

 MOTOROLA SOLUTIONS	    CERTIFICATE 2518.08 SAMM 825																												
MOTOROLA PENANG ADV. COMM. LABORATORY Motorola Solutions Malaysia Sdn. Bhd. Plot 2A Medan Bayan Lepas, Mukim 12, S.W.D. 11900 Bayan Lepas, Penang, Malaysia.	FCC / IC TEST REPORT Report Revision : Rev.C																												
<table><tr><td>Date/s Tested</td><td>:03-February-2026 - 31-March-2026</td></tr><tr><td>Manufacturer/Location</td><td>:Motorola Solutions Malaysia SDN BHD</td></tr><tr><td>Manufacturer Address</td><td>:Plot 2A Medan Bayan Lepas, Mukim 12 SWD, 11900 Bayan Lepas, Penang, Malaysia</td></tr><tr><td>Requestor</td><td>:Ooi Vern Yin</td></tr><tr><td>Product Type</td><td>:Portable</td></tr><tr><td>Product Version (PMN)</td><td>:TLK 200</td></tr><tr><td>Model Number (HVIN)</td><td>:HK2300A</td></tr><tr><td>Frequency Band</td><td>:5180-5825 MHz</td></tr><tr><td>Firmware Version (FVIN)</td><td>:D01.00.01 (BP), D01.06.08 (AP)</td></tr><tr><td>Applicant Name</td><td>:Motorola Solutions Inc</td></tr><tr><td>Applicant Address</td><td>:Plot 2A, Medan Bayan Lepas, Mukim 12, S.W.D 11900 Bayan Lepas, Penang, Malaysia.</td></tr><tr><td>FCC Registrations</td><td>:461337</td></tr><tr><td>ISED Registration</td><td>:109AK</td></tr></table> The equipment was tested accordance to the requirement listed below: <table><tr><td>(5GHz Wi-Fi) FCC 47 CFR Part 15 Subpart E IC RSS 247 Issue 4</td><td>PASS</td></tr></table>		Date/s Tested	:03-February-2026 - 31-March-2026	Manufacturer/Location	:Motorola Solutions Malaysia SDN BHD	Manufacturer Address	:Plot 2A Medan Bayan Lepas, Mukim 12 SWD, 11900 Bayan Lepas, Penang, Malaysia	Requestor	:Ooi Vern Yin	Product Type	:Portable	Product Version (PMN)	:TLK 200	Model Number (HVIN)	:HK2300A	Frequency Band	:5180-5825 MHz	Firmware Version (FVIN)	:D01.00.01 (BP), D01.06.08 (AP)	Applicant Name	:Motorola Solutions Inc	Applicant Address	:Plot 2A, Medan Bayan Lepas, Mukim 12, S.W.D 11900 Bayan Lepas, Penang, Malaysia.	FCC Registrations	:461337	ISED Registration	:109AK	(5GHz Wi-Fi) FCC 47 CFR Part 15 Subpart E IC RSS 247 Issue 4	PASS
Date/s Tested	:03-February-2026 - 31-March-2026																												
Manufacturer/Location	:Motorola Solutions Malaysia SDN BHD																												
Manufacturer Address	:Plot 2A Medan Bayan Lepas, Mukim 12 SWD, 11900 Bayan Lepas, Penang, Malaysia																												
Requestor	:Ooi Vern Yin																												
Product Type	:Portable																												
Product Version (PMN)	:TLK 200																												
Model Number (HVIN)	:HK2300A																												
Frequency Band	:5180-5825 MHz																												
Firmware Version (FVIN)	:D01.00.01 (BP), D01.06.08 (AP)																												
Applicant Name	:Motorola Solutions Inc																												
Applicant Address	:Plot 2A, Medan Bayan Lepas, Mukim 12, S.W.D 11900 Bayan Lepas, Penang, Malaysia.																												
FCC Registrations	:461337																												
ISED Registration	:109AK																												
(5GHz Wi-Fi) FCC 47 CFR Part 15 Subpart E IC RSS 247 Issue 4	PASS																												
This report shall not be reproduced without written approval from an officially designated representative of the Motorola Penang Adv. Comm. Laboratory. The results and statements contained in this report pertain only to the device(s)evaluated.																													
Prepared By:  Ahmad Azim Fashan Bin Fadzil Technician	Approved Signatory:  Vincent Foong Chuen Kit Responsible Engineer																												

Table of Contents

1.0. Summary of Test Results	3
2.0. Measurement Uncertainty.....	4
3.0. Equipment List.....	5
4.0. General Information	6
5.0. Test Mode Applicability and Test Channel Detail.....	9
6.0. Duty Cycle of Test Signal	12
6.0.1. Test Setup.....	12
6.0.2. Test Data.....	13
7.0. Transmitter Test Parameters	17
7.1. Bandwidth measurements.....	17
7.1.1. Test Setup.....	17
7.1.2. Test Limits	17
7.1.3. Test Data.....	18
7.2. Maximum Conducted Output Power	31
7.2.1. Test Setup.....	31
7.2.2. Test Limits	31
7.2.3. Test Data.....	33
7.3. Maximum Power Spectral Density.....	59
7.3.1. Test Setup.....	59
7.3.2. Test Limits	59
7.3.3. Test Data.....	60
7.4. 6dB Bandwidth.....	79
7.4.1. Test Setup.....	79
7.4.2. Test Limits	79
7.4.3. Test Data.....	80
7.5. Frequency Stability	86
7.5.1. Test Setup.....	86
7.5.2. Test Limits	86
7.5.3. Test Data.....	87
7.6. Band Edge Radiated Spurious Emission Measurement	88
7.6.1. Test Setup.....	88
7.6.2. Test Limits	89
7.6.3. Test Result.....	91
7.7. Radiated Spurious Emission Measurement	171
7.7.1. Test Setup.....	171
7.7.2. Test Limits	172
7.7.3. Test Data.....	174
7.8. AC Powerline Conducted Emission	260
7.8.1. Test Setup.....	260
7.8.2. Test Limits	260
7.8.3. Test Data.....	261

Revision History	Description	Date	Originator
Rev. A	Initial Report	21-April-2026	Azim Fashan
Rev. B	Updated FVIN/HVIN	8-May-2026	Vincent
Rev. C	Rectify BW typo for 6B straddle	19-June-2026	Vincent

1.0. Summary of Test Results

FCC Clause	IC Clause	Test Item	Result	Remarks	Serial Number tested	Tested by
15.407 (a)(1/2/3)	RSS 247 6.2	Maximum Conducted Output Power (Average)	Pass	Highest output power: 802.11a: 15.607 dBm (36.367 mW) 802.11n20/ac20: 15.536 dBm (35.776 mW) 802.11n40/ac40: 16.580 dBm (45.497 mW) 802.11ac80: 16.355 dBm (43.205 mW)	64222BY0225	Azim
15.407(a) (1/2/3)	RSS 247 6.2	Maximum Power Spectral Density	Pass	Meet the limit requirement.	64222BY0225	Azim
15.407 (e)	RSS 247 6.2.4	6dB Bandwidth	Pass	a20: 16.975 MHz (17M0D1D) n20/ac20: 18.112 MHz (18M1D1D) n40/ac40: 36.460 MHz (36M5D1D) ac80: 75.808 MHz (75M8D1D)	64222BY0225	Azim
15.407 (g)	RSS Gen 6.11	Frequency Stability	Pass	Meet the limit requirement.	64222BY0225	Azim
15.407 (b) (1/2/3/4/6)	RSS 247 6.2	Band Edge Radiated Spurious Emission Measurement	Pass	Worst case emission: 802.11a: 42.77 dBμV/m 802.11n20/ac20: 42.78 dBμV/m 802.11n40/ac40: 47.05 dBμV/m 802.11ac80: 48.01 dBμV/m	64222BY0124 & 64222CA0701	Nazrin & Rezza
15.407 (b) (1/2/3/4/6)	RSS 247 6.2	Radiated Spurious Emission Measurement	Pass	Worst case emission: 802.11a: 52.35 dBμV/m 802.11n20/ac20: 52.12 dBμV/m 802.11n40/ac40: 52.69 dBμV/m 802.11ac80: 56.58 dBμV/m	64222BY0124 & 64222CA0701	Nazrin & Rezza
15.207 15.407 (b)(6)	RSS Gen 8.8	AC Powerline Conducted Emission	NA	NA	NA	NA
15.203	-	Antenna requirement	NA	Internal antenna is not accessible to the end-user	NA	NA

2.0. Measurement Uncertainty

The measurement uncertainties below were calculated using approach describe in ETSI TR 100 028, ETSI TR 100 028-2 (using a coverage factor of $k = 1.96$) & CISPR 16-4-2 (using a coverage factor of $k=2$), which gives a level of confidence of approximately 95%.

According to CISPR 16-4-2, the levels were found to be below levels of U_{CISPR} and therefore no adjustment of the data for measurement uncertainty is required.

ETSI TR 100 028 & ETSI TR 100 028-2:

MEASUREMENT TYPE	FREQUENCY RANGE	EXPANDED UNCERTAINTY
Conducted Spurious Output Power	9kHz-12750MHz	± 2.82 dB

CISPR 16-4-2:

MEASUREMENT TYPE	FREQUENCY RANGE	EXPANDED UNCERTAINTY
AC Power-line Conducted Emissions	150kHz-30MHz	± 3.44 dB
Radiated Emissions	30MHz-1000MHz	± 6.00 dB
Radiated Emissions	1000MHz-18000MHz	± 5.14 dB
Radiated Emissions	18000MHz-40000MHz	± 5.36 dB

3.0. Equipment List

Radiated Spurious Emission (SW Version: EMC FCC RE v1.8.2)

DESCRIPTION	MODEL	SERIAL NUMBER	CALIBRATION DATE	CALIBRATION DUE DATE
DRG HORN FREQ.	SAS-571	719	31-Oct-25	31-Oct-26
DRG HORN FREQ.	SAS-571	1027	21-Jul-25	21-Jul-26
DC Power Supply	6031A	3313A02730	06-Oct-25	06-Oct-26
SIGNAL GENERATOR	SMB 100A	180683	20-Dec-24	20-Dec-27
EMI TEST RECEIVER	ESW44	101731	11-Aug-25	10-Aug-26
5m SEMI-ANECHOIC CHAMBER	S800-HX	J2308	Not Required	Not Required
BILOG ANTENNA	CBL 6112D	55546	30-Jun-25	30-Jun-26
BILOG ANTENNA	CBL6112B	2964	06-Nov-25	06-Nov-26
DATA LOGGER THERMOHYGROMETER	SDL500	A.016785	16-Jul-25	16-Jul-26
SYSTEM CONTROLLER	SC104V	050806-1	Not Required	Not Required
TURNTABLE FLUSH MOUNT 2M	FM2011	FM2011-001	Not Required	Not Required
ANTENNA POSITIONING TOWER	TLT2	090308-5	Not Required	Not Required
BROAD-BAND HORN ANTENNA	BBHA9170	BBHA9170143	30-Sep-25	30-Sep-26
PREAMPLIFIER 18-40GHz	JS44-18004000-33-8P	2034566	Not Required	Not Required
PREAMPLIFIER 1-18GHz	EMC0518A45SE	981005	19-Sep-25	18-Sep-26
PREAMPLIFIER	PAM-0118P	361	29-Sep-23	29-Sep-26
LOOP ANTENNA	6502	00208416	06-Nov-25	06-Nov-26

Conducted Test Measurements (SW Version: Ate Main_3.2.2)

DESCRIPTION	MODEL	SERIAL NUMBER	CALIBRATION DATE	CALIBRATION DUE DATE
CHAMBER	SH-641	92005573	21-Apr-25	21-Apr-26
POWER SUPPLY	6652A	3541A02371	3-Sep-25	3-Sep-26
SPECTRUM ANALYZER	E4440A	MY46186938	13-Nov-25	13-Nov-26

Note: Performed test site validation in accordance with ANSI C63.4-2014+C63.4a-2017 (30 MHz - 1 GHz) and CISPR 16-1-4 (1 GHz - 18 GHz) annually but no less than once every 3 years.

4.0. General Information

General Description of EUT:

Product	Portable
Brand	Motorola Solutions
Test Model	TLK200
Power Supply Rating	3.8Vdc (Battery), 5Vdc (Adapter)
Mode of operation	WLAN 5GHz
Modulation Type	QPSK, BPSK, 16QAM, 64QAM, 256QAM
Modulation Technology	OFDM
Transfer Rate	802.11a: 6.0/9.0/12.0/18.0/24.0/36.0/48.0/54.0 Mbps 802.11n: up to MCS15 802.11ac: up to MCS9
Operating Frequency	5.180 ~ 5.240 GHz, 5.260 ~ 5.320 GHz, 5.50 ~ 5.720 GHz, 5.745 ~ 5.825 GHz
Output Power (26 EBW or 99% OBW)	50.12 mW for 5.180 ~ 5.240 GHz 50.12 mW for 5.260 ~ 5.320 GHz 50.12 mW for 5.50 ~ 5.720 GHz 50.12 mW for 5.745 ~ 5.825 GHz
Antenna Type	Fixed Chip
SW Version	D01.00.01

Note:

The EUT contains following accessory devices and data cable:

Item	Brand	Model or P/N
BATTERY PACK,BATTERY PACK, BATT LIION 2500T	MOTOROLA	PMNN4578A
CHGR DESKTOP MULTI UNIT, INT PS US/NA	MOTOROLA	PMLN8569A
CABLE, ASSEMBLY,USB-C TO USB-A	MOTOROLA	PMKN4294A
STUBBY ANTENNA	MOTOROLA	AN000508A01
POWER SUPPLY ADAPTOR,PS WALL 240VAC UNIVERSAL US/JPN ADAPTER 5VDC/1.5A L6 USB-A DETACHABLE	MOTOROLA	PS000150A31

Description of Test Modes:

For 5180 to 5240 MHz:

Channels for 802.11a, 802.11n, 802.11ac (HT20, VHT20)

Channel	Frequency (MHz)
36	5180
40	5200
44	5220
48	5240

Channels for 802.11n, 802.11ac (HT40, VHT40)

Channel	Frequency (MHz)
38	5190
46	5230

Channels for 802.11ac (VHT80)

Channel	Frequency (MHz)
42	5210

For 5260 to 5320 MHz:

Channels for 802.11a, 802.11n, 802.11ac (HT20, VHT20)

Channel	Frequency (MHz)
52	5260
56	5280
60	5300
64	5320

Channels for 802.11n, 802.11ac (HT40, VHT40)

Channel	Frequency (MHz)
54	5270
62	5310

Channels for 802.11ac (VHT80)

Channel	Frequency (MHz)
58	5290

For 5500 to 5720 MHz:

Channels for 802.11a, 802.11n, 802.11ac (HT20, VHT20)

Channel	Frequency (MHz)
100	5500
104	5520
108	5540
112	5560
116	5580
120	5600
124	5620
128	5640
132	5660

Channels for 802.11n, 802.11ac (HT40, VHT40)

Channel	Frequency (MHz)
102	5510
110	5550
118	5590
126	5630
134	5670
142	5710

136	5680
140	5700
144	5720

Channels for 802.11ac (VHT80)

Channel	Frequency (MHz)
106	5530
122	5610
138	5690

For 5745 to 5825 MHz:

Channels for 802.11a, 802.11n, 802.11ac (HT20, VHT40) Channels for 802.11n, 802.11ac (HT40, VHT40)

Channel	Frequency(MHz)
149	5745
153	5765
157	5785
161	5805
165	5825

Channel	Frequency(MHz)
151	5755
159	5795

Channels for 802.11ac (VHT80)

Channel	Frequency (MHz)
155	5775

General Description of Applied Standards

The EUT is a RF Product. According to the specifications of the manufacturer, the EUT is to comply with the requirements of the following standards:

FCC Part15, Subpart E (15.407)

789033 D02 General UNII Test Procedures New Rules v01r04

644545 D03 Guidance for IEEE 802 11ac New Rules v01

ANSI C63.10-2020+Cor.1-2023+C63.10a-2024 + Errata to C63.10a-2024

RSS 247 Issue 4, RSS Gen

All test have been performed and recorded as per above standards.

Deviation from standard

Not applicable as no deviation from standard test method

Modifications to EUT

No modifications were done to the UUT to facilitate the tests in this report.

5.0. Test Mode Applicability and Test Channel Detail

EUT Configure Mode	Applicable to				Description
	RE $\geq$ 1G	RE<1G	PLC	APCM	
A	√	√	√	√	Power from adapter
B	x	√	x	x	Power from carcharger (12Vdc)
C	x	√	x	x	Power from carcharger (24Vdc)

Where:

RE $\geq$ 1G: Radiated Emission above 1GHz & Band edge Measurement

RE<1G: Radiated Emission below 1GHz

PLC: Power Line Conducted Emission

APCM: Antenna Port Conducted Measurement

Note: The EUT had been pre-scanned on the position of each 3 axis planes. The worst case was found when positioned on Y-plane.

Radiated Emission Test (Above 1GHz)

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Frequency Band	MODE	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	5180-5240	802.11a	36-48	36,44,48	OFDM	BPSK	6.0
-	5180-5240	802.11n/ac (HT20, VHT20)	36-48	36,44,48	OFDM	BPSK	6.5
-	5180-5240	802.11n/ac (HT40,VHT40)	38-46	38,46	OFDM	BPSK	13.5
-	5180-5240	802.11ac (VHT80)	42	42	OFDM	BPSK	29.3
-	5260-5320	802.11a	52-64	52,60,64	OFDM	BPSK	6.0
-	5260-5320	802.11n/ac (HT20, VHT20)	52-46	52,60,64	OFDM	BPSK	6.5
-	5260-5320	802.11n/ac (HT40,VHT40)	54-62	54,62	OFDM	BPSK	13.5
-	5260-5320	802.11ac (VHT80)	58	58	OFDM	BPSK	29.3
-	5500-5700	802.11a	100-140	100,116,140	OFDM	BPSK	6.0
-	5500-5720	802.11n/ac (HT20, VHT20)	100-144	100,116,144	OFDM	BPSK	6.5
-	5500-5720	802.11n/ac (HT40,VHT40)	102-142	102,110,142	OFDM	BPSK	13.5
-	5500-5720	802.11ac (VHT80)	106-138	106,122,138	OFDM	BPSK	29.3
-	5745-5825	802.11a	149-165	149,157,165	OFDM	BPSK	6.0
-	5745-5825	802.11n/ac (HT20, VHT20)	149-165	149,157,165	OFDM	BPSK	6.5
-	5745-5825	802.11n/ac (HT40,VHT40)	151-159	151,159	OFDM	BPSK	13.5
-	5745-5825	802.11ac (VHT80)	155	155	OFDM	BPSK	29.3

Radiated Emission Test (Below 1GHz)

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	MODE	Frequency band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	802.11a	5180-5240	36 to 48	36	OFDM	BPSK	6.0
-	802.11a	5260-5320	52 to 64		OFDM	BPSK	6.0
-	802.11a	5500-5700	100 to 140		OFDM	BPSK	6.0
-	802.11a	5745-5825	149 to 165		OFDM	BPSK	6.0

Power Line Conducted Emission Test

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	MODE	Frequency band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	802.11a	5180-5240	36 to 48	36	OFDM	BPSK	6.0
-	802.11a	5260-5320	52 to 64		OFDM	BPSK	6.0
-	802.11a	5500-5700	100 to 140		OFDM	BPSK	6.0
-	802.11a	5745-5825	149 to 165		OFDM	BPSK	6.0

Antenna Port Conducted Measurement:

- ☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Frequency Band	MODE	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	5180-5240	802.11a	36-48	36,44,48	OFDM	BPSK	6.0
-	5180-5240	802.11n/ac (HT20, VHT20)	36-48	36,44,48	OFDM	BPSK	6.5
-	5180-5240	802.11n/ac (HT40,VHT40)	38-46	38,46	OFDM	BPSK	13.5
-	5180-5240	802.11ac (VHT80)	42	42	OFDM	BPSK	29.3
-	5260-5320	802.11a	52-64	52,60,64	OFDM	BPSK	6.0
-	5260-5320	802.11n/ac (HT20, VHT20)	52-46	52,60,64	OFDM	BPSK	6.5
-	5260-5320	802.11n/ac (HT40,VHT40)	54-62	54,62	OFDM	BPSK	13.5
-	5260-5320	802.11ac (VHT80)	58	58	OFDM	BPSK	29.3
-	5500-5700	802.11a	100-140	100,116,140	OFDM	BPSK	6.0
-	5500-5720	802.11n/ac (HT20, VHT20)	100-144	100,116,144	OFDM	BPSK	6.5
-	5500-5720	802.11n/ac (HT40,VHT40)	102-142	102,110,142	OFDM	BPSK	13.5
-	5500-5720	802.11ac (VHT80)	106-138	106,122,138	OFDM	BPSK	29.3
-	5745-5825	802.11a	149-165	149,157,165	OFDM	BPSK	6.0
-	5745-5825	802.11n/ac (HT20, VHT20)	149-165	149,157,165	OFDM	BPSK	6.5
-	5745-5825	802.11n/ac (HT40,VHT40)	151-159	151,159	OFDM	BPSK	13.5
-	5745-5825	802.11ac (VHT80)	155	155	OFDM	BPSK	29.3

Test Condition:

Applicable To	Environmental Conditions	Input Power	Tested By
RE $\geq$ 1G	24.6°C, 68.3% RH	3.8V DC	Nazrin/Rezza
RE<1G	24.6°C, 68.3% RH	3.8V DC	Nazrin/Rezza
PLC	NA	NA	NA
APCM	25°C, 50% RH	3.8V DC	Azim

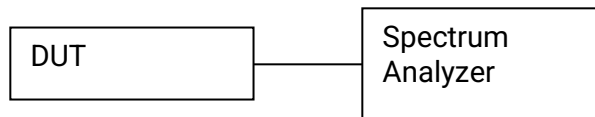
Duty Cycle of Test Signal

802.11a, 802.11n and 802.11ac (HT20, VHT20): Duty cycle of test signal is >92%.

If Duty cycle of test signal is <98%, duty cycle factor shall be considered. (Refer to section 6.0 for duty cycle measurement)

6.0. Duty Cycle of Test Signal

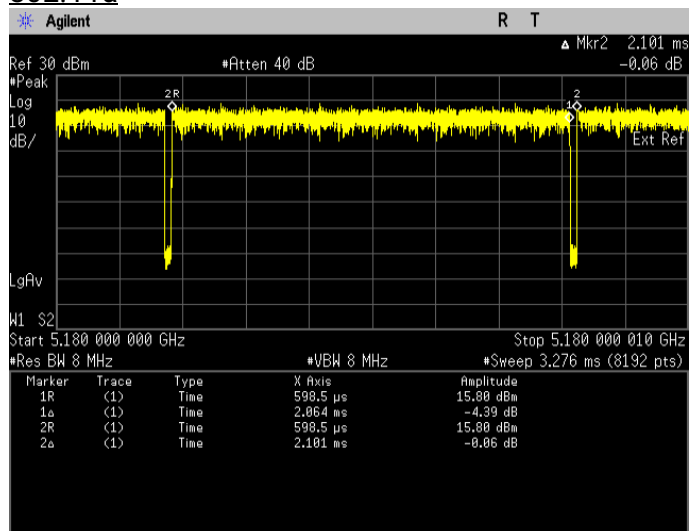
6.0.1. Test Setup



- 1) Set DUT to desire transmit frequency and transmit with maximum power.
- 2) Connect DUT's antenna terminal to spectrum analyzer with a low loss cable.
- 3) Setting of Spectrum analyzer :
 - a. Set the RBW = 10 MHz or the highest RBW available on spectrum analyzer.
 - b. Set the VBW $\geq$ RBW.
 - c. Set to Zero Span.
 - d. Detector = Peak.
 - e. Sweep time = 10ms or others that allow to measure accurate duty cycle.
 - f. Trace mode = Max hold.
- 4) Record the duty cycle as X and save the plot.

6.0.2. Test Data

802.11a

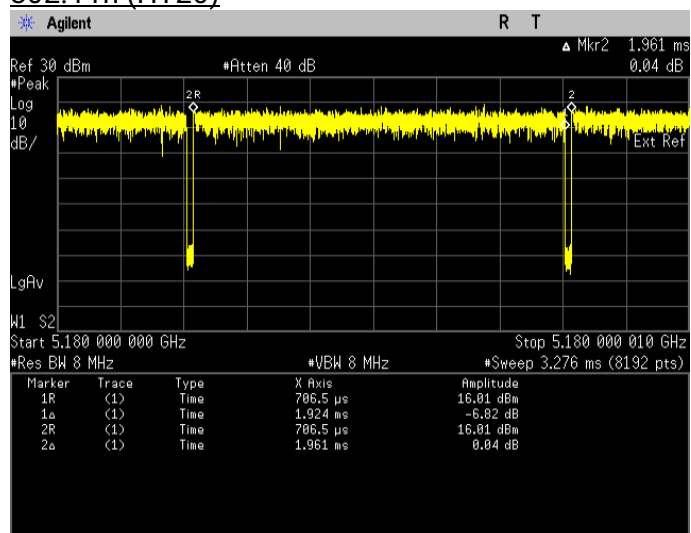


On time	2.064	ms
On + off time	2.101	ms
Duty Cycle	0.9824	
Duty Cycle Factor	0.077	

*Duty cycle = On time/ On +off time

*Duty Cycle factor = $10 \cdot \log(1/\text{Duty Cycle})$

802.11n (HT20)

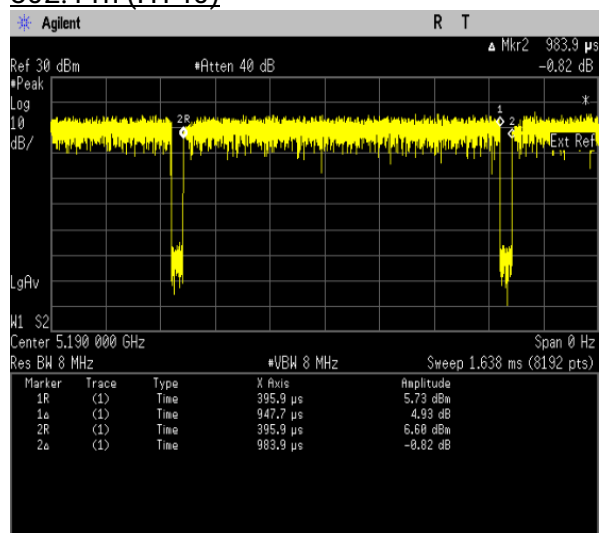


On time	1.924	ms
On + off time	1.961	ms
Duty Cycle	0.9811	
Duty Cycle Factor	0.083	

*Duty cycle = On time/ On +off time

*Duty Cycle factor = $10 \cdot \log(1/\text{Duty Cycle})$

802.11n (HT40)

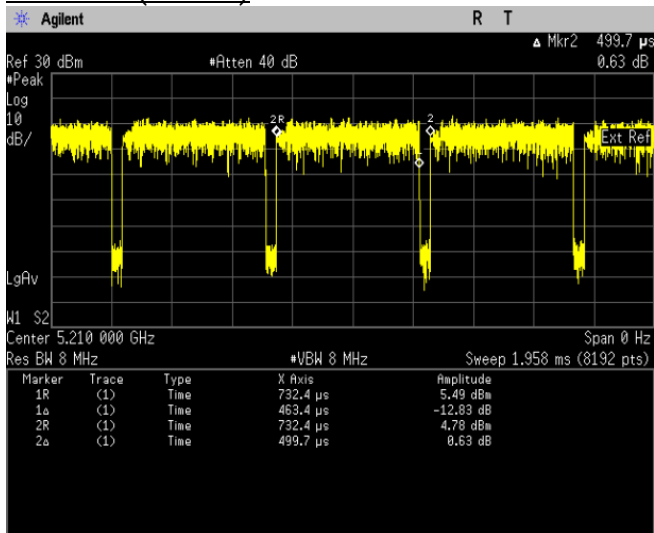


On time	0.9477	ms
On + off time	0.9839	ms
Duty cycle	0.9632	
Duty Cycle factor	0.163	

*Duty cycle = On time/ On +off time

*Duty Cycle factor = 10*log (1/Duty Cycle)

802.11ac (VHT80)



On time	0.4634	ms
On + off time	0.4997	ms
Duty cycle	0.9274	
Duty Cycle factor	0.328	

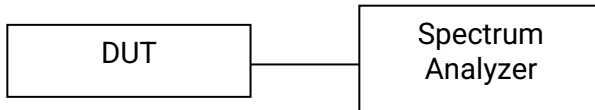
*Duty cycle = On time/ On +off time

*Duty Cycle factor = 10*log (1/Duty Cycle)

7.0. Transmitter Test Parameters

7.1. Bandwidth measurements

7.1.1. Test Setup



- a) Test Setup as per illustrated above.
- b) Set DUT to transmit at desire transmit frequency.
- c) Connect DUT's antenna terminal to spectrum analyzer with a low loss cable.
- d) Setting of Spectrum analyzer for 26dB EBW:
 - RBW = approximate 1% of emission bandwidth
 - VBW > RBW
 - Detector = Peak
 - Trace =Max hold
 - Measure the maximum width of the emission that is 26 dB down from the maximum of the emission.
 - Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
- e) Setting of Spectrum analyzer for 99% Occupied bandwidth:
 - Span = 1.5 times to 5.0 times the OBW
 - RBW = 1% to 5 % of the OBW
 - VBW $\geq 3 \cdot$ RBW
 - Detector = Peak
 - Trace = Max Hold
 - Use the 99% power bandwidth function of the instrument
- f) The measurement method follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04 under clause C.1) & D).

7.1.2. Test Limits

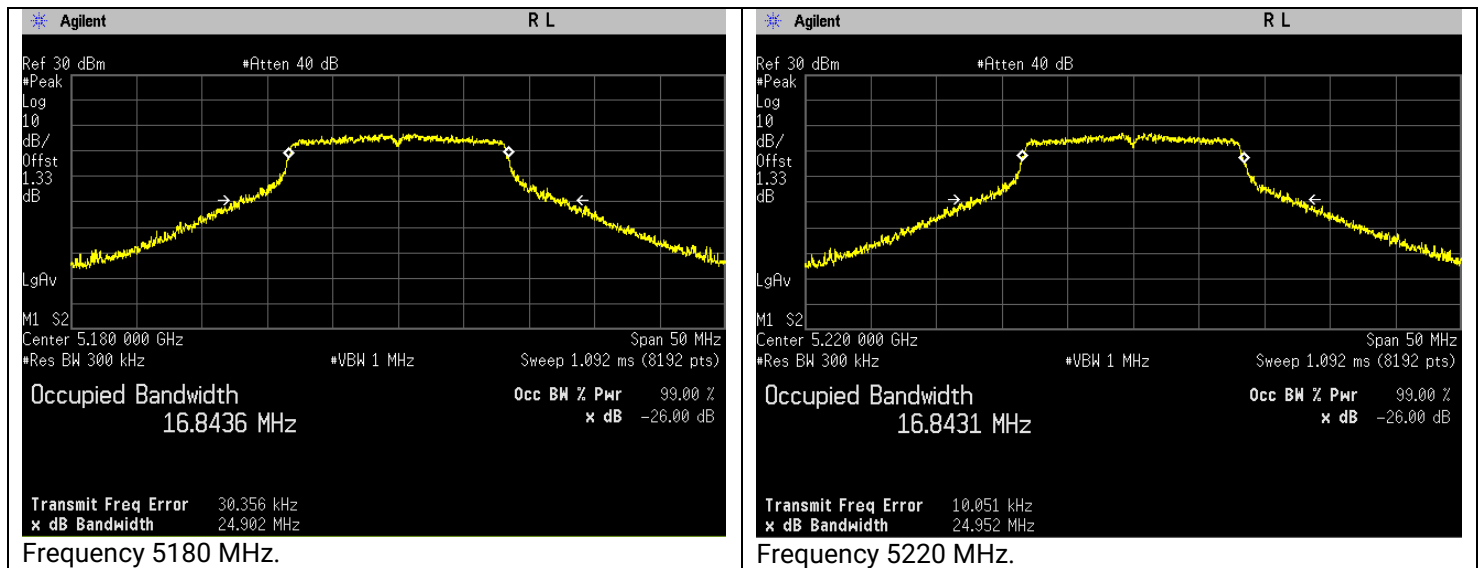
Not applicable.

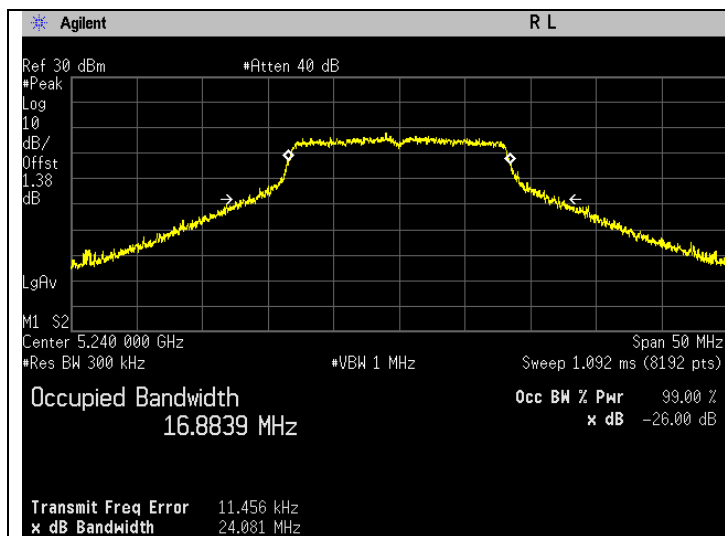
7.1.3. Test Data

802.11a

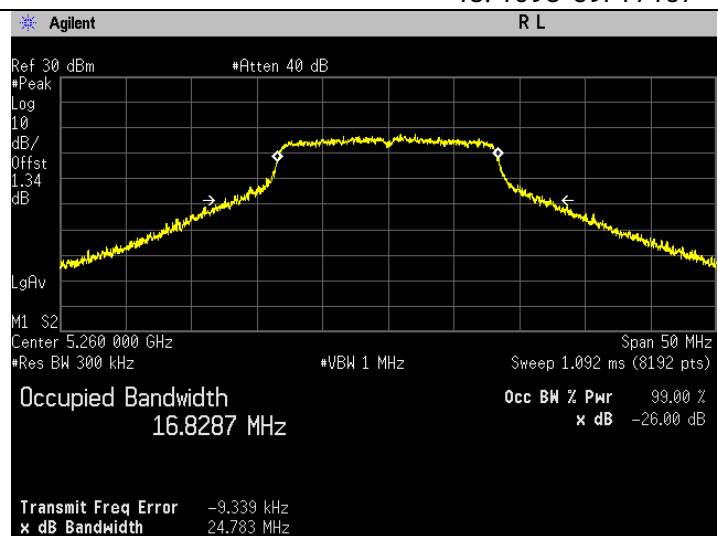
Frequency (MHz)	Test Configuration	Results			
		26 dB Bandwidth (MHz)	Status	99% Bandwidth (MHz)	Status
5180	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	24.902	Pass	16.844	Pass
5220	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	24.952	Pass	16.843	Pass
5240	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	24.081	Pass	16.884	Pass
5260	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	24.783	Pass	16.829	Pass
5300	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	24.773	Pass	16.858	Pass
5320	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	24.734	Pass	16.877	Pass
5500	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	25.437	Pass	16.975	Pass
5580	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	25.441	Pass	16.881	Pass
5700	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	26.201	Pass	16.868	Pass
5720	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6, UNII-2C	17.140	Pass	13.425	Pass
5720	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6, UNII-3	7.140	Pass	3.425	Pass
5745	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	24.963	Pass	16.962	Pass
5785	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	25.908	Pass	16.881	Pass
5825	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	25.539	Pass	16.920	Pass

26 dB Bandwidth/ 99% Bandwidth

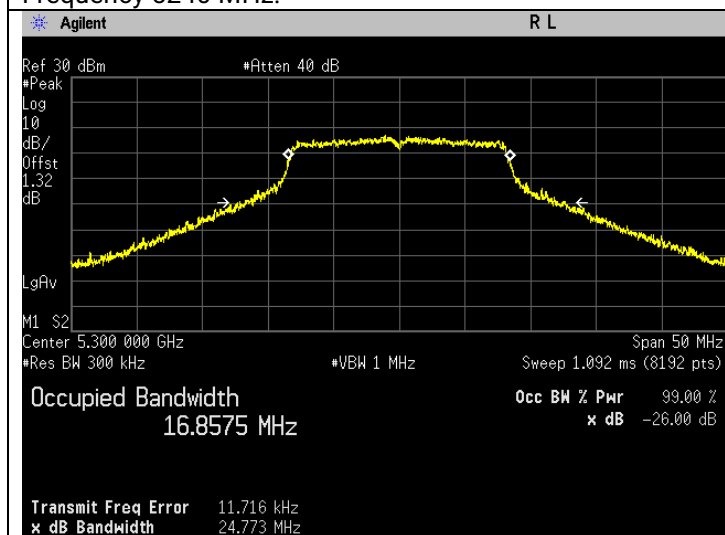




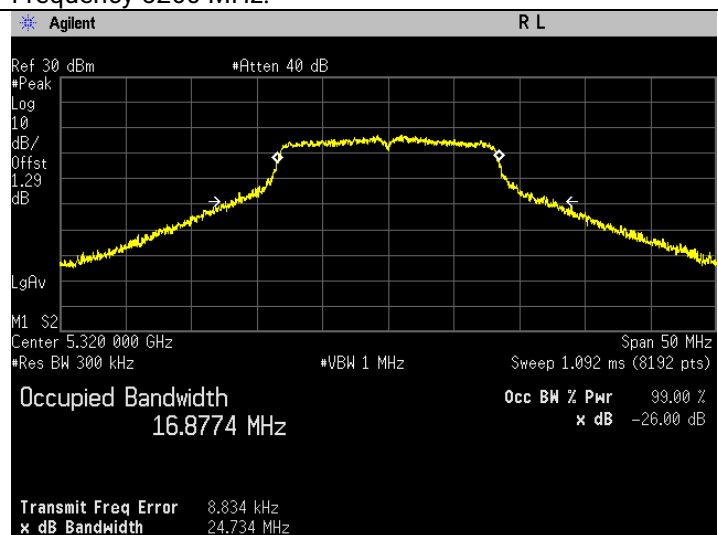
Frequency 5240 MHz.



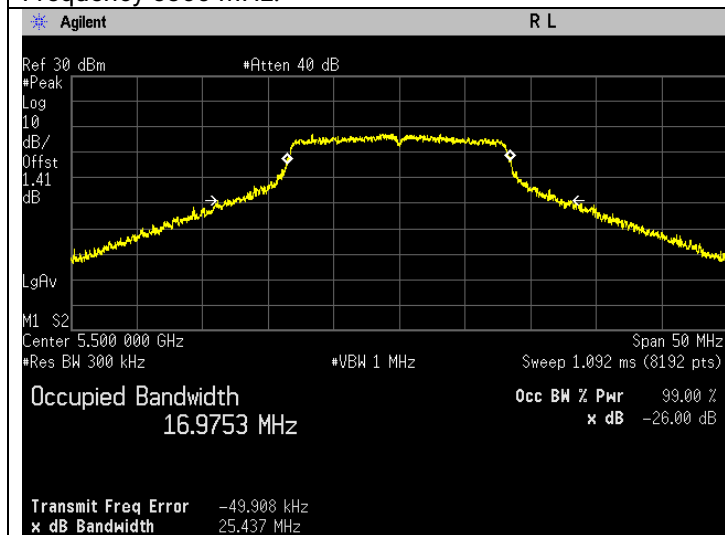
Frequency 5260 MHz.



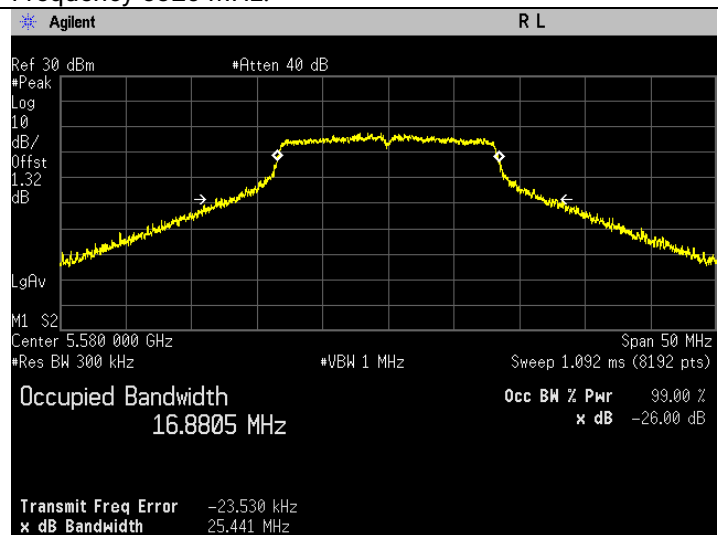
Frequency 5300 MHz.



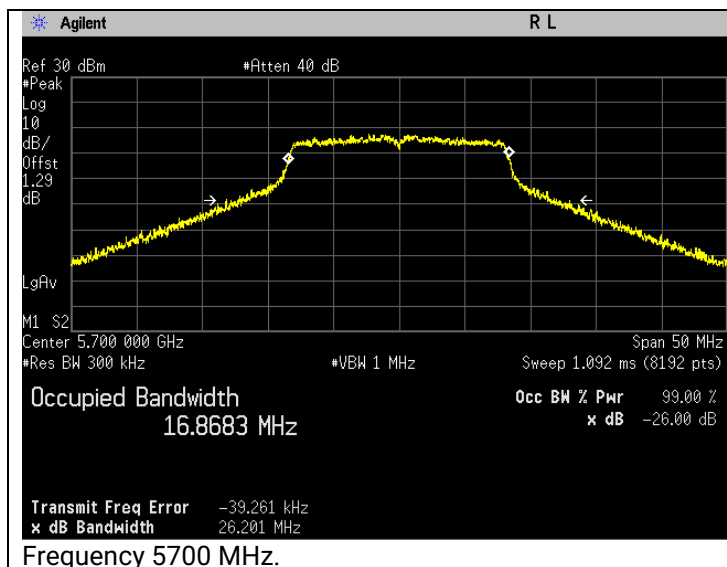
Frequency 5320 MHz.



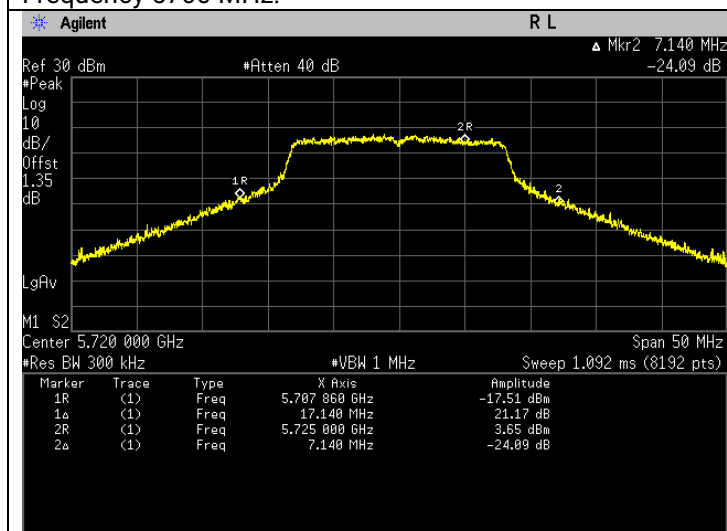
Frequency 5500 MHz.



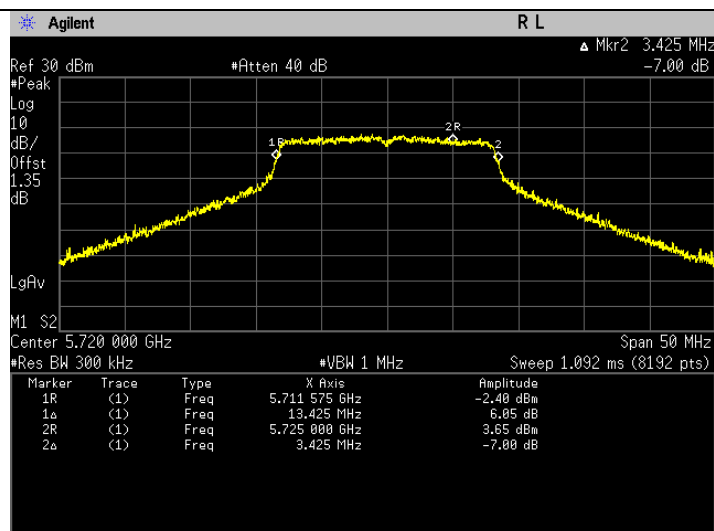
Frequency 5580 MHz.



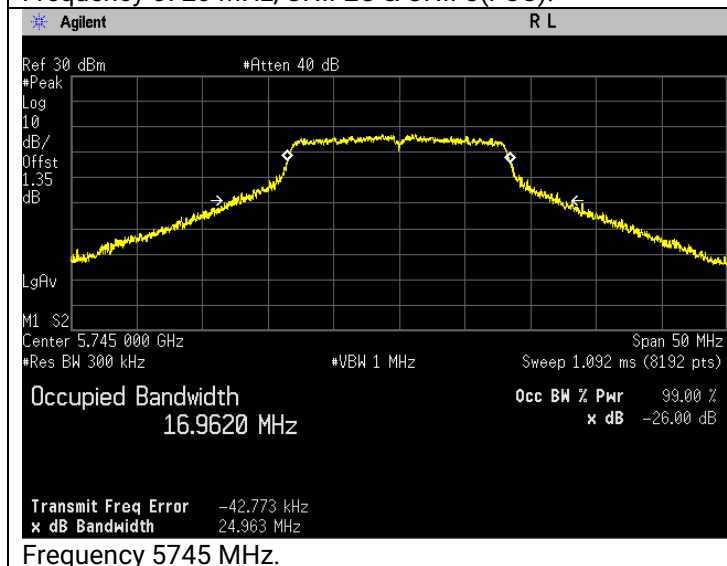
Frequency 5700 MHz.



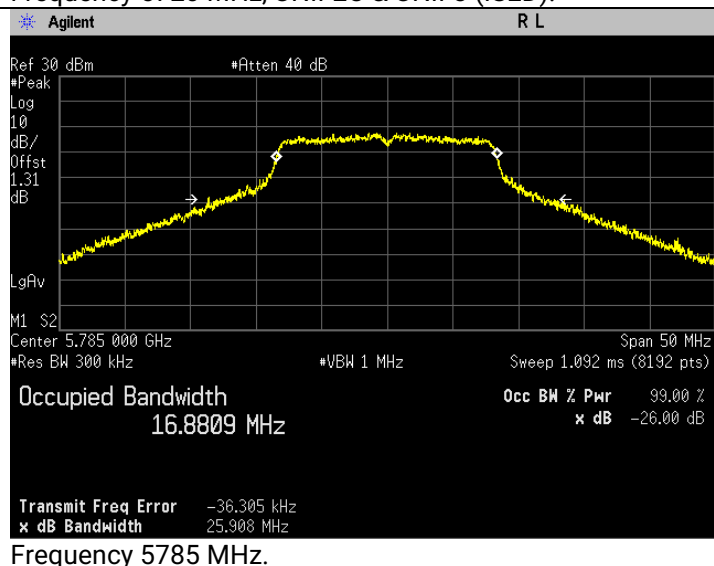
Frequency 5720 MHz, UNII-2C & UNII-3(FCC).



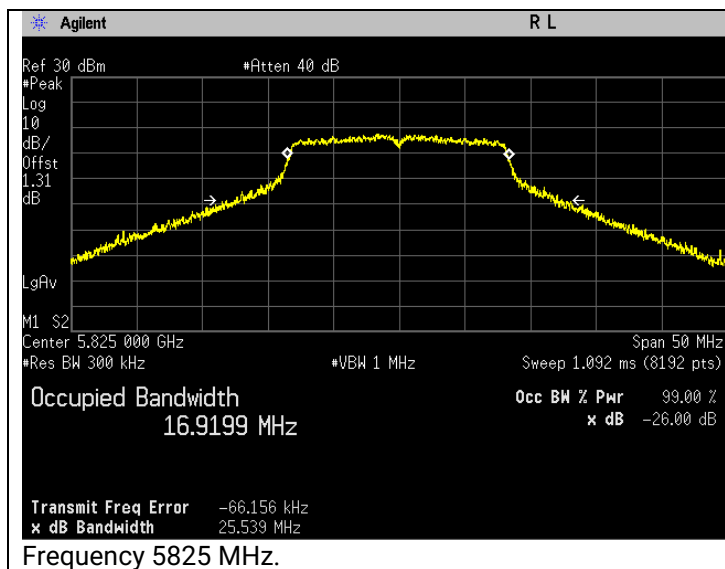
Frequency 5720 MHz, UNII-2C & UNII-3 (ISED).



Frequency 5745 MHz.



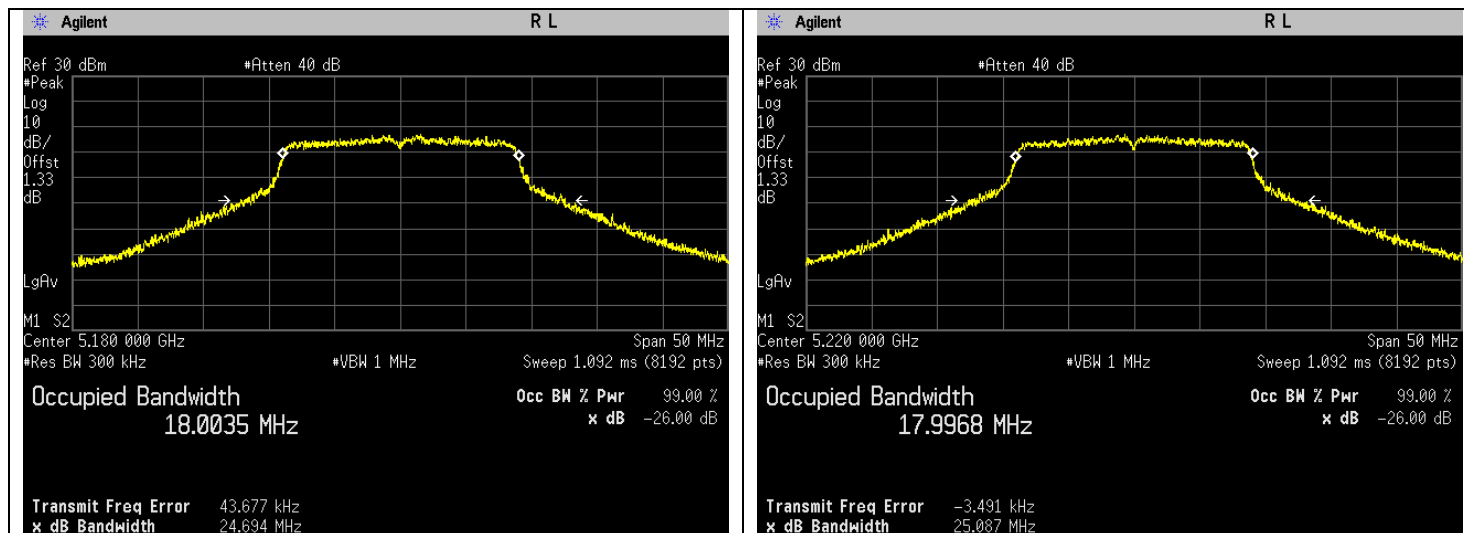
Frequency 5785 MHz.



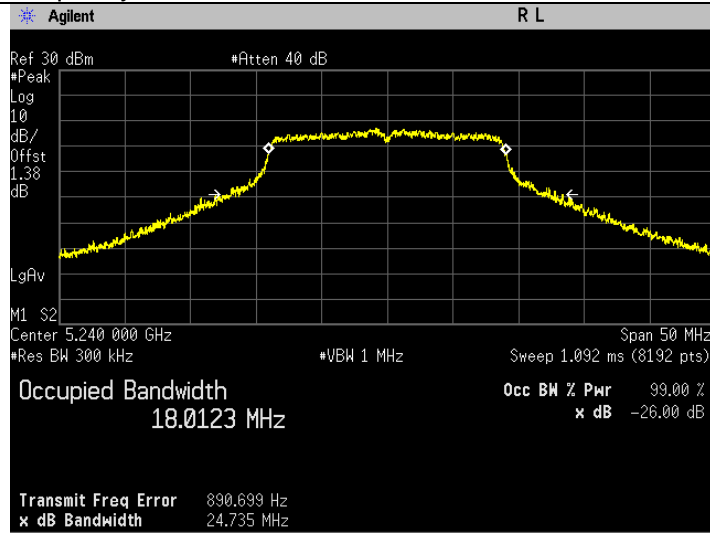
802.11n (HT20)

Frequency (MHz)	Test Configuration	Results			
		26 dB Bandwidth (MHz)	Status	99% Bandwidth (MHz)	Status
5180	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	24.694	Pass	18.003	Pass
5220	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	25.087	Pass	17.997	Pass
5240	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	24.735	Pass	18.012	Pass
5260	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	25.632	Pass	18.006	Pass
5300	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	26.186	Pass	18.003	Pass
5320	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	25.555	Pass	17.985	Pass
5500	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	26.355	Pass	18.112	Pass
5580	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	26.160	Pass	18.061	Pass
5700	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	26.133	Pass	18.060	Pass
5720	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5, UNII-2C	18.375	Pass	14.027	Pass
5720	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5, UNII-3	8.375	Pass	4.027	Pass
5745	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	25.197	Pass	18.016	Pass
5785	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	26.324	Pass	18.059	Pass
5825	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	26.619	Pass	18.051	Pass

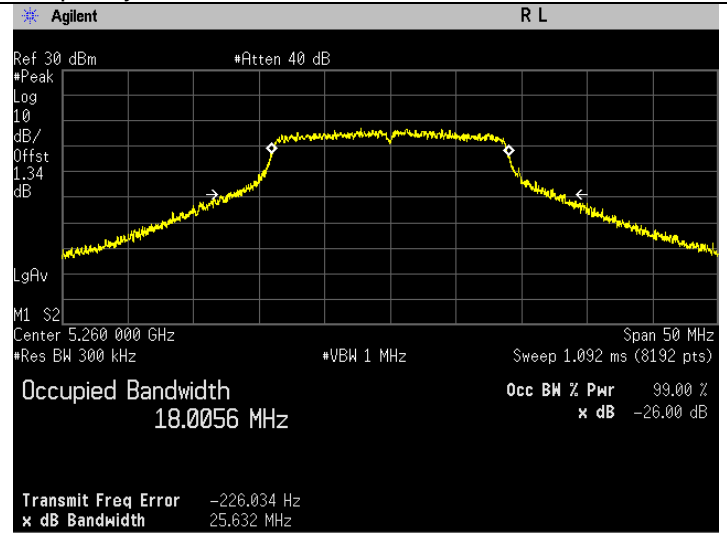
26 dB Bandwidth/ 99% Bandwidth



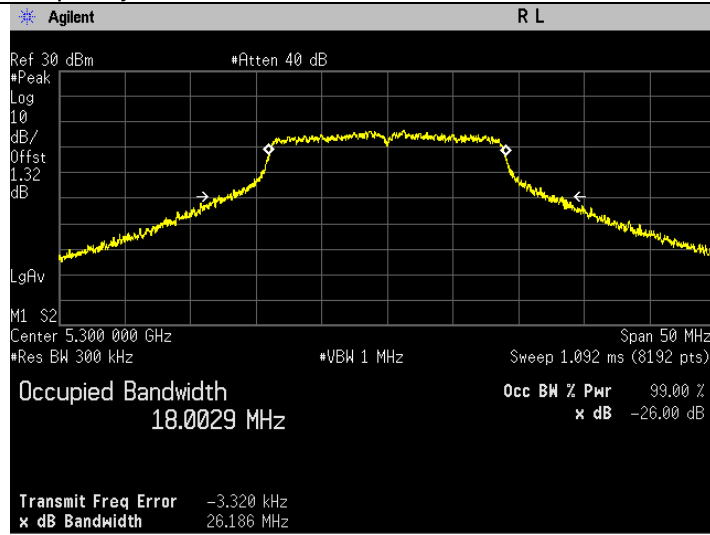
Frequency 5180 MHz.



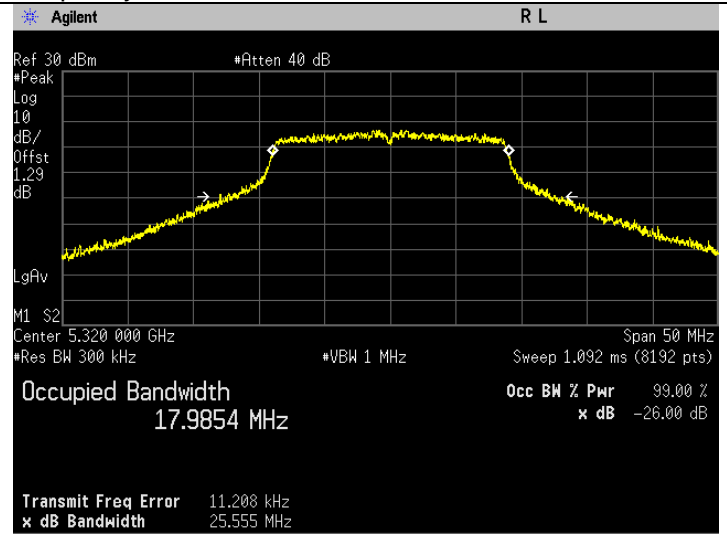
Frequency 5220 MHz.



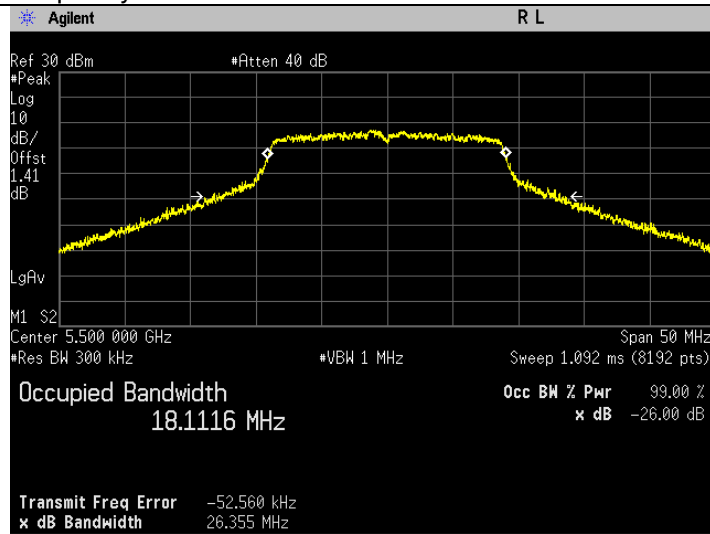
Frequency 5240 MHz.



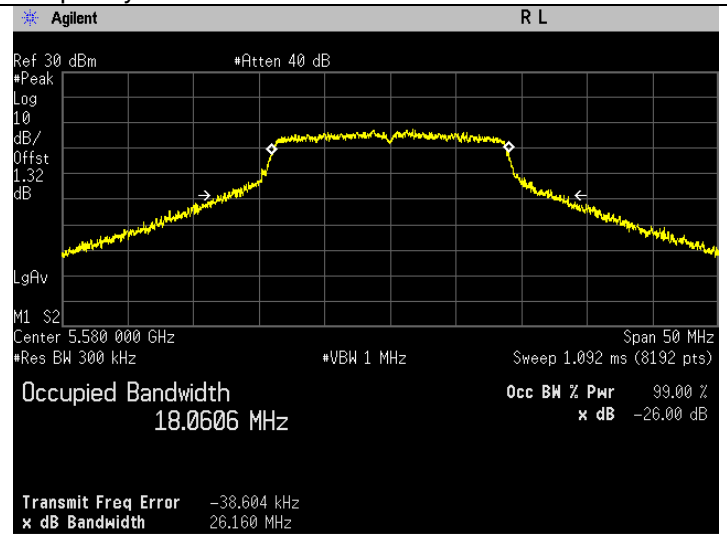
Frequency 5260 MHz.



Frequency 5300 MHz.

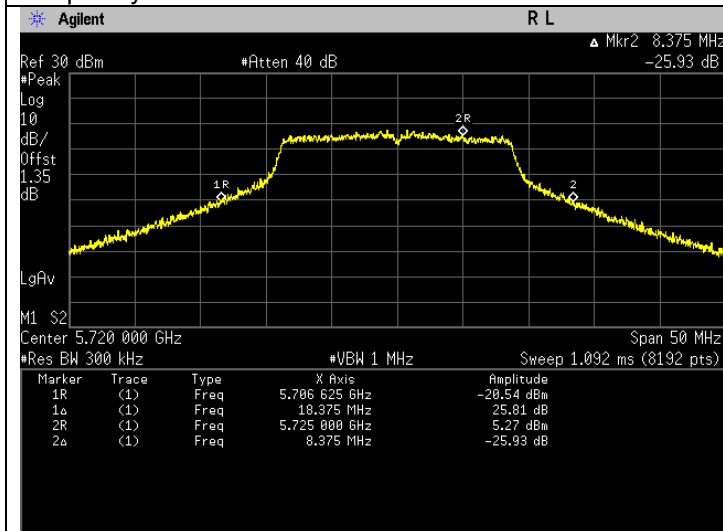
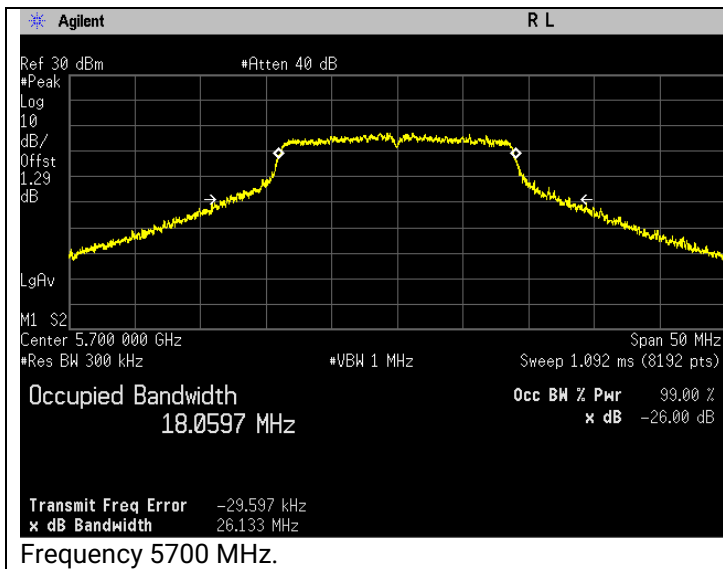


Frequency 5320 MHz.

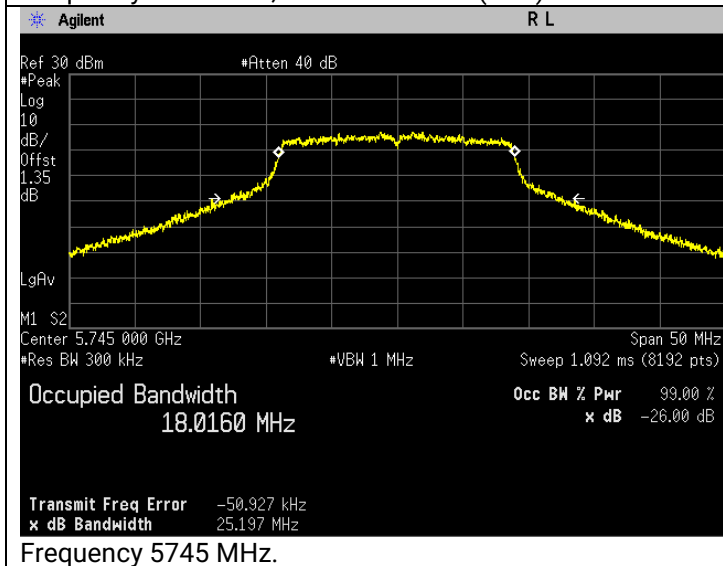


Frequency 5500 MHz.

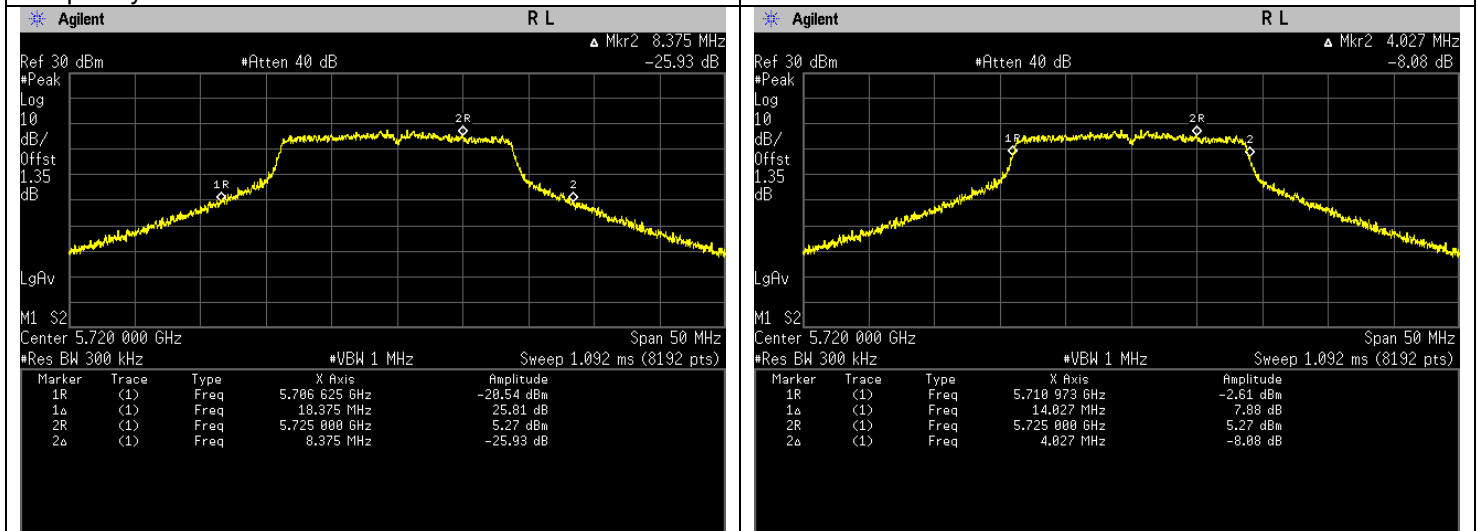
Frequency 5580 MHz.



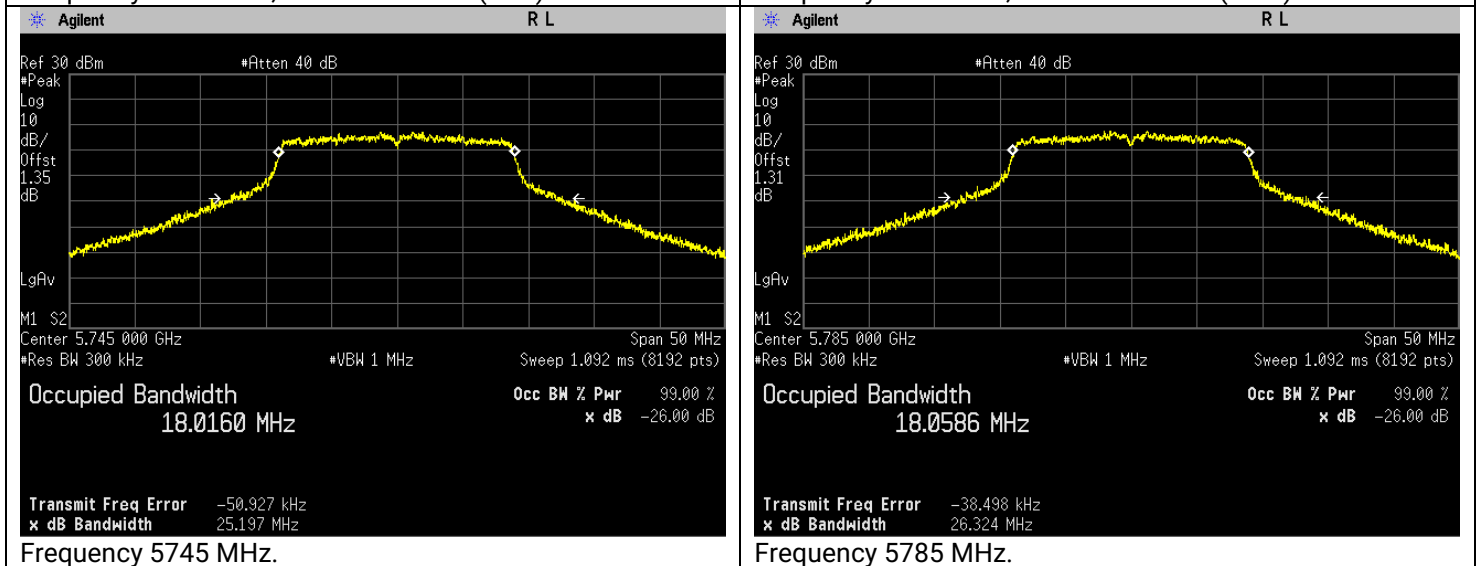
Frequency 5720 MHz, UNII-2C & UNII-3(FCC).



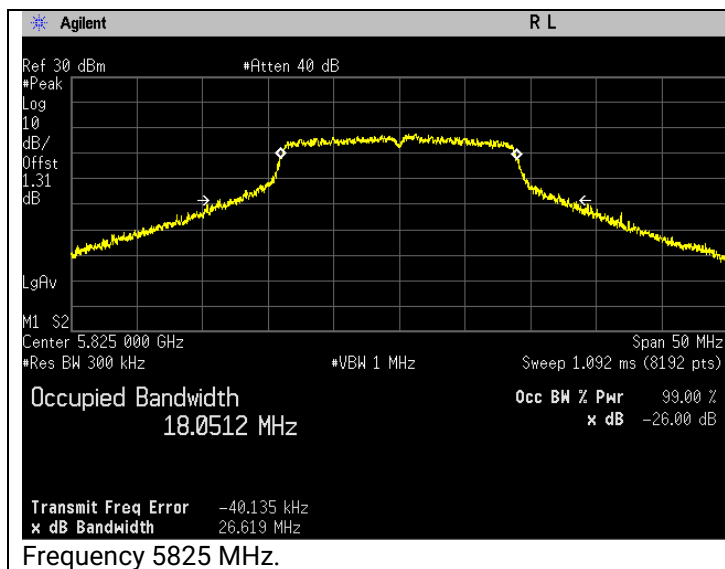
Frequency 5745 MHz.



Frequency 5720 MHz, UNII-2C & UNII-3 (ISED).



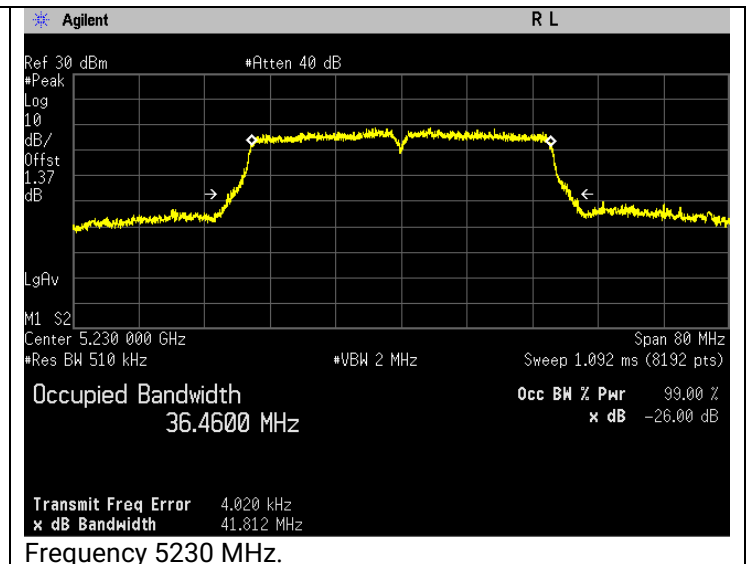
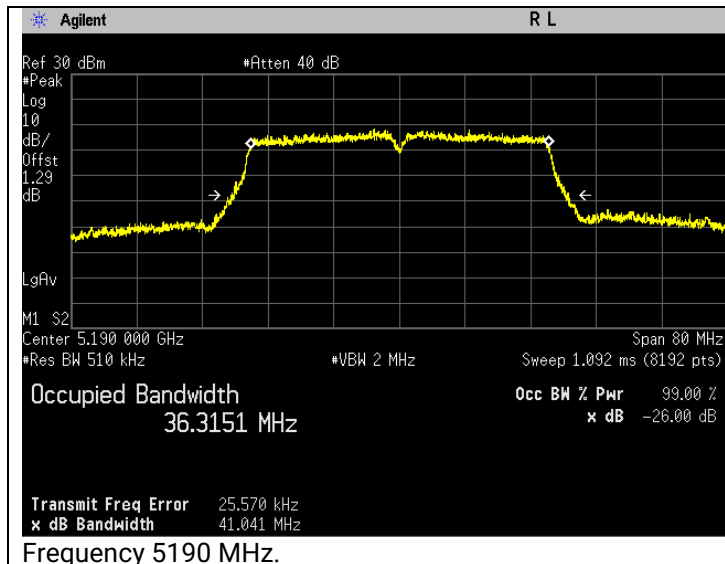
Frequency 5785 MHz.

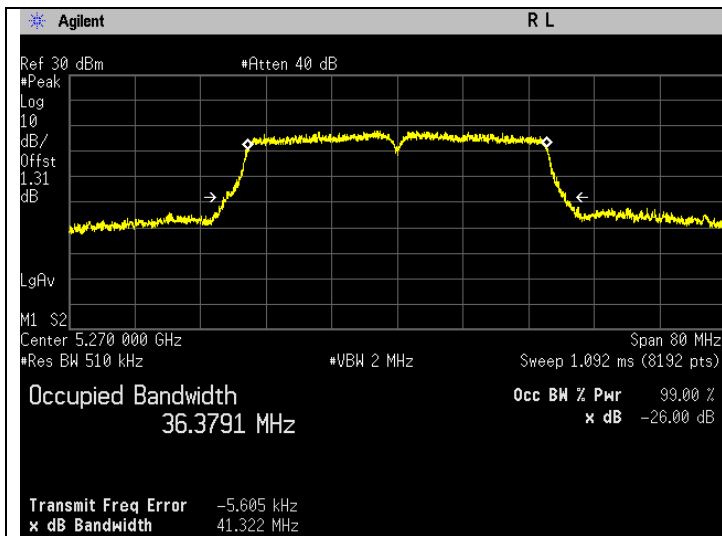


802.11n (HT40)

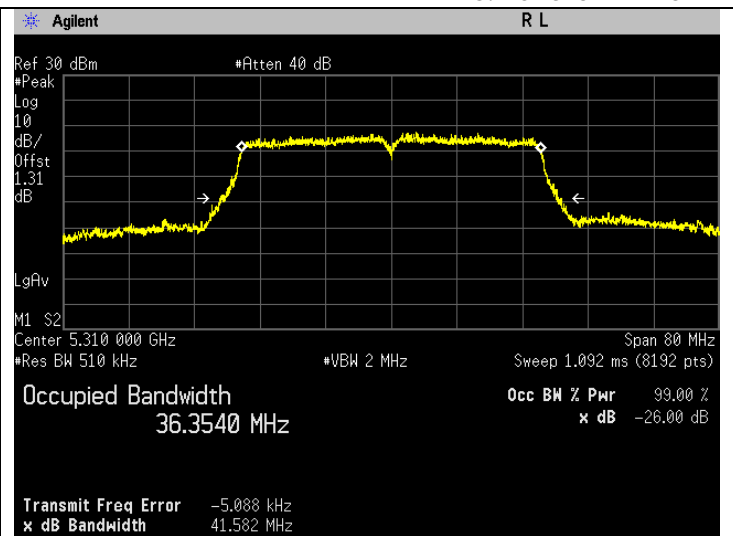
Frequency (MHz)	Test Configuration	Results			
		26 dB Bandwidth (MHz)	Status	99% Bandwidth (MHz)	Status
5190	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	41.041	Pass	36.315	Pass
5230	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	41.812	Pass	36.460	Pass
5270	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	41.322	Pass	36.379	Pass
5310	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	41.582	Pass	36.354	Pass
5510	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	41.963	Pass	36.440	Pass
5550	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	41.995	Pass	36.439	Pass
5670	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	41.805	Pass	36.355	Pass
5710	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5, UNII-2C	35.686	Pass	33.196	Pass
5710	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5, UNII-3	5.686	Pass	3.196	Pass
5755	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	41.666	Pass	36.413	Pass
5795	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	41.374	Pass	36.376	Pass

26 dB Bandwidth/ 99% Bandwidth

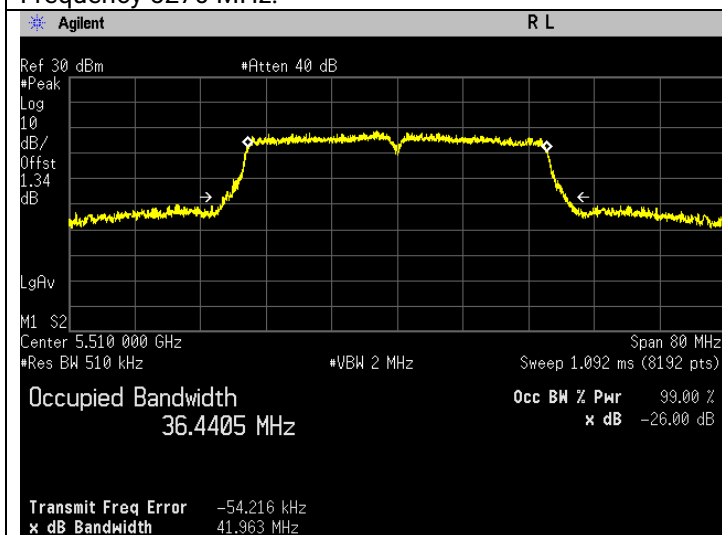




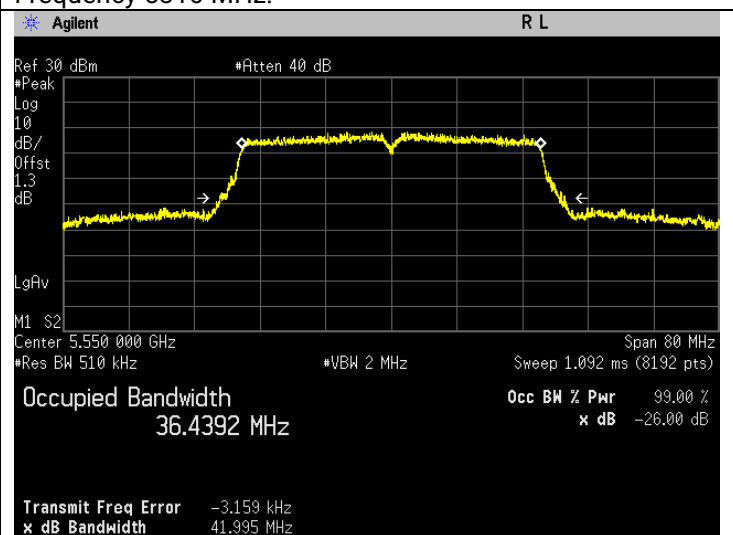
Frequency 5270 MHz.



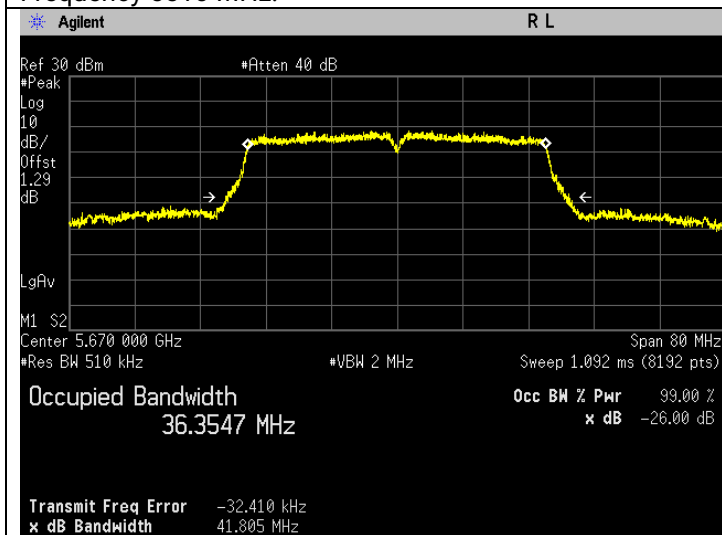
Frequency 5310 MHz.



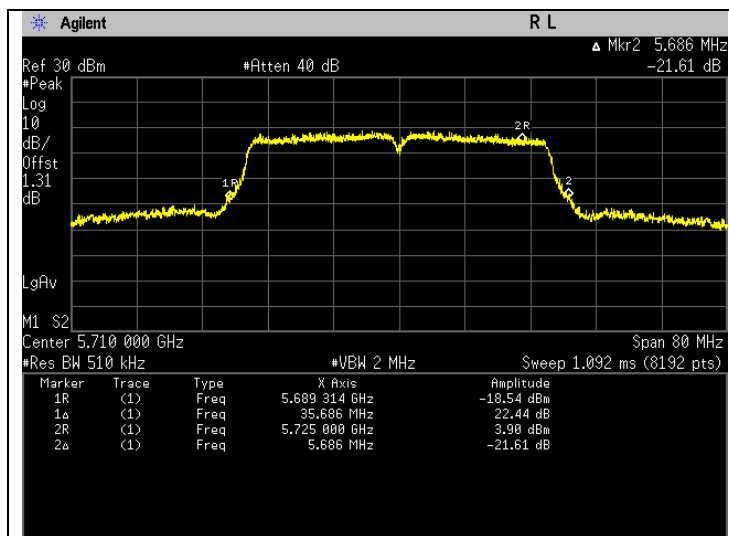
Frequency 5510 MHz.



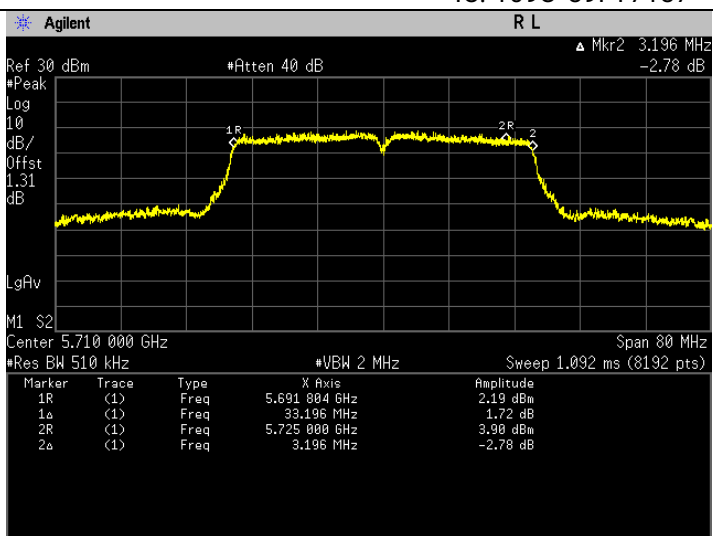
Frequency 5550 MHz.



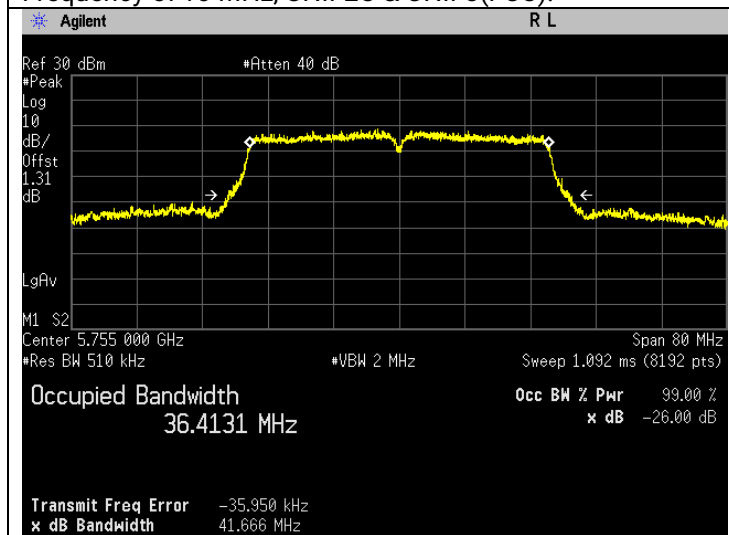
Frequency 5670 MHz.



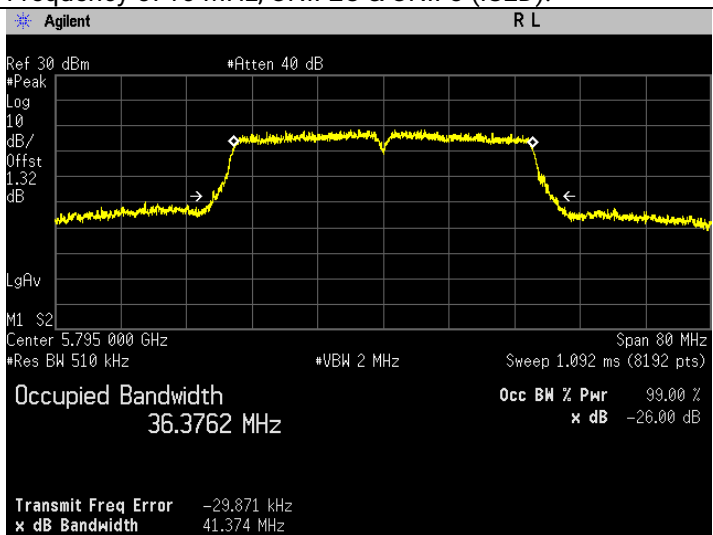
Frequency 5710 MHz, UNII-2C & UNII-3(FCC).



Frequency 5710 MHz, UNII-2C & UNII-3 (ISED).



Frequency 5755 MHz.

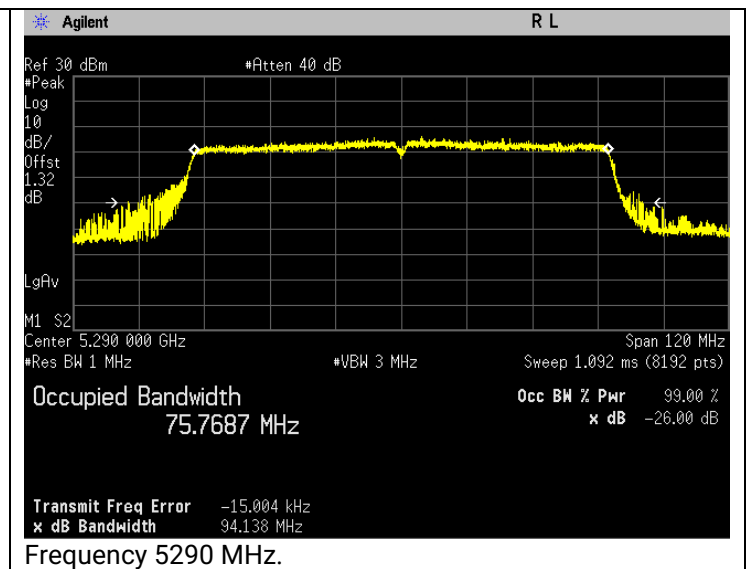
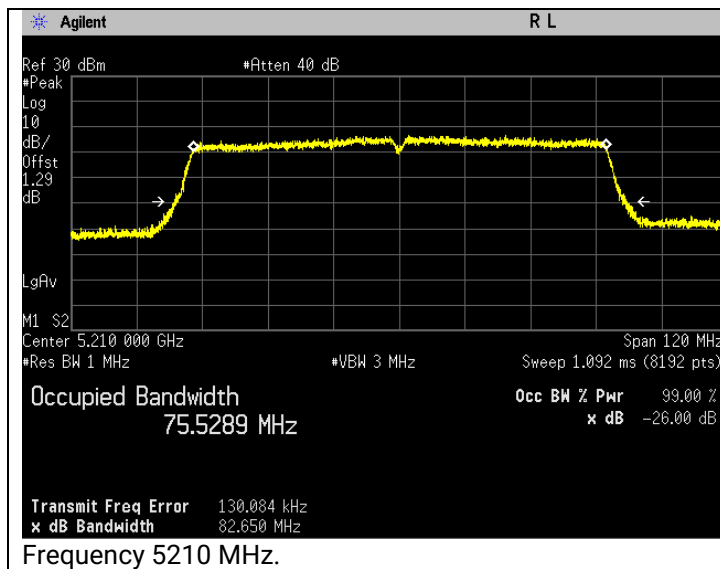


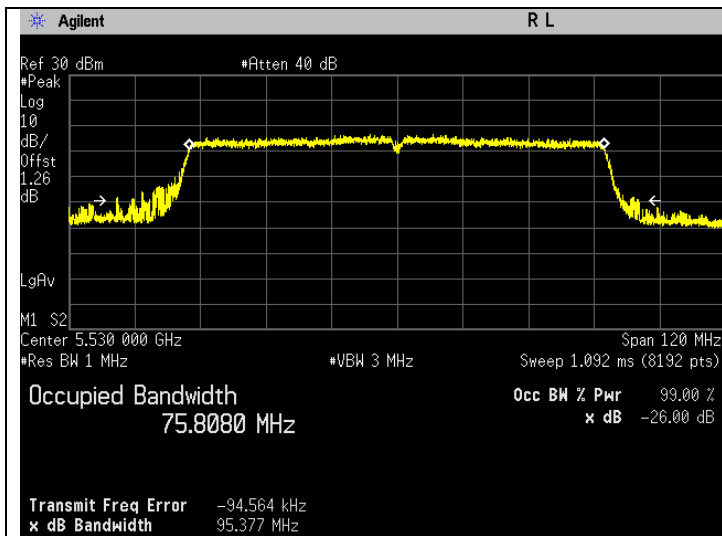
Frequency 5795 MHz.

802.11ac (HT80)

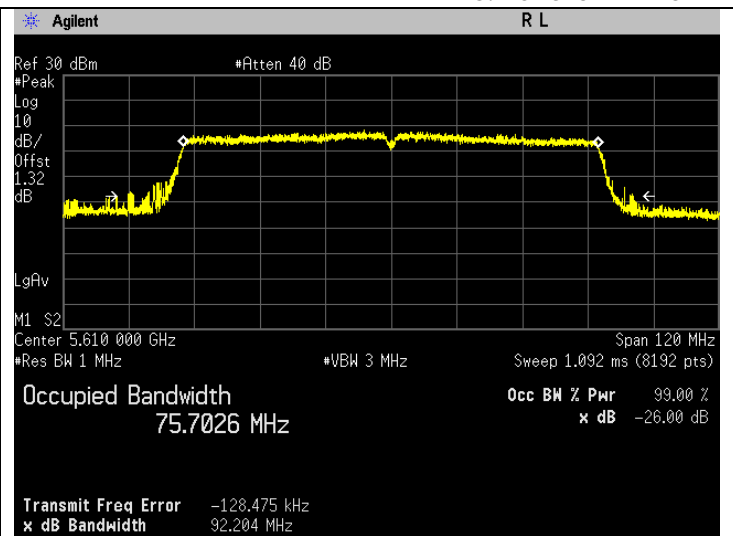
Frequency (MHz)	Test Configuration	Results			
		26 dB Bandwidth (MHz)	Status	99% Bandwidth (MHz)	Status
5210	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	82.650	Pass	75.529	Pass
5290	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	94.138	Pass	75.769	Pass
5530	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	95.377	Pass	75.808	Pass
5610	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	92.204	Pass	75.703	Pass
5690	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3), UNII-2C	85.647	Pass	72.865	Pass
5690	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3), UNII-3	15.647	Pass	2.865	Pass
5775	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	102.361	Pass	75.786	Pass

26 dB Bandwidth/ 99% Bandwidth

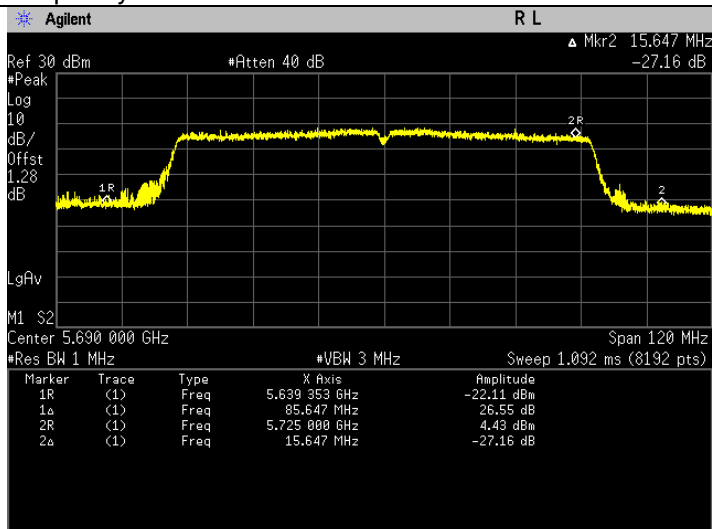




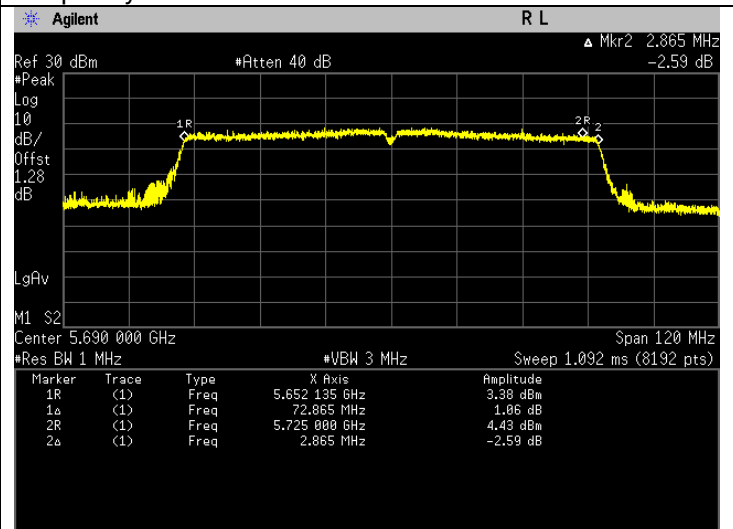
Frequency 5530 MHz.



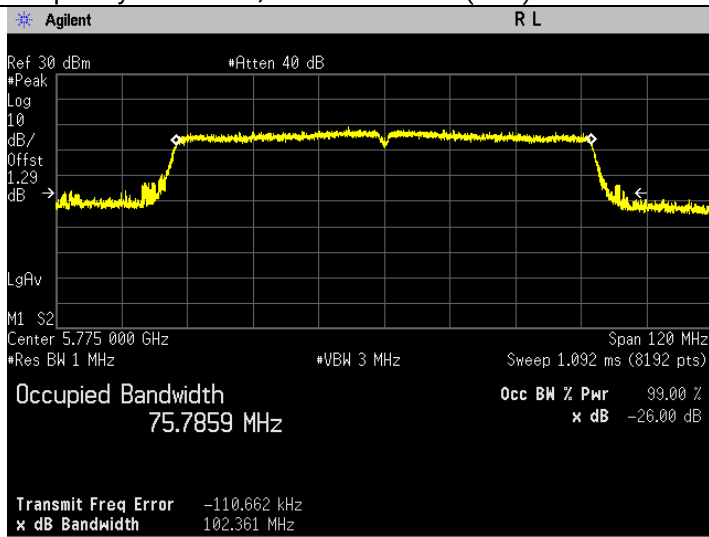
Frequency 5610 MHz.



Frequency 5690 MHz, UNII-2C & UNII-3(FCC).



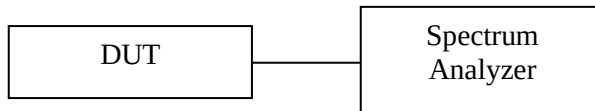
Frequency 5690 MHz, UNII-2C & UNII-3 (ISED).



Frequency 5775 MHz.

7.2. Maximum Conducted Output Power

7.2.1. Test Setup



- Test setup as per illustrated above.
- Set DUT to transmit at desire transmit frequency.
- Connect DUT's antenna terminal to spectrum analyzer with a low loss cable.
- Setting of Spectrum analyzer :
 - Span to encompass the entire 26dB EBW or 99% Occupied Bandwidth.
 - RBW = 1 MHz
 - VBW $\geq$ 3 MHz
 - Detector = power averaging (RMS)
 - Trace = Max hold
 - Number of points in sweep $\geq 2 \times \text{span} / \text{RBW}$
 - Sweep time = auto
 - Trace average at least 100 traces in power averaging (rms) mode
 - Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument's band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges.
 - Add $10 \log (1/x)$, where x is the duty cycle, to the measured power to compute the average power during the actual transmission times
- The measurement method follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04 under clause E.2.d) Method SA-2.
- The Maximum output power results are included duty cycle correction factor.

7.2.2. Test Limits

FCC 15.407(a)

Range(GHz)	Condition	Output Power Limit
5.15-5.25 (UNII-1)	Outdoor AP	$\leq 1\text{W}$
	Indoor AP	$\leq 1\text{W}$
	Fixed Point to Point AP	$\leq 1\text{W}$
	✓ Mobile and Portable client devices	$\leq 250\text{mW}$
5.25-5.35 (UNII-2A)	✓	$\leq 250\text{mW}$ or $11\text{dBm} + 10\log_{10} B^*$ *B is 26dB emission bandwidth in MHz
5.47-5.525 (UNII-2C)	✓	

5.725-5.85 (UNII-3)	✓	≤1W
------------------------	---	-----

RSS-247 6.2

Range(GHz)	Condition	Output Power Limit
5.15-5.25	indoor only (e.i.r.p.)	≤200mW or $10+10\log_{10}B^*$ *B is 99% emission bandwidth in 1MHz

5.25-5.35	(Conducted & e.i.r.p.)	Conducted: ≤250mW or $11+10\log_{10}B^*$ EIRP: < 1.0W or $17+10\log_{10}B^*$ *B is 99% emission bandwidth in 1MHz
-----------	------------------------	---

5.47-5.6 5.65-5.725	(Conducted & e.i.r.p.)	Conducted: ≤250mW or $11+10\log_{10}B^*$ EIRP: < 1.0W or $17+10\log_{10}B^*$ *B is 99% emission bandwidth in 1MHz
------------------------	------------------------	---

5.725-5.85	(Conducted)	≤1W
------------	-------------	-----

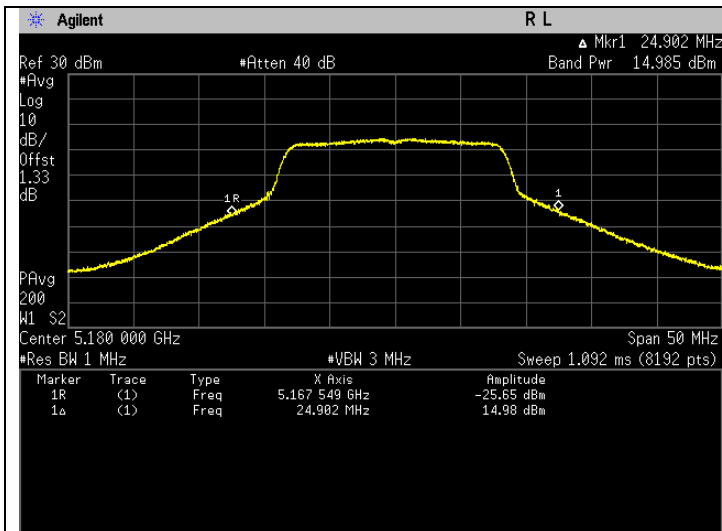
7.2.3. Test Data

Summary table

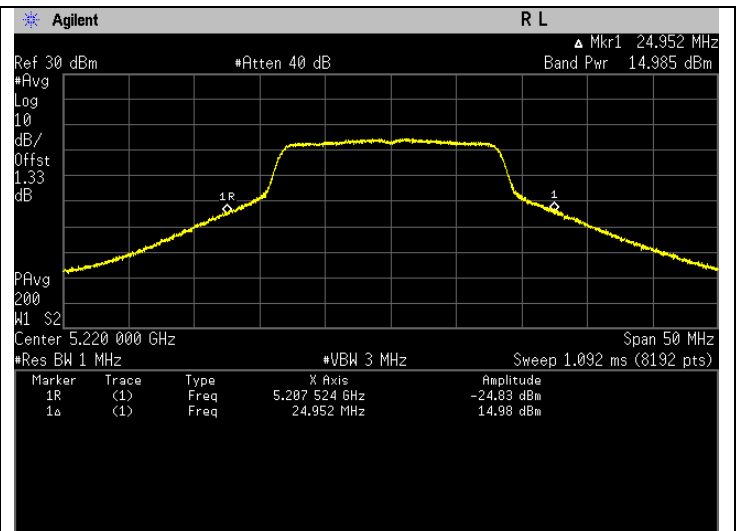
WLAN	Frequency Range (MHz)	Bandwidth (MHz)	RF Power Output		EIRP		Max Emission Designator
			Max measured (mW)	Max declared (mW)	Max measured (mW)	Max declared (mW)	
802.11a	5180-5240	20	32.36	39.81	40.74	50.12	16M9D1D
	5260-5320	20	32.12	39.81	50.90	63.10	16M9D1D
	5500-5580	20	34.75	39.81	55.07	63.10	17M0D1D
	5660-5720	20	34.33	39.81	54.41	63.10	16M9D1D
	5745-5825	20	36.37	39.81	129.03	141.25	17M0D1D
802.11n/ac (HT20)	5180-5240	20	31.69	39.81	39.89	50.12	18M0D1D
	5260-5320	20	31.47	39.81	49.88	63.10	18M0D1D
	5500-5580	20	34.27	39.81	54.31	63.10	18M1D1D
	5660-5720	20	33.58	39.81	53.22	63.10	18M1D1D
	5745-5825	20	35.77	39.81	126.94	141.25	18M1D1D
802.11n/ac (HT40)	5190-5230	40	45.50	50.12	57.28	63.10	36M5D1D
	5270-5310	40	41.43	50.12	65.66	79.43	36M4D1D
	5510-5550	40	45.04	50.12	71.38	79.43	36M4D1D
	5670-5710	40	43.98	50.12	69.71	79.43	36M4D1D
	5755-5795	40	44.39	50.12	157.51	177.83	36M4D1D
802.11ac (VHT80)	5210	80	29.22	50.12	36.78	63.10	75M5D1D
	5290	80	21.64	50.12	34.30	79.43	75M8D1D
	5530	80	28.51	50.12	45.18	79.43	75M8D1D
	5610-5690	80	41.91	50.12	66.42	79.43	75M7D1D
	5775	80	43.21	50.12	153.29	177.83	75M8D1D

802.11a (26dB EBW)

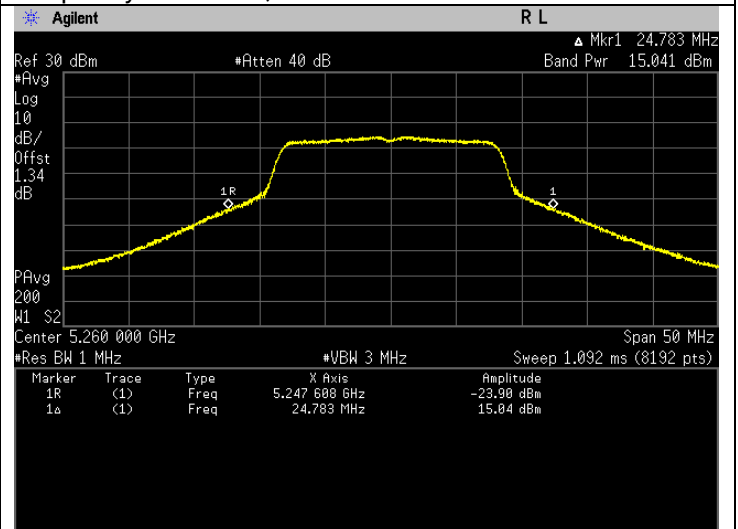
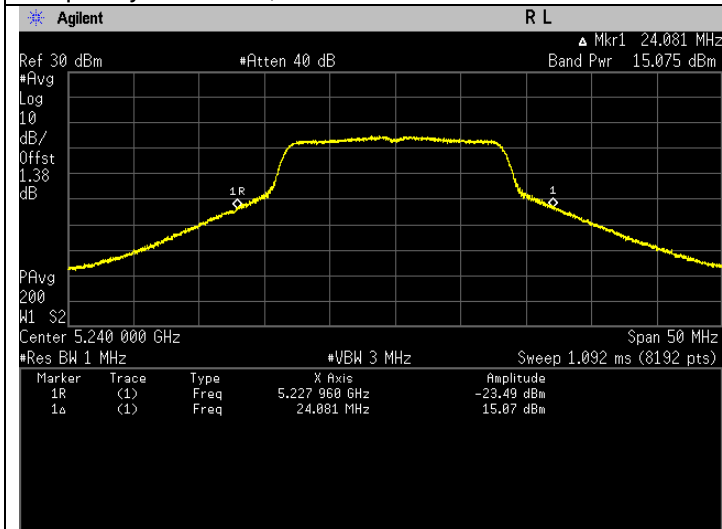
Freq. (MHz)	Test Conditions	Results		
		Power (mW)	Power (dBm)	Status
5180	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	32.078	15.062	Pass
5220	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	32.078	15.062	Pass
5240	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	32.750	15.152	Pass
5260	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	32.495	15.118	Pass
5300	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	30.166	14.795	Pass
5320	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	30.840	14.891	Pass
5500	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	34.971	15.437	Pass
5580	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	34.787	15.414	Pass
5700	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	34.587	15.389	Pass
5745	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	33.768	15.285	Pass
5785	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	35.959	15.558	Pass
5825	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	37.052	15.688	Pass



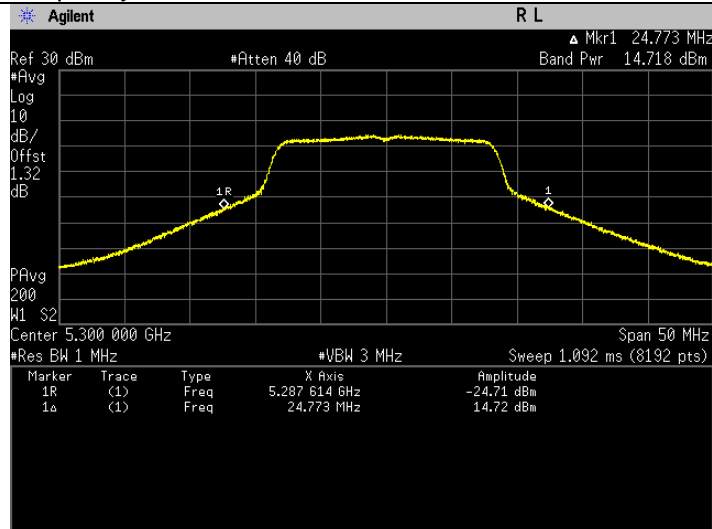
Frequency 5180 MHz, FCC.



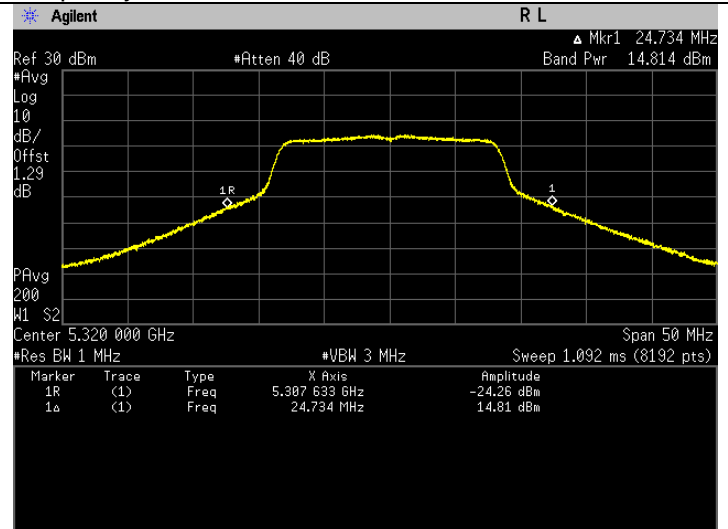
Frequency 5220 MHz, FCC.



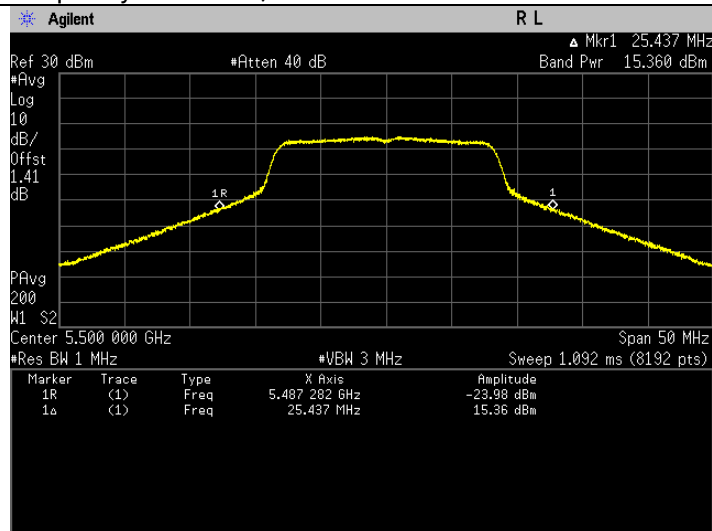
Frequency 5240 MHz, FCC.



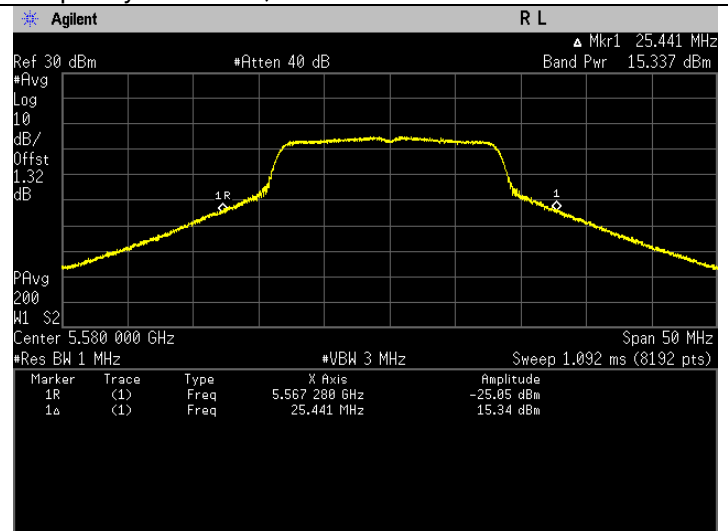
Frequency 5260 MHz, FCC.



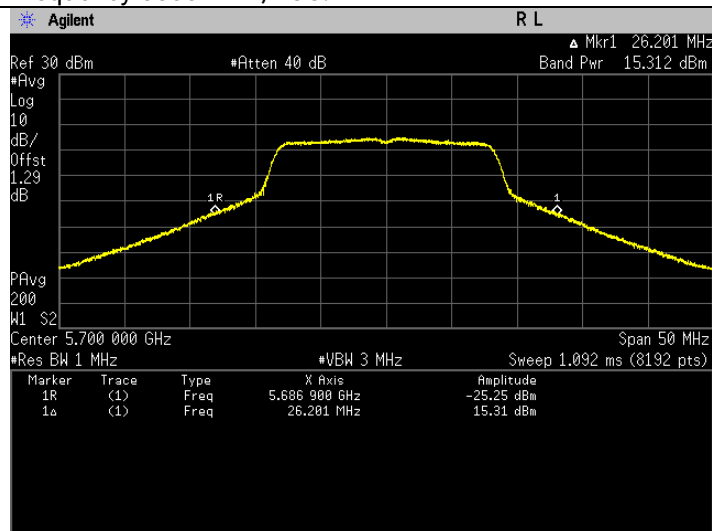
Frequency 5300 MHz, FCC.



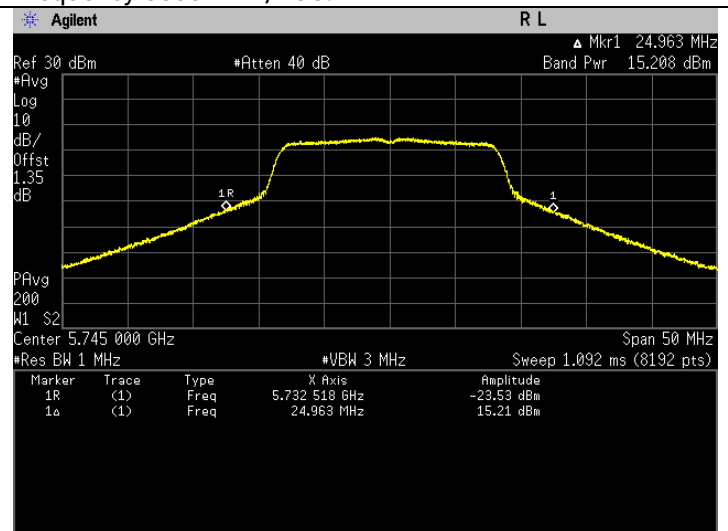
Frequency 5320 MHz, FCC.



Frequency 5500 MHz, FCC.

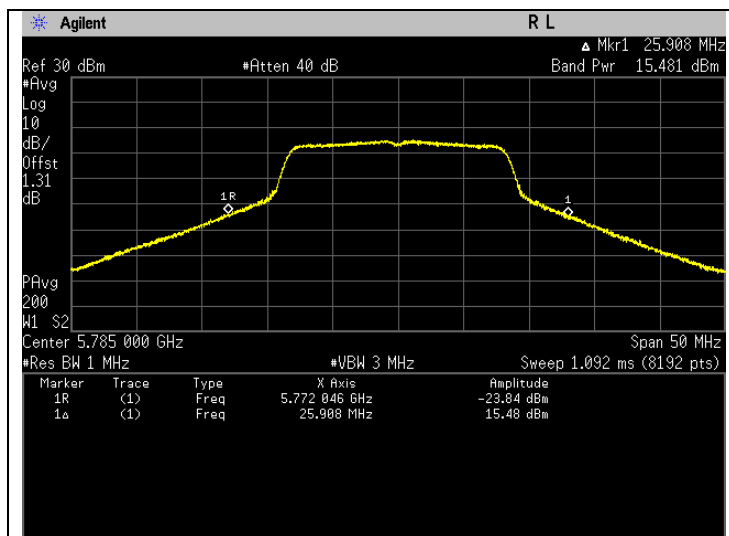


Frequency 5580 MHz, FCC.

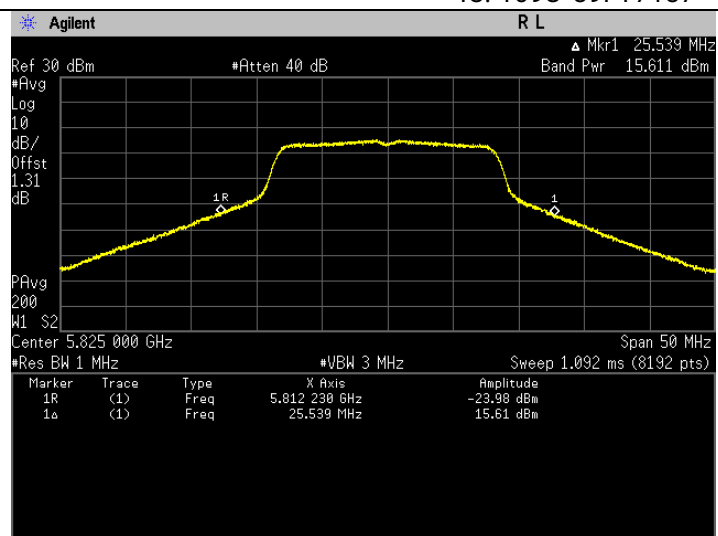


Frequency 5700 MHz, FCC.

Frequency 5745 MHz, FCC.



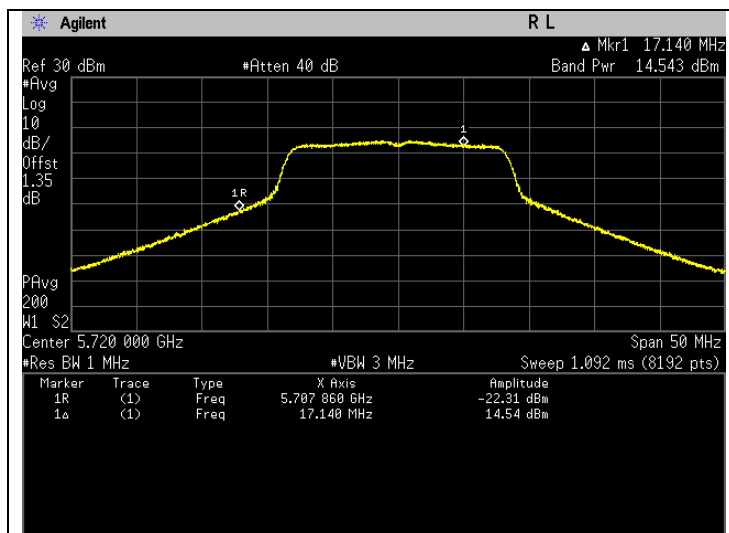
Frequency 5785 MHz, FCC.



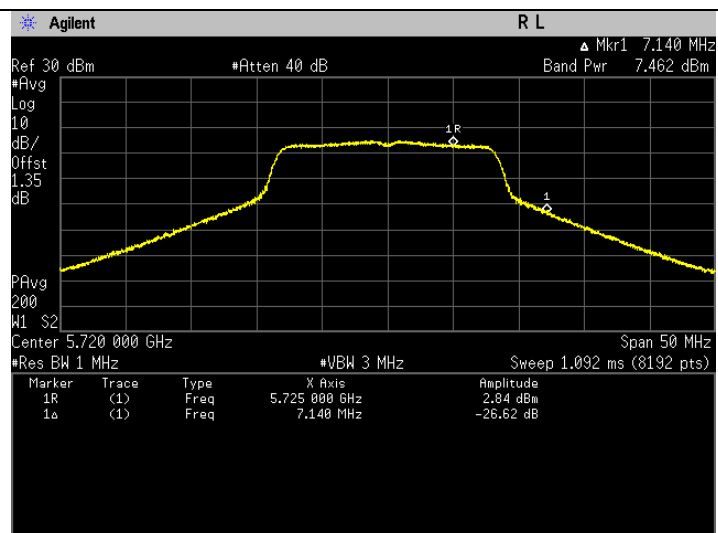
Frequency 5825 MHz, FCC.

Straddle Frequency

Freq. (MHz)	Test Conditions	Results		
		U-NII- 2C		
		Power (mW)	Power (dBm)	Status
5720	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	28.974	14.620	Pass
U-NII-3				
5720	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	5.674	7.539	Pass



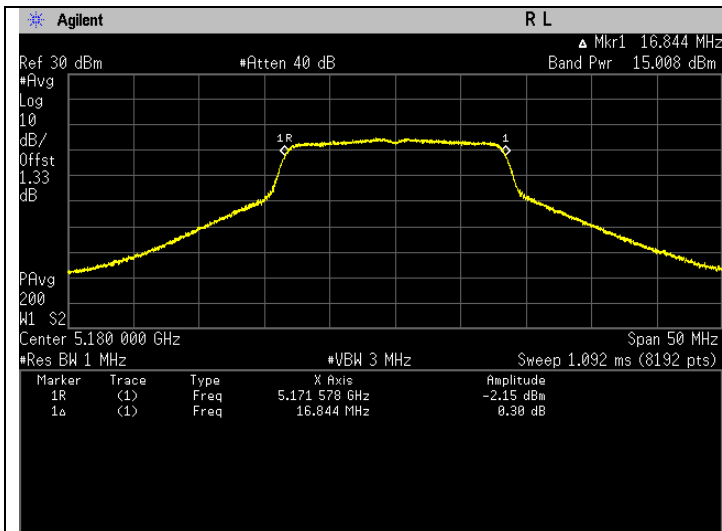
Frequency 5720 MHz, FCC, U-NII-2C. *Note: The band power is captured before the 5725 MHz.



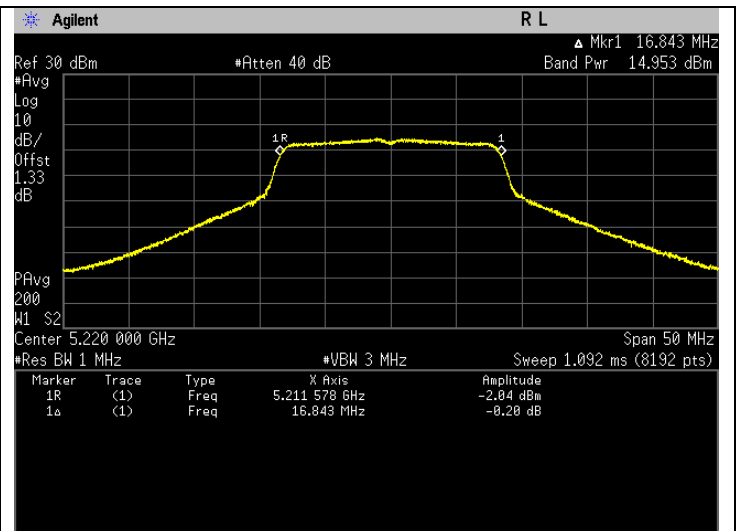
Frequency 5720 MHz, FCC, U-NII-3. *Note: The band power is captured after the 5725 MHz.

802.11a (99% EBW)

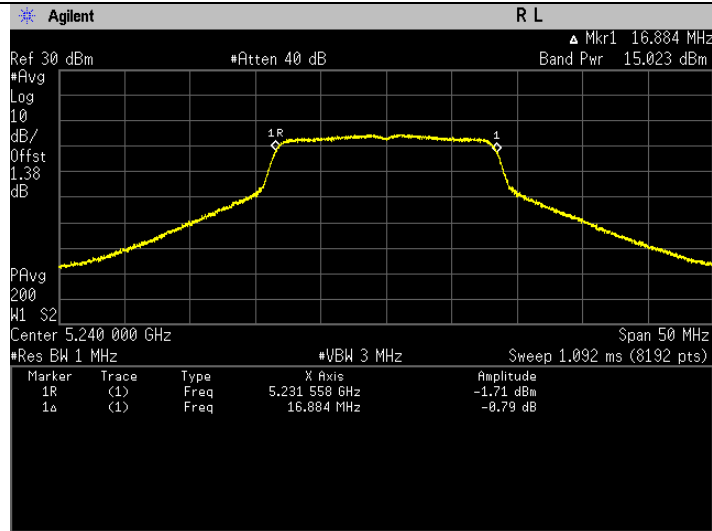
Freq. (MHz)	Test Conditions	Antenna Gain (dBi)	Results				
			Power (mW)	Power (dBm)	Status	EIRP (dBm)	Status
5180	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	1.00	32.249	15.085	Pass	16.085	Pass
5220	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	1.00	31.843	15.030	Pass	16.030	Pass
5240	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	1.00	32.360	15.100	Pass	16.100	Pass
5260	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	2.00	32.115	15.067	Pass	17.067	Pass
5300	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	2.00	29.779	14.739	Pass	16.739	Pass
5320	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	2.00	30.403	14.829	Pass	16.829	Pass
5500	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	2.00	34.747	15.409	Pass	17.409	Pass
5580	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	2.00	34.301	15.353	Pass	17.353	Pass
5700	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	2.00	34.333	15.357	Pass	17.357	Pass
5745	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	5.50	33.313	15.226	Pass	20.726	Pass
5785	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	5.50	35.556	15.509	Pass	21.009	Pass
5825	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	5.50	36.367	15.607	Pass	21.107	Pass



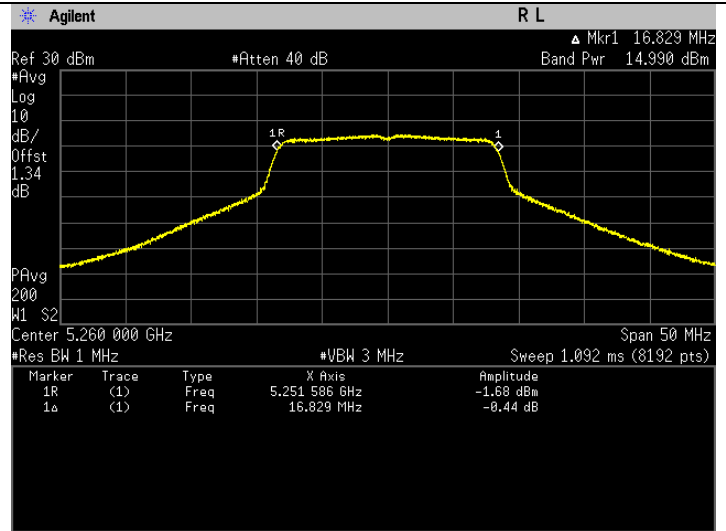
Frequency 5180 MHz, ISED.



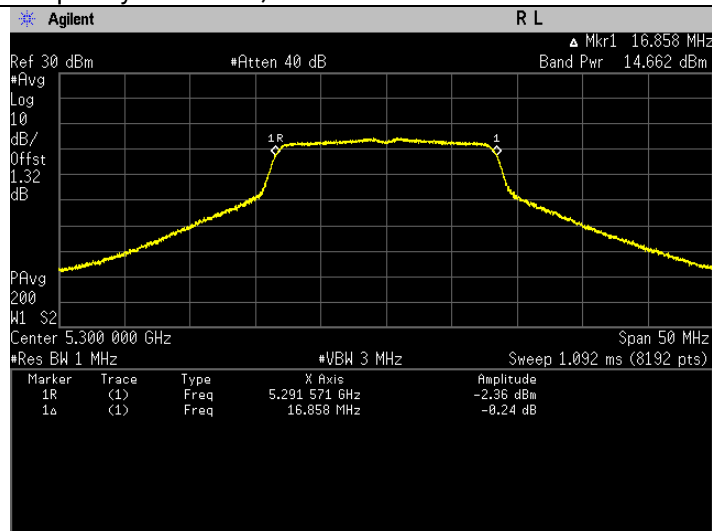
Frequency 5220 MHz, ISED.



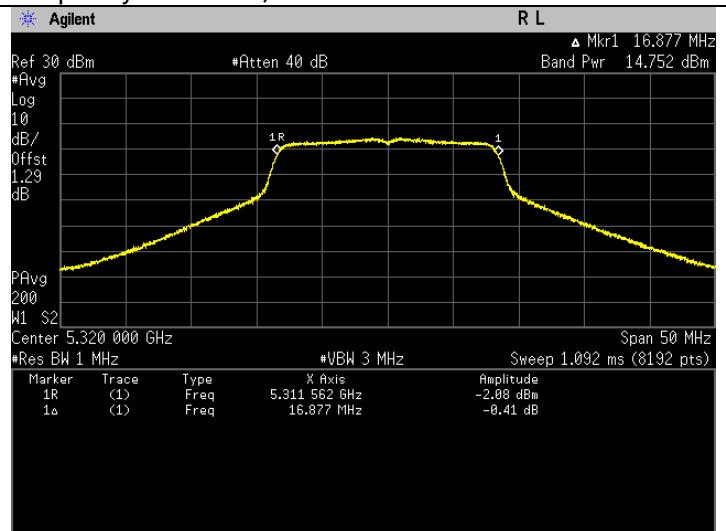
Frequency 5240 MHz, ISED.



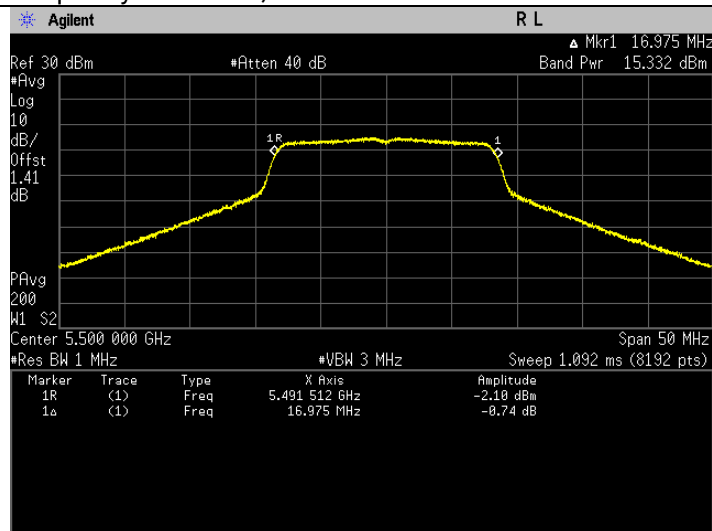
Frequency 5260 MHz, ISED.



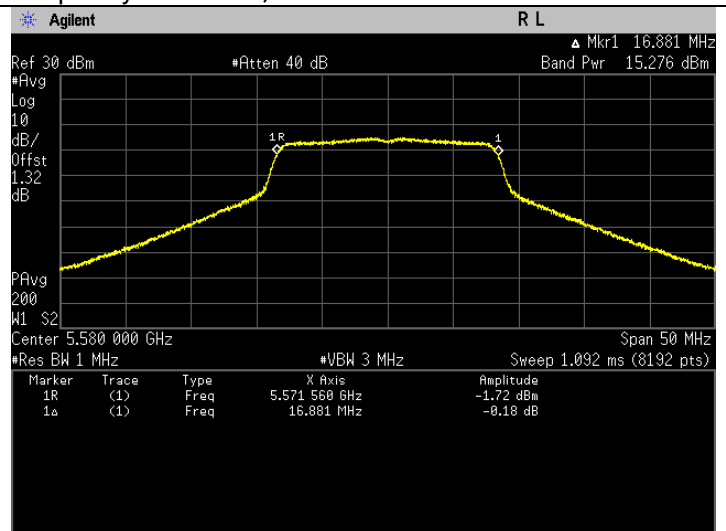
Frequency 5300 MHz, ISED.



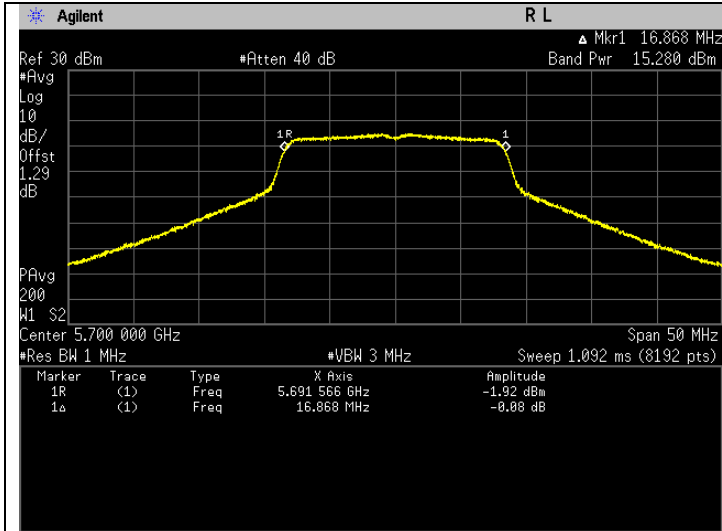
Frequency 5320 MHz, ISED.



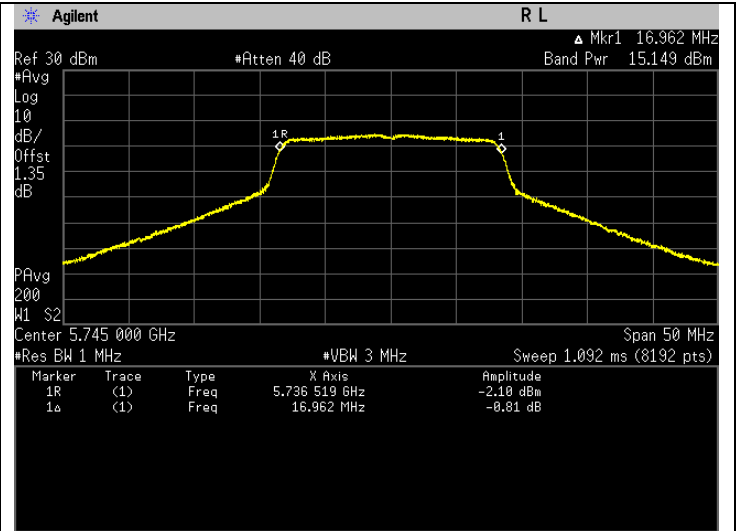
Frequency 5500 MHz, ISED.



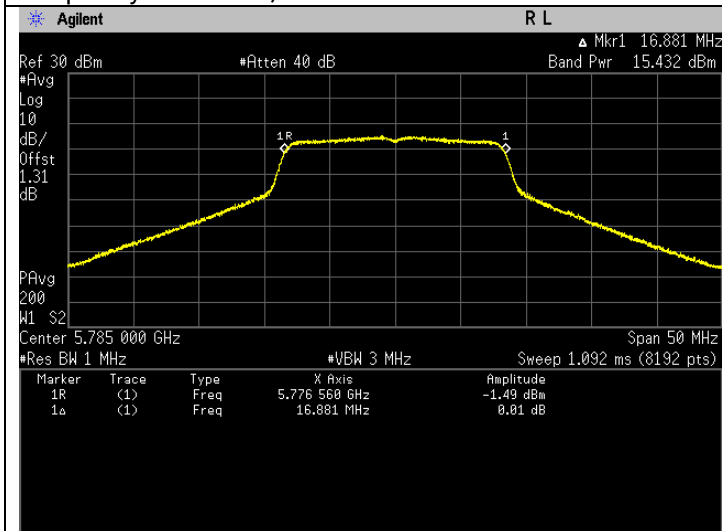
Frequency 5580 MHz, ISED.



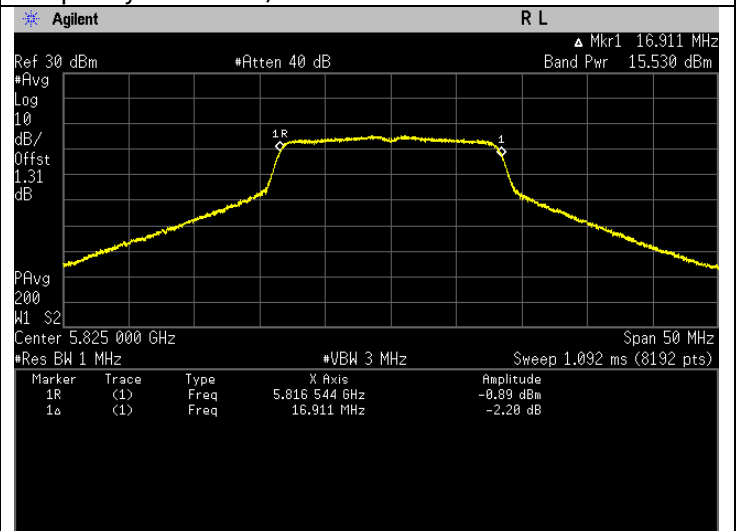
Frequency 5700 MHz, ISED.



Frequency 5745 MHz, ISED.



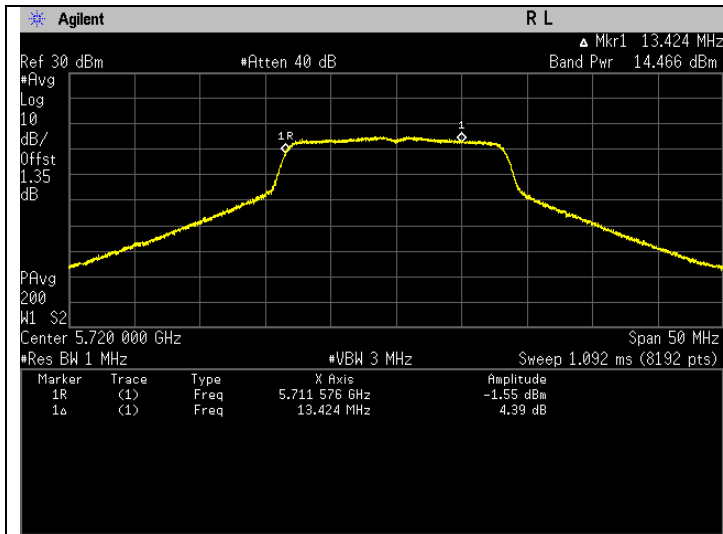
Frequency 5785 MHz, ISED.



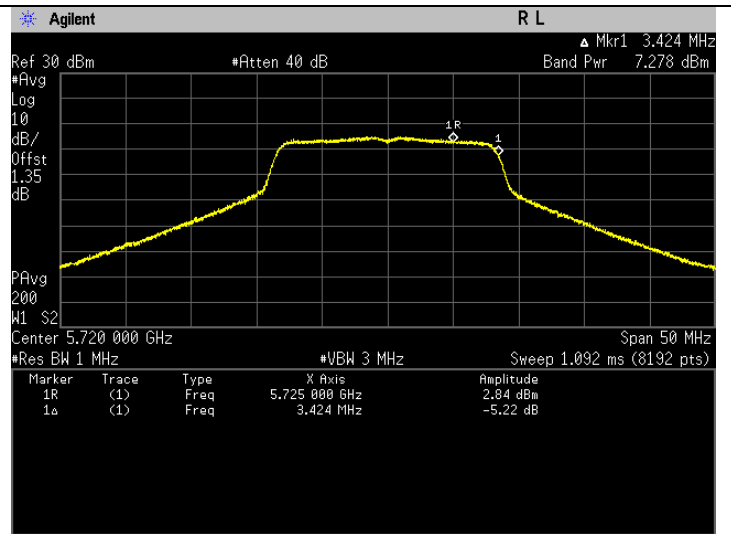
Frequency 5825 MHz, ISED.

Straddle Frequency

Freq. (MHz)	Test Conditions	Antenna Gain (dBi)	Results				
			U-NII- 2C				
			Power (mW)	Power (dBm)	Status	EIRP (dBm)	Status
5720	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	2.00	28.465	14.543	Pass	16.543	Pass
U-NII-3							
5720	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	2.00	5.439	7.355	Pass	9.355	Pass



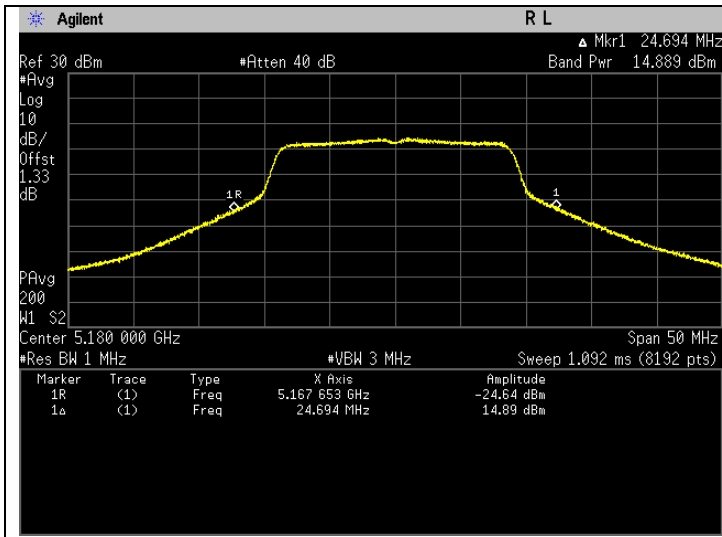
Frequency 5720 MHz, ISSED, U-NII-2C. *Note: The band power is captured before the 5725 MHz.



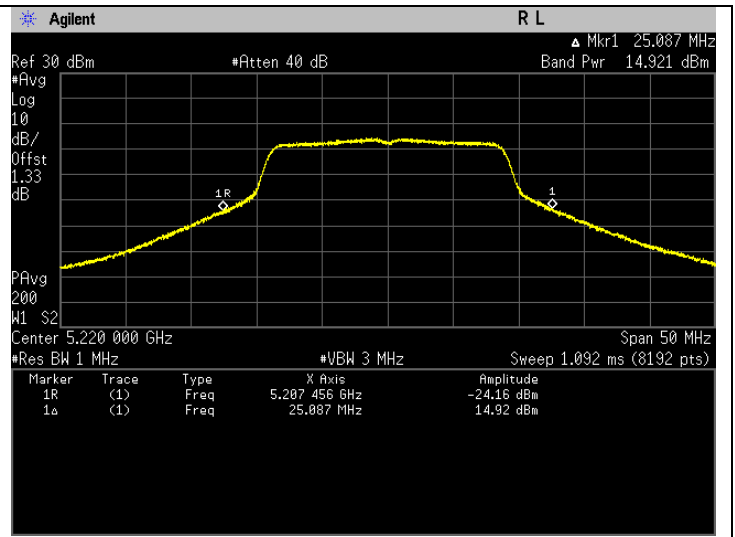
Frequency 5720 MHz, ISSED, U-NII-3. *Note: The band power is captured after the 5725 MHz.

802.11n (HT20) (26dB EBW)

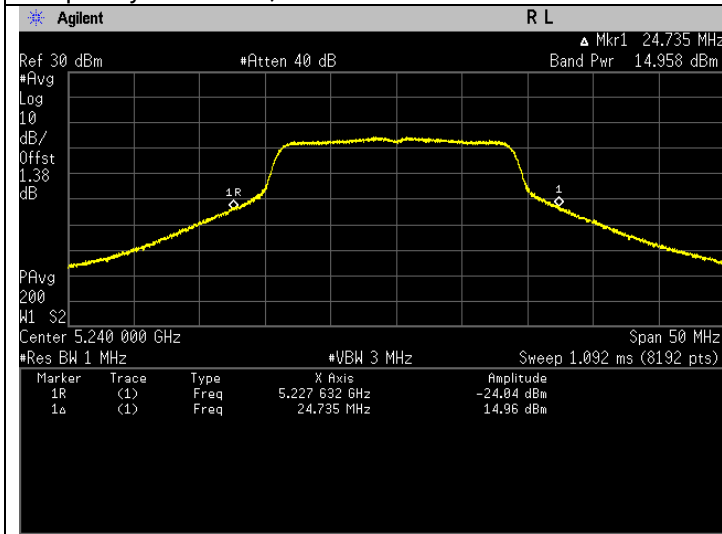
Freq. (MHz)	Test Conditions	Results		
		Power (mW)	Power (dBm)	Status
5180	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	31.419	14.972	Pass
5220	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	31.651	15.004	Pass
5240	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	31.922	15.041	Pass
5260	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	31.907	15.039	Pass
5300	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	29.396	14.683	Pass
5320	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	30.074	14.782	Pass
5500	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	34.857	15.423	Pass
5580	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	34.173	15.337	Pass
5700	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	34.173	15.337	Pass
5745	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	33.511	15.252	Pass
5785	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	35.374	15.487	Pass
5825	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	36.533	15.627	Pass



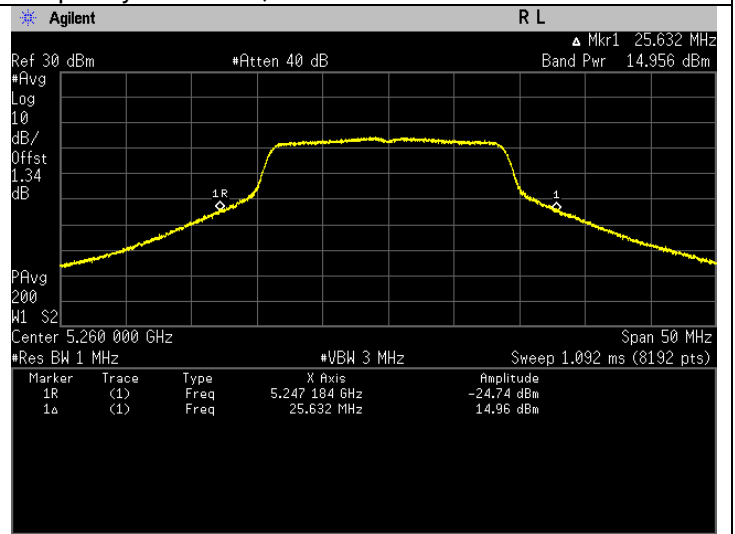
Frequency 5180 MHz, FCC.



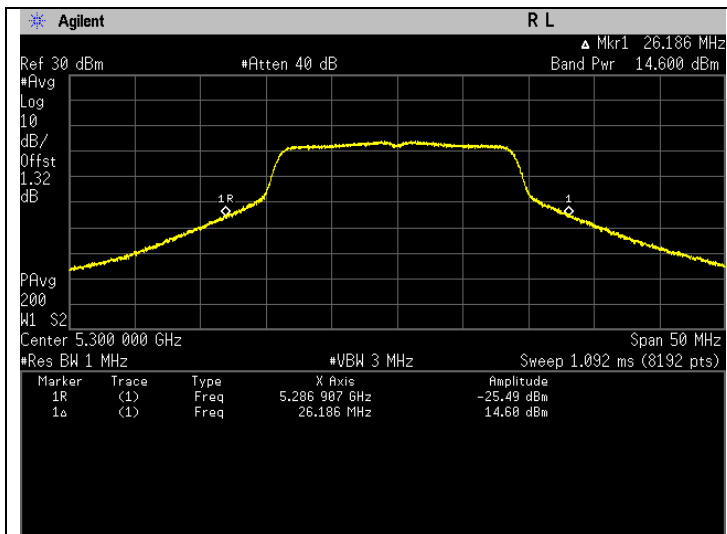
Frequency 5220 MHz, FCC.



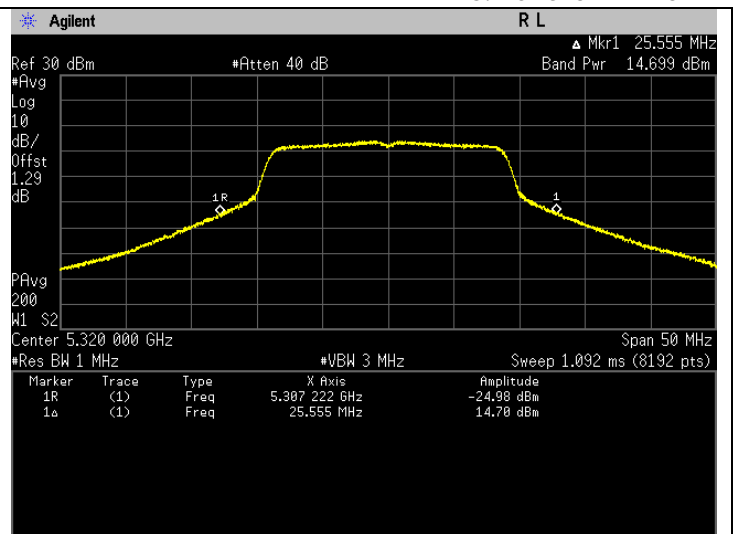
Frequency 5240 MHz, FCC.



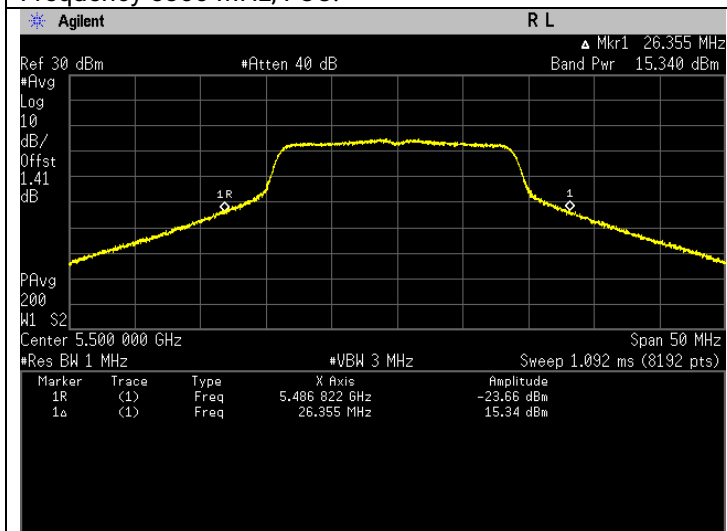
Frequency 5260 MHz, FCC.



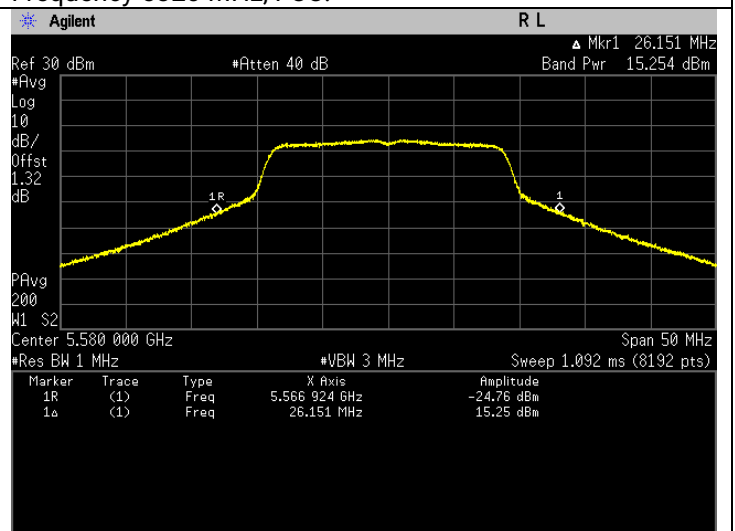
Frequency 5300 MHz, FCC.



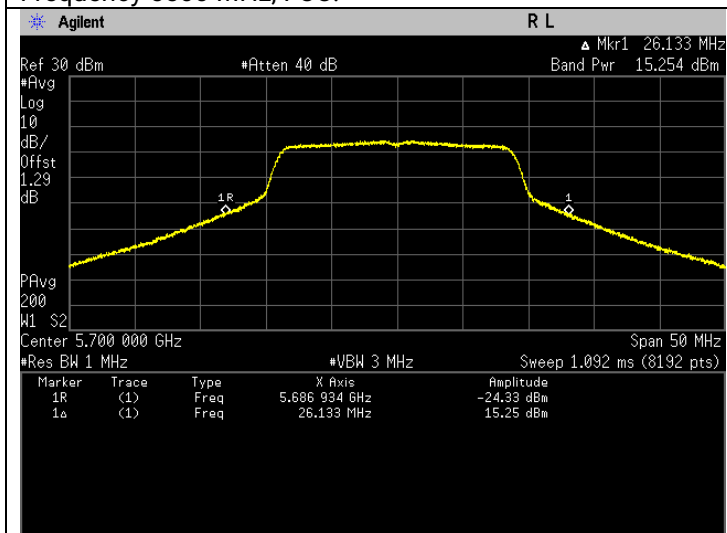
Frequency 5320 MHz, FCC.



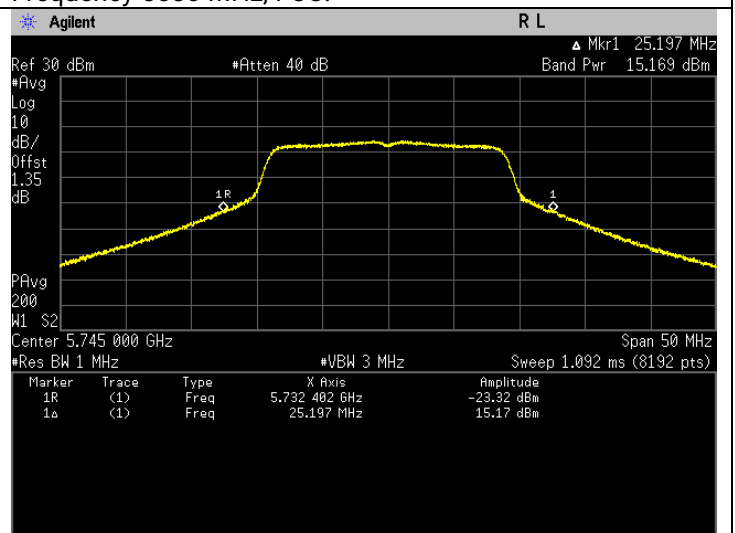
Frequency 5500 MHz, FCC.



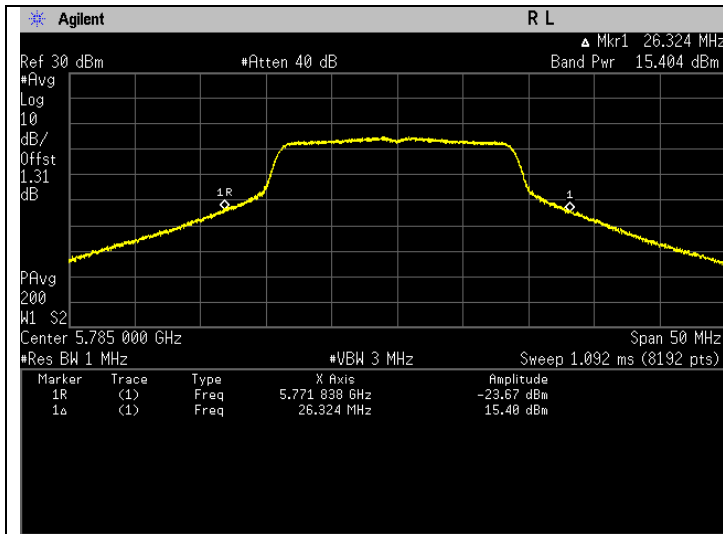
Frequency 5580 MHz, FCC.



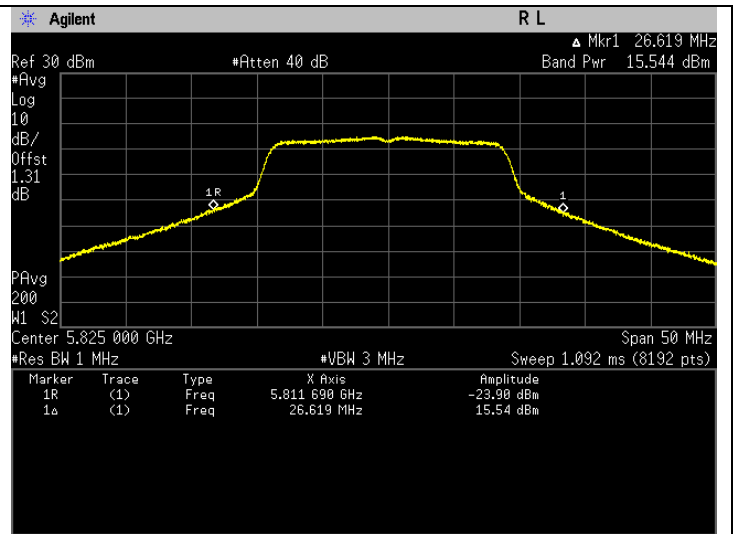
Frequency 5700 MHz, FCC.



Frequency 5745 MHz, FCC.



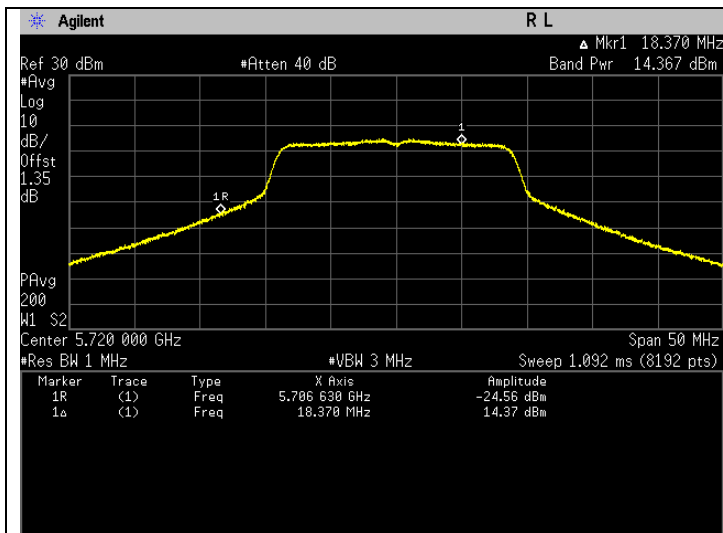
Frequency 5785 MHz, FCC.



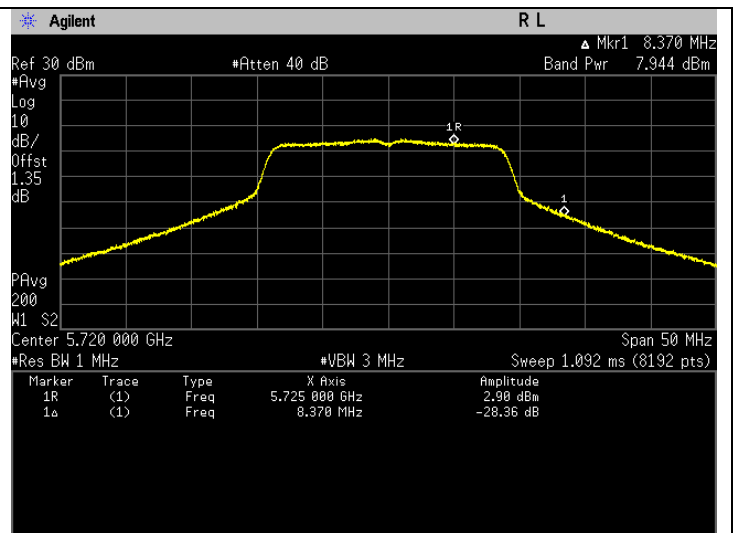
Frequency 5825 MHz, FCC.

Straddle Frequency

Freq. (MHz)	Test Conditions	Results		
		U-NII- 2C		
		Power (mW)	Power (dBm)	Status
5720	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	27.860	14.450	Pass
U-NII-3				
5720	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	6.349	8.027	Pass



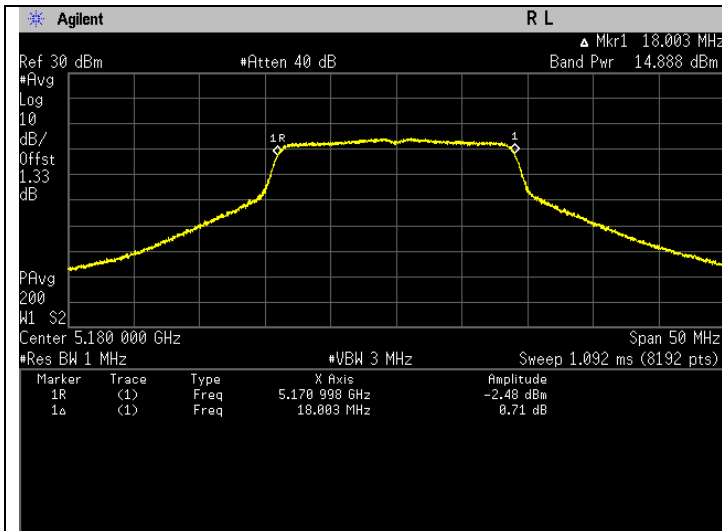
Frequency 5720 MHz, FCC, U-NII-2C. *Note: The band power is captured before the 5725 MHz.



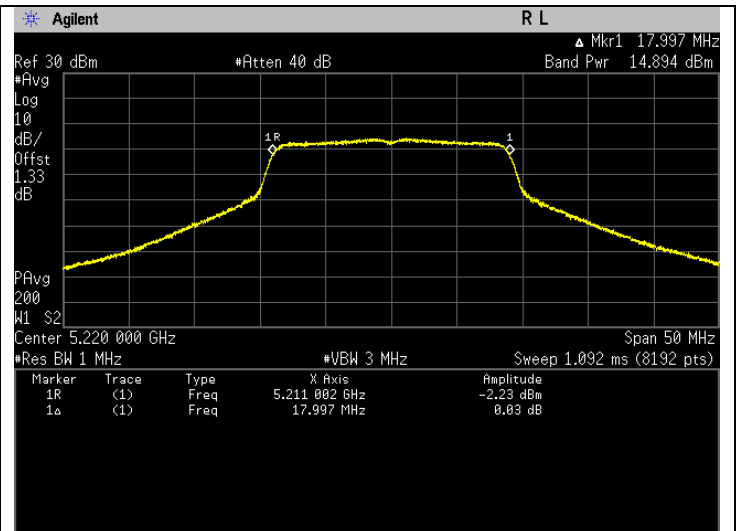
Frequency 5720 MHz, FCC, U-NII-3. *Note: The band power is captured after the 5725 MHz.

802.11n (HT20) (99% EBW)

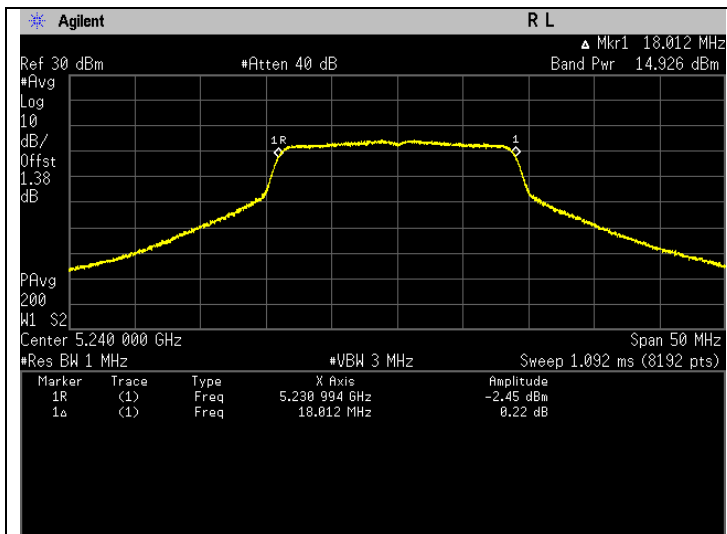
Freq. (MHz)	Test Conditions	Antenna Gain (dBi)	Results				
			Power (mW)	Power (dBm)	Status	EIRP (dBm)	Status
5180	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	1.00	31.411	14.971	Pass	15.971	Pass
5220	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	1.00	31.455	14.977	Pass	15.977	Pass
5240	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	1.00	31.687	15.009	Pass	16.009	Pass
5260	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	2.00	31.469	14.979	Pass	16.979	Pass
5300	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	2.00	28.879	14.606	Pass	16.606	Pass
5320	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	2.00	29.470	14.694	Pass	16.694	Pass
5500	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	2.00	34.268	15.349	Pass	17.349	Pass
5580	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	2.00	33.759	15.284	Pass	17.284	Pass
5700	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	2.00	33.580	15.261	Pass	17.261	Pass
5745	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	5.50	32.869	15.168	Pass	20.668	Pass
5785	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	5.50	34.769	15.412	Pass	20.912	Pass
5825	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	5.50	35.776	15.536	Pass	21.036	Pass



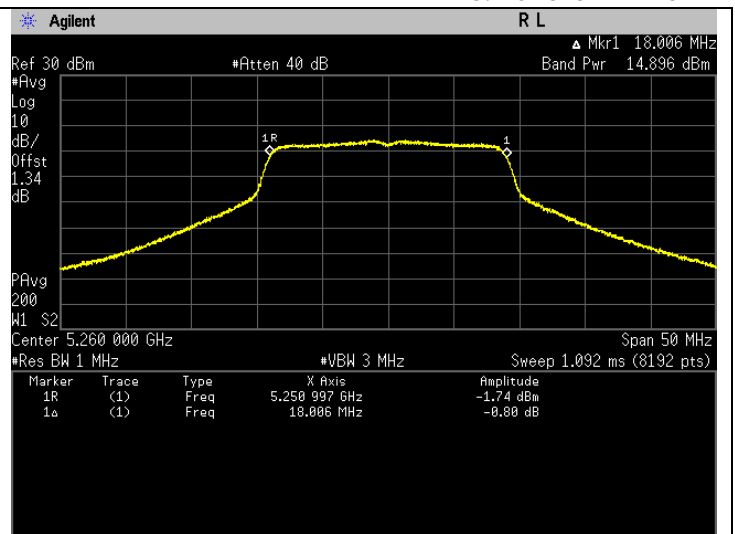
Frequency 5180 MHz, ISED.



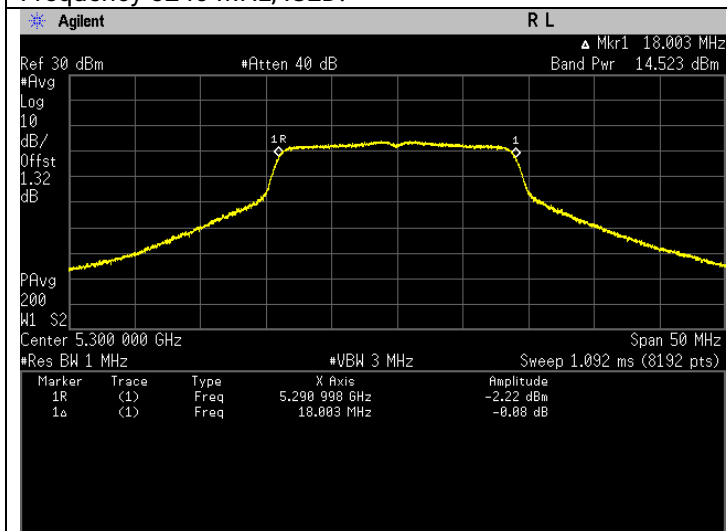
Frequency 5220 MHz, ISED.



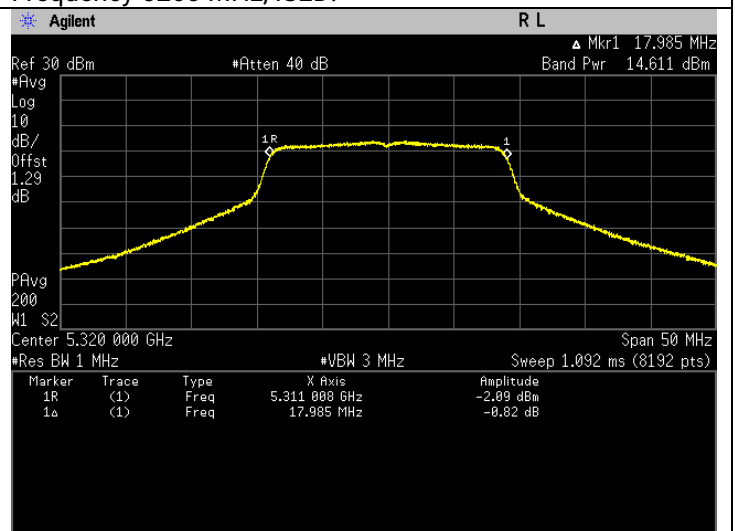
Frequency 5240 MHz, ISED.



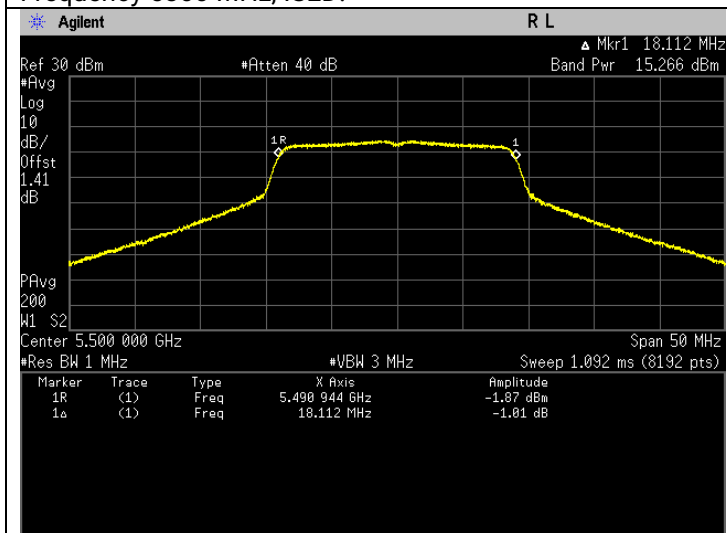
Frequency 5260 MHz, ISED.



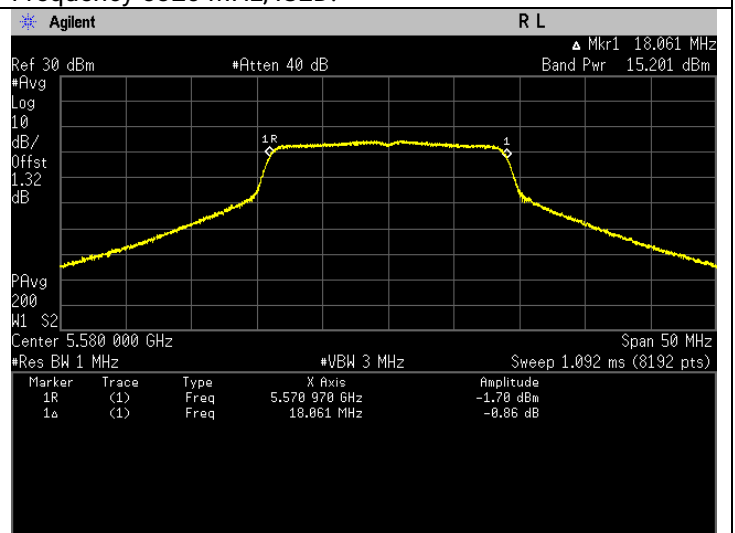
Frequency 5300 MHz, ISED.



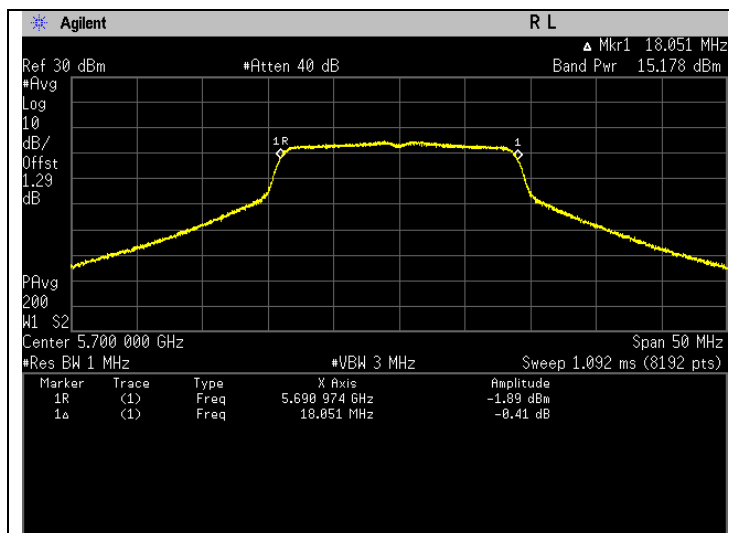
Frequency 5320 MHz, ISED.



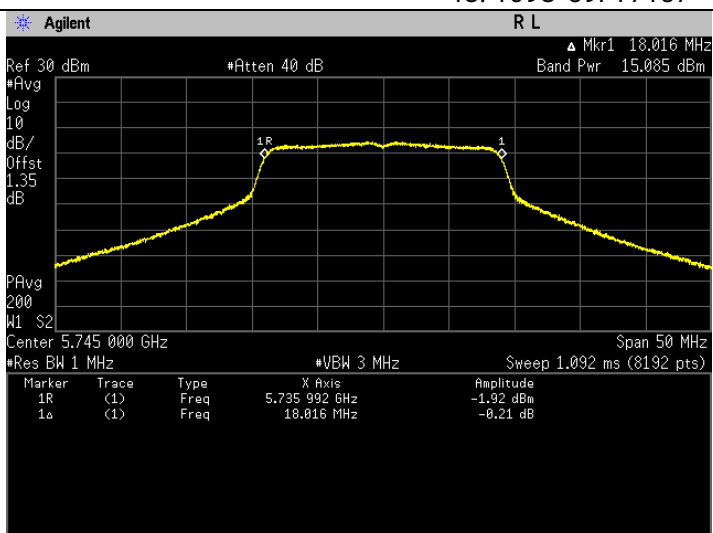
Frequency 5500 MHz, ISED.



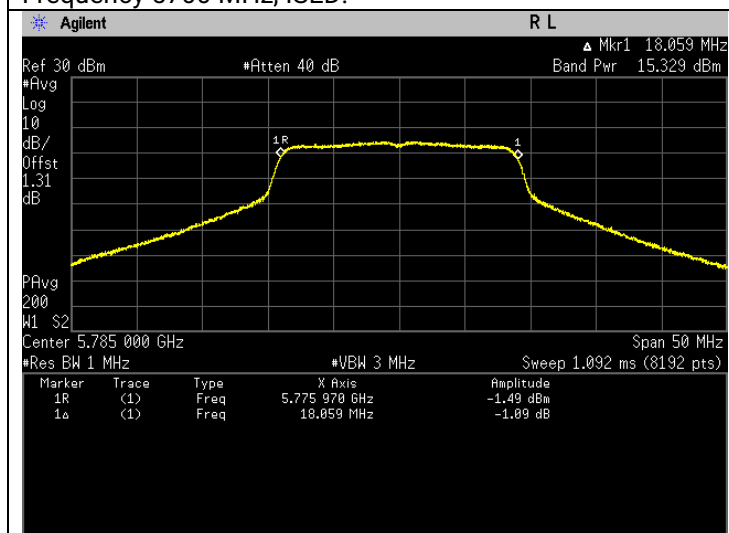
Frequency 5580 MHz, ISED.



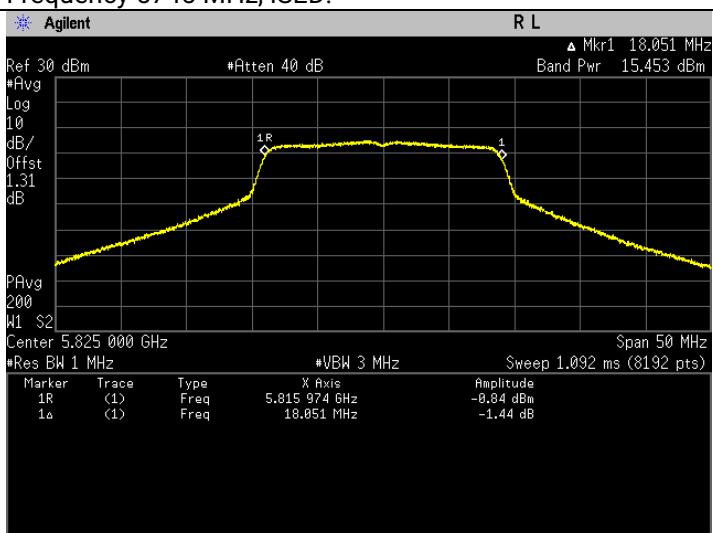
Frequency 5700 MHz, ISED.



Frequency 5745 MHz, ISED.



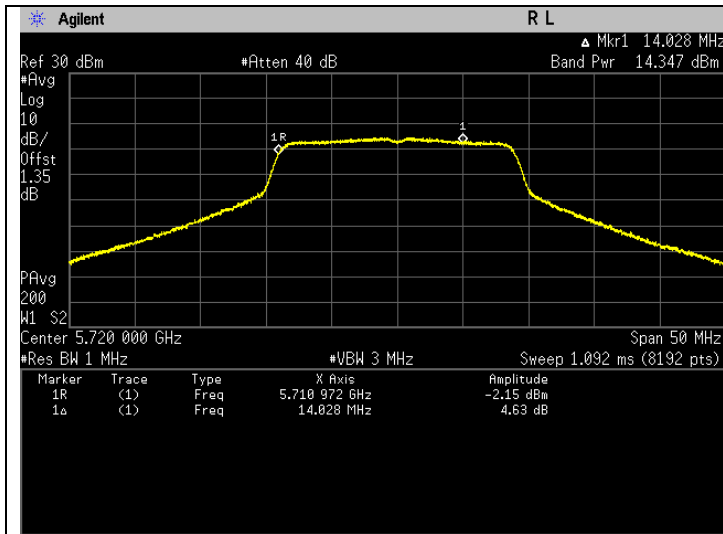
Frequency 5785 MHz, ISED.



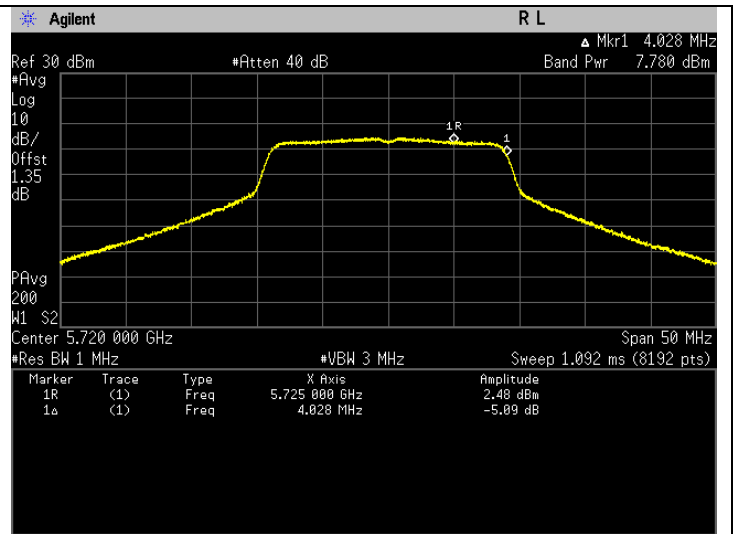
Frequency 5825 MHz, ISED.

Straddle Frequency

Freq. (MHz)	Test Conditions	Antenna Gain (dBi)	Results				
			U-NII- 2C				
			Power (mW)	Power (dBm)	Status	EIRP (dBm)	Status
5720	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	2.00	27.732	14.430	Pass	16.430	Pass
U-NII-3							
5720	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	2.00	6.113	7.863	Pass	9.863	Pass



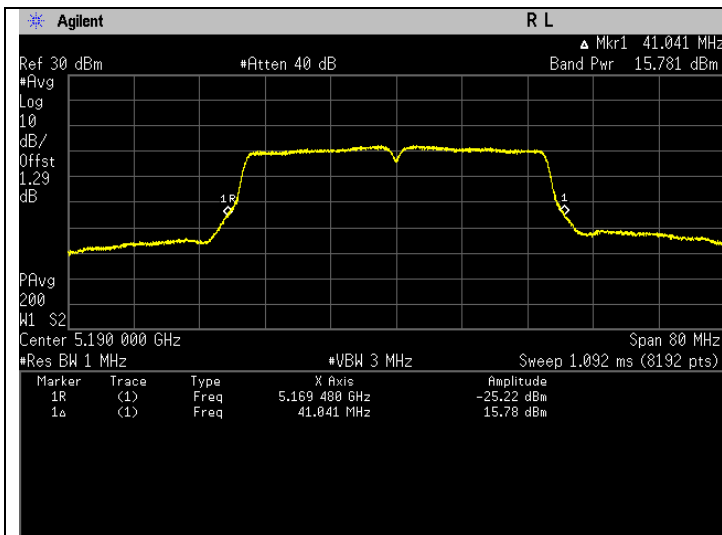
Frequency 5720 MHz, ISSED, U-NII-2C. *Note: The band power is captured before the 5725 MHz.



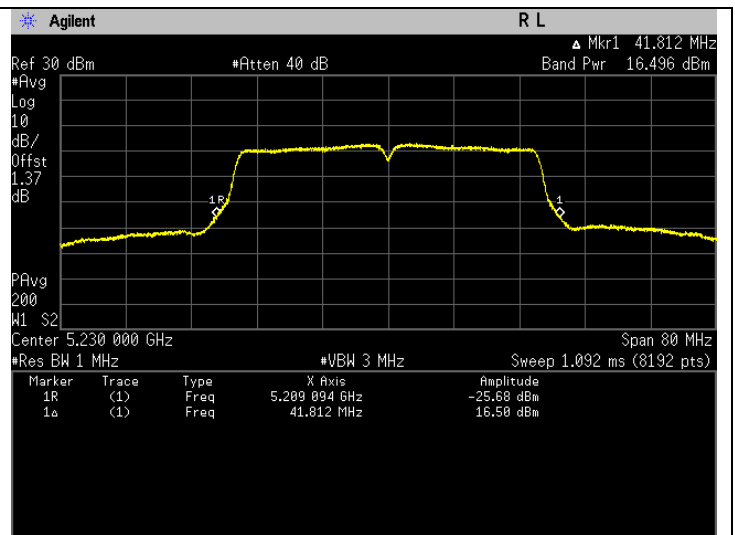
Frequency 5720 MHz, ISSED, U-NII-3. *Note: The band power is captured after the 5725 MHz.

802.11n (HT40) (26dB EBW)

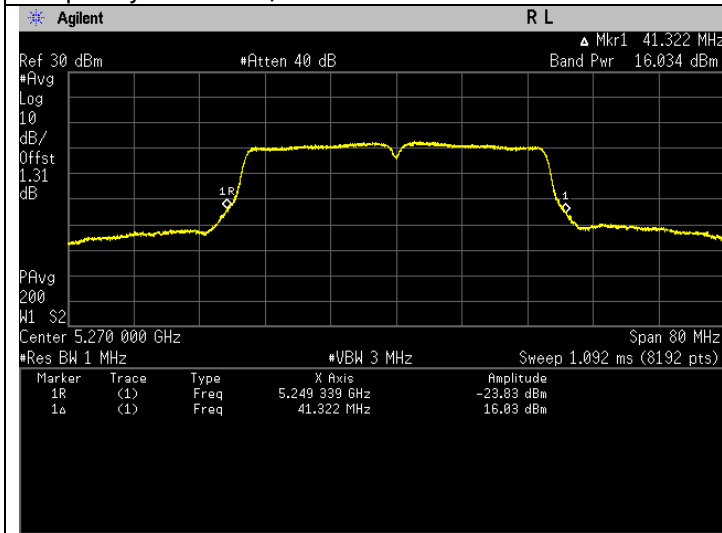
Freq. (MHz)	Test Conditions	Results		
		Power (mW)	Power (dBm)	Status
5190	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	39.299	15.944	Pass
5230	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	46.332	16.659	Pass
5270	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	41.657	16.197	Pass
5310	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	32.695	15.145	Pass
5510	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	45.581	16.588	Pass
5550	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	44.451	16.479	Pass
5670	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	44.667	16.500	Pass
5755	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	44.615	16.495	Pass
5795	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	44.472	16.481	Pass



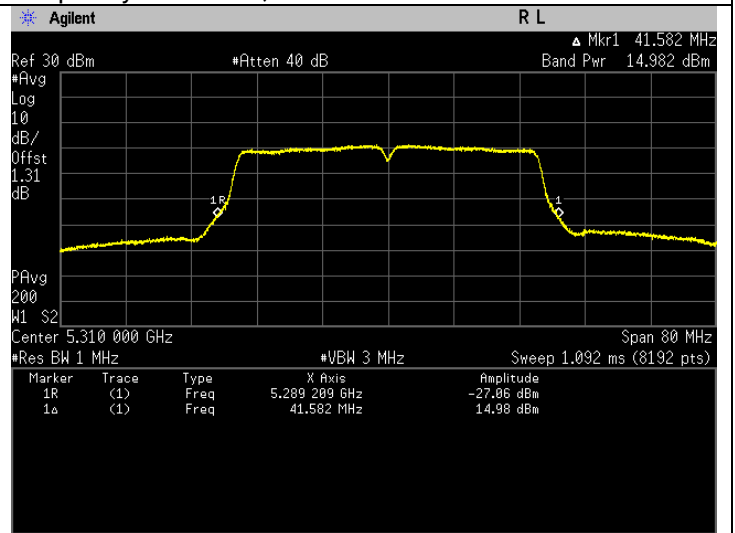
Frequency 5190 MHz, FCC.



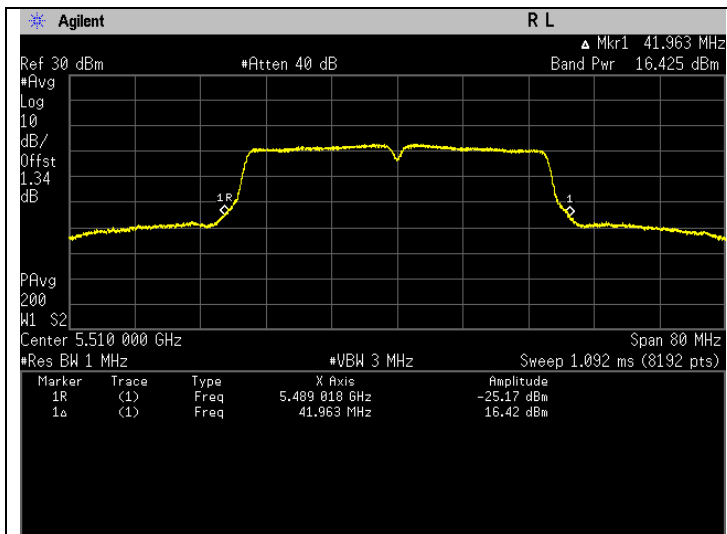
Frequency 5230 MHz, FCC.



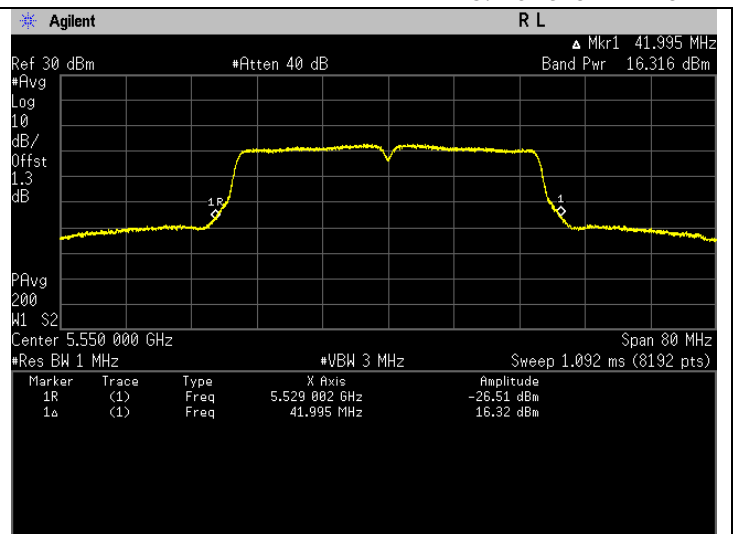
Frequency 5270 MHz, FCC.



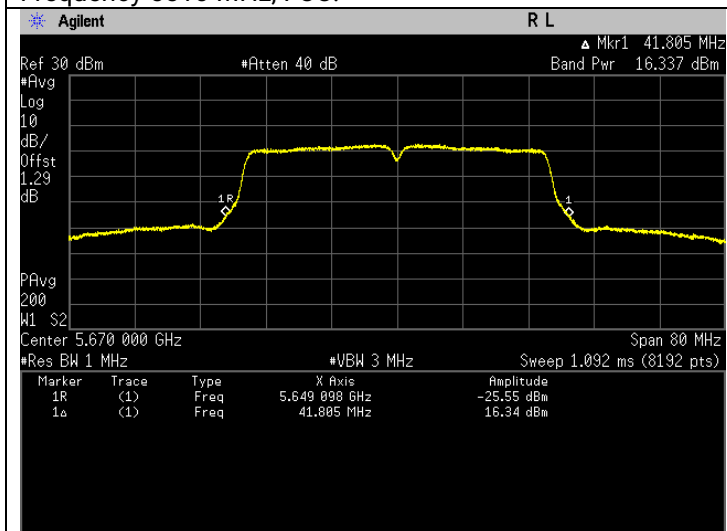
Frequency 5310 MHz, FCC.



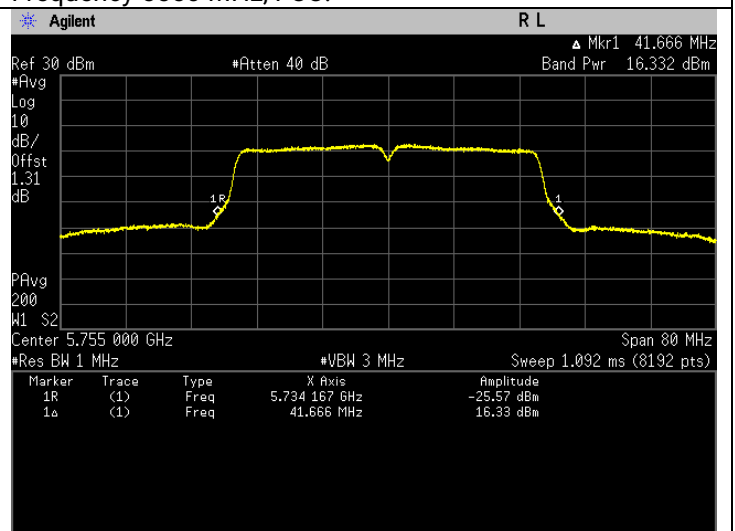
Frequency 5510 MHz, FCC.



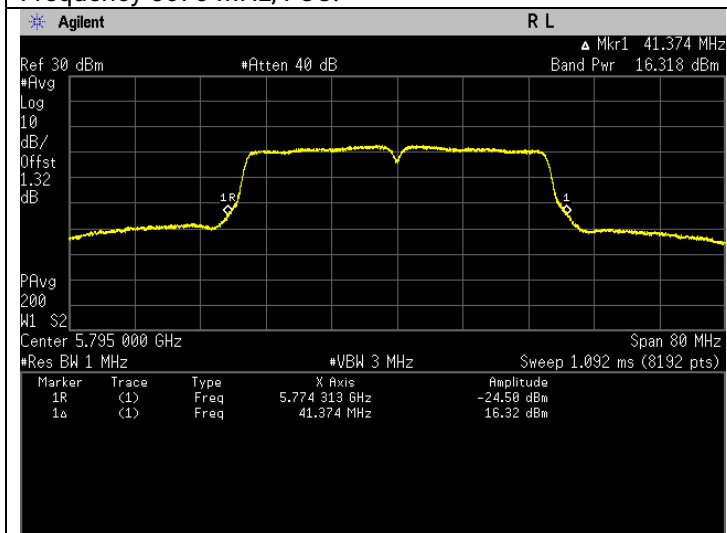
Frequency 5550 MHz, FCC.



Frequency 5670 MHz, FCC.



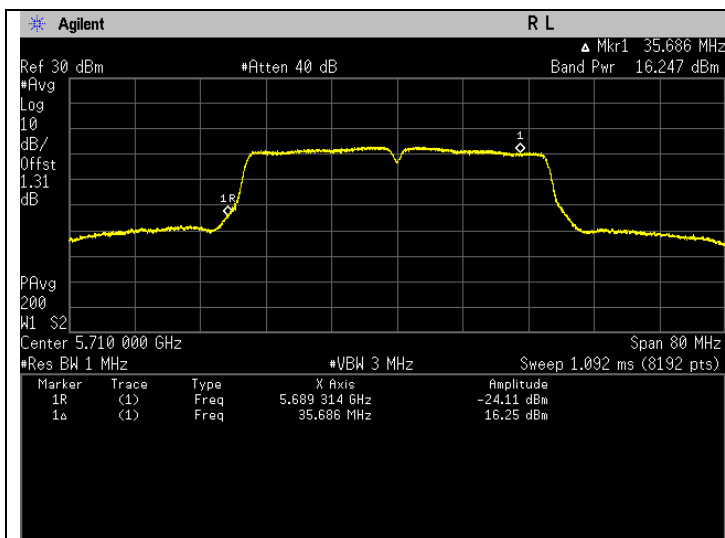
Frequency 5755 MHz, FCC.



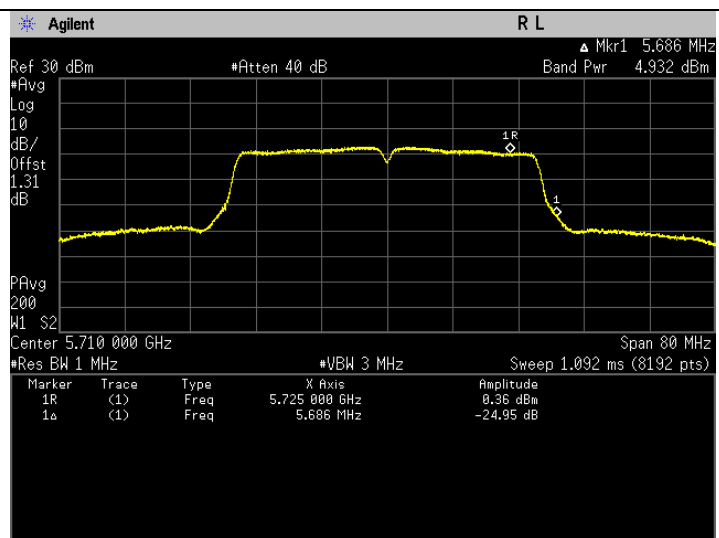
Frequency 5795 MHz, FCC.

Straddle Frequency

Freq. (MHz)	Test Conditions	Results		
		U-NII- 2C		
		Power (mW)	Power (dBm)	Status
5710	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	43.751	16.410	Pass
		U-NII-3		
5710	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	3.232	5.095	Pass



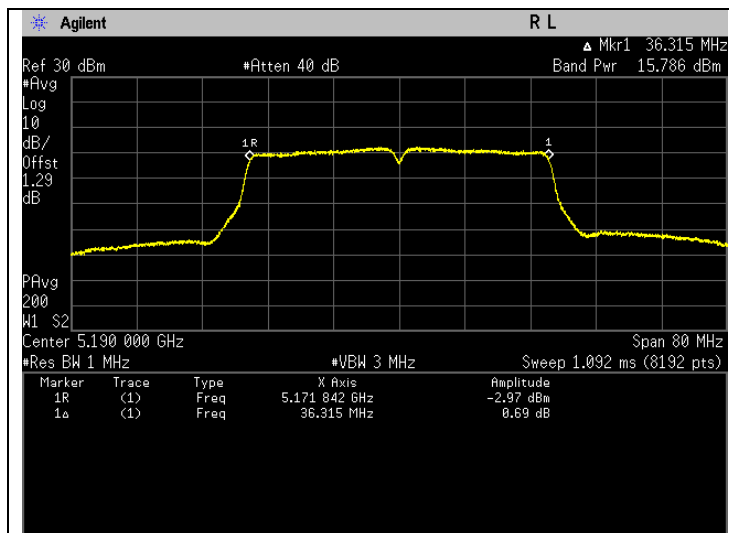
Frequency 5710 MHz, FCC, U-NII-2C. *Note: The band power is captured before the 5725 MHz.



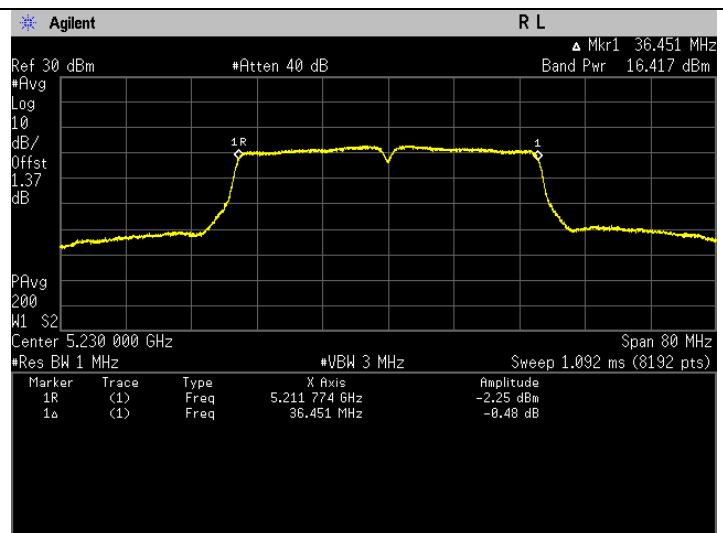
Frequency 5710 MHz, FCC, U-NII-3. *Note: The band power is captured after the 5725 MHz.

802.11n (HT40) (99% EBW)

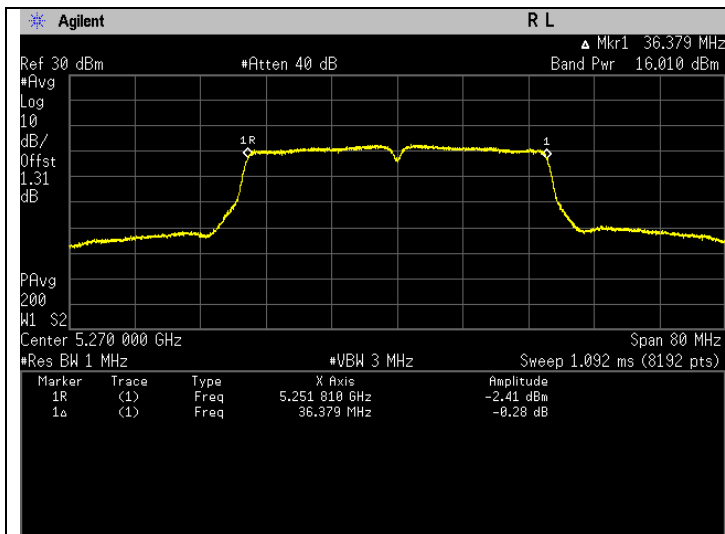
Freq. (MHz)	Test Conditions	Antenna Gain (dBi)	Results				
			Power (mW)	Power (dBm)	Status	EIRP (dBm)	Status
5190	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	1.00	39.344	15.949	Pass	16.949	Pass
5230	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	1.00	45.497	16.580	Pass	17.580	Pass
5270	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	2.00	41.427	16.173	Pass	18.173	Pass
5310	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	2.00	32.358	15.100	Pass	17.100	Pass
5510	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	2.00	45.038	16.536	Pass	18.536	Pass
5550	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	2.00	43.710	16.406	Pass	18.406	Pass
5670	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	2.00	43.983	16.433	Pass	18.433	Pass
5755	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	5.50	43.983	16.433	Pass	21.933	Pass
5795	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	5.50	44.390	16.473	Pass	21.973	Pass



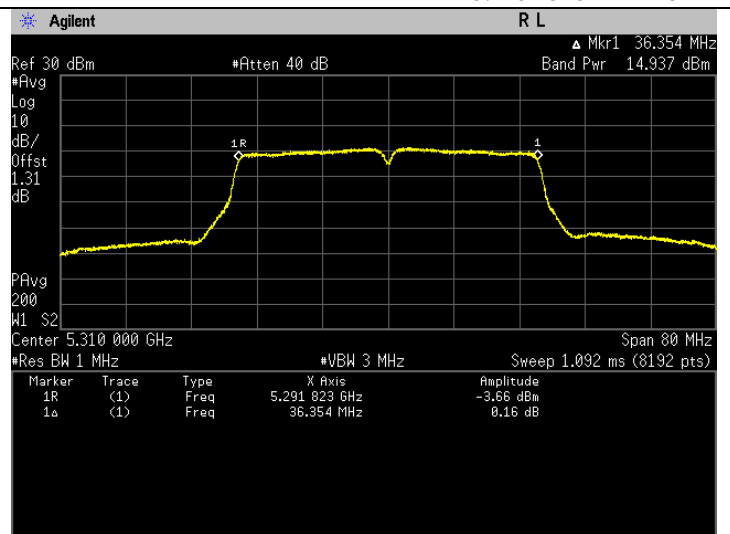
Frequency 5190 MHz, ISED.



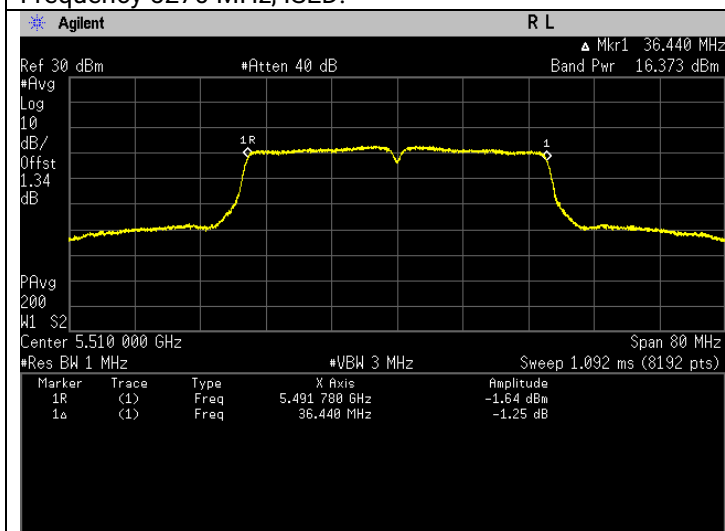
Frequency 5230 MHz, ISED.



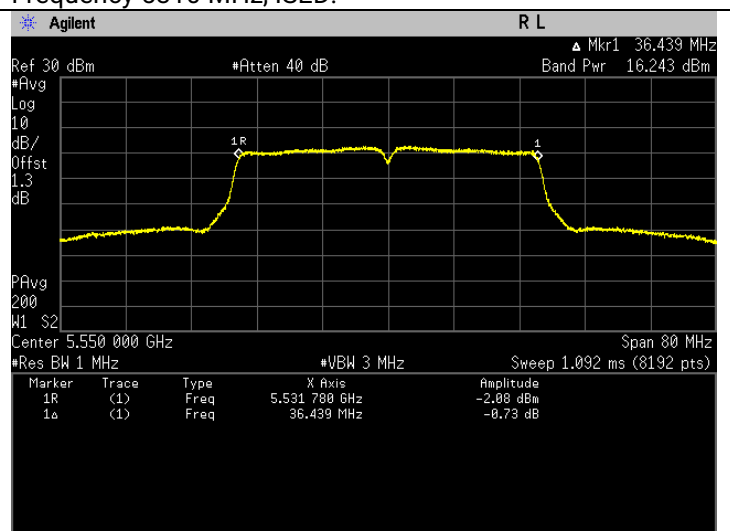
Frequency 5270 MHz, ISED.



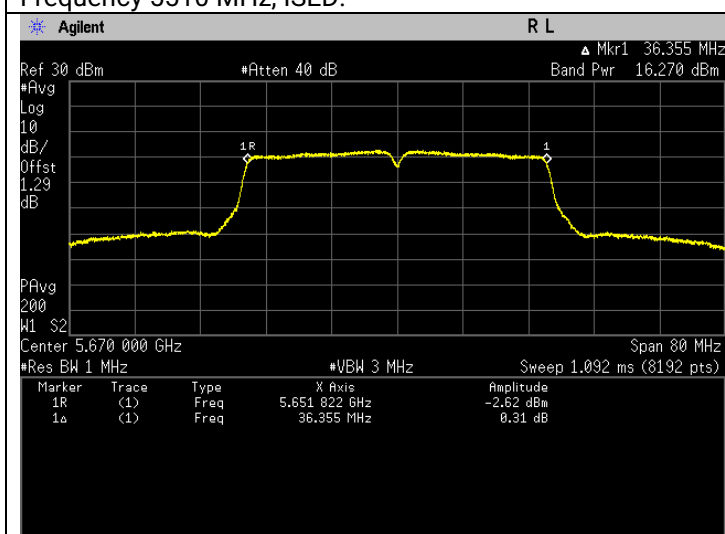
Frequency 5310 MHz, ISED.



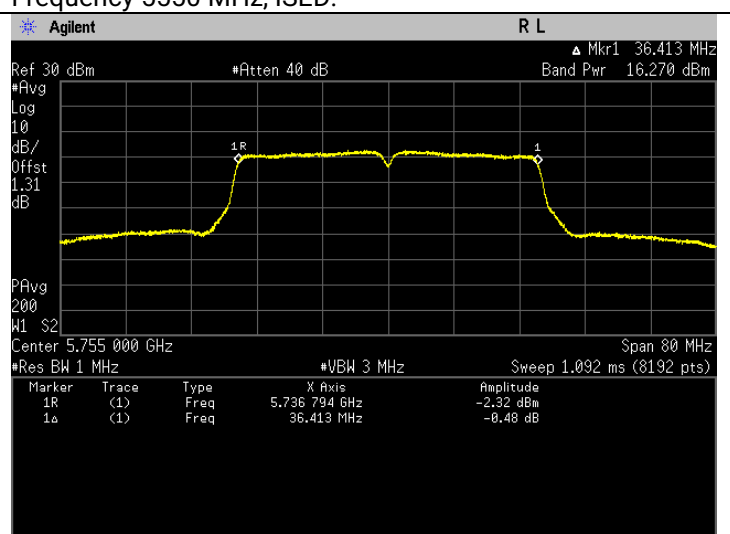
Frequency 5510 MHz, ISED.



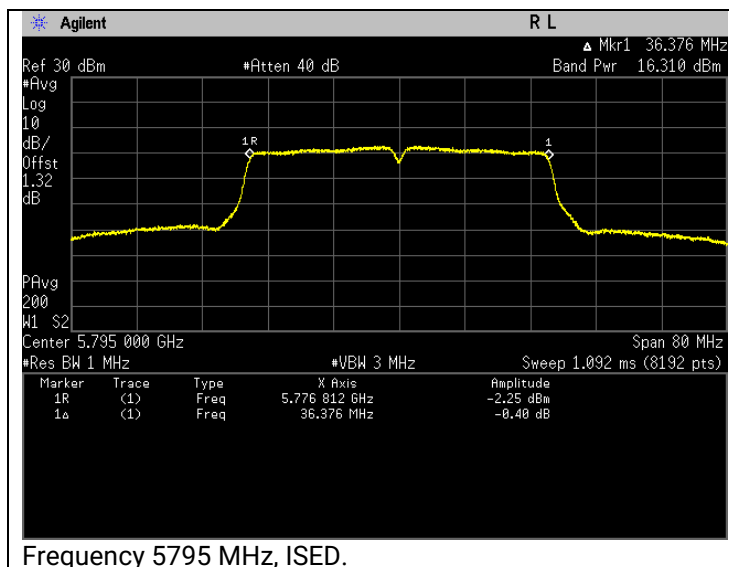
Frequency 5550 MHz, ISED.



Frequency 5670 MHz, ISED.

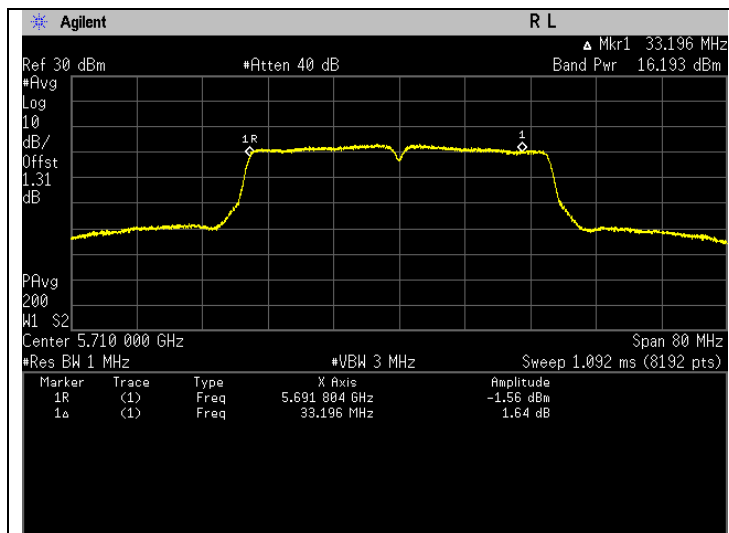


Frequency 5755 MHz, ISED.

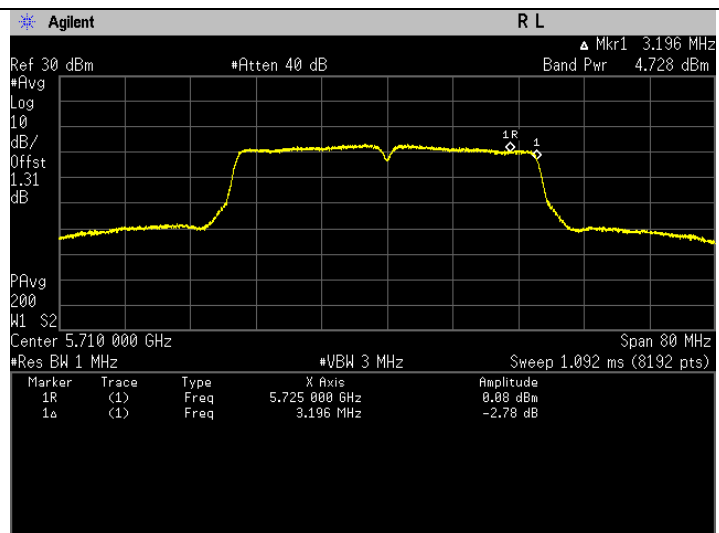


Straddle Frequency

Freq. (MHz)	Test Conditions	Antenna Gain (dBi)	Results				
			U-NII- 2C				
			Power (mW)	Power (dBm)	Status	EIRP (dBm)	Status
5710	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	2.00	43.210	16.356	Pass	18.356	Pass
U-NII-3							
5710	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	2.00	3.084	4.891	Pass	6.891	Pass



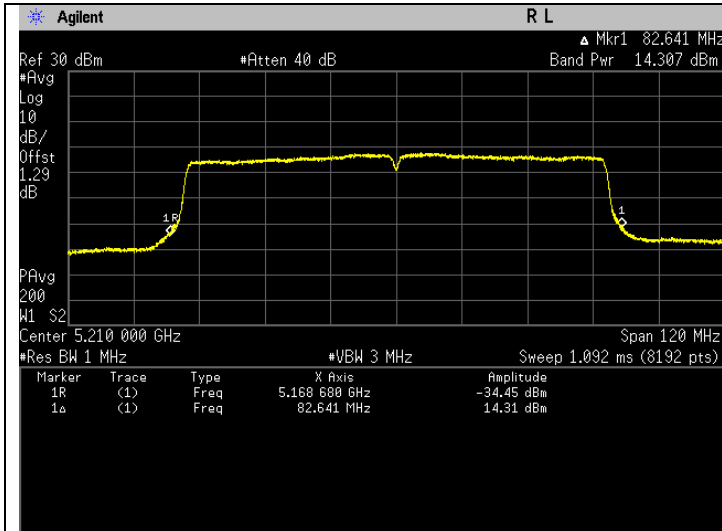
Frequency 5710 MHz, ISED, U-NII-2C. *Note: The band power is captured before the 5725 MHz.



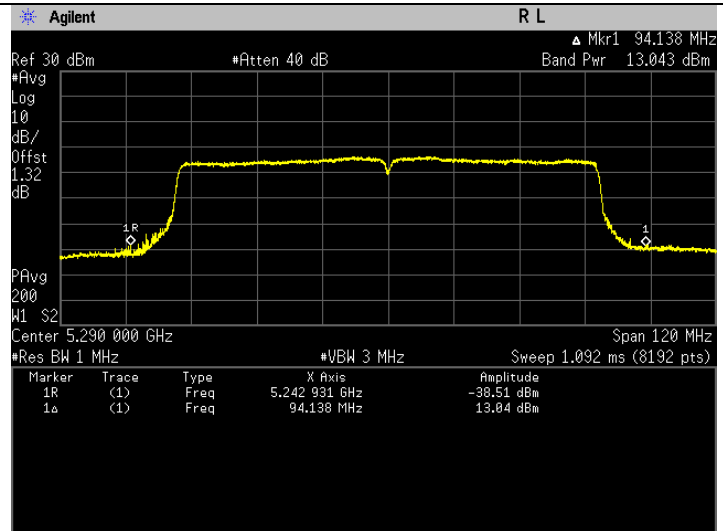
Frequency 5710 MHz, ISED, U-NII-3. *Note: The band power is captured after the 5725 MHz.

802.11ac (HT80) (26dB EBW)

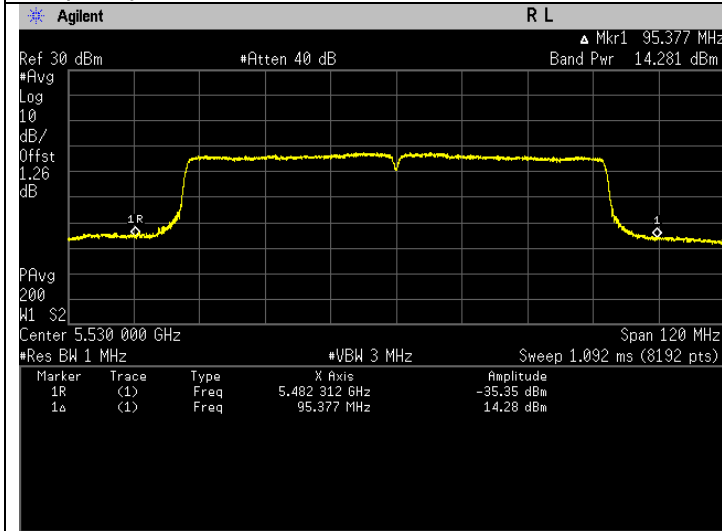
Freq. (MHz)	Test Conditions	Results		
		Power (mW)	Power (dBm)	Status
5210	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	29.069	14.634	Pass
5290	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	21.729	13.370	Pass
5530	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	28.896	14.608	Pass
5610	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	39.521	15.968	Pass
5775	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	44.079	16.442	Pass



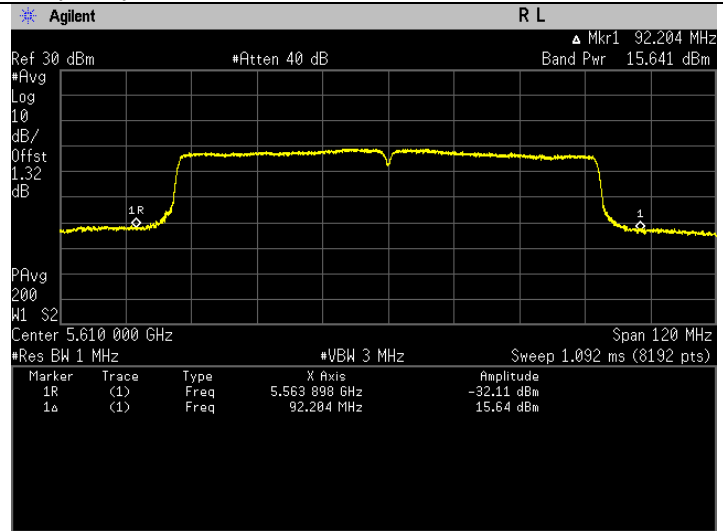
Frequency 5210 MHz, FCC.



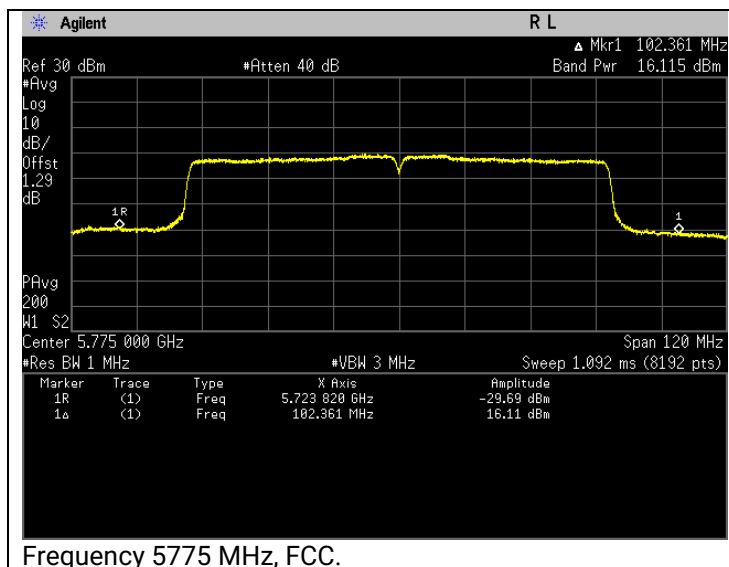
Frequency 5290 MHz, FCC.



Frequency 5530 MHz, FCC.

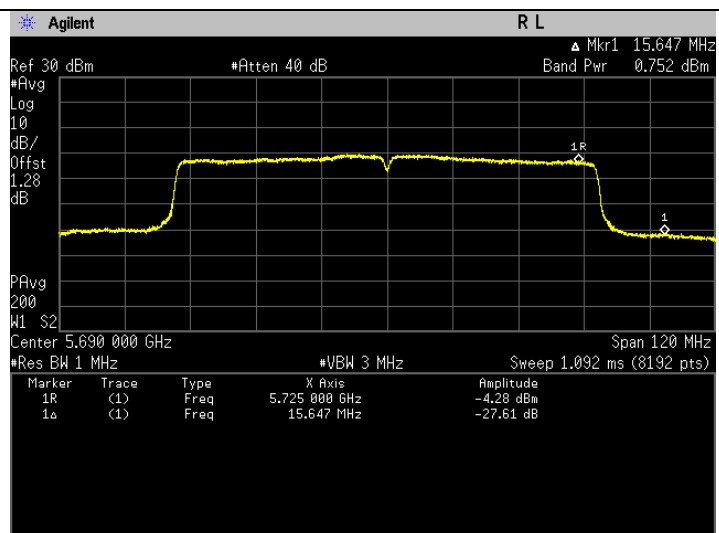
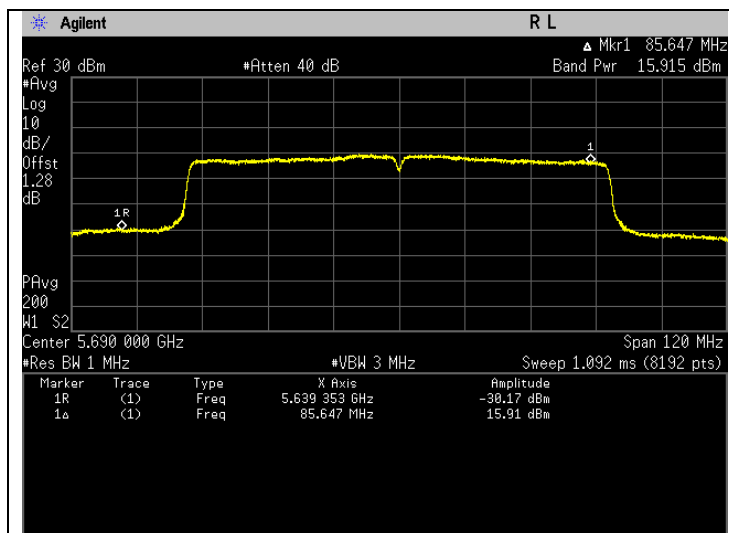


Frequency 5610 MHz, FCC.



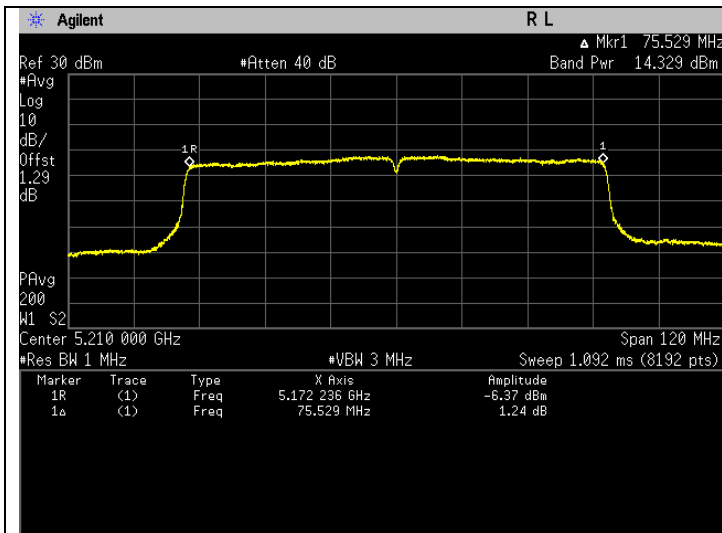
Straddle Frequency

Freq. (MHz)	Test Conditions	Results		
		U-NII- 2C		
		Power (mW)	Power (dBm)	Status
5690	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	42.095	16.242	Pass
		U-NII-3		
5690	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	1.282	1.079	Pass

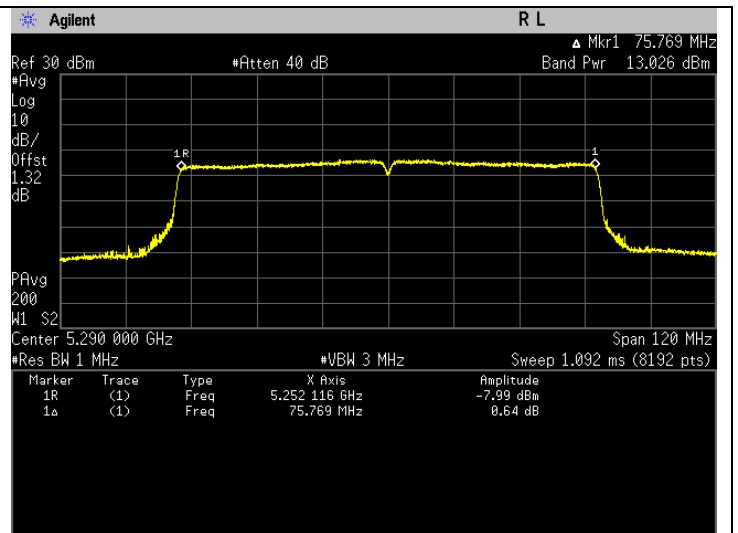


802.11ac (HT80) (99% EBW)

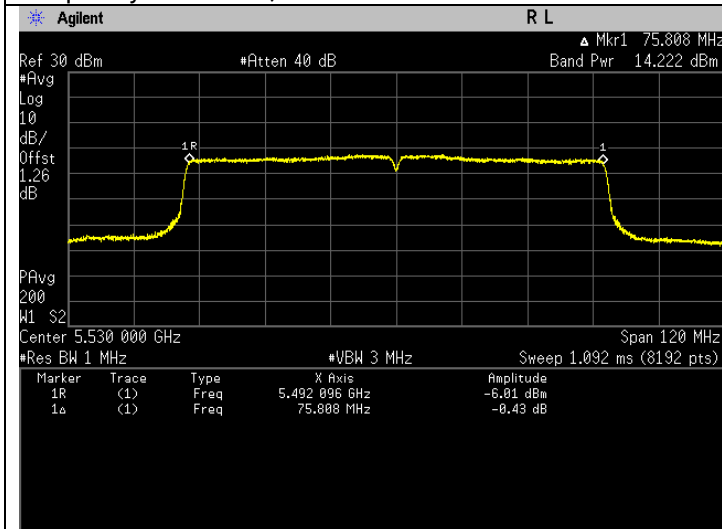
Freq. (MHz)	Test Conditions	Antenna Gain (dBi)	Results				
			Power (mW)	Power (dBm)	Status	EIRP (dBm)	Status
5210	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	1.00	29.217	14.656	Pass	15.656	Pass
5290	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	2.00	21.644	13.353	Pass	15.353	Pass
5530	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	2.00	28.506	14.549	Pass	16.549	Pass
5610	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	2.00	39.304	15.944	Pass	17.944	Pass
5775	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	5.50	43.205	16.355	Pass	21.855	Pass



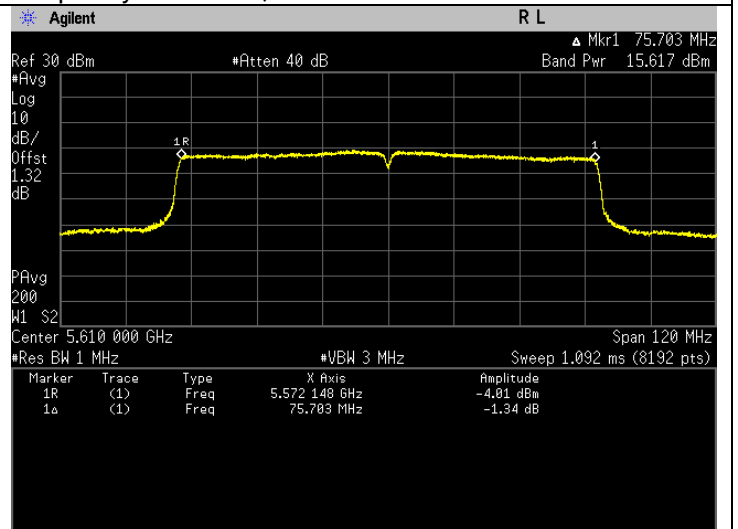
Frequency 5210 MHz, ISED.



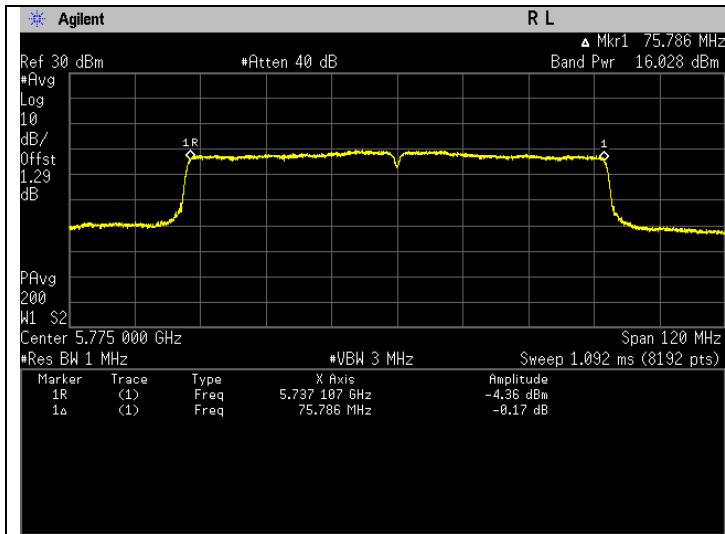
Frequency 5290 MHz, ISED.



Frequency 5530 MHz, ISED.



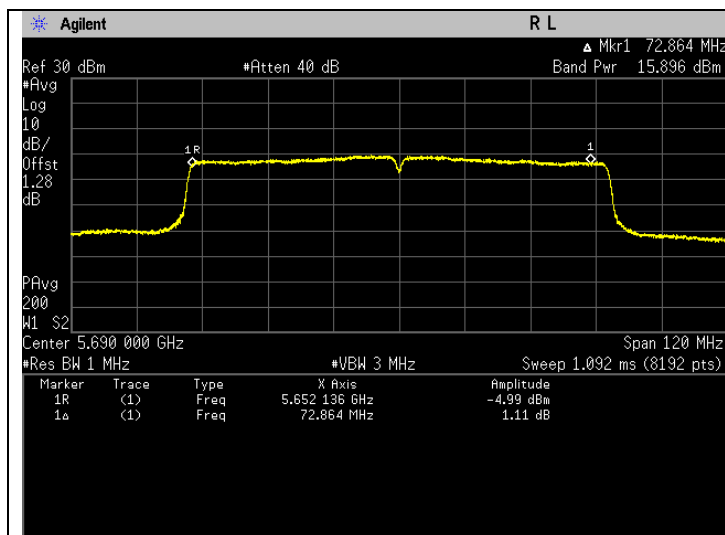
Frequency 5610 MHz, ISED.



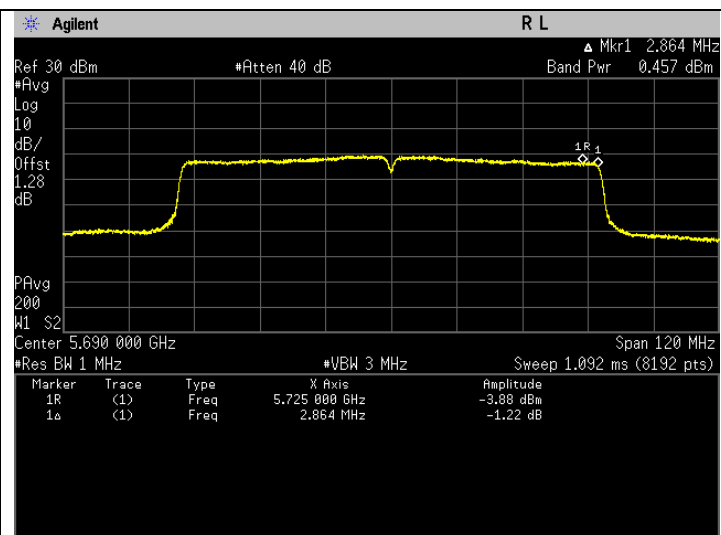
Frequency 5775 MHz, ISED.

Straddle Frequency

Freq. (MHz)	Test Conditions	Antenna Gain (dBi)	Results				
			U-NII- 2C				
			Power (mW)	Power (dBm)	Status	EIRP (dBm)	Status
5690	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	2.00	41.911	16.223	Pass	18.223	Pass
U-NII-3							
5690	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	2.00	1.198	0.784	Pass	2.784	Pass



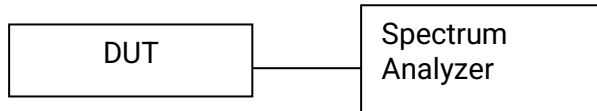
Frequency 5690 MHz, ISED, U-NII-2C. *Note: The band power is captured before the 5725 MHz.



Frequency 5690 MHz, ISED, U-NII-3. *Note: The band power is captured after the 5725 MHz.

7.3. Maximum Power Spectral Density

7.3.1. Test Setup



- a) Test setup as per illustrated above.
- b) Set DUT to transmit at desire transmit frequency.
- c) Connect DUT's antenna terminal to spectrum analyzer with a low loss cable.
- d) Setting of Spectrum analyzer :
 - Span to encompass the entire 26dB EBW or 99% occupied bandwidth.
 - RBW = 1 MHz (5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz) / 500 kHz (5.725-5.85 GHz)
 - VBW $\geq 3 \cdot$ RBW
 - Detector = power averaging (RMS)
 - Trace = Max hold
 - Number of points in sweep $\geq 2 \times$ span / RBW
 - Sweep time = auto
 - Trace average at least 100 traces in power averaging (rms) mode
- e) Use the peak search function on the instrument to find the peak of the spectrum and record its value.
- f) Add $10 \log (1/x)$, where x is the duty cycle, to the peak of the spectrum.
- g) The measurement method follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04 under clause F) Method SA-2.
- h) The Maximum power spectral density results are included duty cycle correction factor.

7.3.2. Test Limits

FCC 15.407(a)

Range (GHz)	Condition		Limit
5.15-5.25		Outdoor AP	17dBm/ 1MHz
		Indoor AP	17dBm/ 1MHz
		Fixed Point to Point AP	17dBm/ 1MHz
	✓	Mobile and Portable Client Devices	11dBm/ 1MHz
5.25-5.35	✓		11dBm/ 1MHz
5.47-5.525	✓		11dBm/ 1MHz
5.725-5.85	✓		30dBm/ 500kHz

RSS-247 6.2

Range(GHz)	Condition	Limit
5.15-5.25	Indoor Operation Only	EIRP: 10dBm/ 1MHz
5.25-5.35		11dBm/ 1MHz

5.47-5.6 5.6-5.525		11dBm/ 1MHz
5.725-5.85		30dBm/ 500kHz

7.3.3. Test Data

802.11a (26dB EBW)

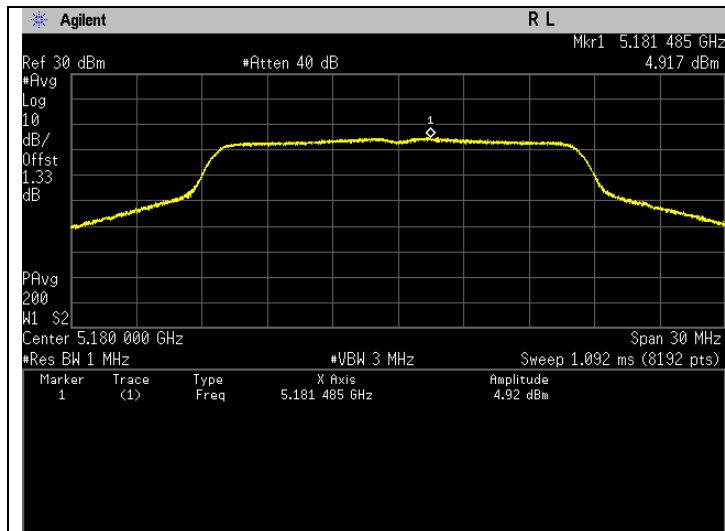
Freq. (MHz)	Test Conditions	Results	
		Power/Frequency (dBm/MHz)	Status
5180	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	4.994	Pass
5220	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	4.881	Pass
5240	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	4.714	Pass
5260	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	4.884	Pass
5300	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	4.513	Pass
5320	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	4.503	Pass
5500	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	5.246	Pass
5580	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	5.201	Pass
5700	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	5.419	Pass
Freq. (MHz)	Test Conditions	Power/Frequency (dBm/500kHz)	Status
5745	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	2.058	Pass
5785	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	2.471	Pass
5825	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	2.537	Pass

802.11a (99% EBW)

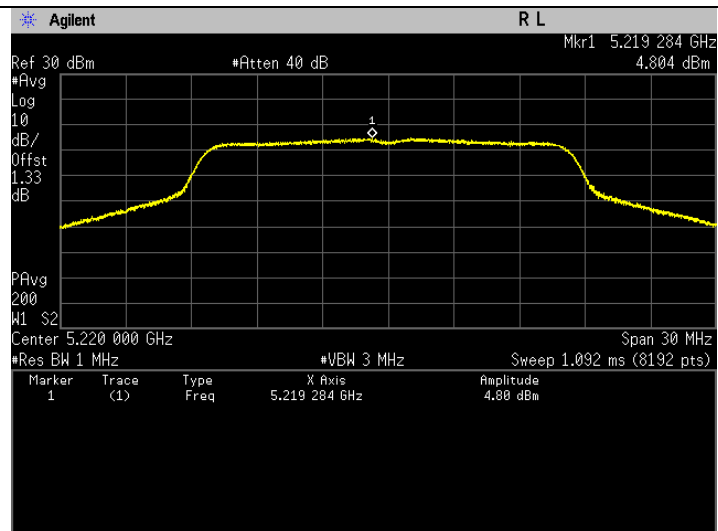
Freq. (MHz)	Test Conditions	Antenna Gain (dBi)	Results			
			Power/Frequency (dBm/MHz)	Status	EIRP (dBm/MHz)	Status
5180	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	1.00	4.994	Pass	5.994	Pass
5220	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	1.00	4.881	Pass	5.881	Pass
5240	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	1.00	4.714	Pass	5.714	Pass
5260	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	2.00	4.884	Pass	6.884	Pass
5300	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	2.00	4.513	Pass	6.513	Pass
5320	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	2.00	4.503	Pass	6.503	Pass
5500	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	2.00	5.246	Pass	7.246	Pass
5580	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	2.00	5.201	Pass	7.201	Pass
5700	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	2.00	5.419	Pass	7.419	Pass

	Rate: 6					
Freq. (MHz)	Test Conditions	Antenna Gain (dBi)	Power/Frequency (dBm/500kHz)	Status	EIRP (dBm/500kHz)	Status
5745	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	5.50	2.058	Pass	7.558	Pass
5785	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	5.50	2.471	Pass	7.971	Pass
5825	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	5.50	2.537	Pass	8.037	Pass

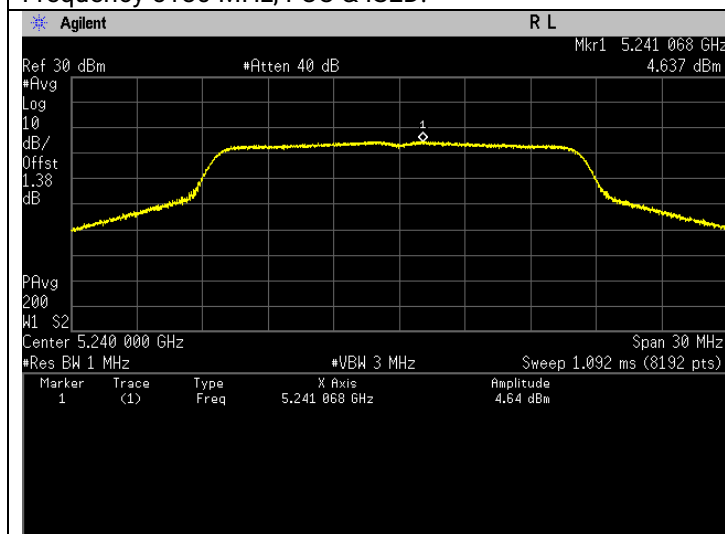
Plots for 802.11a (26dB EBW & 99% EBW)



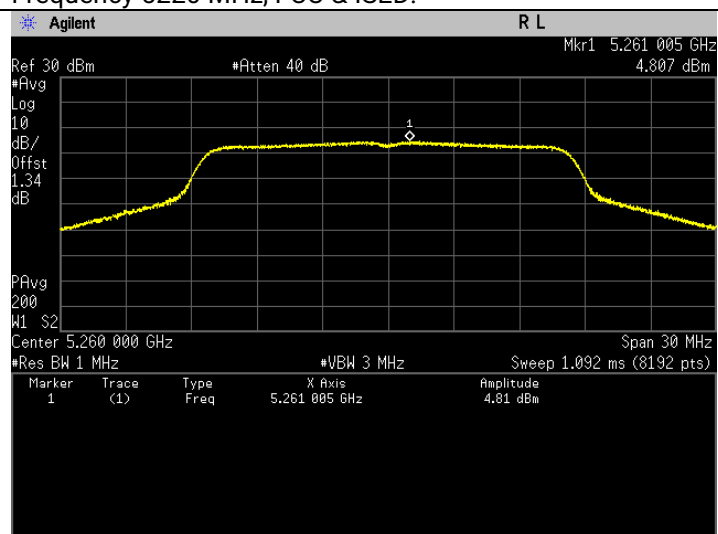
Frequency 5180 MHz, FCC & ISSED.



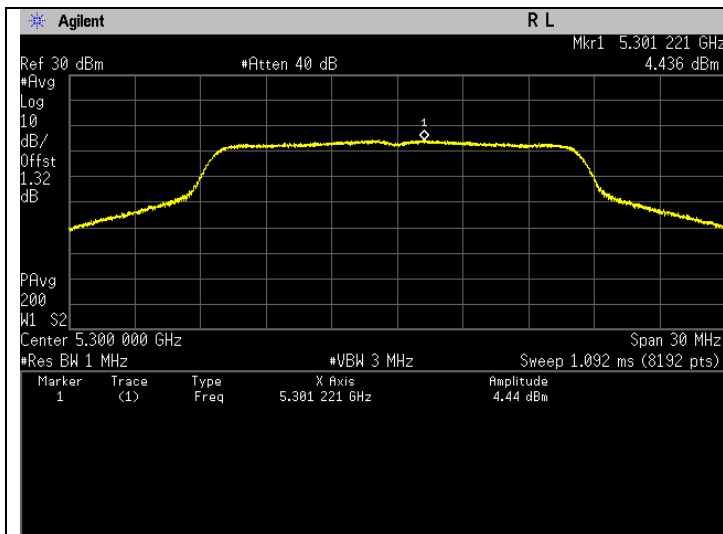
Frequency 5220 MHz, FCC & ISSED.



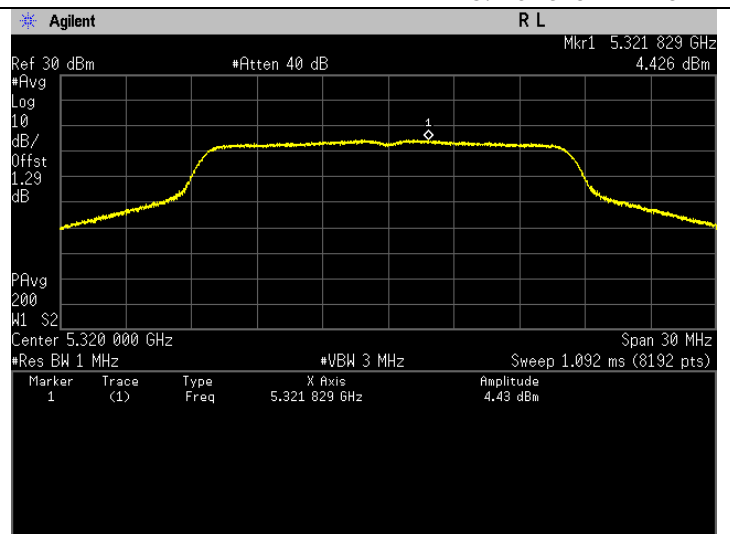
Frequency 5240 MHz, FCC & ISSED.



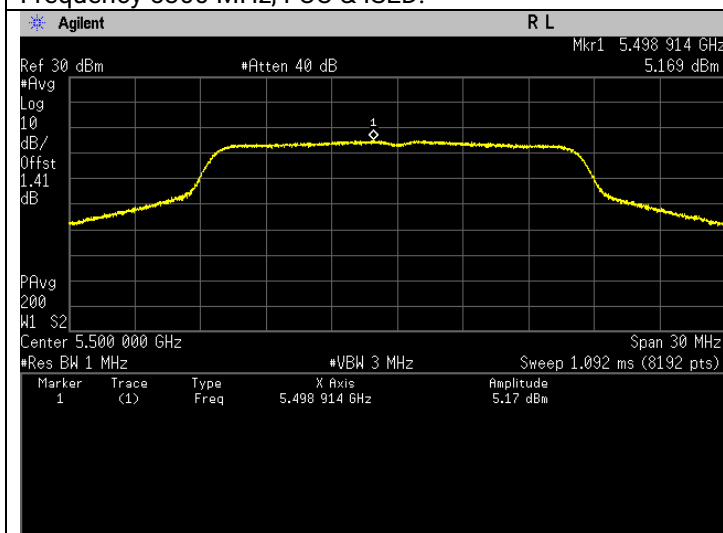
Frequency 5260 MHz, FCC & ISSED.



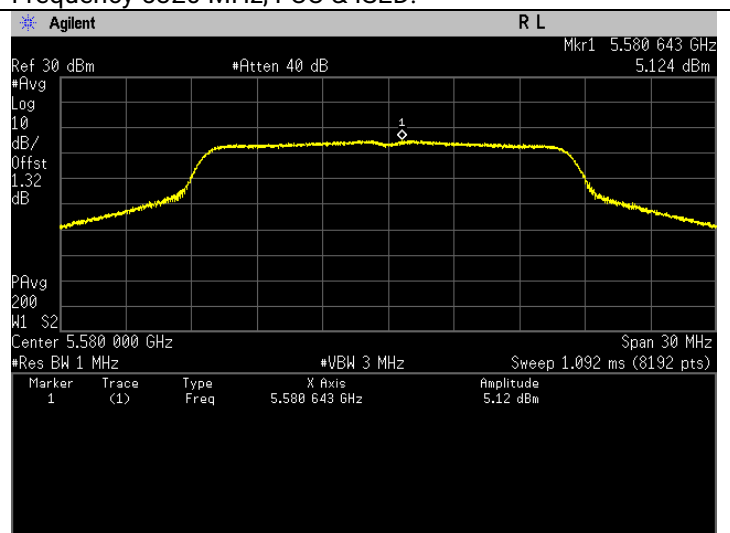
Frequency 5300 MHz, FCC & ISCED.



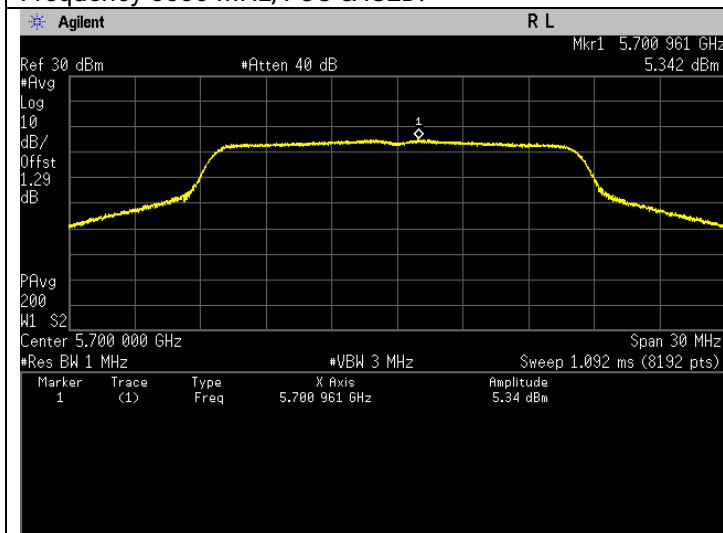
Frequency 5320 MHz, FCC & ISCED.



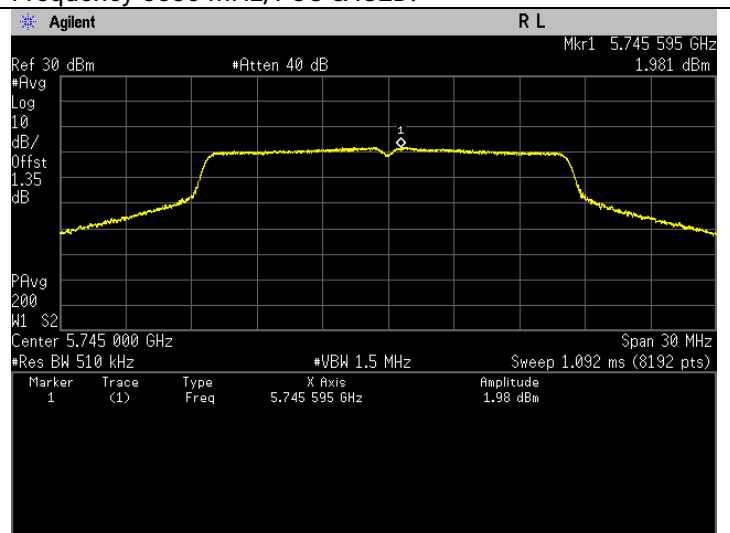
Frequency 5500 MHz, FCC & ISCED.



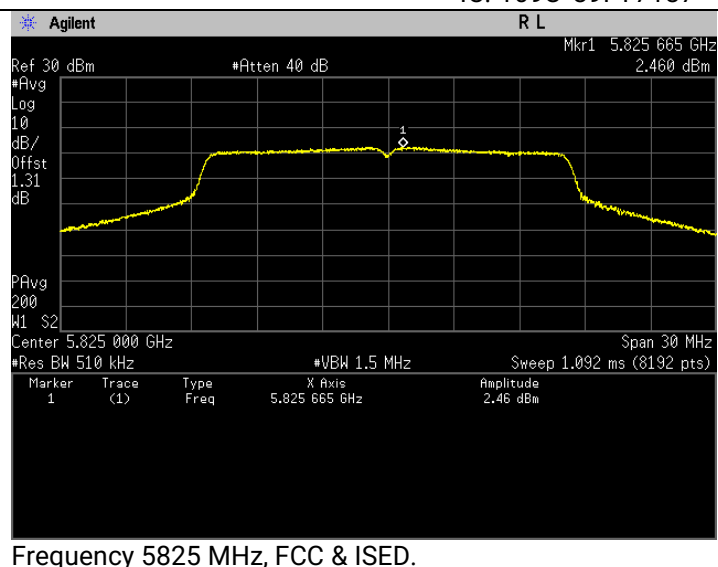
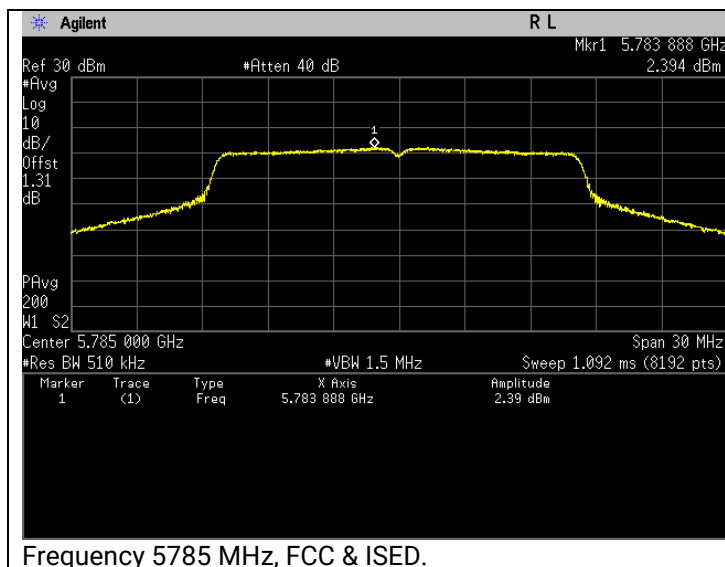
Frequency 5580 MHz, FCC & ISCED.



Frequency 5700 MHz, FCC & ISCED.



Frequency 5745 MHz, FCC & ISCED.



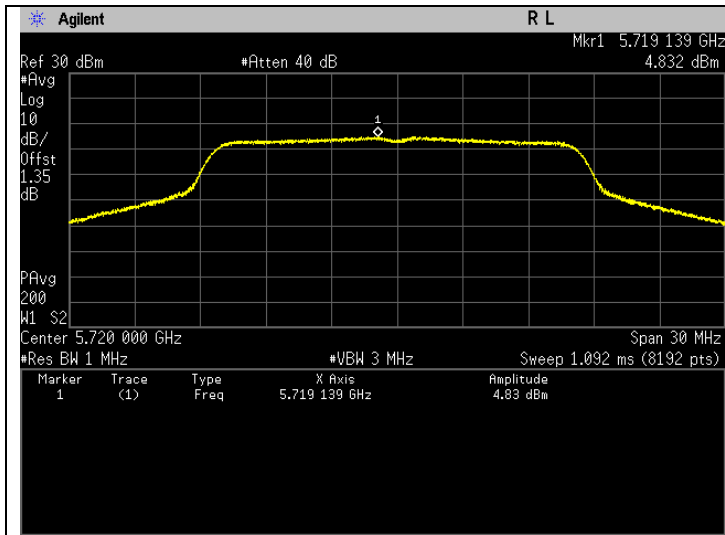
Straddle Frequency for 802.11a (26dB EBW)

Freq. (MHz)	Test Conditions	Results	
		Power/Frequency (dBm/MHz)	Status
		U-NII- 2C	
5720	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	4.909	Pass
Freq. (MHz)	Test Conditions	U-NII-3	
		Power/Frequency (dBm/500kHz)	Status
5720	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	3.262	Pass

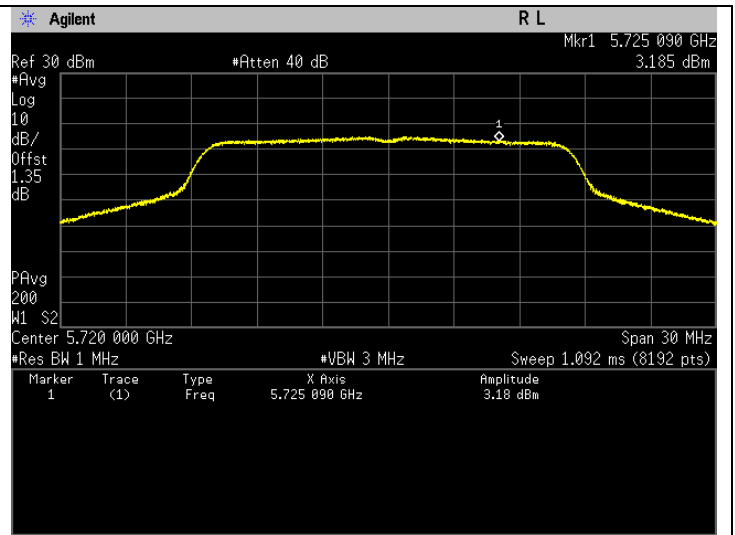
Straddle Frequency for 802.11n (HT20) (99% EBW)

Freq. (MHz)	Test Conditions	Antenna Gain (dBi)	Results		
			Power/Frequency (dBm/MHz)	EIRP (dBm/ MHz)	Status
			U-NII- 2C		
5720	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	2.00	4.909	6.909	Pass
Freq. (MHz)	Test Conditions	Antenna Gain (dBi)	U-NII-3		
			Power/Frequency (dBm/500kHz)	EIRP (dBm/500 kHz)	Status
5720	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	2.00	3.262	5.262	Pass

Plots for 802.11a Straddle Frequency (26dB EBW & 99% EBW)



Frequency 5720 MHz, FCC, U-NII-2C. *Note: The band power is captured before the 5725 MHz.



Frequency 5720 MHz, FCC, U-NII-3. *Note: The band power is captured after the 5725 MHz.

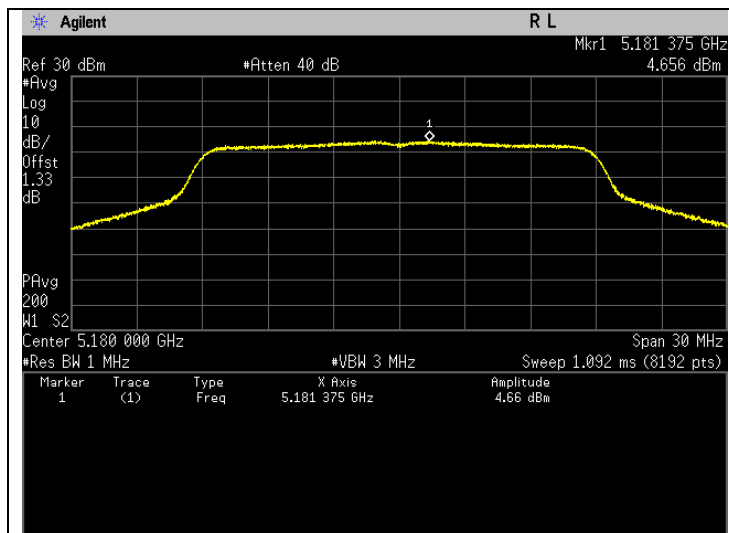
802.11n (HT20) (26dB EBW)

Freq. (MHz)	Test Conditions	Results	
		Power/Frequency (dBm/MHz)	Status
5180	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	4.739	Pass
5220	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	4.460	Pass
5240	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	4.627	Pass
5260	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	4.394	Pass
5300	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	4.338	Pass
5320	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	4.287	Pass
5500	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	4.886	Pass
5580	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	4.942	Pass
5700	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	4.749	Pass
Freq. (MHz)	Test Conditions	Power/Frequency (dBm/500kHz)	Status
5745	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	1.723	Pass
5785	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	2.403	Pass
5825	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	2.270	Pass

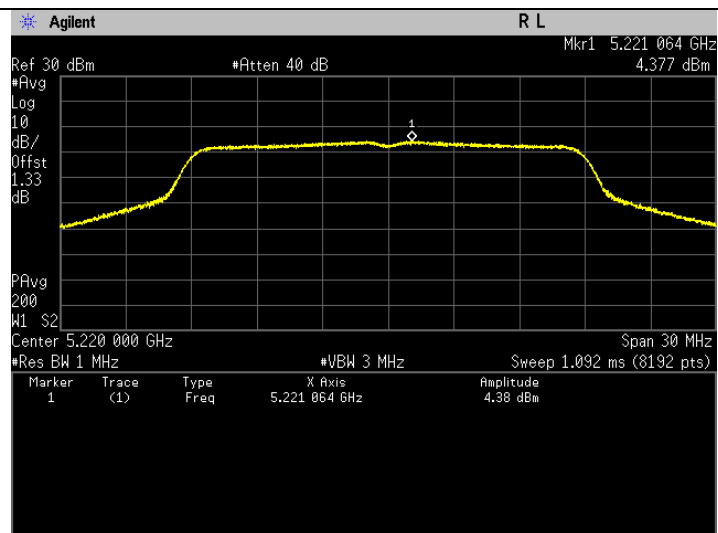
802.11n (HT20) (99% EBW)

Freq. (MHz)	Test Conditions	Antenna Gain (dBi)	Results			
			Power/Frequency (dBm/MHz)	Status	EIRP (dBm/MHz)	Status
5180	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	1.00	4.739	Pass	5.739	Pass
5220	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	1.00	4.460	Pass	5.460	Pass
5240	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	1.00	4.627	Pass	5.627	Pass
5260	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	2.00	4.394	Pass	6.394	Pass
5300	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	2.00	4.338	Pass	6.338	Pass
5320	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	2.00	4.287	Pass	6.287	Pass
5500	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	2.00	4.886	Pass	6.886	Pass
5580	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	2.00	4.942	Pass	6.942	Pass
5700	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	2.00	4.749	Pass	6.749	Pass
Freq. (MHz)	Test Conditions	Antenna Gain (dBi)	Power/Frequency (dBm/500kHz)	Status	EIRP (dBm/500kHz)	Status
5745	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	5.50	1.723	Pass	7.223	Pass
5785	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	5.50	2.403	Pass	7.903	Pass
5825	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	5.50	2.270	Pass	7.770	Pass

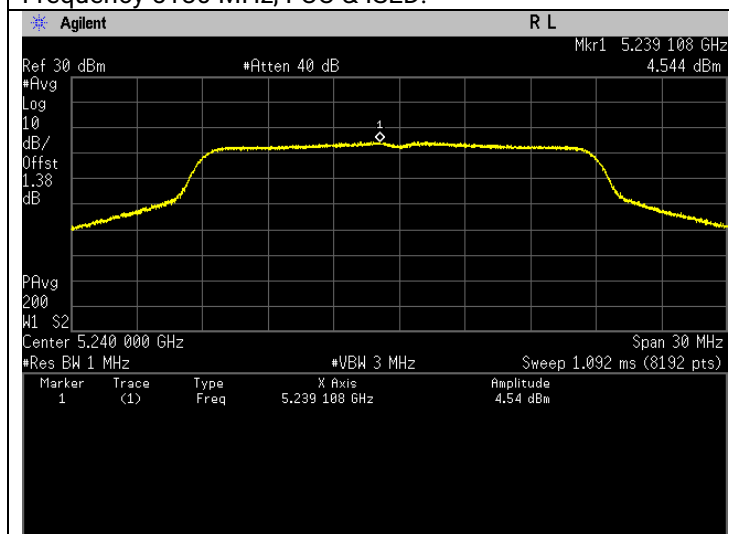
Plots for 802.11n (HT20) (26dB EBW & 99% EBW)



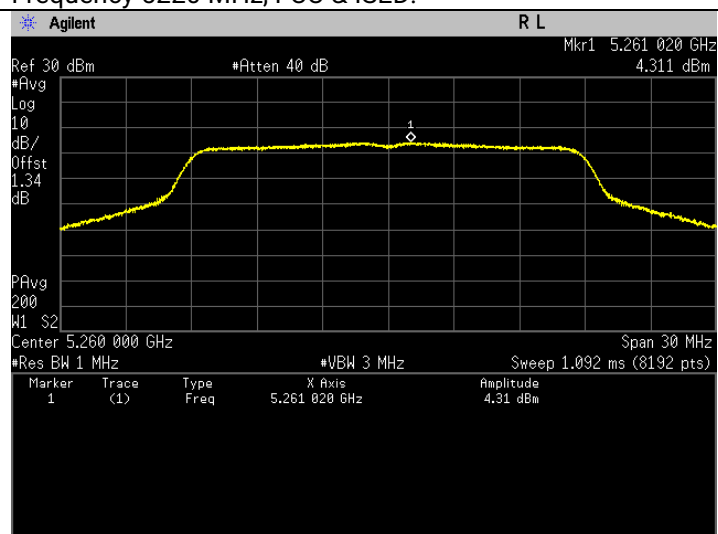
Frequency 5180 MHz, FCC & ISSED.



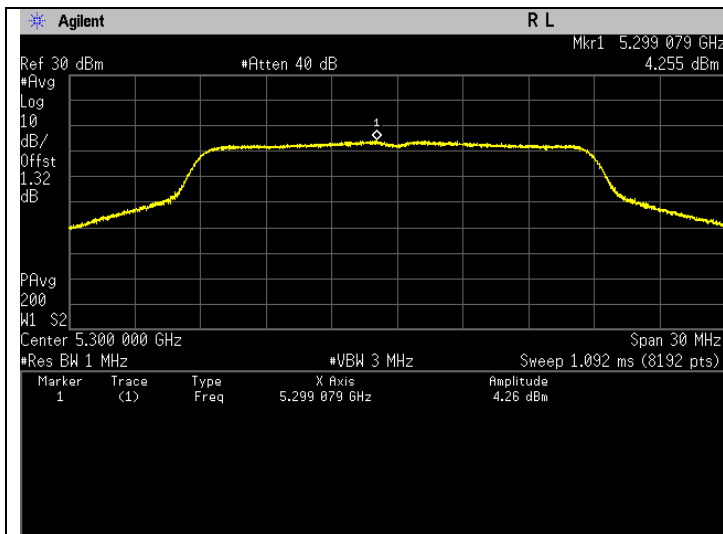
Frequency 5220 MHz, FCC & ISSED.



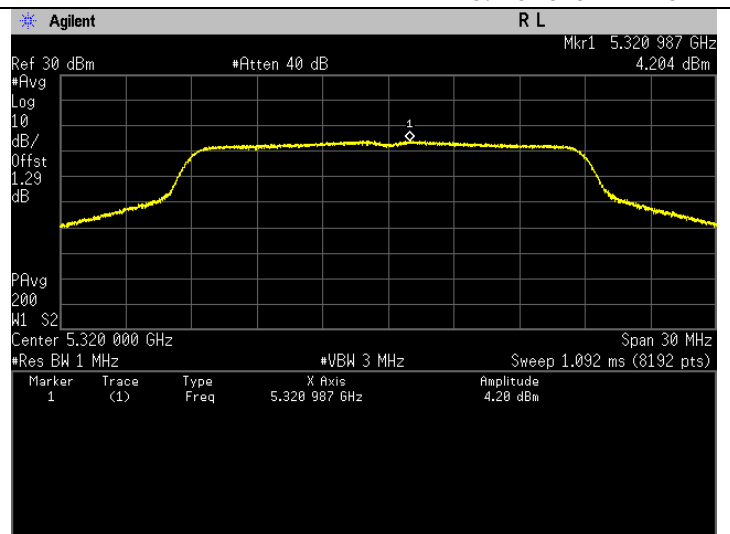
Frequency 5240 MHz, FCC & ISSED.



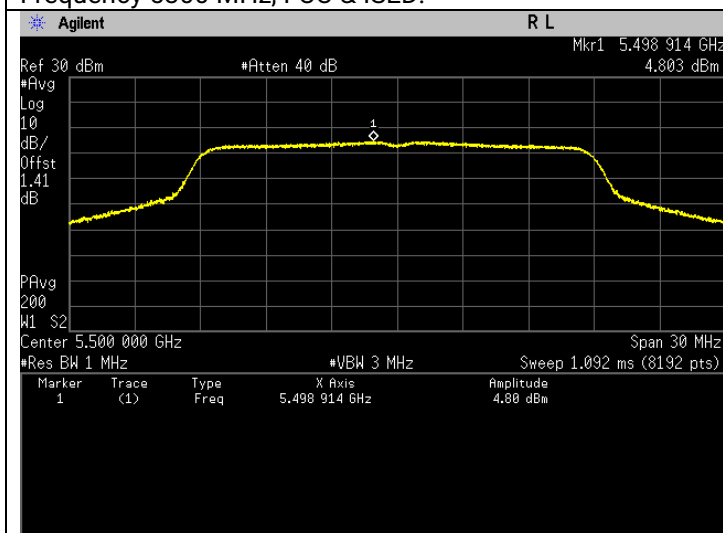
Frequency 5260 MHz, FCC & ISSED.



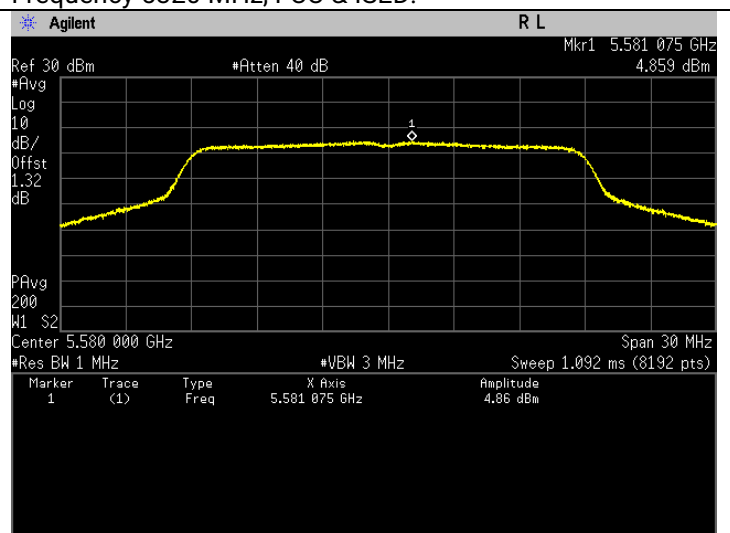
Frequency 5300 MHz, FCC & ISCED.



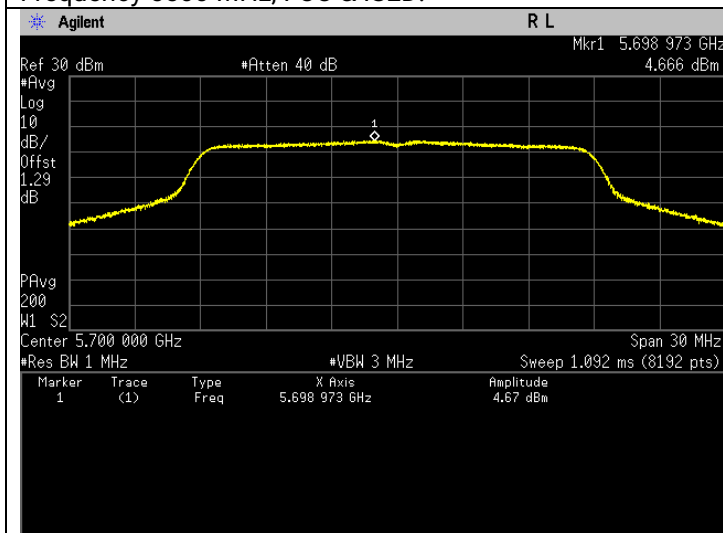
Frequency 5320 MHz, FCC & ISCED.



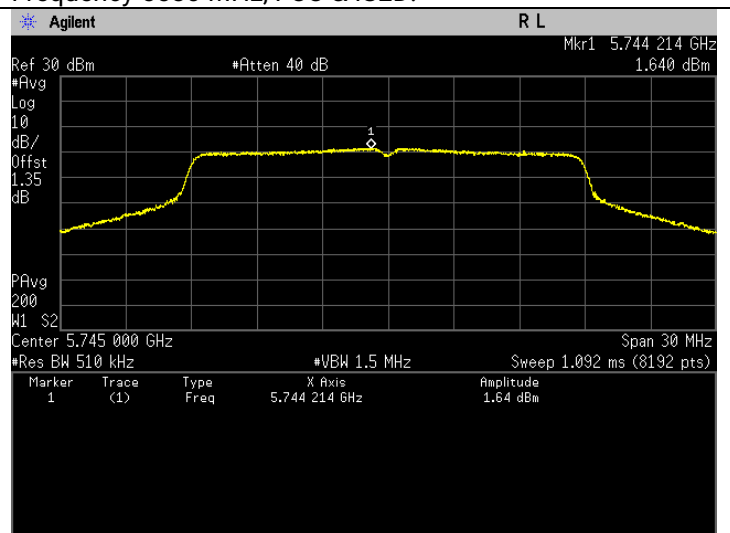
Frequency 5500 MHz, FCC & ISCED.



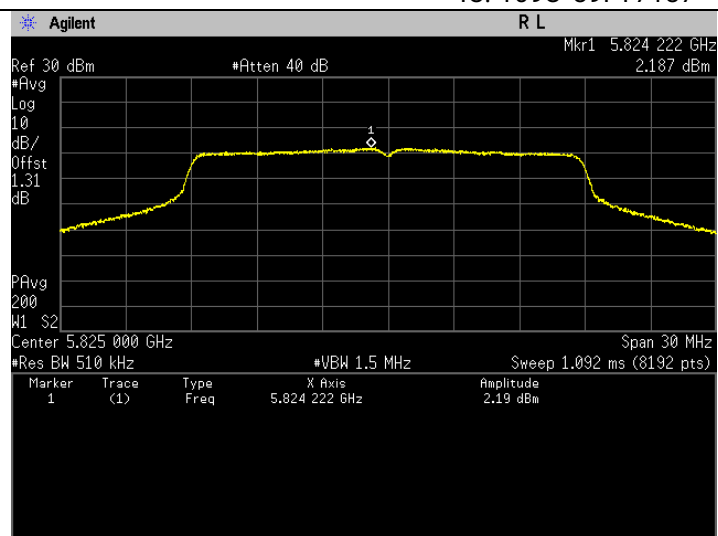
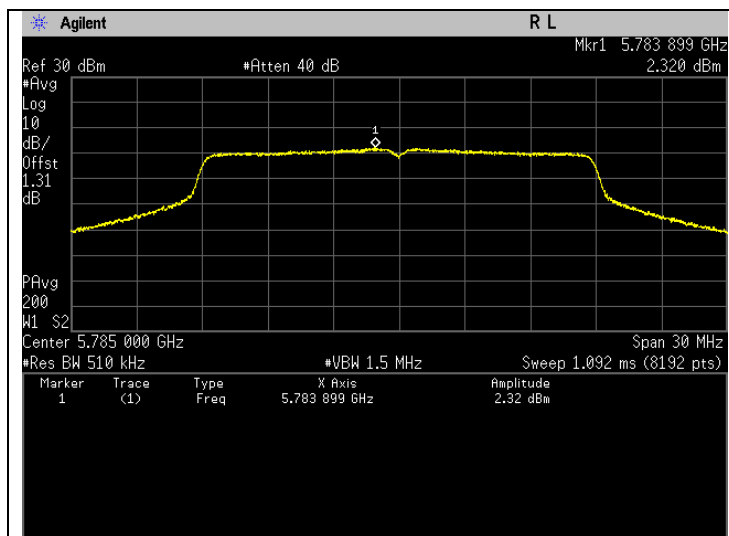
Frequency 5580 MHz, FCC & ISCED.



Frequency 5700 MHz, FCC & ISCED.



Frequency 5745 MHz, FCC & ISCED.



Frequency 5785 MHz, FCC & ISCED.

Frequency 5825 MHz, FCC & ISCED.

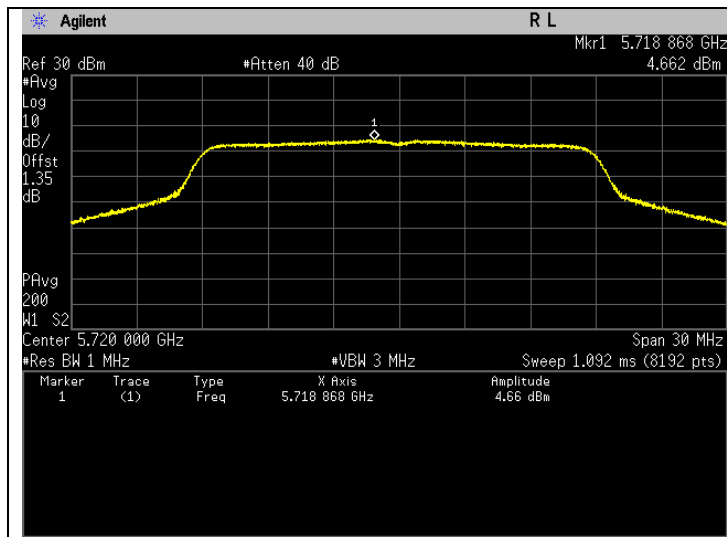
Straddle Frequency for 802.11n (HT20) (26dB EBW)

Freq. (MHz)	Test Conditions	Results	
		Power/Frequency (dBm/MHz)	Status
5720	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	U-NII- 2C	
		4.745	Pass
5720	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	U-NII-3	
		2.893	Pass

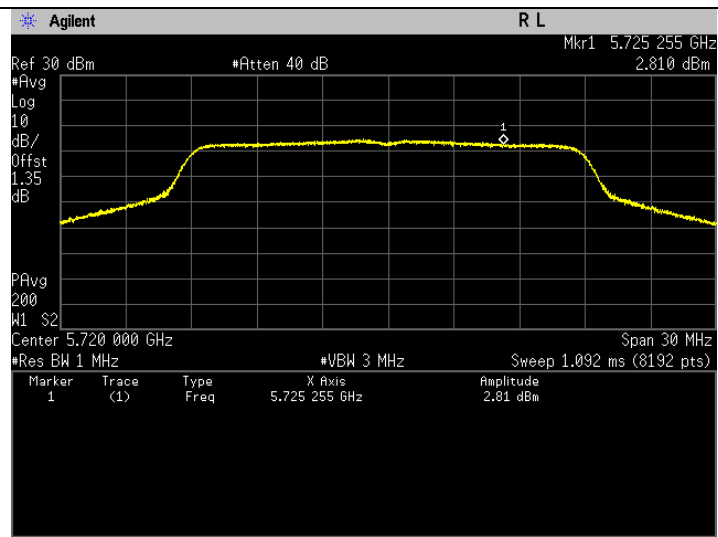
Straddle Frequency for 802.11n (HT20) (99% EBW)

Freq. (MHz)	Test Conditions	Antenna Gain (dBi)	Results		
			Power/Frequency (dBm/MHz)	EIRP (dBm/ MHz)	Status
5720	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	2.00	U-NII- 2C		
			4.745	6.745	Pass
5720	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	2.00	U-NII-3		
			2.893	4.893	Pass

Plots for 802.11n (HT20) Straddle Frequency (26dB EBW & 99% EBW)



Frequency 5720 MHz, FCC, U-NII-2C. *Note: The band power is captured before the 5725 MHz.



Frequency 5720 MHz, FCC, U-NII-3. *Note: The band power is captured after the 5725 MHz.

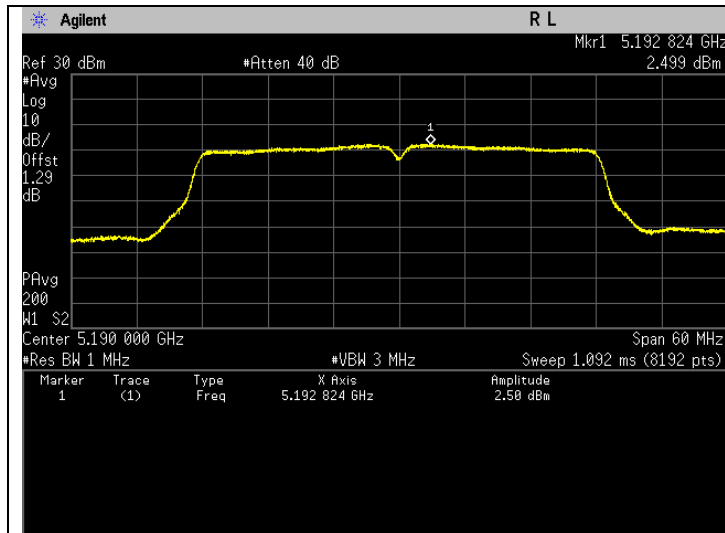
802.11n (HT40) (26dB EBW)

Freq. (MHz)	Test Conditions	Results	
		Power/Frequency (dBm/MHz)	Status
5190	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	2.662	Pass
5230	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	3.158	Pass
5270	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	2.678	Pass
5310	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	1.846	Pass
5510	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	3.151	Pass
5550	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	2.970	Pass
5670	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	3.052	Pass
Freq. (MHz)	Test Conditions	Power/Frequency (dBm/500kHz)	Status
5755	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	0.067	Pass
5795	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	0.107	Pass

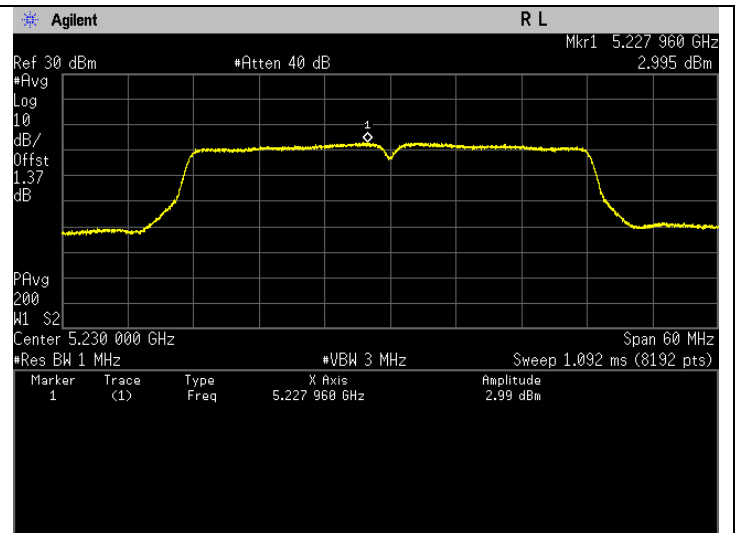
802.11n (HT40) (99% EBW)

Freq. (MHz)	Test Conditions	Antenna Gain (dBi)	Results			
			Power/Frequency (dBm/MHz)	Status	EIRP (dBm/MHz)	Status
5190	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	1.00	2.662	Pass	3.662	Pass
5230	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	1.00	3.158	Pass	4.158	Pass
5270	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	2.00	2.678	Pass	4.678	Pass
5310	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	2.00	1.846	Pass	3.846	Pass
5510	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	2.00	3.151	Pass	5.151	Pass
5550	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	2.00	2.970	Pass	4.970	Pass
5670	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	2.00	3.052	Pass	5.052	Pass
Freq. (MHz)	Test Conditions	Antenna Gain (dBi)	Power/Frequency (dBm/500kHz)	Status	EIRP (dBm/500kHz)	Status
5755	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	5.50	0.067	Pass	5.567	Pass
5795	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	5.50	0.107	Pass	5.607	Pass

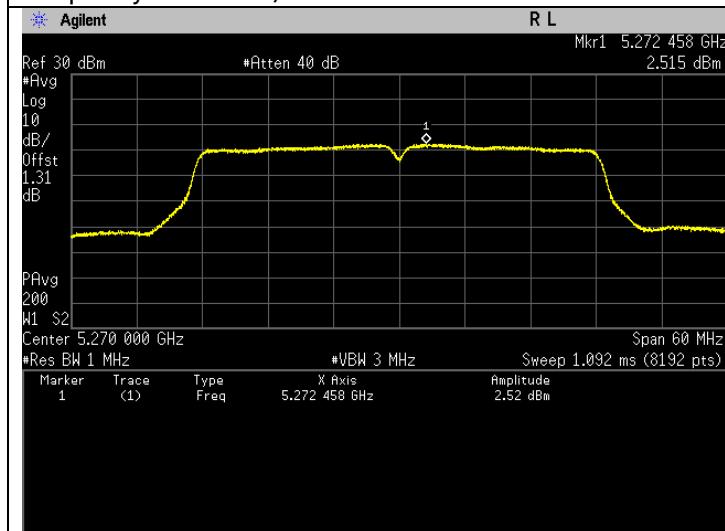
Plots for 802.11n (HT40) (26dB EBW & 99% EBW)



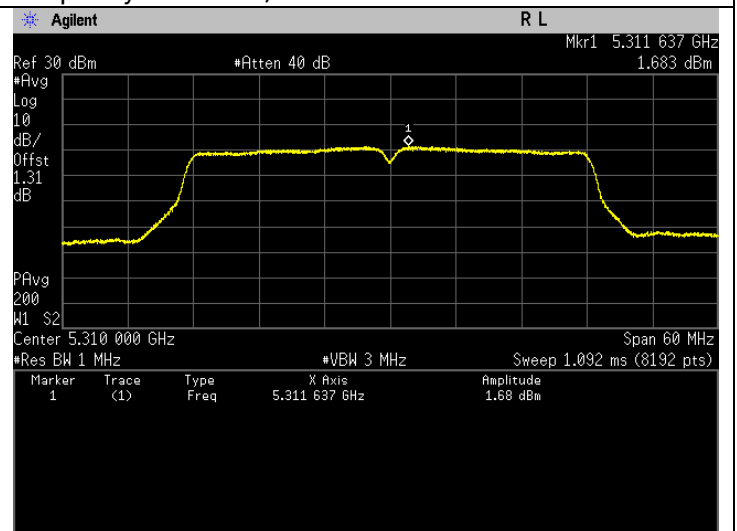
Frequency 5190 MHz, FCC & ISD.



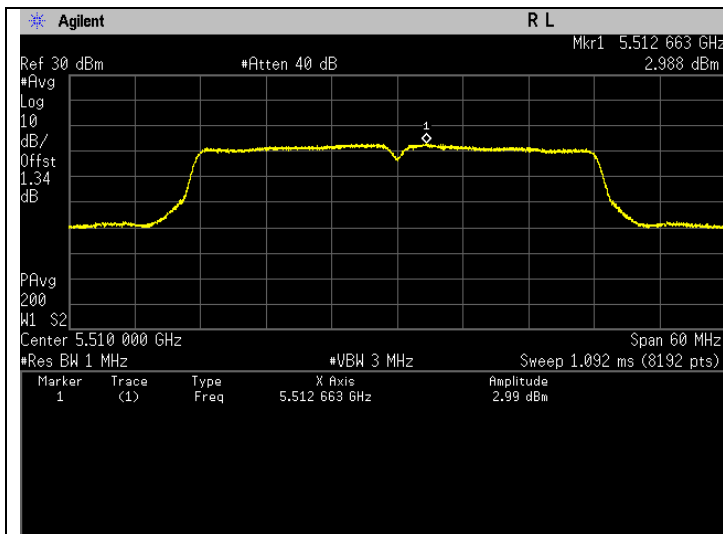
Frequency 5230 MHz, FCC & ISD.



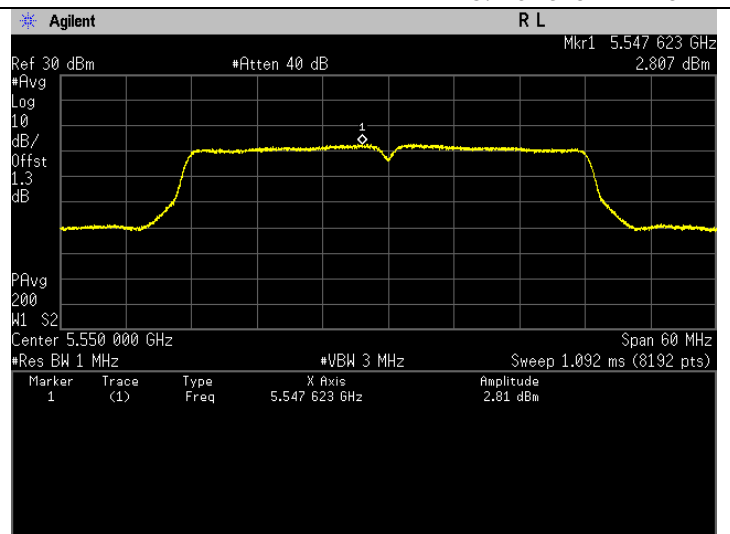
Frequency 5270 MHz, FCC & ISD.



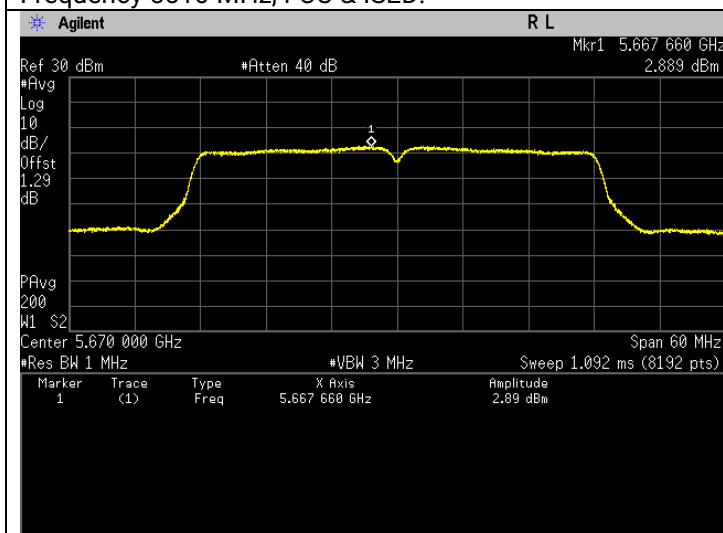
Frequency 5310 MHz, FCC & ISD.



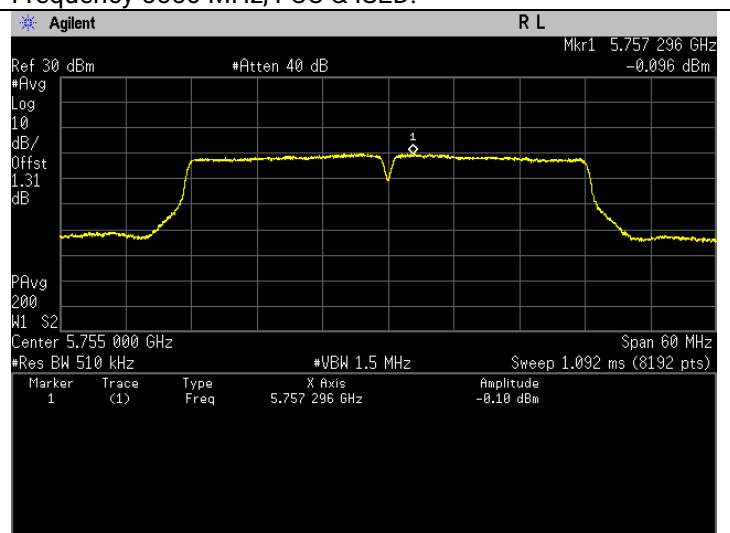
Frequency 5510 MHz, FCC & ISSED.



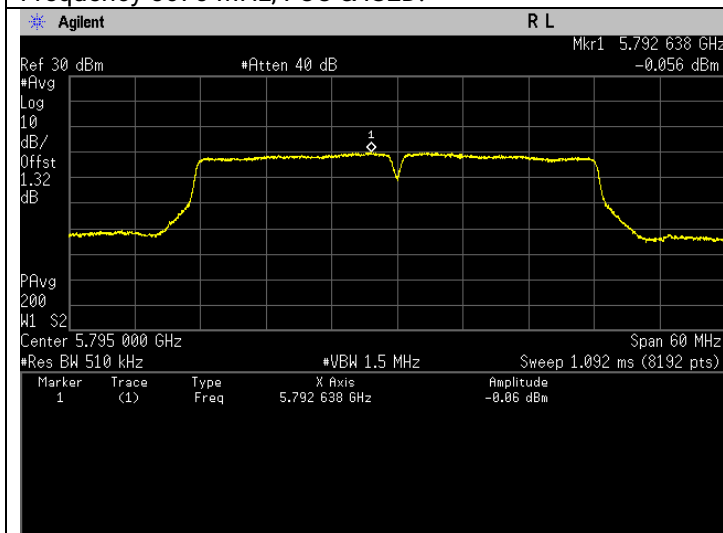
Frequency 5550 MHz, FCC & ISSED.



Frequency 5670 MHz, FCC & ISSED.



Frequency 5755 MHz, FCC & ISSED.



Frequency 5795 MHz, FCC & ISSED.

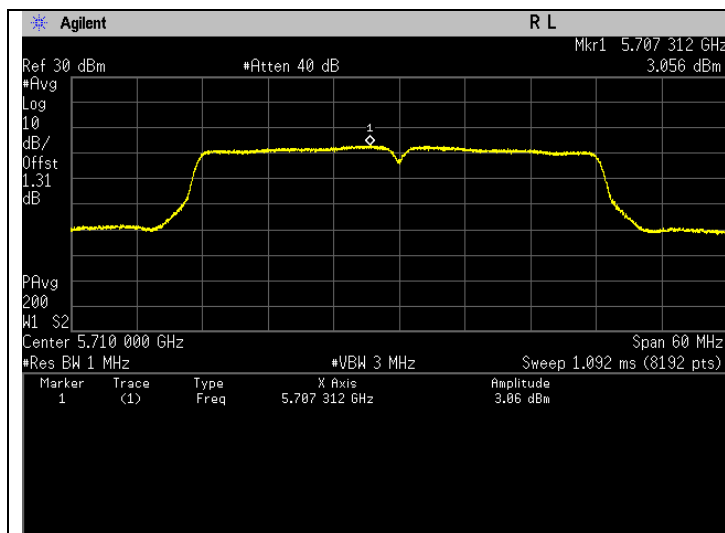
Straddle Frequency 802.11n (HT40) (26dB EBW)

Freq. (MHz)	Test Conditions	Results	
		U-NII- 2C	
		Power/Frequency (dBm/MHz)	Status
5710	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	3.219	Pass
Freq. (MHz)	Test Conditions	U-NII-3	
		Power/Frequency (dBm/500kHz)	Status
5710	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	0.873	Pass

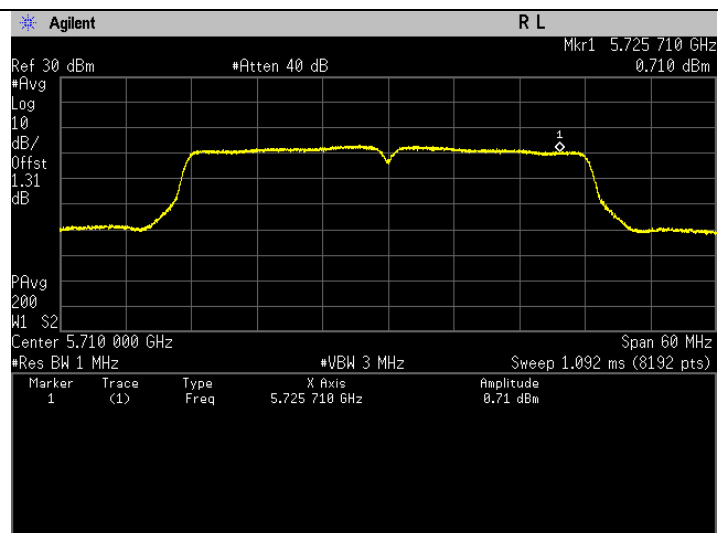
Straddle Frequency 802.11n (HT40) (99% EBW)

Freq. (MHz)	Test Conditions	Antenna Gain (dBi)	Results		
			U-NII- 2C		
			Power/Frequency (dBm/MHz)	EIRP (dBm/ MHz)	Status
5710	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	2.00	3.219	5.219	Pass
Freq. (MHz)	Test Conditions	Antenna Gain (dBi)	U-NII-3		
			Power/Frequency (dBm/500kHz)	EIRP (dBm/5 00kHz)	Status
5710	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	2.00	0.873	2.873	Pass

Plots for 802.11n (HT40) Straddle Frequency (26dB EBW & 99% EBW)



Frequency 5710 MHz, FCC, U-NII-2C. *Note: The band power is captured before the 5725 MHz.



Frequency 5710 MHz, FCC, U-NII-3. *Note: The band power is captured after the 5725 MHz.

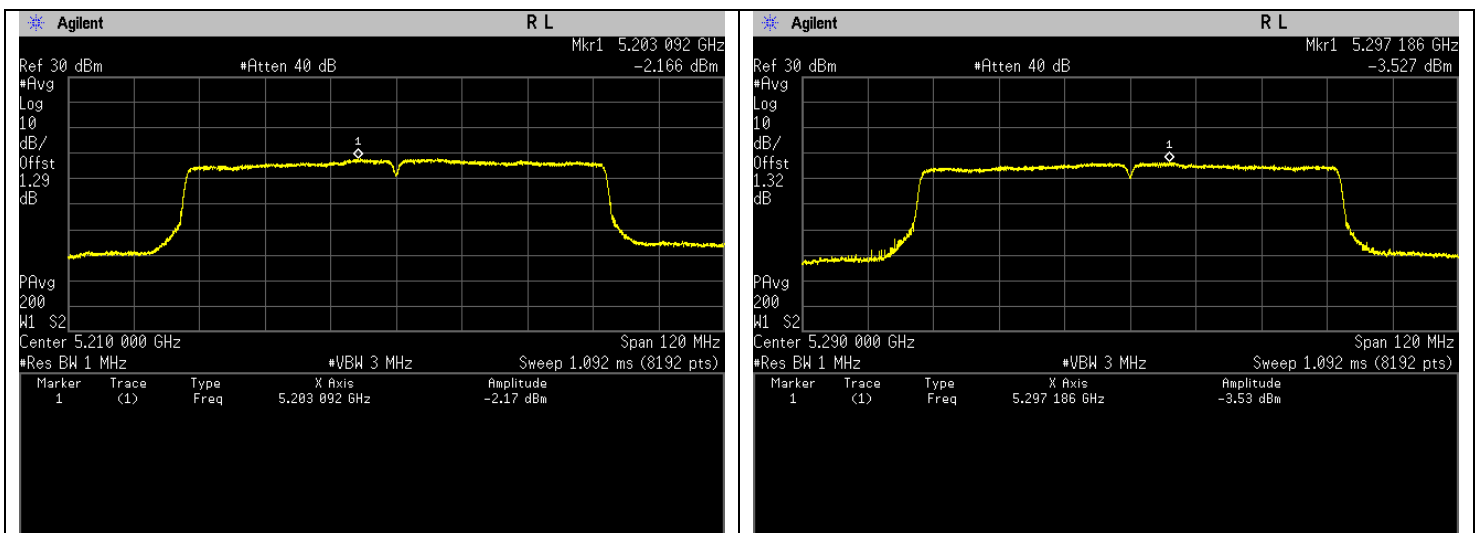
802.11ac (HT80) (26dB EBW)

Freq. (MHz)	Test Conditions	Results	
		Power/Frequency (dBm/MHz)	Status
5210	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	-1.839	Pass
5290	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	-3.200	Pass
5530	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	-2.139	Pass
5610	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	-0.505	Pass
Freq. (MHz)	Test Conditions	Power/Frequency (dBm/500kHz)	Status
5775	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	-3.078	Pass

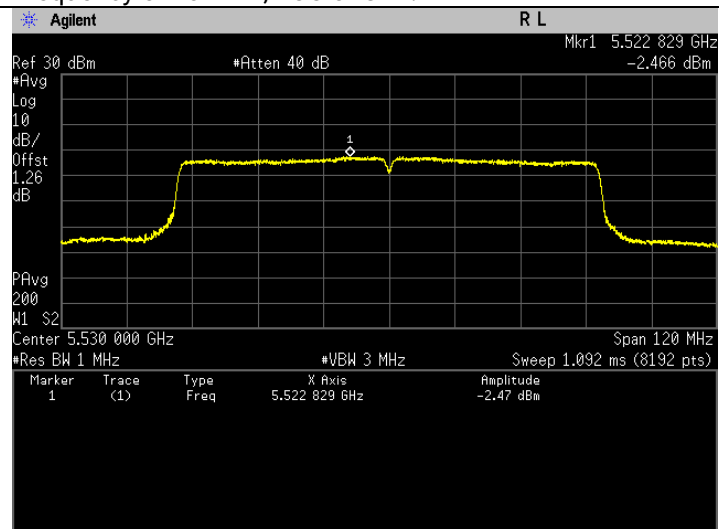
802.11ac (HT80) (99% EBW)

Freq. (MHz)	Test Conditions	Antenna Gain (dBi)	Results			
			Power/Frequency (dBm/MHz)	Status	EIRP (dBm/MHz)	Status
5210	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	1.00	-1.839	Pass	-0.839	Pass
5290	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	2.00	-3.200	Pass	-1.200	Pass
5530	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	2.00	-2.139	Pass	-0.139	Pass
5610	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	2.00	-0.505	Pass	1.495	Pass
Freq. (MHz)	Test Conditions	Antenna Gain (dBi)	Power/Frequency (dBm/500kHz)	Status	EIRP (dBm/500kHz)	Status
5775	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	5.50	-3.078	Pass	2.422	Pass

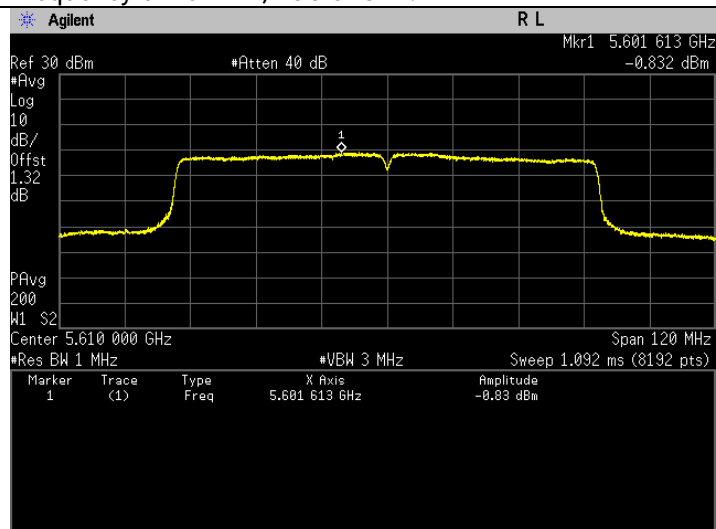
Plots for 802.11ac (HT80) (26dB EBW & 99% EBW)



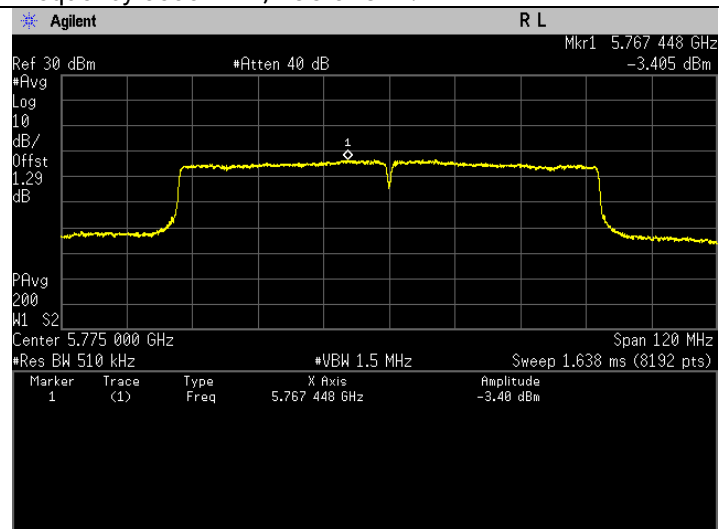
Frequency 5210 MHz, FCC & ISCED.



Frequency 5290 MHz, FCC & ISCED.



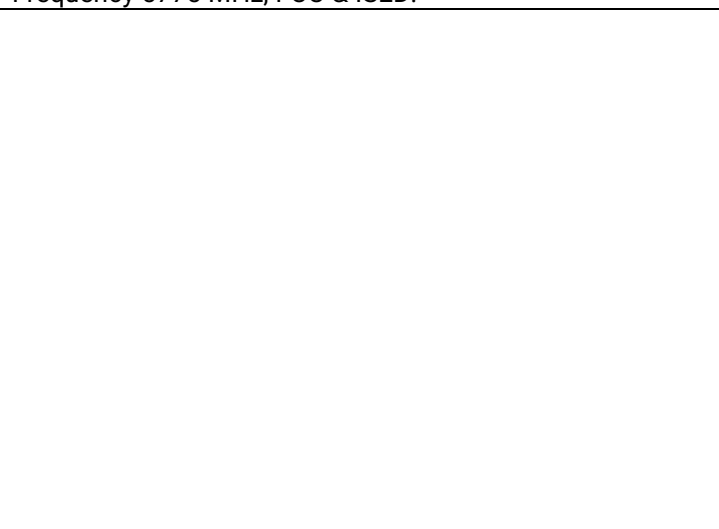
Frequency 5530 MHz, FCC & ISCED.



Frequency 5610 MHz, FCC & ISCED.



Frequency 5775 MHz, FCC & ISCED.



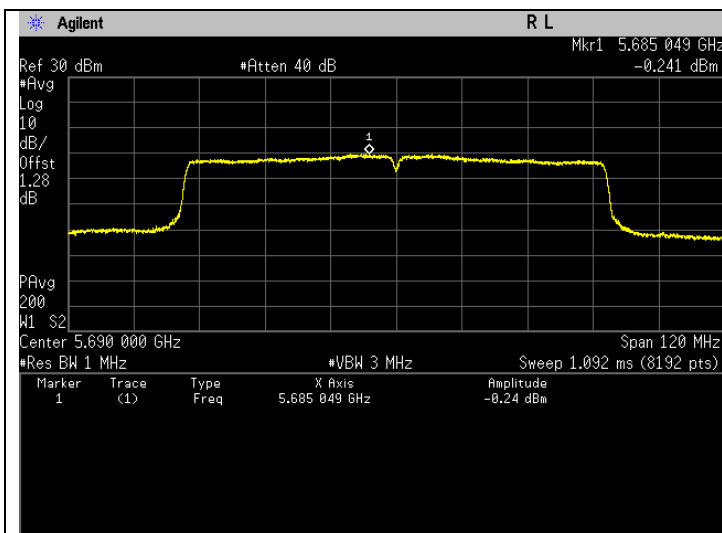
Straddle Frequency 802.11ac (HT80) (26dB EBW)

Freq. (MHz)	Test Conditions	Results	
		U-NII- 2C	
		Power/Frequency (dBm/MHz)	Status
5690	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	0.086	Pass
Freq. (MHz)	Test Conditions	U-NII-3	
		Power/Frequency (dBm/500kHz)	Status
5690	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	-2.855	Pass

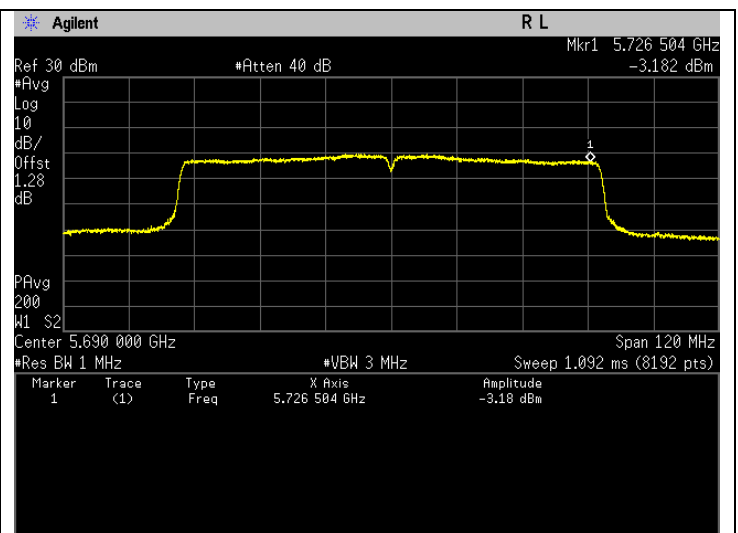
Straddle Frequency 802.11ac (HT80) (99% EBW)

Freq. (MHz)	Test Conditions	Antenna Gain (dBi)	Results		
			U-NII- 2C		
			Power/Frequency (dBm/MHz)	EIRP (dBm/ MHz)	Status
5690	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	2.00	0.086	2.086	Pass
Freq. (MHz)	Test Conditions	Antenna Gain (dBi)	U-NII-3		
			Power/Frequency (dBm/500kHz)	EIRP (dBm/5 00kHz)	Status
5690	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	2.00	-2.855	-0.855	Pass

Plots for 802.11ac (HT80) Straddle Frequency (26dB EBW & 99% EBW)



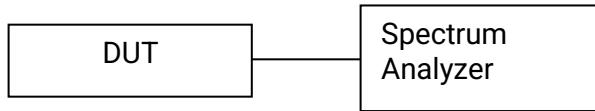
Frequency 5690 MHz, FCC, U-NII-2C. *Note: The band power is captured before the 5725 MHz.



Frequency 5690 MHz, FCC, U-NII-3. *Note: The band power is captured after the 5725 MHz.

7.4. 6dB Bandwidth

7.4.1. Test Setup



- a) Test setup as per illustrated above.
- b) Set DUT to transmit at desire transmit frequency.
- c) 6dB bandwidth is applicable for the band 5.725-5.85GHz only.
- d) Connect DUT's antenna terminal to spectrum analyzer with a low loss cable.
- e) Setting of Spectrum analyzer :
 - RBW = 100 kHz
 - VBW $\geq 3 \cdot$ RBW
 - Detector = Peak
 - Trace = Max Hold
 - Sweep = Auto couple
- f) Allow trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.
- h) The measurement method follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04 under clause C.2).

7.4.2. Test Limits

FCC 15.407(e)

Within the 5.725-5.85GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

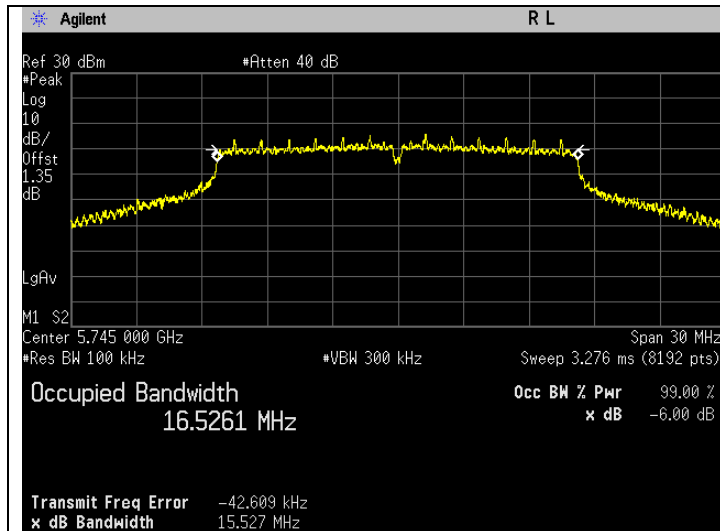
RSS 247 6.2.4

For equipment operating in the band 5725-5850 MHz, the minimum 6 dB bandwidth shall be at least 500 kHz.

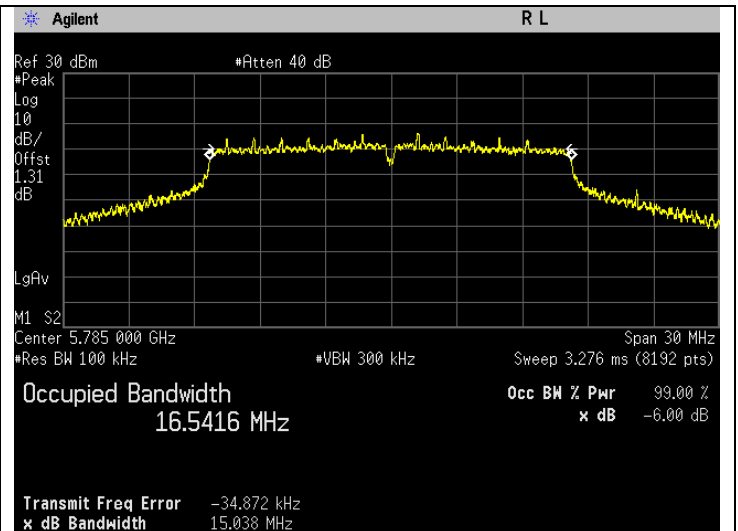
7.4.3. Test Data

802.11a

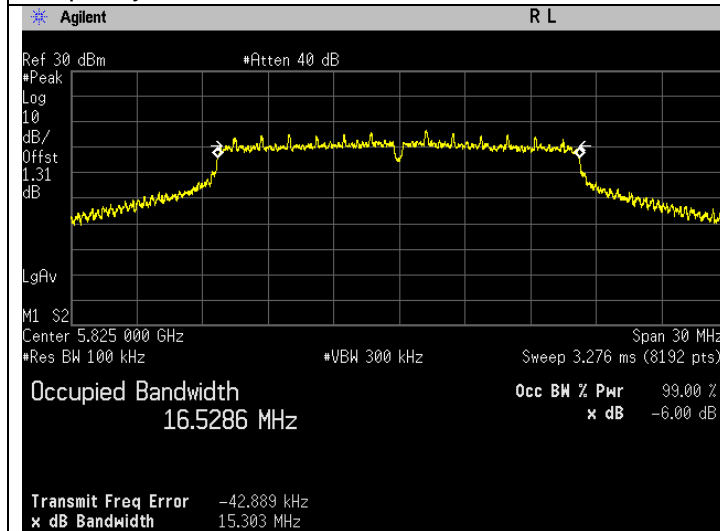
Freq. (MHz)	Test Configuration	Results	
		Bandwidth(MHz)	Status
5745	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	15.527	Pass
5785	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	15.038	Pass
5825	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	15.303	Pass



Frequency 5745 MHz.



Frequency 5785 MHz.

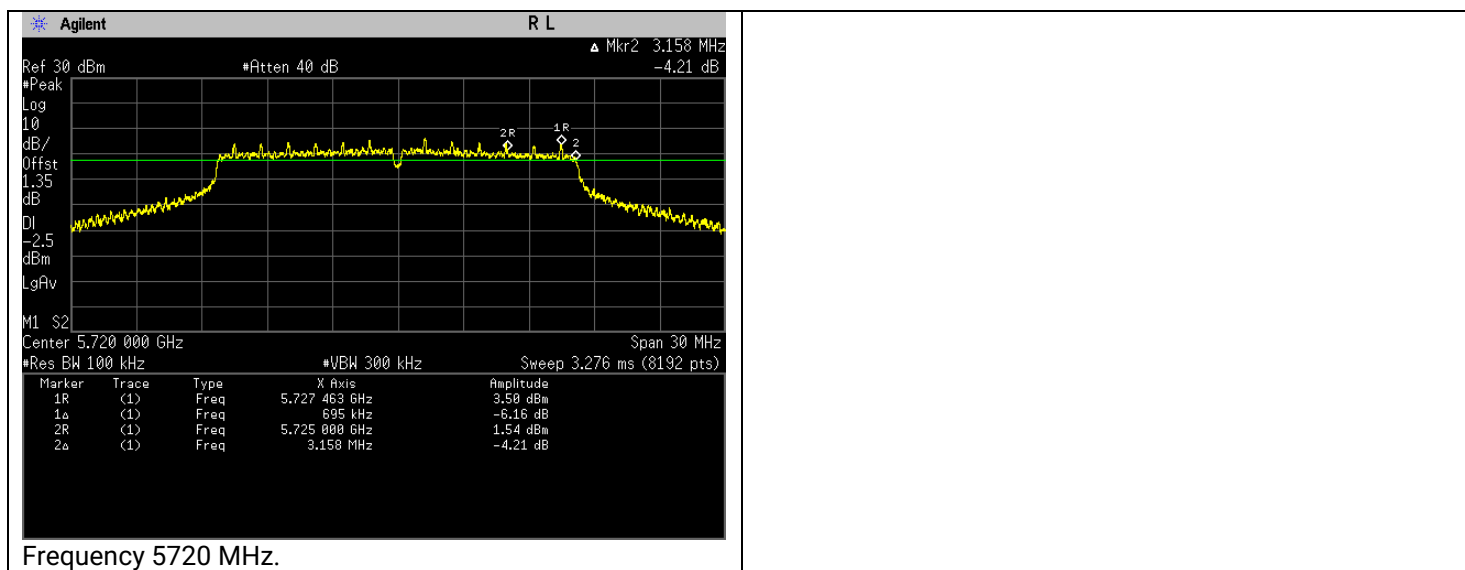


Frequency 5825 MHz.

Straddle Frequency for 802.11a

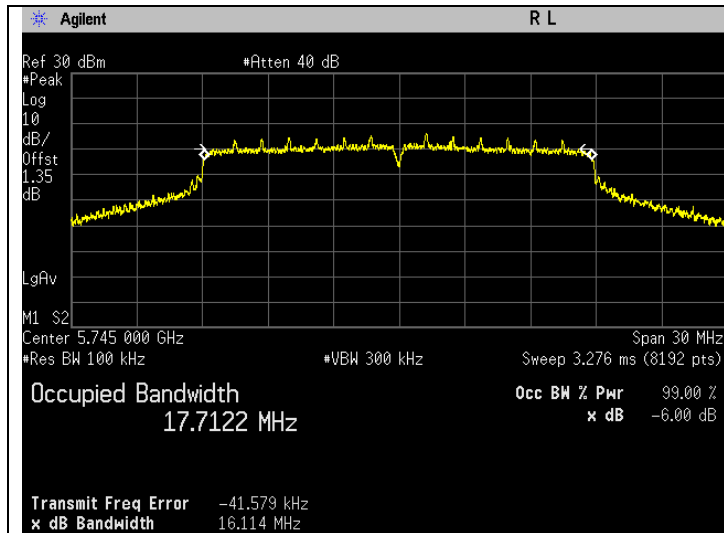
Freq. (MHz)	Test Conditions	Results	
		Bandwidth(MHz)	Status
		U-NII- 3	
5720	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	3.158	Pass

Plots for 802.11a Straddle Frequency

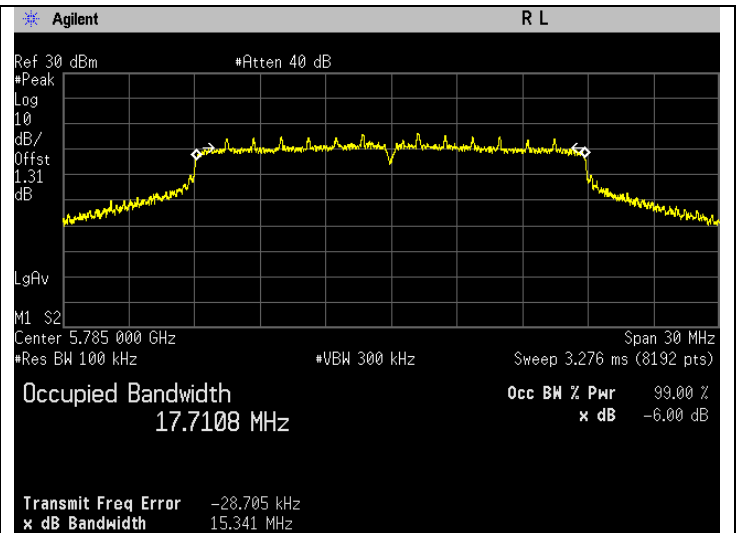


802.11n (HT20)

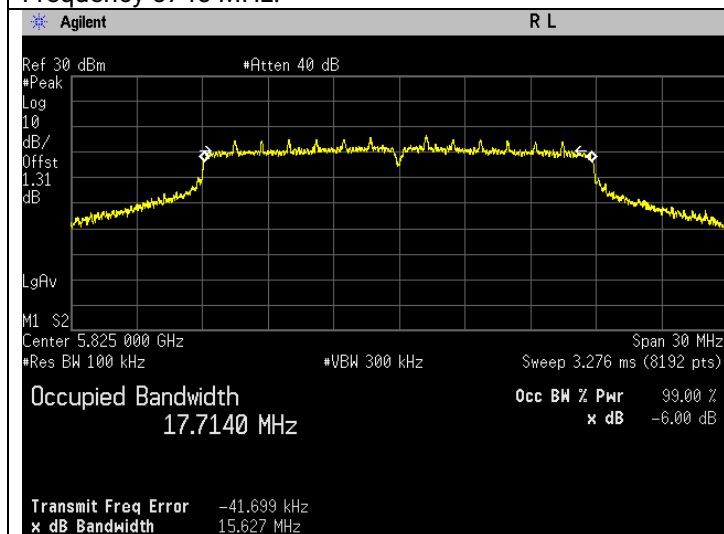
Freq. (MHz)	Test Configuration	Results	
		Bandwidth(MHz)	Status
5745	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	16.114	Pass
5785	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	15.341	Pass
5825	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	15.627	Pass



Frequency 5745 MHz.



Frequency 5785 MHz.

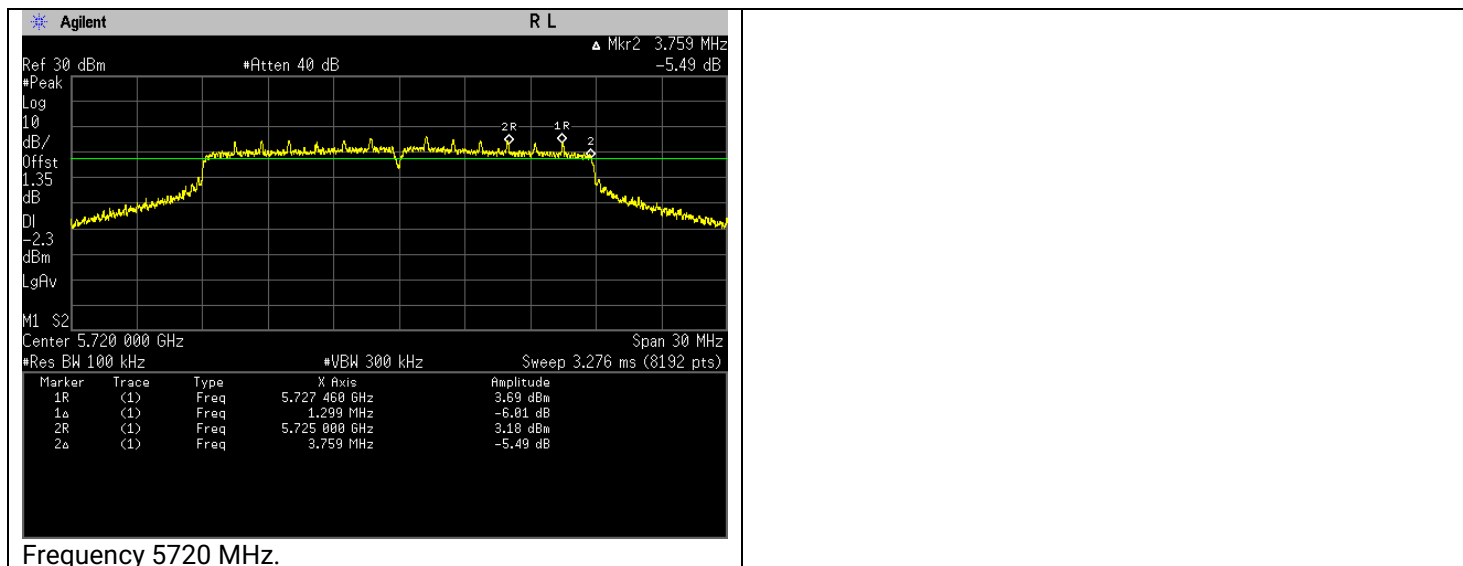


Frequency 5825 MHz.

Straddle Frequency for 802.11n (HT20)

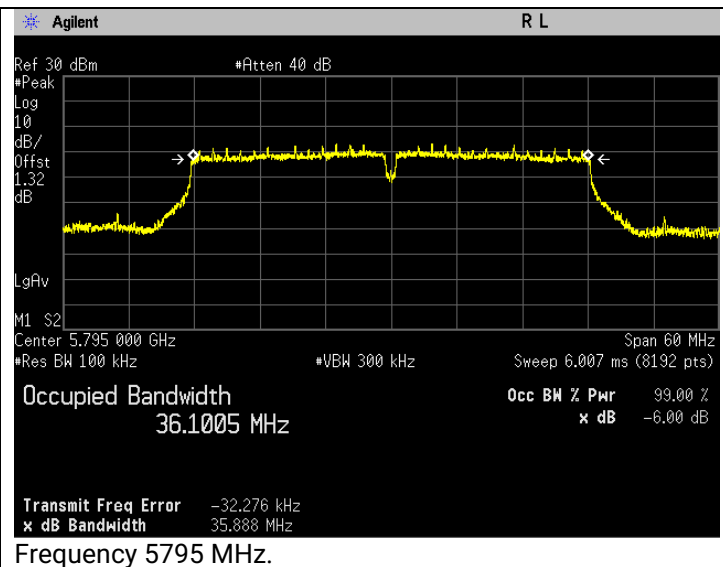
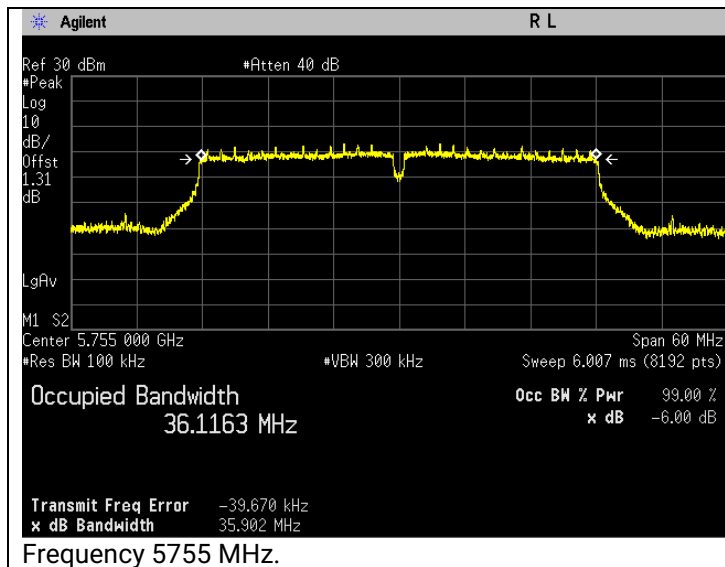
Freq. (MHz)	Test Conditions	Results	
		Bandwidth(MHz)	Status
		U-NII- 3	
5720	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6.5	3.759	Pass

Plots for 802.11n (HT20) Straddle Frequency



802.11n (HT40)

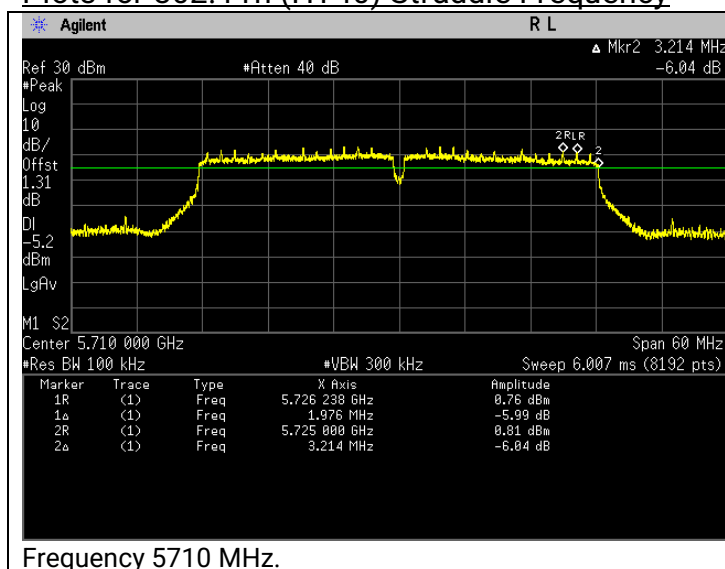
Freq. (MHz)	Test Configuration	Results	
		Bandwidth(MHz)	Status
5755	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	35.902	Pass
5795	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	35.888	Pass



Straddle Frequency for 802.11n (HT40)

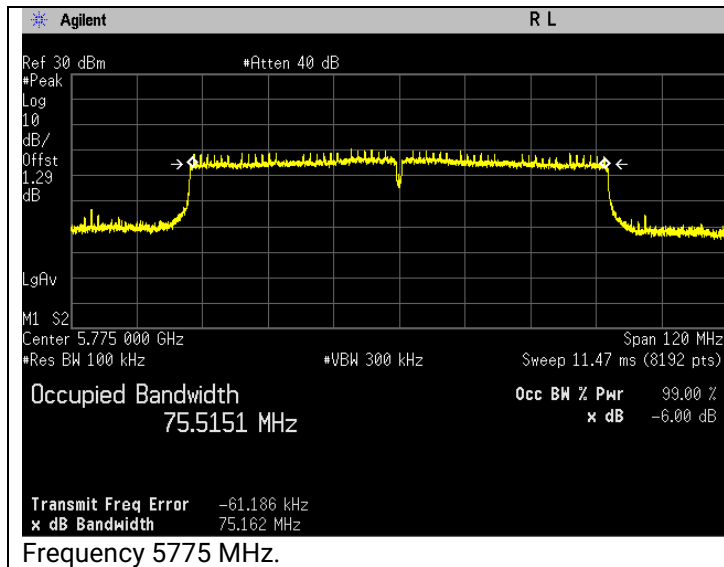
Freq. (MHz)	Test Conditions	Results	
		Bandwidth(MHz)	Status
		U-NII- 3	
5710	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 13.5	3.214	Pass

Plots for 802.11n (HT40) Straddle Frequency



802.11ac (HT80)

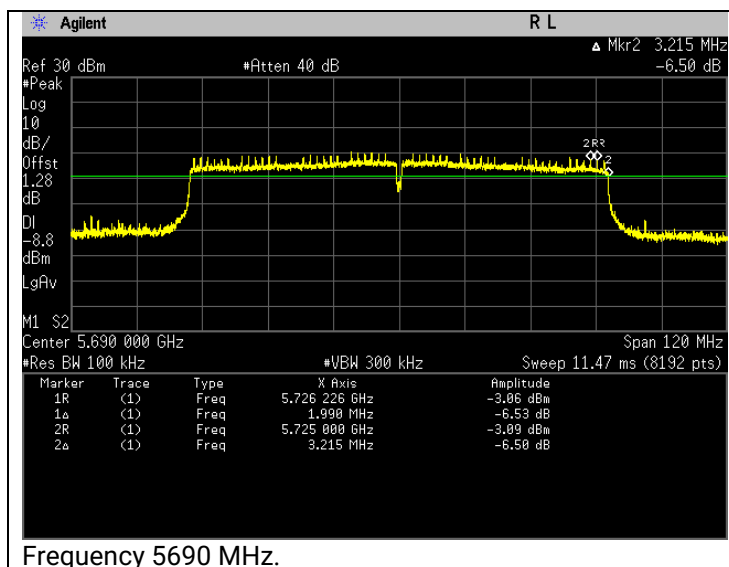
Freq. (MHz)	Test Configuration	Results	
		Bandwidth(MHz)	Status
5775	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	75.162	Pass



Straddle Frequency for 802.11ac (HT80)

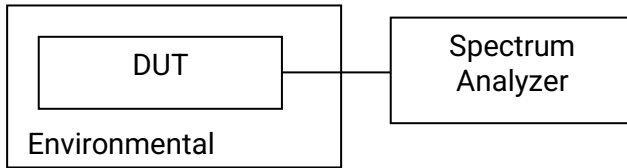
Freq. (MHz)	Test Conditions	Results	
		Bandwidth(MHz)	Status
5690	Mod Type: OFDM, Mod Tech: BPSK, Data Rate: MCS0_SS1(29.3)	3.215	Pass

Plots for 802.11ac (HT80) Straddle Frequency



7.5. Frequency Stability

7.5.1. Test Setup



- a) Test setup as per illustrated above.
- b) Set DUT to transmit un-modulated signal at desire transmit frequency.
- c) Connect DUT's antenna terminal to spectrum analyzer with a low loss cable.
- d) The DUT was operated at the maximum output power, and spectrum which is set to maximum hold function and peak detector.
- e) The peak value of the power envelope was measured and noted.
- f) Test was conducted from temperature range from -30°C to 50°C with step size of 10°C on manufacturer's rated supply voltage.
- g) At temperature of 20°C, +/-15% of manufacturer's rated voltage are to be applied.
- h) The frequency stability is measured and recorded of frequency deviation due to temperature and supply voltage variations as mentioned at condition f) & g) above.

7.5.2. Test Limits

FCC 15.407(g)

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.

RSS-GEN 6.11

7.5.3. Test Data

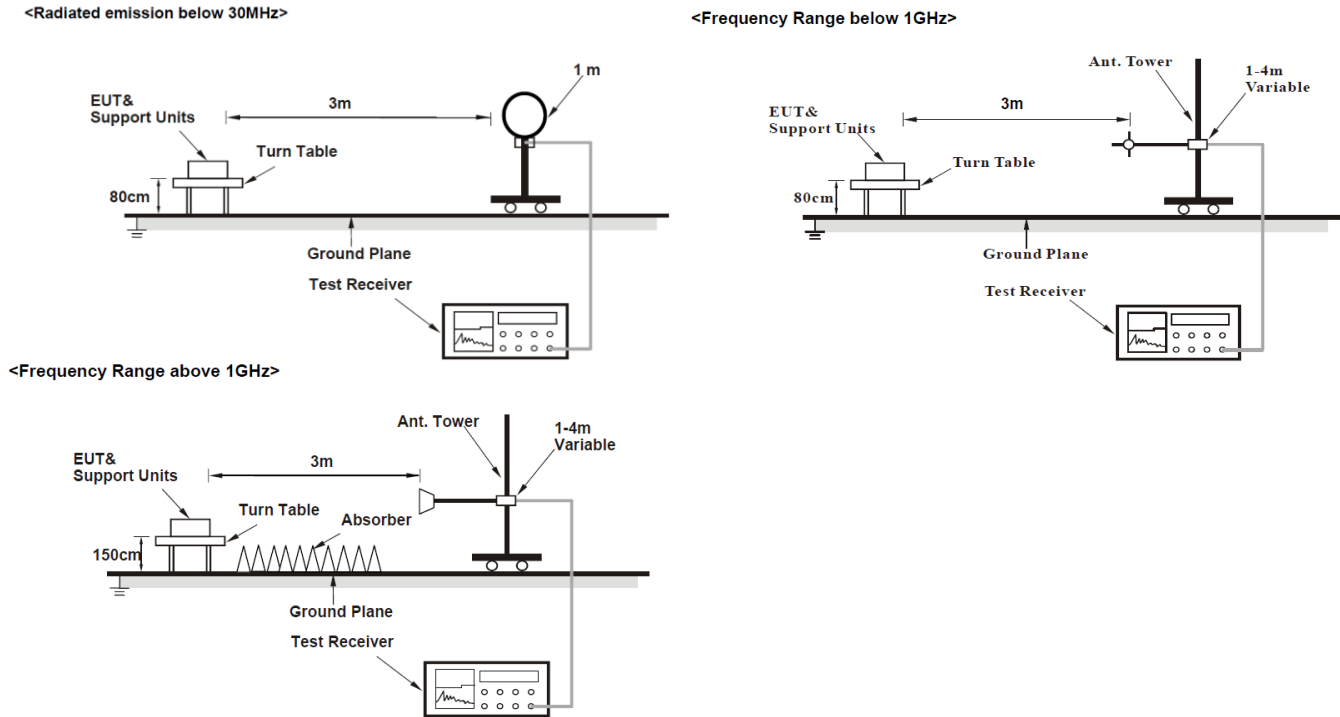
802.11a

Test Configuration	Test Frequency
	Tx (MHz)
Mod Type: OFDM, Mod Tech: BPSK, Data Rate: 6	5180

Temperature(°C)	Voltage	Results			
		Measured Frequency(MHz)	Frequency Error(kHz)	Frequency Error(%)	Status
20	+15%	5180.008585	8.585000	0.000166	Pass
	±0%	5180.017051	17.051000	0.000329	Pass
	-15%	5180.018213	18.213000	0.000352	Pass
-30		5180.012144	12.144000	0.000234	Pass
-20		5180.001376	1.376000	0.000027	Pass
-10		5179.978027	21.973000	0.000424	Pass
0		5179.969479	30.521000	0.000589	Pass
10		5179.969812	30.188000	0.000583	Pass
30		5179.985616	14.384000	0.000278	Pass
40		5179.986715	13.285000	0.000256	Pass
50		5179.987938	12.062000	0.000233	Pass

7.6. Band Edge Radiated Spurious Emission Measurement

7.6.1. Test Setup



1. The EUT is placed on the top of a rotating table 0.8m/1.5m above the ground at a 3m semi-anechoic chamber. The table is rotated 360 degrees to determine the position of the highest radiation.
2. The EUT is set 3m away from the interference-receiving antenna, which is mounted on the top of a variable-height antenna tower.
3. The antenna is Bilog/Horn antenna depend on which frequency range uses, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT is arranged to its worst case and then the antenna is tuned to heights from 1m to 4m and the rotatable table is turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system is set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode is fall within the range of 10dB from the limit specified, the emissions would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. Otherwise, the testing could be stopped and the peak values of the EUT would be reported.

NOTE:

- The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1 GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz for Average detection using reduced video bandwidth (Duty cycle $\geq 98\%$) at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $1/\tau$ Hz, where τ is minimum transmitter on time (Duty cycle $< 98\%$) for Average detection using reduced video bandwidth at frequency above 1GHz.
- All modes of operation were investigated and the worst-case emissions are reported.

7.6.2. Test Limits

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

NOTE:

- The lower limit shall apply at the transition frequencies.
- Emission level (dBuV/m) = 20 log Emission level (uV/m).
- For frequencies above 1000 MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

For Radiated emissions which fall out of the restricted bands must comply with the radiated emission limits specified as below table.

Applicable To		Limit	
789033 D02 General UNII Test Procedures New Rules v01r03		Field Strength at 3 m	
		PK: 74 (dBµV/m)	AV: 54 (dBµV/m)
Frequency Band	Applicable To	EIRP Limit	Equivalent Field Strength at 3 m
5150–5250 MHz	15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2 (dBµV/m)
5250–5350 MHz	15.407(b)(2)		
5470–5725 MHz	15.407(b)(3)		
5725–5850 MHz	15.407(b)(4)(i)	PK:-27 (dBm/MHz) ^{*1} PK:10 (dBm/MHz) ^{*2} PK:15.6 (dBm/MHz) ^{*3} PK:27 (dBm/MHz) ^{*4}	PK: 68.2 (dBµV/m) ^{*1} PK:105.2 (dBµV/m) ^{*2} PK: 110.8 (dBµV/m) ^{*3} PK:122.2 (dBµV/m) ^{*4}
	15.407(b)(4)(ii)	Emission limits in section 15.247(d)	
^{*1} beyond 75 MHz or more above of the band edge.			
^{*2} below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.			
^{*3} below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.			
^{*4} from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge			

NOTE:

The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = ((1000000\sqrt{(30P)}) / 3) \mu\text{V/m, where P is the eirp (Watts)}$$

7.6.3. Test Result

802.11a

Motorola Solutions

SAC TX Restricted Band-edge : 1490N00-EMC-00038

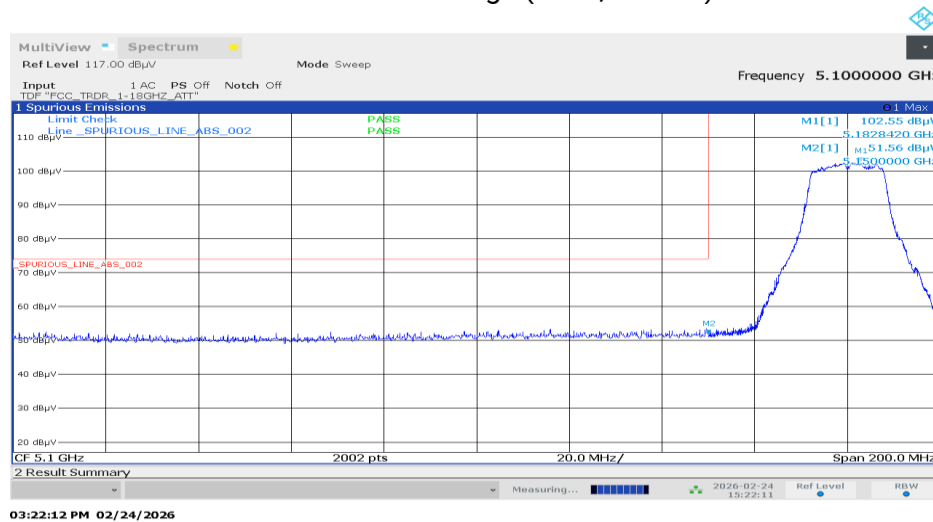
FCC ID :	AZ489FT7187	IC :	109U-89FT7187
Model No :	HK2300A	Serial No :	64222BY0124
Battery :	PMNN4578A	Charger :	-
Accessory :	AN000508A01		
Test Mode :	Wifi 5.0 GHz 802.11a	Channel SP/Bandwidth (kHz) :	20000.0000
Test Frequency (MHz) :	5180.0000	Softpot Power :	14.00
Plane :	Y-Plane	Band :	-
Test Standard :	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024		

Antenna Polarization	Detector	Spur Freq (MHz)	Spur Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)
Vertical	Average	5150.0000	41.51	54.00	12.49
Horizontal	Average	5150.0000	40.98	54.00	13.02
Vertical	Peak	5150.0000	51.56 *	74.00	22.44
Horizontal	Peak	5150.0000	51.55 *	74.00	22.45

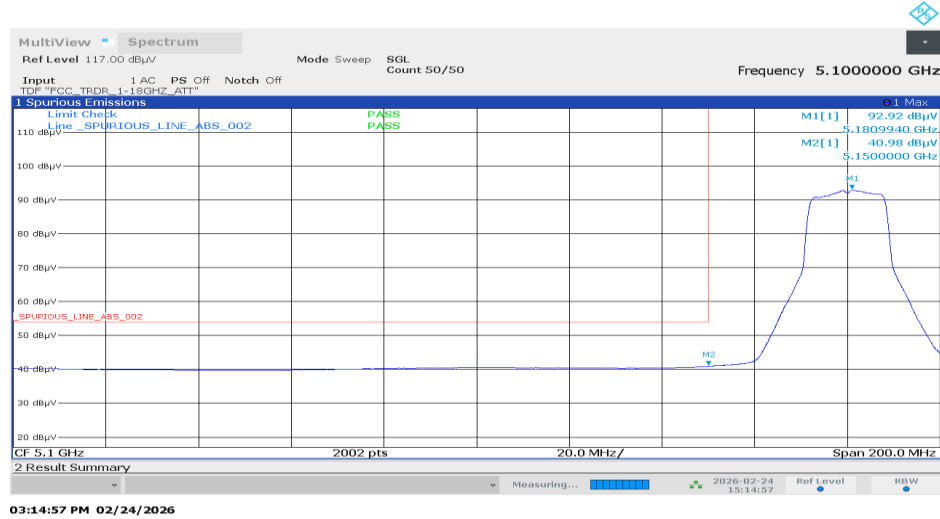
Restricted Band Edge (Peak,Horizontal)



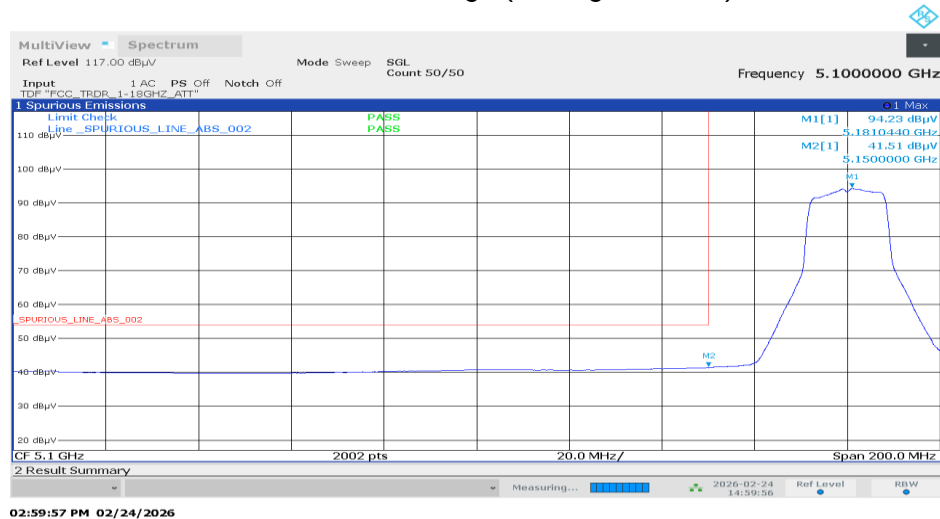
Restricted Band Edge (Peak,Vertical)



Restricted Band Edge (Average,Horizontal)



Restricted Band Edge (Average,Vertical)



Motorola Solutions

SAC TX Restricted Band-edge : 1490N00-EMC-00038

FCC ID :	AZ489FT7187	IC :	109U-89FT7187
Model No :	HK2300A	Serial No :	64222BY0124
Battery :	PMNN4578A	Charger :	-
Accessory :	AN000508A01		
Test Mode :	Wifi 5.0 GHz 802.11a	Channel SP/Bandwidth (kHz) :	20000.0000
Test Frequency (MHz) :	5320.0000	Softpot Power :	14.00
Plane :	Y-Plane	Band :	-
Test Standard :	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024		

Antenna Polarization	Detector	Spur Freq (MHz)	Spur Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Vertical	Average	5350.0000	42.69	54.00	11.31
Horizontal	Average	5350.0000	42.12	54.00	11.88
Vertical	Peak	5350.0000	60.61	74.00	13.39
Horizontal	Peak	5350.0000	55.10	74.00	18.90
Vertical	Average	5350.0750	42.77	54.00	11.23
Horizontal	Average	5351.7730	42.13	54.00	11.87
Horizontal	Average	5353.6220	42.06	54.00	11.94
Horizontal	Average	5353.9210	42.06	54.00	11.94
Vertical	Average	5371.9030	42.07	54.00	11.93
Vertical	Average	5372.7020	42.09	54.00	11.91
Vertical	Average	5375.0500	42.04	54.00	11.96
Vertical	Average	5375.6990	42.05	54.00	11.95
Vertical	Average	5377.9970	42.01	54.00	11.99

Temperature (°C) :	23.5	Humidity (%) :	68.9
Test Performed by :	Nazrin & Fuad	Test Date :	Tue, 24 Feb, 2026
System MU :	6.00 dB (30MHz-1000MHz); 5.14 dB (1000MHz-18000MHz); 5.36 dB (18000MHz-40000MHz)		

Remarks:

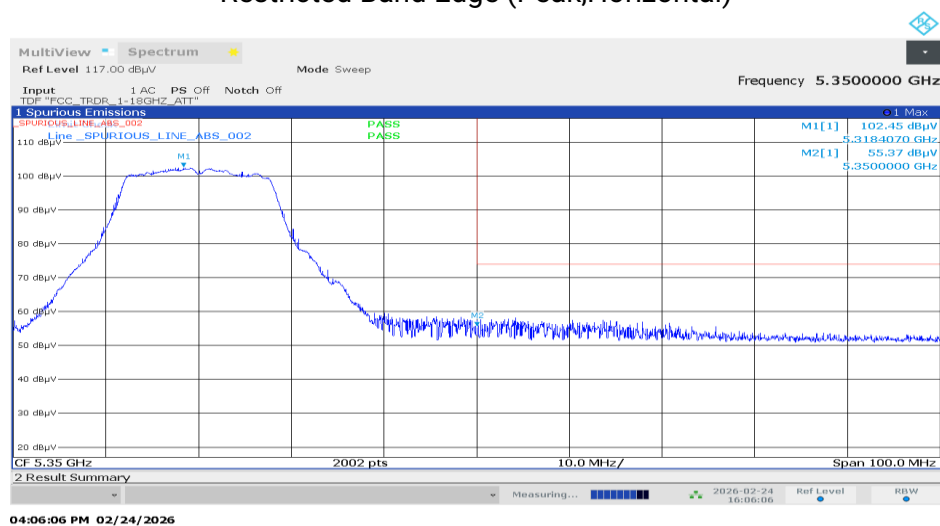
** Indicates the spurious emission could not be detected due to noise limitations or ambient.

*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.

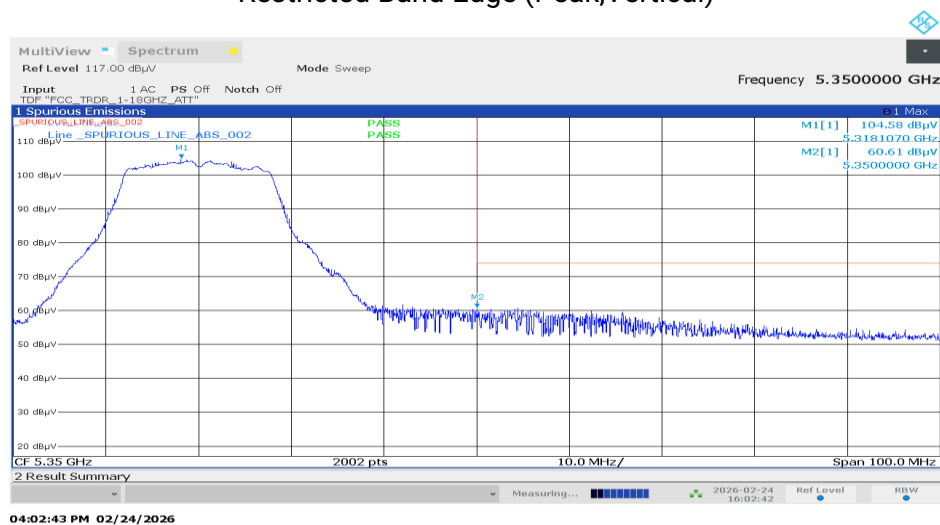
NOTE :

- 1) If the peak values is less than the QP limit, the QP result deemed to comply with QP limit.
- 2) If the peak values is less than the AV limit, the average result deemed to comply with AV limit.

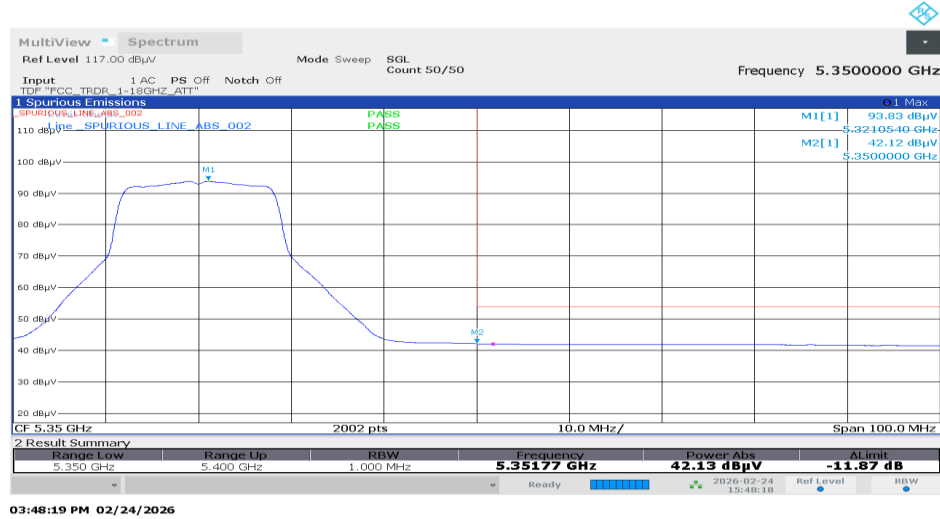
Restricted Band Edge (Peak,Horizontal)



Restricted Band Edge (Peak,Vertical)



Restricted Band Edge (Average,Horizontal)



Restricted Band Edge (Average,Vertical)



Motorola Solutions

SAC TX Restricted Band-edge : 1490N00-EMC-00038

FCC ID :	AZ489FT7187	IC :	109U-89FT7187
Model No :	HK2300A	Serial No :	64222BY0124
Battery :	PMNN4578A	Charger :	-
Accessory :	AN000508A01		
Test Mode :	Wifi 5.0 GHz 802.11a	Channel SP/Bandwidth (kHz) :	20000.0000
Test Frequency (MHz) :	5500.0000	Softpot Power :	14.00
Plane :	Y-Plane	Band :	-
Test Standard :	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024		

Antenna Polarization	Detector	Spur Freq (MHz)	Spur Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)
Vertical	Average	5470.0000	40.71	54.00	13.29
Horizontal	Average	5470.0000	41.16	54.00	12.84
Vertical	Peak	5470.0000	49.69	68.20	18.51
Horizontal	Peak	5470.0000	48.94	68.20	19.26

Temperature (°C) :	23.5	Humidity (%) :	68.9
Test Performed by :	Nazrin & Fuad	Test Date :	Tue, 24 Feb, 2026
System MU :	6.00 dB (30MHz-1000MHz); 5.14 dB (1000MHz-18000MHz); 5.36 dB (18000MHz-40000MHz)		

Remarks:

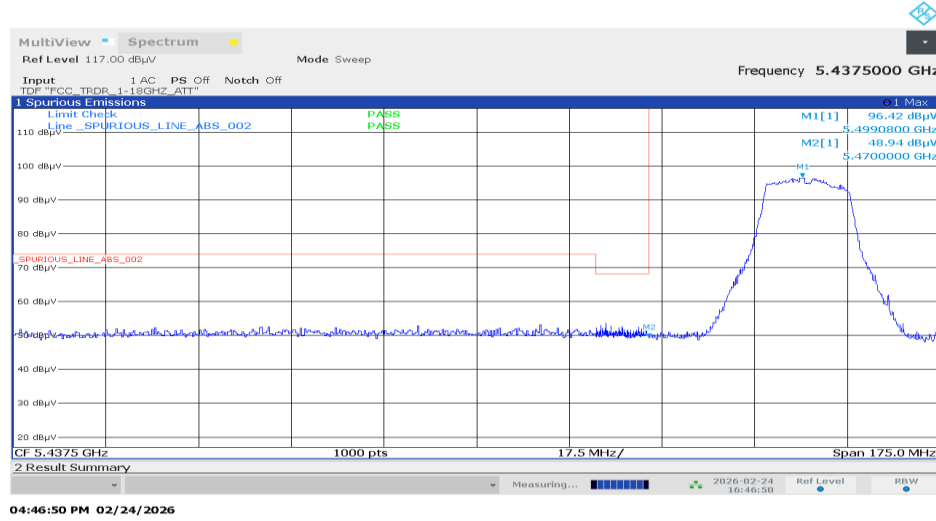
** Indicates the spurious emission could not be detected due to noise limitations or ambient.

*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.

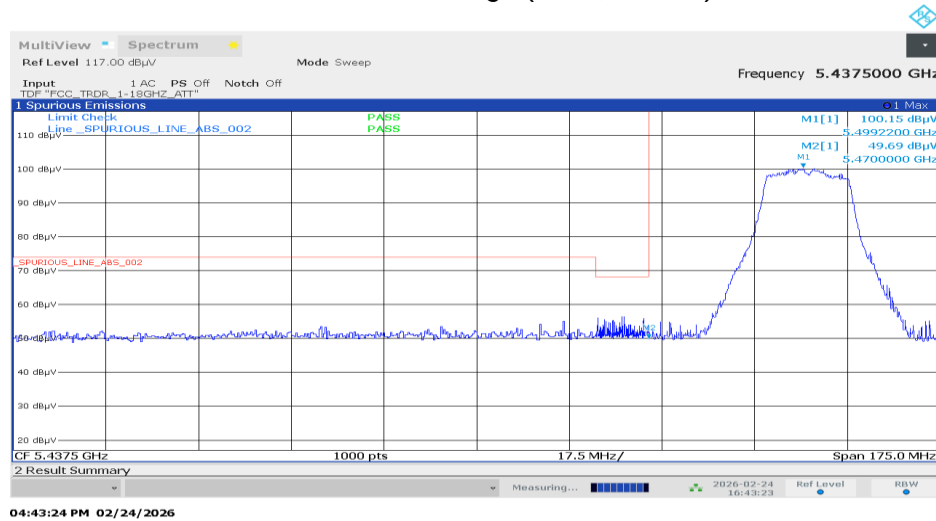
NOTE :

- 1) If the peak values is less than the QP limit, the QP result deemed to comply with QP limit.
- 2) If the peak values is less than the AV limit, the average result deemed to comply with AV limit.

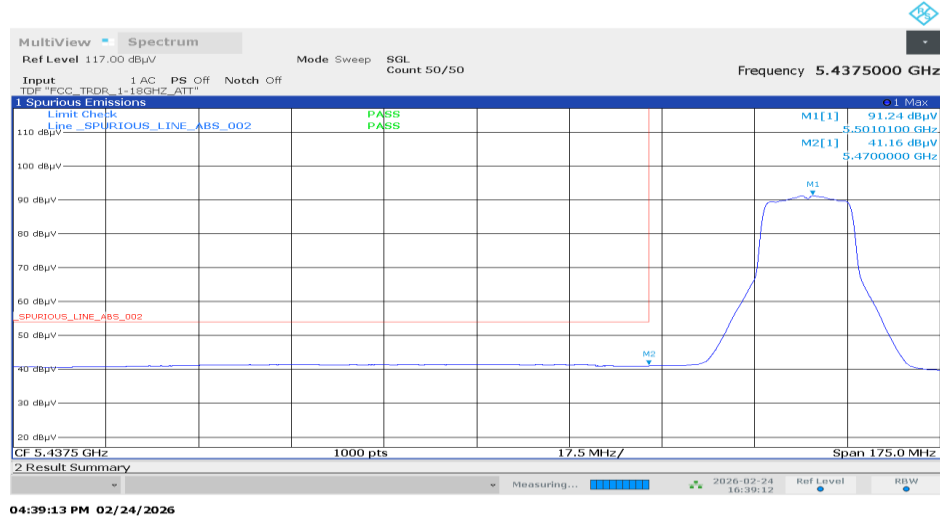
Restricted Band Edge (Peak,Horizontal)



Restricted Band Edge (Peak,Vertical)



Restricted Band Edge (Average,Horizontal)



Restricted Band Edge (Average,Vertical)



Motorola Solutions
SAC TX Restricted Band-edge : 1490N00-EMC-00038

FCC ID :	AZ489FT7187	IC :	109U-89FT7187
Model No :	HK2300A	Serial No :	64222BY0124
Battery :	PMNN4578A	Charger :	-
Accessory :	AN000508A01		
Test Mode :	Wifi 5.0 GHz 802.11a	Channel SP/Bandwidth (kHz) :	20000.0000
Test Frequency (MHz) :	5700.0000	Softpot Power :	14.00
Plane :	Y-Plane	Band :	-
Test Standard :	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024		

Antenna Polarization	Detector	Spur Freq (MHz)	Spur Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Vertical	Peak	5725.0000	52.22	68.20	15.98
Horizontal	Peak	5725.0000	52.27	68.20	15.93

Temperature (°C) :	23.5	Humidity (%) :	68.9
Test Performed by :	Nazrin & Fuad	Test Date :	Tue, 24 Feb, 2026
System MU :	6.00 dB (30MHz-1000MHz); 5.14 dB (1000MHz-18000MHz); 5.36 dB (18000MHz-40000MHz)		

Remarks:

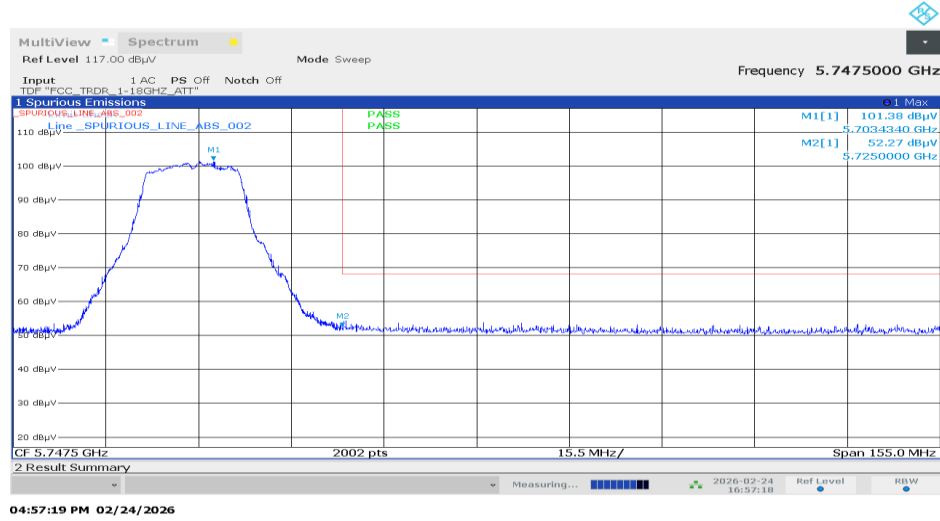
** Indicates the spurious emission could not be detected due to noise limitations or ambient.

*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.

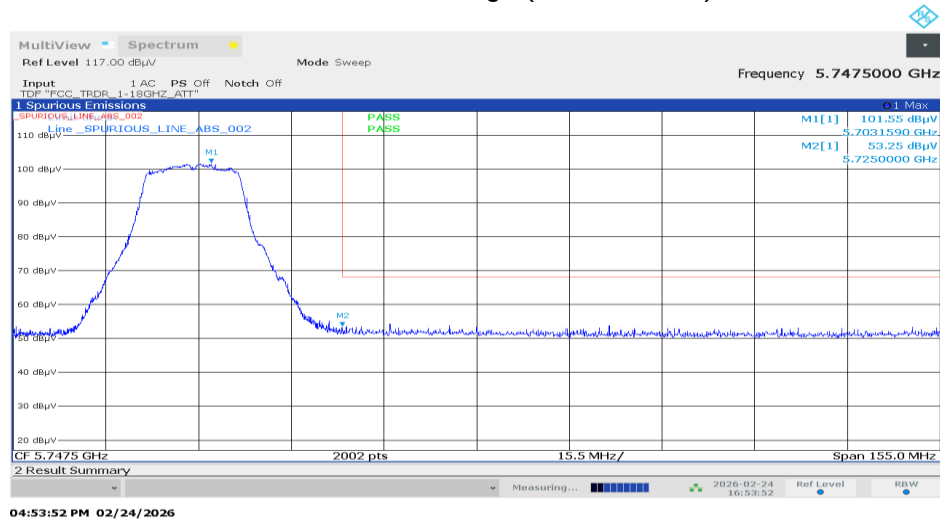
NOTE :

- 1) If the peak values is less than the QP limit, the QP result deemed to comply with QP limit.
- 2) If the peak values is less than the AV limit, the average result deemed to comply with AV limit.

Restricted Band Edge (Peak,Horizontal)



Restricted Band Edge (Peak,Vertical)



Motorola Solutions
SAC TX Restricted Band-edge : 1490N00-EMC-00038

FCC ID :	AZ489FT7187	IC :	109U-89FT7187
Model No :	HK2300A	Serial No :	64222BY0124
Battery :	PMNN4578A	Charger :	-
Accessory :	AN000508A01		
Test Mode :	Wifi 5.0 GHz 802.11a	Channel SP/Bandwidth (kHz) :	20000.0000
Test Frequency (MHz) :	5720.0000	Softpot Power :	-
Plane :	Y-Plane	Band :	-
Test Standard :	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024		

Antenna Polarization	Detector	Spur Freq	Spur Level	Limit	Margin (dB)
Vertical	Peak	No Spurious Emission Detected			
Horizontal	Peak	No Spurious Emission Detected			

Temperature (°C) :	23.5	Humidity (%) :	68.9
Test Performed by :	Nazrin & Fuad	Test Date :	Tue, 24 Feb, 2026
System MU :	null		

Remarks:

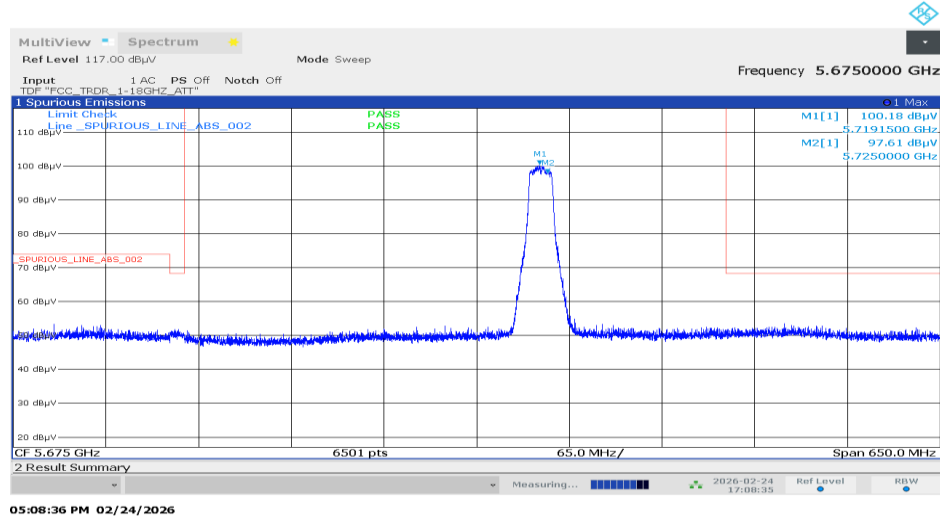
** Indicates the spurious emission could not be detected due to noise limitations or ambient.

*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.

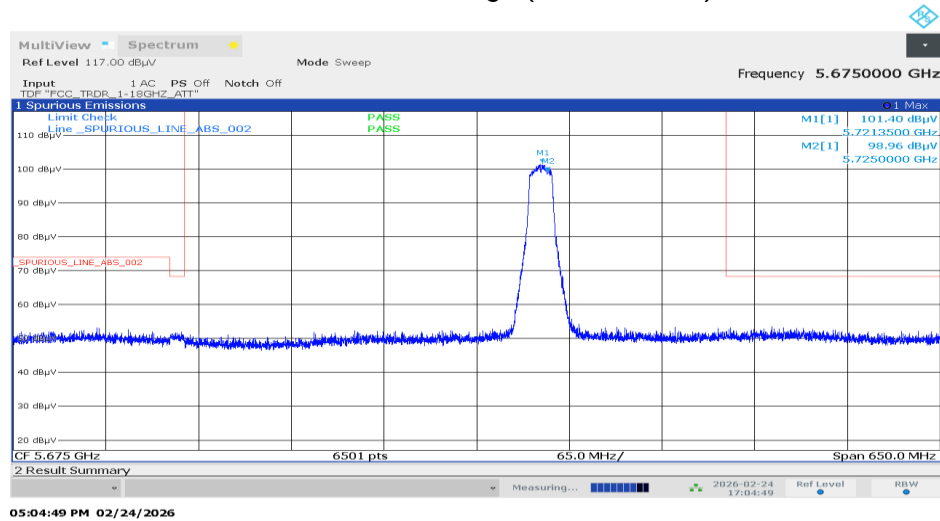
NOTE :

- 1) If the peak values is less than the QP limit, the QP result deemed to comply with QP limit.
- 2) If the peak values is less than the AV limit, the average result deemed to comply with AV limit.

Restricted Band Edge (Peak,Horizontal)



Restricted Band Edge (Peak,Vertical)



Motorola Solutions
SAC TX Restricted Band-edge : 1490N00-EMC-00038

FCC ID :	AZ489FT7187	IC :	109U-89FT7187
Model No :	HK2300A	Serial No :	64222BY0124
Battery :	PMNN4578A	Charger :	-
Accessory :	AN000508A01		
Test Mode :	Wifi 5.0 GHz 802.11a	Channel SP/Bandwidth (kHz) :	20000.0000
Test Frequency (MHz) :	5745.0000	Softpot Power :	14.00
Plane :	Y-Plane	Band :	-
Test Standard :	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024		

Antenna Polarization	Detector	Spur Freq (MHz)	Spur Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Vertical	Peak	5725.0000	49.20 *	122.20	73.00
Horizontal	Peak	5725.0000	53.39 *	122.20	68.81

Temperature (°C) :	23.5	Humidity (%) :	68.9
Test Performed by :	Nazrin & Fuad	Test Date :	Wed, 25 Feb, 2026
System MU :	6.00 dB (30MHz-1000MHz); 5.14 dB (1000MHz-18000MHz); 5.36 dB (18000MHz-40000MHz)		

Remarks:

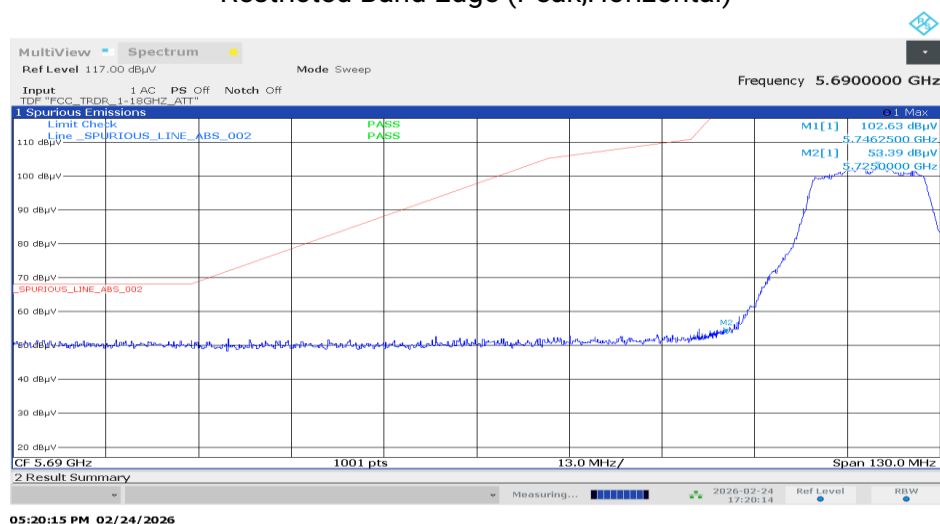
** Indicates the spurious emission could not be detected due to noise limitations or ambient.

*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.

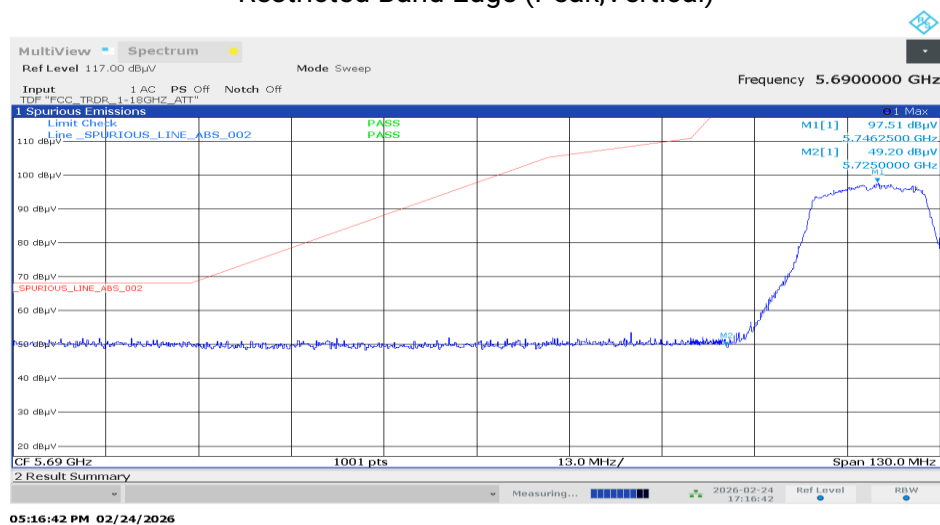
NOTE :

- 1) If the peak values is less than the QP limit, the QP result deemed to comply with QP limit.
- 2) If the peak values is less than the AV limit, the average result deemed to comply with AV limit.

Restricted Band Edge (Peak,Horizontal)



Restricted Band Edge (Peak,Vertical)



Motorola Solutions
SAC TX Restricted Band-edge : 1490N00-EMC-00038

FCC ID :	AZ489FT7187	IC :	109U-89FT7187
Model No :	HK2300A	Serial No :	64222BY0124
Battery :	PMNN4578A	Charger :	-
Accessory :	AN000508A01		
Test Mode :	Wifi 5.0 GHz 802.11a	Channel SP/Bandwidth (kHz) :	20000.0000
Test Frequency (MHz) :	5825.0000	Softpot Power :	14.00
Plane :	Y-Plane	Band :	-
Test Standard :	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024		

Antenna Polarization	Detector	Spur Freq (MHz)	Spur Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Vertical	Peak	5850.0000	56.13 *	122.20	66.07
Horizontal	Peak	5850.0000	54.91 *	122.20	67.29

Temperature (°C) :	23.5	Humidity (%) :	68.9
Test Performed by :	Nazrin & Fuad	Test Date :	Wed, 25 Feb, 2026
System MU :	6.00 dB (30MHz-1000MHz); 5.14 dB (1000MHz-18000MHz); 5.36 dB (18000MHz-40000MHz)		

Remarks:

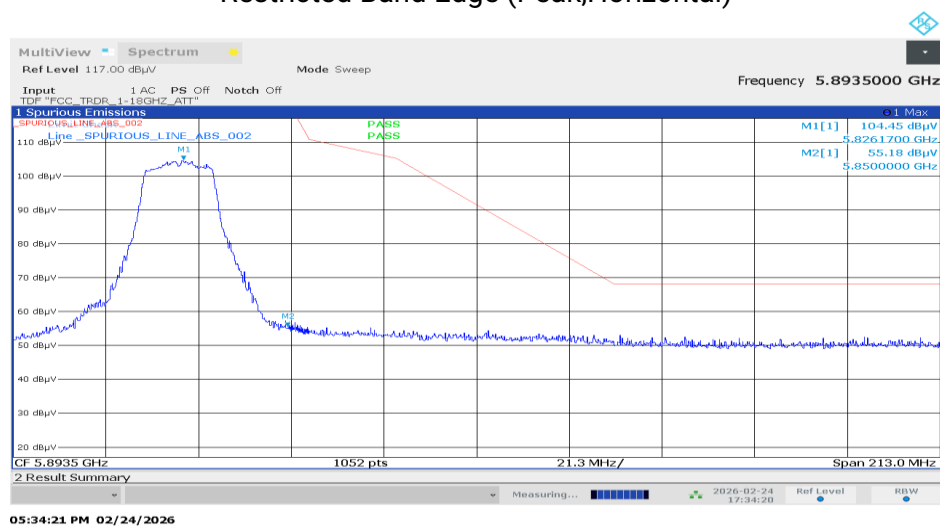
** Indicates the spurious emission could not be detected due to noise limitations or ambient.

*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.

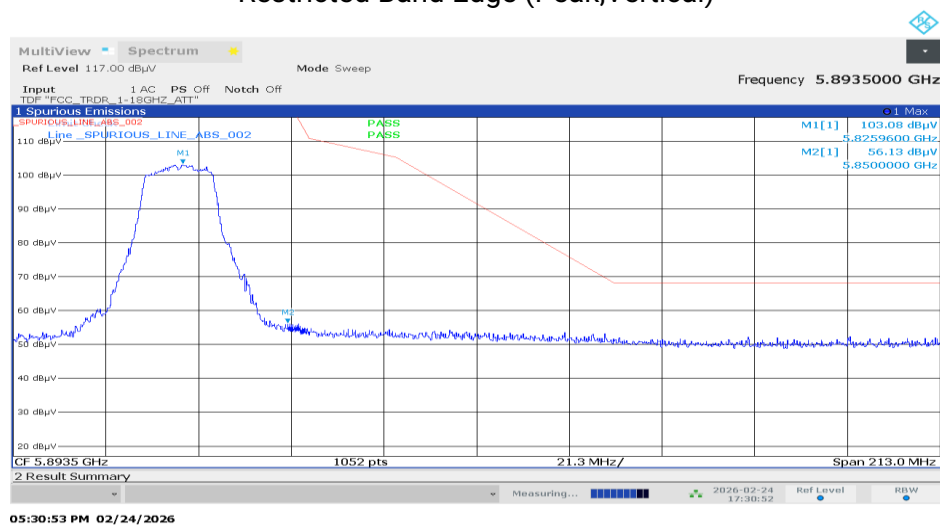
NOTE :

- 1) If the peak values is less than the QP limit, the QP result deemed to comply with QP limit.
- 2) If the peak values is less than the AV limit, the average result deemed to comply with AV limit.

Restricted Band Edge (Peak,Horizontal)



Restricted Band Edge (Peak,Vertical)



802.11n (HT20)

Motorola Solutions
SAC TX Restricted Band-edge : 1490N00-EMC-00038

FCC ID :	AZ489FT7187	IC :	109U-89FT7187
Model No :	HK2300A	Serial No :	64222BY0124
Battery :	PMNN4578A	Charger :	-
Accessory :	AN000508A01		
Test Mode :	Wifi 5.0 GHz 802.11n	Channel SP/Bandwidth (kHz) :	20000.0000
Test Frequency (MHz) :	5180.0000	Softpot Power :	14.00
Plane :	Y-Plane	Band :	-
Test Standard :	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024		

Antenna Polarization	Detector	Spur Freq (MHz)	Spur Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Vertical	Average	5150.0000	41.51	54.00	12.49
Horizontal	Average	5150.0000	41.07	54.00	12.93
Vertical	Peak	5150.0000	52.54 *	74.00	21.46
Horizontal	Peak	5150.0000	52.64 *	74.00	21.36

Temperature (°C) :	23.5	Humidity (%) :	68.9
Test Performed by :	Nazrin & Fuad	Test Date :	Wed, 25 Feb, 2026
System MU :	6.00 dB (30MHz-1000MHz); 5.14 dB (1000MHz-18000MHz); 5.36 dB (18000MHz-40000MHz)		

Remarks:

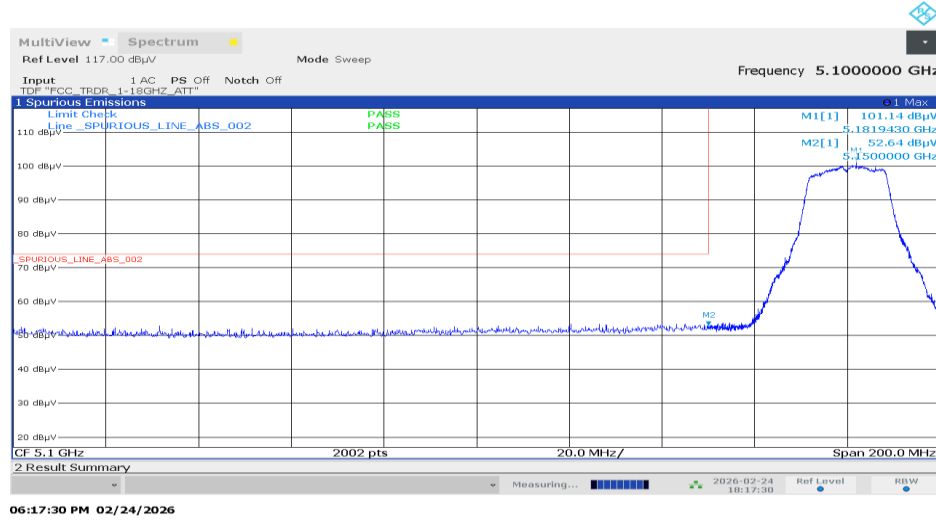
** Indicates the spurious emission could not be detected due to noise limitations or ambient.

*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.

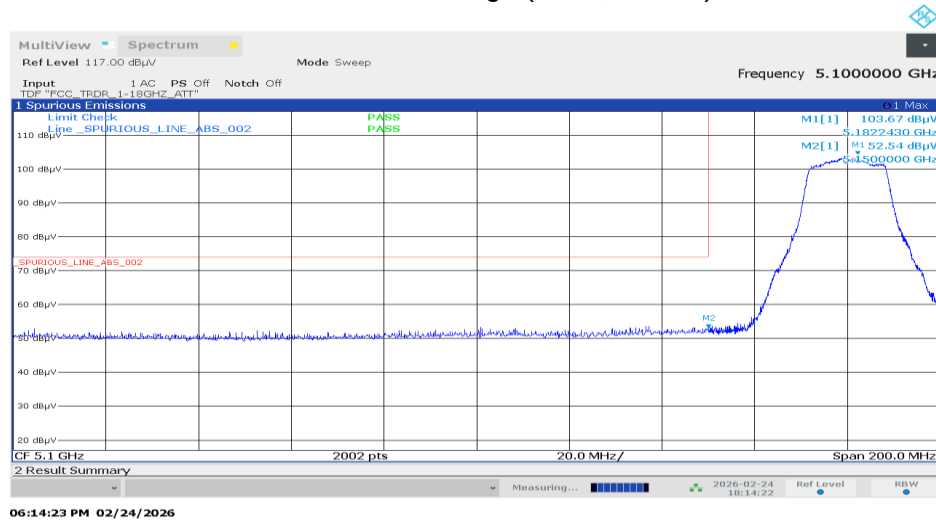
NOTE :

- 1) If the peak values is less than the QP limit, the QP result deemed to comply with QP limit.
- 2) If the peak values is less than the AV limit, the average result deemed to comply with AV limit.

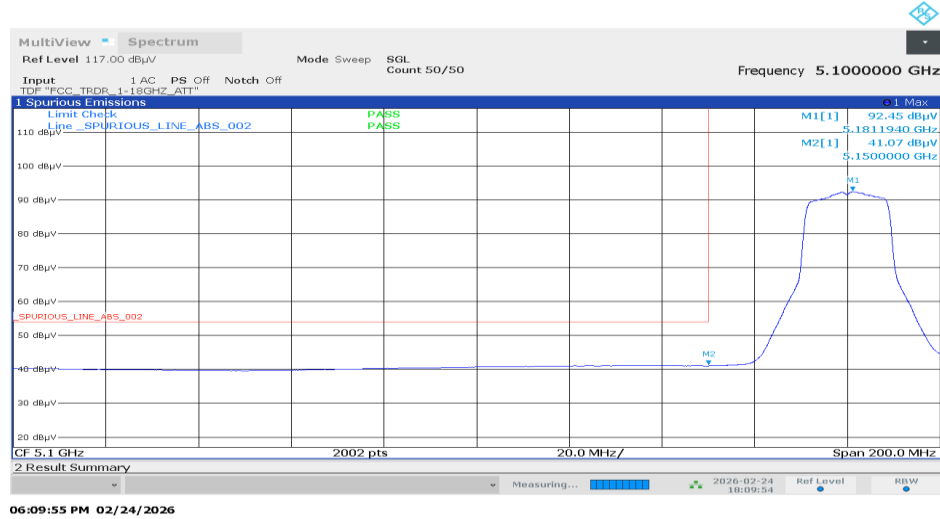
Restricted Band Edge (Peak,Horizontal)



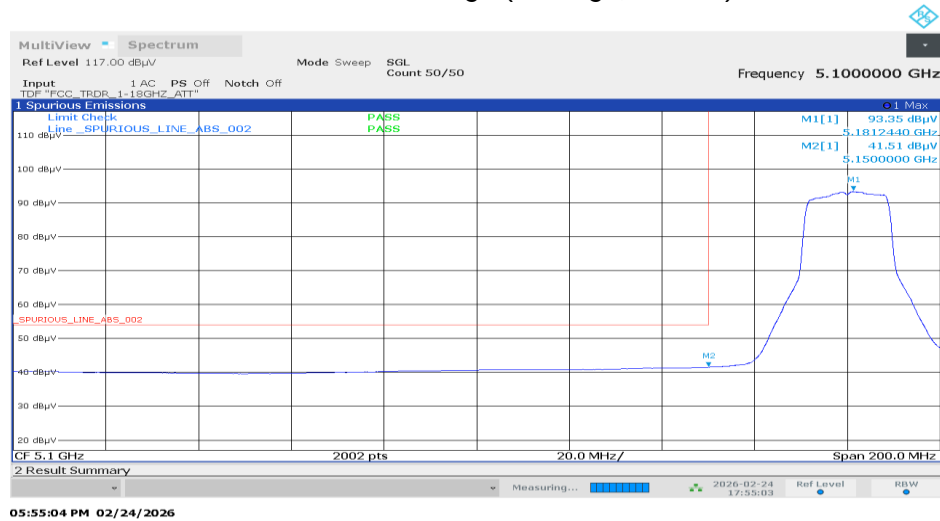
Restricted Band Edge (Peak,Vertical)



Restricted Band Edge (Average,Horizontal)



Restricted Band Edge (Average,Vertical)



Motorola Solutions
SAC TX Restricted Band-edge : 1490N00-EMC-00038

FCC ID :	AZ489FT7187	IC :	109U-89FT7187
Model No :	HK2300A	Serial No :	64222BY0124
Battery :	PMNN4578A	Charger :	-
Accessory :	AN000508A01		
Test Mode :	Wifi 5.0 GHz 802.11n	Channel SP/Bandwidth (kHz) :	20000.0000
Test Frequency (MHz) :	5320.0000	Softpot Power :	14.00
Plane :	Y-Plane	Band :	-
Test Standard :	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024		

Antenna Polarization	Detector	Spur Freq (MHz)	Spur Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Vertical	Average	5350.0000	42.77	54.00	11.23
Horizontal	Average	5350.0000	41.32	54.00	12.68
Vertical	Peak	5350.0000	52.68 *	74.00	21.32
Horizontal	Peak	5350.0000	52.34 *	74.00	21.66
Vertical	Average	5351.9730	42.78	54.00	11.22
Vertical	Average	5368.9560	42.10	54.00	11.90
Vertical	Average	5371.0540	42.05	54.00	11.95
Vertical	Average	5371.5530	42.06	54.00	11.94
Vertical	Average	5373.6020	42.02	54.00	11.98
Vertical	Average	5373.9510	42.02	54.00	11.98
Vertical	Average	5374.3510	42.03	54.00	11.97
Vertical	Average	5374.4510	42.03	54.00	11.97
Vertical	Average	5378.0470	42.01	54.00	11.99
Vertical	Average	5378.6960	42.02	54.00	11.98

Temperature (°C) :	23.5	Humidity (%) :	68.9
Test Performed by :	Nazrin & Fuad	Test Date :	Wed, 25 Feb, 2026
System MU :	6.00 dB (30MHz-1000MHz); 5.14 dB (1000MHz-18000MHz); 5.36 dB (18000MHz-40000MHz)		

Remarks:

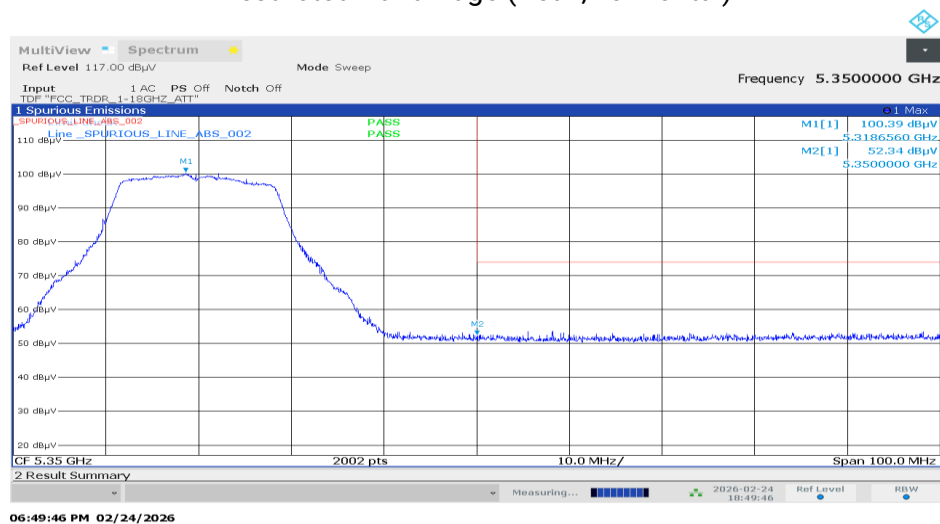
** Indicates the spurious emission could not be detected due to noise limitations or ambient.

*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.

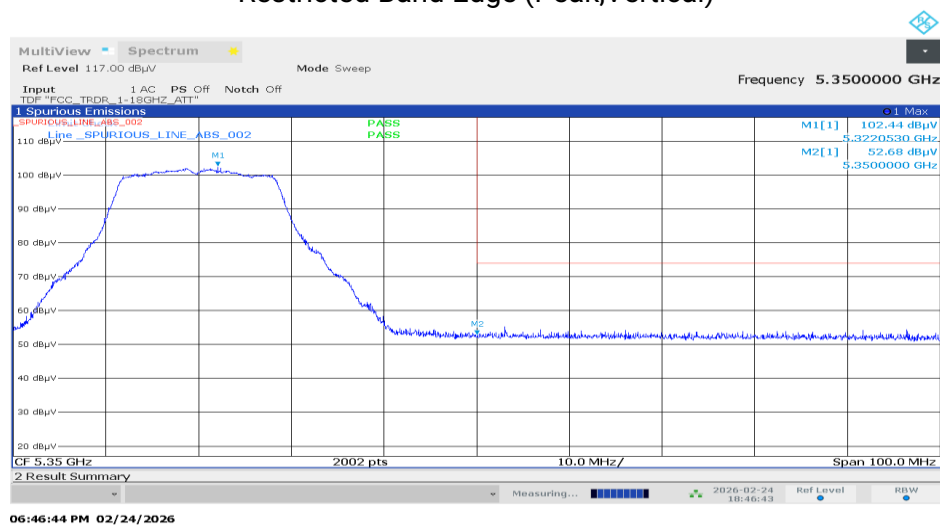
NOTE :

- 1) If the peak values is less than the QP limit, the QP result deemed to comply with QP limit.
- 2) If the peak values is less than the AV limit, the average result deemed to comply with AV limit.

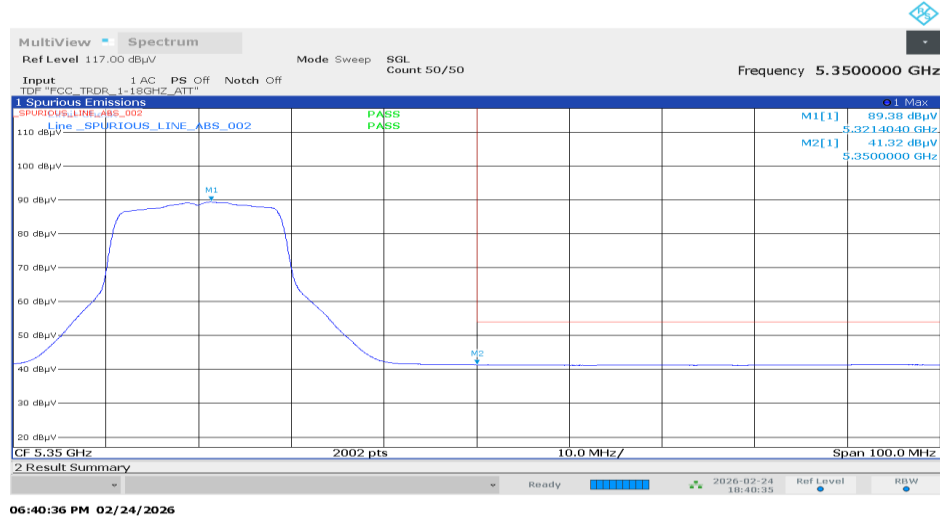
Restricted Band Edge (Peak,Horizontal)



Restricted Band Edge (Peak,Vertical)



Restricted Band Edge (Average,Horizontal)



Restricted Band Edge (Average,Vertical)



Motorola Solutions
SAC TX Restricted Band-edge : 1490N00-EMC-00038

FCC ID :	AZ489FT7187	IC :	109U-89FT7187
Model No :	HK2300A	Serial No :	64222BY0124
Battery :	PMNN4578A	Charger :	-
Accessory :	AN000508A01		
Test Mode :	Wifi 5.0 GHz 802.11n	Channel SP/Bandwidth (kHz) :	20000.0000
Test Frequency (MHz) :	5500.0000	Softpot Power :	14.00
Plane :	Y-Plane	Band :	-
Test Standard :	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024		

Antenna Polarization	Detector	Spur Freq (MHz)	Spur Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Vertical	Average	5470.0000	40.71	54.00	13.29
Horizontal	Average	5470.0000	40.24	54.00	13.76
Vertical	Peak	5470.0000	49.39	68.20	18.81
Horizontal	Peak	5470.0000	50.46	68.20	17.74

Temperature (°C) :	23.5	Humidity (%) :	68.9
Test Performed by :	Nazrin & Fuad	Test Date :	Wed, 25 Feb, 2026
System MU :	6.00 dB (30MHz-1000MHz); 5.14 dB (1000MHz-18000MHz); 5.36 dB (18000MHz-40000MHz)		

Remarks:

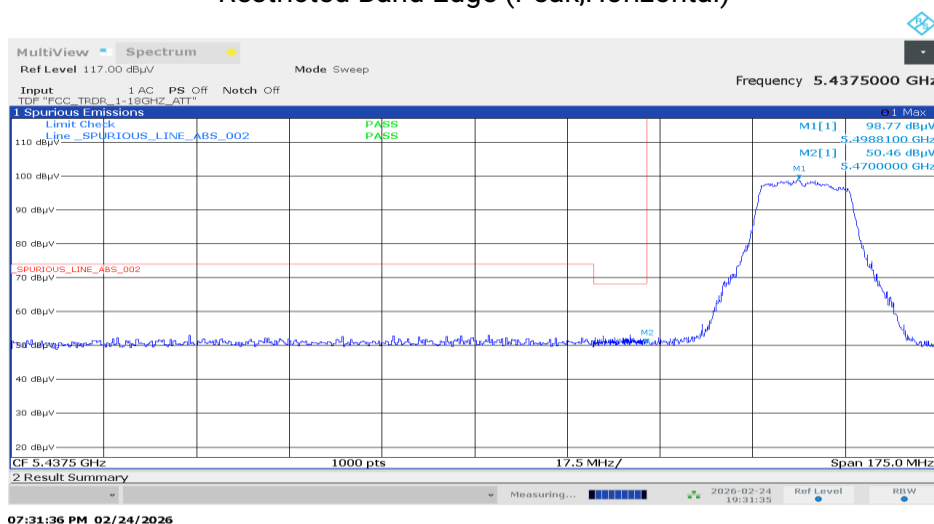
** Indicates the spurious emission could not be detected due to noise limitations or ambient.

*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.

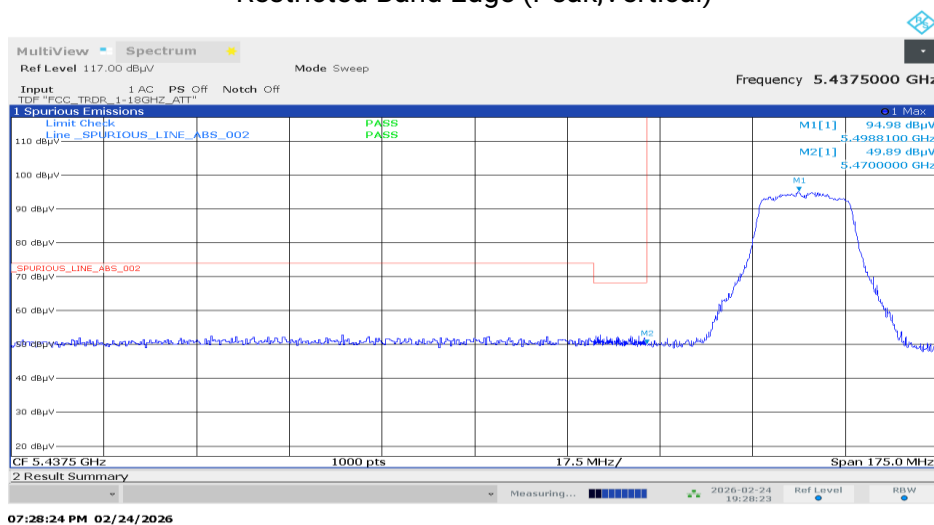
NOTE :

- 1) If the peak values is less than the QP limit, the QP result deemed to comply with QP limit.
- 2) If the peak values is less than the AV limit, the average result deemed to comply with AV limit.

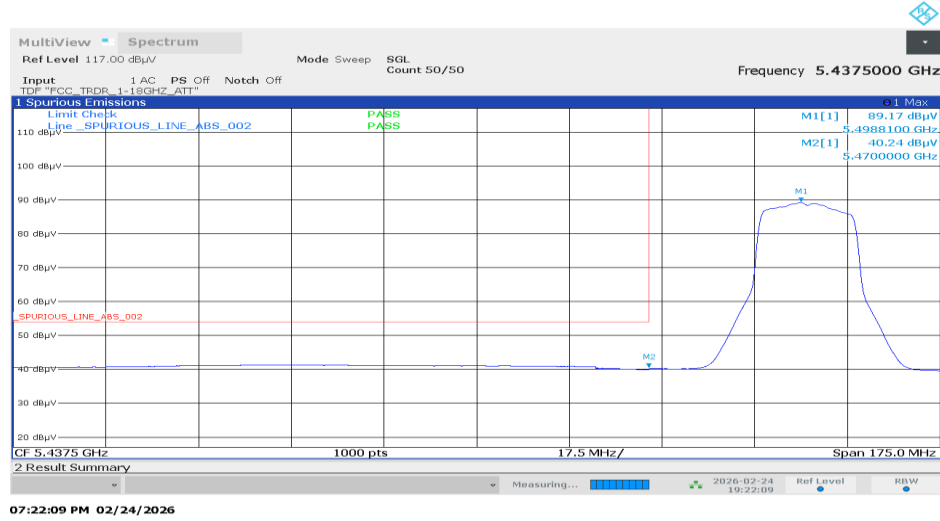
Restricted Band Edge (Peak,Horizontal)



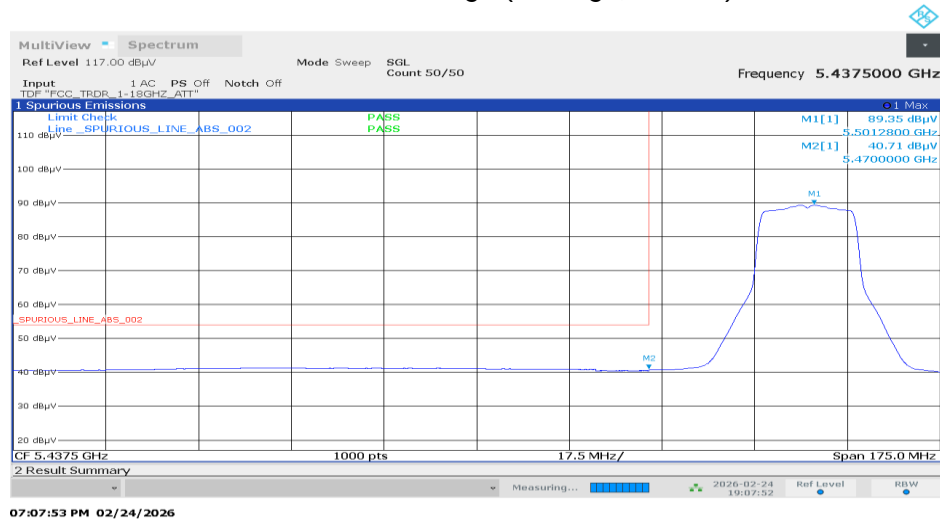
Restricted Band Edge (Peak,Vertical)



Restricted Band Edge (Average,Horizontal)



Restricted Band Edge (Average,Vertical)



Motorola Solutions
SAC TX Restricted Band-edge : 1490N00-EMC-00038

FCC ID :	AZ489FT7187	IC :	109U-89FT7187
Model No :	HK2300A	Serial No :	64222BY0124
Battery :	PMNN4578A	Charger :	-
Accessory :	AN000508A01		
Test Mode :	Wifi 5.0 GHz 802.11n	Channel SP/Bandwidth (kHz) :	20000.0000
Test Frequency (MHz) :	5700.0000	Softpot Power :	14.00
Plane :	Y-Plane	Band :	-
Test Standard :	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024		

Antenna Polarization	Detector	Spur Freq (MHz)	Spur Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Vertical	Peak	5725.0000	51.58	68.20	16.62
Horizontal	Peak	5725.0000	52.17	68.20	16.03

Temperature (°C) :	23.5	Humidity (%) :	68.9
Test Performed by :	Nazrin & Fuad	Test Date :	Wed, 25 Feb, 2026
System MU :	6.00 dB (30MHz-1000MHz); 5.14 dB (1000MHz-18000MHz); 5.36 dB (18000MHz-40000MHz)		

Remarks:

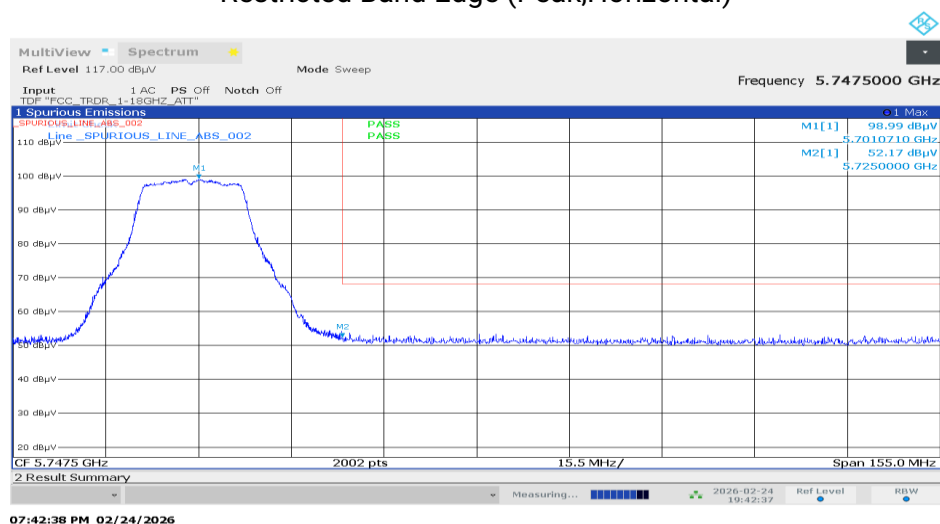
** Indicates the spurious emission could not be detected due to noise limitations or ambient.

*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.

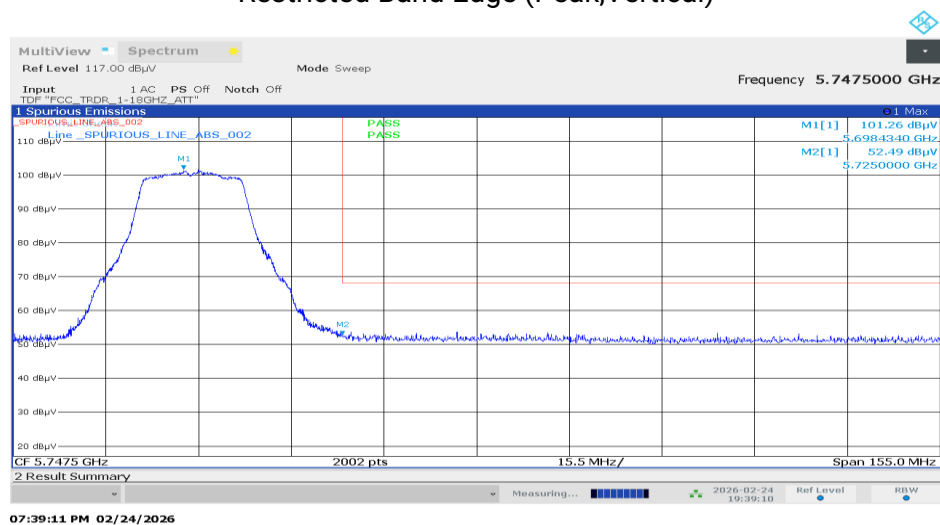
NOTE :

- 1) If the peak values is less than the QP limit, the QP result deemed to comply with QP limit.
- 2) If the peak values is less than the AV limit, the average result deemed to comply with AV limit.

Restricted Band Edge (Peak,Horizontal)



Restricted Band Edge (Peak,Vertical)



Motorola Solutions
 SAC TX Restricted Band-edge : 1490N00-EMC-00038

FCC ID :	AZ489FT7187	IC :	109U-89FT7187
Model No :	HK2300A	Serial No :	64222BY0124
Battery :	PMNN4578A	Charger :	-
Accessory :	AN000508A01		
Test Mode :	Wifi 5.0 GHz 802.11n	Channel SP/Bandwidth (kHz) :	20000.0000
Test Frequency (MHz) :	5720.0000	Softpot Power :	-
Plane :	Y-Plane	Band :	-
Test Standard :	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024		

Antenna Polarization	Detector	Spur Freq	Spur Level	Limit	Margin (dB)
Vertical	Peak	No Spurious Emission Detected			
Horizontal	Peak	No Spurious Emission Detected			

Temperature (°C) :	23.5	Humidity (%) :	68.9
Test Performed by :	Nazrin & Fuad	Test Date :	Wed, 25 Feb, 2026
System MU :	null		

Remarks:

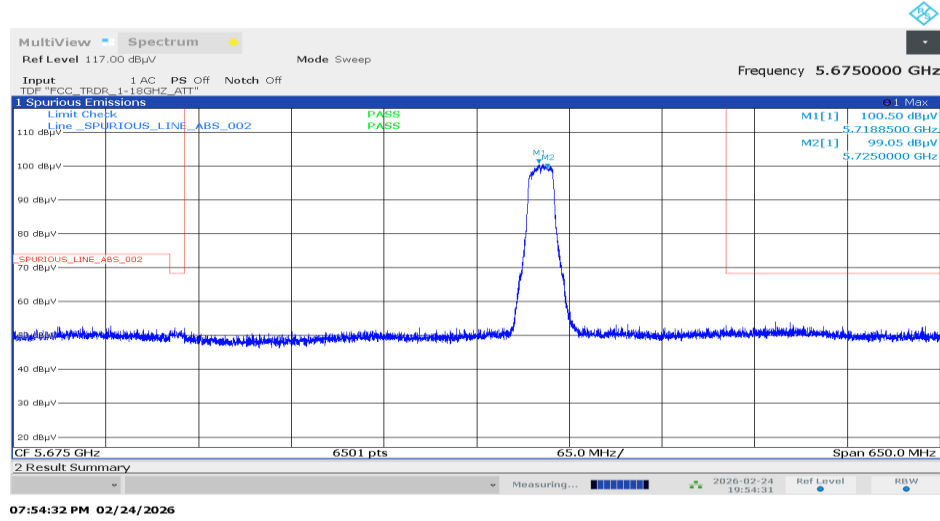
** Indicates the spurious emission could not be detected due to noise limitations or ambient.

*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.

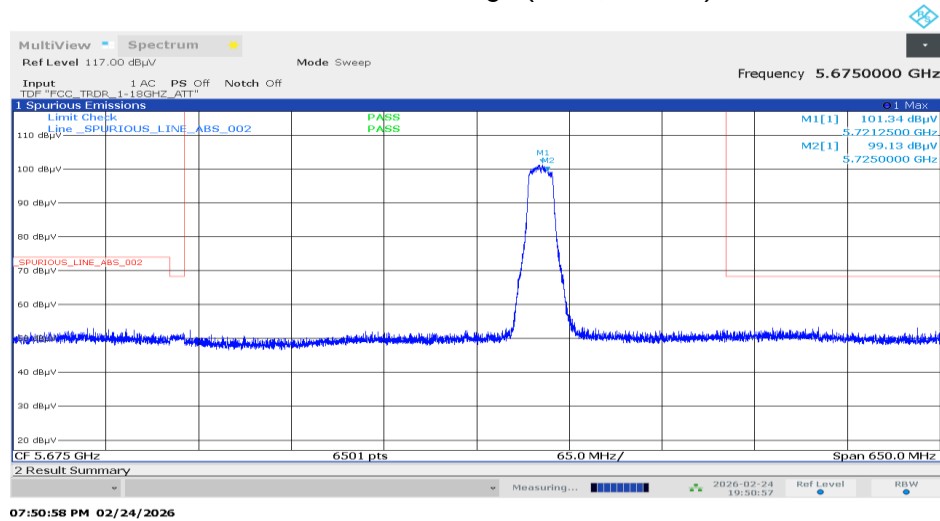
NOTE :

- 1) If the peak values is less than the QP limit, the QP result deemed to comply with QP limit.
- 2) If the peak values is less than the AV limit, the average result deemed to comply with AV limit.

Restricted Band Edge (Peak,Horizontal)



Restricted Band Edge (Peak,Vertical)



Motorola Solutions
SAC TX Restricted Band-edge : 1490N00-EMC-00038

FCC ID :	AZ489FT7187	IC :	109U-89FT7187
Model No :	HK2300A	Serial No :	64222BY0124
Battery :	PMNN4578A	Charger :	-
Accessory :	AN000508A01		
Test Mode :	Wifi 5.0 GHz 802.11n	Channel SP/Bandwidth (kHz) :	20000.0000
Test Frequency (MHz) :	5745.0000	Softpot Power :	14.00
Plane :	Y-Plane	Band :	-
Test Standard :	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024		

Antenna Polarization	Detector	Spur Freq (MHz)	Spur Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Vertical	Peak	5725.0000	52.70 *	122.20	69.50
Horizontal	Peak	5725.0000	54.36 *	122.20	67.84

Temperature (°C) :	23.5	Humidity (%) :	68.9
Test Performed by :	Nazrin & Fuad	Test Date :	Wed, 25 Feb, 2026
System MU :	6.00 dB (30MHz-1000MHz); 5.14 dB (1000MHz-18000MHz); 5.36 dB (18000MHz-40000MHz)		

Remarks:

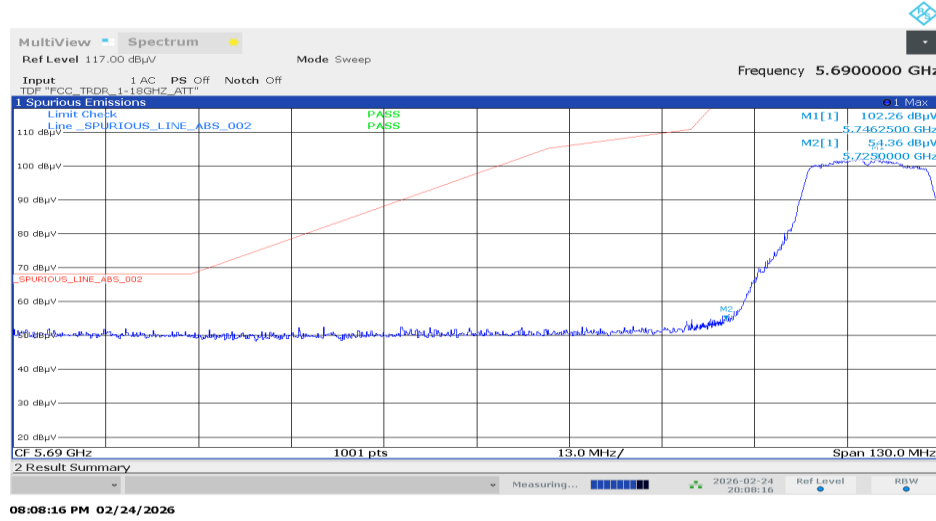
** Indicates the spurious emission could not be detected due to noise limitations or ambient.

*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.

NOTE :

- 1) If the peak values is less than the QP limit, the QP result deemed to comply with QP limit.
- 2) If the peak values is less than the AV limit, the average result deemed to comply with AV limit.

Restricted Band Edge (Peak,Horizontal)



Restricted Band Edge (Peak,Vertical)



Motorola Solutions
SAC TX Restricted Band-edge : 1490N00-EMC-00038

FCC ID :	AZ489FT7187	IC :	109U-89FT7187
Model No :	HK2300A	Serial No :	64222BY0124
Battery :	PMNN4578A	Charger :	-
Accessory :	AN000508A01		
Test Mode :	Wifi 5.0 GHz 802.11n	Channel SP/Bandwidth (kHz) :	20000.0000
Test Frequency (MHz) :	5825.0000	Softpot Power :	14.00
Plane :	Y-Plane	Band :	-
Test Standard :	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024		

Antenna Polarization	Detector	Spur Freq (MHz)	Spur Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Vertical	Peak	5850.0000	55.33 *	122.20	66.87
Horizontal	Peak	5850.0000	55.55 *	122.20	66.65

Temperature (°C) :	23.5	Humidity (%) :	68.9
Test Performed by :	Nazrin & Fuad	Test Date :	Wed, 25 Feb, 2026
System MU :	6.00 dB (30MHz-1000MHz); 5.14 dB (1000MHz-18000MHz); 5.36 dB (18000MHz-40000MHz)		

Remarks:

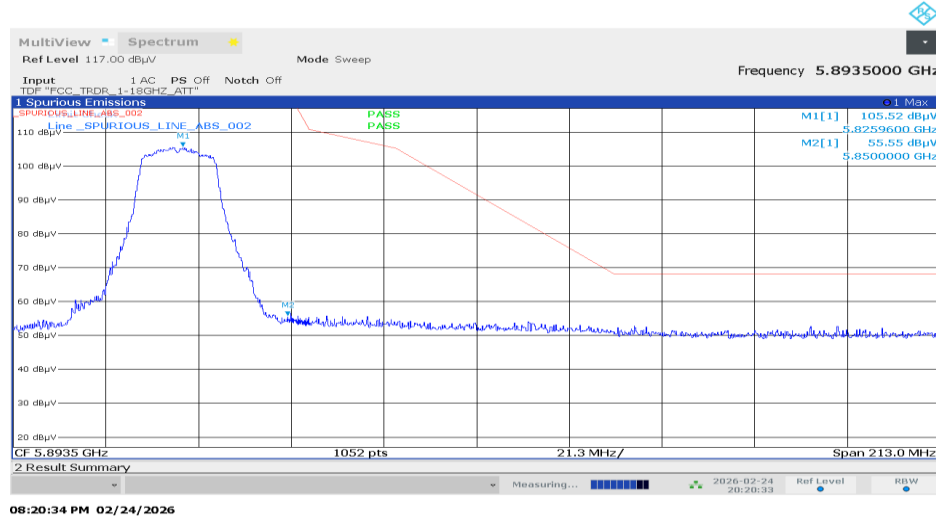
** Indicates the spurious emission could not be detected due to noise limitations or ambient.

*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.

NOTE :

- 1) If the peak values is less than the QP limit, the QP result deemed to comply with QP limit.
- 2) If the peak values is less than the AV limit, the average result deemed to comply with AV limit.

Restricted Band Edge (Peak,Horizontal)



Restricted Band Edge (Peak,Vertical)

