MEASUREMENT REPORT

FCC PART 15.407 WLAN 802.11ax

FCC ID: 2AXJ4AXE75

Applicant: TP-Link Corporation Limited

Application Type: Certification

Product: AXE5400 Tri-Band Wi-Fi 6E Router

Model No.: Archer AXE75

Trademark: tp-link

FCC Classification: 15E 6GHz Low Power Indoor Access Point (6ID)

FCC Rule Part(s): Part15 Subpart E (Section 15.407)

Test Date: September 13, 2021 ~ January 08, 2022

Reviewed By: Kevin Guo

Approved By: Robin Wu

ACCREDITED
TESTING LABORATORY
CERTIFICATE #3628.01

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 KDB 987594 D02v01. 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 (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
2108RSU086-U1	Rev. 01	Initial report	02-08-2022	Valid

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1. General Information

1.1. Applicant

TP-Link Corporation Limited

Room 901, 9/F. , New East Ocean Centre, 9 Science Museum Road, Tsim Sha Tsui, Kowloon, Hongkong

1.2. Manufacturer

TP-Link Corporation Limited

Room 901, 9/F. , New East Ocean Centre, 9 Science Museum Road, Tsim Sha Tsui, Kowloon, Hongkong

1.3. Testing Facility

☒	**Test Site – MRT Suzhou Laboratory**				
	Laboratory Location (Suzhou - Wuzhong) D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China **Laboratory Location (Suzhou - SIP)** 4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China				
	Laboratory Accreditations				
	A2LA: 3628.01		CNAS: L10551		
	FCC: CN1166		ISED: CN0001		
	VCCI:	☐R-20025	☐G-20034	☐C-20020	☐T-20020
		☐R-20141	☐G-20134	☐C-20103	☐T-20104
☒	**Test Site – MRT Shenzhen Laboratory**				
	Laboratory Location (Shenzhen) 1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China				
	Laboratory Accreditations				
	A2LA: 3628.02		CNAS: L10551		
	FCC: CN1284		ISED: CN0105		
☐	**Test Site – MRT Taiwan Laboratory**				
	Laboratory Location (Taiwan) No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)				
	Laboratory Accreditations				
	TAF: L3261-190725				
	FCC: 291082, TW3261		ISED: TW3261		

2. PRODUCT INFORMATION

2.1. Equipment Description

Product Name	AXE5400 Tri-Band Wi-Fi 6E Router
Model No.	Archer AXE75
Test Device Serial No.	20210913Sample#06 (Conducted) 20210827Sample#11 (Radiated and AC conducted Emission)
Wi-Fi Specification	802.11a/b/g/n/ac/ax
Antenna Specification	Refer to section 2.4
Operating Temperature	0 ~ 40 °C
Power Type	AC Adapter
Operating Environment	Indoor Use
Accessory	
Adapter	Model: NBS30D120250VU INPYUT: 100-240~50/60Hz 0.8A OUTPUT: DC12.0V, 2.5A
Remark: The information shown above was provided by manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.	

2.2. Product Specification Subjective to this Report

Frequency Range	For 802.11ax-HE20: 6115~7095MHz 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 for this report

802.11ax-HE20

Channel	Frequency	Channel	Frequency	Channel	Frequency
33	6115 MHz	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. Description of Available Antennas

Antenna Type	Frequency Band (MHz)	T_X Paths	Number of spatial streams	Max Antenna Gain (dBi)	Beamforming Directional Gain (dBi)	CDD Directional Gain (dBi)	
						For Power	For PSD
Dipole Antenna	2412 ~ 2462	2	1	2.10	5.11	2.10	5.11
	5150 ~ 5250	2	1	3.02	6.03	3.02	6.03
	5250 ~ 5350	2	1	3.18	6.19	3.18	6.19
	5470 ~ 5725	2	1	3.20	6.21	3.20	6.21
	5725 ~ 5850	2	1	2.70	5.71	2.70	5.71
	5925 ~ 7125	2	1	2.00	5.01	2.00	5.01
			2	2.00	--	2.00	2.00

Note:

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

For CDD transmissions, directional gain is calculated as follows, N_{ANT} = 2, Nss = 1.

If all antennas have the same gain, G_{ANT}, 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}/ Nss) dB = 3.01;

- For power measurements on IEEE 802.11 devices,

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

2. The EUT also supports Beam Forming mode, and the Beam Forming support 802.11n/ac/ax, not include 802.11a/b/g. Directional gain = G_{ANT} + BF Gain. BF mode power setting will be less than or equal to CDD power setting.
3. All antenna information is provided by the manufacturer.

2.5. Test Mode

Test Mode	Mode 1: Transmit by 802.11ax-HE20 (MCS0) (CDD mode)
	Mode 2: Transmit by 802.11ax-HE40 (MCS0) (CDD mode)
	Mode 3: Transmit by 802.11ax-HE80 (MCS0) (CDD mode)
	Mode 4: Transmit by 802.11ax-HE160 (MCS0) (CDD mode)
	Mode 5: Transmit by 802.11ax-HE20 (MCS0) (Beam-Forming mode)
	Mode 6: Transmit by 802.11ax-HE40 (MCS0) (Beam-Forming mode)
	Mode 7: Transmit by 802.11ax-HE80 (MCS0) (Beam-Forming mode)
	Mode 8: Transmit by 802.11ax-HE160 (MCS0) (Beam-Forming mode)

Note 1: Due to CDD mode was the worst mode, so all test items were evaluated in this report. The beamforming mode only evaluated the RF output power.

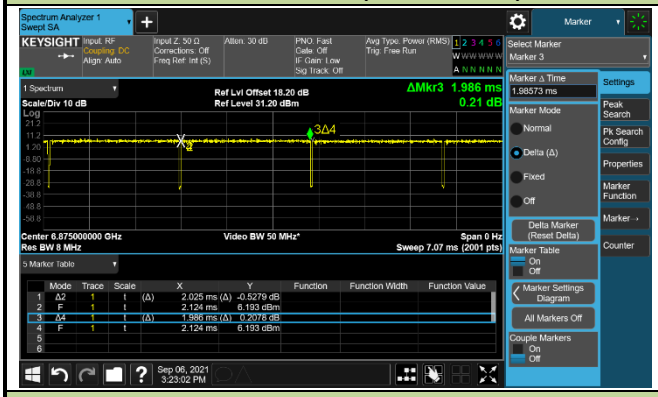
2.6. Duty Cycle

6GHz operation is possible in 20MHz, 40MHz, 80MHz and 160MHz channel bandwidths. 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:

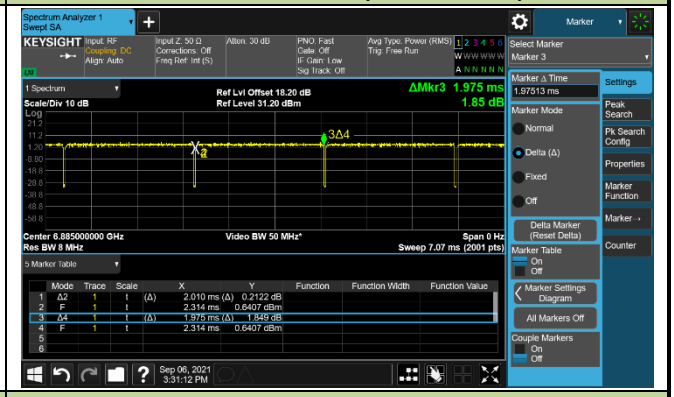
Test Mode	Duty Cycle
802.11ax-HE20	98.07%
802.11ax-HE40	98.26%
802.11ax-HE80	98.12%
802.11ax-HE160	98.14%

Duty Cycle (T = Transmission Duration)

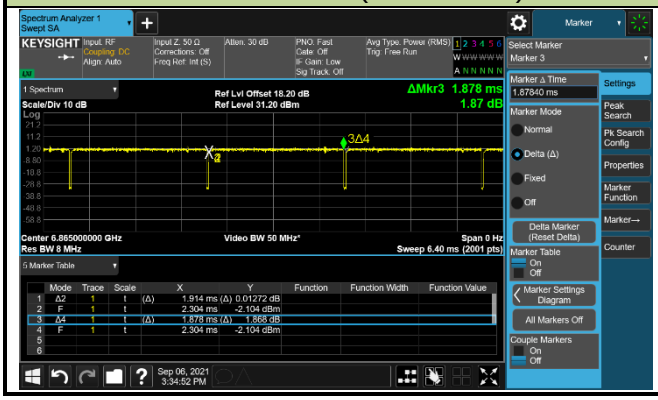
802.11ax-HE20 (T=1.986ms)



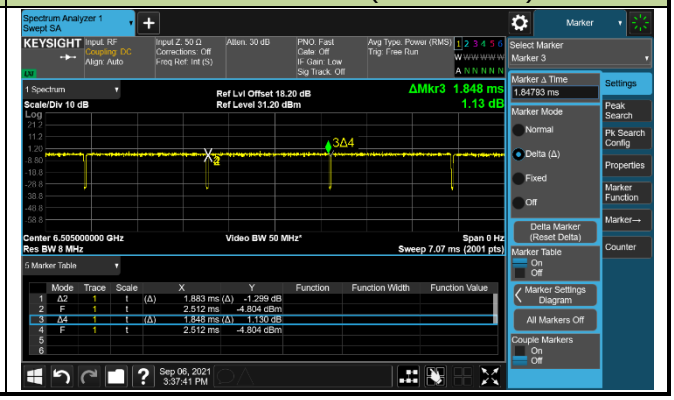
802.11ax-HE40 (T=1.975ms)



802.11ax-HE80 (T=1.878ms)



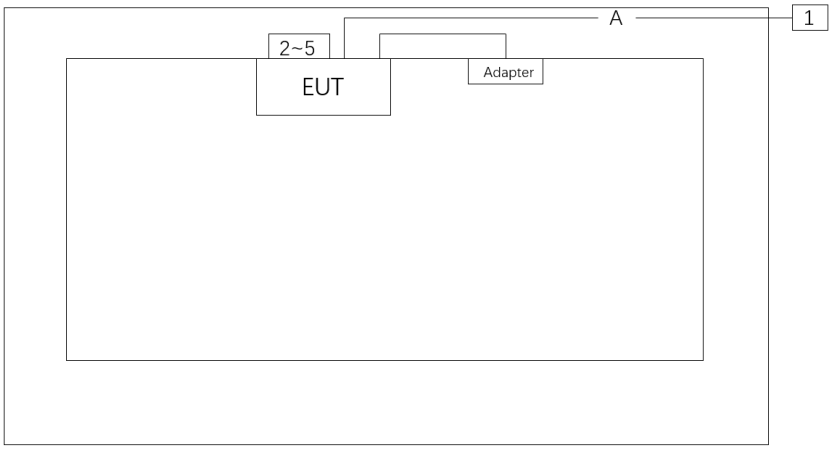
802.11ax-HE160 (T=1.848ms)



2.7. Configuration of Test System

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.

Connection Diagram - Radiated Emission testing & AC Conducted Emissions



Signal Cable Type		Signal Cable Description
A	Power Cable	Non-Shielding, 1.5m

Note 1: The test utility software used during testing was “QSPR”. and the version was “v50-00186”

Note 2: Detail power setting refer to operation description.

2.8. Test System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook	Lenovo	E431	PF-10ZRN 13/12	Non-Shielded, 1.8m
2~5	Simulated load	N/A	001	N/A	N/A

2.9. Applicable 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. Test Environment Condition

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

2.11. Labeling Requirements

Per 2.1074 & 15.19; Docket 95-19

The label shall be permanently affixed at a conspicuous location on the device; instruction manual or pamphlet supplied to the user and be readily visible to the purchaser at the time of purchase. However, when the device is so small wherein placement of the label with specified statement is not practical, only the FCC ID must be displayed on the device per Section 15.19(a)(5). Please see attachment for FCC ID label and label location.

2.12. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

3. ANTENNA REQUIREMENTS

Excerpt from §15.407(a)(9) of the FCC Rules/Regulations:

Access points operating under the provisions of paragraphs (a)(5) and (a)(6) of this section must employ a permanently attached integrated antenna.

- 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. TEST EQUIPMENT CALIBRATION DATE

No.	Instrument	Manufacturer	Model No.	Asset No.	Last Cali. Date	Cali. Due Date	Test Site
1	EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2022/1/4	WZ-AC1
2	Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06023	1 year	2022/9/16	WZ-AC1
3	Preamplifier	Agilent	83017A	MRTSUE06076	1 year	2022/11/12	WZ-AC1
4	TRILOG Antenna	Schwarzbeck	VULB 9168	MRTSUE06172	1 year	2022/8/5	WZ-AC1
5	Anechoic Chamber	TDK	WZ-AC1	MRTSUE06212	1 year	2022/4/29	WZ-AC1
6	Thermohygrometer	testo	608-H1	MRTSUE06403	1 year	2022/6/28	WZ-AC1
7	Signal Analyzer	Keysight	N9010B	MRTSUE06607	1 year	2022/1/6	WZ-AC1
8	Thermohygrometer	testo	Testo 608-H1	MRTSUE11039	1 year	2022/11/11	WZ-AC1
9	Horn Antenna	ETS	3117	MRTSUE06257	1 year	2022/9/25	WZ-AC1/WZ-AC2
10	Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06597	1 year	2022/12/13	WZ-AC1/WZ-AC2
11	Preamplifier	EMCI	EMC184045SE	MRTSUE06640	1 year	2022/1/14	WZ-AC1/WZ-AC2
12	Preamplifier	EMCI	EMC051845SE	MRTSUE06987	1 year	2022/9/9	WZ-AC1/WZ-AC2
13	TRILOG Antenna	Schwarzbeck	VULB 9162	MRTSUE06022	1 year	2022/5/24	WZ-AC2
14	EMI Test Receiver	Agilent	N9038A	MRTSUE06125	1 year	2022/6/24	WZ-AC2
15	Thermohygrometer	Mingle	ETH529	MRTSUE06170	1 year	2022/12/7	WZ-AC2
16	Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06171	1 year	2022/10/21	WZ-AC2
17	Preamplifier	Schwarzbeck	BBV 9718	MRTSUE06176	1 year	2022/11/12	WZ-AC2
18	Anechoic Chamber	RIKEN	WZ-AC2	MRTSUE06213	1 year	2022/4/29	WZ-AC2
19	Thermohygrometer	testo	Testo 608-H1	MRTSUE11038	1 year	2022/11/11	WZ-AC2
20	Two-Line V-Network	R&S	ENV216	MRTSUE06002	1 year	2022/6/8	WZ-SR2
21	CDN	Teseq	ISN PLT-A	MRTSUE06007	1 year	2022/3/1	WZ-SR2
22	Symmetrical Attenuator	Schwarzbeck	SYMAT 40	MRTSUE06117	1 year	2022/4/11	WZ-SR2
23	Shielding Room	MIX-BEP	WZ-SR2	MRTSUE06215	/	/	WZ-SR2
24	Thermohygrometer	testo	608-H1	MRTSUE06404	1 year	2022/6/28	WZ-SR2
25	Four-Line V-Network	R&S	ENV432	MRTSUE06615	1 year	2022/10/10	WZ-SR2
26	EMI Test Receiver	R&S	ESR3	MRTSUE06909	1 year	2022/11/1	WZ-SR2
27	Signal Analyzer	Agilent	N9020A	MRTSUE06106	1 year	2022/4/13	WZ-SR5
28	Thermohygrometer	testo	608-H1	MRTSUE06402	1 year	2022/6/28	WZ-SR5
29	Shielding Room	HUAMING	WZ-SR5	MRTSUE06442	/	/	WZ-SR5
30	Signal Analyzer	Keysight	N9010B	MRTSUE06457	1 year	2022/6/24	WZ-SR5
31	Signal Generator	Keysight	N5182B	MRTSUE06451	1 year	2022/6/24	WZ-SR5

No.	Instrument	Manufacturer	Model No.	Asset No.	Last Cali. Date	Cali. Due Date	Test Site
32	Frequency extender for EXG or MXG	Keysight	N5182BX07	MRTSUE06984	1 year	2022/3/7	WZ-SR5
33	Preamplifier	EMCI	EMC051845SE	MRTSUE06987	1 year	2022/9/9	WZ-SR5
34	Temperature Chamber	BAOYT	BYH-150CL	MRTSUE06051	1 year	2022/10/10	WZ-TR3
35	Thermohygrometer	testo	608-H1	MRTSUE06401	1 year	2022/6/28	WZ-TR3

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.

Conducted Emission Measurement
Measurement Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 9kHz~150kHz: 3.74dB 150kHz~30MHz: 3.44dB
Radiated Disturbance
Measurement Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): Horizontal: 9KHz~300MHz: 5.04dB 300MHz~1GHz: 4.95dB 1GHz~6GHz: 6.40dB Vertical: 9KHz~300MHz: 5.24dB 300MHz~1GHz: 6.03dB 1GHz~40GHz: 6.40dB
Spurious Emissions, Conducted
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 0.78dB
Output Power
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 1.13dB
Power Spectrum Density
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 1.15dB
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 0.28%

6. TEST RESULT

6.1. Summary

FCC Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
15.407(a)	26dB Bandwidth	N/A	Conducted	N/A	Section 6.2
15.407(a)(5), (a)(6)	Maximum Equivalent Isotopically Radiated Power (E.I.R.P)	30dBm		Pass	Section 6.3
15.407(a)(5), (a)(6)	Peak Power Spectral Density (E.I.R.P)	5 dBm/MHz		Pass	Section 6.4
15.407(b)(6)	In-Band Emission	Refer to Section 6.5		Pass	Section 6.5
15.407(g)	Frequency Stability	N/A		Pass	Section 6.6
15.407(d)(6)	Contention-Based Protocol	Detect an AWGN signal with 90% level of certainty		Pass	Section 6.7
15.407(b)(5)	Unwanted Emissions	≤ −27 dBm/MHz	Radiated	Pass	Section 6.8 & 6.9
15.407(b)(7), (8), (9)	General Field Strength (Restricted Bands and Radiated Emission)	Emissions in restricted bands must meet the radiated limits detailed in15.209		Pass	
15.207	AC Conducted Emissions 150kHz - 30MHz	< FCC 15.207 limits	Line Conducted	Pass	Section 6.10

Notes:

1) 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.
2) For radiated emission test, every axis (X, Y, Z) was also verified. The test results shown in the following sections represent the worst-case emissions.
3) EUT supports one configuration only in 802.11ax full RU mode.

6.2. 26dB Bandwidth Measurement

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

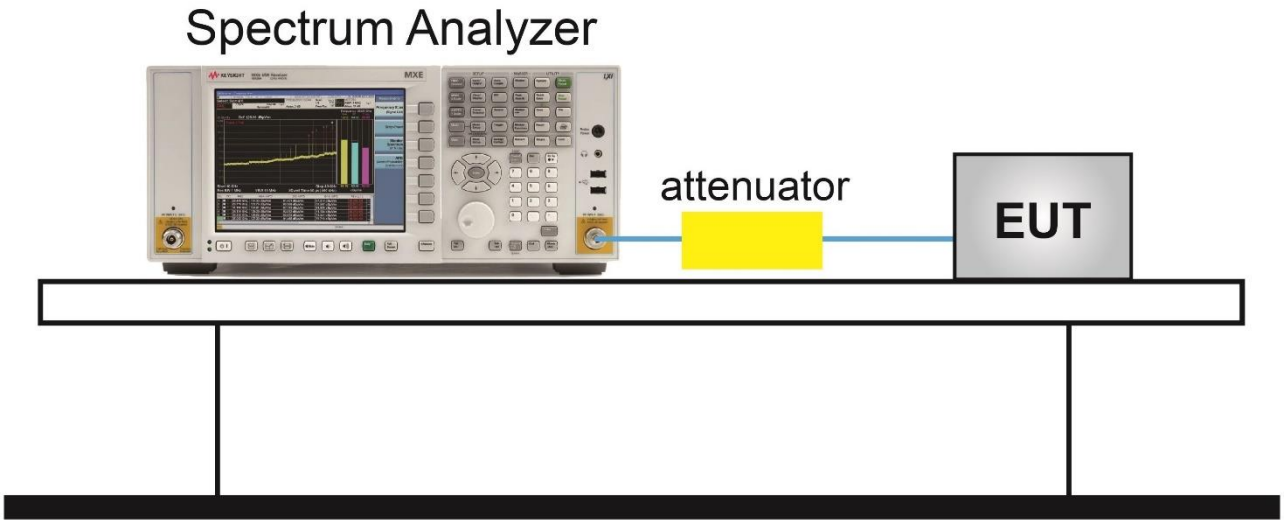
26dB Bandwidth

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 ≥ 3×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 ≥ 3×RBW
5. Detector = Peak.
6. Use the 99% power bandwidth function of the instrument.

6.2.4.Test Setup



6.2.5.Test Result

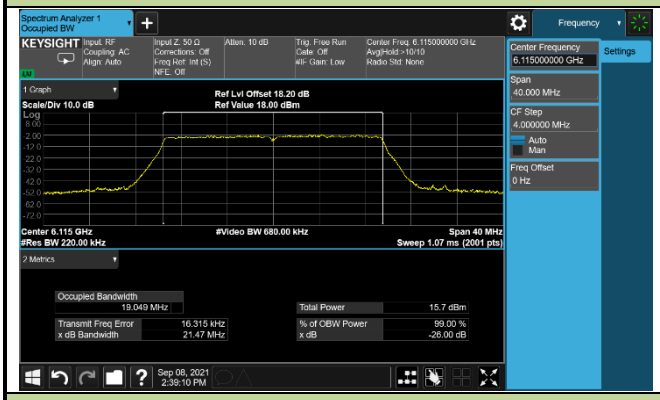
Test Site	WZ-TR3	Test Engineer	Dandy Li
Test Date	2021/09/08		

Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
802.11ax-HE20	MCS0	33	6115	21.47	19.05
802.11ax-HE20	MCS0	61	6255	21.51	19.05
802.11ax-HE20	MCS0	93	6415	21.37	19.04
802.11ax-HE20	MCS0	97	6435	21.51	19.07
802.11ax-HE20	MCS0	105	6475	21.53	19.07
802.11ax-HE20	MCS0	113	6515	21.44	19.04
802.11ax-HE20	MCS0	117	6535	21.46	19.04
802.11ax-HE20	MCS0	153	6715	21.48	19.04
802.11ax-HE20	MCS0	181	6855	21.34	19.03
802.11ax-HE20	MCS0	185	6875	21.48	19.05
802.11ax-HE20	MCS0	189	6895	21.67	19.03
802.11ax-HE20	MCS0	213	7015	21.53	19.04
802.11ax-HE20	MCS0	229	7095	21.37	19.04
802.11ax-HE40	MCS0	35	6125	39.77	37.49
802.11ax-HE40	MCS0	59	6245	39.84	37.45
802.11ax-HE40	MCS0	91	6405	39.72	37.48
802.11ax-HE40	MCS0	99	6445	39.74	37.51
802.11ax-HE40	MCS0	107	6485	39.80	37.52
802.11ax-HE40	MCS0	115	6525	39.75	37.48
802.11ax-HE40	MCS0	123	6565	39.77	37.51
802.11ax-HE40	MCS0	147	6685	39.71	37.50
802.11ax-HE40	MCS0	179	6845	39.93	37.51
802.11ax-HE40	MCS0	187	6885	39.85	37.54
802.11ax-HE40	MCS0	195	6925	39.74	37.51
802.11ax-HE40	MCS0	211	7005	39.85	37.49
802.11ax-HE40	MCS0	227	7085	39.74	37.52

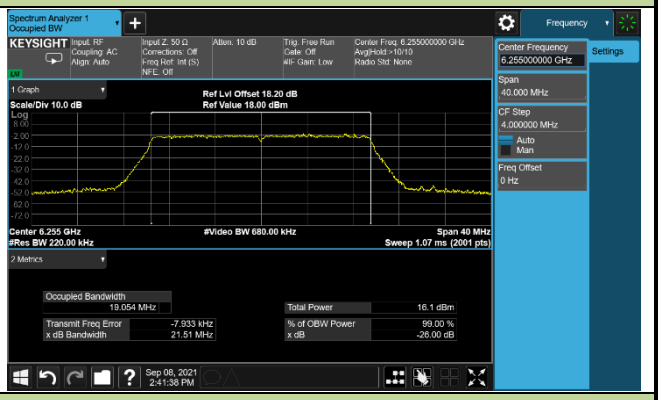
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
802.11ax-HE80	MCS0	39	6145	80.98	76.91
802.11ax-HE80	MCS0	55	6225	81.13	76.96
802.11ax-HE80	MCS0	87	6385	81.17	77.03
802.11ax-HE80	MCS0	103	6465	81.20	76.97
802.11ax-HE80	MCS0	119	6545	81.06	77.04
802.11ax-HE80	MCS0	135	6625	81.18	77.03
802.11ax-HE80	MCS0	151	6705	81.06	77.00
802.11ax-HE80	MCS0	183	6865	81.08	77.05
802.11ax-HE80	MCS0	199	6945	81.18	77.02
802.11ax-HE80	MCS0	215	7025	81.19	76.97
802.11ax-HE160	MCS0	47	6185	163.4	155.42
802.11ax-HE160	MCS0	79	6345	163.6	155.74
802.11ax-HE160	MCS0	111	6505	163.6	155.51
802.11ax-HE160	MCS0	143	6665	163.3	155.66
802.11ax-HE160	MCS0	175	6825	163.8	155.52
802.11ax-HE160	MCS0	207	6985	163.5	155.71

802.11ax-HE20 26dB Bandwidth & 99% Bandwidth

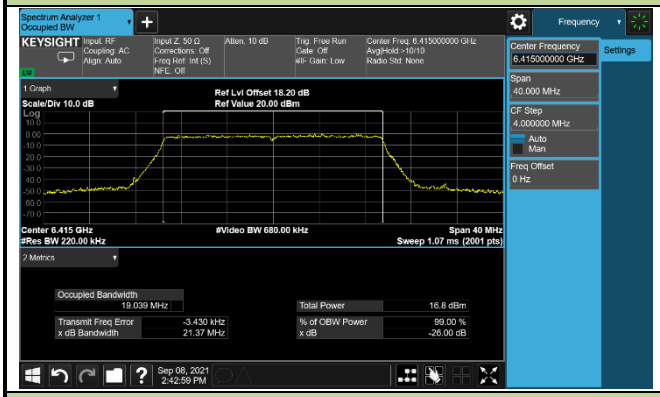
Channel 33 (6115MHz)



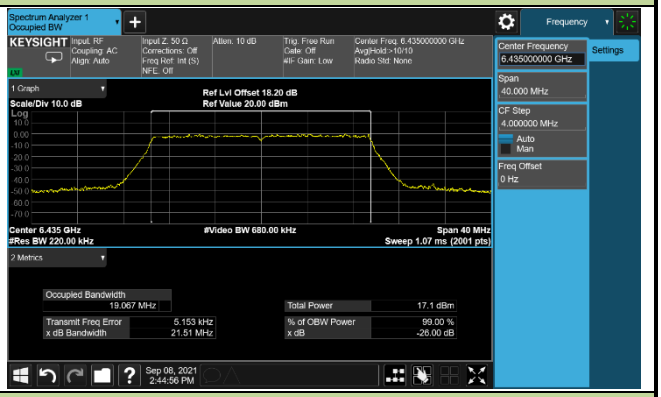
Channel 61 (6255MHz)



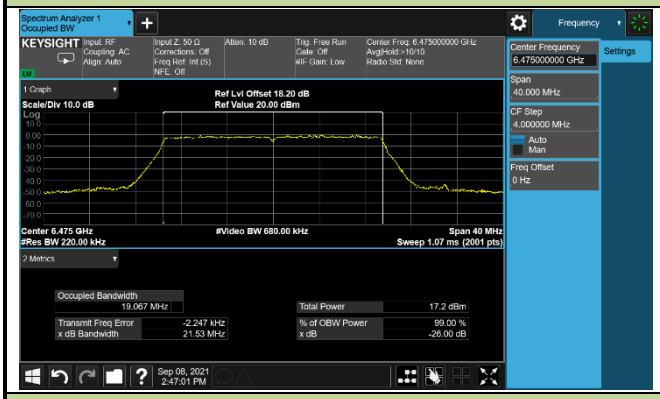
Channel 93 (6415MHz)



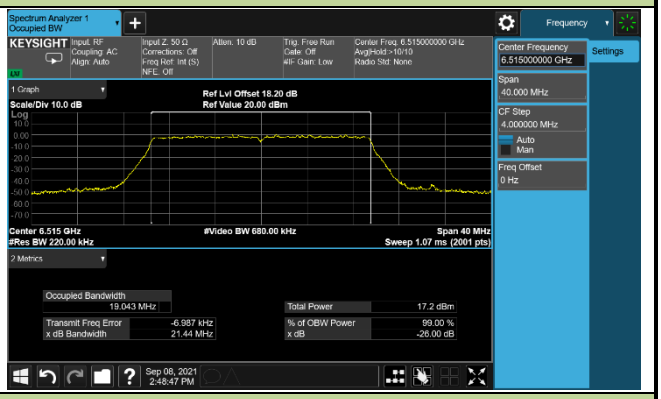
Channel 97 (6435MHz)



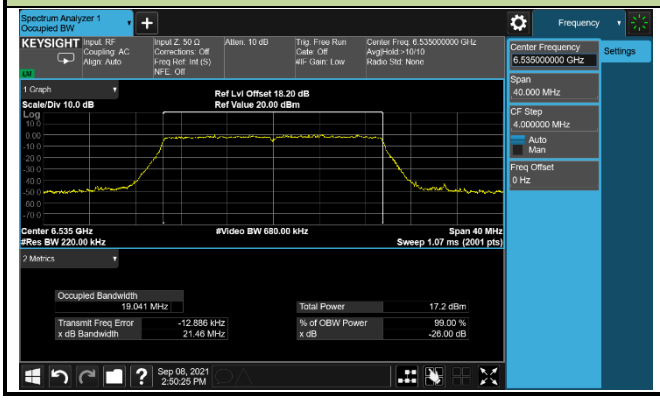
Channel 105 (6475MHz)



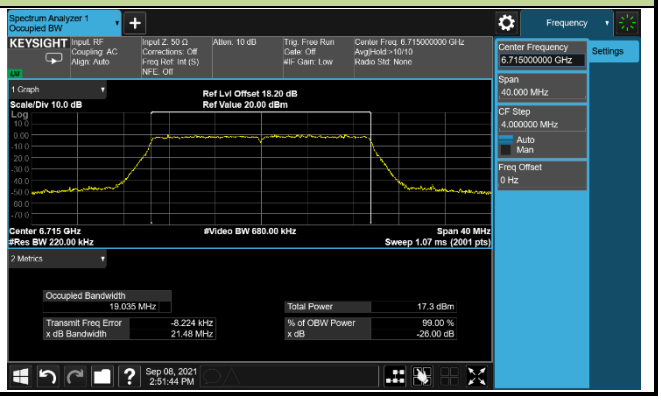
Channel 113 (6515MHz)



Channel 117 (6535MHz)

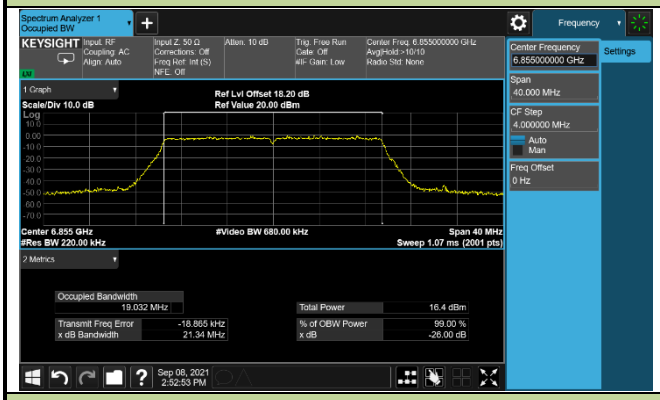


Channel 153 (6715MHz)

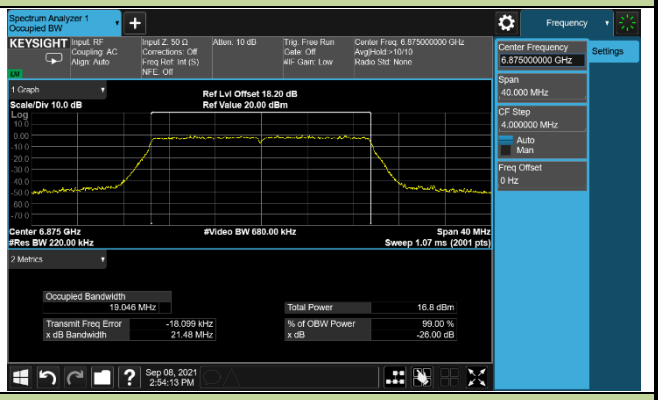


802.11ax-HE20 26dB Bandwidth & 99% Bandwidth (Nss=1)

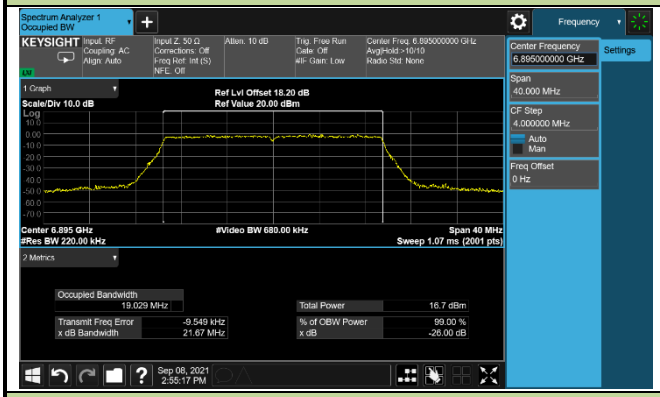
Channel 181 (6855MHz)



Channel 185 (6875MHz)

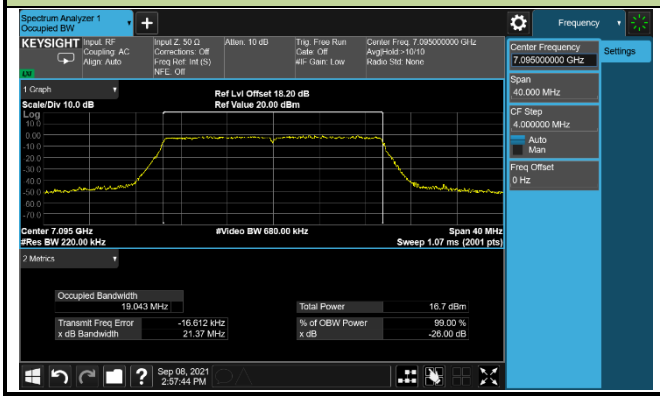


Channel 189 (6895MHz)



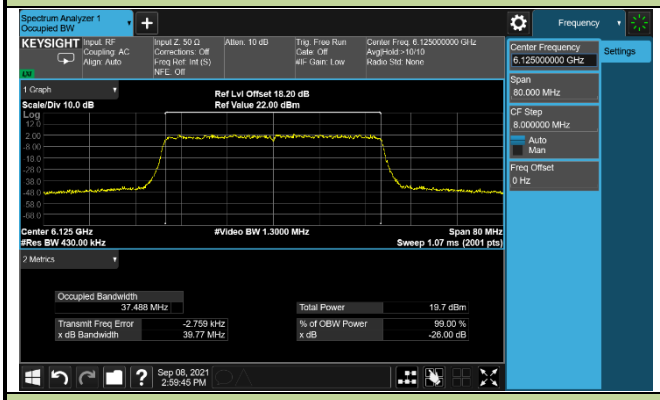
Channel 213 (7015MHz)

Channel 229 (7095MHz)



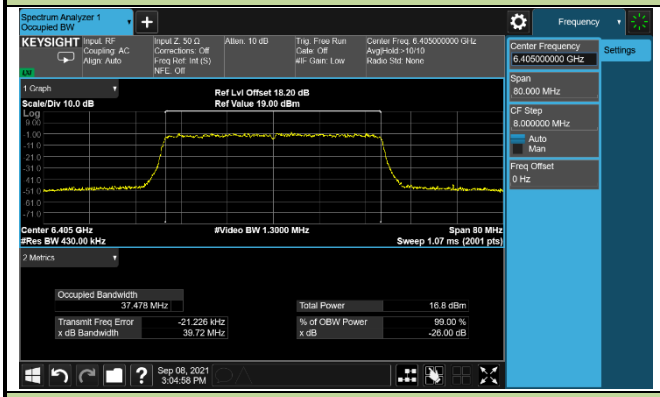
802.11ax-HE40 26dB Bandwidth & 99% Bandwidth

Channel 35 (6125MHz)

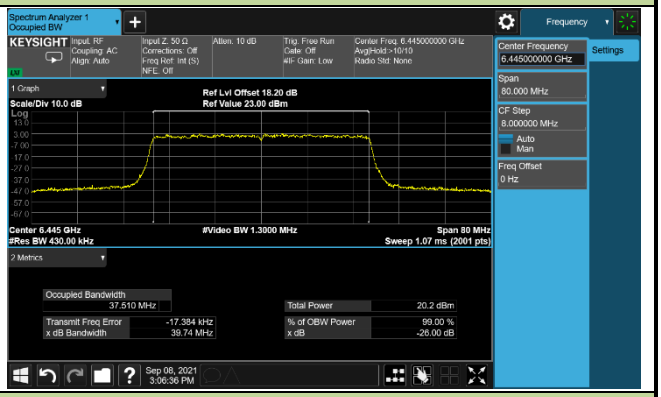


Channel 59 (6245MHz)

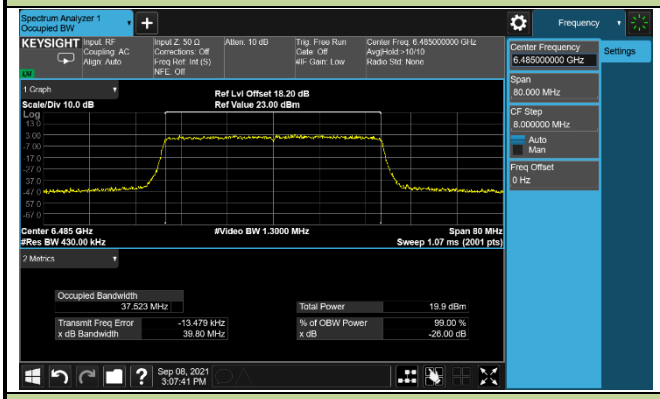
Channel 91 (6405MHz)



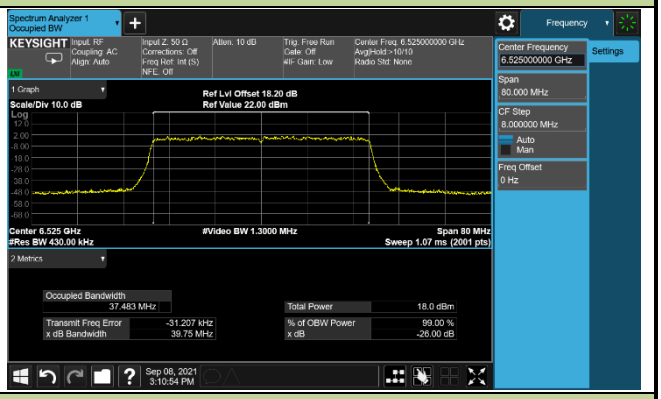
Channel 99 (6445MHz)



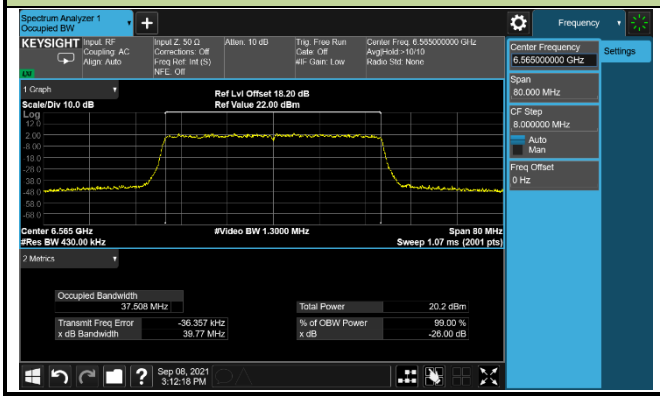
Channel 107 (6485MHz)



Channel 115 (6525MHz)



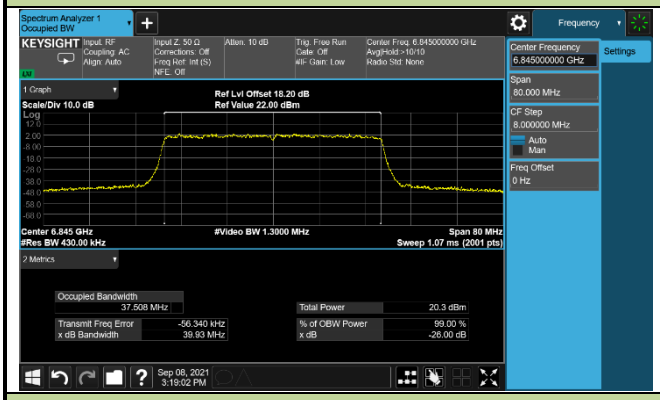
Channel 123 (6565MHz)



Channel 147 (6685MHz)

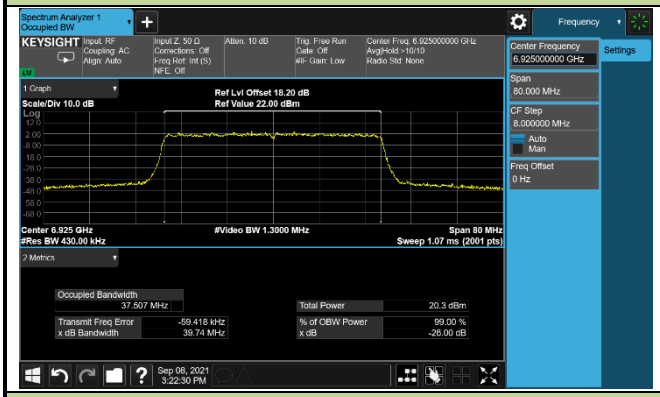
802.11ax-HE40 26dB Bandwidth & 99% Bandwidth

Channel 179 (6845MHz)

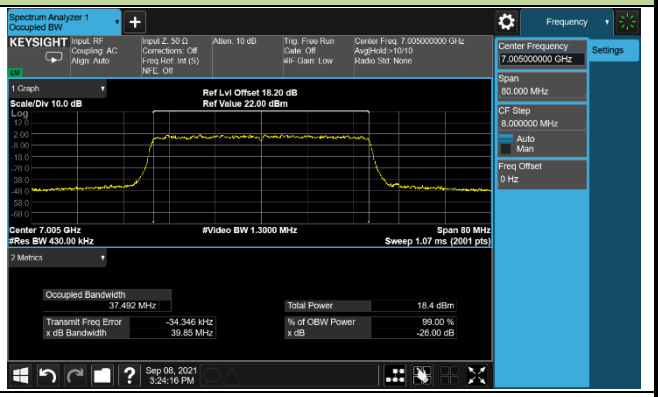


Channel 187 (6885MHz)

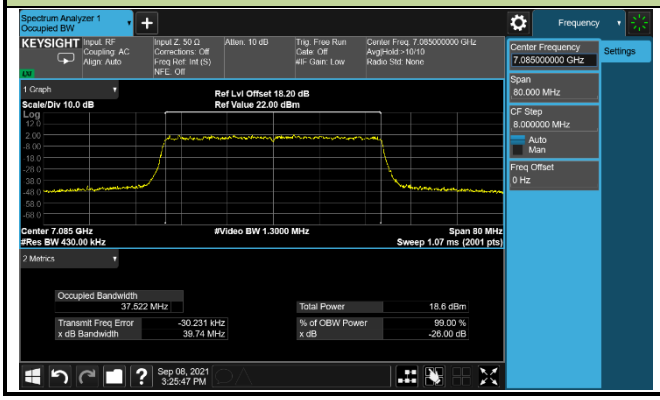
Channel 195 (6925MHz)



Channel 211 (7005MHz)

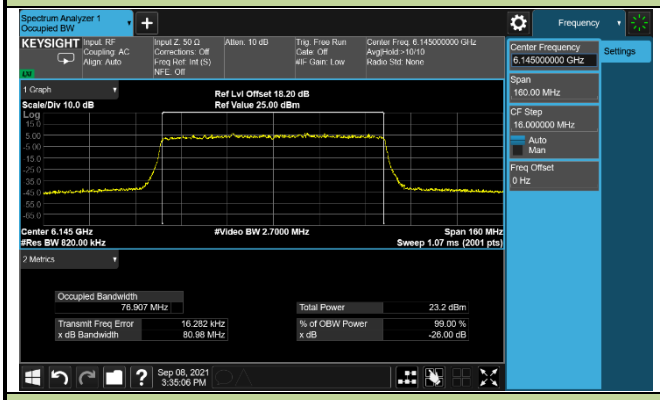


Channel 227 (7085MHz)



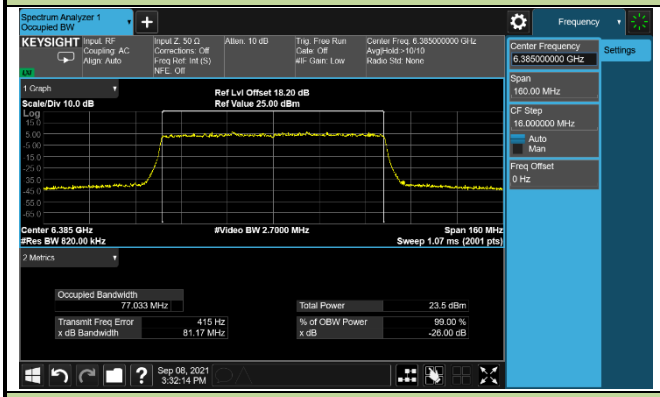
802.11ax-HE80 26dB Bandwidth & 99% Bandwidth

Channel 39 (6145MHz)

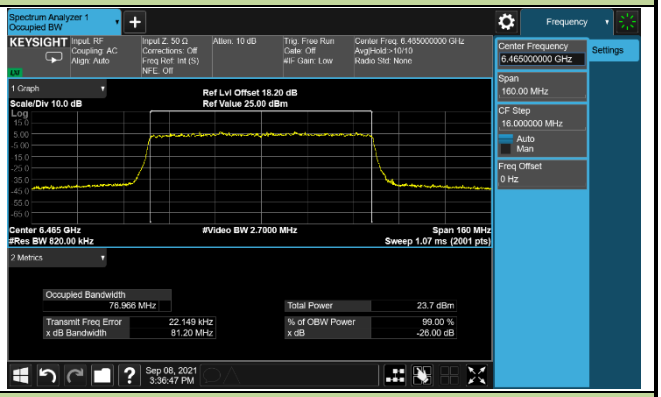


Channel 55 (6225MHz)

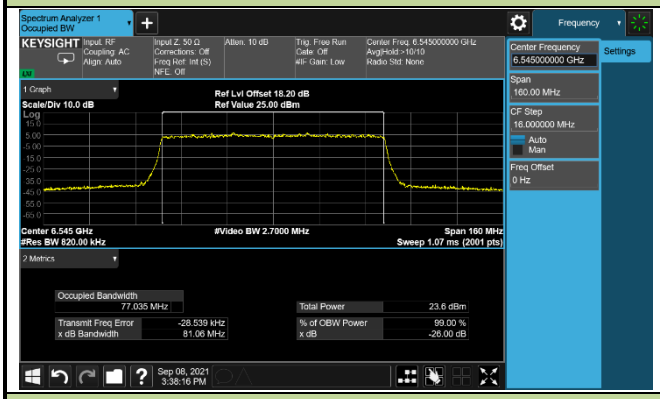
Channel 87 (6385MHz)



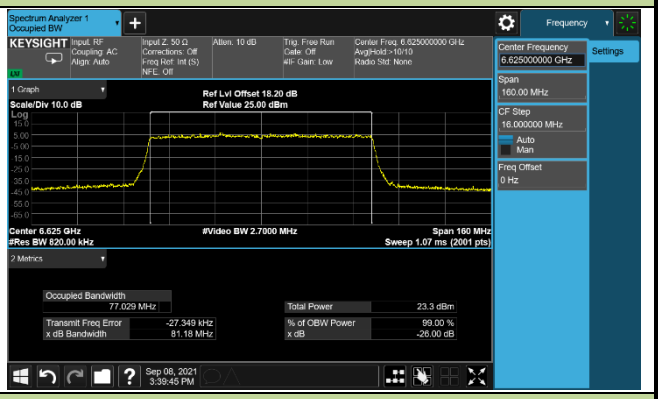
Channel 103 (6465MHz)



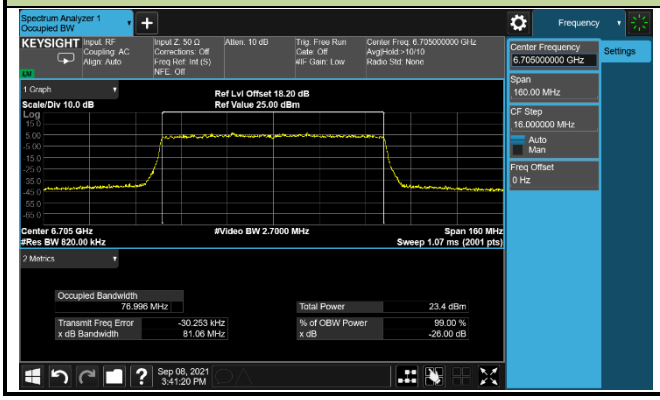
Channel 119 (6545MHz)



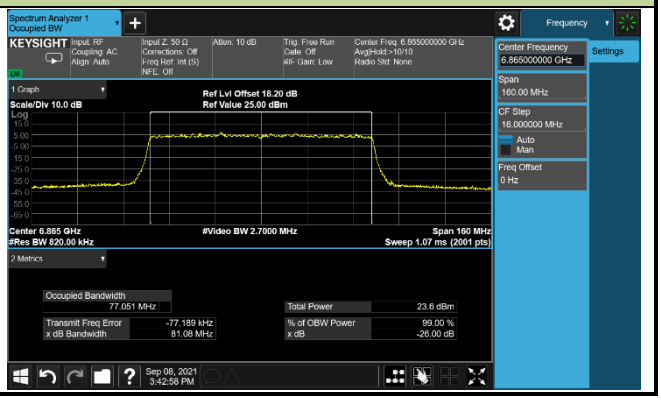
Channel 135 (6625MHz)

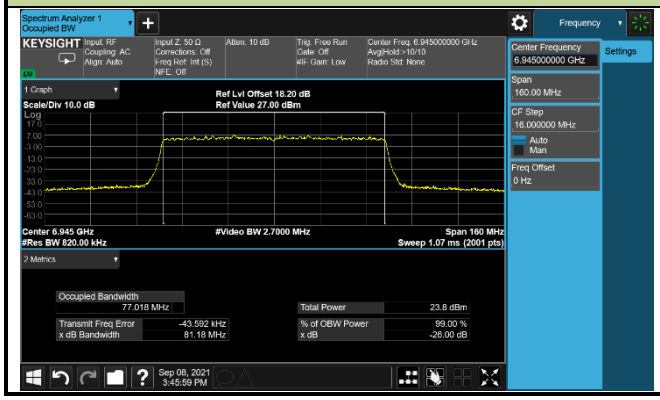
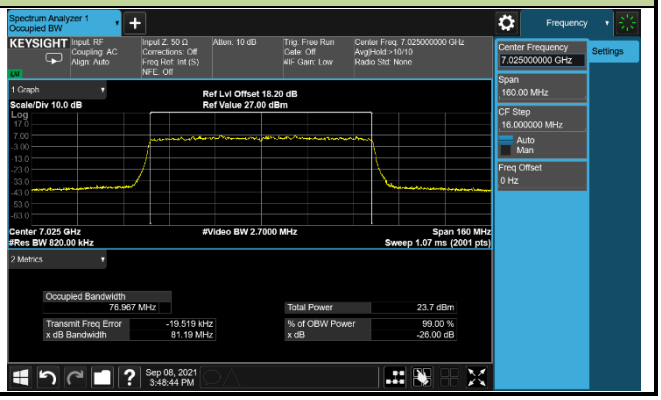


Channel 151 (6705MHz)



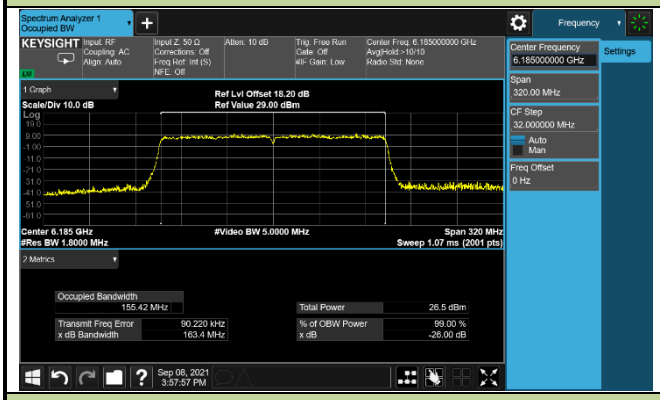
Channel 183 (6865MHz)



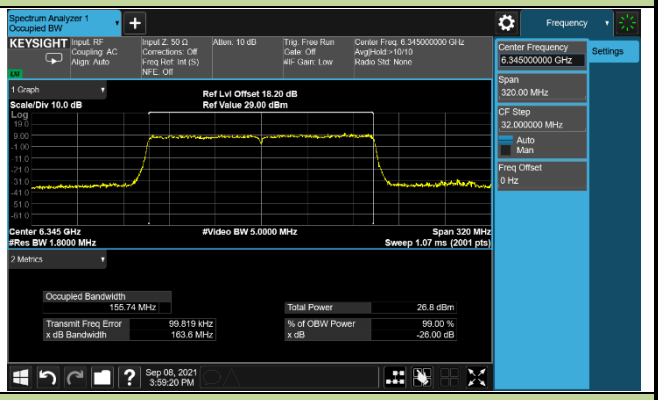
802.11ax-HE80 26dB Bandwidth & 99% Bandwidth	
Channel 199 (6945MHz)	Channel 215 (7025MHz)
	

802.11ax-HE160 26dB Bandwidth & 99% Bandwidth

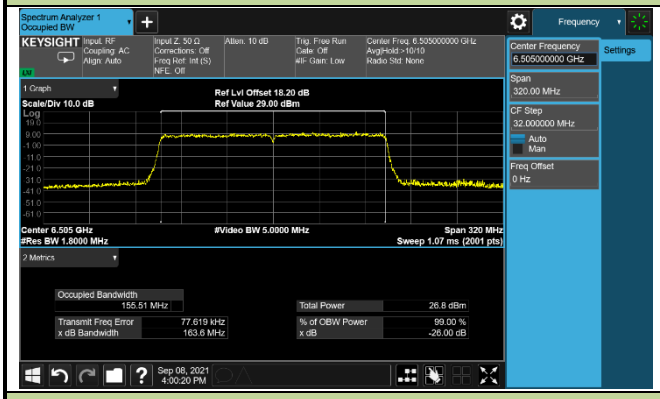
Channel 47 (6185MHz)



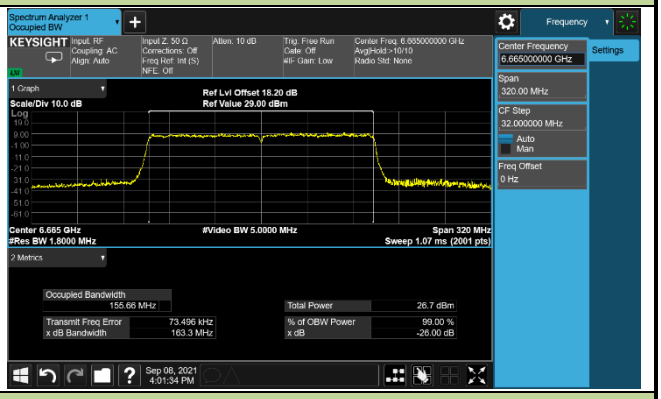
Channel 79 (6345MHz)



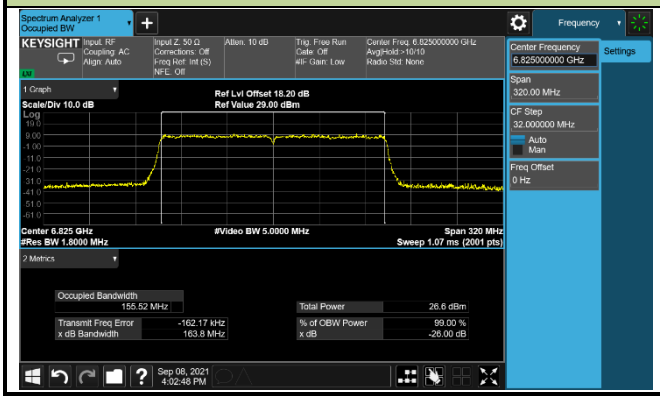
Channel 111 (6505MHz)



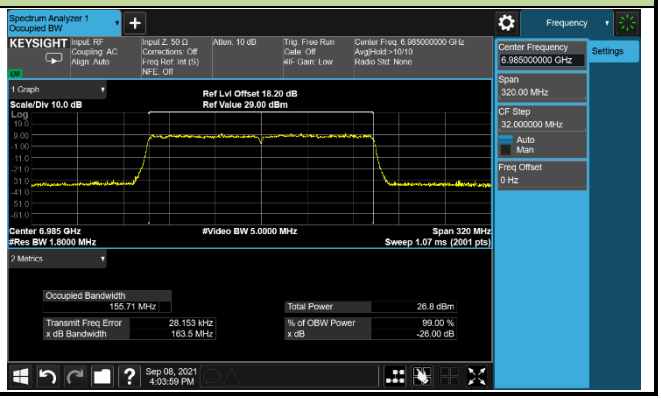
Channel 143 (6665MHz)



Channel 175 (6825MHz)



Channel 207 (6985MHz)



6.3. Output Power Measurement

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.

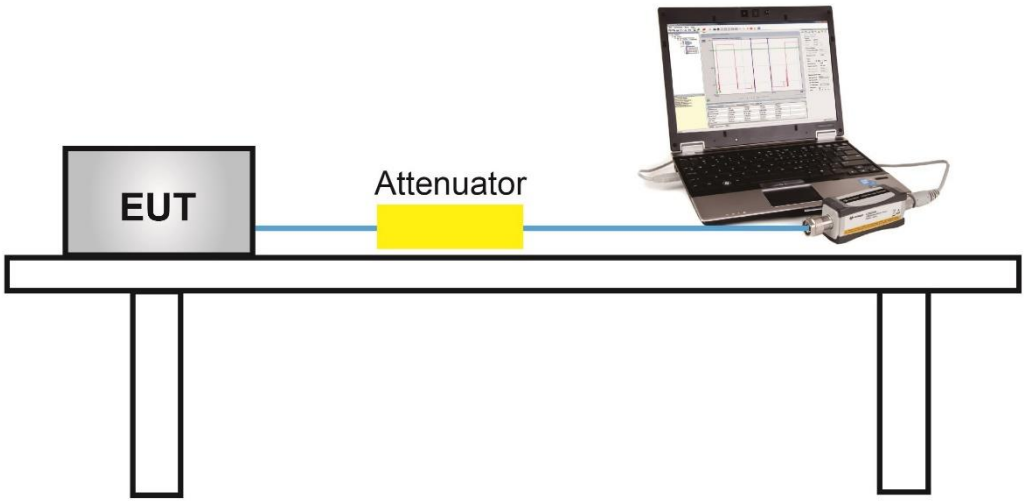
6.3.2.Test Procedure Used

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

6.3.3.Test Setting

Average power 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	WZ-TR3	Test Engineer	Dandy Li
Test Date	2021/09/08		

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)		Total Average Power (dBm)	CDD Directional Gain (dBi)	CDD EIRP (dBm)	Beamforming Directional Gain (dBi)	Beamforming EIRP (dBm)	EIRP Limit (dBm)
				Ant 0	Ant 1						
CDD Mode (Nss = 1) & Beamforming Mode											
11ax-HE20	MCS0	33	6115	8.73	8.90	11.83	2.0	13.83	5.01	16.84	≤ 30.00
11ax-HE20	MCS0	61	6255	8.97	8.79	11.89	2.0	13.89	5.01	16.90	≤ 30.00
11ax-HE20	MCS0	93	6415	8.29	8.13	11.22	2.0	13.22	5.01	16.23	≤ 30.00
11ax-HE20	MCS0	97	6435	8.34	8.38	11.37	2.0	13.37	5.01	16.38	≤ 30.00
11ax-HE20	MCS0	105	6475	8.53	8.56	11.56	2.0	13.56	5.01	16.57	≤ 30.00
11ax-HE20	MCS0	113	6515	8.21	8.54	11.39	2.0	13.39	5.01	16.40	≤ 30.00
11ax-HE20	MCS0	117	6535	8.20	8.53	11.38	2.0	13.38	5.01	16.39	≤ 30.00
11ax-HE20	MCS0	153	6715	8.12	8.91	11.54	2.0	13.54	5.01	16.55	≤ 30.00
11ax-HE20	MCS0	181	6855	7.07	7.95	10.54	2.0	12.54	5.01	15.55	≤ 30.00
11ax-HE20	MCS0	185	6875	7.42	8.47	10.99	2.0	12.99	5.01	16.00	≤ 30.00
11ax-HE20	MCS0	189	6895	7.51	8.42	11.00	2.0	13.00	5.01	16.01	≤ 30.00
11ax-HE20	MCS0	213	7015	7.23	8.17	10.74	2.0	12.74	5.01	15.75	≤ 30.00
11ax-HE20	MCS0	229	7095	7.85	8.59	11.25	2.0	13.25	5.01	16.26	≤ 30.00
11ax-HE40	MCS0	35	6125	10.82	11.17	14.01	2.0	16.01	5.01	19.02	≤ 30.00
11ax-HE40	MCS0	59	6245	11.71	11.30	14.52	2.0	16.52	5.01	19.53	≤ 30.00
11ax-HE40	MCS0	91	6405	11.25	11.29	14.28	2.0	16.28	5.01	19.29	≤ 30.00
11ax-HE40	MCS0	99	6445	10.85	11.30	14.09	2.0	16.09	5.01	19.10	≤ 30.00
11ax-HE40	MCS0	107	6485	10.84	11.39	14.13	2.0	16.13	5.01	19.14	≤ 30.00
11ax-HE40	MCS0	115	6525	10.96	11.04	14.01	2.0	16.01	5.01	19.02	≤ 30.00
11ax-HE40	MCS0	123	6565	10.86	11.44	14.17	2.0	16.17	5.01	19.18	≤ 30.00
11ax-HE40	MCS0	147	6685	10.87	11.39	14.15	2.0	16.15	5.01	19.16	≤ 30.00
11ax-HE40	MCS0	179	6845	10.86	11.34	14.12	2.0	16.12	5.01	19.13	≤ 30.00
11ax-HE40	MCS0	187	6885	10.62	11.35	14.01	2.0	16.01	5.01	19.02	≤ 30.00
11ax-HE40	MCS0	195	6925	11.11	11.69	14.42	2.0	16.42	5.01	19.43	≤ 30.00
11ax-HE40	MCS0	211	7005	11.44	11.71	14.59	2.0	16.59	5.01	19.60	≤ 30.00
11ax-HE40	MCS0	227	7085	10.72	11.87	14.34	2.0	16.34	5.01	19.35	≤ 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)	Beamforming Directional Gain (dBi)	Beamforming EIRP (dBm)	EIRP Limit (dBm)
				Ant 0	Ant 1						
11ax-HE80	MCS0	39	6145	13.73	14.11	16.93	2.0	18.93	5.01	21.94	≤ 30.00
11ax-HE80	MCS0	55	6225	13.88	14.22	17.06	2.0	19.06	5.01	22.07	≤ 30.00
11ax-HE80	MCS0	87	6385	13.97	14.55	17.28	2.0	19.28	5.01	22.29	≤ 30.00
11ax-HE80	MCS0	103	6465	13.65	14.30	17.00	2.0	19.00	5.01	22.01	≤ 30.00
11ax-HE80	MCS0	119	6545	13.65	14.37	17.04	2.0	19.04	5.01	22.05	≤ 30.00
11ax-HE80	MCS0	135	6625	14.11	14.52	17.33	2.0	19.33	5.01	22.34	≤ 30.00
11ax-HE80	MCS0	151	6705	14.00	14.51	17.27	2.0	19.27	5.01	22.28	≤ 30.00
11ax-HE80	MCS0	183	6865	13.89	14.53	17.23	2.0	19.23	5.01	22.24	≤ 30.00
11ax-HE80	MCS0	199	6945	13.88	14.69	17.31	2.0	19.31	5.01	22.32	≤ 30.00
11ax-HE80	MCS0	215	7025	13.79	14.54	17.19	2.0	19.19	5.01	22.20	≤ 30.00
11ax-HE160	MCS0	47	6185	16.96	17.26	20.12	2.0	22.12	5.01	25.13	≤ 30.00
11ax-HE160	MCS0	79	6345	16.81	17.29	20.07	2.0	22.07	5.01	25.08	≤ 30.00
11ax-HE160	MCS0	111	6505	16.95	17.77	20.39	2.0	22.39	5.01	25.40	≤ 30.00
11ax-HE160	MCS0	143	6665	17.23	17.52	20.39	2.0	22.39	5.01	25.40	≤ 30.00
11ax-HE160	MCS0	175	6825	17.03	17.30	20.18	2.0	22.18	5.01	25.19	≤ 30.00
11ax-HE160	MCS0	207	6985	16.99	17.76	20.40	2.0	22.40	5.01	25.41	≤ 30.00

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

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

Note 3: Beamforming EIRP Power (dBm) = Total Average Power (dBm) + Beamforming Directional Gain (dBi).

Test Site	WZ-TR3	Test Engineer	Dandy Li
Test Date	2021/10/27		

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 0				
CDD Mode (Nss = 2)									
11ax-HE20	MCS0	33	6115	11.41	11.78	14.61	2.0	16.61	≤ 30.00
11ax-HE20	MCS0	61	6255	10.95	11.24	14.11	2.0	16.11	≤ 30.00
11ax-HE20	MCS0	93	6415	11.33	11.54	14.45	2.0	16.45	≤ 30.00
11ax-HE20	MCS0	97	6435	11.16	11.76	14.48	2.0	16.48	≤ 30.00
11ax-HE20	MCS0	105	6475	11.32	11.54	14.44	2.0	16.44	≤ 30.00
11ax-HE20	MCS0	113	6515	11.20	11.72	14.48	2.0	16.48	≤ 30.00
11ax-HE20	MCS0	117	6535	11.38	11.55	14.48	2.0	16.48	≤ 30.00
11ax-HE20	MCS0	153	6715	11.40	11.62	14.52	2.0	16.52	≤ 30.00
11ax-HE20	MCS0	181	6855	11.36	11.27	14.33	2.0	16.33	≤ 30.00
11ax-HE20	MCS0	185	6875	11.42	11.48	14.46	2.0	16.46	≤ 30.00
11ax-HE20	MCS0	189	6895	11.43	11.33	14.39	2.0	16.39	≤ 30.00
11ax-HE20	MCS0	213	7015	11.42	11.03	14.24	2.0	16.24	≤ 30.00
11ax-HE20	MCS0	229	7095	11.28	11.32	14.31	2.0	16.31	≤ 30.00
11ax-HE40	MCS0	33	6125	14.12	13.98	17.06	2.0	19.06	≤ 30.00
11ax-HE40	MCS0	57	6245	14.35	14.18	17.28	2.0	19.28	≤ 30.00
11ax-HE40	MCS0	89	6405	14.17	14.01	17.10	2.0	19.10	≤ 30.00
11ax-HE40	MCS0	97	6445	13.96	13.82	16.90	2.0	18.90	≤ 30.00
11ax-HE40	MCS0	105	6485	13.77	13.76	16.78	2.0	18.78	≤ 30.00
11ax-HE40	MCS0	113	6525	13.97	13.85	16.92	2.0	18.92	≤ 30.00
11ax-HE40	MCS0	121	6565	14.18	14.12	17.16	2.0	19.16	≤ 30.00
11ax-HE40	MCS0	145	6685	13.96	14.05	17.02	2.0	19.02	≤ 30.00
11ax-HE40	MCS0	177	6845	13.78	14.25	17.03	2.0	19.03	≤ 30.00
11ax-HE40	MCS0	185	6885	13.72	14.35	17.06	2.0	19.06	≤ 30.00
11ax-HE40	MCS0	193	6925	13.90	14.47	17.20	2.0	19.20	≤ 30.00
11ax-HE40	MCS0	209	7005	13.58	13.60	16.60	2.0	18.60	≤ 30.00
11ax-HE40	MCS0	225	7085	14.02	14.44	17.25	2.0	19.25	≤ 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 0				
11ax-HE80	MCS0	33	6145	16.67	16.54	19.62	2.0	21.62	≤ 30.00
11ax-HE80	MCS0	49	6225	16.56	16.34	19.46	2.0	21.46	≤ 30.00
11ax-HE80	MCS0	81	6385	16.96	16.74	19.86	2.0	21.86	≤ 30.00
11ax-HE80	MCS0	97	6465	16.78	16.80	19.80	2.0	21.80	≤ 30.00
11ax-HE80	MCS0	113	6545	16.75	16.75	19.76	2.0	21.76	≤ 30.00
11ax-HE80	MCS0	129	6625	16.77	17.23	20.02	2.0	22.02	≤ 30.00
11ax-HE80	MCS0	145	6705	16.52	17.17	19.87	2.0	21.87	≤ 30.00
11ax-HE80	MCS0	177	6865	16.55	16.82	19.70	2.0	21.70	≤ 30.00
11ax-HE80	MCS0	193	6945	16.93	16.52	19.74	2.0	21.74	≤ 30.00
11ax-HE80	MCS0	209	7025	16.90	16.76	19.84	2.0	21.84	≤ 30.00
11ax-HE160	MCS0	33	6185	19.55	19.18	22.38	2.0	24.38	≤ 30.00
11ax-HE160	MCS0	65	6345	19.80	19.66	22.74	2.0	24.74	≤ 30.00
11ax-HE160	MCS0	97	6505	19.46	19.45	22.47	2.0	24.47	≤ 30.00
11ax-HE160	MCS0	129	6665	19.74	19.64	22.70	2.0	24.70	≤ 30.00
11ax-HE160	MCS0	161	6825	19.85	19.72	22.80	2.0	24.80	≤ 30.00
11ax-HE160	MCS0	193	6985	19.47	19.56	22.53	2.0	24.53	≤ 30.00

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

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

6.4. Power Spectral Density Measurement

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.

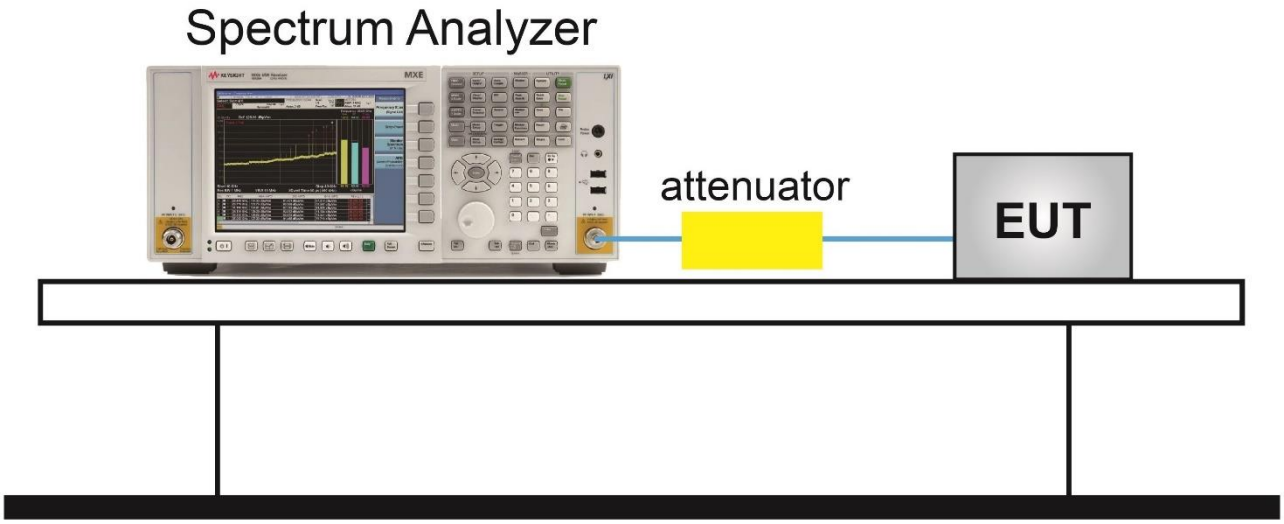
6.4.2.Test Procedure Used

KDB 789033 D02v02r01-Section 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 ≥ 3RBW
5. Number of sweep points ≥ 2 × (span / 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*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*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	WZ-TR3	Test Engineer	Dandy Li
Test Date	2021/09/07 ~ 2021/09/26	Test Mode	Nss=1

Test Mode	Data Rate/ MCS	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)
				Ant 0	Ant 1					
CDD Mode (Nss = 1) and Beamforming Mode										
11ax-HE20	MCS0	33	6115	-3.22	-3.16	-0.18	98.07	5.01	4.83	≤ 5.00
11ax-HE20	MCS0	61	6255	-3.39	-2.92	-0.14	98.07	5.01	4.88	≤ 5.00
11ax-HE20	MCS0	93	6415	-3.56	-3.54	-0.54	98.07	5.01	4.47	≤ 5.00
11ax-HE20	MCS0	97	6435	-3.32	-3.23	-0.26	98.07	5.01	4.75	≤ 5.00
11ax-HE20	MCS0	105	6475	-3.45	-3.14	-0.28	98.07	5.01	4.73	≤ 5.00
11ax-HE20	MCS0	113	6515	-3.57	-3.11	-0.32	98.07	5.01	4.68	≤ 5.00
11ax-HE20	MCS0	117	6535	-3.36	-3.14	-0.24	98.07	5.01	4.78	≤ 5.00
11ax-HE20	MCS0	153	6715	-3.65	-2.85	-0.22	98.07	5.01	4.79	≤ 5.00
11ax-HE20	MCS0	181	6855	-4.15	-3.22	-0.65	98.07	5.01	4.36	≤ 5.00
11ax-HE20	MCS0	185	6875	-3.82	-2.98	-0.37	98.07	5.01	4.64	≤ 5.00
11ax-HE20	MCS0	189	6895	-3.72	-2.95	-0.31	98.07	5.01	4.70	≤ 5.00
11ax-HE20	MCS0	213	7015	-4.07	-3.31	-0.66	98.07	5.01	4.35	≤ 5.00
11ax-HE20	MCS0	229	7095	-3.79	-3.08	-0.41	98.07	5.01	4.60	≤ 5.00
11ax-HE40	MCS0	33	6125	-3.52	-3.02	-0.25	98.26	5.01	4.76	≤ 5.00
11ax-HE40	MCS0	57	6245	-3.41	-2.98	-0.18	98.26	5.01	4.83	≤ 5.00
11ax-HE40	MCS0	89	6405	-3.28	-3.24	-0.25	98.26	5.01	4.76	≤ 5.00
11ax-HE40	MCS0	97	6445	-3.30	-3.18	-0.23	98.26	5.01	4.78	≤ 5.00
11ax-HE40	MCS0	105	6485	-3.42	-3.01	-0.20	98.26	5.01	4.81	≤ 5.00
11ax-HE40	MCS0	113	6525	-3.32	-3.53	-0.41	98.26	5.01	4.60	≤ 5.00
11ax-HE40	MCS0	121	6565	-3.55	-2.85	-0.18	98.26	5.01	4.84	≤ 5.00
11ax-HE40	MCS0	145	6685	-3.54	-3.07	-0.29	98.26	5.01	4.72	≤ 5.00
11ax-HE40	MCS0	177	6845	-3.52	-2.90	-0.19	98.26	5.01	4.82	≤ 5.00
11ax-HE40	MCS0	185	6885	-3.76	-3.02	-0.36	98.26	5.01	4.65	≤ 5.00
11ax-HE40	MCS0	193	6925	-3.52	-2.98	-0.23	98.26	5.01	4.78	≤ 5.00
11ax-HE40	MCS0	209	7005	-3.55	-3.00	-0.26	98.26	5.01	4.75	≤ 5.00
11ax-HE40	MCS0	225	7085	-3.71	-2.91	-0.28	98.26	5.01	4.73	≤ 5.00

Test Mode	Data Rate/ MCS	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)
				Ant 0	Ant 1					
11ax-HE80	MCS0	33	6145	-3.50	-3.09	-0.28	98.12	5.01	4.73	≤ 5.00
11ax-HE80	MCS0	49	6225	-3.46	-3.22	-0.33	98.12	5.01	4.68	≤ 5.00
11ax-HE80	MCS0	81	6385	-3.55	-2.88	-0.19	98.12	5.01	4.82	≤ 5.00
11ax-HE80	MCS0	97	6465	-3.81	-3.00	-0.38	98.12	5.01	4.64	≤ 5.00
11ax-HE80	MCS0	113	6545	-3.77	-3.03	-0.37	98.12	5.01	4.64	≤ 5.00
11ax-HE80	MCS0	129	6625	-3.53	-3.23	-0.37	98.12	5.01	4.65	≤ 5.00
11ax-HE80	MCS0	145	6705	-3.52	-3.22	-0.36	98.12	5.01	4.65	≤ 5.00
11ax-HE80	MCS0	177	6865	-3.55	-3.09	-0.30	98.12	5.01	4.71	≤ 5.00
11ax-HE80	MCS0	193	6945	-3.53	-3.17	-0.34	98.12	5.01	4.68	≤ 5.00
11ax-HE80	MCS0	209	7025	-3.76	-2.87	-0.28	98.12	5.01	4.73	≤ 5.00
11ax-HE160	MCS0	33	6185	-3.64	-3.13	-0.37	98.14	5.01	4.64	≤ 5.00
11ax-HE160	MCS0	65	6345	-3.79	-3.12	-0.43	98.14	5.01	4.58	≤ 5.00
11ax-HE160	MCS0	97	6505	-3.31	-3.05	-0.17	98.14	5.01	4.84	≤ 5.00
11ax-HE160	MCS0	129	6665	-3.39	-3.06	-0.21	98.14	5.01	4.80	≤ 5.00
11ax-HE160	MCS0	161	6825	-3.51	-3.15	-0.32	98.14	5.01	4.70	≤ 5.00
11ax-HE160	MCS0	193	6985	-3.53	-2.83	-0.16	98.14	5.01	4.86	≤ 5.00

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

Note 2: When EUT duty cycle > 98%, EIRP PSD (dBm/MHz) = Total PSD (dBm/MHz) + Directional Gain (dBi).

Test Site	WZ-TR3	Test Engineer	Dandy Li
Test Date	2021/10/27	Test Mode	Nss=2

Test Mode	Data Rate/ MCS	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)
				Ant 0	Ant 1					
CDD Mode (Nss = 2)										
11ax-HE20	MCS0	33	6115	-0.38	-0.28	2.68	98.07	2.0	4.68	≤ 5.00
11ax-HE20	MCS0	61	6255	-0.56	-0.23	2.62	98.07	2.0	4.62	≤ 5.00
11ax-HE20	MCS0	93	6415	-0.74	-0.09	2.61	98.07	2.0	4.61	≤ 5.00
11ax-HE20	MCS0	97	6435	-0.54	0.05	2.78	98.07	2.0	4.78	≤ 5.00
11ax-HE20	MCS0	105	6475	-0.72	0.01	2.67	98.07	2.0	4.67	≤ 5.00
11ax-HE20	MCS0	113	6515	-0.48	-0.28	2.63	98.07	2.0	4.63	≤ 5.00
11ax-HE20	MCS0	117	6535	-0.44	-0.18	2.70	98.07	2.0	4.70	≤ 5.00
11ax-HE20	MCS0	153	6715	-0.64	-0.26	2.56	98.07	2.0	4.56	≤ 5.00
11ax-HE20	MCS0	181	6855	-0.42	-0.25	2.68	98.07	2.0	4.67	≤ 5.00
11ax-HE20	MCS0	185	6875	-0.36	-0.12	2.77	98.07	2.0	4.77	≤ 5.00
11ax-HE20	MCS0	189	6895	-0.30	-0.17	2.78	98.07	2.0	4.78	≤ 5.00
11ax-HE20	MCS0	213	7015	-0.15	-0.30	2.79	98.07	2.0	4.79	≤ 5.00
11ax-HE20	MCS0	229	7095	-0.57	-0.14	2.66	98.07	2.0	4.66	≤ 5.00
11ax-HE40	MCS0	33	6125	-0.42	-0.15	2.73	98.26	2.0	4.73	≤ 5.00
11ax-HE40	MCS0	57	6245	-0.12	-0.27	2.82	98.26	2.0	4.82	≤ 5.00
11ax-HE40	MCS0	89	6405	-0.33	-0.28	2.71	98.26	2.0	4.71	≤ 5.00
11ax-HE40	MCS0	97	6445	-0.63	-0.48	2.46	98.26	2.0	4.46	≤ 5.00
11ax-HE40	MCS0	105	6485	-0.21	-0.48	2.67	98.26	2.0	4.67	≤ 5.00
11ax-HE40	MCS0	113	6525	-0.51	-0.23	2.64	98.26	2.0	4.64	≤ 5.00
11ax-HE40	MCS0	121	6565	-0.53	-0.19	2.65	98.26	2.0	4.66	≤ 5.00
11ax-HE40	MCS0	145	6685	-0.74	-0.24	2.53	98.26	2.0	4.53	≤ 5.00
11ax-HE40	MCS0	177	6845	-0.71	-0.34	2.49	98.26	2.0	4.49	≤ 5.00
11ax-HE40	MCS0	185	6885	-0.69	-0.03	2.66	98.26	2.0	4.66	≤ 5.00
11ax-HE40	MCS0	193	6925	-0.70	-0.49	2.42	98.26	2.0	4.42	≤ 5.00
11ax-HE40	MCS0	209	7005	-0.57	-0.25	2.60	98.26	2.0	4.60	≤ 5.00
11ax-HE40	MCS0	225	7085	-0.60	0.01	2.73	98.26	2.0	4.73	≤ 5.00

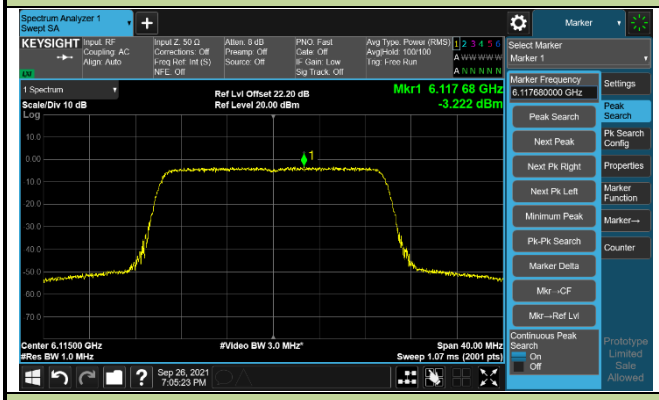
Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Duty Cycle (%)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)
				Ant 0	Ant 1					
11ax-HE80	MCS0	33	6145	-0.44	-0.21	2.69	98.12	2.0	4.69	≤ 5.00
11ax-HE80	MCS0	49	6225	-0.50	-0.55	2.49	98.12	2.0	4.48	≤ 5.00
11ax-HE80	MCS0	81	6385	-0.38	-0.25	2.70	98.12	2.0	4.69	≤ 5.00
11ax-HE80	MCS0	97	6465	-0.36	-0.40	2.63	98.12	2.0	4.63	≤ 5.00
11ax-HE80	MCS0	113	6545	-0.33	-0.59	2.55	98.12	2.0	4.56	≤ 5.00
11ax-HE80	MCS0	129	6625	-0.65	-0.22	2.58	98.12	2.0	4.58	≤ 5.00
11ax-HE80	MCS0	145	6705	-0.70	0.10	2.73	98.12	2.0	4.73	≤ 5.00
11ax-HE80	MCS0	177	6865	-0.61	-0.41	2.50	98.12	2.0	4.50	≤ 5.00
11ax-HE80	MCS0	193	6945	-0.77	-0.31	2.48	98.12	2.0	4.48	≤ 5.00
11ax-HE80	MCS0	209	7025	-0.51	-0.19	2.66	98.12	2.0	4.66	≤ 5.00
11ax-HE160	MCS0	33	6185	-0.76	-0.28	2.50	98.14	2.0	4.50	≤ 5.00
11ax-HE160	MCS0	65	6345	-0.31	-0.39	2.66	98.14	2.0	4.66	≤ 5.00
11ax-HE160	MCS0	97	6505	-0.60	-0.56	2.43	98.14	2.0	4.43	≤ 5.00
11ax-HE160	MCS0	129	6665	-0.72	-0.45	2.43	98.14	2.0	4.43	≤ 5.00
11ax-HE160	MCS0	161	6825	-0.49	-0.33	2.60	98.14	2.0	4.60	≤ 5.00
11ax-HE160	MCS0	193	6985	-0.72	-0.21	2.55	98.14	2.0	4.55	≤ 5.00

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

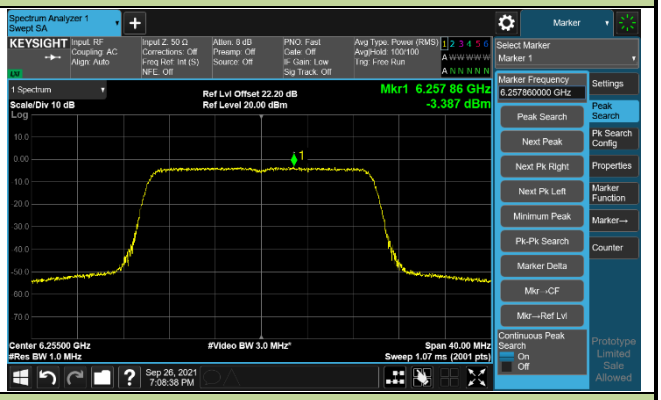
Note 2: When EUT duty cycle > 98%, EIRP PSD (dBm/MHz) = Total PSD (dBm/MHz) + Directional Gain (dBi).

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

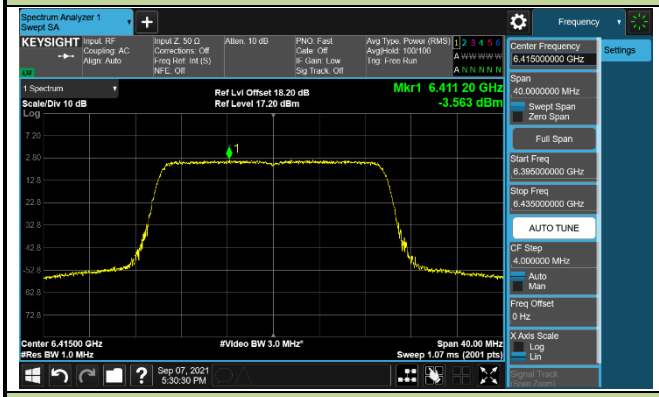
Channel 33 (6115MHz)



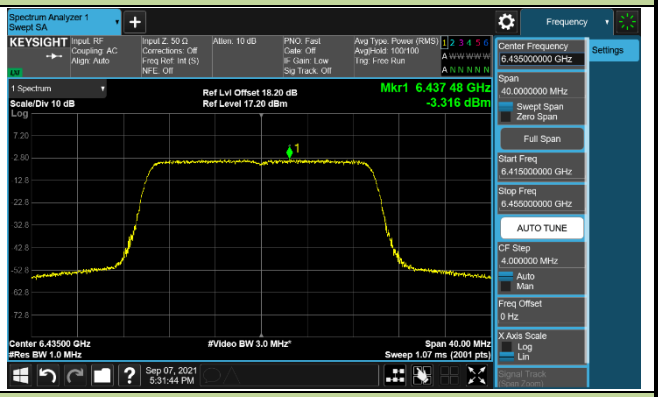
Channel 61 (6255MHz)



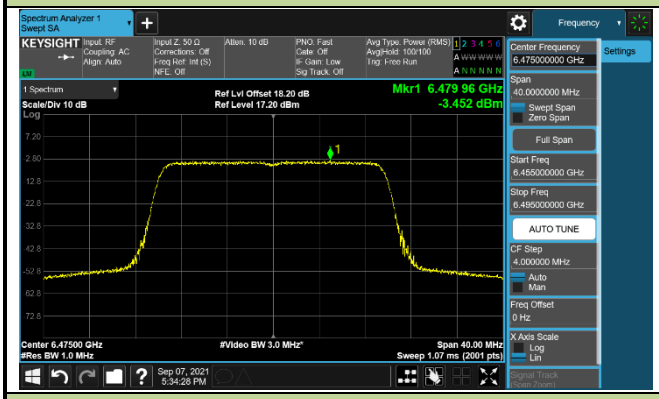
Channel 93 (6415MHz)



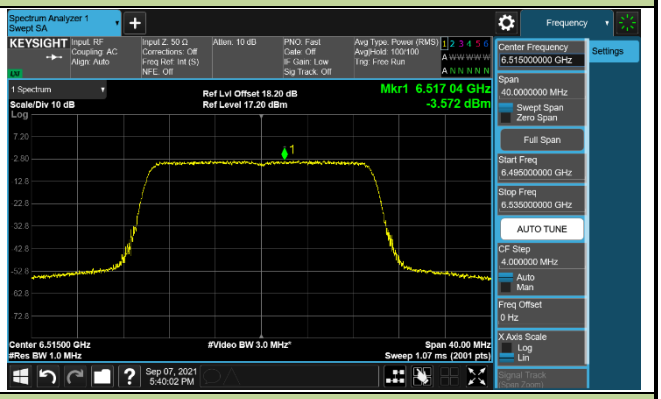
Channel 97 (6435MHz)



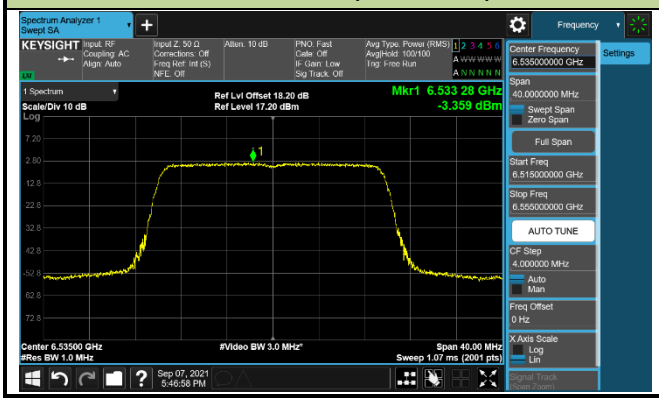
Channel 105 (6475MHz)



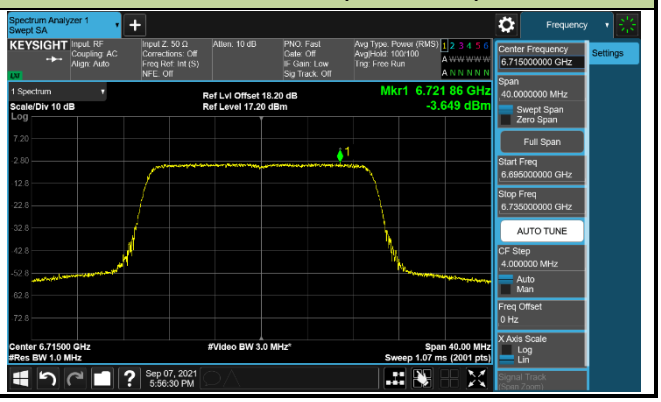
Channel 113 (6515MHz)



Channel 117 (6535MHz)

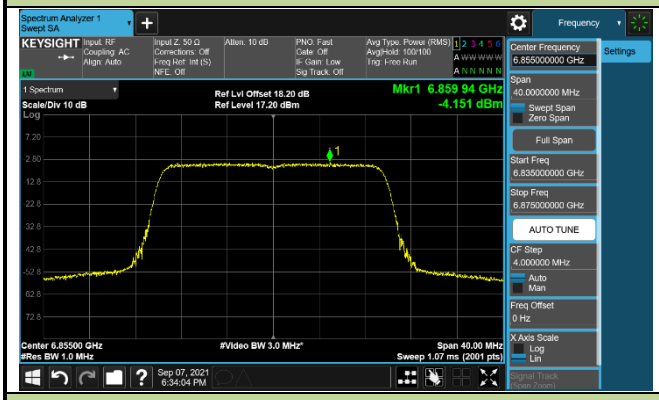


Channel 153 (6715MHz)

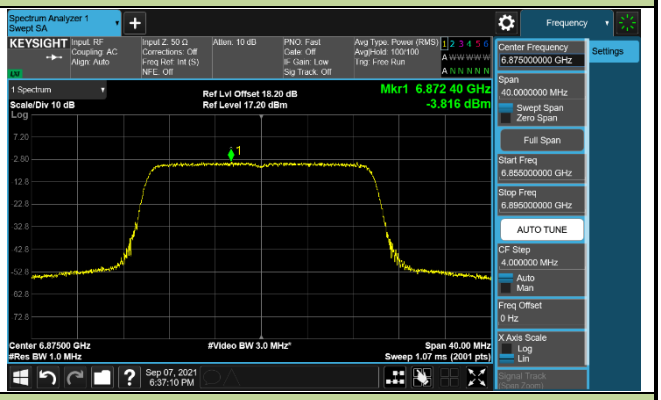


802.11ax-HE20 Power Spectral Density – Ant 0 (Nss=1)

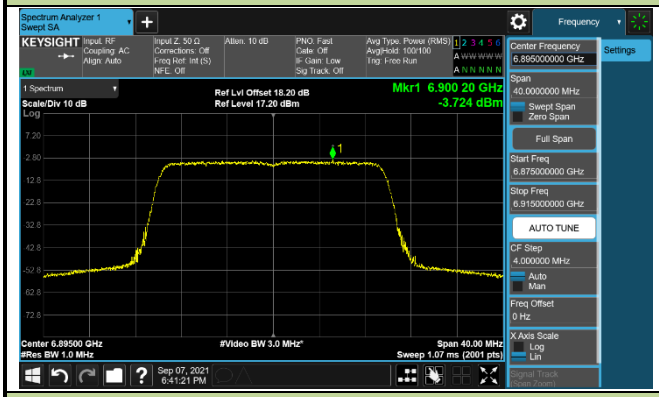
Channel 181 (6855MHz)



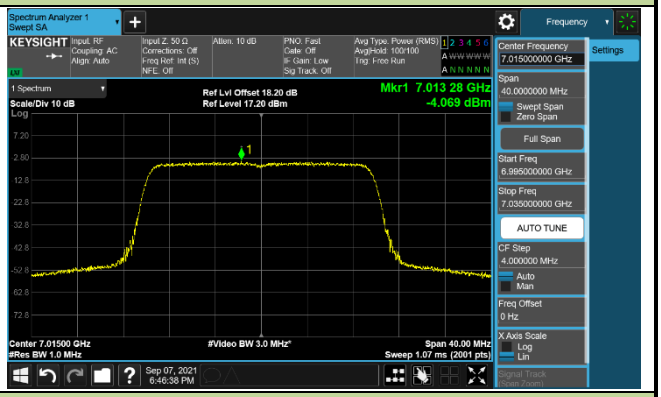
Channel 185 (6875MHz)



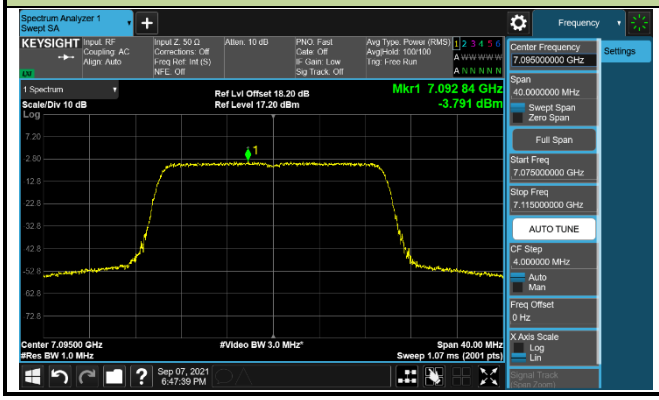
Channel 189 (6895MHz)



Channel 213 (7015MHz)

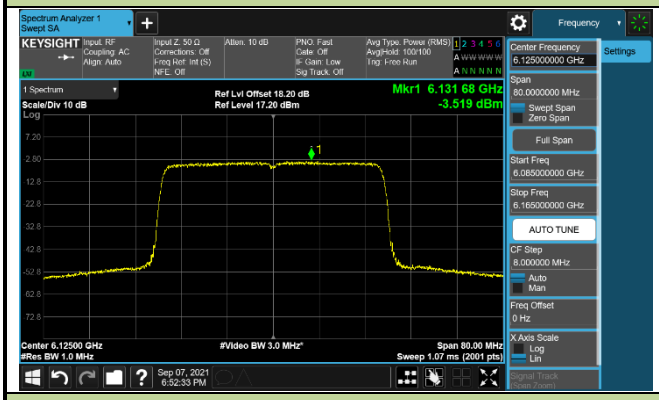


Channel 229 (7095MHz)

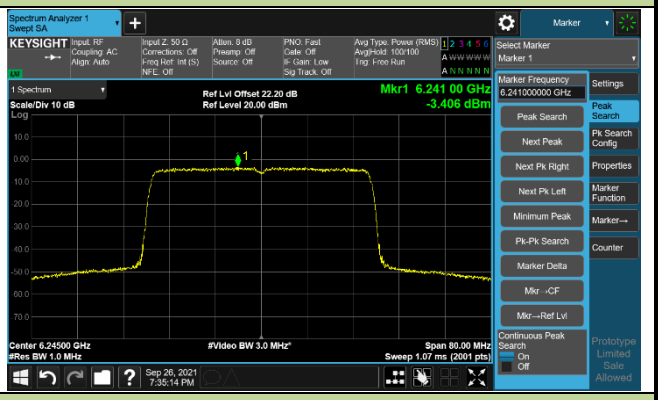


802.11ax-HE40 Power Spectral Density – Ant 0 (Nss=1)

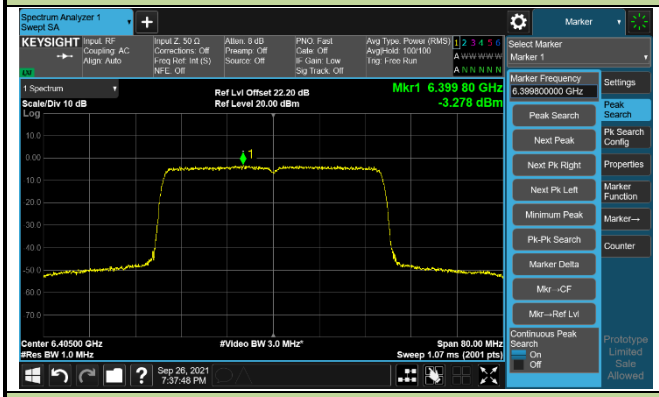
Channel 35 (6125MHz)



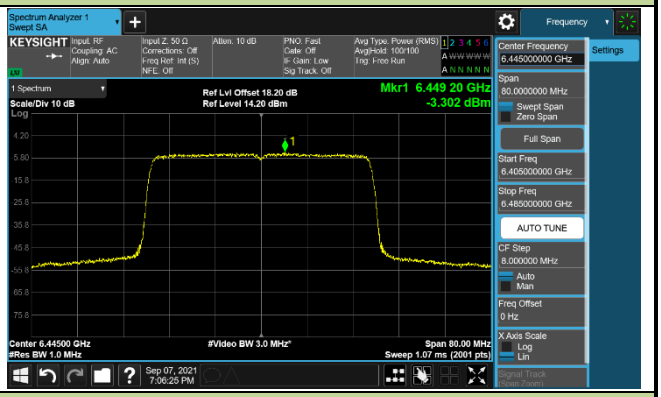
Channel 59 (6245MHz)



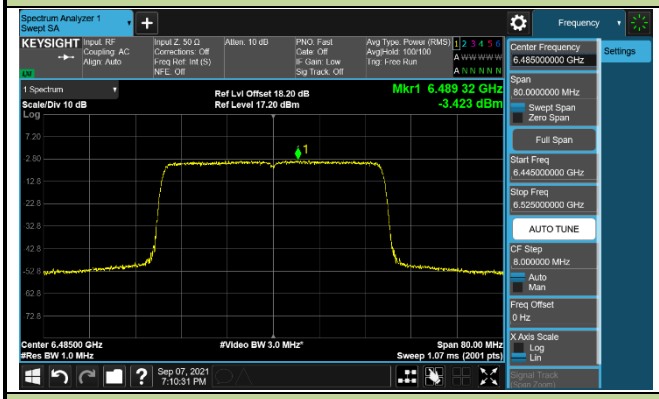
Channel 91 (6405MHz)



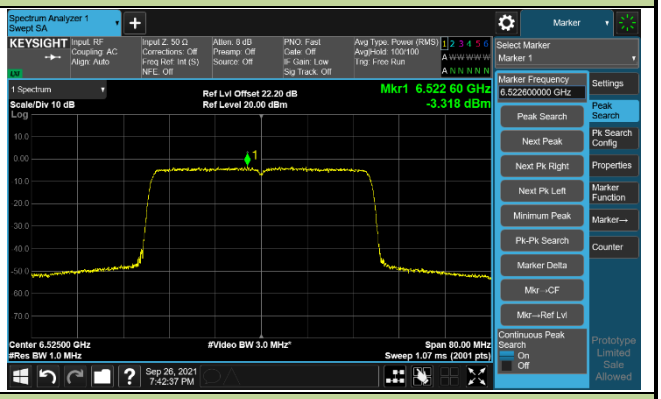
Channel 99 (6445MHz)



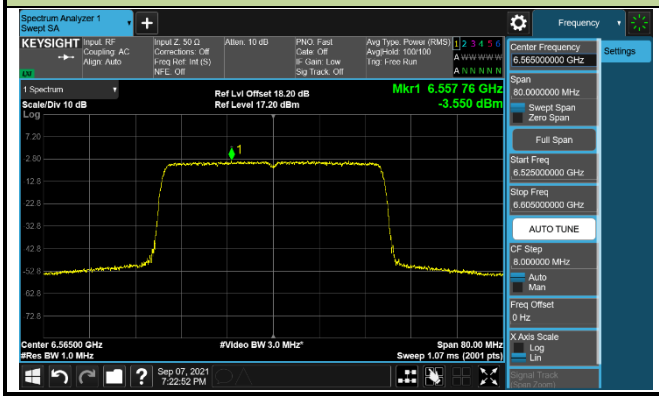
Channel 107 (6485MHz)



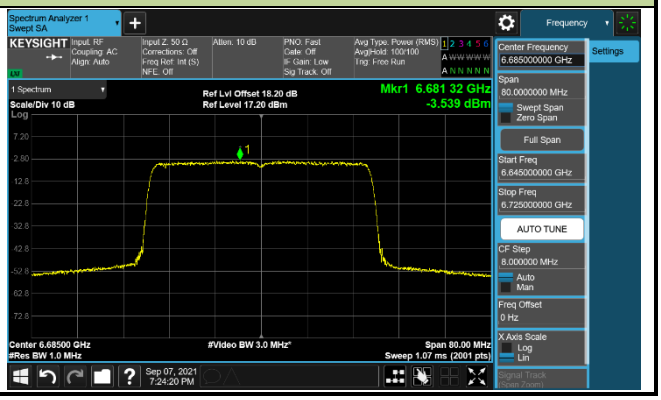
Channel 115 (6525MHz)



Channel 123 (6565MHz)

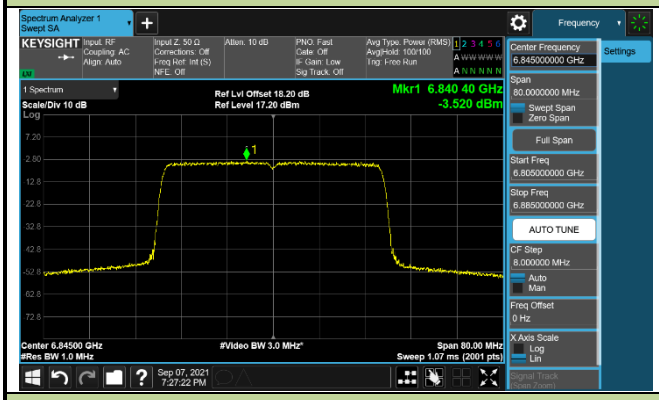


Channel 147 (6685MHz)

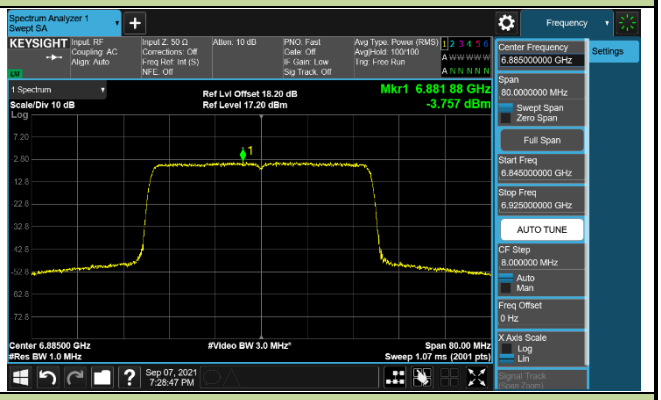


802.11ax-HE40 Power Spectral Density – Ant 0 (Nss=1)

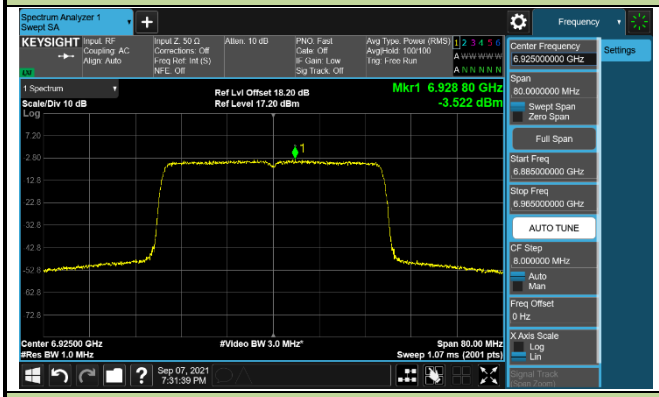
Channel 179 (6845MHz)



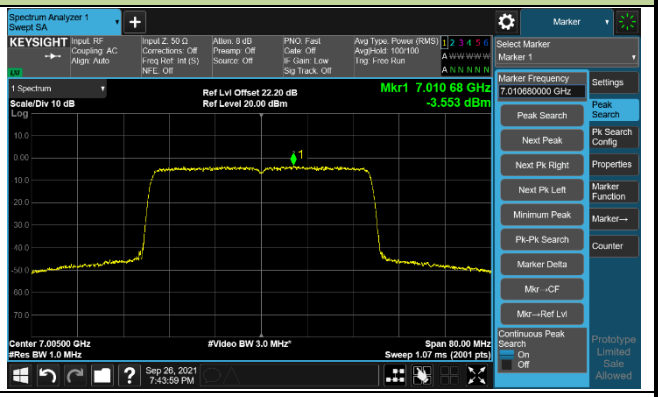
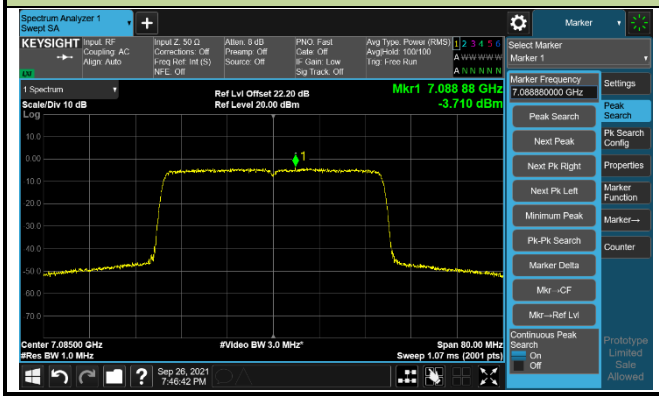
Channel 187 (6885MHz)



Channel 195 (6925MHz)



Channel 211 (7005MHz)



Channel 227 (7085MHz)