

NCC

低功率射頻器材型式試驗報告

產品名稱: AC750 Wi-Fi 訊號延伸器
型號: RE205
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)
參考法規: ANSI C63.10-2013
測試結果: 符合
接收日期: 2021.04.07
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本測試報告僅對實驗室所受測之樣品負責

本測試報告非經本公司同意不可局部複製使用

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
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	AC750 Wi-Fi 訊號延伸器
產品型號	RE205
待測物額定電壓	AC 100 ~ 240V/50~60Hz
無線規格	802.11b/g/n
頻率範圍	802.11b/g/n-HT20: 2412 ~ 2462MHz 802.11n-HT40: 2422 ~ 2452MHz
通道數量	802.11b/g/n-HT20: 11 802.11n-HT40: 7
調變模式	DSSS for IEEE 802.11b, OFDM for IEEE 802.11g/n
傳輸速率	802.11b: 1/2/5.5/11Mbps 802.11g: 6/9/12/18/24/36/48/54Mbps 802.11n: up to 300Mbps
頻道控制	Auto

2.2. 通道清單

802.11b/g/n-HT20

Channel	Frequency	Channel	Frequency	Channel	Frequency
01	2412 MHz	02	2417 MHz	03	2422 MHz
04	2427 MHz	05	2432 MHz	06	2437 MHz
07	2442 MHz	08	2447 MHz	09	2452 MHz
10	2457 MHz	11	2462 MHz	--	--

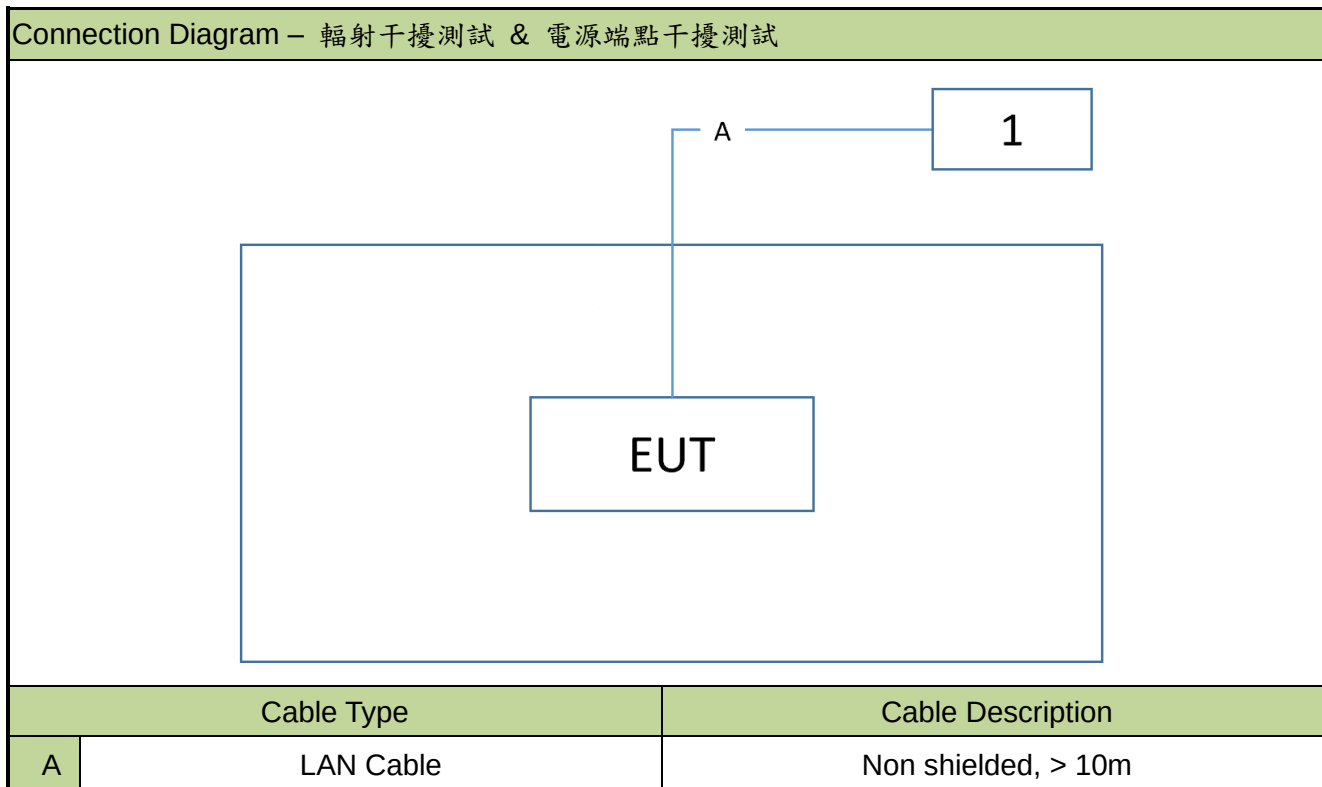
802.11n-HT40

Channel	Frequency	Channel	Frequency	Channel	Frequency
03	2422 MHz	04	2427 MHz	05	2432 MHz
06	2437 MHz	07	2442 MHz	08	2447 MHz
09	2452 MHz	--	--	--	--

2.3. 測試模式

Mode 1: 發射器 802.11b (1Mbps) (CDD mode)
Mode 2: 發射器 802.11g (6Mbps) (CDD mode)
Mode 3: 發射器 802.11n-HT20 (MCS0) (CDD mode)
Mode 4: 發射器 802.11n-HT40 (MCS0) (CDD mode)
Mode 5: 接收器 802.11n-HT20
Mode 6: Normal Operation

2.4. 測試系統組合圖



2.5. 測試周邊

Product	Brand	Model No.	Serial No.	Power Cord
1	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	2022/3/23
Two-Line V-Network	R&S	ENV216	MRTTWA00020	1 year	2022/4/28
EMI Test Receiver	R&S	ESR3	MRTTWA00045	1 year	2022/5/25
DIVA PLUS Funk-Wetterstation	TFA	35.1083	MRTTWA00050	1 year	2022/6/3

Radiated Emissions

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Broadband TRILOG Antenna	SCHWARZBECK	VULB 9162	MRTTWA00001	1 year	2021/10/05
Active Loop Antenna	SCHWARZBECK	FMZB 1519B	MRTTWA00002	1 year	2022/5/6
Broadband Hornantenna	SCHWARZBECK	BBHA 9120D	MRTTWA00003	1 year	2022/4/21
Breitband Hornantenna	SCHWARZBECK	BBHA 9170	MRTTWA00004	1 year	2022/4/28
Broadband Preamplifier	SCHWARZBECK	BBV 9718	MRTTWA00005	1 year	2022/4/21
Broadband Amplifier	SCHWARZBECK	BBV 9721	MRTTWA00006	1 year	2022/4/26
Signal Analyzer	R&S	FSV40	MRTTWA00007	1 year	2022/3/23
EMI Test Receiver	R&S	ESR3	MRTTWA00009	1 year	2022/3/24
EXA Signal Analyzer	KEYSIGHT	N9010A	MRTTWA00012	1 year	2021/10/14
Antenna Cable	HUBERSUHNER	SF106	MRTTWE00010	1 year	2022/6/15
Temperature/Humidity Meter	TFA	35.1078.10.IT	MRTTWA00032	1 year	2022/6/6

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	2022/4/21
EXA Signal Analyzer	KEYSIGHT	N9010A	MRTTWA00012	1 year	2021/10/14
EXA Signal Analyzer	KEYSIGHT	N9010B	MRTTWA00074	1 year	2021/10/14
Attenuator	WTI	218FS-20	MRTTWE00026	1 year	2022/5/30
Attenuator	WTI	218FS-10	MRTTWE00027	1 year	2022/5/30
Attenuator	WTI	218FS-06	MRTTWE00028	1 year	2022/5/30
DIVA PLUS Funk-Wetterstation	TFA	35.1083	MRTTWA00050	1 year	2022/6/3

Software	Version	Function
e3	9.160520a	EMI Test Software

5. 測試結果

產品名稱 AC750 Wi-Fi 訊號延伸器
型號 RE205

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
4.10.1.2	峰值傳導輸出功率	$\leq 30.00\text{dBm}$	符合	第 5.2 章節
4.10.1.3	天線之要求	低功率射頻器材技術規範 4.10.1.3 節	符合	第 5.3 章節
4.10.1.5	帶外發射限制	$\leq 30\text{dBc(Average)}$	符合	第 5.4 章節
3.6	輻射電場強度	低功率射頻器材技術規範 3.6 節	符合	第 5.5 章節
3.5	頻帶邊緣	$\leq 74\text{dBuV/m(Peak)}$ $\leq 54\text{dBuV/m(Average)}$	符合	第 5.6 章節
4.10.1.6(2)(A)	佔用頻寬	$\geq 500\text{kHz}$	符合	第 5.7 章節
4.10.1.6(2)(B)	功率頻譜密度	$\leq 8\text{dBm}$	符合	第 5.8 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

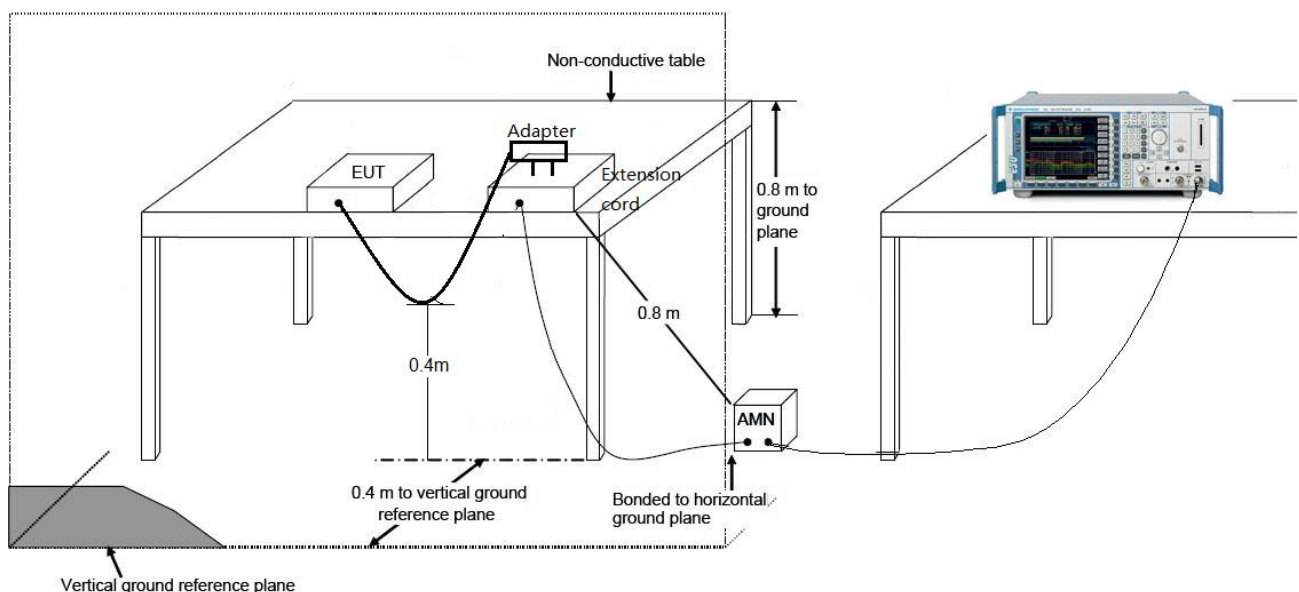
註:隨頻率之對數遞減

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。

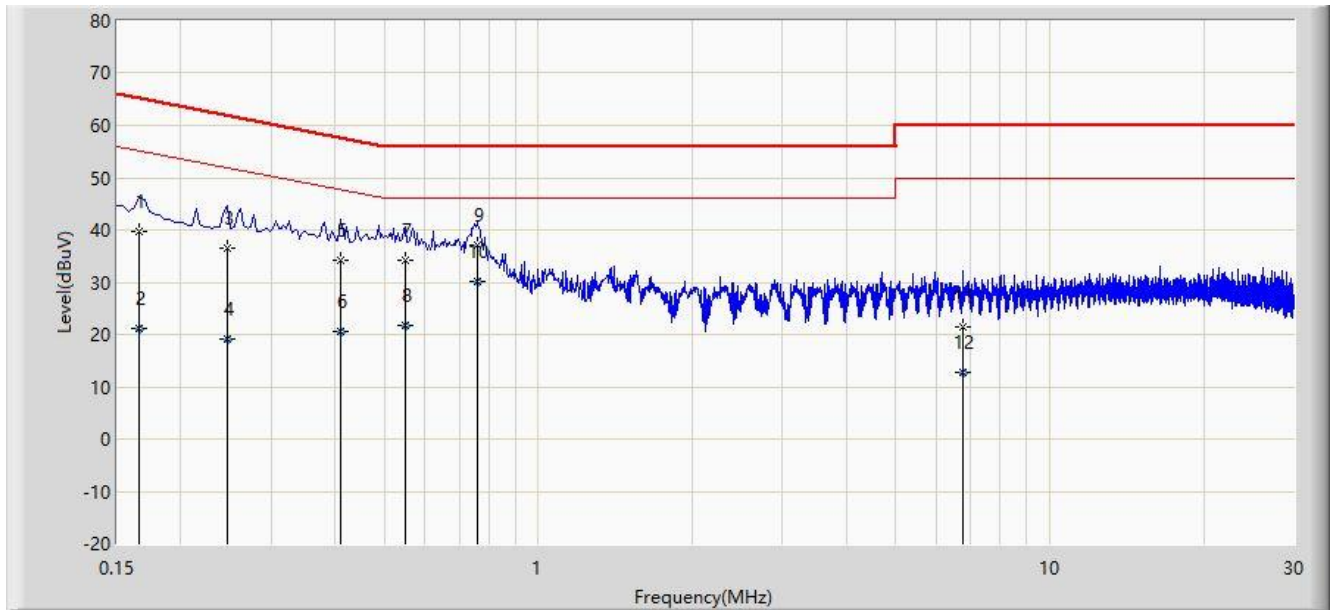
備 註: 經初測驗證過，電源端點干擾測試對測試頻道數並無差異，因此檢附其中一個測試頻道之測試數。

5.1.3. 測試架構圖



5.1.4. 電源端點測試結果

Site: SR2	Time: 2021/07/31 - 14:38
Limit: LP0002_CE_AC Power	Engineer: Eric Lin
Probe: CE_ENV216-L1 (Filter ON)	Polarity: Line
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Test Mode: Transmit by 802.11b at Channel 2437MHz	

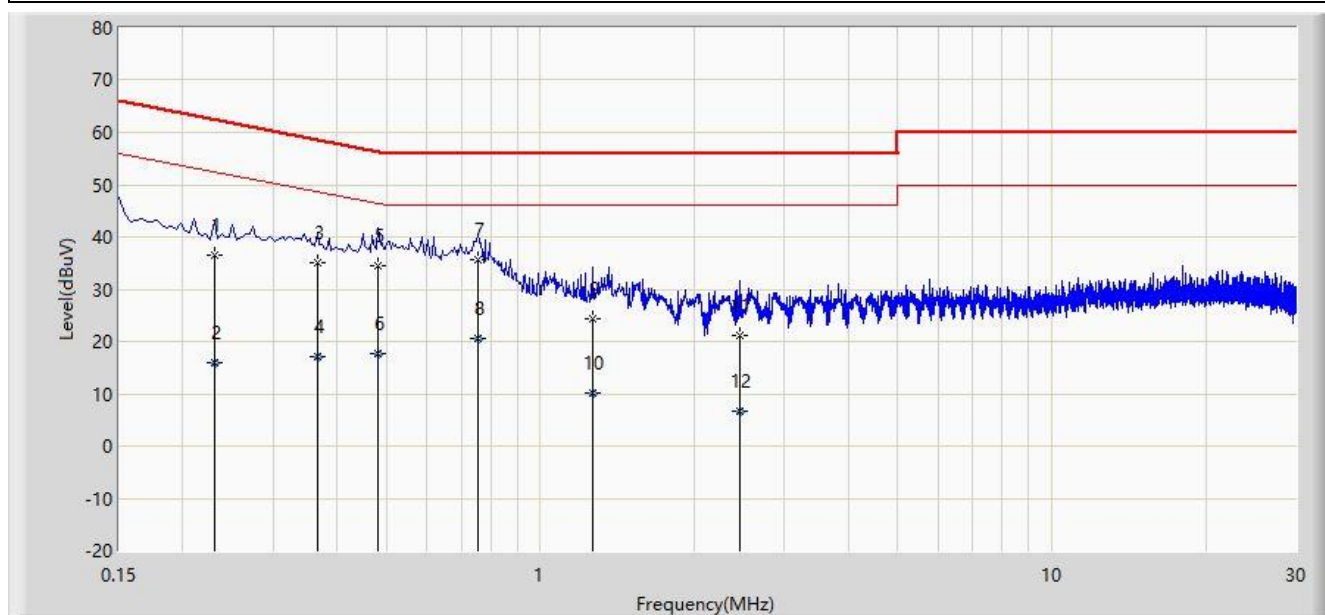


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.166	39.623	30.013	-25.535	65.158	9.610	QP
2			0.166	21.045	11.435	-34.113	55.158	9.610	AV
3			0.246	36.552	26.933	-25.339	61.891	9.619	QP
4			0.246	19.027	9.408	-32.864	51.891	9.619	AV
5			0.410	34.247	24.623	-23.402	57.648	9.624	QP
6			0.410	20.501	10.877	-27.148	47.648	9.624	AV
7			0.550	34.243	24.613	-21.757	56.000	9.630	QP
8			0.550	21.604	11.974	-24.396	46.000	9.630	AV
9			0.758	37.145	27.495	-18.855	56.000	9.650	QP
10		*	0.758	30.103	20.453	-15.897	46.000	9.650	AV
11			6.766	21.404	11.614	-38.596	60.000	9.790	QP
12			6.766	12.744	2.954	-37.256	50.000	9.790	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

Site: SR2	Time: 2021/07/31 - 14:51
Limit: LP0002_CE_AC Power	Engineer: Eric Lin
Probe: CE_ENV216-N (Filter ON)	Polarity: Neutral
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Test Mode: Transmit by 802.11b at Channel 2437MHz	

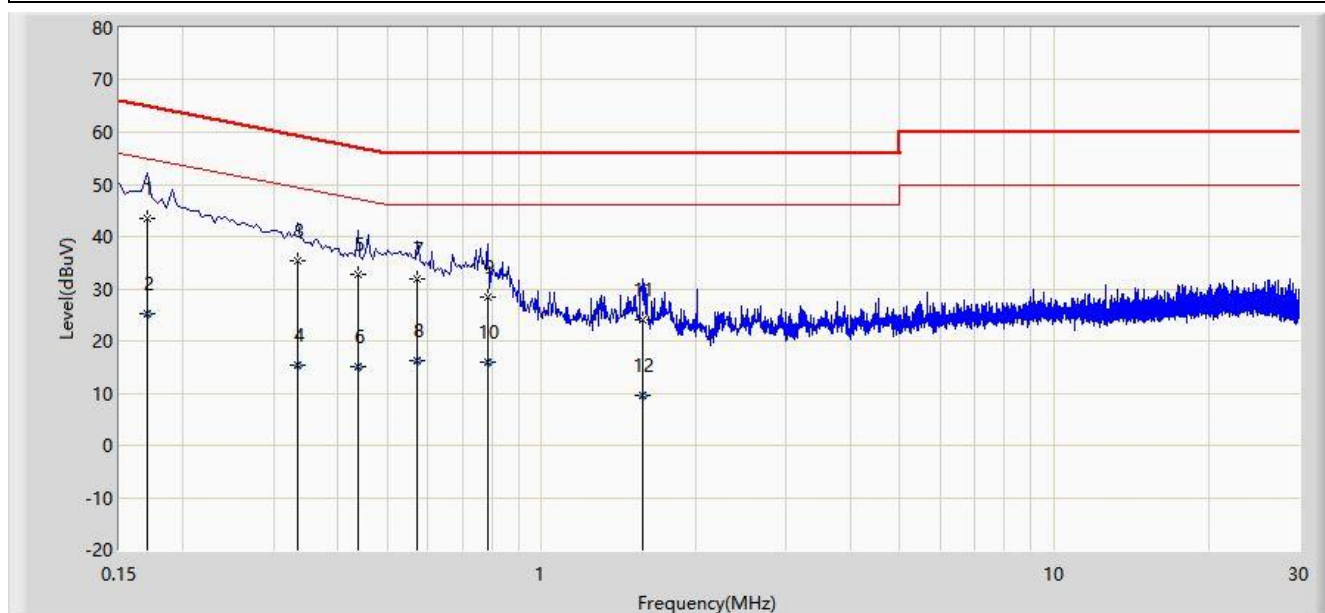


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.230	36.644	27.020	-25.806	62.450	9.624	QP
2			0.230	15.844	6.220	-36.606	52.450	9.624	AV
3			0.366	35.085	25.455	-23.506	58.591	9.630	QP
4			0.366	17.031	7.401	-31.560	48.591	9.630	AV
5			0.482	34.575	24.935	-21.730	56.305	9.640	QP
6			0.482	17.643	8.003	-28.662	46.305	9.640	AV
7		*	0.754	35.687	26.027	-20.313	56.000	9.660	QP
8			0.754	20.585	10.925	-25.415	46.000	9.660	AV
9			1.262	24.344	14.664	-31.656	56.000	9.680	QP
10			1.262	10.231	0.551	-35.769	46.000	9.680	AV
11			2.446	21.111	11.418	-34.889	56.000	9.693	QP
12			2.446	6.591	-3.102	-39.409	46.000	9.693	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

Site: SR2	Time: 2021/09/02 - 17:44
Limit: LP0002_CE_AC Power	Engineer: Eric Lin
Probe: CE_ENV216-L1 (Filter ON)	Polarity: Line
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: worse case	

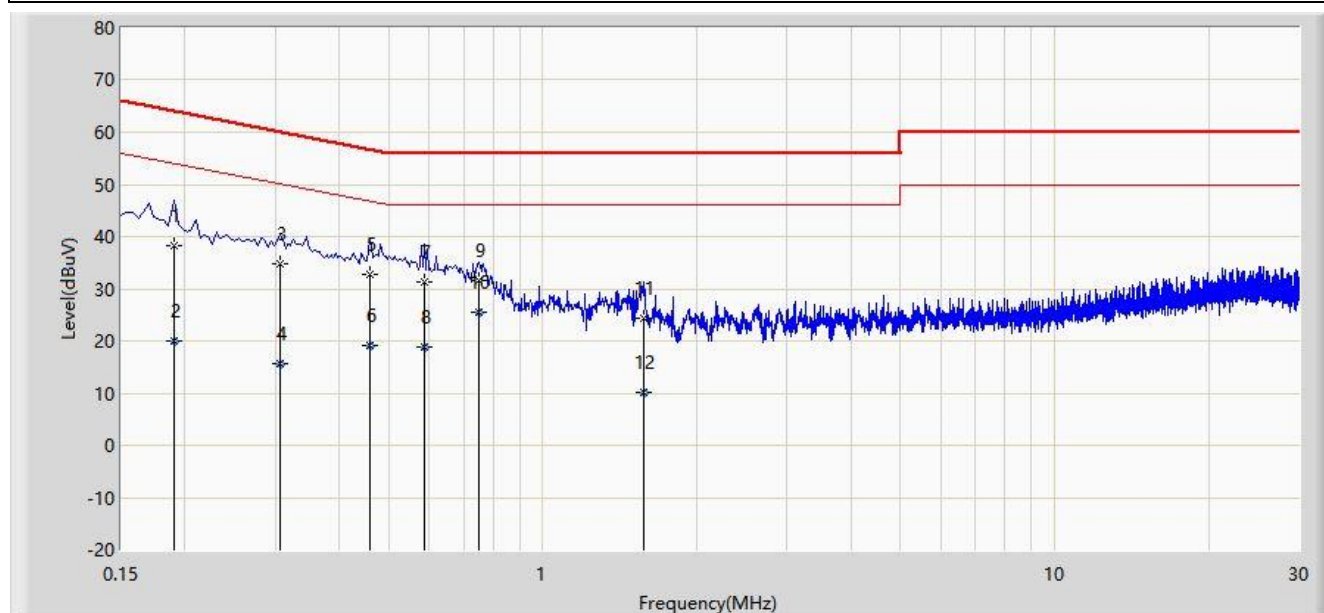


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV)	Factor (dB)	Type
1		*	0.170	43.588	33.978	-21.372	64.960	9.610	QP
2			0.170	25.088	15.478	-29.872	54.960	9.610	AV
3			0.334	35.399	25.779	-23.952	59.351	9.620	QP
4			0.334	15.299	5.679	-34.052	49.351	9.620	AV
5			0.438	32.609	22.979	-24.491	57.100	9.630	QP
6			0.438	15.109	5.479	-31.991	47.100	9.630	AV
7			0.570	32.023	22.393	-23.977	56.000	9.630	QP
8			0.570	16.323	6.693	-29.677	46.000	9.630	AV
9			0.786	28.451	18.801	-27.549	56.000	9.650	QP
10			0.786	15.951	6.301	-30.049	46.000	9.650	AV
11			1.574	24.032	14.352	-31.968	56.000	9.680	QP
12			1.574	9.532	-0.148	-36.468	46.000	9.680	AV

Note: Measure Level (dBuV) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

Site: SR2	Time: 2021/09/02 - 17:54
Limit: LP0002_CE_AC Power	Engineer: Eric Lin
Probe: CE_ENV216-N (Filter ON)	Polarity: Neutral
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Test Mode 6, Normal Operation	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.190	38.230	28.610	-25.807	64.037	9.620	QP
2			0.190	20.130	10.510	-33.907	54.037	9.620	AV
3			0.306	34.837	25.207	-25.241	60.078	9.630	QP
4			0.306	15.637	6.007	-34.441	50.078	9.630	AV
5			0.458	32.647	23.007	-24.082	56.729	9.640	QP
6			0.458	19.147	9.507	-27.582	46.729	9.640	AV
7			0.586	31.357	21.717	-24.643	56.000	9.640	QP
8			0.586	18.757	9.117	-27.243	46.000	9.640	AV
9			0.750	31.573	21.913	-24.427	56.000	9.660	QP
10		*	0.750	25.373	15.713	-20.627	46.000	9.660	AV
11			1.570	24.457	14.777	-31.543	56.000	9.680	QP
12			1.570	10.257	0.577	-35.743	46.000	9.680	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

5.2. 峰值傳導輸出功率

5.2.1. 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 4.10.1.2(1)(C)節，操作於 2400-2483.5 MHz 之數位調變的發射器材：1 瓦(W)(含)以下。

依據國家通訊傳播委員會低功率射頻器材技術規範之第 4.10.1.3 節，天線增益限制如下：

(1) 操作於 2400 MHz～2483.5 MHz 頻段：

(A) 進行固定式點對點操作時，其發射天線之方向性增益超過6 dBi，每超過3 dBi，最大傳導輸出功率限制值應降低1 dB。

(B) 除第(A)節外，如其發射天線之方向性增益超過6dBi，應依所超過之dB數等量降低最大傳導輸出功率。

(C) 天線以多向波束發射方式(含同時發射或循序發射)將訊號導向多個接收機或接收機群組時，應符合下列規定：

(a) 非同時發射多向波束者，所有載波或頻道傳輸至所有天線陣列或陣列群之總和傳導輸出功率應符合 4.10.1.2 之功率限制值。如天線/天線陣列群之方向性增益超過 6 dBi，每超過 3 dBi，總和傳導輸出功率限制值應降低 1 dB。方向性增益值應計算如下：

(i) 方向性增益值= $10\log(\text{天線陣列之單元數目}) + \text{各單元中最高之方向性增益值}$ 。

(ii) 天線陣列間之遮蔽效應或波束干涉損失能充分佐證時，方向性增益得低於(i)計算數值。

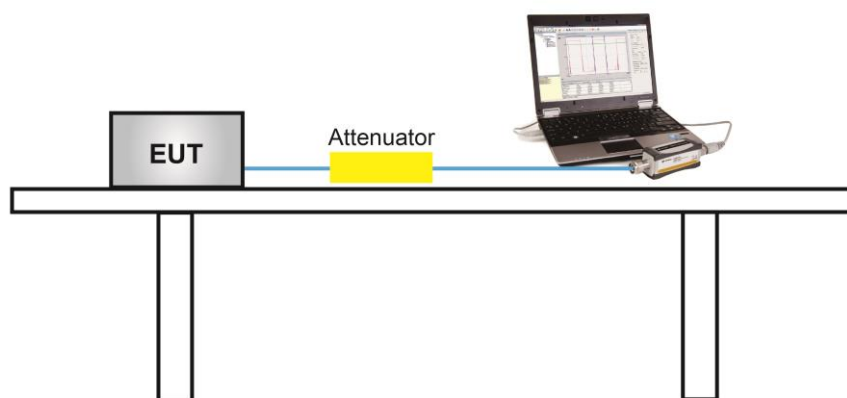
同時發射多向波束於相同或不同頻道者，其每一波束功率應符合(a)之功率限制值。如發射波束有重疊現象，功率應降低，以確保總和傳導輸出功率符合(a)之限制值。同時發射的所有波束總和傳導輸出功率不大於(a) 總和傳導輸出功率限制值加 8 dB。方向性增益值計算同(a)。

(c) 發射機之天線具備單向波束功能者，應符合(1)(A)及(3)後段之規定。

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，設定頻譜分析儀之解析度頻寬大於 6dB 發射頻寬或使用峰值功率表。

5.2.3. 測試架構圖



5.2.4. 峰值傳導輸出功率測試結果

待測物名稱	AC750 Wi-Fi 訊號延伸器	溫度	22 ~ 25°C
測試工程師	Eric Lin	濕度	46 ~ 56%
測試場地	SR2	測試日期	2021/06/08

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Limit (dBm)	Result
802.11b	1Mbps	01	2412	18.69	18.07	21.40	≤ 30.00	Pass
802.11b	1Mbps	06	2437	18.96	18.33	21.67	≤ 30.00	Pass
802.11b	1Mbps	11	2462	18.02	18.27	21.16	≤ 30.00	Pass
802.11g	6Mbps	01	2412	14.96	15.24	18.11	≤ 30.00	Pass
802.11g	6Mbps	02	2417	17.33	17.77	20.57	≤ 30.00	Pass
802.11g	6Mbps	06	2437	18.05	18.43	21.25	≤ 30.00	Pass
802.11g	6Mbps	10	2457	17.82	18.27	21.06	≤ 30.00	Pass
802.11g	6Mbps	11	2462	13.98	13.88	16.94	≤ 30.00	Pass
802.11n-HT20	MCS0	01	2412	13.61	13.97	16.80	≤ 30.00	Pass
802.11n-HT20	MCS0	02	2417	17.14	17.14	20.15	≤ 30.00	Pass
802.11n-HT20	MCS0	06	2437	18.96	18.14	21.58	≤ 30.00	Pass
802.11n-HT20	MCS0	10	2457	17.85	17.27	20.58	≤ 30.00	Pass
802.11n-HT20	MCS0	11	2462	13.53	13.35	16.45	≤ 30.00	Pass
802.11n-HT40	MCS0	03	2422	12.65	12.32	15.50	≤ 30.00	Pass
802.11n-HT40	MCS0	04	2427	12.93	12.81	15.88	≤ 30.00	Pass
802.11n-HT40	MCS0	06	2437	15.81	15.94	18.89	≤ 30.00	Pass
802.11n-HT40	MCS0	08	2447	13.76	13.90	16.84	≤ 30.00	Pass
802.11n-HT40	MCS0	09	2452	12.23	12.38	15.32	≤ 30.00	Pass

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

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AC750 Wi-Fi 訊號延伸器其天線為固定式Dipole Antenna (Brand: TP-LINK, M/N: 3101503505) (檢附天線規格書)

Antenna Type	Frequency Band (MHz)	T _x Paths	Max Antenna Gain (dBi)	CDD Directional Gain (dBi)	
				For Power	For PSD
Dipole Antenna	2412 ~ 2462	2	1	1	4.01
	5150 ~ 5850	1	1	--	--

Note 1: The EUT supports Cyclic Delay Diversity (CDD) mode at 802.11b/g/n, 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 $N_{ANT} \leq 4$;

Note 2: All information declared by manufacturer.

5.4. 輻射干擾測試

5.4.1. 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 4.10.1.5 節，使用頻帶範圍外之任意 100 千赫 (kHz) 內，發射器所產生的射頻功率相較於使用頻帶範圍中包含最高所需功率之 100 千赫 (kHz) 內的射頻功率，衰減值限制如下：

(1) 輸出功率以低功率射頻器材技術規範附件二之峰值輸出功率方式量測者，至少須衰減 20 dB，可使用射頻傳導或輻射方式測量。

(2) 輸出功率以低功率射頻器材技術規範 4.10.1(2)(2.3) 之最大傳導輸出功率量測方式者，至少須衰減 30 dB。

此外，落於第 3.5 節禁用頻段之輻射發射，應符合第 3.6 節之規定。

依據國家通訊傳播委員會低功率射頻器材技術規範之第 3.6 節，低功率射頻器材，除本規範各章節另有放寬規定者外，其電場強度不得超過下表之限值，且其不必要之發射皆不得大於主波發射強度。各頻段重疊處，以較嚴格之限制值為準。

頻率(f) (MHz)	電場強度 (微伏特/公尺, $\mu\text{V/m}$)	測距 (公尺)
$0.009 \leq f \leq 0.490$	$2400/f(\text{kHz})$	300
$0.490 < f \leq 1.705$	$24000/f(\text{kHz})$	30
$1.705 < f < 30$	30	30
$30 \leq f \leq 88$	100	3
$88 < f \leq 216$	150	3
$216 < f \leq 960$	200	3
$960 < f$	500	3

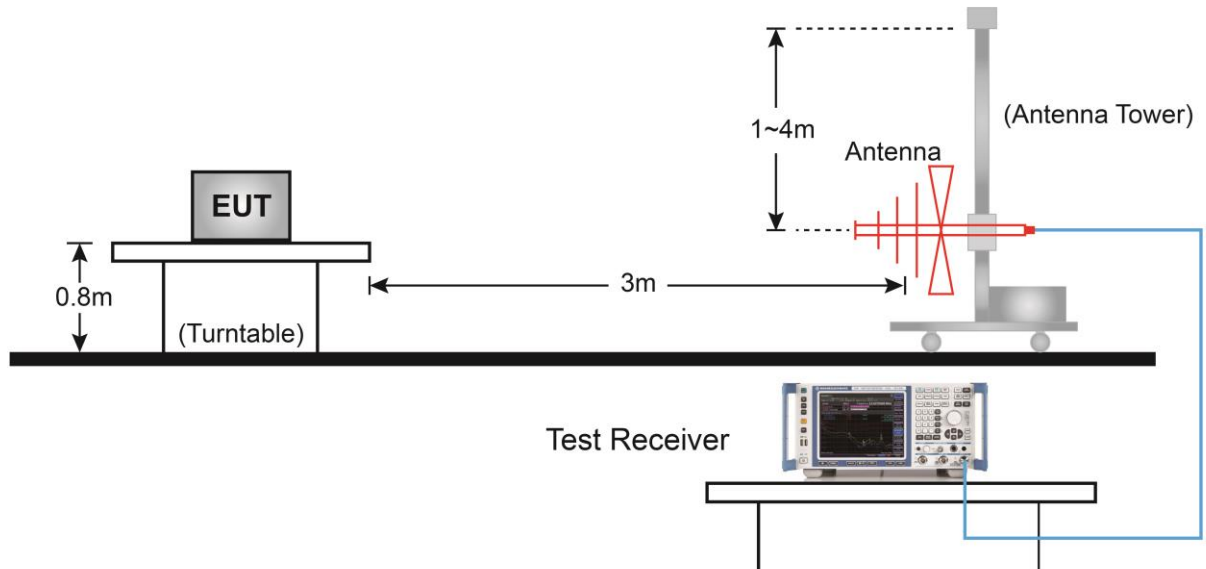
上表規定之電場強度，發射頻率在 9 kHz~90 kHz、110 kHz~490 kHz 及 1000MHz 以上者，其量測應以平均值檢波器為基準，且須符合低功率射頻器材技術規範第 6.14.節之規定；其他發射頻率，應以 CISPR 準峰值(quasi-peak) 檢波器測量；非以上表所指定之距離測量時，應符合第 6.5 節之規定，而輻射發射之量測頻率範圍須符合低功率射頻器材技術規範第 6.12 節之規定。

5.4.2. 量測方法

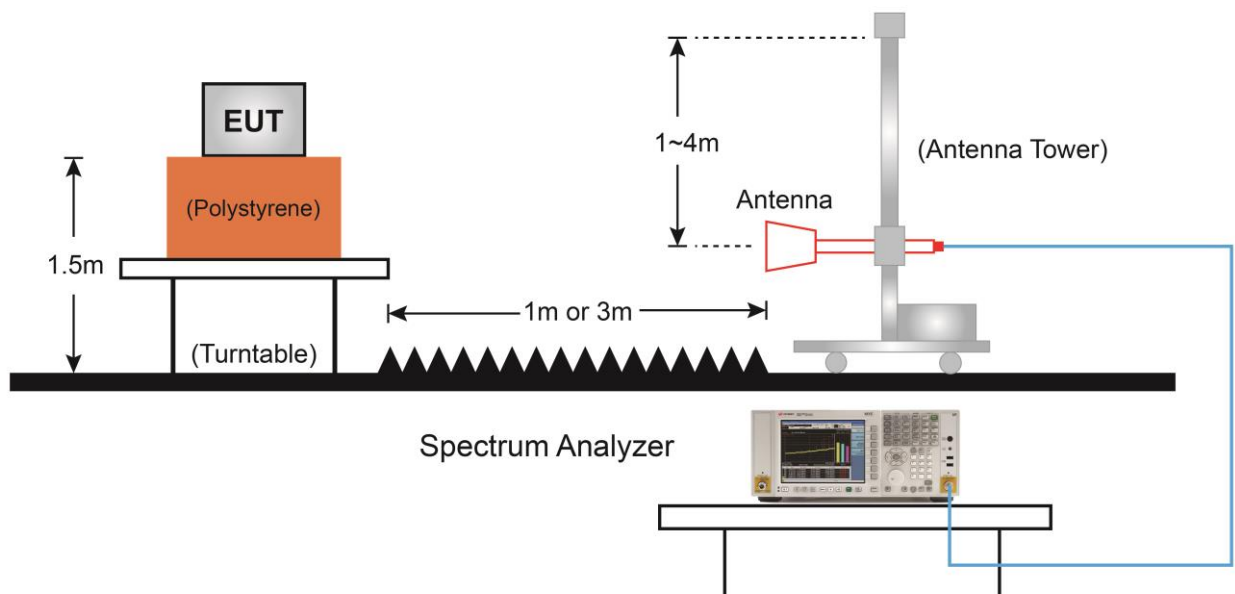
低頻待測物置於高 80 公分之非導體桌面（落地型產品置於地上），高頻待測物置於高 150 公分之非導體桌面，受測物與配件設備之電源線無須束綁，桌面上受測設備的所有電源線由桌子的後緣垂下沿旋轉桌表面接至交流插座。落地型設備的交流電源線可以方便的型態走線。桌面可 360 度旋轉，接收天線置於距待測物 3m 距離，高度可在 1 至 4 公尺間變動，以量測待測物之最大輻射電場強度。接收天線並應於水準及垂直極化方向各量測一次。

5.4.3. 測試架構圖

Below 1GHz Test Setup:



Above 1GHz Test Setup:



5.4.4. 輻射干擾測試結果

Test Site	AC1	Test Engineer	Jay Chou
Test Date	2021/06/02	Test Mode	802.11b
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
01	4825.0	46.3	3.3	49.6	74.0	-24.4	Peak	Horizontal
	7443.0	34.4	11.6	46.0	74.0	-28.0	Peak	Horizontal
	8284.5	32.0	12.5	44.5	74.0	-29.5	Peak	Horizontal
	4824.1	50.2	3.3	53.5	74.0	-20.5	Peak	Vertical
	4824.1	50.2	3.3	53.5	54.0	-0.5	Average	Vertical
	7375.0	32.8	11.4	44.2	74.0	-29.8	Peak	Vertical
	8242.0	32.0	12.5	44.5	74.0	-29.5	Peak	Vertical
06	4323.5	37.0	2.0	39.0	74.0	-35.0	Peak	Horizontal
	4876.0	47.8	3.5	51.3	74.0	-22.7	Peak	Horizontal
	7587.5	32.7	11.9	44.6	74.0	-29.4	Peak	Horizontal
	4874.1	50.2	3.4	53.6	74.0	-20.4	Peak	Vertical
	4874.1	50.2	3.4	53.6	54.0	-0.4	Average	Vertical
	7307.0	36.3	11.2	47.5	74.0	-26.5	Peak	Vertical
	8242.0	32.2	12.5	44.7	74.0	-29.3	Peak	Vertical
11	4077.0	37.5	1.1	38.6	74.0	-35.4	Peak	Horizontal
	4927.0	49.2	3.6	52.8	74.0	-21.2	Peak	Horizontal
	7434.5	33.0	11.5	44.5	74.0	-29.5	Peak	Horizontal
	4230.0	37.4	1.6	39.0	74.0	-35.0	Peak	Vertical
	4918.5	39.9	3.6	43.5	74.0	-30.5	Peak	Vertical
	4924.1	50.3	3.6	53.9	54.0	-0.1	Average	Vertical
	7375.0	32.3	11.4	43.7	74.0	-30.3	Peak	Vertical

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Test Site	AC1	Test Engineer	Jay Chou
Test Date	2021/06/02	Test Mode	802.11g
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
01	4094.0	37.7	1.2	38.9	74.0	-35.1	Peak	Horizontal
	4825.0	41.0	3.3	44.3	74.0	-29.7	Peak	Horizontal
	7400.5	33.6	11.4	45.0	74.0	-29.0	Peak	Horizontal
	4825.0	47.0	3.3	50.3	74.0	-23.7	Peak	Vertical
	7545.0	33.8	11.8	45.6	74.0	-28.4	Peak	Vertical
	8318.5	33.0	12.5	45.5	74.0	-28.5	Peak	Vertical
06	4876.0	45.2	3.5	48.7	74.0	-25.3	Peak	Horizontal
	7298.5	37.7	11.1	48.8	74.0	-25.2	Peak	Horizontal
	8174.0	33.9	12.5	46.4	74.0	-27.6	Peak	Horizontal
	4875.1	42.0	3.5	45.5	54.0	-8.5	Average	Vertical
	4876.0	49.6	3.5	53.1	74.0	-20.9	Peak	Vertical
	7468.5	32.6	11.6	44.2	74.0	-29.8	Peak	Vertical
	8361.0	32.0	12.5	44.5	74.0	-29.5	Peak	Vertical
11	4927.0	41.5	3.6	45.1	74.0	-28.9	Peak	Horizontal
	7375.0	32.7	11.4	44.1	74.0	-29.9	Peak	Horizontal
	8395.0	32.0	12.5	44.5	74.0	-29.5	Peak	Horizontal
	4927.0	43.1	3.6	46.7	74.0	-27.3	Peak	Vertical
	7315.5	32.5	11.2	43.7	74.0	-30.3	Peak	Vertical
	8276.0	31.4	12.5	43.9	74.0	-30.1	Peak	Vertical

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Test Site	AC1	Test Engineer	Jay Chou
Test Date	2021/06/02	Test Mode	802.11n-HT20
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
01	4825.0	39.1	3.3	42.4	74.0	-31.6	Peak	Horizontal
	7647.0	32.2	12.0	44.2	74.0	-29.8	Peak	Horizontal
	8242.0	32.0	12.5	44.5	74.0	-29.5	Peak	Horizontal
	4825.0	43.1	3.3	46.4	74.0	-27.6	Peak	Vertical
	7409.0	33.8	11.5	45.3	74.0	-28.7	Peak	Vertical
	8335.5	36.2	12.5	48.7	74.0	-25.3	Peak	Vertical
06	4876.0	46.7	3.5	50.2	74.0	-23.8	Peak	Horizontal
	7315.5	36.7	11.2	47.9	74.0	-26.1	Peak	Horizontal
	8386.5	32.6	12.5	45.1	74.0	-28.9	Peak	Horizontal
	4876.0	49.5	3.5	53.0	74.0	-21.0	Peak	Vertical
	7307.0	39.1	11.2	50.3	74.0	-23.7	Peak	Vertical
	8369.5	31.2	12.5	43.7	74.0	-30.3	Peak	Vertical
11	4918.5	40.4	3.6	44.0	74.0	-30.0	Peak	Horizontal
	7519.5	33.1	11.7	44.8	74.0	-29.2	Peak	Horizontal
	8148.5	32.2	12.5	44.7	74.0	-29.3	Peak	Horizontal
	4927.0	42.1	3.6	45.7	74.0	-28.3	Peak	Vertical
	7630.0	34.2	11.9	46.1	74.0	-27.9	Peak	Vertical
	8335.5	35.3	12.5	47.8	74.0	-26.2	Peak	Vertical

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Test Site	AC1	Test Engineer	Jay Chou
Test Date	2021/06/02	Test Mode	802.11n-HT40
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
03	4782.5	38.2	3.2	41.4	74.0	-32.6	Peak	Horizontal
	7256.0	35.4	11.0	46.4	74.0	-27.6	Peak	Horizontal
	8165.5	31.9	12.5	44.4	74.0	-29.6	Peak	Horizontal
	4867.5	37.4	3.4	40.8	74.0	-33.2	Peak	Vertical
	7587.5	32.2	11.9	44.1	74.0	-29.9	Peak	Vertical
	8276.0	31.6	12.5	44.1	74.0	-29.9	Peak	Vertical
06	4876.0	44.0	3.5	47.5	74.0	-26.5	Peak	Horizontal
	7417.5	34.8	11.5	46.3	74.0	-27.7	Peak	Horizontal
	8471.5	33.0	12.5	45.5	74.0	-28.5	Peak	Horizontal
	4867.5	43.6	3.4	47.0	74.0	-27.0	Peak	Vertical
	7307.0	36.4	11.2	47.6	74.0	-26.4	Peak	Vertical
	8335.5	35.3	12.5	47.8	74.0	-26.2	Peak	Vertical
09	4740.0	35.6	3.1	38.7	74.0	-35.3	Peak	Horizontal
	7460.0	31.9	11.6	43.5	74.0	-30.5	Peak	Horizontal
	8361.0	31.0	12.5	43.5	74.0	-30.5	Peak	Horizontal
	4893.0	38.0	3.5	41.5	74.0	-32.5	Peak	Vertical
	7451.5	32.5	11.6	44.1	74.0	-29.9	Peak	Vertical
	8386.5	31.5	12.5	44.0	74.0	-30.0	Peak	Vertical

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Test Site	AC1	Test Engineer	Jay Chou
Test Date	2021/09/02	Test Mode	Receive by 802.11n-HT20
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
06	10911.0	33.4	17.7	51.1	74.0	-22.9	Peak	Horizontal
	11642.0	33.1	18.3	51.4	74.0	-22.6	Peak	Horizontal
	13954.0	31.3	21.4	52.7	74.0	-21.3	Peak	Horizontal
	14940.0	30.5	21.5	52.0	74.0	-22.0	Peak	Horizontal
	11055.5	32.7	17.9	50.6	74.0	-23.4	Peak	Vertical
	12084.0	32.6	17.8	50.4	74.0	-23.6	Peak	Vertical
	14073.0	31.0	21.5	52.5	74.0	-21.5	Peak	Vertical
	14634.0	30.9	21.4	52.3	74.0	-21.7	Peak	Vertical

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Test Site	AC1	Test Engineer	Jay Chou
Test Date	2021/09/02	Test Mode	Normal Operation
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

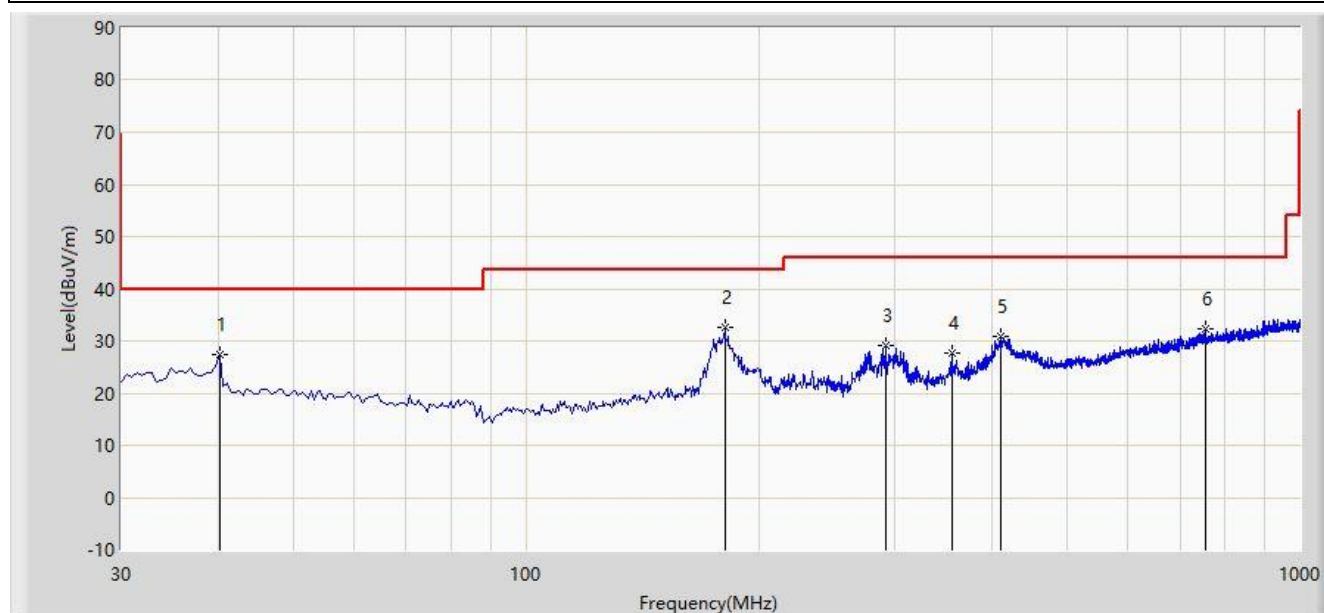
	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	8684.0	34.9	12.9	47.8	74.0	-26.2	Peak	Horizontal
	9721.0	35.7	14.8	50.5	74.0	-23.5	Peak	Horizontal
	10970.5	33.5	17.7	51.2	74.0	-22.8	Peak	Horizontal
	11659.0	33.0	18.3	51.3	74.0	-22.7	Peak	Horizontal
	8658.5	34.1	12.8	46.9	74.0	-27.1	Peak	Vertical
	10163.0	33.7	15.9	49.6	74.0	-24.4	Peak	Vertical
	11438.0	31.9	18.4	50.3	74.0	-23.7	Peak	Vertical
	12169.0	31.7	17.9	49.6	74.0	-24.4	Peak	Vertical

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

The worst case of Radiated Emission below 1GHz:

Site: AC1	Time: 2021/07/29 - 16:28
Limit: LP0002_RE(3m)	Engineer: Jay Chou
Probe: VULB 9162 + 6dB Attenuator	Polarity: Horizontal
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Test Mode: Transmit by 802.11b at Channel 2437MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			40.185	27.322	6.264	-12.678	40.000	21.058	PK
2		*	180.835	32.652	15.144	-10.848	43.500	17.508	PK
3			291.415	29.217	7.916	-16.783	46.000	21.300	PK
4			354.950	27.766	4.454	-18.234	46.000	23.312	PK
5			410.240	30.976	6.747	-15.024	46.000	24.229	PK
6			755.560	32.229	2.076	-13.771	46.000	30.153	PK

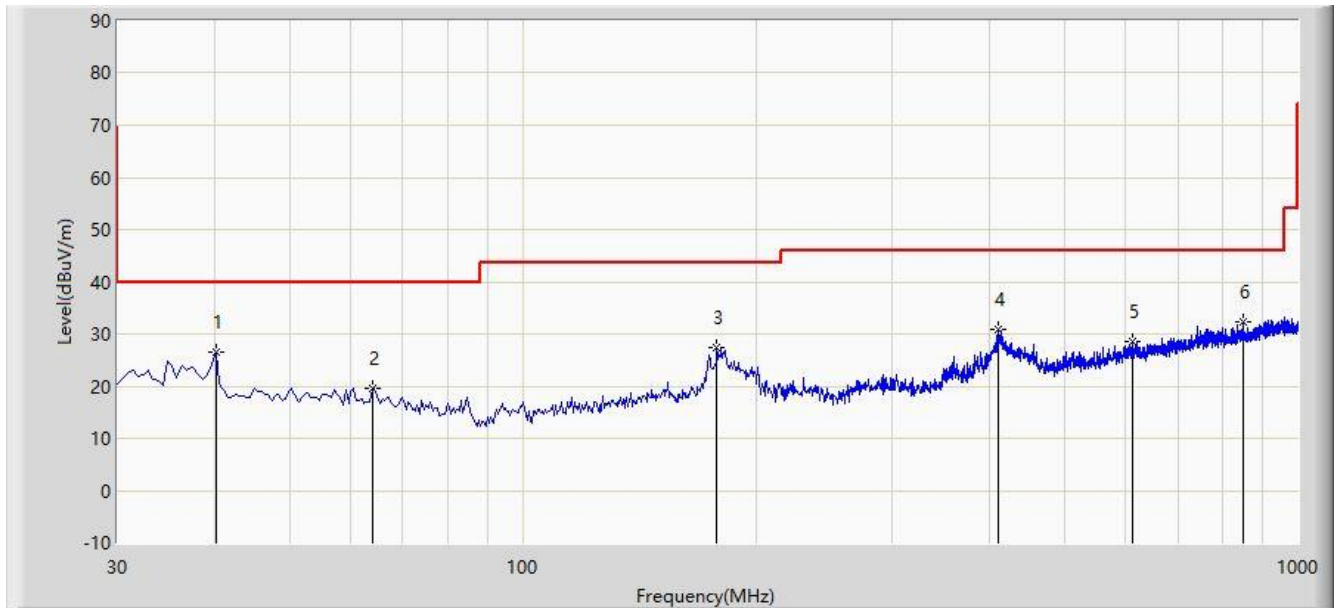
Note 1: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value.

Therefore, the data is not presented in the report.

Site: AC1	Time: 2021/07/29 - 16:28
Limit: LP0002_RE(3m)	Engineer: Jay Chou
Probe: VULB 9162 + 6dB Attenuator	Polarity: Vertical
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Test Mode: Transmit by 802.11b at Channel 2437MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	40.185	26.539	5.481	-13.461	40.000	21.058	PK
2			63.950	19.688	0.755	-20.312	40.000	18.933	PK
3			177.925	27.260	10.031	-16.240	43.500	17.229	PK
4			410.240	30.976	6.747	-15.024	46.000	24.229	PK
5			612.970	28.691	0.681	-17.309	46.000	28.010	PK
6			848.680	32.421	0.962	-13.579	46.000	31.459	PK

Note 1: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

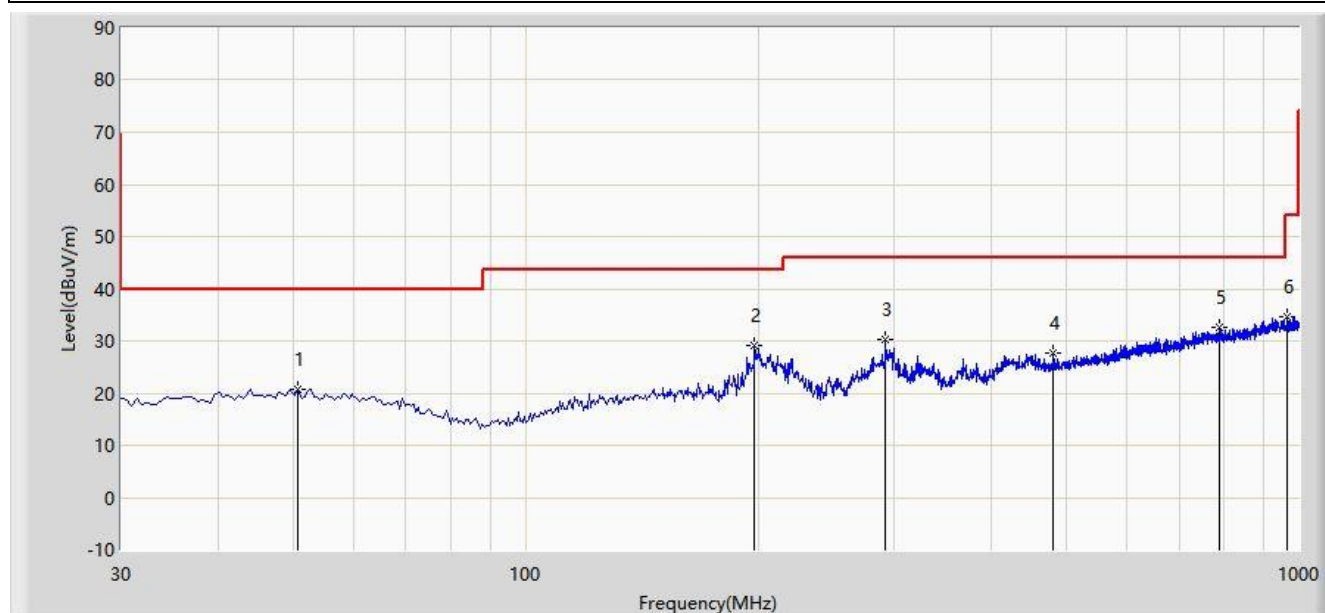
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value.

Therefore, the data is not presented in the report.

the data is not presented in the report.

Site: AC1	Time: 2021/09/02 - 18:39
Limit: LP0002_RE(3m)	Engineer: Jay Chou
Probe: VULB 9162 + 6dB Attenuator	Polarity: Horizontal
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Test Mode: Receive by 802.11n-HT20 at Channel 2437MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			50.855	20.693	-1.193	-19.307	40.000	21.885	PK
2			197.810	29.234	10.058	-14.266	43.500	19.176	PK
3			291.900	30.366	9.054	-15.634	46.000	21.312	PK
4			480.565	27.765	2.062	-18.235	46.000	25.703	PK
5		*	787.570	32.521	2.118	-13.479	46.000	30.403	PK
6			965.080	34.566	2.168	-19.434	54.000	32.398	PK

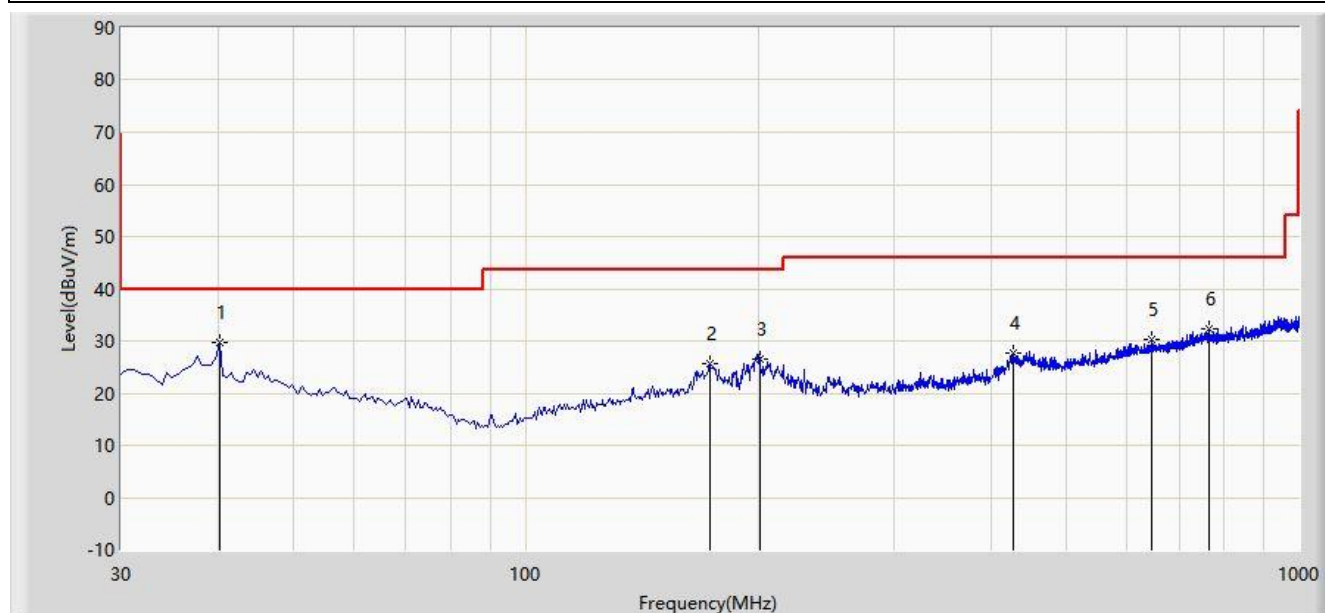
Note 1: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value.

Therefore, the data is not presented in the report.

Site: AC1	Time: 2021/09/02 - 18:40
Limit: LP0002_RE(3m)	Engineer: Jay Chou
Probe: VULB 9162 + 6dB Attenuator	Polarity: Vertical
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Test Mode: Receive by 802.11n-HT20 at Channel 2437MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	40.185	29.682	8.624	-10.318	40.000	21.058	PK
2			173.075	25.729	8.855	-17.771	43.500	16.874	PK
3			200.720	26.523	7.306	-16.977	43.500	19.217	PK
4			427.215	27.654	3.143	-18.346	46.000	24.511	PK
5			646.435	30.311	1.758	-15.689	46.000	28.553	PK
6			763.805	32.417	2.199	-13.583	46.000	30.218	PK

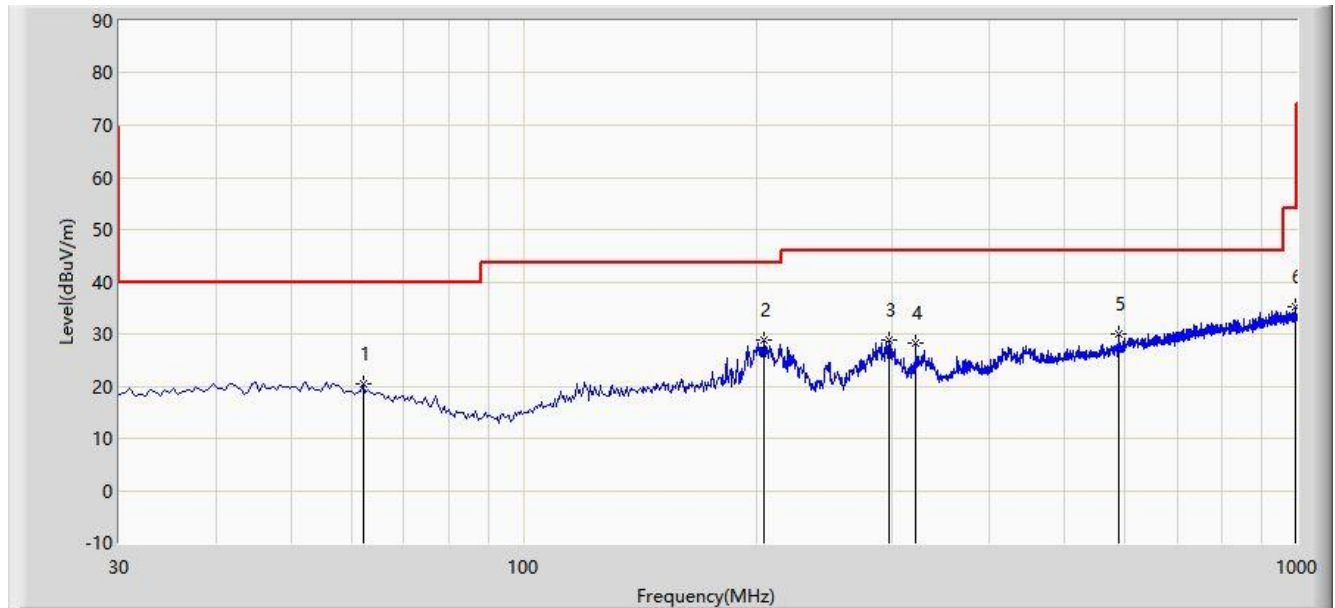
Note 1: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value.

Therefore, the data is not presented in the report.

Site: AC1	Time: 2021/09/02 - 18:34
Limit: LP0002_RE(3m)	Engineer: Jay Chou
Probe: VULB 9162 + 6dB Attenuator	Polarity: Horizontal
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Test Mode 6, Normal operation	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			62.010	20.465	0.904	-19.535	40.000	19.561	PK
2		*	204.600	28.911	9.873	-14.589	43.500	19.038	PK
3			297.235	28.893	7.459	-17.107	46.000	21.434	PK
4			321.970	28.204	5.944	-17.796	46.000	22.260	PK
5			588.720	30.068	2.491	-15.932	46.000	27.577	PK
6			997.090	35.305	2.402	-18.695	54.000	32.903	PK

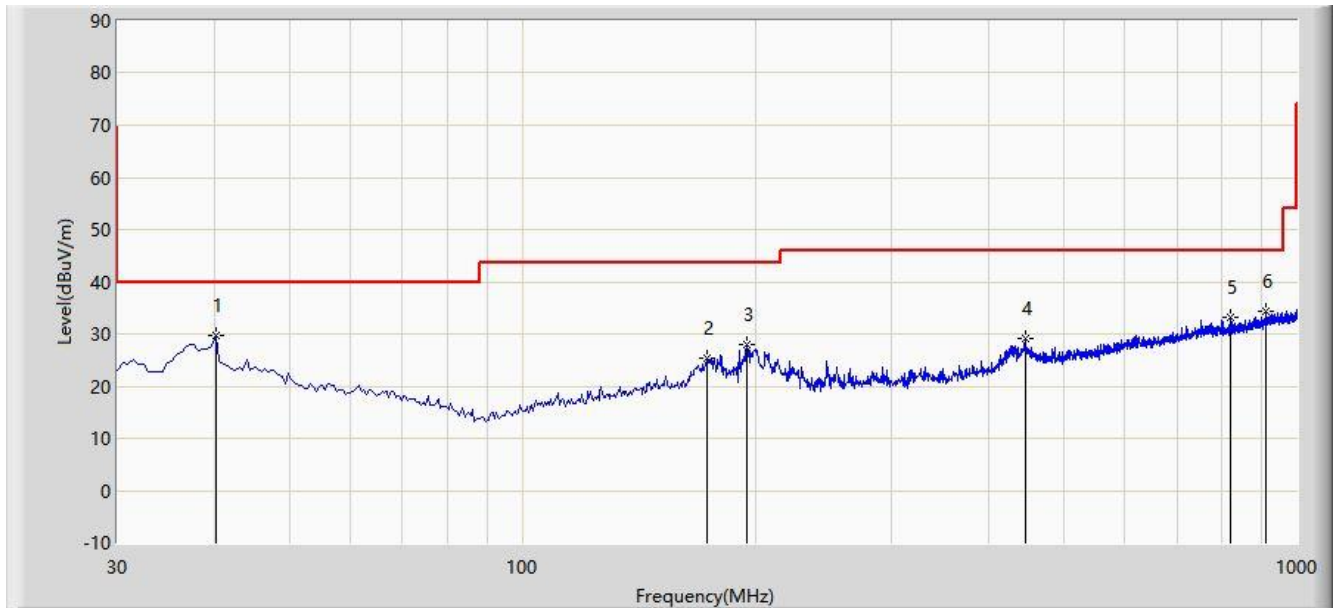
Note 1: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value.

Therefore, the data is not presented in the report.

Site: AC1	Time: 2021/09/02 - 18:38
Limit: LP0002_RE(3m)	Engineer: Jay Chou
Probe: VULB 9162 + 6dB Attenuator	Polarity: Vertical
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Test Mode 6, Normal operation	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	40.185	29.740	8.682	-10.260	40.000	21.058	PK
2			173.075	25.274	8.400	-18.226	43.500	16.874	PK
3			195.385	28.072	8.977	-15.428	43.500	19.096	PK
4			445.645	29.189	4.371	-16.811	46.000	24.818	PK
5			822.005	33.062	2.128	-12.938	46.000	30.934	PK
6			913.670	34.329	2.453	-11.671	46.000	31.876	PK

Note 1: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value.

Therefore, the data is not presented in the report.

5.5. 混附發射之 RF 傳導發射

5.5.1. 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 4.10.1.5 節，使用頻帶範圍外之任意 100 千赫 (kHz) 內，發射機所產生的射頻功率相較於使用頻帶範圍中包含最高所需功率之 100 千赫 (kHz) 內的射頻功率，至少須衰減 20 dB，以射頻傳導或輻射方式測量。如發射機以本節 4.10.1(2)(2.3) 之峰值傳導輸出功率量測方式者，至少須衰減 30 dB。此外，落於第 3.5 節禁用頻段之輻射發射，應符合第 3.6 節之規定。

備註

解析頻寬設置為 1.3 MHz 是為了提供量測速度。使用限值還是法規定義的基於解析頻寬 100 kHz 情形下主波下降 20dB，如果量測波形接近限值，我們會使用降低解析頻寬方式作驗證。

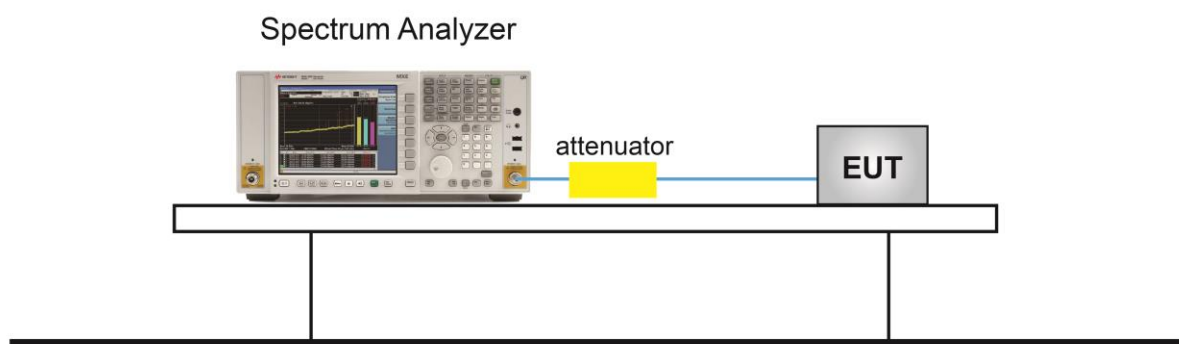
5.5.2. 量測方法

依據國家通訊傳播委員會低功率射頻器材技術規範之附件三，頻率跳頻展頻系統檢測之參考程式七 混附發射之 RF 傳導發射：

(一) 頻譜分析儀設定如下：

1. 頻率掃描範圍足以檢測頻帶內的發射波峰位準以及由受測物產生之最低頻率到第 10 次諧波的所有混附發射，通常需要分幾段以涵蓋全部頻率範圍。
2. 解析頻寬為 100kHz，視訊頻寬不小於解析頻寬。
3. 掃描時間為自動，檢波功能為峰值，訊號軌跡為最大保留 (Max Hold)。
4. 將標記設定於任何欲紀錄之波峰上，所顯示之位準值必須符合指定之限制值。

5.5.3. 測試架構圖



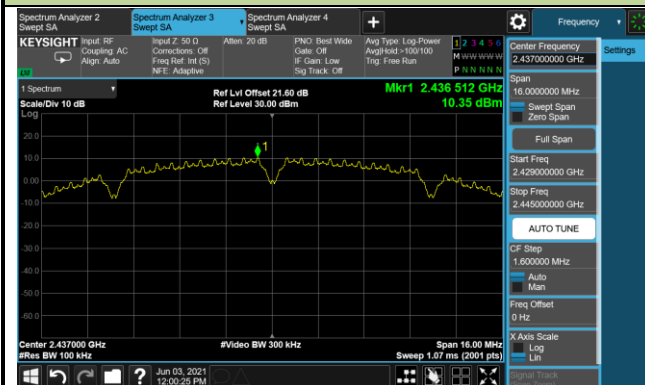
5.5.4. 混附發射之 RF 傳導發射測試結果

待測物名稱	AC750 Wi-Fi 訊號延伸器	溫度	25°C
測試工程師	Eric Lin	濕度	54%
測試場地	SR2	測試日期	2021/06/03

Test Mode	Data Rate / MCS	Channel No.	Frequency (MHz)	Limit (dBc)	Result
802.11b	1Mbps	01	2412	≤ 30	Pass
802.11b	1Mbps	06	2437	≤ 30	Pass
802.11b	1Mbps	11	2462	≤ 30	Pass
802.11g	6Mbps	01	2412	≤ 30	Pass
802.11g	6Mbps	06	2437	≤ 30	Pass
802.11g	6Mbps	11	2462	≤ 30	Pass
802.11n-HT20	MCS0	01	2412	≤ 30	Pass
802.11n-HT20	MCS0	06	2437	≤ 30	Pass
802.11n-HT20	MCS0	11	2462	≤ 30	Pass
802.11n-HT40	MCS0	03	2422	≤ 30	Pass
802.11n-HT40	MCS0	06	2437	≤ 30	Pass
802.11n-HT40	MCS0	09	2452	≤ 30	Pass

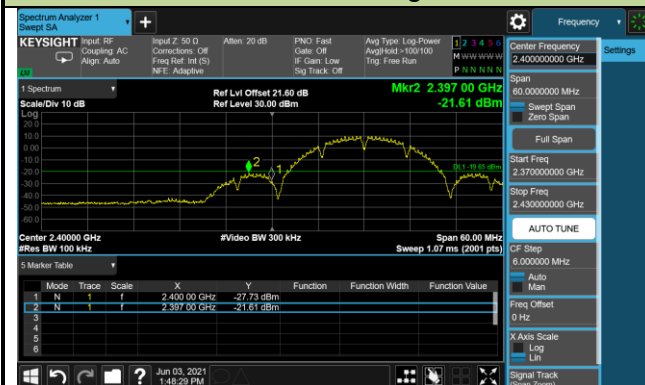
Out-of-Band Emissions

100kHz PSD reference Level

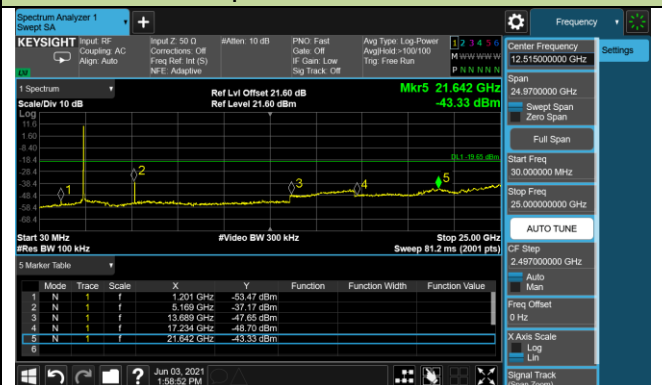


802.11b - Channel 01 (2412MHz) - Ant 0 / Ant 0 + 1

Low Band Edge



Spurious Emission



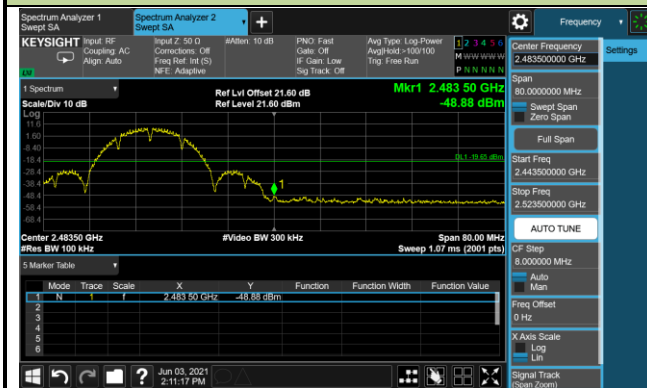
802.11b - Channel 06 (2437MHz) - Ant 0 / Ant 0 + 1

Spurious Emission



802.11b - Channel 11 (2462MHz) - Ant 0 / Ant 0 + 1

High Band Edge

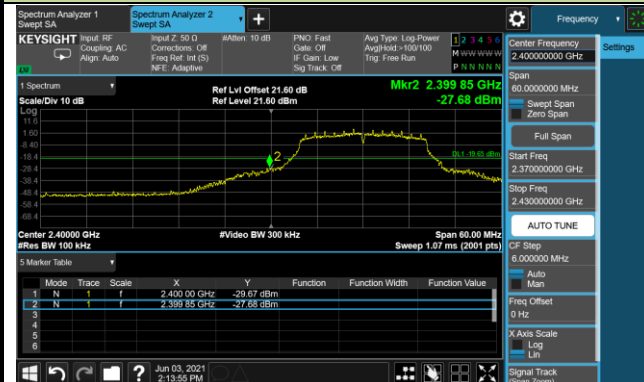


Spurious Emission

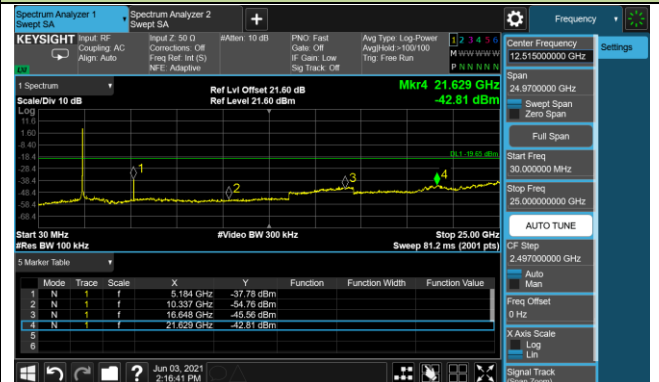


802.11g - Channel 01 (2412MHz) - Ant 0 / Ant 0 + 1

Low Band Edge

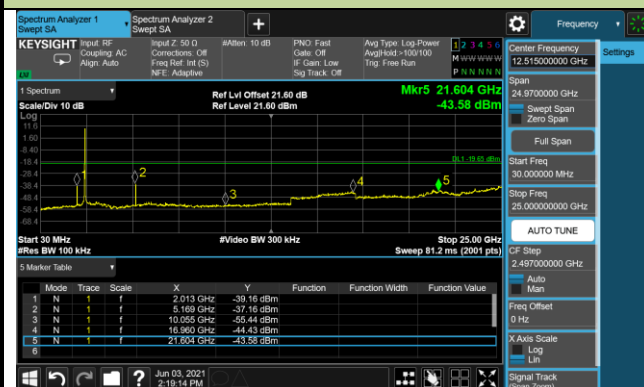


Spurious Emission



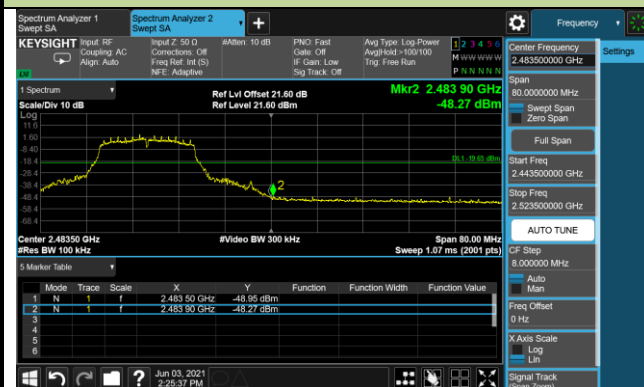
802.11g - Channel 06 (2437MHz) - Ant 0 / Ant 0 + 1

Spurious Emission

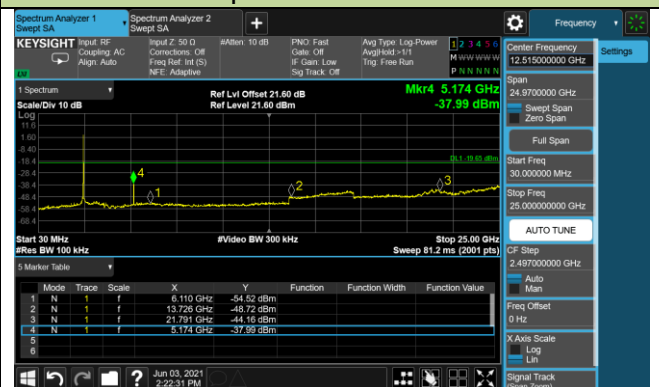


802.11g - Channel 11 (2462MHz) - Ant 0 / Ant 0 + 1

High Band Edge



Spurious Emission

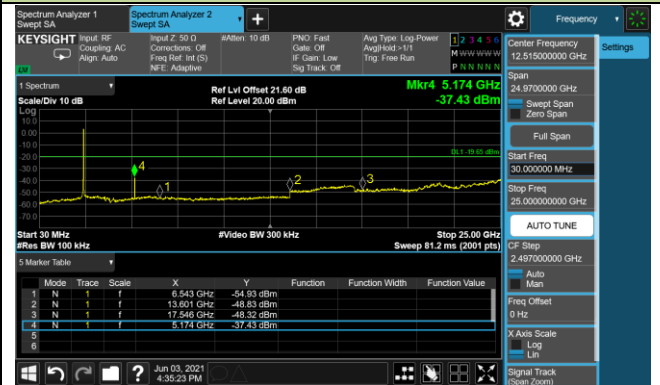


802.11n-HT20 - Channel 01 (2412MHz) - Ant 0 / Ant 0 + 1

Low Band Edge

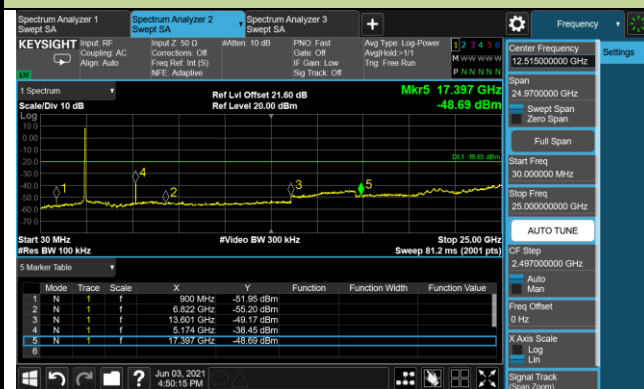


Spurious Emission



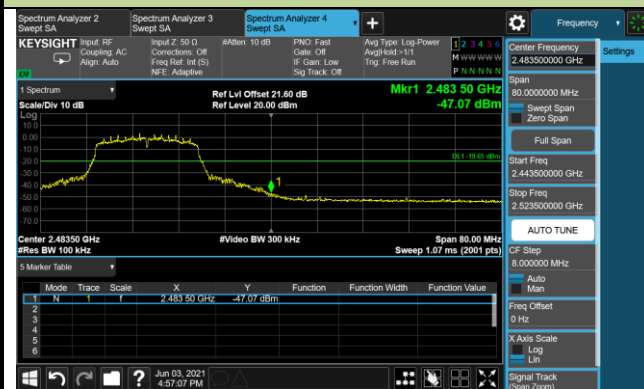
802.11n-HT20 - Channel 06 (2437MHz) - Ant 0 / Ant 0 + 1

Spurious Emission

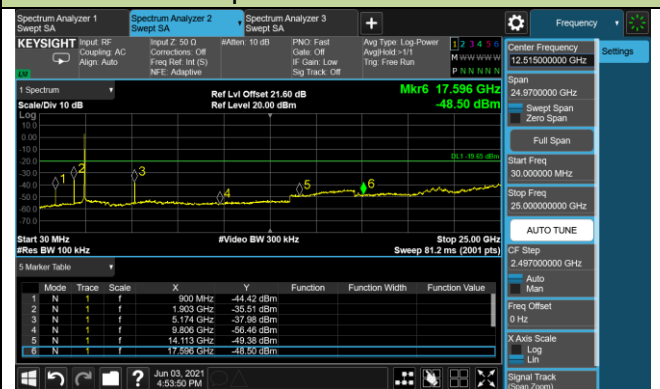


802.11n-HT20 - Channel 11 (2462MHz) - Ant 0 / Ant 0 + 1

High Band Edge

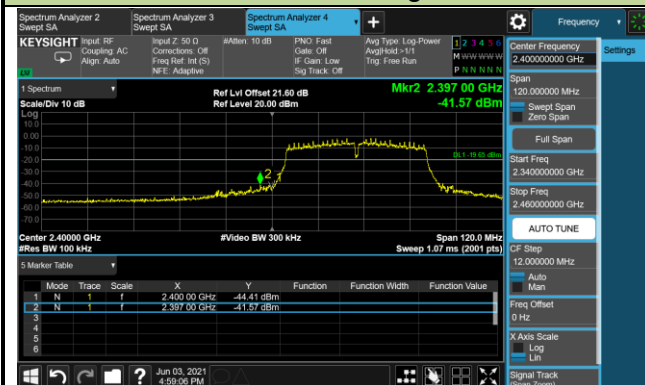


Spurious Emission

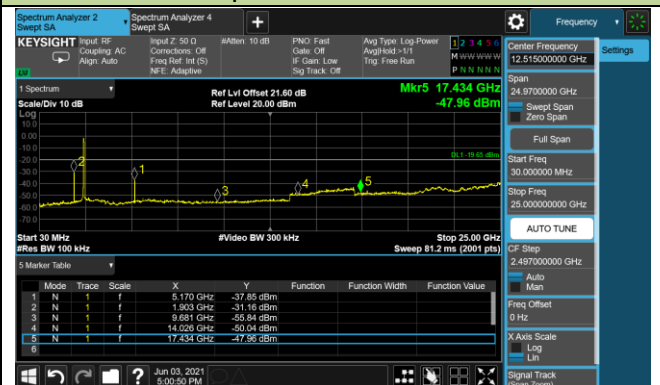


802.11n-HT40 - Channel 03 (2422MHz) - Ant 0 / Ant 0 + 1

Low Band Edge

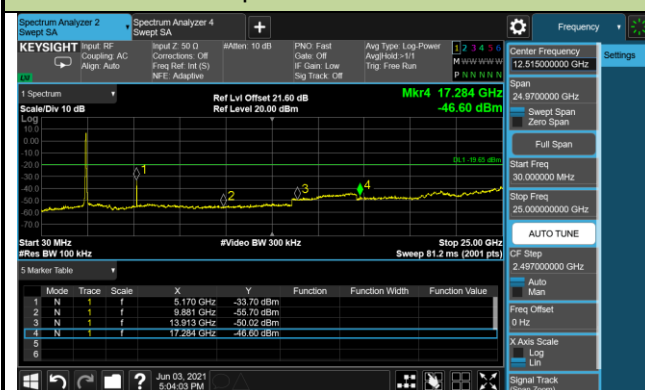


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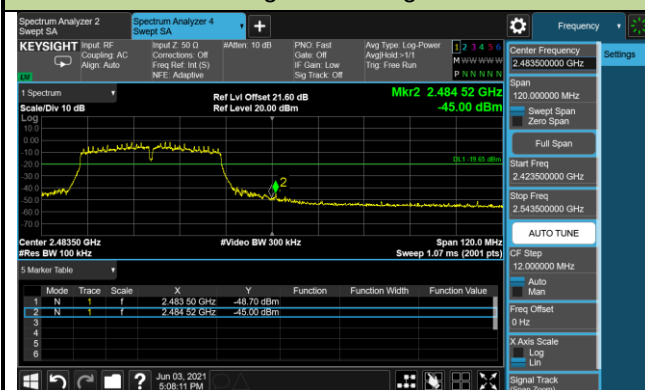
802.11n-HT40 - Channel 06 (2437MHz) - Ant 0 / Ant 0 + 1

Spurious Emission



802.11n-HT40 - Channel 09 (2452MHz) - Ant 0 / Ant 0 + 1

High Band Edge

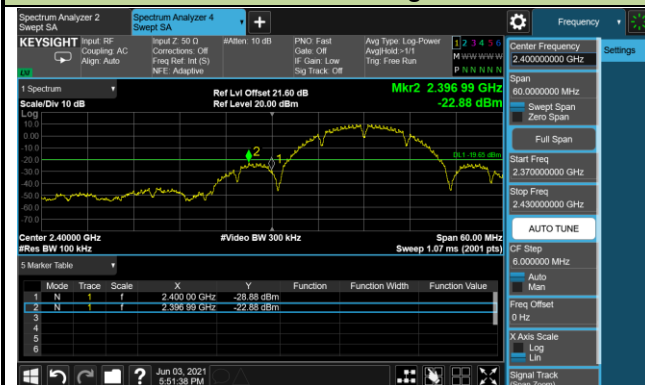


Spurious Emission

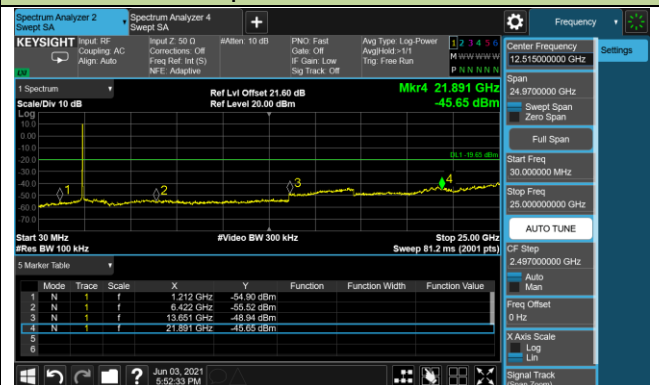


802.11b - Channel 01 (2412MHz) – Ant1 / Ant 0 + 1

Low Band Edge

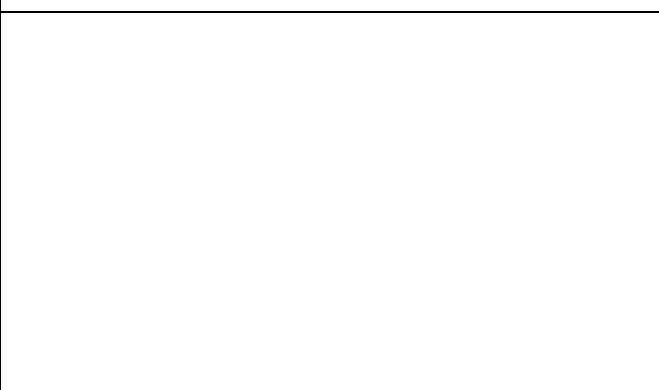
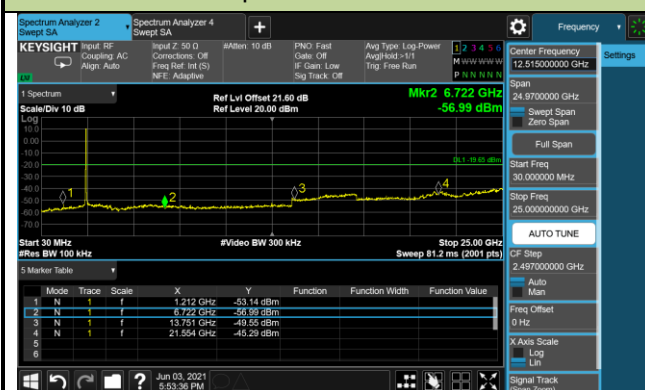


Spurious Emission



802.11b - Channel 06 (2437MHz) - Ant 0 / Ant 0 + 1

Spurious Emission



802.11b - Channel 11 (2462MHz) - Ant 1 / Ant 0 + 1

High Band Edge

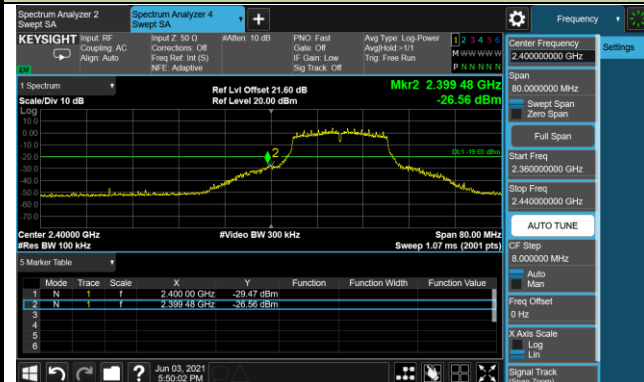


Spurious Emission



802.11g - Channel 01 (2412MHz) - Ant 1 / Ant 0 + 1

Low Band Edge

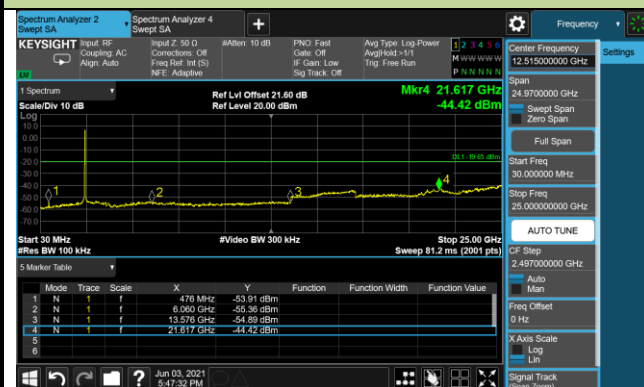


Spurious Emission



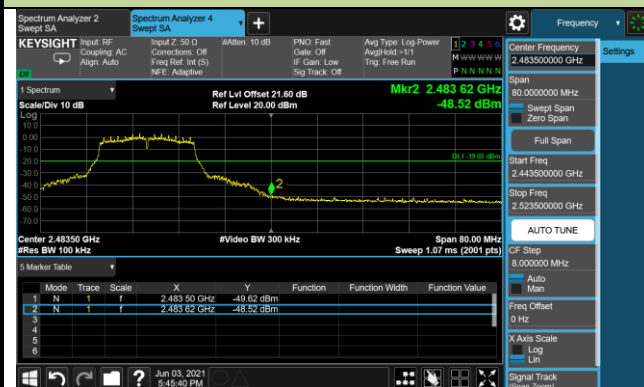
802.11g - Channel 06 (2437MHz) - Ant 1 / Ant 0 + 1

Spurious Emission



802.11g - Channel 11 (2462MHz) - Ant 1 / Ant 0 + 1

High Band Edge

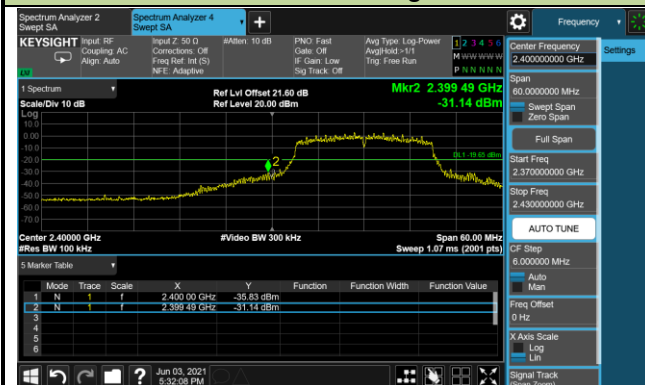


Spurious Emission

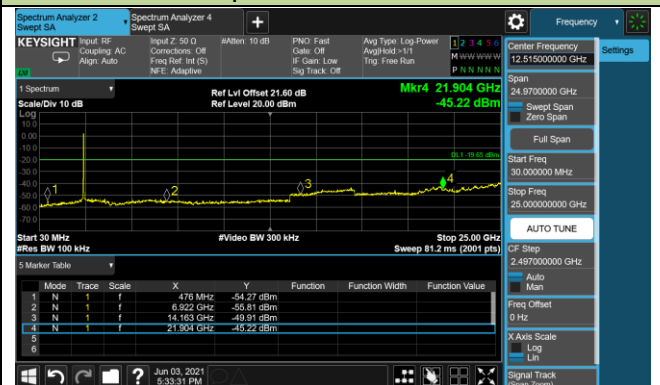


802.11n-HT20 - Channel 01 (2412MHz) - Ant 1 / Ant 0 + 1

Low Band Edge

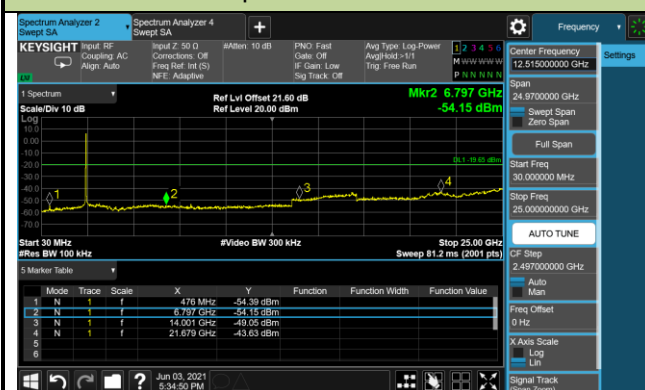


Spurious Emission



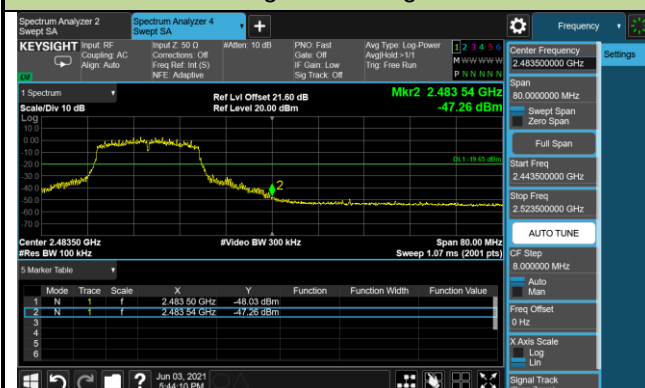
802.11n-HT20 - Channel 06 (2437MHz) - Ant 1 / Ant 0 + 1

Spurious Emission



802.11n-HT20 - Channel 11 (2462MHz) - Ant 1 / Ant 0 + 1

High Band Edge

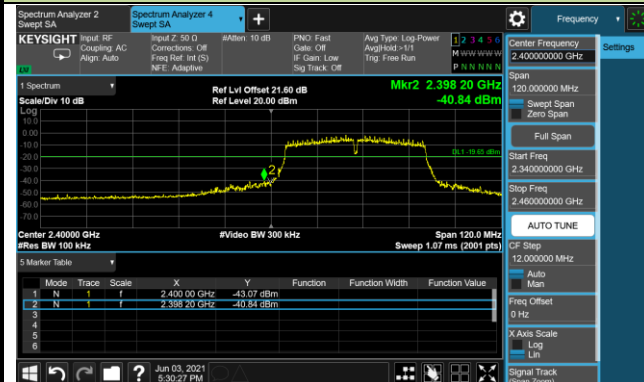


Spurious Emission



802.11n-HT40 - Channel 03 (2422MHz) - Ant 1/ Ant 0 + 1

Low Band Edge

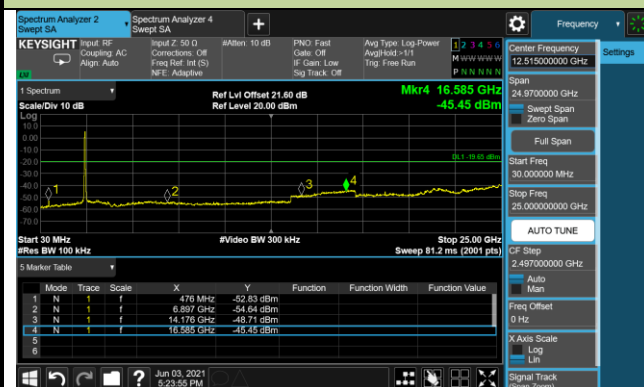


Spurious Emission



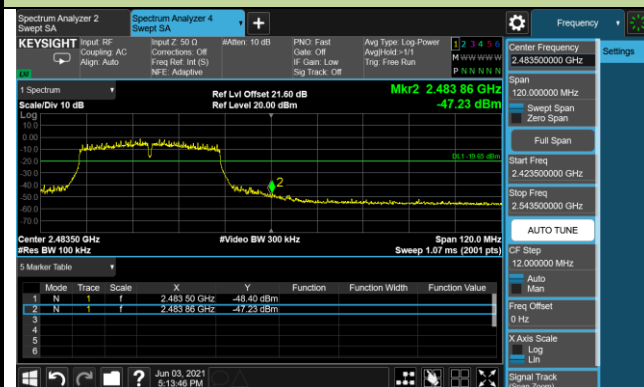
802.11n-HT40 - Channel 06 (2437MHz) - Ant 1 / Ant 0 + 1

Spurious Emission

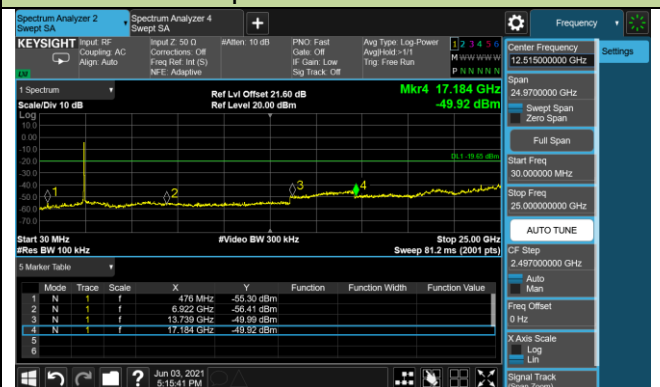


802.11n-HT40 - Channel 09 (2452MHz) - Ant 1 / Ant 0 + 1

High Band Edge



Spurious Emission



5.6. 開放頻帶邊緣之不必要幅射要求

5.6.1. 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 4.10.1.5 節，使用頻帶範圍外之任意 100 千赫 (kHz) 內，發射器所產生的射頻功率相較於使用頻帶範圍中包含最高所需功率之 100 千赫 (kHz) 內的射頻功率，衰減值限制如下：

(1) 輸出功率以低功率射頻器材技術規範附件二之峰值輸出功率方式量測者，至少須衰減 20 dB，可使用射頻傳導或輻射方式測量。

(2) 輸出功率以低功率射頻器材技術規範 4.10.1(2)(2.3) 之最大傳導輸出功率量測方式者，至少須衰減 30 dB。

此外，落於第 3.5 節禁用頻段之輻射發射，應符合第 3.6 節之規定(限制要求如下)：

發射依據國家通訊傳播委員會低功率射頻器材技術規範之第 3.6 節，低功率射頻器材，除本規範各章節另有放寬規定者外，其電場強度不得超過下表之限值，且其不必要之發射皆不得大於主波發射強度。各頻段重疊處，以較嚴格之限制值為準。

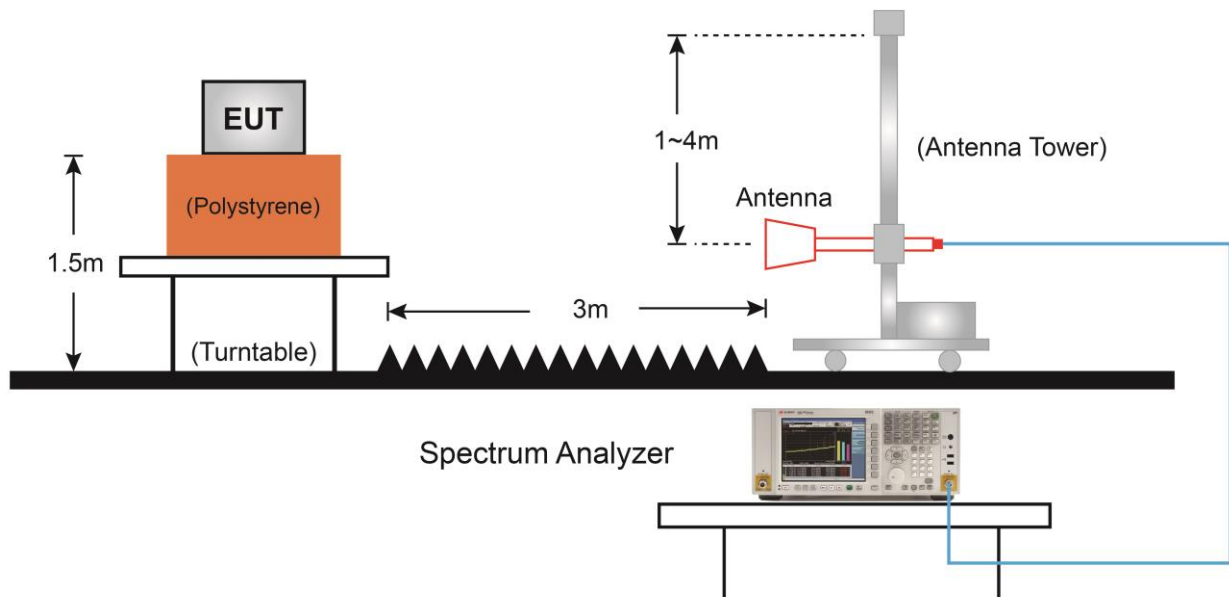
頻率(f) (MHz)	電場強度 (微伏特/公尺, $\mu\text{V/m}$)	測距 (公尺)
$0.009 \leq f \leq 0.490$	$2400/f(\text{kHz})$	300
$0.490 < f \leq 1.705$	$24000/f(\text{kHz})$	30
$1.705 < f < 30$	30	30
$30 \leq f \leq 88$	100	3
$88 < f \leq 216$	150	3
$216 < f \leq 960$	200	3
$960 < f$	500	3

上表規定之電場強度，發射頻率在 9 kHz~90 kHz、110 kHz~490 kHz 及 1000MHz 以上者，其量測應以平均值檢波器為基準，且須符合低功率射頻器材技術規範第 6.14.節之規定；其他發射頻率，應以 CISPR 準峰值(quasi-peak) 檢波器測量；非以上表所指定之距離測量時，應符合第 6.5 節之規定，而輻射發射之量測頻率範圍須符合低功率射頻器材技術規範第 6.12 節之規定。

5.6.2. 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），受測物與配件設備之電源線無須束綁，桌面上受測設備的所有電源線由桌子的後緣垂下沿旋轉桌表面接至交流插座。落地型設備的交流電源線可以方便的型態走線。桌面可 360 度旋轉，接收天線置於距待測物 3m 距離，高度可在 1 至 4 公尺間變動，以量測待測物之最大輻射電場強度。接收天線並應於水準及垂直極化方向各量測一次。

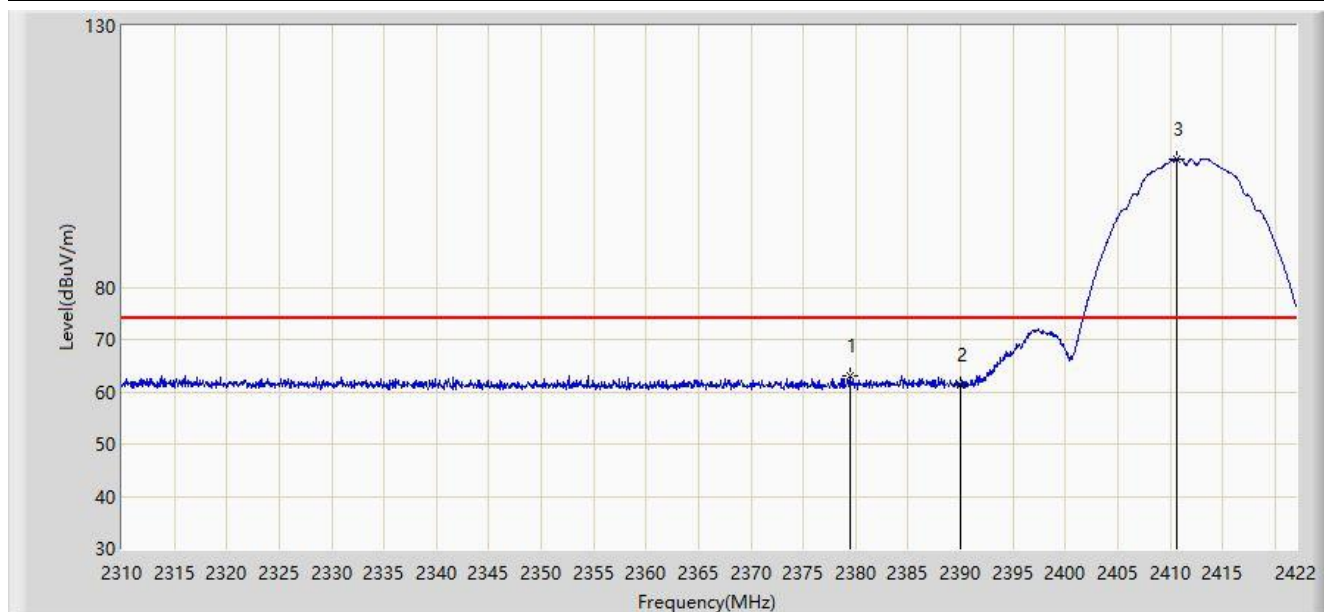
5.6.3. 測試架構圖



備 註: 使用頻率範圍外之任意 100 千赫雜訊, 使用輻射方式測量, 6 dB 頻寬使用 1MHz 遠大於 100kHz 仍可 PASS, 檢附其測試數據。

5.6.4. 測試結果

Site: AC1	Time: 2021/05/31 - 13:26
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Horizontal
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11b at Channel 2412MHz	

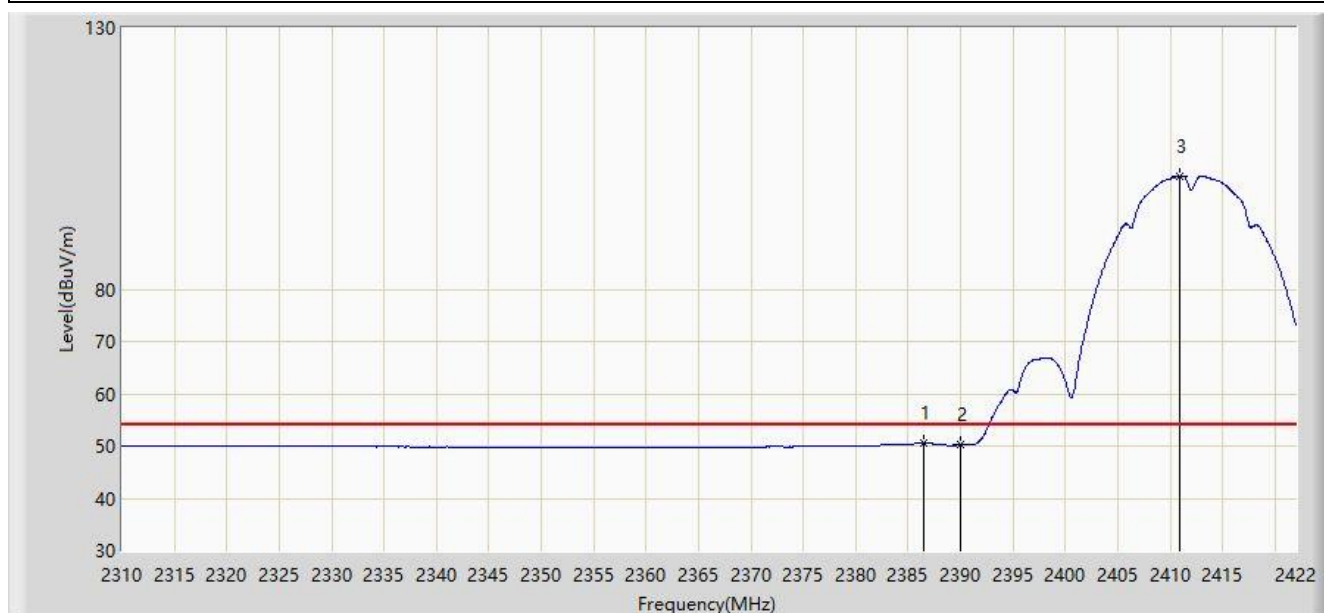


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1			2379.440	62.977	30.728	-11.023	74.000	32.249	PK
2			2390.000	61.443	29.147	-12.557	74.000	32.296	PK
3		*	2410.632	104.582	72.196	N/A	N/A	32.386	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 13:28
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Horizontal
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11b at Channel 2412MHz	

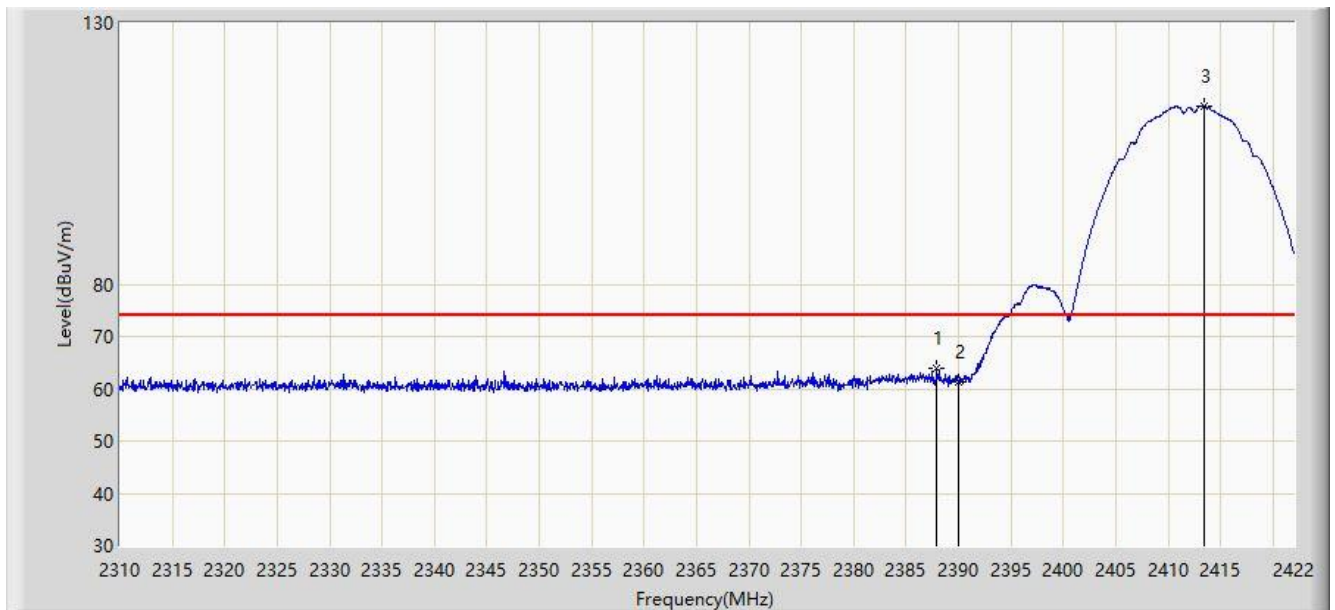


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1			2386.440	50.576	18.296	-3.424	54.000	32.281	AV
2			2390.000	50.192	17.896	-3.808	54.000	32.296	AV
3		*	2410.968	101.640	69.252	N/A	N/A	32.388	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 13:23
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Vertical
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11b at Channel 2412MHz	

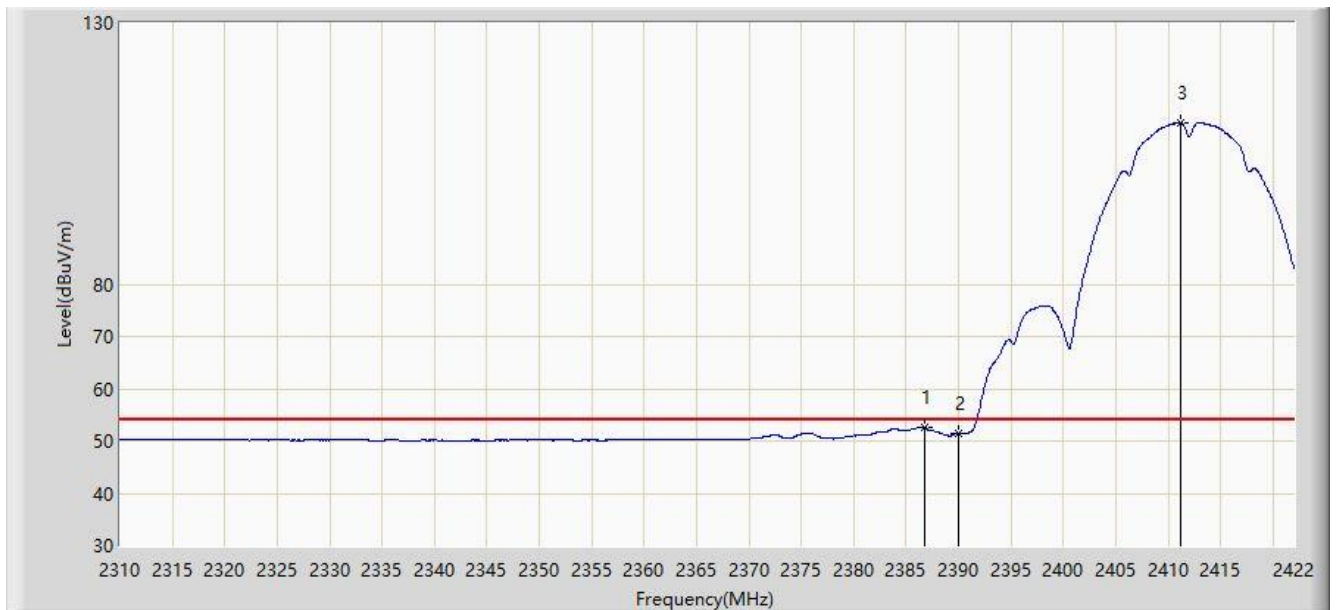


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1			2387.952	63.925	31.638	-10.075	74.000	32.287	PK
2			2390.000	61.234	28.938	-12.766	74.000	32.296	PK
3		*	2413.376	114.083	81.685	N/A	N/A	32.399	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 11:44
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Vertical
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11b at Channel 2412MHz	

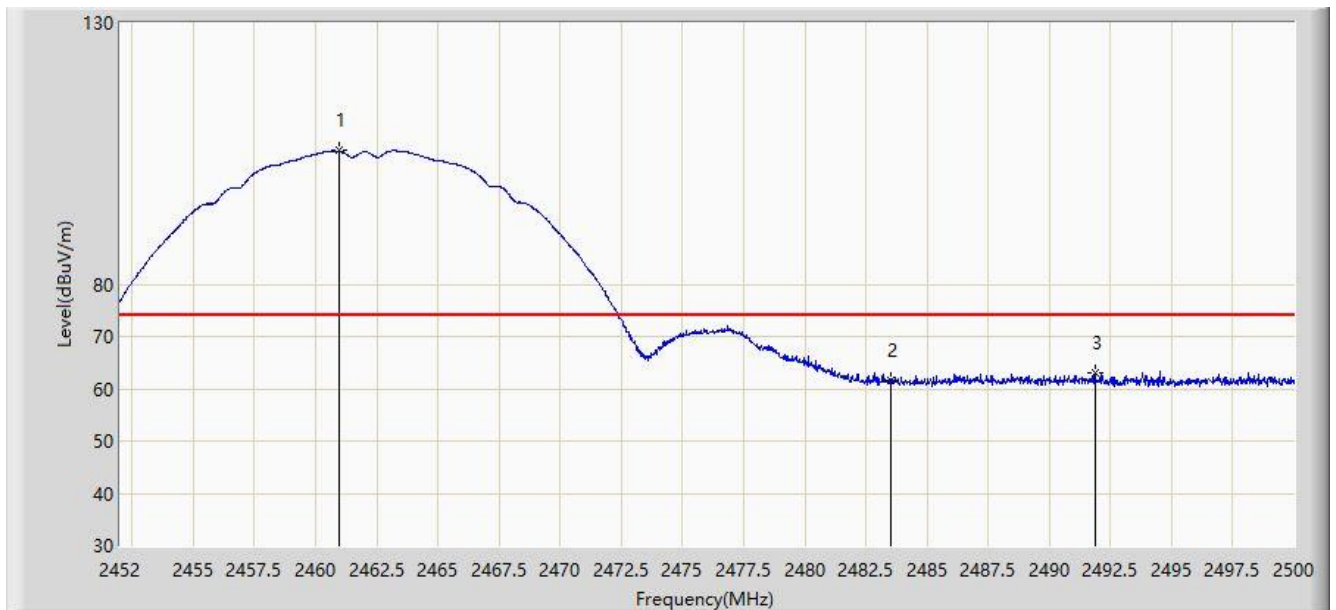


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1			2386.832	52.627	20.345	-1.373	54.000	32.282	AV
2			2390.000	51.470	19.174	-2.530	54.000	32.296	AV
3	X	*	2411.136	111.011	78.623	N/A	N/A	32.388	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 14:02
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Horizontal
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11b at Channel 2462MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1		*	2460.952	105.509	72.901	N/A	N/A	32.608	PK
2			2483.500	61.615	28.907	-12.385	74.000	32.707	PK
3			2491.864	63.110	30.366	-10.890	74.000	32.744	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 14:05
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Horizontal
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11b at Channel 2462MHz	

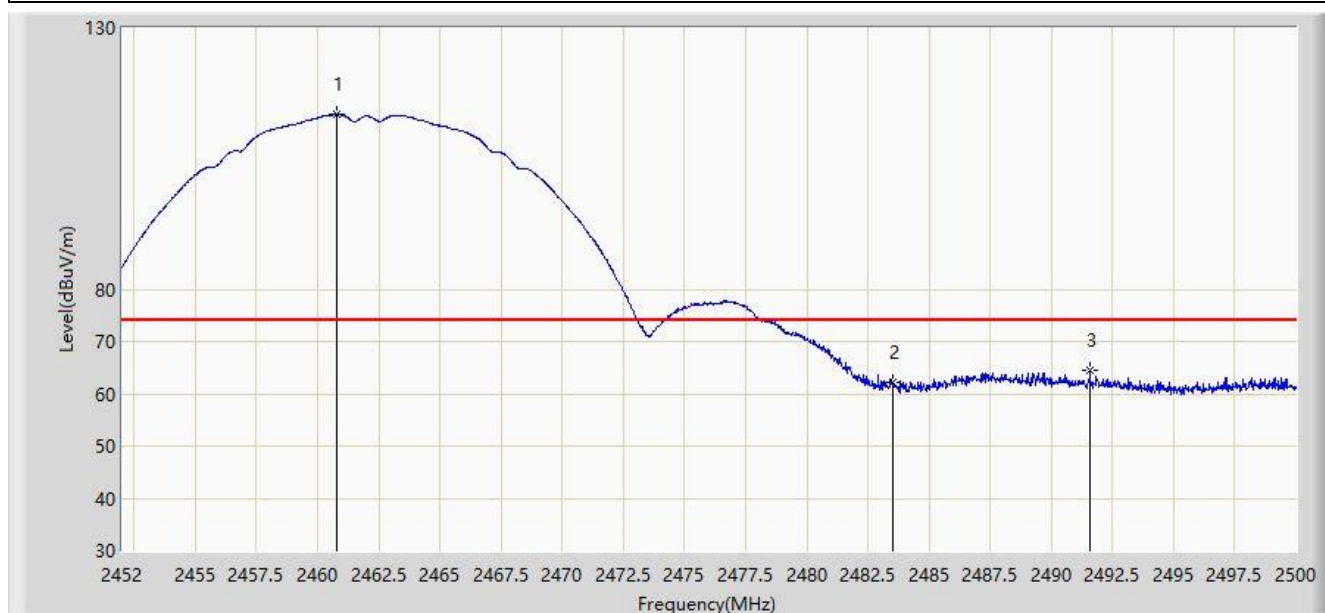


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1		*	2461.024	102.522	69.914	N/A	N/A	32.608	AV
2			2483.500	50.195	17.487	-3.805	54.000	32.707	AV
3			2486.752	50.524	17.802	-3.476	54.000	32.722	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 14:01
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Vertical
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11b at Channel 2462MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1		*	2460.808	113.433	80.826	N/A	N/A	32.607	PK
2			2483.500	62.199	29.491	-11.801	74.000	32.707	PK
3			2491.576	64.539	31.796	-9.461	74.000	32.743	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 14:00
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Vertical
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11b at Channel 2462MHz	

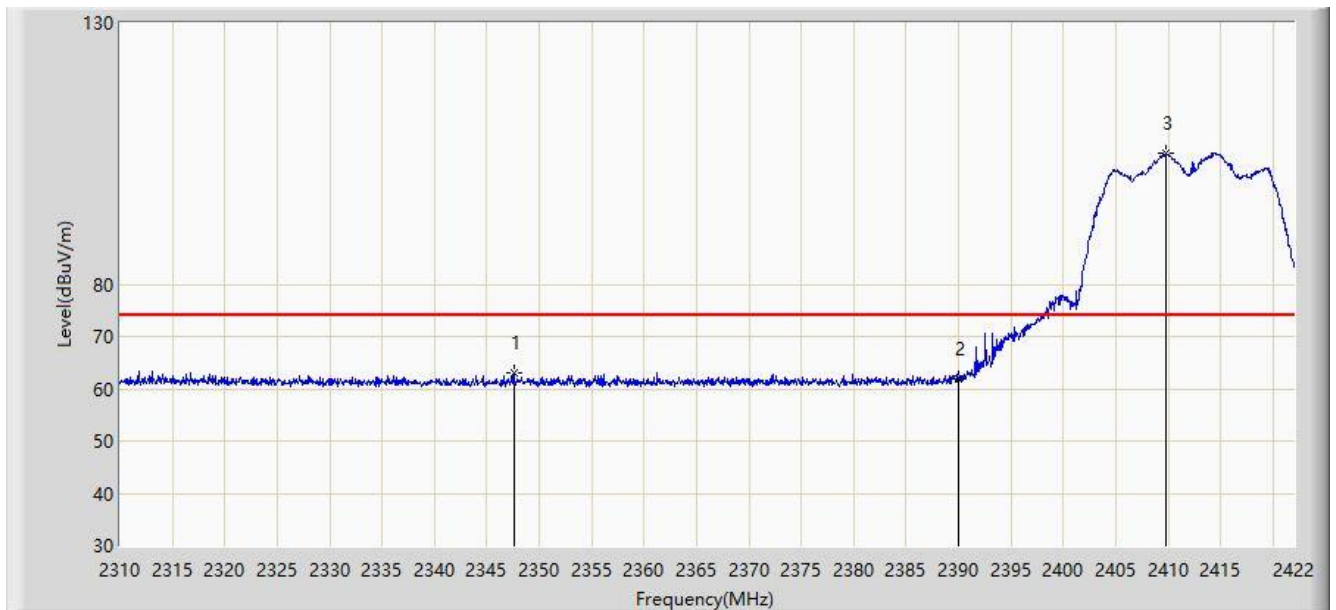


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2460.928	110.293	77.685	N/A	N/A	32.608	AV
2			2483.500	51.502	18.794	-2.498	54.000	32.707	AV
3			2487.400	53.369	20.644	-0.631	54.000	32.725	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 14:18
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Horizontal
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11g at Channel 2412MHz	

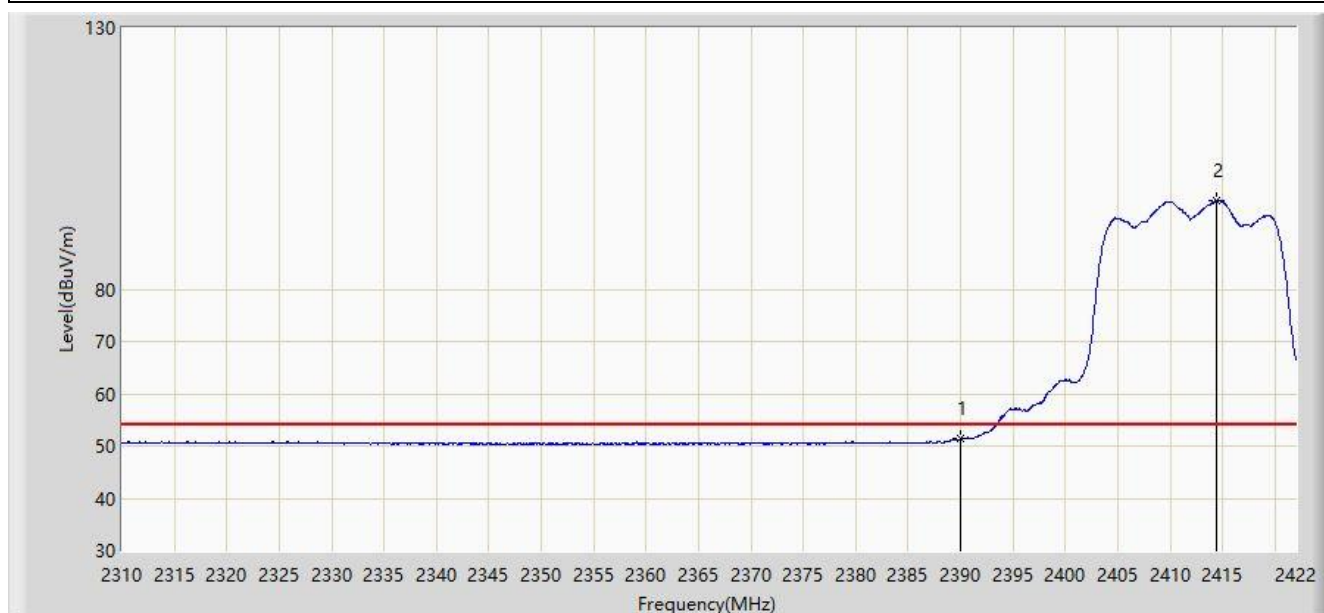


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1			2347.576	63.147	31.037	-10.853	74.000	32.110	PK
2			2390.000	61.933	29.637	-12.067	74.000	32.296	PK
3		*	2409.736	105.113	72.731	N/A	N/A	32.382	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 14:21
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Horizontal
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11g at Channel 2412MHz	

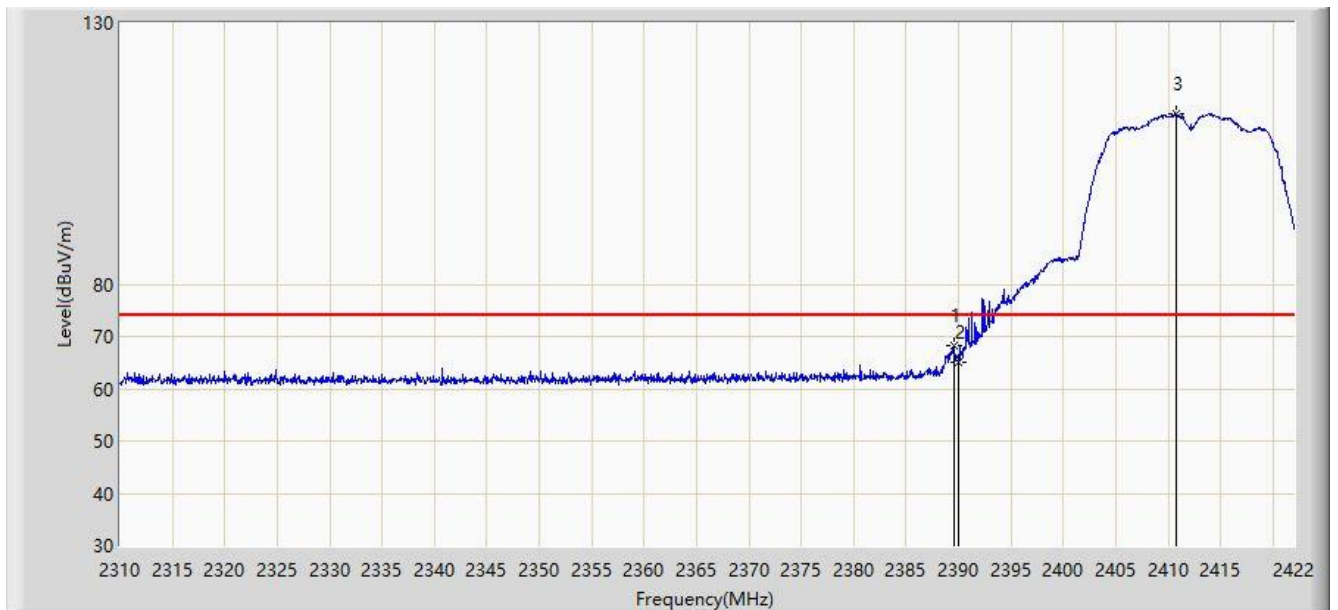


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1			2390.000	51.380	19.084	-2.620	54.000	32.296	AV
2		*	2414.440	96.972	64.569	N/A	N/A	32.403	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 14:17
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Vertical
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11g at Channel 2412MHz	

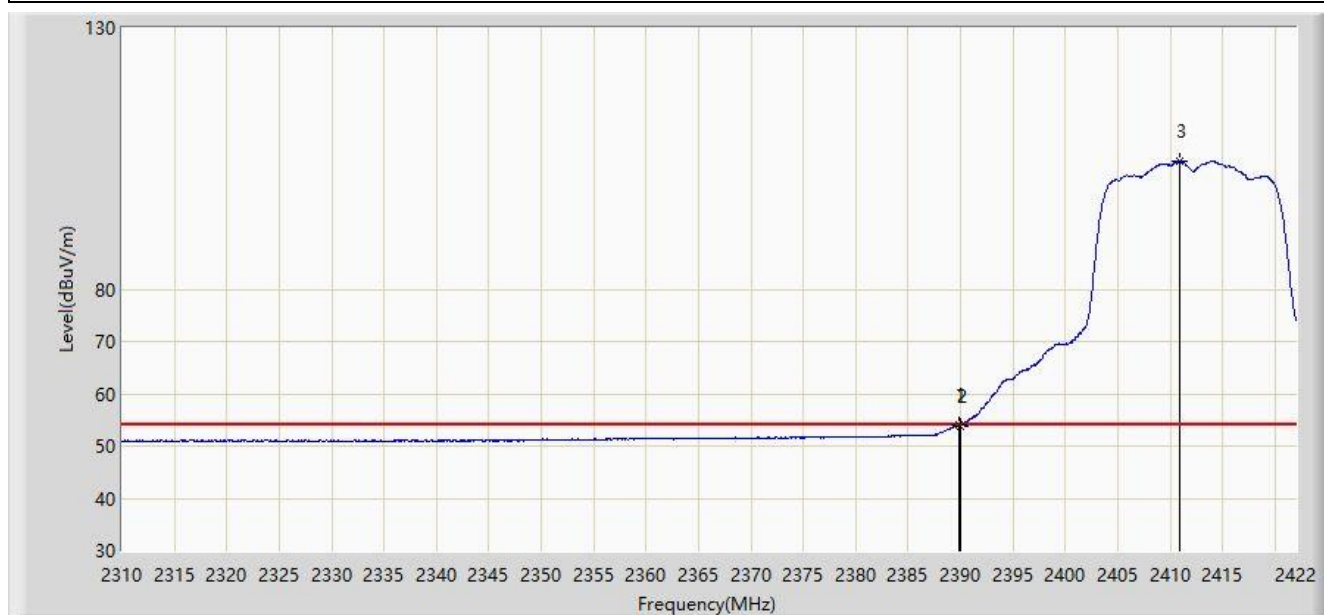


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1			2389.576	68.187	35.893	-5.813	74.000	32.295	PK
2			2390.000	65.213	32.917	-8.787	74.000	32.296	PK
3		*	2410.800	112.562	80.175	N/A	N/A	32.387	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 14:14
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Vertical
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11g at Channel 2412MHz	

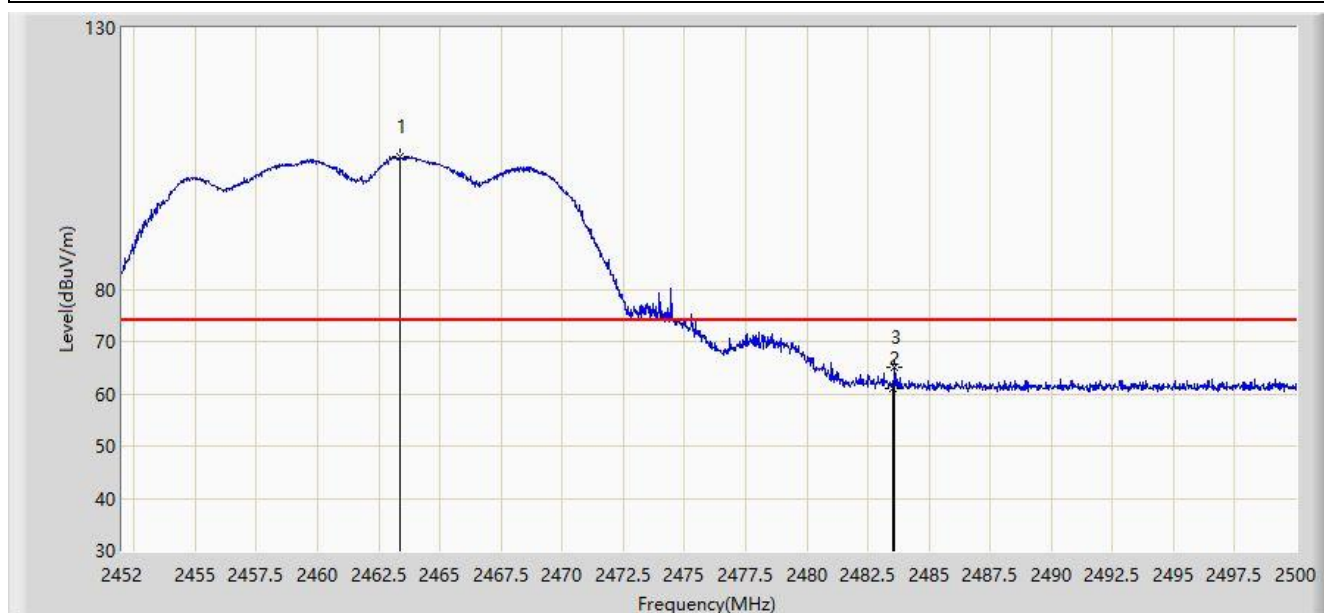


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1			2389.856	53.968	21.672	-0.032	54.000	32.296	AV
2			2390.000	53.883	21.587	-0.117	54.000	32.296	AV
3		*	2410.912	104.572	72.185	N/A	N/A	32.388	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 14:43
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Horizontal
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11g at Channel 2462MHz	

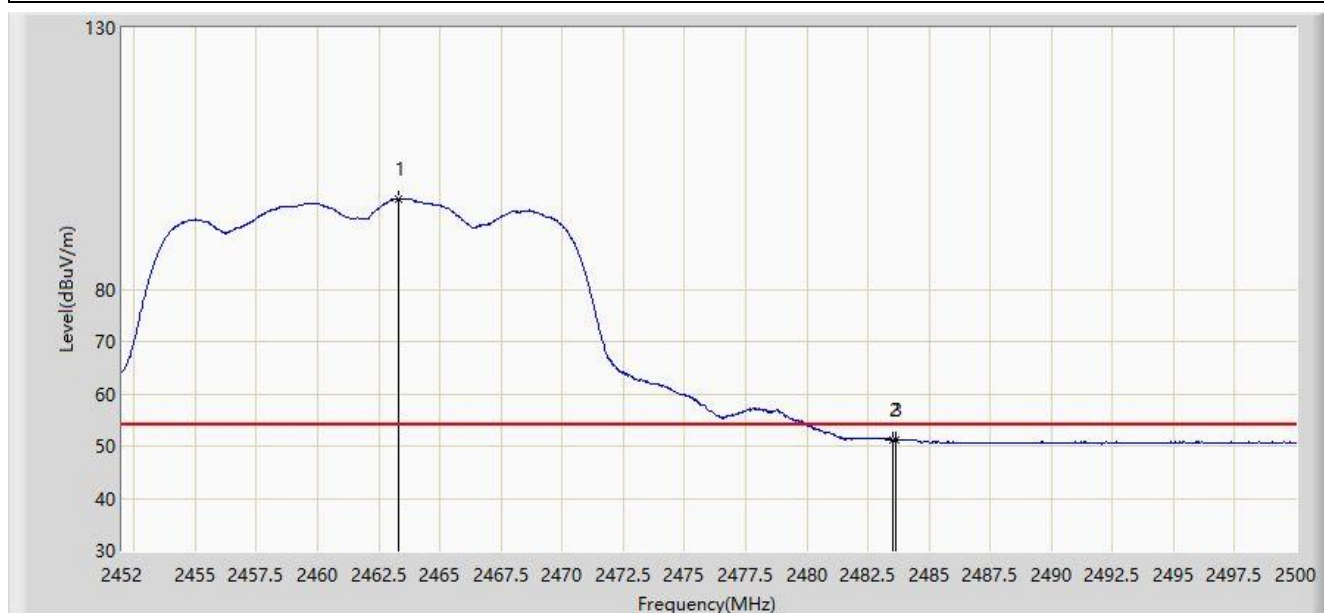


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1		*	2463.352	105.324	72.706	N/A	N/A	32.618	PK
2			2483.500	61.039	28.331	-12.961	74.000	32.707	PK
3			2483.608	65.024	32.316	-8.976	74.000	32.709	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 14:44
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Horizontal
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11g at Channel 2462MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1		*	2463.304	97.243	64.625	N/A	N/A	32.618	AV
2			2483.500	51.243	18.535	-2.757	54.000	32.707	AV
3			2483.656	51.279	18.571	-2.721	54.000	32.709	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 14:39
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Vertical
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11g at Channel 2462MHz	

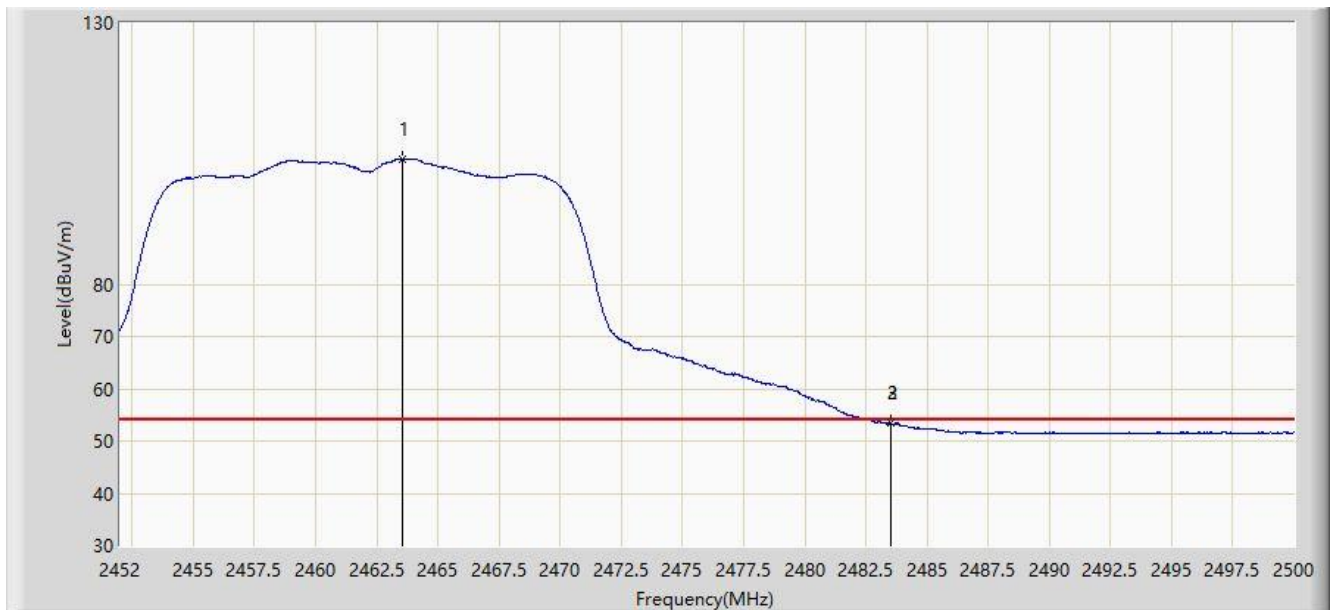


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1		*	2464.120	113.069	80.447	N/A	N/A	32.622	PK
2			2483.500	66.517	33.809	-7.483	74.000	32.707	PK
3			2484.424	67.253	34.541	-6.747	74.000	32.711	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 14:37
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Vertical
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11g at Channel 2462MHz	

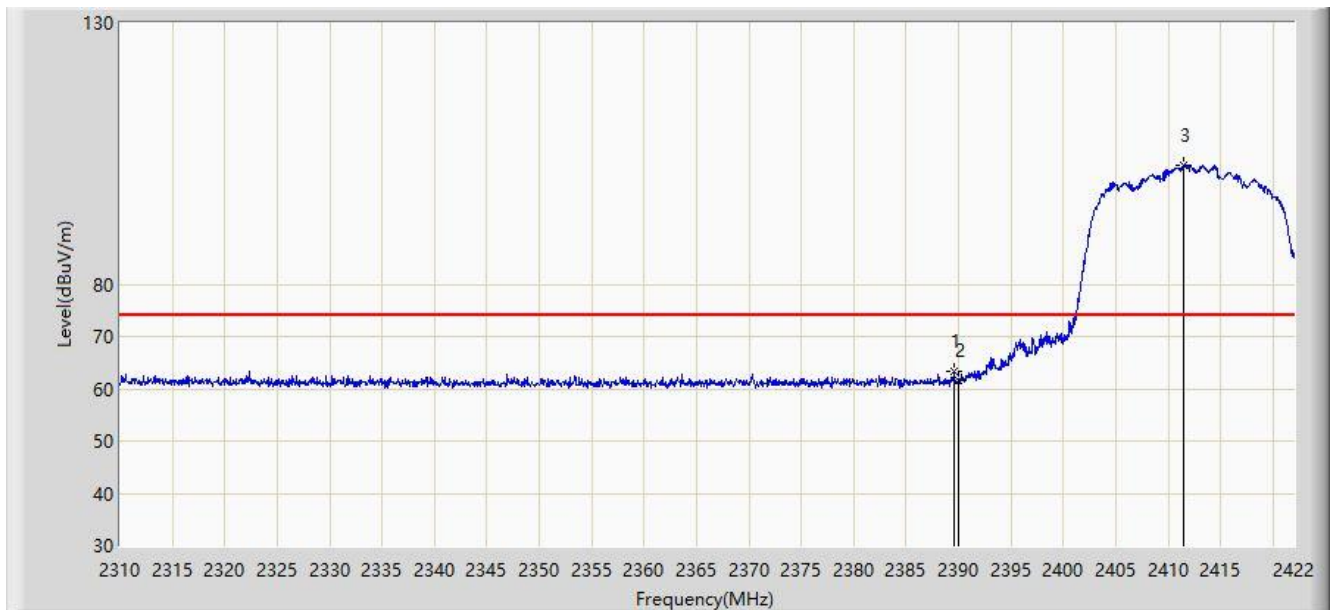


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1		*	2463.520	103.978	71.359	N/A	N/A	32.619	AV
2			2483.500	53.408	20.700	-0.592	54.000	32.707	AV
3			2483.512	53.419	20.711	-0.581	54.000	32.707	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 14:58
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Horizontal
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11n-HT20 at Channel 2412MHz	

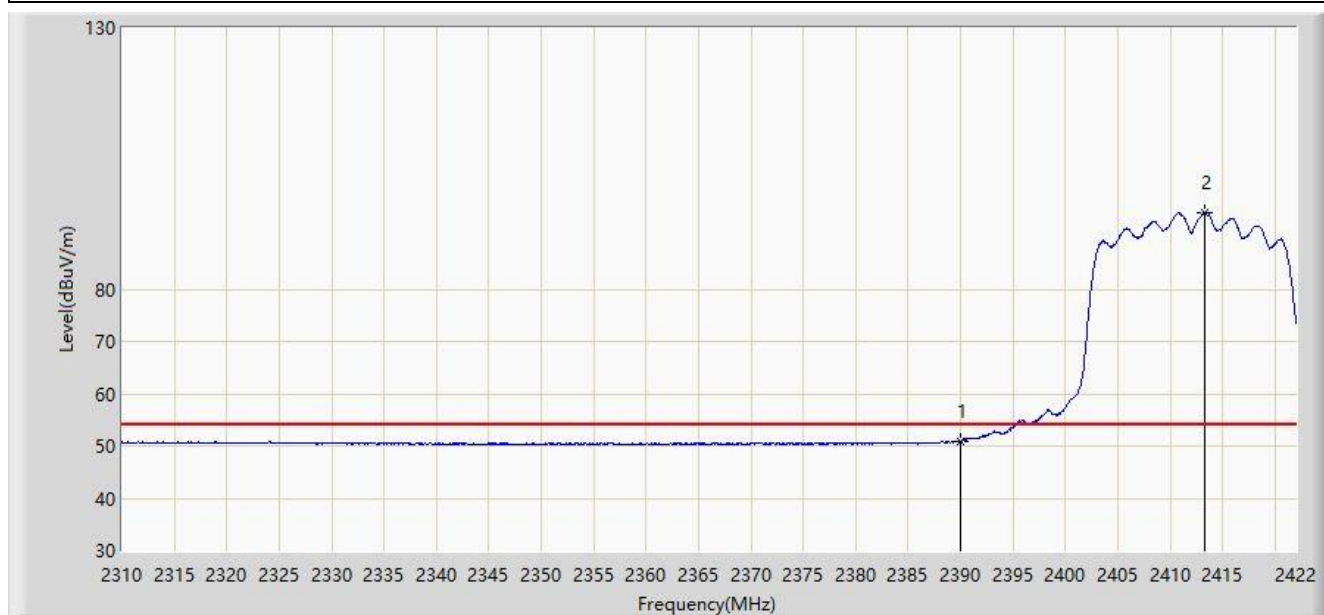


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1			2389.576	63.323	31.029	-10.677	74.000	32.295	PK
2			2390.000	61.667	29.371	-12.333	74.000	32.296	PK
3		*	2411.528	102.665	70.275	N/A	N/A	32.390	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 14:59
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Horizontal
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11n-HT20 at Channel 2412MHz	

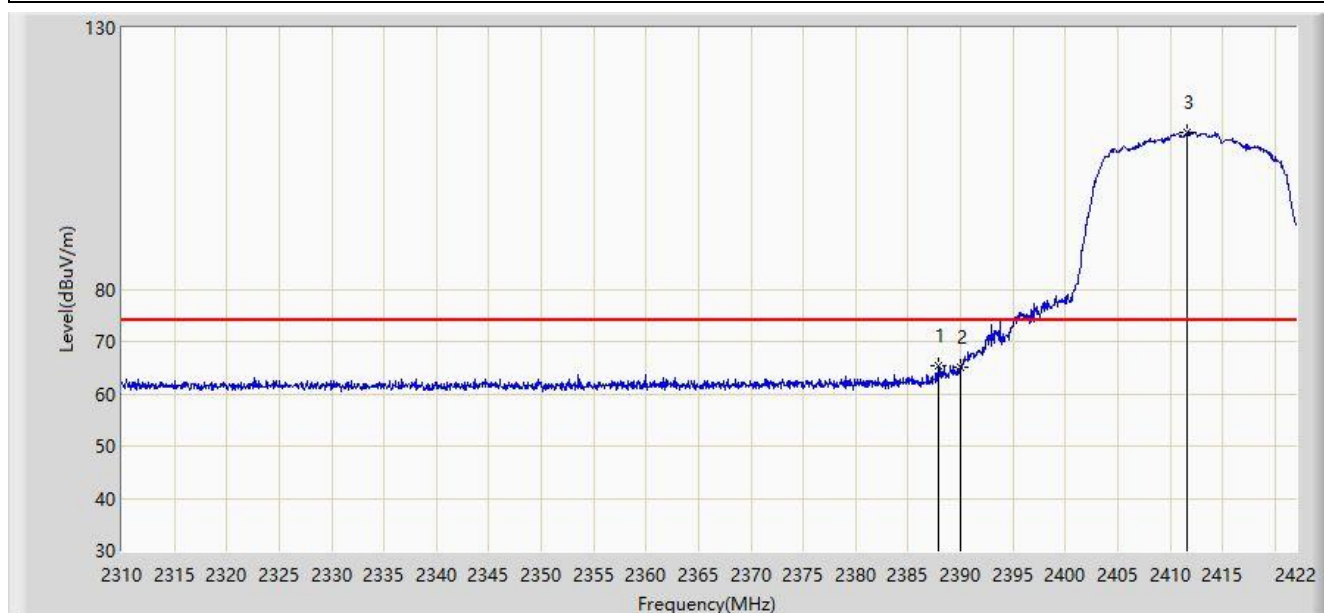


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1			2390.000	50.996	18.700	-3.004	54.000	32.296	AV
2		*	2413.264	94.778	62.380	N/A	N/A	32.398	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 14:57
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Vertical
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11n-HT20 at Channel 2412MHz	

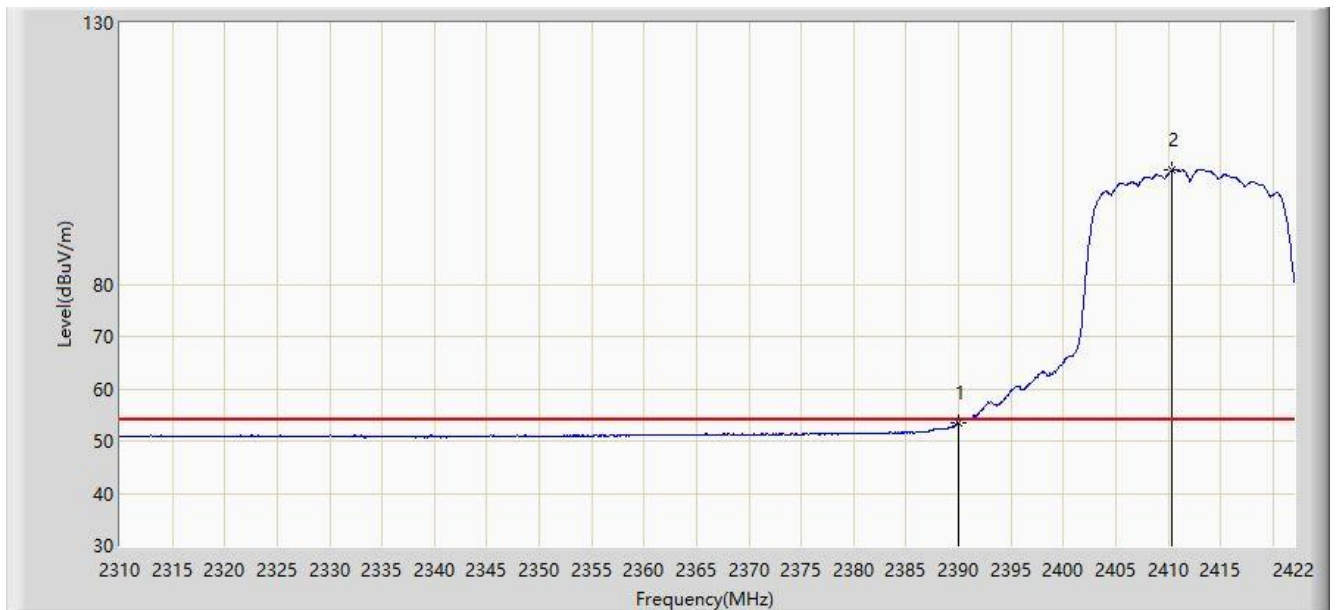


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1			2387.840	65.323	33.036	-8.677	74.000	32.286	PK
2			2390.000	64.967	32.671	-9.033	74.000	32.296	PK
3		*	2411.640	110.120	77.729	N/A	N/A	32.391	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 14:55
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Vertical
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11n-HT20 at Channel 2412MHz	

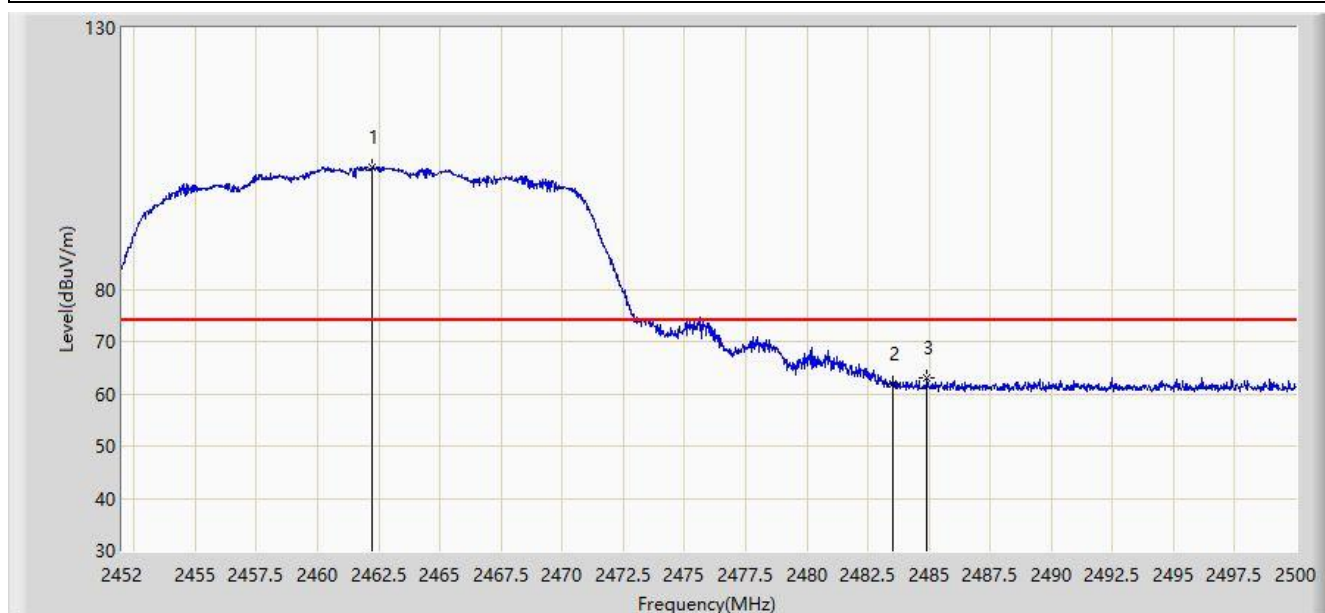


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1			2390.000	53.609	21.313	-0.391	54.000	32.296	AV
2		*	2410.408	101.908	69.523	N/A	N/A	32.385	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 15:09
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Horizontal
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11n-HT20 at Channel 2462MHz	

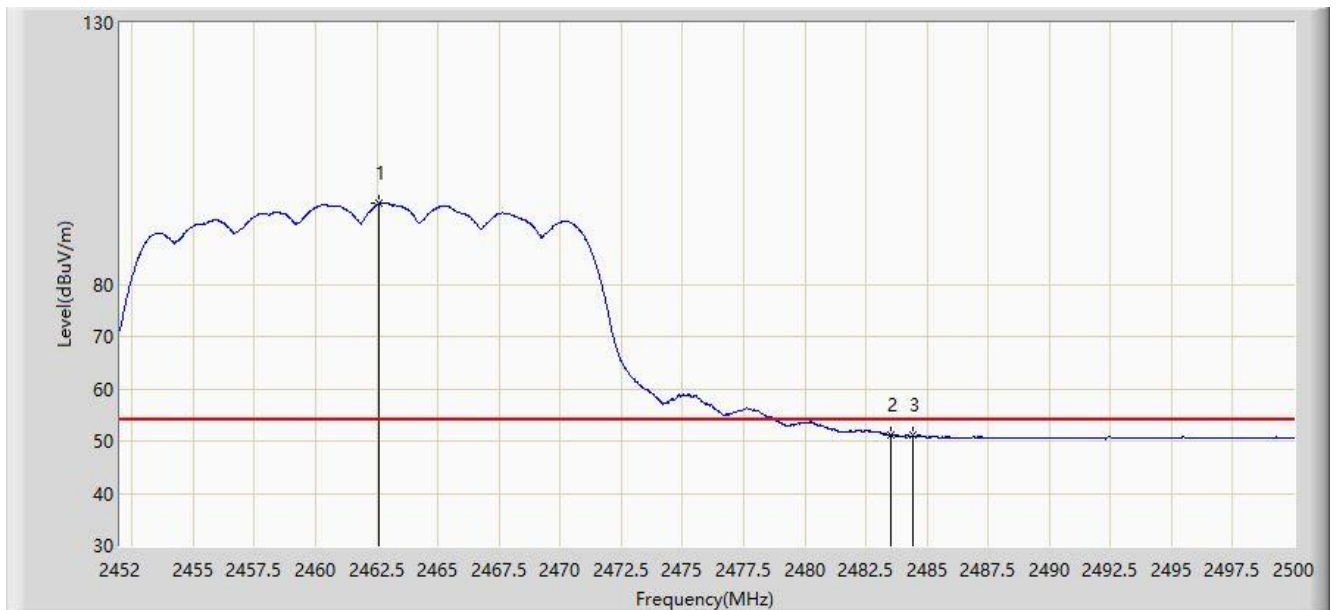


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1		*	2462.200	103.404	70.791	N/A	N/A	32.614	PK
2			2483.500	62.016	29.308	-11.984	74.000	32.707	PK
3			2484.928	63.026	30.312	-10.974	74.000	32.714	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 15:10
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Horizontal
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11n-HT20 at Channel 2462MHz	

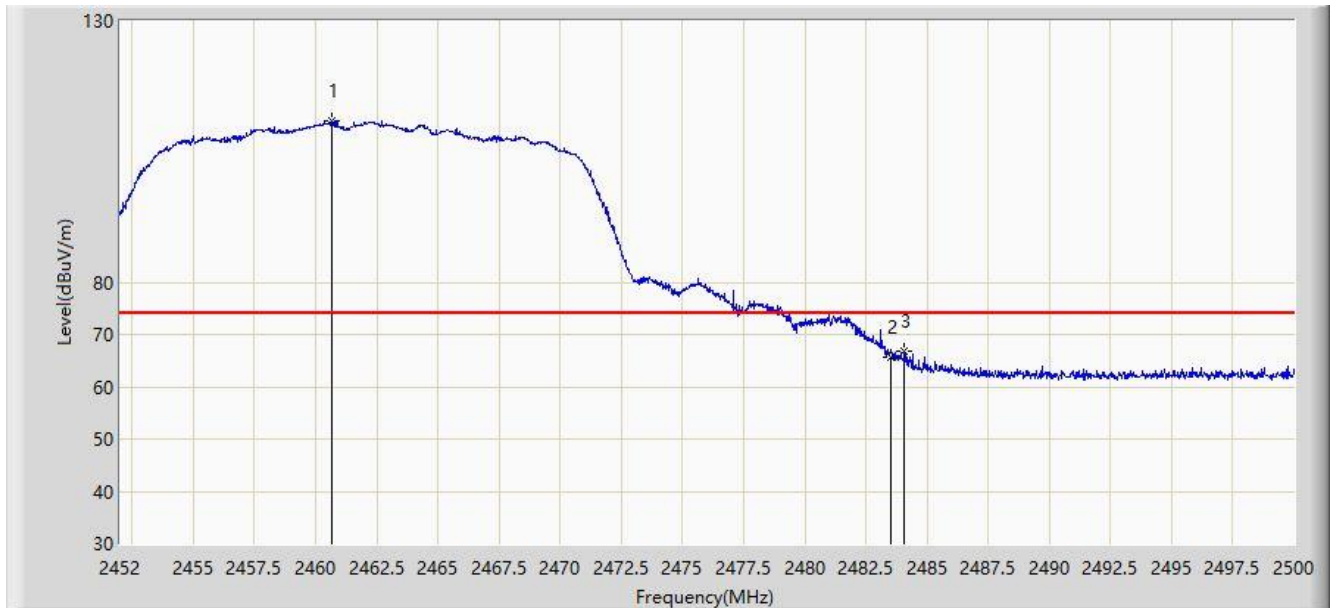


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1		*	2462.608	95.411	62.796	N/A	N/A	32.615	AV
2			2483.500	51.242	18.534	-2.758	54.000	32.707	AV
3			2484.424	51.061	18.349	-2.939	54.000	32.711	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 15:06
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Vertical
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11n-HT20 at Channel 2462MHz	

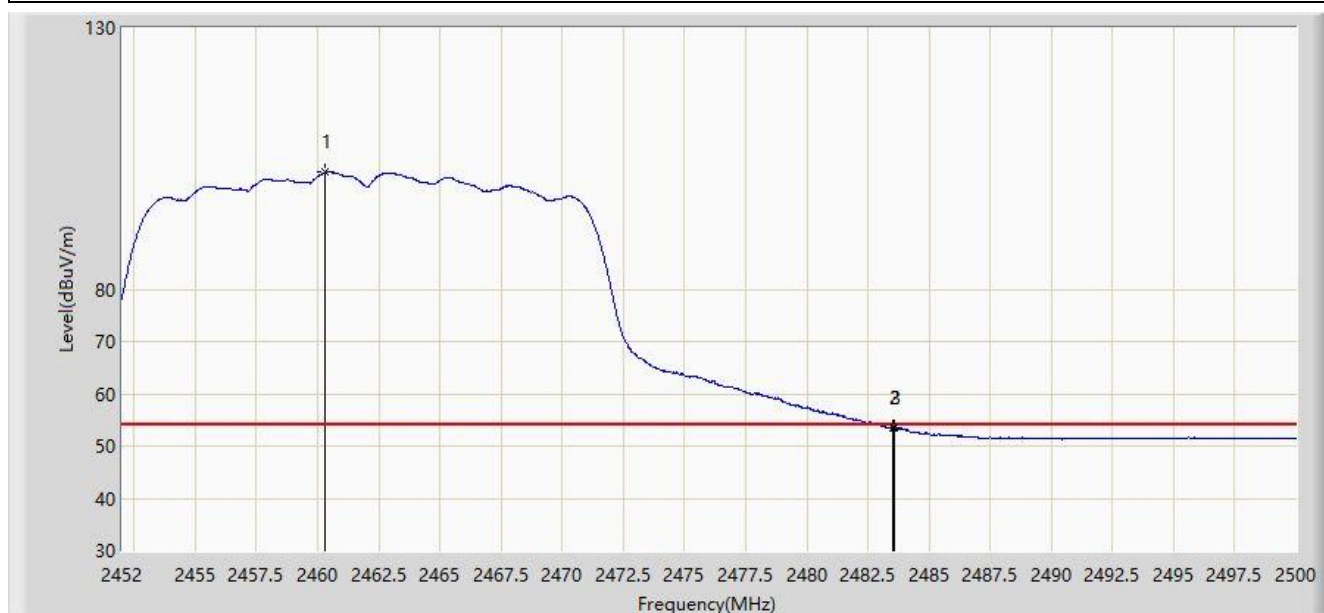


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1		*	2460.640	110.950	78.344	N/A	N/A	32.607	PK
2			2483.500	65.759	33.051	-8.241	74.000	32.707	PK
3			2484.064	66.751	34.041	-7.249	74.000	32.710	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 15:05
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Vertical
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11n-HT20 at Channel 2462MHz	

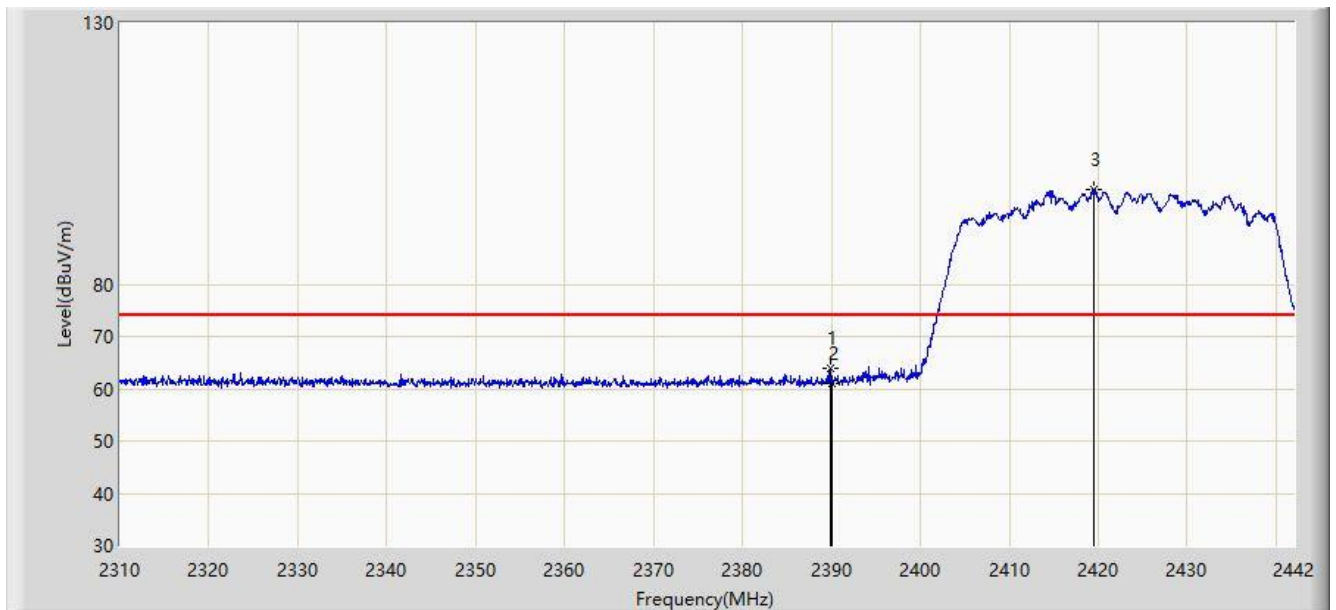


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1		*	2460.328	102.401	69.796	N/A	N/A	32.605	AV
2			2483.500	53.374	20.666	-0.626	54.000	32.707	AV
3			2483.560	53.500	20.792	-0.500	54.000	32.707	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 15:25
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Horizontal
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11n-HT40 at Channel 2422MHz	

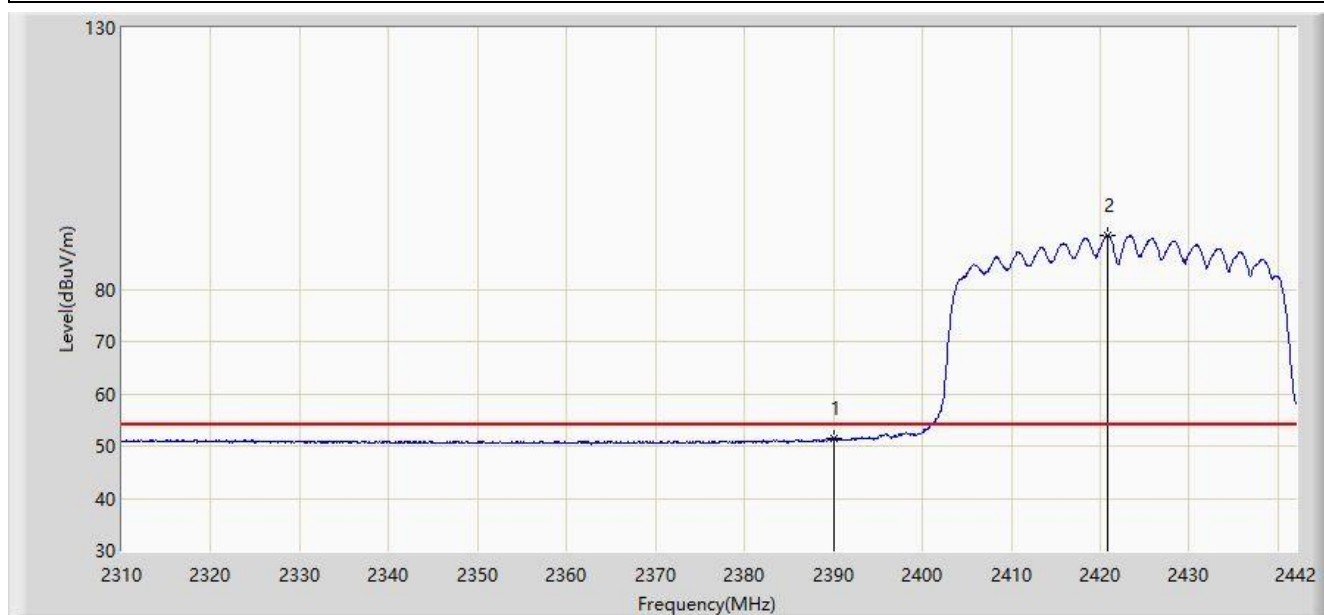


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1			2389.926	64.031	31.735	-9.969	74.000	32.296	PK
2			2390.000	60.984	28.688	-13.016	74.000	32.296	PK
3		*	2419.560	98.195	65.769	N/A	N/A	32.426	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 15:27
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Horizontal
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11n-HT40 at Channel 2422MHz	

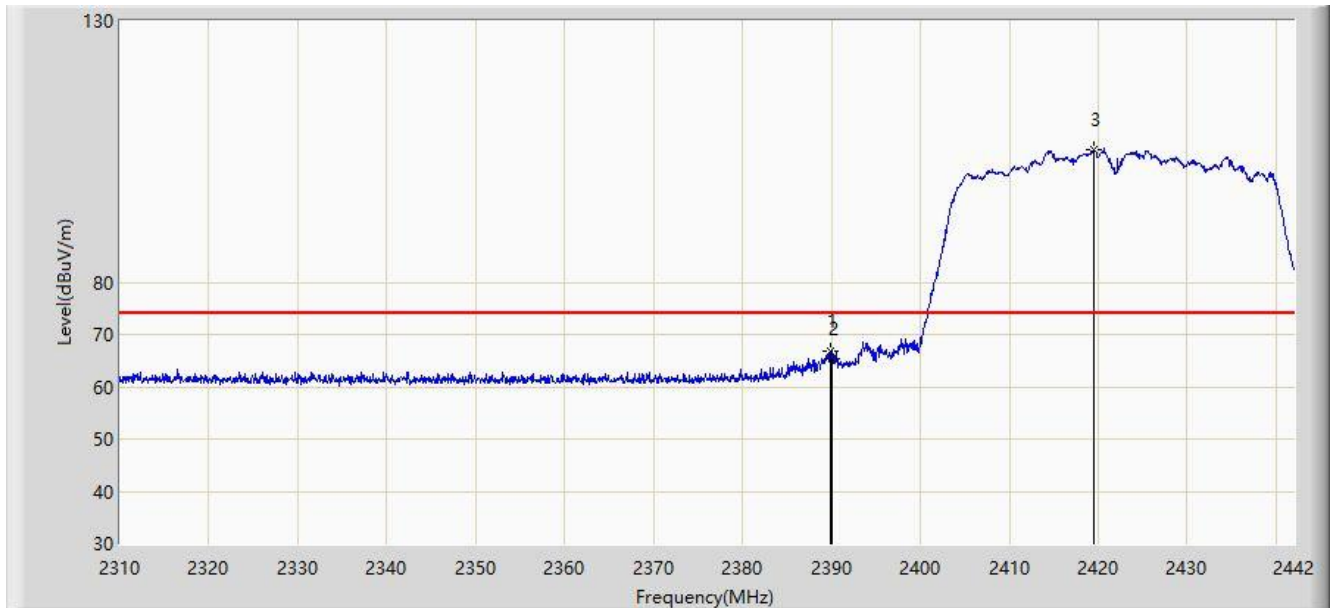


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1			2390.000	51.317	19.021	-2.683	54.000	32.296	AV
2		*	2420.748	90.366	57.935	N/A	N/A	32.432	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 15:23
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Vertical
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11n-HT40 at Channel 2422MHz	

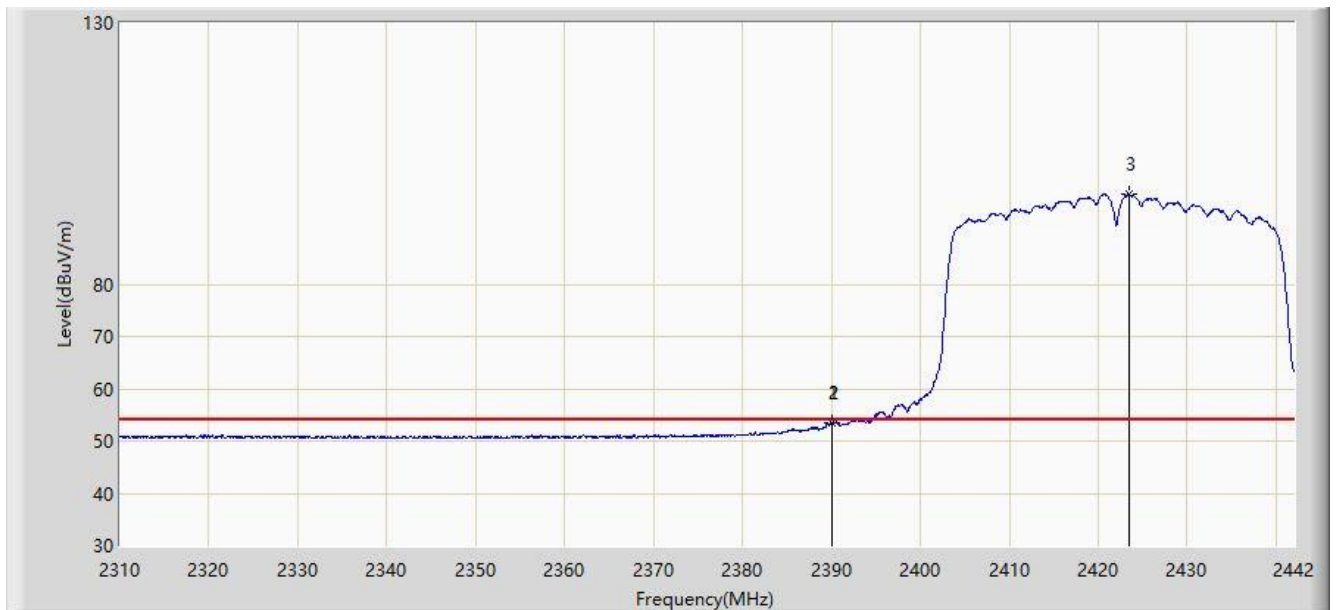


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1			2389.860	66.756	34.460	-7.244	74.000	32.296	PK
2			2390.000	65.333	33.037	-8.667	74.000	32.296	PK
3		*	2419.428	105.343	72.918	N/A	N/A	32.425	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 15:22
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Vertical
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11n-HT40 at Channel 2422MHz	

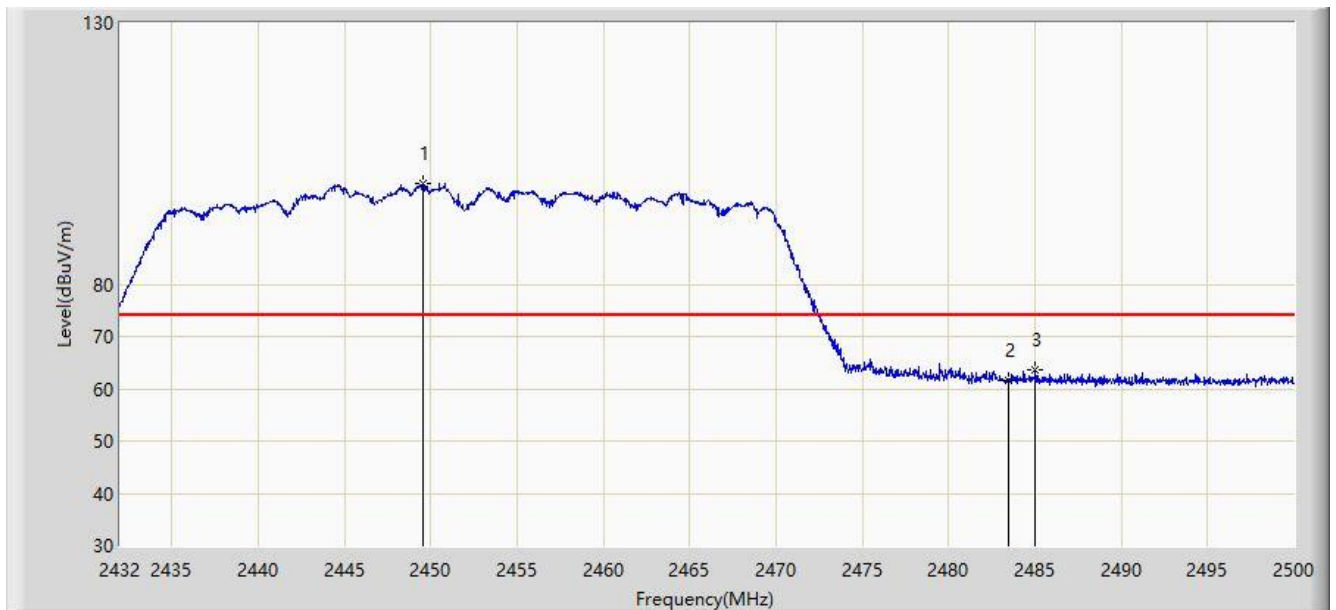


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1			2389.992	53.478	21.182	-0.522	54.000	32.296	AV
2			2390.000	53.473	21.177	-0.527	54.000	32.296	AV
3		*	2423.454	97.147	64.704	N/A	N/A	32.443	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 15:37
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Horizontal
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11n-HT40 at Channel 2452MHz	

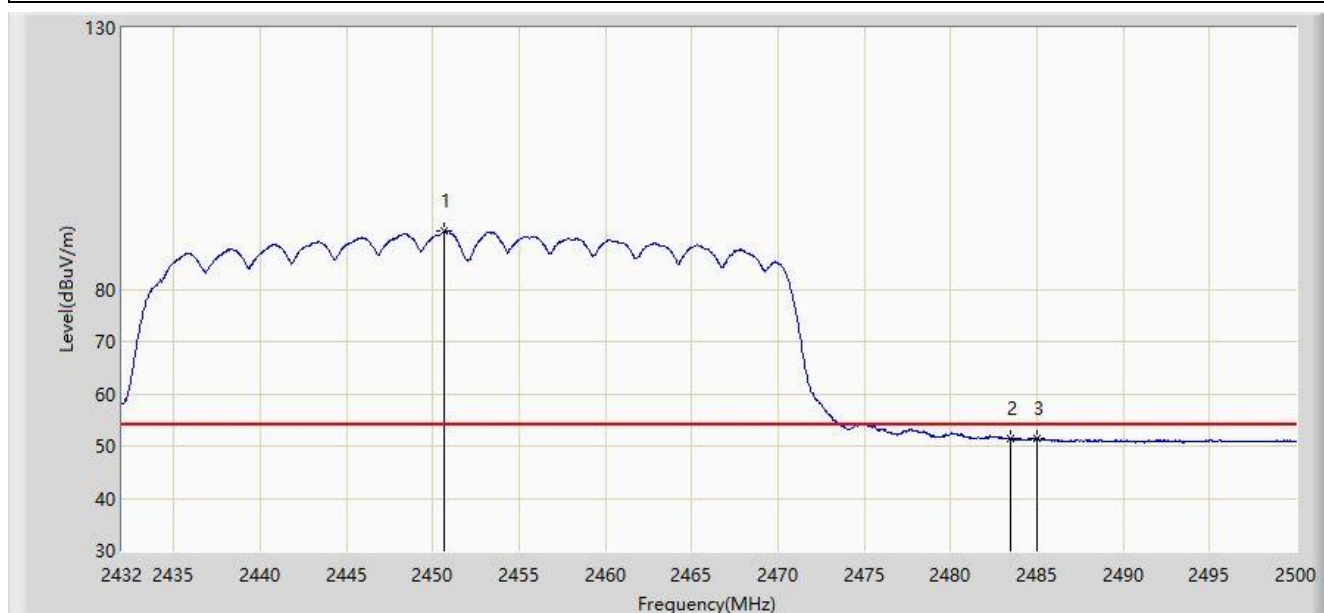


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1		*	2449.544	99.247	66.689	N/A	N/A	32.558	PK
2			2483.500	61.730	29.022	-12.270	74.000	32.707	PK
3			2485.040	63.500	30.786	-10.500	74.000	32.714	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 15:38
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Horizontal
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11n-HT40 at Channel 2452MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1		*	2450.632	91.029	58.466	N/A	N/A	32.563	AV
2			2483.500	51.340	18.632	-2.660	54.000	32.707	AV
3			2485.040	51.532	18.818	-2.468	54.000	32.714	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 15:35
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Vertical
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11n-HT40 at Channel 2452MHz	

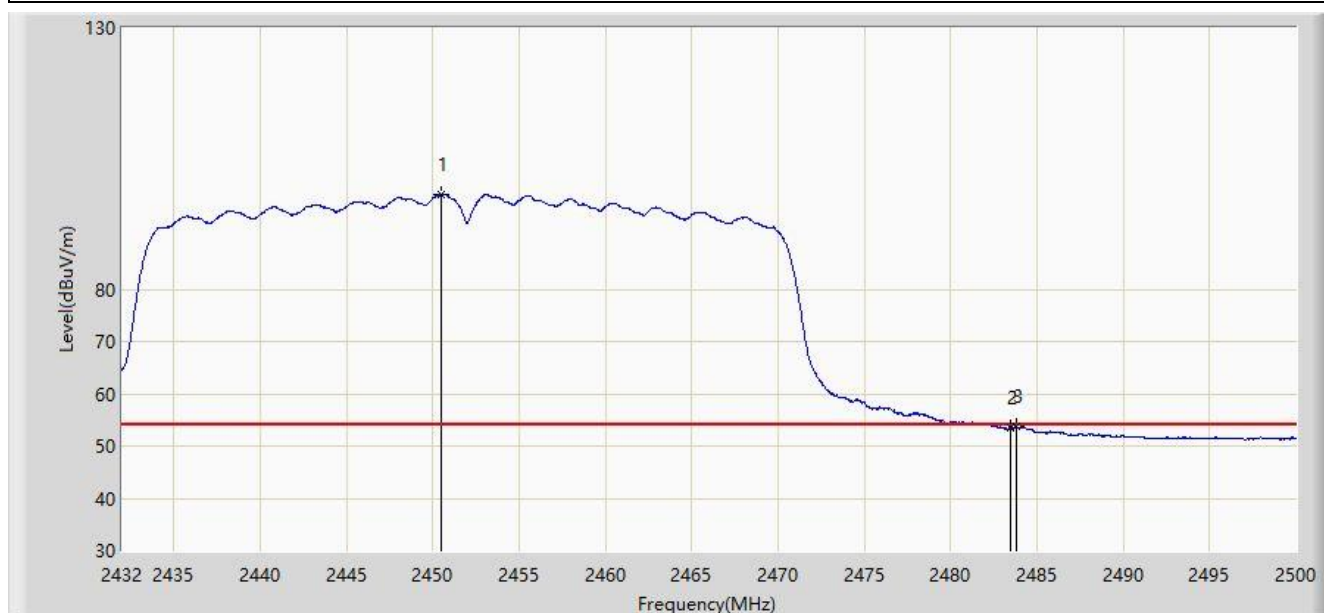


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1		*	2450.326	106.407	73.845	N/A	N/A	32.562	PK
2			2483.500	65.650	32.942	-8.350	74.000	32.707	PK
3			2483.918	67.105	34.395	-6.895	74.000	32.710	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2021/05/31 - 15:34
Limit: LP0002_RE(3m)	Margin: Jay Chou
Probe: BBHA 9120D	Polarity: Vertical
EUT: AC750 Wi-Fi 訊號延伸器	Power: AC 110V/60Hz
Note: Transmit by 802.11n-HT40 at Channel 2422MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor	Type
1		*	2450.496	98.212	65.650	N/A	N/A	32.562	AV
2			2483.500	53.534	20.826	-0.466	54.000	32.707	AV
3			2483.850	53.651	20.942	-0.349	54.000	32.709	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

5.7. 佔用頻道寬度

5.7.1. 適用標準

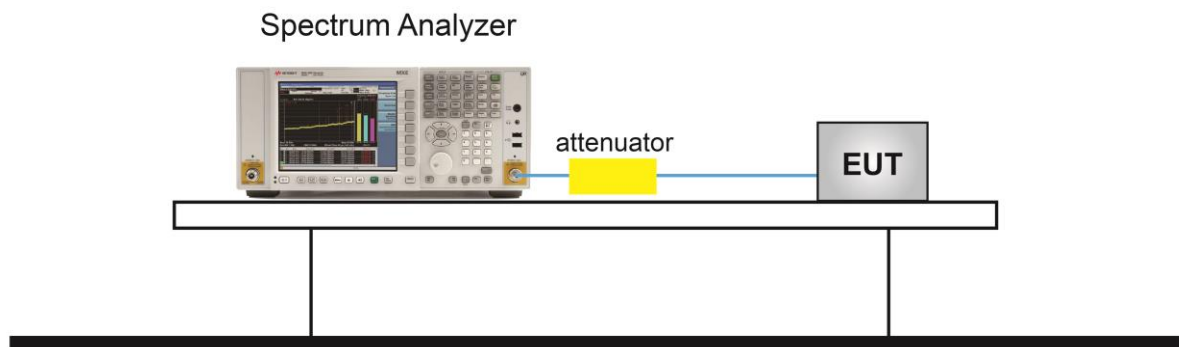
依據國家通訊傳播委員會低功率射頻器材技術規範之第 4.10.1.6(2)(A)節之要求，6dB 頻寬至少應有 500kHz。

5.7.2. 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，設定頻譜分析儀之解析度頻寬為 100kHz，視訊頻寬不小於解析度頻寬，頻率掃描範圍(SPAN)遠大於解析度頻寬。

待測物應在正常發射狀態下量測。

5.7.3. 測試架構圖



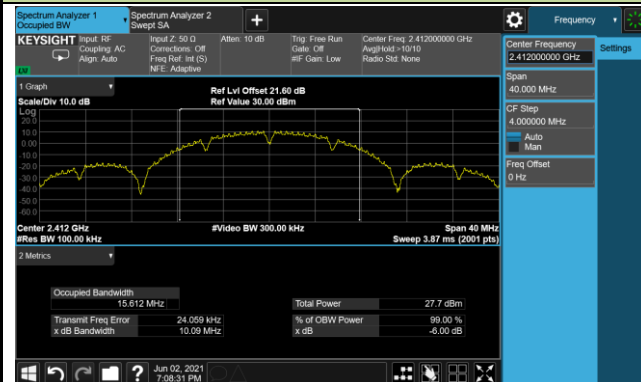
5.7.4. 佔用頻帶寬度測試結果

待測物名稱	AC750 Wi-Fi 訊號延伸器	溫度	25°C
測試工程師	Eric Lin	濕度	54%
測試場地	SR2	測試日期	2021/06/02

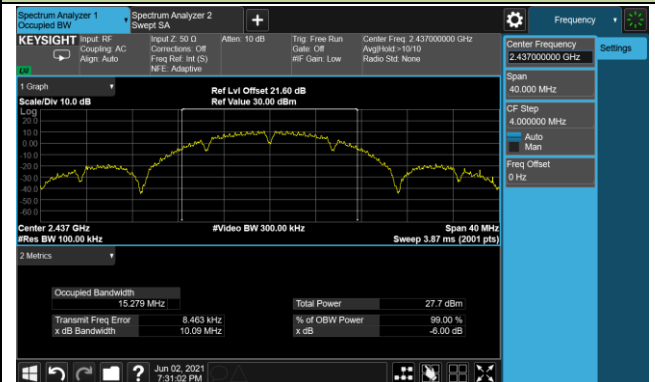
Test Mode	Data Rate / MCS	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
Ant 0 / Ant 0 + 1						
802.11b	1Mbps	01	2412	10.09	≥ 0.5	Pass
802.11b	1Mbps	06	2437	10.09	≥ 0.5	Pass
802.11b	1Mbps	11	2462	10.06	≥ 0.5	Pass
802.11g	6Mbps	01	2412	15.08	≥ 0.5	Pass
802.11g	6Mbps	06	2437	15.07	≥ 0.5	Pass
802.11g	6Mbps	11	2462	15.09	≥ 0.5	Pass
802.11n-HT20	MCS0	01	2412	15.12	≥ 0.5	Pass
802.11n-HT20	MCS0	06	2437	15.11	≥ 0.5	Pass
802.11n-HT20	MCS0	11	2462	15.05	≥ 0.5	Pass
802.11n-HT40	MCS0	03	2422	35.08	≥ 0.5	Pass
802.11n-HT40	MCS0	06	2437	35.05	≥ 0.5	Pass
802.11n-HT40	MCS0	09	2452	35.07	≥ 0.5	Pass

802.11b 6dB Bandwidth - Ant 0 / Ant 0 + 1

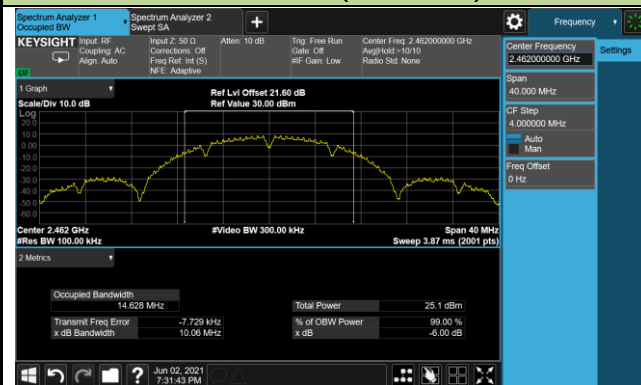
Channel 01 (2412MHz)



Channel 06 (2437MHz)

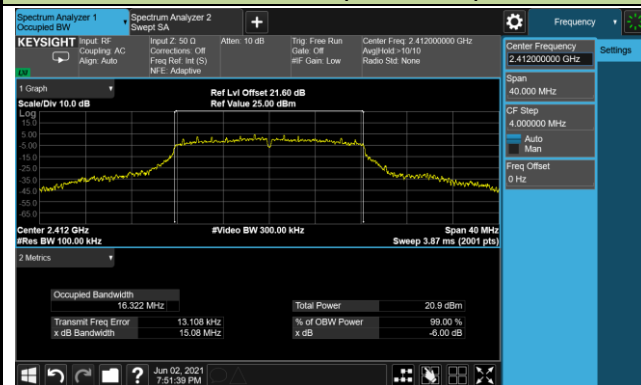


Channel 11 (2462MHz)

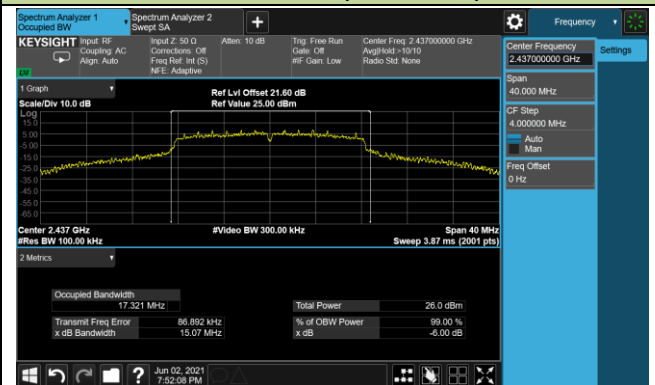


802.11g 6dB Bandwidth - Ant 0 / Ant 0 + 1

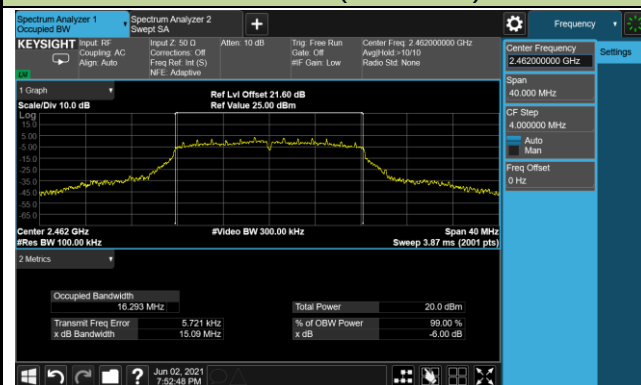
Channel 01 (2412MHz)



Channel 06 (2437MHz)

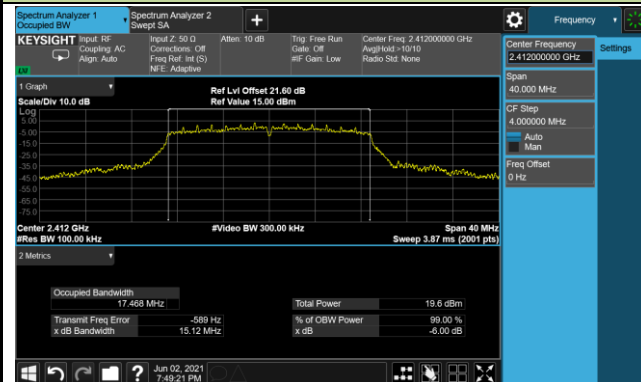


Channel 11 (2462MHz)

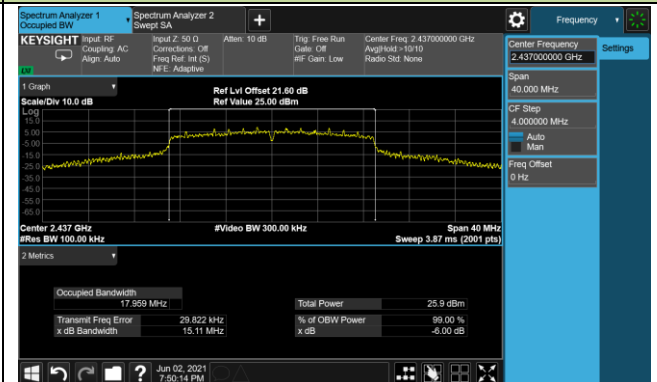


802.11n-HT20 6dB Bandwidth - Ant 0 / Ant 0 + 1

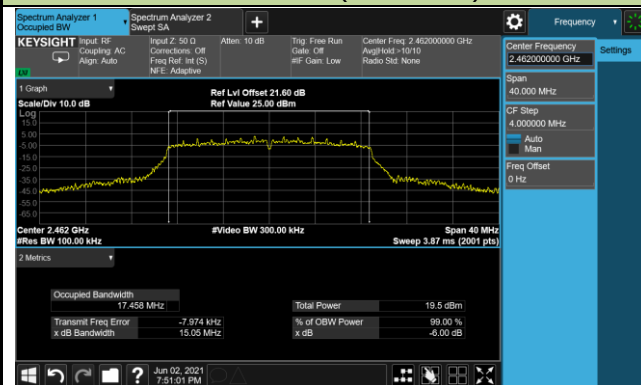
Channel 01 (2412MHz)



Channel 06 (2437MHz)

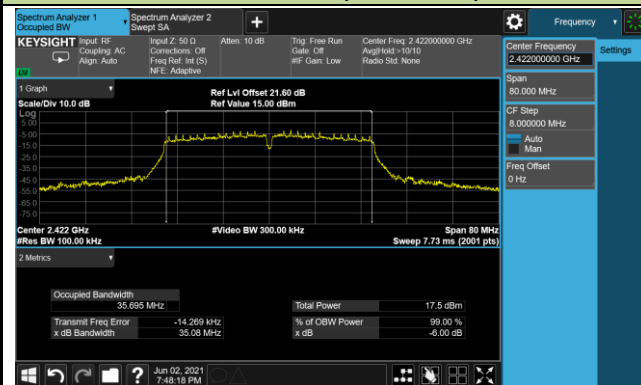


Channel 11 (2462MHz)

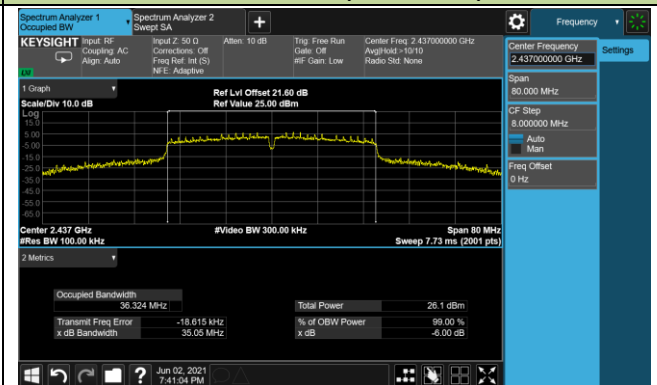


802.11n-HT40 6dB Bandwidth - Ant 0 / Ant 0 + 1

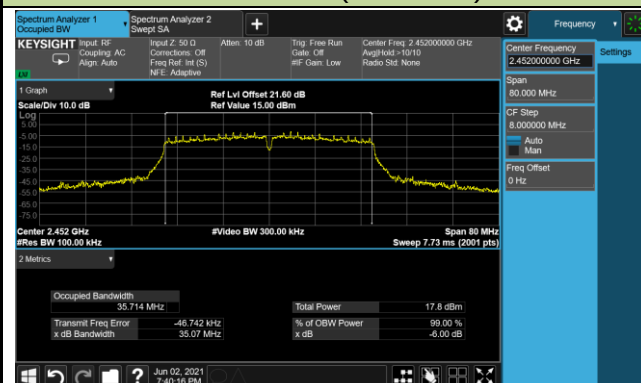
Channel 03 (2422MHz)



Channel 06 (2437MHz)



Channel 09 (2452MHz)



5.8. 發射電功率密度

5.8.1. 適用標準

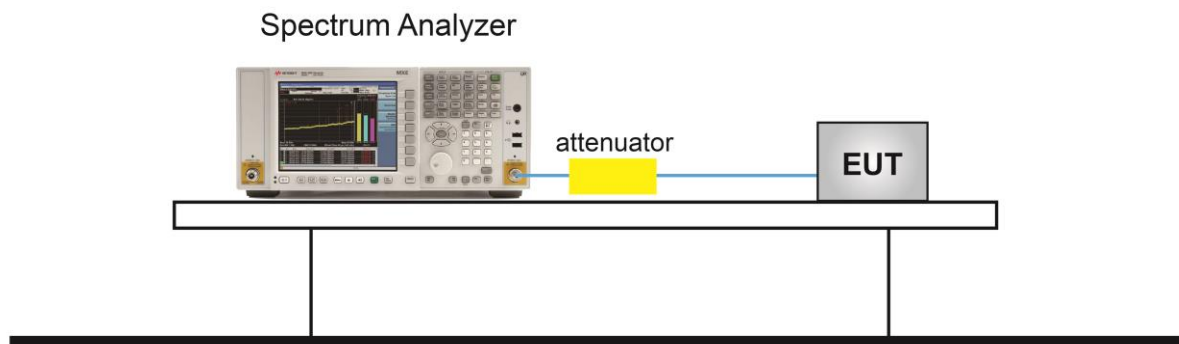
依據國家通訊傳播委員會低功率射頻器材技術規範之第 4.10.1.6(2)(B)節，在使用頻率範圍之任意 3 千赫(kHz)頻寬內，由發射機傳導至天線之峰值發射電功率密度在任意期間內，皆不得大於 8dBm。

5.8.2. 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。找出發射峰值並擴展於通帶內，設定頻譜分析儀之解析度頻寬為 3kHz，視訊頻寬大於解析度頻寬，掃瞄時間為頻率掃瞄範圍除以 3kHz。
($\text{SWEEP TIME} = \text{SPAN}/3\text{kHz}$)。

待測物應在正常發射狀態下量測。

5.8.3. 測試架構圖



5.8.4. 功率密度量測結果

待測物名稱	AC750 Wi-Fi 訊號延伸器	溫度	25°C
測試工程師	Eric Lin	濕度	54%
測試場地	SR2	測試日期	2021/05/22~2021/06/03

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 PSD (dBm/10kHz)	Ant 1 PSD (dBm/10kHz)	Duty Cycle (%)	Total PSD (dBm/10kHz)	Limit (dBm/3kHz)	Result
802.11b	1Mbps	01	2412	-7.06	-7.19	98.42	-4.11	≤ 8.00	Pass
802.11b	1Mbps	06	2437	-6.57	-6.79	98.42	-3.67	≤ 8.00	Pass
802.11b	1Mbps	11	2462	-8.74	-8.80	98.42	-5.76	≤ 8.00	Pass
802.11g	6Mbps	01	2412	-13.19	-13.67	88.96	-9.91	≤ 8.00	Pass
802.11g	6Mbps	06	2437	-8.04	-10.76	88.96	-5.67	≤ 8.00	Pass
802.11g	6Mbps	11	2462	-13.79	-14.62	88.96	-10.67	≤ 8.00	Pass
802.11n-HT20	MCS0	01	2412	-14.61	-14.19	95.13	-11.17	≤ 8.00	Pass
802.11n-HT20	MCS0	06	2437	-8.81	-9.04	95.13	-5.70	≤ 8.00	Pass
802.11n-HT20	MCS0	11	2462	-14.72	-14.79	95.13	-11.53	≤ 8.00	Pass
802.11n-HT40	MCS0	03	2422	-20.24	-20.22	84.14	-16.47	≤ 8.00	Pass
802.11n-HT40	MCS0	06	2437	-12.09	-12.58	84.14	-8.57	≤ 8.00	Pass
802.11n-HT40	MCS0	09	2452	-19.29	-19.97	84.14	-15.86	≤ 8.00	Pass

Note:

When EUT duty cycle > 98%, Total AVGPDS = $10 \cdot \log \{10^{(\text{Ant 0 AVGPDS}/10)} + 10^{(\text{Ant 1 AVGPDS}/10)}\}$.

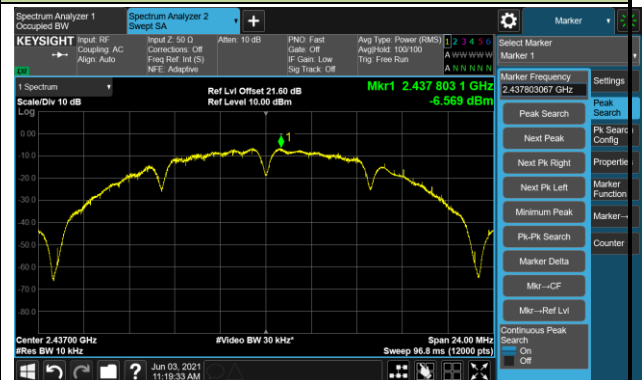
When EUT duty cycle ≤ 98%, Total AVGPDS = $10 \cdot \log \{10^{(\text{Ant 0 AVGPDS}/10)} + 10^{(\text{Ant 1 AVGPDS}/10)}\} + 10 \cdot \log (1/\text{Duty Cycle})$.

802.11b PSD - Ant 0 / Ant 0 + 1

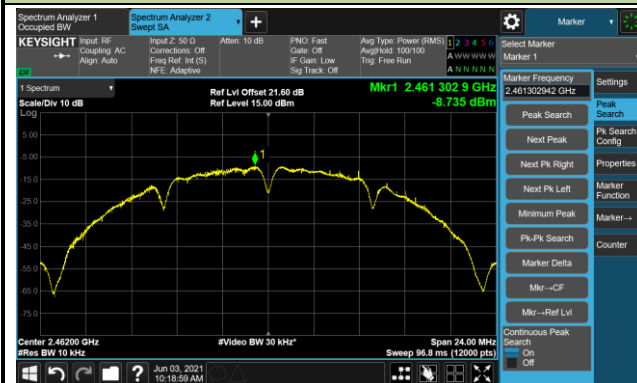
Channel 01 (2412MHz)



Channel 06 (2437MHz)

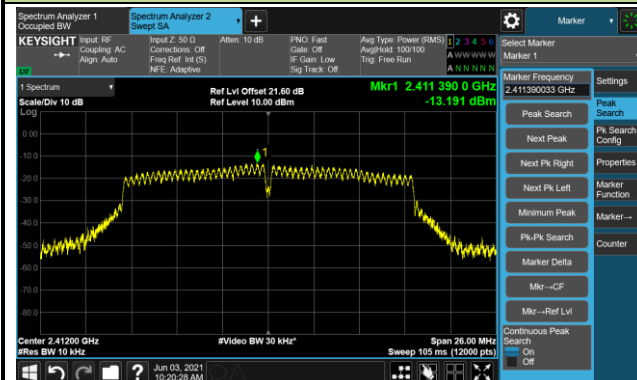


Channel 11 (2462MHz)

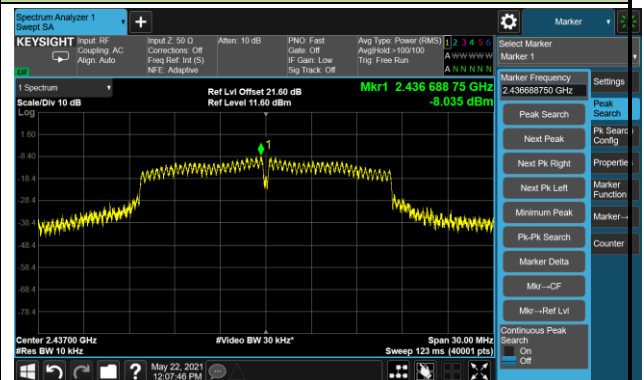


802.11g PSD - Ant 0 / Ant 0 + 1

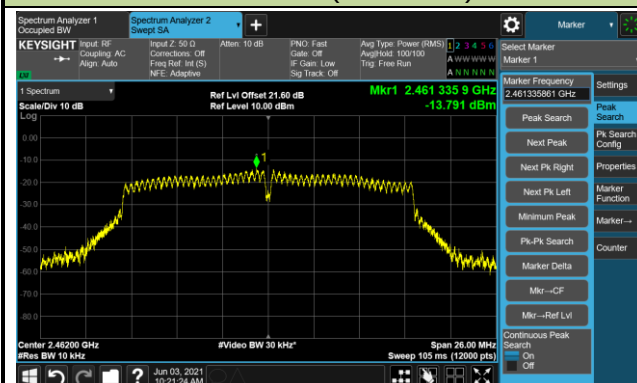
Channel 01 (2412MHz)



Channel 06 (2437MHz)

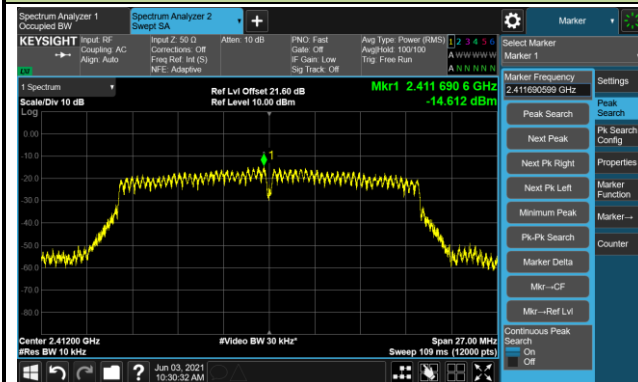


Channel 11 (2462MHz)

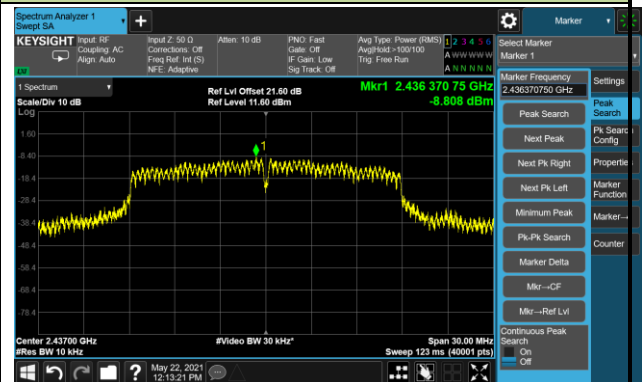


802.11n-HT20 PSD - Ant 0 / Ant 0 + 1

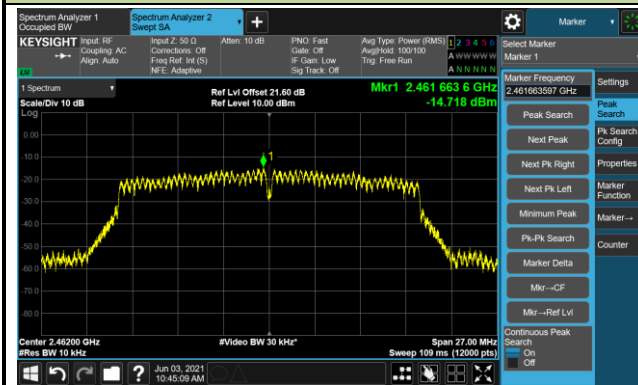
Channel 01 (2412MHz)



Channel 06 (2437MHz)

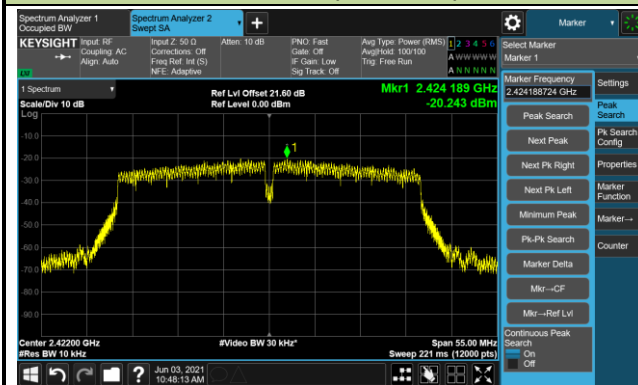


Channel 11 (2462MHz)



802.11n-HT40 PSD - Ant 0 / Ant 0 + 1

Channel 03 (2422MHz)



Channel 06 (2437MHz)



Channel 09 (2452MHz)

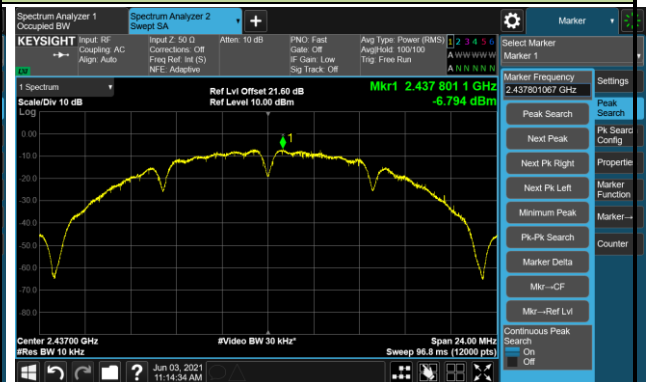


802.11b PSD - Ant 1 / Ant 0 + 1

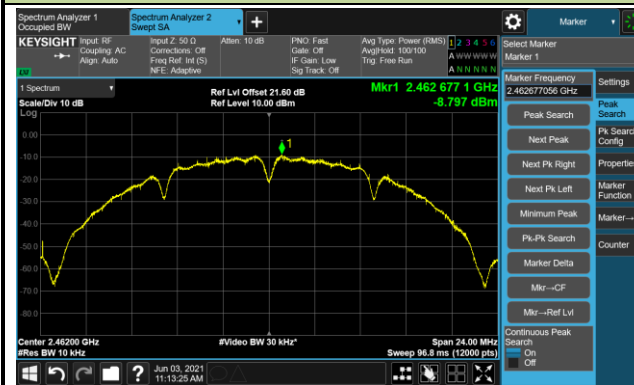
Channel 01 (2412MHz)



Channel 06 (2437MHz)

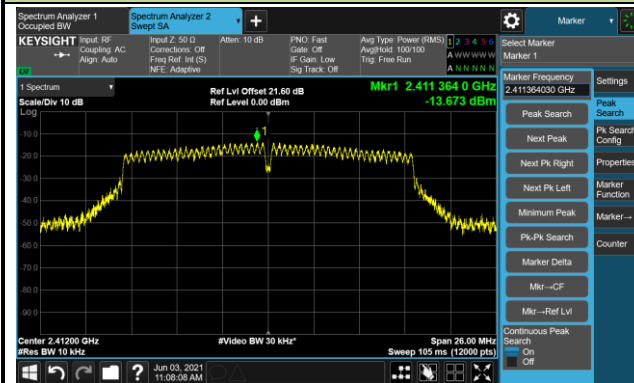


Channel 11 (2462MHz)

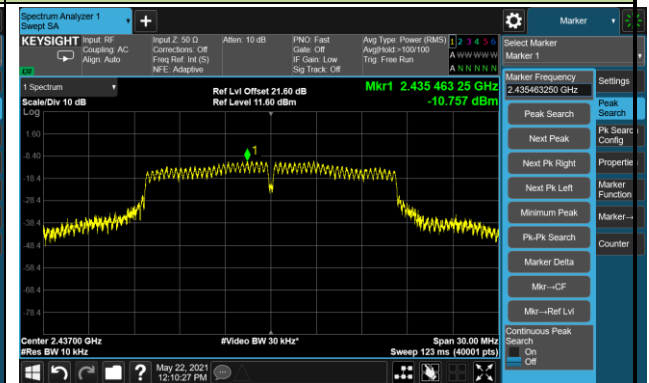


802.11g PSD - Ant 1 / Ant 0 + 1

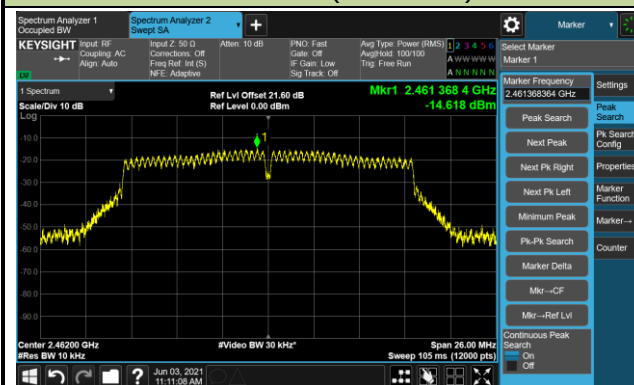
Channel 01 (2412MHz)



Channel 06 (2437MHz)

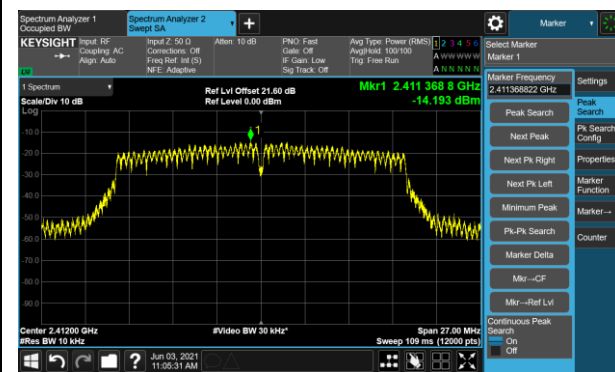


Channel 11 (2462MHz)

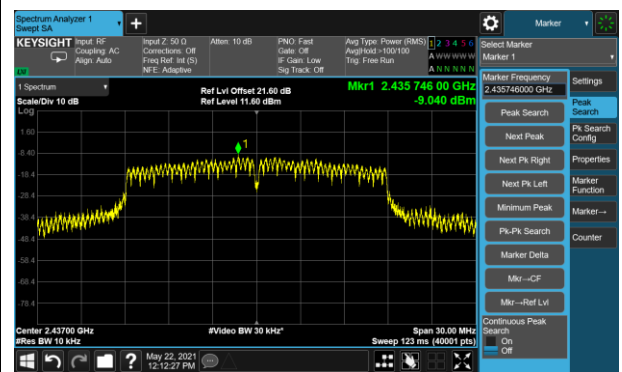


802.11n-HT20 PSD - Ant 1 / Ant 0 + 1

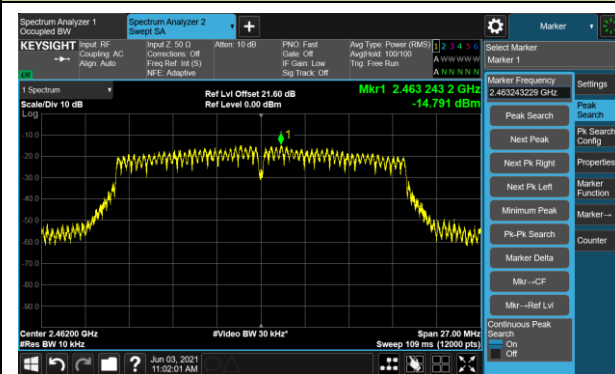
Channel 01 (2412MHz)



Channel 06 (2437MHz)

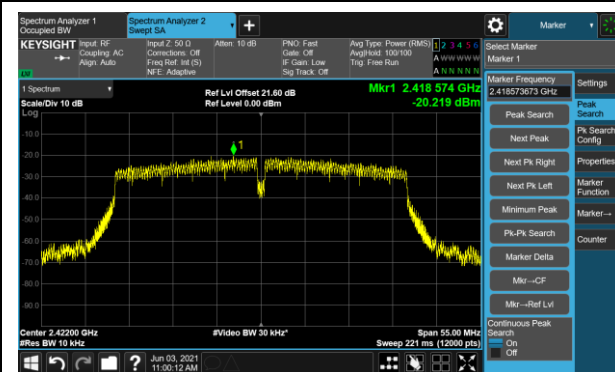


Channel 11 (2462MHz)



802.11n-HT40 PSD - Ant 1 / Ant 0 + 1

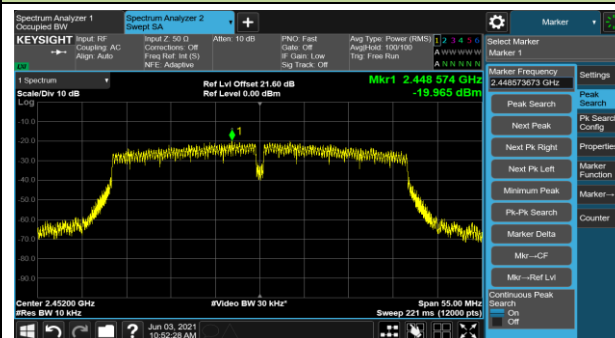
Channel 03 (2422MHz)



Channel 06 (2437MHz)



Channel 09 (2452MHz)



The End