

低功率射頻器材技術規範測試報告

報告編號:

RT200821E05

申請者

國家儀器股份有限公司

產品名稱

Radio Module

型號

RM10

製造廠商

National Instruments Corporation

商標或廠牌

NI

該產品樣品試驗

國家通訊傳播委員會低功率射頻器材技術規範

依據之試驗標準

109 年 7 月 1 日訂定

試驗結果

合格

香港商立德國際商品試驗有限公司桃園分公司新竹實驗室

日期 109 年 11 月 11 日

報告簽署人簽章:

陳瓊美



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報告發行紀錄

Issue No.	Description	Date Issued
RT200821E05	Original release.	109 年 11 月 11 日

證 明 書

產 品 名 稱：Radio Module
商 標：NI
型 號：RM10
申 請 者：國家儀器股份有限公司
量 測 規 範：低功率射頻器材技術規範 LP0002 (訂定日期：109 年 7 月 1 日)
ANSI C63.10-2013

香港商立德國際商品試驗有限公司桃園分公司在此證明上述待測設備樣品 (型號：RM10)，收件日期 109 年 8 月 21 日，於 109 年 10 月 06 日至 13 日，已在本公司的標準測試場地完成量測。報告中所描述之測試結果和待測設備的架構組合，均根據樣品實際的量測情況作詳實的記錄。

立德桃園分公司依“低功率射頻器材技術規範”及“電信管制射頻器材審驗管理辦法”製作測試結果報告。

特 此 證 明 ！

報告製作者： 黃健琳，日期： 109 年 11 月 11 日
黃健琳 / 專員

審 核 者： 陳瓊美，日期： 109 年 11 月 11 日
陳瓊美 / 經理

香港商立德國際商品試驗有限公司桃園分公司

實驗室地址：300 新竹市科學工業園區力行一路 1 號 E-2

此份報告不得摘錄複製，除全份複製外，需經實驗室書面同意。



1 低功率射頻器材量測記錄表

申請廠商：國家儀器股份有限公司

製造廠商：National Instruments Corporation

申請廠商地址：10669 台北市大安區敦化南路二段 216 號 12 樓

廠牌：NI

產品名稱：Radio Module

型號：RM10

量測單位名稱：香港商立德國際商品試驗有限公司桃園分公司 新竹實驗室

量測單位地址：300 新竹市科學工業園區力行一路 1 號 E-2

量測單位認可編號：TAF 2022

量測規範：低功率射頻器材技術規範 LP0002 (訂定日期：109 年 7 月 1 日)
ANSI C63.10-2013

Bluetooth LE 頻段概要

項次	量測項目	規 範	量測結果判定
1	帶外發射	低功率射頻器材技術規範 4.10.1.5 節	合格
2	電源線傳導干擾	低功率射頻器材技術規範 3.3 節	合格
3	6 dB 頻寬	低功率射頻器材技術規範 4.10.1.6 節	合格
4	峰值傳導輸出功率	低功率射頻器材技術規範 4.10.1.2 節	合格
5	功率頻譜密度	低功率射頻器材技術規範 4.10.1.6 節	合格

最大暴露允許值(Maximum Permissible Exposure, MPE)

項次	量測項目	規 範	量測結果判定
1	電波暴露量	低功率射頻器材技術規範 6.20.2 節	合格

備註：量測結果之判定不考慮量測不確定度的貢獻。

2 一般敘述

2.1 待測設備

產品名稱：	Radio Module
型號：	RM10
額定電源：	5 Vdc from host equipment
調變方式：	GFSK
傳輸速率：	Up to 2 Mbps
載波頻率：	2.402 ~ 2.480 GHz
頻道數：	40
發射功率：	19.38 dBm
天線種類：	見註
電源線類別：	NA
信號線類別：	NA
配件：	NA

註：

1. 此待測設備搭配測試的天線，其資料如下：

Ant. No.	Brand	Model	Ant. Net Gain (dBi)	Freq. Range (GHz)	Ant. Type	Ant. Connector Type	Cable Length (mm)	Ant. Cable Connector Type
1	TE connectivity	1513504-1	2	2.4~2.4835	Molded/SMT	i-pex(MHF)	100	i-pex(MHF)
2	Pulse	W5010	1.5	2.4~2.4835	Monopole	RP-SMA	60	i-pex(MHF) to RP-SMA
3	MMT Machrone	WA S002-000178B-S12	1.5	2.4~2.4835	Monopole	RP-SMA	60	i-pex(MHF) to RP-SMA

Note: From the above Monopole antennas, the worst case was found in **Ant. No. 2**. Therefore only the test data of the mode was recorded in this report.

2. 上述天線的規格資訊由申請者聲明，實驗室不承擔任何責任。

3. 此待測設備之Molded/SMT天線於場強輻射量測項目,以下列模式進行評估:

Pre-test 模式	描述
A	Molded/SMT antenna (X-plane) + EUT
B	Molded/SMT antenna (Y-plane) + EUT
C	Molded/SMT antenna (Z-plane) + EUT

註：於 1GHz 以下的場強輻射以模式 A 具較大干擾值，1GHz 以上的場強輻射以模式 C 具較大干擾值，故以此擺放方式進行最終量測，並將測試結果紀錄。

4. 此報告中，以下列模式進行評估：

測試模式	描述
1	EUT with Antenna 1 (Molded/SMT Antenna)
2	EUT with Antenna 2 (Monopole Antenna)

註：於場強輻射量測項目以**模式 1**至**模式 2**，電源線傳導干擾與其他量測項目，以**模式 2**進行最終量測，進行最終量測，並將測試結果紀錄。

5. 此報告中，場強輻射量測經過評估後以下列測試模式進行最終量測。

量測項目	發射	接收
1GHz 以上量測	BT-LE 1M: Ch 0, 19, 39 BT-LE 2M: Ch 0, 19, 39	Ch 19
其它不必要之訊號	BT-LE 2M: Ch 19	Ch 19

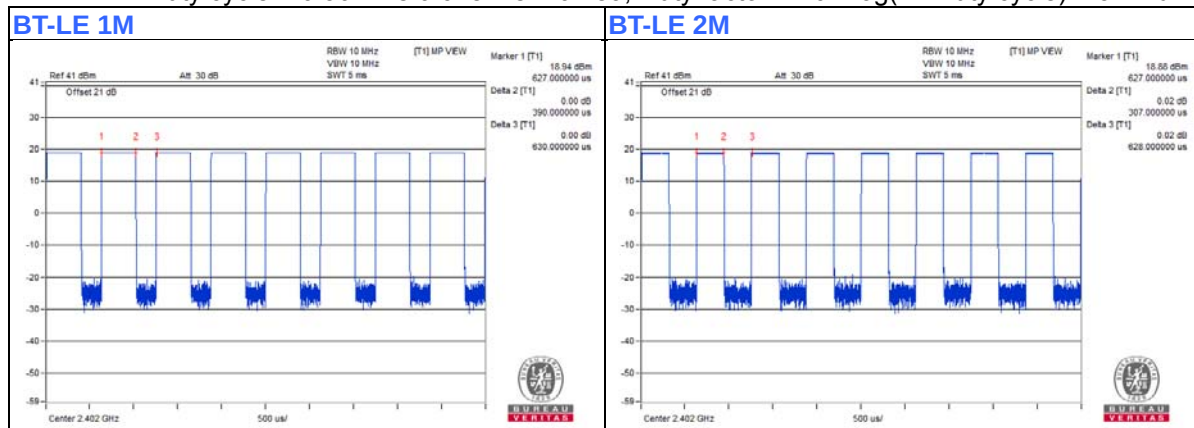
*電源線傳導干擾量測經過評估後，以 **BT-LE 2M:** Ch 19 測試模式進行最終量測。

6. Duty cycle of test signal

Duty factor of test signal is < 98%, duty factor shall be considered.

BT-LE 1M: Duty cycle = 0.39 ms/0.63 ms = 0.619, Duty factor = $10 * \log(1 / \text{Duty cycle}) = 2.08 \text{ dB}$

BT-LE 2M: Duty cycle = 0.307 ms/0.628 ms = 0.489, Duty factor = $10 * \log(1 / \text{Duty cycle}) = 3.11 \text{ dB}$



此裝置各頻道的中心頻率如下：

頻道	對應頻率 (MHz)	頻道	對應頻率 (MHz)	頻道	對應頻率 (MHz)	頻道	對應頻率 (MHz)	頻道	對應頻率 (MHz)
0	2402	8	2418	16	2434	24	2450	32	2466
1	2404	9	2420	17	2436	25	2452	33	2468
2	2406	10	2422	18	2438	26	2454	34	2470
3	2408	11	2424	19	2440	27	2456	35	2472
4	2410	12	2426	20	2442	28	2458	36	2474
5	2412	13	2428	21	2444	29	2460	37	2476
6	2414	14	2430	22	2446	30	2462	38	2478
7	2416	15	2432	23	2448	31	2464	39	2480

詳細之規格請參考使用說明書，產品的照片請參照 BV 編號: 200821E05-1。

2.2 輔助測試之週邊設備描述

待測設備於受測時均接上其所屬的配件或一般用途之相關設備；下列輔助設備或配件測試中所使用的配備，以形成一個代表待測物實際運作的受測系統。

No.	Product	Brand	Model No.	Serial No.	FCC ID	Remark
A	Adapter	XP Power	AEL15US12/#30050-1	NA	NA	Supplied by client
B	Test Tool	NI	NA	NA	NA	Supplied by client

NOTE:

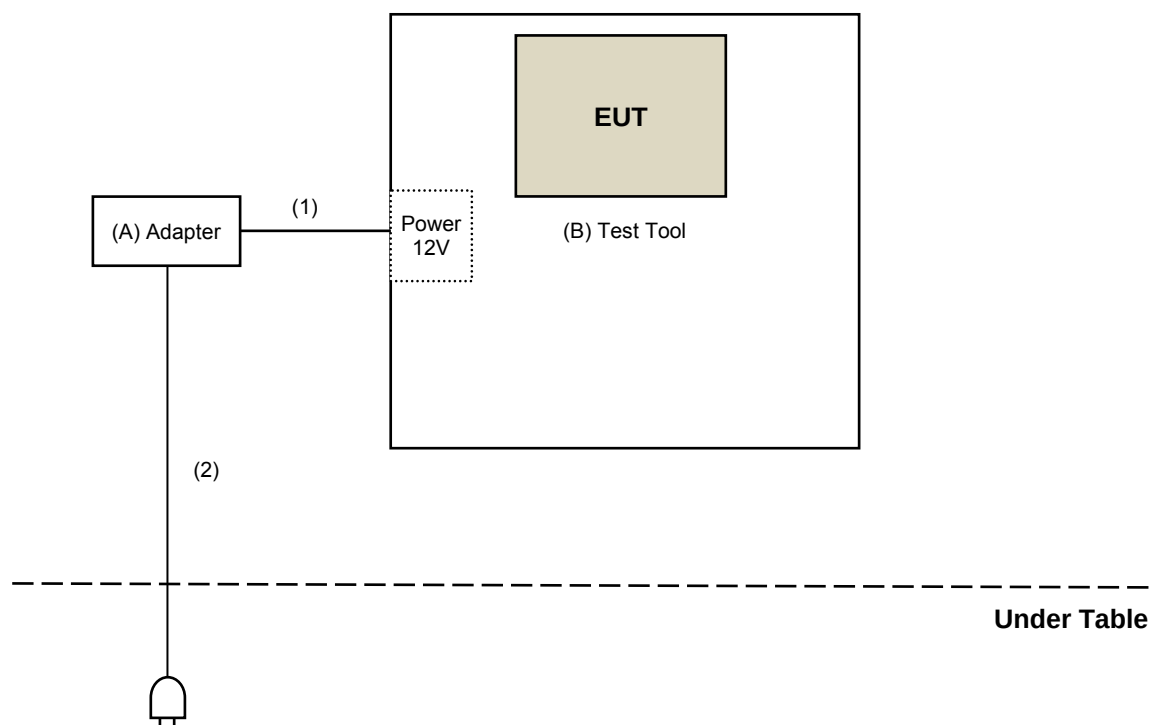
1. All power cords of the above support units are non-shielded (1.8 m).

No.	Cable	Qty.	Length (m)	Shielded (Yes/ No)	Cores (Number)	Remark
1	DC Cable	1	1.3	No	0	Supplied by client (Manufacturer: XP Power / Model: AEL15US12/#30050-1)
2	AC Cable	1	1.8	No	0	Supplied by client (Manufacturer: LINETEK / Model: E138949-E)

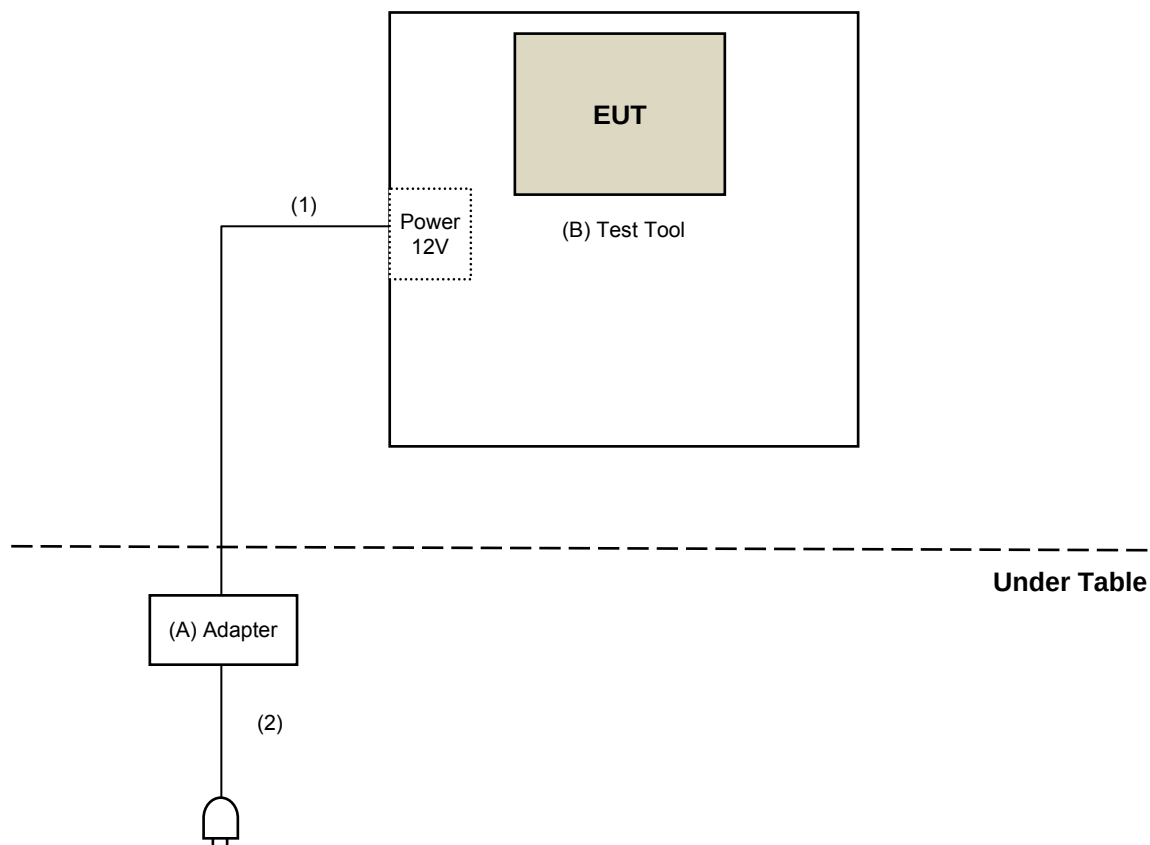
註：本案經申請者切結器材不提供隨貨配件，測試時依申請者提供的非隨貨配件併同檢驗。

2.3 測試架構圖

電源線傳導干擾量測



場強輻射量測



3 適用規範

3.1 規範要求和參考

(1) 傳導之規定

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

頻率(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。

(2) 帶外發射之規定

依據國家通訊傳播委員會低功率射頻器材技術規範 4.10.1.5 節之要求，操作頻帶範圍外之任意 100 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 kHz 內的射頻功率，其衰減值限制如下：(1) 輸出功率以附件二之峰值輸出功率方式測量者，至少須衰減 20 dB，可使用射頻傳導或輻射方式測量。(2) 輸出功率以 4.10.1.2(1)(C)之最大傳導輸出功率測量方式者，至少須衰減 30 dB。此外，落於 3.5 禁用頻段之輻射發射，應符合 3.6 之規定。

頻率(MHz)	電場強度(微伏特/公尺, uV/m)	測距(公尺)
$0.009 \leq f \leq 0.490$	$2,400/f(\text{kHz})$	300
$0.490 < f \leq 1.705$	$24,000/f(\text{kHz})$	30
$1.705 < f < 30$	30	30
$30 \leq f \leq 88$	100	3
$88 < f \leq 216$	150	3
$216 < f \leq 960$	200	3
$960 < f$	500	3

(3) 天線之規定

天線規格不受第 3.2 節規定之限制。

(4) 天線增益之要求

低功率發射機，依據國家通訊傳播委員會低功率射頻器材技術規範 4.10.1.3 節之規定如下：

- (A) 進行固定式點對點操作時，其發射天線之方向性增益超過 6 dBi，每超過 3 dBi，最大傳導輸出功率限制值應降低 1 dB。
- (B) 天線以多向波束發射方式(含同時發射或循序發射)將訊號導向多個接收機或接收機群組時，應符合下列規定：
 - (a) 非同時發射多向波束者，所有載波或頻道傳輸至所有天線陣列或陣列群之總和傳導輸出功率應符合 4.10.1.2 之功率限制值。如天線/天線陣列群之方向性增益超過 6 dBi，每超過 3 dBi，總和傳導輸出功率限制值應降低 1 dB。方向性增益值應計算如下：
 - (i) 方向性增益值 = $10\log(\text{天線陣列之單元數目}) + \text{各單元中最高之方向性增益值}$ 。
 - (ii) 天線陣列間之遮蔽效應或波束干涉損失能充分佐證時，方向性增益得低於(i)計算數值。
 - (b) 同時發射多向波束於相同或不同頻道者，其每一波束功率應符合(a)之功率限制值。如發射波束有重疊現象，功率應降低，以確保總和傳導輸出功率符合(a)之限制值。同時發射的所有波束總和傳導輸出功率不大於(a)總和傳導輸出功率限制值加 8 dB。方向性增益值計算同(a)。
 - (c) 發射機之天線具備單向波束功能者，應符合(1)(A)及(3)後段之規定。

除(A)及(B)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。

(5) 6dB 頻寬之要求

對使用數位調變技術(digital modulation techniques)系統之低功率發射機，依據國家通訊傳播委員會低功率射頻器材技術規範 4.10.1.6 節之規定，6dB 頻寬至少應有 500kHz。

(6) 峰值輸出功率之要求

依據國家通訊傳播委員會低功率射頻器材技術規範 4.10.1.2 節之規定：
數位調變技術系統：1 W(含)以下。

(7) 功率頻譜密度之要求

依據國家通訊傳播委員會低功率射頻器材技術規範 4.10.1.6 節之規定，在使用頻率範圍之任一 3 kHz 頻寬內，由發射機傳導至天線之功率頻譜密度在任意傳輸期間內，皆小於或等於 8 毫分貝(dBm)，且應依 4.10.1.3 之方式降低功率頻譜密度限制值。

(8) 電波暴露量之評估

依據國家通訊傳播委員會低功率射頻器材技術規範 6.20.2 節之規定，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：

(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。

(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 - 3.0	614	1.63	*100	30
3 - 30	1842/f	4.89/f	*180/f ²	30
30 - 300	27.5	0.073	1.0	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。

參考國際標準指南

KDB 558074

3.2 限制使用之頻帶

除本規範另有規定外，任何低功率射頻器材之主波皆不得使用下表所列各頻段之頻率；低功率射頻器材落於下表所列頻段之混附發射，其電場強度必須符合 3.6 之限制規定。

頻率(兆赫)	頻率(兆赫)	頻率(兆赫)
0.090~0.110	240.00~285.00	3332.0~3339.0
0.490~0.510	322.00~335.40	3345.8~3358.0
2.172~2.198	399.90~410.00	3500.0~4400.0
3.013~3.033	485.00~510.00	4500.0~5250.0
4.115~4.198	608.00~614.00	5350.0~5460.0
5.670~5.690	703.00~748.00	7250.0~7750.0
6.200~6.300	758.00~803.00	8025.0~8500.0
8.230~8.400	825.00~915.00	9000.0~9200.0
12.265~12.600	930.00~1240.0	9300.0~9500.0
13.340~13.430	1300.0~1427.0	10600~12700
14.965~15.020	1435.0~1626.5	13250~13400
16.700~16.755	1660.0~1785.0	14470~14500
19.965~20.020	1805.0~1880.0	15350~16200
25.500~25.700	1885.0~1900.0	17700~21400
37.475~38.275	1905.0~1985.0	22010~23120
73.500~75.400	2010.0~2025.0	23600~24000
108.00~138.00	2110.0~2170.0	31200~31800
149.90~150.05	2200.0~2300.0	36430~36500
156.70~156.90	2310.0~2390.0	38600 以上
162.01~167.17	2483.5~2900.0	
167.72~173.20	3260.0~3267.0	

4 帶外發射之量測

4.1 適用標準

請見本報告 3.1 節第(2)項的規定。

4.2 量測方法

在電波暗室，將待測物置於 0.8 米高的非金屬桌面，使其操作在工作狀態。接收天線置於 3 米距離。桌面要 360 度旋轉，另外接收天線從離地 1 米至 4 米升降變化，以找出最大的輻射電場強度，接收天線分別置於水平、垂直極化各執行測試一次。

備註：對於 1GHz 以上場強輻射的測試，待測物則置於 1.5 米高的非金屬桌面

4.3 量測儀器

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Keysight	N9038A	MY54450088	July 06, 2020	July 05, 2021
Pre-Amplifier EMCi	EMC001340	980142	May 25, 2020	May 24, 2021
Loop Antenna Electro-Metrics	EM-6879	264	Feb. 18, 2020	Feb. 17, 2021
RF Cable	NA	LOOPCAB-001	Jan. 08, 2020	Jan. 07, 2021
RF Cable	NA	LOOPCAB-002	Jan. 08, 2020	Jan. 07, 2021
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-05	Apr. 28, 2020	Apr. 27, 2021
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-361	Nov. 11, 2019	Nov. 10, 2020
RF Cable	8D	966-3-1	Mar. 17, 2020	Mar. 16, 2021
RF Cable	8D	966-3-2	Mar. 17, 2020	Mar. 16, 2021
RF Cable	8D	966-3-3	Mar. 17, 2020	Mar. 16, 2021
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-3-01	Sep. 24, 2020	Sep. 23, 2021
Horn Antenna SCHWARZBECK	BBHA9120-D	9120D-406	Nov. 24, 2019	Nov. 23, 2020
Pre-Amplifier EMCi	EMC12630SE	980384	Jan. 15, 2020	Jan. 14, 2021
RF Cable	EMC104-SM-SM-1500	180504	Apr. 29, 2020	Apr. 28, 2021
RF Cable	EMC104-SM-SM-2000	180601	June 09, 2020	June 08, 2021
RF Cable	EMC104-SM-SM-6000	180602	June 09, 2020	June 08, 2021
Spectrum Analyzer Keysight	N9030A	MY54490679	July 13, 2020	July 12, 2021
Pre-Amplifier EMCi	EMC184045SE	980387	Jan. 15, 2020	Jan. 14, 2021
Horn Antenna SCHWARZBECK	BBHA 9170	BBHA9170519	Nov. 24, 2019	Nov. 23, 2020
RF Cable	EMC102-KM-KM-1200	160924	Jan. 15, 2020	Jan. 14, 2021
RF Cable	EMC-KM-KM-4000	200214	Mar. 11, 2020	Mar. 10, 2021
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA

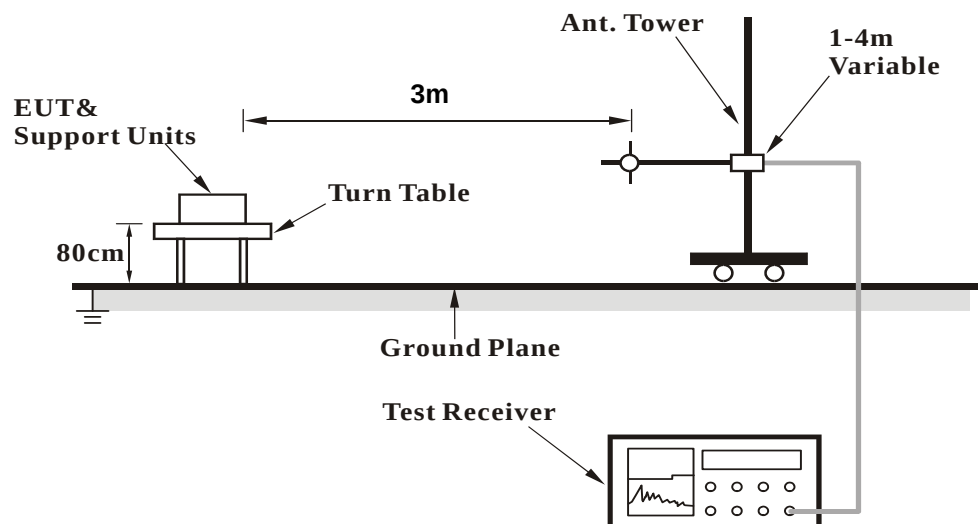
Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in 966 Chamber No. 3.
3. The following table is for the measurement uncertainty, which is calculated as per the document CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

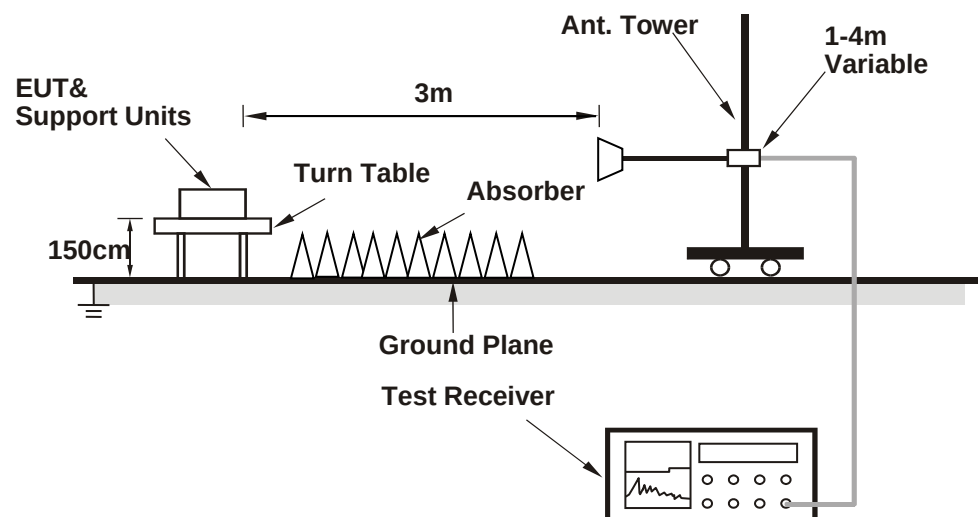
Measurement	Frequency	Uncertainty
Radiated emissions	9kHz ~ 30MHz	3.1 dB
	30MHz ~ 1GHz	5.4 dB
	1GHz ~ 18GHz	5.0 dB
	18GHz ~ 40GHz	5.3 dB

4.4 測試配置

<Frequency Range below 1GHz>



<Frequency Range above 1GHz>



4.5 場強度之計算

場強之計算公式如下：

結果值 Emission level (dBuV/m)=機器讀值 Raw Value (dBuV) +校正因子 Correction Factor (dB/m)

餘裕度 Margin(dB)= 結果值 Emission level (dBuV/m)-限制值 Limit value (dBuV/m)

量測結果請見下頁。

4.6 量測結果 (模式 1)

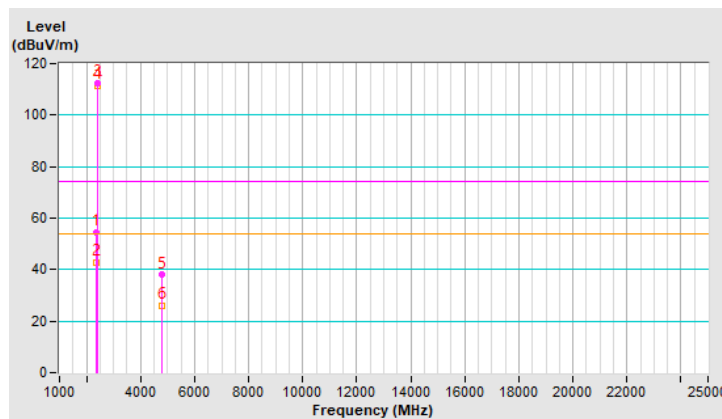
4.6.1 發射諧波

操作模式：	發射 BT-LE 1M	調變技術：	GFSK
基本波頻率：	CH 0：2402 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3kHz
量測場地溫度：	22.0°C	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2370.07	54.3 PK	74.0	-19.7	1.20 H	55	55.8	-1.5
2	2370.07	42.8 AV	54.0	-11.2	1.20 H	55	44.3	-1.5
3	*2402.00	112.6 PK			1.20 H	55	114.2	-1.6
4	*2402.00	111.5 AV			1.20 H	55	113.1	-1.6
5	4804.00	37.9 PK	74.0	-36.1	2.67 H	57	34.7	3.2
6	4804.00	25.9 AV	54.0	-28.1	2.67 H	57	22.7	3.2
7	#7206.00	-	-	-	-	-	-	-
8	#9608.00	-	-	-	-	-	-	-
9	12010.00	-	-	-	-	-	-	-
10	#14412.00	-	-	-	-	-	-	-
11	#16814.00	-	-	-	-	-	-	-
12	19216.00	-	-	-	-	-	-	-
13	#21618.00	-	-	-	-	-	-	-
14	#24020.00	-	-	-	-	-	-	-

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency (主頻).
6. " # ": The radiated frequency is out of the restricted band.
7. " - ": The emission levels were too low to be detected.
8. The blank is not available, the limit of fundamental frequency was restricted at the output power.

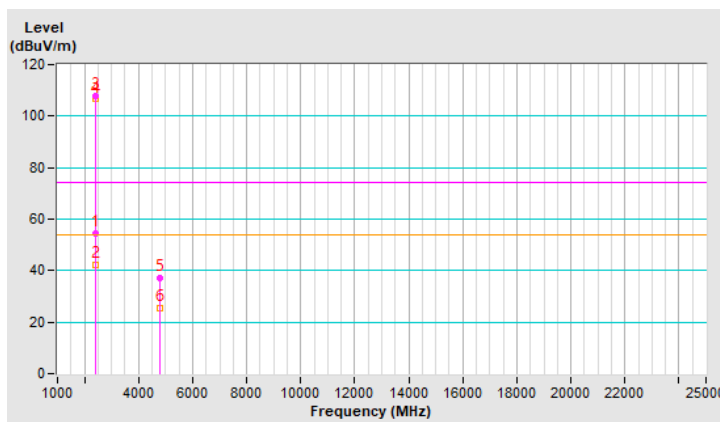


操作模式：	發射 BT-LE 1M	調變技術：	GFSK
基本波頻率：	CH 0：2402 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3kHz
量測場地溫度：	22.0°C	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	54.6 PK	74.0	-19.4	3.73 V	336	56.2	-1.6
2	2390.00	42.1 AV	54.0	-11.9	3.73 V	336	43.7	-1.6
3	*2402.00	107.8 PK			3.73 V	336	109.4	-1.6
4	*2402.00	106.6 AV			3.73 V	336	108.2	-1.6
5	4804.00	37.2 PK	74.0	-36.8	1.92 V	209	34.0	3.2
6	4804.00	25.5 AV	54.0	-28.5	1.92 V	209	22.3	3.2
7	#7206.00	-	-	-	-	-	-	-
8	#9608.00	-	-	-	-	-	-	-
9	12010.00	-	-	-	-	-	-	-
10	#14412.00	-	-	-	-	-	-	-
11	#16814.00	-	-	-	-	-	-	-
12	19216.00	-	-	-	-	-	-	-
13	#21618.00	-	-	-	-	-	-	-
14	#24020.00	-	-	-	-	-	-	-

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency (主頻).
6. " # ": The radiated frequency is out of the restricted band.
7. " - ": The emission levels were too low to be detected.
8. The blank is not available, the limit of fundamental frequency was restricted at the output power.

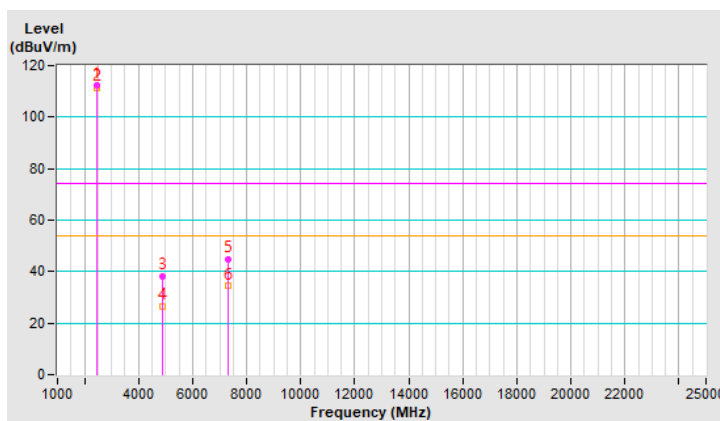


操作模式：	發射 BT-LE 1M	調變技術：	GFSK
基本波頻率：	CH 19：2440 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3kHz
量測場地溫度：	22.0℃	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2440.00	112.5 PK			1.21 H	51	114.1	-1.6
2	*2440.00	111.3 AV			1.21 H	51	112.9	-1.6
3	4880.00	38.2 PK	74.0	-35.8	2.65 H	46	35.0	3.2
4	4880.00	26.4 AV	54.0	-27.6	2.65 H	46	23.2	3.2
5	7320.00	44.7 PK	74.0	-29.3	3.18 H	183	35.3	9.4
6	7320.00	34.4 AV	54.0	-19.6	3.18 H	183	25.0	9.4
7	#9760.00	-	-	-	-	-	-	-
8	12200.00	-	-	-	-	-	-	-
9	#14640.00	-	-	-	-	-	-	-
10	#17080.00	-	-	-	-	-	-	-
11	19520.00	-	-	-	-	-	-	-
12	#21960.00	-	-	-	-	-	-	-
13	#24400.00	-	-	-	-	-	-	-

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency (主頻).
6. " # ": The radiated frequency is out of the restricted band.
7. " - ": The emission levels were too low to be detected.
8. The blank is not available, the limit of fundamental frequency was restricted at the output power.

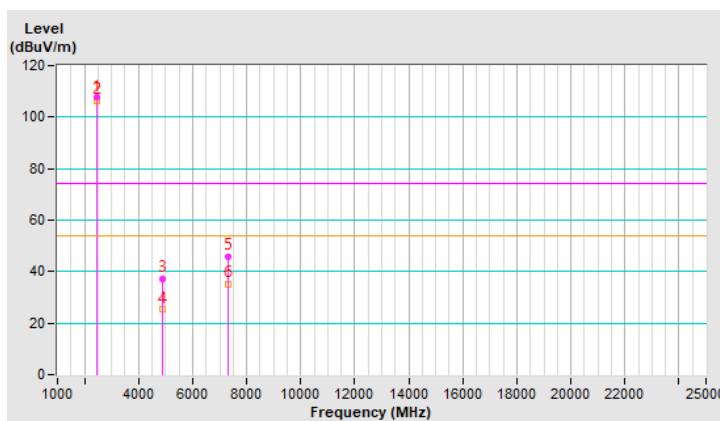


操作模式：	發射 BT-LE 1M	調變技術：	GFSK
基本波頻率：	CH 19：2440 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3kHz
量測場地溫度：	22.0°C	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2440.00	107.6 PK			3.74 V	332	109.2	-1.6
2	*2440.00	106.3 AV			3.74 V	332	107.9	-1.6
3	4880.00	37.1 PK	74.0	-36.9	1.92 V	208	33.9	3.2
4	4880.00	25.2 AV	54.0	-28.8	1.92 V	208	22.0	3.2
5	7320.00	45.6 PK	74.0	-28.4	1.05 V	127	36.2	9.4
6	7320.00	35.0 AV	54.0	-19.0	1.05 V	127	25.6	9.4
7	#9760.00	-	-	-	-	-	-	-
8	12200.00	-	-	-	-	-	-	-
9	#14640.00	-	-	-	-	-	-	-
10	#17080.00	-	-	-	-	-	-	-
11	19520.00	-	-	-	-	-	-	-
12	#21960.00	-	-	-	-	-	-	-
13	#24400.00	-	-	-	-	-	-	-

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency (主頻).
6. " # ": The radiated frequency is out of the restricted band.
7. " - ": The emission levels were too low to be detected.
8. The blank is not available, the limit of fundamental frequency was restricted at the output power.

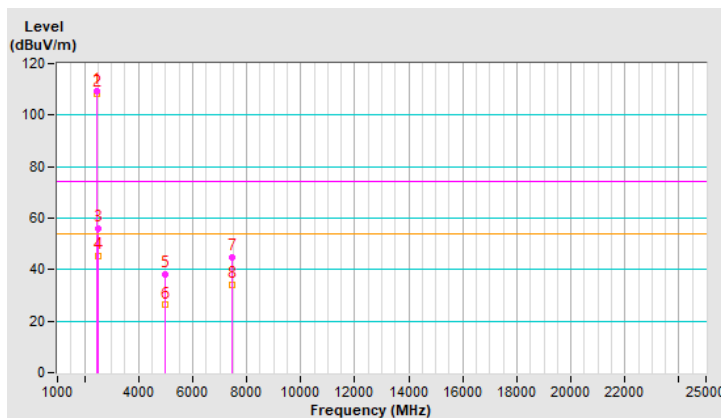


操作模式：	發射 BT-LE 1M	調變技術：	GFSK
基本波頻率：	CH 39：2480 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3kHz
量測場地溫度：	22.0℃	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2480.00	109.4 PK			1.00 H	59	111.0	-1.6
2	*2480.00	108.3 AV			1.00 H	59	109.9	-1.6
3	2483.50	56.0 PK	74.0	-18.0	1.00 H	59	57.6	-1.6
4	2483.50	45.5 AV	54.0	-8.5	1.00 H	59	47.1	-1.6
5	4960.00	38.2 PK	74.0	-35.8	2.67 H	49	34.9	3.3
6	4960.00	26.2 AV	54.0	-27.8	2.67 H	49	22.9	3.3
7	7440.00	44.7 PK	74.0	-29.3	3.12 H	178	35.1	9.6
8	7440.00	34.1 AV	54.0	-19.9	3.12 H	178	24.5	9.6
9	#9920.00	-	-	-	-	-	-	-
10	12400.00	-	-	-	-	-	-	-
11	#14880.00	-	-	-	-	-	-	-
12	#17360.00	-	-	-	-	-	-	-
13	19840.00	-	-	-	-	-	-	-
14	22320.00	-	-	-	-	-	-	-
15	#24800.00	-	-	-	-	-	-	-

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency (主頻).
6. " # ": The radiated frequency is out of the restricted band.
7. " - ": The emission levels were too low to be detected.
8. The blank is not available, the limit of fundamental frequency was restricted at the output power.

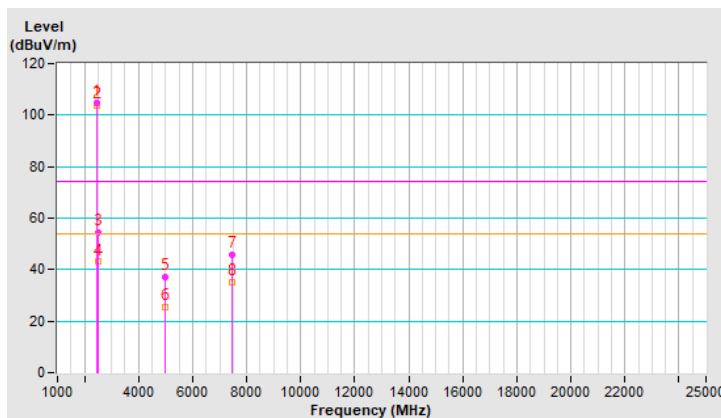


操作模式：	發射 BT-LE 1M	調變技術：	GFSK
基本波頻率：	CH 39：2480 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3kHz
量測場地溫度：	22.0℃	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2480.00	104.9 PK			3.97 V	352	106.5	-1.6
2	*2480.00	103.7 AV			3.97 V	352	105.3	-1.6
3	2483.50	54.3 PK	74.0	-19.7	3.97 V	352	55.9	-1.6
4	2483.50	43.0 AV	54.0	-11.0	3.97 V	352	44.6	-1.6
5	4960.00	37.3 PK	74.0	-36.7	1.89 V	221	34.0	3.3
6	4960.00	25.5 AV	54.0	-28.5	1.89 V	221	22.2	3.3
7	7440.00	45.8 PK	74.0	-28.2	1.05 V	136	36.2	9.6
8	7440.00	35.2 AV	54.0	-18.8	1.05 V	136	25.6	9.6
9	#9920.00	-	-	-	-	-	-	-
10	12400.00	-	-	-	-	-	-	-
11	#14880.00	-	-	-	-	-	-	-
12	#17360.00	-	-	-	-	-	-	-
13	19840.00	-	-	-	-	-	-	-
14	22320.00	-	-	-	-	-	-	-
15	#24800.00	-	-	-	-	-	-	-

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency (主頻).
6. " # ": The radiated frequency is out of the restricted band.
7. " - ": The emission levels were too low to be detected.
8. The blank is not available, the limit of fundamental frequency was restricted at the output power.

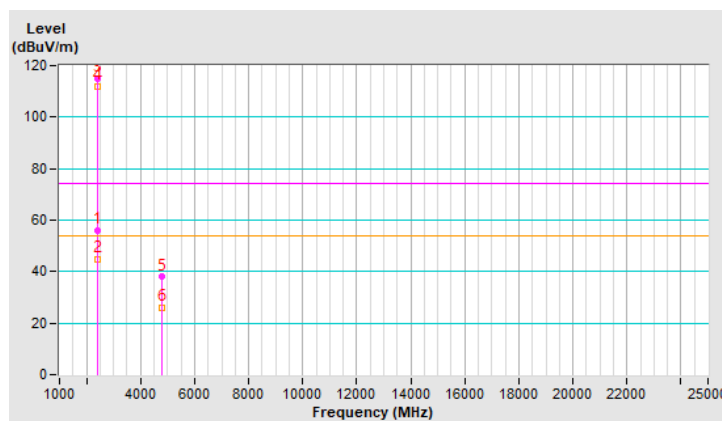


操作模式：	發射 BT-LE 2M	調變技術：	GFSK
基本波頻率：	CH 0：2402 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=5.1kHz
量測場地溫度：	22.0°C	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	56.1 PK	74.0	-17.9	1.20 H	55	57.7	-1.6
2	2390.00	44.7 AV	54.0	-9.3	1.20 H	55	46.3	-1.6
3	*2402.00	114.9 PK			1.20 H	55	116.5	-1.6
4	*2402.00	112.1 AV			1.20 H	55	113.7	-1.6
5	4804.00	37.9 PK	74.0	-36.1	2.71 H	51	34.7	3.2
6	4804.00	26.1 AV	54.0	-27.9	2.71 H	51	22.9	3.2
7	#7206.00	-	-	-	-	-	-	-
8	#9608.00	-	-	-	-	-	-	-
9	12010.00	-	-	-	-	-	-	-
10	#14412.00	-	-	-	-	-	-	-
11	#16814.00	-	-	-	-	-	-	-
12	19216.00	-	-	-	-	-	-	-
13	#21618.00	-	-	-	-	-	-	-
14	#24020.00	-	-	-	-	-	-	-

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency (主頻).
6. " # ": The radiated frequency is out of the restricted band.
7. " - ": The emission levels were too low to be detected.
8. The blank is not available, the limit of fundamental frequency was restricted at the output power.

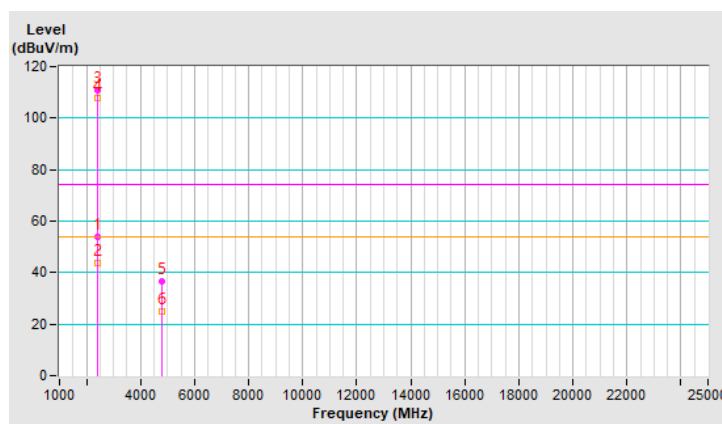


操作模式：	發射 BT-LE 2M	調變技術：	GFSK
基本波頻率：	CH 0：2402 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=5.1kHz
量測場地溫度：	22.0°C	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	54.0 PK	74.0	-20.0	3.41 V	352	55.6	-1.6
2	2390.00	43.7 AV	54.0	-10.3	3.41 V	352	45.3	-1.6
3	*2402.00	110.7 PK			3.41 V	352	112.3	-1.6
4	*2402.00	108.0 AV			3.41 V	352	109.6	-1.6
5	4804.00	36.8 PK	74.0	-37.2	1.86 V	218	33.6	3.2
6	4804.00	25.1 AV	54.0	-28.9	1.86 V	218	21.9	3.2
7	#7206.00	-	-	-	-	-	-	-
8	#9608.00	-	-	-	-	-	-	-
9	12010.00	-	-	-	-	-	-	-
10	#14412.00	-	-	-	-	-	-	-
11	#16814.00	-	-	-	-	-	-	-
12	19216.00	-	-	-	-	-	-	-
13	#21618.00	-	-	-	-	-	-	-
14	#24020.00	-	-	-	-	-	-	-

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency (主頻).
6. " # ": The radiated frequency is out of the restricted band.
7. " - ": The emission levels were too low to be detected.
8. The blank is not available, the limit of fundamental frequency was restricted at the output power.

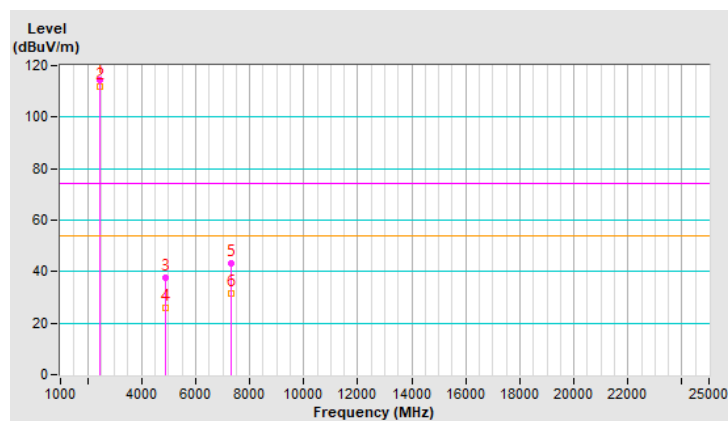


操作模式：	發射 BT-LE 2M	調變技術：	GFSK
基本波頻率：	CH 19：2440 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=5.1kHz
量測場地溫度：	22.0℃	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2440.00	114.5 PK			1.18 H	50	116.1	-1.6
2	*2440.00	111.9 AV			1.18 H	50	113.5	-1.6
3	4880.00	37.7 PK	74.0	-36.3	1.72 H	116	34.5	3.2
4	4880.00	25.9 AV	54.0	-28.1	1.72 H	116	22.7	3.2
5	7320.00	43.1 PK	74.0	-30.9	2.36 H	149	33.7	9.4
6	7320.00	31.6 AV	54.0	-22.4	2.36 H	149	22.2	9.4
7	#9760.00	-	-	-	-	-	-	-
8	12200.00	-	-	-	-	-	-	-
9	#14640.00	-	-	-	-	-	-	-
10	#17080.00	-	-	-	-	-	-	-
11	19520.00	-	-	-	-	-	-	-
12	#21960.00	-	-	-	-	-	-	-
13	#24400.00	-	-	-	-	-	-	-

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency (主頻).
6. " # ": The radiated frequency is out of the restricted band.
7. " - ": The emission levels were too low to be detected.
8. The blank is not available, the limit of fundamental frequency was restricted at the output power.

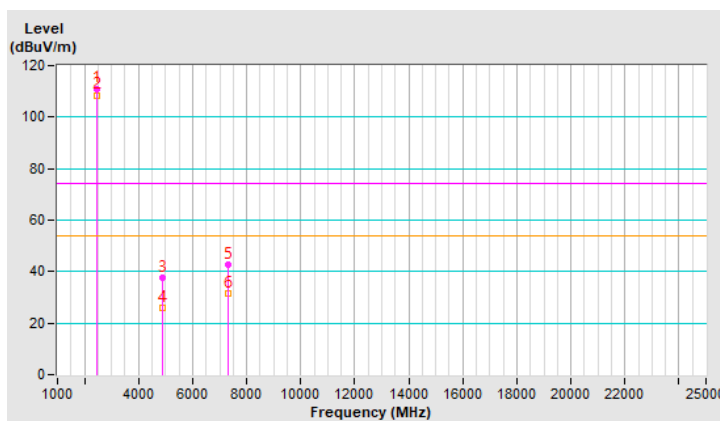


操作模式：	發射 BT-LE 2M	調變技術：	GFSK
基本波頻率：	CH 19：2440 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=5.1kHz
量測場地溫度：	22.0℃	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2440.00	110.7 PK			3.41 V	338	112.3	-1.6
2	*2440.00	108.2 AV			3.41 V	338	109.8	-1.6
3	4880.00	37.4 PK	74.0	-36.6	1.62 V	185	34.2	3.2
4	4880.00	25.7 AV	54.0	-28.3	1.62 V	185	22.5	3.2
5	7320.00	42.5 PK	74.0	-31.5	1.27 V	148	33.1	9.4
6	7320.00	31.3 AV	54.0	-22.7	1.27 V	148	21.9	9.4
7	#9760.00	-	-	-	-	-	-	-
8	12200.00	-	-	-	-	-	-	-
9	#14640.00	-	-	-	-	-	-	-
10	#17080.00	-	-	-	-	-	-	-
11	19520.00	-	-	-	-	-	-	-
12	#21960.00	-	-	-	-	-	-	-
13	#24400.00	-	-	-	-	-	-	-

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency (主頻).
6. " # ": The radiated frequency is out of the restricted band.
7. " - ": The emission levels were too low to be detected.
8. The blank is not available, the limit of fundamental frequency was restricted at the output power.

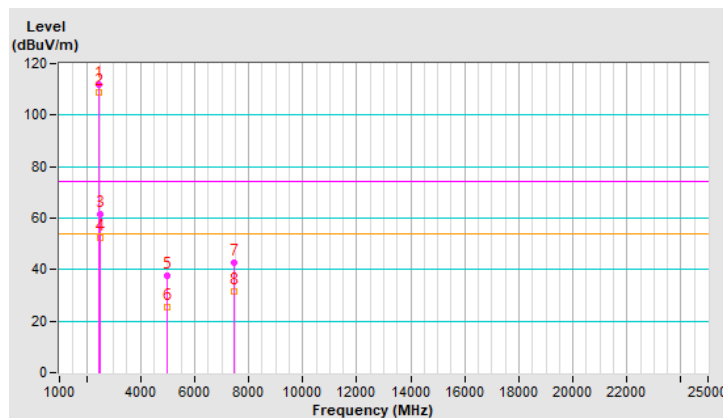


操作模式：	發射 BT-LE 2M	調變技術：	GFSK
基本波頻率：	CH 39：2480 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=5.1kHz
量測場地溫度：	22.0°C	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2480.00	111.7 PK			1.00 H	61	113.3	-1.6
2	*2480.00	108.9 AV			1.00 H	61	110.5	-1.6
3	2483.50	61.5 PK	74.0	-12.5	1.00 H	61	63.1	-1.6
4	2483.50	52.6 AV	54.0	-1.4	1.00 H	61	54.2	-1.6
5	4960.00	37.5 PK	74.0	-36.5	1.67 H	112	34.2	3.3
6	4960.00	25.6 AV	54.0	-28.4	1.67 H	112	22.3	3.3
7	7440.00	42.8 PK	74.0	-31.2	2.42 H	149	33.2	9.6
8	7440.00	31.5 AV	54.0	-22.5	2.42 H	149	21.9	9.6
9	#9920.00	-	-	-	-	-	-	-
10	12400.00	-	-	-	-	-	-	-
11	#14880.00	-	-	-	-	-	-	-
12	#17360.00	-	-	-	-	-	-	-
13	19840.00	-	-	-	-	-	-	-
14	22320.00	-	-	-	-	-	-	-
15	#24800.00	-	-	-	-	-	-	-

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency (主頻).
6. " # ": The radiated frequency is out of the restricted band.
7. " - ": The emission levels were too low to be detected.
8. The blank is not available, the limit of fundamental frequency was restricted at the output power.

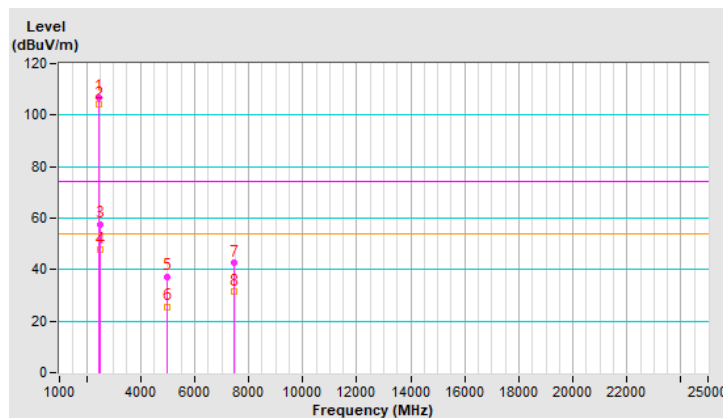


操作模式：	發射 BT-LE 2M	調變技術：	GFSK
基本波頻率：	CH 39：2480 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=5.1kHz
量測場地溫度：	22.0°C	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2480.00	106.9 PK			3.97 V	354	108.5	-1.6
2	*2480.00	104.0 AV			3.97 V	354	105.6	-1.6
3	2483.50	57.6 PK	74.0	-16.4	3.97 V	354	59.2	-1.6
4	2483.50	47.6 AV	54.0	-6.4	3.97 V	354	49.2	-1.6
5	4960.00	37.1 PK	74.0	-36.9	1.67 V	199	33.8	3.3
6	4960.00	25.3 AV	54.0	-28.7	1.67 V	199	22.0	3.3
7	7440.00	42.5 PK	74.0	-31.5	1.24 V	163	32.9	9.6
8	7440.00	31.3 AV	54.0	-22.7	1.24 V	163	21.7	9.6
9	#9920.00	-	-	-	-	-	-	-
10	12400.00	-	-	-	-	-	-	-
11	#14880.00	-	-	-	-	-	-	-
12	#17360.00	-	-	-	-	-	-	-
13	19840.00	-	-	-	-	-	-	-
14	22320.00	-	-	-	-	-	-	-
15	#24800.00	-	-	-	-	-	-	-

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency (主頻).
6. " # ": The radiated frequency is out of the restricted band.
7. " - ": The emission levels were too low to be detected.
8. The blank is not available, the limit of fundamental frequency was restricted at the output power.



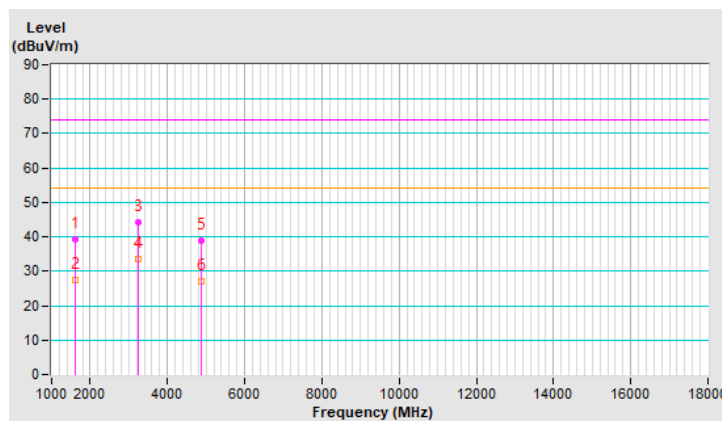
4.6.2 接收諧波

操作模式：	接收		
基本波頻率：	CH 19 : 2440 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3MHz
量測場地溫度：	22.0°C	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 13 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1626.67	39.2 PK	74.0	-34.8	2.67 H	39	44.0	-4.8
2	1626.67	27.3 AV	54.0	-26.7	2.67 H	39	32.1	-4.8
3	3253.33	44.2 PK	74.0	-29.8	3.06 H	163	44.4	-0.2
4	3253.33	33.7 AV	54.0	-20.3	3.06 H	163	33.9	-0.2
5	4880.00	39.0 PK	74.0	-35.0	2.66 H	33	35.8	3.2
6	4880.00	26.9 AV	54.0	-27.1	2.66 H	33	23.7	3.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.

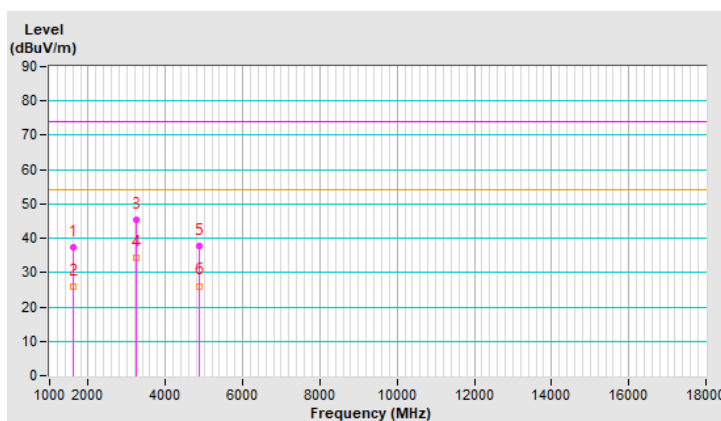


操作模式：	接收		
基本波頻率：	CH 19 : 2440 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3MHz
量測場地溫度：	22.0°C	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 13 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1626.67	37.4 PK	74.0	-36.6	1.91 V	226	42.2	-4.8
2	1626.67	25.8 AV	54.0	-28.2	1.91 V	226	30.6	-4.8
3	3253.33	45.2 PK	74.0	-28.8	1.00 V	138	45.4	-0.2
4	3253.33	34.4 AV	54.0	-19.6	1.00 V	138	34.6	-0.2
5	4880.00	37.7 PK	74.0	-36.3	1.83 V	206	34.5	3.2
6	4880.00	26.1 AV	54.0	-27.9	1.83 V	206	22.9	3.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.



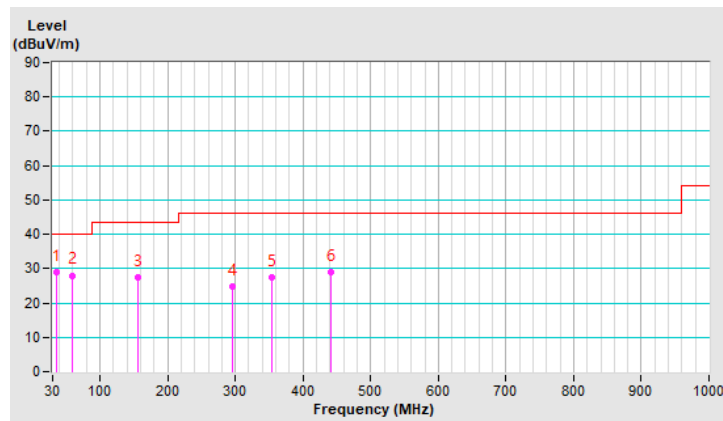
4.6.3 其它不必要之訊號

操作模式：	發射接收 BT-LE 2M	調變技術：	GFSK
基本波頻率：	CH 19：2440 MHz	檢測器與頻寬：	(QP) RB=120kHz
量測場地溫度：	22.0℃	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	36.47	29.0 QP	40.0	-11.0	1.00 H	174	37.6	-8.6
2	59.83	28.0 QP	40.0	-12.0	2.00 H	90	36.4	-8.4
3	156.25	27.5 QP	43.5	-16.0	1.00 H	175	34.5	-7.0
4	296.34	24.9 QP	46.0	-21.1	3.00 H	248	30.9	-6.0
5	353.18	27.6 QP	46.0	-18.4	2.50 H	360	31.9	-4.3
6	442.08	29.0 QP	46.0	-17.0	2.50 H	287	30.6	-1.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



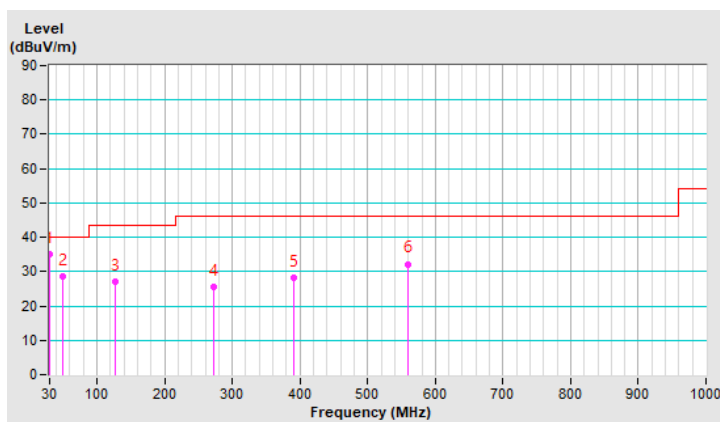
操作模式：	發射接收 BT-LE 2M	調變技術：	GFSK
基本波頻率：	CH 19 : 2440 MHz	檢測器與頻寬：	(QP) RB=120kHz
量測場地溫度：	22.0°C	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	30.12	34.9 QP	40.0	-5.1	1.00 V	277	43.6	-8.7
2	48.84	28.5 QP	40.0	-11.5	1.00 V	354	36.1	-7.6
3	127.01	27.2 QP	43.5	-16.3	2.50 V	268	35.7	-8.5
4	271.87	25.4 QP	46.0	-20.6	1.00 V	349	32.4	-7.0
5	391.33	28.3 QP	46.0	-17.7	1.50 V	11	31.5	-3.2
6	560.29	32.2 QP	46.0	-13.8	1.50 V	248	31.3	0.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



4.7 量測結果 (模式 2)

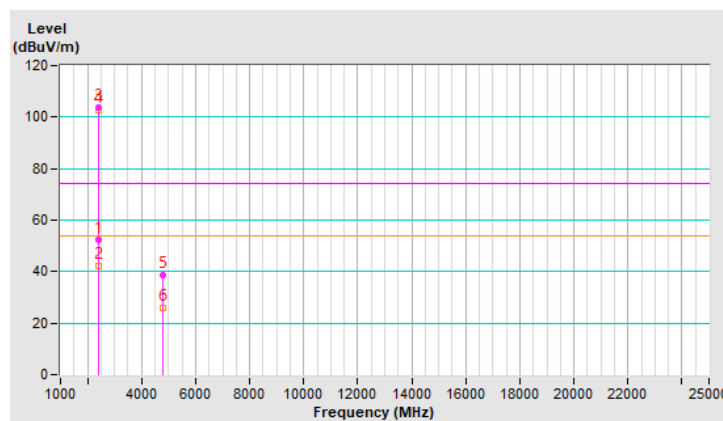
4.7.1 發射諧波

操作模式：	發射 BT-LE 1M	調變技術：	GFSK
基本波頻率：	CH 0：2402 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3kHz
量測場地溫度：	22.0°C	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	52.6 PK	74.0	-21.4	1.15 H	201	54.2	-1.6
2	2390.00	42.2 AV	54.0	-11.8	1.15 H	201	43.8	-1.6
3	*2402.00	103.7 PK			1.15 H	201	105.3	-1.6
4	*2402.00	102.6 AV			1.15 H	201	104.2	-1.6
5	4804.00	38.5 PK	74.0	-35.5	2.74 H	49	35.3	3.2
6	4804.00	26.0 AV	54.0	-28.0	2.74 H	49	22.8	3.2
7	#7206.00	-	-	-	-	-	-	-
8	#9608.00	-	-	-	-	-	-	-
9	12010.00	-	-	-	-	-	-	-
10	#14412.00	-	-	-	-	-	-	-
11	#16814.00	-	-	-	-	-	-	-
12	19216.00	-	-	-	-	-	-	-
13	#21618.00	-	-	-	-	-	-	-
14	#24020.00	-	-	-	-	-	-	-

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency (主頻).
6. " # ": The radiated frequency is out of the restricted band.
7. " - ": The emission levels were too low to be detected.
8. The blank is not available, the limit of fundamental frequency was restricted at the output power.

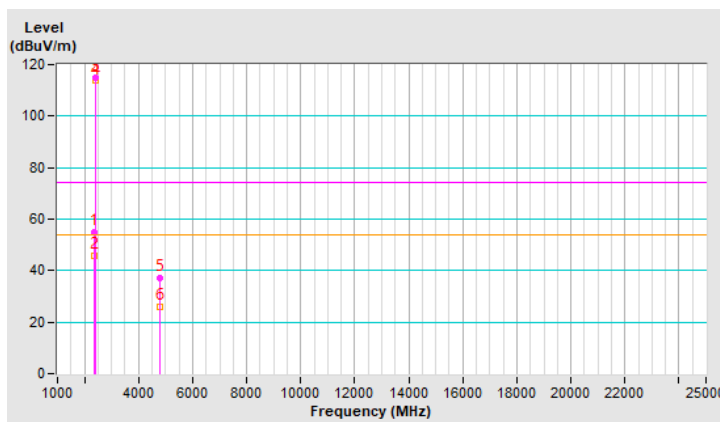


操作模式：	發射 BT-LE 1M	調變技術：	GFSK
基本波頻率：	CH 0：2402 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3kHz
量測場地溫度：	22.0°C	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2369.98	55.1 PK	74.0	-18.9	2.13 V	286	56.6	-1.5
2	2369.98	45.7 AV	54.0	-8.3	2.13 V	286	47.2	-1.5
3	*2402.00	114.8 PK			2.13 V	286	116.4	-1.6
4	*2402.00	113.7 AV			2.13 V	286	115.3	-1.6
5	4804.00	37.3 PK	74.0	-36.7	1.90 V	217	34.1	3.2
6	4804.00	25.8 AV	54.0	-28.2	1.90 V	217	22.6	3.2
7	#7206.00	-	-	-	-	-	-	-
8	#9608.00	-	-	-	-	-	-	-
9	12010.00	-	-	-	-	-	-	-
10	#14412.00	-	-	-	-	-	-	-
11	#16814.00	-	-	-	-	-	-	-
12	19216.00	-	-	-	-	-	-	-
13	#21618.00	-	-	-	-	-	-	-
14	#24020.00	-	-	-	-	-	-	-

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency (主頻).
6. " # ": The radiated frequency is out of the restricted band.
7. " - ": The emission levels were too low to be detected.
8. The blank is not available, the limit of fundamental frequency was restricted at the output power.

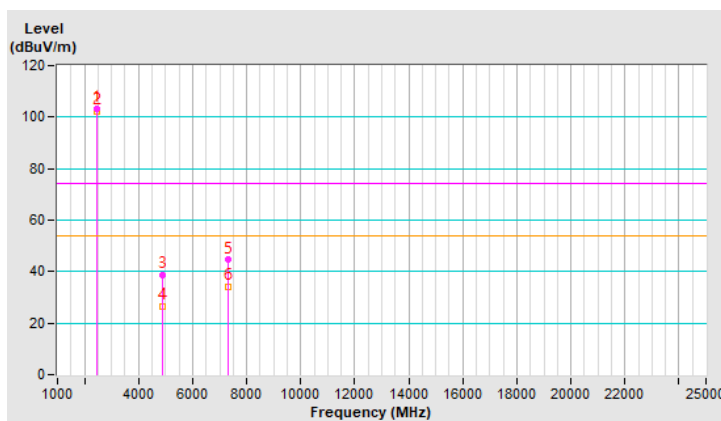


操作模式：	發射 BT-LE 1M	調變技術：	GFSK
基本波頻率：	CH 19：2440 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3kHz
量測場地溫度：	22.0℃	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2440.00	103.1 PK			1.10 H	188	104.7	-1.6
2	*2440.00	102.2 AV			1.10 H	188	103.8	-1.6
3	4880.00	38.5 PK	74.0	-35.5	2.73 H	36	35.3	3.2
4	4880.00	26.3 AV	54.0	-27.7	2.73 H	36	23.1	3.2
5	7320.00	44.5 PK	74.0	-29.5	3.11 H	172	35.1	9.4
6	7320.00	34.0 AV	54.0	-20.0	3.11 H	172	24.6	9.4
7	#9760.00	-	-	-	-	-	-	-
8	12200.00	-	-	-	-	-	-	-
9	#14640.00	-	-	-	-	-	-	-
10	#17080.00	-	-	-	-	-	-	-
11	19520.00	-	-	-	-	-	-	-
12	#21960.00	-	-	-	-	-	-	-
13	#24400.00	-	-	-	-	-	-	-

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency (主頻).
6. " # ": The radiated frequency is out of the restricted band.
7. " - ": The emission levels were too low to be detected.
8. The blank is not available, the limit of fundamental frequency was restricted at the output power.

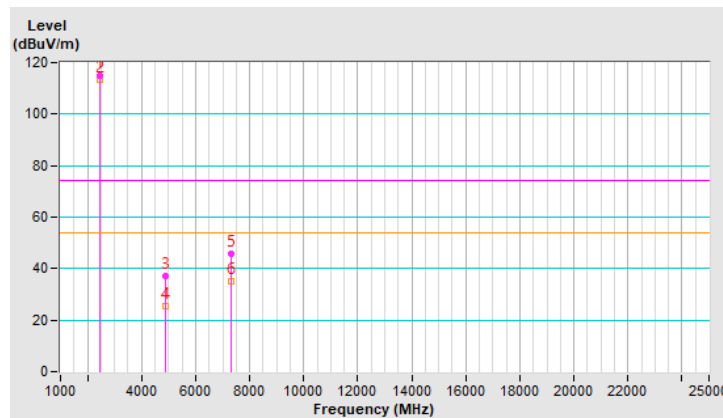


操作模式：	發射 BT-LE 1M	調變技術：	GFSK
基本波頻率：	CH 19：2440 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3kHz
量測場地溫度：	22.0°C	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2440.00	114.9 PK			2.18 V	300	116.5	-1.6
2	*2440.00	113.6 AV			2.18 V	300	115.2	-1.6
3	4880.00	37.2 PK	74.0	-36.8	1.93 V	218	34.0	3.2
4	4880.00	25.4 AV	54.0	-28.6	1.93 V	218	22.2	3.2
5	7320.00	45.9 PK	74.0	-28.1	1.06 V	150	36.5	9.4
6	7320.00	35.0 AV	54.0	-19.0	1.06 V	150	25.6	9.4
7	#9760.00	-	-	-	-	-	-	-
8	12200.00	-	-	-	-	-	-	-
9	#14640.00	-	-	-	-	-	-	-
10	#17080.00	-	-	-	-	-	-	-
11	19520.00	-	-	-	-	-	-	-
12	#21960.00	-	-	-	-	-	-	-
13	#24400.00	-	-	-	-	-	-	-

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency (主頻).
6. " # ": The radiated frequency is out of the restricted band.
7. " - ": The emission levels were too low to be detected.
8. The blank is not available, the limit of fundamental frequency was restricted at the output power.

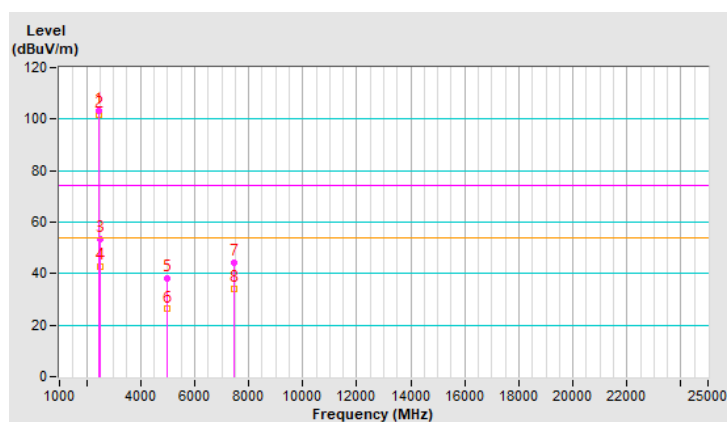


操作模式：	發射 BT-LE 1M	調變技術：	GFSK
基本波頻率：	CH 39：2480 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3kHz
量測場地溫度：	22.0℃	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2480.00	103.1 PK			1.17 H	211	104.7	-1.6
2	*2480.00	101.9 AV			1.17 H	211	103.5	-1.6
3	2483.50	53.4 PK	74.0	-20.6	1.17 H	211	55.0	-1.6
4	2483.50	42.6 AV	54.0	-11.4	1.17 H	211	44.2	-1.6
5	4960.00	38.1 PK	74.0	-35.9	2.66 H	55	34.8	3.3
6	4960.00	26.2 AV	54.0	-27.8	2.66 H	55	22.9	3.3
7	7440.00	44.4 PK	74.0	-29.6	3.15 H	172	34.8	9.6
8	7440.00	33.9 AV	54.0	-20.1	3.15 H	172	24.3	9.6
9	#9920.00	-	-	-	-	-	-	-
10	12400.00	-	-	-	-	-	-	-
11	#14880.00	-	-	-	-	-	-	-
12	#17360.00	-	-	-	-	-	-	-
13	19840.00	-	-	-	-	-	-	-
14	22320.00	-	-	-	-	-	-	-
15	#24800.00	-	-	-	-	-	-	-

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency (主頻).
6. " # ": The radiated frequency is out of the restricted band.
7. " - ": The emission levels were too low to be detected.
8. The blank is not available, the limit of fundamental frequency was restricted at the output power.

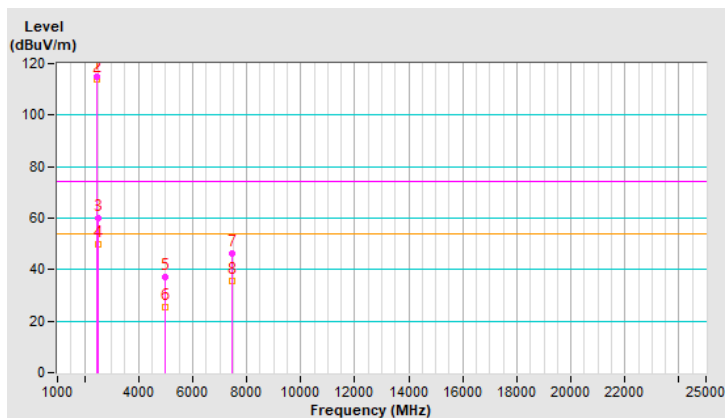


操作模式：	發射 BT-LE 1M	調變技術：	GFSK
基本波頻率：	CH 39：2480 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3kHz
量測場地溫度：	22.0℃	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2480.00	115.1 PK			2.25 V	284	116.7	-1.6
2	*2480.00	114.0 AV			2.25 V	284	115.6	-1.6
3	2483.50	59.9 PK	74.0	-14.1	2.25 V	284	61.5	-1.6
4	2483.50	49.9 AV	54.0	-4.1	2.25 V	284	51.5	-1.6
5	4960.00	37.1 PK	74.0	-36.9	1.92 V	211	33.8	3.3
6	4960.00	25.5 AV	54.0	-28.5	1.92 V	211	22.2	3.3
7	7440.00	46.2 PK	74.0	-27.8	1.04 V	140	36.6	9.6
8	7440.00	35.6 AV	54.0	-18.4	1.04 V	140	26.0	9.6
9	#9920.00	-	-	-	-	-	-	-
10	12400.00	-	-	-	-	-	-	-
11	#14880.00	-	-	-	-	-	-	-
12	#17360.00	-	-	-	-	-	-	-
13	19840.00	-	-	-	-	-	-	-
14	22320.00	-	-	-	-	-	-	-
15	#24800.00	-	-	-	-	-	-	-

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency (主頻).
6. " # ": The radiated frequency is out of the restricted band.
7. " - ": The emission levels were too low to be detected.
8. The blank is not available, the limit of fundamental frequency was restricted at the output power.

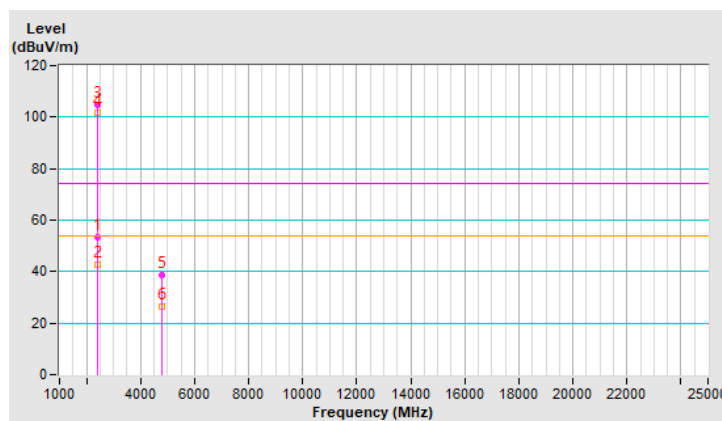


操作模式：	發射 BT-LE 2M	調變技術：	GFSK
基本波頻率：	CH 0：2402 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=5.1kHz
量測場地溫度：	22.0°C	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	53.3 PK	74.0	-20.7	1.36 H	195	54.9	-1.6
2	2390.00	42.6 AV	54.0	-11.4	1.36 H	195	44.2	-1.6
3	*2402.00	104.6 PK			1.36 H	195	106.2	-1.6
4	*2402.00	101.9 AV			1.36 H	195	103.5	-1.6
5	4804.00	38.7 PK	74.0	-35.3	2.69 H	35	35.5	3.2
6	4804.00	26.3 AV	54.0	-27.7	2.69 H	35	23.1	3.2
7	#7206.00	-	-	-	-	-	-	-
8	#9608.00	-	-	-	-	-	-	-
9	12010.00	-	-	-	-	-	-	-
10	#14412.00	-	-	-	-	-	-	-
11	#16814.00	-	-	-	-	-	-	-
12	19216.00	-	-	-	-	-	-	-
13	#21618.00	-	-	-	-	-	-	-
14	#24020.00	-	-	-	-	-	-	-

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency (主頻).
6. " # ": The radiated frequency is out of the restricted band.
7. " - ": The emission levels were too low to be detected.
8. The blank is not available, the limit of fundamental frequency was restricted at the output power.

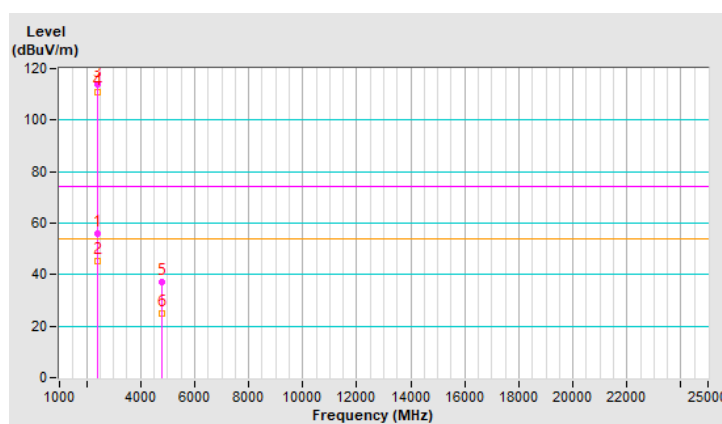


操作模式：	發射 BT-LE 2M	調變技術：	GFSK
基本波頻率：	CH 0：2402 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=5.1kHz
量測場地溫度：	22.0°C	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	56.1 PK	74.0	-17.9	2.33 V	243	57.7	-1.6
2	2390.00	45.4 AV	54.0	-8.6	2.33 V	243	47.0	-1.6
3	*2402.00	113.8 PK			2.33 V	243	115.4	-1.6
4	*2402.00	111.0 AV			2.33 V	243	112.6	-1.6
5	4804.00	37.1 PK	74.0	-36.9	1.95 V	205	33.9	3.2
6	4804.00	25.1 AV	54.0	-28.9	1.95 V	205	21.9	3.2
7	#7206.00	-	-	-	-	-	-	-
8	#9608.00	-	-	-	-	-	-	-
9	12010.00	-	-	-	-	-	-	-
10	#14412.00	-	-	-	-	-	-	-
11	#16814.00	-	-	-	-	-	-	-
12	19216.00	-	-	-	-	-	-	-
13	#21618.00	-	-	-	-	-	-	-
14	#24020.00	-	-	-	-	-	-	-

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency (主頻).
6. " # ": The radiated frequency is out of the restricted band.
7. " - ": The emission levels were too low to be detected.
8. The blank is not available, the limit of fundamental frequency was restricted at the output power.

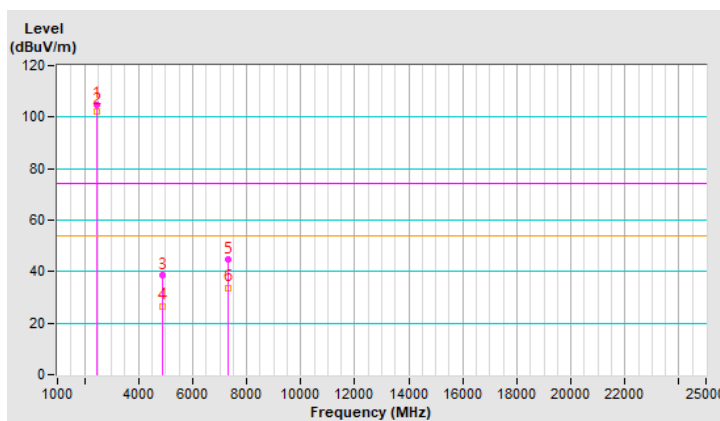


操作模式：	發射 BT-LE 2M	調變技術：	GFSK
基本波頻率：	CH 19：2440 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=5.1kHz
量測場地溫度：	22.0℃	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2440.00	104.9 PK			1.32 H	196	106.5	-1.6
2	*2440.00	102.4 AV			1.32 H	196	104.0	-1.6
3	4880.00	38.4 PK	74.0	-35.6	2.62 H	63	35.2	3.2
4	4880.00	26.5 AV	54.0	-27.5	2.62 H	63	23.3	3.2
5	7320.00	44.5 PK	74.0	-29.5	3.18 H	174	35.1	9.4
6	7320.00	33.8 AV	54.0	-20.2	3.18 H	174	24.4	9.4
7	#9760.00	-	-	-	-	-	-	-
8	12200.00	-	-	-	-	-	-	-
9	#14640.00	-	-	-	-	-	-	-
10	#17080.00	-	-	-	-	-	-	-
11	19520.00	-	-	-	-	-	-	-
12	#21960.00	-	-	-	-	-	-	-
13	#24400.00	-	-	-	-	-	-	-

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency (主頻).
6. " # ": The radiated frequency is out of the restricted band.
7. " - ": The emission levels were too low to be detected.
8. The blank is not available, the limit of fundamental frequency was restricted at the output power.

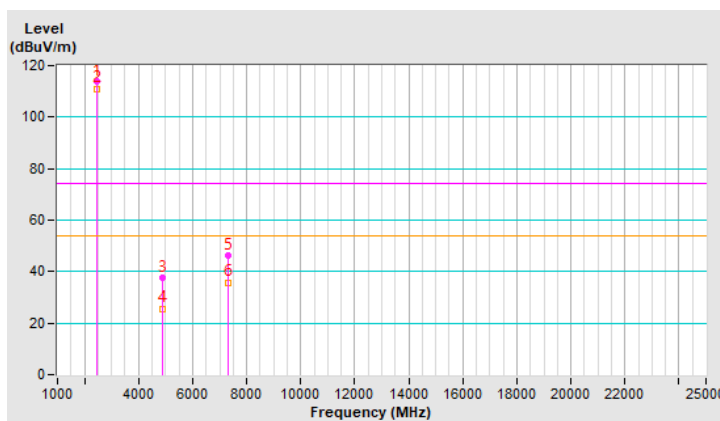


操作模式：	發射 BT-LE 2M	調變技術：	GFSK
基本波頻率：	CH 19：2440 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=5.1kHz
量測場地溫度：	22.0℃	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2440.00	113.7 PK			2.29 V	235	115.3	-1.6
2	*2440.00	111.0 AV			2.29 V	235	112.6	-1.6
3	4880.00	37.4 PK	74.0	-36.6	1.92 V	213	34.2	3.2
4	4880.00	25.4 AV	54.0	-28.6	1.92 V	213	22.2	3.2
5	7320.00	46.1 PK	74.0	-27.9	1.02 V	130	36.7	9.4
6	7320.00	35.5 AV	54.0	-18.5	1.02 V	130	26.1	9.4
7	#9760.00	-	-	-	-	-	-	-
8	12200.00	-	-	-	-	-	-	-
9	#14640.00	-	-	-	-	-	-	-
10	#17080.00	-	-	-	-	-	-	-
11	19520.00	-	-	-	-	-	-	-
12	#21960.00	-	-	-	-	-	-	-
13	#24400.00	-	-	-	-	-	-	-

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency (主頻).
6. " # ": The radiated frequency is out of the restricted band.
7. " - ": The emission levels were too low to be detected.
8. The blank is not available, the limit of fundamental frequency was restricted at the output power.

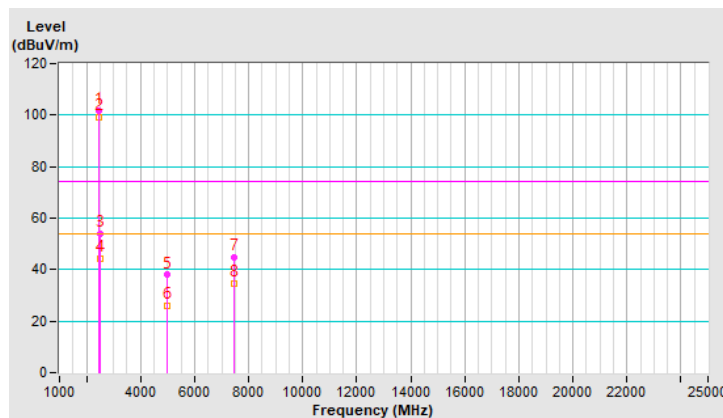


操作模式：	發射 BT-LE 2M	調變技術：	GFSK
基本波頻率：	CH 39：2480 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=5.1kHz
量測場地溫度：	22.0°C	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2480.00	101.9 PK			1.13 H	196	103.5	-1.6
2	*2480.00	99.0 AV			1.13 H	196	100.6	-1.6
3	2483.50	54.1 PK	74.0	-19.9	1.13 H	196	55.7	-1.6
4	2483.50	44.4 AV	54.0	-9.6	1.13 H	196	46.0	-1.6
5	4960.00	37.9 PK	74.0	-36.1	2.63 H	45	34.6	3.3
6	4960.00	25.8 AV	54.0	-28.2	2.63 H	45	22.5	3.3
7	7440.00	44.9 PK	74.0	-29.1	3.14 H	170	35.3	9.6
8	7440.00	34.5 AV	54.0	-19.5	3.14 H	170	24.9	9.6
9	#9920.00	-	-	-	-	-	-	-
10	12400.00	-	-	-	-	-	-	-
11	#14880.00	-	-	-	-	-	-	-
12	#17360.00	-	-	-	-	-	-	-
13	19840.00	-	-	-	-	-	-	-
14	22320.00	-	-	-	-	-	-	-
15	#24800.00	-	-	-	-	-	-	-

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency (主頻).
6. " # ": The radiated frequency is out of the restricted band.
7. " - ": The emission levels were too low to be detected.
8. The blank is not available, the limit of fundamental frequency was restricted at the output power.

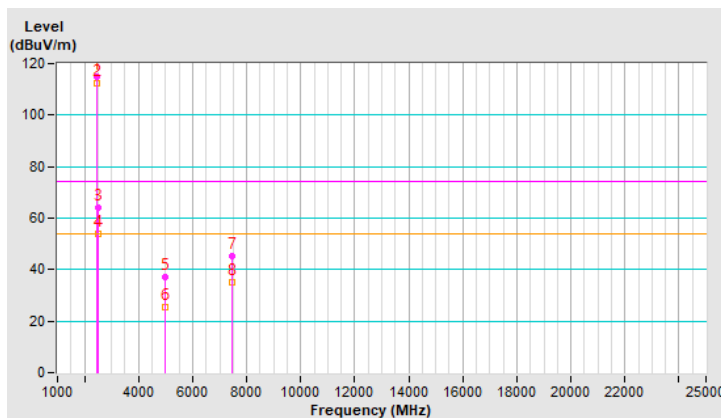


操作模式：	發射 BT-LE 2M	調變技術：	GFSK
基本波頻率：	CH 39：2480 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=5.1kHz
量測場地溫度：	22.0°C	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2480.00	115.1 PK			2.19 V	284	116.7	-1.6
2	*2480.00	112.3 AV			2.19 V	284	113.9	-1.6
3	2483.50	63.9 PK	74.0	-10.1	2.19 V	284	65.5	-1.6
4	2483.50	53.9 AV	54.0	-0.1	2.19 V	284	55.5	-1.6
5	4960.00	37.1 PK	74.0	-36.9	1.85 V	228	33.8	3.3
6	4960.00	25.3 AV	54.0	-28.7	1.85 V	228	22.0	3.3
7	7440.00	45.5 PK	74.0	-28.5	1.10 V	123	35.9	9.6
8	7440.00	35.1 AV	54.0	-18.9	1.10 V	123	25.5	9.6
9	#9920.00	-	-	-	-	-	-	-
10	12400.00	-	-	-	-	-	-	-
11	#14880.00	-	-	-	-	-	-	-
12	#17360.00	-	-	-	-	-	-	-
13	19840.00	-	-	-	-	-	-	-
14	22320.00	-	-	-	-	-	-	-
15	#24800.00	-	-	-	-	-	-	-

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency (主頻).
6. " # ": The radiated frequency is out of the restricted band.
7. " - ": The emission levels were too low to be detected.
8. The blank is not available, the limit of fundamental frequency was restricted at the output power.



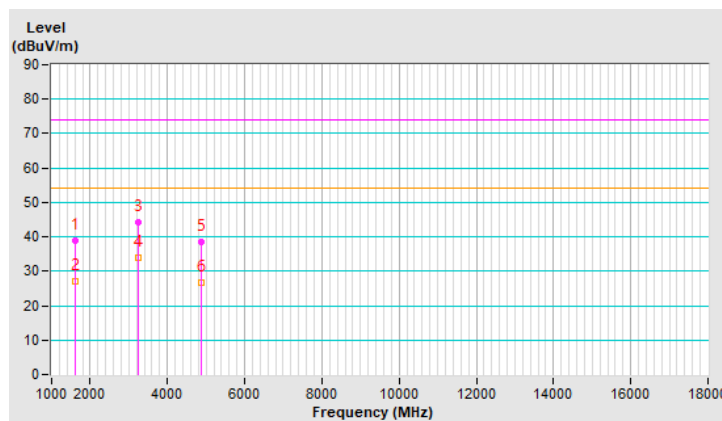
4.7.2 接收諧波

操作模式：	接收		
基本波頻率：	CH 19 : 2440 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3MHz
量測場地溫度：	22.0°C	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1626.67	38.9 PK	74.0	-35.1	2.66 H	31	43.7	-4.8
2	1626.67	27.1 AV	54.0	-26.9	2.66 H	31	31.9	-4.8
3	3253.33	44.2 PK	74.0	-29.8	3.07 H	174	44.4	-0.2
4	3253.33	33.9 AV	54.0	-20.1	3.07 H	174	34.1	-0.2
5	4880.00	38.6 PK	74.0	-35.4	2.72 H	40	35.4	3.2
6	4880.00	26.6 AV	54.0	-27.4	2.72 H	40	23.4	3.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.

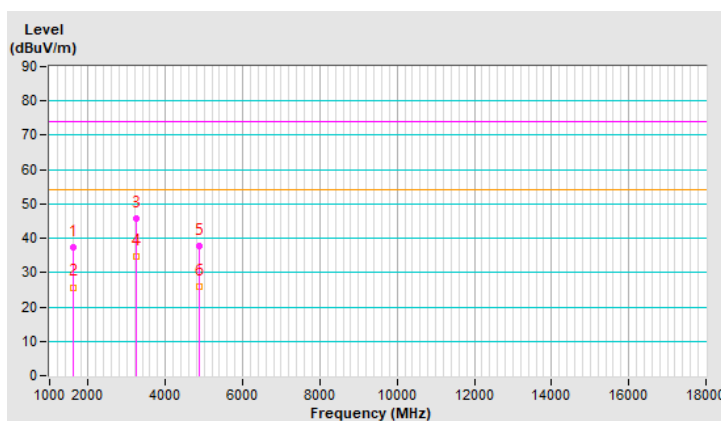


操作模式：	接收		
基本波頻率：	CH 19 : 2440 MHz	檢測器與頻寬：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3MHz
量測場地溫度：	22.0°C	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1626.67	37.4 PK	74.0	-36.6	1.92 V	237	42.2	-4.8
2	1626.67	25.7 AV	54.0	-28.3	1.92 V	237	30.5	-4.8
3	3253.33	45.7 PK	74.0	-28.3	1.02 V	149	45.9	-0.2
4	3253.33	34.7 AV	54.0	-19.3	1.02 V	149	34.9	-0.2
5	4880.00	37.6 PK	74.0	-36.4	1.88 V	221	34.4	3.2
6	4880.00	25.9 AV	54.0	-28.1	1.88 V	221	22.7	3.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.



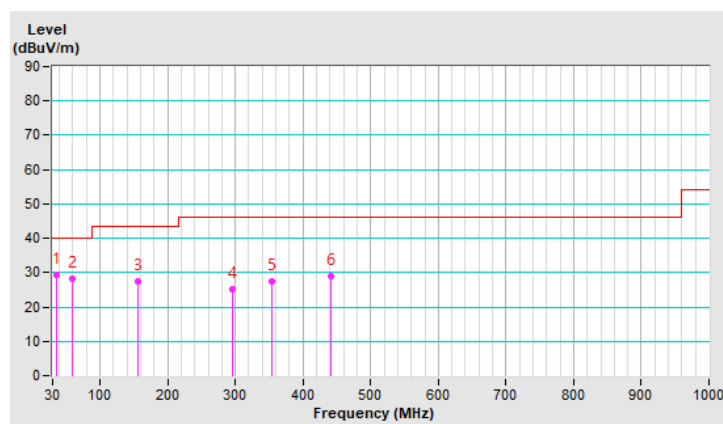
4.7.3 其它不必要之訊號

操作模式：	發射接收 BT-LE 2M	調變技術：	GFSK
基本波頻率：	CH 19：2440 MHz	檢測器與頻寬：	(QP) RB=120kHz
量測場地溫度：	22.0℃	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	36.42	29.2 QP	40.0	-10.8	1.00 H	162	37.8	-8.6
2	59.89	28.2 QP	40.0	-11.8	2.00 H	45	36.6	-8.4
3	156.29	27.4 QP	43.5	-16.1	1.00 H	193	34.4	-7.0
4	296.28	25.0 QP	46.0	-21.0	3.00 H	241	31.0	-6.0
5	353.23	27.4 QP	46.0	-18.6	2.50 H	354	31.7	-4.3
6	442.13	29.1 QP	46.0	-16.9	2.50 H	249	30.7	-1.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



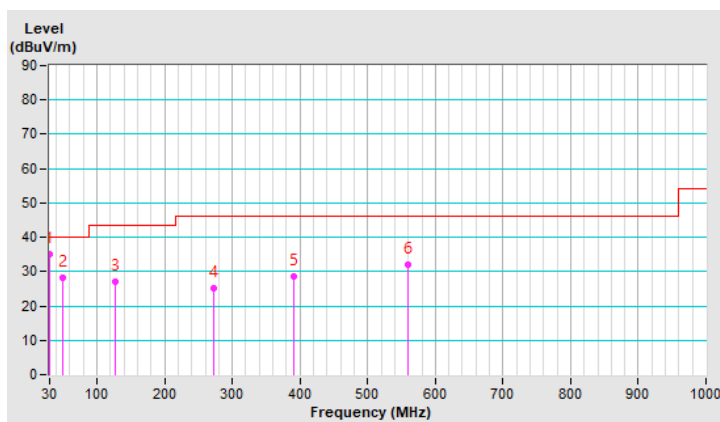
操作模式：	發射接收 BT-LE 2M	調變技術：	GFSK
基本波頻率：	CH 19 : 2440 MHz	檢測器與頻寬：	(QP) RB=120kHz
量測場地溫度：	22.0°C	量測場地濕度：	70.0%RH
測試日期：	109 年 10 月 6 日	測試者：	杜維倫

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	30.10	35.1 QP	40.0	-4.9	1.00 V	299	43.8	-8.7
2	48.79	28.3 QP	40.0	-11.7	1.00 V	360	35.9	-7.6
3	127.00	27.0 QP	43.5	-16.5	2.50 V	242	35.5	-8.5
4	271.94	25.3 QP	46.0	-20.7	1.00 V	360	32.3	-7.0
5	391.28	28.5 QP	46.0	-17.5	1.50 V	0	31.7	-3.2
6	560.23	32.1 QP	46.0	-13.9	1.50 V	299	31.2	0.9

Remarks:

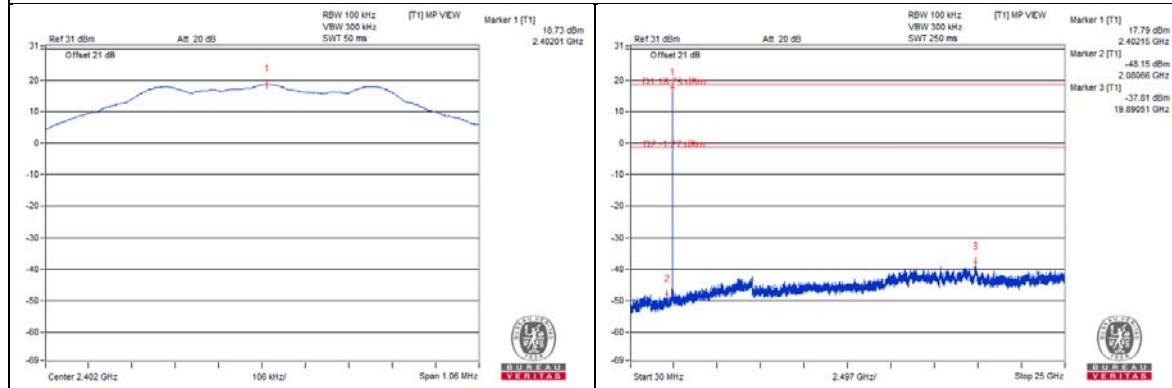
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



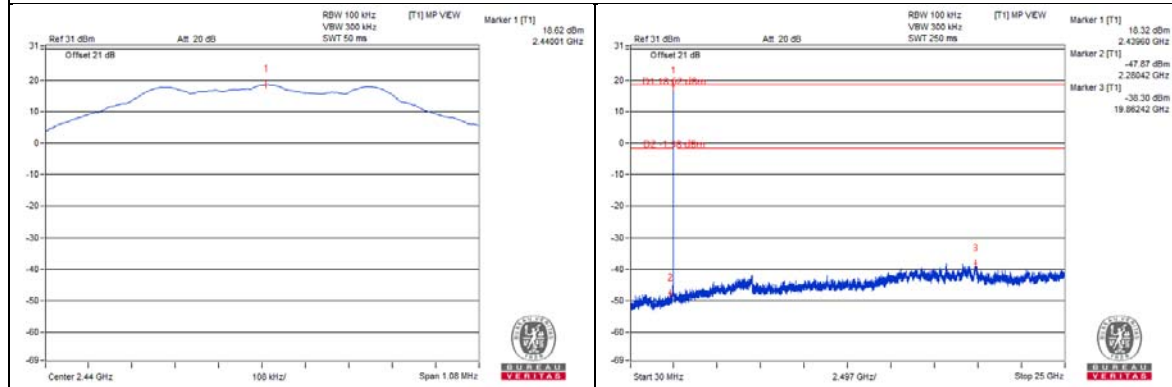
4.8 帶外發射之量測 (傳導)

BT-LE 1M

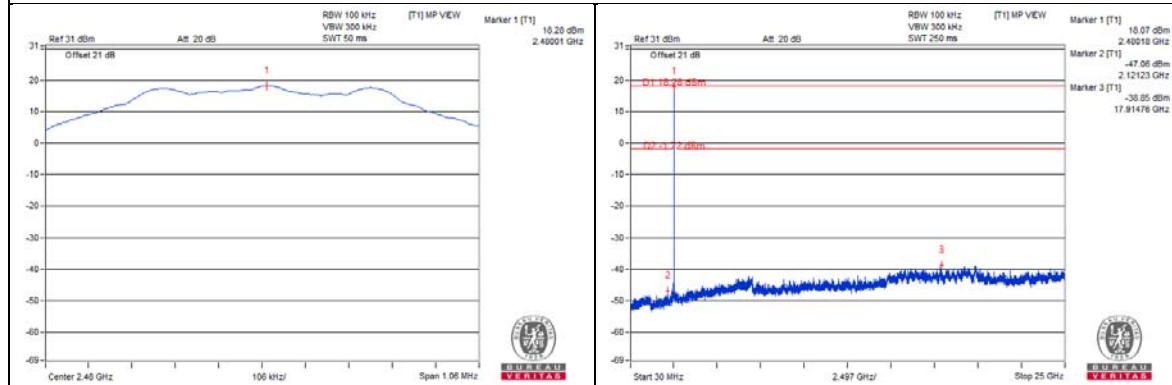
CH 0



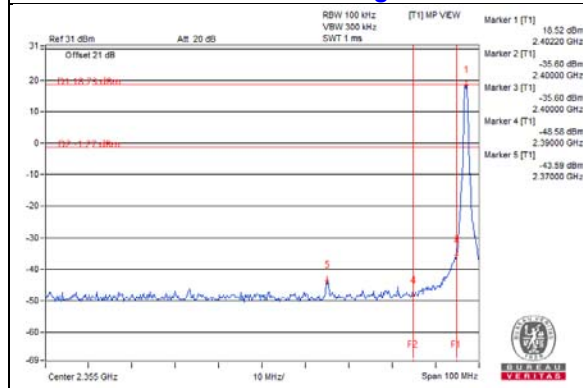
CH 19



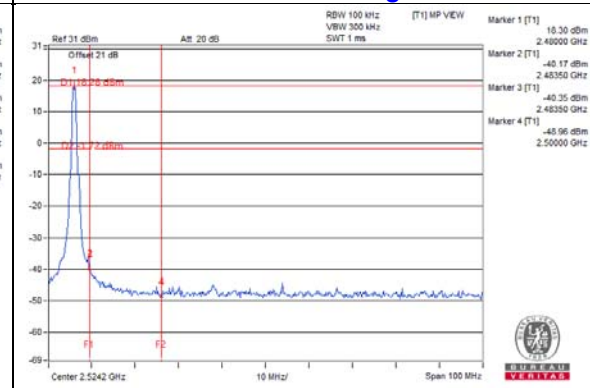
CH 39



CH 0 Band edge

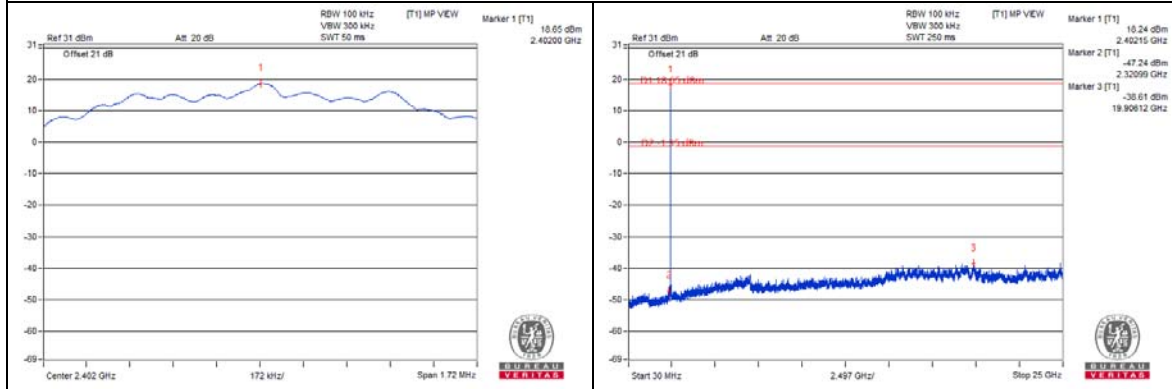


CH 39 Band edge

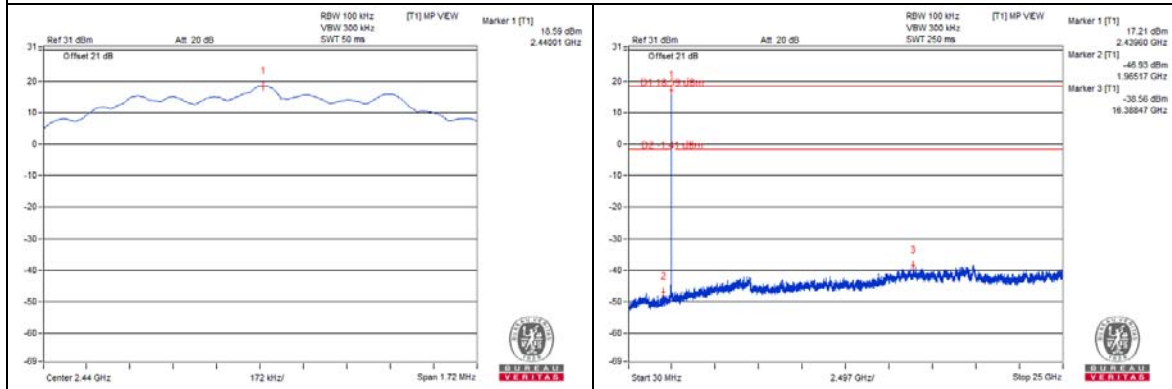


BT-LE 2M

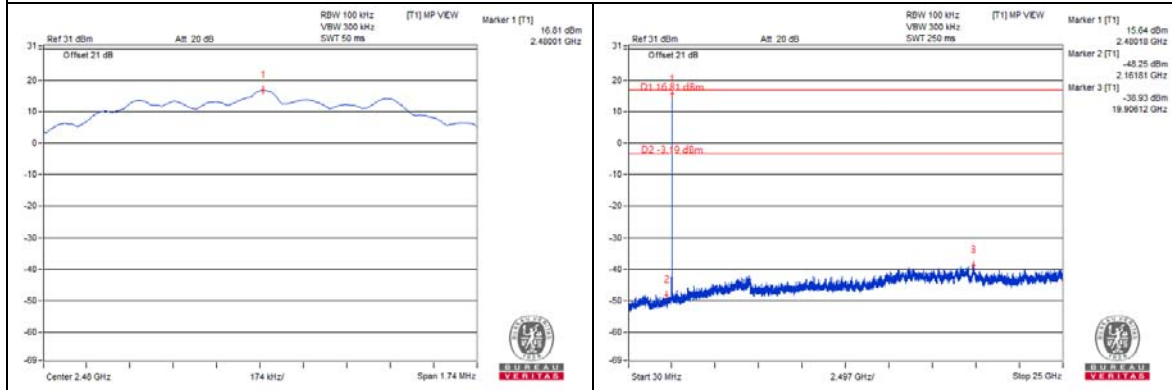
CH 0



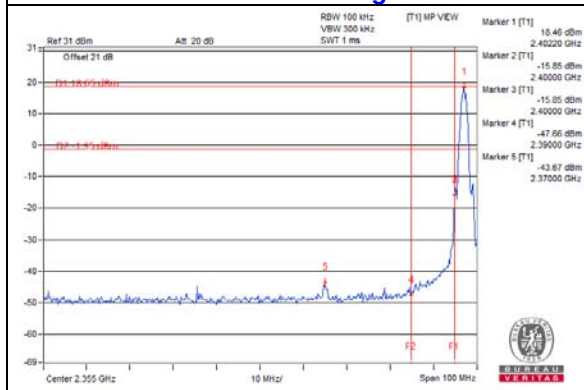
CH 19



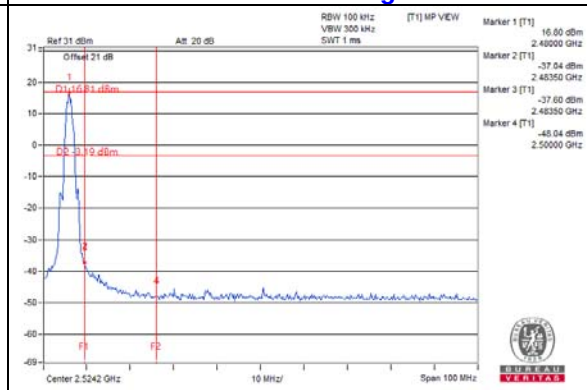
CH 39



CH 0 Band edge



CH 39 Band edge



4.9 量測結果判定

依據測試數據結果，符合低功率射頻器材技術規範之要求。

4.10 配置照片

請參照 Test Setup Photos (BV 編號: 200821E05)

5 電源線傳導干擾之量測

5.1 適用標準

請見本報告 3.1 節第(1)項的規定。

5.2 量測方法

將待測物置於 0.8 米高的非金屬桌面，使其操作在工作狀態，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 0.15MHz 至 30MHz 之間之電源線傳導放射強度。

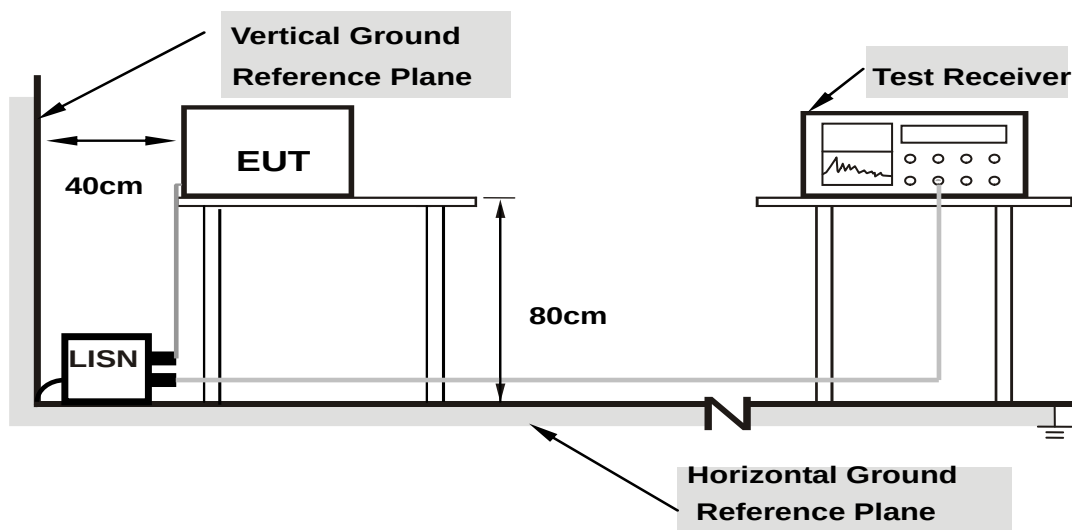
5.3 量測儀器

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESCS 30	847124/029	Oct. 23, 2019	Oct. 22, 2020
Line-Impedance Stabilization Network (for EUT) R&S	ESH3-Z5	848773/004	Oct. 23, 2019	Oct. 22, 2020
Line-Impedance Stabilization Network (for Peripheral) R&S	ESH3-Z5	835239/001	Mar. 19, 2020	Mar. 18, 2021
50 ohms Terminator	50	3	Oct. 23, 2019	Oct. 22, 2020
RF Cable	5D-FB	COCCAB-001	Sep. 26, 2020	Sep. 25, 2021
Fixed attenuator EMCI	STI02-2200-10	005	Aug. 29, 2020	Aug. 28, 2021
Software BVADT	BVADT_Cond_ V7.3.7.4	NA	NA	NA

Note:

1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Conduction 1.
3. The measurement uncertainty is 1.9 dB, which is calculated as per the document CISPR 16-4-2 This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

5.4 測試配置



Note: 1.Support units were connected to second LISN.

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

5.5 干擾值之計算

餘裕度 Margin(dB)= 結果值 Emission level (dBuV)-限制值 Limit value (dBuV)

電源傳導干擾電壓之計算公式如下

結果值 Emission level (dBuV)=校正因子 Correction Factor (dB)+儀器讀值 Reading value (dBuV)

其中校正因子 Correction Factor (dB)為：

饋線損失+電源阻抗模擬網路損失

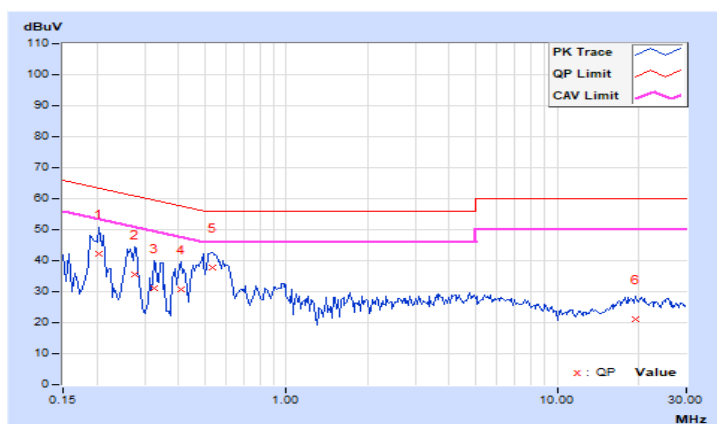
5.6 量測結果

操作模式：	發射接收 BT-LE 2M	基本波頻率：	CH 19 : 2440 MHz
量測頻率範圍：	150kHz ~ 30MHz	檢測器與頻寬：	準峰值 (QP) / 平均值 (AV), 9kHz
量測場地溫度：	25°C	量測場地濕度：	70%RH
測試日期：	109 年 10 月 8 日	測試者：	陳善豐

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.20469	9.93	32.39	13.17	42.32	23.10	63.42	53.42	-21.10	-30.32
2	0.27500	9.94	25.76	8.30	35.70	18.24	60.97	50.97	-25.27	-32.73
3	0.32578	9.94	21.03	4.10	30.97	14.04	59.56	49.56	-28.59	-35.52
4	0.40781	9.95	20.71	2.48	30.66	12.43	57.69	47.69	-27.03	-35.26
5	0.53281	9.96	27.74	11.30	37.70	21.26	56.00	46.00	-18.30	-24.74
6	19.57422	10.99	10.19	-2.87	21.18	8.12	60.00	50.00	-38.82	-41.88

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

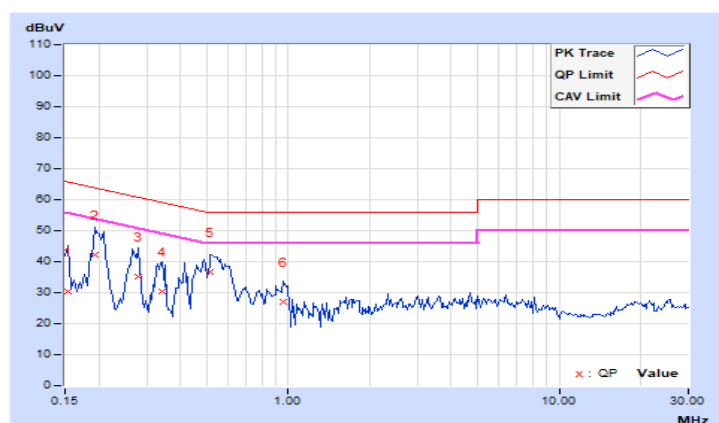


操作模式：	發射接收 BT-LE 2M	基本波頻率：	CH 19：2440 MHz
量測頻率範圍：	150kHz ~ 30MHz	檢測器與頻寬：	準峰值 (QP) / 平均值 (AV), 9kHz
量測場地溫度：	25°C	量測場地濕度：	70%RH
測試日期：	109 年 10 月 8 日	測試者：	陳善豐

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	9.91	20.54	-0.61	30.45	9.30	65.79	55.79	-35.34	-46.49
2	0.19297	9.93	32.20	10.49	42.13	20.42	63.91	53.91	-21.78	-33.49
3	0.27891	9.94	25.15	6.38	35.09	16.32	60.85	50.85	-25.76	-34.53
4	0.34141	9.94	20.46	3.32	30.40	13.26	59.17	49.17	-28.77	-35.91
5	0.51719	9.96	26.73	8.45	36.69	18.41	56.00	46.00	-19.31	-27.59
6	0.96250	9.99	16.93	0.08	26.92	10.07	56.00	46.00	-29.08	-35.93

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



5.7 量測結果判定

依據測試數據結果，符合低功率射頻器材技術規範之要求。

5.8 配置照片

請參照 Test Setup Photos (BV 編號: 200821E05)

6 6 dB 頻寬之要求

6.1 適用標準

請見本報告 3.1 節第(5)項的規定。

6.2 量測方法

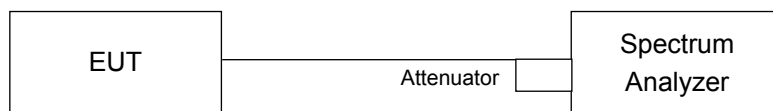
- a) 將待測物輸出經由衰減器接到頻譜分析儀上。
- b) 設定待測物處於連續發射狀態。
- c) 計算最大輸出功率峰值減 6dB 的最大頻率範圍。

6.3 量測儀器

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer R&S	FSV40	100964	May 29, 2020	May 28, 2021
Fixed Attenuator Mini-Circuits	MDCS18N-10	MDCS18N-10-01	Apr. 14, 2020	Apr. 13, 2021

NOTE: 1. The test was performed in Oven room 2.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

6.4 測試配置



6.5 量測結果

操作模式	發射	測試日期	109 年 10 月 13 日
量測場地溫度	25°C	量測場地濕度	60%RH
測試者	柯其宗		

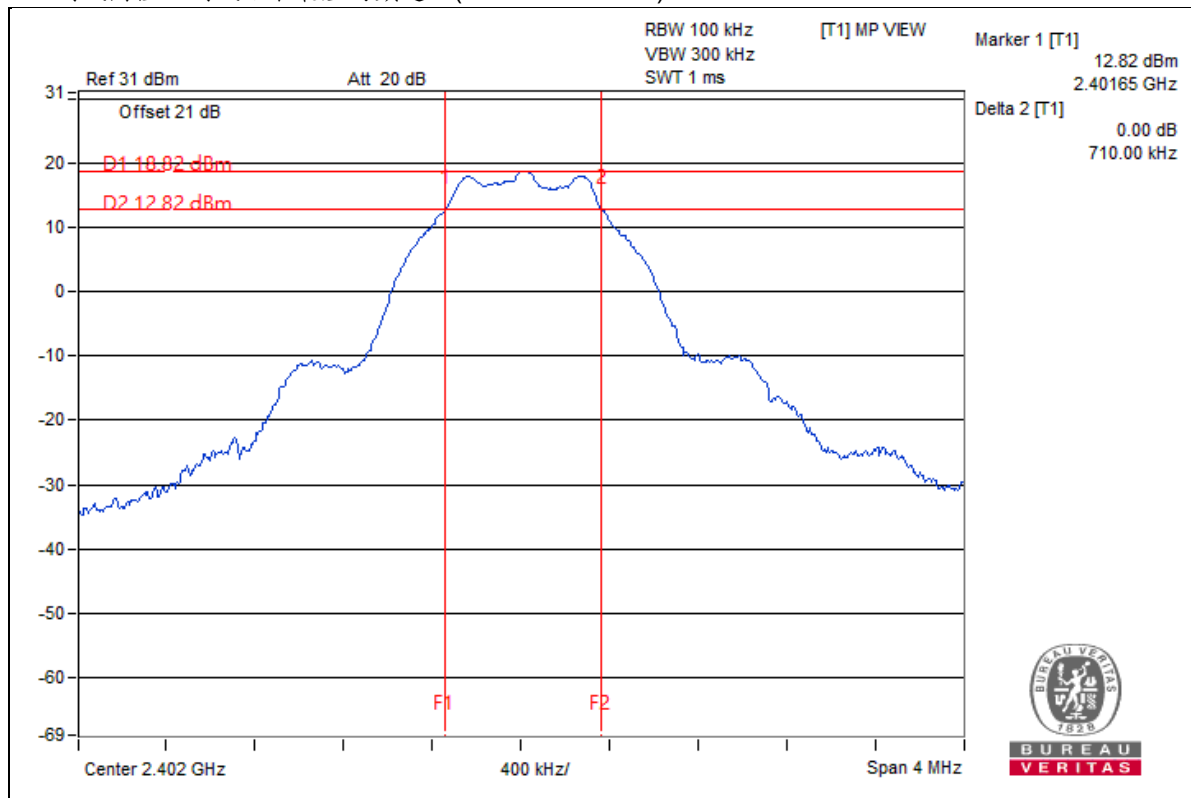
BT-LE 1M

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
0	2402	0.71	0.5	Pass
19	2440	0.72	0.5	Pass
39	2480	0.71	0.5	Pass

BT-LE 2M

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
0	2402	1.15	0.5	Pass
19	2440	1.15	0.5	Pass
39	2480	1.16	0.5	Pass

**此測試圖僅放測試結果最差的頻道。(BT-LE 1M / CH0)



6.6 量測結果判定

依據測試數據結果，符合低功率射頻器材技術規範之要求。

7 峰值傳導輸出功率之量測

7.1 適用標準

請見本報告 3.1 節第(6)項的規定。

7.2 量測方法

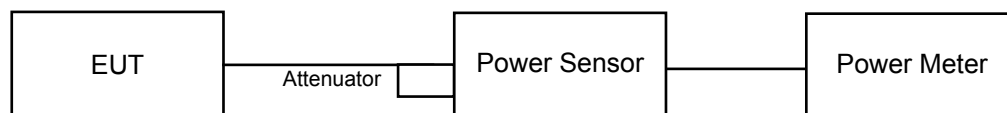
- 將待測物輸出經由衰減器接到功率計上。
- 設定待測物處於連續發射狀態。
- 計算其輸出功率峰值。

7.3 量測儀器

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Power meter Anritsu	ML2495A	1529002	July 22, 2020	July 21, 2021
Power sensor Anritsu	MA2411B	1339443	July 22, 2020	July 21, 2021
Fixed Attenuator Mini-Circuits	MDCS18N-10	MDCS18N-10-01	Apr. 14, 2020	Apr. 13, 2021

NOTE: 1. The test was performed in Oven room 2.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

7.4 測試配置



7.5 量測結果

操作模式	發射	測試日期	109 年 10 月 13 日
量測場地溫度	25°C	量測場地濕度	60%RH
測試者	柯其宗		

Peak Output Power:

BT-LE 1M

Chan.	Chan. Freq. (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass / Fail
0	2402	83.946	19.24	30.00	Pass
19	2440	85.901	19.34	30.00	Pass
39	2480	83.946	19.24	30.00	Pass

BT-LE 2M

Chan.	Chan. Freq. (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass / Fail
0	2402	84.14	19.25	30.00	Pass
19	2440	86.696	19.38	30.00	Pass
39	2480	59.979	17.78	30.00	Pass

Average Output Power:

BT-LE 1M

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
0	2402	83.368	19.21
19	2440	85.507	19.32
39	2480	83.56	19.22

BT-LE 2M

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
0	2402	83.56	19.22
19	2440	86.099	19.35
39	2480	59.293	17.73

7.6 量測結果判定

依據測試數據結果，符合低功率射頻器材技術規範之要求。

8 功率頻譜密度之量測

8.1 適用標準

請見本報告 3.1 節第(7)項的規定。

8.2 量測方法

- 將待測物之天線埠連接至測試儀器。
- 設定解析頻寬為 3 kHz，視訊頻寬為 10kHz，掃描時間設為自動，直至掃描信號穩定。
- 使用峰值功能鍵，並找到最大的峰值準位。

8.3 量測儀器

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer R&S	FSV40	100964	May 29, 2020	May 28, 2021
Fixed Attenuator Mini-Circuits	MDCS18N-10	MDCS18N-10-01	Apr. 14, 2020	Apr. 13, 2021

NOTE:

- The test was performed in Oven room 2.
- The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

8.4 測試配置



8.5 量測結果

操作模式	發射	測試日期	109 年 10 月 13 日
量測場地溫度	25°C	量測場地濕度	60%RH
測試者	柯其宗		

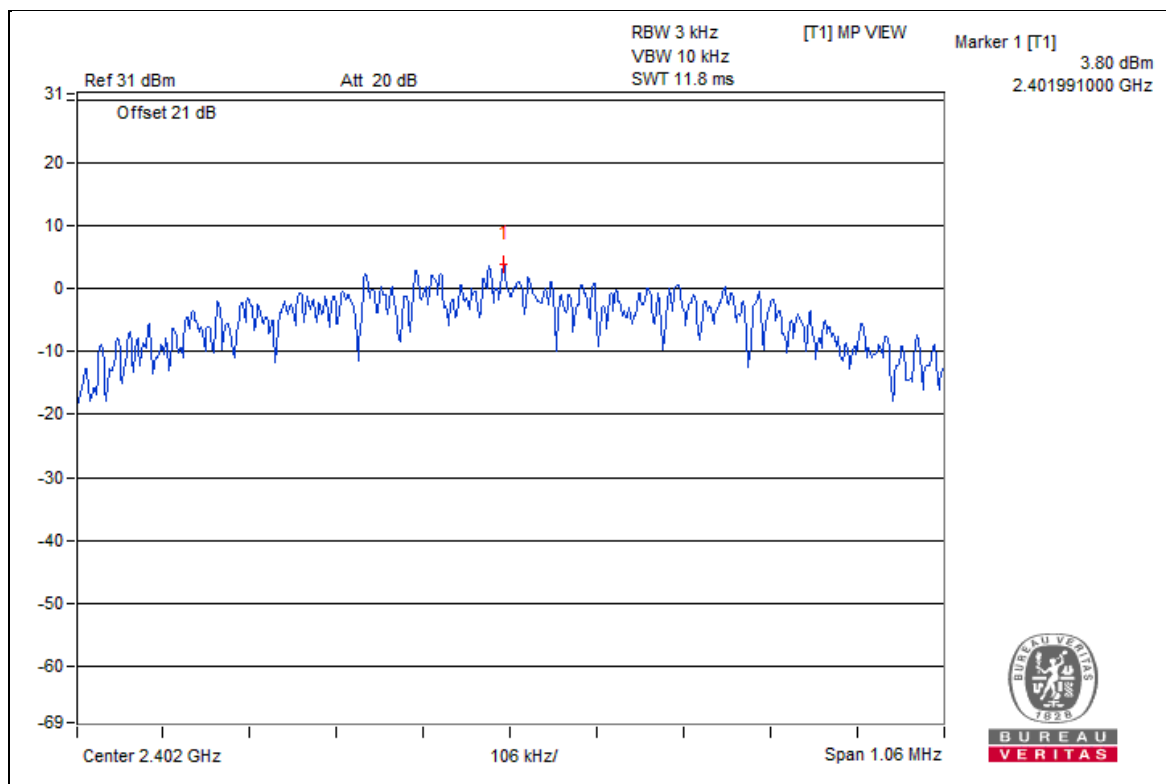
BT-LE 1M

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Pass / Fail
0	2402	3.80	8.00	Pass
19	2440	3.58	8.00	Pass
39	2480	3.23	8.00	Pass

BT-LE 2M

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Pass / Fail
0	2402	0.45	8.00	Pass
19	2440	0.43	8.00	Pass
39	2480	-1.38	8.00	Pass

**此測試圖僅放測試結果最差的頻道(BT-LE 1M / CH0)。



8.6 量測結果判定

依據測試數據結果，符合低功率射頻器材技術規範之要求。

9 電波暴露量之評估

9.1 適用標準

請見本報告 3.1 節第(8)項的規定。

9.2 評估方法

a) 以 7.5 節所測得的最大輸出功率值再加上待測物天線的增益值(Gain)帶入下面公式換算出待測物所輻射的功率密度。

b) $P_d = (P_{out} * G) / (4 * \pi * r^2)$

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

9.3 評估結果

Evaluation Frequency (MHz)	Max. Avg. Power (dBm)	Max. Avg. Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Pass/Fail
2402-2480	19.35	86.099	2	20	0.02715	1	Pass

10 檢測實驗室基本資料

立德國際商品試驗有限公司桃園分公司提供產業界最佳的檢測以及諮詢服務。
本公司為 ISO/IEC 17025 認可實驗室。

如您有任何問題或建議，請與下列實驗室聯絡：

林口 EMC / RF 實驗室：

Tel: 886-2-26052180

Fax: 886-2-26051924

新竹 EMC / RF 及通訊實驗室：

Tel: 886-3-6668565

Fax: 886-3-6668323

華亞 EMC / RF / Safety 實驗室：

Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

您也可以在我们的網站內找到各實驗室的地圖。

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