

NCC 低功率射頻器材型式試驗報告

產品名稱(中文)	BT/Wi-Fi Module
型號	MW510
廠牌	Hisense

申請者	青島海信通信有限公司
地址	中國青島市經濟技術開發區前灣港路 218 號

受理日期	110 年 07 月 20 日
報告發行日期	110 年 09 月 27 日
報告號碼	2170861R-RFTWWL5V01
報告版本	V1.0



本測試報告只針對受測樣品有效。

本測試報告內之測試結果可藉由測試儀器設備之校正報告與本報告內所評估量測不確定度追溯至國家或國際標準。不得使用本報告宣稱產品是由 TAF 或任何政府機構背書。

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對各個測試系統與伴隨的連接設施，所執行的量測項目的量測不確定度，在此提供做為系統資訊的參考，符合性決定不考慮測試系統的不確定度而是基於符合性測試的結果決定。

低功率射頻器材量測報告

報告發行日期: 110 年 09 月 27 日

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申請者	青島海信通信有限公司
地址	中國青島市經濟技術開發區前灣港路 218 號
製造廠商	青島海信通信有限公司
待測物額定電壓	DC 3.3V (by DC Power Supply)
待測物測試電壓	DC 3.3V (by DC Power Supply)
商標或廠牌	Hisense
型式號	MW510
試驗標準	低功率射頻器材技術規範(109 年 7 月)
試驗結果	符合

項次	量測項目	標稱規格	測試結果	量測設備	量測不確定度
1	電源端點干擾測試	低功率射頻器材技術規範 3.3 節	PASS	請參閱 2.2 節	請參閱 2.3 節
2	天線之要求	低功率射頻器材技術規範 5.7.3 節及 5.7.8 節	PASS	--	--
3	峰值發射功率	低功率射頻器材技術規範 5.7.3 節	PASS	請參閱 2.2 節	請參閱 2.3 節
4	峰值功率頻譜密度	低功率射頻器材技術規範 5.7.3 節	PASS		
5	操作頻帶外的峰值發射	低功率射頻器材技術規範 5.7.4 節	PASS		
6	混附發射	低功率射頻器材技術規範 3.6 節及 5.7.4 節	PASS		
7	不必要之發射	低功率射頻器材技術規範 3.6 節及 5.7.4 節	PASS		
8	發射功率控制	低功率射頻器材技術規範 5.7.7 節	EIRP 大於 500mW, 依據 5.7.7.1 之描述, 須具備 TPC 功能		
9	佔用頻帶寬度	低功率射頻器材技術規範 5.7.5 節	PASS	請參閱 2.2 節	請參閱 2.3 節
10	動態頻率選擇	低功率射頻器材技術規範 5.7.7 節	請參閱 DFS 測試報告		
11	Duty Cycle	--	--	請參閱 2.2 節	請參閱 2.3 節
12	以下空白	--	--	--	--

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目 錄

項 目	頁數
1. 基本資料.....	6
1.1. 待測物裝置資料.....	6
1.2. 待測裝置驗證說明.....	7
1.3. 系統測試時之週邊裝置.....	12
1.4. 測試系統組合圖.....	12
1.5. 待測裝置測試時之典型操作程序.....	12
2. 測試實驗室資料.....	13
2.1. 試驗單位與週遭環境.....	13
2.2. 測試設備明細.....	14
2.3. 量測不確定度.....	16
3. 電源端點干擾測試.....	17
3.1. 適用標準.....	17
3.2. 量測方法.....	17
3.3. 測試架構圖.....	17
3.4. 電源端點測試結果.....	18
4. 天線之要求.....	22
4.1. 適用標準.....	22
4.2. 天線樣式.....	22
5. 峰值發射功率.....	23
5.1. 適用標準.....	23
5.2. 量測方法.....	24
5.3. 測試架構圖.....	24
5.4. 峰值發射功率測試結果.....	25
6. 峰值功率頻譜密度.....	69
6.1. 適用標準.....	69
6.2. 量測方法.....	70
6.3. 測試架構圖.....	70
6.4. 峰值功率頻譜密度測試結果.....	71
7. 操作頻帶外的峰值發射和混附發射.....	109
7.1. 適用標準.....	109
7.2. 量測方法.....	110

7.3.	測試架構圖.....	110
7.4.	操作頻帶外的峰值發射和混附發射測試結果.....	111
8.	不必要之發射.....	128
8.1.	適用標準.....	128
8.2.	量測方法.....	128
8.3.	測試架構圖.....	130
8.4.	不必要發射測試結果.....	131
9.	發射功率控制(TPC).....	152
9.1.	適用標準.....	152
9.2.	發射功率控制測試結果.....	152
10.	佔用頻帶寬度.....	153
10.1.	測試架構圖.....	153
10.2.	適用標準.....	153
10.3.	量測方法.....	153
10.4.	佔用頻帶寬度測試結果.....	154
11.	Duty Cycle	165
11.1.	量測方法.....	165
11.2.	測試架構圖.....	165
11.3.	Duty Cycle 測試結果	166

附件 1: 待測物測試擺設相片

附件 2: 產品內部照片-請參考檔案: 2170861R-Product Photos

Revision History

Report No.	Version	Description	Issued Date
2170861R-RFTWWL5V01	V1.0	Initial issue of report.	2021-09-27

1. 基本資料

1.1. 待測物裝置資料

申請者(或公司)	青島海信通信有限公司
地址	中國青島市經濟技術開發區前灣港路 218 號
製造廠商	青島海信通信有限公司
產品名稱	BT/Wi-Fi Module
商標	Hisense
產品型號	MW510
頻率範圍	802.11a/n/ac-20MHz: 5180-5320MHz, 5500-5700MHz, 5720MHz, 5745-5825MHz 802.11n/ac-40MHz: 5190-5310MHz, 5510-5670MHz, 5710MHz, 5755-5795MHz 802.11ac-80MHz: 5210-5290MHz, 5530-5690MHz, 5775MHz
工作頻道	802.11a/n/ac-20MHz: 25, 802.11n/ac-40MHz: 12, 802.11ac-80MHz: 6
調變方式	802.11a/n/ac: OFDM, BPSK, QPSK, 16QAM, 64QAM, 256QAM
天線樣式	Fixed Internal Antenna
天線增益	Refer to the table “Antenna List”
頻道控制	Auto

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	Hisense	MW510	Fixed Internal Antenna	0.3 dBi for 5.15~5.25GHz 0.3 dBi for 5.25~5.35GHz 0.3 dBi for 5.47~5.725GHz 0.3 dBi for 5.725~5.85GHz

1.2. 待測裝置驗證說明

1. 待測裝置規格說明：

待測物為 BT/Wi-Fi Module，內建了 Wi-Fi 和 Bluetooth 功能，此報告為 5GHz Wi-Fi 的測試報告；天線為全固定式 Fixed Internal Antenna，悉採 5GHz 為載波，利用寬頻數位調變(OFDM)方式 802.11a: 6 – 54Mbps, 802.11n: 14.4 – 144.4Mbps using 20MHz channel、30 – 300Mbps using 40MHz channel)來傳送訊號，另支援 802.11ac 65 – 866.7Mbps using 80MHz channel 來傳送訊號，頻道 36、44、48、52、60、64、100、116、140、144、149、157、165 (802.11a/n/ac-20MHz) 和頻道 38、46、54、62、102、118、134、142、151、159(802.11n/ac-40MHz)和頻道 42、58、106、122、138、155(802.11ac-80MHz)被選擇為測試頻道。

速率 6Mbps (802.11a)與 MCS8 (802.11n)與 MCS0 (802.11ac)被選擇為測試傳輸速率，結果顯示於此份報告中。

本案經申請者切結器材不提供隨貨配件，配件由實驗室(或申請者)提供併同檢驗，及其廠牌型號資訊描述於 1.3 章。

(1) 待測裝置為同一體。

(2) 發射體主要功能特性有：

- <1> 待測裝置利用無線電波，分別借由無線電波，傳送及接收，達到資料傳送之目的。
- <2> 待測裝置傳送訊號，使用 5GHz 為載波頻率，利用數位調變方式來傳送訊號，且其天線為半固定式 Fixed Internal Antenna。
- <3> 基本發射工作頻率範圍 5.150-5.250GHz, 5.250-5.350GHz, 5.470-5.725GHz, 5.725-5.850GHz。
- <4> 頻道切換方式：採自動切換控制方式。
- <5> 調變方式：採 OFDM 調變方式。
- <6> 傳輸速率：802.11a: 6 – 54Mbps。
802.11n: 14.4 – 144.4Mbps using 20MHz channel。
802.11n: 30 – 300Mbps using 40MHz channel。
802.11ac : 65 – 866.7Mbps using 80MHz channel。
- <7> 測試電壓：DC 3.3V (by DC Power Supply)。
- <8> 測試軟體：QATool v 0.0.2.6。

Parameters of test software setting Chain A

Frequency	5180MHz	5220MHz	5240 MHz
IEEE 802.11a	1F	1F	1F

Frequency	5260 MHz	5300 MHz	5320 MHz
IEEE 802.11a	1F	1F	1F

Frequency	5500MHz	5580MHz	5700MHz
IEEE 802.11a	1F	1F	1F

Frequency	5745MHz	5785MHz	5825MHz
IEEE 802.11a	1F	1F	1F

Parameters of test software setting Chain B

Frequency	5180MHz	5220MHz	5240 MHz
IEEE 802.11a	1F	1F	1F

Frequency	5260 MHz	5300 MHz	5320 MHz
IEEE 802.11a	20	20	20

Frequency	5500MHz	5580MHz	5700MHz
IEEE 802.11a	1F	1F	1F

Frequency	5745MHz	5785MHz	5825MHz
IEEE 802.11a	1F	1F	1F

Parameters of test software setting _MIMO A

Frequency	5180MHz	5220MHz	5240 MHz
IEEE 802.11n-20	20	20	20
IEEE 802.11ac-20	20	20	20

Frequency	5260MHz	5300MHz	5320 MHz
IEEE 802.11n-20	20	20	1F
IEEE 802.11ac-20	20	20	1F

Frequency	5500MHz	5580MHz	5700MHz
IEEE 802.11n-20	20	20	1B
IEEE 802.11ac-20	20	20	1B

Frequency	5745MHz	5785MHz	5825MHz
IEEE 802.11n-20	20	20	20
IEEE 802.11ac-20	20	20	20

Frequency	5190MHz	5230MHz	5270MHz	5310 MHz
IEEE 802.11n-40	1B	1F	1F	1B
IEEE 802.11ac-40	1B	1F	1F	1B

Frequency	5510MHz	5550MHz	5670MHz
IEEE 802.11n-40	1D	1F	1E
IEEE 802.11ac-40	1D	1F	1E

Frequency	5755MHz	5795MHz
IEEE 802.11n-40	1F	1F
IEEE 802.11ac-40	1F	1F

Frequency	5210MHz	5290MHz	5530MHz	5610MHz
IEEE 802.11ac-80	18	17	19	1F

Frequency	5690(Band3)MHz	5690(Band4)MHz	5775MHz
IEEE 802.11ac-80	1F	1F	1F

Parameters of test software setting _MIMO B

Frequency	5180MHz	5220MHz	5240 MHz
IEEE 802.11n-20	20	20	20
IEEE 802.11ac-20	20	20	20

Frequency	5260MHz	5300MHz	5320 MHz
IEEE 802.11n-20	20	20	1F
IEEE 802.11ac-20	20	20	1F

Frequency	5500MHz	5580MHz	5700MHz
IEEE 802.11n-20	20	20	1B
IEEE 802.11ac-20	20	20	1B

Frequency	5745MHz	5785MHz	5825MHz
IEEE 802.11n-20	20	20	20
IEEE 802.11ac-20	20	20	20

Frequency	5190MHz	5230MHz	5270MHz	5310 MHz
IEEE 802.11n-40	1B	1F	1F	1B
IEEE 802.11ac-40	1B	1F	1F	1B

Frequency	5510MHz	5550MHz	5670MHz
IEEE 802.11n-40	1D	1F	1E
IEEE 802.11ac-40	1D	1F	1E

Frequency	5755MHz	5795MHz
IEEE 802.11n-40	1F	1F
IEEE 802.11ac-40	1F	1F

Frequency	5210MHz	5290MHz	5530MHz	5610MHz
IEEE 802.11ac-80	18	17	19	1F

Frequency	5690(Band3)MHz	5690(Band4)MHz	5775MHz
IEEE 802.11ac-80	1F	1F	1F

<9> 802.11a/n/ac-20MHz 共計 25 個工作頻道，工作頻道頻率為：

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 036:	5180 MHz	Channel 040:	5200 MHz	Channel 044:	5220 MHz	Channel 048:	5240 MHz
Channel 052:	5260 MHz	Channel 056:	5280 MHz	Channel 060:	5300 MHz	Channel 064:	5320 MHz
Channel 100:	5500 MHz	Channel 104:	5520 MHz	Channel 108:	5540 MHz	Channel 112:	5560 MHz
Channel 116:	5580 MHz	Channel 120:	5600 MHz	Channel 124:	5620 MHz	Channel 128:	5640 MHz
Channel 132:	5660 MHz	Channel 136:	5680 MHz	Channel 140:	5700 MHz	Channel 144:	5720 MHz
Channel 149:	5745 MHz	Channel 153:	5765 MHz	Channel 157:	5785 MHz	Channel 161:	5805 MHz
Channel 165:	5825 MHz						

<10>802.11n/ac-40MHz 共計 12 個工作頻道，工作頻道頻率為：

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 038:	5190 MHz	Channel 046:	5230 MHz	Channel 054:	5270 MHz	Channel 062:	5310 MHz
Channel 102:	5510 MHz	Channel 110:	5550 MHz	Channel 118:	5590 MHz	Channel 126:	5630 MHz
Channel 134:	5670 MHz	Channel 142:	5710 MHz	Channel 151:	5755 MHz	Channel 159:	5795 MHz

<11>802.11ac-80MHz 共計 6 個工作頻道，工作頻道頻率為：

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 042:	5210 MHz	Channel 058:	5290 MHz	Channel 106:	5530 MHz	Channel 122:	5610 MHz
Channel 138:	5690 MHz	Channel 155:	5775 MHz				

<13> 關於受測物詳細說明，請參閱製造商規格或使用手冊。

2. 待測裝置測試之試驗條件:

待測裝置依功能特性，執行下列電磁干擾驗證測試。

測試模式:	Mode 1: 發射器 802.11a
	Mode 1: 發射器 802.11n-20BW
	Mode 1: 發射器 802.11n-40BW
	Mode 1: 發射器 802.11ac-20BW
	Mode 1: 發射器 802.11ac-40BW
	Mode 1: 發射器 802.11ac-80BW
	Mode 2: 接收器 802.11ac-80BW

Note: DEKRA has evaluated each test mode. Only the worst case is shown in the report.

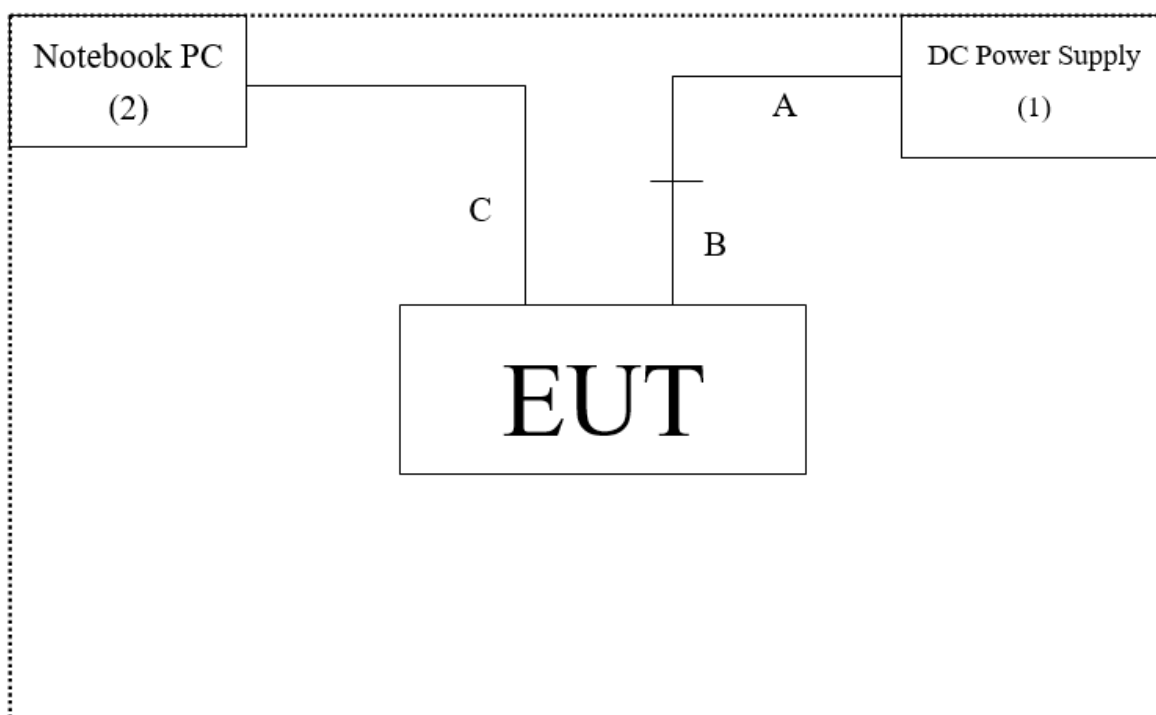
1.3. 系統測試時之週邊裝置

待測裝置測試時，其搭配系統測試時之週邊裝置包括下列：

Product	Manufacturer	Model No.	Serial No.	Power Cord
1 DC POWER SUPPLY	KEYSIGHT	E36234A	MY59001234	Non-Shielded, 1.8m
2 Notebook PC	DELL	P64G	N/A	N/A

Signal Cable Type	Manufacturer	Model No.	Signal cable Description
A Power Cable	DEKRA	Power Cable-01	Non-shielded, 1.8m
B Power Cable	SRTC	Power Cable-02	Non-shielded, 0.06m
C USB Cable	SRTC	USB Cable-01	Shielded, 0.6m

1.4. 測試系統組合圖



1.5. 待測裝置測試時之典型操作程序

1.	測試配置如上圖 1.4 所示.
2.	筆電執行 QATool v 0.0.2.6 控制發射
3.	設定所要測試之模式、頻道及速率
4.	確認訊號是持續發射狀態模式，無誤後開始測試

2. 測試實驗室資料

2.1. 試驗單位與週遭環境

實驗室環境條件:

Performed Item	Items	Required	Actual
Conducted Emission	Temperature (°C)	10~40 °C	27.6 °C
	Humidity (%RH)	10~90 %	55.0 %
Radiated Emission	Temperature (°C)	10~40 °C	22.1°C
	Humidity (%RH)	10~90 %	69.0 %
Conductive	Temperature (°C)	10~40 °C	25.9 °C
	Humidity (%RH)	10~90 %	46.5 %

財團法人全國認證基金會 認證

特定服務計畫：通訊傳播設備測試實驗室認證服務計畫

初次認證日期：一百零三年十月二十四日

認證有效期間：一百零九年十二月十三日起至一百一十二年十二月十二日止

認可測試領域：低功率射頻器材(工作頻率9kHz to 325GHz)

認可編號：3023

測試實驗室：德凱認證股份有限公司

測試實驗室地址：桃園市龜山區華亞一路26號

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傳真號碼：+866-3-327-5505

電子郵件信箱：info.tw@dekra.com

公司網站：<http://www.dekra.com.tw>

2.2. 測試設備明細

For Conduction measurements /SH1

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	EMI Test Receiver	R&S	ESR7	101601	2021.06.19	2022.06.18
X	Two-Line V-Network	R&S	ENV216	101306	2021.04.08	2022.04.07
X	Two-Line V-Network	R&S	ENV216	101307	2021.05.04	2022.05.03
X	Coaxial Cable	DEKRA	RG400_BNC	RF001	2021.05.24	2022.05.23

Note:

1. All equipments are calibrated every one year.
2. The test instruments marked with “X” are used to measure the final test results.
3. Test Software version : DEKRA Testing System V2.0

For Conducted measurements /SH2

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Spectrum Analyzer	R&S	FSV30	103466	2020.12.28	2021.12.27
X	Peak Power Analyzer	KEYSIGHT	8900B	MY51000539	2021.06.07	2022.06.06
X	Power Sensor	KEYSIGHT	N1923A	MY59240002	2021.05.17	2022.05.16
X	Power Sensor	KEYSIGHT	N1923A	MY59240003	2021.05.17	2022.05.16

Note:

1. All equipments are calibrated every one year.
2. The test instruments marked with “X” are used to measure the final test results.
3. Test Software version : DEKRA Conduction Test System V9.0.5

For Radiated measurements /966-1

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
	Loop Antenna	AMETEK	HLA6121	56736	2021.04.14	2022.04.13
	Bi-Log Antenna	SCHWARZBECK	VULB9168	9168-678	2021.01.29	2022.01.28
X	Horn Antenna	ETS-Lindgren	3117	00203761	2020.11.23	2021.11.22
X	Horn Antenna	Com-Power	AH-840	101087	2021.06.18	2022.06.17
	Pre-Amplifier	EMCI	EMC001330	980254	2021.01.20	2022.01.19
X	Pre-Amplifier	EMCI	EMC051835SE	980312	2021.02.24	2022.02.23
	Pre-Amplifier	EMCI	EMC05820SE	980308	2020.09.18	2021.09.17
X	Pre-Amplifier	EMCI	EMC184045SE	980369	2021.04.27	2022.04.26
	Filter	MICRO TRONICS	BRM50702	G251	2021.09.16	2022.09.15
X	Filter	MICRO TRONICS	BRM50716	G188	2021.09.16	2022.09.15
X	EMI Test Receiver	R&S	ESR	102792	2020.12.15	2021.12.14
X	Spectrum Analyzer	R&S	FSV3044	101113	2021.02.04	2022.02.03
X	Mircoflex Cable	HUBER SUHNER	SUCOFLEX 102	MY3380/2	2021.08.30	2022.08.29
X	Coaxial Cable	SGH, EMCI, SUHNER	HA800 , SGH18, SUCOFLEX 106, EMC106	HY2108-003C	2021.03.03	2022.03.02

Note:

1. All equipments are calibrated every one year.
2. The test instruments marked with “X” are used to measure the final test results.
3. Test Software version : AUDIX e3 V9

For Radiated measurements /966-3

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
	Loop Antenna	AMETEK	HLA6121	56736	2021.04.14	2022.04.13
X	Bi-Log Antenna	SCHWARZBECK	VULB9168	9168-678	2020.09.04	2021.09.03
X	Horn Antenna	ETS-Lindgren	3117	00201259	2020.10.23	2021.10.22
	Horn Antenna	Com-Power	AH-840	101087	2021.06.16	2022.06.15
	Pre-Amplifier	EMCI	EMC001330	980254	2021.01.20	2022.01.19
	Pre-Amplifier	EMCI	EMC051835SE	980312	2021.02.24	2022.02.23
X	Pre-Amplifier	EMCI	EMC05820SE	980309	2020.09.26	2021.09.25
	Pre-Amplifier	EMCI	EMC184045SE	980314	2021.06.24	2022.06.23
	Filter	MICRO TRONICS	BRM50702	G251	2021.09.16	2022.09.15
	Filter	MICRO TRONICS	BRM50716	G188	2021.09.16	2022.09.15
X	EMI Test Receiver	R&S	ESR	102793	2020.12.17	2021.12.16
X	Spectrum Analyzer	R&S	FSV3044	101113	2021.02.03	2022.02.02
X	Coaxial Cable	SGH, EMCI	HA800 , SGH18	HY2103-001C	2021.03.03	2022.03.02
	Mircoflex Cable	HUBER SUHNER	SUCOFLEX 102	MY3381/2	2021.06.25	2022.06.24

Note:

1. All equipments are calibrated every one year.
2. The test instruments marked with “X” are used to measure the final test results.
3. Test Software version : AUDIX e3 V9

2.3. 量測不確定度

不確定度已根據 DEKRA 內部文件進行了計算，並在本報告的每個測試章節中進行了描述。報告的擴展不確定性是基於標準不確定性乘以 $k=2$ 的覆蓋因子得出的，置信度約為 95%。對各個測試系統與伴隨的連接設施，所執行的量測項目的量測不確定度，在此提供做為系統資訊的參考，符合性決定不考慮測試系統的不確定度而是基於符合性測試的結果。

Test item	Uncertainty	
電源端點干擾測試	± 3.42 dB	
峰值發射功率	Power Meter ± 0.91 dB	Spectrum Analyzer ± 2.53 dB
峰值功率頻譜密度	± 2.53 dB	
操作頻帶外的峰值發射	± 2.53 dB	
混附發射	± 2.53 dB	
不必要之發射	Under 1GHz ± 4.06 dB	Above 1GHz ± 3.73 dB
佔用頻帶寬度	± 682.83 Hz	
Duty Cycle	± 2.31 ms	

3. 電源端點干擾測試

3.1. 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 150 kHz~30 百萬赫(MHz)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制值。測量時應經過 50 微亨利(uH)及 50 歐姆(Ω)之電源線阻抗穩定網路(Line Impedance Stabilization Network；LISN)。頻率重疊處，以較低限制值為準。

Frequency 頻率範圍 MHz	傳導限制值(dB μ V)	
	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

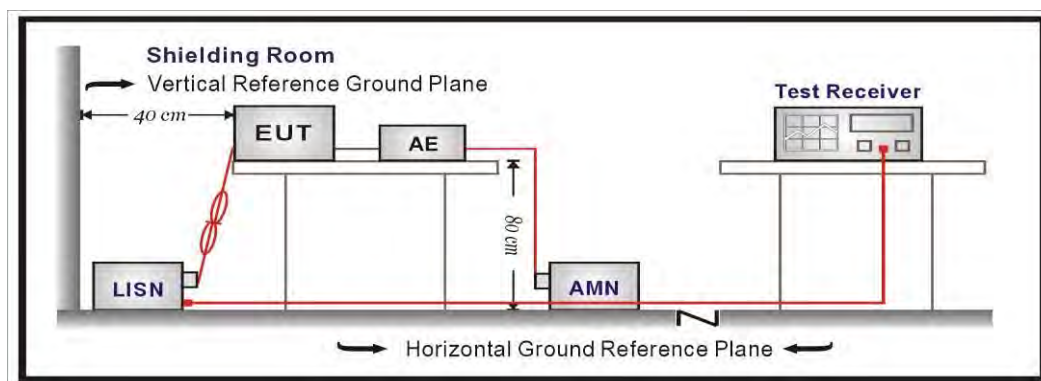
註:隨頻率之對數遞減

3.2. 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，於在正常工作狀態下，執行待測物之火線及地線各一次量測。

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 10kHz。

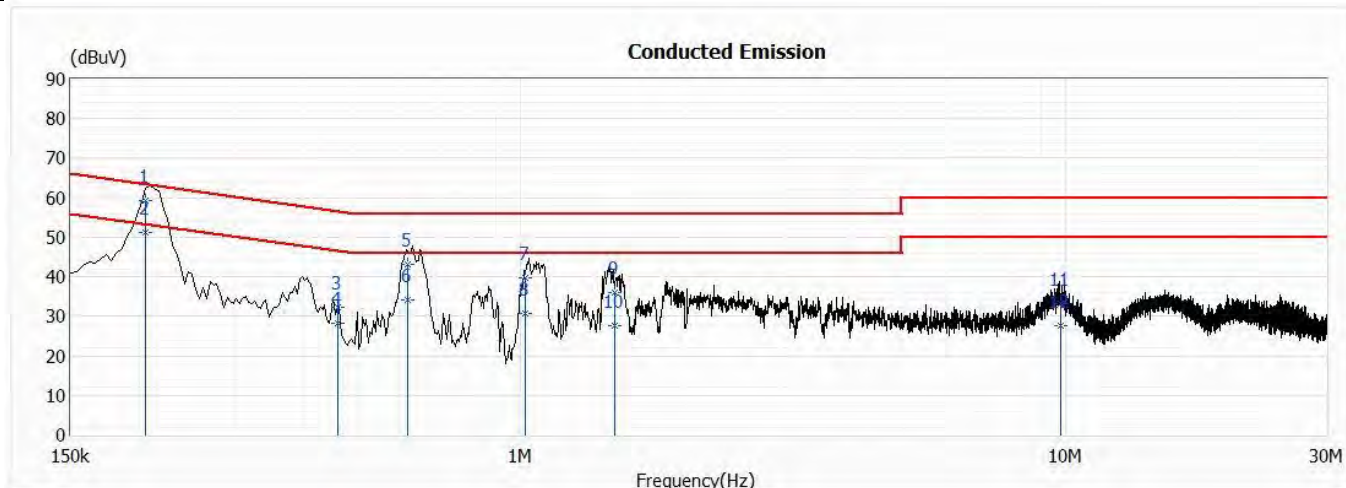
3.3. 測試架構圖



Note: 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測試數據。

3.4. 電源端點測試結果

Model No	MW510	Site	SH1
Test Voltage	AC 110V/60Hz	Test Date	2021/9/7
Test Mode	Mode 1: 發射器	Engineer	Jason Tuan
Phase	L1	Temperature (°C)	27.6
Test Condition	--	Humidity (%RH)	55
Note	802.11ac80,5775MHz		

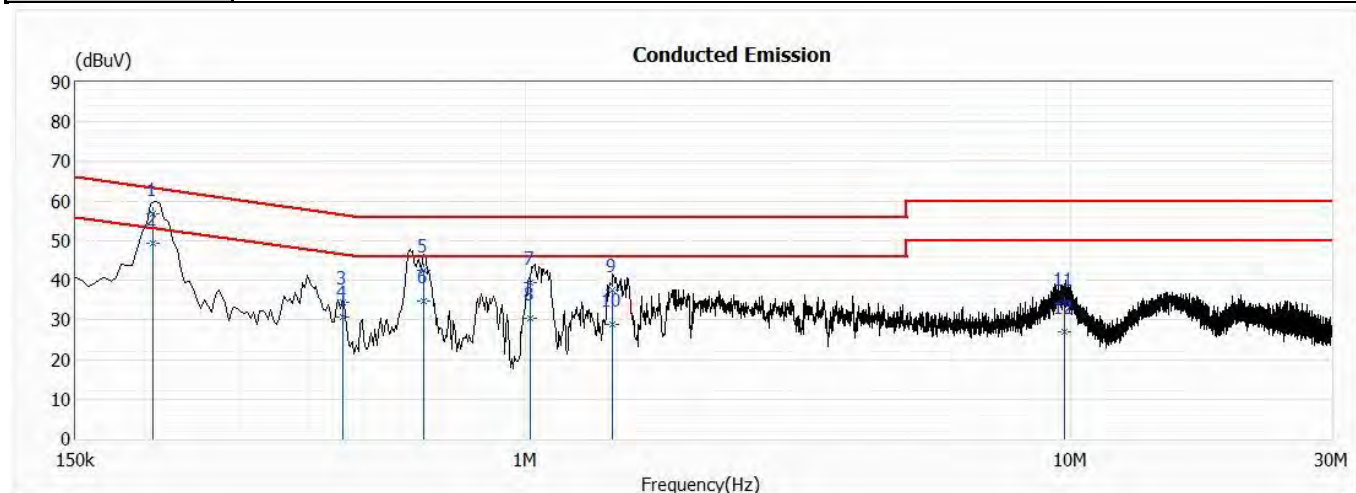


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.205	59.17	63.39	-4.22	49.48	9.69	QP
*2	0.205	51.31	53.39	-2.08	41.62	9.69	AV
3	0.463	32.31	56.64	-24.33	22.61	9.70	QP
4	0.463	28.39	46.64	-18.25	18.69	9.70	AV
5	0.623	43.10	56.00	-12.90	33.39	9.71	QP
6	0.623	34.04	46.00	-11.96	24.33	9.71	AV
7	1.020	39.57	56.00	-16.43	29.83	9.74	QP
8	1.020	30.81	46.00	-15.19	21.07	9.74	AV
9	1.490	36.11	56.00	-19.89	26.33	9.78	QP
10	1.490	27.49	46.00	-18.51	17.71	9.78	AV
11	9.796	33.33	60.00	-26.67	22.51	10.82	QP
12	9.796	27.57	50.00	-22.43	16.75	10.82	AV

Note:

1. “*” means this data is the worst emission level.
2. Emission Level = Reading Level + Correct Factor.
3. Margin = Emission Level – Limit.
4. Correct Factor = LISN insertion loss + Cable loss.

Model No	MW510	Site	SH1
Test Voltage	AC 110V/60Hz	Test Date	2021/9/7
Test Mode	Mode 1: 發射器	Engineer	Jason Tuan
Phase	N	Temperature (°C)	27.6
Test Condition	--	Humidity (%RH)	55
Note	802.11ac80,5775MHz		

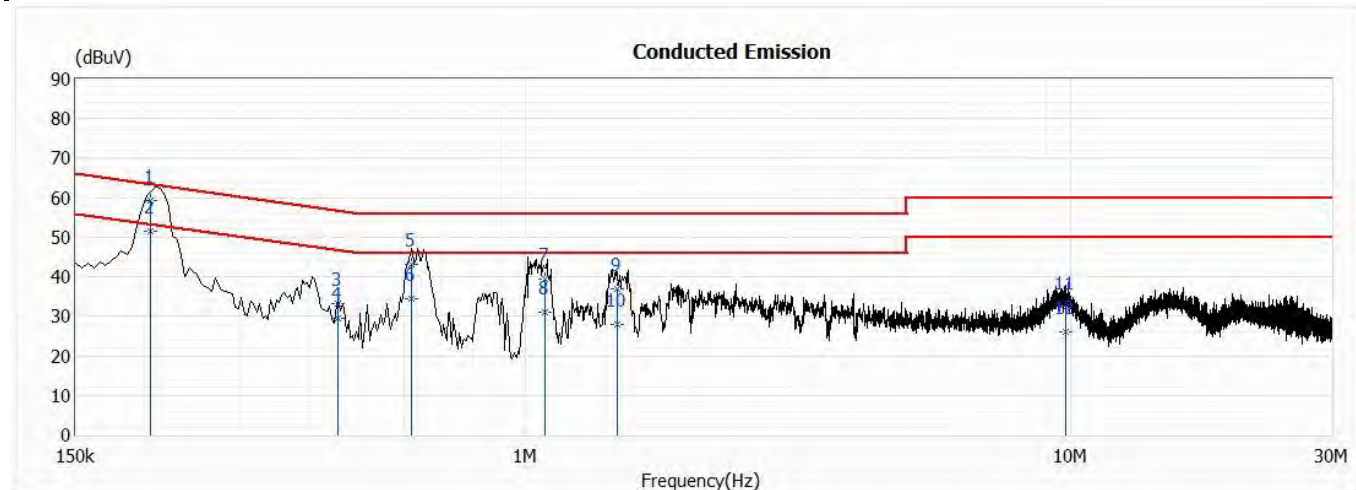


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.208	56.88	63.27	-6.39	47.17	9.71	QP
*2	0.208	49.19	53.27	-4.08	39.48	9.71	AV
3	0.463	34.53	56.63	-22.10	24.82	9.71	QP
4	0.463	30.60	46.63	-16.03	20.89	9.71	AV
5	0.650	42.46	56.00	-13.54	32.74	9.72	QP
6	0.650	34.69	46.00	-11.31	24.97	9.72	AV
7	1.023	39.40	56.00	-16.60	29.66	9.74	QP
8	1.023	30.33	46.00	-15.67	20.59	9.74	AV
9	1.443	37.50	56.00	-18.50	27.72	9.78	QP
10	1.443	29.01	46.00	-16.99	19.23	9.78	AV
11	9.705	34.07	60.00	-25.93	23.23	10.84	QP
12	9.705	27.09	50.00	-22.91	16.25	10.84	AV

Note:

1. “*” means this data is the worst emission level.
2. Emission Level = Reading Level + Correct Factor.
3. Margin = Emission Level – Limit.
4. Correct Factor = LISN insertion loss + Cable loss.

Model No	MW510	Site	SH1
Test Voltage	AC 110V/60Hz	Test Date	2021/9/7
Test Mode	Mode 2: 接收器	Engineer	Jason Tuan
Phase	L1	Temperature (°C)	27.6
Test Condition	--	Humidity (%RH)	55
Note	802.11ac80,5775MHz		

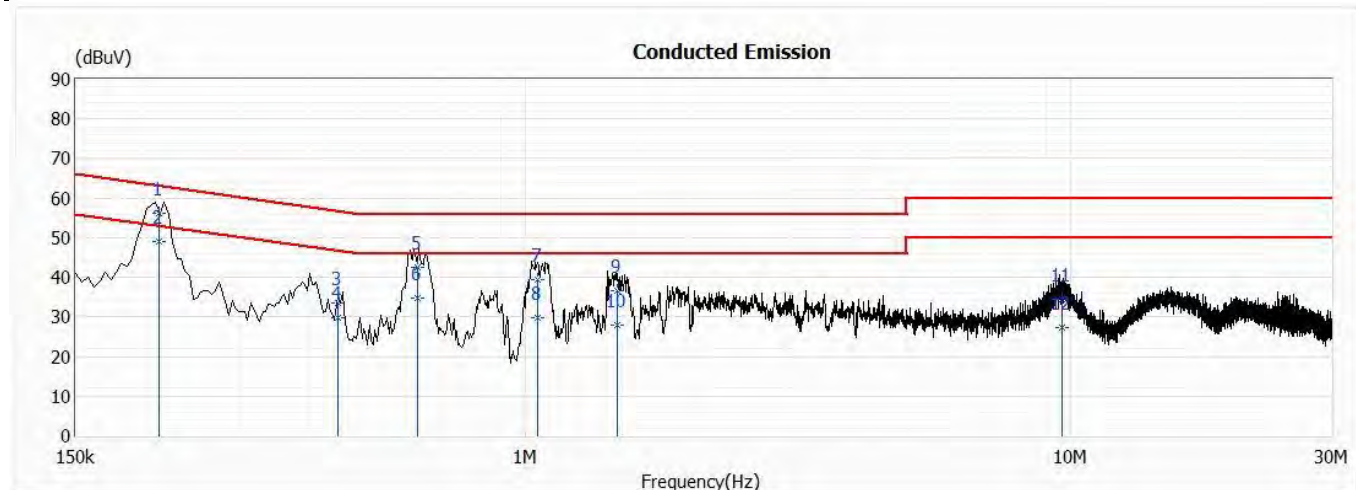


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.206	59.28	63.38	-4.10	49.59	9.69	QP
*2	0.206	51.46	53.38	-1.92	41.77	9.69	AV
3	0.453	33.26	56.82	-23.56	23.56	9.70	QP
4	0.453	29.51	46.82	-17.31	19.81	9.70	AV
5	0.619	43.27	56.00	-12.73	33.56	9.71	QP
6	0.619	34.33	46.00	-11.67	24.62	9.71	AV
7	1.087	39.36	56.00	-16.64	29.61	9.75	QP
8	1.087	31.02	46.00	-14.98	21.27	9.75	AV
9	1.471	36.84	56.00	-19.16	27.06	9.78	QP
10	1.471	28.08	46.00	-17.92	18.30	9.78	AV
11	9.771	32.39	60.00	-27.61	21.57	10.82	QP
12	9.771	25.95	50.00	-24.05	15.13	10.82	AV

Note:

1. “*” means this data is the worst emission level.
2. Emission Level = Reading Level + Correct Factor.
3. Margin = Emission Level – Limit.
4. Correct Factor = LISN insertion loss + Cable loss.

Model No	MW510	Site	SH1
Test Voltage	AC 110V/60Hz	Test Date	2021/9/7
Test Mode	Mode 2: 接收器	Engineer	Jason Tuan
Phase	N	Temperature (°C)	27.6
Test Condition	--	Humidity (%RH)	55
Note	802.11ac80,5775MHz		



No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.213	56.14	63.07	-6.93	46.43	9.71	QP
*2	0.213	48.89	53.07	-4.18	39.18	9.71	AV
3	0.453	33.50	56.83	-23.33	23.79	9.71	QP
4	0.453	29.81	46.83	-17.02	20.10	9.71	AV
5	0.634	42.63	56.00	-13.37	32.91	9.72	QP
6	0.634	34.80	46.00	-11.20	25.08	9.72	AV
7	1.054	39.40	56.00	-16.60	29.66	9.74	QP
8	1.054	29.89	46.00	-16.11	20.15	9.74	AV
9	1.472	36.53	56.00	-19.47	26.75	9.78	QP
10	1.472	27.89	46.00	-18.11	18.11	9.78	AV
11	9.603	34.33	60.00	-25.67	23.48	10.85	QP
12	9.603	27.25	50.00	-22.75	16.40	10.85	AV

Note:

1. “*” means this data is the worst emission level.
2. Emission Level = Reading Level + Correct Factor.
3. Margin = Emission Level – Limit.
4. Correct Factor = LISN insertion loss + Cable loss.

電源端點干擾電壓測試結果:

PASS

4. 天線之要求

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 5.7.8 節
天線之規格不受 3.2 規定之限制。

依據國家通訊傳播委員會低功率射頻器材技術規範之第 5.7.3 節

5.7.3.1 使用於 5.15 GHz~5.25 GHz 頻段

(1) 供戶外操作使用:

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

(2) 供室內操作使用:

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

(3) 供固定式點對點操作使用:

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

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

(4) 供用戶端裝置(Client Device)操作使用:

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

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

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

5.7.3.3 使用頻率於 5.725 GHz~5.850 GHz 頻段

(3) 供固定式點對點操作時，使用方向增益超過 6 dBi 之發射天線，可不需對應減少發射器之傳導輸出功率限制值。

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

4.2. 天線樣式

此 BT/Wi-Fi Module 為半固定式 Fixed Internal Antenna (檢附天線規格書)

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	Hisense	MW510	Fixed Internal Antenna	0.3 dBi for 5.15~5.25GHz 0.3 dBi for 5.25~5.35GHz 0.3 dBi for 5.47~5.725GHz 0.3 dBi for 5.725~5.85GHz

天線之要求測試結果:

PASS

5. 峰值發射功率

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 5.7.3 節

5.7.3.1 使用於 5.15 GHz~5.25 GHz 頻段

(1) 供戶外操作使用:

- (A) 最大傳導輸出功率應小於或等於 1 W。
- (B) 在任何 1 MHz 頻帶中最大功率頻譜密度應小於或等於 17 dBm。
- (C) 使用超過 6 dBi 方向增益之發射天線時，應依超過 6 dBi 天線方向增益的 dBi 總量，等量減少最大傳導輸出功率及最大功率頻譜密度。
- (D) 在水平面仰角超過 30 度時，其最大 EIRP 應小於或等於 21 dBm。

(2) 供室內操作使用:

- (A) 最大傳導輸出功率應小於或等於 1 W。
- (B) 在任何 1 MHz 頻帶中最大功率頻譜密度應小於或等於 17 dBm。
- (C) 使用超過 6 dBi 方向增益之發射天線時，應依超過 6 dBi 天線方向增益的 dBi 總量，等量減少最大傳導輸出功率及最大功率頻譜密度。

(3) 供固定式點對點操作使用:

- (A) 最大傳導輸出功率應小於或等於 1 W。
- (B) 在任何 1 MHz 頻帶中最大功率頻譜密度應小於或等於 17 dBm。
- (C) 使用超過 23 dBi 方向增益之指向性天線時，應依超過 23 dBi 天線方向增益的 dBi 總量，等量減少最大傳導輸出功率及最大功率頻譜密度。
- (D) 固定式點對點操作，不包括點對多點系統、全方向性應用及多台共站發射機傳送相同資訊。

(4) 供用戶端裝置(Client Device)操作使用:

- (A) 最大傳導輸出功率應小於或等於 250 mW。
- (B) 在任何 1 MHz 頻帶中最大功率頻譜密度應小於或等於 11 dBm。
- (C) 使用超過 6 dBi 方向增益之發射天線時，應依超過 6 dBi 天線方向增益的 dBi 總量，等量減少最大傳導輸出功率及最大功率頻譜密度。

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

- (1) 最大傳導輸出功率應小於或等於 250 mW 或 $11\text{dBm} + 10\log B$ (B 是 26 dB 發射頻寬，單位 MHz)之較小者。
- (2) 最大功率頻譜密度在任何 1 MHz 頻帶中應小於或等於 11 dBm。
- (3) 使用超過 6 dBi 方向增益之發射天線時，應依超過 6 dBi 天線方向增益的 dBi 總量，等量減少最大傳導輸出功率及最大功率頻譜密度。

5.7.3.3 使用頻率於 5.725 GHz~5.850 GHz 頻段

- (1) 最大傳導輸出功率應小於或等於 1 W。
- (2) 在任何 500 kHz 頻帶中最大功率頻譜密度應小於或等於 30 dBm。
- (3) 供固定式點對點操作時，使用方向增益超過 6 dBi 之發射天線，可不需對應減少發射器之傳導輸出功率限制值。
- (4) 除(3)外，使用超過 6 dBi 方向增益之發射天線時，應依超過 6 dBi 天線方向增益的 dBi 總量，等量減少最大傳導輸出功率及最大功率頻譜密度。

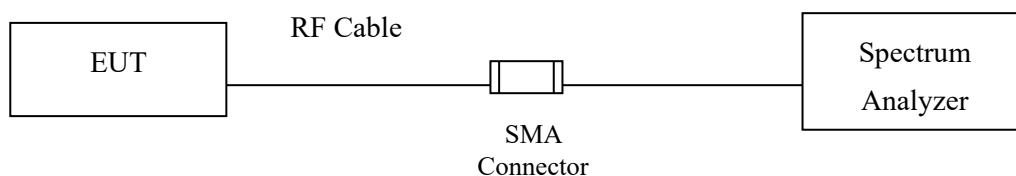
5.2. 量測方法

待測物之天線埠經由適當之衰減直接連至 Power Meter RF 輸入端量測 Maximum conducted (average) output power 時將使用 Power Meter 內建 gate 功能。

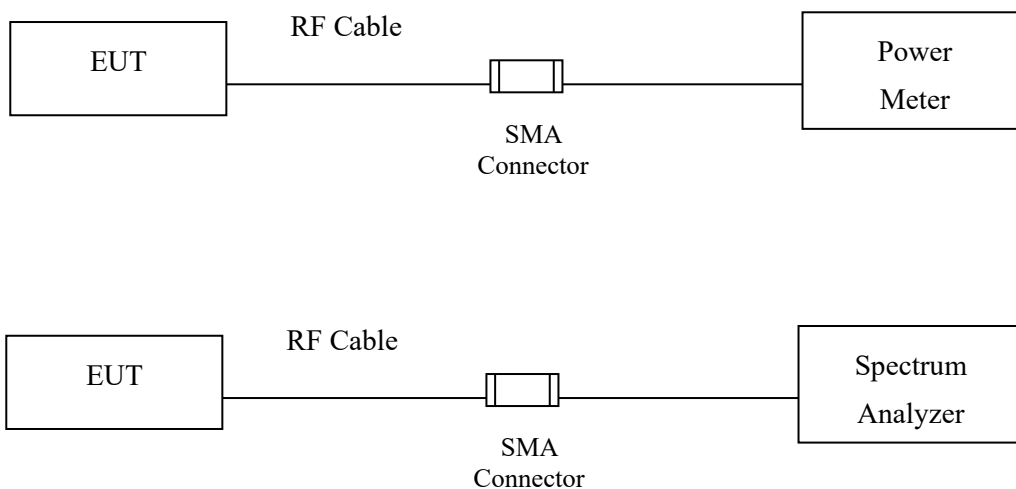
待測物之天線埠經由適當之衰減直接連至頻譜分析儀 RF 輸入端，峰值發射功率必須使用依據均方根等效電壓校準之儀器量測於任何連續傳輸之時段，量測結果須依儀器限制(如偵測器反應時間、相較於發射頻寬有限之解析頻寬能力，靈敏度等)調整得出正確之峰值量測。

5.3. 測試架構圖

Occupied Bandwidth



Conduction Power



5.4. 峰值發射功率測試結果

待測物名稱：BT/Wi-Fi Module

待測物型號：MW510

測試頻道：--

測試日期：110年08月11日

測試項目：峰值發射功率

測試模式：Mode 1: 發射器 802.11a

檢測器：峰值

A Port

Cable loss=1.0dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
		Measurement Level (dBm)							
36	5180	15.49	--	--	--	--	--	--	--
44	5220	15.2	14.95	14.9	14.81	14.73	14.65	14.6	14.51
48	5240	15.04	--	--	--	--	--	--	--
52	5260	15.11	--	--	--	--	--	--	--
60	5300	15.03	14.95	14.9	14.81	14.73	14.65	14.6	14.51
64	5320	15.5	--	--	--	--	--	--	--
100	5500	15.44	--	--	--	--	--	--	--
116	5580	15.48	15.39	15.3	15.22	15.12	15.09	15.01	14.96
140	5700	15.43	--	--	--	--	--	--	--
149	5745	15.3	--	--	--	--	--	--	--
157	5785	15.36	15.31	15.25	15.18	15.12	15.02	14.96	14.89
165	5825	15.25	--	--	--	--	--	--	--

B Port

Cable loss=1.0dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
		Measurement Level (dBm)							
36	5180	15.43	--	--	--	--	--	--	--
44	5220	15.12	15.04	15	14.91	14.85	14.82	14.73	14.65
48	5240	14.94	--	--	--	--	--	--	--
52	5260	15.02	--	--	--	--	--	--	--
60	5300	14.87	14.79	14.72	14.69	14.61	14.51	14.42	14.38
64	5320	15.38	--	--	--	--	--	--	--
100	5500	15.39	--	--	--	--	--	--	--
116	5580	15.35	15.32	15.23	15.13	15.07	14.97	14.91	14.83
140	5700	15.38	--	--	--	--	--	--	--
149	5745	15.19	--	--	--	--	--	--	--
157	5785	15.25	15.21	15.15	15.06	14.97	14.87	14.8	14.7
165	5825	15.13	--	--	--	--	--	--	--

Maximum conducted output power Measurement:**A Port**

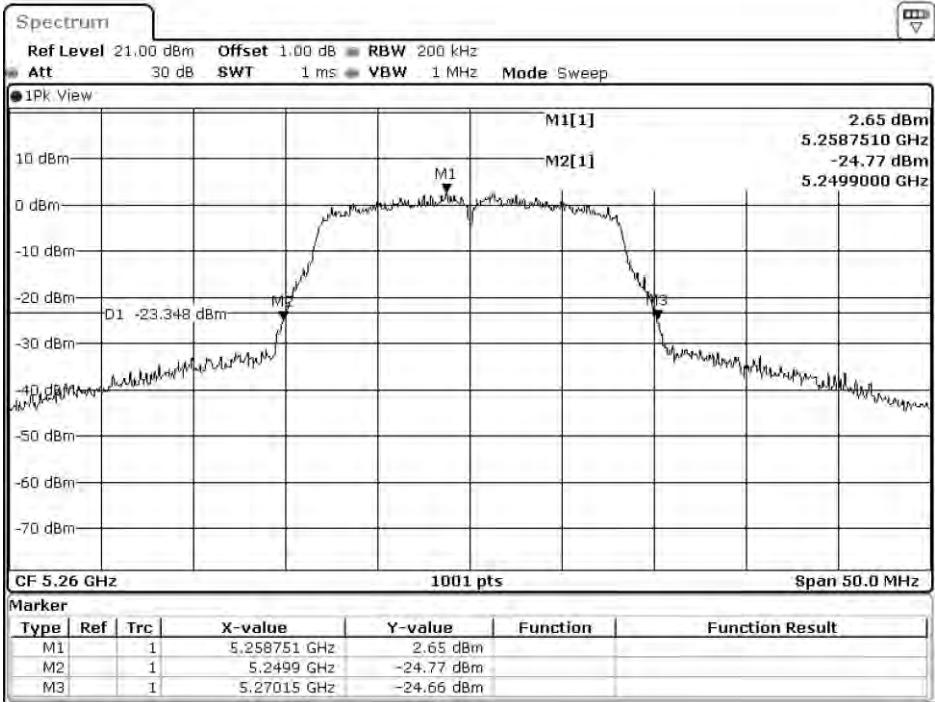
Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit	
				(dBm)	dBm+10log(BW)
36	5180	--	15.49	24	--
44	5220	--	15.20	24	--
48	5240	--	15.04	24	--
52	5260	20.25	15.11	24	24.06
60	5300	20.10	15.03	24	24.03
64	5320	20.10	15.50	24	24.03
100	5500	20.30	15.44	24	24.07
116	5580	20.25	15.48	24	24.06
140	5700	20.30	15.43	24	24.07
149	5745	--	15.30	30	--
157	5785	--	15.36	30	--
165	5825	--	15.25	30	--

B Port

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit	
				(dBm)	dBm+10log(BW)
36	5180	--	15.43	24	--
44	5220	--	15.12	24	--
48	5240	--	14.94	24	--
52	5260	20.25	15.02	24	24.06
60	5300	20.10	14.87	24	24.03
64	5320	20.10	15.38	24	24.03
100	5500	20.30	15.39	24	24.07
116	5580	20.25	15.35	24	24.06
140	5700	20.30	15.38	24	24.07
149	5745	--	15.19	30	--
157	5785	--	15.25	30	--
165	5825	--	15.13	30	--

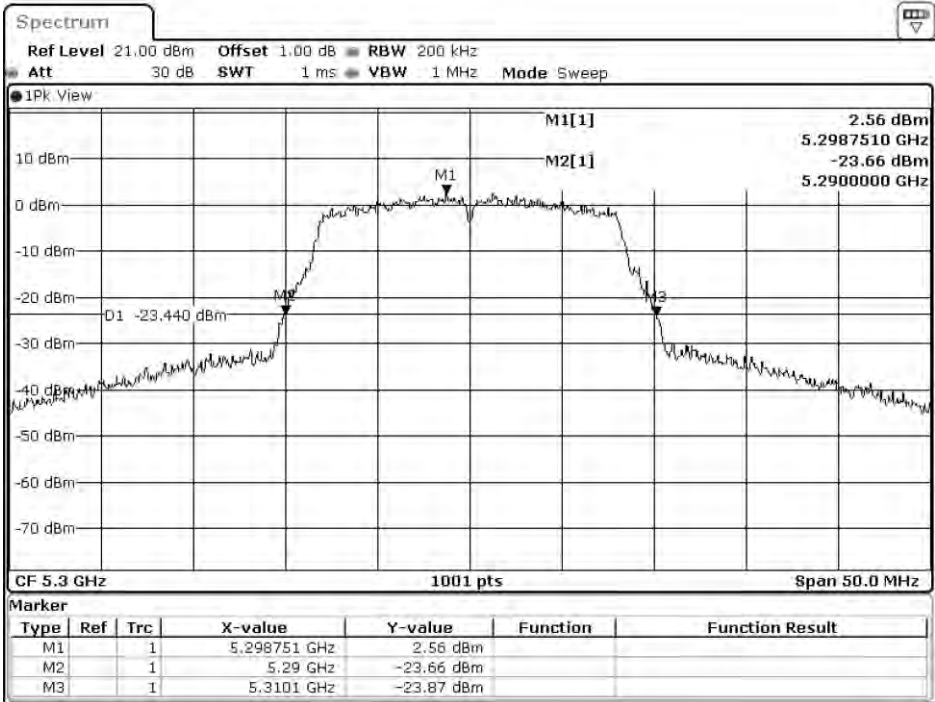
26dB Occupied Bandwidth:

Channel 52



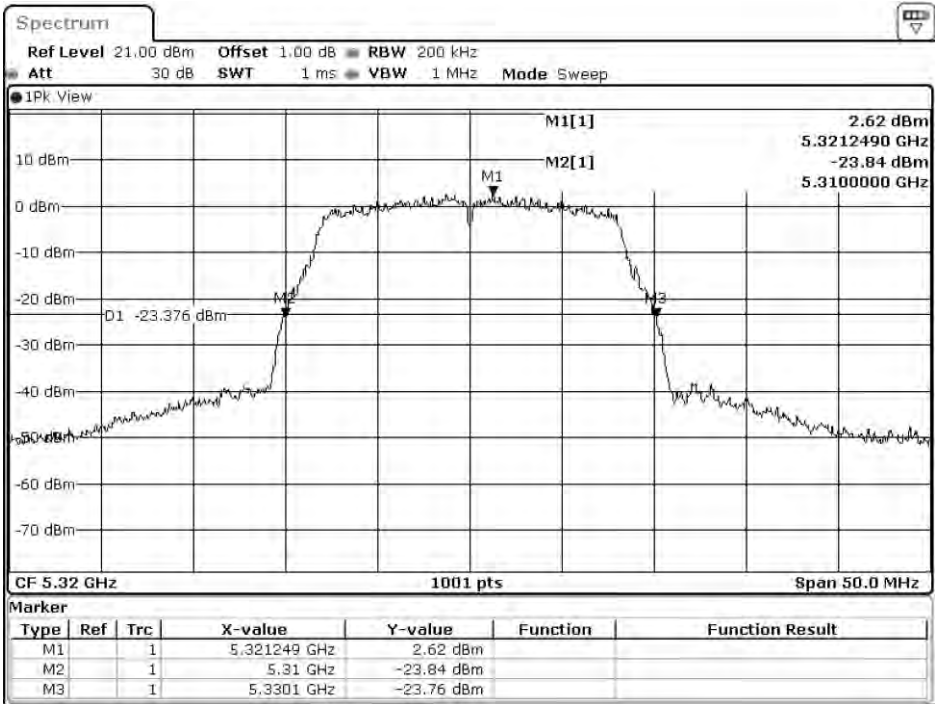
Date: 10.AUG.2021 02:52:27

Channel 60



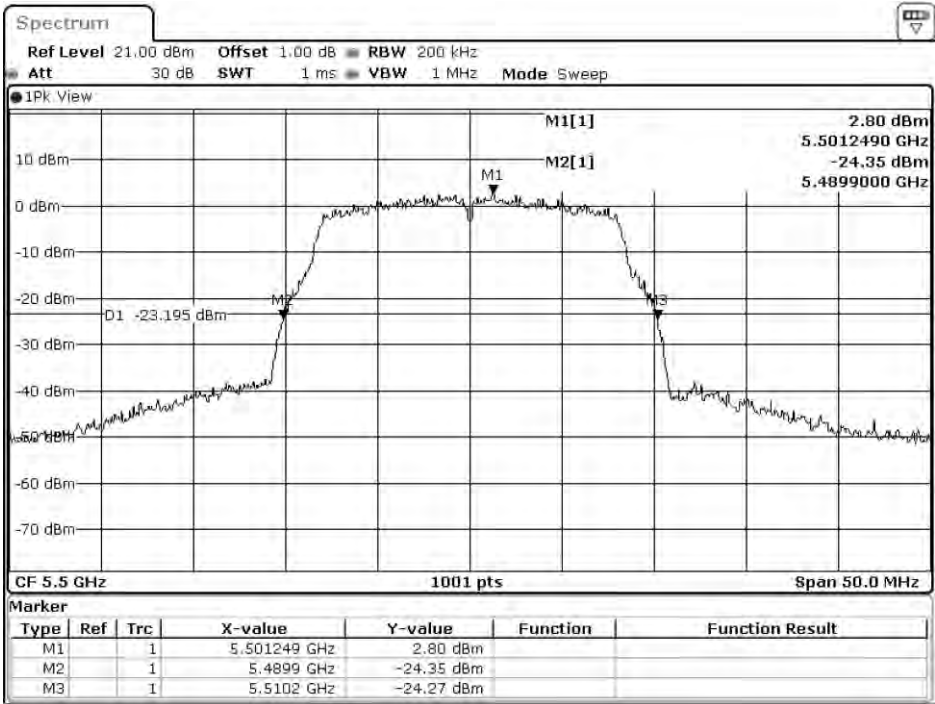
Date: 10.AUG.2021 02:54:37

Channel 64



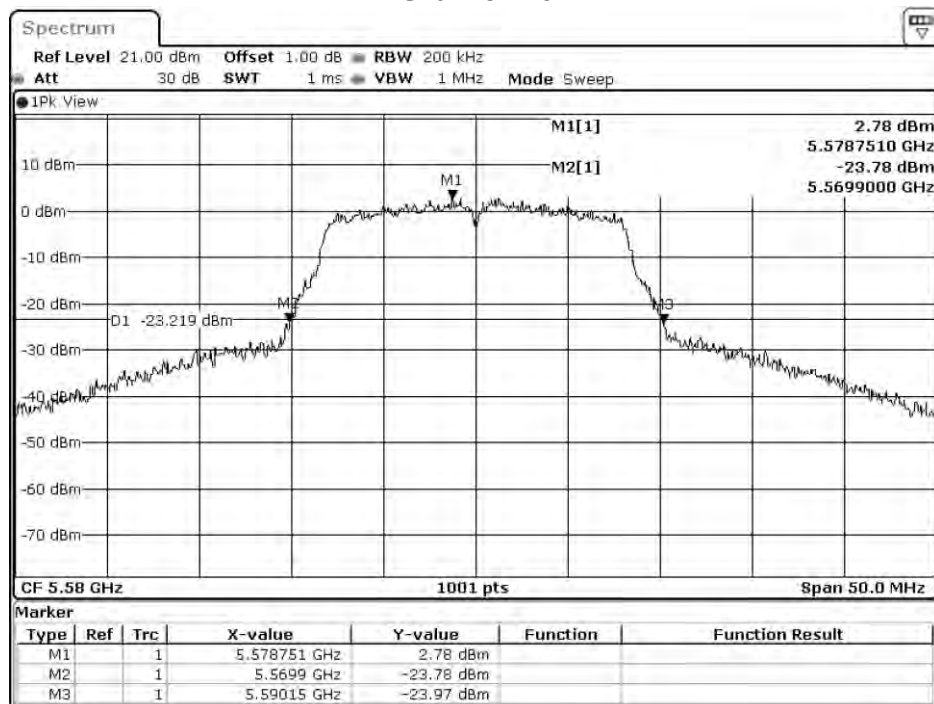
Date: 10.AUG.2021 02:56:14

Channel 100



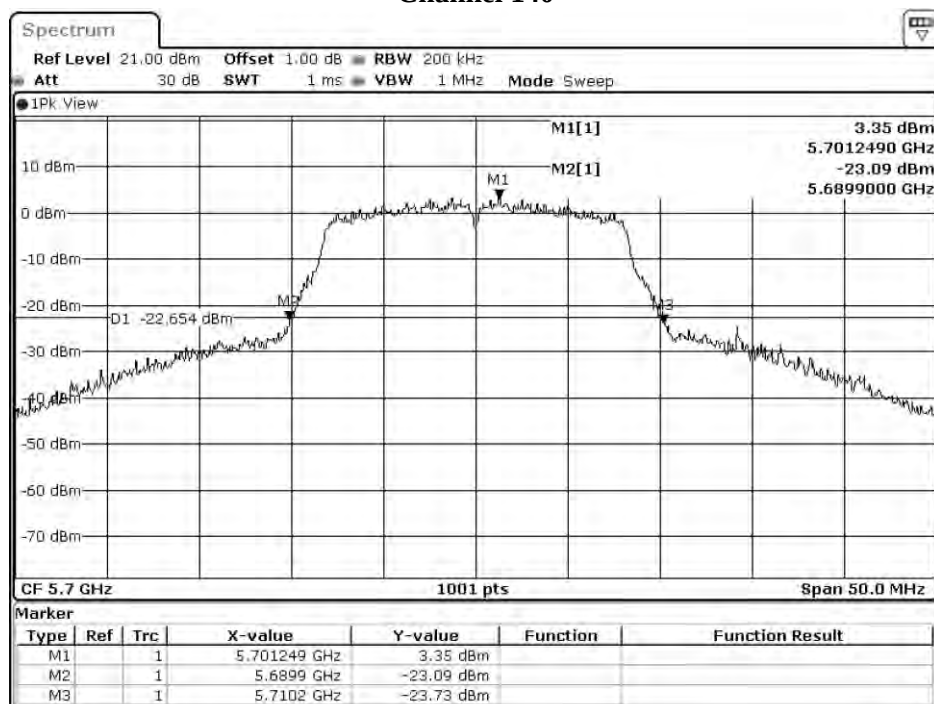
Date: 10.AUG.2021 02:56:04

Channel 116



Date: 10.AUG.2021 03:00:11

Channel 140



Date: 10.AUG.2021 03:01:56

待測物名稱：BT/Wi-Fi Module

待測物型號：MW510

測試項目：峰值發射功率

測試頻道：--

測試模式：Mode 1: 發射器 802.11n-20BW

測試日期：110年08月11日

檢測器：峰值

Chain A

Cable loss=1.0dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		14.4	28.9	43.3	57.8	86.7	115.6	130	144.4
36	5180	15.41	--	--	--	--	--	--	--
44	5220	15.22	15.19	15.12	15.08	14.99	14.91	14.84	14.8
48	5240	15.33	--	--	--	--	--	--	--
52	5260	15.37	--	--	--	--	--	--	--
60	5300	15.4	15.37	15.29	15.26	15.2	15.12	15.02	14.99
64	5320	14.65	--	--	--	--	--	--	--
100	5500	15.12	--	--	--	--	--	--	--
116	5580	15.55	15.47	15.42	15.34	15.26	15.18	15.13	15.04
140	5700	12.62	--	--	--	--	--	--	--
149	5745	15.6	--	--	--	--	--	--	--
157	5785	14.94	14.91	14.85	14.78	14.7	14.65	14.56	14.49
165	5825	15.33	--	--	--	--	--	--	--

Chain B

Cable loss=1.0dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		14.4	28.9	43.3	57.8	86.7	115.6	130	144.4
36	5180	15.51	--	--	--	--	--	--	--
44	5220	15.43	15.37	15.29	15.24	15.16	15.1	15.07	15
48	5240	15.52	--	--	--	--	--	--	--
52	5260	15.27	--	--	--	--	--	--	--
60	5300	15.11	15.06	14.98	14.95	14.92	14.87	14.82	14.79
64	5320	14.41	--	--	--	--	--	--	--
100	5500	15.18	--	--	--	--	--	--	--
116	5580	15.28	15.2	15.17	15.14	15.06	15.01	14.98	14.94
140	5700	12.73	--	--	--	--	--	--	--
149	5745	15.27	--	--	--	--	--	--	--
157	5785	15.34	15.3	15.23	15.14	15.09	15.02	14.92	14.83
165	5825	15.56	--	--	--	--	--	--	--

Maximum conducted output power Measurement:

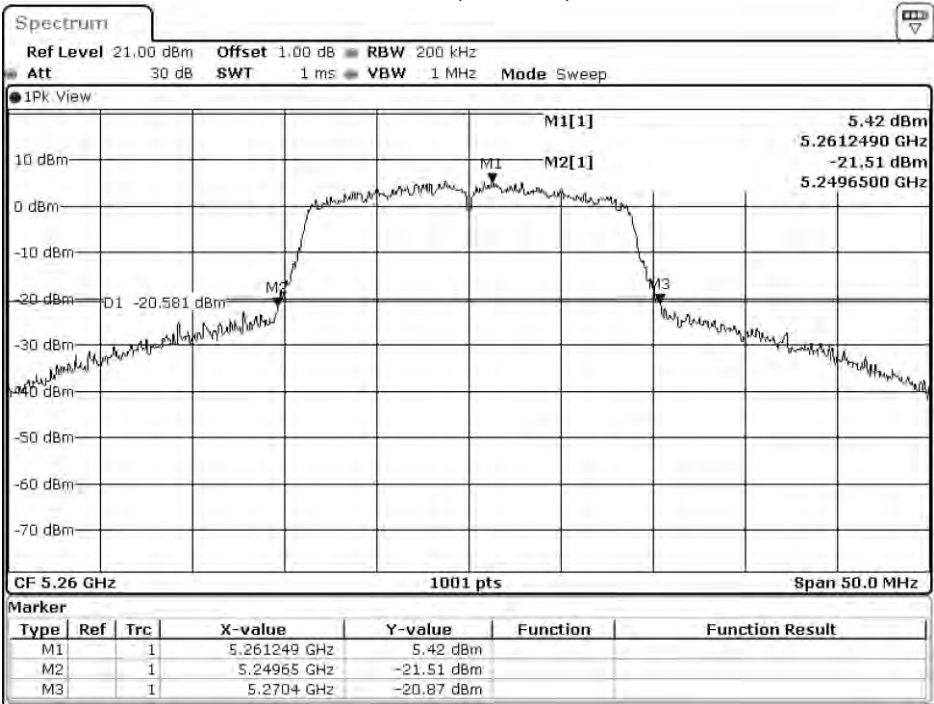
Channel Number	Frequency (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Output Power (dBm)	Output Power Limit	
						(dBm)	dBm+10log(BW)
36	5180	--	15.41	15.51	18.47	24	--
44	5220	--	15.22	15.43	18.34	24	--
48	5240	--	15.33	15.52	18.44	24	--
52	5260	20.70	15.37	15.27	18.33	24	24.16
60	5300	20.45	15.40	15.11	18.27	24	24.11
64	5320	20.35	14.65	14.41	17.54	24	24.09
100	5500	20.30	15.12	15.18	18.16	24	24.07
116	5580	20.50	15.55	15.28	18.43	24	24.12
140	5700	20.50	12.62	12.73	15.69	24	24.12
149	5745	--	15.60	15.27	18.45	30	--
157	5785	--	14.94	15.34	18.15	30	--
165	5825	--	15.33	15.56	18.46	30	--

Note:

1. Output Power (dBm) = 10LOG (Chain A Power (mW)+ Chain B Power (mW))
2. 26dB Bandwidth is the bandwidth of chain A or chain B whichever is less bandwidth, output power limitation is more stringent.

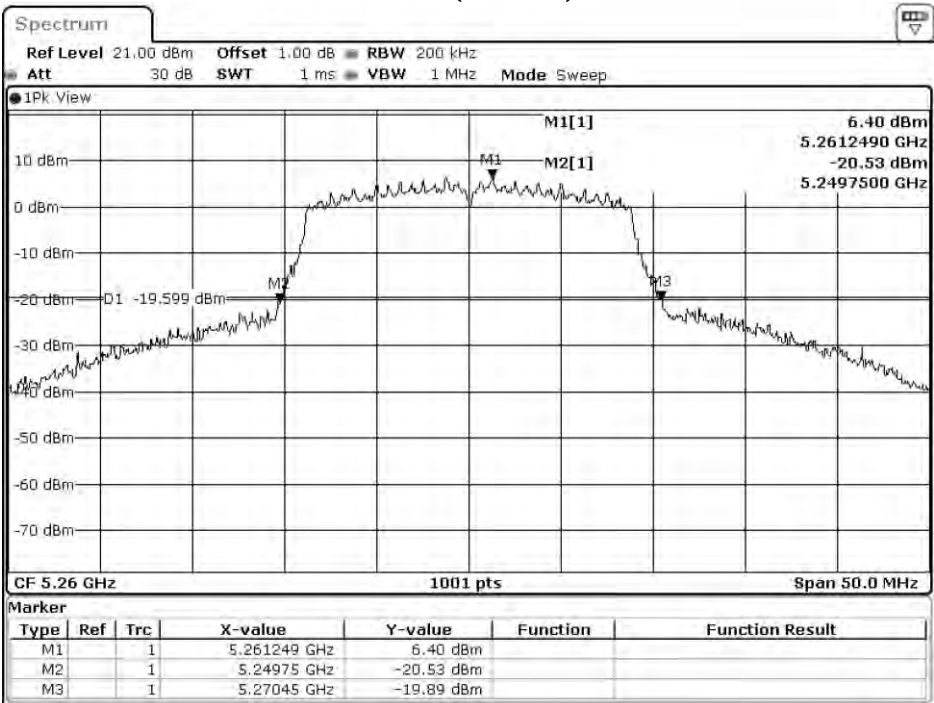
26dB Occupied Bandwidth:

Channel 52 (Chain A)



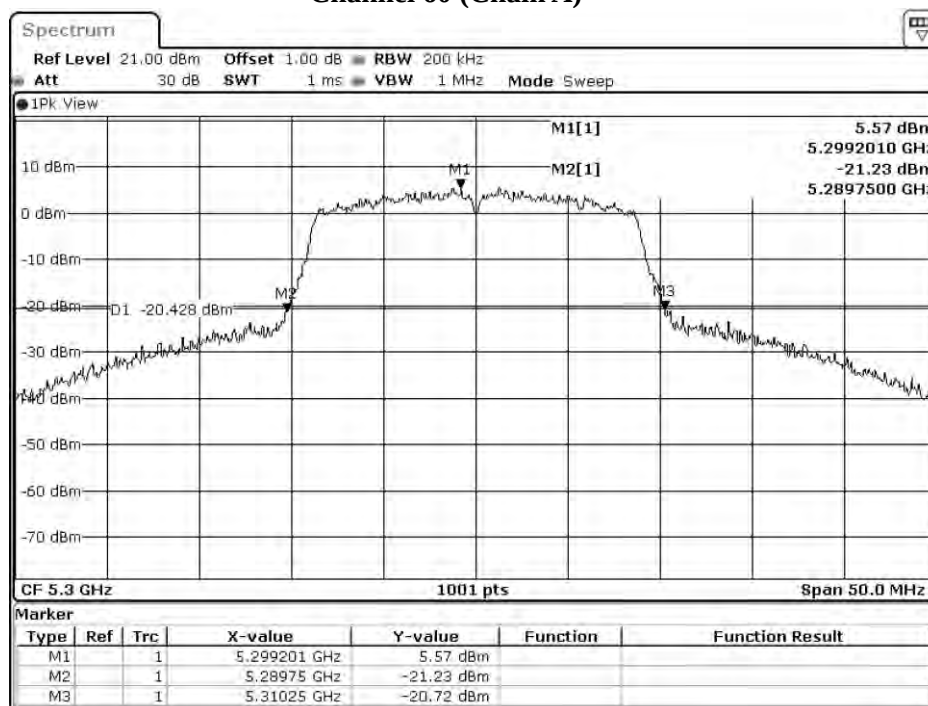
Date: 13.AUG.2021 06:23:59

Channel 52 (Chain B)



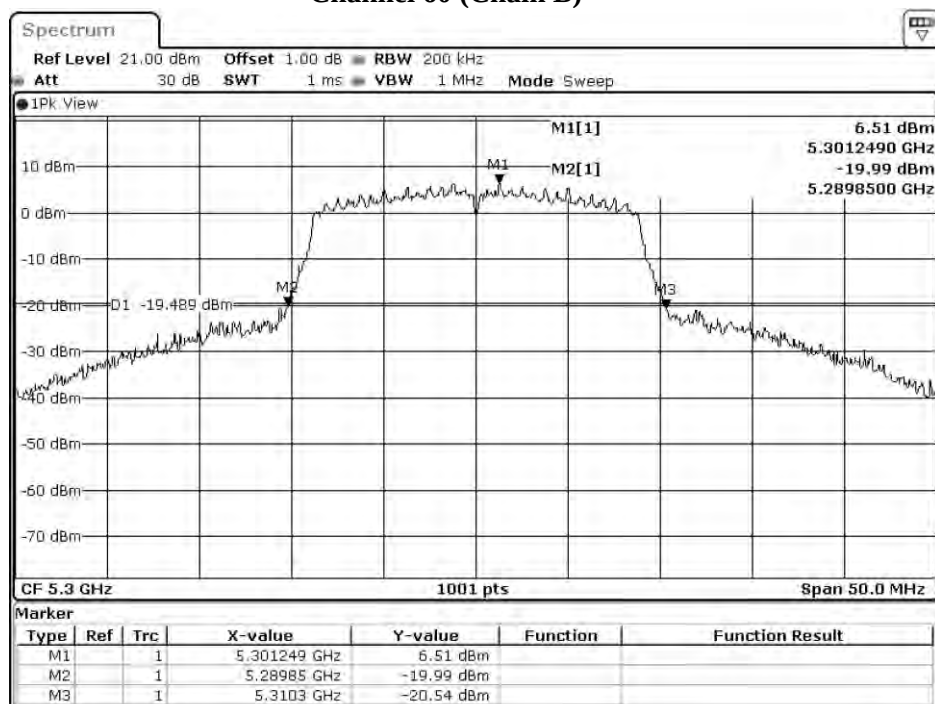
Date: 10.AUG.2021 08:30:30

Channel 60 (Chain A)



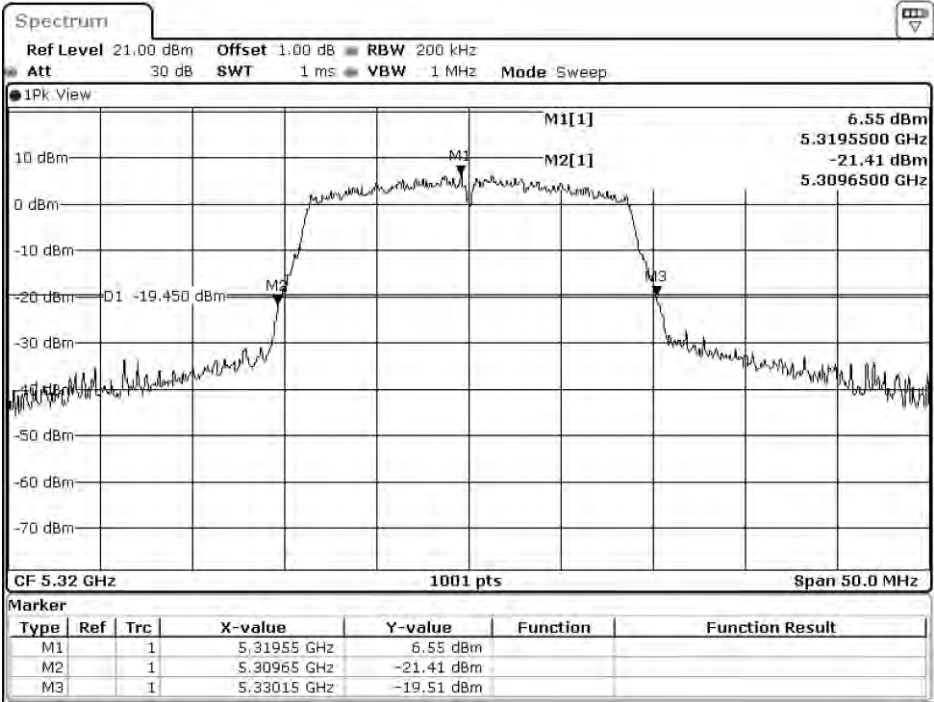
Date: 13.AUG.2021 06:25:48

Channel 60 (Chain B)



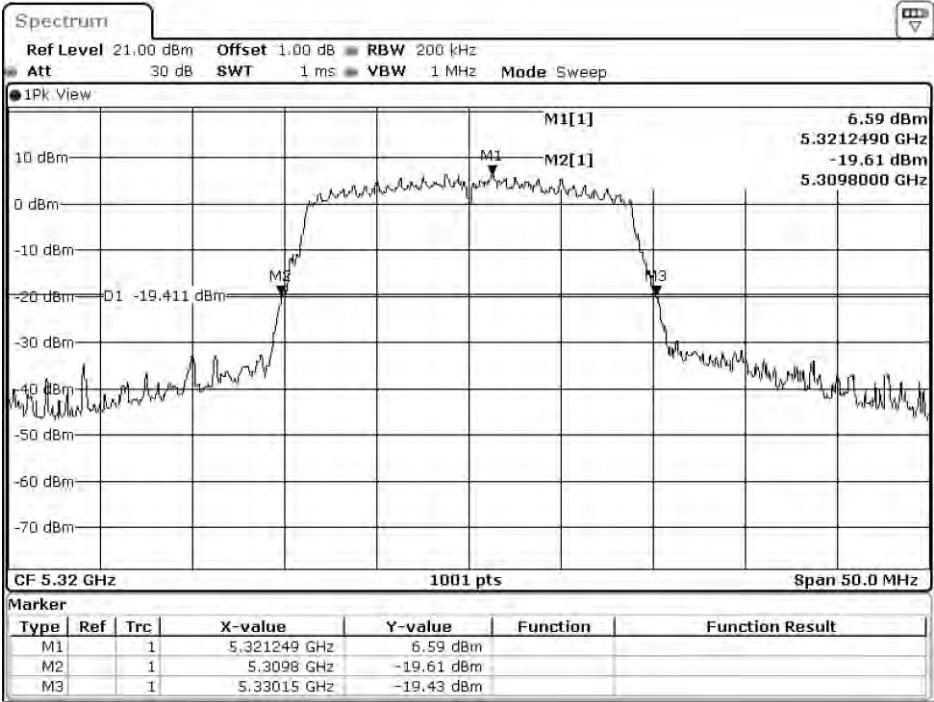
Date: 10.AUG.2021 06:31:28

Channel 64 (Chain A)



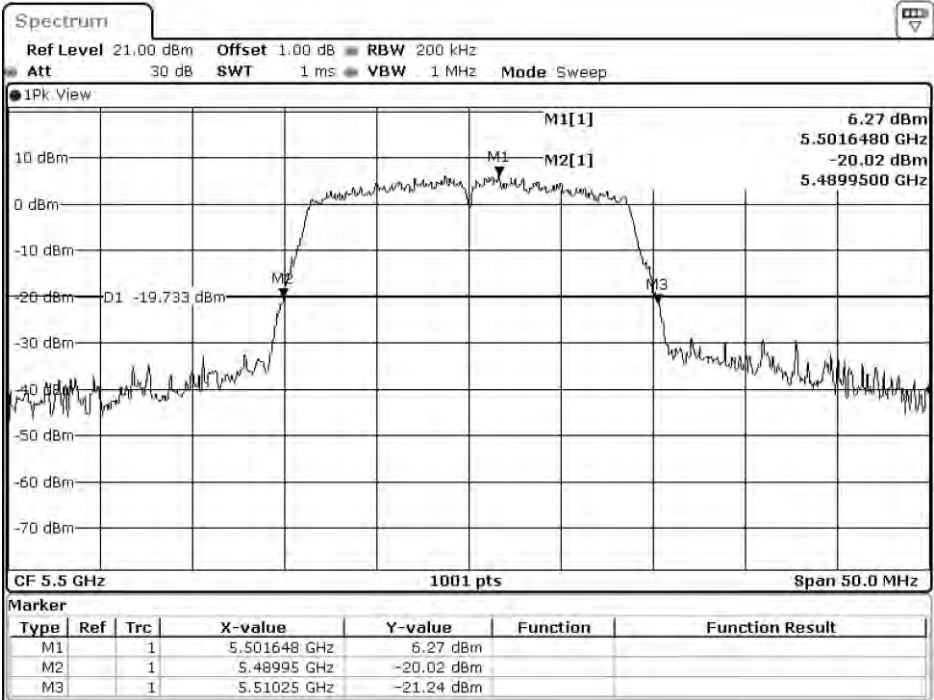
Date: 13.AUG.2021 06:27:56

Channel 64 (Chain B)



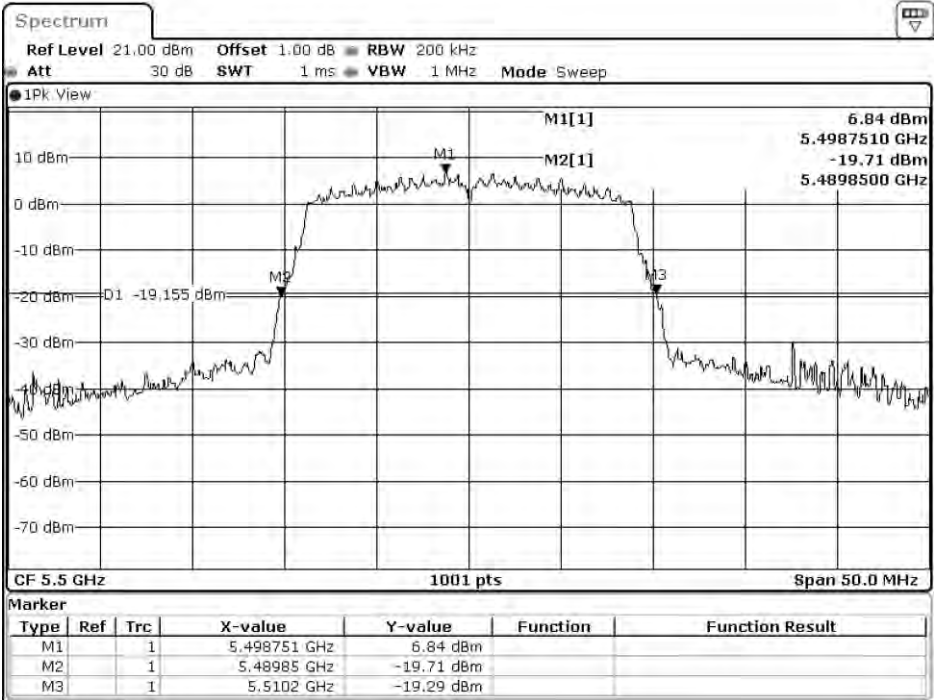
Date: 10.AUG.2021 08:32:17

Channel 100 (Chain A)



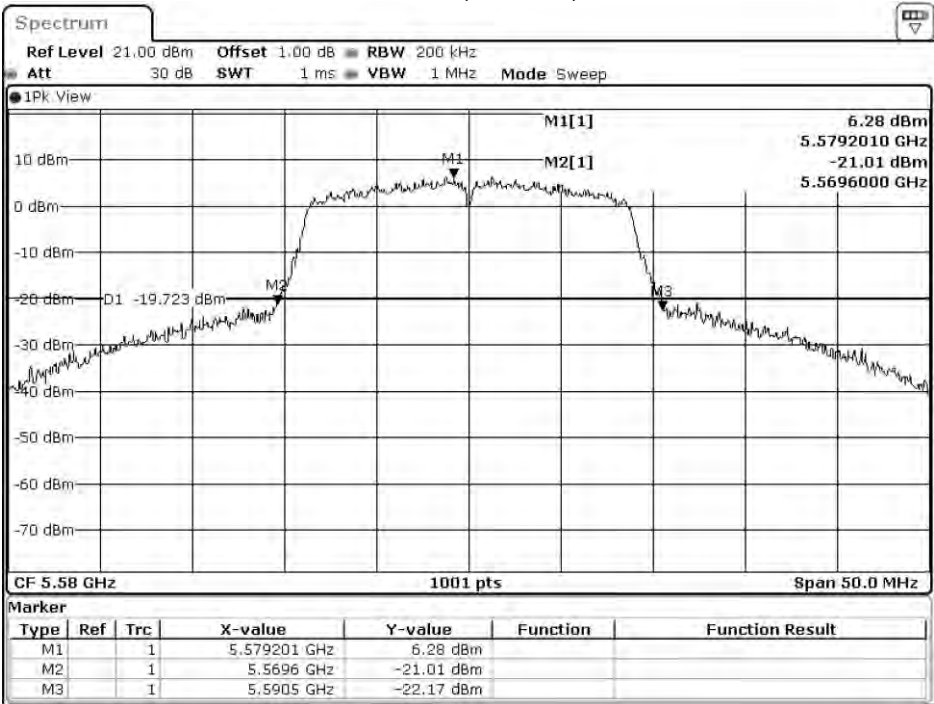
Date: 13.AUG.2021 06:28:59

Channel 100 (Chain B)



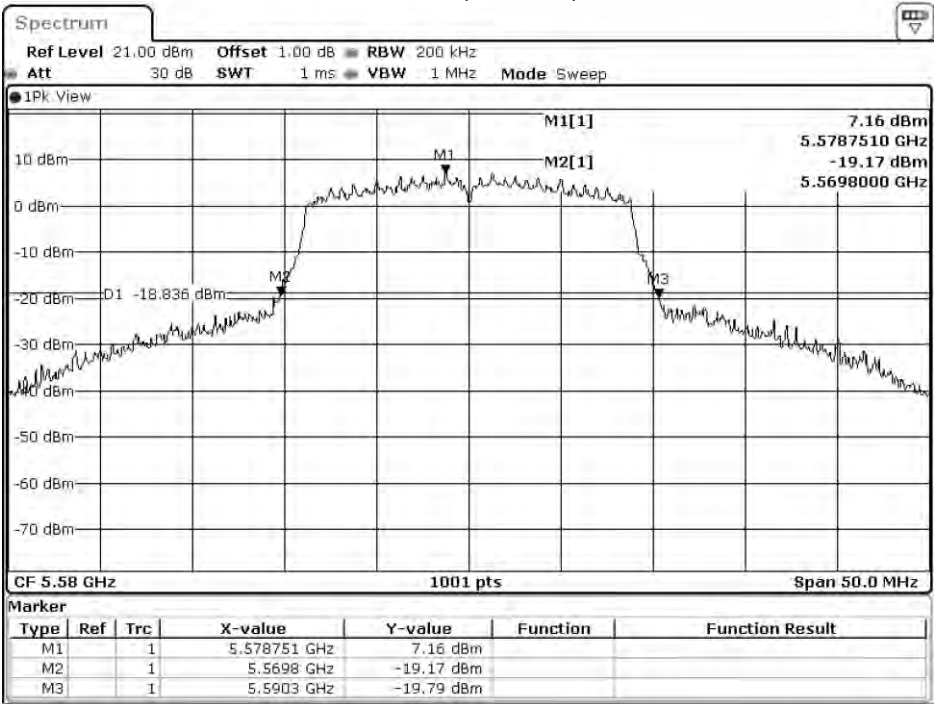
Date: 10.AUG.2021 08:33:38

Channel 116 (Chain A)



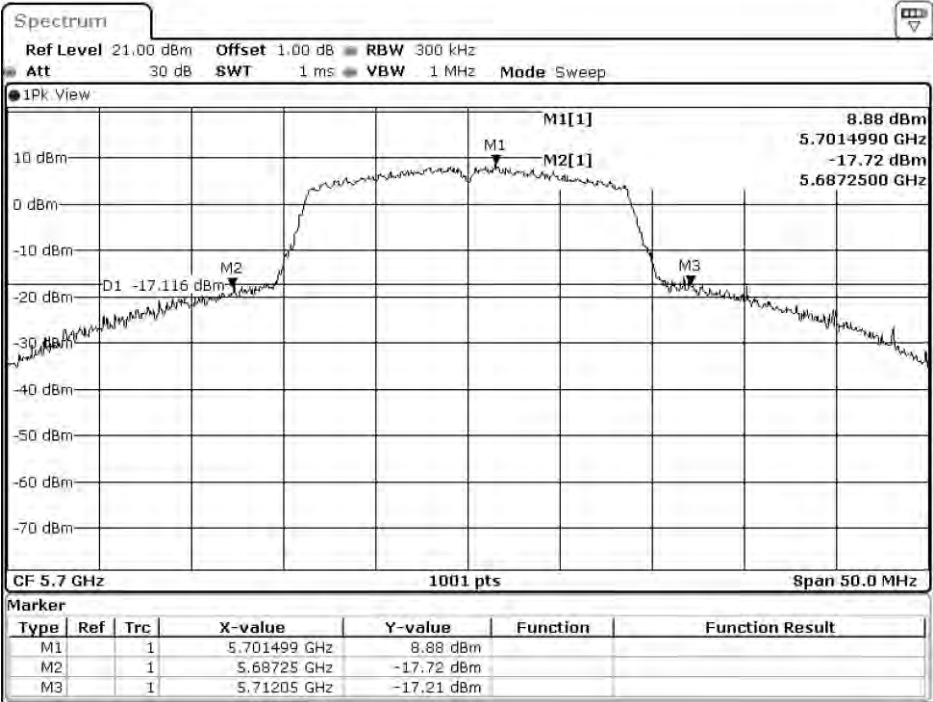
Date: 13.AUG.2021 06:34:24

Channel 116 (Chain B)



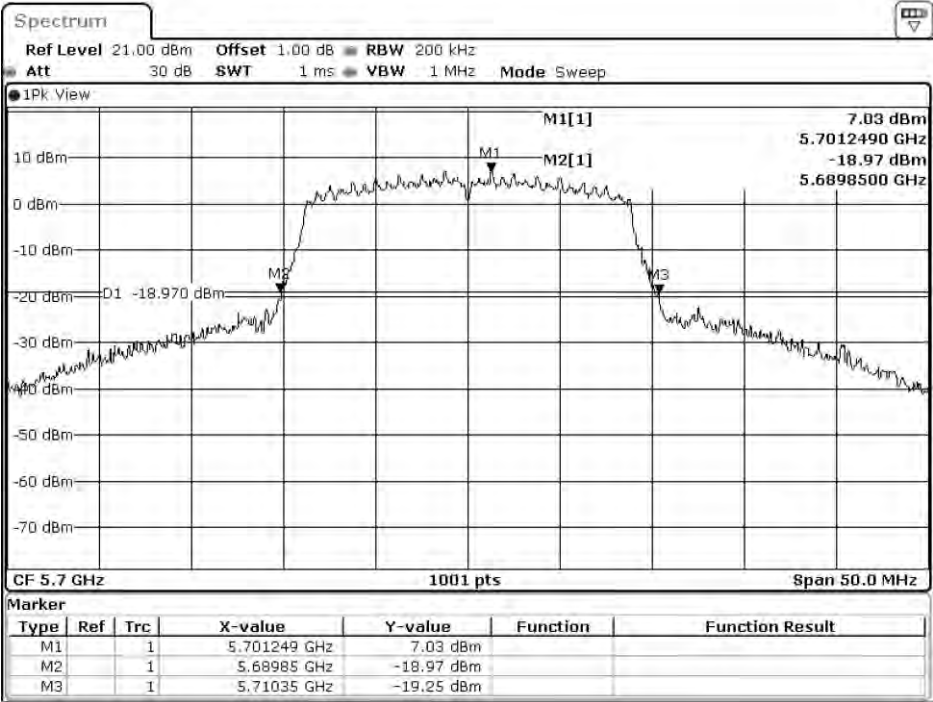
Date: 10.AUG.2021 06:34:44

Channel 140 (Chain A)



Date: 13.AUG.2021 06:35:22

Channel 140 (Chain B)



Date: 10.AUG.2021 08:35:29

待測物名稱：BT/Wi-Fi Module

待測物型號：MW510

測試項目：峰值發射功率

測試頻道：--

測試模式：Mode 1: 發射器 802.11n-40BW

測試日期：110年08月11日

檢測器：峰值

Chain A

Cable loss=1.0dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		30	60	90	120	180	240	270	300
38	5190	13.18	--	--	--	--	--	--	--
46	5230	15.21	15.13	15.05	14.97	14.9	14.8	14.74	14.68
54	5270	15.1	--	--	--	--	--	--	--
62	5310	13.05	13.00	12.93	12.89	12.83	12.79	12.75	12.69
102	5510	14.03	--	--	--	--	--	--	--
110	5550	15.23	15.14	15.08	14.99	14.95	14.89	14.84	14.77
134	5670	14.57	--	--	--	--	--	--	--
151	5755	15.04	--	--	--	--	--	--	--
159	5795	15.02	14.93	14.85	14.8	14.74	14.71	14.61	14.55

Chain B

Cable loss=1.0dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		30	60	90	120	180	240	270	300
38	5190	13.12	--	--	--	--	--	--	--
46	5230	15.33	15.29	15.23	15.19	15.12	15.04	14.96	14.89
54	5270	15.21	--	--	--	--	--	--	--
62	5310	13.11	13.05	13.00	12.95	12.91	12.87	12.80	12.75
102	5510	14.55	--	--	--	--	--	--	--
110	5550	15.42	15.33	15.25	15.21	15.13	15.09	15.05	14.99
134	5670	14.88	--	--	--	--	--	--	--
151	5755	15.35	--	--	--	--	--	--	--
159	5795	15.33	15.25	15.16	15.06	14.97	14.87	14.78	14.72

Maximum conducted output power Measurement:

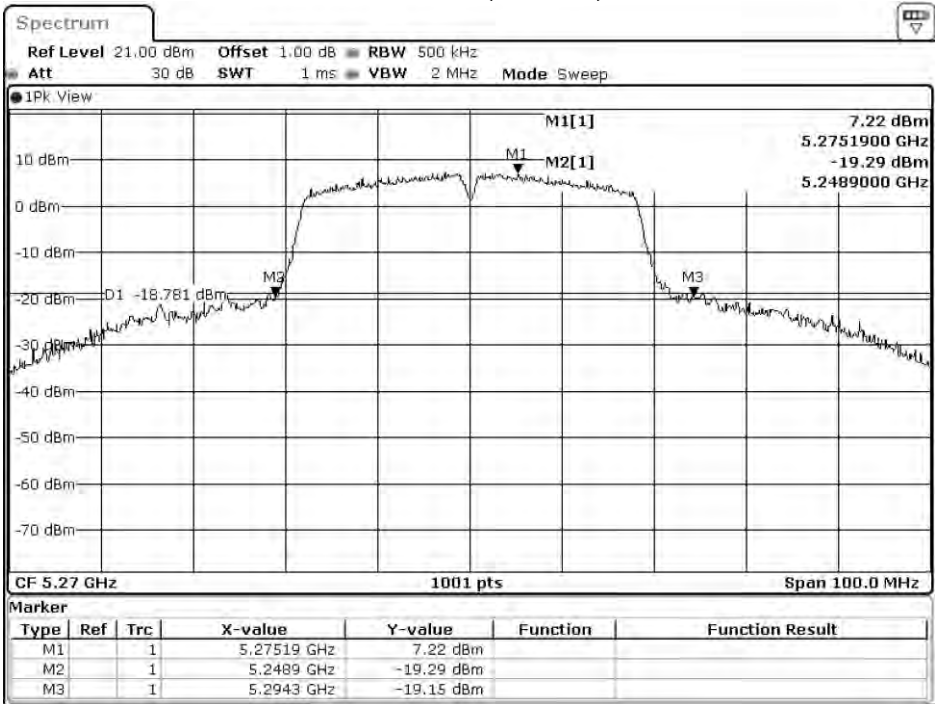
Channel Number	Frequency (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Output Power (dBm)	Output Power Limit	
						(dBm)	dBm+10log(BW)
38	5190	--	13.18	13.12	16.16	24	--
46	5230	--	15.21	15.33	18.28	24	--
54	5270	41.30	15.10	15.21	18.17	24	27.16
62	5310	40.70	13.05	13.11	16.09	24	27.10
102	5510	40.50	14.03	14.55	17.31	24	27.07
110	5550	41.60	15.23	15.42	18.34	24	27.19
134	5670	40.70	14.57	14.88	17.74	24	27.10
151	5755	--	15.04	15.35	18.21	30	--
159	5795	--	15.02	15.33	18.19	30	--

Note:

1. Output Power (dBm) = 10LOG (Chain A Power (mW)+ Chain B Power (mW))
2. 26dB Bandwidth is the bandwidth of chain A or chain B whichever is less bandwidth, output power limitation is more stringent.

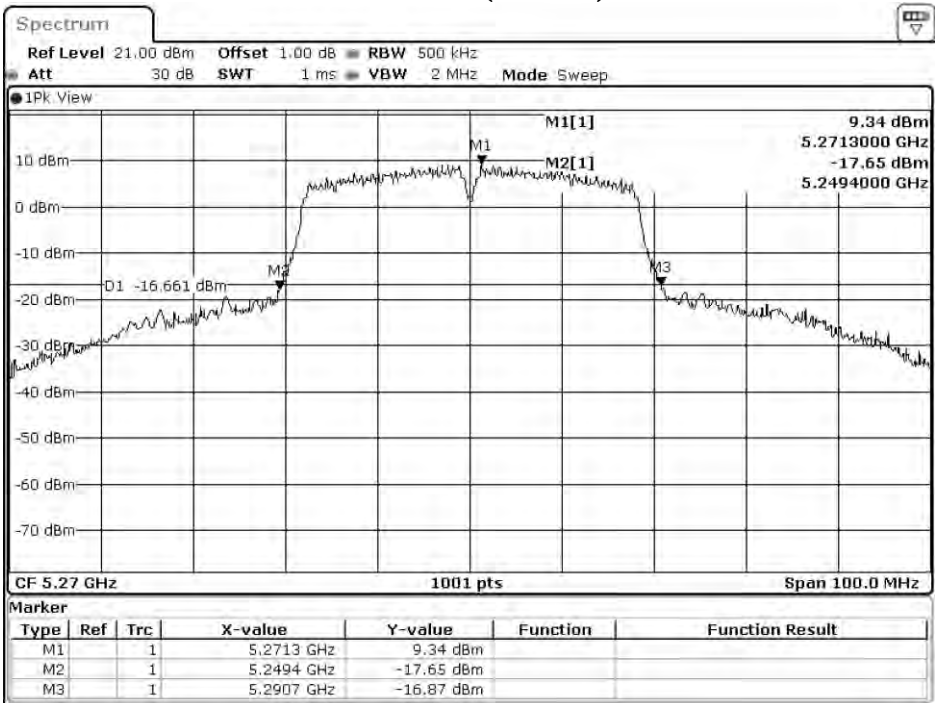
26dB Occupied Bandwidth:

Channel 54 (Chain A)



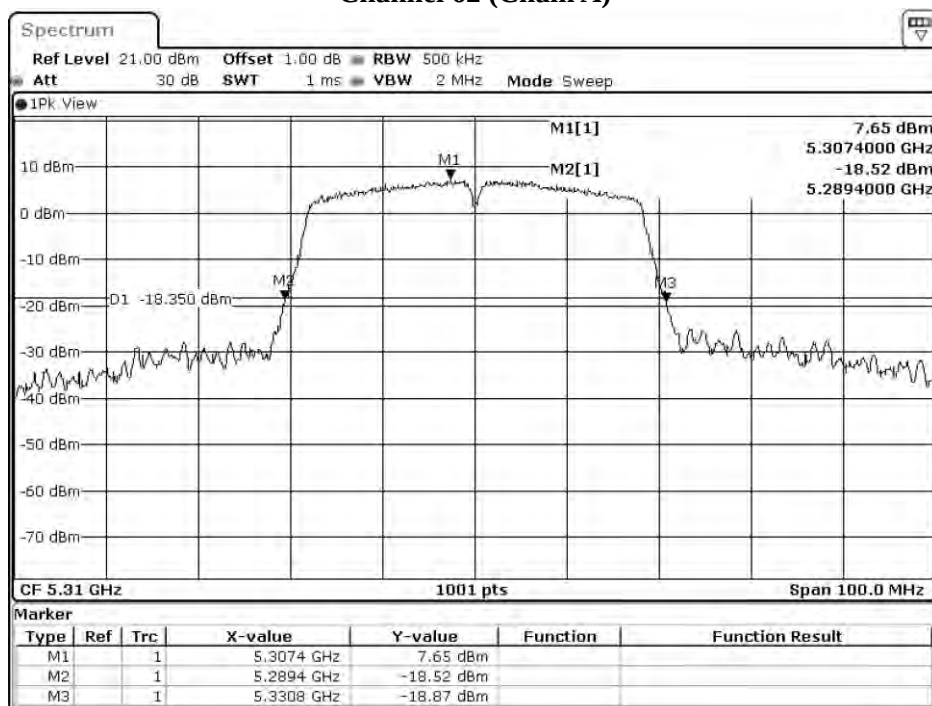
Date: 13.AUG.2021 06:39:09

Channel 54 (Chain B)



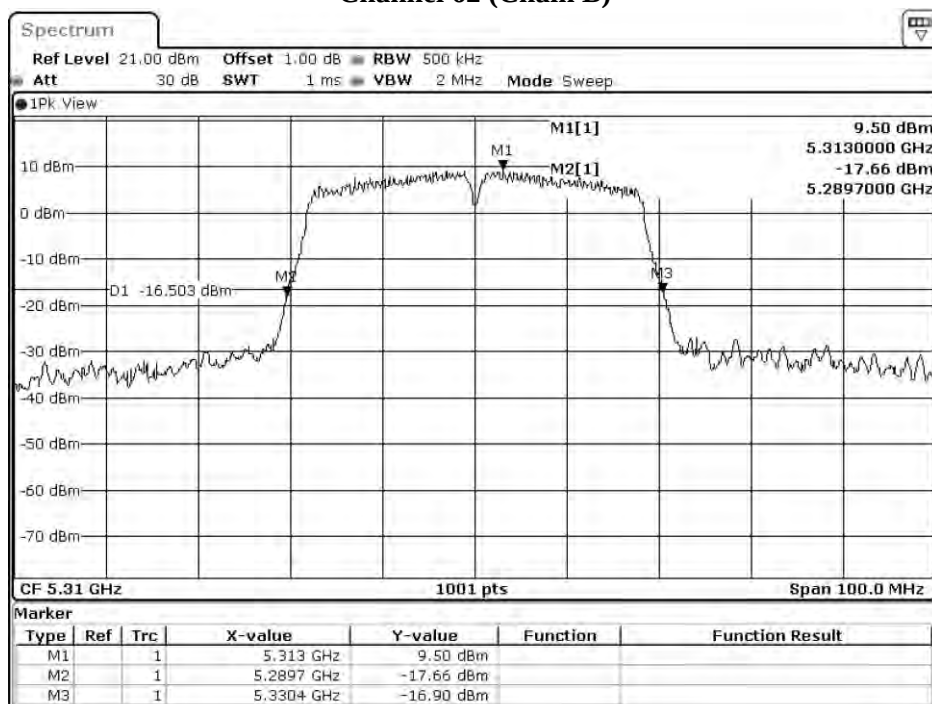
Date: 10.AUG.2021 06:38:49

Channel 62 (Chain A)



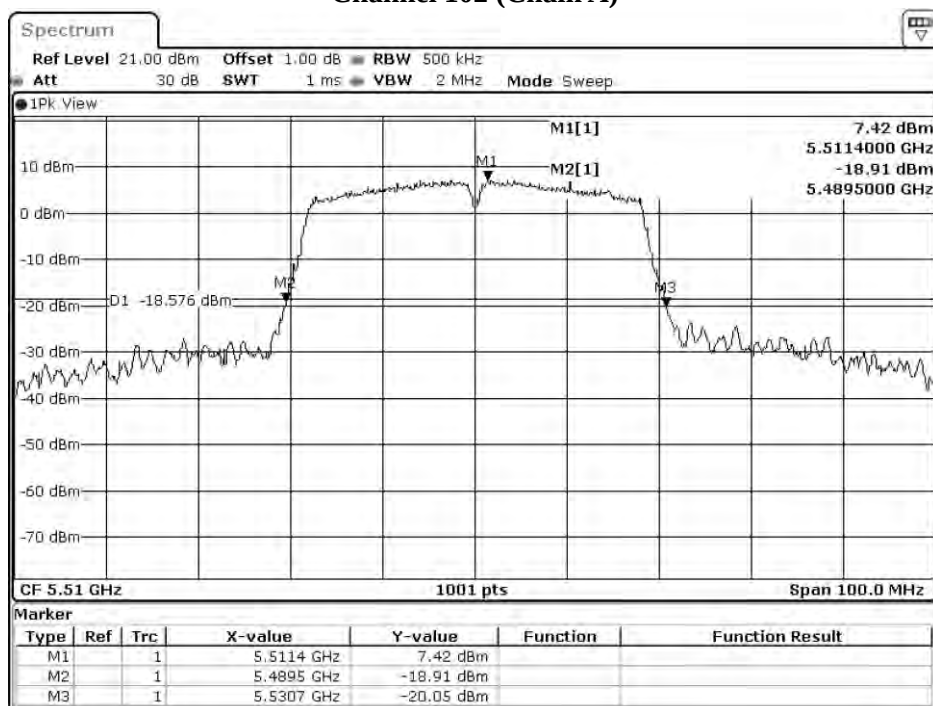
Date: 13.AUG.2021 06:39:59

Channel 62 (Chain B)



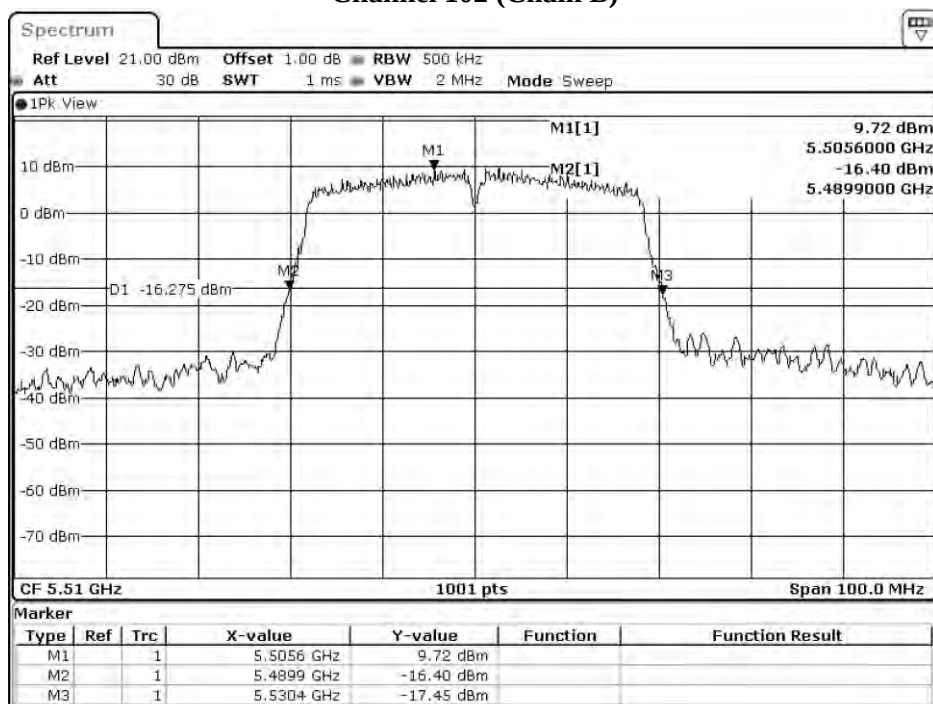
Date: 10.AUG.2021 08:39:42

Channel 102 (Chain A)



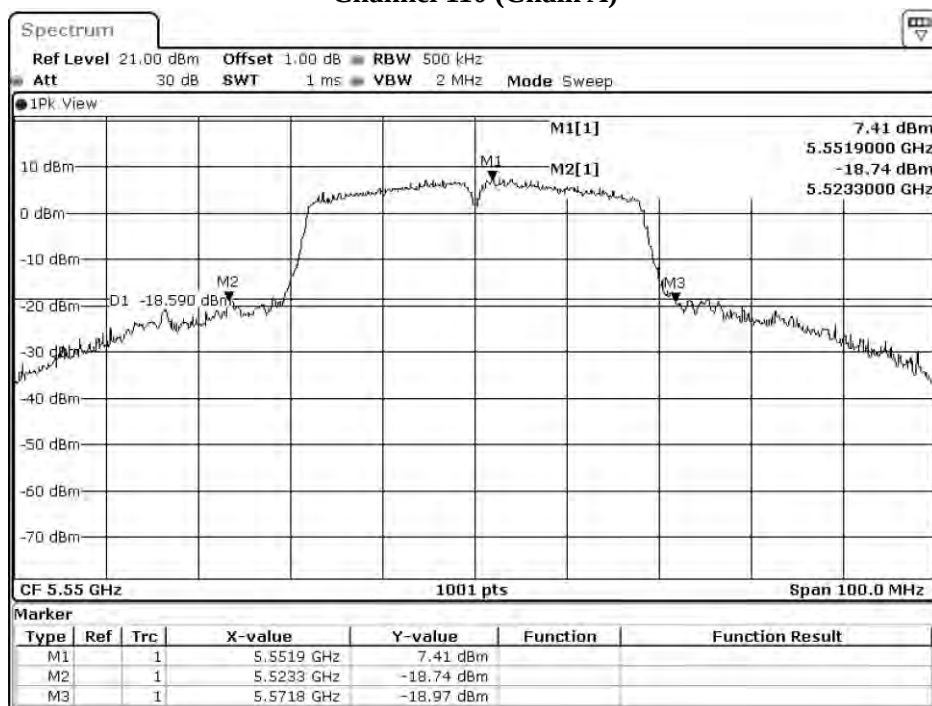
Date: 13.AUG.2021 06:40:50

Channel 102 (Chain B)



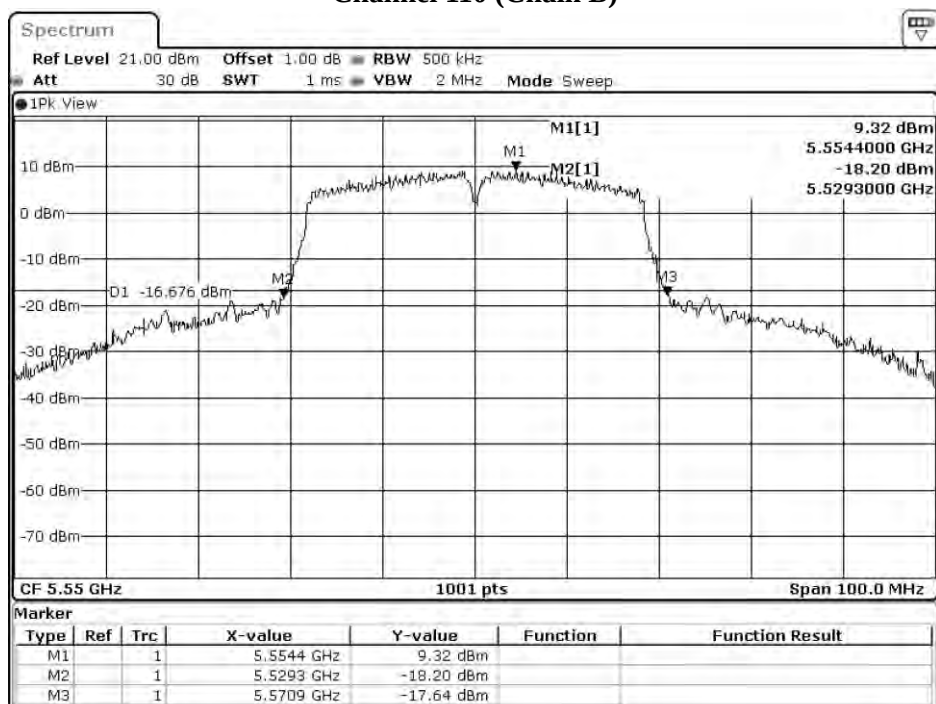
Date: 10.AUG.2021 08:40:32

Channel 110 (Chain A)



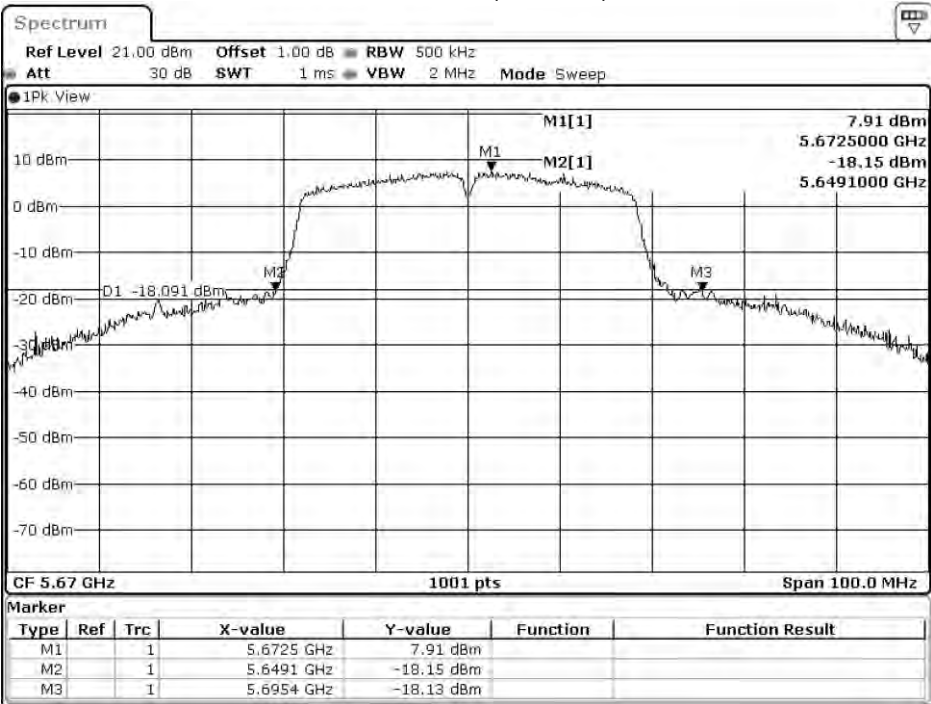
Date: 13.AUG.2021 06:41:40

Channel 110 (Chain B)



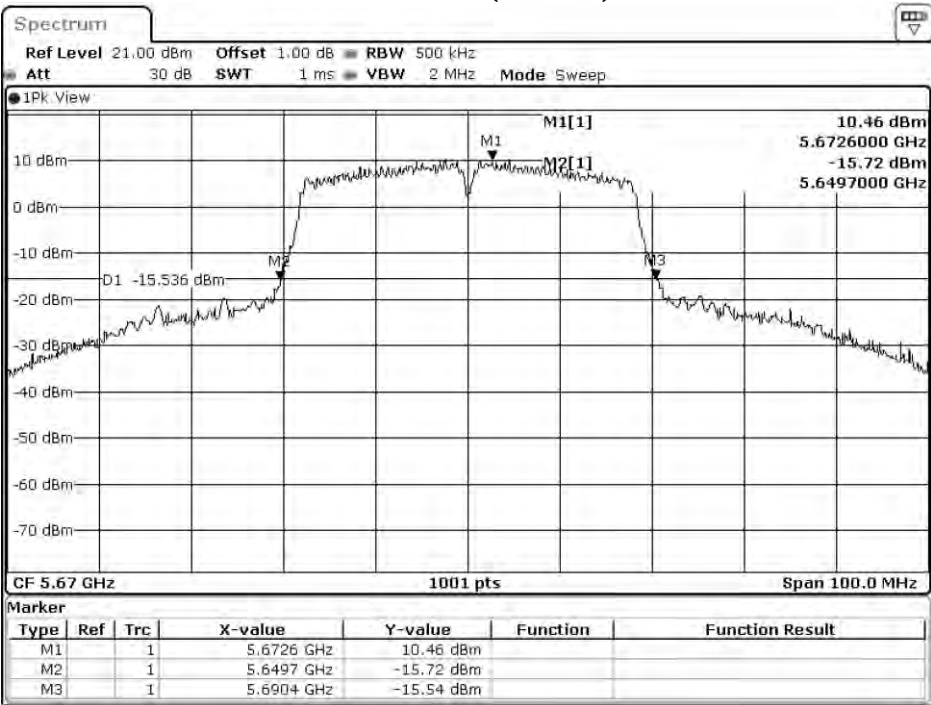
Date: 10.AUG.2021 06:42:14

Channel 134 (Chain A)



Date: 13.AUG.2021 06:42:34

Channel 134 (Chain B)



Date: 10.AUG.2021 08:43:28

待測物名稱：BT/Wi-Fi Module

待測物型號：MW510

測試項目：峰值發射功率

測試頻道：--

測試模式：Mode 1: 發射器 802.11ac-20BW

測試日期：110年08月11日

檢測器：峰值

Chain A

Cable loss=1.0dB		Maximum conducted output power											
Channel No.	Frequency (MHz)	Data Rate											
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9	MCS10	MCS11
36	5180	15.39	--	--	--	--	--	--	--	--	36	5180	15.39
44	5220	15.16	15.13	15.07	15.03	14.96	14.88	14.79	14.69	14.59	44	5220	15.16
48	5240	15.34	--	--	--	--	--	--	--	--	48	5240	15.34
52	5260	15.17	--	--	--	--	--	--	--	--	52	5260	15.17
60	5300	15.21	15.16	15.09	15.01	14.97	14.88	14.84	14.79	14.71	60	5300	15.21
64	5320	14.89	--	--	--	--	--	--	--	--	64	5320	14.89
100	5500	15.44	--	--	--	--	--	--	--	--	100	5500	15.44
116	5580	15.19	15.1	15.03	14.93	14.85	14.78	14.7	14.61	14.51	116	5580	15.19
140	5700	12.72	--	--	--	--	--	--	--	--	140	5700	12.72
149	5745	15.16	--	--	--	--	--	--	--	--	149	5745	15.16
157	5785	15.24	15.21	15.15	15.08	15.04	15.01	14.93	14.86	14.78	157	5785	15.24
165	5825	15.2	--	--	--	--	--	--	--	--	165	5825	15.2

Chain B

Cable loss=1.0dB		Maximum conducted output power											
Channel No.	Frequency (MHz)	Data Rate											
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9	MCS10	MCS11
36	5180	15.35	--	--	--	--	--	--	--	--	36	5180	15.35
44	5220	15.26	15.16	15.06	14.97	14.87	14.79	14.71	14.68	14.6	44	5220	15.26
48	5240	15.2	--	--	--	--	--	--	--	--	48	5240	15.2
52	5260	14.93	--	--	--	--	--	--	--	--	52	5260	14.93
60	5300	15.23	15.16	15.13	15.06	15	14.92	14.83	14.73	14.63	60	5300	15.23
64	5320	14.51	--	--	--	--	--	--	--	--	64	5320	14.51
100	5500	15.52	--	--	--	--	--	--	--	--	100	5500	15.52
116	5580	15.59	15.52	15.44	15.39	15.33	15.27	15.24	15.2	15.15	116	5580	15.59
140	5700	12.94	--	--	--	--	--	--	--	--	140	5700	12.94
149	5745	15.66	--	--	--	--	--	--	--	--	149	5745	15.66
157	5785	15.63	15.55	15.52	15.46	15.39	15.29	15.22	15.18	15.09	157	5785	15.63
165	5825	15.55	--	--	--	--	--	--	--	--	165	5825	15.55

Maximum conducted output power Measurement:

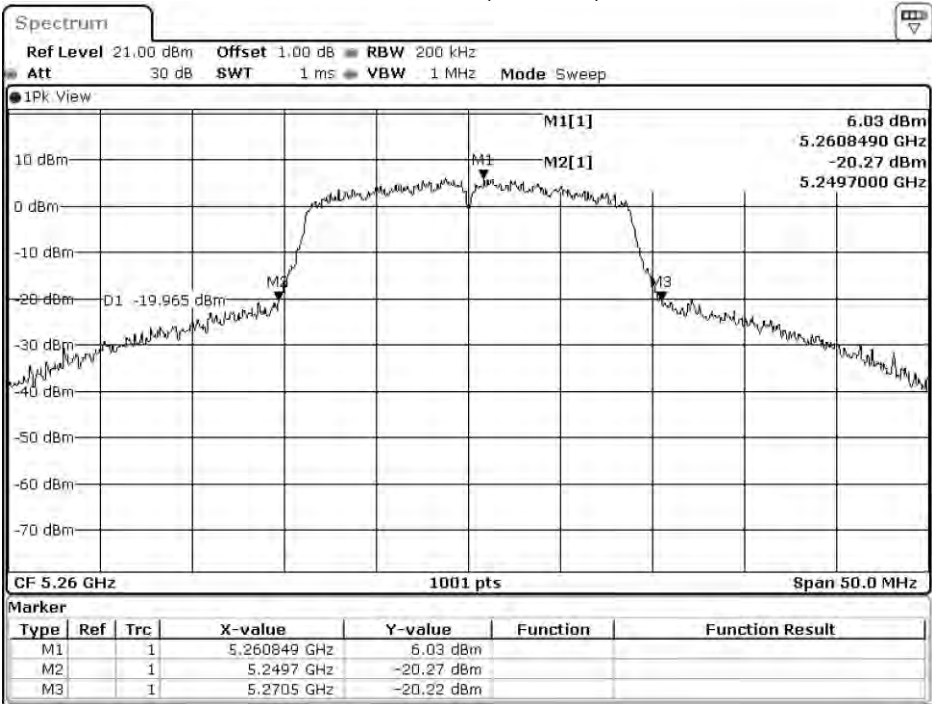
Channel Number	Frequency (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Output Power (dBm)	Output Power Limit	
						(dBm)	dBm+10log(BW)
36	5180	--	15.39	15.35	18.38	24	--
44	5220	--	15.16	15.26	18.22	24	--
48	5240	--	15.34	15.20	18.28	24	--
52	5260	20.80	15.17	14.93	18.06	24	24.18
60	5300	20.70	15.21	15.23	18.23	24	24.16
64	5320	20.30	14.89	14.51	17.71	24	24.07
100	5500	20.25	15.44	15.52	18.49	24	24.06
116	5580	20.50	15.19	15.59	18.40	24	24.12
140	5700	20.50	12.72	12.94	15.84	24	24.12
149	5745	--	15.16	15.66	18.43	30	--
157	5785	--	15.24	15.63	18.45	30	--
165	5825	--	15.20	15.55	18.39	30	--

Note:

1. Output Power (dBm) = 10LOG (Chain A Power (mW)+ Chain B Power (mW))
2. 26dB Bandwidth is the bandwidth of chain A or chain B whichever is less bandwidth, output power limitation is more stringent.

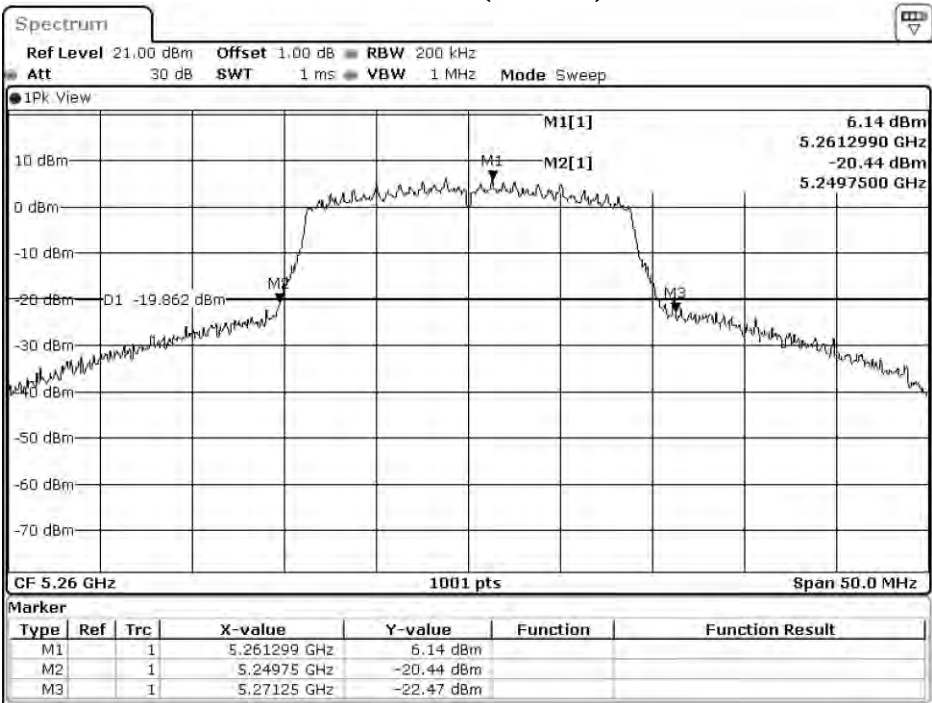
26dB Occupied Bandwidth:

Channel 52 (Chain A)



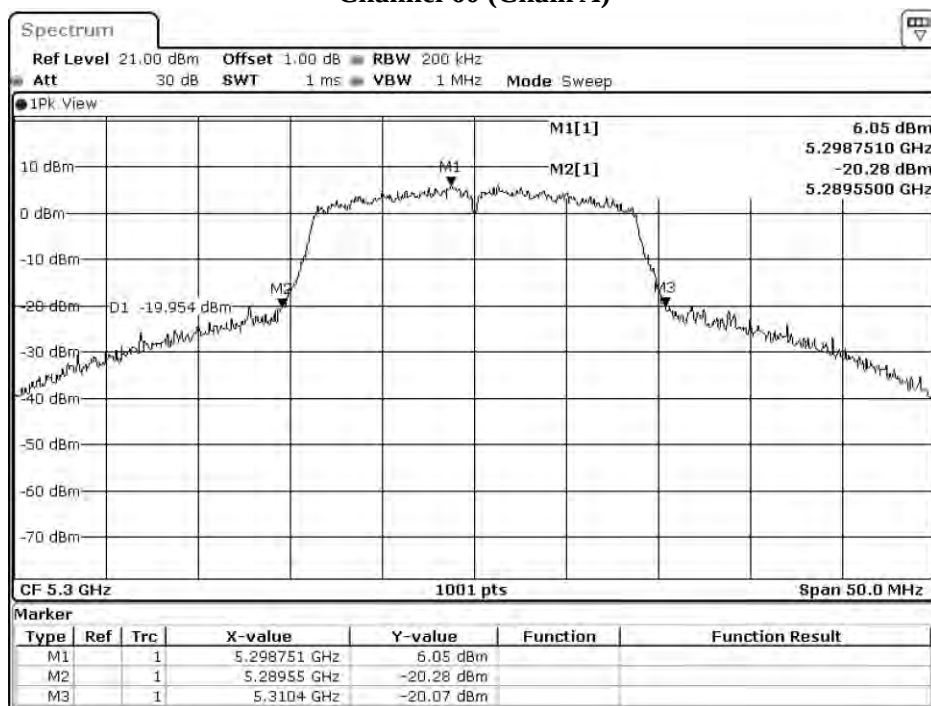
Date: 13.AUG.2021 07:24:40

Channel 52 (Chain B)



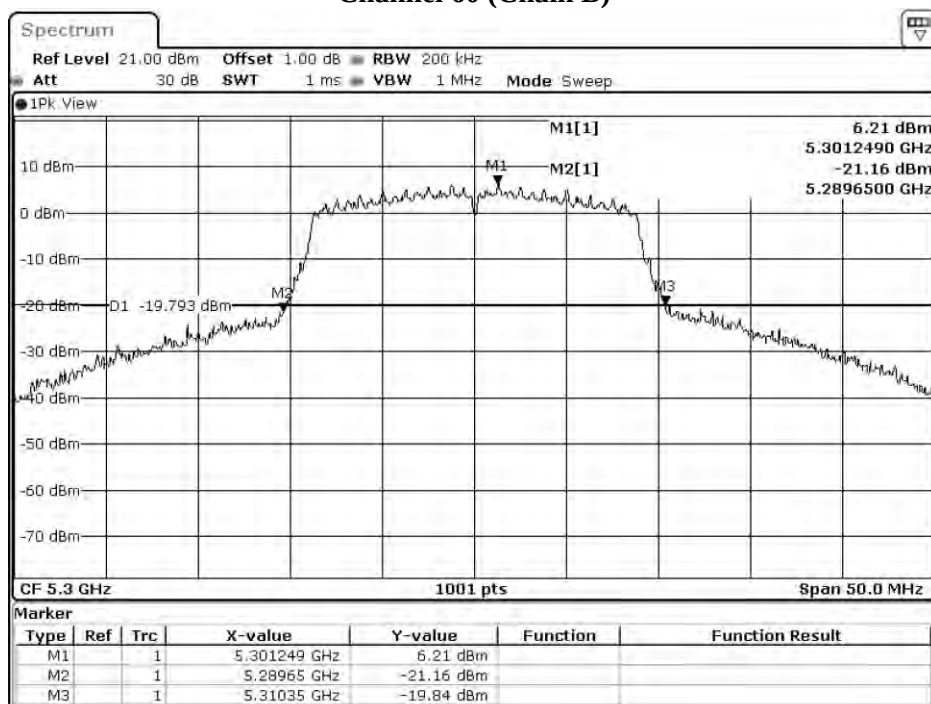
Date: 10.AUG.2021 06:04:55

Channel 60 (Chain A)



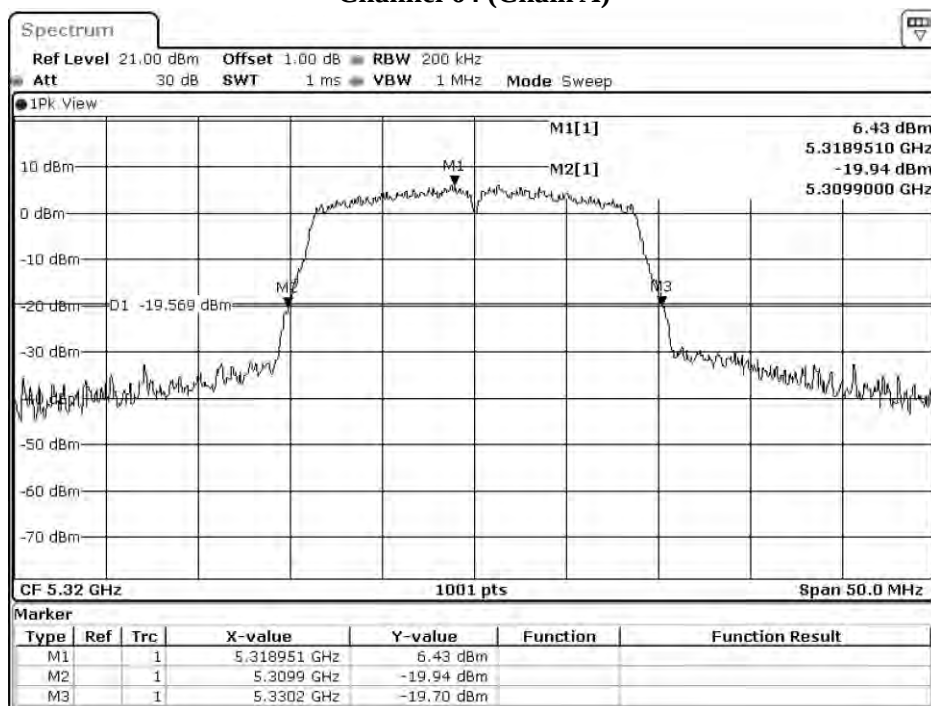
Date: 13.AUG.2021 07:26:40

Channel 60 (Chain B)



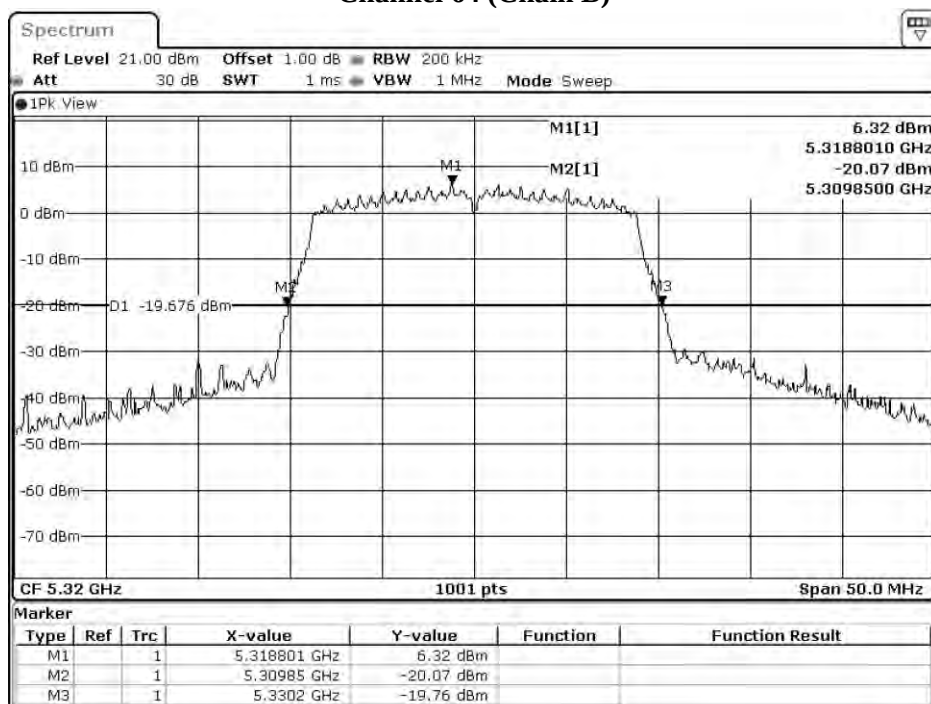
Date: 10.AUG.2021 06:06:30

Channel 64 (Chain A)



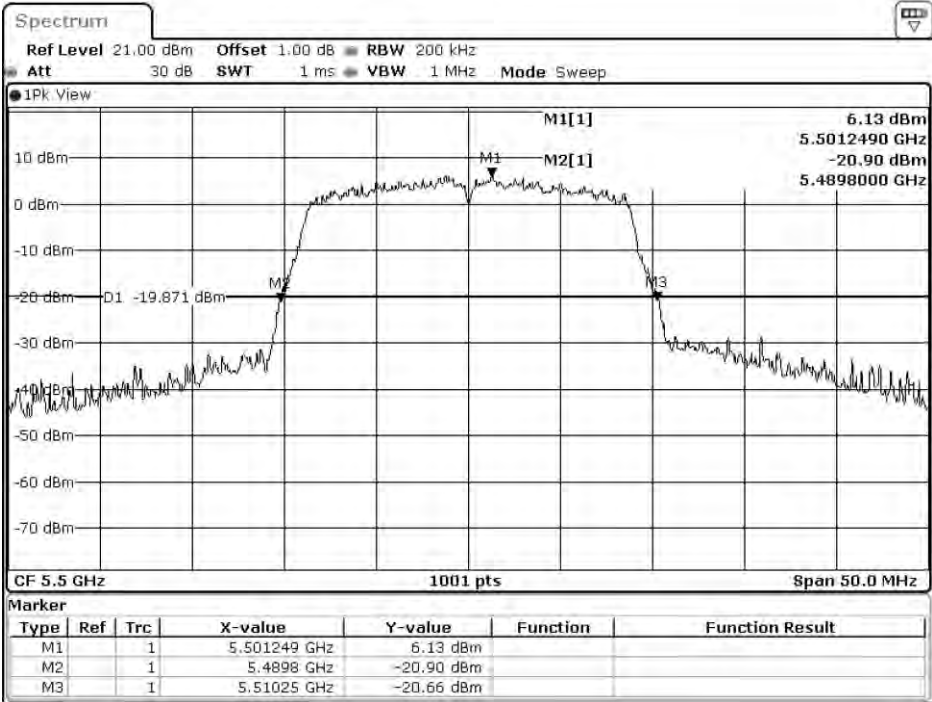
Date: 13.AUG.2021 07:28:32

Channel 64 (Chain B)



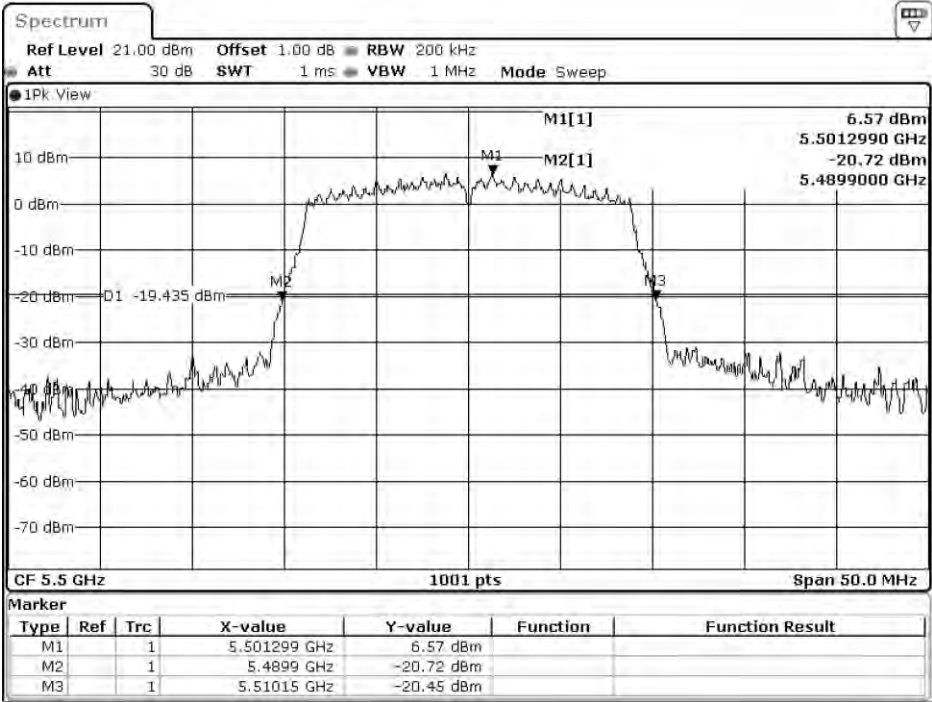
Date: 10.AUG.2021 06:09:04

Channel 100 (Chain A)



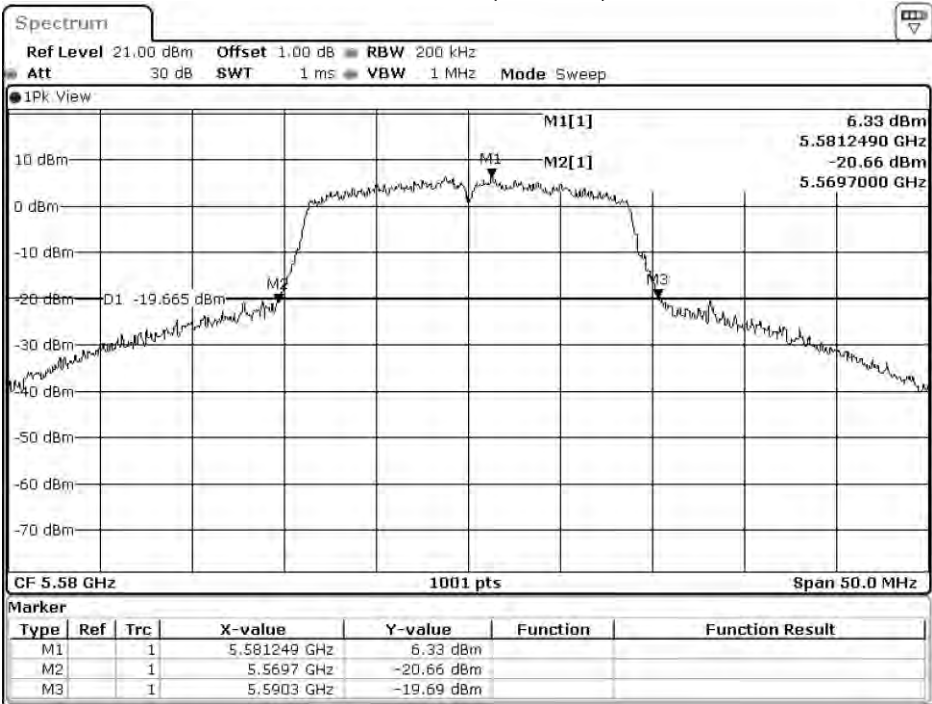
Date: 13.AUG.2021 07:30:20

Channel 100 (Chain B)



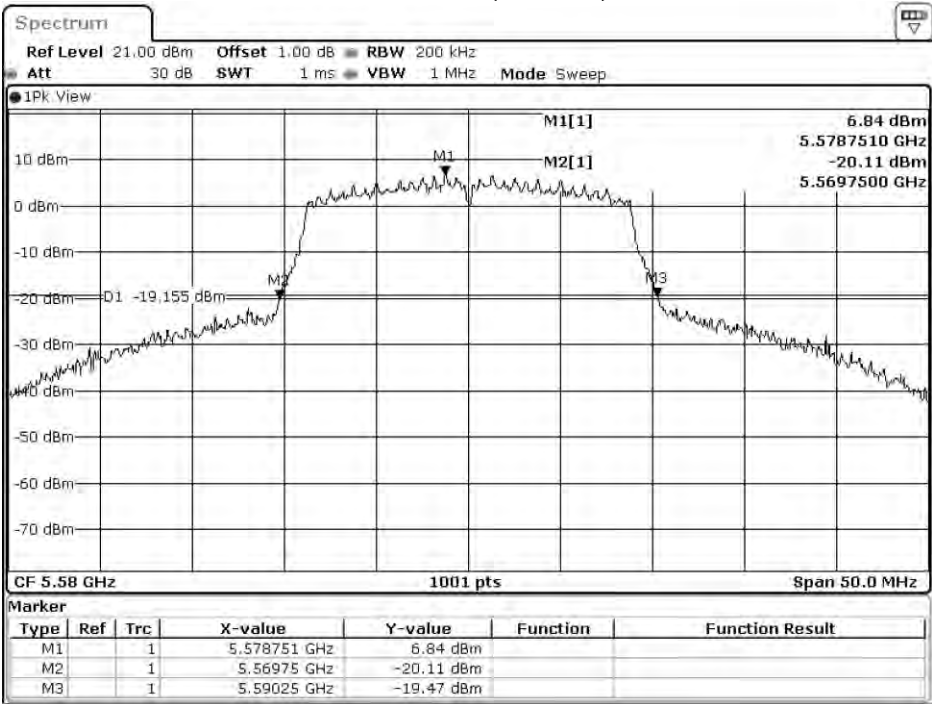
Date: 10.AUG.2021 06:11:47

Channel 116 (Chain A)



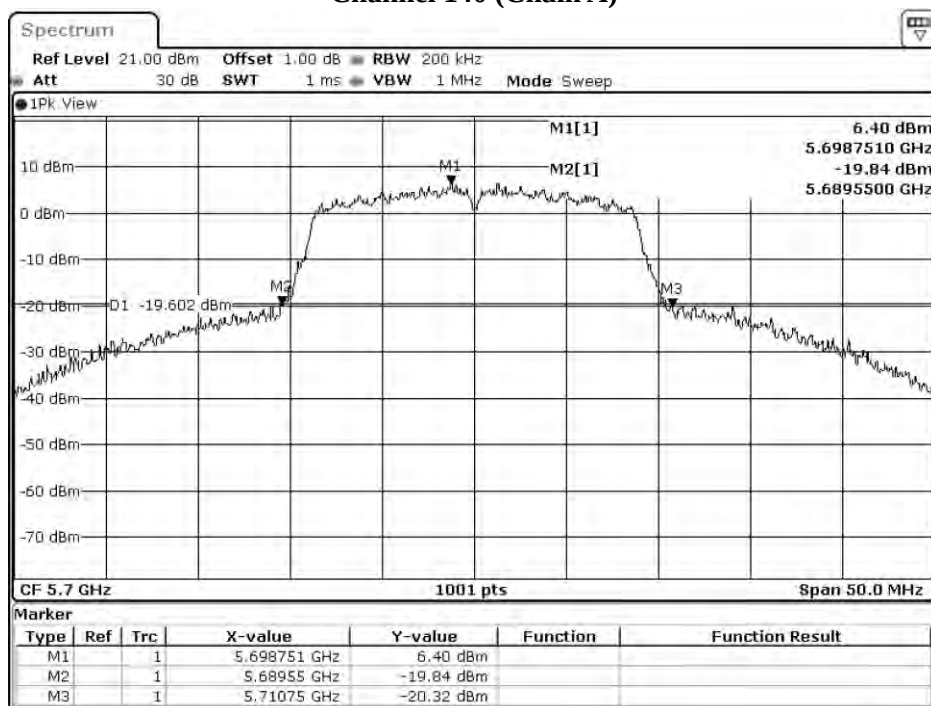
Date: 13.AUG.2021 07:32:45

Channel 116 (Chain B)



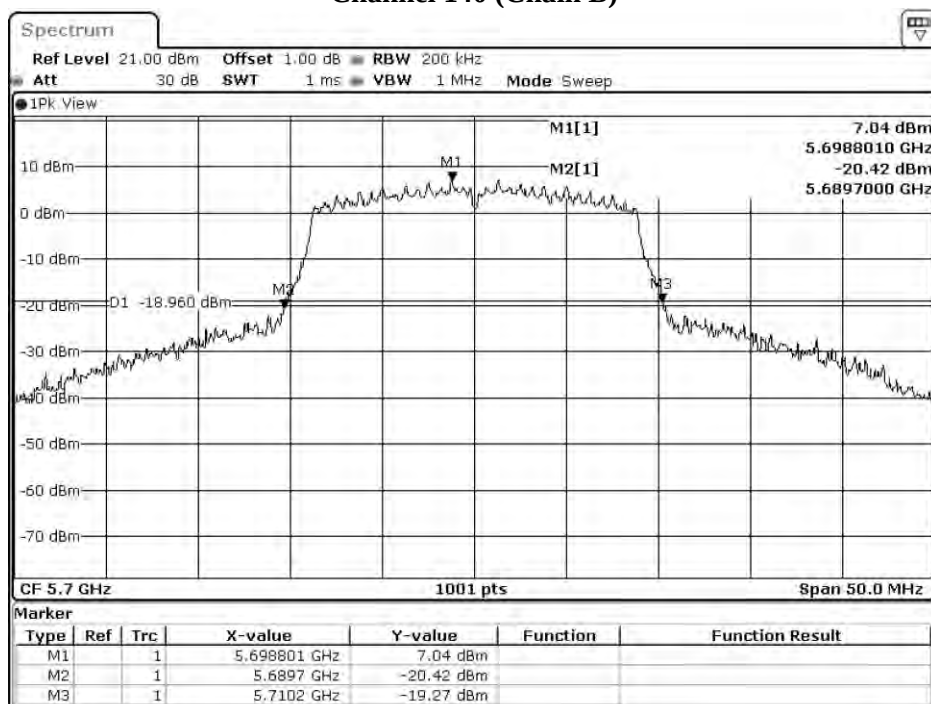
Date: 10.AUG.2021 06:16:17

Channel 140 (Chain A)



Date: 13.AUG.2021 07:35:59

Channel 140 (Chain B)



Date: 10.AUG.2021 06:21:24

待測物名稱：BT/Wi-Fi Module

待測物型號：MW510

測試項目：峰值發射功率

測試頻道：--

測試模式：Mode 1: 發射器 802.11ac-40BW

測試日期：110年08月11日

檢測器：峰值

Chain A

Cable loss=1.0dB		Maximum conducted output power											
Channel No.	Frequency (MHz)	Data Rate											
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9	MCS10	MCS11
38	5190	13.29	--	--	--	--	--	--	--	--	38	5190	13.29
46	5230	15.18	15.08	14.99	14.92	14.88	14.79	14.7	14.61	14.57	46	5230	15.18
54	5270	15.08	--	--	--	--	--	--	--	--	54	5270	15.08
62	5310	13.16	13.13	13.08	13.03	12.98	12.94	12.89	12.85	12.78	62	5310	13.16
102	5510	14.14	--	--	--	--	--	--	--	--	102	5510	14.14
110	5550	15.15	15.1	15	14.94	14.9	14.81	14.78	14.75	14.66	110	5550	15.15
134	5670	14.66	--	--	--	--	--	--	--	--	134	5670	14.66
151	5755	15.03	--	--	--	--	--	--	--	--	151	5755	15.03
159	5795	15.06	15	14.94	14.91	14.81	14.74	14.64	14.54	14.44	159	5795	15.06

Chain B

Cable loss=1.0dB		Maximum conducted output power											
Channel No.	Frequency (MHz)	Data Rate											
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9	MCS10	MCS11
38	5190	13.2	--	--	--	--	--	--	--	--	38	5190	13.2
46	5230	15.28	15.21	15.14	15.08	15	14.96	14.9	14.81	14.73	46	5230	15.28
54	5270	15.26	--	--	--	--	--	--	--	--	54	5270	15.26
62	5310	13.17	13.11	13.08	13.05	13.01	12.96	12.90	12.85	12.80	62	5310	13.17
102	5510	14.65	--	--	--	--	--	--	--	--	102	5510	14.65
110	5550	15.52	15.49	15.42	15.35	15.32	15.24	15.16	15.13	15.03	110	5550	15.52
134	5670	14.96	--	--	--	--	--	--	--	--	134	5670	14.96
151	5755	15.14	--	--	--	--	--	--	--	--	151	5755	15.14
159	5795	15.4	15.35	15.27	15.17	15.13	15.09	15.03	14.94	14.88	159	5795	15.4

Maximum conducted output power Measurement:

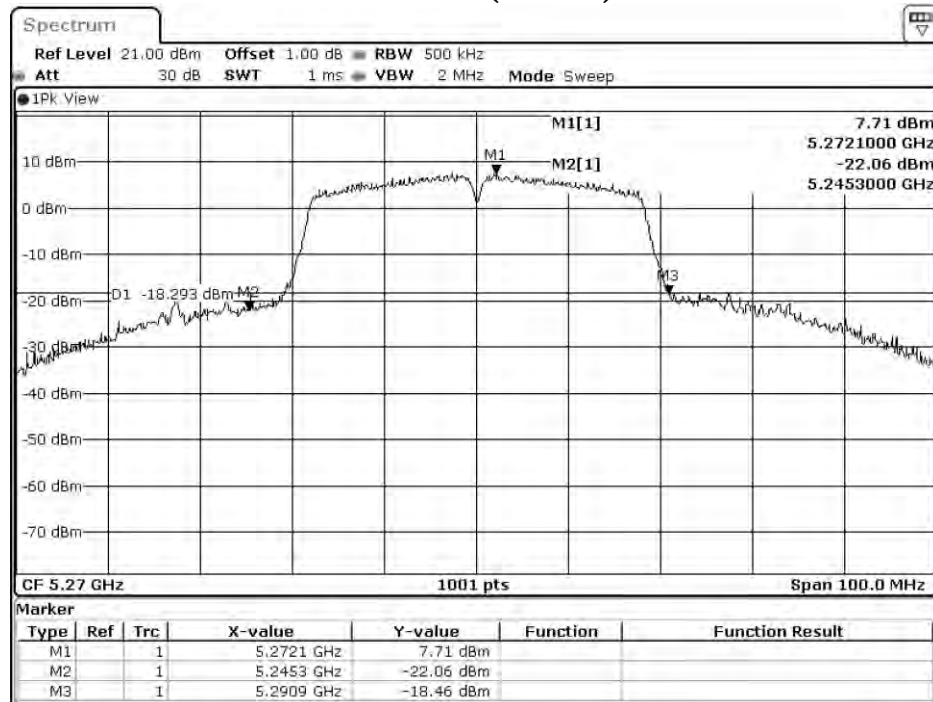
Channel Number	Frequency	26dB Bandwidth	Chain A Power	Chain B Power	Output Power	Output Power Limit	
	(MHz)	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	dBm+10log(BW)
38	5190	--	13.29	13.20	16.26	24	--
46	5230	--	15.18	15.28	18.24	24	--
54	5270	41.20	15.08	15.26	18.18	24	27.15
62	5310	40.90	13.16	13.17	16.18	24	27.12
102	5510	40.90	14.14	14.65	17.41	24	27.12
110	5550	41.30	15.15	15.52	18.35	24	27.16
134	5670	40.90	14.66	14.96	17.82	24	27.12
151	5755	--	15.03	15.14	18.10	30	--
159	5795	--	15.06	15.40	18.24	30	--

Note:

1. Output Power (dBm) = 10LOG (Chain A Power (mW)+ Chain B Power (mW))
2. 26dB Bandwidth is the bandwidth of chain A or chain B whichever is less bandwidth, output power limitation is more stringent.

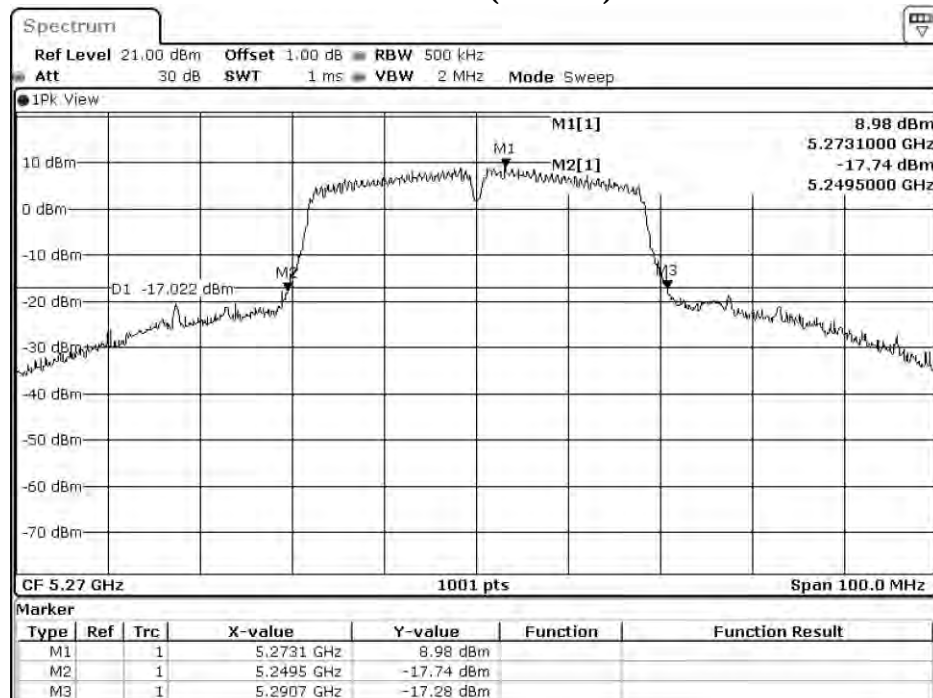
26dB Occupied Bandwidth:

Channel 54 (Chain A)



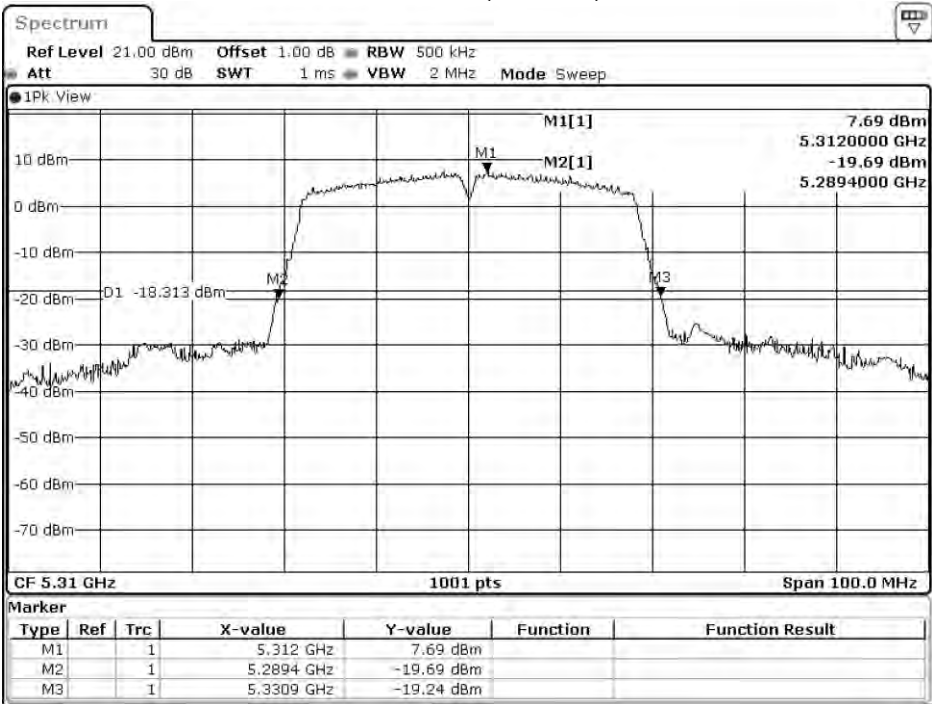
Date: 13.AUG.2021 07:42:12

Channel 54 (Chain B)



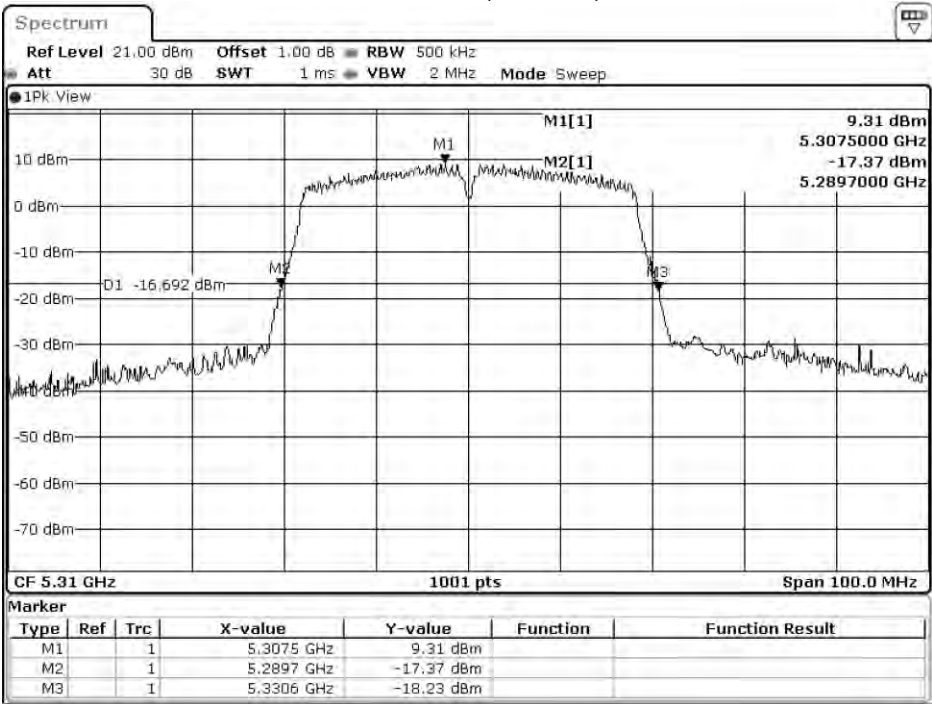
Date: 10.AUG.2021 06:27:27

Channel 62 (Chain A)



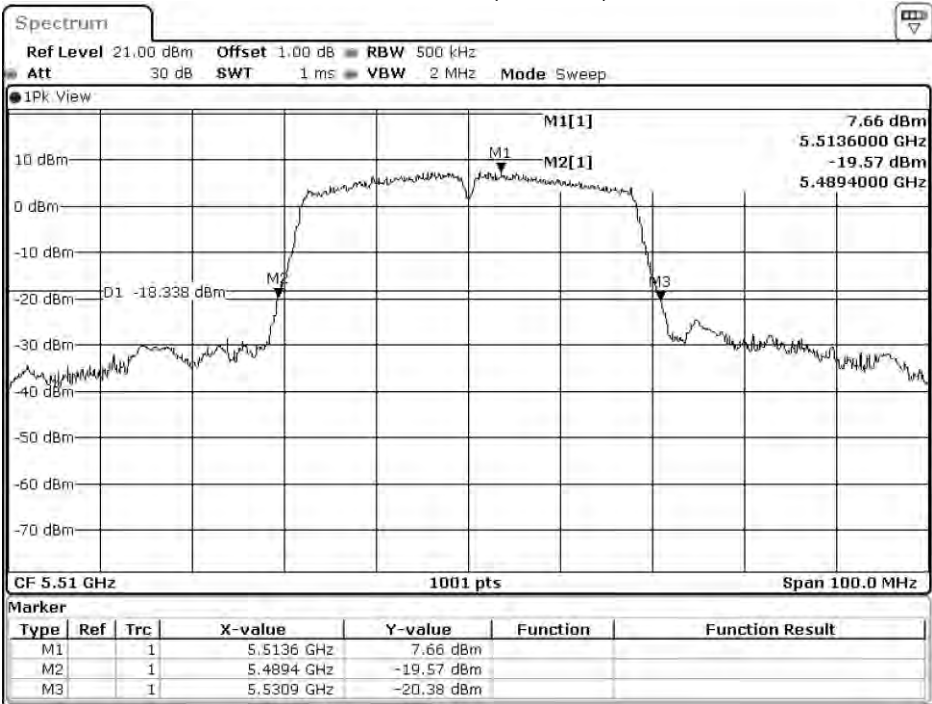
Date: 13.AUG.2021 07:44:01

Channel 62 (Chain B)



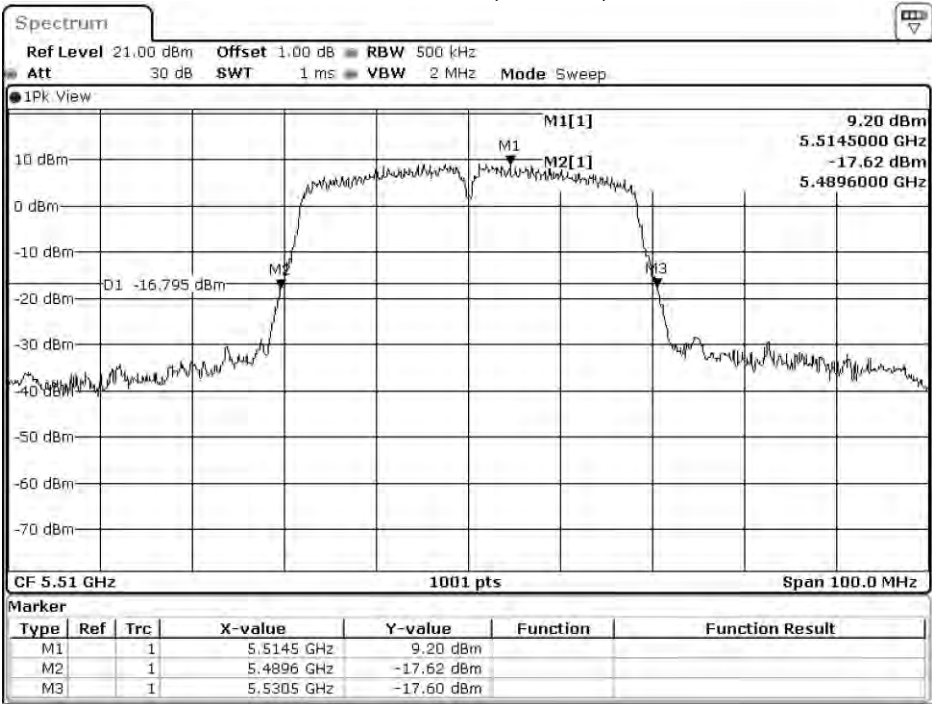
Date: 10.AUG.2021 06:29:05

Channel 102 (Chain A)



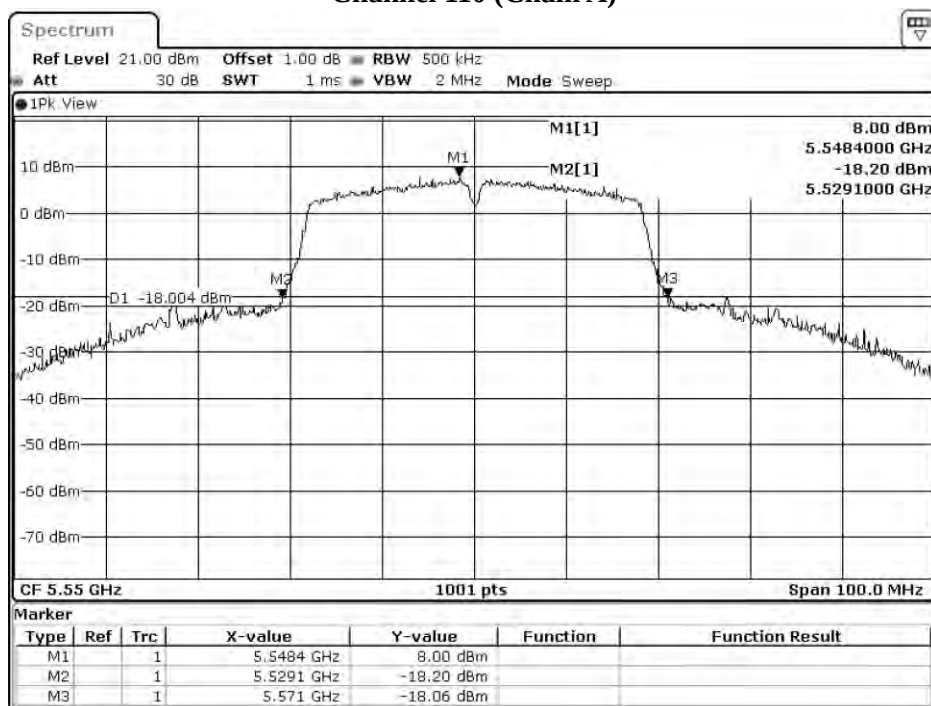
Date: 13.AUG.2021 07:45:49

Channel 102 (Chain B)



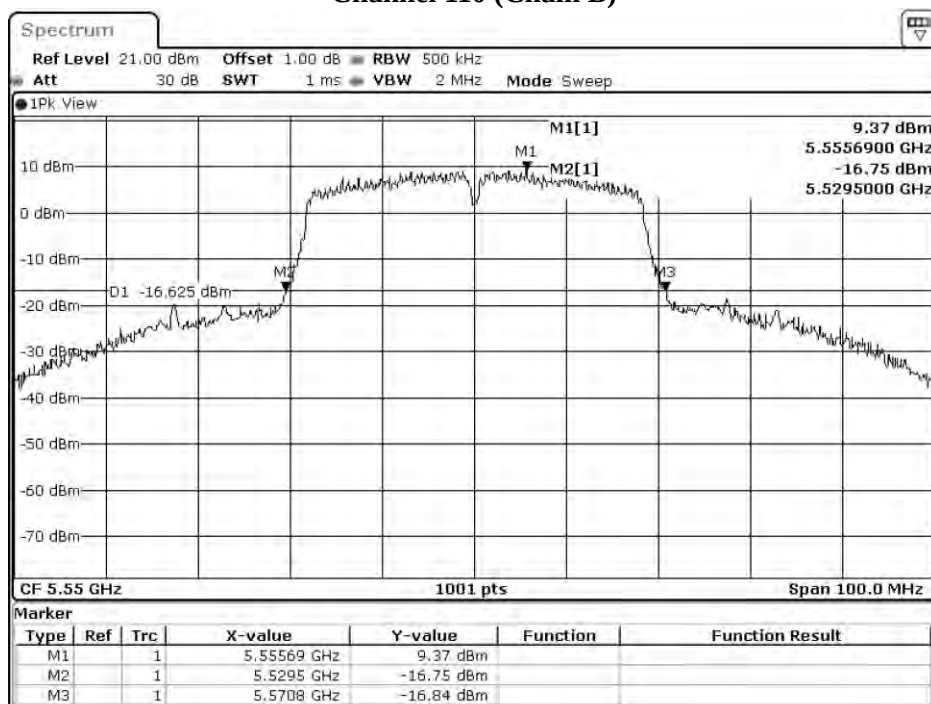
Date: 10.AUG.2021 06:56:20

Channel 110 (Chain A)



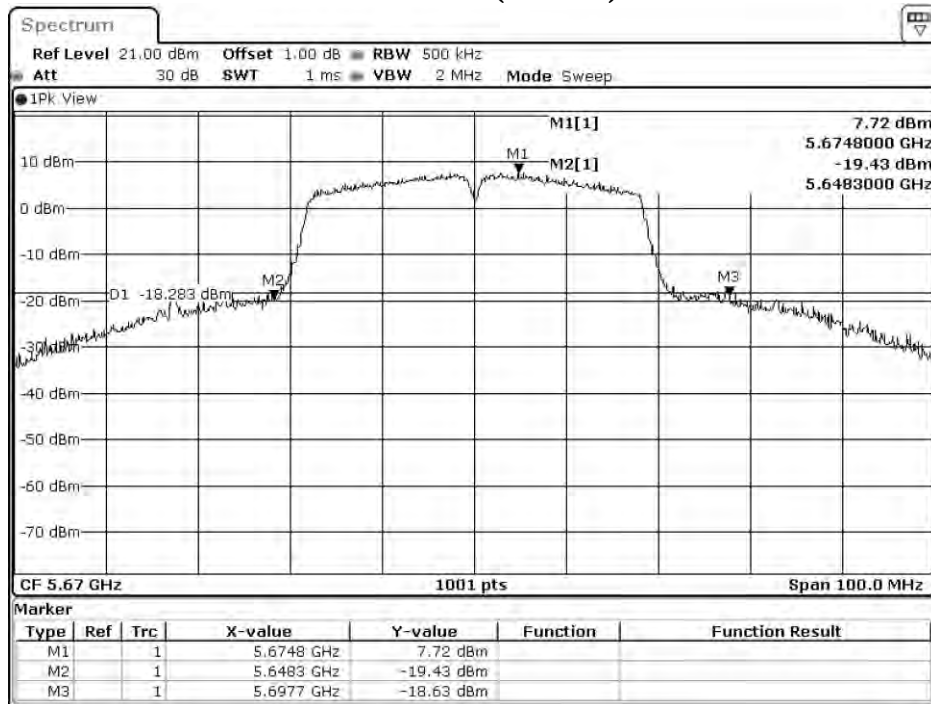
Date: 13.AUG.2021 07:47:37

Channel 110 (Chain B)



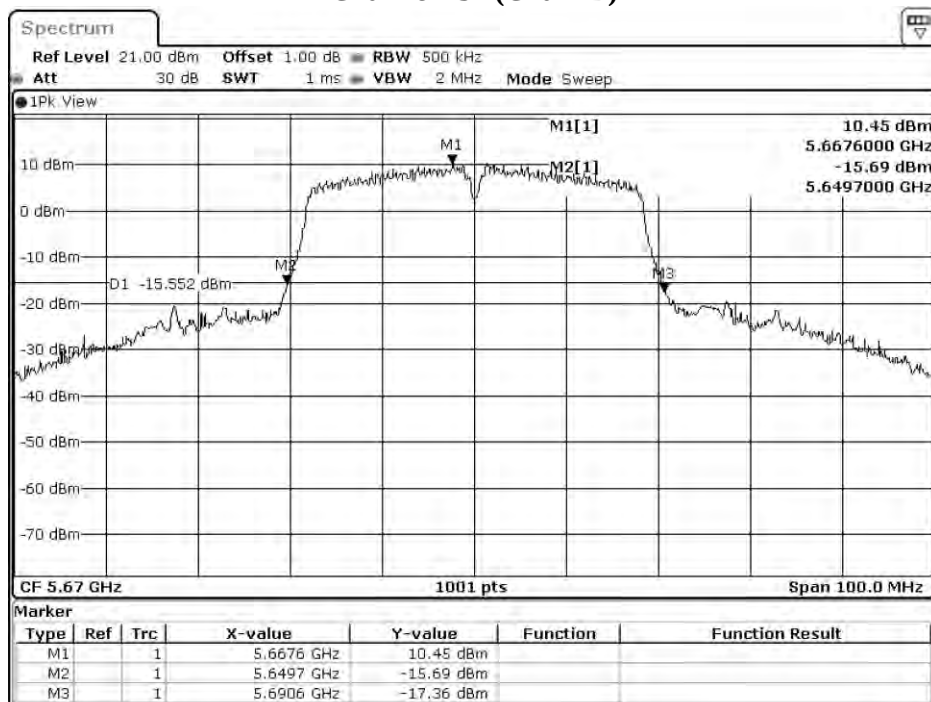
Date: 10.AUG.2021 06:58:07

Channel 134 (Chain A)



Date: 13.AUG.2021 07:49:17

Channel 134 (Chain B)



Date: 10.AUG.2021 07:01:40

待測物名稱：BT/Wi-Fi Module

待測物型號：MW510

測試項目：峰值發射功率

測試頻道：--

測試模式：Mode 1: 發射器 802.11ac-80BW

測試日期：110年08月11日

檢測器：峰值

Chain A

Cable loss=1.0dB		Maximum conducted output power									
Channel No	Frequency (MHz)	Data Rate (Mbps)									
		VTH0	VTH1	VTH2	VTH3	VTH4	VTH5	VTH6	VTH7	VTH8	VTH9
42	5210	11.79	--	--	--	--	--	--	--	--	--
58	5290	11.12	11.09	11.02	10.95	10.92	10.86	10.81	10.77	10.71	10.67
106	5530	12.13	--	--	--	--	--	--	--	--	--
122	5610	15.14	15.09	15.05	14.97	14.9	14.81	14.72	14.62	14.56	14.53
138 (U-NII-2C)	5690	14.93	--	--	--	--	--	--	--	--	--
138 (U-NII-3)	5690	-1.02	--	--	--	--	--	--	--	--	--
155	5775	14.93	--	--	--	--	--	--	--	--	--

Chain B

Cable loss=1.0dB		Maximum conducted output power									
Channel No	Frequency (MHz)	Data Rate (Mbps)									
		VTH0	VTH1	VTH2	VTH3	VTH4	VTH5	VTH6	VTH7	VTH8	VTH9
42	5210	11.93	--	--	--	--	--	--	--	--	--
58	5290	11.08	11.03	10.98	10.95	10.89	10.84	10.79	10.73	10.68	10.63
106	5530	12.46	--	--	--	--	--	--	--	--	--
122	5610	15.34	15.24	15.18	15.1	15.02	14.95	14.88	14.81	14.77	14.69
138 (U-NII-2C)	5690	15.02	--	--	--	--	--	--	--	--	--
138 (U-NII-3)	5690	3.00	--	--	--	--	--	--	--	--	--
155	5775	15.15	--	--	--	--	--	--	--	--	--

Maximum conducted output power Measurement:

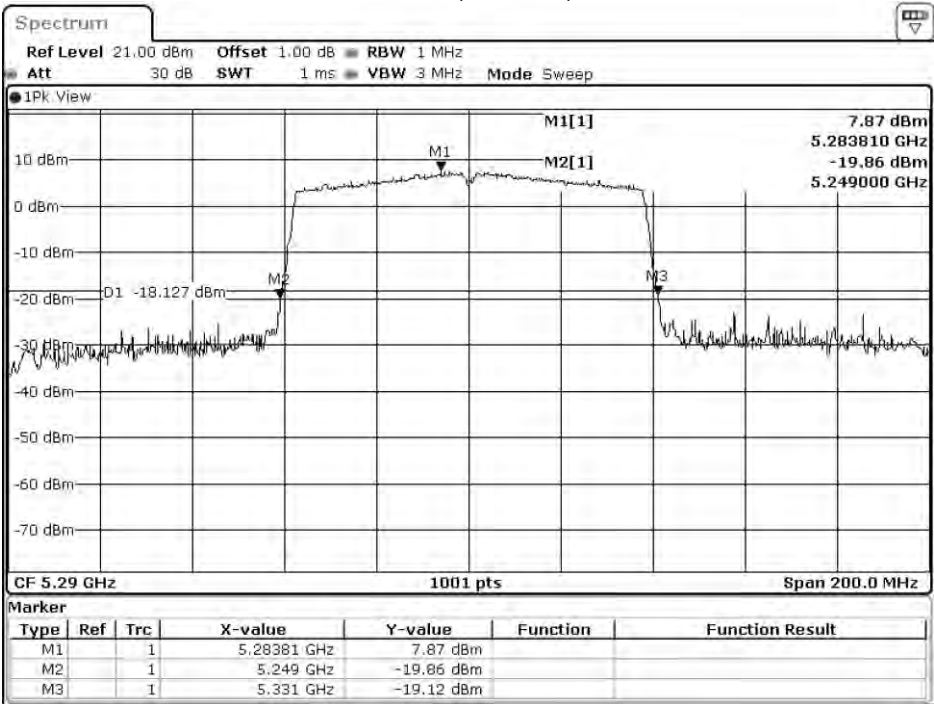
Channel No	Frequency Range	26dB Bandwidth	Chain A Power	Chain B Power	Output Power	Duty factor	Output Power Limit		Result
	(MHz)	(MHz)	(dBm)	(dBm)	(dBm)	(db)	(dBm)	dBm+10log(BW)	
42	5210	--	11.79	11.93	14.87	--	24	--	Pass
58	5290	81.40	11.12	11.08	14.11	--	24	--	Pass
106	5530	81.20	12.13	12.46	15.31	--	24	30.10	Pass
122	5610	81.60	15.14	15.34	18.25	--	24	30.12	Pass
138 (U-NII-2C)	5690	75.60	14.93	15.02	18.90	0.91	24	29.79	Pass
138 (U-NII-3)	5690	--	-1.02	3.00	5.36	0.91	30	--	Pass
155	5775	--	14.93	15.15	18.05	--	30	--	Pass

Note:

1. Output Power (dBm) = 10LOG (Chain A Power (mW)+ Chain B Power (mW))
2. 26dB Bandwidth is the bandwidth of chain A or chain B whichever is less bandwidth, output power limitation is more stringent.

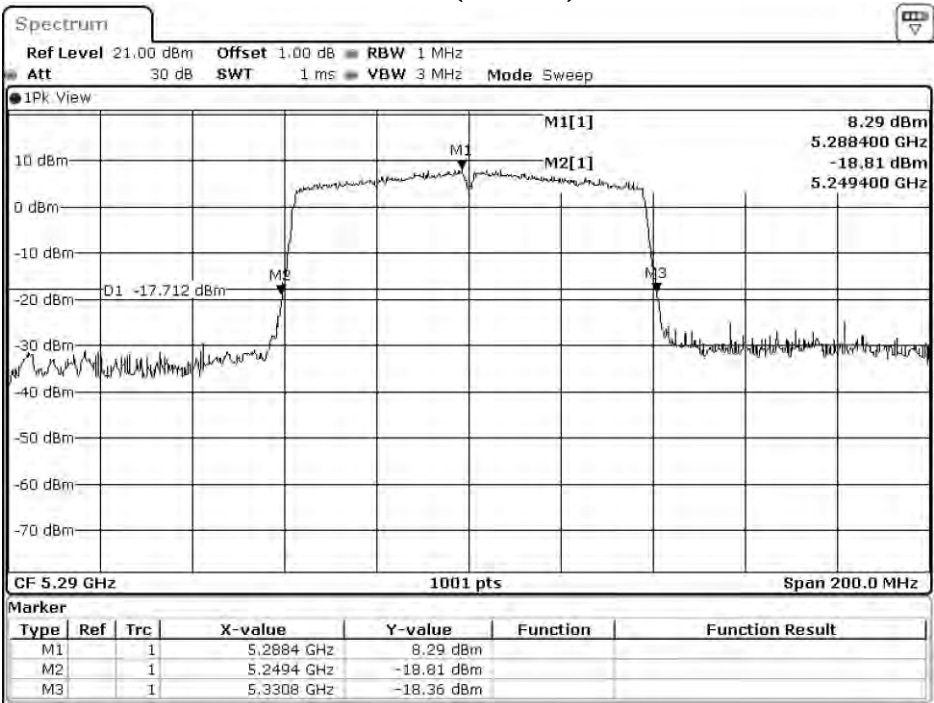
26dB Occupied Bandwidth:

Channel 58 (Chain A)



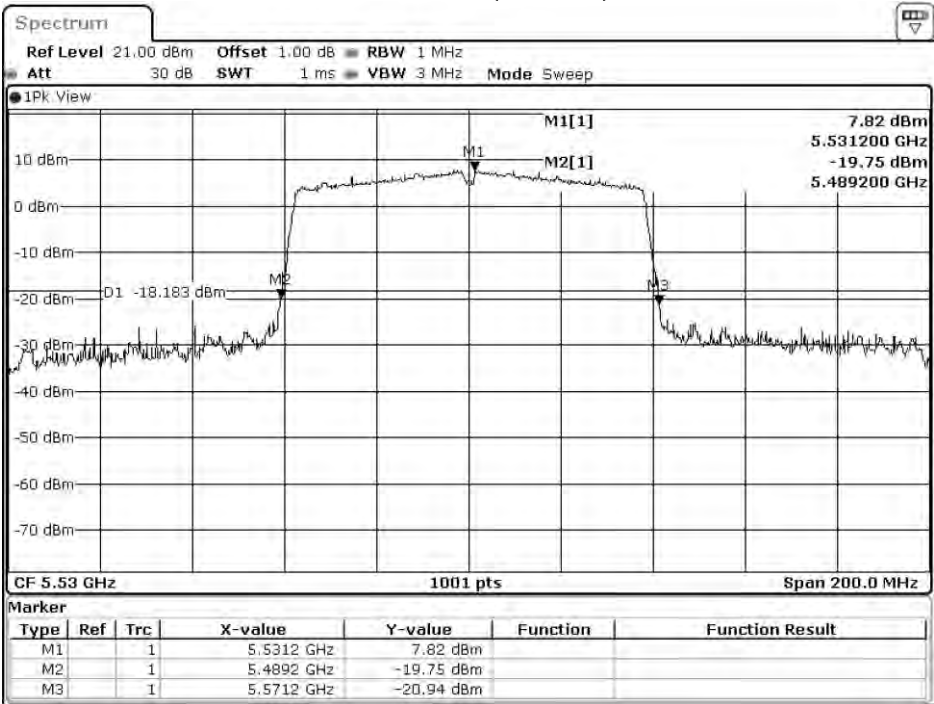
Date: 13.AUG.2021 07:06:52

Channel 58 (Chain B)



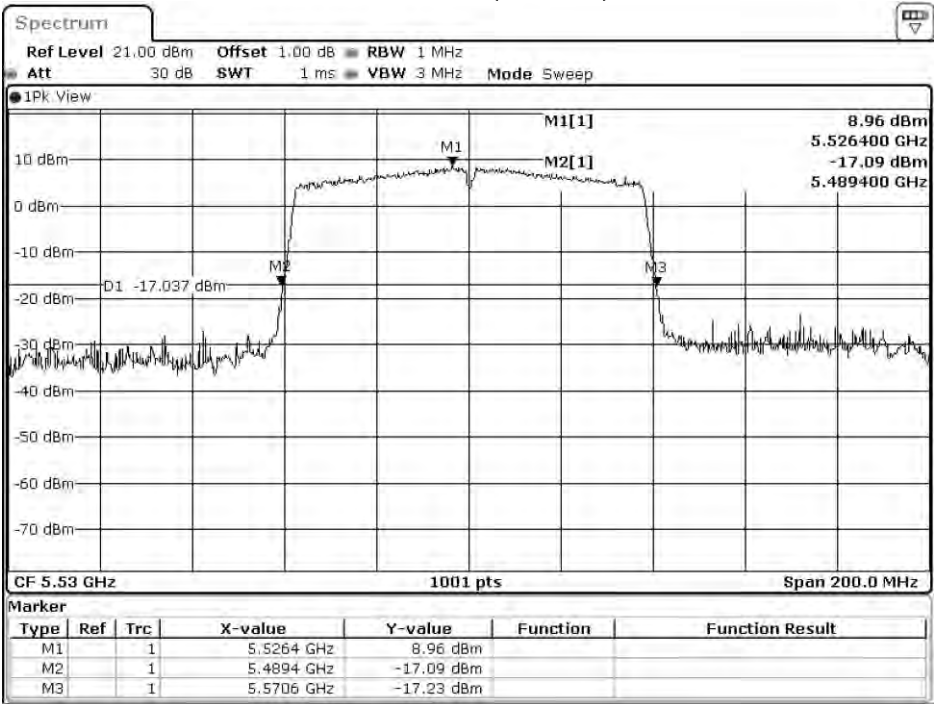
Date: 10.AUG.2021 05:09:49

Channel 106 (Chain A)



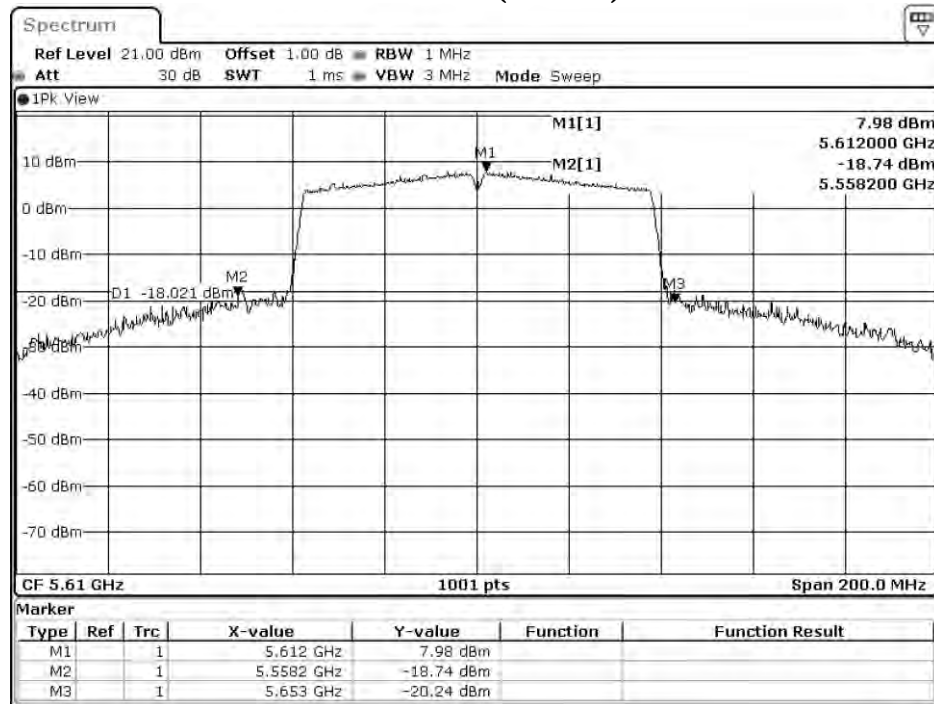
Date: 13.AUG.2021 07:09:02

Channel 106 (Chain B)



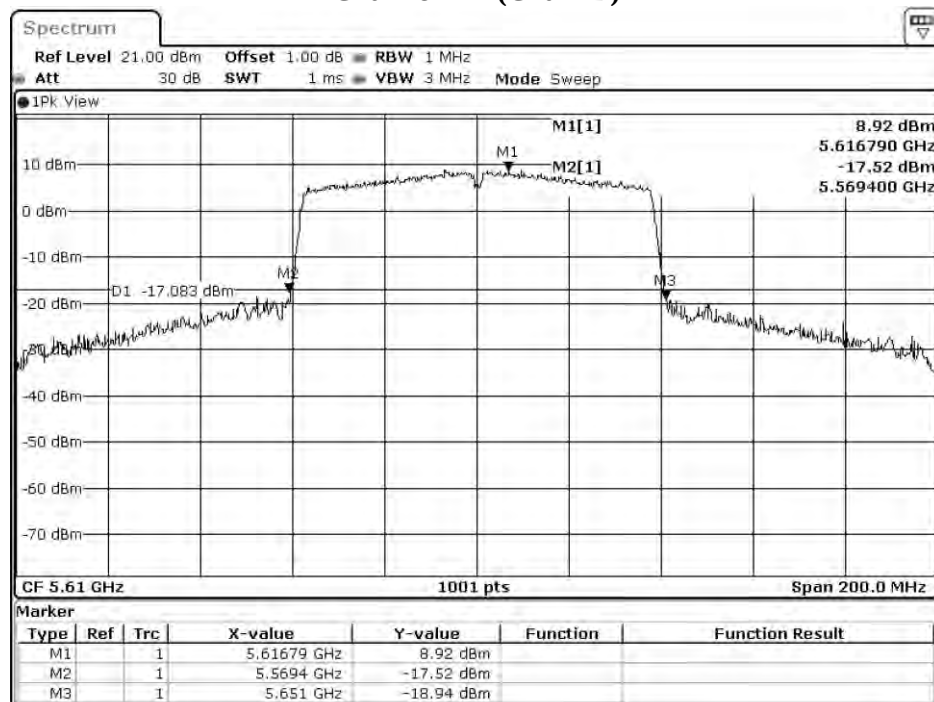
Date: 10.AUG.2021 05:11:49

Channel 122 (Chain A)



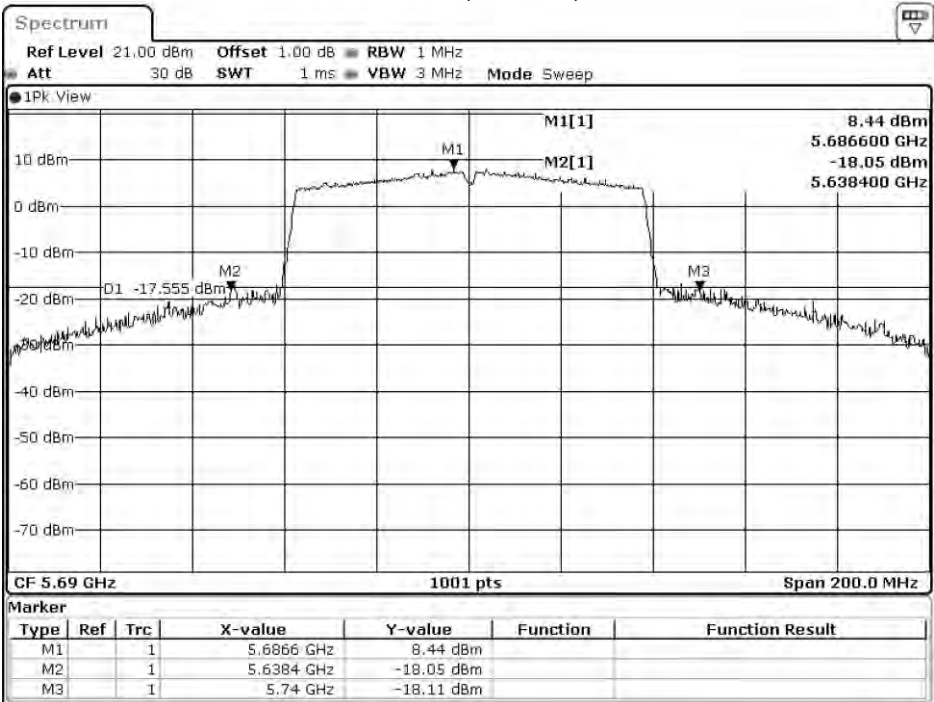
Date: 13.AUG.2021 07:13:15

Channel 122 (Chain B)



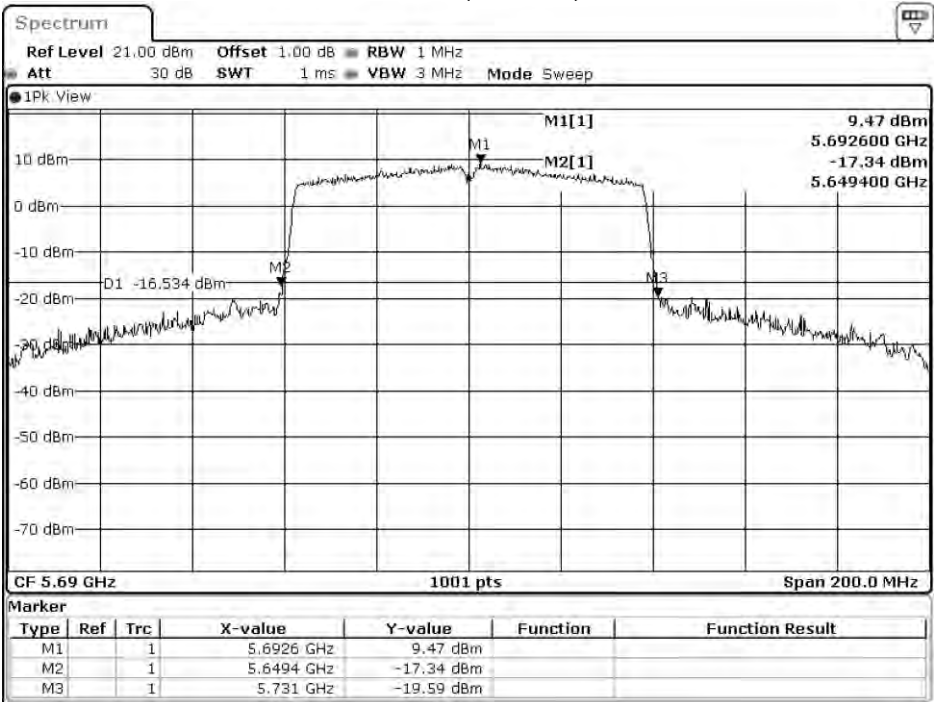
Date: 10.AUG.2021 05:14:01

Channel 138 (Chain A)



Date: 13.AUG.2021 07:14:54

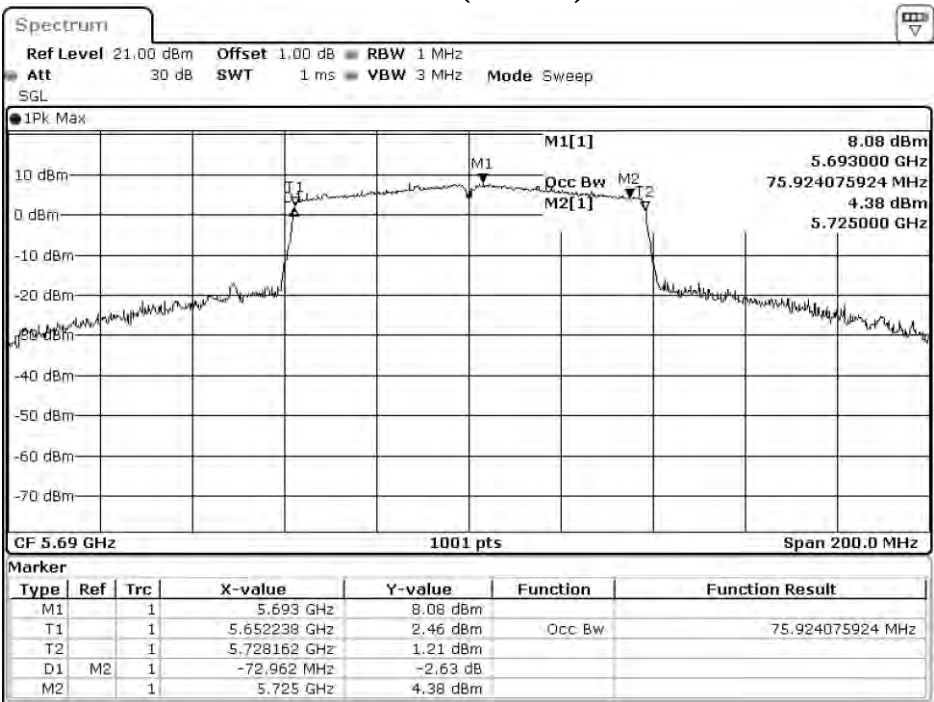
Channel 138 (Chain B)



Date: 10.AUG.2021 05:17:36

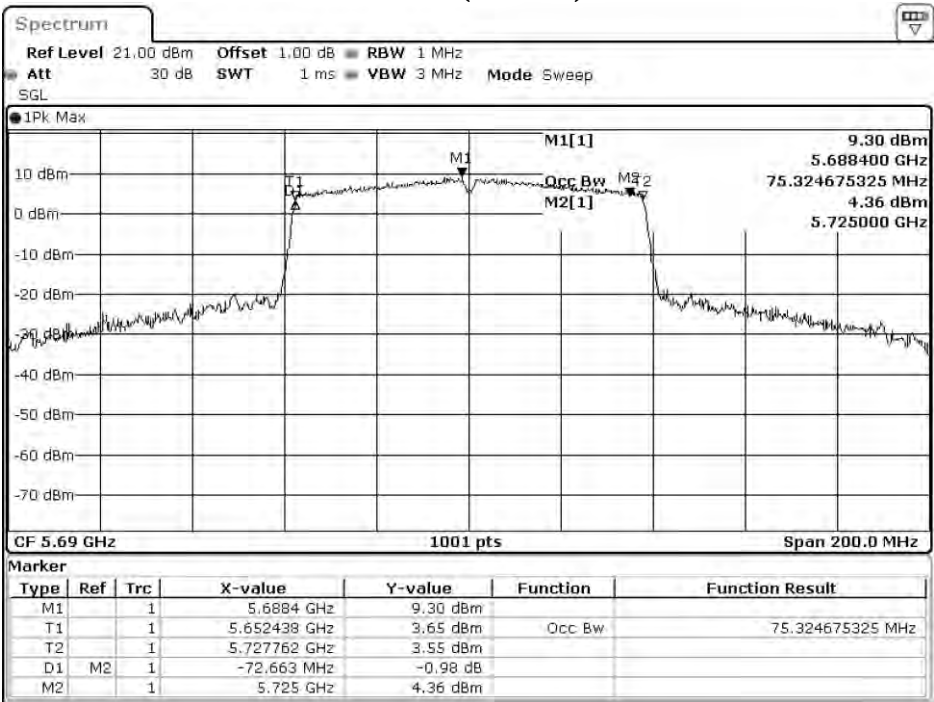
99% Occupied Bandwidth:

Channel 138 (Chain A)



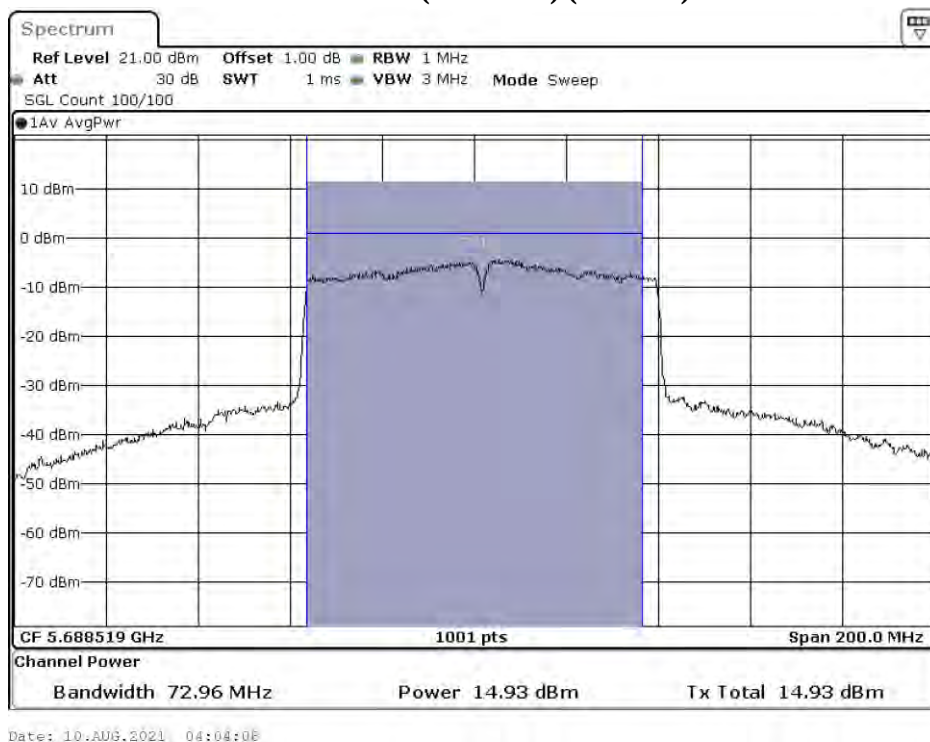
Date: 13.AUG.2021 07:14:15

Channel 138 (Chain B)

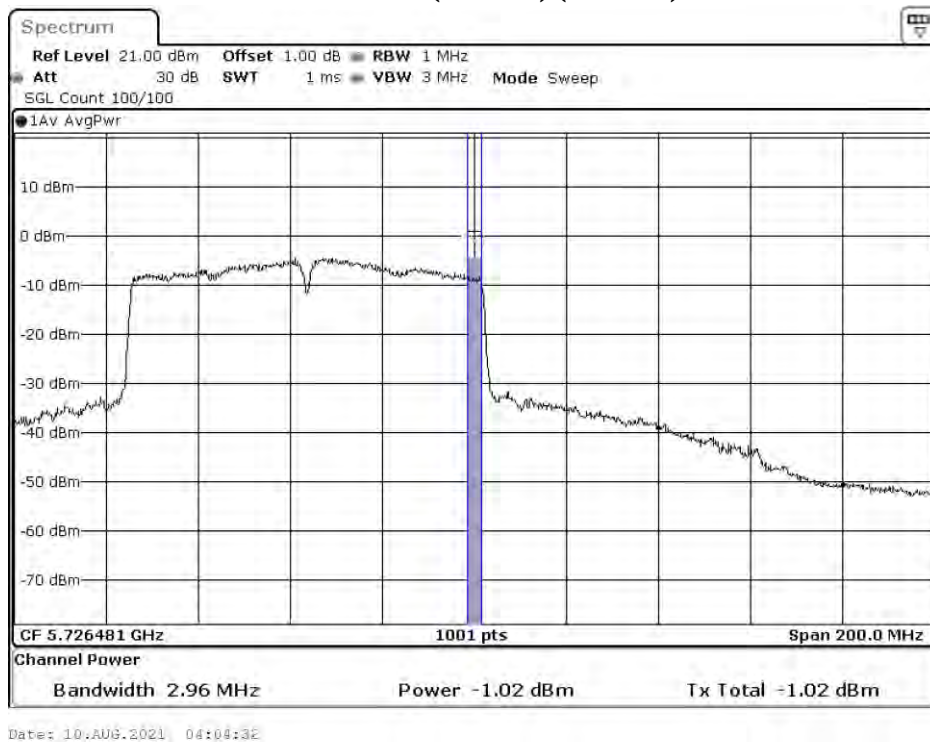


Date: 10.AUG.2021 05:16:54

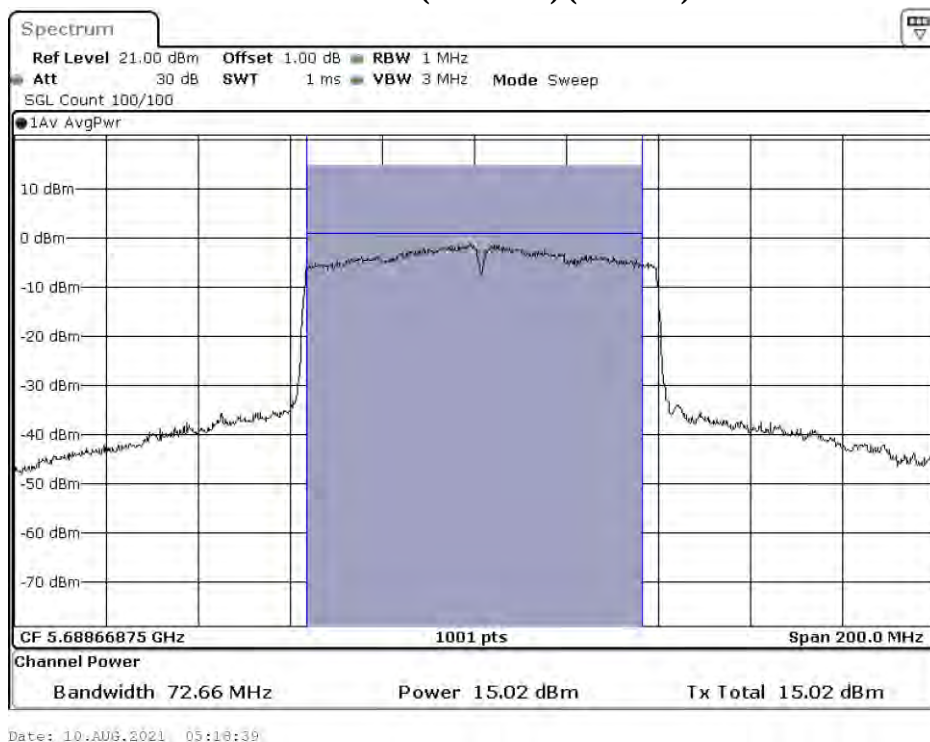
Maximum conducted output power:
Channel 138 (U-NII-2C) (Chain A)



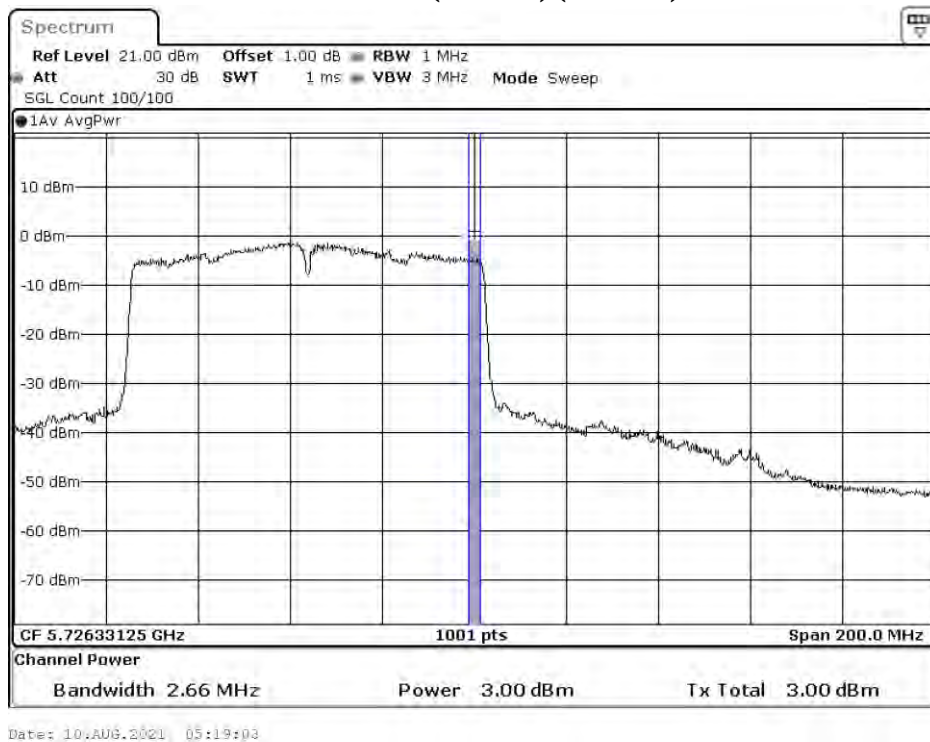
Maximum conducted output power:
Channel 138 (U-NII-3) (Chain A)



Maximum conducted output power:
Channel 138 (U-NII-2C) (Chain B)



Maximum conducted output power:
Channel 138 (U-NII-3) (Chain B)



峰值發射功率測試結果:

PASS

6. 峰值功率頻譜密度

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 5.7.3 節

5.7.3.1 使用於 5.15 GHz~5.25 GHz 頻段

(1) 供戶外操作使用:

- (A) 最大傳導輸出功率應小於或等於 1 W。
- (B) 在任何 1 MHz 頻帶中最大功率頻譜密度應小於或等於 17 dBm。
- (C) 使用超過 6 dBi 方向增益之發射天線時，應依超過 6 dBi 天線方向增益的 dBi 總量，等量減少最大傳導輸出功率及最大功率頻譜密度。
- (D) 在水平面仰角超過 30 度時，其最大 EIRP 應小於或等於 21 dBm。

(2) 供室內操作使用:

- (A) 最大傳導輸出功率應小於或等於 1 W。
- (B) 在任何 1 MHz 頻帶中最大功率頻譜密度應小於或等於 17 dBm。
- (C) 使用超過 6 dBi 方向增益之發射天線時，應依超過 6 dBi 天線方向增益的 dBi 總量，等量減少最大傳導輸出功率及最大功率頻譜密度。

(3) 供固定式點對點操作使用:

- (A) 最大傳導輸出功率應小於或等於 1 W。
- (B) 在任何 1 MHz 頻帶中最大功率頻譜密度應小於或等於 17 dBm。
- (C) 使用超過 23 dBi 方向增益之指向性天線時，應依超過 23 dBi 天線方向增益的 dBi 總量，等量減少最大傳導輸出功率及最大功率頻譜密度。
- (D) 固定式點對點操作，不包括點對多點系統、全方向性應用及多台共站發射機傳送相同資訊。

(4) 供用戶端裝置(Client Device)操作使用:

- (A) 最大傳導輸出功率應小於或等於 250 mW。
- (B) 在任何 1 MHz 頻帶中最大功率頻譜密度應小於或等於 11 dBm。
- (C) 使用超過 6 dBi 方向增益之發射天線時，應依超過 6 dBi 天線方向增益的 dBi 總量，等量減少最大傳導輸出功率及最大功率頻譜密度。

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

- (1) 最大傳導輸出功率應小於或等於 250 mW 或 $11\text{dBm} + 10\log B$ (B 是 26 dB 發射頻寬，單位 MHz)之較小者。
- (2) 最大功率頻譜密度在任何 1 MHz 頻帶中應小於或等於 11 dBm。
- (3) 使用超過 6 dBi 方向增益之發射天線時，應依超過 6 dBi 天線方向增益的 dBi 總量，等量減少最大傳導輸出功率及最大功率頻譜密度。

5.7.3.3 使用頻率於 5.725 GHz~5.850 GHz 頻段

- (1) 最大傳導輸出功率應小於或等於 1 W。
- (2) 在任何 500 kHz 頻帶中最大功率頻譜密度應小於或等於 30 dBm。
- (3) 供固定式點對點操作時，使用方向增益超過 6 dBi 之發射天線，可不需對應減少發射器之傳導輸出功率限制值。
- (4) 除(3)外，使用超過 6 dBi 方向增益之發射天線時，應依超過 6 dBi 天線方向增益的 dBi 總量，等量減少最大傳導輸出功率及最大功率頻譜密度

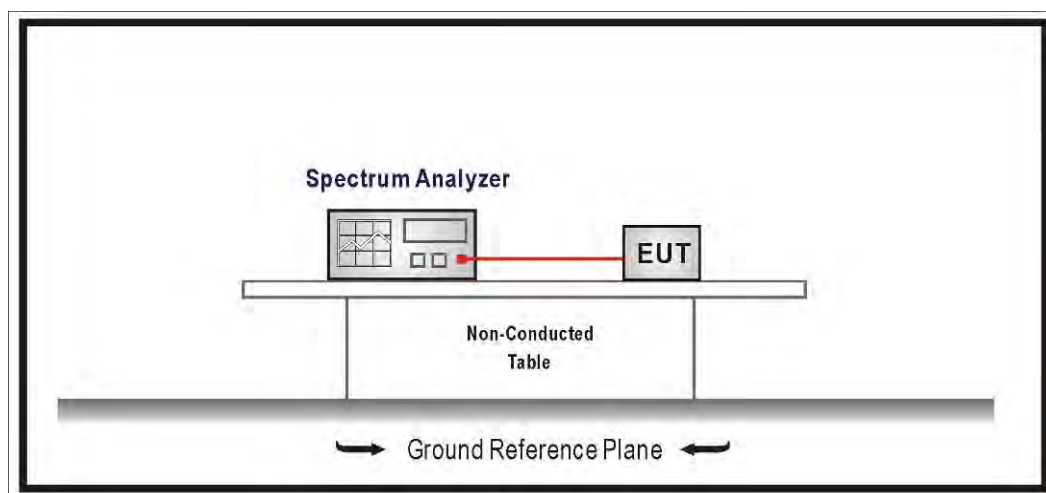
6.2. 量測方法

- (A) 應將測試儀器直接連接待測物，以傳導方式執行。
- (B) 5.15 GHz~5.25 GHz、5.25 GHz~5.35 GHz 及 5.47 GHz~5.725 GHz 頻段，測試儀器之頻寬應設定為 1 MHz 頻寬或待測物之 26 dB 發射頻寬，兩者取較小者。
- (C) 5.725 GHz~5.850 GHz 頻段，測試儀器之頻寬應設定為 500 kHz 或待測物之 26 dB 發射頻寬，兩者取較小者。
- (D) 解析頻寬小於(B)或(C)時，應以補償方式計算總功率頻譜密度。

For the band 5.725-5.85 GHz, Scale the observed power level to an equivalent value in 500 kHz by adjusting (increase) the measured power by a bandwidth correction factor (BWCF) where $BWCF = 10 \log (500 \text{ kHz} / 100 \text{ kHz}) = 6.98 \text{ dB}$.

If transmit duty cycle < 98%, then add duty factor = $10 \log (1/x)$, where x is the duty cycle (section 12)

6.3. 測試架構圖



6.4. 峰值功率頻譜密度測試結果

待測物名稱：BT/Wi-Fi Module

待測物型號：MW510

測試頻道：--

測試日期：110年08月11日

測試項目：峰值功率頻譜密度

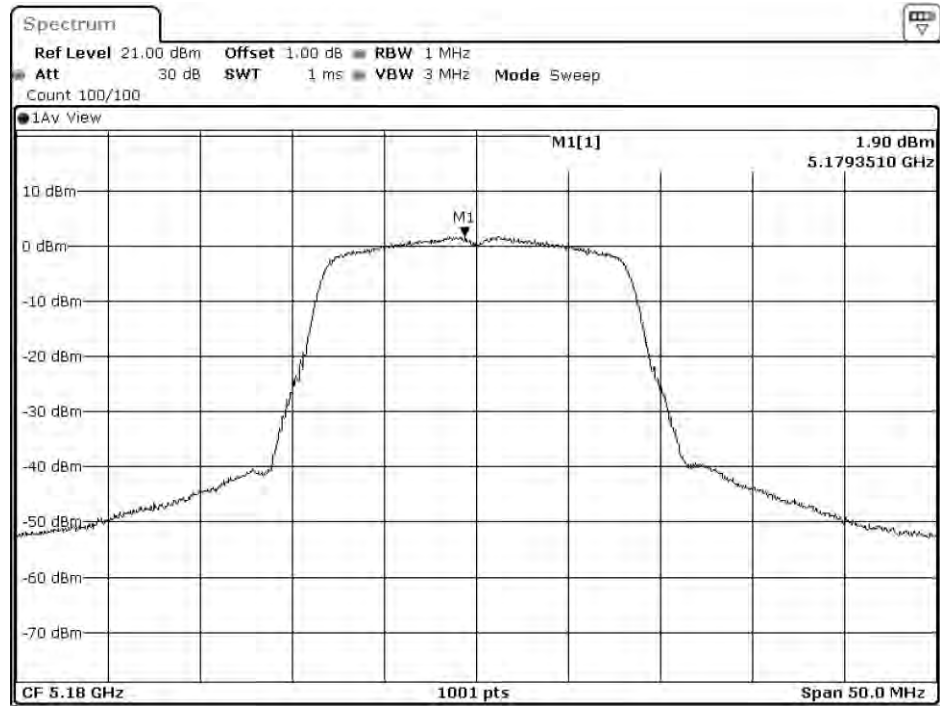
測試模式：Mode 1: 發射器 802.11a

檢測器：峰值

Channel Number	Frequency (MHz)	PPSD (dBm)	Duty factor (dB)	Total PPSD/MHz (dBm)	Required Limit (dBm)	Result
36	5180	1.90	0.14	2.04	<11	Pass
44	5220	1.47	0.14	1.61	<11	Pass
48	5240	0.91	0.14	1.05	<11	Pass
52	5260	1.14	0.14	1.28	<11	Pass
60	5300	1.07	0.14	1.21	<11	Pass
64	5320	0.95	0.14	1.09	<11	Pass
100	5500	1.38	0.14	1.52	<11	Pass
116	5580	1.16	0.14	1.30	<11	Pass
140	5700	1.83	0.14	1.97	<11	Pass

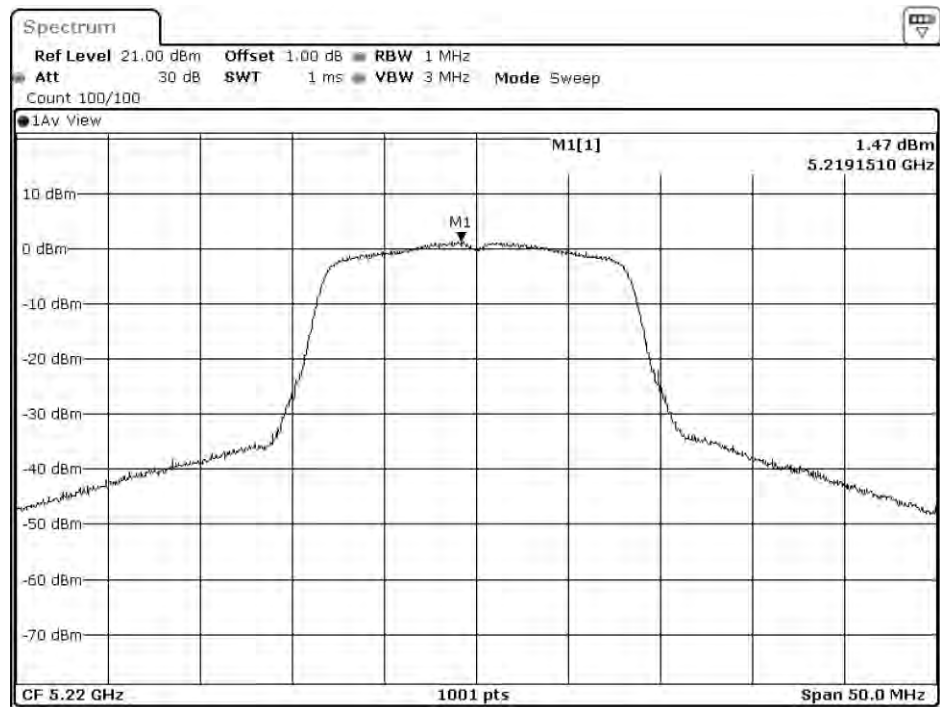
Channel Number	Frequency (MHz)	PPSD (dBm)	BWCF (dB)	Duty factor (dB)	Total PPSD (dBm)	Required Limit (dBm)	Result
149	5745	-6.70	6.98	0.14	0.42	<30	Pass
157	5785	-6.91	6.98	0.14	0.21	<30	Pass
165	5825	-6.53	6.98	0.14	0.59	<30	Pass

Channel 36



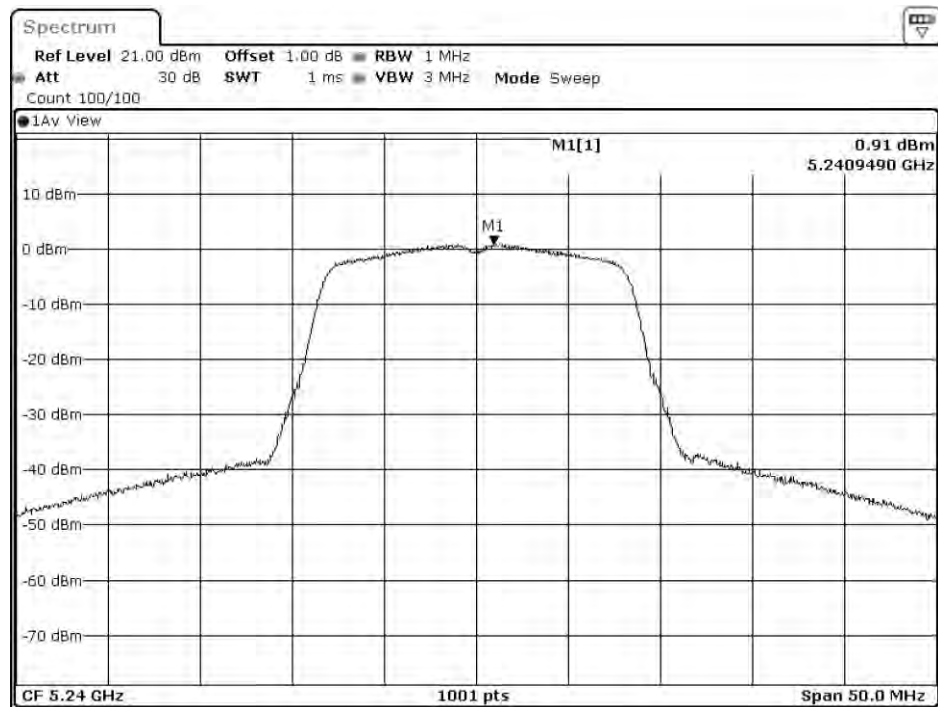
Date: 10.AUG.2021 02:46:53

Channel 44



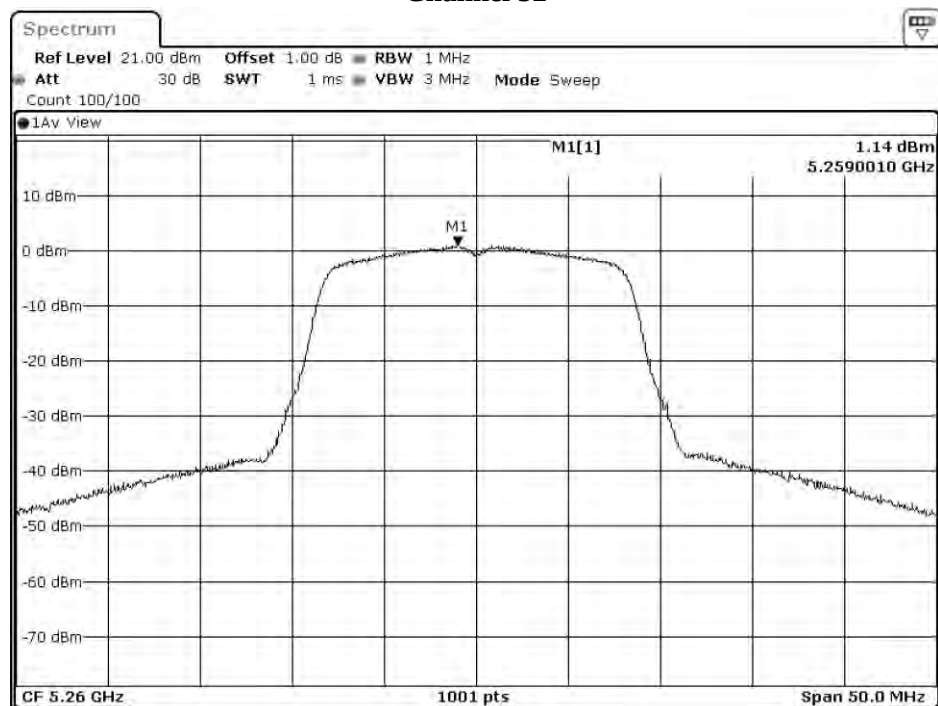
Date: 10.AUG.2021 02:48:27

Channel 48



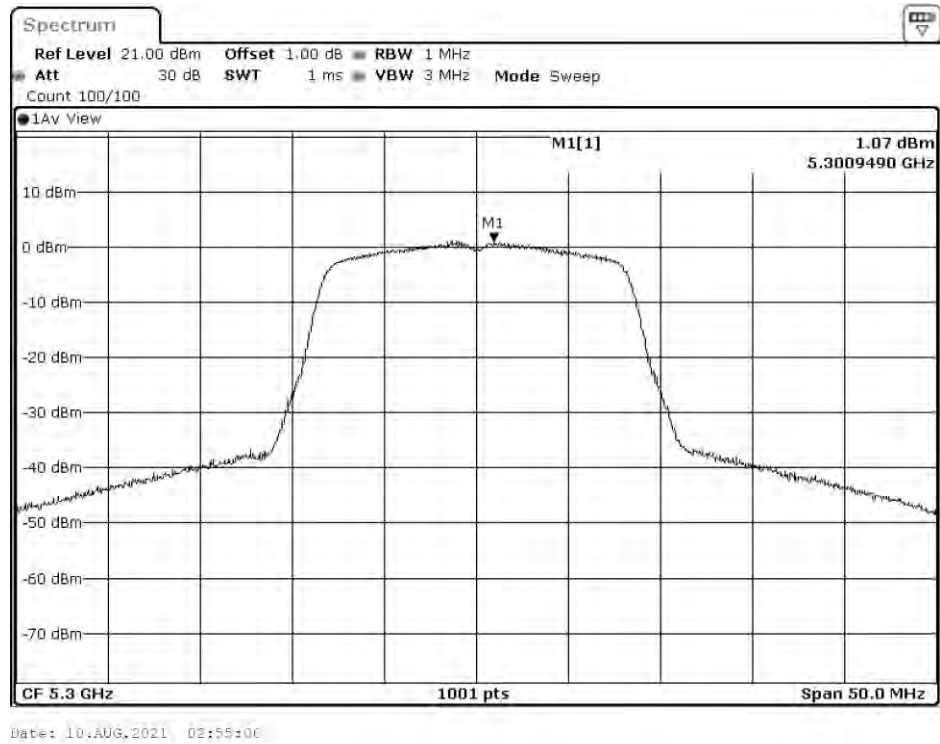
Date: 10.AUG.2021 02:50:25

Channel 52

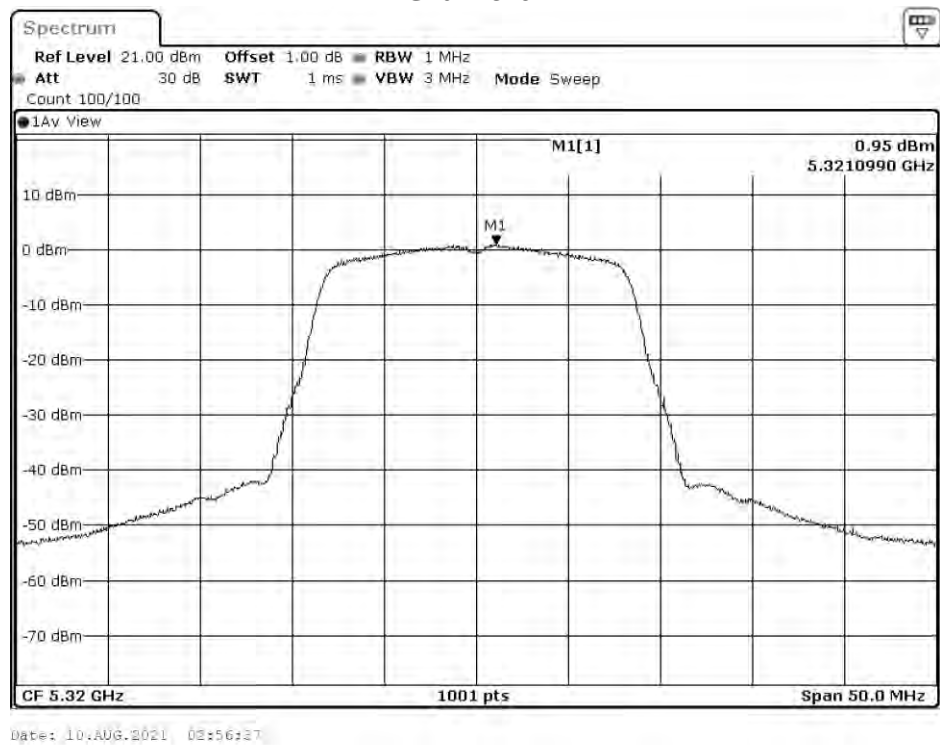


Date: 10.AUG.2021 02:52:50

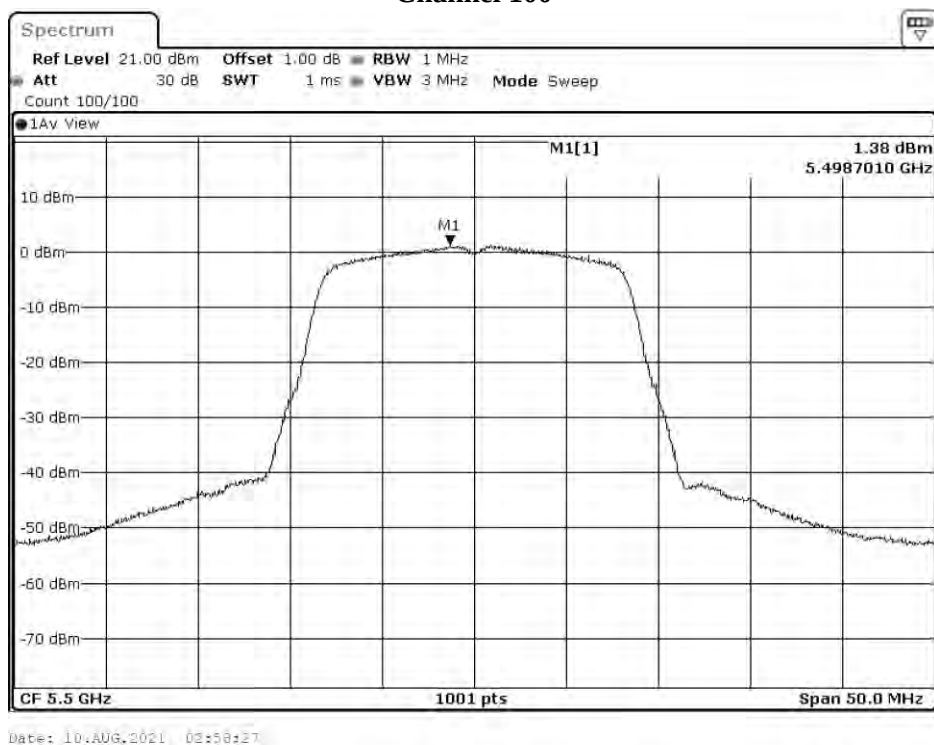
Channel 60



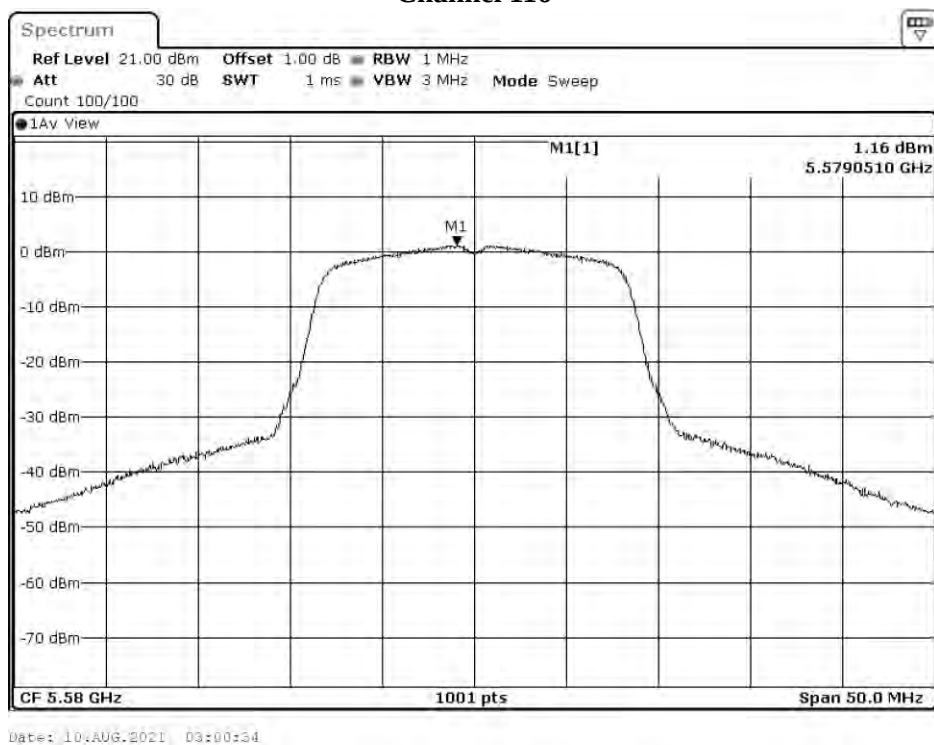
Channel 64



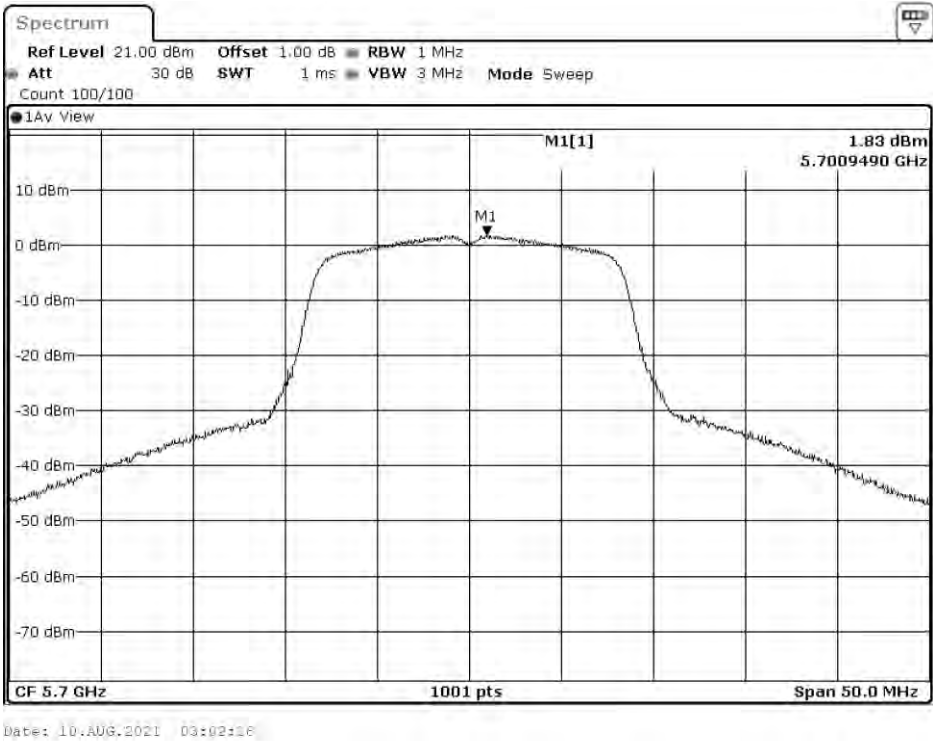
Channel 100



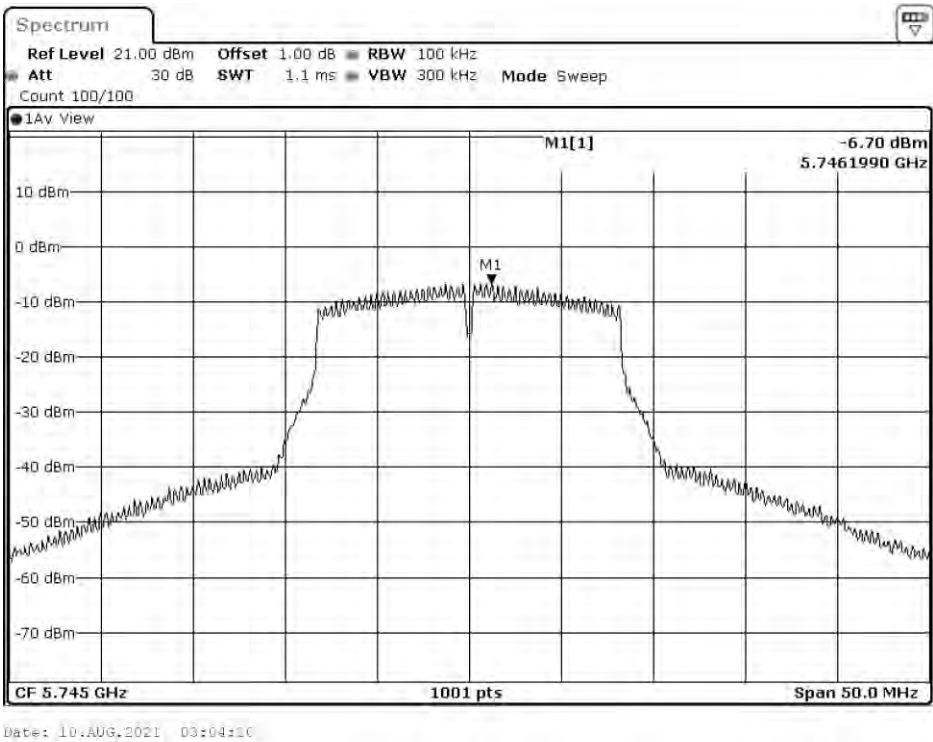
Channel 116



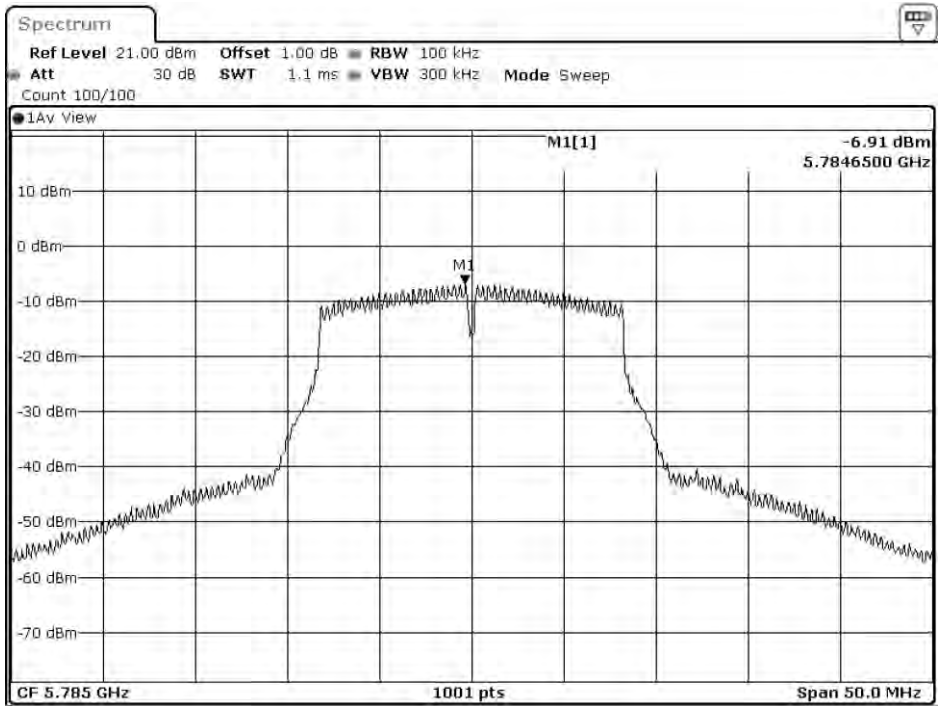
Channel 140



Channel 149

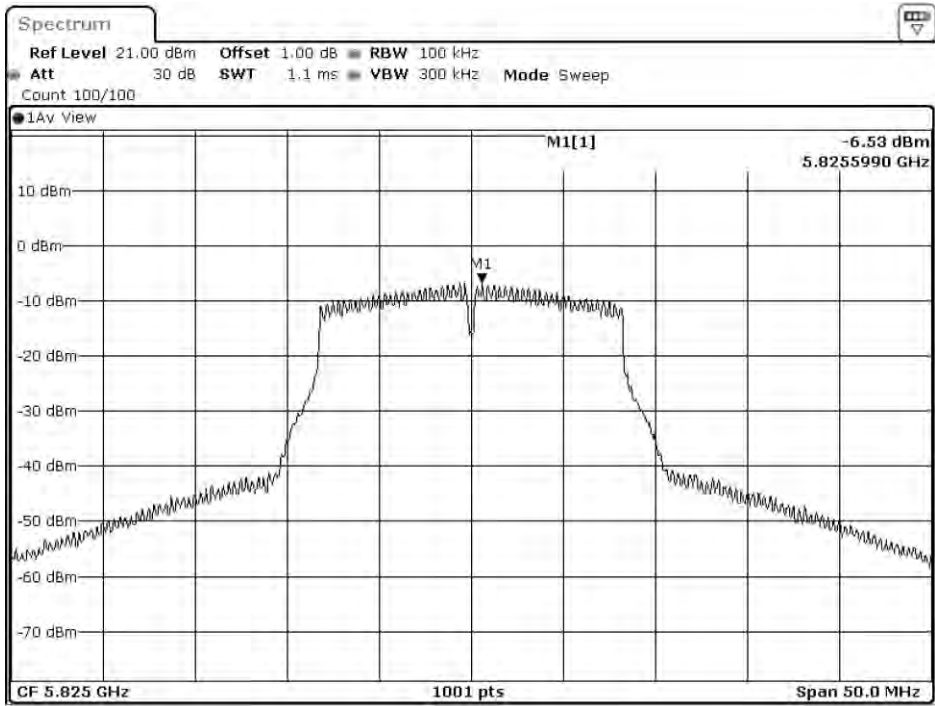


Channel 157



Date: 10.AUG.2021 03:06:28

Channel 165



Date: 10.AUG.2021 03:06:45

待測物名稱：BT/Wi-Fi Module

待測物型號：MW510

測試項目：峰值功率頻譜密度

測試頻道：--

測試模式：Mode 1: 發射器 802.11ac-20BW

測試日期：110年08月11日

檢測器：峰值

Channel Number	Frequency (MHz)	Chain (dBm)	PPSD (dBm)	10*log(2) (dB)	Duty factor (dB)	Total PPSSD (dBm)	Required Limit (dBm)	Result
36	5180	A	4.48	3.01	0.28	7.77	<11	Pass
		B	4.16	3.01	0.28	7.45	<11	Pass
44	5220	A	4.26	3.01	0.28	7.55	<11	Pass
		B	4.28	3.01	0.28	7.57	<11	Pass
48	5240	A	4.31	3.01	0.28	7.60	<11	Pass
		B	4.25	3.01	0.28	7.54	<11	Pass
52	5260	A	4.37	3.01	0.28	7.66	<11	Pass
		B	4.11	3.01	0.28	7.40	<11	Pass
60	5300	A	4.37	3.01	0.28	7.66	<11	Pass
		B	4.54	3.01	0.28	7.83	<11	Pass
64	5320	A	4.79	3.01	0.28	8.08	<11	Pass
		B	4.30	3.01	0.28	7.59	<11	Pass
100	5500	A	4.53	3.01	0.28	7.82	<11	Pass
		B	4.88	3.01	0.28	8.17	<11	Pass
116	5580	A	4.88	3.01	0.28	8.17	<11	Pass
		B	4.88	3.01	0.28	8.17	<11	Pass
140	5700	A	4.62	3.01	0.28	7.91	<11	Pass
		B	5.13	3.01	0.28	8.42	<11	Pass

Note:

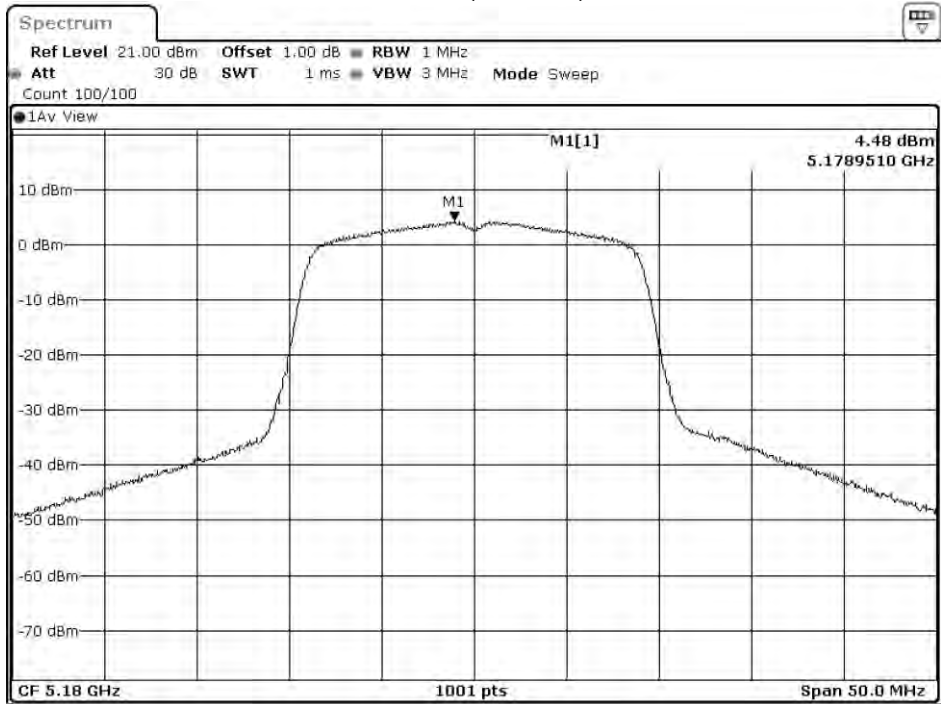
The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.

Channel Number	Frequency (MHz)	Chain (dBm)	PPSD (dBm)	BWCF (dB)	10*log(2) (dB)	Duty factor (dB)	Total PPSSD (dBm)	Required Limit (dBm)	Result
149	5745	A	-3.41	6.98	3.01	0.28	6.86	<30	Pass
		B	-2.64	6.98	3.01	0.28	7.63	<30	Pass
157	5785	A	-3.77	6.98	3.01	0.28	6.50	<30	Pass
		B	-2.99	6.98	3.01	0.28	7.28	<30	Pass
165	5825	A	-4.05	6.98	3.01	0.28	6.22	<30	Pass
		B	-2.99	6.98	3.01	0.28	7.28	<30	Pass

Note:

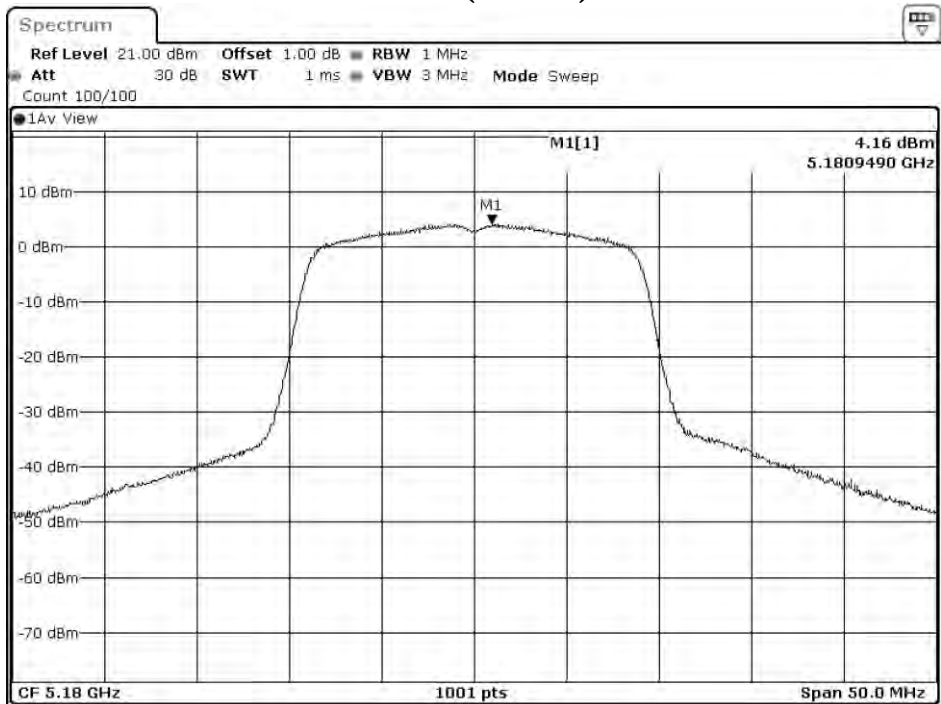
The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.

Channel 36 (Chain A)



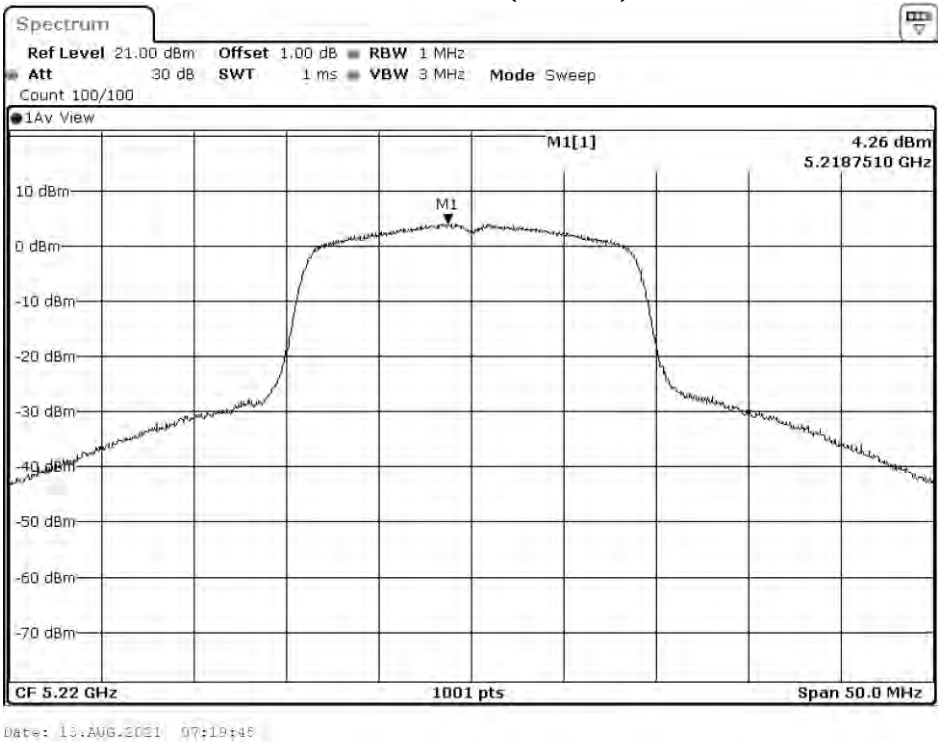
Date: 13.AUG.2021 07:18:08

Channel 36 (Chain B)

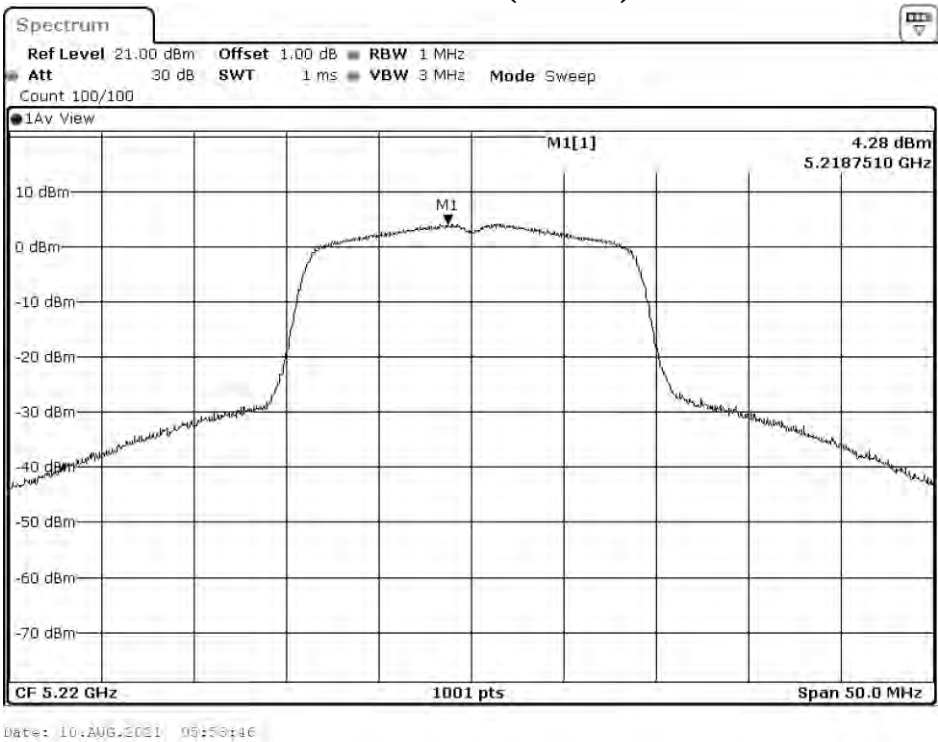


Date: 10.AUG.2021 05:55:16

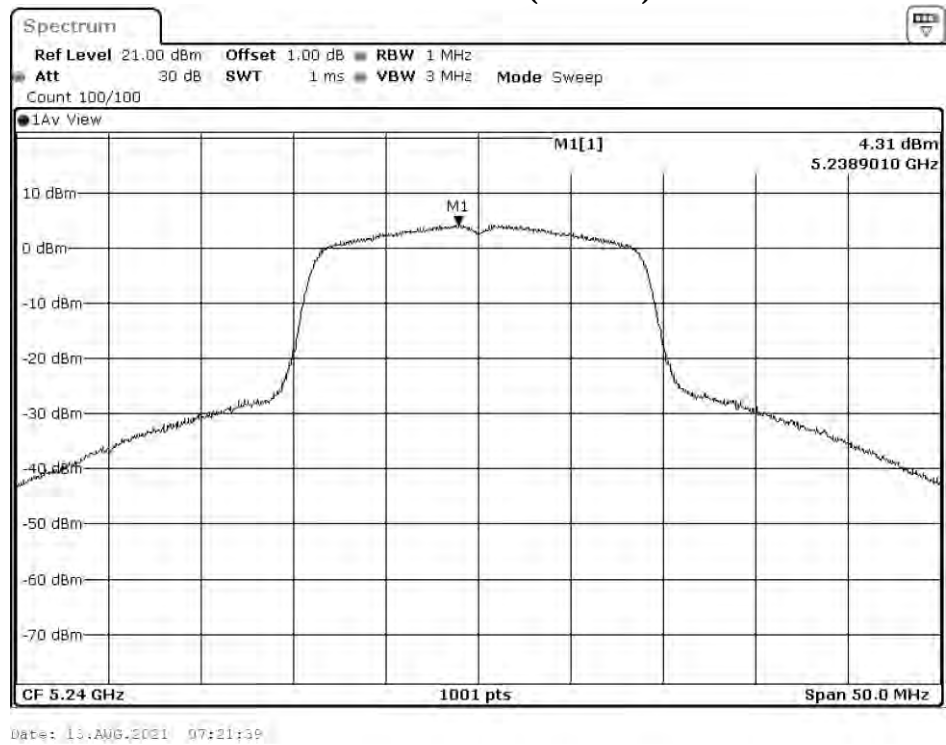
Channel 44 (Chain A)



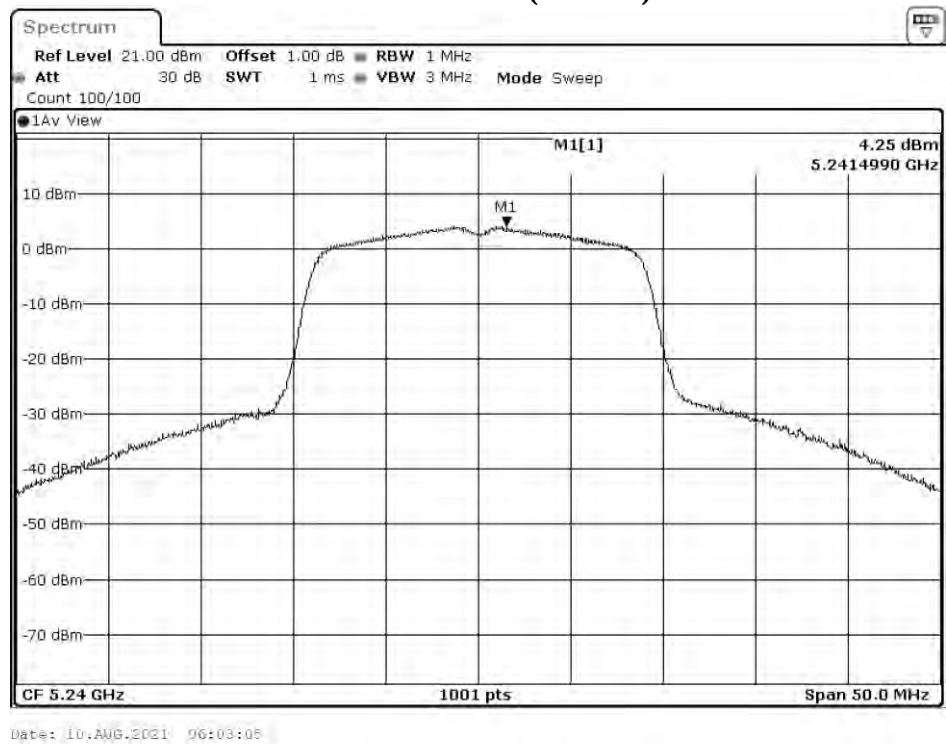
Channel 44 (Chain B)



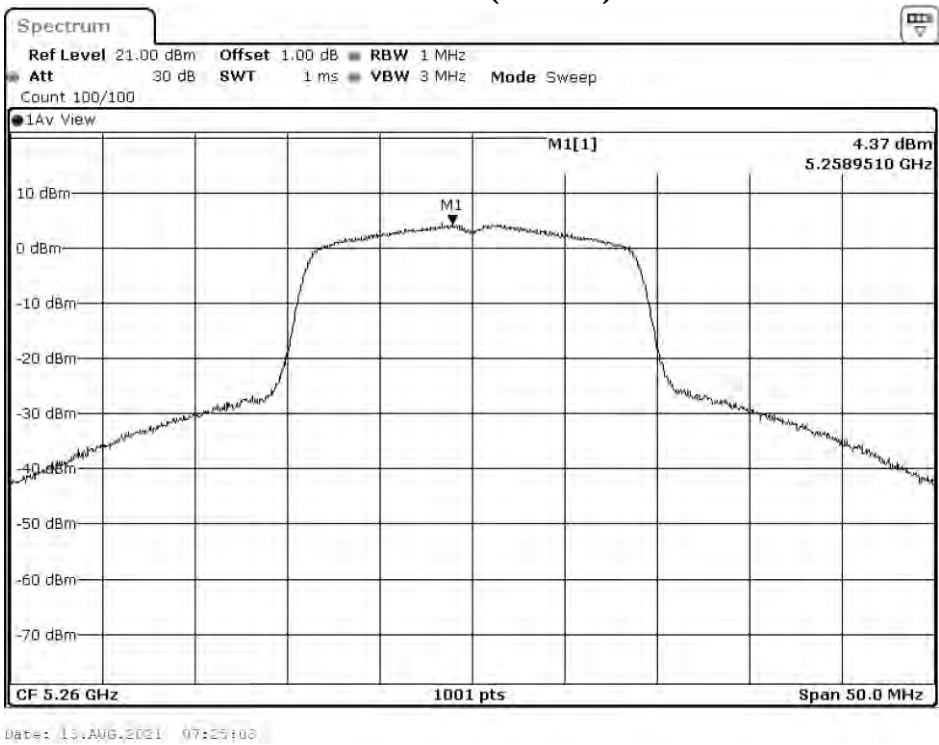
Channel 48 (Chain A)



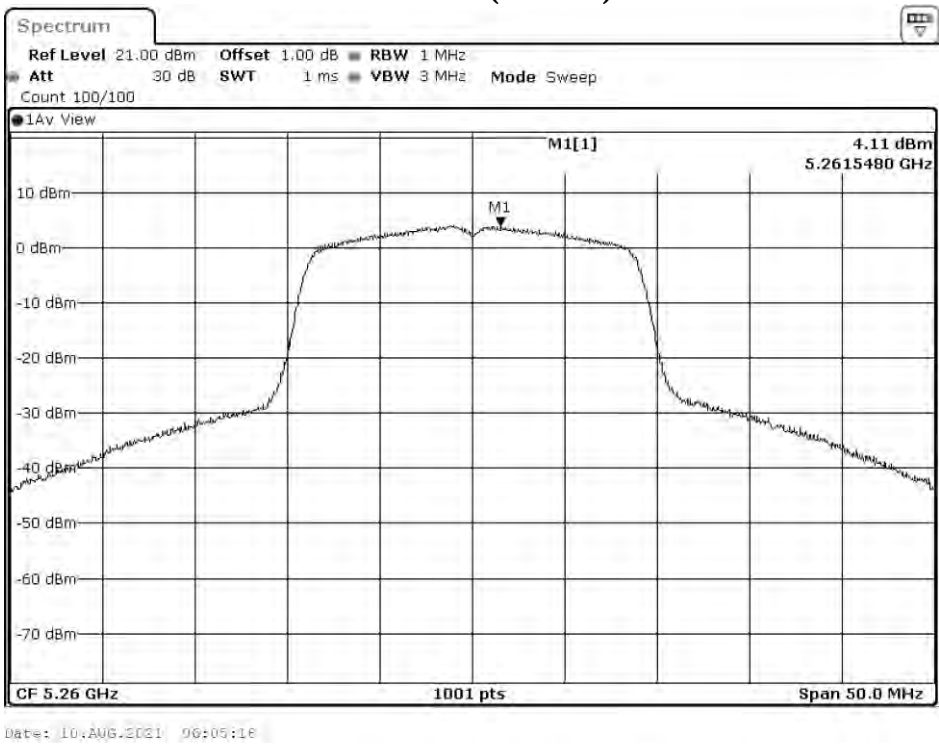
Channel 48 (Chain B)



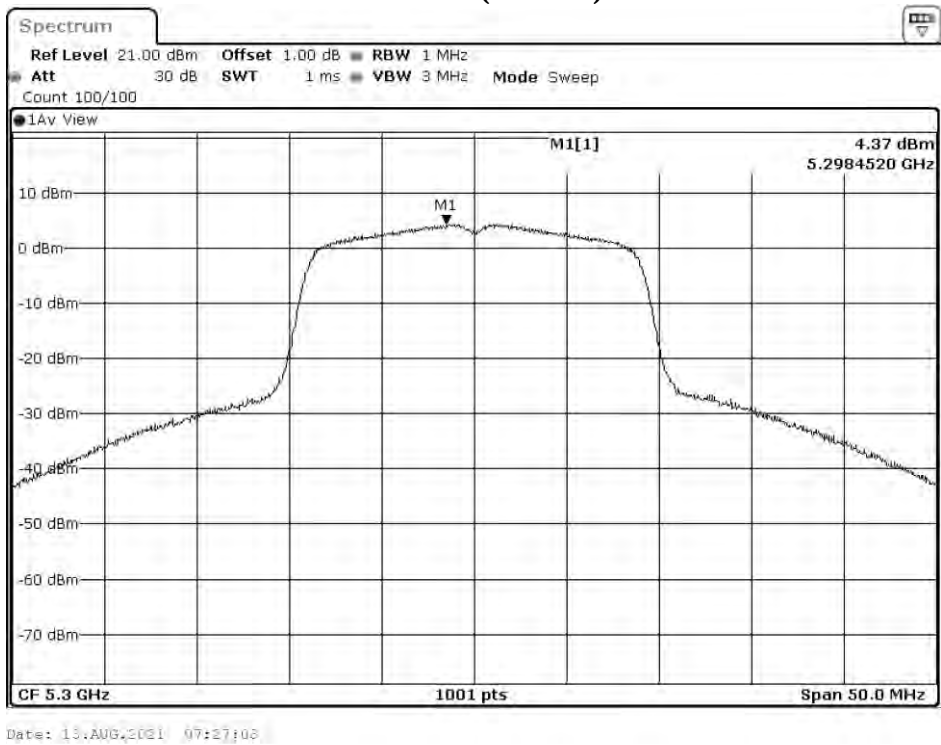
Channel 52 (Chain A)



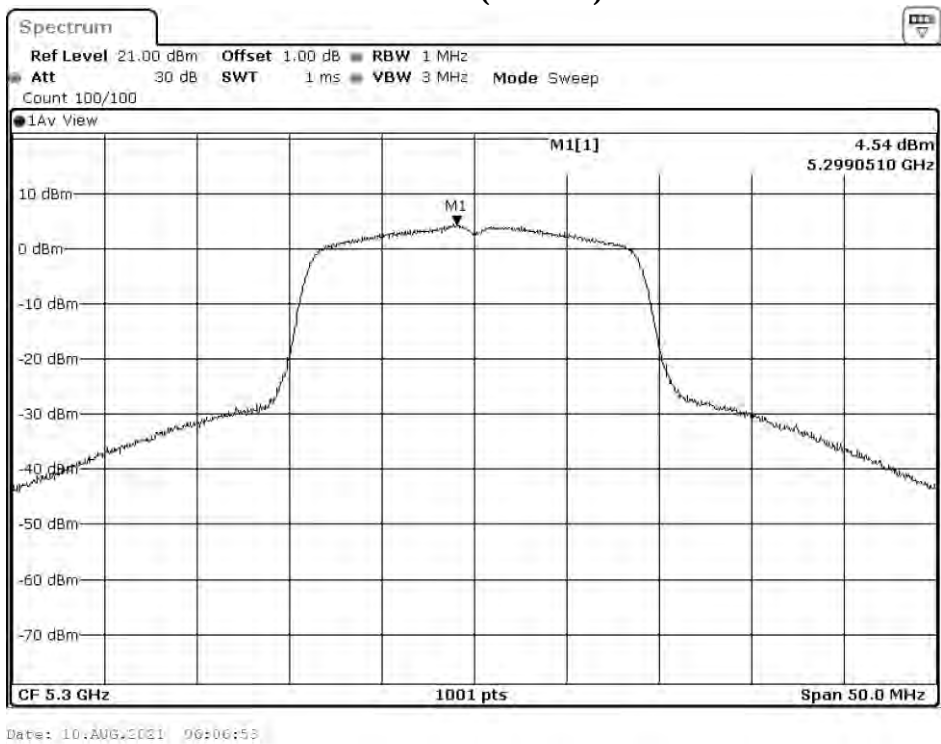
Channel 52 (Chain B)



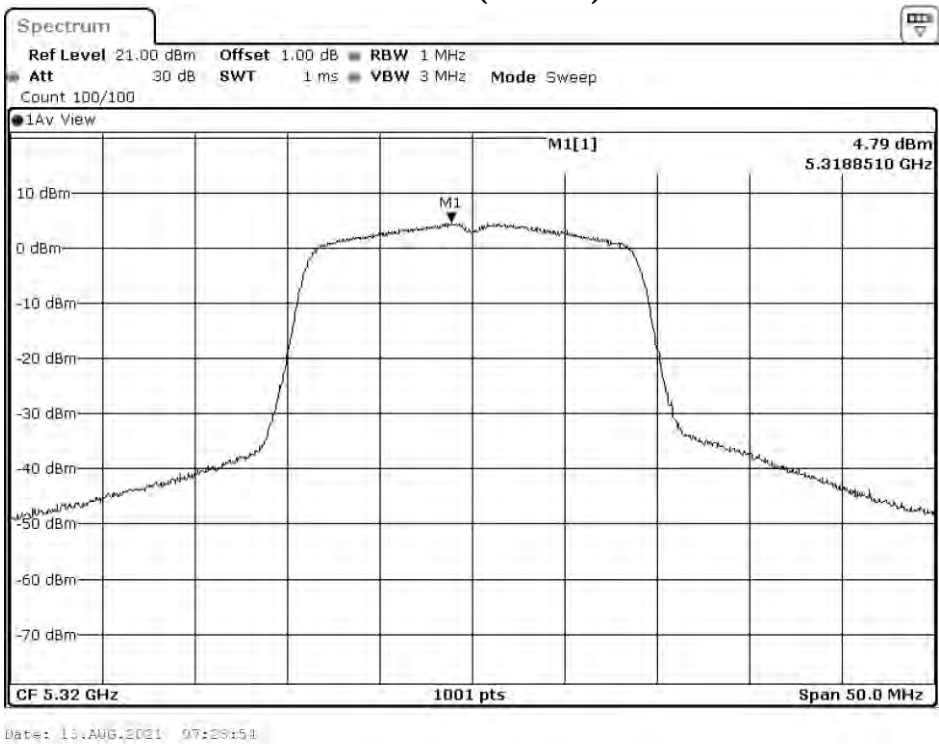
Channel 60 (Chain A)



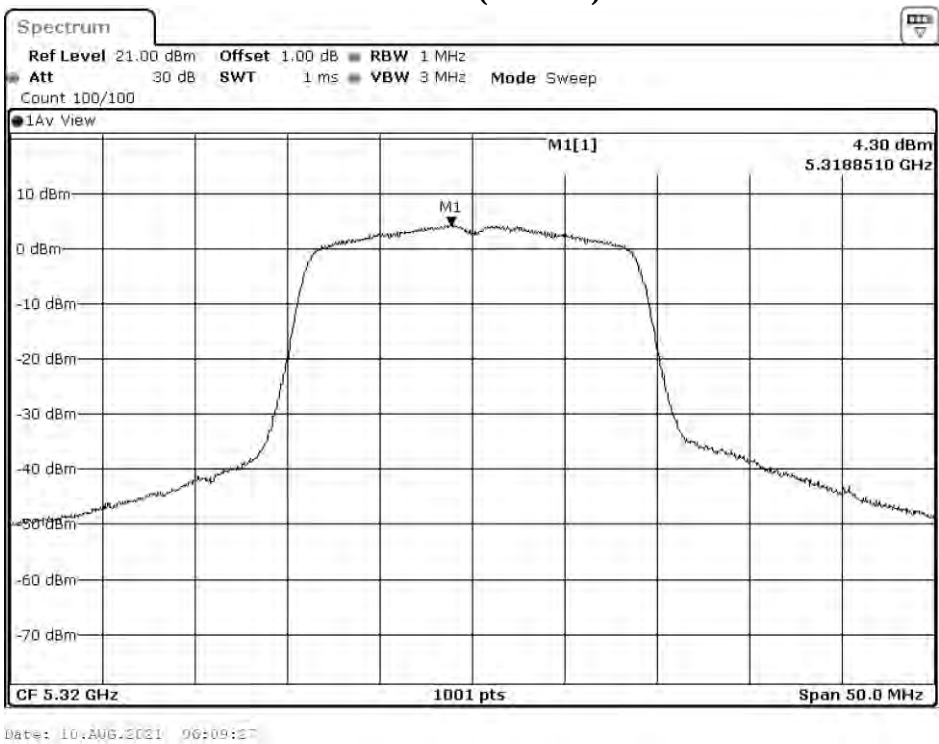
Channel 60 (Chain B)



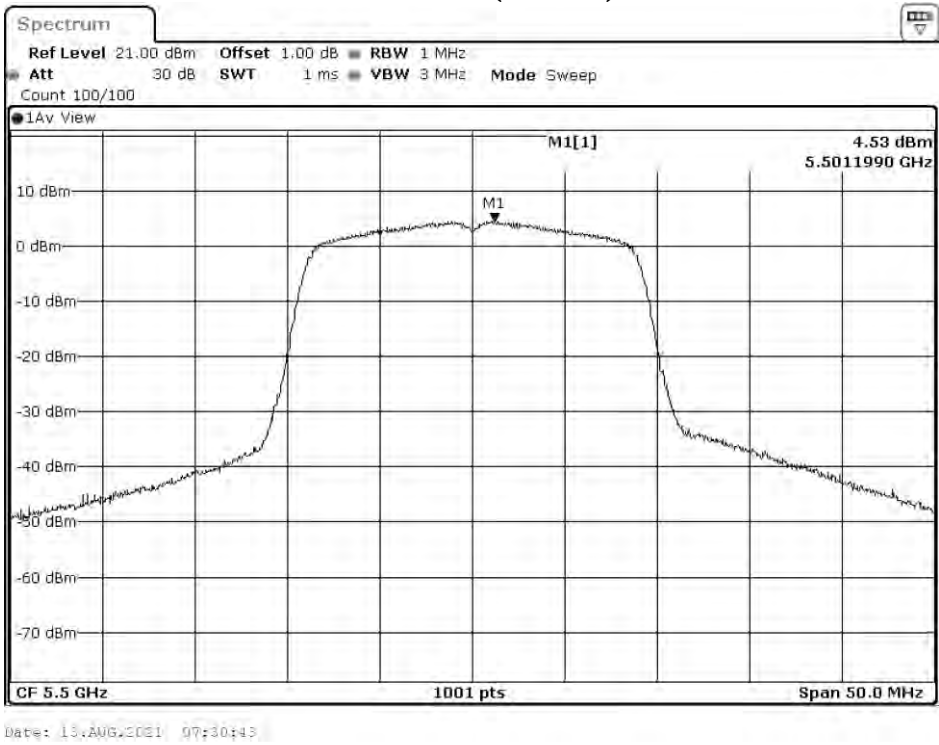
Channel 64 (Chain A)



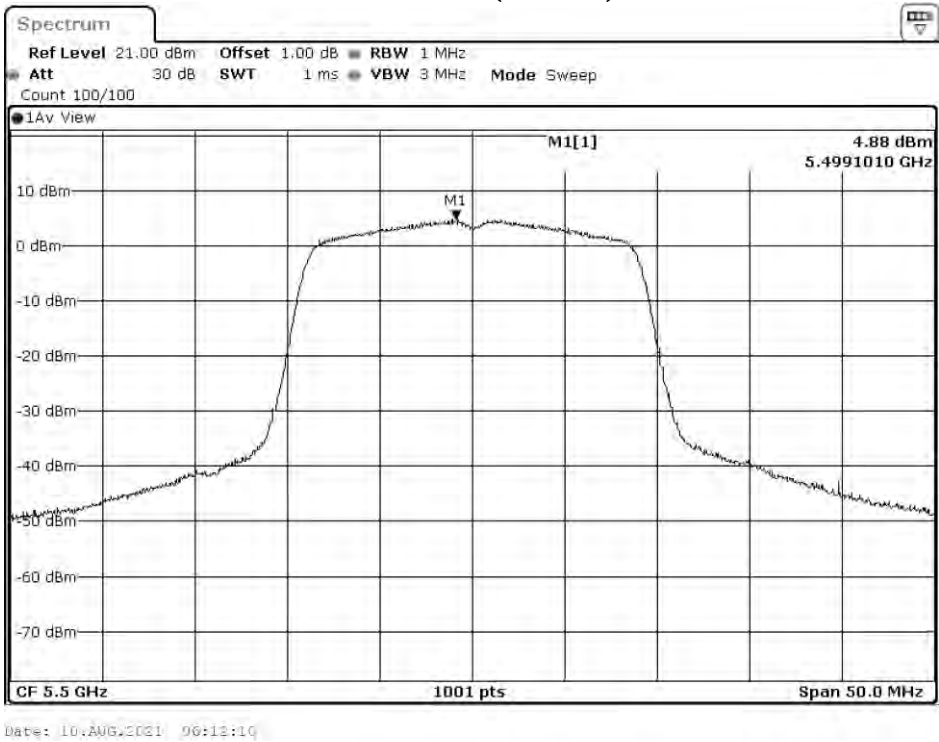
Channel 64 (Chain B)



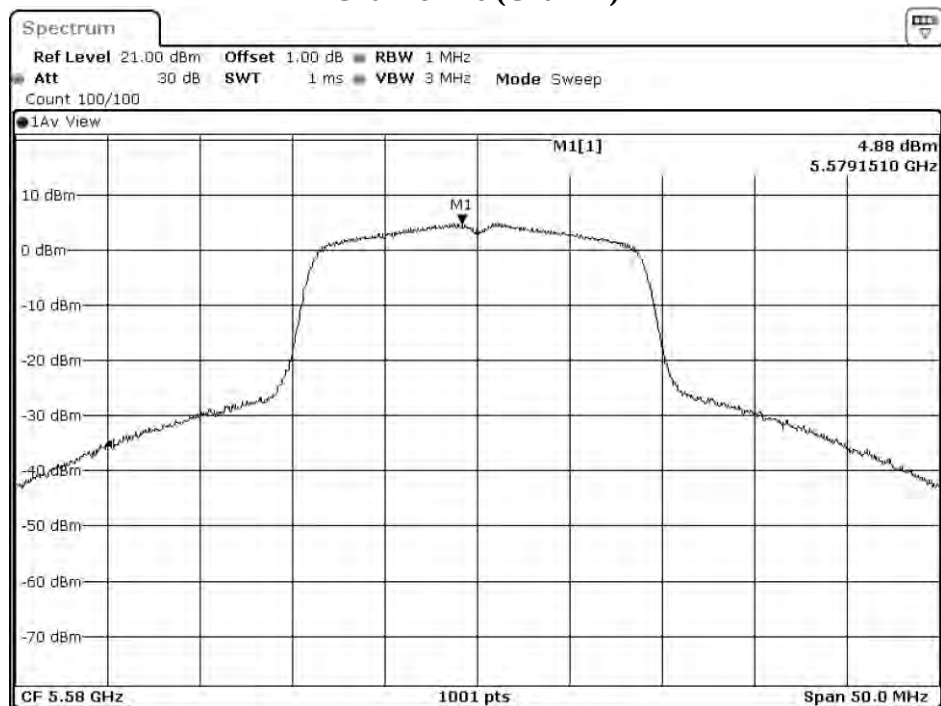
Channel 100 (Chain A)



Channel 100 (Chain B)

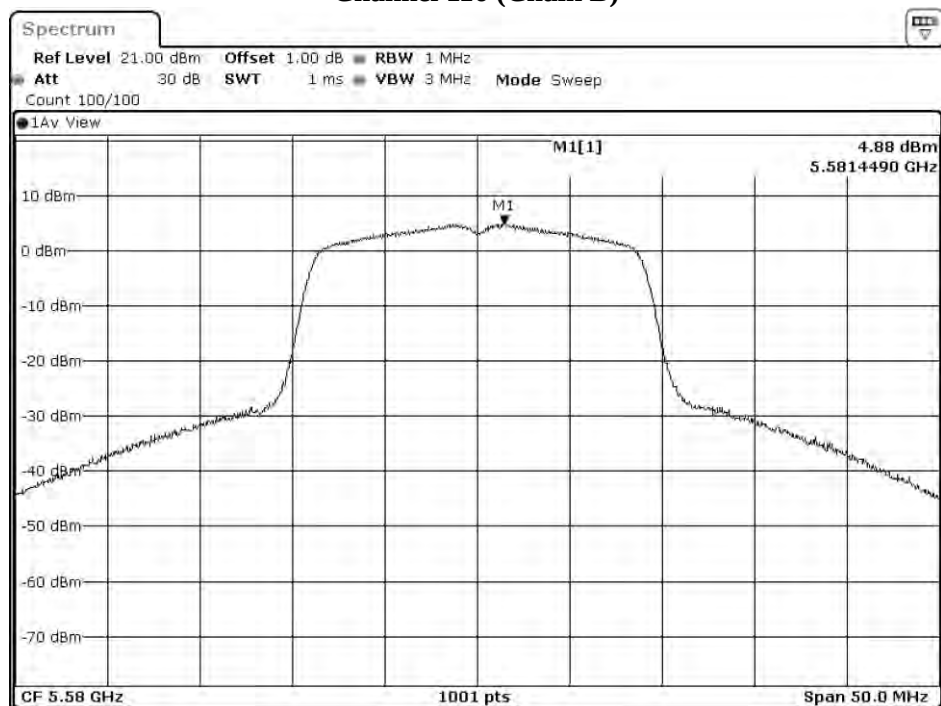


Channel 116 (Chain A)



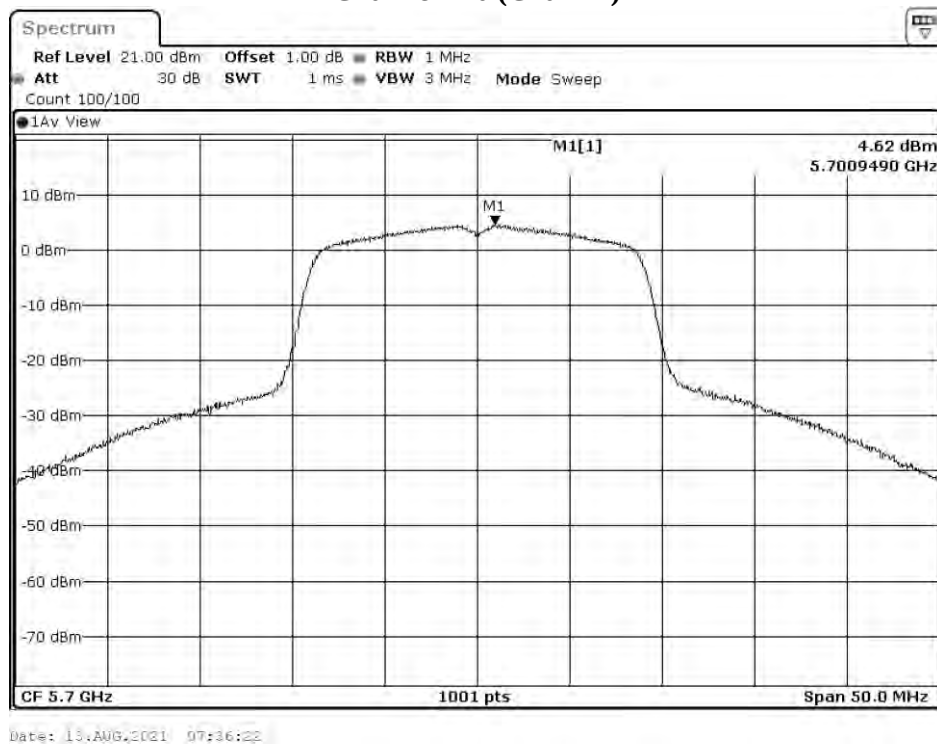
Date: 13.AUG.2021 09:33:09

Channel 116 (Chain B)

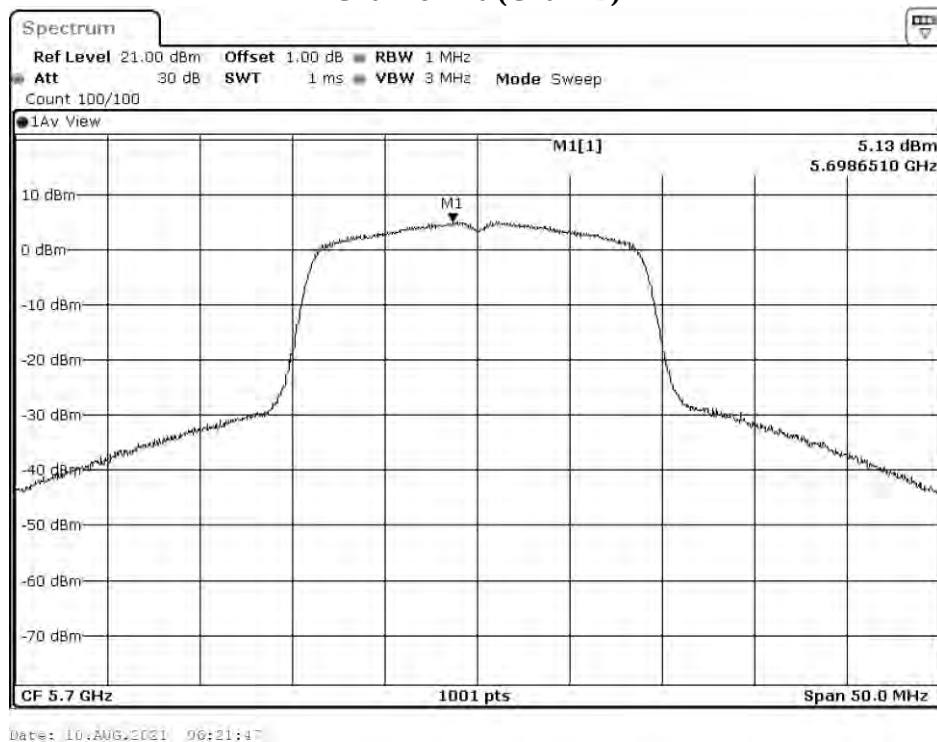


Date: 10.AUG.2021 06:16:59

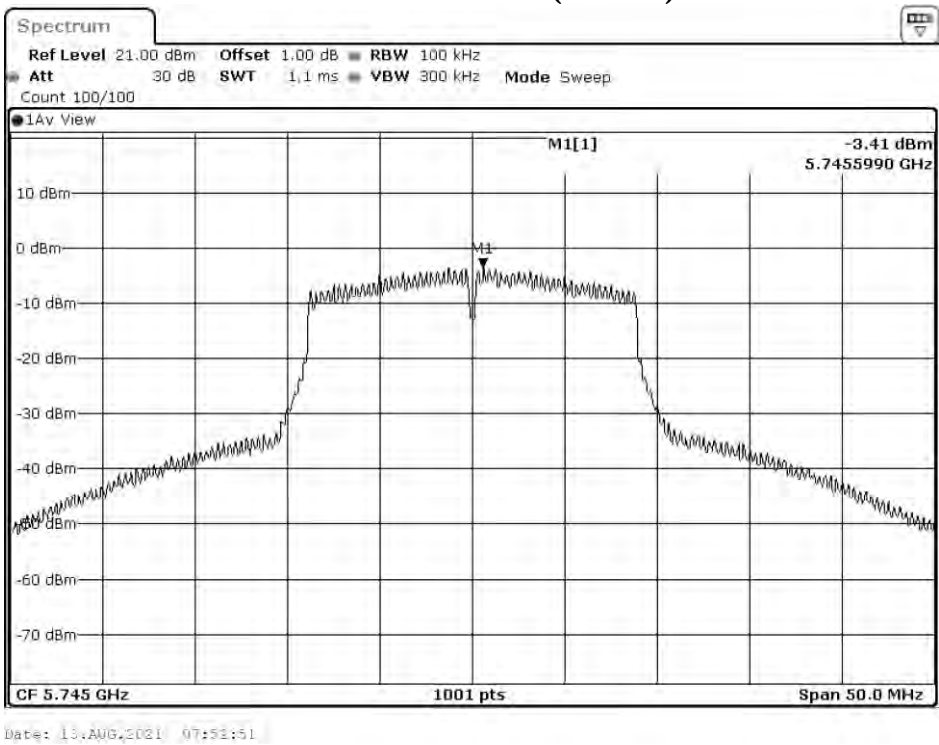
Channel 140 (Chain A)



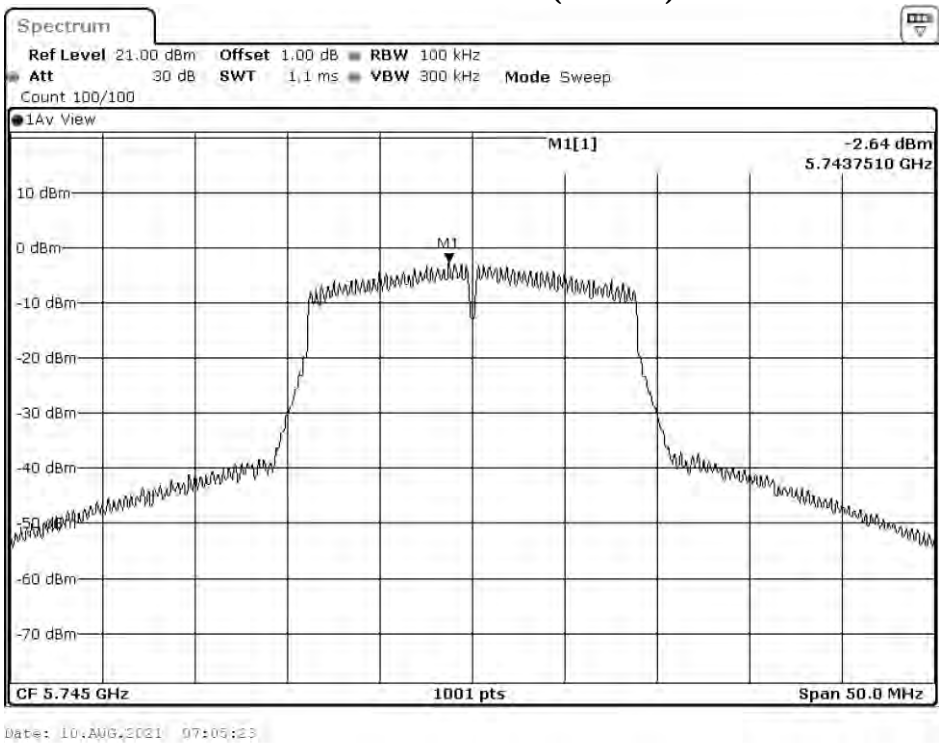
Channel 140 (Chain B)



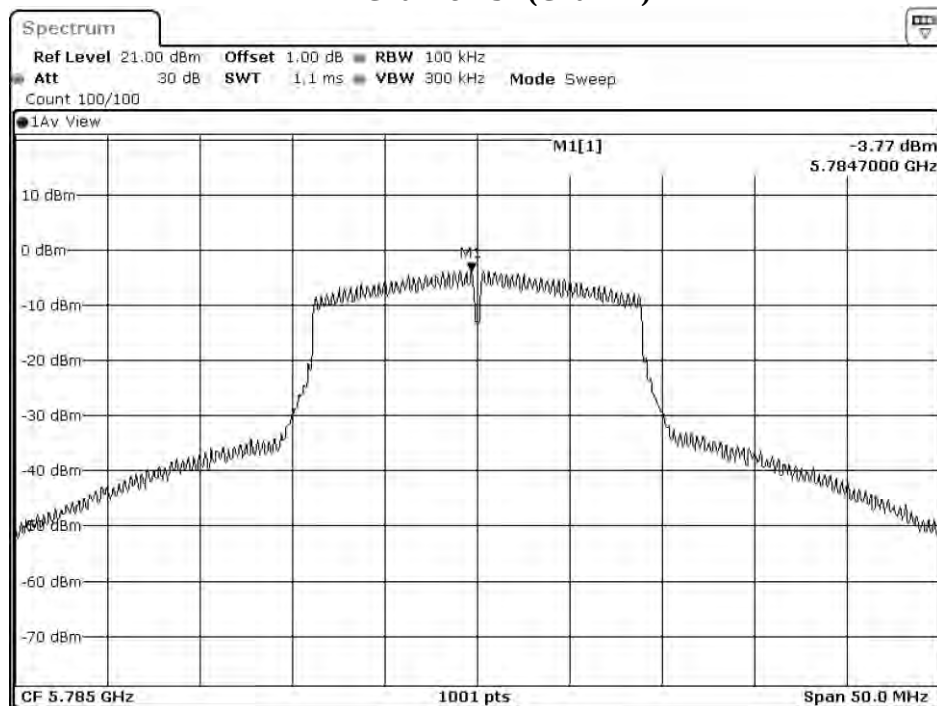
Channel 149 (Chain A)



Channel 149 (Chain B)

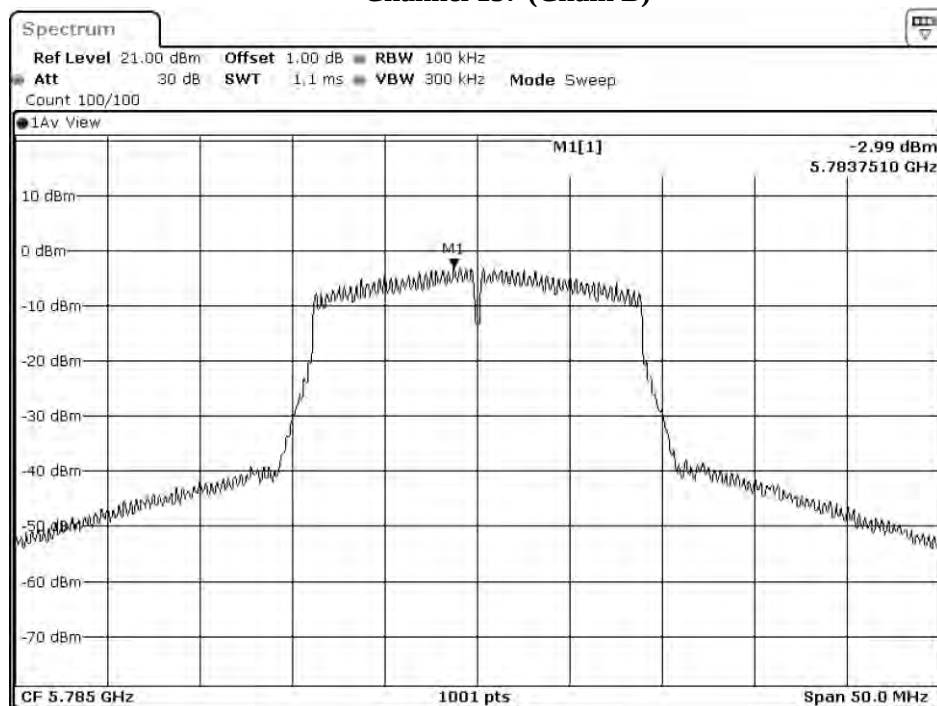


Channel 157 (Chain A)



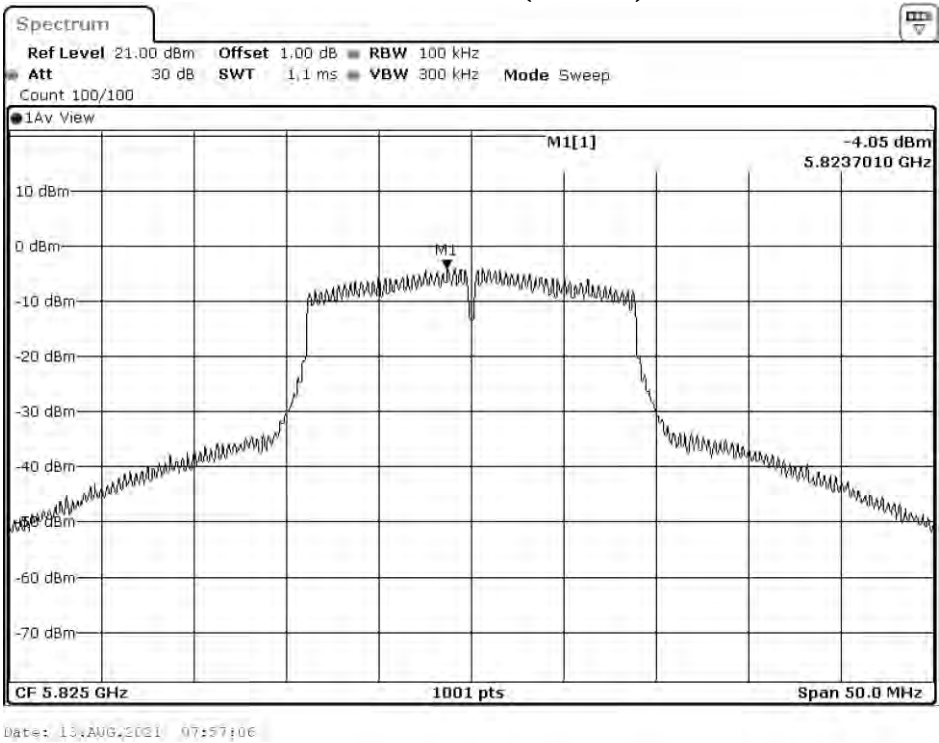
Date: 13.AUG.2021 07:55:23

Channel 157 (Chain B)

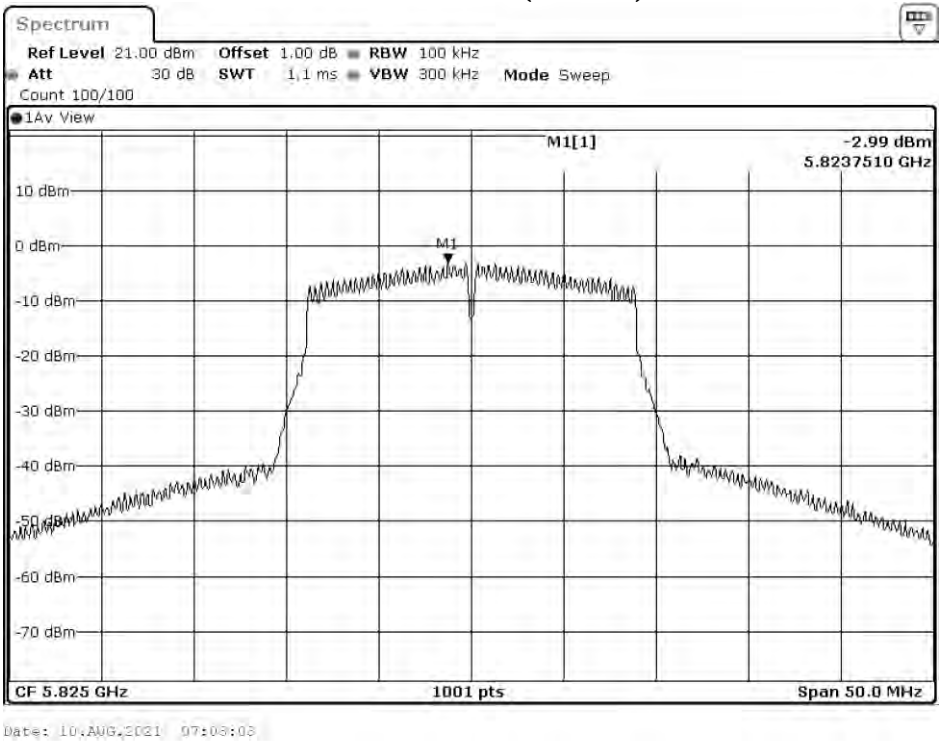


Date: 10.AUG.2021 07:06:39

Channel 165 (Chain A)



Channel 165 (Chain B)



待測物名稱：BT/Wi-Fi Module

待測物型號：MW510

測試項目：峰值功率頻譜密度

測試頻道：--

測試模式：Mode 1: 發射器 802.11ac-40BW

測試日期：110年08月11日

檢測器：峰值

Channel Number	Frequency (MHz)	Chain (dBm)	PPSD (dBm)	10*log(2) (dB)	Duty factor (dB)	Total PPSD (dBm)	Required Limit (dBm)	Result
38	5190	A	1.17	3.01	0.53	4.71	<11	Pass
		B	1.26	3.01	0.53	4.80	<11	Pass
46	5230	A	1.20	3.01	0.53	4.74	<11	Pass
		B	1.27	3.01	0.53	4.81	<11	Pass
54	5270	A	1.34	3.01	0.53	4.88	<11	Pass
		B	1.15	3.01	0.53	4.69	<11	Pass
62	5310	A	1.61	3.01	0.53	5.15	<11	Pass
		B	1.33	3.01	0.53	4.87	<11	Pass
102	5510	A	1.57	3.01	0.53	5.11	<11	Pass
		B	1.80	3.01	0.53	5.34	<11	Pass
110	5550	A	1.58	3.01	0.53	5.12	<11	Pass
		B	1.67	3.01	0.53	5.21	<11	Pass
134	5670	A	1.52	3.01	0.53	5.06	<11	Pass
		B	2.39	3.01	0.53	5.93	<11	Pass

Note:

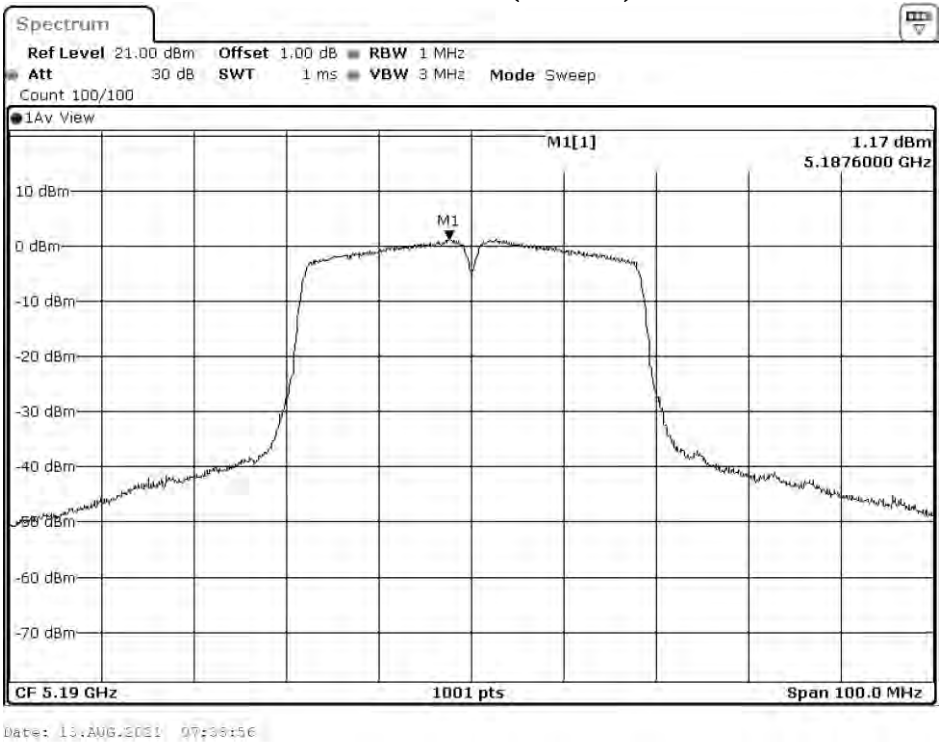
The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.

Channel Number	Frequency (MHz)	Chain (dBm)	PPSD (dBm)	BWCF (dB)	10*log(2) (dB)	Duty factor (dB)	Total PPSD (dBm)	Required Limit (dBm)	Result
151	5755	A	-6.20	6.98	3.01	0.53	4.32	<30	Pass
		B	-5.62	6.98	3.01	0.53	4.90	<30	Pass
159	5795	A	-6.18	6.98	3.01	0.53	4.34	<30	Pass
		B	-4.91	6.98	3.01	0.53	5.61	<30	Pass

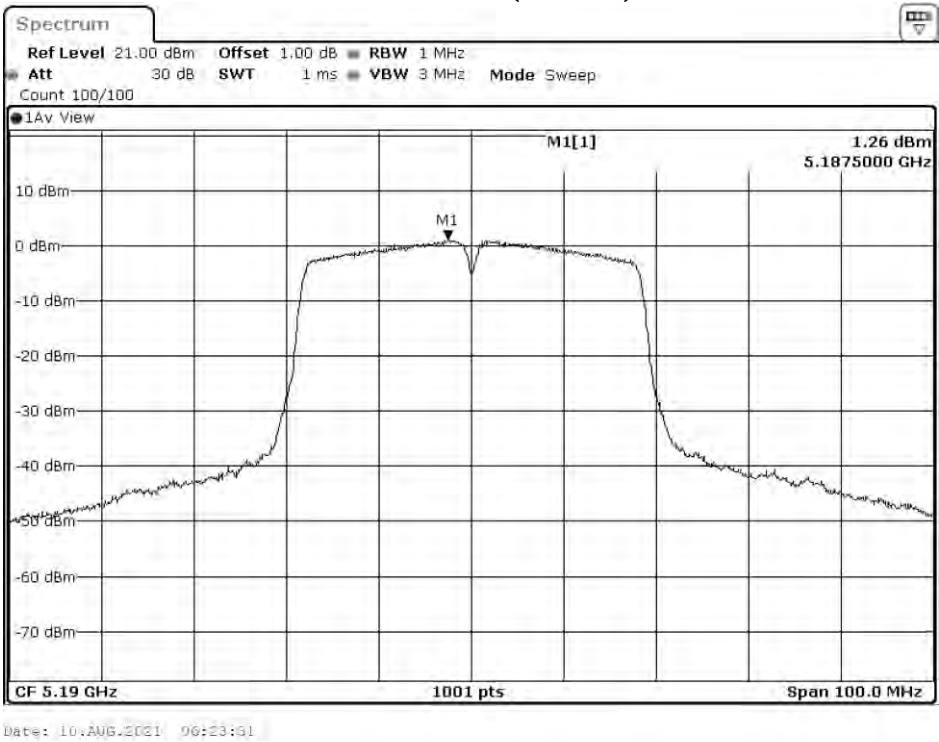
Note:

The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.

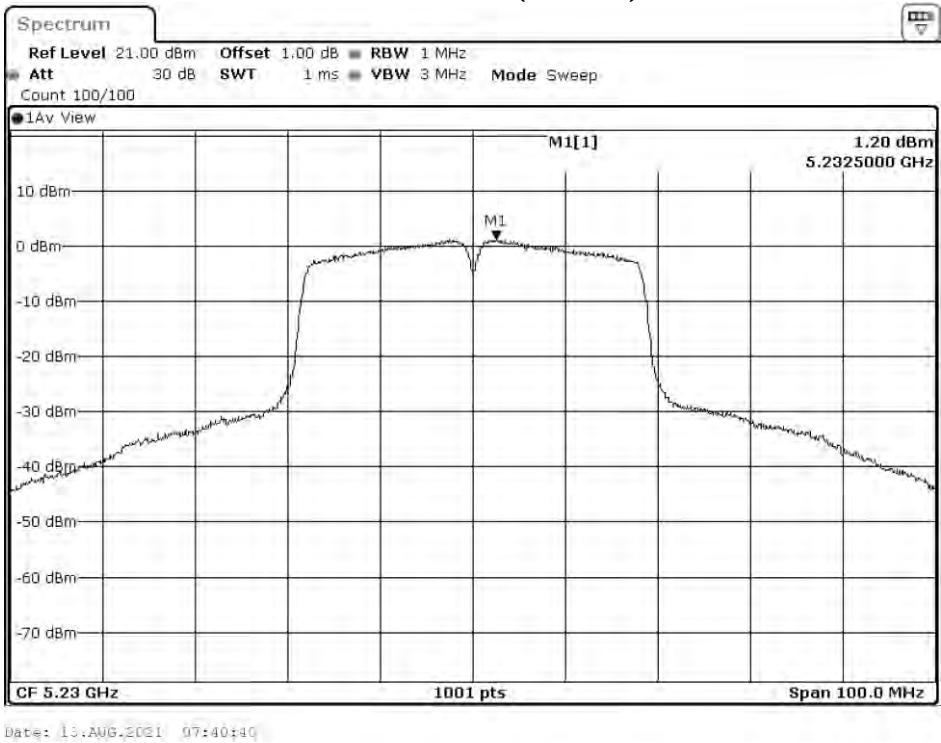
Channel 38 (Chain A)



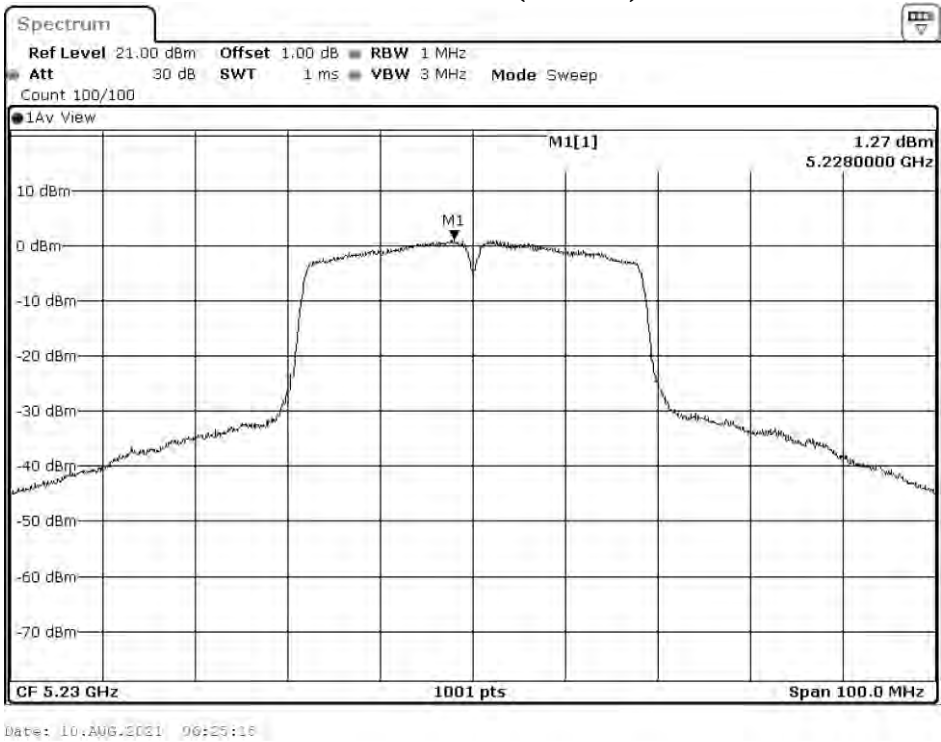
Channel 38 (Chain B)



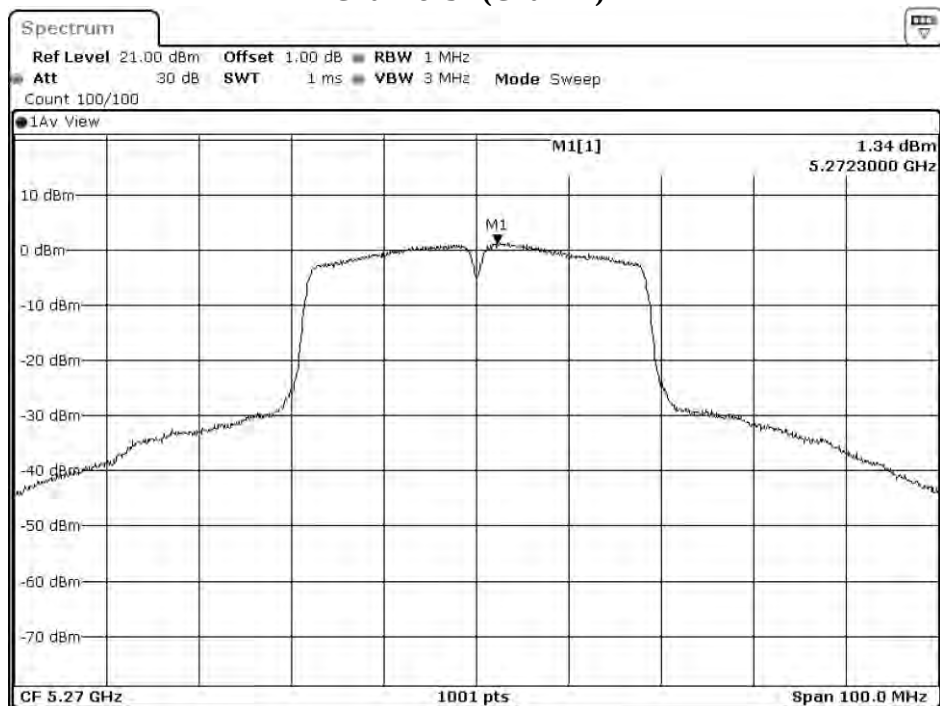
Channel 46 (Chain A)



Channel 46 (Chain B)

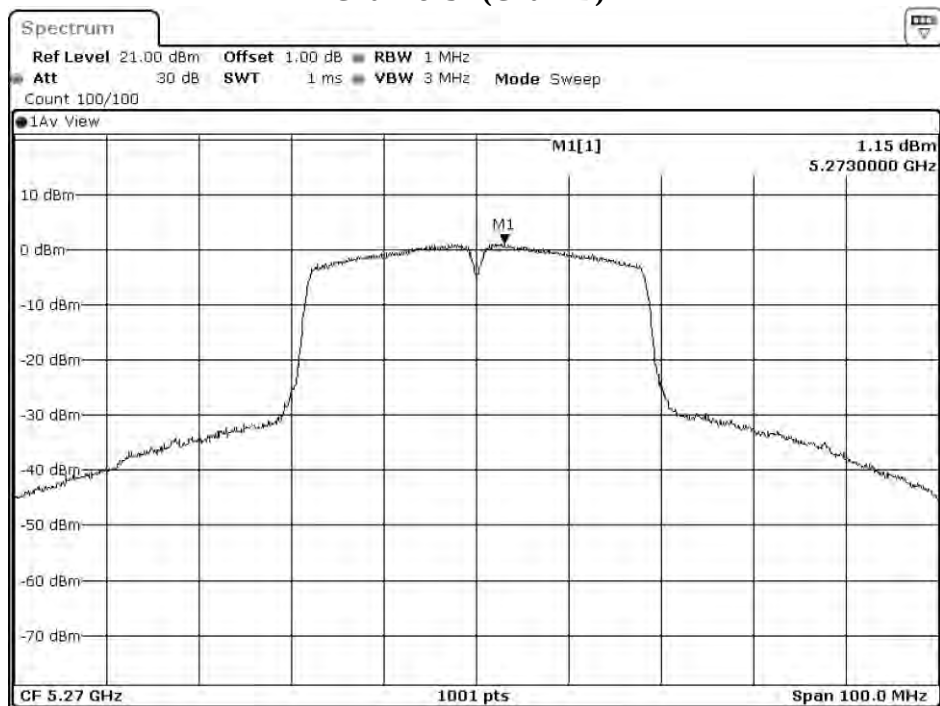


Channel 54 (Chain A)



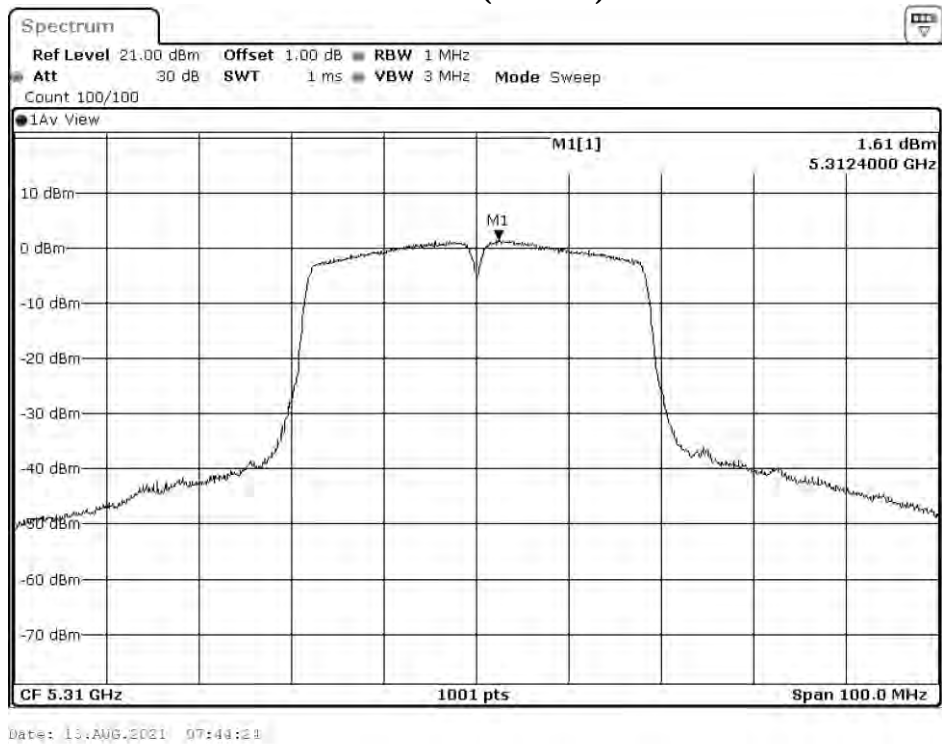
Date: 13.AUG.2021 07:42:35

Channel 54 (Chain B)

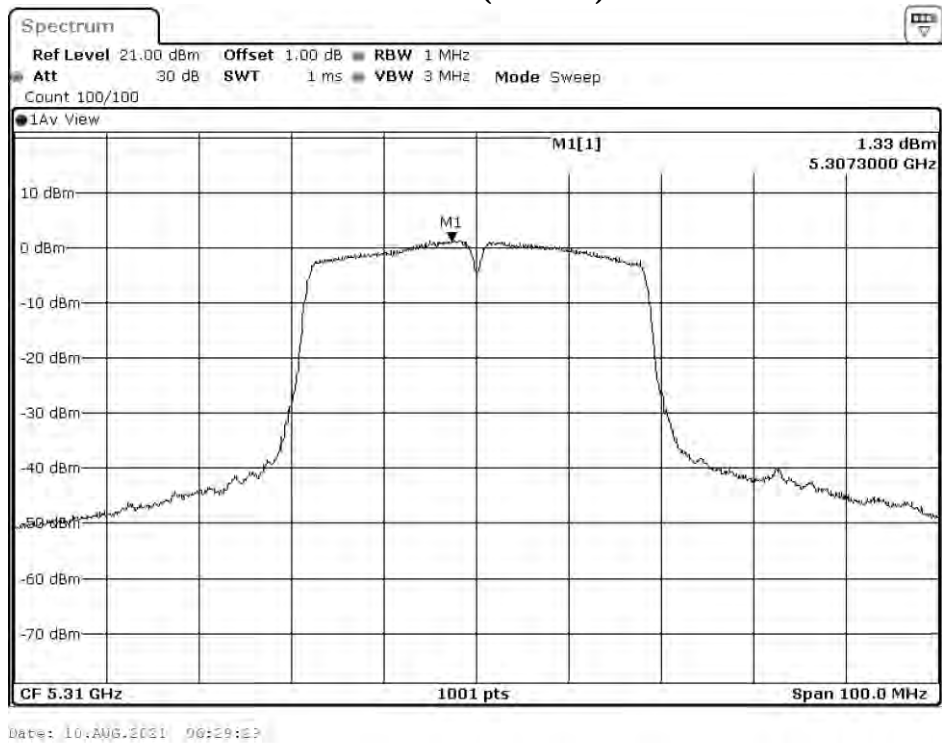


Date: 10.AUG.2021 06:27:59

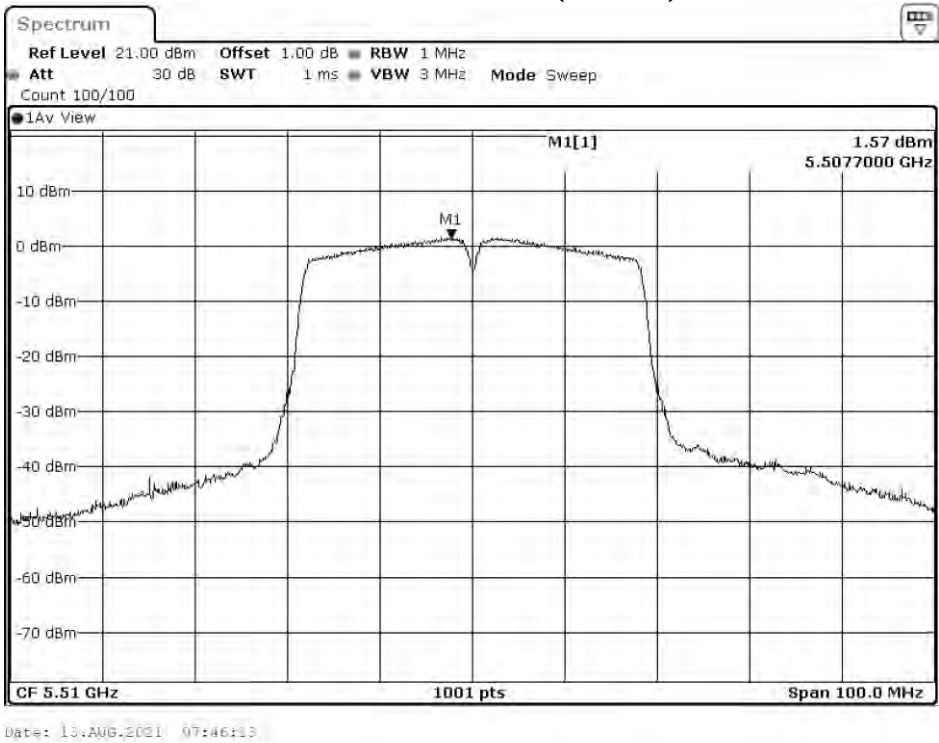
Channel 62 (Chain A)



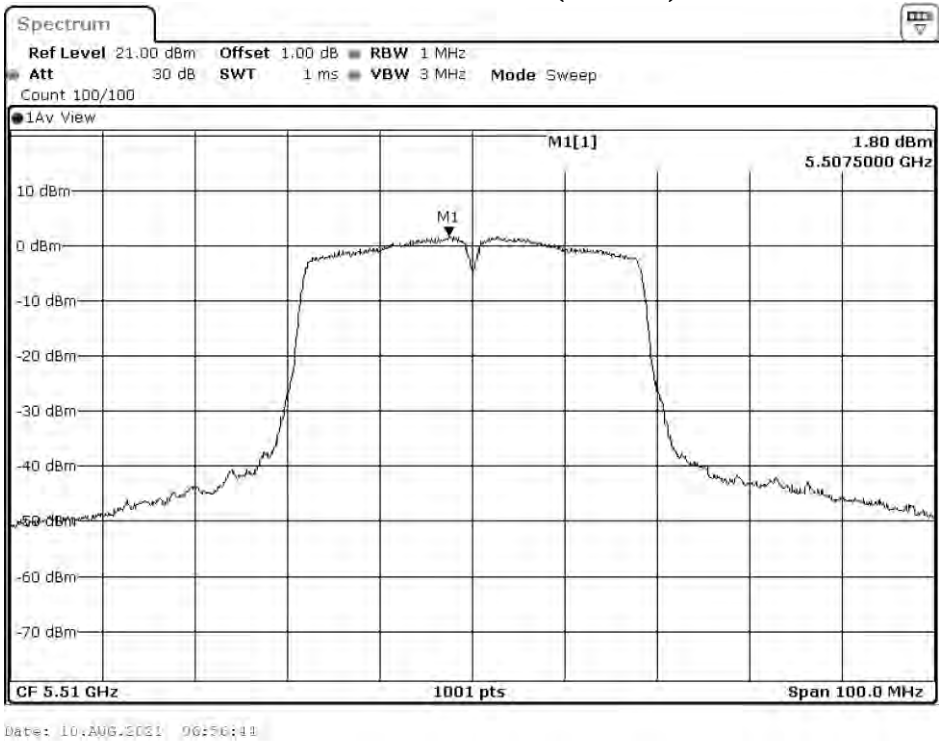
Channel 62 (Chain B)



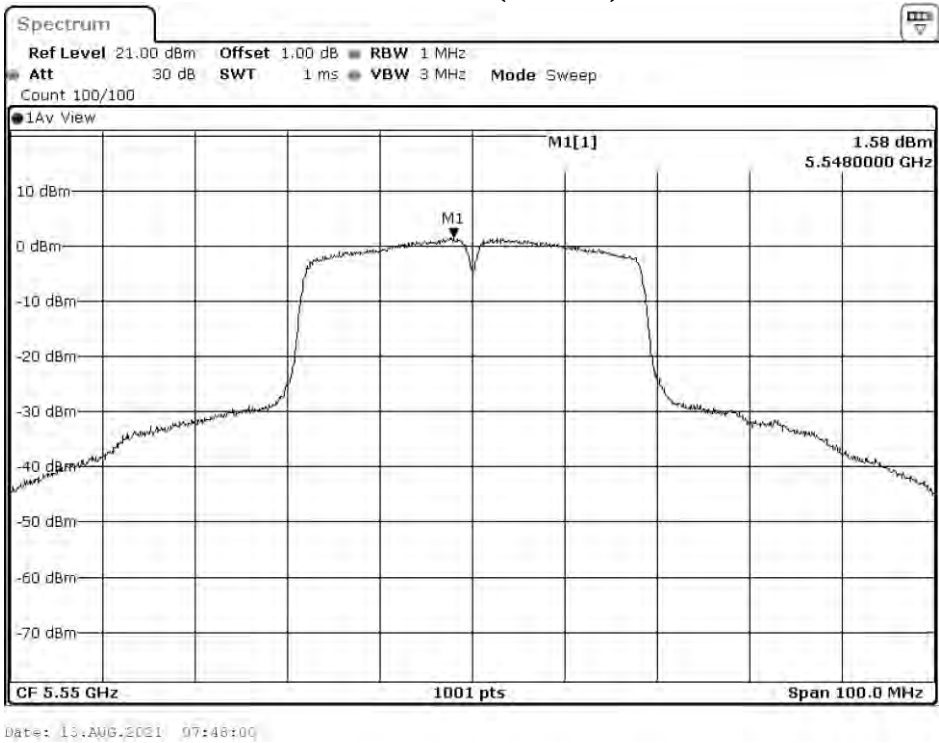
Channel 102 (Chain A)



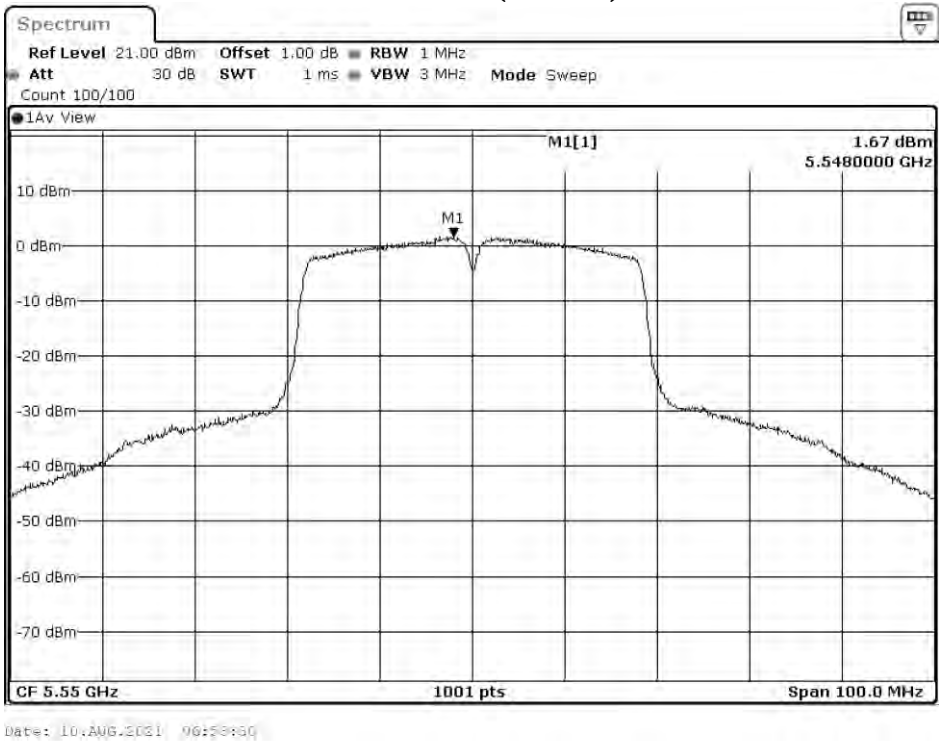
Channel 102 (Chain B)



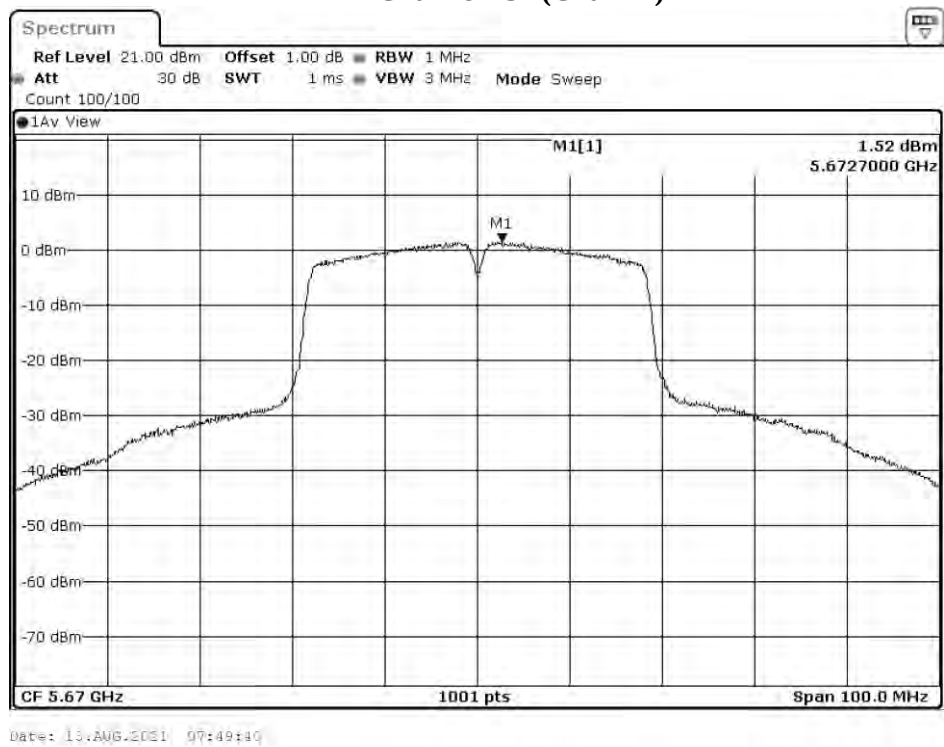
Channel 110 (Chain A)



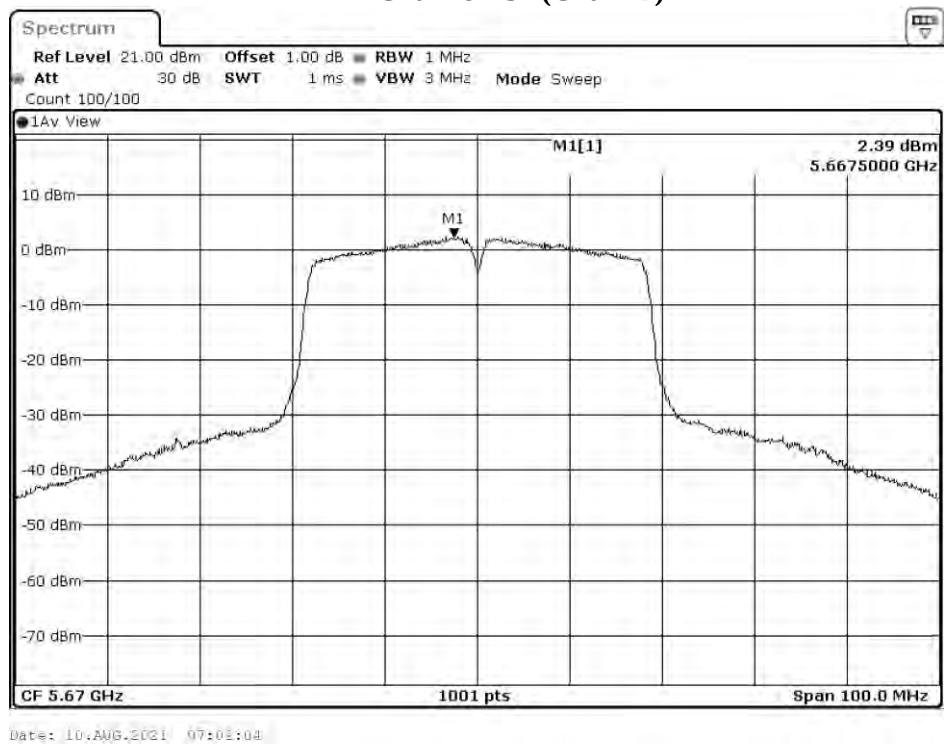
Channel 110 (Chain B)



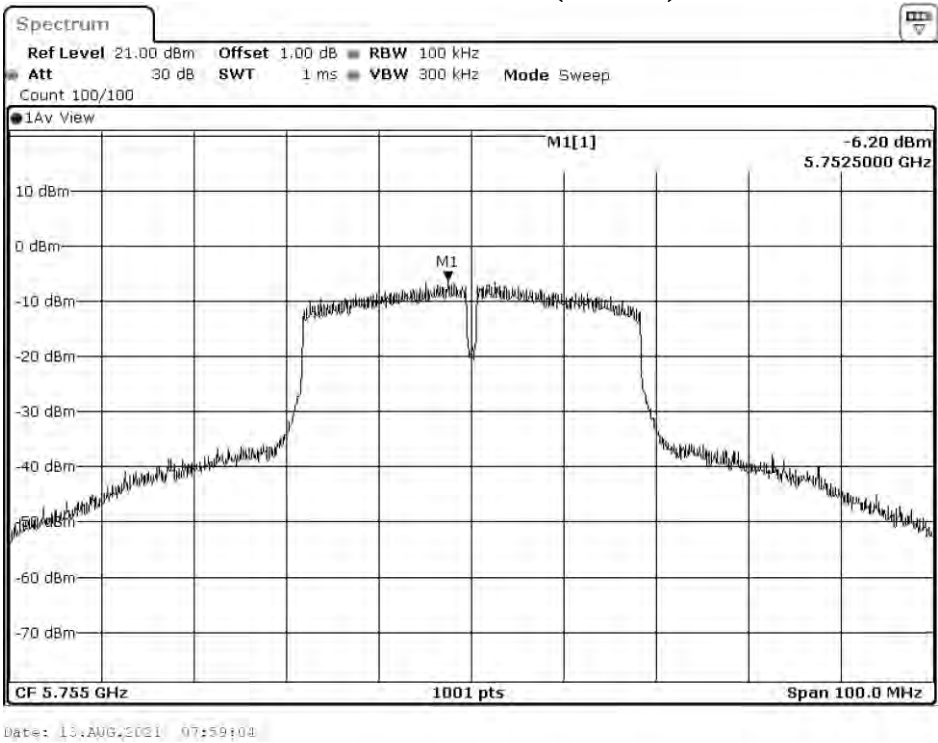
Channel 134 (Chain A)



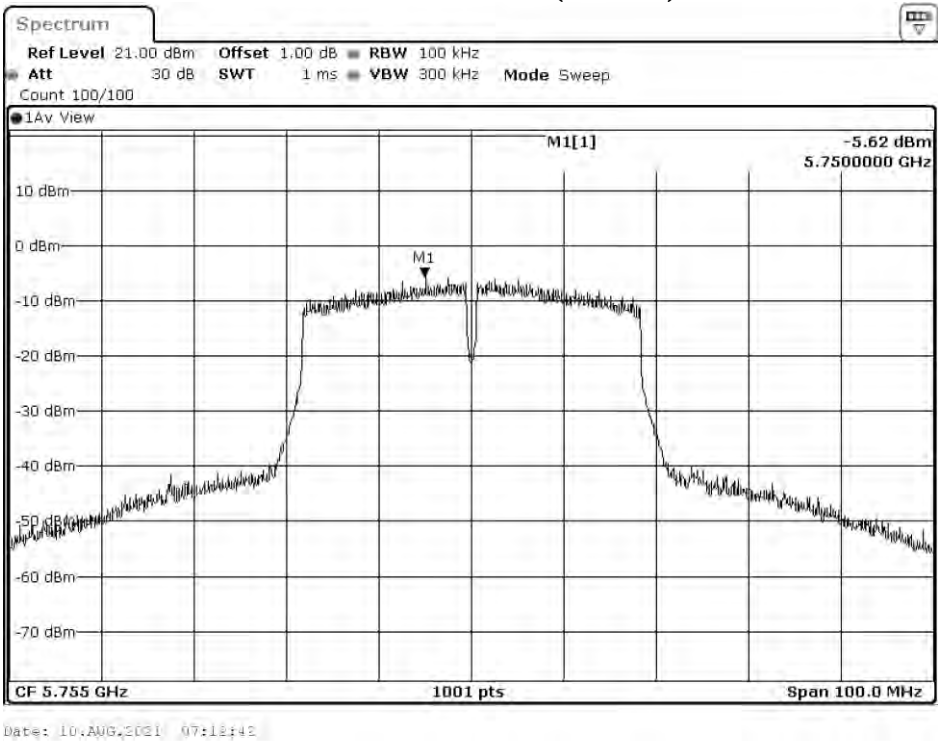
Channel 134 (Chain B)



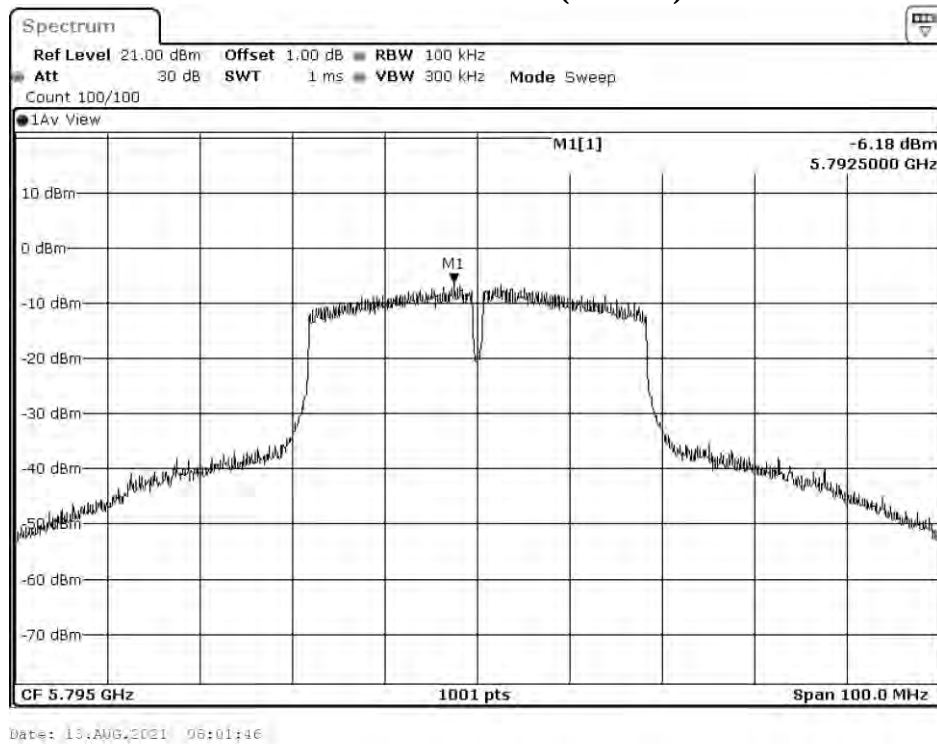
Channel 151 (Chain A)



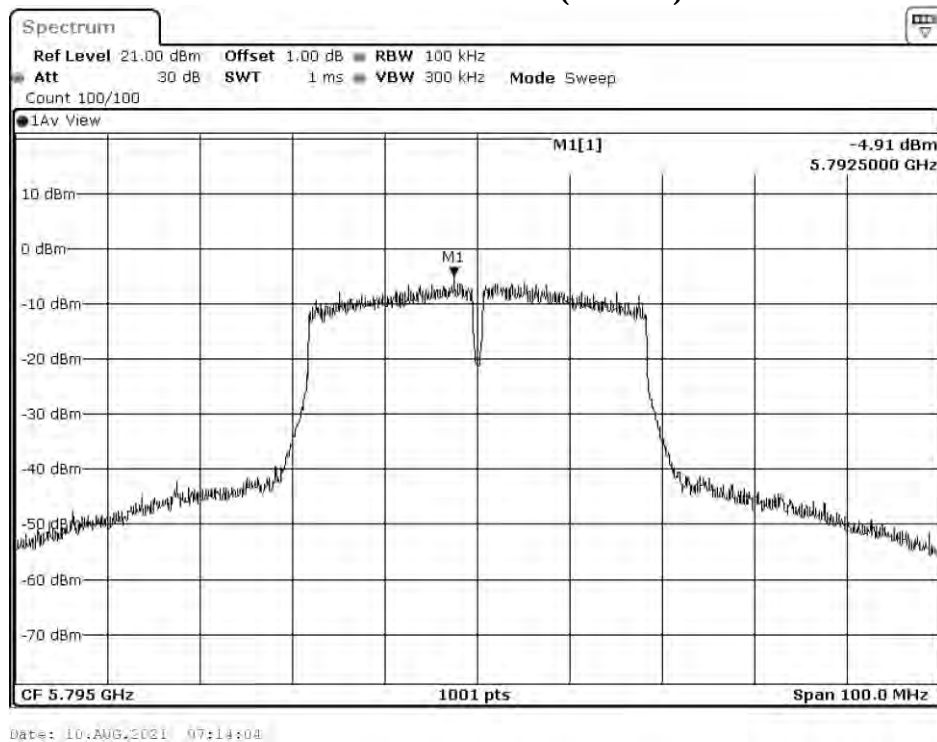
Channel 151 (Chain B)



Channel 159 (Chain A)



Channel 159 (Chain B)



待測物名稱：BT/Wi-Fi Module

待測物型號：MW510

測試項目：峰值功率頻譜密度

測試頻道：--

測試模式：Mode 1: 發射器 802.11ac-80BW

測試日期：110年08月11日

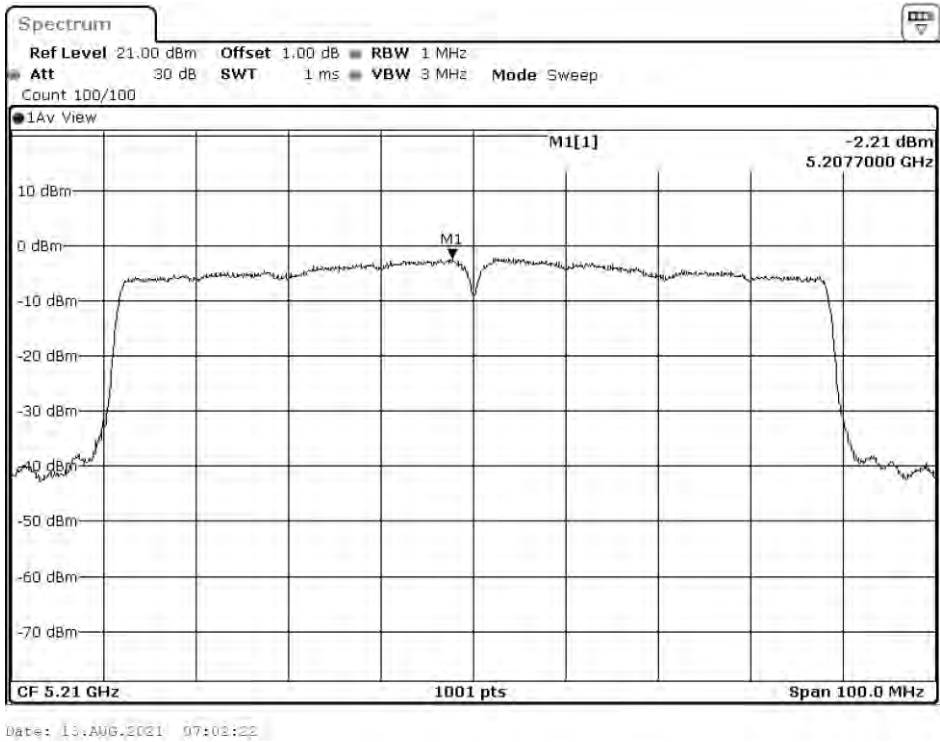
檢測器：峰值

Channel Number	Frequency (MHz)	Chain (dBm)	PPSD (dBm)	BWCF (dB)	10*log(2) (dBm)	Duty factor (dBm)	Total PPSD (dBm)	Required Limit (dBm)	Result
42	5210	A	-2.21	--	3.01	0.91	1.71	<11	Pass
		B	-2.36	--	3.01	0.91	1.56	<11	Pass
58	5290	A	-2.07	--	3.01	0.91	1.85	<11	Pass
		B	-2.00	--	3.01	0.91	1.92	<11	Pass
106	5530	A	-1.81	--	3.01	0.91	2.11	<11	Pass
		B	-1.56	--	3.01	0.91	2.36	<11	Pass
122	5610	A	-1.58	--	3.01	0.91	2.34	<11	Pass
		B	-1.08	--	3.01	0.91	2.84	<11	Pass
138 (U-NII-2C)	5690	A	-1.69	--	3.01	0.91	2.23	<11	Pass
		B	-1.33	--	3.01	0.91	2.59	<11	Pass
138 (U-NII-3)	5690	A	-12.72	6.98	3.01	0.91	-1.82	<30	Pass
		B	-11.93	6.98	3.01	0.91	-1.03	<30	Pass
155	5775	A	-9.01	6.98	3.01	0.91	1.89	<30	Pass
		B	-7.88	6.98	3.01	0.91	3.02	<30	Pass

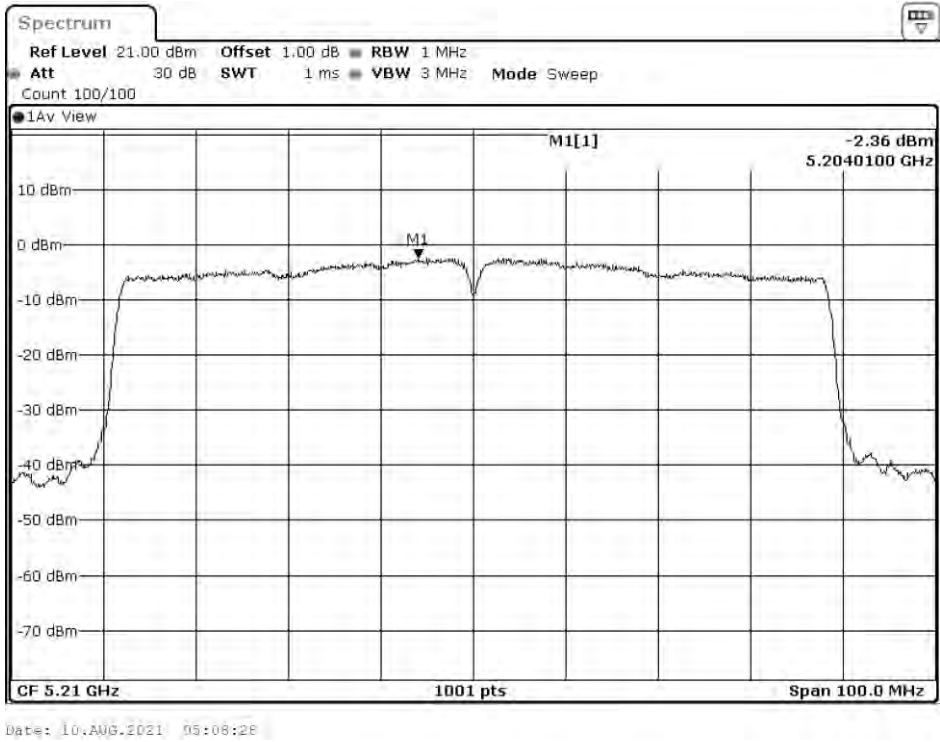
Note:

The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.

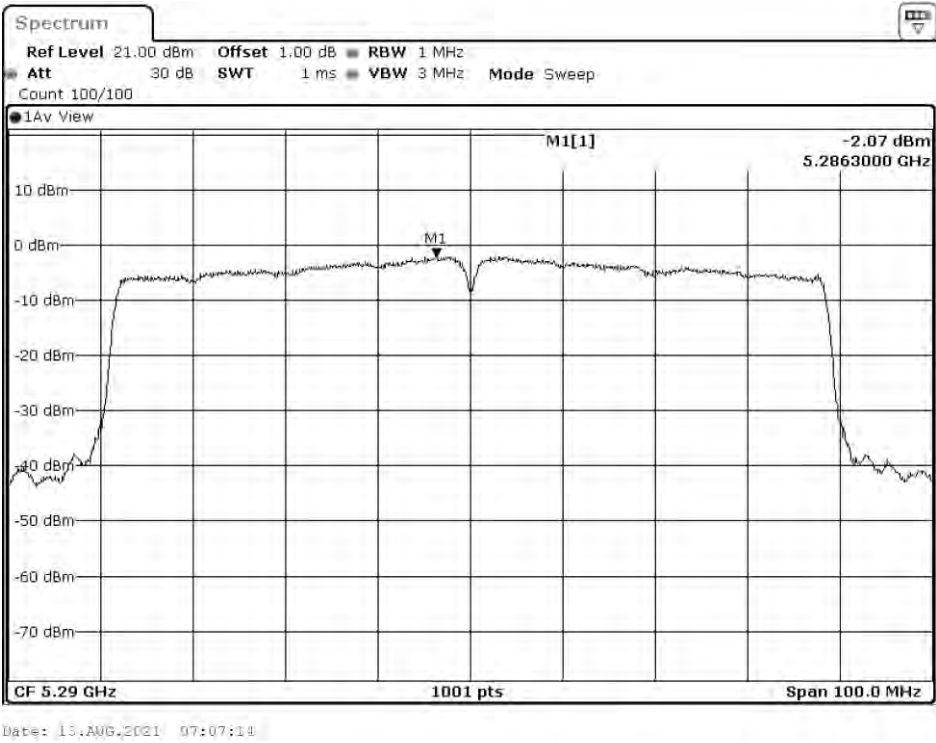
Channel 42 (Chain A)



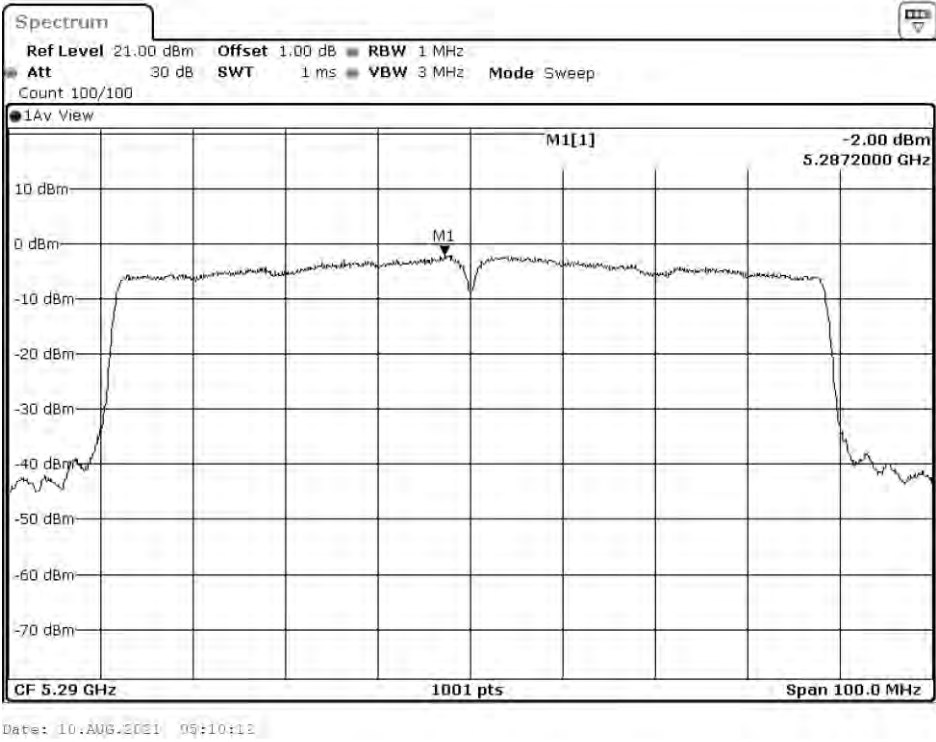
Channel 42 (Chain B)



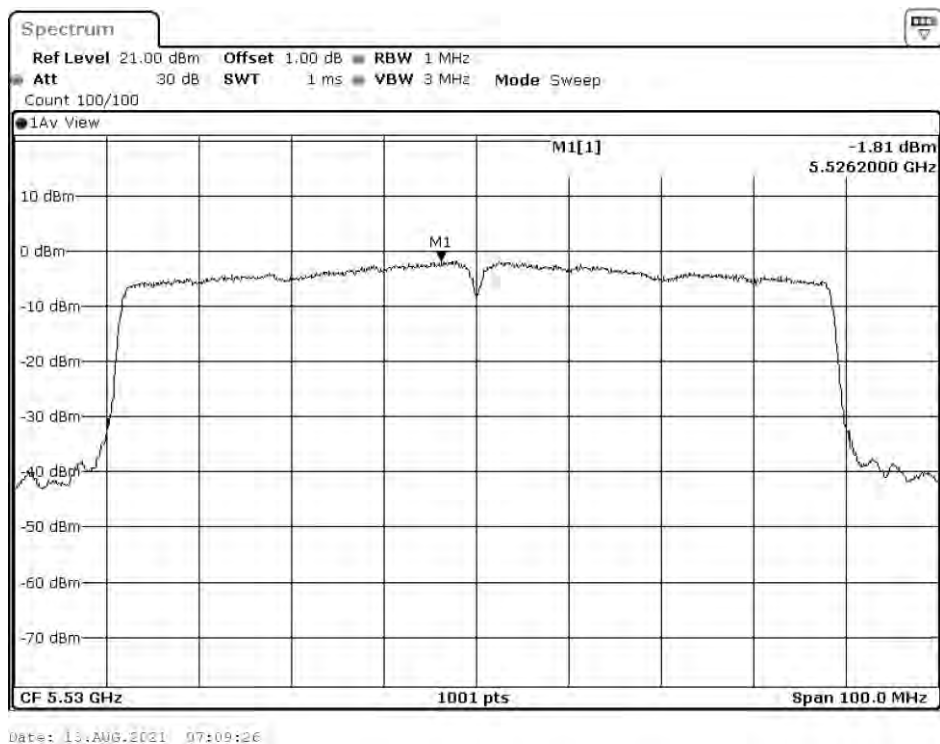
Channel 58 (Chain A)



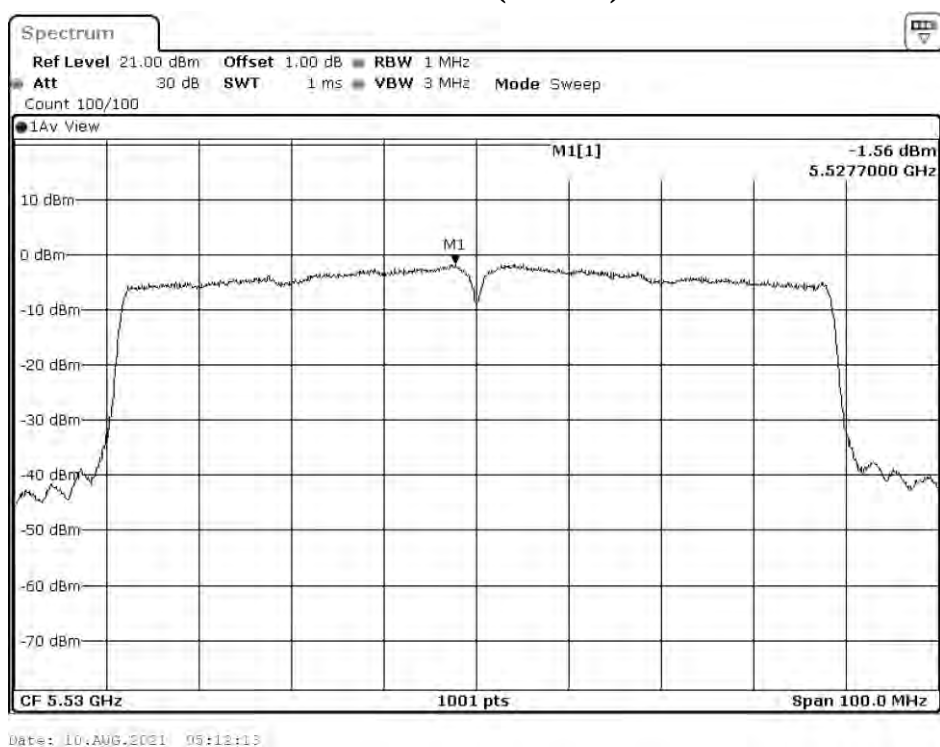
Channel 58 (Chain B)



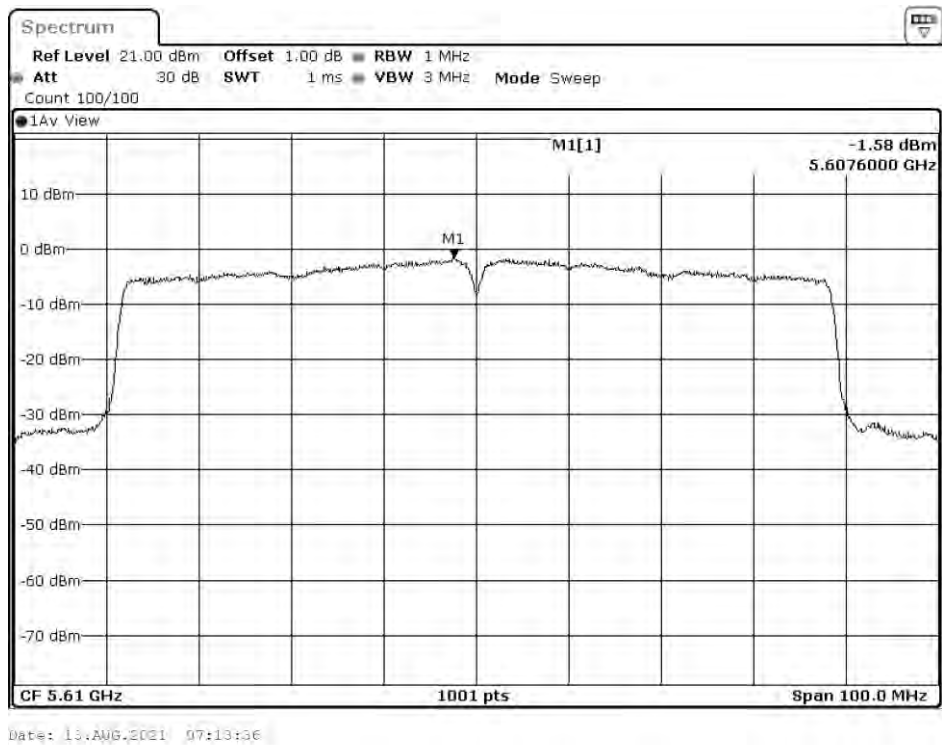
Channel 106 (Chain A)



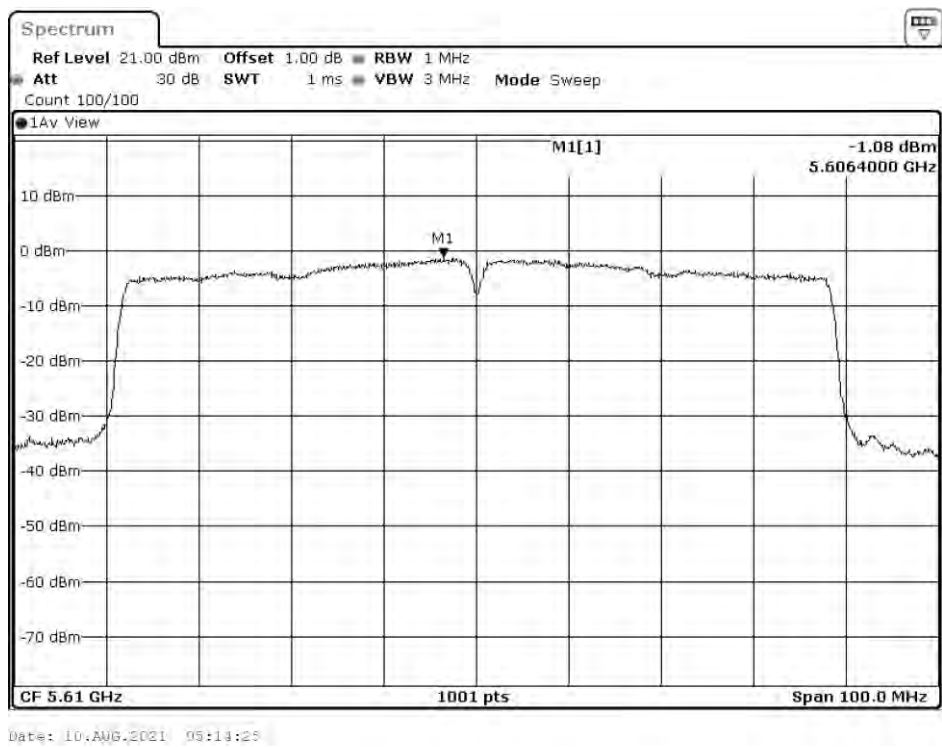
Channel 106 (Chain B)



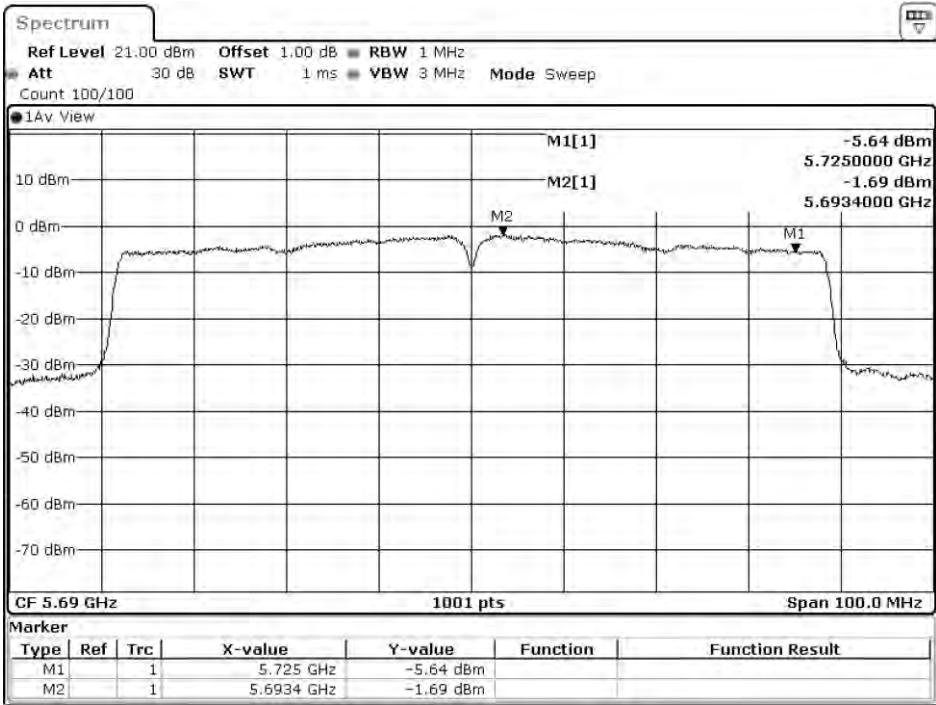
Channel 122 (Chain A)



Channel 122 (Chain B)

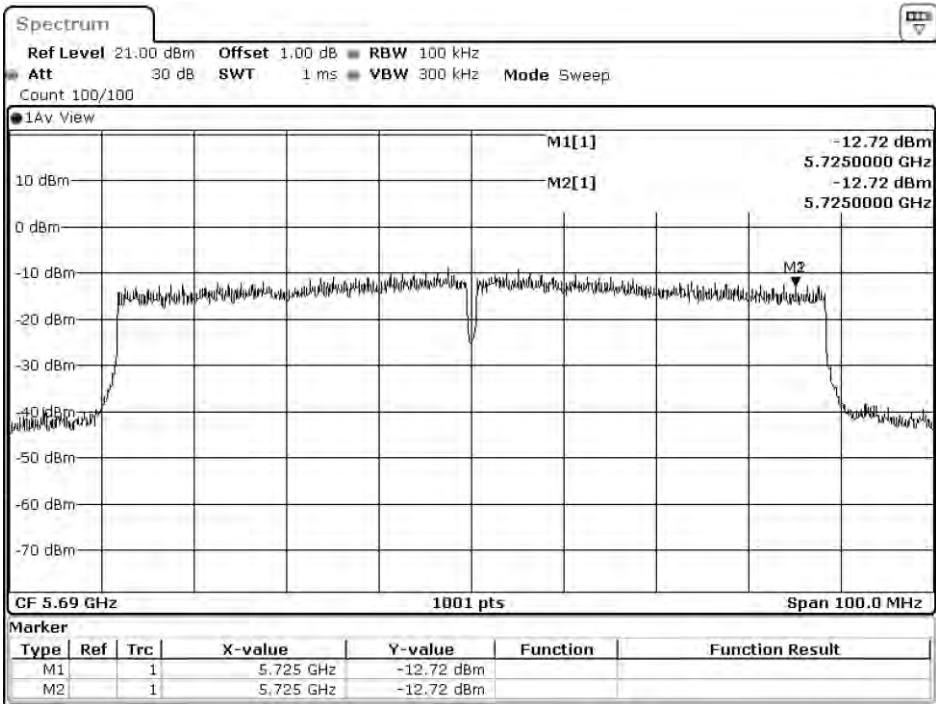


Channel 138 (U-NII-2C) (Chain A)



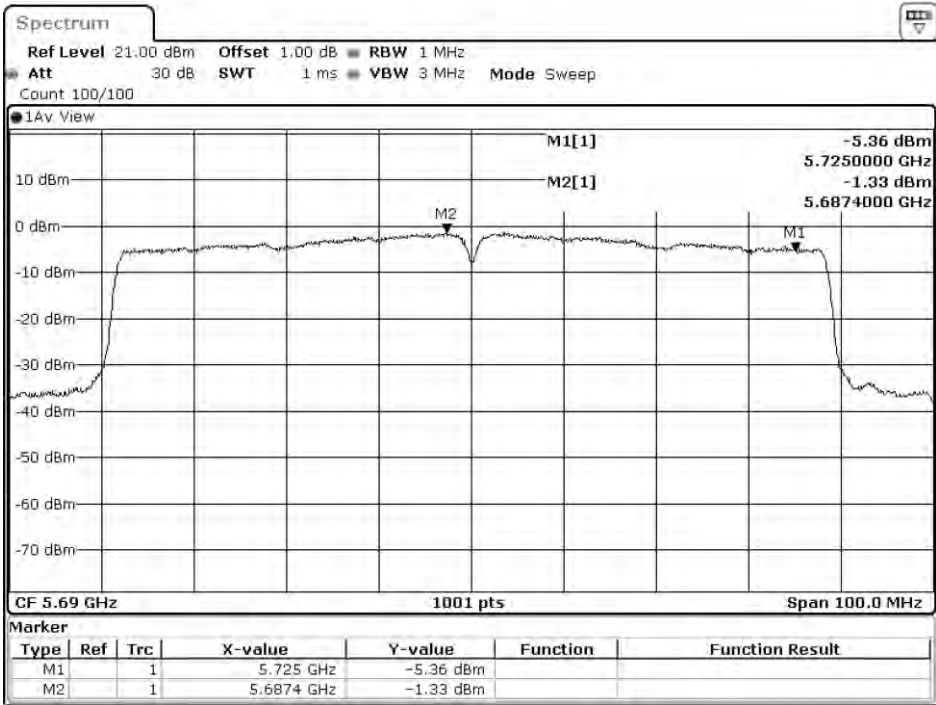
Date: 13.AUG.2021 07:15:16

Channel 138 (U-NII-3) (Chain A)



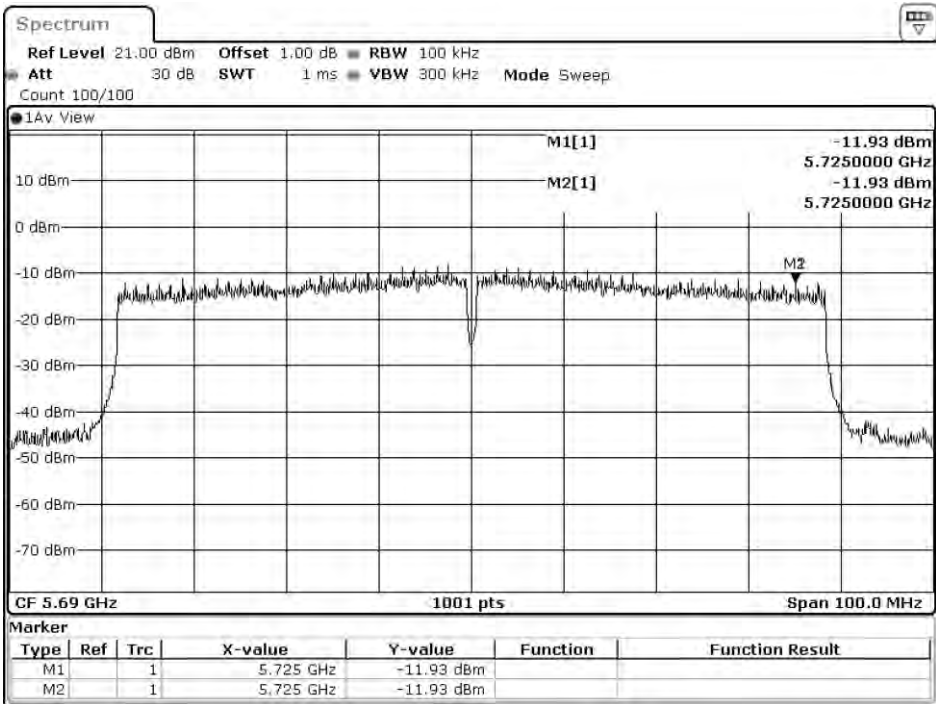
Date: 13.AUG.2021 07:15:37

Channel 138 (U-NII-2C) (Chain B)



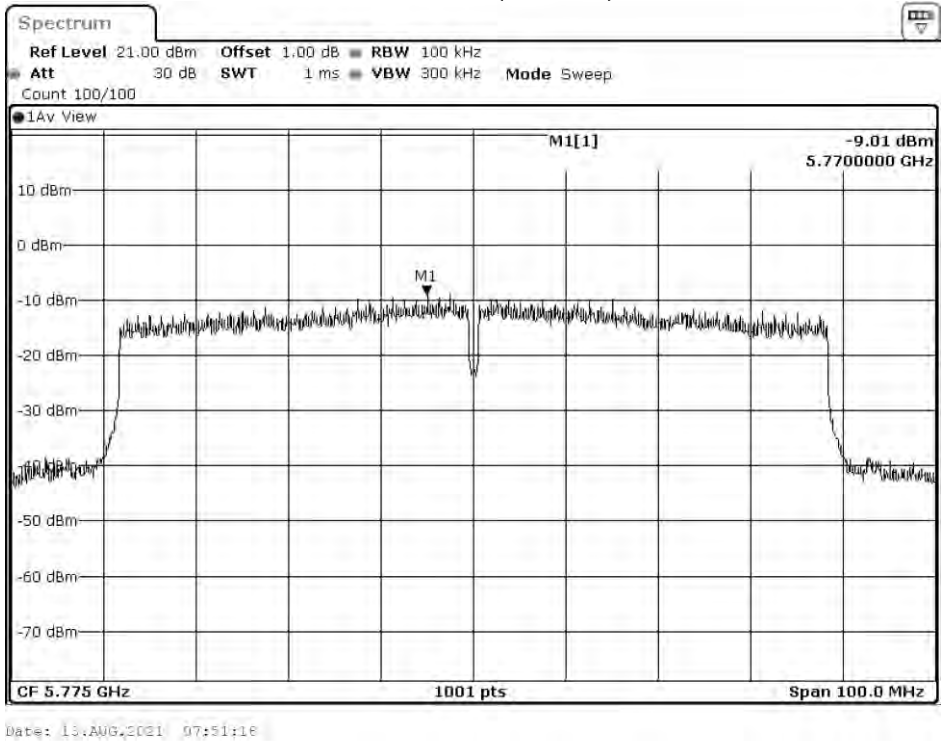
Date: 10.AUG.2021 05:17:56

Channel 138 (U-NII-3) (Chain B)

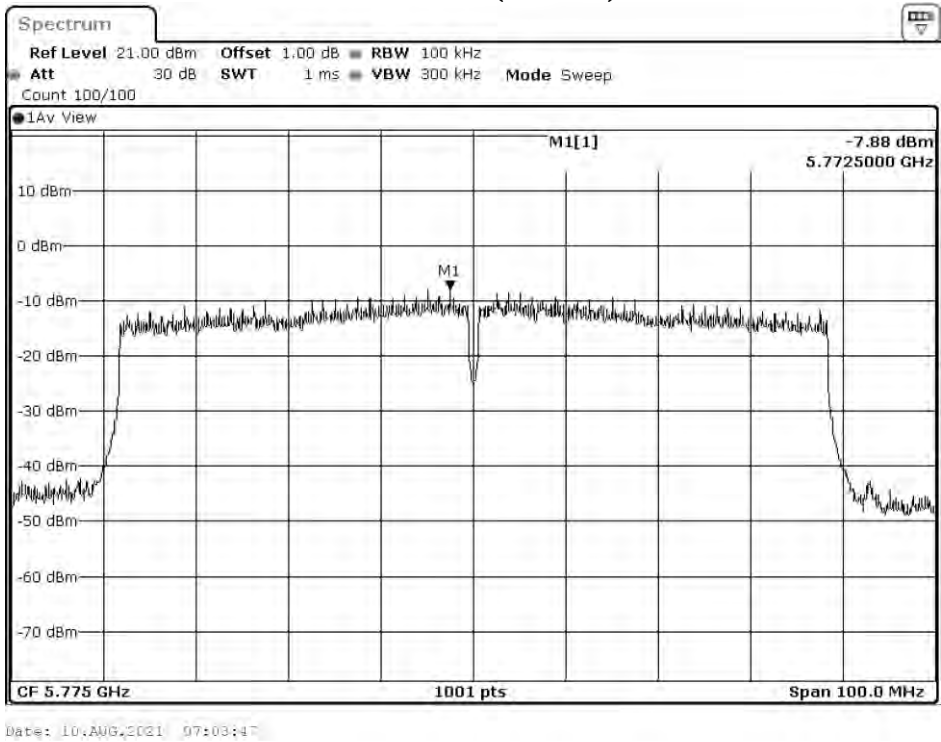


Date: 10.AUG.2021 05:18:16

Channel 155 (Chain A)



Channel 155 (Chain B)



峰值功率頻譜密度測試結果:

PASS

7. 操作頻帶外的峰值發射和混附發射

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 5.7.4 節：

5.7.4.1 在 5.15 GHz~5.35 GHz 及 5.470 GHz~5.725 GHz 頻帶操作的發射器：帶外發射之有效等向輻射功率(EIRP) $\leq$ -27 dBm/MHz。

5.7.4.2 在 5.725 GHz~5.850 GHz 的頻帶操作之發射器：所有頻帶邊緣向外 5 MHz 內頻率之發射，有效等向輻射功率(EIRP) $\leq$ 27 dBm/MHz~15.6 dBm/MHz (以線性增加法計算對應之限制值)；所有頻帶邊緣向外 5 MHz~25 MHz，有效等向輻射功率(EIRP) $\leq$ 15.6 dBm/MHz~10 dBm/MHz (以線性增加法計算對應之限制值)；所有頻帶邊緣外 25 MHz~75 MHz，有效等向輻射功率(EIRP) $\leq$ 10 dBm/MHz~-27 dBm/MHz (以線性增加法計算對應之限制值)；所有頻帶邊緣外 $\geq$ 75 MHz 的頻率之發射，有效等向輻射功率(EIRP) $\leq$ -27 dBm/MHz。

依據國家通訊傳播委員會低功率射頻器材技術規範之第 5.7.4 節：

5.7.4.6 不必要發射頻率屬 3.5 規定頻段者，應符合 3.6 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 3.5 節：

除本規範另有規定外，任何低功率射頻器材之主波皆不得使用下表所列各頻帶內之頻率；

低功率射頻器材落於下表所列頻帶內之混附發射，其電場強度必須符合第 3.6 節的限制規定。

頻率(兆赫)	頻率(兆赫)	頻率(兆赫)	頻率(兆赫)
0.090 - 0.110	162.01 - 167.17	2200.0 - 2300.0	23600.0 - 24000.0
0.490 - 0.510	167.72 - 173.20	2310.0 - 2390.0	31200.0 - 31800.0
2.172 - 2.198	240.00 - 285.00	2483.5 - 2900.0	36430.0 - 36500.0
3.013 - 3.033	322.00 - 335.40	3260.0 - 3267.0	38600.0 以上
4.115 - 4.198	399.90 - 410.00	3332.0 - 3339.0	
5.670 - 5.690	485.00 - 510.00	3345.8 - 3358.0	
6.200 - 6.300	608.00 - 614.00	3500.0 - 4400.0	
8.230 - 8.400	703.00 - 748.00	4500.0 - 5250.0	
12.265 - 12.600	758.00 - 803.00	5350.0 - 5460.0	
13.340 - 13.430	825.00 - 915.00	7250.0 - 7750.0	
14.965 - 15.020	930.00 - 1240.0	8025.0 - 8500.0	
16.700 - 16.755	1300.0 - 1427.0	9000.0 - 9200.0	
19.965 - 20.020	1435.0 - 1626.5	9300.0 - 9500.0	
25.500 - 25.700	1660.0 - 1785.0	10600.0 - 12700.0	
37.475 - 38.275	1805.0 - 1880.0	13250.0 - 13400.0	
73.500 - 75.400	1885.0 - 1900.0	14470.0 - 14500.0	
108.00 - 138.00	1905.0 - 1985.0	15350.0 - 16200.0	
149.90 - 150.05	2010.0 - 2025.0	17700.0 - 21400.0	
156.70 - 156.90	2110.0 - 2170.0	22010.0 - 23120.0	

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(兆赫)	電場強度(微伏/公尺)	測距(公尺)
0.009 - 0.490(含)	2,400/頻率(千赫)	300
0.490 (不含) – 1.705 (含)	24,000/頻率(千赫)	30
1.705(不含) – 30 (不含)	30	30
30 (含) – 88 (含)	100	3
88 (不含)- 216 (含)	150	3
216 (不含)- 960 (含)	200	3
960 (不含)以上	500	3

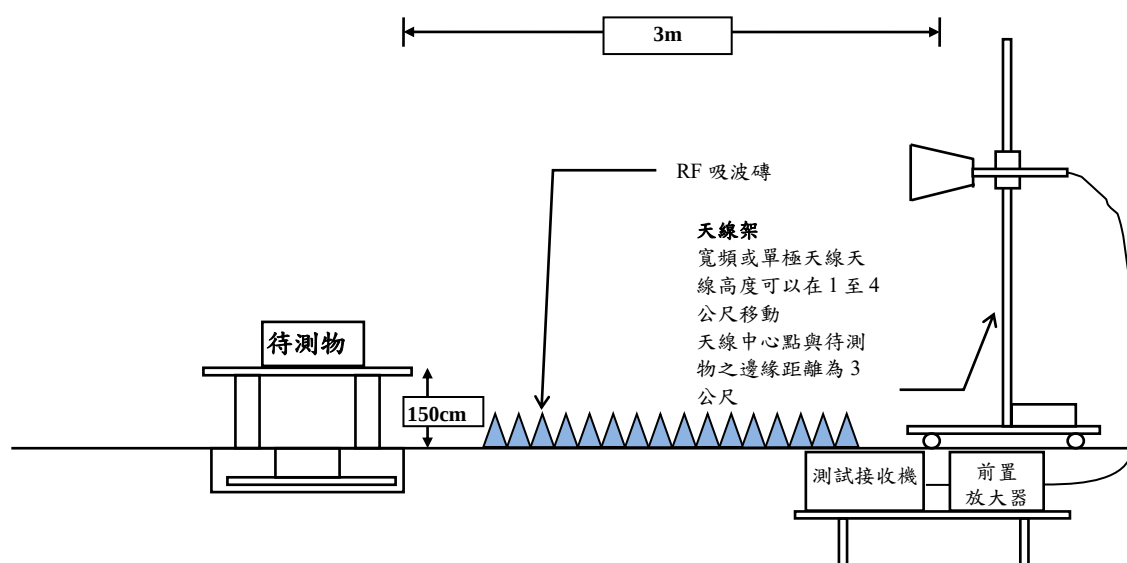
上表規定之電場強度，頻率在 9-90kHz 千赫(kHz)、110-490 千赫(kHz)以及 1000 兆赫(MHz)以上之發射，其量測以平均值檢波器為基準，且須符合第 6.15.2 節之規定；其他發射頻率，應以國際無線電干擾特別委員會(INTERNATIONAL SPECIAL COMMITTEE ON RADIO INTERFERENCE, CISPR)準峰值 (quasi-peak) 檢波器測量；非以上表所指定之距離測量時，應符合第 6.5 節之規定，輻射發射之量測頻率範圍應符合第 6.14 節之規定。

7.2. 量測方法

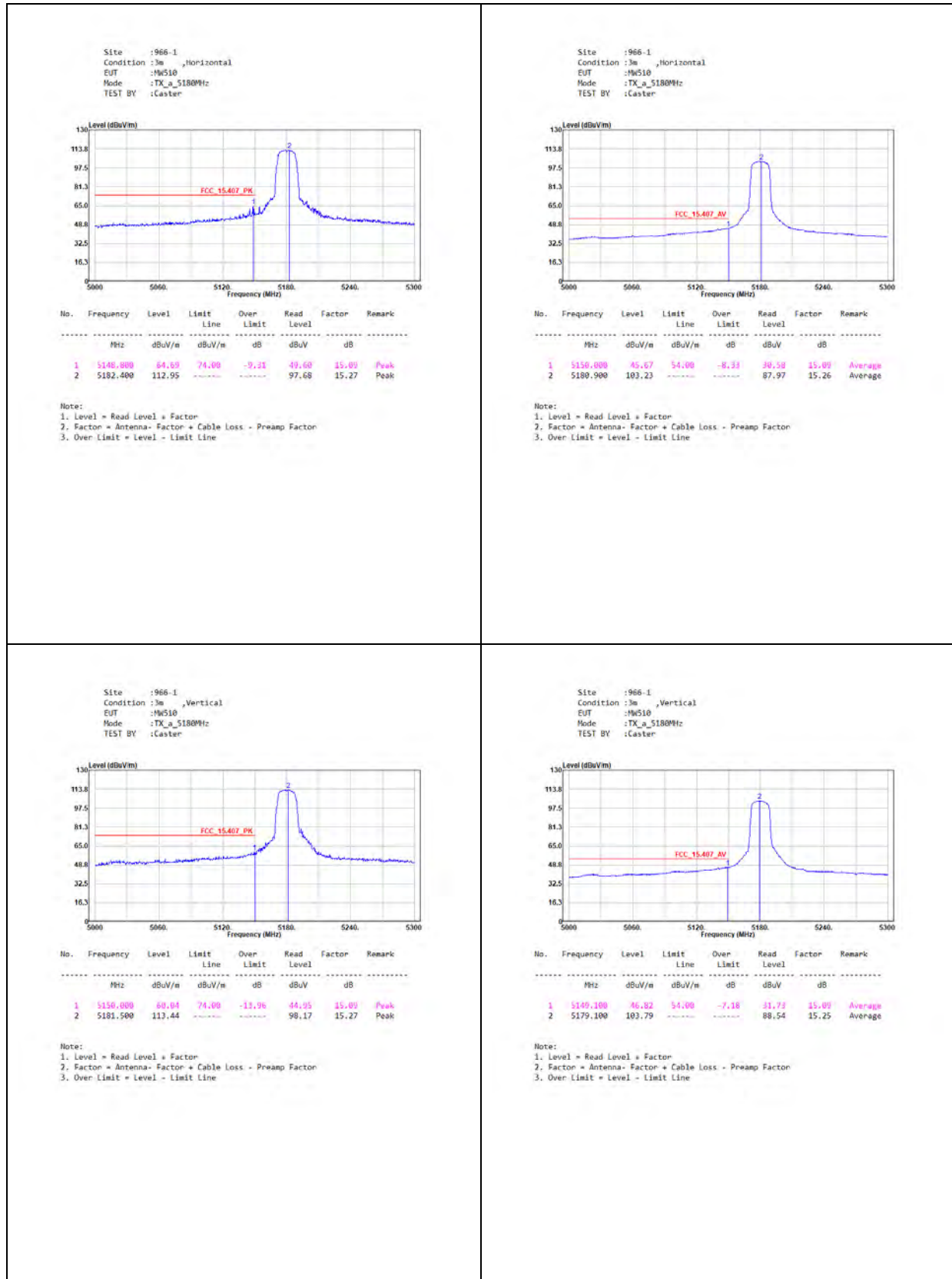
待測物置於高 150 公分之非導體桌面（落地型產品置於地上），桌面可 360 度旋轉，接收天線置於距待測物 3m 距離，高度可在 1 至 4 公尺間變動，以頻譜分析儀量測待測物之最大輻射電場強度，在將待測物置換成替代天線並連接到信號產生器上，調整接收天線上的信號產生器之輸出位準，使頻譜分析儀上之電場強度與之前待測物的最大電場強度相同，紀錄此輸出位準並應於水平及垂直極化方向各量測一次。

待測物應在正常發射狀態下量測。

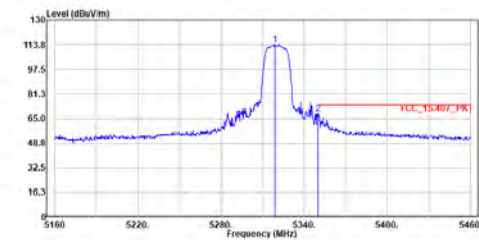
7.3. 測試架構圖



7.4. 操作頻帶外的峰值發射和混附發射測試結果



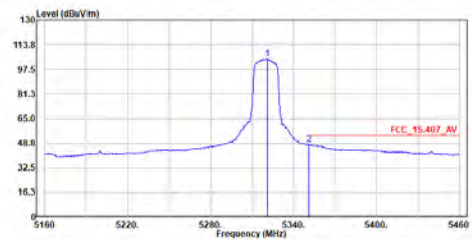
Site :966-1
Condition :3m ,Horizontal
EUT :H6510
Mode :TX_a_5320MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	5318.700	113.83	-----	98.27	15.56	Peak	
2	5350.200	68.19	74.09	-5.81	52.53	15.66	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

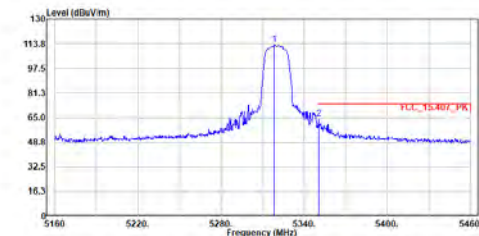
Site :966-1
Condition :3m ,Horizontal
EUT :H6510
Mode :TX_a_5320MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	5320.800	104.27	-----	88.70	15.57	Average	
2	5351.100	47.86	54.09	-6.14	32.20	15.66	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

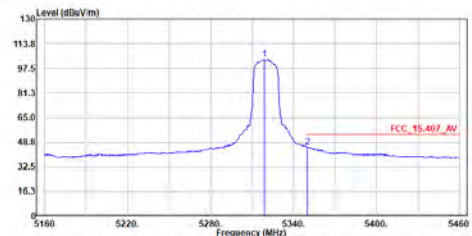
Site :966-3
Condition :3m ,Vertical
EUT :H6510
Mode :TX_a_5320MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	5318.100	113.32	-----	97.76	15.56	Peak	
2	5350.500	64.26	74.09	-9.74	48.60	15.66	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

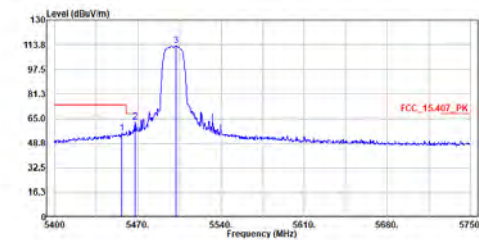
Site :966-3
Condition :3m ,Vertical
EUT :H6510
Mode :TX_a_5320MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	5319.000	103.55	-----	87.99	15.56	Average	
2	5350.200	45.64	54.09	-8.36	29.98	15.66	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

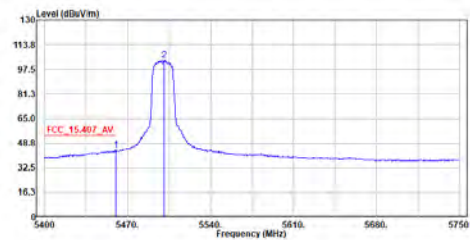
Site :966-1
Condition :3m ,Horizontal
EUT :H6510
Mode :TX_a_5500MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5456.350	55.59	74.00	-18.41	39.64	15.95	Peak
2	5467.550	62.66	68.22	-5.56	46.66	16.00	Peak
3	5502.200	113.16	-----	-----	97.03	16.13	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

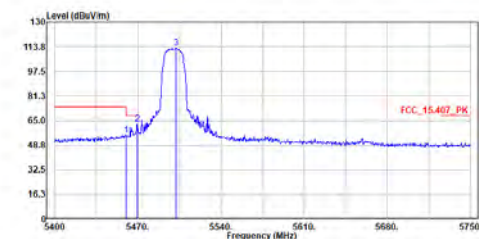
Site :966-1
Condition :3m ,Horizontal
EUT :H6510
Mode :TX_a_5500MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5459.850	44.38	54.00	-9.62	28.42	15.96	Average
2	5500.800	103.36	-----	-----	87.23	16.13	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

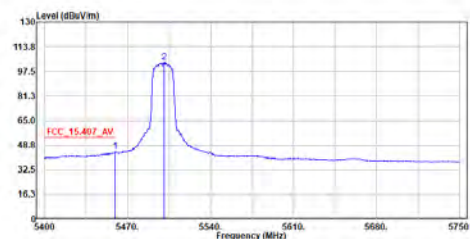
Site :966-1
Condition :3m ,Vertical
EUT :H6510
Mode :TX_a_5500MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5459.850	55.36	74.00	-18.64	39.40	15.96	Peak
2	5469.650	62.62	68.22	-5.60	46.62	16.00	Peak
3	5501.850	112.88	-----	-----	96.75	16.13	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

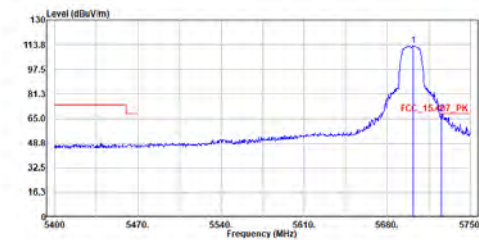
Site :966-1
Condition :3m ,Vertical
EUT :H6510
Mode :TX_a_5500MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5459.500	44.67	54.00	-9.33	28.71	15.96	Average
2	5500.800	103.47	-----	-----	87.34	16.13	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Horizontal
EUT :H6510
Mode :TX_a_5700MHz
TEST BY :Carlos Chen

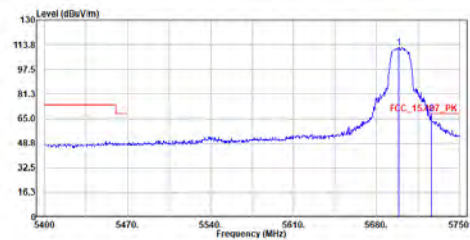


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	5702.050	113.40	-----	-----	97.06	16.34	Peak
2	5725.950	68.12	68.22	-0.10	51.77	16.35	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Vertical
EUT :H6510
Mode :TX_a_5700MHz
TEST BY :Carlos Chen

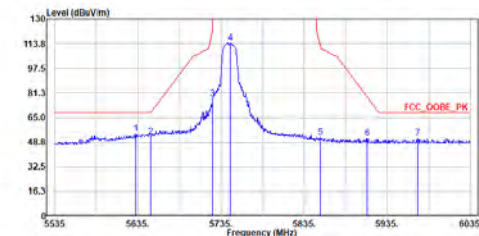


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	5698.900	111.87	-----	-----	95.53	16.34	Peak
2	5725.290	68.04	68.22	-0.18	51.69	16.35	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Horizontal
EUT :TX_a_5745MHz
TEST BY :Carlos Chen

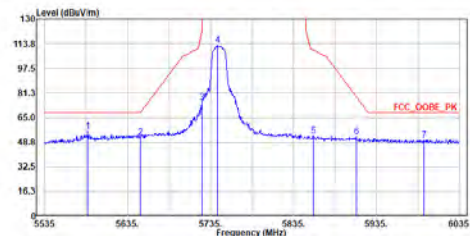


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	5632.500	54.56	68.22	-13.66	38.48	16.08	Peak
2	5650.000	52.47	68.23	-15.76	36.36	16.11	Peak
3	5725.000	77.55	122.20	-44.65	61.20	16.35	Peak
4	5745.500	114.26	-----	-----	97.90	16.36	Peak
5	5854.500	52.22	111.94	-59.72	35.55	16.67	Peak
6	5910.500	51.44	78.95	-27.51	34.55	16.89	Peak
7	5971.500	51.45	68.22	-16.77	34.55	16.90	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Vertical
EUT :TX_a_5745MHz
TEST BY :Carlos Chen

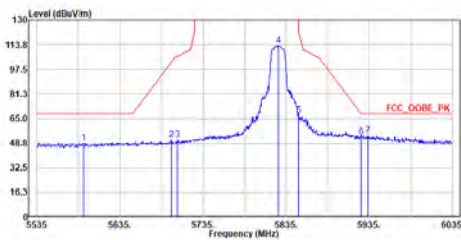


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	5587.000	56.08	68.22	-12.14	48.05	16.03	Peak
2	5650.000	52.22	68.23	-16.01	36.11	16.11	Peak
3	5725.000	75.22	122.20	-46.98	58.87	16.35	Peak
4	5745.500	112.65	-----	-----	96.29	16.36	Peak
5	5850.500	52.76	109.82	-57.06	36.08	16.68	Peak
6	5910.500	52.25	78.95	-26.70	35.36	16.89	Peak
7	5992.000	50.21	68.22	-18.01	33.25	16.96	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

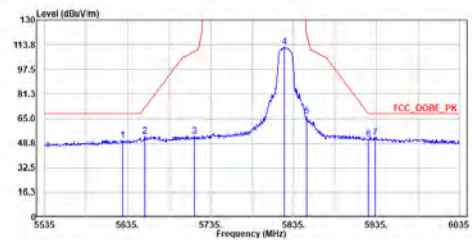
Site :966-1
Condition :3m ,Horizontal
EUT :H6510
Mode :TX_a_5825MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5591.000	49.16	68.22	-19.06	33.14	16.02	Peak
2	5696.500	51.16	102.61	-51.45	34.83	16.33	Peak
3	5704.000	51.07	106.32	-55.25	34.73	16.34	Peak
4	5825.500	113.10	-----	-----	96.52	16.58	Peak
5	5850.000	67.01	122.20	-55.19	50.36	16.65	Peak
6	5925.000	52.78	68.23	-15.45	35.91	16.87	Peak
7	5933.500	54.14	68.22	-14.08	37.28	16.86	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

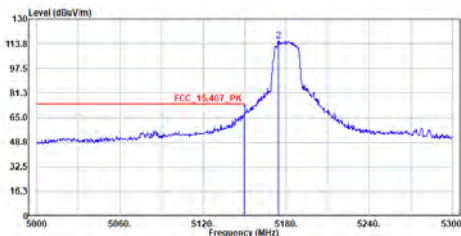
Site :966-1
Condition :3m ,Vertical
EUT :H6510
Mode :TX_a_5825MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5628.500	50.57	68.22	-17.65	34.50	16.07	Peak
2	5655.500	53.36	72.29	-18.93	37.22	16.14	Peak
3	5715.500	53.35	109.54	-56.19	37.00	16.35	Peak
4	5824.000	112.15	-----	-----	95.57	16.58	Peak
5	5850.500	66.55	121.06	-54.51	49.90	16.65	Peak
6	5925.000	51.60	68.23	-16.63	34.73	16.87	Peak
7	5933.000	52.53	68.22	-15.69	35.67	16.86	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

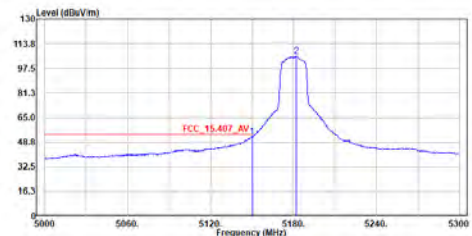
Site :966-1
Condition :3m ,Horizontal
EUT :H6510
Mode :TX_ac20_5180MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5149.700	67.82	74.00	-6.18	52.73	15.09	Peak
2	5174.600	115.65	-----	-----	100.42	15.23	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

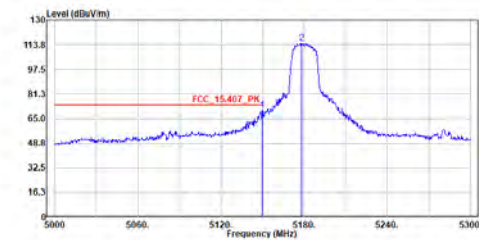
Site :966-1
Condition :3m ,Horizontal
EUT :H6510
Mode :TX_ac20_5180MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5150.000	52.46	54.00	-1.54	37.37	15.09	Average
2	5182.100	105.58	-----	-----	90.31	15.27	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Vertical
EUT :196510
Mode :TX_ac20_5180MHz
TEST BY :Carlos Chen

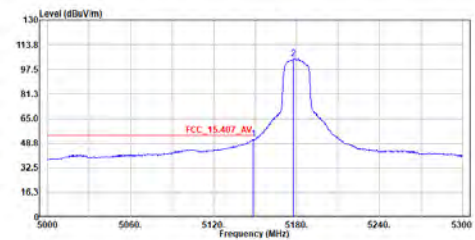


No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5149.700	70.48	74.00	-3.51	55.40	15.09	Peak
2	5178.200	114.70	-----	-----	99.46	15.24	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Vertical
EUT :196510
Mode :TX_ac20_5180MHz
TEST BY :Carlos Chen

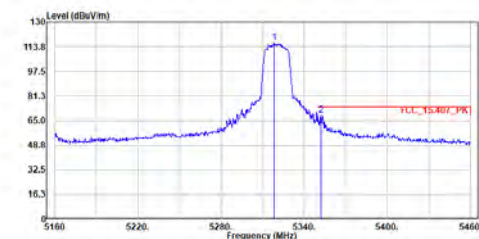


No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5148.800	51.53	54.00	-2.47	36.44	15.09	Average
2	5177.600	104.49	-----	-----	89.25	15.24	Average

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Horizontal
EUT :196510
Mode :TX_ac20_5320MHz
TEST BY :Carlos Chen

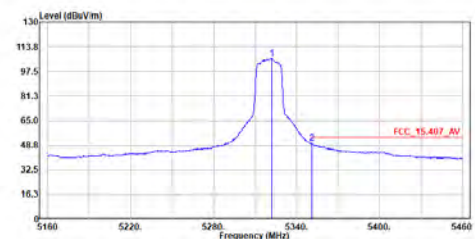


No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5318.100	116.66	-----	-----	101.10	15.56	Peak
2	5352.300	68.73	74.00	-5.27	53.97	15.66	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Horizontal
EUT :196510
Mode :TX_ac20_5320MHz
TEST BY :Carlos Chen

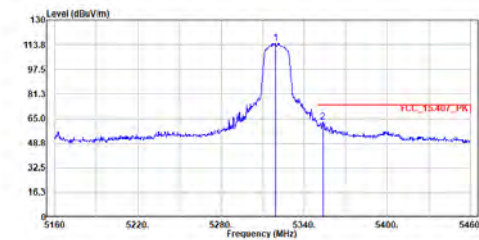


No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5322.300	105.98	-----	-----	90.41	15.57	Average
2	5351.100	50.07	54.00	-3.93	34.41	15.66	Average

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Vertical
EUT :N6510
Mode :TX_ac20_5320MHz
TEST BY :Carlos Chen

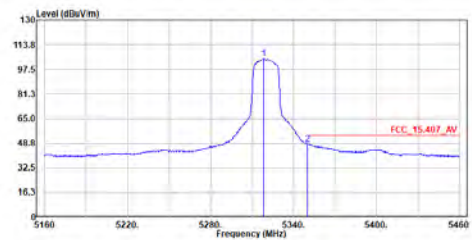


No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5319.300	114.71	-----	99.15	15.56	15.56	Peak
2	5353.500	62.60	74.09	-11.22	47.01	15.67	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Vertical
EUT :N6510
Mode :TX_ac20_5320MHz
TEST BY :Carlos Chen

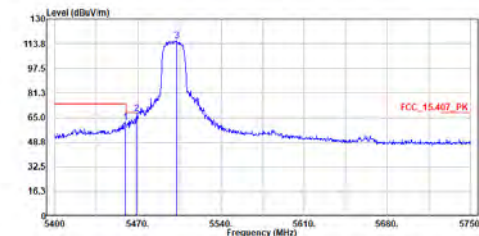


No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5318.400	104.55	-----	88.99	15.56	15.56	Average
2	5390.200	48.29	54.09	-5.73	32.63	15.66	Average

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Horizontal
EUT :N6510
Mode :TX_ac20_5500MHz
TEST BY :Carlos Chen

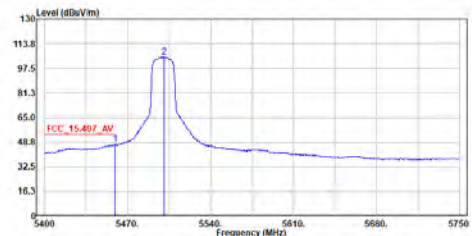


No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5459.500	61.85	74.00	-12.15	45.89	15.96	Peak
2	5468.000	67.62	68.22	-0.60	51.62	16.00	Peak
3	5502.550	115.71	-----	99.59	16.12	16.12	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Horizontal
EUT :N6510
Mode :TX_ac20_5500MHz
TEST BY :Carlos Chen

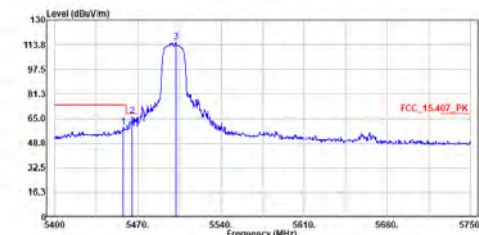


No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5459.500	47.49	54.00	-6.51	31.53	15.96	Average
2	5500.800	105.17	-----	89.04	16.13	16.13	Average

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

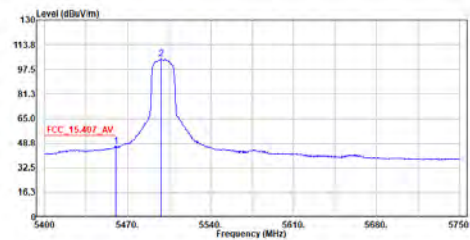
Site :966-1
Condition :3m ,Vertical
EUT :196510
Mode :TX_ac20_5500MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5457.750	59.38	74.00	-14.62	43.42	15.96	Peak
2	5465.300	66.49	68.22	-1.73	50.50	15.99	Peak
3	5501.850	115.84	-----	-----	99.71	16.13	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

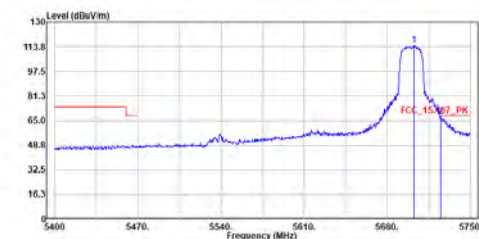
Site :966-1
Condition :3m ,Vertical
EUT :196510
Mode :TX_ac20_5500MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5457.750	46.64	54.00	-7.36	30.60	15.96	Average
2	5498.000	104.62	-----	-----	88.50	16.12	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

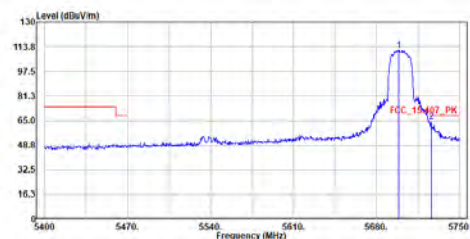
Site :966-1
Condition :3m ,Horizontal
EUT :196510
Mode :TX_ac20_5700MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5702.400	114.57	-----	-----	98.23	16.34	Peak
2	5725.350	67.88	68.22	-0.34	51.53	16.35	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

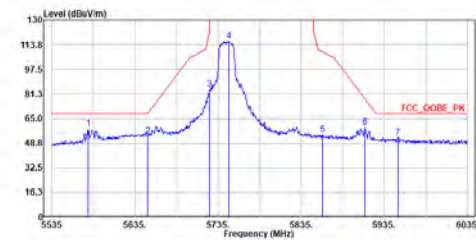
Site :966-1
Condition :3m ,Vertical
EUT :196510
Mode :TX_ac20_5700MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5698.900	111.42	-----	-----	95.08	16.34	Peak
2	5725.290	64.39	68.22	-3.83	49.04	16.35	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

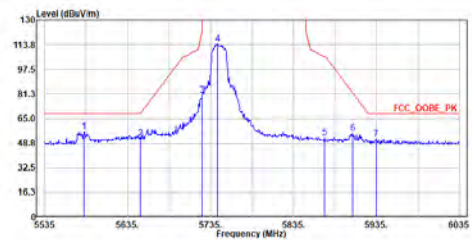
Site :966-1
Condition :3m ,Horizontal
EUT :H6510
Mode :TX_ac20_5745MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5579.000	58.34	68.22	-9.88	42.31	16.03	Peak
2	5650.000	53.55	68.23	-14.68	37.44	16.11	Peak
3	5725.000	84.32	122.20	-37.88	67.97	16.35	Peak
4	5747.500	116.32	-----	-----	99.96	16.36	Peak
5	5861.000	54.27	109.12	-54.85	37.57	16.70	Peak
6	5911.500	59.11	78.21	-19.10	42.22	16.89	Peak
7	5951.500	52.57	68.22	-15.65	35.72	16.85	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

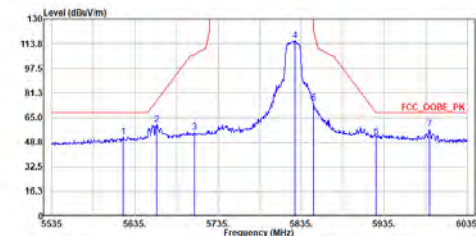
Site :966-1
Condition :3m ,Vertical
EUT :H6510
Mode :TX_ac20_5745MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5582.500	56.38	68.22	-11.84	48.36	16.02	Peak
2	5650.000	51.84	68.23	-16.39	35.73	16.11	Peak
3	5725.000	80.29	122.20	-41.91	63.94	16.35	Peak
4	5747.500	114.52	-----	-----	98.16	16.36	Peak
5	5872.000	52.45	106.04	-53.59	35.69	16.76	Peak
6	5906.000	55.63	82.28	-26.65	38.74	16.89	Peak
7	5934.500	51.64	68.22	-16.58	34.78	16.86	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

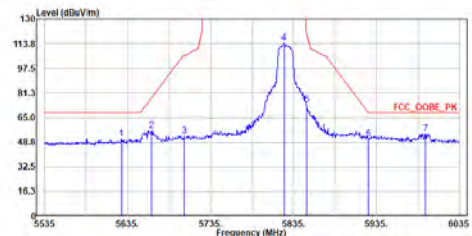
Site :966-1
Condition :3m ,Horizontal
EUT :H6510
Mode :TX_ac20_5825MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5621.000	52.58	68.22	-15.64	36.53	16.05	Peak
2	5661.000	60.33	76.36	-16.03	44.17	16.16	Peak
3	5707.000	55.56	107.16	-51.60	39.21	16.35	Peak
4	5827.500	115.62	-----	-----	99.03	16.59	Peak
5	5850.000	74.75	122.20	-47.45	58.10	16.65	Peak
6	5925.000	52.73	68.23	-15.50	35.86	16.87	Peak
7	5989.500	57.42	68.22	-10.80	40.46	16.96	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

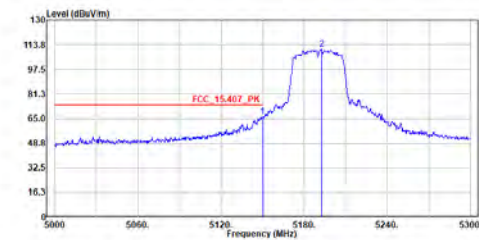
Site :966-1
Condition :3m ,Vertical
EUT :H6510
Mode :TX_ac20_5825MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5627.500	50.95	68.22	-17.27	34.89	16.06	Peak
2	5664.000	56.64	78.58	-21.94	40.46	16.18	Peak
3	5703.000	52.88	106.04	-53.16	36.54	16.34	Peak
4	5823.500	114.66	-----	-----	97.89	16.57	Peak
5	5850.500	73.75	121.06	-47.31	57.10	16.65	Peak
6	5925.000	51.23	68.23	-17.00	34.36	16.87	Peak
7	5994.000	54.53	68.22	-13.69	37.56	16.97	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Horizontal
EUT :H6510
Mode :TX_ac40_5190MHz
TEST BY :Carlos Chen

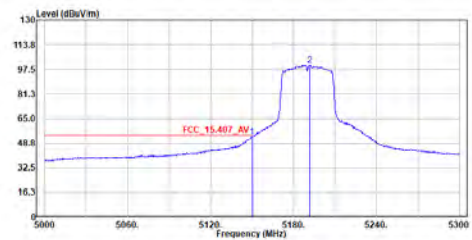


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	5150.000	66.23	74.00	-7.77	51.14	15.09	Peak
2	5192.000	110.67	-----	-----	95.34	15.33	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Horizontal
EUT :H6510
Mode :TX_ac40_5190MHz
TEST BY :Carlos Chen

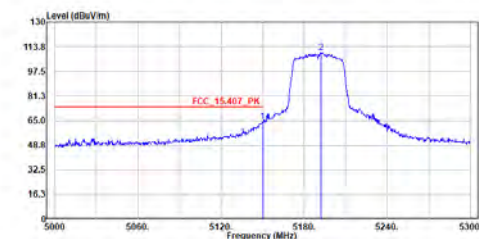


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	5150.000	66.23	74.00	-7.77	51.14	15.09	Peak
2	5191.400	100.29	-----	-----	84.96	15.33	Average

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Vertical
EUT :H6510
Mode :TX_ac40_5190MHz
TEST BY :Carlos Chen

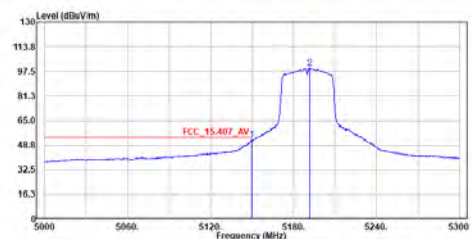


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	5150.000	64.36	74.00	-9.64	49.27	15.09	Peak
2	5192.000	110.08	-----	-----	94.75	15.33	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Vertical
EUT :H6510
Mode :TX_ac40_5190MHz
TEST BY :Carlos Chen

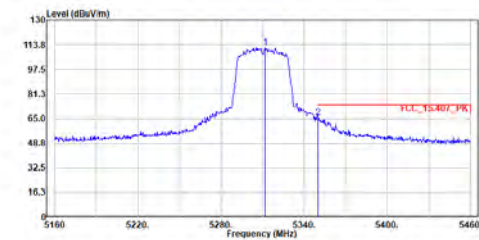


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	5149.700	52.25	54.00	-1.75	37.16	15.09	Average
2	5191.400	99.73	-----	-----	84.40	15.33	Average

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Horizontal
EUT :H6510
Mode :TX_ac40_5310MHz
TEST BY :Carlos Chen

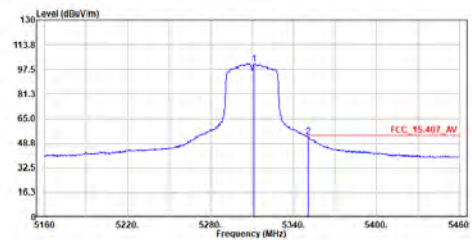


No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5312.100	111.72	-----	-----	96.18	15.54	Peak
2	5350.200	65.71	74.09	-8.29	50.05	15.66	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Horizontal
EUT :H6510
Mode :TX_ac40_5310MHz
TEST BY :Carlos Chen

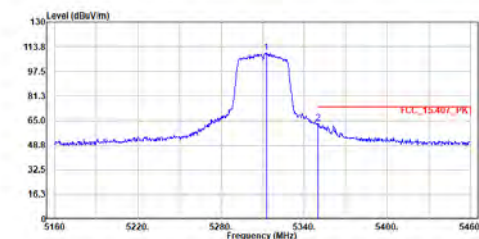


No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5311.500	101.16	-----	-----	85.62	15.54	Average
2	5350.500	52.91	54.09	-1.09	37.25	15.66	Average

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Vertical
EUT :H6510
Mode :TX_ac40_5310MHz
TEST BY :Carlos Chen

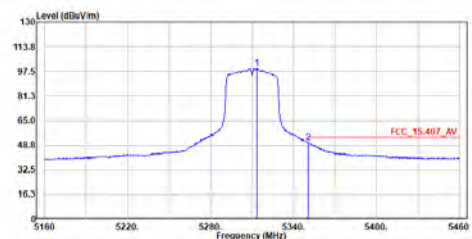


No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5312.700	109.97	-----	-----	94.42	15.55	Peak
2	5350.200	63.51	74.09	-10.49	47.85	15.66	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Vertical
EUT :H6510
Mode :TX_ac40_5310MHz
TEST BY :Carlos Chen

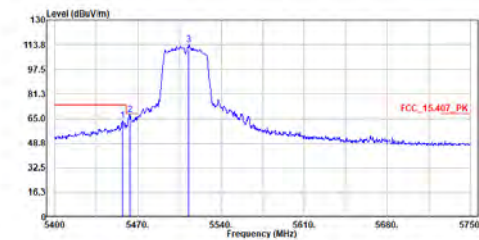


No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5311.600	99.36	-----	-----	83.81	15.55	Average
2	5350.500	50.72	54.09	-3.28	35.06	15.66	Average

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

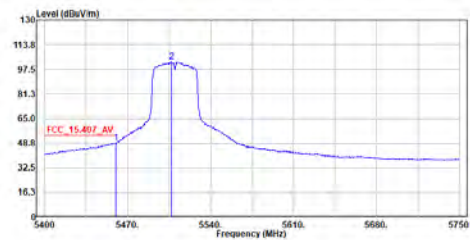
Site :966-1
Condition :3m ,Horizontal
EUT :IM510
Mode :TX_ac40_5510MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5457.050	63.53	74.00	-10.47	47.58	15.95	Peak
2	5463.000	67.72	68.22	-0.50	51.73	15.99	Peak
3	5512.700	113.71	-----	-----	97.60	16.11	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

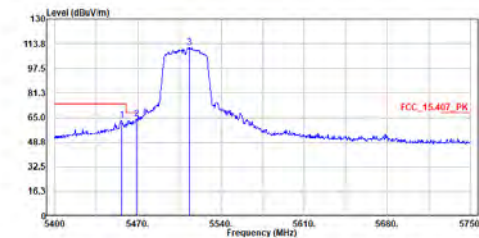
Site :966-1
Condition :3m ,Horizontal
EUT :IM510
Mode :TX_ac40_5510MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5459.850	40.29	54.00	-13.71	31.33	15.96	Average
2	5506.750	102.37	-----	-----	86.25	16.12	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

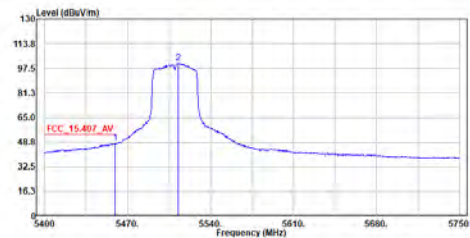
Site :966-1
Condition :3m ,Vertical
EUT :IM510
Mode :TX_ac40_5510MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5456.000	63.23	74.00	-10.77	47.28	15.95	Peak
2	5466.600	64.47	68.22	-3.75	48.47	16.00	Peak
3	5513.400	111.60	-----	-----	95.49	16.11	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

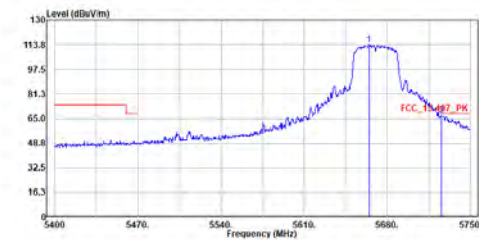
Site :966-1
Condition :3m ,Vertical
EUT :IM510
Mode :TX_ac40_5510MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5459.500	47.83	54.00	-6.17	31.87	15.96	Average
2	5512.700	101.10	-----	-----	84.99	16.11	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Horizontal
EUT :H4510
Mode :TX_ac40_5670MHz
TEST BY :Carlos Chen

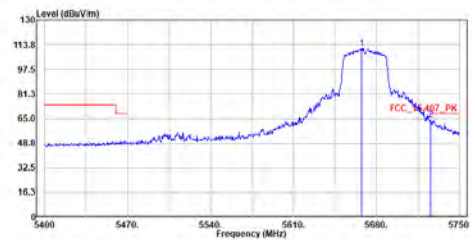


No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5664.000	113.65	-----	-----	97.47	16.18	Peak
2	5725.500	67.39	68.22	-0.83	51.04	16.35	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Vertical
EUT :H4510
Mode :TX_ac40_5670MHz
TEST BY :Carlos Chen

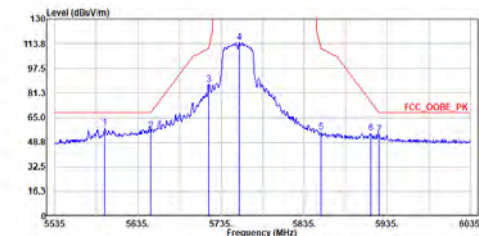


No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5667.400	111.55	-----	-----	95.36	16.19	Peak
2	5725.500	64.28	68.22	-3.94	47.93	16.35	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Horizontal
EUT :TX_ac40_5755MHz
TEST BY :Carlos Chen

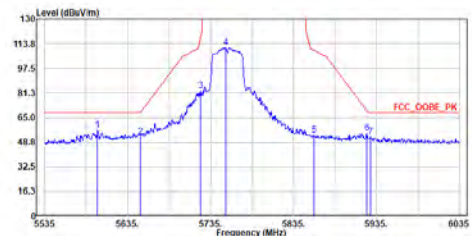


No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5595.000	58.53	68.22	-9.69	42.52	16.01	Peak
2	5650.000	56.45	68.23	-11.78	40.34	16.11	Peak
3	5720.500	87.06	111.94	-24.88	70.71	16.35	Peak
4	5757.000	114.61	-----	-----	98.23	16.38	Peak
5	5855.000	55.48	110.80	-55.48	38.73	16.67	Peak
6	5915.000	54.92	75.62	-20.70	38.04	16.88	Peak
7	5925.000	54.10	68.23	-14.13	37.23	16.87	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Vertical
EUT :TX_ac40_5755MHz
TEST BY :Carlos Chen

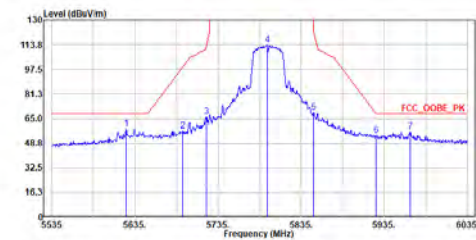


No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5595.500	56.92	68.22	-11.30	48.92	16.00	Peak
2	5650.000	52.27	68.23	-15.96	36.16	16.11	Peak
3	5722.500	82.92	116.50	-33.58	66.57	16.35	Peak
4	5753.500	111.36	-----	-----	94.98	16.38	Peak
5	5859.500	53.45	109.54	-56.09	36.75	16.70	Peak
6	5923.000	54.71	69.71	-15.00	37.84	16.87	Peak
7	5927.500	52.52	68.22	-15.70	35.65	16.87	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

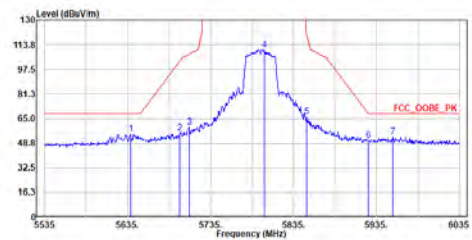
Site :966-1
Condition :3m ,Horizontal
EUT :196510
Mode :TX_ac40_5795MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5624.500	58.59	68.22	-9.63	42.53	16.05	Peak
2	5692.500	57.12	99.65	-42.53	40.81	16.31	Peak
3	5721.000	66.28	113.08	-46.80	49.93	16.35	Peak
4	5794.000	113.57	-----	-----	97.09	16.48	Peak
5	5850.000	68.97	122.20	-53.23	52.32	16.65	Peak
6	5925.000	53.98	68.23	-14.25	37.11	16.87	Peak
7	5966.000	56.20	68.22	-12.02	39.31	16.89	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

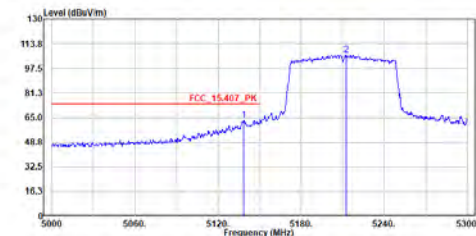
Site :966-1
Condition :3m ,Vertical
EUT :196510
Mode :TX_ac40_5795MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5638.500	55.05	68.22	-13.17	38.96	16.09	Peak
2	5698.000	55.33	103.72	-48.39	39.00	16.33	Peak
3	5709.000	59.43	107.72	-48.29	43.08	16.35	Peak
4	5799.500	110.62	-----	-----	94.12	16.50	Peak
5	5851.000	66.36	119.92	-53.56	49.71	16.65	Peak
6	5925.000	50.50	68.23	-17.73	33.63	16.87	Peak
7	5954.500	52.95	68.22	-15.27	36.09	16.86	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

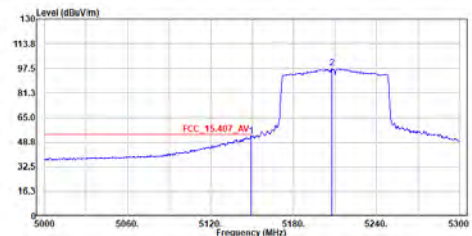
Site :966-1
Condition :3m ,Horizontal
EUT :196510
Mode :TX_ac80_5210MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5138.800	63.50	74.00	-10.50	48.45	15.05	Peak
2	5212.400	106.31	-----	-----	90.92	15.39	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

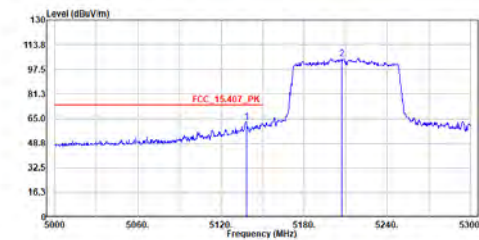
Site :966-1
Condition :3m ,Horizontal
EUT :196510
Mode :TX_ac80_5210MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5140.800	52.91	54.00	-1.09	37.82	15.09	Average
2	5207.900	97.54	-----	-----	82.16	15.38	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

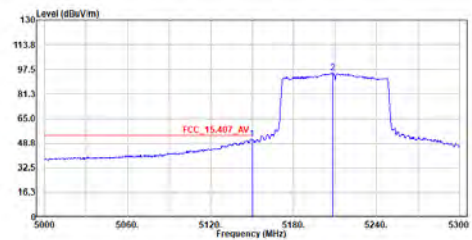
Site :966-1
Condition :3m ,Vertical
EUT :H6510
Mode :TX_ac80_5210MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5138.300	62.82	74.09	-11.18	47.77	15.05	Peak
2	5207.000	104.59	-----	-----	89.21	15.38	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

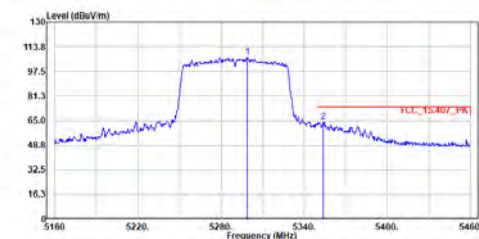
Site :966-1
Condition :3m ,Vertical
EUT :H6510
Mode :TX_ac80_5210MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5150.000	51.70	54.09	-2.39	36.61	15.09	Average
2	5208.200	95.27	-----	-----	79.89	15.38	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

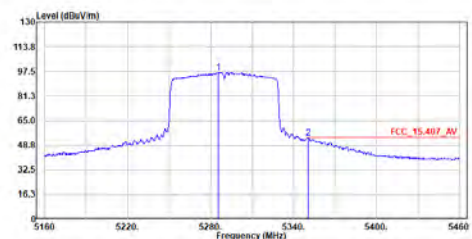
Site :966-1
Condition :3m ,Horizontal
EUT :H6510
Mode :TX_ac80_5290MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5298.900	106.79	-----	-----	91.29	15.50	Peak
2	5353.000	64.26	74.09	-9.74	48.59	15.67	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

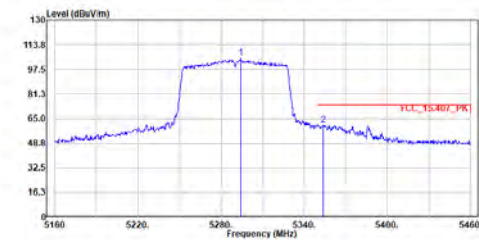
Site :966-1
Condition :3m ,Horizontal
EUT :H6510
Mode :TX_ac80_5290MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5285.700	96.78	-----	-----	81.30	15.48	Average
2	5350.000	53.62	54.09	-0.38	37.95	15.66	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Vertical
EUT :H6510
Mode :TX_ac80_5290MHz
TEST BY :Carlos Chen

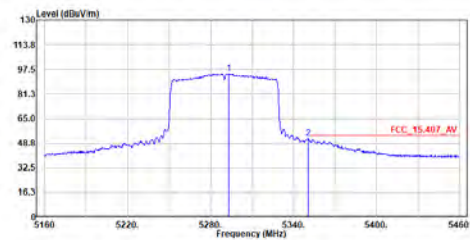


No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5294.100	104.75	-----	-----	89.25	15.50	Peak
2	5353.800	60.83	74.09	-13.19	45.14	15.67	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Vertical
EUT :H6510
Mode :TX_ac80_5290MHz
TEST BY :Carlos Chen

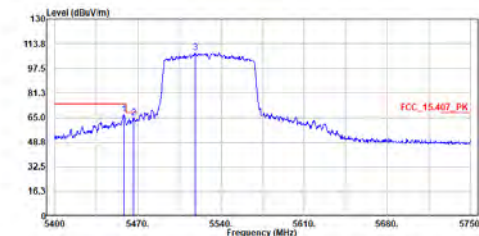


No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5293.200	94.88	-----	-----	79.38	15.50	Average
2	5390.500	51.88	54.09	-2.12	36.22	15.66	Average

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Horizontal
EUT :H6510
Mode :TX_ac80_5530MHz
TEST BY :Carlos Chen

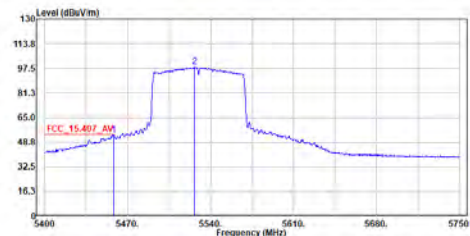


No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5458.450	67.24	74.00	-6.76	51.28	15.96	Peak
2	5466.150	64.83	68.22	-3.39	48.84	15.99	Peak
3	5518.300	107.84	-----	-----	91.74	16.10	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Horizontal
EUT :H6510
Mode :TX_ac80_5530MHz
TEST BY :Carlos Chen

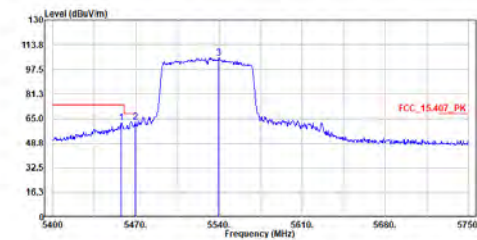


No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5458.100	53.53	54.00	-0.47	37.57	15.96	Average
2	5526.350	99.42	-----	-----	82.32	16.10	Average

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

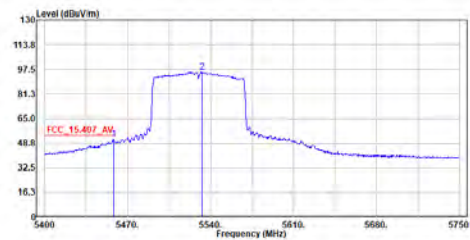
Site :966-1
Condition :3m ,Vertical
EUT :H6510
Mode :TX_ac80_5530MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5457.750	62.23	74.00	-11.77	46.27	15.96	Peak
2	5469.650	62.90	68.22	-5.32	46.90	16.00	Peak
3	5539.650	105.05	-----	-----	88.98	16.07	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

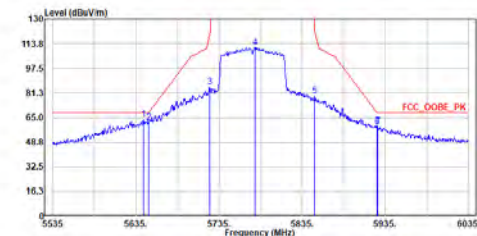
Site :966-1
Condition :3m ,Vertical
EUT :H6510
Mode :TX_ac80_5530MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5458.100	51.30	54.00	-2.70	35.34	15.96	Average
2	5532.650	95.56	-----	-----	79.48	16.08	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

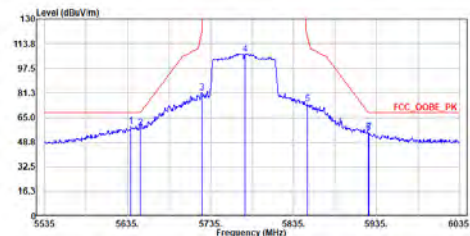
Site :966-1
Condition :3m ,Horizontal
EUT :H6510
Mode :TX_ac80_5775MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5644.000	63.68	68.22	-4.52	47.58	16.10	Peak
2	5650.000	61.58	68.23	-6.65	45.47	16.11	Peak
3	5724.000	85.35	119.92	-34.57	69.00	16.35	Peak
4	5776.500	111.16	-----	-----	94.72	16.44	Peak
5	5850.000	79.33	122.20	-42.87	62.68	16.65	Peak
6	5925.000	58.66	68.23	-9.55	41.81	16.87	Peak
7	5926.000	59.51	68.22	-8.71	42.63	16.88	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,Vertical
EUT :H6510
Mode :TX_ac80_5775MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5639.000	59.38	68.22	-8.82	43.21	16.09	Peak
2	5650.000	59.44	68.23	-9.79	42.33	16.11	Peak
3	5724.500	81.55	121.06	-39.51	65.20	16.35	Peak
4	5776.500	107.18	-----	-----	90.75	16.43	Peak
5	5851.500	74.27	118.78	-44.51	57.61	16.66	Peak
6	5925.000	54.95	68.23	-13.28	38.04	16.87	Peak
7	5926.000	55.57	68.22	-12.65	38.69	16.88	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

8. 不必要之發射

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 5.7.4 節：

5.7.4.5 在 1 兆赫以下的不必要之發射，必須符合第 3.6 節之一般場強限值。

5.7.4.6 不必要發射頻率屬 3.5 規定頻段者，應符合 3.6 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(兆赫)	電場強度(微伏/公尺)	測距(公尺)
0.009 - 0.490(含)	2,400/頻率(千赫)	300
0.490 (不含) – 1.705 (含)	24,000/頻率(千赫)	30
1.705(不含) – 30 (不含)	30	30
30 (含) – 88 (含)	100	3
88 (不含) – 216 (含)	150	3
216 (不含) – 960 (含)	200	3
960 (不含)以上	500	3

上表規定之電場強度，頻率在 9-90kHz 千赫(kHz)、110-490 千赫(kHz)以及 1000 兆赫(MHz)以上之發射，其量測以平均值檢波器為基準，且須符合第 6.15.2 節之規定；其他頻率之發射，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須符合第 6.5 節之規定，而輻射發射之量測頻率範圍須符合第 6.14 節之規定。

8.2. 量測方法

輻射發射量測

待測物置於高 80 公分(測試範圍低於 1GHz)或高 150 公分(測試範圍高於 1GHz)之非導體桌面(落地型產品置於地上)，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。接收天線並應於水平及垂直極化方向各量測一次。待測物應在正常發射狀態下量測。

RBW and VBW Parameter setting:

According to KDB 789033 section II.G.5 Procedure for Unwanted Maximum Emissions
Measurements above 1000 MHz.

RBW = 1MHz.

VBW $\geq$ 3MHz.

According to KDB 789033 section II.G.6 Procedures for Average Unwanted Emissions
Measurements above 1000 MHz.

RBW = 1MHz.

VBW = 10Hz, when duty cycle $\geq$ 98 %

VBW $\geq$ 1/T, when duty cycle < 98 %

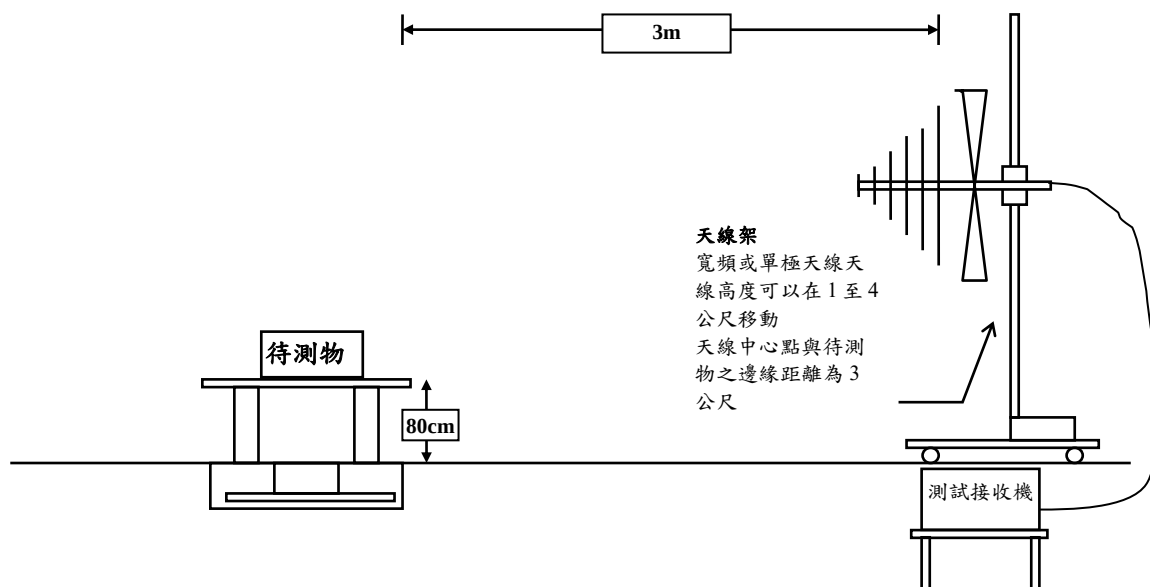
(T refers to the minimum transmission duration over which the transmitter is on and is
transmitting at its maximum power control level for the tested mode of operation.)

5GHz band	Duty Cycle (%)	T (ms)	1/T (Hz)	VBW (Hz)
802.11 a	96.94	1.3930	718	1000
802.11 n20	93.58	0.6710	1490	2000
802.11 n40	88.75	0.3470	2882	3000
802.11 ac20	93.66	0.6790	1473	2000
802.11 ac40	88.41	0.3510	2849	3000
802.11 ac80	81.03	0.1880	5319	10000

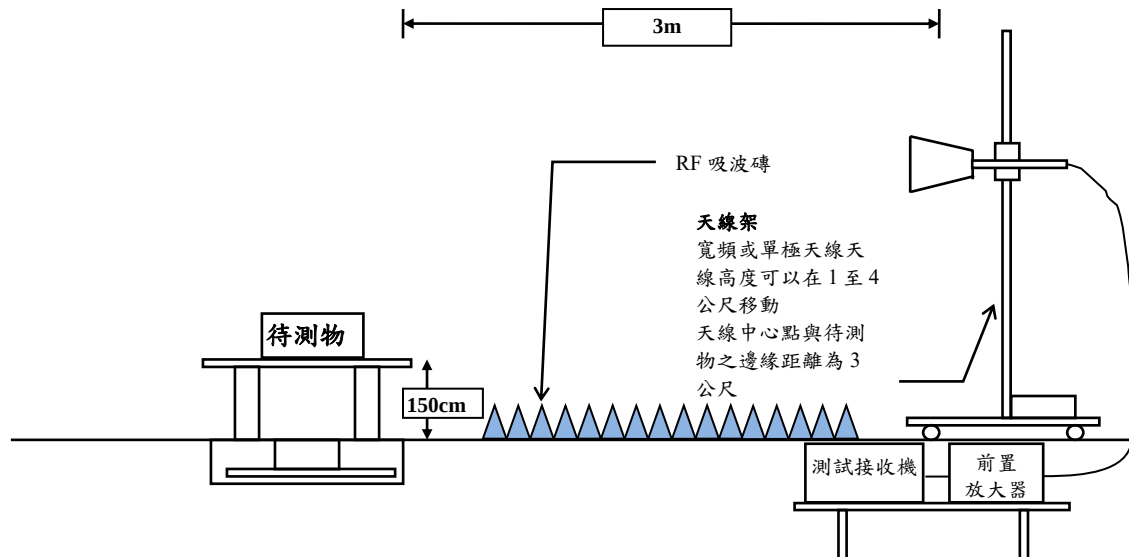
Note: Duty Cycle Refer to Section 12

8.3. 測試架構圖

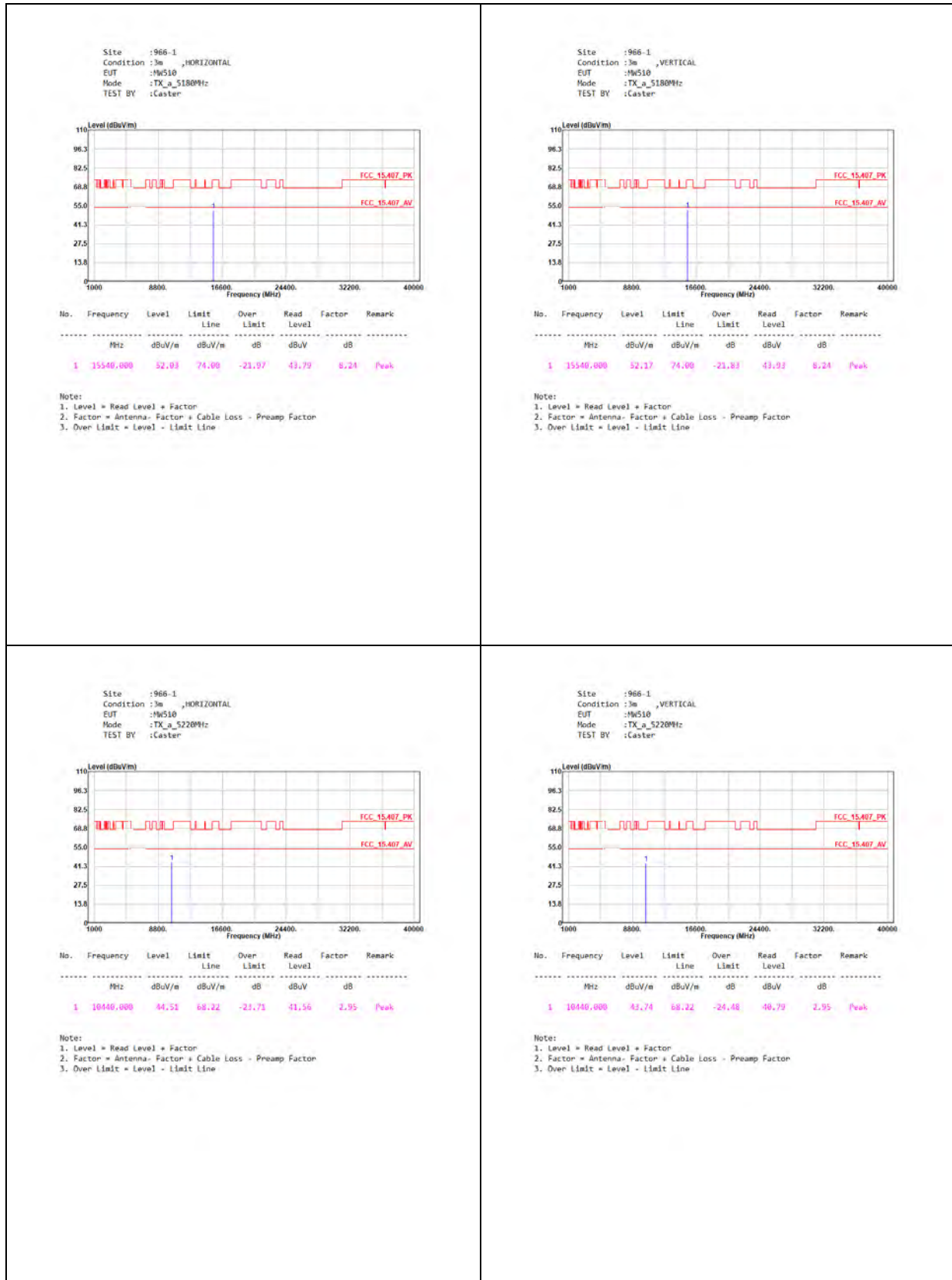
Under 1GHz Test Setup



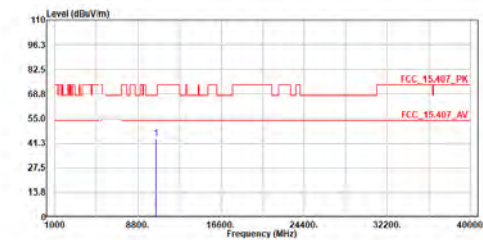
Above 1GHz Test Setup



8.4. 不必要發射測試結果



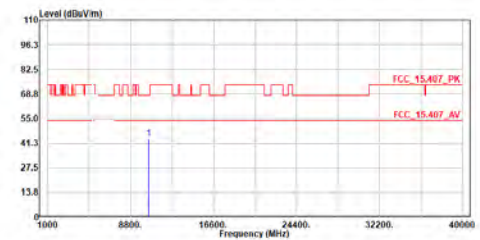
Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_a_5240MHz
TEST BY :Caster



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	10489.000	43.92	68.22	-24.38	48.94	2.98	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

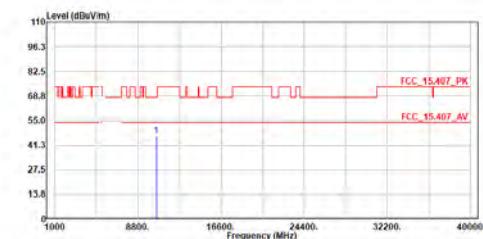
Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_a_5240MHz
TEST BY :Caster



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	10489.000	44.13	68.22	-24.09	41.15	2.98	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

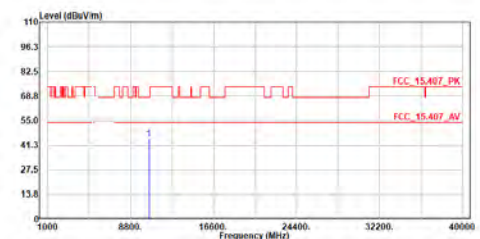
Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_a_5260MHz
TEST BY :Caster



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	10520.000	46.68	68.22	-21.54	43.63	3.05	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

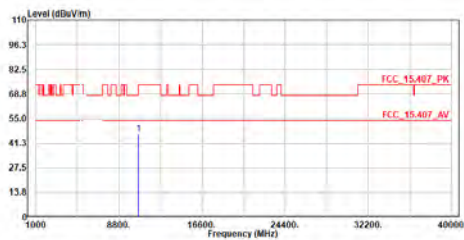
Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_a_5260MHz
TEST BY :Caster



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	10520.000	44.81	68.22	-23.41	41.76	3.05	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

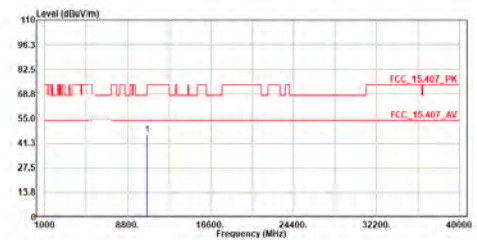
Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_a_5300MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level		
		dBuV/m	dB	dB	dBuV	dB	
1	10680.750	46.57	74.00	-27.43	43.45	3.12	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

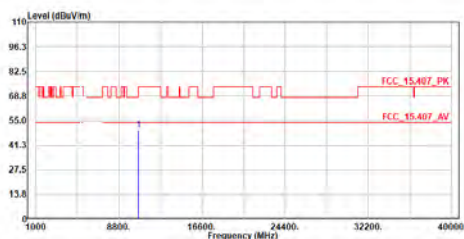
Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_a_5300MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level		
		dBuV/m	dB	dB	dBuV	dB	
1	10680.750	45.90	74.00	-28.10	42.78	3.12	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

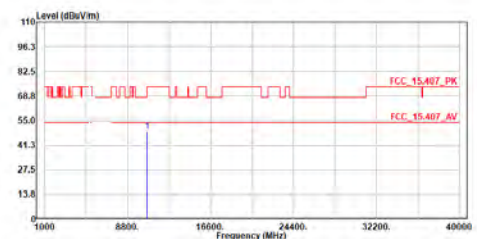
Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_a_5320MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level		
		dBuV/m	dB	dB	dBuV	dB	
1	10640.000	40.75	74.00	-24.25	46.60	3.15	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

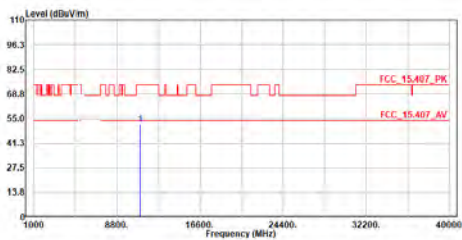
Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_a_5320MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level		
		dBuV/m	dB	dB	dBuV	dB	
1	10640.000	40.95	74.00	-24.05	45.90	3.15	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

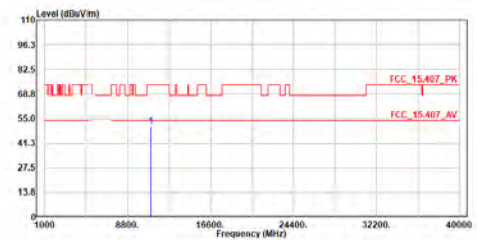
Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_a_5580MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level		
			dBuV/m	dB	dBuV	dB	
1	11000.000	51.85	74.00	-22.15	48.62	3.23	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

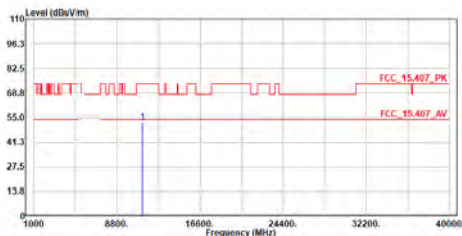
Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_a_5580MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level		
			dBuV/m	dB	dBuV	dB	
1	11000.000	50.76	74.00	-23.24	47.53	3.23	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

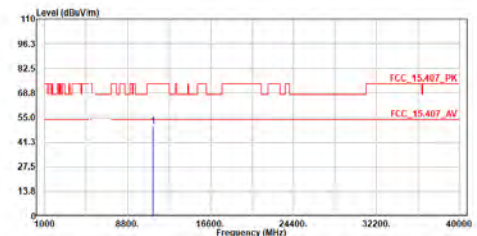
Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_a_5580MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level		
			dBuV/m	dB	dBuV	dB	
1	11160.000	52.47	74.00	-21.53	49.18	3.29	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

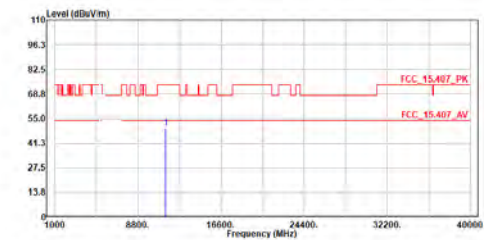
Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_a_5580MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level		
			dBuV/m	dB	dBuV	dB	
1	11160.000	50.41	74.00	-23.59	47.12	3.29	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

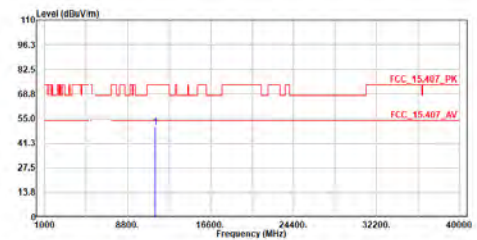
Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_a_5700MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	11400.000	50.01	74.00	-23.99	46.40	3.61	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

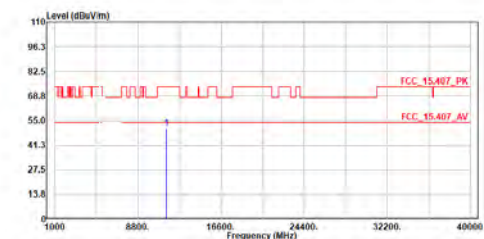
Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_a_5700MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	11400.000	50.20	74.00	-23.80	46.59	3.61	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

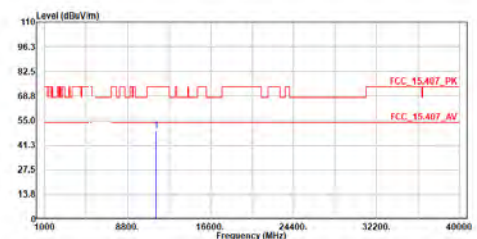
Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_a_5745MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	11490.000	50.14	74.00	-23.86	46.79	3.75	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

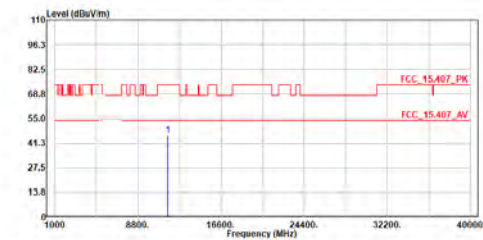
Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_a_5745MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	11490.000	49.58	74.00	-24.58	45.75	3.75	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

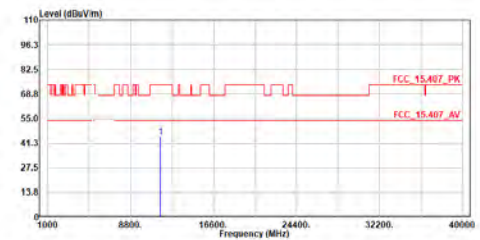
Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_a_5785MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	11578.000	45.76	74.00	-28.24	41.85	3.91	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

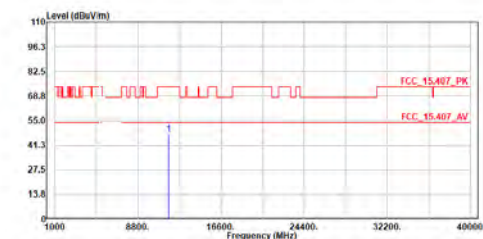
Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_a_5785MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	11578.000	44.93	74.00	-29.07	41.02	3.91	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

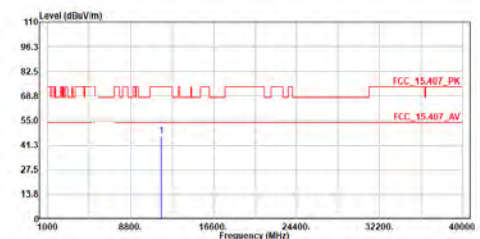
Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_a_5825MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	11650.000	47.45	74.00	-26.55	43.42	4.03	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

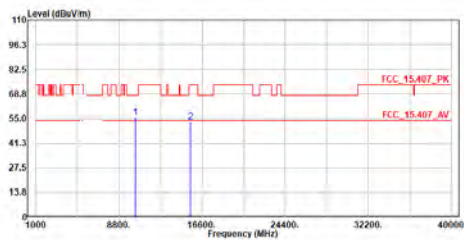
Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_a_5825MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	11650.000	46.48	74.00	-27.52	42.45	4.03	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_ac20_5180MHz
TEST BY :Caster

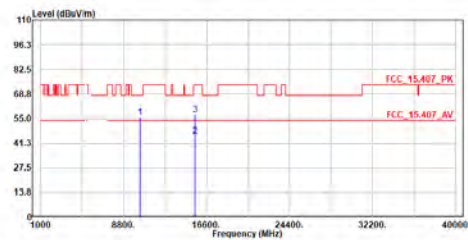


No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	10350.000	55.68	68.22	-12.54	52.70	2.98	Peak
2	15540.000	53.22	74.00	-20.78	44.98	8.24	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_ac20_5180MHz
TEST BY :Caster

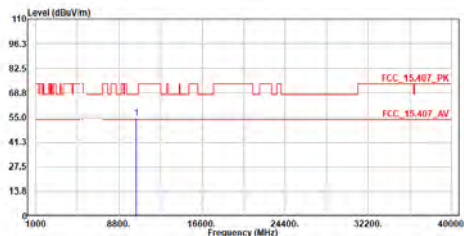


No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	10350.000	55.53	68.22	-12.69	52.55	2.98	Peak
2	15540.000	49.30	54.00	-4.70	37.05	8.24	Average
3	15540.000	57.26	74.00	-16.74	49.02	8.24	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_ac20_5220MHz
TEST BY :Carlos Chen

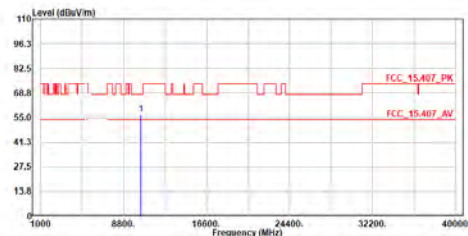


No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	10440.000	54.74	68.22	-13.48	51.79	2.95	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_ac20_5220MHz
TEST BY :Carlos Chen

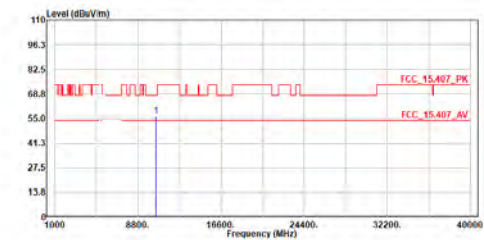


No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	10440.000	57.05	68.22	-11.17	54.10	2.95	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

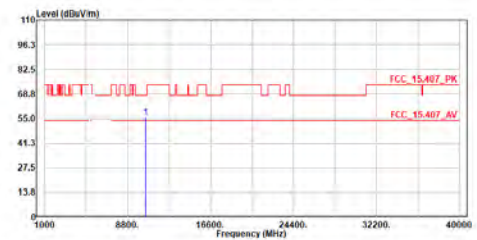
Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_ac20_5240MHz
TEST BY :Carlos Chen



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	10489.000	56.49	68.22	-11.73	53.50	2.99	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

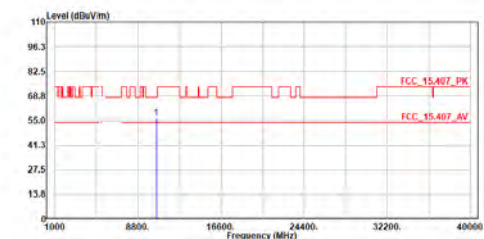
Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_ac20_5240MHz
TEST BY :Carlos Chen



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	10489.000	55.52	68.22	-12.70	52.55	2.97	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

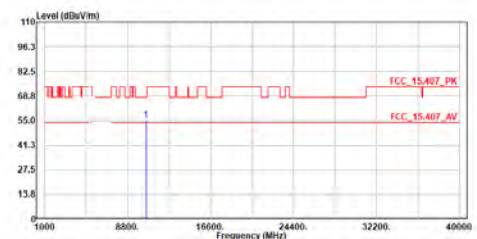
Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_ac20_5260MHz
TEST BY :Carlos Chen



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	10520.000	56.38	68.22	-11.84	53.53	3.05	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

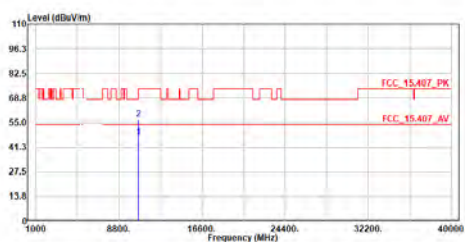
Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_ac20_5260MHz
TEST BY :Carlos Chen



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	10520.000	55.17	68.22	-13.05	52.12	3.05	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

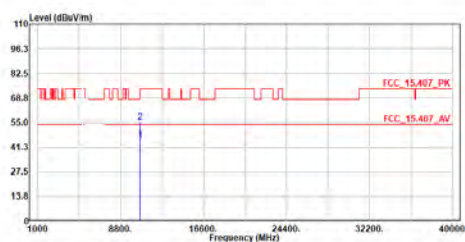
Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_ac20_5300MHz
TEST BY :Carlos Chen



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	10640.000	46.96	54.00	-7.04	43.84	3.12	Average
2	10600.000	56.91	74.00	-17.09	53.00	3.11	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

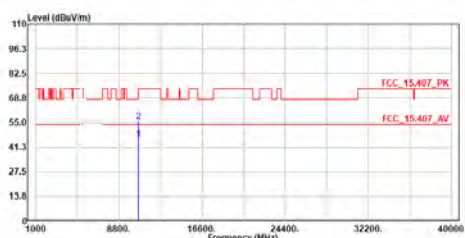
Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_ac20_5300MHz
TEST BY :Carlos Chen



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	10640.000	45.44	54.00	-8.56	42.32	3.12	Average
2	10600.000	55.22	74.00	-18.78	52.11	3.11	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

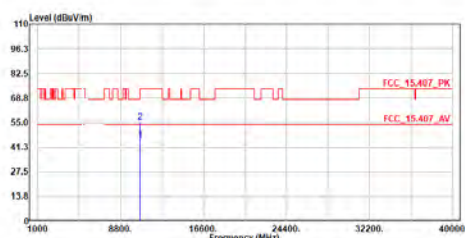
Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_ac20_5320MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	10640.000	45.88	54.00	-8.28	42.65	3.15	Average
2	10640.000	55.39	74.00	-18.41	52.43	3.16	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

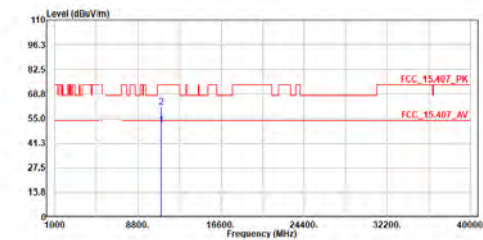
Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_ac20_5320MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	10640.000	45.28	54.00	-8.72	42.13	3.15	Average
2	10640.000	55.22	74.00	-18.78	52.07	3.15	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

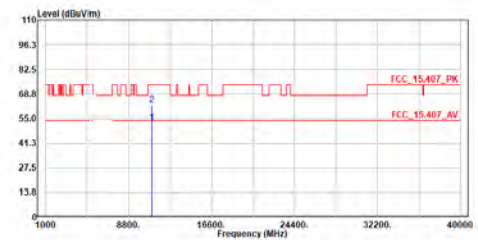
Site :966-1
Condition :3m ,HORIZONTAL
EUT :N6510
Mode :TX_ac20_5500MHz
TEST BY :Carlos Chen



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11000.000	51.54	54.00	-2.46	48.31	3.23	Average
2	11000.000	61.61	74.00	12.39	58.39	3.23	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

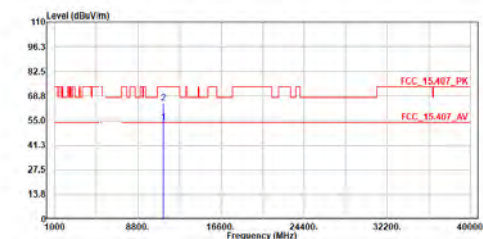
Site :966-1
Condition :3m ,VERTICAL
EUT :N6510
Mode :TX_ac20_5500MHz
TEST BY :Carlos Chen



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11000.000	52.54	54.00	-1.46	49.31	3.23	Average
2	11000.000	62.79	74.00	11.21	59.56	3.23	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

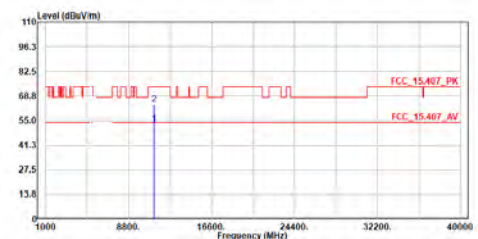
Site :966-1
Condition :3m ,HORIZONTAL
EUT :N6510
Mode :TX_ac20_5500MHz
TEST BY :Carlos Chen



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11150.000	53.88	54.00	-0.12	50.59	3.29	Average
2	11150.000	64.79	74.00	9.21	61.50	3.29	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

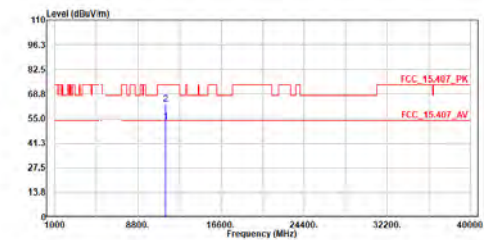
Site :966-1
Condition :3m ,VERTICAL
EUT :N6510
Mode :TX_ac20_5500MHz
TEST BY :Carlos Chen



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11150.000	53.09	54.00	-0.91	49.80	3.29	Average
2	11150.000	64.00	74.00	9.92	60.79	3.29	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

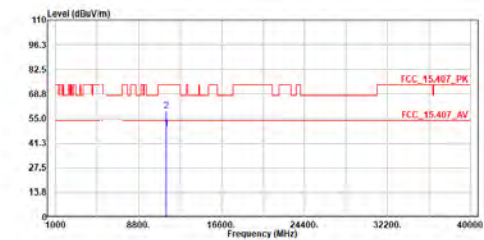
Site :966-1
Condition :3m ,HORIZONTAL
EUT :IM510
Mode :TX_ac20_5700MHz
TEST BY :Carlos Chen



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	11400.000	53.18	54.00	-8.98	49.43	3.81	Average
2	11400.000	63.11	74.00	-10.89	59.50	3.61	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

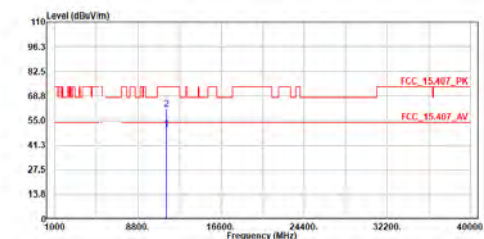
Site :966-1
Condition :3m ,VERTICAL
EUT :IM510
Mode :TX_ac20_5700MHz
TEST BY :Carlos Chen



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	11400.000	49.24	54.00	-4.76	45.63	3.61	Average
2	11400.000	59.32	74.00	-14.68	55.70	3.62	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

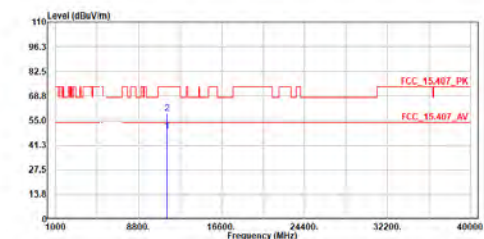
Site :966-1
Condition :3m ,HORIZONTAL
EUT :IM510
Mode :TX_ac20_5745MHz
TEST BY :Carlos Chen



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	11490.000	50.42	54.00	-3.58	46.67	3.75	Average
2	11490.000	61.42	74.00	-12.58	57.67	3.75	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

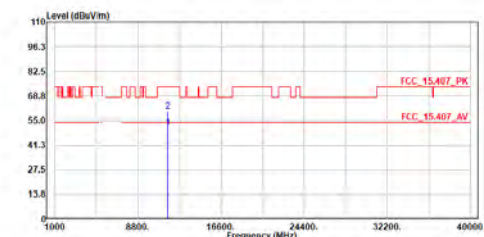
Site :966-1
Condition :3m ,VERTICAL
EUT :IM510
Mode :TX_ac20_5745MHz
TEST BY :Carlos Chen



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	11490.000	49.11	54.00	-4.89	45.36	3.75	Average
2	11490.000	58.98	74.00	-15.02	55.23	3.75	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_ac20_5785MHz
TEST BY :Carlos Chen

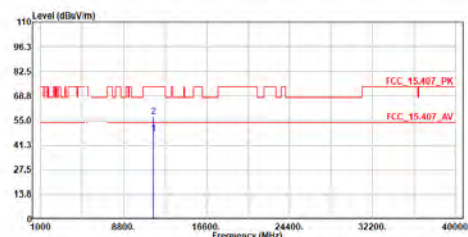


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	11570.000	51.06	54.00	-2.94	47.15	3.91	Average
2	11570.000	60.28	74.00	-13.72	56.37	3.91	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_ac20_5785MHz
TEST BY :Carlos Chen

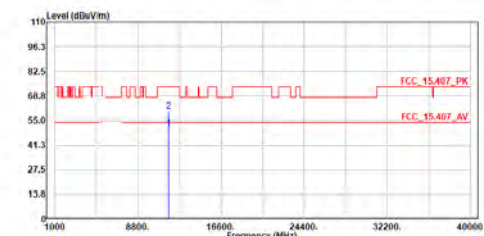


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	11570.000	47.58	54.00	-6.42	43.67	3.91	Average
2	11570.000	57.43	74.00	-16.57	53.53	3.90	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_ac20_5825MHz
TEST BY :Carlos Chen

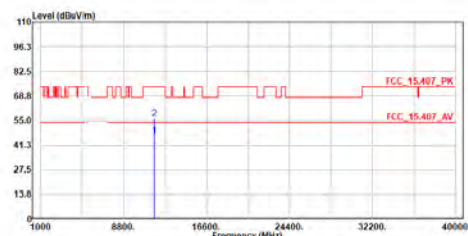


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	11650.000	50.58	54.00	-3.58	46.47	4.03	Average
2	11650.000	60.27	74.00	-13.73	56.24	4.03	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_ac20_5825MHz
TEST BY :Carlos Chen

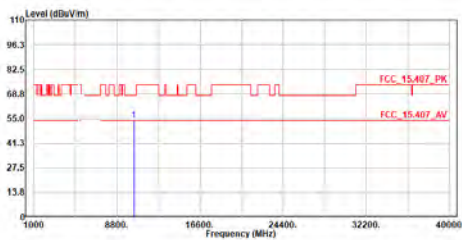


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	11650.000	46.42	54.00	-7.58	42.39	4.03	Average
2	11650.000	56.19	74.00	-17.81	52.16	4.03	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

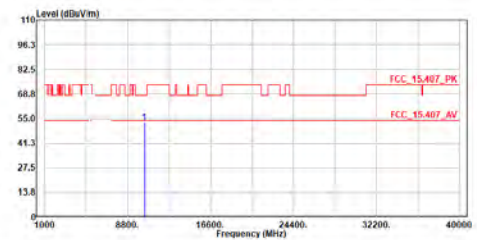
Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_ac40_5190MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	10388.000	53.88	68.22	-14.34	58.90	2.98	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

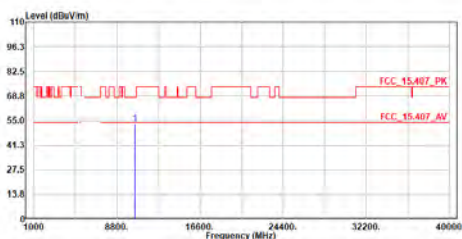
Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_ac40_5190MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	10388.000	52.53	68.22	-15.69	49.55	2.98	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

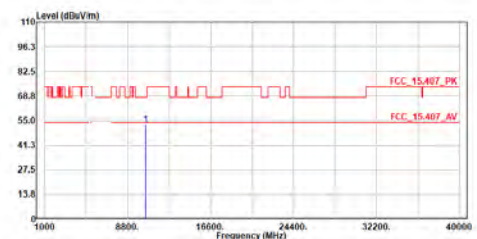
Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_ac40_5230MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	10460.000	52.97	68.22	-15.25	58.01	2.95	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

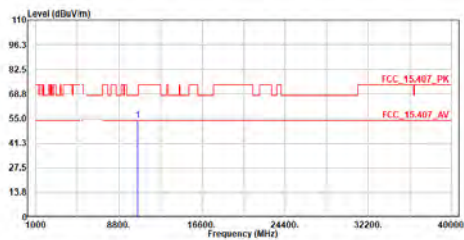
Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_ac40_5230MHz
TEST BY :Carlos Chen



No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	10460.000	52.54	68.22	-15.68	49.57	2.97	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

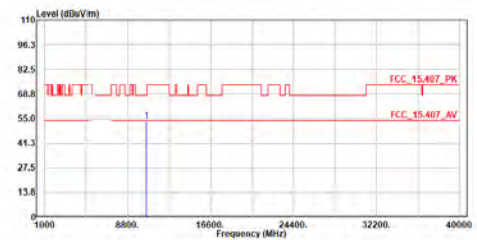
Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_ac40_5270MHz
TEST BY :Carlos Chen



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	10540.000	54.01	68.22	-14.21	58.94	3.87	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

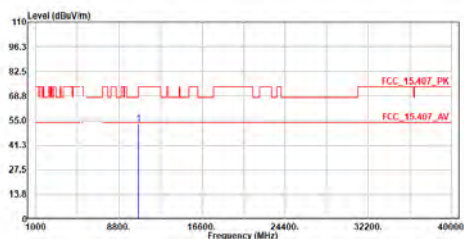
Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_ac40_5270MHz
TEST BY :Carlos Chen



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	10540.000	53.46	68.22	-14.76	58.39	3.87	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

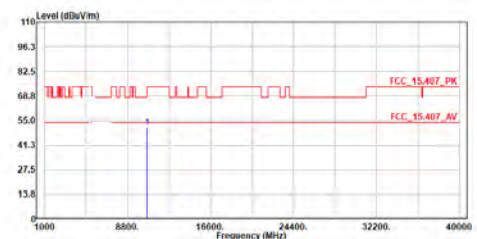
Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_ac40_5310MHz
TEST BY :Carlos Chen



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	10620.000	52.05	74.00	-21.95	49.82	3.23	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

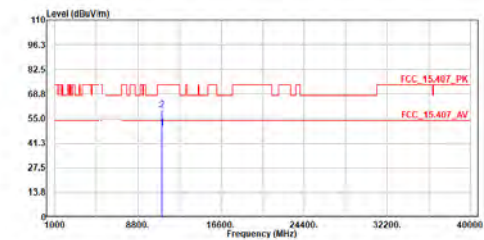
Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_ac40_5310MHz
TEST BY :Carlos Chen



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	10620.000	51.16	74.00	-22.84	48.03	3.13	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,HORIZONTAL
EUT :IM510
Mode :TX_ac40_5510MHz
TEST BY :Carlos Chen

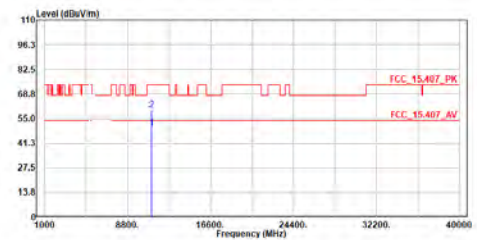


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level		
1	11920.000	49.75	54.00	-4.25	45.53	3.22	Average
2	11920.000	59.95	74.00	-14.05	56.72	3.23	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,VERTICAL
EUT :IM510
Mode :TX_ac40_5510MHz
TEST BY :Carlos Chen

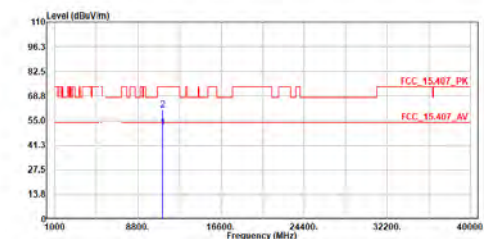


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level		
1	11920.000	58.82	54.00	-3.98	48.80	3.22	Average
2	11920.000	59.92	74.00	-14.08	56.70	3.23	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,HORIZONTAL
EUT :IM510
Mode :TX_ac40_5550MHz
TEST BY :Carlos Chen

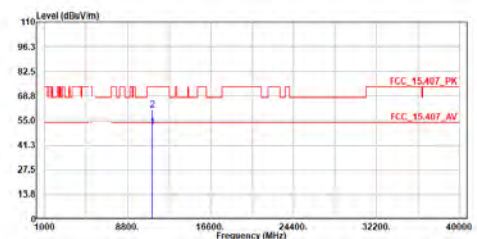


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level		
1	11109.000	51.26	54.00	-2.74	47.98	3.28	Average
2	11109.000	61.08	74.00	-12.92	57.81	3.27	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,VERTICAL
EUT :IM510
Mode :TX_ac40_5550MHz
TEST BY :Carlos Chen

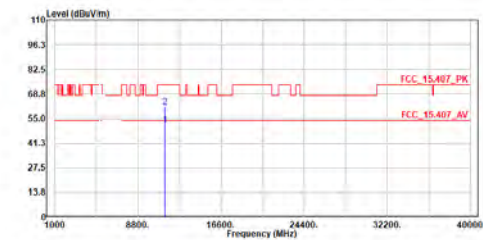


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level		
1	11109.000	51.36	54.00	-2.64	48.09	3.28	Average
2	11109.000	61.21	74.00	-12.79	57.94	3.27	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,HORIZONTAL
EUT :IM510
Mode :TX_ac40_5670MHz
TEST BY :Carlos Chen

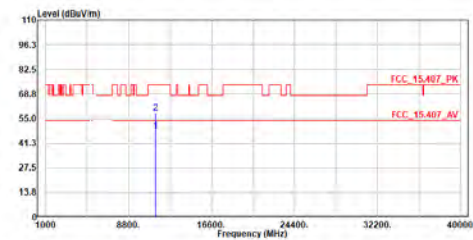


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11340.000	51.51	54.00	-2.49	47.97	3.54	Average
2	11340.000	61.34	74.00	12.66	57.79	3.55	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,VERTICAL
EUT :IM510
Mode :TX_ac40_5670MHz
TEST BY :Carlos Chen

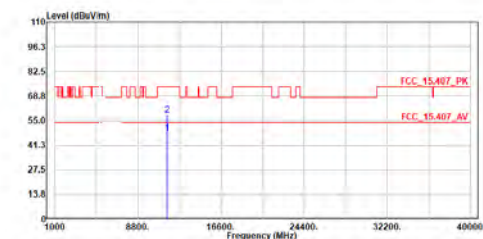


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11340.000	48.53	54.00	-5.47	44.79	3.54	Average
2	11340.000	58.07	74.00	15.93	54.53	3.54	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,HORIZONTAL
EUT :IM510
Mode :TX_ac40_5755MHz
TEST BY :Carlos Chen

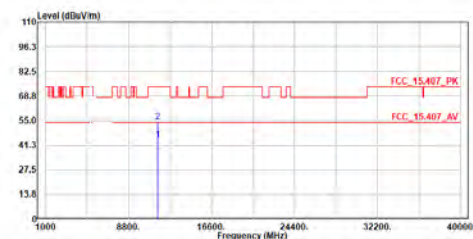


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11518.000	48.20	54.00	-5.80	44.42	3.78	Average
2	11519.000	58.05	74.00	15.95	54.28	3.77	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,VERTICAL
EUT :IM510
Mode :TX_ac40_5755MHz
TEST BY :Carlos Chen

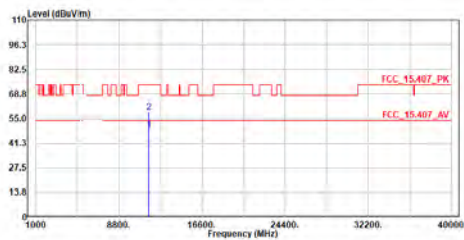


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11518.000	44.52	54.00	-9.48	40.74	3.78	Average
2	11519.000	54.40	74.00	19.60	50.62	3.78	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_ac40_5795MHz
TEST BY :Carlos Chen

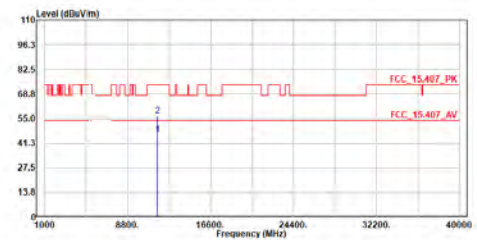


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	11590.000	48.65	54.00	-5.35	44.70	3.95	Average
2	11590.000	58.66	74.00	-15.34	54.72	3.94	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_ac40_5795MHz
TEST BY :Carlos Chen

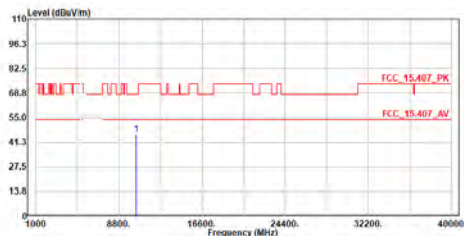


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	11590.000	46.27	54.00	-7.73	42.32	3.95	Average
2	11590.000	56.35	74.00	-17.65	52.40	3.95	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_ac80_5210MHz
TEST BY :Caster

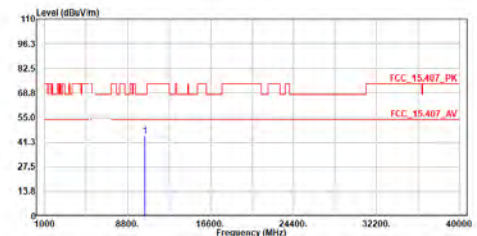


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	10420.000	45.53	68.22	-22.69	42.57	2.96	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_ac80_5210MHz
TEST BY :Caster

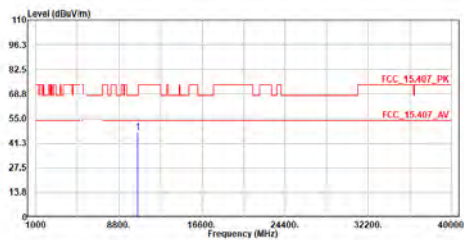


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	10420.130	44.81	68.22	-23.41	41.85	2.96	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

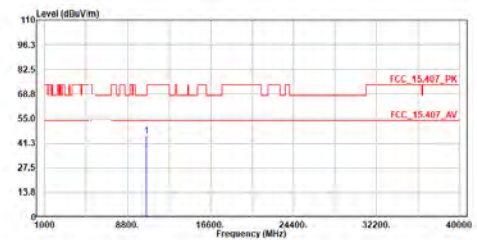
Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_ac80_5290MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	10388.000	47.21	68.22	-21.01	44.11	3.10	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

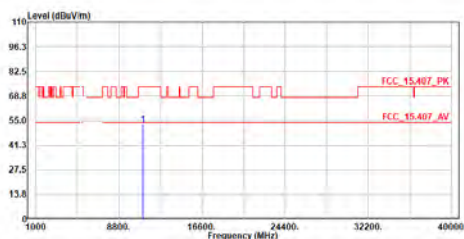
Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_ac80_5290MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	10388.000	45.45	68.22	-22.77	42.35	3.10	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

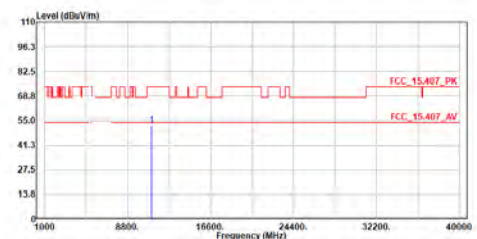
Site :966-1
Condition :3m ,HORIZONTAL
EUT :196510
Mode :TX_ac80_5530MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	11066.000	52.79	74.00	-21.21	49.54	3.25	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

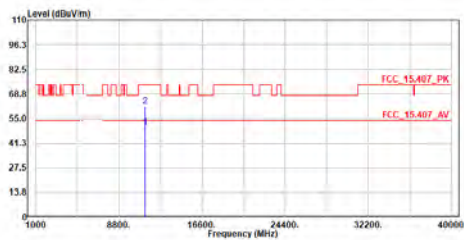
Site :966-1
Condition :3m ,VERTICAL
EUT :196510
Mode :TX_ac80_5530MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	11066.000	52.17	74.00	-21.83	48.92	3.25	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,HORIZONTAL
EUT :1M510
Mode :TX_ac80_5610MHz
TEST BY :Caster

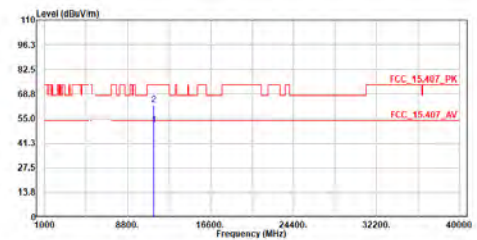


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11228.000	50.27	54.00	-3.53	47.06	3.21	Average
2	11229.000	62.01	74.00	-11.99	50.70	3.31	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,VERTICAL
EUT :1M510
Mode :TX_ac80_5610MHz
TEST BY :Caster

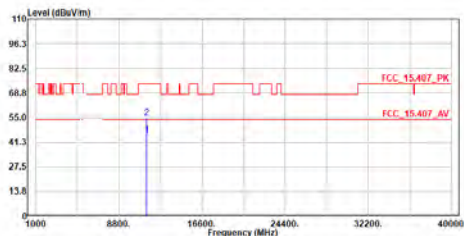


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11228.000	51.62	54.00	-2.38	48.31	3.21	Average
2	11229.000	62.48	74.00	-11.52	50.17	3.31	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-1
Condition :3m ,HORIZONTAL
EUT :1M510
Mode :TX_ac80_5690MHz
TEST BY :Caster

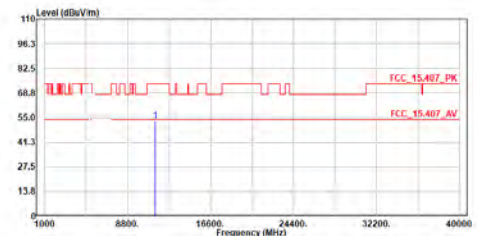


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11388.000	45.27	54.00	-8.73	41.68	3.59	Average
2	11389.000	55.00	74.00	-19.00	51.41	3.59	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

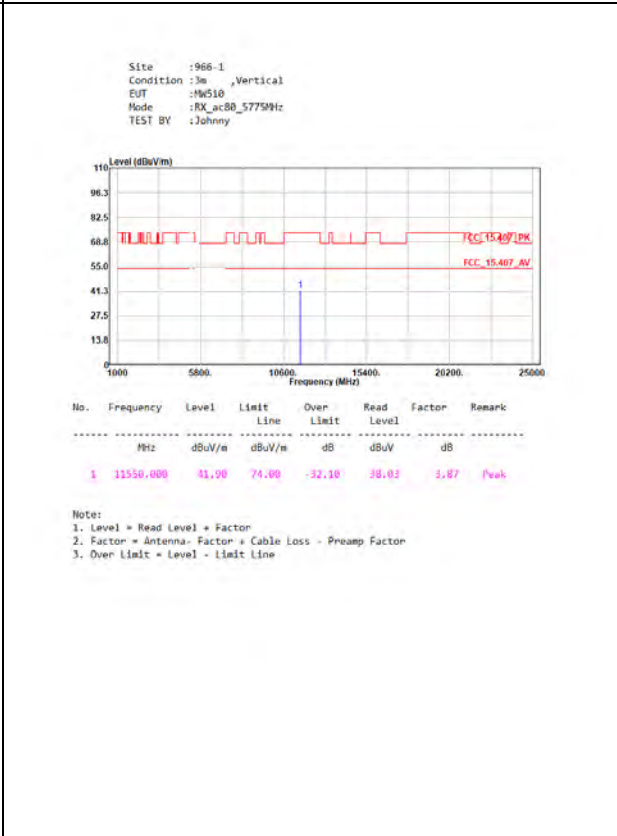
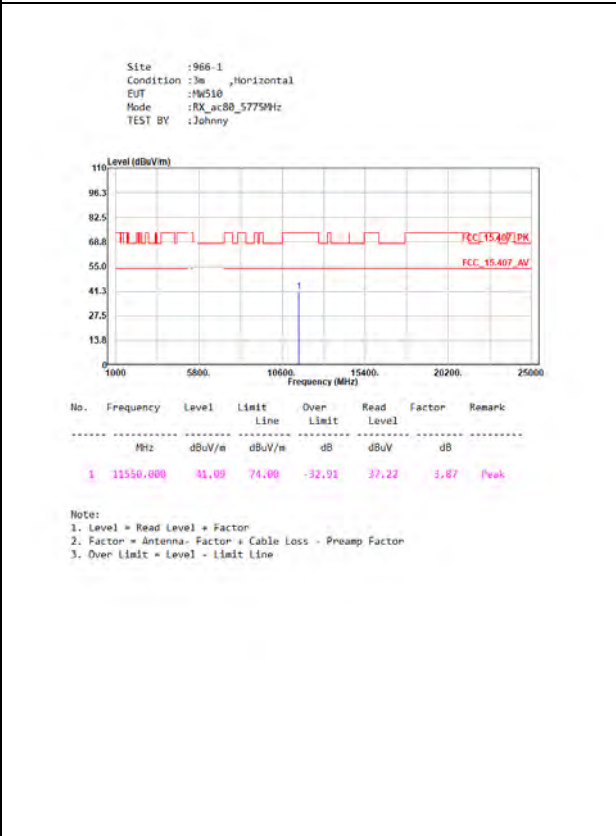
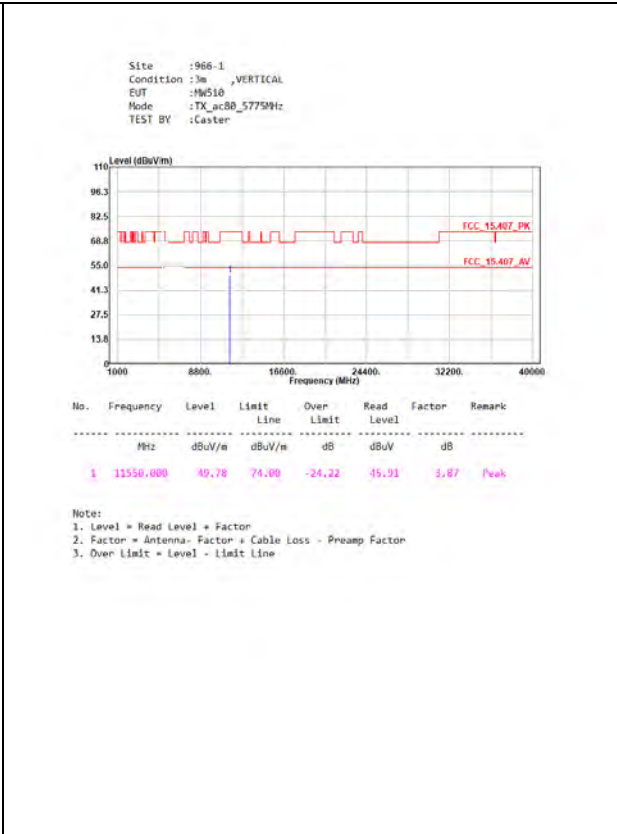
Site :966-1
Condition :3m ,VERTICAL
EUT :1M510
Mode :TX_ac80_5690MHz
TEST BY :Caster



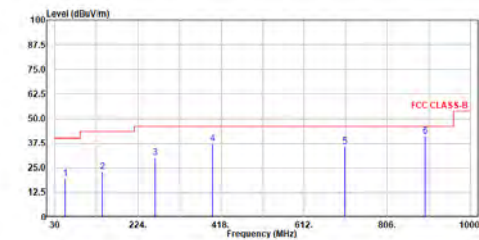
No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	11388.000	53.15	74.00	-20.85	49.56	3.59	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna- Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line



Site :966-3
Condition :3m ,HORIZONTAL
EUT :H6510
Mode :TX_ac80_5775MHz
TEST BY :Johnny

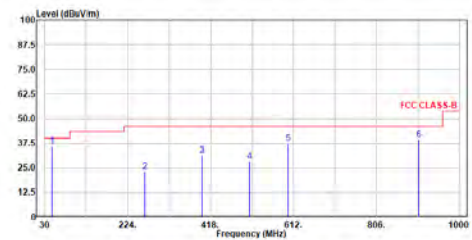


No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	53.280	19.65	40.00	-20.35	30.44	-10.79	QP
2	141.550	23.18	43.50	-20.32	34.07	-10.89	QP
3	263.770	30.35	46.00	-15.65	41.37	-11.02	QP
4	398.600	37.21	46.00	-8.79	44.62	-7.41	QP
5	707.600	35.72	46.00	-10.28	37.38	-1.66	QP
6	895.240	41.28	46.00	-4.72	46.47	8.81	QP

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.

Site :966-3
Condition :3m ,VERTICAL
EUT :H6510
Mode :TX_ac80_5775MHz
TEST BY :Johnny

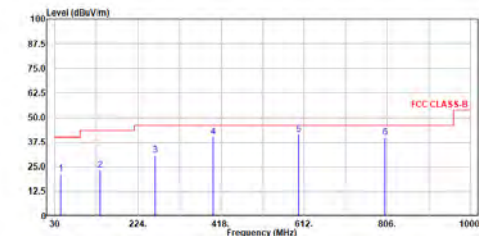


No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	47.460	35.72	40.00	-4.28	46.39	-10.66	QP
2	263.770	22.85	46.00	-23.15	33.87	-11.02	QP
3	398.600	31.38	46.00	-14.62	38.79	-7.41	QP
4	508.210	28.30	46.00	-17.70	33.37	-5.07	QP
5	599.390	37.24	46.00	-8.76	40.00	-3.16	QP
6	904.940	39.19	46.00	-6.81	38.15	1.04	QP

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.

Site :966-3
Condition :3m ,HORIZONTAL
EUT :H6510
Mode :RX_ac80_5775MHz
TEST BY :Johnny

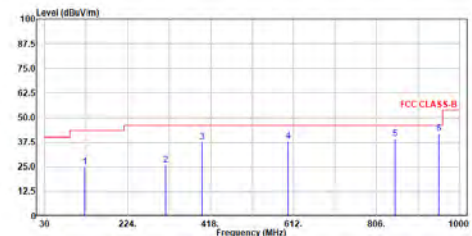


No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	43.580	21.63	40.00	-18.37	32.40	-10.77	QP
2	135.730	23.48	43.50	-20.02	34.90	-11.42	QP
3	263.770	30.99	46.00	-15.01	42.01	-11.02	QP
4	399.570	40.51	46.00	-5.49	47.90	-7.39	QP
5	596.420	41.09	46.00	-4.91	44.09	-1.10	QP
6	800.180	39.82	46.00	-6.18	40.88	-0.26	QP

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.

Site :966-3
Condition :3m ,VERTICAL
EUT :H6510
Mode :RX_ac80_5775MHz
TEST BY :Johnny



No.	Frequency MHz	Level dBuV/m	Limit dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	123.120	25.05	43.50	-18.45	37.93	-12.88	QP
2	312.270	26.09	46.00	-19.91	35.55	-9.46	QP
3	398.600	37.72	46.00	-8.28	45.13	-7.41	QP
4	599.390	38.24	46.00	-7.76	41.40	-3.16	QP
5	849.650	39.39	46.00	-6.61	39.06	0.33	QP
6	951.500	41.86	46.00	-4.14	40.09	1.77	QP

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.

不必要發射測試結果:

PASS

9. 發射功率控制(TPC)

9.1. 適用標準

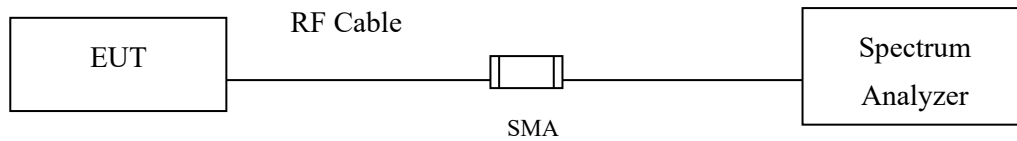
依據國家通訊傳播委員會低功率射頻器材技術規範之第 5.7.7.1 節，發射功率控制(TPC)：操作於 5.25 GHz~5.35 GHz 與 5.470 GHz~5.725 GHz 頻段的設備，應具備發射功率控制功能。設備必須至少具有 6 dB 低於平均 EIRP 30 dBm 的能力。EIRP 低於 500 mW 之系統不須具備 TPC 功能。

9.2. 發射功率控制測試結果

此待測物於 5.25 GHz~5.35 GHz 與 5.470 GHz~5.725 GHz 的頻段，EIRP 大於 500mW，須具備 TPC 功能。

10. 佔用頻帶寬度

10.1. 測試架構圖



10.2. 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 5.7.5 節，在 5.725 GHz~5.850 GHz 頻段操作之設備，其 6 dB 頻寬至少應有 500 kHz。

10.3. 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，頻率掃瞄範圍(SPAN)遠大於解析度頻寬。

待測物應在正常發射狀態下量測。

10.4. 佔用頻帶寬度測試結果

待測物名稱：BT/Wi-Fi Module

待測物型號：MW510

測試頻道：--

測試日期：110年08月11日

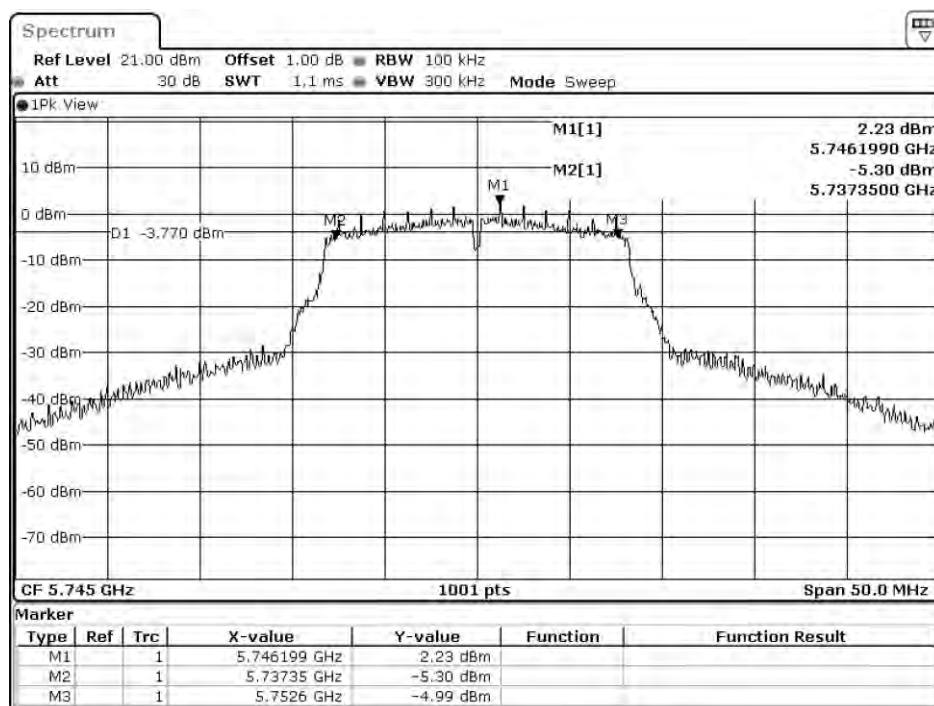
測試項目：佔用頻帶寬度

測試模式：Mode 1: 發射器 802.11a

檢測器：峰值

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	5745	15250	>500	Pass
157	5785	15200	>500	Pass
165	5825	15250	>500	Pass

Figure Channel 149



Date: 10.AUG.2021 03:03:47

Figure Channel 157

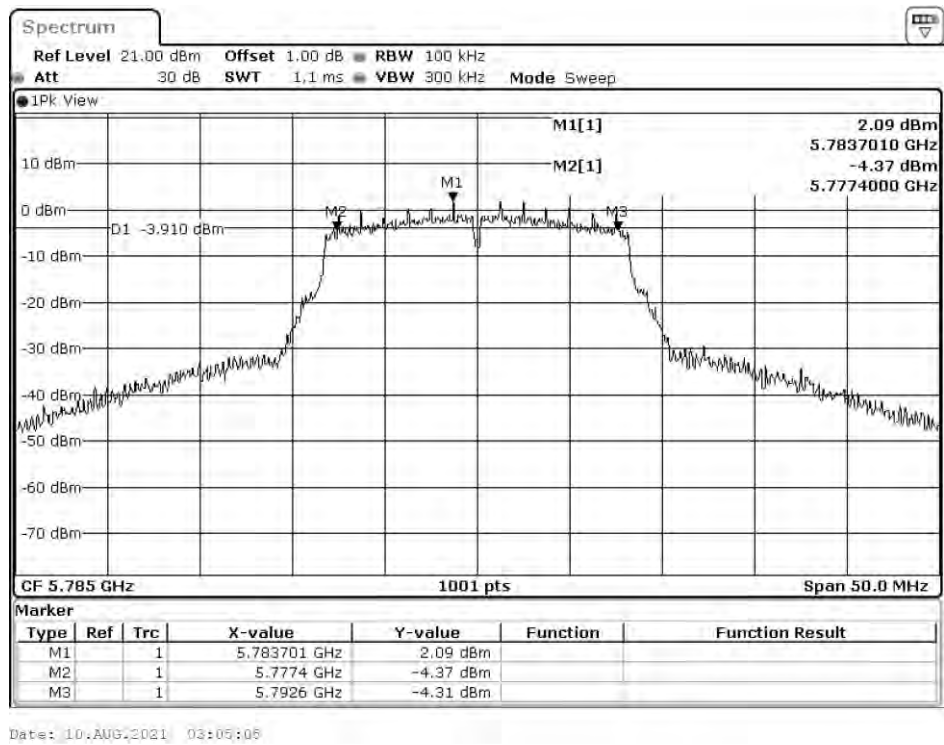
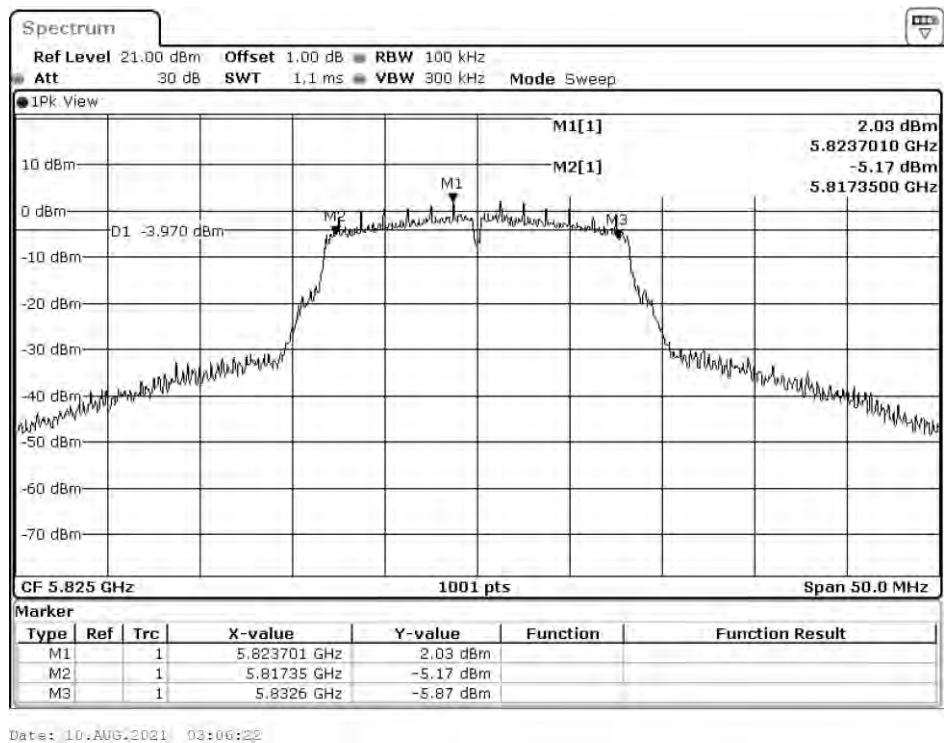


Figure Channel 165



待測物名稱：BT/Wi-Fi Module

待測物型號：MW510

測試頻道：--

測試日期：110年08月11日

測試項目：佔用頻帶寬度

測試模式：Mode 1: 發射器 802.11ac-20BW

檢測器：峰值

Channel No.	Frequency (MHz)	Chain	Measurement Level (kHz)	Required Limit (kHz)	Result
149	5745	A	15200	>500	Pass
157	5785	A	15200	>500	Pass
165	5825	A	15400	>500	Pass
149	5745	B	15800	>500	Pass
157	5785	B	15800	>500	Pass
165	5825	B	15800	>500	Pass

Figure Channel 149 (Chain A)

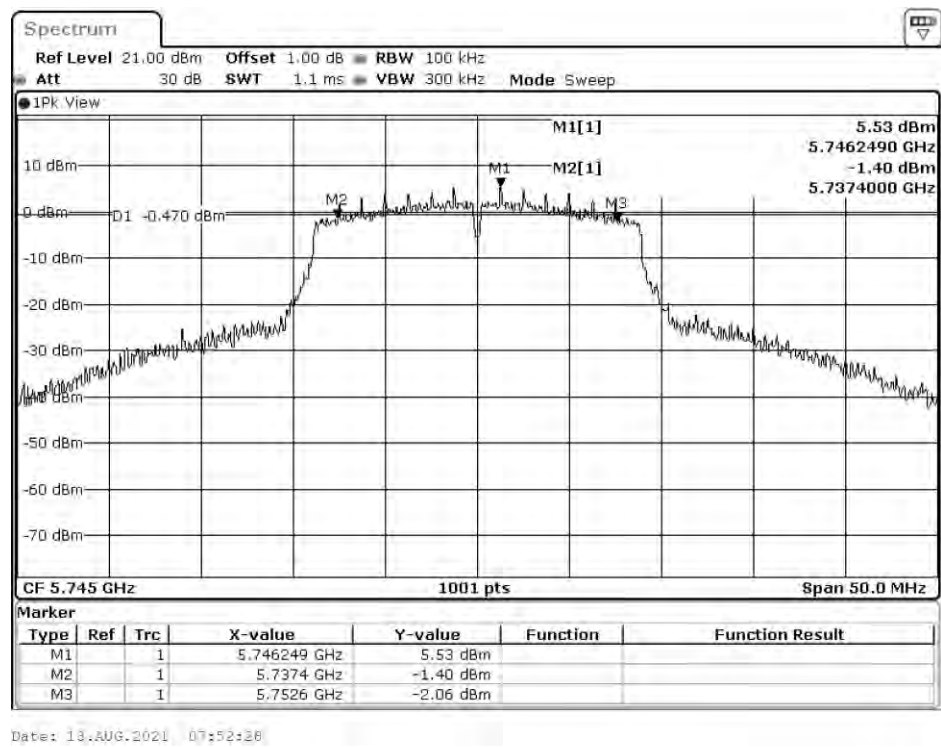


Figure Channel 149 (Chain B)

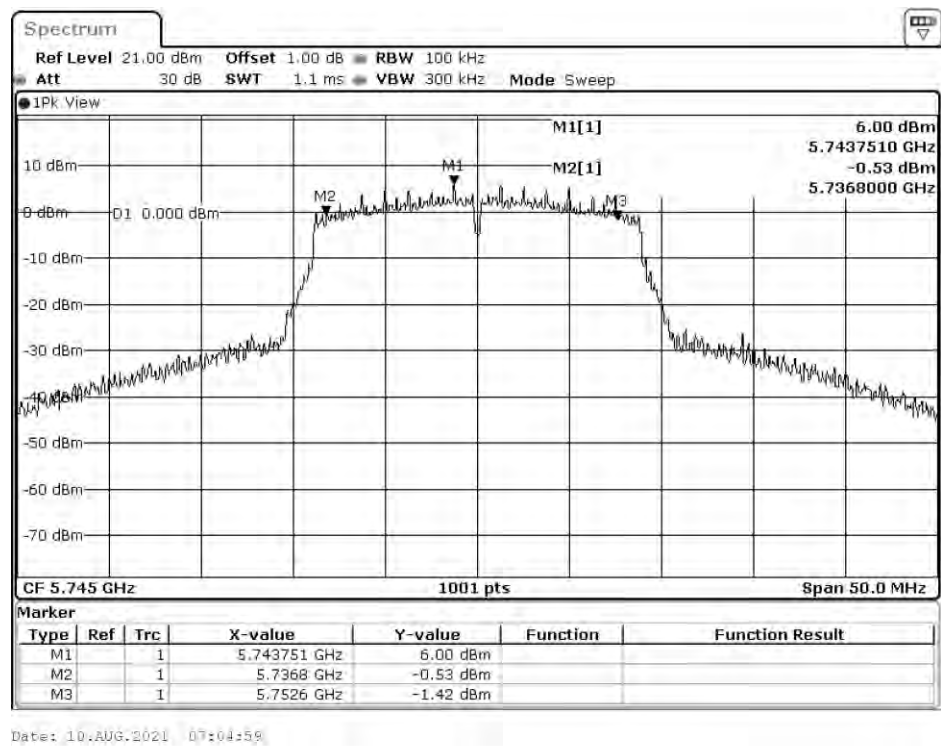
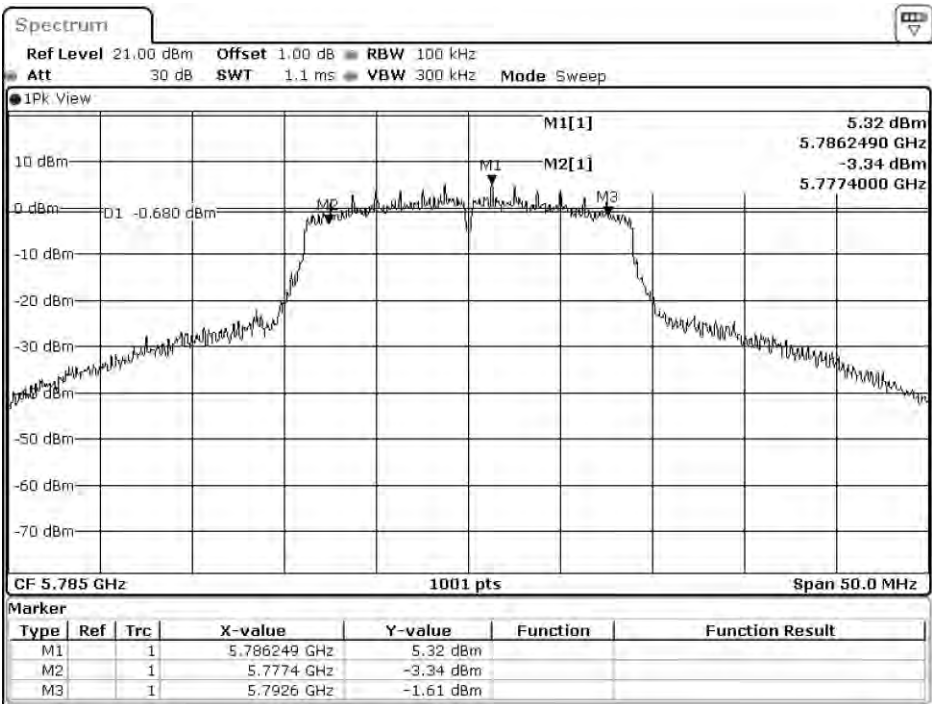
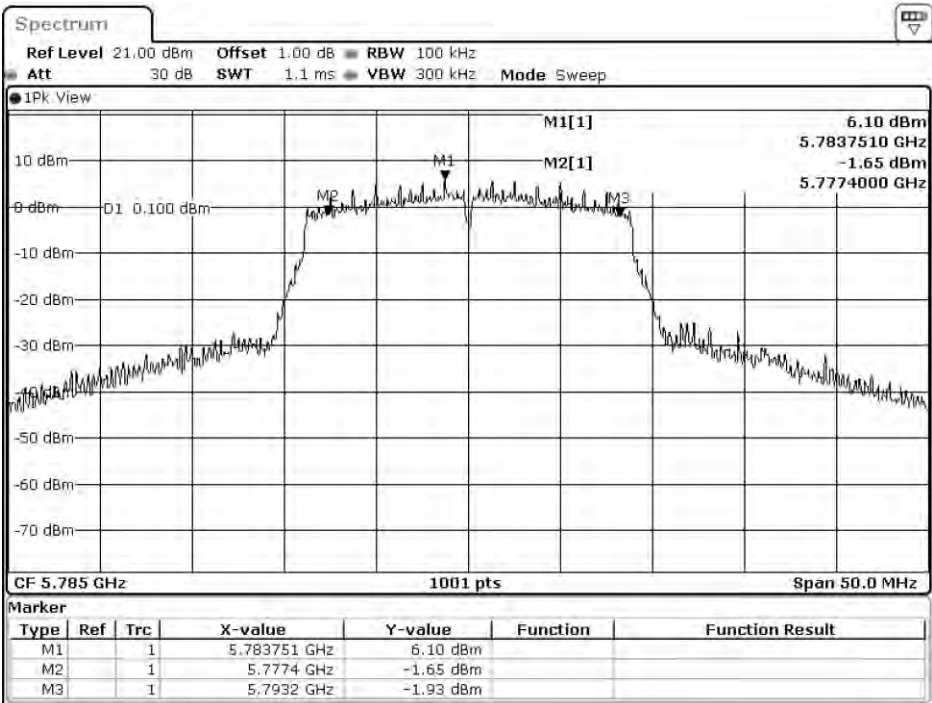


Figure Channel 157 (Chain A)



Date: 13.AUG.2021 07:55:00

Figure Channel 157 (Chain B)



Date: 10.AUG.2021 07:06:16

Figure Channel 165 (Chain A)

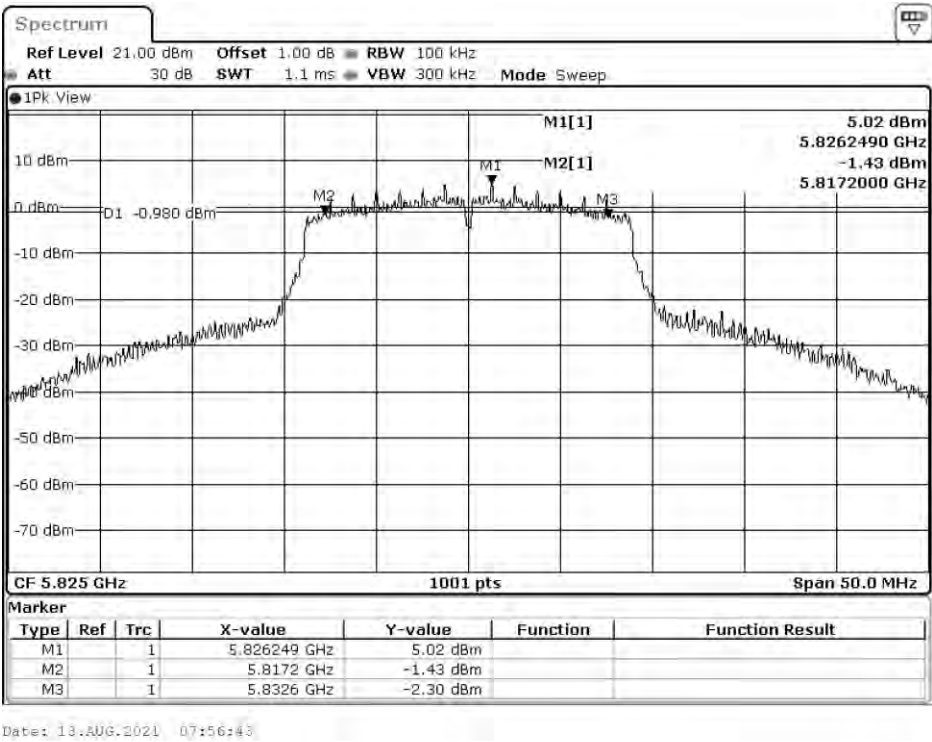
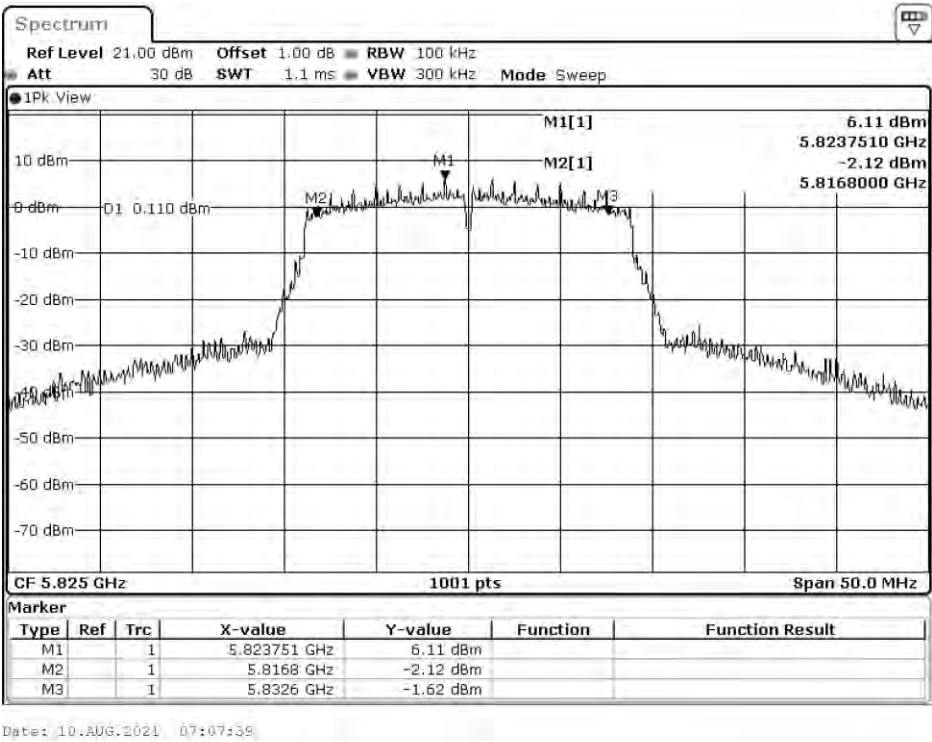


Figure Channel 165 (Chain B)



待測物名稱：BT/Wi-Fi Module

待測物型號：MW510

測試頻道：--

測試日期：110年08月11日

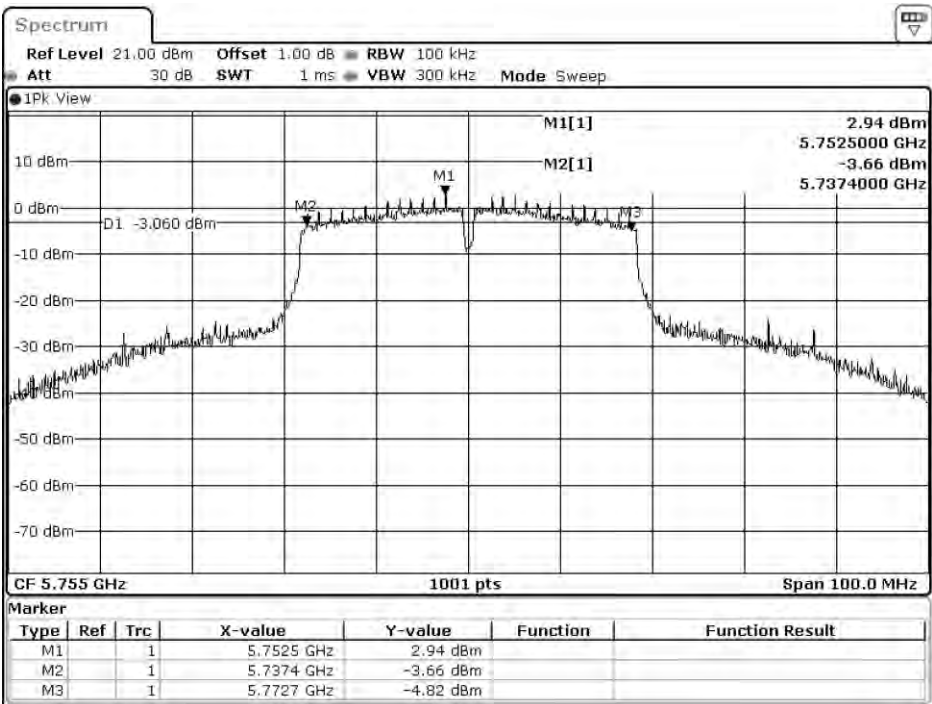
測試項目：佔用頻帶寬度

測試模式：Mode 1: 發射器 802.11ac-40BW

檢測器：峰值

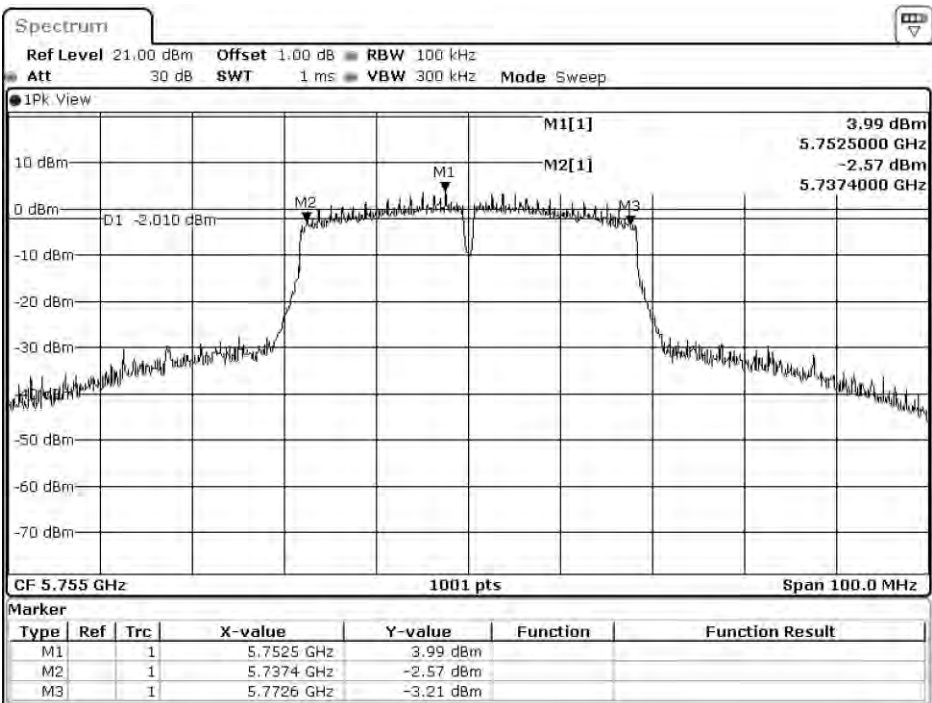
Channel No.	Frequency (MHz)	Chain	Measurement Level (kHz)	Required Limit (kHz)	Result
151	5755	A	35300	>500	Pass
159	5795	A	35300	>500	Pass
151	5755	B	35200	>500	Pass
159	5795	B	35300	>500	Pass

Figure Channel 151 (Chain A)



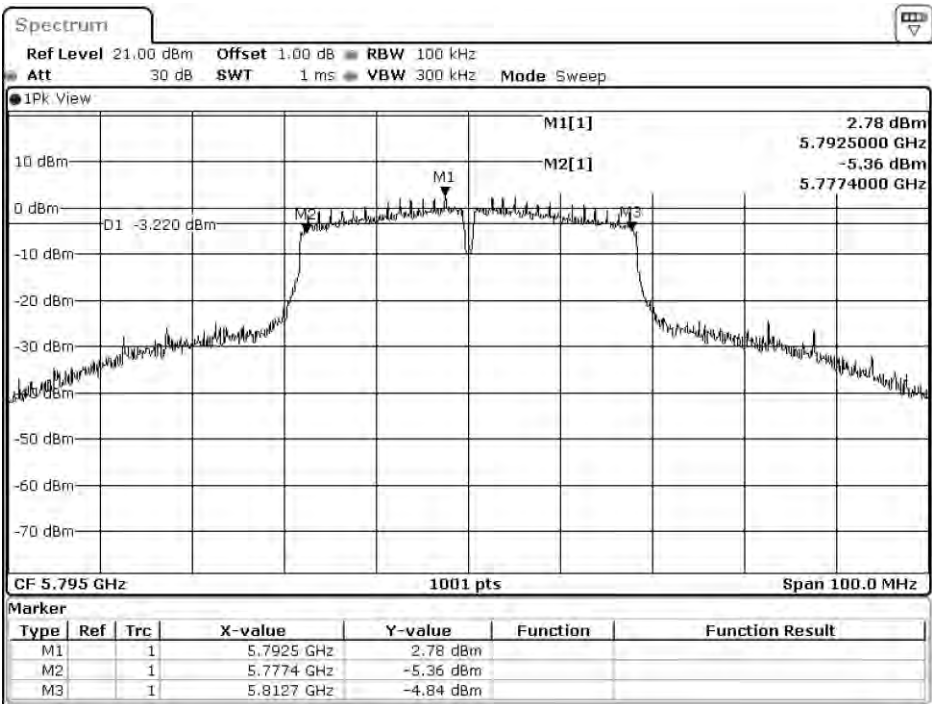
Date: 13.AUG.2021 07:58:41

Figure Channel 151 (Chain B)



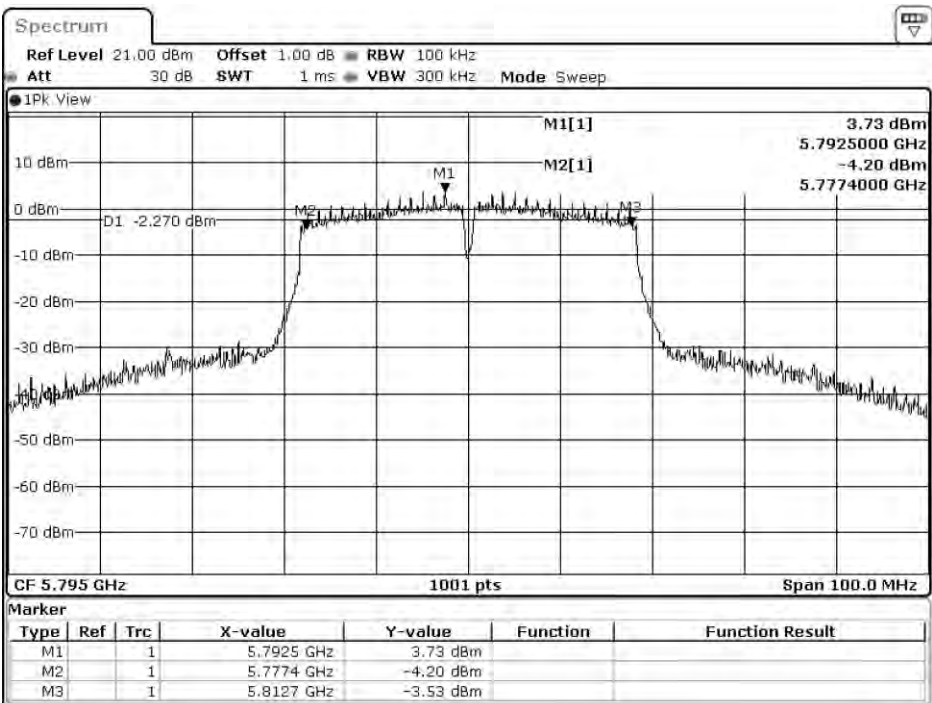
Date: 10.AUG.2021 07:12:19

Figure Channel 159 (Chain A)



Date: 13.AUG.2021 08:01:23

Figure Channel 159 (Chain B)



Date: 10.AUG.2021 07:13:41

待測物名稱：BT/Wi-Fi Module

待測物型號：MW510

測試頻道：--

測試日期：110年08月11日

測試項目：佔用頻帶寬度

測試模式：Mode 1: 發射器 802.11ac-80BW

檢測器：峰值

Channel No.	Frequency (MHz)	Chain	Measurement Level (kHz)	Required Limit (kHz)	Result
155	5775	A	75600	>500	Pass
155	5775	B	75600	>500	Pass

Figure Channel 155 (Chain A)

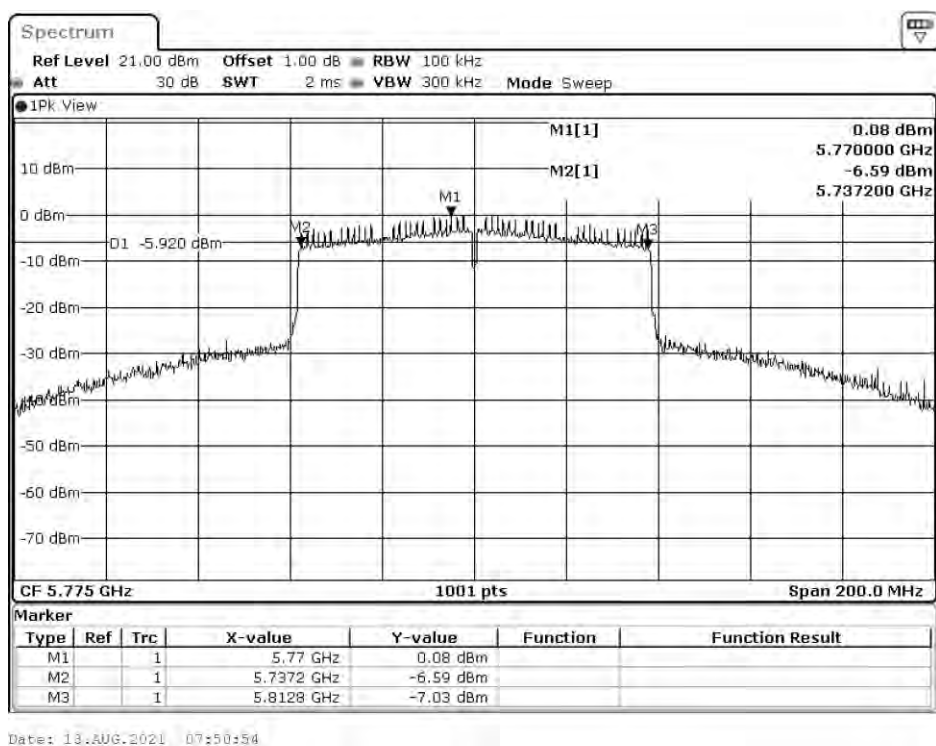
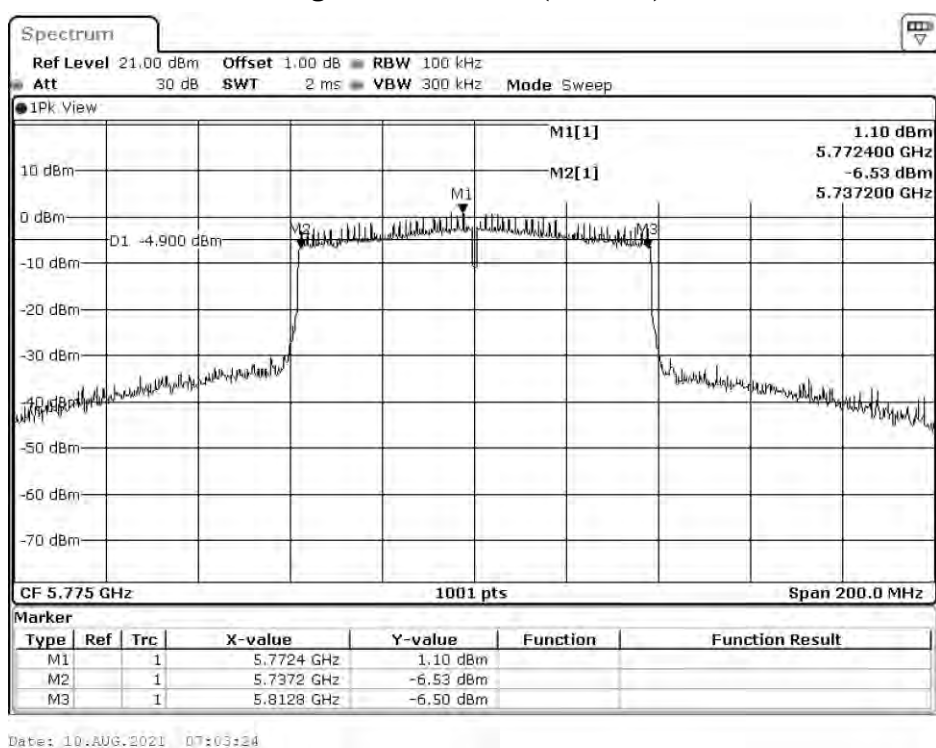


Figure Channel 155 (Chain B)



佔用頻帶寬度測試結果:

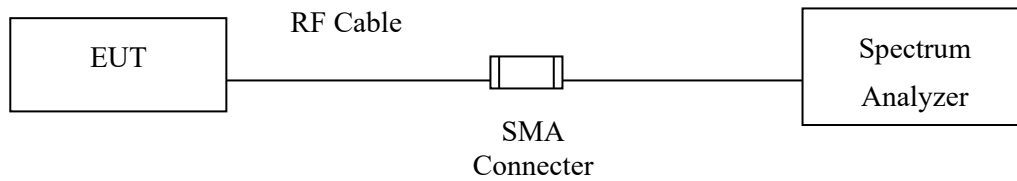
PASS

11. Duty Cycle

11.1. 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，
待測物應在正常發射狀態下量測。

11.2. 測試架構圖



11.3. Duty Cycle 測試結果

待測物名稱：BT/Wi-Fi Module

待測物型號：MW510

測試頻道：--

測試日期：110年08月23日

測試項目：Duty Cycle

測試模式：--

檢測器：峰值

Duty Cycle Formula:

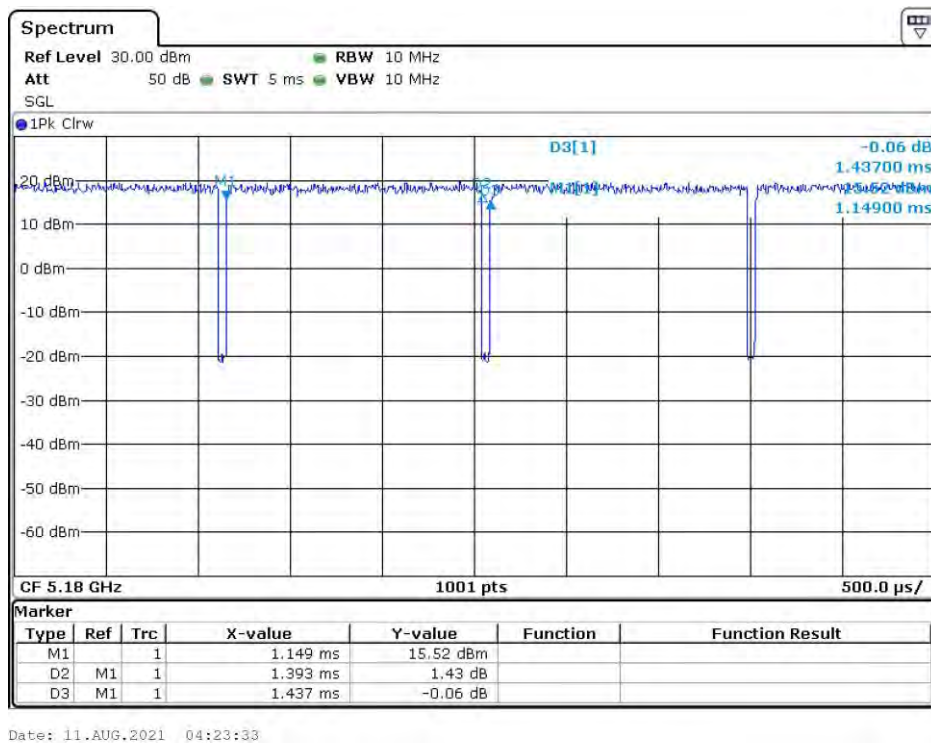
$\text{Duty Cycle} = \text{Ton} / (\text{Ton} + \text{Toff})$

$\text{Duty Factor} = 10 \text{ Log } (1/\text{Duty Cycle})$

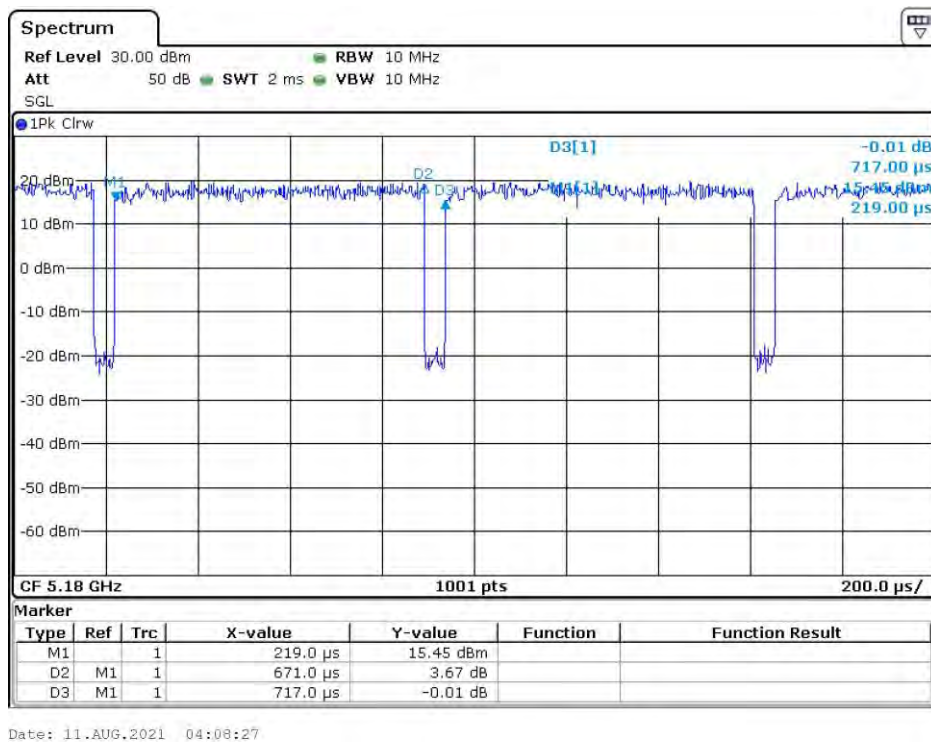
Results:

5GHz band	Ton (ms)	Ton + Toff (ms)	Duty Cycle (%)	Duty Factor (dB)
802.11 a	1.3930	1.4370	96.94	0.14
802.11 n20	0.6710	0.7170	93.58	0.29
802.11 n40	0.3470	0.3910	88.75	0.52
802.11 ac20	0.6790	0.7250	93.66	0.28
802.11 ac40	0.3510	0.3970	88.41	0.53
802.11 ac80	0.1880	0.2320	81.03	0.91

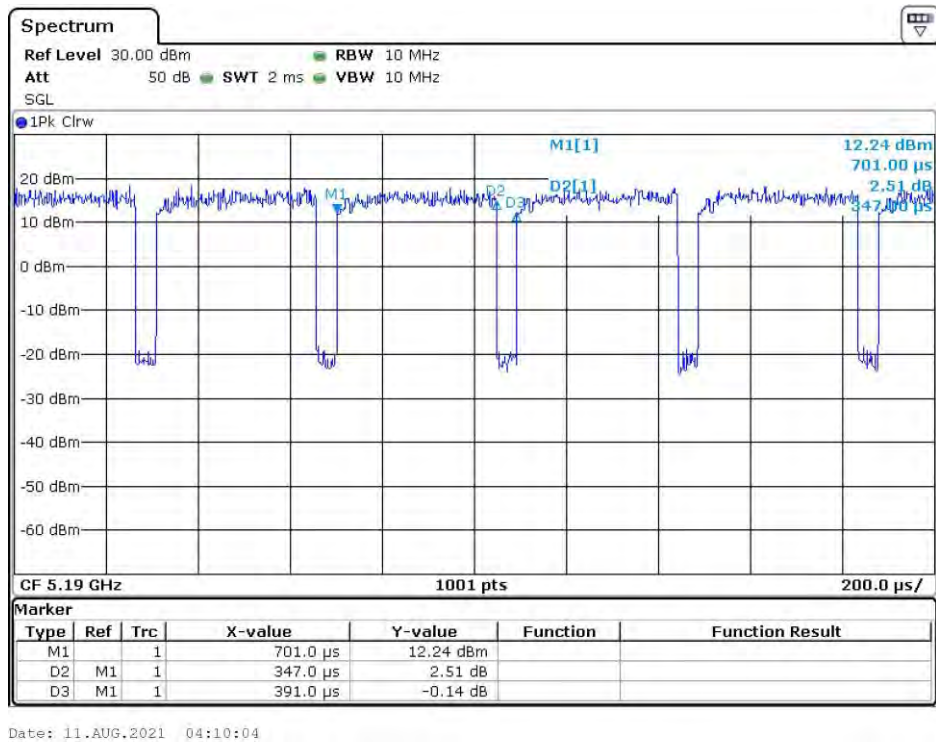
802.11a



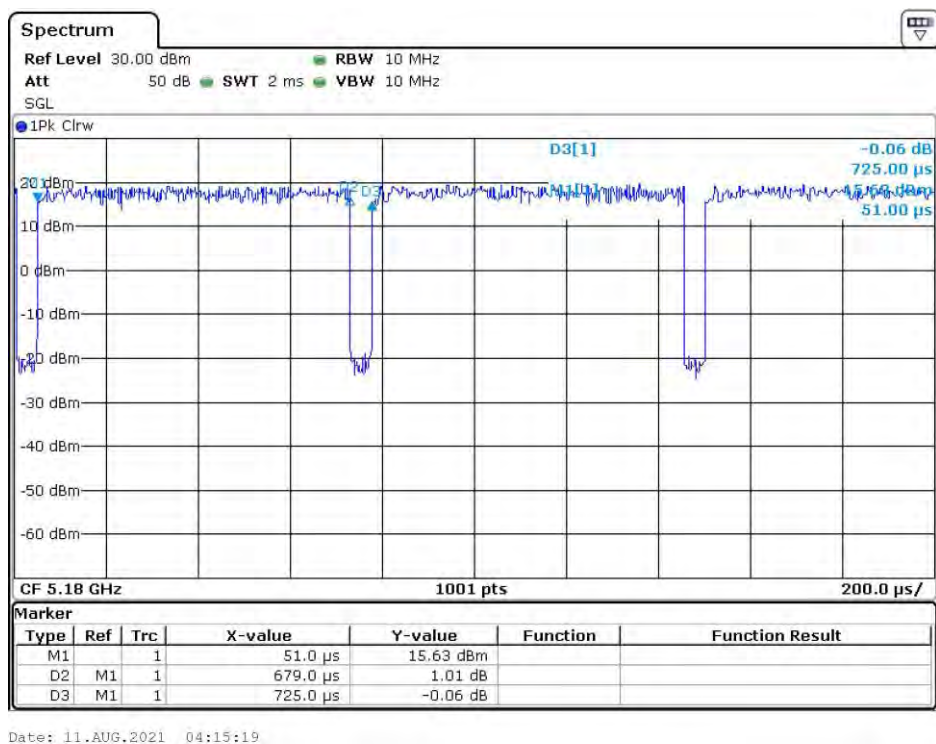
802.11n20



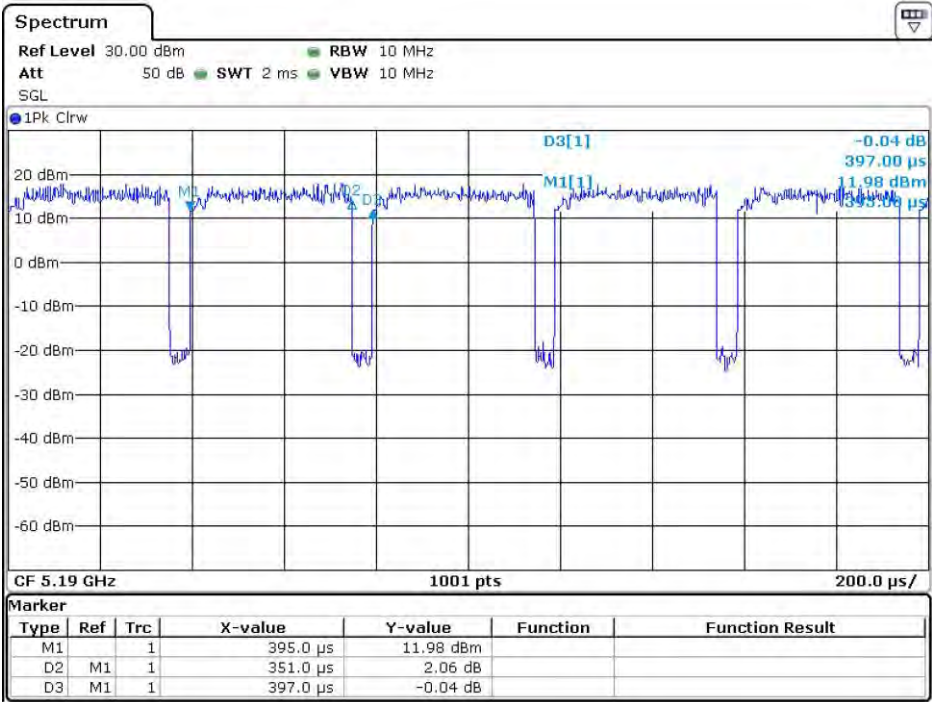
802.11n40



802.11ac20

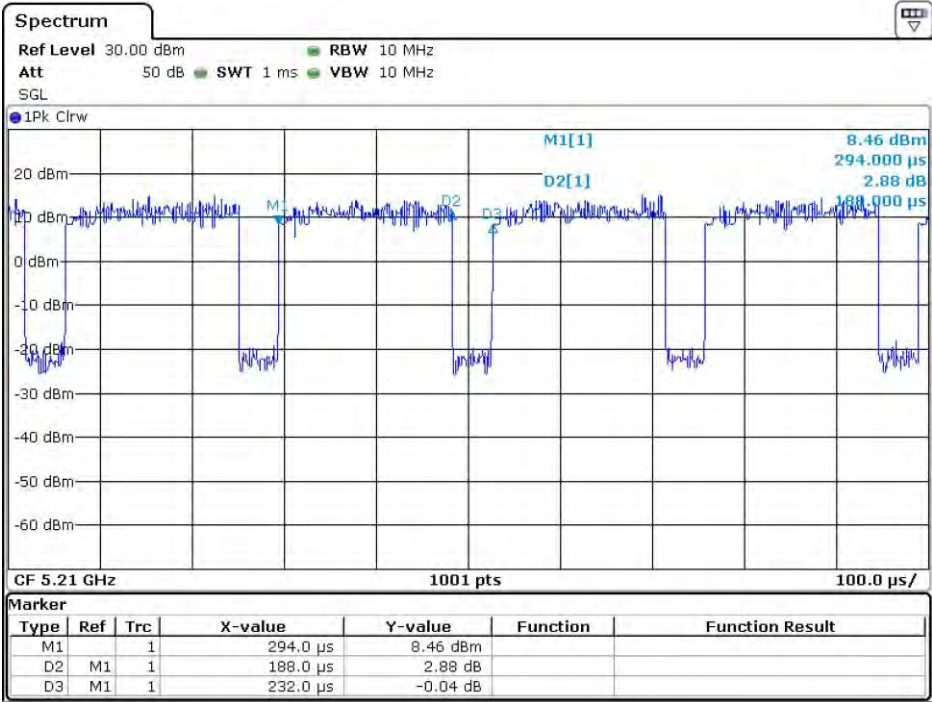


802.11ac40



Date: 11.AUG.2021 04:16:56

802.11ac80



Date: 11.AUG.2021 04:18:30

附件 1: 待測物測試擺設相片

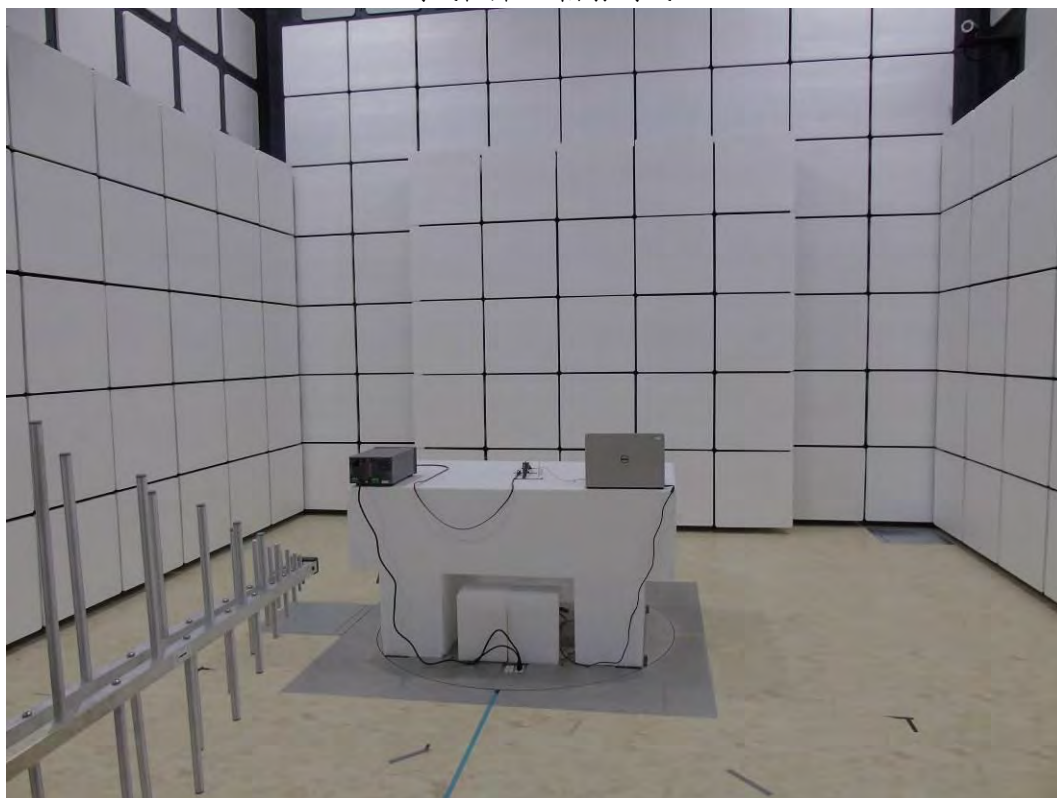
測試相片：電源端點測試 正面相片



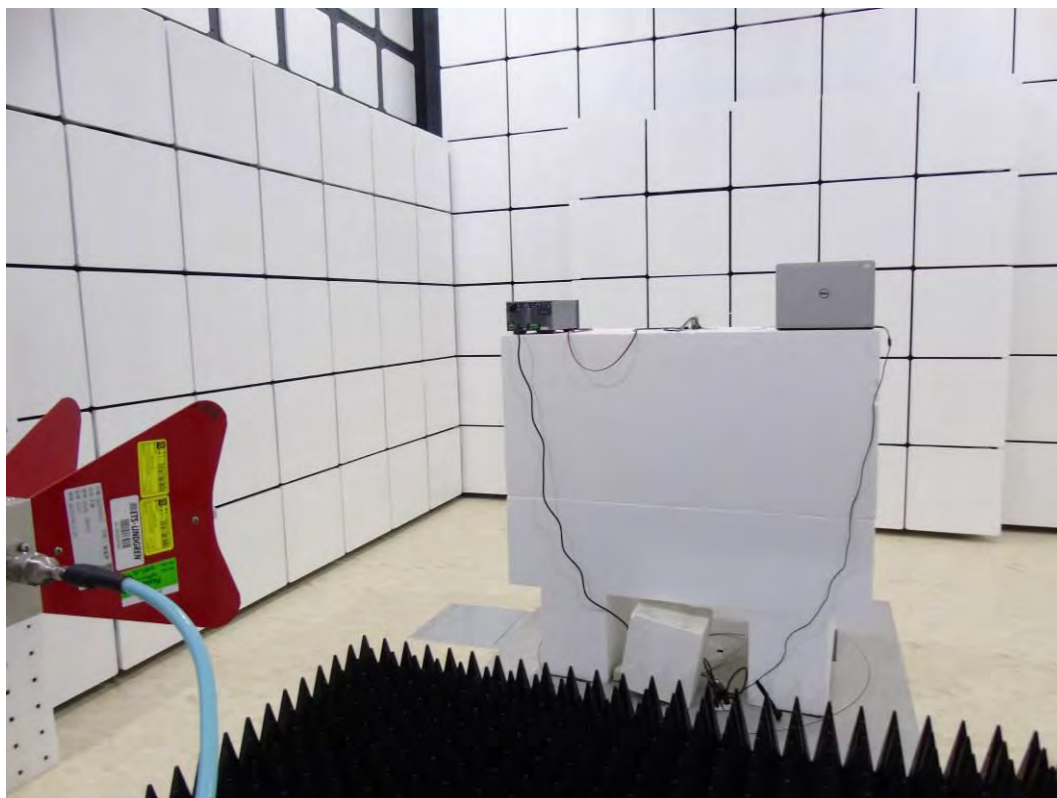
測試相片：電源端點測試 背面相片



測試相片：輻射測試



測試相片：輻射測試 (Horn)



測試相片：輻射測試 (Horn)

