

Prüfbericht-Nr.: Test report no.:	IN26RGUW 001	Auftrags-Nr.: Order no.:	147163601 0010	Seite 1 von 148 Page 1 of 148
Kunden-Referenz-Nr.: Client reference no.:	1039889	Auftragsdatum: Order date:	2026-02-05	
Auftraggeber: Client:	Bosch Global Software Technologies Private Limited MS/PAC, Ban601, Post Box No 3000 Hosur Road, Adugodi Bengaluru 560030 India			
Prüfgegenstand: Test item:	iTraMS Gen2E HF			
Bezeichnung.: Identification .:	CU-403-1011-01 CU-403-1011-02			
Auftrags-Inhalt: Order content:	Testing and issue of Test Report with Grant Certificate			
Prüfgrundlage: Test specification:	FCC Part 15 Subpart C 15.207, 15.205 & 15.209 FCC Part 15 Subpart E 15.407			
Wareneingangsdatum: Date of sample receipt:	2026-03-17			
Prüfmuster-Nr: Test sample no:	A004227783-001, 003 A004227783-007, 009			
Prüfzeitraum: Testing period:	2026-04-01 - 2026-04-30			
Ort der Prüfung: Place of testing:	Wireless laboratory, Bangalore			
Prüflaboratorium: Testing laboratory:	TÜV Rheinland (India) Pvt. Ltd. 27/B, 2nd cross road, Electronic city Phase1, Bangalore-560100, India FCC Test Site Registration No: 496599			
Prüfergebnis*: Test result*:	Pass			
geprüft von: tested by:	genehmigt von: authorized by:			
Datum: Date: 2026-08-07		Ausstellungsdatum: Issue date: 2026-08-07		
Stellung / Position:	Darshan D Senior Engineer	Stellung / Position:	Yogesh V Assistant Manager	
Sonstiges / Other:	FCC ID: 2AVVT-CU4031011 IC: 25763-CU4031011			
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:	Prüfmuster vollständig und unbeschädigt Test item complete and undamaged			
* Legende:	P(ass) = entspricht o.g. Prüfgrundlage(n)	F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
* Legend:	P(ass) = passed a.m. test specification(s)	F(ail) = failed a.m. test specification(s)	N/A = not applicable	N/T = not tested
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- | | |
|----------|---|
| 1 | <p>Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben.</p> <p>Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.</p> <p><i>The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.</i></p> |
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| 3 | <p>Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben.</p> <p>Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt.</p> <p><i>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report.</i></p> <p><i>Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</i></p> |
| 4 | <p>Die Entscheidungsregel für Konformitätserklärungen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird.</p> <p><i>The decision rule for statements of conformity in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report.</i></p> |

TEST SUMMARY

Test Item	FCC Clause	Result
Emission Bandwidth	15.247 (a) (2), 15.407 (a) & (e)	N/T*
Frequency Stability	15.407 (g)	N/T*
Maximum conducted output power	15.247 (b) & 15.407 (a)	Pass
Maximum Power spectral density	15.247 (e) & 15.407 (a)	N/T*
Dynamic Frequency Selection	15.407 (h) FCC KDB Publication 905462 D02 & 905462 D03	N/T*
Spurious Radiated Emissions & Restricted Bands of Operation	15.407 (b) / (15.205 & 15.209)	Pass

N/T: Not Tested – These test cases have not been executed, as the product incorporates the certified RF module:

Wi-Fi & Bluetooth Module of **Quectel** wireless Solutions Co., Ltd. This module has been tested at **TA**

Technology (Shanghai)Co.,Ltd. under **FCC ID:XMR202303AF20**. Therefore, the mentioned test cases are

excluded, and relevant details can be found in the module's test reports of R2212A1318-R3V1 corresponding to the respective FCC ID.

Product Category: Electronics Testing
Test Discipline : EMC Test Facility

*N/T: Not tested

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REVISION HISTORY OF THIS REPORT

Report Number	Version	Description	Issue date
IN26RGUW 001	01	Initial issue of report	2026-08-07

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1 GENERAL REMARKS

1.1 Attachments

All attachments are part of this test report and are issued in separate document

1. TEST SETUP PHOTOS
2. EUT INTERNAL PHOTOS
3. EUT EXTERNAL PHOTOS
4. MAXIMUM PERMISSIBLE EXPOSURE INFORMATION

2 TEST SITES

2.1 Testing Facilities

1. TÜV Rheinland (India) Pvt.Ltd.,
27/B, 2nd Cross,
ElectronicCityPhase1
Bangalore – 560 100,
India

2. TUV Rheinland (India) Pvt.Ltd.,
108 , Beside ISBR Business School,
Electronic city Phase I
Bangalore - 560 100.
India

Radiated Measurement site type :
Fully anechoic chamber (used for above 1 GHz
measurements)

Radiated Measurement site type :
Semi anechoic chamber (used for below 1 GHz
measurements)

2.2 List of Test and Measurement Instruments

Table 1: List of test and measurement instruments

Equipment	Manufacturer	Model Name	Serial Number	Firmware Versions	Calibration Due Date	Periodicity	Test Facility
EMI Receiver	Rohde & Schwarz	ESW 44	101773	1.72 SP5	16.02.2027	Yearly	Radiated Spurious Emission
Active loop antenna	Frankonia	LAX-10	LAX-10-800	-	17.11.2026	Yearly	
Balun & Biconical Antenna	Schwarzbeck Mess-Elektronik	BBA 9106+VHBB 9124	9124-1117	-	11.04.2026	Yearly	
Log Periodic Antenna	Schwarzbeck Mess-Elektronik	VUSLP 9111B	9111B-324	-	26.05.2026	Yearly	
Horn Antenna	Schwarzbeck	BBHA 9120D	01944	-	11.11.2026	Yearly	
Double-Ridged Waveguide Horn Antenna	ETS	116706	00107323	-	16.05.2026	Yearly	
EMI Test Receiver	Rohde & Schwarz	ESW44	101732	1.72.SP1	20.11.2026	Yearly	Antenna – Port Conducted
10dB Attenuator	Rohde & Schwarz	NA	NA		10.10.2026		
Spectrum Analyzer	Agilent	E4407B	US41192772	-	16.01.2027	Yearly	

Table 2: Instrument application Software versions

SL. No.	Test Type	Application software	Version
1	Radiated spurious emission measurement in SAC	BAT EMC	3.20.0.17
2	Radiated spurious emission measurement in FAC	EMC 32	10.60.00

3 GENERAL PRODUCT INFORMATION

3.1 Product Function and Intended Use

iTraMS is a platform for TCU or CCU that is an onboard system that controls wireless tracking, diagnostics and communication to/from the vehicle; these systems can be used for fleet management and vehicle tracking, among many others. This CCU has the following connectivity solutions:

1. Wireless Connectivity :

- Cellular – LTE
- WLAN
- Wi-Fi
- GNSS

2. Wireless Connectivity :

- CAN
- Ethernet
- USB

3.2 Ratings and System Details of Equipment under Test

Table 3: Ratings and System Details as declared by the Client*

Radio Protocol		WI-FI 5GHz
Operating Frequency Range		UNII-1 _ 5150MHz to 5250MHz UNII-2a _ 5250MHz to 5320MHz UNII-2c _ 5500MHz to 5700MHz UNII-3 _ 5725MHz to 5825MHz
No. of Channels		(Refer Table 5)
Channel Spacing		5 MHz
Modulation		802.11a : 6Mbps 802.11n HT20: MCS0 802.11n HT40: MCS0 802.11ac VHT80: MCS0
Maximum Measured e.i.r.p		11.13dBm @ 5270MHz n-HT40_MCS0
Number of antennas		1
Antenna type & gain		Internal
Supply Voltage to Product		12V DC 200ma approx.
Environmental conditions	Operating	-40 °C to 70 °C
	Storage	-40 °C to 80°C
EUT Dimension(LXW)		190 mm L x 95 mm W x 42 mm H

Antenna Details:

Antenna Type	Channel Frequency (MHz)	Antenna Gain (dBi)
Wi-Fi FPC Antenna	2400	3.3
	2450	3.1
	2500	3.1
	5150	2.5
	5500	2.6
	5850	2.9

Table 4: Wi-Fi FPC Antenna Gain

***Disclaimer:** The information/data is supplied by the client and the same is considered to arrive at the final value. Any changes made apart from the specified specification, can directly impact on the tests results. Refer the products user manual for more details.

3.3 Measurement Uncertainty:

Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$

Table 5: Measurement Uncertainty

Parameter	Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±1.5 dB
Power Spectral Density, conducted	±3 dB
Unwanted Emissions, conducted	±3 dB
SAC, radiated measurement	±6 dB
FAC, radiated measurement	±6 dB
Temperature	±3 °C
Supply Voltages	±3 %
Time	±5 %

4 TEST SET-UP AND OPERATION MODE

4.1 Principle of Configuration Selection

Transmission was enabled with highest possible duty cycle on low, mid and high channels.

4.2 UUT Operation and Software

Software Version: 02.004.00
CU-403-1011-01- AD00 A1 0143 5EA
Hardware Version: CU-403-1011-02 - AD00 A1 0154 5EA

4.3 Special Accessories and Auxiliary Equipment

- None

4.4 Simultaneous Transmission

- This product supports Simultaneous operation.

4.5 Countermeasures to achieve EMC Compliance

- None

Note:

TUV Sample Identification number: – A004227783-001 Radiated test Sample
A004227783-003 Conducted test Sample

4.6 List of frequencies

Frequency Band	Channel No.	Frequency (MHz)
UNII 1 (5180–5240 MHz)	36	5180
	38	5190
	40	5200
	46	5230
	48	5240
UNII 2A (5260-5320 MHz)	52	5260
	54	5270
	56	5280
	58	5290
	60	5300
	62	5310
	64	5320
UNII 2C (5500-5700 MHz)	100	5500
	102	5510
	106	5530
	108	5540
	112	5560
	116	5580
	120	5600
	124	5620
	128	5640
	132	5660
	134	5670
	136	5680
UNII 3 (5745-5825 MHz)	138	5690
	140	5700
	149	5745
	151	5755
	157	5785
	159	5795
	165	5825

Table 6: List of Wi-Fi center Frequencies

Channel used for Wi-Fi Testing:

Channel Bandwidth (20MHz)	Channel Bandwidth (40MHz)	Channel Bandwidth (80MHz)
5180	5190	5210
5240	5230	5290
5260	5270	5530
5320	5310	5610
5500	5510	5775
5600	5590	-
5700	5670	-
5745	5755	-
5825	5795	-

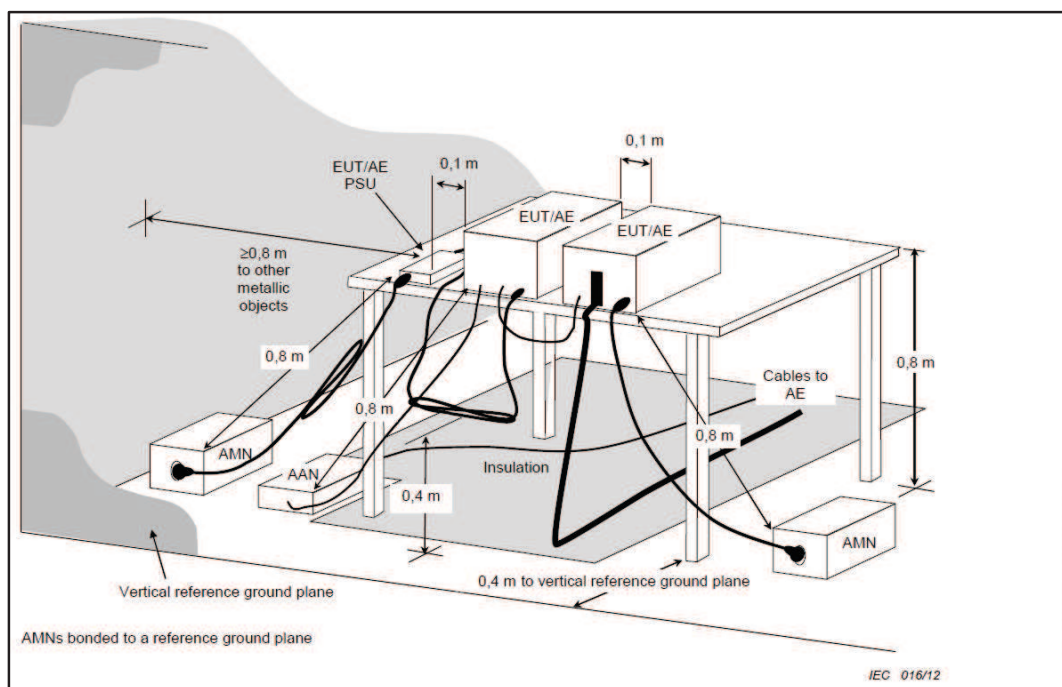
5 OPERATIONAL DESCRIPTION

The iTraMS Gen2E CCU has a NAD (Network Access Device) module AG35 and a microcontroller RH850, which are connected over SPI to enable telematics functionality.

The AG35 NAD module comes from Quectel and is a North America specific variant. It functions only with North America regional LTE bands. It also contains embedded GNSS supporting GPS/GLONASS/Beidou/Galileo/QZSS and supports location-based telematics features such as tracking and geofencing. The internal antenna HW variant has dedicated LTE & GNSS antennas on the PCB.

The RH850 microcontroller comes from Renesas and collects vehicle data over the CAN network. It enables telematics related features on vehicle parameters such as engine performance.

The CCU also has an on-board accelerometer & gyro sensor, SMI230 from Bosch, which enables inertial monitoring



6.2 Radiated Emission Test

The radiated emission measurement was performed according to the procedures in ANSI C63.10-2020. The equipment under test (EUT) was placed at the middle of the 80 cm high turntable for below 1 GHz & 1.5 m height for above 1 GHz measurement, and the EUT is 3 meters far from the measuring antenna. The turntable was rotated 360° for obtaining the maximum emission. The height of the measuring antennas was scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations. Repeat the measurement steps until the maximum emissions were obtained. The measurement above 1000 MHz was performed by horn antenna, The measurement below 30 MHz was performed by loop antenna, Measurement from 30 MHz to 200 MHz was performed by Baloon and Biconical Antenna, and measurement from 200 MHz to 1 GHz was performed by Log-Periodic Antenna.

The EUT was rotated around the X-, Y-, and Z-Axis and the results from worst case axis are recorded

6.2.1 Test Setup Configuration

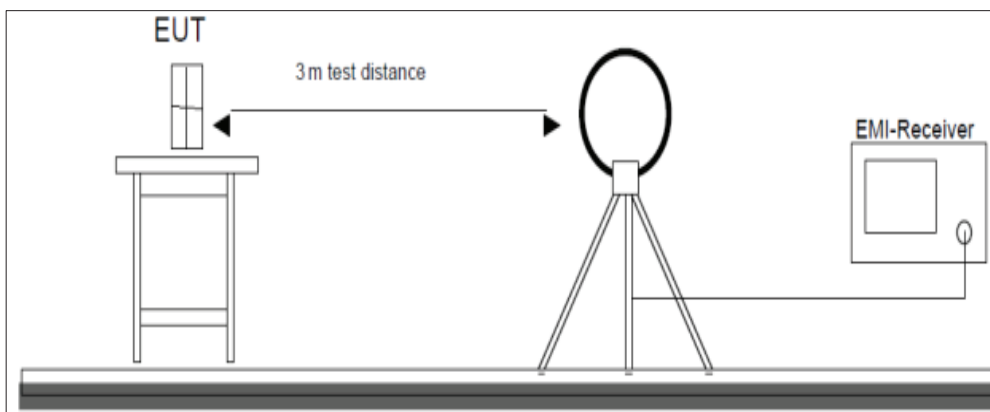


Figure 1: Frequency Range 9 kHz- 30 MHz

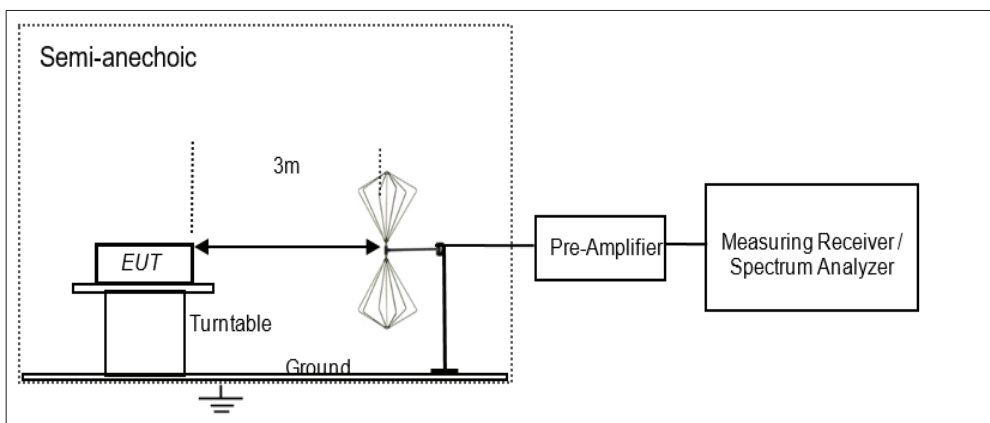


Figure 2: Frequency Range 30 MHz – 200 MHz

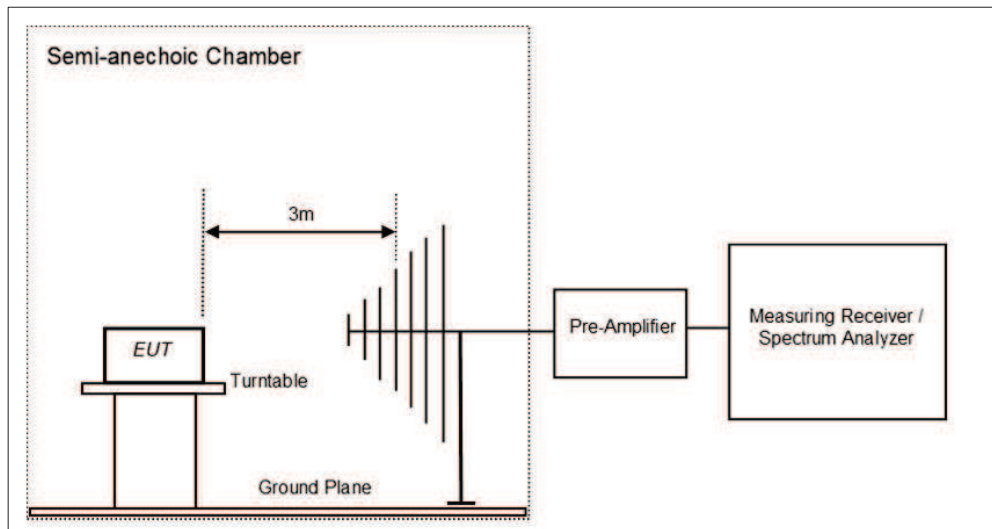


Figure 3: Frequency Range 200 MHz - 1GHz

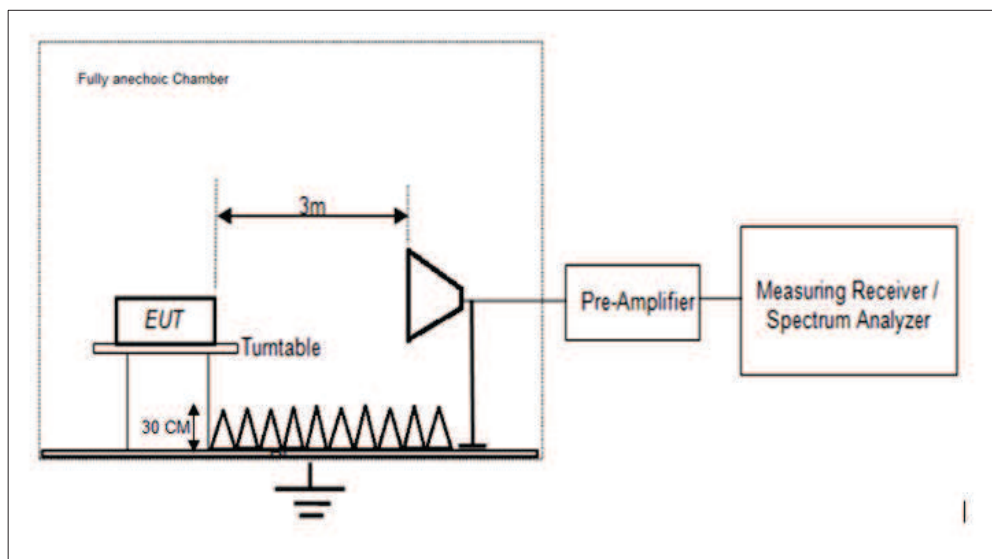


Figure 4: Frequency Range above 1 GHz

Frequency Range 30MHz to 10th harmonics of the highest fundamental frequency

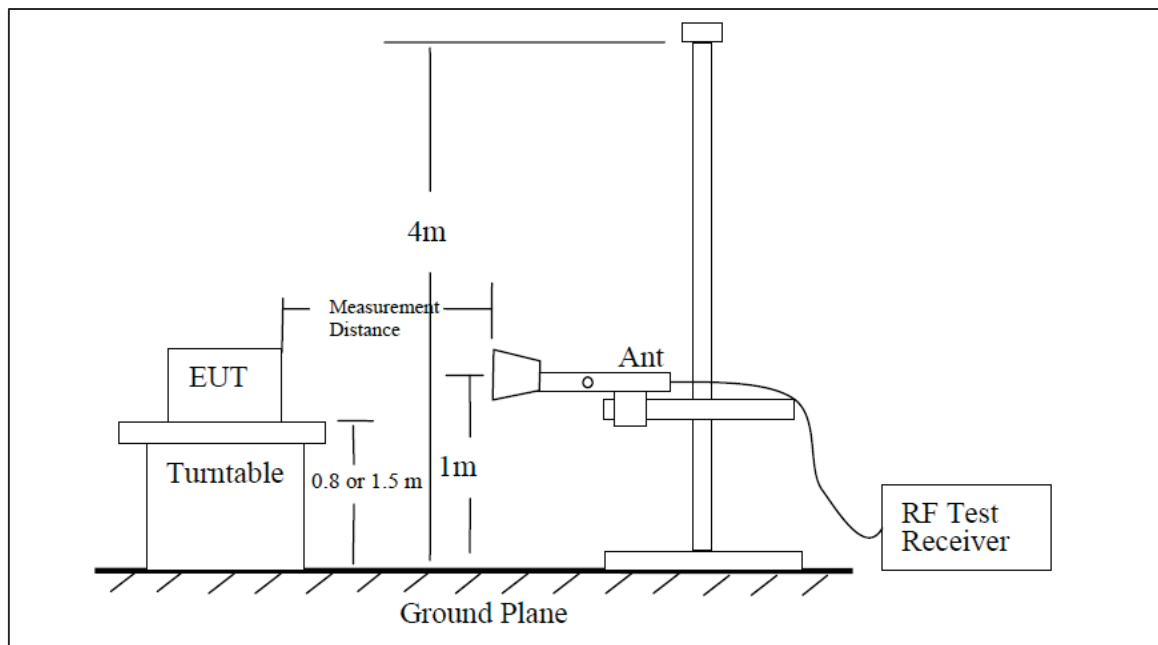
Test performed as per ANSI C63.10-2020

Radiated spurious emission test are performed as below.

All the radiated emission measurements are performed in accordance with common requirement specified in 5.2 followed by substitution measurement as listed below

The equipment under test is placed on non-conductive table at 3m away from the receive antenna in accordance with above mentioned standard. Turn table is rotated through 360 degree, and receiver antenna height is varied in order to determine the level of maximum emission. The maximum emission level and position of the maximized emission is recorded with use of spectrum analyzer.

Test set-up for radiated measurements



7 TEST RESULTS FOR WI-FI 5GHz

7.1 Maximum Conducted Output Power

Result

Pass

Test Specification

FCC part 15 Subpart C & E, 15.247 (b), 15.407 (a)

Test Method

Subclause 11.9.2.3.2 of ANSI C63.10-2020

Measurement Bandwidth

Refer the remarks below

Detector

Average sample detector mode

Port of testing

Antenna port

Requirement for FCC

1. 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

2. For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz

3. For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W

1. For the band 5.15-5.25 GHz, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log₁₀ (B), dBm, whichever power is less. B is the 99% emission bandwidth in megahertz

2a. For the band 5.250 -5.350 GHz, the maximum conducted output power shall not exceed 250 mW or 11 + 10 log₁₀B, dBm, whichever is less

2b. For the band 5.250 -5.350 GHz, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log₁₀B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz

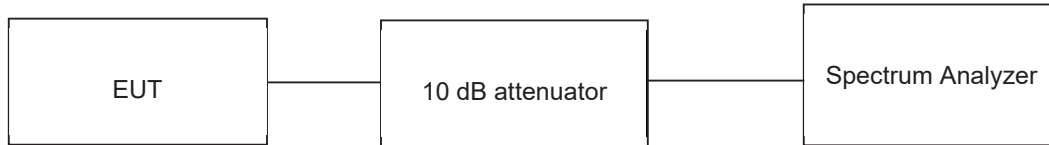
Requirement for IC

3a. For the band 5.470-5.725GHz, The maximum conducted output power shall not exceed 250 mW or 11 + 10 log₁₀B, dBm, whichever is less

3b. For the band 5.470-5.725GHz, The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log₁₀B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz

4. For the band 5.725-5.85 GHz, The maximum conducted output power shall not exceed 1 W

Test Method



The following procedure shall be used (trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction):

1. Set center frequency to the nominal EUT channel center frequency
2. Set span to encompass the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
3. Set RBW = 1MHz
4. Set VBW $\geq 3 \times$ RBW
5. Number of points in sweep $\geq 2 \times$ span / RBW. (This ensures that bin-to-bin spacing is $\leq$ RBW/2, so that narrowband signals are not lost between frequency bins.)
6. Sweep time = auto
7. Detector = power averaging (rms), if available. Otherwise, use sample detector mode
8. Do not use sweep triggering. Allow the sweep to "free run."
9. Trace average at least 100 traces and Compute power by integrating the spectrum across the EBW

Test Condition:

Normal Test Condition:

Temperature: +23.6°C

Voltage: 12V DC through DC supply

Relative Humidity: 62%

KDB Guidelines applied:

Measurements were made as per section E (2) sub-section (d) in KDB 789033 D02 General UNII Test Procedures New Rules v02r01

Test results:

Note:

All the losses are included during measurement and final values are mentioned in the test report

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Modulation: 802.11a:

Data rate	Measured Frequency (MHz)	Measured Average Power (dBm)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Maximum Average Power (dBm)	FCC Power Limit (dBm)
6Mbps	5180	9.77	0.94	0.26	10.03	30.00
	5240	10.11	0.94	0.26	10.37	30.00
	5260	9.55	0.94	0.26	9.81	24.00
	5320	10.01	0.94	0.26	10.27	24.00
	5500	8.48	0.94	0.26	8.74	24.00
	5600	10.3	0.94	0.26	10.56	24.00
	5700	7.43	0.94	0.26	7.69	24.00
	5745	9.48	0.93	0.29	9.77	30.00
	5825	10.32	0.93	0.29	10.61	30.00

Modulation: 802.11n-HT20:

Data Rate	Measured Frequency (MHz)	Measured Average Power (dBm)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Maximum Average Power (dBm)	FCC Power Limit (dBm)
MCS0	5180	9.48	0.94	0.26	9.74	30.00
	5240	9.78	0.94	0.26	10.04	30.00
	5260	9.28	0.94	0.26	9.54	24.00
	5320	9.68	0.94	0.26	9.94	24.00
	5500	7.17	0.94	0.26	7.43	24.00
	5600	10.05	0.94	0.26	10.31	24.00
	5700	7.13	0.94	0.26	7.39	24.00
	5745	9.28	0.94	0.25	9.53	30.00
	5825	10.12	0.94	0.25	10.37	30.00

Modulation: 802.11n-HT40:

Data Rate	Measured Frequency (MHz)	Measured Average Power (dBm)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Maximum Average Power (dBm)	FCC Power Limit (dBm)
MCS0	5190	7.87	0.85	0.68	8.55	30.00
	5230	10.26	0.85	0.68	10.94	30.00
	5270	10.45	0.85	0.68	11.13	24.00
	5310	8.56	0.85	0.68	9.24	24.00
	5510	6.76	0.85	0.68	7.44	24.00
	5590	10.29	0.85	0.68	10.97	24.00
	5670	10.15	0.85	0.68	10.83	24.00
	5755	10.11	0.86	0.64	10.75	30.00
	5795	10.05	0.86	0.64	10.69	30.00

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Modulation: 802.11ac-VHT20:

Data Rate	Measured Frequency (MHz)	Measured Average Power (dBm)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Maximum Average Power (dBm)	FCC Power Limit (dBm)
MCS0	5180	9.45	0.91	0.38	9.83	30.00
	5240	9.79	0.91	0.38	10.17	30.00
	5260	9.25	0.91	0.38	9.63	24.00
	5320	9.68	0.91	0.38	10.06	24.00
	5500	9.15	0.91	0.38	9.53	24.00
	5600	9.07	0.91	0.38	9.45	24.00
	5700	9.24	0.91	0.38	9.62	24.00
	5745	9.22	0.93	0.31	9.53	30.00
	5825	9.14	0.93	0.31	9.45	30.00

Modulation: 802.11ac-VHT40:

Data Rate	Measured Frequency (MHz)	Measured Average Power (dBm)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Maximum Average Power (dBm)	FCC Power Limit (dBm)
MCS0	5190	10.39	0.85	0.7	11.09	30.00
	5230	10.31	0.85	0.7	11.01	30.00
	5270	10.25	0.85	0.7	10.95	24.00
	5310	10.19	0.85	0.7	10.89	24.00
	5510	10.11	0.85	0.7	10.81	24.00
	5590	10.09	0.85	0.7	10.79	24.00
	5670	9.33	0.85	0.7	10.03	24.00
	5755	8.21	0.88	0.52	8.73	30.00
	5795	10.01	0.88	0.52	10.53	30.00

Modulation: 802.11ac-VHT80:

Data Rate	Measured Frequency (MHz)	Measured Average Power (dBm)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Maximum Average Power (dBm)	FCC Power Limit (dBm)
MCS0	5210	6.4	0.71	1.44	7.84	30.00
	5290	7.68	0.71	1.44	9.12	24.00
	5530	8.44	0.71	1.44	9.88	24.00
	5610	8.41	0.71	1.44	9.85	24.00
	5775	8.91	0.76	1.16	10.07	30.00

7.2 Spurious Radiated Emissions & Restricted Bands of Operation
Result Pass

Test Specification	FCC part 15 Subpart C & E Section 15.407 (b) (15.205 & 15.209)
Test Method	ANSI C 63.10 – 2020
Measurement Bandwidth	100kHz for below 1GHz 1MHz for above 1GHz
Measurement Location	Semi Anechoic Chamber 30MHz - 1 GHz Fully Anechoic Chamber 1 GHz - 40GHz
Measuring Distance	3 m
Detector	Refer Remark
Requirement	As per the limits mentioned in the below table
Test setup	Refer TEST METHODOLOGY

Limit:

Table 7: Undesirable emission limits

Frequency Band	Limit
5.15-5.25 GHz	e.i.r.p. -27dBm [68.2 dBuV/3m]
5.25-5.35 GHz	e.i.r.p. -27dBm [68.2 dBuV/3m]
5.47-5.725 GHz	e.i.r.p. -27dBm [68.2 dBuV/3m]
5.725-5.85 GHz	5.715 GHz to 5.725 GHz - e.i.r.p. -17dBm [78.2 dBuV/3m] 5.85 GHz to 5.86 GHz - e.i.r.p. -17dBm [78.2 dBuV/3m] other frequency range - e.i.r.p. -27dBm [68.2 dBuV/3m]

Table 8: Transmitter limits for Radiated emission

Frequency (MHz)	Field strength (μV/m)	Field strength (dBμV/m)	Distance of Measurement (m)
0.009 – 0.490	2400/F(kHz)	48.50 – 13.80	300*
0.490 – 1.705	24000/F(kHz)	33.80 – 23.00	30*
1.705 -30	30	29.54	30*
30-88	100	40.0	3
88-216	150	43.5	3
216-960	200	46.0	3
Above 960	500	54.0	3

Remark: * The limit shows in the table above of frequency range 0.009 – 0.490, 0.490 – 1.705 MHz and 1.705-30MHz is at 300 meter, 30 meter and 30 meter range respectively, which corresponds to 128.51 – 93.80, 73.80 – 62.96 and 69.54 dBμV/m at 3m range by extrapolation calculation and the measurement of loop antenna.

The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz Radiated emission limits in these three bands are based on measurements employing an average detector.

Test Condition:

Normal Test Condition:

Temperature: +23.6°C

Voltage: 12V DC through DC supply

Relative Humidity: 62%

Test results:

Note: All the losses are included during measurement and final values are mentioned in the test report. Refer TEST METHODOLOGY for more details

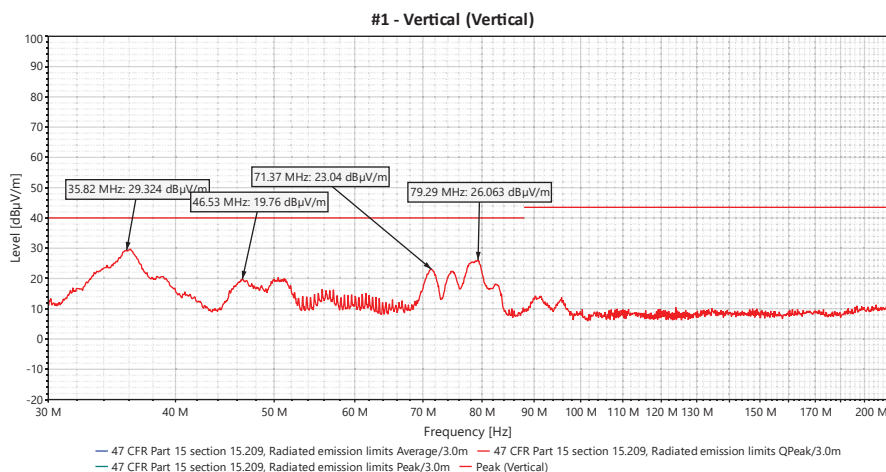
Test results for Frequency range : 9kHz – 30MHz

No emissions found in frequency range 9 kHz to 30 MHz, and measured levels are below 20dB from the limit line, hence not reported.

Test results for frequency range 30MHz – 1GHz

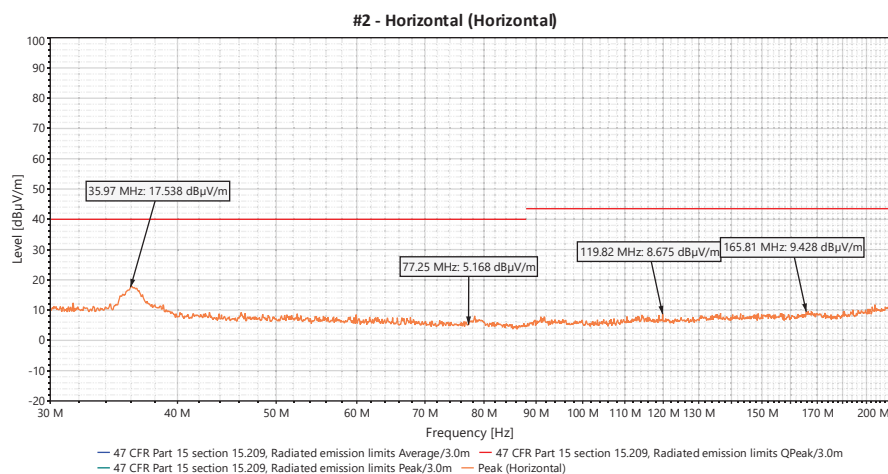
Antenna Polarization	Measured Frequency (MHz)	Spurious Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Vertical	35.82	29.32	40.00	-10.68
	46.53	19.76	40.00	-20.24
	71.37	23.04	40.00	-16.96
	79.29	26.06	40.00	-13.94
	278.75	17.99	46.00	-28.01
	506.24	17.99	46.00	-28.01
	535.82	30.41	46.00	-15.59
	696.74	22.37	46.00	-23.63
Horizontal	35.97	17.53	40.00	-22.47
	77.25	5.16	40.00	-34.84
	119.82	8.67	43.50	-34.83
	165.81	9.42	43.50	-34.08
	278.27	23.82	46.00	-22.18
	537.71	29.21	46.00	-16.79
	699.23	19.41	46.00	-26.59
	900.23	31.71	46.00	-14.29

Test Plots:



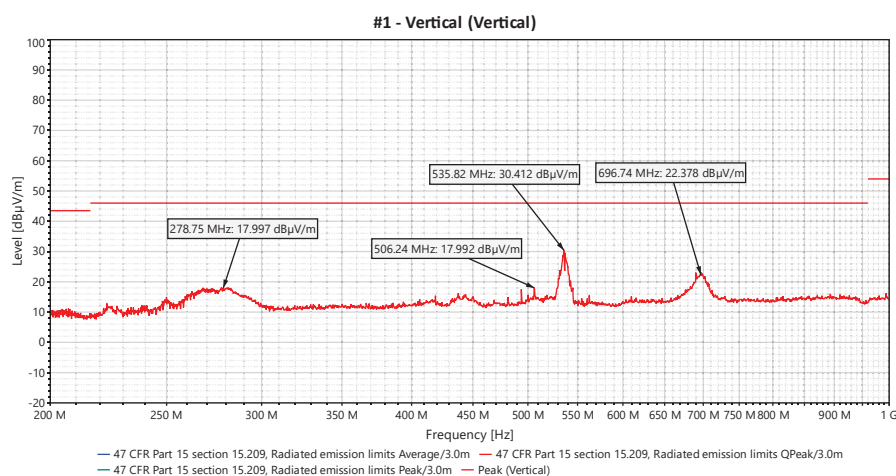
Channel Frequency 30MHz – 200MHz

Polarization Vertical



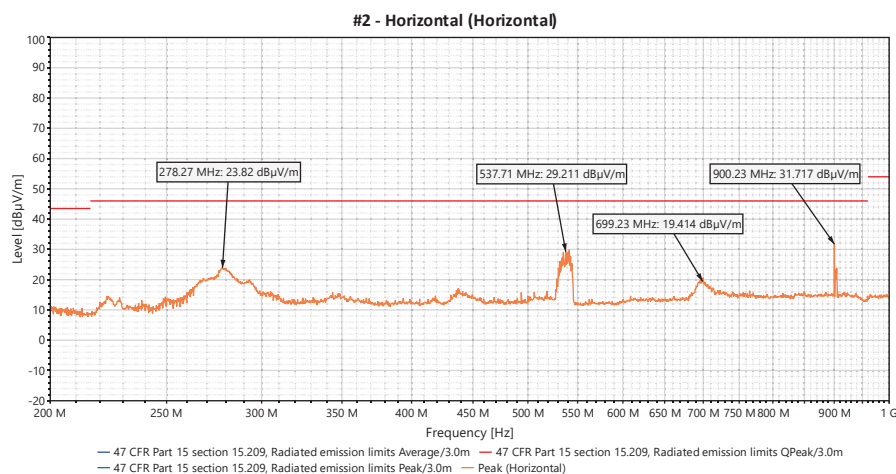
Channel Frequency 30MHz – 200MHz

Polarization Horizontal



Channel Frequency 200MHz – 1GHz

Polarization Vertical



Channel Frequency 200MHz – 1GHz

Polarization Horizontal

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Test results for frequency range – 1GHz to 26 GHz

Modulation: 802.11a

Data rate: 6Mbps

UNII Bands	Channel No.	Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBµV/m)	Limit (dBµV/m)	Margin (dB)
UNII 1	36	5180	5180 (Pk)	Vertical	95.31	-	-
			5180 (Av)		85.40	-	-
			5150 (Pk)		54.00	74.00	-20.00
			5150 (Av)		33.72	54.00	-20.28
			10360 (Pk)		40.13	68.23	-28.10
			10360 (Av)		52.51	54.00	-1.49
			15540 (Pk)		55.45	68.23	-12.78
			15540 (Av)		43.31	54.00	-10.69
			5180 (Pk)	Horizontal	86.82	-	-
			5180 (Av)		77.25	-	-
			5150 (Pk)		46.56	74.00	-27.44
			5150 (Av)		30.78	54.00	-23.22
			10360 (Pk)		53.23	68.23	-15.00
			10360 (Av)		40.40	54.00	-13.60
			15540 (Pk)		55.23	68.23	-13.00
			15540 (Av)		42.78	54.00	-11.22
	48	5240	5240 (Pk)	Vertical	94.73	-	-
			5240 (Av)		85.31	-	-
			5350 (Pk)		42.88	74.00	-31.12
			5350 (Av)		29.90	54.00	-24.10
			10480 (Pk)		52.70	68.23	-15.53
			10480 (Av)		40.84	54.00	-13.16
			15720 (Pk)		54.93	68.23	-13.30
			15720 (Av)		42.29	54.00	-11.71
			5240 (Pk)	Horizontal	87.77	-	-
			5240 (Av)		78.13	-	-
			5350 (Pk)		43.42	74.00	-30.58
			5350 (Av)		29.63	54.00	-24.37
			10480 (Pk)		53.61	68.23	-14.62
			10480 (Av)		41.30	54.00	-12.70
			15720 (Pk)		55.05	68.23	-13.18
			15720 (Av)		41.87	54.00	-12.13

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UNII Bands	Channel No.	Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
UNII 2a	52	5260	5260 (Pk)	Vertical	93.51	-	-
			5260 (Av)		84.08	-	-
			5350 (Pk)		42.93	74.00	-31.07
			5350 (Av)		29.80	54.00	-24.20
			10520 (Pk)		53.37	68.23	-14.86
			10520 (Av)		40.80	54.00	-13.20
			15780 (Pk)		53.79	68.23	-14.44
			15780 (Av)		41.96	54.00	-12.04
			5260 (Pk)	Horizontal	87.03	-	-
			5260 (Av)		77.56	-	-
			5350 (Pk)		42.99	74.00	-31.01
			5350 (Av)		29.60	54.00	-24.40
			10520 (Pk)		54.68	68.23	-13.55
			10520 (Av)		41.13	54.00	-12.87
			15780 (Pk)		54.07	68.23	-14.16
			15780 (Av)		41.51	54.00	-12.49
	64	5320	5320 (Pk)	Vertical	93.55	-	-
			5320 (Av)		84.25	-	-
			5350 (Pk)		54.44	74.00	-19.56
			5350 (Av)		33.15	54.00	-20.85
			10640 (Pk)		53.13	68.23	-15.10
			10640 (Av)		41.09	54.00	-12.91
			15960 (Pk)		54.50	68.23	-13.73
			15960 (Av)		42.47	54.00	-11.53
			5320 (Pk)	Horizontal	87.29	-	-
			5320 (Av)		77.32	-	-
			5350 (Pk)		47.27	74.00	-26.73
			5350 (Av)		30.51	54.00	-23.49
			10640 (Pk)		53.49	68.23	-14.74
			10640 (Av)		41.34	54.00	-12.66
			15960 (Pk)		54.60	68.23	-13.63
			15960 (Av)		41.95	54.00	-12.05

Note:

* :- Indicate restricted band frequency in 15.205

Pk: Peak Detector; Av: Average Detector

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UNII Bands	Channel No.	Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBµV/m)	Limit (dBµV/m)	Margin (dB)
UNII 2c	100	5500	5500 (Pk)	Vertical	91.67	-	-
			5500 (Av)		82.35	-	-
			5460 (Pk)		49.22	74.00	-24.78
			5460 (Av)		31.61	54.00	-22.39
			11000 (Pk)		54.04	68.23	-14.19
			11000 (Av)		41.66	54.00	-12.34
			16500 (Pk)		56.62	68.23	-11.61
			16500 (Av)		44.35	54.00	-9.65
			5500 (Pk)	Horizontal	87.11	-	-
			5500 (Av)		77.61	-	-
			5460 (Pk)		44.82	74.00	-29.18
			5460 (Av)		30.87	54.00	-23.13
			11000 (Pk)		53.77	68.23	-14.46
			11000 (Av)		42.18	54.00	-11.82
			16500 (Pk)		56.47	68.23	-11.76
			16500 (Av)		44.45	54.00	-9.55
	120	5600	5600 (Pk)	Vertical	94.02	-	-
			5600 (Av)		84.58	-	-
			5460 (Pk)		43.29	74.00	-30.71
			5460 (Av)		30.05	54.00	-23.95
			11200 (Pk)		53.82	68.23	-14.41
			11200 (Av)		41.66	54.00	-12.34
			16800 (Pk)		57.48	68.23	-10.75
			16800 (Av)		45.47	54.00	-8.53
			5600 (Pk)	Horizontal	90.65	-	-
			5600 (Av)		81.38	-	-
			5460 (Pk)		43.28	74.00	-30.72
			5460 (Av)		30.08	54.00	-23.92
			11200 (Pk)		54.86	68.23	-13.37
			11200 (Av)		41.93	54.00	-12.07
			16800 (Pk)		56.82	68.23	-11.41
			16800 (Av)		45.28	54.00	-8.72
	140	5700	5700 (Pk)	Vertical	92.81	-	-
			5700 (Av)		83.02	-	-
			5460 (Pk)		43.07	74.00	-30.93
			5460 (Av)		30.03	54.00	-23.97
			11400 (Pk)		54.29	68.23	-13.94
			11400 (Av)		42.32	54.00	-11.68
			17100 (Pk)		58.26	68.23	-9.97
			17100 (Av)		45.61	54.00	-8.39
			5700 (Pk)	Horizontal	88.21	-	-
			5700 (Av)		78.70	-	-
			5460 (Pk)		42.93	74.00	-31.07
			5460 (Av)		30.07	54.00	-23.93
			11400 (Pk)		55.01	68.23	-13.22
			11400 (Av)		42.47	54.00	-11.53
			17100 (Pk)		57.74	68.23	-10.49
			17100 (Av)		45.26	54.00	-8.74

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UNII Bands	Channel No.	Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
UNII 3	149	5745	5745 (Pk)	Vertical	94.55	-	-
			5745 (Av)		85.12	-	-
			5725(Pk)		62.05	122.20	-60.15
			5720(Pk)		58.32	110.80	-52.48
			5700(Pk)		50.48	105.20	-54.72
			5650(Pk)		43.85	68.20	-24.35
			11490 (Pk)		55.33	68.23	-12.90
			11490 (Av)		42.91	54.00	-11.09
			17235 (Pk)		58.25	68.23	-9.98
			17235 (Av)		45.96	54.00	-8.04
			5745 (Pk)	Horizontal	90.46	-	-
			5745 (Av)		80.99	-	-
			5725(Pk)		56.97	122.20	
			5720(Pk)		54.97	110.80	
			5700(Pk)		47.40	105.20	-57.80
			5650(Pk)		43.75	68.20	-24.45
			11490 (Pk)		55.17	68.23	-13.06
			11490 (Av)		43.09	54.00	-10.91
			17235 (Pk)		58.79	68.23	-9.44
			17235 (Av)		45.85	54.00	-8.15
	165	5825	5825 (Pk)	Vertical	96.42	-	-
			5825 (Av)		86.44	-	-
			5850 (Pk)		60.25	122.20	-61.95
			5855(Pk)		56.88	110.80	-53.92
			5875(Pk)		47.79	105.20	-57.41
			5925 (Pk)		44.33	68.20	-23.87
			11650 (Pk)		54.56	68.23	-13.67
			11650 (Av)		42.22	54.00	-11.78
			17475 (Pk)		59.11	68.23	-9.12
			17475 (Av)		46.83	54.00	-7.17
			5825 (Pk)	Horizontal	91.68	-	-
			5825 (Av)		81.94	-	-
			5850 (Pk)		55.16	122.20	-67.04
			5855(Pk)		51.86	110.80	-58.94
			5875(Pk)		43.74	105.20	-61.46
			5925 (Pk)		44.12	68.20	-24.08
			11650 (Pk)		54.92	68.23	-13.31
			11650 (Av)		42.37	54.00	-11.63
			17475 (Pk)		59.83	68.23	-8.40
			17475 (Av)		46.76	54.00	-7.24

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Modulation: 802.11n_HT-20MHz
Data rate: MCS0

UNII Bands	Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
UNII 1	5180	5180 (Pk)	Vertical	94.92	-	-
		5180 (Av)		85.24	-	-
		5150 (Pk)		54.80	74.00	-19.20
		5150 (Av)		34.44	54.00	-19.56
		10360 (Pk)		52.37	68.23	-15.86
		10360 (Av)		40.04	54.00	-13.96
		15540 (Pk)		55.30	68.23	-12.93
		15540 (Av)		43.26	54.00	-10.74
		5180 (Pk)	Horizontal	90.57	-	-
		5180 (Av)		80.49	-	-
		5150 (Pk)		50.55	74.00	-23.45
		5150 (Av)		32.09	54.00	-21.91
		10360 (Pk)		52.28	68.23	-15.95
		10360 (Av)		40.35	54.00	-13.65
		15540 (Pk)		54.92	68.23	-13.31
		15540 (Av)		42.83	54.00	-11.17
	5240	5240 (Pk)	Vertical	94.15	-	-
		5240 (Av)		84.46	-	-
		5350 (Pk)		42.98	74.00	-31.02
		5350 (Av)		30.29	54.00	-23.71
		10480 (Pk)		53.29	68.23	-14.94
		10480 (Av)		40.93	54.00	-13.07
		15720 (Pk)		55.48	68.23	-12.75
		15720 (Av)		42.32	54.00	-11.68
		5240 (Pk)	Horizontal	89.63	-	-
		5240 (Av)		80.04	-	-
		5350 (Pk)		43.29	74.00	-30.71
		5350 (Av)		30.08	54.00	-23.92
		10480 (Pk)		53.04	68.23	-15.19
		10480 (Av)		41.17	54.00	-12.83
		15720 (Pk)		54.43	68.23	-13.80
		15720 (Av)		41.86	54.00	-12.14

Note:

* :- Indicate restricted band frequency in 15.205

Pk: Peak Detector; Av: Average Detector

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UNII Bands	Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBµV/m)	Limit (dBµV/m)	Margin (dB)
UNII 2a	5260	5260 (Pk)	Vertical	92.51	-	-
		5260 (Av)		82.78	-	-
		5350 (Pk)		42.95	74.00	-31.05
		5350 (Av)		30.43	54.00	-23.57
		10520 (Pk)		53.48	68.23	-14.75
		10520 (Av)		40.86	54.00	-13.14
		15780 (Pk)		54.23	68.23	-14.00
		15780 (Av)		41.91	54.00	-12.09
		5260 (Pk)	Horizontal	88.13	-	-
		5260 (Av)		78.44	-	-
		5350 (Pk)		42.91	74.00	-31.09
		5350 (Av)		30.11	54.00	-23.89
		10520 (Pk)		53.49	68.23	-14.74
		10520 (Av)		41.11	54.00	-12.89
		15780 (Pk)		53.46	68.23	-14.77
		15780 (Av)		41.48	54.00	-12.52
	5320	5320 (Pk)	Vertical	94.71	-	-
		5320 (Av)		84.50	-	-
		5350 (Pk)		53.86	74.00	-20.14
		5350 (Av)		33.84	54.00	-20.16
		10640 (Pk)		53.64	68.23	-14.59
		10640 (Av)		41.17	54.00	-12.83
		15960 (Pk)		55.03	68.23	-13.20
		15960 (Av)		42.39	54.00	-11.61
		5320 (Pk)	Horizontal	87.66	-	-
		5320 (Av)		77.59	-	-
		5350 (Pk)		49.04	74.00	-24.96
		5350 (Av)		31.09	54.00	-22.91
		10640 (Pk)		53.31	68.23	-14.92
		10640 (Av)		41.48	54.00	-12.52
		15960 (Pk)		53.47	68.23	-14.76
		15960 (Av)		41.86	54.00	-12.14

Note:

* :- Indicate restricted band frequency in 15.205

Pk: Peak Detector; Av: Average Detector

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UNII Bands	Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
UNII 2c	5500	5500 (Pk)	Vertical	90.26	-	-
		5500 (Av)		80.43	-	-
		5460 (Pk)		48.99	74.00	-25.01
		5460 (Av)		32.38	54.00	-21.62
		11000 (Pk)		54.01	68.23	-14.22
		11000 (Av)		41.67	54.00	-12.33
		16500 (Pk)		56.91	68.23	-11.32
		16500 (Av)		44.30	54.00	-9.70
		5500 (Pk)	Horizontal	86.33	-	-
		5500 (Av)		76.84	-	-
		5460 (Pk)		44.31	74.00	-29.69
		5460 (Av)		31.28	54.00	-22.72
		11000 (Pk)		54.92	68.23	-13.31
		11000 (Av)		42.22	54.00	-11.78
		16500 (Pk)		56.55	68.23	-11.68
		16500 (Av)		44.34	54.00	-9.66
	5600	5600 (Pk)	Vertical	94.39	-	-
		5600 (Av)		84.78	-	-
		5460 (Pk)		43.60	74.00	-30.40
		5460 (Av)		30.66	54.00	-23.34
		11200 (Pk)		54.21	68.23	-14.02
		11200 (Av)		41.65	54.00	-12.35
		16800 (Pk)		57.39	68.23	-10.84
		16800 (Av)		45.44	54.00	-8.56
		5600 (Pk)	Horizontal	90.49	-	-
		5600 (Av)		80.74	-	-
		5460 (Pk)		43.90	74.00	-30.10
		5460 (Av)		30.70	54.00	-23.30
		11200 (Pk)		54.30	68.23	-13.93
		11200 (Av)		41.89	54.00	-12.11
		16800 (Pk)		57.91	68.23	-10.32
		16800 (Av)		45.22	54.00	-8.78
	5700	5700 (Pk)	Vertical	92.63	-	-
		5700 (Av)		83.04	-	-
		5460 (Pk)		43.21	74.00	-30.79
		5460 (Av)		30.57	54.00	-23.43
		11400 (Pk)		54.94	68.23	-13.29
		11400 (Av)		42.35	54.00	-11.65
		17100 (Pk)		57.74	68.23	-10.49
		17100 (Av)		45.60	54.00	-8.40
		5700 (Pk)	Horizontal	88.50	-	-
		5700 (Av)		78.38	-	-
		5460 (Pk)		43.59	74.00	-30.41
		5460 (Av)		30.68	54.00	-23.32
		11400 (Pk)		54.87	68.23	-13.36
		11400 (Av)		42.54	54.00	-11.46
		17100 (Pk)		57.92	68.23	-10.31
		17100 (Av)		45.28	54.00	-8.72

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UNII Bands	Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
UNII 3	5745	5745 (Pk)	Vertical	95.55	-	-
		5745 (Av)		85.62	-	-
		5725(Pk)		61.72	122.20	-60.48
		5720(Pk)		60.07	110.80	-50.73
		5700(Pk)		51.17	105.20	-54.03
		5650(Pk)		44.60	68.20	-23.60
		11490 (Pk)		55.17	68.23	-13.06
		11490 (Av)		42.88	54.00	-11.12
		17235 (Pk)		58.31	68.23	-9.92
		17235 (Av)		45.94	54.00	-8.06
		5745 (Pk)	Horizontal	90.96	-	-
		5745 (Av)		80.69	-	-
		5725(Pk)		58.87	122.20	-63.33
		5720(Pk)		56.01	110.80	-54.79
		5700(Pk)		46.83	105.20	-58.37
		5650(Pk)		44.35	68.20	-23.85
		11490 (Pk)		55.39	68.23	-12.84
		11490 (Av)		43.06	54.00	-10.94
		17235 (Pk)		57.83	68.23	-10.40
		17235 (Av)		45.78	54.00	-8.22
	5825	5825 (Pk)	Vertical	96.70	-	-
		5825 (Av)		86.95	-	-
		5850 (Pk)		60.71	122.20	-61.49
		5855(Pk)		58.46	110.80	-52.34
		5875(Pk)		48.91	105.20	-56.29
		5925 (Pk)		44.56	68.20	-23.64
		11650 (Pk)		54.80	68.23	-13.43
		11650 (Av)		42.57	54.00	-11.43
		17475 (Pk)		59.68	68.23	-8.55
		17475 (Av)		46.80	54.00	-7.20
		5825 (Pk)	Horizontal	92.17	-	-
		5825 (Av)		82.21	-	-
		5850 (Pk)		56.02	122.20	-66.18
		5855(Pk)		53.53	110.80	-57.27
		5875(Pk)		45.73	105.20	-59.47
		5925 (Pk)		44.39	68.20	-23.81
		11650 (Pk)		54.14	68.23	-14.09
		11650 (Av)		42.41	54.00	-11.59
		17475 (Pk)		58.49	68.23	-9.74
		17475 (Av)		46.70	54.00	-7.30

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Modulation: 802.11ac_VHT-20MHz
Data rate: MCS0

UNII Bands	Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
UNII 1	5180	5180 (Pk)	Vertical	94.96	-	-
		5180 (Av)		85.17	-	-
		5150 (Pk)		55.18	74.00	-18.82
		5150 (Av)		34.48	54.00	-19.52
		10360 (Pk)		52.68	68.23	-15.55
		10360 (Av)		40.02	54.00	-13.98
		15540 (Pk)		55.25	68.23	-12.98
		15540 (Av)		43.39	54.00	-10.61
		5180 (Pk)	Horizontal	88.22	-	-
		5180 (Av)		78.79	-	-
		5150 (Pk)		48.58	74.00	-25.42
		5150 (Av)		31.60	54.00	-22.40
		10360 (Pk)		52.37	68.23	-15.86
		10360 (Av)		40.48	54.00	-13.52
		15540 (Pk)		55.10	68.23	-13.13
		15540 (Av)		42.98	54.00	-11.02
	5240	5240 (Pk)	Vertical	94.61	-	-
		5240 (Av)		84.90	-	-
		5350 (Pk)		43.40	74.00	-30.60
		5350 (Av)		30.21	54.00	-23.79
		10480 (Pk)		52.98	68.23	-15.25
		10480 (Av)		40.85	54.00	-13.15
		15720 (Pk)		54.72	68.23	-13.51
		15720 (Av)		42.52	54.00	-11.48
		5240 (Pk)	Horizontal	87.13	-	-
		5240 (Av)		77.62	-	-
		5350 (Pk)		42.77	74.00	-31.23
		5350 (Av)		30.11	54.00	-23.89
		10480 (Pk)		53.17	68.23	-15.06
		10480 (Av)		41.20	54.00	-12.80
		15720 (Pk)		15.72	68.23	-52.51
		15720 (Av)		42.10	54.00	-11.90

Note:

* :- Indicate restricted band frequency in 15.205

Pk: Peak Detector; Av: Average Detector

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UNII Bands	Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBµV/m)	Limit (dBµV/m)	Margin (dB)
UNII 2a	5260	5260 (Pk)	Vertical	93.14	-	-
		5260 (Av)		83.41	-	-
		5350 (Pk)		43.31	74.00	-30.69
		5350 (Av)		30.38	54.00	-23.62
		10520 (Pk)		52.70	68.23	-15.53
		10520 (Av)		40.81	54.00	-13.19
		15780 (Pk)		53.78	68.23	-14.45
		15780 (Av)		42.12	54.00	-11.88
		5260 (Pk)	Horizontal	87.39	-	-
		5260 (Av)		77.02	-	-
		5350 (Pk)		43.51	74.00	-30.49
		5350 (Av)		30.13	54.00	-23.87
		10520 (Pk)		53.70	68.23	-14.53
		10520 (Av)		41.07	54.00	-12.93
		15780 (Pk)		53.59	68.23	-14.64
		15780 (Av)		41.66	54.00	-12.34
	5320	5320 (Pk)	Vertical	92.73	-	-
		5320 (Av)		83.27	-	-
		5350 (Pk)		55.55	74.00	-18.45
		5350 (Av)		33.39	54.00	-20.61
		10640 (Pk)		53.49	68.23	-14.74
		10640 (Av)		41.04	54.00	-12.96
		15960 (Pk)		54.21	68.23	-14.02
		15960 (Av)		42.56	54.00	-11.44
		5320 (Pk)	Horizontal	86.37	-	-
		5320 (Av)		76.70	-	-
		5350 (Pk)		47.31	74.00	-26.69
		5350 (Av)		31.05	54.00	-22.95
		10640 (Pk)		53.49	68.23	-14.74
		10640 (Av)		41.04	54.00	-12.96
		15960 (Pk)		54.21	68.23	-14.02
		15960 (Av)		42.56	54.00	-11.44

Note:

* :- Indicate restricted band frequency in 15.205

Pk: Peak Detector; Av: Average Detector

UNII Bands	Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBµV/m)	Limit (dBµV/m)	Margin (dB)
UNII 2c	5500	5500 (Pk)	Vertical	92.42	-	-
		5500 (Av)		82.58	-	-
		5460 (Pk)		48.48	74.00	-25.52
		5460 (Av)		32.20	54.00	-21.80
		11000 (Pk)		53.95	68.23	-14.28
		11000 (Av)		41.68	54.00	-12.32
		16500 (Pk)		56.53	68.23	-11.70
		16500 (Av)		44.48	54.00	-9.52
		5500 (Pk)	Horizontal	87.96	-	-
		5500 (Av)		78.63	-	-
		5460 (Pk)		44.66	74.00	-29.34
		5460 (Av)		31.10	54.00	-22.90
		11000 (Pk)		54.20	68.23	-14.03
		11000 (Av)		42.13	54.00	-11.87
		16500 (Pk)		56.76	68.23	-11.47
		16500 (Av)		44.58	54.00	-9.42
	5600	5600 (Pk)	Vertical	93.66	-	-
		5600 (Av)		83.77	-	-
		5460 (Pk)		43.74	74.00	-30.26
		5460 (Av)		30.65	54.00	-23.35
		11200 (Pk)		53.97	68.23	-14.26
		11200 (Av)		41.54	54.00	-12.46
		16800 (Pk)		57.74	68.23	-10.49
		16800 (Av)		45.52	54.00	-8.48
		5600 (Pk)	Horizontal	89.70	-	-
		5600 (Av)		79.40	-	-
		5460 (Pk)		43.59	74.00	-30.41
		5460 (Av)		30.64	54.00	-23.36
		11200 (Pk)		54.42	68.23	-13.81
		11200 (Av)		41.83	54.00	-12.17
		16800 (Pk)		58.24	68.23	-9.99
		16800 (Av)		45.33	54.00	-8.67
	5700	5700 (Pk)	Vertical	94.65	-	-
		5700 (Av)		85.03	-	-
		5460 (Pk)		43.53	74.00	-30.47
		5460 (Av)		30.58	54.00	-23.42
		11400 (Pk)		54.00	68.23	-14.23
		11400 (Av)		42.27	54.00	-11.73
		17100 (Pk)		58.56	68.23	-9.67
		17100 (Av)		45.69	54.00	-8.31
		5700 (Pk)	Horizontal	90.90	-	-
		5700 (Av)		80.28	-	-
		5460 (Pk)		44.33	74.00	-29.67
		5460 (Av)		30.67	54.00	-23.33
		11400 (Pk)		54.65	68.23	-13.58
		11400 (Av)		42.38	54.00	-11.62
		17100 (Pk)		59.16	68.23	-9.07
		17100 (Av)		45.36	54.00	-8.64

Note:

* :- Indicate restricted band frequency in 15.205

Pk: Peak Detector; Av: Average Detector

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UNII Bands	Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBµV/m)	Limit (dBµV/m)	Margin (dB)
UNII 3	5745	5745 (Pk)	Vertical	95.66	-	-
		5745 (Av)		85.33	-	-
		5725(Pk)		62.26	122.20	-59.94
		5720(Pk)		59.16	110.80	-51.64
		5700(Pk)		50.78	105.20	-54.42
		5650(Pk)		44.10	68.20	-24.10
		11490 (Pk)		54.92	68.23	-13.31
		11490 (Av)		42.81	54.00	-11.19
		17235 (Pk)		58.65	68.23	-9.58
		17235 (Av)		46.01	54.00	-7.99
		5745 (Pk)	Horizontal	91.21	-	-
		5745 (Av)		80.72	-	-
		5725(Pk)		58.32	122.20	-63.88
		5720(Pk)		56.09	110.80	-54.71
		5700(Pk)		47.94	105.20	-57.26
		5650(Pk)		45.66	68.20	-22.54
		11490 (Pk)		55.05	68.23	-13.18
		11490 (Av)		43.00	54.00	-11.00
		17235 (Pk)		57.70	68.23	-10.53
		17235 (Av)		45.93	54.00	-8.07
	5825	5825 (Pk)	Vertical	95.78	-	-
		5825 (Av)		86.01	-	-
		5850 (Pk)		59.72	122.20	-62.48
		5855(Pk)		56.94	110.80	-53.86
		5875(Pk)		48.32	105.20	-56.88
		5925 (Pk)		44.39	68.20	-23.81
		11650 (Pk)		54.82	68.23	-13.41
		11650 (Av)		42.18	54.00	-11.82
		17475 (Pk)	Horizontal	58.96	68.23	-9.27
		17475 (Av)		46.91	54.00	-7.09
		5825 (Pk)		91.79	-	-
		5825 (Av)		81.24	-	-
		5850 (Pk)		54.51	122.20	-67.69
		5855(Pk)		51.16	110.80	-59.64
		5875(Pk)		45.57	105.20	-59.63
		5925 (Pk)		45.02	68.20	-23.18
		11650 (Pk)		55.02	68.23	-13.21
		11650 (Av)		42.27	54.00	-11.73
		17475 (Pk)		58.85	68.23	-9.38
		17475 (Av)		46.80	54.00	-7.20

Note:

* :- Indicate restricted band frequency in 15.205

Pk: Peak Detector; Av: Average Detector

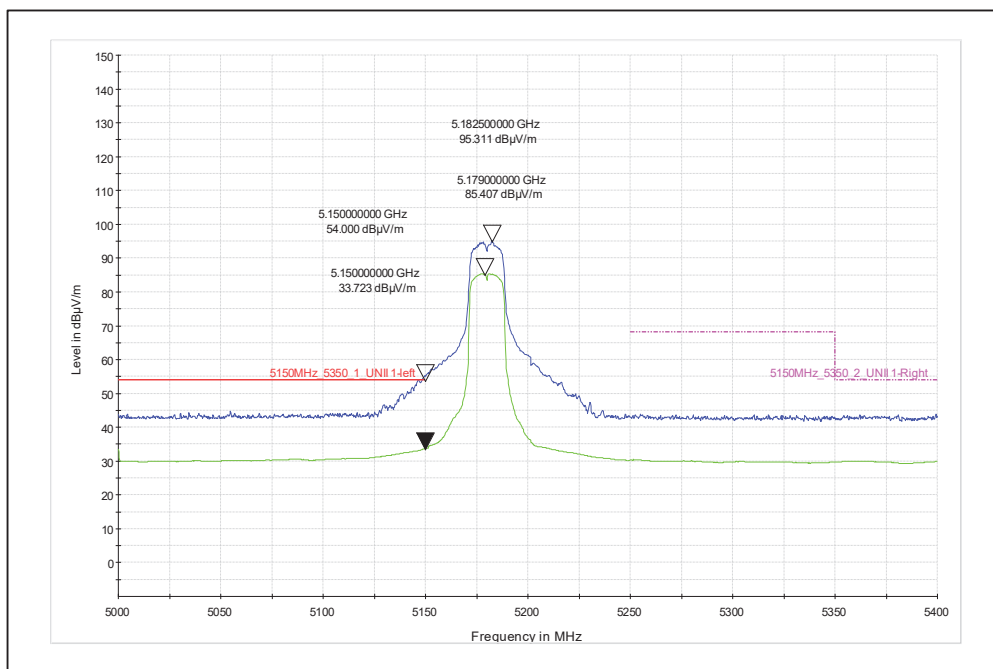
WiFi 5GHz

Internal Antenna - Restricted bands of Operations

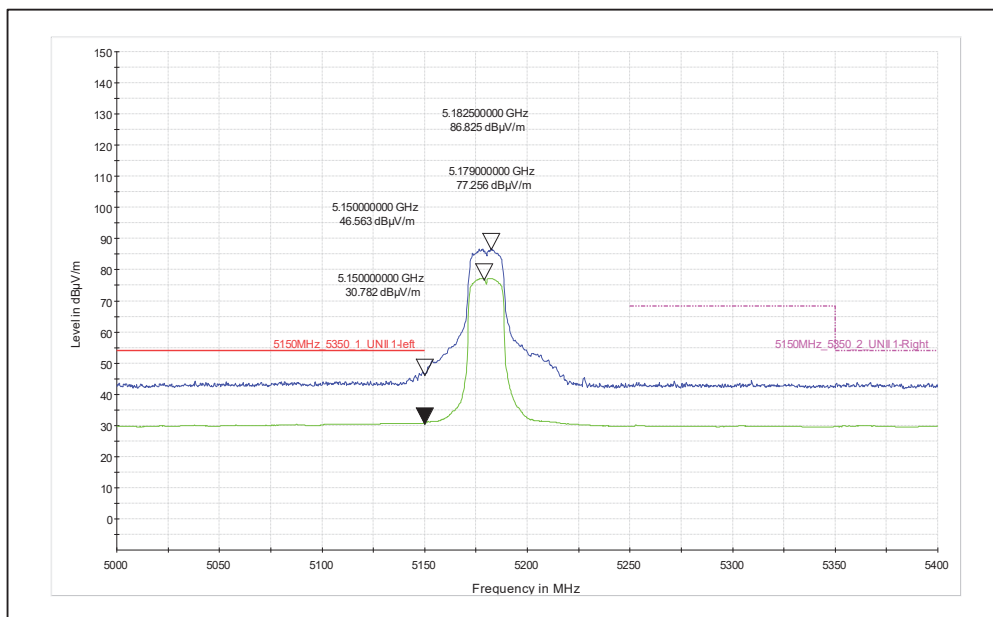
Modulation: 802.11a

Data Rate : 6Mbps

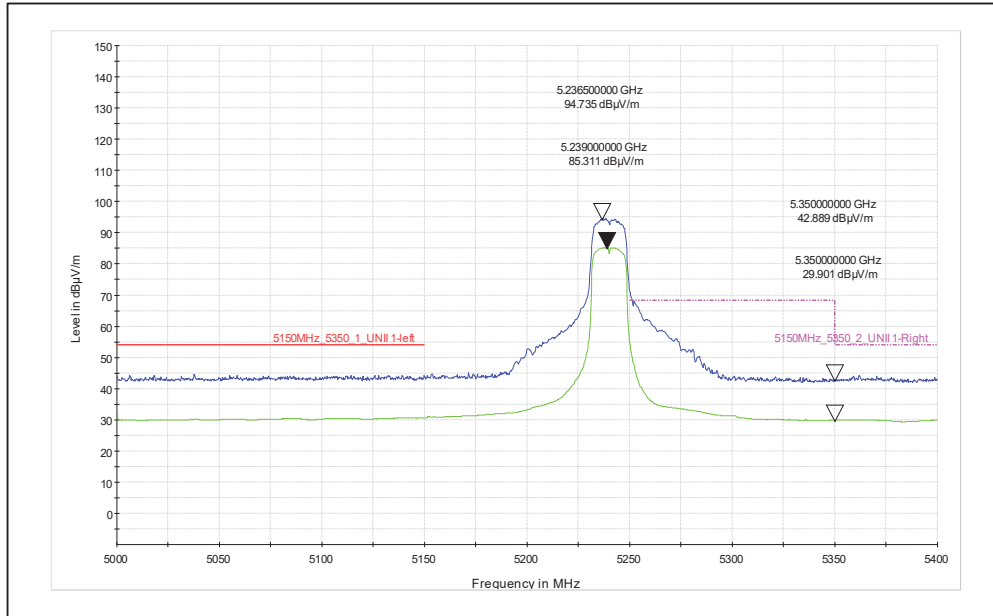
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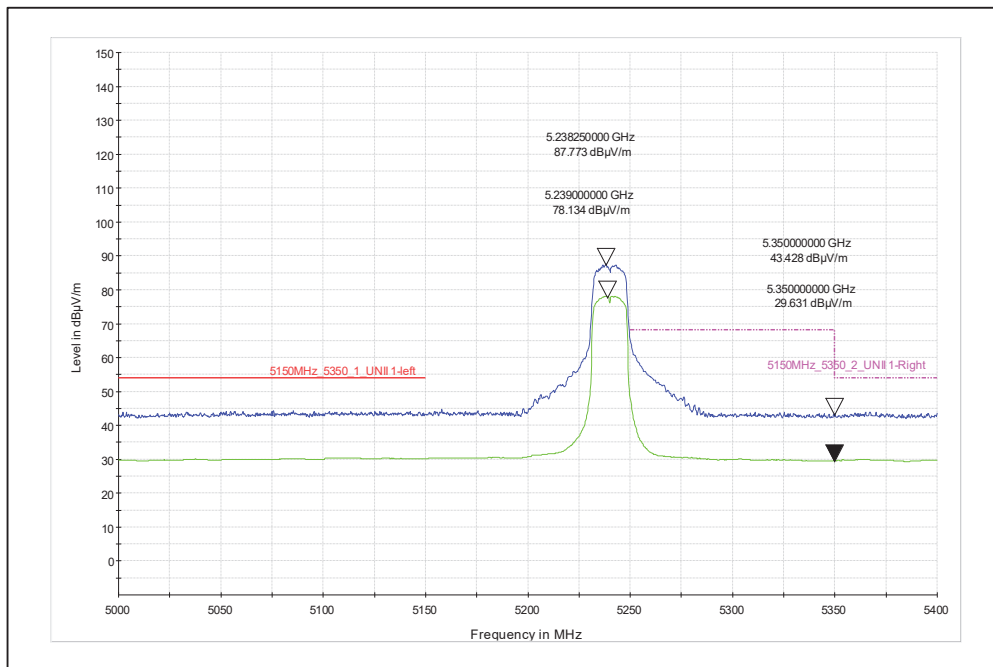
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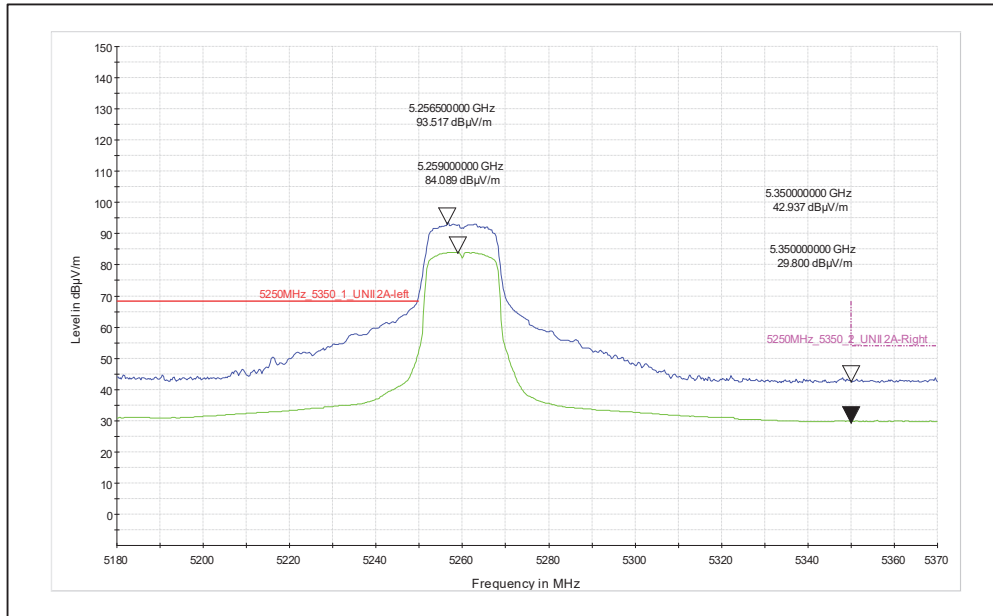
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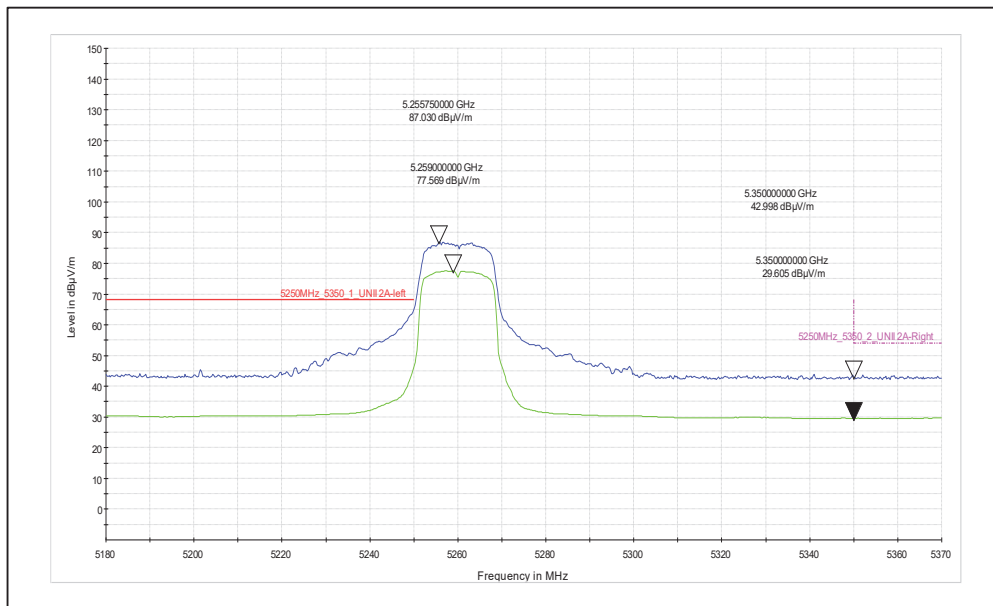
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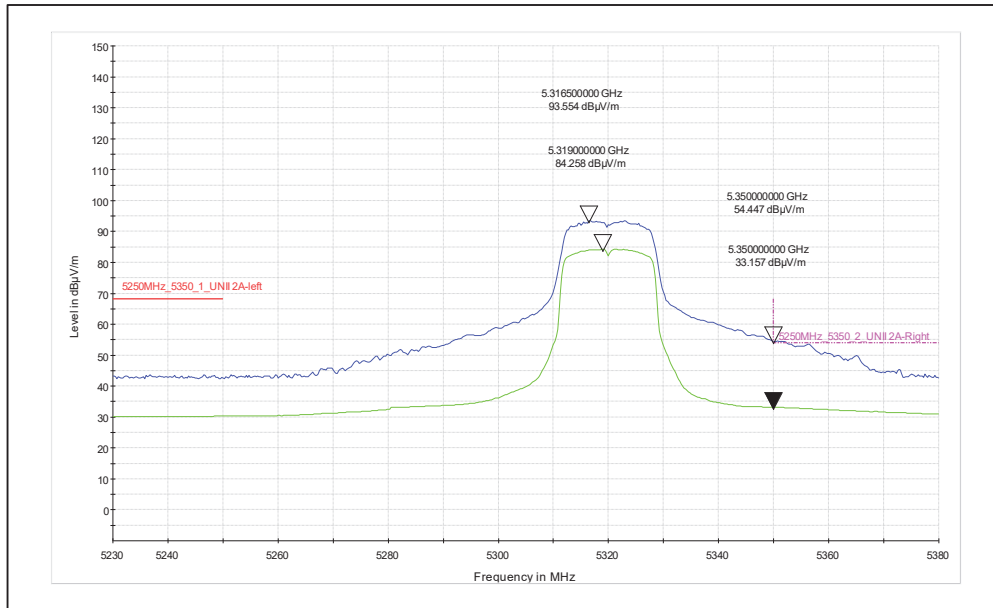
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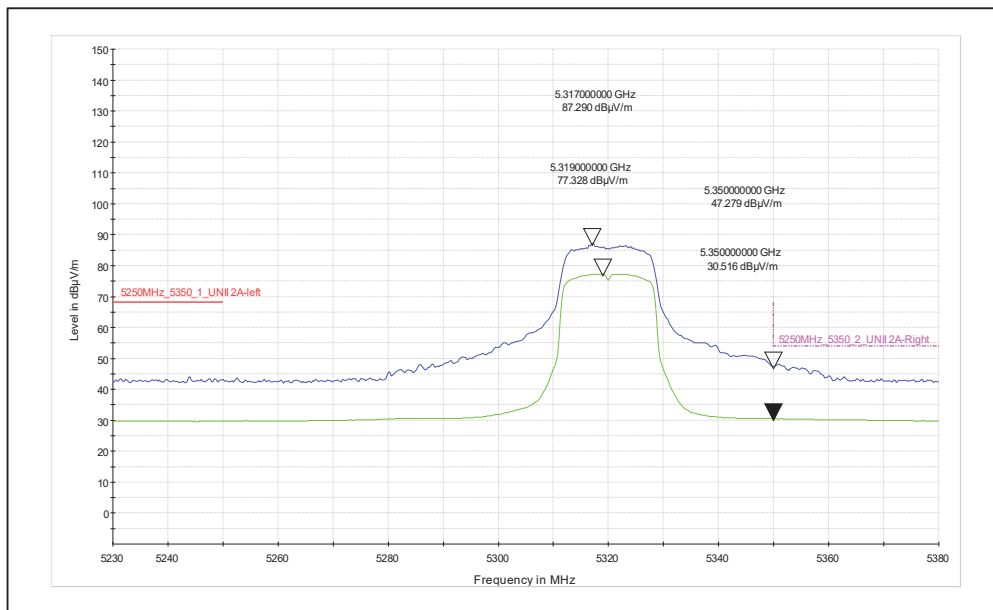
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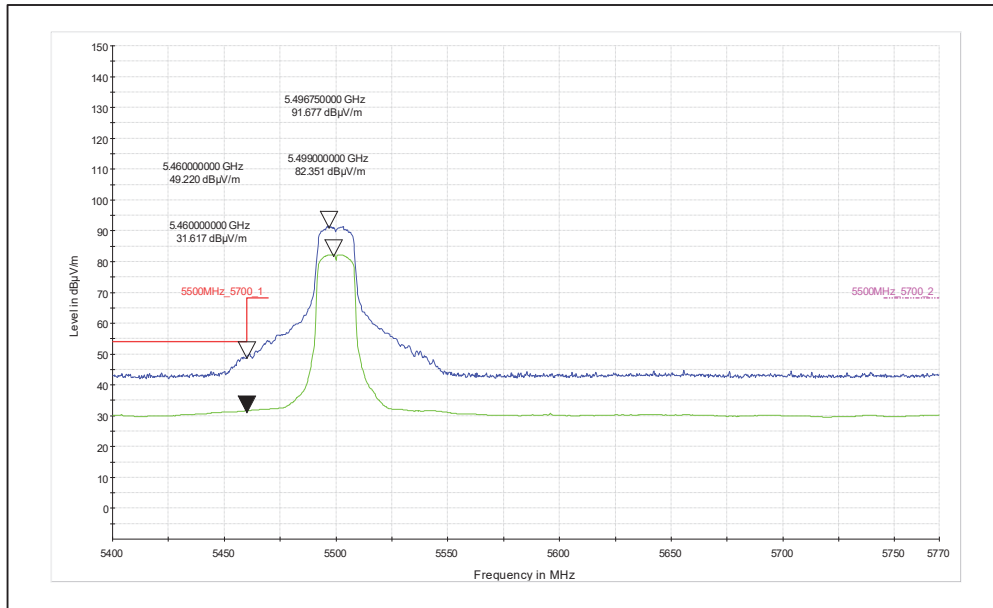
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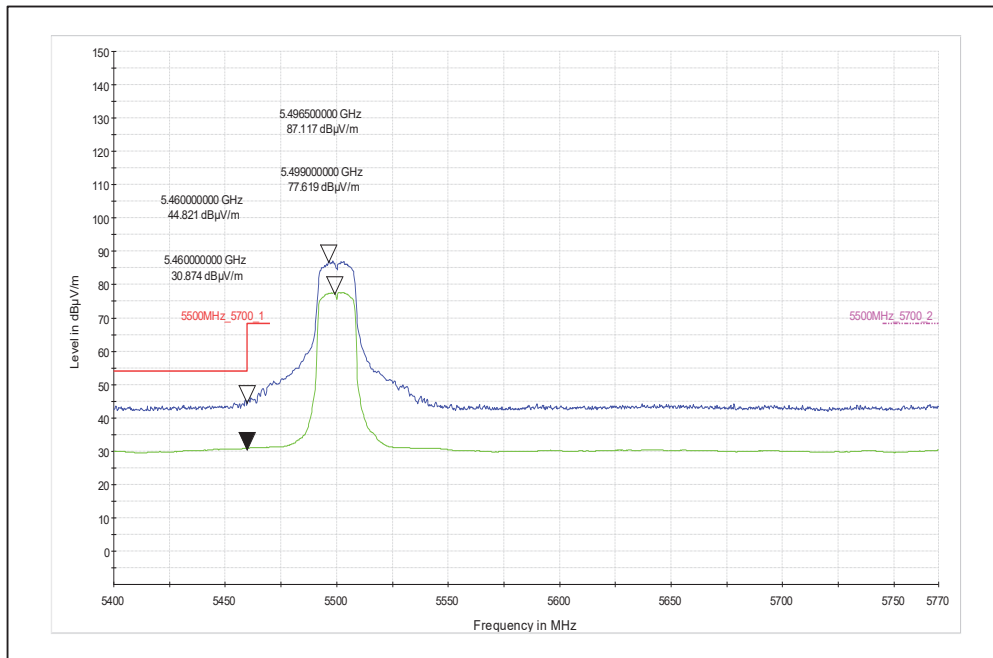
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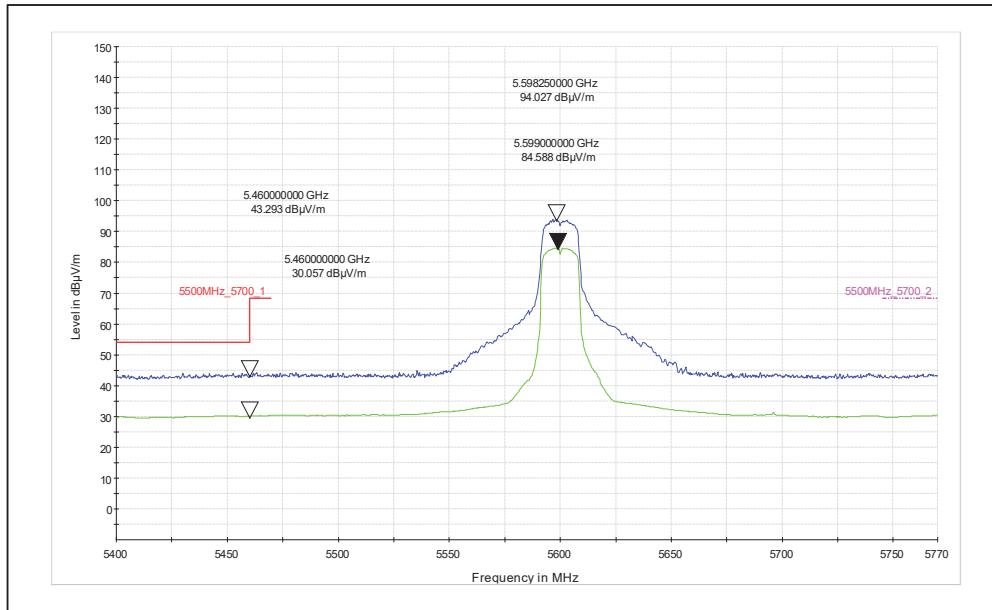
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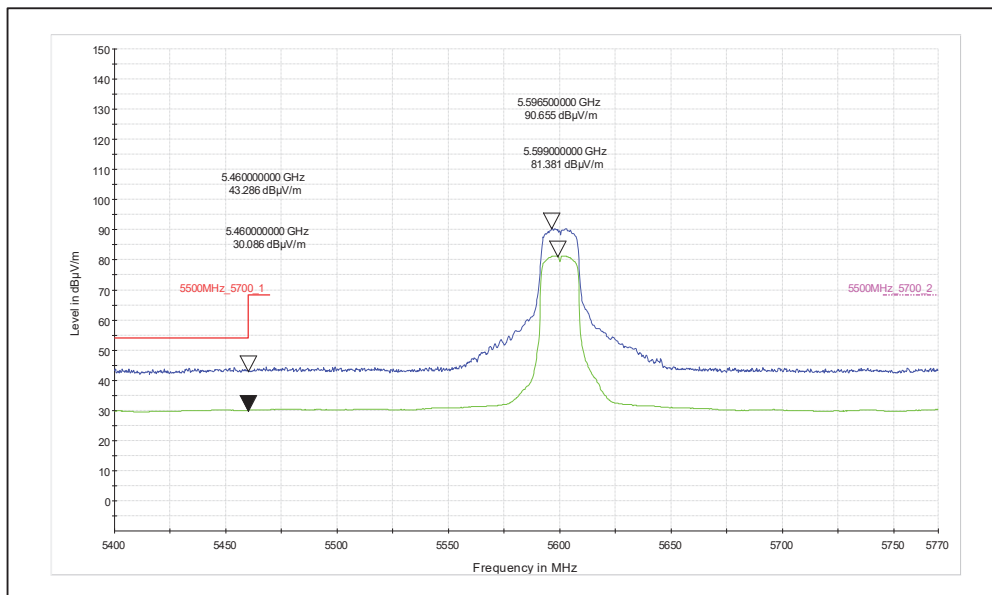
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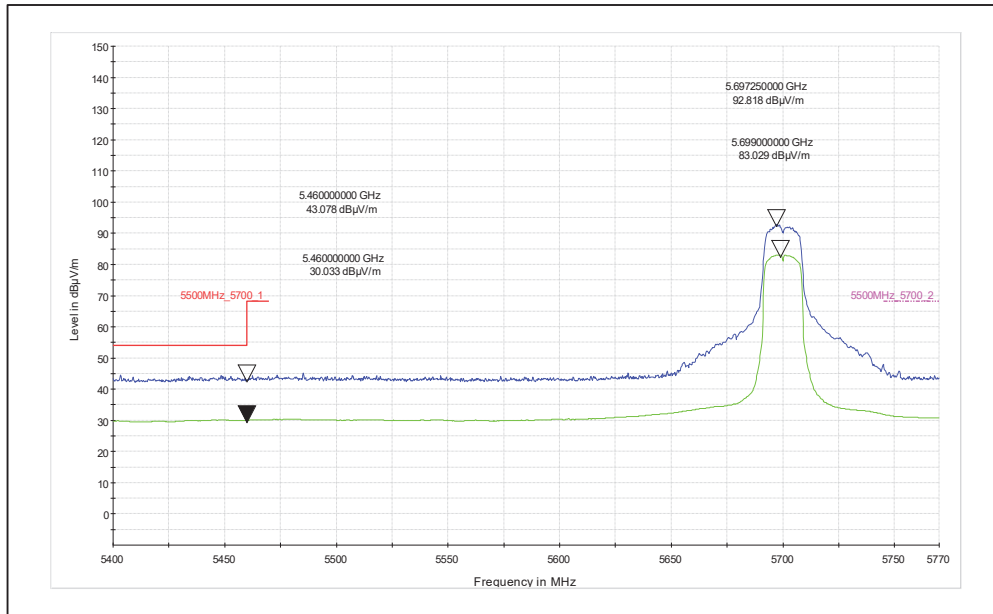
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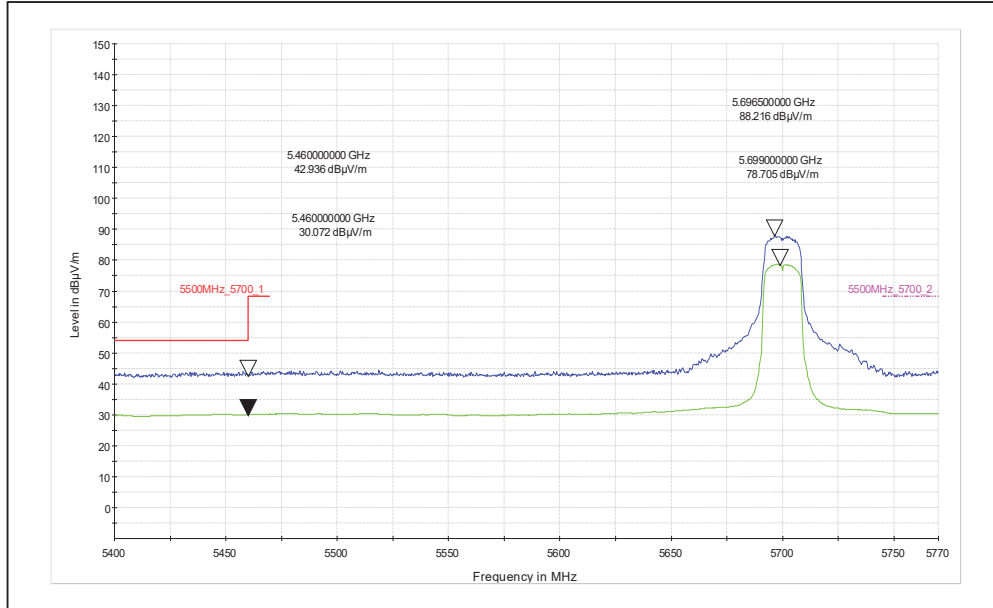
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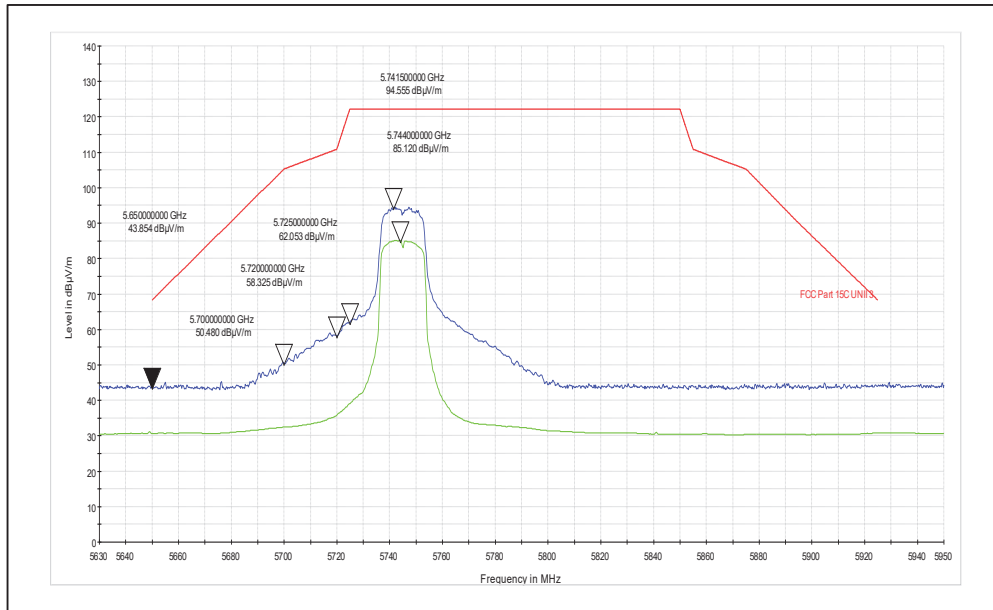
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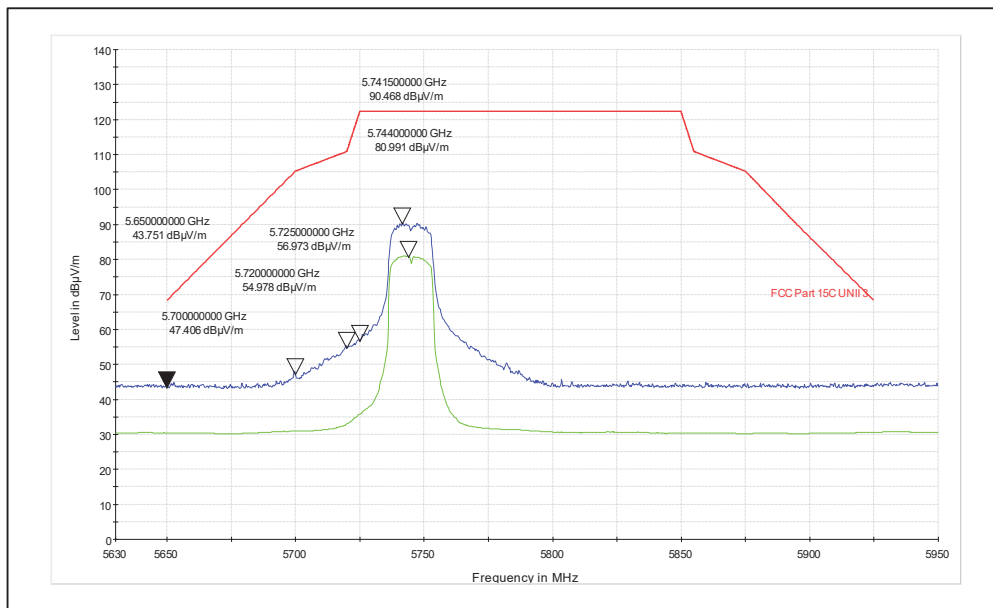
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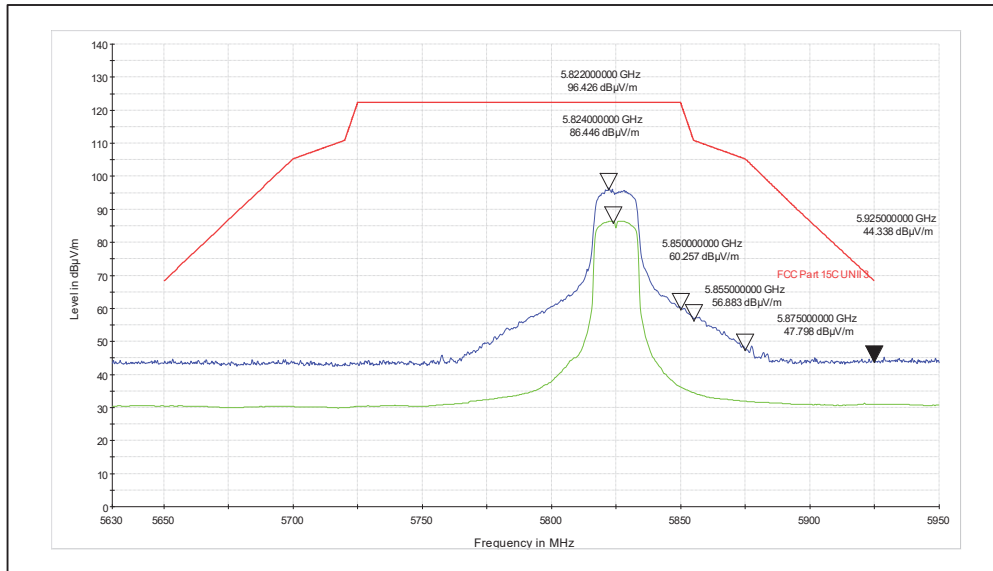
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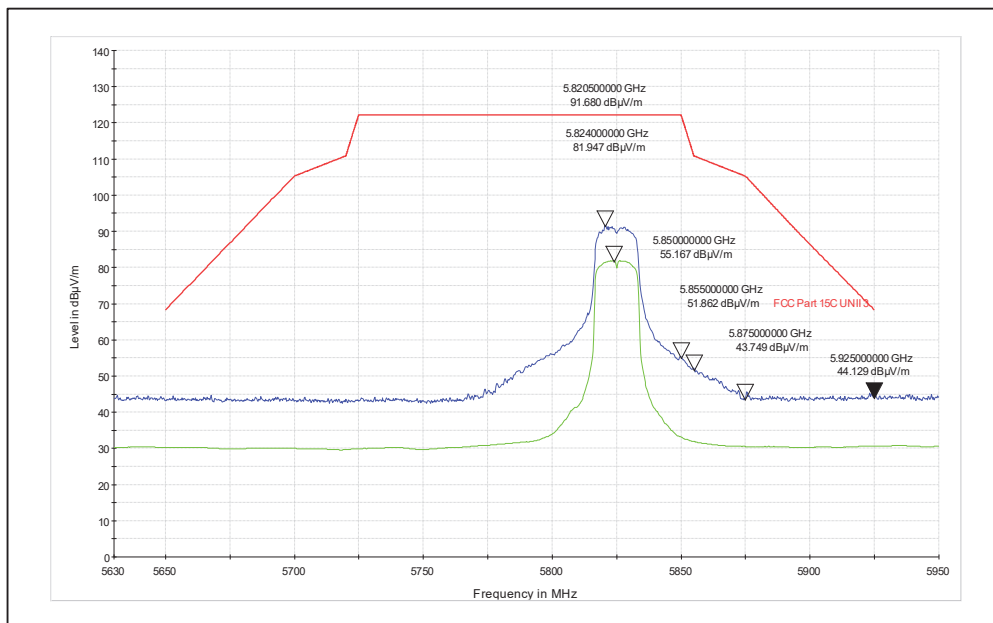
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Channel Frequency_5825MHz_PW_12dBm_UNII-3_Vertical Polarization



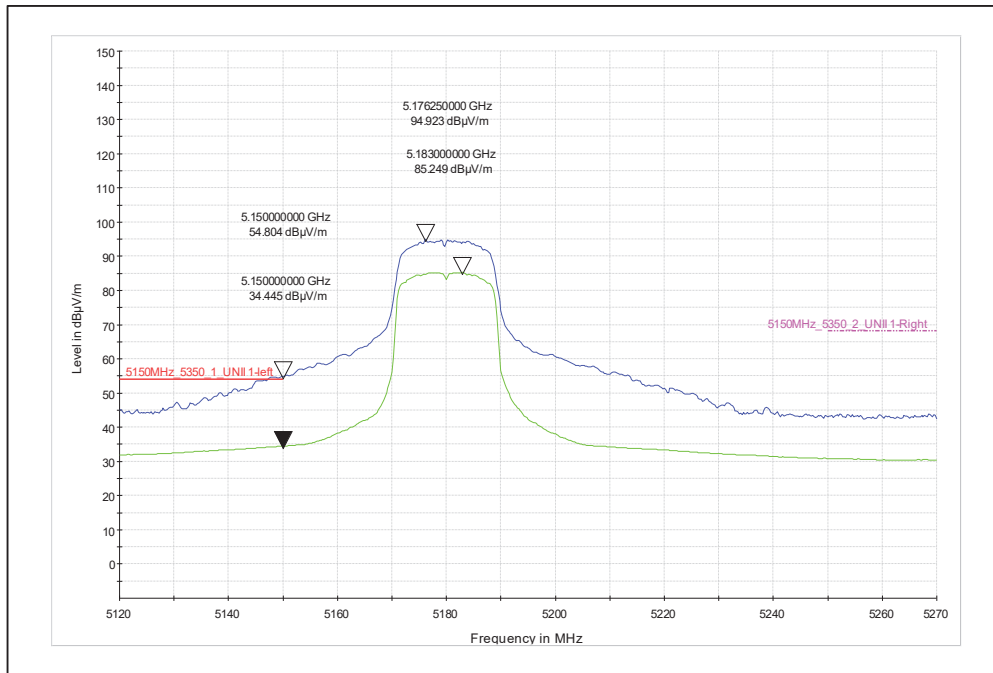
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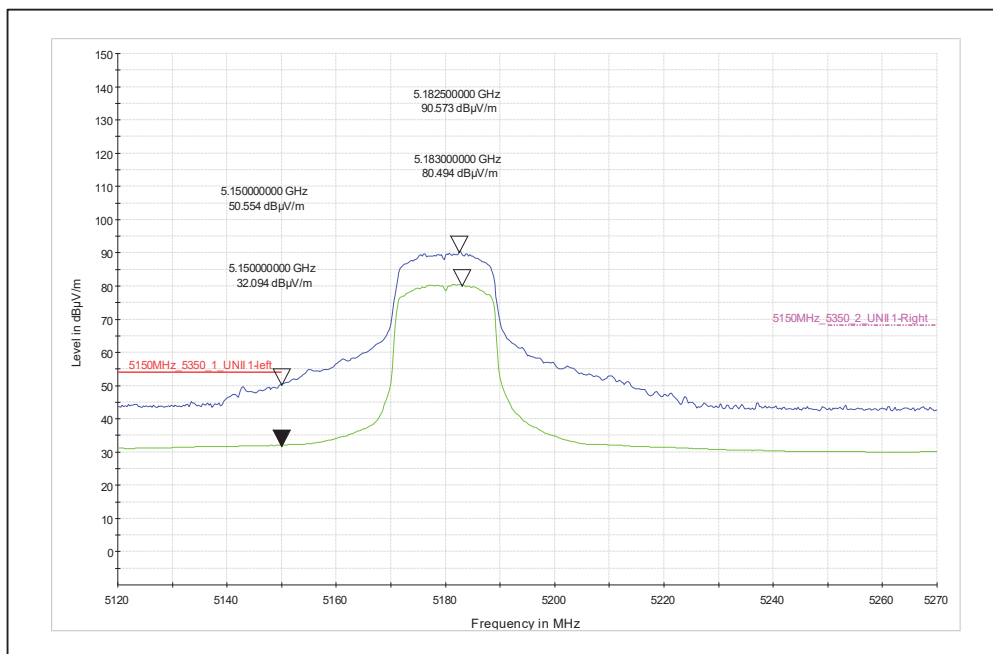
Modulation: 802.11n_HT-20

Data Rate : MCS0

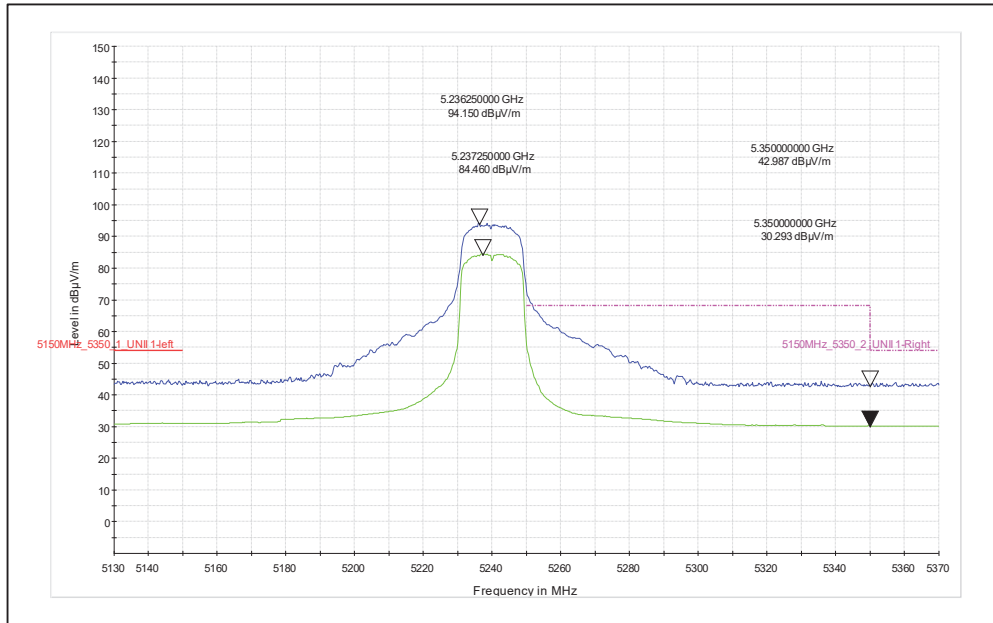
Channel Frequency_5180MHz_PW-11.5dBm_UNII-1_Vertical Polarization



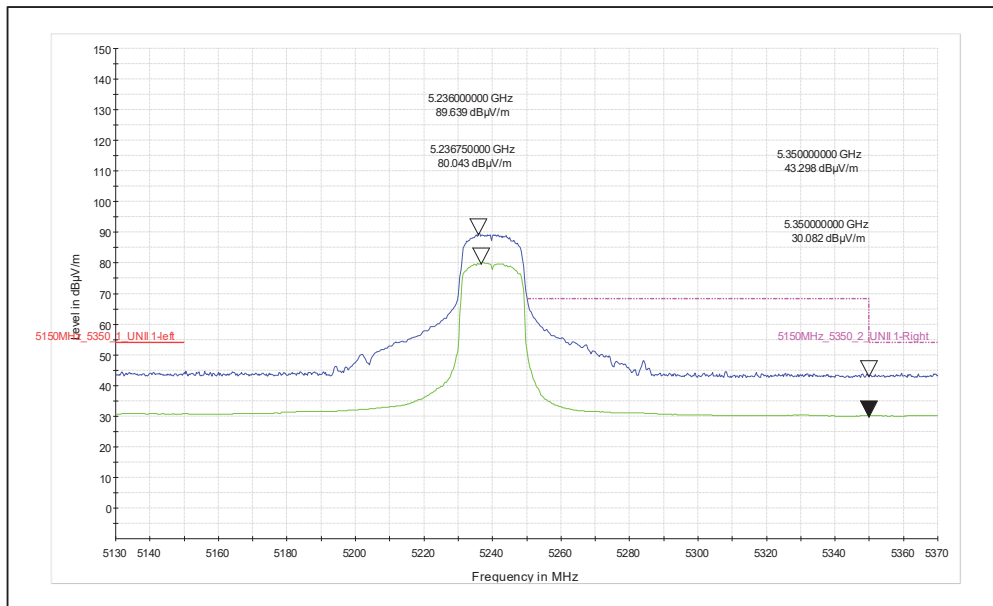
Channel Frequency_5180MHz_PW-11.5dBm_UNII-1_Horizontal Polarization



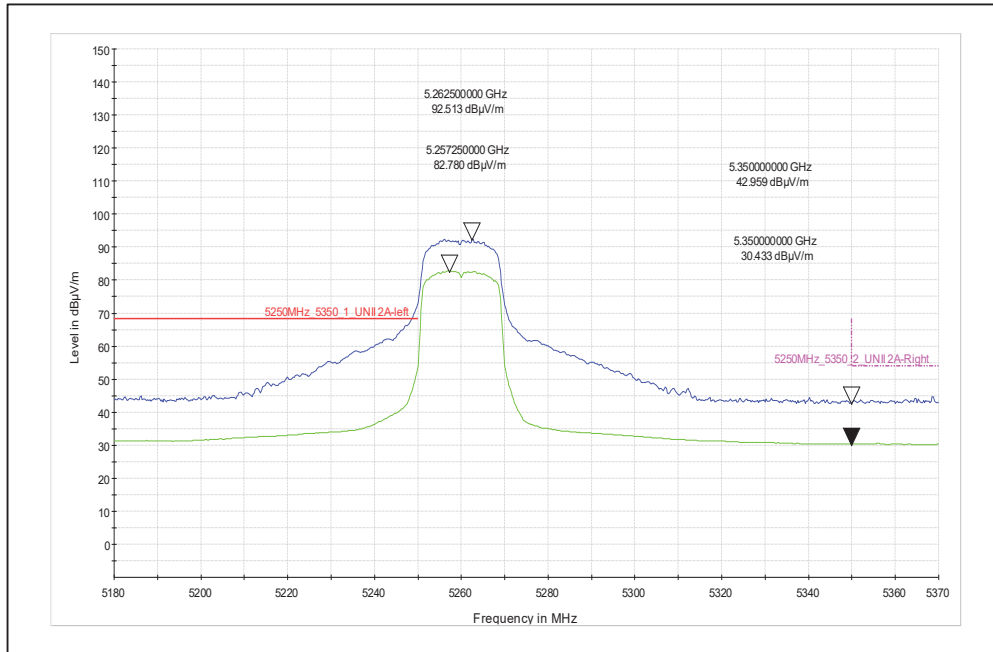
Channel Frequency_5240MHz_PW-12dBm_UNII-1_Vertical Polarization



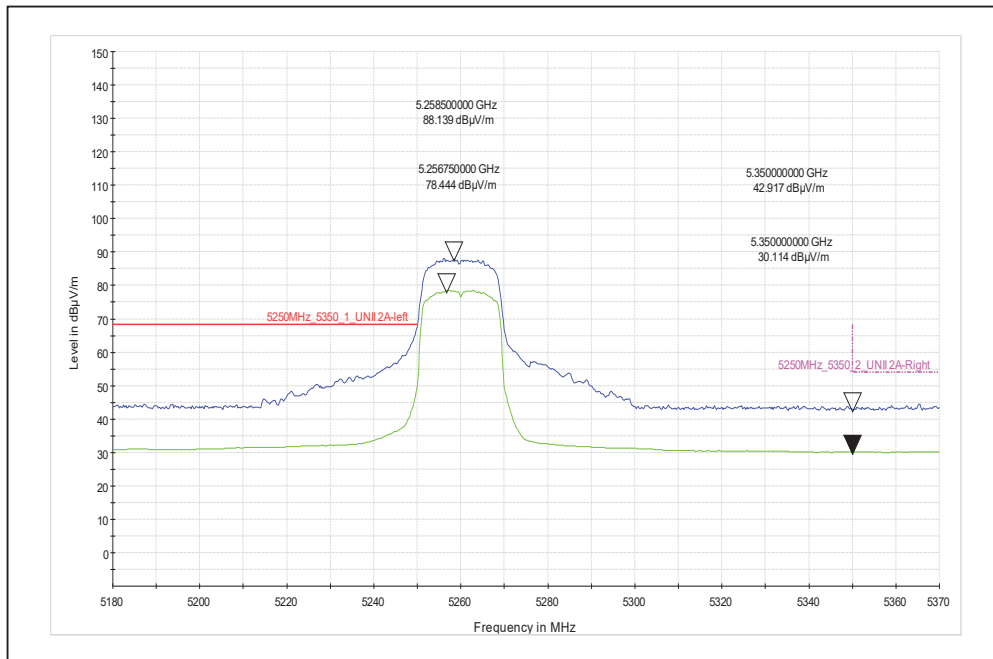
Channel Frequency_5240MHz_PW-12dBm_UNII-1_Horizontal Polarization



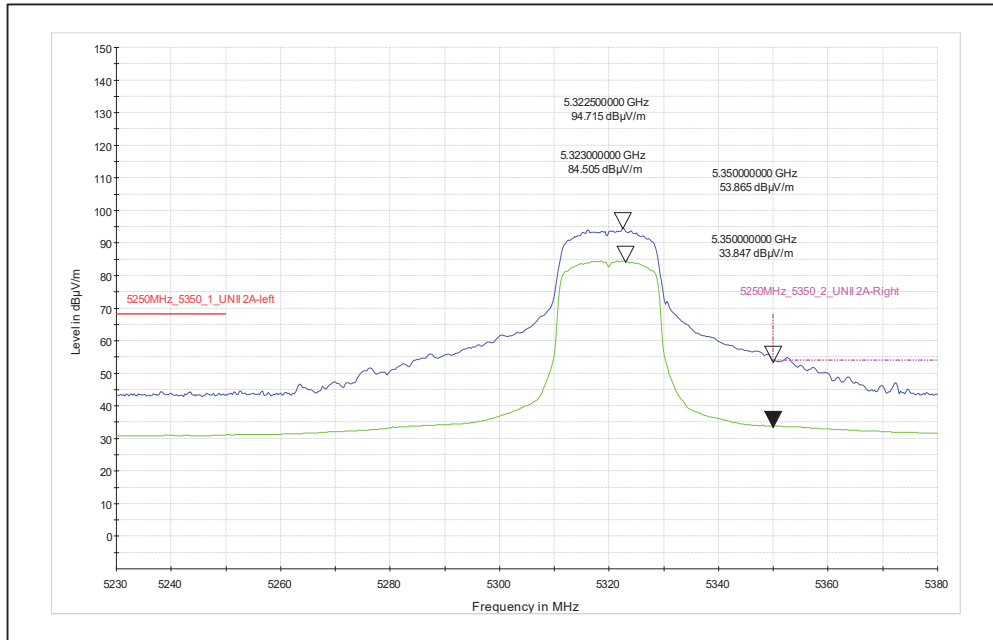
Channel Frequency_5260MHz_PW-11.5dBm_UNII-2A_Vertical Polarization



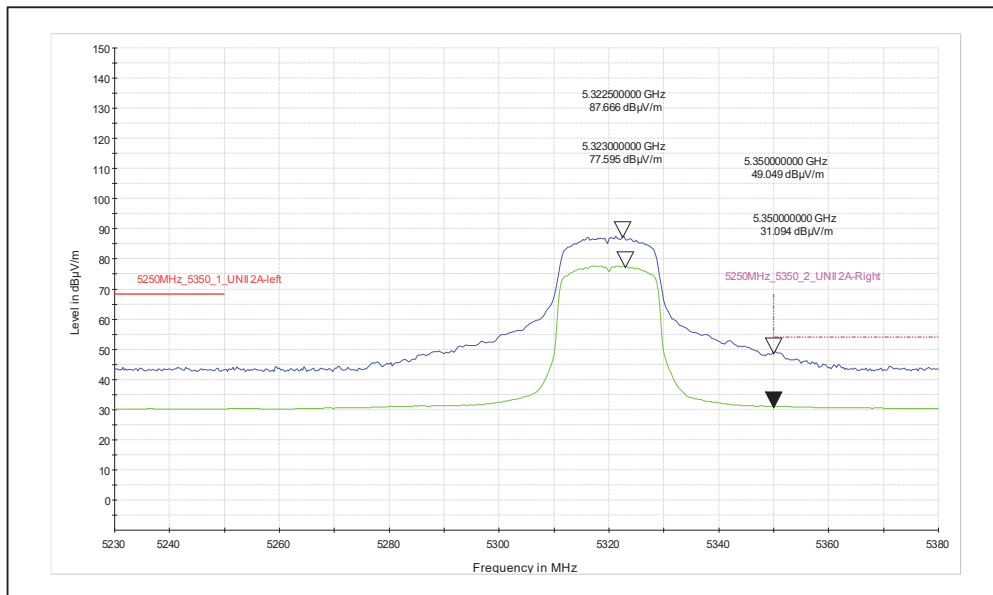
Channel Frequency_5260MHz_PW-11.5dBm_UNII-2A_Horizontal Polarization



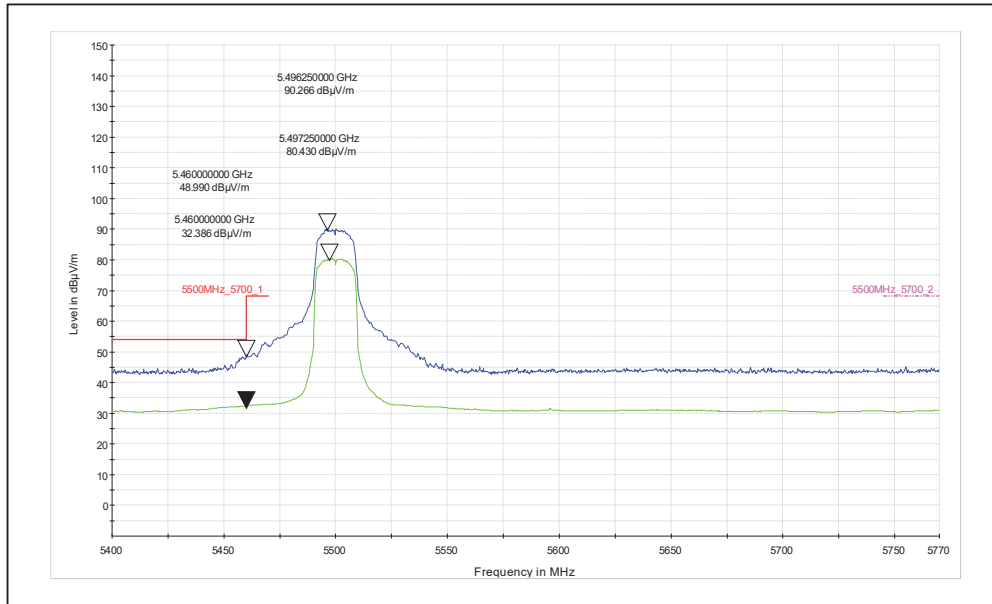
Channel Frequency_5320MHz_PW-12dBm_UNII-2A_Vertical Polarization



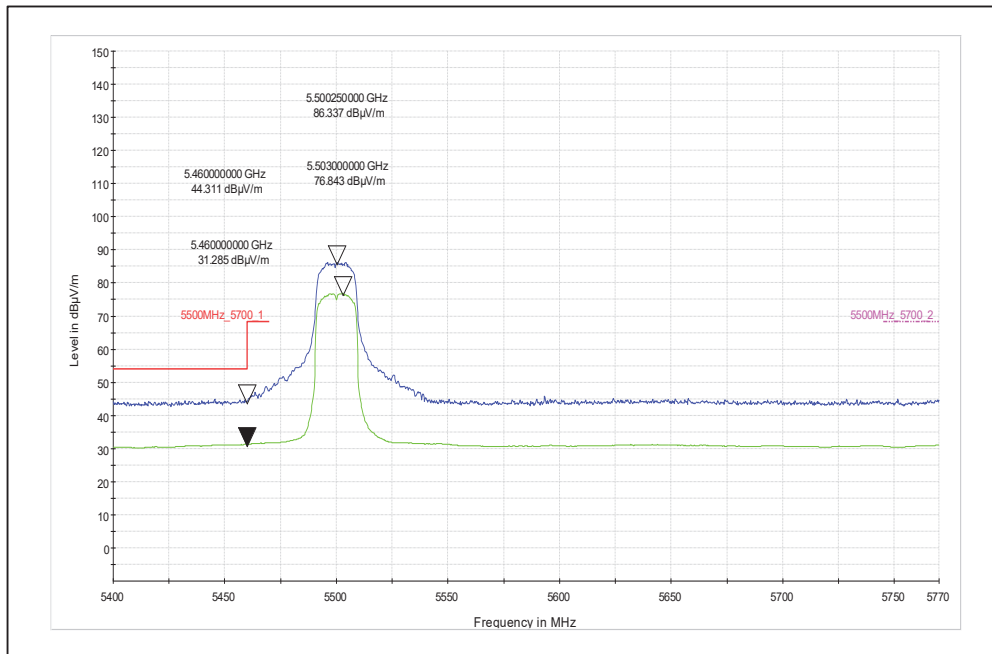
Channel Frequency_5320MHz_PW-12dBm_UNII-2A_Horizontal Polarization



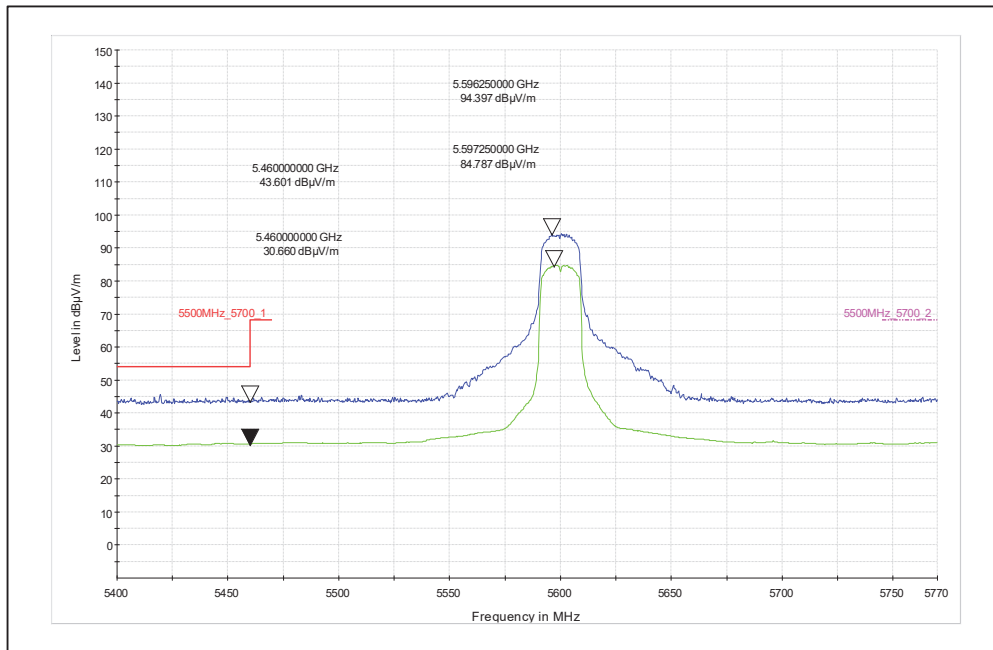
Channel Frequency_5500MHz_PW-9.5dBm_UNII-2C_Vertical Polarization



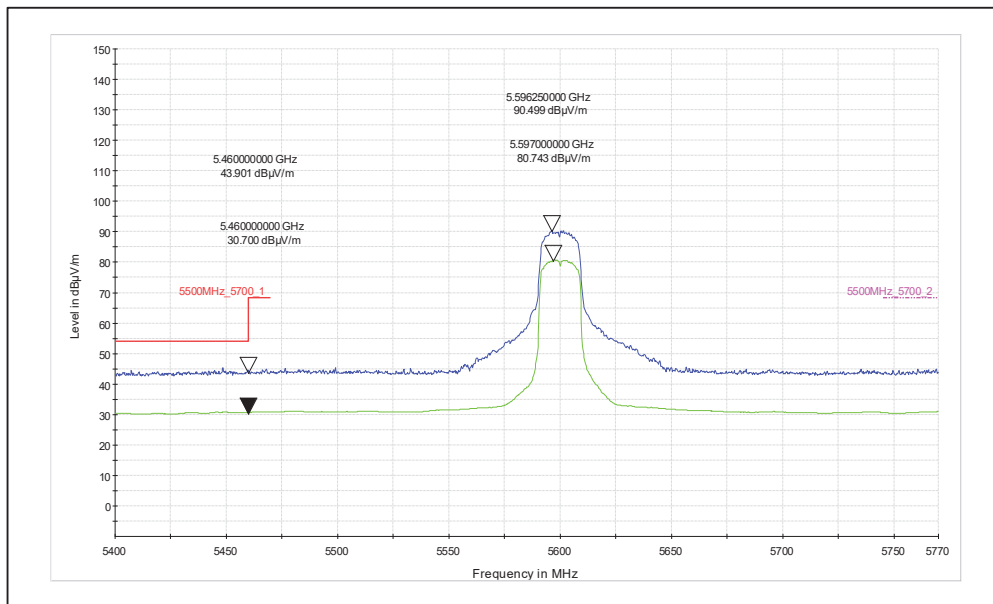
Channel Frequency_5500MHz_PW-9.5dBm_UNII-2C_Horizontal Polarization



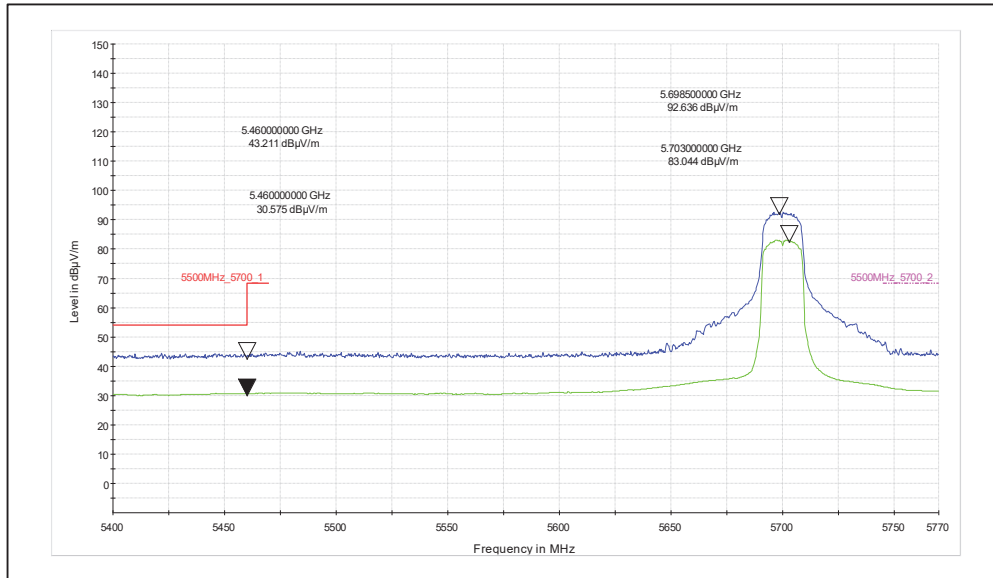
Channel Frequency_5600MHz_PW-12dBm_UNII-2C_Vertical Polarization



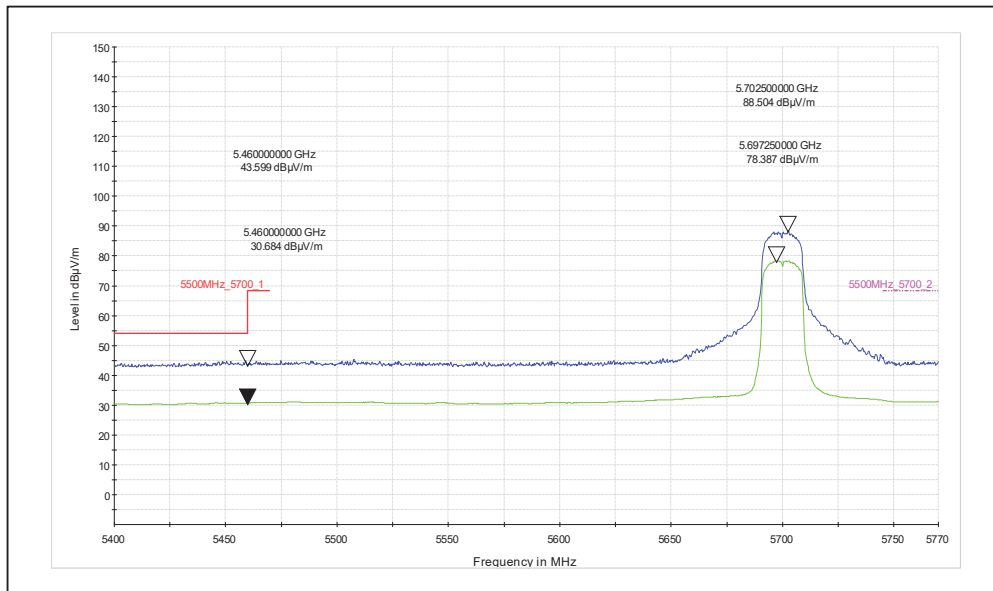
Channel Frequency_5600MHz_PW-12dBm_UNII-2C_Horizontal Polarization



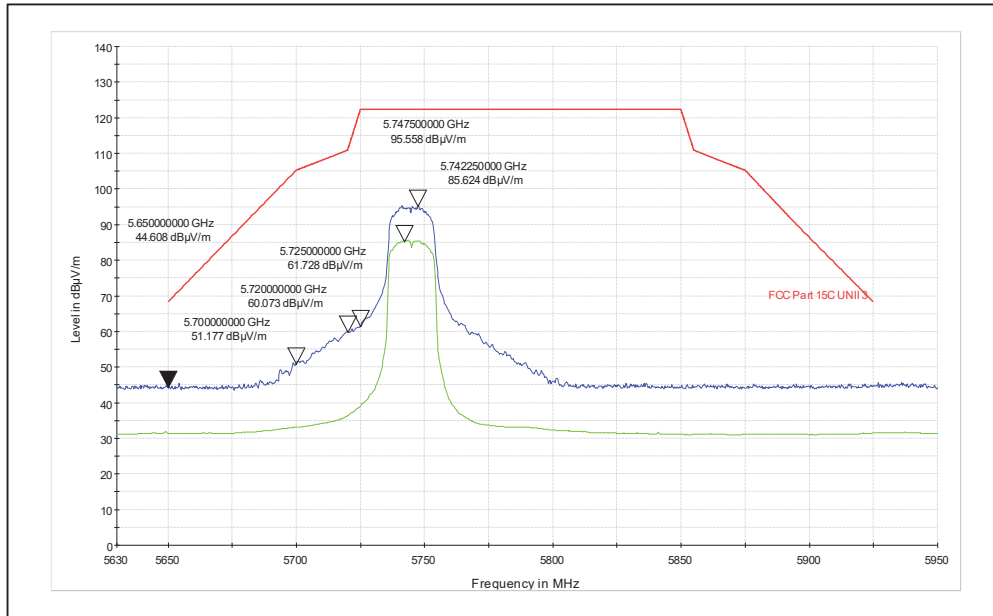
Channel Frequency_5700MHz_PW-9.5dBm_UNII-2C_Vertical Polarization



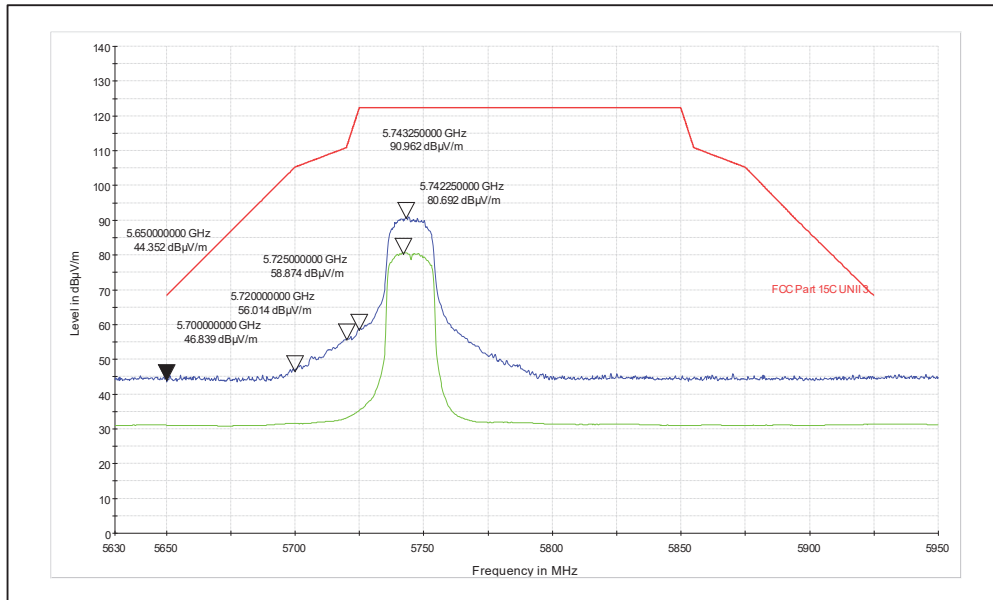
Channel Frequency_5700MHz_PW-9.5dBm_UNII-2C_Horizontal Polarization



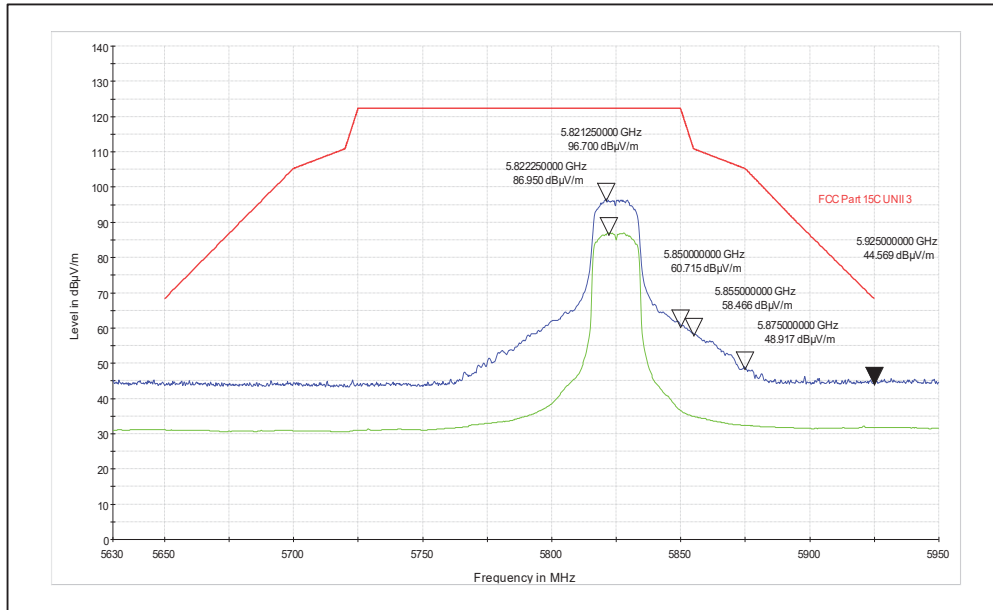
Channel Frequency_5745MHz_PW-11.5dBm_UNII-3_Vertical Polarization



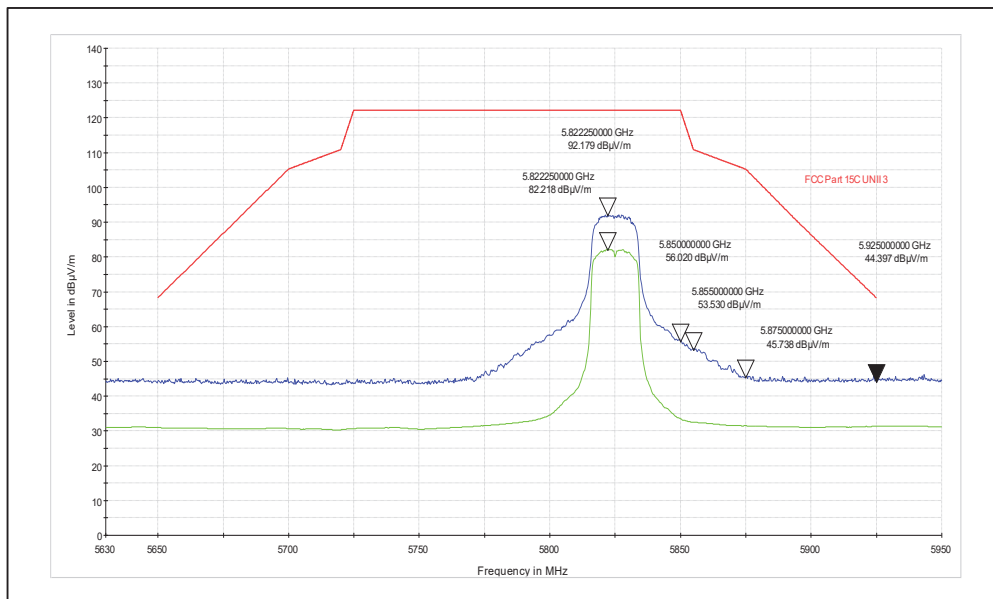
Channel Frequency_5745MHz_PW-11.5dBm_UNII-3_Horizontal Polarization



Channel Frequency_5825MHz_PW-12dBm_UNII-3_Vertical Polarization



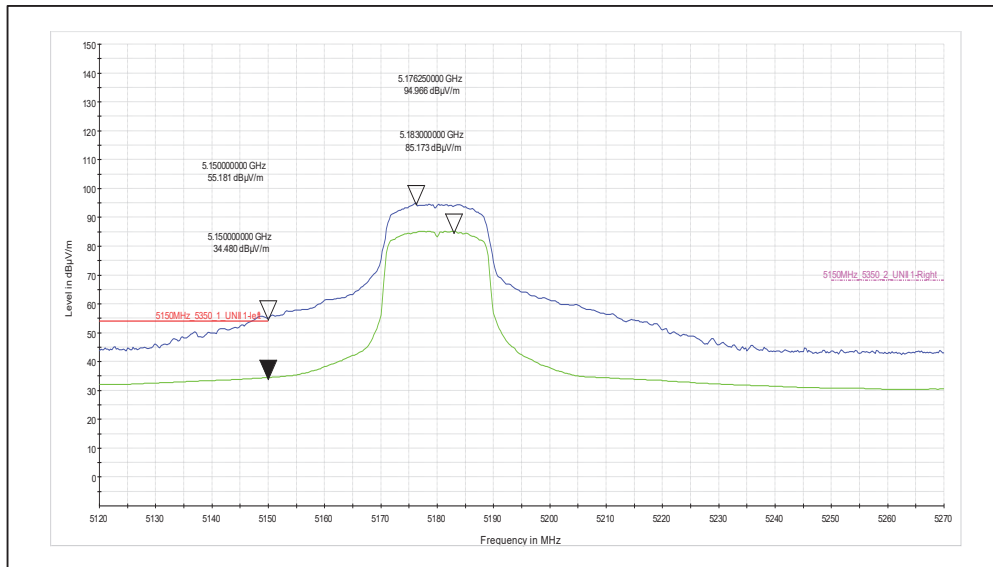
Channel Frequency_5825MHz_PW-12dBm_UNII-3_Horizontal Polarization



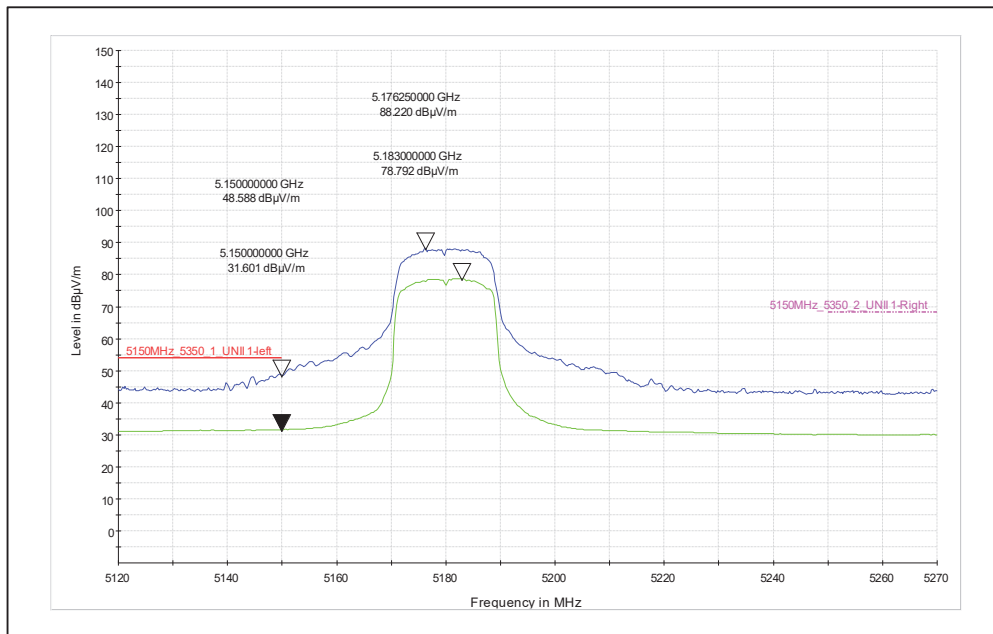
Modulation: 802.11ac_VHT-20

Data Rate : MCS0

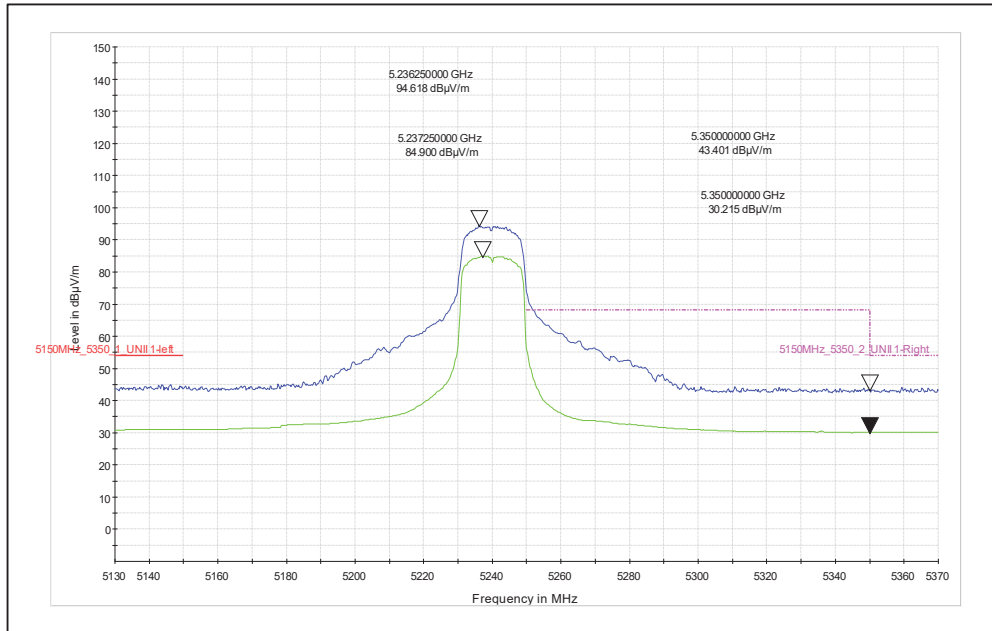
Channel Frequency_5180MHz_PW-11.5dBm_UNII-1_Vertical Polarization



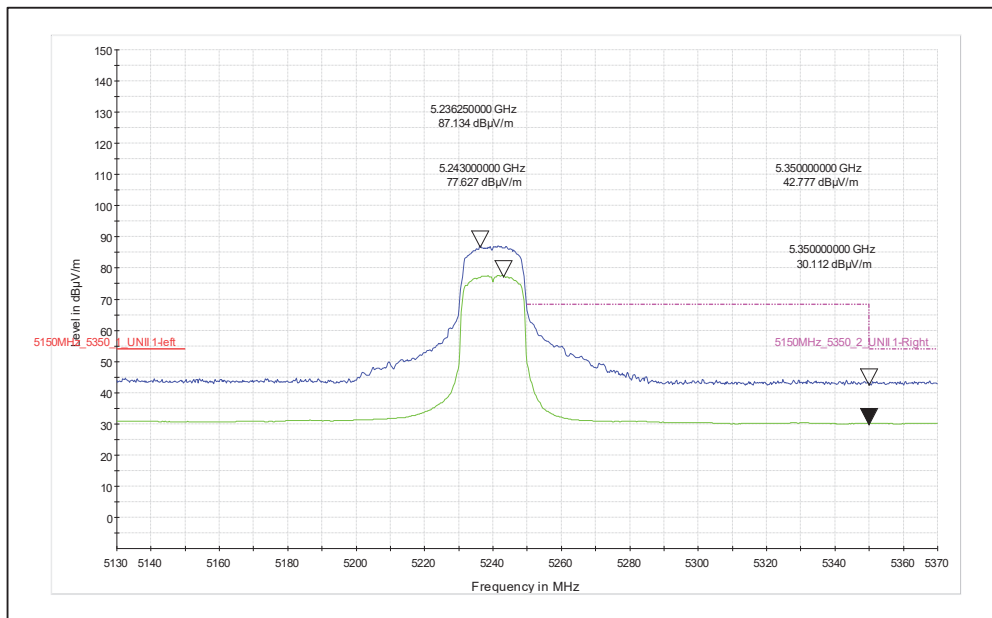
Channel Frequency_5180MHz_PW-11.5dBm_UNII-1_Horizontal Polarization



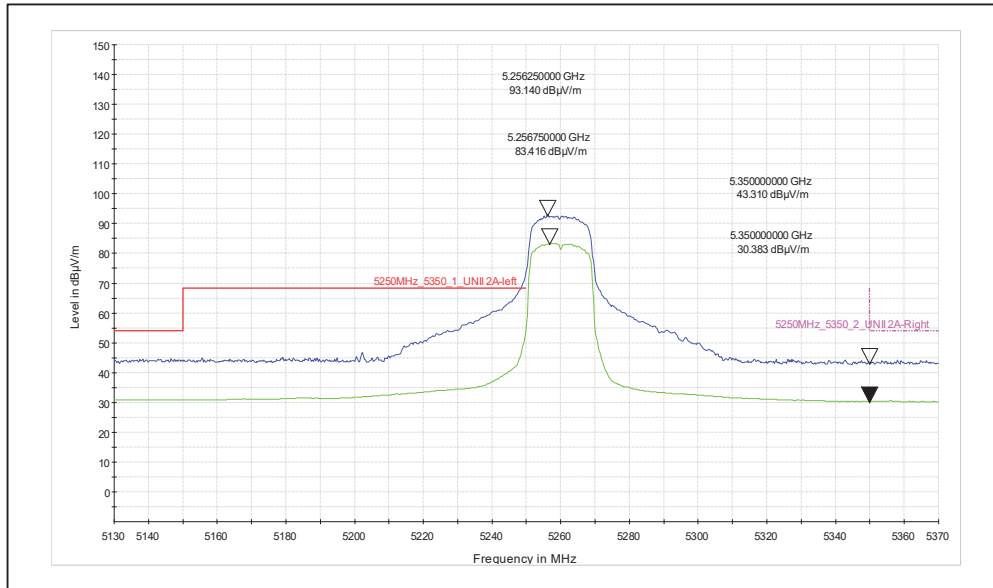
Channel Frequency-5240MHz_PW-12dBm_UNII-1_Vertical Polarization



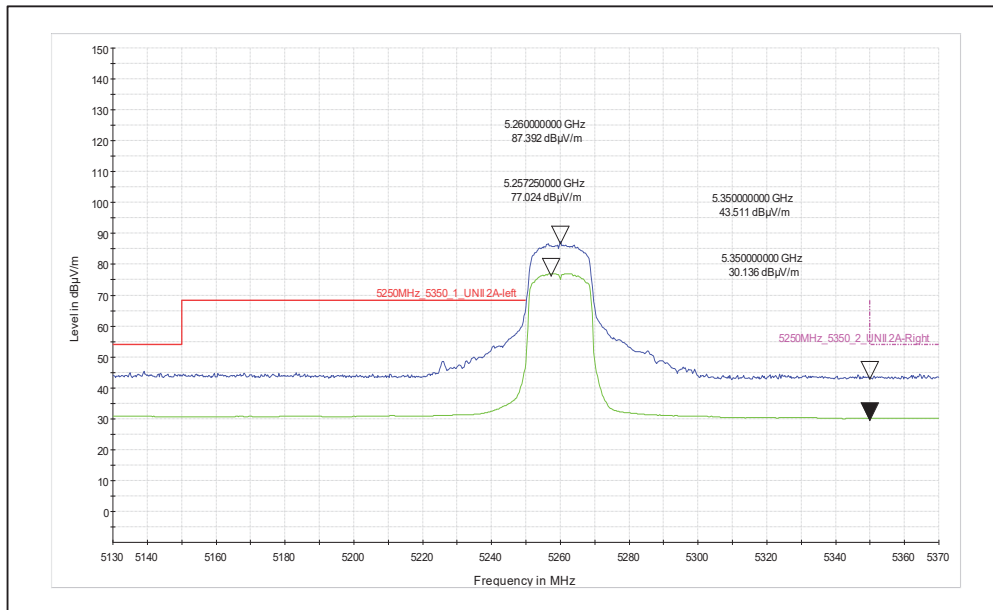
Channel Frequency-5240MHz_PW-12dBm_UNII-1_Horizontal Polarization



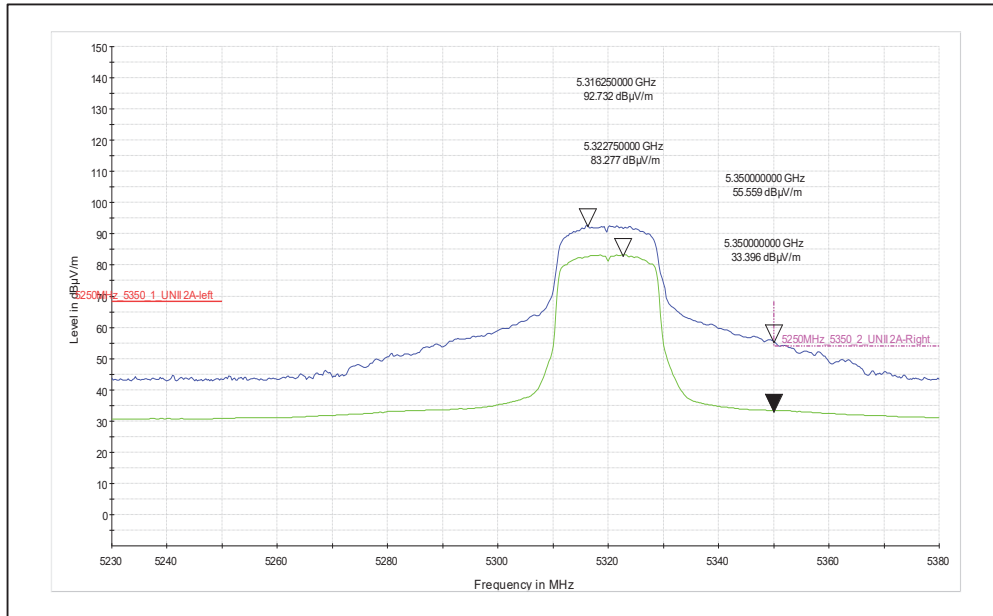
Channel Frequency-5260MHz_PW-11.5dBm_UNII-2A_Vertical Polarization



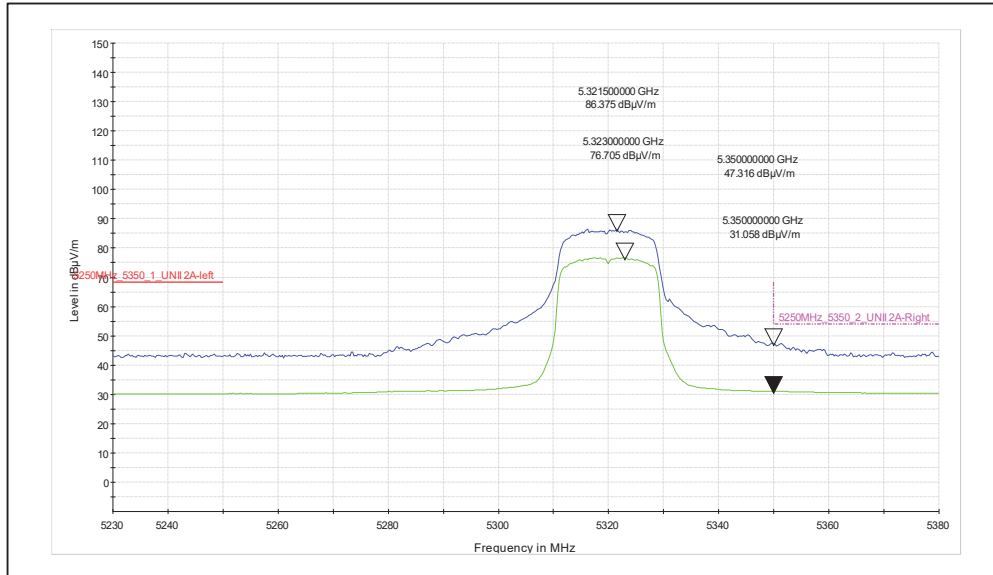
Channel Frequency-5260MHz_PW-11.5dBm_UNII-2A_Horizontal Polarization



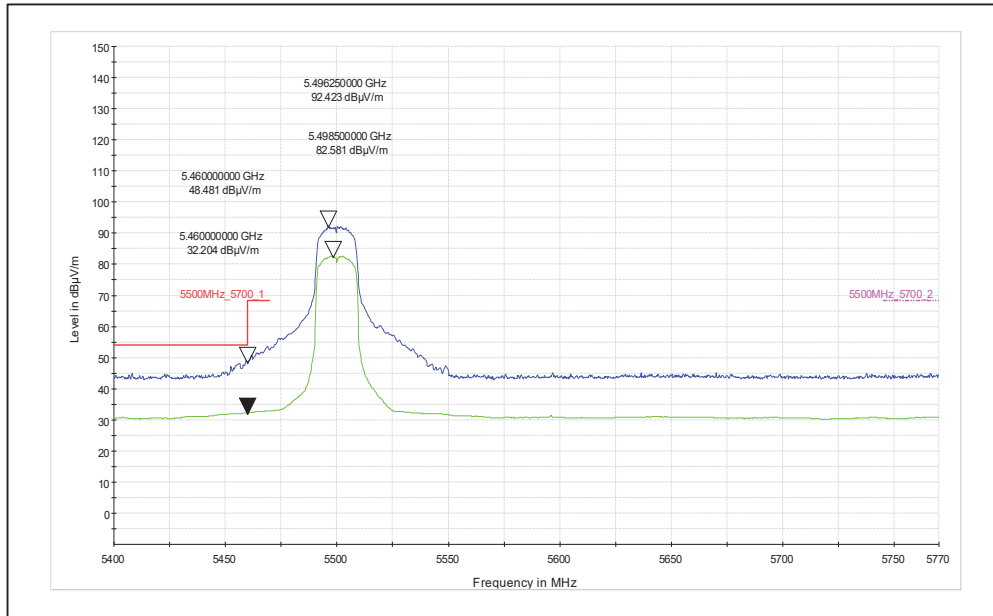
Channel Frequency-5320MHz_PW-11.5dBm_UNII-2A_Vertical Polarization



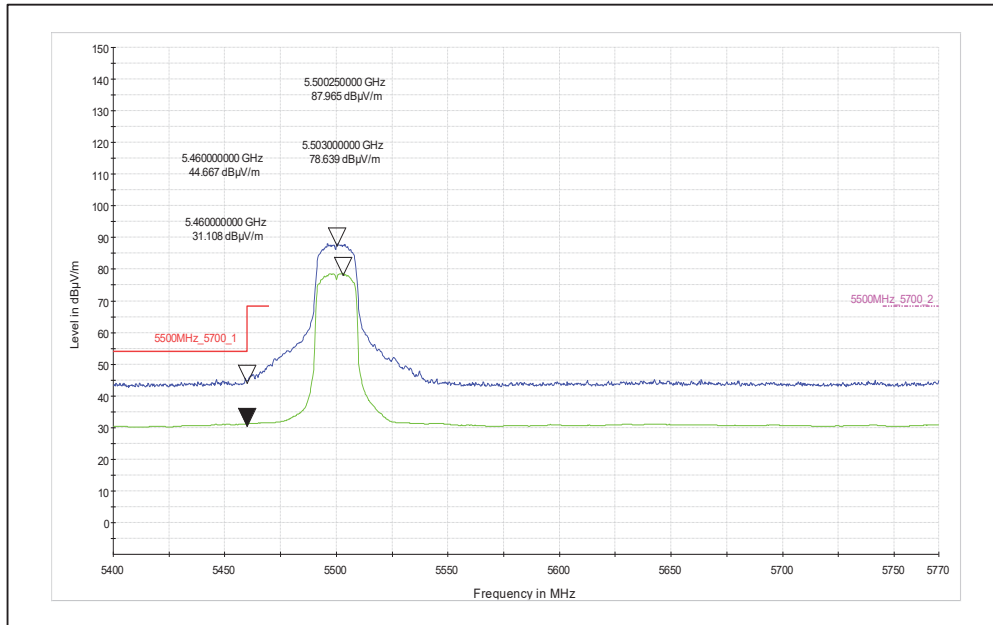
Channel Frequency-5320MHz_PW-11.5dBm_UNII-2A_Horizontal Polarization



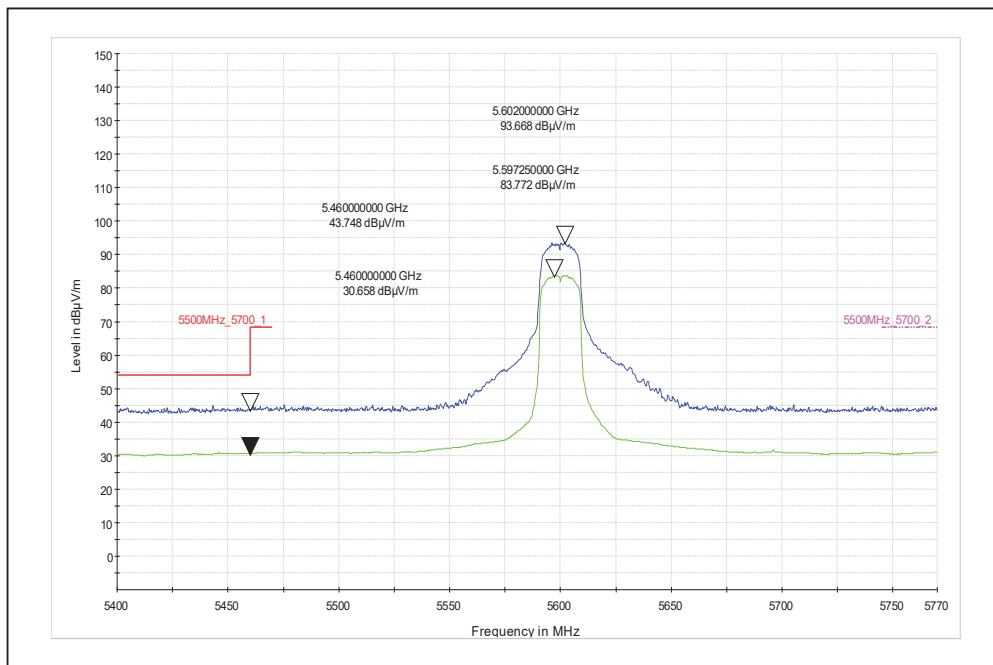
Channel Frequency-5500MHz_PW-11.5dBm_UNII-2C_Vertical Polarization



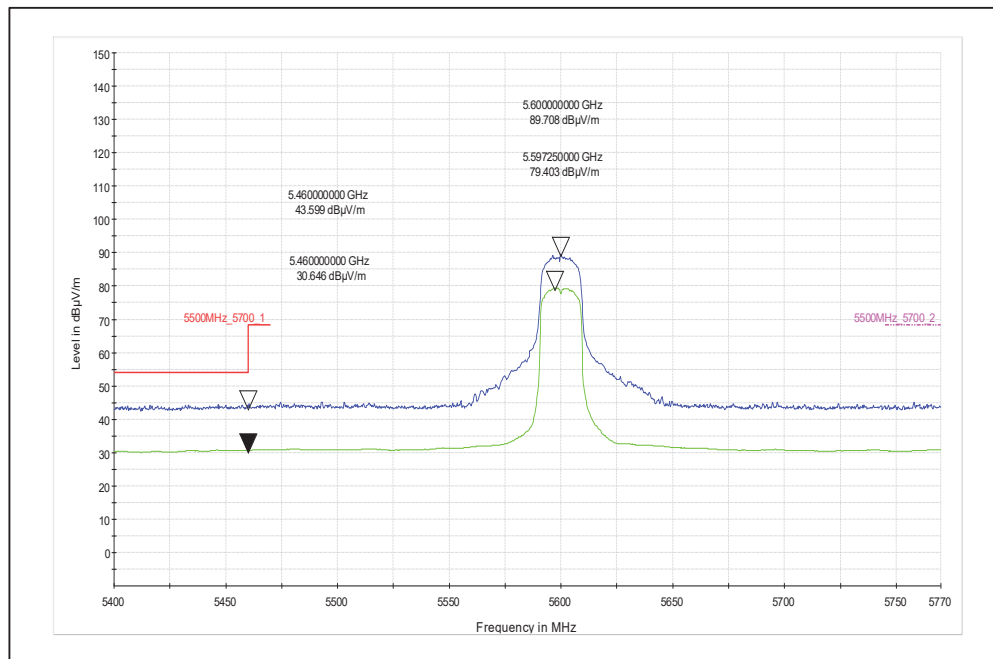
Channel Frequency-5500MHz_PW-11.5dBm_UNII-2C_Horizontal Polarization



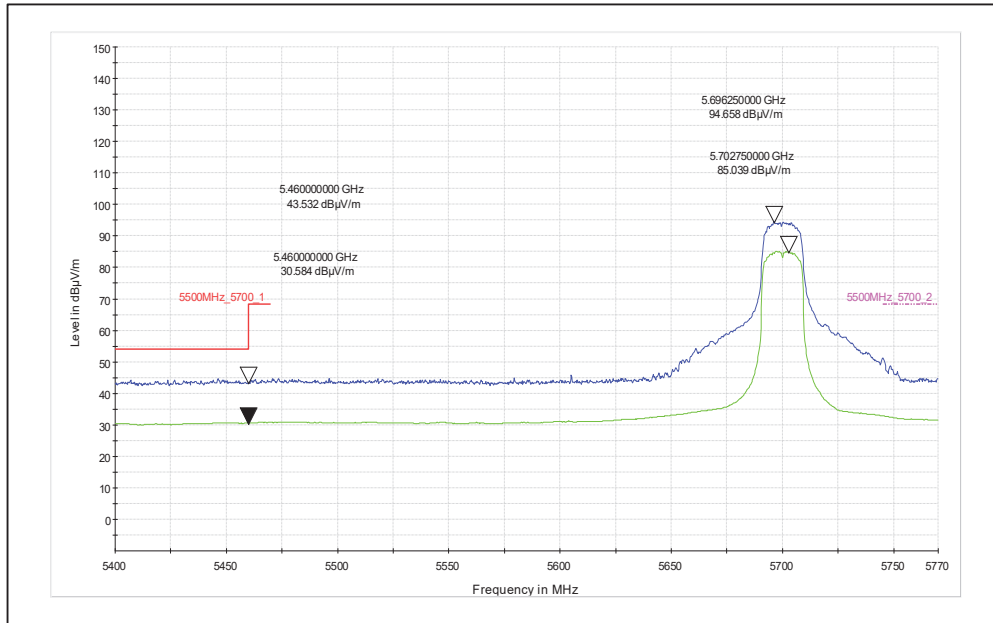
Channel Frequency-5600MHz_PW-11.5dBm_UNII-2C_Vertical Polarization



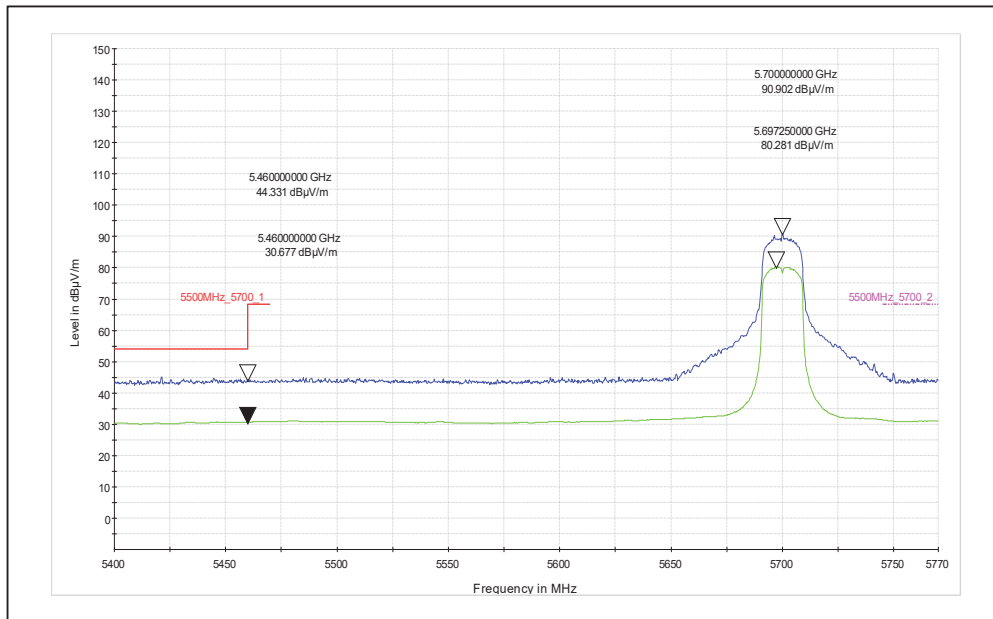
Channel Frequency-5600MHz_PW-11.5dBm_UNII-2C_Horizontal Polarization



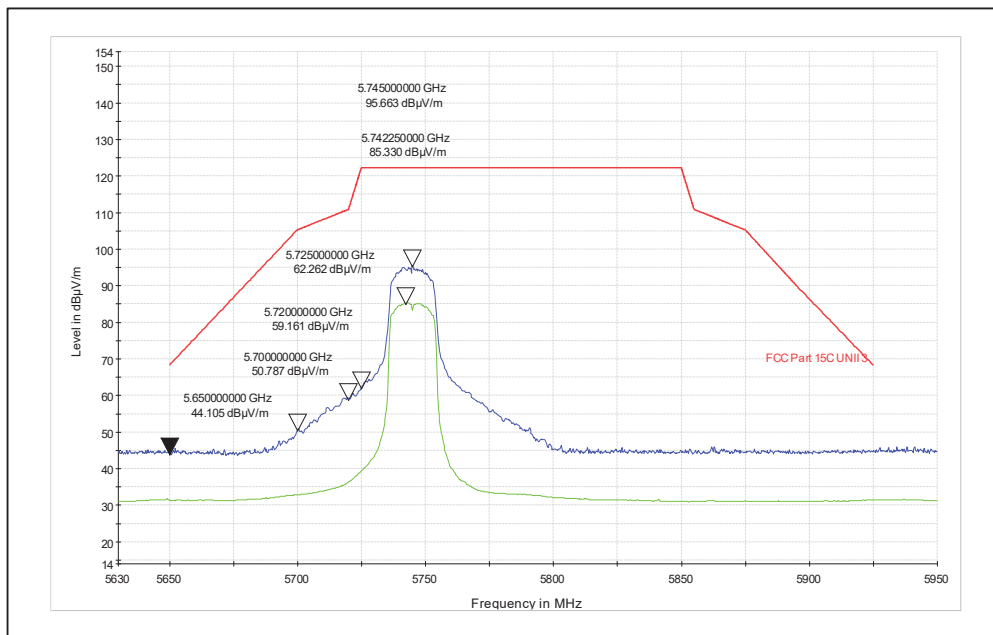
Channel Frequency-5700MHz_PW-11.5dBm_UNII-2C_Vertical Polarization



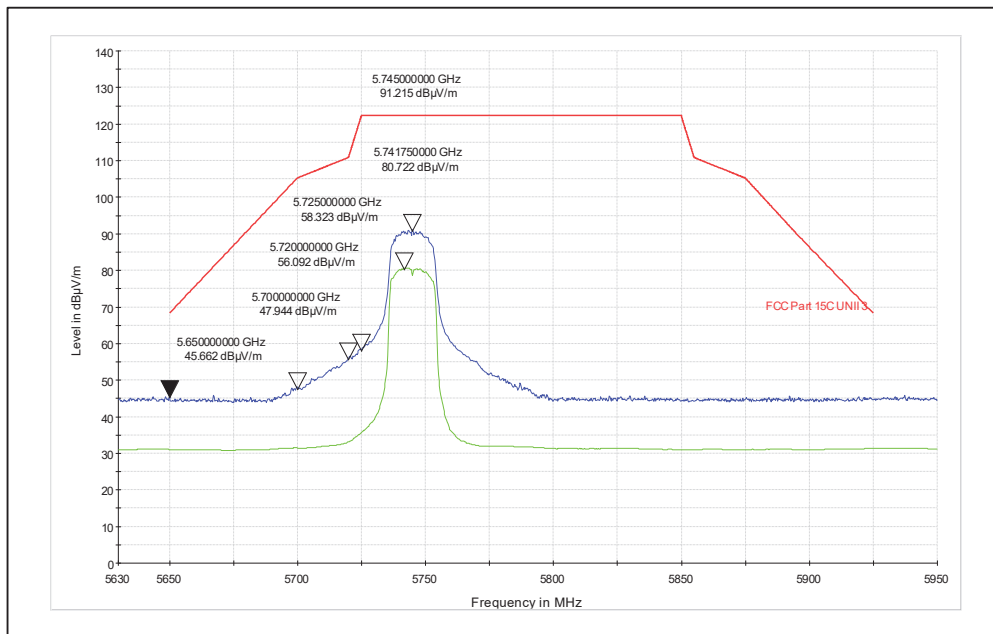
Channel Frequency-5700MHz_PW-11.5dBm_UNII-2C_Horizontal Polarization



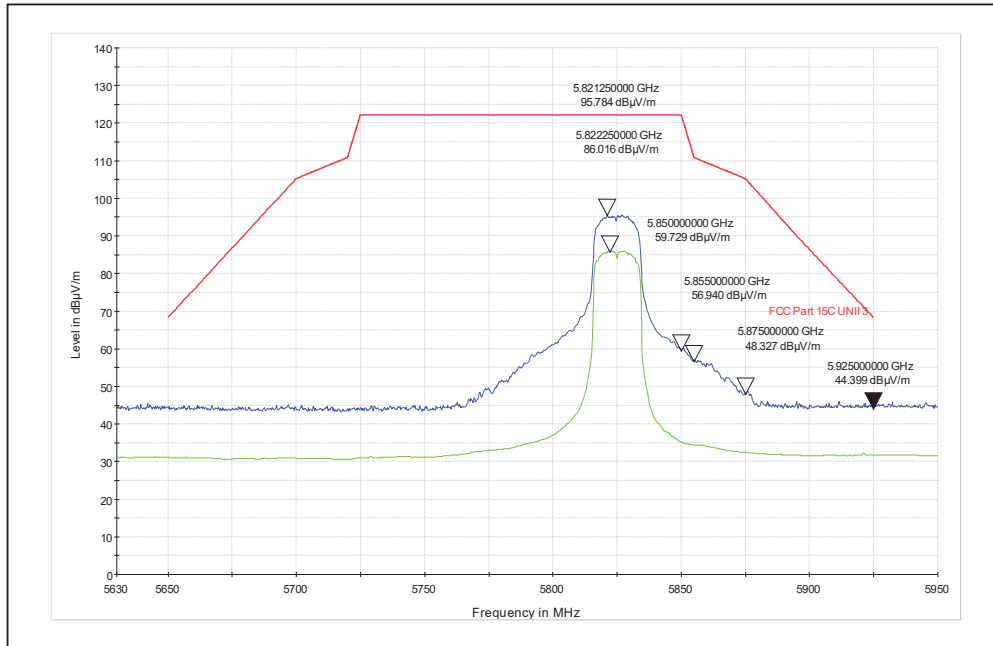
Channel Frequency-5745MHz_PW-11.5dBm_UNII-3_Vertical Polarization



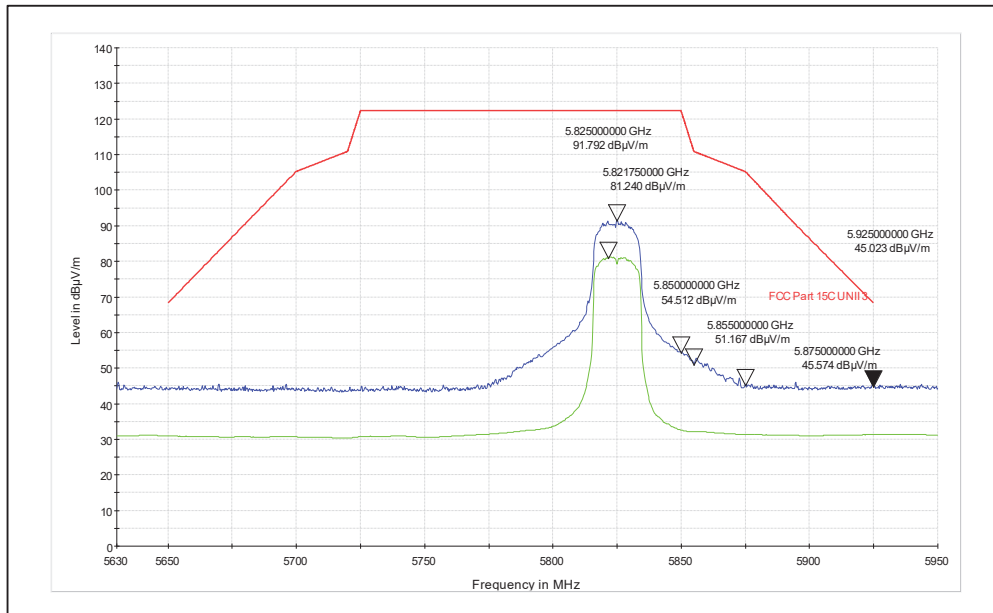
Channel Frequency-5745MHz_PW-11.5dBm_UNII-3_Horizontal Polarization



Channel Frequency-5825MHz_PW-11.5dBm_UNII-3_Vertical Polarization



Channel Frequency-5825MHz_PW-11.5dBm_UNII-3_Horizontal Polarization



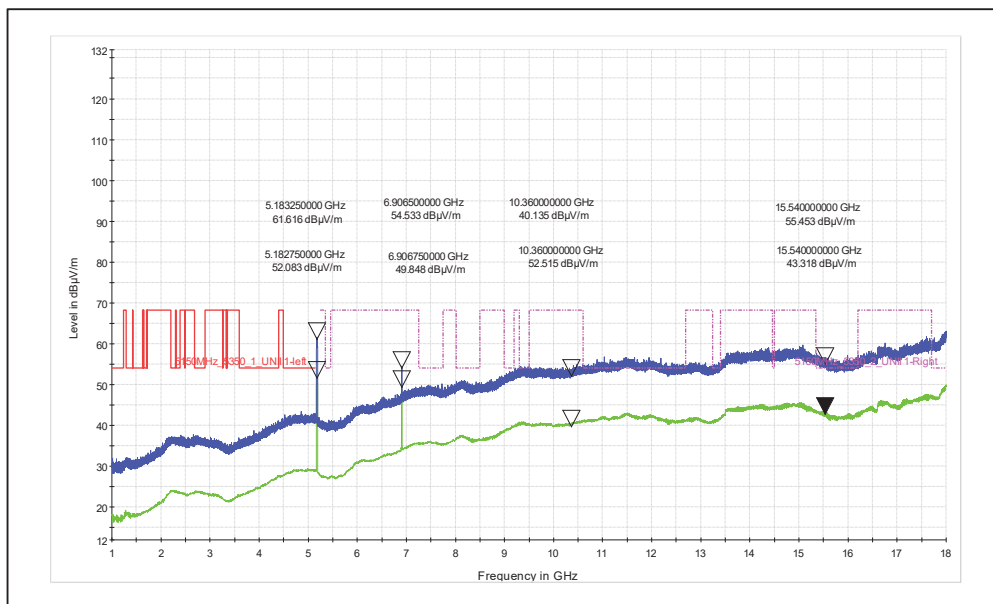
WiFi 5GHz

Radiated Spurious Emissions

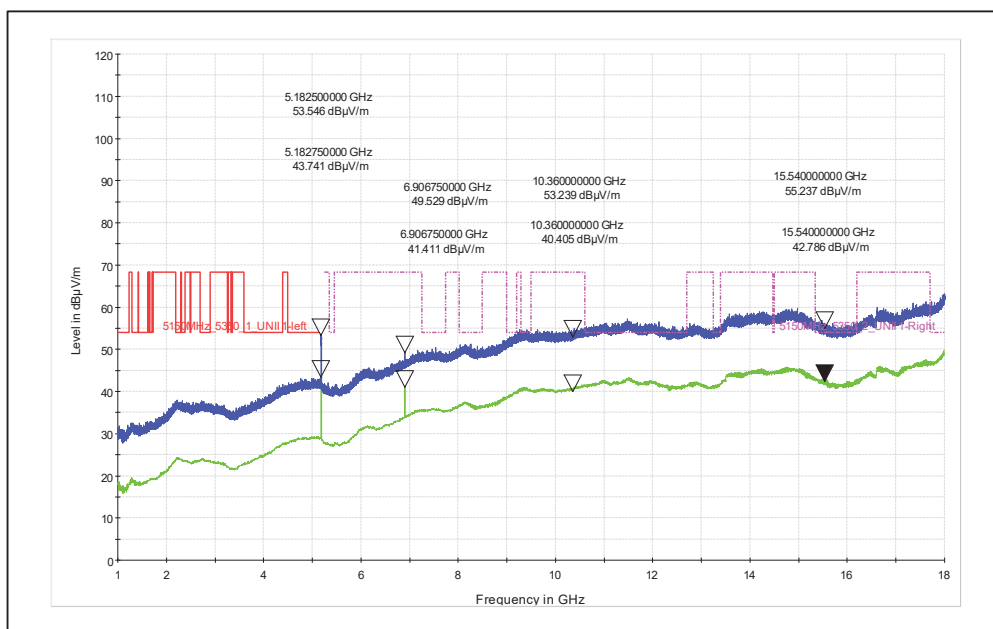
Modulation: 802.11a

Data Rate : 6Mbps

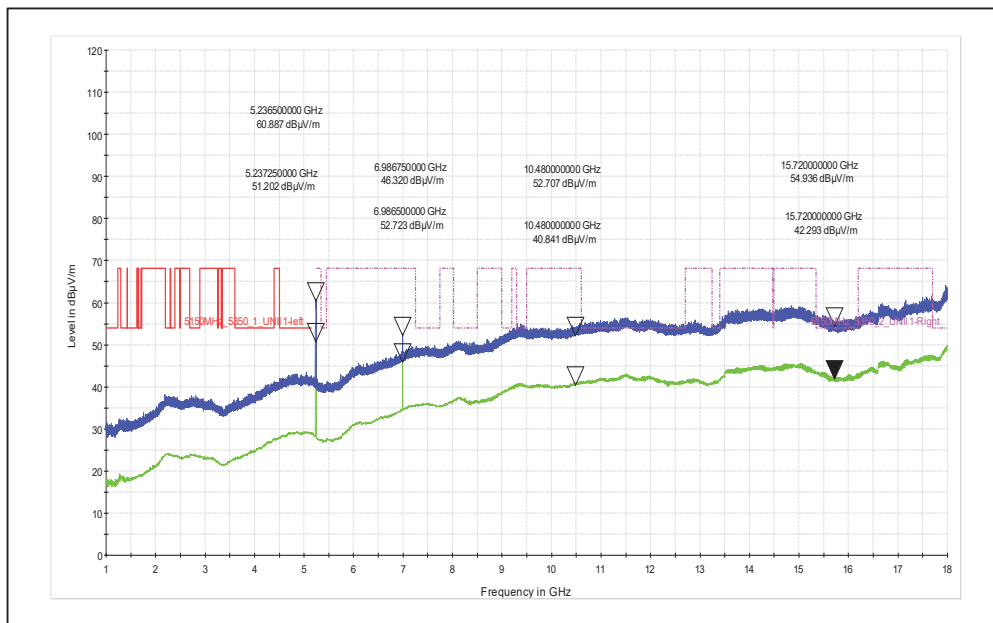
Channel Frequency-5180MHz_PW-11.5dBm_UNII-1_1-18GHz_Vertical Polarization



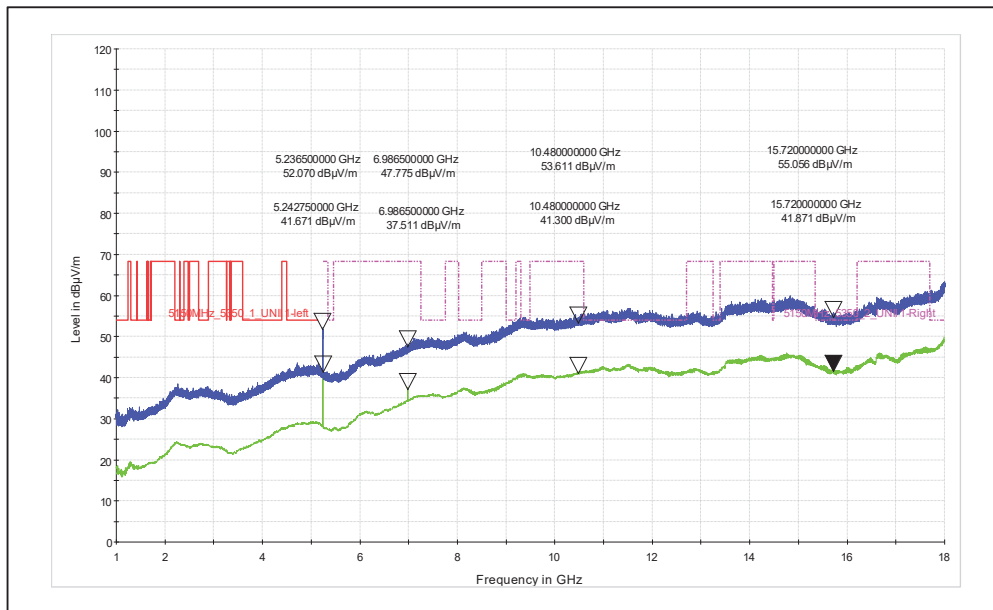
Channel Frequency-5180MHz_PW-11.5dBm_UNII-1_1-18GHz_Horizontal Polarization



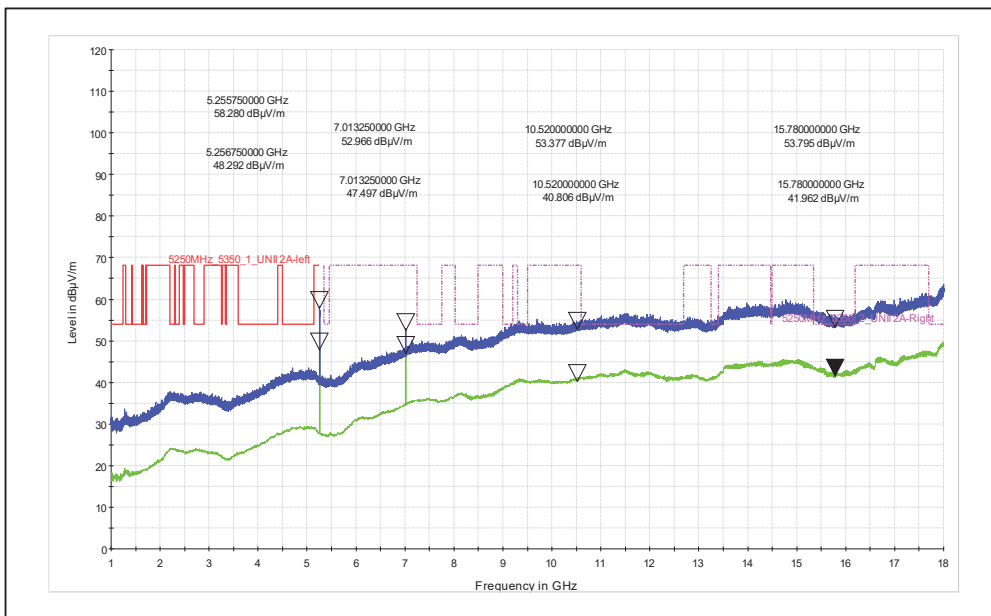
Channel Frequency-5240MHz_PW-12dBm_UNII-1_1-18GHz_Vertical Polarization



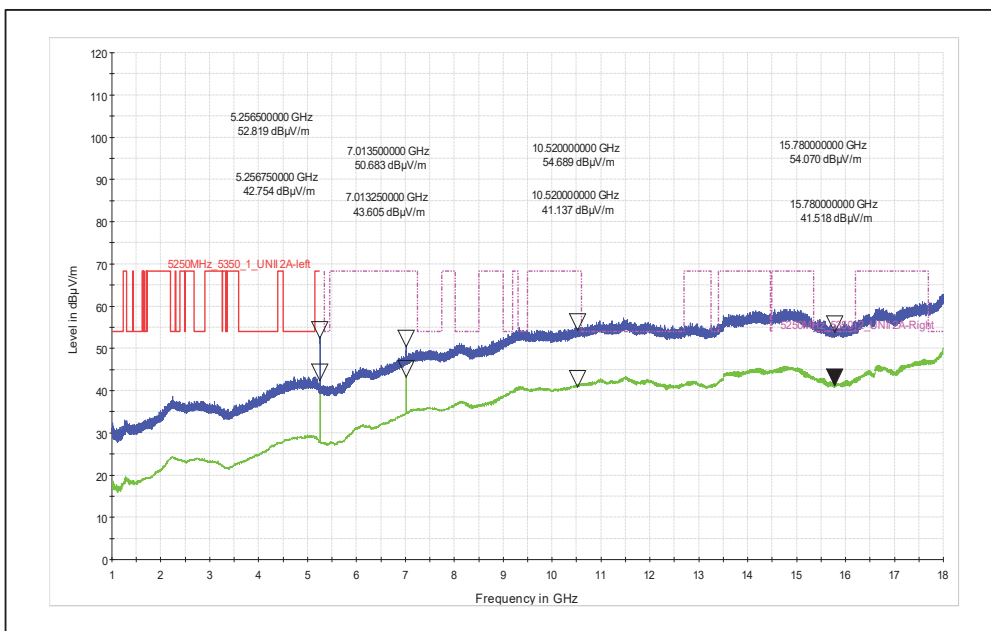
Channel Frequency-5240MHz_PW-12dBm_UNII-1_1-18GHz_Horizontal Polarization



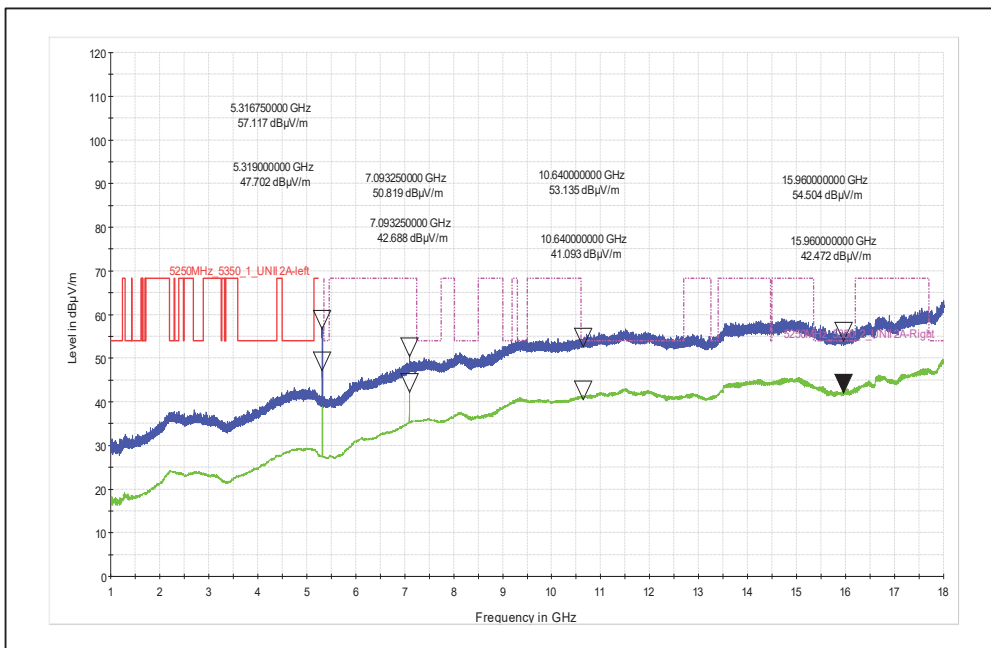
Channel Frequency-5260MHz_PW-11.5dBm_UNII-2A_1-18GHz_Vertical Polarization



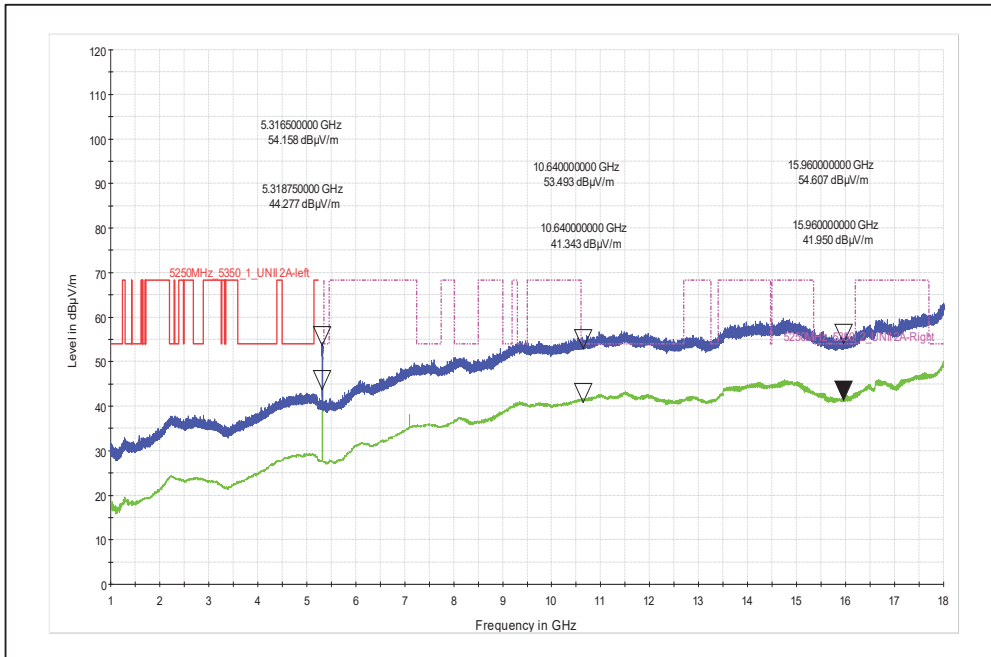
Channel Frequency-5260MHz_PW-11.5dBm_UNII-2A_1-18GHz_Horizontal Polarization



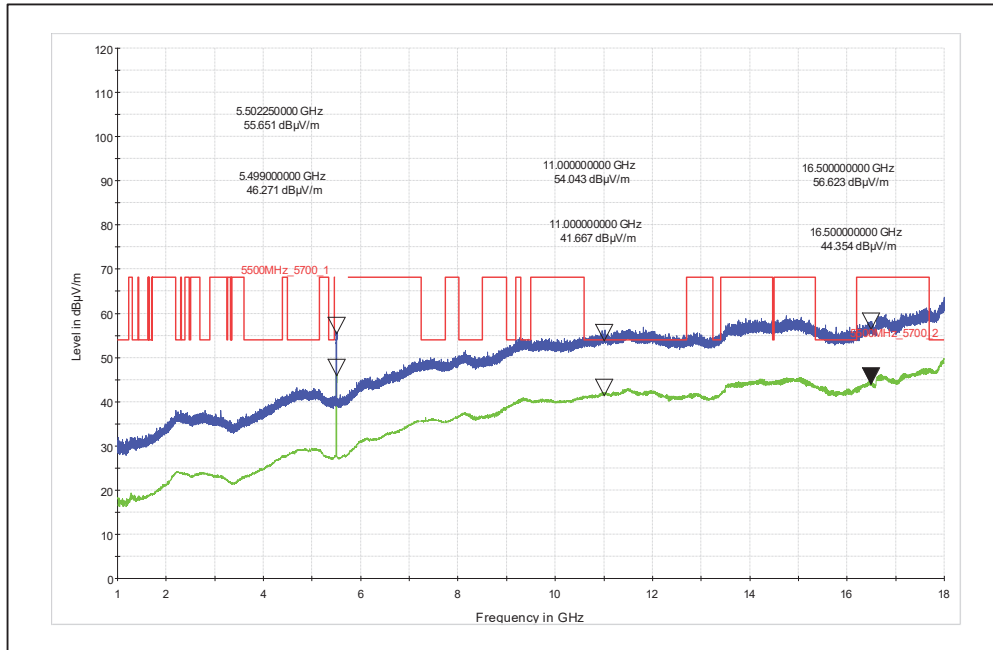
Channel Frequency-5340MHz_PW-12dBm_UNII-2A_1-18GHz_Vertical Polarization



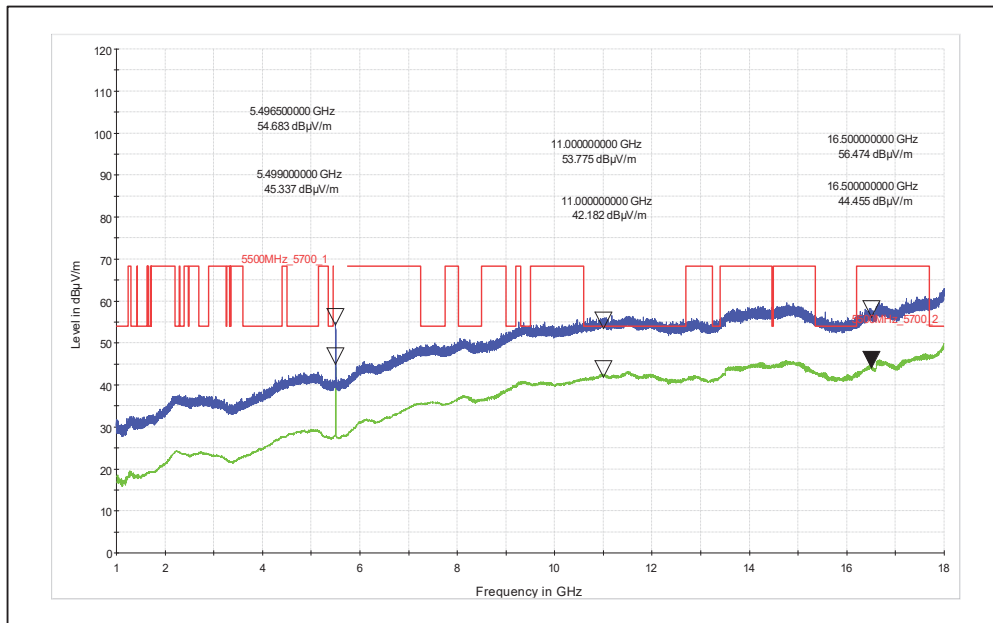
Channel Frequency-5340MHz_PW-12dBm_UNII-2A_1-18GHz_Horizontal Polarization



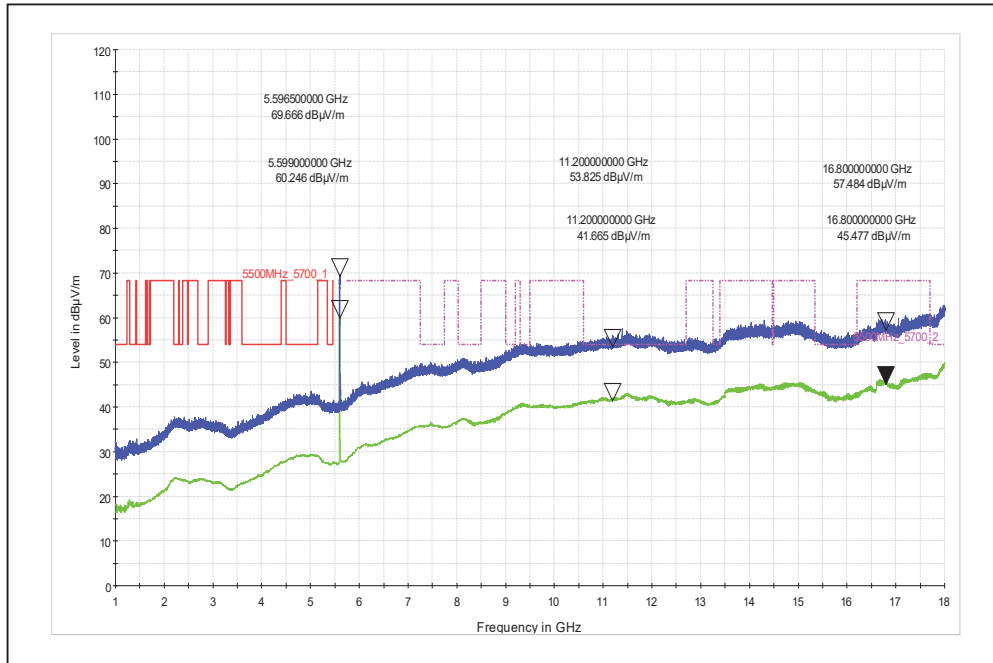
Channel Frequency-5500MHz_PW-10.5dBm_UNII-2C_1-18GHz_Vertical Polarization



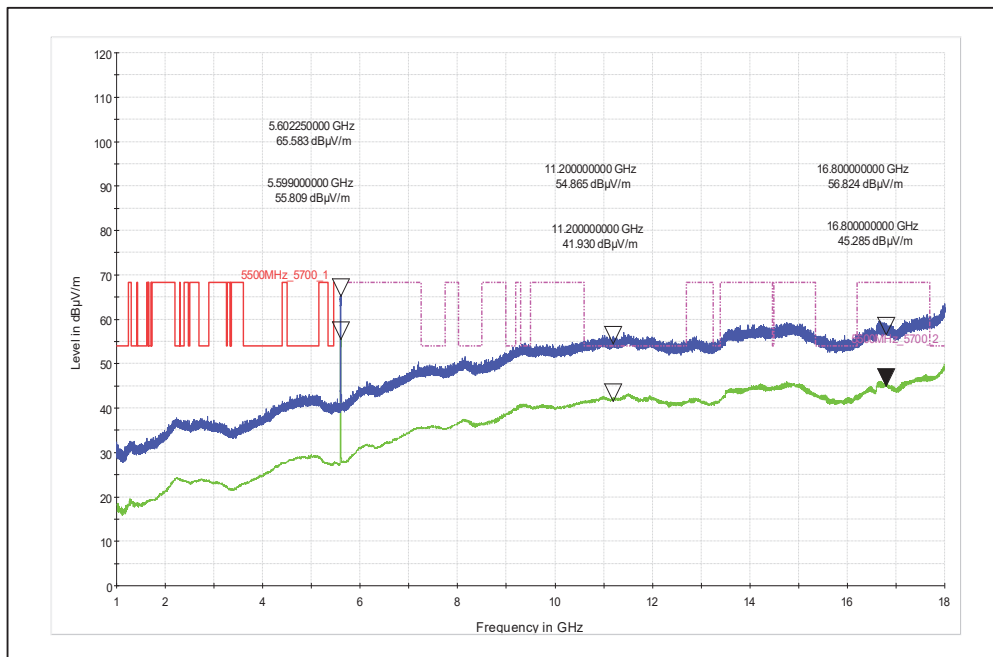
Channel Frequency-5500MHz_PW-10.5dBm_UNII-2C_1-18GHz_Horizontal Polarization



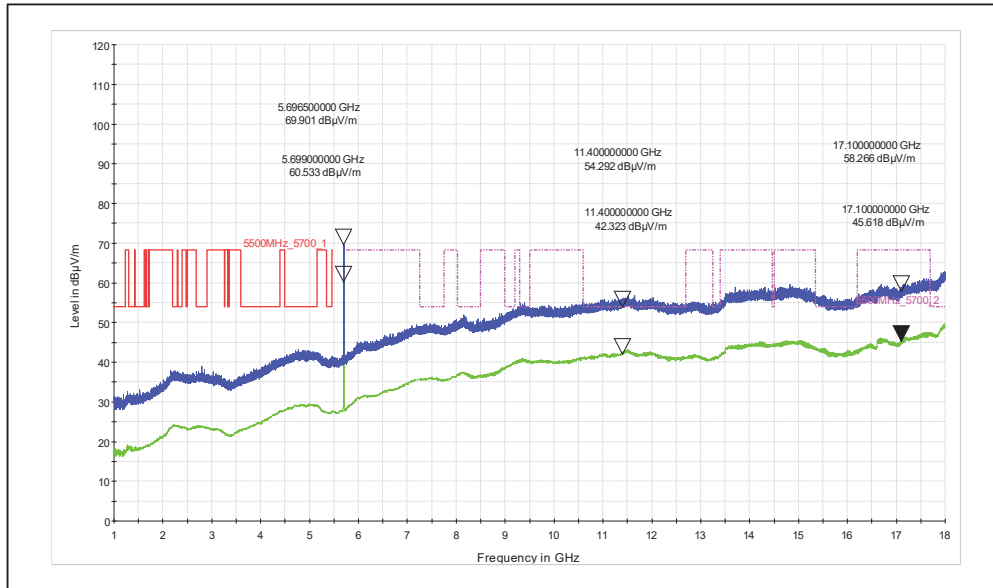
Channel Frequency-5600MHz_PW-12dBm_UNII-2C_1-18GHz_Vertical Polarization



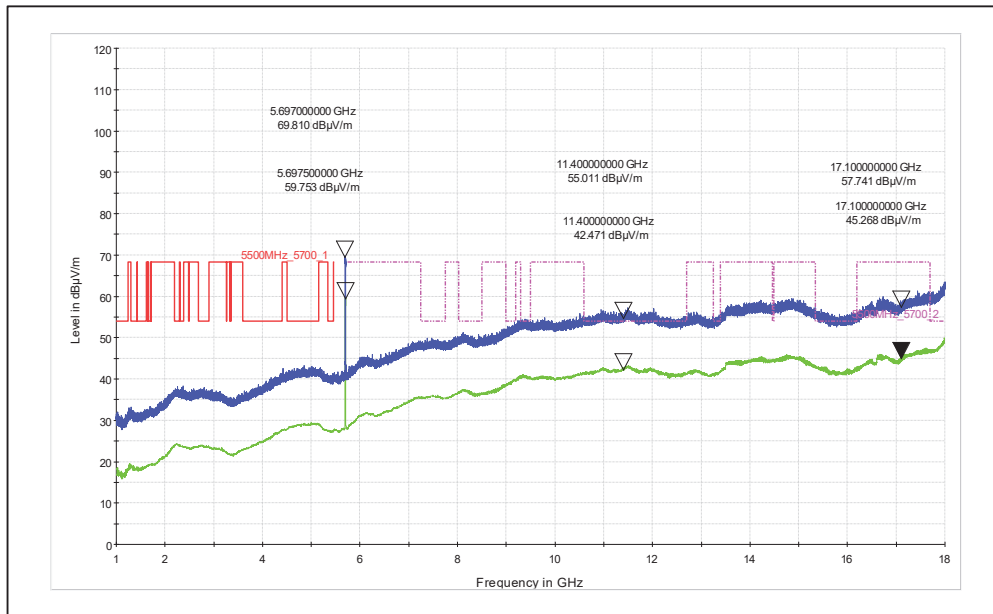
Channel Frequency-5600MHz_PW-12dBm_UNII-2C_1-18GHz_Horizontal Polarization



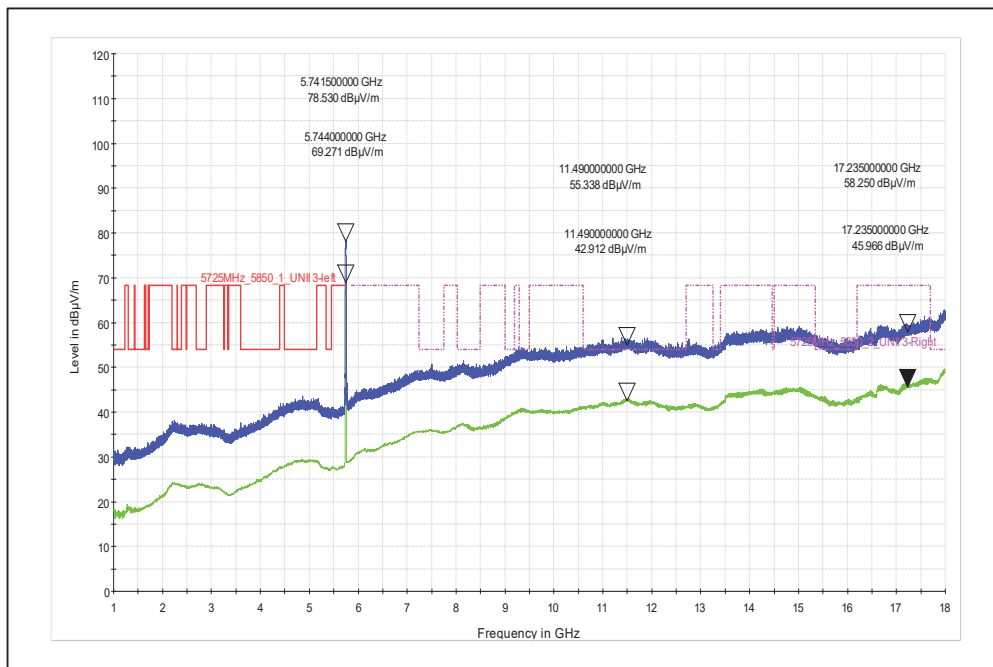
Channel Frequency-5700MHz_PW-9.5dBm_UNII-2C_1-18GHz_Vertical Polarization



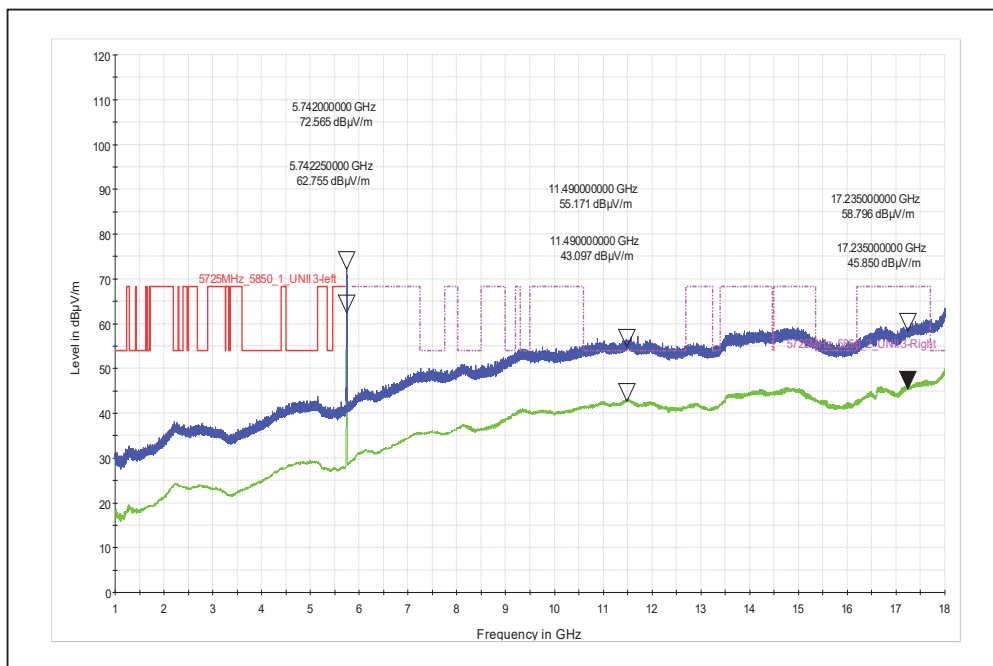
Channel Frequency-5700MHz_PW-9.5dBm_UNII-2C_1-18GHz_Horizontal Polarization



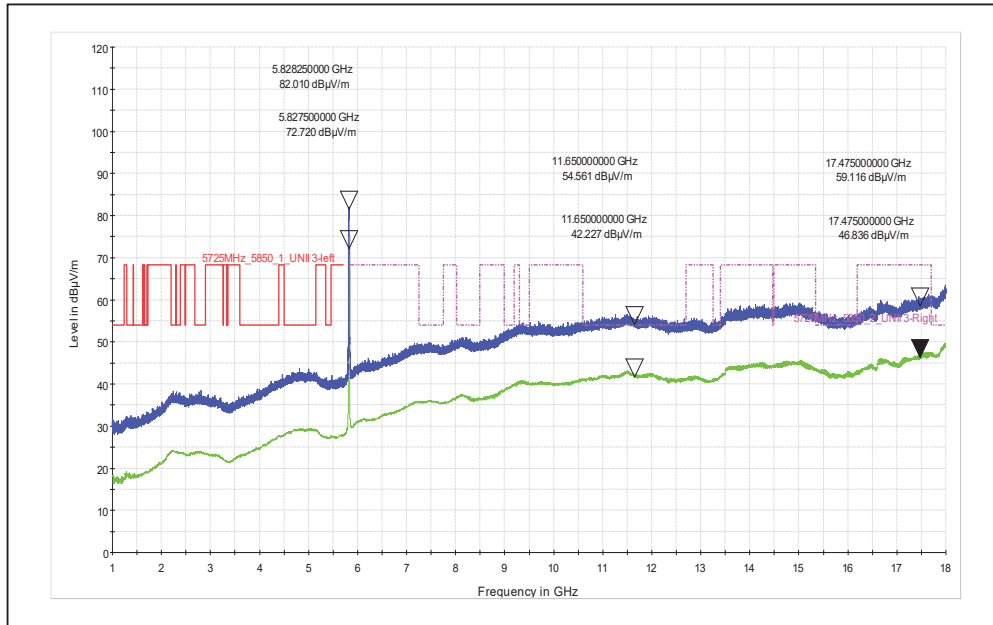
Channel Frequency-5745MHz_PW-11.5dBm_UNII-3_1-18GHz_Vertical Polarization



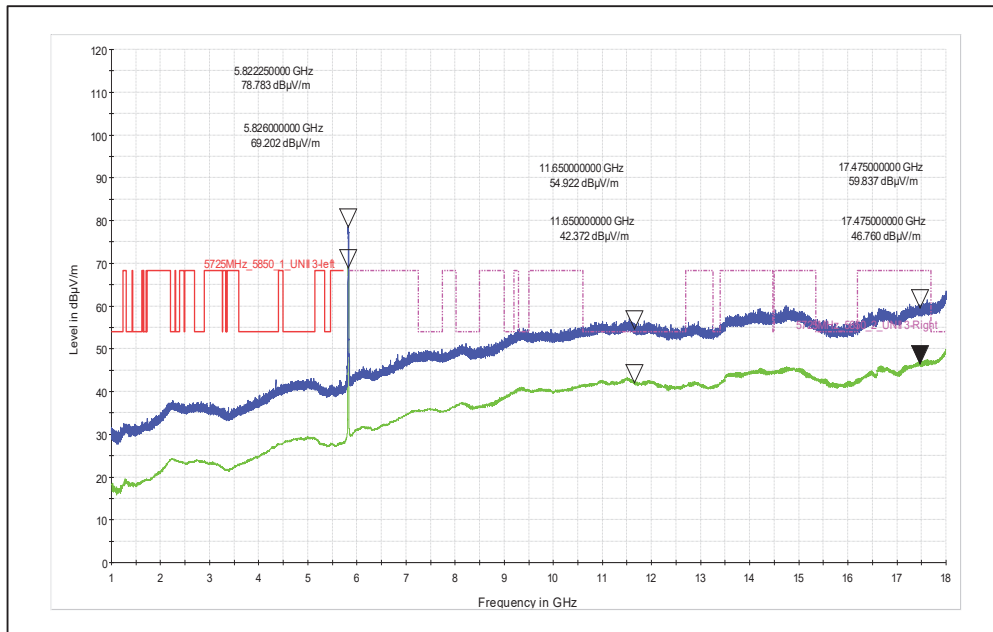
Channel Frequency-5745MHz_PW-11.5dBm_UNII-3_1-18GHz_Horizontal Polarization



Channel Frequency-5825MHz_PW-12dBm_UNII-3_1-18GHz_Vertical Polarization



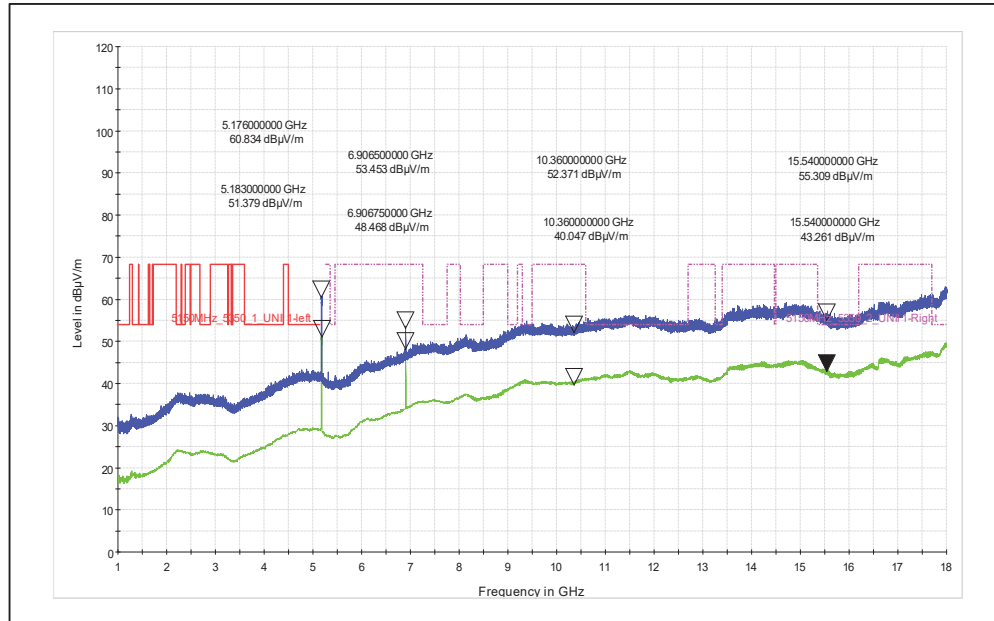
Channel Frequency-5825MHz_PW-12dBm_UNII-3_1-18GHz_Horizontal Polarization



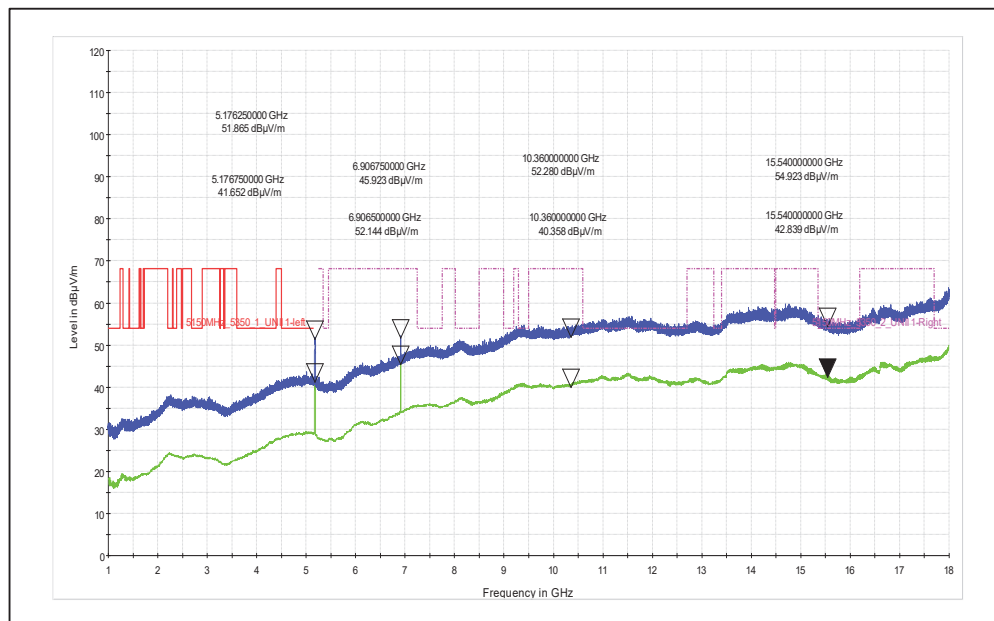
Modulation: 802.11n_HT-20

Data Rate : MCS0

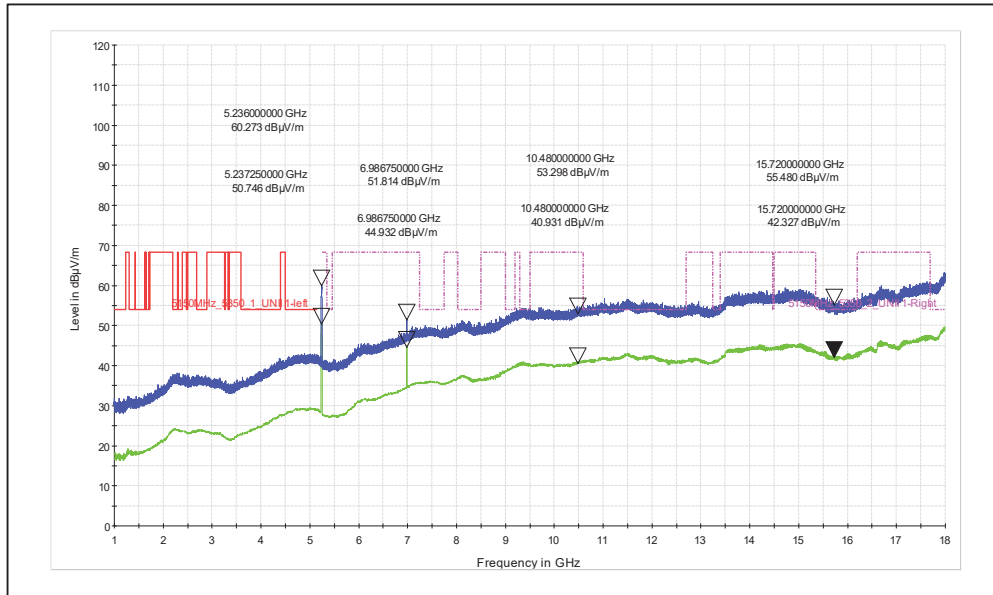
Channel Frequency-5180MHz_PW-11.5dBm_UNII-1_1-18GHz_Vertical Polarization



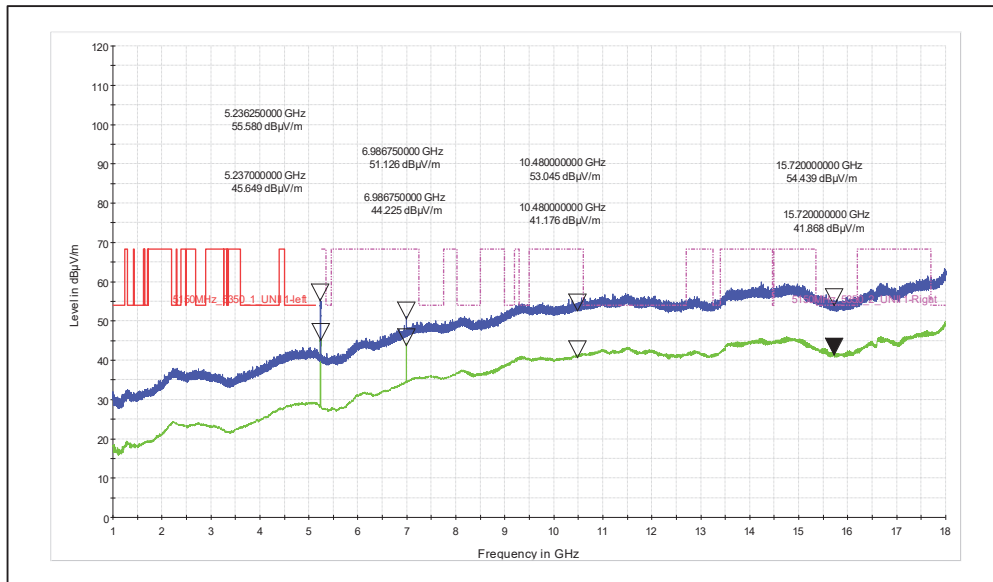
Channel Frequency-5180MHz_PW-11.5dBm_UNII-1_1-18GHz_Horizontal Polarization



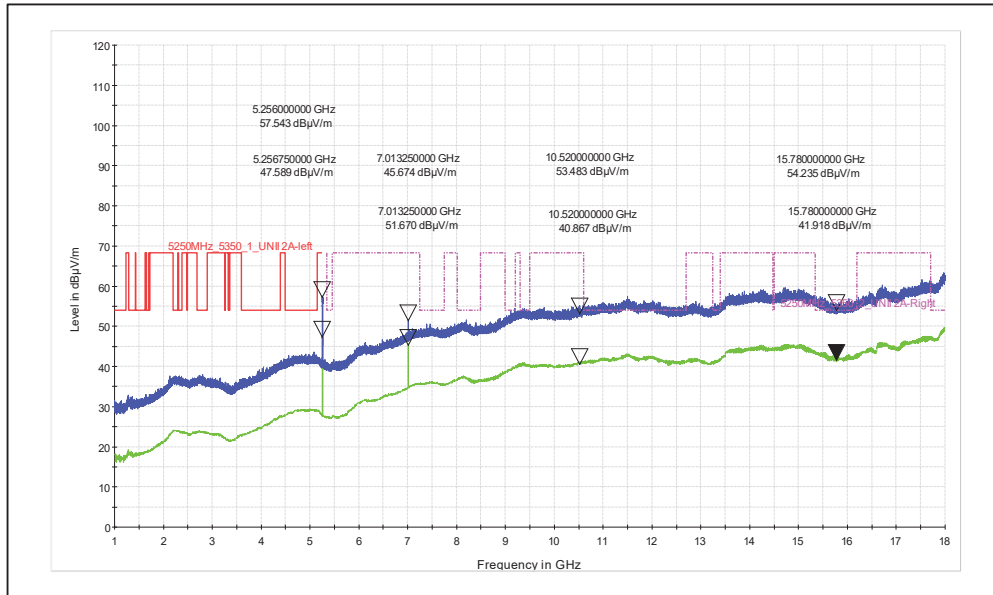
Channel Frequency-5240MHz_PW-12dBm_UNII-1_1-18GHz_Vertical Polarization



Channel Frequency-5240MHz_PW-12dBm_UNII-1_1-18GHz_Horizontal Polarization



Channel Frequency-5260MHz_PW-11.5dBm_UNII-2A_1-18GHz_Vertical Polarization



Channel Frequency-5260MHz_PW-11.5dBm_UNII-2A_1-18GHz_Horizontal Polarization

