FCC RADIO TEST REPORT

FCC ID	:	**UZ7MC9401**
Equipment	:	**Mobile Computer**
Brand Name	:	**ZEBRA**
Model Name	:	**MC9401**
Applicant	:	**Zebra Technologies Corporation 1 Zebra Plaza, Holtsville, NY 11742**
Manufacturer	:	**Zebra Technologies Corporation 1 Zebra Plaza, Holtsville, NY 11742**
Standard	:	**FCC Part 15 Subpart E §15.407**

The product was received on Jun. 21, 2023 and testing was performed from Jul. 07, 2023 to Sep. 22, 2023. We, Sporton International Inc. Wensan Laboratory, 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 Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory
No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)

TEL: 886-3-327-0868
FAX: 886-3-327-0855

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History of this test report

Report No.	Version	Description	Issue Date
FR362117-01	01	Initial issue of report	Sep. 11, 2023
FR362117-01	02	Revise Section 2.2 This report is an updated version, replacing the report issued on Sep. 11, 2023.	Sep. 12, 2023
FR362117-01	03	Revise Section 1.2, Section 3.4.5, Section 3.5.8 and List of Measuring Equipment This report is an updated version, replacing the report issued on Sep. 12, 2023.	Sep. 28, 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)(8)	Fundamental Maximum EIRP	Pass	-
3.3	15.407(a)(8)	Fundamental Power Spectral Density	Pass	-
3.4	15.407(b)(6)	In-Band Emissions (Channel Mask)	Pass	-
3.5	15.407(d)(6)	Contention Based Protocol	Pass	-
3.6	15.407(b)	Unwanted Emissions	Pass	1.11 dB under the limit at 7125.02 MHz
3.7	15.207	AC Conducted Emission	Pass	16.65 dB under the limit at 0.17 MHz
3.8	15.203 15.407(a)	Antenna Requirement	Pass	-

Note: Except Unwanted Emissions is carrying out, FR362117-01 report reuses test data from the FR362117H report.

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/manufacturer 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.

Reviewed by: Keven Cheng

Report Producer: Michelle Chen

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Computer
Brand Name	ZEBRA
Model Name	MC9401
FCC ID	UZ7MC9401
EUT supports Radios application	NFC WLAN 11a/b/g/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80/VHT160 WLAN 11ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE
HW Version	EV
SW Version	13-05-28.00-TG-U00-PRD-NEM-04
FW Version	FUSION_QA_6_1.0.0.001_T
MFD	08JUN23
EUT Stage	Identical Prototype

Remark: The EUT's information above is declared by manufacturer.

Specification of Accessories				
Adapter USB Wall Charger	**Brand Name**	Zebra	**Model Number**	PWR-WUA5V12W0US
Battery **Standard Battery (7000mAh)**	**Brand Name**	Zebra	**Model Number**	BT-000370
Earphone USB-C Audio Headset	**Brand Name**	Zebra	**Model Number**	HDST-USBC-PTT1-01
USB Cable (Type C to Type A)	**Brand Name**	Zebra	**Model Number**	CBL-TC2X-USBC-01
Holster	**Brand Name**	Zebra	**Model Number**	SG-MC9X-SHLSTG-01
USB Cable (CUP)	**Brand Name**	Zebra	**Model Number**	CBL-MC93-USBCHG-01

1.2 Product Specification of Equipment Under Test

Product Specification is subject to this standard	
Tx/Rx Channel Frequency Range	5925 MHz ~ 6425 MHz 6425 MHz ~ 6525 MHz 6525 MHz ~ 6875 MHz 6875 MHz ~ 7125 MHz
Maximum Output Power to Antenna <CDD Modes>	**MIMO <Ant. 6+7>:** **<5925 MHz ~ 6425 MHz>** 802.11a: 6.11 dBm / 0.0041 W **<6425 MHz ~ 6525 MHz>** 802.11a: 5.76 dBm / 0.0038 W **<6525 MHz ~ 6875 MHz>** 802.11a: 6.58 dBm / 0.0045 W **<6875 MHz ~ 7125 MHz>** 802.11a: 6.60 dBm / 0.0046 W
Maximum Output Power to Antenna <SDM Modes>	**MIMO <Ant. 6+7>:** **<5925 MHz ~ 6425 MHz>** 802.11ax: HE20: 8.21 dBm / 0.0066 W 802.11ax: HE40: 10.71 dBm / 0.0118 W 802.11ax: HE80: 12.86 dBm / 0.0193 W 802.11ax: HE160: 15.96 dBm / 0.0394 W **<6425 MHz ~ 6525 MHz>** 802.11ax: HE20: 7.96 dBm / 0.0063 W 802.11ax: HE40: 10.82 dBm / 0.0121 W 802.11ax: HE80: 12.71 dBm / 0.0187 W 802.11ax: HE160: 15.62 dBm / 0.0365 W **<6525 MHz ~ 6875 MHz>** 802.11ax: HE20: 8.40 dBm / 0.0069 W 802.11ax: HE40: 11.21 dBm / 0.0132 W 802.11ax: HE80: 13.31 dBm / 0.0214 W 802.11ax: HE160: 16.06 dBm / 0.0404 W **<6875 MHz ~ 7125 MHz>** 802.11ax: HE20: 8.92 dBm / 0.0078 W 802.11ax: HE40: 10.81 dBm / 0.0121 W 802.11ax: HE80: 13.17 dBm / 0.0207 W 802.11ax: HE160: 16.08 dBm / 0.0406 W
99% Occupied Bandwidth <CDD Modes>	**MIMO <Ant. 6>** 802.11a: 16.83 MHz **MIMO <Ant. 7>** 802.11a: 16.63 MHz
99% Occupied Bandwidth <SDM Modes>	**MIMO <Ant. 6>** 802.11ax: HE20: 18.98 MHz 802.11ax: HE40: 37.96 MHz 802.11ax: HE80: 76.96 MHz 802.11ax: HE160: 154.89 MHz **MIMO <Ant. 7>** 802.11ax: HE20: 18.93 MHz 802.11ax: HE40: 37.96 MHz 802.11ax: HE80: 76.96 MHz 802.11ax: HE160: 154.89 MHz

<table>
<tr><th colspan="2">Product Specification is subject to this standard</th></tr>
<tr><td>Antenna Type / Gain</td><td><5925 MHz ~ 6425 MHz>
<Ant. 6>: Coupling Antenna with gain 1.59 dBi
<Ant. 7>: Coupling Antenna with gain 1.49 dBi
<6425 MHz ~ 6525 MHz>
<Ant. 6>: Coupling Antenna with gain 1.50 dBi
<Ant. 7>: Coupling Antenna with gain 1.46 dBi
<6525 MHz ~ 6875 MHz>
<Ant. 6>: Coupling Antenna with gain 1.25 dBi
<Ant. 7>: Coupling Antenna with gain 1.46 dBi
<6875 MHz ~ 7125 MHz>
<Ant. 6>: Coupling Antenna with gain 1.34 dBi
<Ant. 7>: Coupling Antenna with gain 1.38 dBi</td></tr>
<tr><td>Type of Modulation</td><td>802.11a : OFDM (BPSK/QPSK/16QAM/64QAM)
802.11ax : OFDMA
(BPSK/QPSK/16QAM/64QAM/256QAM/1024QAM)</td></tr>
<tr><td>Antenna Function Description</td><td><table><tr><td></td><td>Ant. 6</td><td>Ant. 7</td></tr><tr><td>802.11a/ax MIMO</td><td>V</td><td>V</td></tr><tr><td>802.11ax TXBF</td><td>V</td><td>V</td></tr></table></td></tr>
</table>

Remark:

1. MIMO Ant. 7+8 Directional Gain is a calculated result from MIMO Ant. 7 and MIMO Ant. 8. The formula used in calculation is documented in section 1.2.1.
2. Power of MIMO Ant. 7 + Ant. 8 is a calculated result from sum of the power MIMO Ant. 7 and MIMO Ant. 8.
3. The device WIFI MIMO support 1S2T (CDD & Tx Beamforming) (Nss=1) mode& SDM (2S2T :Nss=2) mode, 1S2T: Nss=1, MIMO 2Tx; 2S2T: Nss=2, MIMO 2Tx.by manufacturer declared.
4. For 802.11a, it does not support SDM & Tx Beamforming so the correlated gain for CDD is applied.
5. For 802.11ax support CDD&SDM& Tx Beamforming mode, and the manufacturer declares that Tx Beamforming power/EIRP/PSD is not greater than CDD&SDM mode, so CDD&SDM mode covers Tx Beamforming mode. In SDM mode, the conducted power is set to 3dB higher than TXBF/CDD. Since the maximum array gain for the two antenna system is 3dB, the TXBF/CDD compliance is met by testing SDM mode as worst mode for LPI power mode.
6. 802.11ax supports both full RU tones and partial RU tones, which are both conducted power/PSD tested in Appendix A, for channel masking in Section 3.4.5, all the other test case were performed with full RU with its maximum power/PSD.
7. The EUT does not support channel puncturing mode.
8. The EUT's information above is declared by manufacturer. Please refer to Disclaimer in report summary.

1.2.1 Antenna Directional Gain

<For CDD Mode>

Follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01 F)2)f)ii)

Directional gain = G_{ANT} + Array Gain, where Array Gain is as follows:

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$.

G_{ANT} is set equal to the gain of the antenna having the highest gain.

For PSD measurements, the directional gain calculation.

$$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

where

Each antenna is driven by no more than one spatial stream;

N_{SS} = the number of independent spatial streams of data;

N_{ANT} = the total number of antennas

$g_{j,k} = 10^{G_k / 20}$ if the kth antenna is being fed by spatial stream j, or zero if it is not;

G_k is the gain in dBi of the kth antenna.

As minimum N_{SS}=1 is supported by EUT, the formula can be simplified as:

Directional gain = $10*\log[(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / N_{ANT}]$ dBi

Where G1, G2….GN denote single antenna gain.

The directional gain “DG” is calculated as following table.

	Ant 6 (dBi)	Ant 7 (dBi)	DG for Power (dBi)	DG for PSD (dBi)
5925 MHz ~ 6425 MHz	1.59	1.49	1.59	4.55
6425 MHz ~ 6525 MHz	1.50	1.46	1.50	4.49
6525 MHz ~ 6875 MHz	1.25	1.46	1.46	4.37
6875 MHz ~ 7125 MHz	1.34	1.38	1.38	4.37

Calculation example:

If a device has two antenna, G_{ANT1}= 1.59dBi; G_{ANT2}= 1.49dBi

Directional gain of power measurement = max(1.59, 1.49) + 0 = 1.59 dBi

Directional gain of PSD derived from formula which is

10 x log { { [10^ (1.59 dBi / 20) + 10^ (1.49 dBi / 20)] ^ 2 } / 2 }

= 4.55 dBi

<For SDM Modes>

SDM Modes all transmit signals are completely uncorrelated, then

Follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01 F)2)d)ii)

The Directional gain = $10*\log[(10^{G1/10} + 10^{G2/10} + \ldots + 10^{GN/10}) / N_{ANT}]$ dBi

Where G1, G2….GN denote single antenna gain.

The directional gain “DG” is calculated as following table.

	Ant 6 (dBi)	Ant 7 (dBi)	DG for Power (dBi)	DG for PSD (dBi)
5925 MHz ~ 6425 MHz	1.59	1.49	1.54	1.54
6425 MHz ~ 6525 MHz	1.50	1.46	1.48	1.48
6525 MHz ~ 6875 MHz	1.25	1.46	1.36	1.36
6875 MHz ~ 7125 MHz	1.34	1.38	1.36	1.36

Calculation example:

If a device has two antenna, G_{ANT1}= 1.59dBi; G_{ANT2}=1.49dBi

Directional gain is derived from formula which is

10 x log { { [10^ (1.59 dBi / 10) + 10^ (1.49 dBi / 10)] } / 2 }

= 1.54 dBi

<For TXBF Modes>

The EUT supports beamforming modes then

Follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01 F)2)e)ii)

$$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

where

Each antenna is driven by no more than one spatial stream;

N_{SS} = the number of independent spatial streams of data;

N_{ANT} = the total number of antennas

$g_{j,k} = 10^{G_k / 20}$ if the kth antenna is being fed by spatial stream j, or zero if it is not;

G_k is the gain in dBi of the kth antenna.

The directional gain “DG” is calculated as following table.

	Ant 6 (dBi)	Ant 7 (dBi)	DG for Power (dBi)	DG for PSD (dBi)
5925 MHz ~ 6425 MHz	1.59	1.49	4.55	4.55
6425 MHz ~ 6525 MHz	1.50	1.46	4.49	4.49
6525 MHz ~ 6875 MHz	1.25	1.46	4.37	4.37
6875 MHz ~ 7125 MHz	1.34	1.38	4.37	4.37

Calculation example:

Directional gain is derived from formula which is

10 x log { { [10^ (1.59 dBi / 20) + 10^ (1.49 dBi / 20)] ^ 2 } / 2 } = 4.55 dBi

1.3 Modification of EUT

No modifications made to the EUT during the testing.

1.4 Testing Location

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	**Sporton Site No.**
	CO05-HY, DF02-HY (TAF Code: 1190)
Remark	The Contention Based Protocol and AC Conducted Emission test items subcontracted to Sporton International Inc. EMC & Wireless Communications Laboratory.

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

Test Site	Sporton International Inc. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	**Sporton Site No.**
	TH05-HY, 03CH11-HY

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

FCC designation No.: TW1190 and TW3786

1.5 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:

1. All the test items were validated and recorded in accordance with the standards without any modification during the testing.
2. The TAF code is not including all the FCC KDB listed without accreditation.
3. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

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

BW 20M	Channel	233
	Freq. (MHz)	7115

2.2 Test Mode

This device support 26/52/106/242/484/996-tone RU but does not support 2x996-tone RU on 160MHz channel

The PSD of partial RU is reduced to be smaller than full RU according to TCB workshop interim guidance Oct. 2018.

The 802.11ax mode is investigated among different tones, full resource units (RU), partial resource units. The partial RU has no higher power than full RU's, thus the full RU is chosen as main test configuration.

The 242-tone RU is covered by 20MHz channel, 484-tone RU is covered by 40MHz channel and 996-tone RU is covered by 80MHz channel.

The SISO mode conducted power is covered by MIMO mode per chain, so only the MIMO mode is tested.

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

MIMO Mode

Modulation	Data Rate
802.11a	**6 Mbps**
802.11ax HE20	**MCS0**
802.11ax HE40	**MCS0**
802.11ax HE80	**MCS0**
802.11ax HE160	**MCS0**

Remark: The conducted power level of each chain in MIMO mode is equal or higher than SISO mode.

Test Cases	
AC Conducted Emission	Mode 1 : WLAN (6GHz) Link + Bluetooth Link + Battery Standard Battery (7000mAh) + Scan + USB Cable (Type C to Type A) with USB Cable (CUP) (Charging from Adapter USB Wall Charger)

MIMO <Ant. 6+7>

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	-	233
Straddle		-	-	185	-

Ch. #		UNII-5 (5925-6425 MHz)	UNII-6 (6425-6525 MHz)	UNII-7 (6525-6875 MHz)	UNII-8 (6875-7125 MHz)
		802.11ax HE20	802.11ax HE20	802.11ax HE20	802.11ax HE20
L	Low	001	097	117	189
M	Middle	049	105	149	209
H	High	093	113	-	- 233
Straddle		-	-	185	-

Ch. #		UNII-5 (5925-6425 MHz)	UNII-6 (6425-6525 MHz)	UNII-7 (6525-6875 MHz)	UNII-8 (6875-7125 MHz)
		802.11ax HE40	802.11ax HE40	802.11ax HE40	802.11ax HE40
L	Low	003	099	123	195
M	Middle	051	-	147	211
H	High	091	107	-	227
Straddle		-	115	187	-

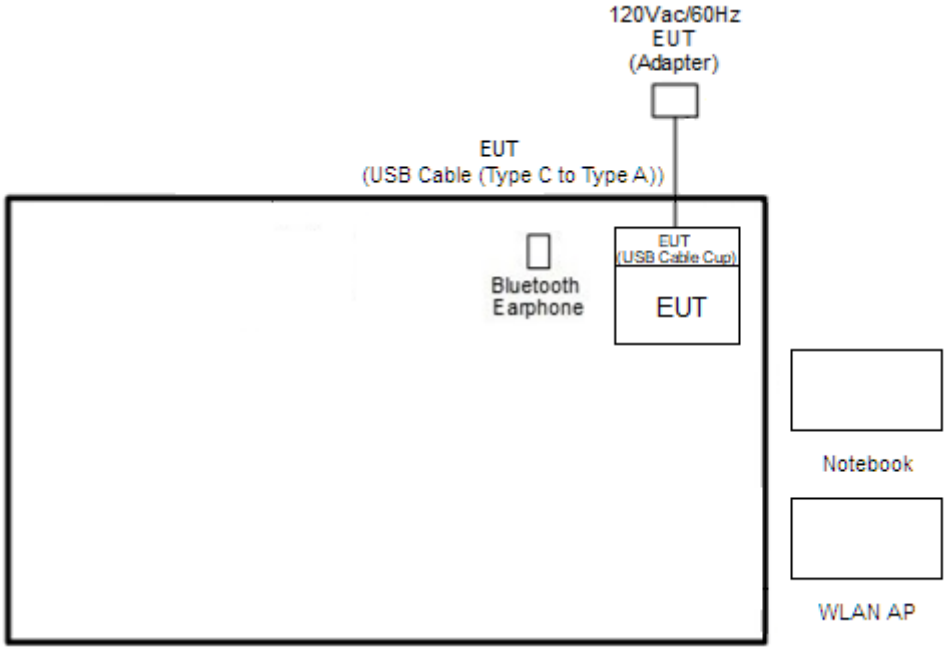
Ch. #		UNII-5 (5925-6425 MHz)	UNII-6 (6425-6525 MHz)	UNII-7 (6525-6875 MHz)	UNII-8 (6875-7125 MHz)
		802.11ax HE80	802.11ax HE80	802.11ax HE80	802.11ax HE80
L	Low	007	103	135	199
M	Middle	055		151	-
H	High	087		-	215
Straddle		-	-	183	-

Ch. #		UNII-5 (5925-6425 MHz)	UNII-6 (6425-6525 MHz)	UNII-7 (6525-6875 MHz)	UNII-8 (6875-7125 MHz)
		802.11ax HE160	802.11ax HE160	802.11ax HE160	802.11ax HE160
L	Low	015	-	143	207
M	Middle	047			
H	High	079			
Straddle		-	111	175	-

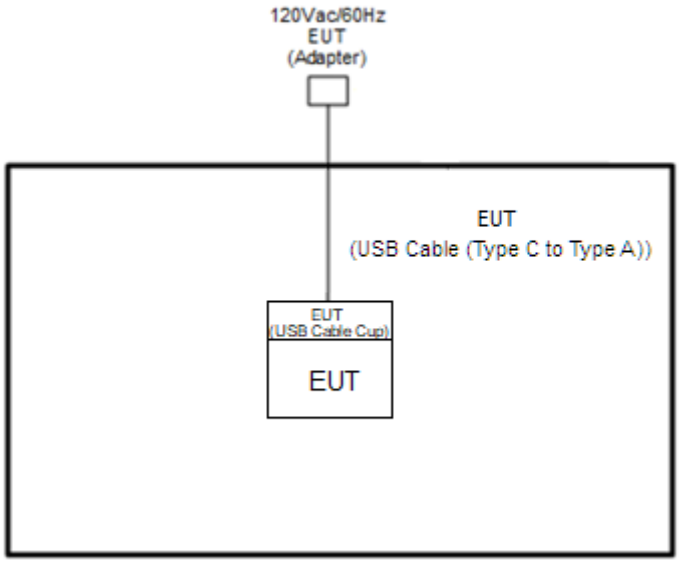
Remark: Based on ANSI C63.10 clause 5.6.2.2, b) Spurious emissions, measure the mode with the highest output power and the mode with highest output power spectral density for each modulation family.

2.3 Connection Diagram of Test System

<AC Conducted Emission Mode>



<WLAN Tx Mode>



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Bluetooth Earphone	Sony Ericsson	MW600	PY700A2029	N/A	N/A
2.	WLAN AP	NETGEAR64	RAXE500	N/A	N/A	Unshielded, 1.8 m
3.	Notebook	Dell	Latitude 3420	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
4.	Notebook	Dell	Latitude 3400	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

2.5 EUT Operation Test Setup

The RF test items, utility “QRCT Version 4.0.00211.0” was installed in Notebook 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.

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 4.2 + 10 = 14.2 (dB)

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) ≥ 3 * RBW.
8. Measure and record the results in the test report.

3.1.4 Test Setup

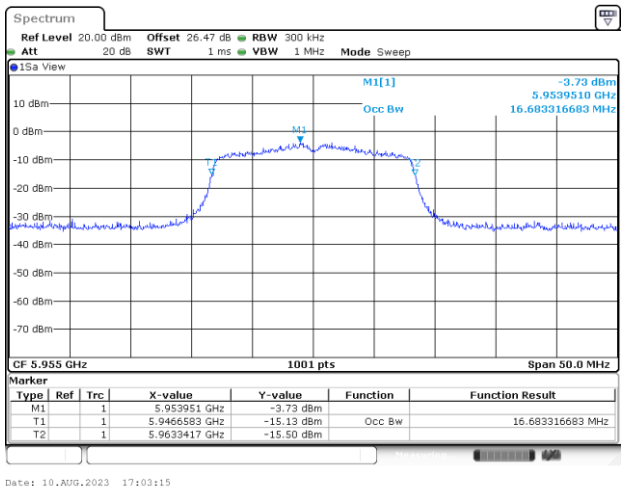
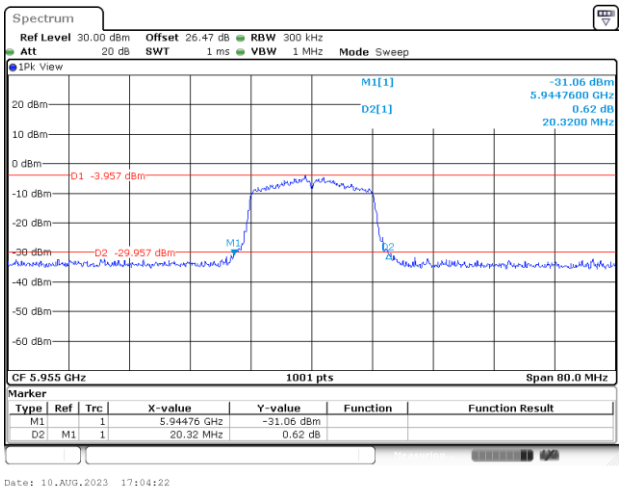
3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

Please refer to Appendix A.

MIMO <Ant. 6+7>

<CDD Modes>

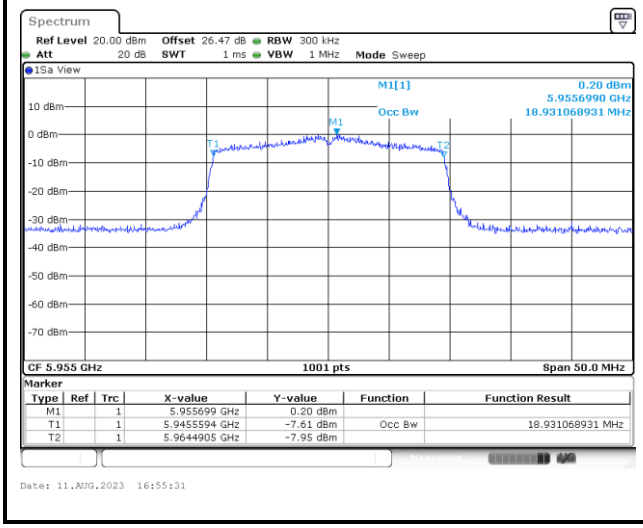
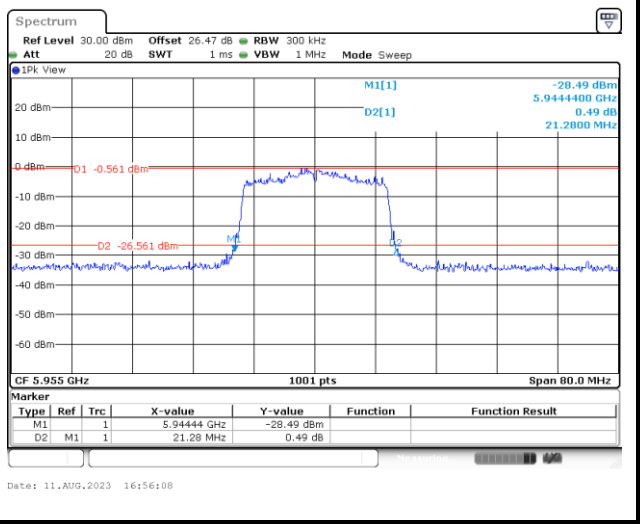
<802.11a>

99% Occupied Bandwidth	26dB Bandwidth
	

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

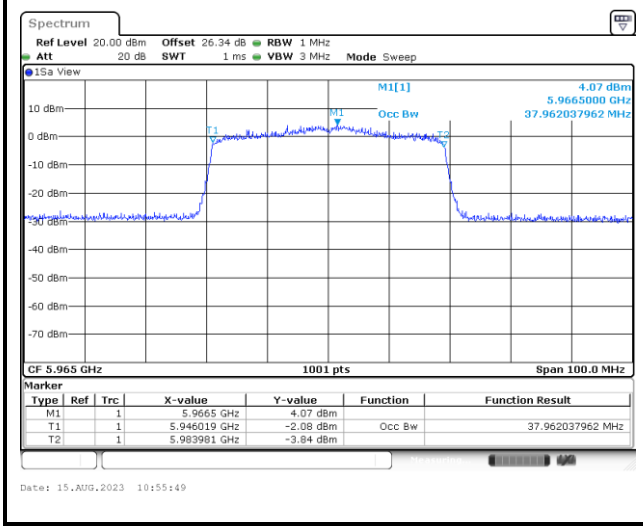
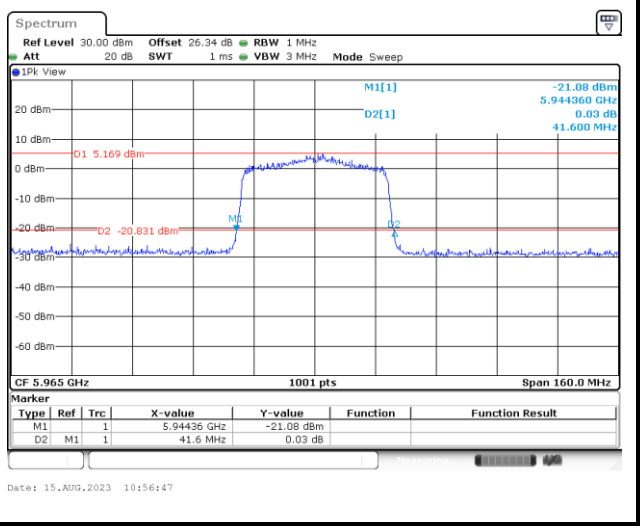
<SDM Modes>

<802.11ax HE20>

99% Occupied Bandwidth	26dB Bandwidth
	

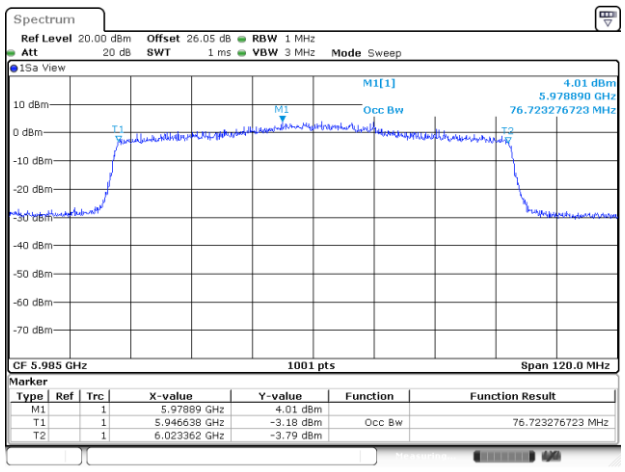
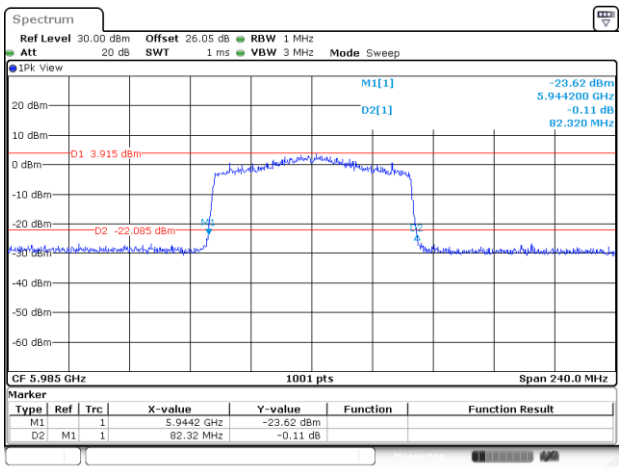
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<802.11ax HE40>

99% Occupied Bandwidth	26dB Bandwidth
	

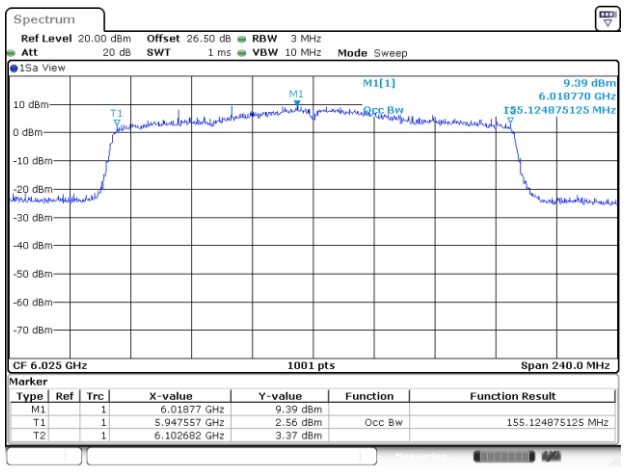
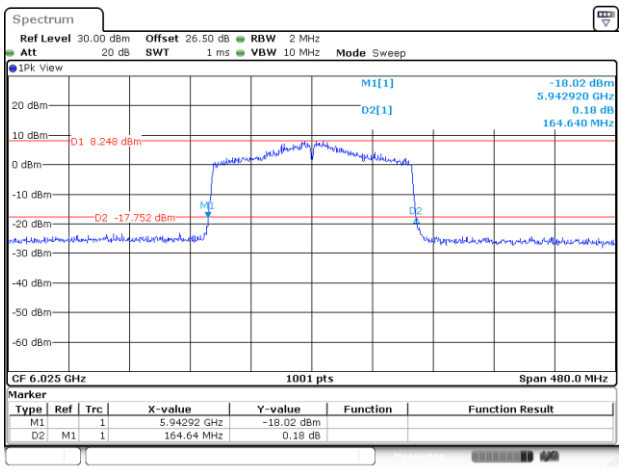
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<802.11ax HE80>

99% Occupied Bandwidth	26dB Bandwidth
	

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

<802.11ax HE160>

99% Occupied Bandwidth	26dB Bandwidth
	

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

3.2 Fundamental Maximum EIRP Measurement

3.2.1 Limit of Fundamental Maximum EIRP

<FCC 14-30 CFR 15.407>

(a)(8) For client devices operating under the control of an indoor access point in the 5.925-7.125 GHz bands, the maximum e.i.r.p. over the frequency band of operation must not exceed 24 dBm.

3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

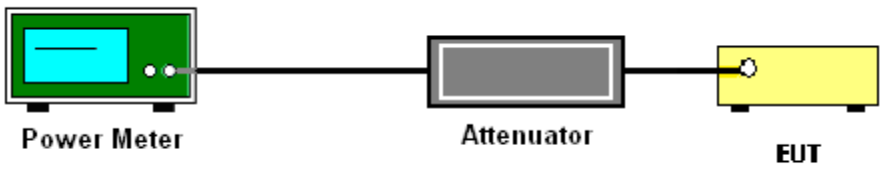
<CDD and SDM Modes>

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)(8) For client devices operating under the control of an indoor access point in the 5.925-7.125 GHz bands, the maximum power spectral density must not exceed −1 dBm e.i.r.p. in any 1-megahertz band.

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.

<CDD and SDM Modes>

 # Method SA-2 #

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

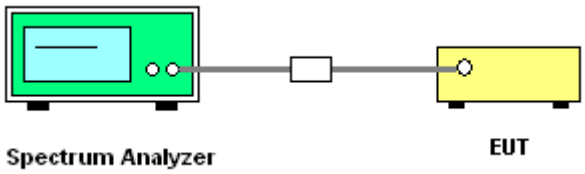
- Measure the duty cycle.
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz.
- Set VBW ≥ 3 MHz.
- Number of points in sweep ≥ 2 Span / RBW.
- Sweep time = auto.
- Detector = RMS
- Trace average at least 100 traces in power averaging mode.
- Add 10 log(1/x), 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

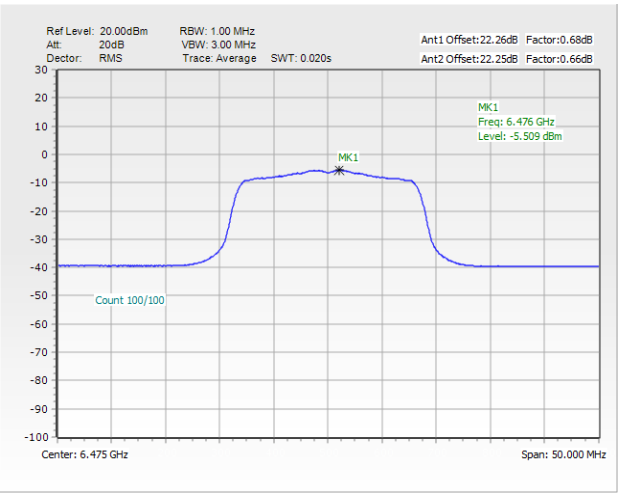


3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

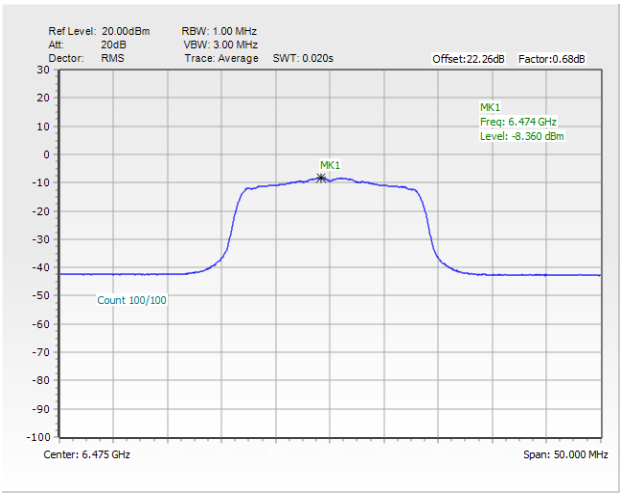
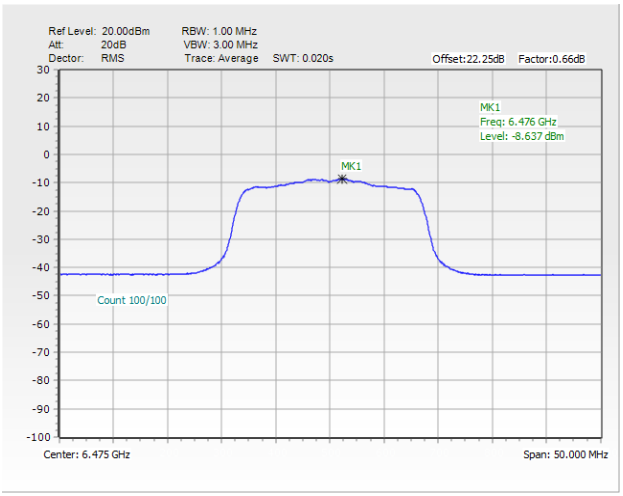
<CDD Modes>

<802.11a>

Maximum Power Density Plot (dBm/MHz)


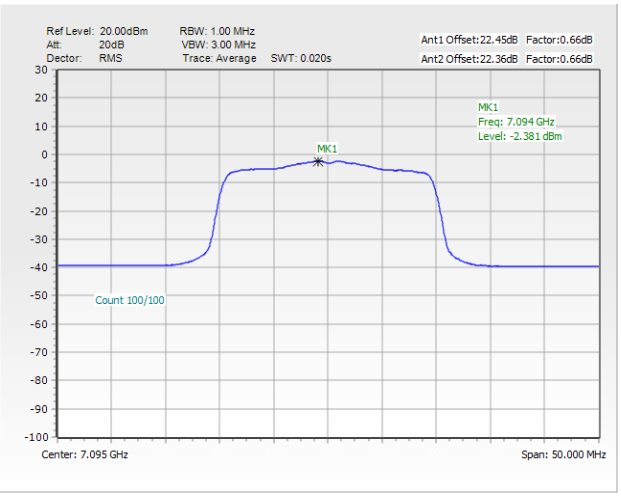
Note:

1. EIRP Power Density (dBm/MHz) = Measured value+ Duty Factor + Directional Gain
2. The test plot is showing a bin by bin combined result mathematically adds two traces.

Power Density Plot Trace 1 (Ant. 6)	Power Density Plot Trace 2 (Ant. 7)
	

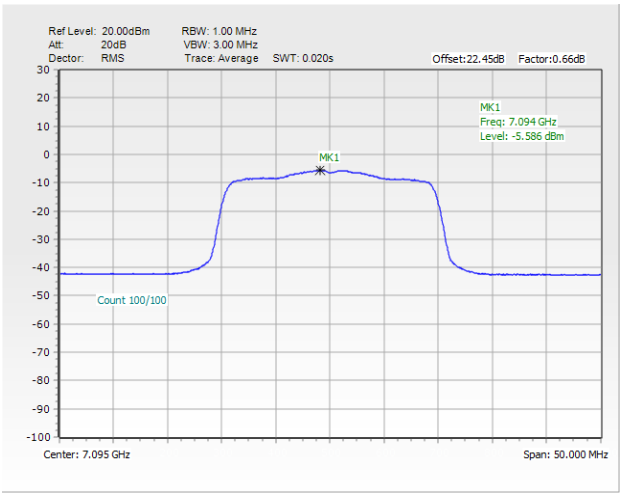
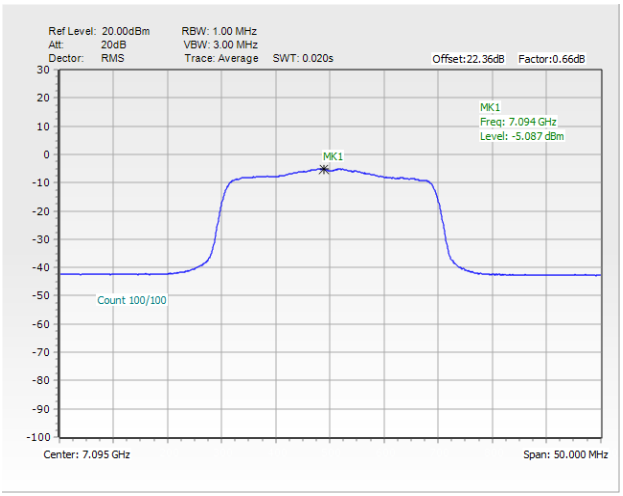
<SDM Modes>

<802.11ax HE20 Full RU>

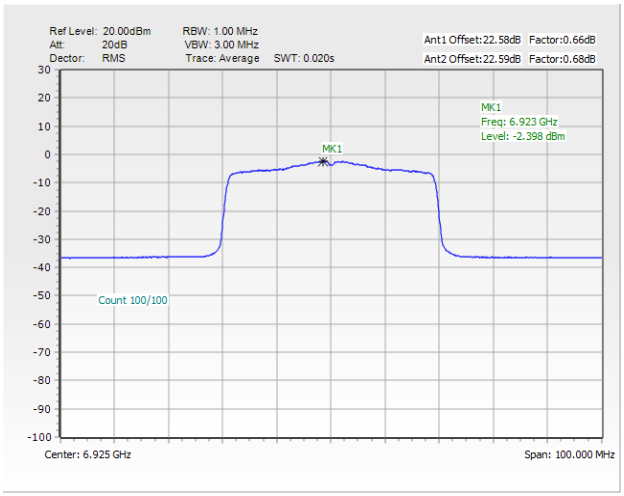
Power Density Plot (dBm/MHz)


Note:

1. EIRP Power Density (dBm/MHz) = Measured value+ Duty Factor + Directional Gain
2. The test plot is showing a bin by bin combined result mathematically adds two traces.

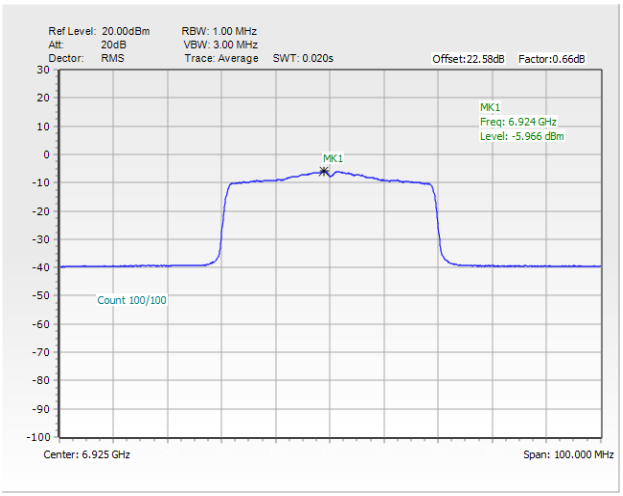
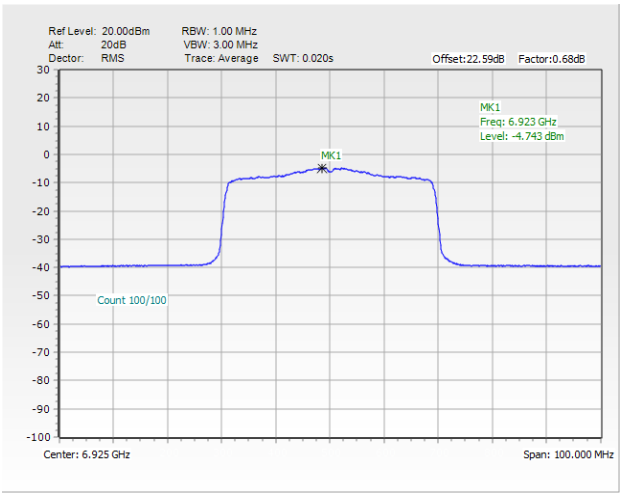
Power Density Plot Trace 1 (Ant. 6)	Power Density Plot Trace 2 (Ant. 7)
	

<802.11ax HE40 Full RU>

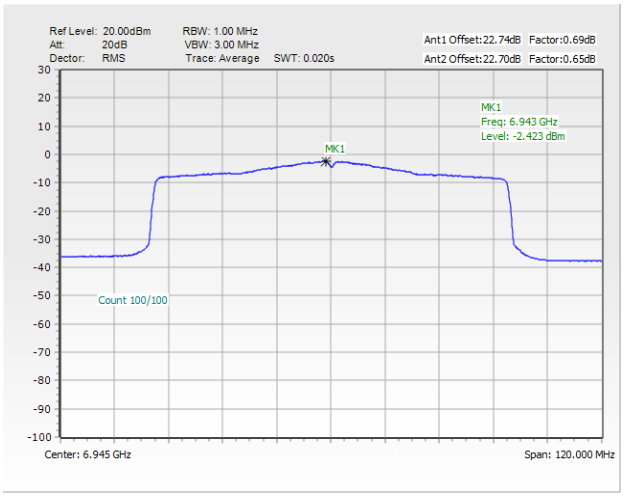
Power Density Plot (dBm/MHz)


Note:

1. EIRP Power Density (dBm/MHz) = Measured value+ Duty Factor + Directional Gain
2. The test plot is showing a bin by bin combined result mathematically adds two traces.

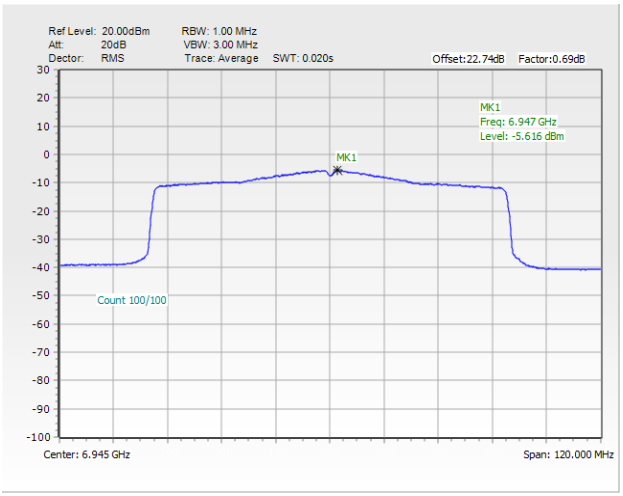
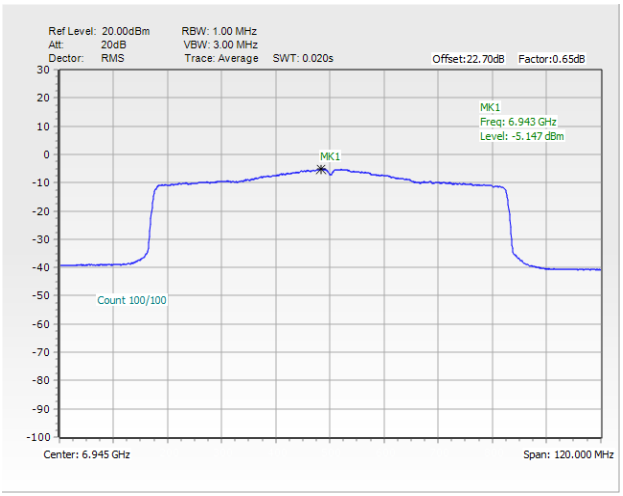
Power Density Plot Trace 1 (Ant. 6)	Power Density Plot Trace 2 (Ant. 7)
	

<802.11ax HE80 Full RU>

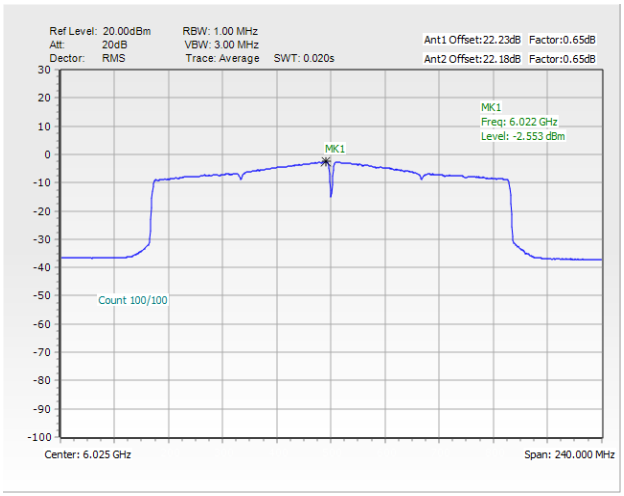
Power Density Plot (dBm/MHz)


Note:

1. EIRP Power Density (dBm/MHz) = Measured value+ Duty Factor + Directional Gain
2. The test plot is showing a bin by bin combined result mathematically adds two traces.

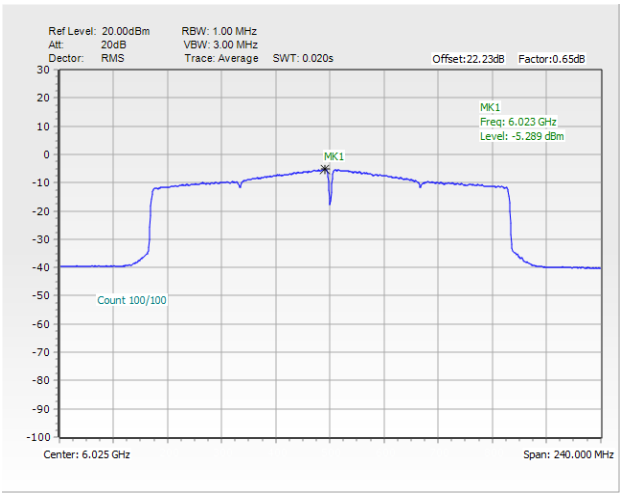
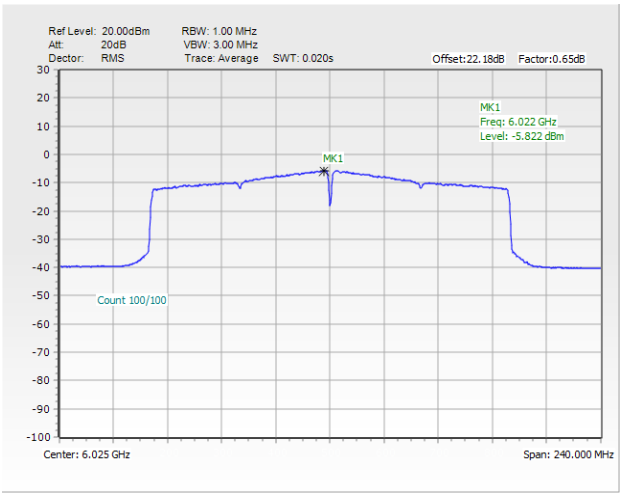
Power Density Plot Trace 1 (Ant. 6)	Power Density Plot Trace 2 (Ant. 7)
	

<802.11ax HE160 Full RU>

Power Density Plot (dBm/MHz)


Note:

1. EIRP Power Density (dBm/MHz) = Measured value+ Duty Factor + Directional Gain
2. The test plot is showing a bin by bin combined result mathematically adds two traces.

Power Density Plot Trace 1 (Ant. 6)	Power Density Plot Trace 2 (Ant. 7)
	

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.

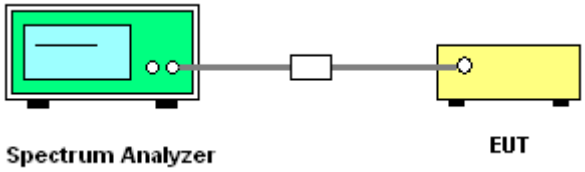
3.4.3 Test Procedures

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

Section J) In-Band Emissions.

1. Take nominal bandwidth as reference channel bandwidth provided that 26 dB emission bandwidth is always larger than nominal bandwidth
2. 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 ≥ 3 X RBW
   d) Number of points in sweep ≥ [2 X span / 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.
3. 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.
4. Adjust the span to encompass the entire mask as necessary.
5. Clear trace.
6. Trace average at least 100 traces in power averaging (rms) mode.
7. 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



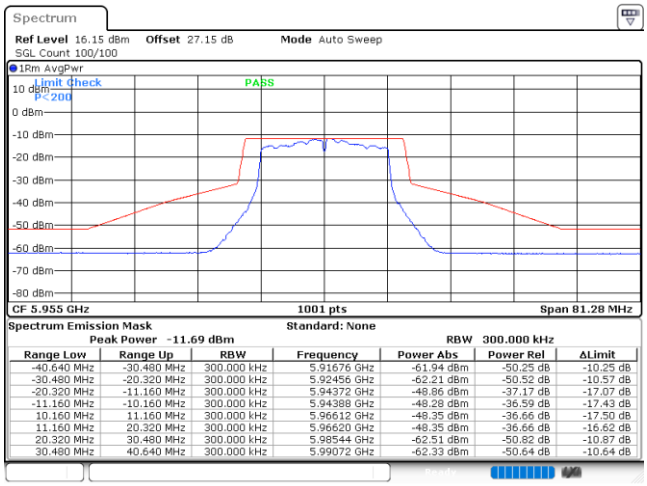
3.4.5 Test Result

<CDD Modes>

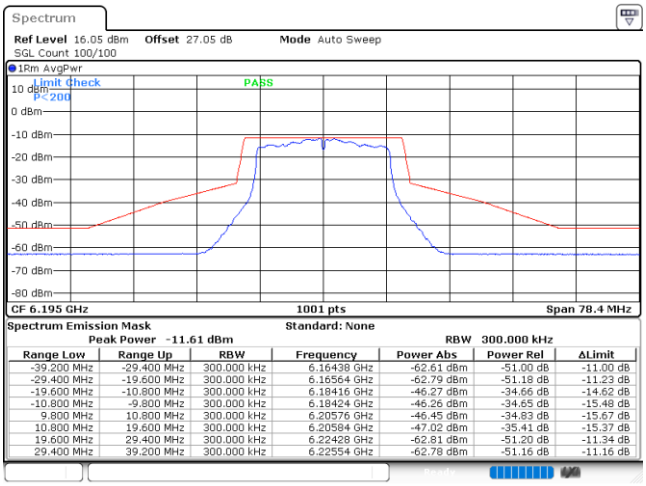
MIMO <Ant. 6+7(6)>

EUT Mode	802.11a

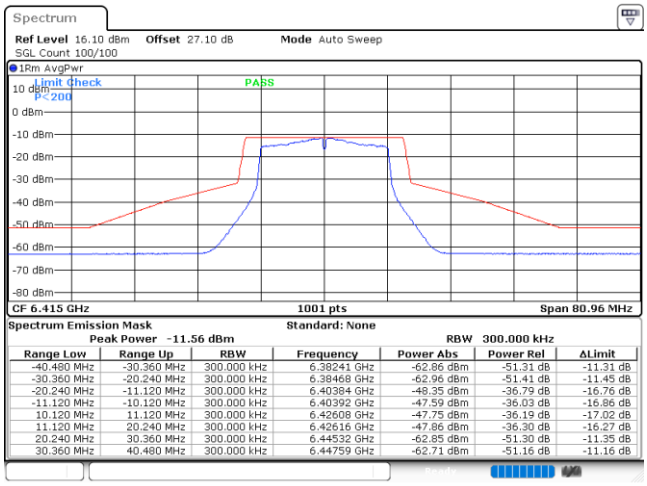
Plot on Channel 5955 MHz



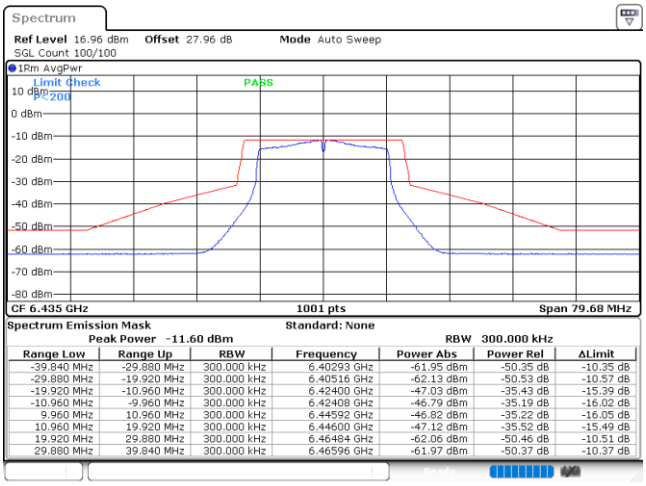
Plot on Channel 6195 MHz



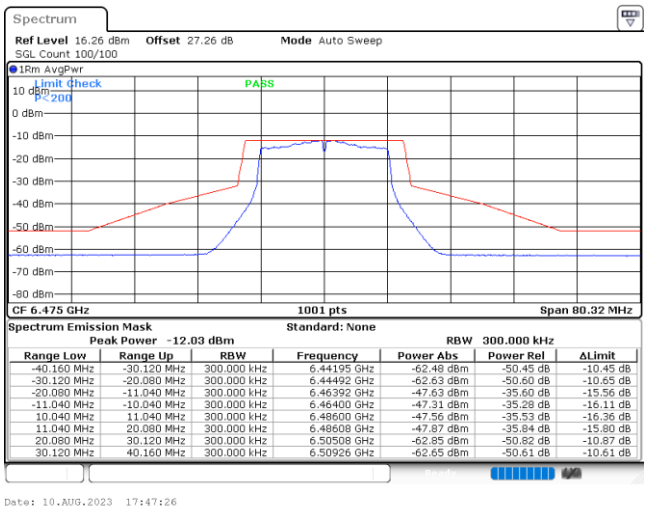
Plot on Channel 6415 MHz



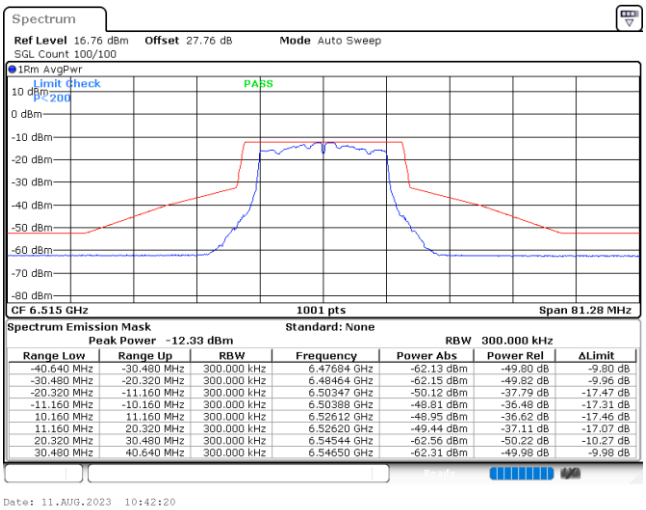
Plot on Channel 6435 MHz



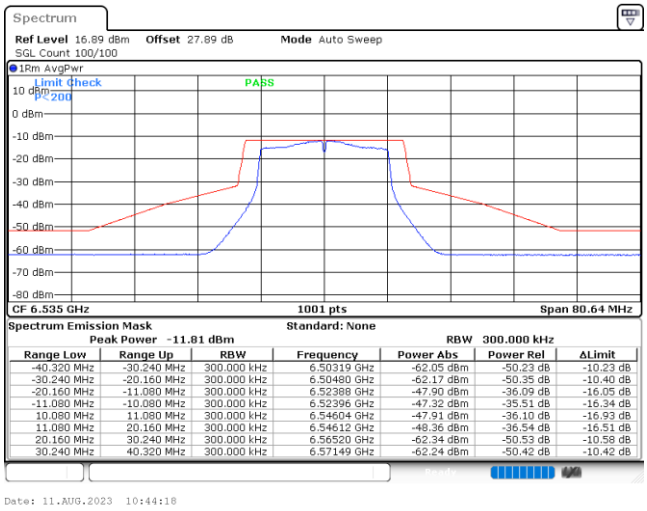
Plot on Channel 6475 MHz



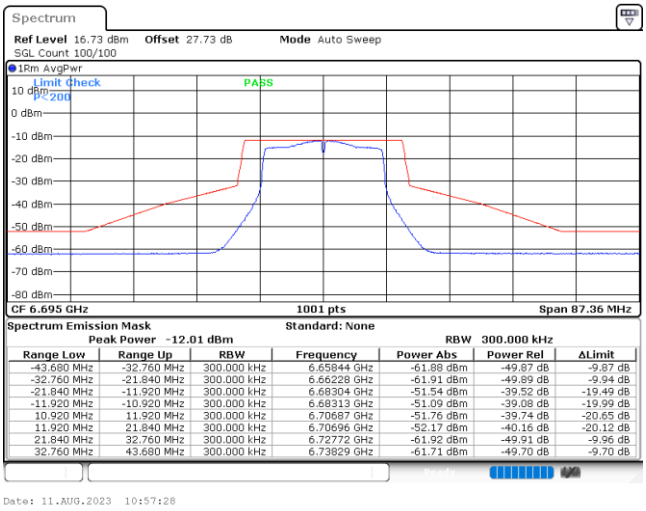
Plot on Channel 6515 MHz



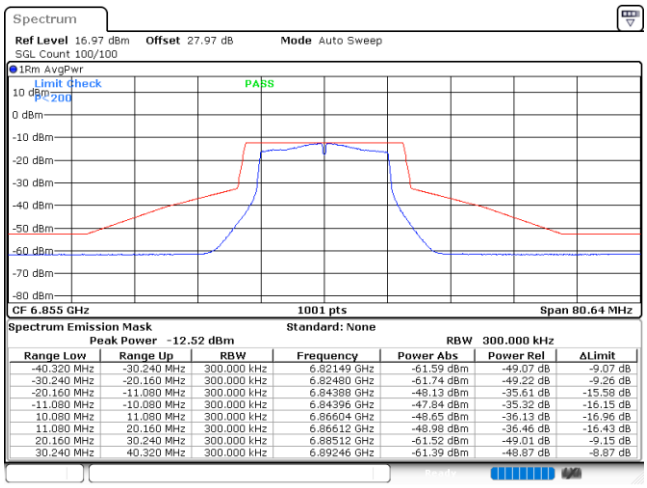
Plot on Channel 6535 MHz



Plot on Channel 6695 MHz



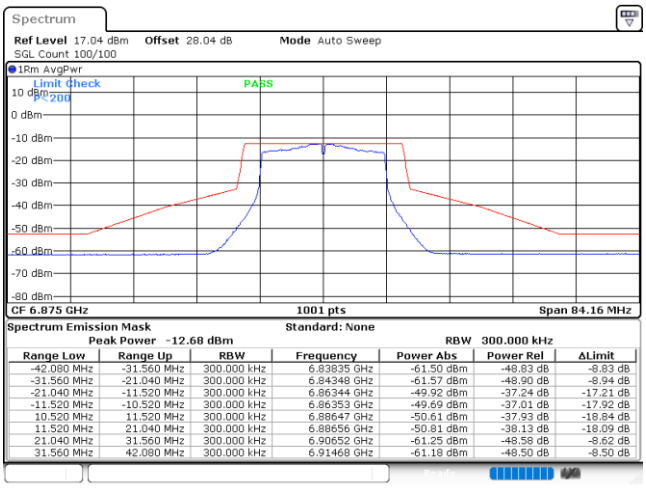
Plot on Channel 6855 MHz



Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-40.320 MHz	-30.240 MHz	300.000 kHz	6.82149 GHz	-61.59 dBm	-49.07 dB	-9.07 dB
-30.240 MHz	-20.160 MHz	300.000 kHz	6.82480 GHz	-61.74 dBm	-49.22 dB	-9.26 dB
-20.160 MHz	-11.080 MHz	300.000 kHz	6.84388 GHz	-48.13 dBm	-35.61 dB	-15.58 dB
-11.080 MHz	-10.080 MHz	300.000 kHz	6.84396 GHz	-47.84 dBm	-35.32 dB	-16.15 dB
10.080 MHz	11.080 MHz	300.000 kHz	6.86604 GHz	-48.65 dBm	-36.13 dB	-16.96 dB
11.080 MHz	20.160 MHz	300.000 kHz	6.86612 GHz	-48.98 dBm	-36.46 dB	-16.43 dB
20.160 MHz	30.240 MHz	300.000 kHz	6.88512 GHz	-61.52 dBm	-49.01 dB	-9.15 dB
30.240 MHz	40.320 MHz	300.000 kHz	6.89246 GHz	-61.39 dBm	-48.87 dB	-8.87 dB

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

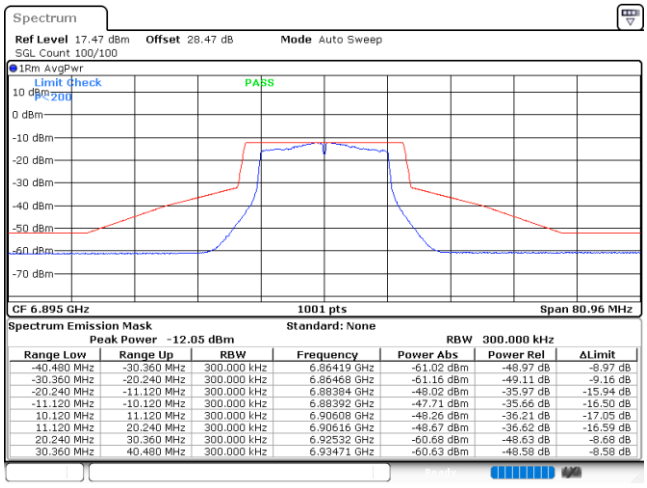
Plot on Channel 6875 MHz



Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-42.080 MHz	-31.560 MHz	300.000 kHz	6.83835 GHz	-61.50 dBm	-48.83 dB	-8.83 dB
-31.560 MHz	-21.040 MHz	300.000 kHz	6.84348 GHz	-61.57 dBm	-48.90 dB	-8.94 dB
-21.040 MHz	-11.520 MHz	300.000 kHz	6.86344 GHz	-49.92 dBm	-37.24 dB	-17.21 dB
-11.520 MHz	-10.520 MHz	300.000 kHz	6.86353 GHz	-49.69 dBm	-37.01 dB	-17.92 dB
10.520 MHz	11.520 MHz	300.000 kHz	6.88647 GHz	-50.61 dBm	-37.93 dB	-18.84 dB
11.520 MHz	21.040 MHz	300.000 kHz	6.88656 GHz	-50.81 dBm	-38.13 dB	-18.09 dB
21.040 MHz	31.560 MHz	300.000 kHz	6.90652 GHz	-61.25 dBm	-48.58 dB	-8.62 dB
31.560 MHz	42.080 MHz	300.000 kHz	6.91468 GHz	-61.18 dBm	-48.50 dB	-8.50 dB

Date: 11.AUG.2023 11:09:10

Plot on Channel 6895 MHz



Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-40.480 MHz	-30.360 MHz	300.000 kHz	6.86419 GHz	-61.02 dBm	-48.97 dB	-8.97 dB
-30.360 MHz	-20.240 MHz	300.000 kHz	6.86468 GHz	-61.16 dBm	-49.11 dB	-9.16 dB
-20.240 MHz	-11.120 MHz	300.000 kHz	6.88384 GHz	-48.02 dBm	-35.97 dB	-15.94 dB
-11.120 MHz	-10.120 MHz	300.000 kHz	6.88392 GHz	-47.71 dBm	-35.66 dB	-16.50 dB
10.120 MHz	11.120 MHz	300.000 kHz	6.90608 GHz	-48.26 dBm	-36.21 dB	-17.05 dB
11.120 MHz	20.240 MHz	300.000 kHz	6.90616 GHz	-48.67 dBm	-36.62 dB	-16.59 dB
20.240 MHz	30.360 MHz	300.000 kHz	6.92532 GHz	-60.68 dBm	-48.63 dB	-8.68 dB
30.360 MHz	40.480 MHz	300.000 kHz	6.93471 GHz	-60.63 dBm	-48.58 dB	-8.58 dB

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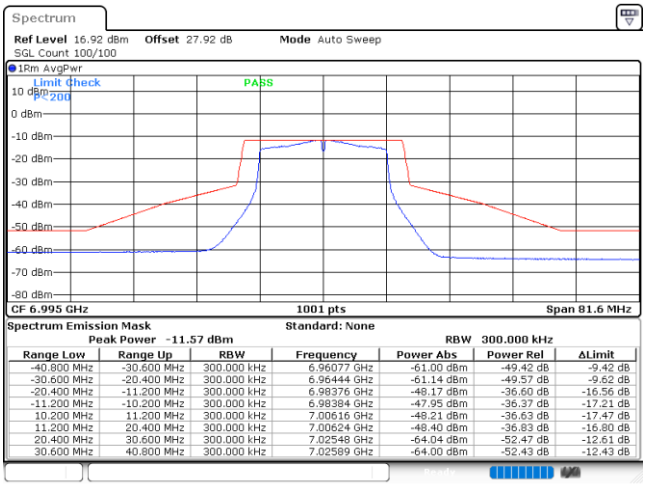
Plot on Channel 6995 MHz



Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-40.800 MHz	-30.600 MHz	300.000 kHz	6.96077 GHz	-61.00 dBm	-49.42 dB	-9.42 dB
-30.600 MHz	-20.400 MHz	300.000 kHz	6.96444 GHz	-61.14 dBm	-49.57 dB	-9.62 dB
-20.400 MHz	-11.200 MHz	300.000 kHz	6.98376 GHz	-48.17 dBm	-36.60 dB	-16.56 dB
-11.200 MHz	-10.200 MHz	300.000 kHz	6.98384 GHz	-47.95 dBm	-36.37 dB	-17.21 dB
10.200 MHz	11.200 MHz	300.000 kHz	7.00616 GHz	-48.21 dBm	-36.63 dB	-17.47 dB
11.200 MHz	20.400 MHz	300.000 kHz	7.00624 GHz	-48.40 dBm	-36.83 dB	-16.80 dB
20.400 MHz	30.600 MHz	300.000 kHz	7.02548 GHz	-64.04 dBm	-52.47 dB	-12.61 dB
30.600 MHz	40.800 MHz	300.000 kHz	7.02589 GHz	-64.00 dBm	-52.43 dB	-12.43 dB

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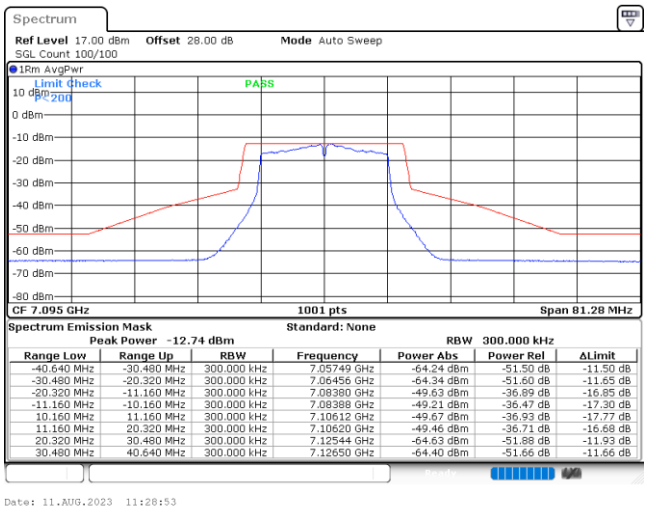
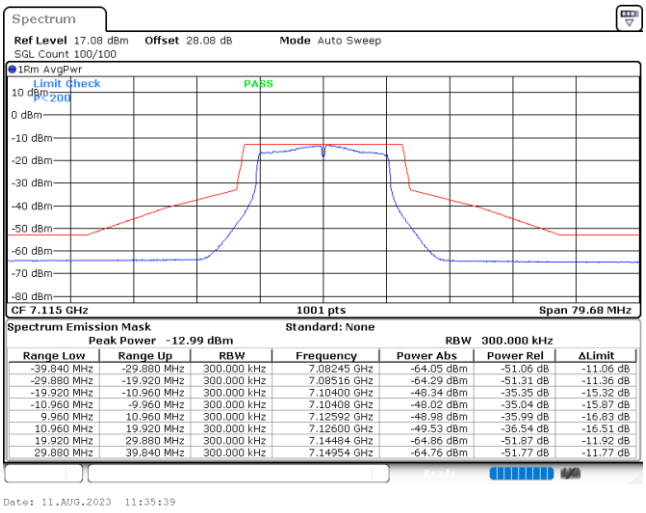
Plot on Channel 7095 MHz



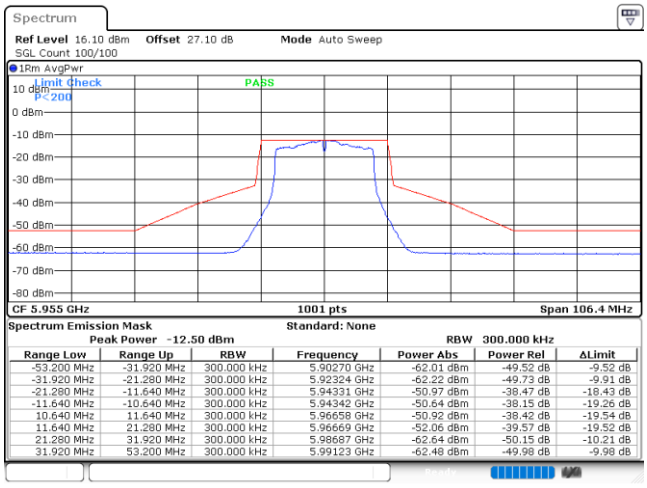
Plot on Channel 7115 MHz



MIMO <Ant. 6+7(7)>

EUT Mode	802.11a

Plot on Channel 5955 MHz



Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-53.200 MHz	-31.920 MHz	300.000 kHz	5.90270 GHz	-62.01 dBm	-49.52 dB	-9.52 dB
-31.920 MHz	-21.280 MHz	300.000 kHz	5.92324 GHz	-62.22 dBm	-49.73 dB	-9.91 dB
-21.280 MHz	-11.640 MHz	300.000 kHz	5.94331 GHz	-50.97 dBm	-38.47 dB	-18.43 dB
-11.640 MHz	-10.640 MHz	300.000 kHz	5.94342 GHz	-50.64 dBm	-38.15 dB	-19.26 dB
10.640 MHz	11.640 MHz	300.000 kHz	5.96658 GHz	-50.92 dBm	-38.42 dB	-19.54 dB
11.640 MHz	21.280 MHz	300.000 kHz	5.96669 GHz	-52.06 dBm	-39.57 dB	-19.52 dB
21.280 MHz	31.920 MHz	300.000 kHz	5.98687 GHz	-62.64 dBm	-50.15 dB	-10.21 dB
31.920 MHz	53.200 MHz	300.000 kHz	5.99123 GHz	-62.48 dBm	-49.98 dB	-9.98 dB

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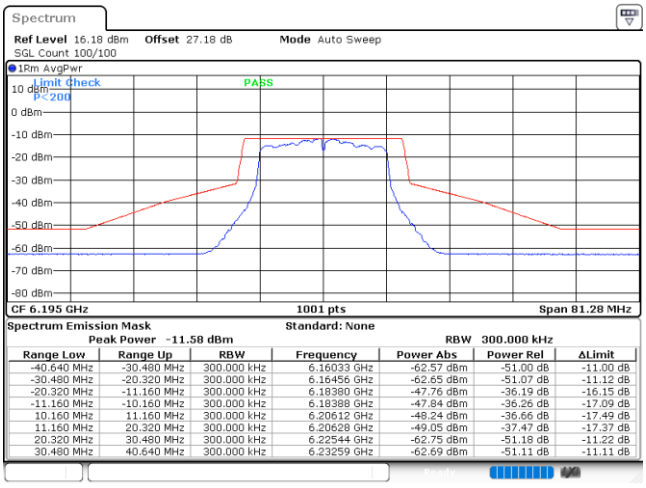
Plot on Channel 6195 MHz



Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-40.640 MHz	-30.480 MHz	300.000 kHz	6.16033 GHz	-62.57 dBm	-51.00 dB	-11.00 dB
-30.480 MHz	-20.320 MHz	300.000 kHz	6.16456 GHz	-62.65 dBm	-51.07 dB	-11.12 dB
-20.320 MHz	-11.160 MHz	300.000 kHz	6.18380 GHz	-47.76 dBm	-36.19 dB	-16.15 dB
-11.160 MHz	-10.160 MHz	300.000 kHz	6.18388 GHz	-47.84 dBm	-36.26 dB	-17.09 dB
10.160 MHz	11.160 MHz	300.000 kHz	6.20612 GHz	-48.24 dBm	-36.66 dB	-17.49 dB
11.160 MHz	20.320 MHz	300.000 kHz	6.20628 GHz	-49.05 dBm	-37.47 dB	-17.37 dB
20.320 MHz	30.480 MHz	300.000 kHz	6.22544 GHz	-62.75 dBm	-51.18 dB	-11.22 dB
30.480 MHz	40.640 MHz	300.000 kHz	6.23259 GHz	-62.69 dBm	-51.11 dB	-11.11 dB

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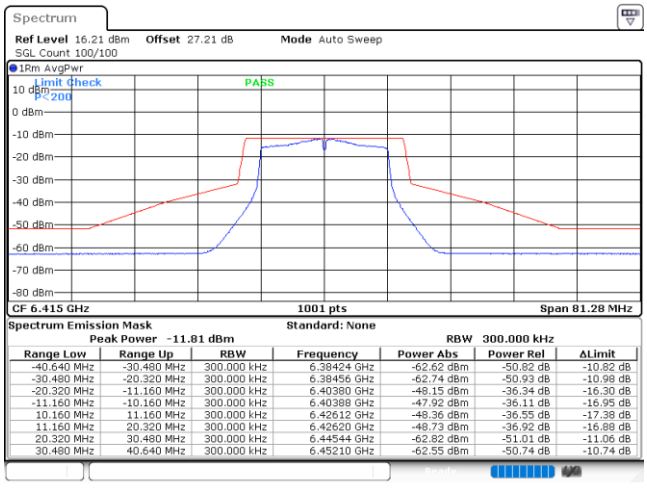
Plot on Channel 6415 MHz



Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-40.640 MHz	-30.480 MHz	300.000 kHz	6.38424 GHz	-62.62 dBm	-50.82 dB	-10.82 dB
-30.480 MHz	-20.320 MHz	300.000 kHz	6.38456 GHz	-62.74 dBm	-50.93 dB	-10.98 dB
-20.320 MHz	-11.160 MHz	300.000 kHz	6.40380 GHz	-48.15 dBm	-36.34 dB	-16.30 dB
-11.160 MHz	-10.160 MHz	300.000 kHz	6.40388 GHz	-47.92 dBm	-36.11 dB	-16.95 dB
10.160 MHz	11.160 MHz	300.000 kHz	6.42612 GHz	-48.36 dBm	-36.55 dB	-17.38 dB
11.160 MHz	20.320 MHz	300.000 kHz	6.42620 GHz	-48.73 dBm	-36.92 dB	-16.88 dB
20.320 MHz	30.480 MHz	300.000 kHz	6.44544 GHz	-62.82 dBm	-51.01 dB	-11.06 dB
30.480 MHz	40.640 MHz	300.000 kHz	6.45210 GHz	-62.55 dBm	-50.74 dB	-10.74 dB

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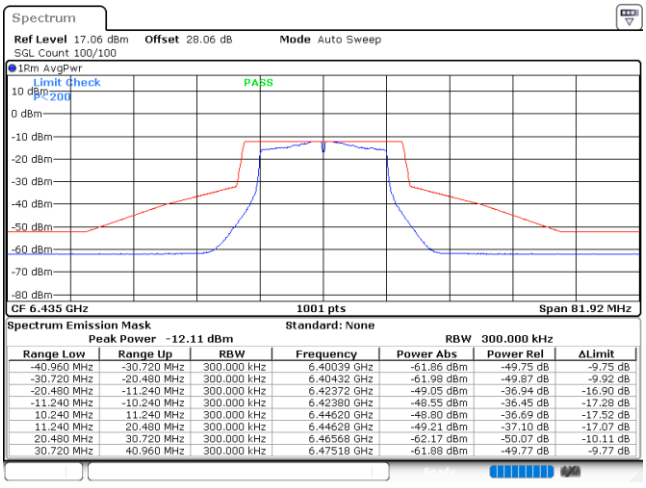
Plot on Channel 6435 MHz



Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-40.960 MHz	-30.720 MHz	300.000 kHz	6.40039 GHz	-61.86 dBm	-49.75 dB	-9.75 dB
-30.720 MHz	-20.480 MHz	300.000 kHz	6.40432 GHz	-61.98 dBm	-49.87 dB	-9.92 dB
-20.480 MHz	-11.240 MHz	300.000 kHz	6.42372 GHz	-49.05 dBm	-36.94 dB	-16.90 dB
-11.240 MHz	-10.240 MHz	300.000 kHz	6.42380 GHz	-48.55 dBm	-36.45 dB	-17.28 dB
10.240 MHz	11.240 MHz	300.000 kHz	6.44620 GHz	-48.80 dBm	-36.69 dB	-17.52 dB
11.240 MHz	20.480 MHz	300.000 kHz	6.44628 GHz	-49.21 dBm	-37.10 dB	-17.07 dB
20.480 MHz	30.720 MHz	300.000 kHz	6.46568 GHz	-62.17 dBm	-50.07 dB	-10.11 dB
30.720 MHz	40.960 MHz	300.000 kHz	6.47518 GHz	-61.88 dBm	-49.77 dB	-9.77 dB

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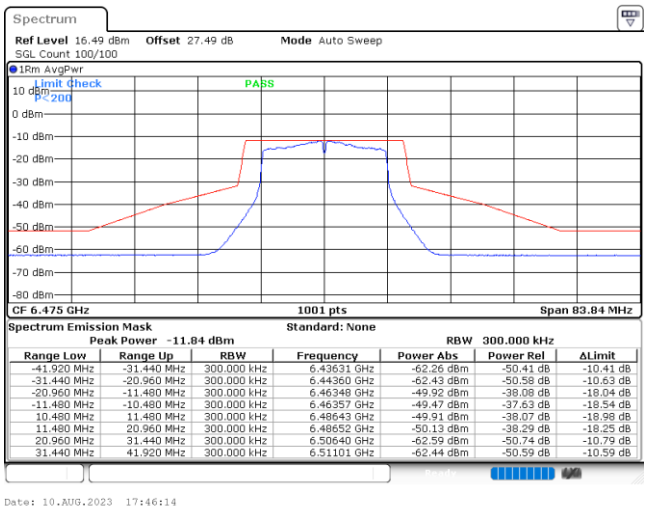
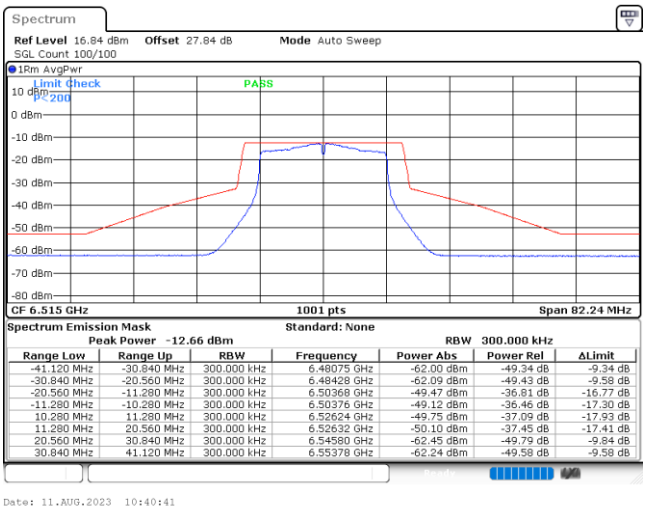
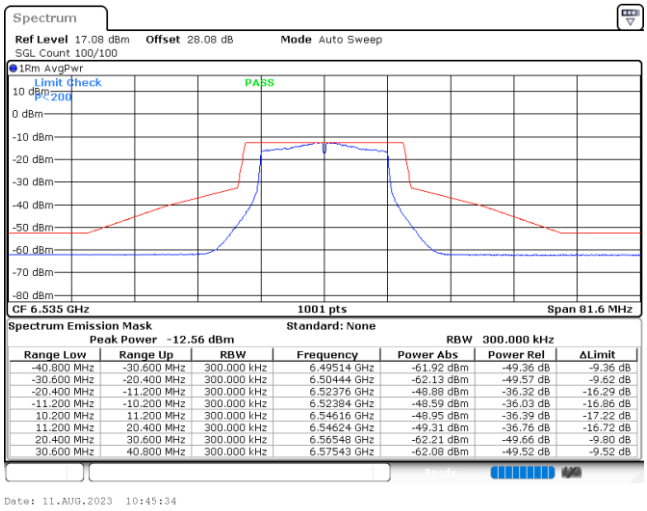
Plot on Channel 6475 MHz



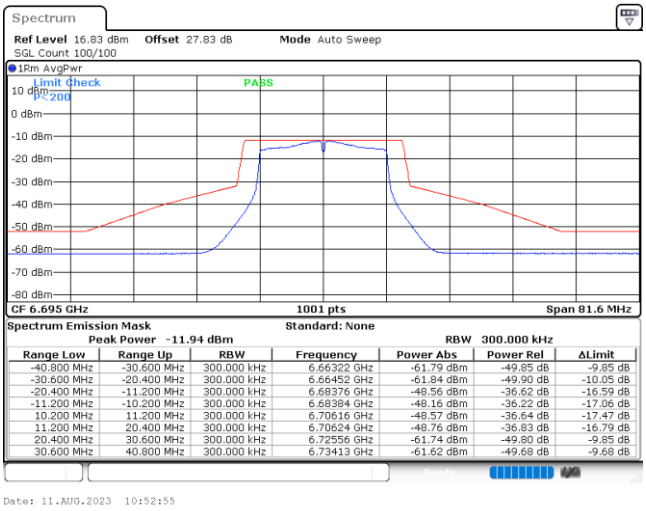
Plot on Channel 6515 MHz



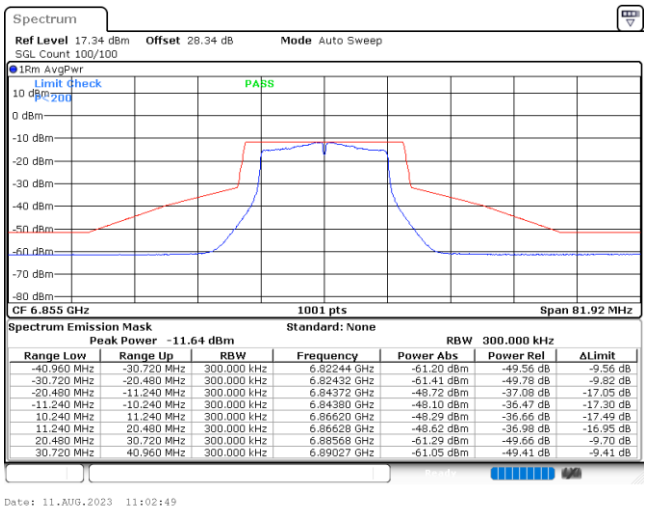
Plot on Channel 6535 MHz



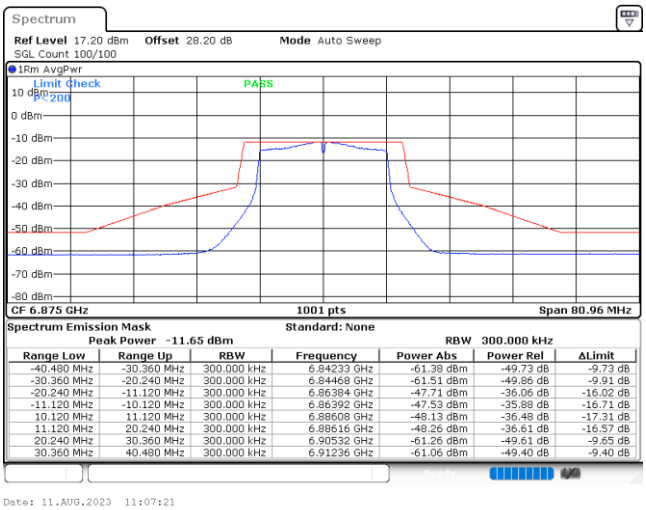
Plot on Channel 6695 MHz



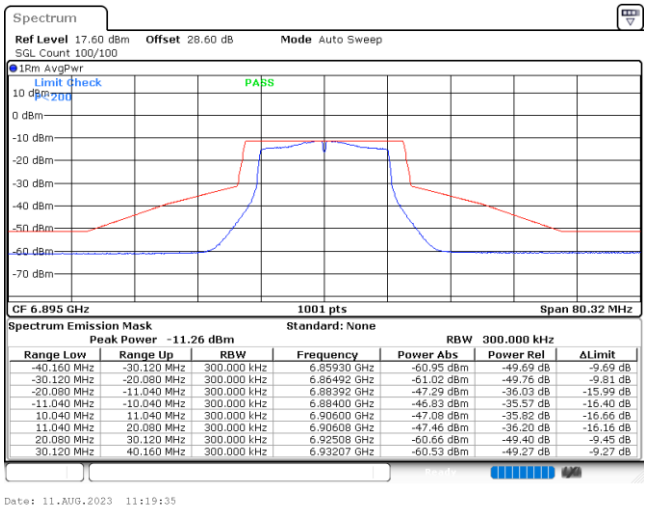
Plot on Channel 6855 MHz



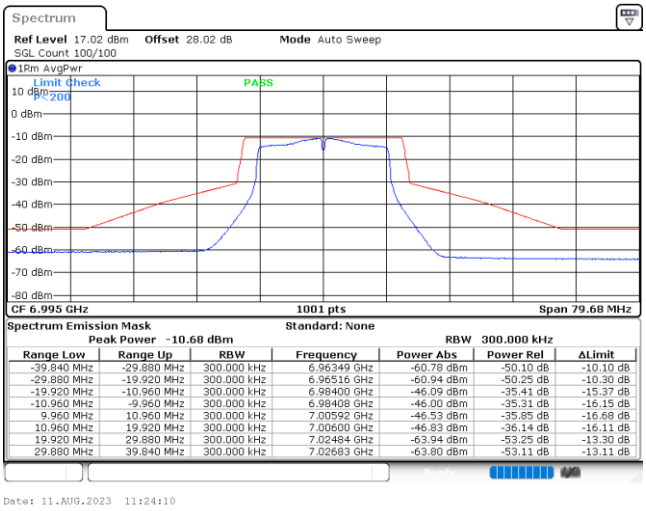
Plot on Channel 6875 MHz



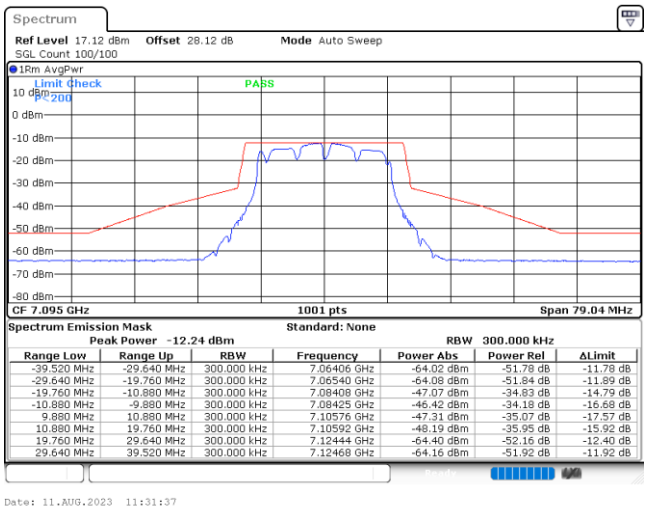
Plot on Channel 6895 MHz



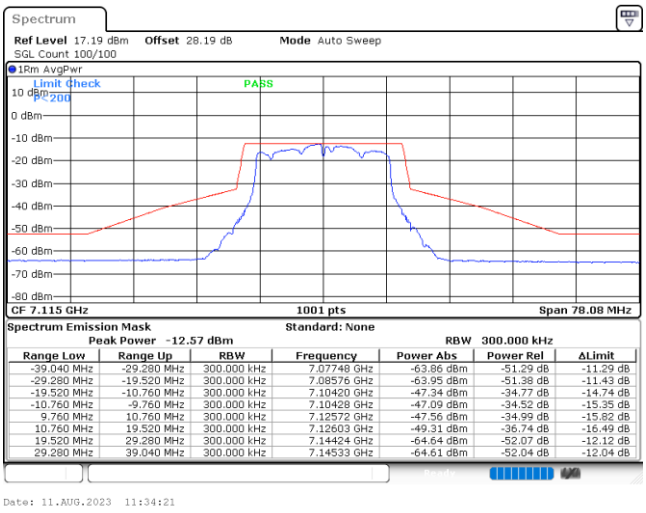
Plot on Channel 6995 MHz



Plot on Channel 7095 MHz



Plot on Channel 7115 MHz

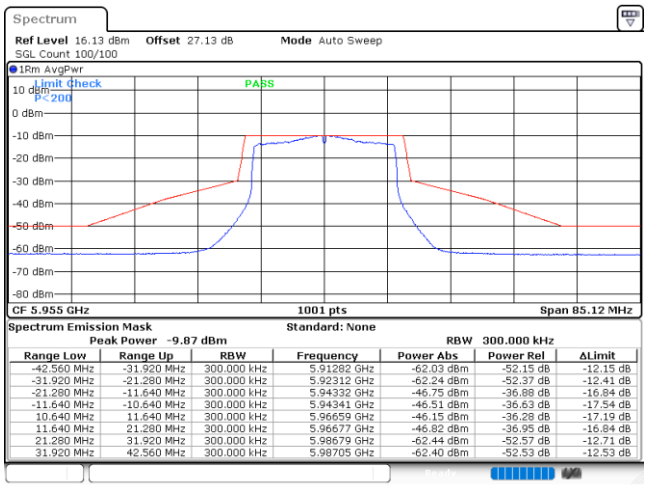


<SDM Modes>

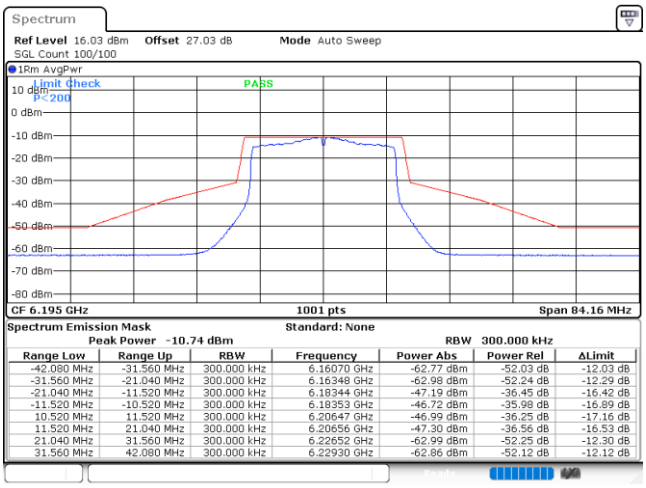
MIMO <Ant. 6+7(6)>

EUT Mode	802.11ax HE20 Full RU

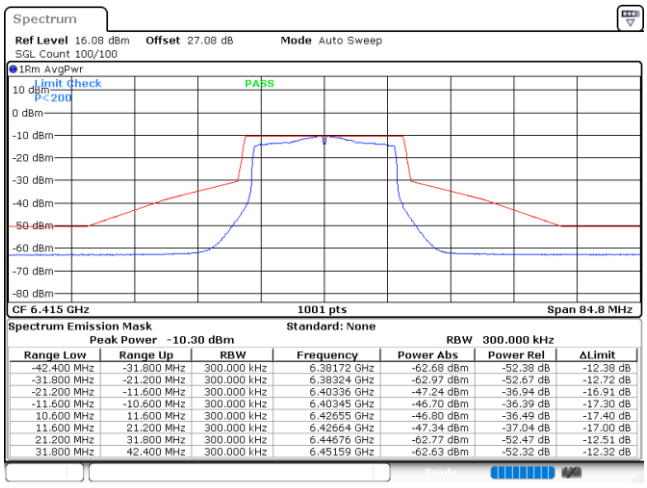
Plot on Channel 5955 MHz



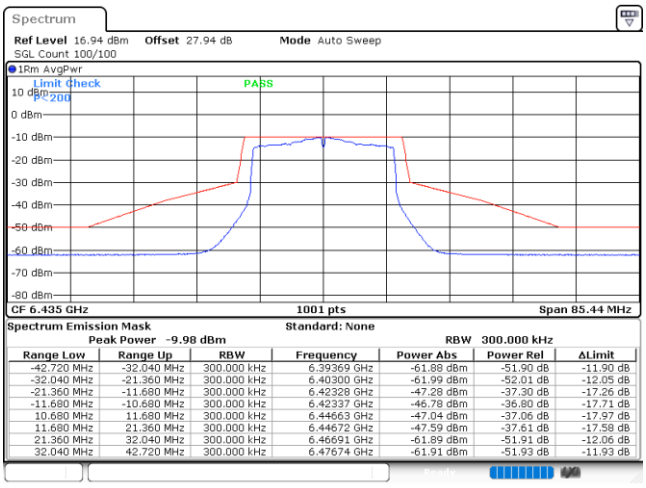
Plot on Channel 6195 MHz



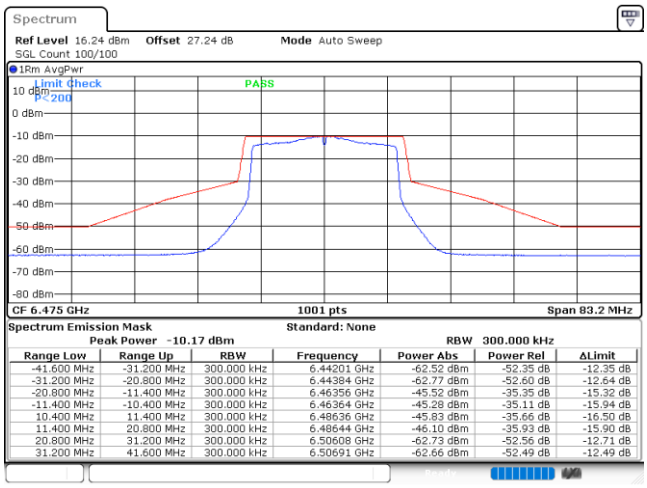
Plot on Channel 6415 MHz



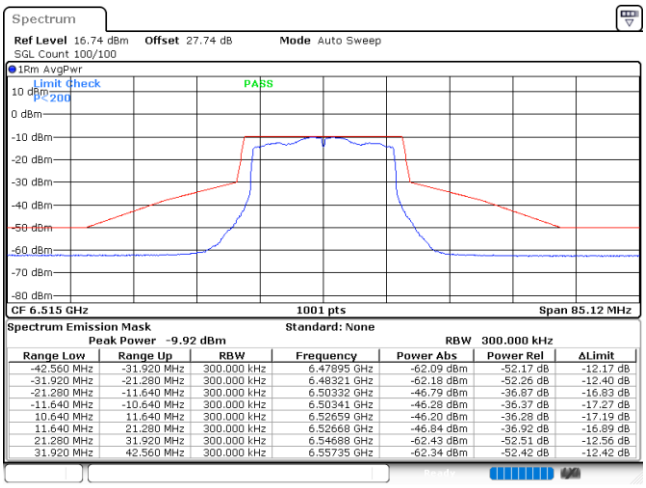
Plot on Channel 6435 MHz



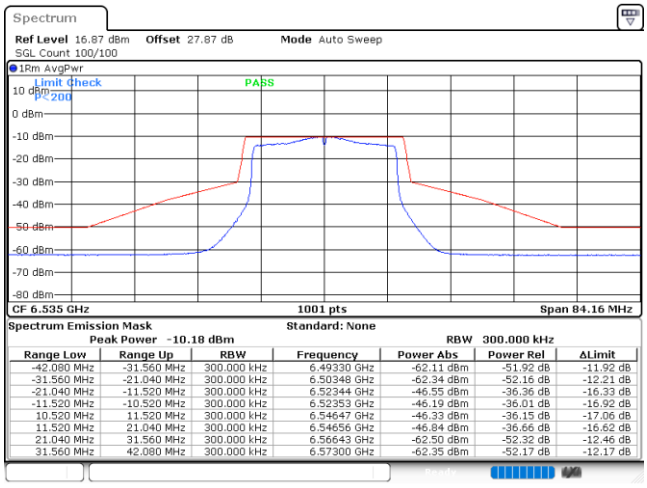
Plot on Channel 6475 MHz



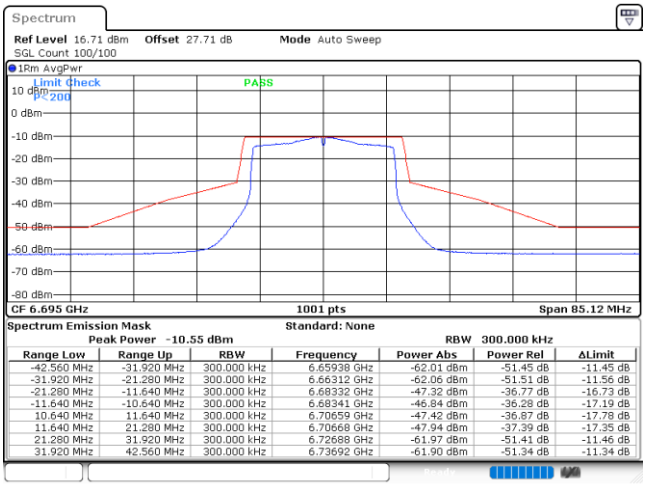
Plot on Channel 6515 MHz



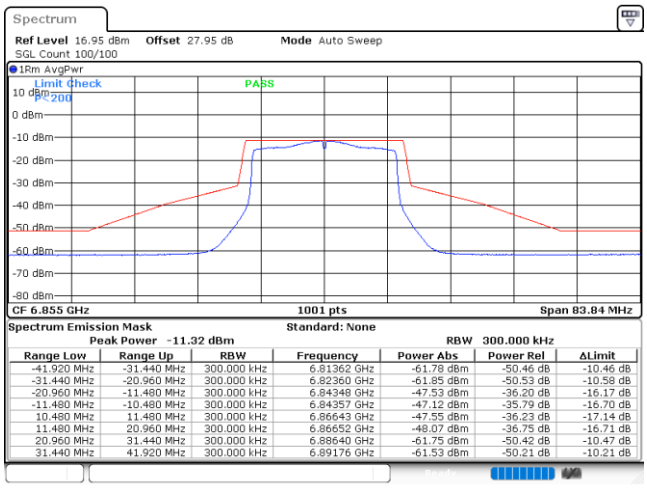
Plot on Channel 6535 MHz



Plot on Channel 6695 MHz



Plot on Channel 6855 MHz



Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-41.920 MHz	-31.440 MHz	300.000 kHz	6.81362 GHz	-61.78 dBm	-50.46 dB	-10.46 dB
-31.440 MHz	-20.960 MHz	300.000 kHz	6.82360 GHz	-61.85 dBm	-50.53 dB	-10.58 dB
-20.960 MHz	-11.480 MHz	300.000 kHz	6.84348 GHz	-47.53 dBm	-36.20 dB	-16.17 dB
-11.480 MHz	-10.480 MHz	300.000 kHz	6.84357 GHz	-47.12 dBm	-35.79 dB	-16.70 dB
10.480 MHz	11.480 MHz	300.000 kHz	6.86643 GHz	-47.55 dBm	-36.23 dB	-17.14 dB
11.480 MHz	20.960 MHz	300.000 kHz	6.86652 GHz	-48.07 dBm	-36.75 dB	-16.71 dB
20.960 MHz	31.440 MHz	300.000 kHz	6.88640 GHz	-61.75 dBm	-50.42 dB	-10.47 dB
31.440 MHz	41.920 MHz	300.000 kHz	6.89176 GHz	-61.53 dBm	-50.21 dB	-10.21 dB

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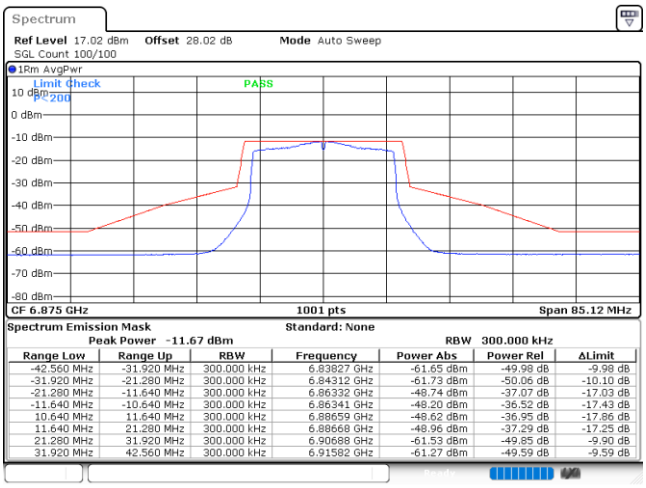
Plot on Channel 6875 MHz



Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-42.560 MHz	-31.920 MHz	300.000 kHz	6.83827 GHz	-61.65 dBm	-49.98 dB	-9.98 dB
-31.920 MHz	-21.280 MHz	300.000 kHz	6.84312 GHz	-61.73 dBm	-50.06 dB	-10.10 dB
-21.280 MHz	-11.640 MHz	300.000 kHz	6.86332 GHz	-48.74 dBm	-37.07 dB	-17.03 dB
-11.640 MHz	-10.640 MHz	300.000 kHz	6.86341 GHz	-48.20 dBm	-36.52 dB	-17.43 dB
10.640 MHz	11.640 MHz	300.000 kHz	6.88659 GHz	-48.62 dBm	-36.95 dB	-17.86 dB
11.640 MHz	21.280 MHz	300.000 kHz	6.88668 GHz	-48.96 dBm	-37.29 dB	-17.25 dB
21.280 MHz	31.920 MHz	300.000 kHz	6.90688 GHz	-61.53 dBm	-49.85 dB	-9.90 dB
31.920 MHz	42.560 MHz	300.000 kHz	6.91582 GHz	-61.27 dBm	-49.59 dB	-9.59 dB

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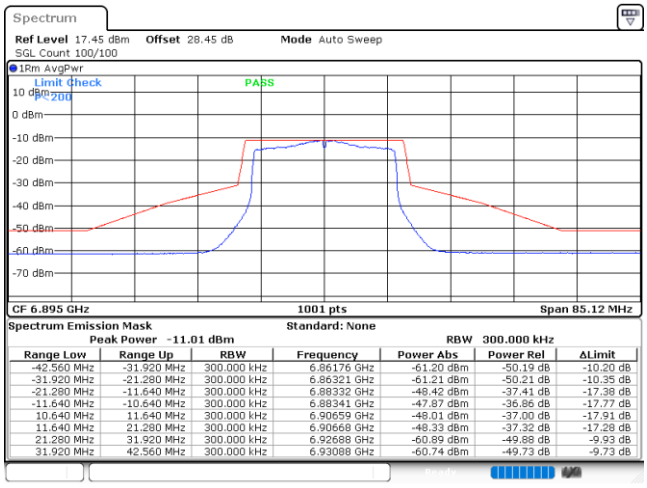
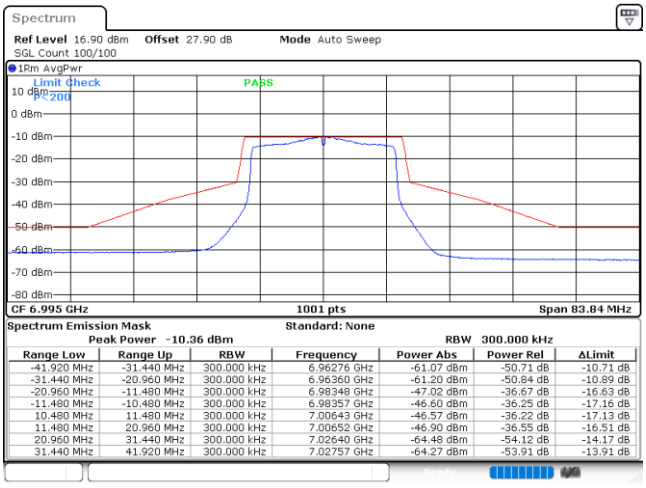
Plot on Channel 6895 MHz



Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-42.560 MHz	-31.920 MHz	300.000 kHz	6.86176 GHz	-61.20 dBm	-50.19 dB	-10.20 dB
-31.920 MHz	-21.280 MHz	300.000 kHz	6.86321 GHz	-61.21 dBm	-50.21 dB	-10.35 dB
-21.280 MHz	-11.640 MHz	300.000 kHz	6.88332 GHz	-48.42 dBm	-37.41 dB	-17.38 dB
-11.640 MHz	-10.640 MHz	300.000 kHz	6.88341 GHz	-47.87 dBm	-36.86 dB	-17.77 dB
10.640 MHz	11.640 MHz	300.000 kHz	6.90659 GHz	-48.01 dBm	-37.00 dB	-17.91 dB
11.640 MHz	21.280 MHz	300.000 kHz	6.90668 GHz	-48.33 dBm	-37.32 dB	-17.28 dB
21.280 MHz	31.920 MHz	300.000 kHz	6.92688 GHz	-60.89 dBm	-49.88 dB	-9.93 dB
31.920 MHz	42.560 MHz	300.000 kHz	6.93088 GHz	-60.74 dBm	-49.73 dB	-9.73 dB

Date: 15.AUG.2023 10:27:44

Plot on Channel 6995 MHz



Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-41.920 MHz	-31.440 MHz	300.000 kHz	6.96276 GHz	-61.07 dBm	-50.71 dB	-10.71 dB
-31.440 MHz	-20.960 MHz	300.000 kHz	6.96360 GHz	-61.20 dBm	-50.84 dB	-10.89 dB
-20.960 MHz	-11.480 MHz	300.000 kHz	6.98348 GHz	-47.02 dBm	-36.67 dB	-16.63 dB
-11.480 MHz	-10.480 MHz	300.000 kHz	6.98357 GHz	-46.60 dBm	-36.25 dB	-17.16 dB
10.480 MHz	11.480 MHz	300.000 kHz	7.00643 GHz	-46.57 dBm	-36.22 dB	-17.13 dB
11.480 MHz	20.960 MHz	300.000 kHz	7.00652 GHz	-46.90 dBm	-36.55 dB	-16.51 dB
20.960 MHz	31.440 MHz	300.000 kHz	7.02640 GHz	-64.48 dBm	-54.12 dB	-14.17 dB
31.440 MHz	41.920 MHz	300.000 kHz	7.02757 GHz	-64.27 dBm	-53.91 dB	-13.91 dB

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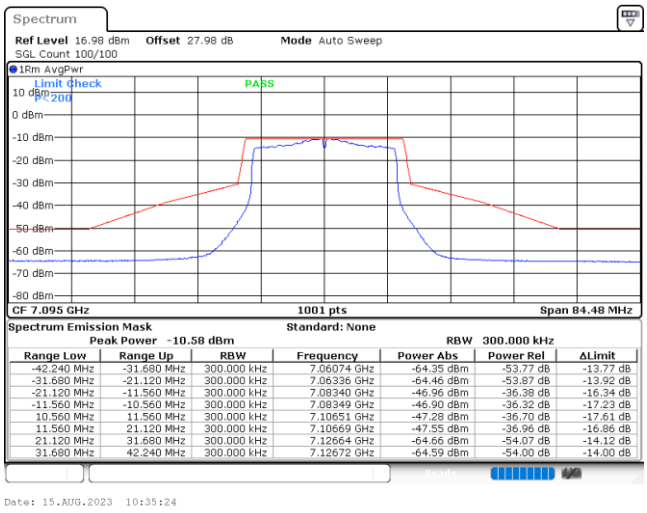
Plot on Channel 7095 MHz



Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-42.240 MHz	-31.680 MHz	300.000 kHz	7.06074 GHz	-64.35 dBm	-53.77 dB	-13.77 dB
-31.680 MHz	-21.120 MHz	300.000 kHz	7.06336 GHz	-64.46 dBm	-53.87 dB	-13.92 dB
-21.120 MHz	-11.560 MHz	300.000 kHz	7.08340 GHz	-46.96 dBm	-36.38 dB	-16.34 dB
-11.560 MHz	-10.560 MHz	300.000 kHz	7.08349 GHz	-46.90 dBm	-36.32 dB	-17.23 dB
10.560 MHz	11.560 MHz	300.000 kHz	7.10651 GHz	-47.28 dBm	-36.70 dB	-17.61 dB
11.560 MHz	21.120 MHz	300.000 kHz	7.10669 GHz	-47.55 dBm	-36.96 dB	-16.86 dB
21.120 MHz	31.680 MHz	300.000 kHz	7.12664 GHz	-64.66 dBm	-54.07 dB	-14.12 dB
31.680 MHz	42.240 MHz	300.000 kHz	7.12672 GHz	-64.59 dBm	-54.00 dB	-14.00 dB

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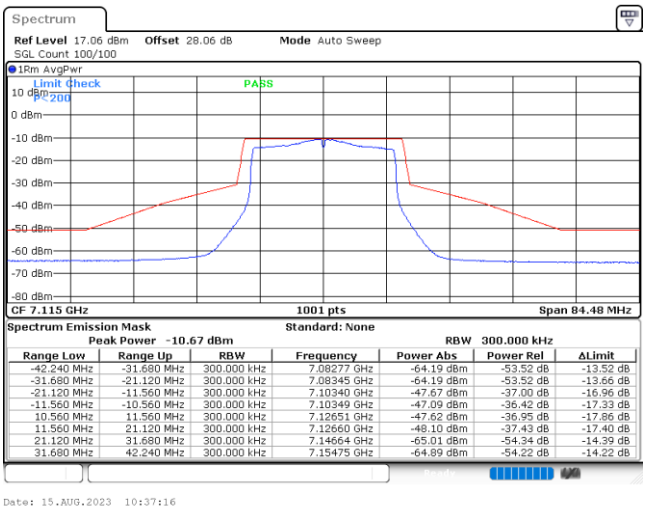
Plot on Channel 7115 MHz



Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-42.240 MHz	-31.680 MHz	300.000 kHz	7.08277 GHz	-64.19 dBm	-53.52 dB	-13.52 dB
-31.680 MHz	-21.120 MHz	300.000 kHz	7.08345 GHz	-64.19 dBm	-53.52 dB	-13.66 dB
-21.120 MHz	-11.560 MHz	300.000 kHz	7.10340 GHz	-47.67 dBm	-37.00 dB	-16.96 dB
-11.560 MHz	-10.560 MHz	300.000 kHz	7.10349 GHz	-47.09 dBm	-36.42 dB	-17.33 dB
10.560 MHz	11.560 MHz	300.000 kHz	7.12651 GHz	-47.62 dBm	-36.95 dB	-17.86 dB
11.560 MHz	21.120 MHz	300.000 kHz	7.12660 GHz	-48.10 dBm	-37.43 dB	-17.40 dB
21.120 MHz	31.680 MHz	300.000 kHz	7.14664 GHz	-65.01 dBm	-54.34 dB	-14.39 dB
31.680 MHz	42.240 MHz	300.000 kHz	7.15475 GHz	-64.89 dBm	-54.22 dB	-14.22 dB

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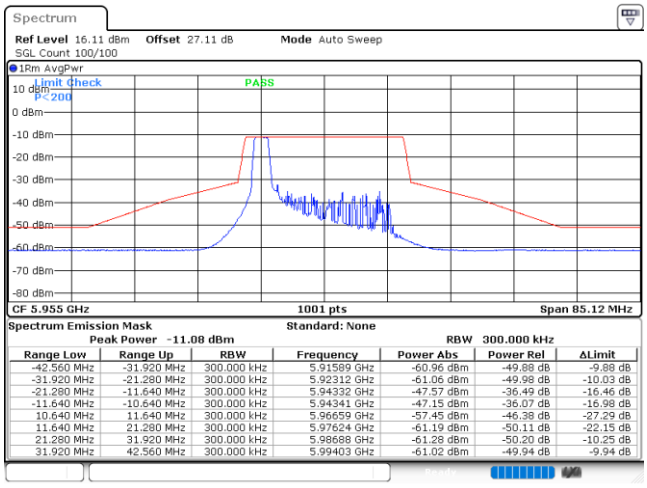
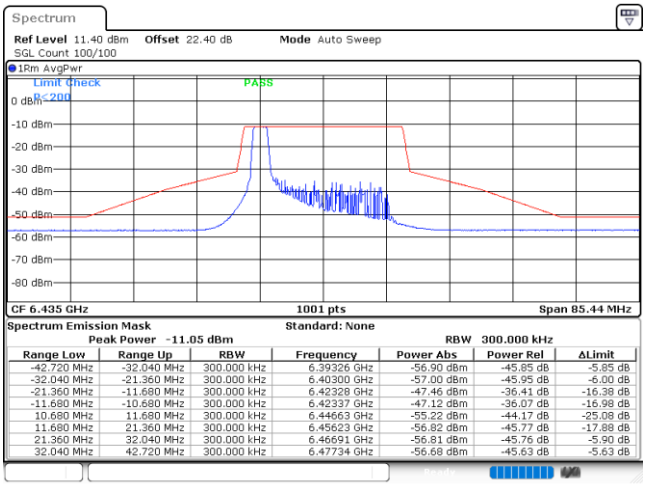
EUT Mode	802.11ax HE20 26RU0

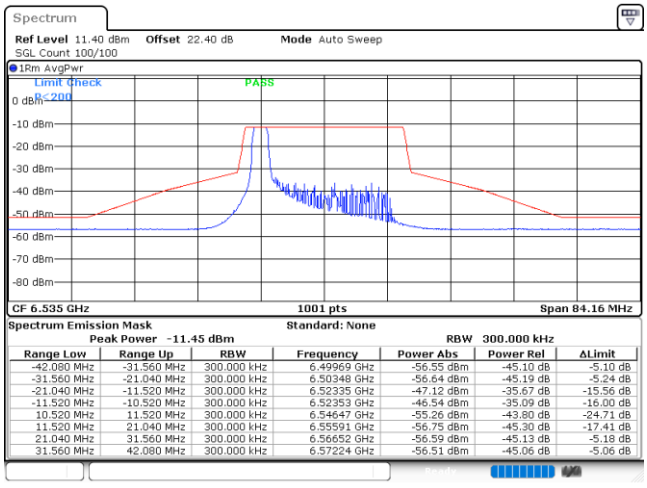
Plot on Channel 5955 MHz



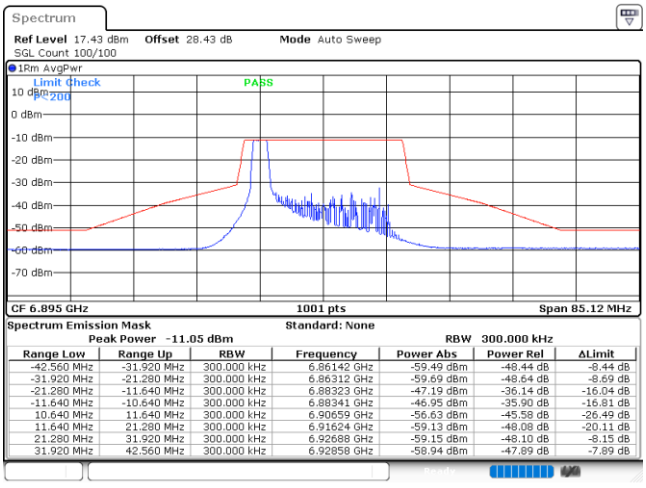
Plot on Channel 6435 MHz



Plot on Channel 6535 MHz

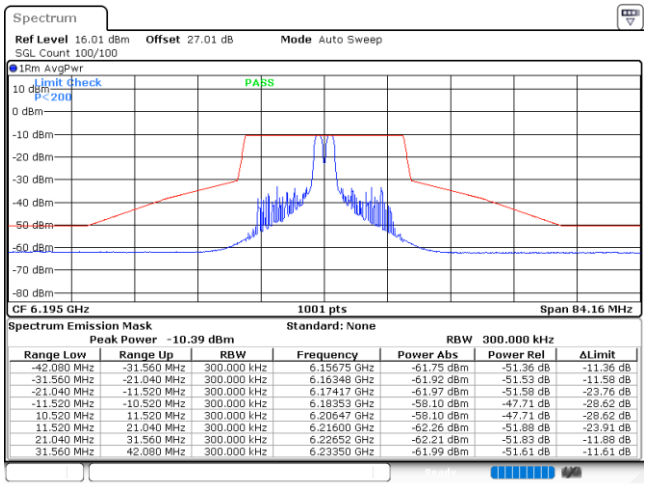


Plot on Channel 6895 MHz

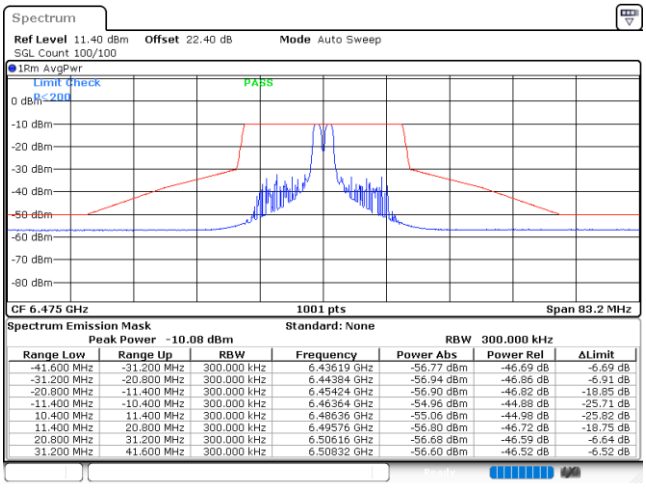


EUT Mode	802.11ax HE20 26RU4

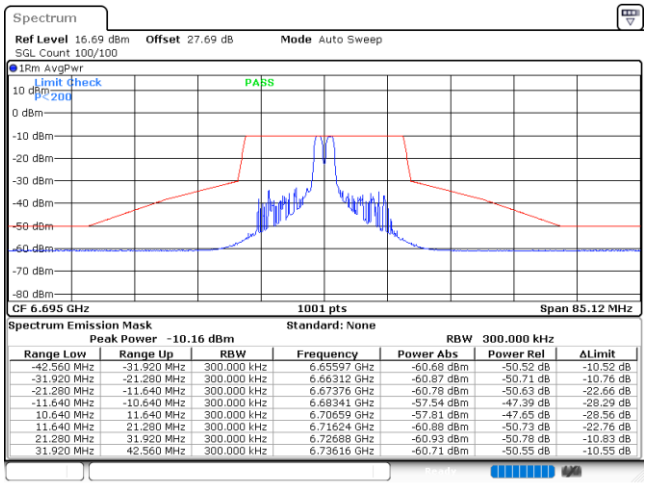
Plot on Channel 6195 MHz



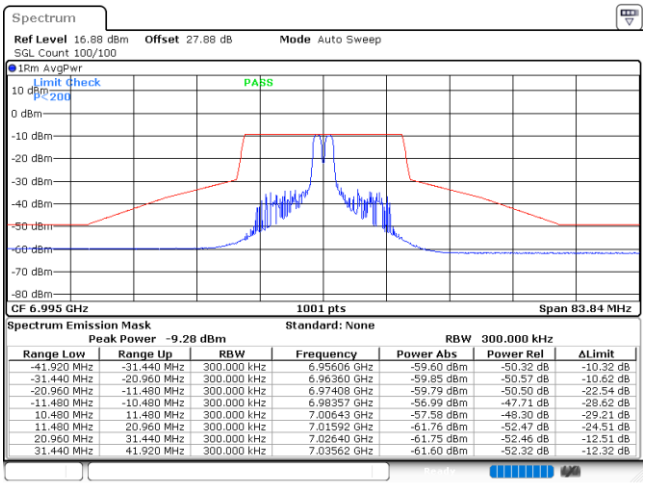
Plot on Channel 6475 MHz



Plot on Channel 6695 MHz

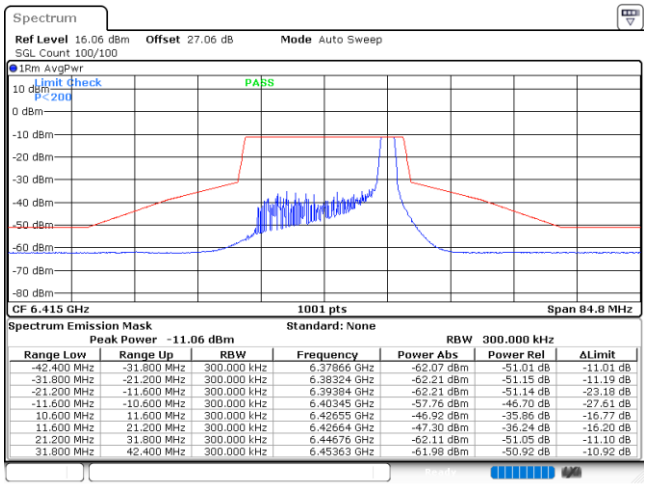


Plot on Channel 6995 MHz

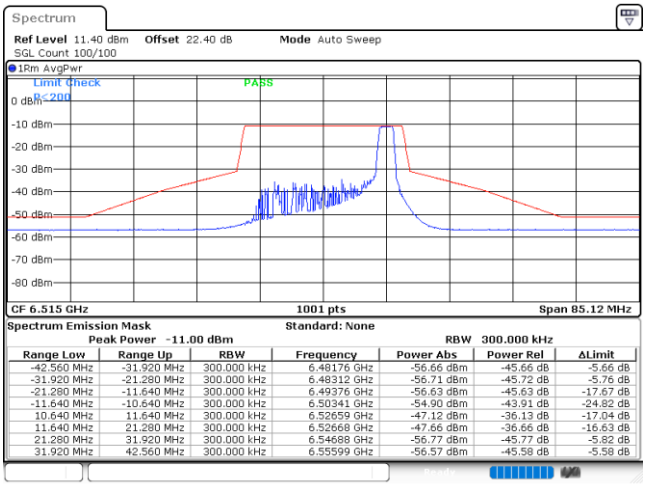


EUT Mode	802.11ax HE20 26RU8

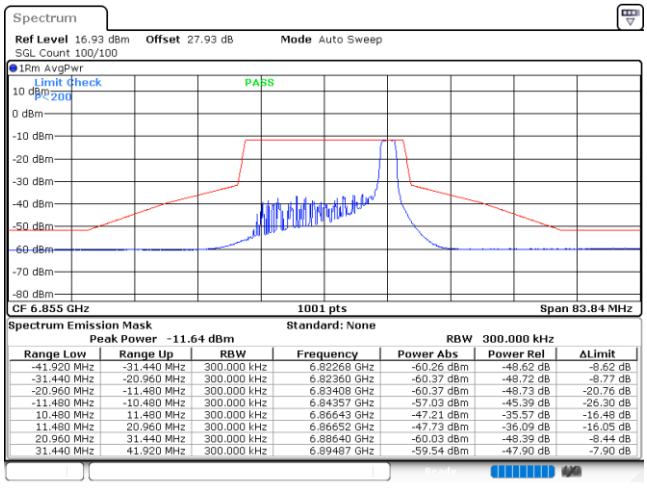
Plot on Channel 6415 MHz



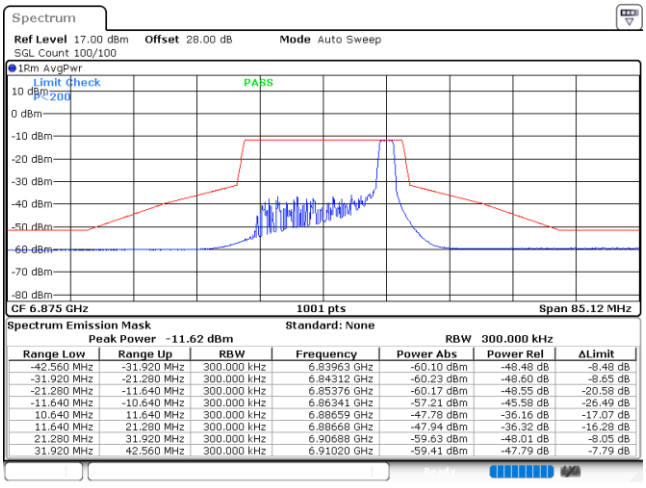
Plot on Channel 6515 MHz



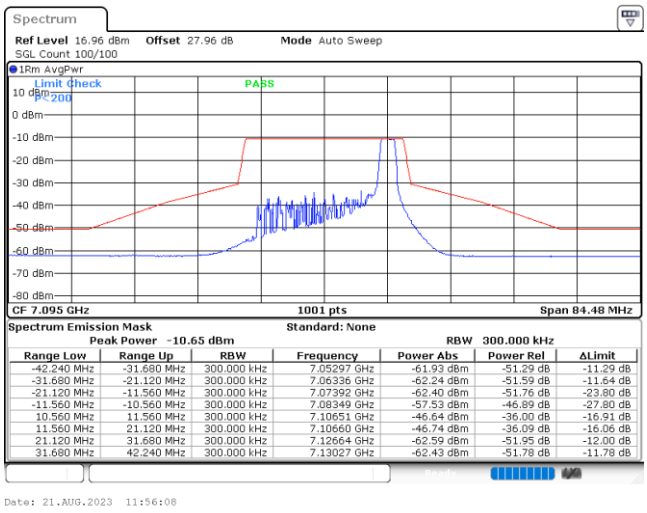
Plot on Channel 6855 MHz



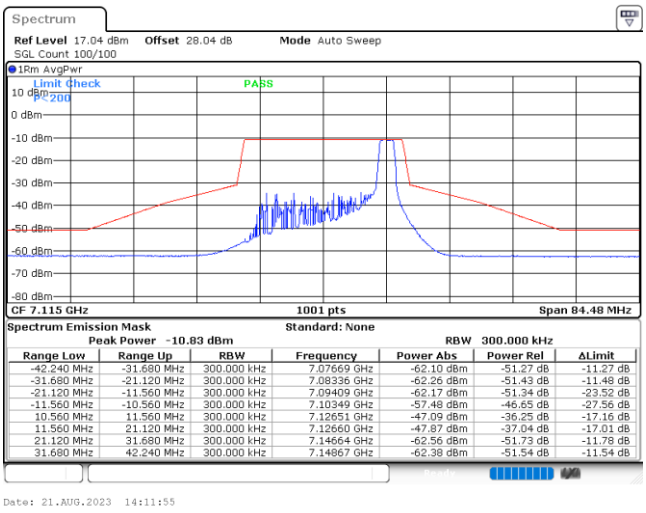
Plot on Channel 6875 MHz



Plot on Channel 7095 MHz

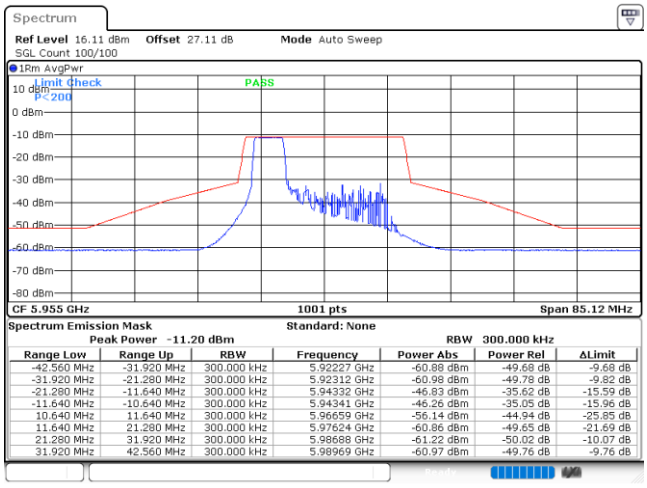


Plot on Channel 7115 MHz

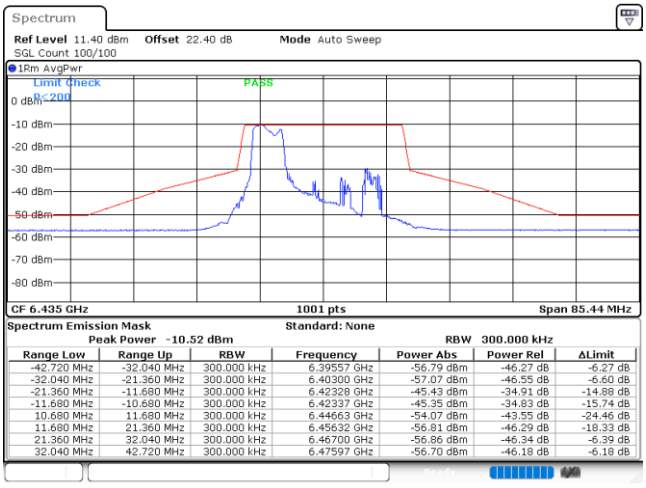


EUT Mode	802.11ax HE20 52RU37

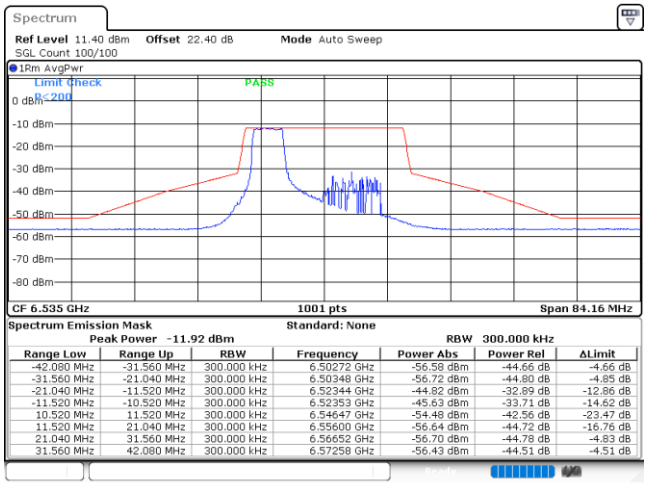
Plot on Channel 5955 MHz



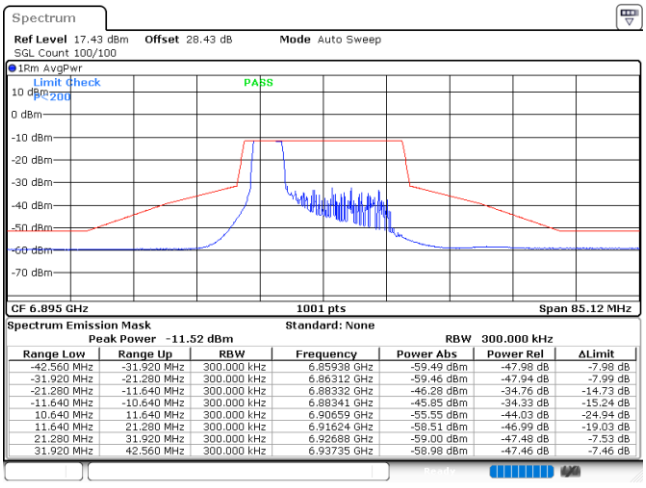
Plot on Channel 6435 MHz



Plot on Channel 6535 MHz

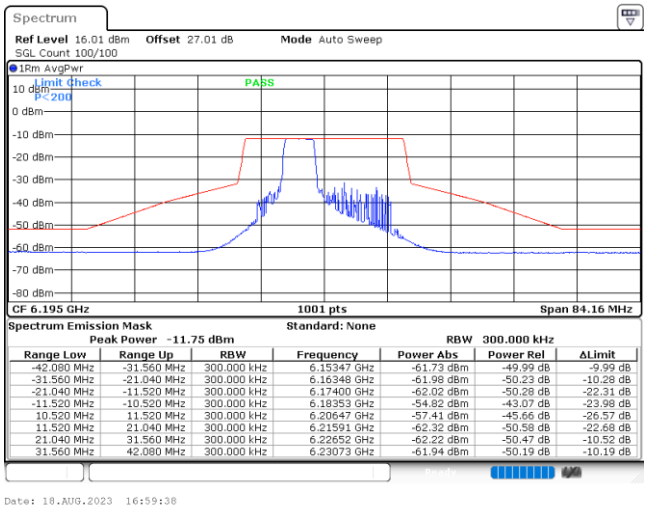


Plot on Channel 6895 MHz



EUT Mode	802.11ax HE20 52RU38

Plot on Channel 6195 MHz



Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-42.080 MHz	-31.560 MHz	300.000 kHz	6.15347 GHz	-61.73 dBm	-49.99 dB	-9.99 dB
-31.560 MHz	-21.040 MHz	300.000 kHz	6.16348 GHz	-61.98 dBm	-50.23 dB	-10.28 dB
-21.040 MHz	-11.520 MHz	300.000 kHz	6.17400 GHz	-62.02 dBm	-50.28 dB	-22.31 dB
-11.520 MHz	-10.520 MHz	300.000 kHz	6.18353 GHz	-54.82 dBm	-43.07 dB	-23.98 dB
10.520 MHz	11.520 MHz	300.000 kHz	6.20647 GHz	-57.41 dBm	-45.66 dB	-26.57 dB
11.520 MHz	21.040 MHz	300.000 kHz	6.21591 GHz	-62.32 dBm	-50.58 dB	-22.68 dB
21.040 MHz	31.560 MHz	300.000 kHz	6.22652 GHz	-62.22 dBm	-50.47 dB	-10.52 dB
31.560 MHz	42.080 MHz	300.000 kHz	6.23073 GHz	-61.94 dBm	-50.19 dB	-10.19 dB

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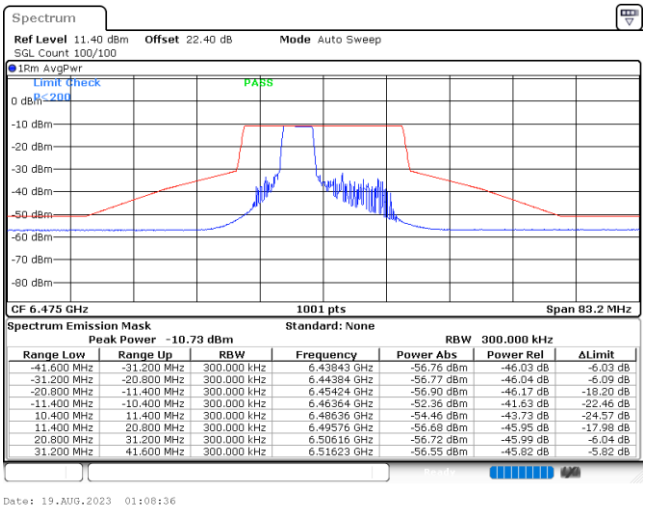
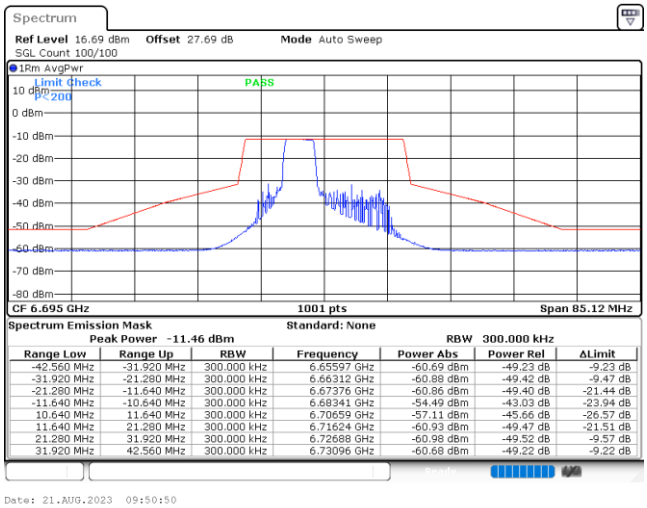
Plot on Channel 6475 MHz



Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-41.600 MHz	-31.200 MHz	300.000 kHz	6.43843 GHz	-56.76 dBm	-46.03 dB	-6.03 dB
-31.200 MHz	-20.800 MHz	300.000 kHz	6.44384 GHz	-56.77 dBm	-46.04 dB	-6.09 dB
-20.800 MHz	-11.400 MHz	300.000 kHz	6.45424 GHz	-56.90 dBm	-46.17 dB	-18.20 dB
-11.400 MHz	-10.400 MHz	300.000 kHz	6.46364 GHz	-52.36 dBm	-41.63 dB	-22.46 dB
10.400 MHz	11.400 MHz	300.000 kHz	6.48636 GHz	-54.46 dBm	-43.73 dB	-24.57 dB
11.400 MHz	20.800 MHz	300.000 kHz	6.49576 GHz	-56.68 dBm	-45.95 dB	-17.98 dB
20.800 MHz	31.200 MHz	300.000 kHz	6.50616 GHz	-56.72 dBm	-45.99 dB	-6.04 dB
31.200 MHz	41.600 MHz	300.000 kHz	6.51623 GHz	-56.55 dBm	-45.82 dB	-5.82 dB

Date: 19.AUG.2023 01:08:36

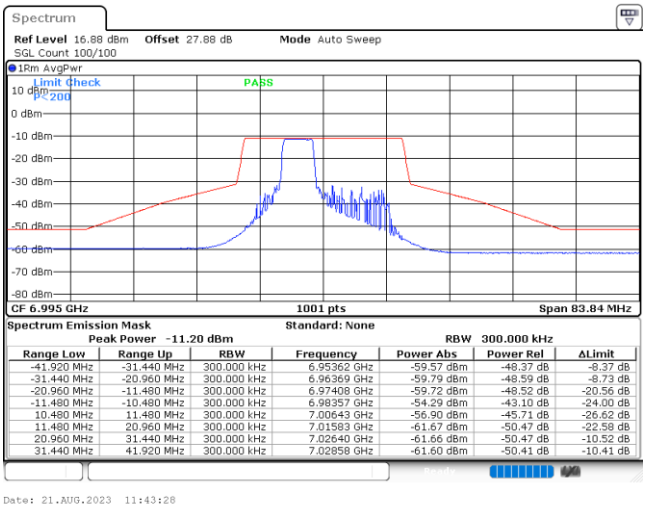
Plot on Channel 6695 MHz



Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-42.560 MHz	-31.920 MHz	300.000 kHz	6.65597 GHz	-60.69 dBm	-49.23 dB	-9.23 dB
-31.920 MHz	-21.280 MHz	300.000 kHz	6.66312 GHz	-60.88 dBm	-49.42 dB	-9.47 dB
-21.280 MHz	-11.640 MHz	300.000 kHz	6.67376 GHz	-60.86 dBm	-49.40 dB	-21.44 dB
-11.640 MHz	-10.640 MHz	300.000 kHz	6.68341 GHz	-54.49 dBm	-43.03 dB	-23.94 dB
10.640 MHz	11.640 MHz	300.000 kHz	6.70659 GHz	-57.11 dBm	-45.66 dB	-26.57 dB
11.640 MHz	21.280 MHz	300.000 kHz	6.71624 GHz	-60.93 dBm	-49.47 dB	-21.51 dB
21.280 MHz	31.920 MHz	300.000 kHz	6.72688 GHz	-60.98 dBm	-49.52 dB	-9.57 dB
31.920 MHz	42.560 MHz	300.000 kHz	6.73096 GHz	-60.68 dBm	-49.22 dB	-9.22 dB

Date: 21.AUG.2023 09:50:50

Plot on Channel 6995 MHz



Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-41.920 MHz	-31.440 MHz	300.000 kHz	6.95362 GHz	-59.57 dBm	-48.37 dB	-8.37 dB
-31.440 MHz	-20.960 MHz	300.000 kHz	6.96369 GHz	-59.79 dBm	-48.59 dB	-8.73 dB
-20.960 MHz	-11.480 MHz	300.000 kHz	6.97408 GHz	-59.72 dBm	-48.52 dB	-20.56 dB
-11.480 MHz	-10.480 MHz	300.000 kHz	6.98357 GHz	-54.29 dBm	-43.10 dB	-24.00 dB
10.480 MHz	11.480 MHz	300.000 kHz	7.00643 GHz	-56.90 dBm	-45.71 dB	-26.62 dB
11.480 MHz	20.960 MHz	300.000 kHz	7.01583 GHz	-61.67 dBm	-50.47 dB	-22.58 dB
20.960 MHz	31.440 MHz	300.000 kHz	7.02640 GHz	-61.66 dBm	-50.47 dB	-10.52 dB
31.440 MHz	41.920 MHz	300.000 kHz	7.02858 GHz	-61.60 dBm	-50.41 dB	-10.41 dB

Date: 21.AUG.2023 11:43:28