



FCC RADIO TEST REPORT

FCC ID : S9GR770
Equipment : R770 Access Point
Brand Name : RUCKUS
Model Name : R770
Applicant : Ruckus Wireless, Inc.
350 W. Java Dr., Sunnyvale CA 94089 USA
Manufacturer : Ruckus Wireless, Inc.
350 W. Java Dr., Sunnyvale CA 94089 USA
Standard : FCC Part 15 Subpart E §15.407

The product was received on Jul. 25, 2023 and testing was performed from Aug. 01, 2023 to Nov. 20, 2023. We, Sporton International (USA) Inc., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval from Sporton International (USA) Inc., the test report shall not be reproduced except in full.

Approved by: Abi Lin

Sporton International (USA) Inc.
1175 Montague Expressway, Milpitas, CA 95035



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History of this test report

Report No.	Version	Description	Issue Date
FR230524001E	01	Initial issue of report	Nov. 09, 2023
FR230524001E	02	Revise Appendix A2 This report is an updated version, replacing the report issued on Nov. 09, 2023.	Nov. 15, 2023
FR230524001E	03	1. Revise Appendix A2 2. Revise Antenna Directional Gain 3. Revise Carrier Frequency and Channel This report is an updated version, replacing the report issued on Nov. 15, 2023.	Nov. 30, 2023
FR230524001E	04	1. Revise Appendix A2 2. Revise Product Feature of Equipment Under Test This report is an updated version, replacing the report issued on Nov. 30, 2023.	Dec. 01, 2023

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.407(a)(10)	26dB Emission Bandwidth	Pass	-
3.1	2.1049	99% Occupied Bandwidth	Reporting only	-
3.2	15.407(a)(5)	Fundamental Maximum EIRP	Pass	-
3.3	15.407(a)(5)	Fundamental Power Spectral Density	Pass	-
3.4	15.407(b)	In-Band Emissions (Channel Mask)	Pass	-
3.5	15.407(d)(6)	Contention Based Protocol	Pass	
3.6	15.407(b)(5)	Unwanted Emissions	Pass	0.13 dB under the limit at 7250.68 MHz
3.7	15.207	AC Conducted Emission	Pass	0.19 dB under the limit at 0.47 MHz
3.8	15.203	Antenna Requirement	Pass	-

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty".

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
General Specs	Bluetooth-LE, Wi-Fi 2.4GHz 802.11b/g/n/ac/ax/be, Wi-Fi 5GHz 802.11a/n/ac/ax/be, Wi-Fi 6GHz 802.11a/n/ac/ax/be, GPS and ZigBee.
Antenna Type	WLAN: <Ant. A>: Omni-Directional Antenna <Ant. B>: Omni-Directional Antenna <Ant. C>: Omni-Directional Antenna <Ant. D>: Omni-Directional Antenna <Ant. E>: Omni-Directional Antenna <Ant. F>: Omni-Directional Antenna Bluetooth-LE/ZigBee: Omni-Directional Antenna GPS: Omni-Directional Antenna

Antenna information		
5925 MHz ~ 6425 MHz	Peak Gain (dBi)	<Ant. E>: 3.7 <Ant. F>: 3.0
6425 MHz ~ 6525 MHz	Peak Gain (dBi)	<Ant. E>: 3.0 <Ant. F>: 3.5
6525 MHz ~ 6875 MHz	Peak Gain (dBi)	<Ant. E>: 3.2 <Ant. F>: 4.1
6875 MHz ~ 7125 MHz	Peak Gain (dBi)	<Ant. E>: 3.0 <Ant. F>: 3.1

Remark:

1. The device is a special case of MIMO system with two outputs driving a cross-polarized pair of linearly polarized antennas which are vertically/horizontally mounted on the PCB board as indicated in equipment photo exhibits.
2. Horizontal and vertical antennas are cross-polarized antennas and the transmitting outputs are a 90-degree phase-shifted replica against the other and the phase centers of the two antennas' orientation are co-located.
3. Directional gain of EHT320 is determined by maximum gain of each occupied frequency band.
4. The EUT information mentioned or listed above is declared by the manufacturer.



1.2 Modification of EUT

No modifications made to the EUT during the testing.

1.3 Testing Location

Test Site	Sporton International (USA) Inc.
Test Site Location	1175 Montague Expressway, Milpitas, CA 95035 TEL : 408 9043300
Test Site No.	Sporton Site No.
	TH01-CA, CO01-CA, 03CH02-CA, DFS01-CA

Note: The test site complies with ANSI C63.4 2014 requirement.

FCC Designation No.: US1250

1.4 Applicable Standards

According to the specifications declared by the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ FCC Part 15 Subpart E
- ♦ FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- ♦ FCC KDB 987594 D02 U-NII 6 GHz EMC Measurement v02
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01.
- ♦ FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ♦ ANSI C63.10-2013

Remark: All the test items were validated and recorded in accordance with the standards without any modification during the testing.

2 Test Configuration of Equipment Under Test

- a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, , the measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in three orthogonal axis (X: flat, Y: portrait, Z: landscape), and adjusting the measurement antenna orientation, following C63.10 exploratory test procedures and only the worst case emissions were reported in this report.
- b. AC power line Conducted Emission was tested under maximum output power.

2.1 Carrier Frequency and Channel

BW 20M	Channel	1	5	9	13	17	21	25	29
	Freq. (MHz)	5955	5975	5995	6015	6035	6055	6075	6095
BW 40M	Channel	3		11		19		27	
	Freq. (MHz)	5965		6005		6045		6085	
BW 80M	Channel	7				23			
	Freq. (MHz)	5985				6065			
BW 160M	Channel	15							
	Freq. (MHz)	6025							
BW 320M	Channel	31							
	Freq. (MHz)	6105							

BW 20M	Channel	33	37	41	45	49	53	57	61
	Freq. (MHz)	6115	6135	6155	6175	6195	6215	6235	6255
BW 40M	Channel	35		43		51		59	
	Freq. (MHz)	6125		6165		6205		6245	
BW 80M	Channel	39				55			
	Freq. (MHz)	6145				6225			
BW 160M	Channel	47							
	Freq. (MHz)	6185							
BW 320M	Channel	63							
	Freq. (MHz)	6265							



BW 20M	Channel	65	69	73	77	81	85	89	93
	Freq. (MHz)	6275	6295	6315	6335	6355	6375	6395	6415
BW 40M	Channel	67		75		83		91	
	Freq. (MHz)	6285		6325		6365		6405	
BW 80M	Channel	71				87			
	Freq. (MHz)	6305				6385			
BW 160M	Channel	79							
	Freq. (MHz)	6345							
BW 320M	Channel	95							
	Freq. (MHz)	6425							

BW 20M	Channel	97	101	105	109	113	117	121	125
	Freq. (MHz)	6435	6455	6475	6495	6515	6535	6555	6575
BW 40M	Channel	99		107		115		123	
	Freq. (MHz)	6445		6485		6525		6565	
BW 80M	Channel	103				119			
	Freq. (MHz)	6465				6545			
BW 160M	Channel	111							
	Freq. (MHz)	6505							



BW 20M	Channel	129	133	137	141	145	149	153	157
	Freq. (MHz)	6595	6615	6635	6655	6675	6695	6715	6735
BW 40M	Channel	131		139		147		155	
	Freq. (MHz)	6605		6645		6685		6725	
BW 80M	Channel	135				151			
	Freq. (MHz)	6625				6705			
BW 160M	Channel	143							
	Freq. (MHz)	6665							
BW 320M	Channel	127							
	Freq. (MHz)	6585							

BW 20M	Channel	161	165	169	173	177	181	185	189
	Freq. (MHz)	6755	6775	6795	6815	6835	6855	6875	6895
BW 40M	Channel	163		171		179		187	
	Freq. (MHz)	6765		6805		6845		6885	
BW 80M	Channel	167				183			
	Freq. (MHz)	6785				6865			
BW 160M	Channel	175							
	Freq. (MHz)	6825							
BW 320M	Channel	159							
	Freq. (MHz)	6725							

BW 20M	Channel	193	197	201	205	209	213	217	221
	Freq. (MHz)	6915	6935	6955	6975	6995	7015	7035	7055
BW 40M	Channel	195		203		211		219	
	Freq. (MHz)	6925		6965		7005		7045	
BW 80M	Channel	199				215			
	Freq. (MHz)	6945				7025			
BW 160M	Channel	207							
	Freq. (MHz)	6985							
BW 320M	Channel	191							
	Freq. (MHz)	6905							

BW 20M	Channel	225	229
	Freq. (MHz)	7075	7095
BW 40M	Channel	227	
	Freq. (MHz)	7085	

2.2 Test Mode

The final test modes include the worst data rates for each modulation shown in the table below.

MIMO Mode

Specification	MCS index /Data Rate
802.11a	6 Mbps
802.11n HT20 (Covered by EHT20)	MCS0
802.11n HT40 (Covered by EHT40)	MCS0
802.11ac VHT20 (Covered by EHT20)	MCS0
802.11ac VHT40 (Covered by EHT40)	MCS0
802.11ac VHT80 (Covered by EHT80)	MCS0
802.11ac VHT160 (Covered by EHT160)	MCS0
802.11ax HE20 (Covered by EHT20)	MCS0
802.11ax HE40 (Covered by EHT40)	MCS0
802.11ax HE80 (Covered by EHT80)	MCS0
802.11ax HE160 (Covered by EHT160)	MCS0
802.11be EHT20	MCS0
802.11be EHT40	MCS0
802.11be EHT80	MCS0
802.11be EHT160	MCS0
802.11be EHT320	MCS0

Remark:

- 1 Based on the manufacturer's declaration, 802.11be covers the 802.11n, 11ac and 11ax due to the same modulation family scheme. For 802.11be, only full resource unit assignment mode is tested since the EUT does not support partial resource unit assignment mode.
- 2 Based on the manufacturer's declaration, RF power on each chain in MIMO mode is parameterized to be greater than the power in SISO mode, giving the condition that the SISO Mode is covered by MIMO Mode which is deemed the worst case selected for testing.
- 3 The EUT information mentioned or listed above is declared by the manufacturer.

Test Cases	
AC Conducted Emission	Mode 1: WLAN (2.4GHz) Link + WLAN (5GHz) Link + ZigBee Tx + Lan 1 + Lan 2 + PoE Adapter
	Mode 2: WLAN (2.4GHz) Link + WLAN (5GHz) Link + ZigBee Tx + Lan 1 + Lan 2 + AC Adapter
	Mode 3: Bluetooth-LE TX + Lan 1 + Lan 2 + PoE Adapter
	Mode 4 : WLAN (6GHz) TX + Lan 1 + Lan 2 + PoE Adapter
Remark: The worst case of Conducted Emission is mode 4 only the test data of it was reported.	

Ch. #		UNII-5 (5925-6425 MHz)	UNII-6 (6425-6525 MHz)	UNII-7 (6525-6875 MHz)	UNII-8 (6875-7125 MHz)
		802.11a	802.11a	802.11a	802.11a
L	Low	001	097	117	189
M	Middle	049	105	149	209
H	High	093	113	181	233
Straddle		-	-	185	-

Ch. #		UNII-5 (5925-6425 MHz)	UNII-6 (6425-6525 MHz)	UNII-7 (6525-6875 MHz)	UNII-8 (6875-7125 MHz)
		802.11be EHT20	802.11be EHT20	802.11be EHT20	802.11be EHT20
L	Low	001	-	-	-
M	Middle	-	-	-	-
H	High	-	-	-	229
Straddle		-	-	-	-

Ch. #		UNII-5 (5925-6425 MHz)	UNII-6 (6425-6525 MHz)	UNII-7 (6525-6875 MHz)	UNII-8 (6875-7125 MHz)
		802.11be EHT40	802.11be EHT40	802.11be EHT40	802.11be EHT40
L	Low	003	-	-	-
M	Middle	-	-	-	-
H	High	-	-	-	227
Straddle		-	-	-	-

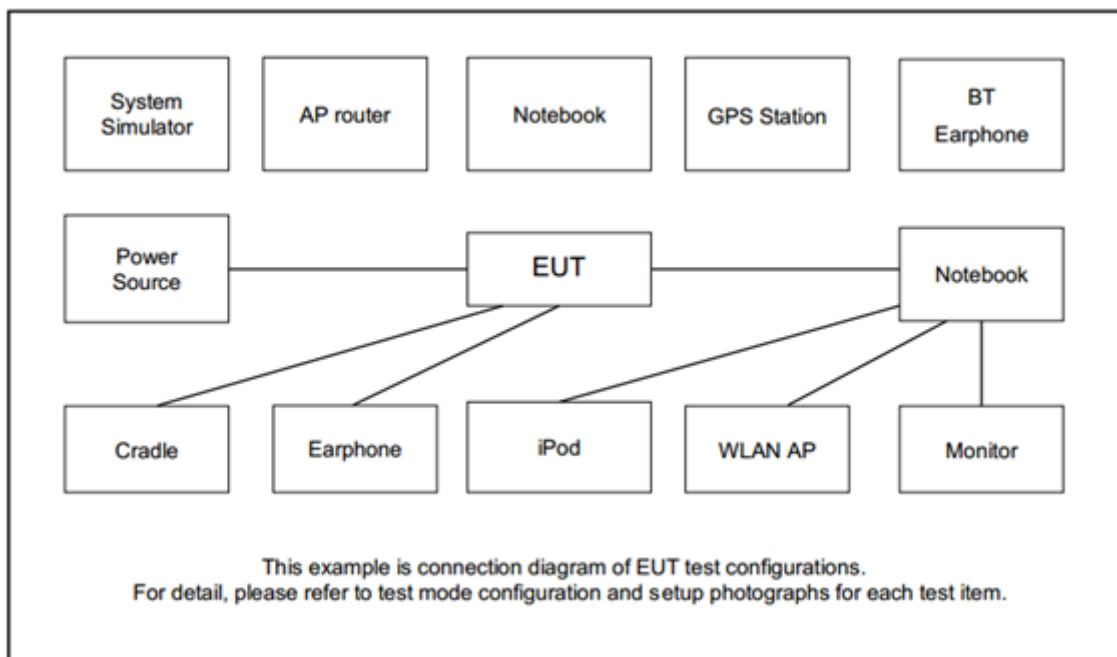
Ch. #		UNII-5 (5925-6425 MHz)	UNII-6 (6425-6525 MHz)	UNII-7 (6525-6875 MHz)	UNII-8 (6875-7125 MHz)
		802.11be EHT80	802.11be EHT80	802.11be EHT80	802.11be EHT80
L	Low	007	-	-	-
M	Middle	-		-	-
H	High	-		-	215
Straddle		-	-	-	-

Ch. #		UNII-5 (5925-6425 MHz)	UNII-6 (6425-6525 MHz)	UNII-7 (6525-6875 MHz)	UNII-8 (6875-7125 MHz)
		802.11be EHT160	802.11be EHT160	802.11be EHT160	802.11be EHT160
L	Low	015	-	143	207
M	Middle	047			
H	High	079			
Straddle		-	111	175	-

Ch. #		UNII-5 (5925-6425 MHz)	UNII-6 (6425-6525 MHz)	UNII-7 (6525-6875 MHz)	UNII-8 (6875-7125 MHz)
		802.11be EHT320	802.11be EHT320	802.11be EHT320	802.11be EHT320
L	Low	031	-	-	-
M	Middle				
H	High				
Straddle		063	095	127, 159	191

Remark: Based on ANSI C63.10 clause 5.6.2.2, b) Spurious emissions, measure the mode with the highest output power and the mode with highest output power spectral density for each modulation family. Hence EHT20, EHT40, EHT80 are covered by EHT160 for spurious emission measurement.

2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	PoE Adapter	Ruckus	740-64214-001	NA	NA	Unshielded, 1.8m
2.	Laptop	MSI	MS-17F3	NA	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
3.	Laptop	Lenovo	TP00116F	NA	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
4.	Laptop	Dell	Latitude E7470	NA	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
5.	Adapter	Ruckus	740-64277-001	NA	NA	Unshielded, 1.0m

2.5 EUT Operation Test Setup

The RF test items, utility “PuTTY Release 0.77 & QSPR V5.0-00202” was installed in EUT which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

2.6 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example :

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 4.2 dB and 10dB attenuator.

$$\begin{aligned}\text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)} \\ &= 4.2 + 10 = 14.2 \text{ (dB)}\end{aligned}$$

3 Test Result

3.1 26dB & 99% Occupied Bandwidth Measurement

3.1.1 Limit of 26dB & 99% Occupied Bandwidth

<FCC 14-30 CFR 15.407>

(a)(10) The maximum transmitter channel bandwidth for U-NII devices in the 5.925-7.125 GHz band is 320 megahertz.

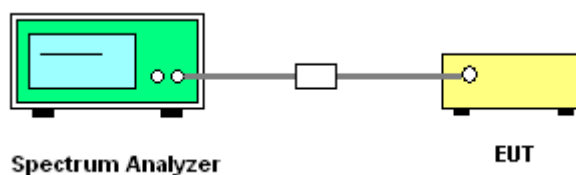
3.1.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section C) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 26 dB down from the peak 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%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the emission bandwidth and set the Video bandwidth (VBW) $\geq 3 * RBW$.
8. Measure and record the results in the test report.

3.1.4 Test Setup



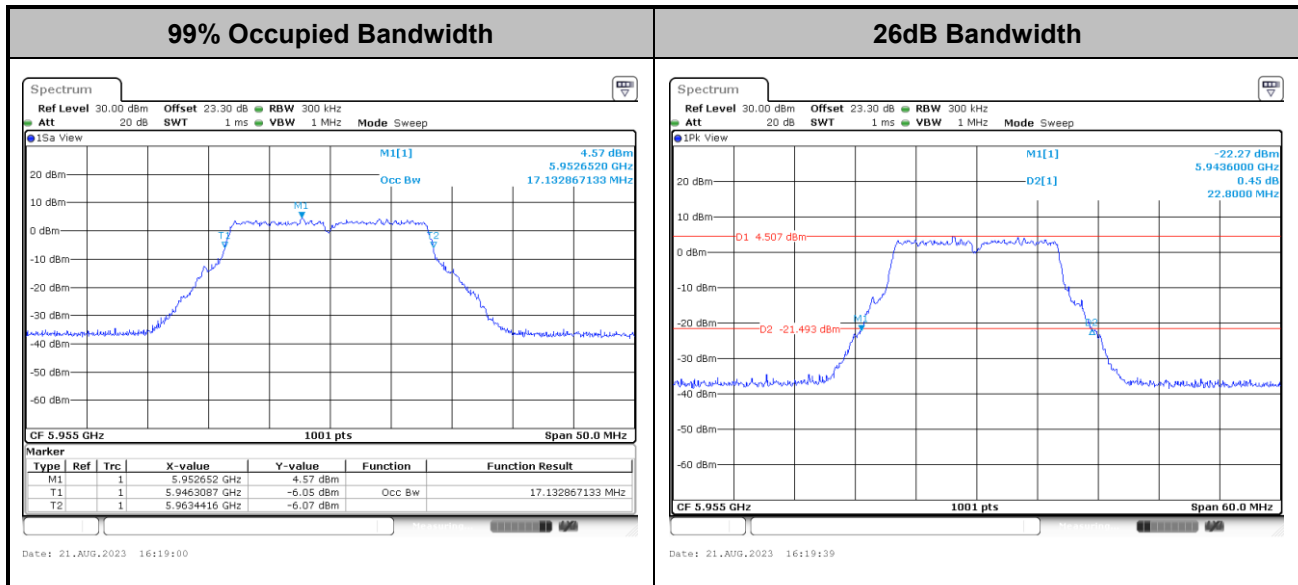
3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

Please refer to Appendix A.



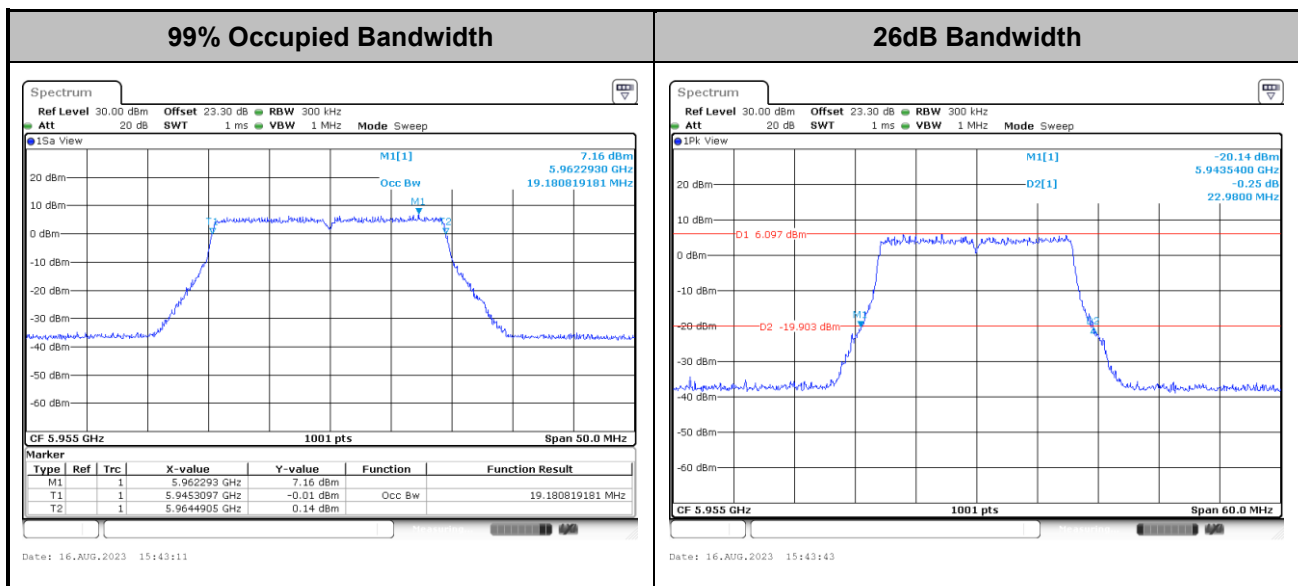
MIMO <Ant. E+F>

<802.11a>



Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

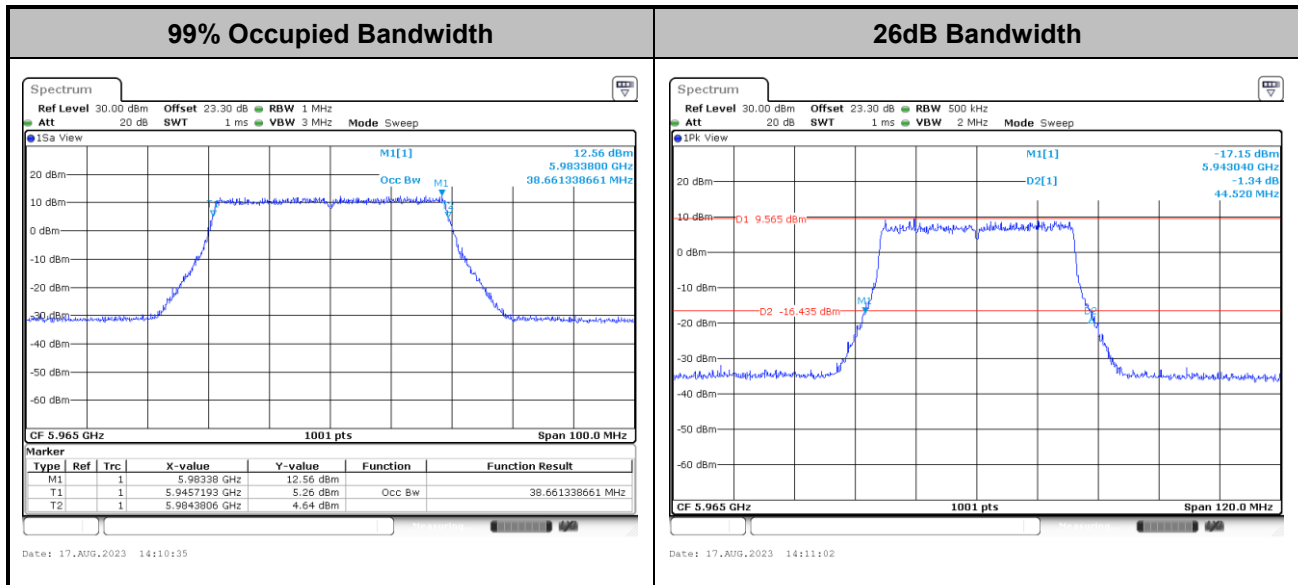
<802.11be EHT20>



Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

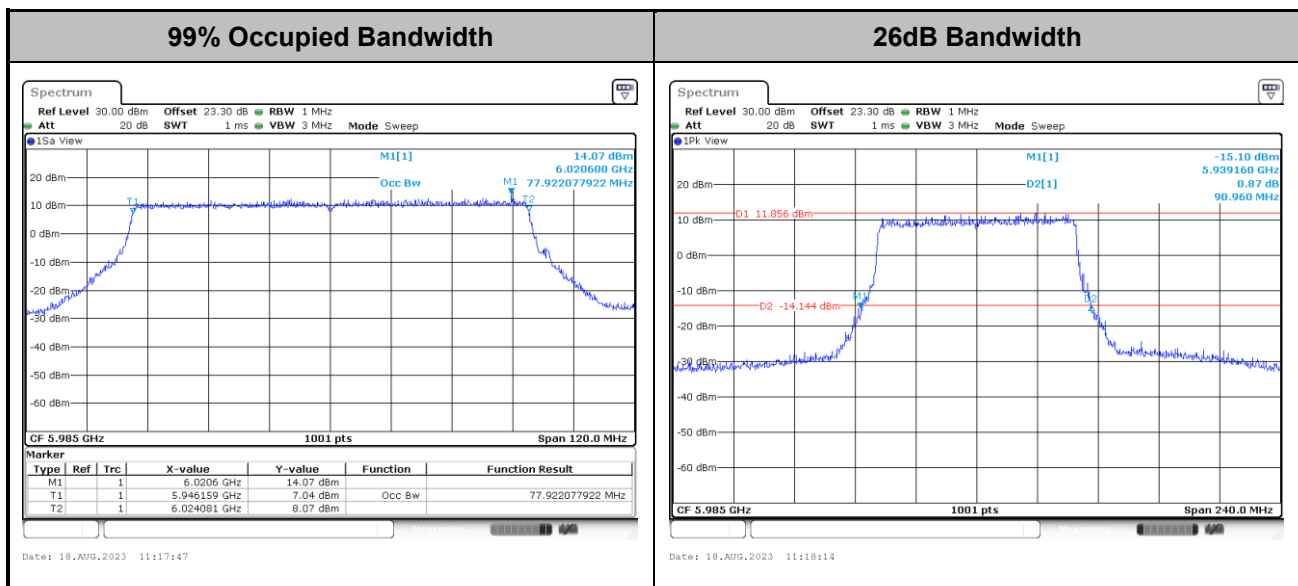


<802.11be EHT 40>

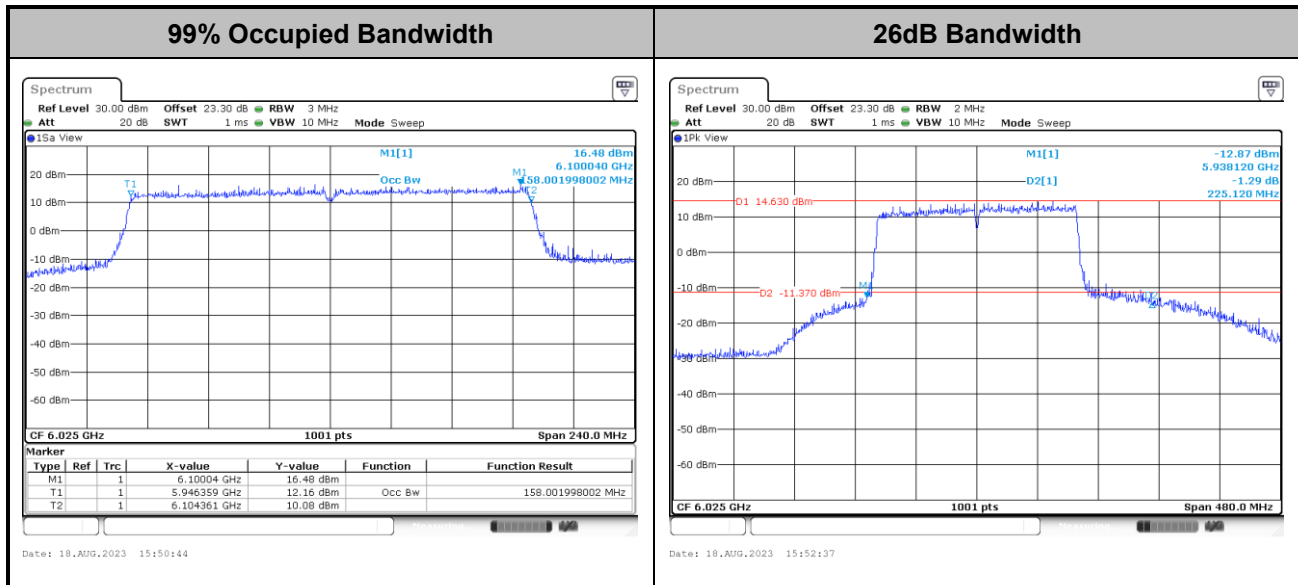


Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

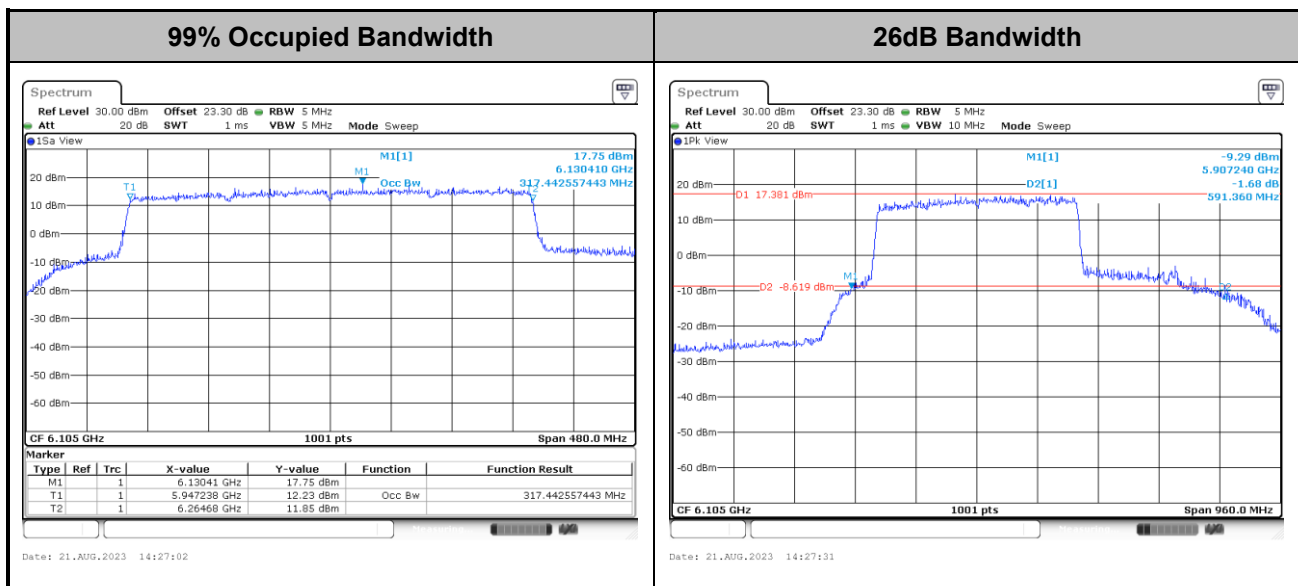
<802.11be EHT 80>



Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

**<802.11be EHT 160>**

Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<802.11be EHT 320>

3.2 Fundamental Maximum EIRP Measurement

3.2.1 Limit of Fundamental Maximum EIRP

<FCC 14-30 CFR 15.407>

(a)(5) For an indoor access point operating in the 5.925–7.125 GHz band, the maximum power spectral density must not exceed 5 dBm e.i.r.p. in any 1-megahertz band. In addition, the maximum e.i.r.p. over the frequency band of operation must not exceed 30 dBm.

3.2.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

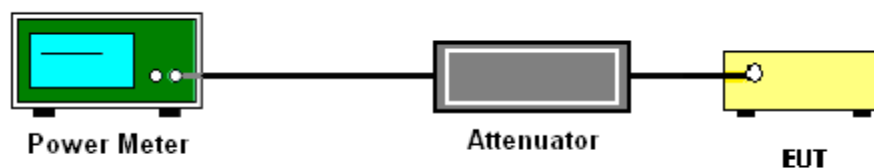
3.2.3 Test Procedures

The testing follows Method PM-G of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Method PM-G (Measurement using a gated RF average power meter):

1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit at its maximum power control level.
3. Measure the average power of the transmitter.
4. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.
5. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

3.2.4 Test Setup



3.2.5 Test Result of Fundamental Maximum EIRP

Please refer to Appendix A.

3.3 Fundamental Power Spectral Density Measurement

3.3.1 Limit of Fundamental Power Spectral Density

<FCC 14-30 CFR 15.407>

(a)(5) For an indoor access point operating in the 5.925-7.125 GHz band, the maximum power spectral density must not exceed 5 dBm e.i.r.p. in any 1-megahertz band. In addition, the maximum e.i.r.p. over the frequency band of operation must not exceed 30 dBm.

3.3.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Section F) Maximum power spectral density.

Method SA-2

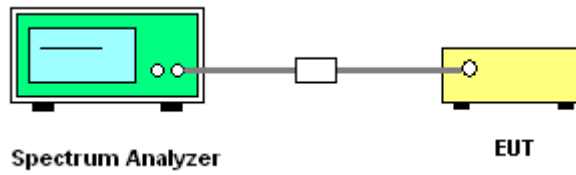
(trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

- Measure the duty cycle.
 - Set span to encompass the entire emission bandwidth (EBW) of the signal.
 - Set RBW = 1 MHz.
 - Set VBW \geq 3 MHz.
 - Number of points in sweep \geq 2 Span / RBW.
 - Sweep time = auto.
 - Detector = RMS
 - Trace average at least 100 traces in power averaging mode.
 - Add $10 \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add $10 \log(1/0.25) = 6$ dB if the duty cycle is 25 percent.
1. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
 2. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.
 3. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

Method (a): Measure and sum the spectra across the outputs.

The total final Power Spectral Density is from a device with 2 transmitter outputs. The spectrum measurements of the individual outputs are all performed with the same span and number of points; the spectrum value in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 to obtain the value for the first frequency bin of the summed spectrum.

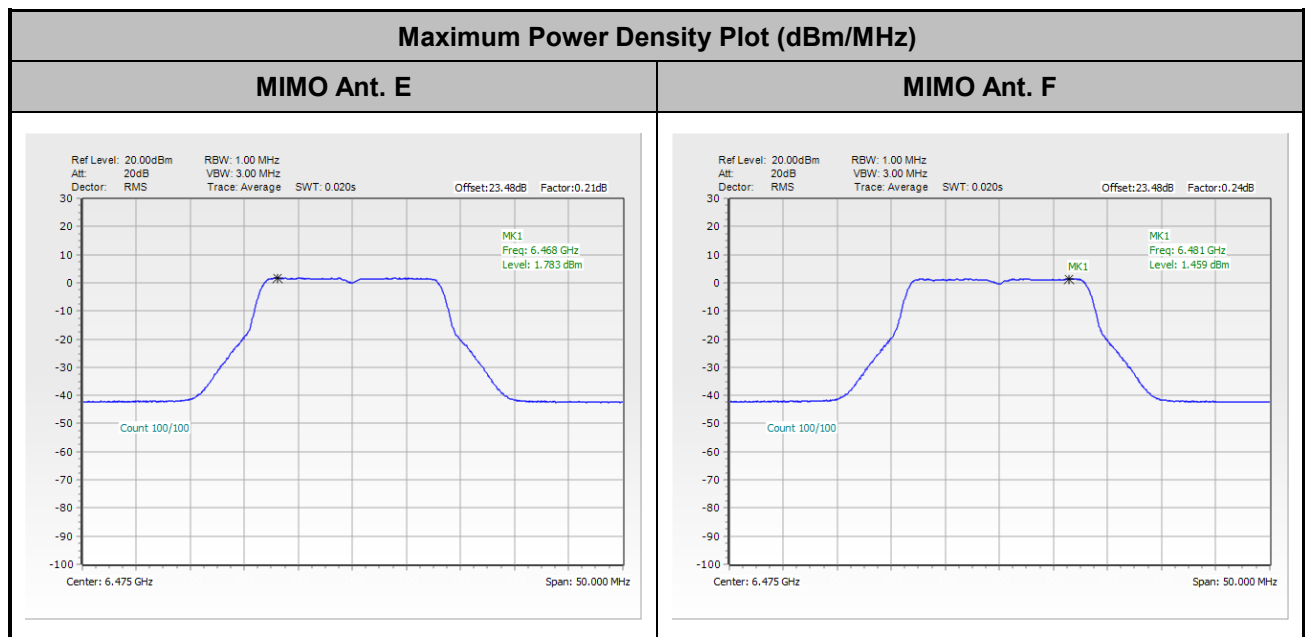
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

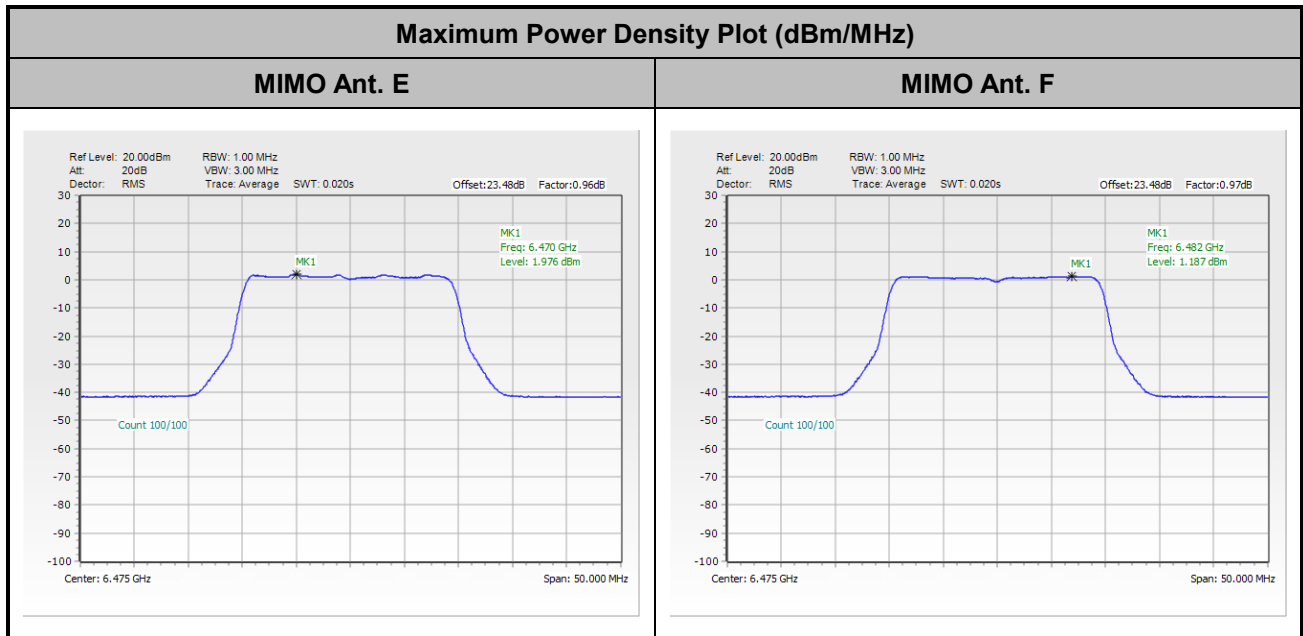
Please refer to Appendix A.

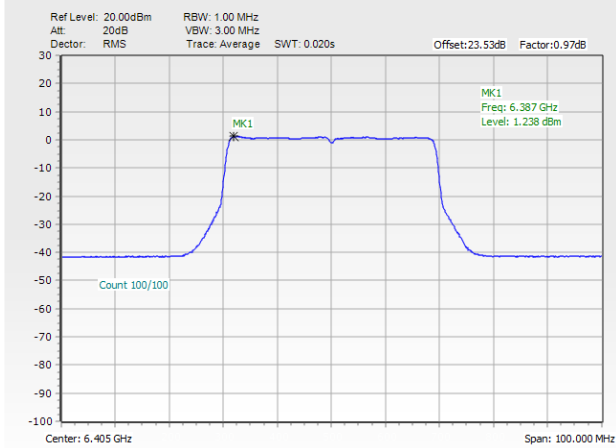
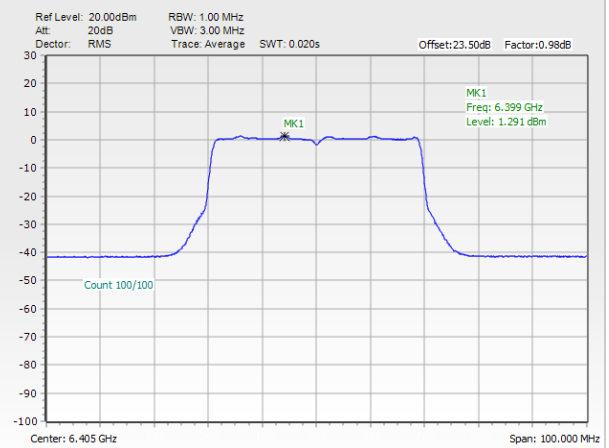
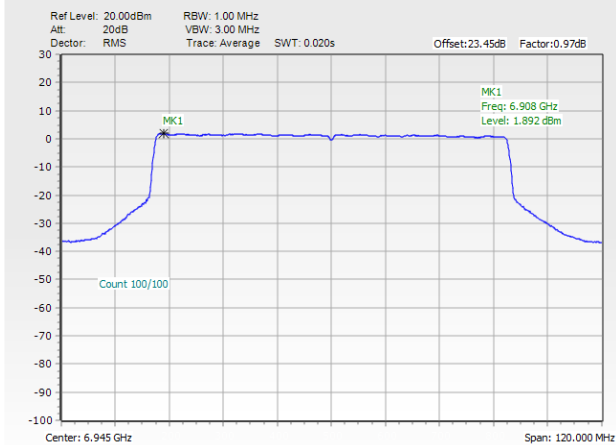
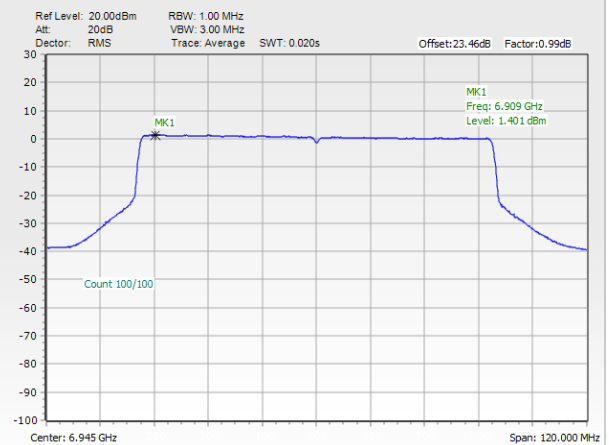
<802.11a 6475MHz>

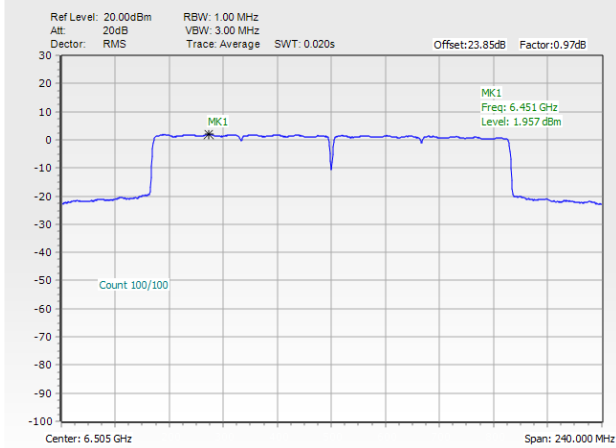
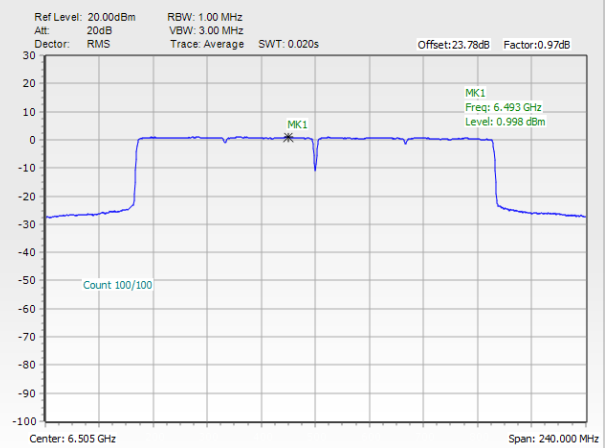
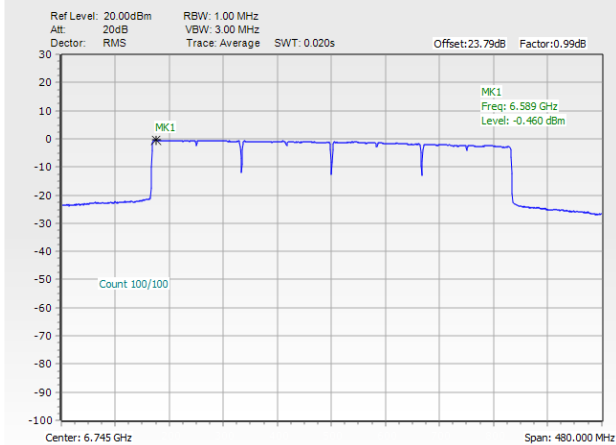
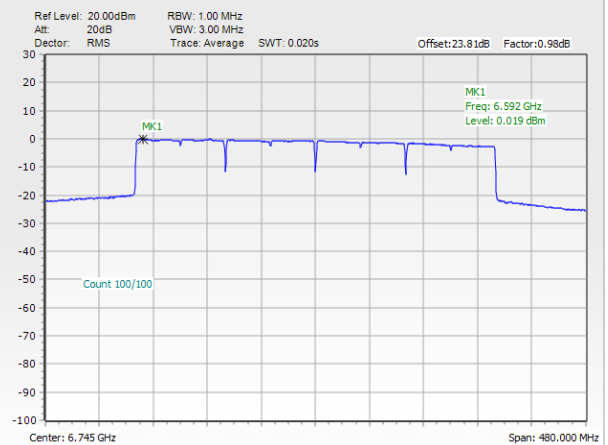




<802.11be EHT 20 6475MHz>



**<802.11be EHT 40 6405MHz>****Maximum Power Density Plot (dBm/MHz)****MIMO Ant. E****MIMO Ant. F****<802.11be EHT 80 6945MHz>****Maximum Power Density Plot (dBm/MHz)****MIMO Ant. E****MIMO Ant. F**

**<802.11be EHT 160 6505MHz>****Maximum Power Density Plot (dBm/MHz)****MIMO Ant. E****MIMO Ant. F****<802.11be EHT320 6745MHz>****Maximum Power Density Plot (dBm/MHz)****MIMO Ant. E****MIMO Ant. F**

3.4 In-Band Emissions (Channel Mask)

3.4.1 Limit of Unwanted Emissions

<FCC 14-30 CFR 15.407>

(a)(6) For transmitters operating within the 5.925-7.125 GHz bands: Power spectral density must be suppressed by 20 dB at 1 MHz outside of channel edge, by 28 dB at one channel bandwidth from the channel center, and by 40 dB at one- and one-half times the channel bandwidth away from channel center. At frequencies between one megahertz outside an unlicensed device's channel edge and one channel bandwidth from the center of the channel, the limits must be linearly interpolated between 20 dB and 28 dB suppression, and at frequencies between one and one- and one-half times an unlicensed device's channel bandwidth, the limits must be linearly interpolated between 28 dB and 40 dB suppression. Emissions removed from the channel center by more than one- and one-half times the channel bandwidth must be suppressed by at least 40 dB.

3.4.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.4.3 Test Procedures

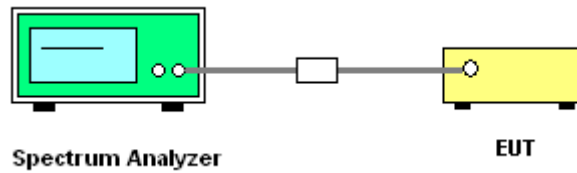
The testing follows FCC KDB 987594 D02 U-NII 6GHz EMC Measurement v01.

Section J) In-Band Emissions.

1. Measure the power spectral density (which will be used for emissions mask reference) using the following procedure:
 - a) Set the span to encompass the entire 26 dB EBW of the signal.
 - b) Set RBW = same RBW used for 26 dB EBW measurement.
 - c) Set VBW $\geq 3 \times$ RBW
 - d) Number of points in sweep $\geq [2 \times \text{span} / \text{RBW}]$.
 - e) Sweep time = auto.
 - f) Detector = RMS (i.e., power averaging)
 - g) Trace average at least 100 traces in power averaging (rms) mode.
 - h) Use the peak search function on the instrument to find the peak of the spectrum.
2. Using the measuring equipment limit line function, develop the emissions mask based on the following requirements. The emissions power spectral density must be reduced below the peak power spectral density (in dB) as follows:
 - a. Suppressed by 20 dB at 1 MHz outside of the channel edge.
 - b. Suppressed by 28 dB at one channel bandwidth from the channel center.
 - c. Suppressed by 40 dB at one- and one-half times the channel bandwidth from the channel center.
3. Adjust the span to encompass the entire mask as necessary.
4. Clear trace.

5. Trace average at least 100 traces in power averaging (rms) mode.
6. Adjust the reference level as necessary so that the crest of the channel touches the top of the emission mask.

3.4.4 Test Setup



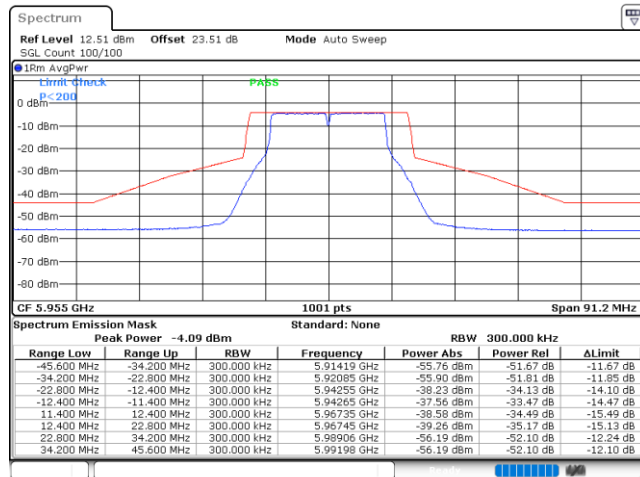


3.4.5 Test Result

MIMO <Ant. E+F(E)>

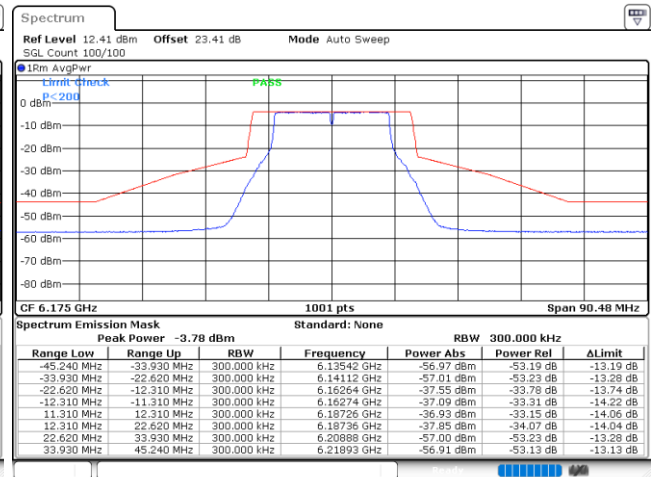
EUT Mode : 802.11a

Plot on Channel 5955MHz



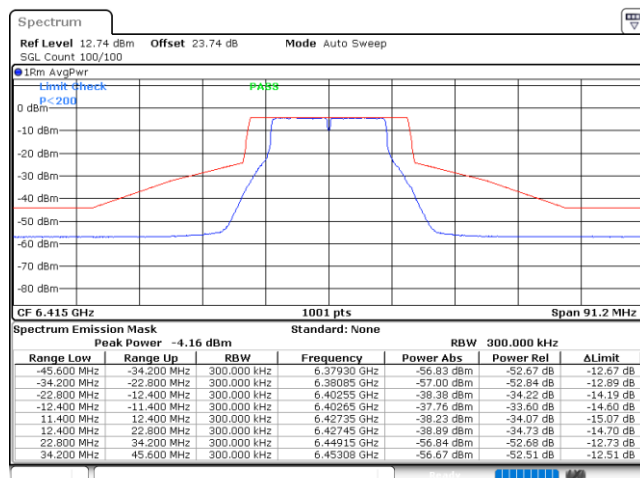
Date: 21.AUG.2023 16:20:17

Plot on Channel 6195MHz



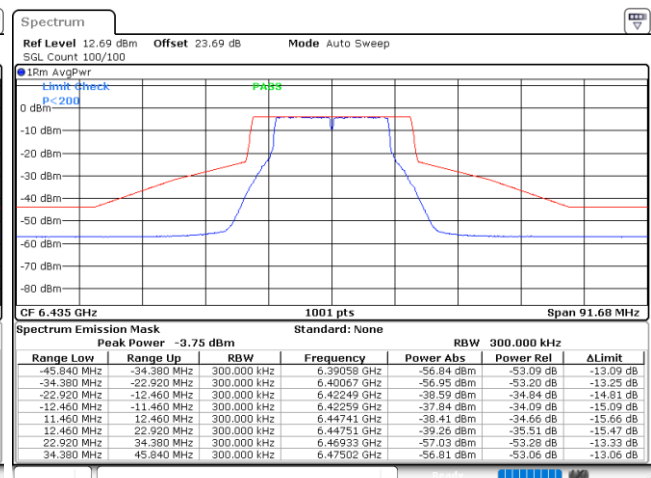
Date: 21.AUG.2023 16:31:37

Plot on Channel 6415MHz



Date: 21.AUG.2023 16:48:44

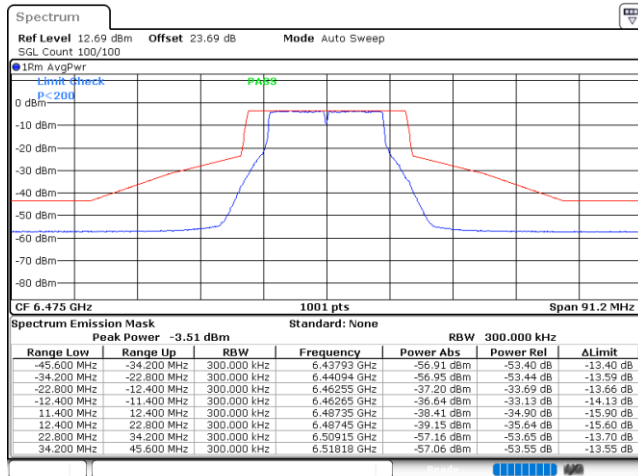
Plot on Channel 6435MHz



Date: 21.AUG.2023 17:15:07

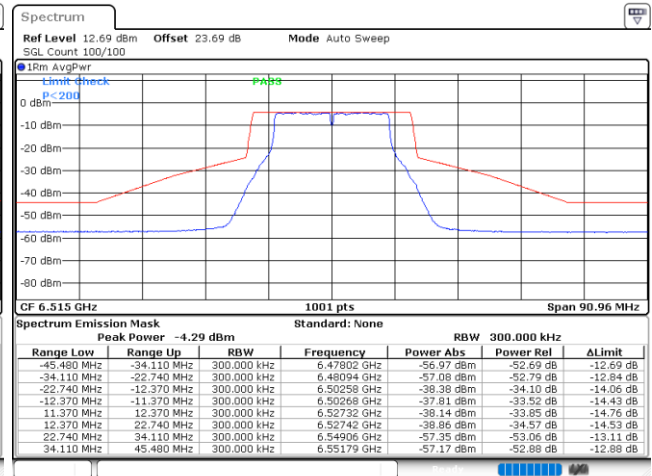


Plot on Channel 6475MHz



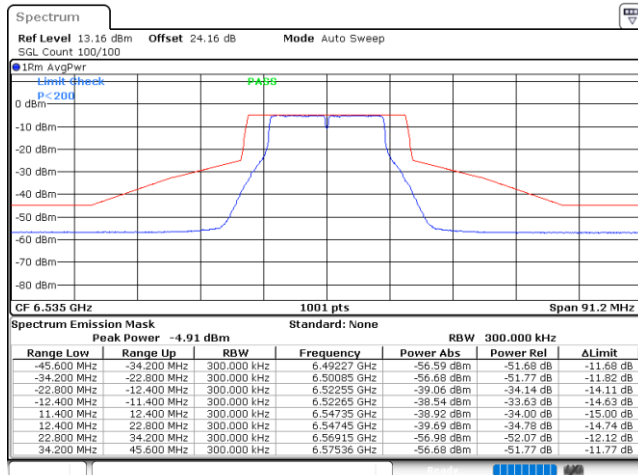
Date: 22.AUG.2023 16:23:59

Plot on Channel 6515MHz



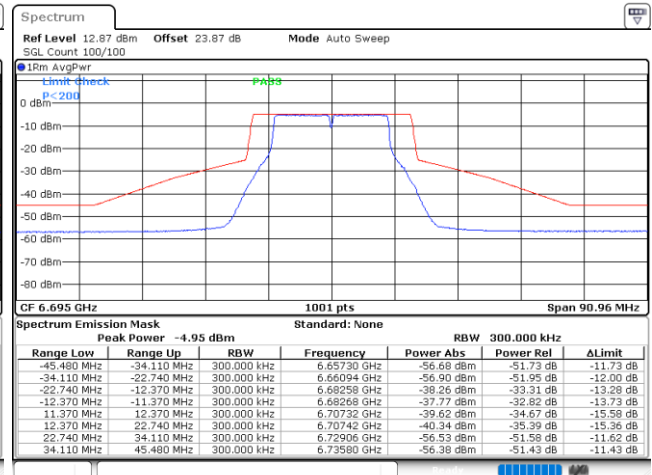
Date: 22.AUG.2023 16:37:59

Plot on Channel 6535MHz



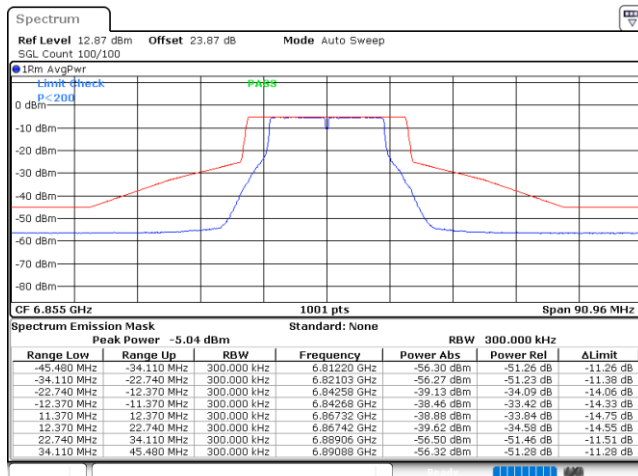
Date: 23.AUG.2023 09:49:59

Plot on Channel 6695MHz



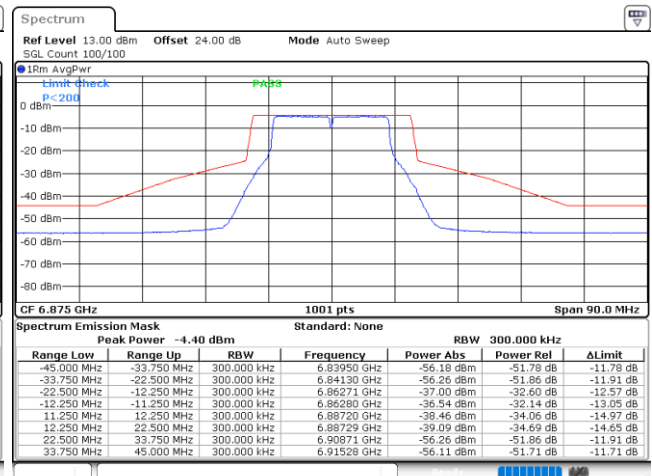
Date: 23.AUG.2023 09:21:33

Plot on Channel 6855MHz



Date: 23.AUG.2023 09:30:44

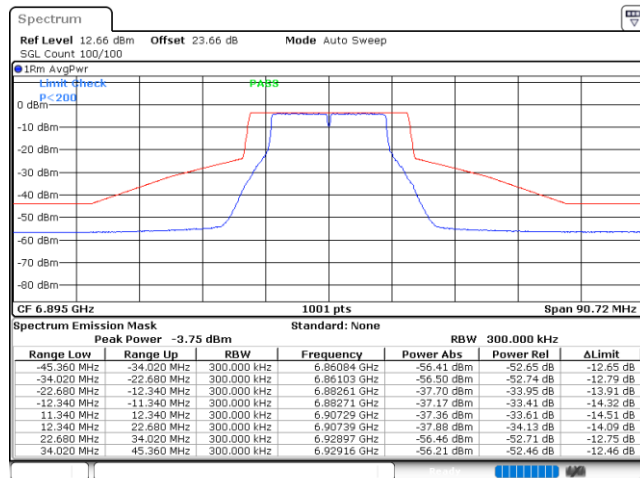
Plot on Channel 6875MHz



Date: 23.AUG.2023 09:41:35

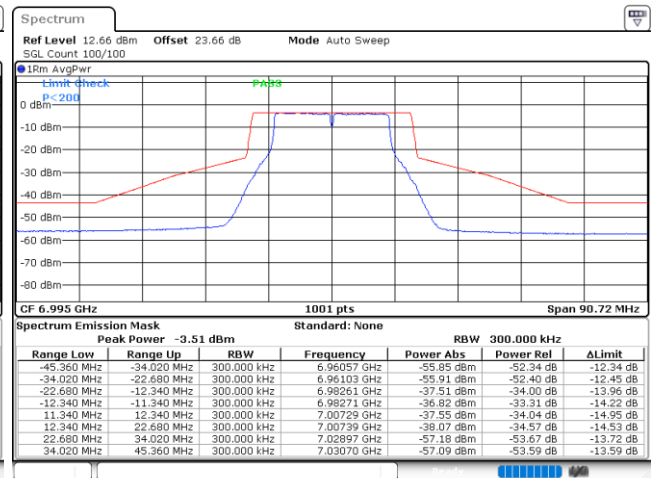


Plot on Channel 6895MHz



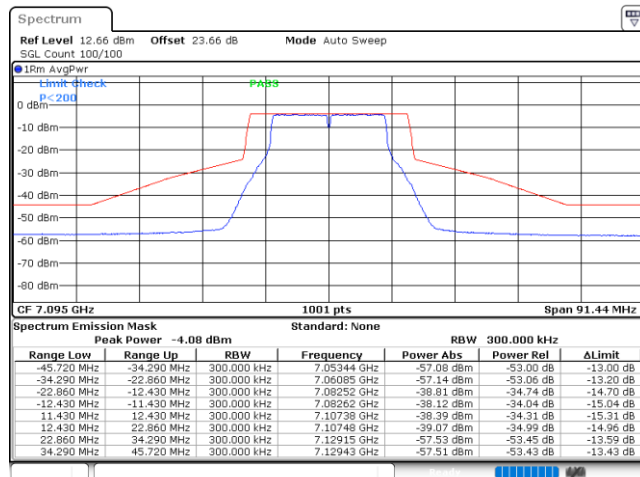
Date: 23.AUG.2023 10:01:58

Plot on Channel 6995MHz



Date: 23.AUG.2023 10:12:17

Plot on Channel 7095MHz

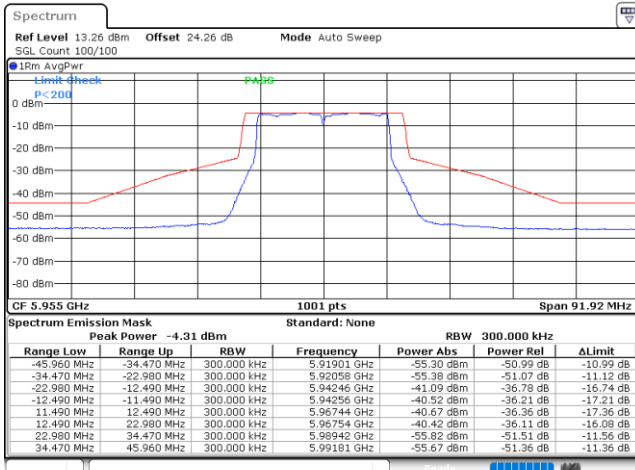


Date: 23.AUG.2023 10:28:36



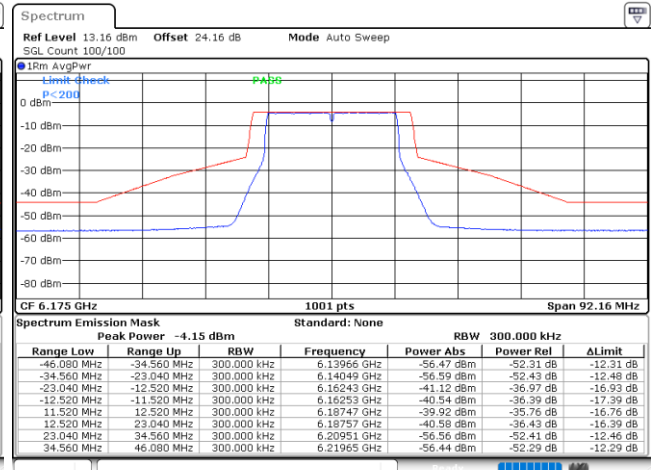
EUT Mode : 802.11be EHT20

Plot on Channel 5955MHz



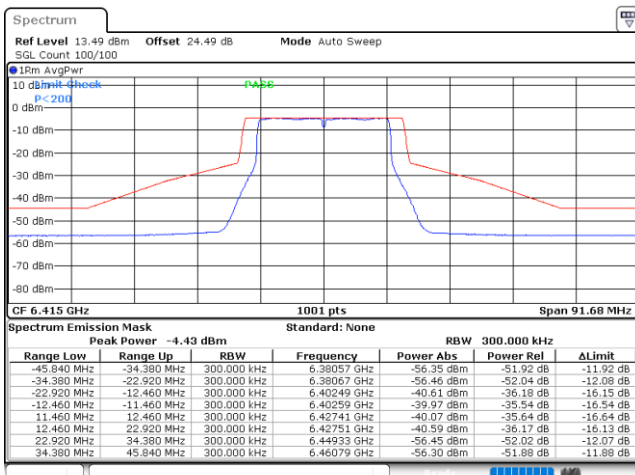
Date: 16.AUG.2023 15:44:10

Plot on Channel 6195MHz



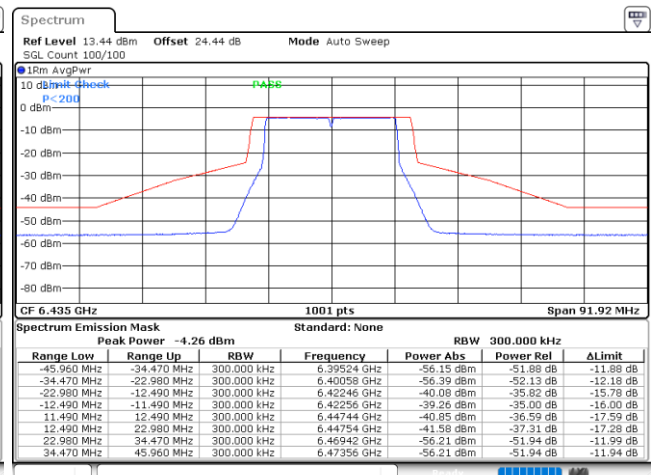
Date: 16.AUG.2023 16:01:10

Plot on Channel 6415MHz



Date: 16.AUG.2023 16:14:04

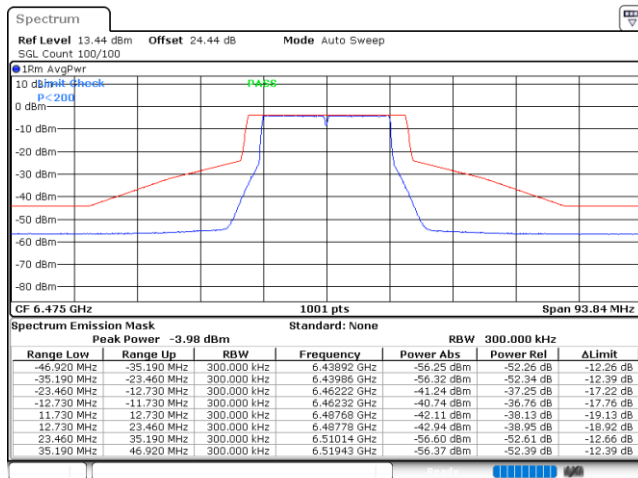
Plot on Channel 6435MHz



Date: 16.AUG.2023 16:50:44

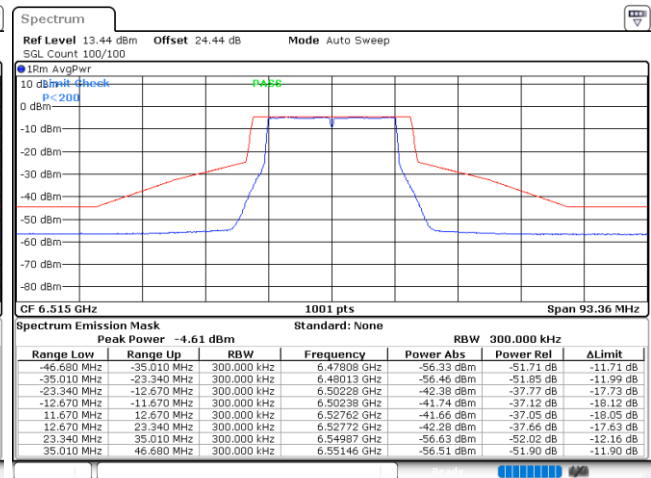


Plot on Channel 6475MHz



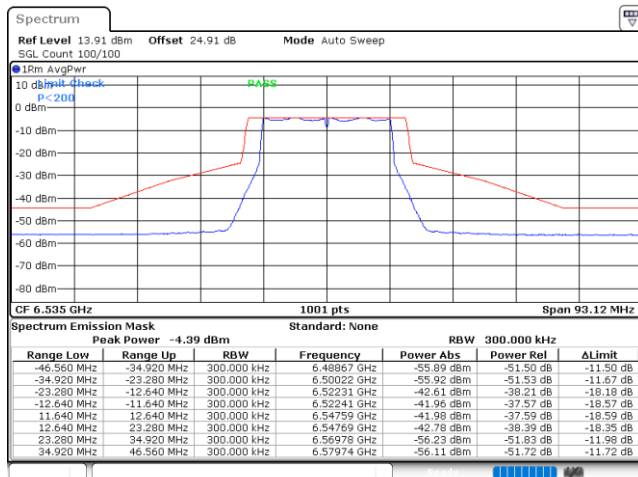
Date: 17.AUG.2023 09:37:51

Plot on Channel 6515MHz



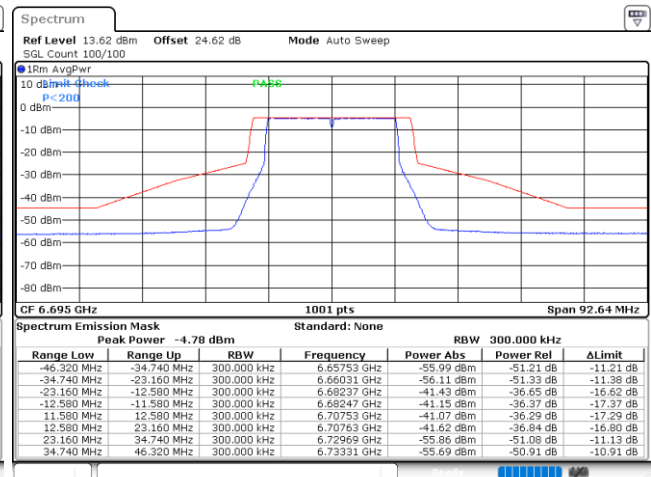
Date: 17.AUG.2023 09:52:35

Plot on Channel 6535MHz



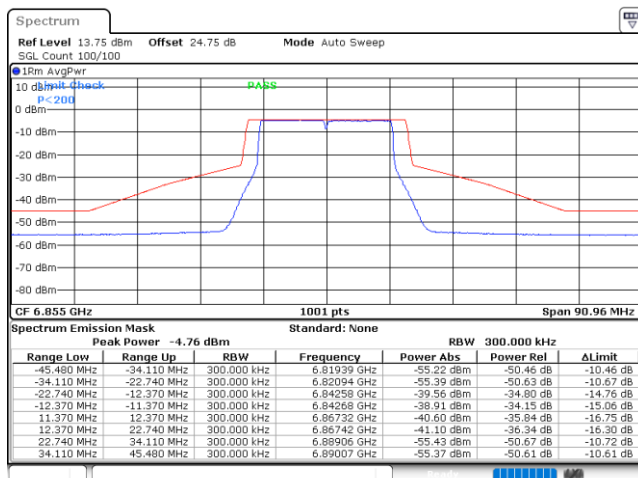
Date: 17.AUG.2023 10:30:07

Plot on Channel 6695MHz



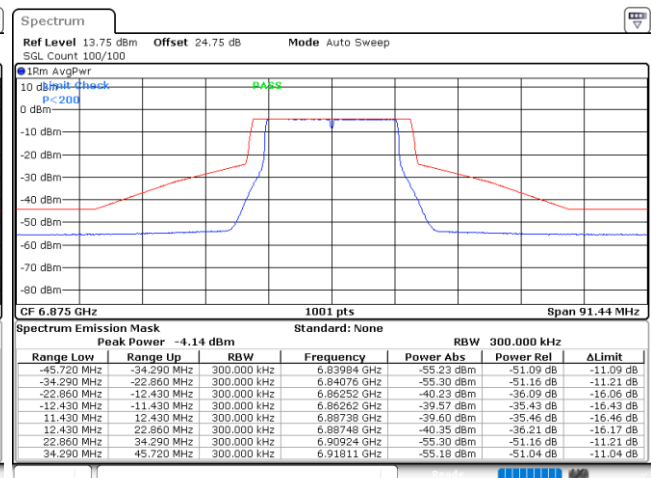
Date: 17.AUG.2023 10:55:48

Plot on Channel 6855MHz



Date: 17.AUG.2023 11:26:34

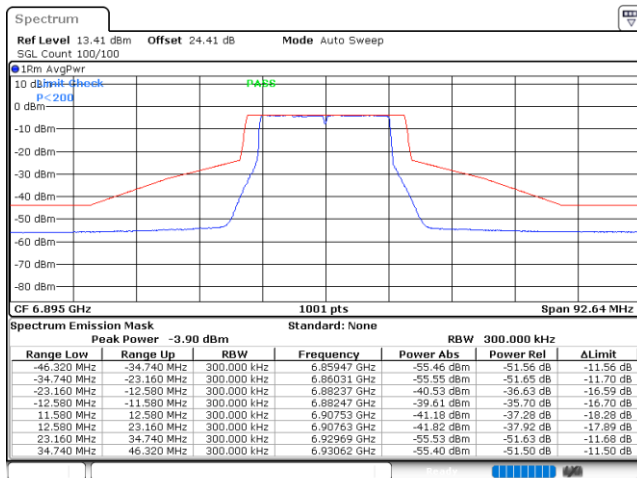
Plot on Channel 6875MHz



Date: 17.AUG.2023 11:46:45

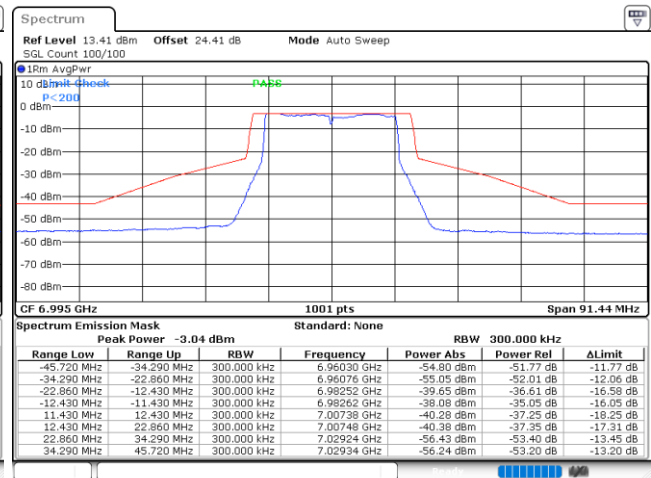


Plot on Channel 6895MHz



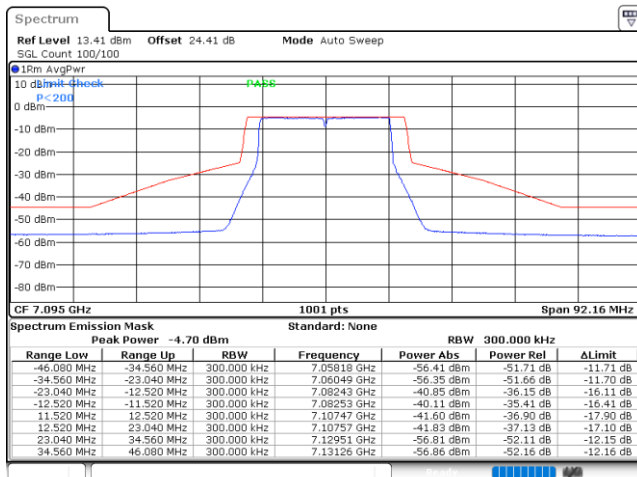
Date: 17.AUG.2023 13:21:09

Plot on Channel 6995MHz



Date: 17.AUG.2023 13:34:55

Plot on Channel 7095MHz

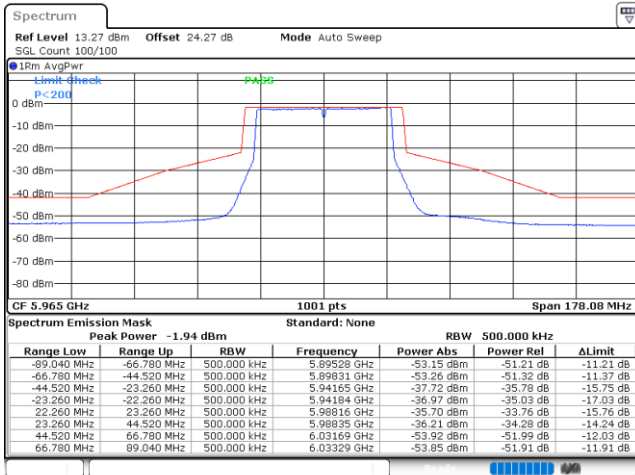


Date: 24.AUG.2023 09:23:47



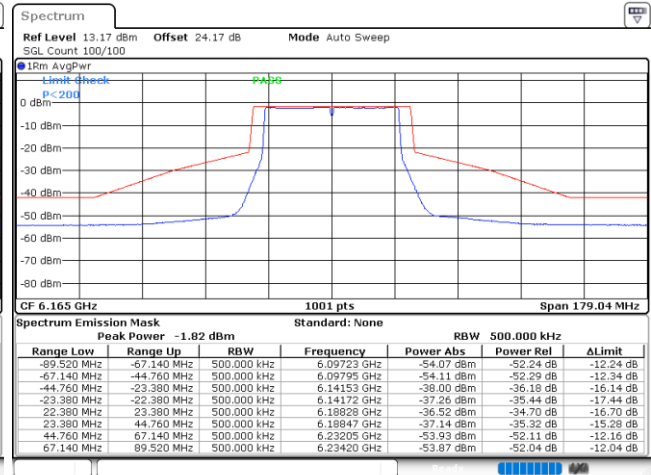
EUT Mode : 802.11be EHT 40

Plot on Channel 5965MHz



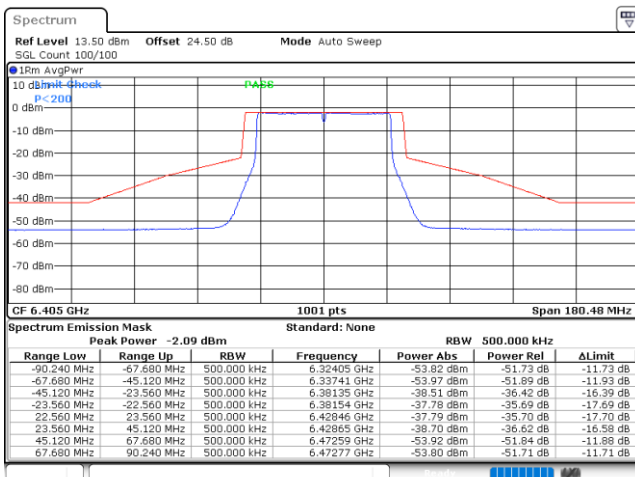
Date: 17.AUG.2023 14:11:27

Plot on Channel 6205MHz



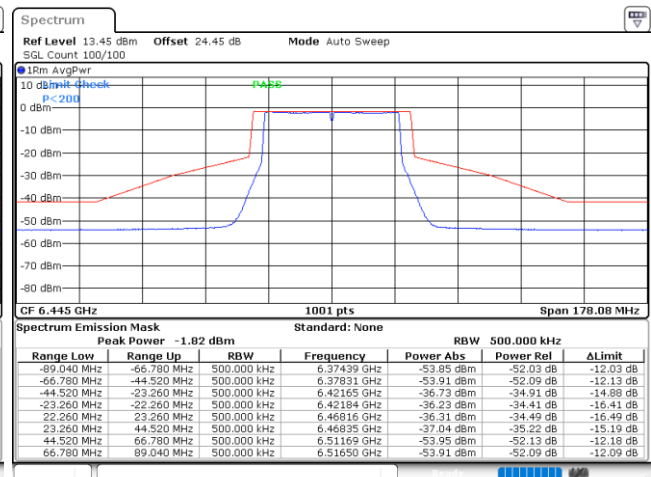
Date: 17.AUG.2023 14:16:14

Plot on Channel 6405MHz



Date: 17.AUG.2023 14:58:31

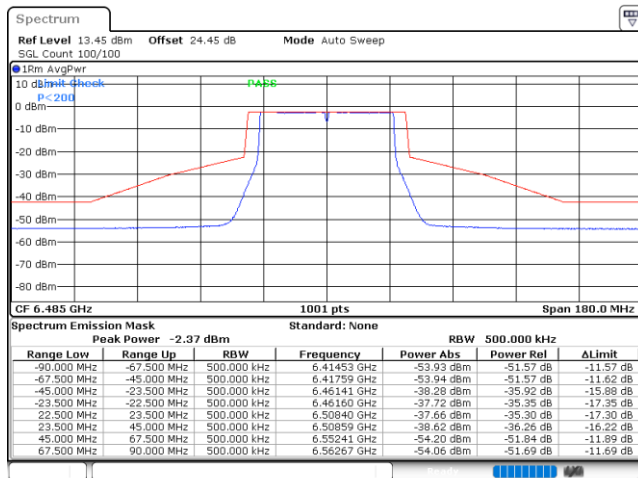
Plot on Channel 6445MHz



Date: 17.AUG.2023 15:16:21

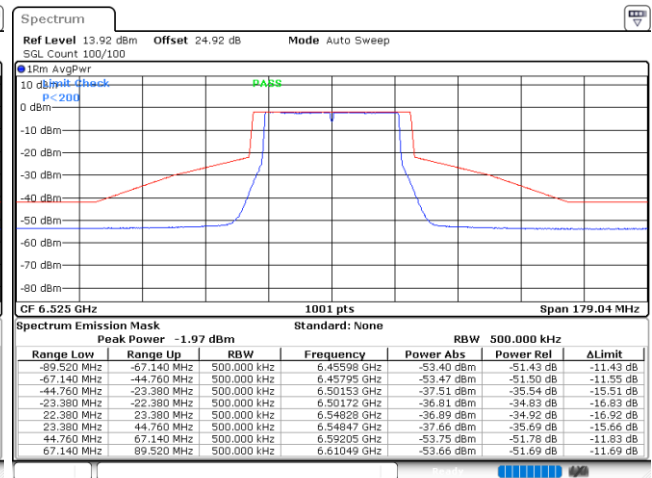


Plot on Channel 6485MHz



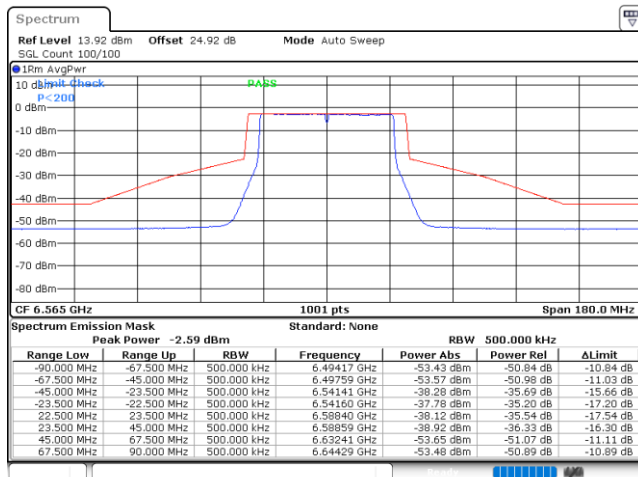
Date: 17.AUG.2023 15:30:43

Plot on Channel 6525MHz



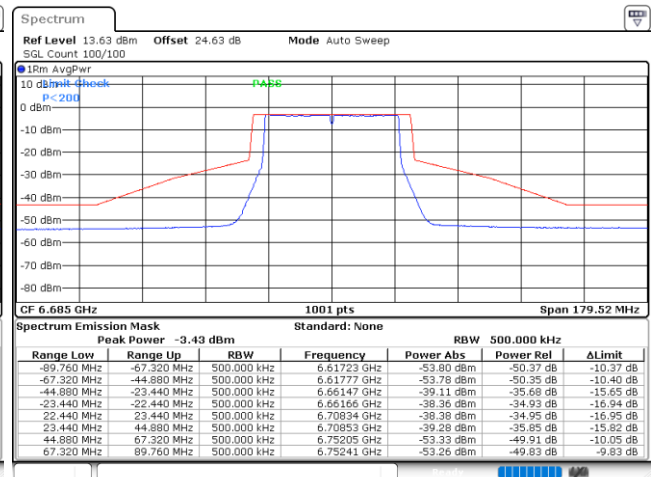
Date: 17.AUG.2023 15:47:51

Plot on Channel 6565MHz



Date: 17.AUG.2023 16:08:34

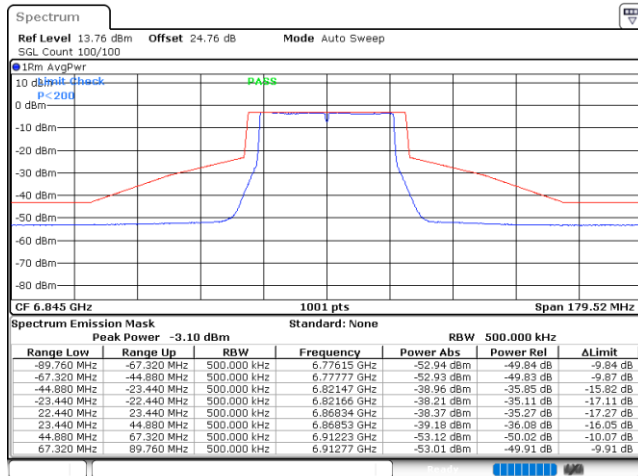
Plot on Channel 6685MHz



Date: 17.AUG.2023 16:22:16

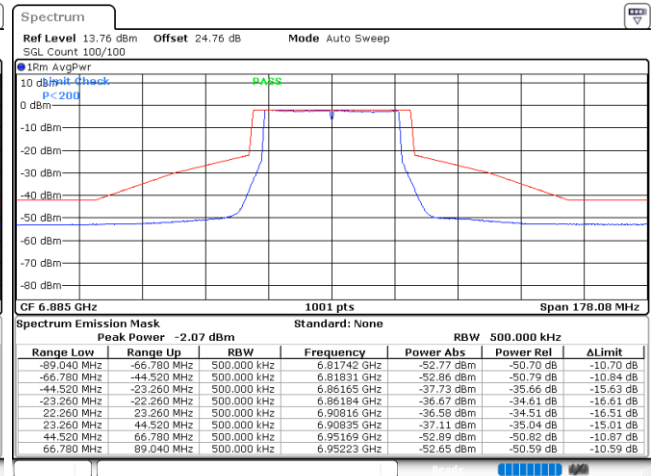


Plot on Channel 6845MHz



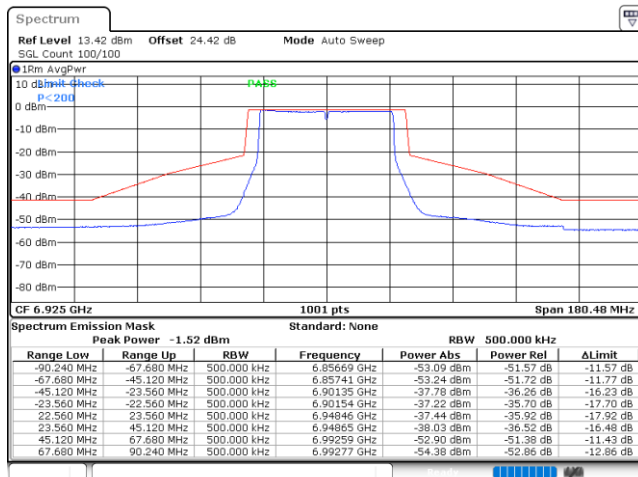
Date: 17.AUG.2023 16:36:58

Plot on Channel 6885MHz



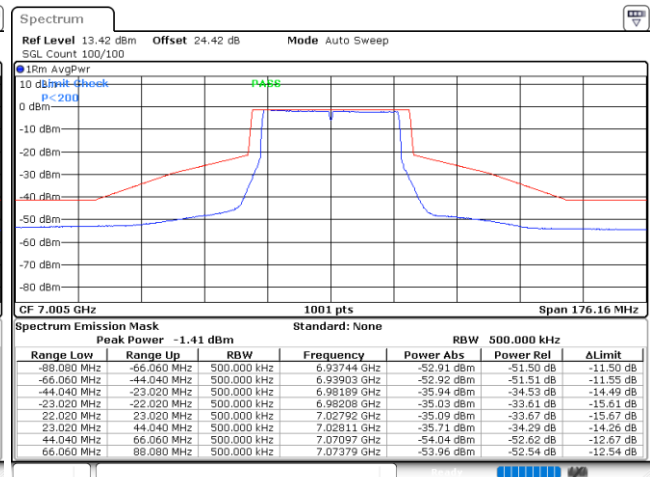
Date: 17.AUG.2023 16:57:48

Plot on Channel 6925MHz



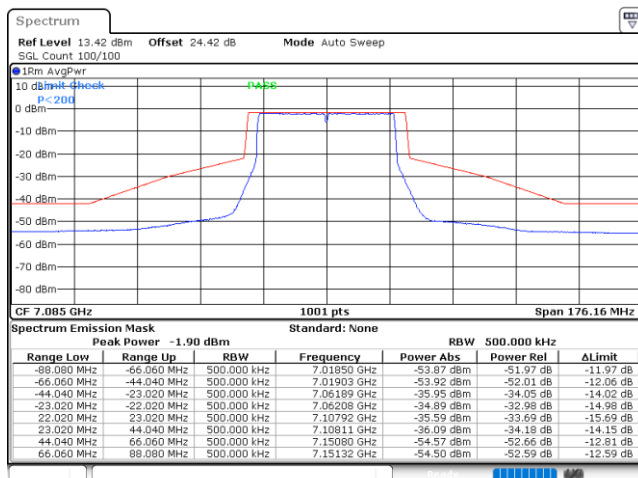
Date: 18.AUG.2023 10:02:58

Plot on Channel 7005MHz



Date: 18.AUG.2023 10:30:44

Plot on Channel 7085MHz

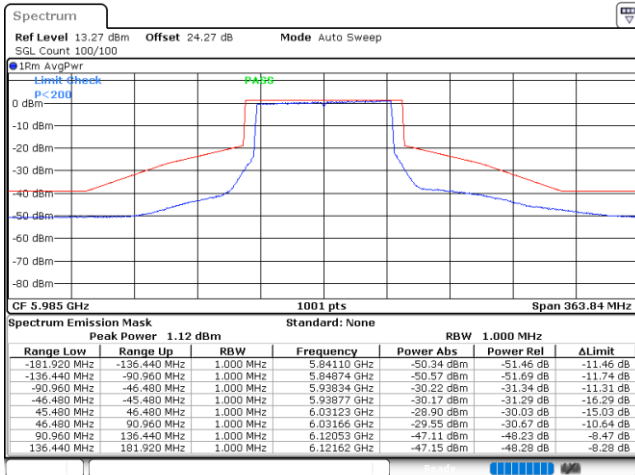


Date: 18.AUG.2023 10:47:39



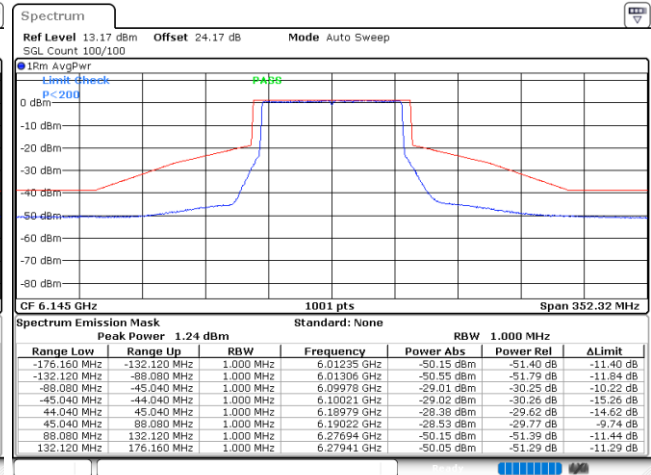
EUT Mode : 802.11be EHT 80

Plot on Channel 5985MHz



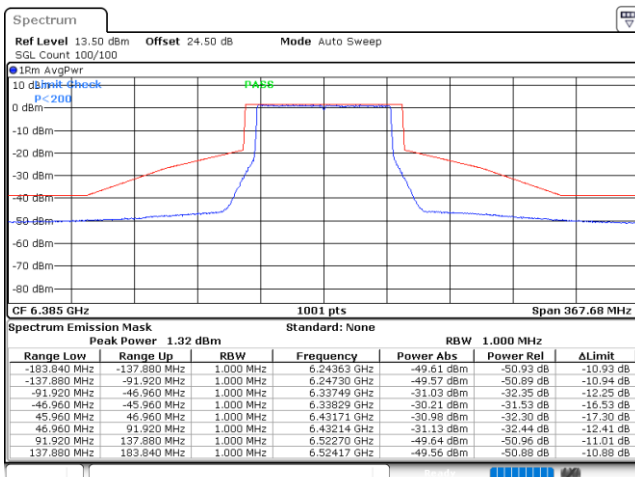
Date: 18.AUG.2023 11:18:42

Plot on Channel 6145MHz



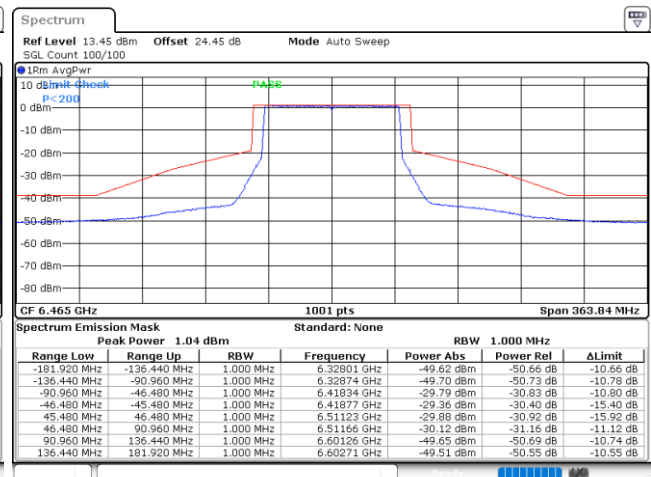
Date: 18.AUG.2023 11:34:38

Plot on Channel 6385MHz



Date: 18.AUG.2023 11:41:30

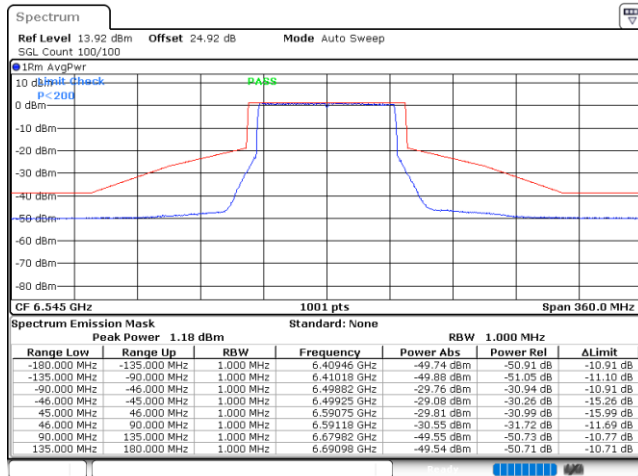
Plot on Channel 6465MHz



Date: 18.AUG.2023 11:49:47

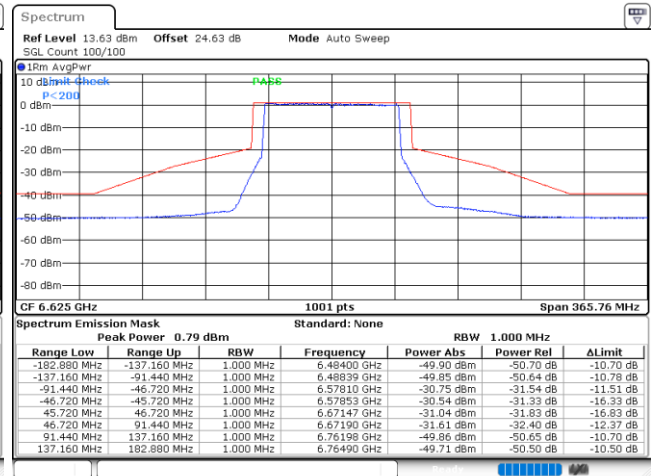


Plot on Channel 6545MHz



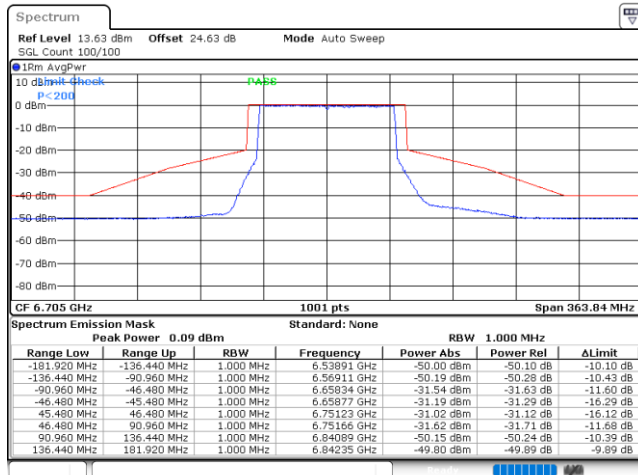
Date: 18.AUG.2023 13:20:41

Plot on Channel 6625MHz



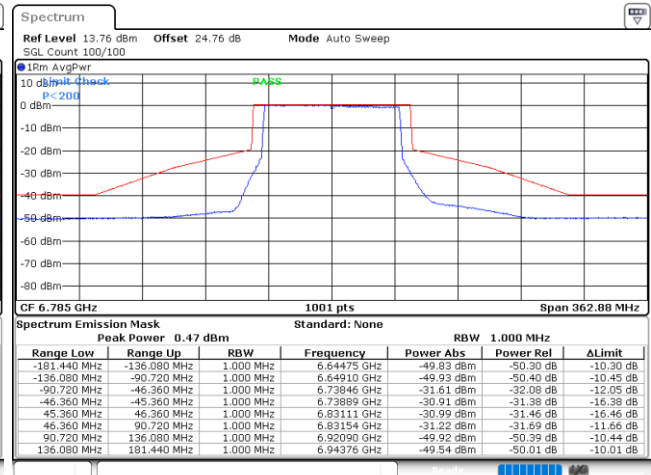
Date: 18.AUG.2023 13:35:11

Plot on Channel 6705MHz



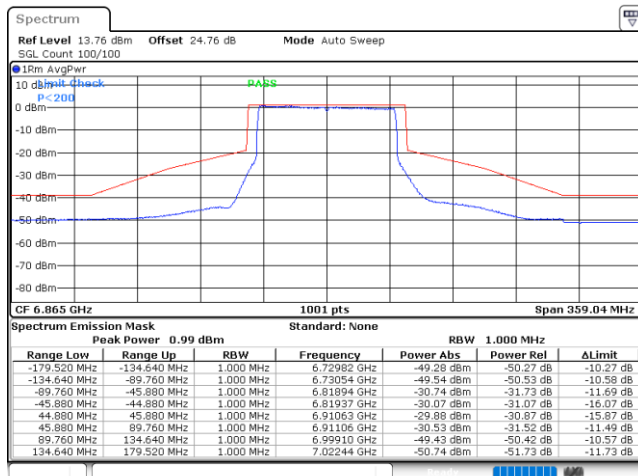
Date: 18.AUG.2023 14:00:31

Plot on Channel 6785MHz



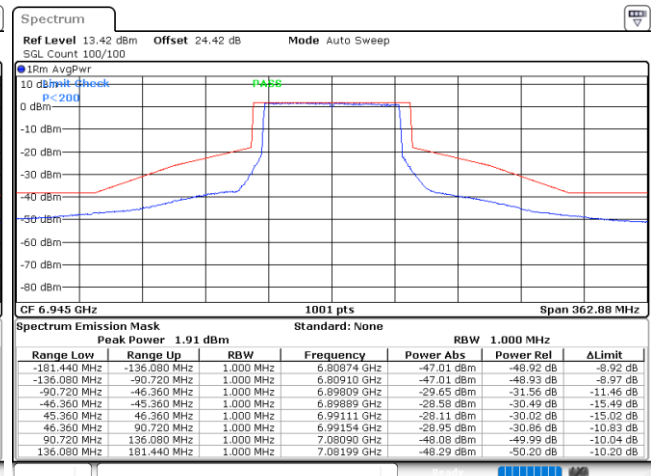
Date: 18.AUG.2023 14:20:28

Plot on Channel 6865MHz



Date: 18.AUG.2023 14:46:28

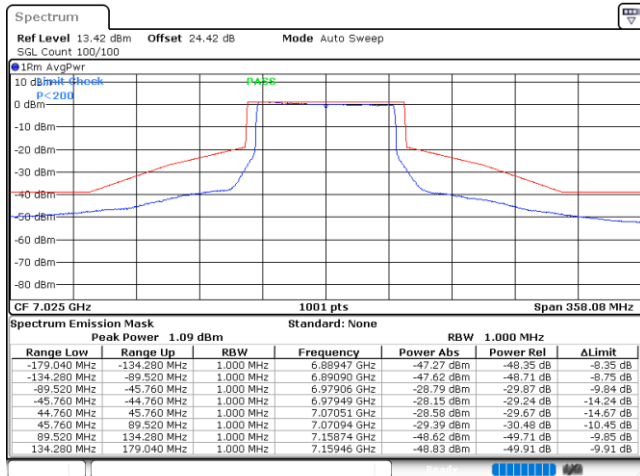
Plot on Channel 6945MHz



Date: 18.AUG.2023 15:05:20



Plot on Channel 7025MHz

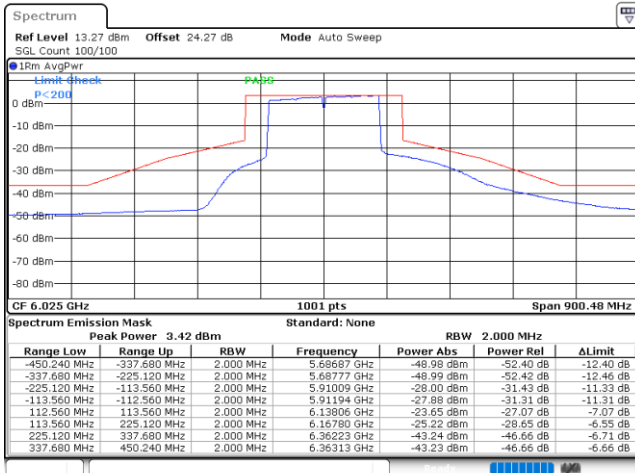


Date: 18.AUG.2023 15:26:41



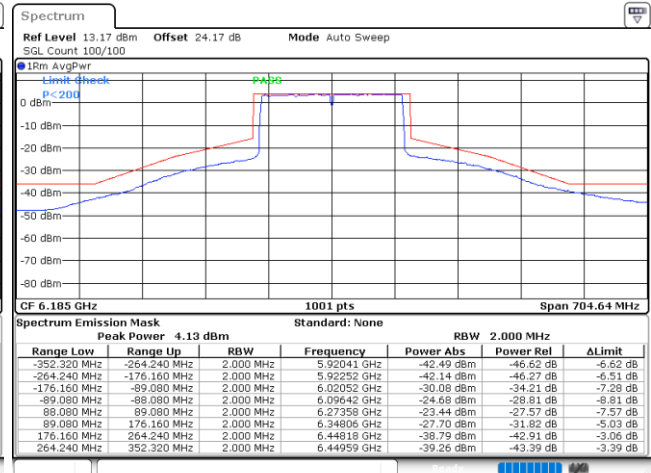
EUT Mode : 802.11be EHT160

Plot on Channel 6025MHz



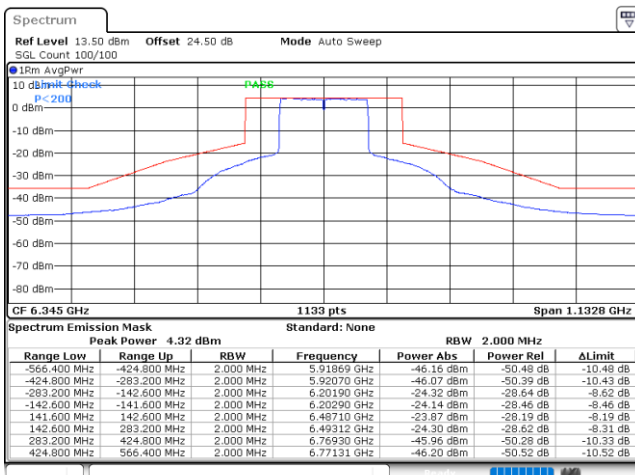
Date: 18.AUG.2023 16:44:01

Plot on Channel 6185MHz



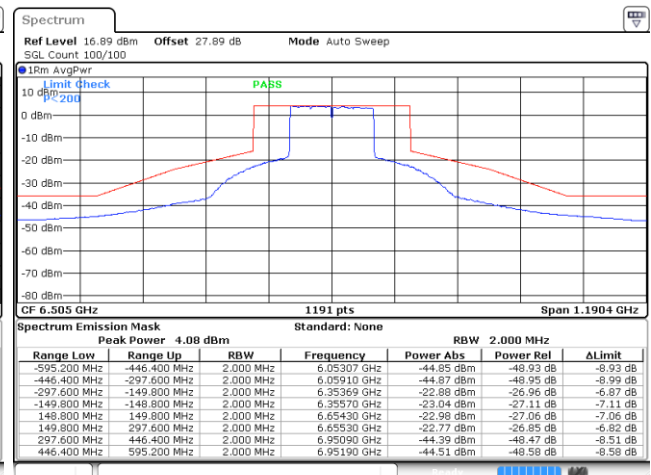
Date: 18.AUG.2023 16:37:23

Plot on Channel 6345MHz



Date: 18.AUG.2023 17:00:10

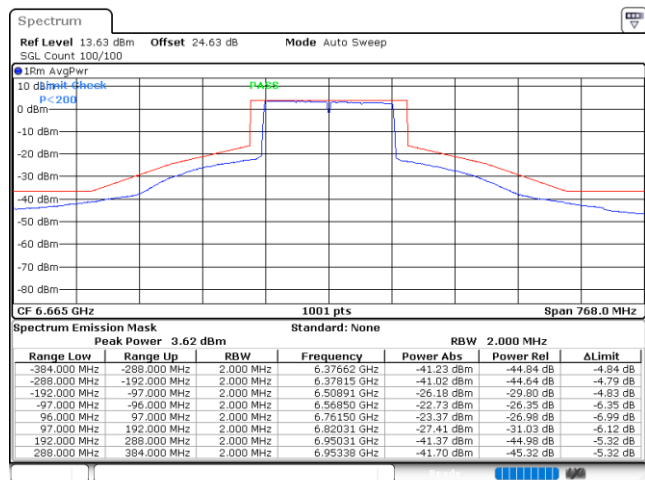
Plot on Channel 6505MHz



Date: 20.NOV.2023 23:50:19

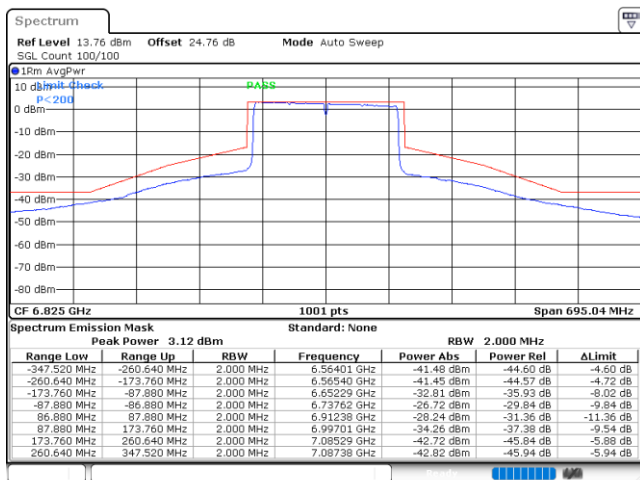


Plot on Channel 6665MHz



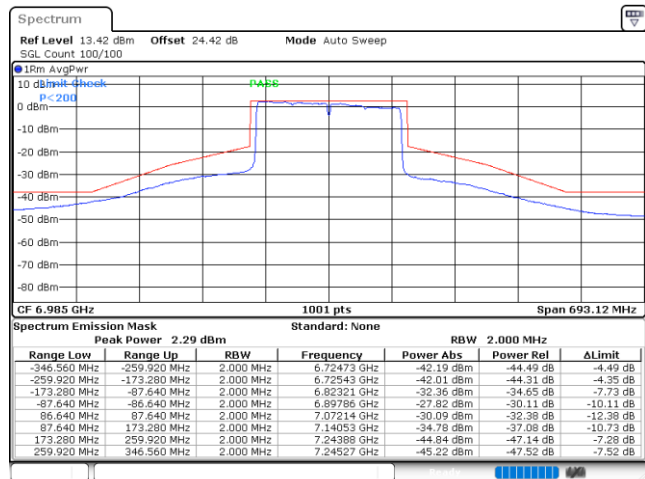
Date: 21.AUG.2023 11:01:43

Plot on Channel 6825MHz



Date: 21.AUG.2023 11:42:46

Plot on Channel 6985MHz

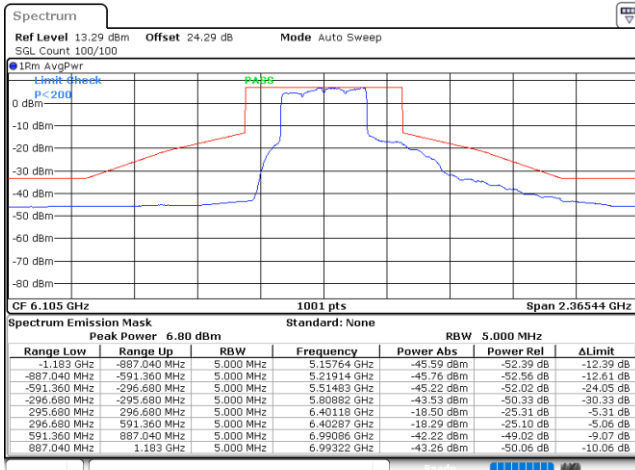


Date: 21.AUG.2023 13:56:46



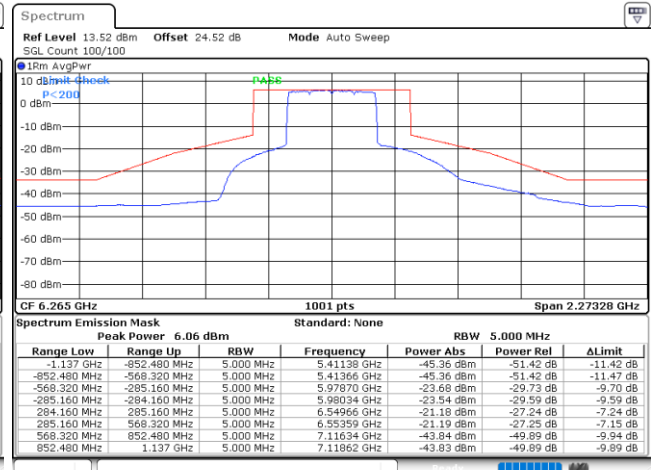
EUT Mode : 802.11be EHT320

Plot on Channel 6105MHz



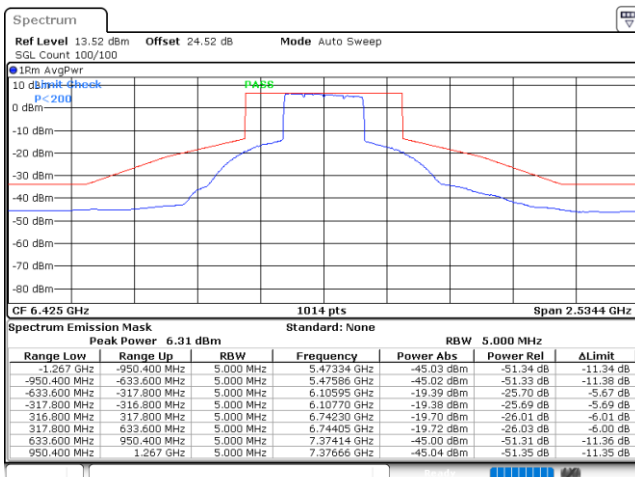
Date: 21.AUG.2023 14:28:05

Plot on Channel 6265MHz



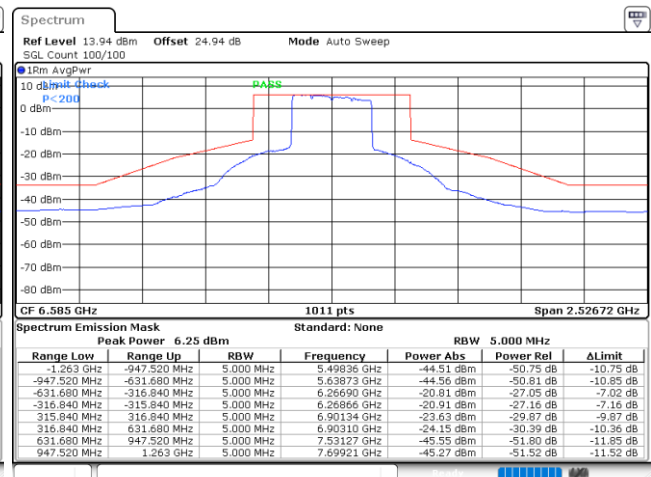
Date: 21.AUG.2023 14:37:45

Plot on Channel 6425MHz



Date: 21.AUG.2023 14:45:16

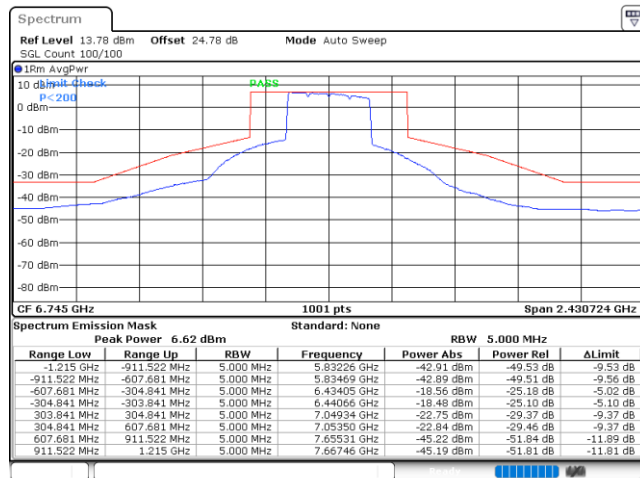
Plot on Channel 6585MHz



Date: 21.AUG.2023 14:54:16

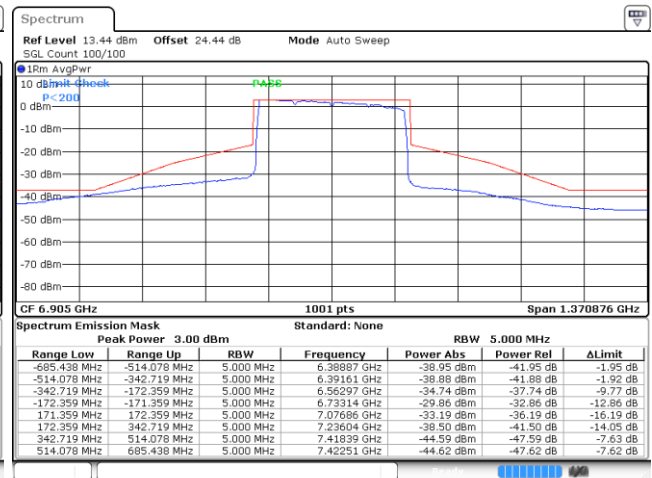


Plot on Channel 6745MHz



Date: 21.AUG.2023 15:04:20

Plot on Channel 6905MHz



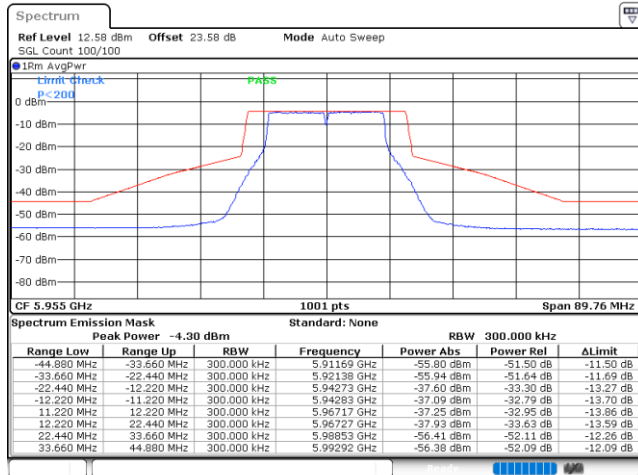
Date: 25.OCT.2023 20:18:31



MIMO <Ant. E+F(F)>

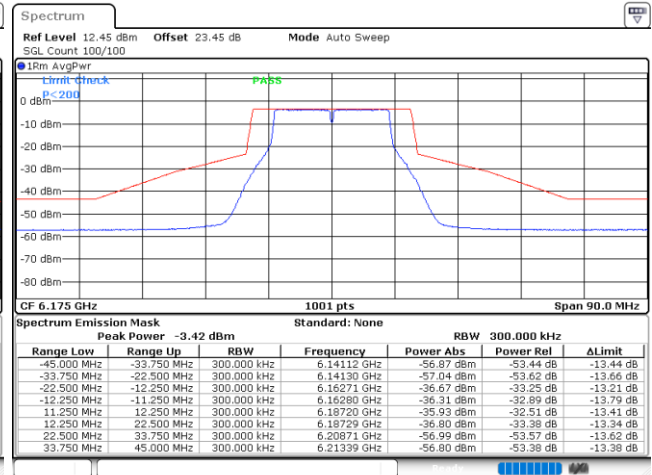
EUT Mode : 802.11a

Plot on Channel 5955MHz



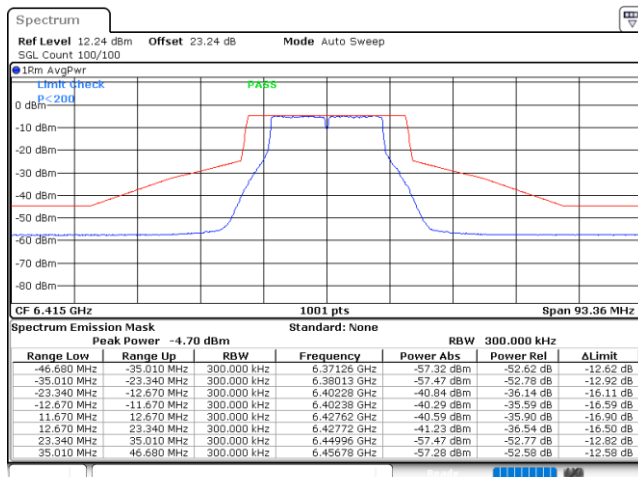
Date: 21.AUG.2023 16:23:25

Plot on Channel 6195MHz



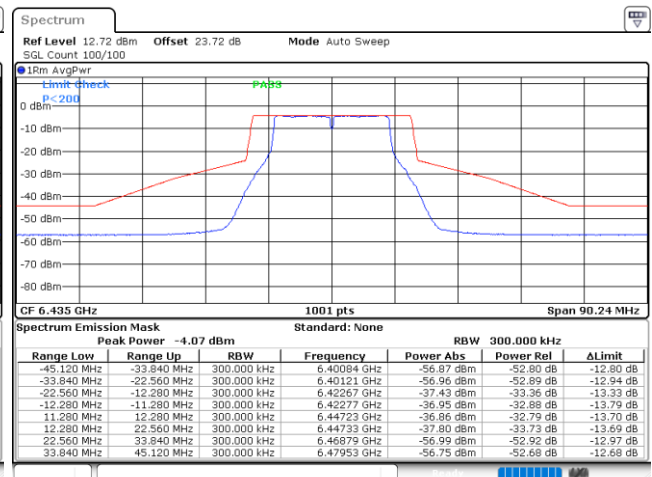
Date: 21.AUG.2023 16:36:48

Plot on Channel 6415MHz



Date: 21.AUG.2023 16:55:43

Plot on Channel 6435MHz



Date: 21.AUG.2023 17:18:55