



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 1905DR24

版本(Rev.) 00

產品名稱 Soundcore Liberty Air

申請廠商 群光電子股份有限公司

商標或廠牌 Soundcore

型式 (號) A3902

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 08 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。

不得使用本報告宣稱產品是由 TAF, NVLAP 或任何政府機構背書。

此份報告未經晶復科技股份有限公司書面同意, 不得部分複製。

低功率射頻電機測試證明書

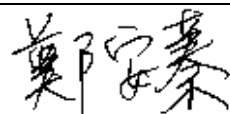
發行日期：108年05月08日

產品名稱：Soundcore Liberty Air
商標：Soundcore
型號：A3902
申請廠商：群光電子股份有限公司
申請者地址：新北市三重區光復路二段69號
製造廠商：Anker Innovations Limited
製造商地址：Room 1318-19, Hollywood Plaza, 610 Nathan Road, Mongkok, Kowloon HongKong
待測物電壓：DC 5 V, 0.3 A
試驗電壓：110 Vac, 60 Hz / DC 3.7 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 19 號
樣品接受日期：108 年 04 月 19 號
試驗完成日期：108 年 04 月 24 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：



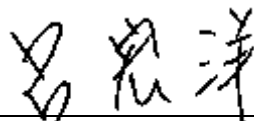
(鄭 安 綦)

測 試 者：



(歐 陽 良 相)

審 核 者：



(呂 宏 洋)

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	9
2.4 測試軟體版本	9
2.5 測試模式	9
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 輸出峰值功率之量測	12
4.2 電源線傳導干擾之量測	15
4.3 場強輻射之量測	18
4.4 非必要頻帶之量測	69
4.5 頻率範圍之要求	82
4.6 發射頻寬之要求	87
4.7 頻道數之要求	92
4.8 跳頻系統之載波頻率頻道間隔之量測	97
4.9 跳頻系統之任一頻率佔用之平均時間之量測	102
4.10 天線規格之要求	111

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	Soundcore Liberty Air				
商 標 或 廠 牌	Soundcore				
型 號	A3902				
額 定 電 源	DC 5 V, 0.3 A				
調 變 方 式	GFSK, $\pi/4$ -DQPSK, 8DPSK				
頻 率 使 用 範 圍	2402 MHz – 2480 MHz				
天 線 資 訊	廠 牌	型 號	型 態	增益值 (dBi)	
	Jiahe	A3902	FPC PIFA Antenna	右 耳	左 耳
RF 最大輸出功率	右 耳				
	BR, GFSK:	2.98 dBm/	0.00199 W		
	EDR, $\pi/4$ -DQPSK:	4.79 dBm/	0.00301 W		
	EDR, 8DPSK:	4.96 dBm/	0.00313 W		
	左 耳				
	BR, GFSK:	3.29 dBm/	0.00213 W		
	EDR, $\pi/4$ -DQPSK:	5.22 dBm/	0.00333 W		
	EDR, 8DPSK:	5.39 dBm/	0.00346 W		

輸出/輸入埠說明：

輸 出 / 入 埠		數 量	介 面 內 容 說 明
1	DC Power Port	1	連接至充電盒

待測設備外圍說明：

電 源 線 類 別	本產品透過充電盒供電，請參見下列附屬裝置表
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
內建固定式電池	VDL	ZJ1254	DC 3.7 V, 55 mAh
充電盒	Soundcore	A3902	INPUT : 5 VDC, 0.5 A OUTPUT : 5 VDC, 0.3 A
USB Cable	Soundcore	A3902	STD-A → Micro-B Shielded, 0.6 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 (變更內容請參考產品概述). 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. 24, 2019

名稱	廠牌	型號	序號	本次校驗日期	校驗年限
Spectrum Analyzer	Keysight	N9010A	MY52221312	01/14/2019	1 year
Power Meter	Anritsu	ML2495A	1135009	08/29/2018	1 year
Power Sensor	Anritsu	MA2411B	1126022	08/29/2018	1 year

For Conducted Emission

Test Period: Apr. 19, 2019

名稱	廠牌	型號	序號	本次校驗日期	校驗年限
測試接收機 (9 kHz~3 GHz)	R&S	ESCI	100367	05/21/2018	1 year
線性阻抗模擬網路	R&S	ENV216	101040	04/03/2019	1 year
線性阻抗模擬網路	R&S	ENV216	101041	03/28/2019	1 year

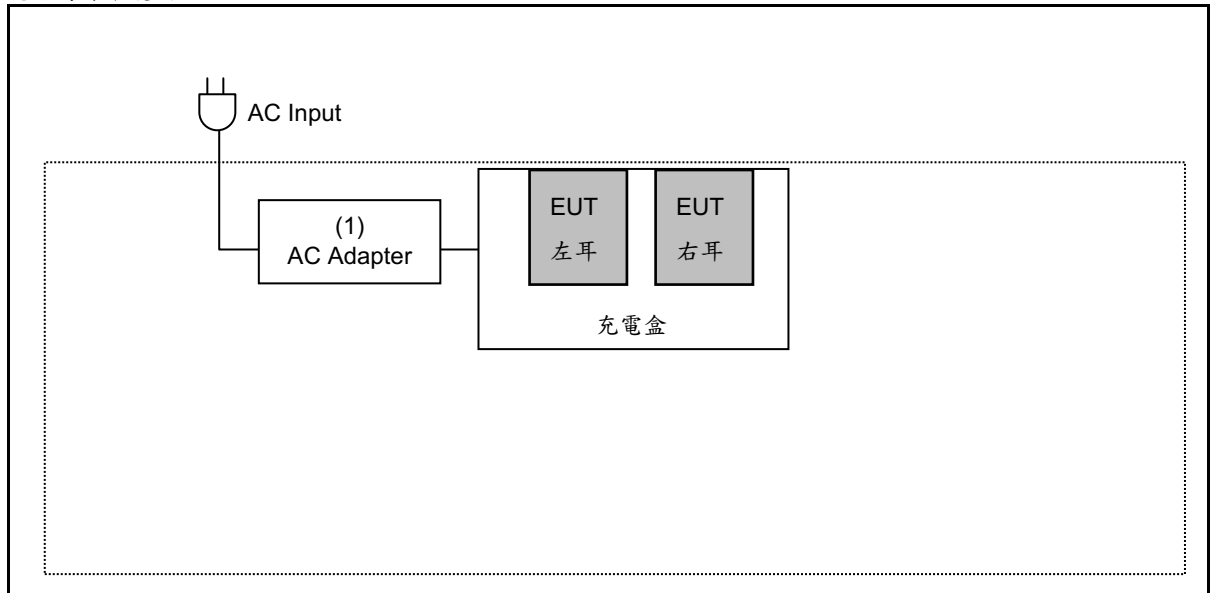
For Radiated Emissions

Test Period: Apr. 20, 2019

名稱	廠牌	型號	序號	本次校驗日期	校驗年限
Spectrum Analyzer	Agilent	E4445A	MY46181986	5/28/2018	1 year
Spectrum Analyzer	Agilent	N9020A	US47520902	9/25/2018	1 year
Amplifier	Agilent	8449B	3008A02456	3/20/2019	1 year
Amplifier	Agilent	8447D	2944A11120	12/13/2018	1 year
天線	SCHWARZBECK	SB AC VULB	9168-0841	11/19/2018	1 year
天線(1~18 G)	ETS	3117	00152321	9/28/2018	1 year
Pre Amplifier (26.5~40 GHz)	EMCI	EMC2654045	980028	08/23/2018	1 year

2.2 檢驗系統示意圖

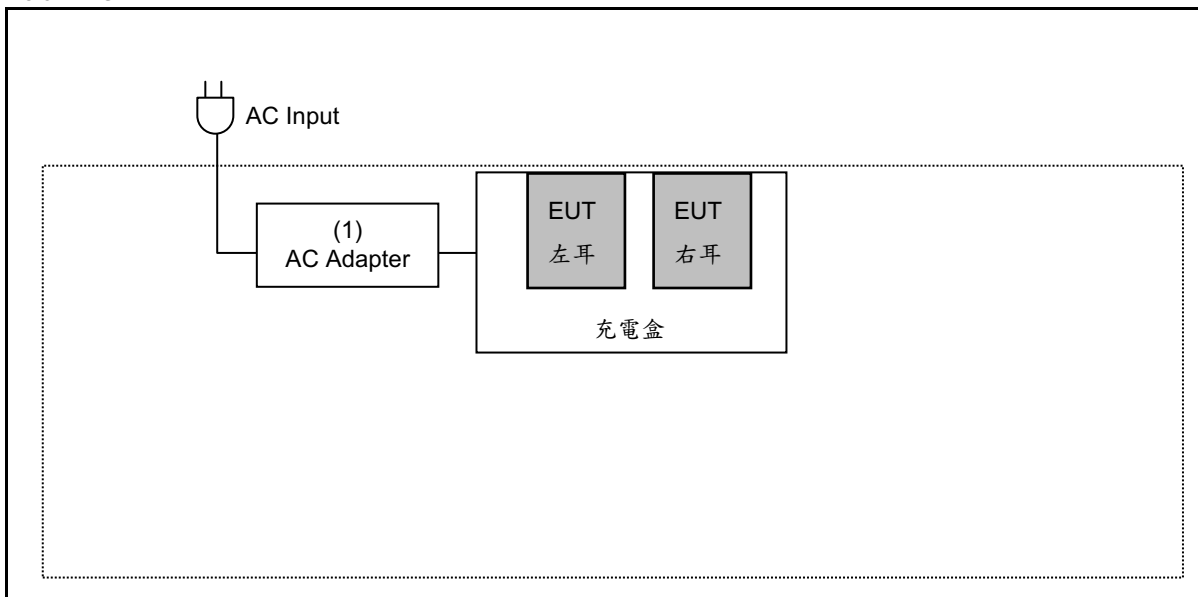
電源傳導干擾測試配置



右耳

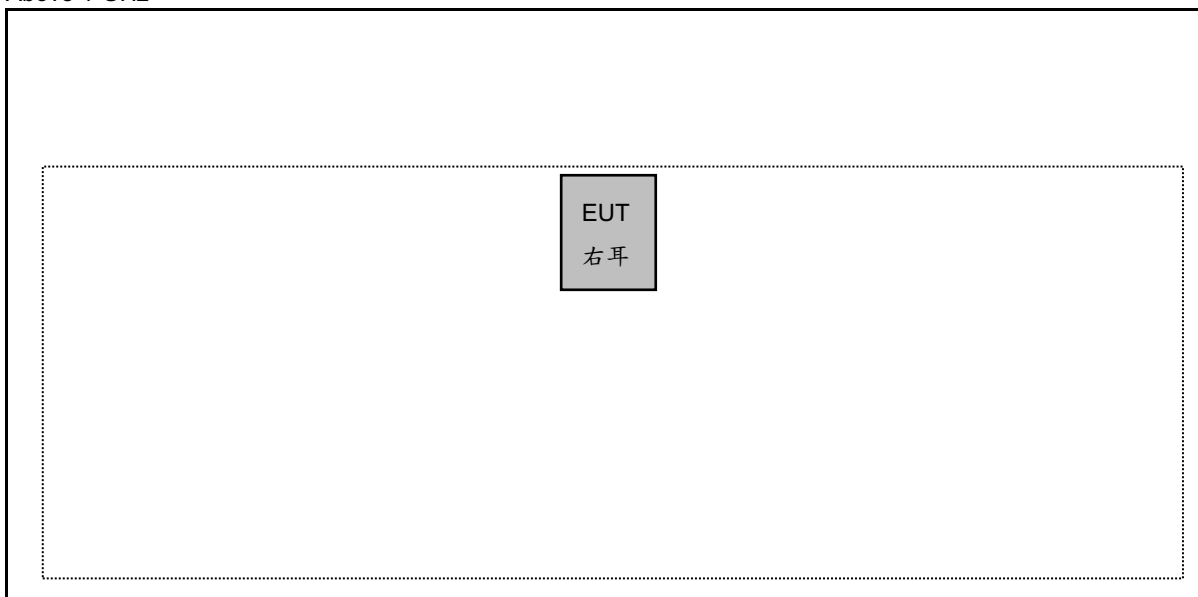
輻射干擾測試配置

Below 1 GHz



輻射干擾測試配置

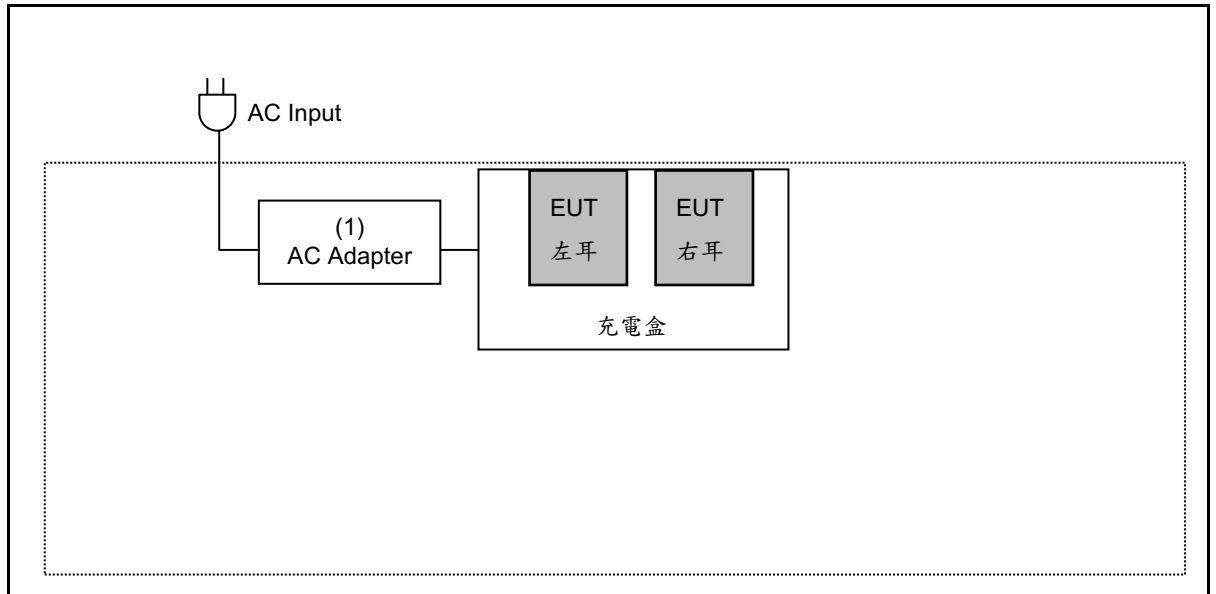
Above 1 GHz



左耳

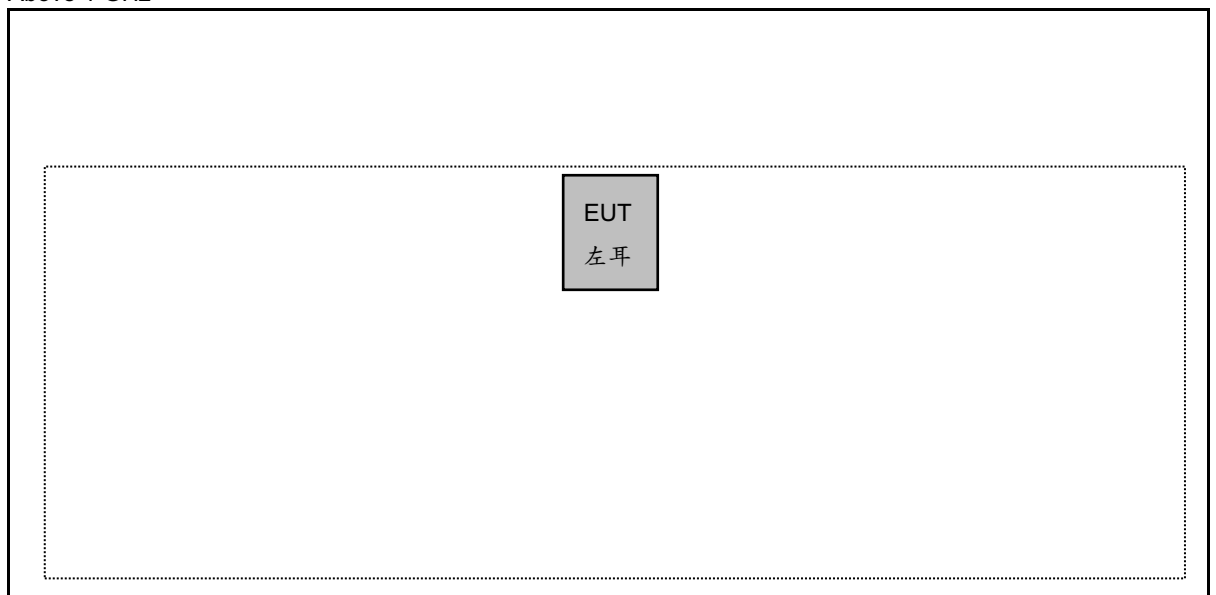
輻射干擾測試配置

Below 1 GHz



輻射干擾測試配置

Above 1 GHz



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)	AC Adapter	LG	MCS-01WD	DA1Z0000025	---
					INPUT: 100-240 VAC, 50-60 Hz, 0.2 A OUTPUT: 5 VDC, 1.2 A

2.4 測試軟體版本

Measurement Software			
No.	Description	Software	Version
1	Conducted Emission	EZ EMC	1.1.4.3
2	Radiated Emission	EZ EMC	1.1.4.4

2.5 測試模式

Pre-Test Mode
Mode 1: Transmit Mode
Mode 2: BR,GFSK Continuous TX Mode
Mode 3: EDR, $\pi/4$ -DQPSK Continuous TX Mode
Mode 4: EDR, 8DPSK Continuous TX Mode
Mode 5: Receiver Mode

Final-Test Mode
Mode 1: Transmit Mode
Mode 2: BR,GFSK Continuous TX Mode
Mode 4: EDR, 8DPSK Continuous TX Mode
Mode 5: Receiver Mode

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。

BR/EDR 測試項目

項次	測試項目	適用規範	測試結果	量測設備	結果判定
1	輸出峰值功率	低功率射頻電機技術規範 3.10.1.2(1)(B)節	請參閱4.1節	請參閱2.1節	合格
2	電源線傳導干擾	低功率射頻電機技術規範 2.3節	請參閱4.2節	請參閱2.1節	合格
3	場強輻射 (1 GHz以上)	低功率射頻電機技術規範 2.8節、2.9節、3.10.1.5節	請參閱4.3節	請參閱2.1節	合格
4	場強輻射其它不必要之訊號 (1 GHz以下)	低功率射頻電機技術規範 2.8節、2.9節、3.10.1.5節	請參閱4.3節	請參閱2.1節	合格
5	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節	請參閱4.3節	請參閱2.1節	合格
6	非必要頻帶	低功率射頻電機技術規範 3.10.1.5節	請參閱4.4節	請參閱2.1節	合格
7	頻率範圍	低功率射頻電機技術規範 3.10.1.1節	請參閱4.5節	請參閱2.1節	合格
8	發射頻寬	低功率射頻電機技術規範 3.10.1.6(1)(A)節	請參閱4.6節	請參閱2.1節	合格
9	頻道數	低功率射頻電機技術規範 3.10.1.6(1)(A)(a)節	請參閱4.7節	請參閱2.1節	合格
10	跳頻系統之載波頻率頻道間隔	低功率射頻電機技術規範 3.10.1.6(1)(A)節	請參閱4.8節	請參閱2.1節	合格
11	跳頻系統之任一頻率佔用之 平均時間	低功率射頻電機技術規範 3.10.1.6(1)(A)(a)節	請參閱4.9節	請參閱2.1節	合格
12	天線規格	低功率射頻電機技術規範 3.10.1.3(3)節、3.10.1.4節	請參閱4.10節	-----	合格

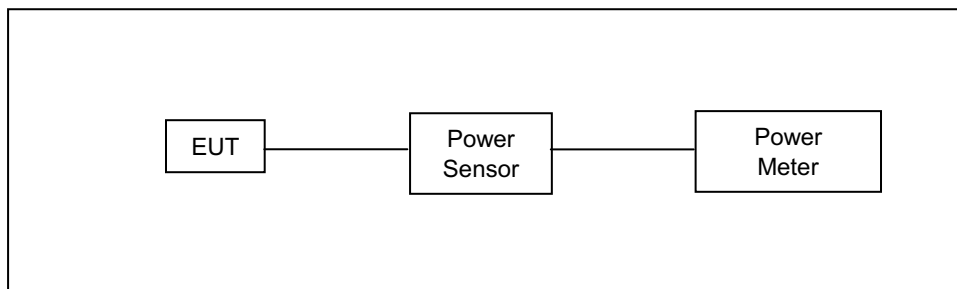
4. 測試項目表列

4.1 輸出峰值功率之量測

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)(B)節之要求，所有操作於 2400-2483.5 兆赫且輸出功率應小於或等於 0.125 W 。

測試架構圖：



測試結果:

右耳

操作模式 : Mode 2: BR,GFSK Continuous TX Mode						
頻道		輸出功率(Average)		輸出功率(Peak)		限制值
		dBm	W	dBm	W	W
低頻道	DH1	1.58	0.00144	2.92	0.00196	≤0.125
	DH3	1.61	0.00145	2.95	0.00197	≤0.125
	DH5	1.64	0.00146	2.98	0.00199	≤0.125
中頻道	DH1	1.04	0.00127	2.38	0.00173	≤0.125
	DH3	1.07	0.00128	2.41	0.00174	≤0.125
	DH5	1.10	0.00129	2.44	0.00175	≤0.125
高頻道	DH1	1.09	0.00129	2.45	0.00176	≤0.125
	DH3	1.12	0.00129	2.48	0.00177	≤0.125
	DH5	1.15	0.00130	2.51	0.00178	≤0.125

操作模式 : Mode 3: EDR, π/4-DQPSK Continuous TX Mode						
頻道		輸出功率(Average)		輸出功率(Peak)		限制值
		dBm	W	dBm	W	W
低頻道	2DH1	1.42	0.00139	4.73	0.00297	≤0.125
	2DH3	1.45	0.00140	4.76	0.00299	≤0.125
	2DH5	1.48	0.00141	4.79	0.00301	≤0.125
中頻道	2DH1	0.56	0.00114	4.03	0.00253	≤0.125
	2DH3	0.59	0.00115	4.06	0.00255	≤0.125
	2DH5	0.62	0.00115	4.09	0.00256	≤0.125
高頻道	2DH1	0.95	0.00124	4.29	0.00269	≤0.125
	2DH3	0.98	0.00125	4.32	0.00270	≤0.125
	2DH5	1.01	0.00126	4.35	0.00272	≤0.125

操作模式 : Mode 4:EDR, 8DPSK Continuous TX Mode						
頻道		輸出功率(Average)		輸出功率(Peak)		限制值
		dBm	W	dBm	W	W
低頻道	3DH1	1.48	0.00141	4.89	0.00308	≤0.125
	3DH3	1.51	0.00142	4.93	0.00311	≤0.125
	3DH5	1.54	0.00143	4.96	0.00313	≤0.125
中頻道	3DH1	0.62	0.00115	4.06	0.00255	≤0.125
	3DH3	0.65	0.00116	4.09	0.00256	≤0.125
	3DH5	0.68	0.00117	4.12	0.00258	≤0.125
高頻道	3DH1	0.97	0.00125	4.33	0.00271	≤0.125
	3DH3	1.00	0.00126	4.36	0.00273	≤0.125
	3DH5	1.03	0.00127	4.39	0.00275	≤0.125

左耳

操作模式 : Mode 2: BR,GFSK Continuous TX Mode						
頻道		輸出功率(Average)		輸出功率(Peak)		限制值
		dBm	W	dBm	W	W
低頻道	DH1	1.87	0.00154	3.23	0.00210	≤0.125
	DH3	1.90	0.00155	3.26	0.00212	≤0.125
	DH5	1.93	0.00156	3.29	0.00213	≤0.125
中頻道	DH1	1.26	0.00134	2.64	0.00184	≤0.125
	DH3	1.29	0.00135	2.67	0.00185	≤0.125
	DH5	1.32	0.00136	2.70	0.00186	≤0.125
高頻道	DH1	0.69	0.00117	2.05	0.00160	≤0.125
	DH3	0.72	0.00118	2.08	0.00161	≤0.125
	DH5	0.75	0.00119	2.11	0.00163	≤0.125

操作模式 : Mode 3: EDR, π/4-QPSK Continuous TX Mode						
頻道		輸出功率(Average)		輸出功率(Peak)		限制值
		dBm	W	dBm	W	W
低頻道	2DH1	1.83	0.00152	5.16	0.00328	≤0.125
	2DH3	1.86	0.00153	5.19	0.00330	≤0.125
	2DH5	1.89	0.00155	5.22	0.00333	≤0.125
中頻道	2DH1	1.19	0.00132	4.50	0.00282	≤0.125
	2DH3	1.22	0.00132	4.53	0.00284	≤0.125
	2DH5	1.25	0.00133	4.57	0.00286	≤0.125
高頻道	2DH1	0.48	0.00112	3.89	0.00245	≤0.125
	2DH3	0.51	0.00112	3.92	0.00247	≤0.125
	2DH5	0.54	0.00113	3.95	0.00248	≤0.125

操作模式 : Mode 4:EDR, 8DPSK Continuous TX Mode						
頻道		輸出功率(Average)		輸出功率(Peak)		限制值
		dBm	W	dBm	W	W
低頻道	3DH1	1.84	0.00153	5.36	0.00344	≤0.125
	3DH3	1.87	0.00154	5.32	0.00340	≤0.125
	3DH5	1.90	0.00155	5.39	0.00346	≤0.125
中頻道	3DH1	1.66	0.00147	4.59	0.00288	≤0.125
	3DH3	1.69	0.00148	4.62	0.00290	≤0.125
	3DH5	1.72	0.00149	4.65	0.00292	≤0.125
高頻道	3DH1	0.54	0.00113	3.94	0.00248	≤0.125
	3DH3	0.57	0.00114	3.97	0.00249	≤0.125
	3DH5	0.60	0.00115	4.00	0.00251	≤0.125

4.2 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。

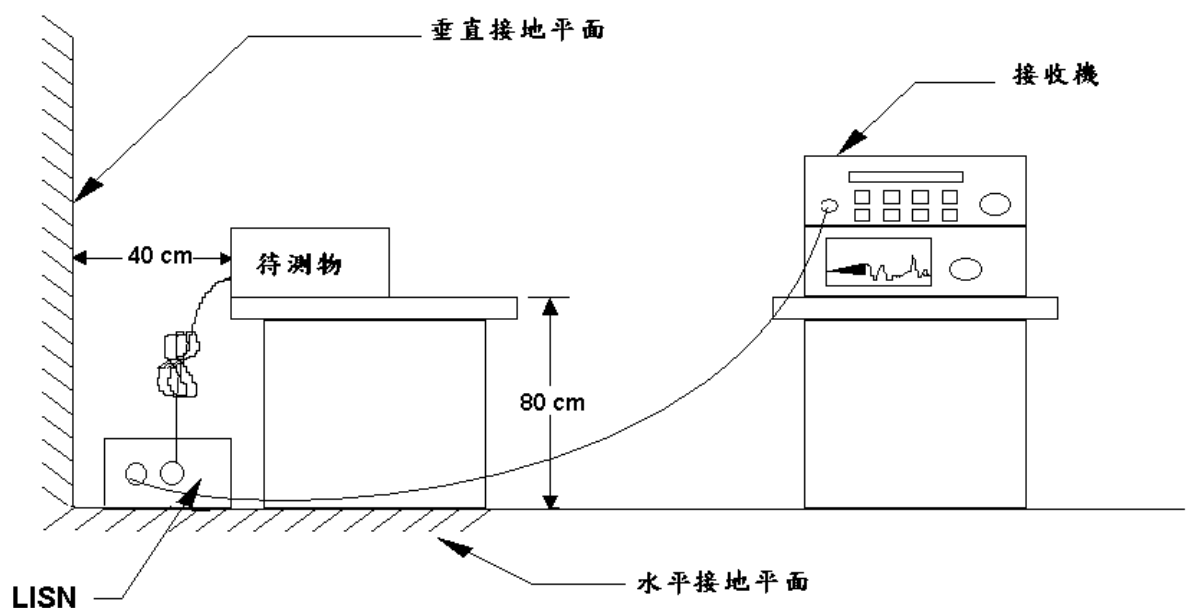
干擾值之計算

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

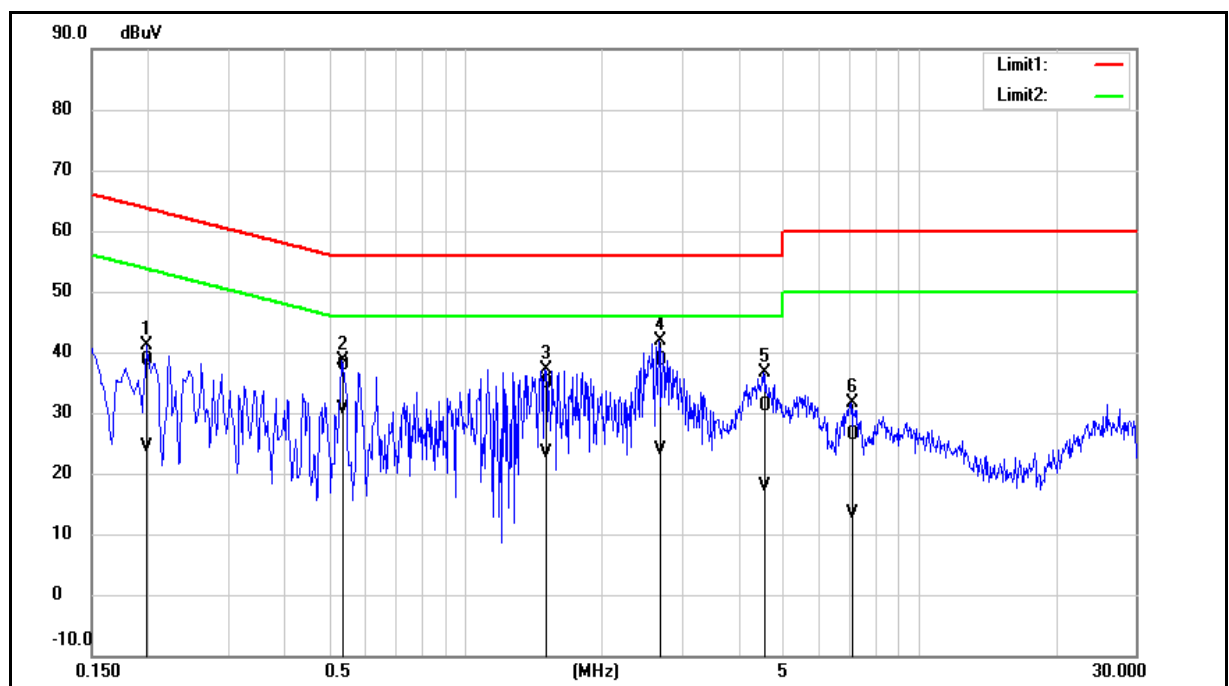
其中校正因子為：饋線損失 + 電源阻抗模擬網路損失

測試架構圖：



測試結果:

Standard:	LP0002	Line:	L1
Test item:	Conducted Emission	Power:	AC 110 V/60 Hz
Test Mode:	Mode 1	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Description:			

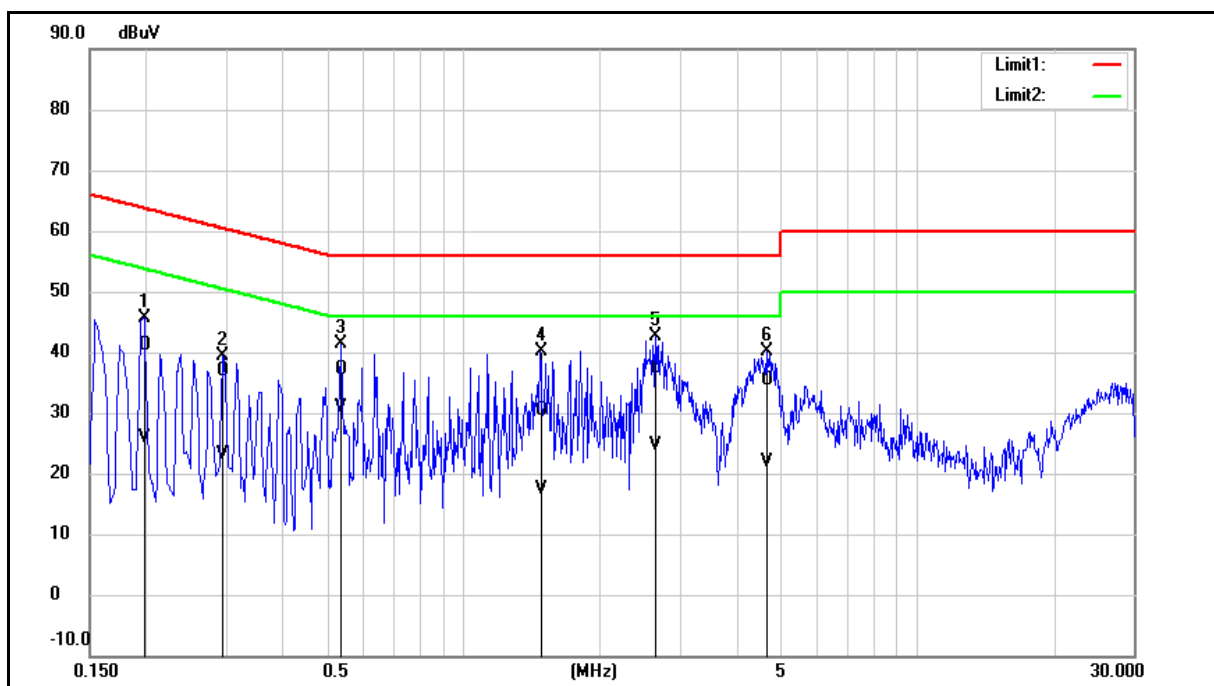


No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1980	29.01	14.81	9.66	38.67	24.47	63.69	53.69	-25.02	-29.22	Pass
2	0.5340	28.31	20.97	9.67	37.98	30.64	56.00	46.00	-18.02	-15.36	Pass
3	1.5020	25.21	13.57	9.73	34.94	23.30	56.00	46.00	-21.06	-22.70	Pass
4	2.6740	28.77	14.16	9.78	38.55	23.94	56.00	46.00	-17.45	-22.06	Pass
5	4.5340	21.28	8.09	9.86	31.14	17.95	56.00	46.00	-24.86	-28.05	Pass
6	7.0820	16.44	3.40	9.96	26.40	13.36	60.00	50.00	-33.60	-36.64	Pass

註：1. $QP / AVG \text{ result (dBuV)} = \text{Correction factor (dB)} + QP / AVG \text{ reading (dBuV)}$ 。

2. $\text{Correction factor (dB)} = \text{量測信號線損失(dB)} + \text{電源阻抗模擬網路係數(dB)}$ 。

Standard:	LP0002	Line:	N
Test item:	Conducted Emission	Power:	AC 110 V/60 Hz
Test Mode:	Mode 1	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Description:			



No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1980	31.53	16.17	9.69	41.22	25.86	63.69	53.69	-22.47	-27.83	Pass
2	0.2940	27.28	13.46	9.71	36.99	23.17	60.41	50.41	-23.42	-27.24	Pass
3	0.5380	27.36	21.23	9.74	37.10	30.97	56.00	46.00	-18.90	-15.03	Pass
4	1.4780	20.46	7.56	9.81	30.27	17.37	56.00	46.00	-25.73	-28.63	Pass
5	2.6500	27.55	14.71	9.86	37.41	24.57	56.00	46.00	-18.59	-21.43	Pass
6	4.6500	25.44	11.89	9.94	35.38	21.83	56.00	46.00	-20.62	-24.17	Pass

註：1. $QP / AVG \text{ result (dBuV)} = \text{Correction factor (dB)} + QP / AVG \text{ reading (dBuV)}$ 。

2. $\text{Correction factor (dB)} = \text{量測信號線損失(dB)} + \text{電源阻抗模擬網路係數(dB)}$ 。

4.3 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 3.10.1.5(2)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。

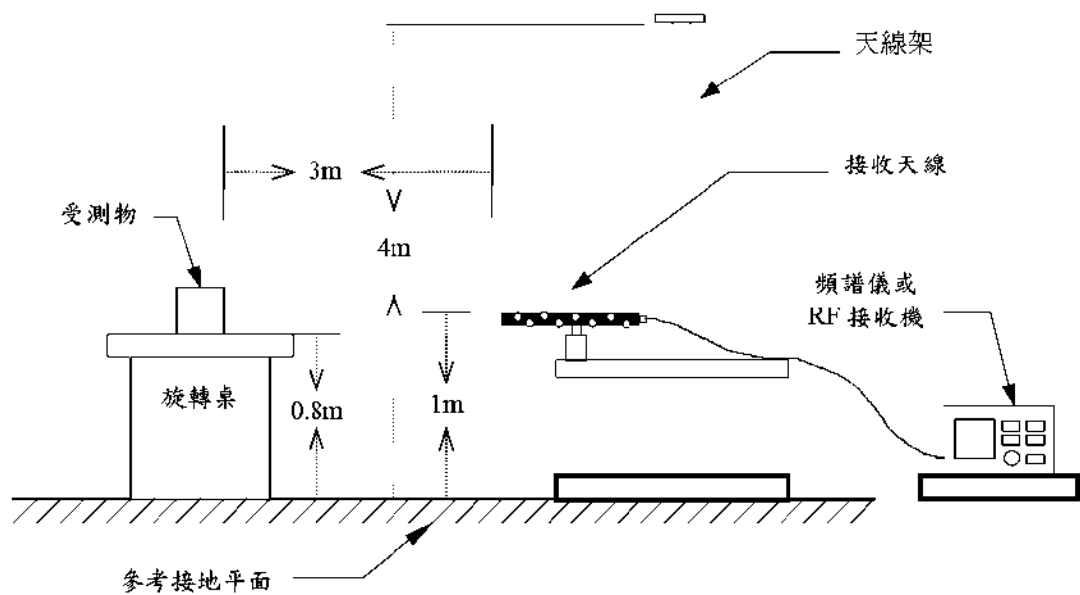
場強度之計算

場強之計算公式為：結果值 = 讀值 + 校正因子

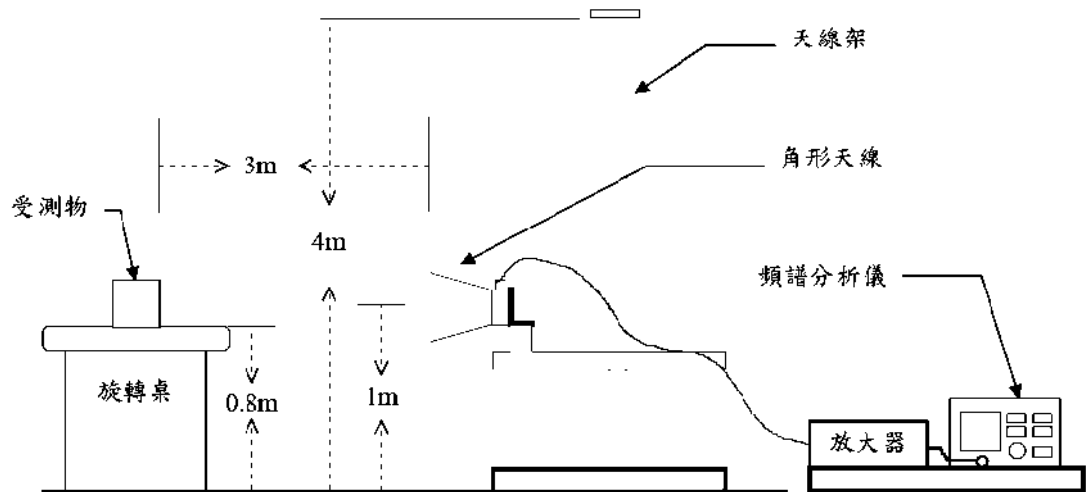
其中校正因子為：天線因子+ 饋線損失 + 濾波器損失（若有使用） - 放大器增益（若有使用）

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



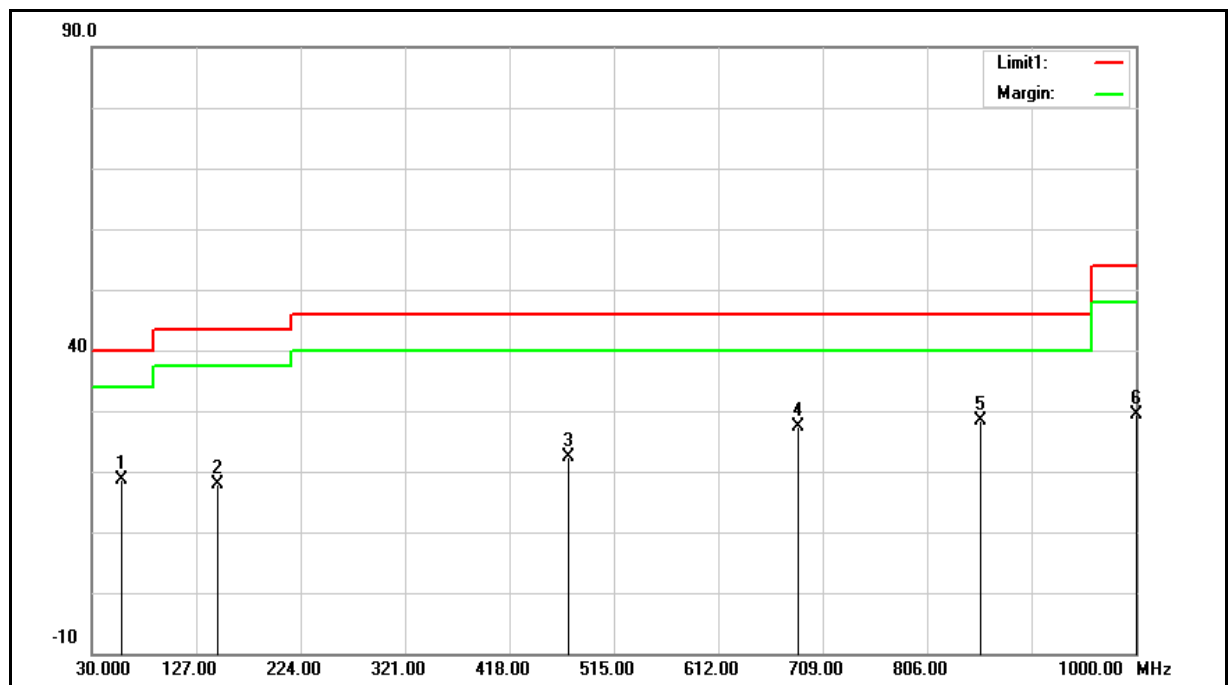
測試結果:

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)

右耳

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 110 V/60 Hz
Frequency:	2402 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Test 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	57.1600	30.24	-11.67	18.57	40.00	-21.43	QP
2	146.4000	29.38	-11.56	17.82	43.50	-25.68	QP
3	472.3200	28.97	-6.61	22.36	46.00	-23.64	QP
4	685.7200	30.03	-2.75	27.28	46.00	-18.72	QP
5	855.4700	28.72	-0.27	28.45	46.00	-17.55	QP
6	1000.0000	28.04	1.27	29.31	54.00	-24.69	QP

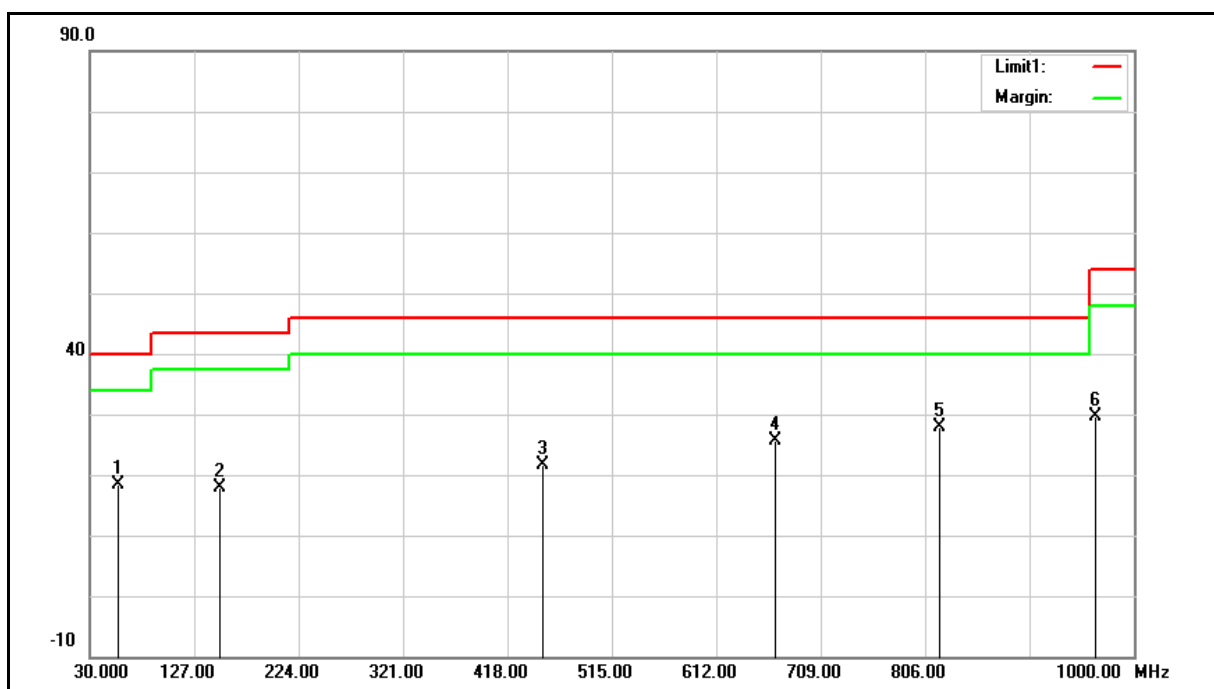
Note: 1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

Example: 18.57 = -11.67 + 30.24.

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:	AC 110 V/60 Hz
Frequency:	2402 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Test 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	56.1900	30.08	-11.63	18.45	40.00	-21.55	QP
2	151.2500	29.34	-11.44	17.90	43.50	-25.60	QP
3	450.9800	28.71	-7.12	21.59	46.00	-24.41	QP
4	667.2900	28.47	-2.96	25.51	46.00	-20.49	QP
5	819.5800	28.43	-0.54	27.89	46.00	-18.11	QP
6	964.1100	28.67	0.92	29.59	54.00	-24.41	QP

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

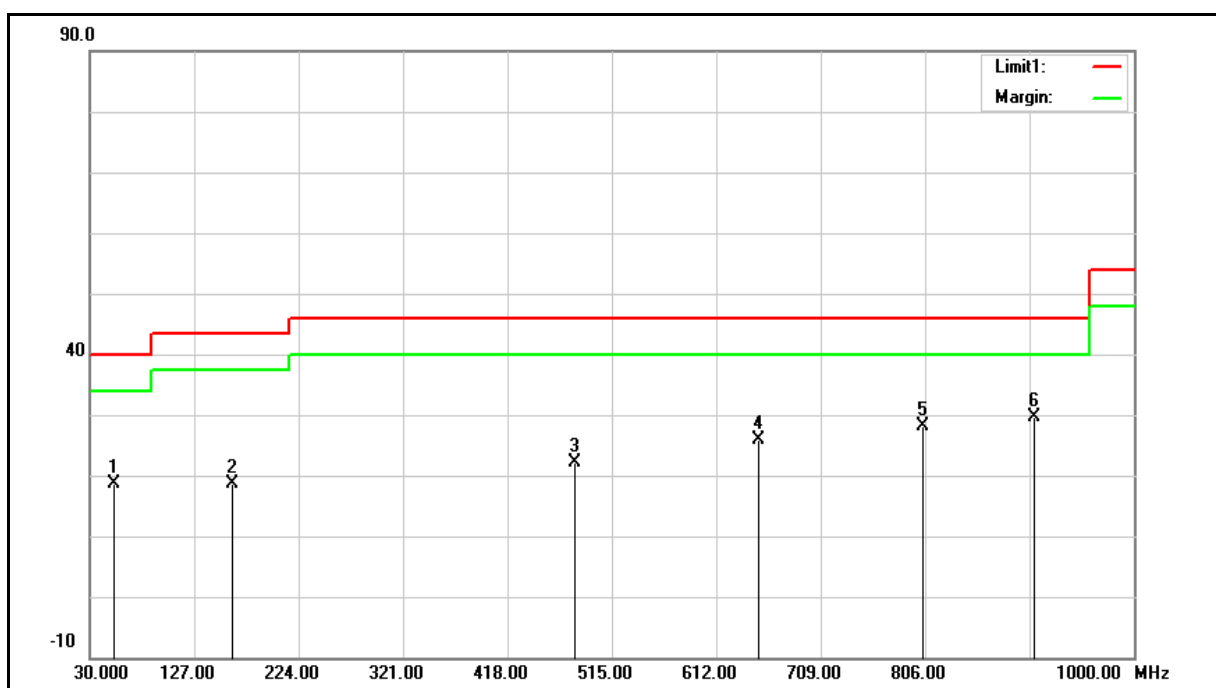
Example: $18.45 = -11.63 + 30.08$.

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.

左耳

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	AC 110 V/60 Hz
Frequency:	2402 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Test 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	52.3100	30.22	-11.47	18.75	40.00	-21.25	QP
2	161.9200	30.07	-11.37	18.70	43.50	-24.80	QP
3	480.0800	28.69	-6.44	22.25	46.00	-23.75	QP
4	651.7700	29.05	-3.13	25.92	46.00	-20.08	QP
5	804.0600	28.71	-0.66	28.05	46.00	-17.95	QP
6	907.8500	29.30	0.24	29.54	46.00	-16.46	QP

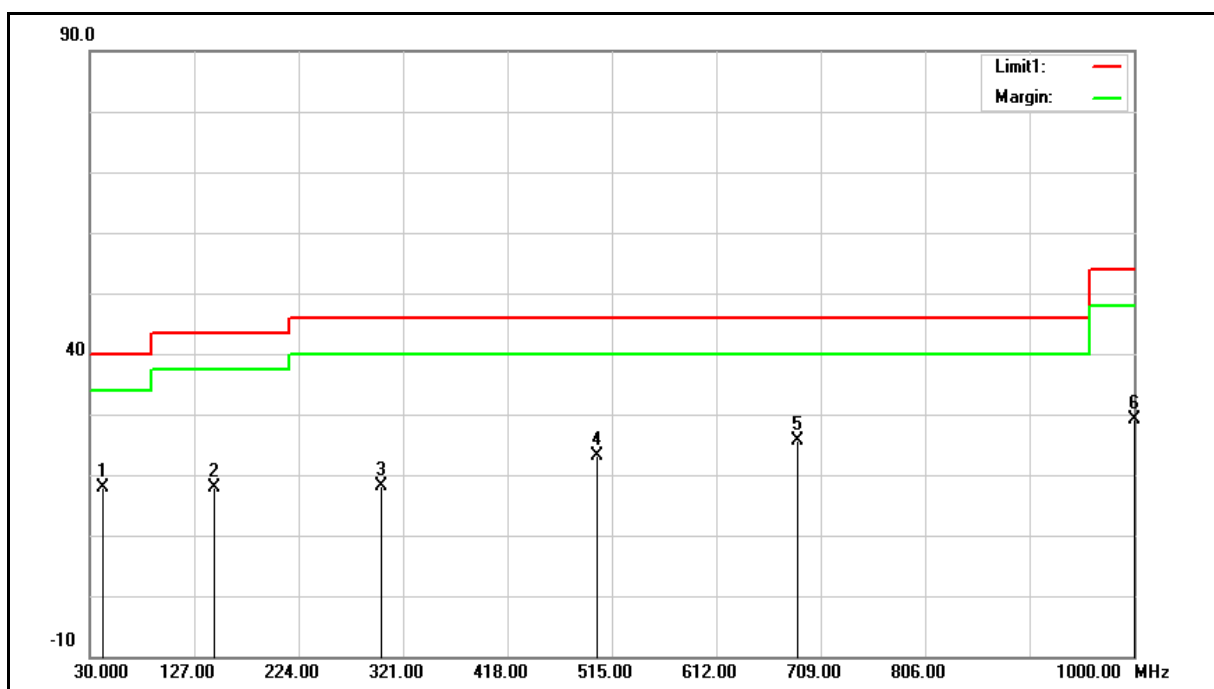
Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

Example: $18.75 = -11.47 + 30.22$.

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:	AC 110 V/60 Hz
Frequency:	2402 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Test 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	41.6400	29.86	-12.04	17.82	40.00	-22.18	QP
2	145.4300	29.54	-11.58	17.96	43.50	-25.54	QP
3	300.6300	28.89	-10.76	18.13	46.00	-27.87	QP
4	501.4200	28.96	-5.94	23.02	46.00	-22.98	QP
5	687.6600	28.35	-2.73	25.62	46.00	-20.38	QP
6	1000.0000	27.78	1.27	29.05	54.00	-24.95	QP

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

Example: $17.82 = -12.04 + 29.86$.

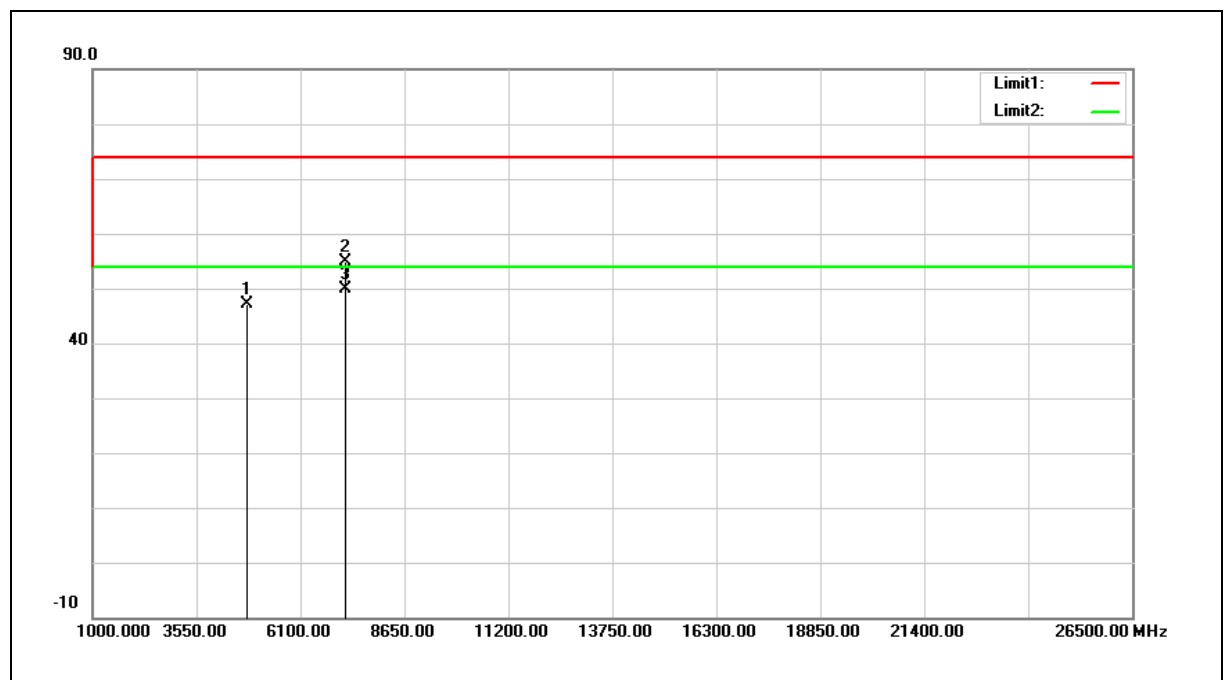
2.Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

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

場強輻射量側 (1 GHz 以上)

右耳

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.7 V
Frequency:	2402 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	4804.000	52.16	-5.03	47.13	74.00	-26.87	peak
2	7206.000	55.91	-0.97	54.94	74.00	-19.06	peak
3	7206.000	50.80	-0.97	49.83	54.00	-4.17	AVG

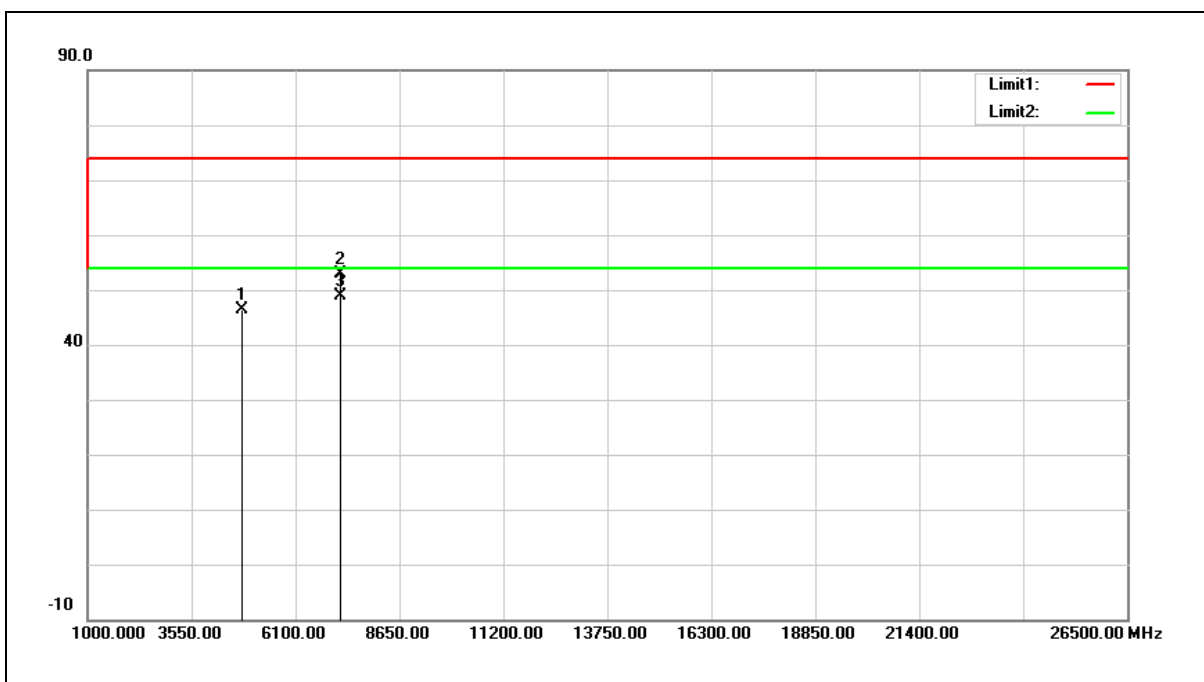
Note: 1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

Example: 47.13 = -5.03 + 52.16.

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 3.7 V
Frequency:	2402 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	4804.000	51.38	-5.03	46.35	74.00	-27.65	peak
2	7206.000	53.78	-0.97	52.81	74.00	-21.19	peak
3	7206.000	49.96	-0.97	48.99	54.00	-5.01	AVG

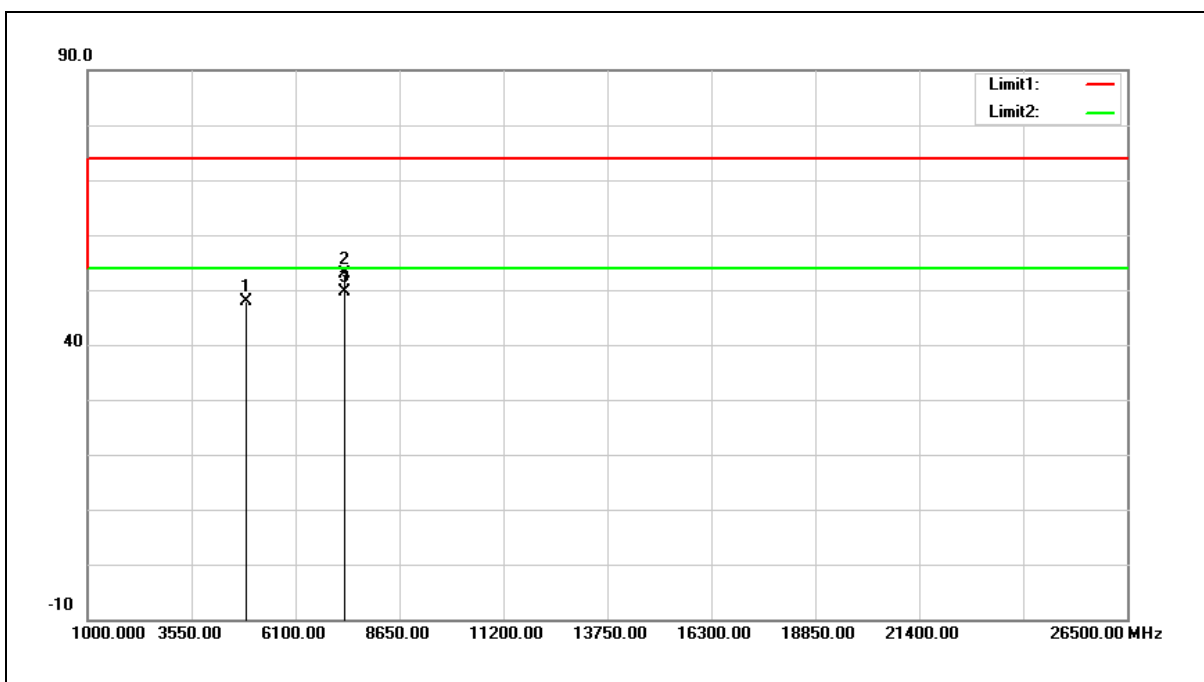
Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

Example: $46.35 = -5.03 + 51.38$.

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 3.7 V
Frequency:	2441 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



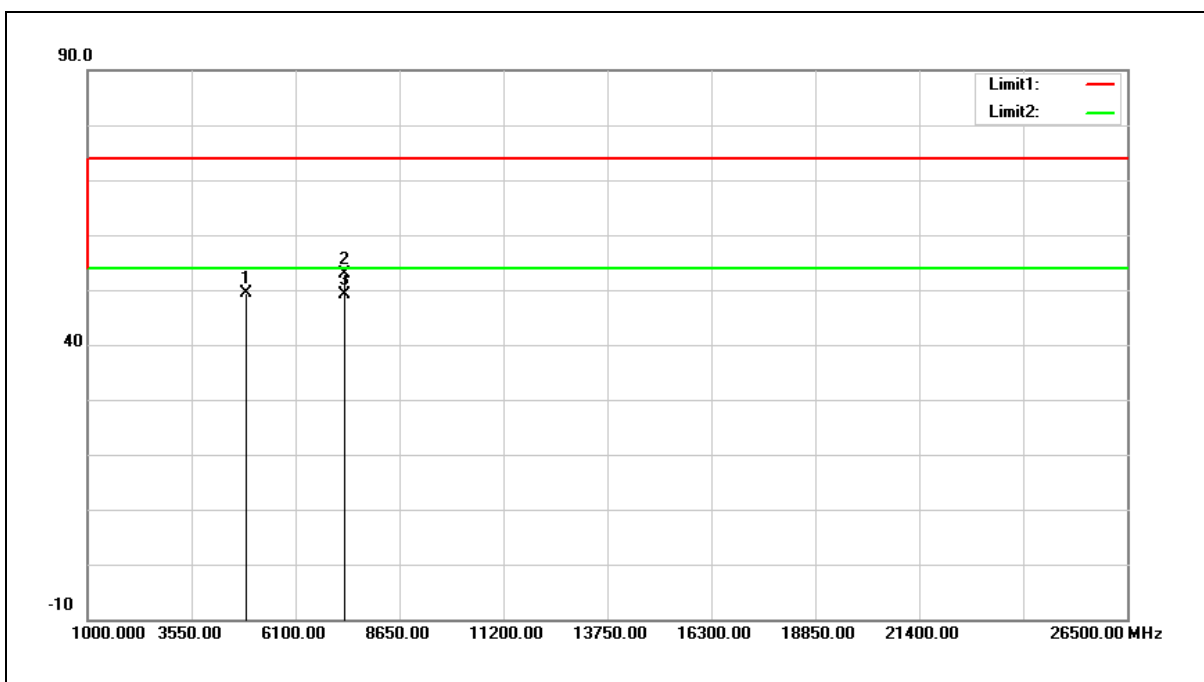
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4882.000	52.94	-5.10	47.84	74.00	-26.16	peak
2	7323.000	53.41	-0.63	52.78	74.00	-21.22	peak
3	7323.000	50.15	-0.63	49.52	54.00	-4.48	AVG

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 3.7 V
Frequency:	2441 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



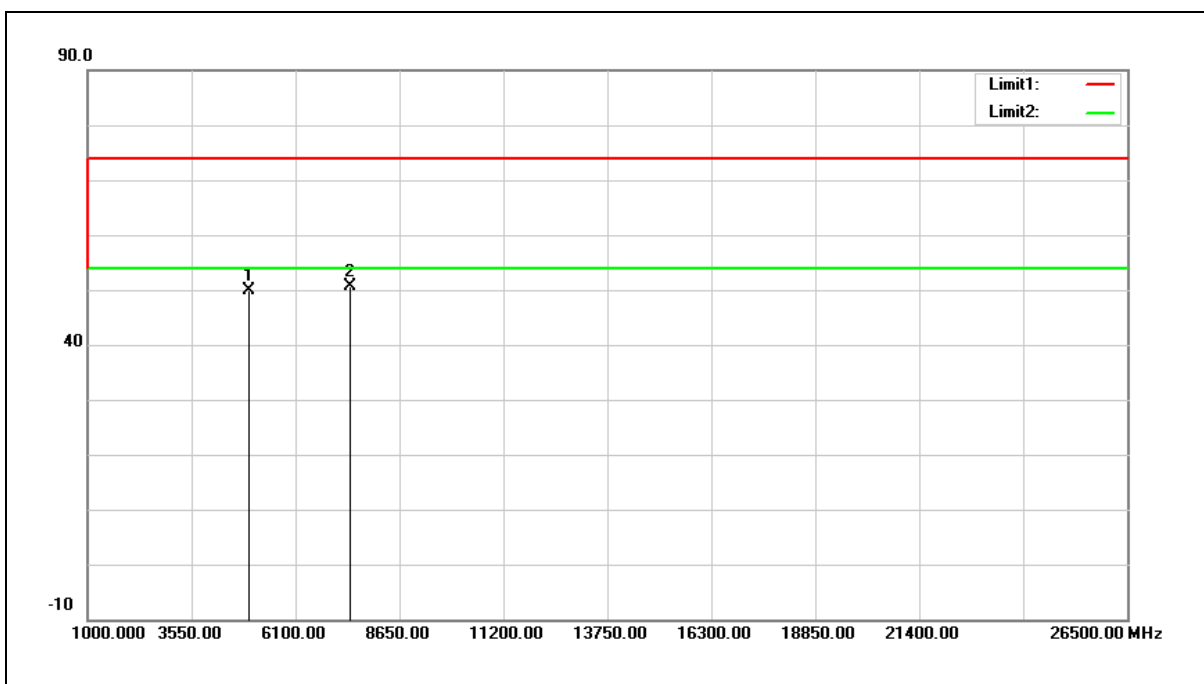
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4882.000	54.58	-5.10	49.48	74.00	-24.52	peak
2	7323.000	53.43	-0.63	52.80	74.00	-21.20	peak
3	7323.000	49.85	-0.63	49.22	54.00	-4.78	AVG

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 3.7 V
Frequency:	2480 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



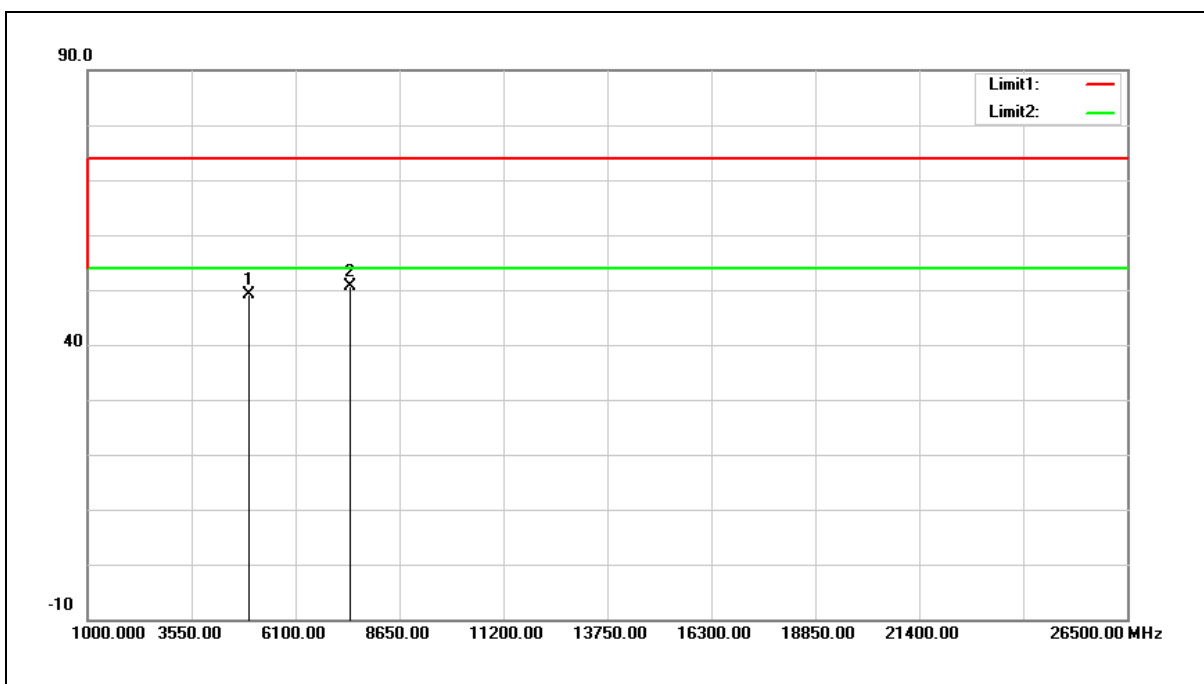
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4960.000	55.01	-5.17	49.84	74.00	-24.16	peak
2	7440.000	50.89	-0.35	50.54	74.00	-23.46	peak

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 3.7 V
Frequency:	2480 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



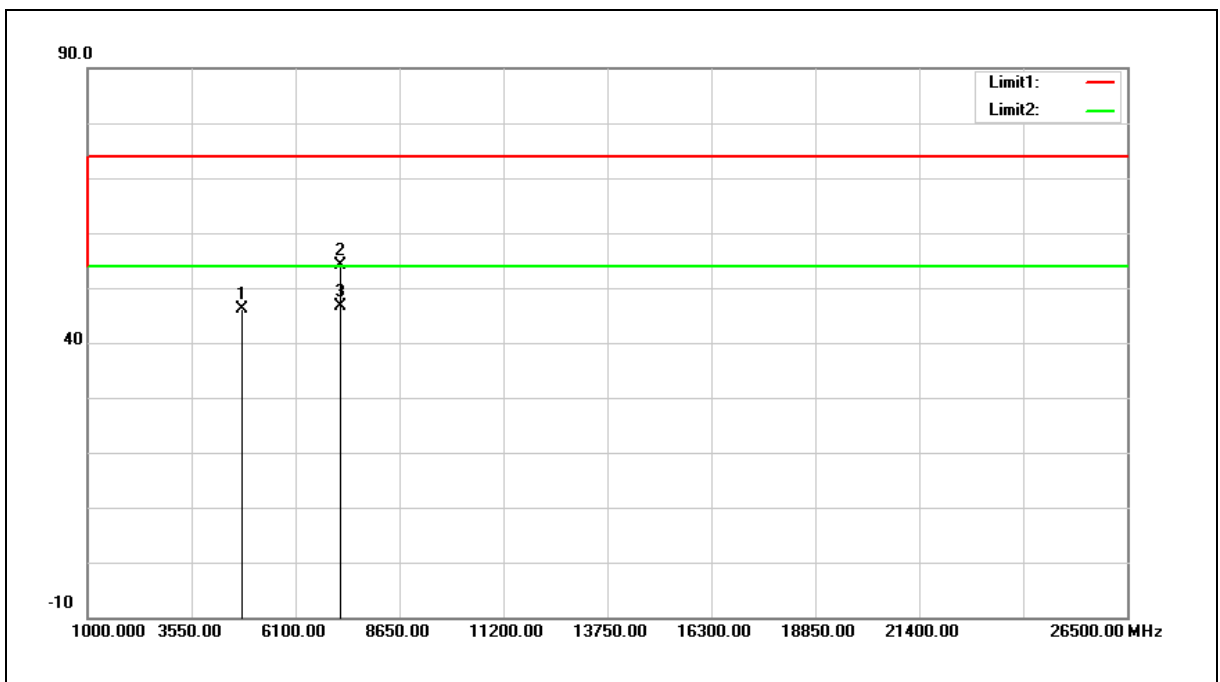
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4960.000	54.40	-5.17	49.23	74.00	-24.77	peak
2	7440.000	51.07	-0.35	50.72	74.00	-23.28	peak

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 3.7 V
Frequency:	2402 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



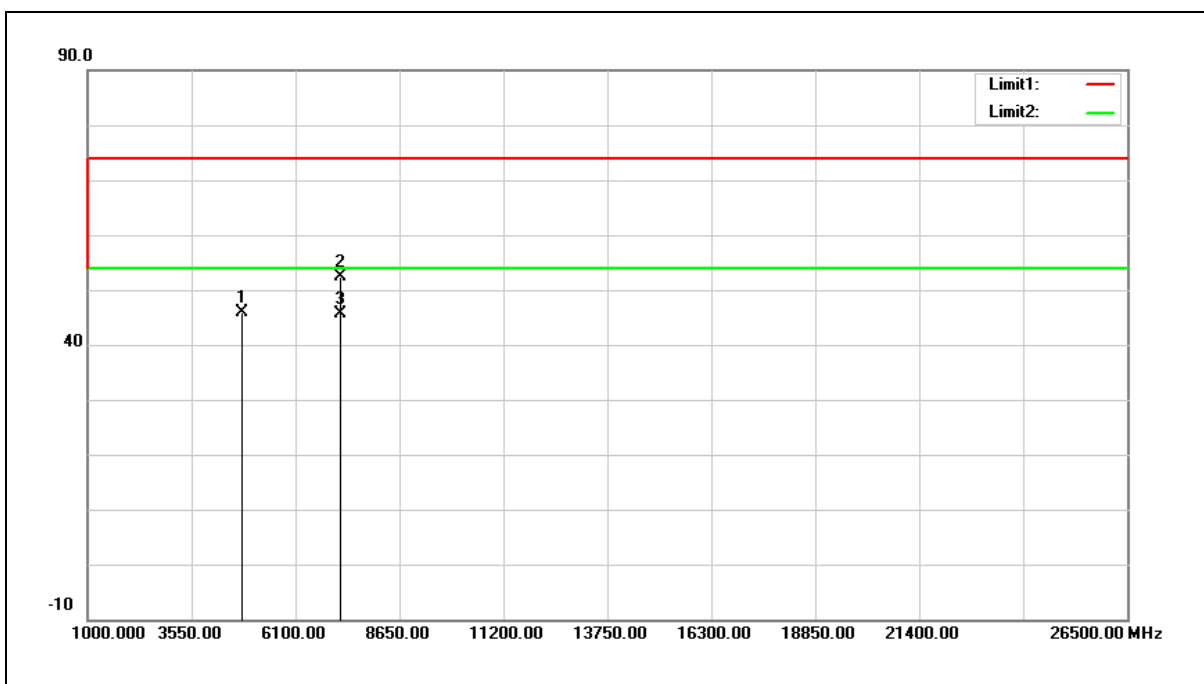
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4804.000	51.25	-5.03	46.22	74.00	-27.78	peak
2	7206.000	55.17	-0.97	54.20	74.00	-19.80	peak
3	7206.000	47.54	-0.97	46.57	54.00	-7.43	AVG

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 3.7 V
Frequency:	2402 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		



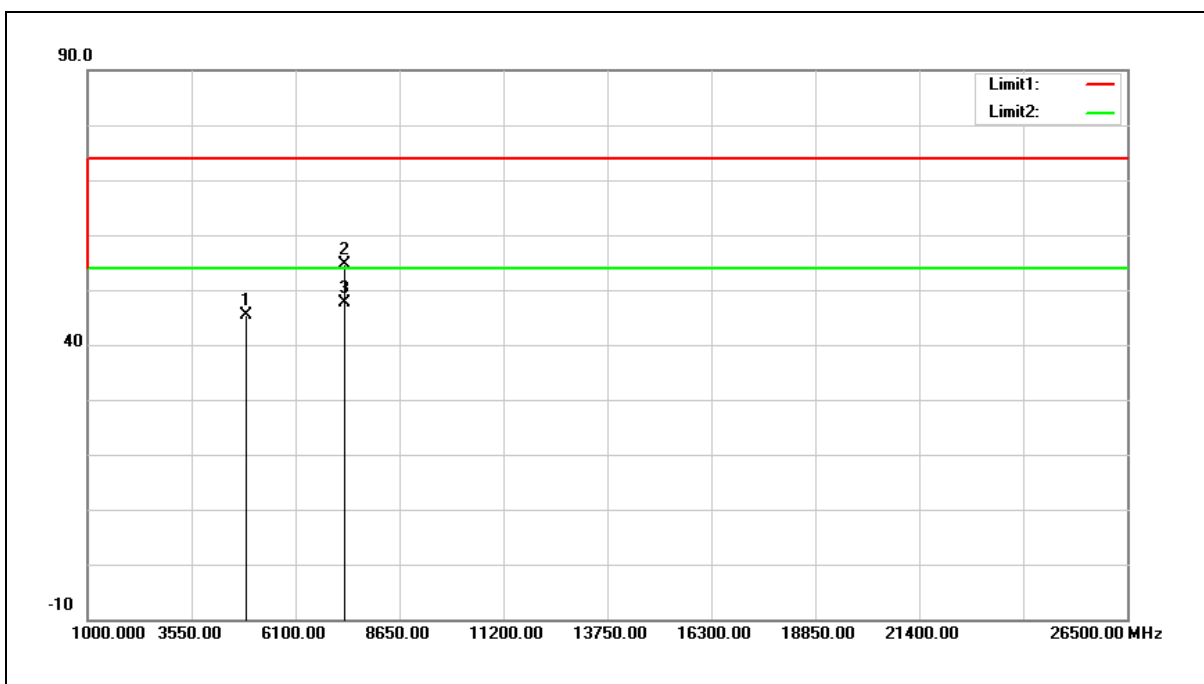
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4804.000	50.90	-5.03	45.87	74.00	-28.13	peak
2	7206.000	53.34	-0.97	52.37	74.00	-21.63	peak
3	7206.000	46.66	-0.97	45.69	54.00	-8.31	AVG

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 3.7 V
Frequency:	2441 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



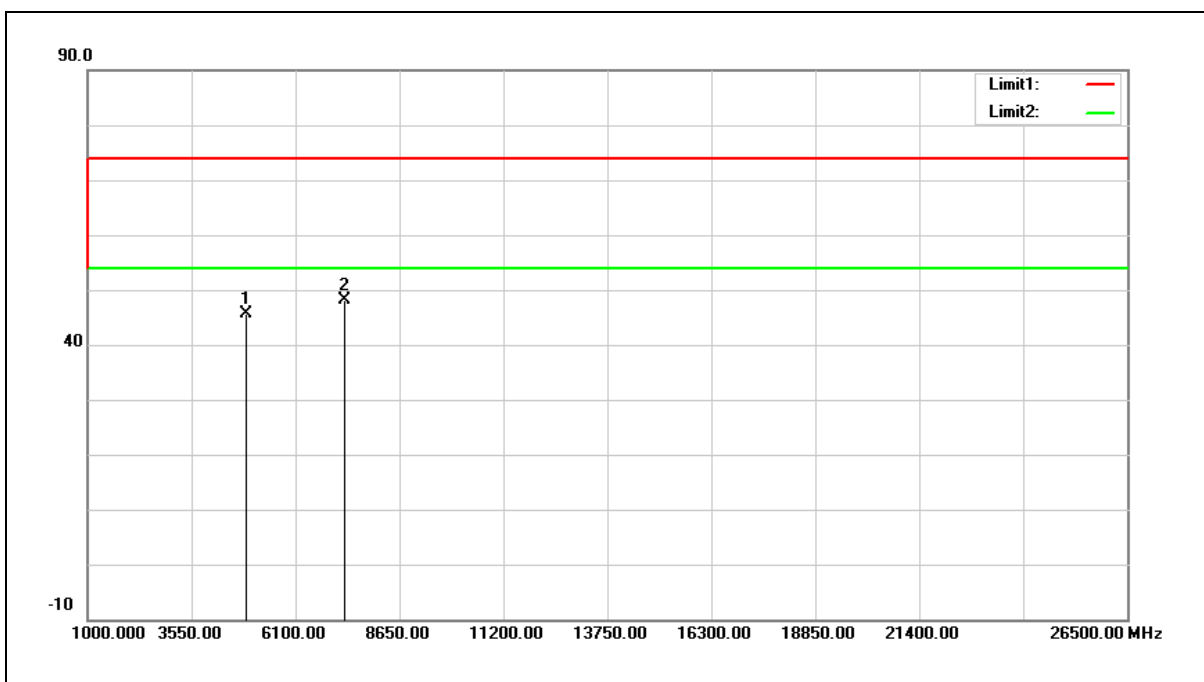
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4882.000	50.48	-5.10	45.38	74.00	-28.62	peak
2	7323.000	55.30	-0.63	54.67	74.00	-19.33	peak
3	7323.000	48.32	-0.63	47.69	54.00	-6.31	AVG

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 3.7 V
Frequency:	2441 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		



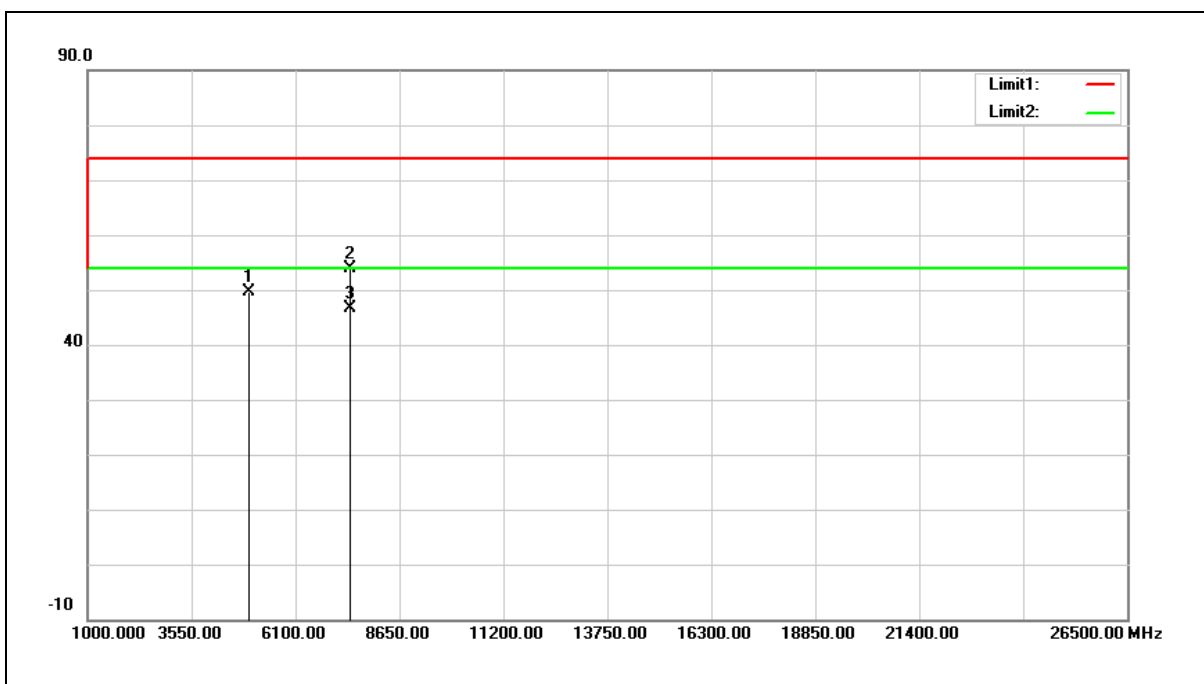
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4882.000	50.63	-5.10	45.53	74.00	-28.47	peak
2	7323.000	48.82	-0.63	48.19	74.00	-25.81	peak

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 3.7 V
Frequency:	2480 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



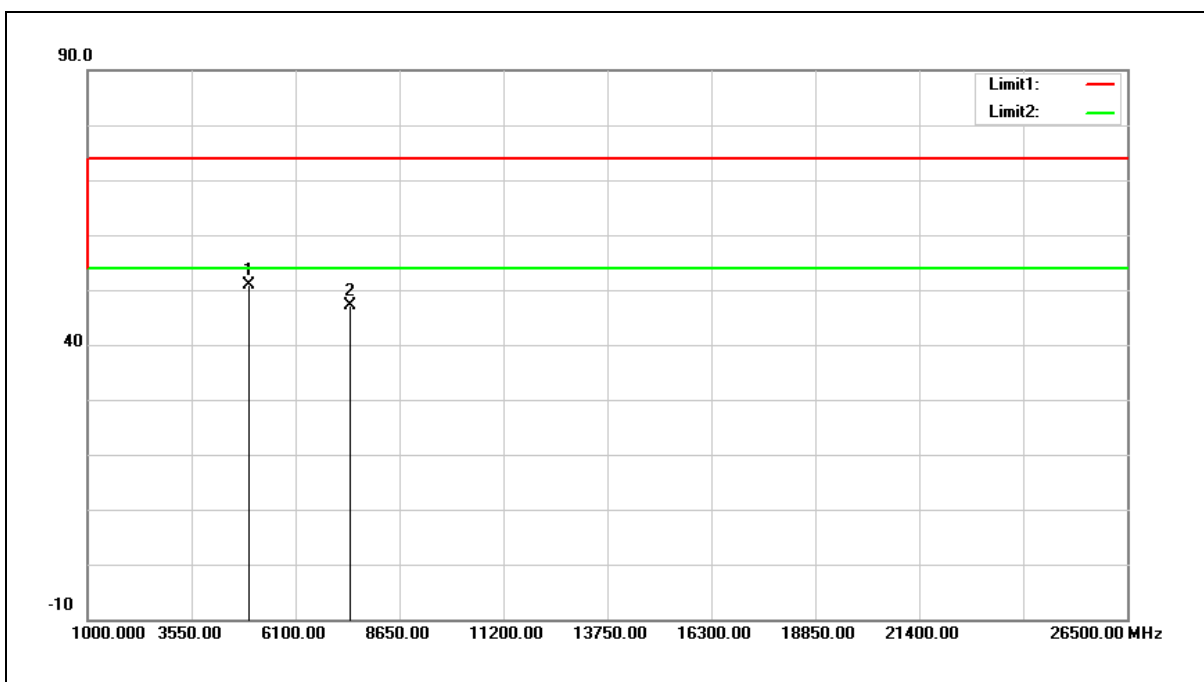
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4960.000	54.90	-5.17	49.73	74.00	-24.27	peak
2	7440.000	54.21	-0.35	53.86	74.00	-20.14	peak
3	7440.000	46.92	-0.35	46.57	54.00	-7.43	AVG

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 3.7 V
Frequency:	2480 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		



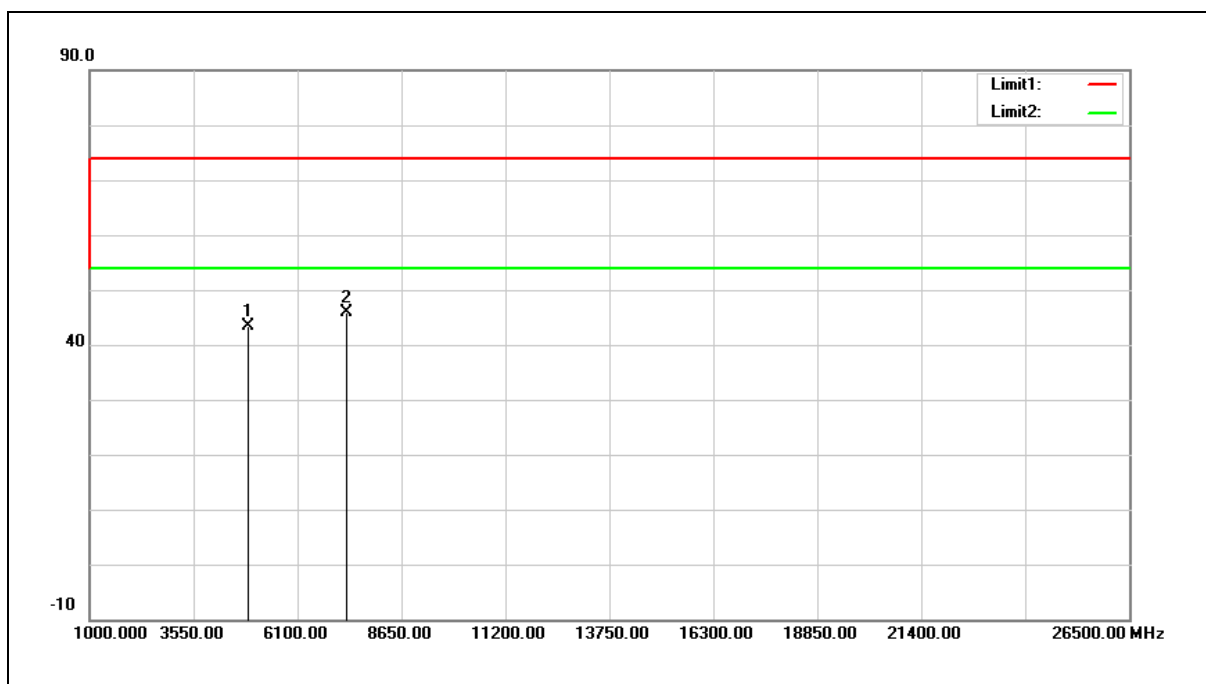
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4960.000	55.95	-5.17	50.78	74.00	-23.22	peak
2	7440.000	47.45	-0.35	47.10	74.00	-26.90	peak

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 3.7 V
Mode:	Mode 5	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Ant.Polar.:	Horizontal		
Description:			



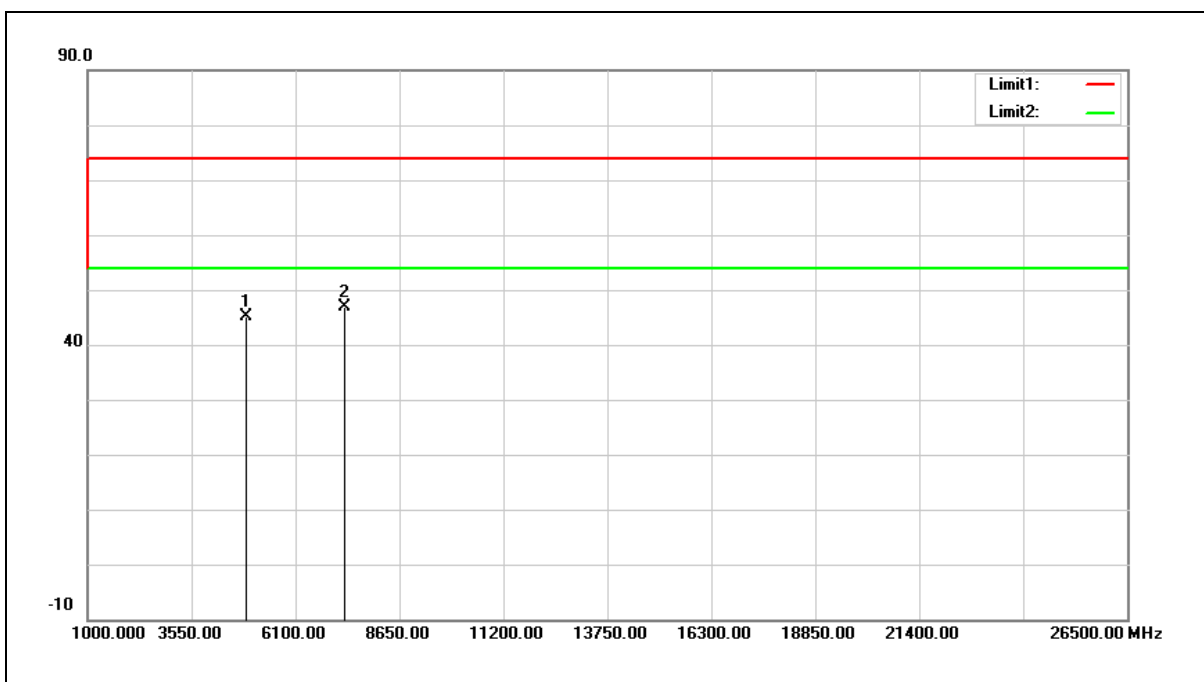
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4882.000	48.48	-5.10	43.38	74.00	-30.62	peak
2	7323.000	46.45	-0.63	45.82	74.00	-28.18	peak

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 3.7 V
Mode:	Mode 5	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Ant.Polar.:	Vertical		
Description:			



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4882.000	50.25	-5.10	45.15	74.00	-28.85	peak
2	7323.000	47.49	-0.63	46.86	74.00	-27.14	peak

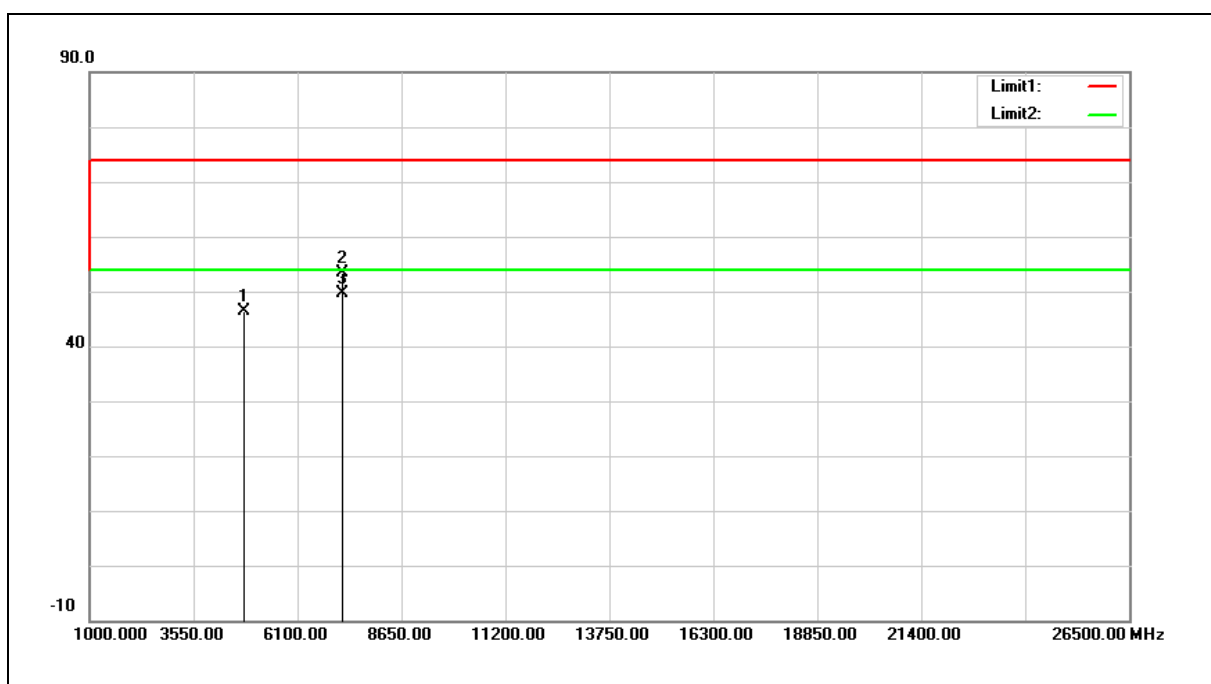
Note: 1. Result (dBuV/m) = Correct Factor (dB/m) + Reading (dBuV).

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.

左耳

Standard:	LP0002	Test Distance:	3 m
Test item:	Harmonic	Power:	DC 3.7 V
Frequency:	2402 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



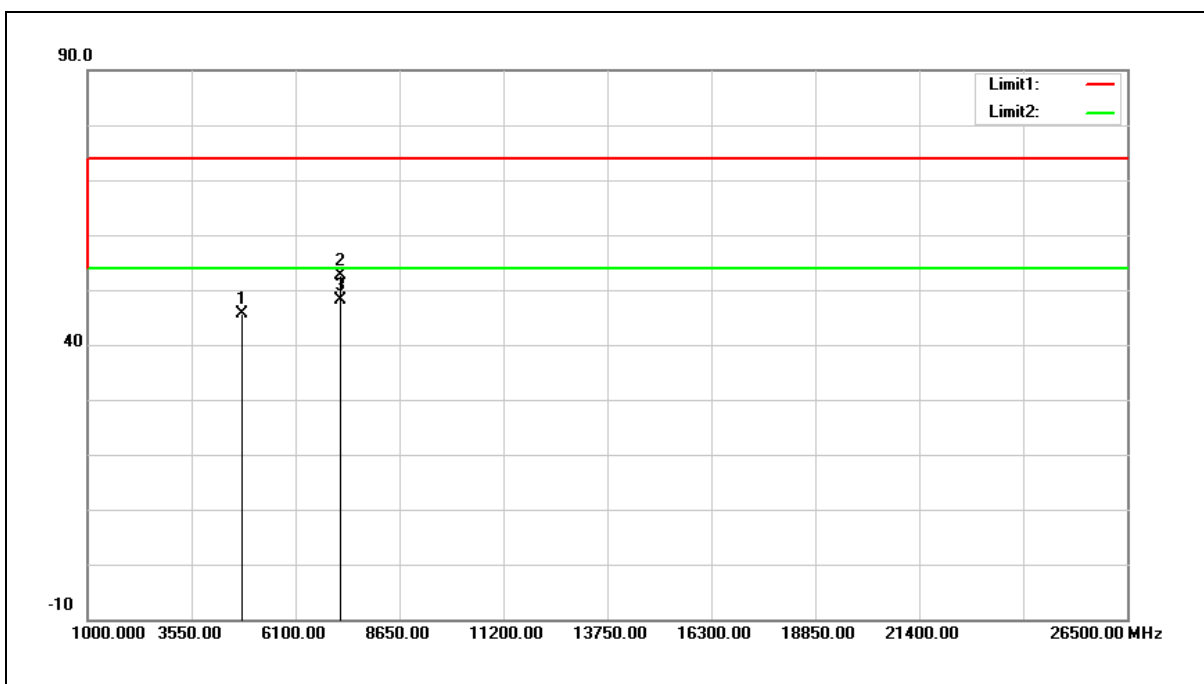
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4804.000	51.41	-5.03	46.38	74.00	-27.62	peak
2	7206.000	54.27	-0.97	53.30	74.00	-20.70	peak
3	7206.000	50.56	-0.97	49.59	54.00	-4.41	AVG

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 3.7 V
Frequency:	2402 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



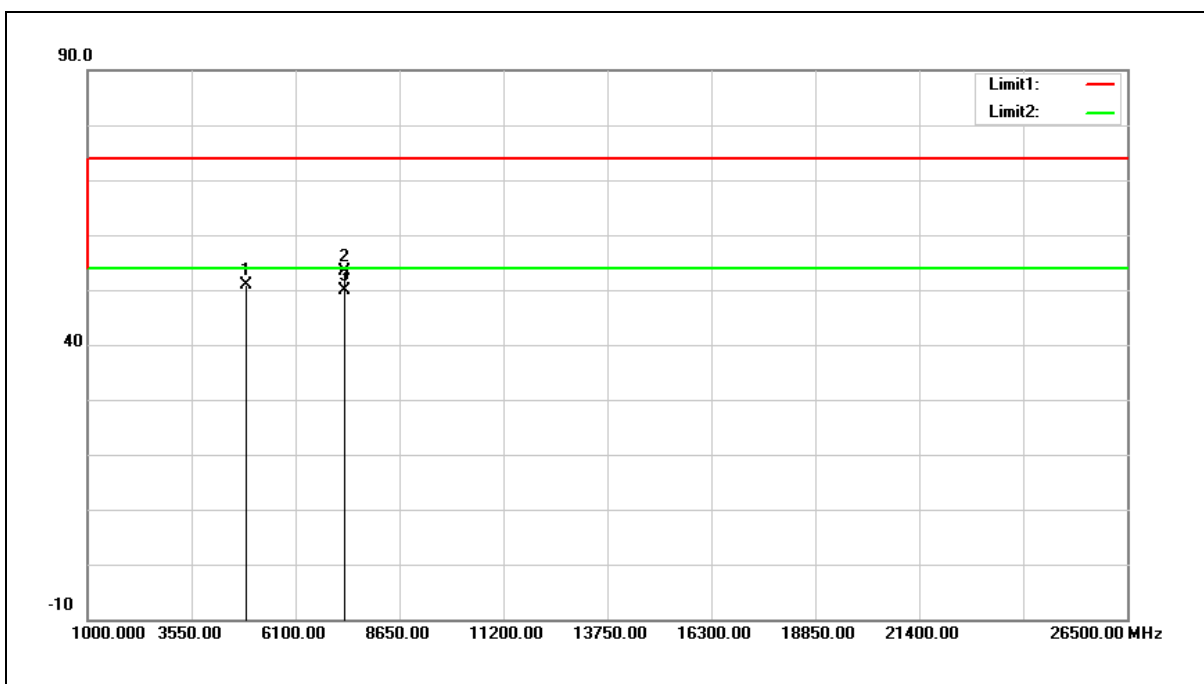
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4804.000	50.78	-5.03	45.75	74.00	-28.25	peak
2	7206.000	53.70	-0.97	52.73	74.00	-21.27	peak
3	7206.000	49.18	-0.97	48.21	54.00	-5.79	AVG

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 3.7 V
Frequency:	2441 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



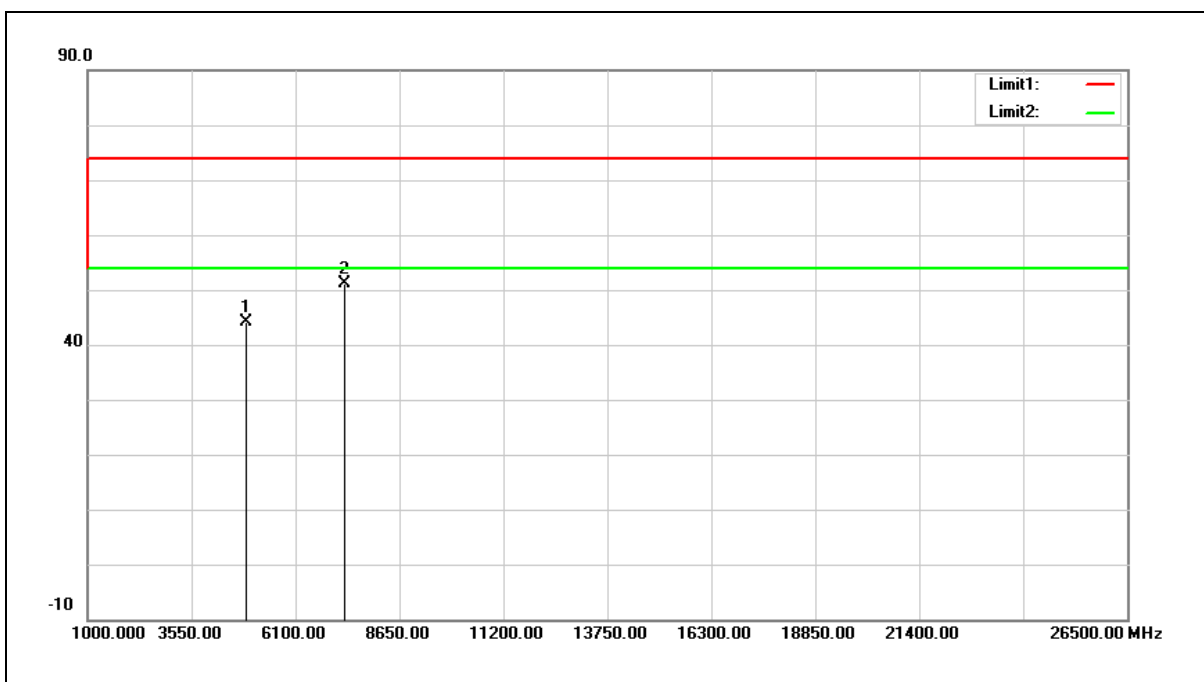
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4882.000	55.91	-5.10	50.81	74.00	-23.19	peak
2	7323.000	54.01	-0.63	53.38	74.00	-20.62	peak
3	7323.000	50.59	-0.63	49.96	54.00	-4.04	AVG

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 3.7 V
Frequency:	2441 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



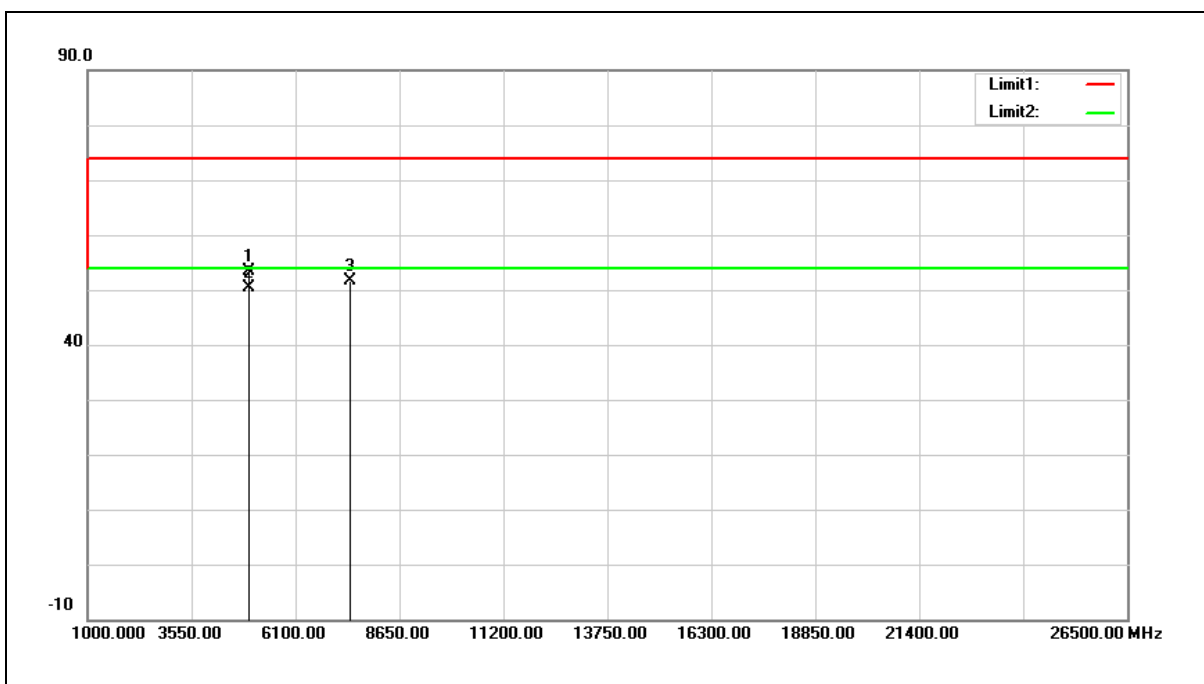
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4882.000	49.33	-5.10	44.23	74.00	-29.77	peak
2	7323.000	51.71	-0.63	51.08	74.00	-22.92	peak

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 3.7 V
Frequency:	2480 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



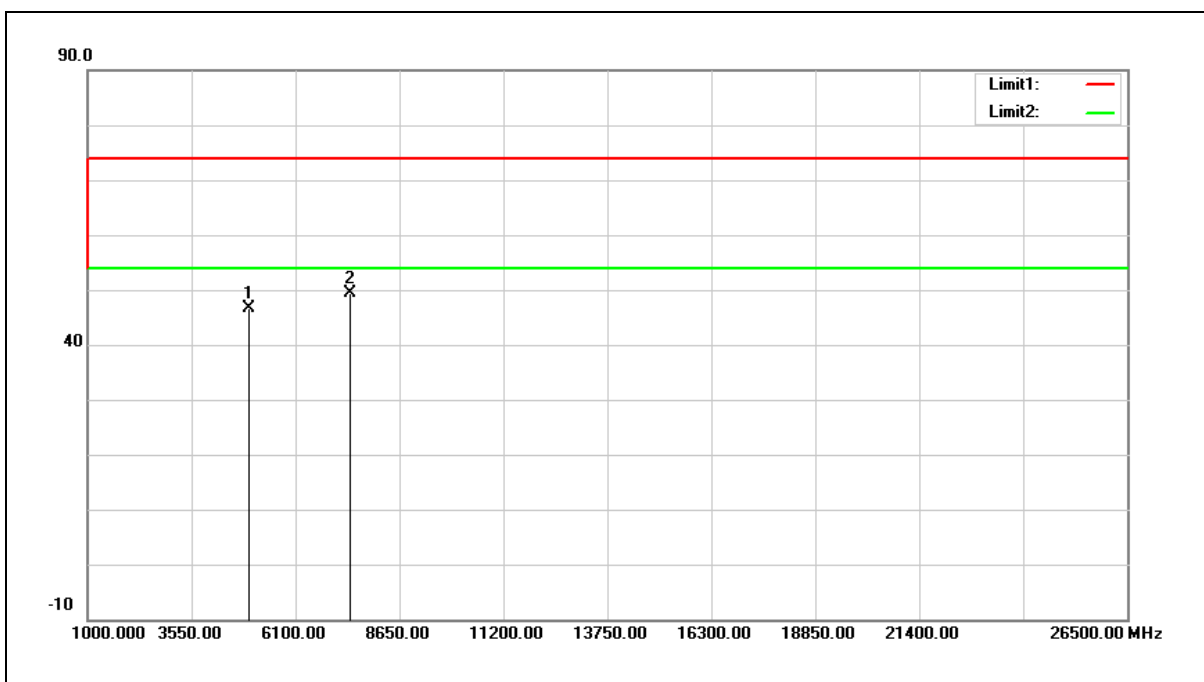
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4960.000	58.62	-5.17	53.45	74.00	-20.55	peak
2	4960.000	55.60	-5.17	50.43	54.00	-3.57	AVG
3	7440.000	52.00	-0.35	51.65	74.00	-22.35	peak

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 3.7 V
Frequency:	2480 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



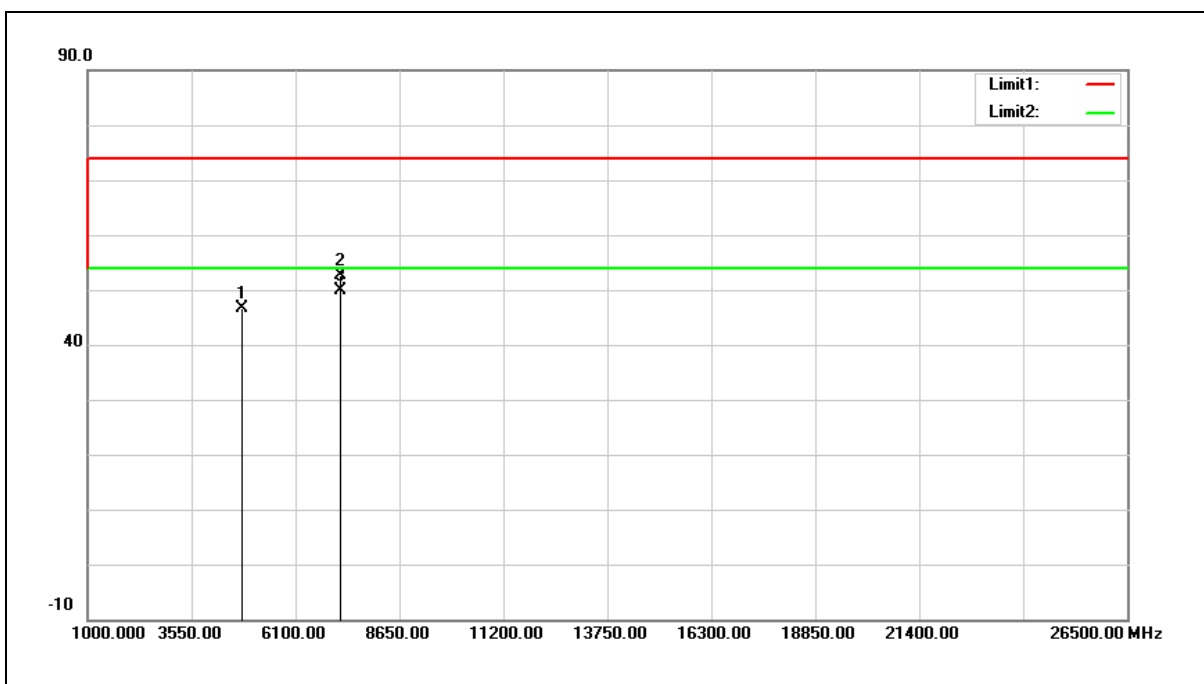
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4960.000	51.87	-5.17	46.70	74.00	-27.30	peak
2	7440.000	49.80	-0.35	49.45	74.00	-24.55	peak

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 3.7 V
Frequency:	2402 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



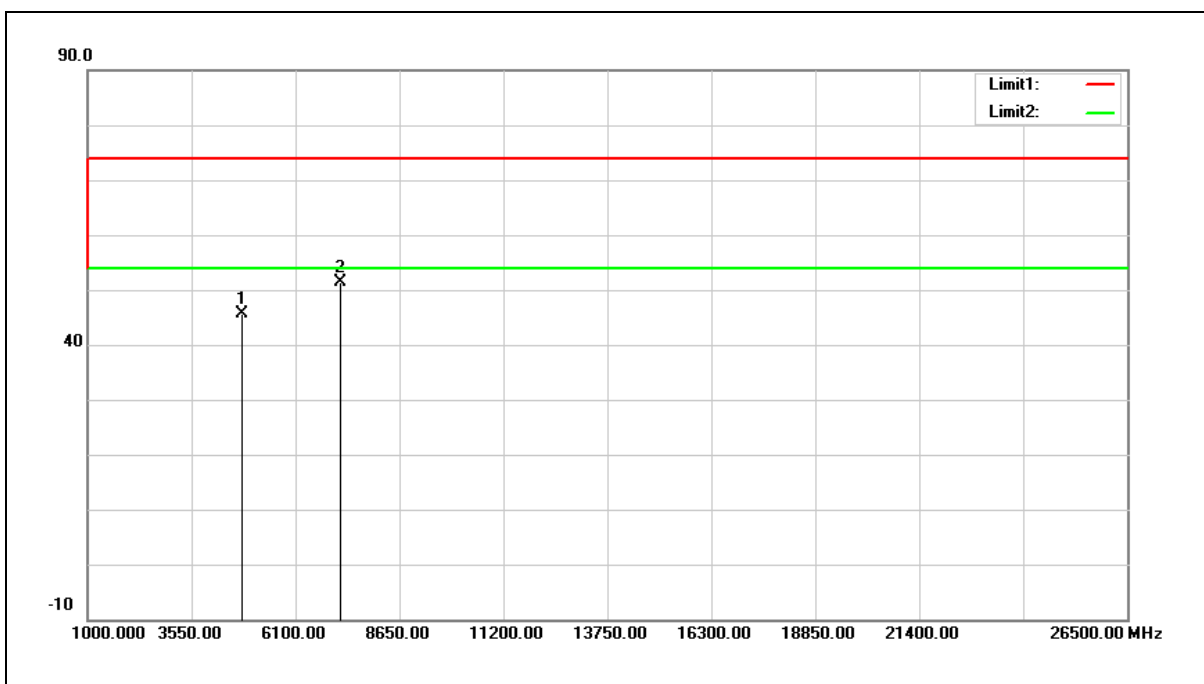
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4804.000	51.62	-5.03	46.59	74.00	-27.41	peak
2	7206.000	53.72	-0.97	52.75	74.00	-21.25	peak
3	7206.000	50.84	-0.97	49.87	54.00	-4.13	AVG

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 3.7 V
Frequency:	2402 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		



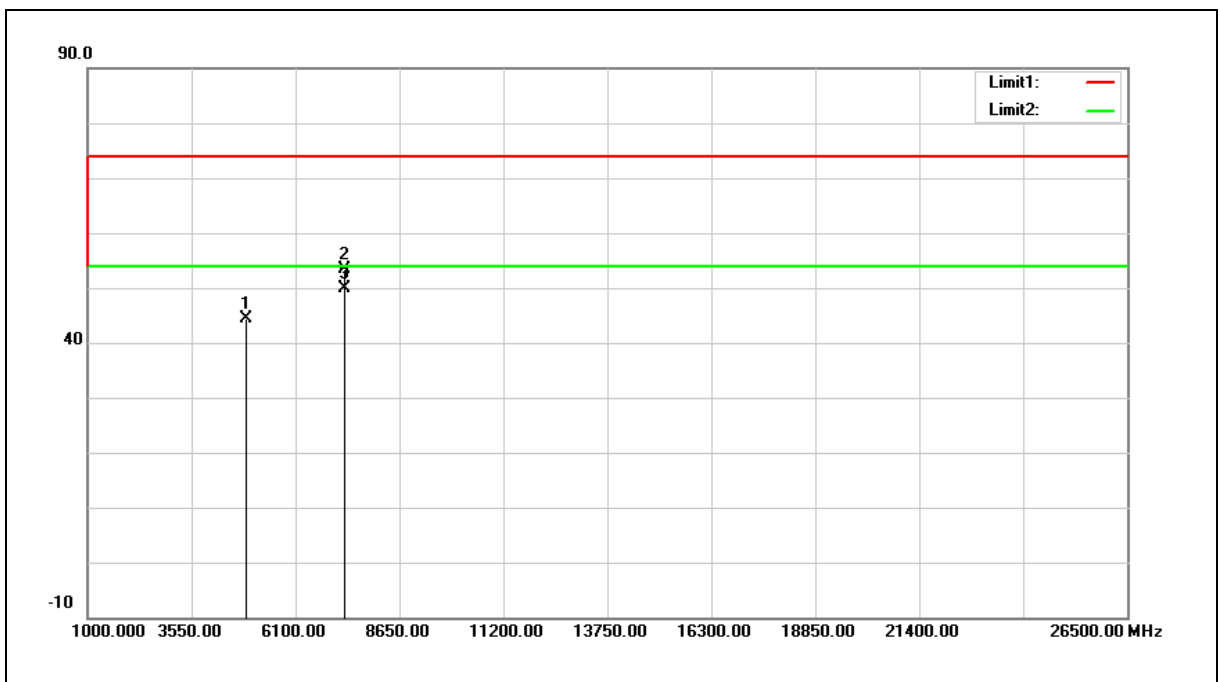
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4804.000	50.75	-5.03	45.72	74.00	-28.28	peak
2	7206.000	52.37	-0.97	51.40	74.00	-22.60	peak

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 3.7 V
Frequency:	2441 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



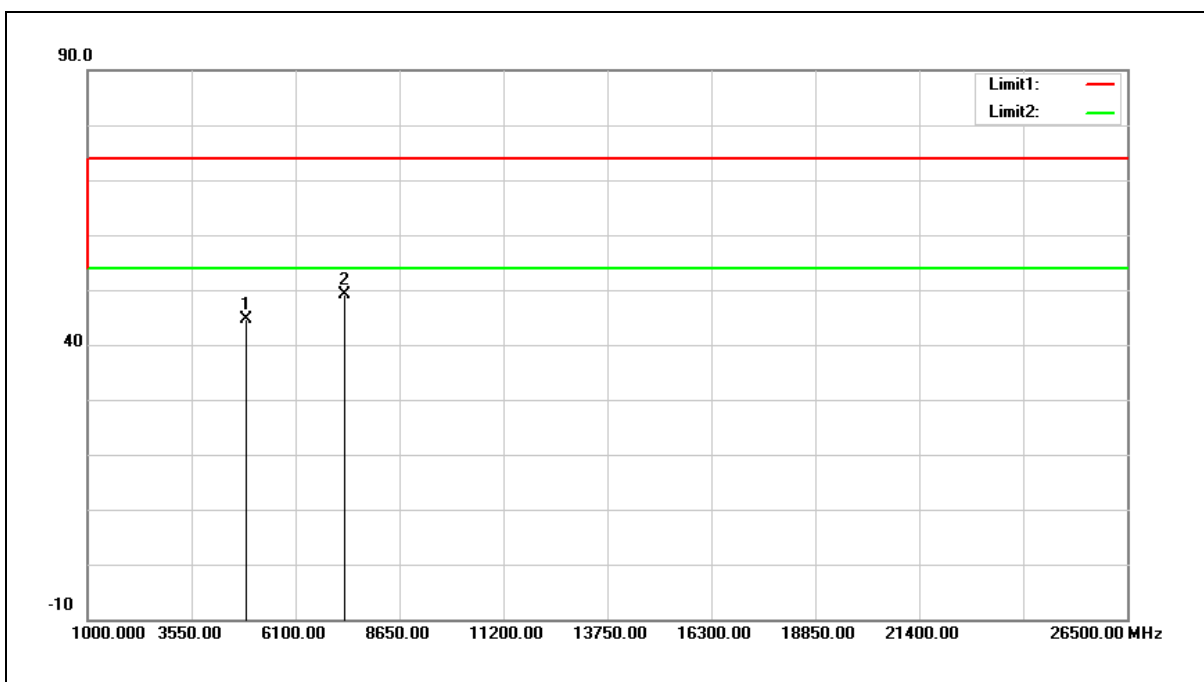
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4882.000	49.53	-5.10	44.43	74.00	-29.57	peak
2	7323.000	53.89	-0.63	53.26	74.00	-20.74	peak
3	7323.000	50.52	-0.63	49.89	54.00	-4.11	AVG

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 3.7 V
Frequency:	2441 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		



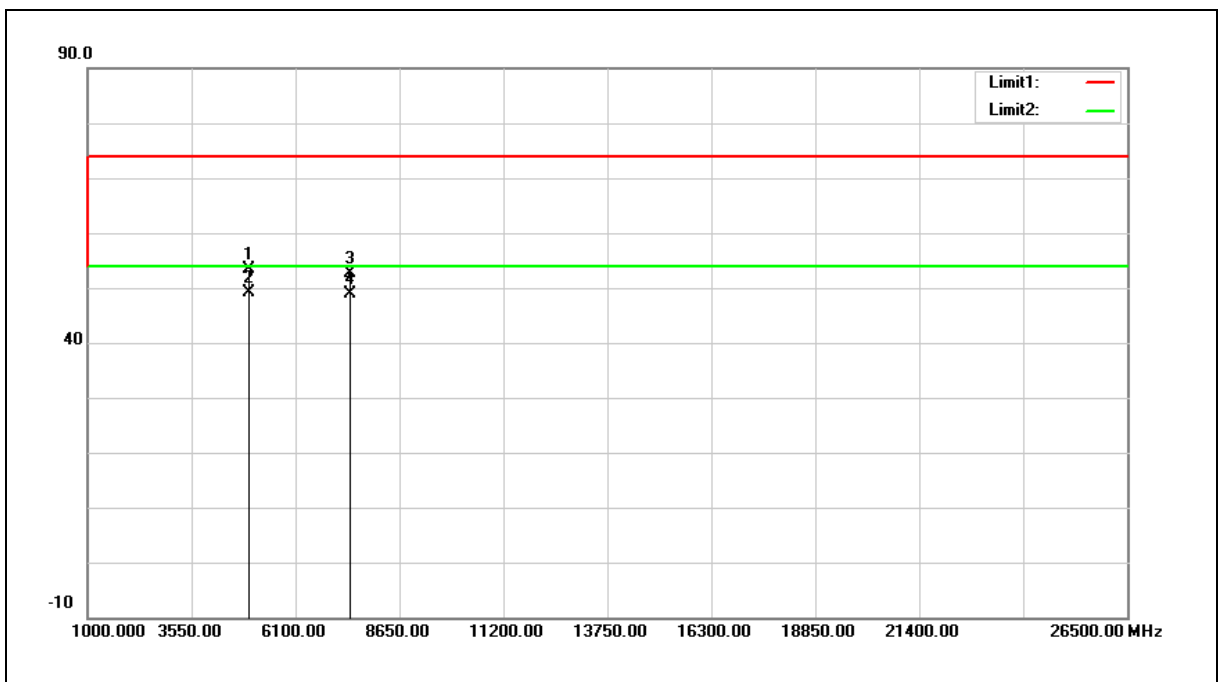
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4882.000	49.78	-5.10	44.68	74.00	-29.32	peak
2	7323.000	49.64	-0.63	49.01	74.00	-24.99	peak

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 3.7 V
Frequency:	2480 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



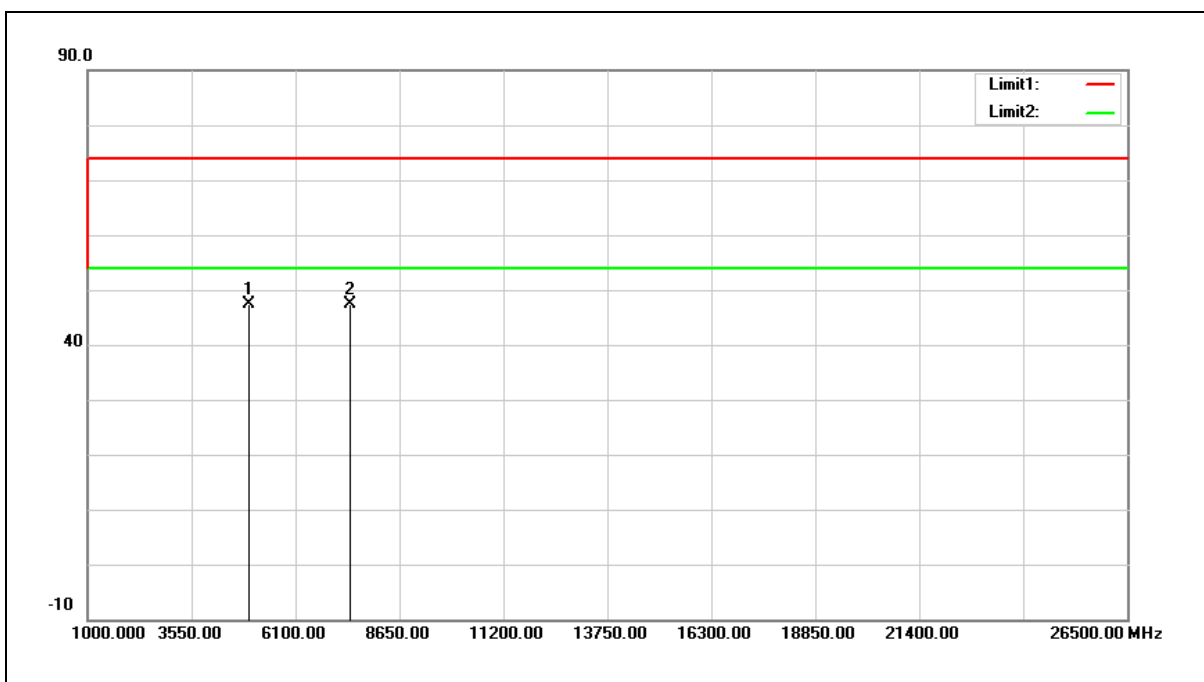
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4960.000	58.65	-5.17	53.48	74.00	-20.52	peak
2	4960.000	54.35	-5.17	49.18	54.00	-4.82	AVG
3	7440.000	52.95	-0.35	52.60	74.00	-21.40	peak
4	7440.000	49.30	-0.35	48.95	54.00	-5.05	AVG

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:	Harmonic	Power:	DC 3.7 V
Frequency:	2480 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		



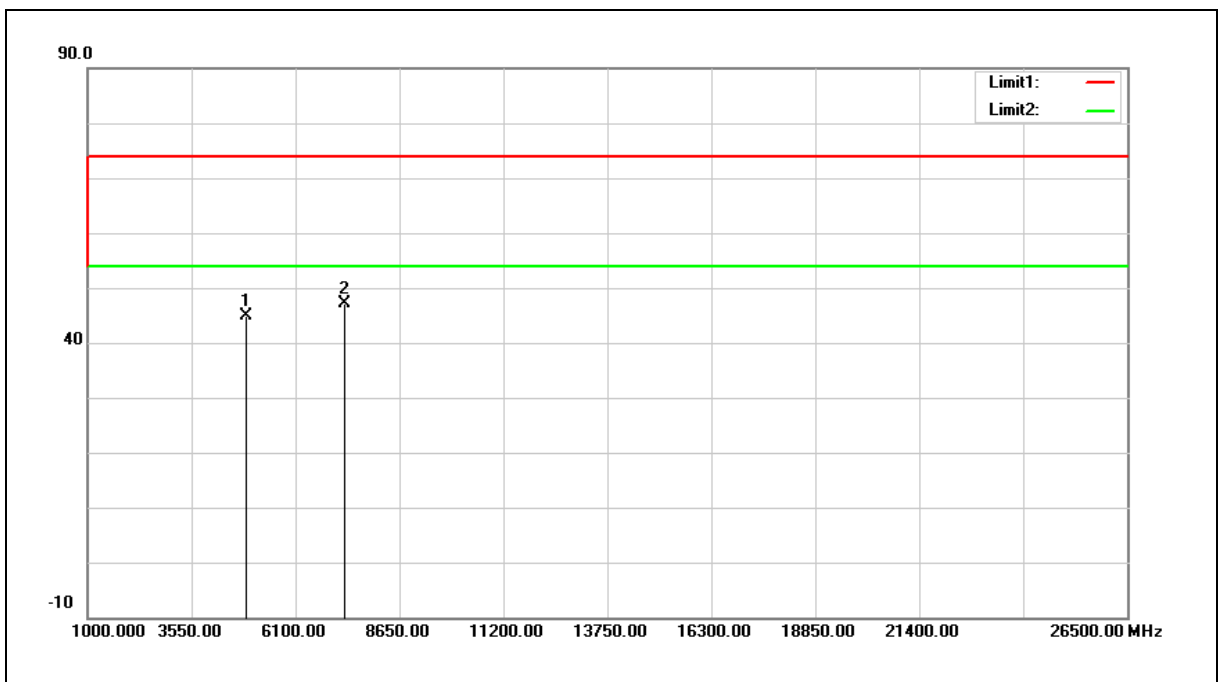
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4960.000	52.45	-5.17	47.28	74.00	-26.72	peak
2	7440.000	47.76	-0.35	47.41	74.00	-26.59	peak

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 3.7 V
Mode:	Mode 5	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Ant.Polar.:	Horizontal		
Description:			



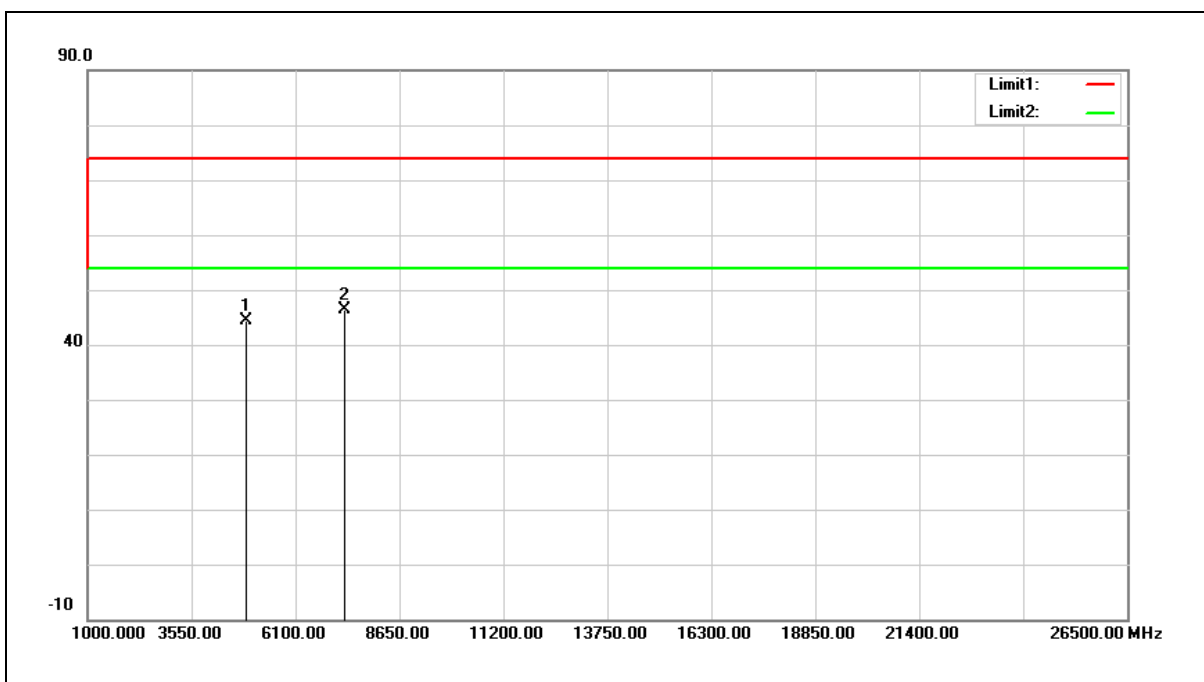
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4882.000	49.94	-5.10	44.84	74.00	-29.16	peak
2	7323.000	47.76	-0.63	47.13	74.00	-26.87	peak

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 3.7 V
Mode:	Mode 5	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Ant.Polar.:	Vertical		
Description:			



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4882.000	49.45	-5.10	44.35	74.00	-29.65	peak
2	7323.000	47.13	-0.63	46.50	74.00	-27.50	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).

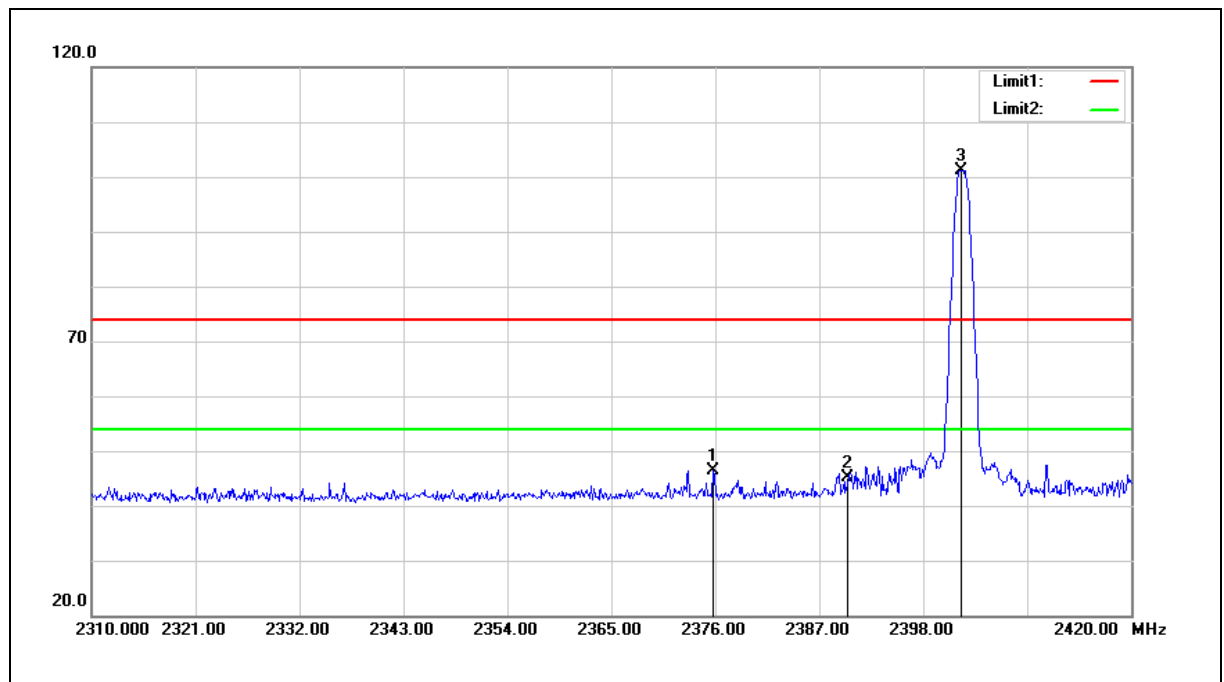
3. When the peak results are less than average limit, so not need to evaluate the average.

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。

右耳

Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.7 V
Frequency:	2402 MHz	Temp.(°C)/Hum. (%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



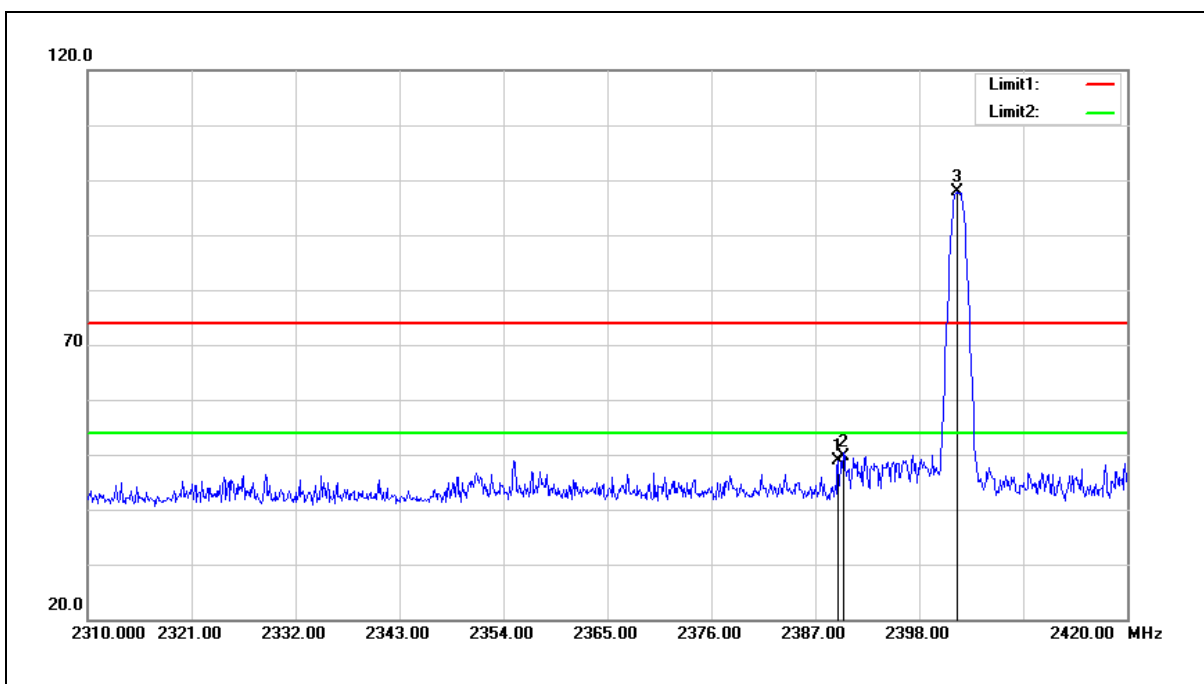
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2375.780	56.11	-9.83	46.28	74.00	-27.72	peak
2	2390.000	54.95	-9.78	45.17	74.00	-28.83	peak
3	2402.000	110.96	-9.75	101.21	---	---	peak

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 3.7 V
Frequency:	2402 MHz	Temp.(°C)/Hum. (%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



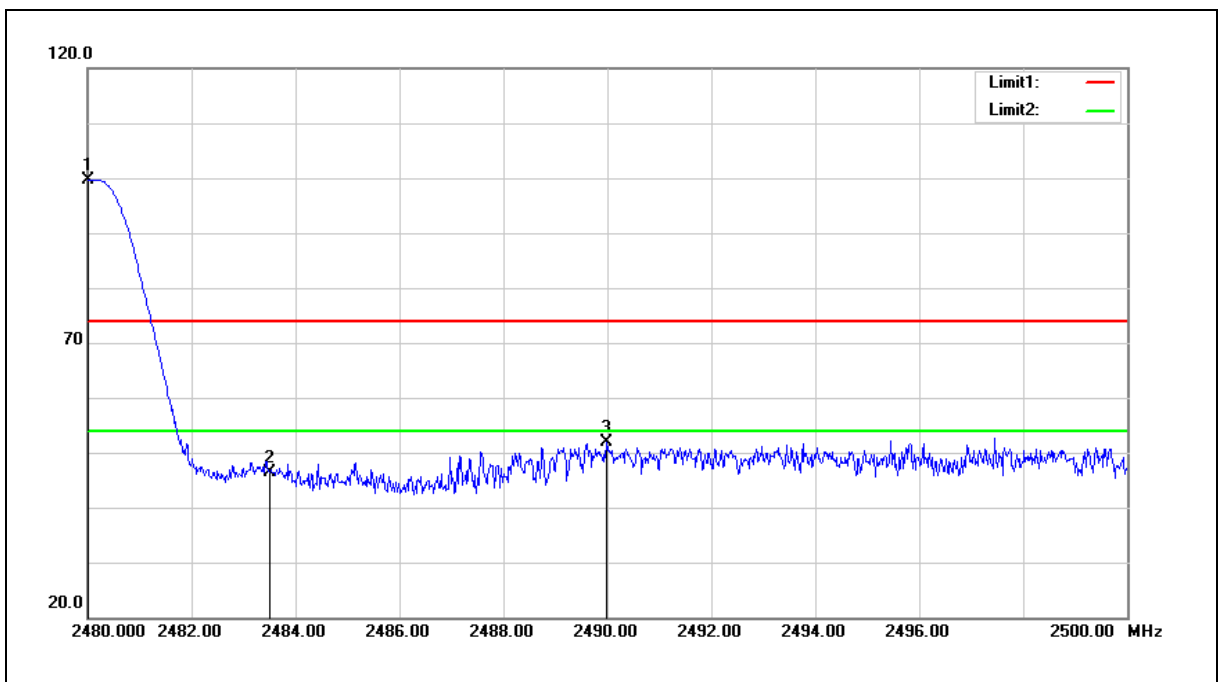
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.420	58.57	-9.79	48.78	74.00	-25.22	peak
2	2390.000	59.50	-9.78	49.72	74.00	-24.28	peak
3	2402.000	107.52	-9.75	97.77	---	---	peak

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 3.7 V
Frequency:	2480 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



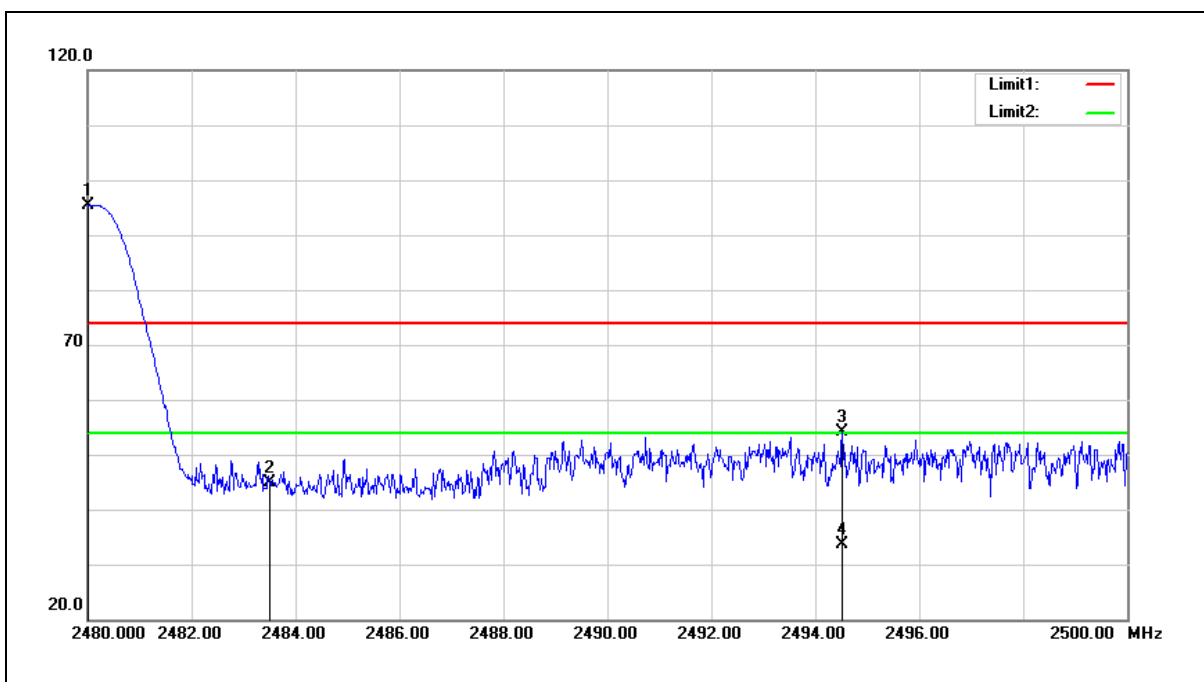
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2480.000	109.26	-9.58	99.68	---	---	peak
2	2483.500	56.04	-9.56	46.48	74.00	-27.52	peak
3	2489.980	61.46	-9.55	51.91	74.00	-22.09	peak

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 3.7 V
Frequency:	2480 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



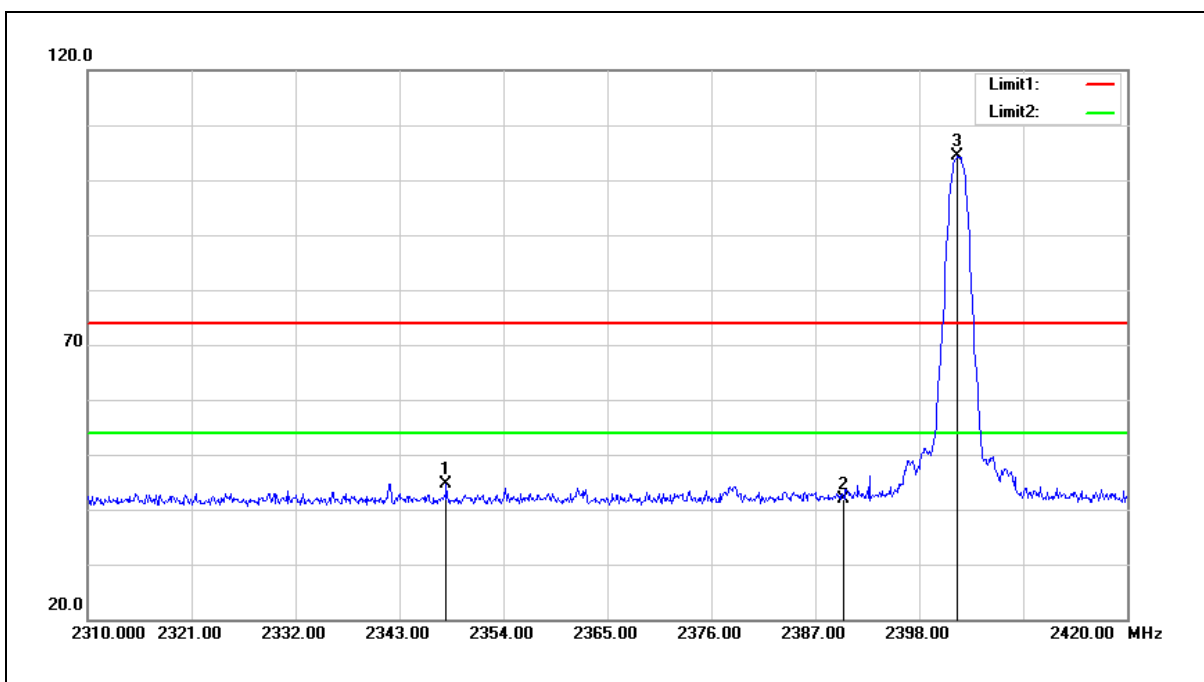
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2480.000	104.94	-9.58	95.36	---	---	peak
2	2483.500	54.34	-9.56	44.78	74.00	-29.22	peak
3	2494.520	63.60	-9.54	54.06	74.00	-19.94	peak
4	2494.520	43.09	-9.54	33.55	54.00	-20.45	AVG

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 3.7 V
Frequency:	2402 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



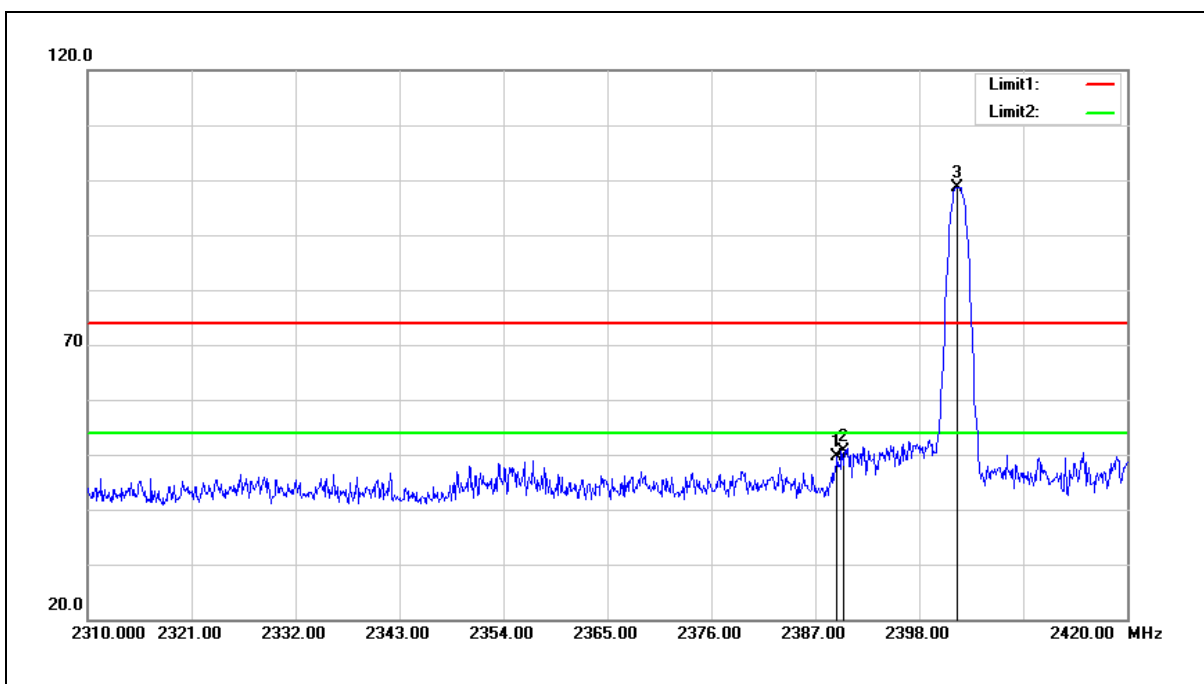
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2347.950	54.64	-9.91	44.73	74.00	-29.27	peak
2	2390.000	51.65	-9.78	41.87	74.00	-32.13	peak
3	2402.000	114.03	-9.75	104.28	---	---	peak

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 3.7 V
Frequency:	2402 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		



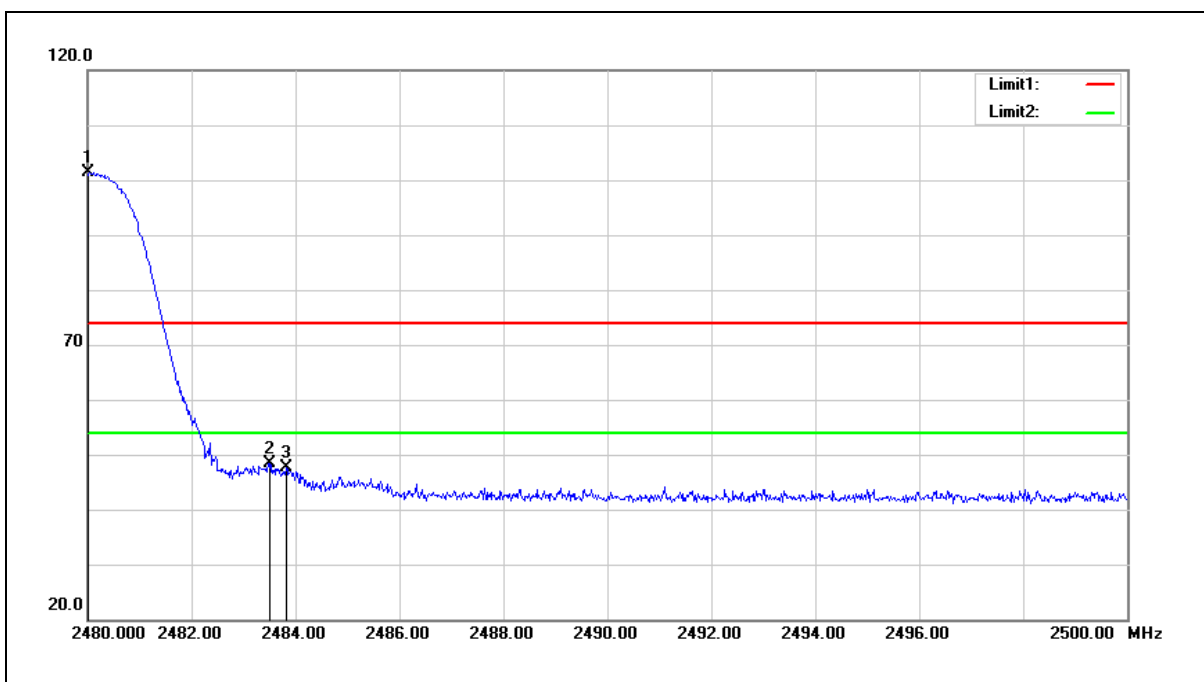
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.310	59.42	-9.79	49.63	74.00	-24.37	peak
2	2390.000	60.36	-9.78	50.58	74.00	-23.42	peak
3	2402.000	108.42	-9.75	98.67	---	---	peak

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 3.7 V
Frequency:	2480 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



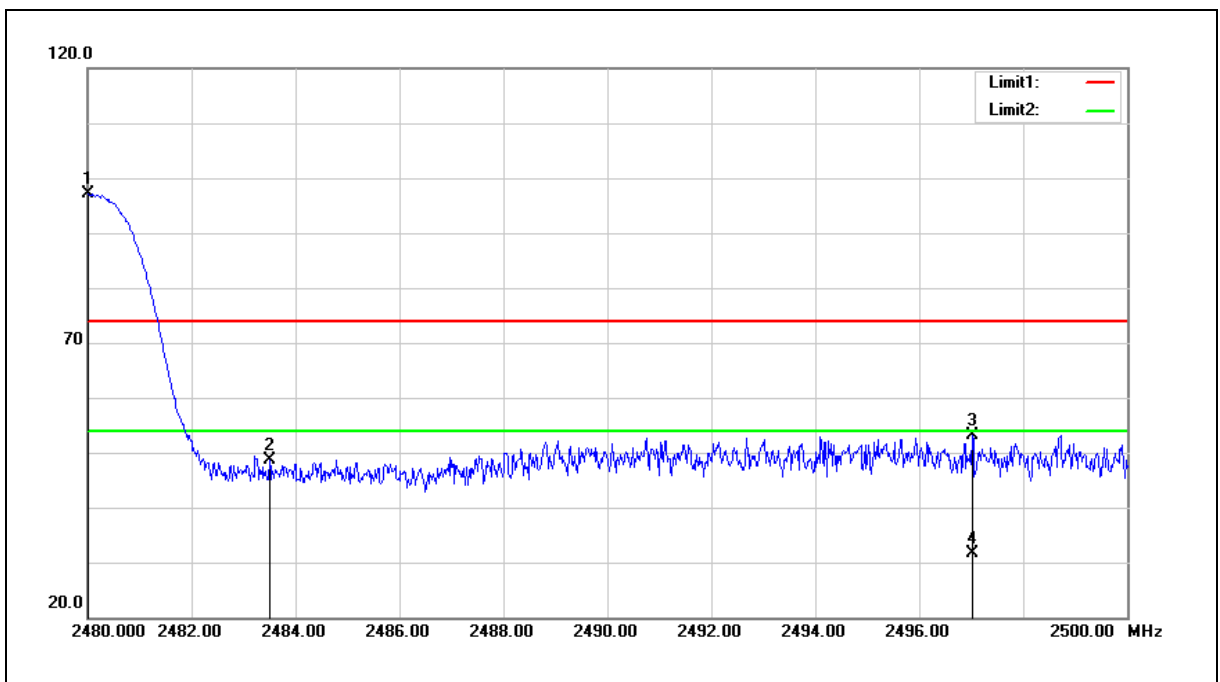
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2480.000	110.93	-9.58	101.35	---	---	peak
2	2483.500	57.90	-9.56	48.34	74.00	-25.66	peak
3	2483.820	57.09	-9.56	47.53	74.00	-26.47	peak

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 3.7 V
Frequency:	2480 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	2480.000	106.74	-9.58	97.16	---	---	peak
2	2483.500	58.30	-9.56	48.74	74.00	-25.26	peak
3	2497.020	62.75	-9.53	53.22	74.00	-20.78	peak
4	2497.020	41.19	-9.53	31.66	54.00	-22.34	AVG

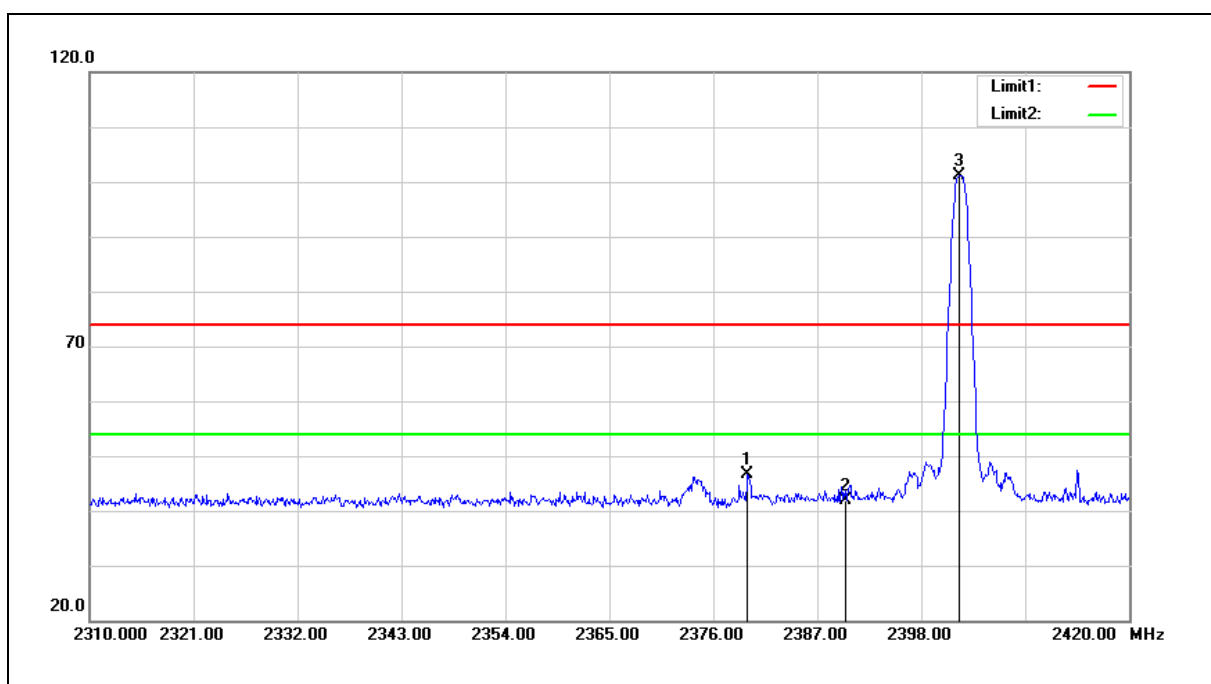
Note: 1.Result (dBuV/m) = Correct Factor (dB/m) + Reading(dBuV).

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.

左耳

Standard:	LP0002	Test Distance:	3 m
Test item:	Band edge	Power:	DC 3.7 V
Frequency:	2402 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



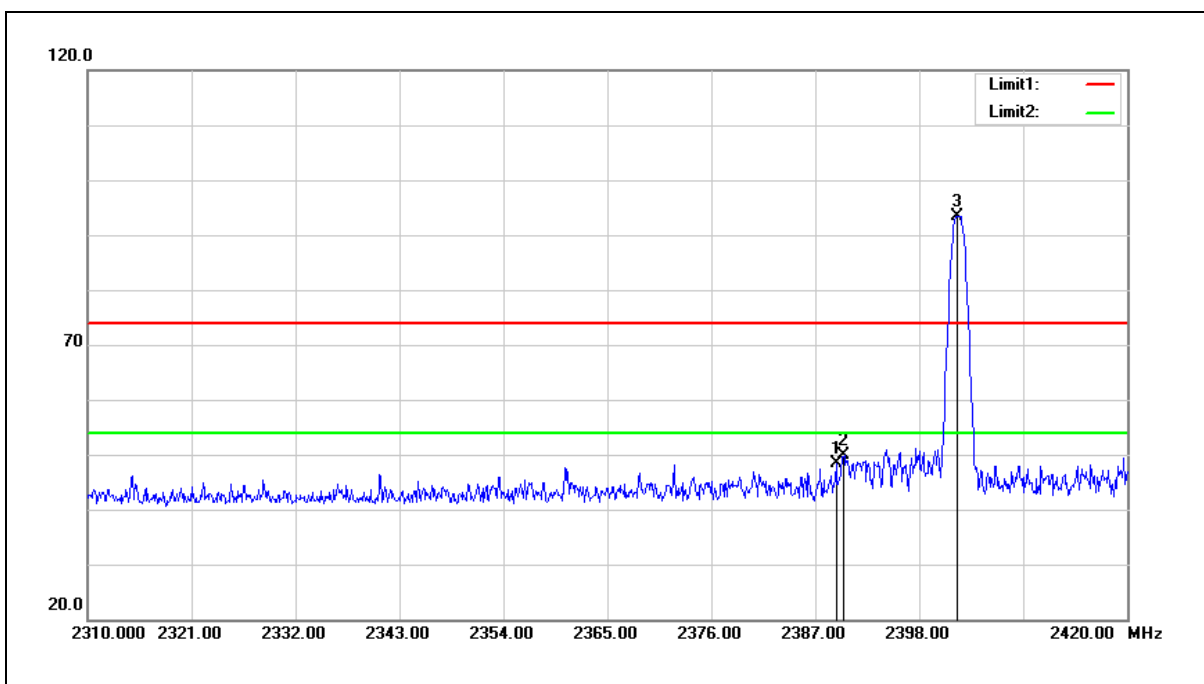
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2379.630	56.50	-9.82	46.68	74.00	-27.32	peak
2	2390.000	51.71	-9.78	41.93	74.00	-32.07	peak
3	2402.000	110.83	-9.75	101.08	---	---	peak

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 3.7 V
Frequency:	2402 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



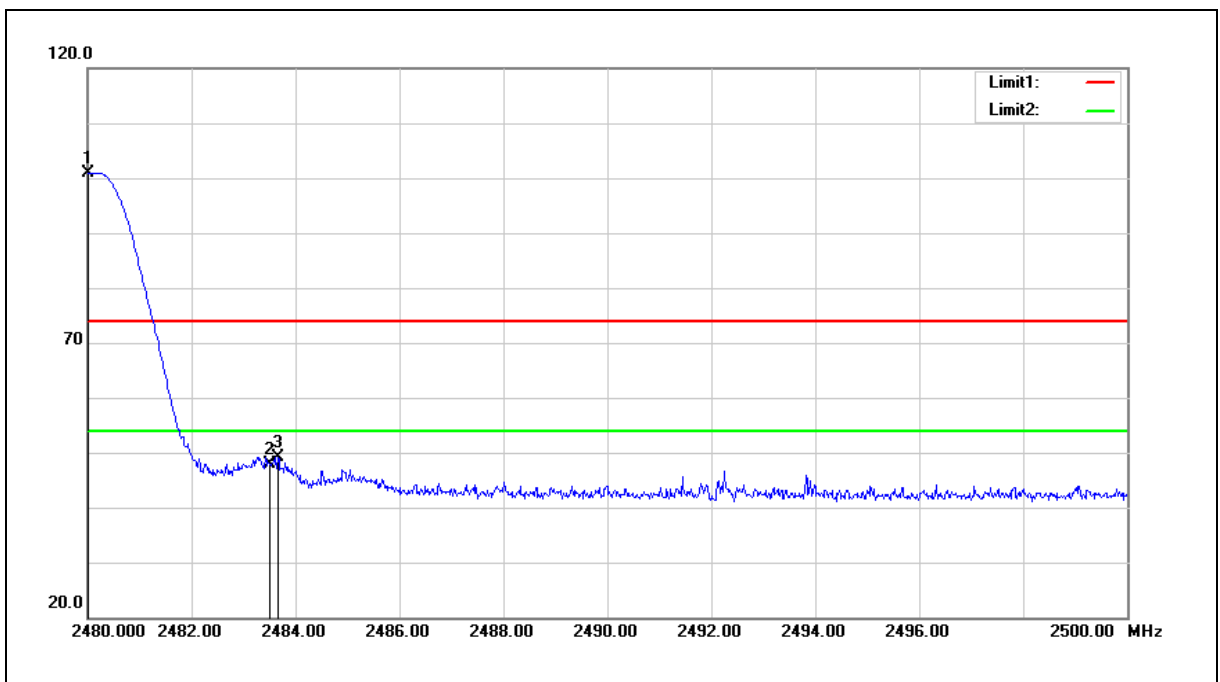
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.200	58.21	-9.79	48.42	74.00	-25.58	peak
2	2390.000	59.58	-9.78	49.80	74.00	-24.20	peak
3	2402.000	103.11	-9.75	93.36	---	---	peak

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 3.7 V
Frequency:	2480 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Horizontal		



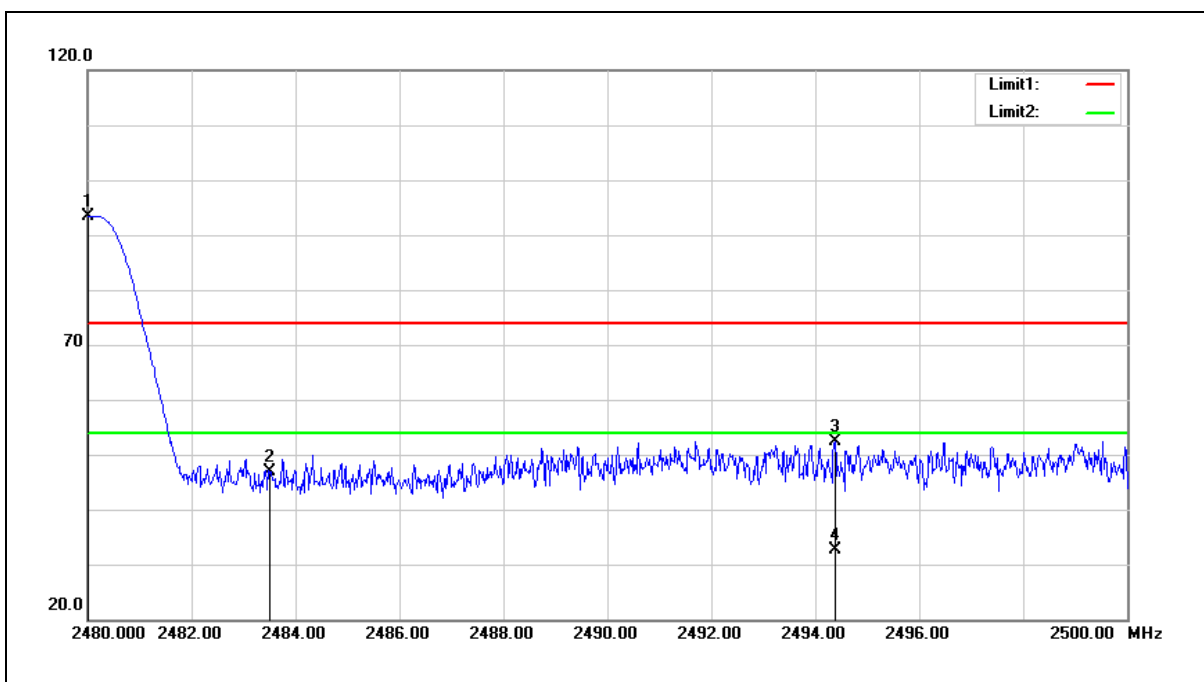
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2480.000	110.58	-9.58	101.00	---	---	peak
2	2483.500	57.46	-9.56	47.90	74.00	-26.10	peak
3	2483.660	58.65	-9.56	49.09	74.00	-24.91	peak

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 3.7 V
Frequency:	2480 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 2		
Ant.Polar.:	Vertical		



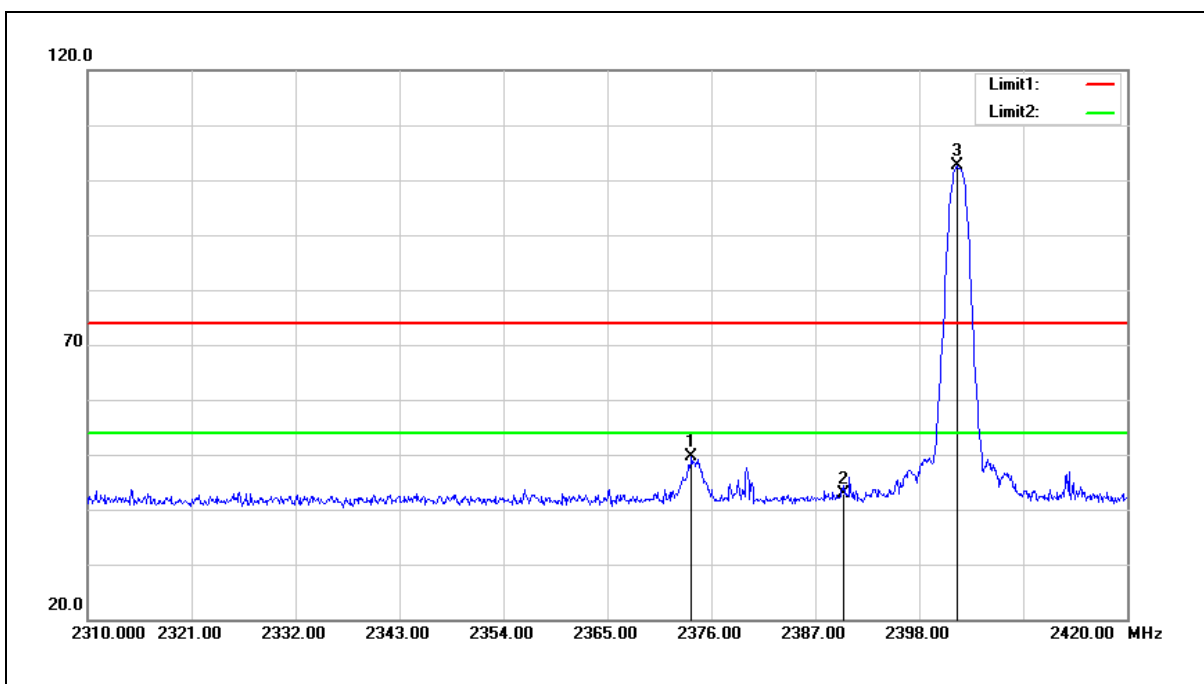
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2480.000	103.01	-9.58	93.43	---	---	peak
2	2483.500	56.43	-9.56	46.87	74.00	-27.13	peak
3	2494.380	61.99	-9.54	52.45	74.00	-21.55	peak
4	2494.380	42.08	-9.54	32.54	54.00	-21.46	AVG

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 3.7 V
Frequency:	2402 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



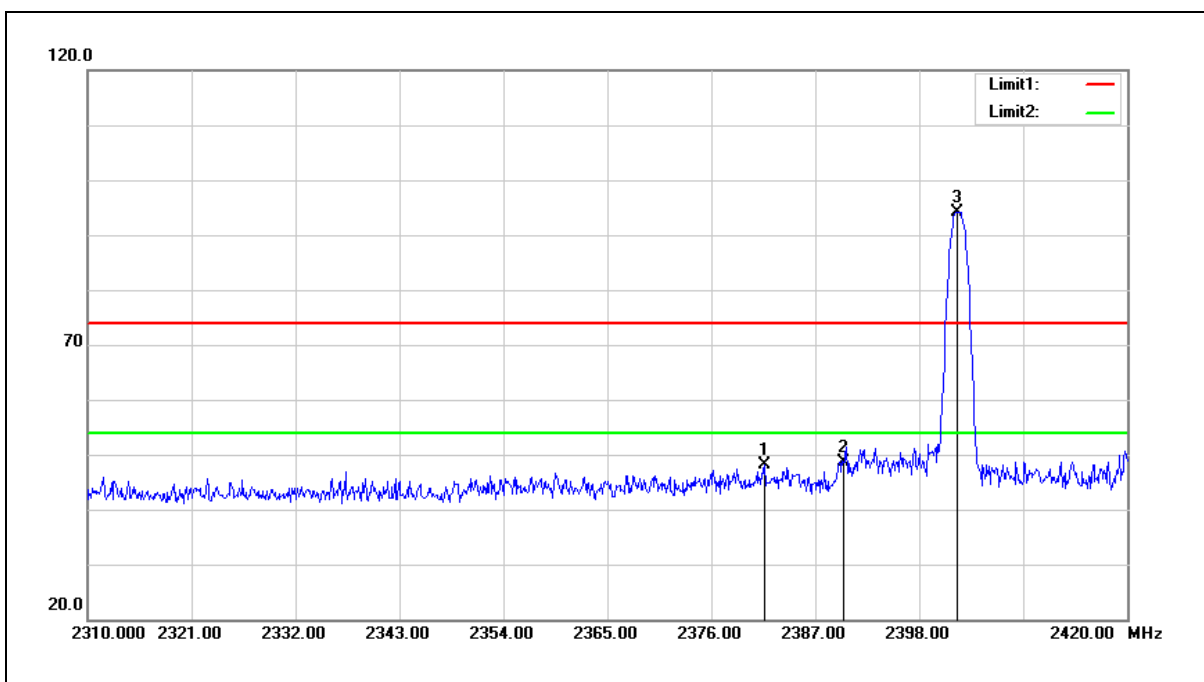
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2373.910	59.41	-9.83	49.58	74.00	-24.42	peak
2	2390.000	52.54	-9.78	42.76	74.00	-31.24	peak
3	2402.000	112.43	-9.75	102.68	---	---	peak

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 3.7 V
Frequency:	2402 MHz	Temp.(°C)/Hum. (%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Vertical		



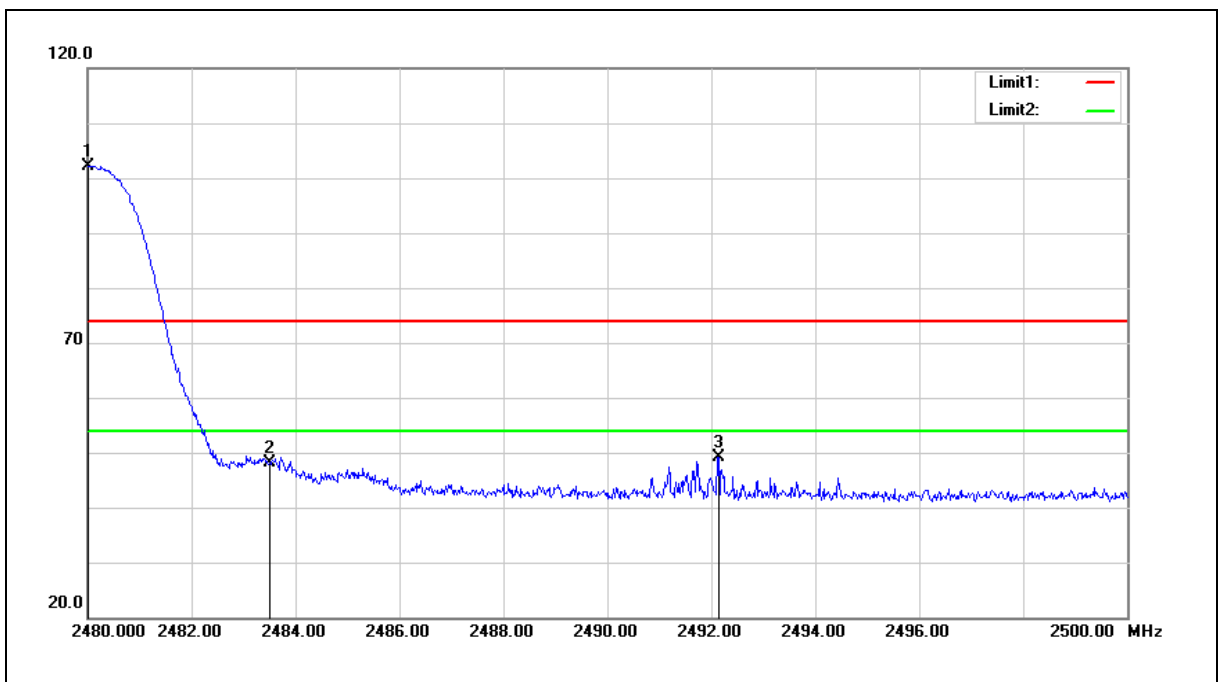
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2381.610	57.88	-9.80	48.08	74.00	-25.92	peak
2	2390.000	58.41	-9.78	48.63	74.00	-25.37	peak
3	2402.000	103.99	-9.75	94.24	---	---	peak

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 3.7 V
Frequency:	2480 MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60 %RH
Mode:	Mode 4		
Ant.Polar.:	Horizontal		



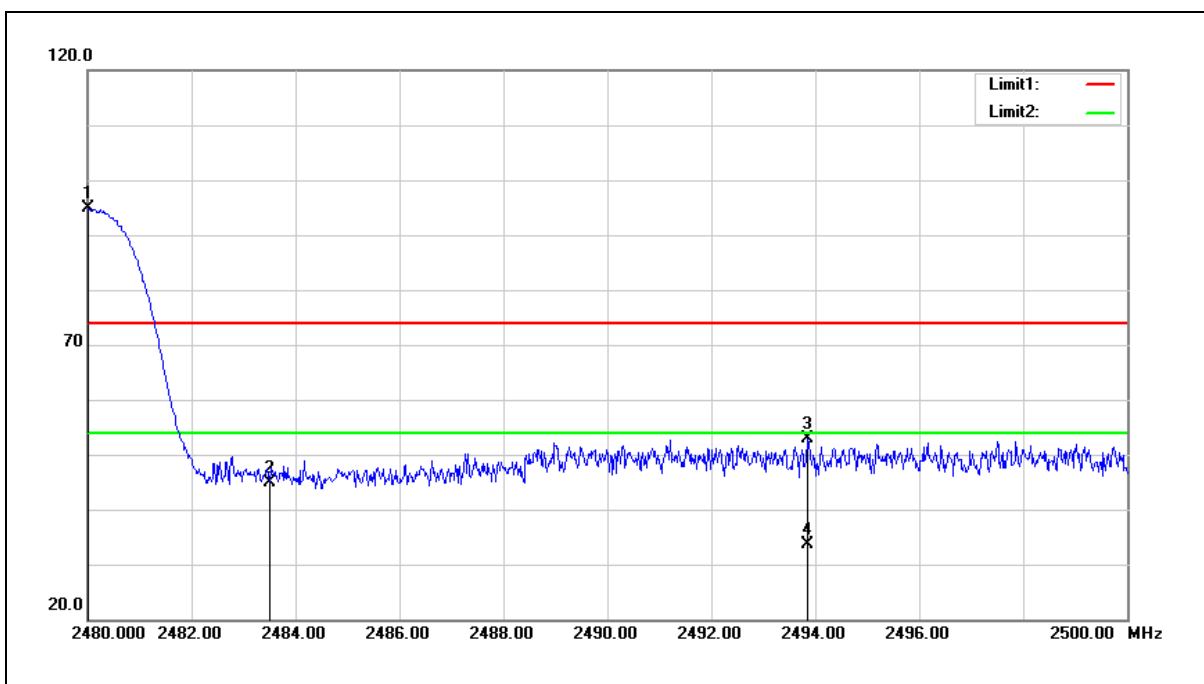
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2480.000	111.82	-9.58	102.24	---	---	peak
2	2483.500	57.62	-9.56	48.06	74.00	-25.94	peak
3	2492.140	58.71	-9.55	49.16	74.00	-24.84	peak

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 3.7 V
Frequency:	2480 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	2480.000	104.42	-9.58	94.84	---	---	peak
2	2483.500	54.37	-9.56	44.81	74.00	-29.19	peak
3	2493.840	62.37	-9.54	52.83	74.00	-21.17	peak
4	2493.840	43.19	-9.54	33.65	54.00	-20.35	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).

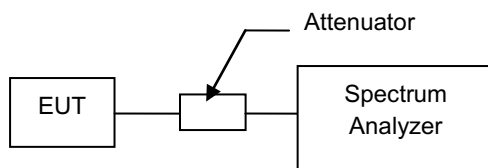
3. When the peak results are less than average limit, so not need to evaluate the average.

4.4 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: BR,GFSK Continuous TX Mode Mode 4: EDR, 8DPSK Continuous TX Mode
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。

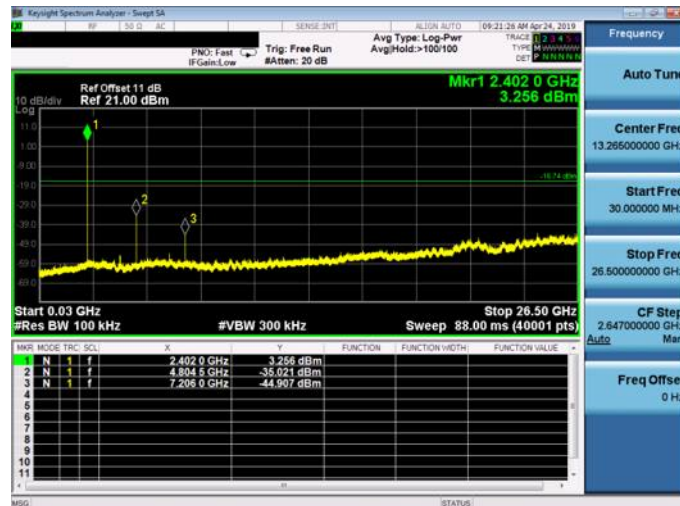
附註 2: 測試結果頻帶外之輻射雜訊皆小於主頻 TX 20 dB。

右耳

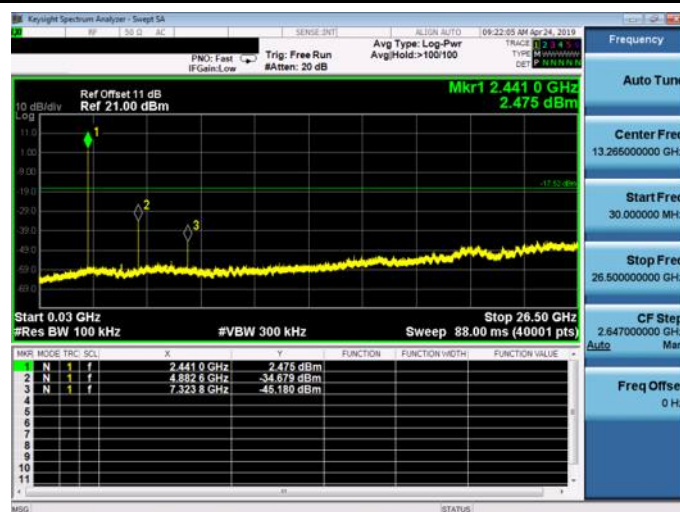
Out of Band Conducted Spurious Emission

Mode 2: BR,GFSK Continuous TX Mode

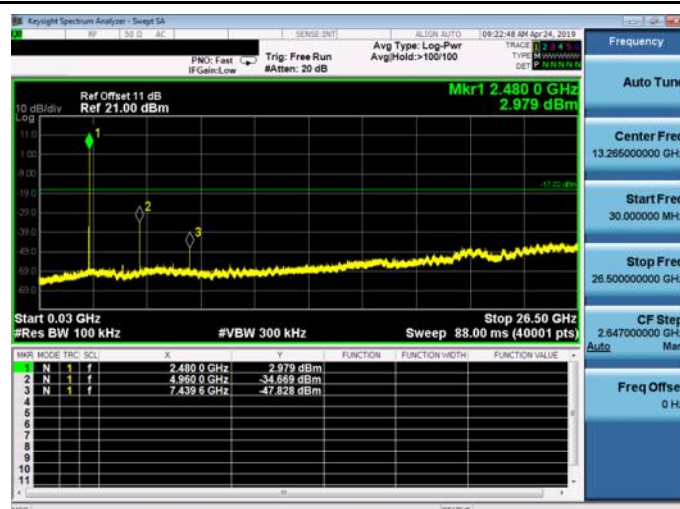
低頻道

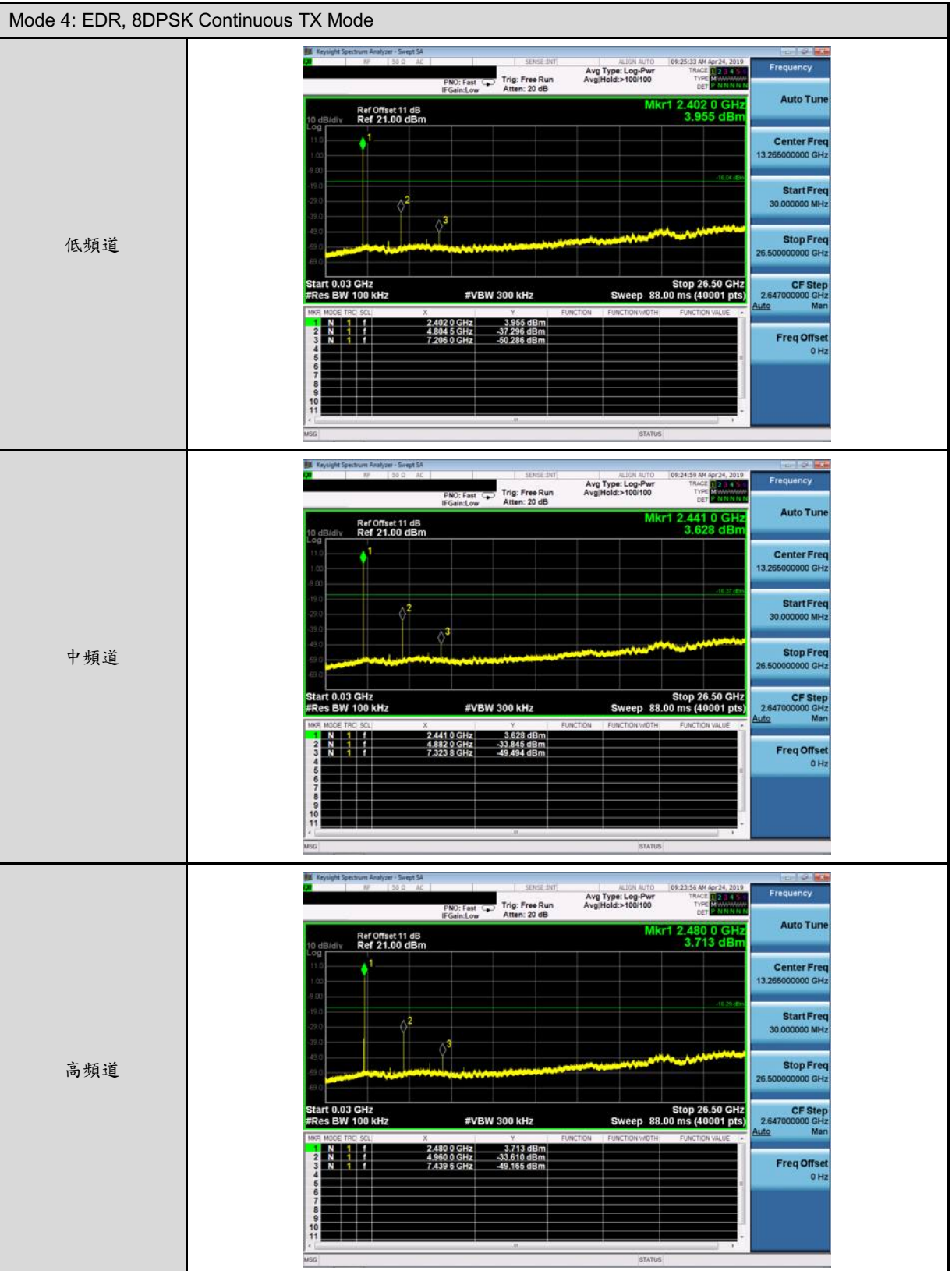


中頻道



高頻道

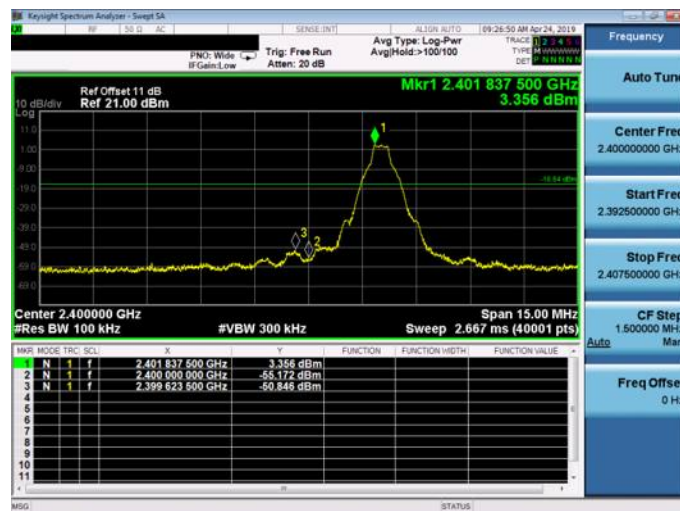




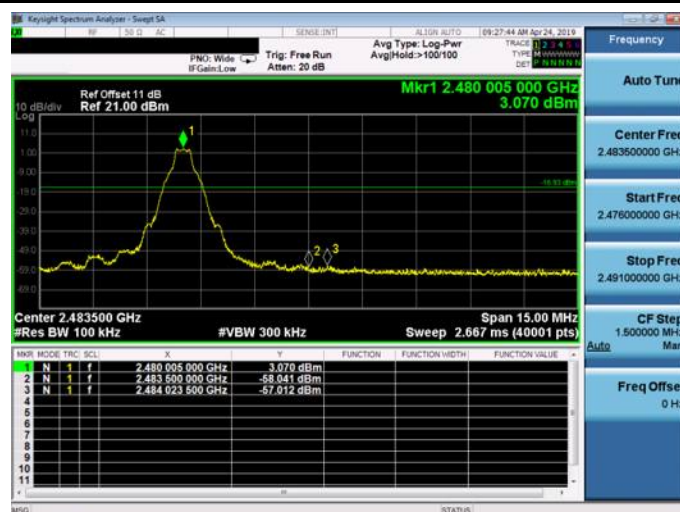
Conducted Band Edge

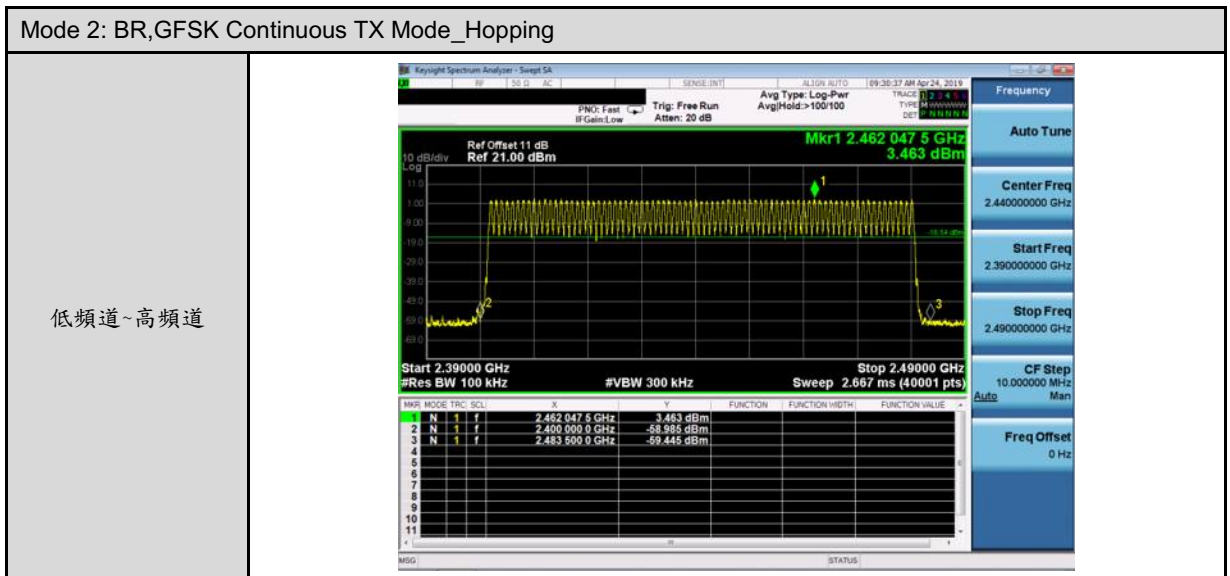
Mode 2: BR,GFSK Continuous TX Mode_Un-hopping

低頻道

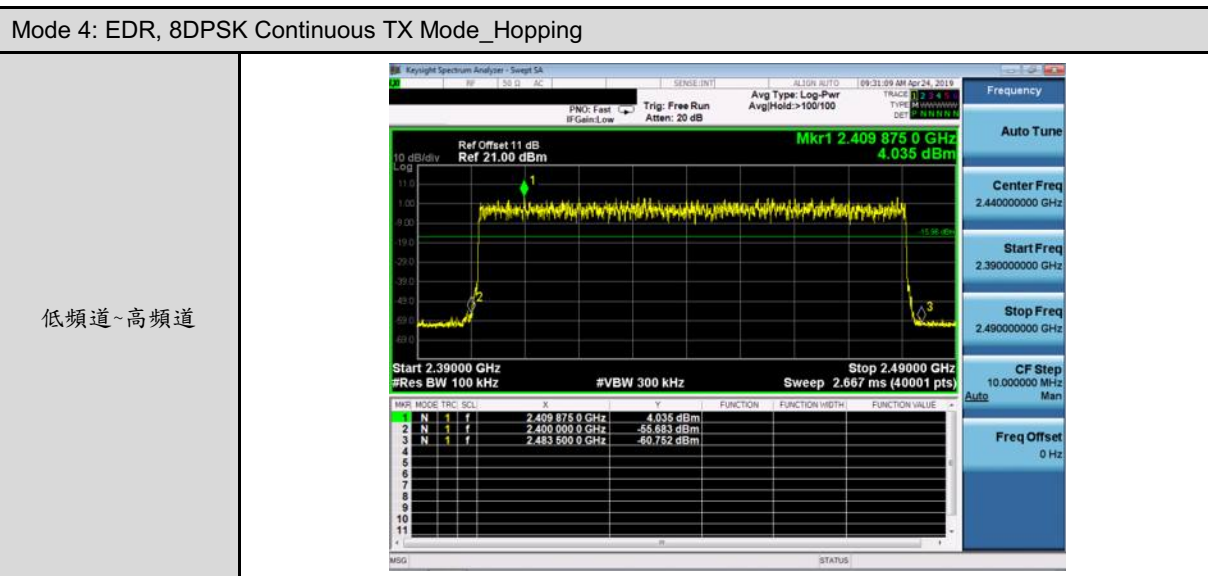


高頻道







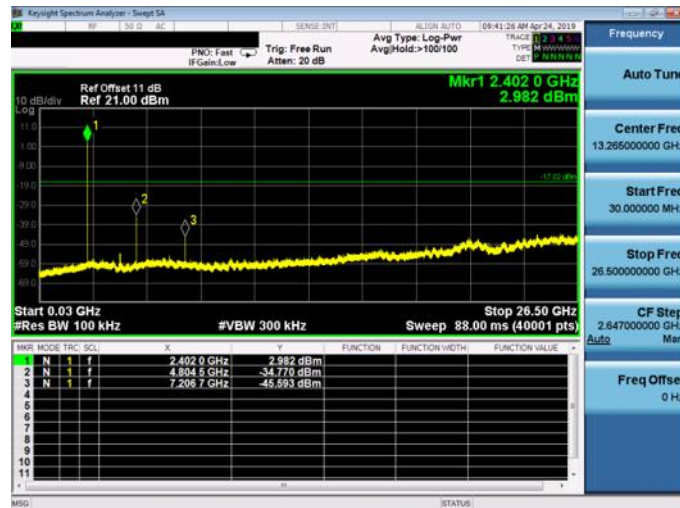


左耳

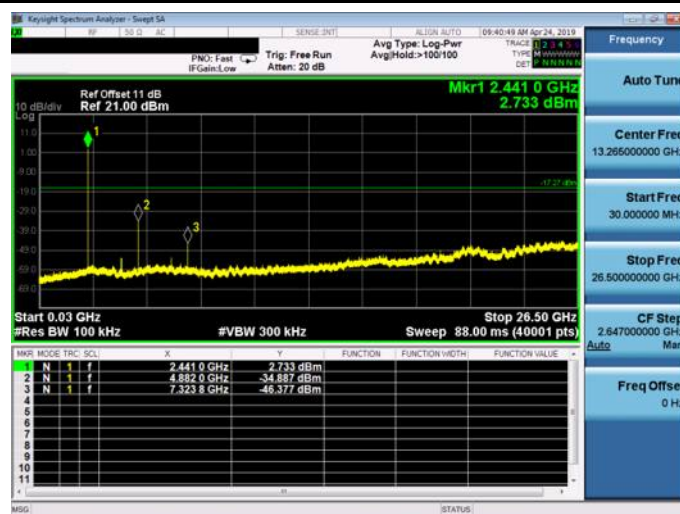
Out of Band Conducted Spurious Emission

Mode 2: BR,GFSK Continuous TX Mode

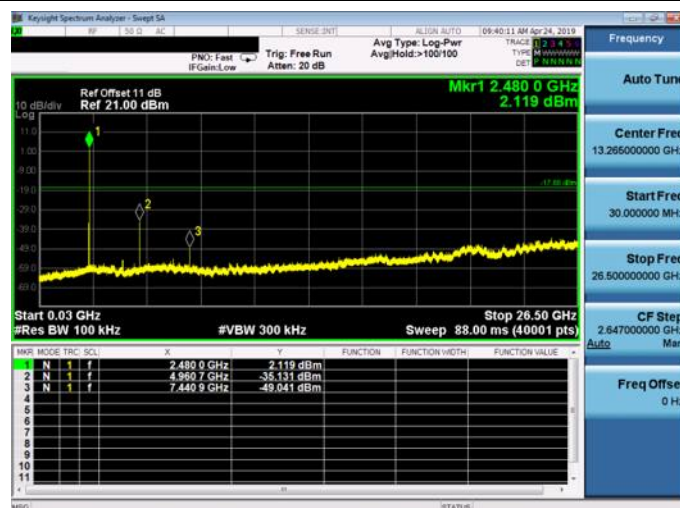
低頻道

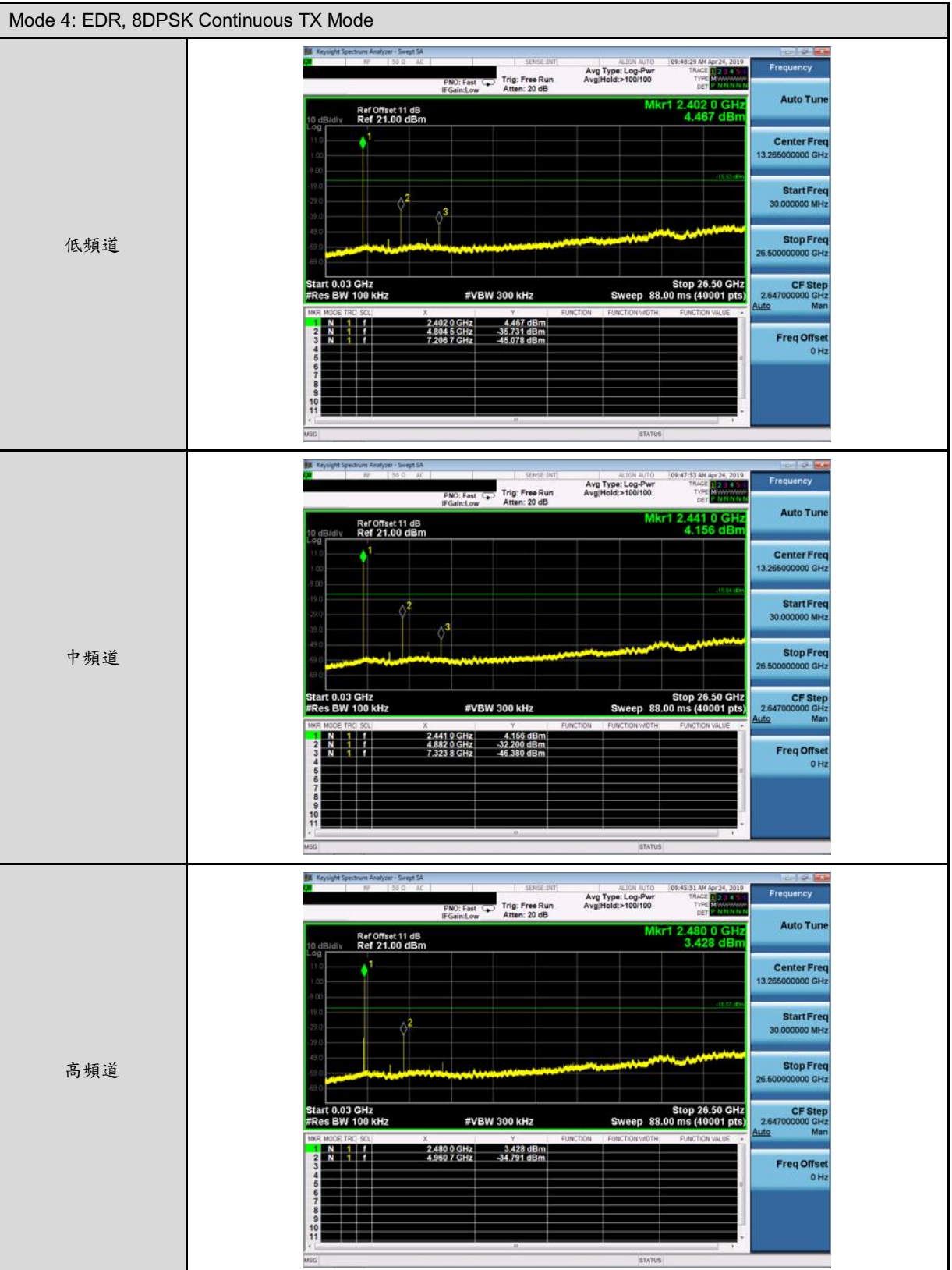


中頻道



高頻道

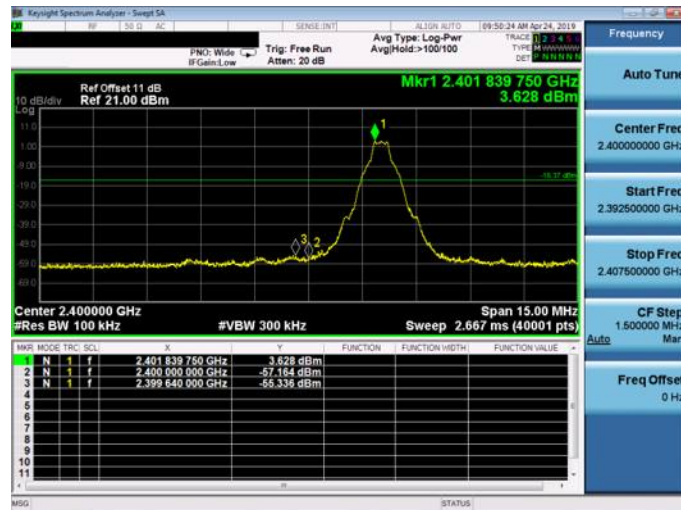




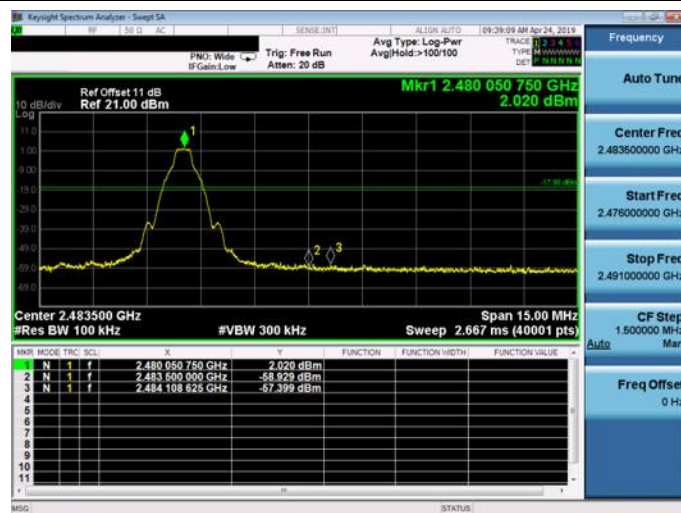
Conducted Band Edge

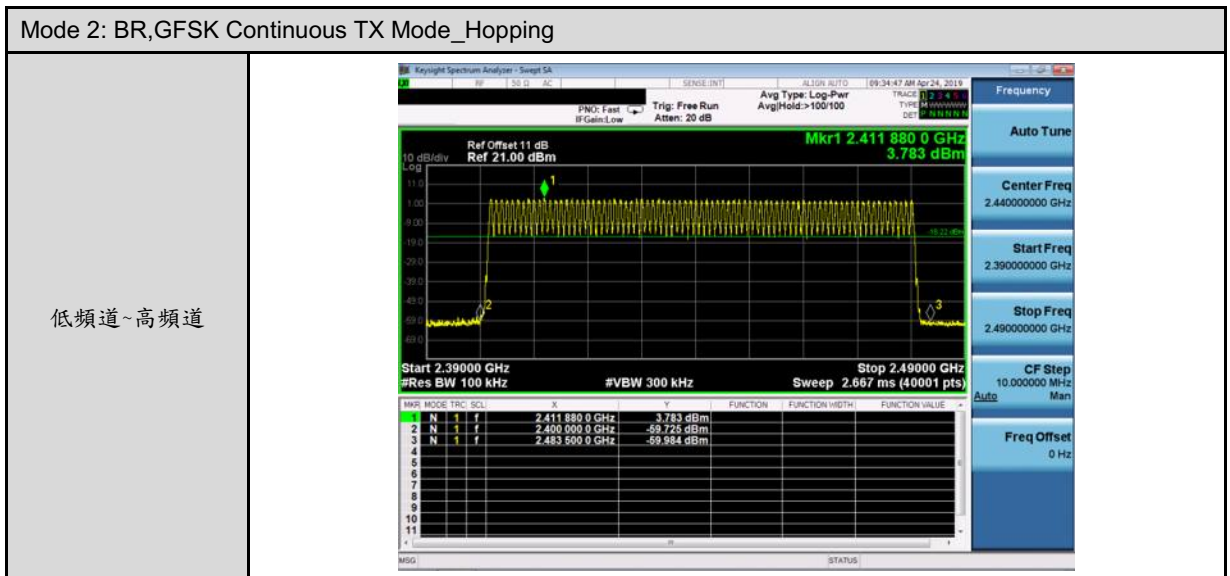
Mode 2: BR,GFSK Continuous TX Mode_Un-hopping

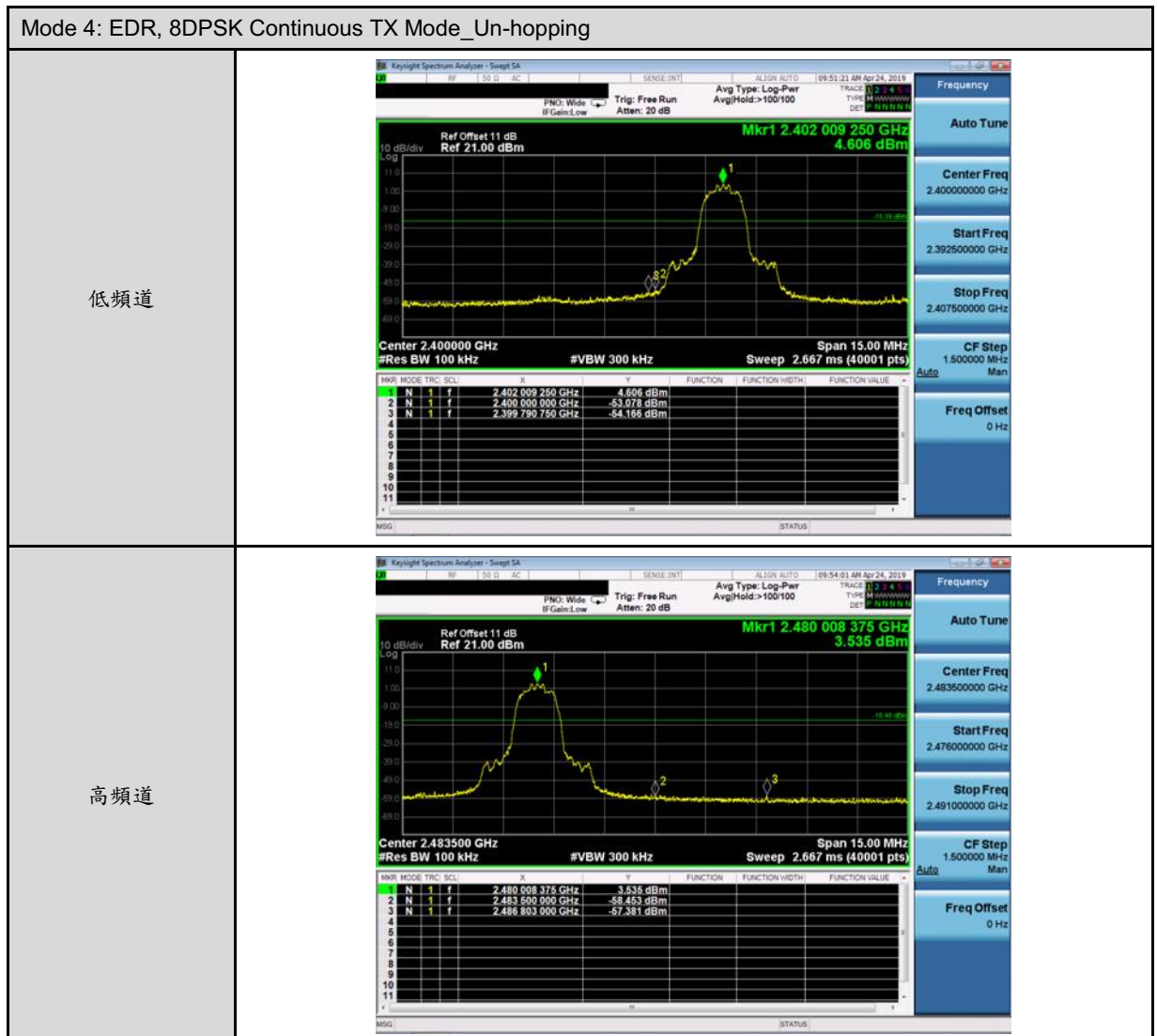
低頻道

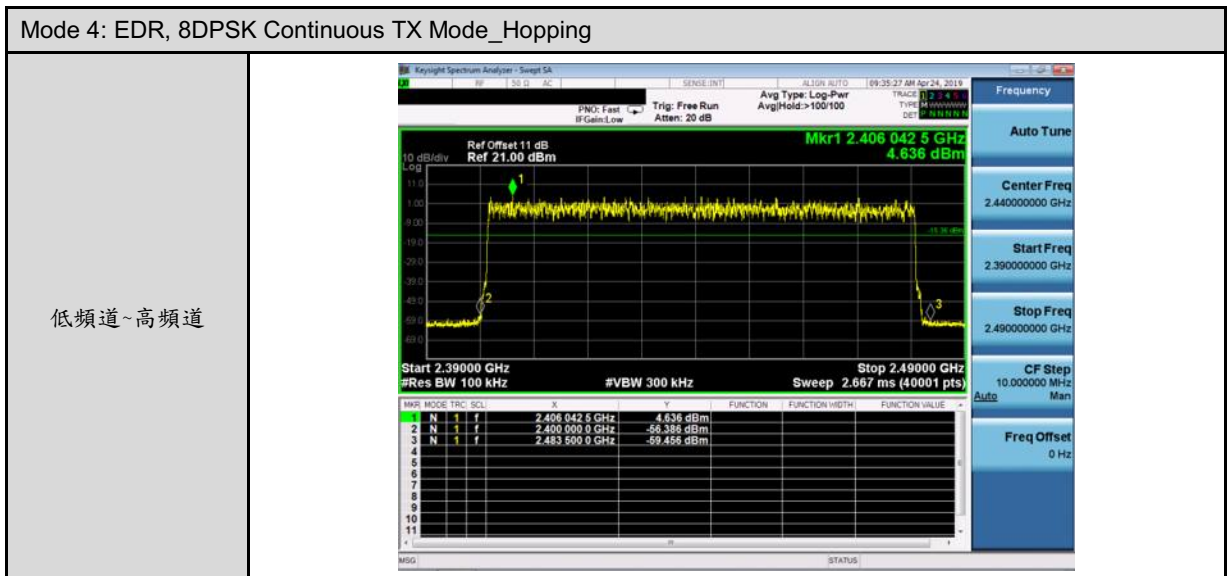


高頻道









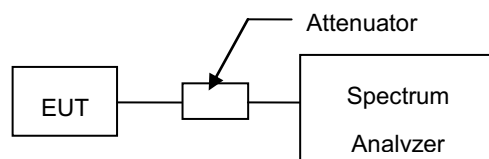
4.5 頻率範圍之要求

合格標準：

依據NCC低功率射頻電機技術規範(LP0002)之3.10.1.1節之要求，允許使用的頻率範圍為2400至2483.5 MHz。

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: BR, GFSK Continuous TX Mode Mode 4: EDR, 8DPSK Continuous TX Mode
測試結果	: 合格
量測之掃描圖如下頁所示	

右耳

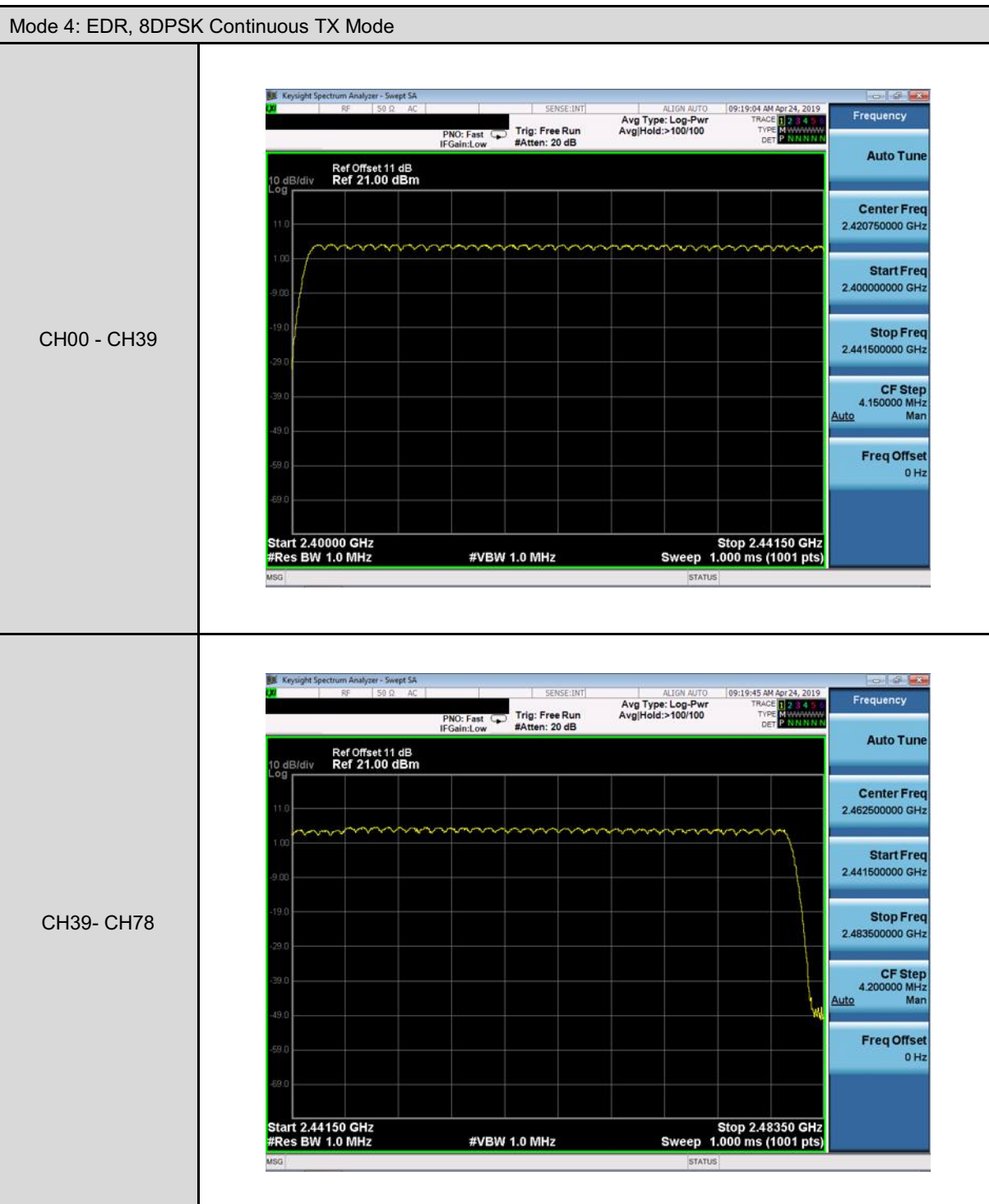
Mode 2: BR, GFSK Continuous TX Mode

CH00 - CH39



CH39- CH78





左耳

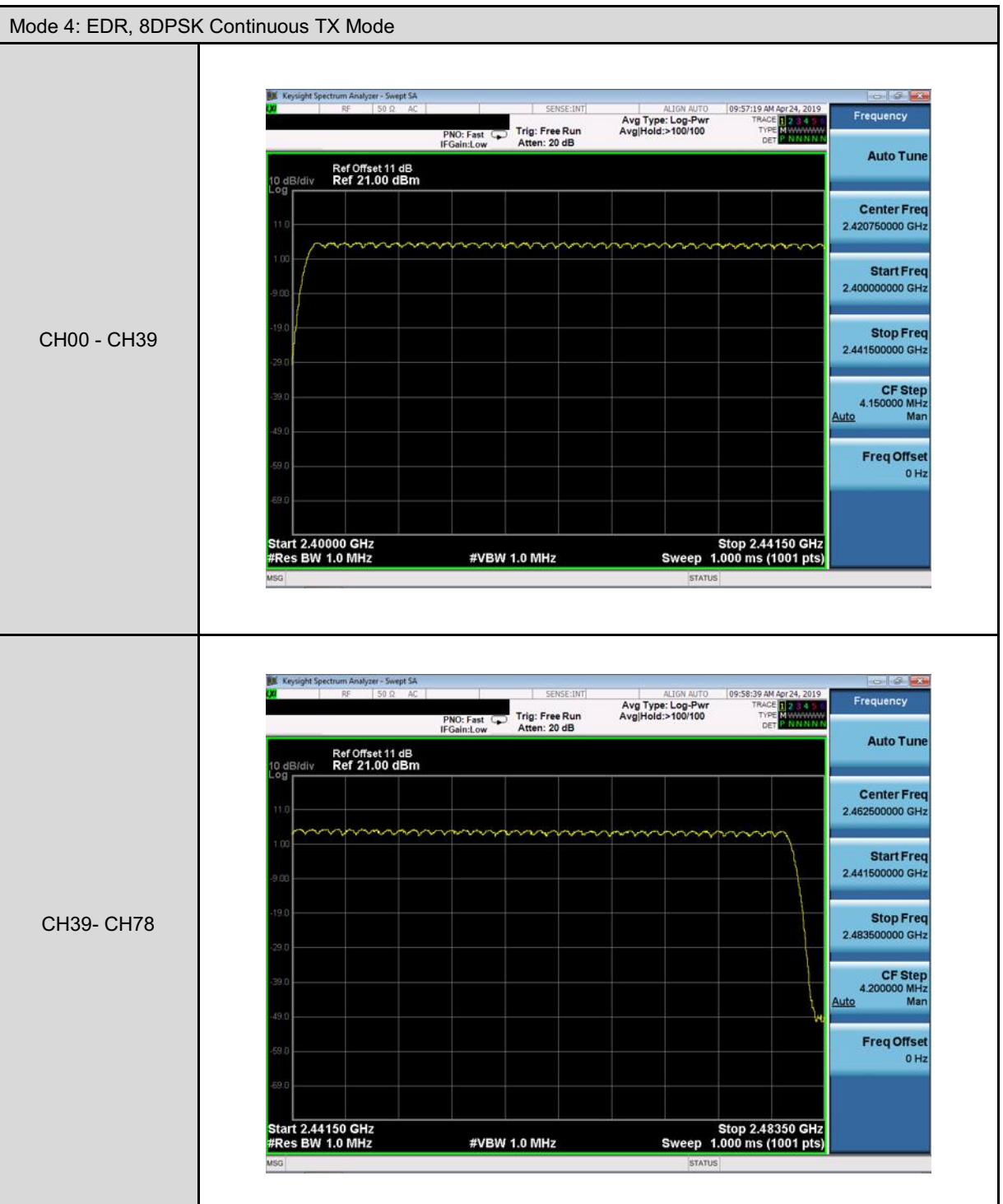
Mode 2: BR, GFSK Continuous TX Mode

CH00 - CH39



CH39- CH78



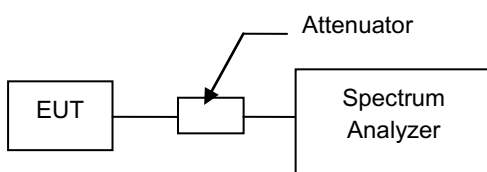


4.6 發射頻寬之要求

合格標準：

對跳頻系統(Frequency Hopping System)而言，依據 NCC 低功率射頻電機技術規範 3.10.1.6(1)(A)節之要求，跳頻系統之載波頻率頻道間隔應至少 25 千赫(kHz)或跳頻頻道 20dB 頻寬之三分之二，兩者取較寬者。系統之跳頻頻道應依虛擬亂數排列，在各頻率之跳頻頻道上跳躍。每一發射機必須均等的使用每一頻率。系統接收機應具有與發射機跳躍頻道頻寬相匹配之輸入頻寬，且應隨所發射的信號同步偏移接收頻率。

測試架構圖：



測試結果：

操作模式： Mode 2: BR, GFSK Continuous TX Mode Mode 4: EDR, 8DPSK Continuous TX Mode				
右耳				
操作模式	頻道	發射頻寬(20 dB)		
		量測值 (MHz)	2/3 量測值 (MHz)	限制值 (MHz)
Mode 2	低頻道	0.956	0.638	-----
	中頻道	0.955	0.636	-----
	高頻道	0.963	0.642	-----
Mode 4	低頻道	1.292	0.861	-----
	中頻道	1.299	0.866	-----
	高頻道	1.287	0.858	-----
左耳				
操作模式	頻道	發射頻寬(20 dB)		
		量測值 (MHz)	2/3 量測值 (MHz)	限制值 (MHz)
Mode 2	低頻道	0.958	0.638	-----
	中頻道	0.962	0.641	-----
	高頻道	0.956	0.637	-----
Mode 4	低頻道	1.291	0.861	-----
	中頻道	1.297	0.865	-----
	高頻道	1.294	0.863	-----
註：發射頻寬(20 dB) 之 2/3 量測值 = 量測值 x 2 / 3				
測試掃描圖請參考下頁。				

右耳

Mode 2: BR, GFSK Continuous TX Mode

低頻道

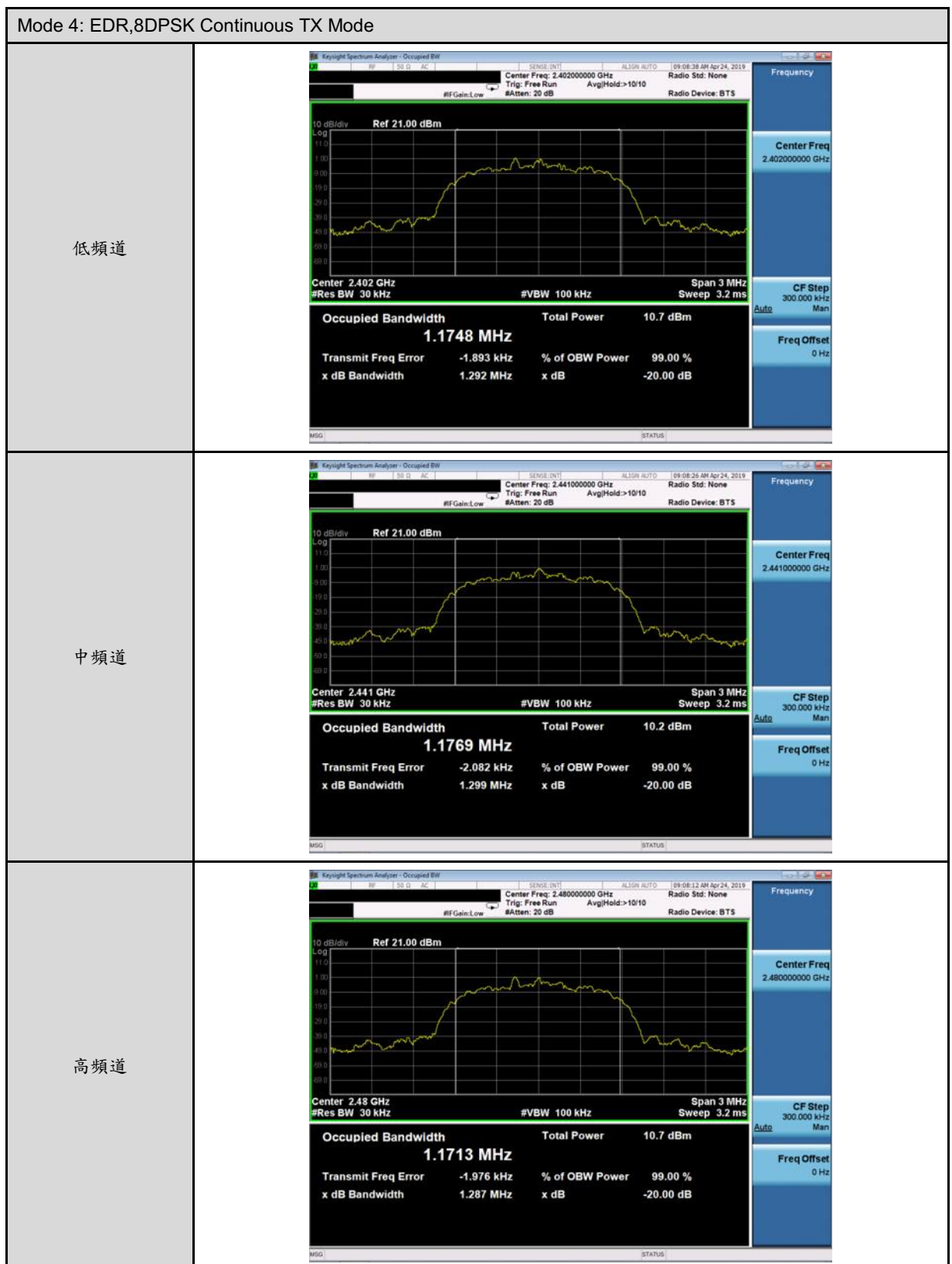


中頻道



高頻道





左耳

Mode 2: BR, GFSK Continuous TX Mode

低頻道

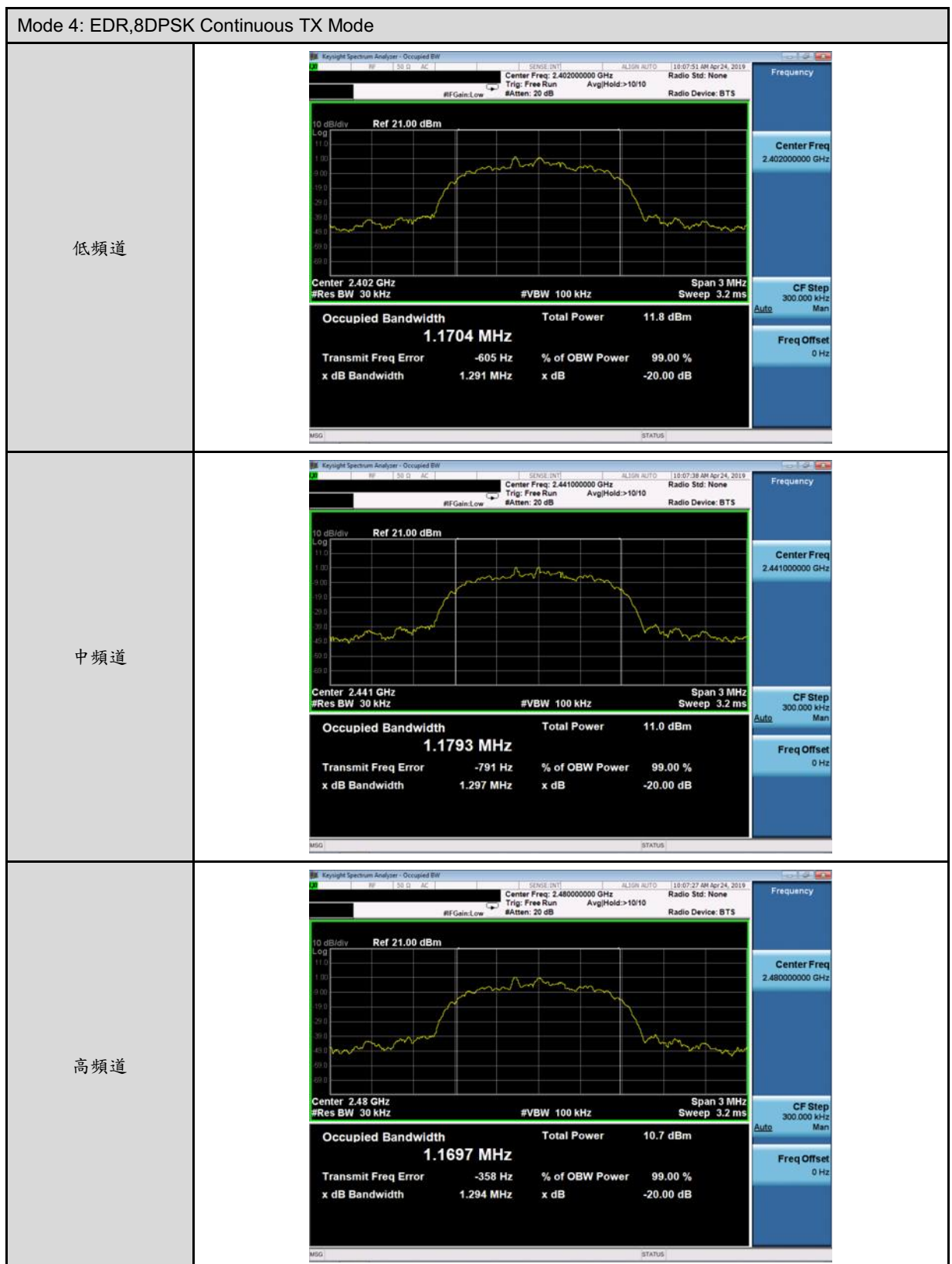


中頻道



高頻道



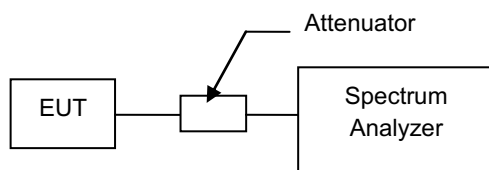


4.7 頻道數之要求

合格標準：

對跳頻系統(Frequency Hopping System)而言,依據 NCC 低功率射頻電機技術規範(LP0002)之 3.10.1.6(1)(A)(a)節之要求，至少使用 15 個無重疊之頻道(複合系統時,關閉數位調變作業狀態檢驗)。

測試架構圖：



測試結果：

操作模式	: Mode 2: BR, GFSK Continuous TX Mode Mode 4: EDR, 8DPSK Continuous TX Mode
測試結果	: 合格
量測之掃描圖如下頁所示	

右耳

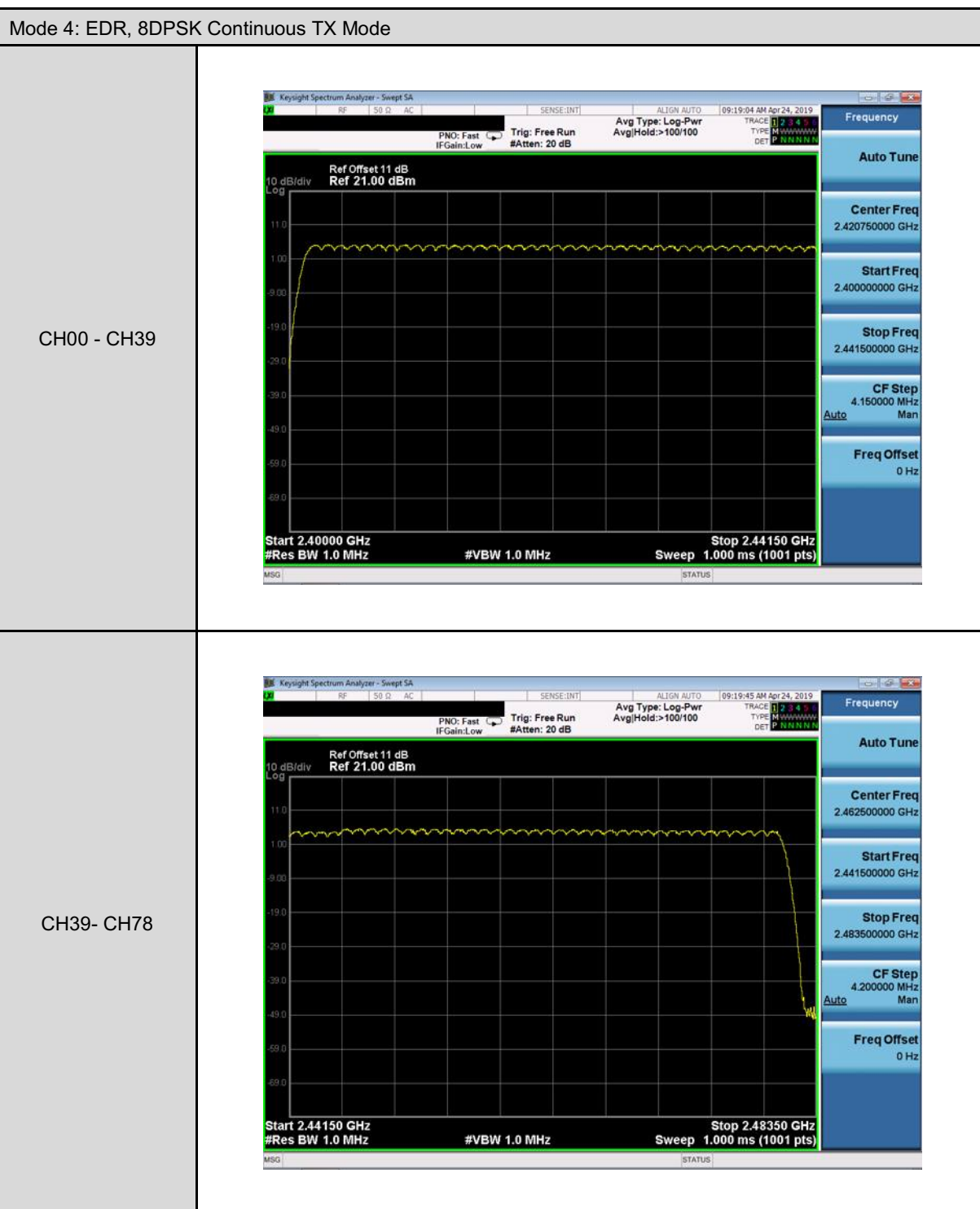
Mode 2: BR, GFSK Continuous TX Mode

CH00 - CH39



CH39- CH78





左耳

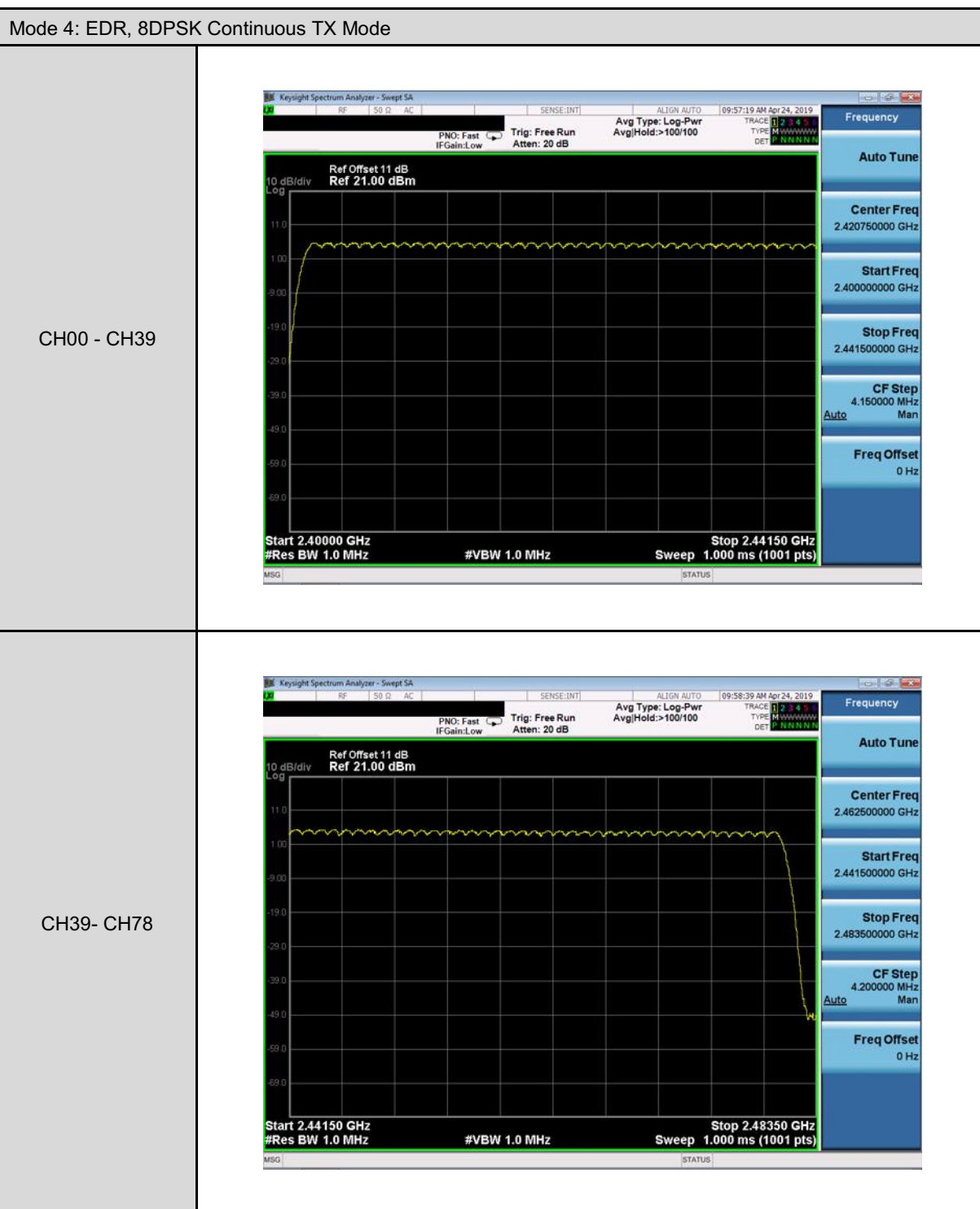
Mode 2: BR, GFSK Continuous TX Mode

CH00 - CH39



CH39- CH78



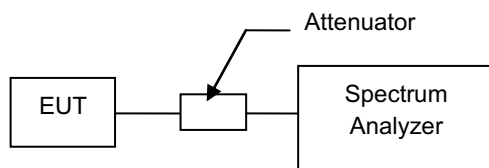


4.8 跳頻系統之載波頻率頻道間隔之量測

合格標準:

依據 NCC 低功率射頻電機技術規範(LP0002) 之 3.10.1.6(1)(A)節要求，應至少 25kHz 或跳頻頻道之 20 dB 頻寬之三分之二,兩者取較寬者。

測試架構圖：



測試結果:

操作模式： Mode 2: BR, GFSK Continuous TX Mode Mode 4: EDR, 8DPSK Continuous TX Mode			
右耳			
操作模式	頻道	鄰頻道載波間隔	
		量測值 (MHz)	限制值 (MHz)
Mode 2	低頻道	1.000	≥ 0.638
	中頻道	1.000	≥ 0.636
	高頻道	1.000	≥ 0.642
Mode 4	低頻道	1.000	≥ 0.861
	中頻道	1.000	≥ 0.866
	高頻道	1.000	≥ 0.858
左耳			
操作模式	頻道	鄰頻道載波間隔	
		量測值 (MHz)	限制值 (MHz)
Mode 2	低頻道	1.000	≥ 0.638
	中頻道	1.000	≥ 0.641
	高頻道	1.000	≥ 0.637
Mode 4	低頻道	1.000	≥ 0.861
	中頻道	1.000	≥ 0.865
	高頻道	1.000	≥ 0.863

右耳

Mode 2: BR, GFSK Continuous TX Mode

低頻道



中頻道

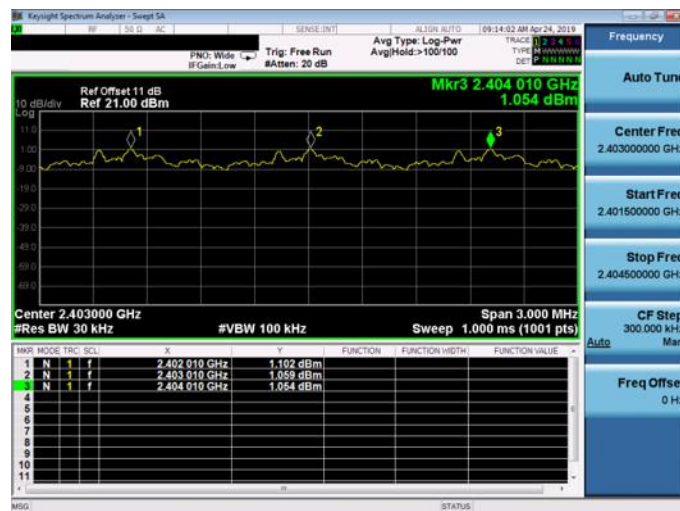


高頻道

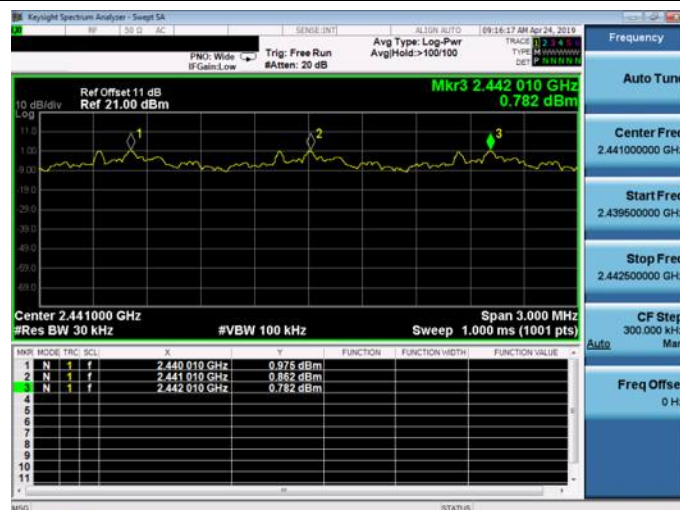


Mode 4: EDR, 8DPSK Continuous TX Mode

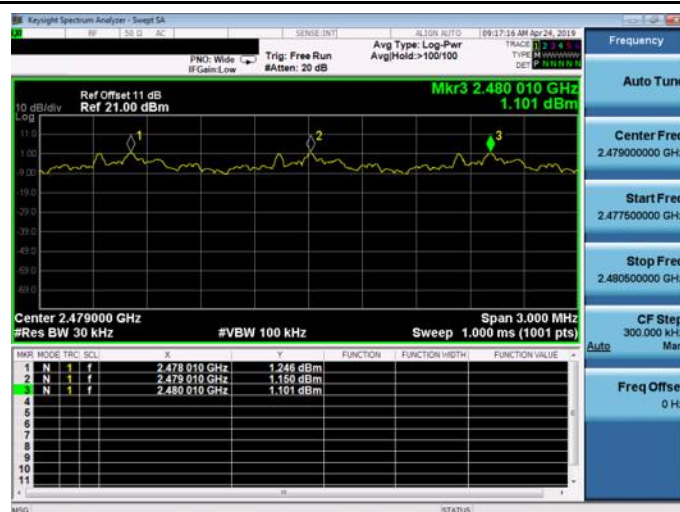
低頻道



中頻道



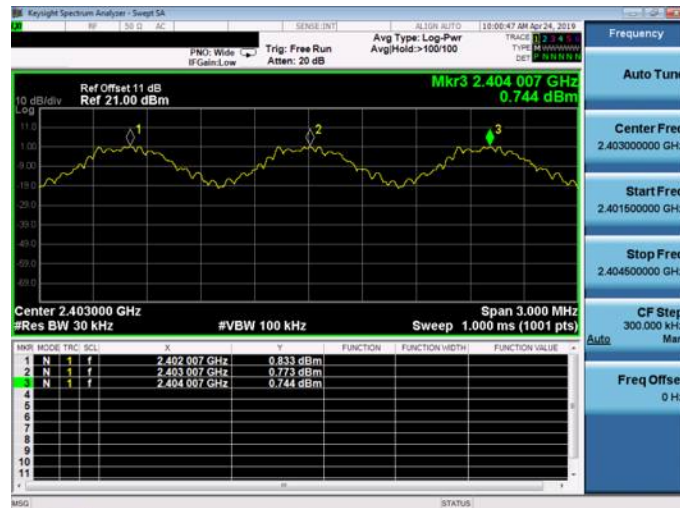
高頻道



左耳

Mode 2: BR, GFSK Continuous TX Mode

低頻道



中頻道



高頻道



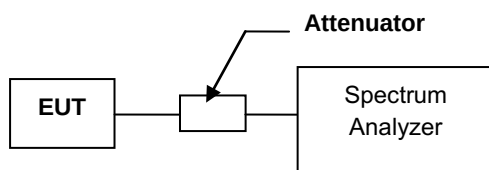


4.9 跳頻系統之任一頻率佔用之平均時間之量測

合格標準：

依據 NCC 低功率射頻電機技術規範(LP0002)之 3.10.1.6(1)(A)(a)節之要求，若使用 15 個無重疊之頻道，在 0.4 秒乘以跳頻頻道數之週期內，任一頻道佔用之平均時間不得超過 0.4 秒(複合系統時，關閉跳頻作業狀態檢驗)。

測試架構圖：



測試結果：

操作模式	: Mode 2: BR, GFSK Continuous TX Mode Mode 4: EDR, 8DPSK Continuous TX Mode
測試結果	: 合格
此項測試進行量測高中低頻道,取其最大值紀錄於此量測結果, 量測之結果數據如下頁所示。	

右耳

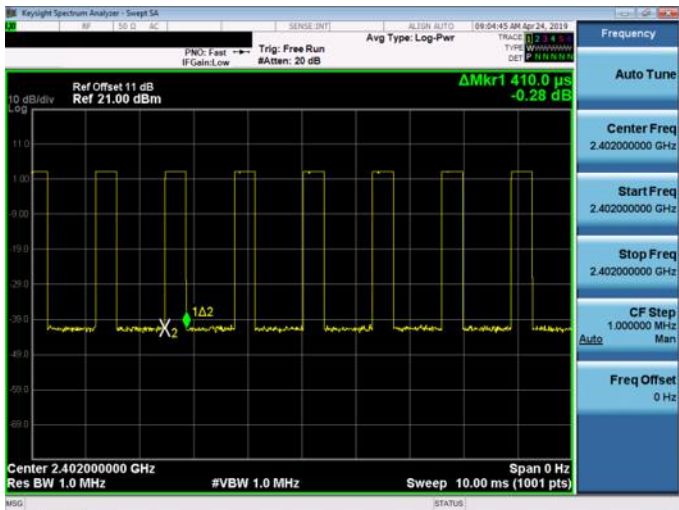
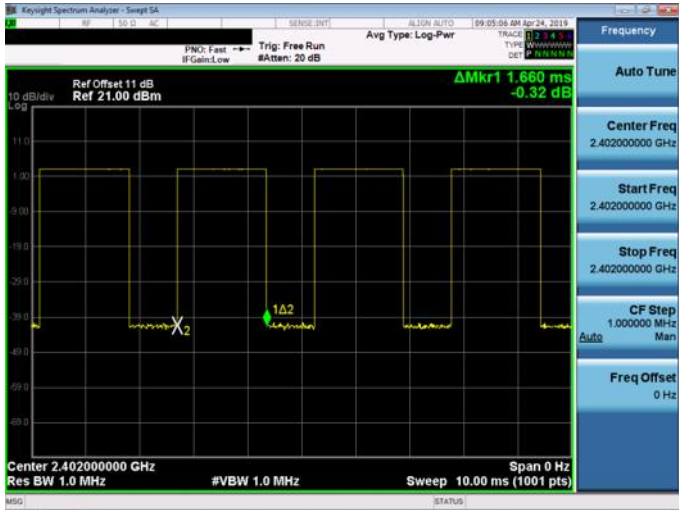
Mode 2: BR, GFSK Continuous TX Mode	
DH1 模式	
需量測之週期(秒)	$79\text{CH} * 0.4 = 31.6$ (秒)
待測物每秒跳頻之總次數	1600(藍牙通訊協定標準)
頻道每秒佔用之次數	$800/79\text{CH} = 10.13$ (次/秒)
頻道每次佔用之時間(1)	0.410 ms (秒)
週期內頻道佔用之總次數(2)	$31.6 * 10.13 = 320.108$ (次)
週期內佔用的平均時間(1) * (2)	131.244 ms (秒)
LIMIT(msec)	≤ 400
DH3 模式	
需量測之週期(秒)	$79\text{CH} * 0.4 = 31.6$ (秒)
待測物每秒跳頻之總次數	1600(藍牙通訊協定標準)
頻道每秒佔用之次數	$400/79\text{CH} = 5.06$ (次/秒)
頻道每次佔用之時間(1)	1.660 ms (秒)
週期內頻道佔用之總次數(2)	$31.6 * 5.06 = 159.896$ (次)
週期內佔用的平均時間(1) * (2)	265.427 ms (秒)
LIMIT(msec)	≤ 400
DH5 模式	
需量測之週期(秒)	$79\text{CH} * 0.4 = 31.6$ (秒)
待測物每秒跳頻之總次數	1600(藍牙通訊協定標準)
頻道每秒佔用之次數	$266.7/79\text{CH} = 3.38$ (次/秒)
頻道每次佔用之時間(1)	2.910 ms (秒)
週期內頻道佔用之總次數(2)	$31.6 * 3.38 = 106.808$ (次)
週期內佔用的平均時間(1) * (2)	310.811 ms (秒)
LIMIT(msec)	≤ 400

附註: RB=1 MHz ; VB=1 MHz ; SPAN=0 MHz ; Sweep Time=10 msec



Mode 4: EDR, 8DPSK Continuous TX Mode		
3DH1 模式		
需量測之週期(秒)	79CH * 0.4 = 31.6 (秒)	
待測物每秒跳頻之總次數	1600(藍牙通訊協定標準)	
頻道每秒佔用之次數	800/79CH = 10.13(次/秒)	
頻道每次佔用之時間(1)	0.410	ms (秒)
週期內頻道佔用之總次數(2)	31.6 * 10.13 = 320.108(次)	
週期內佔用的平均時間(1) * (2)	131.244	ms (秒)
LIMIT(msec)	< = 400	
3DH3 模式		
需量測之週期(秒)	79CH * 0.4 = 31.6 (秒)	
待測物每秒跳頻之總次數	1600(藍牙通訊協定標準)	
頻道每秒佔用之次數	400/79CH = 5.06(次/秒)	
頻道每次佔用之時間(1)	1.660	ms (秒)
週期內頻道佔用之總次數(2)	31.6 * 5.06 = 159.896(次)	
週期內佔用的平均時間(1) * (2)	265.427	ms (秒)
LIMIT(msec)	< = 400	
3DH5 模式		
需量測之週期(秒)	79CH * 0.4 = 31.6 (秒)	
待測物每秒跳頻之總次數	1600(藍牙通訊協定標準)	
頻道每秒佔用之次數	266.7/79CH = 3.38(次/秒)	
頻道每次佔用之時間(1)	2.910	ms (秒)
週期內頻道佔用之總次數(2)	31.6 * 3.38 = 106.808(次)	
週期內佔用的平均時間(1) * (2)	310.811	ms (秒)
LIMIT(msec)	< = 400	

附註: RB=1 MHz ; VB=1 MHz 附註: RB=1 MHz ; VB=1 MHz ; SPAN=0 MHz ; Sweep Time=10 msec

Mode 4: EDR, 8DPSK Continuous TX Mode	
3DH1	
3DH3	
3DH5	

左耳

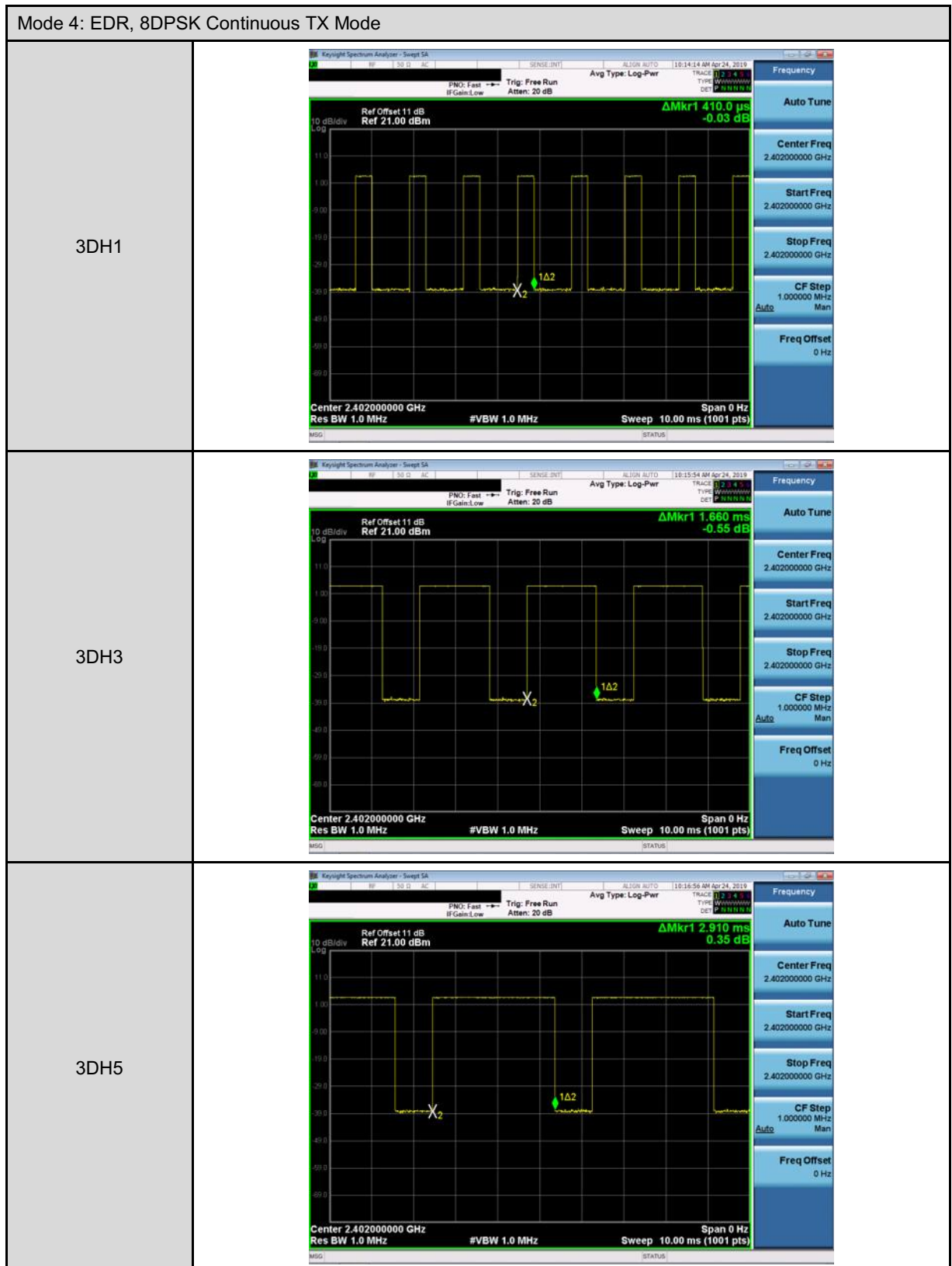
Mode 2: BR, GFSK Continuous TX Mode	
DH1 模式	
需量測之週期(秒)	$79\text{CH} * 0.4 = 31.6$ (秒)
待測物每秒跳頻之總次數	1600(藍牙通訊協定標準)
頻道每秒佔用之次數	$800/79\text{CH} = 10.13$ (次/秒)
頻道每次佔用之時間(1)	0.410 ms (秒)
週期內頻道佔用之總次數(2)	$31.6 * 10.13 = 320.108$ (次)
週期內佔用的平均時間(1) * (2)	131.244 ms (秒)
LIMIT(msec)	≤ 400
DH3 模式	
需量測之週期(秒)	$79\text{CH} * 0.4 = 31.6$ (秒)
待測物每秒跳頻之總次數	1600(藍牙通訊協定標準)
頻道每秒佔用之次數	$400/79\text{CH} = 5.06$ (次/秒)
頻道每次佔用之時間(1)	1.660 ms (秒)
週期內頻道佔用之總次數(2)	$31.6 * 5.06 = 159.896$ (次)
週期內佔用的平均時間(1) * (2)	265.427 ms (秒)
LIMIT(msec)	≤ 400
DH5 模式	
需量測之週期(秒)	$79\text{CH} * 0.4 = 31.6$ (秒)
待測物每秒跳頻之總次數	1600(藍牙通訊協定標準)
頻道每秒佔用之次數	$266.7/79\text{CH} = 3.38$ (次/秒)
頻道每次佔用之時間(1)	2.910 ms (秒)
週期內頻道佔用之總次數(2)	$31.6 * 3.38 = 106.808$ (次)
週期內佔用的平均時間(1) * (2)	310.811 ms (秒)
LIMIT(msec)	≤ 400

附註: RB=1 MHz ; VB=1 MHz ; SPAN=0 MHz ; Sweep Time=10 msec



Mode 4: EDR, 8DPSK Continuous TX Mode	
3DH1 模式	
需量測之週期(秒)	$79\text{CH} * 0.4 = 31.6$ (秒)
待測物每秒跳頻之總次數	1600(藍牙通訊協定標準)
頻道每秒佔用之次數	$800/79\text{CH} = 10.13$ (次/秒)
頻道每次佔用之時間(1)	0.410 ms (秒)
週期內頻道佔用之總次數(2)	$31.6 * 10.13 = 320.108$ (次)
週期內佔用的平均時間(1) * (2)	131.244 ms (秒)
LIMIT(msec)	≤ 400
3DH3 模式	
需量測之週期(秒)	$79\text{CH} * 0.4 = 31.6$ (秒)
待測物每秒跳頻之總次數	1600(藍牙通訊協定標準)
頻道每秒佔用之次數	$400/79\text{CH} = 5.06$ (次/秒)
頻道每次佔用之時間(1)	1.660 ms (秒)
週期內頻道佔用之總次數(2)	$31.6 * 5.06 = 159.896$ (次)
週期內佔用的平均時間(1) * (2)	265.427 ms (秒)
LIMIT(msec)	≤ 400
3DH5 模式	
需量測之週期(秒)	$79\text{CH} * 0.4 = 31.6$ (秒)
待測物每秒跳頻之總次數	1600(藍牙通訊協定標準)
頻道每秒佔用之次數	$266.7/79\text{CH} = 3.38$ (次/秒)
頻道每次佔用之時間(1)	2.910 ms (秒)
週期內頻道佔用之總次數(2)	$31.6 * 3.38 = 106.808$ (次)
週期內佔用的平均時間(1) * (2)	310.811 ms (秒)
LIMIT(msec)	≤ 400

附註: RB=1 MHz ; VB=1 MHz 附註: RB=1 MHz ; VB=1 MHz ; SPAN=0 MHz ; Sweep Time=10 msec



4.10 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。

廠牌	型號	型態	增益值 (dBi)	
			右耳	左耳
Jiahe	A3902	FPC PIFA Antenna	0.16	1.22