

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: RE215
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 13 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: 2020.12.25
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測試工程師



(柯文凱)

報告審核人



(陳柏均)

報告簽屬人



(柯承志)



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 13 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	AC750 Wi-Fi 訊號延伸器
產品型號	RE215
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	--	--	--	--

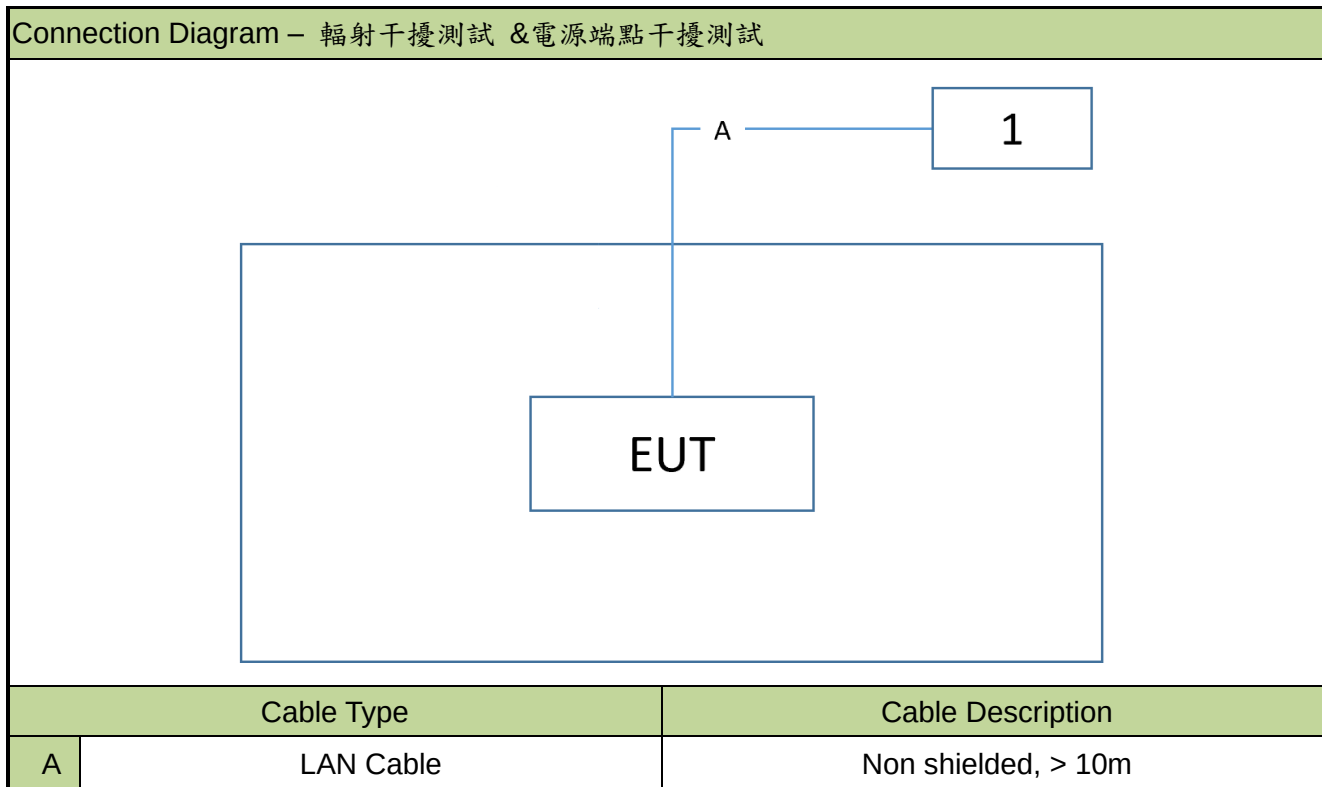
2.3. 測試模式

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)

備註:

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	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 “QATool” 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	Brand	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Two-Line V-Network	R&S	ENV216	MRTTWA00019	1 year	2021/03/26
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	Brand	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	2021/05/29

Conducted Test Equipment

Instrument	Brand	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 AC750 Wi-Fi 訊號延伸器
型號 RE215

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

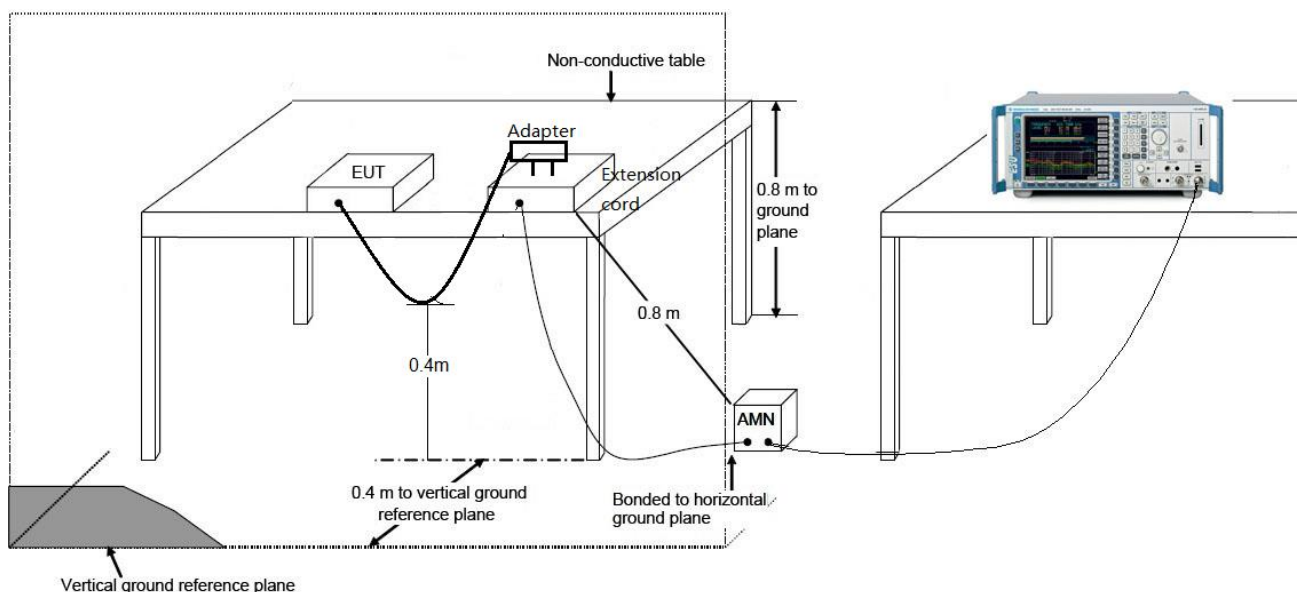
註:隨頻率之對數遞減

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。

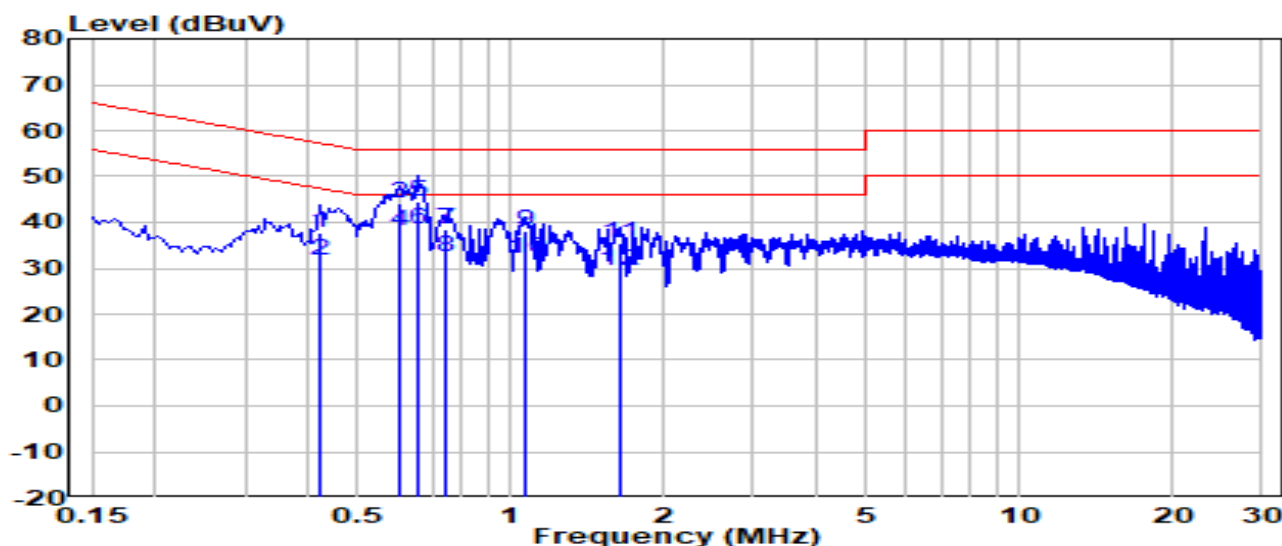
備 註: 經初測驗證過，電源端點干擾測試對測試頻道數並無差異，因此檢附其中一個測試頻道之測試數。

5.1.3. 測試架構圖



5.1.4. 電源端點測試結果

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	CE_ENV216-L1 (Filter ON)	Temp. / Humidity	19.7°C /47.4%
Polarity	Line1	Site / Test Engineer	SR2 / Peter
Test Mode	1	Test Voltage	110V/60Hz

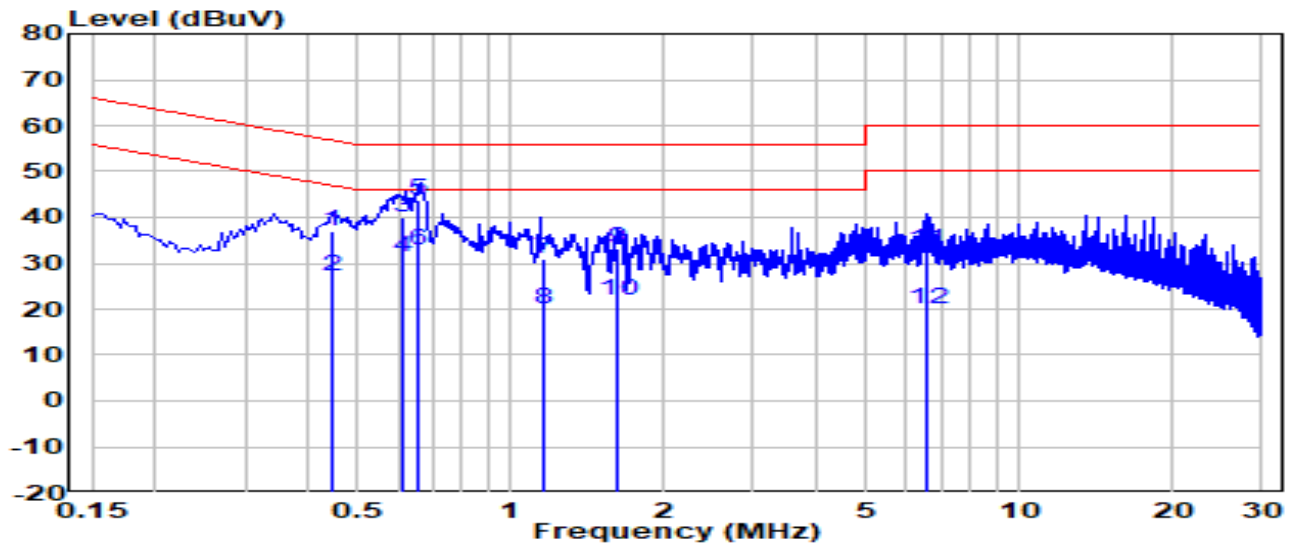


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Remark (QP/PK/AV)
1		0.421	28.16	9.63	37.78	-19.65	57.43	QP
2		0.421	22.16	9.63	31.78	-15.65	47.43	Average
3		0.604	34.58	9.64	44.21	-11.79	56.00	QP
4		0.604	28.38	9.64	38.01	-7.99	46.00	Average
5		0.653	34.88	9.64	44.52	-11.48	56.00	QP
6	*	0.653	28.88	9.64	38.52	-7.48	46.00	Average
7		0.748	28.78	9.65	38.43	-17.57	56.00	QP
8		0.748	22.78	9.65	32.43	-13.57	46.00	Average
9		1.070	28.29	9.66	37.95	-18.05	56.00	QP
10		1.070	22.39	9.66	32.05	-13.95	46.00	Average
11		1.630	25.98	9.68	35.66	-20.34	56.00	QP
12		1.630	19.88	9.68	29.56	-16.44	46.00	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	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	CE_ENV216-N (Filter ON)	Temp. / Humidity	19.7°C /47.4%
Polarity	Neutral	Site / Test Engineer	SR2 / Peter
Test Mode	1	Test Voltage	110V/60Hz



No	Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Remark (QP/PK/AV)
1	0.446	27.24	9.64	36.87	-20.07	56.95	QP
2	0.446	17.64	9.64	27.27	-19.67	46.95	Average
3	0.616	30.36	9.65	40.01	-15.99	56.00	QP
4	0.616	21.66	9.65	31.31	-14.69	46.00	Average
5	*	0.660	33.96	43.61	-12.39	56.00	QP
6	0.660	23.06	9.65	32.71	-13.29	46.00	Average
7	1.160	21.17	9.67	30.84	-25.16	56.00	QP
8	1.160	10.17	9.67	19.84	-26.16	46.00	Average
9	1.620	23.37	9.68	33.06	-22.94	56.00	QP
10	1.620	12.27	9.68	21.96	-24.04	46.00	Average
11	6.540	23.03	9.79	32.83	-27.17	60.00	QP
12	6.540	10.13	9.79	19.93	-30.07	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. 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。

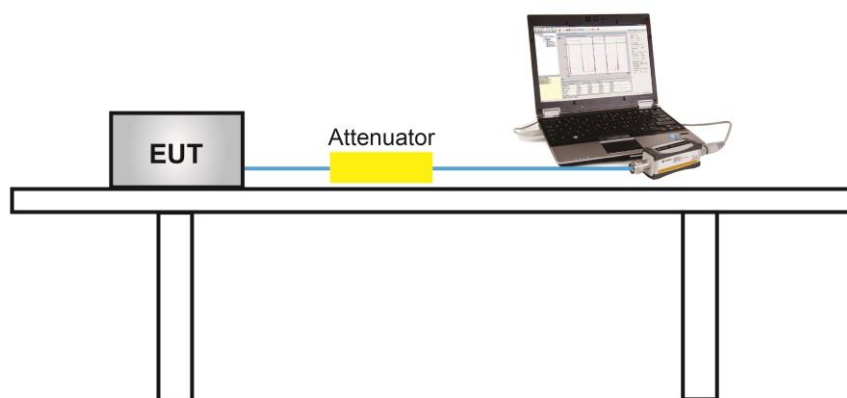
同時發射多向波束於相同或不同頻道者，其每一波束功率應符合(a)之功率限制值。如發射波束有重疊現象，功率應降低，以確保總和傳導輸出功率符合(a)之限制值。同時發射的所有波束總和傳導輸出功率不大於(a) 總和傳導輸出功率限制值加 8 dB。方向性增益值計算同(a)。

(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	Kevin Ker	濕度	46 ~ 56%
測試場地	SR1	測試日期	2021/02/25
測試項目	Output Power	Test Mode	CDD Mode

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	18.41	18.97	21.71	≤ 30.00	Pass
802.11b	1Mbps	06	2437	18.66	19.05	21.87	≤ 30.00	Pass
802.11b	1Mbps	11	2462	18.37	19.02	21.72	≤ 30.00	Pass
802.11g	6Mbps	01	2412	13.58	14.22	16.92	≤ 30.00	Pass
802.11g	6Mbps	06	2437	18.81	19.19	22.01	≤ 30.00	Pass
802.11g	6Mbps	11	2462	15.67	16.17	18.94	≤ 30.00	Pass
802.11n-HT20	MCS0	01	2412	13.16	13.99	16.61	≤ 30.00	Pass
802.11n-HT20	MCS0	06	2437	18.70	19.17	21.95	≤ 30.00	Pass
802.11n-HT20	MCS0	11	2462	14.44	15.37	17.94	≤ 30.00	Pass
802.11n-HT40	MCS0	03	2422	13.05	13.47	16.28	≤ 30.00	Pass
802.11n-HT40	MCS0	04	2427	13.95	14.99	17.51	≤ 30.00	Pass
802.11n-HT40	MCS0	05	2432	15.81	16.85	19.37	≤ 30.00	Pass
802.11n-HT40	MCS0	06	2437	16.28	17.28	19.82	≤ 30.00	Pass
802.11n-HT40	MCS0	07	2442	14.85	15.85	18.39	≤ 30.00	Pass
802.11n-HT40	MCS0	08	2447	15.22	15.68	18.47	≤ 30.00	Pass
802.11n-HT40	MCS0	09	2452	12.55	13.05	15.82	≤ 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。

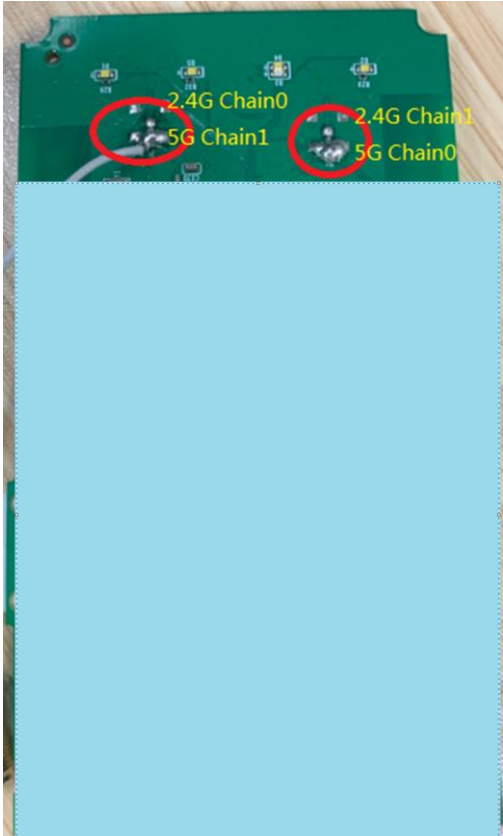
5.3.2. 天線樣式

此AC750 Wi-Fi 訊號延伸器其天線為固定式Dipole Antenna (Brand: TP-LINK, M/N: RE315(US)1.0)，(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	2.0	--	2.0	5.01
	5150 ~ 5850	2	3.0	6.01	3.0	6.01

Note:

- 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 $N_{ANT} \leq 4$;
- The EUT also supports Beam Forming mode, and the Beam Forming support 802.11n/ac, not include 802.11a/b/g. BF Directional gain = $G_{ANT} + 10 \log (N_{ANT})$.
- All information is provided by the manufacturer.

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

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

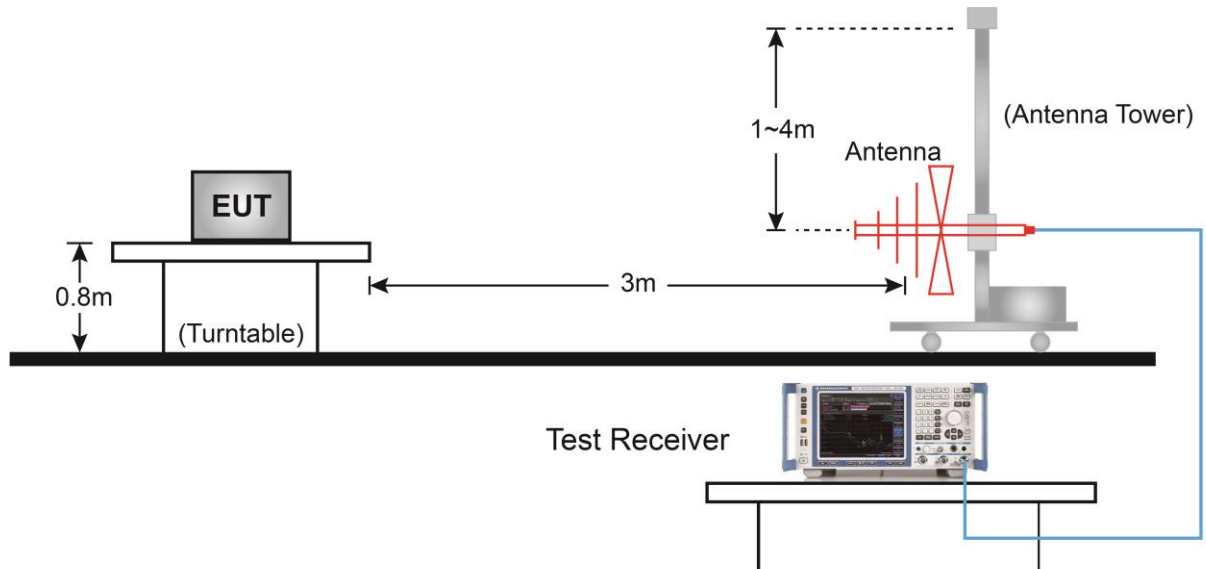
上表規定之電場強度，發射頻率在 9 kHz~90 kHz、110 kHz~490 kHz 及 1000MHz 以上者，其量測應以平均值檢波器為基準，且須符合低功率射頻器材技術規範第 6.14.節之規定；其他發射頻率，應以 CISPR 準峰值(quasi-peak) 檢波器測量；非以上表所指定之距離測量時，應符合第 6.5 節之規定，而輻射發射之量測頻率範圍須符合低功率射頻器材技術規範第 6.12 節之規定。

5.4.2. 量測方法

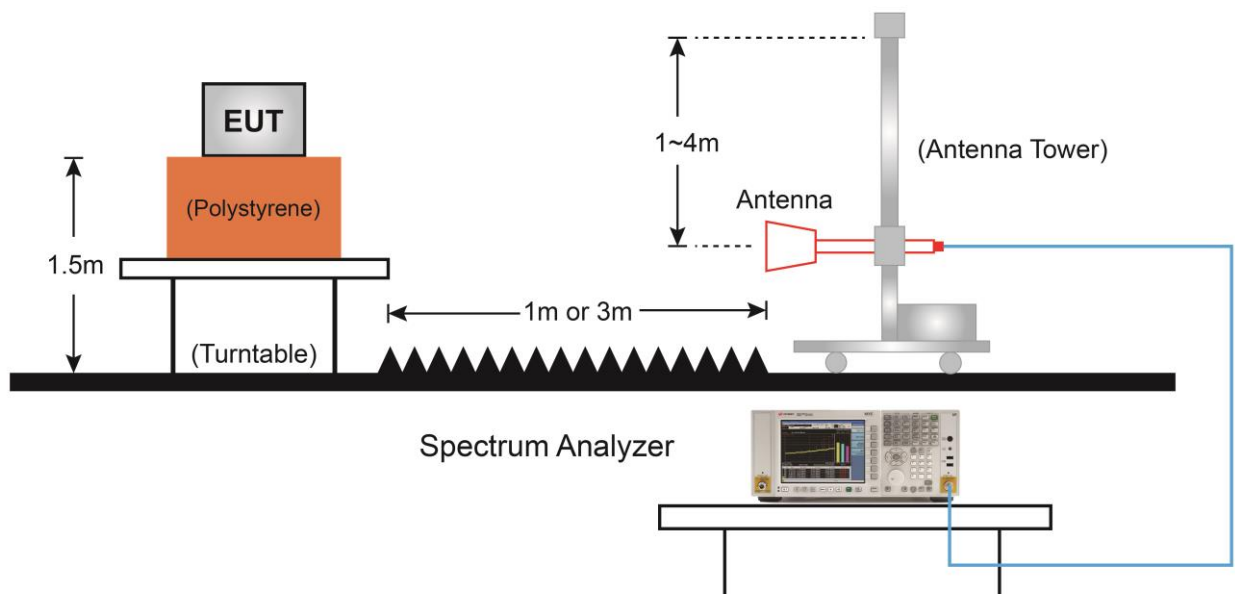
低頻待測物置於高 80 公分之非導體桌面（落地型產品置於地上），高頻待測物置於高 150 公分之非導體桌面，受測物與配件設備之電源線無須束綁，桌面上受測設備的所有電源線由桌子的後緣垂下沿旋轉桌表面接至交流插座。落地型設備的交流電源線可以方便的型態走線。桌面可 360 度旋轉，接收天線置於距待測物 3m 距離，高度可在 1 至 4 公尺間變動，以量測待測物之最大輻射電場強度。接收天線並應於水準及垂直極化方向各量測一次。

5.4.3. 測試架構圖

Below 1GHz Test Setup:

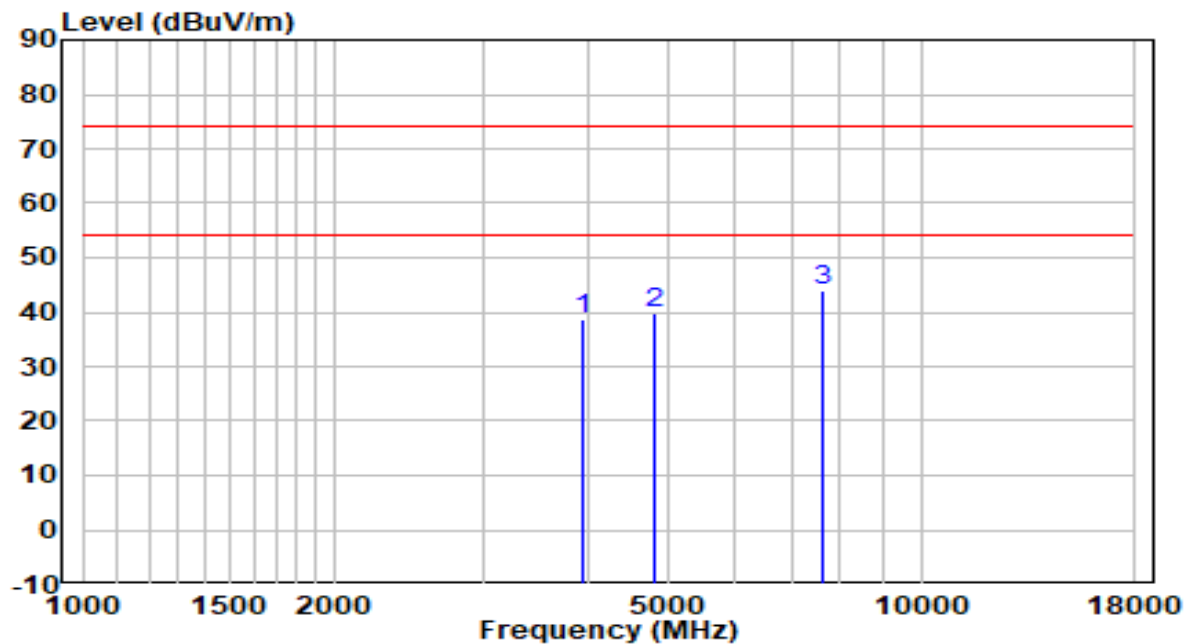


Above 1GHz Test Setup:



5.4.4. 輻射干擾測試結果

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	BBHA 9120D	Temp. / Humidity	20.5°C/28.6%
Polarity	Horizontal	Site / Test Engineer	AC1 / Jay Chou
Test Mode	Transmit by 802.11b at Channel 2412MHz	Test Voltage	110V/60Hz

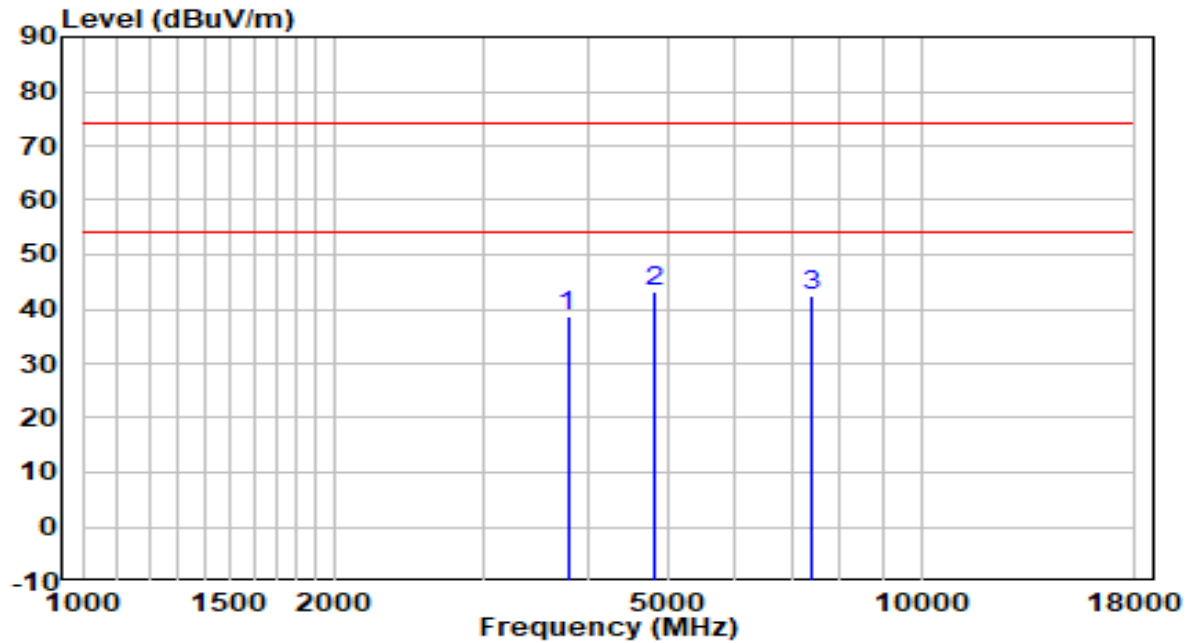


No	Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Remark (QP/PK/AV)
1	3949.500	38.04	0.71	38.75	-35.25	74.00	Peak
2	4825.000	36.61	3.33	39.94	-34.06	74.00	Peak
3	* 7613.000	31.97	11.90	43.87	-30.13	74.00	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	BBHA 9120D	Temp. / Humidity	20.5°C/28.6%
Polarity	Vertical	Site / Test Engineer	AC1 / Jay Chou
Test Mode	Transmit by 802.11b at Channel 2412MHz	Test Voltage	110V/60Hz

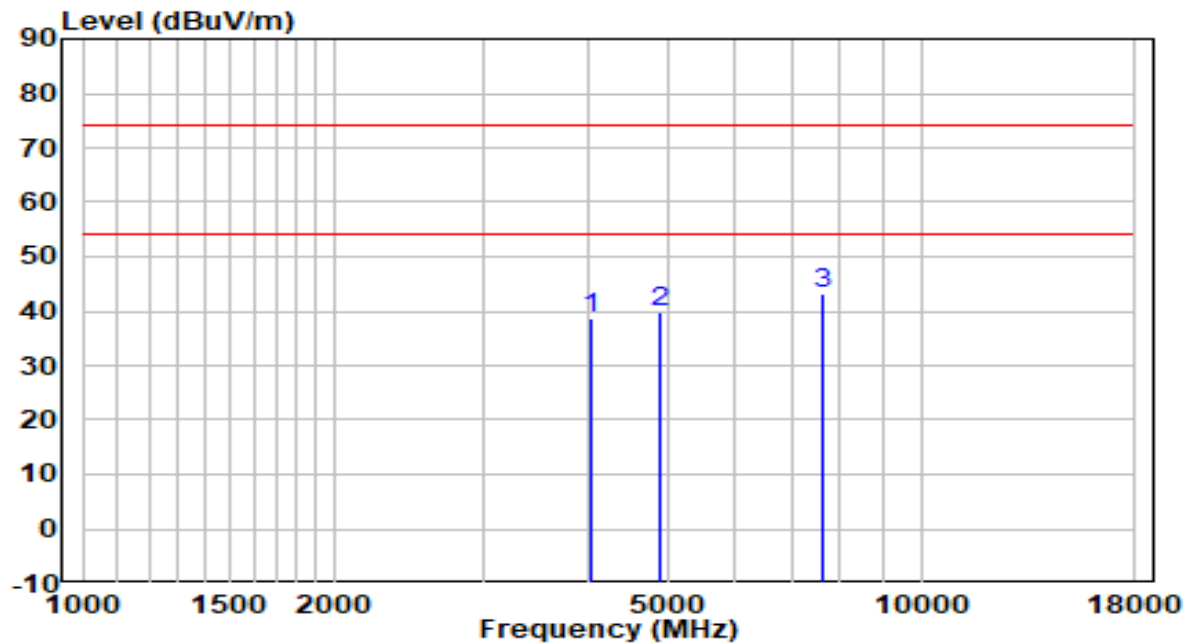


No	Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Remark (QP/PK/AV)
1	3788.000	38.52	0.15	38.67	-35.33	74.00	Peak
2	* 4825.000	39.72	3.33	43.05	-30.95	74.00	Peak
3	7400.500	30.86	11.43	42.29	-31.71	74.00	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	BBHA 9120D	Temp. / Humidity	20.5°C/28.6%
Polarity	Horizontal	Site / Test Engineer	AC1 / Jay Chou
Test Mode	Transmit by 802.11b at Channel 2437MHz	Test Voltage	110V/60Hz

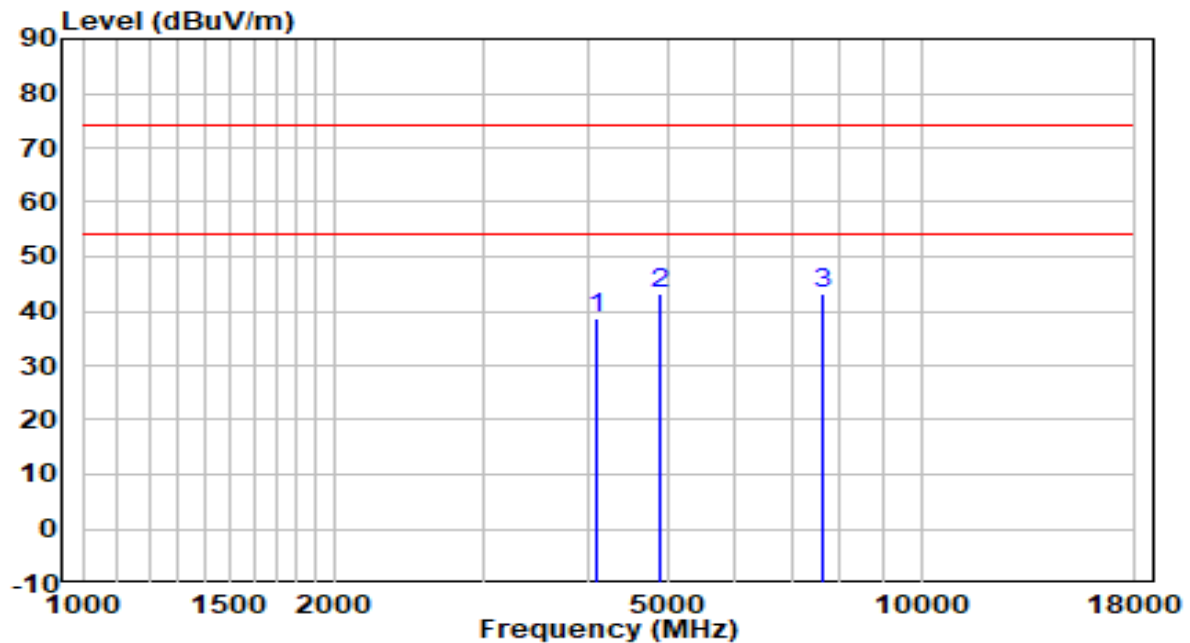


No	Frequency (MHz)	Reading (dBUV)	C.F (dB)	Measurement (dBUV/m)	Margin (dB)	Limit (dBUV/m)	Remark (QP/PK/AV)
1	4034.500	37.60	1.00	38.59	-35.41	74.00	Peak
2	4876.000	36.20	3.45	39.65	-34.35	74.00	Peak
3	* 7621.500	31.18	11.91	43.09	-30.91	74.00	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBUV/m) = Reading(dBUV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	BBHA 9120D	Temp. / Humidity	20.5°C/28.6%
Polarity	Vertical	Site / Test Engineer	AC1 / Jay Chou
Test Mode	Transmit by 802.11b at Channel 2437MHz	Test Voltage	110V/60Hz

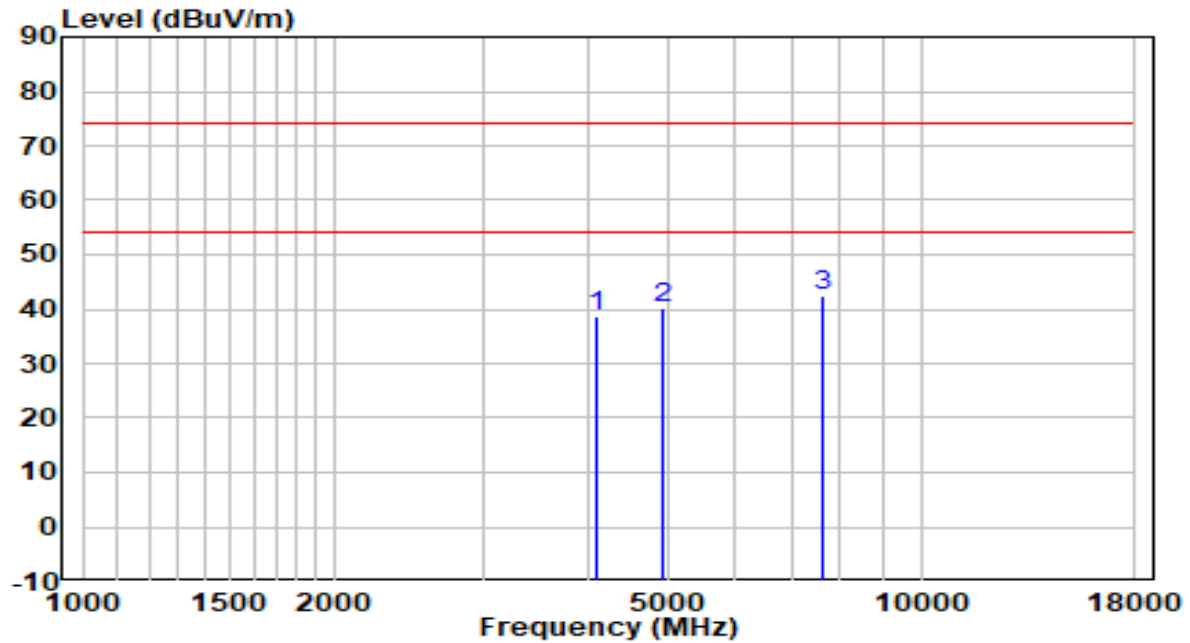


No	Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Remark (QP/PK/AV)
1	4102.500	37.36	1.22	38.58	-35.42	74.00	Peak
2	* 4876.000	39.86	3.45	43.31	-30.69	74.00	Peak
3	7630.000	31.27	11.93	43.20	-30.80	74.00	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	BBHA 9120D	Temp. / Humidity	20.5°C/28.6%
Polarity	Horizontal	Site / Test Engineer	AC1 / Jay Chou
Test Mode	Transmit by 802.11b at Channel 2462MHz	Test Voltage	110V/60Hz

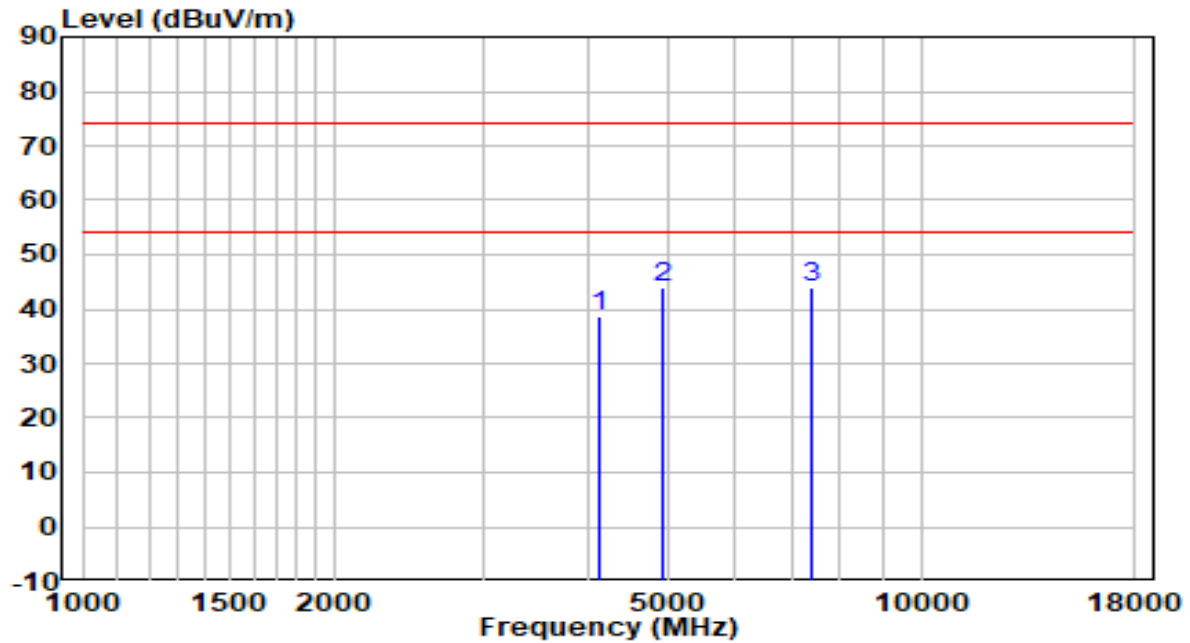


No	Frequency (MHz)	Reading (dBUV)	C.F (dB)	Measurement (dBUV/m)	Margin (dB)	Limit (dBUV/m)	Remark (QP/PK/AV)
1	4094.000	37.49	1.19	38.69	-35.31	74.00	Peak
2	4927.000	36.50	3.57	40.07	-33.93	74.00	Peak
3	* 7638.500	30.47	11.94	42.41	-31.59	74.00	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBUV/m) = Reading(dBUV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	BBHA 9120D	Temp. / Humidity	20.5°C/28.6%
Polarity	Vertical	Site / Test Engineer	AC1 / Jay Chou
Test Mode	Transmit by 802.11b at Channel 2462MHz	Test Voltage	110V/60Hz

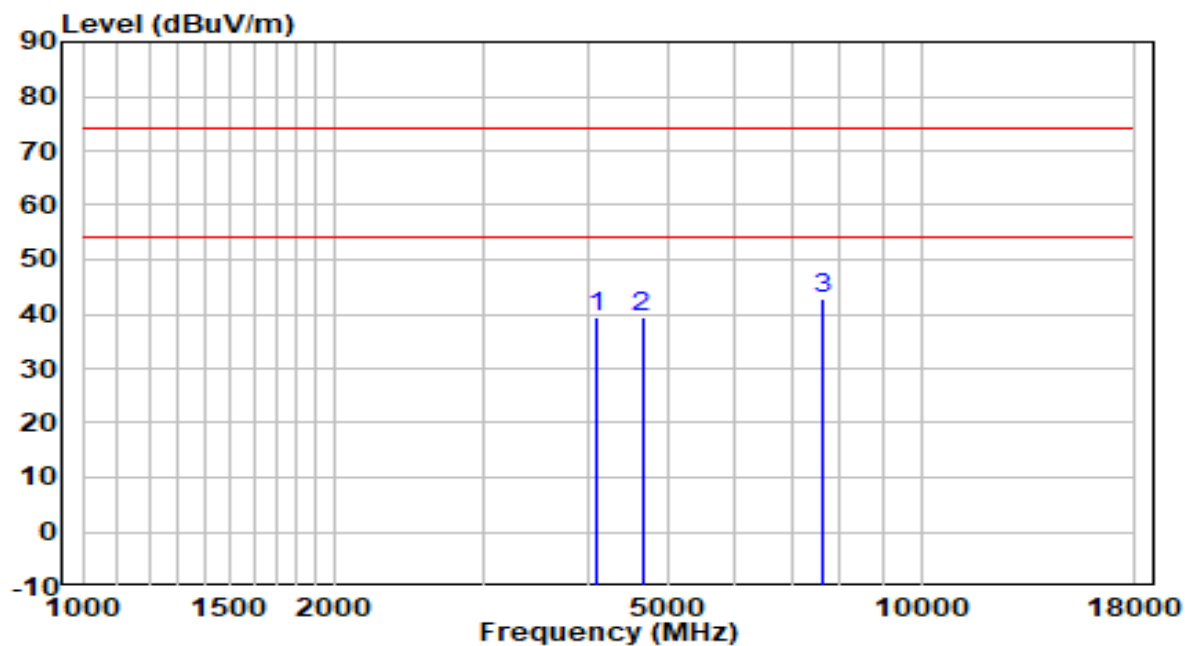


No	Frequency (MHz)	Reading (dBUV)	C.F (dB)	Measurement (dBUV/m)	Margin (dB)	Limit (dBUV/m)	Remark (QP/PK/AV)
1	4119.500	37.30	1.28	38.58	-35.42	74.00	Peak
2	4927.000	40.55	3.57	44.12	-29.88	74.00	Peak
3	* 7383.500	32.76	11.39	44.15	-29.85	74.00	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBUV/m) = Reading(dBUV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	BBHA 9120D	Temp. / Humidity	20.5°C/28.6%
Polarity	Horizontal	Site / Test Engineer	AC1 / Jay Chou
Test Mode	Transmit by 802.11g at Channel 2412MHz	Test Voltage	110V/60Hz

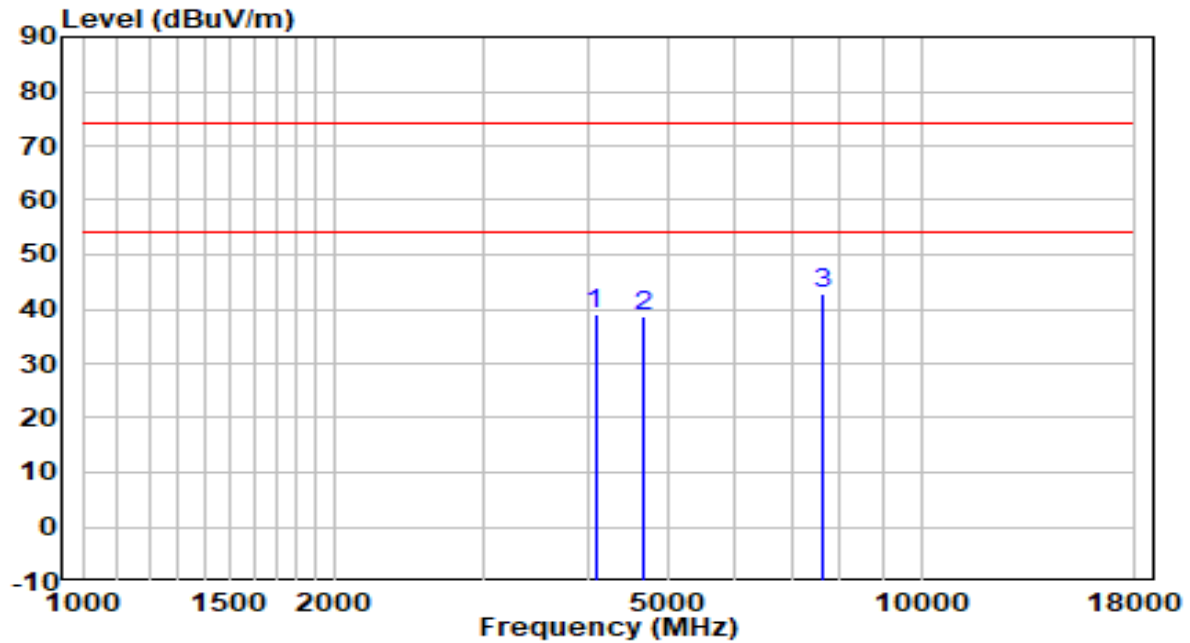


No	Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Remark (QP/PK/AV)
1	4094.000	38.14	1.19	39.34	-34.66	74.00	Peak
2	4646.500	36.46	2.90	39.36	-34.64	74.00	Peak
3	* 7630.000	30.95	11.93	42.87	-31.13	74.00	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	BBHA 9120D	Temp. / Humidity	20.5°C/28.6%
Polarity	Vertical	Site / Test Engineer	AC1 / Jay Chou
Test Mode	Transmit by 802.11g at Channel 2412MHz	Test Voltage	110V/60Hz

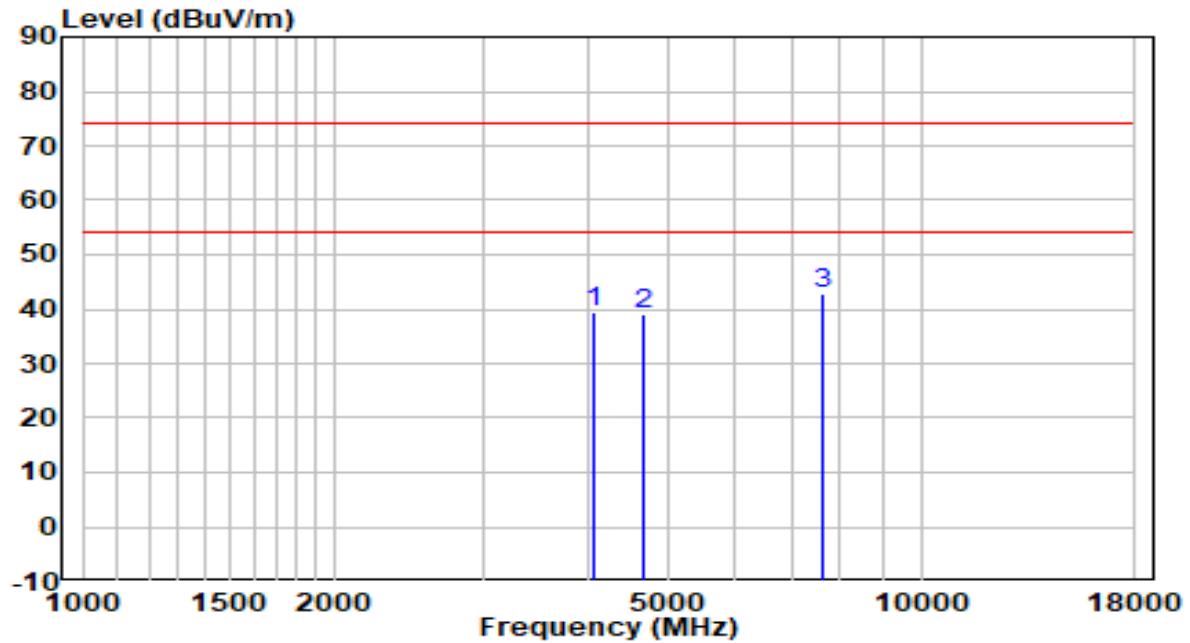


No	Frequency (MHz)	Reading (dBUV)	C.F (dB)	Measurement (dBUV/m)	Margin (dB)	Limit (dBUV/m)	Remark (QP/PK/AV)
1	4085.500	38.02	1.17	39.19	-34.81	74.00	Peak
2	4672.000	35.66	2.96	38.62	-35.38	74.00	Peak
3	* 7630.000	30.94	11.93	42.87	-31.13	74.00	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBUV/m) = Reading(dBUV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	BBHA 9120D	Temp. / Humidity	20.5°C/28.6%
Polarity	Horizontal	Site / Test Engineer	AC1 / Jay Chou
Test Mode	Transmit by 802.11g at Channel 2437MHz	Test Voltage	110V/60Hz

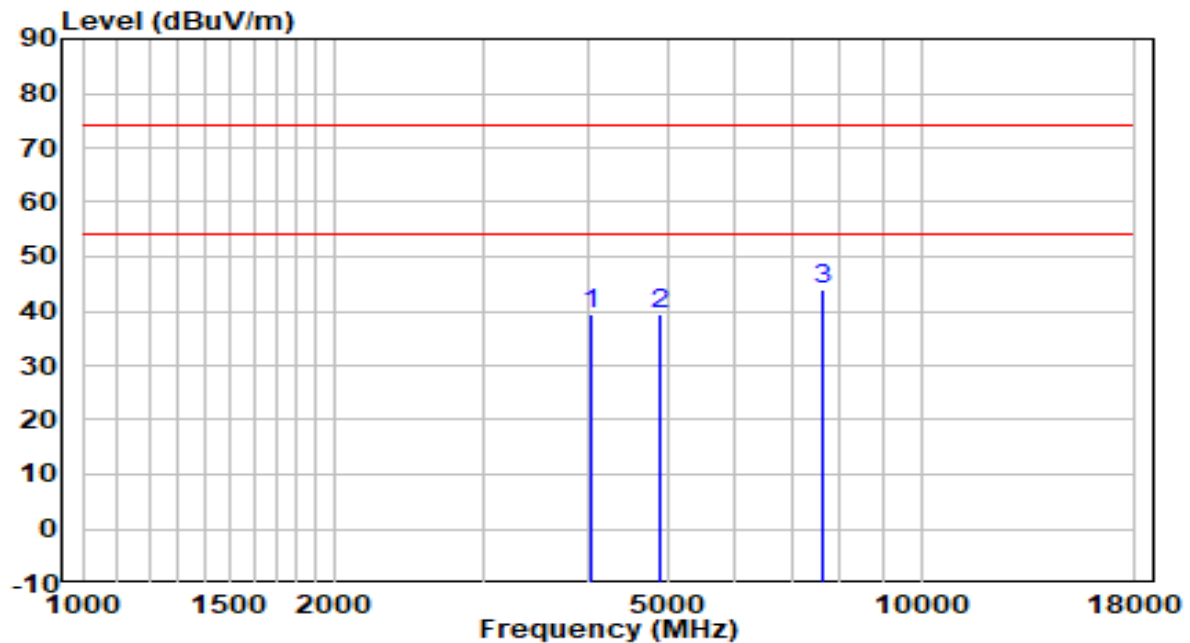


No	Frequency (MHz)	Reading (dBUV)	C.F (dB)	Measurement (dBUV/m)	Margin (dB)	Limit (dBUV/m)	Remark (QP/PK/AV)
1	4077.000	38.43	1.14	39.57	-34.43	74.00	Peak
2	4655.000	36.12	2.92	39.04	-34.96	74.00	Peak
3	* 7638.500	30.75	11.94	42.69	-31.31	74.00	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBUV/m) = Reading(dBUV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	BBHA 9120D	Temp. / Humidity	20.5°C/28.6%
Polarity	Vertical	Site / Test Engineer	AC1 / Jay Chou
Test Mode	Transmit by 802.11g at Channel 2437MHz	Test Voltage	110V/60Hz

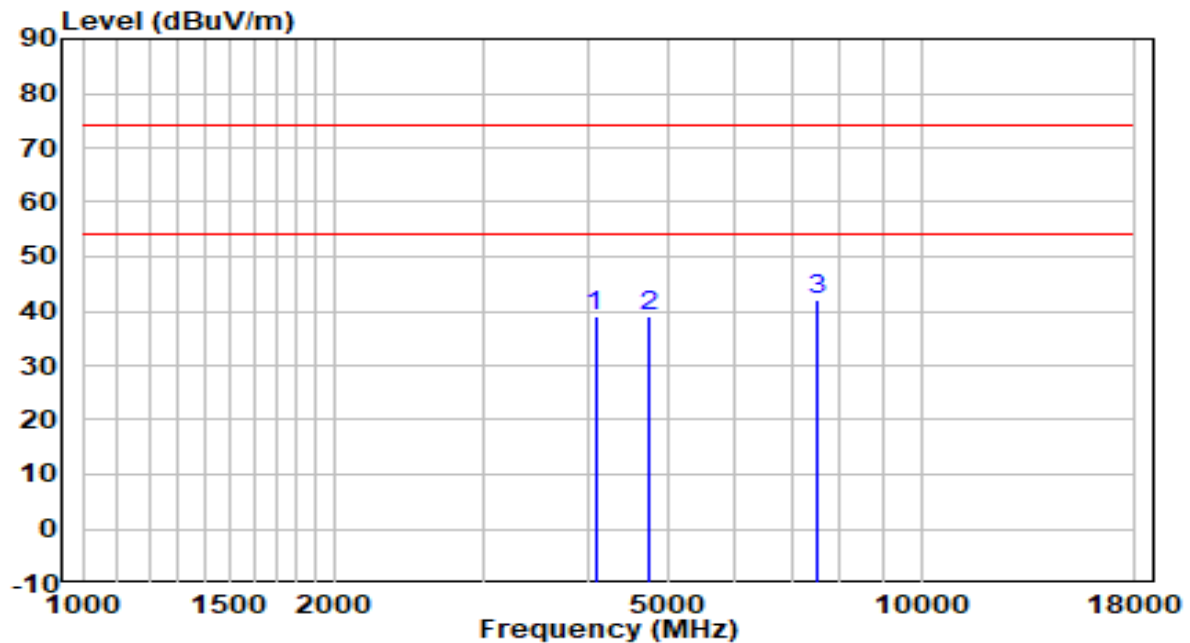


No	Frequency (MHz)	Reading (dBUV)	C.F (dB)	Measurement (dBUV/m)	Margin (dB)	Limit (dBUV/m)	Remark (QP/PK/AV)
1	4034.500	38.42	1.00	39.41	-34.59	74.00	Peak
2	4876.000	36.13	3.45	39.58	-34.42	74.00	Peak
3	* 7604.500	32.09	11.89	43.98	-30.02	74.00	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBUV/m) = Reading(dBUV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	BBHA 9120D	Temp. / Humidity	20.5°C/28.6%
Polarity	Horizontal	Site / Test Engineer	AC1 / Jay Chou
Test Mode	Transmit by 802.11g at Channel 2462MHz	Test Voltage	110V/60Hz

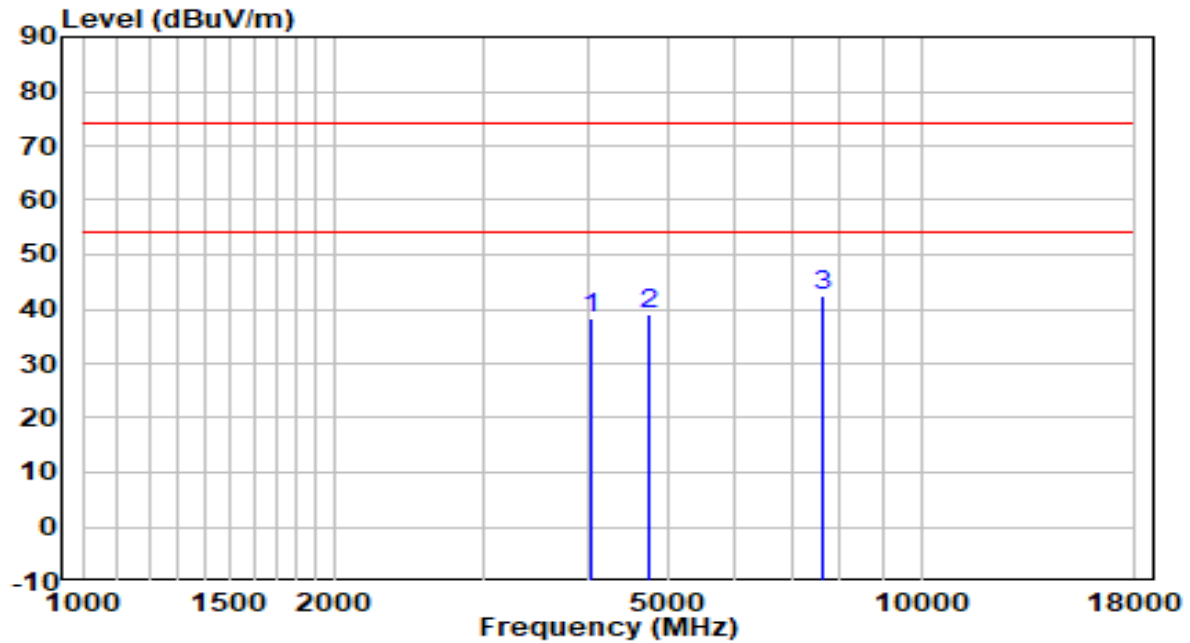


No	Frequency (MHz)	Reading (dBUV)	C.F (dB)	Measurement (dBUV/m)	Margin (dB)	Limit (dBUV/m)	Remark (QP/PK/AV)
1	4085.500	38.03	1.17	39.20	-34.80	74.00	Peak
2	4731.500	36.07	3.11	39.17	-34.83	74.00	Peak
3	* 7536.500	30.22	11.77	42.00	-32.00	74.00	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBUV/m) = Reading(dBUV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	BBHA 9120D	Temp. / Humidity	20.5°C/28.6%
Polarity	Vertical	Site / Test Engineer	AC1 / Jay Chou
Test Mode	Transmit by 802.11g at Channel 2462MHz	Test Voltage	110V/60Hz

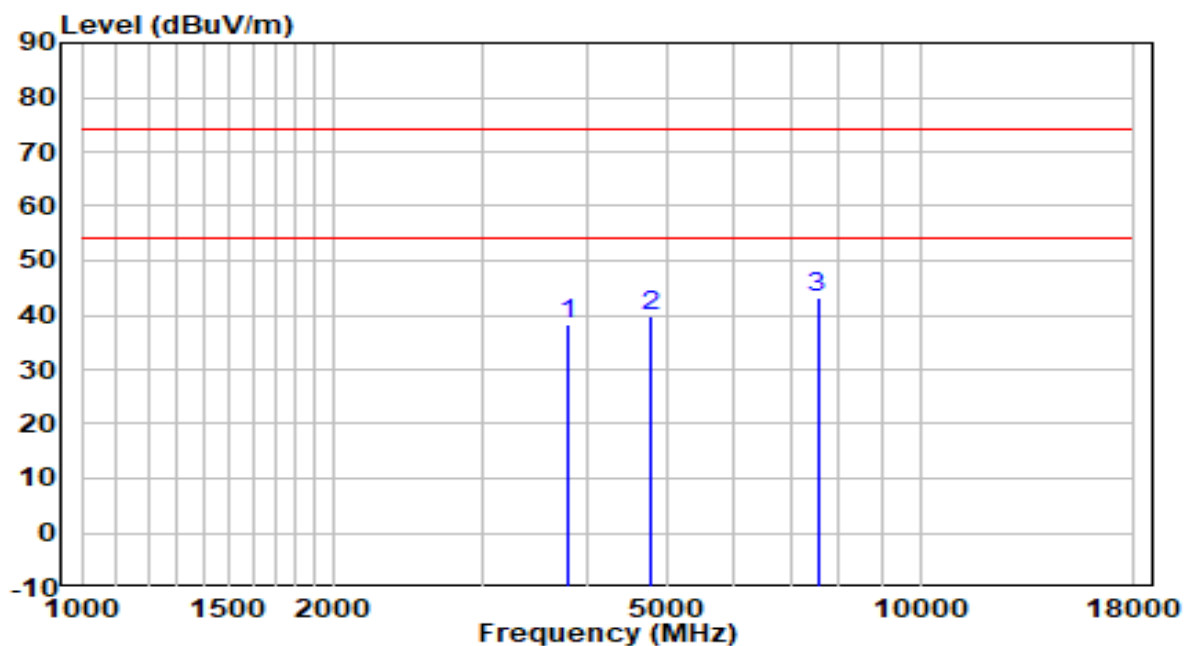


No	Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Remark (QP/PK/AV)
1	4034.500	37.16	1.00	38.16	-35.84	74.00	Peak
2	4748.500	35.89	3.15	39.04	-34.96	74.00	Peak
3	* 7604.500	30.63	11.89	42.51	-31.49	74.00	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	BBHA 9120D	Temp. / Humidity	20.5°C/28.6%
Polarity	Horizontal	Site / Test Engineer	AC1 / Jay Chou
Test Mode	Transmit by 802.11n-HT20 at Channel 2412MHz	Test Voltage	110V/60Hz

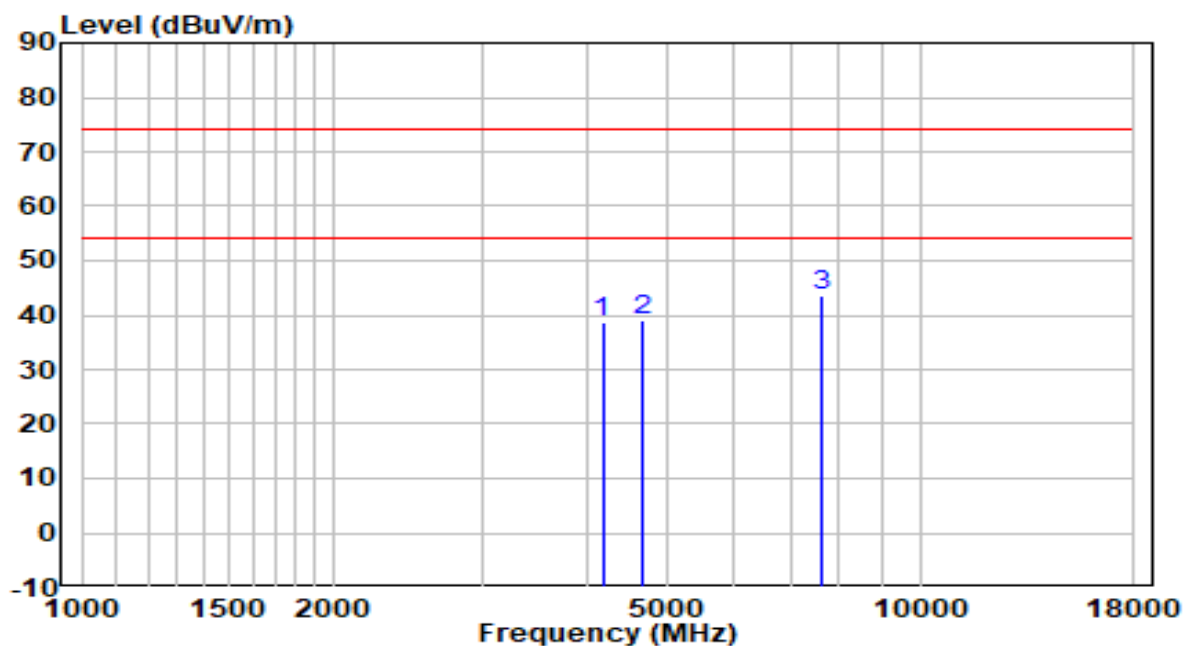


No	Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Remark (QP/PK/AV)
1	3805.000	38.05	0.21	38.26	-35.74	74.00	Peak
2	4757.000	36.52	3.17	39.69	-34.31	74.00	Peak
3	* 7545.000	31.39	11.79	43.18	-30.82	74.00	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	BBHA 9120D	Temp. / Humidity	20.5°C/28.6%
Polarity	Vertical	Site / Test Engineer	AC1 / Jay Chou
Test Mode	Transmit by 802.11n-HT20 at Channel 2412MHz	Test Voltage	110V/60Hz

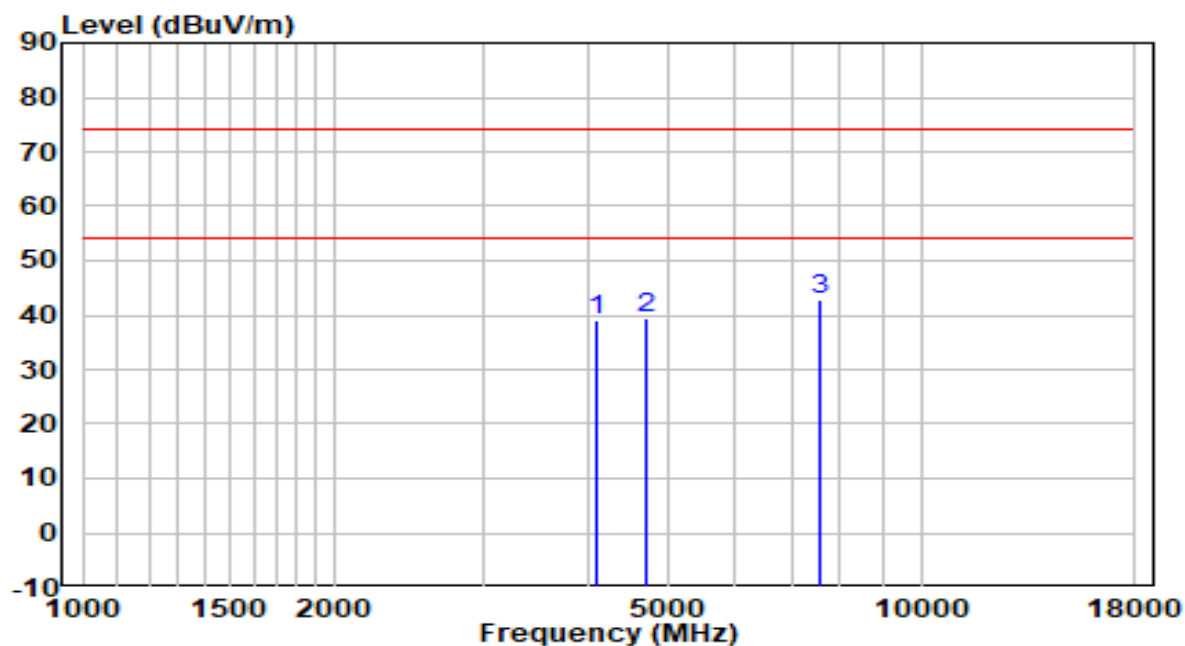


No	Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Remark (QP/PK/AV)
1	4179.000	37.27	1.48	38.74	-35.26	74.00	Peak
2	4680.500	35.91	2.98	38.90	-35.10	74.00	Peak
3	* 7630.000	31.82	11.93	43.75	-30.25	74.00	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	BBHA 9120D	Temp. / Humidity	20.5°C/28.6%
Polarity	Horizontal	Site / Test Engineer	AC1 / Jay Chou
Test Mode	Transmit by 802.11n-HT20 at Channel 2437MHz	Test Voltage	110V/60Hz

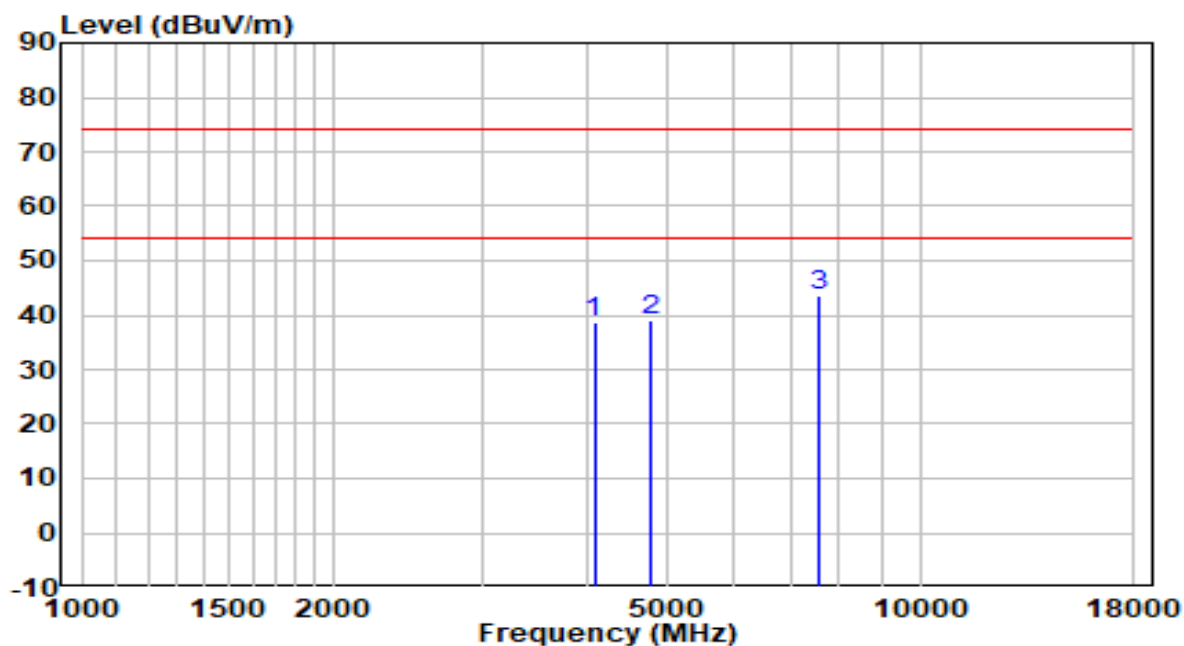


No	Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Remark (QP/PK/AV)
1	4102.500	37.73	1.22	38.95	-35.05	74.00	Peak
2	4697.500	36.36	3.02	39.39	-34.61	74.00	Peak
3	* 7553.500	30.93	11.80	42.73	-31.27	74.00	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	BBHA 9120D	Temp. / Humidity	20.5°C/28.6%
Polarity	Vertical	Site / Test Engineer	AC1 / Jay Chou
Test Mode	Transmit by 802.11n-HT20 at Channel 2437MHz	Test Voltage	110V/60Hz

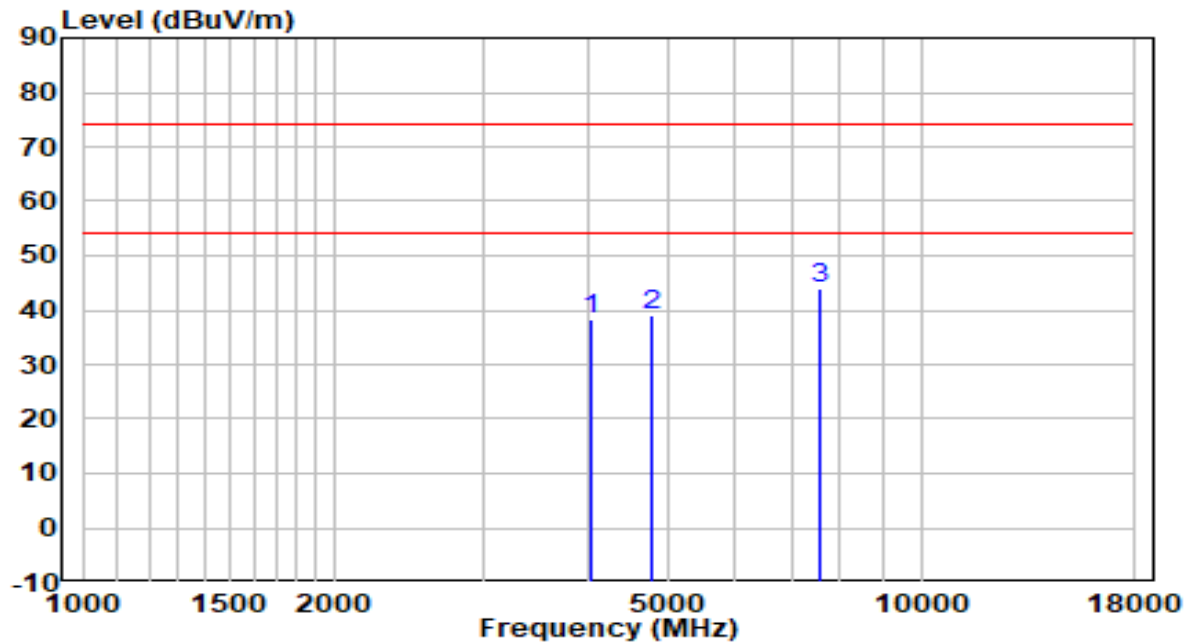


No	Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Remark (QP/PK/AV)
1	4085.500	37.65	1.17	38.81	-35.19	74.00	Peak
2	4757.000	35.72	3.17	38.89	-35.11	74.00	Peak
3	* 7570.500	31.61	11.83	43.44	-30.56	74.00	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	BBHA 9120D	Temp. / Humidity	20.5°C/28.6%
Polarity	Horizontal	Site / Test Engineer	AC1 / Jay Chou
Test Mode	Transmit by 802.11n-HT20 at Channel 2462MHz	Test Voltage	110V/60Hz

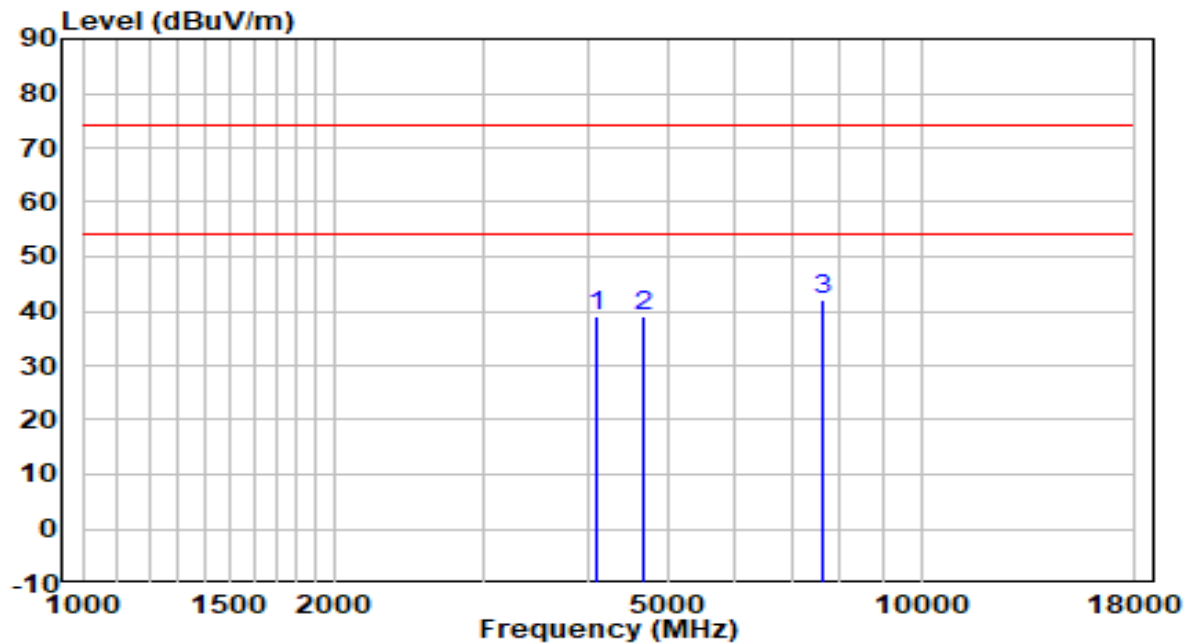


No	Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Remark (QP/PK/AV)
1	4051.500	37.30	1.05	38.35	-35.65	74.00	Peak
2	4774.000	35.85	3.21	39.06	-34.95	74.00	Peak
3	* 7553.500	32.06	11.80	43.86	-30.14	74.00	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	BBHA 9120D	Temp. / Humidity	20.5°C/28.6%
Polarity	Vertical	Site / Test Engineer	AC1 / Jay Chou
Test Mode	Transmit by 802.11n-HT20 at Channel 2462MHz	Test Voltage	110V/60Hz

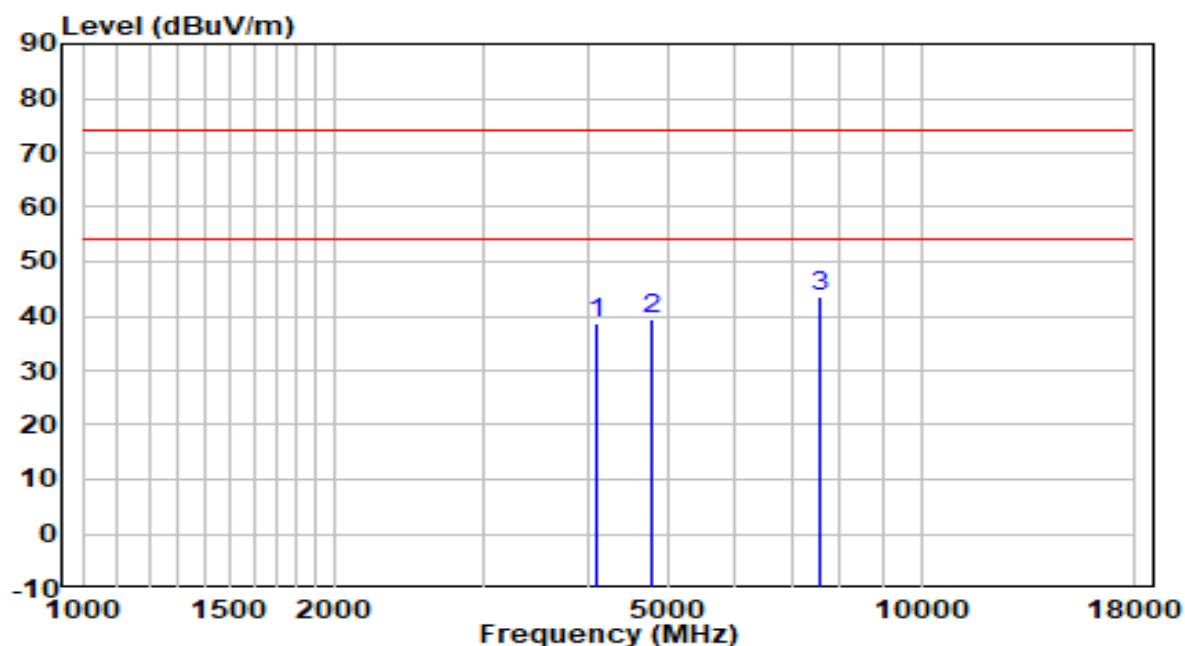


No	Frequency (MHz)	Reading (dBUV)	C.F (dB)	Measurement (dBUV/m)	Margin (dB)	Limit (dBUV/m)	Remark (QP/PK/AV)
1	4102.500	37.70	1.22	38.93	-35.07	74.00	Peak
2	4672.000	35.99	2.96	38.96	-35.04	74.00	Peak
3	* 7621.500	30.31	11.91	42.22	-31.78	74.00	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBUV/m) = Reading(dBUV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	BBHA 9120D	Temp. / Humidity	20.5°C/28.6%
Polarity	Horizontal	Site / Test Engineer	AC1 / Jay Chou
Test Mode	Transmit by 802.11n-HT40 at Channel 2422MHz	Test Voltage	110V/60Hz

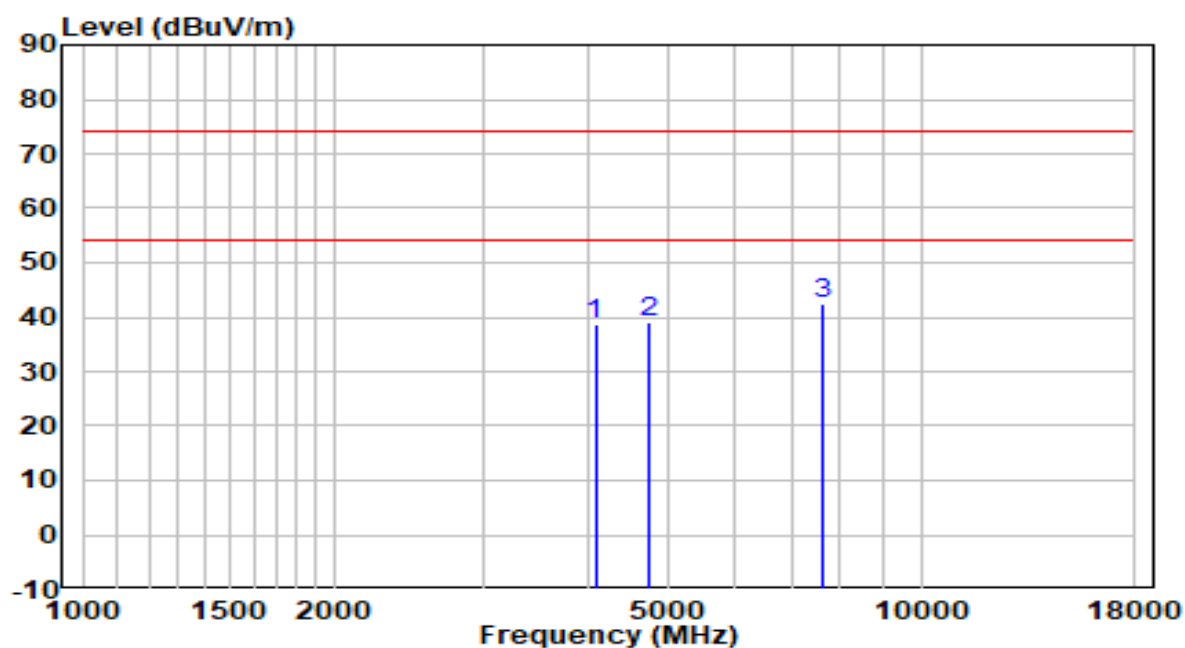


No	Frequency (MHz)	Reading (dBUV)	C.F (dB)	Measurement (dBUV/m)	Margin (dB)	Limit (dBUV/m)	Remark (QP/PK/AV)
1	4094.000	37.32	1.19	38.51	-35.49	74.00	Peak
2	4757.000	36.41	3.17	39.57	-34.43	74.00	Peak
3	* 7596.000	31.66	11.87	43.53	-30.47	74.00	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBUV/m) = Reading(dBUV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	BBHA 9120D	Temp. / Humidity	20.5°C/28.6%
Polarity	Vertical	Site / Test Engineer	AC1 / Jay Chou
Test Mode	Transmit by 802.11n-HT40 at Channel 2422MHz	Test Voltage	110V/60Hz

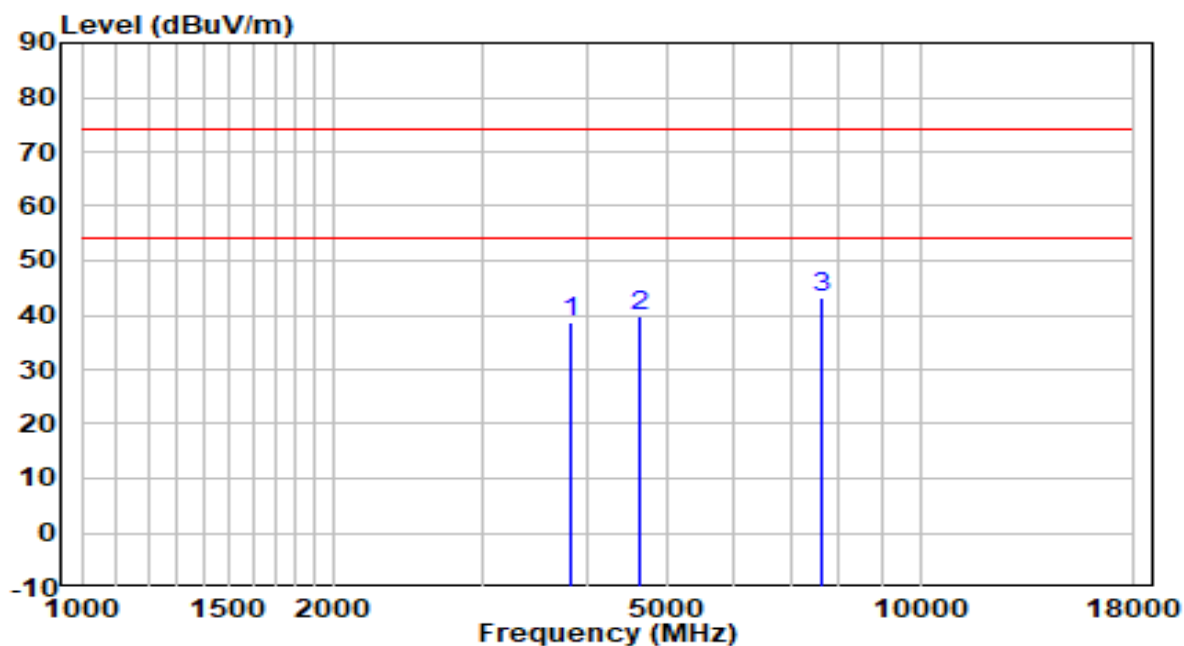


No	Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Remark (QP/PK/AV)
1	4085.500	37.39	1.17	38.56	-35.44	74.00	Peak
2	4740.000	35.78	3.13	38.91	-35.09	74.00	Peak
3	* 7604.500	30.70	11.89	42.58	-31.42	74.00	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	BBHA 9120D	Temp. / Humidity	20.5°C/28.6%
Polarity	Horizontal	Site / Test Engineer	AC1 / Jay Chou
Test Mode	Transmit by 802.11n-HT40 at Channel 2437MHz	Test Voltage	110V/60Hz

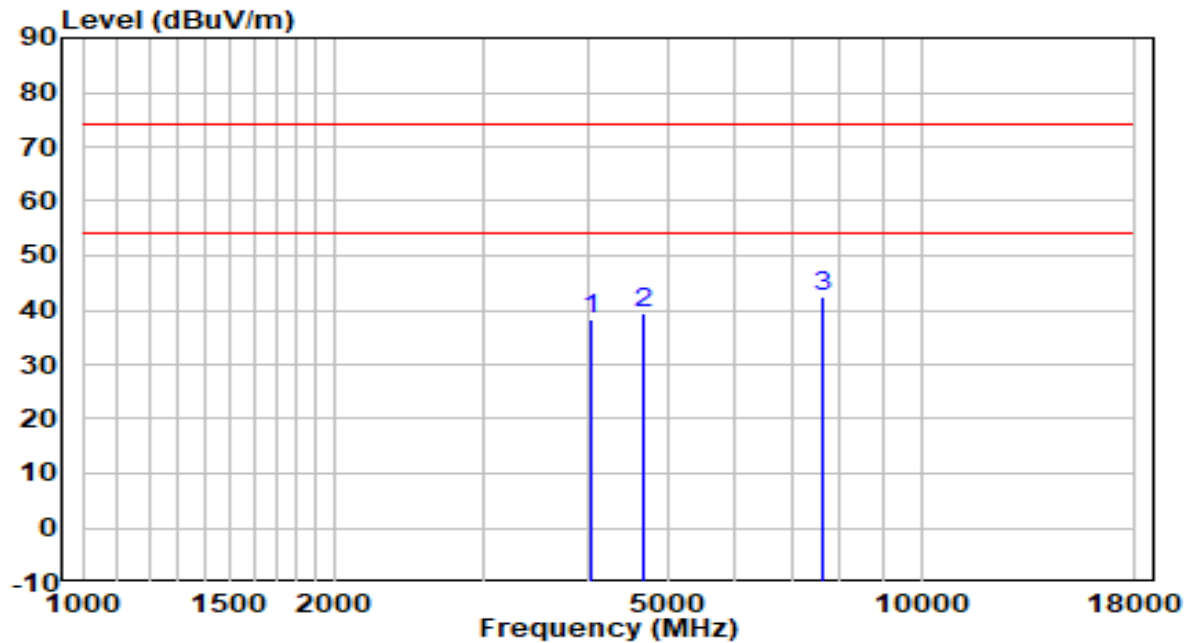


No	Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Remark (QP/PK/AV)
1	3822.000	38.43	0.27	38.70	-35.30	74.00	Peak
2	4638.000	37.03	2.88	39.91	-34.09	74.00	Peak
3	* 7655.500	31.10	11.97	43.07	-30.93	74.00	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	BBHA 9120D	Temp. / Humidity	20.5°C/28.6%
Polarity	Vertical	Site / Test Engineer	AC1 / Jay Chou
Test Mode	Transmit by 802.11n-HT40 at Channel 2437MHz	Test Voltage	110V/60Hz

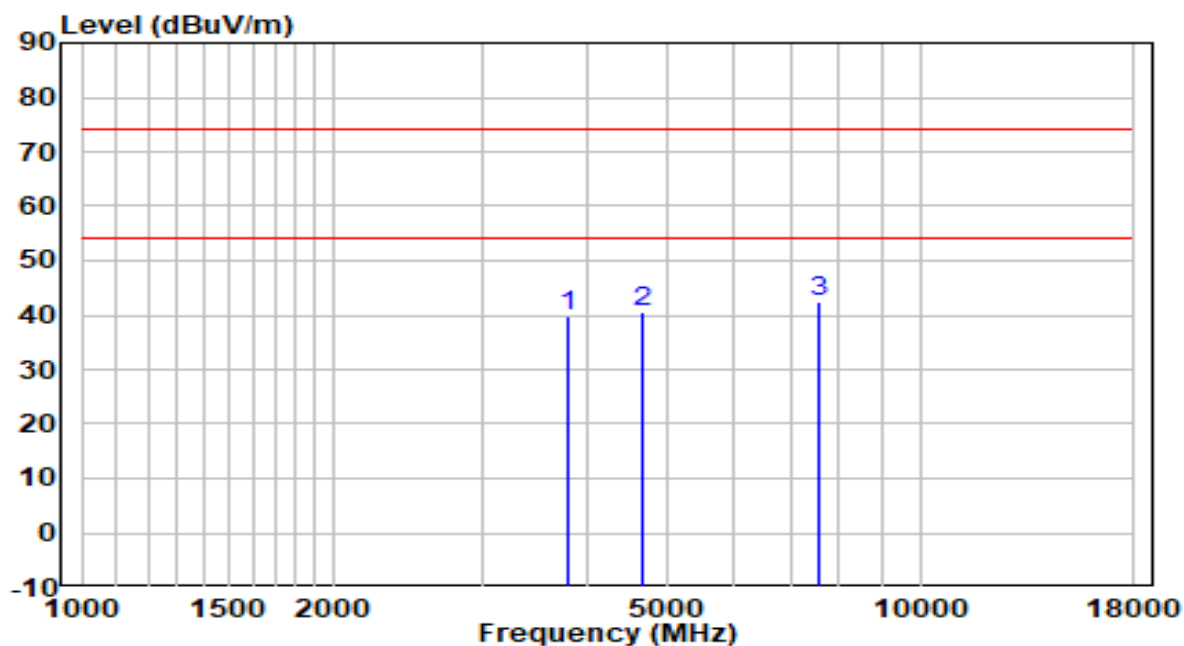


No	Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Remark (QP/PK/AV)
1	4043.000	37.40	1.02	38.42	-35.58	74.00	Peak
2	4663.500	36.56	2.94	39.50	-34.50	74.00	Peak
3	* 7647.000	30.67	11.95	42.62	-31.38	74.00	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	BBHA 9120D	Temp. / Humidity	20.5°C/28.6%
Polarity	Horizontal	Site / Test Engineer	AC1 / Jay Chou
Test Mode	Transmit by 802.11n-HT40 at Channel 2452MHz	Test Voltage	110V/60Hz

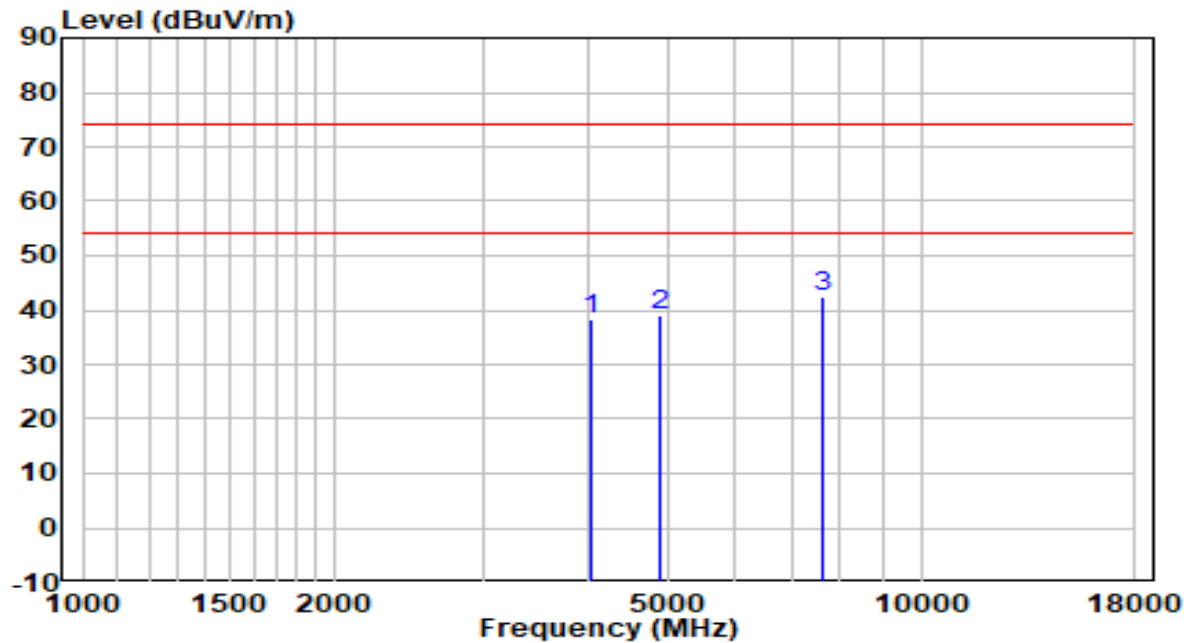


No	Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Remark (QP/PK/AV)
1	3796.500	39.50	0.18	39.68	-34.32	74.00	Peak
2	4680.500	37.42	2.98	40.40	-33.60	74.00	Peak
3	* 7587.500	30.74	11.86	42.60	-31.40	74.00	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2021-03-07
Factor	BBHA 9120D	Temp. / Humidity	20.5°C/28.6%
Polarity	Vertical	Site / Test Engineer	AC1 / Jay Chou
Test Mode	Transmit by 802.11n-HT40 at Channel 2452MHz	Test Voltage	110V/60Hz



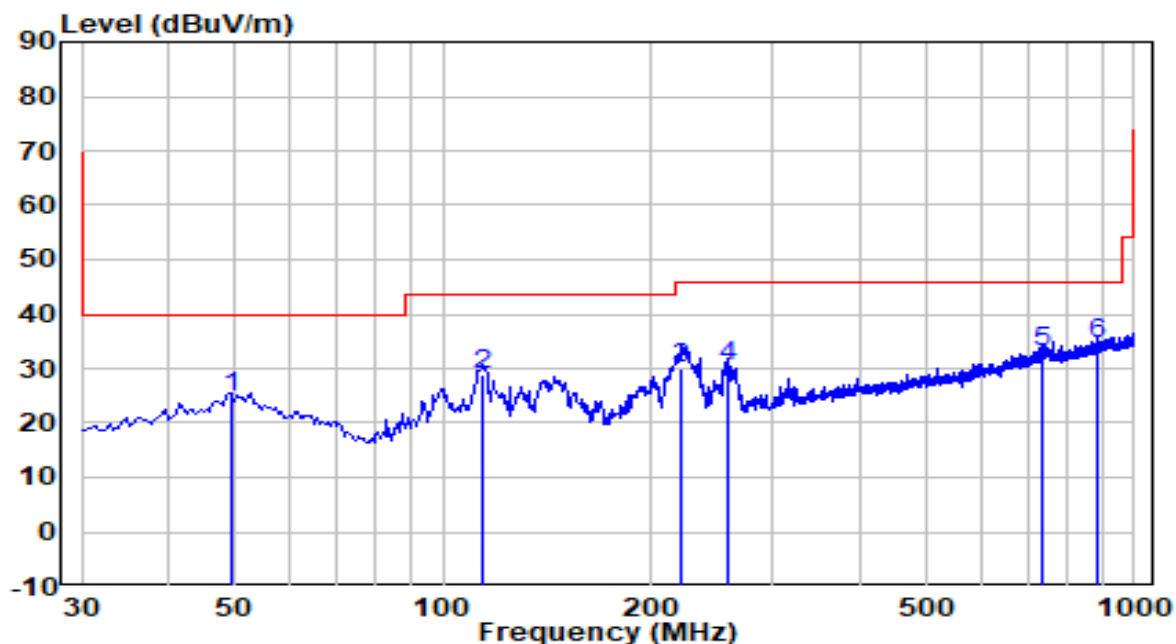
No	Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Remark (QP/PK/AV)
1	4026.000	37.21	0.97	38.17	-35.83	74.00	Peak
2	4867.500	35.44	3.43	38.87	-35.13	74.00	Peak
3	* 7604.500	30.62	11.89	42.50	-31.50	74.00	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

The Worst Case of Radiated Emission below 1GHz:

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2020-12-31
Factor	VULB 9162	Temp. / Humidity	25°C /54%
Polarity	Horizontal	Site / Test Engineer	AC1 / Jay Chou Chu
Test Mode	Worse Case-802.11b at Channel 2437MHz	Test Voltage	110V/60Hz

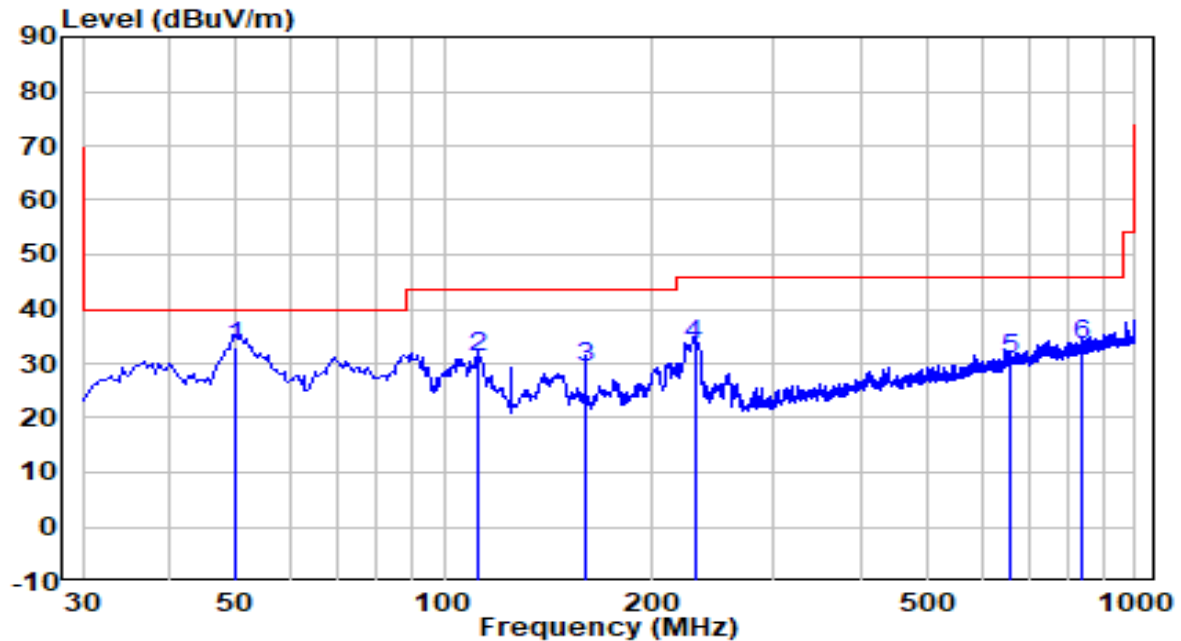


No	Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Remark (QP/PK/AV)
1	49.400	2.51	22.02	24.53	-15.47	40.00	QP
2	114.390	10.73	18.06	28.79	-14.71	43.50	QP
3	220.605	10.93	19.25	30.18	-15.82	46.00	QP
4	258.435	9.84	20.57	30.41	-15.59	46.00	QP
5	735.190	3.04	29.88	32.92	-13.08	46.00	QP
6	* 884.570	2.98	31.68	34.66	-11.34	46.00	QP

Note:

- "*", means this data is the worst emission level.
- C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
- Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- The emission levels of other frequencies are very lower than the limit and not show in test report.
- The amplitude of Radiated emissions (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 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.

EUT	AC750 Wi-Fi 訊號延伸器	Date of Test	2020-12-31
Factor	VULB 9162	Temp. / Humidity	25°C /54%
Polarity	Vertical	Site / Test Engineer	AC1 / Jay Chou Chu
Test Mode	Worse Case-802.11b at Channel 2437MHz	Test Voltage	110V/60Hz



No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Remark (QP/PK/AV)
1	*	49.885	11.02	22.04	33.06	-6.94	40.00	QP
2		112.450	12.95	18.35	31.30	-12.20	43.50	QP
3		159.980	13.04	16.32	29.36	-14.14	43.50	QP
4		230.305	13.88	19.68	33.56	-12.44	46.00	QP
5		656.620	2.16	28.70	30.86	-15.14	46.00	QP
6		834.615	2.04	31.18	33.22	-12.78	46.00	QP

Note:

- "*", means this data is the worst emission level.
- C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
- Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- The emission levels of other frequencies are very lower than the limit and not show in test report.
- The amplitude of Radiated emissions (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 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。

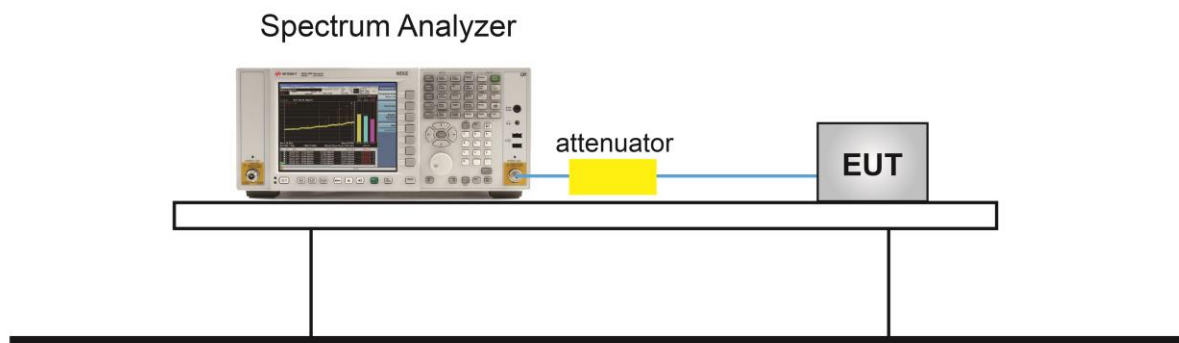
5.5.2. 量測方法

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

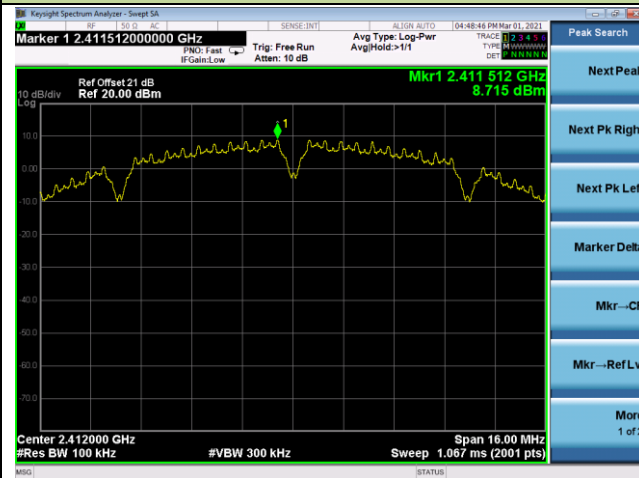
待測物名稱	AC750 Wi-Fi 訊號延伸器	溫度	23 ~ 25°C
測試工程師	Eric Lin	濕度	46 ~ 54%
測試場地	SR1	測試日期	2021/03/01

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

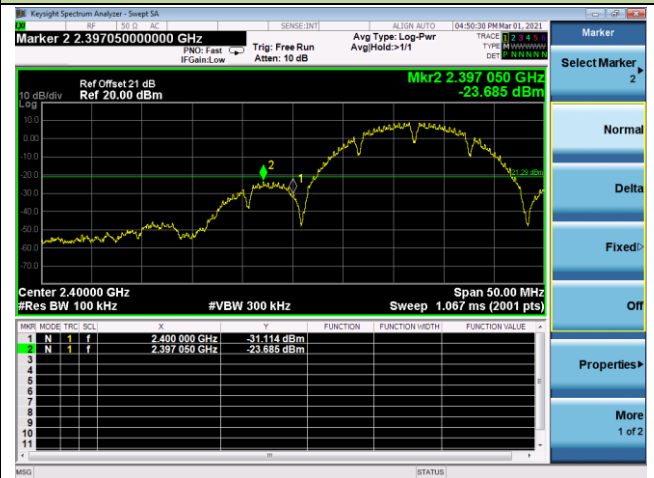
802.11b Out-of-Band Emissions - Ant 0 / Ant 0 + 1

Channel 01 (2412MHz)

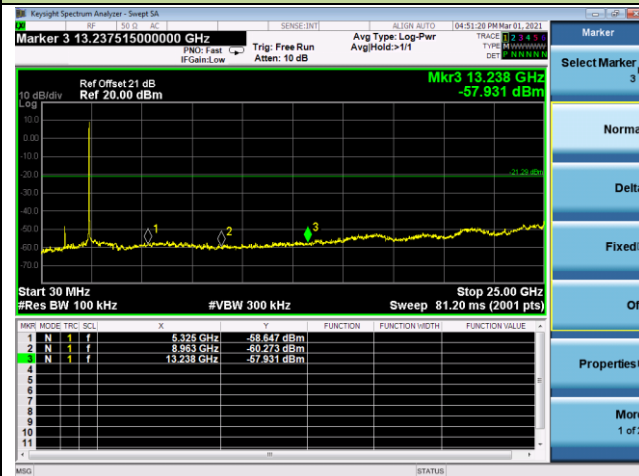
100kHz PSD reference Level



Low Band Edge

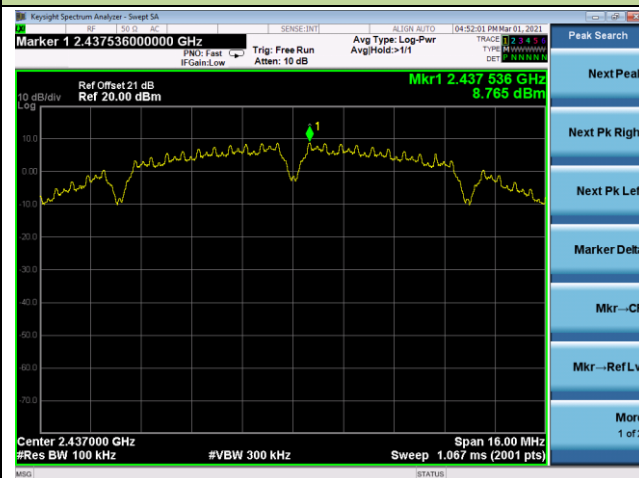


Spurious Emission

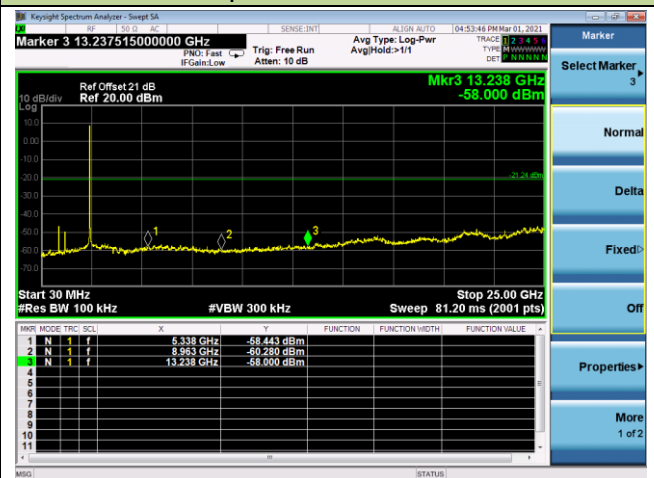


Channel 06 (2437MHz)

100kHz PSD reference Level



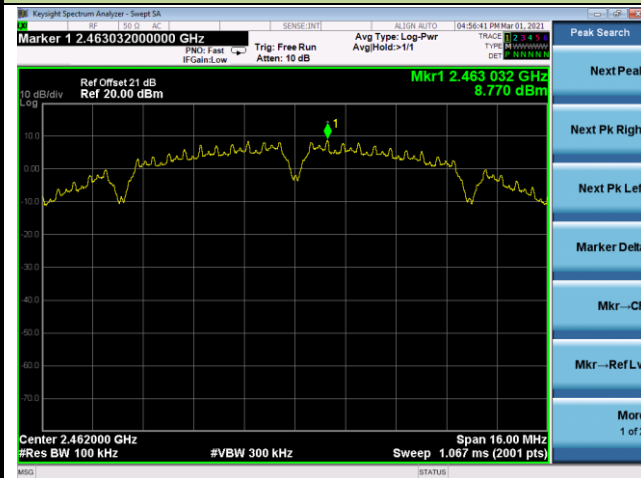
Spurious Emission



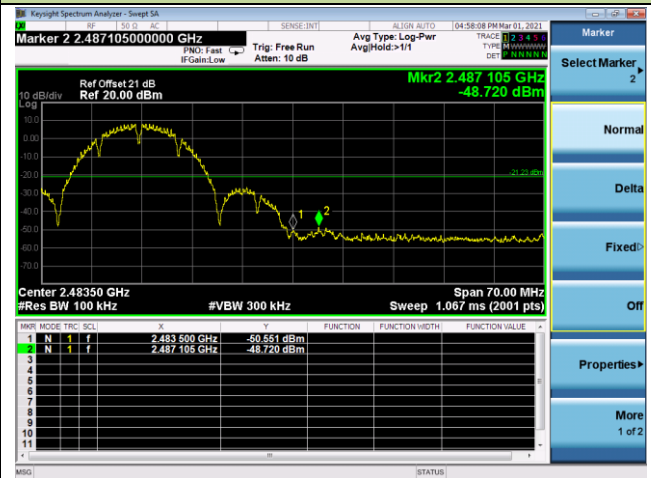
802.11b Out-of-Band Emissions - Ant 0 / Ant 0 + 1

Channel 11 (2462MHz)

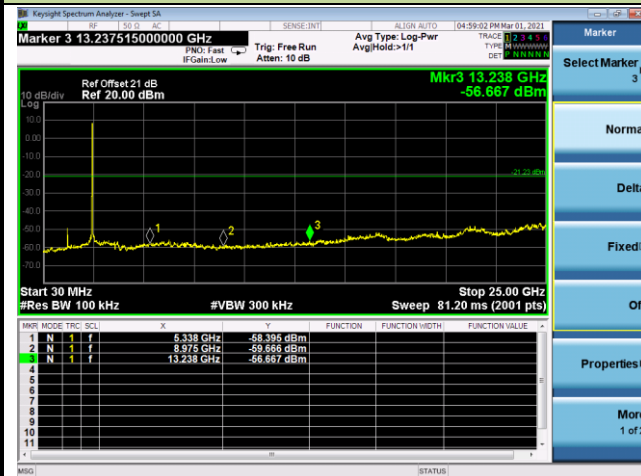
100kHz PSD reference Level



High Band Edge



Spurious Emission



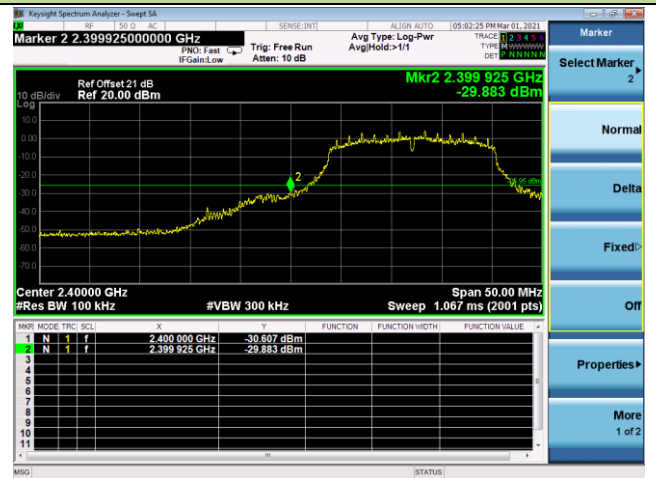
802.11g Out-of-Band Emissions - Ant 0 / Ant 0 + 1

Channel 01 (2412MHz)

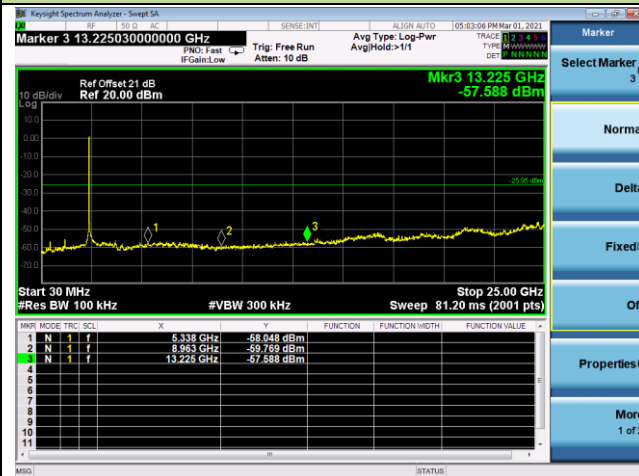
100kHz PSD reference Level



Low Band Edge

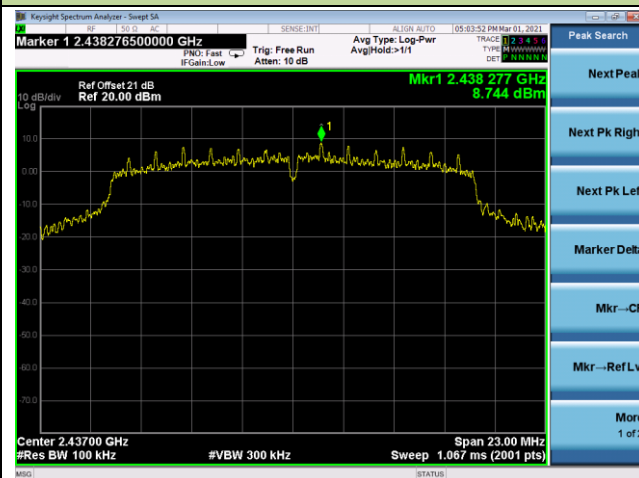


Spurious Emission

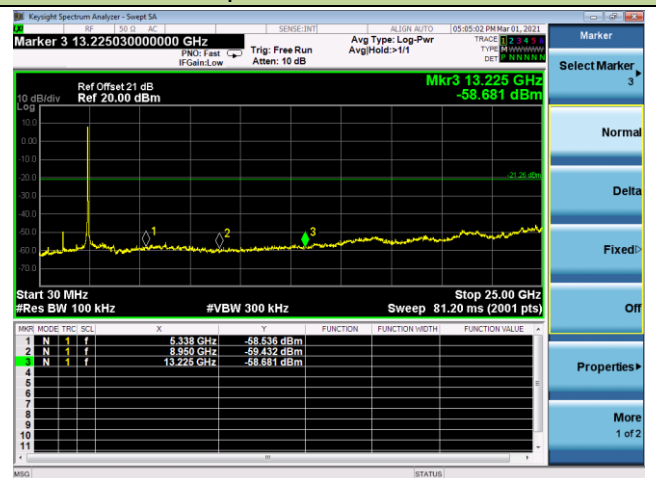


Channel 06 (2437MHz)

100kHz PSD reference Level



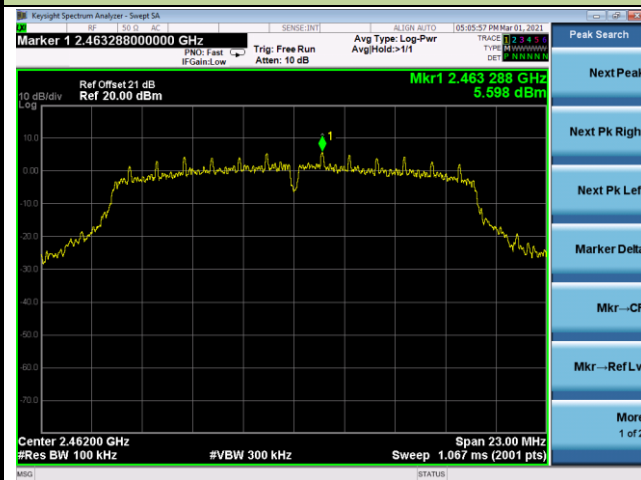
Spurious Emission



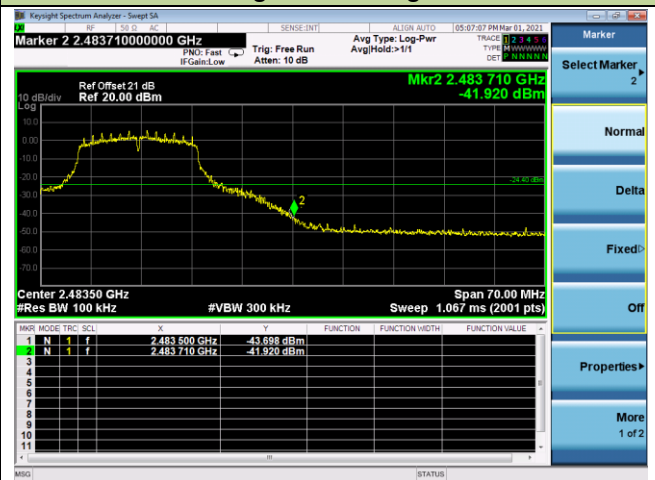
802.11g Out-of-Band Emissions - Ant 0 / Ant 0 + 1

Channel 11 (2462MHz)

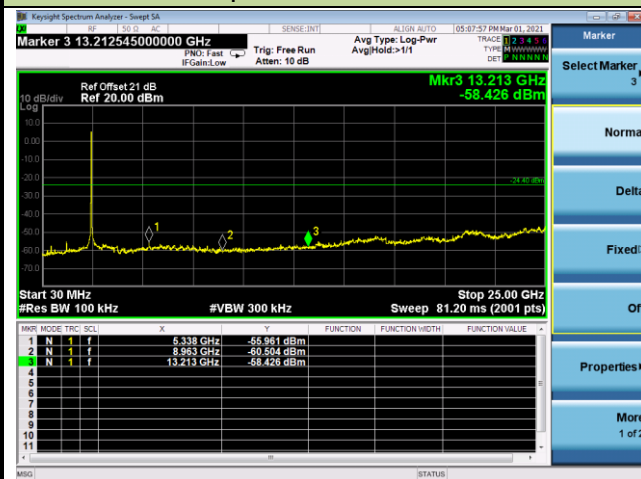
100kHz PSD reference Level



High Band Edge



Spurious Emission



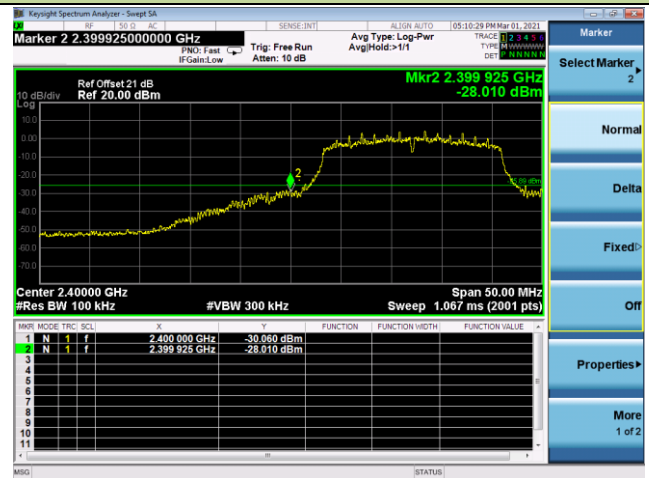
802.11n-HT20 Out-of-Band Emissions - Ant 0 / Ant 0 + 1

Channel 01 (2412MHz)

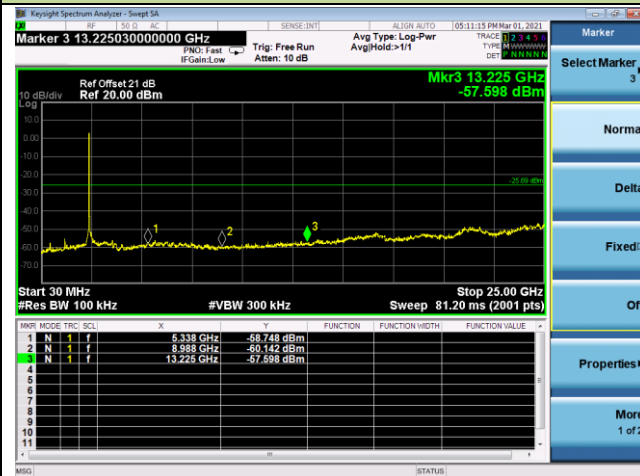
100kHz PSD reference Level



Low Band Edge

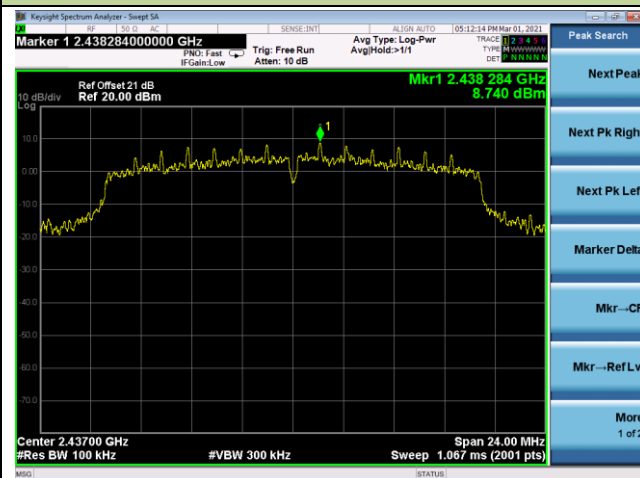


Spurious Emission

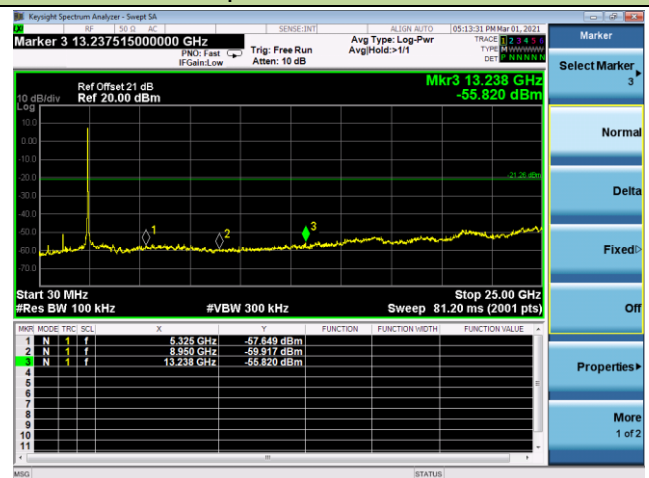


Channel 06 (2437MHz)

100kHz PSD reference Level



Spurious Emission



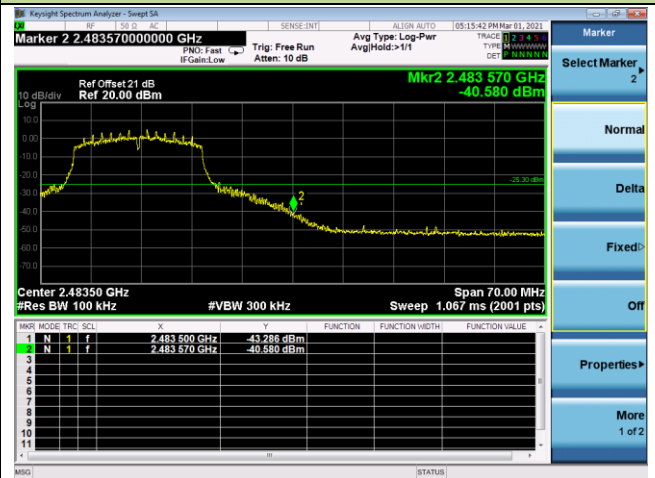
802.11 n-HT20 Out-of-Band Emissions - Ant 0 / Ant 0 + 1

Channel 11 (2462MHz)

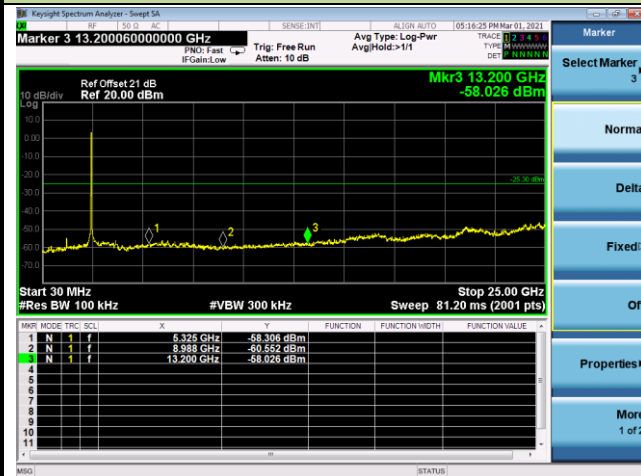
100kHz PSD reference Level



High Band Edge



Spurious Emission



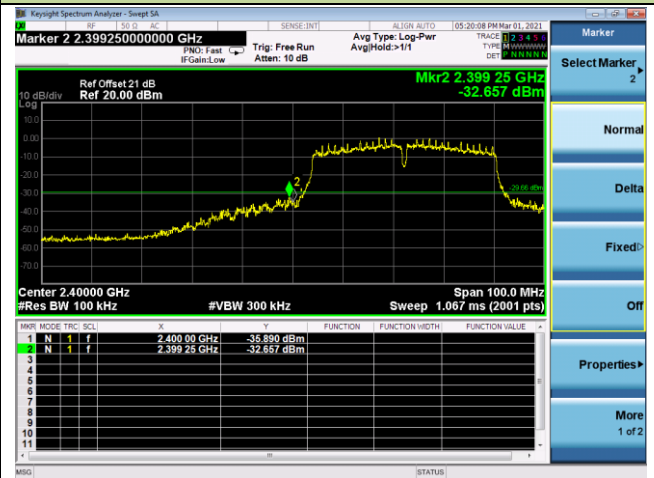
802.11n-HT40 Out-of-Band Emissions - Ant 0 / Ant 0 + 1

Channel 03 (2422MHz)

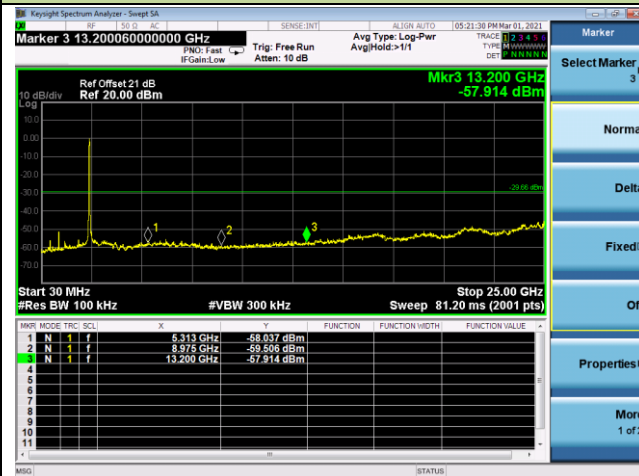
100kHz PSD reference Level



Low Band Edge

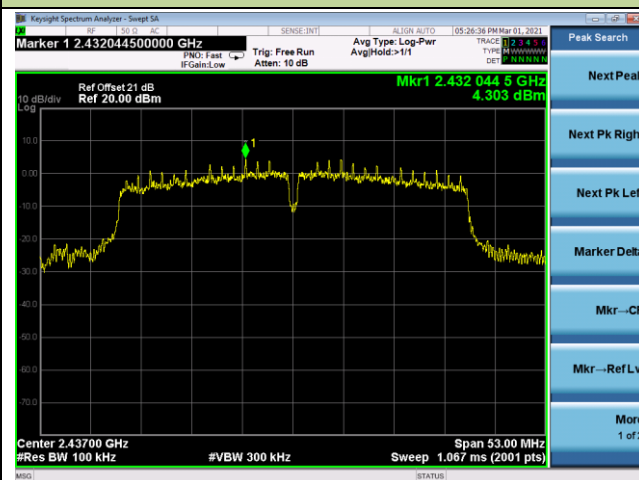


Spurious Emission

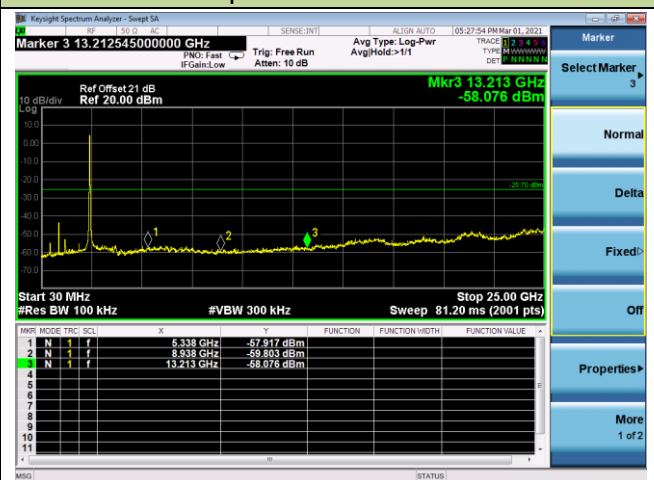


Channel 06 (2437MHz)

100kHz PSD reference Level



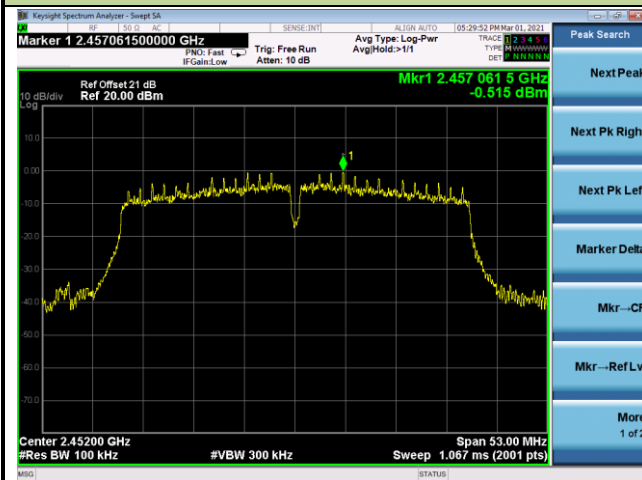
Spurious Emission



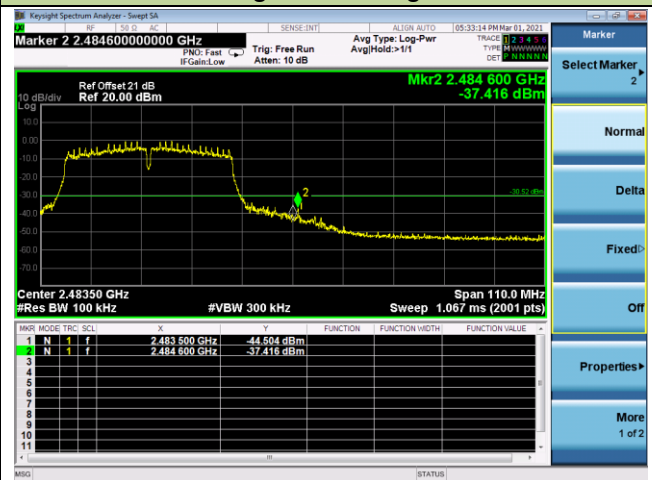
802.11 n-HT40 Out-of-Band Emissions - Ant 0 / Ant 0 + 1

Channel 09 (2452MHz)

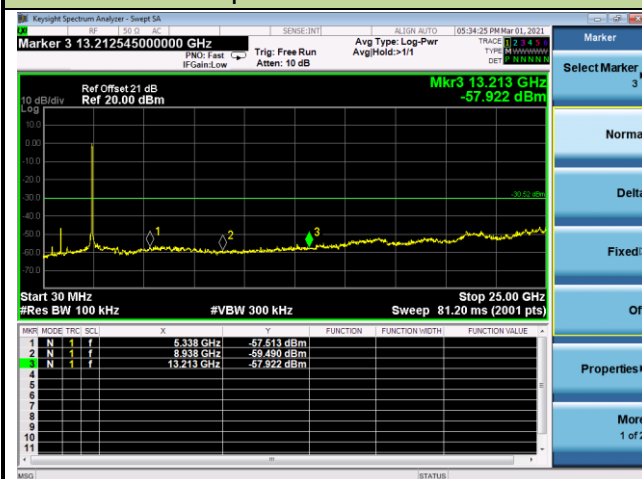
100kHz PSD reference Level



High Band Edge



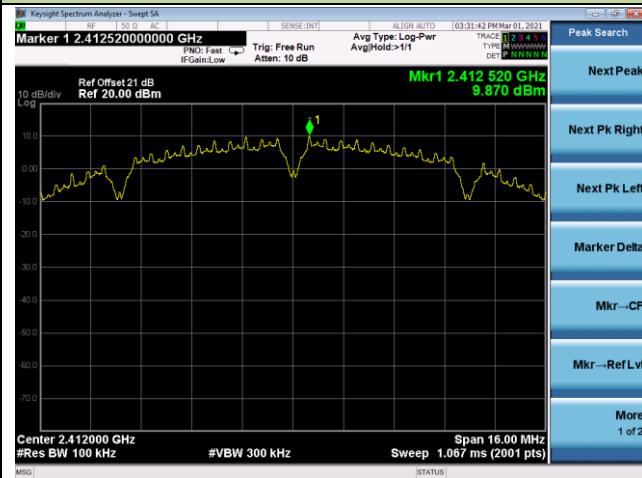
Spurious Emission



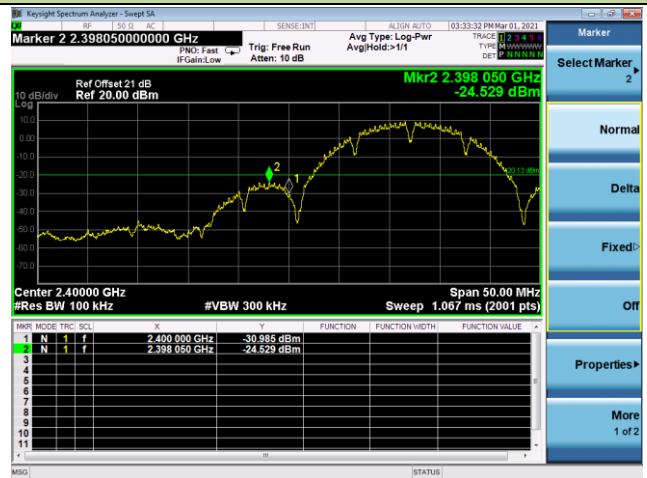
802.11b Out-of-Band Emissions - Ant 1 / Ant 0 + 1

Channel 01 (2412MHz)

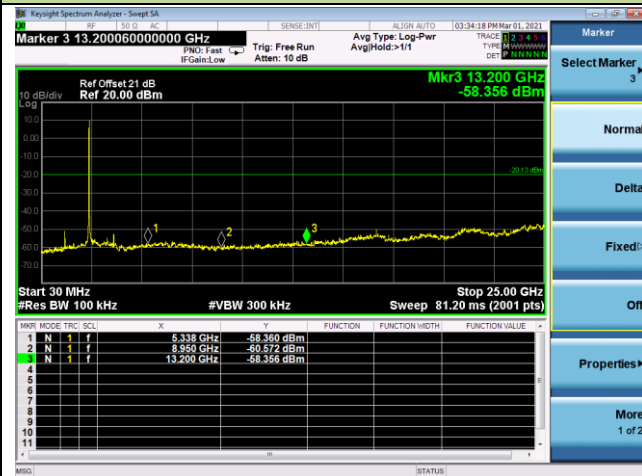
100kHz PSD reference Level



Low Band Edge

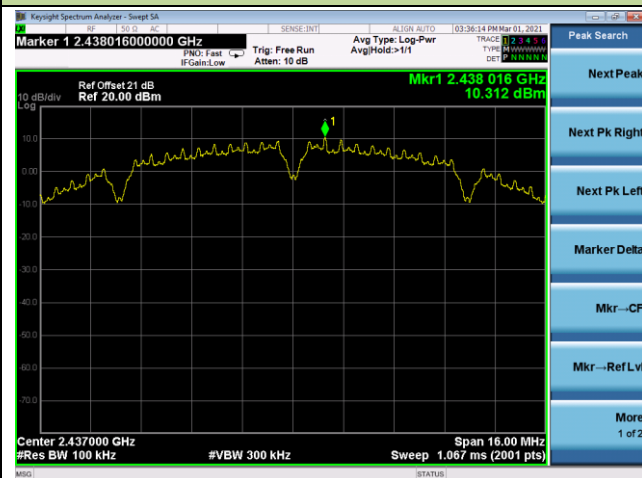


Spurious Emission

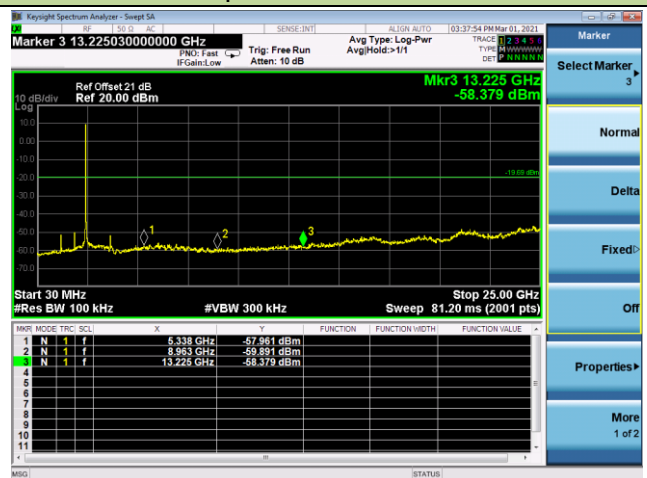


Channel 06 (2437MHz)

100kHz PSD reference Level



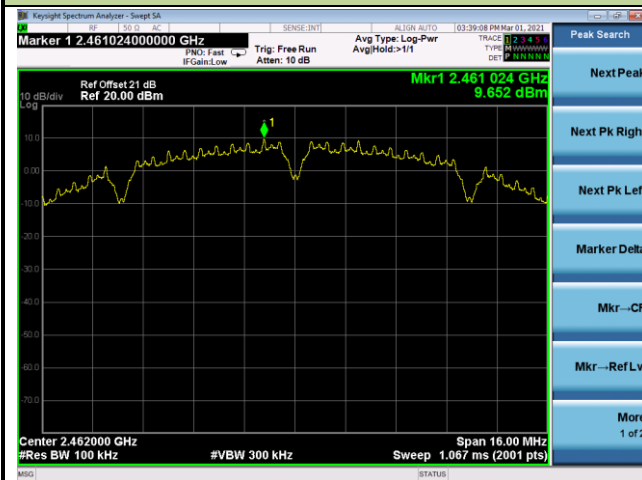
Spurious Emission



802.11b Out-of-Band Emissions - Ant 1 / Ant 0 + 1

Channel 11 (2462MHz)

100kHz PSD reference Level



High Band Edge



Spurious Emission

