

**HARMONICS AND SPURIOUS EMISSIONS**

**LOW CHANNEL RESULTS**



**HORIZONTAL**



**VERTICAL**

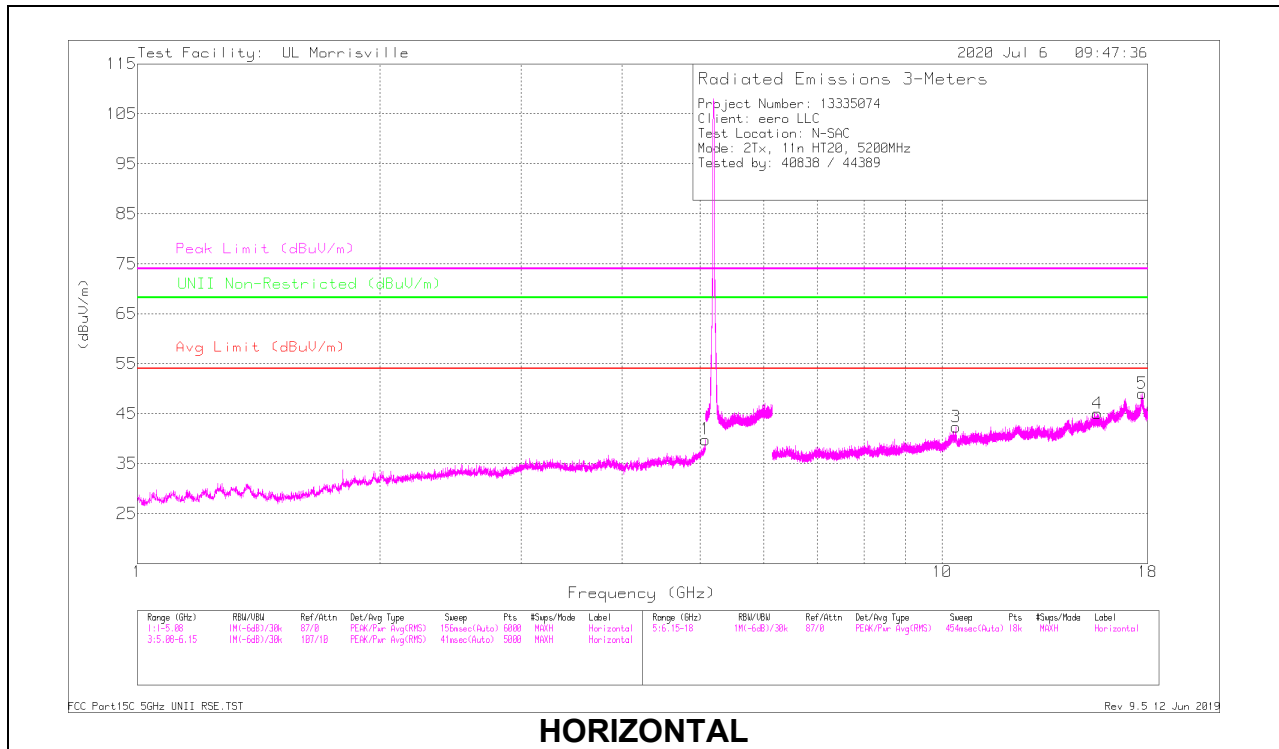
**RADIATED EMISSIONS**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB(/m)	Amp/Cbl/Filtr/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	* ** 5.07369	39.77	PK-U	34.2	-29.5	0	44.47	-	-	74	-29.53	-	-	171	399	H
	* ** 5.0709	27.4	ADV	34.2	-29.7	.65	32.55	54	-21.45	-	-	-	-	171	399	H
4	* ** 15.54336	37.72	PK-U	40.1	-24.5	0	53.32	-	-	74	-20.68	-	-	95	370	H
	* ** 15.54313	23.26	ADV	40.1	-24.5	.65	39.51	54	-14.49	-	-	-	-	95	370	H
5	* ** 17.73672	31.36	PK-U	41.6	-19.7	0	53.26	-	-	74	-20.74	-	-	261	166	H
	* ** 17.7375	19.34	ADV	41.7	-19.7	.65	41.99	54	-12.01	-	-	-	-	261	166	H
7	* ** 15.5437	47.89	PK-U	40.2	-24.5	0	63.59	-	-	74	-10.41	-	-	331	128	V
	* ** 15.54355	31.02	ADV	40.2	-24.5	.65	47.37	54	-6.63	-	-	-	-	331	128	V
8	* ** 17.74904	32.51	PK-U	41.6	-20	0	54.11	-	-	74	-19.89	-	-	193	207	V
	* ** 17.74988	20.3	ADV	41.6	-20.1	.65	42.45	54	-11.55	-	-	-	-	193	207	V
2	1.79995	49.86	PK-U	30.2	-35.3	0	44.76	-	-	-	-	68.2	-23.44	14	261	V
3	10.36377	34.47	PK-U	37.5	-25.1	0	46.87	-	-	-	-	68.2	-21.33	196	391	H
6	10.36557	35.78	PK-U	37.5	-25.1	0	48.18	-	-	-	-	68.2	-20.02	75	158	V

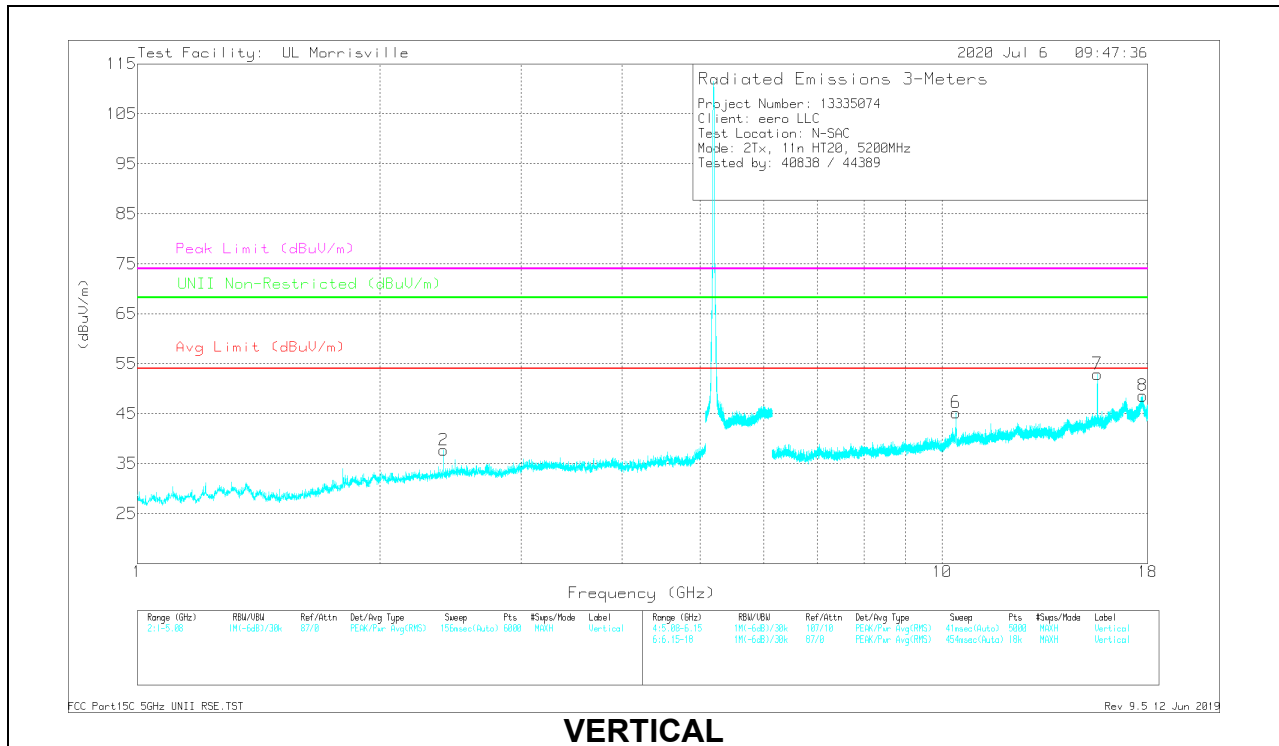
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 \*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band  
 PK-U - Maximum Peak  
 ADV - Linear Voltage Average



### MID CHANNEL RESULTS



**HORIZONTAL**



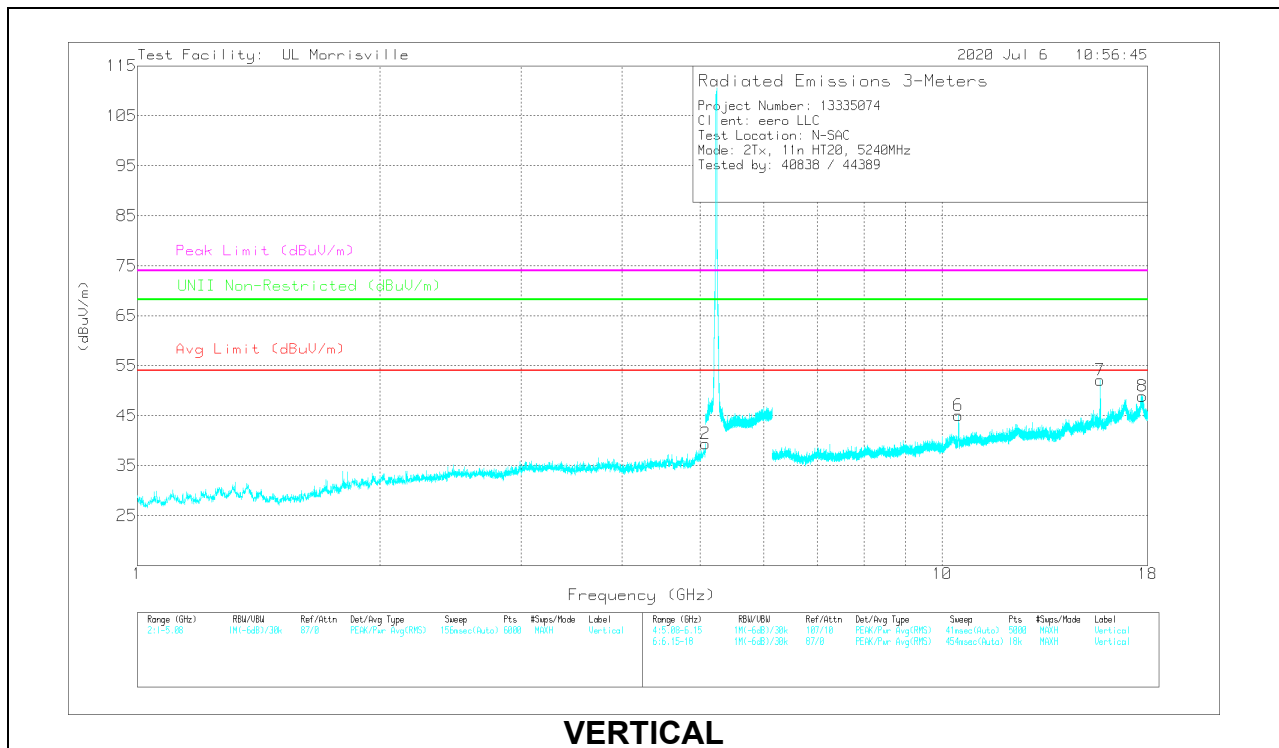
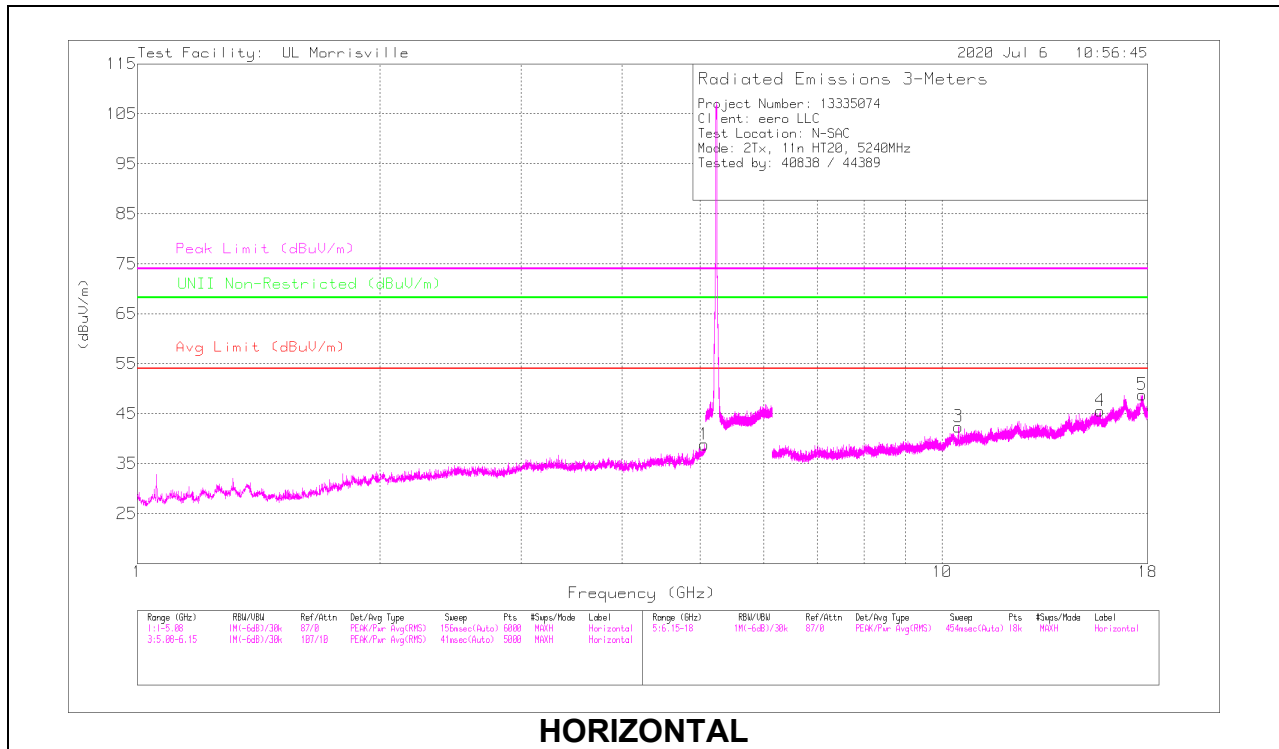
**VERTICAL**

**RADIATED EMISSIONS**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB(/m)	Amp/Cbl/Filtr/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	* ** 5.07842	40.79	PK-U	34.2	-29.2	0	45.79	-	-	74	-28.21	-	-	256	139	H
	* ** 5.07823	27.29	ADV	34.2	-29.2	.65	32.94	54	-21.06	-	-	-	-	256	139	H
4	* ** 15.59342	39.36	PK-U	40.2	-25.9	0	53.66	-	-	74	-20.34	-	-	290	132	H
	* ** 15.59465	25.14	ADV	40.2	-26	.65	39.99	54	-14.01	-	-	-	-	290	132	H
5	* ** 17.73523	33.02	PK-U	41.7	-19.6	0	55.12	-	-	74	-18.88	-	-	0	116	H
	* ** 17.73327	20.86	ADV	41.7	-19.6	.65	43.61	54	-10.39	-	-	-	-	0	116	H
7	* ** 15.59561	48.72	PK-U	40.2	-26	0	62.92	-	-	74	-11.08	-	-	324	123	V
	* ** 15.59486	32.89	ADV	40.2	-26	.65	47.74	54	-6.26	-	-	-	-	324	123	V
8	* ** 17.74619	33.22	PK-U	41.7	-19.9	0	55.02	-	-	74	-18.98	-	-	345	106	V
	* ** 17.74628	20.85	ADV	41.7	-19.9	.65	43.3	54	-10.7	-	-	-	-	345	106	V
2	2.40183	45.22	PK-U	31.9	-33.6	0	43.52	-	-	-	-	68.2	-24.68	121	185	V
3	10.40573	36.44	PK-U	37.6	-25.7	0	48.34	-	-	-	-	68.2	-19.86	191	215	H
6	10.40644	40.72	PK-U	37.6	-25.7	0	52.62	-	-	-	-	68.2	-15.58	7	117	V

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 \*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band  
 PK-U - Maximum Peak  
 ADV - Linear Voltage Average

### HIGH CHANNEL RESULTS



**RADIATED EMISSIONS**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB(/m)	Amp/Cbl/Fitr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 5.06115	40.52	PK-U	34.2	-30.2	0	44.52	-	-	74	-29.48	-	-	187	202	H
	*** 5.06113	28	ADV	34.2	-30.2	.65	32.65	54	-21.35	-	-	-	-	187	202	H
2	*** 5.07555	39.85	PK-U	34.2	-29.4	0	44.65	-	-	74	-29.35	-	-	223	256	V
	*** 5.07589	27.3	ADV	34.2	-29.3	.65	32.85	54	-21.15	-	-	-	-	223	256	V
4	*** 15.72152	39.16	PK-U	40.1	-24.8	0	54.46	-	-	74	-19.54	-	-	209	379	H
	*** 15.72246	24.15	ADV	40.1	-24.8	.65	40.1	54	-13.9	-	-	-	-	209	379	H
5	*** 17.72747	33.06	PK-U	41.7	-19.7	0	55.06	-	-	74	-18.94	-	-	180	156	H
	*** 17.7276	20.83	ADV	41.7	-19.7	.65	43.48	54	-10.52	-	-	-	-	180	156	H
7	*** 15.72161	47.34	PK-U	40.1	-24.8	0	62.64	-	-	74	-11.36	-	-	322	114	V
	*** 15.7227	29.78	ADV	40.1	-24.8	.65	45.73	54	-8.27	-	-	-	-	322	114	V
8	*** 17.73729	33.32	PK-U	41.7	-19.7	0	55.32	-	-	74	-18.68	-	-	139	214	V
	*** 17.73928	20.57	ADV	41.7	-19.7	.65	43.22	54	-10.78	-	-	-	-	139	214	V
3	10.47358	35.64	PK-U	37.6	-26.5	0	46.74	-	-	-	-	68.2	-21.46	95	162	H
6	10.47636	40.84	PK-U	37.6	-26.5	0	51.94	-	-	-	-	68.2	-16.26	264	127	V

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

\*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK-U - Maximum Peak

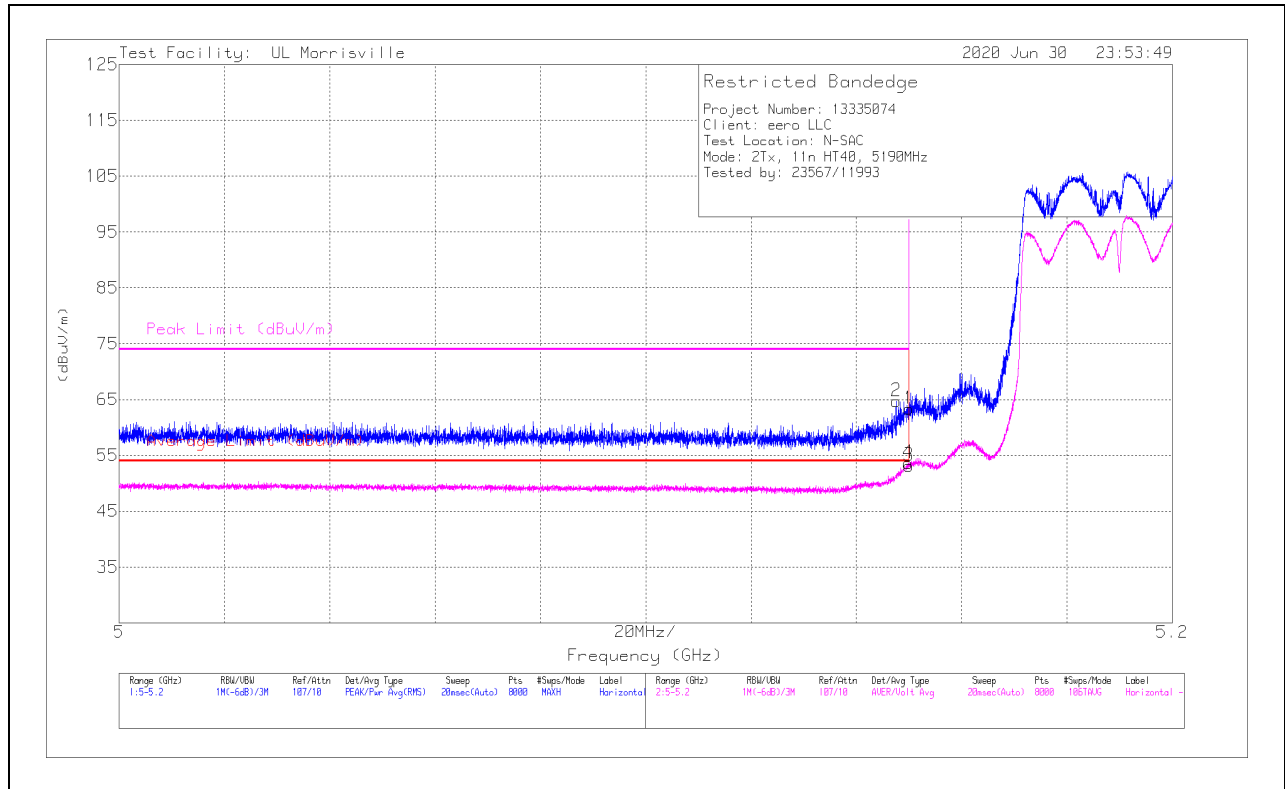
ADV - Linear Voltage Average

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

**2TX Antenna 1 + Antenna 2 CDD MODE**

**BANDEDGE (LOW CHANNEL)**

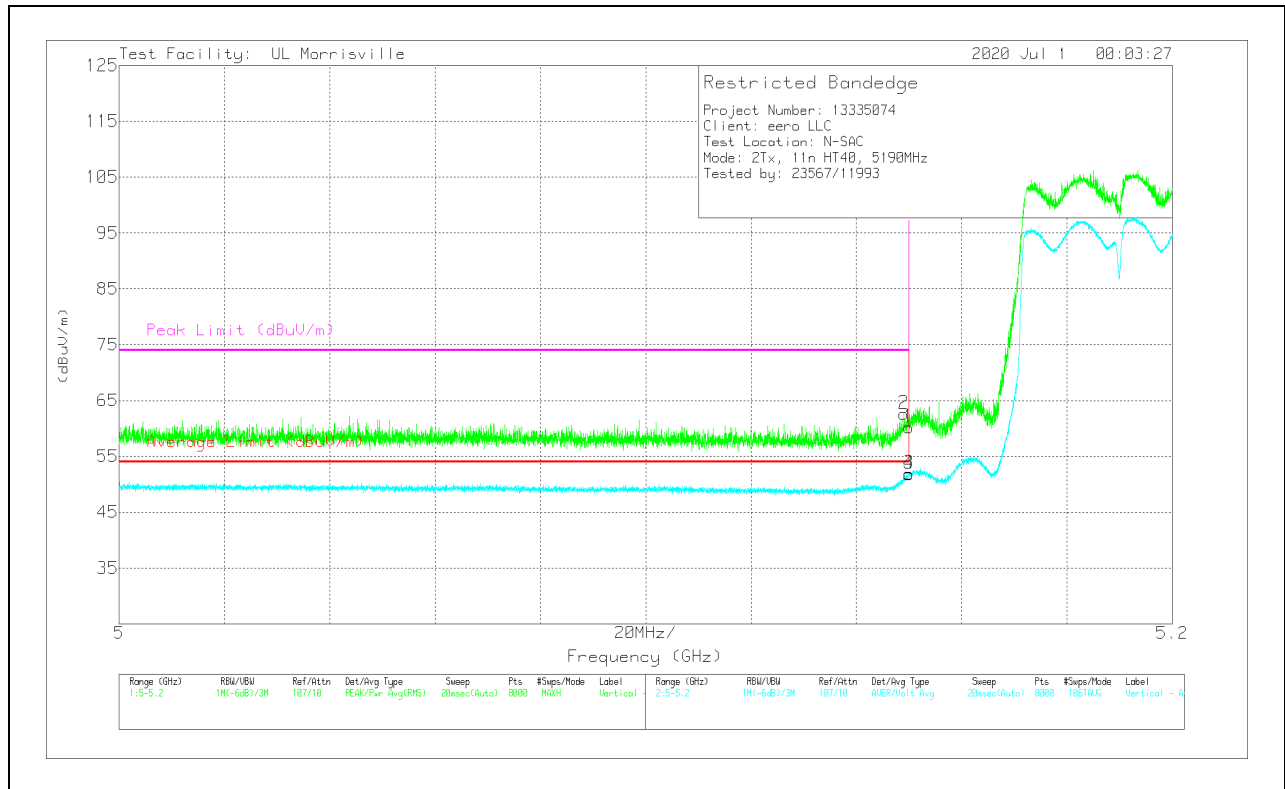
**HORIZONTAL RESULT**



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB(/m)	Amp/Cbl/Filtr/Pad (dB)	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	* ** 5.14999	40.83	Pk	34.2	-21.7	10	0	63.33	-	-	74	-10.67	295	314	H
2	* ** 5.14754	42.2	Pk	34.2	-21.7	10	0	64.7	-	-	74	-9.3	295	314	H
3	* ** 5.14999	30.14	ADV	34.2	-21.7	10	.5	53.14	54	-0.86	-	-	295	314	H
4	* ** 5.14987	30.62	ADV	34.2	-21.7	10	.5	53.62	54	-0.38	-	-	295	314	H

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 \*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band  
 Pk - Peak detector  
 ADV - Linear Voltage Average

### VERTICAL RESULT

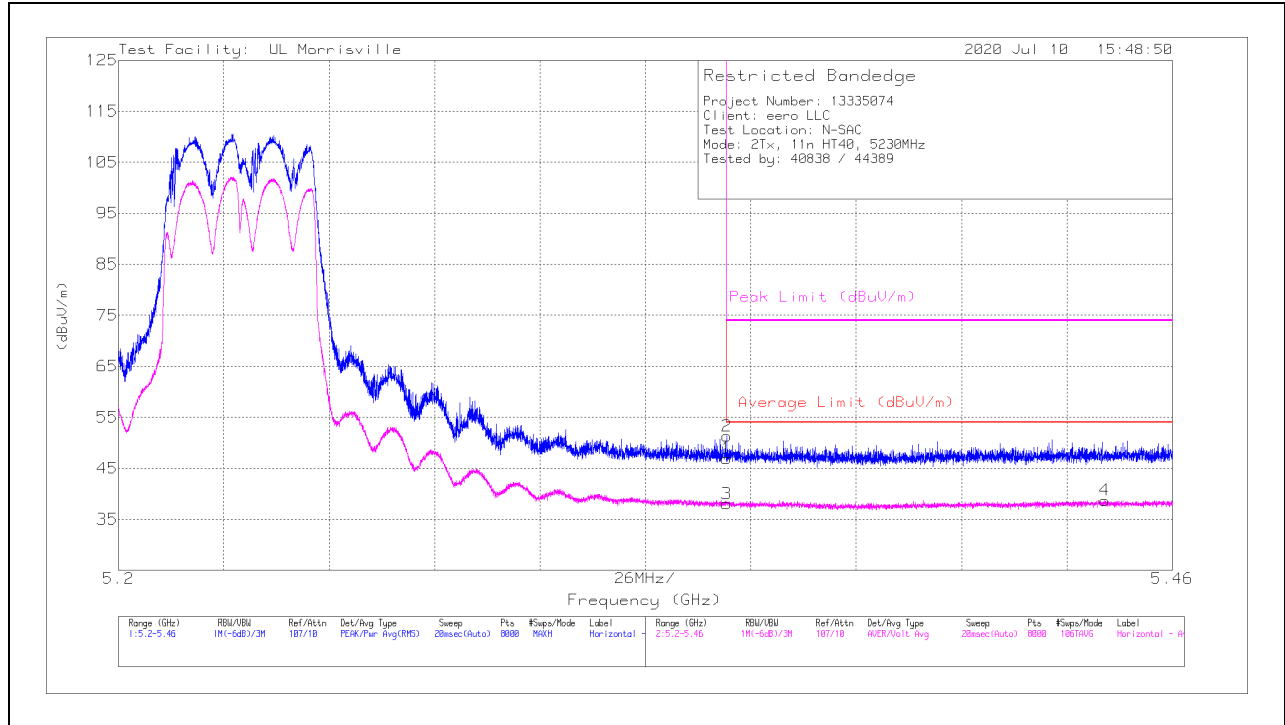


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB(/m)	Amp/Cbl/Filtr/Pad (dB)	Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 5.14999	37.72	Pk	34.2	-21.7	10	0	60.22	-	-	74	-13.78	95	366	V
2	* ** 5.14899	40.17	Pk	34.2	-21.7	10	0	62.67	-	-	74	-11.33	95	366	V
3	* ** 5.14999	28.95	ADV	34.2	-21.7	10	.5	51.95	54	-2.05	-	-	95	366	V
4	* ** 5.14994	28.84	ADV	34.2	-21.7	10	.5	51.84	54	-2.16	-	-	95	366	V

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 \*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band  
 Pk - Peak detector  
 ADV - Linear Voltage Average

**BANDEDGE (HIGH CHANNEL)**

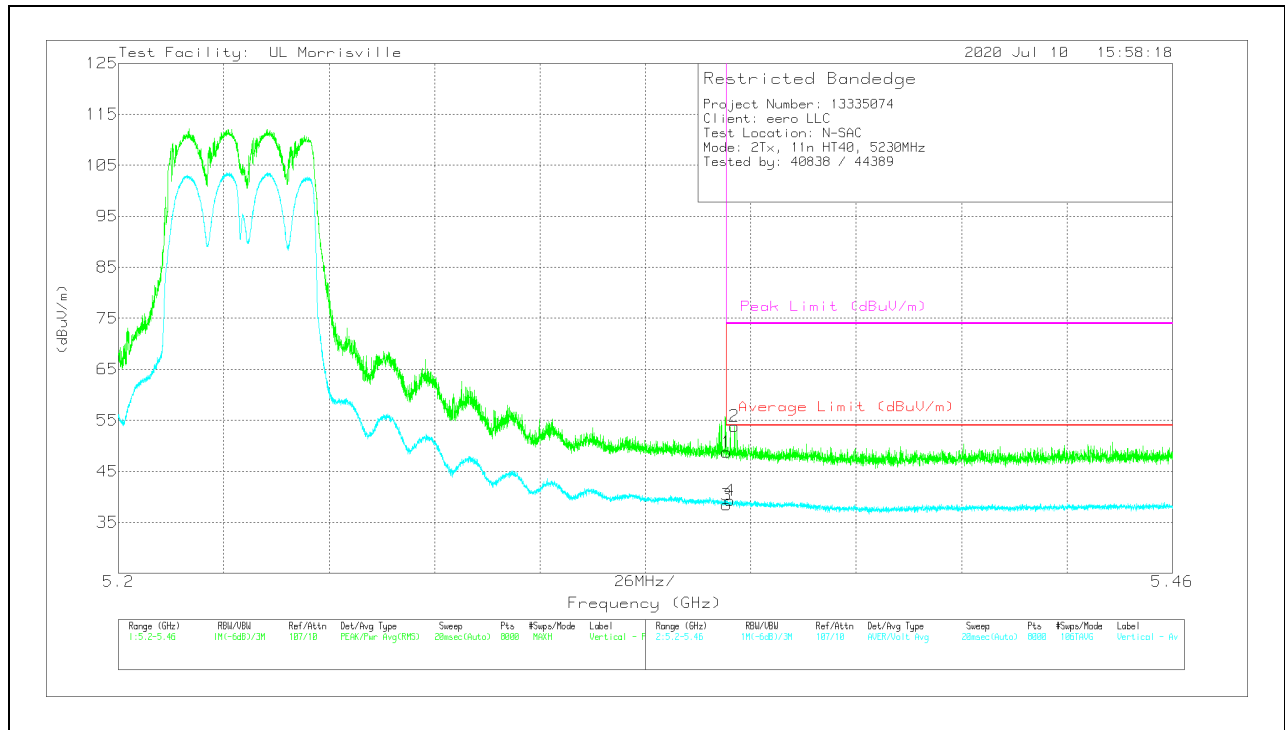
**HORIZONTAL RESULT**



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 5.35001	34.66	Pk	34.4	-22.1	0	46.96	-	-	74	-27.04	154	323	H
2	* ** 5.35004	39.05	Pk	34.4	-22.1	0	51.35	-	-	74	-22.65	154	323	H
3	* ** 5.35001	25.22	ADV	34.4	-22.1	.51	38.03	54	-15.97	-	-	154	323	H
4	* ** 5.44329	25.82	ADV	34.4	-22	.51	38.73	54	-15.27	-	-	154	323	H

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 \*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band  
 Pk - Peak detector  
 ADV - Linear Voltage Average

### VERTICAL RESULT



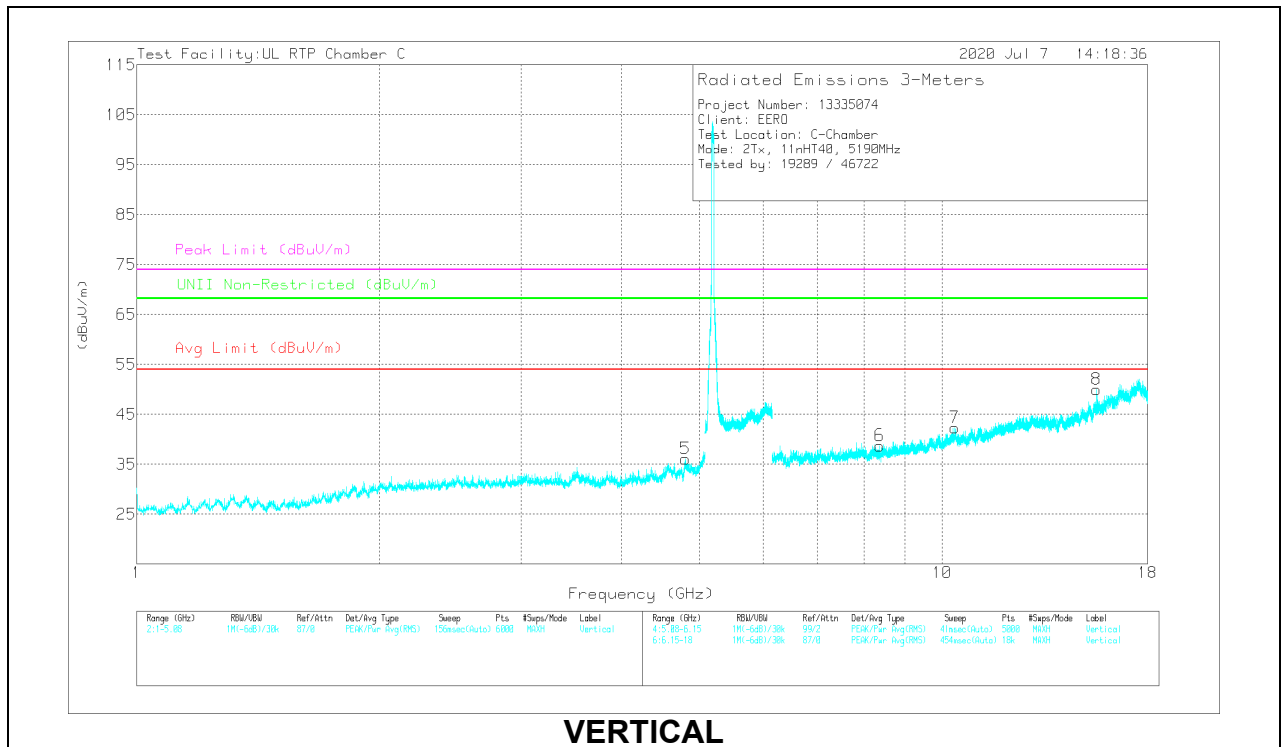
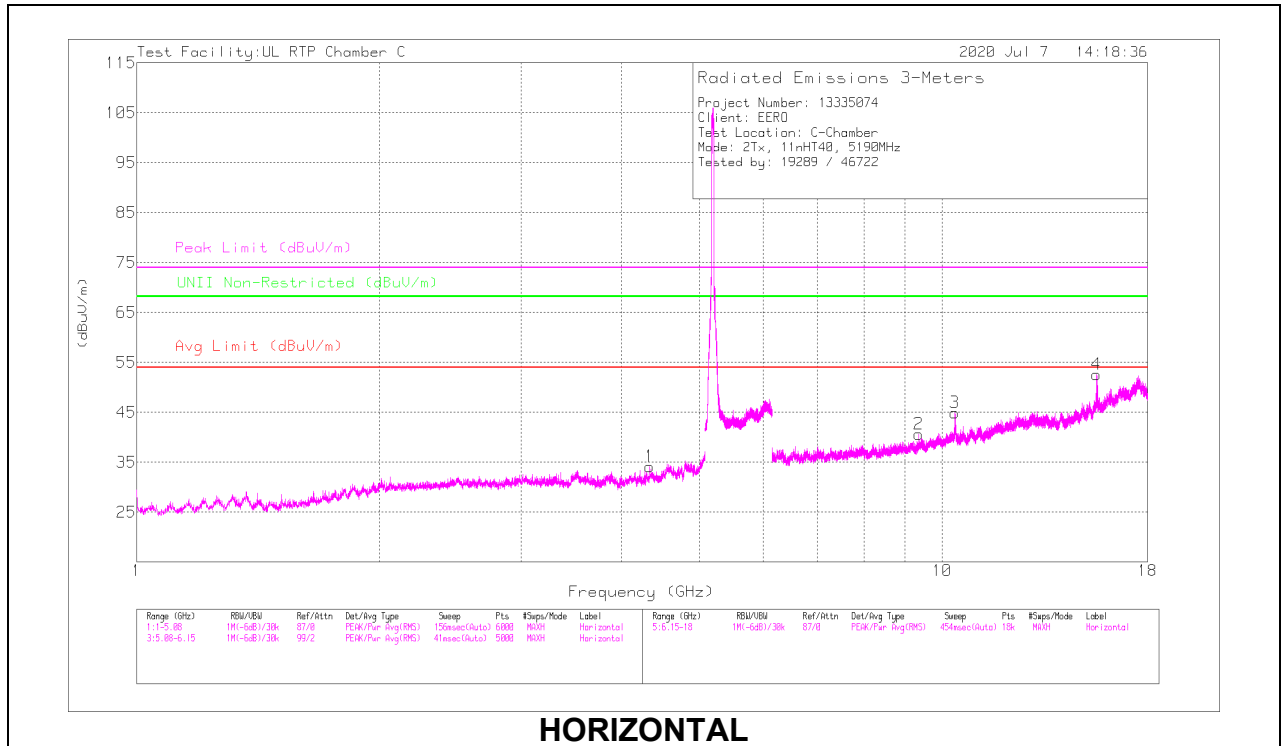
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB(m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 5.35001	36.47	Pk	34.4	-22.1	0	48.77	-	-	74	-25.23	225	196	V
2	* ** 5.35192	41.53	Pk	34.4	-22.1	0	53.83	-	-	74	-20.17	225	196	V
3	* ** 5.35001	25.57	ADV	34.4	-22.1	.51	38.38	54	-15.62	-	-	225	196	V
4	* ** 5.35085	26.5	ADV	34.4	-22.1	.51	39.31	54	-14.69	-	-	225	196	V

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 \*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band  
 Pk - Peak detector  
 ADV - Linear Voltage Average



**HARMONICS AND SPURIOUS EMISSIONS**

**LOW CHANNEL RESULTS**



**RADIATED EMISSIONS**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0062 (dB/m)	Amp/Cbl/Filtr/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	*** 4.33459	55.22	PK-U	33.6	-49.2	0	39.62	-	-	74	-34.38	-	-	316	102	H
	*** 4.33706	42.43	ADV	33.6	-49.2	.51	27.34	54	-26.66	-	-	-	-	316	102	H
5	*** 4.79955	55.55	PK-U	34.1	-48.7	0	40.95	-	-	74	-33.05	-	-	231	105	V
	*** 4.79954	42.86	ADV	34.1	-48.7	.51	28.77	54	-25.23	-	-	-	-	231	105	V
2	*** 9.35934	54.18	PK-U	36.3	-44.4	0	46.08	-	-	74	-27.92	-	-	29	266	H
	*** 9.35906	40.92	ADV	36.3	-44.3	.51	33.43	54	-20.57	-	-	-	-	29	266	H
4	*** 15.56331	57.13	PK-U	40.5	-38.5	0	59.13	-	-	74	-14.87	-	-	68	106	H
	*** 15.56316	42.49	ADV	40.5	-38.5	.51	45	54	-9	-	-	-	-	68	106	H
6	*** 8.36753	53.38	PK-U	35.8	-46	0	43.18	-	-	74	-30.82	-	-	167	102	V
	*** 8.36575	41.08	ADV	35.8	-46	.51	31.39	54	-22.61	-	-	-	-	167	102	V
8	*** 15.55464	52.57	PK-U	40.4	-38.1	0	54.87	-	-	74	-19.13	-	-	341	109	V
	*** 15.55337	39.47	ADV	40.4	-38	.51	42.38	54	-11.62	-	-	-	-	341	109	V
7	10.37697	57.04	PK-U	37.3	-43.7	0	50.64	-	-	-	-	68.2	-17.56	272	102	V
3	10.37894	59.15	PK-U	37.3	-43.8	0	52.65	-	-	-	-	68.2	-15.55	12	102	H

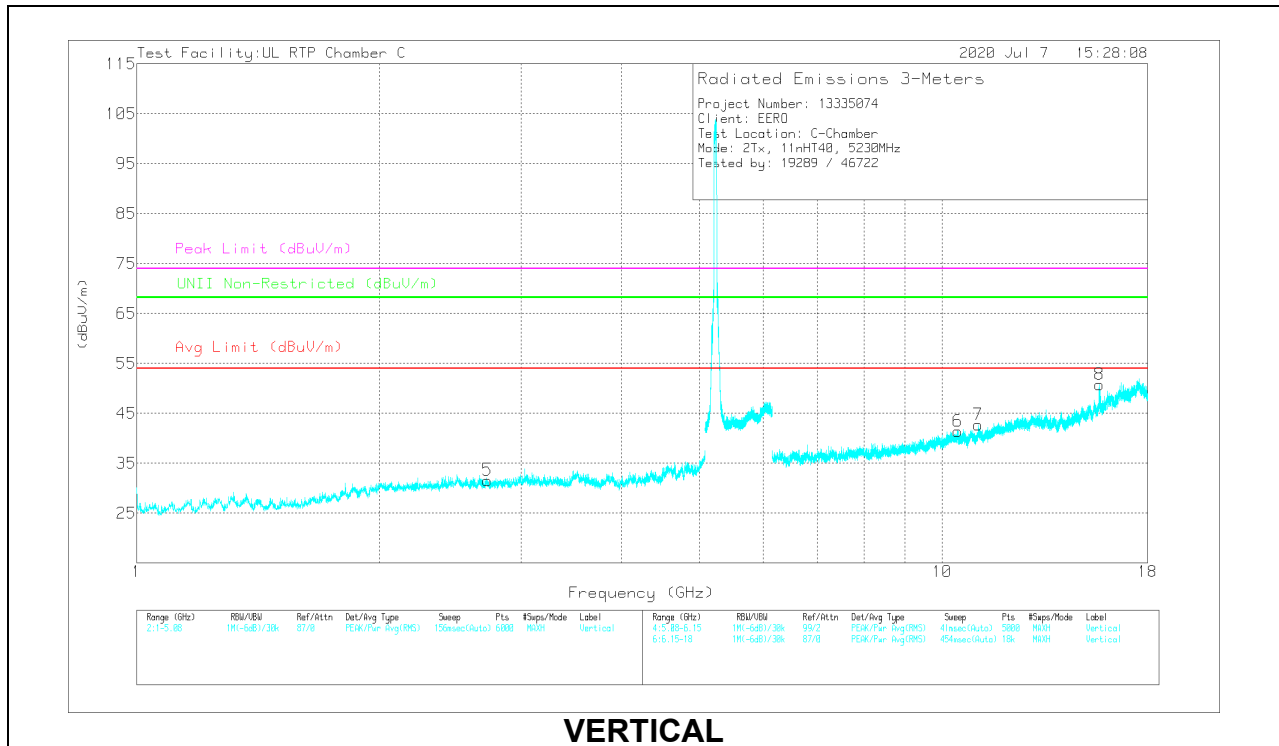
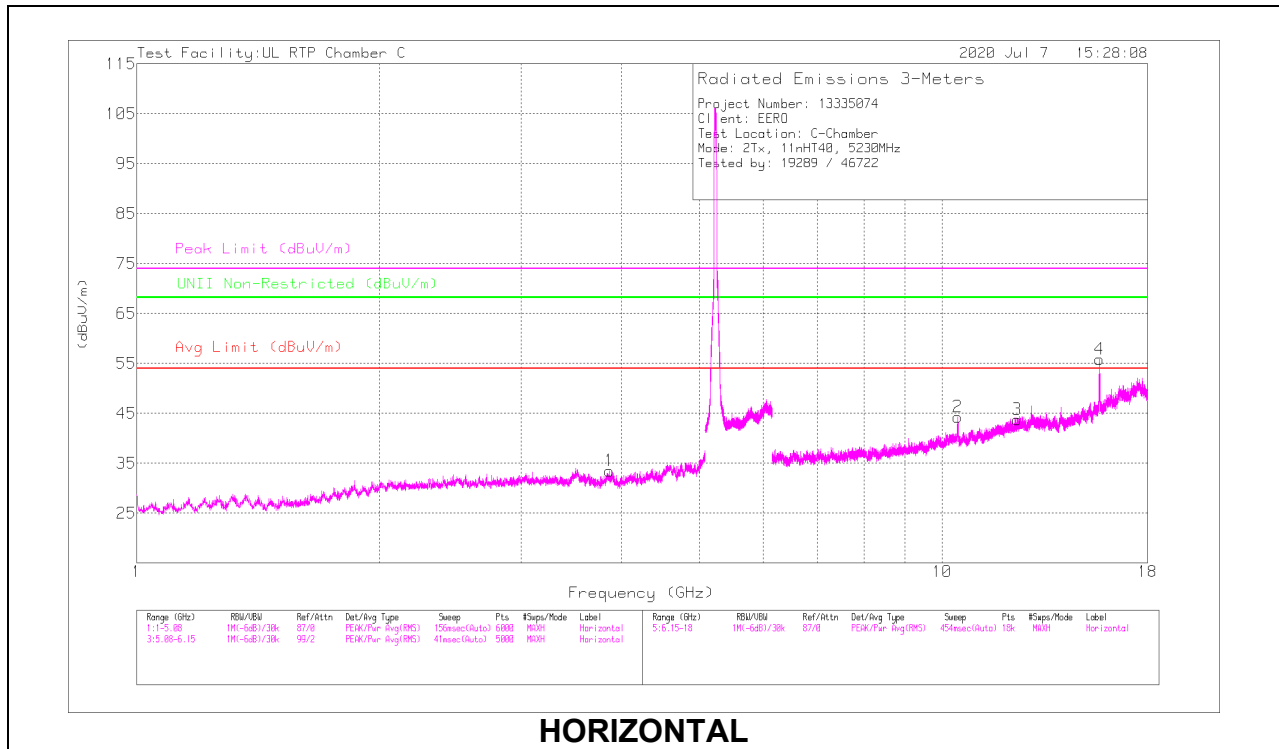
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

\*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK-U - Maximum Peak

ADV - Linear Voltage Average

### HIGH CHANNEL RESULTS



**RADIATED EMISSIONS**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0062 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 3.86637	55.13	PK-U	33.5	-49.7	0	38.93	-	-	74	-35.07	-	-	187	244	H
	*** 3.8641	42.8	ADV	33.5	-49.6	.51	27.21	54	-26.79	-	-	-	-	187	244	H
5	*** 2.72682	57.29	PK-U	32.3	-51.9	0	37.69	-	-	74	-36.31	-	-	341	103	V
	*** 2.72804	44.44	ADV	32.3	-51.9	.51	25.35	54	-28.65	-	-	-	-	341	103	V
3	*** 12.39031	51.44	PK-U	39	-40.1	0	50.34	-	-	74	-23.66	-	-	309	179	H
	*** 12.3855	38.6	ADV	39	-40.3	.51	37.81	54	-16.19	-	-	-	-	309	179	H
4	*** 15.69276	57.97	PK-U	40.7	-36.9	0	61.77	-	-	74	-12.23	-	-	22	111	H
	*** 15.69218	44.19	ADV	40.7	-36.8	.51	48.6	54	-5.4	-	-	-	-	22	111	H
7	*** 11.09704	52.06	PK-U	37.7	-42.8	0	46.96	-	-	74	-27.04	-	-	273	209	V
	*** 11.09772	39.89	ADV	37.7	-42.8	.51	35.3	54	-18.7	-	-	-	-	273	209	V
8	*** 15.69133	55.13	PK-U	40.7	-36.7	0	59.13	-	-	74	-14.87	-	-	324	123	V
	*** 15.692	41.79	ADV	40.7	-36.8	.51	46.2	54	-7.8	-	-	-	-	324	123	V
6	10.45883	53.79	PK-U	37.4	-42.6	0	48.59	-	-	-	-	68.2	-19.61	129	108	V
2	10.45888	56.91	PK-U	37.4	-42.6	0	51.71	-	-	-	-	68.2	-16.49	4	102	H

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

\*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK-U - Maximum Peak

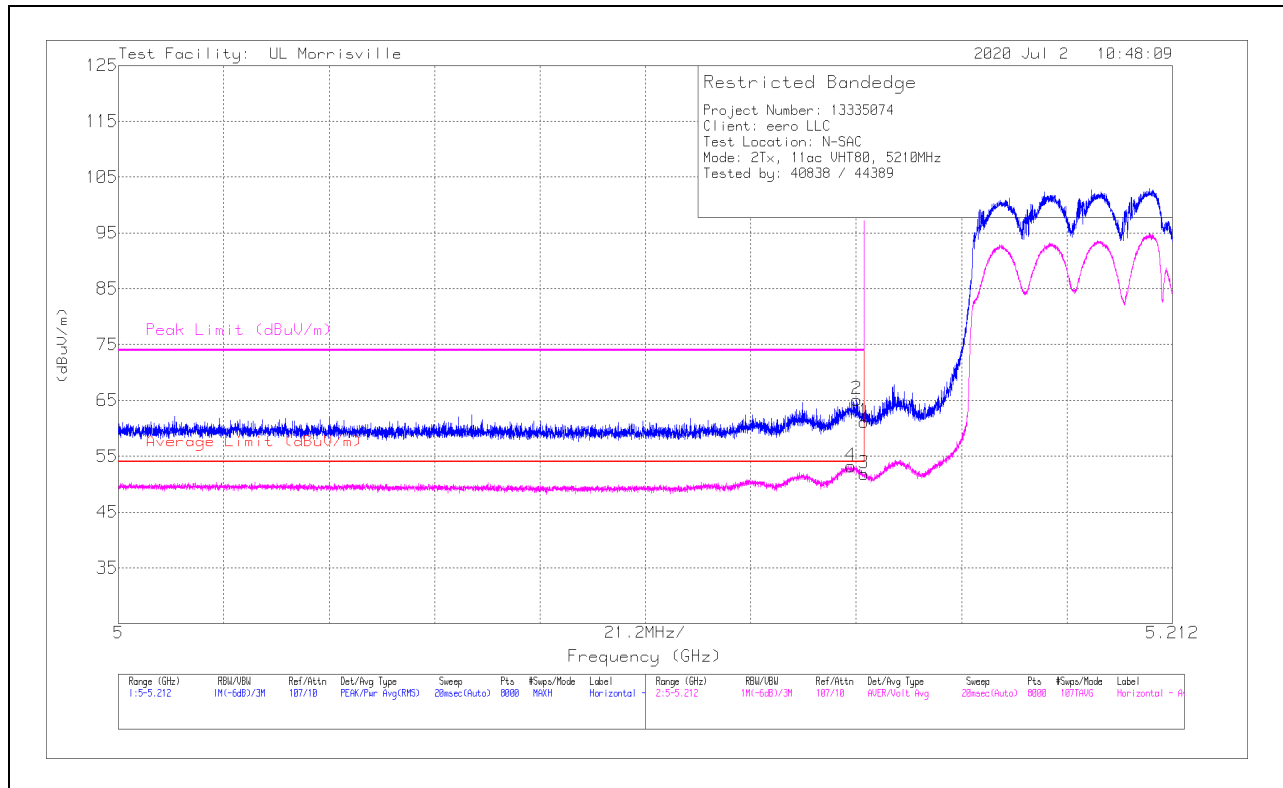
ADV - Linear Voltage Average

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

#### 2TX Antenna 1 + Antenna 2 CDD MODE

#### LOW BANDEDGE (MID CHANNEL)

#### HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB(/m)	Amp/Cbl/Filtr/Pad (dB)	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	* ** 5.14998	38.7	Pk	34.2	-21.7	10	0	61.2	-	-	74	-12.8	308	229	H
2	* ** 5.14852	42.65	Pk	34.2	-21.7	10	0	65.15	-	-	74	-8.85	308	229	H
3	* ** 5.14998	28.79	ADV	34.2	-21.7	10	.59	51.88	54	-2.12	-	-	308	229	H
4	* ** 5.14738	30.16	ADV	34.2	-21.7	10	.59	53.25	54	-.75	-	-	308	229	H

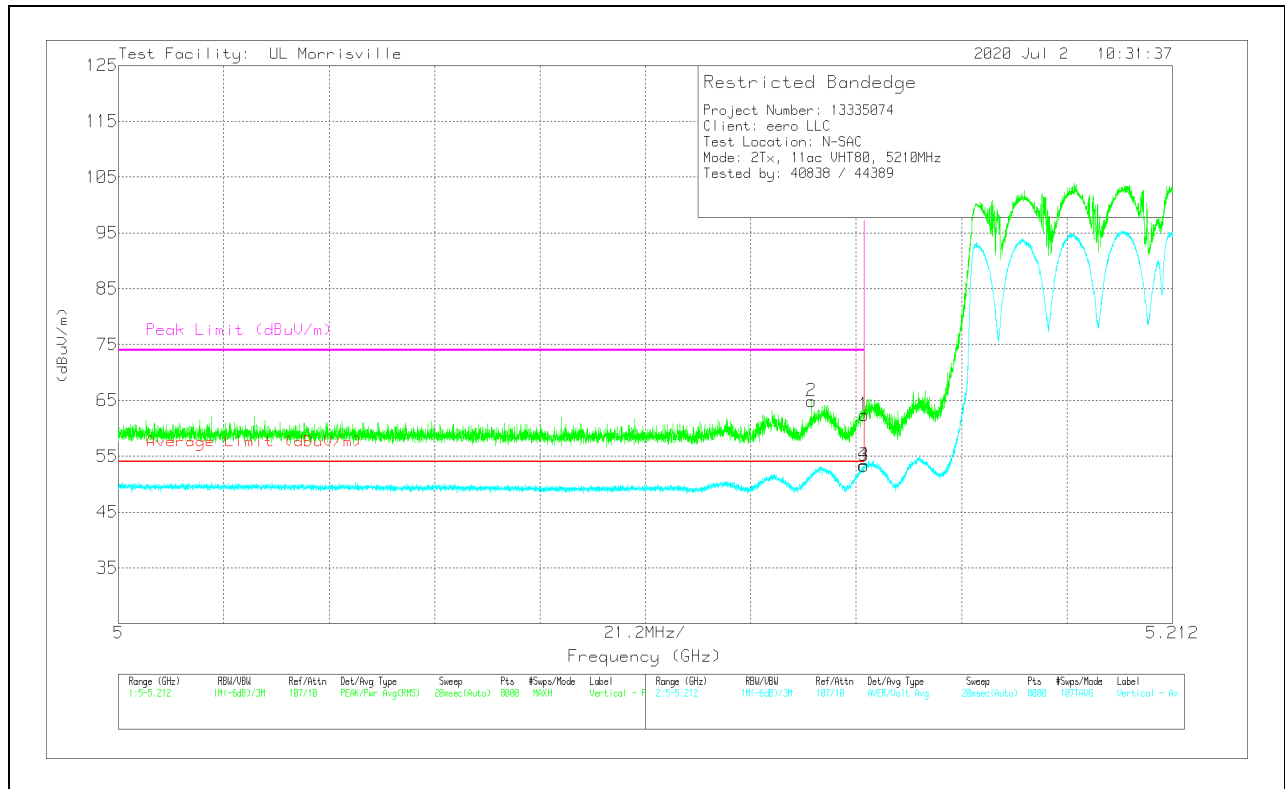
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

\*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

### VERTICAL RESULT

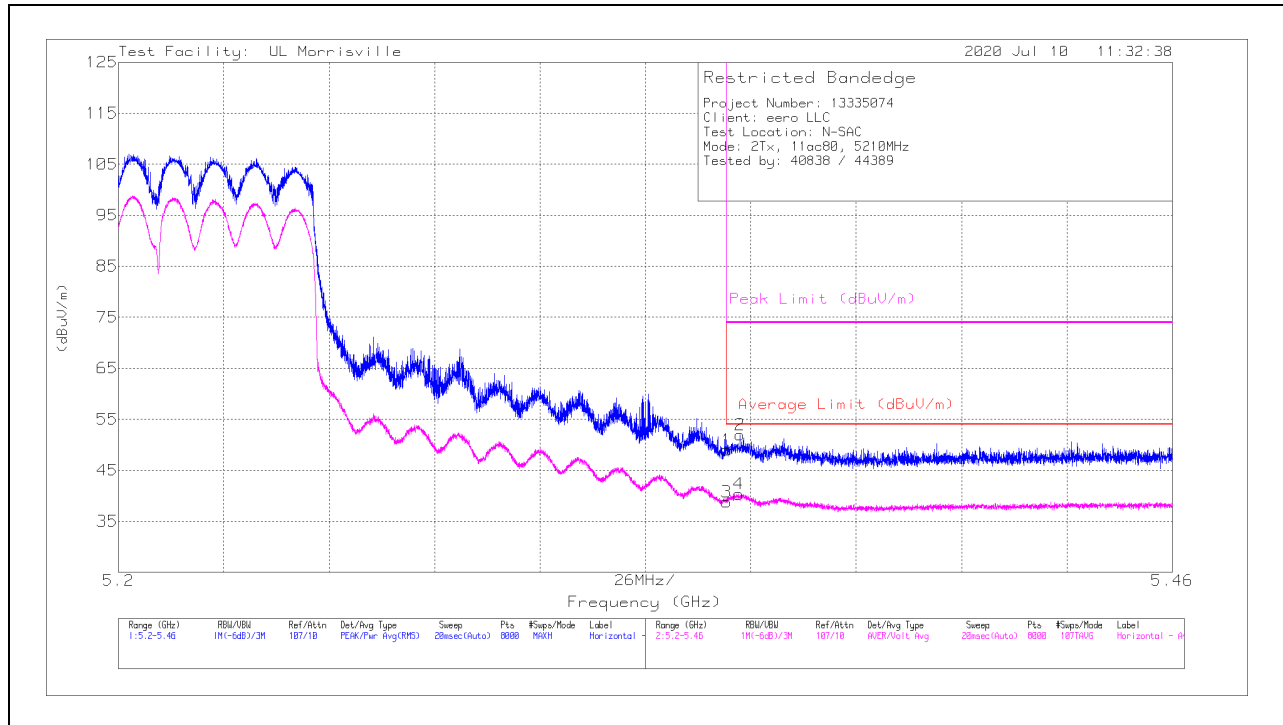


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB/(m)	Amp/Cbl/Filtr/Pad (dB)	Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 5.14998	39.88	Pk	34.2	-21.7	10	0	62.38	-	-	74	-11.62	156	115	V
2	* ** 5.13938	42.24	Pk	34.3	-21.7	10	0	64.84	-	-	74	-9.16	156	115	V
3	* ** 5.14998	30.21	ADV	34.2	-21.7	10	.59	53.3	54	-7	-	-	156	115	V
4	* ** 5.14993	30.28	ADV	34.2	-21.7	10	.59	53.37	54	-63	-	-	156	115	V

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 \*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band  
 Pk - Peak detector  
 ADV - Linear Voltage Average

**HIGH BANDEDGE (MID CHANNEL)**

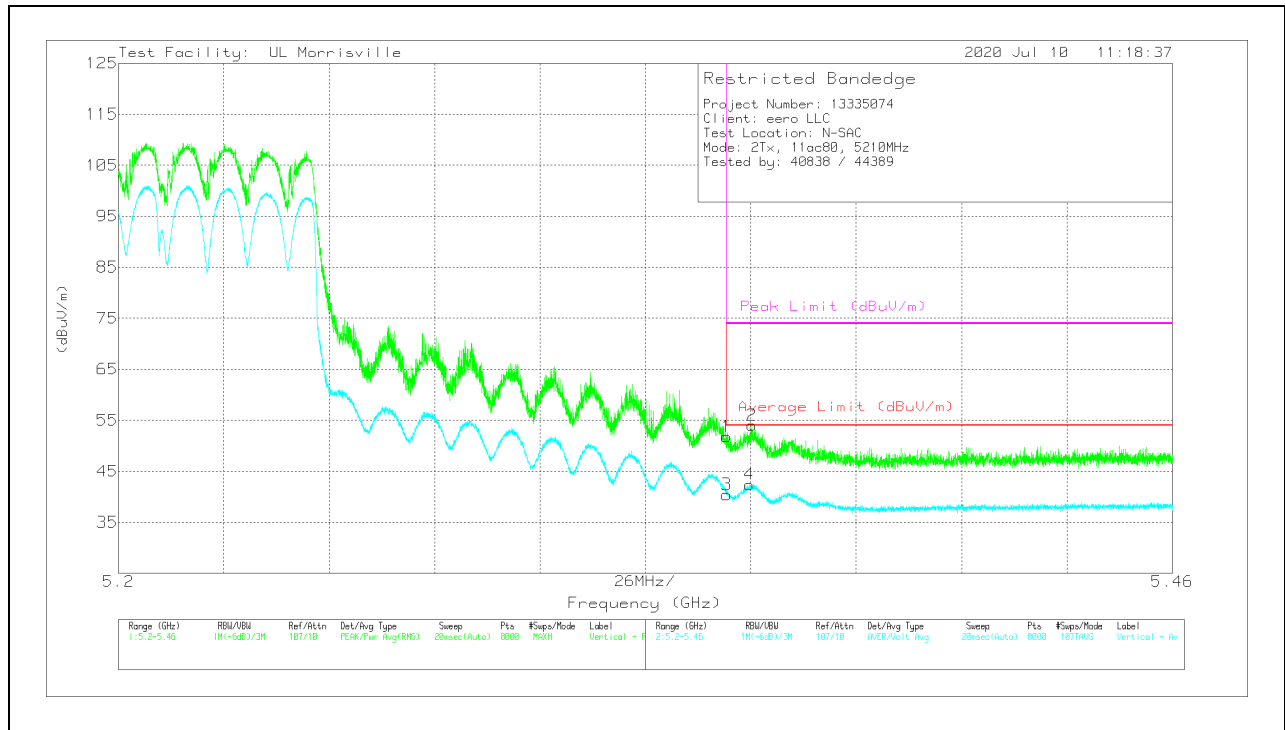
**HORIZONTAL RESULT**



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB(m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 5.35001	36.71	Pk	34.4	-22.1	0	49.01	-	-	74	-24.99	300	281	H
2	* ** 5.35329	39.66	Pk	34.4	-22.1	0	51.96	-	-	74	-22.04	300	281	H
3	* ** 5.35001	25.92	ADV	34.4	-22.1	.59	38.81	54	-15.19	-	-	300	281	H
4	* ** 5.35303	27.45	ADV	34.4	-22.1	.59	40.34	54	-13.66	-	-	300	281	H

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 \*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band  
 Pk - Peak detector  
 ADV - Linear Voltage Average

### VERTICAL RESULT



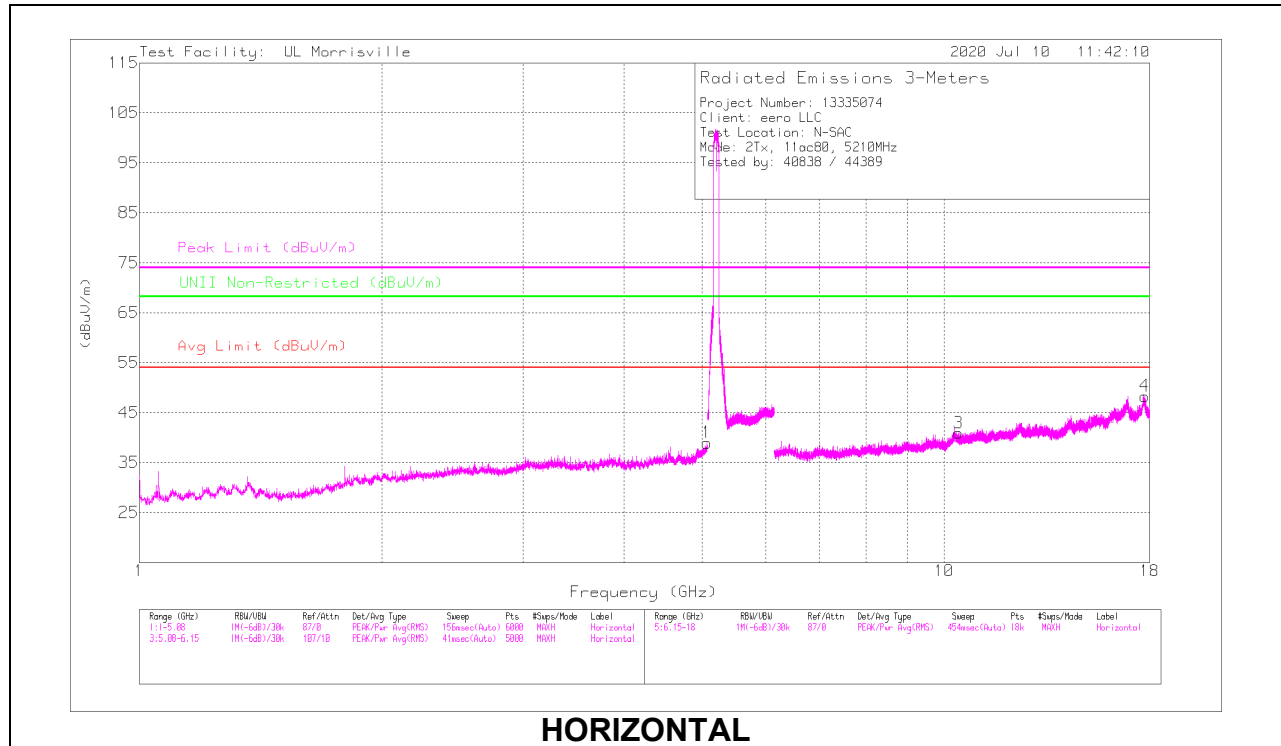
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB/(m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 5.35001	39.48	Pk	34.4	-22.1	0	51.78	-	-	74	-22.22	227	207	V
2	*** 5.35631	41.75	Pk	34.4	-22.1	0	54.05	-	-	74	-19.95	227	207	V
3	* ** 5.35001	27.55	ADV	34.4	-22.1	.59	40.44	54	-13.56	-	-	227	207	V
4	* ** 5.3556	29.53	ADV	34.4	-22.1	.59	42.42	54	-11.58	-	-	227	207	V

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 \*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band  
 Pk - Peak detector  
 ADV - Linear Voltage Average

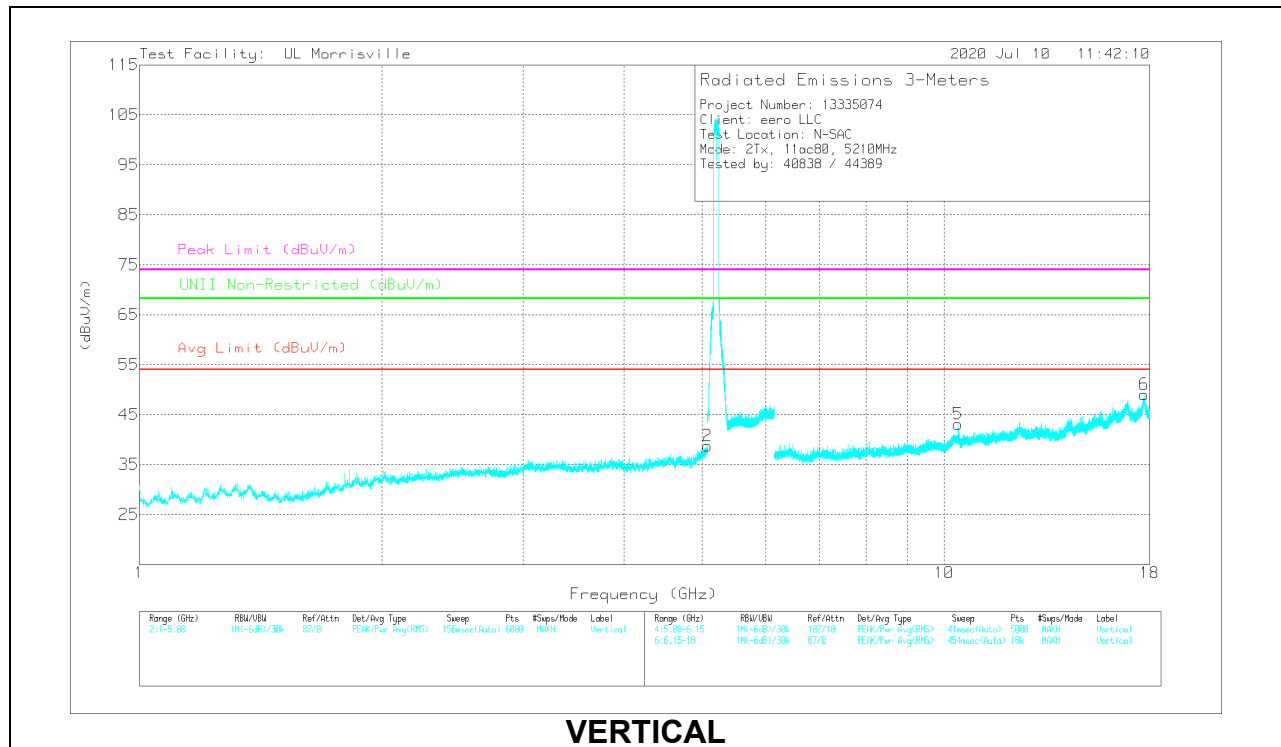


**HARMONICS AND SPURIOUS EMISSIONS**

**MID CHANNEL RESULTS**



**HORIZONTAL**



**VERTICAL**

**RADIATED EMISSIONS**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB(/m)	Amp/Cbl/Filtr/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	*** 5.07509	40.29	PK-U	34.2	-29.4	0	45.09	-	-	74	-28.91	-	-	325	374	H
	*** 5.07525	27.52	ADV	34.2	-29.4	.59	32.91	54	-21.09	-	-	-	-	325	374	H
2	*** 5.07682	40.18	PK-U	34.2	-29.3	0	45.08	-	-	74	-28.92	-	-	173	247	V
	*** 5.07687	27.39	ADV	34.2	-29.3	.59	32.88	54	-21.12	-	-	-	-	173	247	V
4	*** 17.74134	33.47	PK-U	41.7	-19.8	0	55.37	-	-	74	-18.63	-	-	36	135	H
	*** 17.7417	21	ADV	41.7	-19.8	.59	43.49	54	-10.51	-	-	-	-	36	135	H
6	*** 17.73149	33.2	PK-U	41.6	-19.7	0	55.1	-	-	74	-18.9	-	-	267	126	V
	*** 17.73023	20.76	ADV	41.7	-19.7	.59	43.35	54	-10.65	-	-	-	-	267	126	V
5	10.40575	36.18	PK-U	37.6	-25.7	0	48.08	-	-	-	-	68.2	-20.12	18	130	V
3	10.4181	35.53	PK-U	37.5	-26.1	0	46.93	-	-	-	-	68.2	-21.27	100	228	H

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

\*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK-U - Maximum Peak

ADV - Linear Voltage Average

## 11. SETUP PHOTOS

Please refer to R13335074-EP1 for setup photos.

**END OF TEST REPORT**