



晶復科技股份有限公司

A Test Lab Techno Corp.

低功率射頻電機試驗報告

報告編號 1905DR42

版本(Rev.) 01

產品名稱 Door View Cam

申請廠商 Ring LLC

商標或廠牌 Ring

型式 (號) G63R9A

產品試驗依據之標準 低功率射頻電機技術規範(LP0002) 107 年 1 月 10 日

報告發行日期 108 年 05 月 23 日

填發本型式認可報告之試驗機構 (認可代號)

晶復科技股份有限公司
33465 桃園市八德區長安街 140-1 號
Tel : 03-2710188 / Fax : 03-2710190



財團法人全國認證基金會
認證編號 : 1330
認證有效期間 : 105.09.06 ~ 108.09.05
認可能量範圍 : 低功率射頻電機技術規範(LP0002)
2.4 GHz 射頻電信終端設備技術規範(RTTE01)

實驗室聲明

本測試報告內之測試結果可藉由測試儀器設備之校正報告與本報告內所評估量測不確定度追溯至國家或國際標準。

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低功率射頻電機測試證明書

發行日期：108年05月23日

產品名稱：Door View Cam

商標：Ring

型號：G63R9A

申請廠商：Ring LLC

申請者地址：1523 26th Street, Santa Monica CA 90404, United States

製造廠商：Ring LLC

製造商地址：1523 26th Street, Santa Monica CA 90404, United States

待測物電壓：DC 3.6 V or DC 3.65 V, 6040 mAh

試驗電壓：DC 3.65 V

量測規範：低功率射頻電機技術規範(LP0002) 107年1月10日

試驗實驗室：晶復科技股份有限公司(桃園市八德區長安街140-1號)

試驗受理日期：108 年 04 月 08 號

樣品接受日期：108 年 04 月 17 號

試驗完成日期：108 年 05 月 13 號

報告中所描述之測試結果與待測設備之架構組合，均根據實際量測情況作詳實的記錄。
由測試結果顯示，上述待測設備樣機確實已符合低功率射頻電機技術規範(LP0002)所規定的各項限制值。

特此證明！

報告製作者：

林珮鈺
(林珮鈺)

測試者：

歐陽良相
(歐陽良相)

審核者：

呂宗霖
(呂宗霖)

本測試報告所敘述之測試結果，僅對客戶所提供之測試樣品，在此測試報告所述及之測試條件下所實施之量測有效。

目 錄

名 稱	頁 次
低功率射頻電機測試證明書	2
1. 一般敘述	4
1.1 待測設備一般敘述	4
1.2 其他相關聲明	5
2. 量測儀器及測試配置說明	5
2.1 量測設備	5
2.2 檢驗系統示意圖	6
2.3 輔助測試之週邊設備描述	6
2.4 測試軟體版本	7
2.5 測試模式	7
2.6 量測不確定度	10
2.7 試驗環境	10
3. 測試項目與結果判定總表	11
4. 測試項目表列	12
4.1 電源線傳導干擾之量測	12
4.2 2.4 GHz 檢驗項目	13
4.2.1 場強輻射之量測	13
4.2.2 峰值傳導輸出功率之量測	66
4.2.3 天線規格之要求	67
4.2.4 非必要頻帶之量測	68
4.2.5 6 dB 頻寬之要求	78
4.2.6 峰值發射功率頻譜密度之要求	82
4.2.7 電波暴露量之評估	86

1. 一般敘述

1.1 待測設備一般敘述

本敘述僅針對產品簡單說明之，其他詳細之規格請參考使用說明書。

產 品 名 稱	Door View Cam			
商 標 或 廠 牌	Ring			
型 號	G63R9A			
額 定 電 源	DC 3.6 V or DC 3.65 V, 6040 mAh			
調 變 方 式	IEEE 802.11b: DSSS			
	IEEE 802.11g: OFDM			
	IEEE 802.11n 2.4 GHz 20 MHz: OFDM			
頻 率 使 用 範 圍	Mode		Frequency Range (MHz)	
	IEEE 802.11b / IEEE 802.11g / IEEE 802.11n 2.4 GHz 20 MHz		2412 – 2462	
天 線 廠 牌	WIESON			
天 線 型 號	GY134IT007-001			
天 線 型 態	PIFA Antenna			
天 線 增 益 值	2.78 dBi			
RF 最大輸出功率	Mode		Power	
	IEEE 802.11b		17.90 dBm	0.062 W
	IEEE 802.11g		19.84 dBm	0.096 W
	IEEE 802.11n 2.4 GHz 20 MHz		19.82 dBm	0.096 W

輸出/輸入埠說明：

輸 出 / 入 埠		數量	介面內容說明
1	---	---	---

待測設備外圍說明：

電 源 線 類 別	無
附 屬 裝 置	請參見下列附屬裝置表

附屬裝置表：

裝置名稱	廠 牌	型 號	備註
電池	Ring	V4	3.65 VDC, 6040 mAh 製造商(1)：FUJIELECTRONICS(SHENZHEN)CO.,L LTD. 製造商(2)：SHEN ZHEN KAYO BATTERY CO., LTD 製造商(3)：WELL Tech Energy Inc.
USB Cable	Kim Well	R385001R	STD-A → micro-B Shielded, 0.5 m

1.2 其他相關聲明

本測試報告屬(以下選擇一種打■)

☒	新設計之機型,申請新的型式檢驗認可的測試.
☐	已取得型式檢驗認可之商品,因設計變更而重新測試. 登錄號碼: XXXXXXXX

2. 量測儀器及測試配置說明

2.1 量測設備

For Conducted

Test Period: Apr. 19 ~ Apr. 22, 2019

名稱	廠牌	型號	序號	本次校驗日期	校驗年限
Power Sensor	Anritsu	MA2411B	1126022	08/29/2018	1 year
Power Meter	Anritsu	ML2495A	1135009	08/29/2018	1 year
Spectrum Analyzer (20 Hz~26.5 GHz)	Agilent	N9020A	US47520902	09/25/2018	1 year
Microwave Cable	EMCI	EMC102-SM-SM 1500	001	11/21/2018	1 year
Test Site	ATL	TE05	TE05	N.C.R.	-----

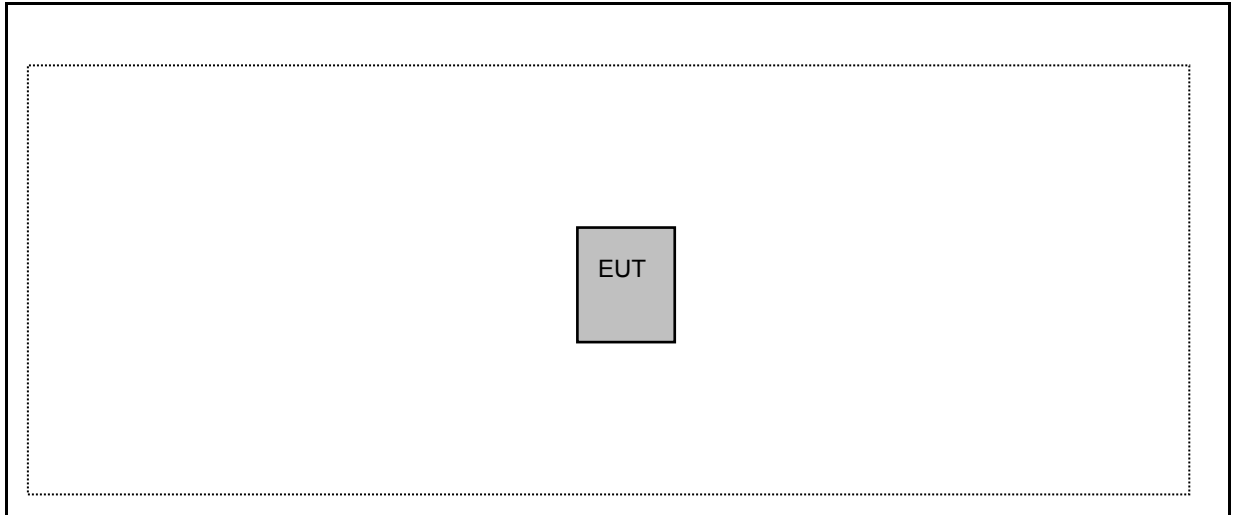
For Radiated Emissions

Test Period: Apr. 17 ~ May 13, 2019

名稱	廠牌	型號	序號	本次校驗日期	校驗年限
Spectrum Analyzer (10 Hz~44 GHz)	Keysight	N9010A	MY52221312	01/14/2019	1 year
Pre Amplifier (1~26.5 GHz)	Agilent	8449B	3008A02237	10/16/2018	1 year
Pre Amplifier (100 kHz~1.3 GHz)	Agilent	8447D	2944A11119	01/14/2019	1 year
Broadband Antenna	Schwarzbeck	VULB9168	416	10/19/2018	1 year
Horn Antenna (1~18 GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	08/23/2018	1 year
Horn Antenna (18~40GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9170	9170-320	08/07/2018	1 year
Loop Antenna	COM-POWER CORPORATION	AL-130	121014	03/29/2019	1 year
RF Cable	EMCI	EMC104-N-N-6000	TE01-1	02/20/2019	1 year
Microwave Cable	EMCI	EMC104-SM-SM-1 3000	170814	10/30/2018	1 year
Microwave Cable	EMCI	EMC102-KM-KM-1 4000	151001	02/20/2019	1 year

2.2 檢驗系統示意圖

輻射干擾測試配置



2.3 輔助測試之週邊設備描述

下列輔助設備或配件為測試中所使用，以形成一個代表性的受測系統。

週邊名稱		商標	型 號	序 號	電 源 線	備註
(1)	---	---	---	---	---	---

2.4 測試軟體版本

Measurement Software			
No.	Description	Software	Version
1	Radiated Emission	EZ EMC	1.1.4.4

2.5 測試模式

Pre-Test Mode
Mode 1: Transmit Mode
Mode 2: IEEE 802.11b Continuous TX Mode
Mode 3: IEEE 802.11g Continuous TX Mode
Mode 4: IEEE 802.11n 2.4 GHz 20 MHz Continuous TX Mode
Mode 5: Receiver Mode

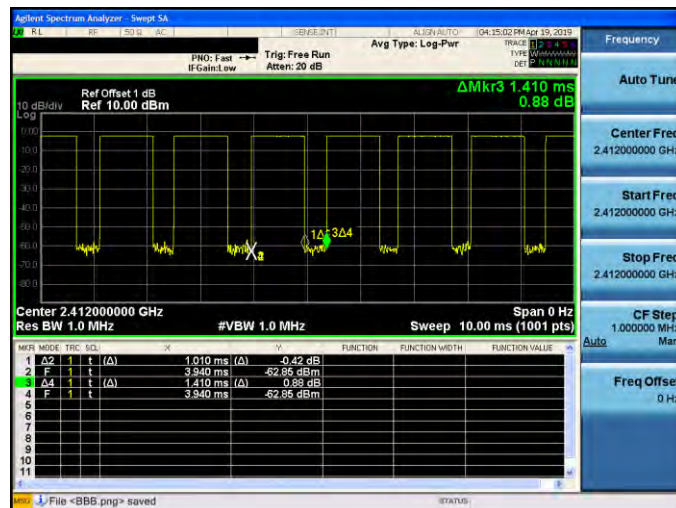
Final-Test Mode
Mode 1: Transmit Mode
Mode 2: IEEE 802.11b Continuous TX Mode
Mode 3: IEEE 802.11g Continuous TX Mode
Mode 4: IEEE 802.11n 2.4 GHz 20 MHz Continuous TX Mode
Mode 5: Receiver Mode

Duty cycle

Test Mode	Frequency (MHz)	on time (ms)	on+off time (ms)	Duty cycle	Duty Factor (dB)	1/T Minimu VBW (kHz)
Mode 2	2412	1.010	1.410	0.716	1.449	0.990
Mode 3	2412	0.345	1.050	0.329	4.834	2.899
Mode 4	2412	0.355	1.055	0.336	4.730	2.817

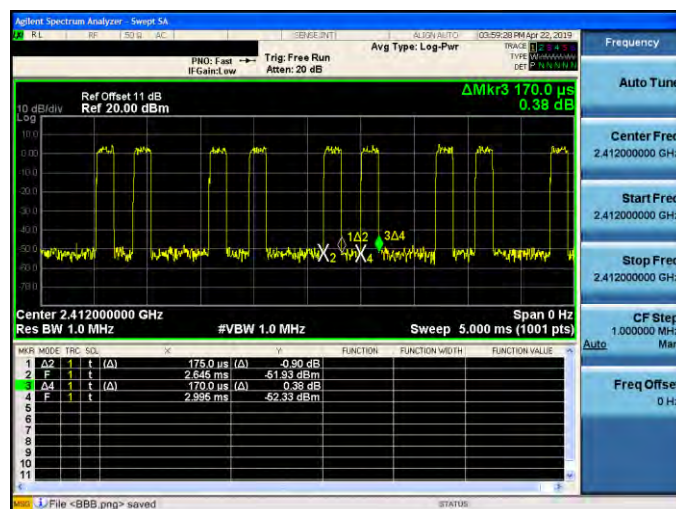
Mode 2: IEEE 802.11b Continuous TX Mode

On+off time

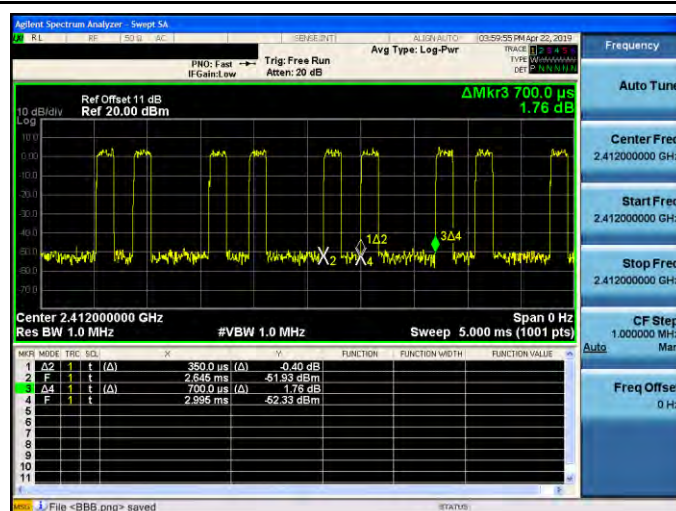


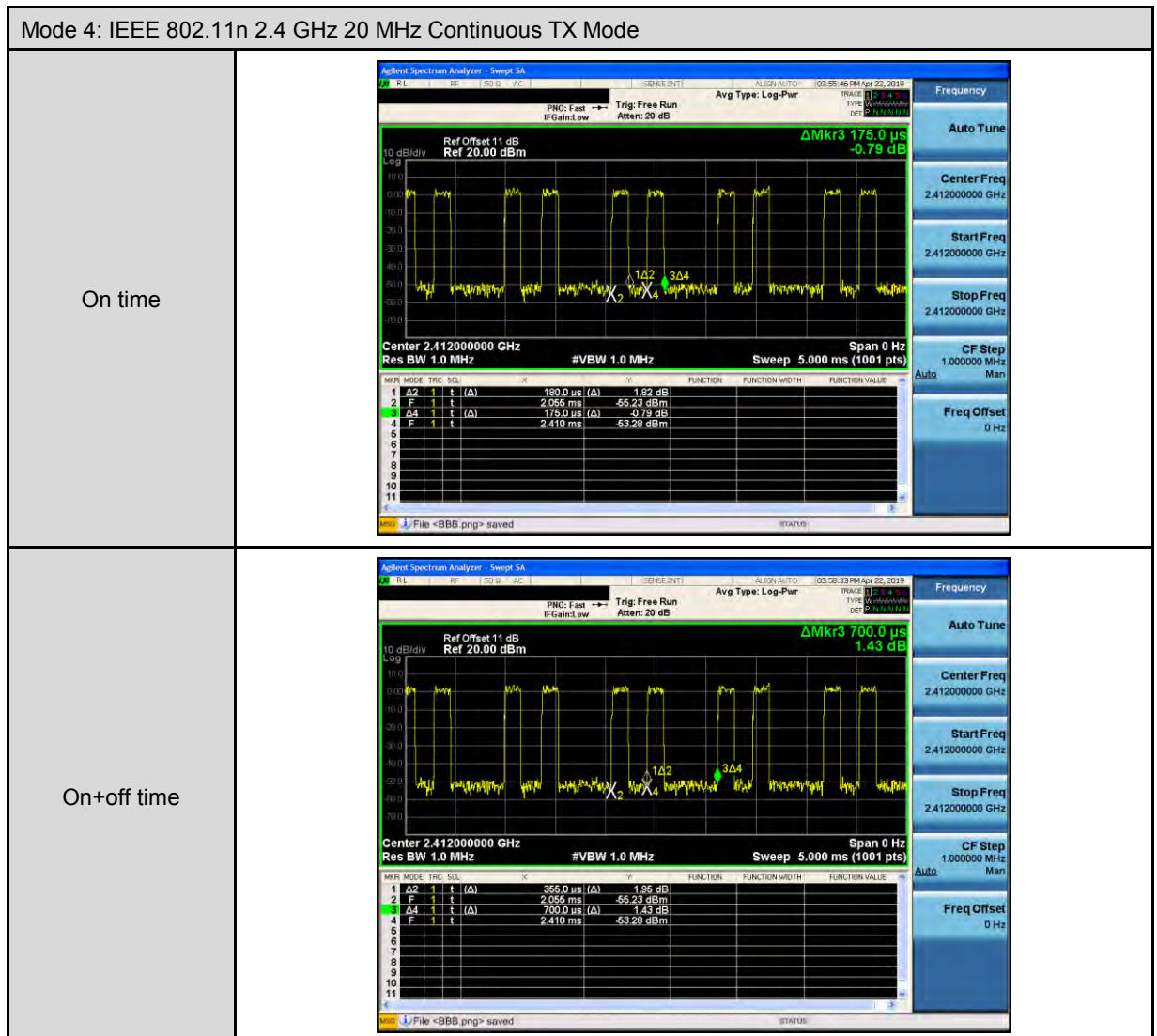
Mode 3: IEEE 802.11g Continuous TX Mode

On time



On+off time





2.6 量測不確定度

下列量測不確定水準是參照量測儀器 CISPR 16-4-2 所規定之不確定度。

Test Item	Frequency Range	Uncertainty (dB)
Conducted Emission	9 kHz ~ 150 kHz	2.7
	150 kHz ~ 30 MHz	2.7
Radiated Emission	9 kHz ~ 30 MHz	1.7
	30 MHz ~ 1000 MHz	5.7
	1000 MHz ~ 18000 MHz	5.5
	18000 MHz ~ 26500 MHz	4.8
	26500 MHz ~ 40000 MHz	4.8
Conducted Output Power	+0.27 dB / -0.28 dB	
RF Bandwidth	4.96 %	
Power Spectral Density	+0.71 dB / -0.77 dB	

2.7 試驗環境

產品測試時之實驗室環境條件如下：

項 目	測 試 項 目	需 求	實 際
溫度 Temperature (°C)	LP0002	10 - 40	26
濕度 Humidity (%RH)		10 - 90	60

中華民國實驗室認證體系

認可編號: 1330

測試實驗室名稱：晶復科技股份有限公司

TEL: 886-3-2710188 / FAX: 886-3-2710190

傳導干擾電壓量測地點: 桃園市八德區長安街 140-1 號.

輻射干擾場強量測地點: 桃園市八德區長安街 140-1 號.

3. 測試項目與結果判定總表

本測試報告之所有項目皆依據 NCC 低功率射頻電機技術規範(LP0002)之檢驗法。

2.4 GHz 頻段適用下列表格

項次	測試項目	適用規範	測試結果	量測設備	結果判定
1	電源線傳導干擾	低功率射頻電機技術規範 2.3 節	請參閱 4.1 節	請參閱 2.1 節	不適用
2	場強輻射	低功率射頻電機技術規範 2.8 節、2.9 節、3.10.1.5.(1)節	請參閱 4.2.1 節	請參閱 2.1 節	合格
3	頻帶邊緣外之輻射發射	低功率射頻電機技術規範 3.10.1.5.(1)節	請參閱 4.2.1 節	請參閱 2.1 節	合格
4	峰值傳導輸出功率	低功率射頻電機技術規範 3.10.1.2(1)(C)節	請參閱 4.2.2 節	請參閱 2.1 節	合格
5	天線規格	低功率射頻電機技術規範 3.10.1.3(3)、3.10.1.4 節	請參閱 4.2.3 節	-----	合格
6	非必要頻帶	低功率射頻電機技術規範 3.10.1.5(1)節	請參閱 4.2.4 節	請參閱 2.1 節	合格
7	6 dB 頻寬	低功率射頻電機技術規範 3.10.1.6(2)(A)節	請參閱 4.2.5 節	請參閱 2.1 節	合格
8	峰值發射功率頻譜密度	低功率射頻電機技術規範 3.10.1.6(2)(B)節	請參閱 4.2.6 節	請參閱 2.1 節	合格
9	電波暴露量之評估	低功率射頻電機技術規範 5.20.2.1 節、5.20.2.2 節	請參閱 4.2.7 節	請參閱 2.1 節	合格

4. 測試項目表列

4.1 電源線傳導干擾之量測

合格標準:

依據 NCC 低功率射頻電機技術規範(LP0002)之 2.3 節，以市電為電源之低功率射頻電機，其傳導回電源線上頻率自 150 kHz 至 30 MHz 之射頻電壓（在電源端子每一電源線對接地點）不得超過下表所列之限值。測量時應經過 50 Ω /50 μ H 之電源線阻抗模擬網路 (LISN)。頻率重疊處，以較低限值為準。

Frequency (MHz)	傳導限制值 (dBuV)	
	準峰值 (Quasi – peak)	平均值 (Average)
0.15 – 0.5	66 - 56 (註)	56 - 46 (註)
0.5 – 5	56	46
5 - 30	60	50

註：隨頻率之對數遞減。

測試方法：

測試場地為標準傳導測試場地。將待測物置於 0.8 米高的非金屬桌面，使其在工作狀態，待測物電源線接至電源線阻抗穩定網路上，從測試接收機記錄頻率由 0.15 MHz 至 30 MHz 之間之電源線傳導放射強度。

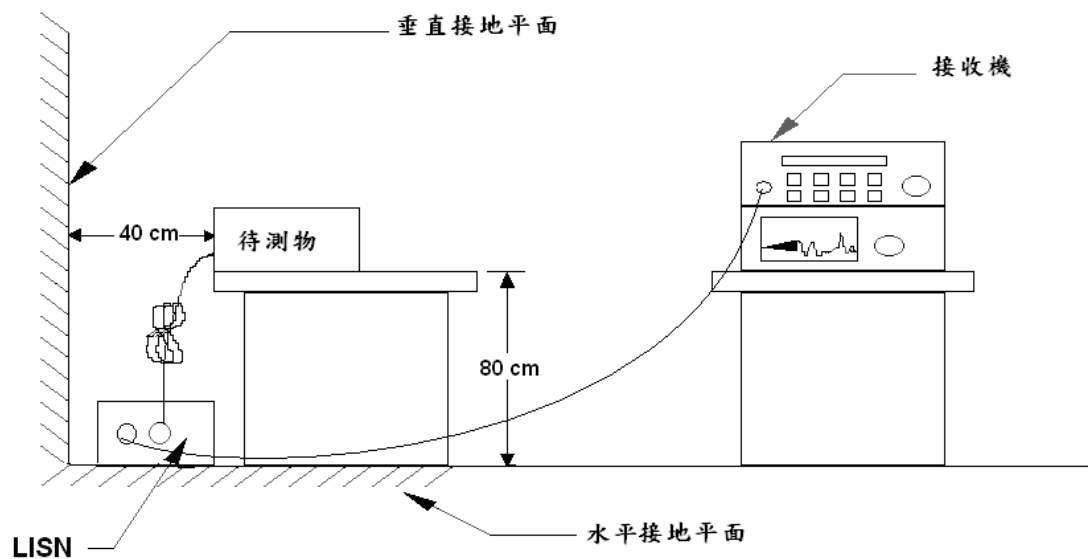
干擾值之計算

電源傳導干擾電壓之計算公式如下

結果值 = 儀器讀值(QP/AV) + 校正因子

其中校正因子為：饋線損失 + 電源阻抗模擬網路損失

測試架構圖：



測試結果: 不適用，本產品透過電池供電。

4.2 2.4 GHz 檢驗項目

4.2.1 場強輻射之量測

合格標準:

依據 NCC 低功率射頻電機技術規範(LP0002)之使用頻帶範圍外之任意 100 千赫 (kHz)內，發射機所產生的射頻功率相較於使用頻帶範圍中包含最高所需功率之 100 千赫(kHz)內的射頻功率，至少須衰減 20 dB，以射頻傳導或輻射方式測量。如發射機以依據 NCC 低功率射頻電機技術規範(LP0002)之 3.10.1.2(1)(C)之峰值傳導輸出功率量測方式者，至少須衰減 30 dB。此外，落於第 2.7 節禁用頻段之輻射發射，應符合第 2.8 節之規定。

依據 NCC 低功率射頻電機技術規範第 2.7 節之規定,禁用頻段如下：

頻率(MHz)	頻率(MHz)	頻率(MHz)	頻率(MHz)
0.090~0.110	108.00~138.00	1660.0~1785.0	8025.0~8500.0
0.490~0.510	149.90~150.05	1805.0~1888.0	9000.0~9200.0
2.172~2.198	156.70~156.90	1885.0~1900.0	9300.0~9500.0
3.013~3.033	162.01~167.17	1905.0~1985.0	10600~12700
4.115~4.198	167.72~173.20	2010.0~2025.0	13250~13400
5.670~5.690	240.00~285.00	2110.0~2170.0	14470~14500
6.200~6.300	322.00~335.40	2200.0~2300.0	15350~16200
8.230~8.400	399.90~410.00	2310.0~2390.0	17700~21400
12.265~12.600	485.00~510.00	2483.5~2900.0	22010~23120
13.340~13.430	608.00~614.00	3260.0~3267.0	23600~24000
14.965~15.020	703.00~748.00	3332.0~3339.0	31200~31800
16.700~16.755	758.00~803.00	3345.8~3358.0	36430~36500
19.965~20.020	825.00~915.00	3500.0~4400.0	38600 以上
25.500~25.700	930.00~1240.0	4500.0~5250.0	
37.475~38.275	1300.0~1427.0	5350.0~5460.0	
73.500~75.400	1435.0~1626.5	7250.0~7750.0	

依據 NCC 低功率射頻電機技術規範第 2.8 節之規定,除本規範各章節另有放寬規定者外,其電場強度不得超過下表之限值,且其不必要之發射皆不得大於主波發射強度。各頻段重疊處,以較嚴格之限制值為準。

頻 率 (MHz)	電場強度 (μ V/m)	測距(m)
0.009 - 0.490(含)	2,400/頻率(千赫)	300
0.490 (不含) – 1.705 (含)	24,000/頻率(千赫)	30
1.705(不含) – 30 (不含)	30	30
30 (含) – 88 (含)	100	3
88 (不含)- 216 (含)	150	3
216 (不含)- 960 (含)	200	3
960 (不含)以上	500	3

測試方法：

測試場地為開放測試場,將待測物置於 0.8 米高的非金屬桌面,使其在工作狀態,接收天線置於 3 米外相同的高度。待測物分別要垂直或水平放置,而且桌面要 360 度旋轉,另外接收天線也要從 1.0 米至 4.0 米升降變化,以找出最大的輻射電場強度,接收天線置於水平、垂直極向各執行測試一次。

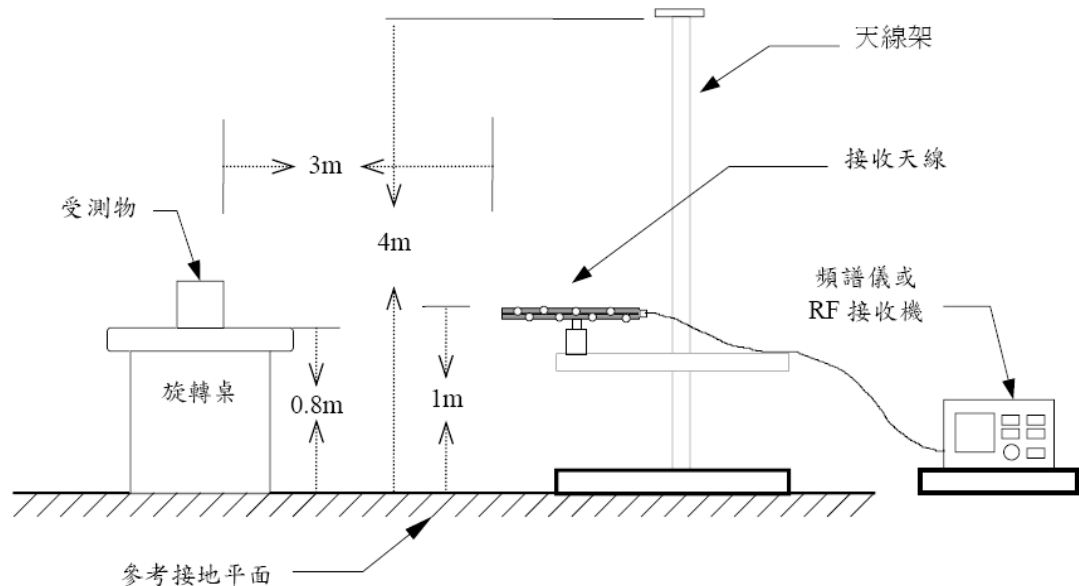
場強度之計算

場強之計算公式為：結果值 = 讀值 + 校正因子

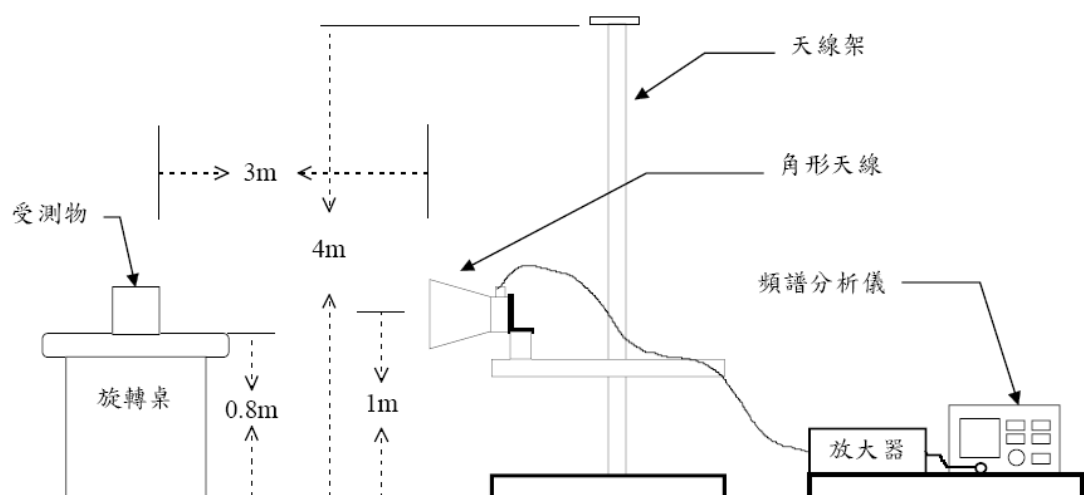
其中校正因子為：天線因子+ 饋線損失 + 濾波器損失（若有使用） - 放大器增益（若有使用）

測試架構圖：

量測頻率低於 1 GHz 以下之測試配置



量測頻率高於 1 GHz 以上之測試配置



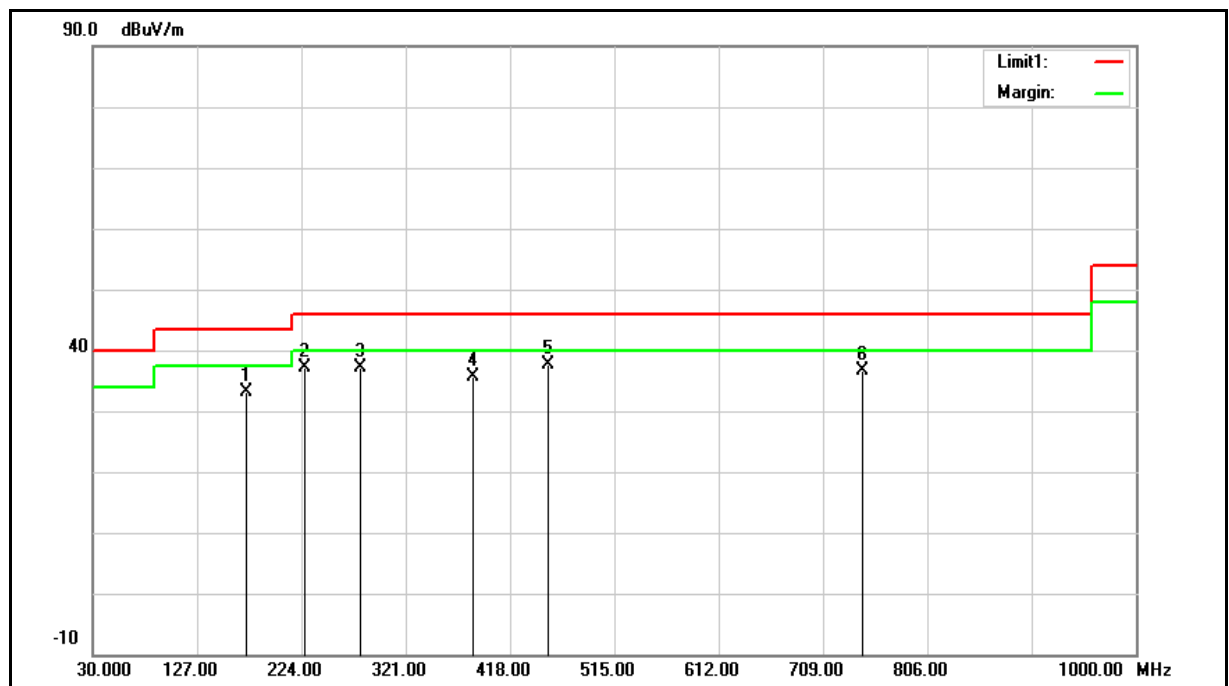
測試結果：

本產品透過預測試確認 X、Y 和 Z 個軸中最差之結果軸向為 X 軸，因此場強輻射完整測試 X 軸並將其結果記錄於報告中。

場強輻射之量測依據輸出峰值功率之量測結果取其最大值之操作模式為場強輻射測試模式。

其它不必要之訊號 (1 GHz 以下)

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.65 V
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Test Mode:	Mode 2		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	172.5900	39.33	-6.27	33.06	43.50	-10.44	QP
2	226.9100	44.35	-7.33	37.02	46.00	-8.98	QP
3	279.2900	41.84	-4.69	37.15	46.00	-8.85	QP
4	384.0500	38.18	-2.56	35.62	46.00	-10.38	QP
5	453.8900	38.45	-0.91	37.54	46.00	-8.46	QP
6	745.8600	31.78	4.85	36.63	46.00	-9.37	QP

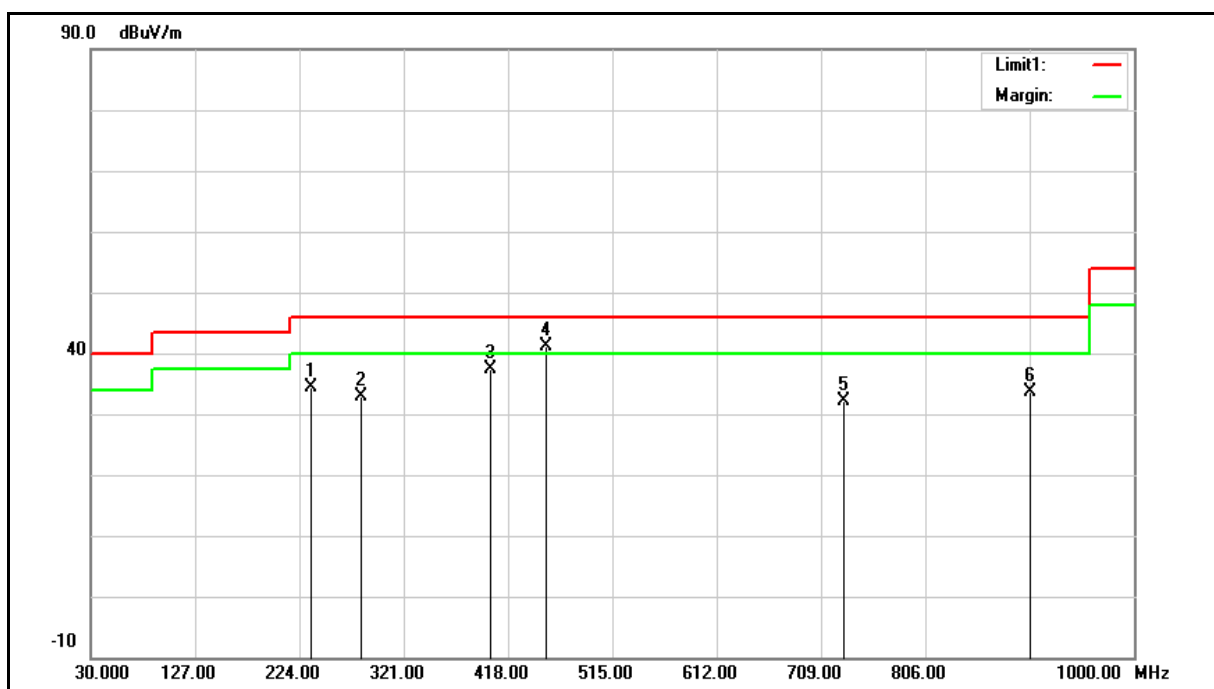
Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

Example: 33.06 = -6.27 + 39.33.

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.65 V
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Test Mode:	Mode 2		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	234.6700	41.21	-6.86	34.35	46.00	-11.65	QP
2	281.2300	37.63	-4.63	33.00	46.00	-13.00	QP
3	401.5100	39.52	-2.22	37.30	46.00	-8.70	QP
4	453.8900	42.06	-0.91	41.15	46.00	-4.85	QP
5	730.3400	27.87	4.38	32.25	46.00	-13.75	QP
6	903.9700	25.97	7.70	33.67	46.00	-12.33	QP

Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

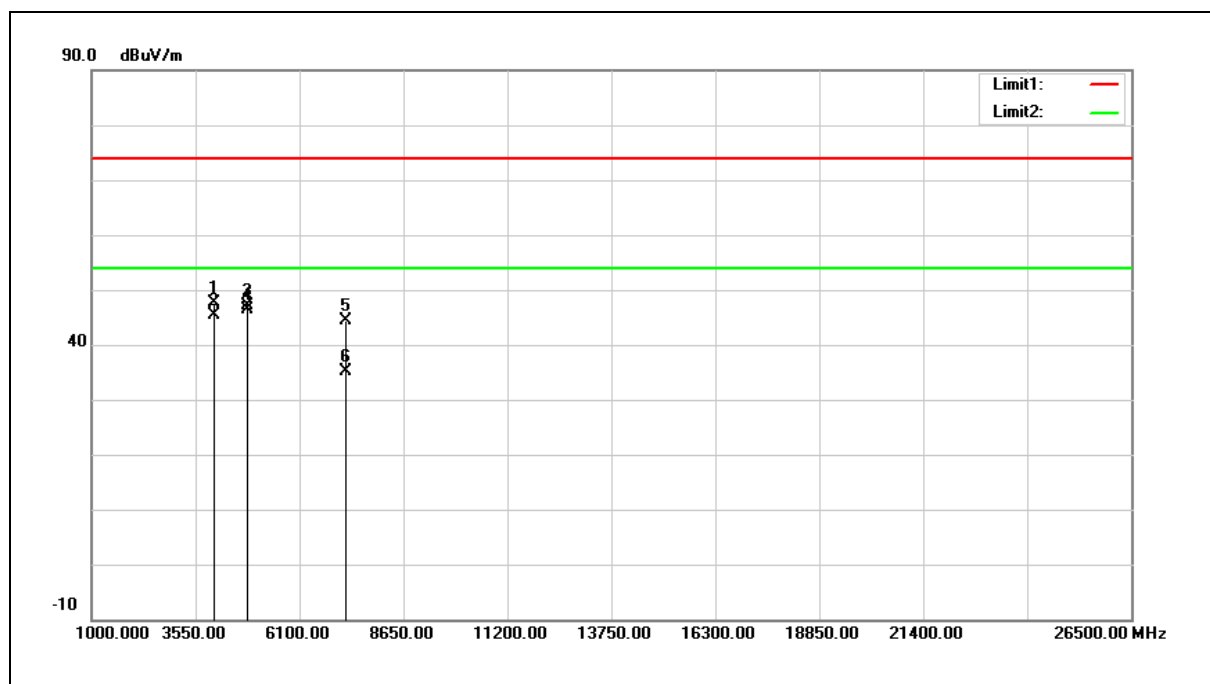
Example: $34.35 = -6.86 + 41.21$.

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

場強輻射量側 (1GHz 以上)

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.65 V
Frequency:	2412 MHz	Temp.(°C)/Hum. (%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4020.000	44.46	3.09	47.55	74.00	-26.45	peak
2	4020.000	42.22	3.09	45.31	54.00	-8.69	AVG
3	4824.000	41.78	5.37	47.15	74.00	-26.85	peak
4	4824.000	41.06	5.37	46.43	54.00	-7.57	AVG
5	7236.000	32.43	11.90	44.33	74.00	-29.67	peak
6	7236.000	23.12	11.90	35.02	54.00	-18.98	AVG

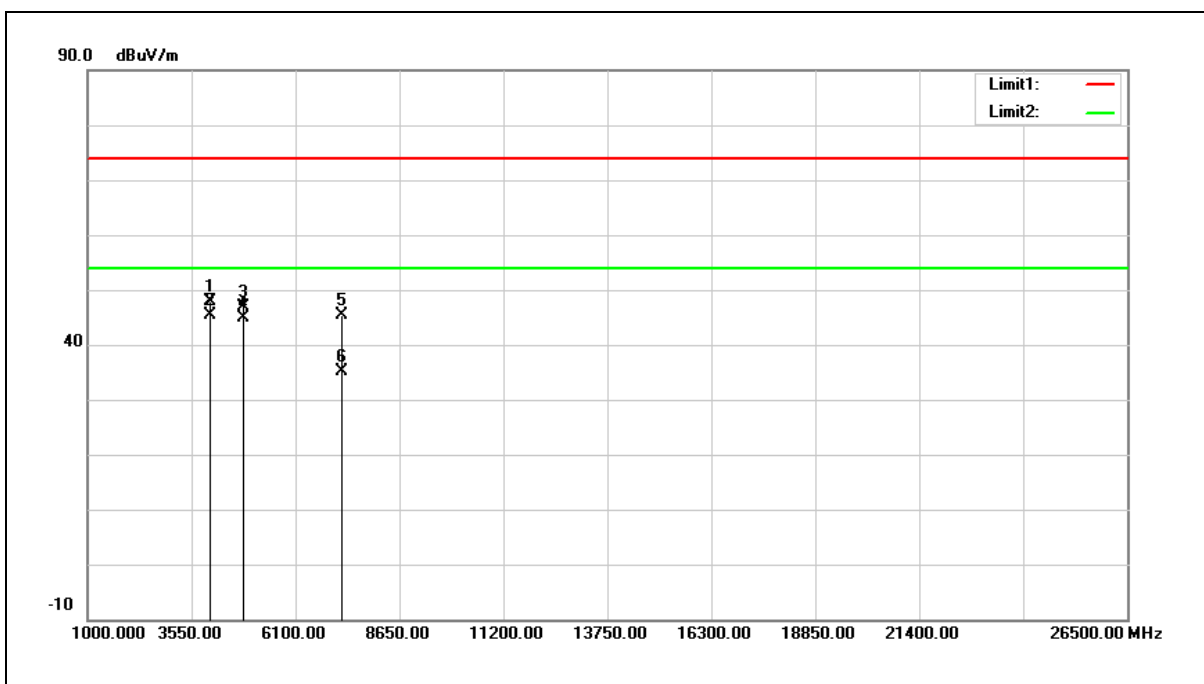
Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

Example: 47.55 = 3.09 + 44.46.

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.65 V
Frequency:	2412 MHz	Temp.(°C)/Hum. (%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4020.000	44.83	3.09	47.92	74.00	-26.08	peak
2	4020.000	42.27	3.09	45.36	54.00	-8.64	AVG
3	4824.000	41.49	5.37	46.86	74.00	-27.14	peak
4	4824.000	39.49	5.37	44.86	54.00	-9.14	AVG
5	7236.000	33.55	11.90	45.45	74.00	-28.55	peak
6	7236.000	23.31	11.90	35.21	54.00	-18.79	AVG

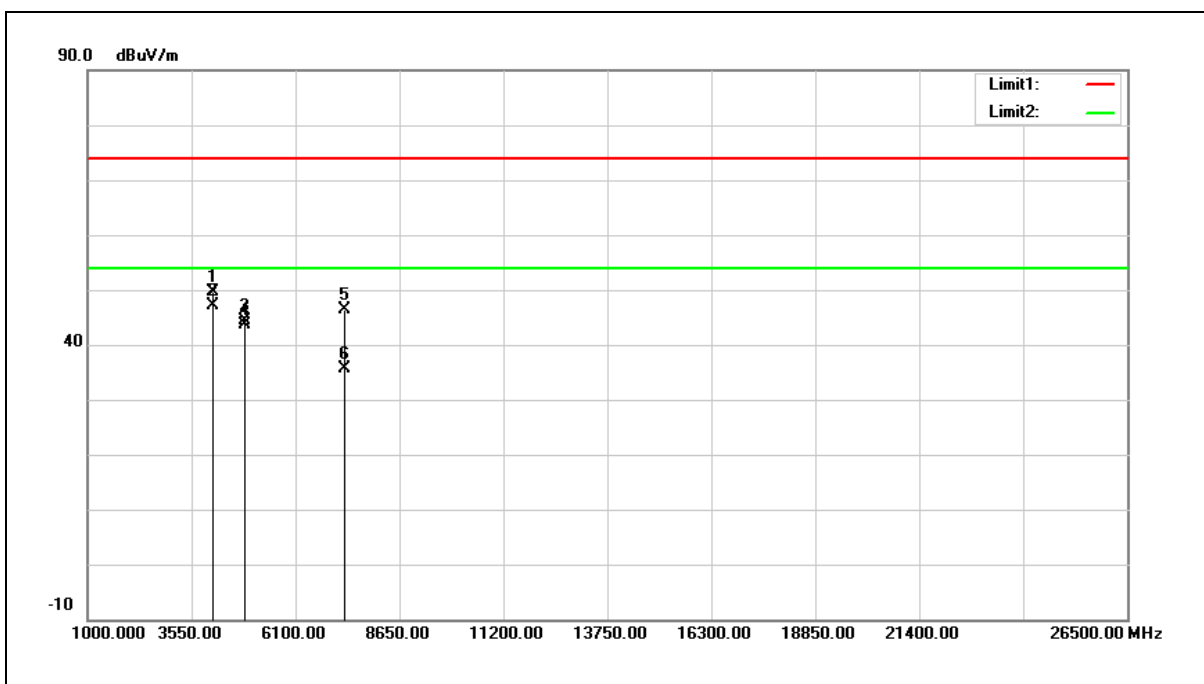
Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

Example: $47.92 = 3.09 + 44.83$.

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.65 V
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



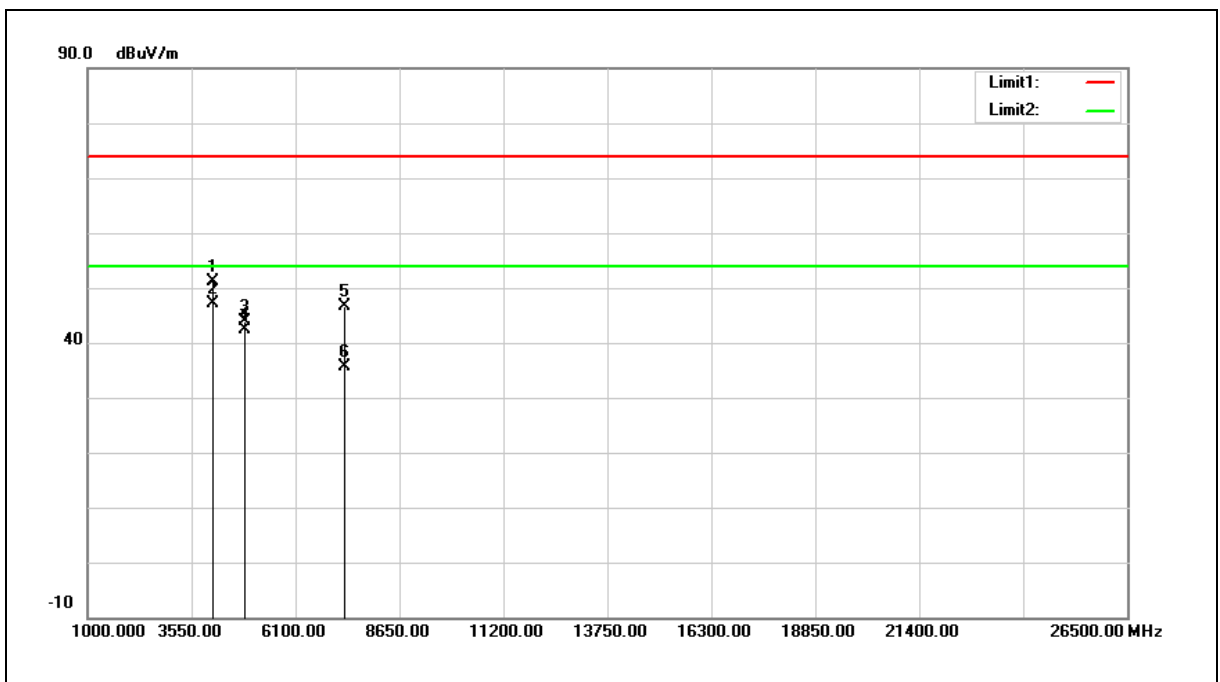
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4061.000	46.45	3.23	49.68	74.00	-24.32	peak
2	4061.000	43.98	3.23	47.21	54.00	-6.79	AVG
3	4874.000	38.86	5.47	44.33	74.00	-29.67	peak
4	4874.000	38.14	5.47	43.61	54.00	-10.39	AVG
5	7311.000	34.29	12.13	46.42	74.00	-27.58	peak
6	7311.000	23.53	12.13	35.66	54.00	-18.34	AVG

Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.65 V
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



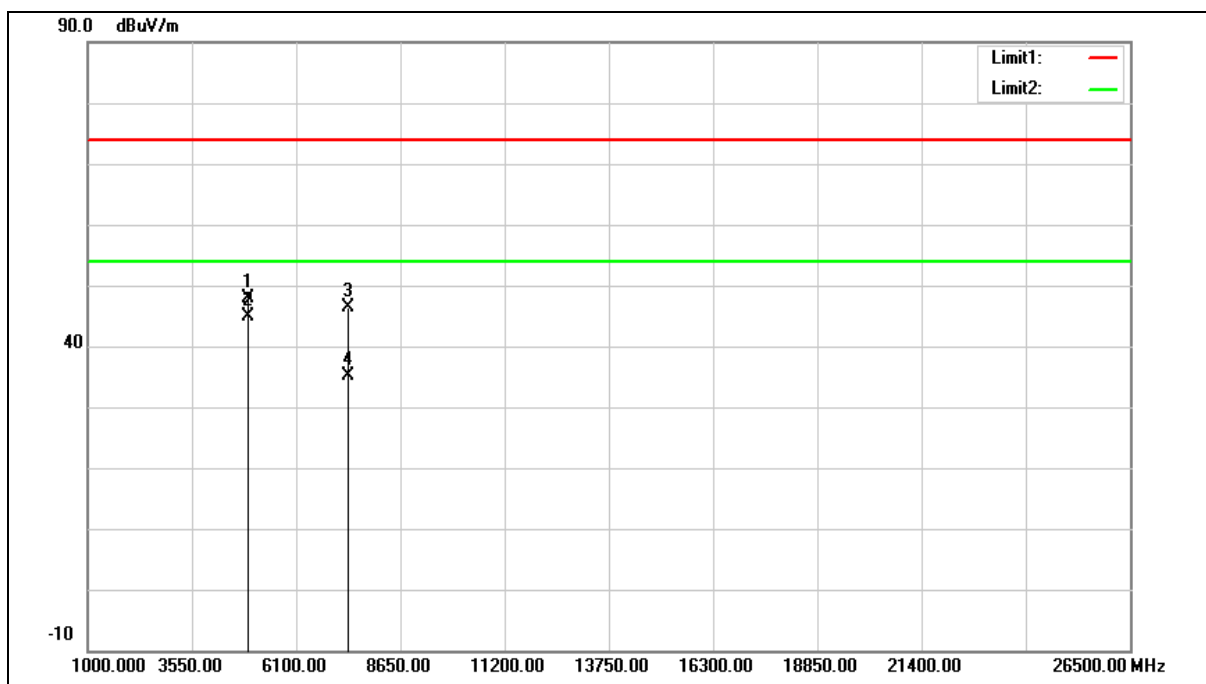
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4061.000	47.90	3.23	51.13	74.00	-22.87	peak
2	4061.000	43.89	3.23	47.12	54.00	-6.88	AVG
3	4874.000	38.29	5.47	43.76	74.00	-30.24	peak
4	4874.000	36.93	5.47	42.40	54.00	-11.60	AVG
5	7311.000	34.59	12.13	46.72	74.00	-27.28	peak
6	7311.000	23.49	12.13	35.62	54.00	-18.38	AVG

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.65 V
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



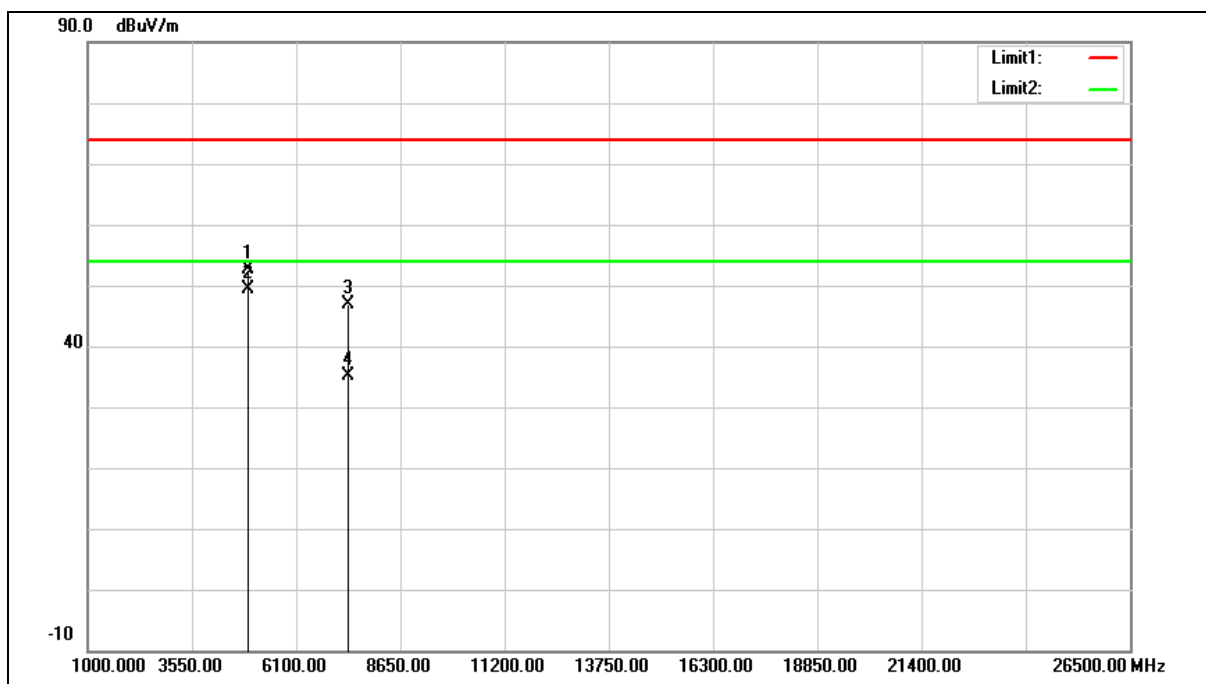
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	42.21	5.77	47.98	74.00	-26.02	peak
2	4924.000	39.20	5.77	44.97	54.00	-9.03	AVG
3	7386.000	34.15	12.33	46.48	74.00	-27.52	peak
4	7386.000	22.88	12.33	35.21	54.00	-18.79	AVG

Note: 1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.65 V
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



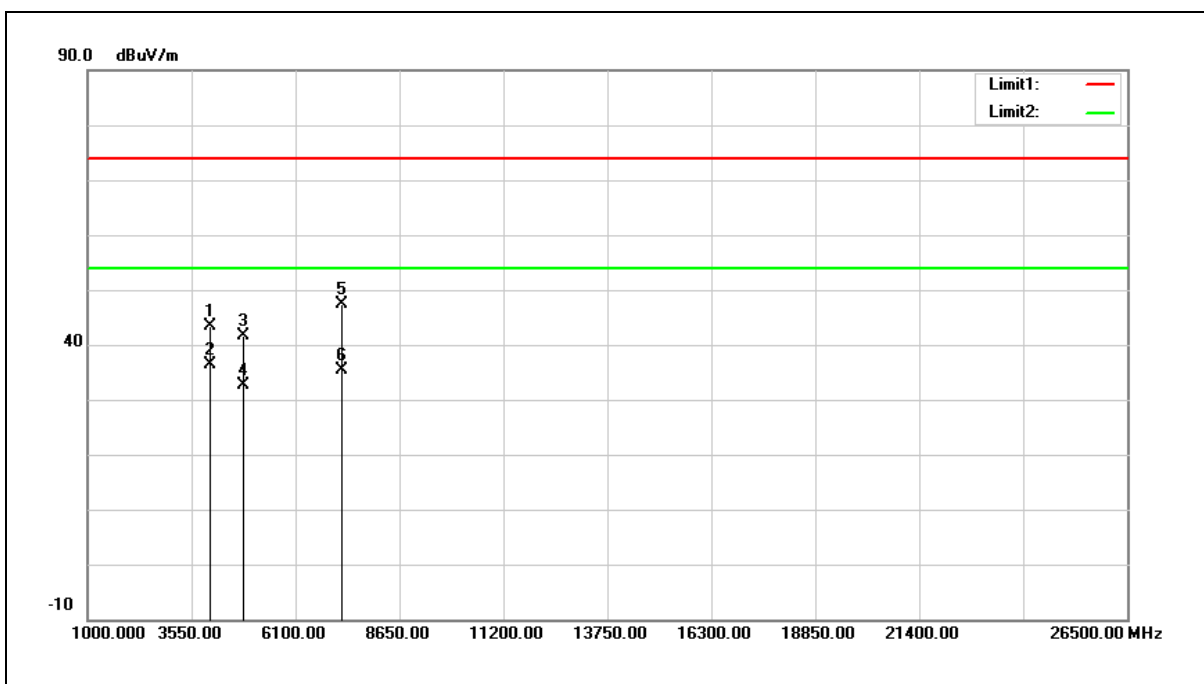
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	46.91	5.77	52.68	74.00	-21.32	peak
2	4924.000	43.59	5.77	49.36	54.00	-4.64	AVG
3	7386.000	34.60	12.33	46.93	74.00	-27.07	peak
4	7386.000	22.77	12.33	35.10	54.00	-18.90	AVG

Note: 1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.65 V
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		



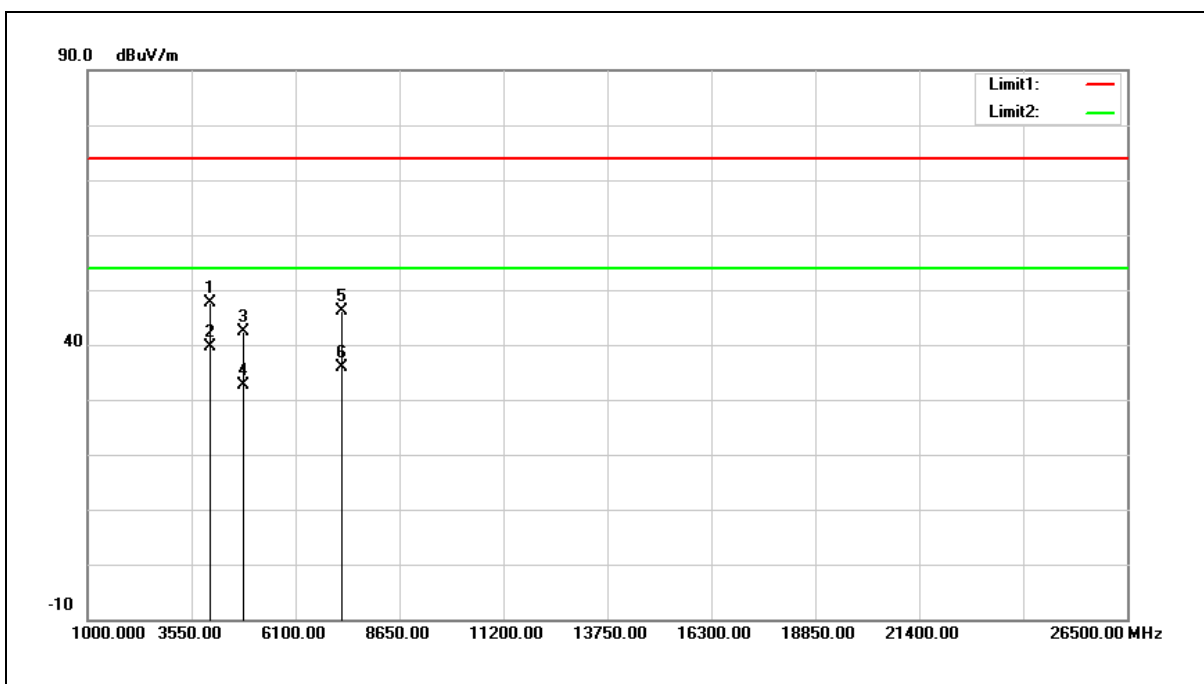
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4020.000	40.35	3.09	43.44	74.00	-30.56	peak
2	4020.000	33.17	3.09	36.26	54.00	-17.74	AVG
3	4824.000	36.20	5.37	41.57	74.00	-32.43	peak
4	4824.000	27.26	5.37	32.63	54.00	-21.37	AVG
5	7236.000	35.43	11.90	47.33	74.00	-26.67	peak
6	7236.000	23.45	11.90	35.35	54.00	-18.65	AVG

Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.65 V
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		



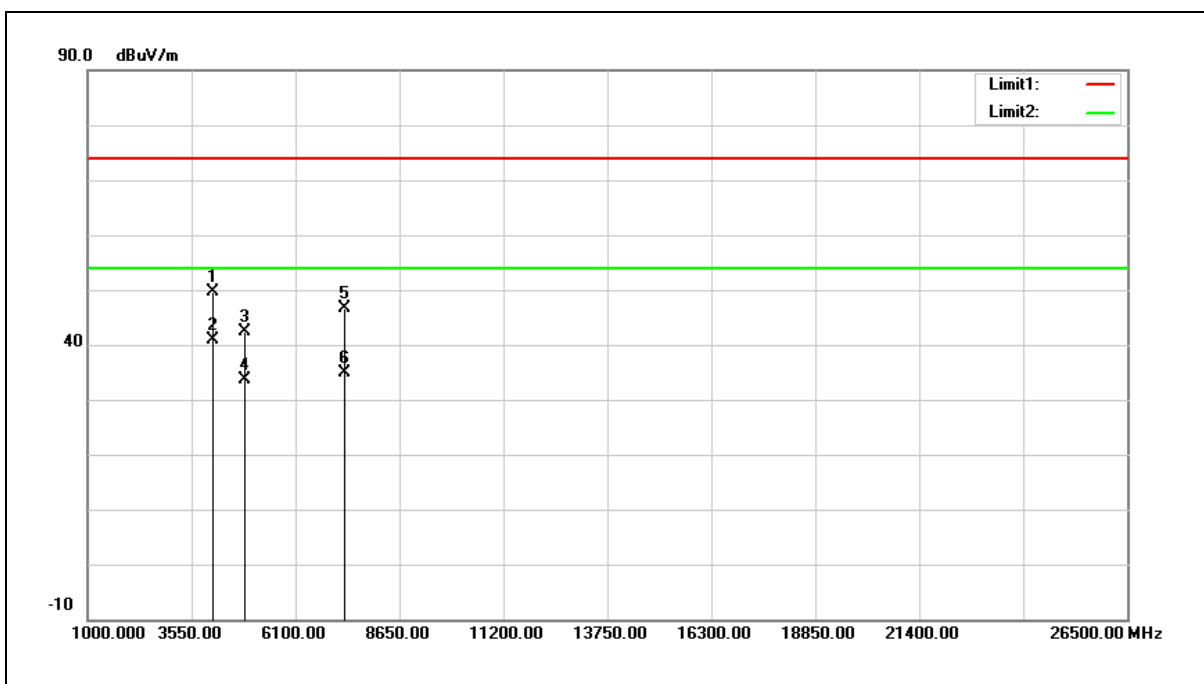
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4020.000	44.60	3.09	47.69	74.00	-26.31	peak
2	4020.000	36.66	3.09	39.75	54.00	-14.25	AVG
3	4824.000	36.93	5.37	42.30	74.00	-31.70	peak
4	4824.000	27.32	5.37	32.69	54.00	-21.31	AVG
5	7236.000	34.21	11.90	46.11	74.00	-27.89	peak
6	7236.000	23.89	11.90	35.79	54.00	-18.21	AVG

Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.65 V
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		



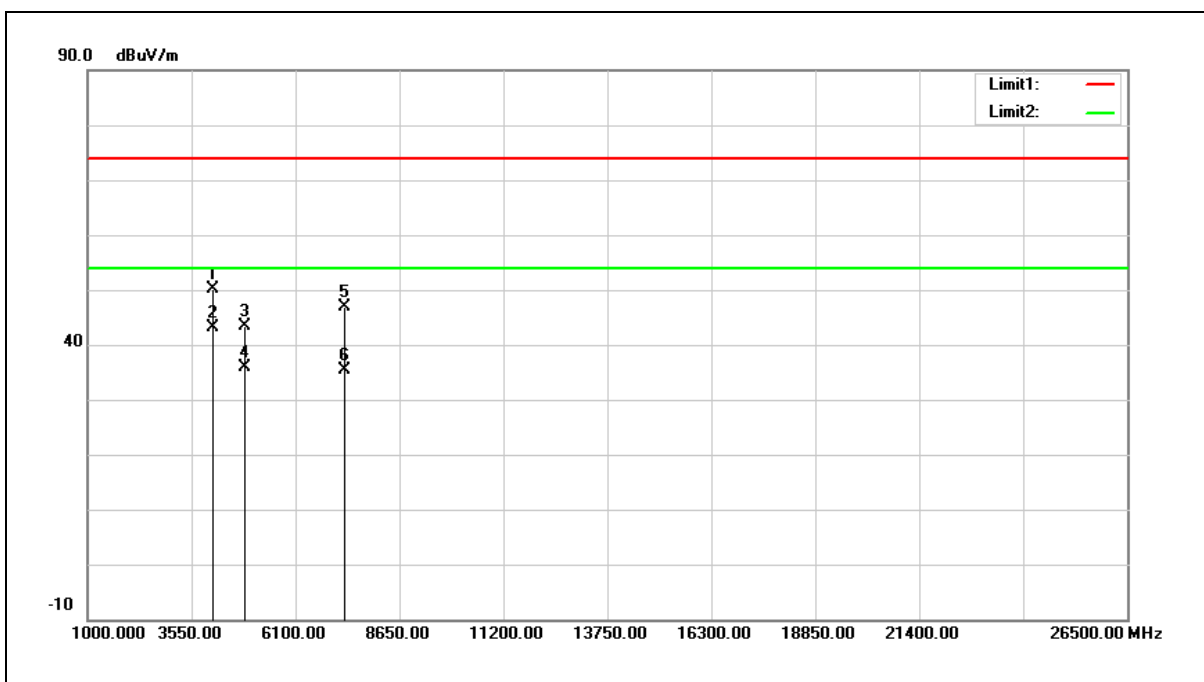
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4061.000	46.32	3.23	49.55	74.00	-24.45	peak
2	4061.000	37.56	3.23	40.79	54.00	-13.21	AVG
3	4874.000	36.88	5.47	42.35	74.00	-31.65	peak
4	4874.000	28.14	5.47	33.61	54.00	-20.39	AVG
5	7311.000	34.51	12.13	46.64	74.00	-27.36	peak
6	7311.000	22.80	12.13	34.93	54.00	-19.07	AVG

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.65 V
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		



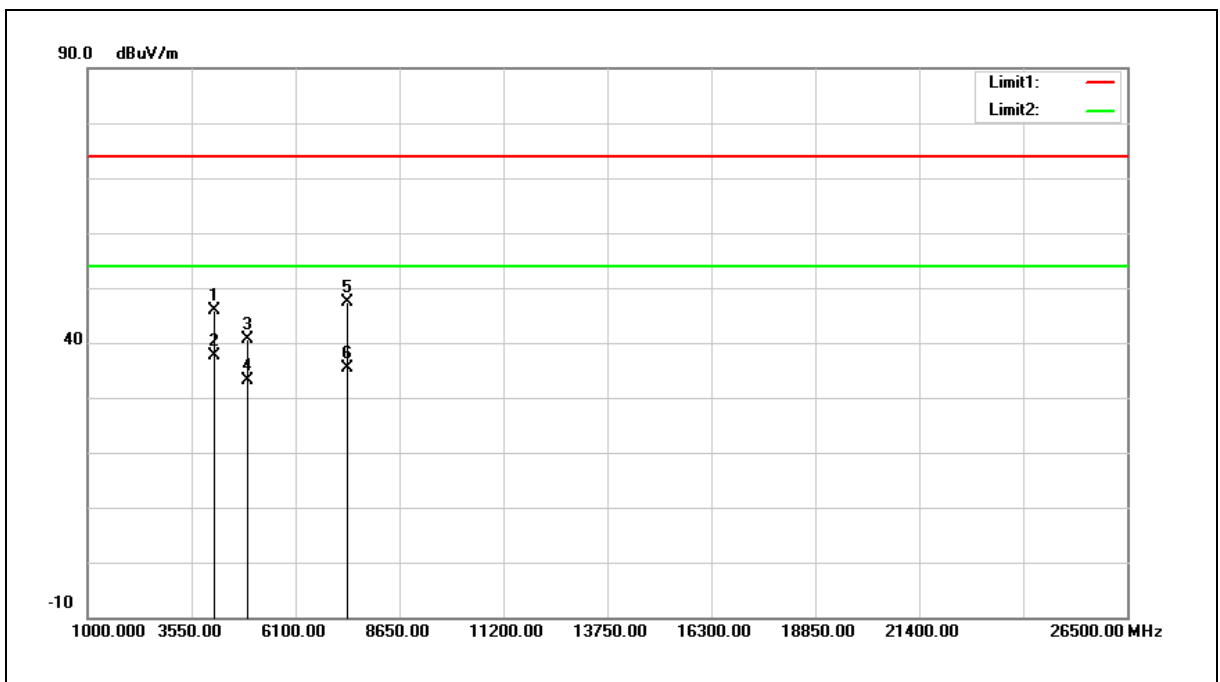
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4061.000	46.99	3.23	50.22	74.00	-23.78	peak
2	4061.000	39.81	3.23	43.04	54.00	-10.96	AVG
3	4874.000	37.95	5.47	43.42	74.00	-30.58	peak
4	4874.000	30.38	5.47	35.85	54.00	-18.15	AVG
5	7311.000	34.77	12.13	46.90	74.00	-27.10	peak
6	7311.000	23.28	12.13	35.41	54.00	-18.59	AVG

Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.65 V
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		



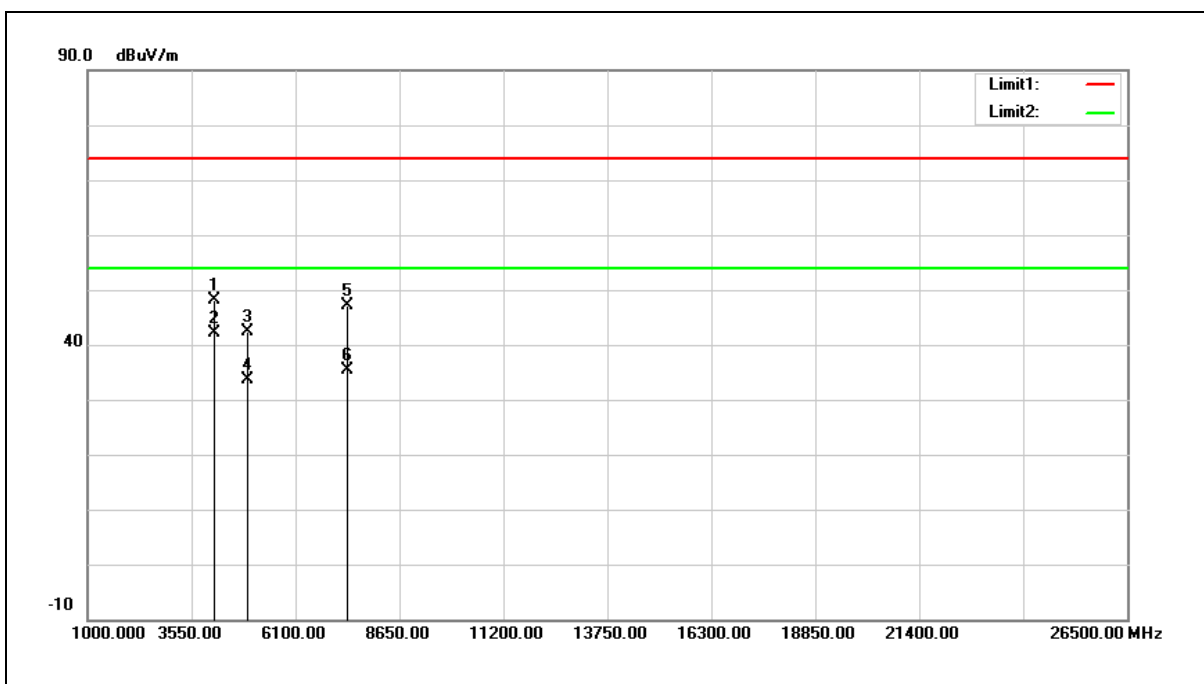
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4103.000	42.50	3.38	45.88	74.00	-28.12	peak
2	4103.000	34.32	3.38	37.70	54.00	-16.30	AVG
3	4924.000	34.94	5.58	40.52	74.00	-33.48	peak
4	4924.000	27.49	5.58	33.07	54.00	-20.93	AVG
5	7386.000	35.03	12.36	47.39	74.00	-26.61	peak
6	7386.000	23.02	12.36	35.38	54.00	-18.62	AVG

Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.65 V
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		



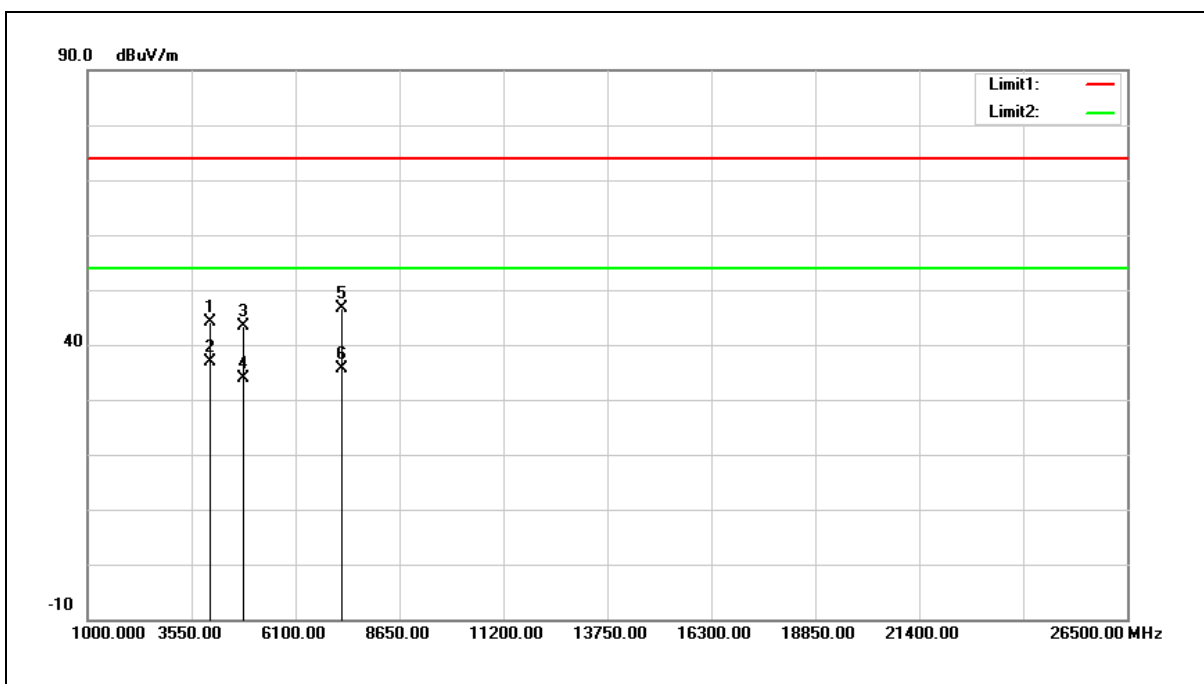
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4103.000	44.64	3.38	48.02	74.00	-25.98	peak
2	4103.000	38.76	3.38	42.14	54.00	-11.86	AVG
3	4924.000	36.89	5.58	42.47	74.00	-31.53	peak
4	4924.000	28.12	5.58	33.70	54.00	-20.30	AVG
5	7386.000	34.80	12.36	47.16	74.00	-26.84	peak
6	7386.000	23.09	12.36	35.45	54.00	-18.55	AVG

Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.65 V
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



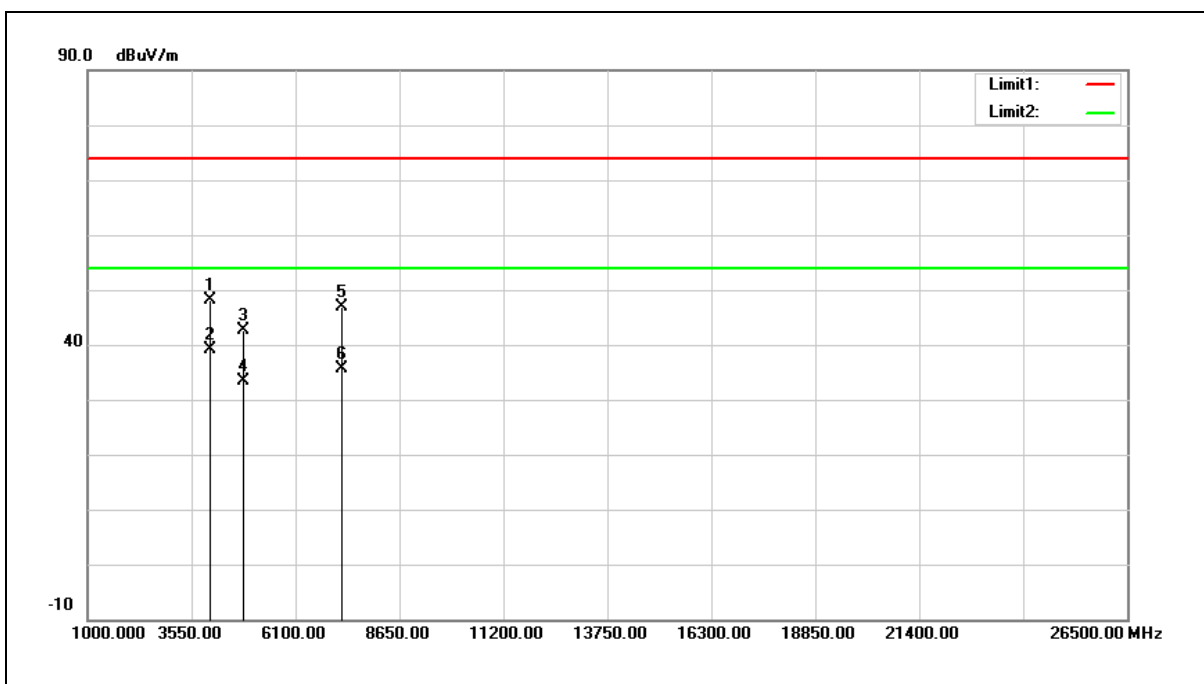
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4020.000	40.93	3.09	44.02	74.00	-29.98	peak
2	4020.000	33.71	3.09	36.80	54.00	-17.20	AVG
3	4824.000	38.05	5.37	43.42	74.00	-30.58	peak
4	4824.000	28.45	5.37	33.82	54.00	-20.18	AVG
5	7236.000	34.63	11.90	46.53	74.00	-27.47	peak
6	7236.000	23.77	11.90	35.67	54.00	-18.33	AVG

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.65 V
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		



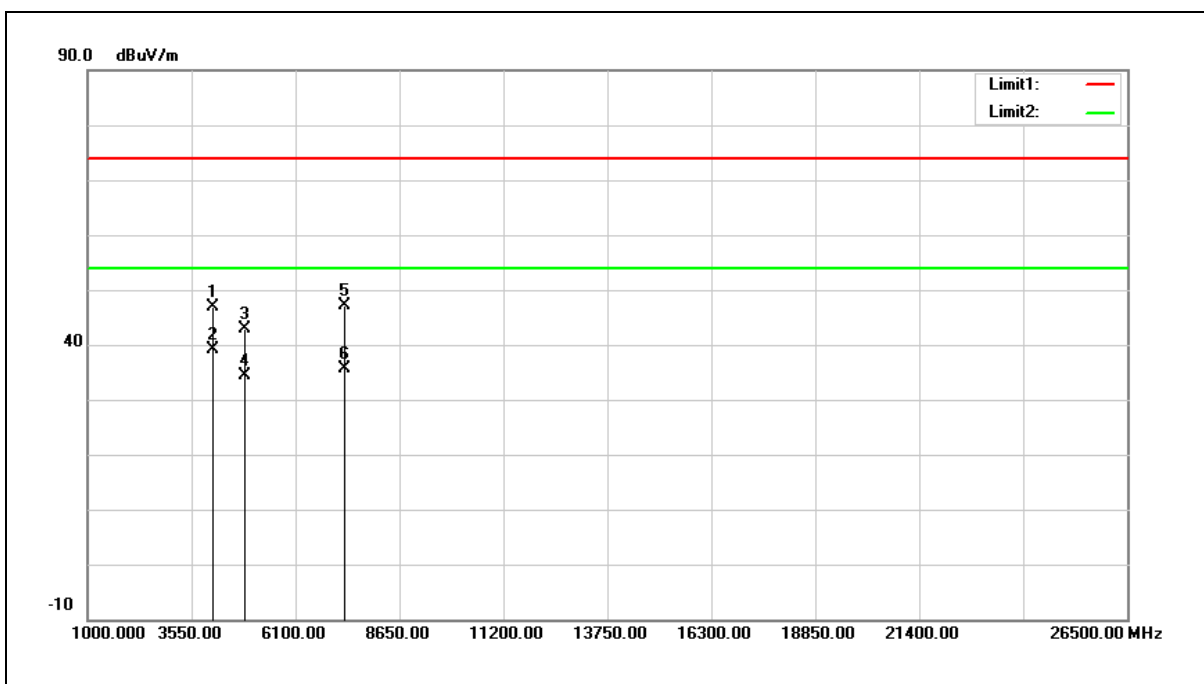
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4020.000	44.95	3.09	48.04	74.00	-25.96	peak
2	4020.000	36.16	3.09	39.25	54.00	-14.75	AVG
3	4824.000	37.34	5.37	42.71	74.00	-31.29	peak
4	4824.000	28.05	5.37	33.42	54.00	-20.58	AVG
5	7236.000	34.93	11.90	46.83	74.00	-27.17	peak
6	7236.000	23.69	11.90	35.59	54.00	-18.41	AVG

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.65 V
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



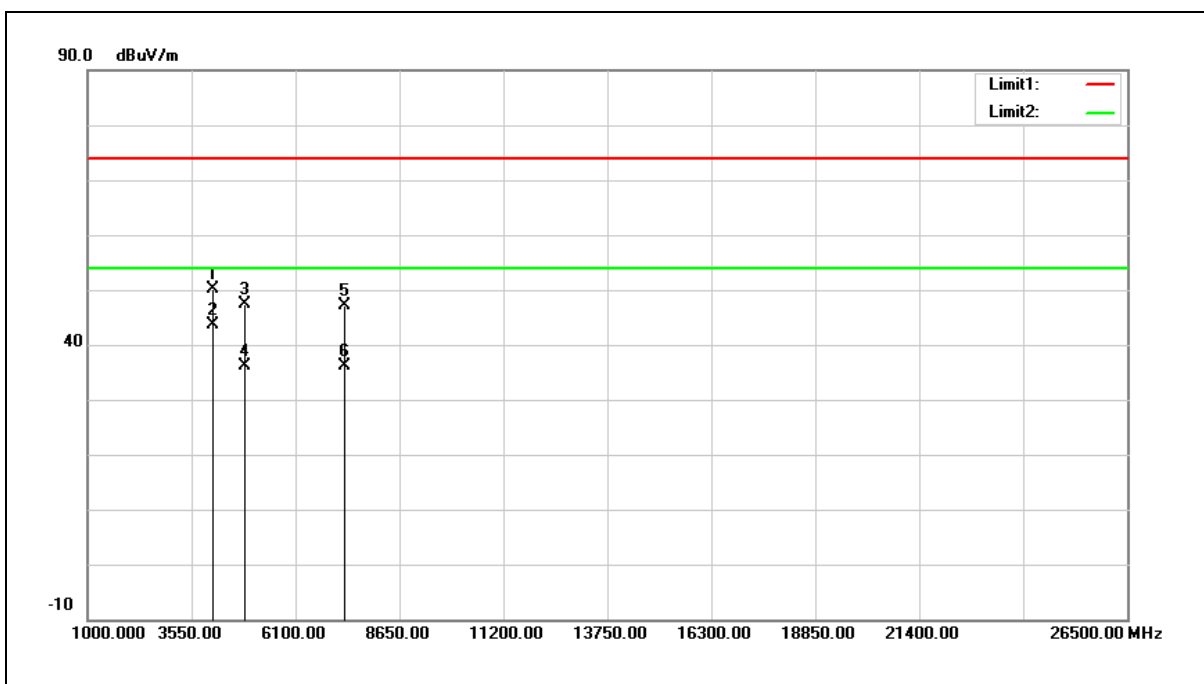
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4061.000	43.68	3.23	46.91	74.00	-27.09	peak
2	4061.000	35.81	3.23	39.04	54.00	-14.96	AVG
3	4874.000	37.38	5.47	42.85	74.00	-31.15	peak
4	4874.000	29.03	5.47	34.50	54.00	-19.50	AVG
5	7311.000	35.09	12.13	47.22	74.00	-26.78	peak
6	7311.000	23.58	12.13	35.71	54.00	-18.29	AVG

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.65 V
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		



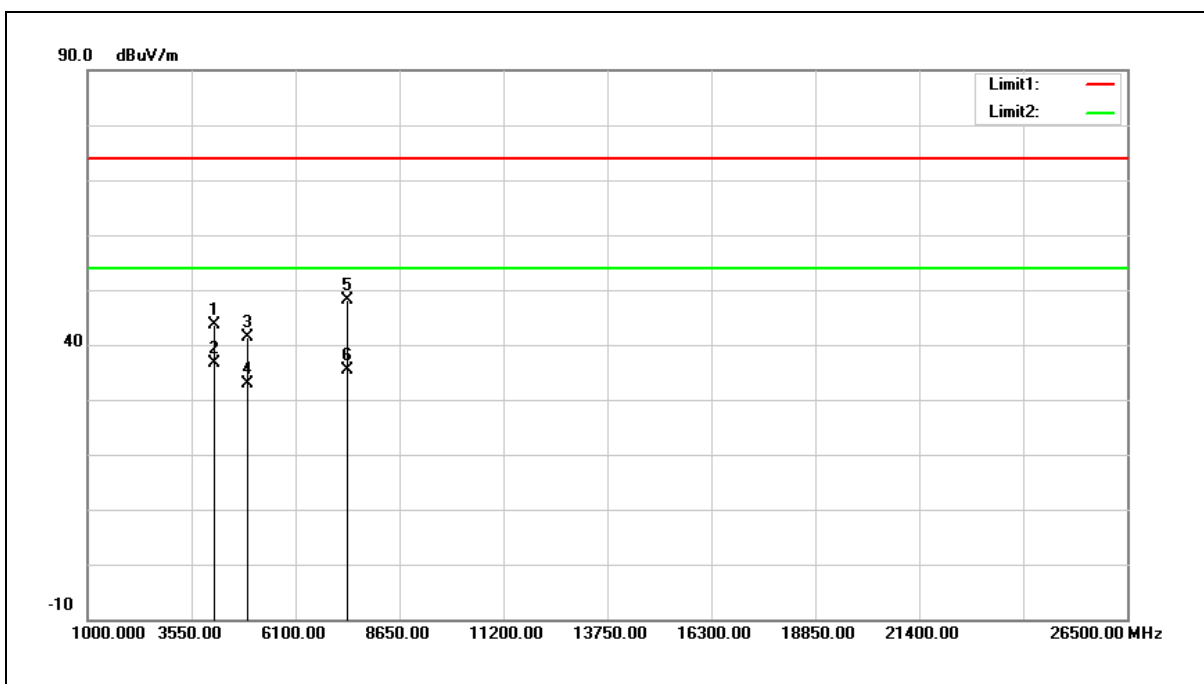
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4061.000	46.79	3.23	50.02	74.00	-23.98	peak
2	4061.000	40.32	3.23	43.55	54.00	-10.45	AVG
3	4874.000	41.80	5.47	47.27	74.00	-26.73	peak
4	4874.000	30.76	5.47	36.23	54.00	-17.77	AVG
5	7311.000	35.00	12.13	47.13	74.00	-26.87	peak
6	7311.000	23.98	12.13	36.11	54.00	-17.89	AVG

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.65 V
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



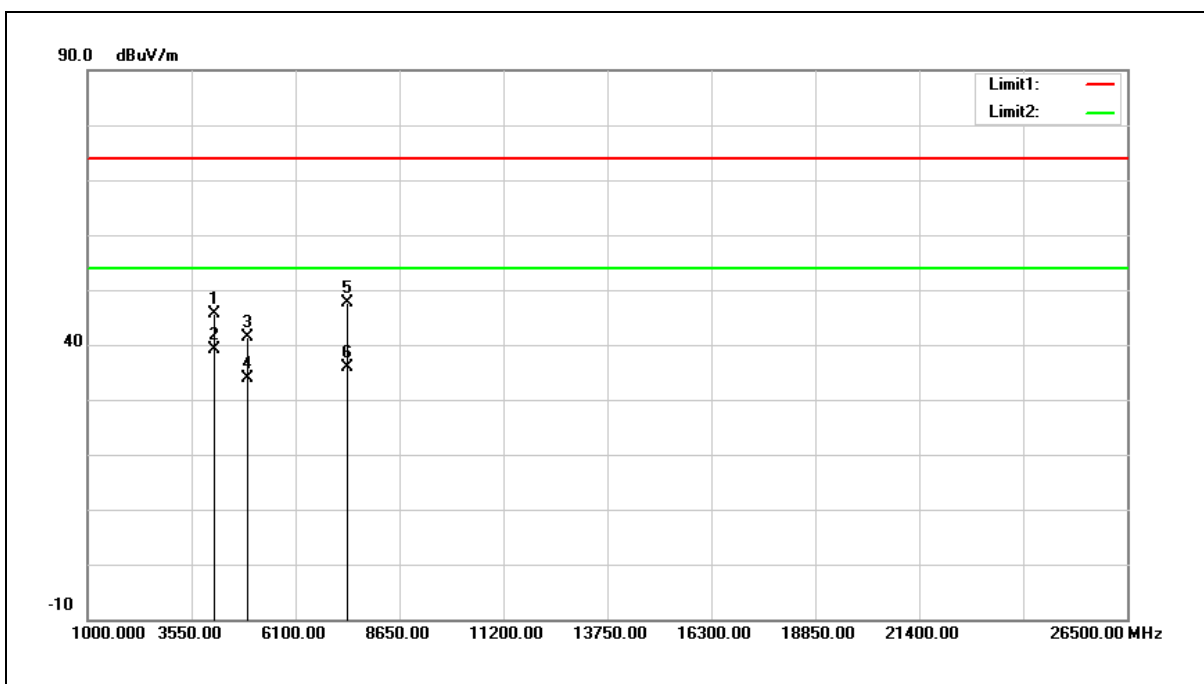
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4103.000	40.21	3.38	43.59	74.00	-30.41	peak
2	4103.000	33.30	3.38	36.68	54.00	-17.32	AVG
3	4924.000	35.71	5.58	41.29	74.00	-32.71	peak
4	4924.000	27.22	5.58	32.80	54.00	-21.20	AVG
5	7386.000	35.66	12.36	48.02	74.00	-25.98	peak
6	7386.000	23.09	12.36	35.45	54.00	-18.55	AVG

Note:1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.65 V
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		



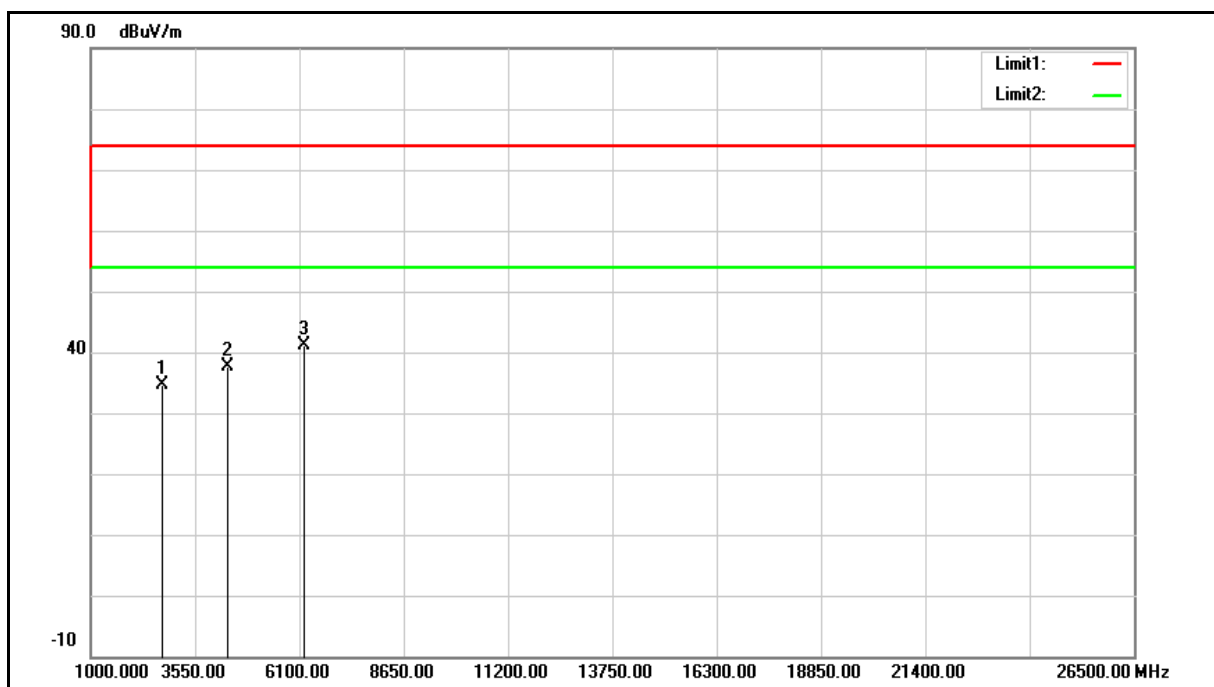
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4103.000	42.34	3.38	45.72	74.00	-28.28	peak
2	4103.000	35.72	3.38	39.10	54.00	-14.90	AVG
3	4924.000	35.78	5.58	41.36	74.00	-32.64	peak
4	4924.000	28.21	5.58	33.79	54.00	-20.21	AVG
5	7386.000	35.30	12.36	47.66	74.00	-26.34	peak
6	7386.000	23.63	12.36	35.99	54.00	-18.01	AVG

Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.65 V
Test Mode:	Mode 5	Temp.(°C)/Hum. (%RH):	26(°C)/60 %RH
Ant.Polar.:	Horizontal		



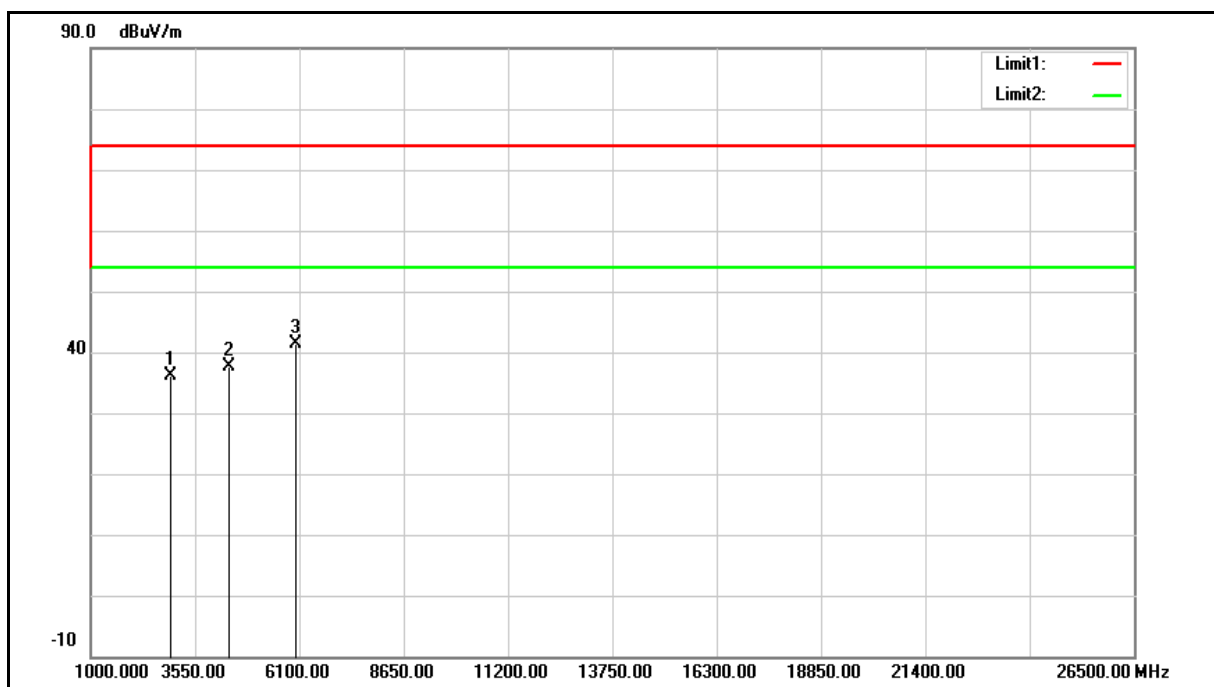
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2751.000	34.38	0.15	34.53	74.00	-39.47	peak
2	4349.000	33.20	4.43	37.63	74.00	-36.37	peak
3	6202.000	32.06	9.01	41.07	74.00	-32.93	peak

Note: 1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.65 V
Test Mode:	Mode 5	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2955.000	35.24	0.80	36.04	74.00	-37.96	peak
2	4366.000	33.22	4.48	37.70	74.00	-36.30	peak
3	5981.000	33.35	8.11	41.46	74.00	-32.54	peak

Note: 1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

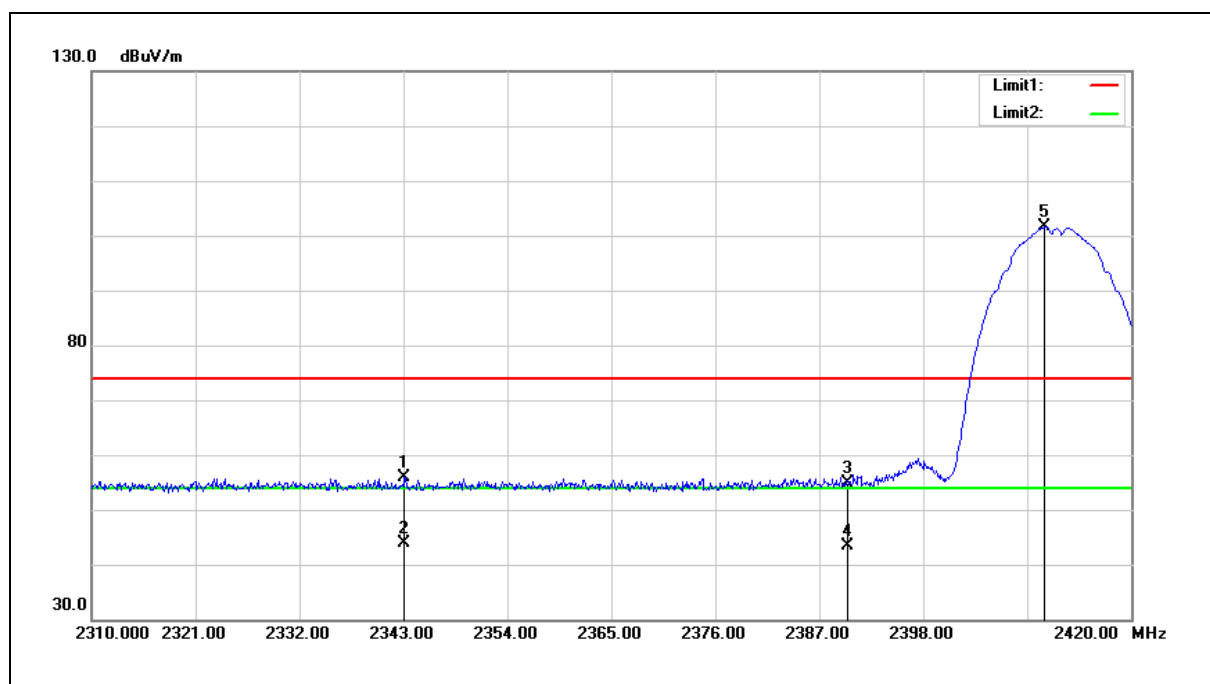
2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.

頻帶邊緣

附註：其上下邊緣落於低功率射頻電機第 2.7 節所列頻帶內之混附發射，其電場強度必須符合第 2.8 節的限制規定。

Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



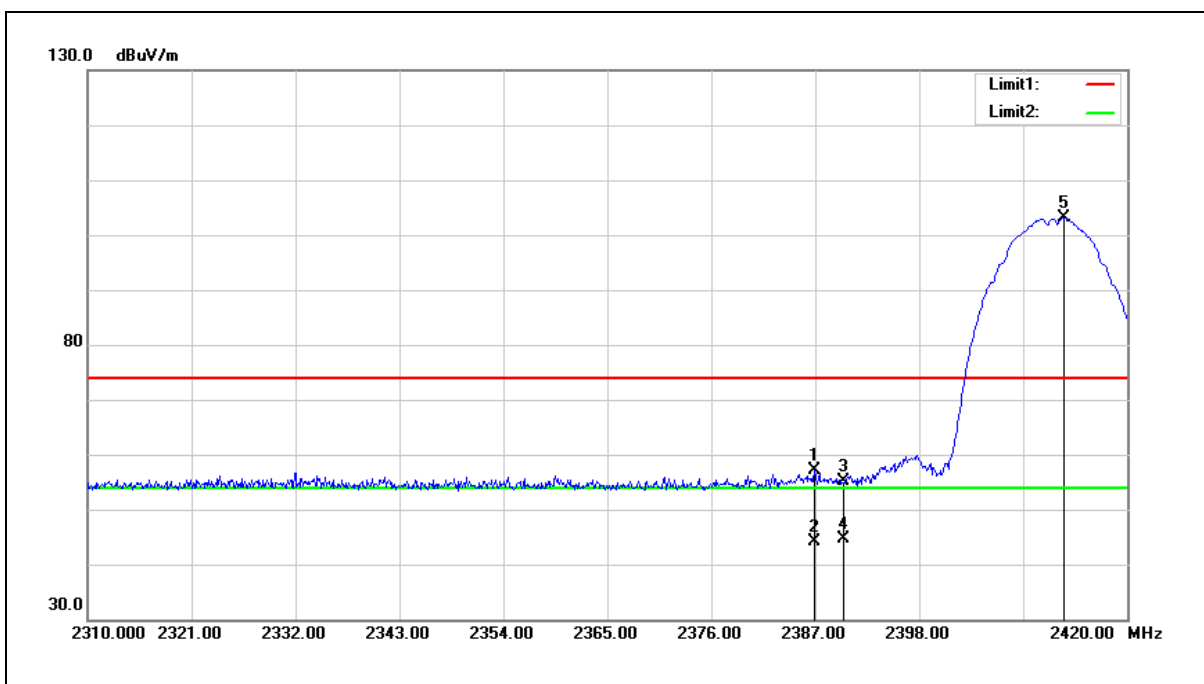
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2343.110	57.21	-1.34	55.87	74.00	-18.13	peak
2	2343.110	45.24	-1.34	43.90	54.00	-10.10	AVG
3	2390.000	56.16	-1.17	54.99	74.00	-19.01	peak
4	2390.000	44.55	-1.17	43.38	54.00	-10.62	AVG
5	2410.870	102.65	-1.09	101.56	--	--	peak

Note: 1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



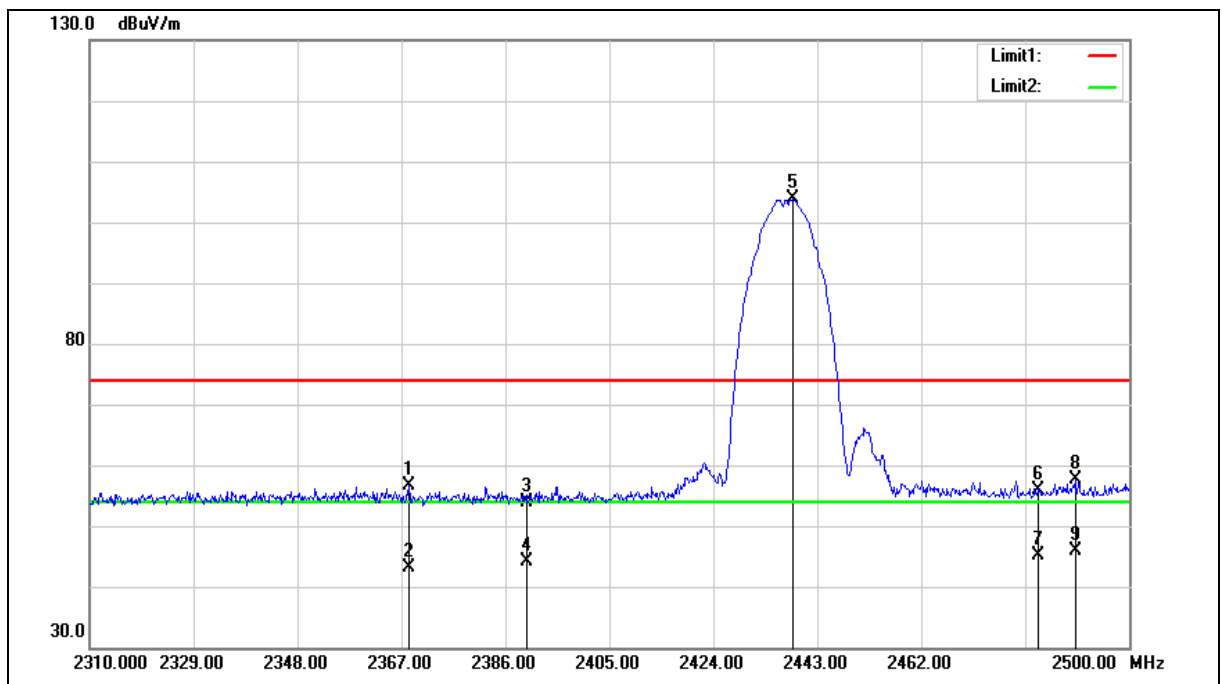
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2386.890	58.26	-1.17	57.09	74.00	-16.91	peak
2	2386.890	45.21	-1.17	44.04	54.00	-9.96	AVG
3	2390.000	56.19	-1.17	55.02	74.00	-18.98	peak
4	2390.000	45.79	-1.17	44.62	54.00	-9.38	AVG
5	2413.290	104.23	-1.08	103.15	--	--	peak

Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		

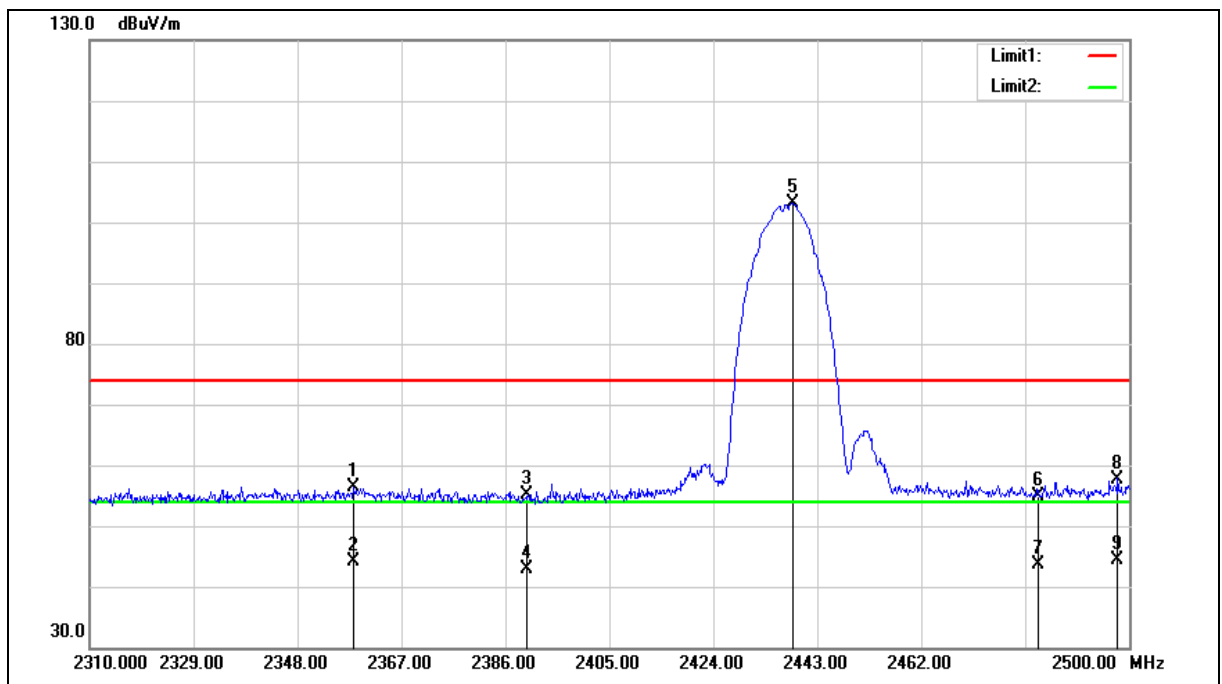
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2368.330	57.78	-1.24	56.54	74.00	-17.46	peak
2	2368.330	44.46	-1.24	43.22	54.00	-10.78	AVG
3	2390.000	55.16	-1.17	53.99	74.00	-20.01	peak
4	2390.000	45.38	-1.17	44.21	54.00	-9.79	AVG
5	2438.440	104.79	-0.98	103.81	--	--	peak
6	2483.500	56.69	-0.82	55.87	74.00	-18.13	peak
7	2483.500	45.93	-0.82	45.11	54.00	-8.89	AVG
8	2490.120	58.55	-0.80	57.75	74.00	-16.25	peak
9	2490.120	46.75	-0.80	45.95	54.00	-8.05	AVG

Note: 1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		

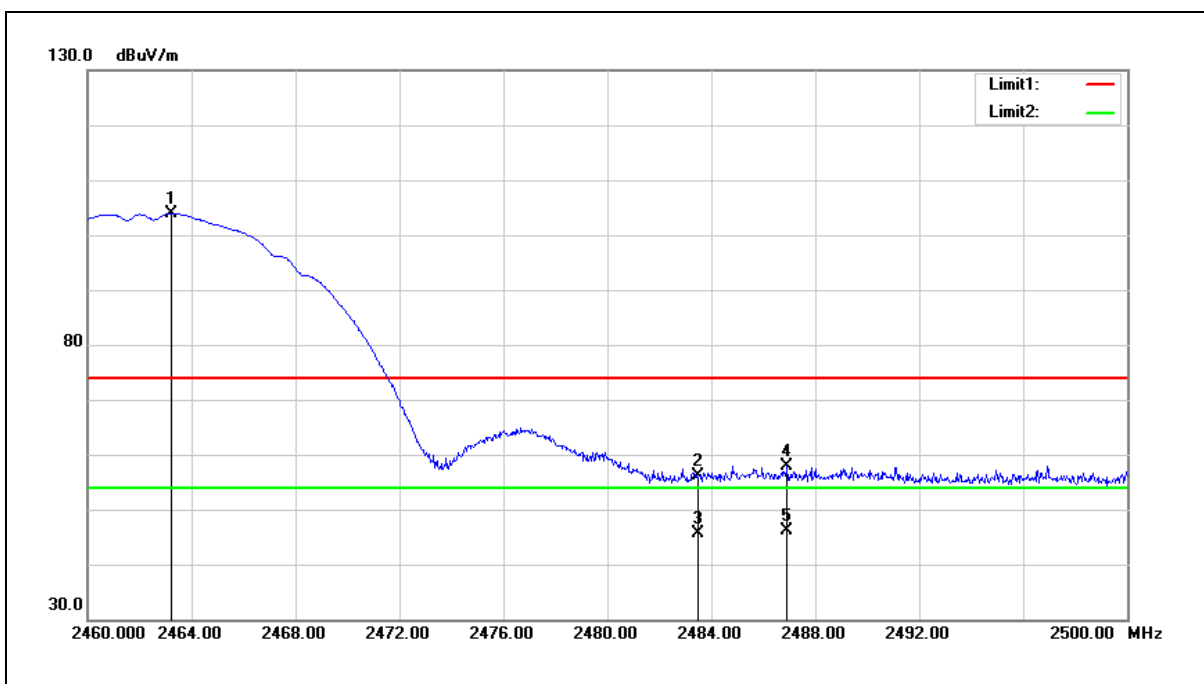
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2358.260	57.61	-1.28	56.33	74.00	-17.67	peak
2	2358.260	45.45	-1.28	44.17	54.00	-9.83	AVG
3	2390.000	56.31	-1.17	55.14	74.00	-18.86	peak
4	2390.000	44.05	-1.17	42.88	54.00	-11.12	AVG
5	2438.440	104.08	-0.98	103.10	--	--	peak
6	2483.500	55.61	-0.82	54.79	74.00	-19.21	peak
7	2483.500	44.43	-0.82	43.61	54.00	-10.39	AVG
8	2497.910	58.52	-0.77	57.75	74.00	-16.25	peak
9	2497.910	45.08	-0.77	44.31	54.00	-9.69	AVG

Note: 1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



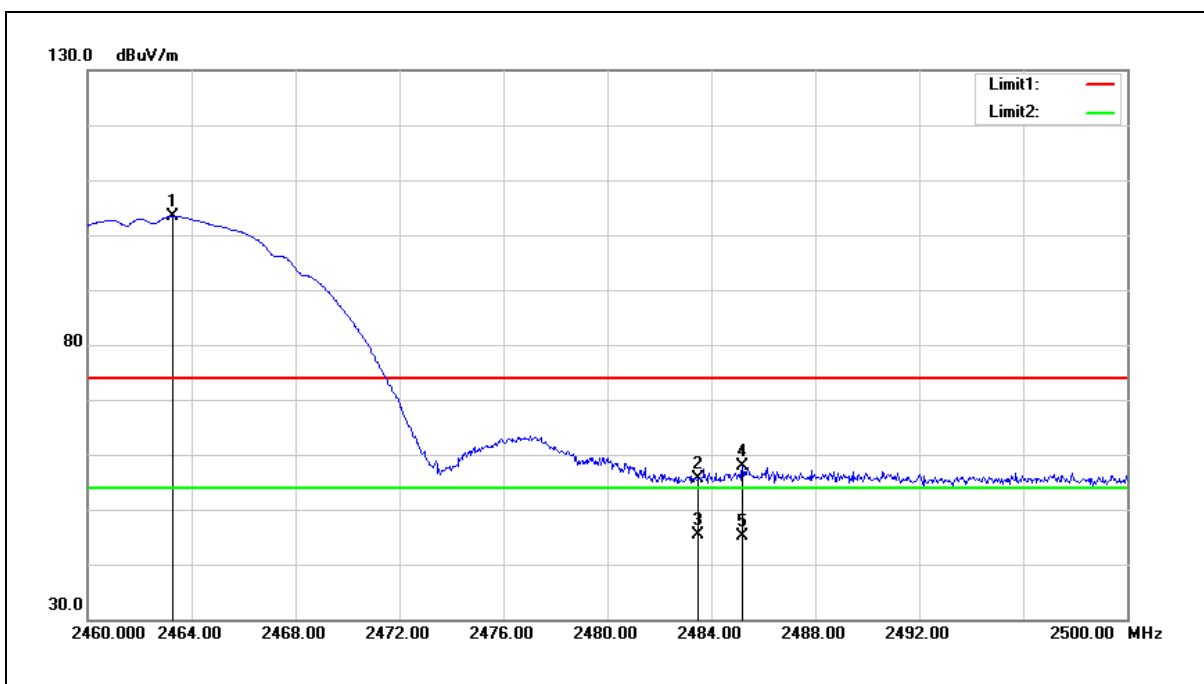
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2463.240	104.82	-0.90	103.92	--	--	peak
2	2483.500	57.00	-0.82	56.18	74.00	-17.82	peak
3	2483.500	46.46	-0.82	45.64	54.00	-8.36	AVG
4	2486.920	58.77	-0.81	57.96	74.00	-16.04	peak
5	2486.920	47.01	-0.81	46.20	54.00	-7.80	AVG

Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



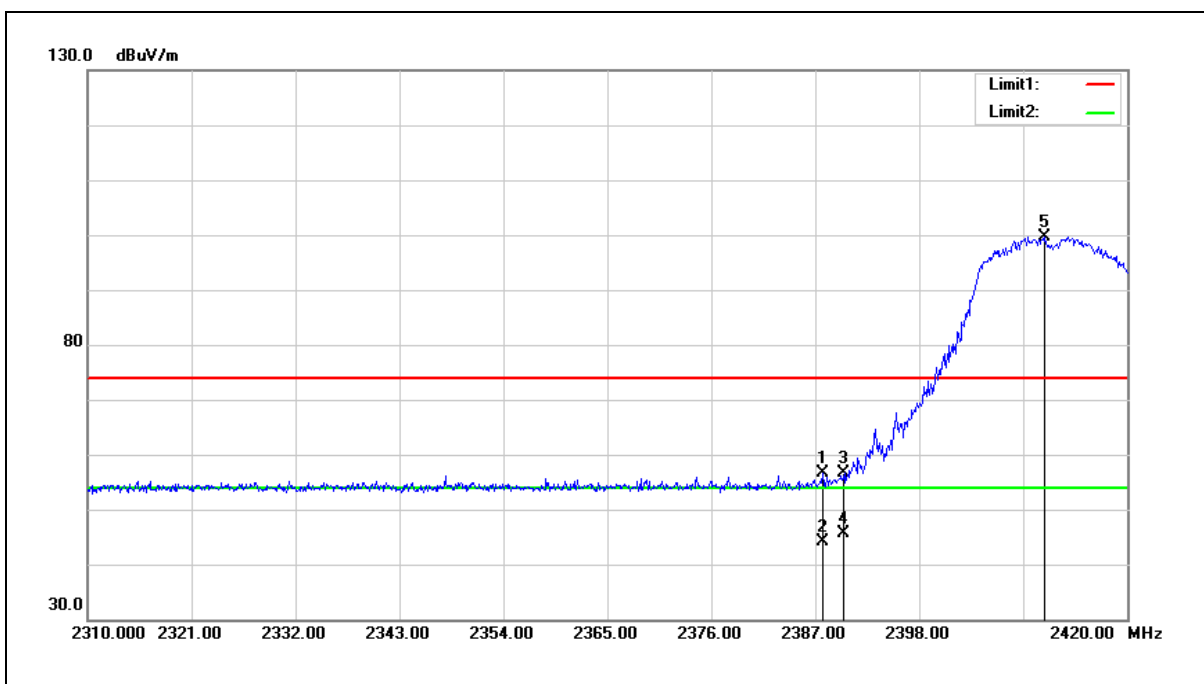
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2463.280	104.29	-0.90	103.39	--	--	peak
2	2483.500	56.42	-0.82	55.60	74.00	-18.40	peak
3	2483.500	46.10	-0.82	45.28	54.00	-8.72	AVG
4	2485.200	58.80	-0.82	57.98	74.00	-16.02	peak
5	2485.200	45.94	-0.82	45.12	54.00	-8.88	AVG

Note: 1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		



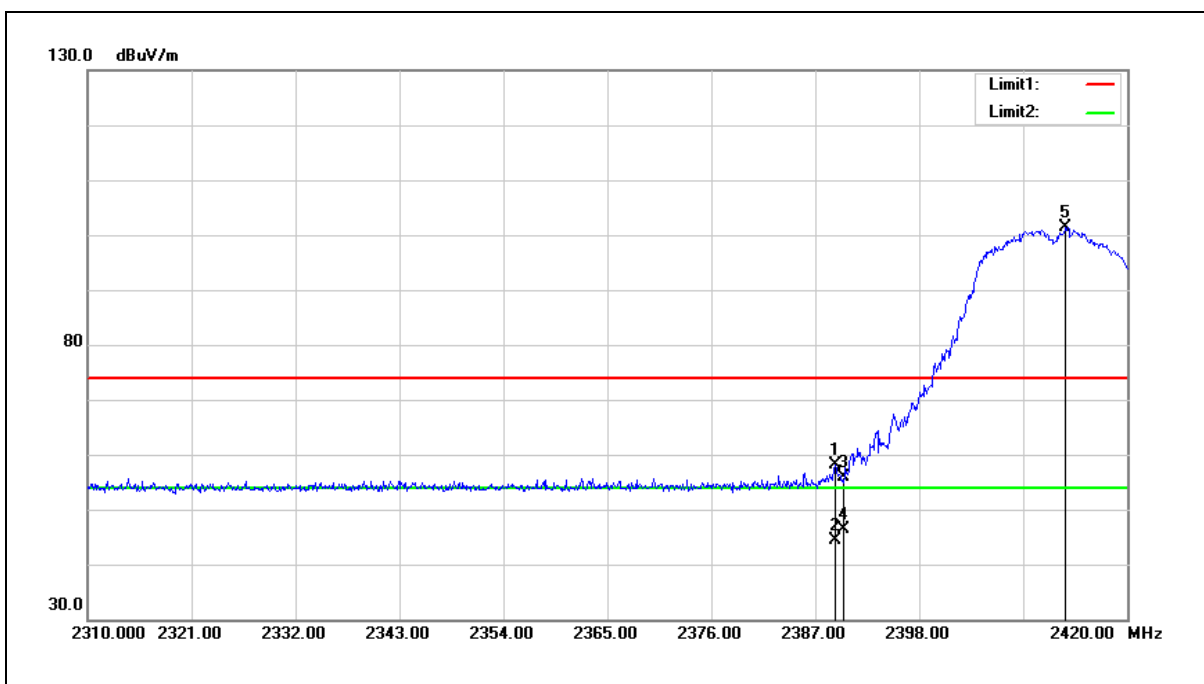
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.770	57.83	-1.17	56.66	74.00	-17.34	peak
2	2387.770	45.38	-1.17	44.21	54.00	-9.79	AVG
3	2390.000	57.86	-1.17	56.69	74.00	-17.31	peak
4	2390.000	46.79	-1.17	45.62	54.00	-8.38	AVG
5	2411.200	100.80	-1.08	99.72	--	--	peak

Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		



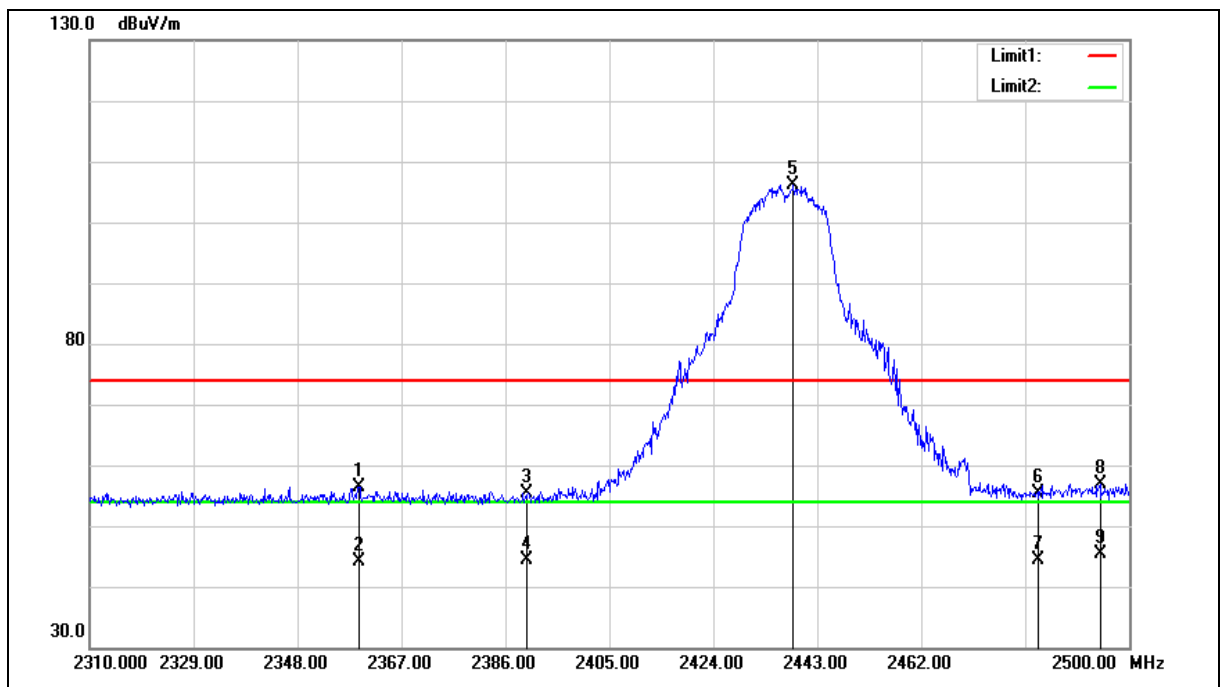
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.090	59.40	-1.17	58.23	74.00	-15.77	peak
2	2389.090	45.64	-1.17	44.47	54.00	-9.53	AVG
3	2390.000	57.03	-1.17	55.86	74.00	-18.14	peak
4	2390.000	47.56	-1.17	46.39	54.00	-7.61	AVG
5	2413.510	102.44	-1.07	101.37	--	--	peak

Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		



Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2437 MHz	Temp.(°C)/Hum. (%RH):	26(°C)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		

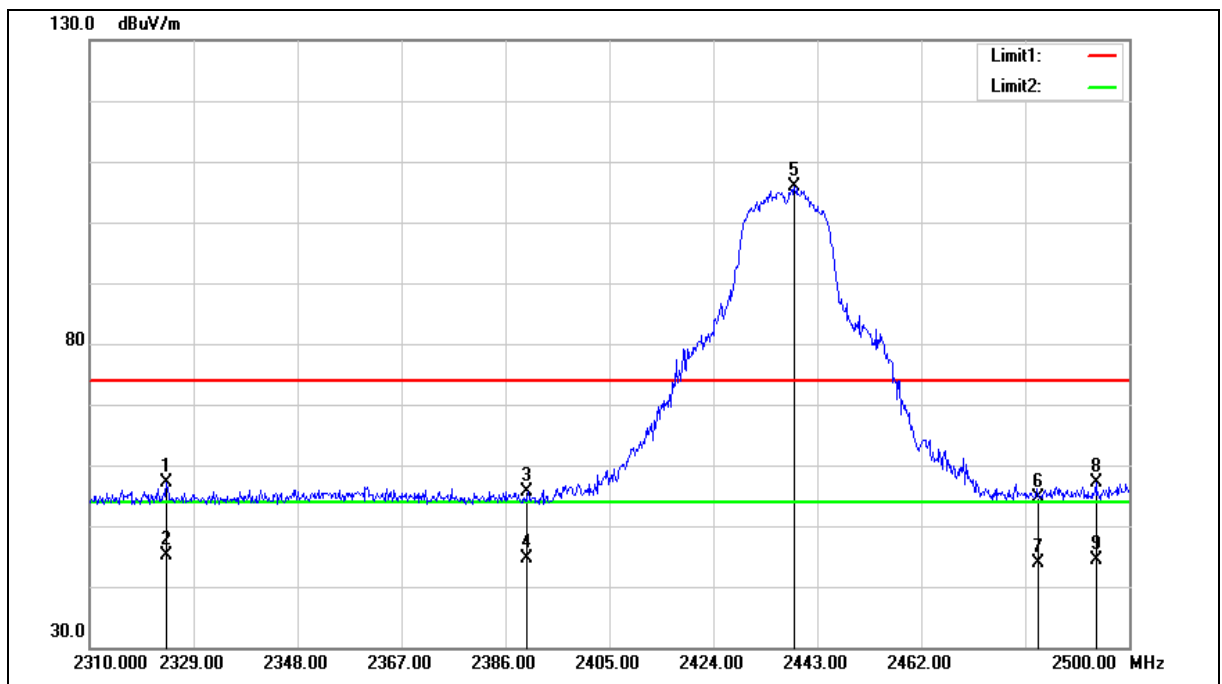
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2359.210	57.77	-1.28	56.49	74.00	-17.51	peak
2	2359.210	45.45	-1.28	44.17	54.00	-9.83	AVG
3	2390.000	56.46	-1.17	55.29	74.00	-18.71	peak
4	2390.000	45.66	-1.17	44.49	54.00	-9.51	AVG
5	2438.630	107.11	-0.98	106.13	--	--	peak
6	2483.500	56.21	-0.82	55.39	74.00	-18.61	peak
7	2483.500	45.17	-0.82	44.35	54.00	-9.65	AVG
8	2494.680	57.60	-0.78	56.82	74.00	-17.18	peak
9	2494.680	46.28	-0.78	45.50	54.00	-8.50	AVG

Note: 1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		



Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2437 MHz	Temp.(°C)/Hum. (%RH):	26(°C)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		

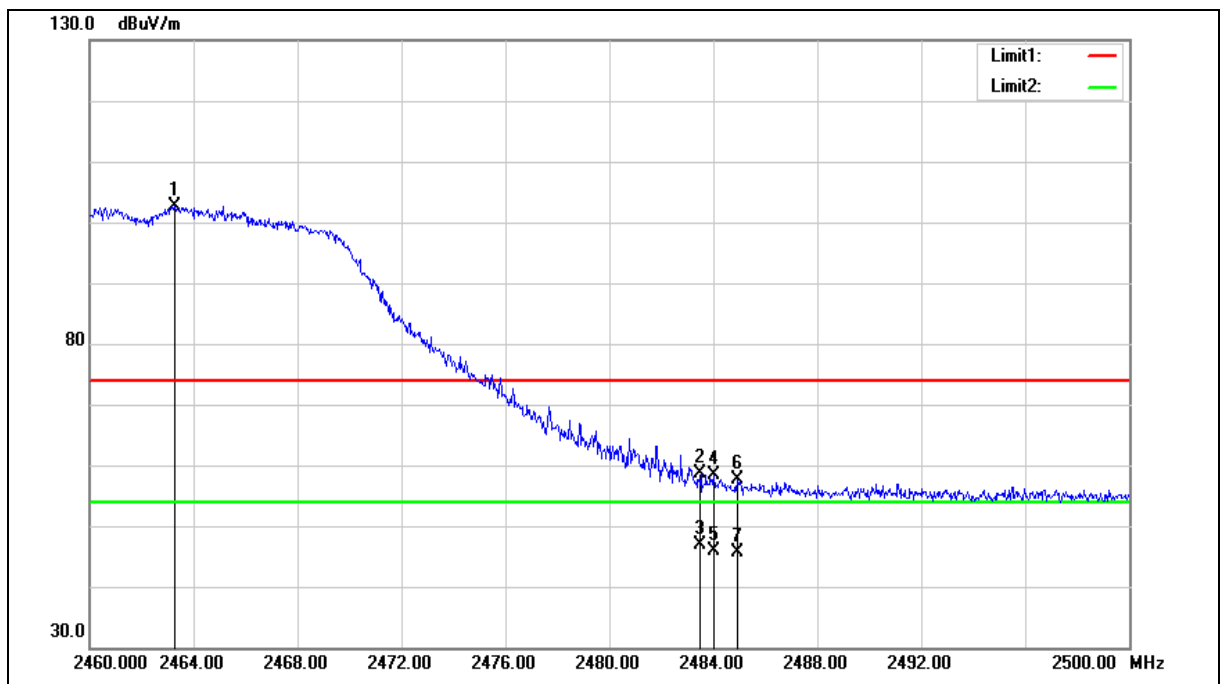
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2324.060	58.61	-1.41	57.20	74.00	-16.80	peak
2	2324.060	46.65	-1.41	45.24	54.00	-8.76	AVG
3	2390.000	56.74	-1.17	55.57	74.00	-18.43	peak
4	2390.000	45.81	-1.17	44.64	54.00	-9.36	AVG
5	2438.820	106.81	-0.98	105.83	--	--	peak
6	2483.500	55.54	-0.82	54.72	74.00	-19.28	peak
7	2483.500	44.67	-0.82	43.85	54.00	-10.15	AVG
8	2493.920	57.81	-0.79	57.02	74.00	-16.98	peak
9	2493.920	45.25	-0.79	44.46	54.00	-9.54	AVG

Note: 1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		



Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2462 MHz	Temp.(°C)/Hum. (%RH):	26(°C)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Horizontal		

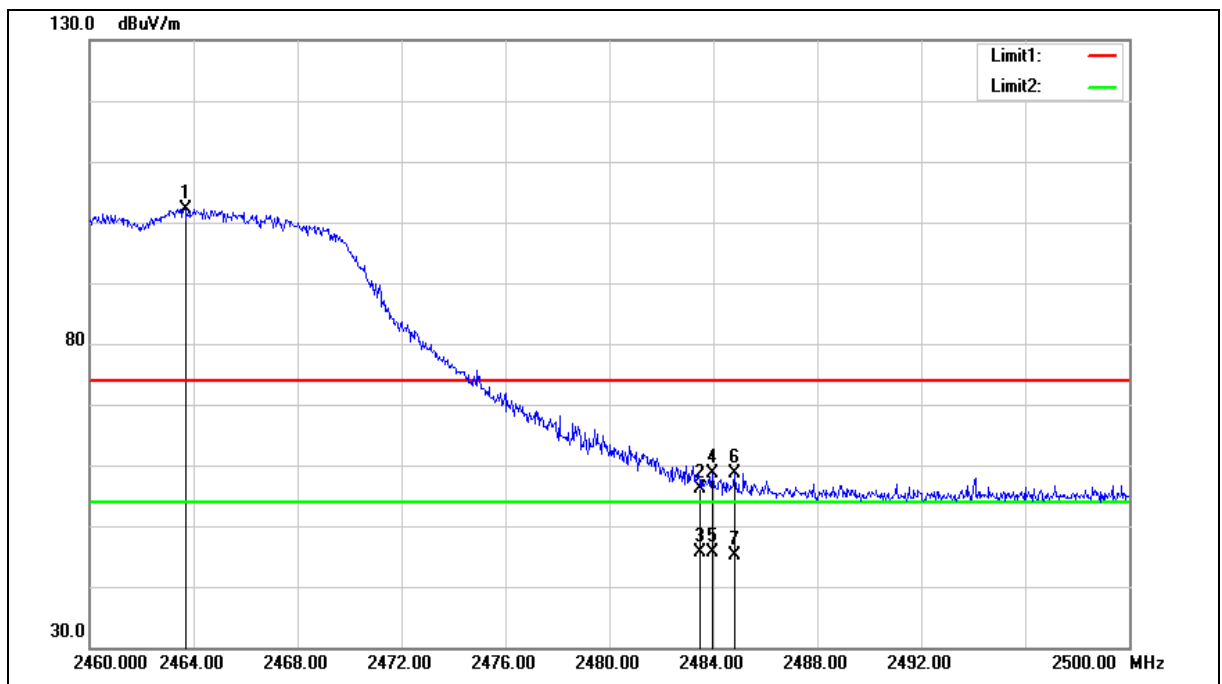
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2463.280	103.45	-0.90	102.55	--	--	peak
2	2483.500	59.38	-0.82	58.56	74.00	-15.44	peak
3	2483.500	47.64	-0.82	46.82	54.00	-7.18	AVG
4	2484.000	59.18	-0.82	58.36	74.00	-15.64	peak
5	2484.000	46.72	-0.82	45.90	54.00	-8.10	AVG
6	2484.920	58.52	-0.82	57.70	74.00	-16.30	peak
7	2484.920	46.42	-0.82	45.60	54.00	-8.40	AVG

Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		



Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2462 MHz	Temp.(°C)/Hum. (%RH):	26(°C)/60 %RH
Mode:	Mode 3		
Ant.Polar.:	Vertical		

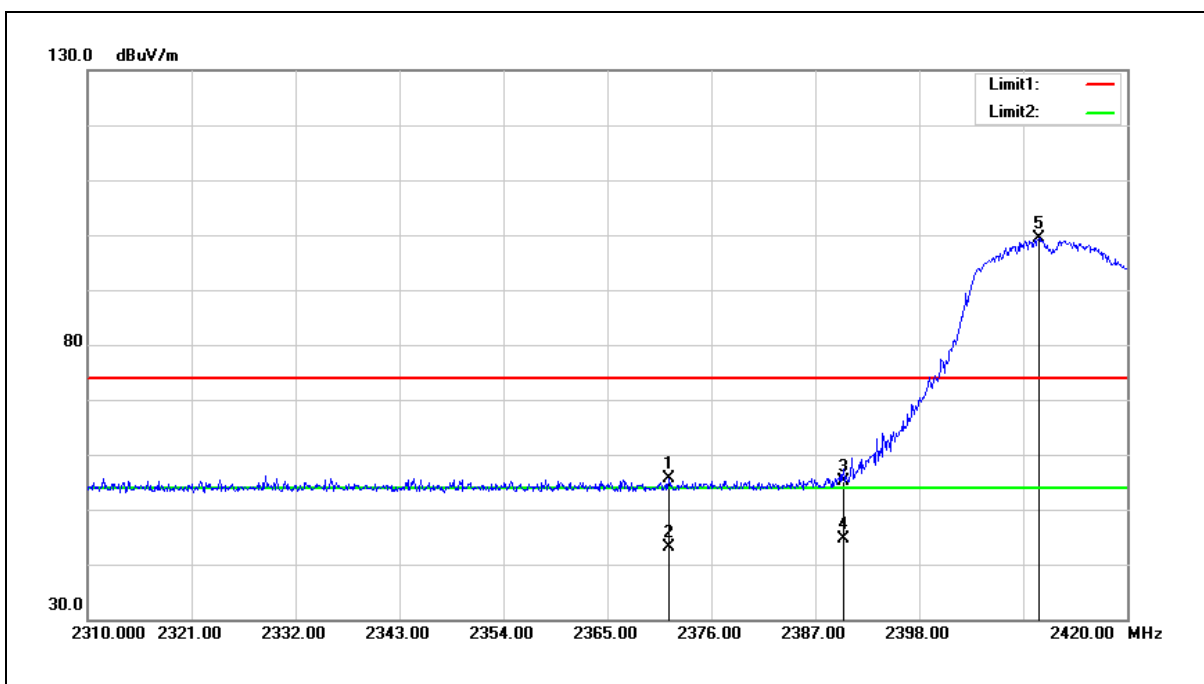
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2463.680	103.12	-0.89	102.23	--	--	peak
2	2483.500	57.02	-0.82	56.20	74.00	-17.80	peak
3	2483.500	46.53	-0.82	45.71	54.00	-8.29	AVG
4	2483.960	59.35	-0.82	58.53	74.00	-15.47	peak
5	2483.960	46.35	-0.82	45.53	54.00	-8.47	AVG
6	2484.800	59.47	-0.82	58.65	74.00	-15.35	peak
7	2484.800	46.03	-0.82	45.21	54.00	-8.79	AVG

Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



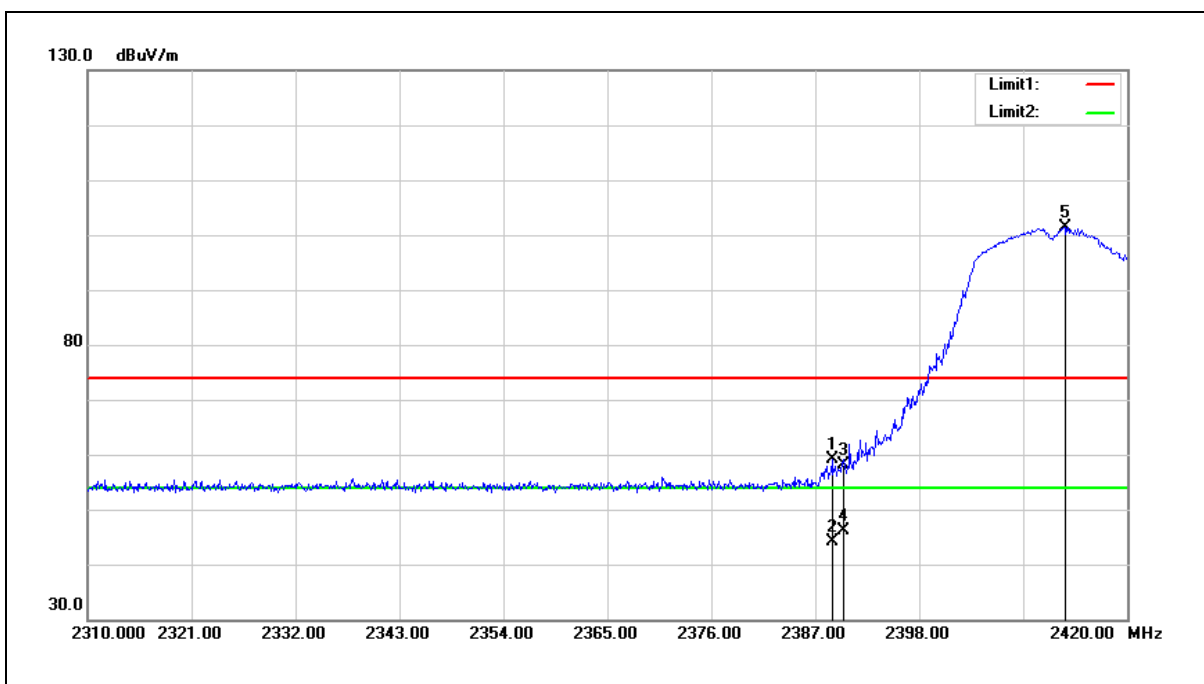
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2371.490	56.90	-1.22	55.68	74.00	-18.32	peak
2	2371.490	44.38	-1.22	43.16	54.00	-10.84	AVG
3	2390.000	56.34	-1.17	55.17	74.00	-18.83	peak
4	2390.000	45.77	-1.17	44.60	54.00	-9.40	AVG
5	2410.650	100.54	-1.09	99.45	--	--	peak

Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2412 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		



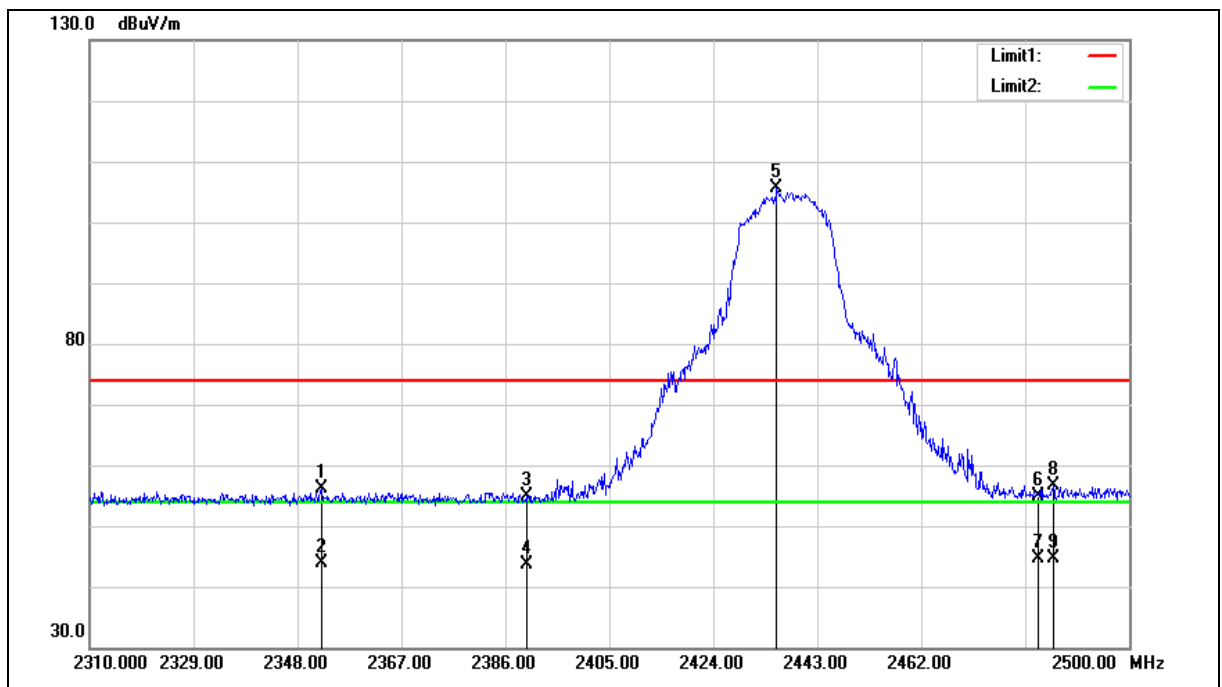
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.760	60.24	-1.17	59.07	74.00	-14.93	peak
2	2388.760	45.20	-1.17	44.03	54.00	-9.97	AVG
3	2390.000	59.18	-1.17	58.01	74.00	-15.99	peak
4	2390.000	47.35	-1.17	46.18	54.00	-7.82	AVG
5	2413.400	102.51	-1.08	101.43	--	--	peak

Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3. When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		

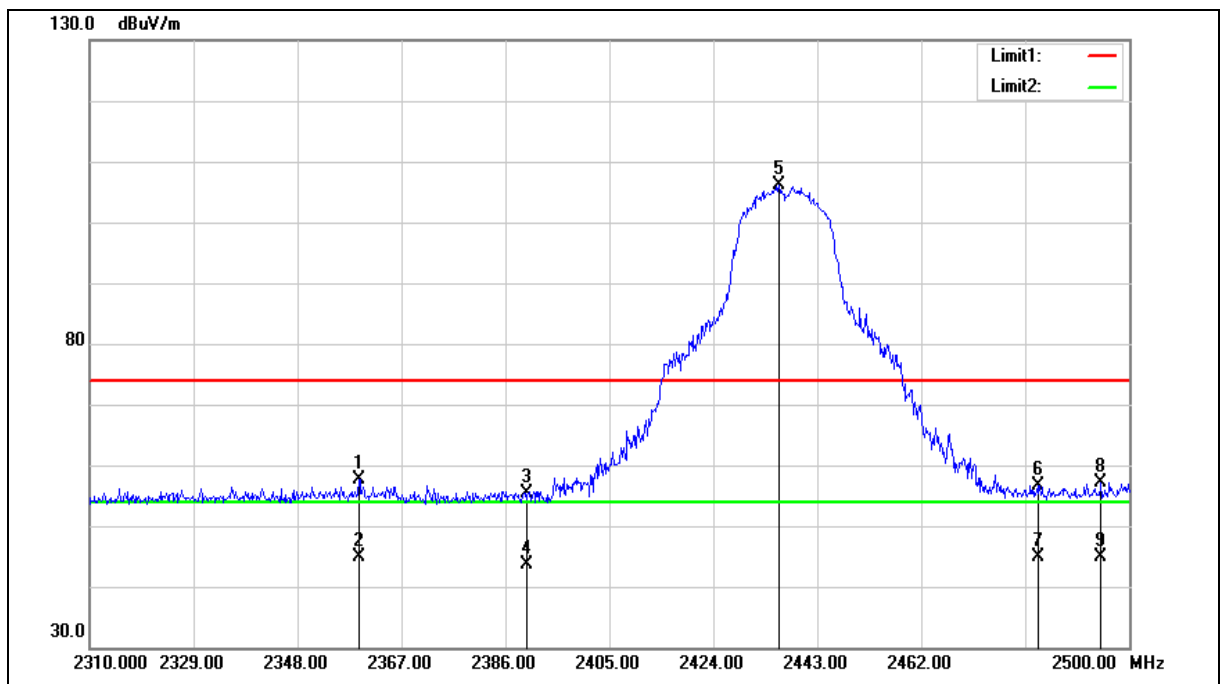
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2352.370	57.35	-1.29	56.06	74.00	-17.94	peak
2	2352.370	45.22	-1.29	43.93	54.00	-10.07	AVG
3	2390.000	56.09	-1.17	54.92	74.00	-19.08	peak
4	2390.000	44.70	-1.17	43.53	54.00	-10.47	AVG
5	2435.590	106.52	-1.00	105.52	--	--	peak
6	2483.500	55.77	-0.82	54.95	74.00	-19.05	peak
7	2483.500	45.39	-0.82	44.57	54.00	-9.43	AVG
8	2486.130	57.43	-0.82	56.61	74.00	-17.39	peak
9	2486.130	45.42	-0.82	44.60	54.00	-9.40	AVG

Note: 1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		



Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2437 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		

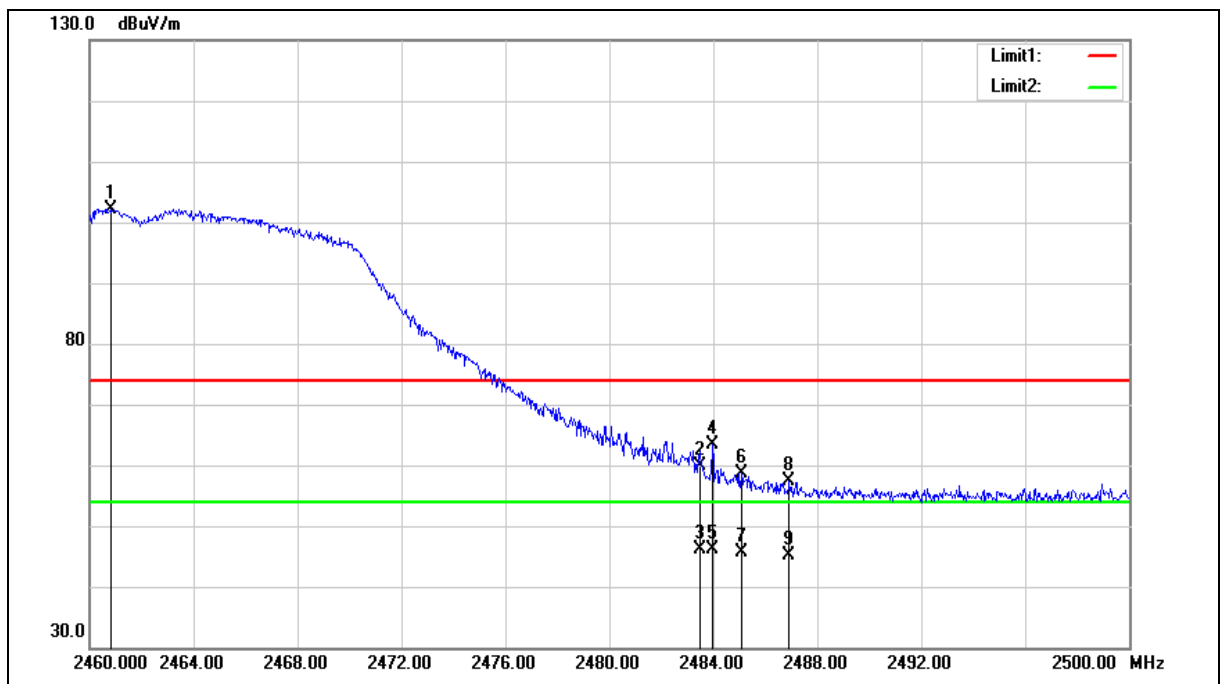
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2359.210	59.02	-1.28	57.74	74.00	-16.26	peak
2	2359.210	46.04	-1.28	44.76	54.00	-9.24	AVG
3	2390.000	56.57	-1.17	55.40	74.00	-18.60	peak
4	2390.000	44.68	-1.17	43.51	54.00	-10.49	AVG
5	2435.970	107.04	-1.00	106.04	--	--	peak
6	2483.500	57.36	-0.82	56.54	74.00	-17.46	peak
7	2483.500	45.58	-0.82	44.76	54.00	-9.24	AVG
8	2494.870	57.95	-0.78	57.17	74.00	-16.83	peak
9	2494.870	45.72	-0.78	44.94	54.00	-9.06	AVG

Note: 1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		

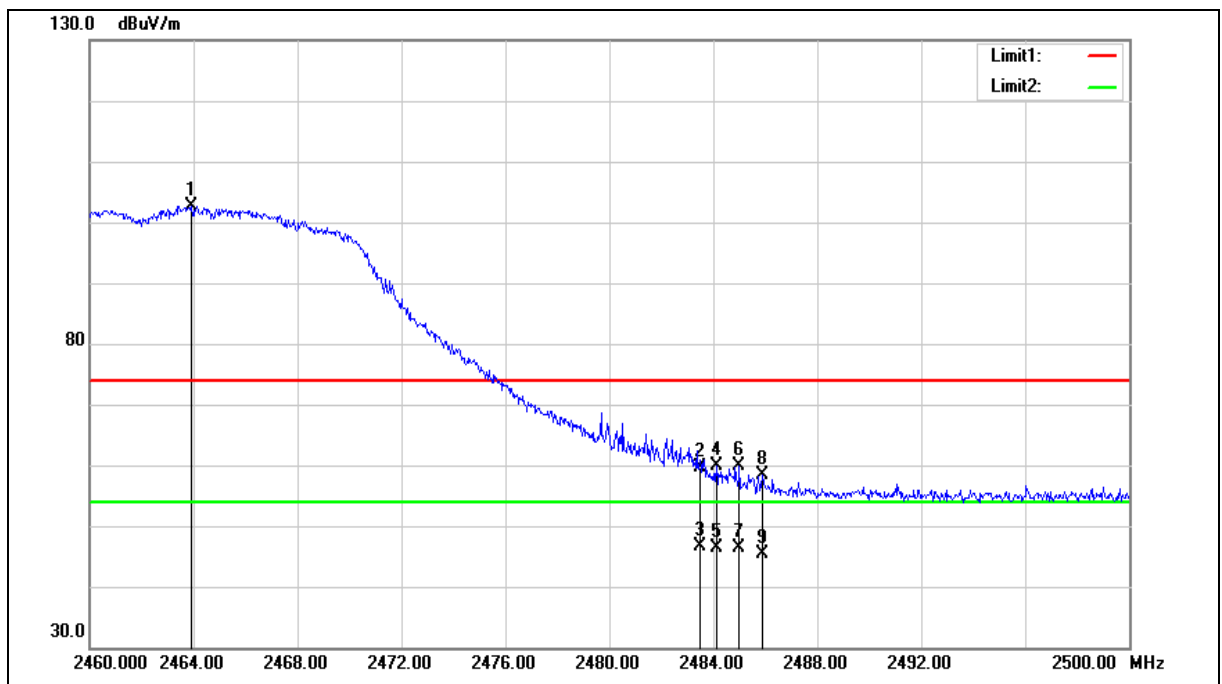
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2460.840	103.11	-0.91	102.20	--	--	peak
2	2483.500	60.63	-0.82	59.81	74.00	-14.19	peak
3	2483.500	46.97	-0.82	46.15	54.00	-7.85	AVG
4	2483.960	64.23	-0.82	63.41	74.00	-10.59	peak
5	2483.960	47.02	-0.82	46.20	54.00	-7.80	AVG
6	2485.080	59.47	-0.82	58.65	74.00	-15.35	peak
7	2485.080	46.33	-0.82	45.51	54.00	-8.49	AVG
8	2486.920	58.24	-0.81	57.43	74.00	-16.57	peak
9	2486.920	45.98	-0.81	45.17	54.00	-8.83	AVG

Note: 1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

3.When the peak results are less than average limit, so not need to evaluate the average.

Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2462 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		



Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.65 V
Frequency:	2462 MHz	Temp.(°C)/Hum. (%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2463.920	103.46	-0.89	102.57	--	--	peak
2	2483.500	60.49	-0.82	59.67	74.00	-14.33	peak
3	2483.500	47.34	-0.82	46.52	54.00	-7.48	AVG
4	2484.120	60.59	-0.82	59.77	74.00	-14.23	peak
5	2484.120	47.18	-0.82	46.36	54.00	-7.64	AVG
6	2485.000	60.59	-0.82	59.77	74.00	-14.23	peak
7	2485.000	47.10	-0.82	46.28	54.00	-7.72	AVG
8	2485.880	59.23	-0.82	58.41	74.00	-15.59	peak
9	2485.880	46.19	-0.82	45.37	54.00	-8.63	AVG

Note: 1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

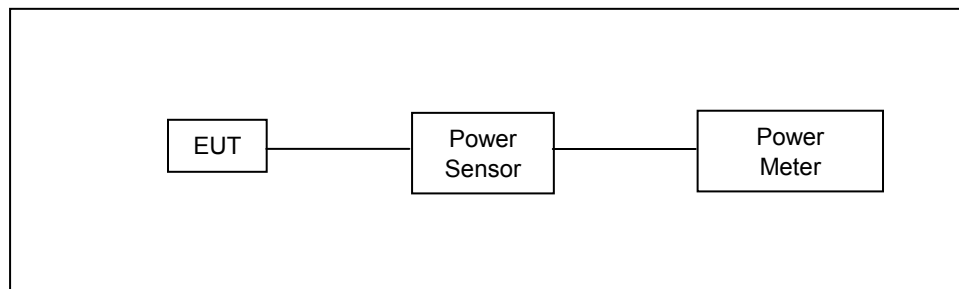
3.When the peak results are less than average limit, so not need to evaluate the average.

4.2.2 峰值傳導輸出功率之量測

合格標準:

依據 NCC 低功率射頻電機技術規範(LP0002)之 3.10.1.2(1)(C)節之要求，操作於 2400-2483.5 兆赫(MHz)數位調變技術系統：1 瓦(W)(含)以下

測試架構圖：



測試結果:

操作模式：Mode 2 / Mode 3 / Mode 4							
操作模式	Data Rate (Mbps)	頻道 CH	輸出功率(Average)		輸出功率(Peak)		Limit (dBm)
			dBm	W	dBm	W	
Mode 2	1	01	15.29	0.034	17.48	0.056	30.00
		06	15.63	0.037	17.90	0.062	30.00
		11	15.60	0.036	17.83	0.061	30.00
Mode 3	6	01	10.55	0.011	19.09	0.081	30.00
		06	15.37	0.034	19.84	0.096	30.00
		11	10.54	0.011	18.97	0.079	30.00
Mode 4	6.5	01	10.55	0.011	18.97	0.079	30.00
		06	14.43	0.028	19.82	0.096	30.00
		11	10.50	0.011	18.87	0.077	30.00

4.2.3 天線規格之要求

合格標準:

依據 NCC 低功率射頻電機技術規範(LP0002)之 3.10.1.3(3)節之要求,除 3.10.1.3(1)及 3.10.1.3(2)外,使用超過 6 dBi 方向增益之發射天線時,應依超過 6 dBi 天線方向增益的 dBi 總量,等量減少最大傳導輸出功率限制值。

依據 NCC 低功率射頻電機技術規範(LP0002)之 3.10.1.4 節之要求,天線之規格不受第 2.2 節規定之限制

判定結果:

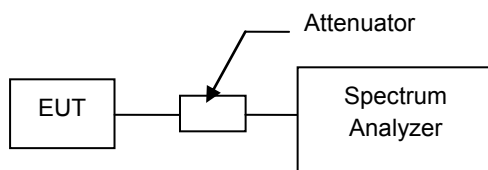
符合,本產品 2.4 GHz 使用 PIFA Antenna (廠牌: WIESON, 型號: GY134IT007-001), 最大增益值 2.78 dBi。

4.2.4 非必要頻帶之量測

合格標準：

發射限制：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，須衰減 20 分貝(dB)，以射頻傳導或輻射方式測量。

測試架構圖：



測試結果：

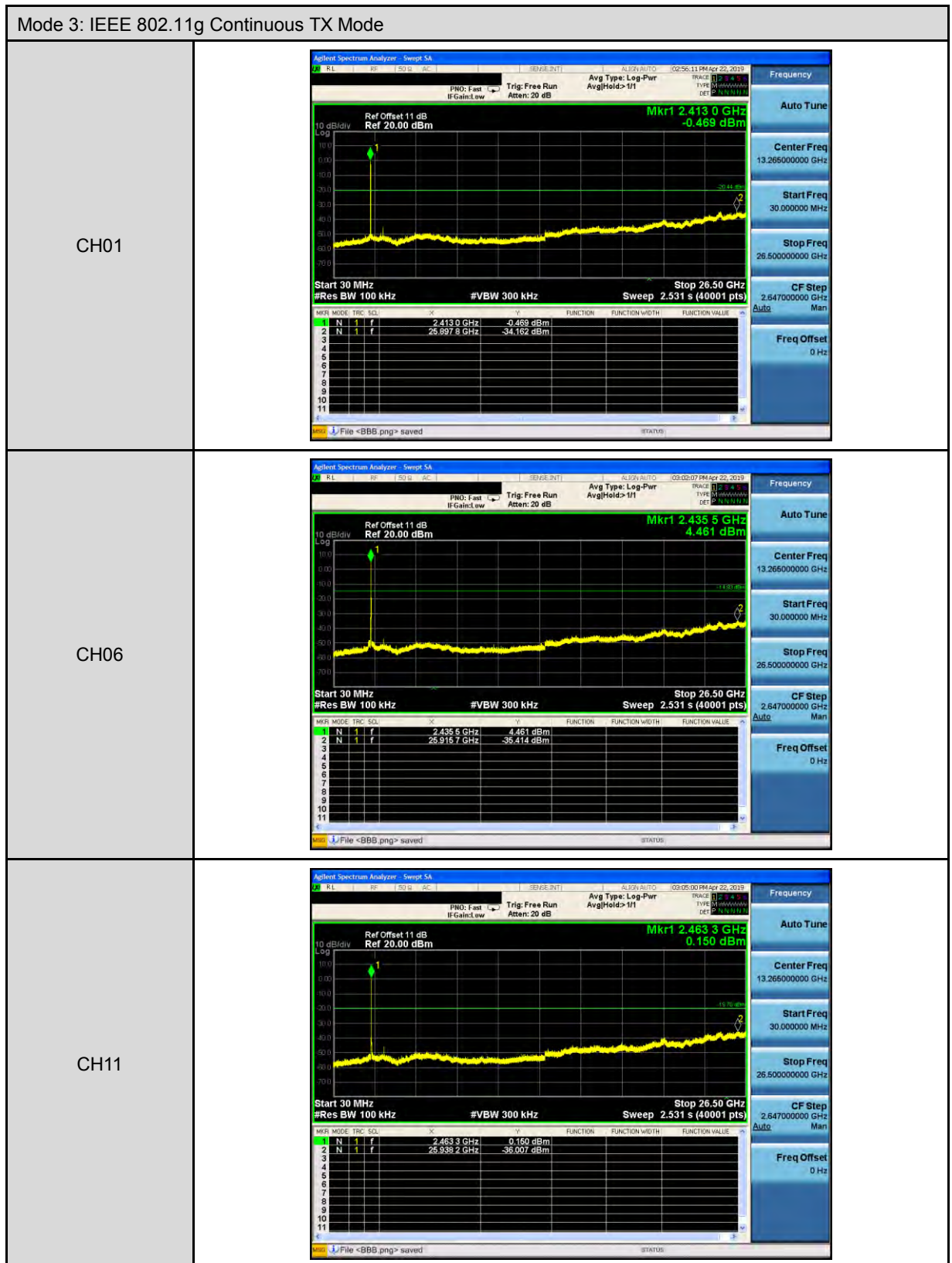
操作模式	: Mode 2 / Mode 3 / Mode 4
測試結果	: 合格
量測之結果掃圖如下頁所示	

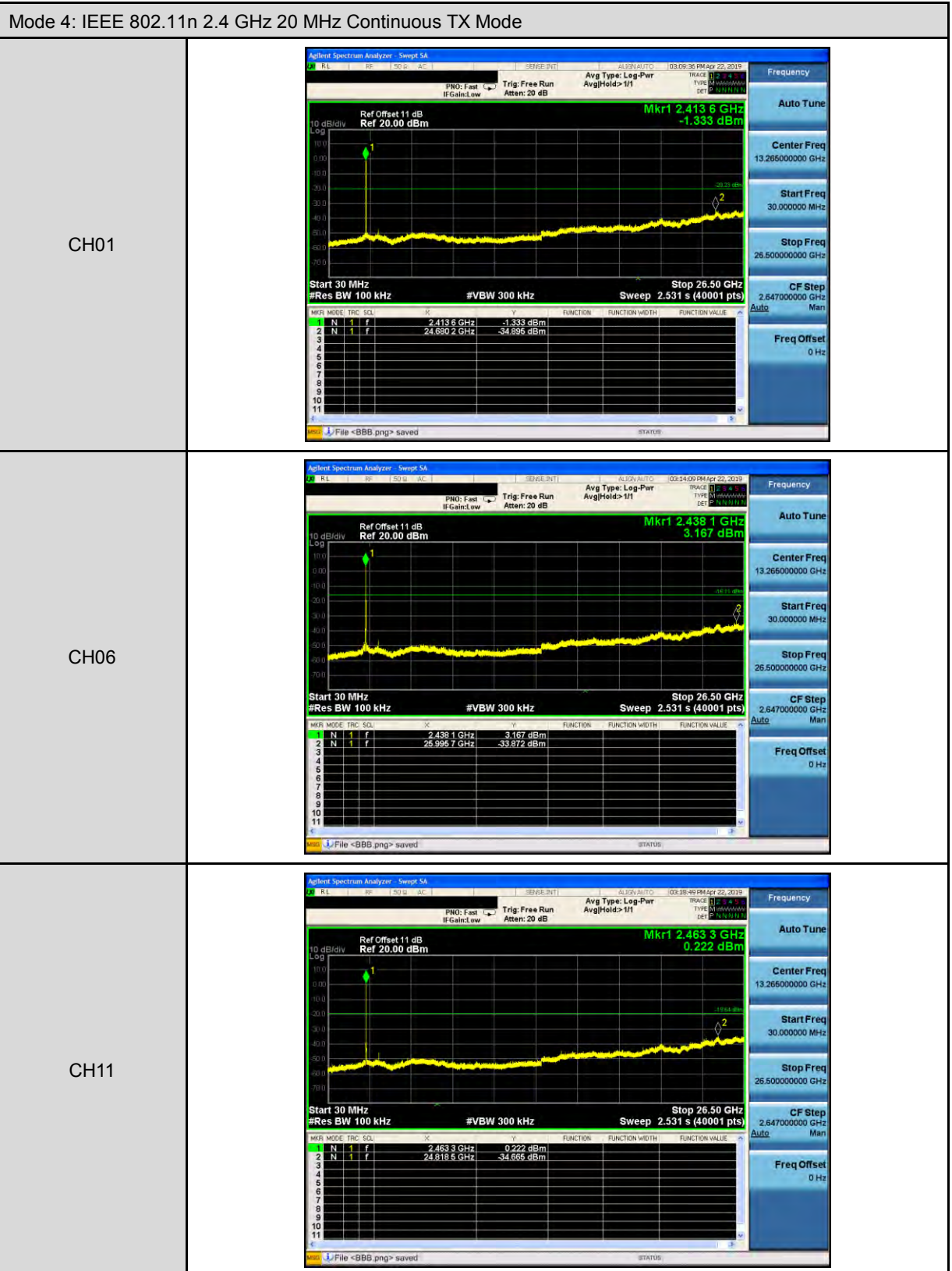
附註 1: 於使用頻帶範圍之任意 100 千赫 (kHz)內，發射器所產生的射頻功率相較於使用頻帶範圍中包含最高所需功率之 100 千赫 (kHz)內的射頻功率，衰減 20 分貝(dB)以上，符合規定。

附註 2: 測試結果頻帶外之輻射雜訊皆小於主頻 TX 20 dB。

Out of Band Conducted Emissions

Mode 2: IEEE 802.11b Continuous TX Mode																																																																																																													
CH01	Agilent Spectrum Analyzer - Swept SA RL RF SO G AC SE FFE INT ALGN AUTO 02:36:49 PM Apr 22, 2019 PNW: Fast IF Gain: Low Trig: Free Run Atten: 20 dB Avg Type: Log-Pwr Avg/Hold: 1/1 TRACE 1 TYPE 1 NAME 1 DET 2 N 1 N 1 N 1 Ref Offset 11 dB Ref 20.00 dBm Mkr1 2.4116 GHz 5.062 dBm 10 dB/div Log 0.00 10.0 20.0 30.0 40.0 50.0 60.0 70.0 Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Stop 26.50 GHz Sweep 2.531 s (40001 pts) <table><tr><th>MNR</th><th>MODE</th><th>TRC</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>2.4116 GHz</td><td>5.062 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>24.7609 GHz</td><td>-34.662 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> File <BBB.png> saved STATUS Frequency Auto Tune Center Freq 13.265000000 GHz Start Freq 30.000000 MHz Stop Freq 26.500000000 GHz CF Step 2.647000000 GHz Auto Man Freq Offset 0 Hz	MNR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	2.4116 GHz	5.062 dBm				2	N	1	f	24.7609 GHz	-34.662 dBm				3									4									5									6									7									8									9									10									11								
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CH06	Agilent Spectrum Analyzer - Swept SA RL RF SO G AC SE FFE INT ALGN AUTO 02:44:09 PM Apr 22, 2019 PNW: Fast IF Gain: Low Trig: Free Run Atten: 20 dB Avg Type: Log-Pwr Avg/Hold: 1/1 TRACE 1 TYPE 1 NAME 1 DET 2 N 1 N 1 N 1 Ref Offset 11 dB Ref 20.00 dBm Mkr1 2.4355 GHz 5.162 dBm 10 dB/div Log 0.00 10.0 20.0 30.0 40.0 50.0 60.0 70.0 Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Stop 26.50 GHz Sweep 2.531 s (40001 pts) <table><tr><th>MNR</th><th>MODE</th><th>TRC</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>2.4355 GHz</td><td>5.162 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>24.7682 GHz</td><td>-35.319 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> File <BBB.png> saved STATUS Frequency Auto Tune Center Freq 13.265000000 GHz Start Freq 30.000000 MHz Stop Freq 26.500000000 GHz CF Step 2.647000000 GHz Auto Man Freq Offset 0 Hz	MNR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	2.4355 GHz	5.162 dBm				2	N	1	f	24.7682 GHz	-35.319 dBm				3									4									5									6									7									8									9									10									11								
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CH11	Agilent Spectrum Analyzer - Swept SA RL RF SO G AC SE FFE INT ALGN AUTO 02:53:07 PM Apr 22, 2019 PNW: Fast IF Gain: Low Trig: Free Run Atten: 20 dB Avg Type: Log-Pwr Avg/Hold: 1/1 TRACE 1 TYPE 1 NAME 1 DET 2 N 1 N 1 N 1 Ref Offset 11 dB Ref 20.00 dBm Mkr1 2.4608 GHz 5.803 dBm 10 dB/div Log 0.00 10.0 20.0 30.0 40.0 50.0 60.0 70.0 Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Stop 26.50 GHz Sweep 2.531 s (40001 pts) <table><tr><th>MNR</th><th>MODE</th><th>TRC</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>2.4608 GHz</td><td>5.803 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>26.0225 GHz</td><td>-35.567 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> File <BBB.png> saved STATUS Frequency Auto Tune Center Freq 13.265000000 GHz Start Freq 30.000000 MHz Stop Freq 26.500000000 GHz CF Step 2.647000000 GHz Auto Man Freq Offset 0 Hz	MNR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	2.4608 GHz	5.803 dBm				2	N	1	f	26.0225 GHz	-35.567 dBm				3									4									5									6									7									8									9									10									11								
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Reference level

Mode 2: IEEE 802.11b Continuous TX Mode	
CH01	
CH06	
CH11	

Mode 3: IEEE 802.11g Continuous TX Mode

CH01

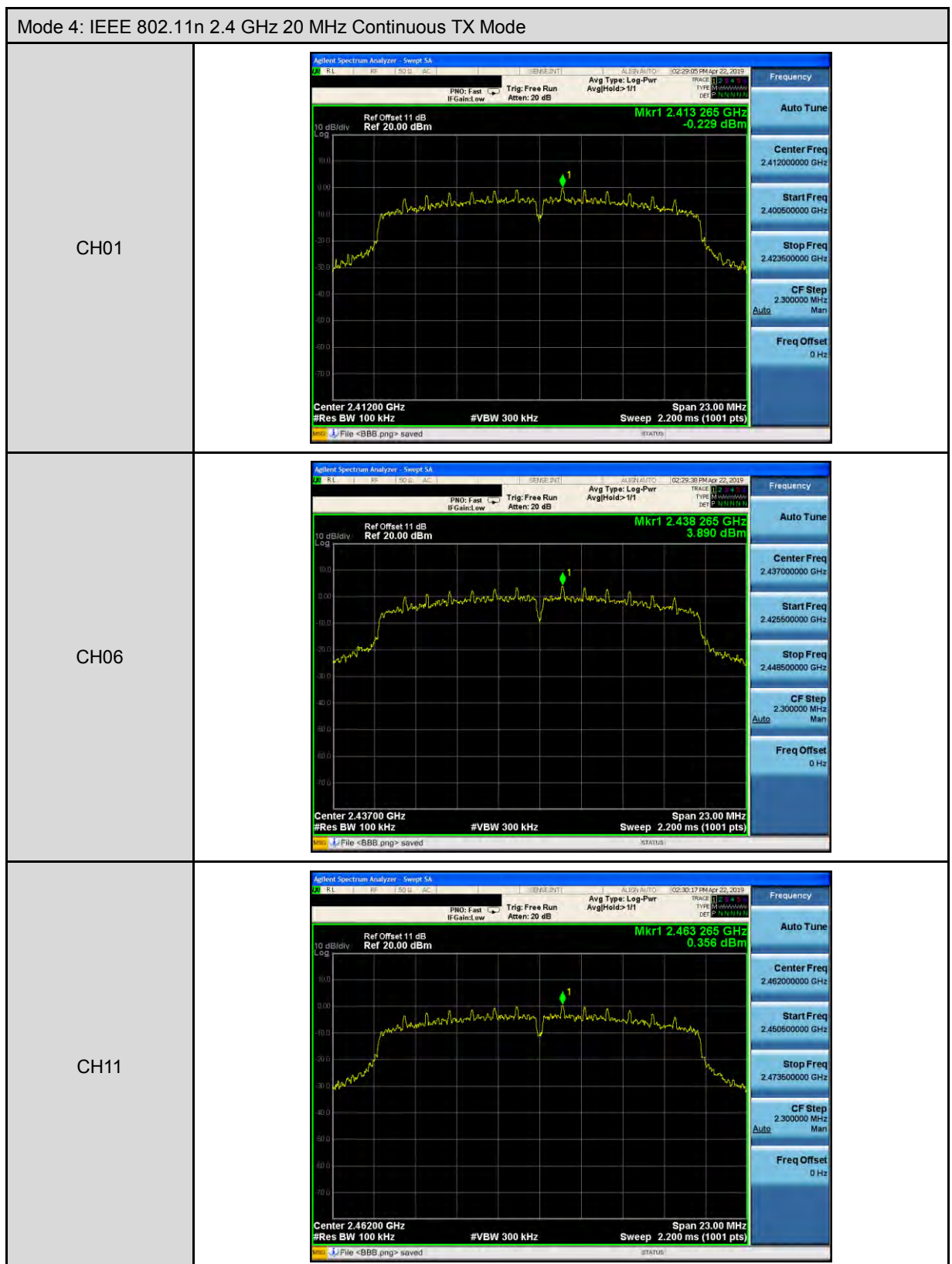


CH06



CH11

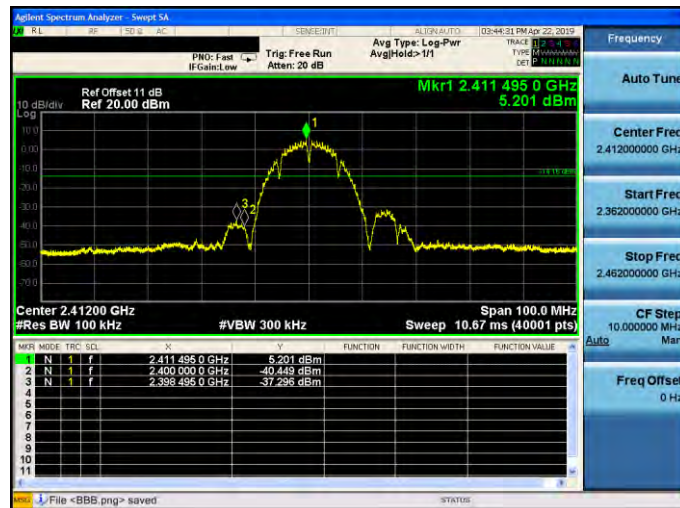




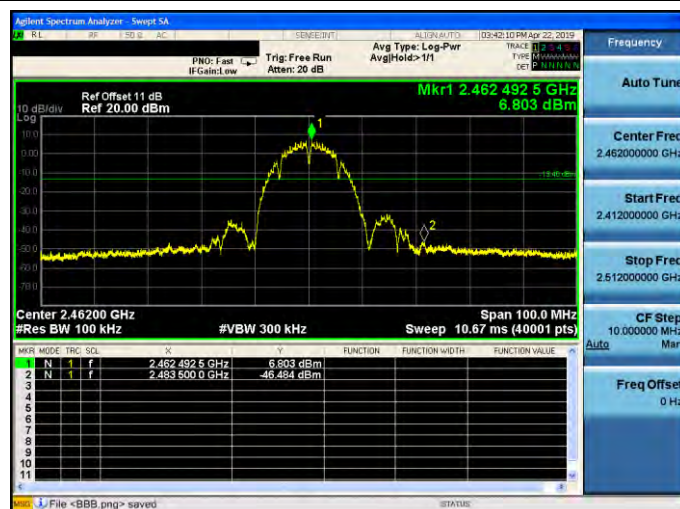
Conducted Band Edge

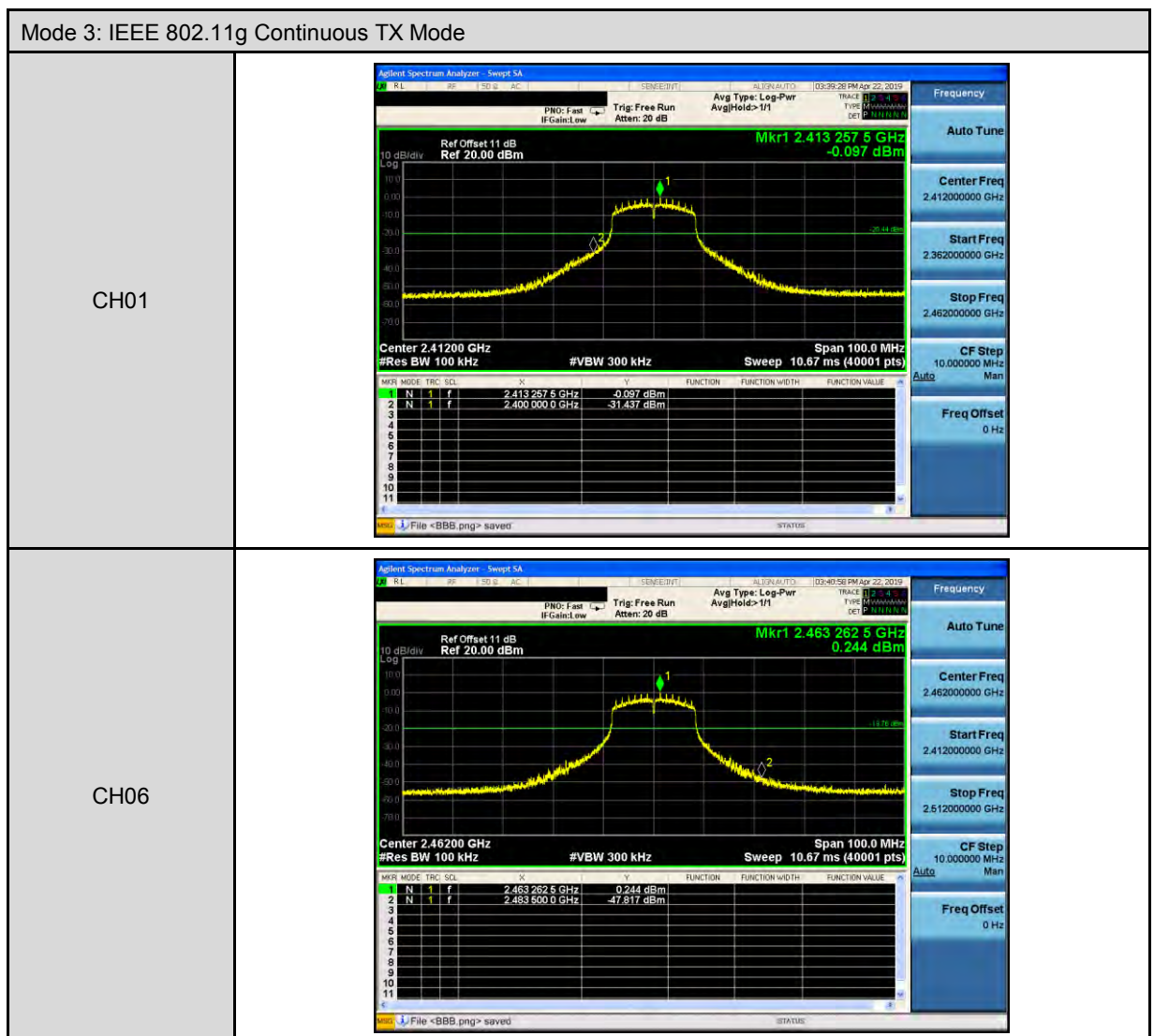
Mode 2: IEEE 802.11b Continuous TX Mode

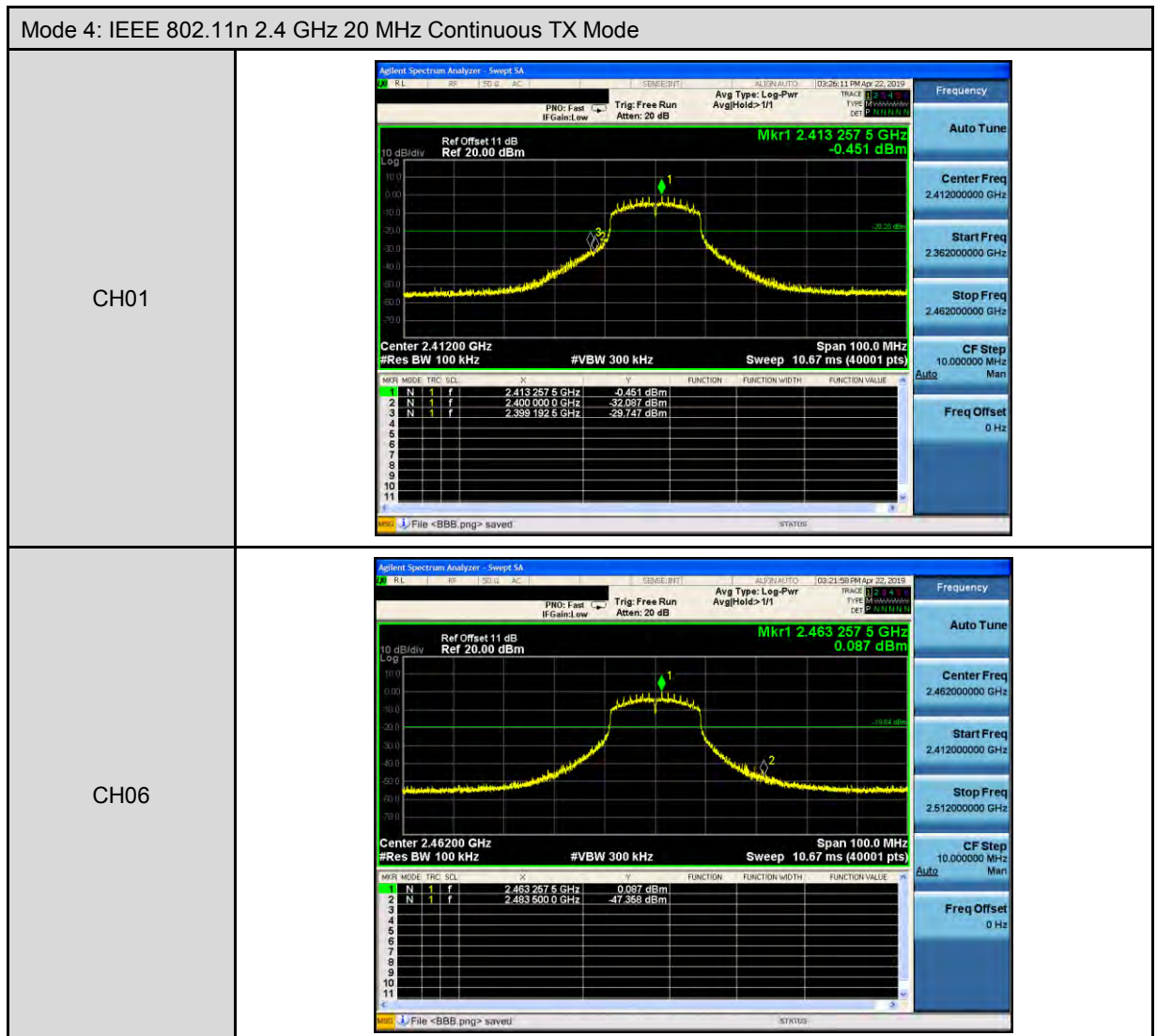
CH01



CH11





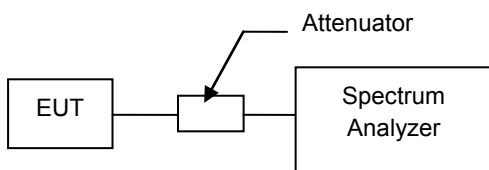


4.2.5 6 dB頻寬之要求

合格標準:

依據 NCC 低功率射頻電機技術規範 3.10.1.6(2)(A)節之要求，對使用數位調變技術(Digital Modulation Techniques)系統而言，6 dB 頻寬至少應有 500 千赫(kHz)。

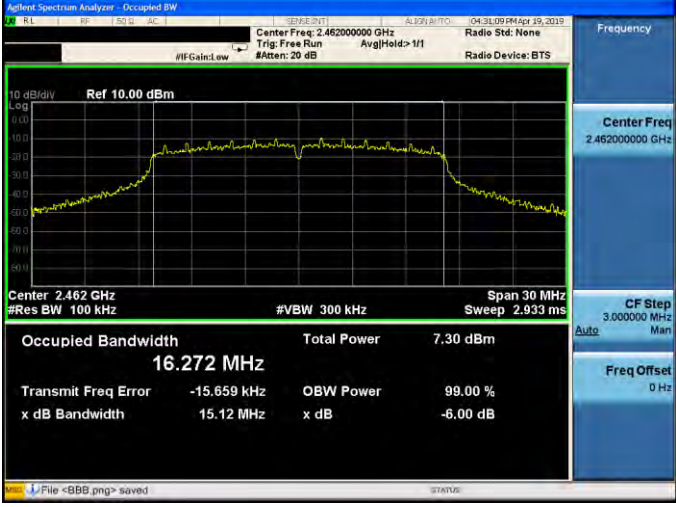
測試架構圖：

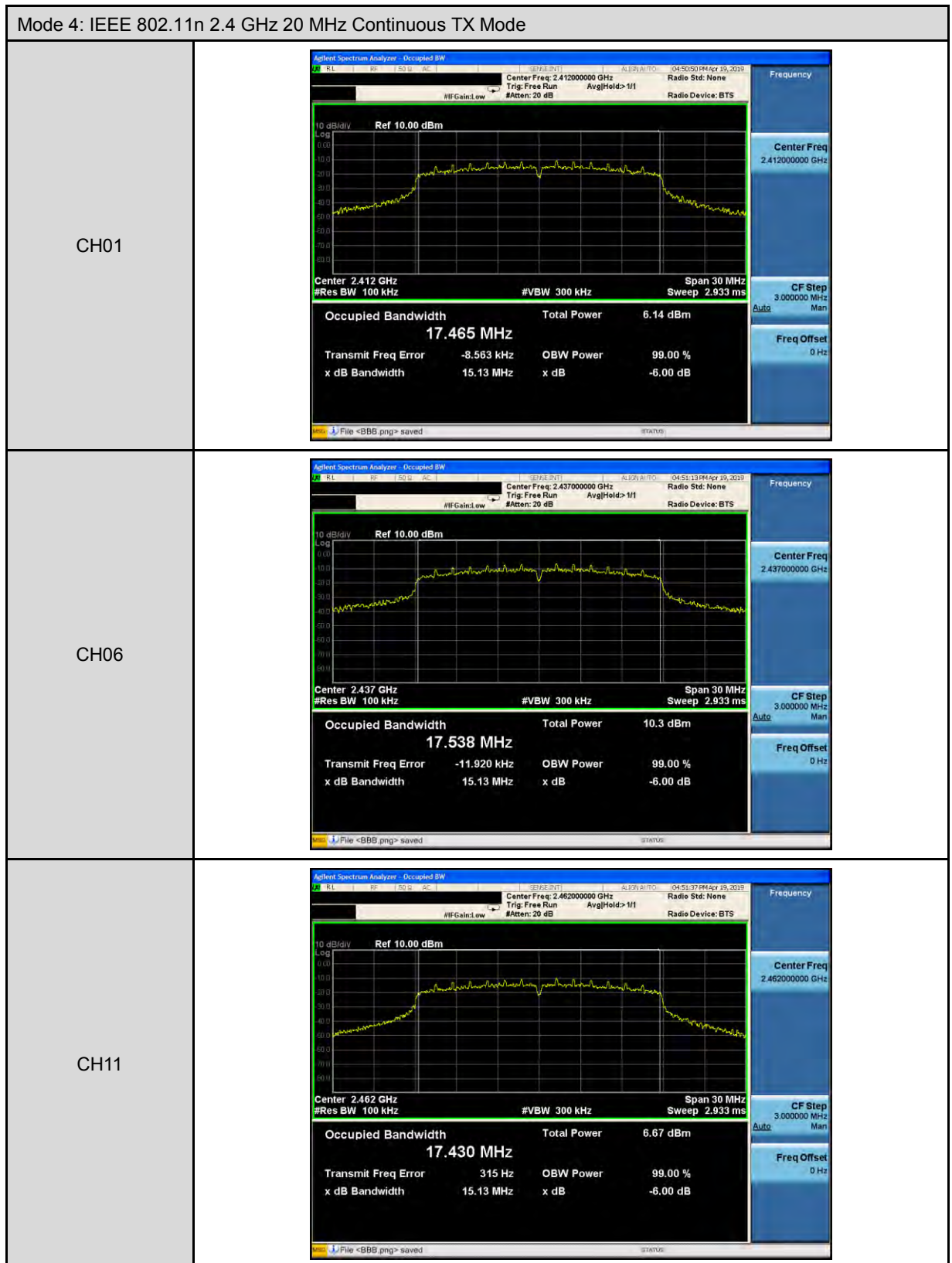


測試結果:

操作模式：Mode 2 / Mode 3 / Mode 4			
操作模式	頻道	量測值 (kHz)	限制值 (kHz)
Mode 2	CH01	9066	≥ 500
	CH06	9099	≥ 500
	CH11	9104	≥ 500
Mode 3	CH01	15130	≥ 500
	CH06	15130	≥ 500
	CH11	15120	≥ 500
Mode 4	CH01	15130	≥ 500
	CH06	15130	≥ 500
	CH11	15130	≥ 500
測試掃描圖請參考下頁。			

Mode 2: IEEE 802.11b Continuous TX Mode	
CH01	Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.41200000 GHz Trig: Free Run #Atten: 20 dB Avg/Hold: 1/1 Radio Std: None Radio Device: BTS Ref: 10.00 dBm Center: 2.412 GHz #Res BW: 100 kHz #VBW: 300 kHz Span: 30 MHz Sweep: 2.933 ms Occupied Bandwidth: 13.939 MHz Total Power: 12.0 dBm Transmit Freq Error: -25.974 kHz OBW Power: 99.00 % x dB Bandwidth: 9.066 MHz x dB: -6.00 dB Frequency: 2.41200000 GHz CF Step: 3.000000 MHz Auto Man Freq Offset: 0 Hz File <GBB.png> saved
CH06	Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.43700000 GHz Trig: Free Run #Atten: 20 dB Avg/Hold: 1/1 Radio Std: None Radio Device: BTS Ref: 10.00 dBm Center: 2.437 GHz #Res BW: 100 kHz #VBW: 300 kHz Span: 30 MHz Sweep: 2.933 ms Occupied Bandwidth: 13.825 MHz Total Power: 12.4 dBm Transmit Freq Error: 1.615 kHz OBW Power: 99.00 % x dB Bandwidth: 9.099 MHz x dB: -6.00 dB Frequency: 2.43700000 GHz CF Step: 3.000000 MHz Auto Man Freq Offset: 0 Hz File <GBB.png> saved
CH11	Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.46200000 GHz Trig: Free Run #Atten: 20 dB Avg/Hold: 1/1 Radio Std: None Radio Device: BTS Ref: 10.00 dBm Center: 2.462 GHz #Res BW: 100 kHz #VBW: 300 kHz Span: 30 MHz Sweep: 2.933 ms Occupied Bandwidth: 13.826 MHz Total Power: 12.9 dBm Transmit Freq Error: 2.052 kHz OBW Power: 99.00 % x dB Bandwidth: 9.104 MHz x dB: -6.00 dB Frequency: 2.46200000 GHz CF Step: 3.000000 MHz Auto Man Freq Offset: 0 Hz File <GBB.png> saved

Mode 3: IEEE 802.11g Continuous TX Mode	
CH01	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.41200000 GHz Trig: Free Run AvgHold: 1/1 Radio Std: None Radio Device: BTS Ref: 10.00 dBm Center: 2.412 GHz #Res BW: 100 kHz #VBW: 300 kHz Span: 30 MHz Sweep: 2.933 ms Occupied Bandwidth: 16.301 MHz Total Power: 7.21 dBm Transmit Freq Error: -12.113 kHz OBW Power: 99.00 % x dB Bandwidth: 15.13 MHz x dB: -6.00 dB Center Freq: 2.41200000 GHz CF Step: 3.000000 MHz Freq Offset: 0 Hz File <GBB.png> saved
CH06	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.43700000 GHz Trig: Free Run AvgHold: 1/1 Radio Std: None Radio Device: BTS Ref: 10.00 dBm Center: 2.437 GHz #Res BW: 100 kHz #VBW: 300 kHz Span: 30 MHz Sweep: 2.933 ms Occupied Bandwidth: 16.448 MHz Total Power: 12.0 dBm Transmit Freq Error: -12.380 kHz OBW Power: 99.00 % x dB Bandwidth: 15.13 MHz x dB: -6.00 dB Center Freq: 2.43700000 GHz CF Step: 3.000000 MHz Freq Offset: 0 Hz File <GBB.png> saved
CH11	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.46200000 GHz Trig: Free Run AvgHold: 1/1 Radio Std: None Radio Device: BTS Ref: 10.00 dBm Center: 2.462 GHz #Res BW: 100 kHz #VBW: 300 kHz Span: 30 MHz Sweep: 2.933 ms Occupied Bandwidth: 16.272 MHz Total Power: 7.30 dBm Transmit Freq Error: -15.659 kHz OBW Power: 99.00 % x dB Bandwidth: 15.12 MHz x dB: -6.00 dB Center Freq: 2.46200000 GHz CF Step: 3.000000 MHz Freq Offset: 0 Hz File <GBB.png> saved



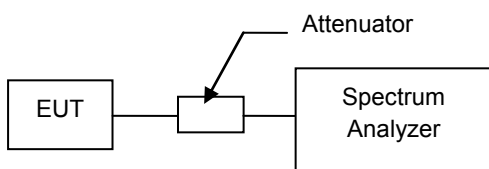
4.2.6 峰值發射功率頻譜密度之要求

合格標準:

依據 NCC 低功率射頻電機技術規範(LP0002)之 3.10.1.6(2)(B)節之要求，數位調變技術(Digital Modulation Techniques)系統之功率密度,再使用頻率範圍之任意 3 kHz 頻寬內,由發射機傳導至天線之峰值發射功率頻譜密度在任意期間內,皆不得大於 8 dBm(複合系統時，關閉跳頻作業狀態檢驗)。

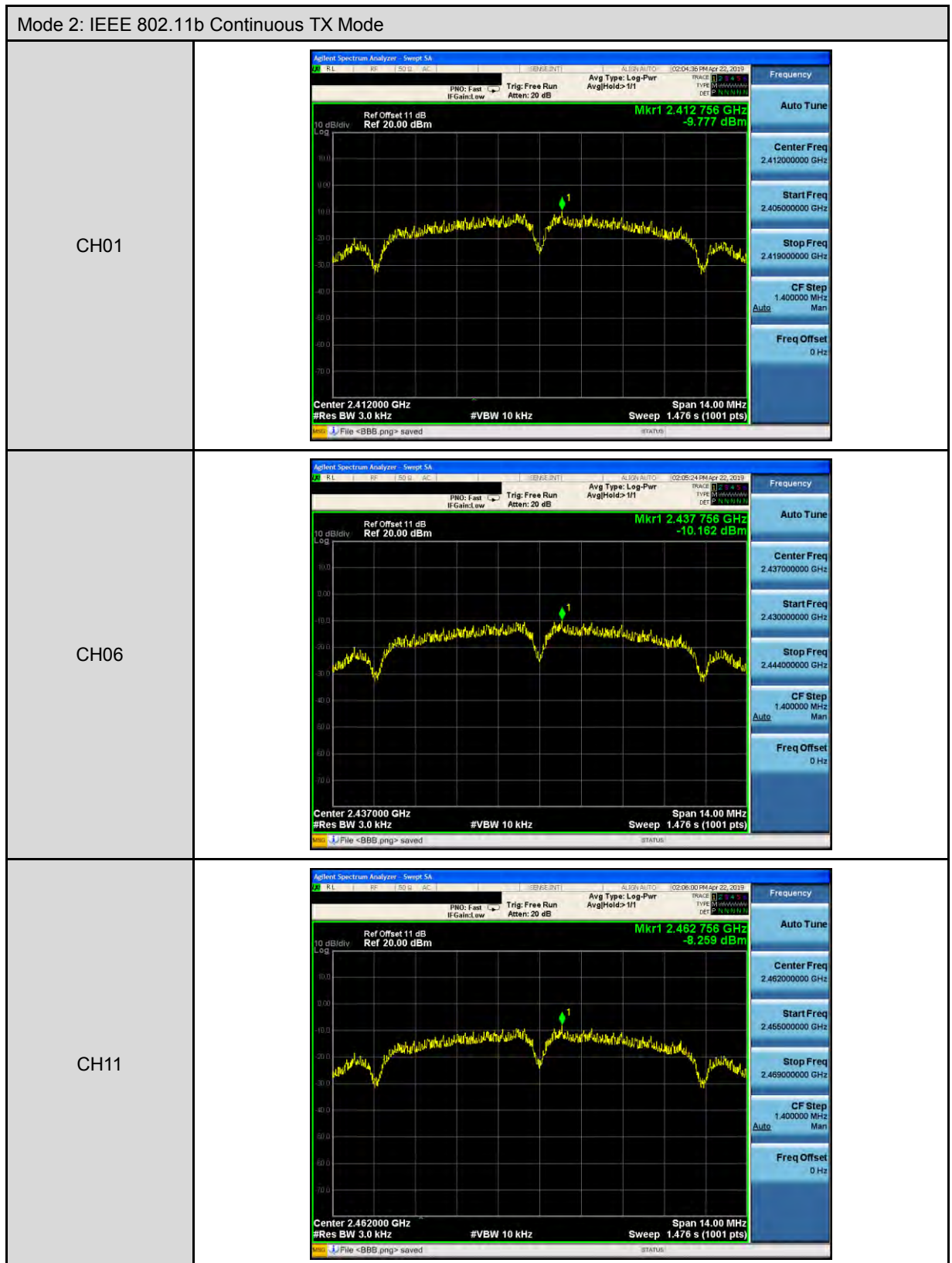
測試架構圖：

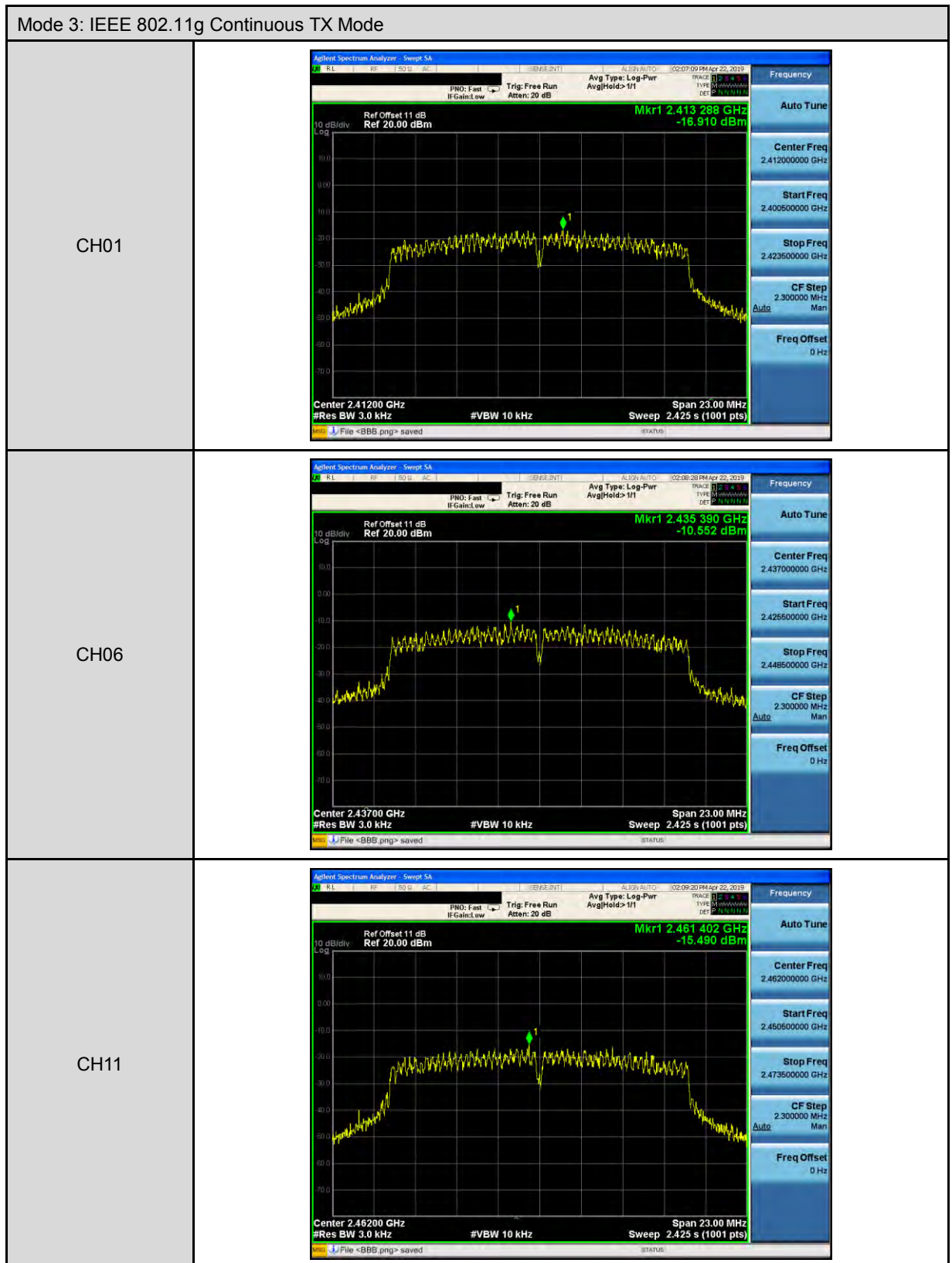
測試場地測試配置如圖所示。

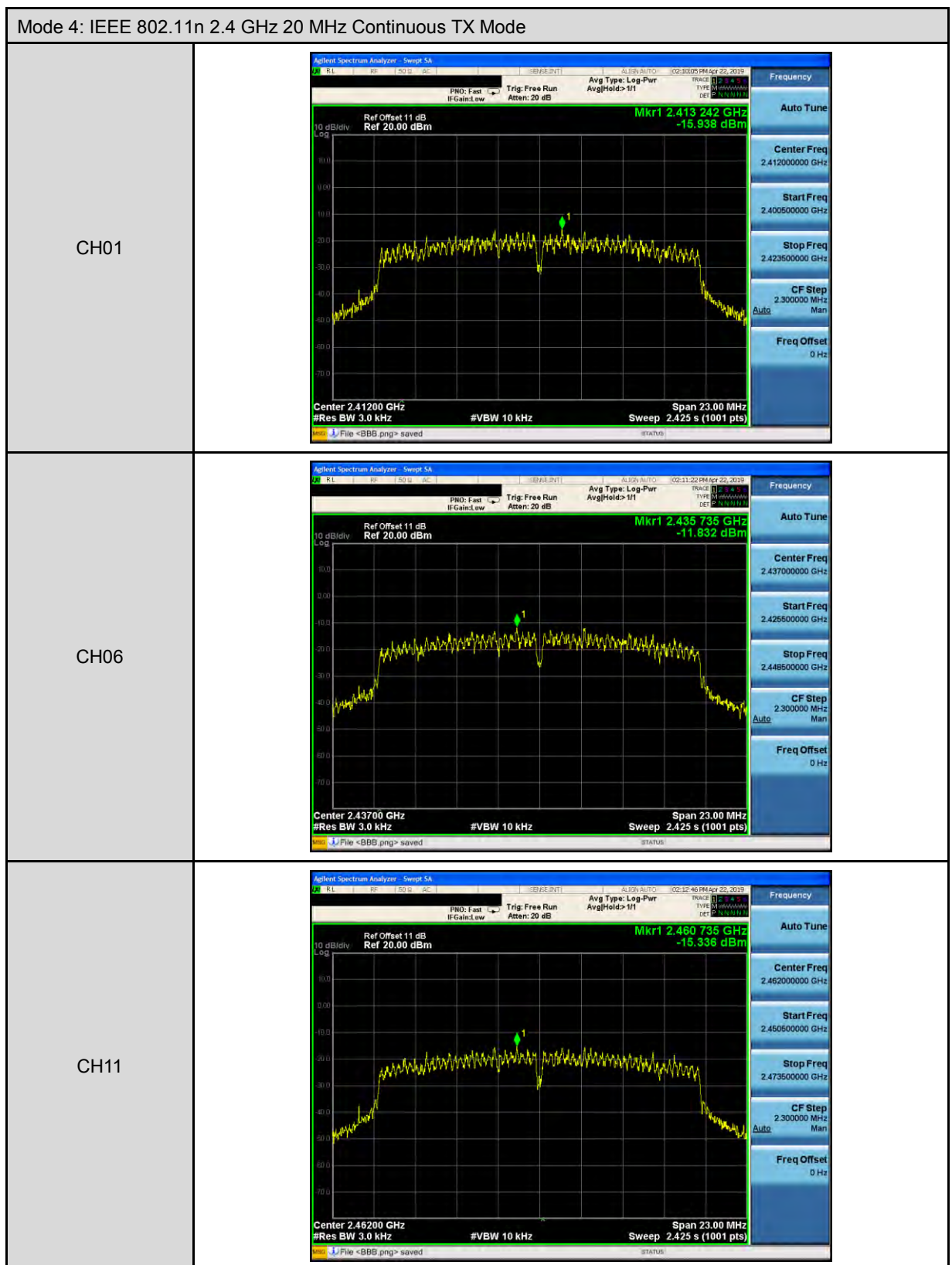


測試結果:

操作模式： Mode 2 / Mode 3 / Mode 4			
測試結果： 合格			
操作模式	頻道	量測值 (dBm)	限制值 (dBm)
Mode 2	CH01	-9.777	≤ 8
	CH06	-10.162	≤ 8
	CH11	-8.259	≤ 8
Mode 3	CH01	-16.910	≤ 8
	CH06	-10.552	≤ 8
	CH11	-15.490	≤ 8
Mode 4	CH01	-15.938	≤ 8
	CH06	-11.832	≤ 8
	CH11	-15.336	≤ 8







4.2.7 電波暴露量之評估

合格標準:

若受測物於正常操作模式下，其發射機距離人體 20 公分以上者，可測試最大暴露允許值(Maximum Permissible Exposure, MPE)以證明其符合電波暴露量之要求。限制值如下：

5.20.2.1 職業性/可控制之暴露

頻率範圍 (MHz)	電場強度 (V/m)	磁場強度 (A/m)	功率密度 (mW/cm ²)	平均時間 (minutes)
0.3~3.0	614	1.63	*100	6
3~30	1842/f	4.89/f	*900/f ²	6
30~300	61.4	0.163	1.0	6
300~1,500	-----	-----	f/300	6
1,500~100,000	-----	-----	5.0	6

註 1：標記*表平面波等效功率密度。

註 2：f 表測試頻率，單位：MHz。

5.20.2.2 一般人/不可控制之暴露

頻率範圍 (MHz)	電場強度 (V/m)	磁場強度 (A/m)	功率密度 (mW/cm ²)	平均時間 (minutes)
0.3~1.34	614	1.63	*100	30
1.34~30	824/f	2.19/f	*180/f ²	30
30~300	27.5	0.073	0.2	30
300~1,500	-----	-----	f/1500	30
1,500~100,000	-----	-----	1.0	30

註 1：標記*表平面波等效功率密度。

註 2：f 表測試頻率，單位：MHz。

判定結果:

Band	Frequency (MHz)	Limit (mW/cm ²)	Distance [R] (cm)	Power [P] (dBm)	ANT Gain (dBi)	Numeric Gain [G] (dBi)	Duty Cycle	With Duty cycle [P] x [G] (mW)	Power Density [S] (mW/cm ²)
IEEE 802.11b	2412	1	20	15.29	2.78	1.9	1	64.232	0.0128
	2437	1	20	15.63	2.78	1.9	1	69.463	0.0138
	2462	1	20	15.60	2.78	1.9	1	68.985	0.0137
IEEE 802.11g	2412	1	20	10.55	2.78	1.9	1	21.565	0.0043
	2437	1	20	15.37	2.78	1.9	1	65.426	0.0130
	2462	1	20	10.54	2.78	1.9	1	21.516	0.0043
IEEE 802.11n 20 MHz	2412	1	20	10.55	2.78	1.9	1	21.565	0.0043
	2437	1	20	14.43	2.78	1.9	1	52.693	0.0105
	2462	1	20	10.50	2.78	1.9	1	21.318	0.0042