

低功率射頻器材 檢驗報告

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製造廠商	Hyundai Mobis Co., LTD
受檢設備名稱	Car Audio System
廠牌	Hyundai Mobis
型號	VN251ASGG
檢驗依據標準	國家通訊傳播委員會低功率射頻器材 技術規範 (LP0002)
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財團法人台灣商品檢測驗證中心

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實驗室認可編號及範圍: 0371 (9 kHz to 325 GHz)

實驗室認可證書有效期限: 110年10月31日



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測試報告記錄

申請廠商：亞碁科技有限公司
 製造廠商：Hyundai Mobis Co., LTD
 廠牌：Hyundai Mobis
 品名：Car Audio System
 型號：VN251ASGG
 檢驗依據標準：國家通訊傳播委員會低功率射頻器材技術規範(LP0002)
 規範修訂日期109年07月01日
 發射功率(電場強度)：6.85 dBm (發射功率)
 工作頻率及調變方式：5745 ~ 5825 MHz / OFDM
 天線規格：內置固定式天線

- 備註：1. 本試驗報告中是描述本實驗室以最佳的知識和能力進行試驗，我們的責任僅限於合理與謹慎的試驗，並非確保賣方之法律和/或合同的義務。
 2. 本符合性試驗係依據適當的標準及試驗樣品進行測試，其中量測不確定度可符合標準CISPR16-4-2 及 ETSI TR 100 028要求，則不列入測試結果考量。本試驗報告的結果僅與測試項目有關，且僅針對受試驗之樣品負責，無法確保產品生產過程中的品質與性能要求。
 3. 非經本中心同意，檢驗報告不得摘錄複印使用。（全部複製除外）

項次	測試項目	適用規範	量測設備	測試結果	結果判定
1	電源線傳導干擾之要求	低功率射頻電機技術規範 3.3節	----	----	因使用直流電源故無需測試
2	天線增益之要求	低功率射頻電機技術規範 5.7.8節	----	請參閱5.2節	----
3	發射頻寬之要求	低功率射頻電機技術規範 5.7.5節	請參閱6.3節	請參閱6.4節	符合
4	最大傳導輸出功率之要求	低功率射頻電機技術規範 5.7.3.3節(1)	請參閱7.3節	請參閱7.4節	符合
5	功率密度之要求	低功率射頻電機技術規範 5.7.3.3節(2)	請參閱8.3節	請參閱8.4節	符合
6	混附波發射限制之要求	低功率射頻電機技術規範 5.7.4節	請參閱9.3節	請參閱9.4節	符合
7	場強輻射之要求	低功率射頻電機技術規範 5.7.4.6節	請參閱10.3節	請參閱10.5節	符合
	以下空白				

報告簽署人：鄭景文
110.10.27

直接主管：黃敬輝
110.10.27

量測員：郭世勇
110/10/27

1 一般資料

1.1 產品描述

- a) 產品型態 : Car Audio System
 b) 商 標 : Hyundai Mobis
 c) 產品型號 : VN251ASGG
 d) 供應電源 : DC 12V

備註：1. 本產品內含 Bluetooth 及 WLAN 無線技術，WLAN 部份包含 DTS 與 UNII 頻帶。本報告僅記錄 UNII Band 4 (5725 至 5850 MHz) 部份，Bluetooth 部份請見 ETC 報告編號: 21-08-MAW-005-01，DTS 部份請見 ETC 報告編號: 21-08-MAW-005-02，UNII Band 1 (5180 MHz 至 5240 MHz) 部份請見 ETC 報告編號: 21-08-MAW-005-03，UNII Band 2 (5260 至 5320 MHz) 部份請見 ETC 報告編號: 21-08-MAW-005-04，UNII Band 3 (5500 至 5700 MHz) 部份請見 ETC 報告編號: 21-08-MAW-005-05。
 2. 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。

1.2 產品特性

此裝置為 Car Audio System，內含之 WLAN 其發射頻率落於 5745 至 5825 MHz 頻段，採用 IEEE 802.11a/n/ac OFDM 調變技術，其應用為區域網路無線傳輸。主波發射功率為 6.85 dBm，即為 4.84 mW。

RF chain	1T1R	
Operating Frequency	IEEE 802.11a/n 20/ac 20MHz: 5.745GHz~5.825GHz, 5ch IEEE 802.11ac 40MHz Bnd: 5.755GHz~5.795GHz, 2ch IEEE 802.11ac 80MHz: 5.775 GHz, 1ch	
Modulation	IEEE 802.11a(OFDM/DSSS) 48/54 Mbps (QAM-64) 24/36 Mbps (QAM-64) 12/18 Mbps (QPSK) 6/19 Mbps (BPSK)	IEEE 802.11n(OFDM/DSSS) QAM-64 QAM-16 QPSK BPSK
	IEEE 802.11ac(20MHz,40MHz,80MHz)(OFDM/DSSS) QAM-256, QAM-64, QAM-16, QPSK,BPSK	

1.3 測試方法之依據

本測試報告之所有項目皆依據國家通訊傳播委員會低功率射頻器材技術規範以及參考 IEEE ANSI、歐盟 ETSI EN 與美國 EIA、FCC 47 CFR PART 2、KDB 及 ARIB STD-T67 等有關檢驗之規定。

試驗室介紹：財團法人台灣商品檢測驗證中心電磁相容試驗室通過下列評鑑、認可、登錄與相互認可協議：

- ❶ ISO/IEC 17025 : TAF(0371), NVLAP(Lab code: 200133-0), CBTL(TÜ V SÜ D)
- ❷ Recognized : BSMI, NCC, FCC(TW0371, TW1112), ISCED(Industry Canada Site # 2949A-2)
- ❸ Filing : VCCI (C-13518, R-13177, G-10098, T-11682)
- ❹ MRA : Australia, New Zealand, Singapore

2 適用規範

2.1 規範要求

(1) 傳導之規定

依據國家通訊傳播委員會低功率射頻器材技術規範之3.3節，電源傳導干擾之限制要求如下：

頻率範圍 MHz	傳導限制值(dB μ V)	
	準峰值(Quasi-peak)	平均值(Average)
0.15 – 0.5	66-56(註)	56-46(註)
0.5 – 5	56	46
5 – 30	60	50

註:隨頻率之對數遞減

(2) 天線增益之要求

天線的規格不受國家通訊傳播委員會低功率射頻器材技術規範3.2節規定之限制，其發射天線之方向性增益超過6dBi時，應依其所超過之dB數等量降低峰值輸出功率。

如用於固定式點對點操作時，依法規5.7.3.3(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。

(3) 頻寬之要求

依據國家通訊傳播委員會低功率射頻器材技術規範5.7.5節之規定，6dB頻寬至少應有500 kHz。

(4) 最大傳導輸出功率之要求

依據國家通訊傳播委員會低功率射頻器材技術規範5.7.3.3節(1)之規定，最大傳導輸出功率應小於或等於1 W。

(5) 功率密度之要求

依據國家通訊傳播委員會低功率射頻器材技術規範5.7.3.3節之(2)規定，在任何500 kHz 頻帶中最大功率頻譜密度應小於或等於30 dBm

(6) 發射限制之要求

依據國家通訊傳播委員會低功率射頻器材技術規範5.7.4.2節之規定，在5.725 GHz～5.850 GHz 的頻段操作之發射器：所有頻帶邊緣向外5MHz 內頻率之發射，有效等向輻射功率(EIRP)≤27 dBm/MHz～15.6dBm/MHz (以線性法計算對應之限制值)；所有頻帶邊緣向外5 MHz～25MHz，有效等向輻射功率(EIRP)≤15.6 dBm/MHz～10 dBm/MHz (以線性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)≤10 dBm/MHz～-27 dBm/MHz (以線性法計算對應之限制值)；所有頻帶邊緣外≥75 MHz 的頻率之發射，有效等向輻射功率(EIRP)≤-27 dBm/MHz；有關遮罩限制值詳圖 1。

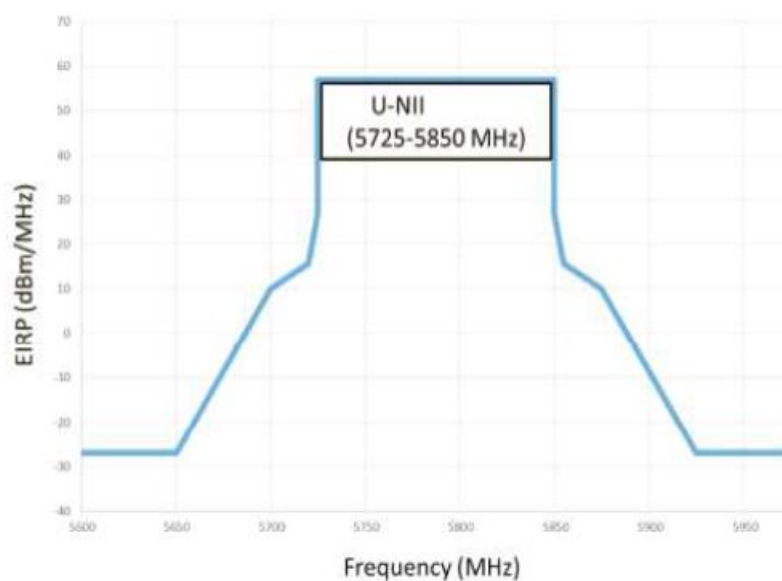


圖 1

(7) 輻射之規定

依據國家通訊傳播委員會低功率射頻器材技術規範 5.7.4.6節之要求，不必要發射頻率屬3.5 節規定頻段者，應符合3.6 節之規定。3.6 節限制要求：

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

2.2 限制使用之頻帶

頻率(MHz)	頻率(MHz)
0.090~0.110	1660.0~1785.0
0.490~0.510	1805.0~1880.0
2.172~2.198	1885.0~1900.0
3.013~3.033	1905.0~1985.0
4.115~4.198	2010.0~2025.0
5.670~5.690	2110.0~2170.0
6.200~6.300	2200.0~2300.0
8.230~8.400	2310.0~2390.0
12.265~12.600	2483.5~2900.0
13.340~13.430	3260.0~3267.0
14.965~15.020	3332.0~3339.0
16.700~16.755	3345.8~3358.0
19.965~20.020	3500.0~4400.0
25.500~25.700	4500.0~5250.0
37.475~38.275	5350.0~5460.0
73.500~75.400	7250.0~7750.0
108.00~138.00	8025.0~8500.0
149.90~150.05	9000.0~9200.0
156.70~156.90	9300.0~9500.0
162.01~167.17	10600~12700
167.72~173.20	13250~13400
240.00~285.00	14470~14500
322.00~335.40	15350~16200
399.90~410.00	17700~21400
485.00~510.00	22010~23120
608.00~614.00	23600~24000
703.00~748.00	31200~31800
758.00~803.00	36430~36500
825.00~915.00	38600 以上
930.00~1240.0	
1300.0~1427.0	
1435.0~1626.5	

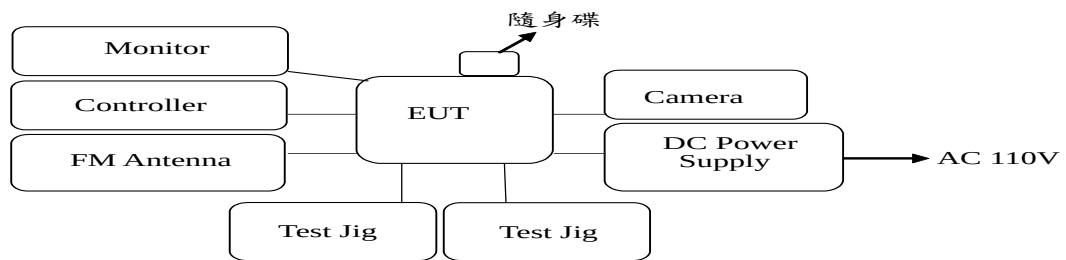
3 受測裝置之系統說明

3.1 受測裝置

裝置名稱	廠 牌	型 號	纜線說明
* Car Audio System	Hyundai Mobis	VN251ASGG	----
Controller	MOBIS	96540-CV000	非隔離信號線 0.7m * 1
隨身碟	Kingston	100G3	非隔離信號線 0.55m * 1
FM Antenna	HYUNDAI	96210-CV000B4U	非隔離信號線 2.4m * 1
Test Jig	MOBIS	N/A	非隔離信號線 1.9m * 1
Test Jig	MOBIS	N/A	非隔離信號線 1.9m * 1
Monitor	MOBIS	96525-L8000	非隔離信號線 1.9m * 1
Camera	MOBIS	95760J5000	非隔離信號線 2.1m * 1
DC Power Supply	GW Instek	GPS-1830	非隔離電源線 1.8m * 1 非隔離電源線 3.5m * 1

註: 1.標記“*”表欲申請之受測物及配件。

2.測試配置：



3. 測試模式:

3.1 IEEE 802.11a, 802.11n HT20, 802.11ac VHT20 mode:

測試頻道如下:

Channel	Frequency (MHz)
Low = 149	5745
Middle = 157	5785
High = 165	5825

IEEE 802.11a mode: 6 Mbps data rate is the worse case for full testing.

IEEE 802.11 n HT20, 802.11ac VHT20 mode: MCS0 data rate is the worse case for full testing.

3.2 IEEE 802.11n HT40, 802.11ac VHT40 mode:

測試頻道如下:

Channel	Frequency (MHz)
Low = 151	5755
High = 159	5795

IEEE 802.11 n HT40, 802.11ac VHT40 mode: MCS0 data rate is the worse case for full testing.

3.3 IEEE 802.11ac VHT80 mode:

測試頻道如下:

Channel	Frequency (MHz)
155	5775

IEEE 802.11 ac VHT80 mode: MCS0 data rate is the worse case for full testing.

4. 軟體設定:

	Power Setting
IEEE 802.11a	N/A
IEEE 802.11n HT20	N/A
IEEE 802.11n HT40	N/A
IEEE 802.11ac VHT20	N/A
IEEE 802.11ac VHT40	N/A
IEEE 802.11ac VHT80	N/A

3.2 測試模式說明

3.2.1 調變方式及模式

Test Mode	Modulation	Note
A	IEEE 802.11a	-
B	IEEE 802.11n HT20	-
C	IEEE 802.11ac VHT20	-
D	IEEE 802.11n HT40	-
E	IEEE 802.11ac VHT40	-
F	IEEE 802.11ac VHT80	-

Normal Mode:

Test Mode	Note
G	LINK BT
H	LINK WIFI
I	USB

Mode	IEEE 802.11a/n20/ac20	IEEE 802.11n40/ac40	IEEE 802.11ac80
Test Channel	Frequency (MHz)	Frequency (MHz)	Frequency (MHz)
Channel Low (L)	5745	5755	5775
Channel Mid (M)	5785	n/a	n/a
Channel High (H)	5825	5795	n/a

3.2.2 測試項目及模式

Item	測試項目	測試模式	測試頻道
1	電源線傳導干擾之量測	-	-
2	發射頻寬之量測	A, C, E, F	L, M, H
3	最大傳導輸出功率之量測	A, B, C, D, E, F	L, M, H
4	功率密度之量測	A, C, E, F	L, M, H
5	混附波發射限制之量測	A, C, E, F	L, M, H
6	場強輻射之量測(主諧波)	A, C, E, F	L, M, H
6.1	場強輻射之量測(1GHz以下)	A, G, H, I	M(Worse Case)
6.2	場強輻射之量測(1GHz以上)	A, C, E, F, G, H, I	L, M, H

註: 1. 各測試模式預掃時無差異，擇一作最終測試並記錄之。

2. Test Mode B 與 Test Mode C / Test Mode D 與 Test Mode E 使用相同調變技術及頻寬，故以最大傳導輸出功率較大者 Test Mode C 及 Test Mode E 為 Worse case，作最終測試並記錄之。
3. 量測場強輻射時，若為手持式或穿戴式之裝置，應對其三個正交軸 (X、Y、Z) 的方位評估測試，並分別測試以找出最大輻射電場強度軸向，以最差軸模式測試，並記錄其值與軸向放置。
4. 依 NCC 74 次一致性會議：審驗時不具一般正常使用模式者，得不包括一般正常使用模式。

3.2.3 測試場地

項次	測 試 場 地
1	☒ RE02 — EMC B1 — N2 第一大樓地下二樓 3m 半電波暗室(N2)
2	☐ CE04 — 10M 2F 第三大樓二樓傳導測試室(10m 大樓)
3	☒ RF — Cond01 第一大樓地下一樓直量測試區
4	☐ RF — Cond02 第一大樓地下二樓直量測試區

3.2.4 Duty cycle

IEEE 802.11a

File: 21-08-MAW-005_5-2a

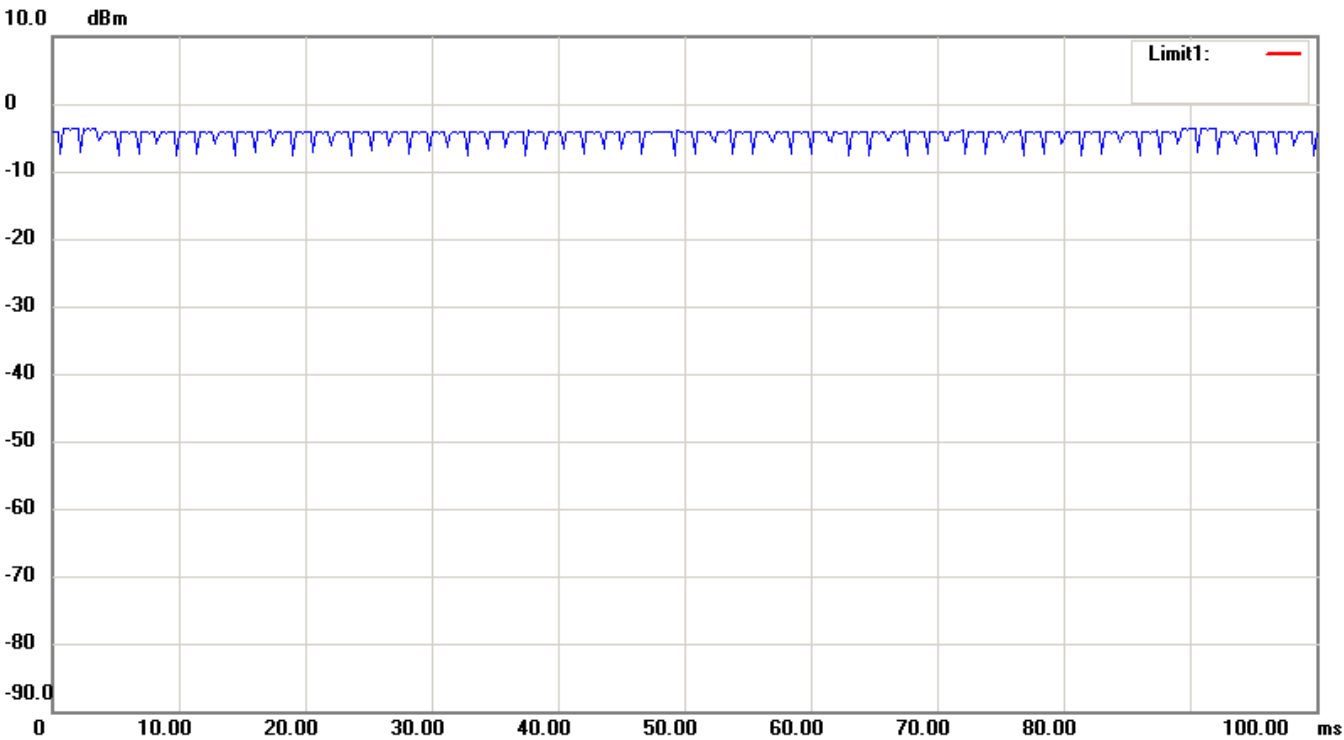
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Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:	UNII-Band1-2-Bandedge	RF Conducted
EUT:	CV1 21 WIDE AVN	Sweep Time: 100ms Att.: 15dB
Model:	VN251ASGG	RBW: 1000 KHz VBW: 3000 KHz
Test Mode:	UNII	Operator: Phillip
Note:	NCC_LP0002_802.11a Duty-1	

File: 21-08-MAW-005_5-2a

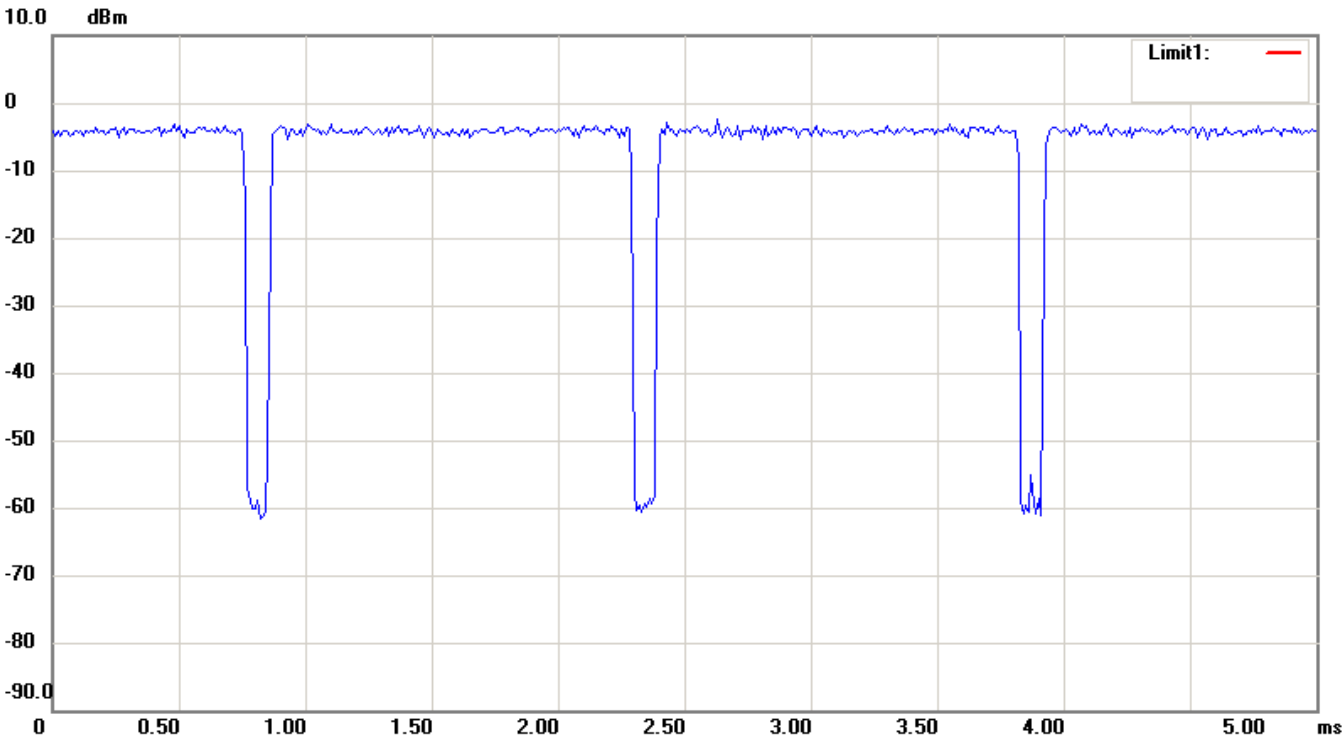
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Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:	UNII-Band1-2-Bandedge	RF Conducted
EUT:	CV1 21 WIDE AVN	Sweep Time: 5ms Att.: 15dB
Model:	VN251ASGG	RBW: 1000 KHz VBW: 3000 KHz
Test Mode:	UNII	Operator: Phillip
Note:	NCC_LP0002_802.11a Duty-2 (Duty=92.8%)	

IEEE 802.11ac VHT20

File: 21-08-MAW-005_5-2ac20

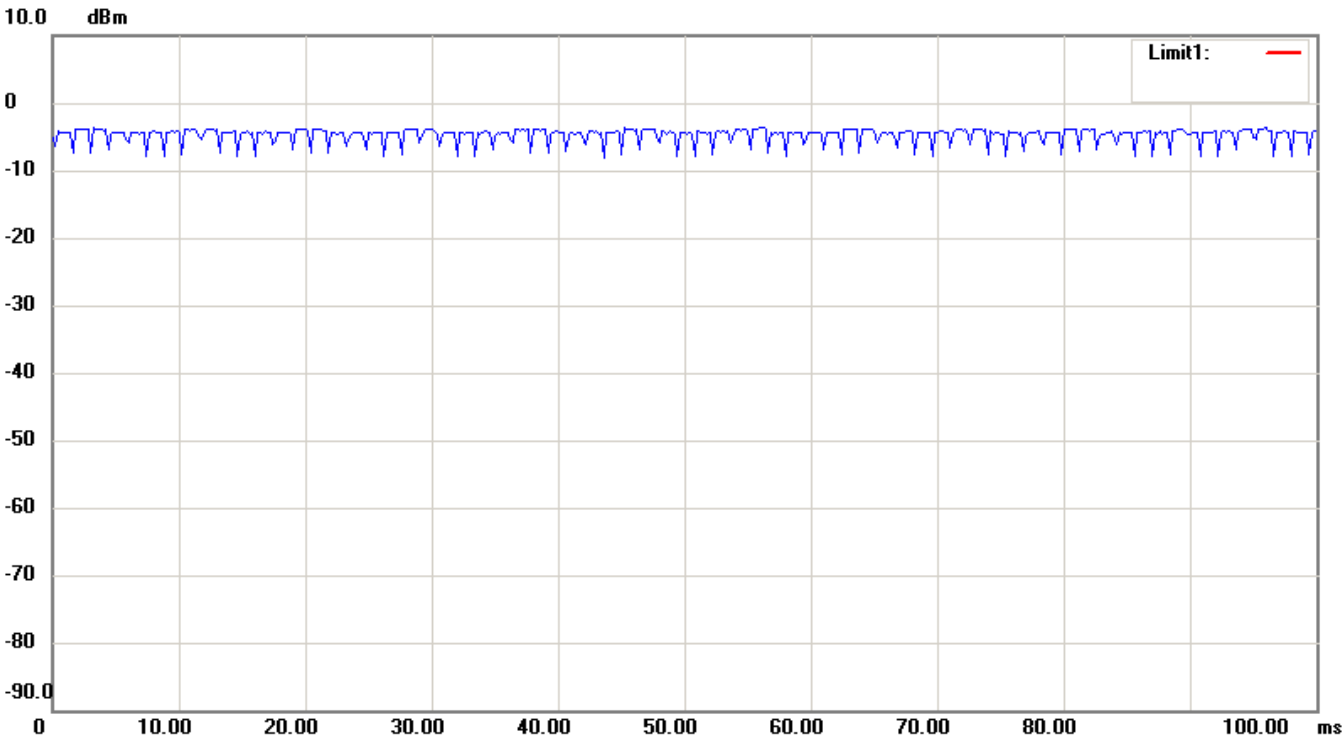
#21

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:	UNII-Band1-2-Bandedge	RF Conducted
EUT:	CV1 21 WIDE AVN	Sweep Time: 100ms Att.: 15dB
Model:	VN251ASGG	RBW: 1000 KHz VBW: 3000 KHz
Test Mode:	UNII	Operator: Phillip
Note:	NCC_LP0002_802.11ac20 Duty-1	

File: 21-08-MAW-005_5-2ac20

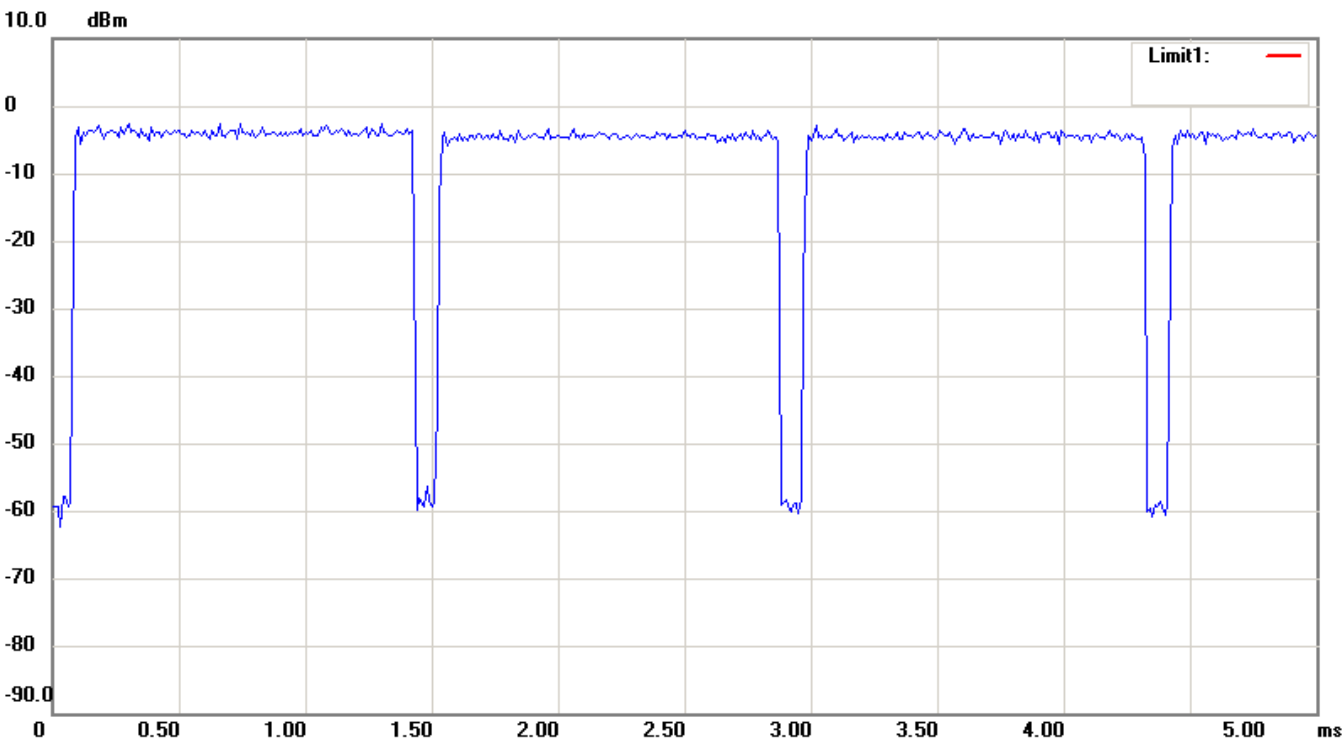
#22

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:	UNII-Band1-2-Bandedge	RF Conducted
EUT:	CV1 21 WIDE AVN	Sweep Time: 5ms Att.: 15dB
Model:	VN251ASGG	RBW: 1000 KHz VBW: 3000 KHz
Test Mode:	UNII	Operator: Phillip
Note:	NCC_LP0002_802.11ac20 Duty-2 (Duty=92.4%)	

IEEE 802.11ac VHT40

File: 21-08-MAW-005_5-2ac40

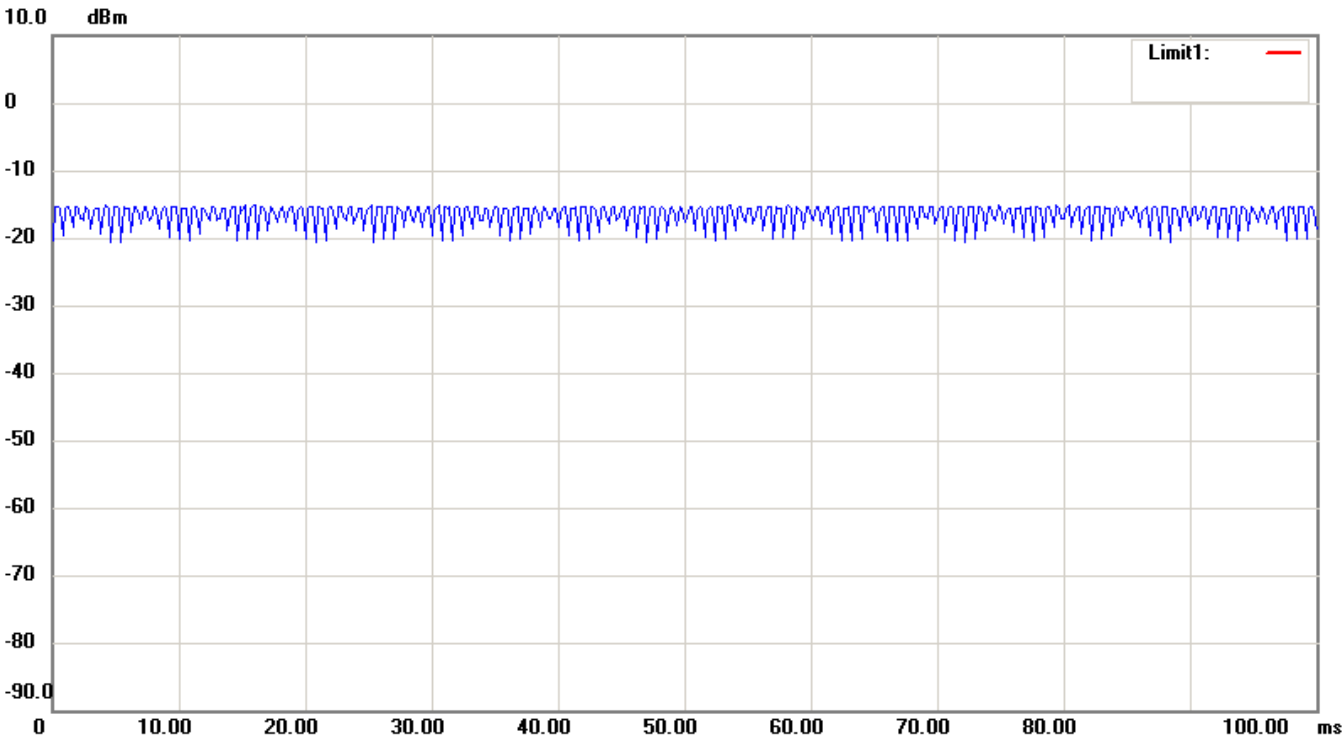
#15

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:	UNII-Band1-2-Bandedge	RF Conducted
EUT:	CV1 21 WIDE AVN	Sweep Time: 100ms Att.: 15dB
Model:	VN251ASGG	RBW: 1000 KHz VBW: 3000 KHz
Test Mode:	UNII	Operator: Phillip
Note:	NCC_LP0002_802.11ac40 Duty-1	

File: 21-08-MAW-005_5-2ac40

#16

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:	UNII-Band1-2-Bandedge	RF Conducted
EUT:	CV1 21 WIDE AVN	Sweep Time: 2ms Att.: 15dB
Model:	VN251ASGG	RBW: 1000 KHz VBW: 3000 KHz
Test Mode:	UNII	Operator: Phillip
Note:	NCC_LP0002_802.11ac40 Duty-2 (Duty=82.4%)	

IEEE 802.11ac VHT80

File: 21-08-MAW-005_5-2ac80

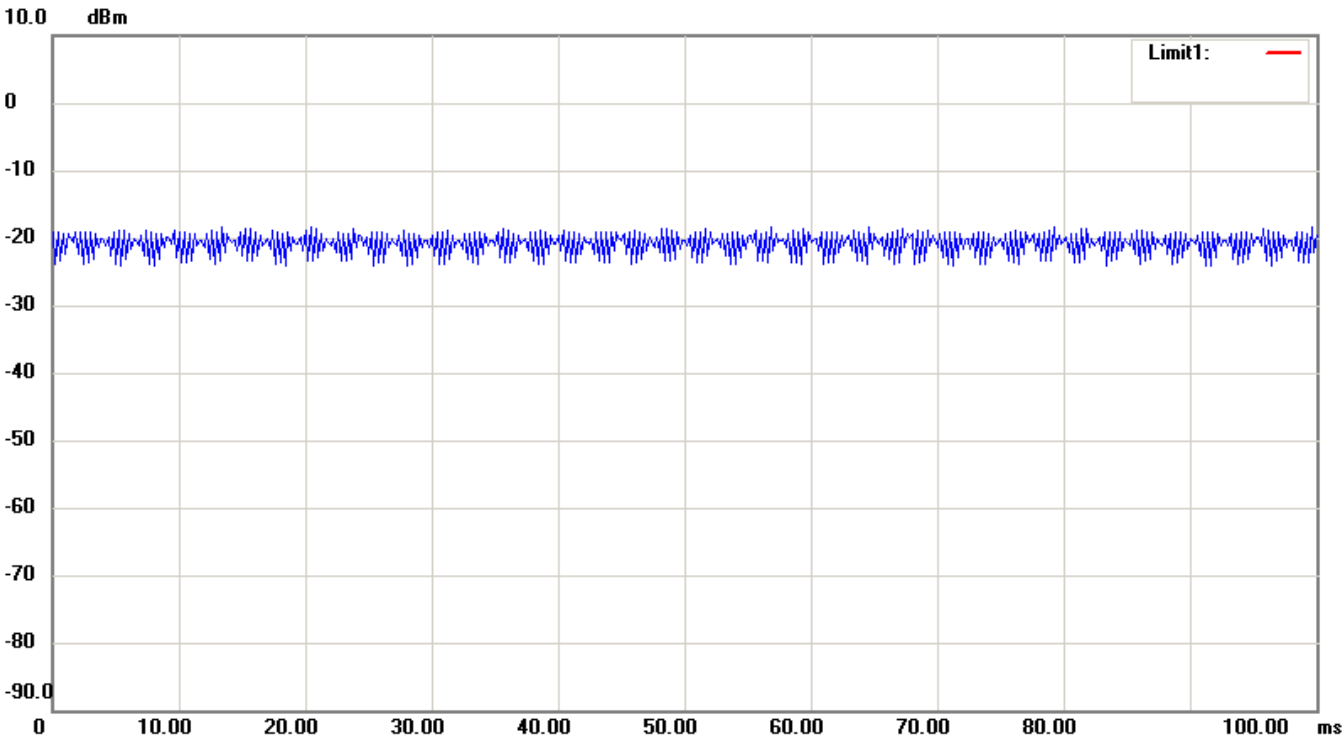
#9

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:	UNII-Band1-2-Bandedge	RF Conducted
EUT:	CV1 21 WIDE AVN	Sweep Time: 100ms Att.: 15dB
Model:	VN251ASGG	RBW: 1000 KHz VBW: 3000 KHz
Test Mode:	UNII	Operator: Phillip
Note:	NCC_LP0002_802.11ac80 Duty-1	

File: 21-08-MAW-005_5-2ac80

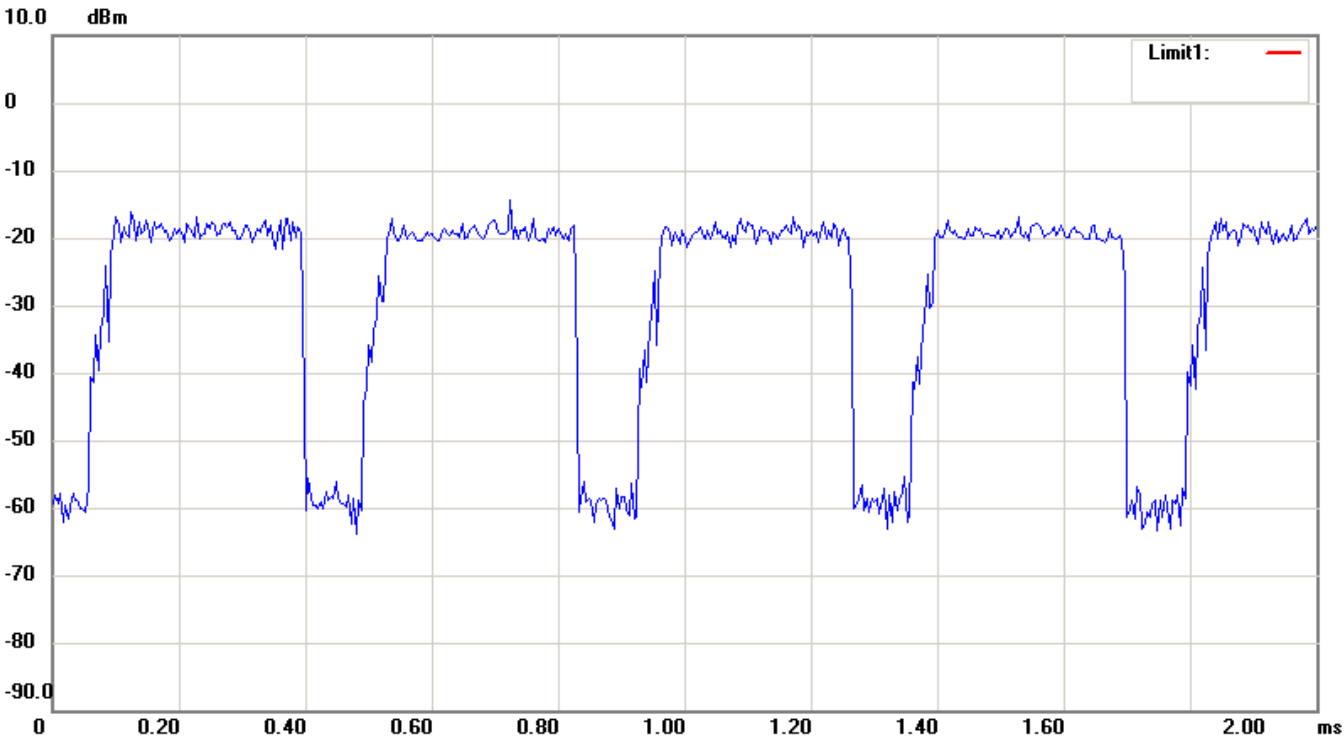
#10

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:	UNII-Band1-2-Bandedge	RF Conducted
EUT:	CV1 21 WIDE AVN	Sweep Time: 2ms Att.: 15dB
Model:	VN251ASGG	RBW: 1000 KHz VBW: 3000 KHz
Test Mode:	UNII	Operator: Phillip
Note:	NCC_LP0002_802.11ac80 Duty-2 (Duty=68.5%)	

4 電源線傳導干擾之量測

本產品僅使用電池供電，使用電源為直流電源，故無須對其電源傳導干擾部份進行測試。

5 天線增益之要求

5.1 適用標準

天線的規格不受國家通訊傳播委員會低功率射頻器材技術規範3.2節規定之限制，其發射天線之方向性增益超過6dBi時，應依其所超過之dB數等量降低峰值輸出功率。

如用於固定式點對點操作時，依法規5.7.3.3(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。

5.2 天線增益

此裝置使用內接固定式天線連接於主體內 PCB 板上，天線增益 4.58 dBi，未超過 6 dBi，不須降低峰值輸出功率。

註：此天線規格資料係由廠商提供，僅作數據引用。基於相信原則，本實驗室相信此資料為真實，若有不實而導致之任何損失或損害，其相關責任應由廠商承擔，本公司概不承擔任何有關責任。

5.3 結果判定

天線之方向性增益未超過6dBi，不須降低最大傳導輸出功率及功率密度之限制值。

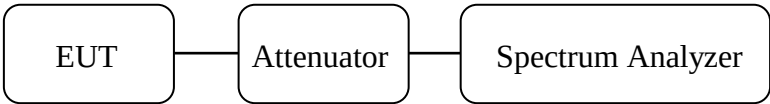
6 發射頻寬之要求

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5.7.5節之規定，6dB頻寬至少應有500 kHz。

6.2 測試配置

圖 1：發射頻寬之測試配置



6.3 發射頻寬之量測儀器

儀器名稱	廠 牌	型 號
Spectrum Analyzer	R&S	FSV40
Attenuator	WEINSCHEL	56-10

測試軟體: LZ-RF (Ver. ETC-3A2)

6.4 量測結果

測試工程師: 羅世勇

6.4.1 調變技術:IEEE 802.11a

測試日期: Sep. 13, 2021

環境溫度: 25℃

環境濕度: 50%

Channel	6dB Bndwidth (MHz)	NCC Limit (kHz)	Chart
L	16.600	500	Page 24
M	16.600	500	Page 25
H	16.600	500	Page 26

註：繪圖資料請參考第 24-26 頁。

File: 21-08-MAW-005_5-8a

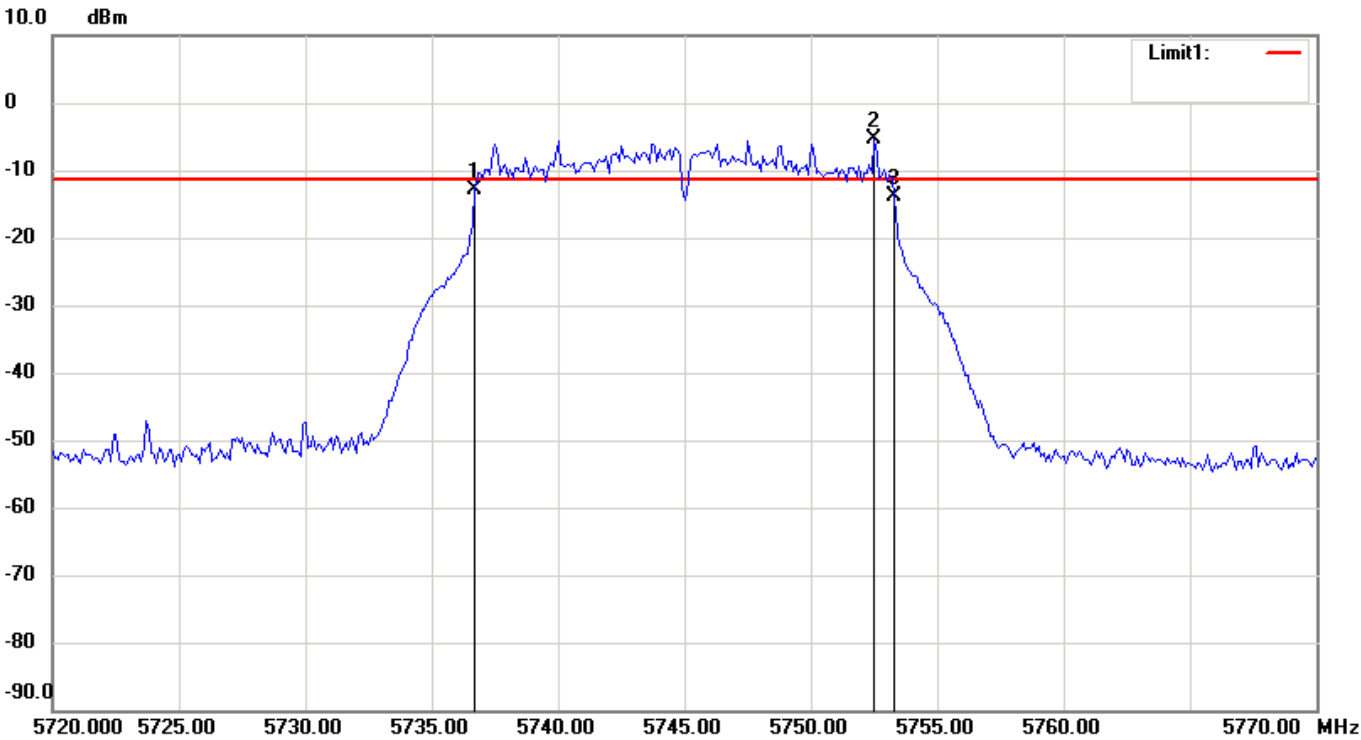
#2

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition: -11.41dBm

RF Conducted

EUT: CV1 21 WIDE AVN

Sweep Time: 1.08ms

Att.: 15dB

Model: VN251ASGG

RBW: 100 KHz

VBW: 300 KHz

Test Mode: UNII

Operator: Phillip

Note: NCC_LP0002_802.11a Channel 149_-6dB MIN EBW

No.	Frequency(MHz)	Level(dBm)
1	5736.70000	-12.91
2	5752.50000	-5.41
3	5753.30000	-13.87

No.		Δ Frequency(MHz)	Δ Level(dB)
1	mk3-mk1	16.6	-0.96

File: 21-08-MAW-005_5-8a

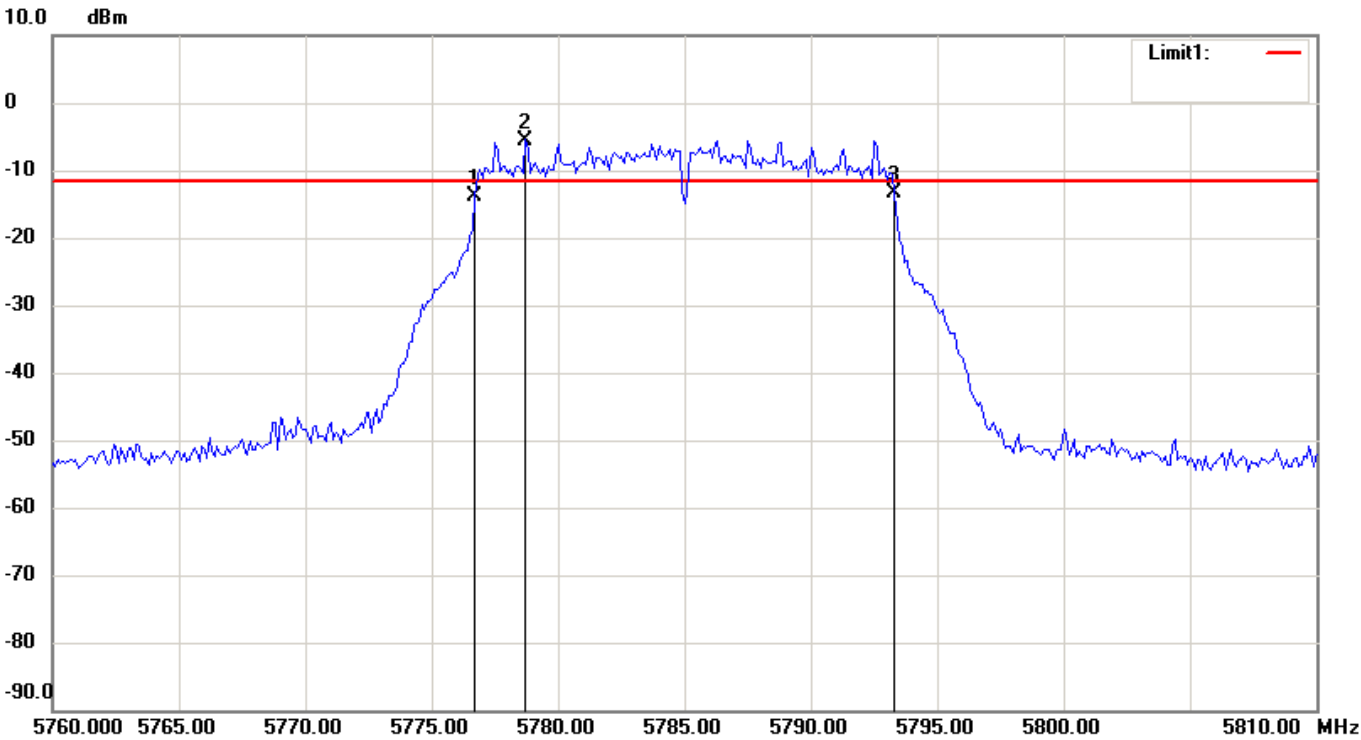
Site: RF-Cond01

#10

Date: 2021/9/13

Temperature: 25 °C

Humidity: 50 %



Condition: -11.5dBm

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11a Channel 157_-6dB MIN EBW

RF Conducted

Sweep Time: 1.08ms

RBW: 100 KHz

Operator:

Att.: 15dB

VBW: 300 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	5776.70000	-13.76
2	5778.70000	-5.50
3	5793.30000	-13.49

No.		Δ Frequency(MHz)	Δ Level(dB)
1	mk3-mk1	16.6	0.27

File: 21-08-MAW-005_5-8a

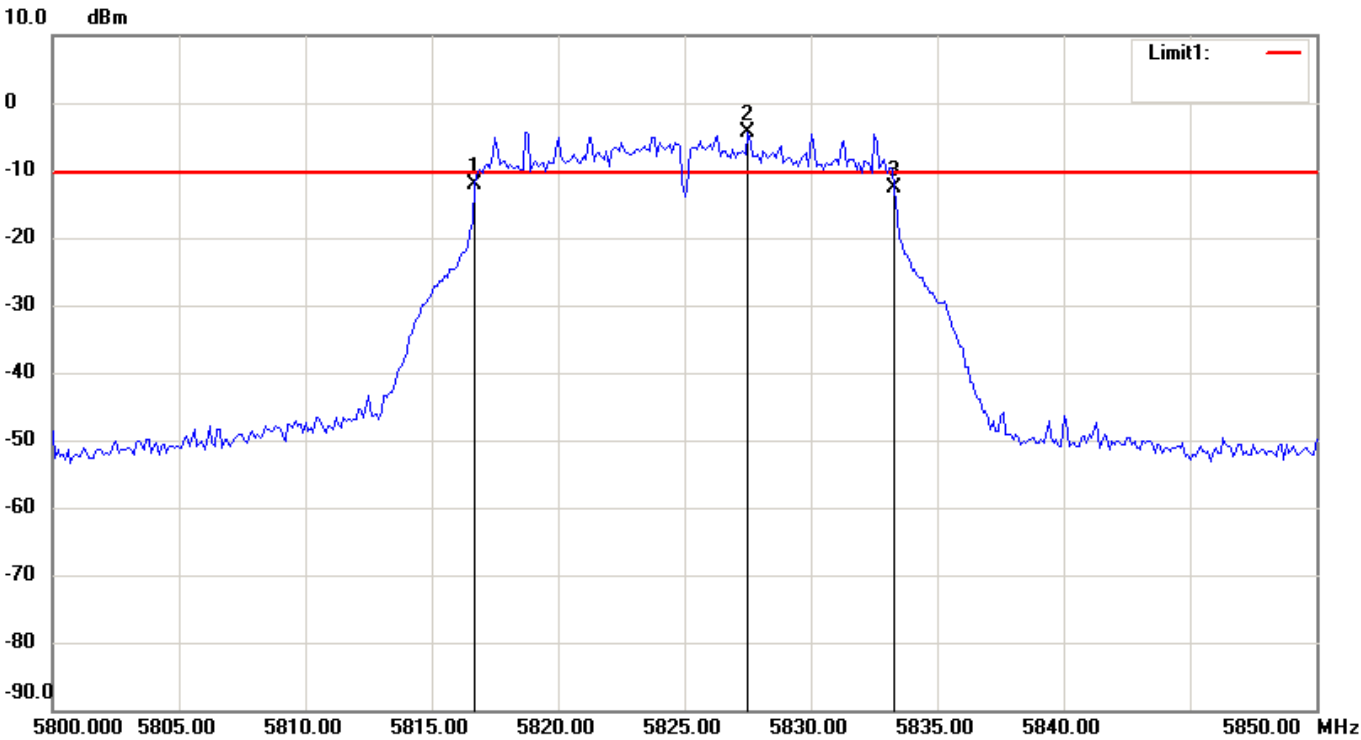
Site: RF-Cond01

#17

Date: 2021/9/13

Temperature: 25 °C

Humidity: 50 %



Condition: -10.35dBm

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11a Channel 165_-6dB MIN EBW

RF Conducted

Sweep Time: 1.08ms

RBW: 100 KHz

Operator:

Att.: 15dB

VBW: 300 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	5816.70000	-12.08
2	5827.50000	-4.35
3	5833.30000	-12.67

No.		Δ Frequency(MHz)	Δ Level(dB)
1	mk3-mk1	16.6	-0.59

6.4.2 調變技術: IEEE 802.11ac VHT20

測試日期: Sep. 13, 2021 環境溫度: 25℃ 環境濕度: 50%

Channel	6dB Bndwidth (MHz)	NCC Limit (kHz)	Chart
L	17.8	500	Page 28
M	17.8	500	Page 29
H	17.8	500	Page 30

註：繪圖資料請參考第 28-30 頁。

File: 21-08-MAW-005_5-8ac20

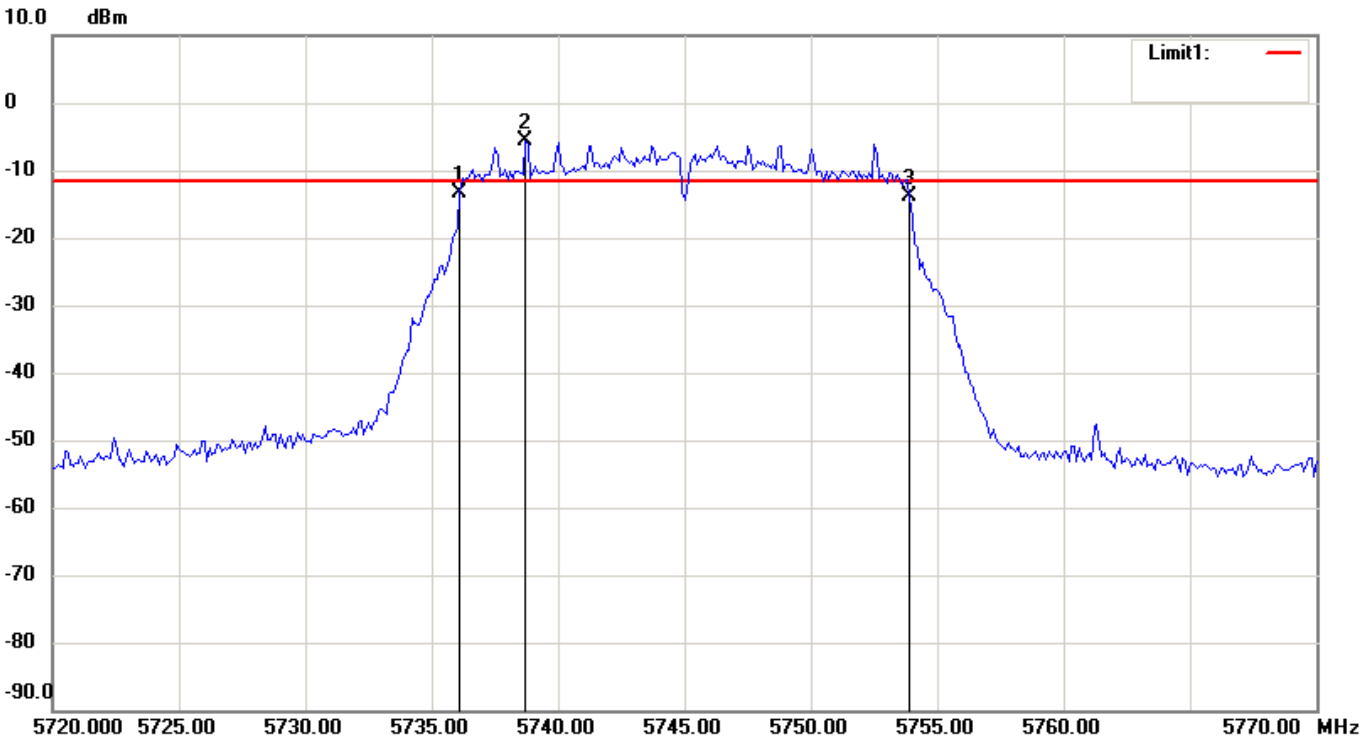
#2

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition: -11.7dBm

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11ac20 Channel 149_-6dB MIN EBW

RF Conducted

Sweep Time: 1.08ms

RBW: 100 KHz

Operator:

Att.: 15dB

VBW: 300 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	5736.10000	-13.34
2	5738.70000	-5.70
3	5753.90000	-13.98

No.		Δ Frequency(MHz)	Δ Level(dB)
1	mk3-mk1	17.8	-0.64

File: 21-08-MAW-005_5-8ac20

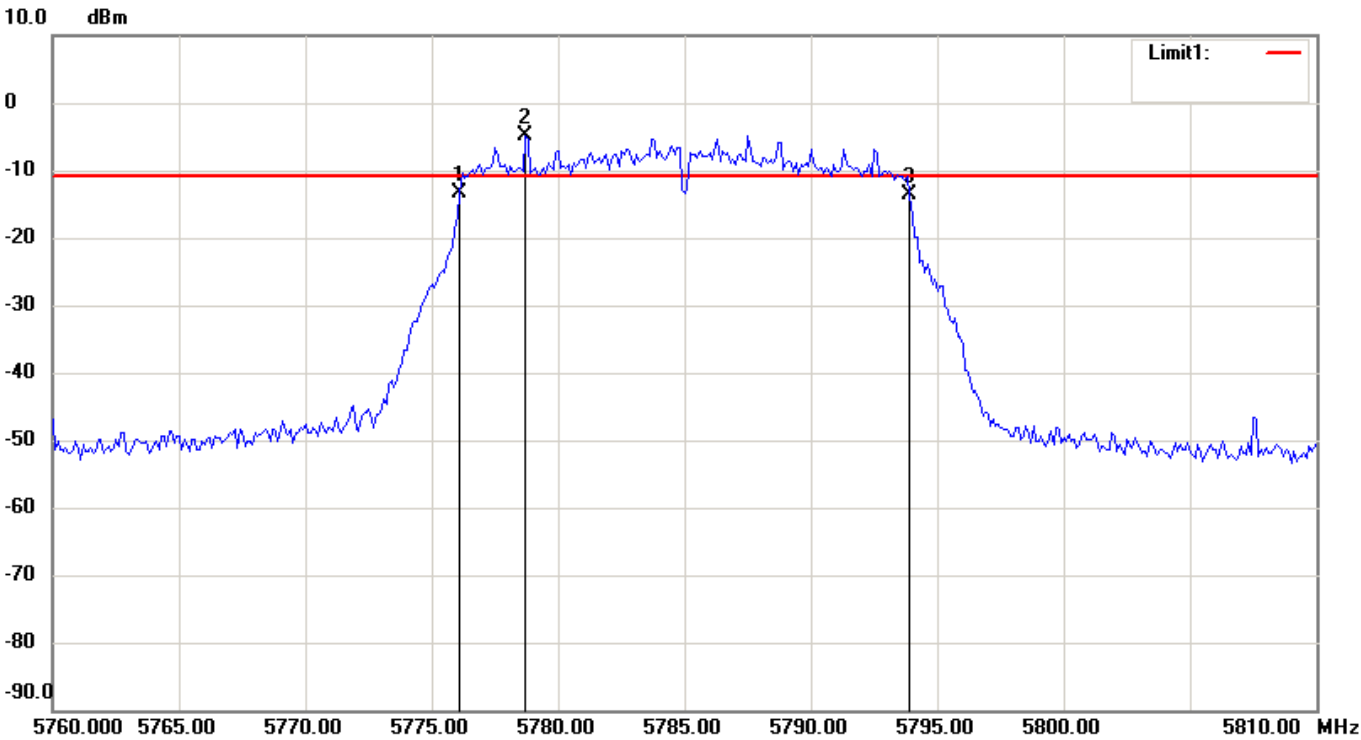
#10

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition: -10.94dBm

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11ac20 Channel 157_-6dB MIN EBW

RF Conducted

Sweep Time: 1.08ms

RBW: 100 KHz

Operator:

Att.: 15dB

VBW: 300 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	5776.10000	-13.37
2	5778.70000	-4.94
3	5793.90000	-13.74

No.		Δ Frequency(MHz)	Δ Level(dB)
1	mk3-mk1	17.8	-0.37

File: 21-08-MAW-005_5-8ac20

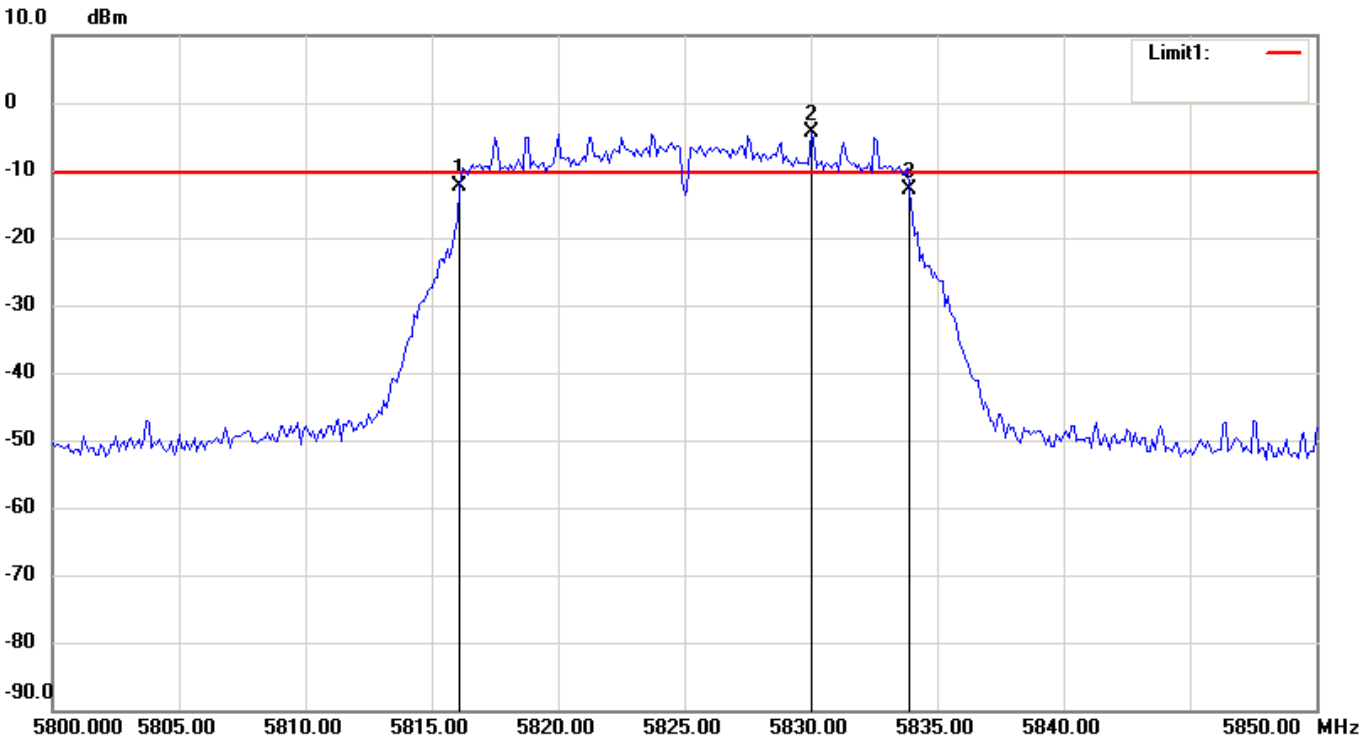
#17

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition: -10.45dBm

RF Conducted

EUT: CV1 21 WIDE AVN

Sweep Time: 1.08ms

Att.: 15dB

Model: VN251ASGG

RBW: 100 KHz

VBW: 300 KHz

Test Mode: UNII

Operator: Phillip

Note: NCC_LP0002_802.11ac20 Channel 165_-6dB MIN EBW

No.	Frequency(MHz)	Level(dBm)
1	5816.10000	-12.40
2	5830.00000	-4.45
3	5833.90000	-12.87

No.		Δ Frequency(MHz)	Δ Level(dB)
1	mk3-mk1	17.8	-0.47

6.4.3 調變技術: IEEE 802.11ac VHT40

測試日期: Sep. 13, 2021 環境溫度: 25℃ 環境濕度: 50%

Channel	6dB Bndwidth (MHz)	NCC Limit (kHz)	Chart
L	36.4	500	Page 32
H	36.2	500	Page 33

註：繪圖資料請參考第 32-33 頁。

File: 21-08-MAW-005_5-8ac40

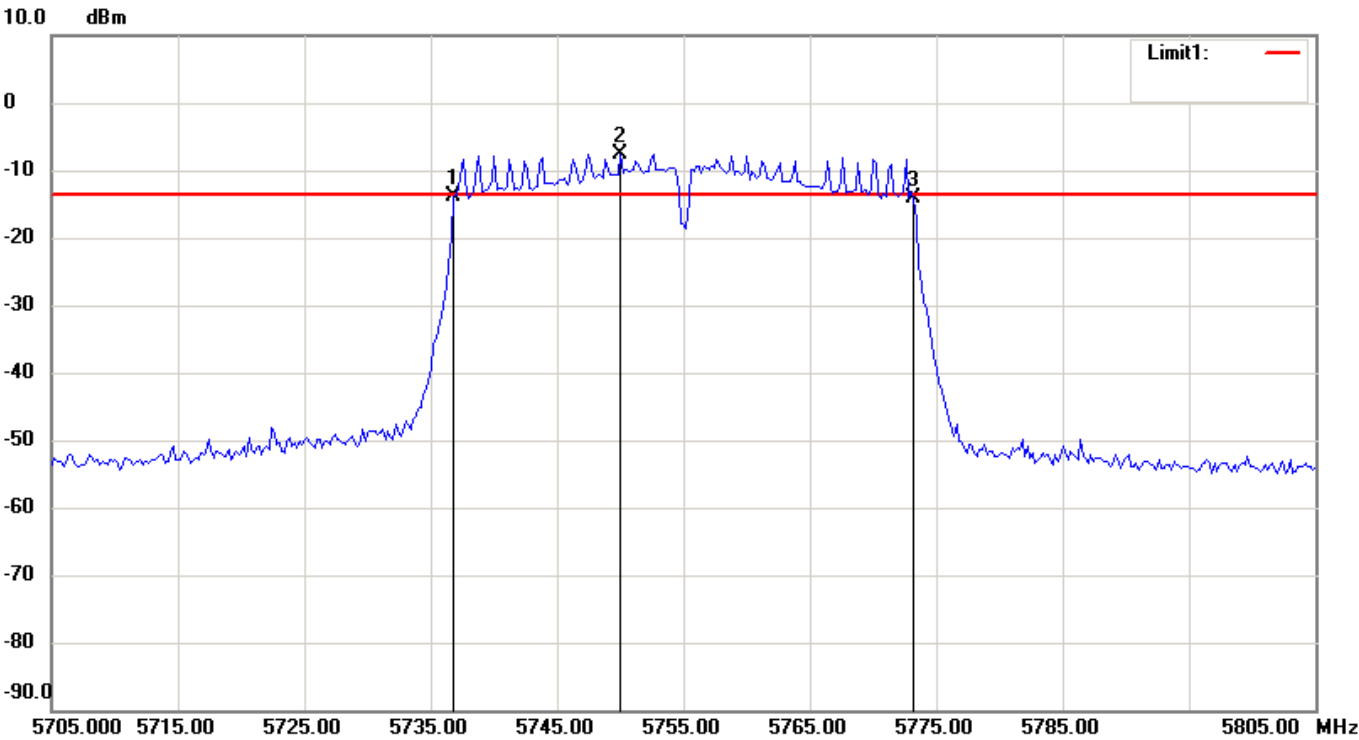
#2

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition: -13.65dBm

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11ac40 Channel 151_-6dB EBW

RF Conducted

Sweep Time: 1ms

RBW: 100 KHz

Operator:

Att.: 15dB

VBW: 300 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	5736.80000	-13.88
2	5750.00000	-7.65
3	5773.20000	-14.18

No.		Δ Frequency(MHz)	Δ Level(dB)
1	mk3-mk1	36.4	-0.3

File: 21-08-MAW-005_5-8ac40

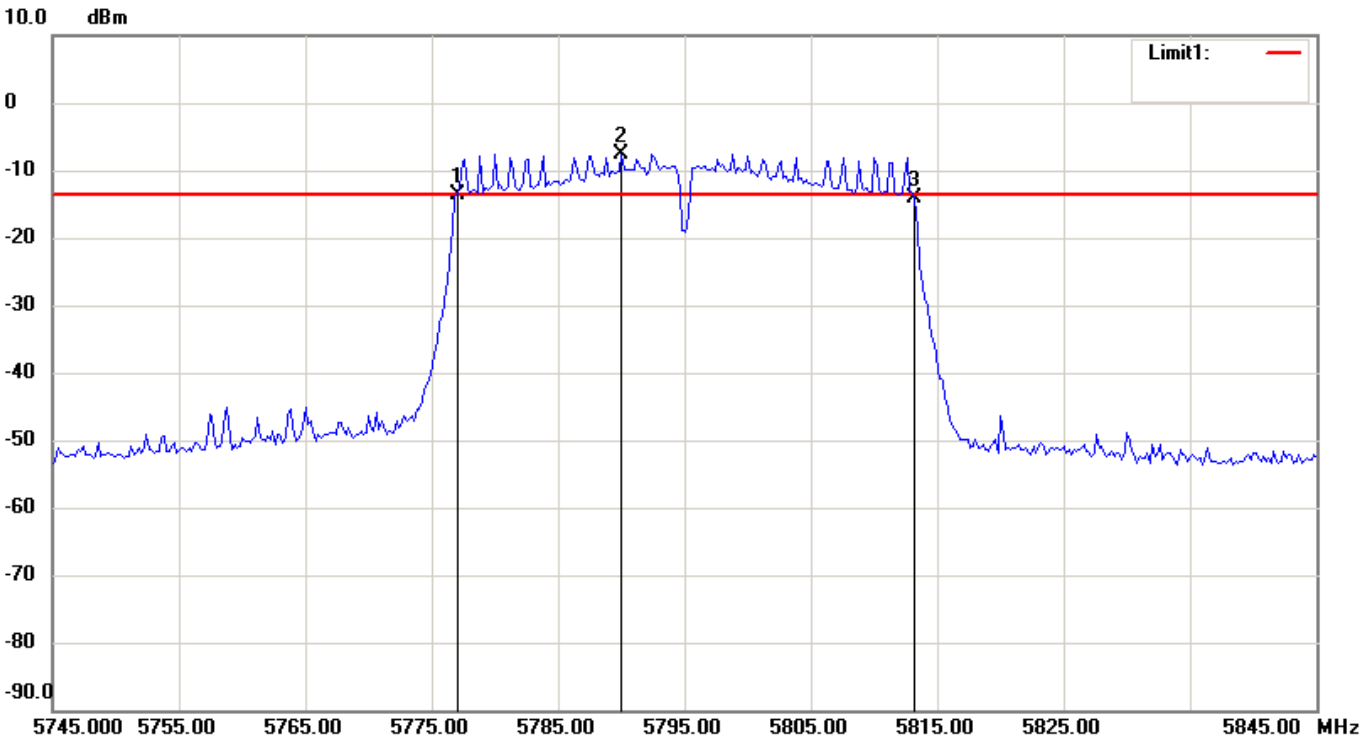
#10

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition: -13.55dBm

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11ac40 Channel 159_-6dB EBW

RF Conducted

Sweep Time: 1ms

RBW: 100 KHz

Operator:

Att.: 15dB

VBW: 300 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	5777.00000	-13.62
2	5790.00000	-7.55
3	5813.20000	-14.24

No.		Δ Frequency(MHz)	Δ Level(dB)
1	mk3-mk1	36.2	-0.62

6.4.4 調變技術:IEEE 802.11ac VHT80

測試日期: Sep. 13, 2021 環境溫度: 25℃ 環境濕度: 50%

Channel	6dB Bndwidth (MHz)	NCC Limit (kHz)	Chart
L	76.4	500	Page 35

註：繪圖資料請參考第 35 頁。

6.5 結果判定

高、中、低頻段的 6dB 頻寬皆大於 500KHz。

File: 21-08-MAW-005_5-8ac80

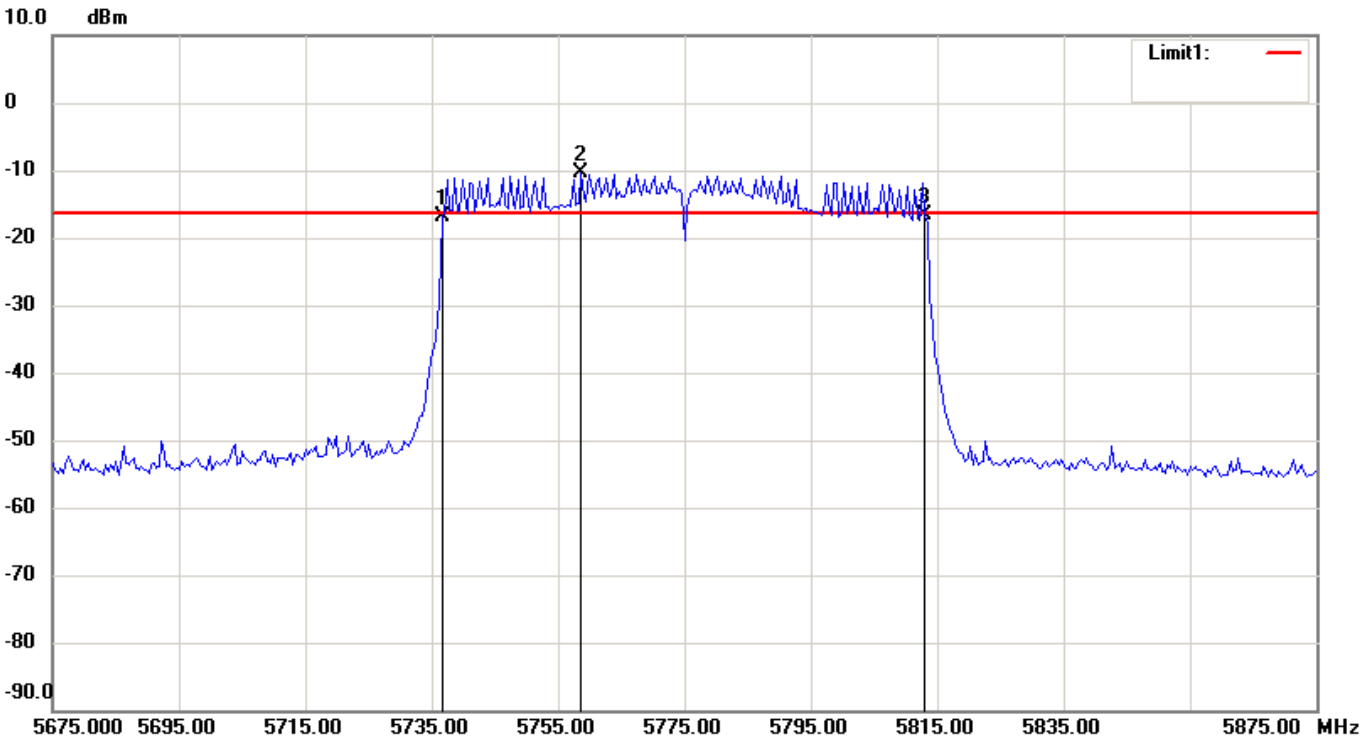
#2

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition: -16.49dBm

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11ac80 Channel 155_-6dB EBW

RF Conducted

Sweep Time: 2ms

RBW: 100 KHz

Operator:

Att.: 15dB

VBW: 300 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	5736.60000	-16.98
2	5758.60000	-10.49
3	5813.00000	-16.69

No.		Δ Frequency(MHz)	Δ Level(dB)
1	mk3-mk1	76.4	0.29

7 最大傳導輸出功率之量測

7.1 最大傳導輸出功率適用標準

依據國家通訊傳播委員會低功率射頻器材技術規範5.7.3.3節(1)之規定，最大傳導輸出功率應小於或等於 1 W。

如用於固定式點對點操作時，依法規5.7.3.3(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。

依法規5.7.3.3 (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。

7.2 最大傳導輸出功率之測試配置

如圖1 所示。

7.3 最大傳導輸出功率之量測儀器

儀器名稱	廠 牌	型 號
Spectrum Analyzer	R&S	FSV40
Attenuator	WEINSCHEL	56-10

測試軟體: LZ-RF (Ver. ETC-3A2)

7.4 最大傳導輸出功率之量測結果

測試工程師: 羅世勇

7.4.1 調變技術: IEEE 802.11a

測試日期: Sep. 13, 2021 環境溫度: 25°C 環境濕度: 50%

天線增益最大值為 4.58 dBi，NCC Limit 如下表所示：

Channel	Maximum Output Power (dBm)	NCC Limit (dBm)	Chart
L	5.91	30	Page 38
M	6.31	30	Page 39
H	6.85	30	Page 40

註：1. 繪圖資料請參考第 38-40 頁。

2. 最大傳導輸出功率 (Maximum Output Power) 為經儀器校正補償過後的結果值。

3. If antenna gain $\leq$ 6dBi, NCC Limit = 30 dBm

4. If antenna gain > 6dBi, NCC Limit = 30dBm – (highest antenna gain – 6 dBi)

5. NCC Limit (dBm)=10 log NCC Limit (mW)

6. 量測不準確度: $\pm 1.5\text{dB}$ ($1\text{GHz} \leq f \leq 18\text{GHz}$)

File: 21-08-MAW-005_5-8a

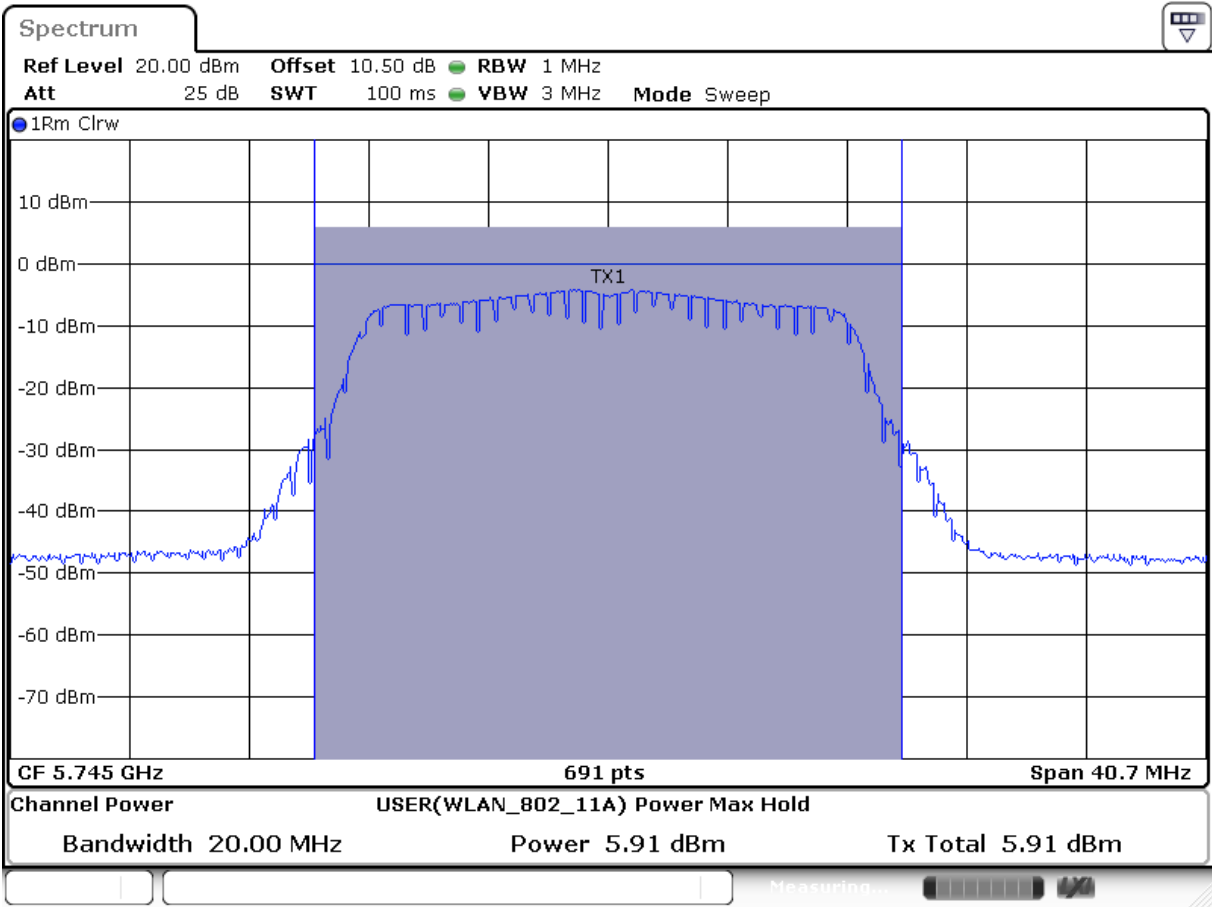
#1

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:		RF Conducted	
EUT:	CV1 21 WIDE AVN	Sweep Time: 100ms	Att.: 25dB
Model:	VN251ASGG	RBW: 1000 KHz	VBW: 3000 KHz
Test Mode:	UNII	Operator:	Phillip
Note:	NCC_LP0002_802.11a_Channel 149_Output power		

File: 21-08-MAW-005_5-8a

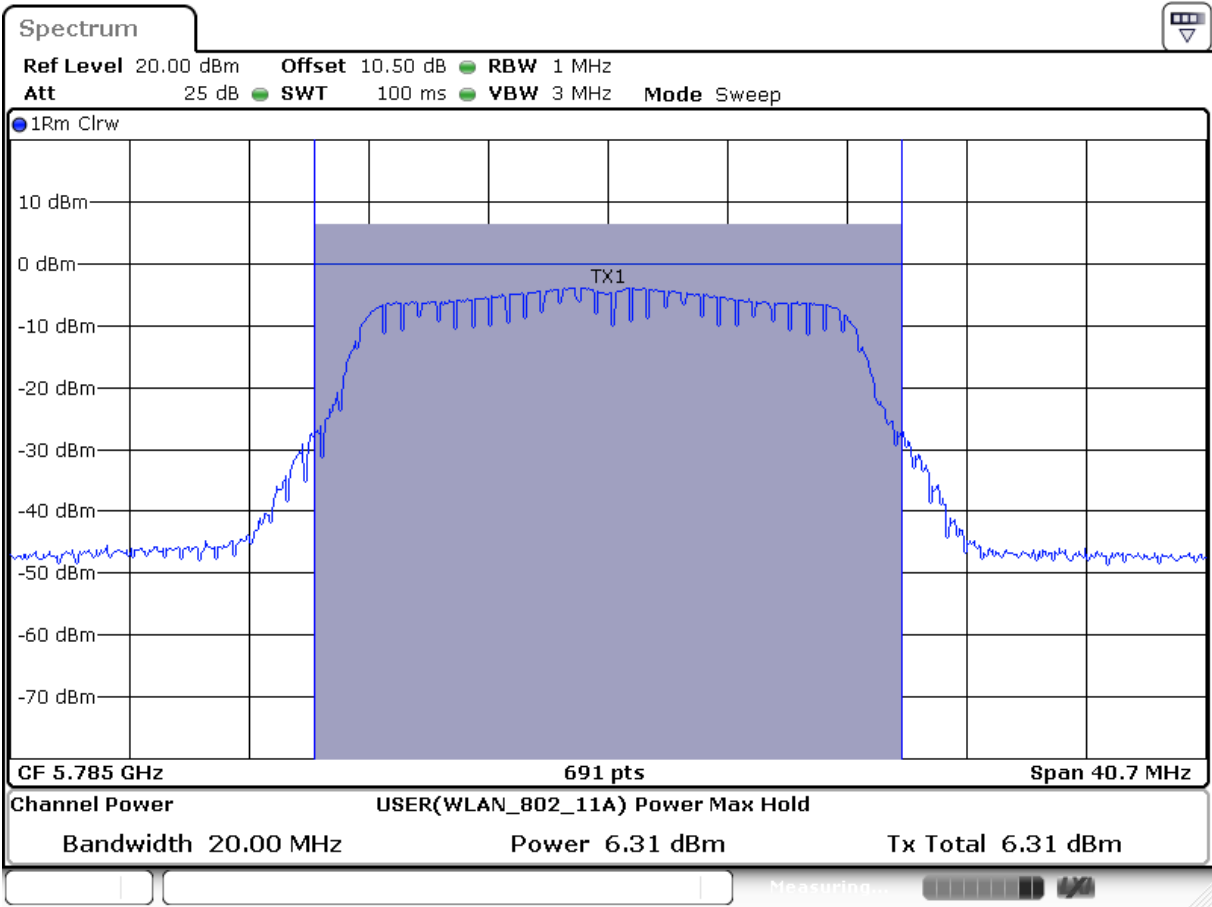
#9

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:

EUT:

Model:

Test Mode:

Note:

CV1 21 WIDE AVN

VN251ASGG

UNII

NCC_LP0002_802.11a_Channel 157_Output power

RF Conducted

Sweep Time: 100ms

RBW: 1000 KHz

Operator:

Att.: 25dB

VBW: 3000 KHz

Phillip

File: 21-08-MAW-005_5-8a

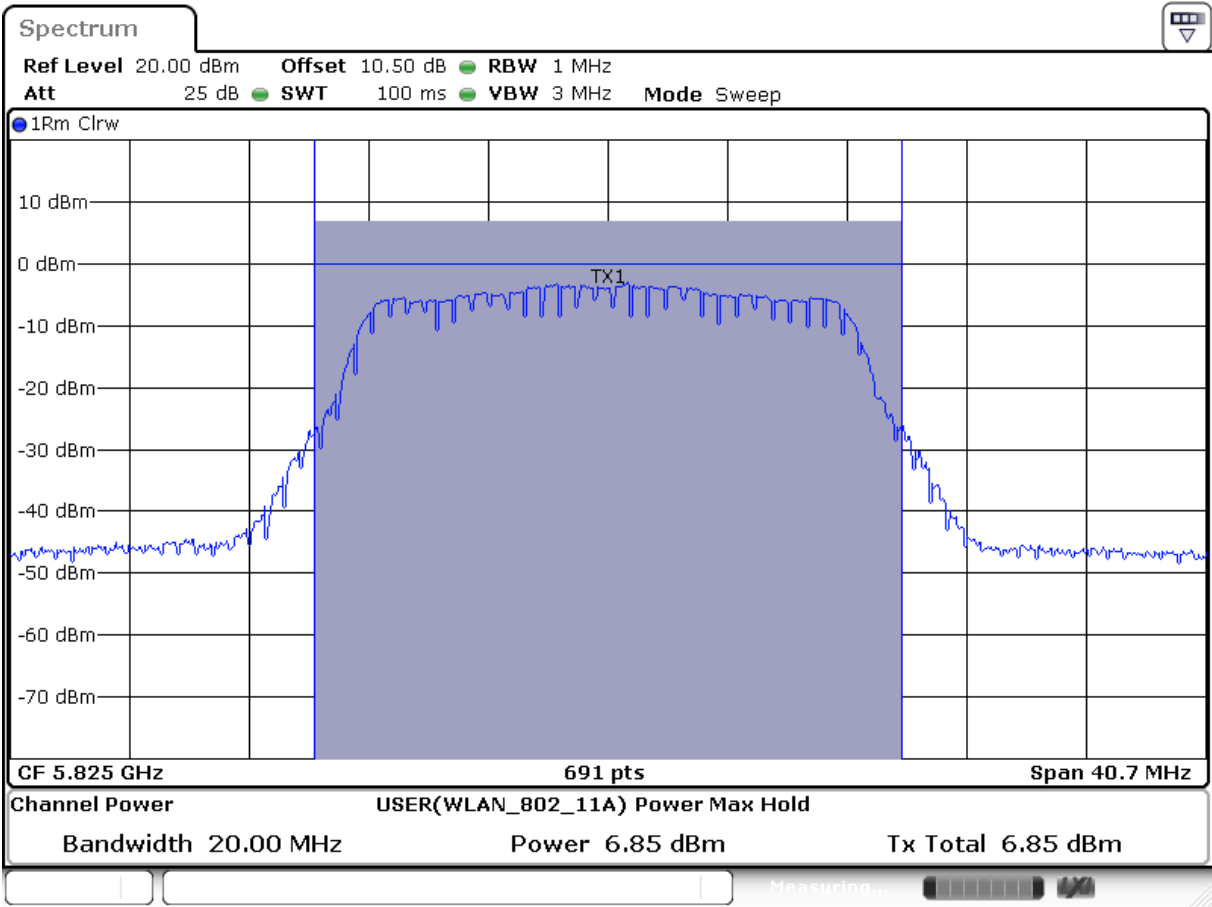
#16

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:		RF Conducted	
EUT:	CV1 21 WIDE AVN	Sweep Time: 100ms	Att.: 25dB
Model:	VN251ASGG	RBW: 1000 KHz	VBW: 3000 KHz
Test Mode:	UNII	Operator:	Phillip
Note:	NCC_LP0002_802.11a_Channel 165_Output power		

7.4.2 調變技術: IEEE 802.11n HT20

測試日期: Sep. 13, 2021 環境溫度: 25°C 環境濕度: 50%

天線增益最大值為 4.58 dBi，NCC Limit 如下表所示：

Channel	Maximum Output Power (dBm)	NCC Limit (dBm)	Chart
L	5.65	30	Page 42
M	6.26	30	Page 43
H	6.54	30	Page 44

註：1. 繪圖資料請參考第 42-44 頁。

2. 最大傳導輸出功率 (Maximum Output Power) 為經儀器校正補償過後的結果值。

3. If antenna gain $\leq$ 6dBi, NCC Limit = 30 dBm

4. If antenna gain > 6dBi, NCC Limit = 30dBm – (highest antenna gain – 6 dBi)

5. NCC Limit (dBm)=10 log NCC Limit (mW)

6. 量測不準確度: $\pm 1.5\text{dB}$ ($1\text{GHz} \leq f \leq 18\text{GHz}$)

File: 21-08-MAW-005_5-8n20

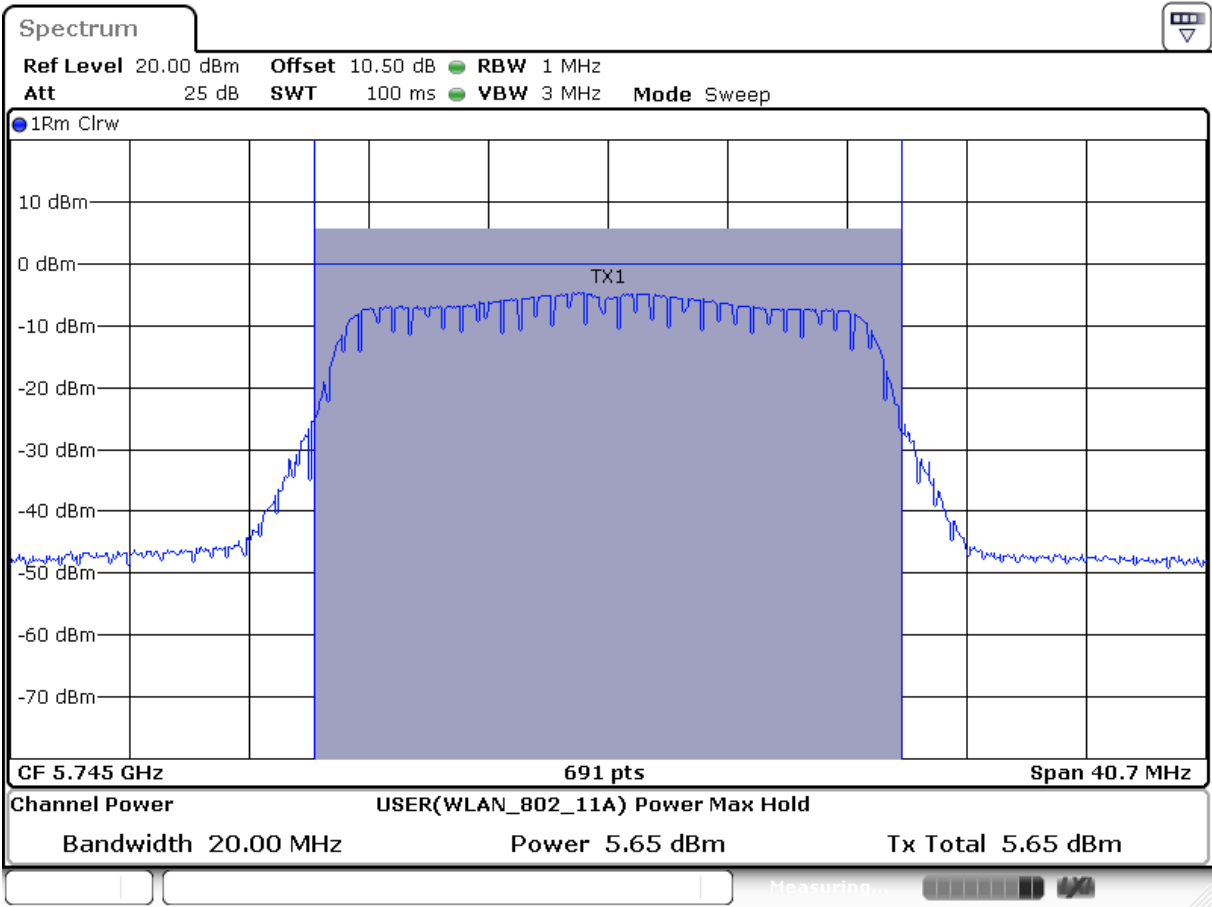
#1

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:		RF Conducted	
EUT:	CV1 21 WIDE AVN	Sweep Time: 100ms	Att.: 25dB
Model:	VN251ASGG	RBW: 1000 KHz	VBW: 3000 KHz
Test Mode:	UNII	Operator:	Phillip
Note:	NCC_LP0002_802.11n20_Channel 149_Output power		

File: 21-08-MAW-005_5-8n20

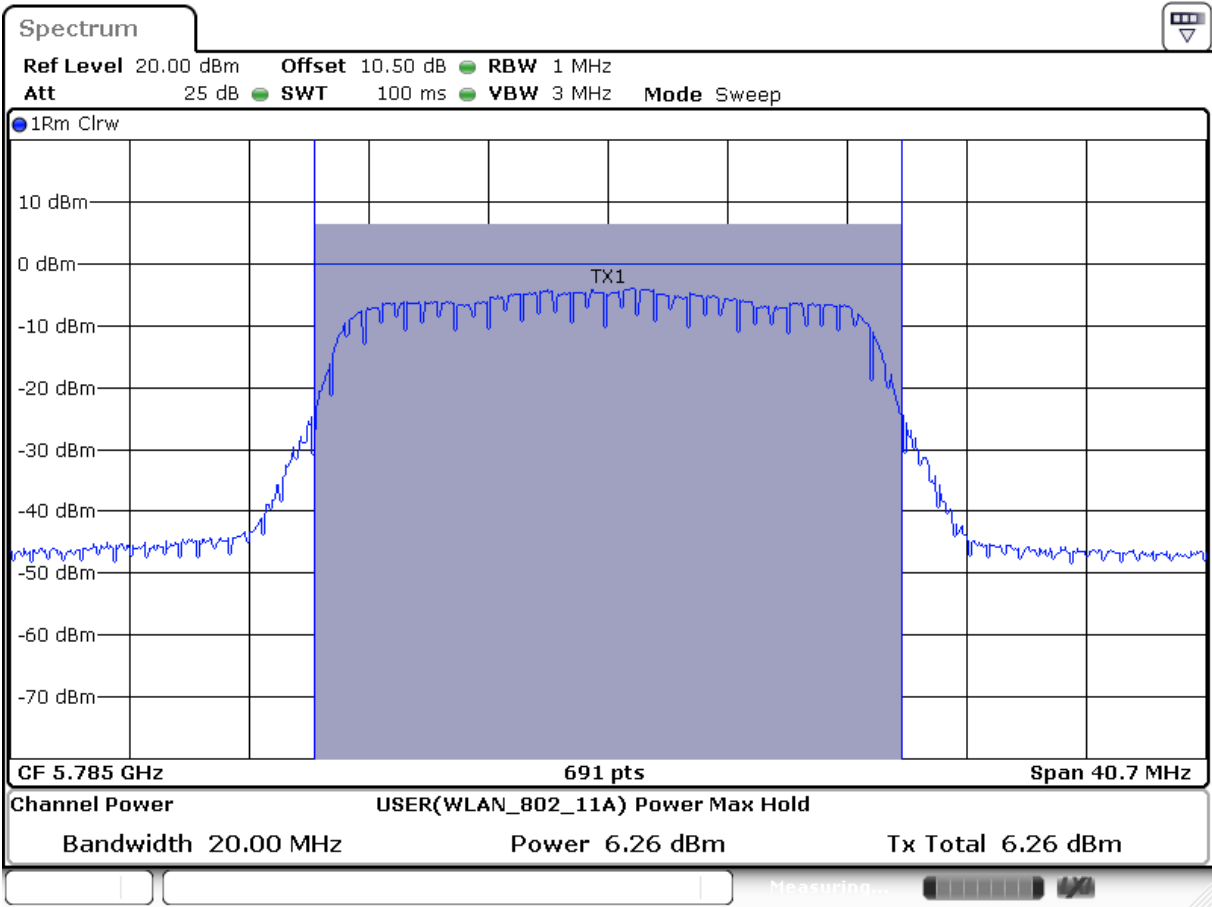
#9

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:		RF Conducted	
EUT:	CV1 21 WIDE AVN	Sweep Time: 100ms	Att.: 25dB
Model:	VN251ASGG	RBW: 1000 KHz	VBW: 3000 KHz
Test Mode:	UNII	Operator:	Phillip
Note:	NCC_LP0002_802.11n20_Channel 157_Output power		

File: 21-08-MAW-005_5-8n20

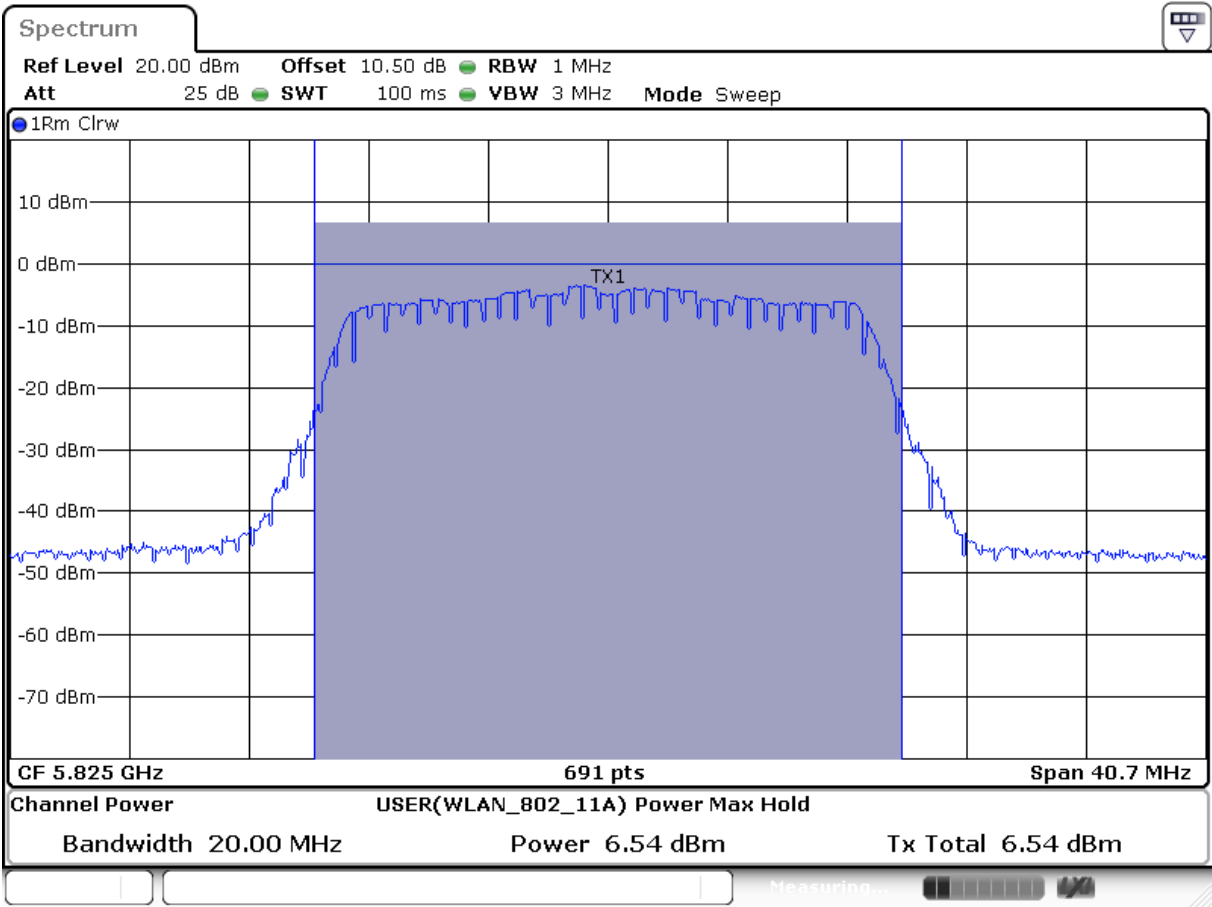
#16

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:		RF Conducted	
EUT:	CV1 21 WIDE AVN	Sweep Time: 100ms	Att.: 25dB
Model:	VN251ASGG	RBW: 1000 KHz	VBW: 3000 KHz
Test Mode:	UNII	Operator:	Phillip
Note:	NCC_LP0002_802.11n20_Channel 165_Output power		

7.4.3 調變技術: IEEE 802.11n HT40

測試日期: Sep. 13, 2021 環境溫度: 25°C 環境濕度: 50%

天線增益最大值為 4.58 dBi，NCC Limit 如下表所示：

Channel	Maximum Peak Output Power (dBm)	NCC Limit (dBm)	Chart
L	5.39	30	Page 46
H	5.86	30	Page 47

註：1. 繪圖資料請參考第 46-47 頁。

2. 最大傳導輸出功率 (Maximum Output Power) 為經儀器校正補償過後的結果值。

3. If antenna gain $\leq$ 6dBi, NCC Limit = 30 dBm

4. If antenna gain > 6dBi, NCC Limit = 30dBm – (highest antenna gain – 6 dBi)

5. NCC Limit (dBm)=10 log NCC Limit (mW)

6. 量測不準確度: $\pm 1.5\text{dB}$ ($1\text{GHz} \leq f \leq 18\text{GHz}$)

File: 21-08-MAW-005_5-8n40

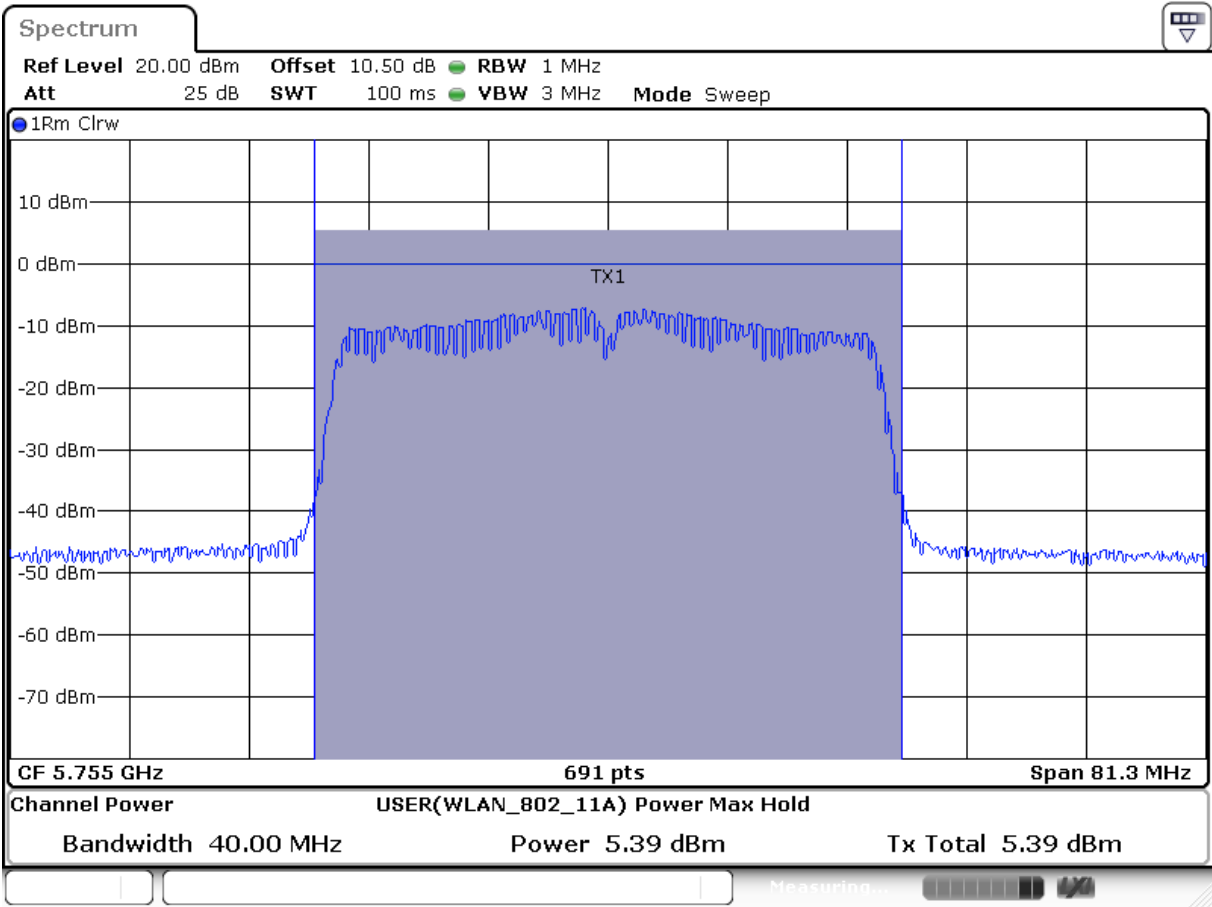
Site: RF-Cond01

#1

Date: 2021/9/13

Temperature: 25 °C

Humidity: 50 %



Condition:		RF Conducted	
EUT:	CV1 21 WIDE AVN	Sweep Time: 100ms	Att.: 25dB
Model:	VN251ASGG	RBW: 1000 KHz	VBW: 3000 KHz
Test Mode:	UNII	Operator:	Phillip
Note:	NCC_LP0002_802.11n40_Channel 151_Output power		

File: 21-08-MAW-005_5-8n40

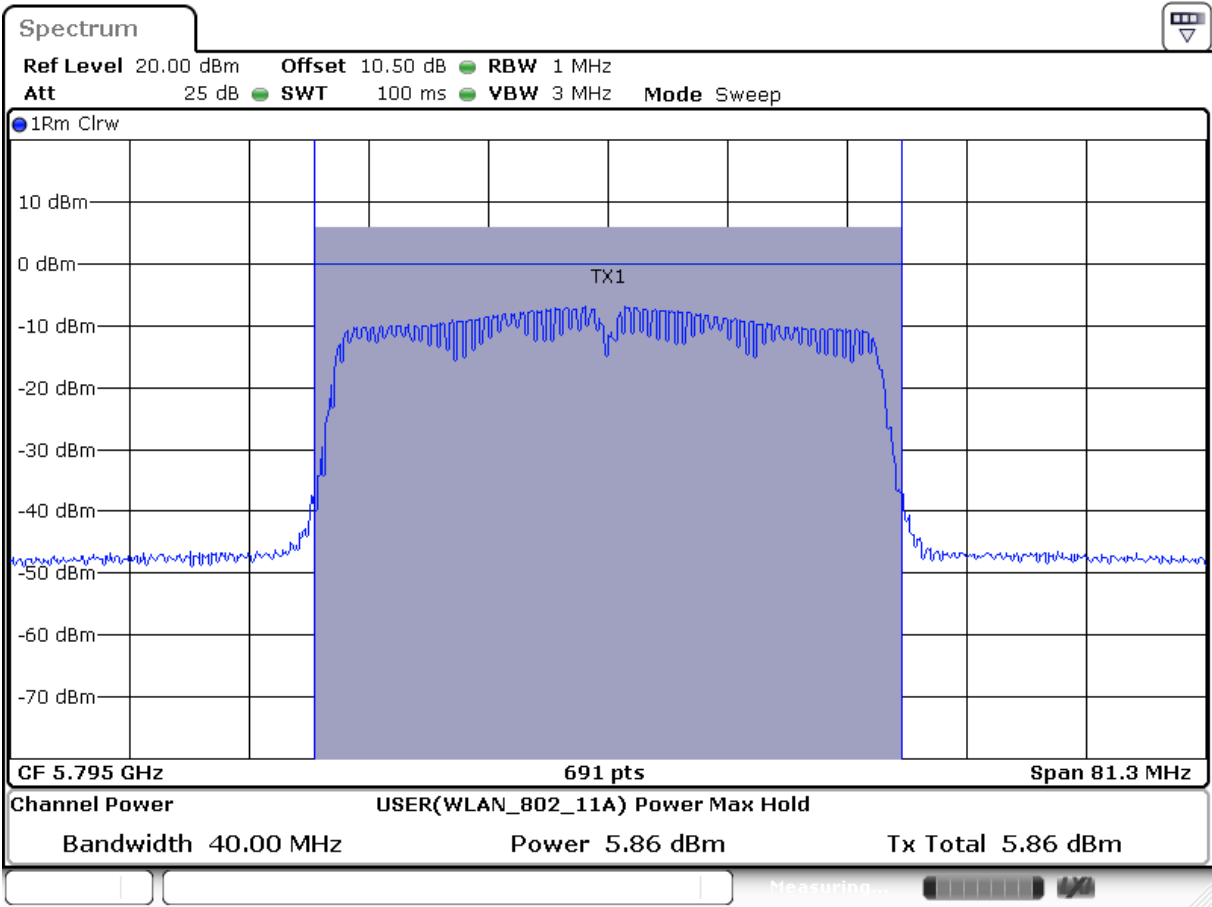
Site: RF-Cond01

#9

Date: 2021/9/13

Temperature: 25 °C

Humidity: 50 %



Condition:		RF Conducted	
EUT:	CV1 21 WIDE AVN	Sweep Time: 100ms	Att.: 25dB
Model:	VN251ASGG	RBW: 1000 KHz	VBW: 3000 KHz
Test Mode:	UNII	Operator:	Phillip
Note:	NCC_LP0002_802.11n40_Channel 159_Output power		

7.4.4 調變技術: IEEE 802.11ac VHT20

測試日期: Sep. 13, 2021 環境溫度: 25°C 環境濕度: 50%

天線增益最大值為 4.58 dBi，NCC Limit 如下表所示：

Channel	Maximum Peak Output Power (dBm)	NCC Limit (dBm)	Chart
L	5.66	30	Page 49
M	6.30	30	Page 50
H	6.69	30	Page 51

註：1. 繪圖資料請參考第 49-51 頁。

2. 最大傳導輸出功率 (Maximum Output Power) 為經儀器校正補償過後的結果值。

3. If antenna gain $\leq$ 6dBi, NCC Limit = 30 dBm

4. If antenna gain > 6dBi, NCC Limit = 30dBm – (highest antenna gain – 6 dBi)

5. NCC Limit (dBm)=10 log NCC Limit (mW)

6. 量測不準確度: $\pm 1.5\text{dB}$ ($1\text{GHz} \leq f \leq 18\text{GHz}$)

File: 21-08-MAW-005_5-8ac20

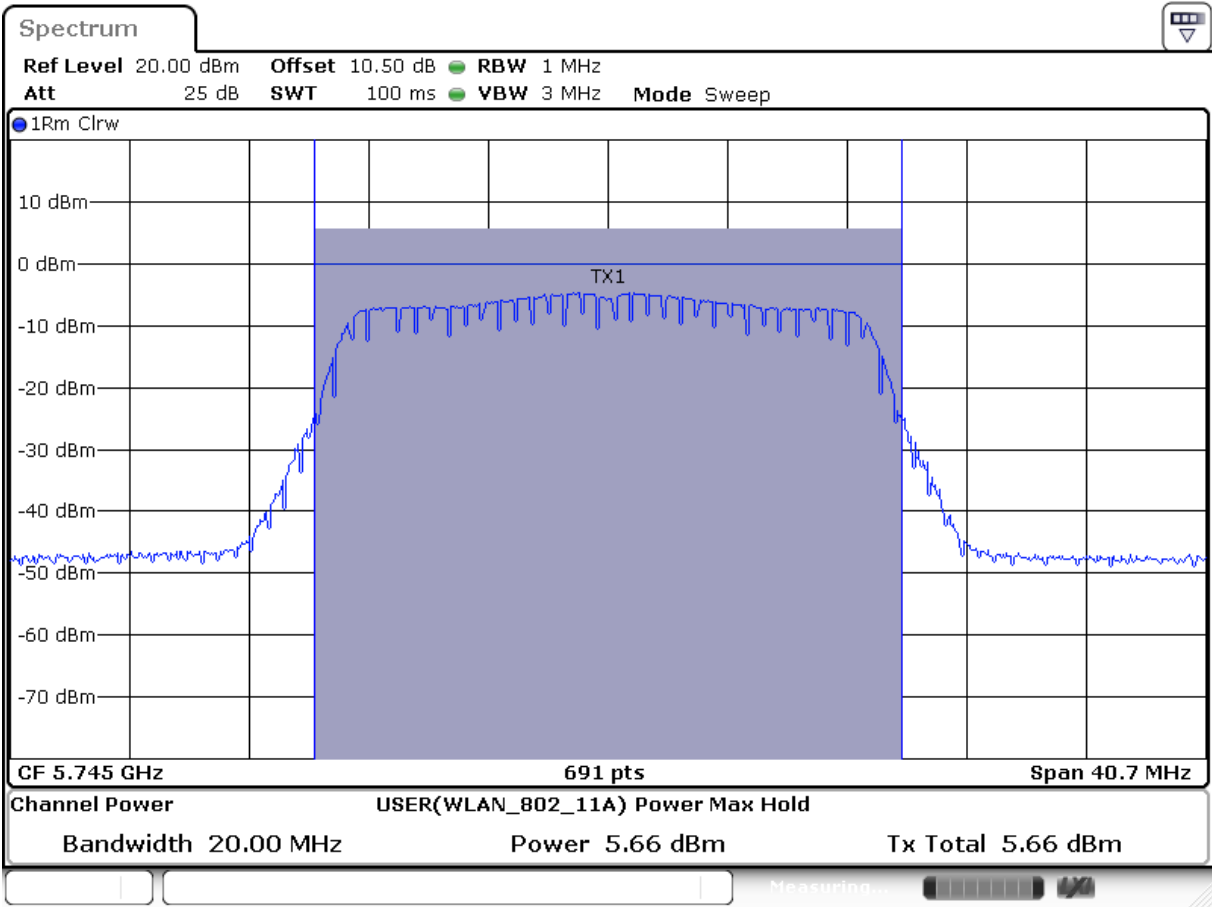
#1

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:		RF Conducted	
EUT:	CV1 21 WIDE AVN	Sweep Time: 100ms	Att.: 25dB
Model:	VN251ASGG	RBW: 1000 KHz	VBW: 3000 KHz
Test Mode:	UNII	Operator:	Phillip
Note:	NCC_LP0002_802.11ac20_Channel 149_Output power		

File: 21-08-MAW-005_5-8ac20

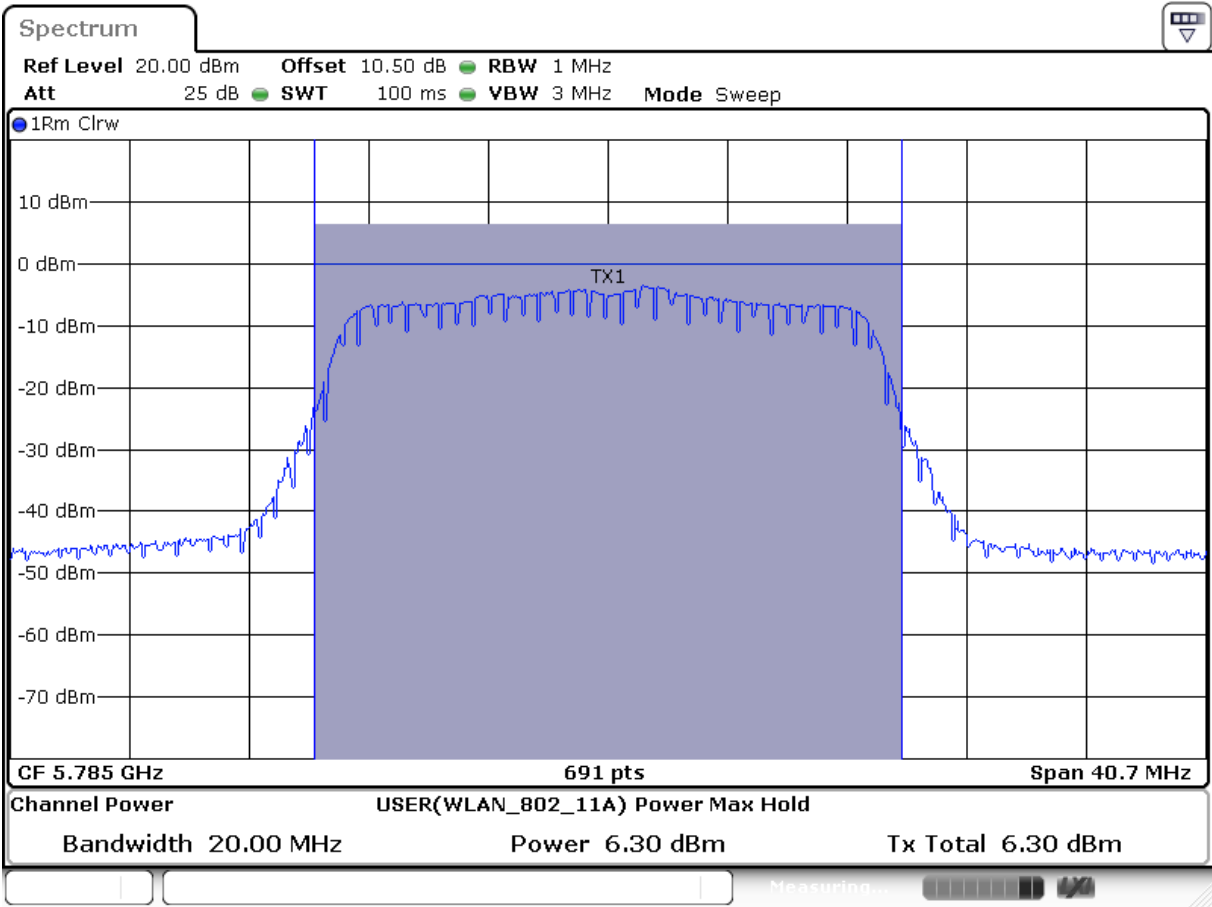
#9

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:		RF Conducted	
EUT:	CV1 21 WIDE AVN	Sweep Time: 100ms	Att.: 25dB
Model:	VN251ASGG	RBW: 1000 KHz	VBW: 3000 KHz
Test Mode:	UNII	Operator:	Phillip
Note:	NCC_LP0002_802.11ac20_Channel 157_Output power		

File: 21-08-MAW-005_5-8ac20

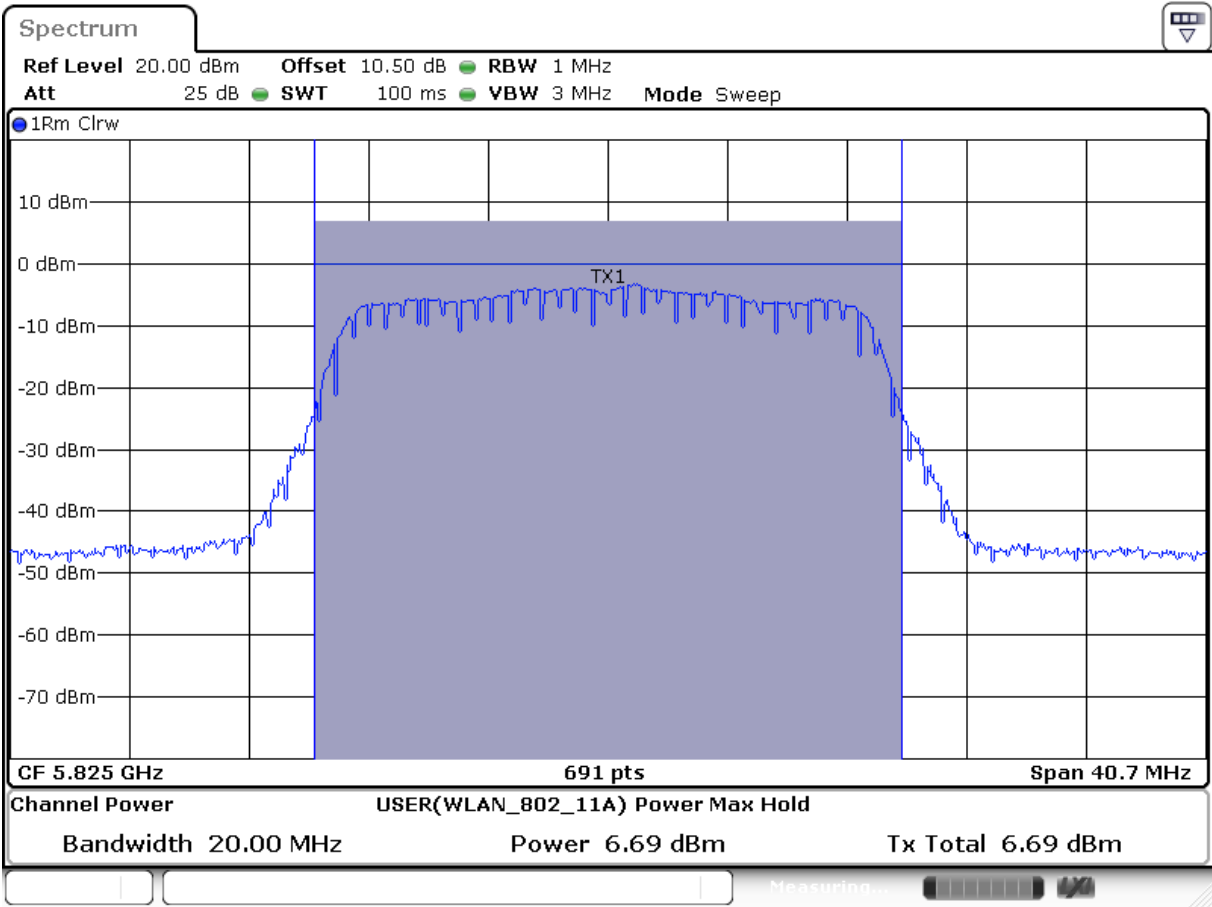
#16

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:		RF Conducted	
EUT:	CV1 21 WIDE AVN	Sweep Time: 100ms	Att.: 25dB
Model:	VN251ASGG	RBW: 1000 KHz	VBW: 3000 KHz
Test Mode:	UNII	Operator:	Phillip
Note:	NCC_LP0002_802.11ac20_Channel 165_Output power		

7.4.5 調變技術: IEEE 802.11ac VHT40

測試日期: Sep. 13, 2021 環境溫度: 25°C 環境濕度: 50%

天線增益最大值為 4.58 dBi，NCC Limit 如下表所示：

Channel	Maximum Peak Output Power (dBm)	NCC Limit (dBm)	Chart
L	5.58	30	Page 53
H	5.89	30	Page 54

註：1. 繪圖資料請參考第 53-54 頁。

2. 最大傳導輸出功率 (Maximum Output Power) 為經儀器校正補償過後的結果值。

3. If antenna gain $\leq$ 6dBi, NCC Limit = 30 dBm

4. If antenna gain > 6dBi, NCC Limit = 30dBm – (highest antenna gain – 6 dBi)

5. NCC Limit (dBm)=10 log NCC Limit (mW)

6. 量測不準確度: $\pm 1.5\text{dB}$ ($1\text{GHz} \leq f \leq 18\text{GHz}$)

File: 21-08-MAW-005_5-8ac40

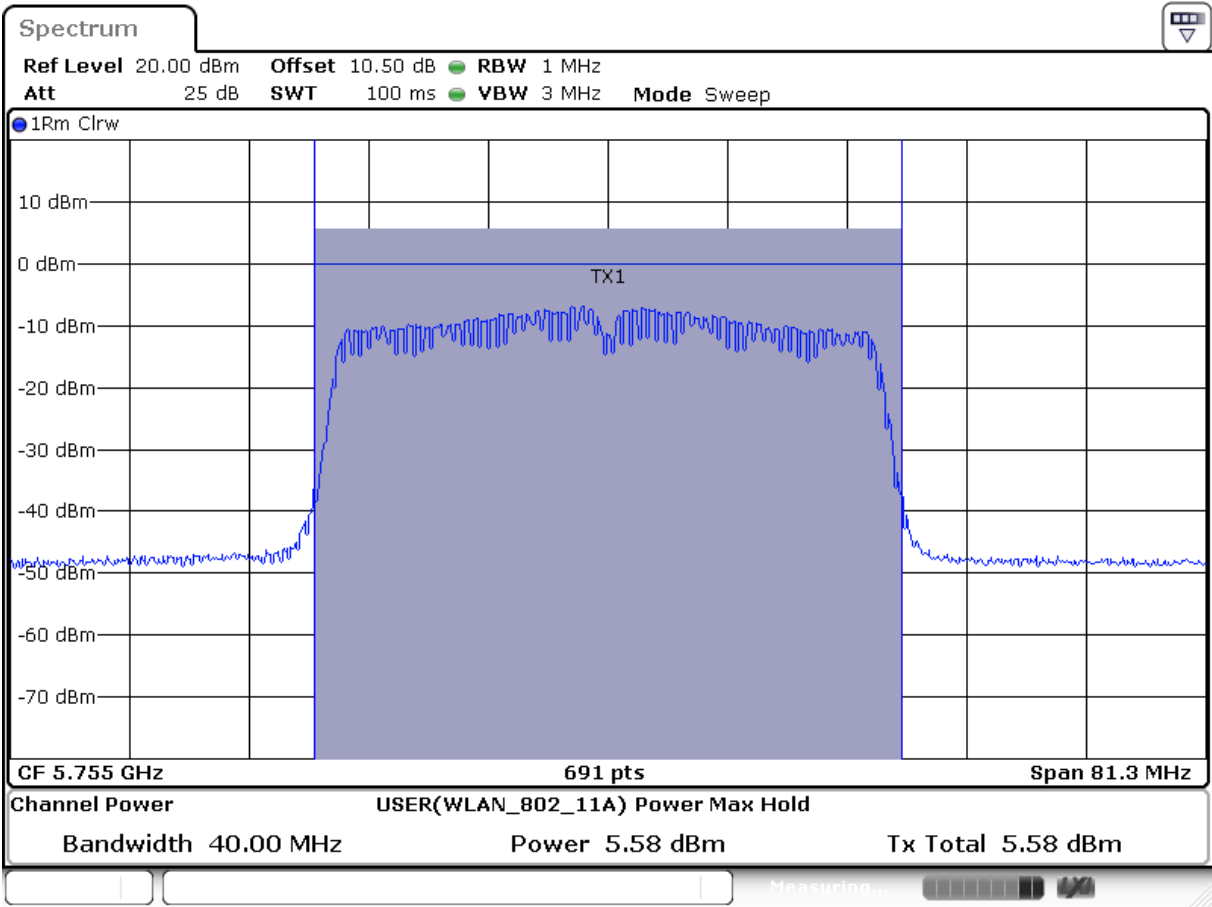
#1

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11ac40_Channel 151_Output power

RF Conducted

Sweep Time: 100ms

RBW: 1000 KHz

Operator:

Att.: 25dB

VBW: 3000 KHz

Phillip

File: 21-08-MAW-005_5-8ac40

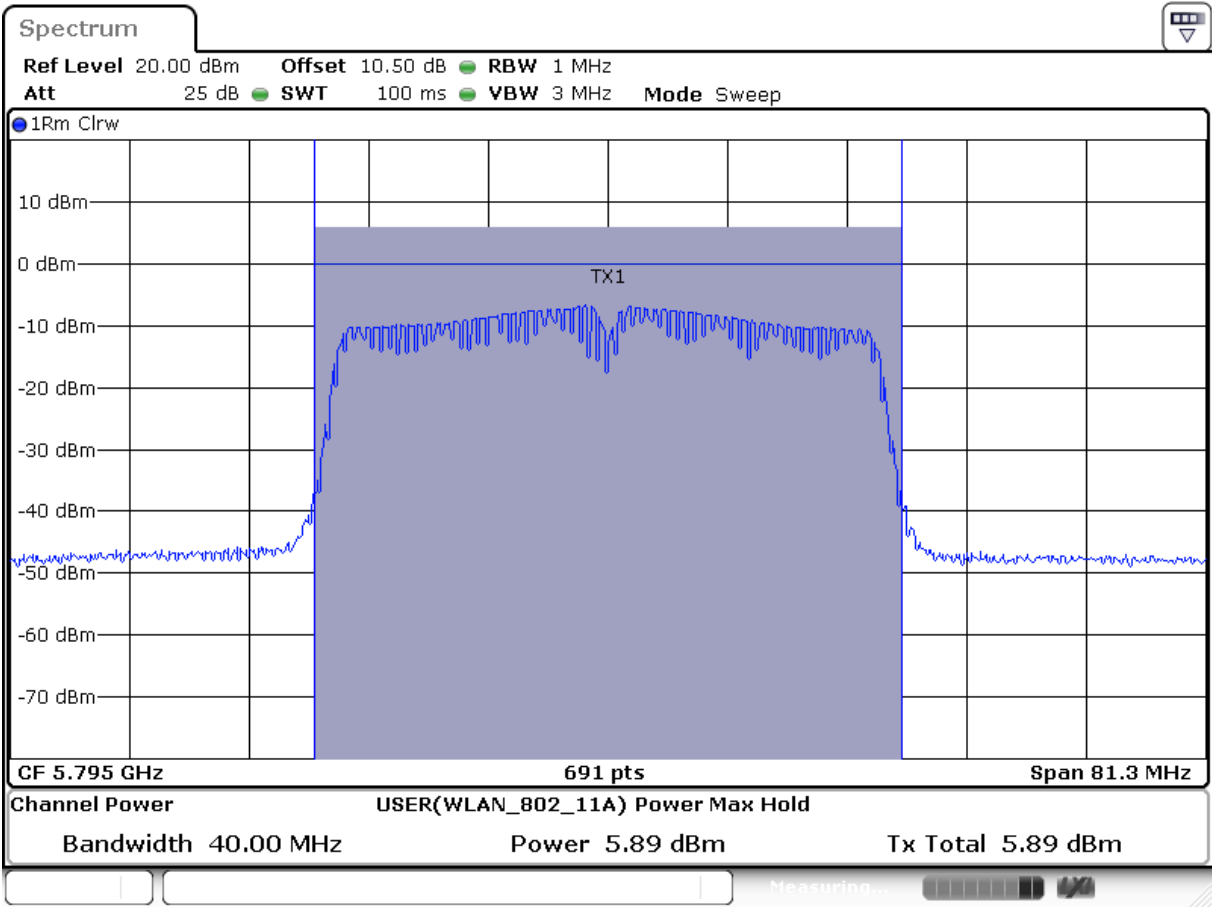
#9

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11ac40_Channel 159_Output power

RF Conducted

Sweep Time: 100ms

RBW: 1000 KHz

Operator:

Att.: 25dB

VBW: 3000 KHz

Phillip

7.4.6 調變技術: IEEE 802.11ac VHT80

測試日期: Sep. 13, 2021

環境溫度: 25°C

環境濕度: 50%

天線增益最大值為 4.58 dBi，NCC Limit 如下表所示：

Channel	Maximum Peak Output Power (dBm)	NCC Limit (dBm)	Chart
L	5.24	30	Page 56

註：1. 繪圖資料請參考第 56 頁。

2. 最大傳導輸出功率 (Maximum Output Power) 為經儀器校正補償過後的結果值。

3. If antenna gain $\leq$ 6dBi, NCC Limit = 30 dBm

4. If antenna gain > 6dBi, NCC Limit = 30dBm – (highest antenna gain – 6 dBi)

5. NCC Limit (dBm)=10 log NCC Limit (mW)

6. 量測不準確度: $\pm 1.5\text{dB}$ ($1\text{GHz} \leq f \leq 18\text{GHz}$)

7.5 結果判定

高、中、低頻段的最大傳導輸出功率皆低於限制值。

File: 21-08-MAW-005_5-8ac80

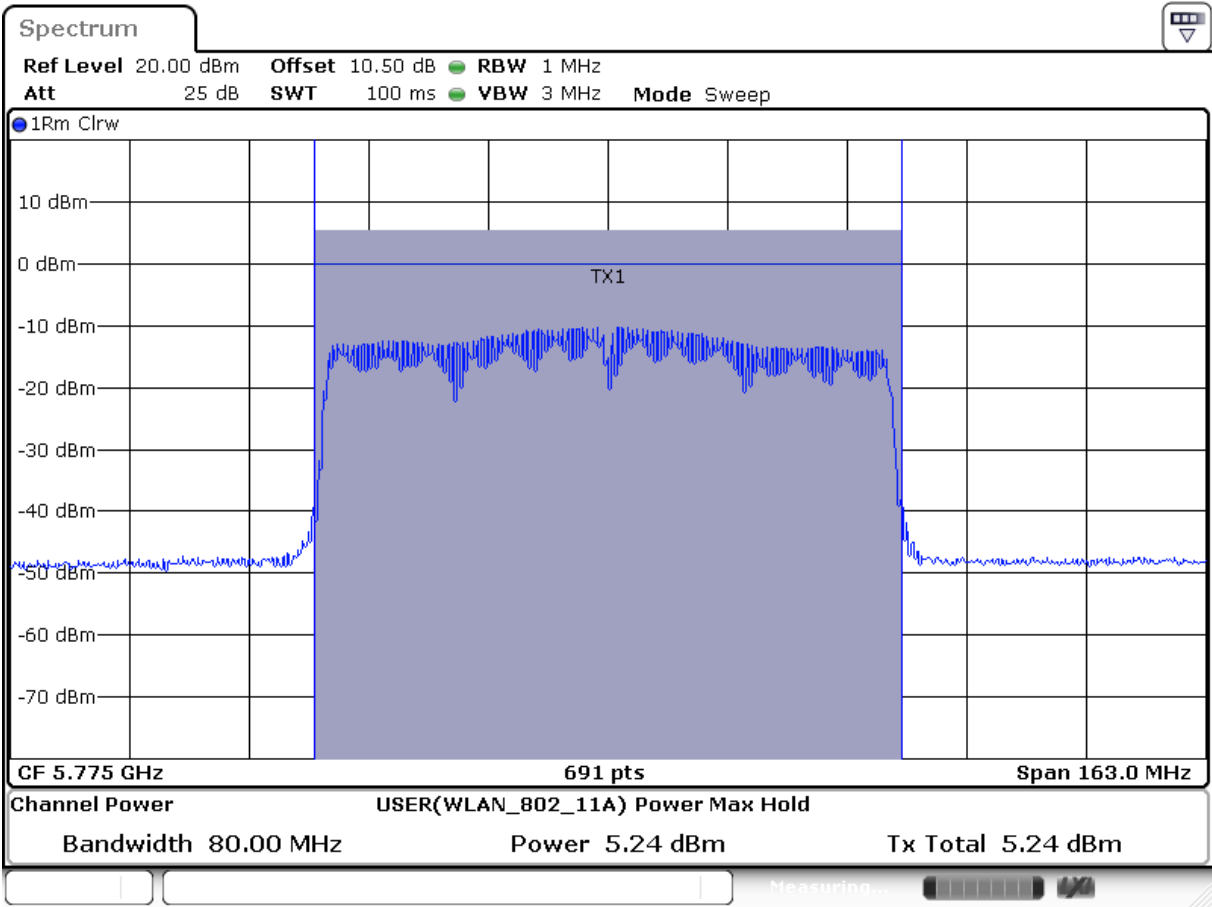
#1

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:

EUT:

Model:

Test Mode:

Note:

CV1 21 WIDE AVN

VN251ASGG

UNII

NCC_LP0002_802.11ac80_Channel 155_Output power

RF Conducted

Sweep Time: 100ms

RBW: 1000 KHz

Operator:

Att.: 25dB

VBW: 3000 KHz

Phillip

8 功率密度之量測

8.1 適用標準

國家通訊傳播委員會低功率射頻器材技術規範5.7.3.3節(2)之規定，在任何500 kHz頻帶中最大功率頻譜密度應小於或等於30 dBm。

8.2 量測功率密度之配置

如圖 1 所示。

8.3 量測功率密度之儀器

儀器名稱	廠 牌	型 號
Spectrum Analyzer	R&S	FSV40
Attenuator	WEINSCHEL	56-10

測試軟體: LZ-RF (Ver. ETC-3A2)

8.4 量測結果

測試工程師: 羅世勇

8.4.1 調變技術: IEEE 802.11a

測試日期: Sep. 13, 2021

環境溫度: 25°C

環境濕度: 50%

天線增益最大值為 4.58 dBi, NCC Limit 如下表所示:

Channel	Power Spectral Density (dBm)	NCC Limit (dBm)	Chart
L	-0.06	30	Page 59
M	0.11	30	Page 60
H	0.58	30	Page 61

註: 1. 繪圖資料請參考第 59-61 頁。

2. If antenna gain $\leq$ 6dBi, NCC Limit = 30 dBm

3. If antenna gain > 6dBi, NCC Limit = 30dBm – (highest antenna gain – 6 dBi)

4. 量測不準確度: $\pm 1.5\text{dB}$ ($1\text{GHz} \leq f \leq 18\text{GHz}$)

File: 21-08-MAW-005_5-8a

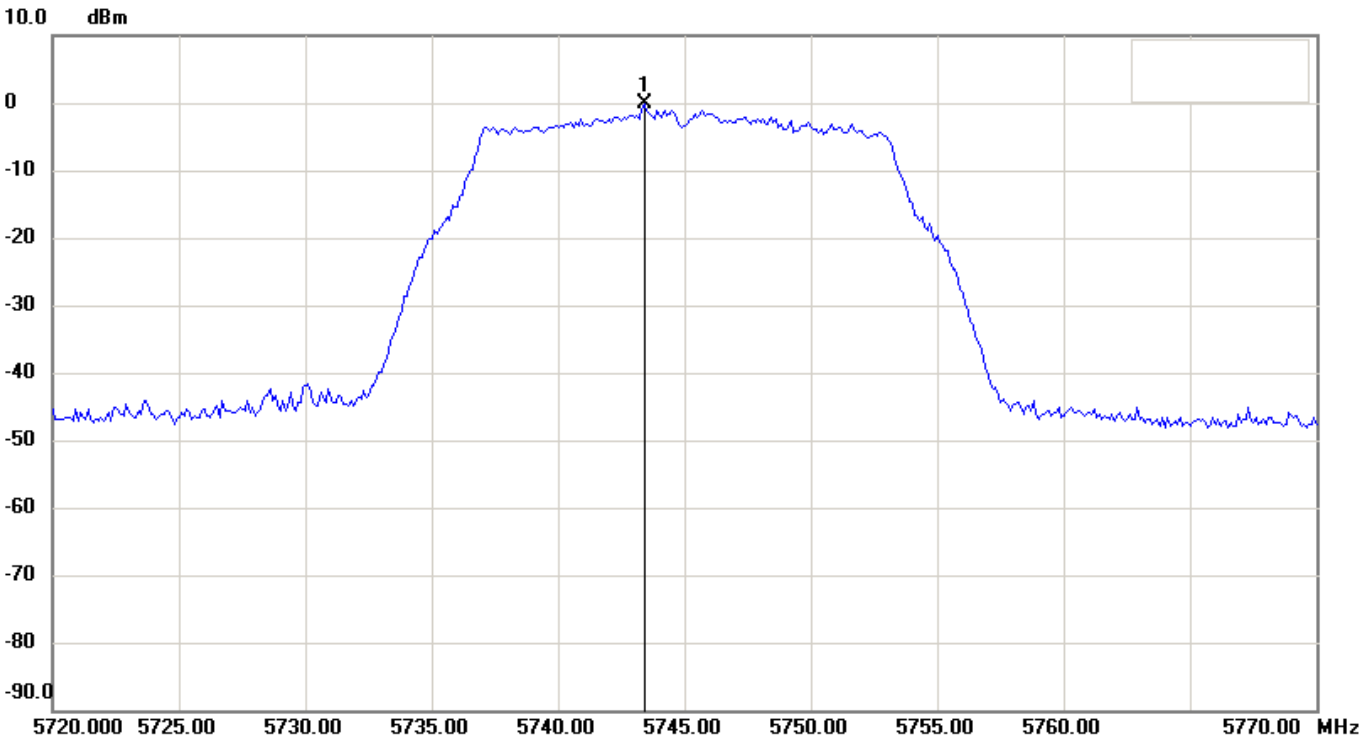
Site: RF-Cond01

#5

Date: 2021/9/13

Temperature: 25 ℃

Humidity: 50 %



Condition:

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11a_Channel 149_Power Density

RF Conducted

Sweep Time: 1ms Att.: 15dB

RBW: 500 KHz VBW: 1000 KHz

Operator: Phillip

No.	Frequency(MHz)	Level(dBm)
1	5743.40000	-0.06

File: 21-08-MAW-005_5-8a

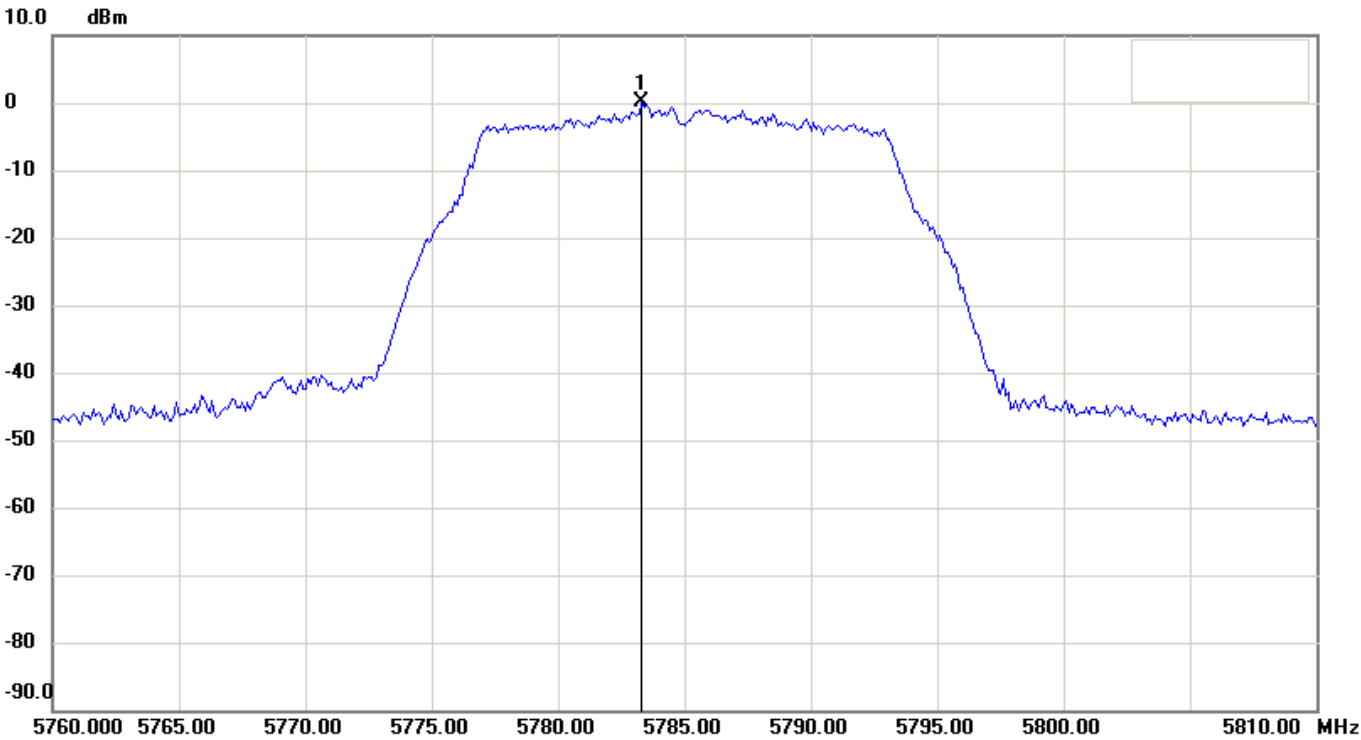
Site: RF-Cond01

#13

Date: 2021/9/13

Temperature: 25 °C

Humidity: 50 %



Condition:

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11a_Channel 157_Power Density

RF Conducted

Sweep Time: 1ms

RBW: 500 KHz

Operator:

Att.: 15dB

VBW: 1000 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	5783.30000	0.11

File: 21-08-MAW-005_5-8a

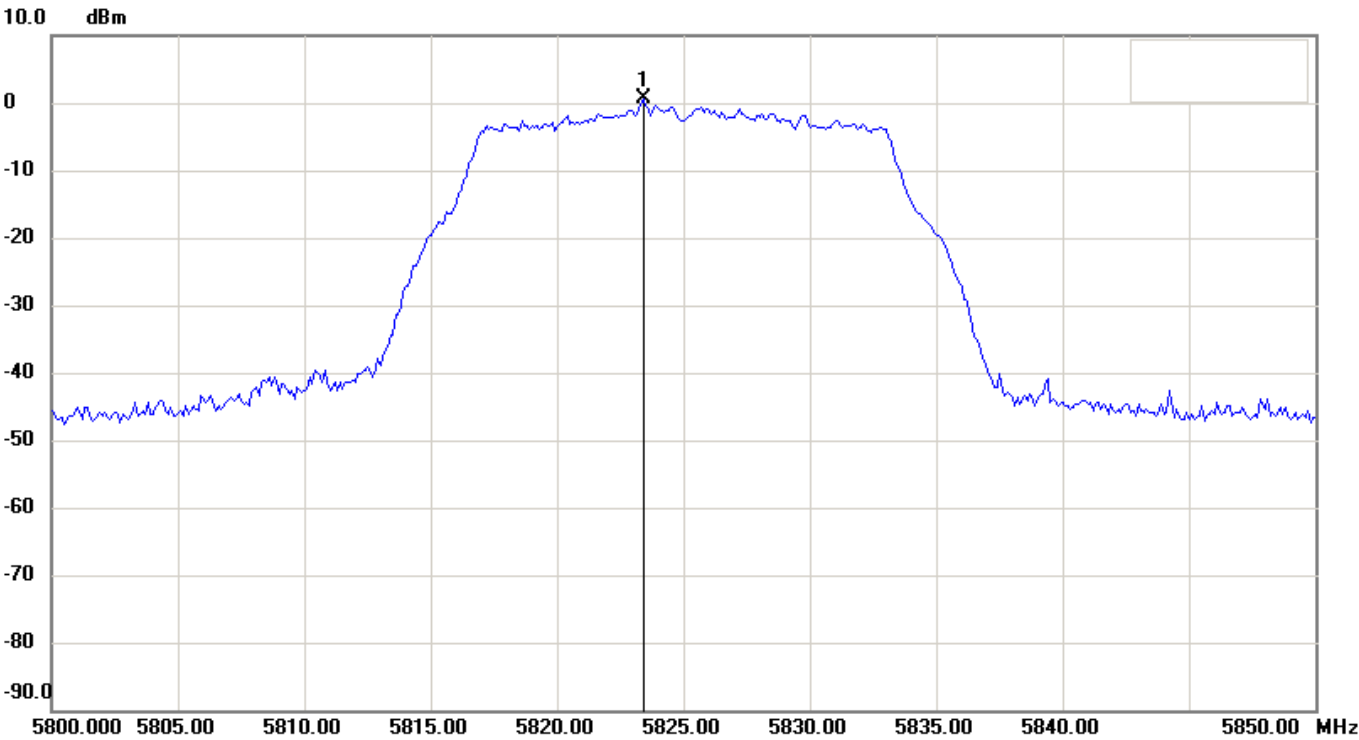
#20

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11a_Channel 165_Power Density

RF Conducted

Sweep Time: 1ms Att.: 15dB

RBW: 500 KHz VBW: 1000 KHz

Operator: Phillip

No.	Frequency(MHz)	Level(dBm)
1	5823.40000	0.58

8.4.2 調變技術: IEEE 802.11ac VHT20

測試日期: Sep. 13, 2021

環境溫度: 25°C

環境濕度: 50%

天線增益最大值為 4.58 dBi，NCC Limit 如下表所示：

Channel	Power Spectral Density (dBm)	NCC Limit (dBm)	Chart
L	-1.62	30	Page 63
M	0.17	30	Page 64
H	-0.81	30	Page 65

註：1. 繪圖資料請參考第 63-65 頁。

2. If antenna gain $\leq 6\text{dBi}$, NCC Limit = 30 dBm3. If antenna gain $> 6\text{dBi}$, NCC Limit = 30dBm – (highest antenna gain – 6 dBi)4. 量測不準確度: $\pm 1.5\text{dB}$ ($1\text{GHz} \leq f \leq 18\text{GHz}$)

File: 21-08-MAW-005_5-8ac20

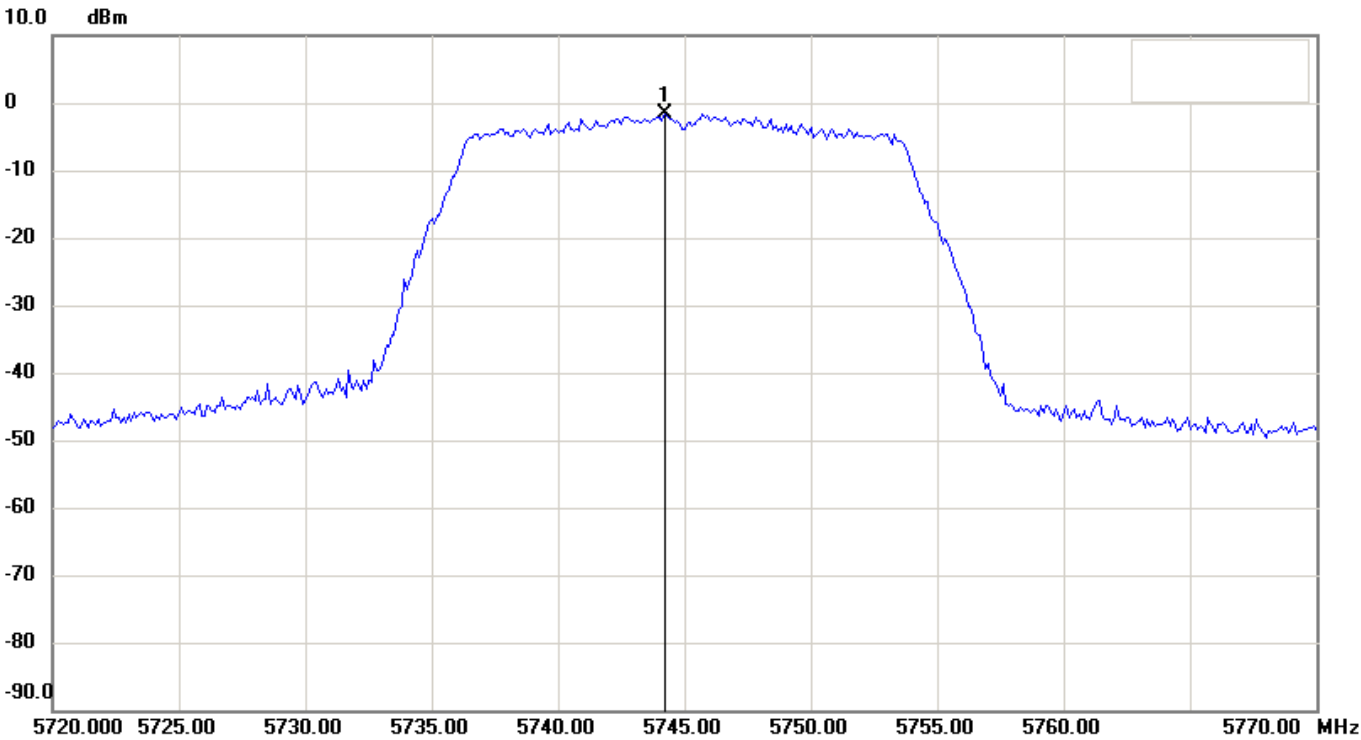
#5

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11ac20_Channel 149_Power Density

RF Conducted

Sweep Time: 1ms Att.: 15dB

RBW: 500 KHz VBW: 1000 KHz

Operator: Phillip

No.	Frequency(MHz)	Level(dBm)
1	5744.20000	-1.62

File: 21-08-MAW-005_5-8ac20

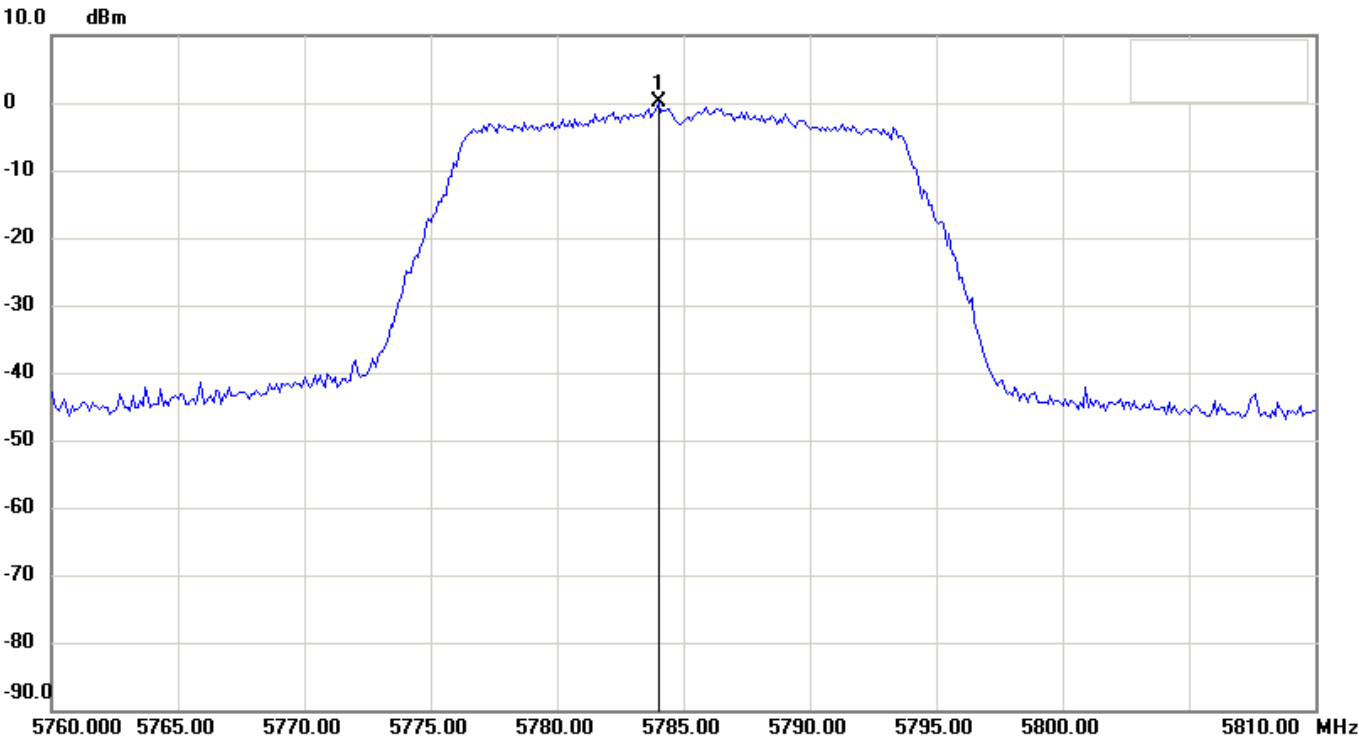
#13

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11ac20_Channel 157_Power Density

RF Conducted

Sweep Time: 1ms Att.: 15dB

RBW: 500 KHz VBW: 1000 KHz

Operator: Phillip

No.	Frequency(MHz)	Level(dBm)
1	5784.00000	0.17

File: 21-08-MAW-005_5-8ac20

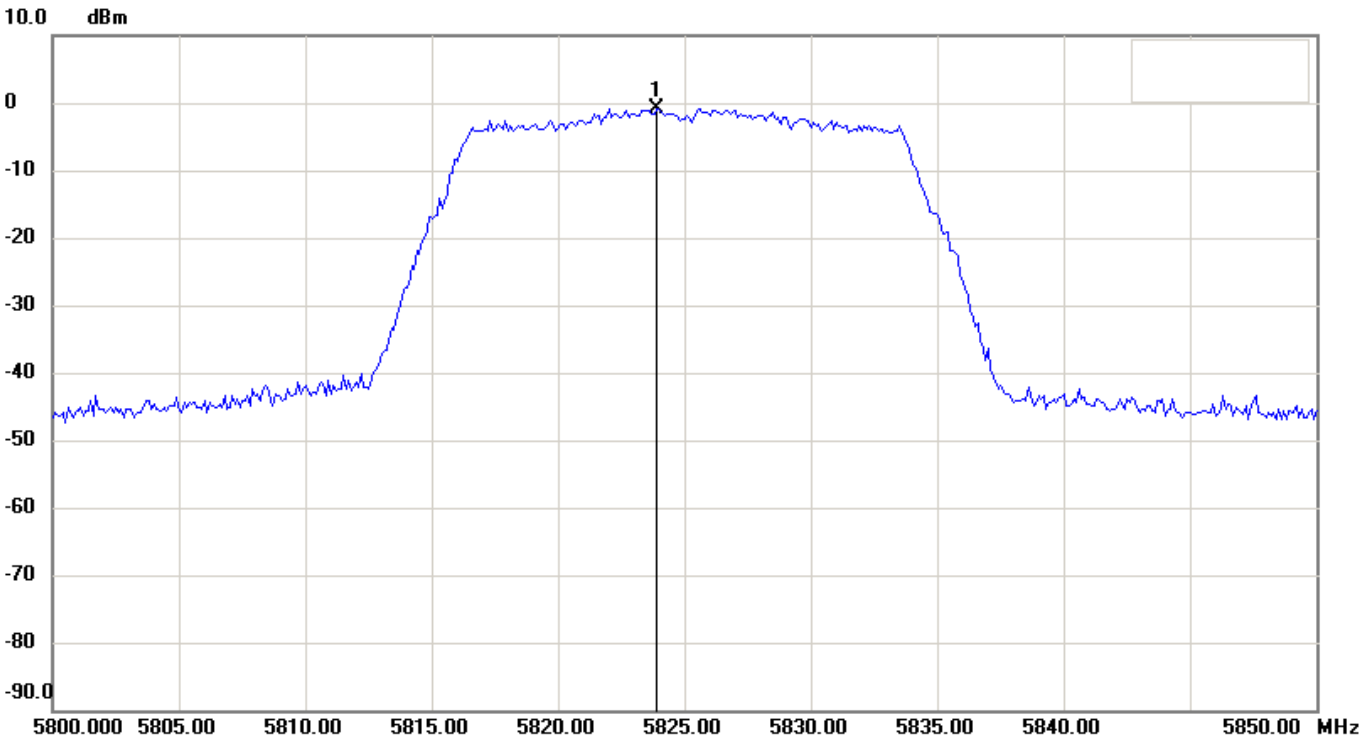
#20

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11ac20_Channel 165_Power Density

RF Conducted

Sweep Time: 1ms Att.: 15dB

RBW: 500 KHz VBW: 1000 KHz

Operator: Phillip

No.	Frequency(MHz)	Level(dBm)
1	5823.90000	-0.81

8.4.3 調變技術: IEEE 802.11ac VHT40

測試日期: Sep. 13, 2021

環境溫度: 25°C

環境濕度: 50%

天線增益最大值為 4.58 dBi，NCC Limit 如下表所示：

Channel	Power Spectral Density (dBm)	NCC Limit (dBm)	Chart
L	-3.33	30	Page 67
H	-3.35	30	Page 68

註：1. 繪圖資料請參考第 67-68 頁。

2. If antenna gain $\leq$ 6dBi, NCC Limit = 30dBm3. If antenna gain $>$ 6dBi, NCC Limit = 30dBm – (highest antenna gain – 6 dBi)4. 量測不準確度: $\pm 1.5\text{dB}$ ($1\text{GHz} \leq f \leq 18\text{GHz}$)

File: 21-08-MAW-005_5-8ac40

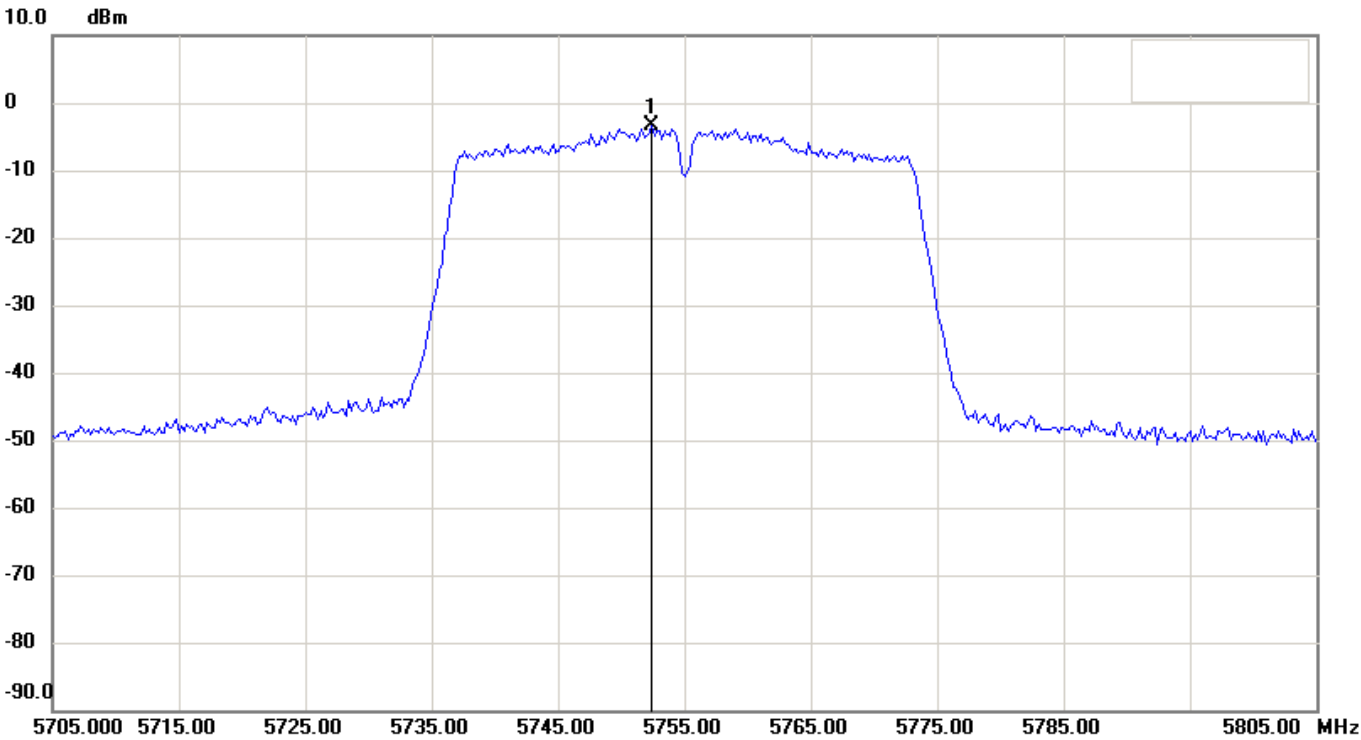
#5

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11ac40_Channel 151_Power Density

RF Conducted

Sweep Time: 1ms Att.: 15dB

RBW: 500 KHz VBW: 1000 KHz

Operator: Phillip

No.	Frequency(MHz)	Level(dBm)
1	5752.40000	-3.33

File: 21-08-MAW-005_5-8ac40

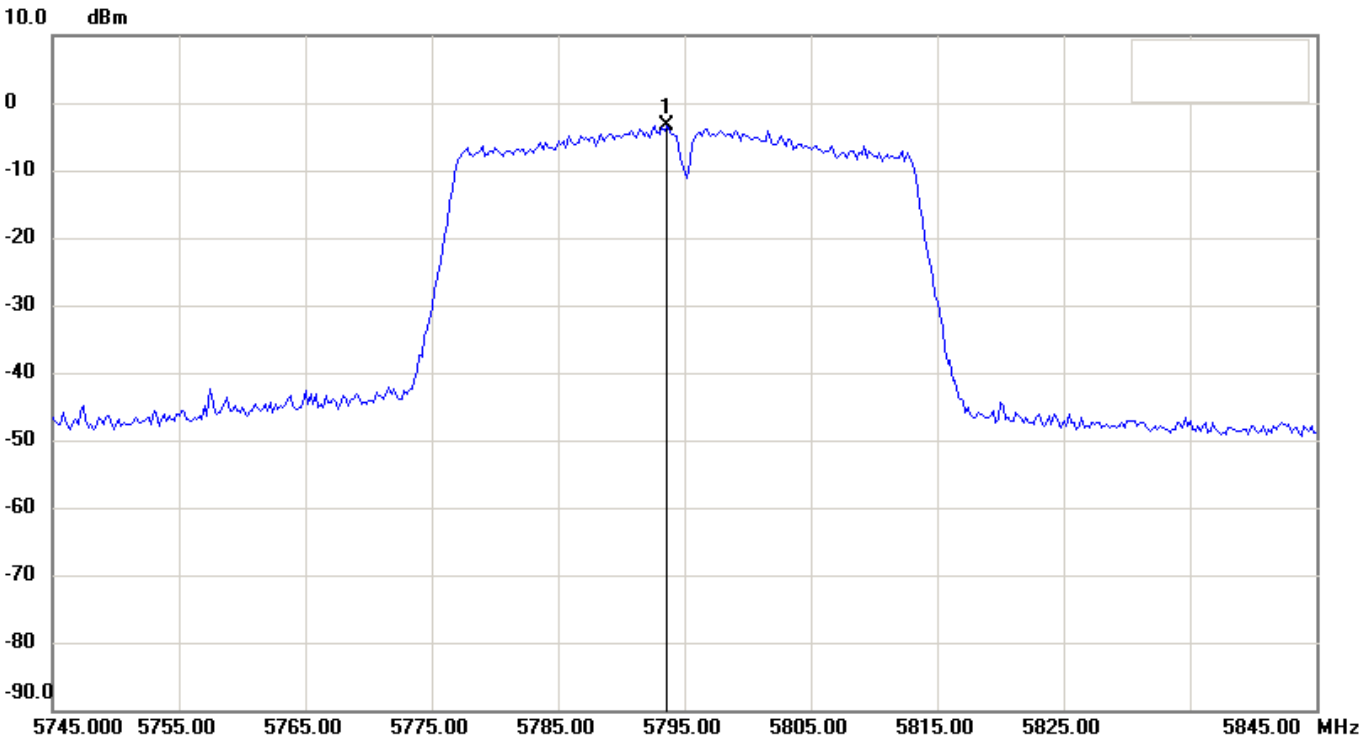
#13

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11ac40_Channel 159_Power Density

RF Conducted

Sweep Time: 1ms Att.: 15dB

RBW: 500 KHz VBW: 1000 KHz

Operator: Phillip

No.	Frequency(MHz)	Level(dBm)
1	5793.60000	-3.35

8.4.4 調變技術: IEEE 802.11ac VHT80

測試日期: Sep. 13, 2021

環境溫度: 25°C

環境濕度: 50%

天線增益最大值為 4.58 dBi，NCC Limit 如下表所示：

Channel	Power Spectral Density (dBm)	NCC Limit (dBm)	Chart
L	-6.53	30	Page 70

註：1. 繪圖資料請參考第 70 頁。

2. If antenna gain $\leq$ 6dBi, NCC Limit =30 dBm3. If antenna gain $>$ 6dBi, NCC Limit = 30dBm – (highest antenna gain – 6 dBi)4. 量測不準確度: $\pm 1.5\text{dB}$ ($1\text{GHz} \leq f \leq 18\text{GHz}$)

8.5 結果判定

高、中、低頻段的3kHz功率密度皆低於限制值，合乎標準規定。

File: 21-08-MAW-005_5-8ac80

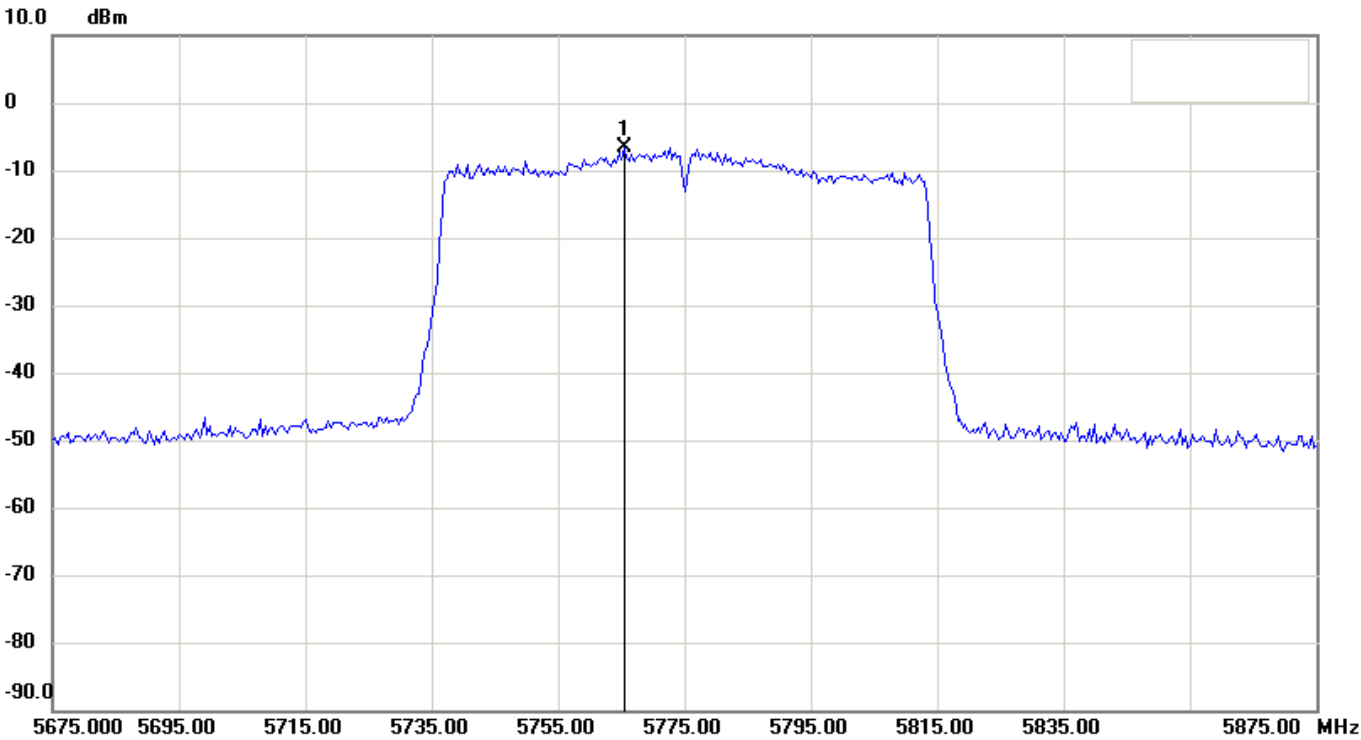
#5

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition:

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11ac80_Channel 155_Power Density

RF Conducted

Sweep Time: 1ms Att.: 15dB

RBW: 500 KHz VBW: 1000 KHz

Operator: Phillip

No.	Frequency(MHz)	Level(dBm)
1	5765.40000	-6.53

9 混附波發射限制之量測

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5.7.4.2節之規定，在5.725 GHz～5.850 GHz 的頻段操作之發射器：所有頻帶邊緣向外5MHz 內頻率之發射，有效等向輻射功率(EIRP) ≤ 27 dBm/MHz～15.6dBm/MHz (以線性法計算對應之限制值)；所有頻帶邊緣向外5 MHz～25MHz，有效等向輻射功率(EIRP) ≤ 15.6 dBm/MHz～10 dBm/MHz (以線性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) ≤ 10 dBm/MHz～-27 dBm/MHz (以線性法計算對應之限制值)；所有頻帶邊緣外 ≥ 75 MHz 的頻率之發射，有效等向輻射功率(EIRP) ≤ -27 dBm/MHz。

此外落於國家通訊傳播委員會低功率射頻器材技術規範第3.5節禁用頻段之輻射，應符合國家通訊傳播委員會低功率射頻器材技術規範第3.6節之規定。

9.2 混附波發射限制之測試配置

如圖1 所示。

9.3 量測混附波發射限制之儀器

儀器名稱	廠 牌	型 號
Spectrum Analyzer	R&S	FSV40
Attenuator	WEINSCHEL	56-10

測試軟體: LZ-RF (Ver. ETC-3A2)

9.4 混附波發射限制之量測結果 (傳導方式量測)

測試工程師: 羅世勇

9.4.1 調變技術: IEEE 802.11a

測試日期: Sep. 13, 2021

環境溫度: 25℃

環境濕度: 50%

註：1. 繪圖資料請參考第 72-79 頁。

2. 量測不準確度: ± 1.5 dB ($1\text{GHz} \leq f \leq 18\text{GHz}$)

File: 21-08-MAW-005_5-8a

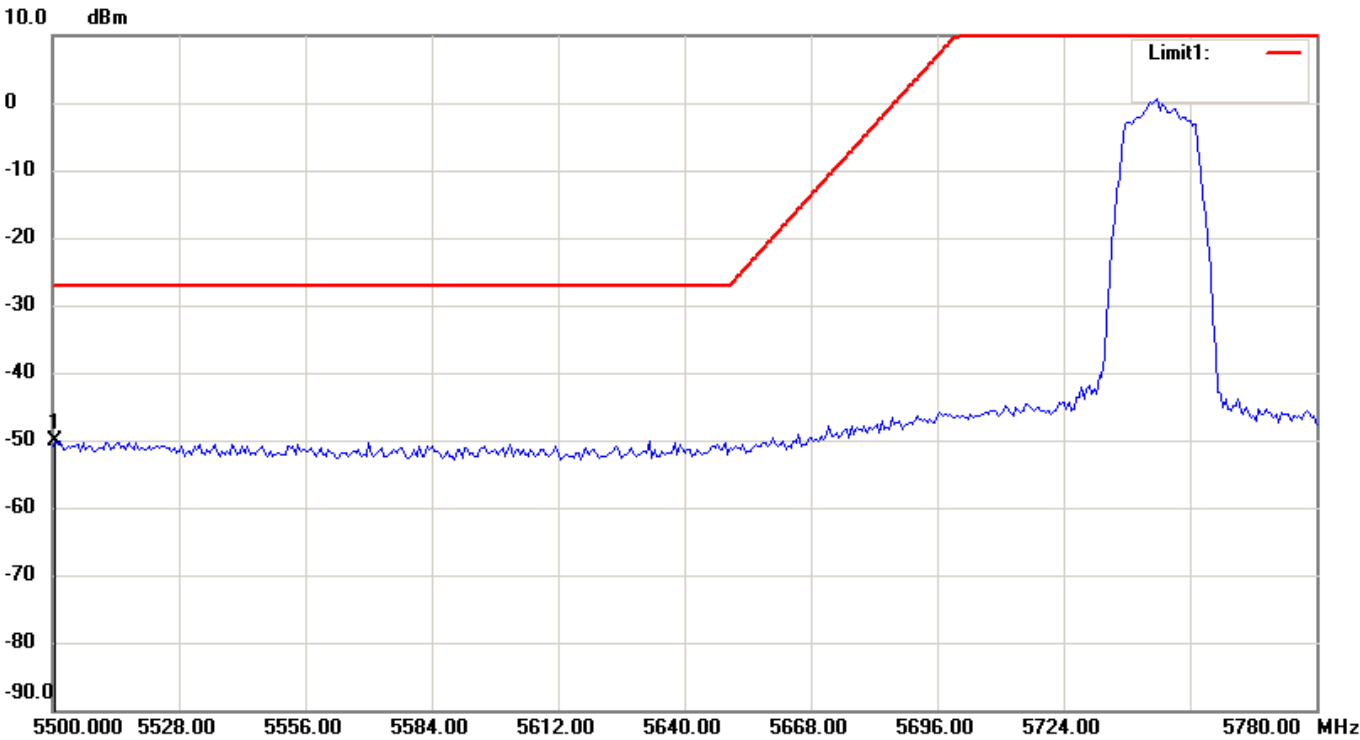
Site: RF-Cond01

#8

Date: 2021/9/13

Temperature: 25 °C

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11a Channel 149_Low_Bandedge

RF Conducted

Sweep Time: 1ms

RBW: 1000 KHz

Operator:

Att.: 15dB

VBW: 3000 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	5500.56000	-50.03

File: 21-08-MAW-005_5-8a

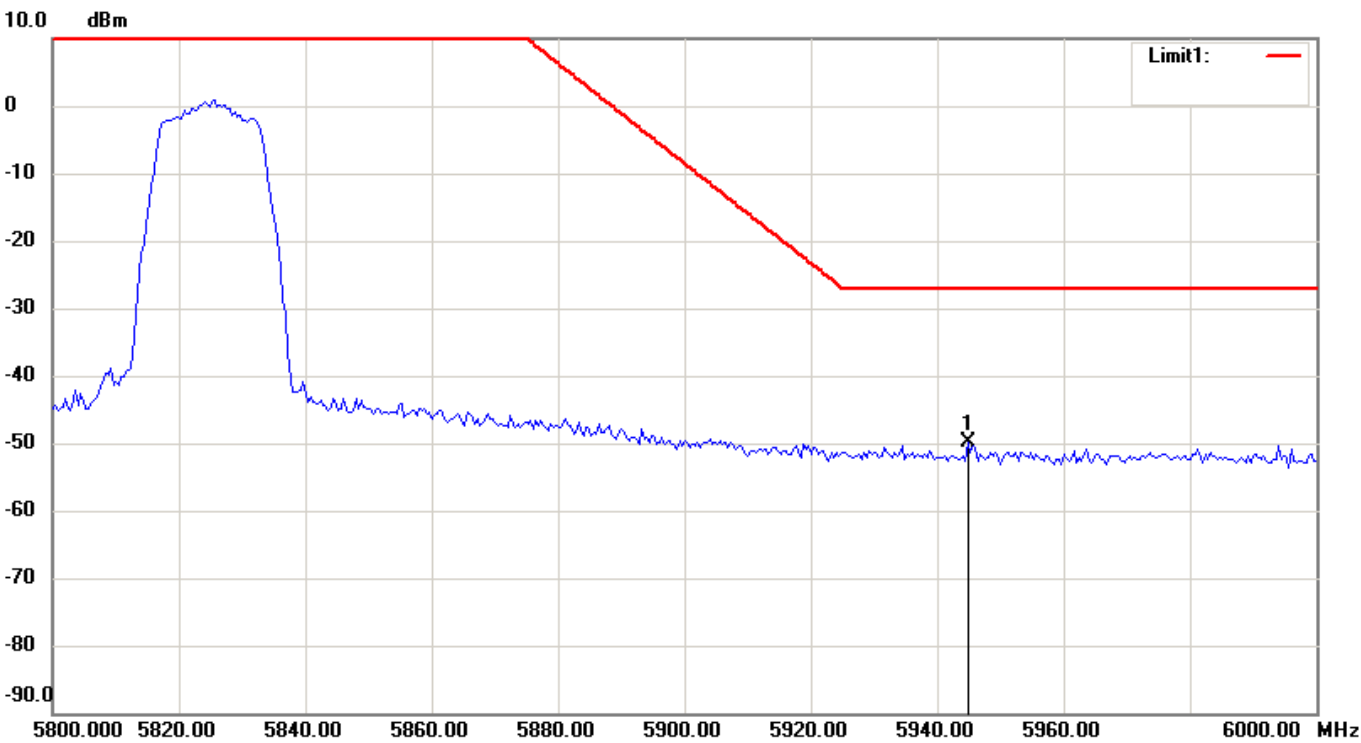
Site: RF-Cond01

#23

Date: 2021/9/13

Temperature: 25 °C

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11a Channel 165_High_Bandedge

RF Conducted

Sweep Time: 1ms

RBW: 1000 KHz

Operator:

Att.: 15dB

VBW: 3000 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	5944.80000	-49.93

File: 21-08-MAW-005_5-8a

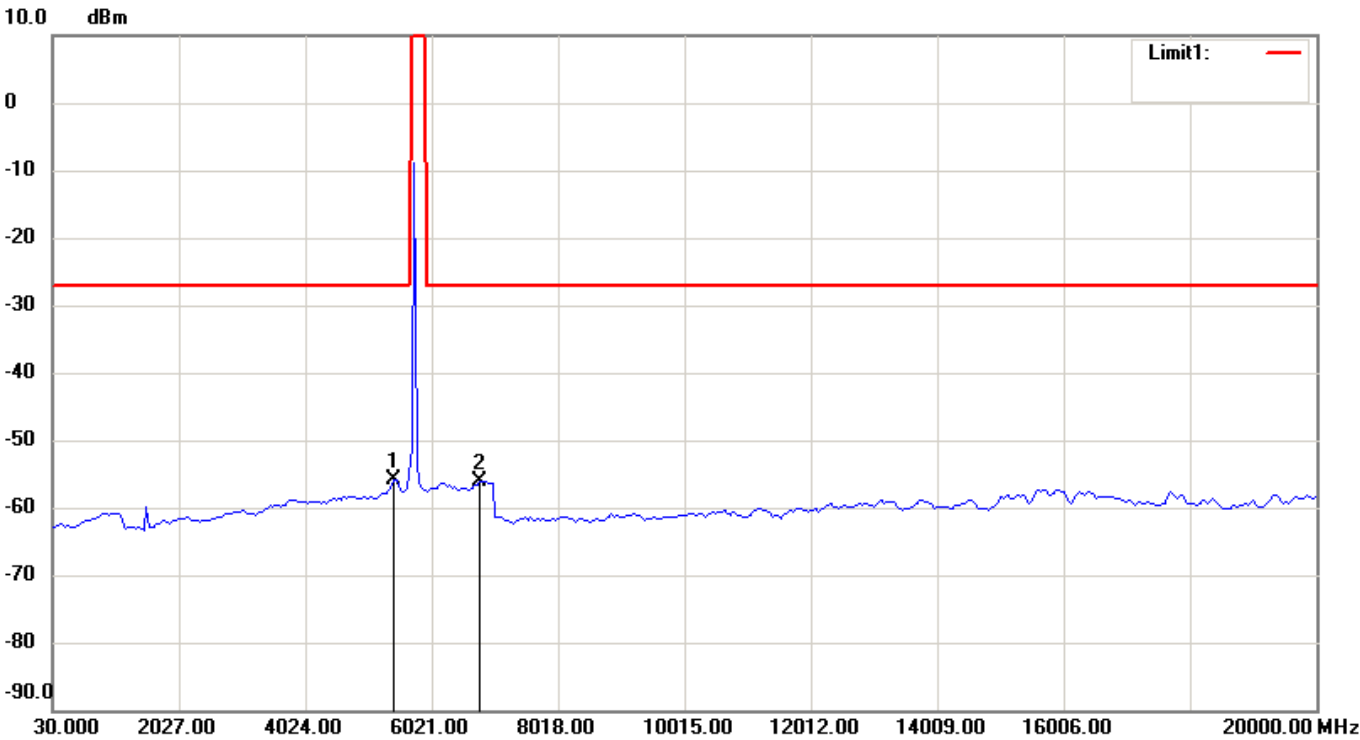
Site: RF-Cond01

#6

Date: 2021/9/13

Temperature: 25 °C

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11a_Channel 149_Spurious-1

RF Conducted

Sweep Time: 79.9ms

RBW: 1000 KHz

Operator:

Att.: 15dB

VBW: 1000 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	5421.90000	-55.89
2	6779.86000	-56.01

File: 21-08-MAW-005_5-8a

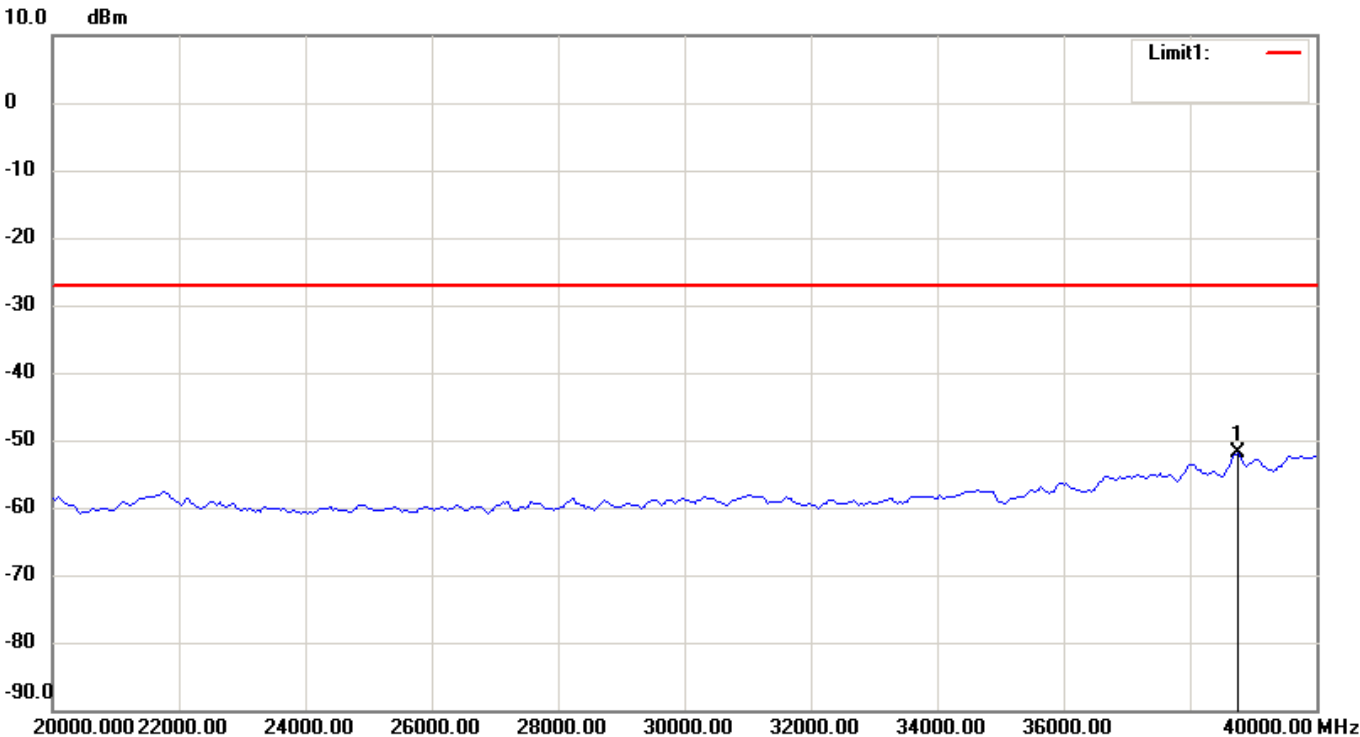
Site: RF-Cond01

#7

Date: 2021/9/13

Temperature: 25 °C

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11a_Channel 149_Spurious-2

RF Conducted

Sweep Time: 80ms

RBW: 1000 KHz

Operator:

Att.: 15dB

VBW: 1000 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	38760.00000	-51.77

File: 21-08-MAW-005_5-8a

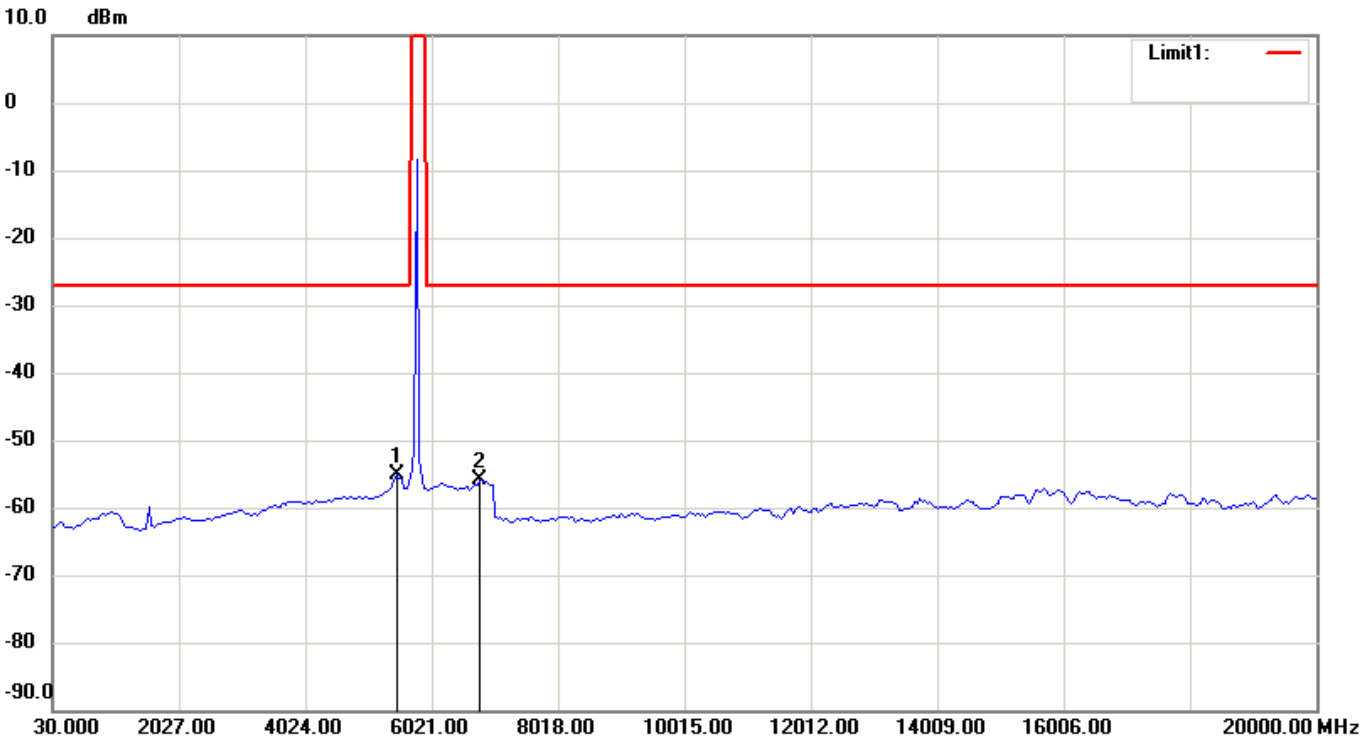
Site: RF-Cond01

#14

Date: 2021/9/13

Temperature: 25 °C

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11a_Channel 157_Spurious-1

RF Conducted

Sweep Time: 79.9ms

RBW: 1000 KHz

Operator:

Att.: 15dB

VBW: 1000 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	5461.84000	-55.19
2	6779.86000	-55.91

File: 21-08-MAW-005_5-8a

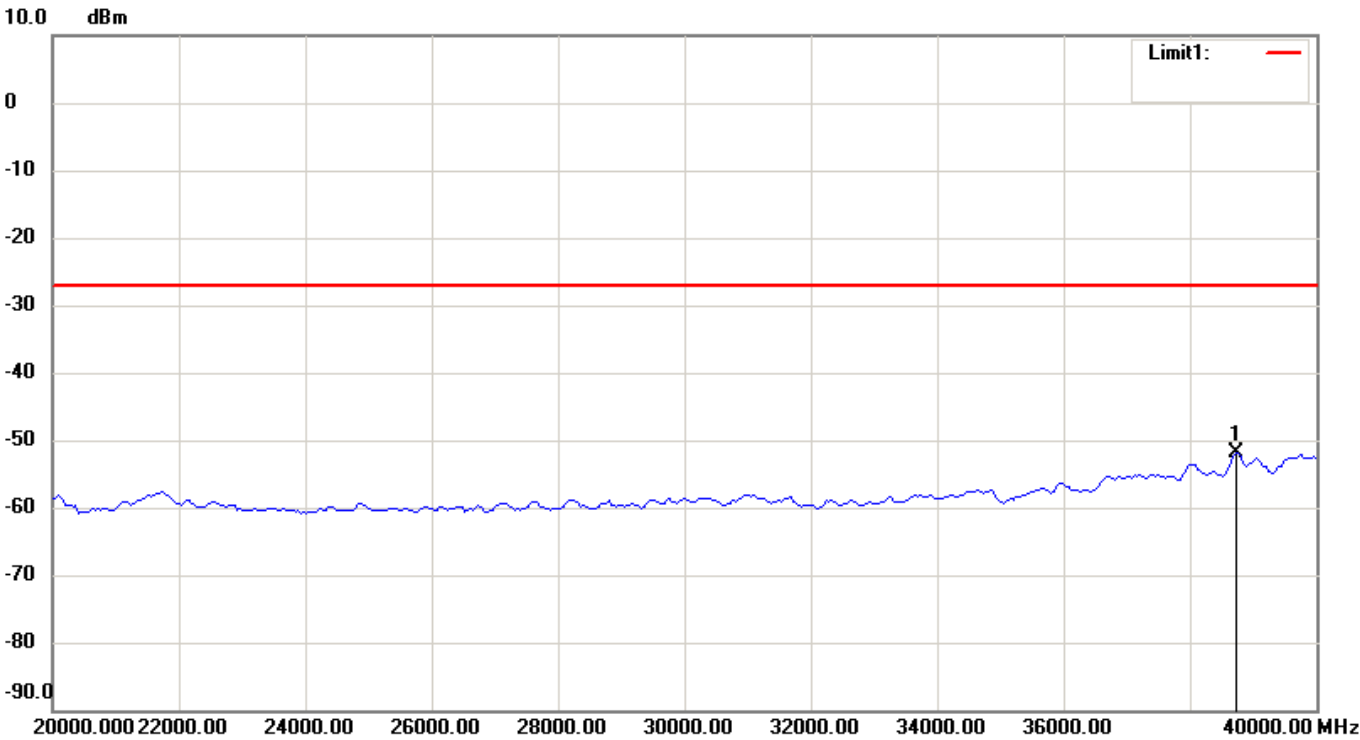
Site: RF-Cond01

#15

Date: 2021/9/13

Temperature: 25 °C

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11a_Channel 157_Spurious-2

RF Conducted

Sweep Time: 80ms

RBW: 1000 KHz

Operator:

Att.: 15dB

VBW: 1000 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	38720.00000	-51.84

File: 21-08-MAW-005_5-8a

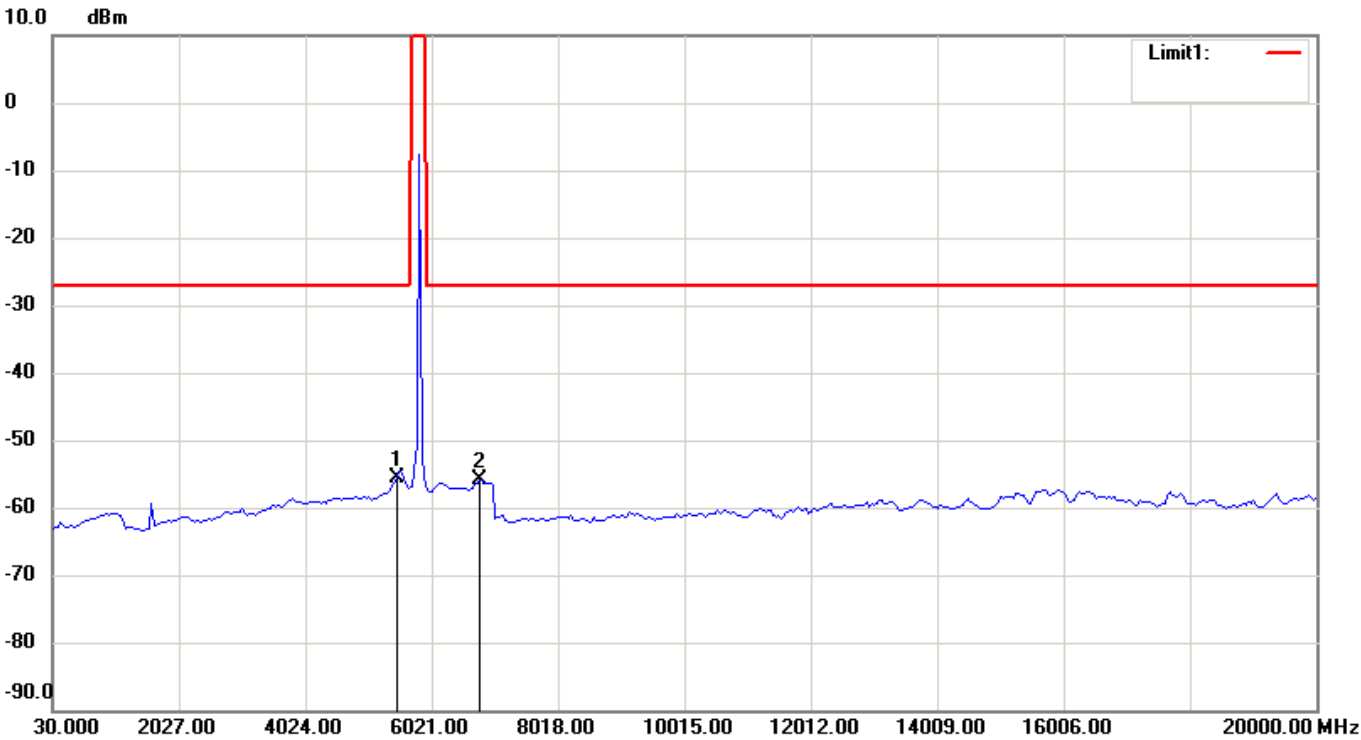
Site: RF-Cond01

#21

Date: 2021/9/13

Temperature: 25 °C

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11a_Channel 165_Spurious-1

RF Conducted

Sweep Time: 79.9ms

RBW: 1000 KHz

Operator:

Att.: 15dB

VBW: 1000 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	5461.84000	-55.52
2	6779.86000	-55.82

File: 21-08-MAW-005_5-8a

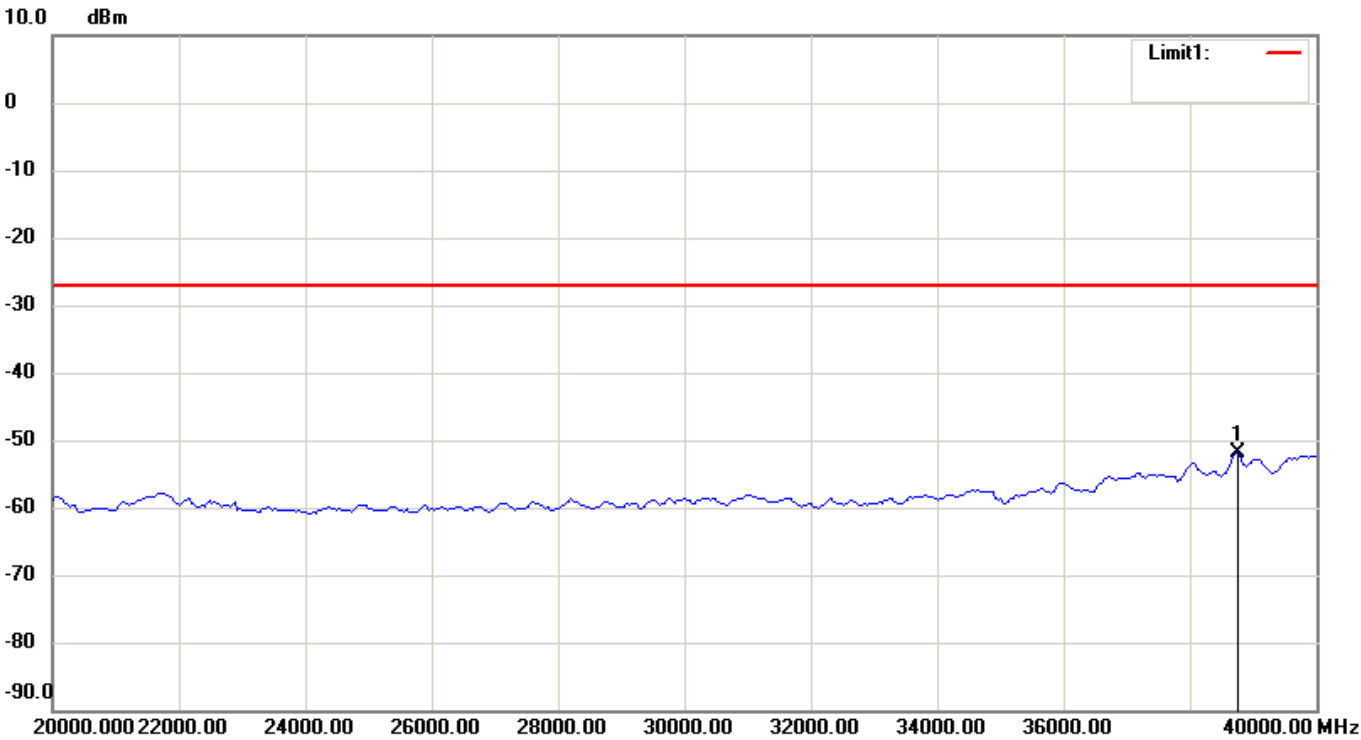
Site: RF-Cond01

#22

Date: 2021/9/13

Temperature: 25 °C

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11a_Channel 165_Spurious-2

RF Conducted

Sweep Time: 80ms

RBW: 1000 KHz

Operator:

Att.: 15dB

VBW: 1000 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	38760.00000	-51.85

9.4.2 調變技術: IEEE 802.11ac VHT20

測試日期: Sep. 13, 2021

環境溫度: 25°C

環境濕度: 50%

註：1. 繪圖資料請參考第 81-88 頁。

2. 量測不準確度: $\pm 1.5\text{dB}$ ($1\text{GHz} \leq f \leq 18\text{GHz}$)

File: 21-08-MAW-005_5-8ac20

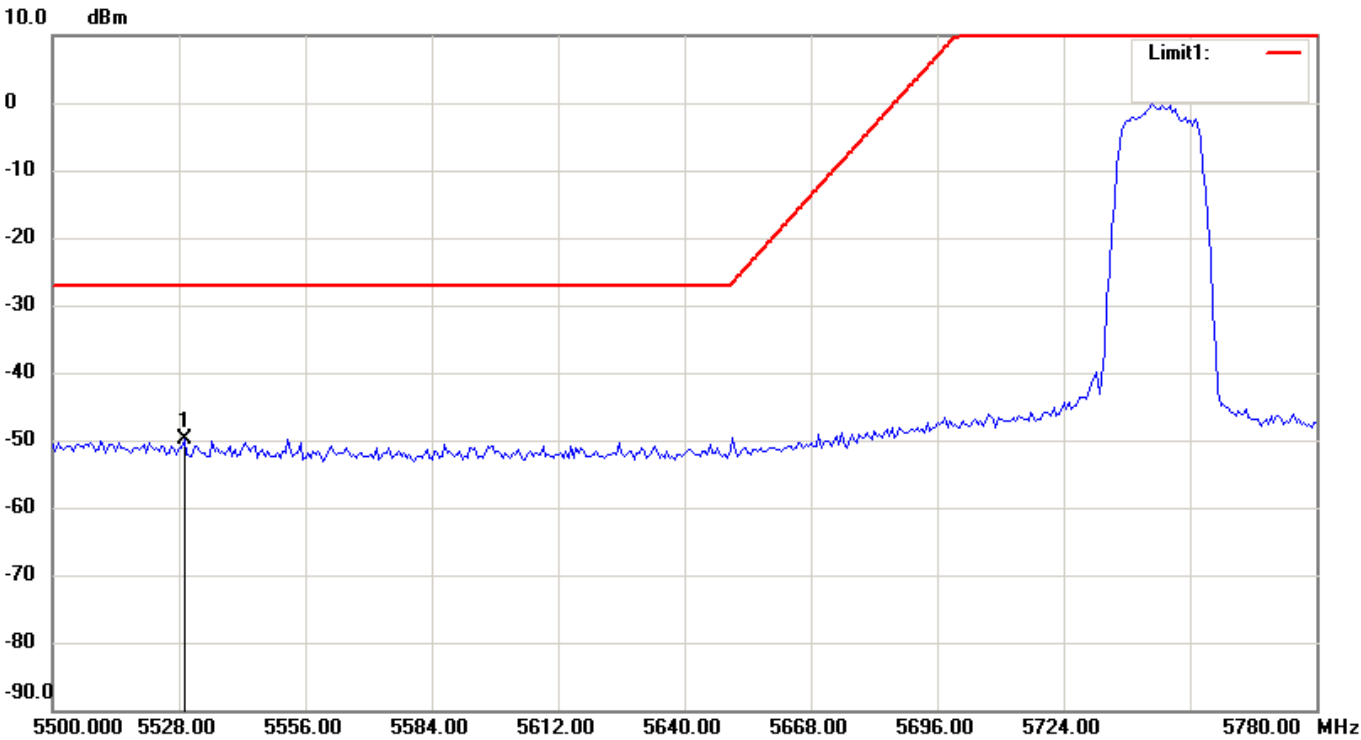
#8

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11ac20 Channel 149_Low_Bandedge

RF Conducted

Sweep Time: 1ms

RBW: 1000 KHz

Operator:

Att.: 15dB

VBW: 3000 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	5529.12000	-49.90

File: 21-08-MAW-005_5-8ac20

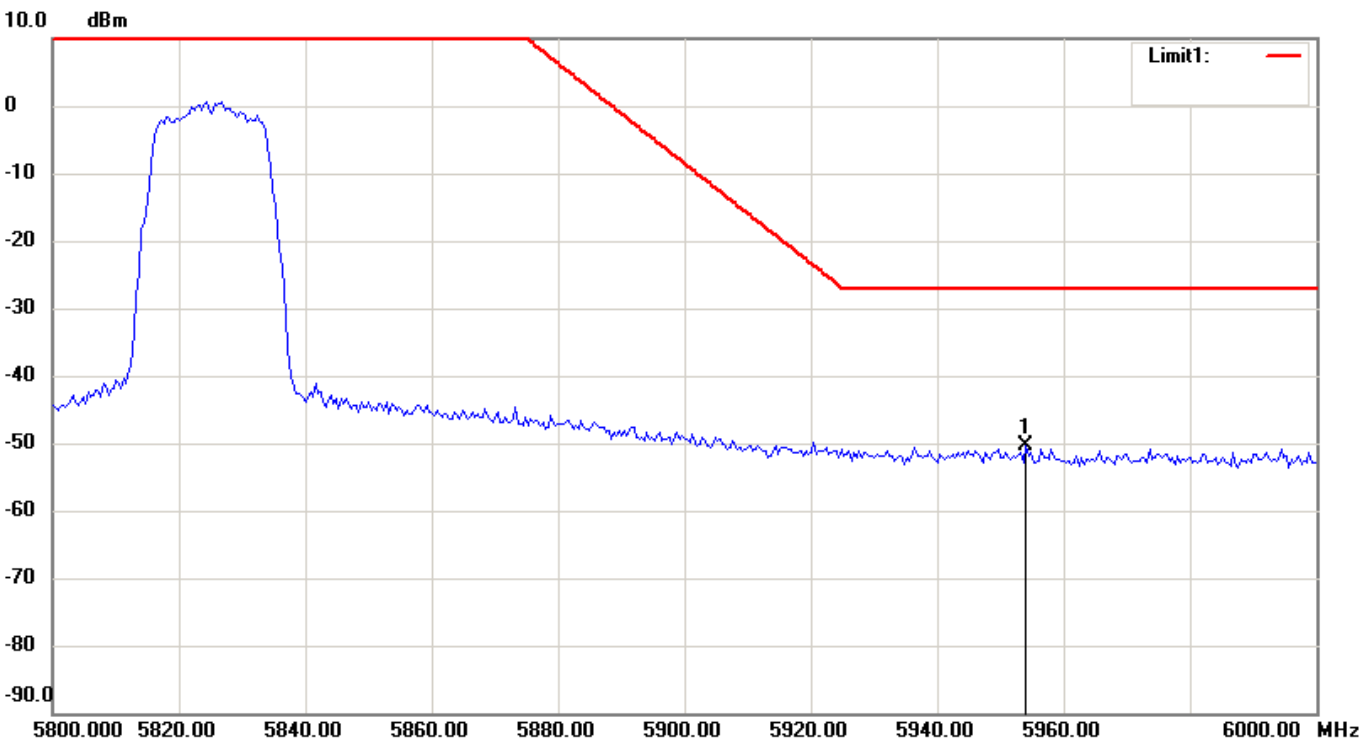
#23

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

RF Conducted

EUT: CV1 21 WIDE AVN

Sweep Time: 1ms Att.: 15dB

Model: VN251ASGG

RBW: 1000 KHz VBW: 3000 KHz

Test Mode: UNII

Operator: Phillip

Note: NCC_LP0002_802.11ac20 Channel 165_High_Bandedge

No.	Frequency(MHz)	Level(dBm)
1	5954.00000	-50.34

File: 21-08-MAW-005_5-8ac20

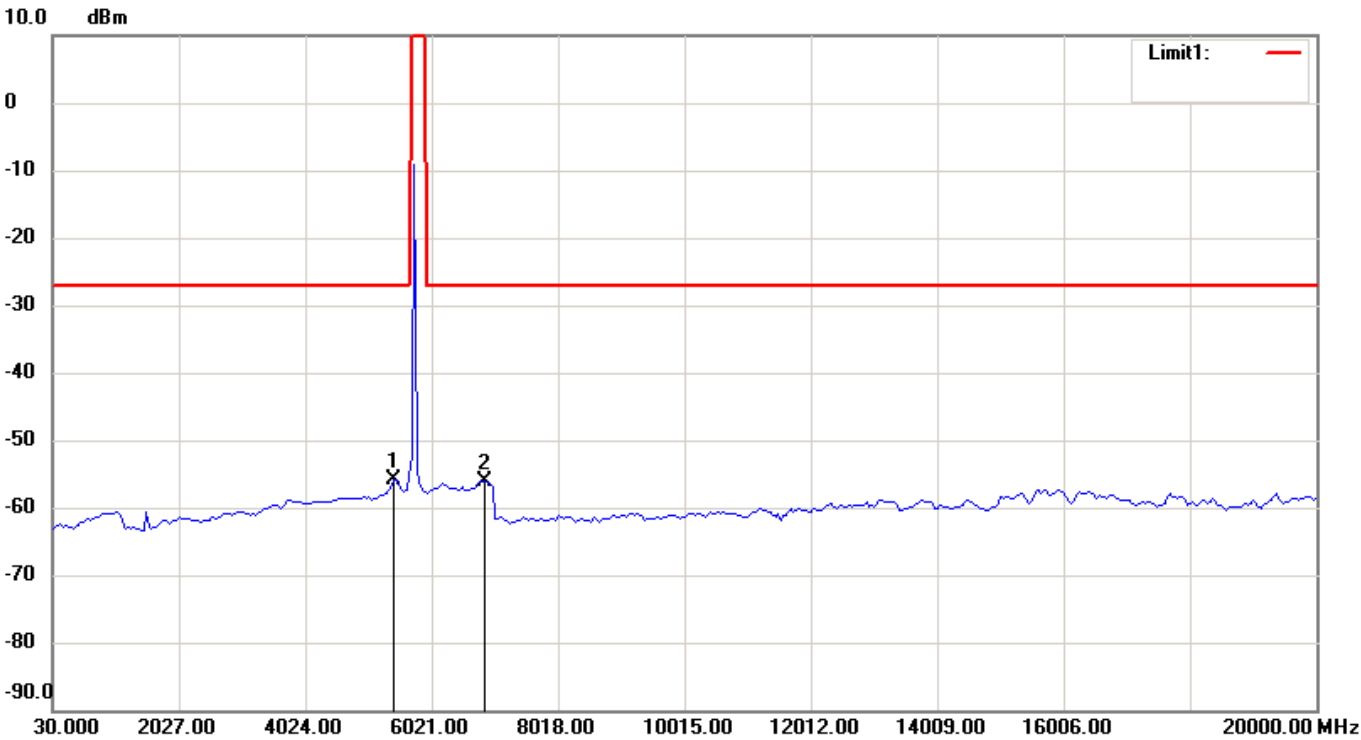
#6

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

RF Conducted

EUT: CV1 21 WIDE AVN

Sweep Time: 79.9ms Att.: 15dB

Model: VN251ASGG

RBW: 1000 KHz VBW: 1000 KHz

Test Mode: UNII

Operator: Phillip

Note: NCC_LP0002_802.11ac20_Channel 149_Spurious-1

No.	Frequency(MHz)	Level(dBm)
1	5421.90000	-55.97
2	6859.74000	-56.06

File: 21-08-MAW-005_5-8ac20

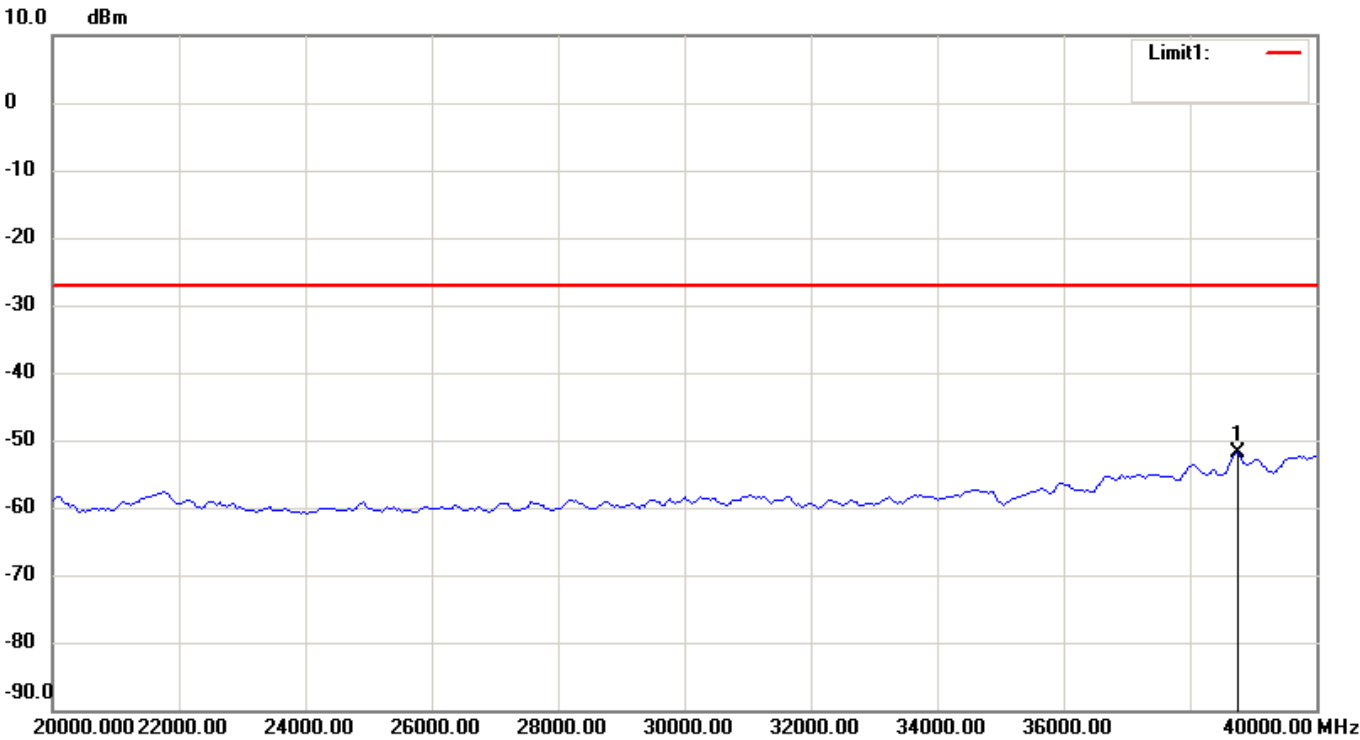
#7

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

RF Conducted

EUT: CV1 21 WIDE AVN

Sweep Time: 80ms Att.: 15dB

Model: VN251ASGG

RBW: 1000 KHz VBW: 1000 KHz

Test Mode: UNII

Operator: Phillip

Note: NCC_LP0002_802.11ac20_Channel 149_Spurious-2

No.	Frequency(MHz)	Level(dBm)
1	38760.00000	-51.78

File: 21-08-MAW-005_5-8ac20

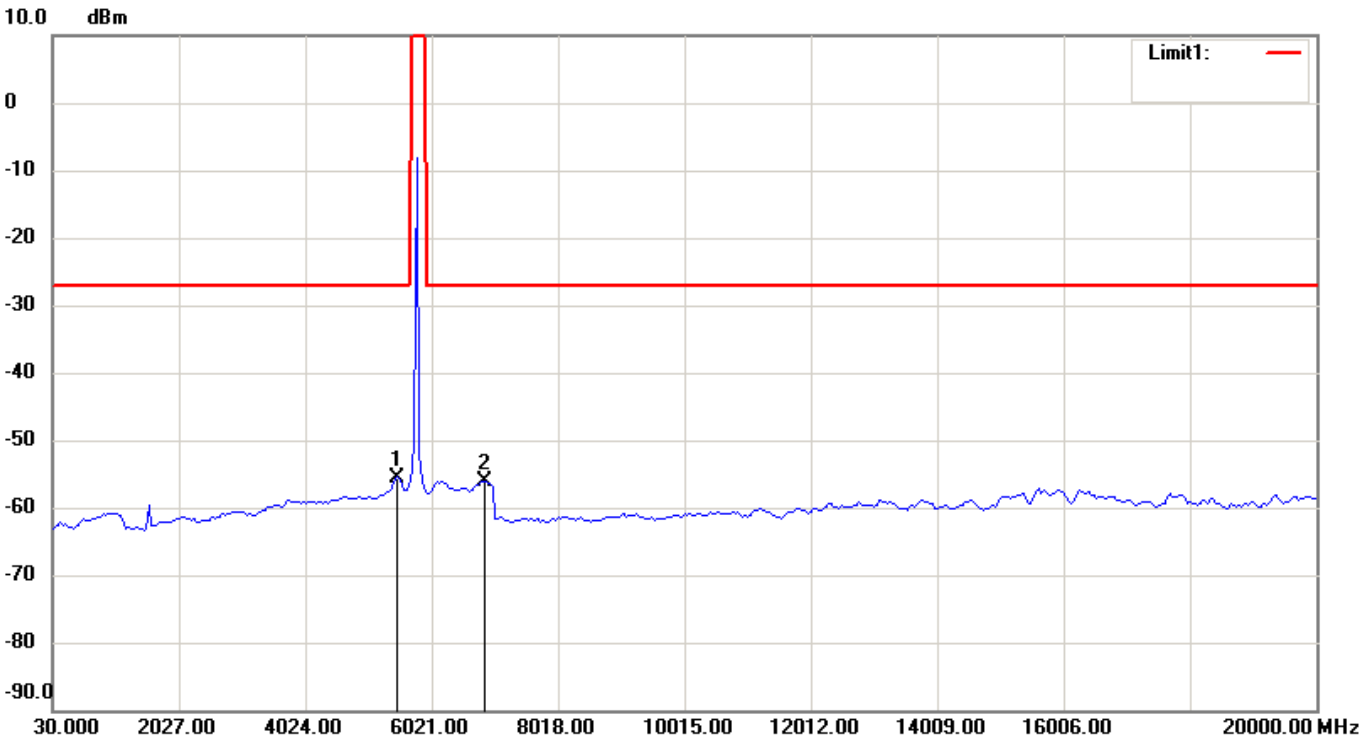
#14

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11ac20_Channel 157_Spurious-1

RF Conducted

Sweep Time: 79.9ms

RBW: 1000 KHz

Operator:

Att.: 15dB

VBW: 1000 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	5461.84000	-55.50
2	6859.74000	-56.02

File: 21-08-MAW-005_5-8ac20

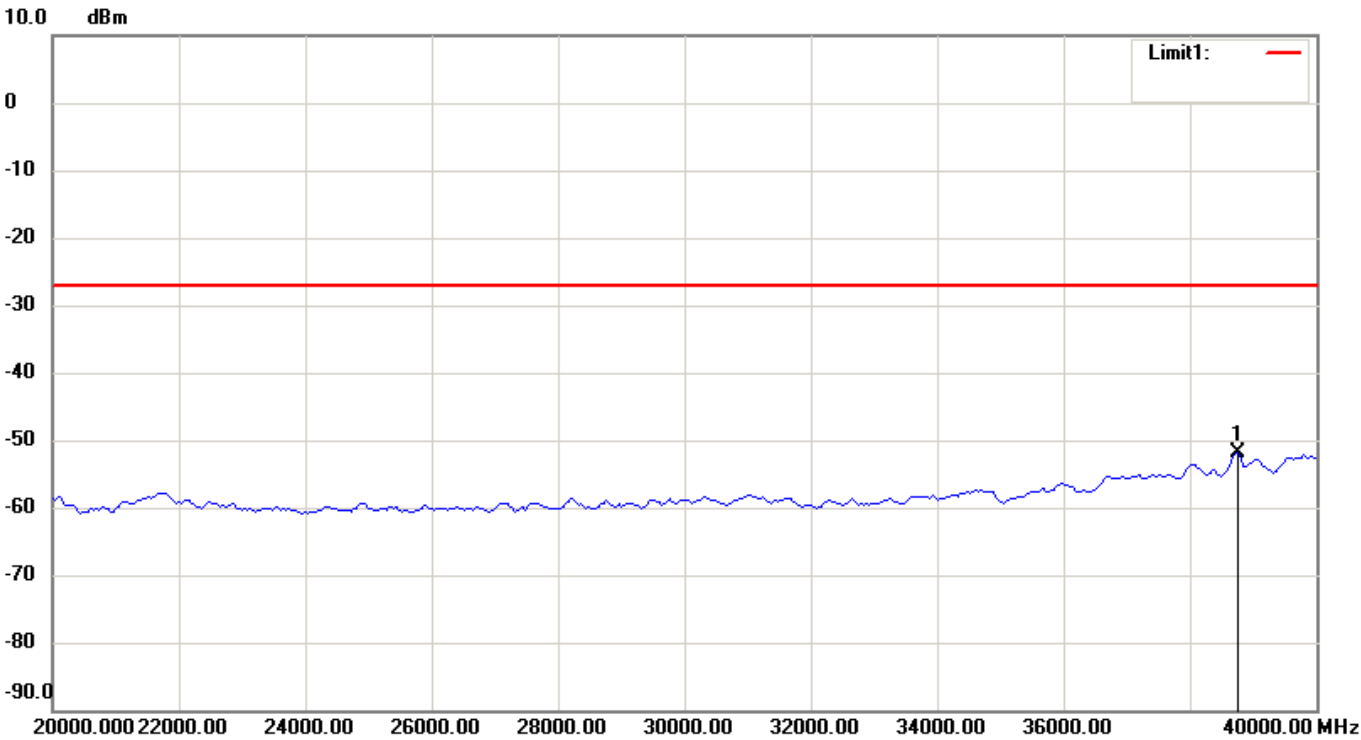
#15

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

RF Conducted

EUT: CV1 21 WIDE AVN

Sweep Time: 80ms Att.: 15dB

Model: VN251ASGG

RBW: 1000 KHz VBW: 1000 KHz

Test Mode: UNII

Operator: Phillip

Note: NCC_LP0002_802.11ac20_Channel 157_Spurious-2

No.	Frequency(MHz)	Level(dBm)
1	38760.00000	-51.81

File: 21-08-MAW-005_5-8ac20

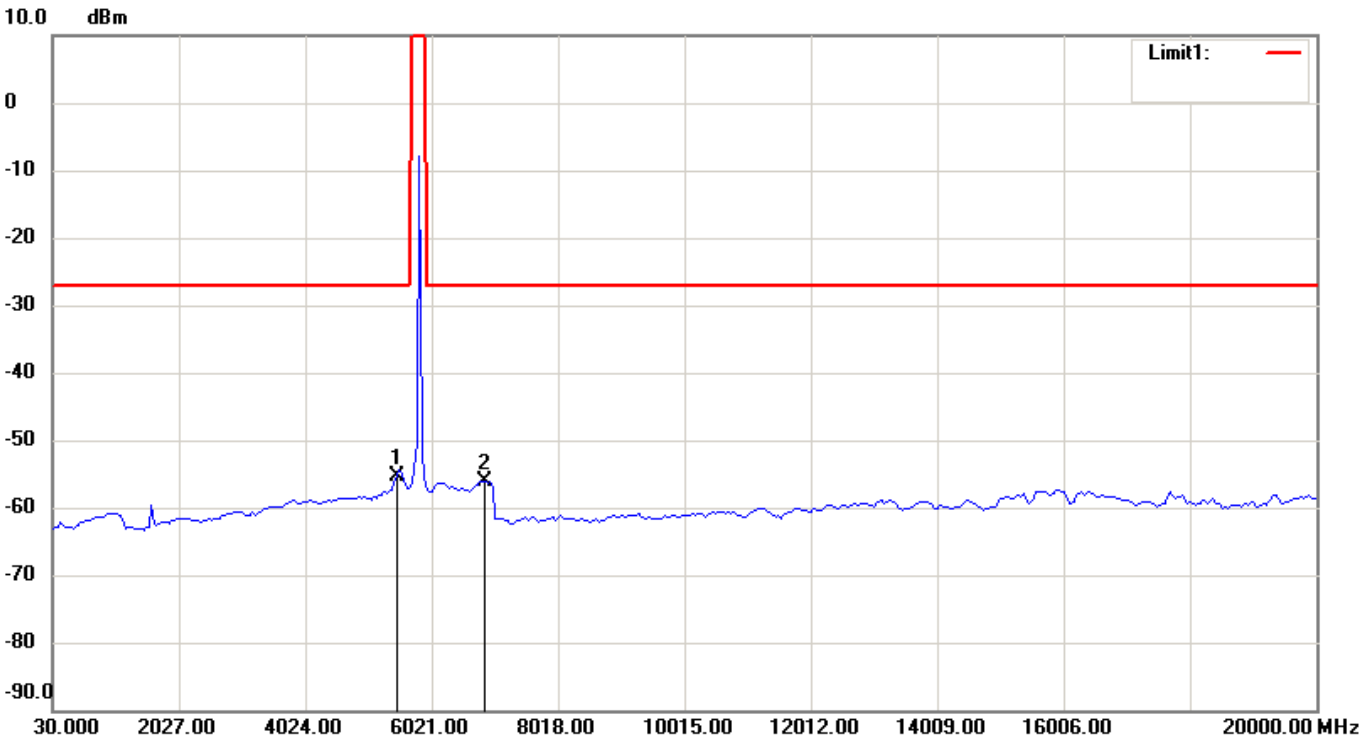
#21

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11ac20_Channel 165_Spurious-1

RF Conducted

Sweep Time: 79.9ms

RBW: 1000 KHz

Operator:

Att.: 15dB

VBW: 1000 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	5461.84000	-55.40
2	6859.74000	-56.04

File: 21-08-MAW-005_5-8ac20

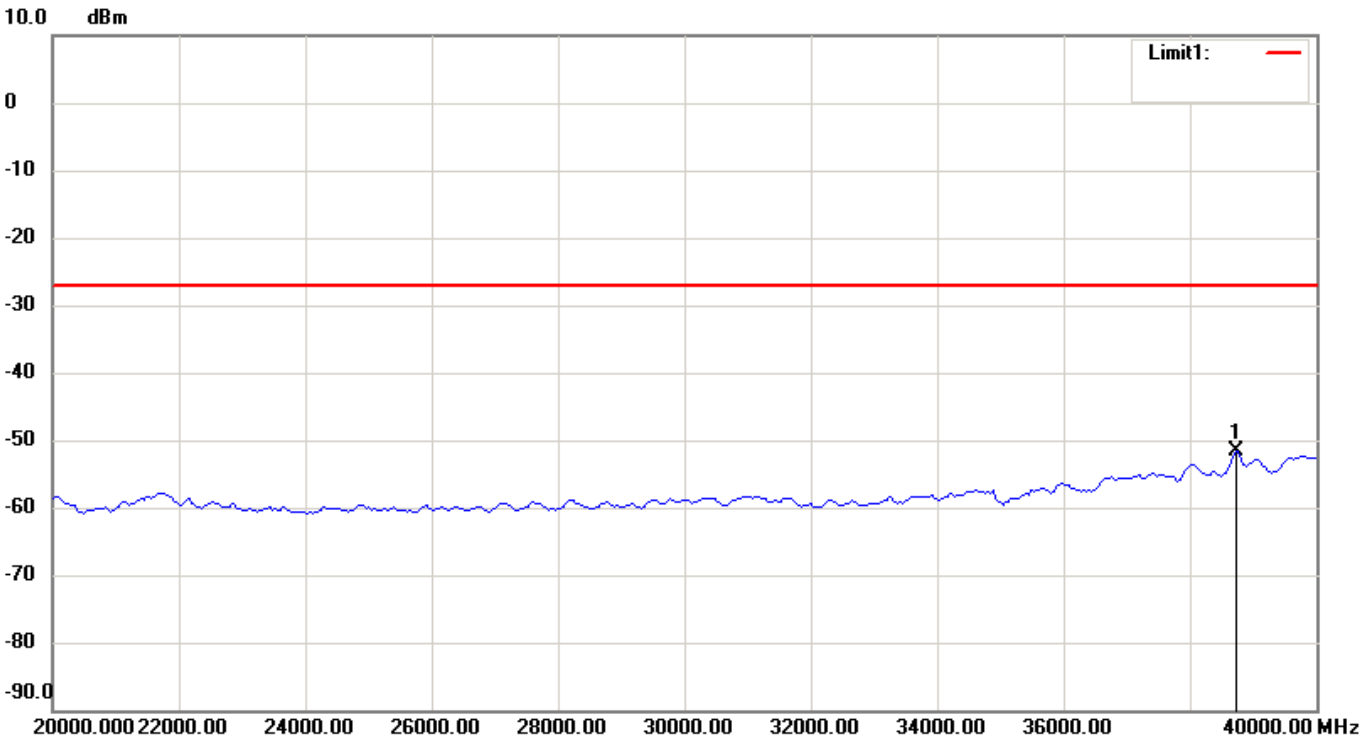
#22

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

RF Conducted

EUT: CV1 21 WIDE AVN

Sweep Time: 80ms

Att.: 15dB

Model: VN251ASGG

RBW: 1000 KHz

VBW: 1000 KHz

Test Mode: UNII

Operator: Phillip

Note: NCC_LP0002_802.11ac20_Channel 165_Spurious-2

No.	Frequency(MHz)	Level(dBm)
1	38720.00000	-51.64

9.4.3 調變技術: IEEE 802.11ac VHT40

測試日期: Sep. 13, 2021

環境溫度: 25°C

環境濕度: 50%

註：1. 繪圖資料請參考第 90-95 頁。

2. 量測不準確度: $\pm 1.5\text{dB}$ ($1\text{GHz} \leq f \leq 18\text{GHz}$)

File: 21-08-MAW-005_5-8ac40

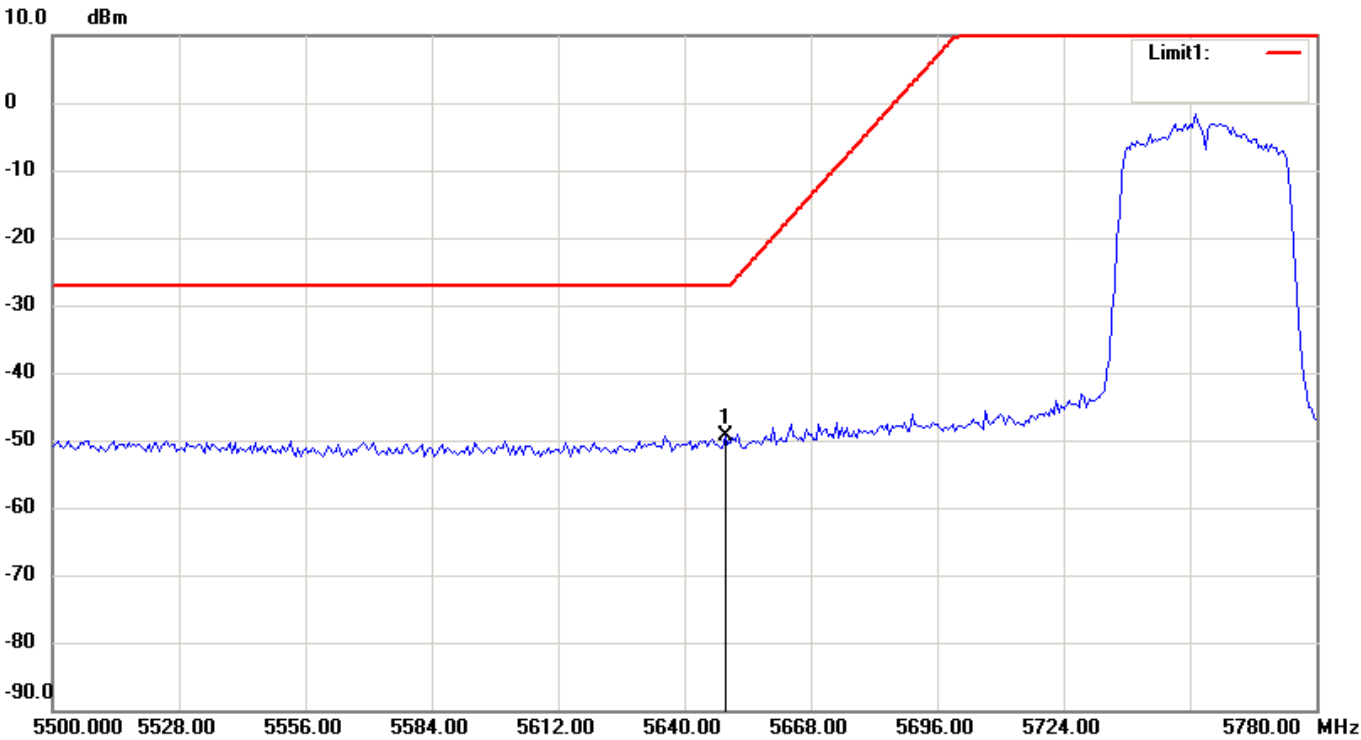
#8

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

RF Conducted

EUT: CV1 21 WIDE AVN

Sweep Time: 1ms Att.: 15dB

Model: VN251ASGG

RBW: 1000 KHz VBW: 3000 KHz

Test Mode: UNII

Operator: Phillip

Note: NCC_LP0002_802.11ac40 Channel 151_Low_Bandedge

No.	Frequency(MHz)	Level(dBm)
1	5648.96000	-49.36

File: 21-08-MAW-005_5-8ac40

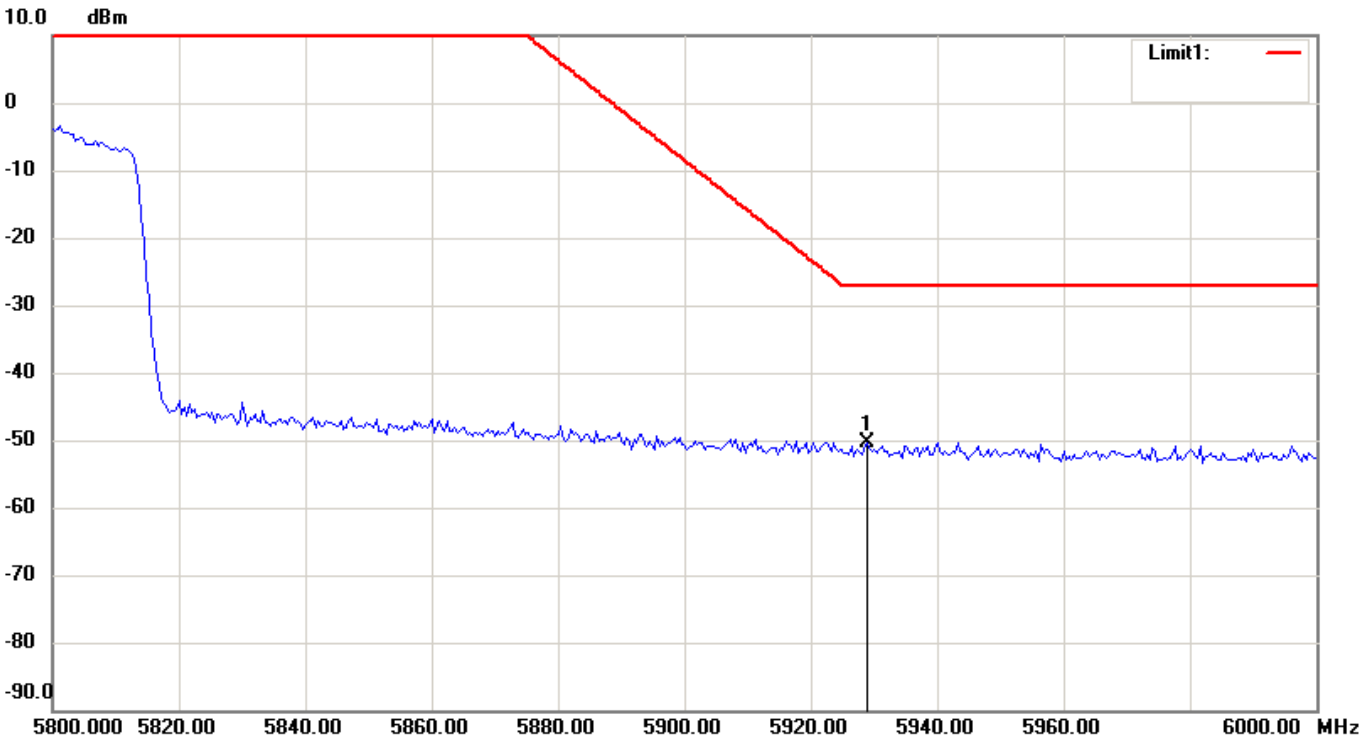
Site: RF-Cond01

#16

Date: 2021/9/13

Temperature: 25 °C

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11ac40 Channel 159_High_Bandedge

RF Conducted

Sweep Time: 1ms

RBW: 1000 KHz

Operator:

Att.: 15dB

VBW: 3000 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	5928.80000	-50.27

File: 21-08-MAW-005_5-8ac40

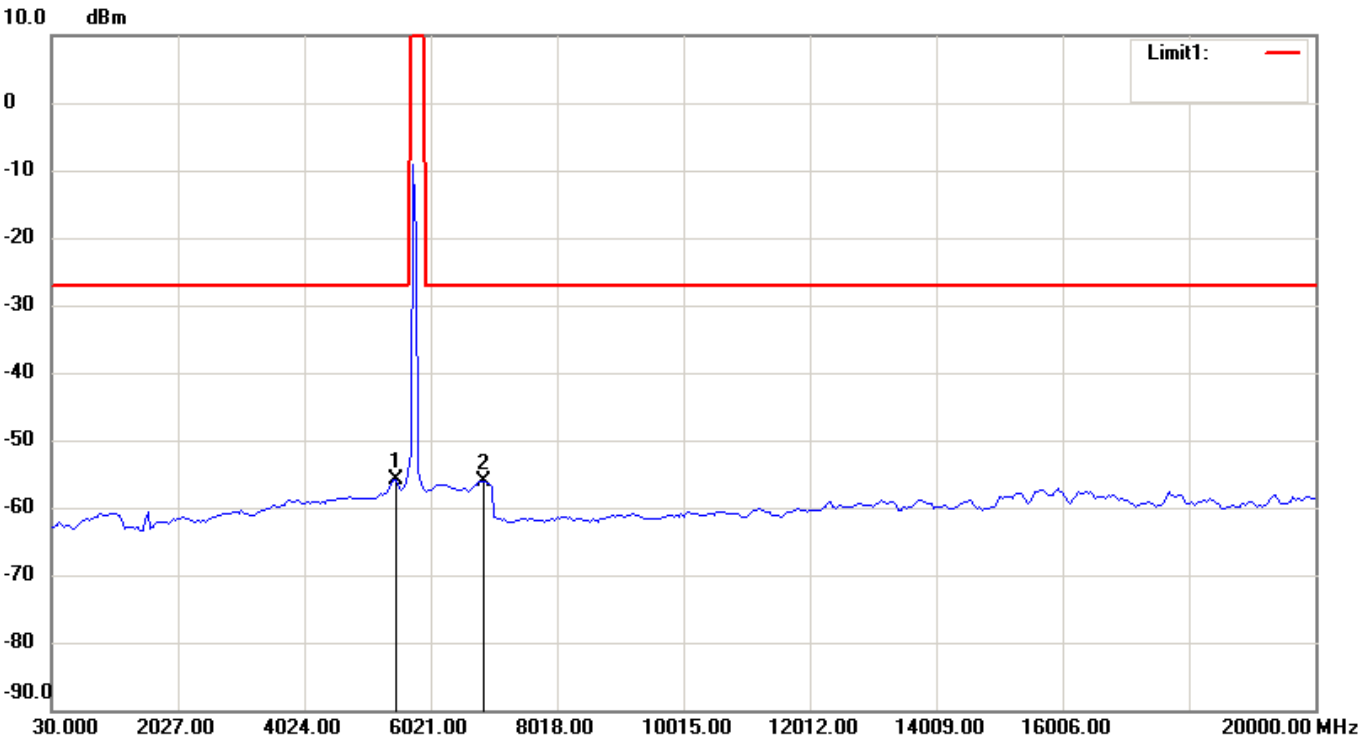
#6

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11ac40_Channel 151_Spurious-1

RF Conducted

Sweep Time: 79.9ms

RBW: 1000 KHz

Operator:

Att.: 15dB

VBW: 1000 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	5461.84000	-55.90
2	6859.74000	-56.06

File: 21-08-MAW-005_5-8ac40

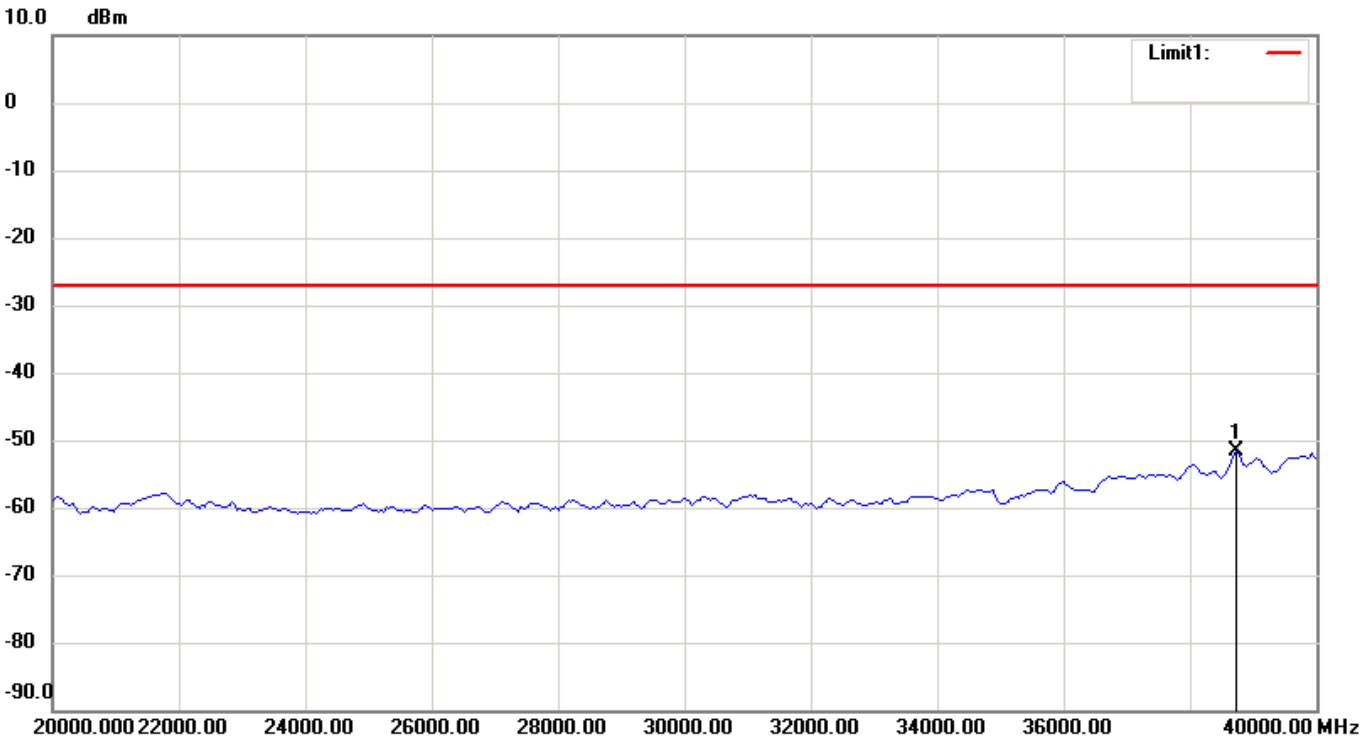
Site: RF-Cond01

#7

Date: 2021/9/13

Temperature: 25 °C

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11ac40_Channel 151_Spurious-2

RF Conducted

Sweep Time: 80ms

RBW: 1000 KHz

Operator:

Att.: 15dB

VBW: 1000 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	38720.00000	-51.64

File: 21-08-MAW-005_5-8ac40

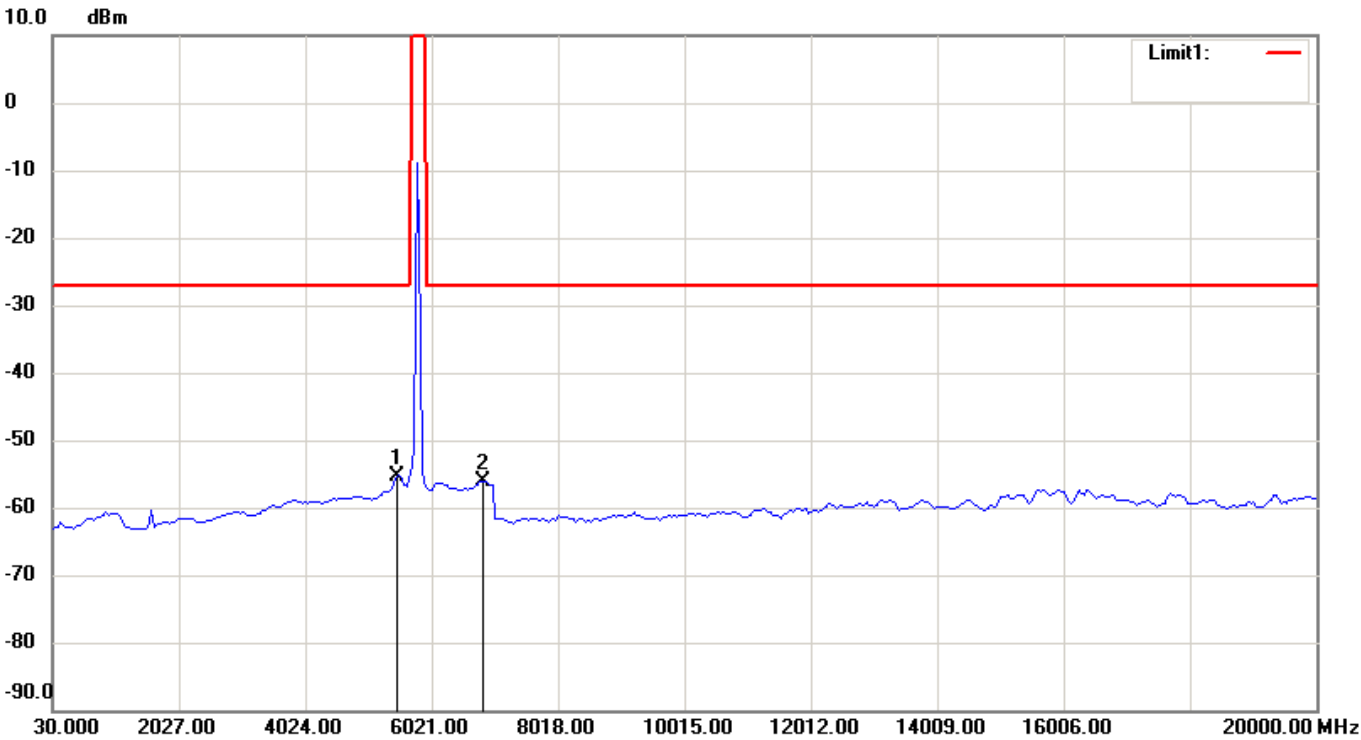
#14

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11ac40_Channel 159_Spurious-1

RF Conducted

Sweep Time: 79.9ms

RBW: 1000 KHz

Operator:

Att.: 15dB

VBW: 1000 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	5461.84000	-55.28
2	6819.80000	-56.03

File: 21-08-MAW-005_5-8ac40

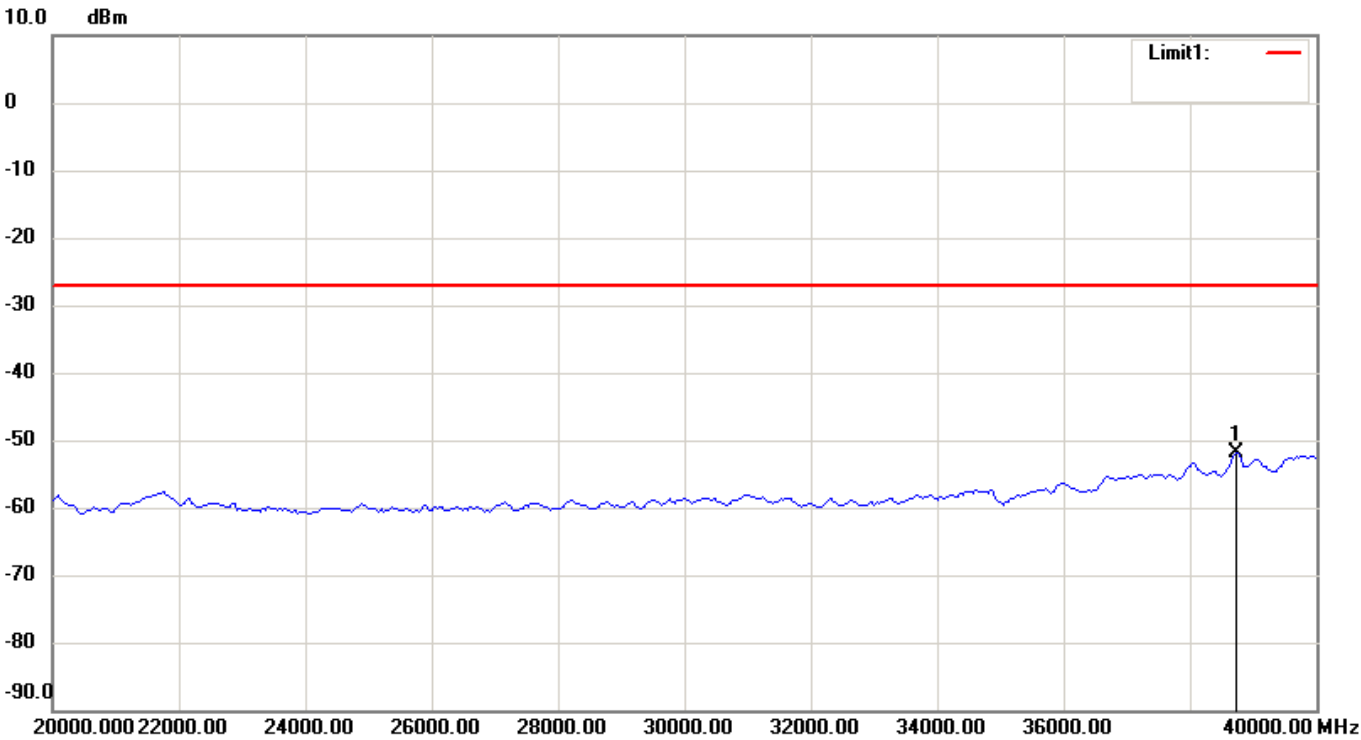
#15

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11ac40_Channel 159_Spurious-2

RF Conducted

Sweep Time: 80ms

RBW: 1000 KHz

Operator:

Att.: 15dB

VBW: 1000 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	38720.00000	-51.82

9.4.4 調變技術:IEEE 802.11ac VHT80

測試日期: Sep. 13, 2021

環境溫度: 25°C

環境濕度: 50%

註：1. 繪圖資料請參考第 97-100 頁。

2. 量測不準確度: $\pm 1.5\text{dB}$ ($1\text{GHz} \leq f \leq 18\text{GHz}$)

9.5 結果判定

混附波之發射皆低於使用頻帶內最高的射頻功率20dB以上，符合標準規定。

File: 21-08-MAW-005_5-8ac80

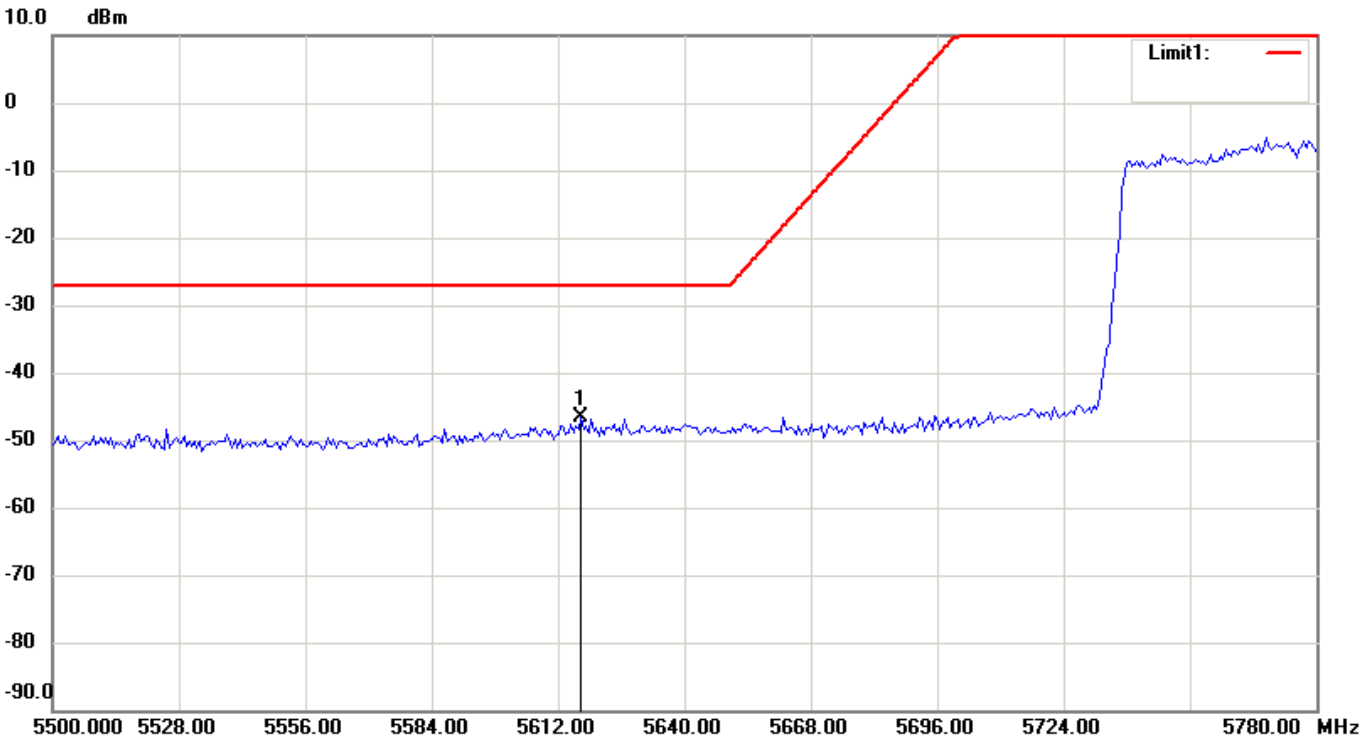
#8

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11ac80 Channel 155_Low_Bandedge

RF Conducted

Sweep Time: 1ms

RBW: 1000 KHz

Operator:

Att.: 15dB

VBW: 3000 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	5617.04000	-46.62

File: 21-08-MAW-005_5-8ac80

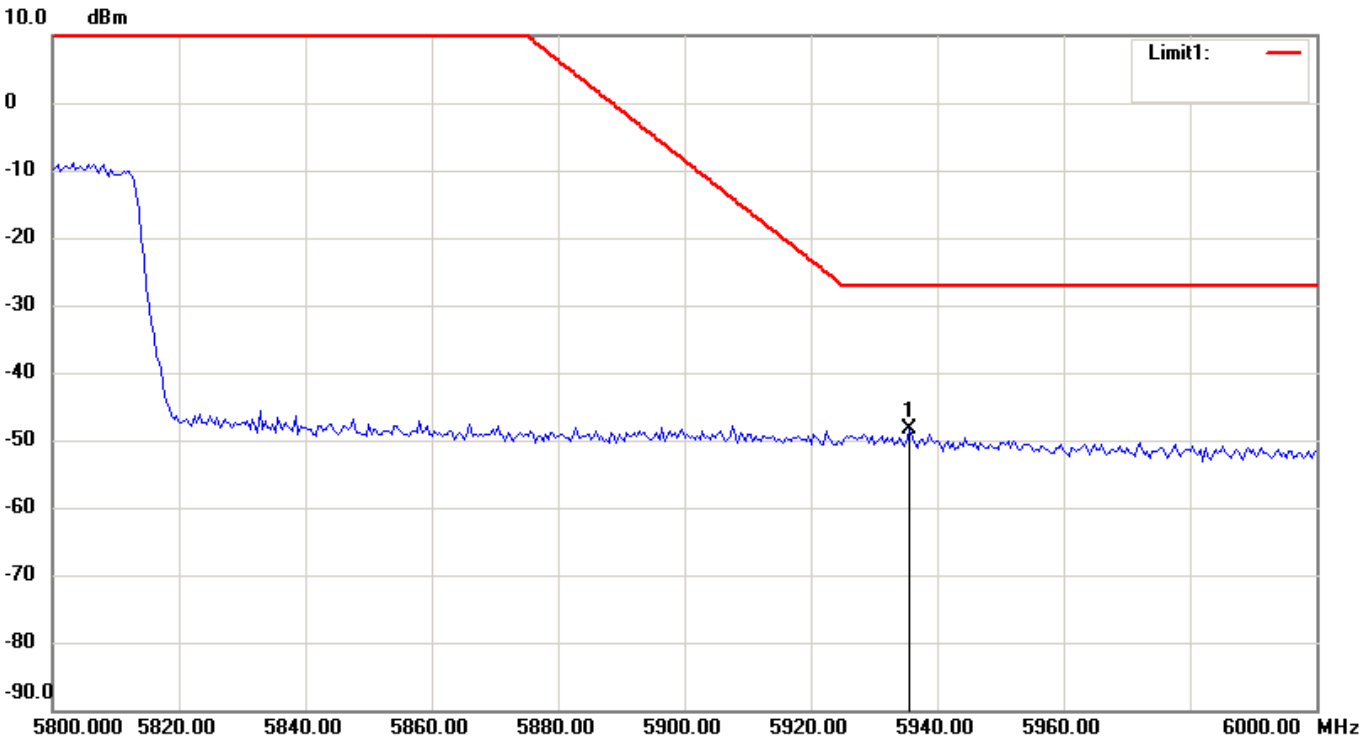
#9

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

RF Conducted

EUT: CV1 21 WIDE AVN

Sweep Time: 1ms Att.: 15dB

Model: VN251ASGG

RBW: 1000 KHz VBW: 3000 KHz

Test Mode: UNII

Operator: Phillip

Note: NCC_LP0002_802.11ac80 Channel 155_High_Bandedge

No.	Frequency(MHz)	Level(dBm)
1	5935.60000	-48.44

File: 21-08-MAW-005_5-8ac80

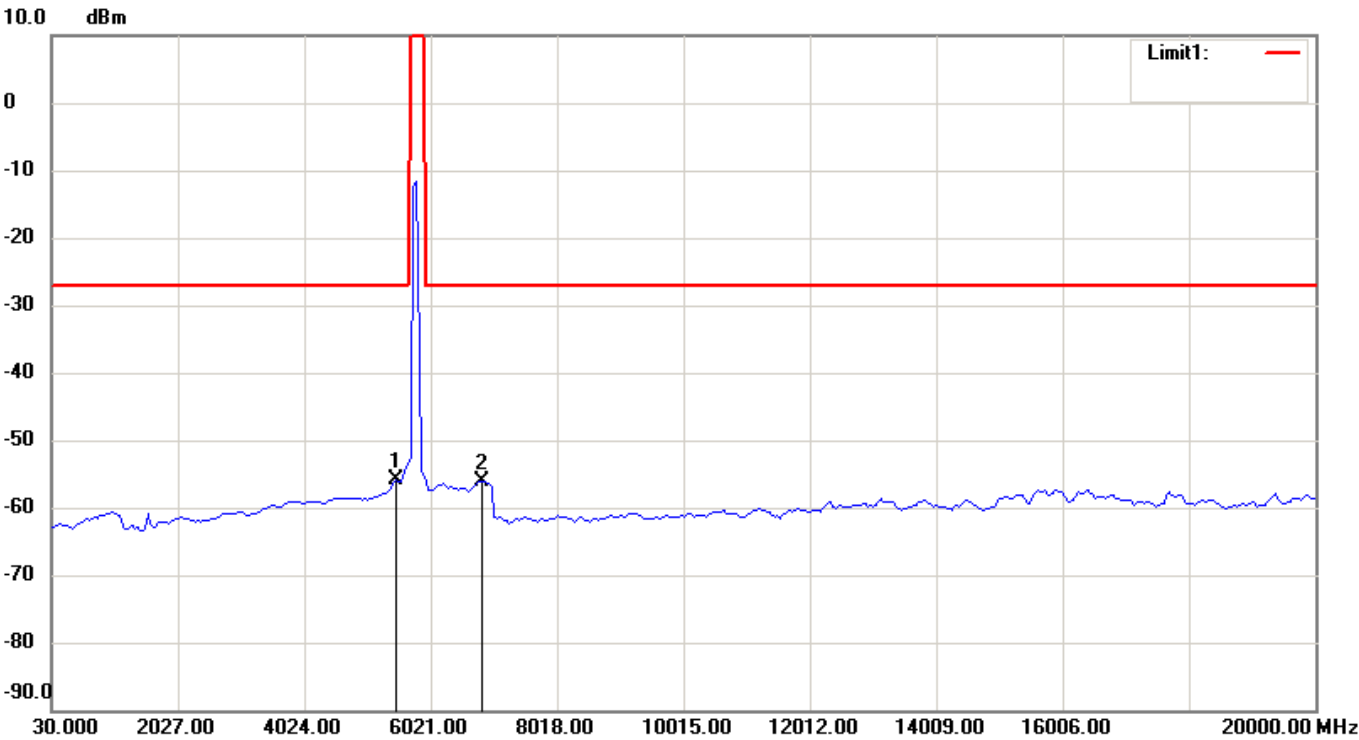
#6

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

EUT: CV1 21 WIDE AVN

Model: VN251ASGG

Test Mode: UNII

Note: NCC_LP0002_802.11ac80_Channel 155_Spurious-1

RF Conducted

Sweep Time: 79.9ms

RBW: 1000 KHz

Operator:

Att.: 15dB

VBW: 1000 KHz

Phillip

No.	Frequency(MHz)	Level(dBm)
1	5461.84000	-55.95
2	6819.80000	-56.07

File: 21-08-MAW-005_5-8ac80

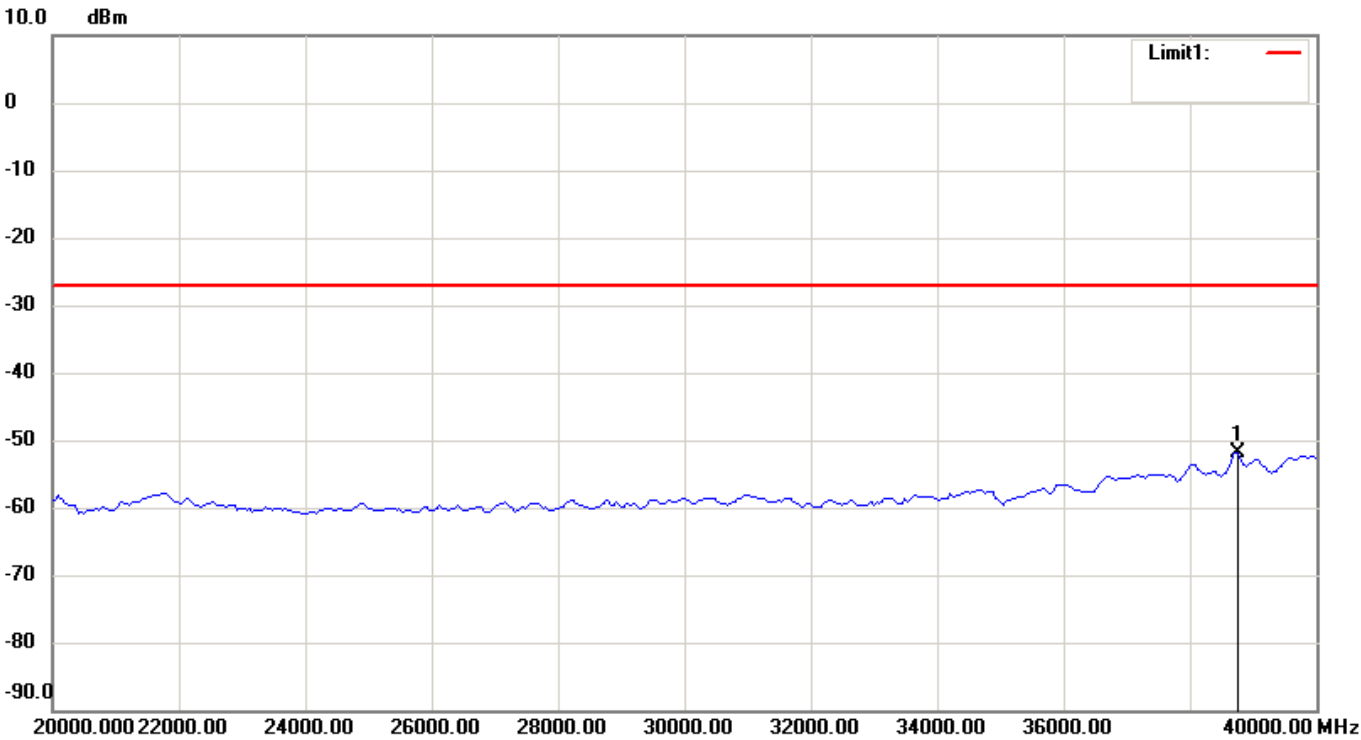
#7

Date: 2021/9/13

Temperature: 25 °C

Site: RF-Cond01

Humidity: 50 %



Condition: UNII-Band-4-Bandedge

RF Conducted

EUT: CV1 21 WIDE AVN

Sweep Time: 80ms Att.: 15dB

Model: VN251ASGG

RBW: 1000 KHz VBW: 1000 KHz

Test Mode: UNII

Operator: Phillip

Note: NCC_LP0002_802.11ac80_Channel 155_Spurious-2

No.	Frequency(MHz)	Level(dBm)
1	38760.00000	-51.87

10 場強輻射之量測

10.1 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5.7.4.5節之規定，在 1GHz 以下的不必要之發射，應符合第 3.6節之規定，任何使用交流市電為供應電之設備亦須符合第 3.3節之電源線傳導限制值。

依據國家通訊傳播委員會低功率射頻器材技術規範 5.7.4.6節之要求，不必要發射頻率屬 3.5 節規定頻段者，應符合3.6 節之規定。

10.2 量測方法

將待測物置於非金屬桌面，使其在測試模式狀態，且設定為高、中、低各頻道產生最高最大傳導輸出功率的傳輸速率，接收天線置於3米外，且桌面要360度旋轉，另外接收天線也要從1米至4米升降變化，接收天線置於水平、垂直極向各執行測試一次。待測物若為手持式則分別要以三軸相放置，並分別測試以找出最大輻射電場強度。

10.3 量測場強輻射之儀器

(1)量測儀器

儀器名稱	廠 牌	型 號
EMI Receiver	R&S	ESCI
Spectrum Analyzer	R&S	FSU46
Spectrum Analyzer	R&S	FSV40
Horn Antenna	EMCO	3117
Horn Antenna	EMCO	3116
PRE-Amplifier	Agilent	8449B
PRE-Amplifier	Agilent	8447D
BiLog Antenna	ETC	MCTD 2786
Trilog Broadband Antenna with 5dB Pad	SCHWARZBECK&EMCI	VULB 9168 & EMCI-N-6-05
PRE-Amplifier	Agilent	83051A

測試軟體: LZ-RF (Ver. ETC-3A2)

(2)儀器設定

Frequency Bnd (MHz)	Instrument	Function	Resolution Bndwidth	Video Bndwidth
30 to 1000	RF Test Receiver	Quasi-Peak	120 kHz	300 kHz
	RF Test Receiver	Peak	120 kHz	300 kHz
Above 1000	Spectrum Analyzer	Peak	1 MHz	1 MHz
	Spectrum Analyzer	Average	1 MHz	10 Hz

10.4 場強度之計算

場強之計算公式如下

$$\text{結果值} = \text{讀值} + \text{校正因子}$$

其中校正因子為：

天線因子+ 饋線損失+ 濾波器損失（若有使用）- 放大器增益（若有使用）
量測結果請見下頁。

10.5 場強輻射之量測結果

測試工程師: 羅世勇

10.5.1 諧波發射量測值

10.5.1.1 調變技術: IEEE 802.11a

a. Channel Low

操作模式 : 發射接收

基本波頻率 : 5745 MHz

測試日期: Oct. 01, 2021

環境溫度: 23°C

環境濕度: 60%

輻射 頻率	天線 極性	機器讀值 (dBuV/m)@3m		校正 因子	結果值 (dBuV/m)@3m		限制值 (dBuV/m)@3m		餘裕值 (worse)
(MHz)	H/V	Peak	AVG	(dB)	Peak	AVG	Peak	AVG	(dB)
11490.0000	H	---	---	8.0	---	---	74.0	54.0	---
11490.0000	V	---	---	8.0	---	---	74.0	54.0	---
17235.0000	H	---	---	13.5	---	---	74.0	54.0	---
17235.0000	V	---	---	13.5	---	---	74.0	54.0	---
22980.0000	H	---	---	19.5	---	---	74.0	54.0	---
22980.0000	V	---	---	19.5	---	---	74.0	54.0	---
28725.0000	H	---	---	21.1	---	---	74.0	54.0	---
28725.0000	V	---	---	21.1	---	---	74.0	54.0	---

註：1. 標記“---”表發射之訊號太弱而儀器無法量測。

2. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

3. 量測不準確度:

VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$); HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)

VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$); HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)

VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$); HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

b. Channel Mid

操作模式：發射接收

基本波頻率：5785MHz

測試日期: Oct. 01, 2021

環境溫度: 23°C

環境濕度: 60%

輻射 頻率	天線 極性	機器讀值 (dBuV/m)@3m		校正 因子	結果值 (dBuV/m)@3m		限制值 (dBuV/m)@3m		餘裕值 (worse)
(MHz)	H/V	Peak	AVG	(dB)	Peak	AVG	Peak	AVG	(dB)
11570.0000	H	---	---	8.0	---	---	74.0	54.0	---
11570.0000	V	---	---	8.0	---	---	74.0	54.0	---
17355.0000	H	---	---	14.3	---	---	74.0	54.0	---
17355.0000	V	---	---	14.3	---	---	74.0	54.0	---
23140.0000	H	---	---	19.4	---	---	74.0	54.0	---
23140.0000	V	---	---	19.4	---	---	74.0	54.0	---
28925.0000	H	---	---	21.1	---	---	74.0	54.0	---
28925.0000	V	---	---	21.1	---	---	74.0	54.0	---

註：1. 標記“---”表發射之訊號太弱而儀器無法量測。

2. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

3. 量測不準確度:

VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$); HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$); HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$); HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

c. Channel High

操作模式：發射接收

基本波頻率：5825MHz

測試日期: Oct. 01, 2021

環境溫度: 23°C

環境濕度: 60%

輻射 頻率	天線 極性	機器讀值 (dBuV/m)@3m		校正 因子	結果值 (dBuV/m)@3m		限制值 (dBuV/m)@3m		餘裕值 (worse)
(MHz)	H/V	Peak	AVG	(dB)	Peak	AVG	Peak	AVG	(dB)
11650.0000	H	---	---	8.1	---	---	74.0	54.0	---
11650.0000	V	---	---	8.1	---	---	74.0	54.0	---
17475.0000	H	---	---	15.2	---	---	74.0	54.0	---
17475.0000	V	---	---	15.2	---	---	74.0	54.0	---
23300.0000	H	---	---	19.4	---	---	74.0	54.0	---
23300.0000	V	---	---	19.4	---	---	74.0	54.0	---
29125.0000	H	---	---	21.2	---	---	74.0	54.0	---
29125.0000	V	---	---	21.2	---	---	74.0	54.0	---

註：1. 標記“---”表發射之訊號太弱而儀器無法量測。

2. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

3. 量測不準確度:

VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$); HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$); HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$); HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

10.5.1.2 調變技術: IEEE 802.11ac VHT20

a. Channel Low

操作模式：發射接收

基本波頻率：5745 MHz

測試日期: Oct. 01, 2021

環境溫度: 23°C

環境濕度: 60%

輻射 頻率	天線 極性	機器讀值 (dBuV/m)@3m		校正 因子	結果值 (dBuV/m)@3m		限制值 (dBuV/m)@3m		餘裕值 (worse) (dB)
		Peak	AVG		Peak	AVG	Peak	AVG	
(MHz)	H/V			(dB)					
11490.0000	H	---	---	8.0	---	---	74.0	54.0	---
11490.0000	V	---	---	8.0	---	---	74.0	54.0	---
17235.0000	H	---	---	13.5	---	---	74.0	54.0	---
17235.0000	V	---	---	13.5	---	---	74.0	54.0	---
22980.0000	H	---	---	19.5	---	---	74.0	54.0	---
22980.0000	V	---	---	19.5	---	---	74.0	54.0	---
28725.0000	H	---	---	21.1	---	---	74.0	54.0	---
28725.0000	V	---	---	21.1	---	---	74.0	54.0	---

註：1. 標記“---”表發射之訊號太弱而儀器無法量測。

2. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

3. 量測不準確度:

VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$); HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$); HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$); HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

b. Channel Mid

操作模式：發射接收

基本波頻率：5785MHz

測試日期: Oct. 01, 2021

環境溫度: 23°C

環境濕度: 60%

輻射 頻率	天線 極性	機器讀值 (dBuV/m)@3m		校正 因子	結果值 (dBuV/m)@3m		限制值 (dBuV/m)@3m		餘裕值 (worse)
(MHz)	H/V	Peak	AVG	(dB)	Peak	AVG	Peak	AVG	(dB)
11570.0000	H	---	---	8.0	---	---	74.0	54.0	---
11570.0000	V	---	---	8.0	---	---	74.0	54.0	---
17355.0000	H	---	---	14.3	---	---	74.0	54.0	---
17355.0000	V	---	---	14.3	---	---	74.0	54.0	---
23140.0000	H	---	---	19.4	---	---	74.0	54.0	---
23140.0000	V	---	---	19.4	---	---	74.0	54.0	---
28925.0000	H	---	---	21.1	---	---	74.0	54.0	---
28925.0000	V	---	---	21.1	---	---	74.0	54.0	---

註：1. 標記“---”表發射之訊號太弱而儀器無法量測。

2. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

3. 量測不準確度:

VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$); HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$); HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$); HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

c. Channel High

操作模式：發射接收

基本波頻率：5825MHz

測試日期: Oct. 01, 2021

環境溫度: 23°C

環境濕度: 60%

輻射 頻率	天線 極性	機器讀值 (dBuV/m)@3m		校正 因子	結果值 (dBuV/m)@3m		限制值 (dBuV/m)@3m		餘裕值 (worse)
(MHz)	H/V	Peak	AVG	(dB)	Peak	AVG	Peak	AVG	(dB)
11650.0000	H	---	---	8.1	---	---	74.0	54.0	---
11650.0000	V	---	---	8.1	---	---	74.0	54.0	---
17475.0000	H	---	---	15.2	---	---	74.0	54.0	---
17475.0000	V	---	---	15.2	---	---	74.0	54.0	---
23300.0000	H	---	---	19.4	---	---	74.0	54.0	---
23300.0000	V	---	---	19.4	---	---	74.0	54.0	---
29125.0000	H	---	---	21.2	---	---	74.0	54.0	---
29125.0000	V	---	---	21.2	---	---	74.0	54.0	---

註：1. 標記“---”表發射之訊號太弱而儀器無法量測。

2. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

3. 量測不準確度:

VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$); HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$); HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$); HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

10.5.1.3 調變技術: IEEE 802.11ac VHT40

a. Channel Low

操作模式：發射接收

基本波頻率：5755 MHz

測試日期: Oct. 01, 2021

環境溫度: 23°C

環境濕度: 60%

輻射 頻率	天線 極性	機器讀值 (dBuV/m)@3m		校正 因子	結果值 (dBuV/m)@3m		限制值 (dBuV/m)@3m		餘裕值 (worse)
		Peak	AVG		Peak	AVG	Peak	AVG	
(MHz)	H/V			(dB)					(dB)
11510.0000	H	---	---	8.0	---	---	74.0	54.0	---
11510.0000	V	---	---	8.0	---	---	74.0	54.0	---
17265.0000	H	---	---	13.7	---	---	74.0	54.0	---
17265.0000	V	---	---	13.7	---	---	74.0	54.0	---
23020.0000	H	---	---	19.5	---	---	74.0	54.0	---
23020.0000	V	---	---	19.5	---	---	74.0	54.0	---
28775.0000	H	---	---	21.1	---	---	74.0	54.0	---
28775.0000	V	---	---	21.1	---	---	74.0	54.0	---

註：1. 標記“---”表發射之訊號太弱而儀器無法量測。

2. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

3. 量測不準確度：

VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$) ; HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$) ; HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$) ; HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

b. Channel High

操作模式：發射接收

基本波頻率：5795 MHz

測試日期: Oct. 01, 2021

環境溫度: 23°C

環境濕度: 60%

輻射 頻率	天線 極性	機器讀值 (dBuV/m)@3m		校正 因子	結果值 (dBuV/m)@3m		限制值 (dBuV/m)@3m		餘裕值 (worse)
(MHz)	H/V	Peak	AVG	(dB)	Peak	AVG	Peak	AVG	(dB)
11590.0000	H	---	---	8.0	---	---	74.0	54.0	---
11590.0000	V	---	---	8.0	---	---	74.0	54.0	---
17385.0000	H	---	---	14.6	---	---	74.0	54.0	---
17385.0000	V	---	---	14.6	---	---	74.0	54.0	---
23180.0000	H	---	---	19.4	---	---	74.0	54.0	---
23180.0000	V	---	---	19.4	---	---	74.0	54.0	---
28975.0000	H	---	---	21.1	---	---	74.0	54.0	---
28975.0000	V	---	---	21.1	---	---	74.0	54.0	---

註：1. 標記“---”表發射之訊號太弱而儀器無法量測。

2. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

3. 量測不準確度:

VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$); HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$); HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$); HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

10.5.1.4 調變技術: IEEE 802.11ac VHT80

操作模式：發射接收

基本波頻率：5775 MHz

測試日期: Oct. 01, 2021

環境溫度: 23°C

環境濕度: 60%

輻射 頻率	天線 極性	機器讀值 (dBuV/m)@3m		校正 因子	結果值 (dBuV/m)@3m		限制值 (dBuV/m)@3m		餘裕值 (worse)
(MHz)	H/V	Peak	AVG	(dB)	Peak	AVG	Peak	AVG	(dB)
11550.0000	H	---	---	8.0	---	---	74.0	54.0	---
11550.0000	V	---	---	8.0	---	---	74.0	54.0	---
17325.0000	H	---	---	14.2	---	---	74.0	54.0	---
17325.0000	V	---	---	14.2	---	---	74.0	54.0	---
23100.0000	H	---	---	19.5	---	---	74.0	54.0	---
23100.0000	V	---	---	19.5	---	---	74.0	54.0	---
28875.0000	H	---	---	21.1	---	---	74.0	54.0	---
28875.0000	V	---	---	21.1	---	---	74.0	54.0	---

註：1. 標記“---”表發射之訊號太弱而儀器無法量測。

2. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

3. 量測不準確度：

VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$) ; HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)

VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$) ; HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)

VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$) ; HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

10.5.2 諧波及其它不必要之訊號測試圖

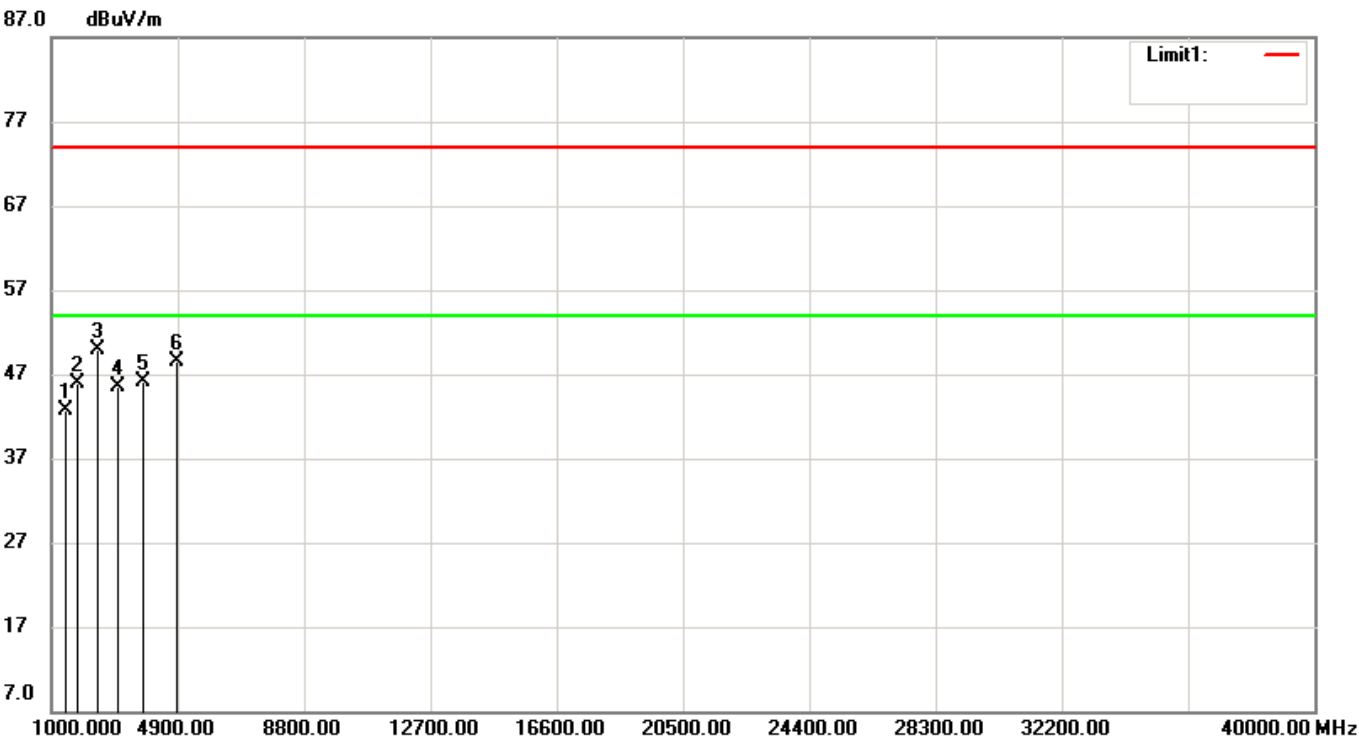
10.5.2.1 調變技術: IEEE 802.11a

a. Channel Low

操作模式：發射接收

基本波頻率：5745 MHz

File: 21-08-MAW-005_5-8a #21 Date: 2021/10/1 Temperature: 23 °C
Site: RE02-EMC B1-N2 Humidity: 60 %



Condition: NCC_Above1G_Pk Polarization: Horizontal
EUT: CV1 21 WIDE AVM Distance: 3m
Model: VN251ASGG
Test Mode: UNII Operator: Phillip
Note: CH LOW-1

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	1401.32210	50.95	peak	-8.21	42.74	74.00	-31.26
2	1757.21150	51.67	peak	-5.85	45.82	74.00	-28.18
3	2415.98550	52.71	peak	-2.84	49.87	74.00	-24.13
4	3044.47110	47.45	peak	-1.96	45.49	74.00	-28.51
5	3786.53840	46.70	peak	-0.65	46.05	74.00	-27.95
6	4861.77880	47.31	peak	1.28	48.59	74.00	-25.41

註：1. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

2. 量測不準確度:

VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$) ; HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)

VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$) ; HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)

VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$) ; HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

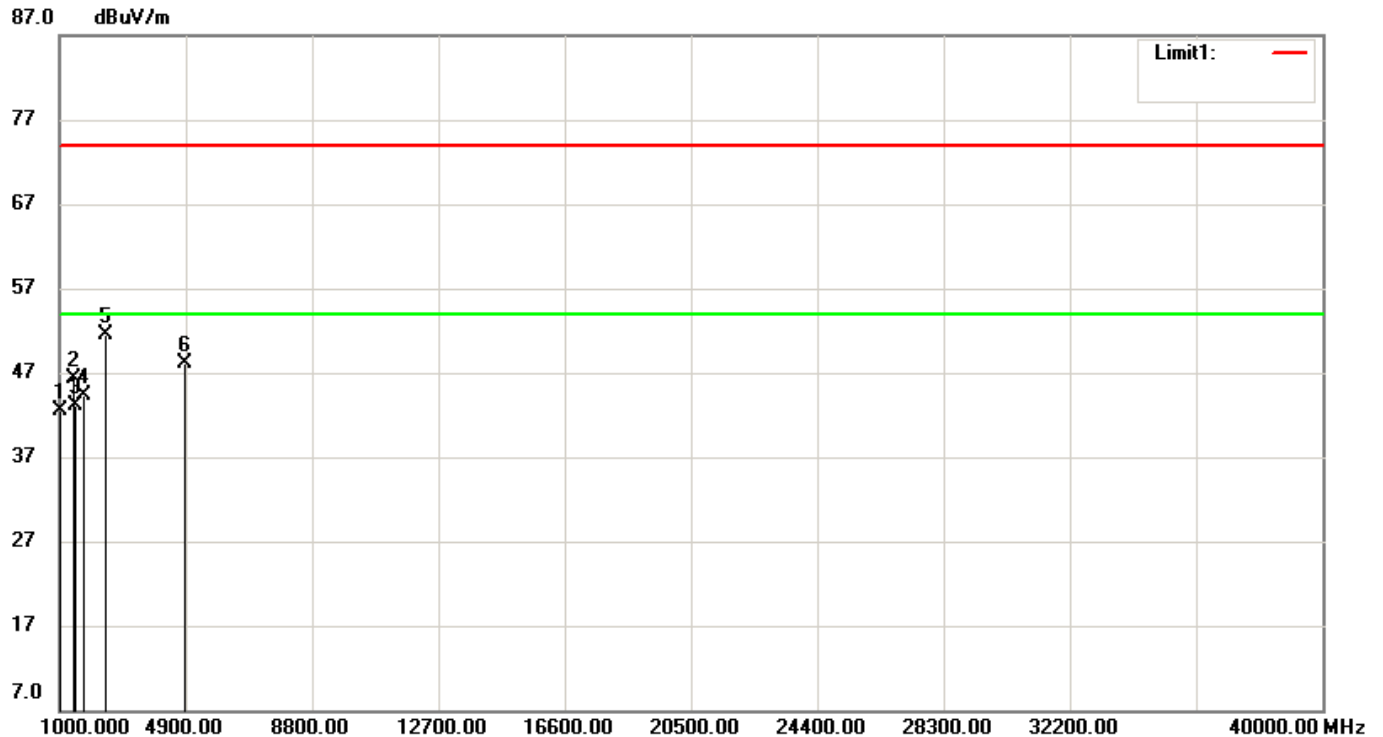
操作模式：發射接收
基本波頻率：5745 MHz

File: 21-08-MAW- #22
005_5-8a
Site: RE02-EMC
B1-N2

Date: 2021/10/1

Temperature: 23 °C

Humidity: 60 %



Condition: NCC_Above1G_Pk
EUT: CV1 21 WIDE AVM
Model: VN251ASGG
Test Mode: UNII
Note: CH LOW-1

Polarization: Vertical
Distance: 3m
Operator: Phillip

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	1037.86050	51.78	peak	-9.35	42.43	74.00	-31.57
2	1386.17780	54.51	peak	-8.26	46.25	74.00	-27.75
3	1492.18750	51.07	peak	-7.92	43.15	74.00	-30.85
4	1742.06730	50.19	peak	-5.98	44.21	74.00	-29.79
5	2431.12980	54.37	peak	-2.79	51.58	74.00	-22.42
6	4816.34610	46.88	peak	1.13	48.01	74.00	-25.99

註：1. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

2. 量測不準確度：

VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$) ; HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)

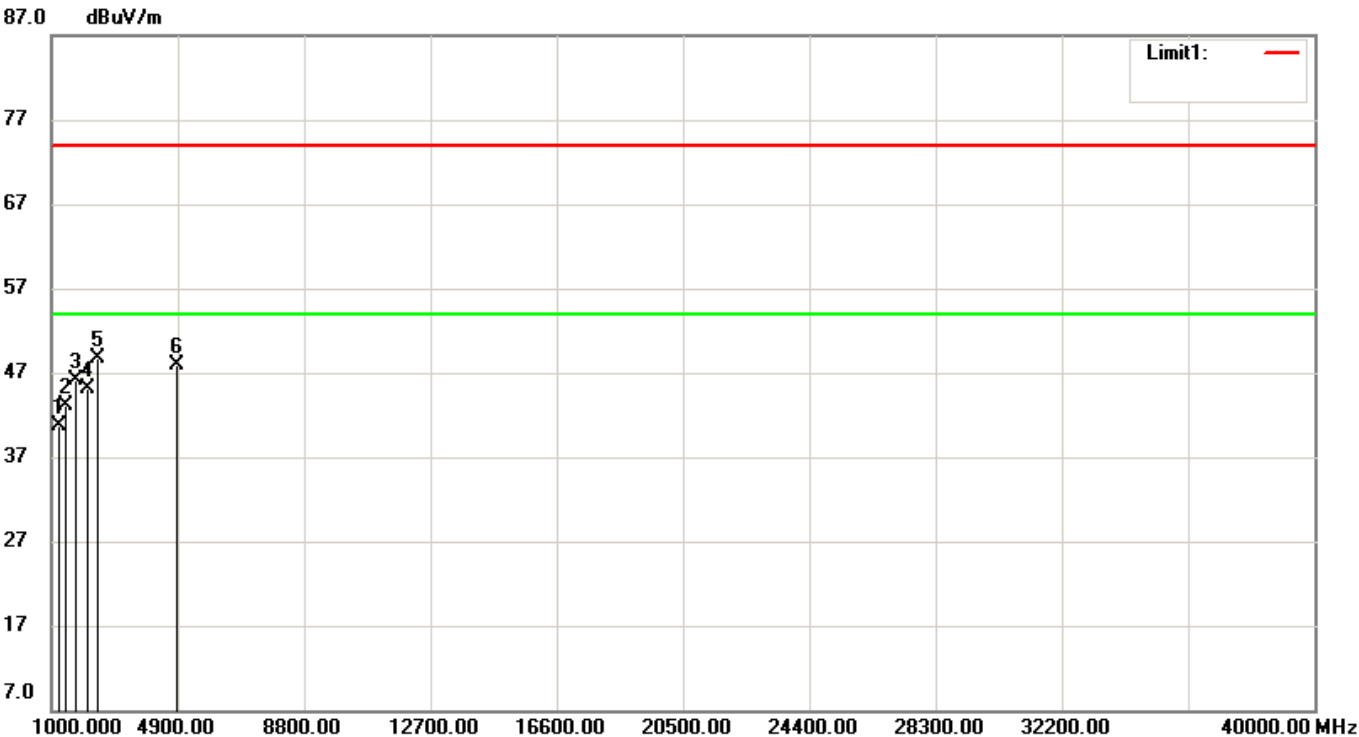
VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$) ; HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)

VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$) ; HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

b. Channel Mid

操作模式：發射接收
基本波頻率：5785 MHz

File: 21-08-MAW-#23 Date: 2021/10/1 Temperature: 23 °C
Site: RE02-EMC Humidity: 60 %
B1-N2



Condition: NCC_Above1G_Pk Polarization: Horizontal
EUT: CV1 21 WIDE AVM Distance: 3m
Model: VN251ASGG
Test Mode: UNII Operator: Phillip
Note: CH MID-1

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	1204.44710	49.52	peak	-8.83	40.69	74.00	-33.31
2	1393.75000	51.39	peak	-8.22	43.17	74.00	-30.83
3	1734.49510	52.17	peak	-6.03	46.14	74.00	-27.86
4	2082.81250	48.83	peak	-3.71	45.12	74.00	-28.88
5	2431.12980	51.49	peak	-2.79	48.70	74.00	-25.30
6	4869.35100	46.69	peak	1.30	47.99	74.00	-26.01

註：1. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

2. 量測不準確度:
- VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$) ;HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)
VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$) ;HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)
VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$) ;HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

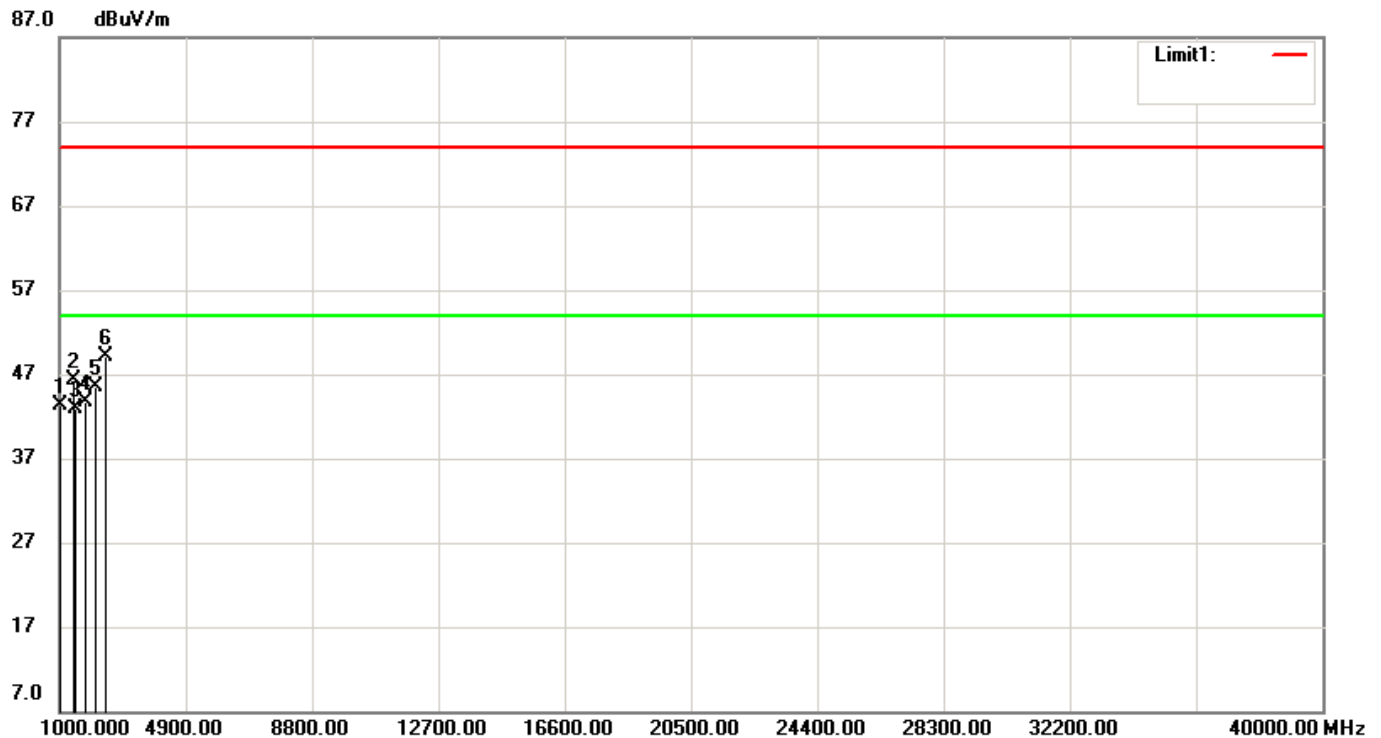
操作模式：發射接收
基本波頻率：5785 MHz

File: 21-08-MAW- #24
005_5-8a
Site: RE02-EMC
B1-N2

Date: 2021/10/1

Temperature: 23 °C

Humidity: 60 %



Condition: NCC_Above1G_Pk
EUT: CV1 21 WIDE AVM
Model: VN251ASGG
Test Mode: UNII
Note: CH MID-1

Polarization: Vertical
Distance: 3m
Operator: Phillip

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	1045.43260	52.63	peak	-9.32	43.31	74.00	-30.69
2	1378.60570	54.55	peak	-8.28	46.27	74.00	-27.73
3	1492.18750	50.88	peak	-7.92	42.96	74.00	-31.04
4	1757.21150	49.64	peak	-5.85	43.79	74.00	-30.21
5	2075.24030	49.17	peak	-3.72	45.45	74.00	-28.55
6	2423.55760	51.86	peak	-2.82	49.04	74.00	-24.96

註：1. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

2. 量測不準確度：

VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$) ; HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)

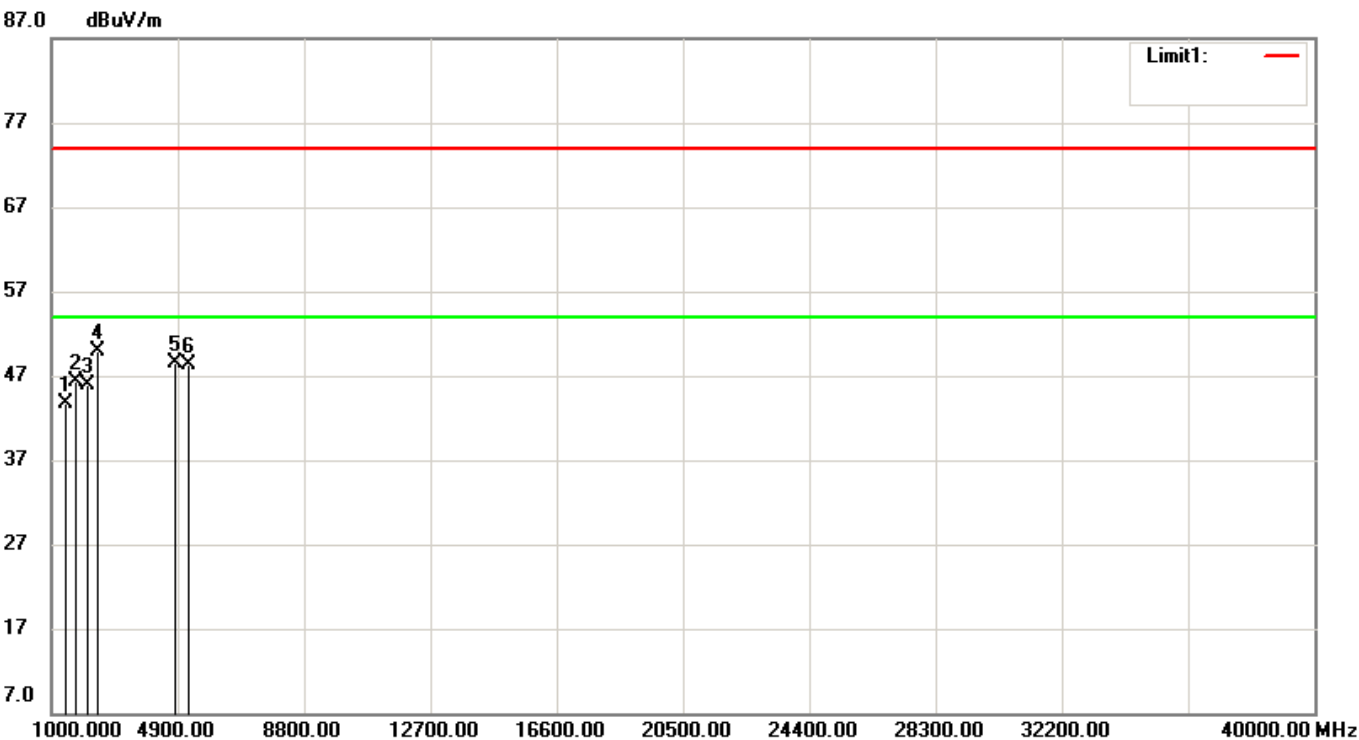
VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$) ; HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)

VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$) ; HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

c. Channel High

操作模式：發射接收
基本波頻率：5825 MHz

File: 21-08-MAW-#25 Date: 2021/10/1 Temperature: 23 °C
Site: RE02-EMC Humidity: 60 %
B1-N2



Condition: NCC_Above1G_Pk Polarization: Horizontal
EUT: CV1 21 WIDE AVM Distance: 3m
Model: VN251ASGG
Test Mode: UNII Operator: Phillip
Note: CH HIGH-1

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	1386.17780	51.96	peak	-8.26	43.70	74.00	-30.30
2	1742.06730	52.29	peak	-5.98	46.31	74.00	-27.69
3	2105.52880	49.52	peak	-3.64	45.88	74.00	-28.12
4	2431.12980	52.70	peak	-2.79	49.91	74.00	-24.09
5	4778.48550	47.52	peak	0.99	48.51	74.00	-25.49
6	5225.24030	46.33	peak	1.95	48.28	74.00	-25.72

註：1. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

2. 量測不準確度:
- VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$) ; HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)
VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$) ; HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)
VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$) ; HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

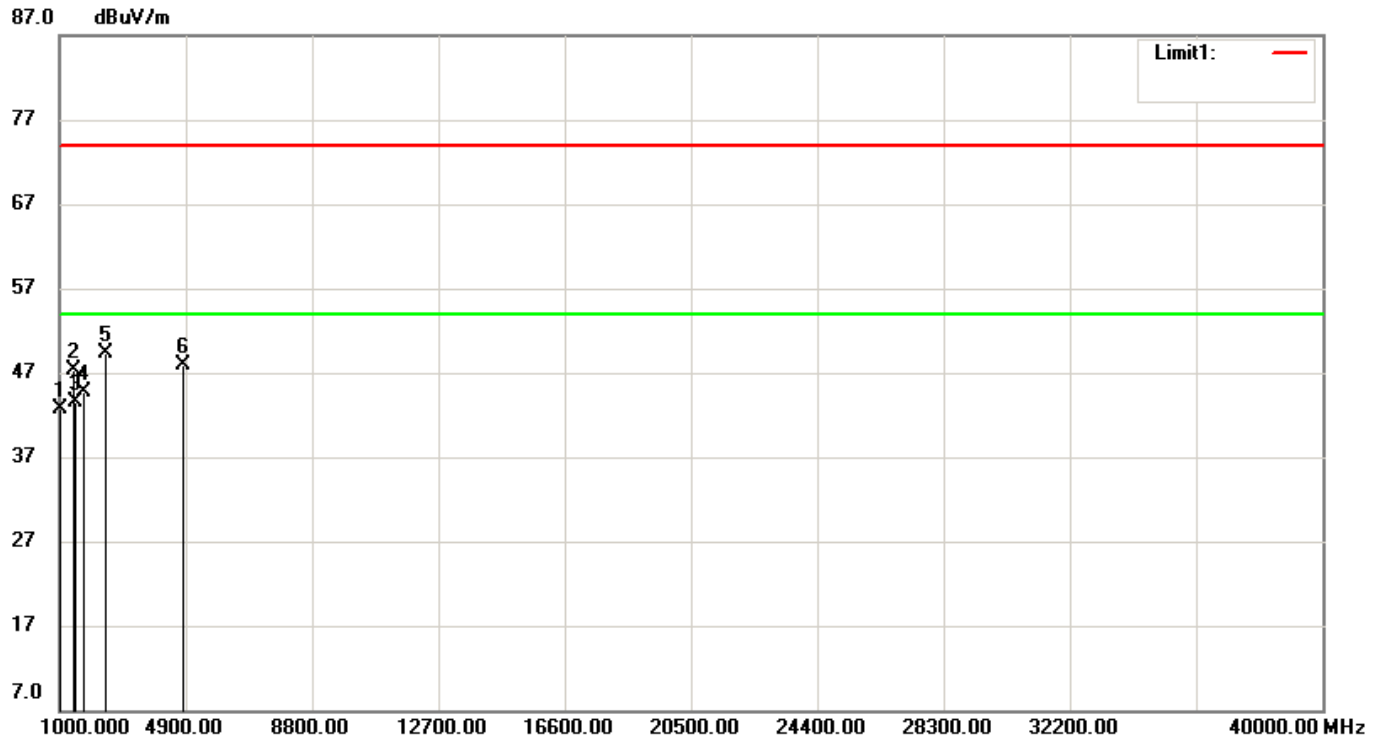
操作模式：發射接收
基本波頻率：5825 MHz

File: 21-08-MAW- #26
005_5-8a
Site: RE02-EMC
B1-N2

Date: 2021/10/1

Temperature: 23 °C

Humidity: 60 %



Condition: NCC_Above1G_Pk
EUT: CV1 21 WIDE AVM
Model: VN251ASGG
Test Mode: UNII
Note: CH HIGH-1

Polarization: Vertical
Distance: 3m
Operator: Phillip

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	1037.86050	51.99	peak	-9.35	42.64	74.00	-31.36
2	1393.75000	55.51	peak	-8.22	47.29	74.00	-26.71
3	1492.18750	51.50	peak	-7.92	43.58	74.00	-30.42
4	1742.06730	50.61	peak	-5.98	44.63	74.00	-29.37
5	2423.55760	52.09	peak	-2.82	49.27	74.00	-24.73
6	4801.20200	46.79	peak	1.07	47.86	74.00	-26.14

註：1. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

2. 量測不準確度：

VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$) ; HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)

VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$) ; HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)

VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$) ; HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

10.5.2.2 調變技術: IEEE 802.11ac VHT20

a. Channel Low

操作模式：發射接收
基本波頻率：5745 MHz

File: 21-08-MAW-005_5-8ac20

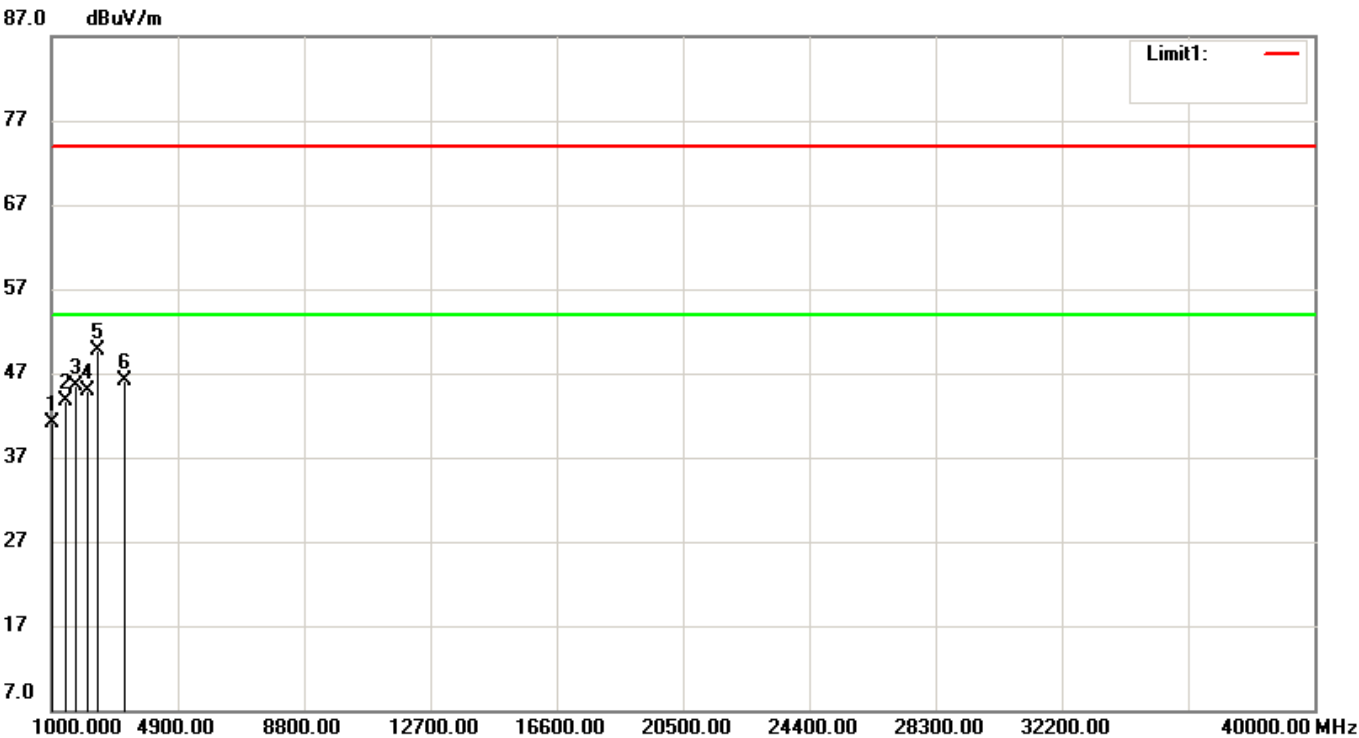
Site: RE02-EMC B1-N2

#21

Date: 2021/10/1

Temperature: 23 °C

Humidity: 63 %



Condition: NCC_Above1G_Pk

EUT: CV1 21 WIDE AVM

Model: VN251ASGG

Test Mode: UNII

Note: CH LOW-1

Polarization: Horizontal

Distance: 3m

Operator: Phillip

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	1045.43260	50.46	peak	-9.32	41.14	74.00	-32.86
2	1393.75000	51.85	peak	-8.22	43.63	74.00	-30.37
3	1742.06730	51.53	peak	-5.98	45.55	74.00	-28.45
4	2082.81250	48.61	peak	-3.71	44.90	74.00	-29.10
5	2415.98550	52.55	peak	-2.84	49.71	74.00	-24.29
6	3226.20200	47.77	peak	-1.74	46.03	74.00	-27.97

註：1. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

2. 量測不準確度:
- VER: ±5.32dB(1GHz ≤ f < 6GHz) ;HOR: ±5.05dB(1GHz ≤ f < 6GHz)
- VER: ±4.71dB(6GHz ≤ f < 18GHz) ;HOR: ±4.96dB(6GHz ≤ f < 18GHz)
- VER: ±5.37dB(18GHz ≤ f ≤ 40GHz) ;HOR: ±5.61dB(18GHz ≤ f ≤ 40GHz)

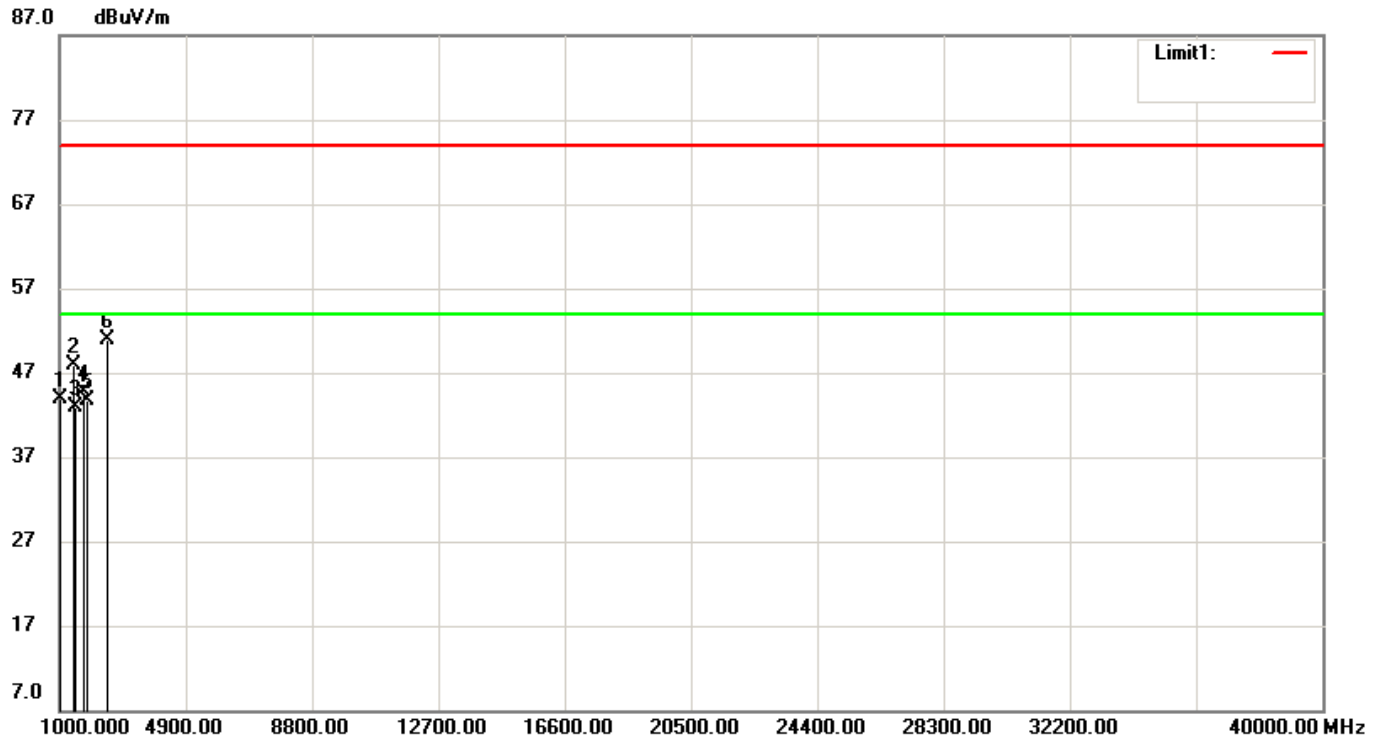
操作模式：發射接收
基本波頻率：5745 MHz

File: 21-08-MAW- #22
005_5-8ac20
Site: RE02-EMC
B1-N2

Date: 2021/10/1

Temperature: 23 °C

Humidity: 60 %



Condition: NCC_Above1G_Pk
EUT: CV1 21 WIDE AVM
Model: VN251ASGG
Test Mode: UNII
Note: CH LOW-1

Polarization: Vertical
Distance: 3m
Operator: Phillip

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	1045.43260	53.16	peak	-9.32	43.84	74.00	-30.16
2	1386.17780	56.25	peak	-8.26	47.99	74.00	-26.01
3	1492.18750	50.88	peak	-7.92	42.96	74.00	-31.04
4	1742.06730	50.67	peak	-5.98	44.69	74.00	-29.31
5	1832.93260	48.98	peak	-5.25	43.73	74.00	-30.27
6	2453.84610	53.55	peak	-2.74	50.81	74.00	-23.19

註：1. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

2. 量測不準確度：

VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$) ; HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)

VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$) ; HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)

VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$) ; HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

b. Channel Mid

操作模式：發射接收

基本波頻率：5785 MHz

File: 21-08-MAW-005_5-8ac20

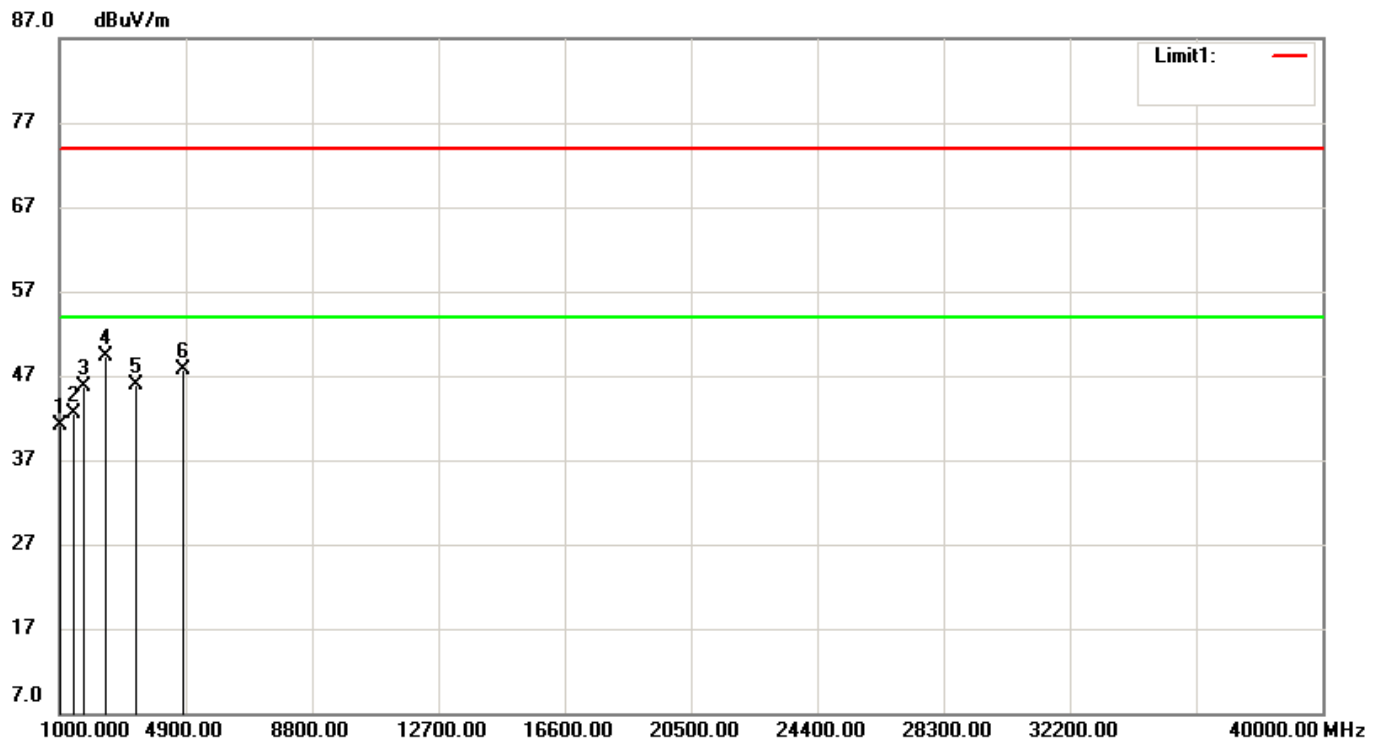
#23

Date: 2021/10/1

Temperature: 23 °C

Site: RE02-EMC
B1-N2

Humidity: 60 %



Condition: NCC_Above1G_Pk
 EUT: CV1 21 WIDE AVM
 Model: VN251ASGG
 Test Mode: UNII
 Note: CH MID-1

Polarization: Horizontal
 Distance: 3m
 Operator: Phillip

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	1037.86050	50.36	peak	-9.35	41.01	74.00	-32.99
2	1393.75000	50.80	peak	-8.22	42.58	74.00	-31.42
3	1749.63940	51.64	peak	-5.91	45.73	74.00	-28.27
4	2431.12980	52.16	peak	-2.79	49.37	74.00	-24.63
5	3354.92780	47.44	peak	-1.58	45.86	74.00	-28.14
6	4793.62980	46.64	peak	1.04	47.68	74.00	-26.32

註：1. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

2. 量測不準確度：

VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$) ; HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)

VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$) ; HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)

VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$) ; HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

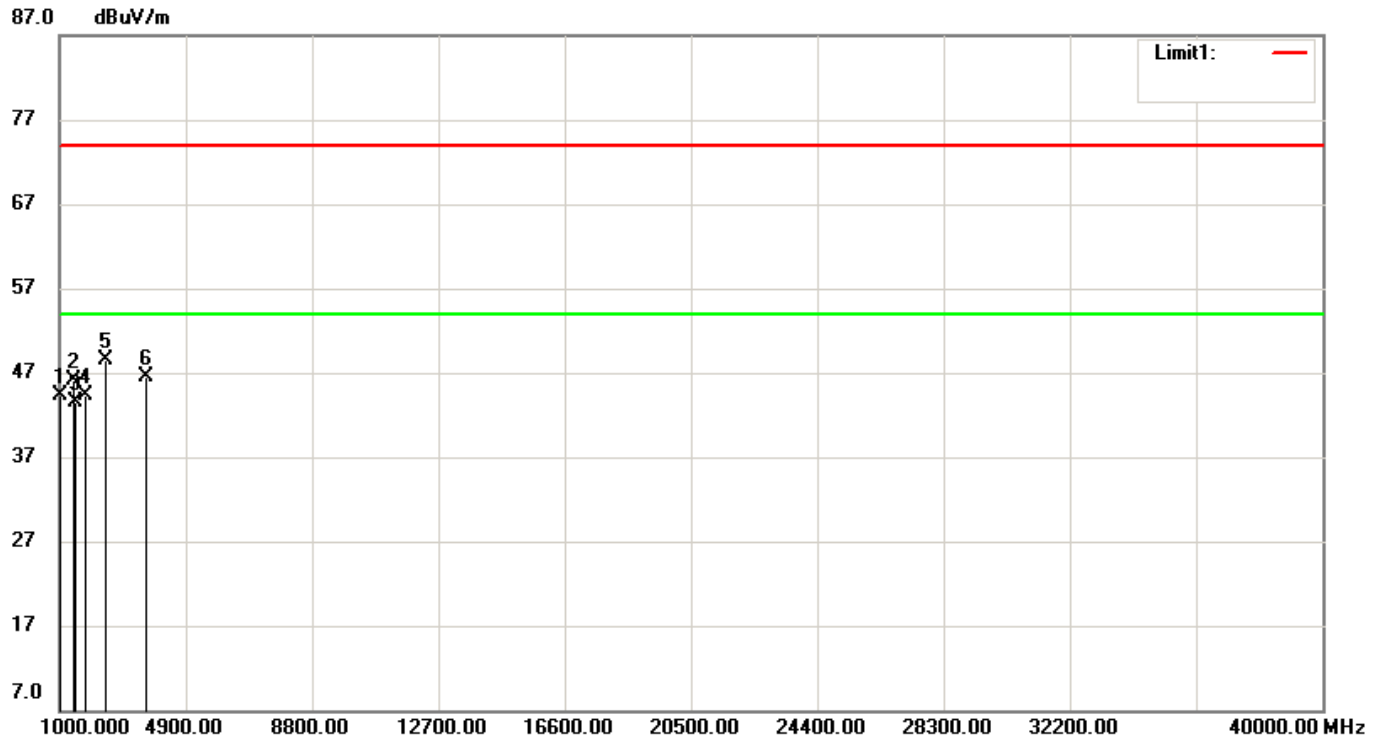
操作模式：發射接收
基本波頻率：5785 MHz

File: 21-08-MAW- #24
005_5-8ac20
Site: RE02-EMC
B1-N2

Date: 2021/10/1

Temperature: 23 °C

Humidity: 60 %



Condition: NCC_Above1G_Pk
EUT: CV1 21 WIDE AVM
Model: VN251ASGG
Test Mode: UNII
Note: CH MID-1

Polarization: Vertical
Distance: 3m
Operator: Phillip

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	1045.43260	53.66	peak	-9.32	44.34	74.00	-29.66
2	1386.17780	54.37	peak	-8.26	46.11	74.00	-27.89
3	1492.18750	51.52	peak	-7.92	43.60	74.00	-30.40
4	1757.21150	50.20	peak	-5.85	44.35	74.00	-29.65
5	2431.12980	51.31	peak	-2.79	48.52	74.00	-25.48
6	3657.81250	47.46	peak	-0.99	46.47	74.00	-27.53

註：1. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

2. 量測不準確度：

VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$) ; HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)

VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$) ; HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)

VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$) ; HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

c. Channel High

操作模式：發射接收

基本波頻率：5825 MHz

File: 21-08-MAW-005_5-8ac20

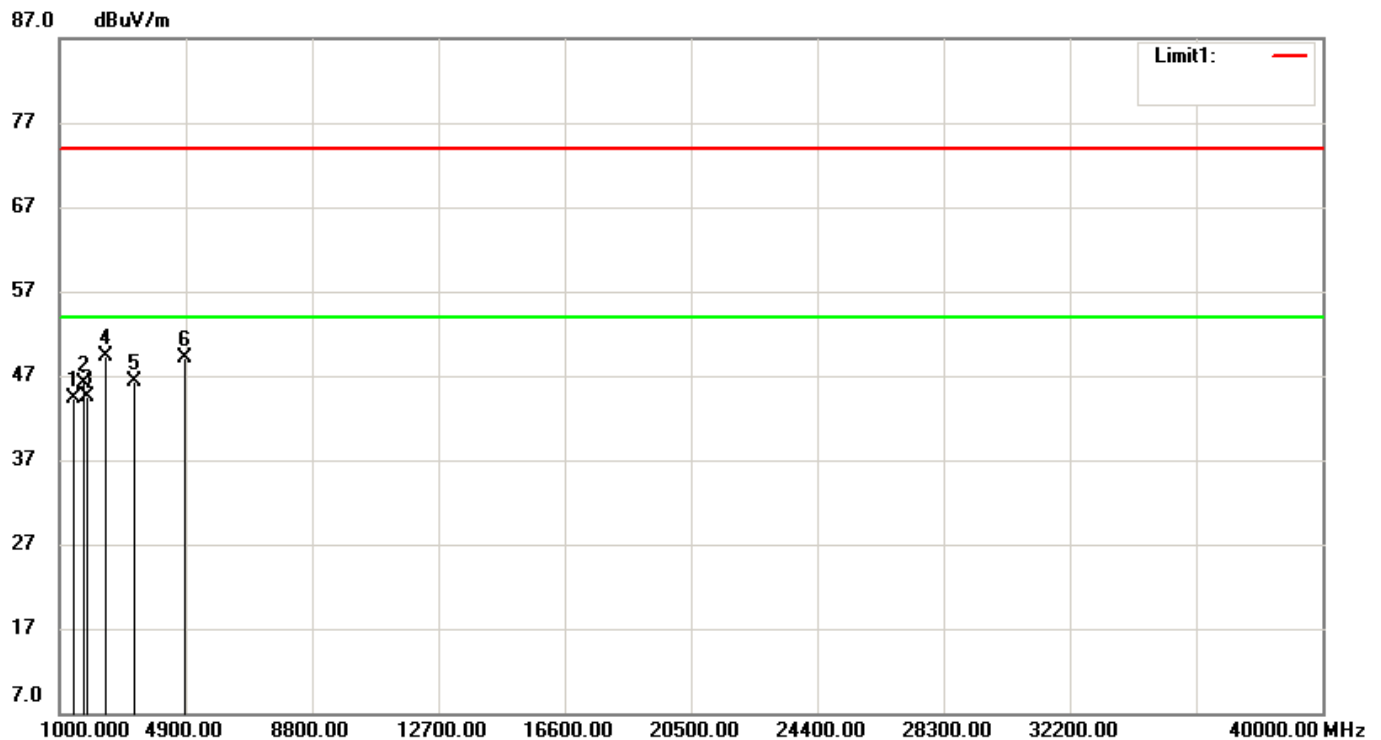
#25

Date: 2021/10/1

Temperature: 23 °C

Site: RE02-EMC
B1-N2

Humidity: 60 %



Condition: NCC_Above1G_Pk
EUT: CV1 21 WIDE AVM
Model: VN251ASGG
Test Mode: UNII
Note: CH HIGH-1

Polarization: Horizontal
Distance: 3m
Operator: Phillip

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	1378.60570	52.53	peak	-8.28	44.25	74.00	-29.75
2	1749.63940	51.92	peak	-5.91	46.01	74.00	-27.99
3	1848.07700	49.71	peak	-5.12	44.59	74.00	-29.41
4	2423.55760	52.04	peak	-2.82	49.22	74.00	-24.78
5	3309.49510	47.87	peak	-1.65	46.22	74.00	-27.78
6	4854.20670	47.87	peak	1.26	49.13	74.00	-24.87

註：1. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

2. 量測不準確度：

VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$) ; HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)

VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$) ; HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)

VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$) ; HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

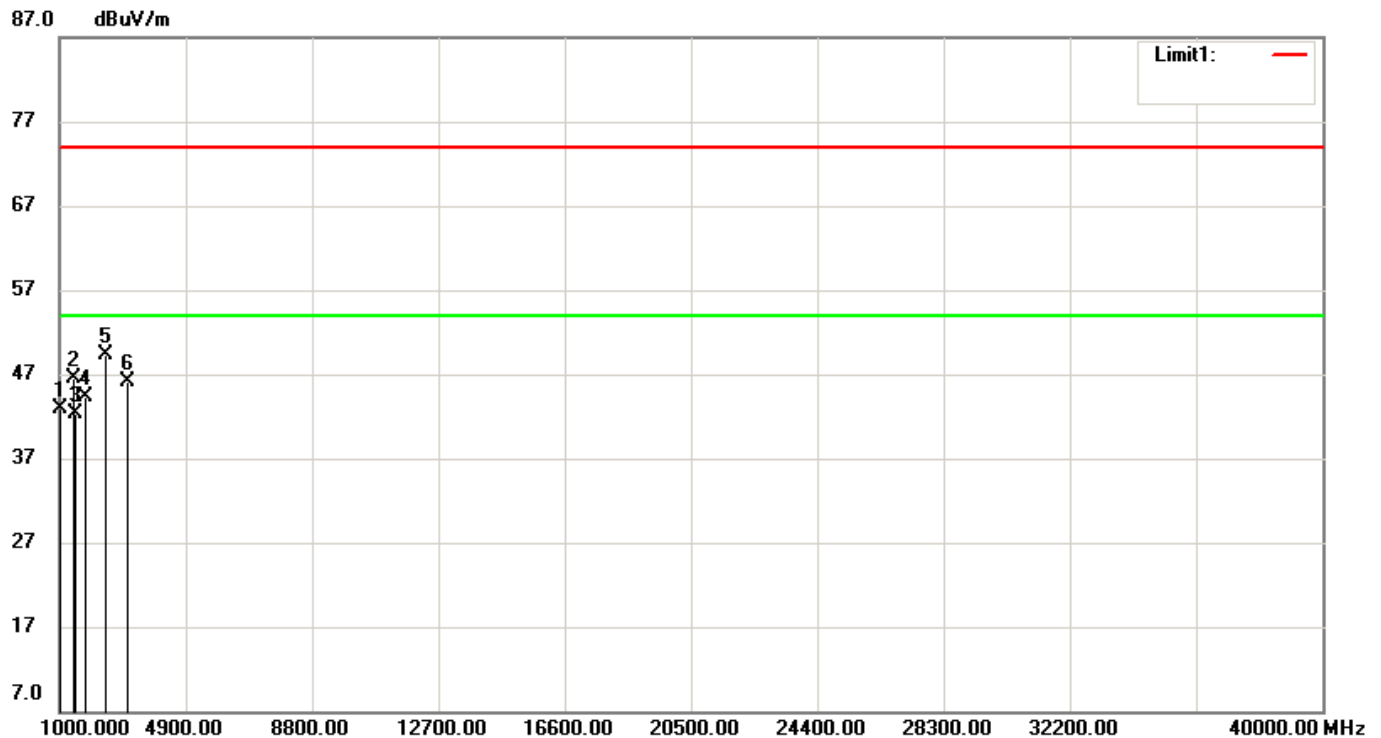
操作模式：發射接收
基本波頻率：5825 MHz

File: 21-08-MAW- #26
005_5-8ac20
Site: RE02-EMC
B1-N2

Date: 2021/10/1

Temperature: 23 °C

Humidity: 60 %



Condition: NCC_Above1G_Pk
EUT: CV1 21 WIDE AVM
Model: VN251ASGG
Test Mode: UNII
Note: CH HIGH-1

Polarization: Vertical
Distance: 3m
Operator: Phillip

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	1037.86050	52.35	peak	-9.35	43.00	74.00	-31.00
2	1401.32210	54.79	peak	-8.21	46.58	74.00	-27.42
3	1492.18750	50.32	peak	-7.92	42.40	74.00	-31.60
4	1757.21150	50.19	peak	-5.85	44.34	74.00	-29.66
5	2415.98550	52.20	peak	-2.84	49.36	74.00	-24.64
6	3067.18750	48.02	peak	-1.94	46.08	74.00	-27.92

註：1. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

2. 量測不準確度：

VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$) ; HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)

VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$) ; HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)

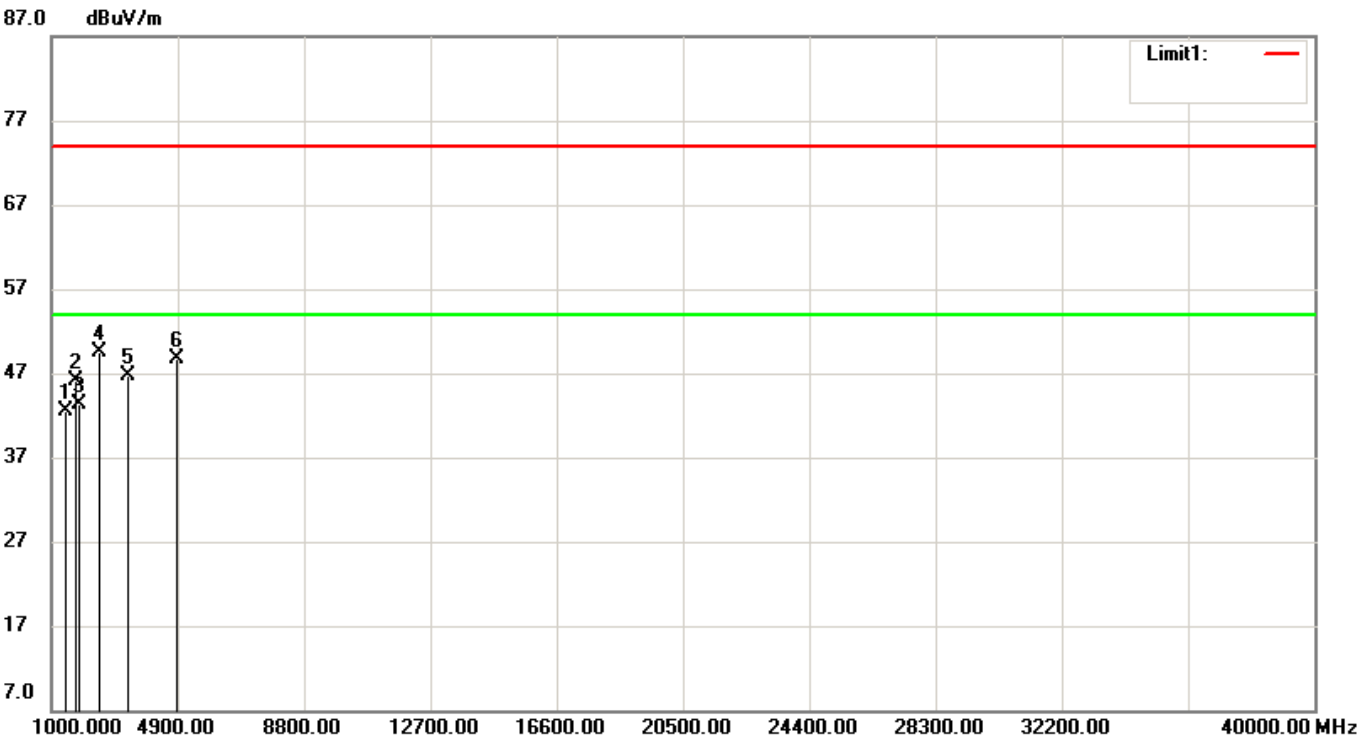
VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$) ; HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

10.5.2.3 調變技術: IEEE 802.11ac VHT40

a. Channel Low

操作模式：發射接收
基本波頻率：5755 MHz

File: 21-08-MAW-005_5-8ac40 #15 Date: 2021/10/1 Temperature: 23 °C
Site: RE02-EMC B1-N2 Humidity: 60 %



Condition: NCC_Above1G_Pk Polarization: Horizontal
EUT: CV1 21 WIDE AVM Distance: 3m
Model: VN251ASGG
Test Mode: UNII Operator: Phillip
Note: CH LOW-1

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	1401.32210	50.78	peak	-8.21	42.57	74.00	-31.43
2	1742.06730	52.05	peak	-5.98	46.07	74.00	-27.93
3	1840.50480	48.45	peak	-5.19	43.26	74.00	-30.74
4	2446.27400	52.28	peak	-2.76	49.52	74.00	-24.48
5	3354.92780	48.29	peak	-1.58	46.71	74.00	-27.29
6	4854.20670	47.38	peak	1.26	48.64	74.00	-25.36

註：1. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

2. 量測不準確度：
VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$) ;HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)
VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$) ;HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)
VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$) ;HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

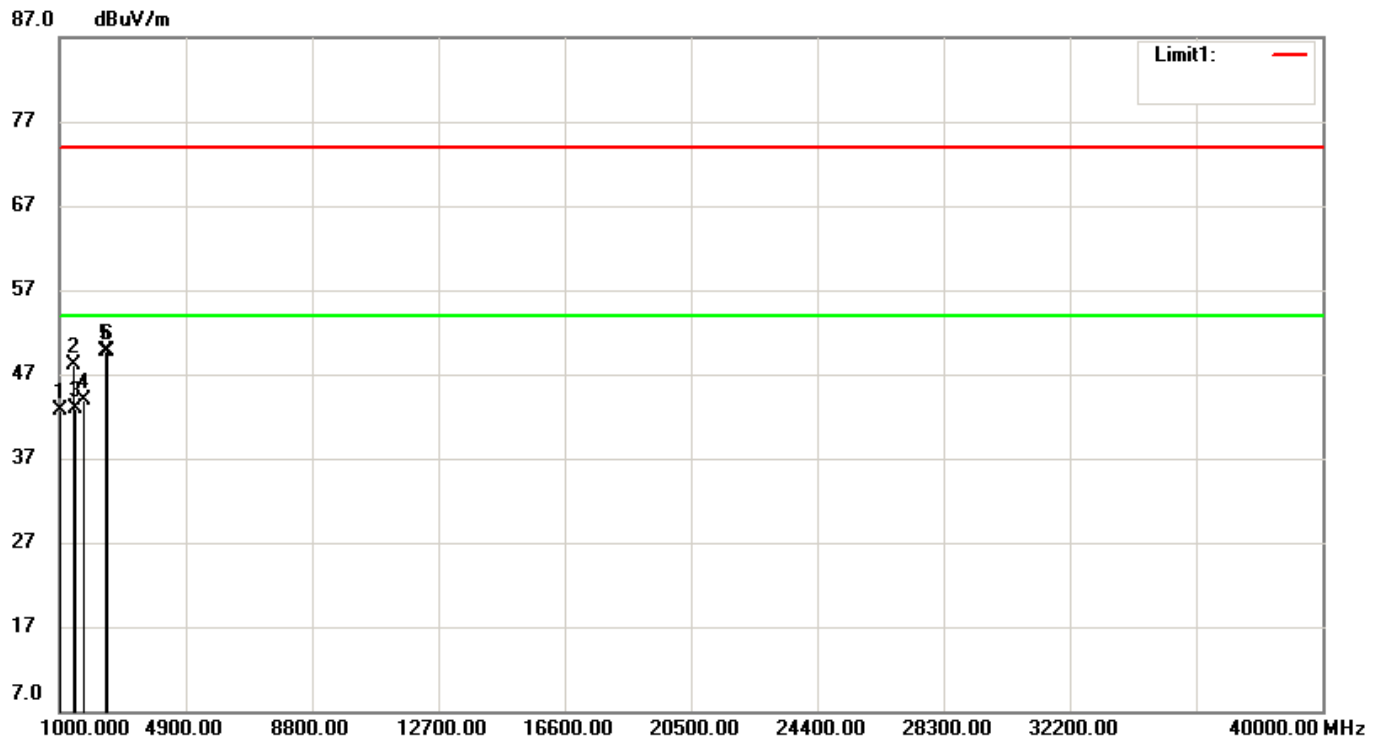
操作模式：發射接收
基本波頻率：5755 MHz

File: 21-08-MAW- #16
005_5-8ac40
Site: RE02-EMC
B1-N2

Date: 2021/10/1

Temperature: 23 °C

Humidity: 60 %



Condition: NCC_Above1G_Pk
EUT: CV1 21 WIDE AVM
Model: VN251ASGG
Test Mode: UNII
Note: CH LOW-1

Polarization: Vertical
Distance: 3m
Operator: Phillip

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	1037.86050	52.04	peak	-9.35	42.69	74.00	-31.31
2	1393.75000	56.35	peak	-8.22	48.13	74.00	-25.87
3	1492.18750	50.80	peak	-7.92	42.88	74.00	-31.12
4	1749.63940	49.87	peak	-5.91	43.96	74.00	-30.04
5	2415.98550	52.62	peak	-2.84	49.78	74.00	-24.22
6	2461.41810	52.45	peak	-2.72	49.73	74.00	-24.27

註：1. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

2. 量測不準確度：

VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$) ; HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)

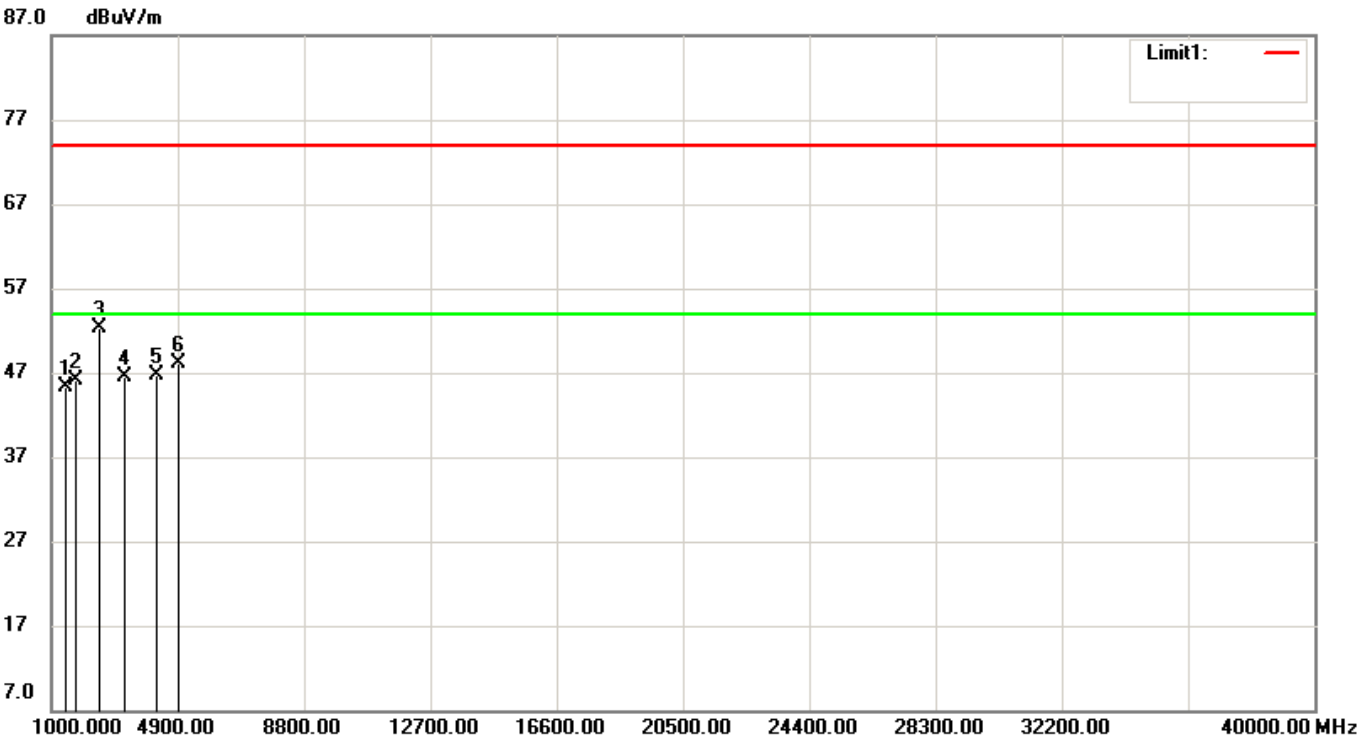
VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$) ; HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)

VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$) ; HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

b. Channel High

操作模式：發射接收
基本波頻率：5795 MHz

File: 21-08-MAW-005_5-8ac40 #17 Date: 2021/10/1 Temperature: 23 °C
Site: RE02-EMC B1-N2 Humidity: 60 %



Condition: NCC_Above1G_Pk Polarization: Horizontal
EUT: CV1 21 WIDE AVM Distance: 3m
Model: VN251ASGG
Test Mode: UNII Operator: Phillip
Note: CH HIGH-1

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	1408.89420	53.53	peak	-8.18	45.35	74.00	-28.65
2	1749.63940	52.11	peak	-5.91	46.20	74.00	-27.80
3	2438.70200	55.11	peak	-2.78	52.33	74.00	-21.67
4	3188.34130	48.21	peak	-1.79	46.42	74.00	-27.58
5	4218.14900	46.69	peak	-0.02	46.67	74.00	-27.33
6	4876.92300	46.82	peak	1.34	48.16	74.00	-25.84

註：1. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

2. 量測不準確度:
- VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$) ; HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)
- VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$) ; HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)
- VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$) ; HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

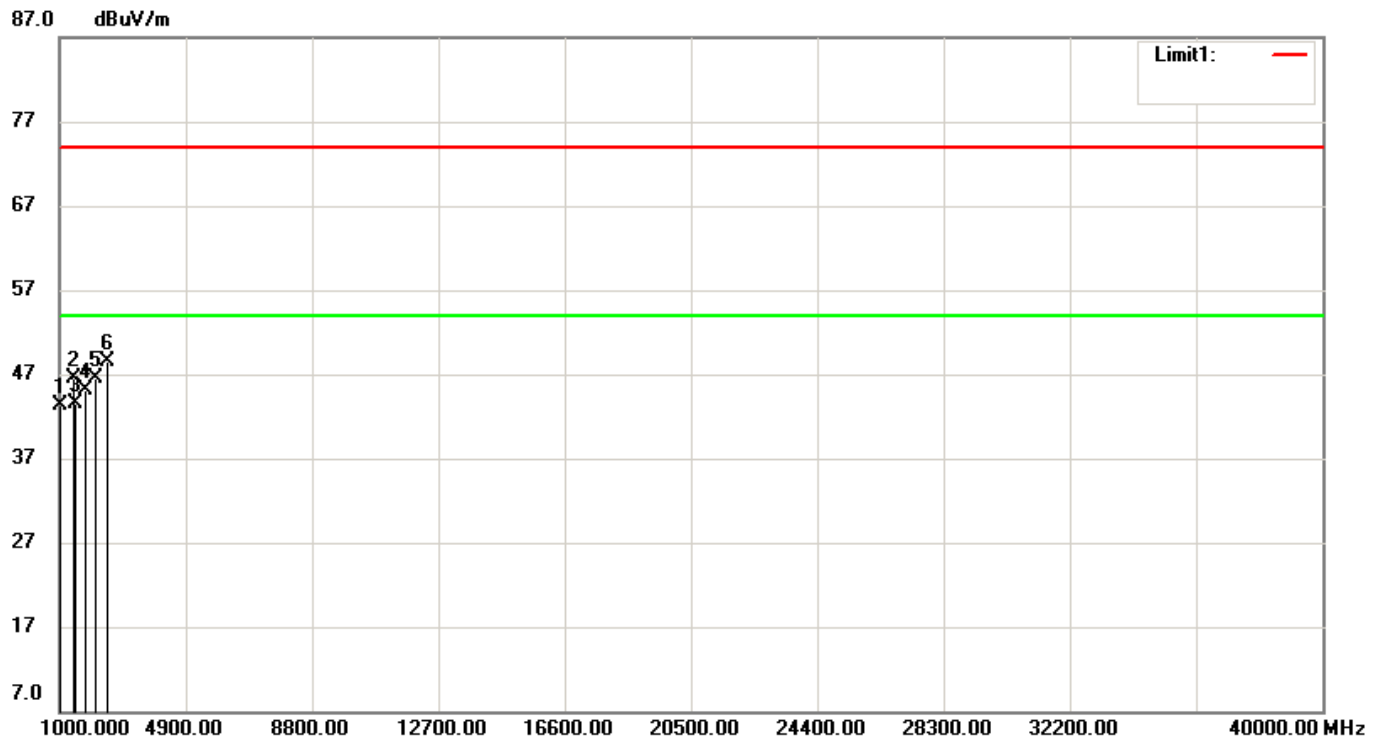
操作模式：發射接收
基本波頻率：5795 MHz

File: 21-08-MAW- #18
005_5-8ac40
Site: RE02-EMC
B1-N2

Date: 2021/10/1

Temperature: 23 °C

Humidity: 60 %



Condition: NCC_Above1G_Pk
EUT: CV1 21 WIDE AVM
Model: VN251ASGG
Test Mode: UNII
Note: CH HIGH-1

Polarization: Vertical
Distance: 3m
Operator: Phillip

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	1037.86050	52.74	peak	-9.35	43.39	74.00	-30.61
2	1386.17780	54.70	peak	-8.26	46.44	74.00	-27.56
3	1492.18750	51.35	peak	-7.92	43.43	74.00	-30.57
4	1757.21150	50.88	peak	-5.85	45.03	74.00	-28.97
5	2113.10100	50.18	peak	-3.63	46.55	74.00	-27.45
6	2461.41810	51.20	peak	-2.72	48.48	74.00	-25.52

註：1. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

2. 量測不準確度：

VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$) ; HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)

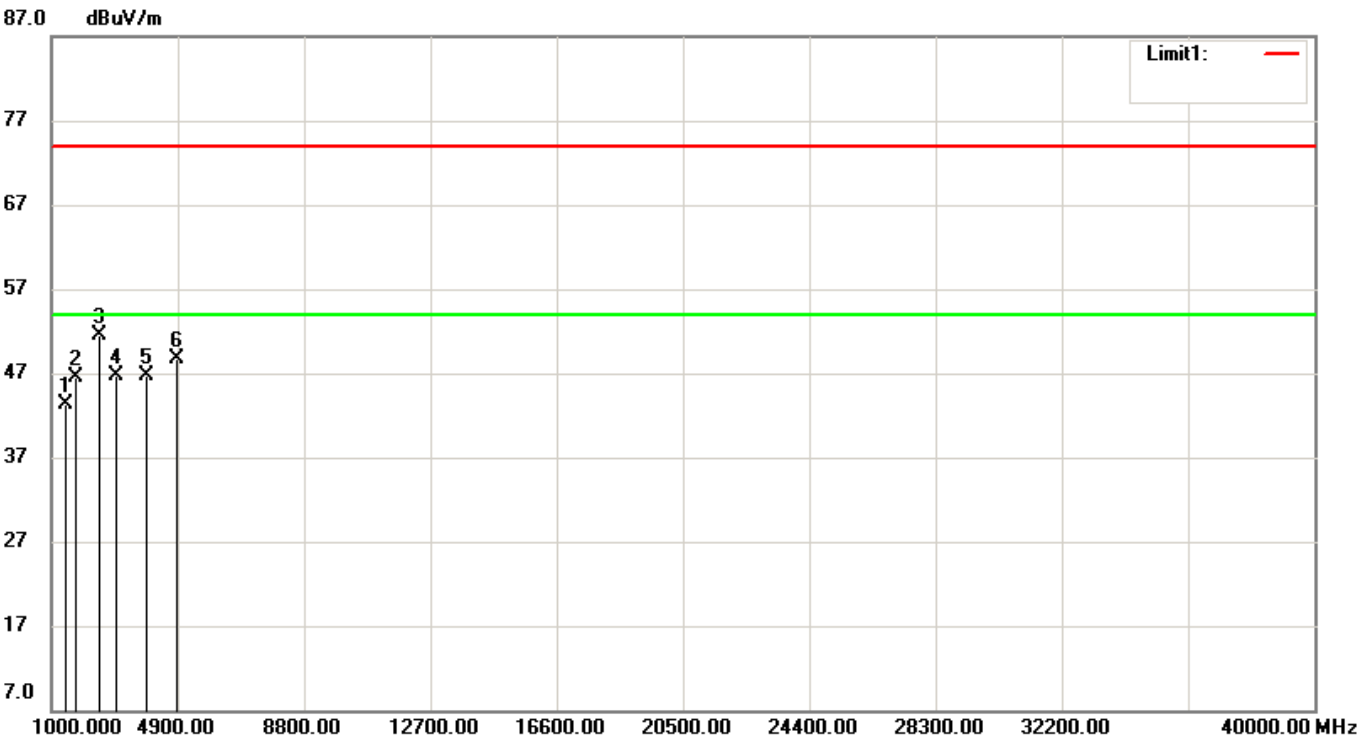
VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$) ; HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)

VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$) ; HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

10.5.2.4 調變技術: IEEE 802.11ac VHT80

操作模式：發射接收
基本波頻率：5775 MHz

File: 21-08-MAW-#10 Date: 2021/10/1 Temperature: 23 °C
Site: RE02-EMC B1-N2 Humidity: 60 %



Condition: NCC_Above1G_Pk Polarization: Horizontal
EUT: CV1 21 WIDE AVM Distance: 3m
Model: VN251ASGG
Test Mode: UNII Operator: Phillip
Note: CH LOW-1

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	1386.17780	51.58	peak	-8.26	43.32	74.00	-30.68
2	1734.49510	52.49	peak	-6.03	46.46	74.00	-27.54
3	2438.70200	54.35	peak	-2.78	51.57	74.00	-22.43
4	2991.46630	48.63	peak	-2.02	46.61	74.00	-27.39
5	3900.12010	47.00	peak	-0.34	46.66	74.00	-27.34
6	4823.91820	47.60	peak	1.15	48.75	74.00	-25.25

註：1. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。
2. 量測不準確度：
VER: ±5.32dB(1GHz ≤ f < 6GHz) ;HOR: ±5.05dB(1GHz ≤ f < 6GHz)
VER: ±4.71dB(6GHz ≤ f < 18GHz) ;HOR: ±4.96dB(6GHz ≤ f < 18GHz)
VER: ±5.37dB(18GHz ≤ f ≤ 40GHz) ;HOR: ±5.61dB(18GHz ≤ f ≤ 40GHz)

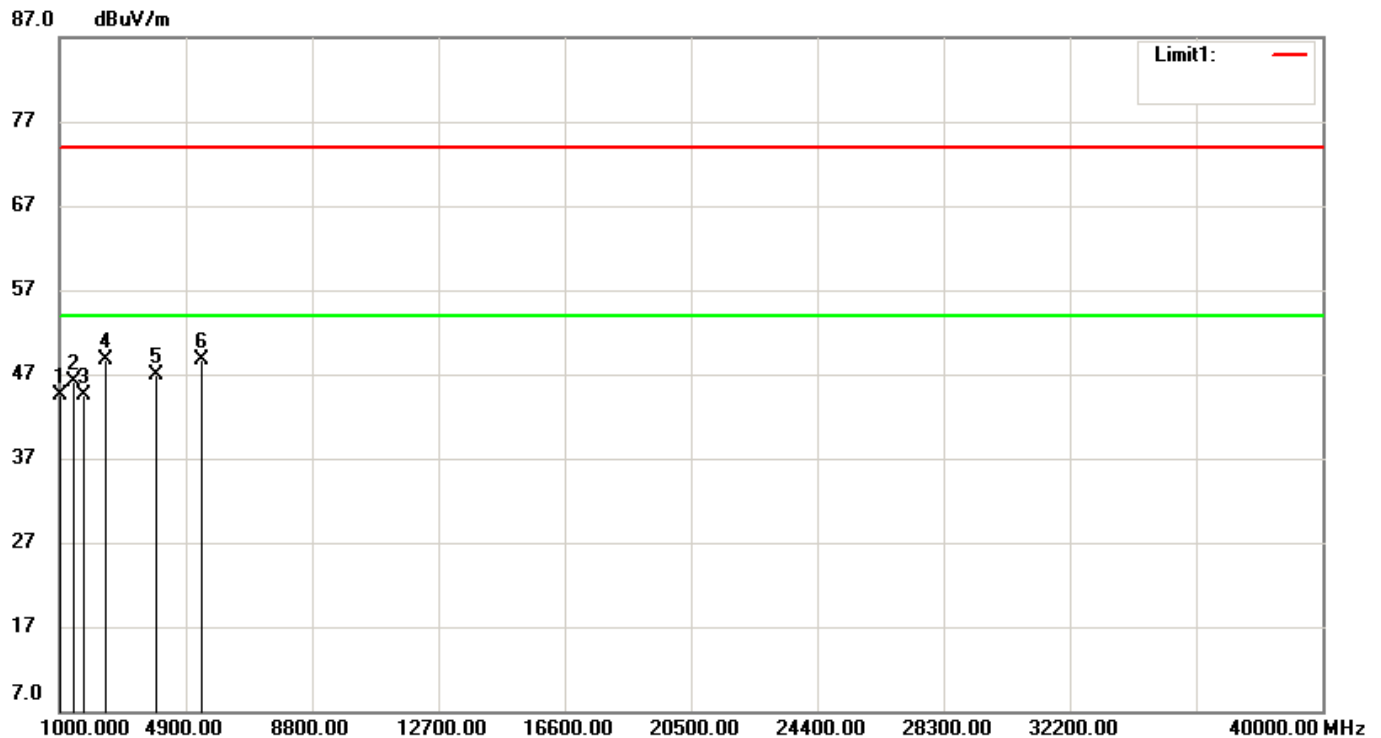
操作模式：發射接收
基本波頻率：5775 MHz

File: 21-08-MAW- #11
005_5-8ac80
Site: RE02-EMC
B1-N2

Date: 2021/10/1

Temperature: 23 °C

Humidity: 60 %



Condition: NCC_Above1G_Pk
EUT: CV1 21 WIDE AVM
Model: VN251ASGG
Test Mode: UNII
Note: CH LOW-1

Polarization: Vertical
Distance: 3m
Operator: Phillip

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	1037.86050	53.79	peak	-9.35	44.44	74.00	-29.56
2	1386.17780	54.27	peak	-8.26	46.01	74.00	-27.99
3	1749.63940	50.38	peak	-5.91	44.47	74.00	-29.53
4	2415.98550	51.48	peak	-2.84	48.64	74.00	-25.36
5	3968.26920	47.01	peak	-0.16	46.85	74.00	-27.15
6	5346.39420	46.61	peak	2.04	48.65	74.00	-25.35

註：1. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

2. 量測不準確度：

VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$) ; HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)

VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$) ; HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)

VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$) ; HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

10.5.2.5 測試狀態: LINK BT

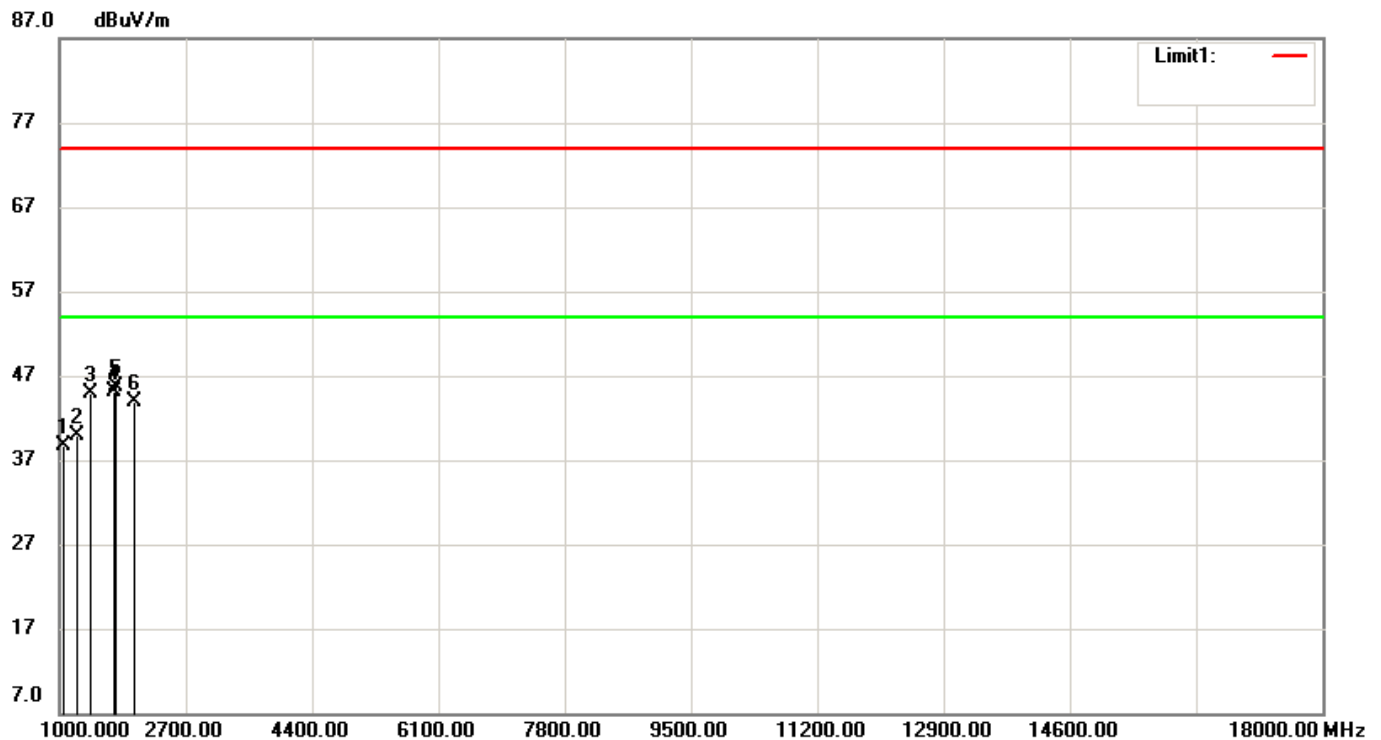
操作模式: Mode G

File: 21-08-MAW- #19
 Site: RE02-EMC B1-N2

Date: 2021/8/26

Temperature: 22 °C

Humidity: 60 %



Condition: NCC_Above1G_Pk
 EUT: CV1 21 WIDE AVN
 Model: VN250ASGG(SVM,Internall)
 Test Mode: LINK WIFI
 Note:

Polarization: Horizontal
 Distance: 3m
 Operator: Phillip

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	1049.35900	48.07	peak	-9.31	38.76	74.00	-35.24
2	1224.35900	48.69	peak	-8.77	39.92	74.00	-34.08
3	1390.38460	53.11	peak	-8.25	44.86	74.00	-29.14
4	1726.92300	51.13	peak	-6.10	45.03	74.00	-28.97
5	1762.82050	51.55	peak	-5.81	45.74	74.00	-28.26
6	1998.39740	47.89	peak	-3.93	43.96	74.00	-30.04

註: 1. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

2. 量測不準確度:

VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$) ; HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)

VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$) ; HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)

VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$) ; HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

操作模式: Mode G

File: 21-08-MAW-005

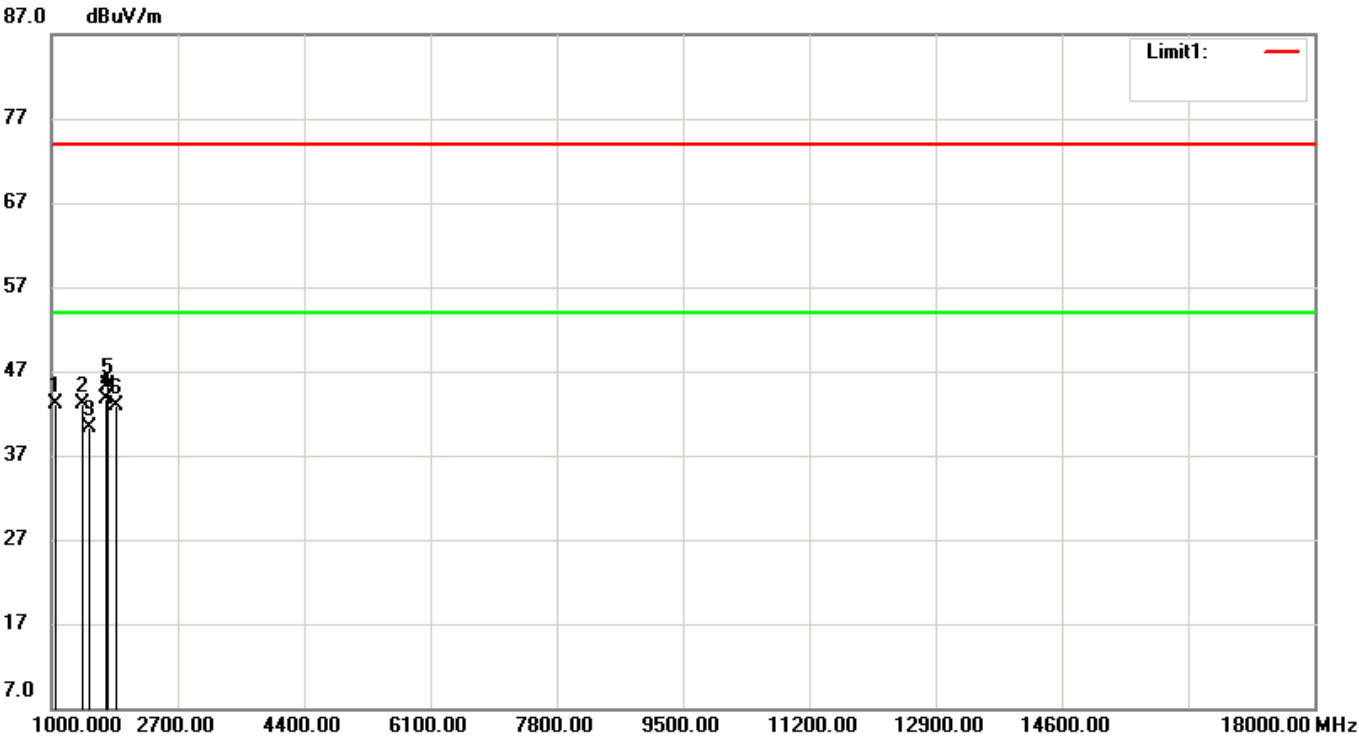
Site: RE02-EMC B1-N2

#20

Date: 2021/8/26

Temperature: 22 °C

Humidity: 60 %



Condition: NCC_Above1G_Pk

EUT: CV1 21 WIDE AVN

Model: VN250ASGG(SVM,Internall)

Test Mode: LINK WIFI

Note:

Polarization: Vertical

Distance: 3m

Operator: Phillip

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	1044.87160	52.40	peak	-9.32	43.08	74.00	-30.92
2	1399.35900	51.40	peak	-8.22	43.18	74.00	-30.82
3	1495.83330	48.20	peak	-7.91	40.29	74.00	-33.71
4	1726.92300	49.88	peak	-6.10	43.78	74.00	-30.22
5	1758.33330	51.13	peak	-5.84	45.29	74.00	-28.71
6	1857.05120	47.94	peak	-5.06	42.88	74.00	-31.12

- 註: 1. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。
2. 量測不準確度:
- VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$) ;HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)
- VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$) ;HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)
- VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$) ;HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

10.5.2.6 測試狀態: LINK WIFI

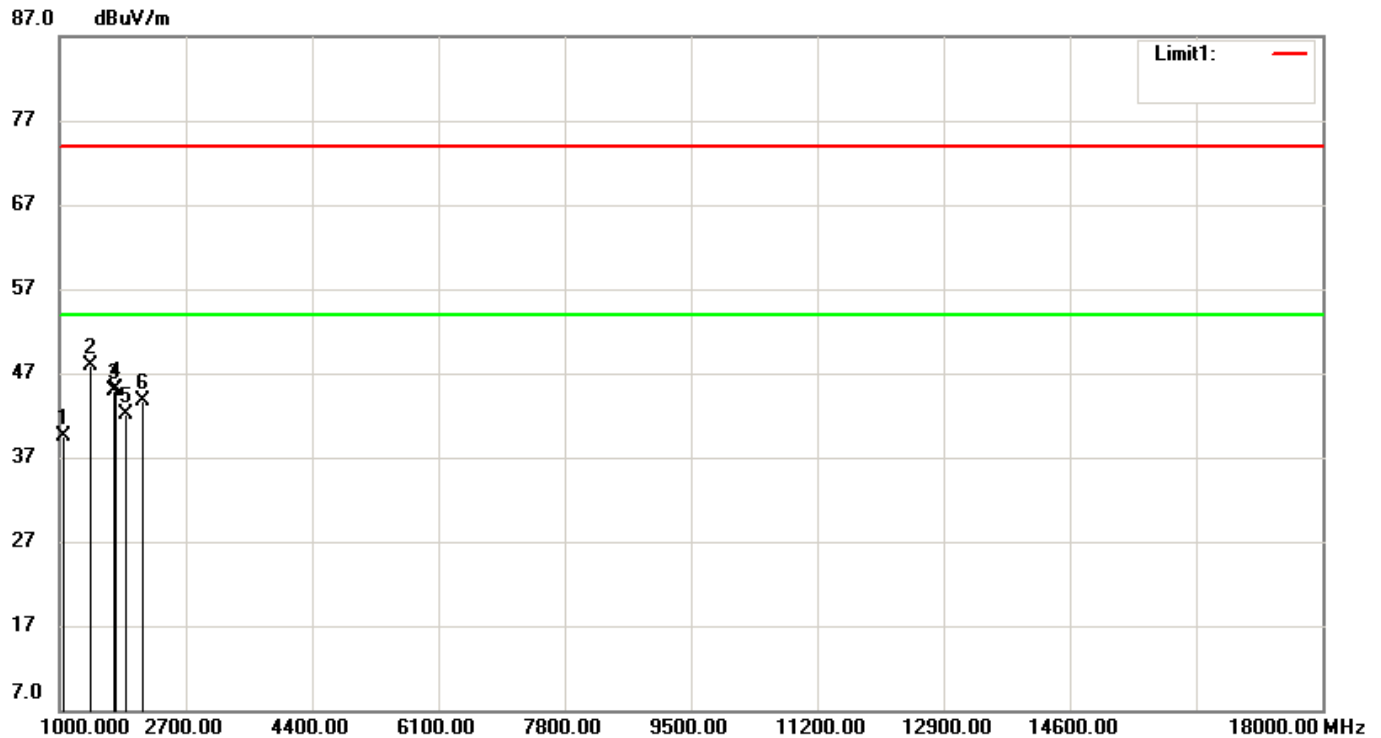
操作模式: Mode H

File: 21-08-MAW- #23
005
Site: RE02-EMC
B1-N2

Date: 2021/8/26

Temperature: 22 °C

Humidity: 60 %



Condition: NCC_Above1G_Pk
EUT: CV1 21 WIDE AVN
Model: VN250ASGG(SVM,Internall)
Test Mode: LINK BT
Note:

Polarization: Horizontal
Distance: 3m
Operator: Phillip

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	1040.38460	48.95	peak	-9.35	39.60	74.00	-34.40
2	1390.38460	56.23	peak	-8.25	47.98	74.00	-26.02
3	1729.16660	50.91	peak	-6.07	44.84	74.00	-29.16
4	1756.08960	51.00	peak	-5.86	45.14	74.00	-28.86
5	1881.73070	47.03	peak	-4.86	42.17	74.00	-31.83
6	2106.08950	47.43	peak	-3.64	43.79	74.00	-30.21

註: 1. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

2. 量測不準確度:

VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$) ; HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)

VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$) ; HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)

VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$) ; HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

操作模式: Mode H

File: 21-08-MAW-005

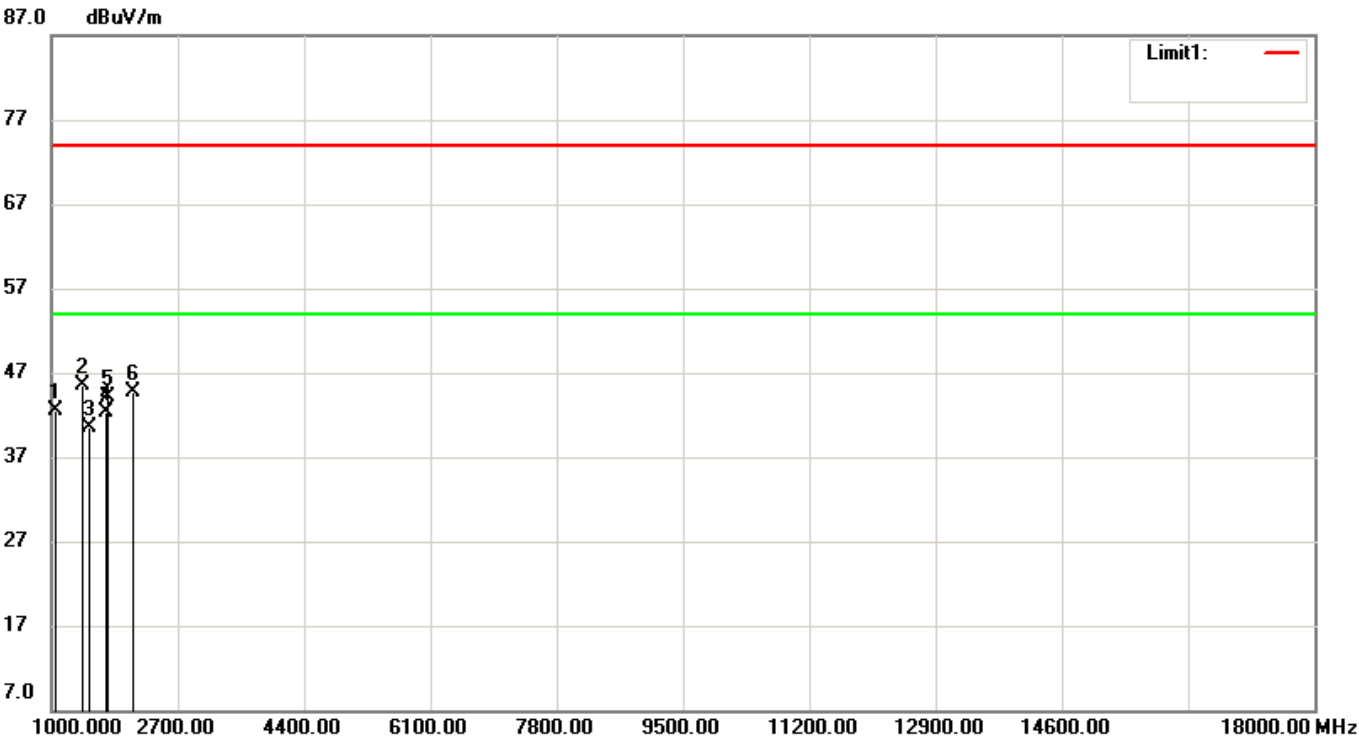
Site: RE02-EMC B1-N2

#24

Date: 2021/8/26

Temperature: 22 °C

Humidity: 60 %



Condition: NCC_Above1G_Pk

EUT: CV1 21 WIDE AVN

Model: VN250ASGG(SVM,Internall)

Test Mode: LINK BT

Note:

Polarization: Vertical

Distance: 3m

Operator: Phillip

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	1044.87160	51.75	peak	-9.32	42.43	74.00	-31.57
2	1394.87160	53.79	peak	-8.22	45.57	74.00	-28.43
3	1495.83330	48.41	peak	-7.91	40.50	74.00	-33.50
4	1726.92300	48.42	peak	-6.10	42.32	74.00	-31.68
5	1753.84600	49.90	peak	-5.89	44.01	74.00	-29.99
6	2074.67930	48.50	peak	-3.73	44.77	74.00	-29.23

註: 1. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

2. 量測不準確度:

VER: ±5.32dB(1GHz≤f<6GHz) ;HOR: ±5.05dB(1GHz≤f<6GHz)

VER: ±4.71dB(6GHz≤f<18GHz) ;HOR: ±4.96dB(6GHz≤f<18GHz)

VER: ±5.37dB(18GHz≤f≤40GHz) ;HOR: ±5.61dB(18GHz≤f≤40GHz)

10.5.2.7 測試狀態: USB

操作模式: Mode I

File: 21-08-MAW-005

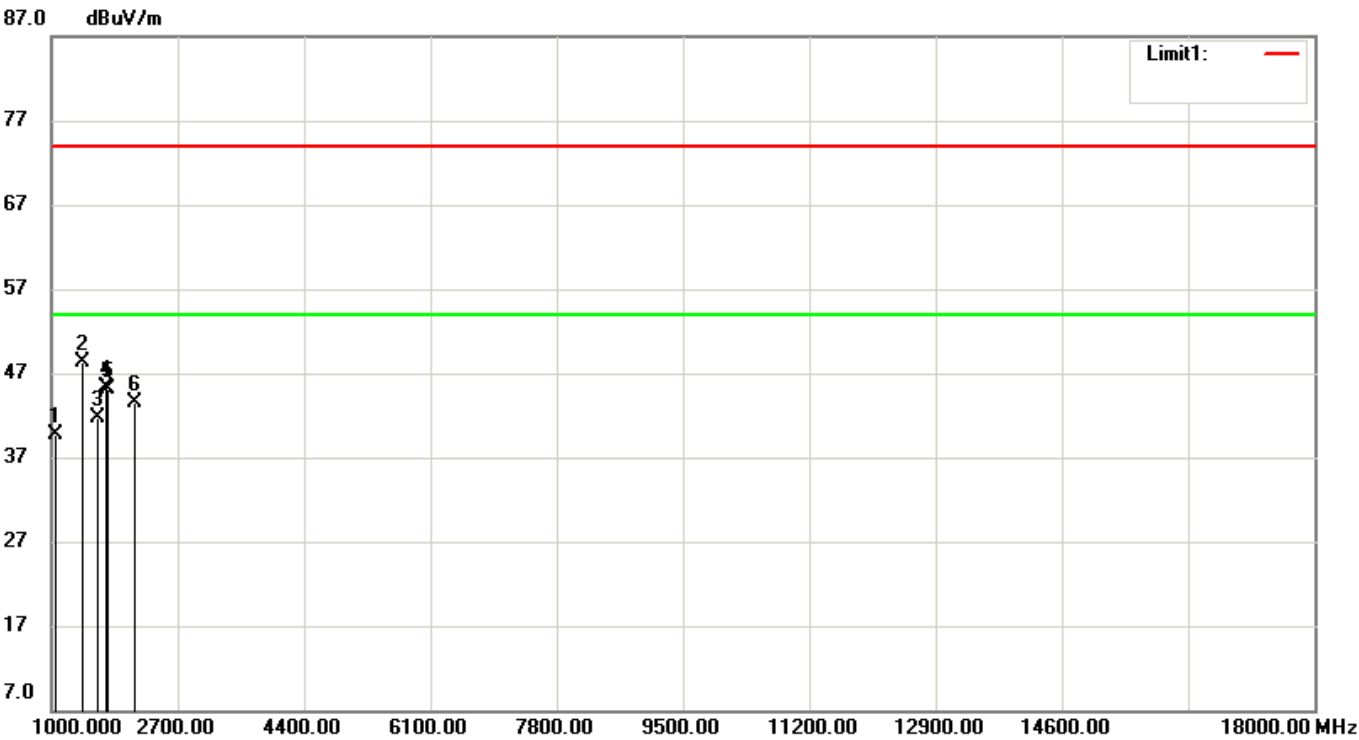
Site: RE02-EMC B1-N2

#21

Date: 2021/8/26

Temperature: 22 °C

Humidity: 60 %



Condition: NCC_Above1G_Pk

EUT: CV1 21 WIDE AVN

Model: VN250ASGG(SVM,Internall)

Test Mode: USB

Note:

Polarization: Horizontal

Distance: 3m

Operator: Phillip

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	1047.11520	49.07	peak	-9.32	39.75	74.00	-34.25
2	1394.87160	56.62	peak	-8.22	48.40	74.00	-25.60
3	1601.28200	48.75	peak	-7.09	41.66	74.00	-32.34
4	1731.41020	51.30	peak	-6.06	45.24	74.00	-28.76
5	1760.57700	50.94	peak	-5.82	45.12	74.00	-28.88
6	2090.38450	47.11	peak	-3.68	43.43	74.00	-30.57

註: 1. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

2. 量測不準確度:

VER: $\pm 5.32\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$) ;HOR: $\pm 5.05\text{dB}$ ($1\text{GHz} \leq f < 6\text{GHz}$)

VER: $\pm 4.71\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$) ;HOR: $\pm 4.96\text{dB}$ ($6\text{GHz} \leq f < 18\text{GHz}$)

VER: $\pm 5.37\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$) ;HOR: $\pm 5.61\text{dB}$ ($18\text{GHz} \leq f \leq 40\text{GHz}$)

操作模式: Mode I

File: 21-08-MAW-005

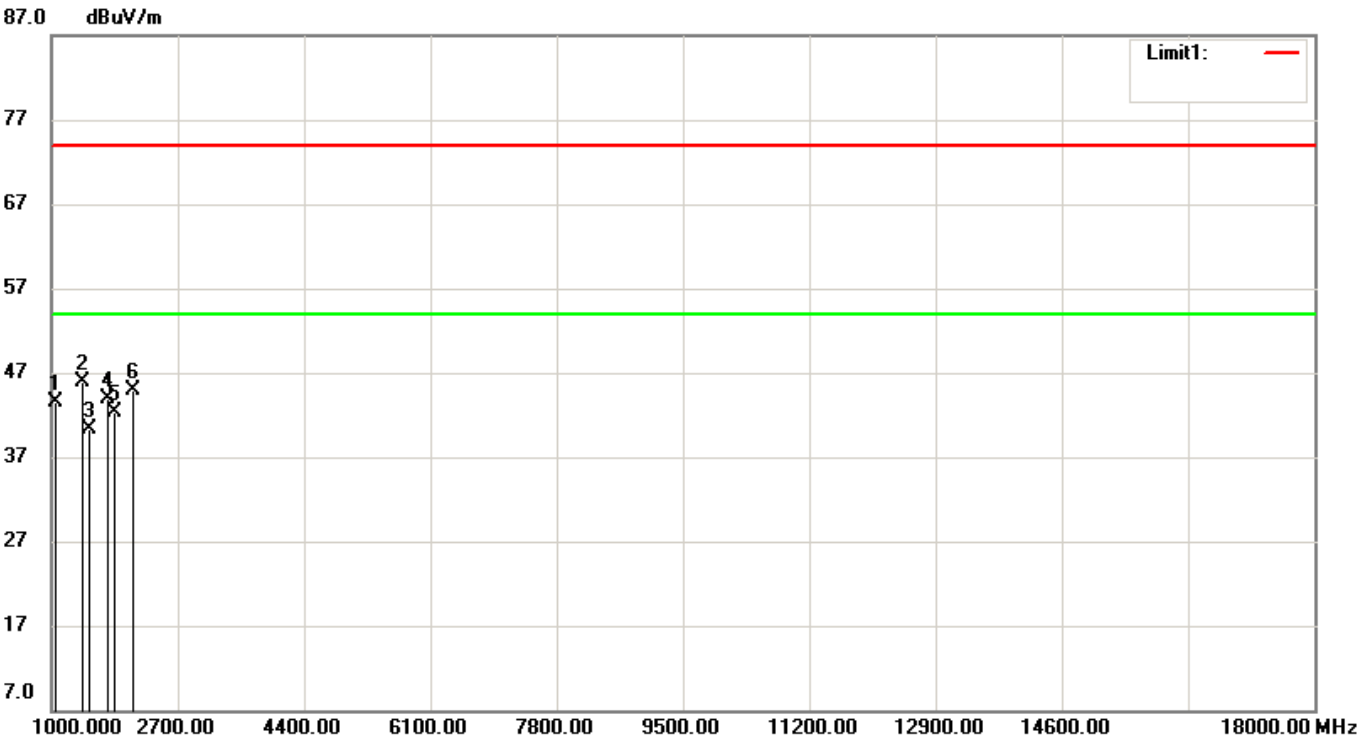
Site: RE02-EMC B1-N2

#22

Date: 2021/8/26

Temperature: 22 °C

Humidity: 60 %



Condition: NCC_Above1G_Pk

EUT: CV1 21 WIDE AVN

Model: VN250ASGG(SVM,Internall)

Test Mode: USB

Note:

Polarization: Vertical

Distance: 3m

Operator: Phillip

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	1044.87160	52.76	peak	-9.32	43.44	74.00	-30.56
2	1392.62820	54.12	peak	-8.24	45.88	74.00	-28.12
3	1495.83330	48.29	peak	-7.91	40.38	74.00	-33.62
4	1758.33330	49.84	peak	-5.84	44.00	74.00	-30.00
5	1827.88460	47.66	peak	-5.29	42.37	74.00	-31.63
6	2074.67930	48.66	peak	-3.73	44.93	74.00	-29.07

註: 1. 若以峰值檢測功能測量之值符合平均值限制值，則可視同以平均值功能測量之值亦符合平均值限制值。

2. 量測不準確度:
- VER: ±5.32dB(1GHz≤f<6GHz) ;HOR: ±5.05dB(1GHz≤f<6GHz)

VER: ±4.71dB(6GHz≤f<18GHz) ;HOR: ±4.96dB(6GHz≤f<18GHz)

VER: ±5.37dB(18GHz≤f≤40GHz) ;HOR: ±5.61dB(18GHz≤f≤40GHz)

10.5.3 其它不必要之訊號

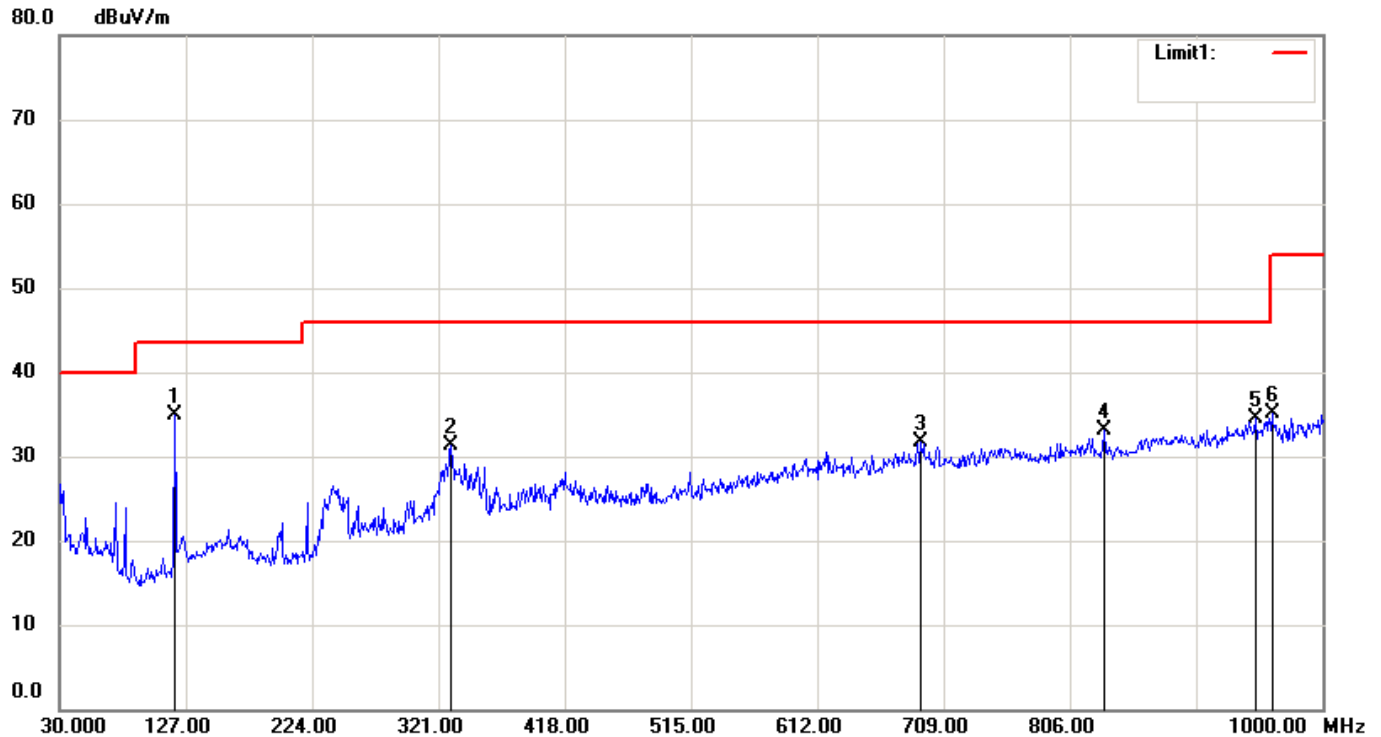
10.5.3.1 測試狀態: IEEE 802.11a

File: 21-08-MAW- #7
 005_Below 1G
 Site: RE02-EMC B1-
 N2

Date: 2021/10/4

Temperature: 23 °C

Humidity: 58 %



Condition: NCC_LP0002_30-1000MHz
 EUT: CV1 21 WIDE AVM
 Model: VN251ASGG
 Test Mode: Band4
 Note:

Polarization: Horizontal
 Distance: 3m
 Operator: Phillip

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	118.2700	44.62	QP	-9.78	34.84	43.50	-8.66
2	330.7000	36.12	QP	-4.79	31.33	46.00	-14.67
3	691.5400	29.64	QP	2.08	31.72	46.00	-14.28
4	832.1900	28.49	QP	4.61	33.10	46.00	-12.90
5	948.5900	27.64	QP	6.84	34.48	46.00	-11.52
6	961.2000	27.96	QP	7.07	35.03	54.00	-18.97

File: 21-08-MAW-005_Below 1G

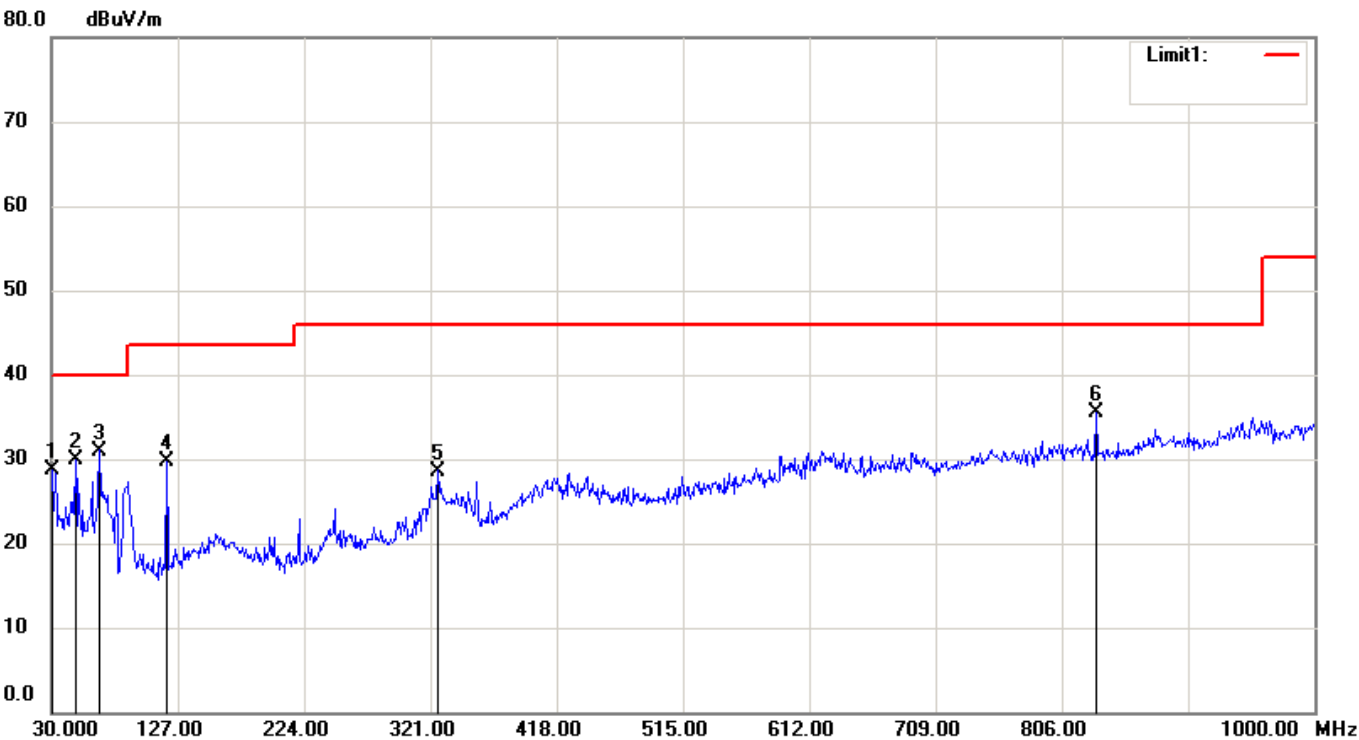
Site: RE02-EMC B1-N2

#8

Date: 2021/10/4

Temperature: 23 °C

Humidity: 58 %



Condition: NCC_LP0002_30-1000MHz

EUT: CV1 21 WIDE AVM

Model: VN251ASGG

Test Mode: Band4

Note:

Polarization: Vertical

Distance: 3m

Operator: Phillip

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	30.9700	37.88	QP	-9.12	28.76	40.00	-11.24
2	48.4300	37.43	QP	-7.60	29.83	40.00	-10.17
3	66.8600	40.56	QP	-9.56	31.00	40.00	-9.00
4	118.2700	39.48	QP	-9.78	29.70	43.50	-13.80
5	326.8200	33.48	QP	-4.88	28.60	46.00	-17.40
6	832.1900	30.84	QP	4.61	35.45	46.00	-10.55

註：1. 若以峰值檢測功能測量之值符合準峰值限制值，則可視同以準峰值功能測量之值亦符合準峰值限制值。

2. 量測不準確度:
VER: $\pm 6.23\text{dB}$ ($30\text{MHz} \leq f < 200\text{MHz}$) ;HOR: $\pm 4.55\text{dB}$ ($30\text{MHz} \leq f < 200\text{MHz}$)
VER: $\pm 5.94\text{dB}$ ($2000\text{MHz} \leq f < 1\text{GHz}$) ;HOR: $\pm 4.34\text{dB}$ ($200\text{MHz} \leq f < 1\text{GHz}$)

10.5.3.2 測試狀態: LINK BT

File: 21-08-MAW-005

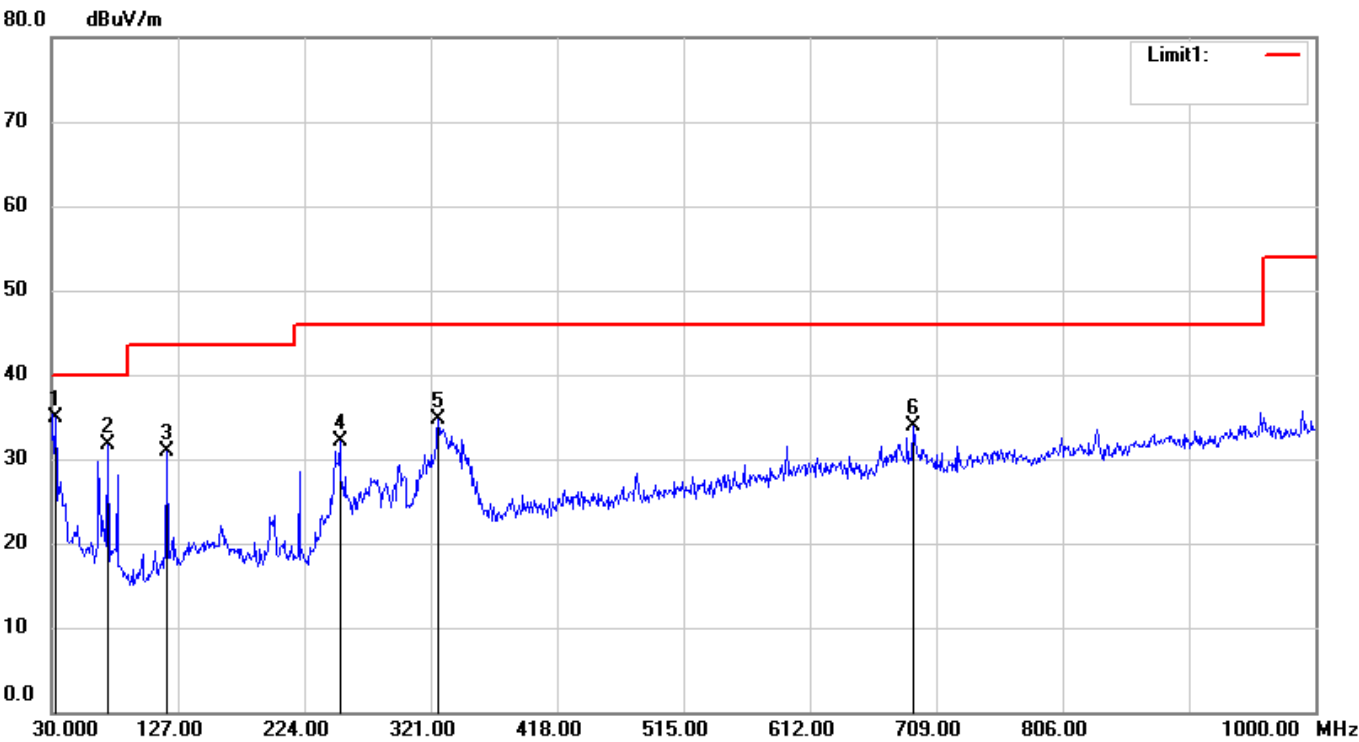
Site: RE02-EMC B1- N2

#5

Date: 2021/8/26

Temperature: 22 °C

Humidity: 60 %



Condition: NCC_LP0002_30-1000MHz

EUT: CV1 21 WIDE AVN

Model: VN250ASGG(SVM,Internall)

Test Mode: LINK BT

Note:

Polarization: Horizontal

Distance: 3m

Operator: Phillip

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	32.9100	43.96	QP	-8.97	34.99	40.00	-5.01
2	73.6500	42.38	QP	-10.63	31.75	40.00	-8.25
3	118.2700	40.66	QP	-9.78	30.88	43.50	-12.62
4	251.1600	39.23	QP	-7.21	32.02	46.00	-13.98
5	326.8200	39.64	QP	-4.88	34.76	46.00	-11.24
6	691.5400	31.74	QP	2.08	33.82	46.00	-12.18

File: 21-08-MAW-005

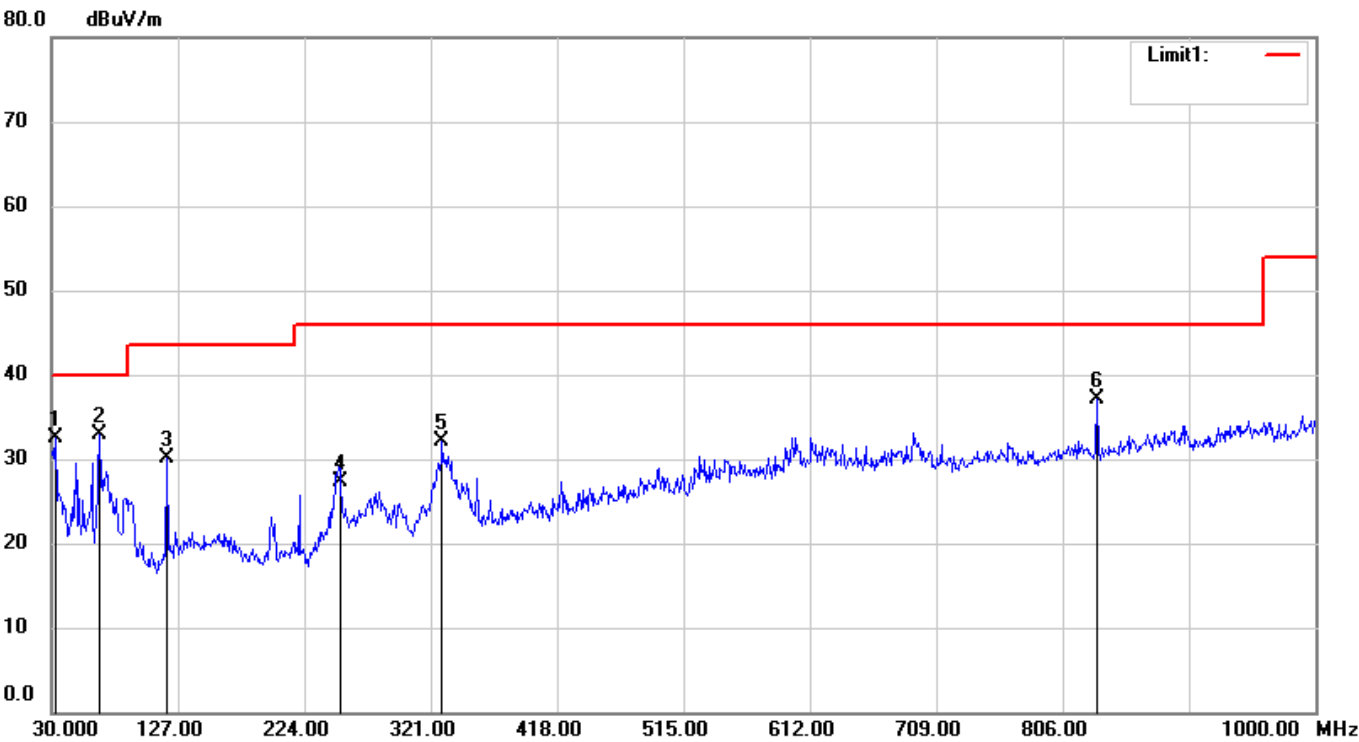
Site: RE02-EMC B1- N2

#6

Date: 2021/8/26

Temperature: 22 °C

Humidity: 60 %



Condition: NCC_LP0002_30-1000MHz

EUT: CV1 21 WIDE AVN

Model: VN250ASGG(SVM,Internall)

Test Mode: LINK BT

Note:

Polarization: Vertical

Distance: 3m

Operator: Phillip

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	32.9100	41.47	QP	-8.97	32.50	40.00	-7.50
2	66.8600	42.53	QP	-9.56	32.97	40.00	-7.03
3	118.2700	39.83	QP	-9.78	30.05	43.50	-13.45
4	252.1300	34.49	QP	-7.19	27.30	46.00	-18.70
5	329.7300	36.82	QP	-4.81	32.01	46.00	-13.99
6	832.1900	32.48	QP	4.61	37.09	46.00	-8.91

註：1. 若以峰值檢測功能測量之值符合準峰值限制值，則可視同以準峰值功能測量之值亦符合準峰值限制值。

2. 量測不準確度：
VER: $\pm 6.23\text{dB}(30\text{MHz} \leq f < 200\text{MHz})$;HOR: $\pm 4.55\text{dB}(30\text{MHz} \leq f < 200\text{MHz})$
VER: $\pm 5.94\text{dB}(2000\text{MHz} \leq f < 1\text{GHz})$;HOR: $\pm 4.34\text{dB}(200\text{MHz} \leq f < 1\text{GHz})$

10.5.3.3 測試狀態: LINK WIFI

File: 21-08-MAW-005

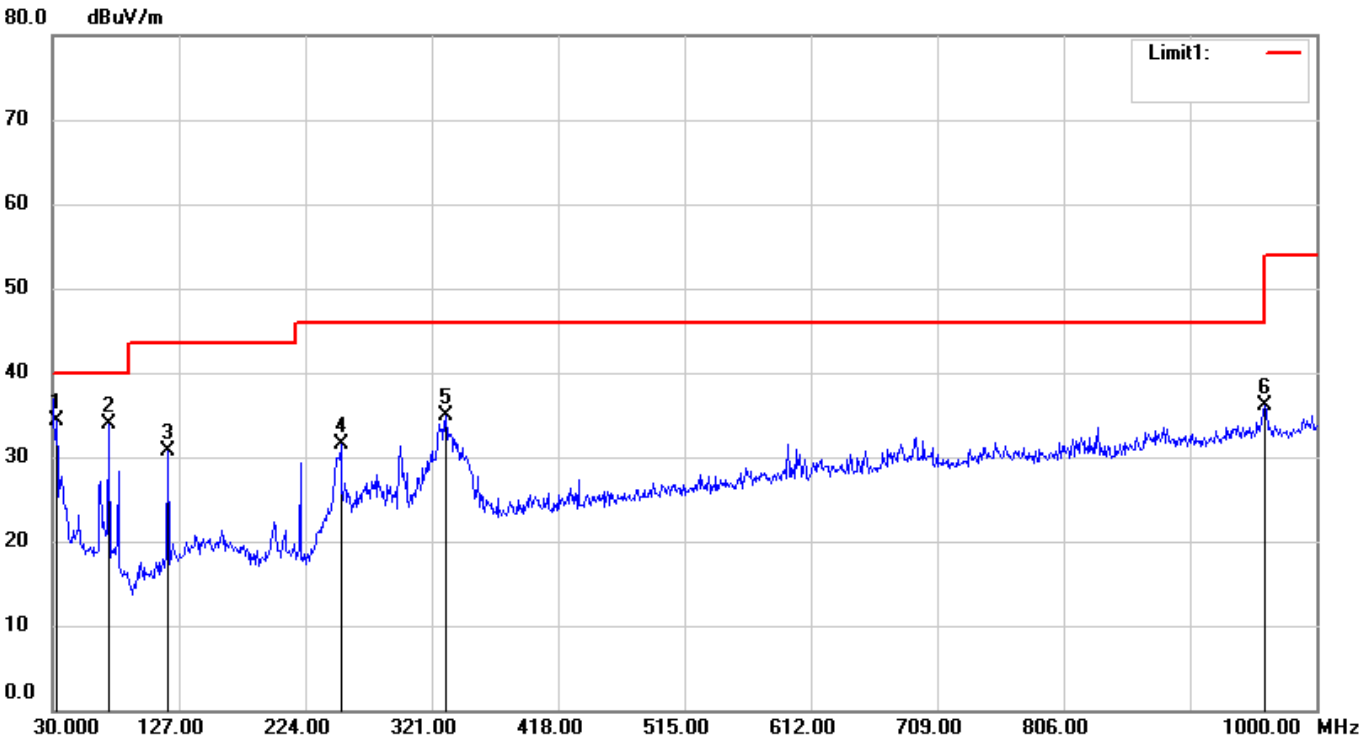
Site: RE02-EMC B1- N2

#3

Date: 2021/8/26

Temperature: 22 °C

Humidity: 60 %



Condition: NCC_LP0002_30-1000MHz

EUT: CV1 21 WIDE AVN

Model: VN250ASGG(SVM,Internall)

Test Mode: LINK WIFI

Note:

Polarization: Horizontal

Distance: 3m

Operator: Phillip

No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
	(MHz)	(dBuV/m)		dB/m	(dBuV/m)	(dBuV/m)	(dB)
1	32.9100	43.33	QP	-8.97	34.36	40.00	-5.64
2	72.6800	44.39	QP	-10.46	33.93	40.00	-6.07
3	118.2700	40.39	QP	-9.78	30.61	43.50	-12.89
4	251.1600	38.78	QP	-7.21	31.57	46.00	-14.43
5	331.6700	39.66	QP	-4.76	34.90	46.00	-11.10
6	960.2300	29.02	QP	7.05	36.07	54.00	-17.93

File: 21-08-MAW-005

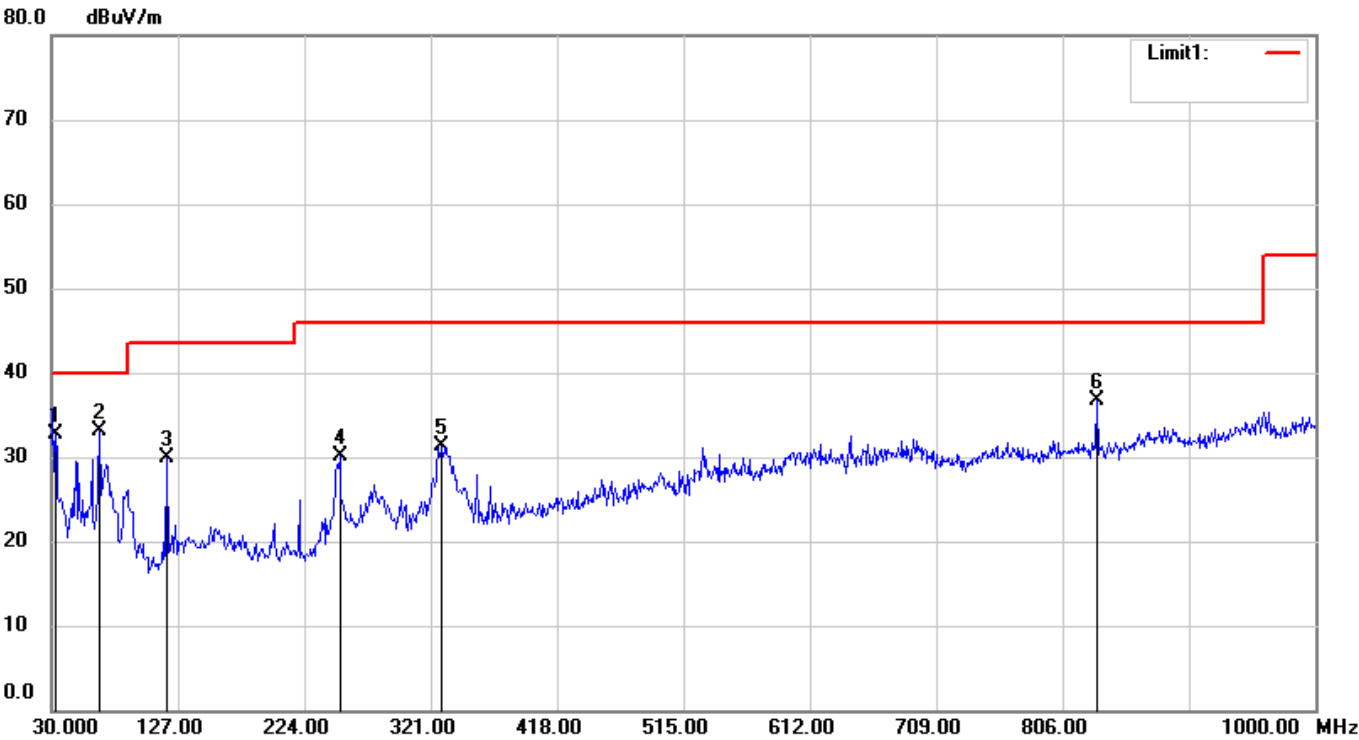
Site: RE02-EMC B1- N2

#4

Date: 2021/8/26

Temperature: 22 °C

Humidity: 60 %



Condition: NCC_LP0002_30-1000MHz

EUT: CV1 21 WIDE AVN

Model: VN250ASGG(SVM,Internall)

Test Mode: LINK WIFI

Note:

Polarization: Vertical

Distance: 3m

Operator: Phillip

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	32.9100	41.58	QP	-8.97	32.61	40.00	-7.39
2	66.8600	42.76	QP	-9.56	33.20	40.00	-6.80
3	118.2700	39.74	QP	-9.78	29.96	43.50	-13.54
4	251.1600	37.23	QP	-7.21	30.02	46.00	-15.98
5	329.7300	36.14	QP	-4.81	31.33	46.00	-14.67
6	832.1900	32.11	QP	4.61	36.72	46.00	-9.28

註：1. 若以峰值檢測功能測量之值符合準峰值限制值，則可視同以準峰值功能測量之值亦符合準峰值限制值。

2. 量測不準確度:
VER: ±6.23dB(30MHz≤f<200MHz) ;HOR: ±4.55dB(30MHz≤f<200MHz)
VER: ±5.94dB(2000MHz≤f<1GHz) ;HOR: ±4.34dB(200MHz≤f<1GHz)

10.5.3.4 測試狀態: USB

File: 21-08-MAW-005

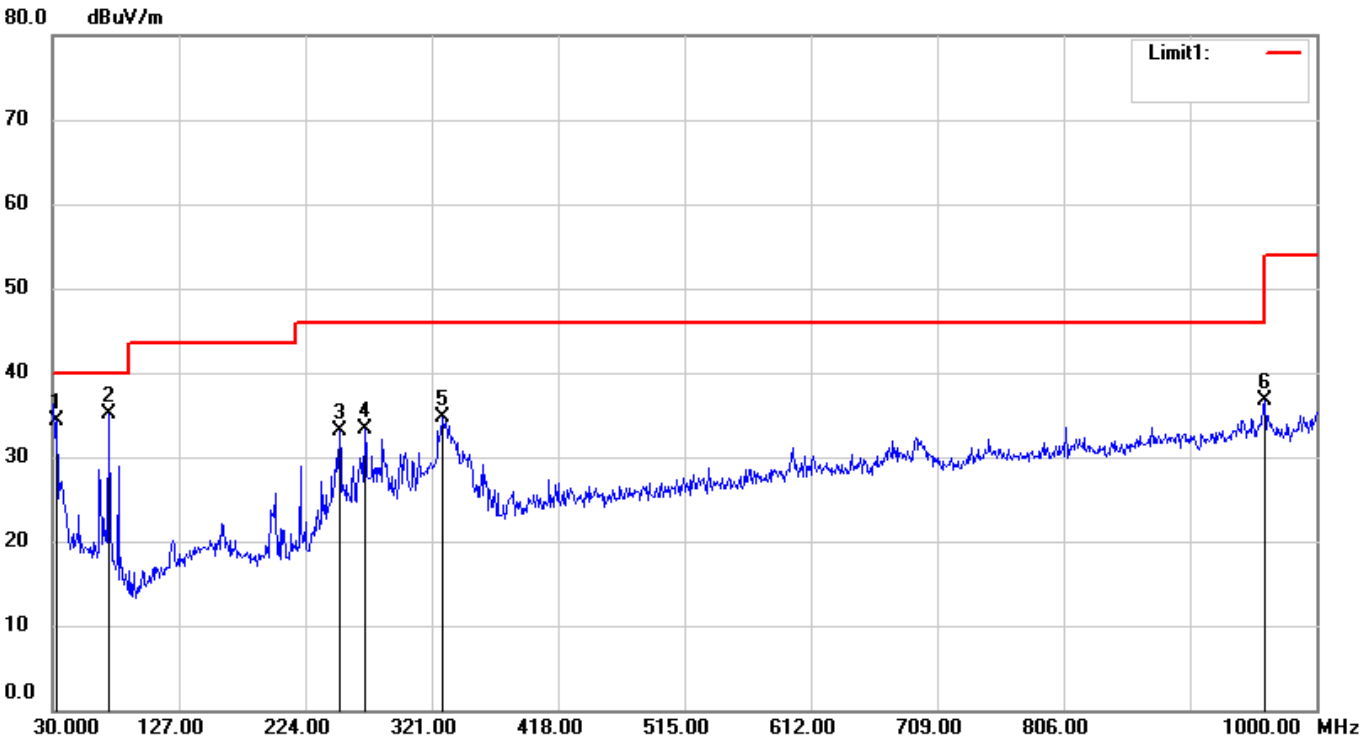
Site: RE02-EMC B1- N2

#1

Date: 2021/8/26

Temperature: 22 °C

Humidity: 60 %



Condition: NCC_LP0002_30-1000MHz

EUT: CV1 21 WIDE AVN

Model: VN250ASGG(SVM,Internall)

Test Mode: USB

Note:

Polarization: Horizontal

Distance: 3m

Operator: Phillip

No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
	(MHz)	(dBuV/m)		dB/m	(dBuV/m)	(dBuV/m)	(dB)
1	32.9100	43.21	QP	-8.97	34.24	40.00	-5.76
2	72.6800	45.58	QP	-10.46	35.12	40.00	-4.88
3	250.1900	40.39	QP	-7.23	33.16	46.00	-12.84
4	269.5900	39.76	QP	-6.50	33.26	46.00	-12.74
5	329.7300	39.52	QP	-4.81	34.71	46.00	-11.29
6	960.2300	29.67	QP	7.05	36.72	54.00	-17.28

File: 21-08-MAW-005

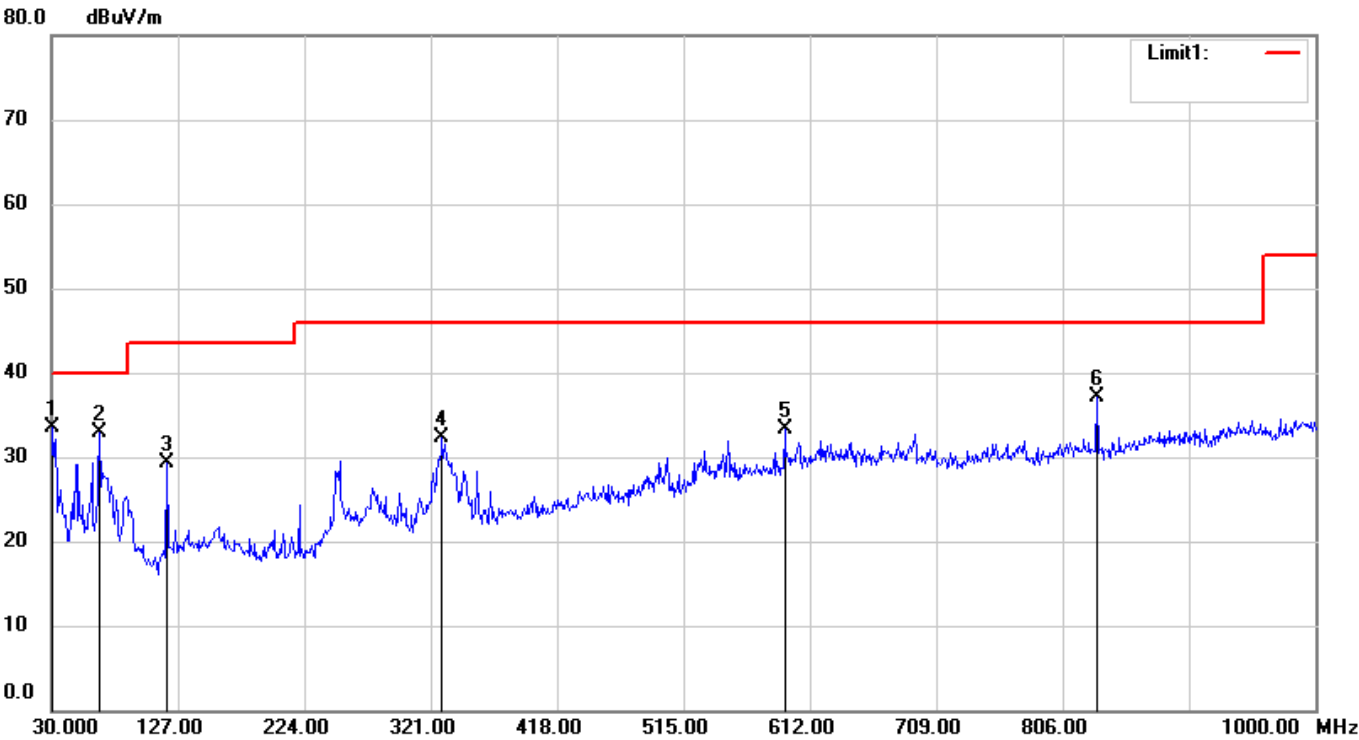
Site: RE02-EMC B1- N2

#2

Date: 2021/8/26

Temperature: 22 °C

Humidity: 60 %



Condition: NCC_LP0002_30-1000MHz

EUT: CV1 21 WIDE AVN

Model: VN250ASGG(SVM,Internall)

Test Mode: USB

Note:

Polarization: Vertical

Distance: 3m

Operator: Phillip

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	30.9700	42.59	QP	-9.12	33.47	40.00	-6.53
2	66.8600	42.54	QP	-9.56	32.98	40.00	-7.02
3	118.2700	39.02	QP	-9.78	29.24	43.50	-14.26
4	329.7300	37.09	QP	-4.81	32.28	46.00	-13.72
5	592.6000	32.78	QP	0.46	33.24	46.00	-12.76
6	832.1900	32.47	QP	4.61	37.08	46.00	-8.92

註：1. 若以峰值檢測功能測量之值符合準峰值限制值，則可視同以準峰值功能測量之值亦符合準峰值限制值。

2. 量測不準確度:
VER: ±6.23dB(30MHz ≤ f < 200MHz) ;HOR: ±4.55dB(30MHz ≤ f < 200MHz)
VER: ±5.94dB(2000MHz ≤ f < 1GHz) ;HOR: ±4.34dB(200MHz ≤ f < 1GHz)

10.6 頻帶外邊輻射量測之量測結果

調變技術: IEEE 802.11a

File: 21-08-MAW-005_5-8a

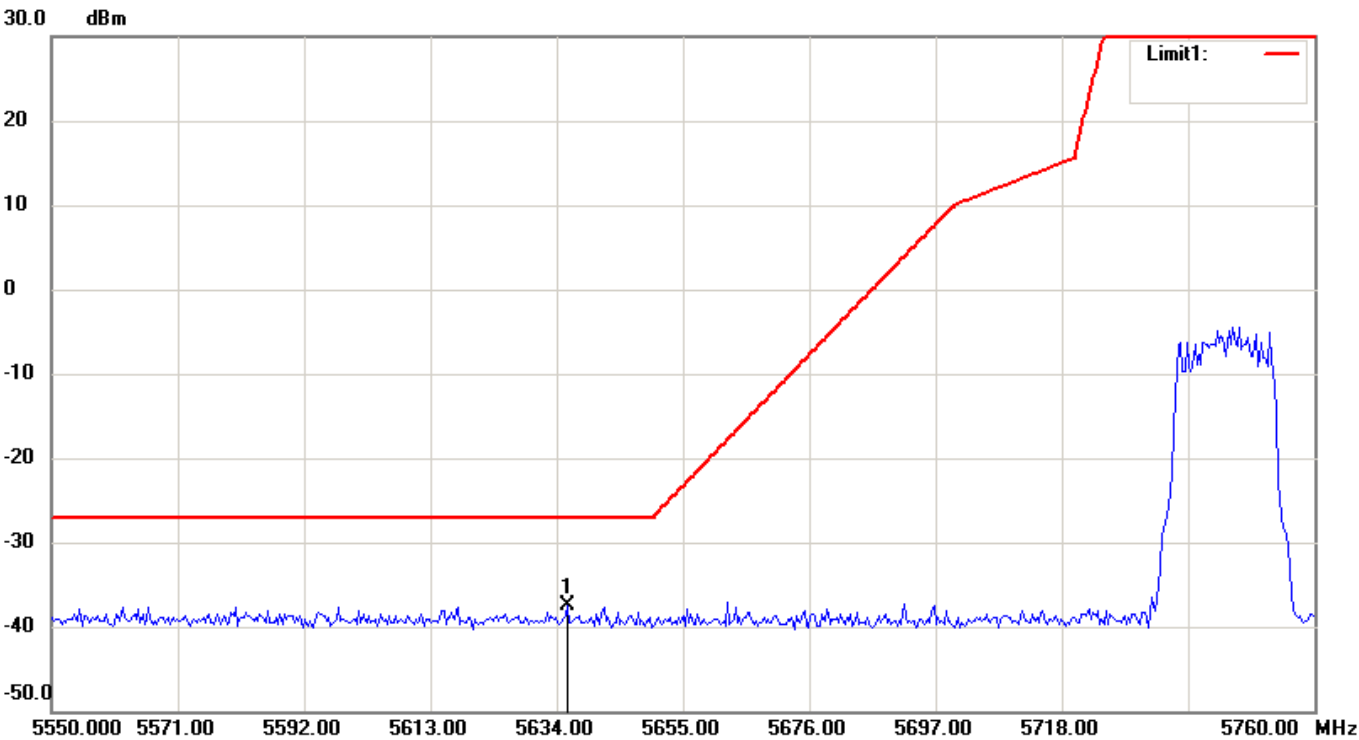
Site: RE02-EMC B1-N2

#1

Date: 2021/9/30

Temperature: 23 °C

Humidity: 60 %



Condition: 5.8G Bandedge

EUT: CV1 21 WIDE AVM

Model: VN251ASGG

Test Mode: UNII

Note: Low Bandedge

Polarization: Vertical

Distance: 3m

Operator: Phillip

No.	Frequency (MHz)	Reading (dBm)	Detector	Corrected dB	Result (dBm)	Limit (dBm)	Margin (dB)
1	5635.81730	-88.79	peak	51.24	-37.55	-27.00	-10.55

File: 21-08-MAW-005_5-8a

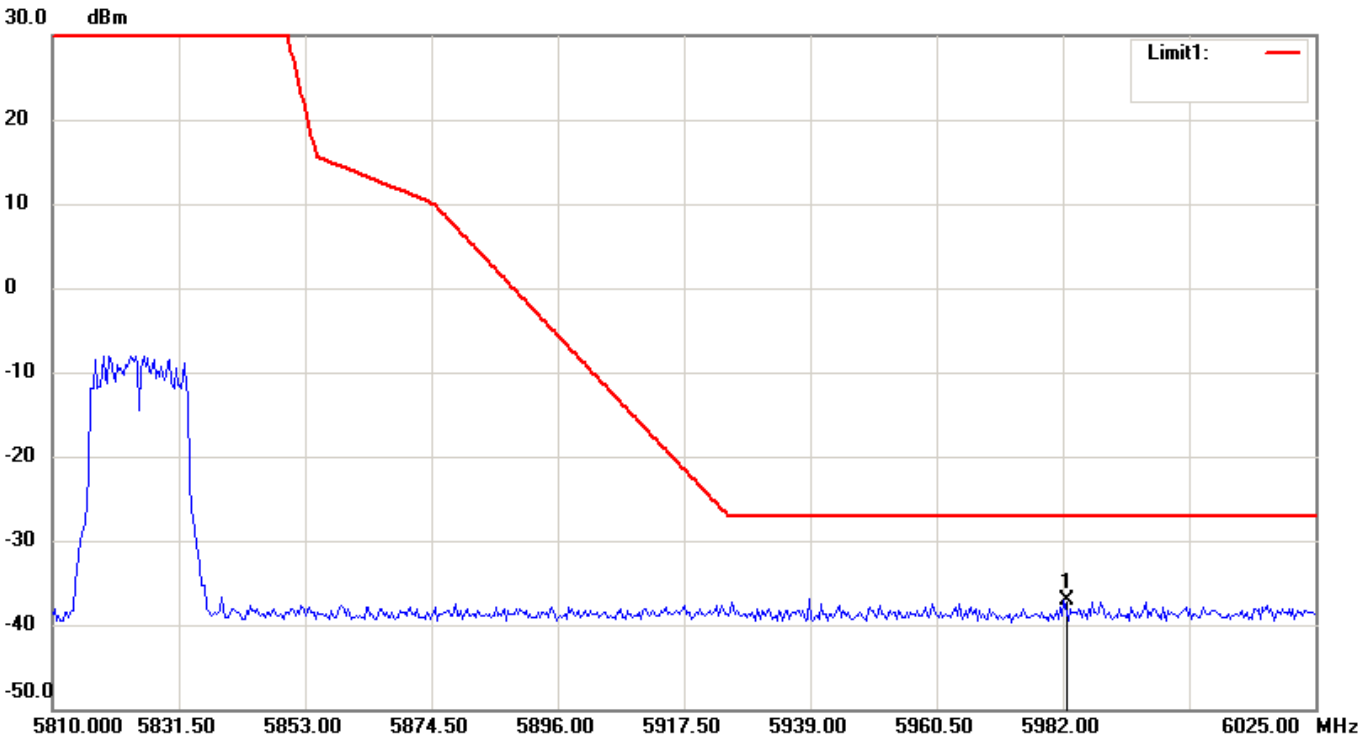
Site: RE02-EMC B1-N2

#2

Date: 2021/9/30

Temperature: 23 °C

Humidity: 60 %



Condition: 5.8G Bandedge

EUT: CV1 21 WIDE AVM

Model: VN251ASGG

Test Mode: UNII

Note: High Bandedge

Polarization: Vertical

Distance: 3m

Operator: Phillip

No.	Frequency (MHz)	Reading (dBm)	Detector	Corrected dB	Result (dBm)	Limit (dBm)	Margin (dB)
1	5982.27560	-88.43	peak	51.38	-37.05	-27.00	-10.05

調變技術: IEEE 802.11ac VHT20

File: 21-08-MAW-005_5-8ac20

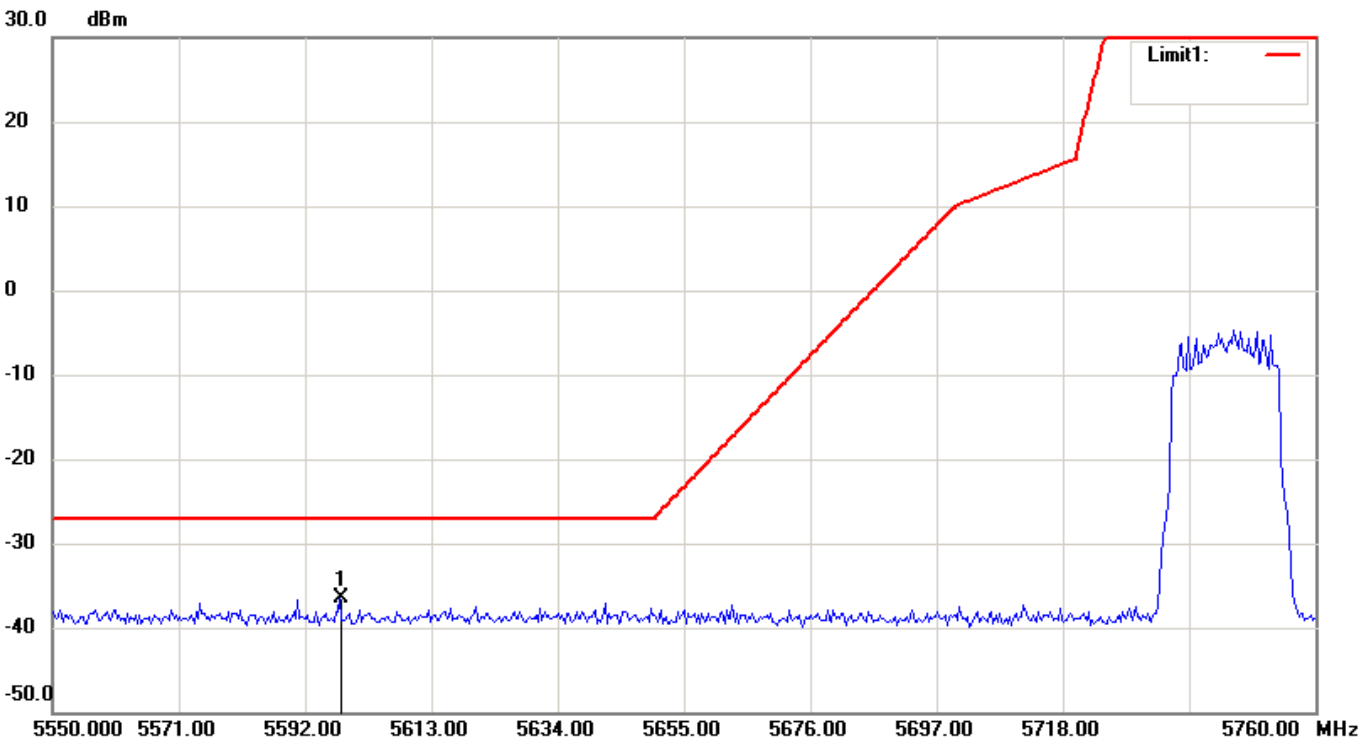
#1

Date: 2021/9/30

Temperature: 23 °C

Site: RE02-EMC B1-N2

Humidity: 60 %



Condition: 5.8G Bandedge

EUT: CV1 21 WIDE AVM

Model: VN251ASGG

Test Mode: UNII

Note: Low Bandedge

Polarization: Vertical

Distance: 3m

Operator: Phillip

No.	Frequency (MHz)	Reading (dBm)	Detector	Corrected dB	Result (dBm)	Limit (dBm)	Margin (dB)
1	5597.78850	-87.76	peak	51.22	-36.54	-27.00	-9.54

File: 21-08-MAW-005_5-8ac20

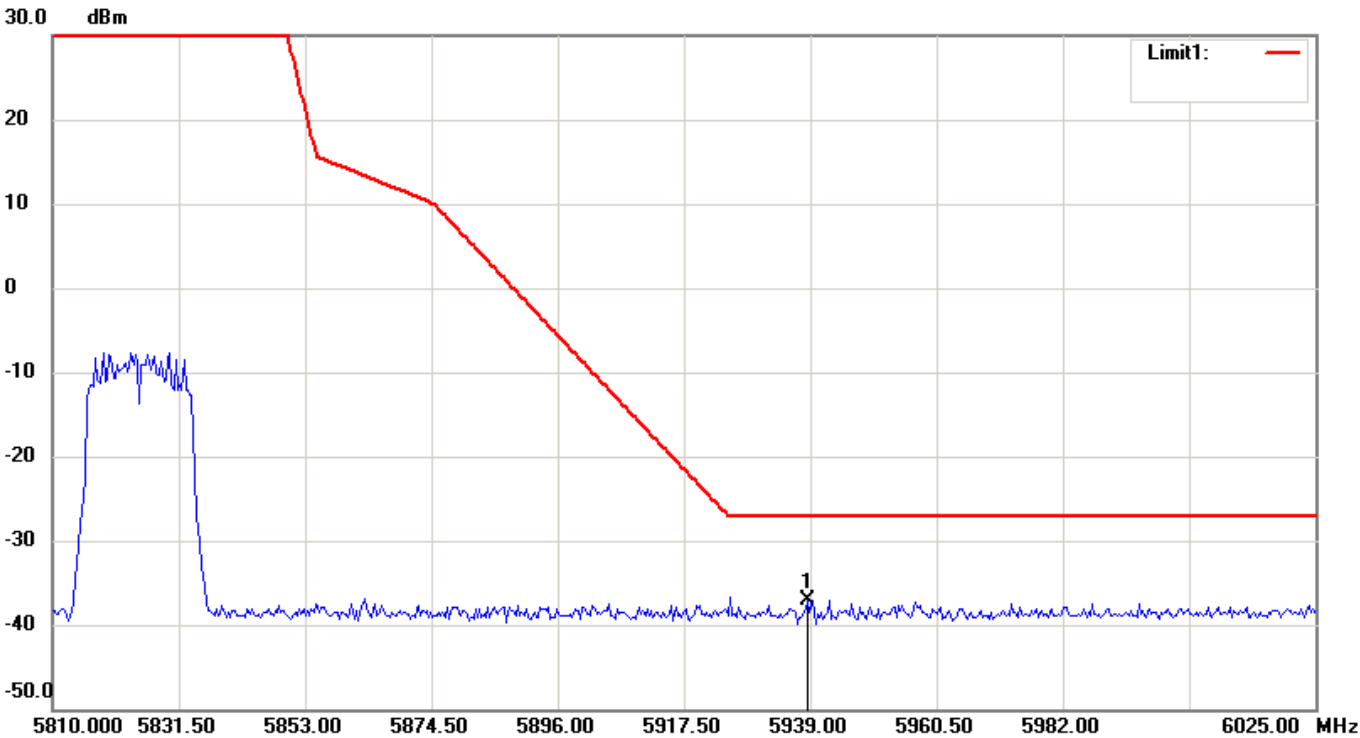
Site: RE02-EMC B1-N2

#2

Date: 2021/9/30

Temperature: 23 °C

Humidity: 60 %



Condition: 5.8G Bandedge

EUT: CV1 21 WIDE AVM

Model: VN251ASGG

Test Mode: UNII

Note: High Bandedge

Polarization: Vertical

Distance: 3m

Operator: Phillip

No.	Frequency (MHz)	Reading (dBm)	Detector	Corrected dB	Result (dBm)	Limit (dBm)	Margin (dB)
1	5938.51760	-88.40	peak	51.36	-37.04	-27.00	-10.04

調變技術: IEEE 802.11ac VHT40

File: 21-08-MAW-005_5-8ac40

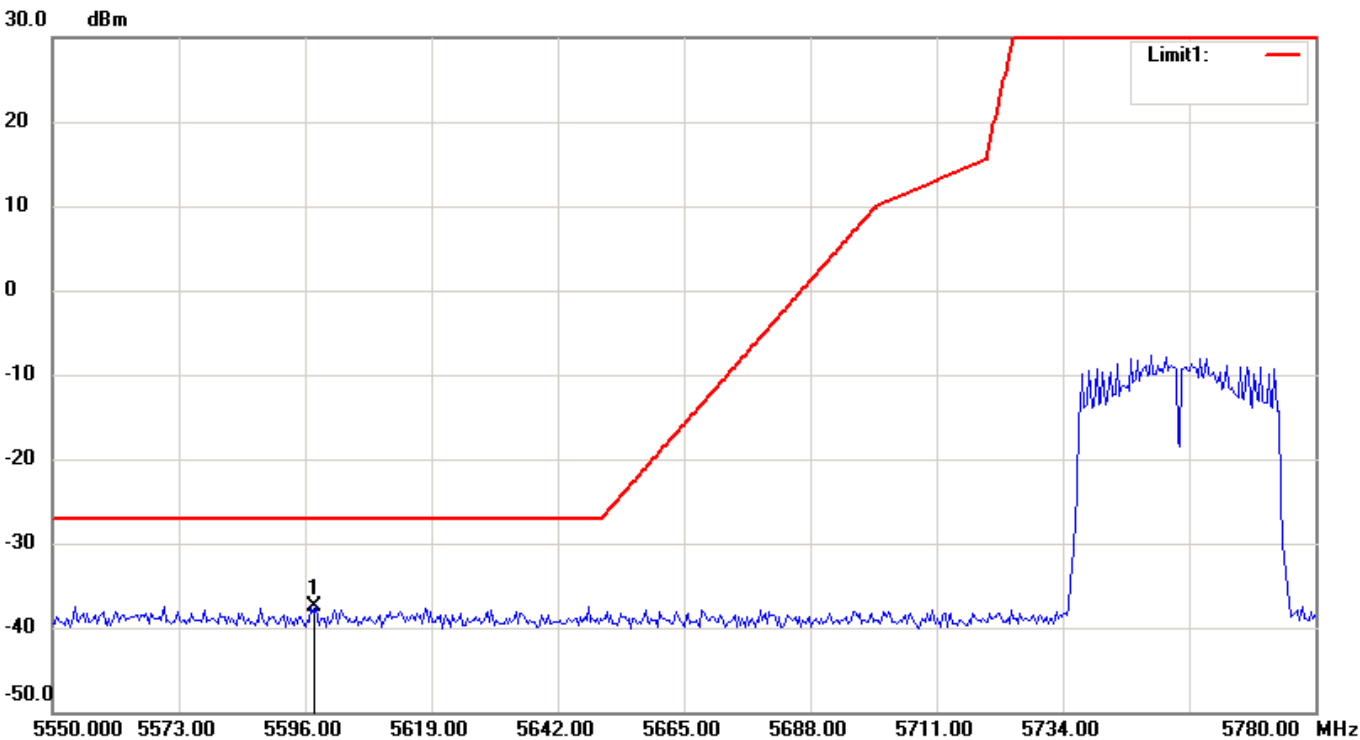
#2

Date: 2021/9/30

Temperature: 23 °C

Site: RE02-EMC B1-N2

Humidity: 60 %



Condition: 5.8G Bandedge

EUT: CV1 21 WIDE AVM

Model: VN251ASGG

Test Mode: UNII

Note: Low Bandedge

Polarization: Vertical

Distance: 3m

Operator: Phillip

No.	Frequency (MHz)	Reading (dBm)	Detector	Corrected dB	Result (dBm)	Limit (dBm)	Margin (dB)
1	5597.17950	-88.66	peak	51.22	-37.44	-27.00	-10.44

File: 21-08-MAW-005_5-8ac40

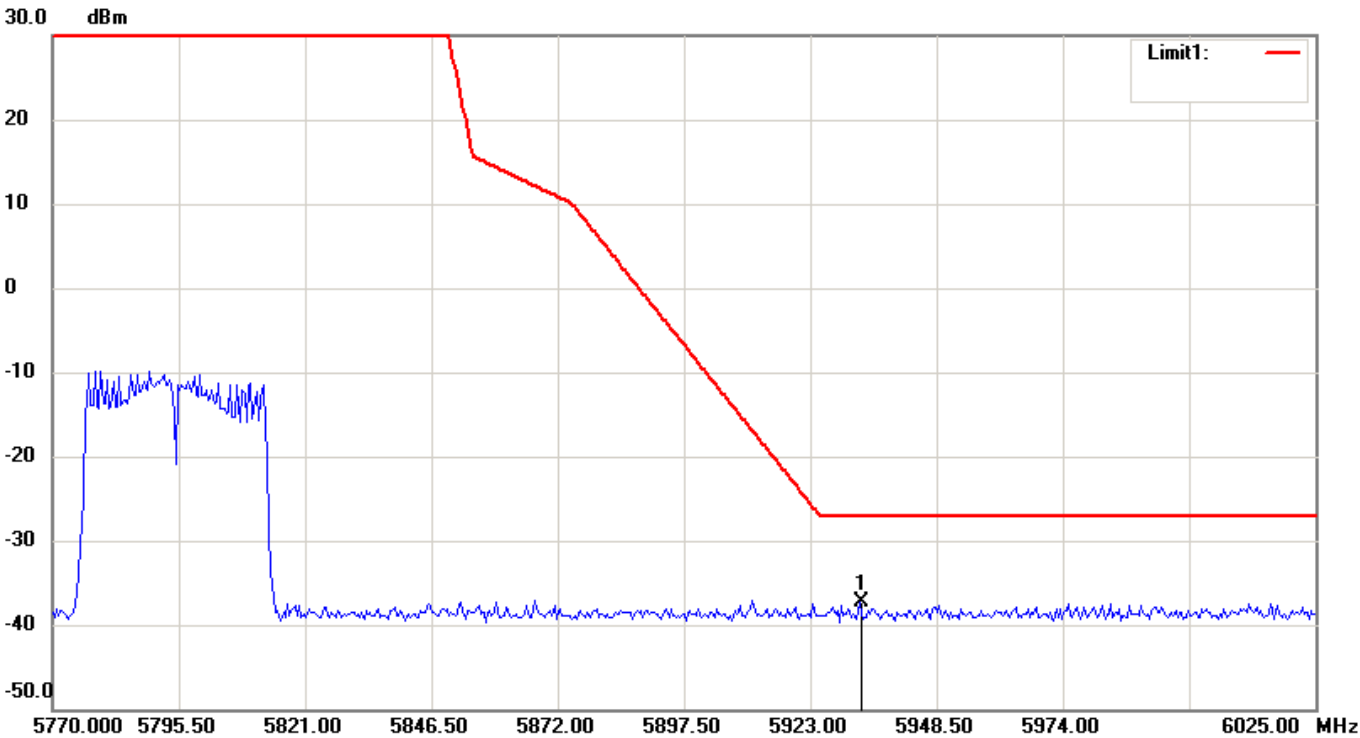
Site: RE02-EMC B1-N2

#1

Date: 2021/9/30

Temperature: 23 °C

Humidity: 60 %



Condition: 5.8G Bandedge

EUT: CV1 21 WIDE AVM

Model: VN251ASGG

Test Mode: UNII

Note: High Bandedge

Polarization: Vertical

Distance: 3m

Operator: Phillip

No.	Frequency (MHz)	Reading (dBm)	Detector	Corrected dB	Result (dBm)	Limit (dBm)	Margin (dB)
1	5933.05300	-88.74	peak	51.36	-37.38	-27.00	-10.38

調變技術: IEEE 802.11ac VHT80

File: 21-08-MAW-005_5-8ac80

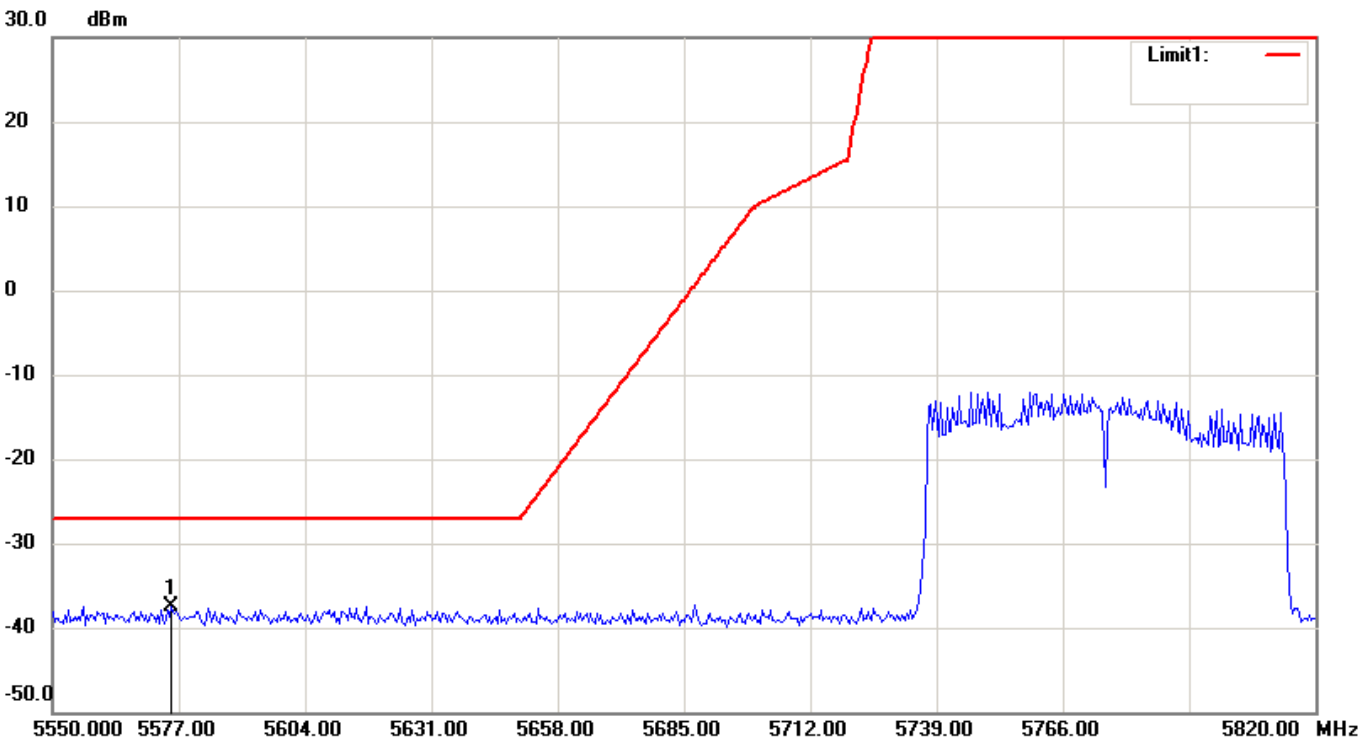
#2

Date: 2021/9/30

Temperature: 23 °C

Site: RE02-EMC B1-N2

Humidity: 60 %



Condition: 5.8G Bandedge

EUT: CV1 21 WIDE AVM

Model: VN251ASGG

Test Mode: UNII

Note: Low Bandedge

Polarization: Vertical

Distance: 3m

Operator: Phillip

No.	Frequency (MHz)	Reading (dBm)	Detector	Corrected dB	Result (dBm)	Limit (dBm)	Margin (dB)
1	5575.52880	-88.74	peak	51.21	-37.53	-27.00	-10.53

File: 21-08-MAW-005_5-8ac80

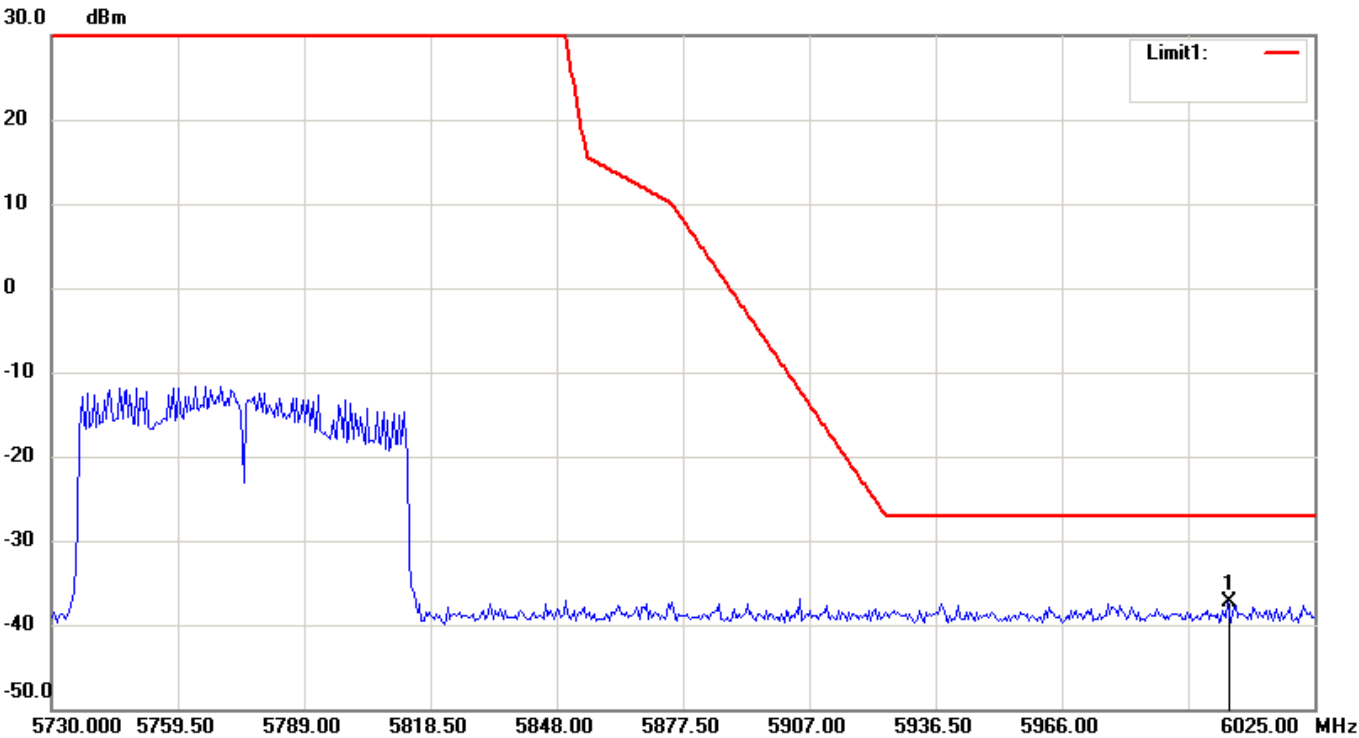
Site: RE02-EMC B1-N2

#3

Date: 2021/9/30

Temperature: 23 °C

Humidity: 60 %



Condition: 5.8G Bandedge

EUT: CV1 21 WIDE AVM

Model: VN251ASGG

Test Mode: UNII

Note: High Bandedge

Polarization: Vertical

Distance: 3m

Operator: Phillip

No.	Frequency (MHz)	Reading (dBm)	Detector	Corrected dB	Result (dBm)	Limit (dBm)	Margin (dB)
1	6004.67150	-88.73	peak	51.39	-37.34	-27.00	-10.34

10.7 結果判定

以上頻帶外邊緣測試之結果皆低於限制值-27dBm，合乎標準規定。

10.8 輻射之測試配置

圖 2: 量測頻率低於1GHz之測試配置

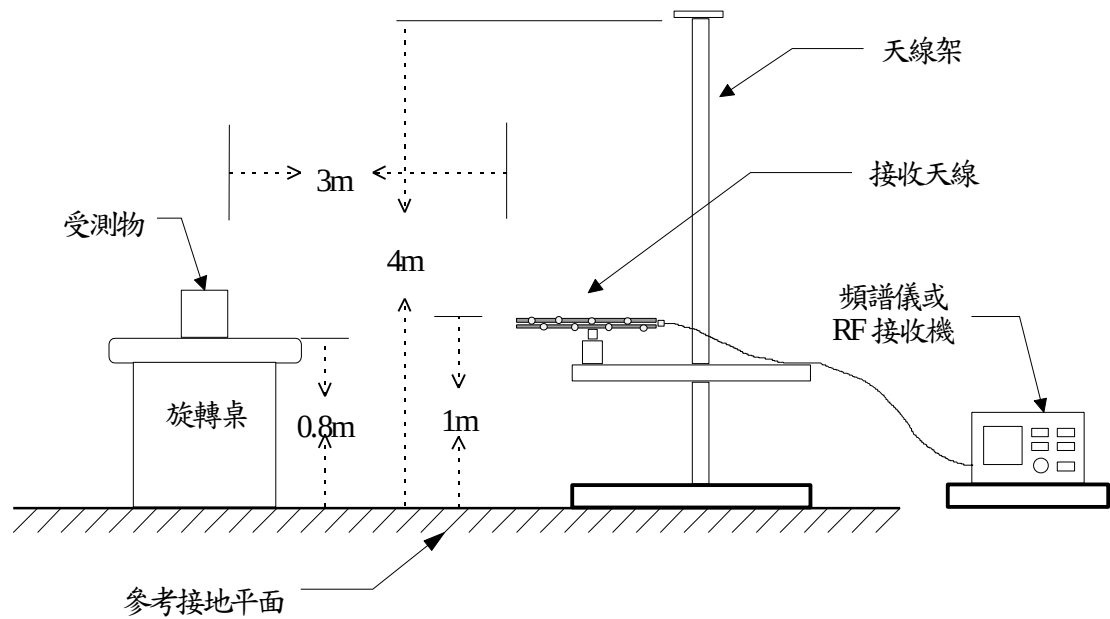
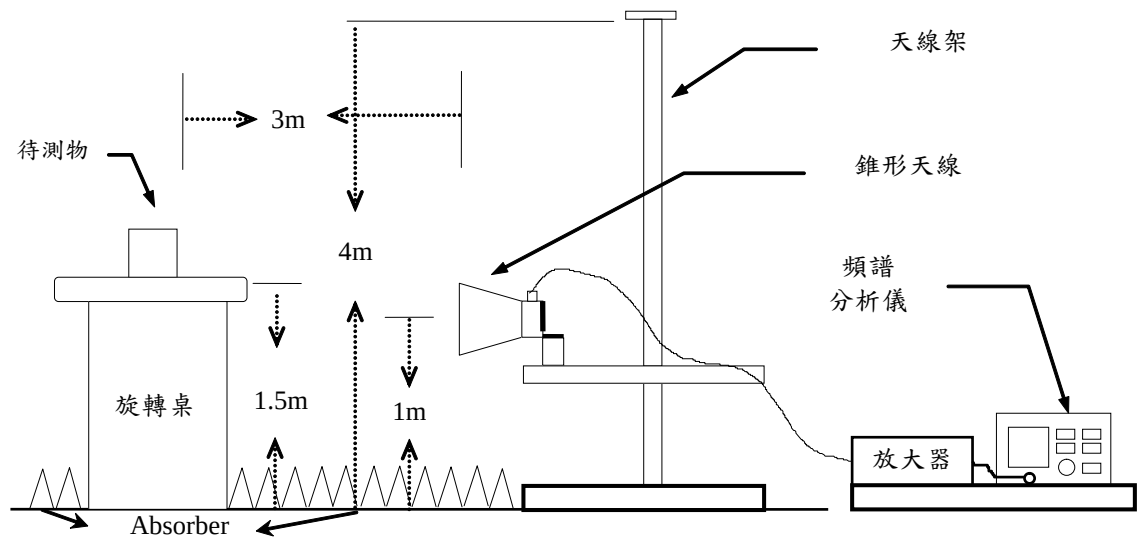


圖 3: 量測頻率高於1GHz之測試配置



10.9 輻射量測之配置照片

請參考產品照片

11 量測之儀器

儀器名稱	廠 牌	型 號	財產編號/序號	校驗日期	下次校驗日期
Spectrum Analyzer	R&S	FSV40	13052017-001	05/27/2021	05/26/2022
Attenuator	WEINSCHEL	56-10	58772	05/03/2021	05/02/2022
EMI Receiver	R&S	ESCI	13054423-001	12/15/2020	12/14/2021
Spectrum Analyzer	R&S	FSU46	13040904-001	05/13/2021	05/12/2022
Horn Antenna	EMCO	3117	13059211-004	04/09/2021	04/08/2022
Horn Antenna	EMCO	3116	13059202-001	11/06/2020	11/05/2021
PRE-Amplifier	Agilent	8449B	13040709-001	12/21/2020	12/20/2021
PRE-Amplifier	Agilent	8447D	13040715-002	05/03/2021	05/02/2022
BiLog Antenna	ETC	MCTD 2786	BL19J04024	03/11/2021	03/10/2022
Trilog Broadband Antenna with 5dB Pad	SCHWARZB ECK&EMCI	VULB 9168 & EMCI-N-6-05	1211&AT-N0569	05/10/2021	05/09/2022
PRE-Amplifier	Agilent	83051A	13052916001	09/18/2020	09/17/2021