MRT Technology (Taiwan) Co., Ltd
Phone: +886-03-3288388
Fax: +886-03-3288918
Web: www.mrt-cert.com

Report No.: 2105TW5303-T3
Report Version: 1.0
Issue Date: 2021-07-07

NCC

低功率射頻器材型式試驗報告

產品名稱	：智慧收銀終端
型號	：AECR C9
廠牌	：ingenico
商標	：
申請者	：聯天科技股份有限公司
申請者地址	：臺北市中山區中山北路 2 段 44 號 11 樓
測試標準	：LP0002 (109 年版)
參考法規	：ANSI C63.10-2013
測試結果	：符合
接收日期	：2021/5/18
測試日期	：2021/5/24~2021/6/2

測試工程師 ： (許丞哲)

報告審核人 ： (陳柏均)

報告簽署人 ： (柯承志)

Testing Laboratory
3261

本測試報告僅對實驗室所受測之樣品負責
本測試報告非經本公司同意不可局部複製使用

修訂紀錄

報告編號	版本	描述	發行日期
2105TW5303-T3	1.0	Original Report	2021-07-07

CONTENTS

Description **Page**

1. 一般資訊 5

2. 產品描述 6

2.1 產品資訊 6

2.2 產品規格 7

2.4 測試配置 10

2.5 測試周邊 11

2.6 操作程序 11

3. 測試設備明細 12

4. 量測不確定度 13

5. 測試結果 14

5.1 電源傳導測試 15

5.1.1 量測方法 *15*

5.1.2 限制要求 *15*

5.1.3 測試架構圖 *15*

5.1.4 電源端點測試結果 *16*

5.2 峰值傳導輸出功率 18

5.2.1 量測方法 *18*

5.2.2 限制要求 *18*

5.2.3 測試架構圖 *18*

5.2.4 峰值傳導輸出功率測試結果 *19*

5.3 天線之要求 22

5.3.1 限制要求 *22*

5.3.2 天線樣式 *22*

5.4 帶外發射限制 23

5.4.1 量測方法 *23*

5.4.2 限制要求 *23*

5.4.3 測試架構圖 *23*

5.4.4 帶外輻射測試結果 *24*

5.5 輻射電場強度 33

5.5.1 量測方法 *33*

5.5.2 限制要求 *33*

5.5.3 測試架構圖 *34*

5.5.4 輻射電場強度測試結果 *36*

5.6 頻帶邊緣 66

5.6.1 量測方法 *66*
5.6.2 限制要求 *66*
5.6.3 測試架構圖 *67*
5.6.4 頻帶邊緣測試結果 *69*
5.7 占用頻寬 101
5.7.1 量測方法 *101*
5.7.2 限制要求 *101*
5.7.3 測試架構圖 *101*
5.7.4 占用頻寬測試結果 *102*
5.8. 功率頻譜密度 105
5.8.1 量測方法 *105*
5.8.2 限制要求 *105*
5.8.3 測試架構圖 *105*
5.8.4 功率頻譜密度測試結果 *106*

1. 一般資訊

申請者	聯天科技股份有限公司
申請者地址	臺北市中山區中山北路 2 段 44 號 11 樓
製造商	Ingenico International (Singapore) Pte Ltd.
製造商地址	152 Beach Road, #36-01/08 Gateway East, Singapore 189721. Singapore.
實驗室	台灣曼瑞檢測科技有限公司
實驗室地址	33377 台灣桃園市龜山區復興二路 38 號
實驗室資訊	**1.** MRT facility is a FCC registered (Reg. No. 153292) test facility with the site description report on file and is designated by the FCC as an Accredited Test Firm. **2.** MRT facility is an IC registered (MRT Reg. No. 21723) test laboratory with the site description on file at Industry Canada. **3.** MRT Lab is accredited to ISO 17025 by the Taiwan Accreditation Foundation (TAF Cert. No. 3261) in EMC, Telecommunications and Radio testing for FCC (Designation Number: TW3261), Industry Taiwan, EU and TELEC Rules.
實驗室測試環境條件	溫度 (°C) : 20-35 / 濕度 (%RH) : 30-65

2. 產品描述

2.1 產品資訊

產品名稱	智慧收銀終端
產品型號	AECR C9
廠牌	ingenico
商標	ingenico GROUP
支援規格	2.4G: 802.11b/g/n-20/n-40 Bluetooth Dual Mode: V4.2
Wi-Fi 規格	802.11b/g/n-20/n-40 (1TX / 1RX)
頻率範圍	**2.4GHz:** For 802.11b/g/n-HT20: 2412 ~ 2462 MHz For 802.11n-HT40: 2422 ~ 2452 MHz
最大輸出功率	802.11b: 18.88dBm 802.11g: 23.00dBm 802.11n-HT20: 22.54dBm 802.11n-HT40: 22.31dBm
配件	
電源供應器	Brand: LITEON Model No: PA-1650-90 Input: AC 100-240V~50-60Hz 1.6A Output: 19V, 3.42A
電源線組	Brand: BizLink Model No: LAP-31+705

Note: 此器材經確認後, 不支援 WIFI-5G 功能。

2.2 產品規格

Technology	Frequency (MHz)	Modulation	channel Spacing (MHz)	Data Rate (Mbps)	Number of Channels
802.11b	2412~2462	DSSS (CCK, DQPSK, DBPSK)	5	1 ~11	11
802.11g	2412~2462	OFDM (BPSK, QPSK,16QAM,64QAM)	5	6 ~54	11
802.11n-20M	2412~2462	OFDM (BPSK, QPSK,16QAM,64QAM)	5	7.2-72.2	11
802.11n-40M	2422~2452	OFDM (BPSK, QPSK,16QAM,64QAM)	5	15-150	7

802.11b/g/n-HT20

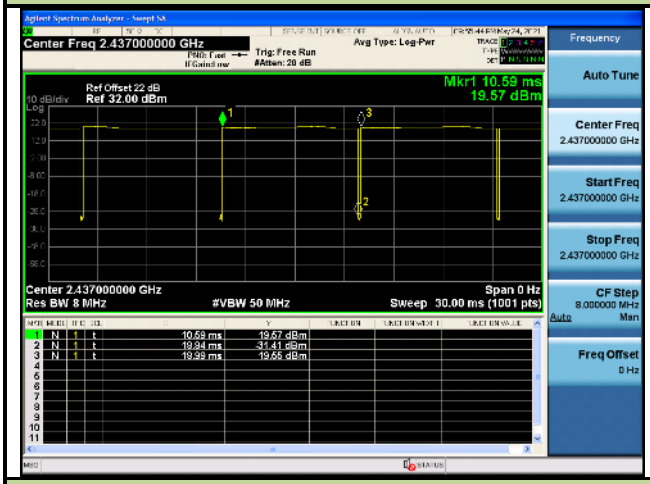
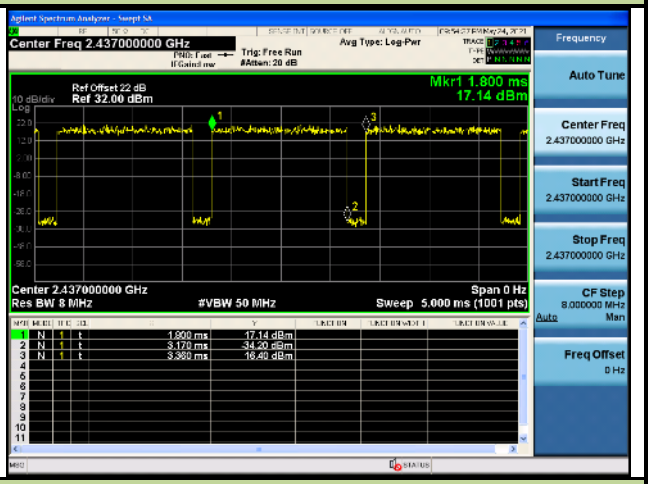
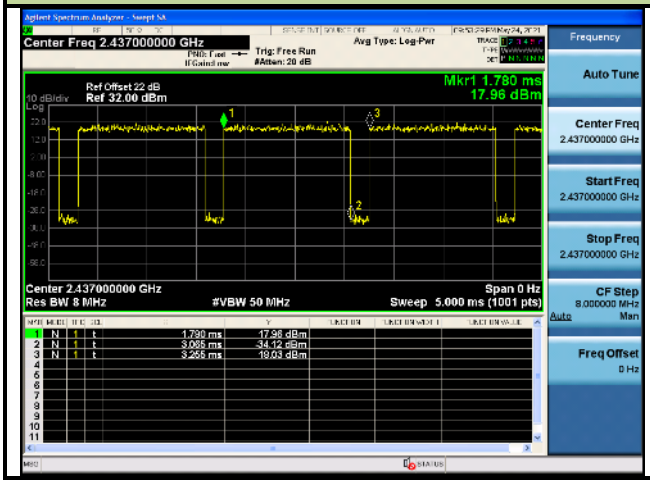
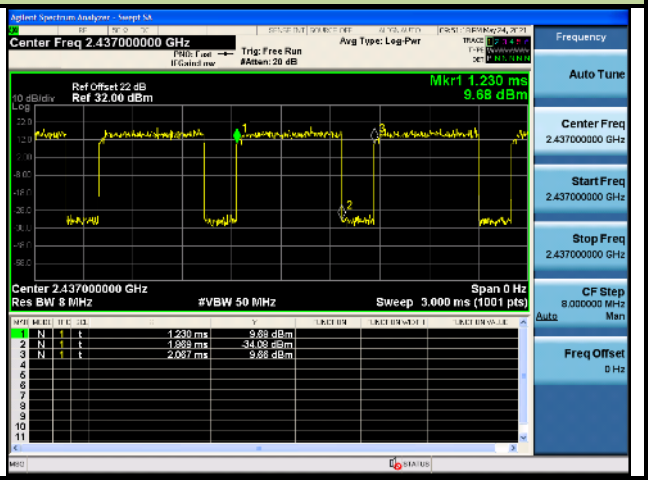
Channel	Frequency	Channel	Frequency	Channel	Frequency
01	2412 MHz	02	2417 MHz	03	2422 MHz
04	2427 MHz	05	2432 MHz	06	2437 MHz
07	2442 MHz	08	2447 MHz	09	2452 MHz
10	2457 MHz	11	2462 MHz	--	--

802.11n-HT40

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

Duty Cycle

Test Mode	Duty Cycle
802.11b	98%
802.11g	88%
802.11 n-HT20	87%
802.11 n-HT40	76%

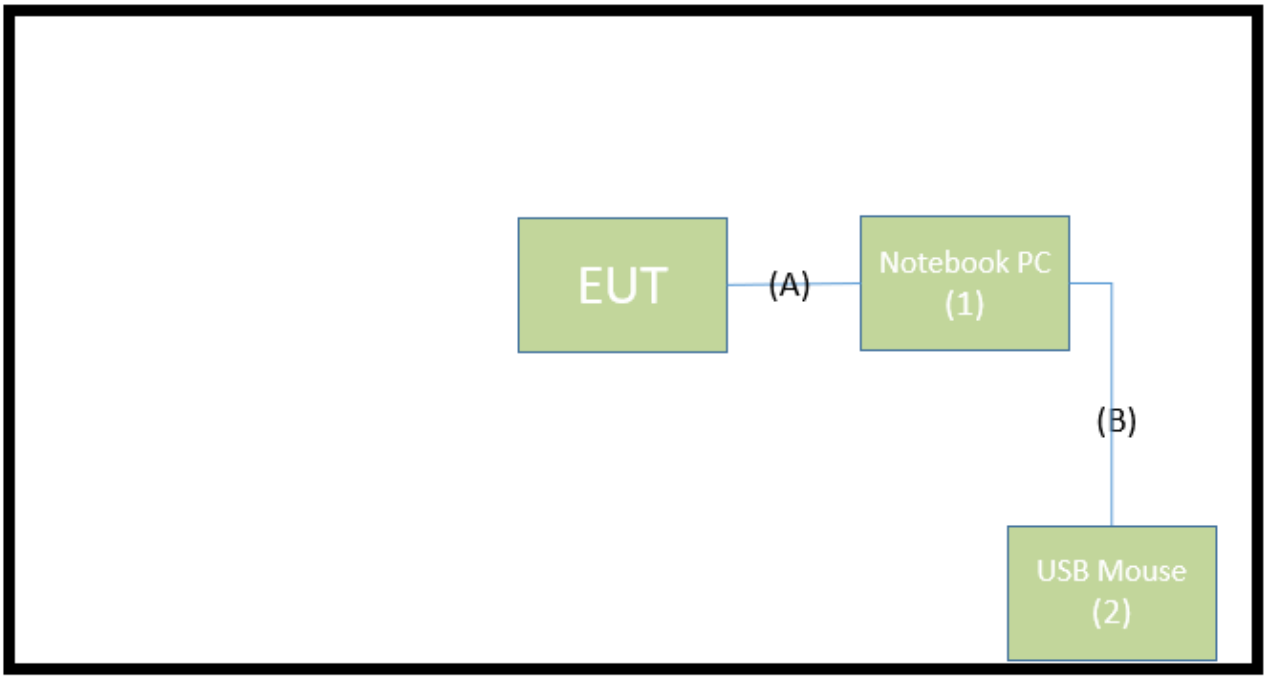
802.11 b	802.11 g
	
802.11 n20	**802.11 n40**
	

2.3 測試模式

Test Mode	Mode 1: Transmit by 802.11b
	Mode 2: Transmit by 802.11g
	Mode 3: Transmit by 802.11n-HT20
	Mode 4: Transmit by 802.11n-HT40
	Mode 5: Receive by 802.11n-HT20

2.4 測試配置

待測物測試配置圖



Signal Cable Type		Signal Cable Description
A	Micro USB Cable	Shielded, 1.0m (Brand:HUNG HOW ENTERPRISE CO., LTD, M/N: USB A MALE to MICRO MALE CABLE)
B	USB Mouse Cable	Shielded, 1.6m

2.5 測試周邊

待測裝置測試時，其搭配系統測試時之週邊裝置包括如下:

No.	周邊名稱	廠牌	型號	序號	電源線
1	Notebook PC	acer	P5LJ0	N/A	Non-Shielded, 1.8m
2	USB Mouse	Lenovo	M110	N/A	Non-Shielded, 1.8m

2.6 操作程序

1.	Turn on the power of all equipment.
2.	Execute “landi_win_drivers 3.0.18” program
3.	Configure the test channel and the data rate.
4.	Start test.

3. 測試設備明細

傳導干擾 -SR2

儀器名稱	廠牌	型號	財產編號	校正週期	有效日期
Two-Line V-Network	R&S	ENV216	MRTTWA00019	1 year	2022/3/23
Two-Line V-Network	R&S	ENV216	MRTTWA00020	1 year	2022/4/28
8-Wire ISN (T8)	R&S	ENY81	MRTTWA00018	1 year	2022/5/30
Cable	Rosnol	N1C50-RG400-B1C50-500CM	MRTTWE00013	1 year	2021/6/21
EMI Test Receiver	R&S	ESR3	MRTTWA00009	1 year	2022/3/24

輻射干擾 – AC1

儀器名稱	廠牌	型號	財產編號	校正週期	有效日期
Broadband TRILOG Antenna	SCHWARZBECK	VULB 9162	MRTTWA00001	1 year	2021/10/5
EMI Test Receiver	R&S	ESR3	MRTTWA00009	1 year	2022/3/24
Acitve Loop Antenna	Schwarzbeck	FMZB 1519B	MRTTWA00002	1 year	2022/5/6
Broadband Horn antenna	SCHWARZBECK	BBHA 9120D	MRTTWA00003	1 year	2022/4/21
Breitband Hornantenna	Schwarzbeck	BBHA 9170	MRTTWA00004	1 year	2022/4/28
Broadband Amplifier	Schwarzbeck	BBV 9721	MRTTWA00006	1 year	2022/4/26
Broadband Preamplifier	SCHWARZBECK	BBV 9718	MRTTWA00005	1 year	2022/4/21
Cable	HUBERSUHNER	SF106	MRTTWE00010	1 year	2021/6/16

傳導量測設備 –SR2

儀器名稱	廠牌	型號	財產編號	校正週期	有效日期
EXA Signal Analyzer	KEYSIGHT	N9010A	MRTTWA00012	1 year	2021/10/14
EXA Signal Analyzer	KEYSIGHT	N9010B	MRTTWA00074	1 year	2021/7/14
X-Series USB Peak and Average Power Sensor	KEYSIGHT	U2021XA	MRTTWA00015	1 year	2022/3/24

EMI 測試軟體

軟體名稱	廠牌	版本
e3	Audix	9.160520a
EMI	Quietek	V3

4. 量測不確定度

電源傳導量測-電源線 (Conducted Emission- Power Line)
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 0.15MHz~30MHz: ± 2.53dB
輻射干擾量測 (Radiated Spurious Emission)
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 9kHz~30MHz: ± 3.92dB 30MHz~1GHz: ± 4.25dB 1GHz~18GHz: ± 4.40dB 18GHz~40GHz: ± 4.45dB
頻率誤差量測 (Frequency Error)
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): ±78.4Hz
傳導功率量測 (Conducted Power)
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): ± 0.84dB
傳導干擾量測 (Conducted Spurious Emission)
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): ± 2.65 dB
佔用頻寬量測 (Occupied Bandwidth)
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 3.3%
溫度 / 濕度 (Temp. / Humidity)
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): ±0.82°C/ ±3%
直流電源 (DC Voltage)
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): ±0.3%

5. 測試結果

產品名稱 智慧收銀終端

型號 AECR C9

章節	量測項目	限制值	測試結果	測試數據
3.3	電源傳導	低功率射頻器材技術規範 3.3 節	符合	第 5.1 章節
4.10.1.2	峰值傳導輸出功率	≦ 30.00dBm	符合	第 5.2 章節
4.10.1.3	天線之要求	低功率射頻器材技術規範 4.10.1.3 節	符合	第 5.3 章節
4.10.1.5	帶外發射限制	≦ 20dBc(Peak)	符合	第 5.4 章節
3.6	輻射電場強度	低功率射頻器材技術規範 3.6 節	符合	第 5.5 章節
3.5	頻帶邊緣	≦ 74dBuV/m(Peak) ≦ 54dBuV/m(Average)	符合	第 5.6 章節
4.10.1.6(2)(A)	占用頻寬	≧ 500KHz	符合	第 5.7 章節
4.10.1.6(2)(B)	功率頻譜密度	≦ 8dBm	符合	第 5.8 章節

備註：符合性的判定是基於測試結果符合規範的限制值或客戶的宣告要求，測試結果的判定是不考慮測量不確定度的值。

5.1 電源傳導測試

5.1.1 量測方法

待測物放置於1m*2m*0.8m之非導體桌面並離垂直牆面40cm（落地型產品置於地上），將待測物之電源線接至電源阻抗網路器(LISN)，同時保持待測物至LISN距80公分，並將電源線多餘部份以30至40公分之八字形捆綁於電源線中央並離地40cm，於在正常工作狀態下，執行待測物之火線(Line)及地線(neutral)各一次量測。

電源端點場強之測量範圍由 0.15MHz –30MHz，所量測之讀值皆為準尖峰值(Quasi-Peak Value)及平均值(Average Value)。 場強接收機之解析頻寬為9kHz。

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

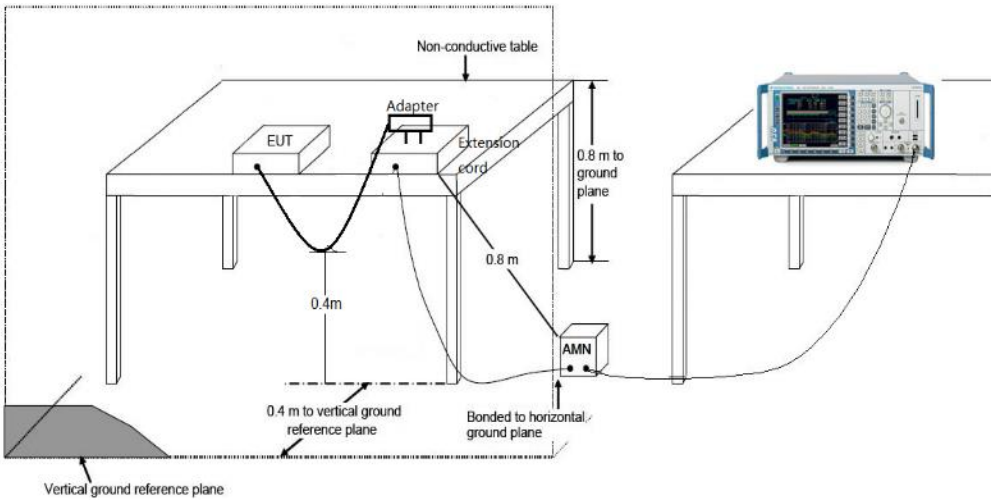
5.1.2 限制要求

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

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

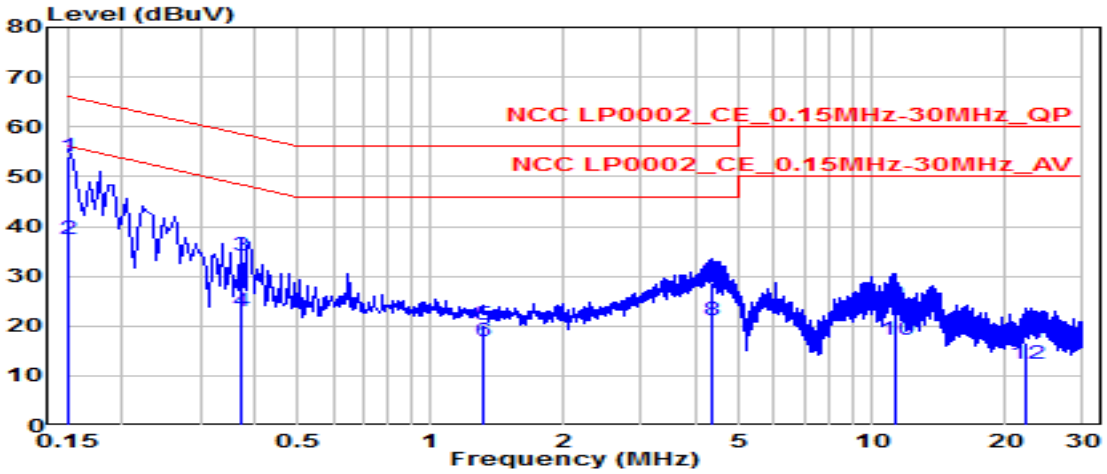
註:隨頻率之對數遞減

5.1.3 測試架構圖



5.1.4 電源端點測試結果

EUT	智慧收銀終端	Date of Test	2021-05-25
Factor	CE_ENV216-L1 (Filter ON)	Temp. / Humidity	24.1°C /59%
Polarity	Line1	Site / Test Engineer	SR2 / Eric
Test Mode	802.11n20_TX_CH6_Ant 0	Test Voltage	AC 110V/60Hz



No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Remark (QP/PK/AV)
1	*	0.150	44.37	9.61	53.98	-12.02	66.00	QP
2	*	0.150	27.75	9.61	37.36	-18.64	56.00	Average
3		0.370	24.50	9.62	34.12	-24.37	58.49	QP
4		0.370	13.23	9.62	22.86	-25.63	48.49	Average
5		1.306	10.50	9.67	20.17	-35.83	56.00	QP
6		1.306	7.27	9.67	16.94	-29.06	46.00	Average
7		4.312	19.00	9.73	28.72	-27.28	56.00	QP
8		4.312	11.37	9.73	21.09	-24.91	46.00	Average
9		11.295	14.67	9.88	24.55	-35.45	60.00	QP
10		11.295	7.24	9.88	17.12	-32.88	50.00	Average
11		22.355	6.51	9.99	16.50	-43.50	60.00	QP
12		22.355	2.36	9.99	12.35	-37.65	50.00	Average

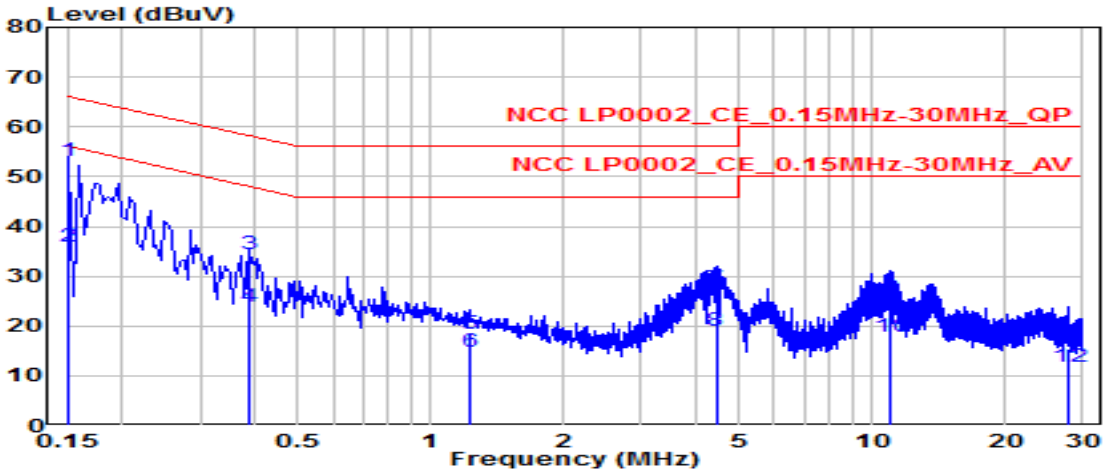
Note:

1. " *", means this data is the worst emission level.

2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).

3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).

EUT	智慧收銀終端	Date of Test	2021-05-25
Factor	CE_ENV216-N (Filter ON)	Temp. / Humidity	24.1°C /59%
Polarity	Neutral	Site / Test Engineer	SR2 / Eric
Test Mode	802.11n20_TX_CH6_Ant 0	Test Voltage	AC 110V/60Hz



No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Remark (QP/PK/AV)
1	*	0.150	43.56	9.62	53.18	-12.82	66.00	QP
2	*	0.150	26.18	9.62	35.80	-20.20	56.00	Average
3		0.388	24.85	9.62	34.47	-23.63	58.10	QP
4		0.388	14.13	9.62	23.75	-24.34	48.10	Average
5		1.221	8.78	9.67	18.45	-37.55	56.00	QP
6		1.221	5.27	9.67	14.94	-31.06	46.00	Average
7		4.429	17.74	9.74	27.48	-28.52	56.00	QP
8		4.429	9.14	9.74	18.88	-27.12	46.00	Average
9		11.043	15.76	9.91	25.66	-34.34	60.00	QP
10		11.043	7.89	9.91	17.79	-32.21	50.00	Average
11		27.777	5.33	10.14	15.47	-44.53	60.00	QP
12		27.777	1.77	10.14	11.92	-38.08	50.00	Average

Note:

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

5.2 峰值傳導輸出功率

5.2.1 量測方法

待測物之天線埠經由適當之衰減直接連至頻譜分析儀RF輸入端，設定頻譜分析儀之解析度頻寬大於6dB發射頻寬或使用峰值功率表。除使用上述測量方式外,並得使用以最大傳導輸出功率作為測量方式。

5.2.2 限制要求

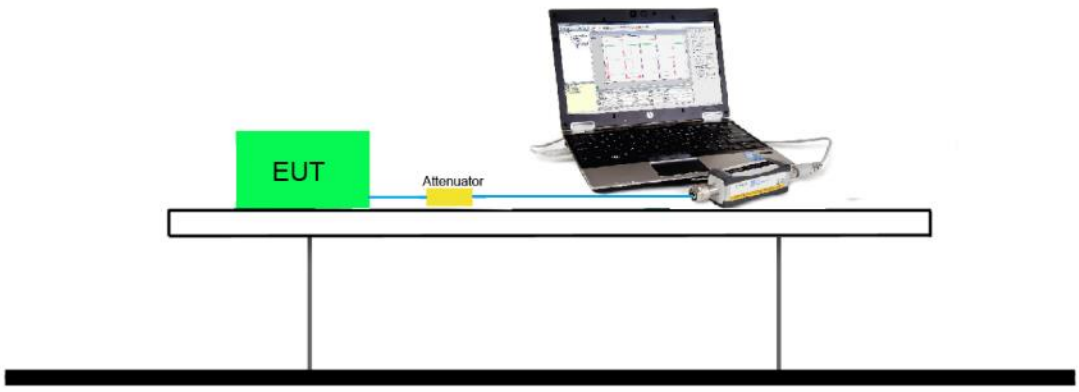
操作於2400-2483.5 MHz之跳頻或數位調變的發射器材與5725-5850 MHz之跳頻發射器材：1W(含)以下，當跳頻系統符合國家通訊傳播委員會低功率射頻器材技術規範之第4.10.1.6(1)(A)(a)節,其限制值為0.125 W(含)以下。

若用於非固定式點對點操作時，若其發射天線之方向性增益超過6dBi，應依所超過之dB數等量降低峰值輸出功率。如用於固定式點對點(註)操作時，應符合下列情形之一：

(1)操作於2400-2483.5兆赫(MHz)者，其發射天線之方向性增益超過6dBi，應於每超過3dB降低1dB之峰值輸出功率。

(2) 操作於5725-5850兆赫(MHz)者，其發射天線之方向性增益超過6dBi，不需降低峰值輸出功率。

5.2.3 測試架構圖



5.2.4 峰值傳導輸出功率測試結果

待測物名稱	智慧收銀終端	測試日期	2021/5/24
待測物型號	AECR C9	溫度 / 濕度	23°C / 55%
測試場地 / 測試工程師	SR2 / Eric		

2.4GHz 802.11b RF Output Power (dBm)							
Channel No.	Frequency (MHz)	Average Power For different Data Rate (Mbps)				Peak Power	Required Limit
		1	2	5.5	11	1	
01	2412	14.93	--	--	--	17.91	1Watt= 30 dBm
06	2437	15.85	15.82	15.8	15.77	18.88	1Watt= 30 dBm
11	2462	14.04	--	--	--	16.97	1Watt= 30 dBm

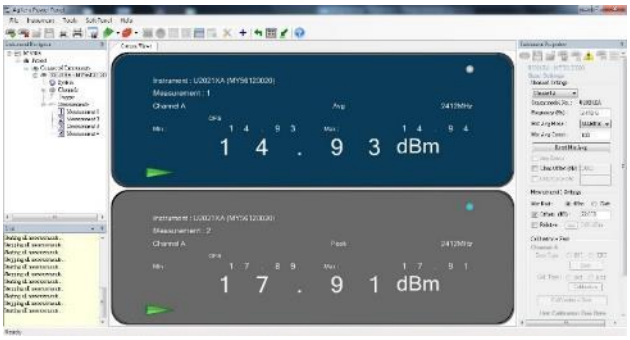
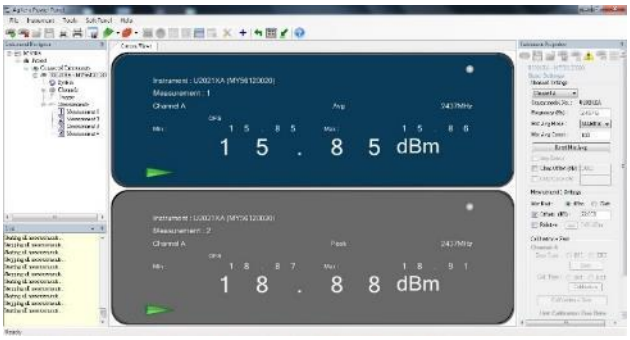
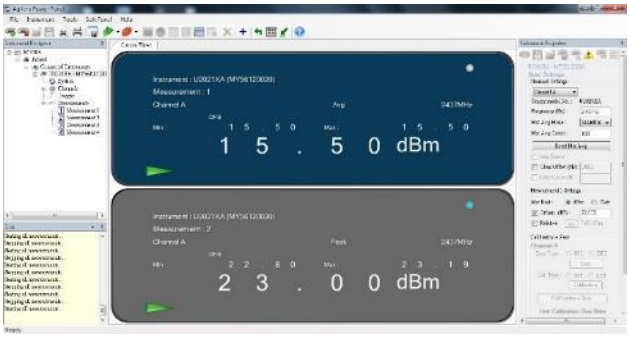
2.4GHz 802.11g RF Output Power (dBm)										
Channel No.	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power	Required Limit
		6	9	12	18	24	36	48	54	6	
01	2412	14.79	--	--	--	--	--	--	--	21.56	1Watt= 30 dBm
06	2437	15.50	15.46	15.35	15.28	15.20	15.18	15.14	15.11	23.00	1Watt= 30 dBm
11	2462	13.80	--	--	--	--	--	--	--	20.47	1Watt= 30 dBm

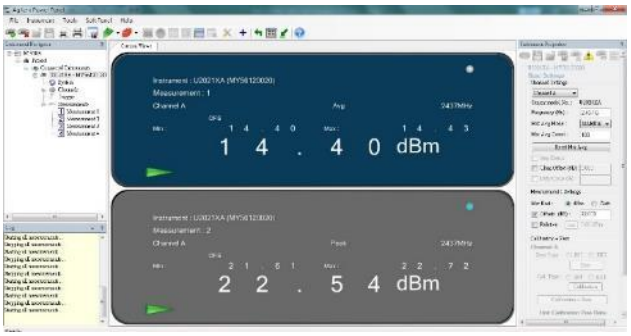
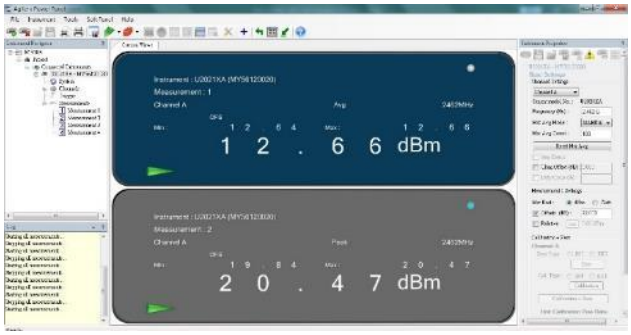
2.4GHz 802.11n-20M RF Output Power (dBm)										
Channel No.	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power	Required Limit
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS0	
01	2412	12.81	--	--	--	--	--	--	--	20.59	1Watt= 30 dBm
06	2437	14.40	14.24	14.09	13.95	13.87	13.52	13.31	13.14	22.54	1Watt= 30 dBm
11	2462	12.66	--	--	--	--	--	--	--	20.47	1Watt= 30 dBm

2.4GHz 802.11n-40M RF Output Power (dBm)										
Channel No.	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power	Required Limit
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS0	
03	2422	12.42	--	--	--	--	--	--	--	20.77	1Watt= 30 dBm
06	2437	14.17	14.03	13.85	13.8	13.78	13.65	13.61	11.57	22.31	1Watt= 30 dBm
09	2452	13.03	--	--	--	--	--	--	--	21.66	1Watt= 30 dBm

備 註： 1. 此項量測係採 Power Meter。

2. 此量測值已含工作週期因子及線材損耗(Cable Loss=1dB)

802.11 b CH01 (2412MHz) (1Mbps)	802.11 b CH06 (2437MHz) (1Mbps)
	
802.11 b CH11 (2462MHz) (1Mbps)	**802.11 g CH01 (2412MHz) (6Mbps)**
802.11 g CH06 (2437MHz) (6Mbps)	**802.11 g CH11 (2462MHz) (6Mbps)**
	

802.11 n20 CH01 (2412MHz) (MCS0)	802.11 n20 CH06 (2437MHz) (MCS0)
	
802.11 n20 CH11 (2462MHz) (MCS0)	**802.11 n40 CH03 (2422MHz) (MCS0)**
	
802.11 n40 CH06 (2437MHz) (MCS0)	**802.11 n40 CH09 (2452MHz) (MCS0)**

5.3 天線之要求

5.3.1 限制要求

依據國家通訊傳播委員會低功率射頻器材技術規範之第4.10.1.4節規定，天線之規格可不受下述規定之限制。

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

5.3.2 天線樣式

此智慧收銀終端其天線為 FPCB Antenna Type，(檢附天線規格書)

Antenna List

No.	Brand	Part No.	Peak Gain
1	ZHONGTIAN XUN	ZTX-C9-WIFI-ANT V1.0	4.47dBi

5.4 帶外發射限制

5.4.1 量測方法

待測物之天線埠經由適當之衰減直接連至頻譜分析儀 RF 輸入端，

(1) 頻率掃描範圍足以檢測頻帶內的發射波峰位準以及由受測物產生之最低頻率到第 10 次諧波的所有混附發射，通常需要分幾段以涵蓋全部頻率範圍。

(2) 解析頻寬為 100 kHz，視訊頻寬不小於解析頻寬。

(3) 掃描時間為自動，檢波功能為峰值，訊號軌跡為最大保留(Max Hold)

(4) 將標記設定於任何欲紀錄之波峰上，所顯示之位準值必須符合指定之限制值。

5.4.2 限制要求

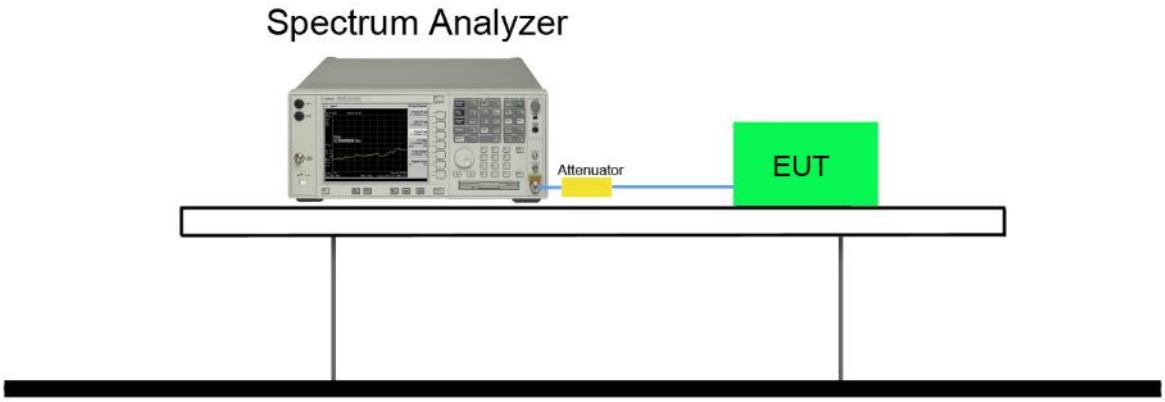
使用頻帶範圍外之任意 100 千赫 (kHz)內，發射器所產生的射頻功率相較於使用頻帶範圍中包含最高所需功率之 100 千赫 (kHz)內的射頻功率，衰減值限制如下 ：

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

(2)輸出功率以數位調變技術系統之最大傳導輸出功率量測方式者，至少須衰減 30 dB。

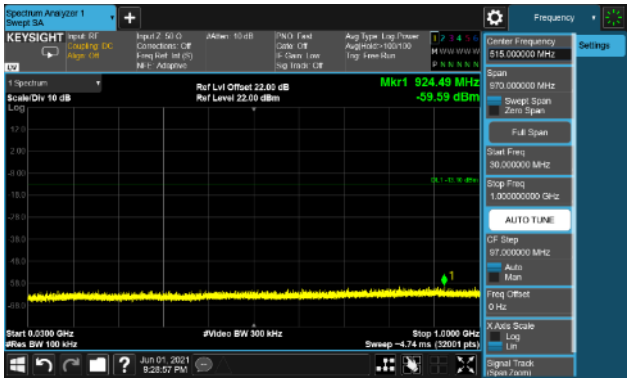
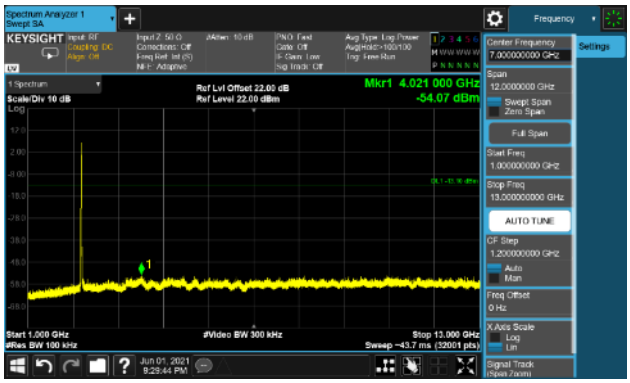
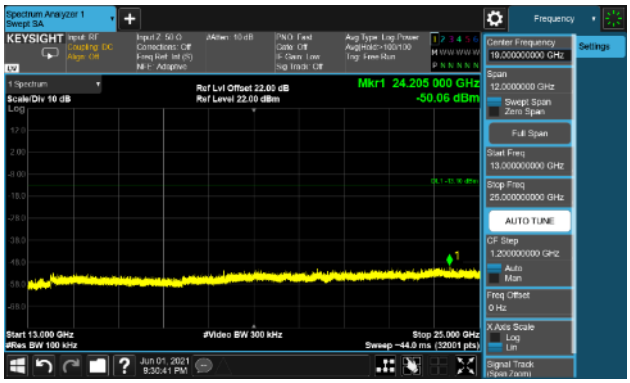
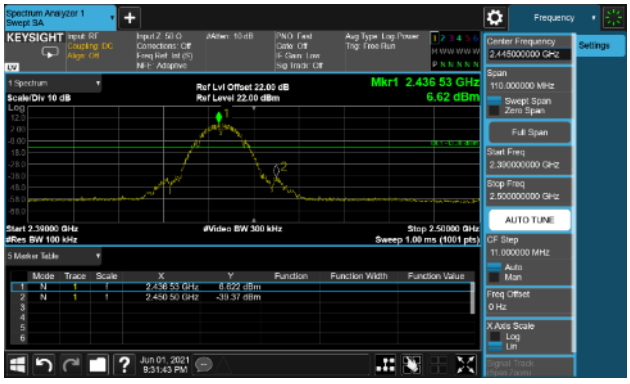
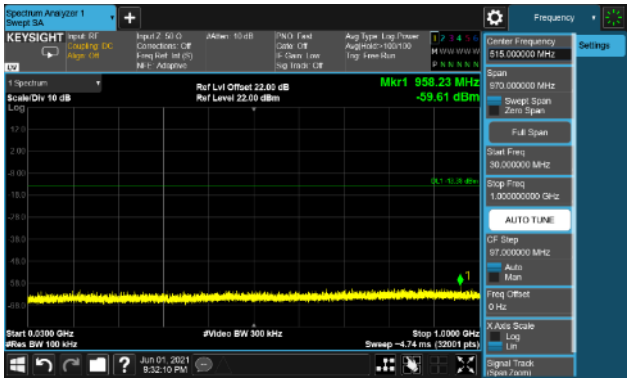
(3)若落於禁用頻段之輻射發射，應符合低功率射頻器材技術規範第 3.6 節之規定。

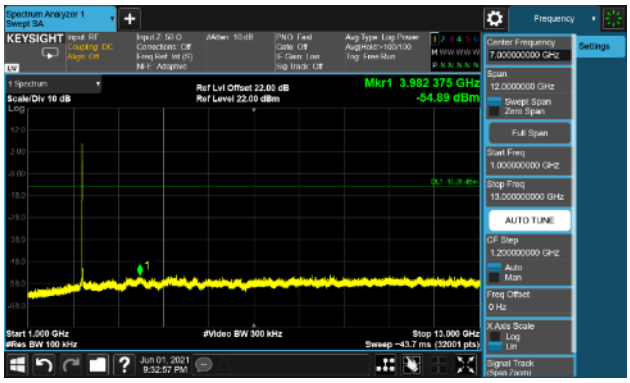
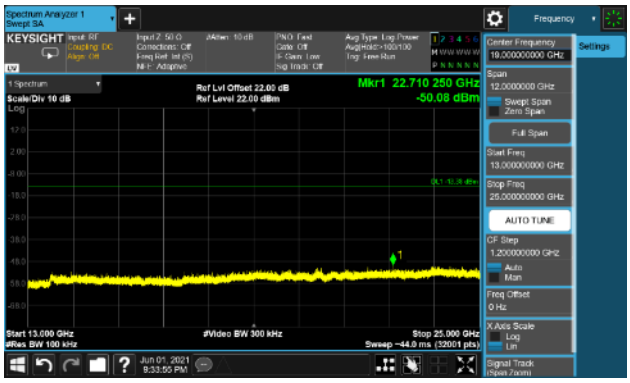
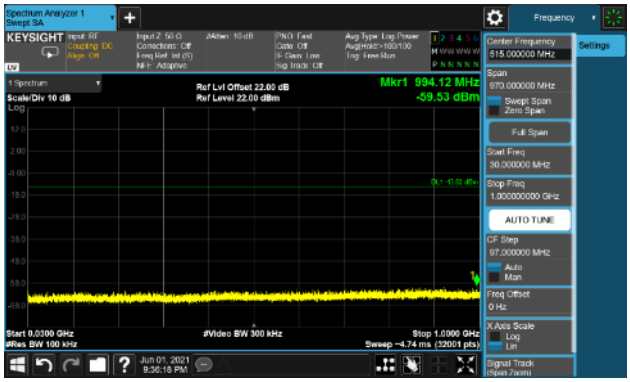
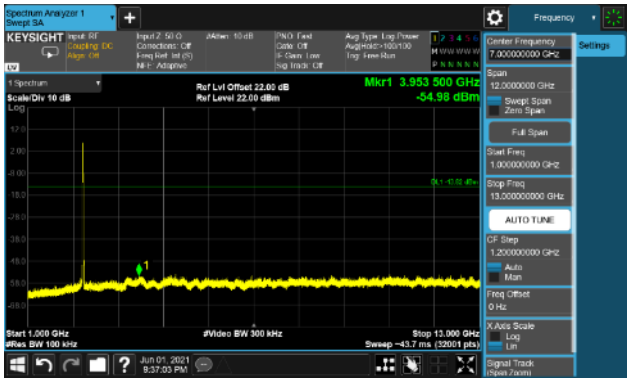
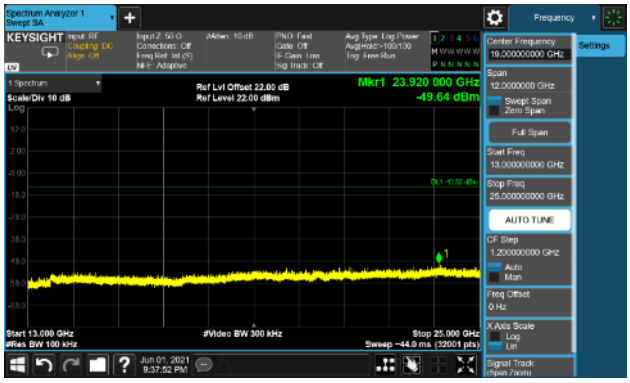
5.4.3 測試架構圖

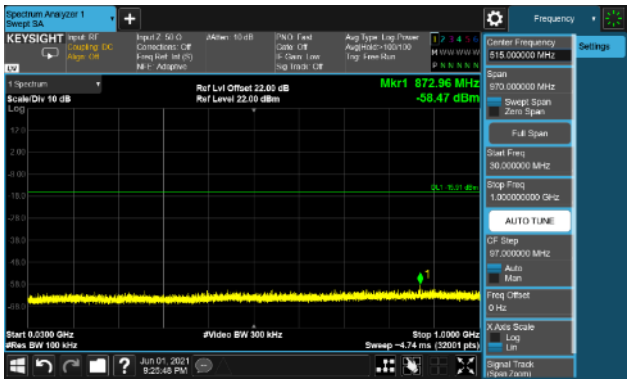
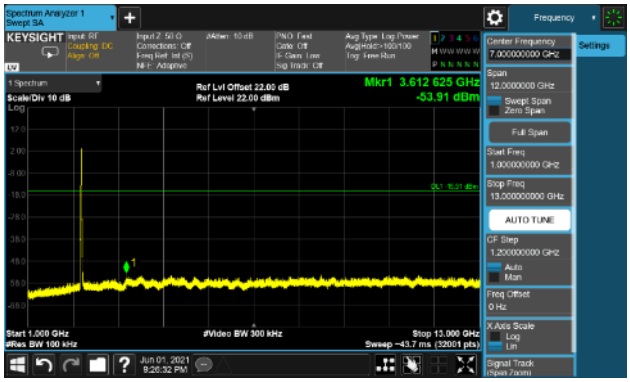
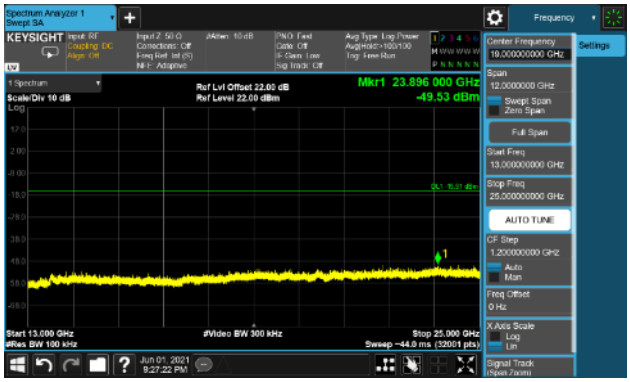
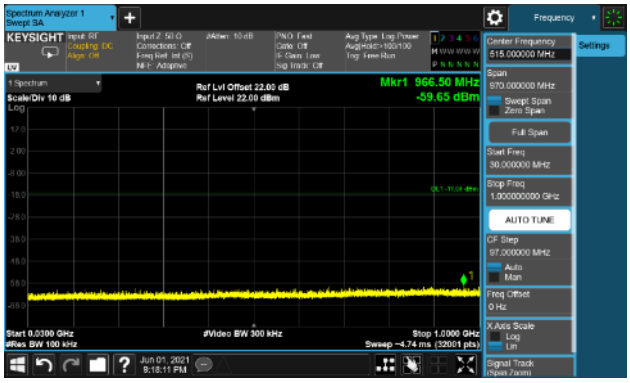


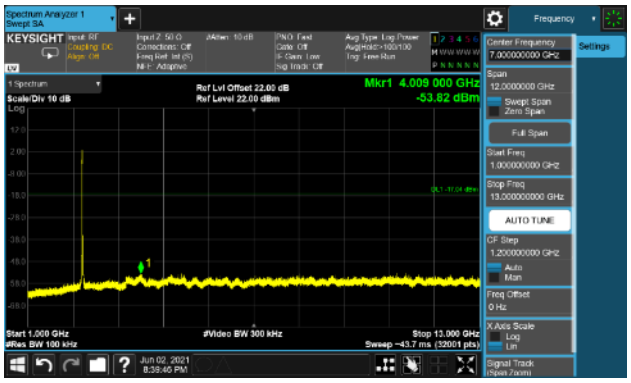
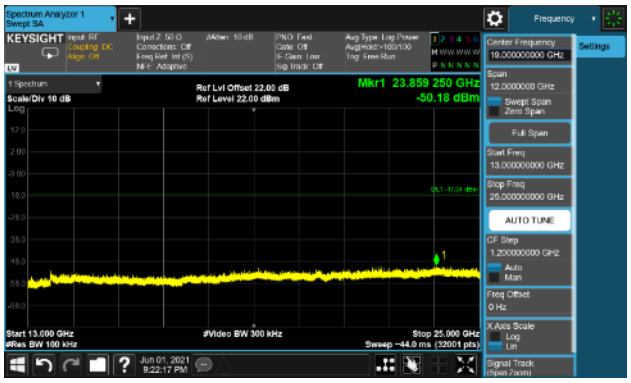
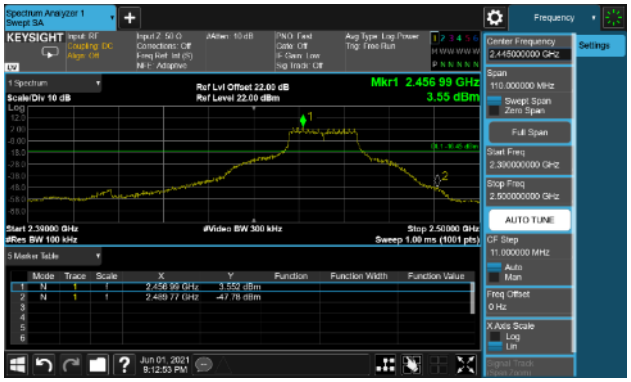
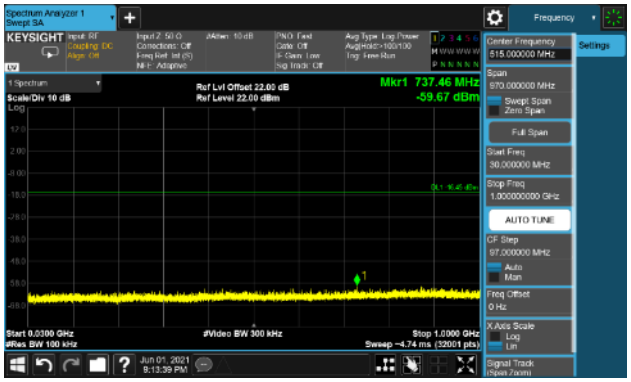
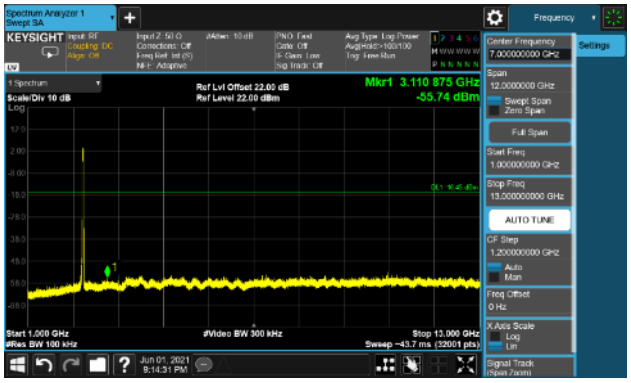
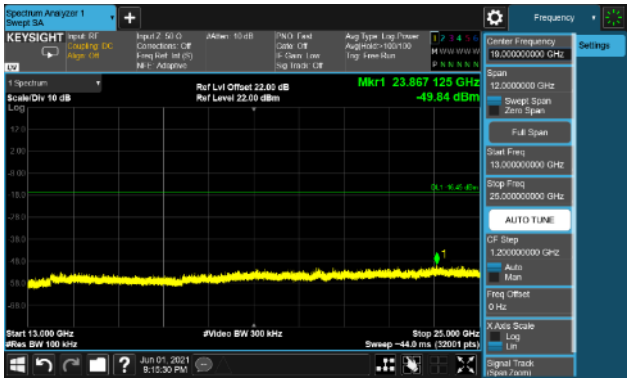
5.4.4 帶外輻射測試結果

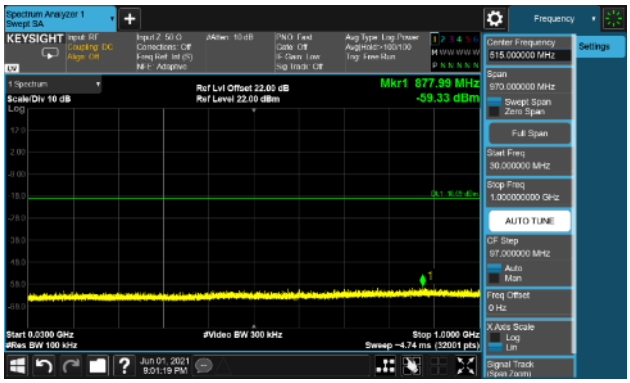
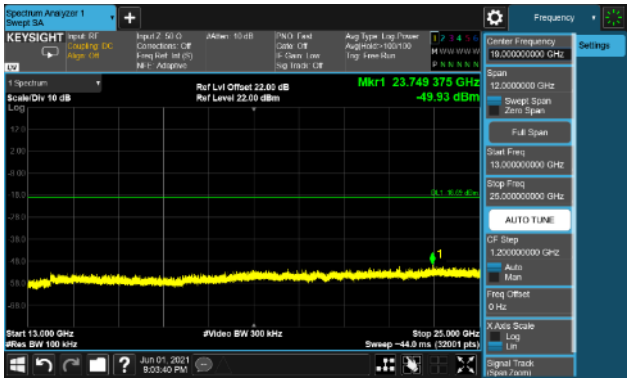
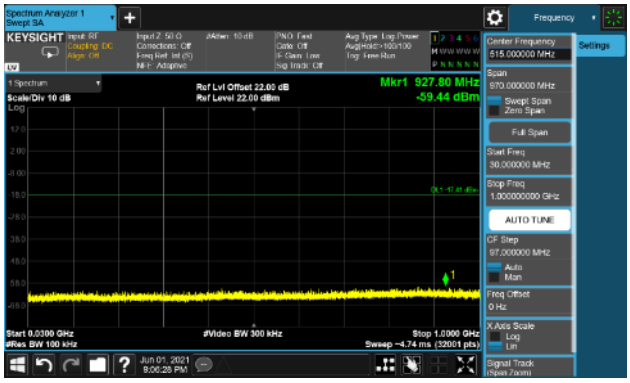
Test Mode	Channel No.	Frequency (MHz)	Limit	Result
802.11b	01	2412	20dBc	Pass
802.11b	06	2437	20dBc	Pass
802.11b	11	2462	20dBc	Pass
802.11g	01	2412	20dBc	Pass
802.11g	06	2437	20dBc	Pass
802.11g	11	2462	20dBc	Pass
802.11n-20M	01	2412	20dBc	Pass
802.11n-20M	06	2437	20dBc	Pass
802.11n-20M	11	2462	20dBc	Pass
802.11n-40M	03	2422	20dBc	Pass
802.11n-40M	06	2437	20dBc	Pass
802.11n-40M	09	2452	20dBc	Pass

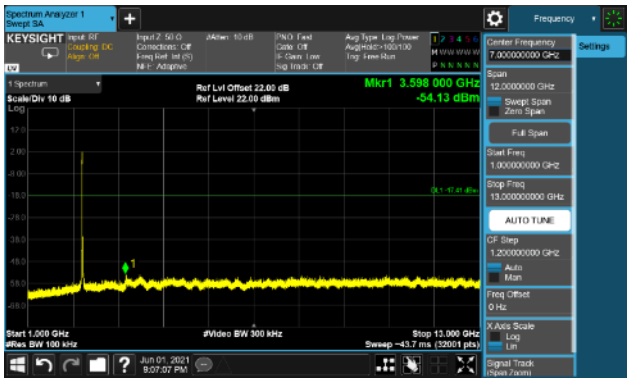
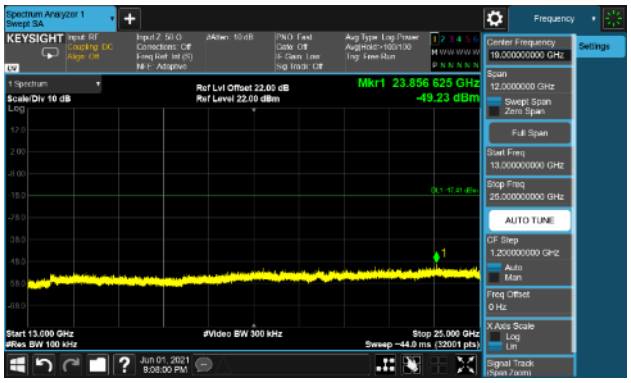
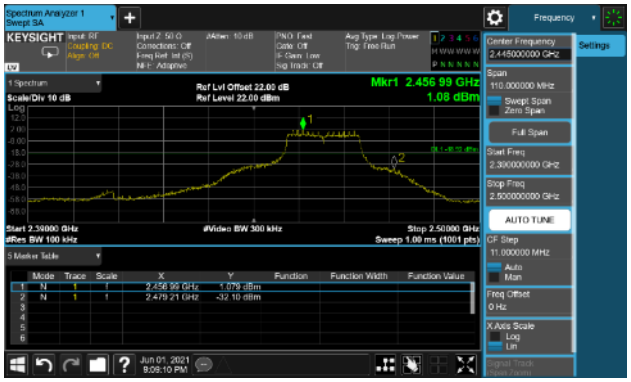
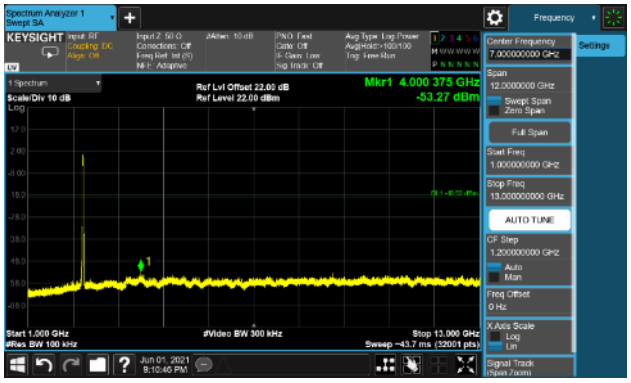
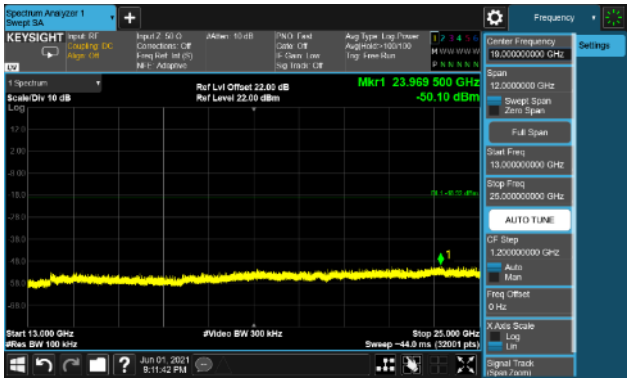
802.11 b CH01 (2412MHz)	802.11 b CH01 (2412MHz)
	
802.11 b CH01 (2412MHz)	**802.11 b CH01 (2412MHz)**
	
802.11 b CH06 (2437MHz)	**802.11 b CH06 (2437MHz)**
	

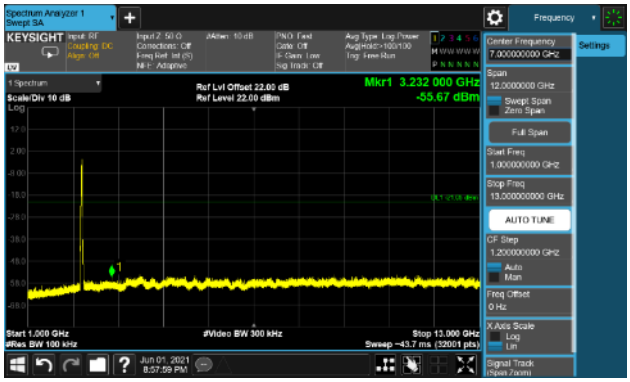
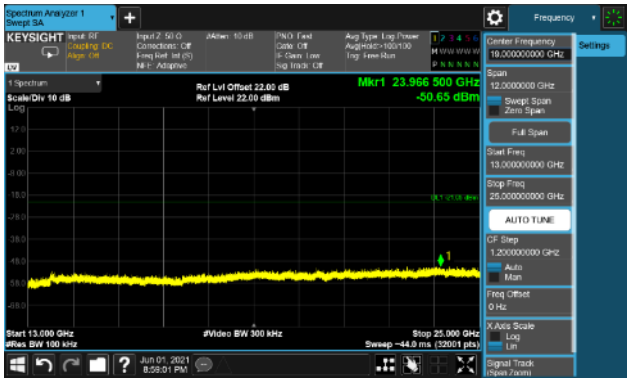
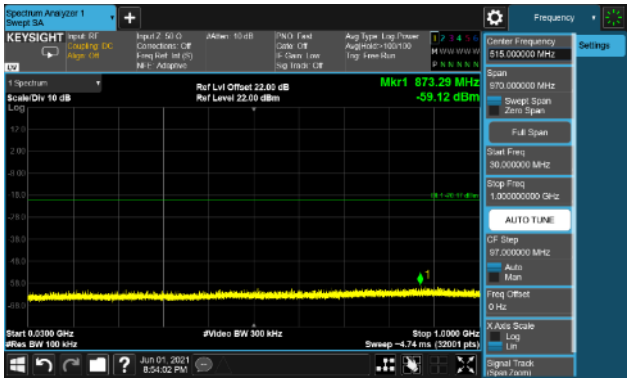
802.11 b CH06 (2437MHz)	802.11 b CH06 (2437MHz)
	
802.11 b CH11 (2462MHz)	**802.11 b CH11 (2462MHz)**
	
802.11 b CH11 (2462MHz)	**802.11 b CH11 (2462MHz)**
	

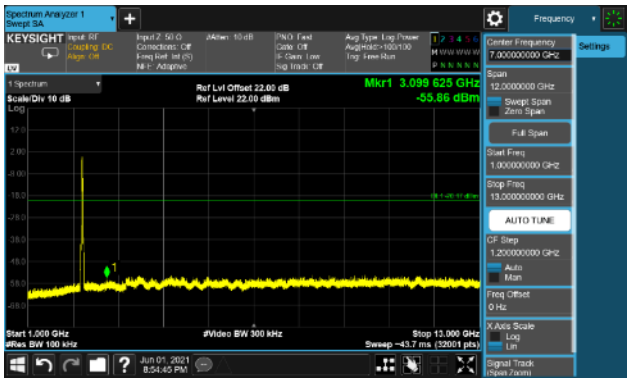
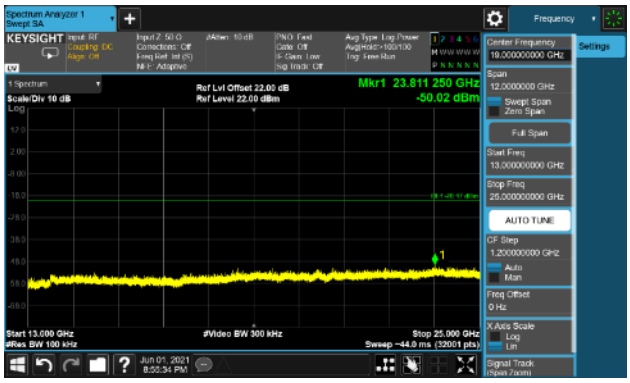
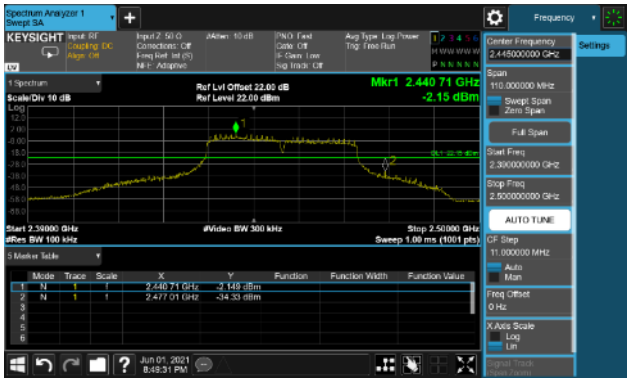
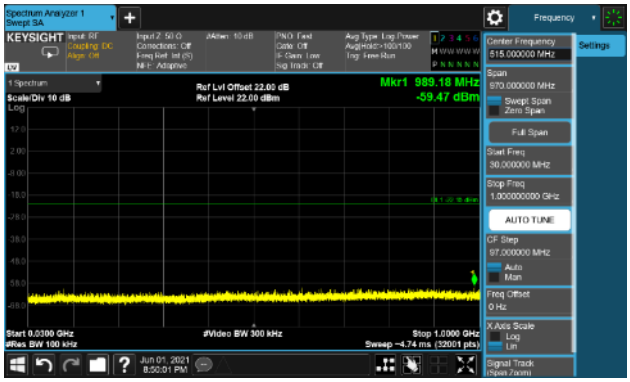
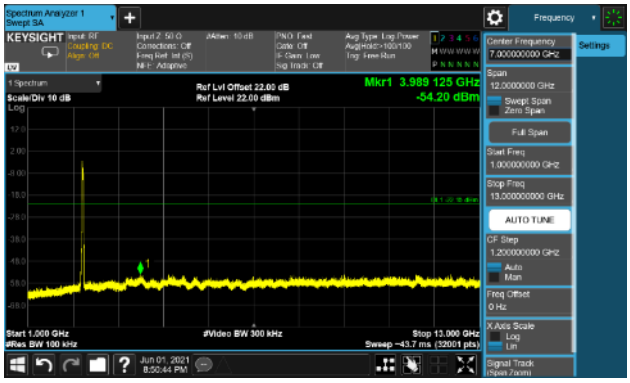
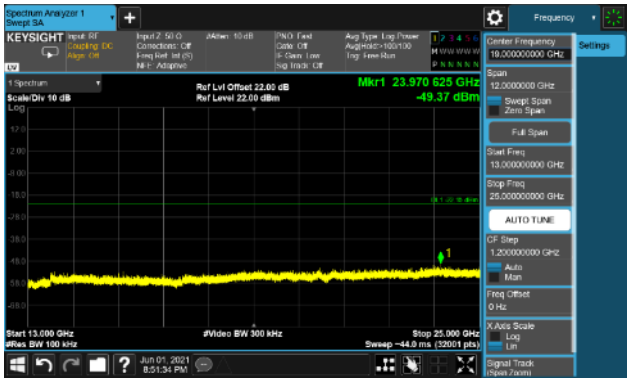
802.11 g CH01 (2412MHz)	802.11 g CH01 (2412MHz)
	
802.11 g CH01 (2412MHz)	**802.11 g CH01 (2412MHz)**
	
802.11 g CH06 (2437MHz)	**802.11 g CH06 (2437MHz)**
	

802.11 g CH06 (2437MHz)	802.11 g CH06 (2437MHz)
	
802.11 g CH11 (2462MHz)	**802.11 g CH11 (2462MHz)**
	
802.11 g CH11 (2462MHz)	**802.11 g CH11 (2462MHz)**
	

802.11 n20 CH01 (2412MHz)	802.11 n20 CH01 (2412MHz)
	
802.11 n20 CH01 (2412MHz)	**802.11 n20 CH01 (2412MHz)**
	
802.11 n20 CH06 (2437MHz)	**802.11 n20 CH06 (2437MHz)**
	

802.11 n20 CH06 (2437MHz)	802.11 n20 CH06 (2437MHz)
	
802.11 n20 CH11 (2462MHz)	**802.11 n20 CH11 (2462MHz)**
	
802.11 n20 CH11 (2462MHz)	**802.11 n20 CH11 (2462MHz)**
	

802.11 n40 CH03 (2422MHz)	802.11 n40 CH03 (2422MHz)
802.11 n40 CH03 (2422MHz)	**802.11 n40 CH03 (2422MHz)**
	
802.11 n40 CH06 (2437MHz)	**802.11 n40 CH06 (2437MHz)**
	

802.11 n40 CH06 (2437MHz)	802.11 n40 CH06 (2437MHz)
	
802.11 n40 CH09 (2452MHz)	**802.11 n40 CH09 (2452MHz)**
	
802.11 n40 CH09 (2452MHz)	**802.11 n40 CH09 (2452MHz)**
	

5.5 輻射電場強度

5.5.1 量測方法

待測物置於非導體桌面（落地型產品置於地上），受測物使用交流電源時，將其與任何配件設備之電源線連接至位於旋轉桌的交流電源。受測物使用電池時，測試時應裝置新電池或充電完全的電池。受測物與配件設備之電源線無須束綁，桌面上受測設備的所有電源線由桌子的後緣垂下沿旋轉桌表面接至交流插座。落地型設備的交流電源線可以方便的型態走線。桌面可 360 度旋轉，接收天線置於距待測物 3m 距離，高度可在 1 至 4 公尺間變動，以量測待測物之最大輻射電場強度，接收天線並應於水平及垂直極化方向各量測一次。(待測物擺設方式根據 ANSI C63.10-2013 版本，待測物放置桌中心，1G 以下擺設高度為 80cm/1G 以上擺設高度為 150cm)

(1) 任一頻率小於或等於 1000 MHz 之訊號,使用 CISPR 準峰值檢波器
(2) 任一頻率大於 1000 MHz 之訊號，使用平均值檢波器測量，當規定之發射限制值為平均值時(含 1000 MHz 以下)，受測訊號藉由峰值檢波器(RBW:1MHz,VBW:3MHz)所測量之峰值，亦須符合峰值發射限制值，其峰值發射限制值為最大容許平均值加 20 dB。

備註: 若為手持式或穿戴式之裝置，需對其三個正交軸的方位評估測試，並記錄最差的數值。

5.5.2 限制要求

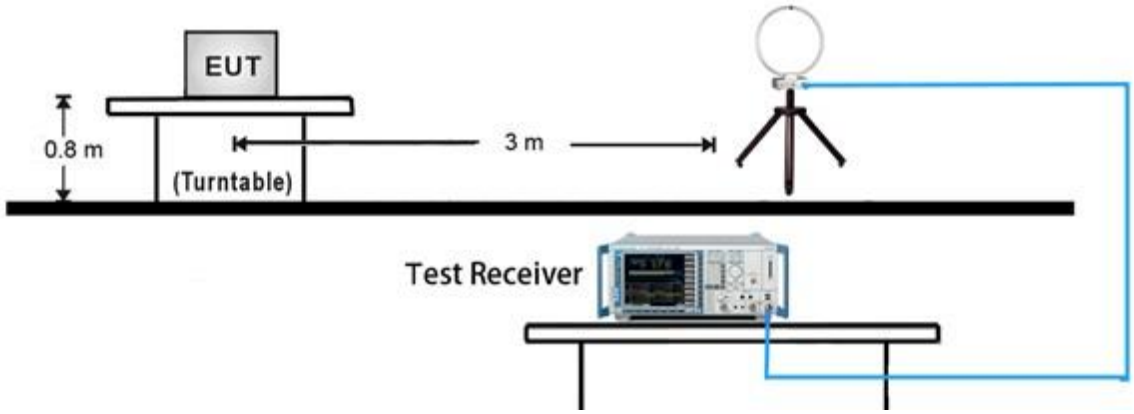
其電場強度不得超過下表之限值，且其不必要之發射皆不得大於主波發射強度。各頻段重疊處，以較嚴格之限制值為準。

頻率(f) (MHz)	電場強度 (微伏特/公尺，μV/m)	測距 (公尺)
0.009 ≤ f ≤ 0.490	2400/f(kHz)	300
0.490 < f ≤ 1.705	24000/f(kHz)	30
1.705 < f < 30	30	30
30 ≤ f ≤ 88	100	3
88 < f ≤ 216	150	3
216 < f ≤ 960	200	3
960 < f	500	3

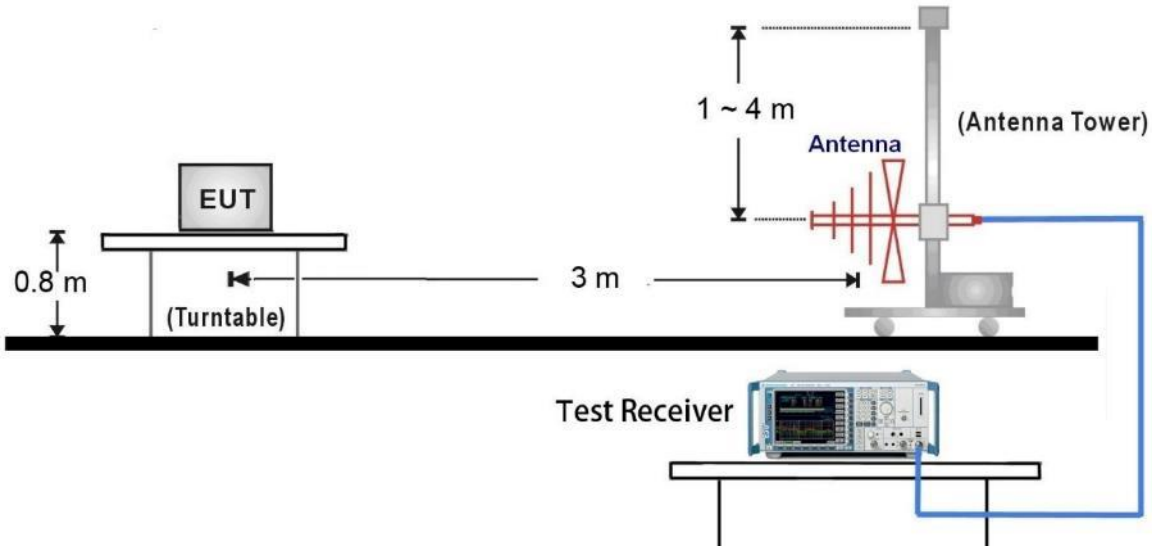
上表規定之電場強度，發射頻率在 9 kHz～90 kHz、110 kHz～490 kHz 及 1000MHz 以上者，其量測應以平均值檢波器為基準，且須符合低功率射頻器材技術規範第 6.14.節之規定；其他發射頻率，應以 CISPR 準峰值(quasi-peak) 檢波器測量；非以上表所指定之距離測量時，應符合第 6.5 節之規定，而輻射發射之量測頻率範圍須符合低功率射頻器材技術規範第 6.12 節之規定。

5.5.3 測試架構圖

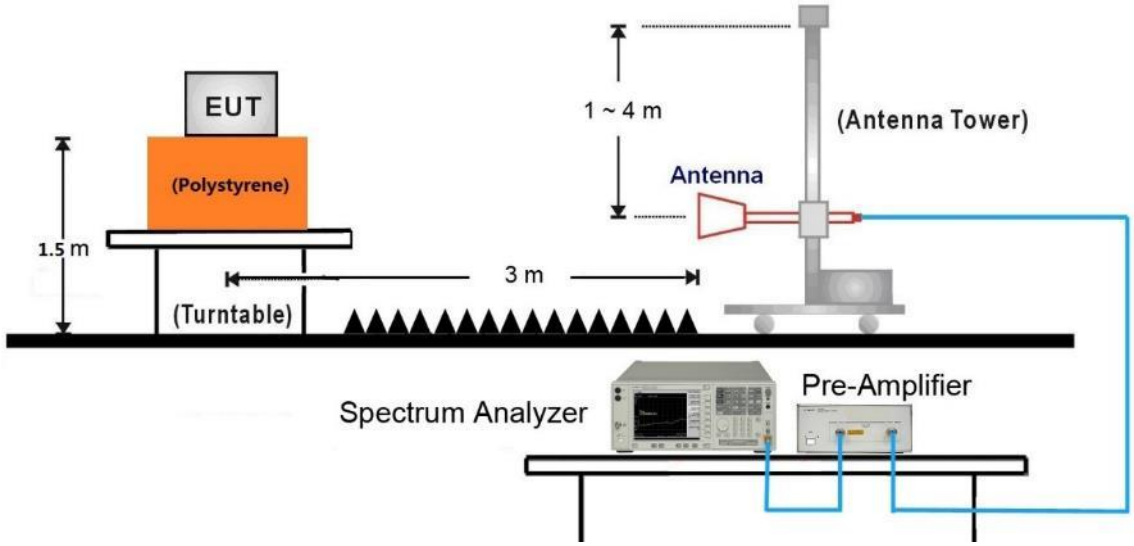
Under 30MHz Test



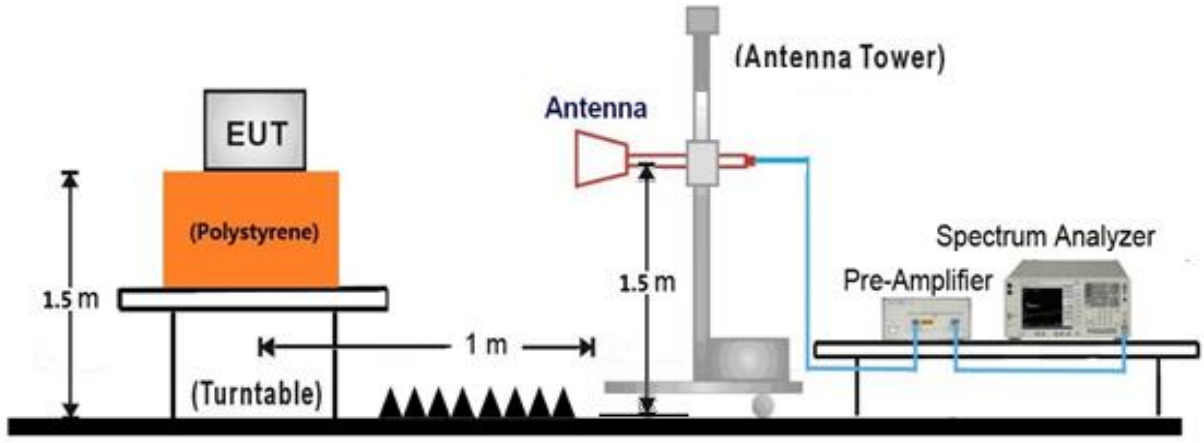
Under 1GHz Test Setup



1GHz ~ 18GHz Test Setup:

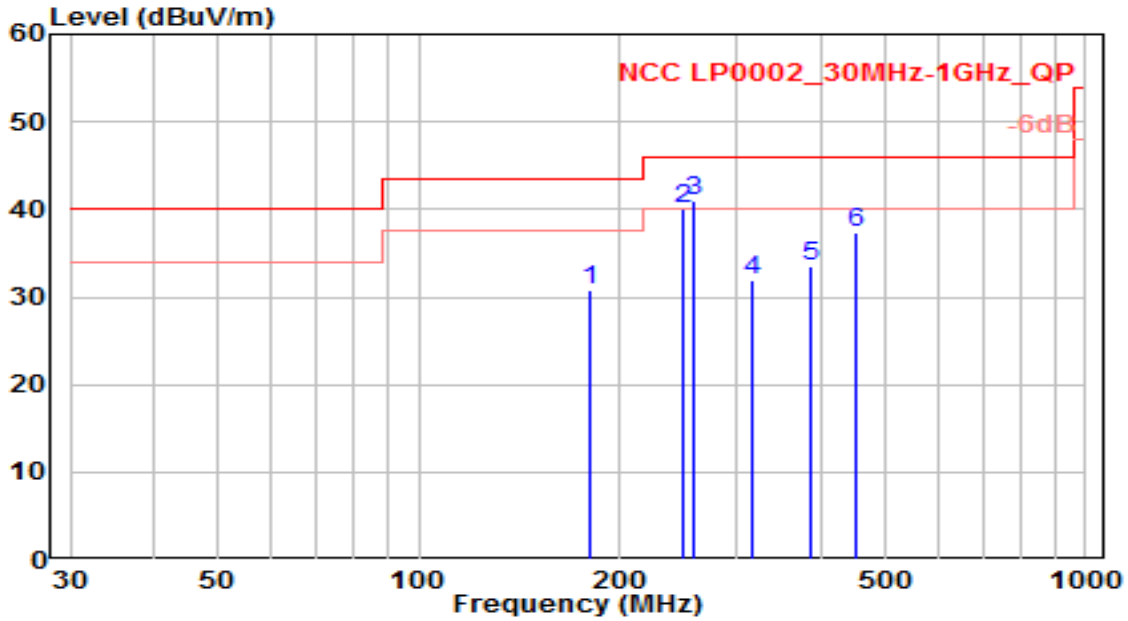


18GHz ~25GHz Test Setup:



5.5.4 輻射電場強度測試結果

EUT	智慧收銀終端	Date of Test	2021-05-27
Factor	VULB 9162	Temp. / Humidity	24°C /52%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-20MHz_TX_CH 6_ANT 0	Test Voltage	AC 110V/60Hz

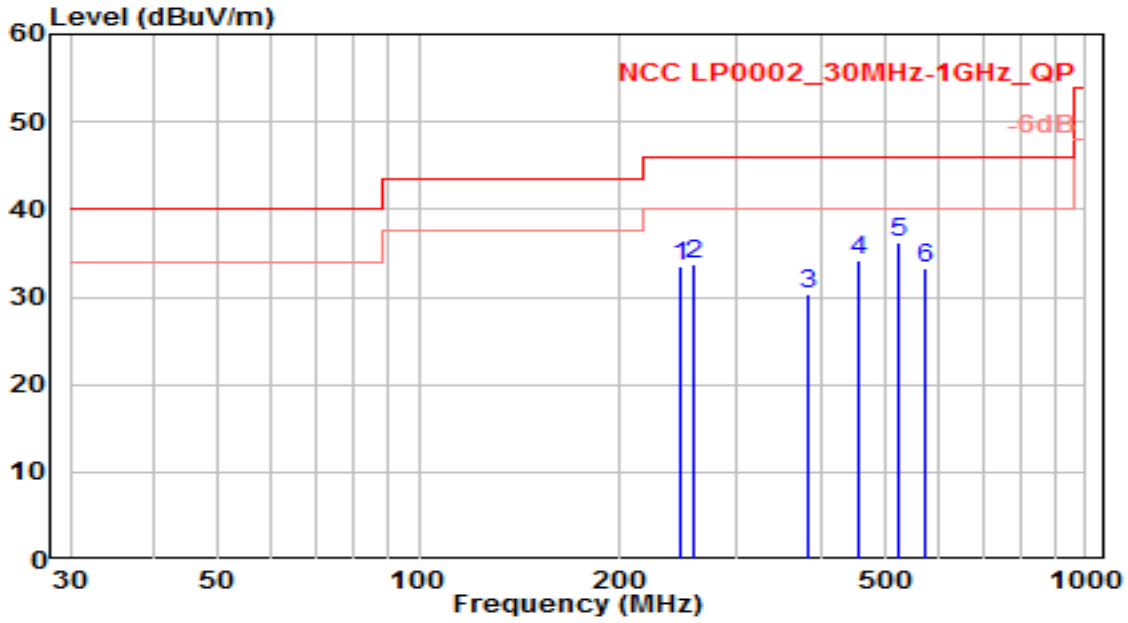


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		181.320	13.13	17.58	30.71	-12.79	43.50	100	30	QP
2		248.250	19.51	20.48	39.99	-6.01	46.00	100	65	QP
3	*	258.920	20.46	20.57	41.02	-4.98	46.00	100	0	QP
4		315.180	9.86	22.03	31.88	-14.12	46.00	100	70	QP
5		386.960	9.67	23.84	33.51	-12.49	46.00	100	65	QP
6		453.890	12.29	24.99	37.28	-8.72	46.00	100	45	QP

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-27
Factor	VULB 9162	Temp. / Humidity	24°C /52%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-20MHz_TX_CH 6_ANT 0	Test Voltage	AC 110V/60Hz

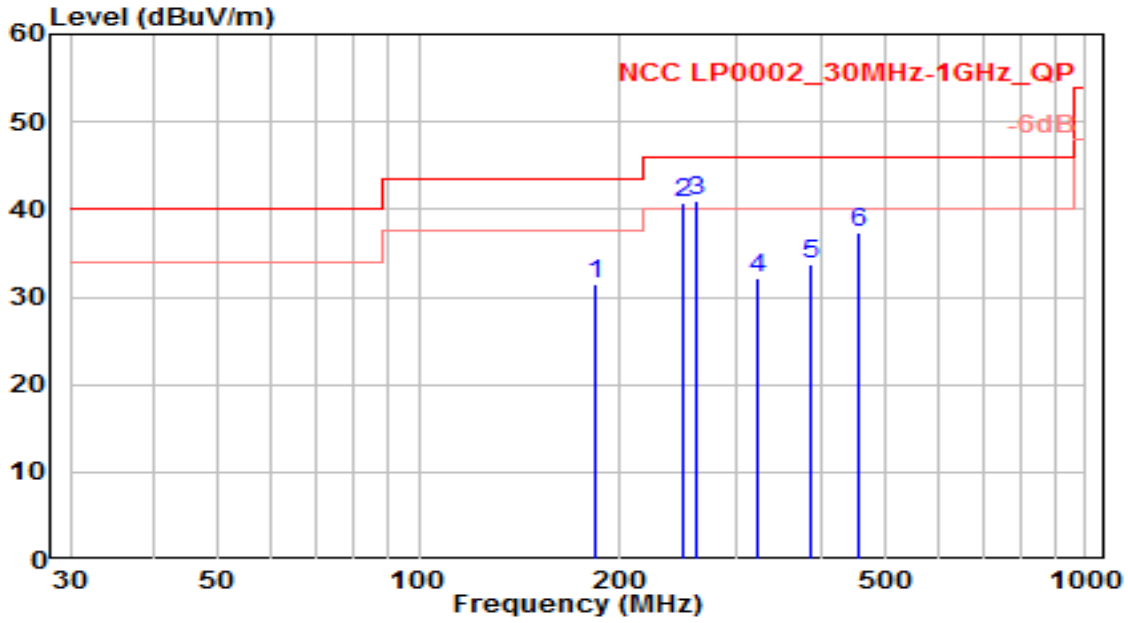


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		247.280	13.03	20.45	33.47	-12.53	46.00	100	85	QP
2		258.920	13.13	20.57	33.70	-12.30	46.00	100	70	QP
3		384.050	6.62	23.80	30.42	-15.58	46.00	100	45	QP
4		454.860	9.12	25.02	34.14	-11.86	46.00	100	90	QP
5	*	521.790	9.82	26.48	36.29	-9.71	46.00	100	70	QP
6		575.140	6.05	27.31	33.36	-12.64	46.00	100	45	QP

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-27
Factor	VULB 9162	Temp. / Humidity	24°C /52%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-20MHz_RX_CH 6_ANT 0	Test Voltage	AC 110V/60Hz

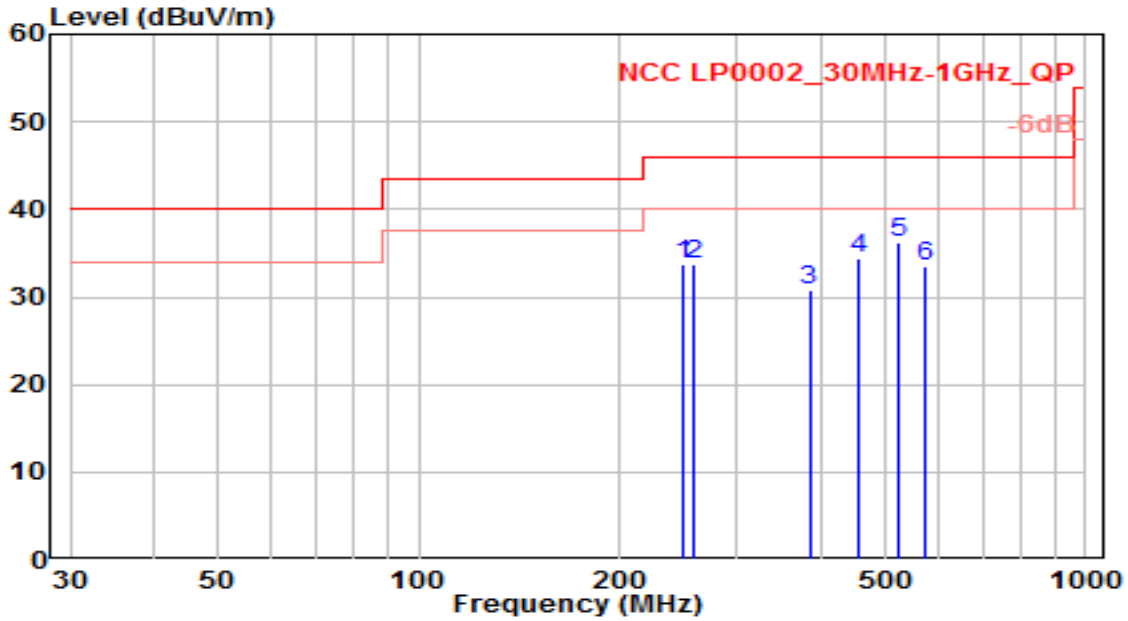


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		183.420	13.46	17.90	31.36	-12.14	43.50	100	130	QP
2		249.360	20.15	20.52	40.67	-5.33	46.00	100	75	QP
3	*	259.630	20.49	20.57	41.06	-4.94	46.00	100	120	QP
4		323.460	9.93	22.31	32.24	-13.76	46.00	100	105	QP
5		387.160	9.84	23.85	33.69	-12.31	46.00	100	90	QP
6		456.380	12.39	25.06	37.45	-8.55	46.00	100	90	QP

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-27
Factor	VULB 9162	Temp. / Humidity	24°C /52%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-20MHz_RX_CH 6_ANT 0	Test Voltage	AC 110V/60Hz

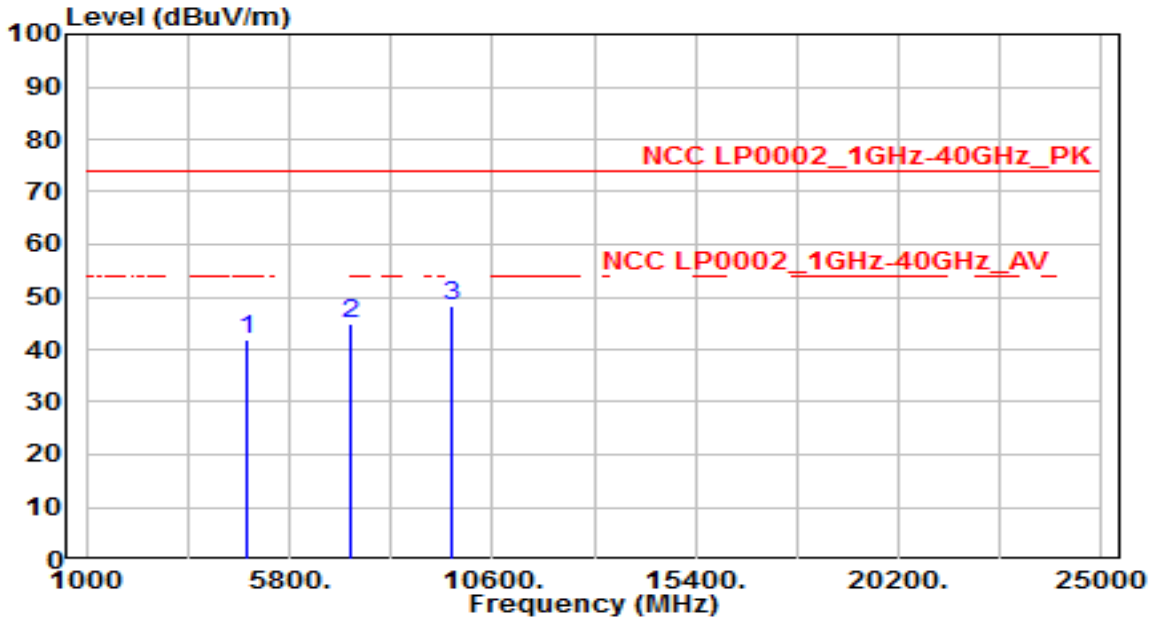


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		248.320	13.26	20.48	33.74	-12.26	46.00	100	105	QP
2		259.160	13.26	20.57	33.83	-12.17	46.00	100	105	QP
3		385.190	6.93	23.81	30.74	-15.26	46.00	100	70	QP
4		456.940	9.35	25.07	34.42	-11.58	46.00	100	105	QP
5	*	523.460	9.84	26.50	36.34	-9.66	46.00	100	85	QP
6		576.140	6.13	27.33	33.46	-12.54	46.00	100	80	QP

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11b_TX_CH 1_ANT 0	Test Voltage	AC 110V/60Hz

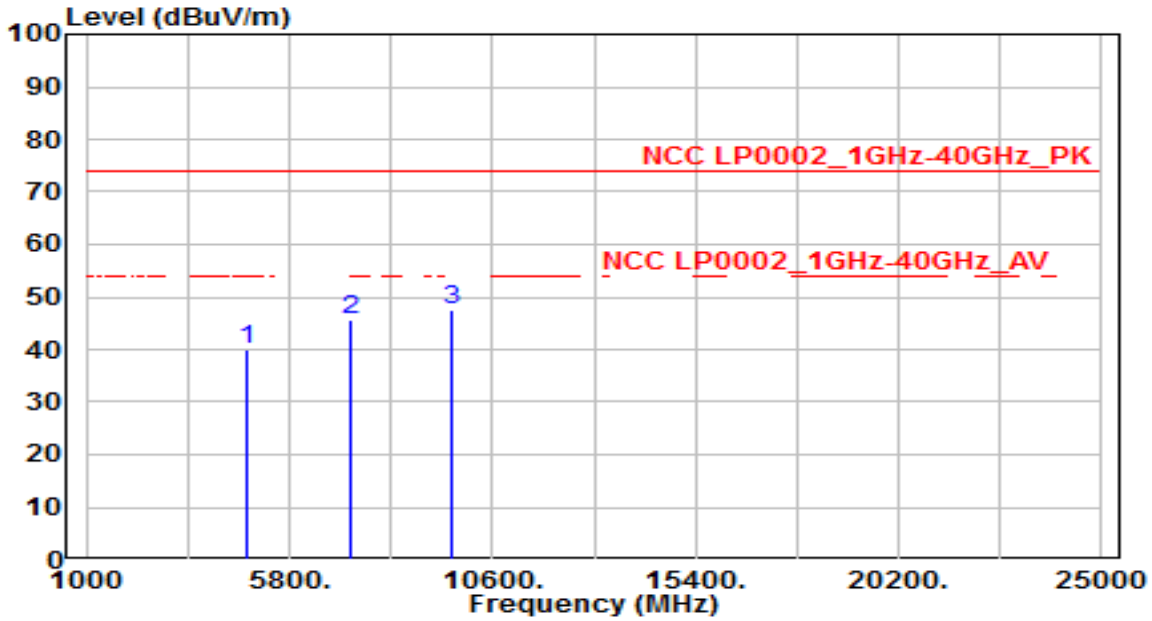


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4824.000	38.25	3.63	41.88	-32.12	74.00	150	0	Peak
2		7236.000	33.16	11.85	45.01	-28.99	74.00	150	0	Peak
3	*	9648.000	32.16	15.97	48.13	-25.87	74.00	150	0	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11b_TX_CH 1_ANT 0	Test Voltage	AC 110V/60Hz

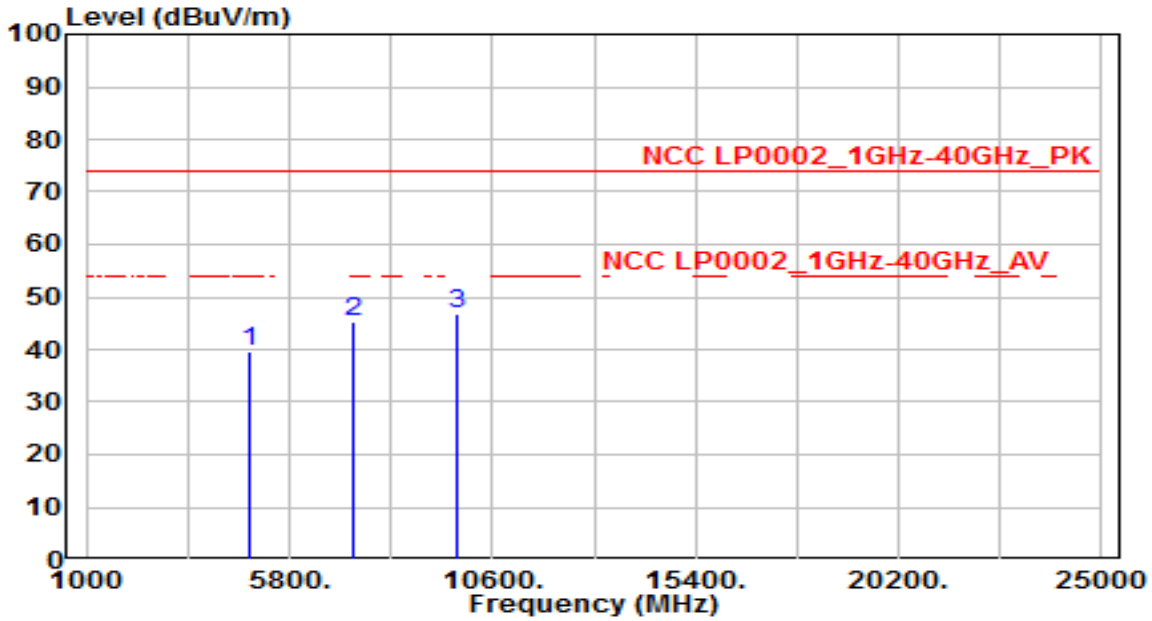


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4824.000	36.22	3.63	39.85	-34.15	74.00	150	0	Peak
2		7236.000	33.79	11.85	45.64	-28.36	74.00	150	0	Peak
3	*	9648.000	31.63	15.97	47.60	-26.40	74.00	150	0	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11b_TX_CH 6_ANT 0	Test Voltage	AC 110V/60Hz

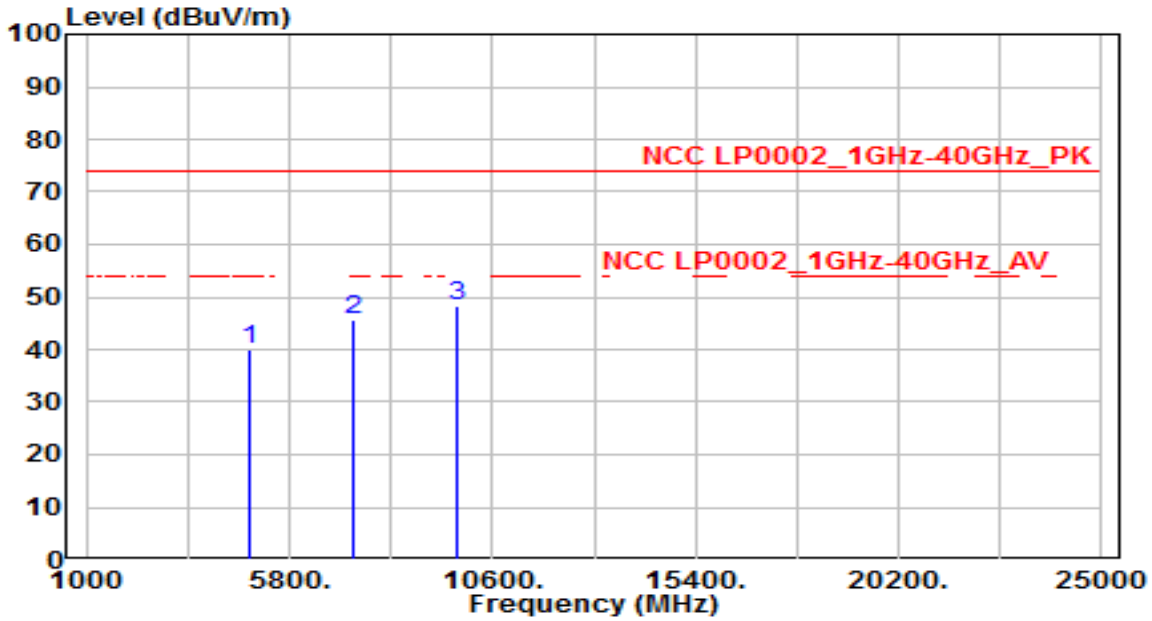


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4874.000	35.93	3.72	39.65	-34.35	74.00	150	0	Peak
2		7311.000	33.12	12.18	45.30	-28.70	74.00	150	0	Peak
3	*	9748.000	30.63	16.14	46.77	-27.23	74.00	150	0	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11b_TX_CH 6_ANT 0	Test Voltage	AC 110V/60Hz

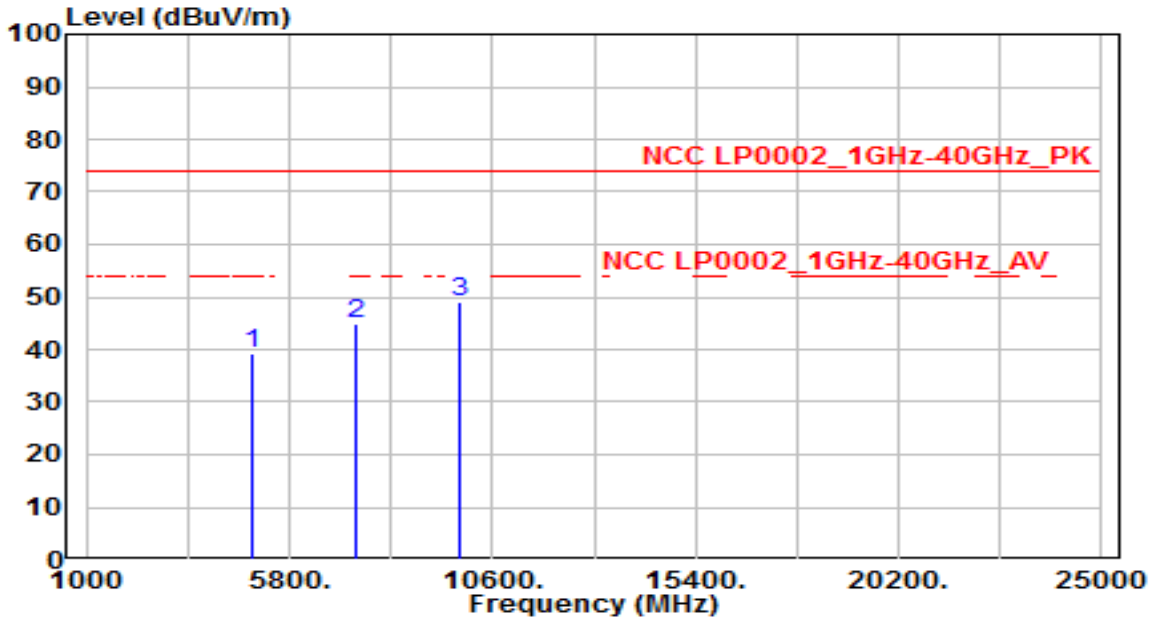


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4874.000	36.33	3.72	40.05	-33.95	74.00	150	0	Peak
2		7311.000	33.41	12.18	45.59	-28.41	74.00	150	0	Peak
3	*	9748.000	32.30	16.14	48.44	-25.56	74.00	150	0	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11b_TX_CH 11_ANT 0	Test Voltage	AC 110V/60Hz

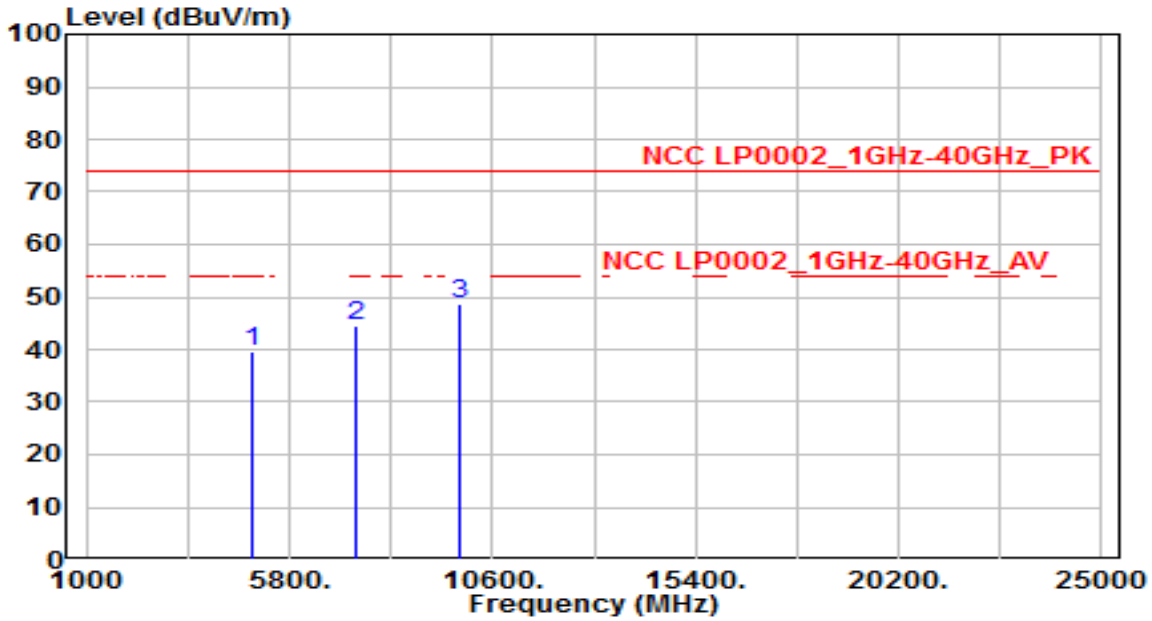


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4924.000	35.62	3.81	39.43	-34.57	74.00	150	0	Peak
2		7386.000	32.58	12.51	45.09	-28.91	74.00	150	0	Peak
3	*	9848.000	32.71	16.30	49.01	-24.99	74.00	150	0	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11b_TX_CH 11_ANT 0	Test Voltage	AC 110V/60Hz

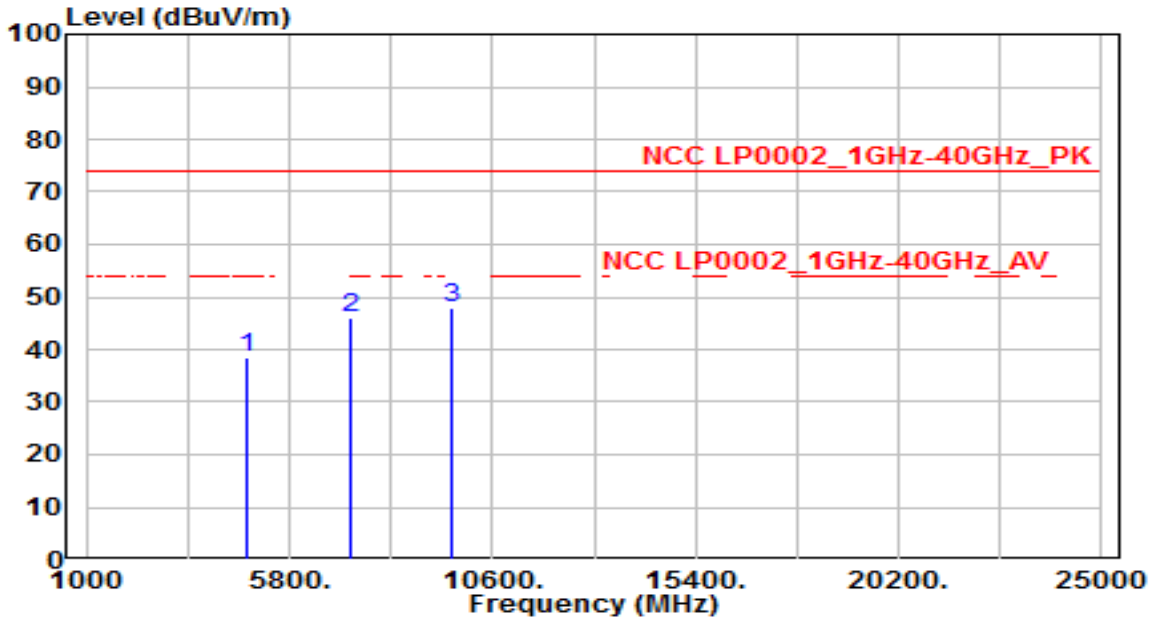


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4924.000	35.76	3.81	39.57	-34.43	74.00	150	0	Peak
2		7386.000	31.99	12.51	44.50	-29.50	74.00	150	0	Peak
3	*	9848.000	32.39	16.30	48.69	-25.31	74.00	150	0	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11g_TX_CH 1_ANT 0	Test Voltage	AC 110V/60Hz

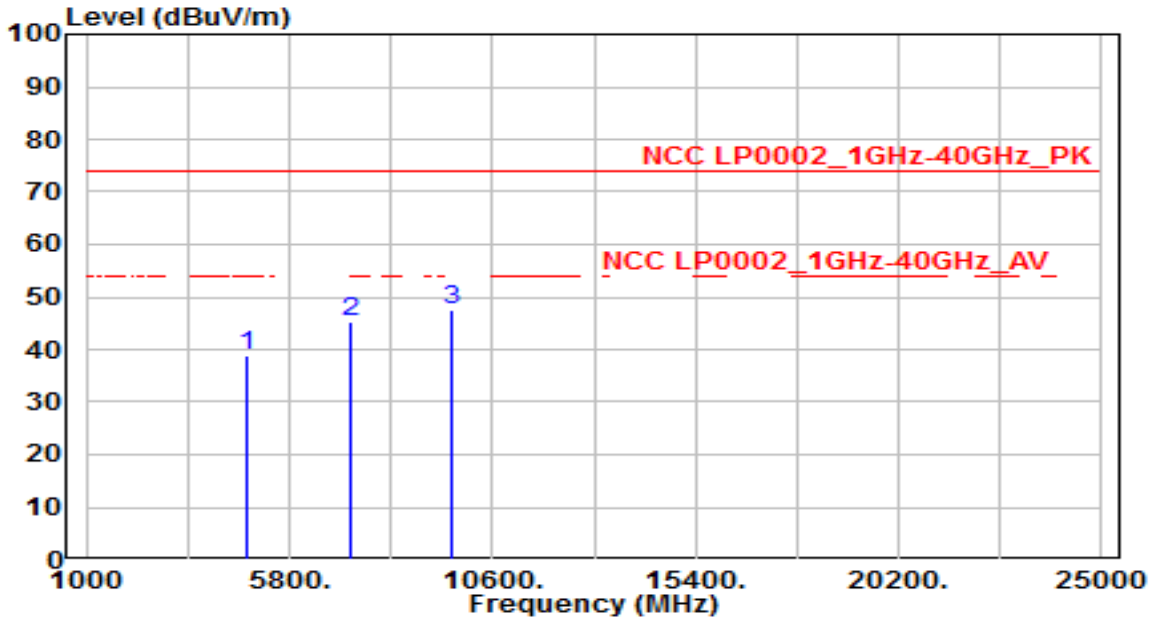


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4824.000	34.73	3.63	38.36	-35.64	74.00	150	0	Peak
2		7236.000	34.28	11.85	46.13	-27.87	74.00	150	0	Peak
3	*	9648.000	32.11	15.97	48.08	-25.92	74.00	150	0	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11g_TX_CH 1_ANT 0	Test Voltage	AC 110V/60Hz

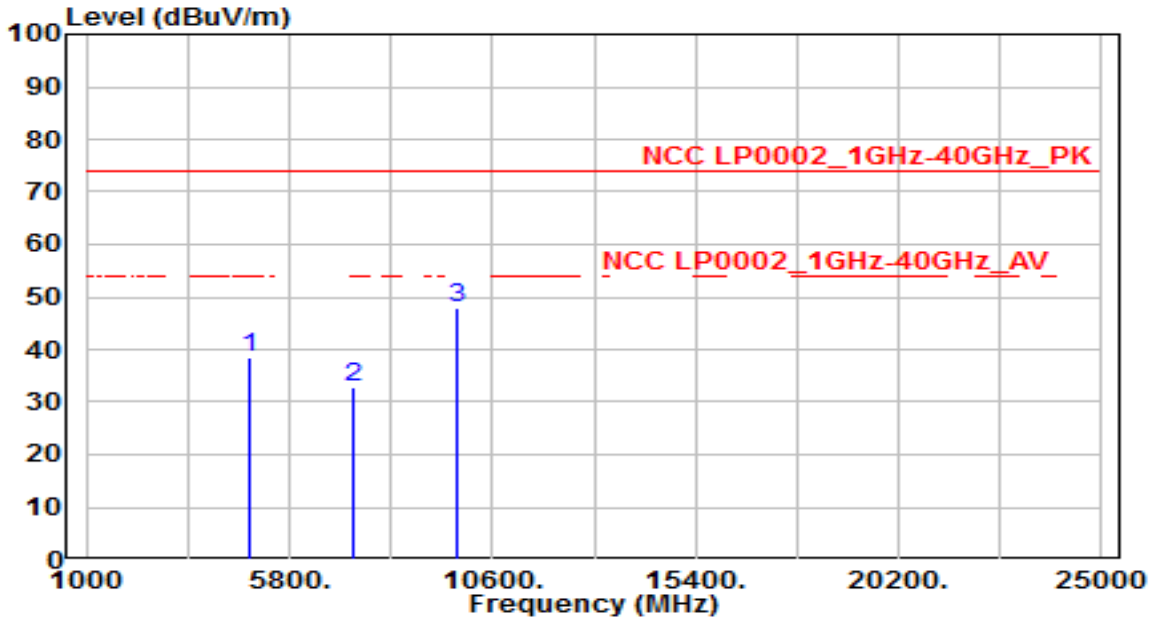


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4824.000	35.20	3.63	38.83	-35.17	74.00	150	0	Peak
2		7236.000	33.37	11.85	45.22	-28.78	74.00	150	0	Peak
3	*	9648.000	31.50	15.97	47.47	-26.53	74.00	150	0	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11g_TX_CH 6_ANT 0	Test Voltage	AC 110V/60Hz

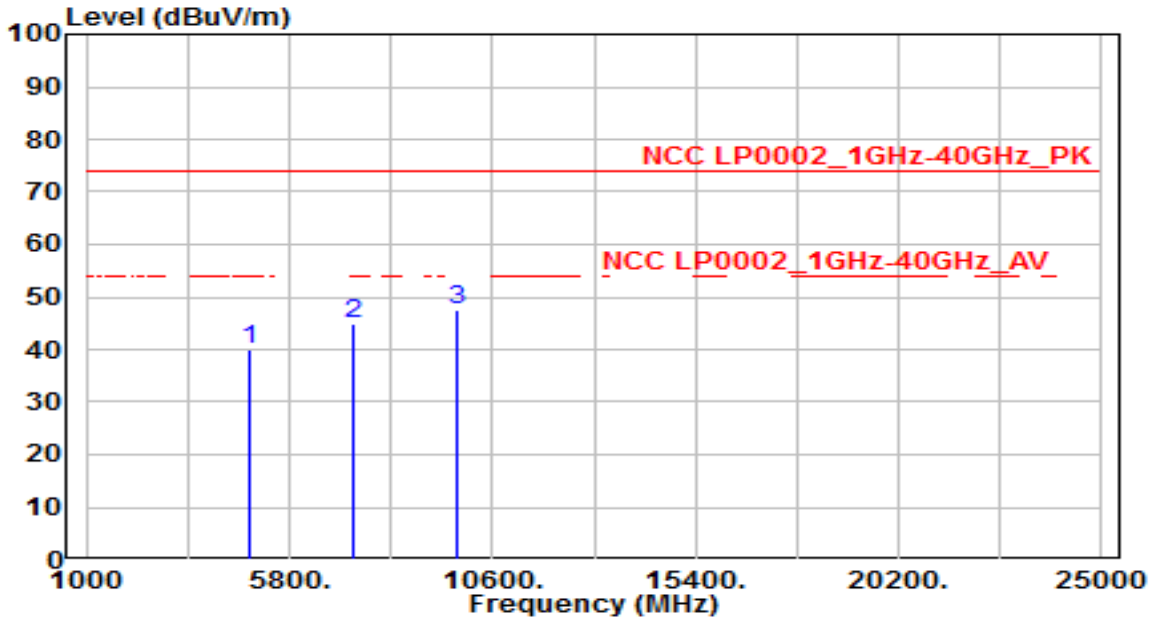


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4874.000	34.74	3.72	38.46	-35.54	74.00	150	0	Peak
2		7311.000	20.74	12.18	32.92	-41.08	74.00	150	0	Peak
3	*	9748.000	31.93	16.14	48.07	-25.93	74.00	150	0	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11g_TX_CH 6_ANT 0	Test Voltage	AC 110V/60Hz

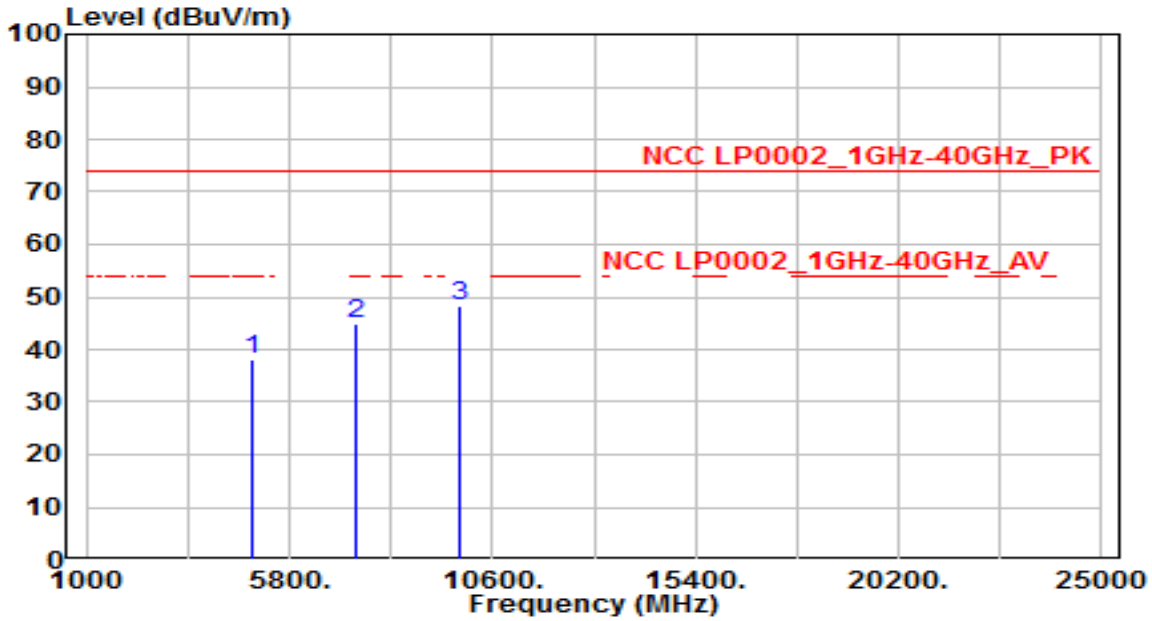


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4874.000	36.18	3.72	39.90	-34.10	74.00	150	0	Peak
2		7311.000	32.77	12.18	44.95	-29.05	74.00	150	0	Peak
3	*	9748.000	31.44	16.14	47.58	-26.42	74.00	150	0	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11g_TX_CH 11_ANT 0	Test Voltage	AC 110V/60Hz

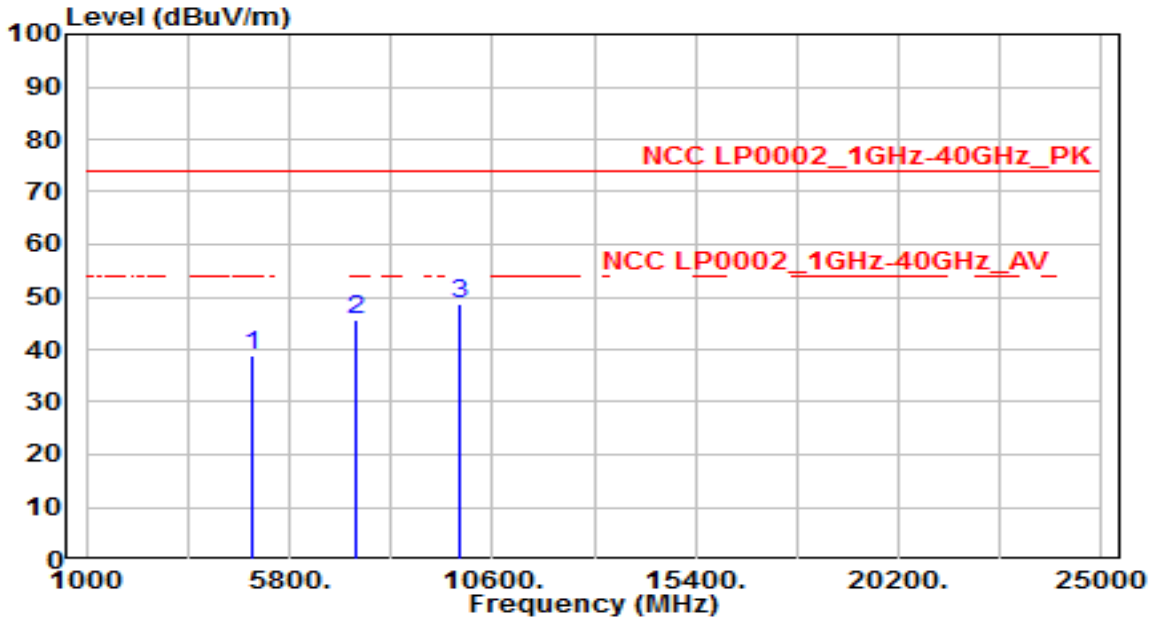


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4924.000	34.36	3.81	38.17	-35.83	74.00	150	0	Peak
2		7386.000	32.23	12.51	44.74	-29.26	74.00	150	0	Peak
3	*	9848.000	32.17	16.30	48.47	-25.53	74.00	150	0	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11g_TX_CH 11_ANT 0	Test Voltage	AC 110V/60Hz

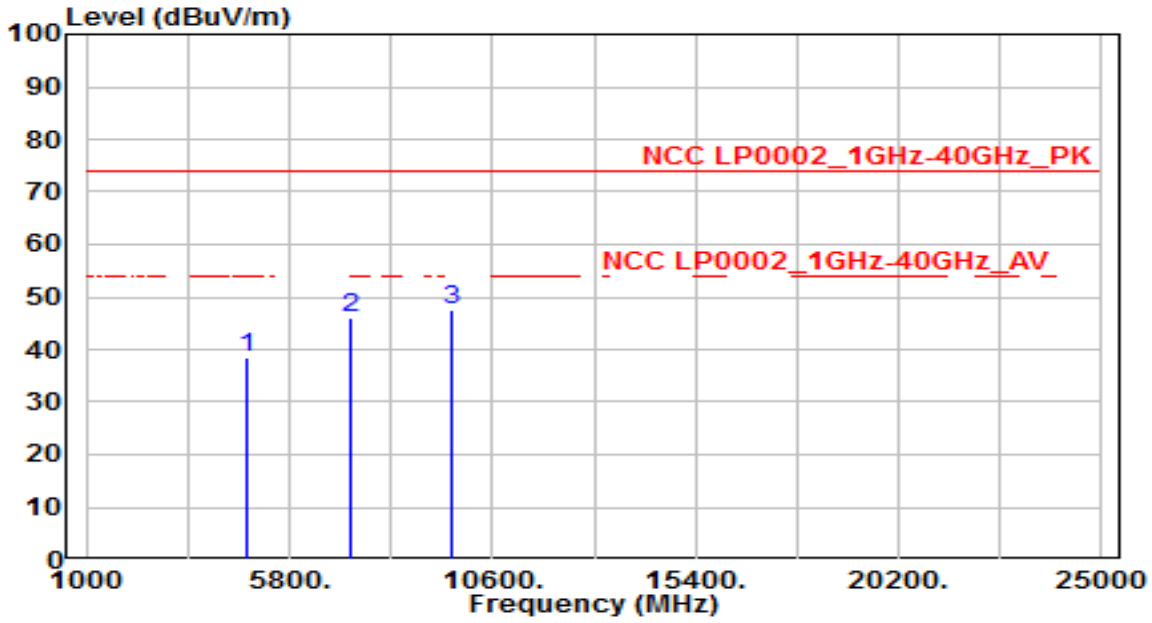


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4924.000	35.23	3.81	39.04	-34.96	74.00	150	0	Peak
2		7386.000	33.09	12.51	45.60	-28.40	74.00	150	0	Peak
3	*	9848.000	32.37	16.30	48.67	-25.33	74.00	150	0	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-20MHz_TX_CH 1_ANT 0	Test Voltage	AC 110V/60Hz

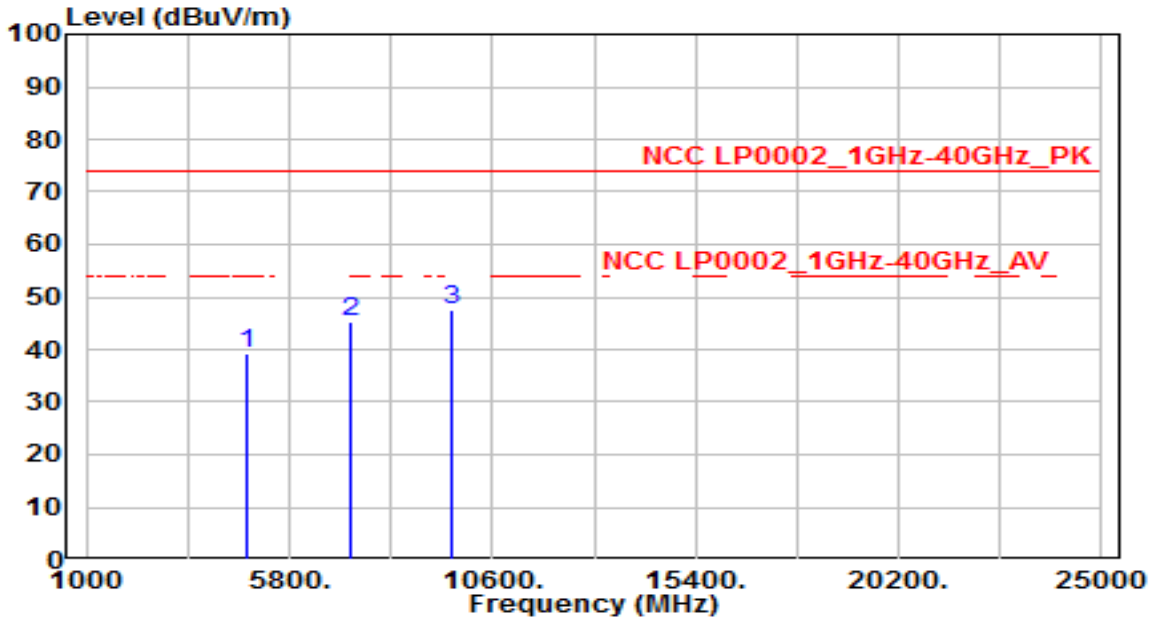


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4824.000	34.68	3.63	38.31	-35.69	74.00	150	0	Peak
2		7236.000	34.01	11.85	45.86	-28.14	74.00	150	0	Peak
3	*	9648.000	31.46	15.97	47.43	-26.57	74.00	150	0	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-20MHz_TX_CH 1_ANT 0	Test Voltage	AC 110V/60Hz

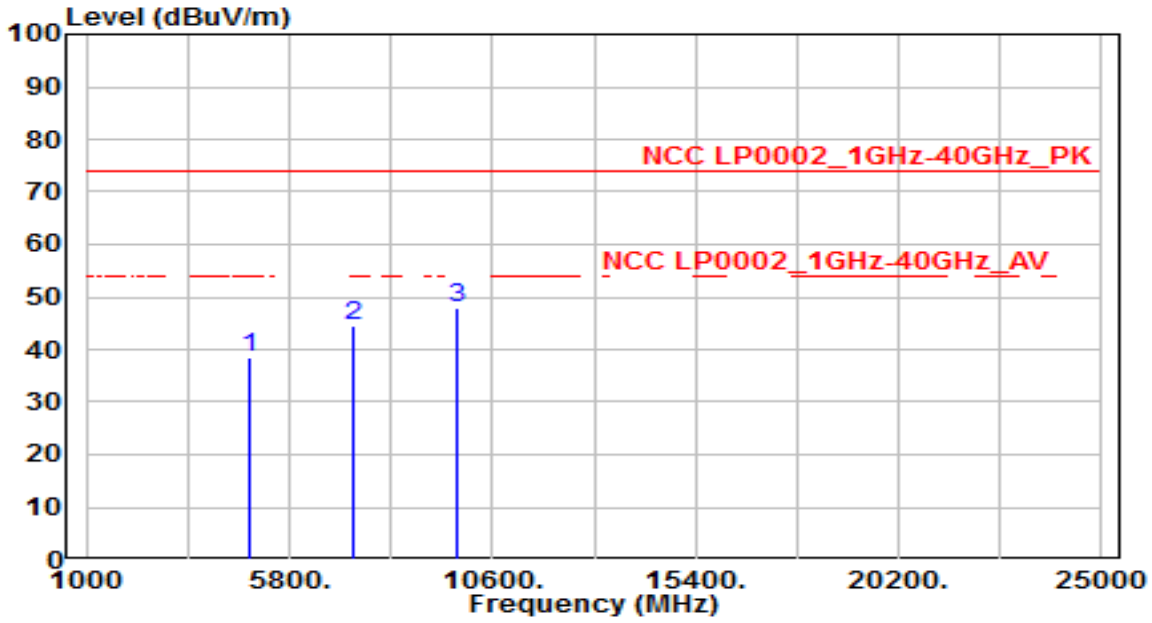


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4824.000	35.62	3.63	39.25	-34.75	74.00	150	0	Peak
2		7236.000	33.59	11.85	45.44	-28.56	74.00	150	0	Peak
3	*	9648.000	31.47	15.97	47.44	-26.56	74.00	150	0	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-20MHz_TX_CH 6_ANT 0	Test Voltage	AC 110V/60Hz

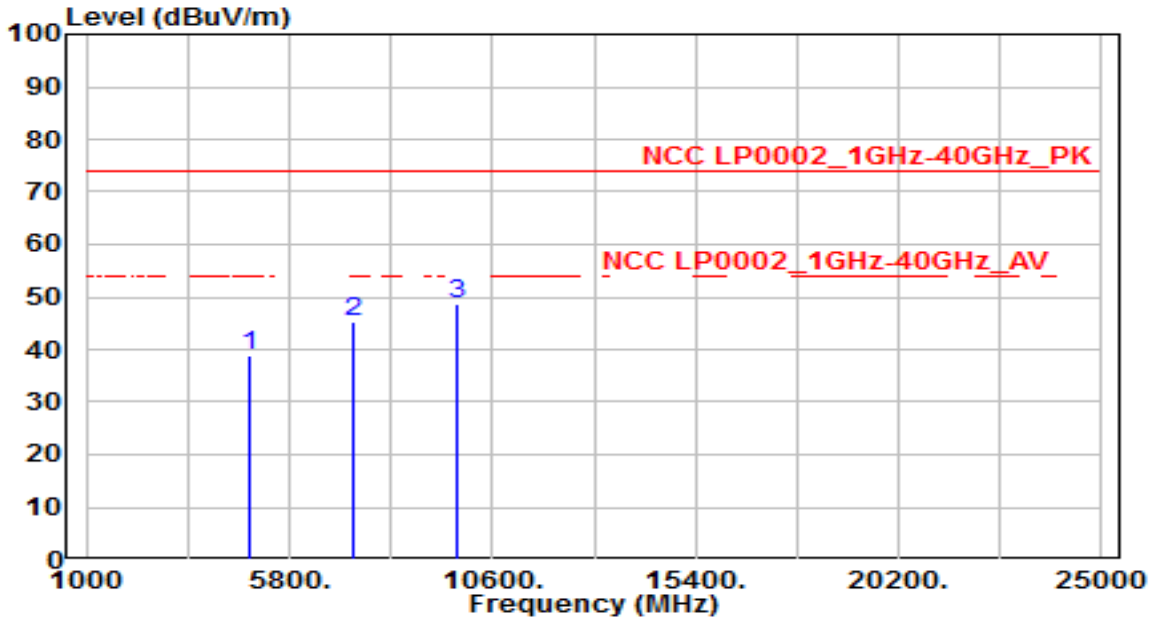


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4874.000	34.63	3.72	38.35	-35.65	74.00	150	0	Peak
2		7311.000	32.38	12.18	44.56	-29.44	74.00	150	0	Peak
3	*	9748.000	31.78	16.14	47.92	-26.08	74.00	150	0	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-20MHz_TX_CH 6_ANT 0	Test Voltage	AC 110V/60Hz

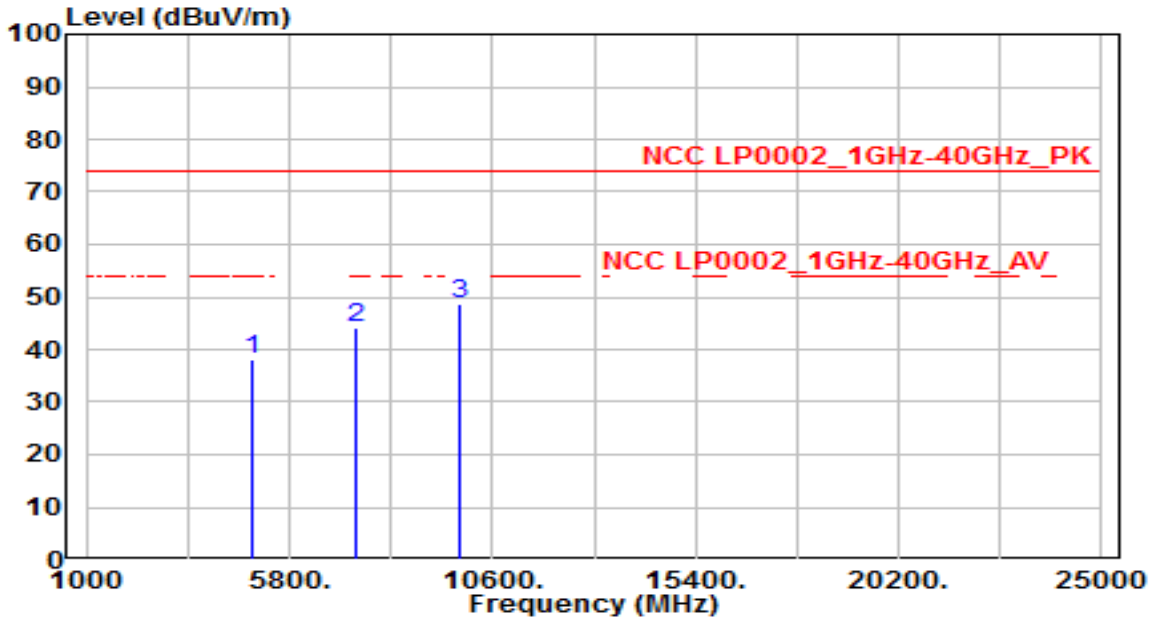


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4874.000	35.20	3.72	38.92	-35.08	74.00	150	0	Peak
2		7311.000	33.01	12.18	45.19	-28.81	74.00	150	0	Peak
3	*	9748.000	32.52	16.14	48.66	-25.34	74.00	150	0	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-20MHz_TX_CH 11_ANT 0	Test Voltage	AC 110V/60Hz

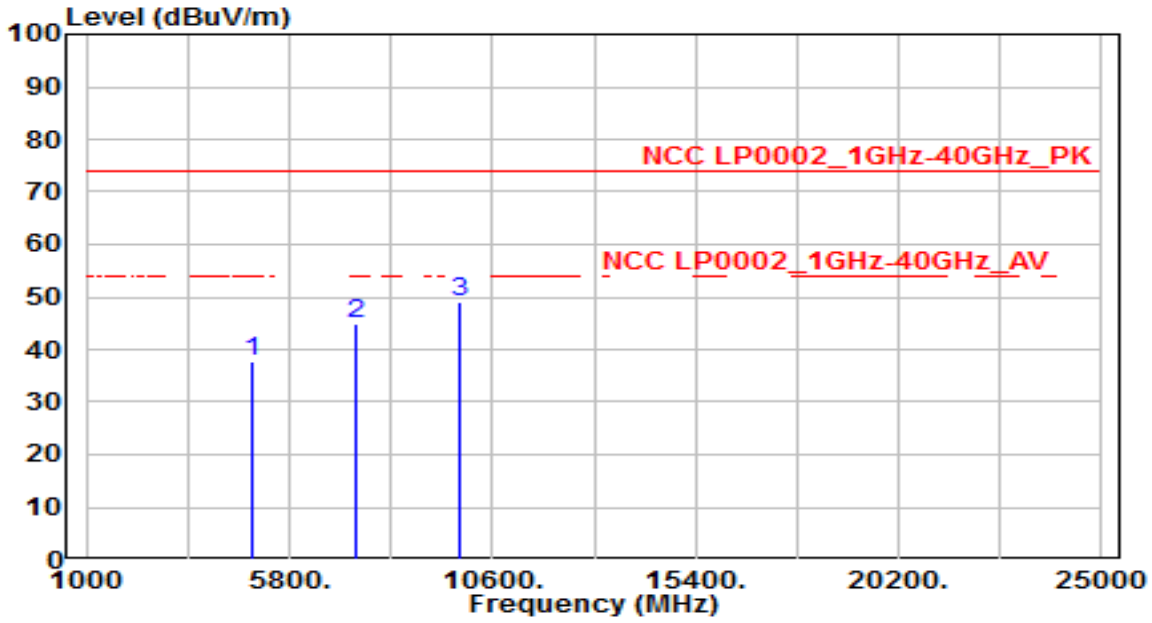


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4924.000	34.17	3.81	37.98	-36.02	74.00	150	0	Peak
2		7386.000	31.74	12.51	44.25	-29.75	74.00	150	0	Peak
3	*	9848.000	32.40	16.30	48.70	-25.30	74.00	150	0	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-20MHz_TX_CH 11_ANT 0	Test Voltage	AC 110V/60Hz

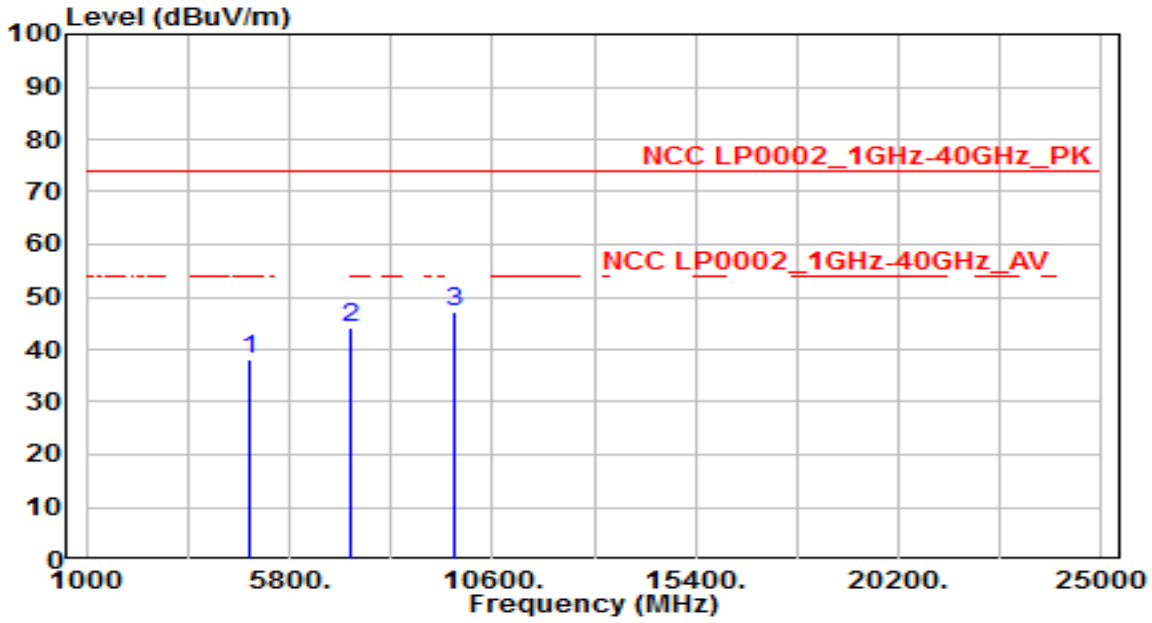


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4924.000	34.06	3.81	37.87	-36.13	74.00	150	0	Peak
2		7386.000	32.39	12.51	44.90	-29.10	74.00	150	0	Peak
3	*	9848.000	32.89	16.30	49.19	-24.81	74.00	150	0	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-40MHz_TX_CH 3_ANT 0	Test Voltage	AC 110V/60Hz

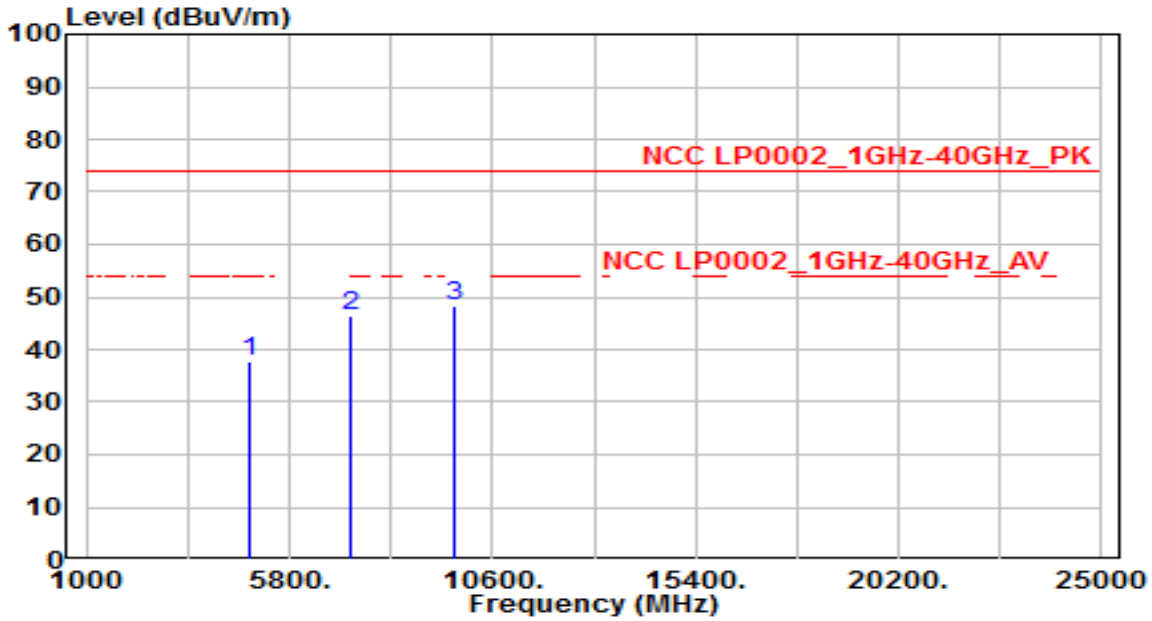


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4844.000	34.63	3.67	38.30	-35.70	74.00	150	0	Peak
2		7266.000	32.18	11.98	44.16	-29.84	74.00	150	0	Peak
3	*	9688.000	31.29	16.04	47.33	-26.67	74.00	150	0	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-40MHz_TX_CH 3_ANT 0	Test Voltage	AC 110V/60Hz

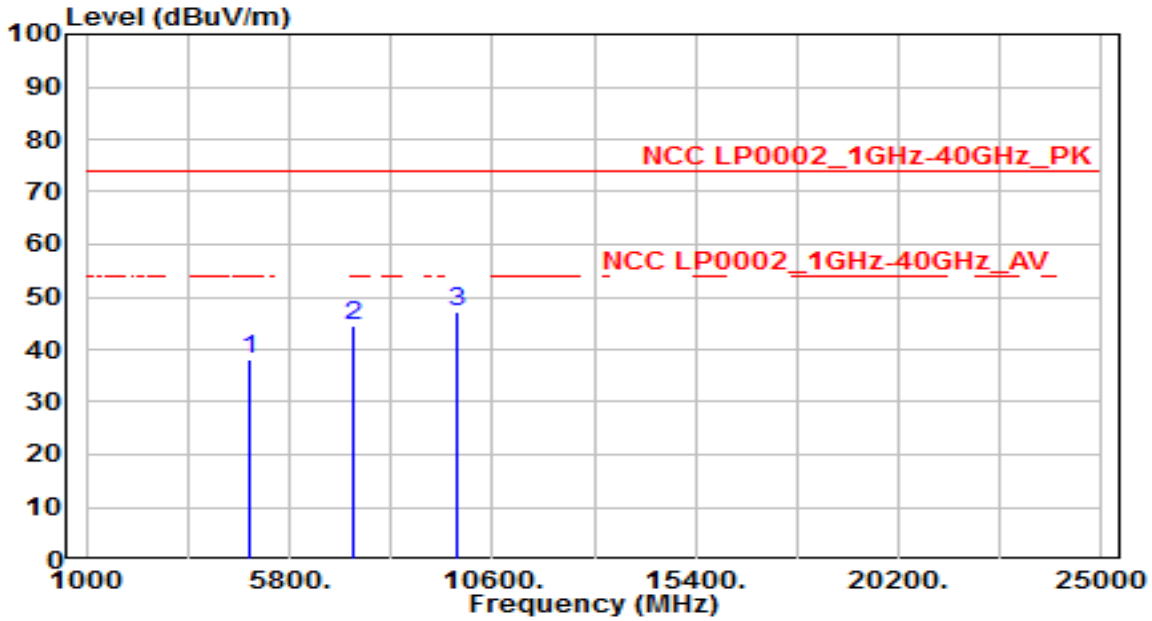


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4844.000	34.23	3.67	37.90	-36.10	74.00	150	0	Peak
2		7266.000	34.56	11.98	46.54	-27.46	74.00	150	0	Peak
3	*	9688.000	32.33	16.04	48.37	-25.63	74.00	150	0	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-40MHz_TX_CH 6_ANT 0	Test Voltage	AC 110V/60Hz

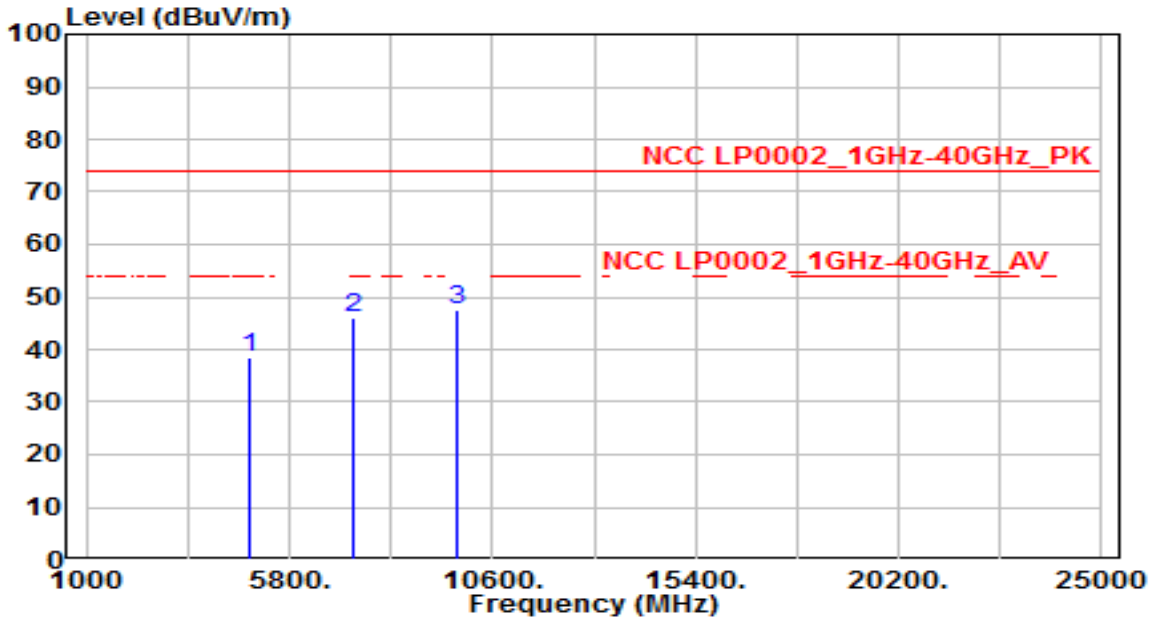


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4874.000	34.46	3.72	38.18	-35.82	74.00	150	0	Peak
2		7311.000	32.52	12.18	44.70	-29.30	74.00	150	0	Peak
3	*	9748.000	31.02	16.14	47.16	-26.84	74.00	150	0	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-40MHz_TX_CH 6_ANT 0	Test Voltage	AC 110V/60Hz

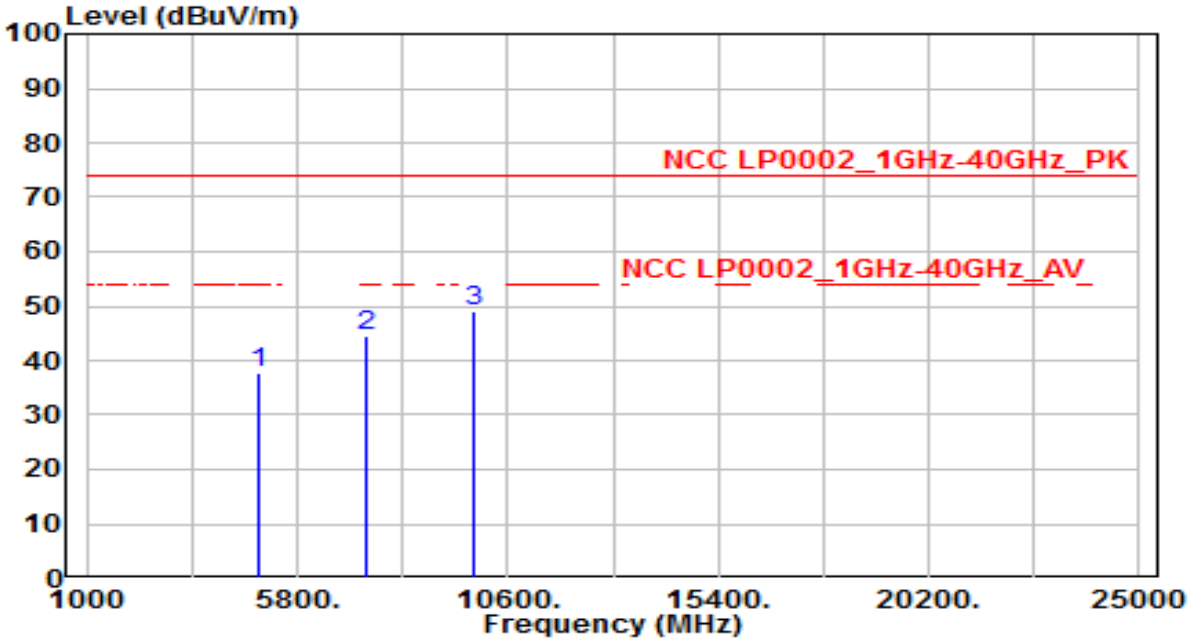


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4874.000	34.75	3.72	38.47	-35.53	74.00	150	0	Peak
2		7311.000	33.90	12.18	46.08	-27.92	74.00	150	0	Peak
3	*	9748.000	31.44	16.14	47.58	-26.42	74.00	150	0	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-40MHz_TX_CH 9_ANT 0	Test Voltage	AC 110V/60Hz

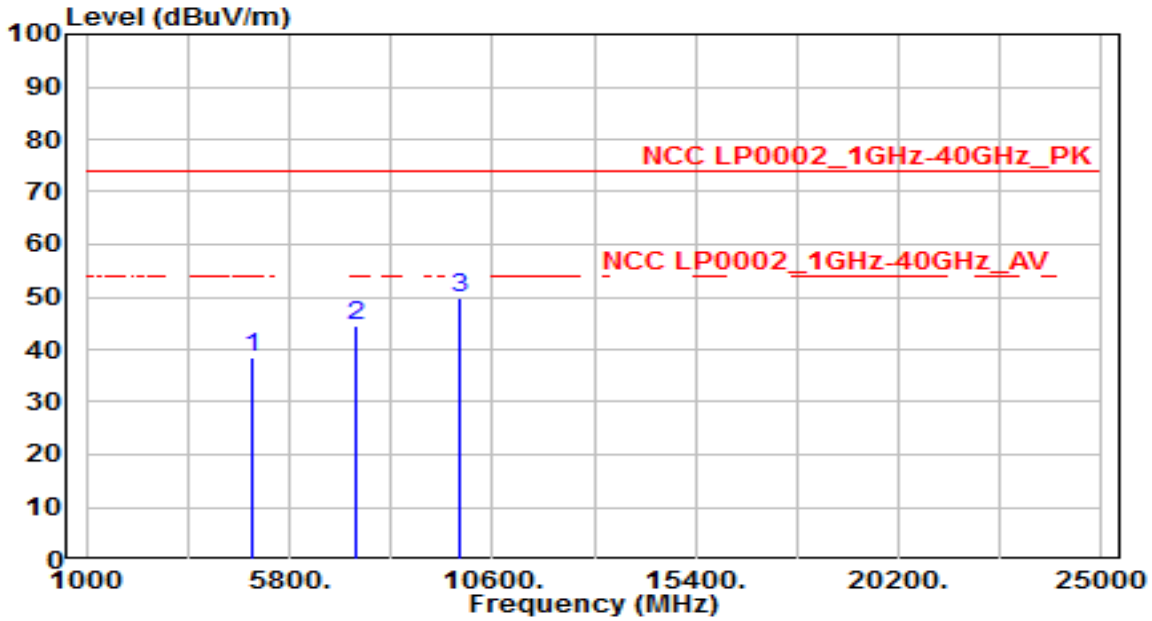


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4904.000	34.06	3.78	37.84	-36.16	74.00	150	0	Peak
2		7356.000	32.19	12.38	44.57	-29.43	74.00	150	0	Peak
3	*	9808.000	32.99	16.24	49.23	-24.77	74.00	150	0	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-40MHz_TX_CH 9_ANT 0	Test Voltage	AC 110V/60Hz

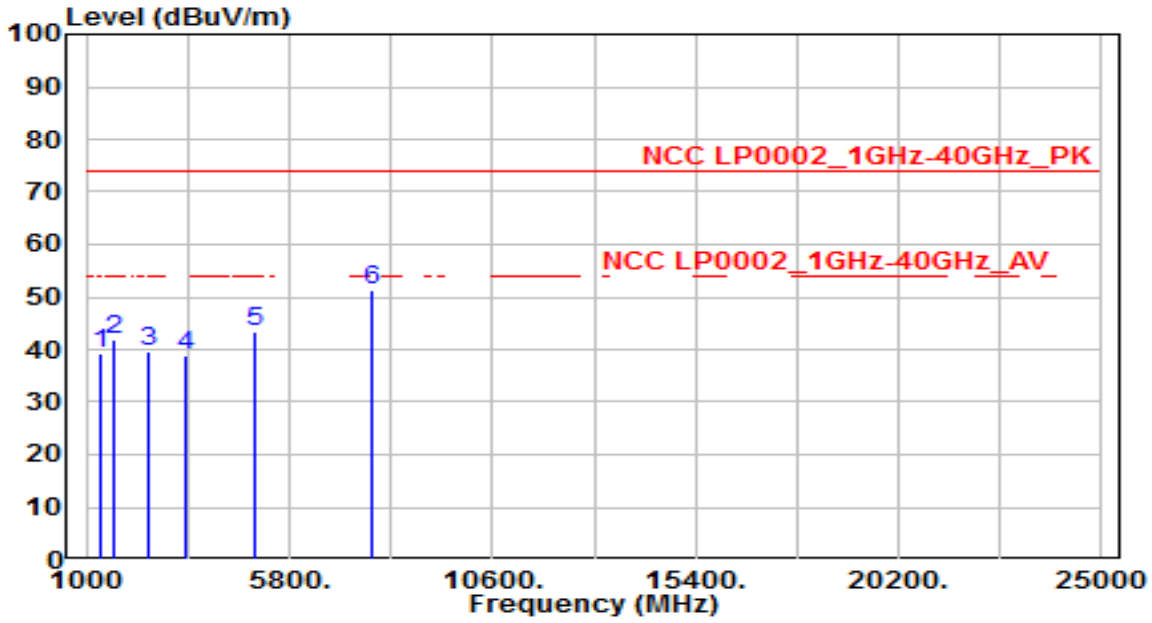


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4904.000	34.89	3.78	38.67	-35.33	74.00	150	0	Peak
2		7356.000	32.19	12.38	44.57	-29.43	74.00	150	0	Peak
3	*	9808.000	33.55	16.24	49.79	-24.21	74.00	150	0	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-20MHz_RX_CH 6_ANT 0	Test Voltage	AC 110V/60Hz

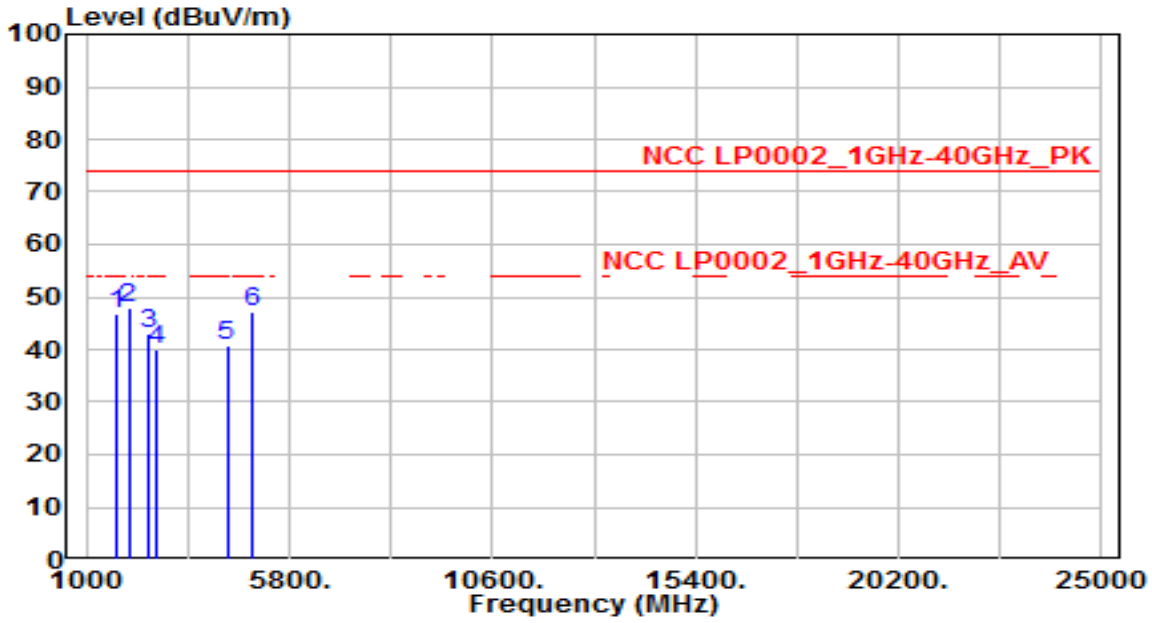


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1331.465	44.73	-5.44	39.29	-34.71	74.00	150	0	Peak
2		1671.121	46.38	-4.38	42.00	-32.00	74.00	150	0	Peak
3		2491.552	41.36	-1.65	39.71	-34.29	74.00	150	0	Peak
4		3364.189	39.45	-0.72	38.73	-35.27	74.00	150	0	Peak
5		4997.441	39.41	3.95	43.36	-30.64	74.00	150	0	Peak
6	*	7746.229	38.16	13.22	51.38	-22.62	74.00	150	0	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-20MHz_RX_CH 6_ANT 0	Test Voltage	AC 110V/60Hz



No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1693.485	51.01	-4.32	46.69	-27.31	74.00	150	0	Peak
2	*	1997.856	51.36	-3.53	47.83	-26.17	74.00	150	0	Peak
3		2497.113	44.53	-1.63	42.90	-31.10	74.00	150	0	Peak
4		2662.549	41.47	-1.66	39.81	-34.19	74.00	150	0	Peak
5		4325.664	38.51	2.40	40.91	-33.09	74.00	150	0	Peak
6		4951.165	43.31	3.86	47.17	-26.83	74.00	150	0	Peak

Note:

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

5.6 頻帶邊緣

5.6.1 量測方法

待測物置於非導體桌面（落地型產品置於地上），受測物使用交流電源時，將其與任何配件設備之電源線連接至位於旋轉桌的交流電源。受測物使用電池時，測試時應裝置新電池或充電完全的電池。受測物與配件設備之電源線無須束綁，桌面上受測設備的所有電源線由桌子的後緣垂下沿旋轉桌表面接至交流插座。落地型設備的交流電源線可以方便的型態走線。桌面可360度旋轉，接收天線置於距待測物3m距離，高度可在1至4公尺間變動，以量測待測物之最大輻射電場強度，接收天線並應於水平及垂直極化方向各量測一次。(待測物擺設方式根據 ANSI C63.10-2013版，待測物放置桌中心，1G以下擺設高度為80cm/1G以上擺設高度為150cm)

(1) 任一頻率小於或等於1000 MHz 之訊號,使用CISPR準峰值檢波器
(2) 任一頻率大於1000 MHz 之訊號，使用平均值檢波器測量，當規定之發射限制值為平均值時(含1000 MHz 以下)，受測訊號藉由峰值檢波器(RBW:1MHz,VBW:3MHz)所測量之峰值，亦須符合峰值發射限制值，其峰值發射限制值為最大容許平均值加20 dB。

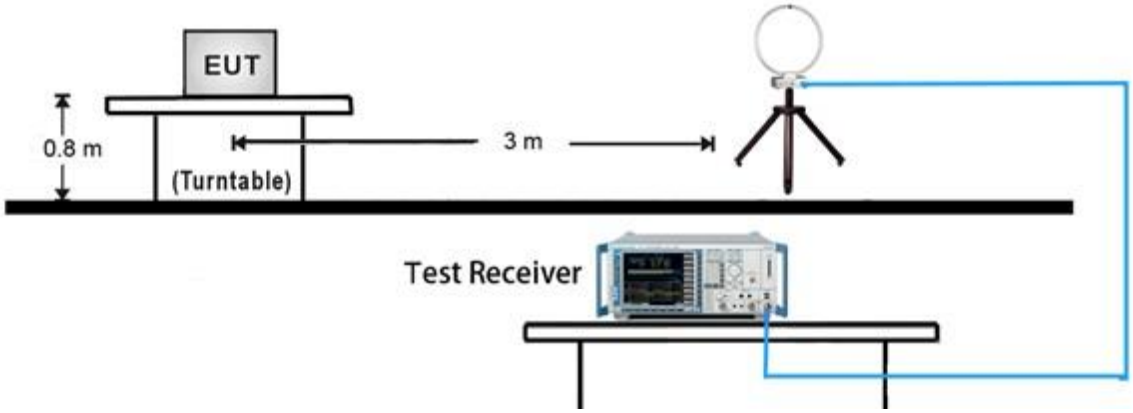
5.6.2 限制要求

除低功率射頻器材技術規範另有規定外，任何低功率射頻器材之主波皆不得使用下表所列各頻段之頻率低功率射頻器材落於下表所列頻帶內之混附發射，其電場強度必須符合低功率射頻器材技術規範之第3.6節限制規定

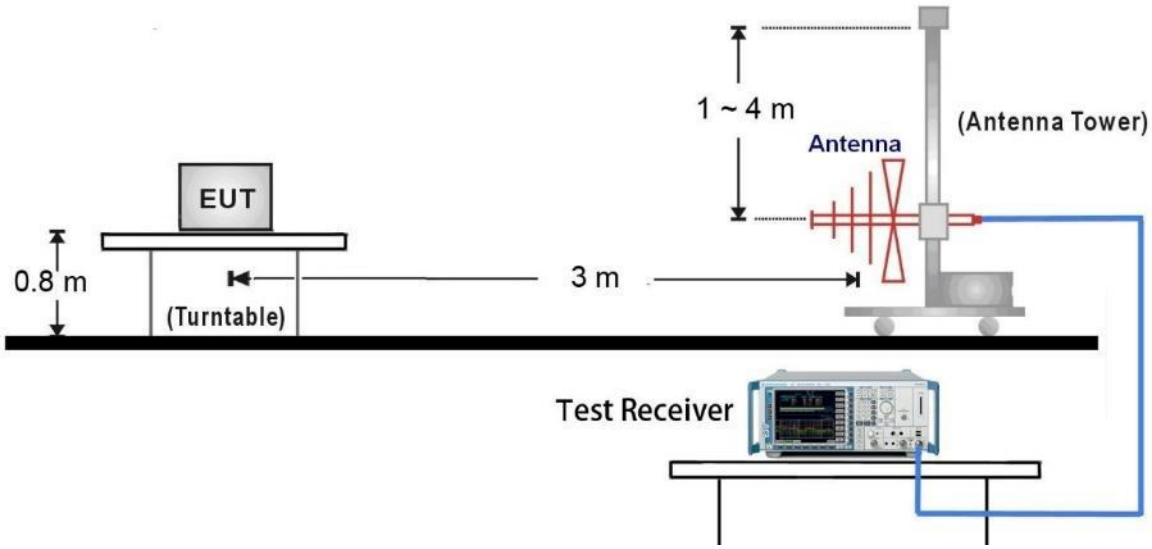
頻　率(MHz)	頻　率(MHz)	頻　率(MHz)	頻　率(MHz)	頻　率(MHz)
0.090～0.110	25.500～25.700	703.00～748.00	2310.0～2390.0	13250～13400
0.490～0.510	37.475～38.275	758.00～803.00	2483.5～2900.0	14470～14500
2.172～2.198	73.500～75.400	825.00～915.00	3260.0～3267.0	15350～16200
3.013～3.033	108.00～138.00	930.00～1240.0	3332.0～3339.0	17700～21400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

5.6.3 測試架構圖

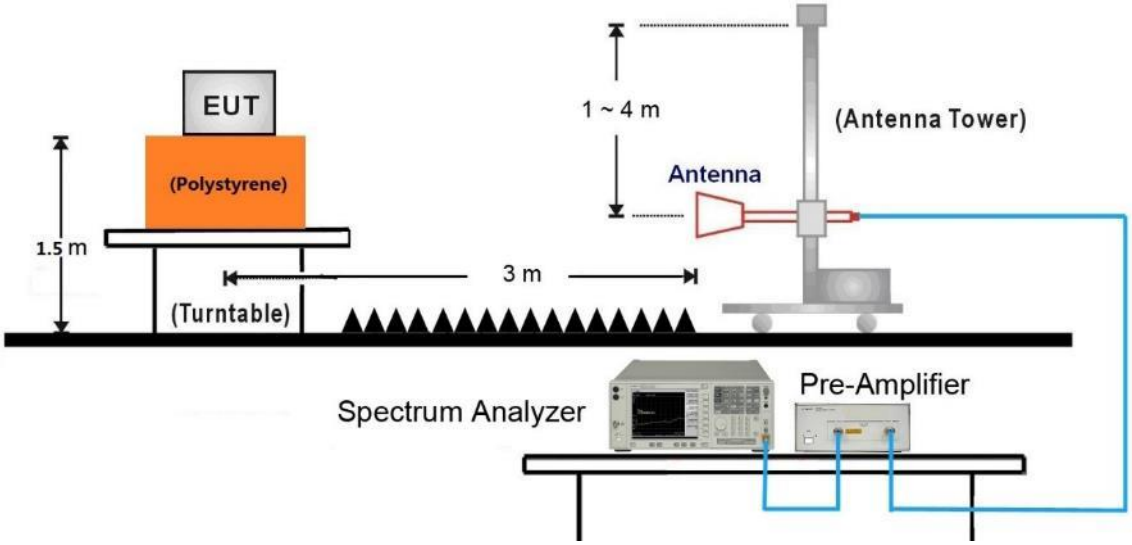
Under 30MHz Test



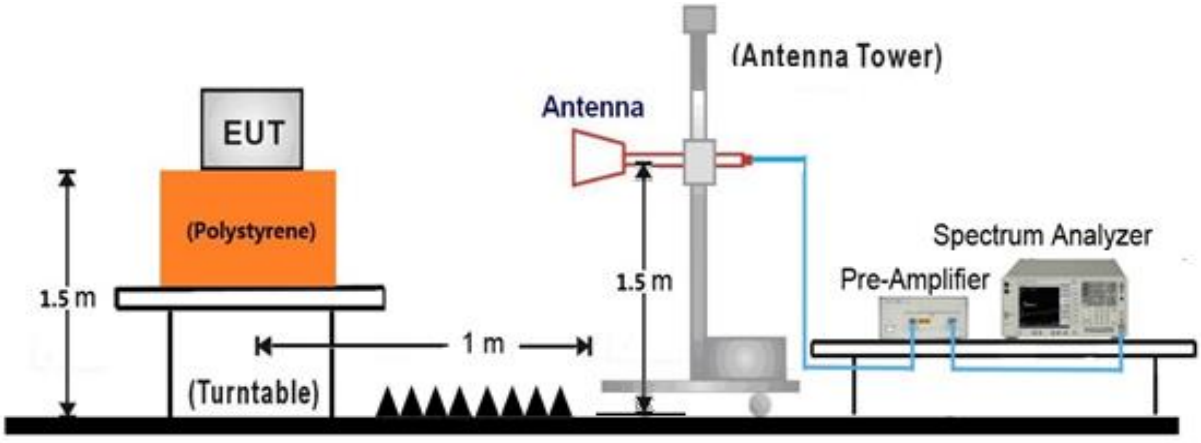
Under 1GHz Test Setup



1GHz ~ 18GHz Test Setup:

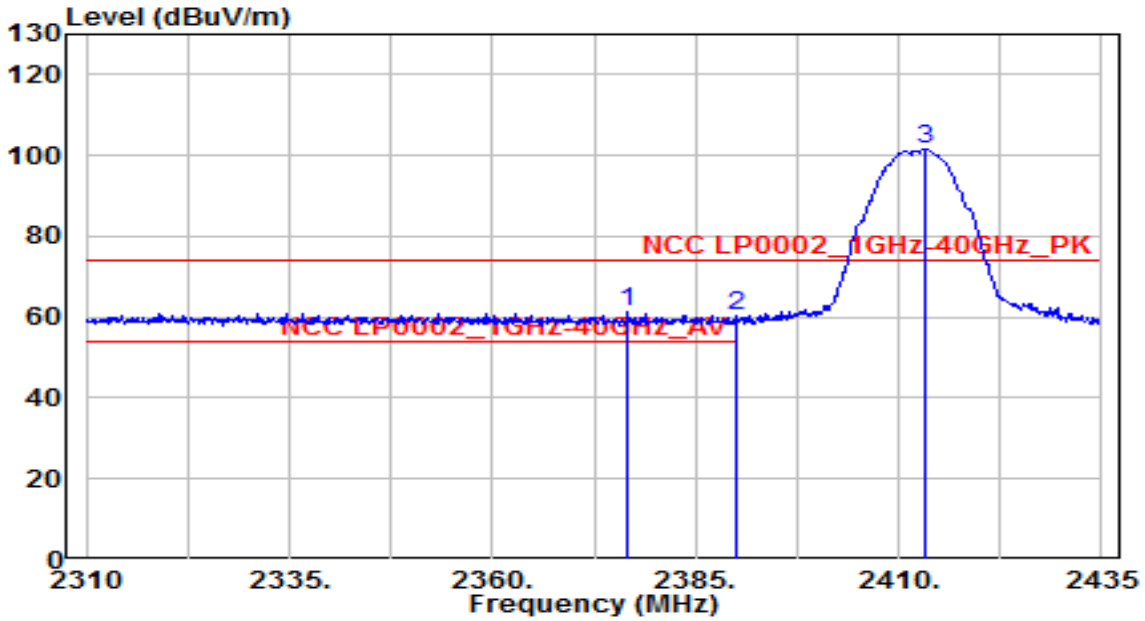


18GHz ~25GHz Test Setup:



5.6.4 頻帶邊緣測試結果

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11b_TX_CH 1_ANT 0	Test Voltage	AC 110V/60Hz

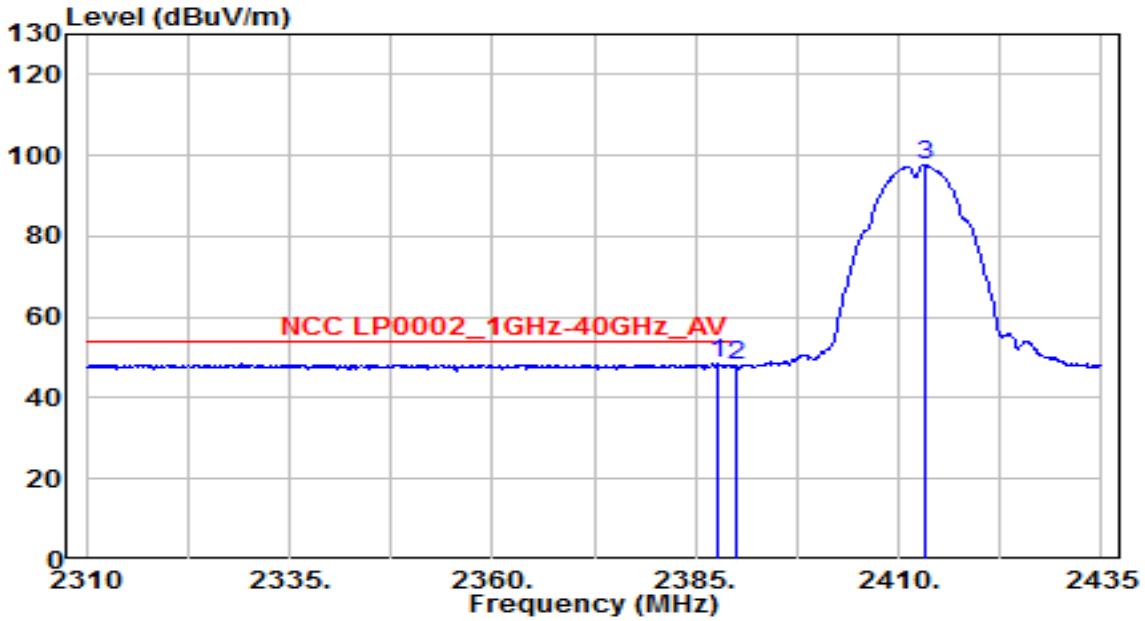


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	2376.625	29.19	32.16	61.36	-12.64	74.00	130	240	Peak
2		2390.000	28.25	32.22	60.47	-13.53	74.00	130	240	Peak
3		2413.125	69.30	32.32	101.62	N/A	N/A	130	240	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11b_TX_CH 1_ANT 0	Test Voltage	AC 110V/60Hz

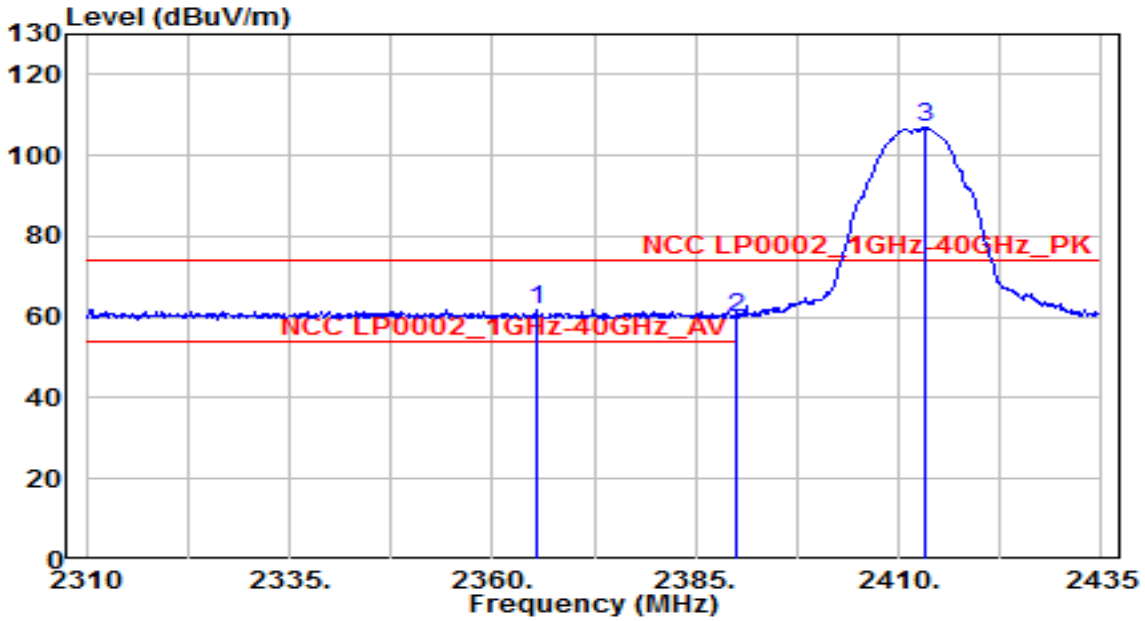


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	2387.625	16.20	32.21	48.41	-5.59	54.00	130	240	Average
2		2390.000	15.88	32.22	48.09	-5.91	54.00	130	240	Average
3		2413.125	65.24	32.32	97.56	N/A	N/A	130	240	Average

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11b_TX_CH 1_ANT 0	Test Voltage	AC 110V/60Hz

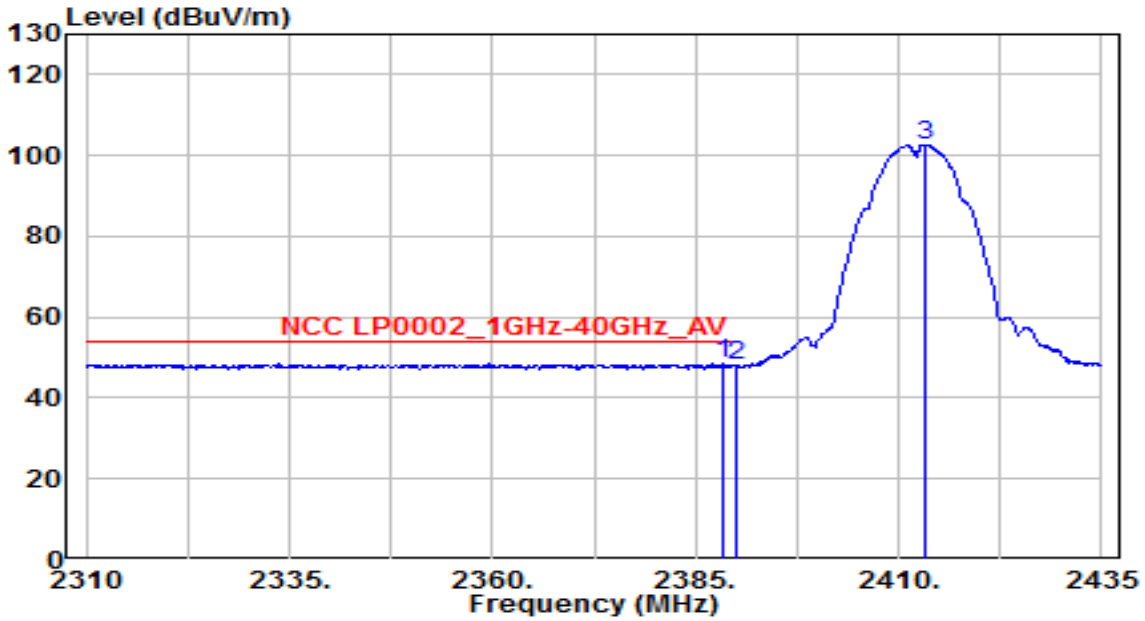


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	2365.375	29.66	32.11	61.77	-12.23	74.00	150	220	Peak
2		2390.000	27.85	32.22	60.07	-13.93	74.00	150	220	Peak
3		2413.250	74.56	32.32	106.88	N/A	N/A	150	220	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11b_TX_CH 1_ANT 0	Test Voltage	AC 110V/60Hz

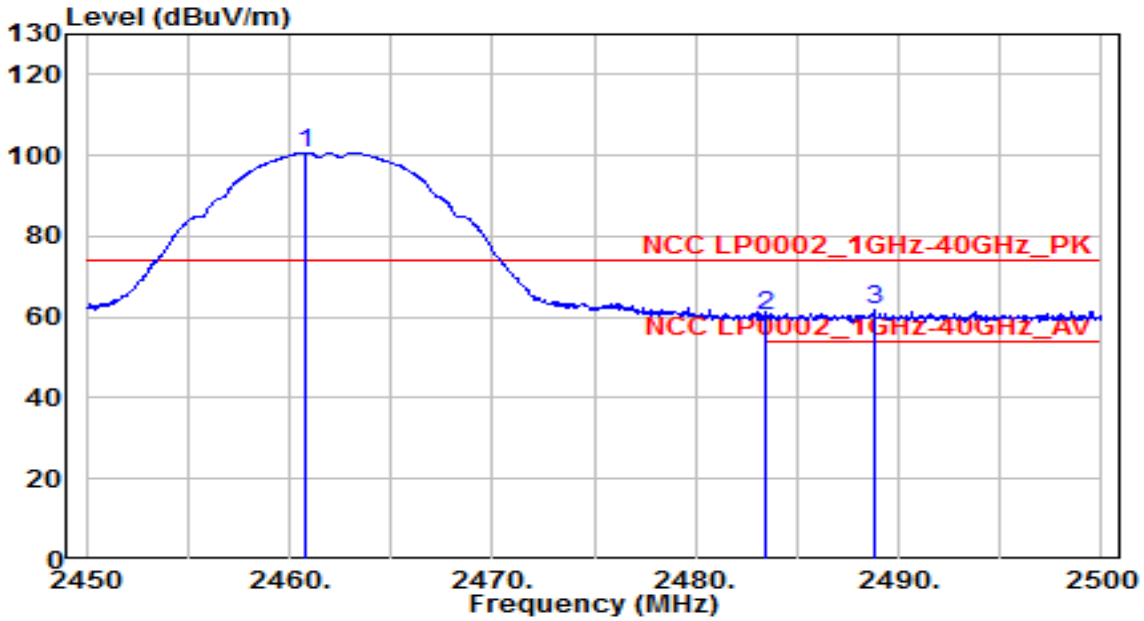


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	2388.375	16.21	32.21	48.42	-5.58	54.00	150	220	Average
2		2390.000	15.79	32.22	48.01	-5.99	54.00	150	220	Average
3		2413.250	70.45	32.32	102.77	N/A	N/A	150	220	Average

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11b_TX_CH 11_ANT 0	Test Voltage	AC 110V/60Hz

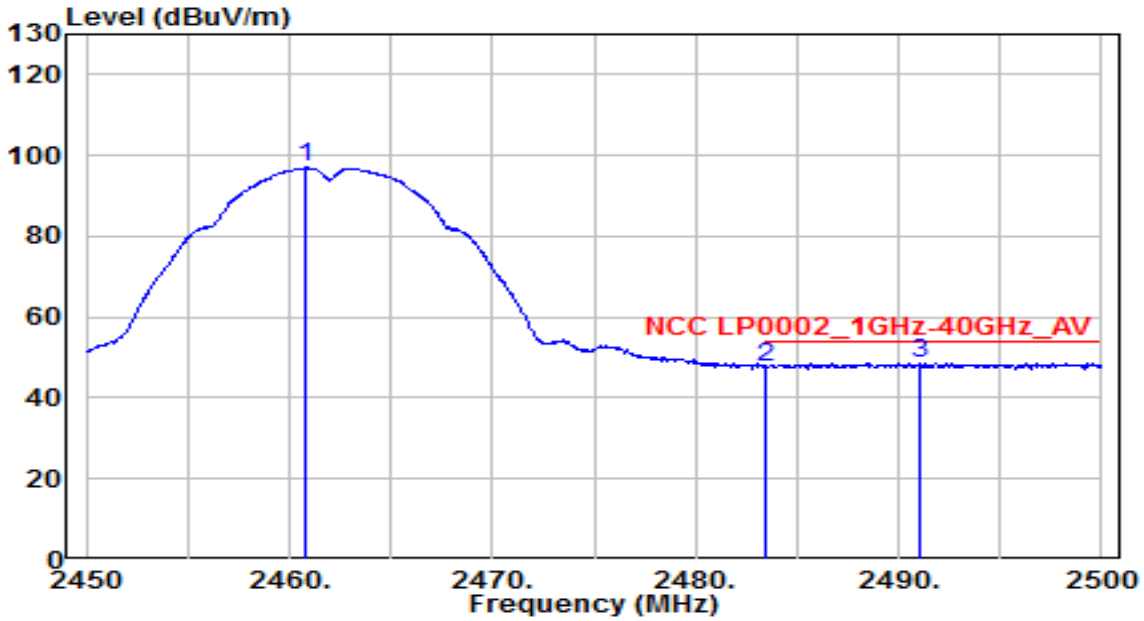


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2460.750	68.23	32.52	100.74	N/A	N/A	150	240	Peak
2		2483.500	27.59	32.61	60.20	-13.80	74.00	150	240	Peak
3	*	2488.800	29.18	32.63	61.82	-12.18	74.00	150	240	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11b_TX_CH 11_ANT 0	Test Voltage	AC 110V/60Hz

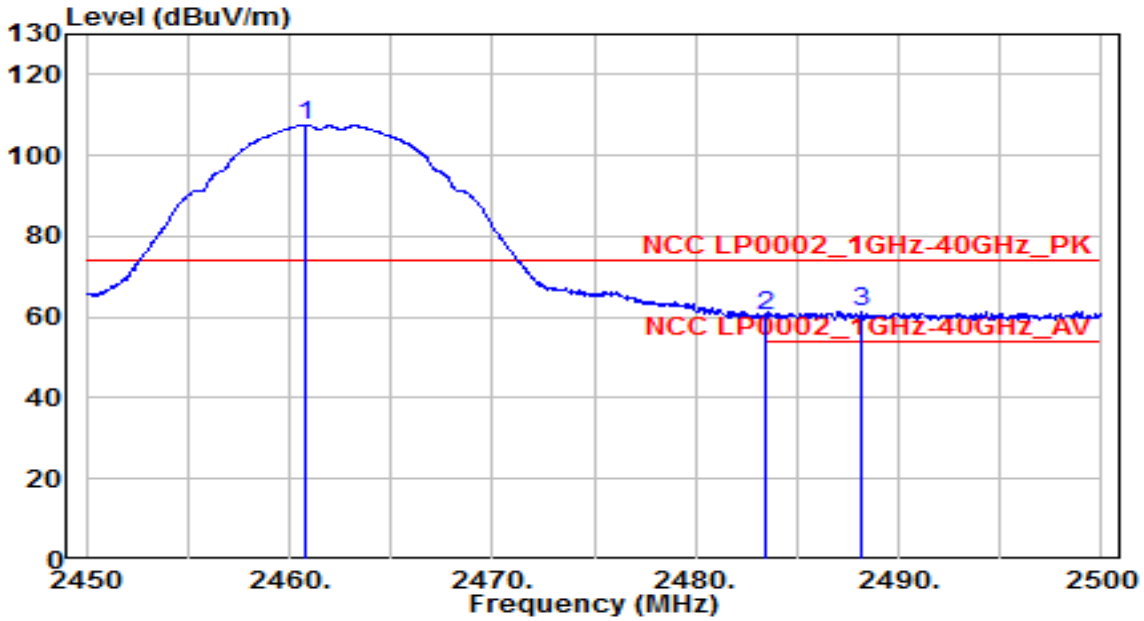


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2460.850	64.46	32.52	96.97	N/A	N/A	150	240	Average
2		2483.500	15.08	32.61	47.70	-6.30	54.00	150	240	Average
3	*	2491.000	15.96	32.64	48.60	-5.40	54.00	150	240	Average

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11b_TX_CH 11_ANT 0	Test Voltage	AC 110V/60Hz

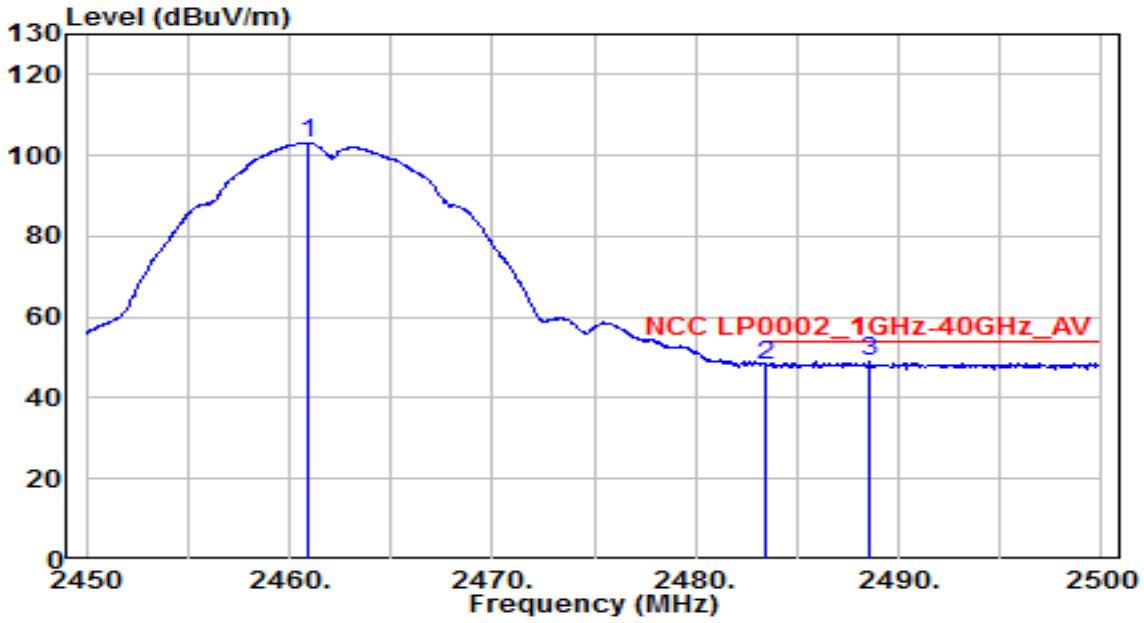


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2460.800	75.00	32.52	107.51	N/A	N/A	150	230	Peak
2		2483.500	27.95	32.61	60.56	-13.44	74.00	150	230	Peak
3	*	2488.200	28.74	32.63	61.37	-12.63	74.00	150	230	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11b_TX_CH 11_ANT 0	Test Voltage	AC 110V/60Hz

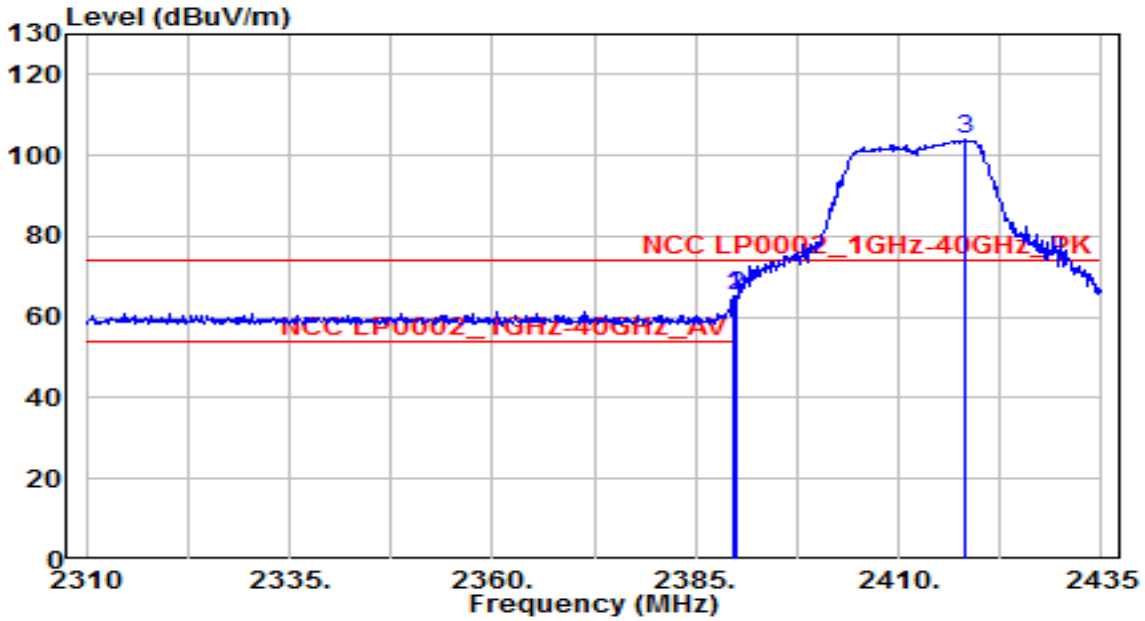


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2460.900	70.61	32.52	103.13	N/A	N/A	150	230	Average
2		2483.500	15.66	32.61	48.27	-5.73	54.00	150	230	Average
3	*	2488.500	16.37	32.63	49.00	-5.00	54.00	150	230	Average

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11g_TX_CH 1_ANT 0	Test Voltage	AC 110V/60Hz

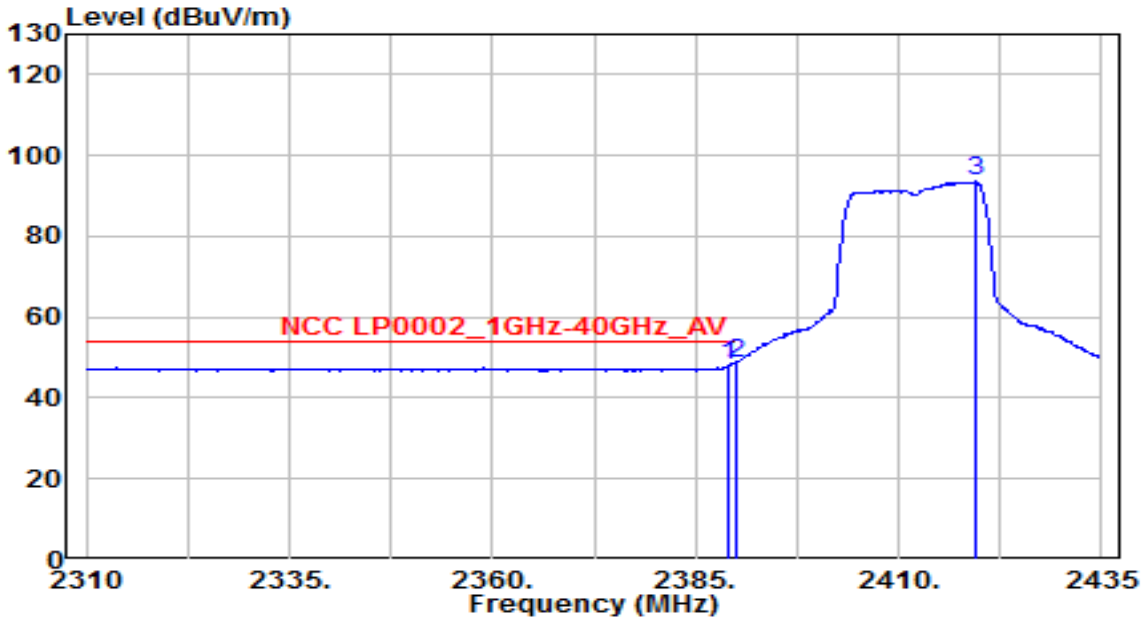


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2389.625	32.90	32.22	65.11	-8.89	74.00	150	240	Peak
2	*	2390.000	33.07	32.22	65.29	-8.71	74.00	150	240	Peak
3		2418.250	71.66	32.34	104.00	N/A	N/A	150	240	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11g_TX_CH 1_ANT 0	Test Voltage	AC 110V/60Hz

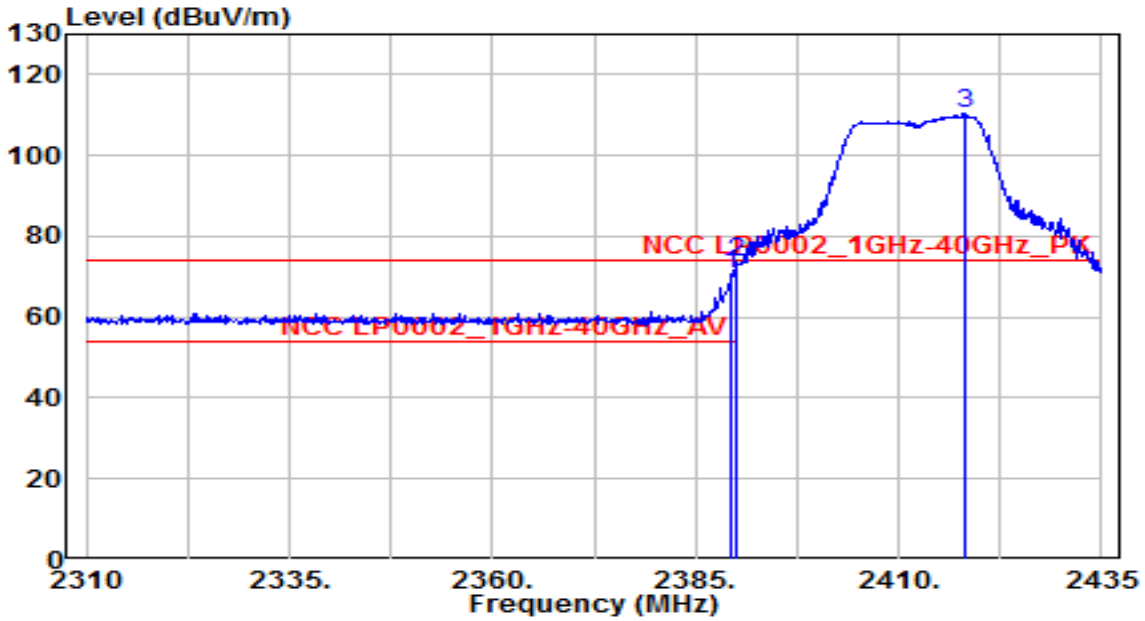


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2389.125	15.62	32.21	47.83	-6.17	54.00	150	240	Average
2	*	2390.000	16.49	32.22	48.71	-5.29	54.00	150	240	Average
3		2419.500	61.37	32.34	93.71	N/A	N/A	150	240	Average

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11g_TX_CH 1_ANT 0	Test Voltage	AC 110V/60Hz

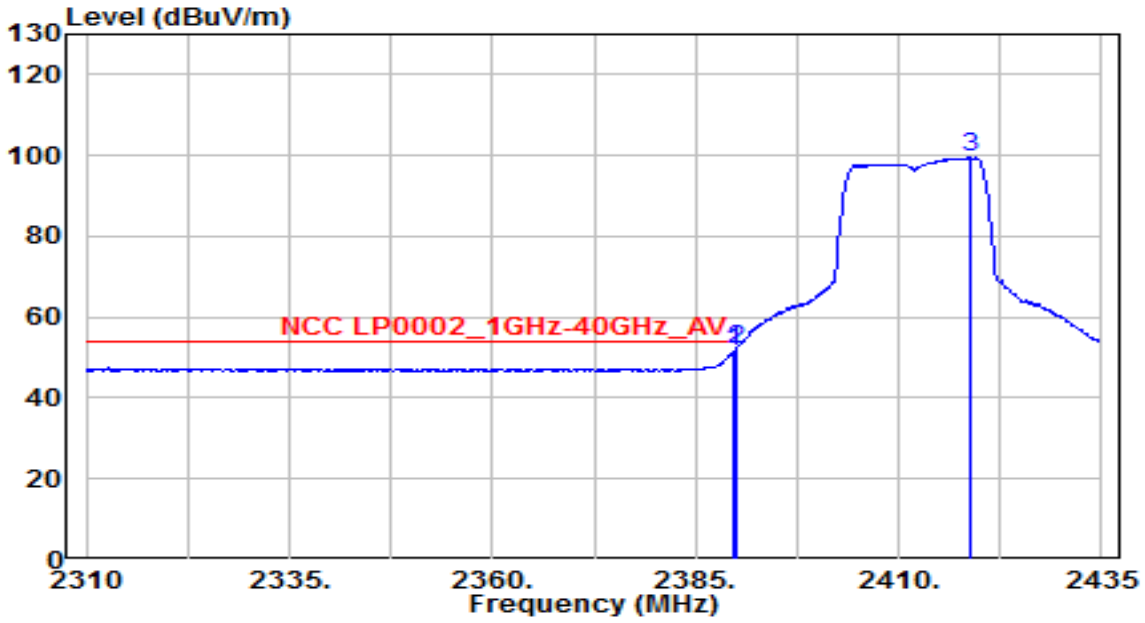


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2389.500	38.65	32.22	70.87	-3.13	74.00	150	225	Peak
2	*	2390.000	41.17	32.22	73.39	-0.61	74.00	150	225	Peak
3		2418.250	78.00	32.34	110.33	N/A	N/A	150	225	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11g_TX_CH 1_ANT 0	Test Voltage	AC 110V/60Hz

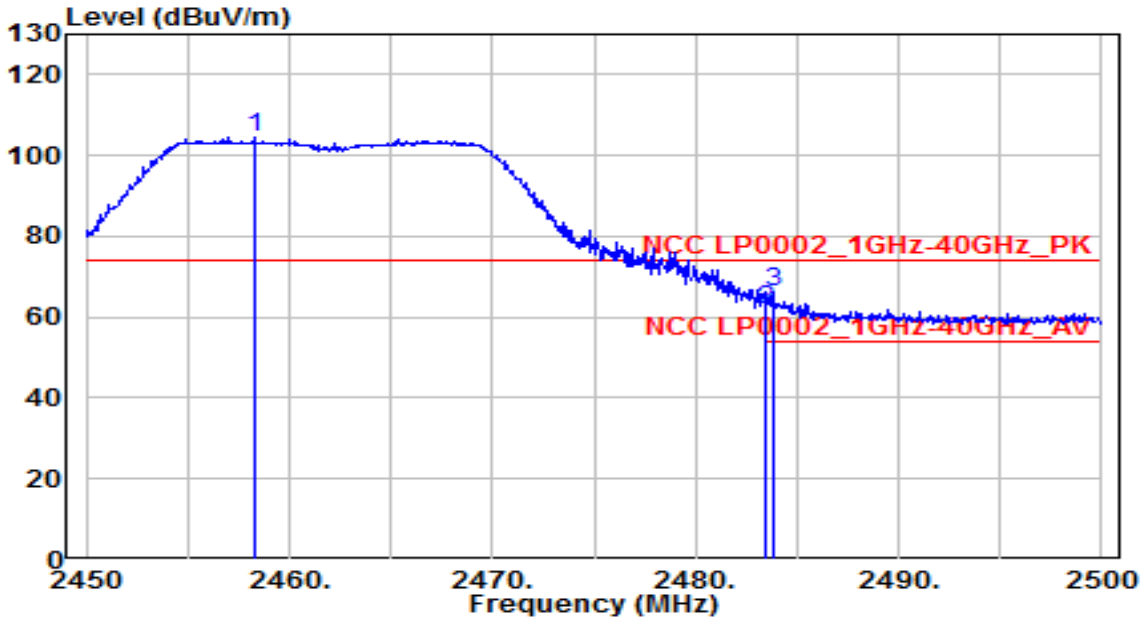


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2389.750	19.33	32.22	51.55	-2.45	54.00	150	225	Average
2	*	2390.000	19.92	32.22	52.14	-1.86	54.00	150	225	Average
3		2418.750	67.34	32.34	99.68	N/A	N/A	150	225	Average

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11g_TX_CH 11_ANT 0	Test Voltage	AC 110V/60Hz

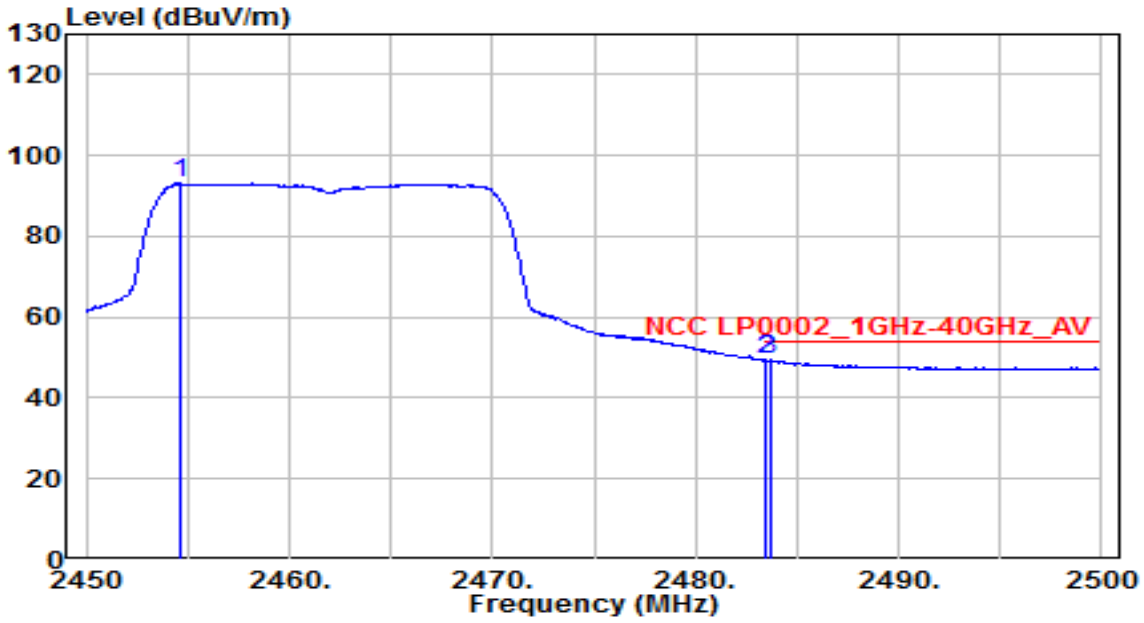


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2458.250	71.88	32.50	104.39	N/A	N/A	125	240	Peak
2		2483.500	29.38	32.61	61.99	-12.01	74.00	125	240	Peak
3	*	2483.850	33.42	32.61	66.03	-7.97	74.00	125	240	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11g_TX_CH 11_ANT 0	Test Voltage	AC 110V/60Hz

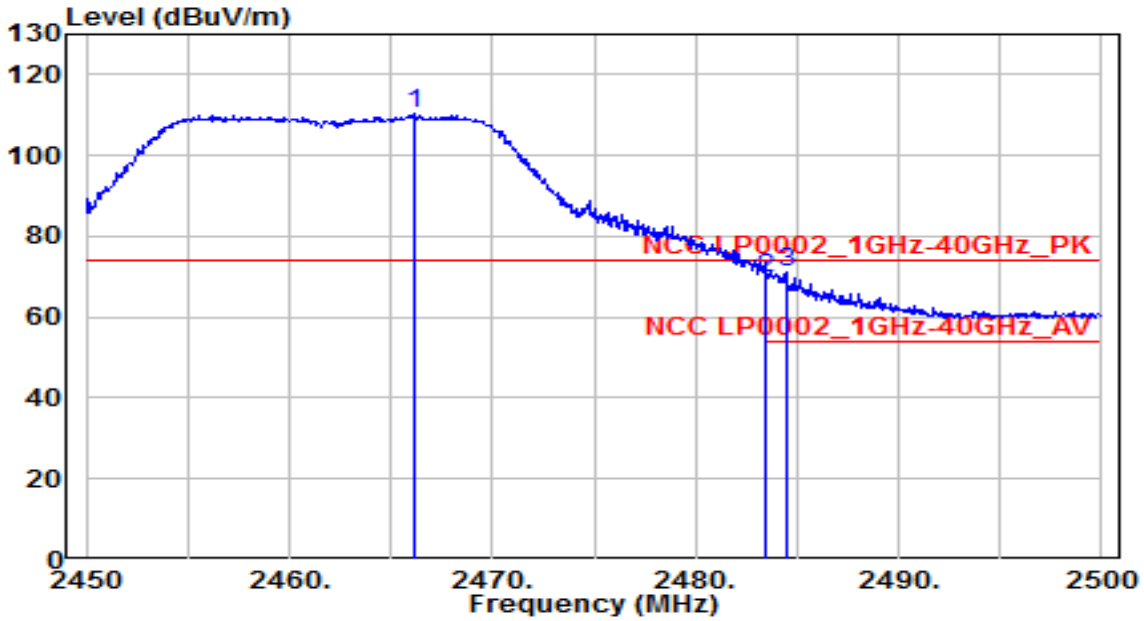


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2454.600	60.64	32.49	93.13	N/A	N/A	125	240	Average
2	*	2483.500	16.77	32.61	49.38	-4.62	54.00	125	240	Average
3		2483.650	16.70	32.61	49.31	-4.69	54.00	125	240	Average

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11g_TX_CH 11_ANT 0	Test Voltage	AC 110V/60Hz

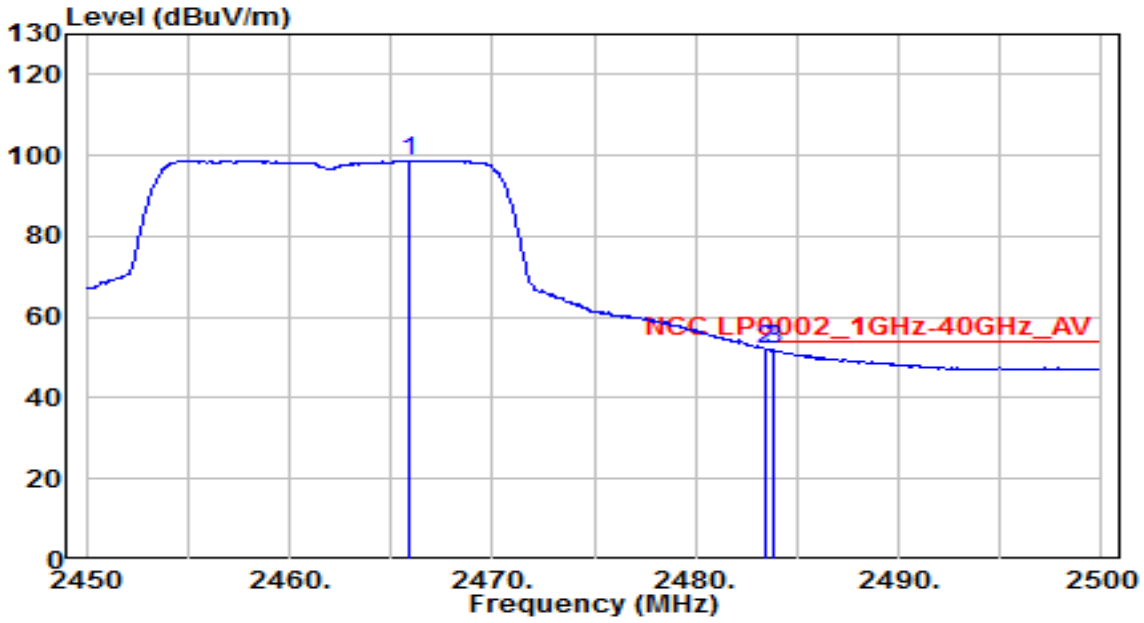


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2466.100	77.68	32.54	110.22	N/A	N/A	150	220	Peak
2		2483.500	37.28	32.61	69.89	-4.11	74.00	150	220	Peak
3	*	2484.500	38.76	32.61	71.38	-2.62	74.00	150	220	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11g_TX_CH 11_ANT 0	Test Voltage	AC 110V/60Hz

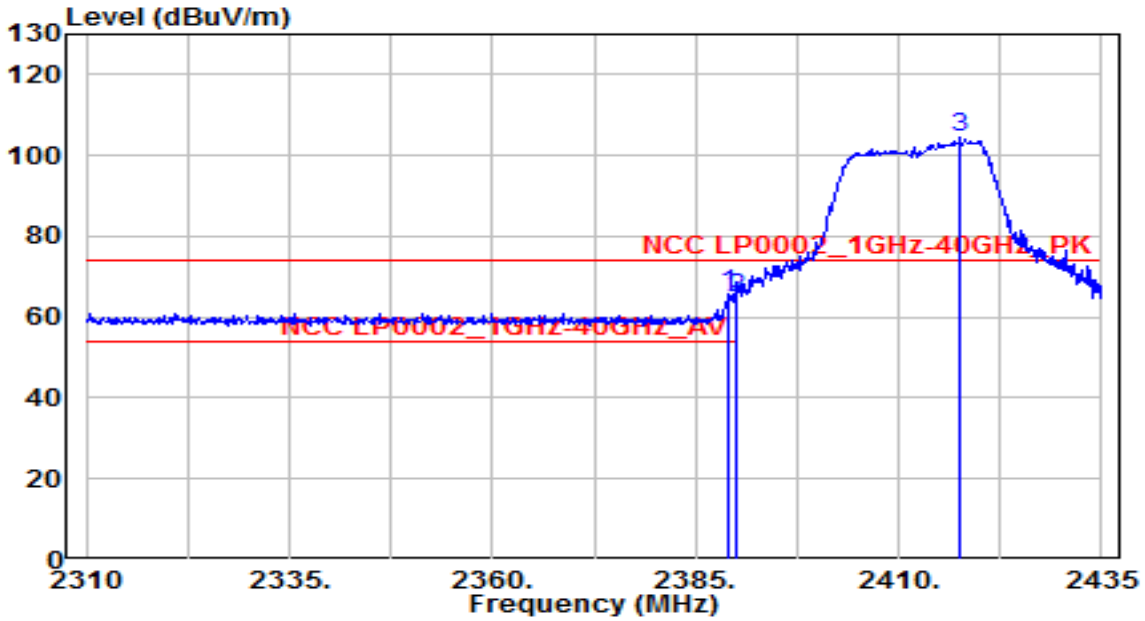


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2465.900	66.27	32.54	98.80	N/A	N/A	150	220	Average
2	*	2483.500	19.50	32.61	52.11	-1.89	54.00	150	220	Average
3		2483.850	19.20	32.61	51.81	-2.19	54.00	150	220	Average

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-20MHz_TX_CH 1_ANT 0	Test Voltage	AC 110V/60Hz

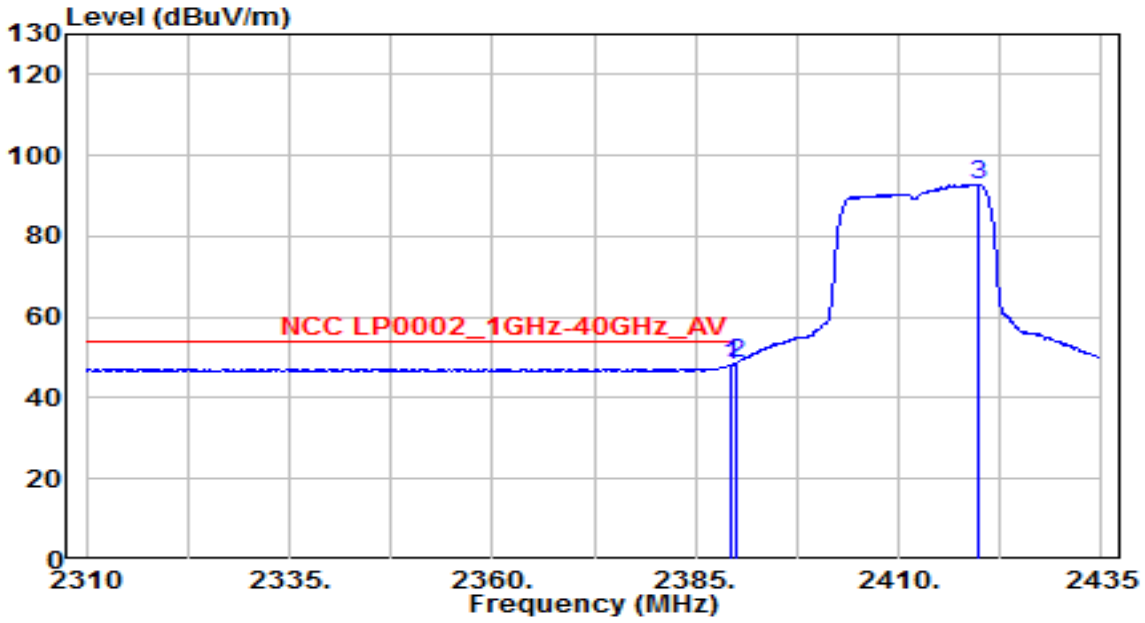


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	2389.000	33.72	32.21	65.93	-8.07	74.00	130	240	Peak
2		2390.000	32.62	32.22	64.84	-9.16	74.00	130	240	Peak
3		2417.500	72.01	32.33	104.34	N/A	N/A	130	240	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-20MHz_TX_CH 1_ANT 0	Test Voltage	AC 110V/60Hz

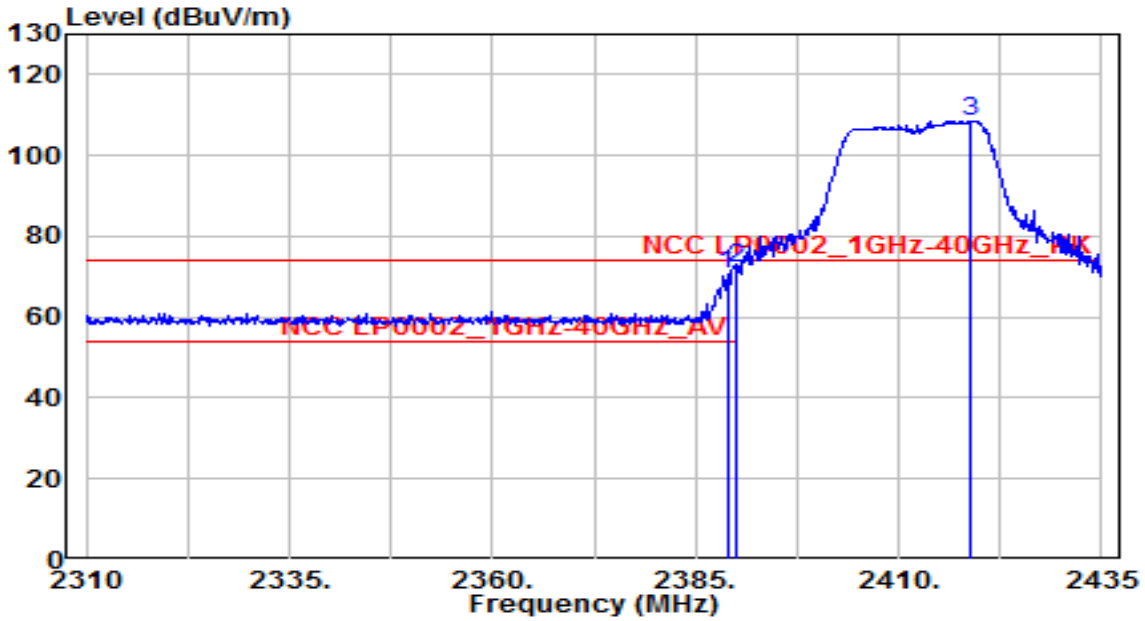


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2389.375	15.98	32.22	48.20	-5.80	54.00	130	240	Average
2	*	2390.000	16.57	32.22	48.79	-5.21	54.00	130	240	Average
3		2419.750	60.52	32.34	92.87	N/A	N/A	130	240	Average

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-20MHz_TX_CH 1_ANT 0	Test Voltage	AC 110V/60Hz

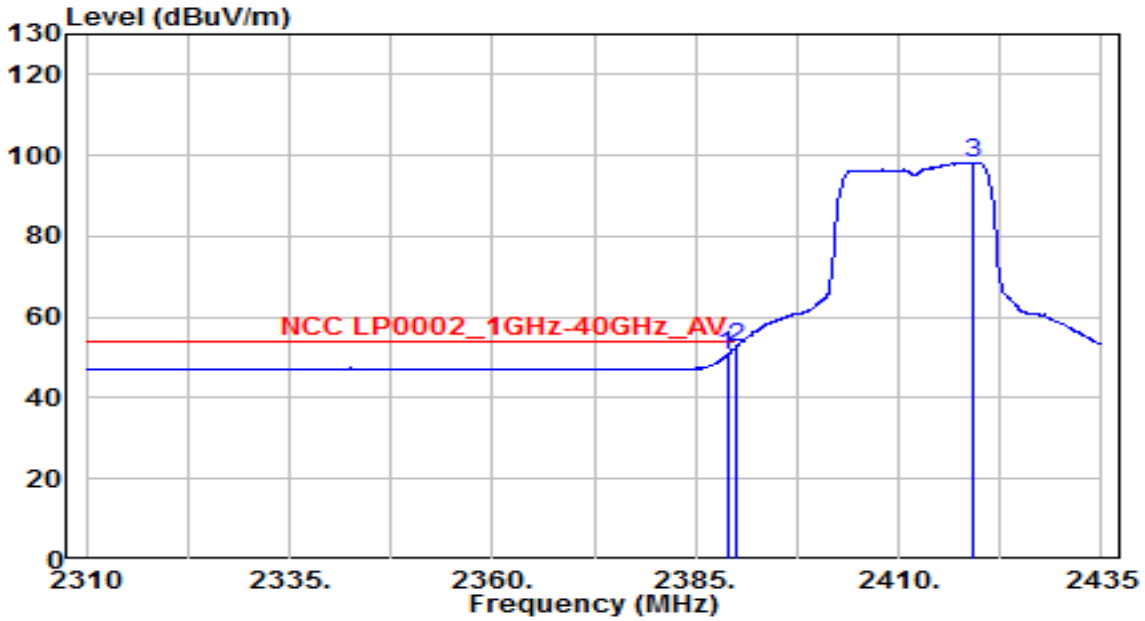


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2388.875	38.21	32.21	70.42	-3.58	74.00	150	225	Peak
2	*	2390.000	39.70	32.22	71.92	-2.08	74.00	150	225	Peak
3		2418.750	76.32	32.34	108.66	N/A	N/A	150	225	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-20MHz_TX_CH 1_ANT 0	Test Voltage	AC 110V/60Hz

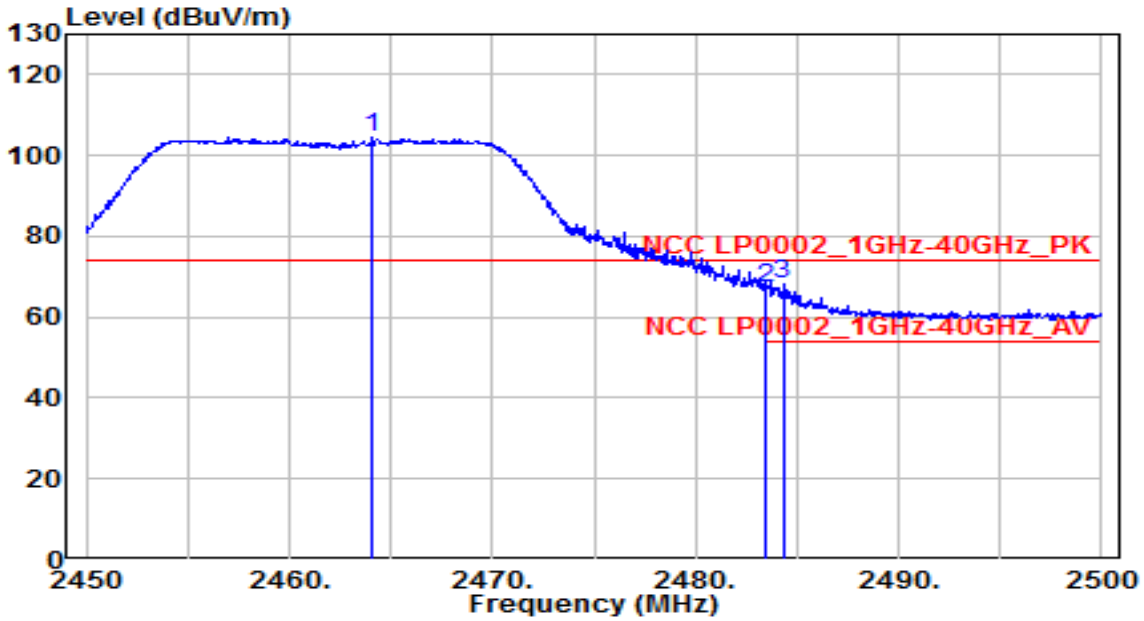


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2388.875	18.33	32.21	50.54	-3.46	54.00	150	225	Average
2	*	2390.000	20.33	32.22	52.55	-1.45	54.00	150	225	Average
3		2419.125	65.92	32.34	98.26	N/A	N/A	150	225	Average

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-20MHz_TX_CH 11_ANT 0	Test Voltage	AC 110V/60Hz

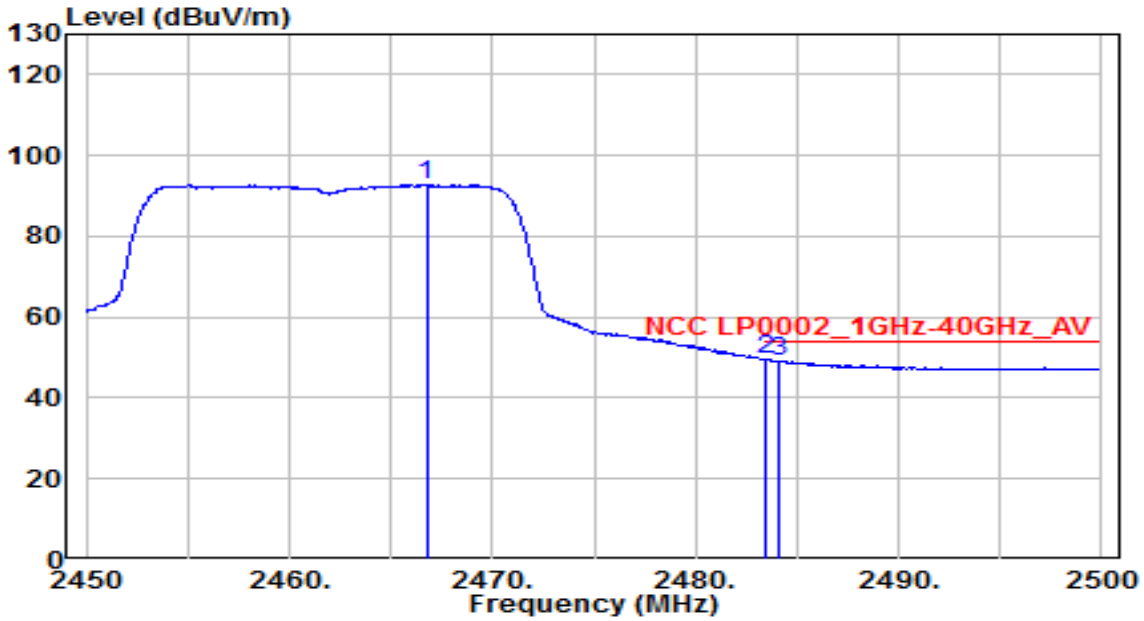


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2464.050	72.11	32.53	104.64	N/A	N/A	150	240	Peak
2		2483.500	34.84	32.61	67.45	-6.55	74.00	150	240	Peak
3	*	2484.300	35.69	32.61	68.31	-5.69	74.00	150	240	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-20MHz_TX_CH 11_ANT 0	Test Voltage	AC 110V/60Hz

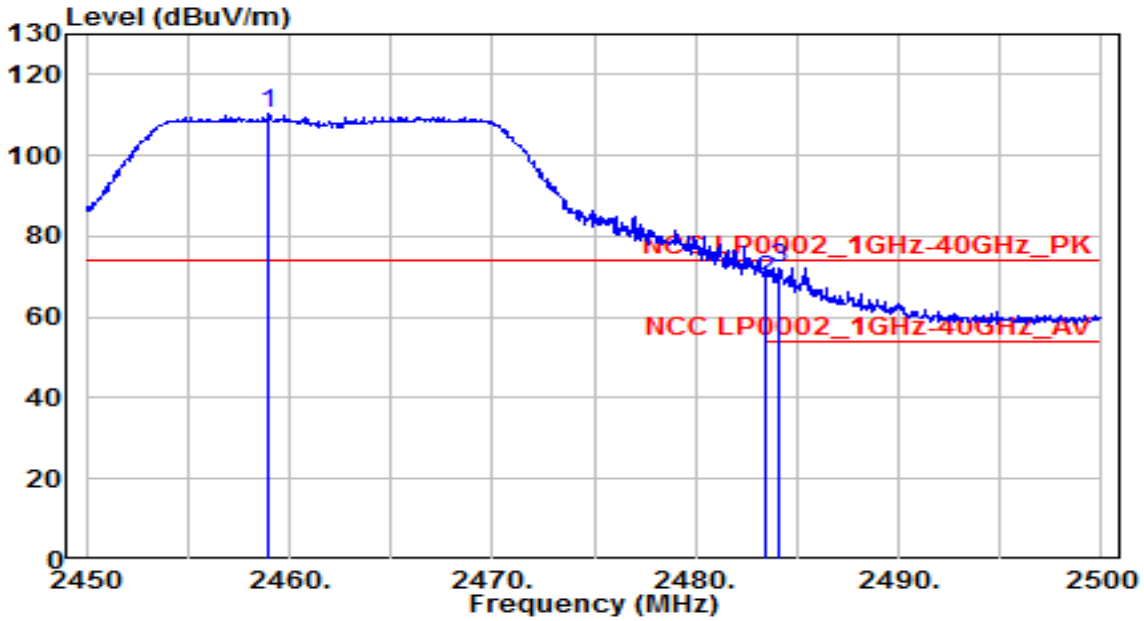


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2466.750	60.19	32.54	92.73	N/A	N/A	150	240	Average
2	*	2483.500	16.83	32.61	49.44	-4.56	54.00	150	240	Average
3		2484.050	16.60	32.61	49.21	-4.79	54.00	150	240	Average

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-20MHz_TX_CH 11_ANT 0	Test Voltage	AC 110V/60Hz

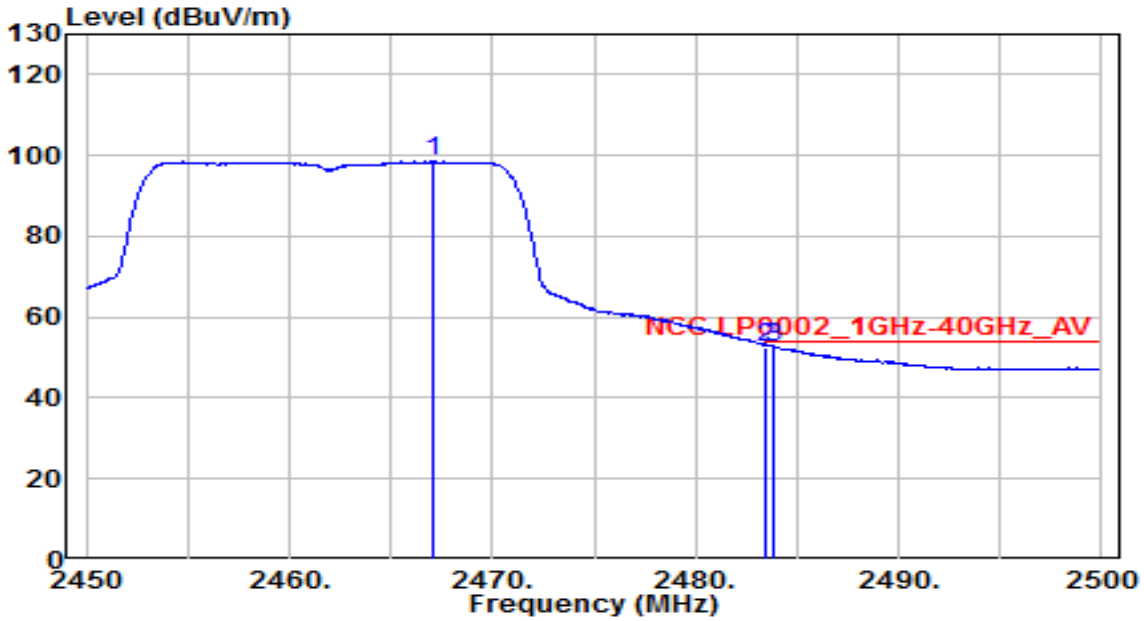


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2459.000	78.05	32.51	110.56	N/A	N/A	150	225	Peak
2		2483.500	36.77	32.61	69.38	-4.62	74.00	150	225	Peak
3	*	2484.150	39.64	32.61	72.26	-1.74	74.00	150	225	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-20MHz_TX_CH 11_ANT 0	Test Voltage	AC 110V/60Hz

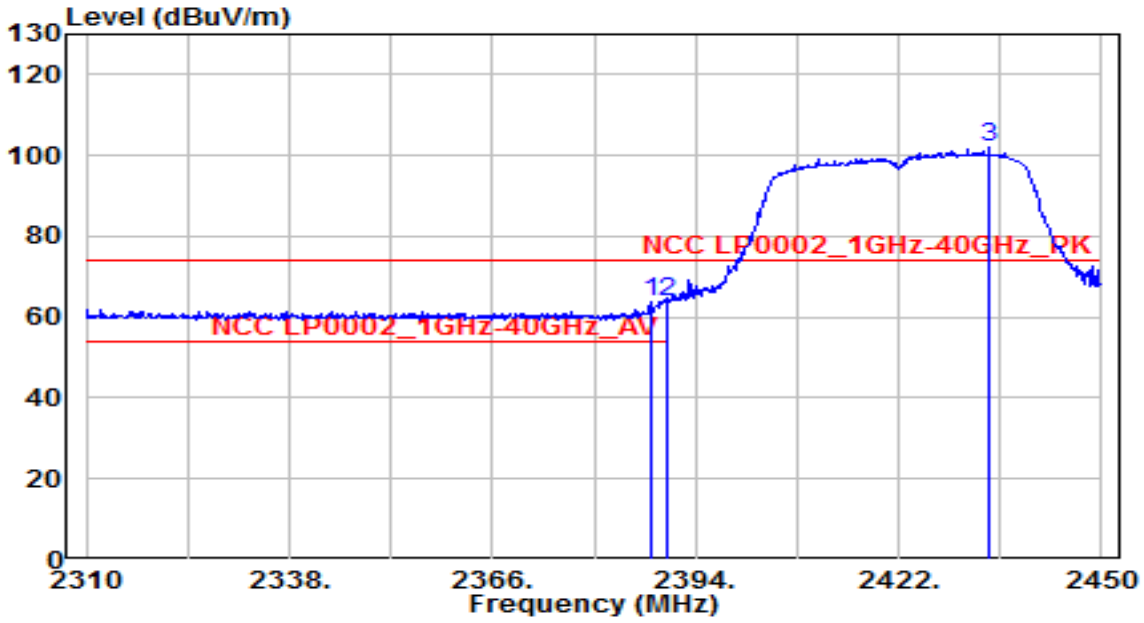


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2467.050	65.97	32.54	98.51	N/A	N/A	150	225	Average
2	*	2483.500	20.10	32.61	52.71	-1.29	54.00	150	225	Average
3		2483.900	20.03	32.61	52.64	-1.36	54.00	150	225	Average

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-40MHz_TX_CH 3_ANT 0	Test Voltage	AC 110V/60Hz

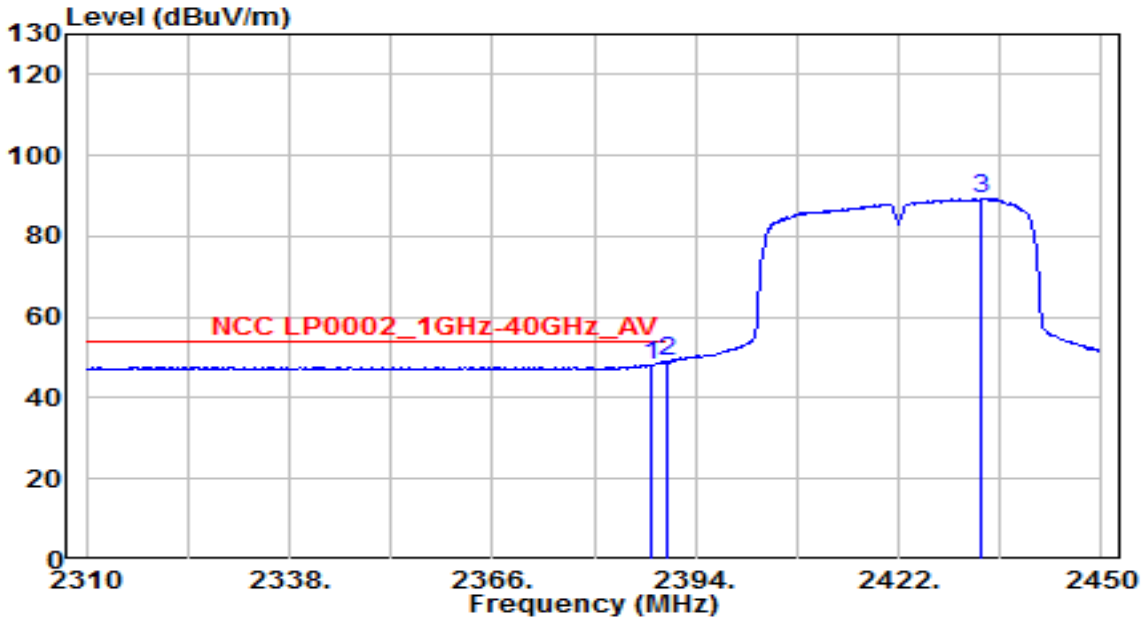


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2387.840	31.41	32.21	63.61	-10.39	74.00	150	240	Peak
2	*	2390.000	31.47	32.22	63.69	-10.31	74.00	150	240	Peak
3		2434.460	69.39	32.40	101.80	N/A	N/A	150	240	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-40MHz_TX_CH 3_ANT 0	Test Voltage	AC 110V/60Hz

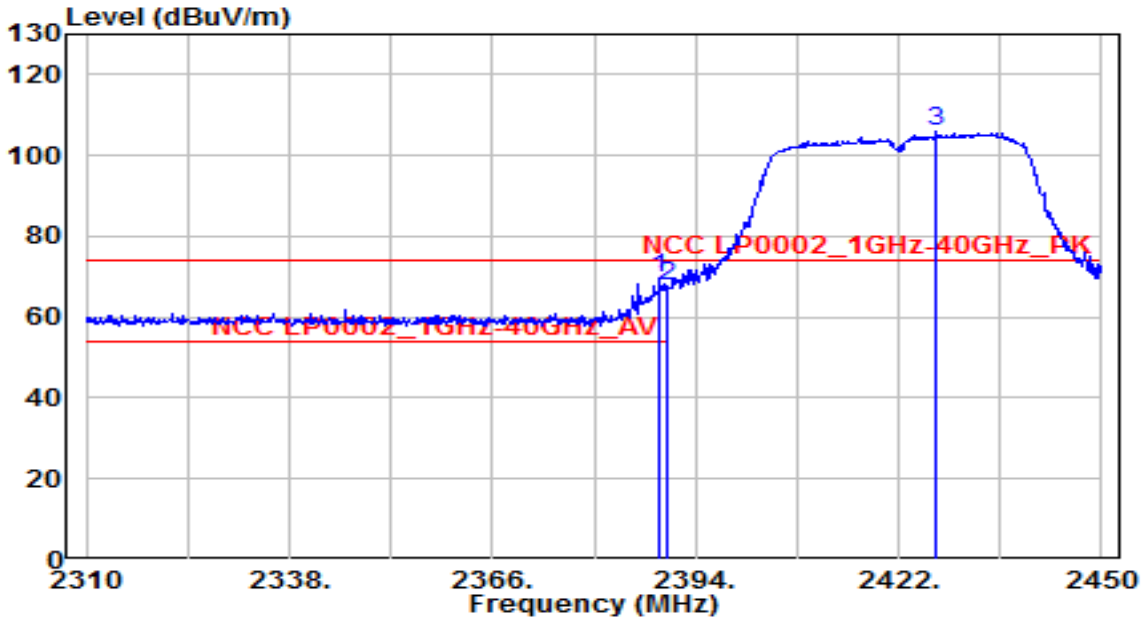


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2387.840	16.11	32.21	48.32	-5.68	54.00	150	240	Average
2	*	2390.000	16.63	32.22	48.85	-5.15	54.00	150	240	Average
3		2433.480	56.91	32.40	89.31	N/A	N/A	150	240	Average

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-40MHz_TX_CH 3_ANT 0	Test Voltage	AC 110V/60Hz

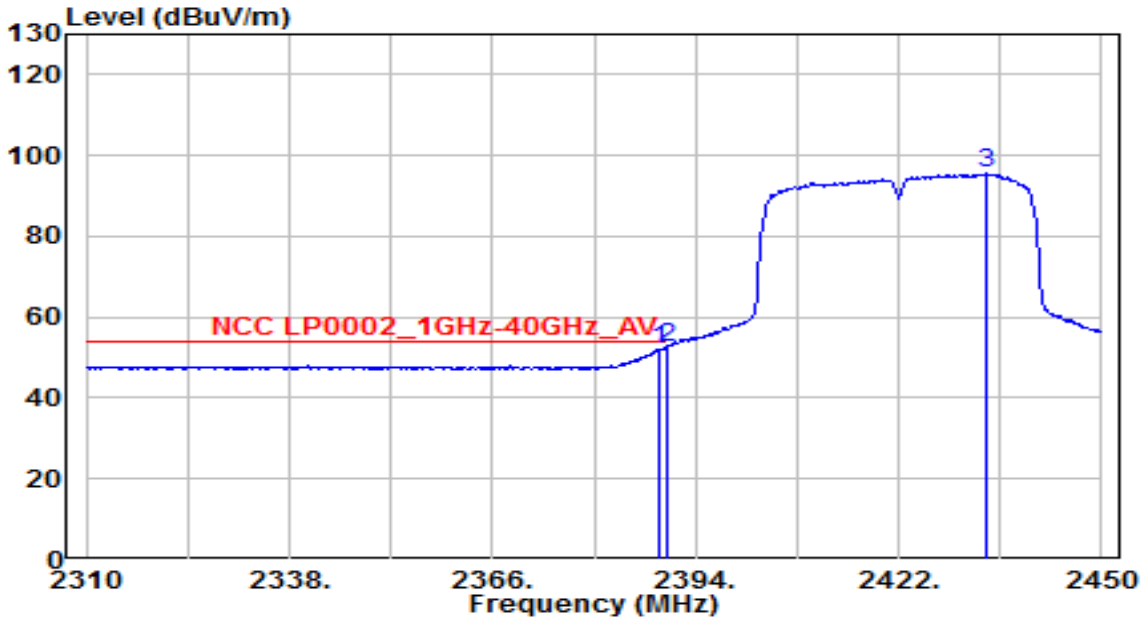


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	2388.960	37.31	32.21	69.52	-4.48	74.00	150	225	Peak
2		2390.000	35.57	32.22	67.78	-6.22	74.00	150	225	Peak
3		2427.180	73.51	32.37	105.89	N/A	N/A	150	225	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-40MHz_TX_CH 3_ANT 0	Test Voltage	AC 110V/60Hz

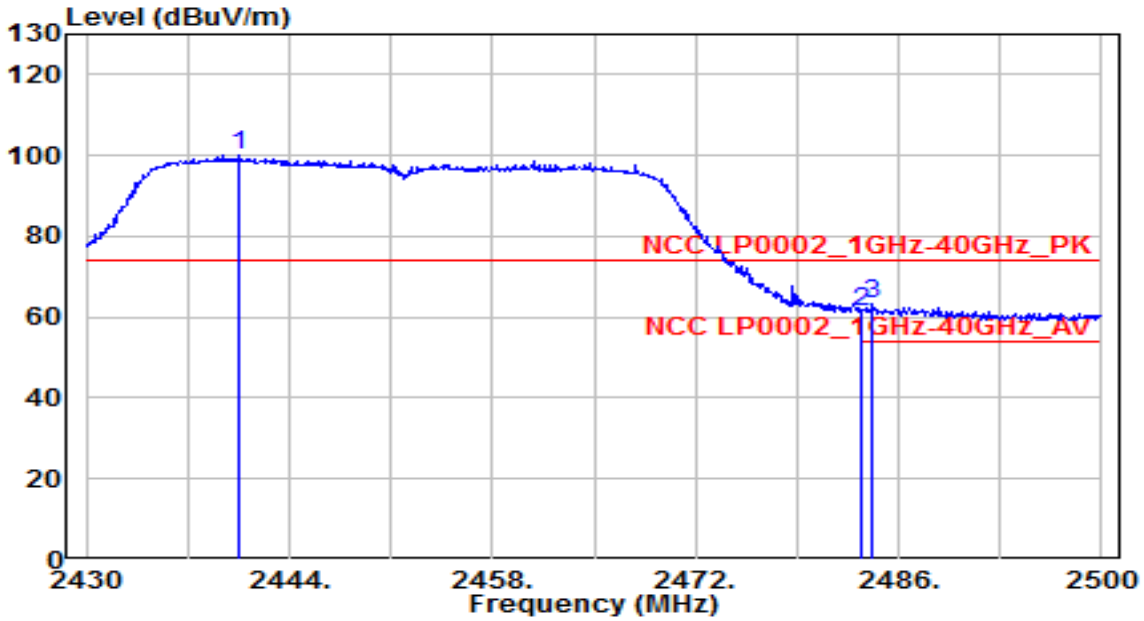


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2388.960	19.73	32.21	51.94	-2.06	54.00	150	225	Average
2	*	2390.000	20.18	32.22	52.40	-1.60	54.00	150	225	Average
3		2434.040	63.04	32.40	95.44	N/A	N/A	150	225	Average

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-40MHz_TX_CH 9_ANT 0	Test Voltage	AC 110V/60Hz

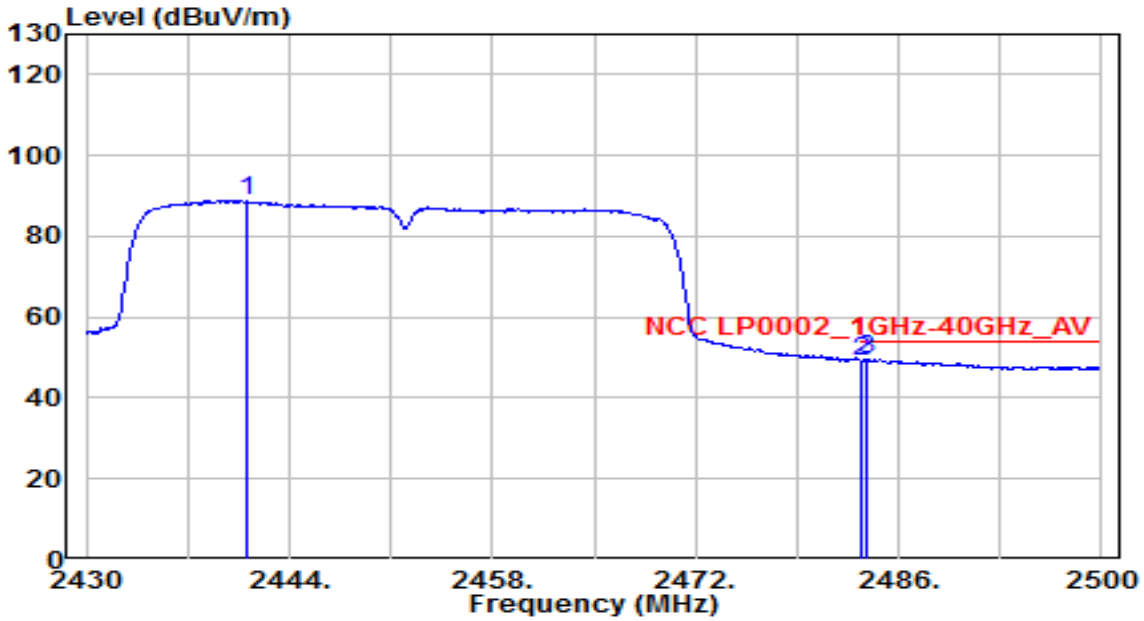


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2440.570	67.86	32.43	100.29	N/A	N/A	130	240	Peak
2		2483.500	28.80	32.61	61.41	-12.59	74.00	130	240	Peak
3	*	2484.250	30.51	32.61	63.12	-10.88	74.00	130	240	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Horizontal	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-40MHz_TX_CH 9_ANT 0	Test Voltage	AC 110V/60Hz

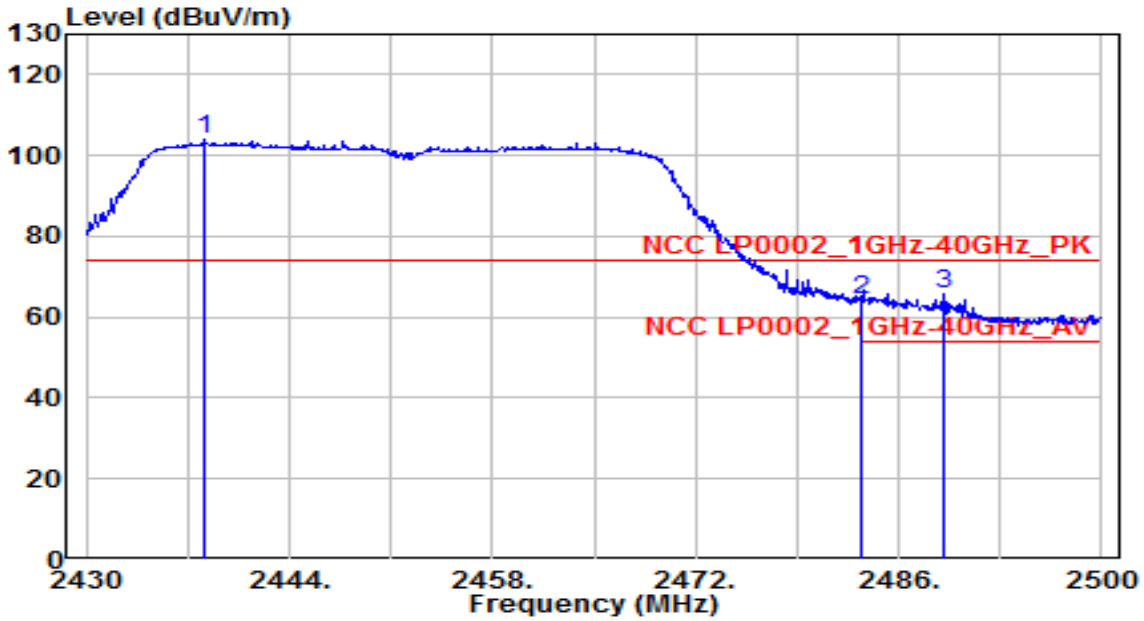


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2440.990	56.28	32.43	88.71	N/A	N/A	130	240	Average
2		2483.500	16.46	32.61	49.07	-4.93	54.00	130	240	Average
3	*	2483.760	16.88	32.61	49.49	-4.51	54.00	130	240	Average

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-40MHz_TX_CH 9_ANT 0	Test Voltage	AC 110V/60Hz

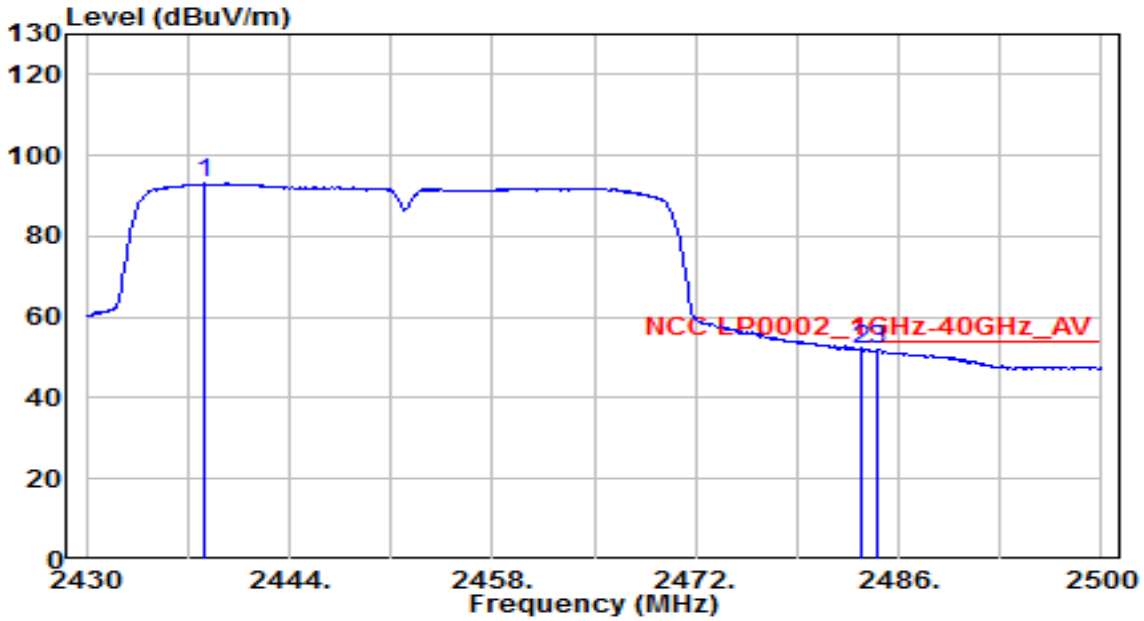


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2438.190	71.80	32.42	104.22	N/A	N/A	150	225	Peak
2		2483.500	31.86	32.61	64.47	-9.53	74.00	150	225	Peak
3	*	2489.150	32.96	32.63	65.59	-8.41	74.00	150	225	Peak

Note:

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

EUT	智慧收銀終端	Date of Test	2021-05-28
Factor	BBHA 9120D	Temp. / Humidity	24°C /57%
Polarity	Vertical	Site / Test Engineer	AC1 / Hance
Test Mode	802.11n-40MHz_TX_CH 9_ANT 0	Test Voltage	AC 110V/60Hz



No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2438.190	60.60	32.42	93.02	N/A	N/A	150	225	Average
2	*	2483.500	19.63	32.61	52.24	-1.76	54.00	150	225	Average
3		2484.460	19.33	32.61	51.94	-2.06	54.00	150	225	Average

Note:

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

5.7 占用頻寬

5.7.1 量測方法

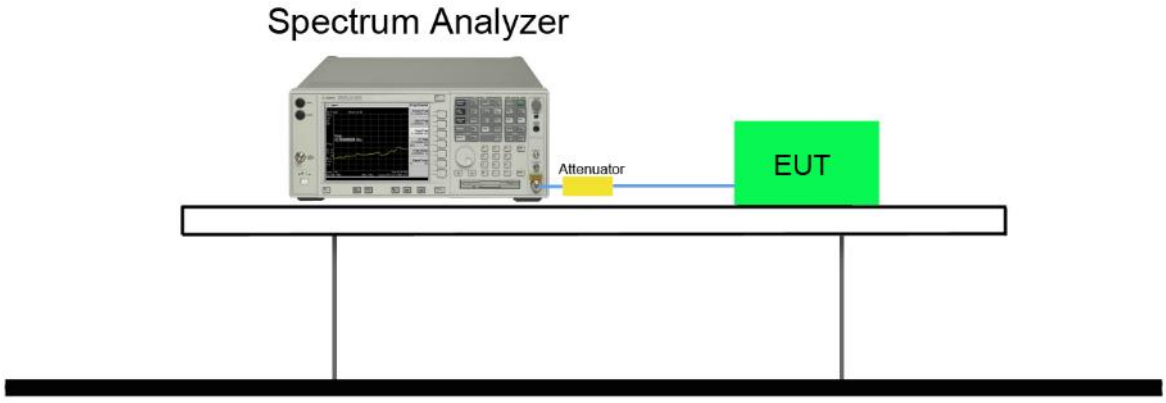
待測物之天線埠經由適當之衰減直接連至頻譜分析儀RF輸入端，頻譜分析儀之設定,參考如下:

(1) Set RBW = 100 kHz
(2) VBW ≥ 3 × RBW
(3) Detector = Peak
(4) Trace mode = max hold
(5) Sweep = auto couple

5.7.2 限制要求

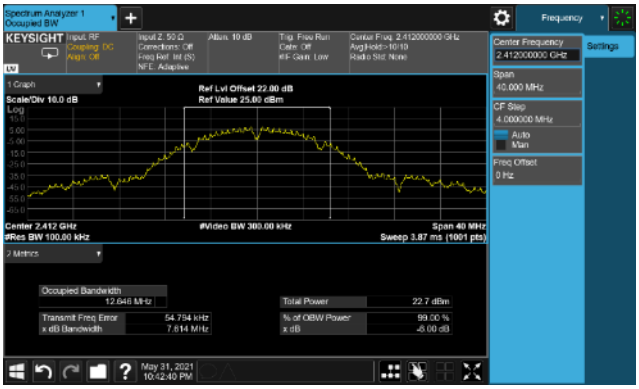
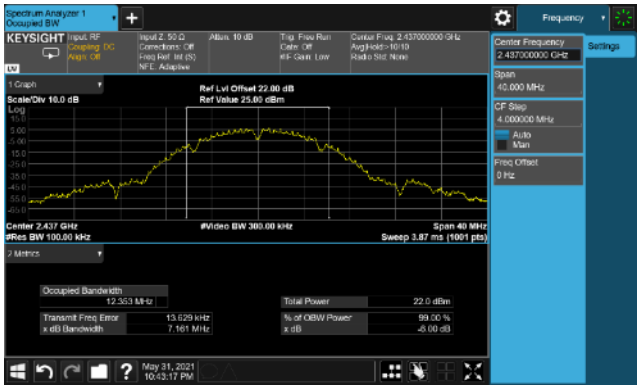
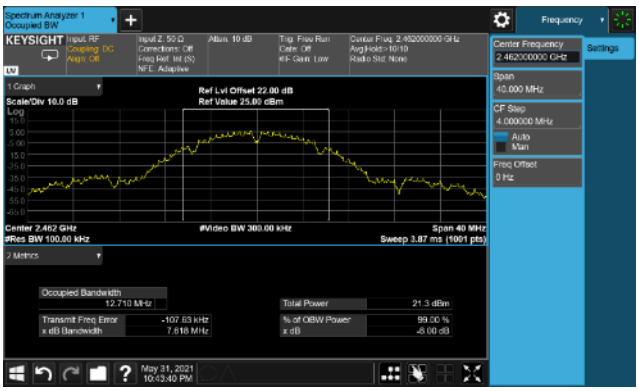
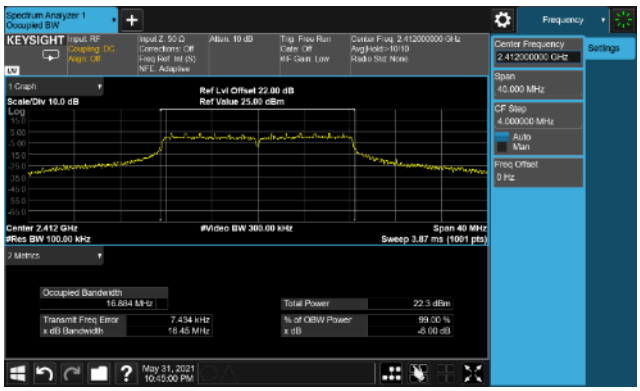
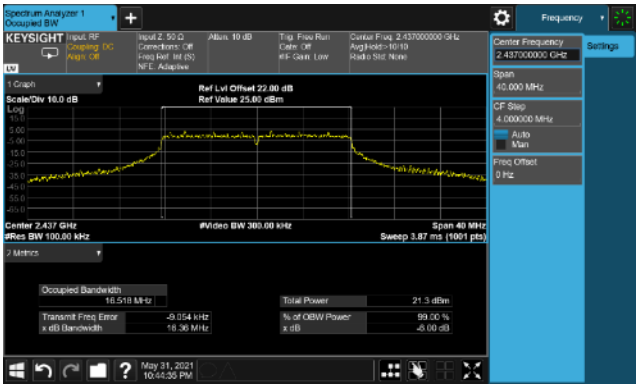
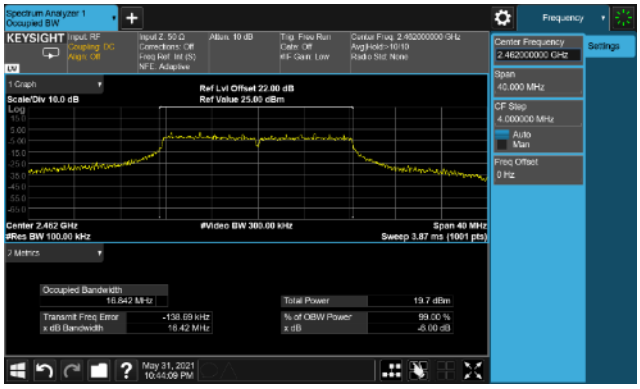
6dB頻寬至少應有500kHz。

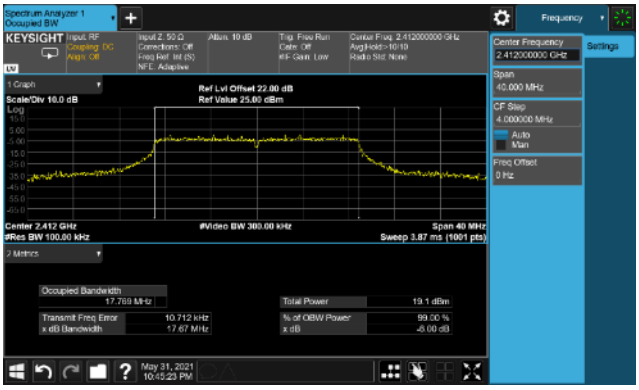
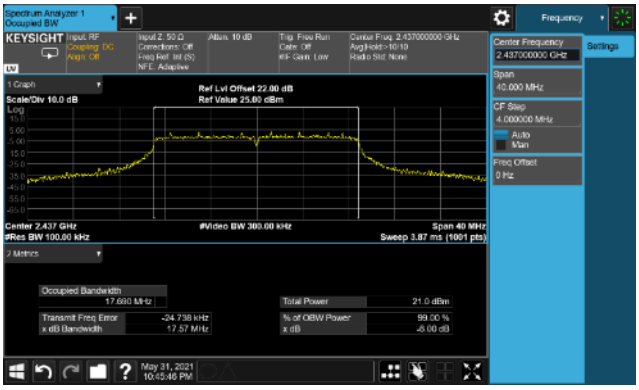
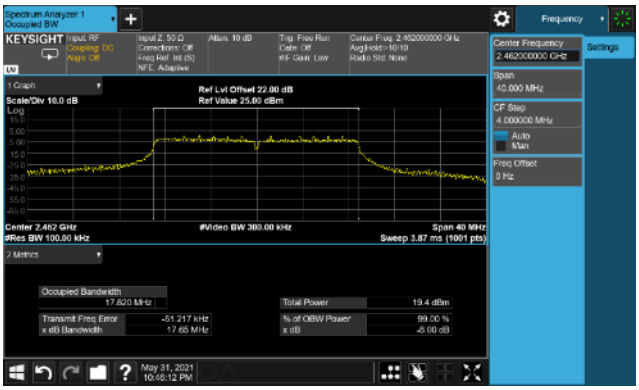
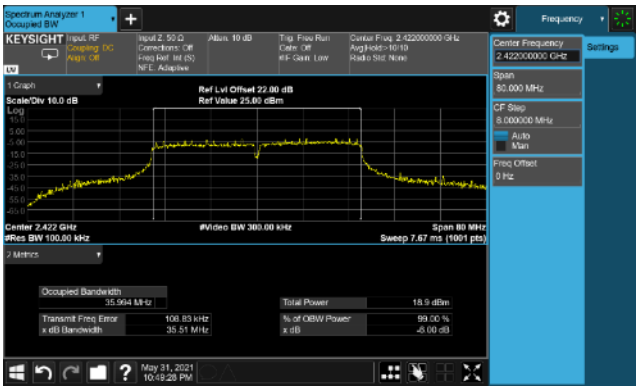
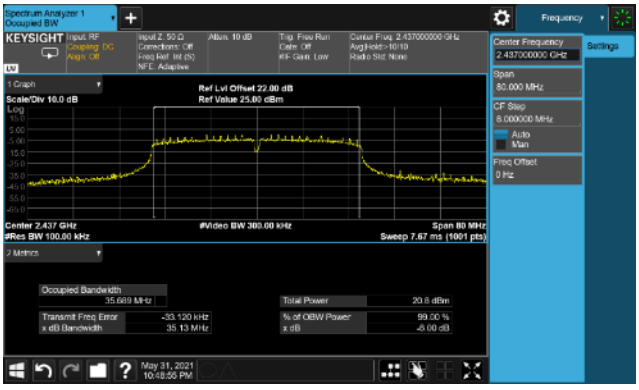
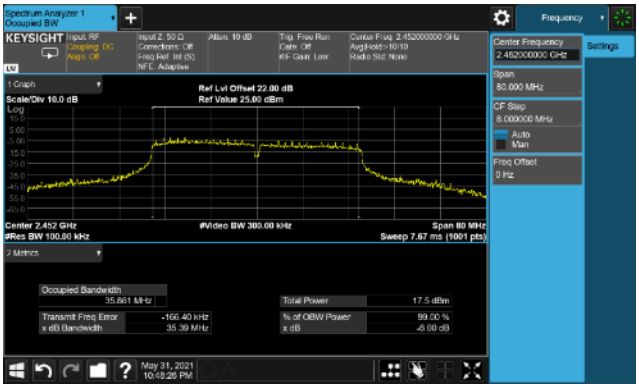
5.7.3 測試架構圖



5.7.4 占用頻寬測試結果

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
802.11b	1	01	2412	7.614	≥ 0.5	Pass
802.11b	1	06	2437	7.161	≥ 0.5	Pass
802.11b	1	11	2462	7.618	≥ 0.5	Pass
802.11g	6	01	2412	16.450	≥ 0.5	Pass
802.11g	6	06	2437	16.360	≥ 0.5	Pass
802.11g	6	11	2462	16.420	≥ 0.5	Pass
802.11n-HT20	19.5	01	2412	17.670	≥ 0.5	Pass
802.11n-HT20	19.5	06	2437	17.570	≥ 0.5	Pass
802.11n-HT20	19.5	11	2462	17.650	≥ 0.5	Pass
802.11n-HT40	40.5	03	2422	35.510	≥ 0.5	Pass
802.11n-HT40	40.5	06	2437	35.130	≥ 0.5	Pass
802.11n-HT40	40.5	09	2452	35.390	≥ 0.5	Pass

802.11 b CH01 (2412MHz)	802.11 b CH06 (2437MHz)
	
802.11 b CH11 (2462MHz)	**802.11 g CH01 (2412MHz)**
	
802.11 g CH06 (2437MHz)	**802.11 g CH11 (2462MHz)**
	

802.11 n-20M CH01 (2412MHz)	802.11 n-20M CH06 (2437MHz)
	
802.11 n-20M CH11 (2462MHz)	**802.11 n-40M CH03 (2422MHz)**
	
802.11 n-40M CH 06 (2437MHz)	**802.11 n-40M CH 09 (2452MHz)**
	

5.8. 功率頻譜密度

5.8.1 量測方法

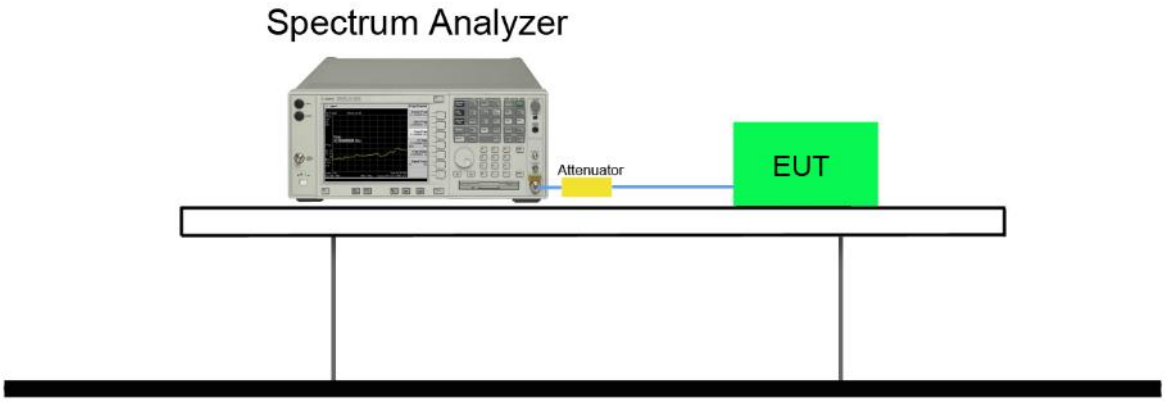
將發射機之天線埠經由適當之衰減直接連至測試儀器。找出發射峰值並擴展於通帶內，
設定解析頻寬為3 kHz，視訊頻寬大於解析頻寬，掃描時間為頻率掃描範圍除以3 kHz。
所測得之峰值位準必須應小於或等於8 dBm。

若受測裝置之頻譜線間隔小於3 kHz，測量時應將解析頻寬降低以使頻譜線間隔大於3 kHz，所測得之數據再藉加總3 kHz 頻帶內所有個別頻譜線之功率(即標準化至3 kHz)以決定是否符合規定。

5.8.2 限制要求

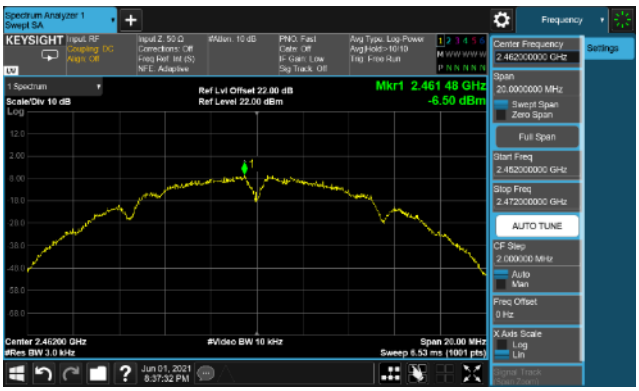
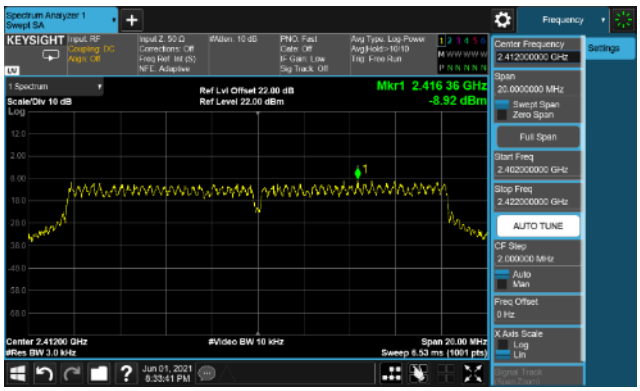
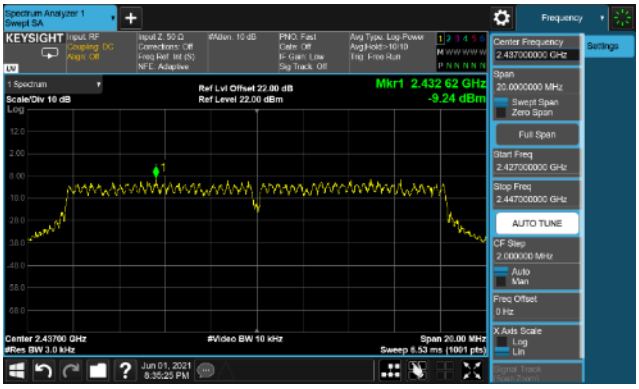
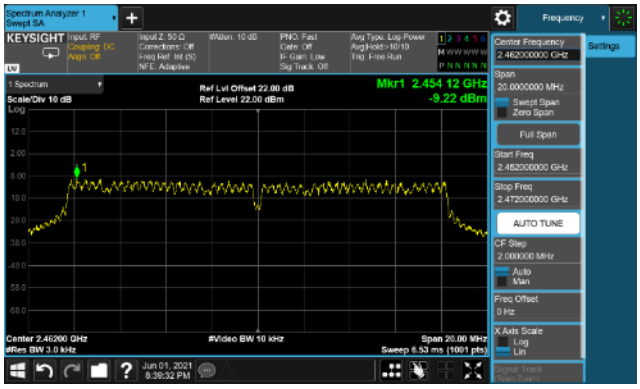
在使用頻率範圍之任意3千赫(kHz)頻寬內，由發射機傳導至天線之峰值發射電功率密度在任意期間內，皆不得大於8dBm。
若用於非固定式點對點操作時，若其發射天線之方向性增益超過6dBi，應依所超過之dB數等量降低峰值輸出功率。如用於固定式點對點(註)操作時，應符合下列情形之一：
(1)操作於2400-2483.5兆赫(MHz)者，其發射天線之方向性增益超過6dBi，應於每超過3dB降低1dB之峰值輸出功率。
(2) 操作於5725-5850兆赫(MHz)者，其發射天線之方向性增益超過6dBi，不需降低峰值輸出功率。

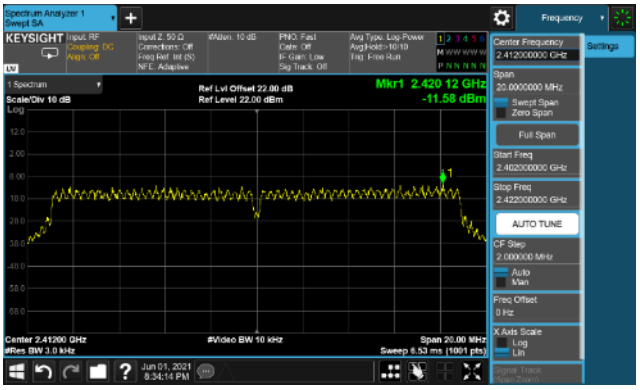
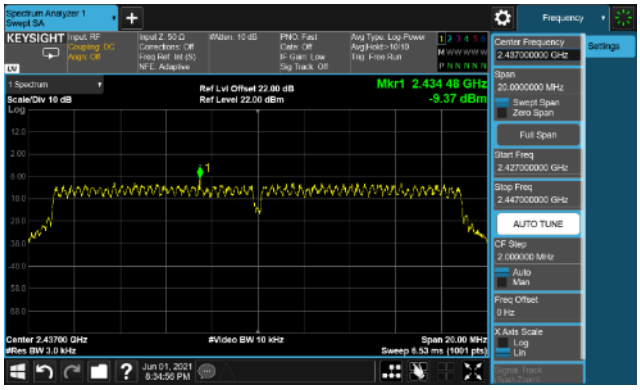
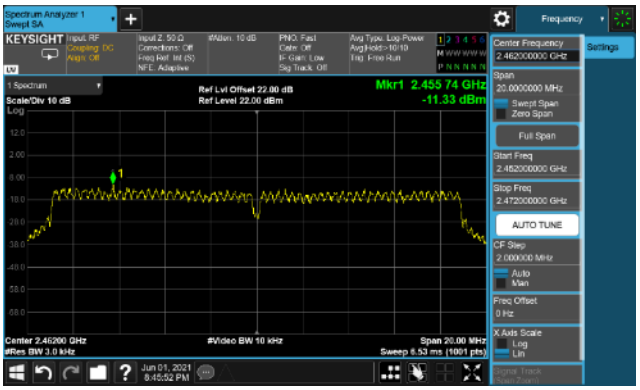
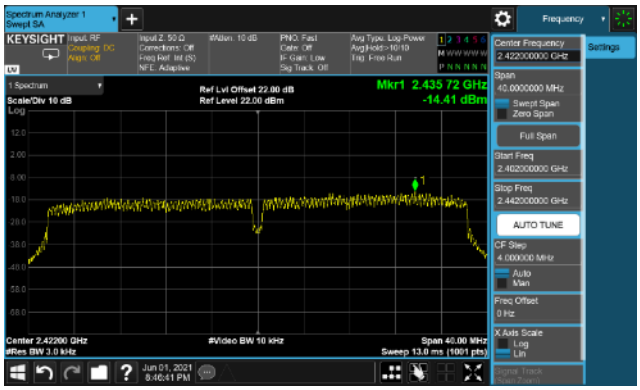
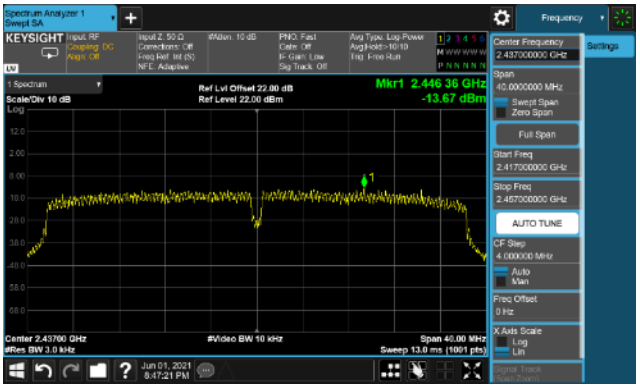
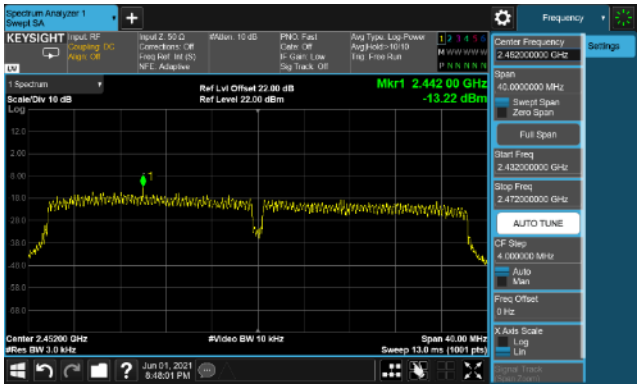
5.8.3 測試架構圖



5.8.4 功率頻譜密度測試結果

Test Mode	Channel No.	Freq. (MHz)	PSD (dBm)	Limit (dBm)	Result
11b	1	2412	-5.99	≤ 8	Pass
11b	6	2437	-5.96	≤ 8	Pass
11b	11	2462	-6.50	≤ 8	Pass
11g	1	2412	-8.92	≤ 8	Pass
11g	6	2437	-9.24	≤ 8	Pass
11g	11	2462	-9.22	≤ 8	Pass
11n-20M	1	2412	-11.58	≤ 8	Pass
11n-20M	6	2437	-9.37	≤ 8	Pass
11n-20M	11	2462	-11.33	≤ 8	Pass
11n-40M	3	2422	-14.41	≤ 8	Pass
11n-40M	6	2437	-13.67	≤ 8	Pass
11n-40M	9	2452	-13.22	≤ 8	Pass

802.11 b CH01 (2412MHz)	802.11 b CH06 (2437MHz)
802.11 b CH11 (2462MHz)	**802.11 g CH01 (2412MHz)**
	
802.11 g CH06 (2437MHz)	**802.11 g CH11 (2462MHz)**
	

802.11 n-20M CH01 (2412MHz)	802.11 n-20M CH06 (2437MHz)
	
802.11 n-20M CH11 (2462MHz)	**802.11 n-40M CH03 (2422MHz)**
	
802.11 n-40M CH 06 (2437MHz)	**802.11 n-40M CH 09 (2452MHz)**
	

The End