

NCC

低功率射頻器材型式試驗報告

產品名稱: AX5400 Wi-Fi 6 路由器
型號: Archer AX72
廠牌: tp-link
申請者: 聯洲國際有限公司
申請者地址: 新北市板橋區中山路一段 156 號 4 樓
測試標準: LP0002 (109 年版) 5.7 章節
參考法規: ANSI C63.10-2013
測試結果: 符合
接收日期: 2020.09.27
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修訂紀錄

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1. 一般資訊

申請者	聯洲國際有限公司
申請者地址	新北市板橋區中山路一段 156 號 4 樓
製造商	普聯技術有限公司
製造商地址	深圳市南山區深南路科技園工業廠房 24 棟南段 1 層、3-5 層、28 棟北段 1-4 層
實驗室	台灣曼瑞檢測科技有限公司
實驗室地址	33377 台灣桃園市龜山區復興二路 38 號
實驗室資訊	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, Industry Taiwan, EU and TELEC Rules.
實驗室測試環境條件	溫度 (°C) : 20-35 / 濕度 (%RH) : 30-65

2. 產品資訊

2.1. 待測物裝置資料

產品名稱	AX5400 Wi-Fi 6 路由器
產品型號	Archer AX72
待測物額定電壓	AC adapter input
無線規格	802.11a/n/ac/ax
頻率範圍	For 802.11a/n-HT20/ac-VHT20/ax-HE20: 5180~5240MHz, 5260~5320MHz, 5500~5720MHz, 5745~5825MHz For 802.11n-HT40/ac-VHT40/ax-HE40: 5190~5230MHz, 5270~5310MHz, 5510~5710MHz, 5755~5795MHz For 802.11ac-VHT80/ax-HE80: 5210MHz, 5290MHz, 5530MHz, 5610 MHz, 5690 MHz, 5775MHz For 802.11ac-VHT160/ax-HE160: 5250MHz, 5570MHz
調變模式	802.11a/n/ac: OFDM 802.11ax: OFDMA
傳輸速率	802.11a: 6/9/12/18/24/36/48/54Mbps 802.11n: up to 600Mbps 802.11ac: up to 3466.7Mbps 802.11ax: up to 4804Mbps
頻道控制	Auto
配件	
電源供應器	BRAND: Mass Power MODEL: NBS30D120250VU INPUT: 100 - 240V ~ 50/60Hz 0.8A. OUTPUT: DC 12.0V 2.5A

2.2. 通道清單

802.11a/n-HT20/ac-VHT20/ax-HE20

Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180 MHz	40	5200 MHz	44	5220 MHz
48	5240 MHz	52	5260 MHz	56	5280 MHz
60	5300 MHz	64	5320 MHz	100	5500 MHz
104	5520 MHz	108	5540 MHz	112	5560 MHz
116	5580 MHz	120	5600 MHz	124	5620 MHz
128	5640 MHz	132	5660 MHz	136	5680 MHz
140	5700 MHz	144	5720 MHz	149	5745 MHz
153	5765 MHz	157	5785 MHz	161	5805 MHz
165	5825 MHz	--	--	--	--

802.11n-HT40/ac-VHT40/ax-HE40

Channel	Frequency	Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz	54	5270 MHz
62	5310 MHz	102	5510 MHz	110	5550MHz
118	5590 MHz	126	5630 MHz	134	5670 MHz
142	5710 MHz	151	5755 MHz	159	5795 MHz

802.11ac-VHT80/ax-HE80

Channel	Frequency	Channel	Frequency	Channel	Frequency
42	5210 MHz	58	5290 MHz	106	5530 MHz
122	5610 MHz	138	5690 MHz	155	5775 MHz

802.11ac-VHT160/ax-HE160

Channel	Frequency	Channel	Frequency	Channel	Frequency
50	5250MHz	114	5570 MHz	--	--

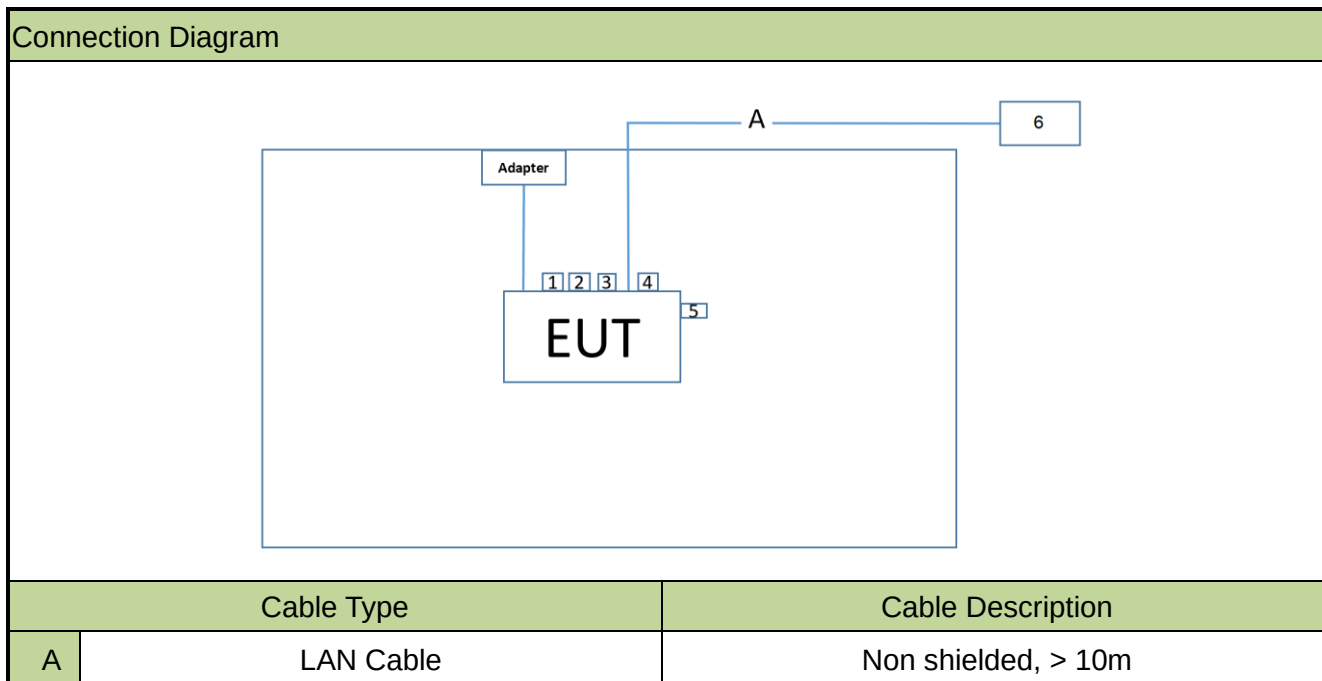
2.3. 測試模式

Mode 1: 發射器 802.11a (6Mbps) (CDD Mode)
Mode 2: 發射器 802.11ac-VHT20 (MCS0) (CDD Mode)
Mode 3: 發射器 802.11ac-VHT40 (MCS0) (CDD Mode)
Mode 4: 發射器 802.11ac-VHT80 (MCS0) (CDD Mode)
Mode 5: 發射器 802.11ac-VHT160 (MCS0) (CDD Mode)
Mode 6: 發射器 802.11ax-HE20 (MCS0) (CDD Mode)
Mode 7: 發射器 802.11ax-HE40 (MCS0) (CDD Mode)
Mode 8: 發射器 802.11ax-HE80 (MCS0) (CDD Mode)
Mode 9: 發射器 802.11ax-HE160 (MCS0) (CDD Mode)
Mode 10: 發射器 802.11ac-VHT20 (MCS0) (Beamforming Mode)
Mode 11: 發射器 802.11ac-VHT40 (MCS0) (Beamforming Mode)
Mode 12: 發射器 802.11ac-VHT80 (MCS0) (Beamforming Mode)
Mode 13: 發射器 802.11ac-VHT160 (MCS0) (Beamforming Mode)
Mode 14: 發射器 802.11ax-HE20 (MCS0) (Beamforming Mode)
Mode 15: 發射器 802.11ax-HE40 (MCS0) (Beamforming Mode)
Mode 16: 發射器 802.11ax-HE80 (MCS0) (Beamforming Mode)
Mode 17: 發射器 802.11ax-HE160 (MCS0) (Beamforming Mode)

備註:

1. 由於 802.11n 和 802.11ac 有相同的調變方式，所以報告中用 802.11ac-VHT20/VHT40 覆蓋 802.11n-HT20/HT40，並使用相同的功率設定值。
2. 經工程判斷，CDD mode 為 worst-case mode，故 CDD mode 下評估所有測試項，Beamforming mode 只評估傳導輸出功率。
3. 經工程判斷，接收模式在輻射項目並無顯著影響，故僅針對發射模式評估。

2.4. 測試系統組合圖



2.5. 測試周邊

	Product	Manufacturer	Model No.	Serial No.	Power Cord
1~4	Simulated load	N/A	001	N/A	N/A
5	USB flash disk	SanDisk	CZ48	N/A	N/A
6	Notebook	Lenovo	E431	PF-10ZRN 13/12	Non-Shielded, 1.8m

2.6. 待測裝置測試時之典型操作程式

1.	Setup the EUT and simulators as shown on 2.4
2.	Turn on the power of all equipment.
3.	Execute "QSPR" program.
4.	Configure the test channel and the data rate.
5.	Start test.

3. 量測不確定度

電源傳導量測-電源線 (Conducted Emission- Power Line)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 2.53dB
電源傳導量測-通訊埠 (Conducted Emission- Impedance Stabilization Network Measurement)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 3.96dB
輻射干擾量測 (Radiated Spurious Emission)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 3.92dB (Below 30M)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 4.25dB (30M~1G)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 4.40dB (1G~18G)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 4.45dB (18G~40G)
頻率誤差量測 (Frequency Error)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): $\pm 78.4\text{Hz}$
傳導功率量測 (Conducted Power)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): $\pm 0.84\text{dB}$
傳導干擾量測 (Conducted Spurious Emission)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): $\pm 2.65\text{ dB}$
佔用頻寬量測 (Occupied Bandwidth)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 3.3%
溫度 / 濕度 (Temp. / Humidity)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): $\pm 0.82^\circ\text{C} / \pm 3\%$
直流電源 (DC Voltage)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): $\pm 0.3\%$

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

4. 測試設備明細

Conducted Emissions

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Two-Line V-Network	R&S	ENV216	MRTTWA00019	1 year	2022/03/23
Two-Line V-Network	R&S	ENV216	MRTTWA00020	1 year	2021/04/24
EMI Test Receiver	R&S	ESR3	MRTTWA00045	1 year	2021/05/26
Temperature/Humidity Meter	TFA	35.1078.10.IT	MRTTWA00033	1 year	2021/05/28

Radiated Emissions

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Broadband TRILOG Antenna	SCHWARZBECK	VULB 9162	MRTTWA00001	1 year	2021/10/5
Active Loop Antenna	SCHWARZBECK	FMZB 1519B	MRTTWA00002	1 year	2021/04/27
Broadband Hornantenna	SCHWARZBECK	BBHA 9120D	MRTTWA00003	1 year	2021/04/24
Breitband Hornantenna	SCHWARZBECK	BBHA 9170	MRTTWA00004	1 year	2021/04/24
Broadband Preamplifier	SCHWARZBECK	BBV 9718	MRTTWA00005	1 year	2021/04/24
Broadband Amplifier	SCHWARZBECK	BBV 9721	MRTTWA00006	1 year	2021/04/24
Signal Analyzer	R&S	FSV40	MRTTWA00007	1 year	2021/03/24
EMI Test Receiver	R&S	ESR3	MRTTWA00009	1 year	2021/03/25
EXA Signal Analyzer	KEYSIGHT	N9010A	MRTTWA00012	1 year	2021/10/14
EXA Signal Analyzer	KEYSIGHT	N9010B	MRTTWA00074	1 year	2021/07/14
Antenna Cable	HUBERSUHNER	SF106	MRTTWE00010	1 year	2021/06/16
Temperature/Humidity Meter	TFA	35.1078.10.IT	MRTTWA00032	1 year	2021/05/28

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	2021/04/24
EXA Signal Analyzer	KEYSIGHT	N9010A	MRTTWA00012	1 year	2021/10/14
EXA Signal Analyzer	KEYSIGHT	N9010B	MRTTWA00074	1 year	2021/07/14
Temperature & Humidity Chamber	TEN BILLION	TTH-B3UP	MRTTWA00036	1 year	2021/06/09
Temperature/Humidity Meter	TFA	35.1078.10.IT	MRTTWA00033	1 year	2021/05/28

Software	Version	Function
e3	9.160520a	EMI Test Software

5. 測試結果

產品名稱
型號

AX5400 Wi-Fi 6 路由器
Archer AX72

章節	量測項目	限制值	測試結果	測試數據
3.3	電源傳導	低功率射頻器材技術規範 3.3 節	符合	第 5.1 章節
5.7.3	峰值傳導輸出功率	參考第 5.2 章節	符合	第 5.2 章節
3.2 及 5.7.8	天線之要求	低功率射頻器材技術規範 3.2 節及 5.7.8 節	符合	第 5.3 章節
5.7.5	26dB 佔用頻寬	N/A	符合	第 5.4 章節
5.7.5	6dB 佔用頻寬	$\geq 500\text{KHz}$	符合	第 5.5 章節
5.7.3	功率頻譜密度	參考第 5.6 章節	符合	第 5.6 章節
5.7.3	操作頻帶外的峰值 發射	低功率射頻器材技術規範 5.7.3 節	符合	第 5.7 章節
3.6 及 5.7.3	不必要之發射	低功率射頻器材技術規範 3.6 節	符合	第 5.8 章節
5.7.4	發射功率控制	至少具有 6dB 低於平均 EIRP 值 30dBm 的能力	符合	第 5.9 章節
N/A	頻率穩定性	操作頻帶	符合	第 5.10 章節

5.1. 電源端點干擾測試

5.1.1. 適用標準

依據國家通訊傳播委員會低功率射頻器材技術規範之第 3.3 節，以市電為電源之低功率射頻器材，其傳導回電源線上頻率自 150kHz 至 30MHz 之射頻電壓(在電源端子每一電源線對接地點)應小於或等於下表所列之限值。測量時應經過 50 微亨利(μH)及 50 歐姆(Ω)之電源線阻抗模擬網路(LISN)。頻率重疊處，以較低限值為準。

Frequency 頻率範圍 MHz	傳導限制值(dBuV)	
	準尖峰值	平均值
0.15 - 0.50	66-56 ^(註)	56-46 ^(註)
0.50 - 5.0	56	46
5.0 - 30	60	50

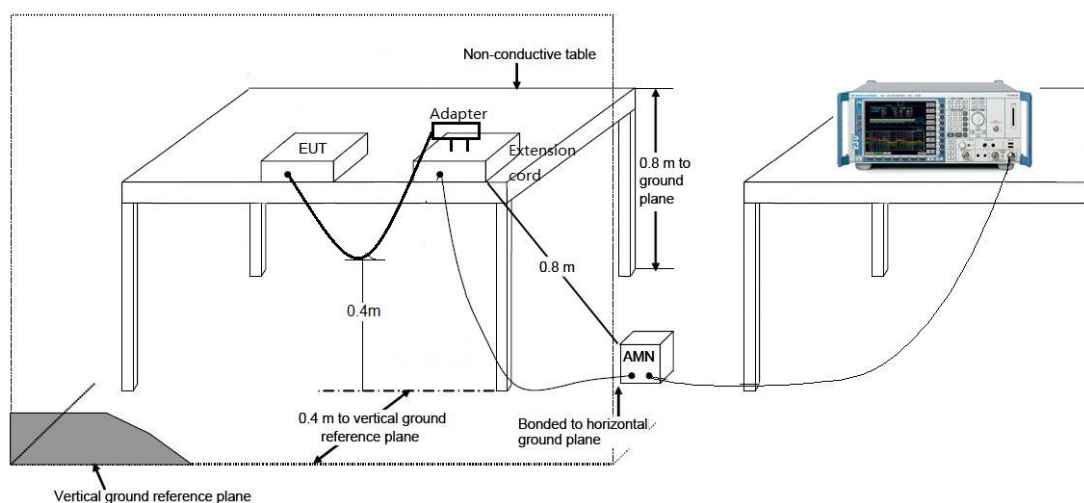
註:隨頻率之對數遞減

5.1.2. 量測方法

待測物置於高 80 公分之非導體桌面（落地型產品置於地上），將待測物之電源線接至電源阻抗網路器(LISN)，同時保持待測物至 LISN 距 80 公分，並將電源線多餘部份以 30 至 40 公分之八字形捆綁於電源線中央並離地 40cm，於在正常工作狀態下，執行待測物之火線(Line)及地線(neutral)各一次量測。電源端點場強之測量範圍由 0.15MHz –30MHz，所量測之讀值皆為準尖峰值(Quasi-Peak Value)及平均值(Average Value)。場強接收機之解析頻寬為 9kHz。

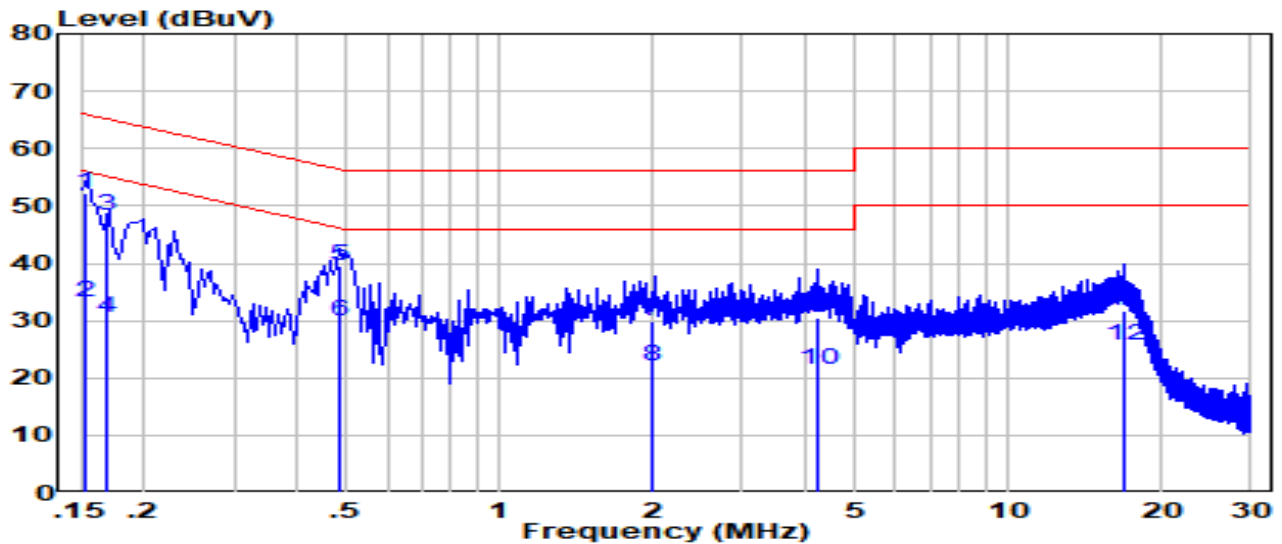
備 註：經初測驗證過，電源端點干擾測試對測試頻道數並無差異，因此檢附其中一個測試頻道之測試數。

5.1.3. 測試架構圖



5.1.4. 電源端點測試結果

EUT	AX5400 Wi-Fi 6 路由器	Date of Test	2020-12-07
Factor	CE_ENV216-L1 (Filter ON)	Temp. / Humidity	22.3°C /40.8%
Polarity	Line1	Site / Test Engineer	SR2 / Peter Xu
Test Mode	1	Test Voltage	110V/60Hz

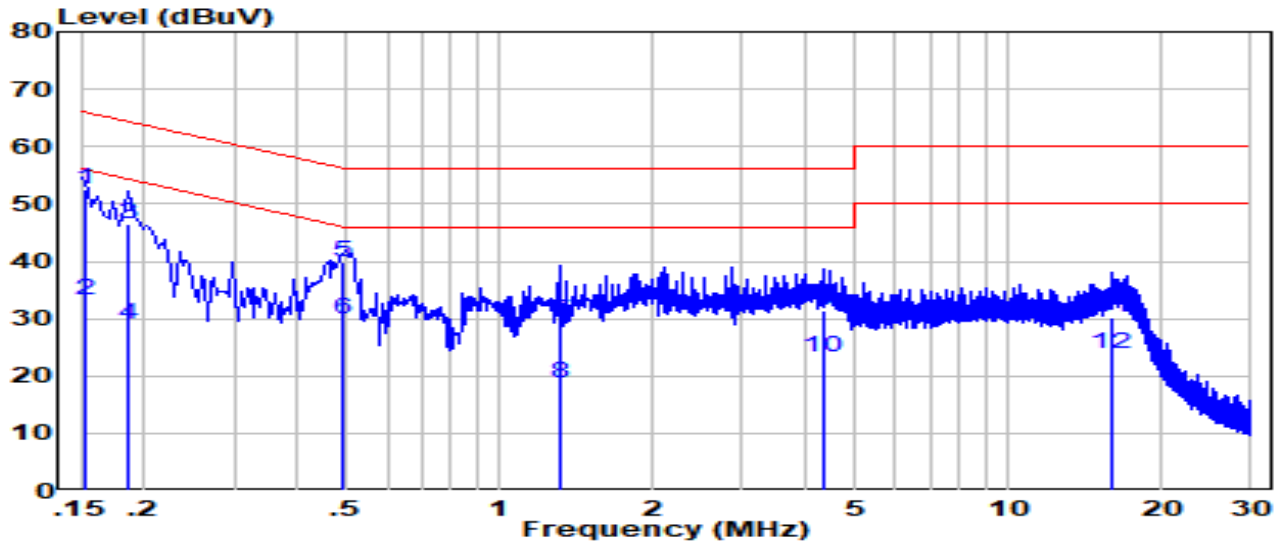


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Remark (QUASI-PEAK/PK/AV)
1	*	0.153	42.66	9.60	52.26	-13.58	65.84	Quasi-Pesk
2		0.153	23.46	9.60	33.06	-22.78	55.84	Average
3		0.169	38.79	9.58	48.37	-16.64	65.01	Quasi-Pesk
4		0.169	20.99	9.58	30.57	-24.44	55.01	Average
5		0.485	29.96	9.60	39.56	-16.69	56.25	Quasi-Pesk
6		0.485	20.16	9.60	29.76	-16.49	46.25	Average
7		2.000	20.34	9.69	30.03	-25.97	56.00	Quasi-Pesk
8		2.000	12.44	9.69	22.13	-23.87	46.00	Average
9		4.200	20.75	9.73	30.47	-25.53	56.00	Quasi-Pesk
10		4.200	11.85	9.73	21.57	-24.43	46.00	Average
11		16.810	21.74	9.95	31.70	-28.30	60.00	Quasi-Pesk
12		16.810	15.74	9.95	25.70	-24.30	50.00	Average

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = LISN Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).

EUT	AX5400 Wi-Fi 6 路由器	Date of Test	2020-12-07
Factor	CE_ENV216-N (Filter ON)	Temp. / Humidity	22.3°C /40.8%
Polarity	Neutral	Site / Test Engineer	SR2 / Peter Xu
Test Mode	1	Test Voltage	110V/60Hz



No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Remark (QUASI-PEAK/PK/AV)
1	*	0.153	42.82	9.62	52.43	-13.40	65.84	Quasi-Pesk
2		0.153	23.52	9.62	33.13	-22.70	55.84	Average
3		0.185	37.03	9.60	46.63	-17.63	64.26	Quasi-Pesk
4		0.185	19.33	9.60	28.93	-25.33	54.26	Average
5		0.493	30.16	9.61	39.77	-16.34	56.12	Quasi-Pesk
6		0.493	20.26	9.61	29.87	-16.24	46.12	Average
7		1.310	19.87	9.67	29.54	-26.46	56.00	Quasi-Pesk
8		1.310	8.97	9.67	18.64	-27.36	46.00	Average
9		4.310	21.78	9.72	31.50	-24.50	56.00	Quasi-Pesk
10		4.310	13.38	9.72	23.10	-22.90	46.00	Average
11		15.880	20.31	9.98	30.30	-29.70	60.00	Quasi-Pesk
12		15.880	13.91	9.98	23.90	-26.10	50.00	Average

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = LISN Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).

5.2. 功率限制值

5.2.1. 適用標準

1. 使用於5.15 GHz~5.25 GHz 頻段

(1)供戶外操作使用:

(A)最大傳導輸出功率應小於或等於1 W。

(B)在任何1 MHz 頻帶中最大功率頻譜密度應小於或等於17 dBm。

(C)使用超過6 dBi 方向增益之發射天線時，應依超過6 dBi 天線方向增益的dBi 總量，等量減少最大傳導輸出功率及最大功率頻譜密度。

(D)在水平面仰角超過30 度時，其最大EIRP 應小於或等於21 dBm。

(2)供室內操作使用:

(A)最大傳導輸出功率應小於或等於1 W。

(B)在任何1 MHz 頻帶中最大功率頻譜密度應小於或等於17 dBm。

(C)使用超過6 dBi 方向增益之發射天線時，應依超過6 dBi 天線方向增益的dBi 總量，等量減少最大傳導輸出功率及最大功率頻譜密度。

(3)供固定式點對點操作使用:

(A)最大傳導輸出功率應小於或等於1 W。

(B)在任何1 MHz 頻帶中最大功率頻譜密度應小於或等於17 dBm。

(C)使用超過23 dBi 方向增益之指向性天線時，應依超過23 dBi 天線方向增益的dBi 總量，等量減少最大傳導輸出功率及最大功率頻譜密度。

(D)固定式點對點操作，不包括點對多點系統、全方向性應用及多台共站發射機傳送相同資訊。

(4)供用戶端裝置(Client Device)操作使用:

(A)最大傳導輸出功率應小於或等於250 mW。

(B)在任何1 MHz 頻帶中最大功率頻譜密度應小於或等於11 dBm。

(C)使用超過6 dBi 方向增益之發射天線時，應依超過6 dBi 天線方向增益的dBi 總量，等量減少最大傳導輸出功率及最大功率頻譜密度。

2. 使用頻率於5.25 GHz~5.35 GHz 與5.470 GHz~5.725 GHz 頻段

(1)最大傳導輸出功率應小於或等於250 mW或 $11\text{dBm}+10\log B$ (B 是26 dB發射頻寬，單位MHz)之較小者。

(2)最大功率頻譜密度在任何1 MHz 頻帶中應小於或等於11 dBm。

(3)使用超過6 dBi 方向增益之發射天線時，應依超過6 dBi 天線方向增益的dBi 總量，等量減少最大傳導輸出功率及最大功率頻譜密度。

3. 使用頻率於5.725 GHz~5.850 GHz 頻段

(1)最大傳導輸出功率應小於或等於1 W。

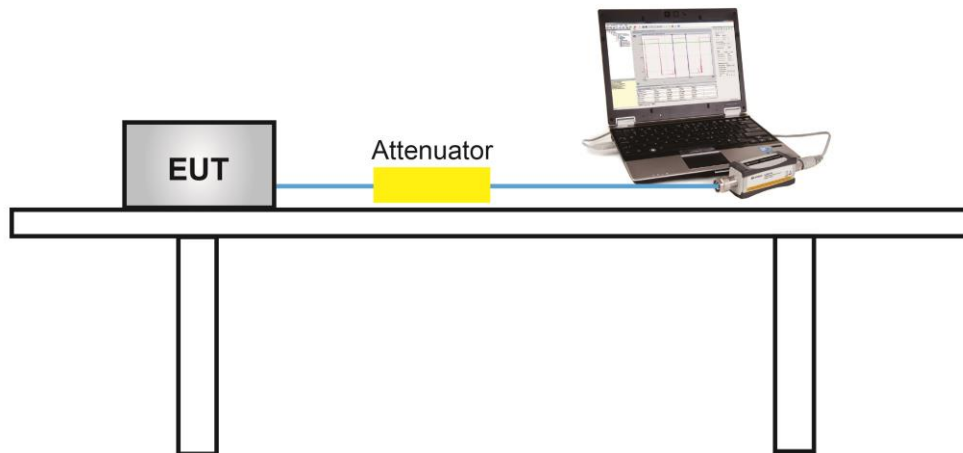
(2)在任何500 kHz 頻帶中最大功率頻譜密度應小於或等於30 dBm。

(3)供固定式點對點操作時，使用方向增益超過 6 dBi 之發射天線，可不需(4)除(3)外，使用超過 6 dBi 方向增益之發射天線時，應依超過 6 dBi 天線方向增益的 dBi 總量，等量減少最大傳導輸出功率及最大功率頻譜密度。

5.2.2. 量測方法

待測物之天線埠經由適當之衰減直接連至頻譜分析儀 RF 輸入端，峰值發射功率必須使用依據均方根等效電壓校準之儀器量測於任何連續傳輸之時段，量測結果須依儀器限制(如偵測器反應時間、相較於發射頻寬有限之解析頻寬能力，靈敏度等)調整得出正確之峰值量測或使用峰值功率表。

5.2.3. 測試架構圖



5.2.4. 功率限制值測試結果

Product	AX5400 Wi-Fi 6 路由器	Temperature	25°C
Test Engineer	Eric Lin	Relative Humidity	56%
Test Site	SR1	Test Date	2020/12/13
Test Mode	CDD Mode		

Test Mode	Data Rate/MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
11a	6Mbps	36	5180	18.71	19.01	18.98	18.95	24.93	≤ 30.00	Pass
11a	6Mbps	44	5220	19.11	19.49	19.31	19.15	25.29	≤ 30.00	Pass
11a	6Mbps	48	5240	23.02	23.46	23.25	23.45	29.32	≤ 30.00	Pass
11a	6Mbps	52	5260	12.68	12.85	13.09	13.02	18.93	≤ 23.98	Pass
11a	6Mbps	60	5300	12.87	13.01	12.98	12.78	18.93	≤ 23.98	Pass
11a	6Mbps	64	5320	12.50	13.02	12.62	12.80	18.76	≤ 23.98	Pass
11a	6Mbps	100	5500	12.75	13.06	13.03	13.20	19.03	≤ 23.98	Pass
11a	6Mbps	116	5580	13.06	13.04	12.71	12.45	18.84	≤ 23.98	Pass
11a	6Mbps	140	5700	12.70	12.86	13.15	12.92	18.93	≤ 23.98	Pass
11a	6Mbps	144	5720	12.98	12.89	13.01	12.63	18.90	≤ 22.71	Pass
11a	6Mbps	149	5745	23.73	24.02	23.61	23.67	29.78	≤ 30.00	Pass
11a	6Mbps	157	5785	23.62	23.91	23.63	23.74	29.75	≤ 30.00	Pass
11a	6Mbps	165	5825	23.23	23.24	23.87	23.84	29.58	≤ 30.00	Pass
11ac-VHT20	MCS0	36	5180	19.34	19.60	19.65	19.36	25.51	≤ 30.00	Pass
11ac-VHT20	MCS0	40	5220	20.15	20.57	20.28	20.00	26.28	≤ 30.00	Pass
11ac-VHT20	MCS0	48	5240	23.18	23.47	23.35	23.26	29.34	≤ 30.00	Pass
11ac-VHT20	MCS0	52	5260	13.02	13.15	13.44	13.16	19.22	≤ 23.98	Pass
11ac-VHT20	MCS0	60	5300	13.21	13.41	13.37	13.14	19.30	≤ 23.98	Pass
11ac-VHT20	MCS0	64	5320	13.03	13.38	13.10	13.19	19.20	≤ 23.98	Pass
11ac-VHT20	MCS0	100	5500	12.80	12.94	13.15	13.25	19.06	≤ 23.98	Pass
11ac-VHT20	MCS0	116	5580	13.25	13.44	12.94	13.02	19.19	≤ 23.98	Pass
11ac-VHT20	MCS0	140	5700	12.69	12.83	13.21	13.02	18.96	≤ 23.98	Pass
11ac-VHT20	MCS0	144	5720	13.48	13.33	12.88	12.95	19.19	≤ 22.91	Pass
11ac-VHT20	MCS0	149	5745	23.62	23.77	23.28	23.14	29.48	≤ 30.00	Pass
11ac-VHT20	MCS0	157	5785	23.52	23.64	23.54	23.55	29.58	≤ 30.00	Pass
11ac-VHT20	MCS0	165	5825	22.88	22.76	23.52	23.42	29.18	≤ 30.00	Pass

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
11ac-VHT40	MCS0	38	5190	18.65	18.88	18.83	18.79	24.81	≤ 30.00	Pass
11ac-VHT40	MCS0	46	5230	23.38	23.66	23.55	23.68	29.59	≤ 30.00	Pass
11ac-VHT40	MCS0	54	5270	15.61	16.02	16.16	16.33	22.06	≤ 23.98	Pass
11ac-VHT40	MCS0	62	5310	15.97	16.21	15.97	16.01	22.06	≤ 23.98	Pass
11ac-VHT40	MCS0	102	5510	16.26	16.20	16.45	16.49	22.37	≤ 23.98	Pass
11ac-VHT40	MCS0	110	5550	16.13	16.43	16.28	16.27	22.30	≤ 23.98	Pass
11ac-VHT40	MCS0	134	5670	15.65	15.54	16.16	16.41	21.98	≤ 23.98	Pass
11ac-VHT40	MCS0	142	5710	15.87	15.80	15.93	16.05	21.93	≤ 23.98	Pass
11ac-VHT40	MCS0	151	5755	24.02	24.07	23.43	23.57	29.80	≤ 30.00	Pass
11ac-VHT40	MCS0	159	5795	23.84	23.92	23.88	23.86	29.90	≤ 30.00	Pass
11ac-VHT80	MCS0	42	5210	17.79	18.16	18.11	18.15	24.08	≤ 30.00	Pass
11ac-VHT80	MCS0	58	5290	17.41	17.47	17.56	17.72	23.56	≤ 23.98	Pass
11ac-VHT80	MCS0	106	5530	17.39	17.49	17.54	17.64	23.54	≤ 23.98	Pass
11ac-VHT80	MCS0	122	5610	17.82	17.92	17.85	17.86	23.88	≤ 23.98	Pass
11ac-VHT80	MCS0	138	5690	17.23	17.20	17.94	18.03	23.64	≤ 23.98	Pass
11ac-VHT80	MCS0	155	5775	20.20	20.38	19.95	20.05	26.17	≤ 30.00	Pass
11ac-VHT160	MCS0	50	5250	14.27	14.56	14.09	14.48	20.37	≤ 23.98	Pass
11ac-VHT160	MCS0	114	5570	12.98	13.35	13.01	12.85	19.07	≤ 23.98	Pass
11ax-HE20	MCS0	36	5180	18.31	18.66	18.36	18.53	24.49	≤ 30.00	Pass
11ax-HE20	MCS0	40	5220	20.15	20.57	20.06	20.11	26.25	≤ 30.00	Pass
11ax-HE20	MCS0	48	5240	23.38	23.82	23.40	23.69	29.60	≤ 30.00	Pass
11ax-HE20	MCS0	52	5260	13.38	13.54	13.45	13.51	19.49	≤ 23.98	Pass
11ax-HE20	MCS0	60	5300	13.31	13.46	13.21	13.36	19.36	≤ 23.98	Pass
11ax-HE20	MCS0	64	5320	13.14	13.51	13.00	13.35	19.27	≤ 23.98	Pass
11ax-HE20	MCS0	100	5500	13.21	13.25	13.17	13.43	19.29	≤ 23.98	Pass
11ax-HE20	MCS0	116	5580	13.49	13.54	13.19	13.12	19.36	≤ 23.98	Pass
11ax-HE20	MCS0	140	5700	13.36	13.44	13.55	13.58	19.50	≤ 23.98	Pass
11ax-HE20	MCS0	144	5720	13.59	13.32	13.16	13.02	19.30	≤ 22.94	Pass
11ax-HE20	MCS0	149	5745	23.78	24.14	23.35	23.54	29.73	≤ 30.00	Pass
11ax-HE20	MCS0	157	5785	23.70	23.94	23.45	23.91	29.78	≤ 30.00	Pass
11ax-HE20	MCS0	165	5825	23.45	23.41	23.93	24.13	29.76	≤ 30.00	Pass

Test Mode	Data Rate/MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
11ax-HE40	MCS0	38	5190	15.42	16.10	16.12	16.20	21.99	≤ 30.00	Pass
11ax-HE40	MCS0	46	5230	23.45	23.50	23.25	23.32	29.40	≤ 30.00	Pass
11ax-HE40	MCS0	54	5270	16.06	16.16	16.38	16.53	22.31	≤ 23.98	Pass
11ax-HE40	MCS0	62	5310	16.21	16.38	16.17	16.26	22.28	≤ 23.98	Pass
11ax-HE40	MCS0	102	5510	15.99	15.91	16.04	16.19	22.05	≤ 23.98	Pass
11ax-HE40	MCS0	110	5550	15.84	16.16	15.85	15.96	21.98	≤ 23.98	Pass
11ax-HE40	MCS0	134	5670	15.71	15.64	16.25	16.54	22.07	≤ 23.98	Pass
11ax-HE40	MCS0	142	5710	16.01	16.03	16.01	16.19	22.08	≤ 23.98	Pass
11ax-HE40	MCS0	151	5755	24.06	24.18	23.46	23.62	29.86	≤ 30.00	Pass
11ax-HE40	MCS0	159	5795	23.87	24.02	23.79	23.99	29.94	≤ 30.00	Pass
11ax-HE80	MCS0	42	5210	16.17	16.88	16.60	16.82	22.65	≤ 30.00	Pass
11ax-HE80	MCS0	58	5290	17.58	17.79	17.72	17.91	23.77	≤ 23.98	Pass
11ax-HE80	MCS0	106	5530	17.61	17.78	17.71	17.87	23.76	≤ 23.98	Pass
11ax-HE80	MCS0	122	5610	17.65	17.80	17.61	17.71	23.71	≤ 23.98	Pass
11ax-HE80	MCS0	138	5690	17.52	17.55	18.02	18.30	23.88	≤ 23.98	Pass
11ax-HE80	MCS0	155	5775	20.52	20.63	20.21	20.42	26.47	≤ 30.00	Pass
11ax-HE160	MCS0	50	5250	13.03	13.13	12.78	13.16	19.05	≤ 23.98	Pass
11ax-HE160	MCS0	114	5570	13.13	13.61	12.99	13.05	19.22	≤ 23.98	Pass

Note 1:

The 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:

For 5250- 5350MHz and 5470 - 5725MHz Band: Average Power Limit (dBm) = 23.98 dBm.

For 5150 - 5250MHz and 5725 - 5850MHz Bands: Average Power Limit (dBm) = 30 dBm.

For Channel 144 (5720MHz), Average Power Limit (dBm) = $11 + 10 \cdot \log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2)$

Product	AX5400 Wi-Fi 6 路由器	Temperature	25°C
Test Engineer	Eric Lin	Relative Humidity	56%
Test Site	SR1	Test Date	2020/12/13
Test Mode	Beamforming Mode		

Test Mode	Data Rate/MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
11ac-VHT20	MCS0	36	5180	19.34	19.60	19.65	19.36	25.51	≤ 27.48	Pass
11ac-VHT20	MCS0	40	5220	20.15	20.57	20.28	20.00	26.28	≤ 27.48	Pass
11ac-VHT20	MCS0	48	5240	20.64	20.58	21.37	21.08	26.95	≤ 27.48	Pass
11ac-VHT20	MCS0	52	5260	13.02	13.15	13.44	13.16	19.22	≤ 21.46	Pass
11ac-VHT20	MCS0	60	5300	13.21	13.41	13.37	13.14	19.30	≤ 21.46	Pass
11ac-VHT20	MCS0	64	5320	13.03	13.38	13.10	13.19	19.20	≤ 21.46	Pass
11ac-VHT20	MCS0	100	5500	12.80	12.94	13.15	13.25	19.06	≤ 21.46	Pass
11ac-VHT20	MCS0	116	5580	13.25	13.44	12.94	13.02	19.19	≤ 21.46	Pass
11ac-VHT20	MCS0	140	5700	12.69	12.83	13.21	13.02	18.96	≤ 21.46	Pass
11ac-VHT20	MCS0	144	5720	13.48	13.33	12.88	12.95	19.19	≤ 20.89	Pass
11ac-VHT20	MCS0	149	5745	21.18	20.46	20.09	21.25	26.79	≤ 27.48	Pass
11ac-VHT20	MCS0	157	5785	20.45	20.85	21.52	21.36	27.09	≤ 27.48	Pass
11ac-VHT20	MCS0	165	5825	20.63	20.67	21.35	21.38	27.04	≤ 27.48	Pass
11ac-VHT40	MCS0	38	5190	18.65	18.88	18.83	18.79	24.81	≤ 27.48	Pass
11ac-VHT40	MCS0	46	5230	21.15	21.67	21.13	21.06	27.28	≤ 27.48	Pass
11ac-VHT40	MCS0	54	5270	14.53	14.67	15.23	15.29	20.96	≤ 21.46	Pass
11ac-VHT40	MCS0	62	5310	14.79	15.25	15.02	15.04	21.05	≤ 21.46	Pass
11ac-VHT40	MCS0	102	5510	14.57	15.14	15.06	15.15	21.01	≤ 21.46	Pass
11ac-VHT40	MCS0	110	5550	15.02	15.44	15.13	15.17	21.21	≤ 21.46	Pass
11ac-VHT40	MCS0	134	5670	14.64	14.61	15.25	15.36	21.00	≤ 21.46	Pass
11ac-VHT40	MCS0	142	5710	14.52	14.82	15.07	15.05	20.89	≤ 21.46	Pass
11ac-VHT40	MCS0	151	5755	21.18	21.50	20.79	20.81	27.10	≤ 27.48	Pass
11ac-VHT40	MCS0	159	5795	20.83	21.40	21.16	21.15	27.16	≤ 27.48	Pass

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
11ac-VHT80	MCS0	42	5210	17.79	18.16	18.11	18.15	24.08	≤ 27.48	Pass
11ac-VHT80	MCS0	58	5290	14.64	15.39	15.45	15.46	21.27	≤ 21.46	Pass
11ac-VHT80	MCS0	106	5530	14.77	15.22	15.34	15.60	21.26	≤ 21.46	Pass
11ac-VHT80	MCS0	122	5610	14.83	15.36	15.32	15.23	21.21	≤ 21.46	Pass
11ac-VHT80	MCS0	138	5690	14.15	14.59	15.27	15.33	20.88	≤ 21.46	Pass
11ac-VHT80	MCS0	155	5775	20.20	20.38	19.95	20.05	26.17	≤ 27.48	Pass
11ac-VHT160	MCS0	50	5250	14.27	14.56	14.09	14.48	20.37	≤ 21.46	Pass
11ac-VHT160	MCS0	114	5570	12.98	13.35	13.01	12.85	19.07	≤ 21.46	Pass
11ax-HE20	MCS0	36	5180	18.31	18.66	18.36	18.53	24.49	≤ 27.48	Pass
11ax-HE20	MCS0	40	5220	20.15	20.57	20.06	20.11	26.25	≤ 27.48	Pass
11ax-HE20	MCS0	48	5240	20.61	20.84	21.29	21.43	27.08	≤ 27.48	Pass
11ax-HE20	MCS0	52	5260	13.38	13.54	13.45	13.51	19.49	≤ 21.46	Pass
11ax-HE20	MCS0	60	5300	13.31	13.46	13.21	13.36	19.36	≤ 21.46	Pass
11ax-HE20	MCS0	64	5320	13.14	13.51	13.00	13.35	19.27	≤ 21.46	Pass
11ax-HE20	MCS0	100	5500	13.21	13.25	13.17	13.43	19.29	≤ 21.46	Pass
11ax-HE20	MCS0	116	5580	13.49	13.54	13.19	13.12	19.36	≤ 21.46	Pass
11ax-HE20	MCS0	140	5700	13.36	13.44	13.55	13.58	19.50	≤ 21.46	Pass
11ax-HE20	MCS0	144	5720	13.59	13.32	13.16	13.02	19.30	≤ 20.92	Pass
11ax-HE20	MCS0	149	5745	21.42	21.68	20.43	21.03	27.19	≤ 27.48	Pass
11ax-HE20	MCS0	157	5785	21.35	21.56	20.91	21.43	27.34	≤ 27.48	Pass
11ax-HE20	MCS0	165	5825	20.63	20.78	21.03	21.62	27.05	≤ 27.48	Pass

Test Mode	Data Rate/MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Ant 2 Average Power (dBm)	Ant 3 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
11ax-HE40	MCS0	38	5190	15.42	16.10	16.12	16.20	21.99	≤ 27.48	Pass
11ax-HE40	MCS0	46	5230	20.58	20.83	21.32	21.17	27.01	≤ 27.48	Pass
11ax-HE40	MCS0	54	5270	14.74	14.83	14.89	15.24	20.95	≤ 21.46	Pass
11ax-HE40	MCS0	62	5310	15.35	15.78	15.13	15.19	21.39	≤ 21.46	Pass
11ax-HE40	MCS0	102	5510	15.02	14.91	15.08	15.28	21.10	≤ 21.46	Pass
11ax-HE40	MCS0	110	5550	15.04	15.36	14.89	15.23	21.15	≤ 21.46	Pass
11ax-HE40	MCS0	134	5670	15.17	14.88	15.37	15.92	21.37	≤ 21.46	Pass
11ax-HE40	MCS0	142	5710	15.22	15.41	15.19	15.40	21.33	≤ 21.46	Pass
11ax-HE40	MCS0	151	5755	21.26	21.50	20.45	20.81	27.04	≤ 27.48	Pass
11ax-HE40	MCS0	159	5795	20.92	21.22	20.74	21.08	27.01	≤ 27.48	Pass
11ax-HE80	MCS0	42	5210	16.17	16.88	16.60	16.82	22.65	≤ 27.50	Pass
11ax-HE80	MCS0	58	5290	14.76	15.11	14.97	15.38	21.08	≤ 21.46	Pass
11ax-HE80	MCS0	106	5530	15.06	15.13	14.81	15.19	21.07	≤ 21.46	Pass
11ax-HE80	MCS0	122	5610	15.32	15.56	14.98	15.27	21.31	≤ 21.46	Pass
11ax-HE80	MCS0	138	5690	14.72	14.78	15.21	15.35	21.04	≤ 21.46	Pass
11ax-HE80	MCS0	155	5775	20.52	20.63	20.21	20.42	26.47	≤ 27.48	Pass
11ax-HE160	MCS0	50	5250	13.03	13.13	12.78	13.16	19.05	≤ 21.46	Pass
11ax-HE160	MCS0	114	5570	13.13	13.61	12.99	13.05	19.22	≤ 21.46	Pass

Note 1:

The 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:

For 5125 - 5250MHz Band: Average Power Limit (dBm) = 30 - (8.52- 6) = 27.48dBm

For 5250 - 5350MHz and 5470 - 5725MHz Band: Average Power Limit (dBm) = 23.98 - (8.52- 6) = 21.46dBm.

For 5725 - 5850MHz Band: Average Power Limit (dBm) = 30- (8.52- 6) = 27.48dBm.

For Channel 144 (5720MHz), Average Power Limit (dBm) = $11 + 10 \cdot \log(5\text{MHz} + \text{BW}_{26\text{dBc}}/2) - (8.52- 6)$

5.3. 天線之要求

5.3.1. 適用標準

低功率射頻器材之發射機或收發信機所使用之天線，應為全固定、半固定式或以獨特之耦合(unique coupling)方式連接機體。製造者可設計供使用者因損壞而替換之天線，但不得設計或使用原認證以外之天線或可供引接各類電纜之標準天線插座或電氣連接頭，如：BNC、F type、N type、M type、UG type、RCA、SMA、SMB...等及其他各類工業或通訊標準接頭。

5.3.2. 天線樣式

此AX5400 Wi-Fi 6 路由器其天線為固定式Dipole Antenna (Brand: TP-LINK,M/N: Archer AX73(US)1.0)，使用i-PEX特殊接頭，(檢附天線規格書)

Antenna Type	Frequency Band (MHz)	T _x Paths	Max Antenna Gain (dBi)	Beamforming Directional Gain (dBi)	CDD Directional Gain (dBi)	
					For Power	For PSD
Dipole Antenna	2412 ~ 2462	2	2.00	5.01	2.00	5.01
	5150 ~ 5350	4	2.50	8.52	2.50	8.52
	5470 ~ 5850	4	2.50	8.52	2.50	8.52

Note:

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

If all antennas have the same gain, G_{ANT} , Directional gain = G_{ANT} + Array Gain, where Array Gain is as follows.

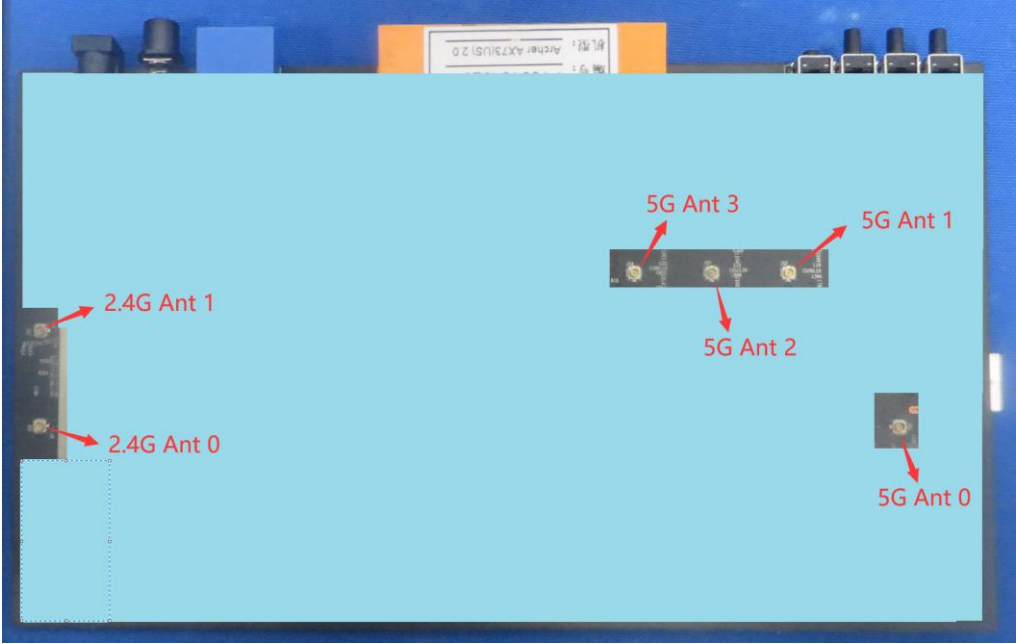
- For power spectral density (PSD) measurements on all devices,

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

- 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 802.11ac/ax, not include 802.11a/b/g/n. BF Directional gain = $G_{ANT} + 10 \log (N_{ANT})$.

Antenna RF Port						
Software Control Port	2.4GHz RF Port		5GHz RF Port			
	Ant 0	Ant 1	Ant 0	Ant 1	Ant 2	Ant 3
						

5.4. 26dB 佔用頻寬

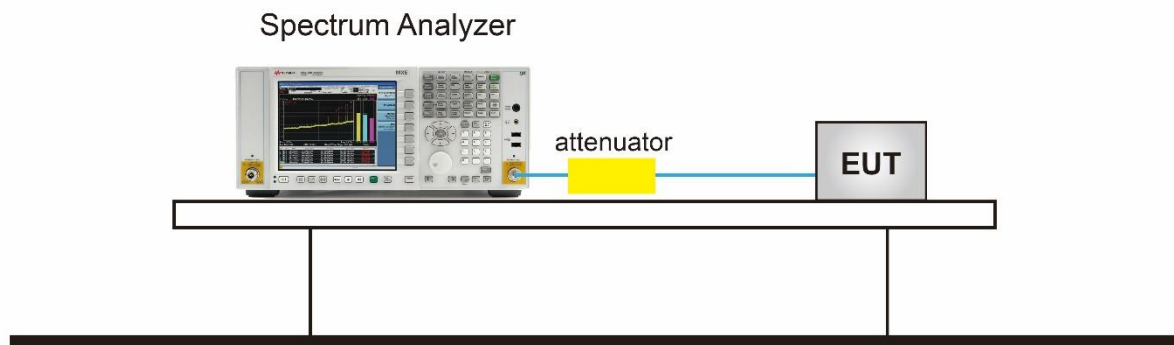
5.4.1.適用標準

N/A

5.4.2.量測方法

待測物之天線埠經由適當之衰減直接連至頻譜分析儀RF輸入端，峰值發射功率必須使用依據均方根等效電壓校準之儀器量測於任何連續傳輸之時段，量測結果須依儀器限制(如偵測器反應時間、相較於發射頻寬有限之解析頻寬能力，靈敏度等)調整得出正確之峰值量測或使用峰值功率表。

5.4.3.測試架構圖



5.4.4.26dB 佔用頻寬測試結果

待測物名稱	AX5400 Wi-Fi 6 路由器	溫度	25°C
測試工程師	Eric Lin	濕度	56%
測試場地	SR2	測試日期	2020/12/17

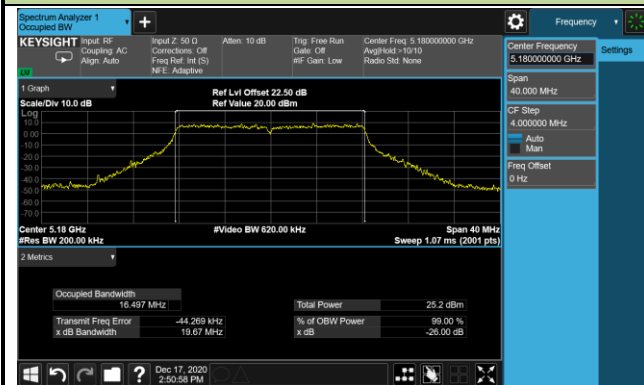
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Ant 3/ Ant 0 + 1 + 2 + 3					
802.11a	6Mbps	36	5180	19.67	16.50
802.11a	6Mbps	44	5220	19.90	16.52
802.11a	6Mbps	48	5240	19.67	16.53
802.11a	6Mbps	52	5260	19.66	16.53
802.11a	6Mbps	60	5300	19.71	16.54
802.11a	6Mbps	64	5320	19.73	16.51
802.11a	6Mbps	100	5500	19.62	16.51
802.11a	6Mbps	116	5580	19.67	16.53
802.11a	6Mbps	140	5700	19.45	16.53
802.11a	6Mbps	144	5720	19.65	16.53
802.11a	6Mbps	149	5745	20.80	16.59
802.11a	6Mbps	157	5785	20.70	16.57
802.11a	6Mbps	165	5825	20.44	16.57
802.11ac-VHT20	MCS0	36	5180	20.95	17.76
802.11ac-VHT20	MCS0	44	5220	21.19	17.75
802.11ac-VHT20	MCS0	48	5240	20.89	17.76
802.11ac-VHT20	MCS0	52	5260	21.09	17.76
802.11ac-VHT20	MCS0	60	5300	21.11	17.79
802.11ac-VHT20	MCS0	64	5320	20.93	17.80
802.11ac-VHT20	MCS0	100	5500	20.96	17.77
802.11ac-VHT20	MCS0	116	5580	21.07	17.78
802.11ac-VHT20	MCS0	140	5700	21.31	17.74
802.11ac-VHT20	MCS0	144	5720	21.08	17.77
802.11ac-VHT20	MCS0	149	5745	21.56	17.80
802.11ac-VHT20	MCS0	157	5785	21.22	17.80
802.11ac-VHT20	MCS0	165	5825	20.79	17.78

Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Ant3/ Ant 0 + 1 + 2 + 3					
802.11ac-VHT40	MCS0	38	5190	39.15	35.91
802.11ac-VHT40	MCS0	46	5230	39.18	35.94
802.11ac-VHT40	MCS0	54	5270	39.26	35.90
802.11ac-VHT40	MCS0	62	5310	39.06	35.92
802.11ac-VHT40	MCS0	102	5510	39.01	35.99
802.11ac-VHT40	MCS0	110	5550	39.07	36.02
802.11ac-VHT40	MCS0	134	5670	39.35	35.95
802.11ac-VHT40	MCS0	142	5710	39.05	35.94
802.11ac-VHT40	MCS0	151	5755	39.59	35.98
802.11ac-VHT40	MCS0	159	5795	39.42	35.96
802.11ac-VHT80	MCS0	42	5210	80.37	75.33
802.11ac-VHT80	MCS0	58	5290	81.05	75.24
802.11ac-VHT80	MCS0	106	5530	81.32	75.39
802.11ac-VHT80	MCS0	122	5610	81.05	75.37
802.11ac-VHT80	MCS0	138	5690	81.00	75.33
802.11ac-VHT80	MCS0	155	5775	81.16	75.33
802.11ac-VHT160	MCS0	50	5250	163.0	153.30
802.11ac-VHT160	MCS0	114	5570	164.5	153.18
802.11ax-HE20	MCS0	36	5180	21.50	19.10
802.11ax-HE20	MCS0	44	5220	21.11	19.10
802.11ax-HE20	MCS0	48	5240	21.46	19.07
802.11ax-HE20	MCS0	52	5260	21.66	19.09
802.11ax-HE20	MCS0	60	5300	21.30	19.06
802.11ax-HE20	MCS0	64	5320	21.32	19.07
802.11ax-HE20	MCS0	100	5500	21.55	19.14
802.11ax-HE20	MCS0	116	5580	21.52	19.09
802.11ax-HE20	MCS0	140	5700	21.44	19.11
802.11ax-HE20	MCS0	144	5720	21.26	19.08
802.11ax-HE20	MCS0	149	5745	21.24	19.09
802.11ax-HE20	MCS0	157	5785	21.38	19.07
802.11ax-HE20	MCS0	165	5825	21.45	19.14

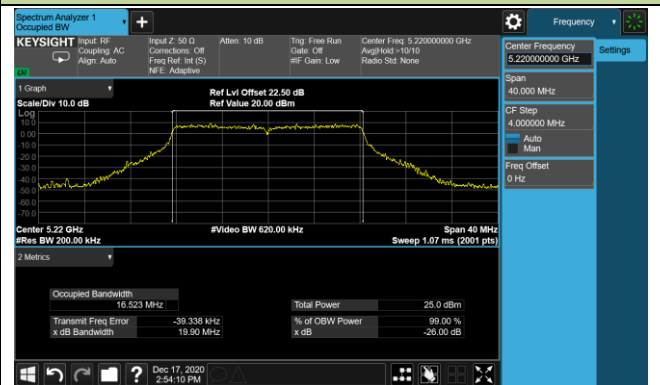
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Ant3/ Ant 0 + 1 + 2 + 3					
802.11ax-HE40	MCS0	38	5190	40.15	37.55
802.11ax-HE40	MCS0	46	5230	40.01	37.64
802.11ax-HE40	MCS0	54	5270	40.24	37.64
802.11ax-HE40	MCS0	62	5310	40.12	37.65
802.11ax-HE40	MCS0	102	5510	40.12	37.64
802.11ax-HE40	MCS0	110	5550	40.14	37.71
802.11ax-HE40	MCS0	134	5670	40.07	37.64
802.11ax-HE40	MCS0	142	5710	40.19	37.59
802.11ax-HE40	MCS0	151	5755	40.64	37.73
802.11ax-HE40	MCS0	159	5795	40.33	37.66
802.11ax-HE80	MCS0	42	5210	81.74	77.02
802.11ax-HE80	MCS0	58	5290	81.21	77.08
802.11ax-HE80	MCS0	106	5530	81.93	77.29
802.11ax-HE80	MCS0	122	5610	81.69	77.12
802.11ax-HE80	MCS0	138	5690	81.56	77.16
802.11ax-HE80	MCS0	155	5775	81.37	77.04
802.11ax-HE160	MCS0	50	5250	163.80	154.49
802.11ax-HE160	MCS0	114	5570	163.20	154.47

802.11a 26dB Bandwidth & 99% Bandwidth

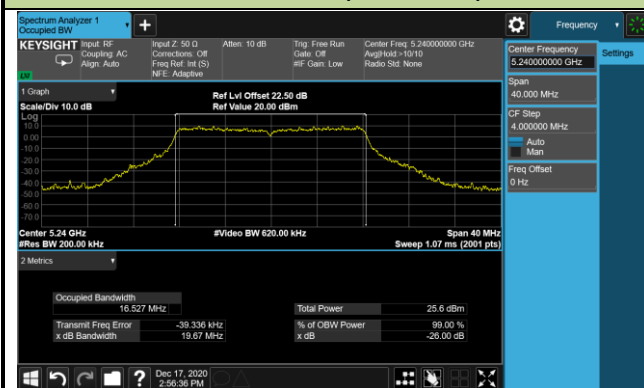
Channel 36 (5180MHz)



Channel 44 (5220MHz)



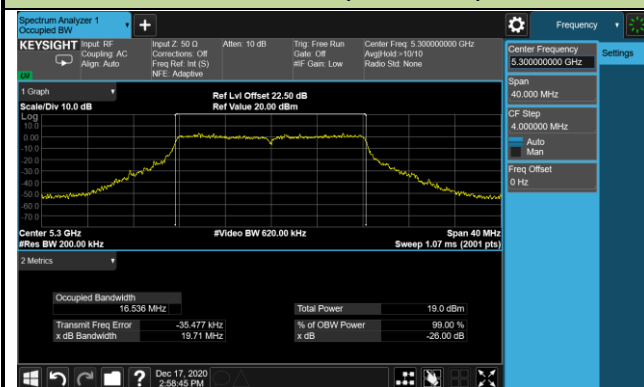
Channel 48 (5240MHz)



Channel 52 (5260MHz)



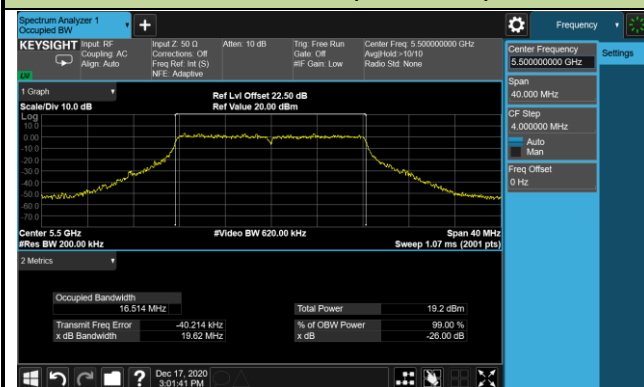
Channel 60 (5300MHz)



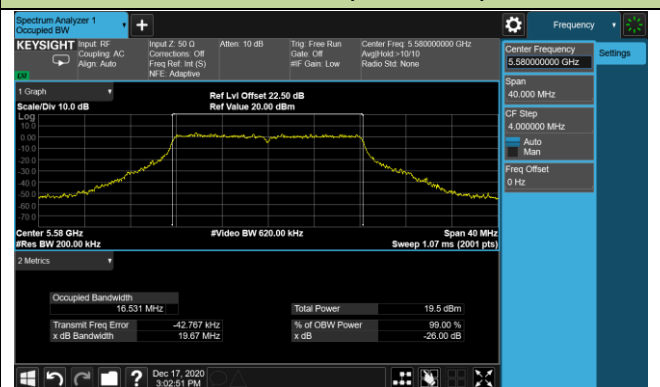
Channel 64 (5320MHz)

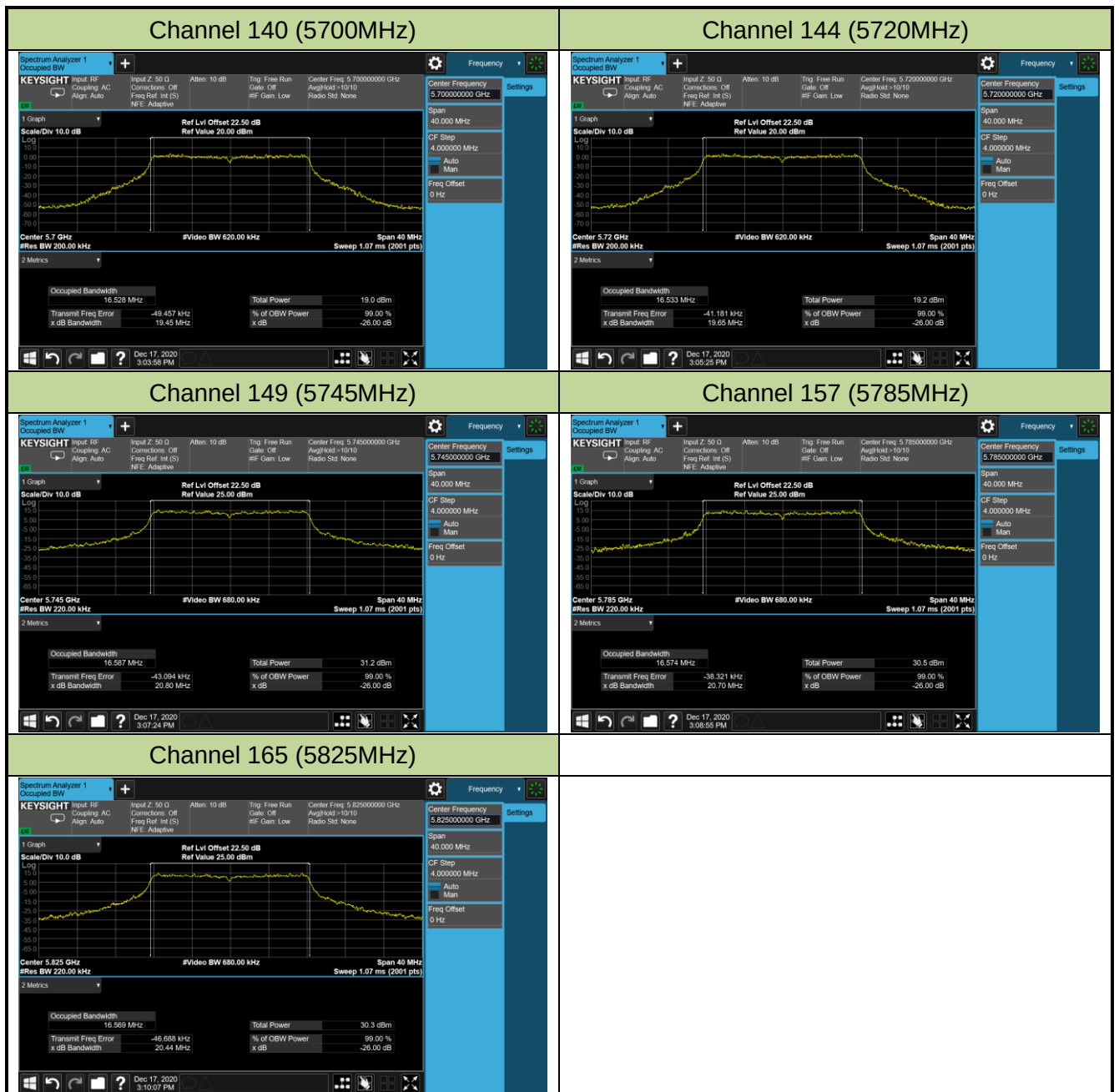


Channel 100 (5500MHz)



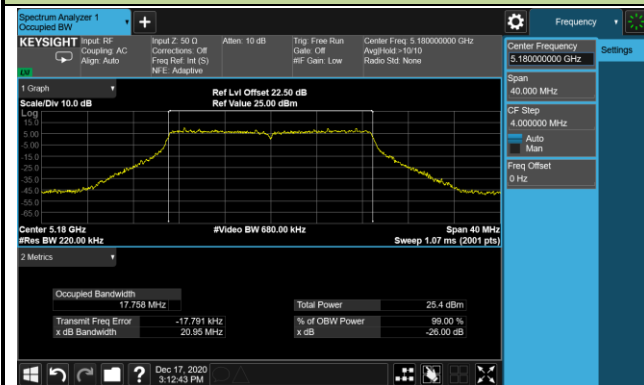
Channel 116 (5580MHz)



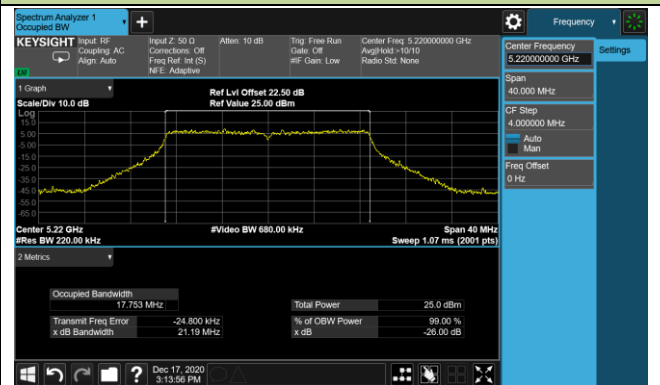


802.11ac-VHT20 26dB Bandwidth & 99% Bandwidth

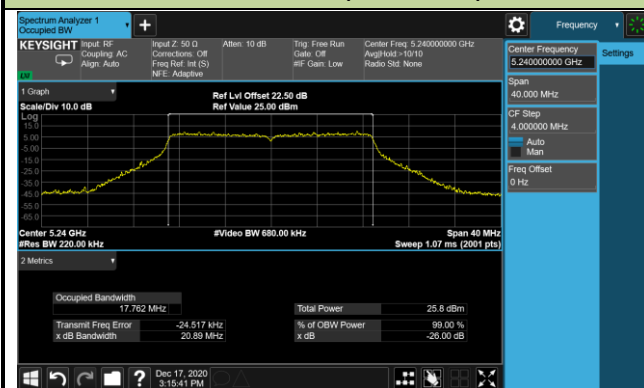
Channel 36 (5180MHz)



Channel 44 (5220MHz)



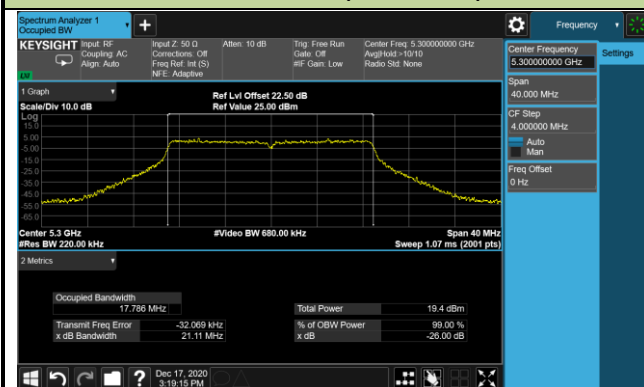
Channel 48 (5240MHz)



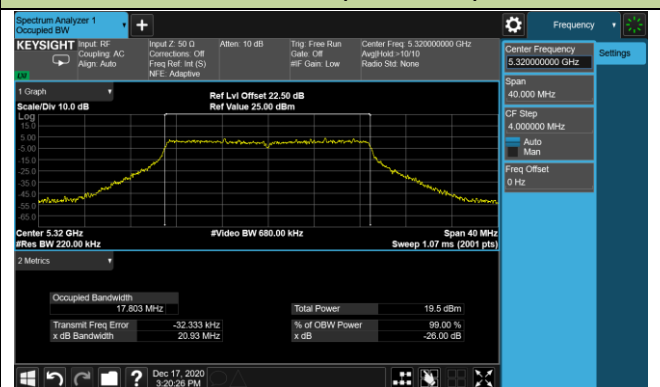
Channel 52 (5260MHz)



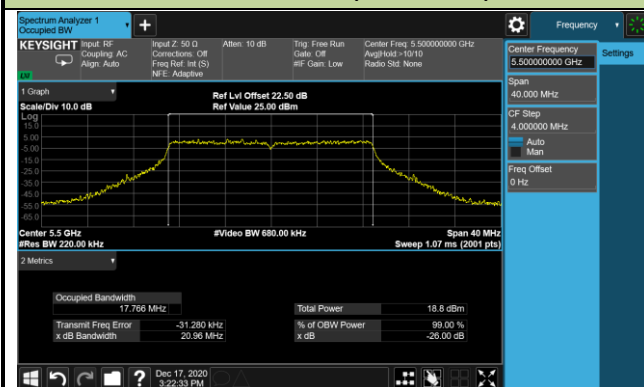
Channel 60 (5300MHz)



Channel 64 (5320MHz)

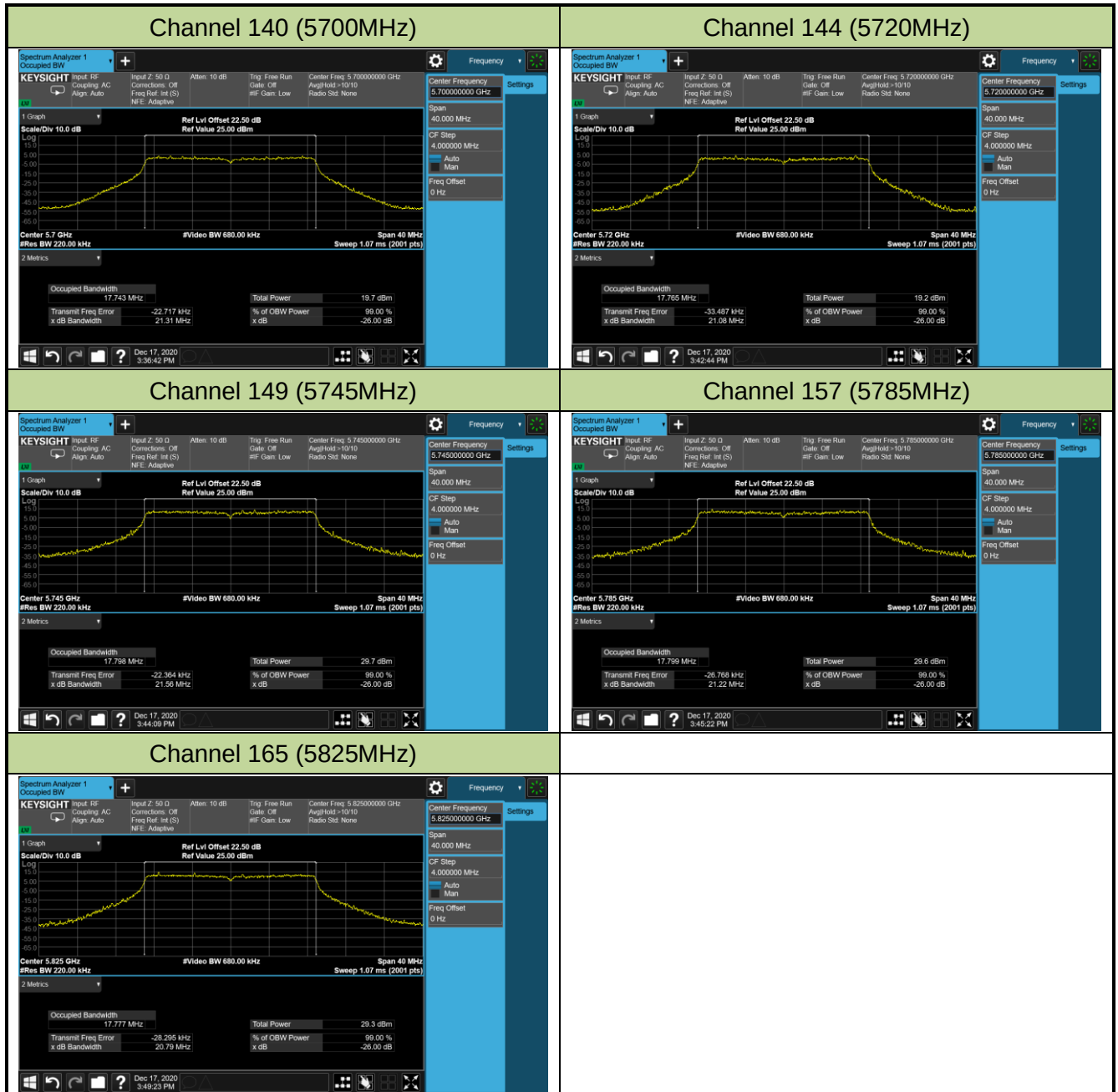


Channel 100 (5500MHz)



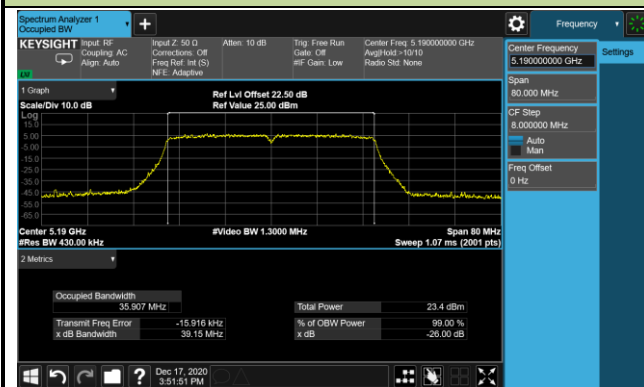
Channel 116 (5580MHz)



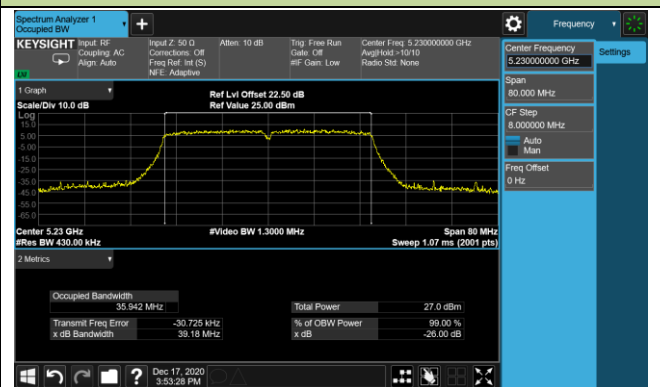


802.11ac-VHT40 26dB Bandwidth & 99% Bandwidth

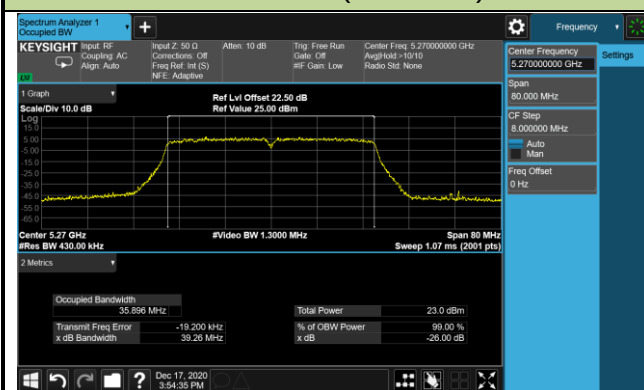
Channel 38 (5190MHz)



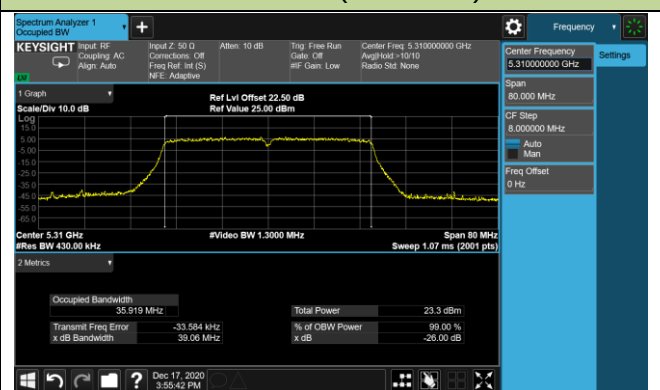
Channel 46 (5230MHz)



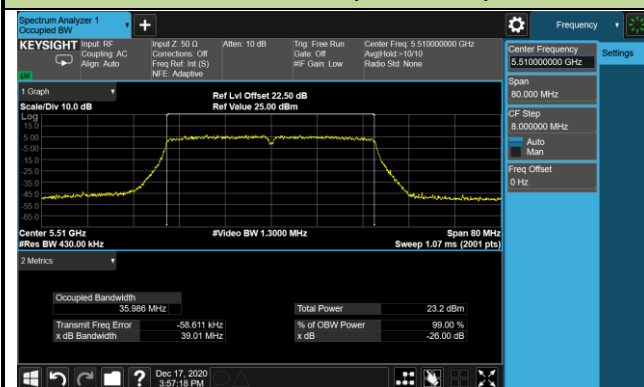
Channel 54 (5270MHz)



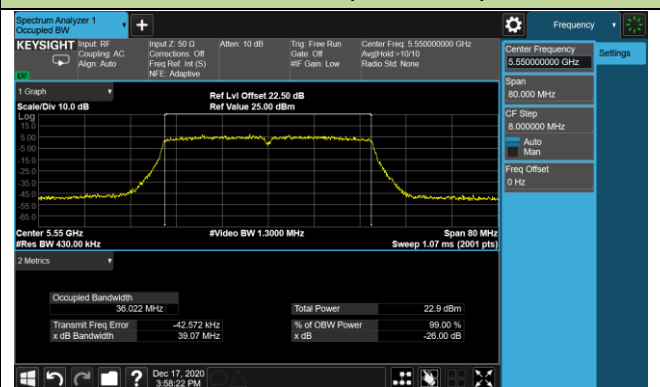
Channel 62 (5310MHz)



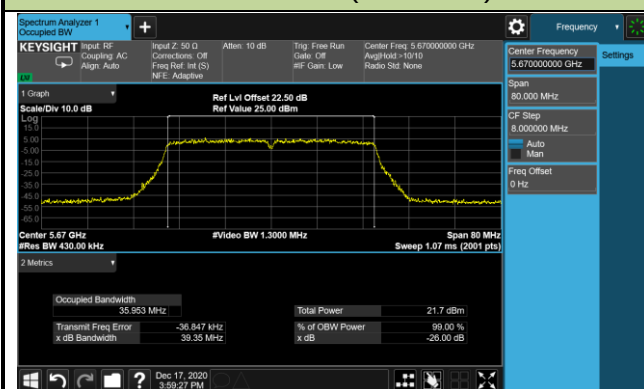
Channel 102 (5510MHz)



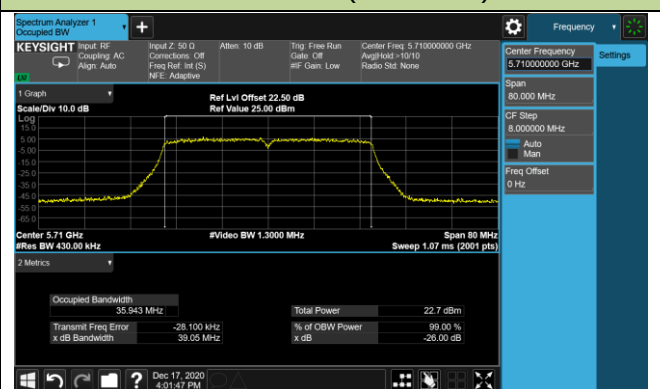
Channel 110 (5550MHz)

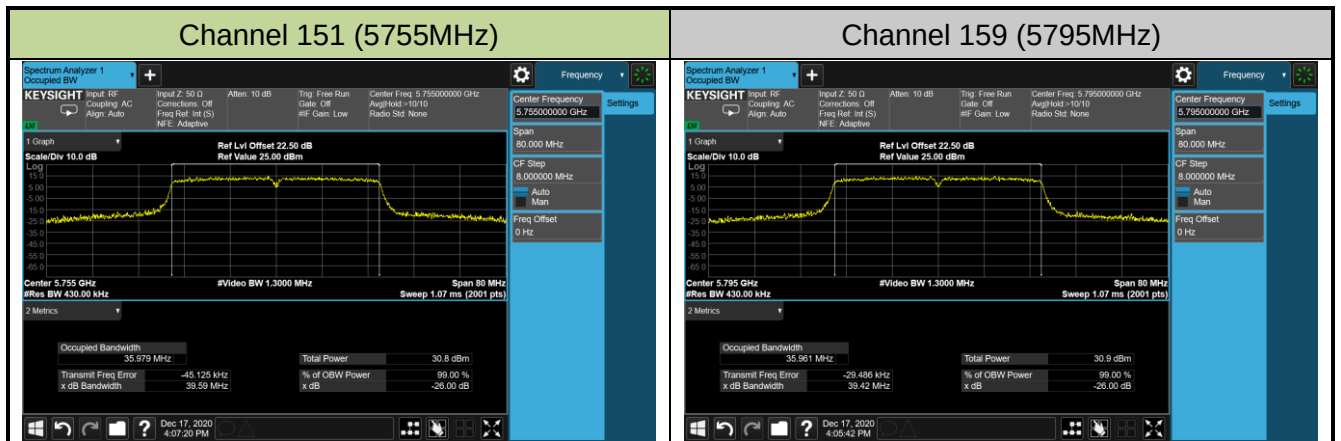


Channel 134 (5670MHz)



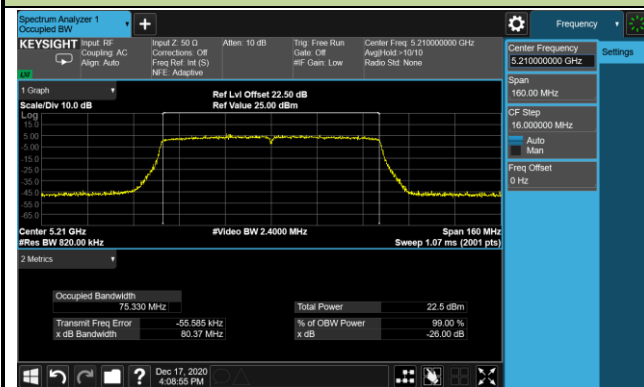
Channel 142 (5710MHz)



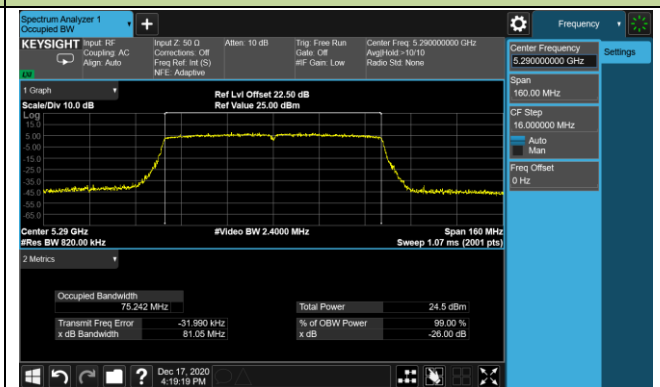


802.11ac-VHT80 26dB Bandwidth & 99% Bandwidth

Channel 42 (5210MHz)



Channel 58 (5290MHz)



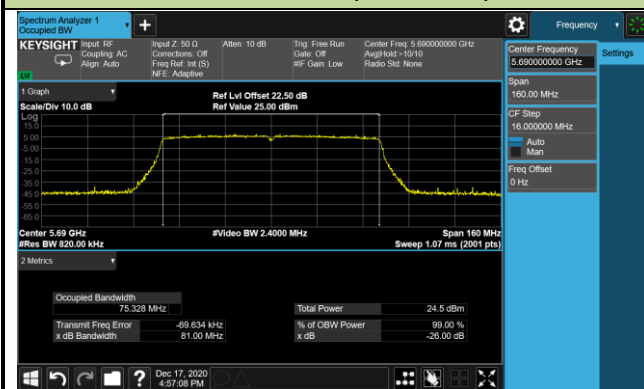
Channel 106 (5530MHz)



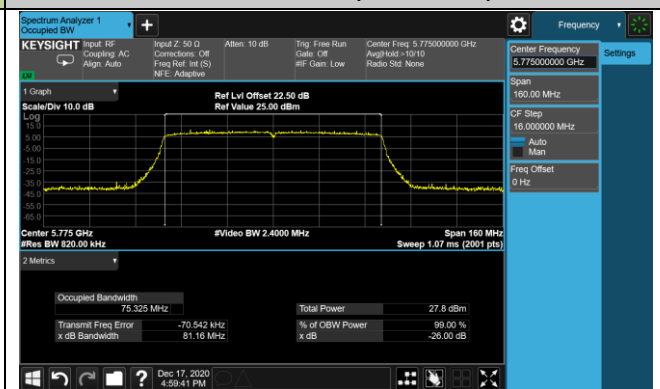
Channel 122 (5610MHz)



Channel 138 (5690MHz)

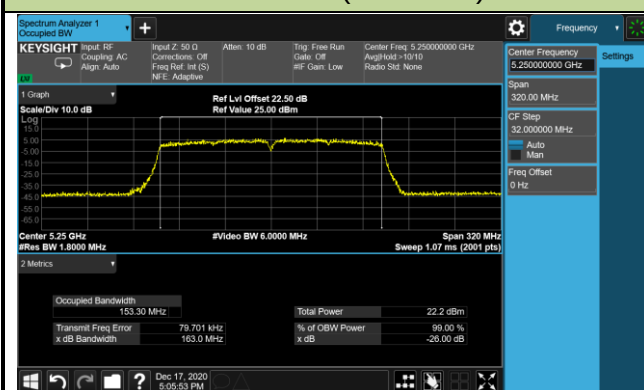


Channel 155 (5775MHz)

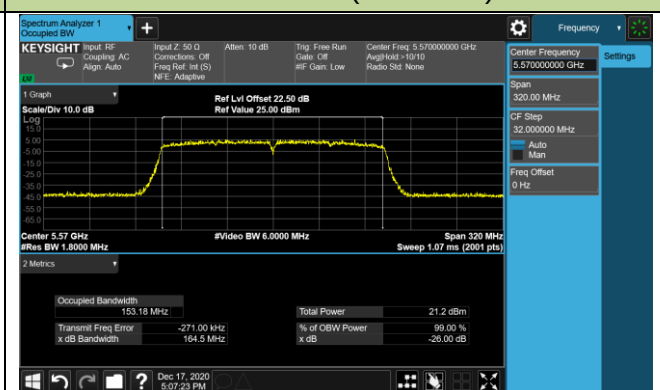


802.11ac-VHT160 26dB Bandwidth & 99% Bandwidth

Channel 50 (5250MHz)

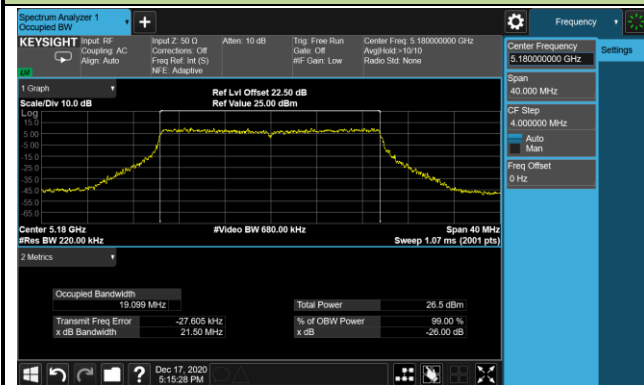


Channel 114 (5570MHz)

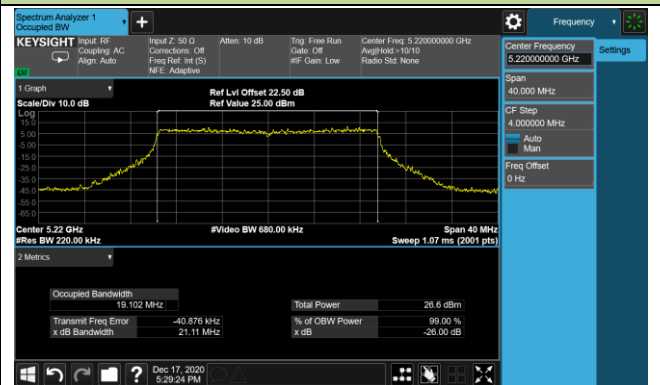


802.11ax-HE20 26dB Bandwidth & 99% Bandwidth

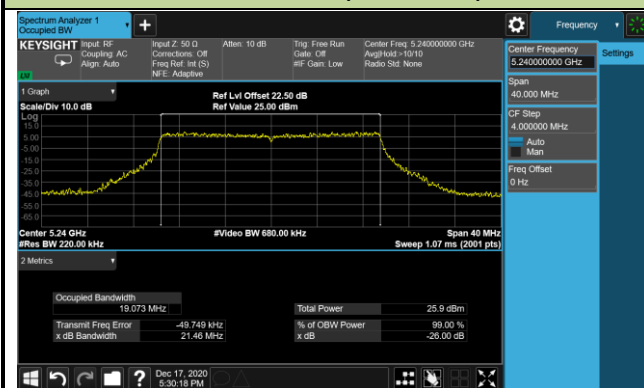
Channel 36 (5180MHz)



Channel 44 (5220MHz)



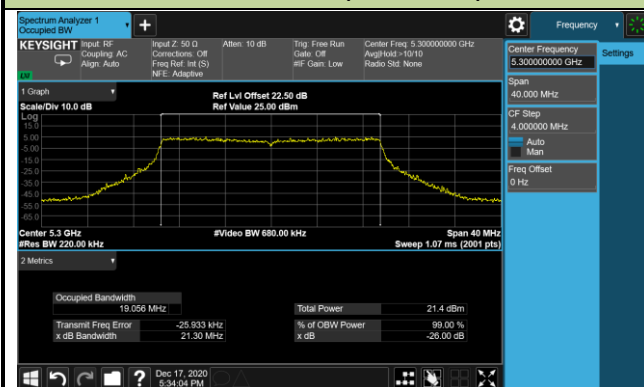
Channel 48 (5240MHz)



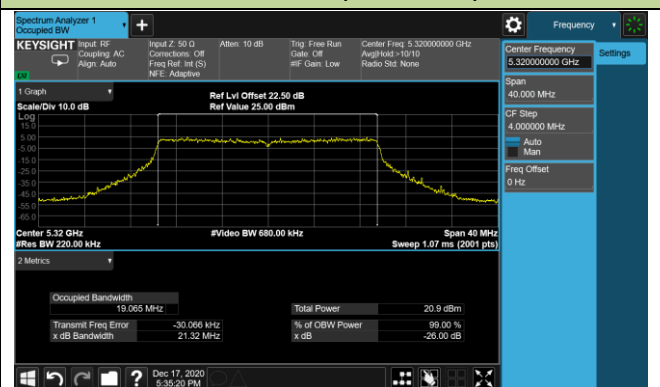
Channel 52 (5260MHz)



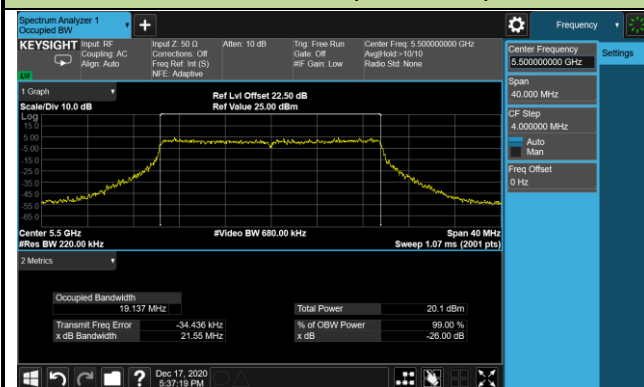
Channel 60 (5300MHz)



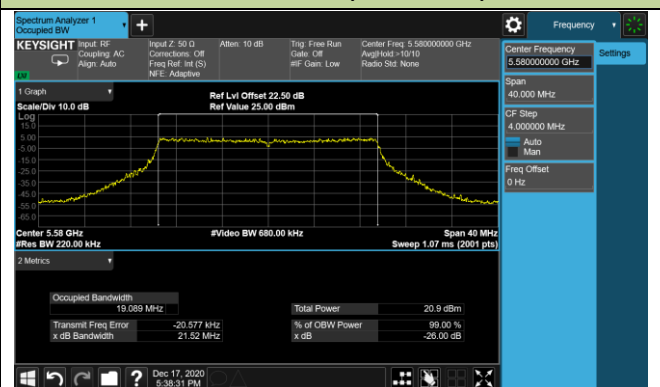
Channel 64 (5320MHz)

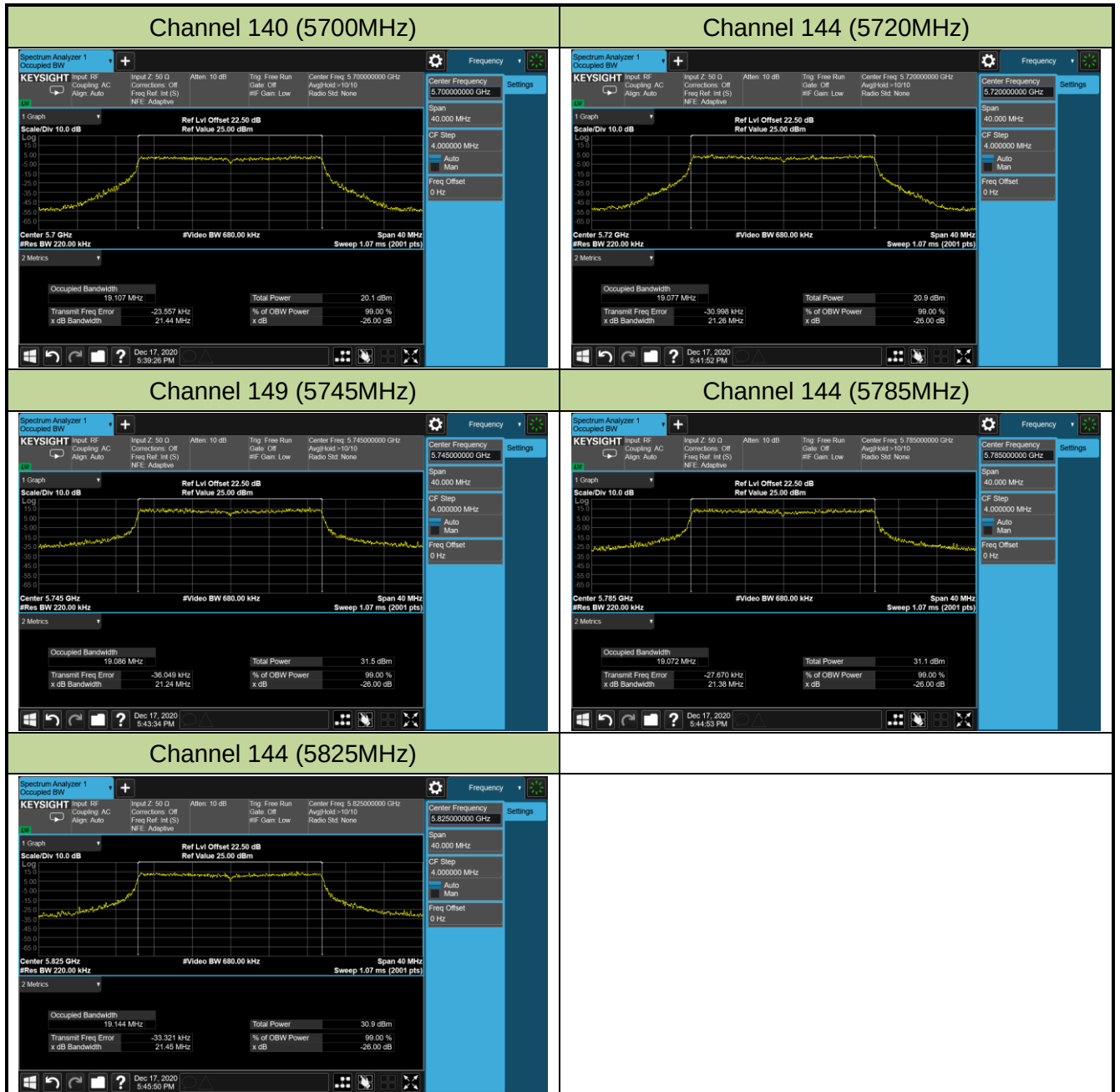


Channel 100 (5500MHz)



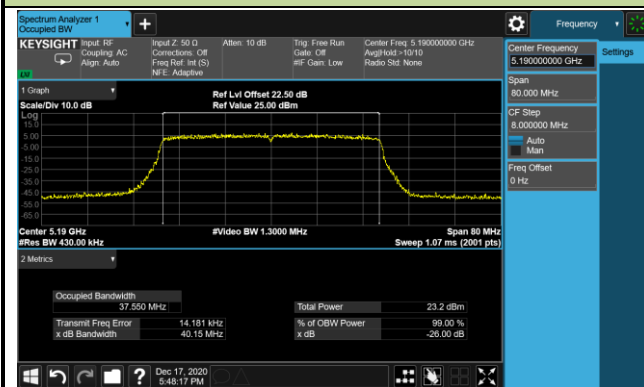
Channel 116 (5580MHz)



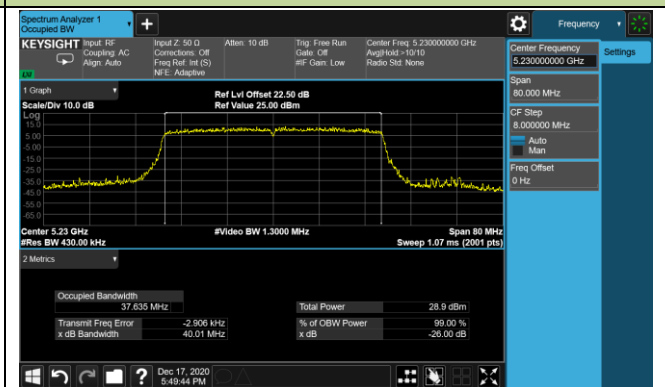


802.11ax-HE40 26dB Bandwidth & 99% Bandwidth

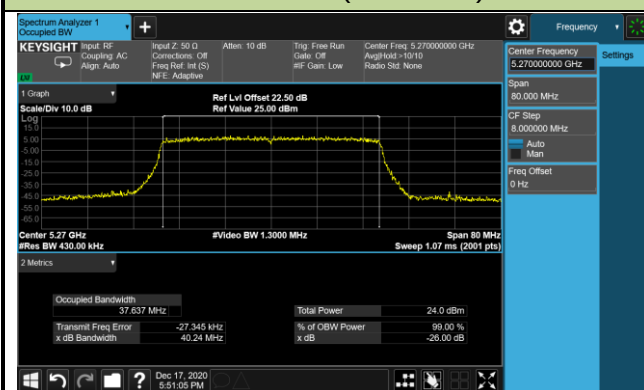
Channel 38 (5190MHz)



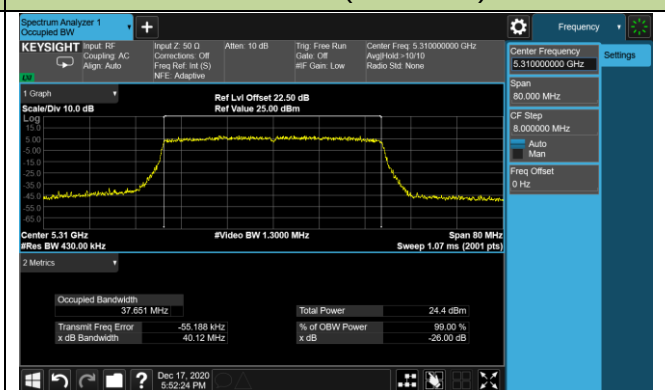
Channel 46 (5230MHz)



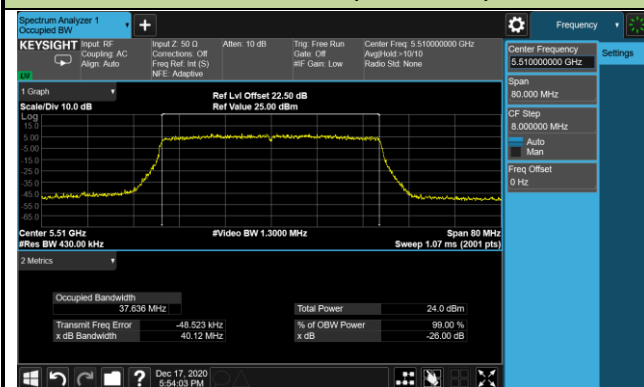
Channel 54 (5270MHz)



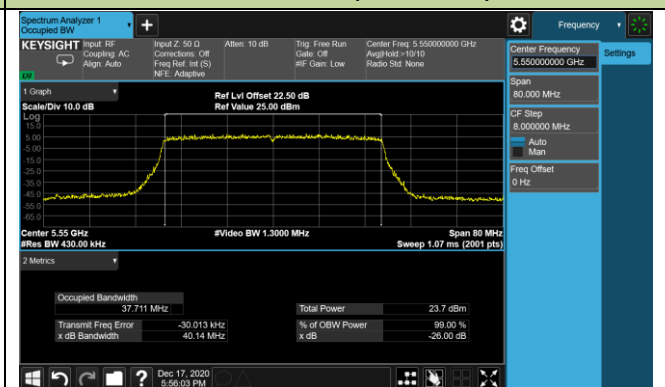
Channel 62 (5310MHz)



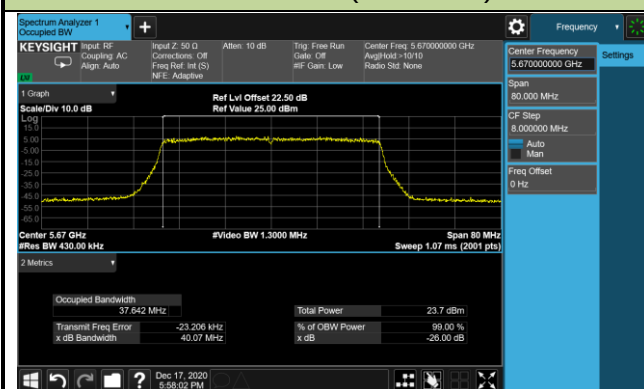
Channel 102 (5510MHz)



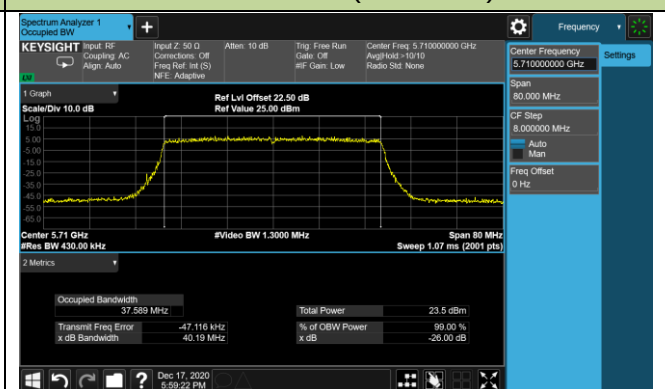
Channel 110 (5550MHz)

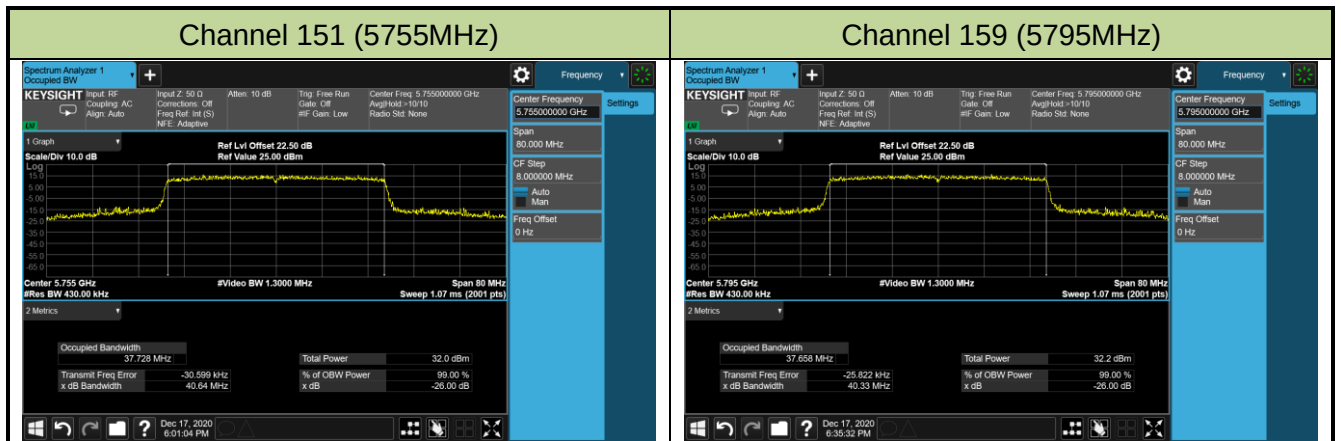


Channel 134 (5670MHz)



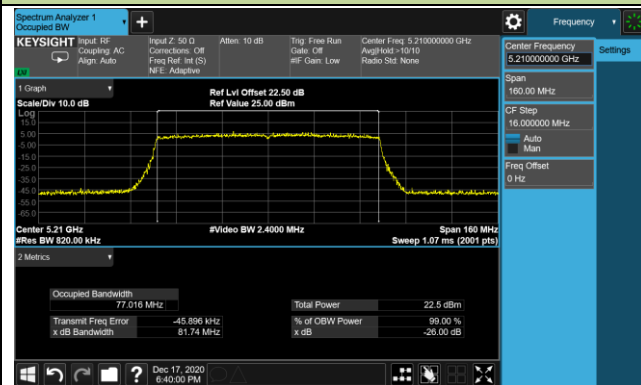
Channel 142 (5710MHz)



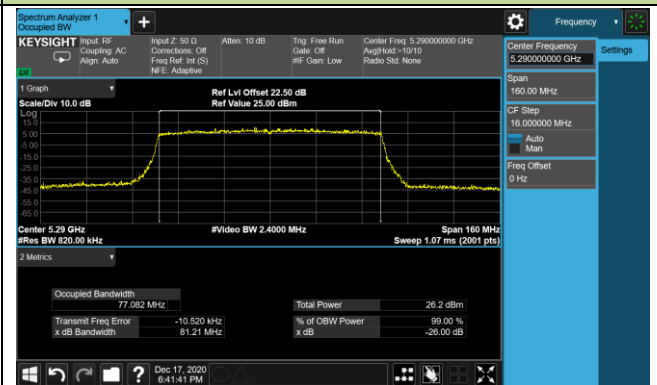


8802.11ax-HE80 26dB Bandwidth & 99% Bandwidth

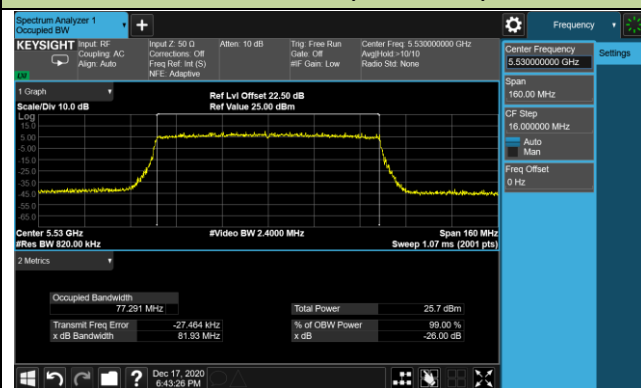
Channel 42 (5210MHz)



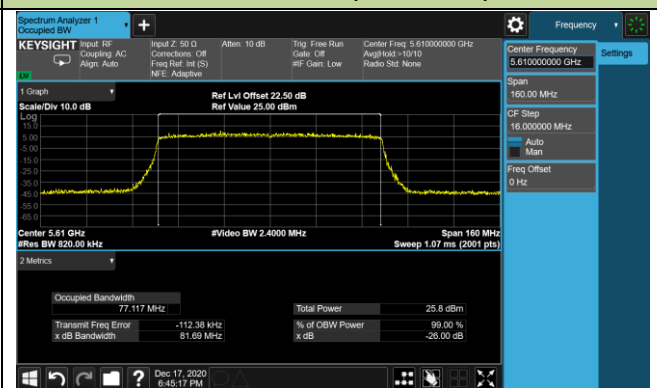
Channel 58 (5290MHz)



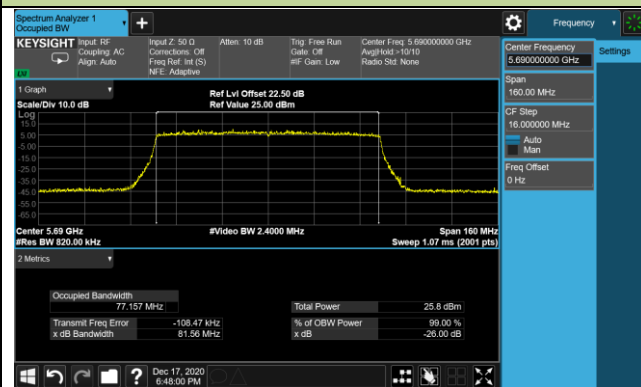
Channel 106 (5530MHz)



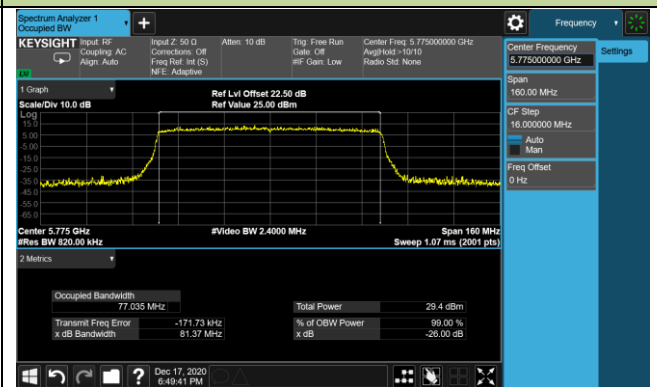
Channel 122 (5610MHz)



Channel 138 (5690MHz)

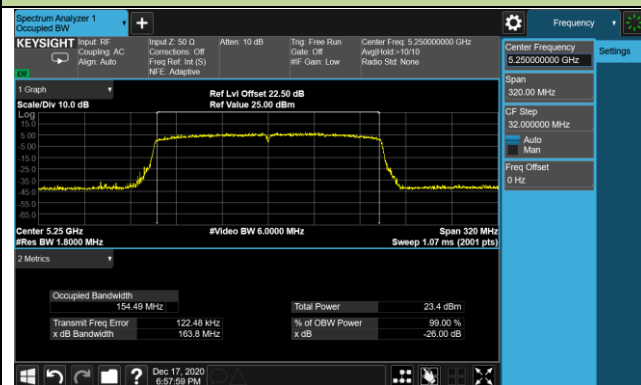


Channel 155 (5775MHz)

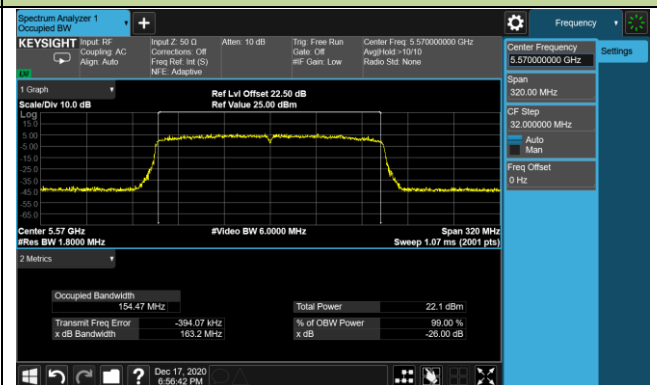


802.11ax-HE160 26dB Bandwidth & 99% Bandwidth

Channel 50 (5250MHz)



Channel 114 (5570MHz)



5.5. 6dB 佔用頻寬

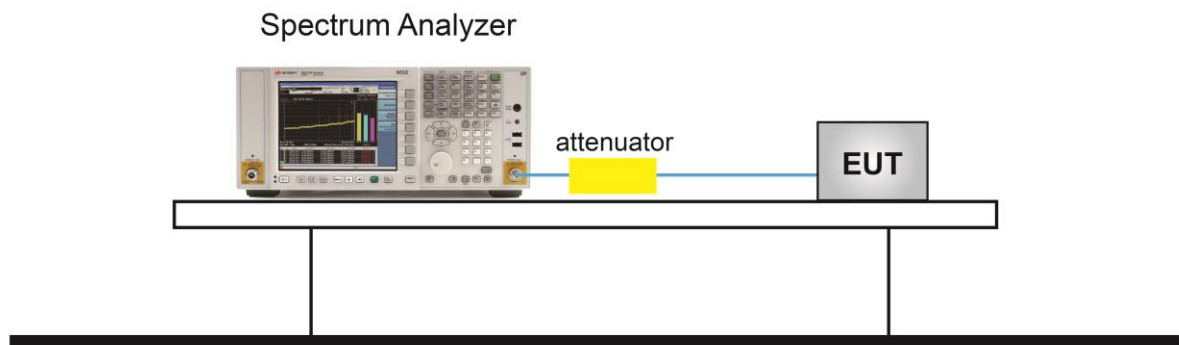
5.5.1.適用標準

在 5.725 GHz~5.850 GHz 頻段操作之設備，其 6 dB 頻寬至少應有 500 kHz。

5.5.2.量測方法

待測物之天線埠經由適當之衰減直接連至頻譜分析儀RF輸入端，峰值發射功率必須使用依據均方根等效電壓校準之儀器量測於任何連續傳輸之時段，量測結果須依儀器限制(如偵測器反應時間、相較於發射頻寬有限之解析頻寬能力，靈敏度等)調整得出正確之峰值量測或使用峰值功率表。

5.5.3.測試架構圖



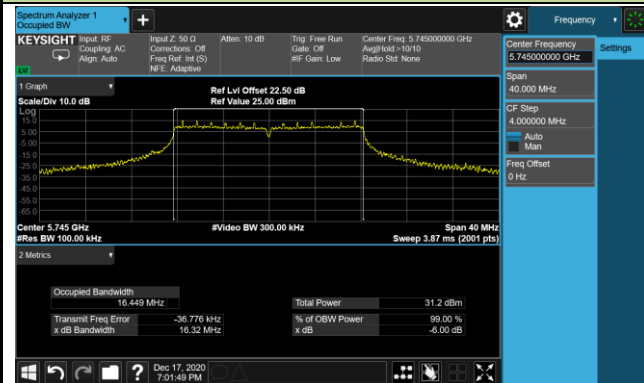
5.5.4.6dB 佔用頻寬測試結果

待測物名稱	AX5400 Wi-Fi 6 路由器	溫度	24°C
測試工程師	Eric Lin	濕度	56%
測試場地	SR2	測試日期	2020/12/17

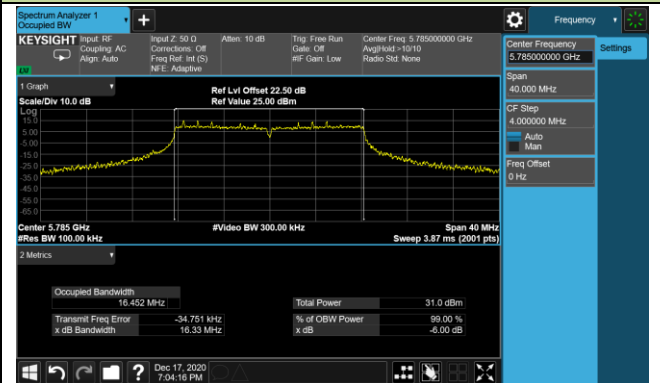
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
Ant 3 / Ant 0 + 1 + 2 + 3						
802.11a	6Mbps	149	5745	16.32	≥ 0.5	Pass
802.11a	6Mbps	157	5785	16.33	≥ 0.5	Pass
802.11a	6Mbps	165	5825	16.35	≥ 0.5	Pass
802.11ac-VHT20	NSS2MCS0	149	5745	17.54	≥ 0.5	Pass
802.11ac-VHT20	NSS2MCS0	157	5785	17.57	≥ 0.5	Pass
802.11ac-VHT20	NSS2MCS0	165	5825	17.63	≥ 0.5	Pass
802.11ac-VHT40	NSS2MCS0	151	5755	34.14	≥ 0.5	Pass
802.11ac-VHT40	NSS2MCS0	159	5795	36.29	≥ 0.5	Pass
802.11ac-VHT80	NSS2MCS0	155	5775	72.61	≥ 0.5	Pass
802.11ax-HE20	NSS2MCS0	149	5745	19.03	≥ 0.5	Pass
802.11ax-HE20	NSS2MCS0	157	5785	19.02	≥ 0.5	Pass
802.11ax-HE20	NSS2MCS0	165	5825	18.90	≥ 0.5	Pass
802.11ax-HE40	NSS2MCS0	151	5755	38.09	≥ 0.5	Pass
802.11ax-HE40	NSS2MCS0	159	5795	35.52	≥ 0.5	Pass
802.11ax-HE80	NSS2MCS0	155	5775	73.02	≥ 0.5	Pass

802.11a 6dB Bandwidth

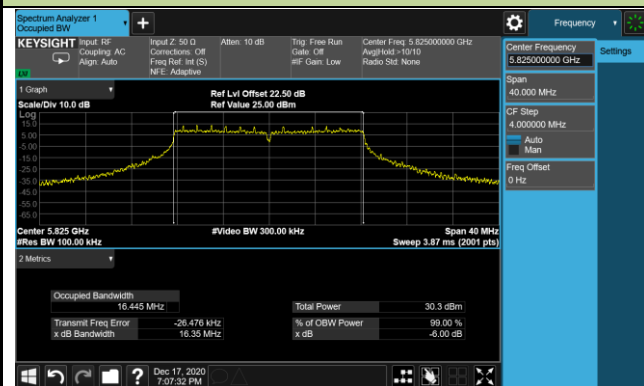
Channel 149 (5745MHz)



Channel 157 (5785MHz)

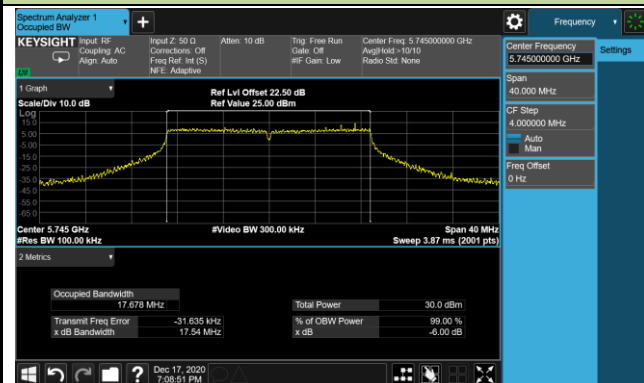


Channel 165 (5825MHz)

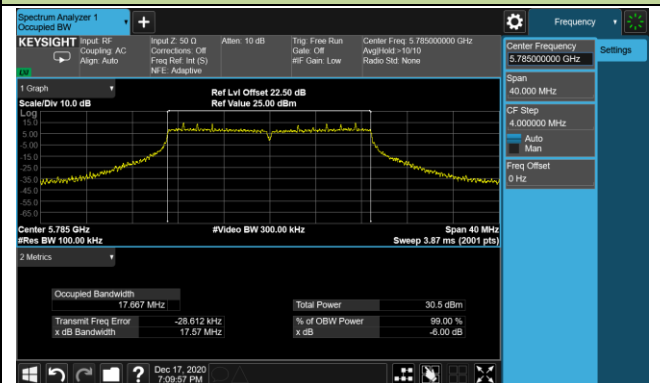


802.11ac-VHT20 6dB Bandwidth

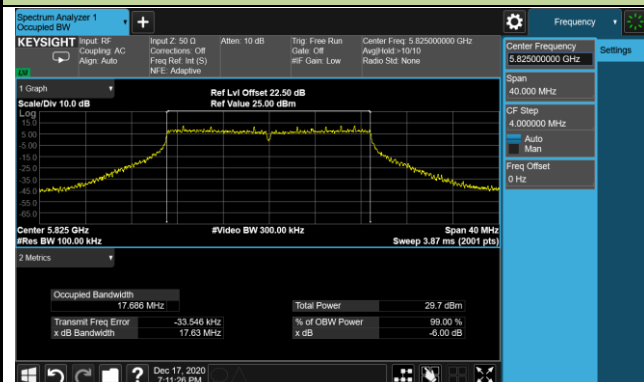
Channel 149 (5745MHz)



Channel 157 (5785MHz)

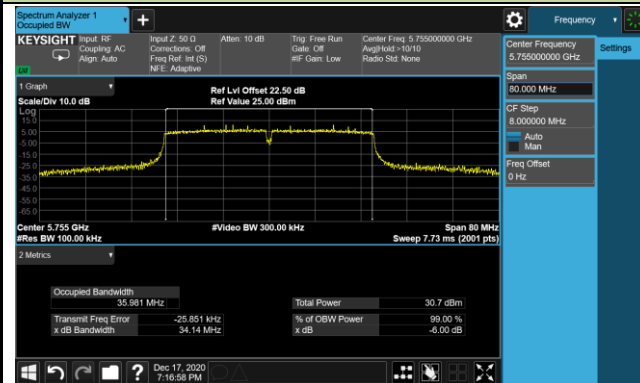


Channel 165 (5825MHz)

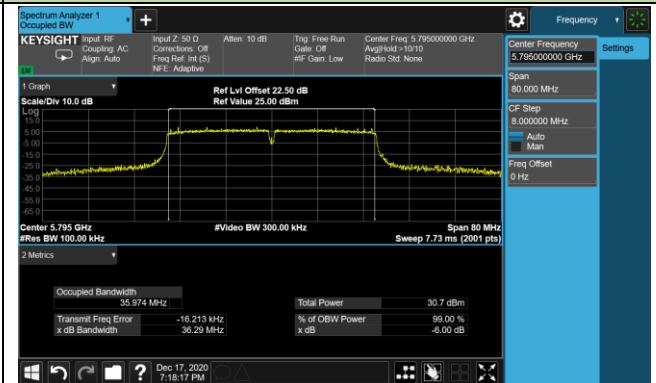


802.11ac-VHT40 6dB Bandwidth

Channel 151 (5755MHz)

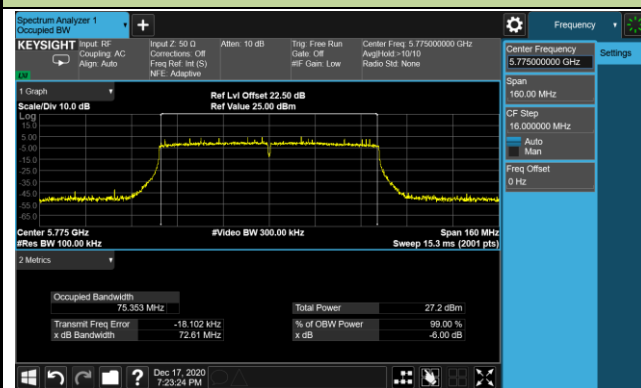


Channel 159 (5795MHz)



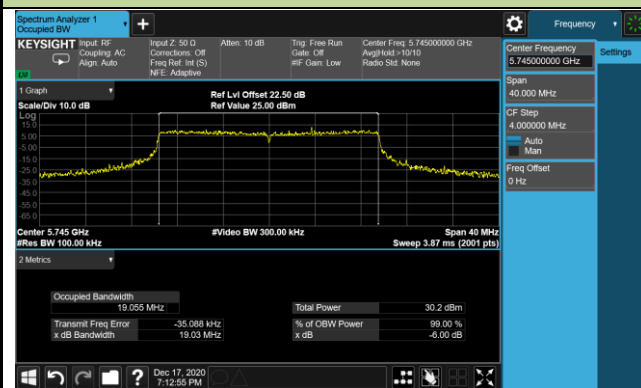
802.11ac-VHT80 6dB Bandwidth

Channel 155 (5775MHz)

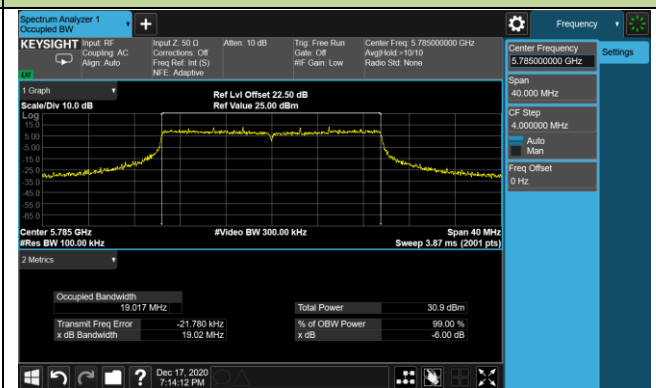


802.11ax-HE20 6dB Bandwidth

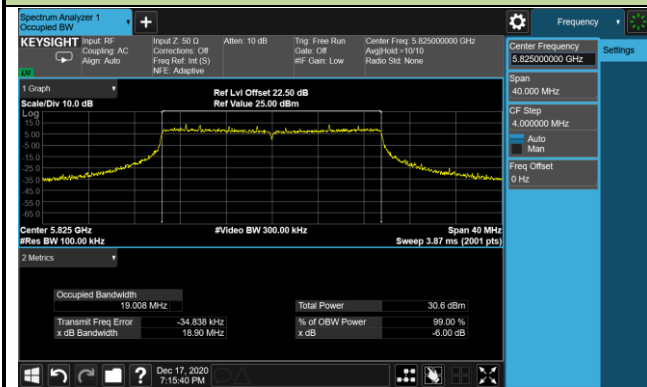
Channel 149 (5745MHz)



Channel 157 (5785MHz)

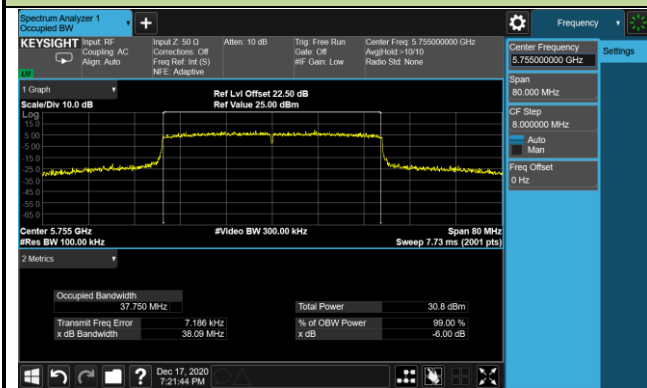


Channel 165 (5825MHz)

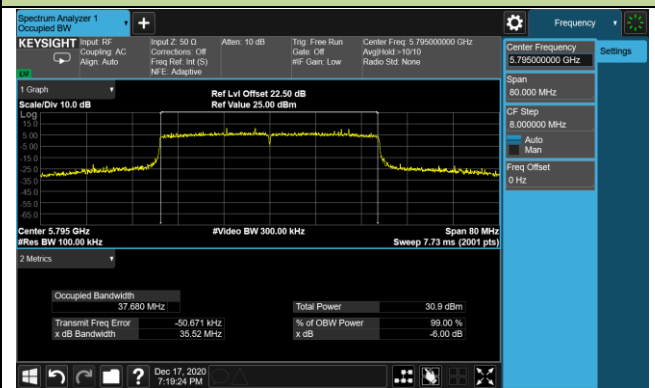


802.11ax-HE40 6dB Bandwidth

Channel 151 (5755MHz)

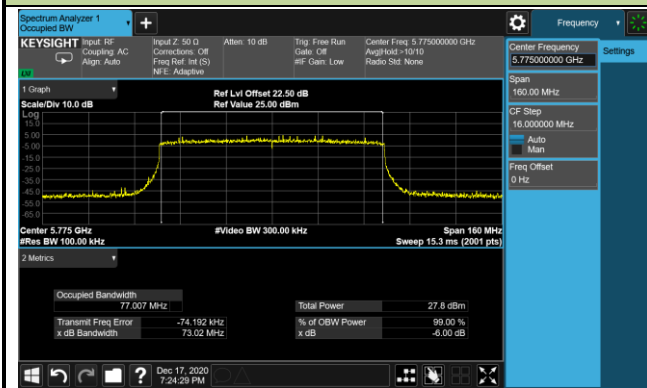


Channel 159 (5795MHz)



802.11ax-HE80 6dB Bandwidth

Channel 155 (5775MHz)



5.6. 最大功率頻譜密度

5.6.1. 適用標準

1. 使用於5.15 GHz~5.25 GHz 頻段

(1)供戶外操作使用:在任何1 MHz 頻帶中最大功率頻譜密度應小於或等於17 dBm。

(2)供室內操作使用:

(A)在任何1 MHz 頻帶中最大功率頻譜密度應小於或等於17 dBm。

(B)使用超過6 dBi 方向增益之發射天線時，應依超過6 dBi 天線方向增益的dBi 總量，等量減少最大傳導輸出功率及最大功率頻譜密度。

(3)供固定式點對點操作使用:

(A) 在任何1 MHz 頻帶中最大功率頻譜密度應小於或等於17 dBm。

(B)使用超過23 dBi 方向增益之指向性天線時，應依超過23 dBi 天線方向增益的dBi 總量，等量減少最大傳導輸出功率及最大功率頻譜密度。

(C)固定式點對點操作，不包括點對多點系統、全方向性應用及多台共站發射機傳送相同資訊。

(4)供用戶端裝置(Client Device)操作使用:

(A)在任何1 MHz 頻帶中最大功率頻譜密度應小於或等於11 dBm。

(B)使用超過6 dBi 方向增益之發射天線時，應依超過6 dBi 天線方向增益的dBi 總量，等量減少最大傳導輸出功率及最大功率頻譜密度。

2. 使用頻率於5.25 GHz~5.35 GHz 與5.470 GHz~5.725 GHz 頻段

(1)最大功率頻譜密度在任何1 MHz 頻帶中應小於或等於11 dBm。

(2)使用超過6 dBi 方向增益之發射天線時，應依超過6 dBi 天線方向增益的dBi 總量，等量減少最大傳導輸出功率及最大功率頻譜密度。

3. 使用頻率於5.725 GHz~5.850 GHz 頻段

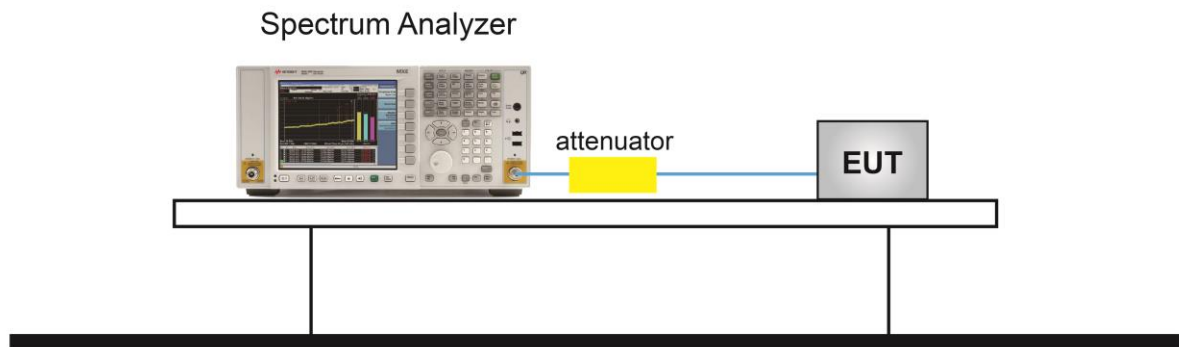
(1)在任何500 kHz 頻帶中最大功率頻譜密度應小於或等於30 dBm。

(2)供固定式點對點操作時，使用方向增益超過6 dBi 之發射天線，可不需(4)除(3)外，使用超過6 dBi 方向增益之發射天線時，應依超過6 dBi 天線方向增益的dBi 總量，等量減少最大傳導輸出功率及最大功率頻譜密度。

5.6.2. 量測方法

待測物之天線埠經由適當之衰減直接連至頻譜分析儀RF輸入端，量測定於1MHz/500kHz頻寬。

5.6.3.測試架構圖



5.6.4.峰值功率頻譜密度測試結果

待測物名稱	AX5400 Wi-Fi 6 路由器	溫度	25°C
測試工程師	Eric Lin	濕度	56%
測試場地	SR2	測試日期	2020/12/14/~2020/12/30
模式	Power Spectral Density (U-NII- 1 /2a / 2c) CDD Mode		

Test Mode	Data Rate /MCS	Ch. No.	Freq. (MHz)	Ant 0 PSD (dBm/MHz)	Ant 1 PSD (dBm/MHz)	Ant 2 PSD (dBm/MHz)	Ant 3 PSD (dBm/MHz)	Duty Cycle (%)	Total PSD (dBm/MHz)	PSD Limit (dBm/MHz)	Result
11a	6Mbps	36	5180	6.74	7.30	7.13	7.08	94.00	13.35	≤ 14.48	Pass
11a	6Mbps	44	5220	8.06	7.97	8.16	8.11	94.00	14.36	≤ 14.48	Pass
11a	6Mbps	48	5240	7.90	8.00	8.05	8.23	94.00	14.34	≤ 14.48	Pass
11a	6Mbps	52	5260	1.81	2.11	2.19	2.09	94.00	8.34	≤ 8.48	Pass
11a	6Mbps	60	5300	2.07	2.21	2.13	1.92	94.00	8.37	≤ 8.48	Pass
11a	6Mbps	64	5320	1.74	2.18	1.82	1.84	94.00	8.19	≤ 8.48	Pass
11a	6Mbps	100	5500	1.95	1.96	2.19	2.18	94.00	8.36	≤ 8.48	Pass
11a	6Mbps	116	5580	2.10	2.22	1.84	1.72	94.00	8.26	≤ 8.48	Pass
11a	6Mbps	140	5700	1.69	2.02	2.36	2.16	94.00	8.35	≤ 8.48	Pass
11a	6Mbps	144	5720	2.04	2.21	2.14	1.87	94.00	8.36	≤ 8.48	Pass
11ac-VHT20	MCS0	36	5180	7.91	8.25	7.99	7.95	93.78	14.33	≤ 14.48	Pass
11ac-VHT20	MCS0	40	5220	7.93	8.56	8.10	7.92	93.78	14.43	≤ 14.48	Pass
11ac-VHT20	MCS0	48	5240	7.61	7.77	7.89	7.99	93.78	14.11	≤ 14.48	Pass
11ac-VHT20	MCS0	52	5260	1.95	1.91	2.11	2.09	93.78	8.32	≤ 8.48	Pass
11ac-VHT20	MCS0	60	5300	1.85	2.26	1.96	2.03	93.78	8.33	≤ 8.48	Pass
11ac-VHT20	MCS0	64	5320	1.81	2.28	1.87	2.08	93.78	8.31	≤ 8.48	Pass
11ac-VHT20	MCS0	100	5500	2.01	2.21	1.83	2.10	93.78	8.34	≤ 8.48	Pass
11ac-VHT20	MCS0	116	5580	1.92	2.13	1.95	1.99	93.78	8.30	≤ 8.48	Pass
11ac-VHT20	MCS0	140	5700	1.95	2.02	2.02	2.19	93.78	8.34	≤ 8.48	Pass
11ac-VHT20	MCS0	144	5720	2.18	2.15	1.91	1.90	93.78	8.33	≤ 8.48	Pass

Test Mode	Data Rate /MCS	Ch. No.	Freq. (MHz)	Ant 0 PSD (dBm/MHz)	Ant 1 PSD (dBm/MHz)	Ant 2 PSD (dBm/MHz)	Ant 3 PSD (dBm/MHz)	Duty Cycle (%)	Total PSD (dBm/MHz)	PSD Limit (dBm/MHz)	Result
11ac-VHT40	MCS0	38	5190	3.03	2.64	3.13	2.45	88.73	9.36	≤ 14.48	Pass
11ac-VHT40	MCS0	46	5230	7.73	8.03	7.85	7.78	88.73	14.39	≤ 14.48	Pass
11ac-VHT40	MCS0	54	5270	1.78	1.57	1.93	1.96	88.73	8.35	≤ 8.48	Pass
11ac-VHT40	MCS0	62	5310	1.67	1.77	1.84	1.81	88.73	8.31	≤ 8.48	Pass
11ac-VHT40	MCS0	102	5510	1.73	1.69	1.94	1.98	88.73	8.38	≤ 8.48	Pass
11ac-VHT40	MCS0	110	5550	1.73	1.94	1.96	1.70	88.73	8.38	≤ 8.48	Pass
11ac-VHT40	MCS0	134	5670	1.39	1.30	2.01	1.98	88.73	8.22	≤ 8.48	Pass
11ac-VHT40	MCS0	142	5710	1.58	1.79	1.82	1.84	88.73	8.29	≤ 8.48	Pass
11ac-VHT80	MCS0	42	5210	-1.85	-1.36	-2.15	-1.99	85.91	4.85	≤ 14.48	Pass
11ac-VHT80	MCS0	58	5290	-0.90	-0.79	-0.75	-0.93	85.91	5.84	≤ 8.48	Pass
11ac-VHT80	MCS0	106	5530	-0.94	-0.69	-0.87	-0.71	85.91	5.88	≤ 8.48	Pass
11ac-VHT80	MCS0	122	5610	-0.21	0.05	0.07	-0.04	85.91	6.65	≤ 8.48	Pass
11ac-VHT80	MCS0	138	5690	-0.20	-0.01	0.05	0.09	85.91	6.67	≤ 8.48	Pass
11ac-VHT160	MCS0	50	5250	-6.52	-6.39	-5.91	-5.96	91.43	0.22	≤ 8.48	Pass
11ac-VHT160	MCS0	114	5570	-7.44	-7.21	-7.59	-7.65	91.43	-1.06	≤ 8.48	Pass
11ax-HE20	MCS0	36	5180	7.56	7.99	7.75	7.46	92.89	14.04	≤ 14.48	Pass
11ax-HE20	MCS0	44	5220	7.80	8.43	7.66	8.32	92.89	14.40	≤ 14.48	Pass
11ax-HE20	MCS0	48	5240	8.18	8.27	7.86	7.90	92.89	14.39	≤ 14.48	Pass
11ax-HE20	MCS0	52	5260	1.84	2.08	1.83	2.07	92.89	8.30	≤ 8.48	Pass
11ax-HE20	MCS0	60	5300	1.71	2.07	1.87	2.03	92.89	8.26	≤ 8.48	Pass
11ax-HE20	MCS0	64	5320	1.78	2.13	1.81	2.02	92.89	8.28	≤ 8.48	Pass
11ax-HE20	MCS0	100	5500	1.92	2.06	1.75	1.80	92.89	8.22	≤ 8.48	Pass
11ax-HE20	MCS0	116	5580	1.88	2.26	1.63	1.77	92.89	8.23	≤ 8.48	Pass
11ax-HE20	MCS0	140	5700	1.77	2.12	2.05	2.14	92.89	8.36	≤ 8.48	Pass
11ax-HE20	MCS0	144	5720	2.05	2.09	1.72	1.82	92.89	8.26	≤ 8.48	Pass

Test Mode	Data Rate/ MCS	Ch. No.	Freq. (MHz)	Ant 0 PSD (dBm/MHz)	Ant 1 PSD (dBm/MHz)	Ant 2 PSD (dBm/MHz)	Ant 3 PSD (dBm/MHz)	Duty Cycle (%)	Total PSD (dBm/MHz)	PSD Limit (dBm/MHz)	Result
11ax-HE40	MCS0	38	5190	1.29	1.98	1.19	1.48	92.89	7.84	≤ 14.48	Pass
11ax-HE40	MCS0	46	5230	7.67	8.19	8.13	7.74	92.89	14.28	≤ 14.48	Pass
11ax-HE40	MCS0	54	5270	1.78	1.96	2.09	2.17	92.89	8.34	≤ 8.48	Pass
11ax-HE40	MCS0	62	5310	1.93	2.09	1.89	1.71	92.89	8.25	≤ 8.48	Pass
11ax-HE40	MCS0	102	5510	1.79	1.75	1.85	2.07	92.89	8.21	≤ 8.48	Pass
11ax-HE40	MCS0	110	5550	1.60	1.93	1.95	1.71	92.89	8.14	≤ 8.48	Pass
11ax-HE40	MCS0	134	5670	1.53	1.60	2.00	2.06	92.89	8.14	≤ 8.48	Pass
11ax-HE40	MCS0	142	5710	1.83	1.77	1.83	2.22	92.89	8.26	≤ 8.48	Pass
11ax-HE80	MCS0	42	5210	-1.66	-1.19	-1.94	-1.06	92.83	4.90	≤ 14.48	Pass
11ax-HE80	MCS0	58	5290	-0.21	0.15	0.14	0.07	92.83	6.39	≤ 8.48	Pass
11ax-HE80	MCS0	106	5530	0.05	0.15	0.08	0.12	92.83	6.44	≤ 8.48	Pass
11ax-HE80	MCS0	122	5610	-0.07	0.04	-0.19	-0.15	92.83	6.25	≤ 8.48	Pass
11ax-HE80	MCS0	122	5690	-0.44	-0.35	-0.18	0.08	92.83	6.13	≤ 8.48	Pass
11ax-HE160	MCS0	50	5250	-6.32	-6.14	-5.74	-5.68	93.61	4.90	≤ 8.48	Pass
11ax-HE160	MCS0	114	5570	-6.91	-6.99	-7.09	-7.15	93.61	6.39	≤ 8.48	Pass

Note 1: When EUT duty cycle ≥ 98%,

the total PSD (dBm/MHz) = $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)}\}$ (dBm/MHz).

When EUT duty cycle < 98%,

the total PSD (dBm/MHz) = $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)}\} + 10 \cdot \log (1/\text{Duty Cycle})$ (dBm/MHz).

Note 2:

For 5150 - 5250MHz Band: PSD Limit (dBm/MHz) = 17 - (8.52 - 6) = 14.48dBm/MHz.

For 5250 - 5350MHz and 5470 - 5725MHz Band: PSD Limit (dBm/MHz) = 11 - (8.52 - 6) = 8.48dBm/MHz.

Note 3: The power setting of Beamforming mode is not greater than CDD mode, so only CDD mode result was shown in this section.

待測物名稱	AX5400 Wi-Fi 6 路由器	溫度	24°C
測試工程師	Eric Lin	濕度	58%
測試場地	SR2	測試日期	2020/12/15
模式	Power Spectral Density (U-NII-3) CDD Mode		

Test Mode	Data Rate/ MCS	Ch. No.	Freq. (MHz)	Ant 0 PSD (dBm/51 0KHz)	Ant 1 PSD (dBm/51 0KHz)	Ant 2 PSD (dBm/51 0KHz)	Ant 3 PSD (dBm/51 0KHz)	Duty Cycle (%)	Total PSD(dBm/ 510kHz)	Limit (dBm/ 500kHz)	Result
11a	6Mbps	149	5745	9.83	10.13	9.79	9.70	94.00	16.15	≤ 27.48	Pass
11a	6Mbps	157	5785	9.90	10.17	9.99	10.11	94.00	16.33	≤ 27.48	Pass
11a	6Mbps	165	5825	9.69	9.69	10.36	10.18	94.00	16.28	≤ 27.48	Pass
11ac-VHT20	MCS0	149	5745	8.99	9.41	8.91	8.73	93.78	15.32	≤ 27.48	Pass
11ac-VHT20	MCS0	157	5785	9.04	9.59	9.02	9.06	93.78	15.48	≤ 27.48	Pass
11ac-VHT20	MCS0	165	5825	8.81	8.86	9.52	9.30	93.78	15.43	≤ 27.48	Pass
11ac-VHT40	MCS0	151	5755	6.34	6.85	6.34	6.02	88.73	12.94	≤ 27.48	Pass
11ac-VHT40	MCS0	159	5795	6.28	6.44	6.75	6.43	88.73	13.02	≤ 27.48	Pass
11ac-VHT80	MCS0	155	5775	-0.54	-0.38	-0.35	-0.31	85.91	6.28	≤ 27.48	Pass
11ax-HE20	MCS0	149	5745	9.61	10.17	9.40	9.50	92.89	16.02	≤ 27.48	Pass
11ax-HE20	MCS0	157	5785	9.10	9.65	9.02	9.43	92.89	15.64	≤ 27.48	Pass
11ax-HE20	MCS0	165	5825	9.33	9.42	9.59	9.81	92.89	15.88	≤ 27.48	Pass
11ax-HE40	MCS0	151	5755	6.74	7.18	6.58	6.79	92.89	13.17	≤ 27.48	Pass
11ax-HE40	MCS0	159	5795	7.07	6.94	7.06	6.91	92.89	13.34	≤ 27.48	Pass
11ax-HE80	MCS0	155	5775	0.10	0.23	-0.01	0.38	92.83	6.52	≤ 27.48	Pass

Note 1: When EUT duty cycle ≥ 98%,

the total PSD (dBm/500kHz) = $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)}\}$ (dBm/100kHz) + Constant Factor (dB).

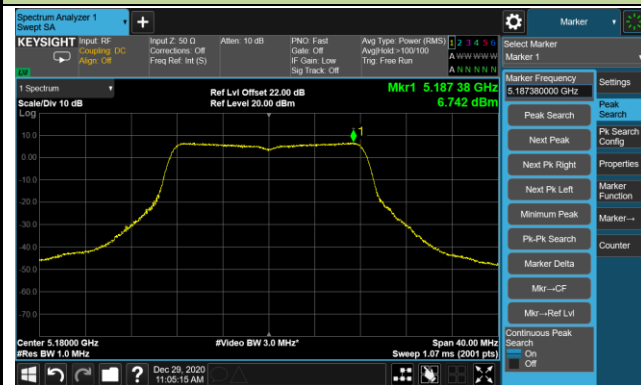
When EUT duty cycle < 98%, the total PSD (dBm/500kHz) = $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)}\}$ (dBm/100kHz) + Constant Factor (dB) + $10 \cdot \log (1/\text{Duty Cycle})$.

Note 2: PSD Limit (dBm/500kHz) = 30 - (8.52 - 6) = 27.48dBm/500kHz.

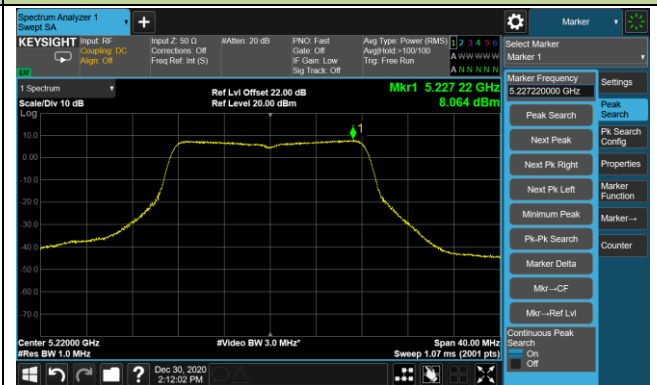
Note 3: The power setting of Beamforming mode is not greater than CDD mode, so only CDD mode result was shown in this section.

802.11a Power Spectral Density - Ant 0 / Ant 0 + 1 + 2 + 3

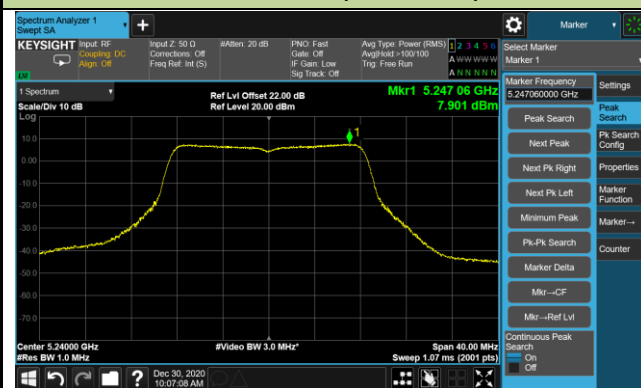
Channel 36 (5180MHz)



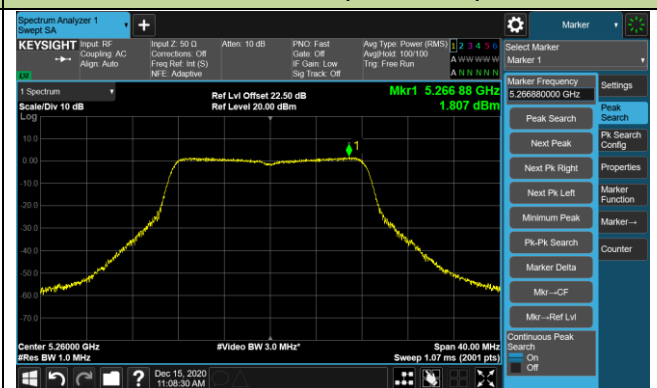
Channel 44 (5220MHz)



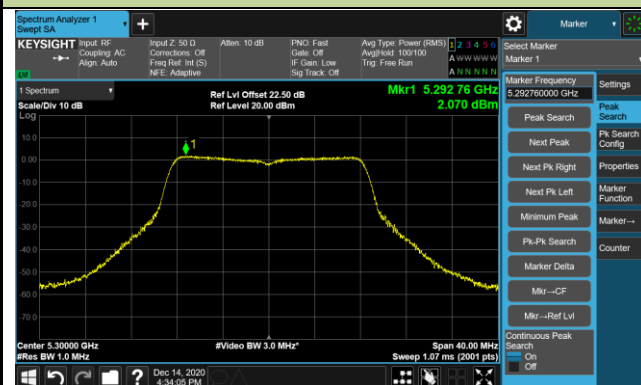
Channel 48 (5240MHz)



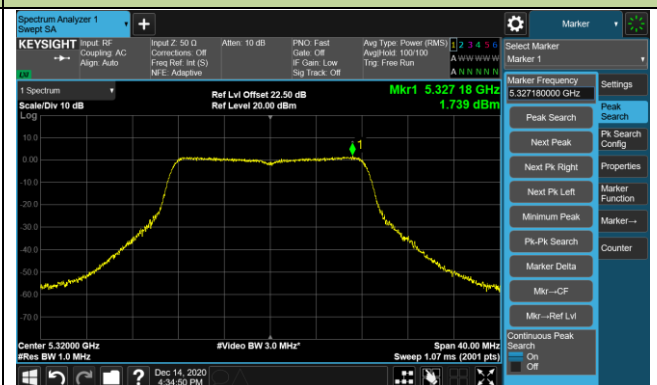
Channel 52 (5260MHz)



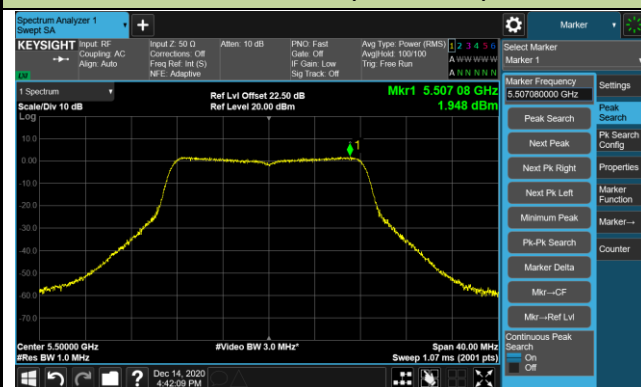
Channel 60 (5300MHz)



Channel 64 (5320MHz)



Channel 100 (5500MHz)



Channel 116 (5580MHz)

