

RF MEASUREMENT REPORT

FCC ID : 2AXJ4XE200
Applicant : TP-Link Corporation Limited
Application Type : Certification
Product : AXE11000 Whole Home Mesh Wi-Fi 6E System
Model No. : Deco XE200
Brand Name : tp-link
FCC Classification : 15E 6GHz Low Power Indoor Access Point (6ID)
FCC Rule Part(s) : Part 15 Subpart E (Section 15.407)
Received Date : June 28, 2022
Test Date : August 8, 2022 ~ August 22, 2022

Tested By : Owen Tsai
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Reviewed By : Paddy Chen
(Paddy Chen)
Approved By : Chenz Ker
(Chenz Ker)



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in KDB789033. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Taiwan) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
2206TW0121-U6	1.0	Original Report	2022-09-17	Valid

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General Information

Applicant	TP-Link Corporation Limited
Applicant Address	Room 901, 9/F., New East Ocean Centre, 9 Science Museum Road, Tsim Sha Tsui, Kowloon, Hongkong
Manufacturer	TP-Link Corporation Limited
Manufacturer Address	Room 901, 9/F., New East Ocean Centre, 9 Science Museum Road, Tsim Sha Tsui, Kowloon, Hongkong
Test Site	MRT Technology (Taiwan) Co., Ltd
Test Site Address	No. 38, Fuxing Second Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C)
MRT FCC Registration No.	291082
FCC Rule Part(s)	Part 15.407
Test Device Serial No.	#1-1 ☐ Production ☒ Pre-Production ☐ Engineering

Test Facility / Accreditations

1. MRT facility is a FCC registered (Reg. No. 291082) test facility with the site description report on file and is designated by the FCC as an Accredited Test Firm.
2. MRT facility is an IC registered (MRT Reg. No. 21723) test laboratory with the site description on file at Industry Canada.
3. MRT Lab is accredited to ISO 17025 by the Taiwan Accreditation Foundation (TAF Cert. No. 3261) in EMC, Telecommunications and Radio testing for FCC (Designation Number: TW3261), Industry Taiwan, EU and TELEC Rules.

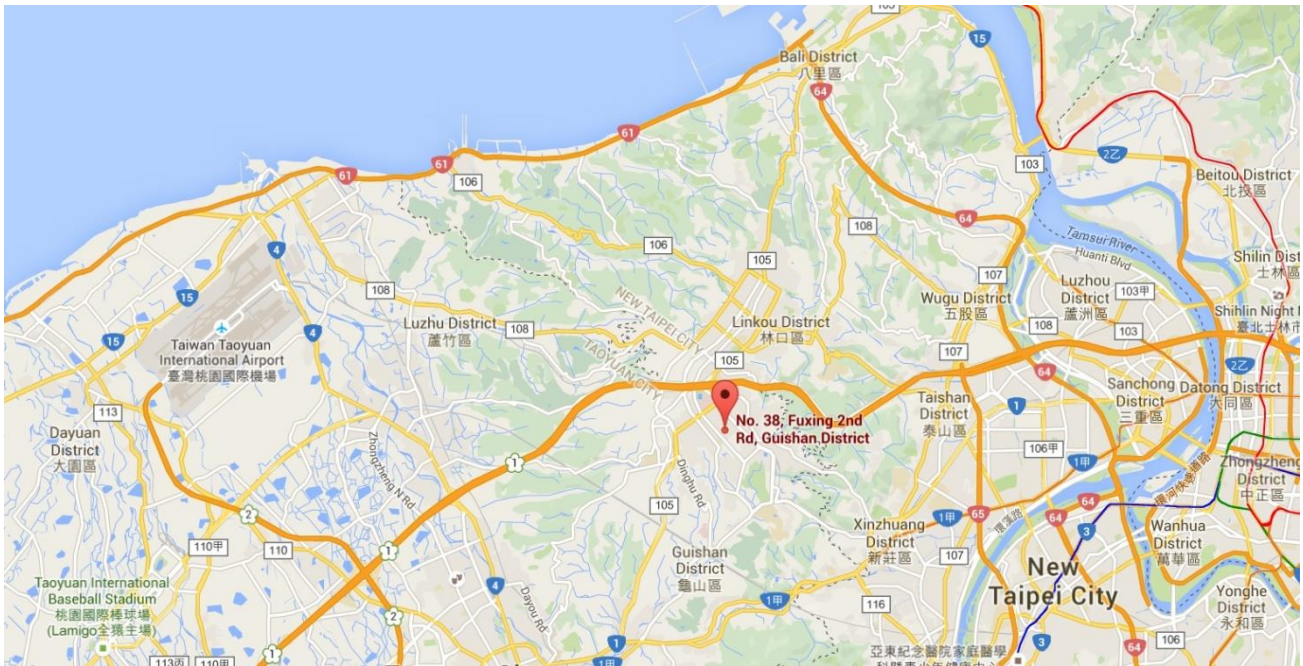
1. INTRODUCTION

1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Innovation, Science and Economic Development Canada and Certification and Engineering Bureau.

1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taoyuan City. These measurement tests were conducted at the MRT Technology (Taiwan) Co., Ltd. Facility located at No.38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 33377, Taiwan (R.O.C).



2. Product Information

2.1. Equipment Description

Product Name	AXE11000 Whole Home Mesh Wi-Fi 6E System
Model No.	Deco XE200
Brand Name	tp-link
Wi-Fi Specification	802.11a/b/g/n/ac/ax
EUT Identification No.:	20220711Sample#6 (Conducted) 20220711Sample#5 (Radiated)
Power Supply	AC/DC Adapter
Accessory	
Adapter	Brand: tp-link Model: T120450-2B4 Input: 100 - 240V ~ 50/60Hz 1.5A. Output: DC 12.0V / 4.5A Cable Out: Non-shielding, 1.5m
Remark: The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.	

2.2. Radio Specification

Frequency Range	For 802.11ax-HE20: 6135 ~ 7095MHz For 802.11ax-HE40: 6125 ~ 7085MHz For 802.11ax-HE80: 6145 ~ 7025MHz For 802.11ax-HE160: 6185 ~ 6985MHz
Type of Modulation	802.11ax: OFDMA
Data Rate	802.11ax: up to 2402Mbps

Note: For other features of this EUT, test report will be issued separately.

2.3. Working Frequencies

802.11ax-HE20

Channel	Frequency	Channel	Frequency	Channel	Frequency
--	--	37	6135 MHz	41	6155 MHz
45	6175 MHz	49	6195 MHz	53	6215 MHz
57	6235 MHz	61	6255 MHz	65	6275 MHz
69	6295 MHz	73	6315 MHz	77	6335 MHz
81	6355 MHz	85	6375 MHz	89	6395 MHz
93	6415 MHz	97	6435 MHz	101	6455 MHz
105	6475 MHz	109	5495 MHz	113	6515 MHz
117	6535 MHz	121	6555 MHz	125	6575 MHz
129	6595 MHz	133	6615 MHz	137	6635 MHz
141	6655 MHz	145	6675 MHz	149	6695 MHz
153	6715 MHz	157	6735 MHz	161	6755 MHz
165	6775 MHz	169	6795 MHz	173	6815 MHz
177	6835 MHz	181	6855 MHz	185	6875 MHz
189	6895 MHz	193	6915 MHz	197	6935 MHz
201	6955 MHz	205	6975 MHz	209	6995 MHz
213	7015 MHz	217	7035 MHz	221	7055 MHz
225	7075 MHz	229	7095 MHz	--	--

802.11ax-HE40

Channel	Frequency	Channel	Frequency	Channel	Frequency
35	6125 MHz	43	6165 MHz	51	6205 MHz
59	6245 MHz	67	6285 MHz	75	6325 MHz
83	6365 MHz	91	6405 MHz	99	6445 MHz
107	6485 MHz	115	6525 MHz	123	6565 MHz
131	6605 MHz	139	6645 MHz	147	6685 MHz
155	6725 MHz	163	6765 MHz	171	6805 MHz
179	6845 MHz	187	6885 MHz	195	6925 MHz
203	6965 MHz	211	7005 MHz	219	7045 MHz
227	7085 MHz	--	--	--	--

802.11ax-HE80

Channel	Frequency	Channel	Frequency	Channel	Frequency
39	6145 MHz	55	6225 MHz	71	6305 MHz
87	6385 MHz	103	6465 MHz	119	6545 MHz
135	6625 MHz	151	6705 MHz	167	6785 MHz
183	6865 MHz	199	6945 MHz	215	7025 MHz

802.11ax-HE160

Channel	Frequency	Channel	Frequency	Channel	Frequency
47	6185 MHz	79	6345 MHz	111	6505 MHz
143	6665 MHz	175	6825 MHz	207	6985 MHz

2.4. Antenna Details

Antenna Type	Frequency Band (MHz)	Channel Bandwidth (MHz)	Tx Paths	Number of spatial streams	Antenna Gain (dBi)	CDD Directional Gain (dBi)	
						For Power	For PSD
Franklin Antenna	5925~7125	20/40/80/160	4	1	2.00	2.00	8.02
		20/40/80/160	4	4	2.00	2.00	2.00

Note:

The EUT supports Cyclic Delay Diversity (CDD) mode, and CDD signals are correlated.

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

- For power spectral density (PSD) measurements on all devices,

Array Gain = $10 \log (N_{ANT} / N_{SS})$ dB;

- For power measurements on IEEE 802.11 devices,

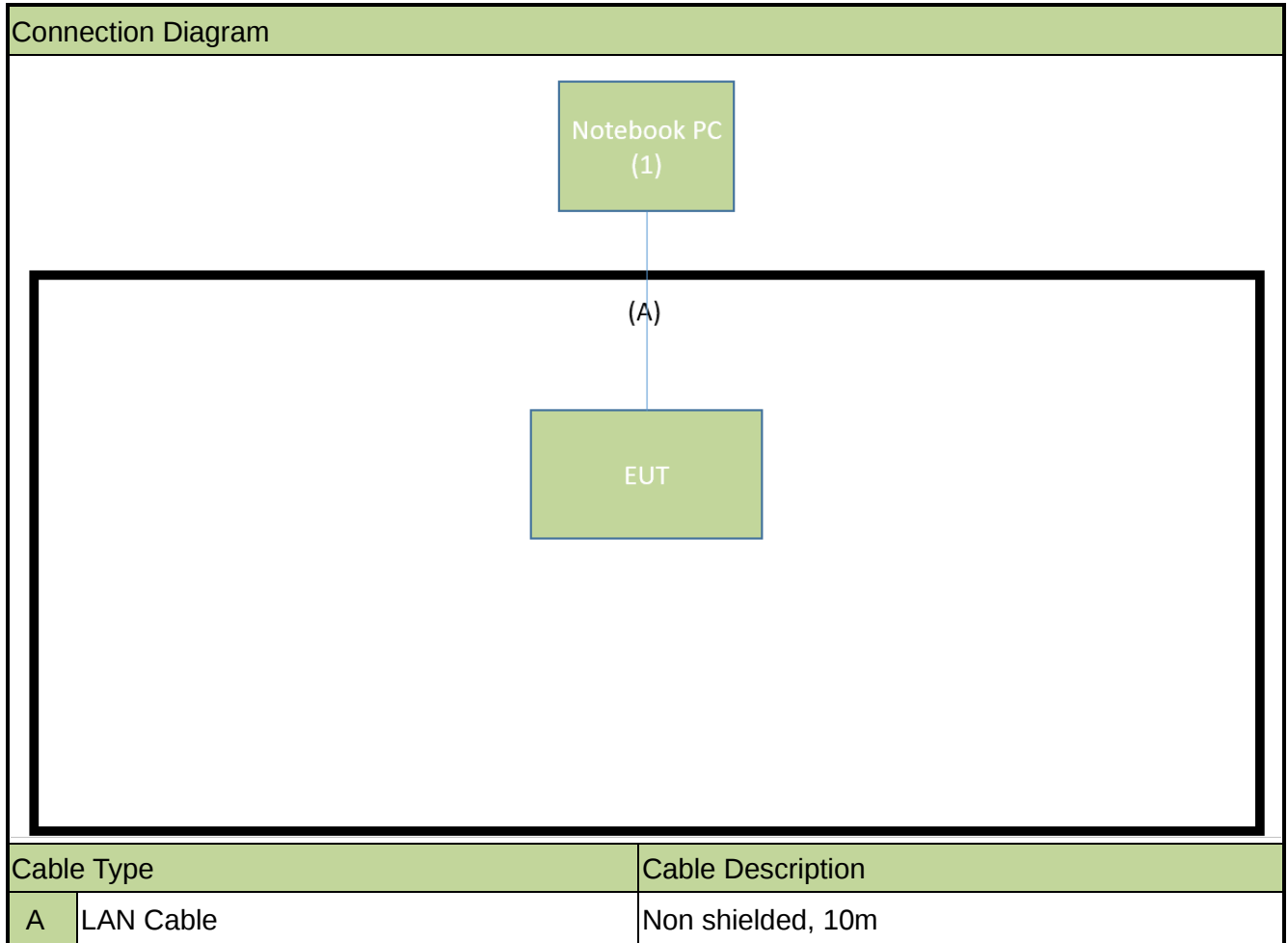
Array Gain = 0 dB for $N_{ANT} \leq 4$;

2.5. Test Mode

Test Mode	Mode 1: Transmit by 802.11ax-HE20_Nss=1 (MCS0) (CDD mode)
	Mode 2: Transmit by 802.11ax-HE40_Nss=1 (MCS0) (CDD mode)
	Mode 3: Transmit by 802.11ax-HE80_Nss=1 (MCS0) (CDD mode)
	Mode 4: Transmit by 802.11 ax-HE160_Nss=1 (MCS0) (CDD mode)
	Mode 5: Transmit by 802.11ax-HE20_Nss=4 (MCS0) (CDD mode)
	Mode 6: Transmit by 802.11ax-HE40_Nss=4 (MCS0) (CDD mode)
	Mode 7: Transmit by 802.11ax-HE80_Nss=4 (MCS0) (CDD mode)
	Mode 8: Transmit by 802.11 ax-HE160_Nss=4 (MCS0) (CDD mode)
Remark: 1. For Radiated emission, the modulation and the data rate picked for testing are determined by the Max. RF conducted power. 2. For CDD mode, this device supports 4 Nss and power level is the same of spatial multiplexing. The worst case is Nss=1. Only Nss=4 and Nss=1 were tested in this report. 3. EUT supports one configuration only in 802.11ax full RU mode.	

2.6. Test System Connection Diagram

The device was tested per the guidance ANSI C63.10: 2013 was used to reference the appropriate EUT setup for radiated emissions testing and AC line conducted testing.



2.7. Test System Details

Product	Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook PC	Acer	P5LJ0	N/A
				Non-Shielded, 0.8m

2.8. Test Software

The test utility software used during testing was “QDART”, the version is ver1.0-00080.

Note: Final power setting please refer to operational description.

2.9. Applied Standards

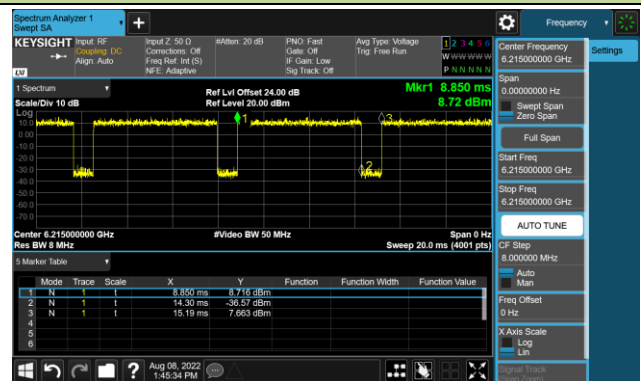
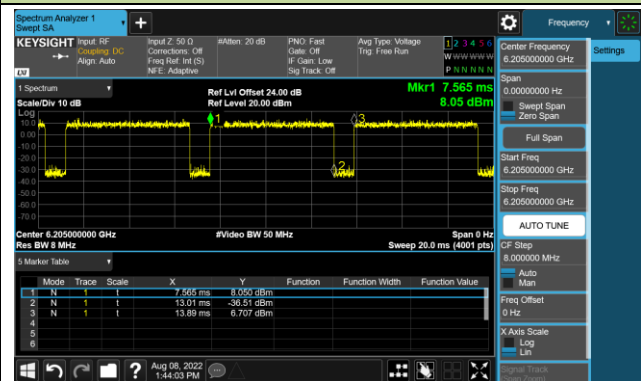
According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

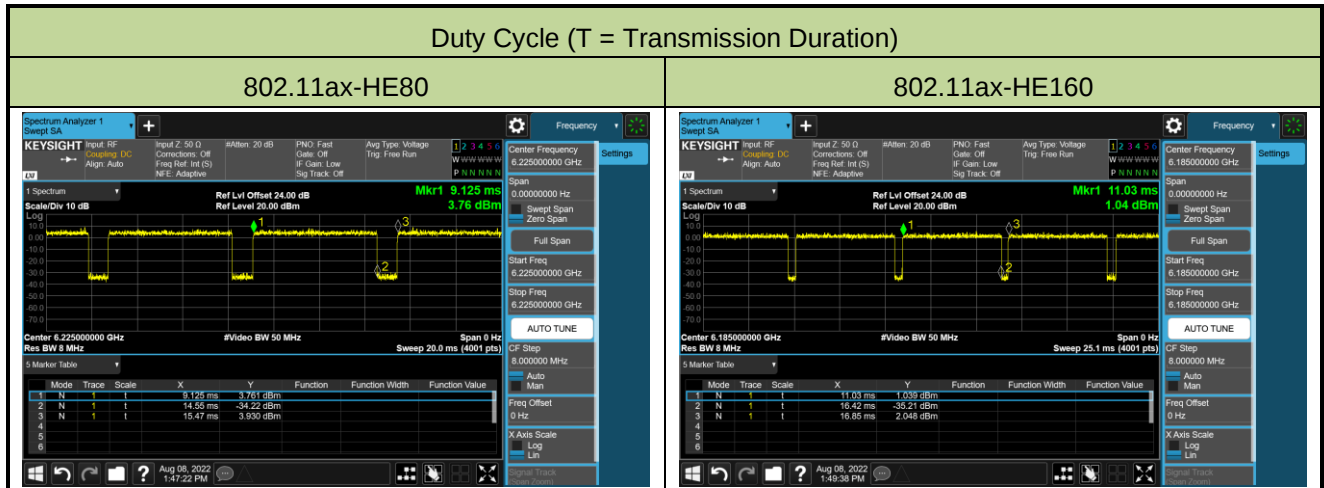
- ANSI C63.10-2013
- FCC KDB 789033 D02v02r01
- FCC KDB 987594 D02v01
- FCC KDB 662911 D01v02r01
- FCC KDB 414788 D01v01r01
- FCC KDB 412172 D01v01r01

2.10. Duty Cycle

The maximum achievable duty cycles for all modes were determined based on measurements performed on a spectrum analyzer in zero-span mode with RBW = 8MHz, VBW = 50MHz. The RBW and VBW were both greater than 50/T, where T is the minimum transmission duration, and the number of sweep points across T was greater than 100. The duty cycles are as follows:

Test Mode	Duty Cycle
802.11ax-HE20	85.96%
802.11ax-HE40	86.09%
802.11ax-HE80	85.50%
802.11ax-HE160	92.61%
Duty Cycle (T = Transmission Duration)	
802.11ax-HE20	802.11ax-HE40



2.11. Test Environment Condition

Ambient Temperature	15°C~35°C
Relative Humidity	20%RH ~75%RH

3. Antenna Requirements

Excerpt from §15.203 of the FCC Rules/Regulations:

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.”

The antenna of the device is built in and locked inside the enclosure.

Conclusion:

The device complies with the requirement of §15.407(a)(9).

4. Measuring Instrument

Conducted Emissions

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Two-Line V-Network	R&S	ENV216	MRTTWA00019	1 year	2023/3/7
Two-Line V-Network	R&S	ENV216	MRTTWA00020	1 year	2023/4/20
EMI Test Receiver	R&S	ESR3	MRTTWA00045	1 year	2023/5/9
DIVA PLUS Funk-Wetterstation	TFA	35.1083	MRTTWA00050	1 year	2023/6/16

Radiated Emissions

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Broadband TRILOG Antenna	SCHWARZBECK	VULB 9162	MRTTWA00001	1 year	2022/10/4
Active Loop Antenna	SCHWARZBECK	FMZB 1519B	MRTTWA00002	1 year	2023/5/24
Broadband Hornantenna	SCHWARZBECK	BBHA 9120D	MRTTWA00003	1 year	2023/3/30
BreitbandHornantenna	SCHWARZBECK	BBHA 9170	MRTTWA00004	1 year	2023/3/29
Broadband Preamplifier	SCHWARZBECK	BBV 9718	MRTTWA00005	1 year	2023/3/30
Broadband Amplifier	SCHWARZBECK	BBV 9721	MRTTWA00006	1 year	2023/3/30
Signal Analyzer	R&S	FSV40	MRTTWA00007	1 year	2023/3/16
EMI Test Receiver	R&S	ESR3	MRTTWA00009	1 year	2023/3/9
EXA Signal Analyzer	KEYSIGHT	N9010A	MRTTWA00012	1 year	2022/10/18
EXA Signal Analyzer	KEYSIGHT	N9010B	MRTTWA00074	1 year	2023/7/19
Antenna Cable	HUBERSUHNER	SF106	MRTTWE00010	1 year	2023/6/14
Temperature/Humidity Meter	TFA	35.1078.10.IT	MRTTWA00032	1 year	2023/6/5

Conducted Test Equipment

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
X-Series USB Peak and Average Power Sensor	KEYSIGHT	U2021XA	MRTTWA00014	1 year	2023/4/20
EXA Signal Analyzer	KEYSIGHT	N9010A	MRTTWA00012	1 year	2022/10/18
EXA Signal Analyzer	KEYSIGHT	N9010B	MRTTWA00074	1 year	2023/7/19
Attenuator	WTI	218FS-20	MRTTWE00026	1 year	2022/11/18
Attenuator	WTI	218FS-10	MRTTWE00027	1 year	2023/6/15
Temperature & Humidity Chamber	TEN BILLION	TTH-B3UP	MRTTWA00036	1 year	2023/6/14
DIVA PLUS Funk-Wetterstation	TFA	35.1083	MRTTWA00050	1 year	2023/6/16

Software	Version	Function
e3	9.160520a	EMI Test Software

5. Measurement Uncertainty

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

AC Conducted Emission Measurement
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 150kHz~30MHz: $\pm 2.53\text{dB}$
Radiated Emission Measurement
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 9kHz ~ 1GHz: $\pm 4.25\text{dB}$ 1GHz ~ 40GHz: $\pm 4.45\text{dB}$
Conducted Power (Carrier Power / Power Density)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): $\pm 0.84\text{dB}$
Conducted Spurious Emission
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): $\pm 2.65\text{ dB}$
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): $\pm 3.3\%$
Temp. / Humidity
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): $\pm 0.82^\circ\text{C} / \pm 3\%$
Frequency Error
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): $\pm 78.4\text{Hz}$

6. Test Result

6.1. Summary

FCC Section(s)	Test Description	Test Condition	Verdict
15.407(a)	26dB Bandwidth	Conducted	Pass
15.407(a)(5), (a)(6)	Maximum Equivalent Isotropically Radiated Power (EIRP)		Pass
15.407(a)(5), (a)(6)	Peak Power Spectral Density (EIRP)		Pass
15.407(b)(6)	In-Band Emission		Pass
15.407(g)	Frequency Stability		N/A
15.407(d)(6)	Contention-Based Protocol		Pass
15.407(b)(5)	Unwanted Emissions		Pass
15.407(b)(7), (8), (9)	General Field Strength (Restricted Bands and Radiated Emission)	Radiated	Pass
15.207	AC Conducted Emissions 150kHz - 30MHz	Line Conducted	Pass

Remark:

- Determining compliance is based on the test results met the regulation limits or requirements declared by clients, and the test results don't take into account the value of measurement uncertainty.
- The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.
- For radiated emission test, the test results shown in the following sections represent the worst-case emissions.

6.2. 26dB Bandwidth

6.2.1. Test Limit

N/A

6.2.2. Test Procedure used

KDB 789033 D02v02r01- Section C.1 (26dB Bandwidth)

KDB 789033 D02v02r01- Section D (99% Bandwidth)

6.2.3. Test Setting

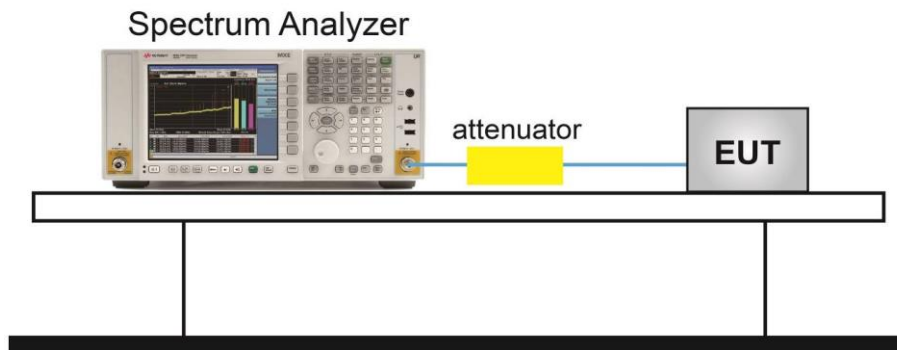
26dB Bandwidth

1. The analyzers' automatic bandwidth measurement capability was used to perform the 26dB bandwidth measurement. The "X" dB bandwidth parameter was set to $X = 26$. The automatic bandwidth measurement function also has the capability of simultaneously measuring the 99% occupied bandwidth. The bandwidth measurement was not influenced by any intermediated power nulls in the fundamental emission.
2. RBW = approximately 1% of the emission bandwidth.
3. VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold.

99% Bandwidth

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1% to 5% of the OBW
4. Set VBW $\geq 3 \times$ RBW
5. Detector = Peak.
6. Use the 99% power bandwidth function of the instrument.

6.2.4. Test Setup



6.2.5. Test Result

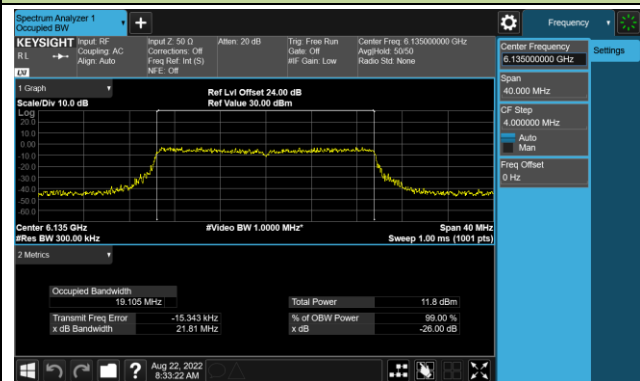
Test Site	SR5	Test Engineer	Jay
Test Date	2022/8/22		

Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
N _{ss} =4_Ant 0					
802.11ax-HE20	MCS0	37	6135	21.810	19.105
802.11ax-HE20	MCS0	53	6215	21.760	19.127
802.11ax-HE20	MCS0	69	6295	21.400	19.049
802.11ax-HE20	MCS0	85	6375	21.620	19.079
802.11ax-HE20	MCS0	101	6455	21.690	19.081
802.11ax-HE20	MCS0	117	6535	21.480	19.080
802.11ax-HE20	MCS0	133	6615	21.300	19.068
802.11ax-HE20	MCS0	149	6695	21.620	19.066
802.11ax-HE20	MCS0	165	6775	21.650	19.072
802.11ax-HE20	MCS0	181	6855	21.890	19.104
802.11ax-HE20	MCS0	197	6935	21.320	19.041
802.11ax-HE20	MCS0	213	7015	21.370	19.082
802.11ax-HE20	MCS0	229	7095	21.740	19.053
802.11ax-HE40	MCS0	35	6125	40.060	37.728
802.11ax-HE40	MCS0	51	6205	40.240	37.693
802.11ax-HE40	MCS0	67	6285	39.700	37.655
802.11ax-HE40	MCS0	83	6365	39.770	37.755
802.11ax-HE40	MCS0	99	6445	39.670	37.676
802.11ax-HE40	MCS0	115	6525	40.280	37.697
802.11ax-HE40	MCS0	131	6605	39.930	37.755
802.11ax-HE40	MCS0	147	6685	39.730	37.596
802.11ax-HE40	MCS0	163	6765	39.650	37.669
802.11ax-HE40	MCS0	179	6845	39.660	37.636
802.11ax-HE40	MCS0	195	6925	40.190	37.756
802.11ax-HE40	MCS0	211	7005	39.880	37.661
802.11ax-HE40	MCS0	227	7085	39.880	37.735

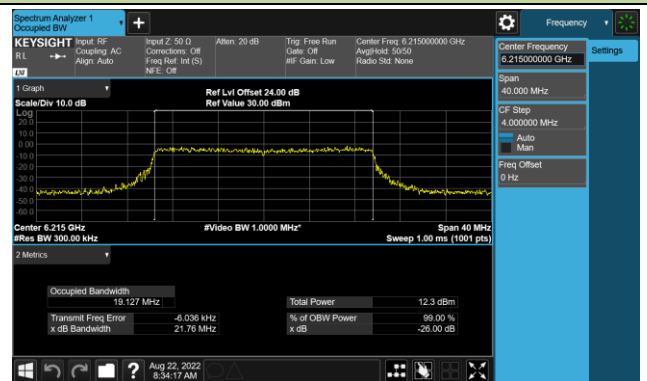
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
N _{SS} =4_Ant 0					
802.11ax-HE80	MCS0	39	6145	80.770	77.205
802.11ax-HE80	MCS0	55	6225	81.150	77.231
802.11ax-HE80	MCS0	71	6305	81.080	77.199
802.11ax-HE80	MCS0	87	6385	80.740	77.218
802.11ax-HE80	MCS0	103	6465	80.840	77.071
802.11ax-HE80	MCS0	119	6545	81.250	77.240
802.11ax-HE80	MCS0	135	6625	81.120	77.236
802.11ax-HE80	MCS0	151	6705	80.540	77.192
802.11ax-HE80	MCS0	167	6785	80.650	77.134
802.11ax-HE80	MCS0	183	6865	80.460	77.264
802.11ax-HE80	MCS0	199	6945	80.940	77.453
802.11ax-HE80	MCS0	215	7025	80.760	77.107
802.11ax-HE160	MCS0	47	6185	162.300	155.100
802.11ax-HE160	MCS0	79	6345	164.200	155.120
802.11ax-HE160	MCS0	111	6505	163.600	155.400
802.11ax-HE160	MCS0	143	6665	162.700	154.970
802.11ax-HE160	MCS0	175	6825	162.600	154.930
802.11ax-HE160	MCS0	207	6985	162.200	155.470

802.11ax-HE20 26dB Bandwidth & 99% Bandwidth

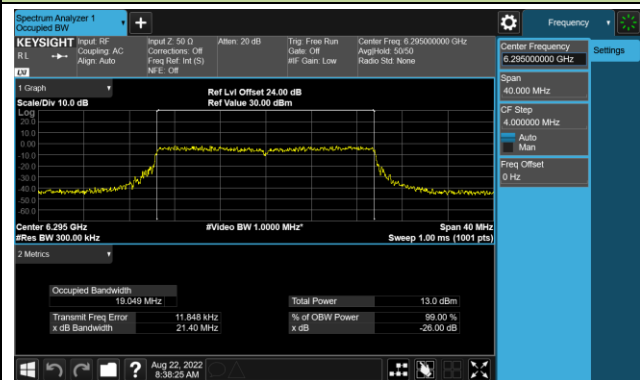
Channel 37 (6135MHz)



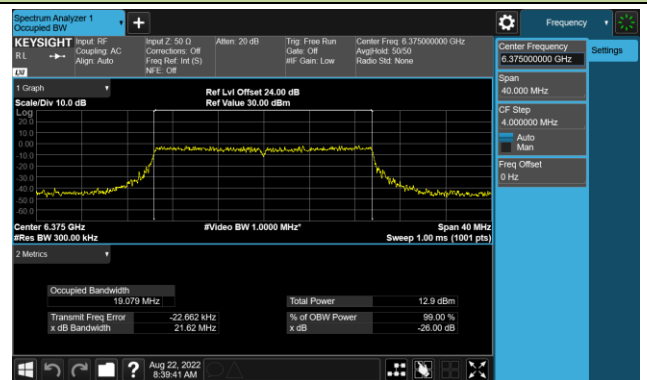
Channel 53 (6215MHz)



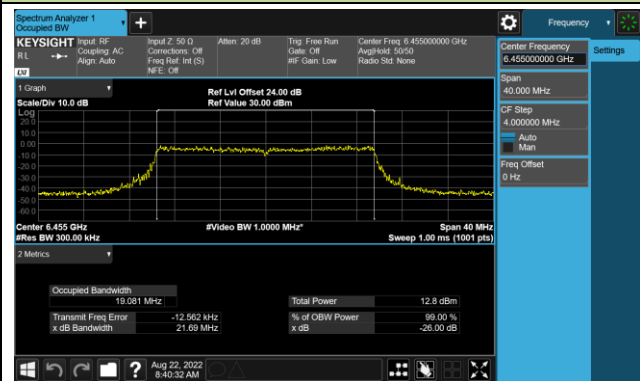
Channel 69 (6295MHz)



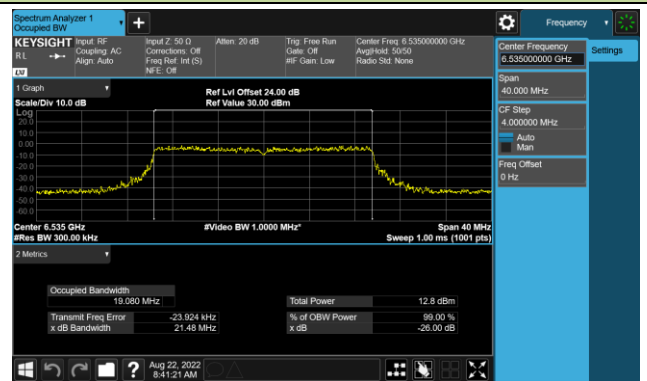
Channel 85 (6375MHz)



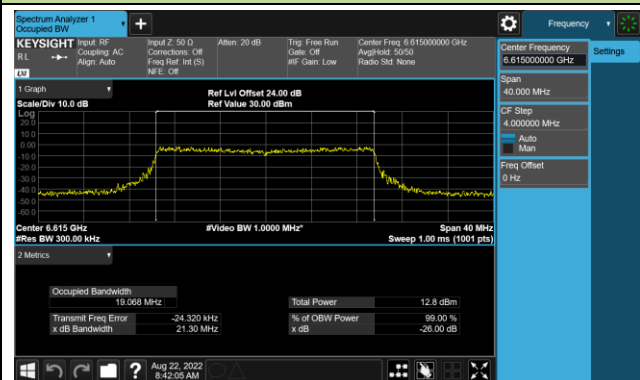
Channel 101 (6455MHz)



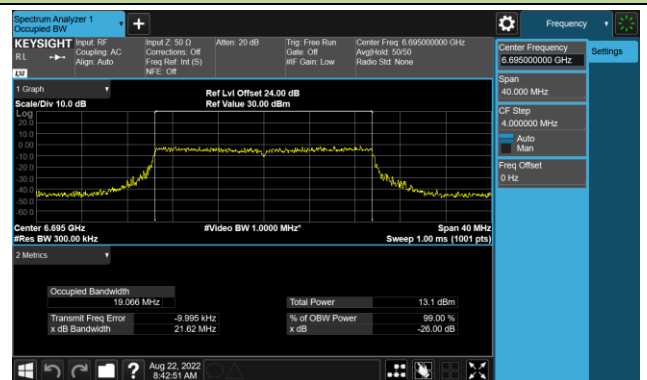
Channel 117 (6535MHz)



Channel 133 (6615MHz)

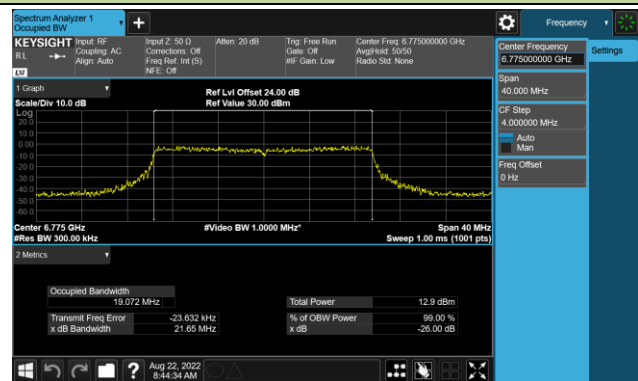


Channel 149 (6695MHz)

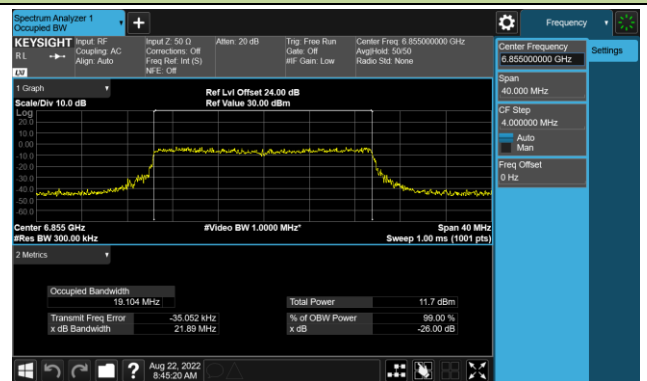


802.11ax-HE20 26dB Bandwidth & 99% Bandwidth

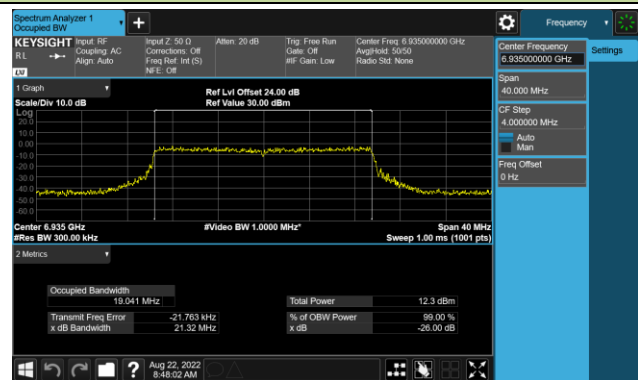
Channel 165 (6775MHz)



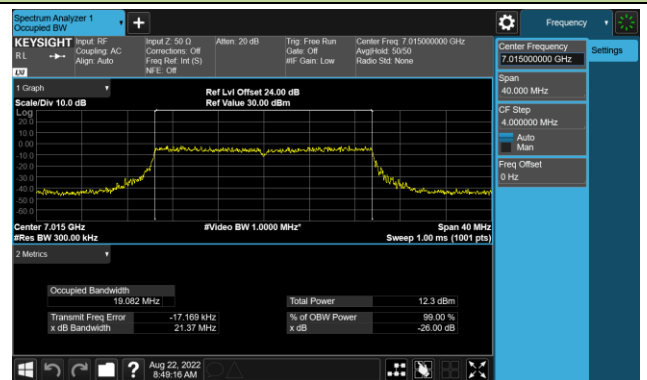
Channel 181 (6855MHz)



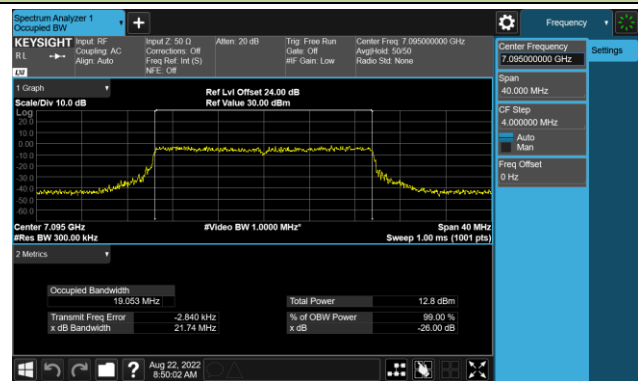
Channel 197 (6935MHz)



Channel 213 (7015MHz)

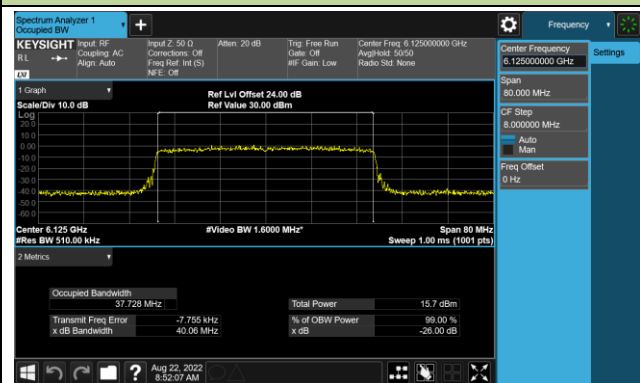


Channel 229 (7095MHz)

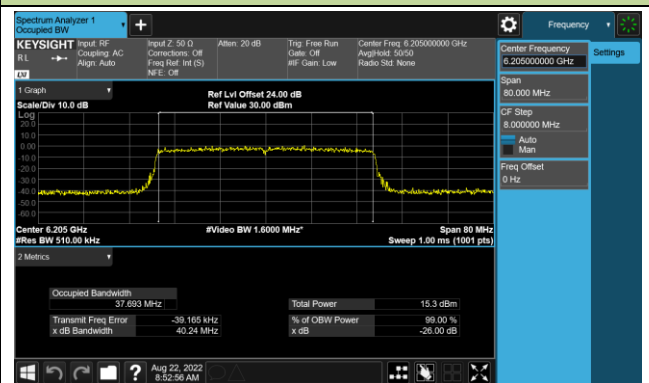


802.11ax-HE40 26dB Bandwidth & 99% Bandwidth

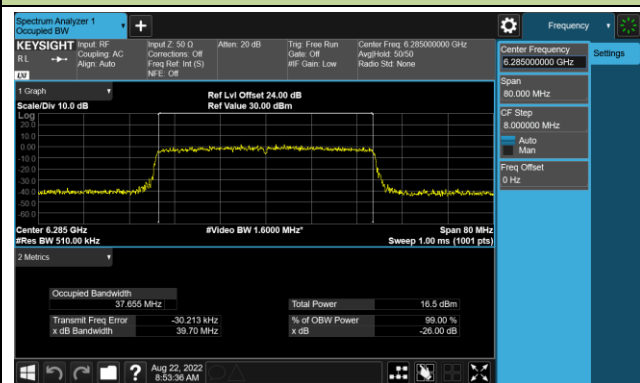
Channel 35 (6125MHz)



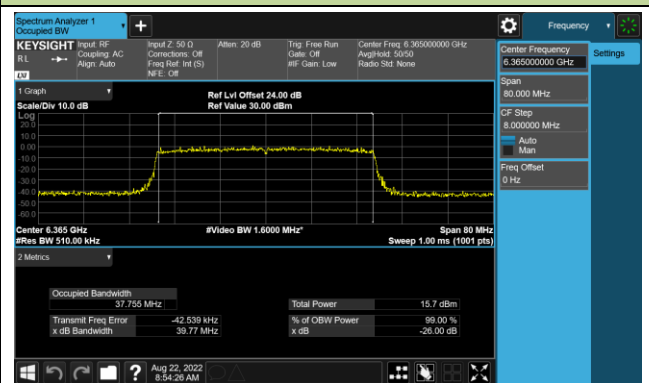
Channel 51 (6205MHz)



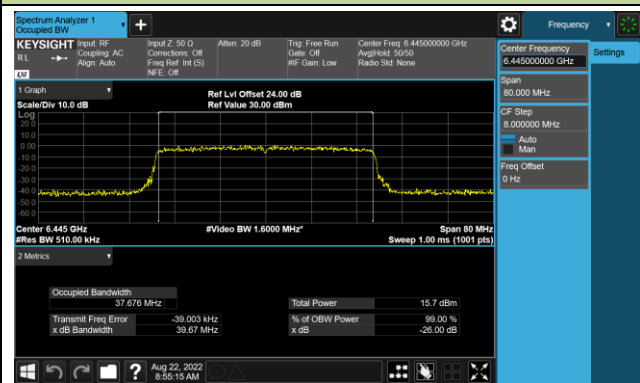
Channel 67 (6285MHz)



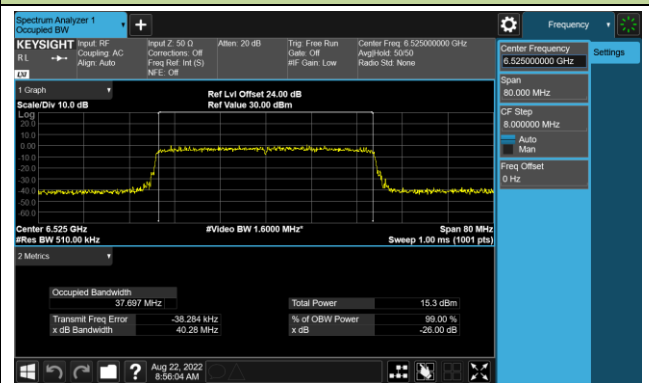
Channel 83 (6365MHz)



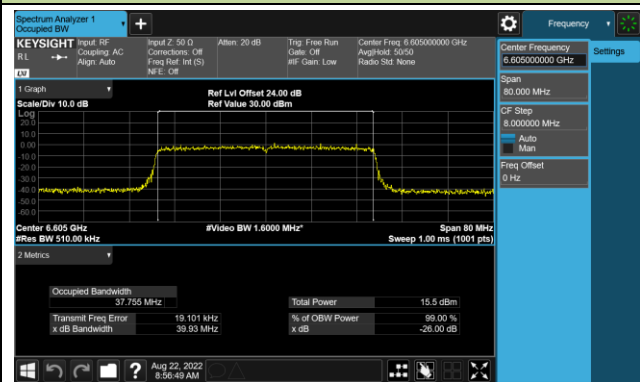
Channel 99 (6445MHz)



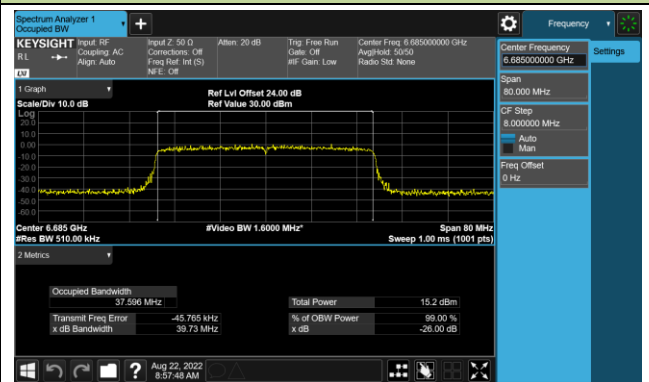
Channel 115 (6525MHz)



Channel 131 (6605MHz)

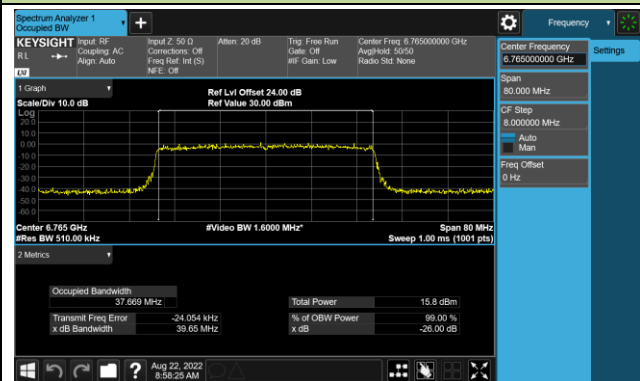


Channel 147 (6685MHz)

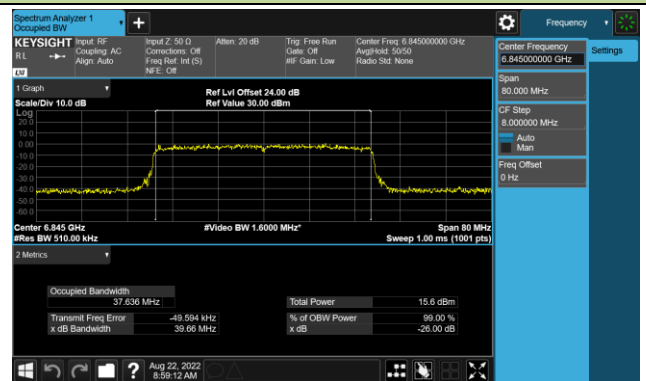


802.11ax-HE40 26dB Bandwidth & 99% Bandwidth

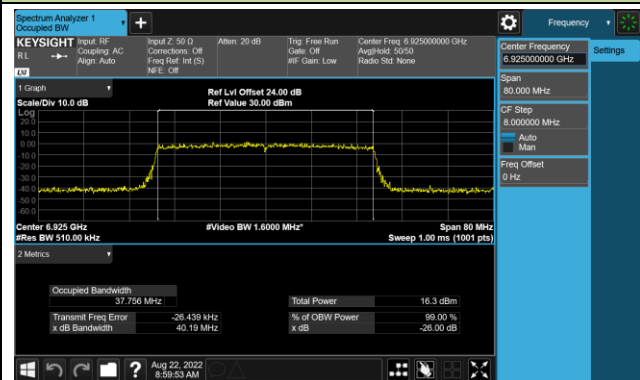
Channel 163 (6765MHz)



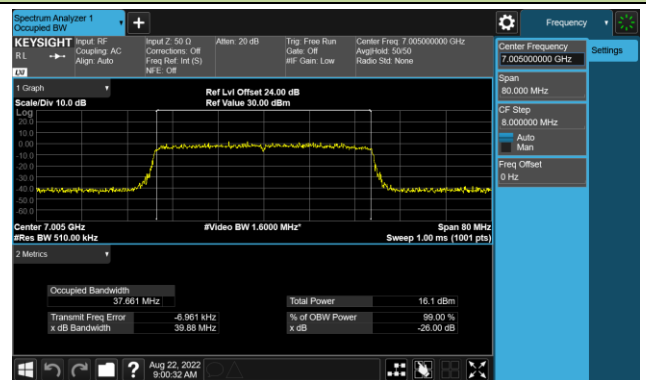
Channel 179 (6845MHz)



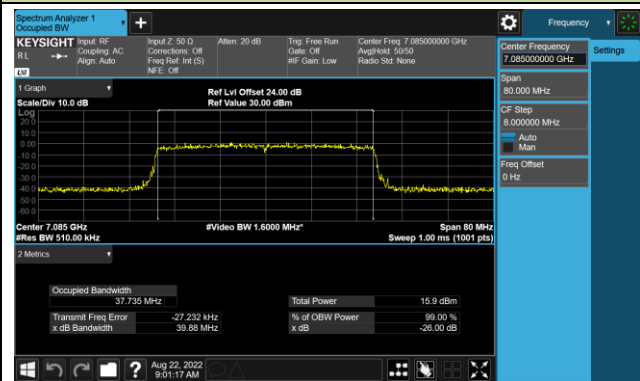
Channel 195 (6925MHz)



Channel 211 (7005MHz)

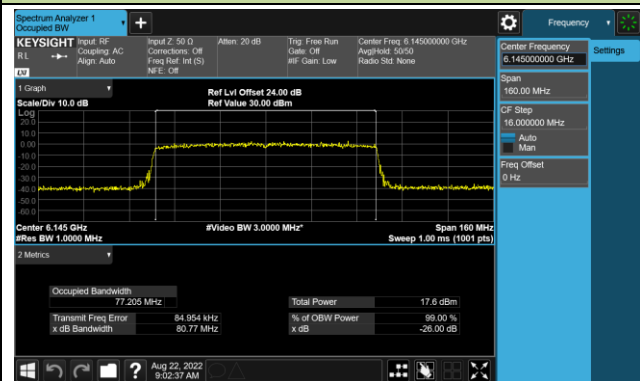


Channel 227 (7085MHz)

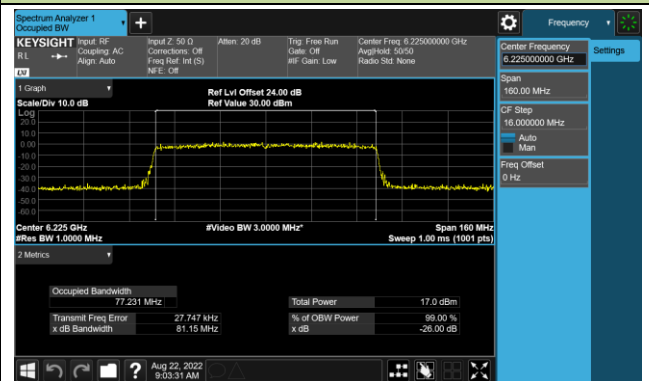


802.11ax-HE80 26dB Bandwidth & 99% Bandwidth

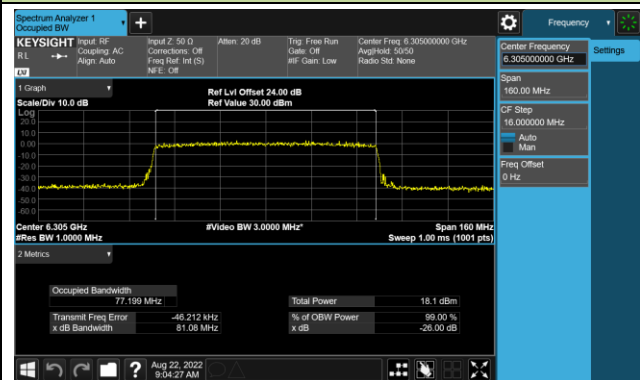
Channel 39 (6145MHz)



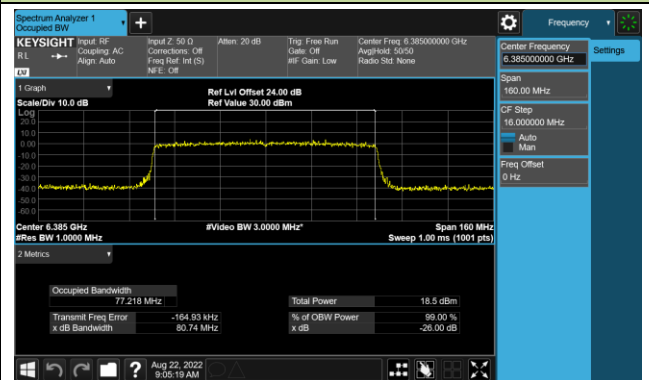
Channel 55 (6225MHz)



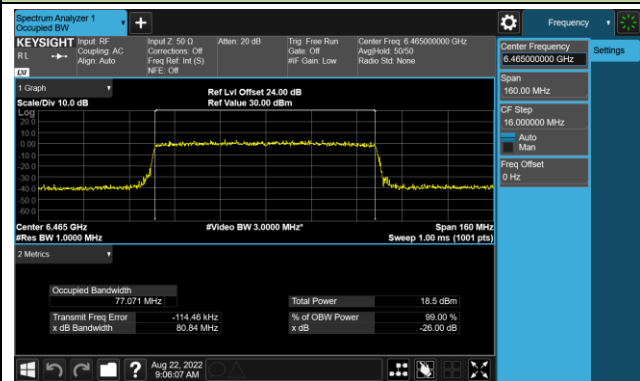
Channel 71 (6305MHz)



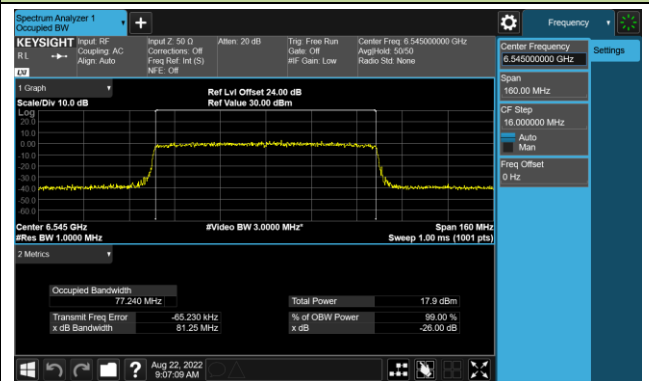
Channel 87 (6385MHz)



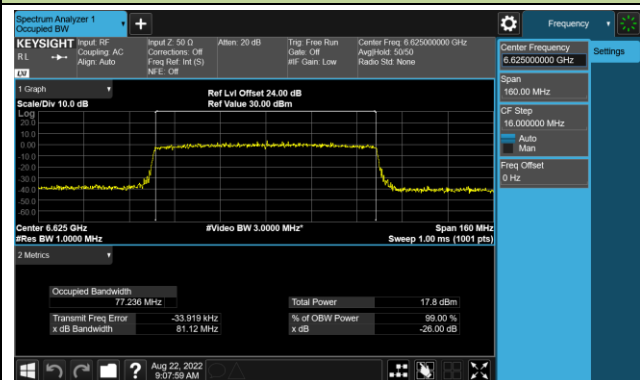
Channel 103 (6465MHz)



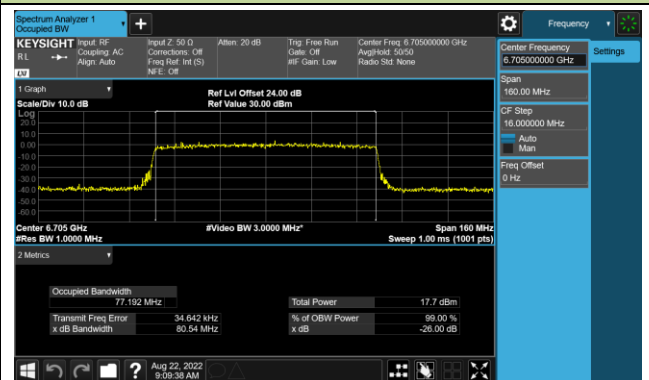
Channel 119 (6545MHz)



Channel 135 (6625MHz)

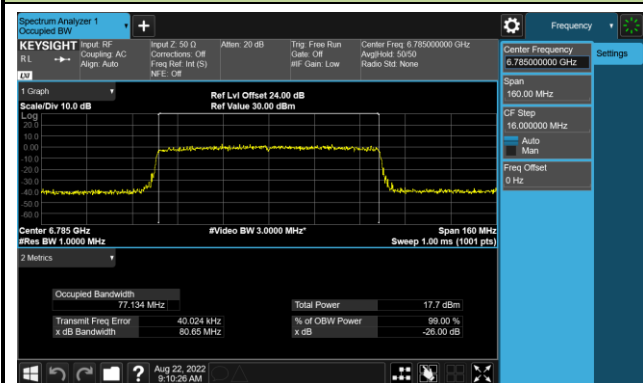


Channel 151 (6705MHz)

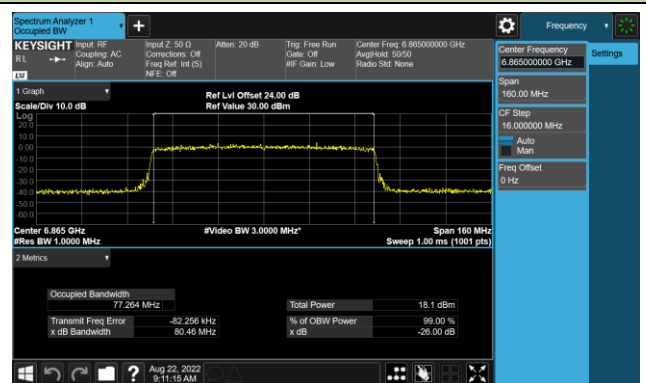


802.11ax-HE80 26dB Bandwidth & 99% Bandwidth (Nss=1)

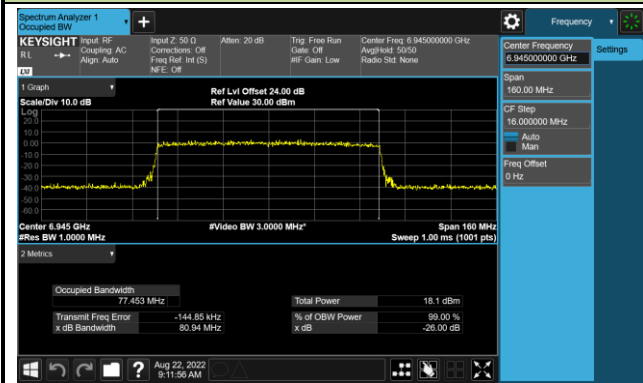
Channel 167 (6785MHz)



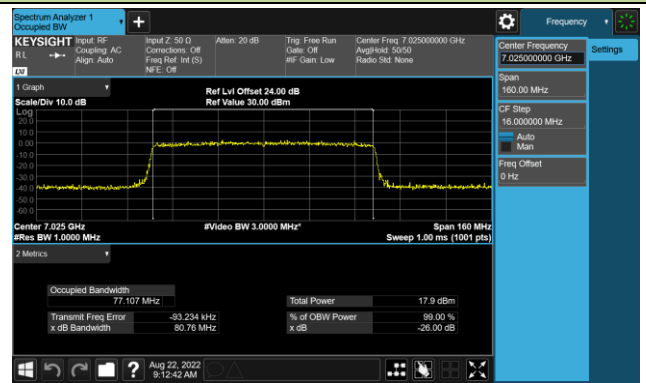
Channel 183 (6865MHz)



Channel 199 (6945MHz)

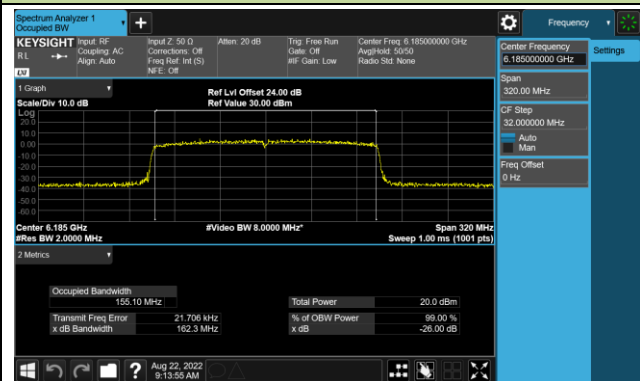


Channel 215 (7025MHz)

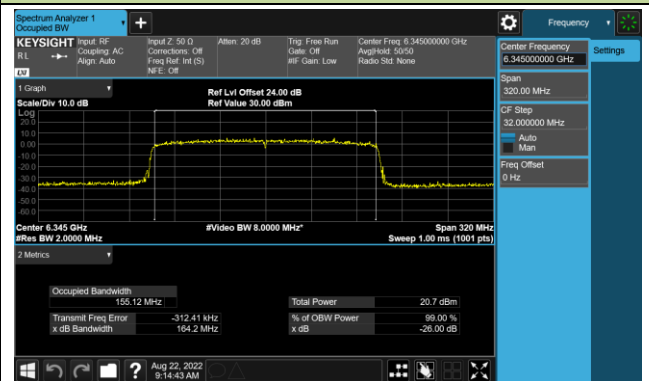


802.11ax-HE160 26dB Bandwidth & 99% Bandwidth

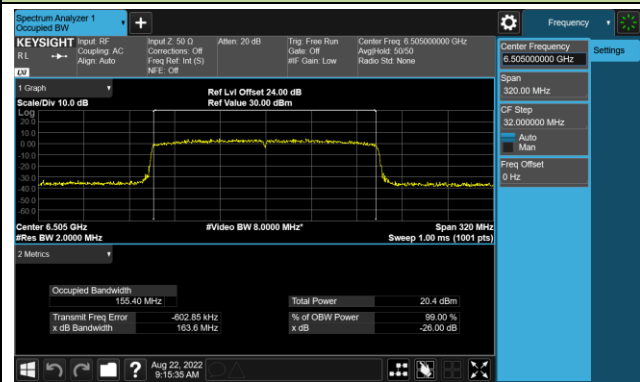
Channel 47 (6185MHz)



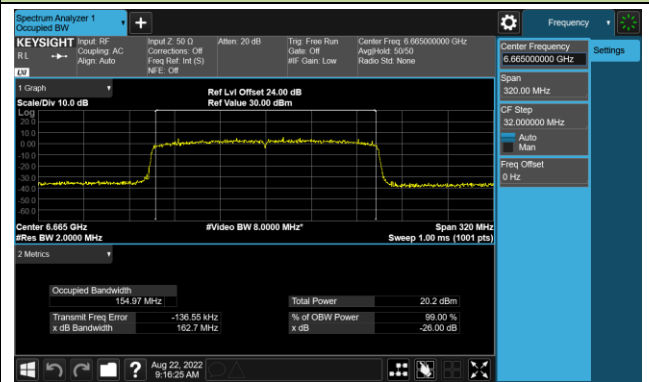
Channel 79 (6345MHz)



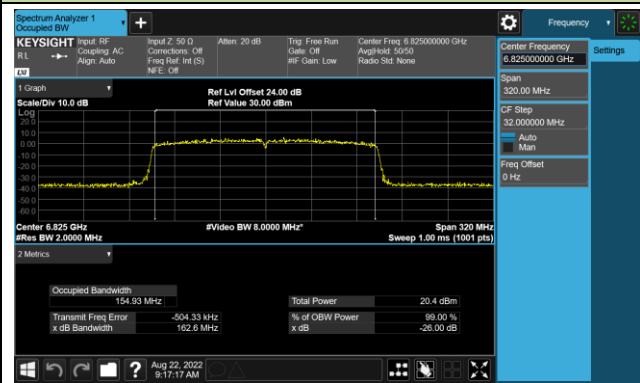
Channel 111 (6505MHz)



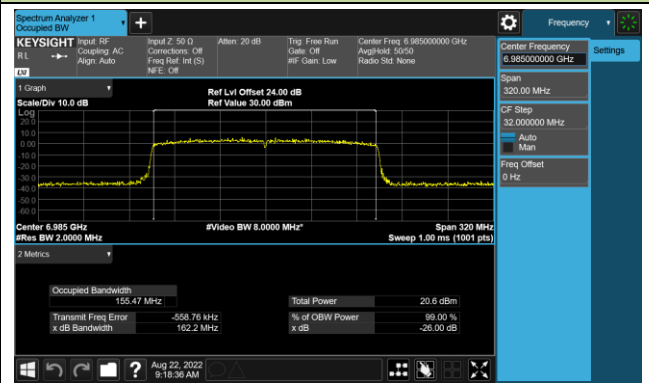
Channel 143 (6665MHz)



Channel 175 (6825MHz)



Channel 207 (6985MHz)



6.3. Output Power

6.3.1. Test Limit

For an indoor access point operating in the 5.925-7.125 GHz band, the maximum e.i.r.p. over the frequency band of operation must not exceed 30 dBm.

For a subordinate device operating under the control of an indoor access point in the 5.925-7.125 GHz band, the maximum e.i.r.p. over the frequency band of operation must not exceed 30 dBm.

6.3.2. Test Procedure Used

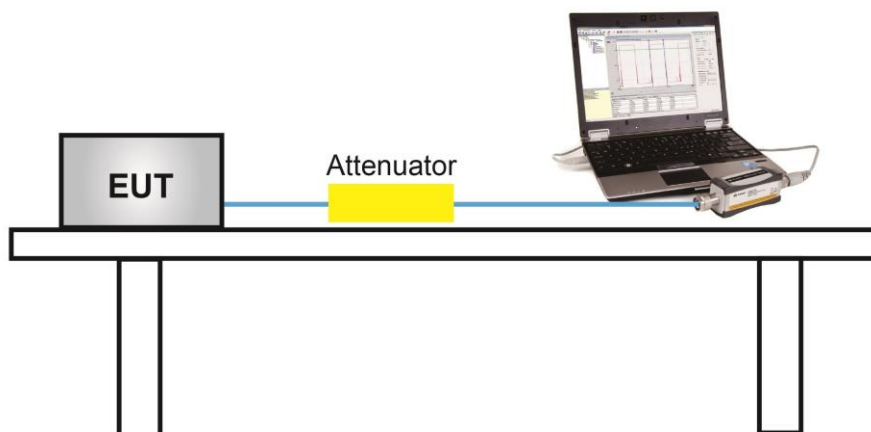
KDB 789033D02v02r01- Section E)3)b) Method PM-G

6.3.3. Test Setting

Average Power Measurement

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.

6.3.4. Test Setup



6.3.5. Test Result

Test Site	SR5	Test Engineer	Jay
Test Date	2022/8/8~2022/8/15		

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)				Total Average Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)
				Ant 0	Ant 1	Ant 2	Ant 3				
CDD Mode (N _{ss} =1)											
11ax-HE20	MCS0	37	6135	1.14	2.84	2.95	3.22	8.63	2.00	10.63	≤ 30.00
11ax-HE20	MCS0	53	6215	3.02	2.76	2.72	3.69	9.09	2.00	11.09	≤ 30.00
11ax-HE20	MCS0	69	6295	2.48	2.09	3.76	3.24	8.96	2.00	10.96	≤ 30.00
11ax-HE20	MCS0	85	6375	1.89	2.18	2.99	2.82	8.51	2.00	10.51	≤ 30.00
11ax-HE20	MCS0	101	6455	1.75	1.95	2.70	2.28	8.21	2.00	10.21	≤ 30.00
11ax-HE20	MCS0	117	6535	4.00	2.06	3.04	2.35	8.95	2.00	10.95	≤ 30.00
11ax-HE20	MCS0	133	6615	2.53	2.69	2.73	2.93	8.74	2.00	10.74	≤ 30.00
11ax-HE20	MCS0	149	6695	2.93	2.80	2.62	3.35	8.95	2.00	10.95	≤ 30.00
11ax-HE20	MCS0	165	6775	3.50	2.44	2.50	2.70	8.83	2.00	10.83	≤ 30.00
11ax-HE20	MCS0	181	6855	1.94	2.53	2.36	2.84	8.45	2.00	10.45	≤ 30.00
11ax-HE20	MCS0	197	6935	1.76	2.12	2.85	2.81	8.43	2.00	10.43	≤ 30.00
11ax-HE20	MCS0	213	7015	3.96	1.95	3.10	2.66	9.00	2.00	11.00	≤ 30.00
11ax-HE20	MCS0	229	7095	3.31	2.22	2.60	2.12	8.61	2.00	10.61	≤ 30.00
11ax-HE40	MCS0	35	6125	4.96	5.54	5.19	4.63	11.11	2.00	13.11	≤ 30.00
11ax-HE40	MCS0	51	6205	4.66	4.61	5.97	5.51	11.25	2.00	13.25	≤ 30.00
11ax-HE40	MCS0	67	6285	5.53	5.04	5.86	6.02	11.65	2.00	13.65	≤ 30.00
11ax-HE40	MCS0	83	6365	4.91	5.31	5.88	6.20	11.62	2.00	13.62	≤ 30.00
11ax-HE40	MCS0	99	6445	5.84	4.78	5.22	5.15	11.29	2.00	13.29	≤ 30.00
11ax-HE40	MCS0	115	6525	5.51	5.68	4.91	4.82	11.27	2.00	13.27	≤ 30.00
11ax-HE40	MCS0	131	6605	7.05	5.85	5.48	6.19	12.20	2.00	14.20	≤ 30.00
11ax-HE40	MCS0	147	6685	5.62	5.61	5.92	6.20	11.86	2.00	13.86	≤ 30.00
11ax-HE40	MCS0	163	6765	5.57	4.75	4.92	4.95	11.08	2.00	13.08	≤ 30.00
11ax-HE40	MCS0	179	6845	4.97	4.37	4.82	4.78	10.76	2.00	12.76	≤ 30.00
11ax-HE40	MCS0	195	6925	5.80	4.45	5.61	5.11	11.29	2.00	13.29	≤ 30.00
11ax-HE40	MCS0	211	7005	5.80	5.64	6.85	6.56	12.26	2.00	14.26	≤ 30.00
11ax-HE40	MCS0	227	7085	5.68	6.22	6.94	5.91	12.23	2.00	14.23	≤ 30.00

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)				Total Average Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)
				Ant 0	Ant 1	Ant 2	Ant 3				
CDD Mode (N _{ss} =1)											
11ax-HE80	MCS0	39	6145	7.78	8.65	8.57	7.58	14.19	2.00	16.19	≤ 30.00
11ax-HE80	MCS0	55	6225	8.78	8.16	8.46	8.99	14.63	2.00	16.63	≤ 30.00
11ax-HE80	MCS0	71	6305	8.98	8.12	8.56	8.34	14.53	2.00	16.53	≤ 30.00
11ax-HE80	MCS0	87	6385	8.79	8.85	8.41	9.51	14.93	2.00	16.93	≤ 30.00
11ax-HE80	MCS0	103	6465	8.30	8.40	8.24	8.21	14.31	2.00	16.31	≤ 30.00
11ax-HE80	MCS0	119	6545	8.76	8.89	8.08	7.97	14.46	2.00	16.46	≤ 30.00
11ax-HE80	MCS0	135	6625	9.26	9.30	8.25	9.46	15.11	2.00	17.11	≤ 30.00
11ax-HE80	MCS0	151	6705	9.54	8.25	7.78	8.87	14.68	2.00	16.68	≤ 30.00
11ax-HE80	MCS0	167	6785	9.13	8.72	8.08	8.12	14.56	2.00	16.56	≤ 30.00
11ax-HE80	MCS0	183	6865	8.00	8.80	8.71	8.90	14.64	2.00	16.64	≤ 30.00
11ax-HE80	MCS0	199	6945	8.14	8.59	8.52	8.17	14.38	2.00	16.38	≤ 30.00
11ax-HE80	MCS0	215	7025	9.12	8.29	9.23	9.76	15.15	2.00	17.15	≤ 30.00
11ax-HE160	MCS0	47	6185	11.00	11.28	11.46	11.45	17.32	2.00	19.32	≤ 30.00
11ax-HE160	MCS0	79	6345	11.54	11.27	11.57	11.21	17.42	2.00	19.42	≤ 30.00
11ax-HE160	MCS0	111	6505	11.60	11.55	11.59	11.63	17.61	2.00	19.61	≤ 30.00
11ax-HE160	MCS0	143	6665	11.45	11.64	11.20	11.39	17.44	2.00	19.44	≤ 30.00
11ax-HE160	MCS0	175	6825	11.29	11.07	11.36	11.58	17.35	2.00	19.35	≤ 30.00
11ax-HE160	MCS0	207	6985	11.69	11.28	11.38	11.65	17.52	2.00	19.52	≤ 30.00

Note 1: Total Average Power (dBm) = $10 \cdot \log \{10^{(\text{Ant 0 Average Power} / 10)} + 10^{(\text{Ant 1 Average Power} / 10)} + 10^{(\text{Ant 2 Average Power} / 10)} + 10^{(\text{Ant 3 Average Power} / 10)}\}$.

Note 2: EIRP (dBm) = Total Average Power (dBm) + Antenna Gain (dBi).

Test Site	SR5	Test Engineer	Jay
Test Date	2022/8/8~2022/8/15		

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)				Total Average Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)
				Ant 0	Ant 1	Ant 2	Ant 3				
CDD Mode (Nss = 4)											
11ax-HE20	MCS0	37	6135	8.44	8.81	8.67	8.14	14.54	2.00	16.54	≤ 30.00
11ax-HE20	MCS0	53	6215	8.79	8.20	8.52	9.07	14.68	2.00	16.68	≤ 30.00
11ax-HE20	MCS0	69	6295	9.08	8.14	8.73	8.22	14.58	2.00	16.58	≤ 30.00
11ax-HE20	MCS0	85	6375	8.63	7.94	8.05	8.59	14.33	2.00	16.33	≤ 30.00
11ax-HE20	MCS0	101	6455	8.40	8.52	8.39	8.41	14.45	2.00	16.45	≤ 30.00
11ax-HE20	MCS0	117	6535	8.87	8.84	8.15	7.91	14.48	2.00	16.48	≤ 30.00
11ax-HE20	MCS0	133	6615	9.19	9.25	8.25	9.51	15.10	2.00	17.10	≤ 30.00
11ax-HE20	MCS0	149	6695	9.72	8.83	7.83	9.03	14.92	2.00	16.92	≤ 30.00
11ax-HE20	MCS0	165	6775	9.23	8.96	8.26	9.30	14.98	2.00	16.98	≤ 30.00
11ax-HE20	MCS0	181	6855	7.81	8.49	8.45	8.64	14.38	2.00	16.38	≤ 30.00
11ax-HE20	MCS0	197	6935	8.56	8.80	8.74	8.48	14.67	2.00	16.67	≤ 30.00
11ax-HE20	MCS0	213	7015	8.79	7.86	8.84	8.92	14.64	2.00	16.64	≤ 30.00
11ax-HE20	MCS0	229	7095	9.10	8.53	9.63	8.25	14.93	2.00	16.93	≤ 30.00
11ax-HE40	MCS0	35	6125	11.78	11.66	11.76	11.61	17.72	2.00	19.72	≤ 30.00
11ax-HE40	MCS0	51	6205	11.68	12.06	12.18	12.09	18.03	2.00	20.03	≤ 30.00
11ax-HE40	MCS0	67	6285	12.80	12.02	12.06	12.08	18.27	2.00	20.27	≤ 30.00
11ax-HE40	MCS0	83	6365	11.85	11.68	11.76	11.50	17.72	2.00	19.72	≤ 30.00
11ax-HE40	MCS0	99	6445	11.48	11.47	11.77	11.90	17.68	2.00	19.68	≤ 30.00
11ax-HE40	MCS0	115	6525	11.13	11.30	11.31	11.25	17.27	2.00	19.27	≤ 30.00
11ax-HE40	MCS0	131	6605	12.12	11.97	11.87	12.00	18.01	2.00	20.01	≤ 30.00
11ax-HE40	MCS0	147	6685	12.47	12.60	12.12	12.36	18.41	2.00	20.41	≤ 30.00
11ax-HE40	MCS0	163	6765	12.19	12.22	12.39	12.44	18.33	2.00	20.33	≤ 30.00
11ax-HE40	MCS0	179	6845	11.63	11.64	11.71	11.81	17.72	2.00	19.72	≤ 30.00
11ax-HE40	MCS0	195	6925	12.45	11.87	12.01	12.34	18.19	2.00	20.19	≤ 30.00
11ax-HE40	MCS0	211	7005	12.40	11.79	12.22	12.39	18.23	2.00	20.23	≤ 30.00
11ax-HE40	MCS0	227	7085	12.40	12.18	12.54	12.39	18.40	2.00	20.40	≤ 30.00

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)				Total Average Power (dBm)	CDD Directional Gain (dBi)	CDD EIRP (dBm)	EIRP Limit (dBm)
				Ant 0	Ant 1	Ant 2	Ant 3				
CDD Mode (Nss = 4)											
11ax-HE80	MCS0	39	6145	14.10	14.08	14.04	13.94	20.06	2.00	22.06	≤ 30.00
11ax-HE80	MCS0	55	6225	14.71	14.98	15.33	15.09	21.05	2.00	23.05	≤ 30.00
11ax-HE80	MCS0	71	6305	14.93	14.21	14.45	14.12	20.46	2.00	22.46	≤ 30.00
11ax-HE80	MCS0	87	6385	14.27	14.09	14.29	14.05	20.20	2.00	22.20	≤ 30.00
11ax-HE80	MCS0	103	6465	14.01	14.17	14.39	14.54	20.30	2.00	22.30	≤ 30.00
11ax-HE80	MCS0	119	6545	14.31	14.28	14.84	14.39	20.48	2.00	22.48	≤ 30.00
11ax-HE80	MCS0	135	6625	14.76	14.61	14.63	14.45	20.63	2.00	22.63	≤ 30.00
11ax-HE80	MCS0	151	6705	14.58	14.86	14.24	14.45	20.56	2.00	22.56	≤ 30.00
11ax-HE80	MCS0	167	6785	14.21	14.36	14.16	14.50	20.33	2.00	22.33	≤ 30.00
11ax-HE80	MCS0	183	6865	14.49	14.51	14.43	14.84	20.59	2.00	22.59	≤ 30.00
11ax-HE80	MCS0	199	6945	14.59	13.95	14.10	14.49	20.31	2.00	22.31	≤ 30.00
11ax-HE80	MCS0	215	7025	14.57	13.90	14.46	14.97	20.51	2.00	22.51	≤ 30.00
11ax-HE160	MCS0	47	6185	17.03	17.27	17.54	17.32	23.31	2.00	25.31	≤ 30.00
11ax-HE160	MCS0	79	6345	17.57	17.23	17.48	17.15	23.38	2.00	25.38	≤ 30.00
11ax-HE160	MCS0	111	6505	17.20	17.05	17.20	17.16	23.17	2.00	25.17	≤ 30.00
11ax-HE160	MCS0	143	6665	17.47	17.56	17.13	17.19	23.36	2.00	25.36	≤ 30.00
11ax-HE160	MCS0	175	6825	17.17	17.05	17.26	17.44	23.25	2.00	25.25	≤ 30.00
11ax-HE160	MCS0	207	6985	17.76	17.17	17.41	17.59	23.51	2.00	25.51	≤ 30.00

Note 1: Total Average Power (dBm) = $10 \cdot \log \{10^{(\text{Ant 0 Average Power} / 10)} + 10^{(\text{Ant 1 Average Power} / 10)} + 10^{(\text{Ant 2 Average Power} / 10)} + 10^{(\text{Ant 3 Average Power} / 10)}\}$.

Note 2: EIRP (dBm) = Total Average Power (dBm) + Antenna Gain (dBi).

6.4. Power Spectral Density

6.4.1. Test Limit

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.

For a subordinate device operating under the control of an indoor access point 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.

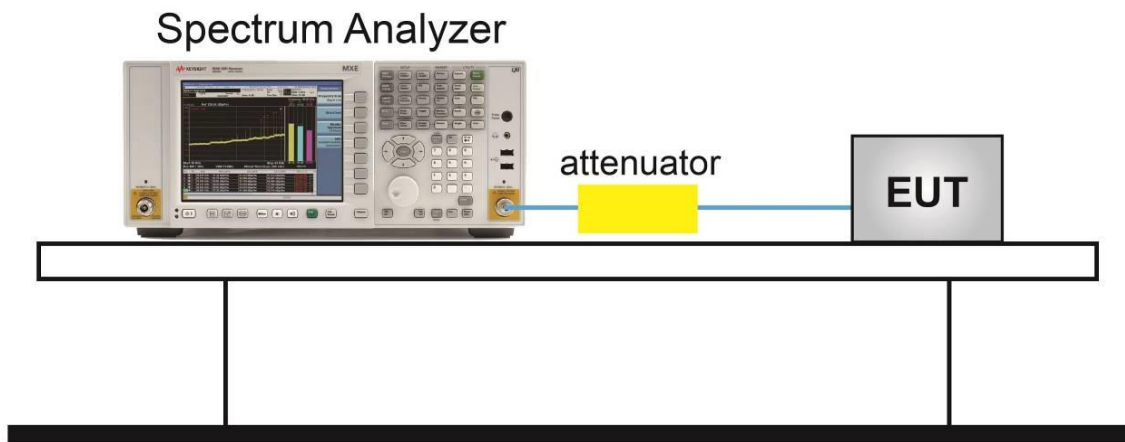
6.4.2. Test Procedure Used

KDB 789033 D02v02r01-Section II) F

6.4.3. Test Setting

1. Analyzer was set to the center frequency of the UNII channel under investigation
2. Span was set to encompass the entire 26dB EBW of the signal.
3. RBW = 1MHz
4. VBW = 3MHz
5. Number of sweep points $\geq 2 \times (\text{span} / \text{RBW})$
6. Detector = power averaging (Average)
7. Sweep time = auto
8. Trigger = free run
9. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
10. Add $10 \cdot \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission). For example, add $10 \cdot \log(1/0.25) = 6$ dB if the duty cycle is 25 percent.

6.4.4. Test Setup



6.4.5. Test Result

Test Site	SR5	Test Engineer	Jay
Test Date	2022/8/8~2022/8/15		

Test Mode	Data	Channel	Freq.	PSD (dBm/MHz)				Total PSD (dBm/MHz)	Duty Cycle (%)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)
	Rate/ MCS	No.	(MHz)	Ant 0	Ant 1	Ant 2	Ant 3					
CDD Mode (Nss = 1)												
11ax-HE20	MCS0	37	6135	-11.357	-9.785	-9.772	-9.494	-4.023	85.96	8.02	4.65	≤ 5.00
11ax-HE20	MCS0	53	6215	-9.589	-9.811	-10.509	-9.686	-3.864	85.96	8.02	4.81	≤ 5.00
11ax-HE20	MCS0	69	6295	-10.001	-10.579	-9.140	-9.677	-3.797	85.96	8.02	4.88	≤ 5.00
11ax-HE20	MCS0	85	6375	-10.694	-10.223	-9.638	-9.368	-3.930	85.96	8.02	4.75	≤ 5.00
11ax-HE20	MCS0	101	6455	-10.016	-10.249	-9.462	-9.819	-3.856	85.96	8.02	4.82	≤ 5.00
11ax-HE20	MCS0	117	6535	-9.568	-10.360	-9.431	-10.214	-3.854	85.96	8.02	4.82	≤ 5.00
11ax-HE20	MCS0	133	6615	-9.460	-10.271	-10.192	-9.808	-3.900	85.96	8.02	4.78	≤ 5.00
11ax-HE20	MCS0	149	6695	-10.522	-9.772	-9.694	-9.875	-3.933	85.96	8.02	4.74	≤ 5.00
11ax-HE20	MCS0	165	6775	-9.500	-10.615	-10.374	-10.141	-4.117	85.96	8.02	4.56	≤ 5.00
11ax-HE20	MCS0	181	6855	-9.523	-10.093	-9.729	-10.110	-3.836	85.96	8.02	4.84	≤ 5.00
11ax-HE20	MCS0	197	6935	-9.509	-10.949	-9.590	-10.472	-4.068	85.96	8.02	4.61	≤ 5.00
11ax-HE20	MCS0	213	7015	-9.794	-11.121	-8.432	-10.547	-3.833	85.96	8.02	4.85	≤ 5.00
11ax-HE20	MCS0	229	7095	-10.634	-11.201	-8.901	-11.108	-4.335	85.96	8.02	4.34	≤ 5.00
11ax-HE40	MCS0	35	6125	-10.557	-9.937	-9.175	-10.421	-3.967	86.09	8.02	4.70	≤ 5.00
11ax-HE40	MCS0	51	6205	-9.774	-10.903	-9.428	-9.346	-3.800	86.09	8.02	4.87	≤ 5.00
11ax-HE40	MCS0	67	6285	-9.403	-10.317	-10.744	-10.195	-4.117	86.09	8.02	4.55	≤ 5.00
11ax-HE40	MCS0	83	6365	-10.813	-10.719	-9.505	-9.831	-4.160	86.09	8.02	4.51	≤ 5.00
11ax-HE40	MCS0	99	6445	-9.642	-10.664	-9.794	-10.211	-4.039	86.09	8.02	4.63	≤ 5.00
11ax-HE40	MCS0	115	6525	-9.779	-9.928	-10.424	-10.515	-4.130	86.09	8.02	4.54	≤ 5.00
11ax-HE40	MCS0	131	6605	-9.601	-10.357	-10.380	-9.652	-3.961	86.09	8.02	4.71	≤ 5.00
11ax-HE40	MCS0	147	6685	-9.115	-10.278	-10.489	-10.601	-4.058	86.09	8.02	4.61	≤ 5.00
11ax-HE40	MCS0	163	6765	-10.154	-10.021	-9.457	-9.688	-3.801	86.09	8.02	4.87	≤ 5.00
11ax-HE40	MCS0	179	6845	-10.685	-9.998	-10.357	-9.642	-4.132	86.09	8.02	4.54	≤ 5.00
11ax-HE40	MCS0	195	6925	-10.190	-10.602	-9.979	-9.470	-4.020	86.09	8.02	4.65	≤ 5.00
11ax-HE40	MCS0	211	7005	-9.959	-10.729	-9.395	-9.264	-3.779	86.09	8.02	4.89	≤ 5.00
11ax-HE40	MCS0	227	7085	-10.056	-10.720	-9.396	-10.106	-4.024	86.09	8.02	4.65	≤ 5.00

Test Mode	Data	Channel	Freq.	PSD (dBm/MHz)				Total PSD	Duty	Directional	EIRP PSD	EIRP PSD
	Rate/ MCS	No.	(MHz)	Ant 0	Ant 1	Ant 2	Ant 3	(dBm/MHz)	Cycle (%)	Gain (dBi)	(dBm/MHz)	Limit (dBm/MHz)
CDD Mode (Nss = 1)												
11ax-HE80	MCS0	39	6145	-10.063	-9.601	-9.504	-10.199	-3.811	85.50	8.02	4.89	≤ 5.00
11ax-HE80	MCS0	55	6225	-10.113	-10.195	-10.264	-9.566	-4.005	85.50	8.02	4.70	≤ 5.00
11ax-HE80	MCS0	71	6305	-9.547	-10.761	-9.885	-10.594	-4.147	85.50	8.02	4.55	≤ 5.00
11ax-HE80	MCS0	87	6385	-10.131	-10.016	-10.150	-9.183	-3.830	85.50	8.02	4.87	≤ 5.00
11ax-HE80	MCS0	103	6465	-10.017	-10.031	-9.269	-10.091	-3.818	85.50	8.02	4.88	≤ 5.00
11ax-HE80	MCS0	119	6545	-9.556	-10.011	-9.563	-10.233	-3.810	85.50	8.02	4.89	≤ 5.00
11ax-HE80	MCS0	135	6625	-9.861	-10.100	-10.097	-9.458	-3.850	85.50	8.02	4.85	≤ 5.00
11ax-HE80	MCS0	151	6705	-9.279	-10.392	-10.621	-10.685	-4.185	85.50	8.02	4.52	≤ 5.00
11ax-HE80	MCS0	167	6785	-9.458	-9.783	-10.372	-10.881	-4.069	85.50	8.02	4.63	≤ 5.00
11ax-HE80	MCS0	183	6865	-10.443	-9.695	-9.582	-9.687	-3.818	85.50	8.02	4.88	≤ 5.00
11ax-HE80	MCS0	199	6945	-10.561	-9.991	-9.933	-10.276	-4.162	85.50	8.02	4.54	≤ 5.00
11ax-HE80	MCS0	215	7025	-10.048	-10.710	-9.730	-9.134	-3.848	85.50	8.02	4.85	≤ 5.00
11ax-HE160	MCS0	47	6185	-10.095	-9.645	-9.294	-9.476	-3.597	92.61	8.02	4.76	≤ 5.00
11ax-HE160	MCS0	79	6345	-9.238	-9.761	-9.257	-9.868	-3.501	92.61	8.02	4.85	≤ 5.00
11ax-HE160	MCS0	111	6505	-9.370	-9.700	-9.553	-9.584	-3.530	92.61	8.02	4.82	≤ 5.00
11ax-HE160	MCS0	143	6665	-9.724	-9.480	-9.982	-9.399	-3.620	92.61	8.02	4.73	≤ 5.00
11ax-HE160	MCS0	175	6825	-9.647	-9.746	-9.502	-9.375	-3.545	92.61	8.02	4.81	≤ 5.00
11ax-HE160	MCS0	207	6985	-9.664	-9.983	-9.526	-9.585	-3.665	92.61	8.02	4.69	≤ 5.00

Note 1: Total PSD (dBm/MHz) = $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)}\}$

Note 2: When EUT duty cycle < 98%, EIRP PSD (dBm/MHz) = Total PSD (dBm/MHz) + $10 \cdot \log (1/\text{Duty Cycle})$ + Directional Gain (dBi).

Test Site	SR5	Test Engineer	Jay
Test Date	2022/8/8~2022/8/15		

Test Mode	Data	Channel No.	Freq. (MHz)	PSD (dBm/MHz)				Total PSD (dBm/MHz)	Duty Cycle (%)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)
	Rate/ MCS			Ant 0	Ant 1	Ant 2	Ant 3					
CDD Mode (Nss = 4)												
11ax-HE20	MCS0	37	6135	-4.558	-4.124	-3.770	-4.688	1.751	85.96%	2.00	4.41	≤ 5.00
11ax-HE20	MCS0	53	6215	-4.167	-4.796	-4.126	-3.184	1.991	85.96%	2.00	4.65	≤ 5.00
11ax-HE20	MCS0	69	6295	-3.910	-4.473	-3.832	-4.755	1.795	85.96%	2.00	4.45	≤ 5.00
11ax-HE20	MCS0	85	6375	-3.921	-4.426	-4.502	-3.454	1.966	85.96%	2.00	4.62	≤ 5.00
11ax-HE20	MCS0	101	6455	-3.709	-3.904	-3.899	-4.061	2.129	85.96%	2.00	4.79	≤ 5.00
11ax-HE20	MCS0	117	6535	-3.531	-3.579	-4.278	-4.674	2.032	85.96%	2.00	4.69	≤ 5.00
11ax-HE20	MCS0	133	6615	-3.528	-3.711	-4.662	-3.534	2.186	85.96%	2.00	4.84	≤ 5.00
11ax-HE20	MCS0	149	6695	-3.595	-3.904	-4.702	-4.592	1.847	85.96%	2.00	4.50	≤ 5.00
11ax-HE20	MCS0	165	6775	-3.480	-3.434	-4.407	-4.484	2.098	85.96%	2.00	4.75	≤ 5.00
11ax-HE20	MCS0	181	6855	-4.624	-4.189	-3.919	-3.487	1.985	85.96%	2.00	4.64	≤ 5.00
11ax-HE20	MCS0	197	6935	-4.517	-3.740	-3.517	-4.554	1.963	85.96%	2.00	4.62	≤ 5.00
11ax-HE20	MCS0	213	7015	-3.994	-4.704	-3.884	-3.504	2.020	85.96%	2.00	4.68	≤ 5.00
11ax-HE20	MCS0	229	7095	-3.973	-4.587	-3.234	-4.594	1.960	85.96%	2.00	4.62	≤ 5.00
11ax-HE40	MCS0	35	6125	-3.948	-3.816	-3.603	-3.768	2.239	86.09%	2.00	4.89	≤ 5.00
11ax-HE40	MCS0	51	6205	-3.886	-3.753	-3.767	-3.965	2.179	86.09%	2.00	4.83	≤ 5.00
11ax-HE40	MCS0	67	6285	-3.529	-4.005	-3.782	-4.137	2.164	86.09%	2.00	4.81	≤ 5.00
11ax-HE40	MCS0	83	6365	-3.814	-3.620	-3.775	-4.041	2.211	86.09%	2.00	4.86	≤ 5.00
11ax-HE40	MCS0	99	6445	-3.917	-3.728	-3.797	-3.767	2.219	86.09%	2.00	4.87	≤ 5.00
11ax-HE40	MCS0	115	6525	-4.294	-4.225	-4.003	-4.160	1.851	86.09%	2.00	4.50	≤ 5.00
11ax-HE40	MCS0	131	6605	-3.636	-4.190	-4.126	-3.812	2.086	86.09%	2.00	4.74	≤ 5.00
11ax-HE40	MCS0	147	6685	-3.652	-3.662	-3.716	-4.386	2.177	86.09%	2.00	4.83	≤ 5.00
11ax-HE40	MCS0	163	6765	-3.732	-3.741	-3.855	-3.862	2.224	86.09%	2.00	4.87	≤ 5.00
11ax-HE40	MCS0	179	6845	-4.119	-3.841	-4.090	-3.759	2.071	86.09%	2.00	4.72	≤ 5.00
11ax-HE40	MCS0	195	6925	-3.807	-3.930	-3.758	-3.613	2.245	86.09%	2.00	4.90	≤ 5.00
11ax-HE40	MCS0	211	7005	-3.810	-4.026	-3.679	-3.726	2.212	86.09%	2.00	4.86	≤ 5.00
11ax-HE40	MCS0	227	7085	-3.724	-4.475	-3.693	-3.761	2.119	86.09%	2.00	4.77	≤ 5.00

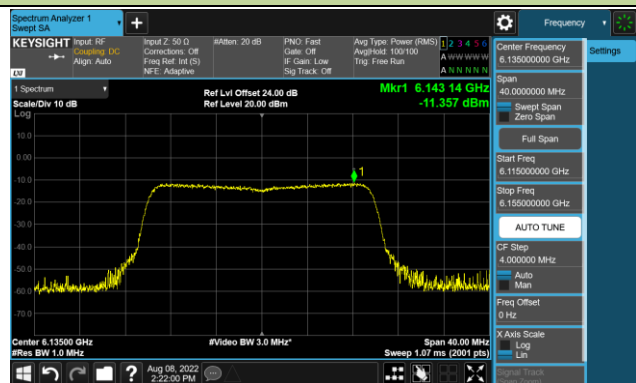
Test Mode	Data	Channel No.	Freq. (MHz)	PSD (dBm/MHz)				Total PSD (dBm/MHz)	Duty Cycle (%)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)
	Rate/ MCS			Ant 0	Ant 1	Ant 2	Ant 3					
CDD Mode (Nss = 4)												
11ax-HE80	MCS0	39	6145	-3.971	-4.364	-3.970	-3.890	1.976	85.50%	2.00	4.66	≤ 5.00
11ax-HE80	MCS0	55	6225	-4.071	-3.934	-3.848	-4.036	2.049	85.50%	2.00	4.73	≤ 5.00
11ax-HE80	MCS0	71	6305	-3.788	-4.014	-4.004	-4.396	1.976	85.50%	2.00	4.66	≤ 5.00
11ax-HE80	MCS0	87	6385	-4.053	-4.007	-3.753	-4.315	1.993	85.50%	2.00	4.67	≤ 5.00
11ax-HE80	MCS0	103	6465	-4.149	-3.827	-3.824	-3.632	2.167	85.50%	2.00	4.85	≤ 5.00
11ax-HE80	MCS0	119	6545	-3.777	-4.117	-3.685	-3.966	2.138	85.50%	2.00	4.82	≤ 5.00
11ax-HE80	MCS0	135	6625	-3.917	-4.105	-4.108	-4.166	1.948	85.50%	2.00	4.63	≤ 5.00
11ax-HE80	MCS0	151	6705	-4.050	-3.844	-4.550	-4.186	1.871	85.50%	2.00	4.55	≤ 5.00
11ax-HE80	MCS0	167	6785	-4.060	-3.870	-3.799	-3.660	2.176	85.50%	2.00	4.86	≤ 5.00
11ax-HE80	MCS0	183	6865	-4.119	-3.736	-3.812	-3.577	2.214	85.50%	2.00	4.89	≤ 5.00
11ax-HE80	MCS0	199	6945	-3.941	-4.175	-4.131	-3.853	1.998	85.50%	2.00	4.68	≤ 5.00
11ax-HE80	MCS0	215	7025	-4.110	-4.300	-3.944	-3.223	2.146	85.50%	2.00	4.83	≤ 5.00
11ax-HE160	MCS0	47	6185	-3.836	-3.832	-3.170	-3.453	2.457	92.61%	2.00	4.79	≤ 5.00
11ax-HE160	MCS0	79	6345	-3.449	-3.802	-3.056	-3.588	2.555	92.61%	2.00	4.89	≤ 5.00
11ax-HE160	MCS0	111	6505	-3.441	-3.648	-3.649	-3.944	2.354	92.61%	2.00	4.69	≤ 5.00
11ax-HE160	MCS0	143	6665	-3.850	-3.588	-3.732	-3.889	2.257	92.61%	2.00	4.59	≤ 5.00
11ax-HE160	MCS0	175	6825	-3.685	-3.671	-3.505	-3.305	2.482	92.61%	2.00	4.82	≤ 5.00
11ax-HE160	MCS0	207	6985	-3.476	-3.535	-3.798	-3.305	2.496	92.61%	2.00	4.83	≤ 5.00

Note 1: Total PSD (dBm/MHz) = $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)}\}$

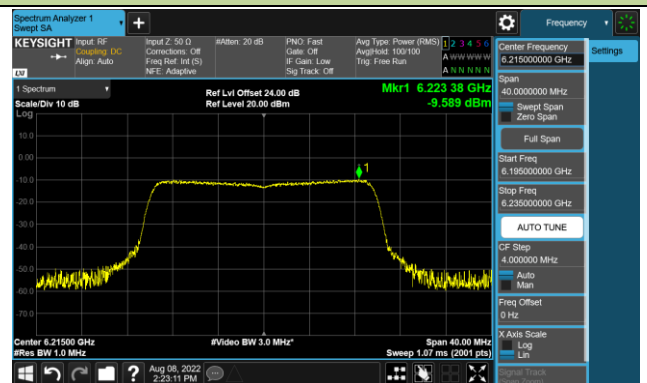
Note 2: When EUT duty cycle < 98%, EIRP PSD (dBm/MHz) = Total PSD (dBm/MHz) + $10 \cdot \log (1/\text{Duty Cycle})$ + Directional Gain (dBi).

802.11ax-HE20 Power Spectral Density – Ant 0 (Nss=1)

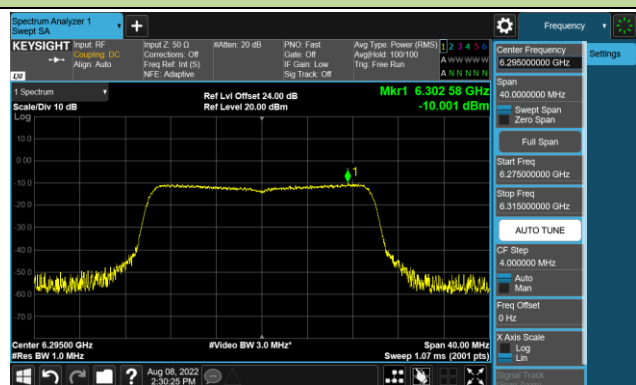
Channel 37 (6135MHz)



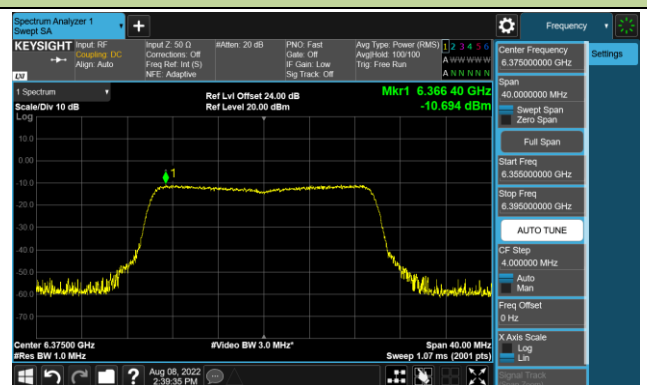
Channel 53 (6215MHz)



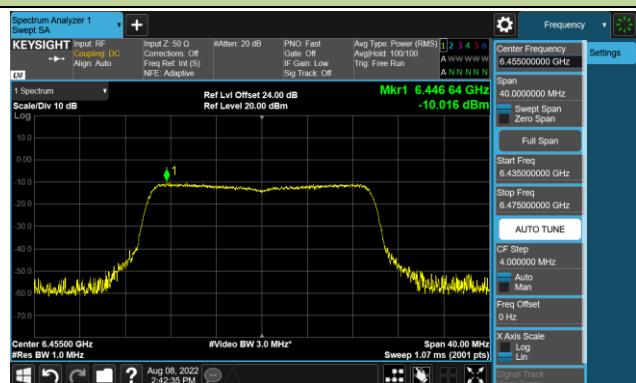
Channel 69 (6295MHz)



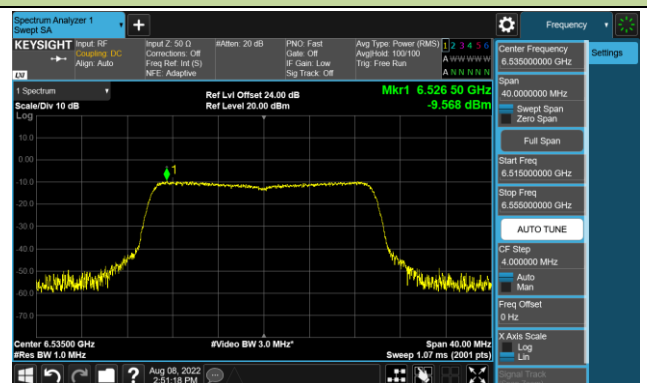
Channel 85 (6375MHz)



Channel 101 (6455MHz)



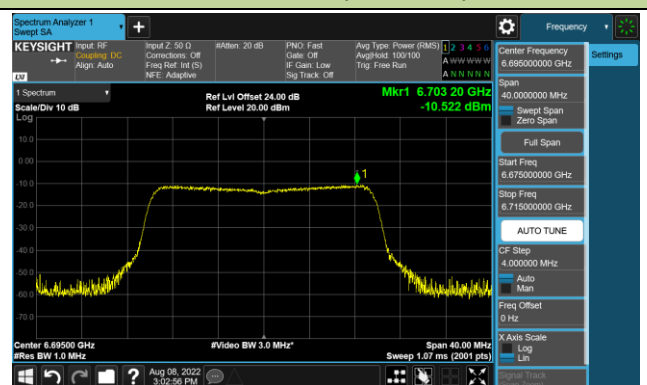
Channel 117 (6535MHz)



Channel 133 (6615MHz)

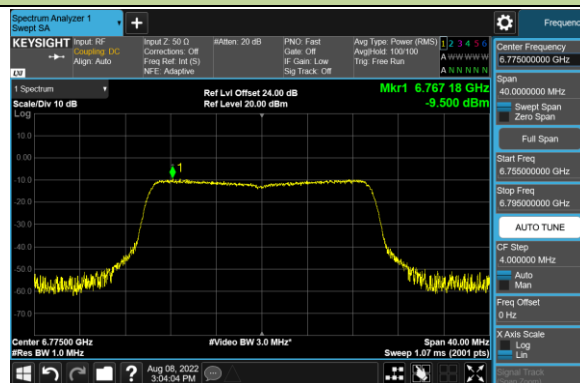


Channel 149 (6695MHz)

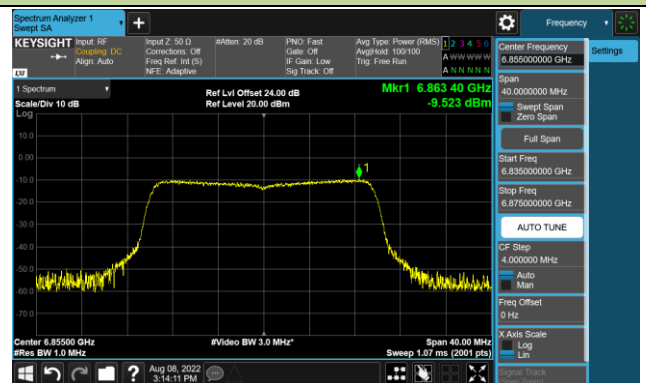


802.11ax-HE20 Power Spectral Density – Ant 0 (Nss=1)

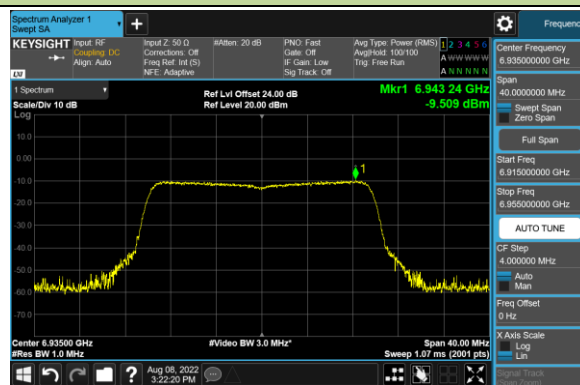
Channel 165 (6775MHz)



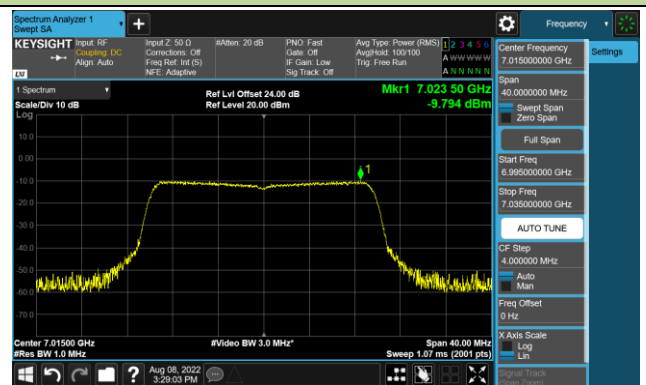
Channel 181 (6855MHz)



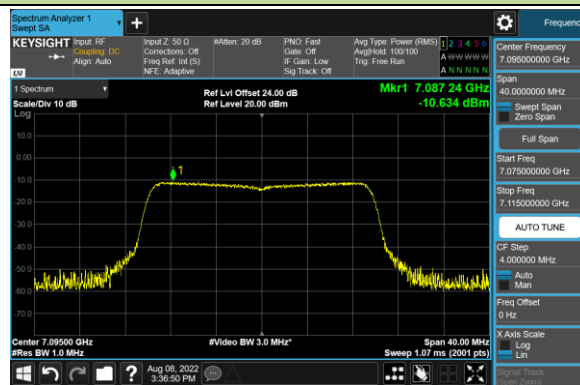
Channel 197 (6935MHz)



Channel 213 (7015MHz)

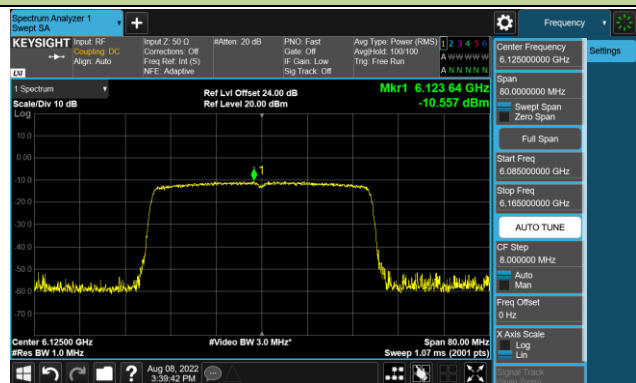


Channel 229 (7095MHz)

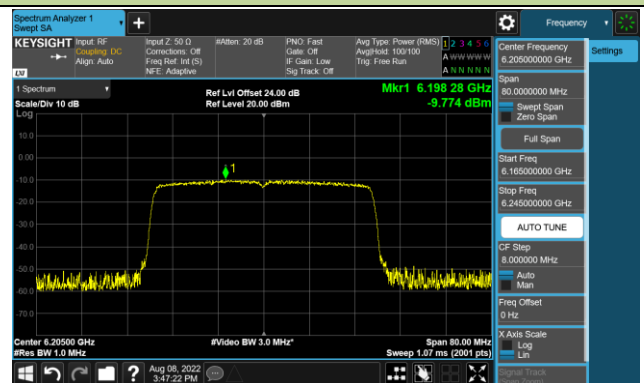


802.11ax-HE40 Power Spectral Density – Ant 0 (Nss=1)

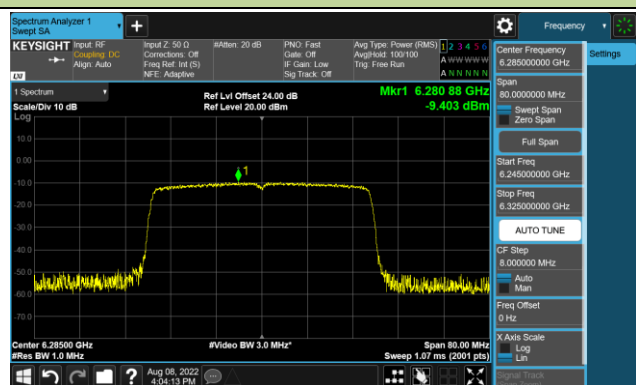
Channel 35 (6125MHz)



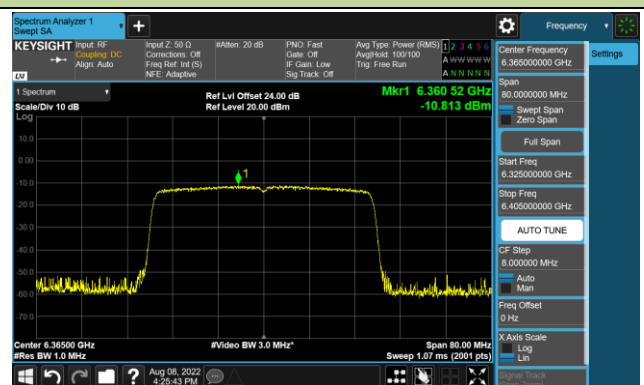
Channel 51 (6205MHz)



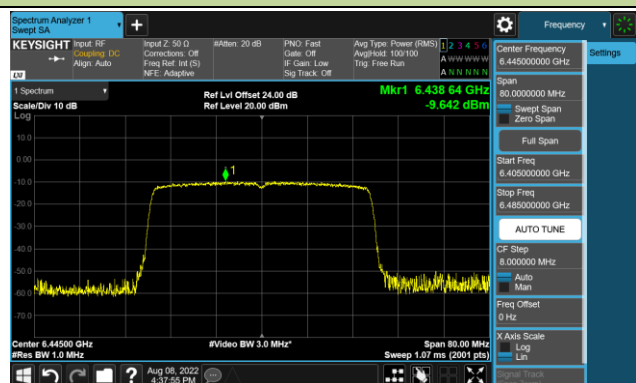
Channel 67 (6285MHz)



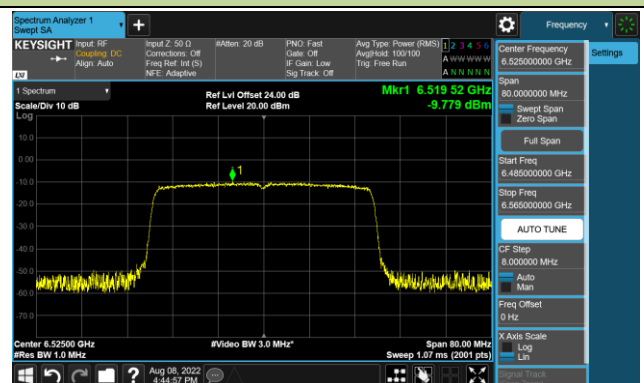
Channel 83 (6365MHz)



Channel 99 (6445MHz)



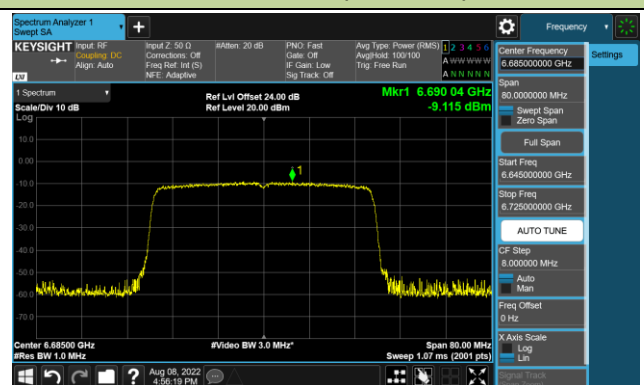
Channel 115 (6525MHz)



Channel 131 (6605MHz)

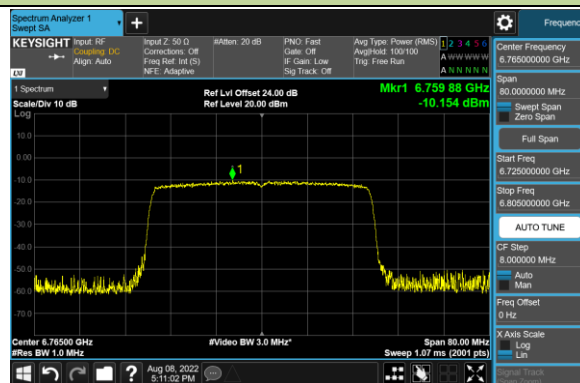


Channel 147 (6685MHz)

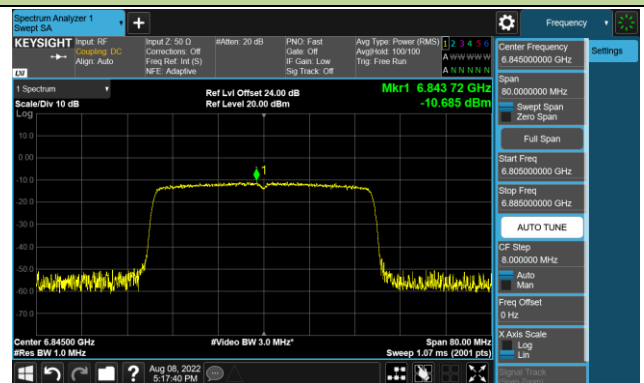


802.11ax-HE40 Power Spectral Density – Ant 0 (Nss=1)

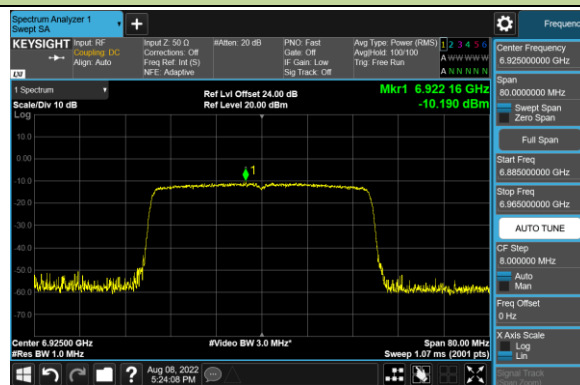
Channel 163 (6765MHz)



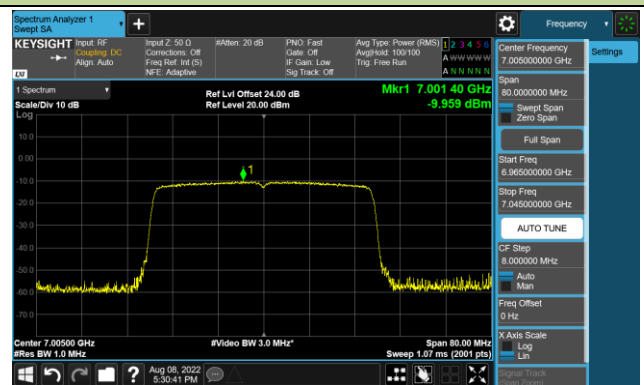
Channel 179 (6845MHz)



Channel 195 (6925MHz)



Channel 211 (7005MHz)



Channel 227 (7085MHz)

