

低功率射頻電機技術規範測試報告

報告編號:

RT181228E06

申請者

ADC Automotive Distance Control Systems GmbH

產品名稱

SRD for RTTT and other vehicle or fixed installation

型號

SRR5-C

製造廠商

ADC Automotive Distance Control Systems GmbH

商標或廠牌

CONTINENTAL

該產品樣品試驗

國家通訊傳播委員會低功率射頻電機技術規範

依據之試驗標準

107 年 1 月修訂

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 108 年 06 月 03 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
RT181228E06	Original release.	108 年 06 月 03 日

證 明 書

產 品 名 稱：SRD for RTTT and other vehicle or fixed installation
商 標：CONTINENTAL
型 號：SRR5-C
申 請 者：ADC Automotive Distance Control Systems GmbH
量 測 規 範：低功率射頻電機技術規範 LP0002
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：SRR5-C），收件日期 107 年 12 月 05 日，於 107 年 12 月 05 日至 108 年 02 月 19 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“低功率射頻電機技術規範”、“低功率電波輻射性電機管理辦法”及“電信管制射頻器材審驗辦法”製作測試結果報告。

特 此 證 明 ！

報告製作者：



官 君 怡 / 專員

， 日 期：

108 年 06 月 03 日

審 核 者：



陳 瓊 美 / 經理

， 日 期：

108 年 06 月 03 日

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 低功率射頻電機量測記錄表

申請廠商： ADC Automotive Distance Control Systems GmbH

製造廠商： ADC Automotive Distance Control Systems GmbH

申請廠商地址： Peter-Dornier-Str.10, D-88131 Lindau, Germany

廠牌： CONTINENTAL

產品名稱： SRD for RTTT and other vehicle or fixed installation

型號： SRR5-C

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： 低功率射頻電機技術規範 LP0002
ANSI C63.10-2013

項次	量測項目	規 範	量測結果判定
1	發射功率密度	低功率射頻電機技術規範 3.14.1.2 節	合格
2	混附發射	低功率射頻電機技術規範 3.14.1.3 節及 2.8 節	合格
3	頻率穩定度	低功率射頻電機技術規範 3.14.1.4 節	合格
4	電源線傳導干擾	低功率射頻電機技術規範 2.3 節	註
5	天線之要求	低功率射頻電機技術規範 2.2 節	合格

註：此待測設備為車用設備，且無與個人電腦做任何連接，故免測傳導干擾測試。

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：	SRD for RTTT and other vehicle or fixed installation
型號：	SRR5-C
額定電源：	12Vdc
調變方式：	FMCW
載波頻率：	76~77GHz
峰值功率密度：	28.7 dBm
天線種類：	見註
電源線類別：	NA
信號線類別：	NA
配件：	NA

註：

1. 此裝置為 SRD for RTTT and other vehicle or fixed installation，其發射頻率落於 76 至 77 GHz，本測報測試頻道的中心頻率如下：

Channel	對應頻率 (GHz)	Channel	對應頻率 (GHz)	Channel	對應頻率 (GHz)
1	76.538	2	76.547	3	76.8

2. 此待測設備天線規格,詳列如下:

Antenna No.	Brand	Model	Antenna Net Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type
Tx1	NA	NA	20	76~77	planar micro strip patch	NA
Tx2	NA	NA	20	76~77	planar micro strip patch	NA
Tx3	NA	NA	20	76~77	planar micro strip patch	NA

3. 此待測設備於場強輻射量測經評估三個正交軸方位評估測試擺設方式：平躺、直立、側放，其中以平躺擁有最大干擾值，故以上述擺放方式進行最終量測，並將測試結果紀錄。

4. The EUT incorporates a MIMO function.

Technology	TX & RX Configuration	
Millimeter Wave	3TX	4RX

詳細之規格請參考使用說明書，產品的照片請參照 BV 編號: 181228E06-1。

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。

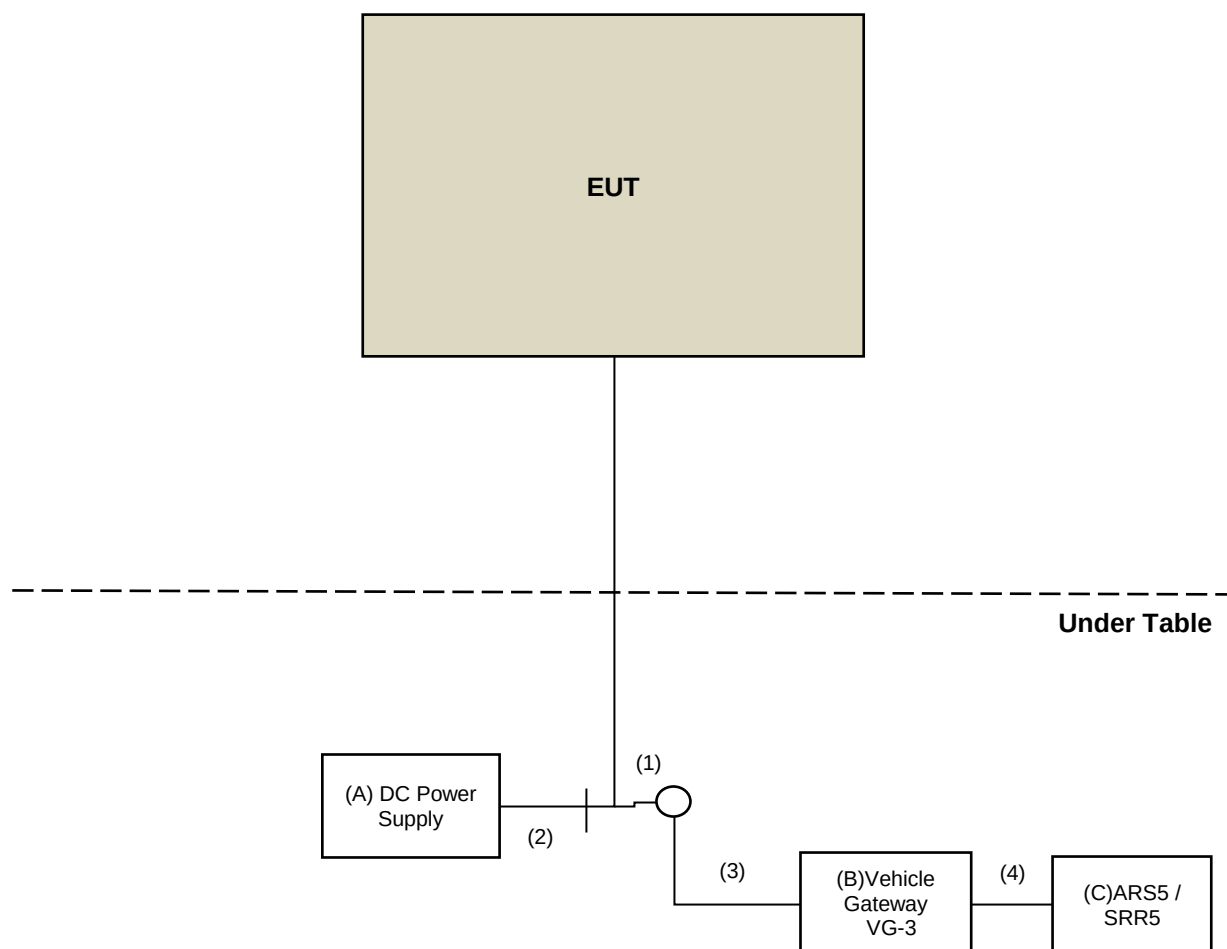
No.	Product	Brand	Model No.	Serial No.	FCC ID	Remark
A	DC Power Supply	GOOD WILL INSTRUMENT CO., LTD.	GPC-3030D	7700087	NA	Provided by Lab
B	Vehicle Gateway VG-3	NA	NA	NA	NA	Supplied by client
C	ARS5/SRR5	NA	NA	NA	NA	Supplied by client

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	Signal Cable	1	1.8	No	0	Supplied by client
2	DC Cable	1	1.6	No	0	Provided by Lab
3	VG3 Cable	1	0.6	No	0	Supplied by client
4	Sub D 15 Cable	1	0.5	No	0	Supplied by client

2.3 測試架構圖



3 適用規範

3.1 規範要求

(1) 傳導之規定

依據國家通訊傳播委員會低功率射頻電機技術規範之 2.3 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) 混附發射之規定

依據國家通訊傳播委員會低功率射頻電機技術規範 3.14.1.2 節(1)之要求，低於 40GHz 的輻射發射應符合 2.8 節之一般限制要求：

頻率(MHz)	電場強度(微伏特/公尺, uV/m)	測距(公尺)
0.009 - 0.490(含)	2,400/f(kHz)	300
0.490 (不含) - 1.705 (含)	24,000/f(kHz)	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

(3) 天線之規定

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

(4) 發射功率密度之要求

依據國家通訊傳播委員會低功率射頻電機技術規範之 3.14 節，工作頻率為 76 GHz~77 GHz。

低功率發射機，需符合規範 3.14.1.2 之規定如下：

發射限制值：距發射器表面 3 公尺處測量之任何發射，其平均功率密度 (power density) 應小於或等於 88 微瓦特/平方公分(uW/cm²)(EIRP 50 dBm)；峰值功率密度應小於或等於 279 uW/cm² (EIRP 55 dBm)。

(5) 混附發射之要求

依據國家通訊傳播委員會低功率射頻電機技術規範之 3.14.1.3 節之規定如下：

頻段外之任何頻率應僅有混附發射，其功率密度 (power density) 發射限制值如下：

(1) 低於 40 GHz 以下之任何發射，應符合 2.8 之規定。

(2) 介於 40 GHz~200 GHz 間任何發射，距發射器表面 3 公尺處測量，應小於或等於 600 pW/cm²。

(3) 高於 200 GHz 之發射，距發射器表面 3 公尺處測量，任何發射之功率密度 (power density) 應小於或等於 1000 pW/cm²。

(4) 頻譜之測量頻率應達 231 GHz。

(6) 頻率穩定度之要求

依據國家通訊傳播委員會低功率射頻電機技術規範 3.14.1.4 節之規定如下：

主要發射須包括此頻段之所有操作狀態。操作溫度範圍自 -20℃～50℃ 間變化，供應電壓在額定值之 ±15% 內變化。

3.2 限制使用之頻帶

除本規範另有規定外，任何低功率射頻電機之主波皆不得使用下表所列各頻段之頻率；低功率射頻電機落於下表所列頻段之混附發射，其電場強度必須符合 2.8 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 混附波之量測

4.1 適用標準

請見本報告 3.1 節第(5)項的規定。

4.2 量測方法

<Frequency Range below 1GHz>

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。

<Frequency Range 1GHz ~ 18GHz>

將待測物置於 1.5 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。

<Frequency Range 18GHz ~ 231GHz>

將待測物置於 1.5 米高的非金屬桌面，使其操作在工作狀態。接收天線置於適當量測距離。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，以找出最大的輻射強度，接收天線分別置於水平、垂直極化各執行測試一次。

4.3 量測儀器

For below 40GHz test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY50010156	July 12, 2018	July 11, 2019
Pre-Amplifier EMCI	EMC001340	980142	Jan. 25, 2019	Jan. 24, 2020
Loop Antenna Electro-Metrics	EM-6879	269	Sep. 07, 2018	Sep. 06, 2019
RF Cable	NA	LOOPCAB-001	Jan. 14, 2019	Jan. 13, 2020
RF Cable	NA	LOOPCAB-002	Jan. 14, 2019	Jan. 13, 2020
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-05	May 05, 2018	May 04, 2019
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-361	Nov. 22, 2018	Nov. 21, 2019
RF Cable	8D	966-3-1	Mar. 20, 2018	Mar. 19, 2019
RF Cable	8D	966-3-2	Mar. 20, 2018	Mar. 19, 2019
RF Cable	8D	966-3-3	Mar. 20, 2018	Mar. 19, 2019
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-3-01	Sep. 27, 2018	Sep. 26, 2019
Horn Antenna SCHWARZBECK	BBHA9120-D	9120D-406	Nov. 25, 2018	Nov. 24, 2019
Pre-Amplifier EMCI	EMC12630SE	980384	Jan. 28, 2019	Jan. 27, 2020
RF Cable	EMC104-SM-SM-1200	160922	Jan. 28, 2019	Jan. 27, 2020
RF Cable	EMC104-SM-SM-2000	180601	June 12, 2018	June 11, 2019
RF Cable	EMC104-SM-SM-6000	180602	June 12, 2018	June 11, 2019
Spectrum Analyzer Keysight	N9030A	MY54490679	July 23, 2018	July 22, 2019
Pre-Amplifier EMCI	EMC184045SE	980387	Jan. 28, 2019	Jan. 27, 2020
Horn Antenna SCHWARZBECK	BBHA 9170	BBHA9170519	Nov. 25, 2018	Nov. 24, 2019
RF Cable	EMC102-KM-KM-1200	160924	Jan. 28, 2019	Jan. 27, 2020
RF Cable	EMC102-KM-KM-1200	160925	Jan. 28, 2019	Jan. 27, 2020
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 CANADA Site Registration No. is 20331-1
4. Loop antenna was used for all emissions below 30 MHz.
5. 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	30MHz ~ 1GHz	5.1dB
	1 GHz ~ 6 GHz	5.1dB
	6GHz ~ 18GHz	5.0dB
	18GHz ~ 40GHz	5.2dB

For above 40GHz test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer Agilent	E4446A	MY48250254	Nov. 14, 2018	Nov. 13, 2019
*Harmonic Mixer (33~55GHz) OML	M22HWD	110215-1	Oct. 17, 2017	Oct. 16, 2019
*Horn Antenna (33~55GHz) OML	M22RH	110215-1	Oct. 17, 2017	Oct. 16, 2019
*Harmonic Mixer (50~75GHz) OML	M15RH	110215-1	Oct. 17, 2017	Oct. 16, 2019
*Horn Antenna (50~75GHz) OML	M15HWD	110215-1	Oct. 17, 2017	Oct. 16, 2019
*Harmonic Mixer (75~110GHz) OML	M10HWD	110215-1	Oct. 17, 2017	Oct. 16, 2019
*Horn Antenna (75~110GHz) OML	M10RH	110215-1	Oct. 17, 2017	Oct. 16, 2019
*Harmonic Mixer (110~170GHz) OML	M06RH	110215-1	Oct. 17, 2017	Oct. 16, 2019
*Horn Antenna(110~170GHz) OML	M06HWD	110215-1	Oct. 17, 2017	Oct. 16, 2019
*Harmonic Mixer (140~220GHz) OML	M05HWD	110215-1	Oct. 17, 2017	Oct. 16, 2019
*Horn Antenna (140~220GHz) OML	M05RH	110215-1	Oct. 17, 2017	Oct. 16, 2019
*Harmonic Mixer (220~325GHz) OML	M03HWA	M03HWA_140505-1	Oct. 17, 2017	Oct. 16, 2019
*Horn Antenna (220~325GHz) OML	M03RH	M03RH_140508-1	Oct. 17, 2017	Oct. 16, 2019
*Diplexer EMCI	DPL26	DPL26_01	Oct. 17, 2017	Oct. 16, 2019
*Diplexer EMCI	DPL26	DPL26_02	Oct. 17, 2017	Oct. 16, 2019
*Precision 30dB Attenuator Keysight	11708A	MY55260015	Oct. 17, 2017	Oct. 16, 2019
*Zero-Bias Detector (50~75GHz) Vdi	WR15ZBD	WR15R5 1-30	Oct. 17, 2017	Oct. 16, 2019
Digital Storage Oscilloscope Keysight	DSOX6002A+DSO X6000-AMG	MY56270092	Jan. 17, 2019	Jan. 16, 2020
*WR15CH Conical Horn Keysight	WR15CH	WR15CH-01	Oct. 17, 2017	Oct. 16, 2019
*WR10CH Conical Horn Keysight	WR10CH	WR10CH-01	Oct. 17, 2017	Oct. 16, 2019

*Millimeter-Wave Signal Generator Frequency Extension Module (50~75 GHz) Keysight	E8257DV15	US54250106	Oct. 17, 2017	Oct. 16, 2019
*Millimeter-Wave Signal Generator Frequency Extension Module (75~110 GHz) Keysight	E8257DV10	US53250009	Oct. 17, 2017	Oct. 16, 2019
PSG analog signal generator Keysight	E8257D	MY53401987	June 26, 2018	June 25, 2019
Antenna Tower & Turn Table CT	NA	NA	NA	NA

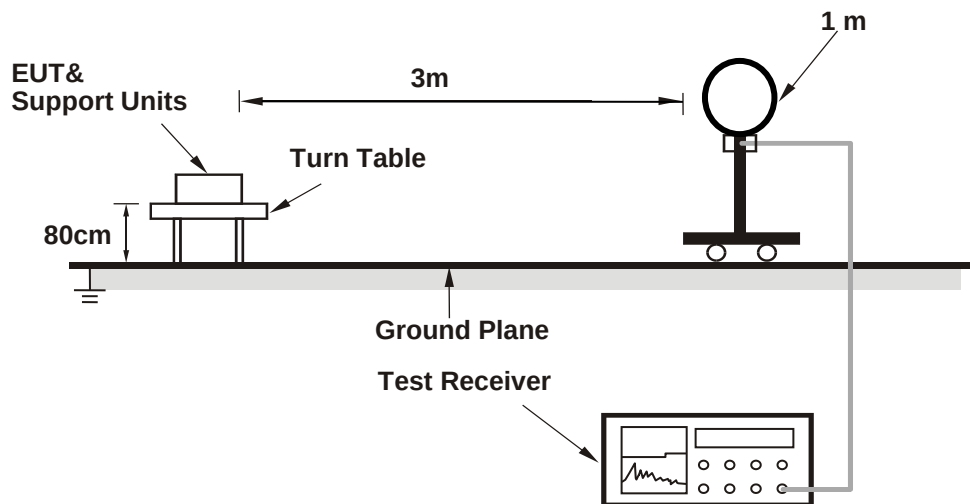
Note:

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 calibration interval of the above test instruments is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. The test was performed in 966 Chamber No. 3
4. The CANADA Site Registration No. is 20331-1.
5. 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.

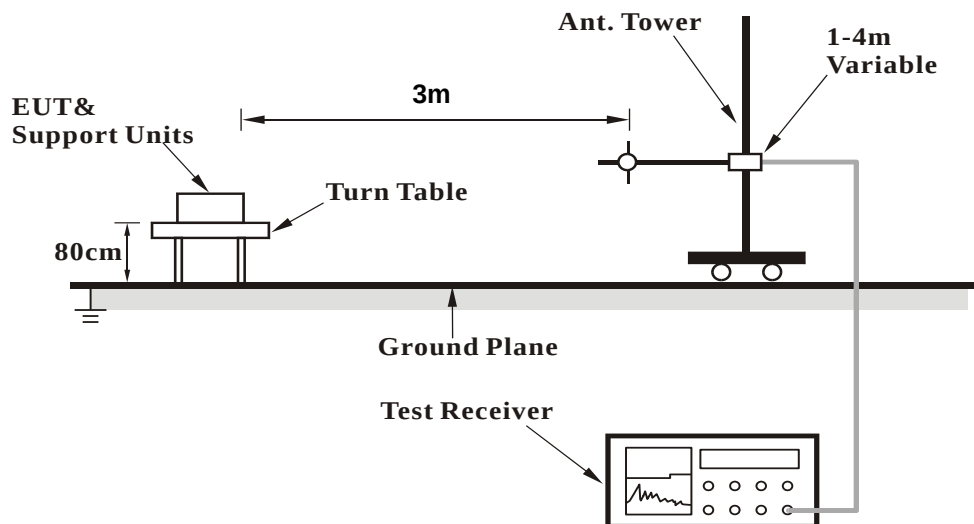
Measurement	Frequency	Uncertainty
Radiated emissions	40GHz ~ 231GHz	5.4 dB

4.4 測試配置

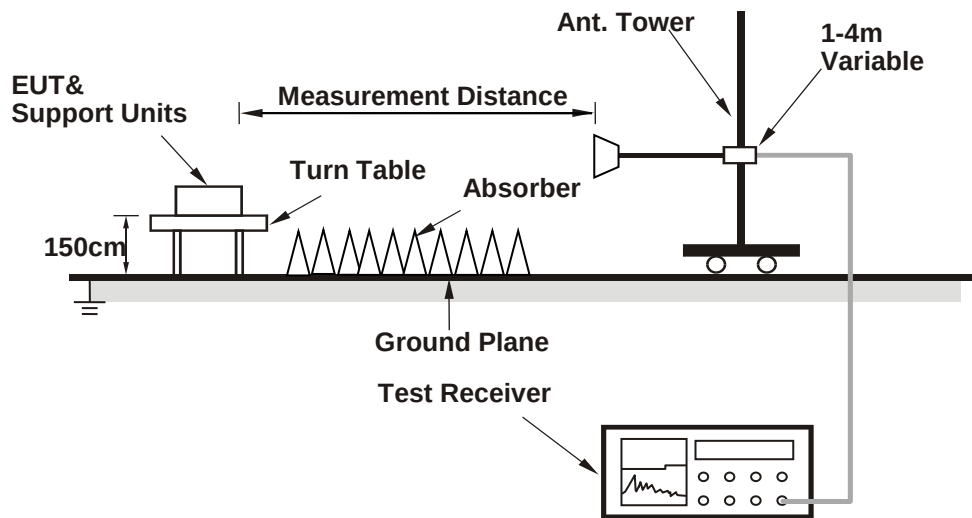
< Frequency Range below 30GHz >



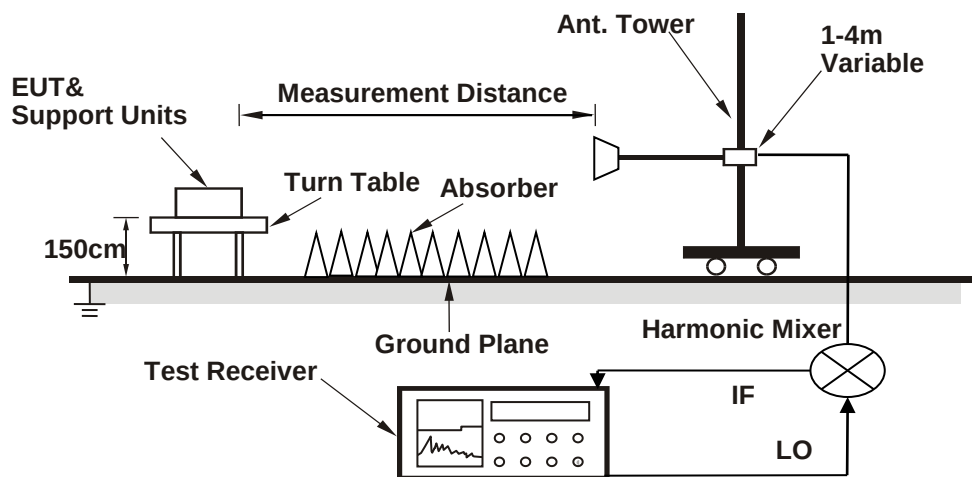
<Frequency Range below 1GHz>



<Frequency Range above 1GHz ~ 40GHz>



<Frequency Range above 40GHz>



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 (76.538GHz)

4.6.1 混附發射

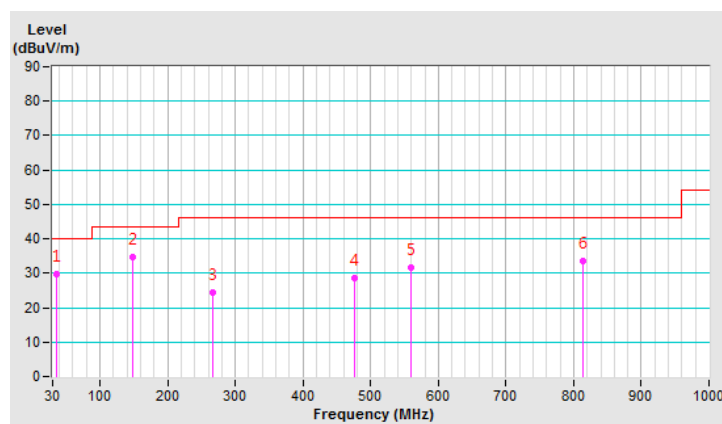
Below 1GHz Data

操作模式：	發射接收	頻率範圍：	30MHz ~ 1GHz
基本波頻率：	CH 1 : 76.538 GHz	測試儀器：	(QP) RB=120kHz
量測場地溫度：	22°C	量測場地濕度：	66%RH
測試日期：	108 年 2 月 13 日	測試者：	何欣儒

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	36.19	29.6 QP	40.0	-10.4	2.50 H	286	39.4	-9.8
2	147.63	34.7 QP	43.5	-8.8	2.00 H	68	42.8	-8.1
3	267.12	24.4 QP	46.0	-21.6	2.50 H	112	32.6	-8.2
4	476.58	28.7 QP	46.0	-17.3	1.50 H	48	31.5	-2.8
5	559.69	31.7 QP	46.0	-14.3	1.50 H	142	32.9	-1.2
6	813.58	33.4 QP	46.0	-12.6	2.00 H	279	30.0	3.4

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. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz.

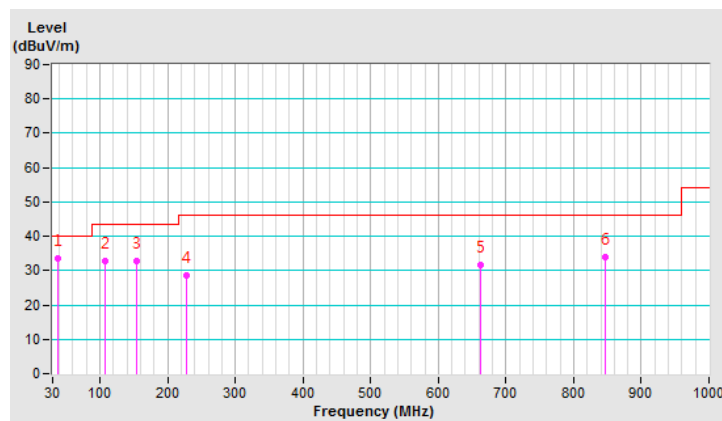


操作模式：	發射接收	頻率範圍：	30MHz ~ 1GHz
基本波頻率：	CH 1 : 76.538 GHz	測試儀器：	(QP) RB=120kHz
量測場地溫度：	22°C	量測場地濕度：	66%RH
測試日期：	108 年 2 月 13 日	測試者：	何欣儒

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	37.34	33.7 QP	40.0	-6.3	1.00 V	179	43.4	-9.7
2	108.26	32.9 QP	43.5	-10.6	1.50 V	352	44.2	-11.3
3	154.96	32.7 QP	43.5	-10.8	1.50 V	302	40.8	-8.1
4	227.46	28.7 QP	46.0	-17.3	1.00 V	31	39.0	-10.3
5	662.11	31.5 QP	46.0	-14.5	2.00 V	246	30.4	1.1
6	846.26	33.9 QP	46.0	-12.1	1.00 V	259	29.8	4.1

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. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz.



Above 1GHz Data

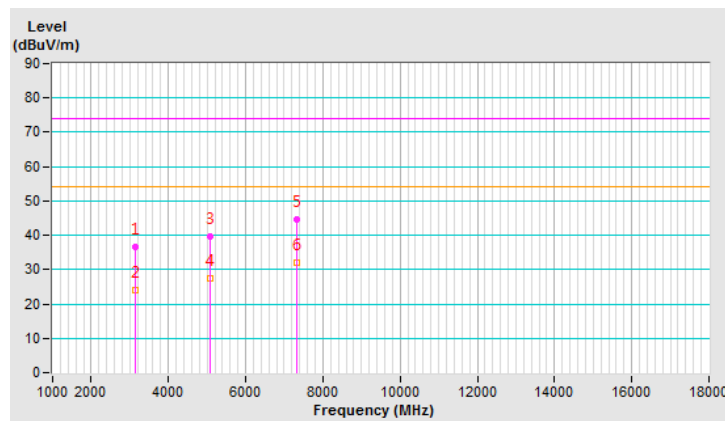
操作模式：	發射	頻率範圍：	1GHz ~ 18GHz
基本波頻率：	76.538 GHz	測試儀器：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3MHz
量測場地溫度：	22°C	量測場地濕度：	67%RH
測試日期：	108 年 2 月 13 日	測試者：	何欣儒

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3127.12	36.6 PK	74.0	-37.4	2.50 H	58	37.2	-0.6
2	3127.12	24.1 AV	54.0	-29.9	2.50 H	58	24.7	-0.6
3	5094.87	39.8 PK	74.0	-34.2	2.50 H	228	36.5	3.3
4	5094.87	27.4 AV	54.0	-26.6	2.50 H	228	24.1	3.3
5	7315.50	44.7 PK	74.0	-29.3	2.00 H	154	36.4	8.3
6	7315.50	32.1 AV	54.0	-21.9	2.00 H	154	23.8	8.3

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

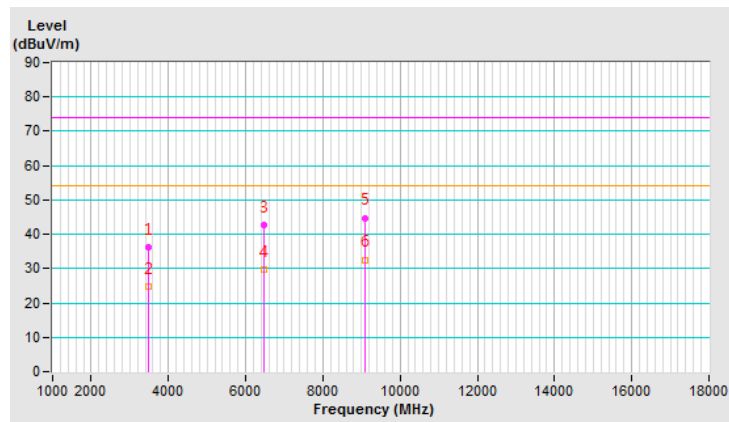


操作模式：	發射	頻率範圍：	1GHz ~ 18GHz
基本波頻率：	76.538 GHz	測試儀器：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3MHz
量測場地溫度：	22°C	量測場地濕度：	67%RH
測試日期：	108 年 2 月 13 日	測試者：	何欣儒

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3467.55	36.3 PK	74.0	-37.7	1.50 V	14	36.8	-0.5
2	#3467.55	24.6 AV	54.0	-29.4	1.50 V	14	25.1	-0.5
3	#6482.93	42.8 PK	74.0	-31.2	2.00 V	309	36.8	6.0
4	#6482.93	29.8 AV	54.0	-24.2	2.00 V	309	23.8	6.0
5	9080.95	44.8 PK	74.0	-29.2	1.50 V	280	34.9	9.9
6	9080.95	32.6 AV	54.0	-21.4	1.50 V	280	22.7	9.9

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value



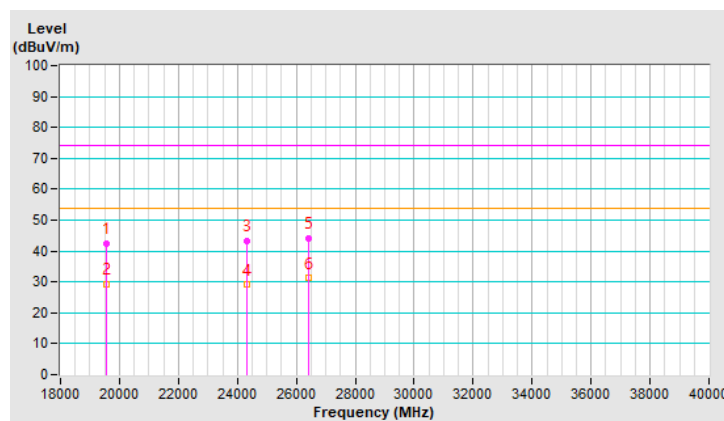
操作模式：	發射	頻率範圍：	18GHz ~ 40GHz
基本波頻率：	76.538 GHz	測試儀器：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3MHz
量測場地溫度：	21°C	量測場地濕度：	72%RH
測試日期：	108 年 2 月 19 日	測試者：	何欣儒

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	19540.10	42.4 PK	74.0	-31.6	1.65 H	225	53.4	-11.0
2	19540.10	29.3 AV	54.0	-24.7	1.65 H	225	40.3	-11.0
3	24336.00	43.2 PK	74.0	-30.8	1.52 H	197	51.2	-8.0
4	24336.00	29.1 AV	54.0	-24.9	1.52 H	197	37.1	-8.0
5	26403.90	44.1 PK	74.0	-29.9	1.64 H	138	50.3	-6.2
6	26403.90	31.2 AV	54.0	-22.8	1.64 H	138	37.4	-6.2

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

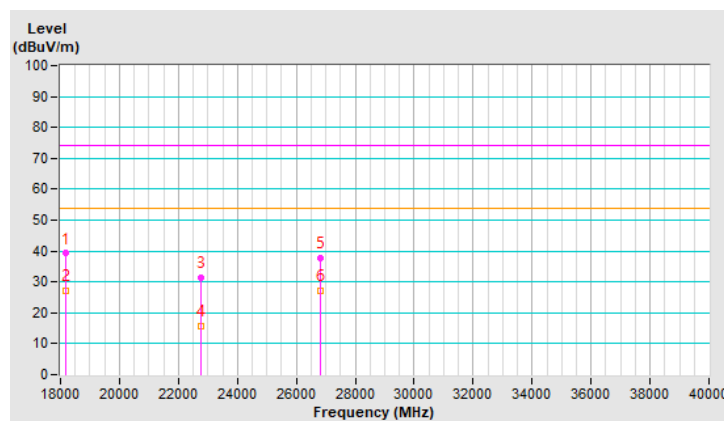


操作模式：	發射	頻率範圍：	18GHz ~ 40GHz
基本波頻率：	76.538 GHz	測試儀器：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3MHz
量測場地溫度：	21°C	量測場地濕度：	72%RH
測試日期：	108 年 2 月 19 日	測試者：	何欣儒

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	18176.00	39.2 PK	74.0	-34.8	1.55 V	297	50.6	-11.4
2	18176.00	27.1 AV	54.0	-26.9	1.55 V	297	38.5	-11.4
3	22752.20	31.5 PK	74.0	-42.5	1.64 V	283	39.8	-8.3
4	22752.20	15.7 AV	54.0	-38.3	1.64 V	283	24.0	-8.3
5	26800.10	37.8 PK	74.0	-36.2	1.63 V	264	45.0	-7.2
6	26800.10	27.1 AV	54.0	-26.9	1.63 V	264	34.3	-7.2

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value



操作模式：	發射	頻率範圍：	40GHz ~ 231GHz
基本波頻率：	76.538 GHz	測試儀器：	(PK) RB=1MHz, VB=3MHz
量測場地溫度：	25°C	量測場地濕度：	62%RH
測試日期：	108 年 1 月 25 日	測試者：	羅益偉

ANTENNA POLARITY: HORIZONTAL						
NO.	Frequency (GHz)	EIRP Level (dBm/MHz)	Raw Value (dBm/MHz)	Receiver Antenna Gain (dBi)	Power Density (pW/cm ²)	Power Density Limit (pW/cm ²)
1	153.076	-57.1	-81.0	23.7	0.002 PK	600
2	231	-40.6	-76.4	23.6	0.077 PK	1000
ANTENNA POLARITY: VERTICAL						
NO.	Frequency (GHz)	EIRP Level (dBm/MHz)	Raw Value (dBm/MHz)	Receiver Antenna Gain (dBi)	Power Density (pW/cm ²)	Power Density Limit (pW/cm ²)
1	153.076	-57.7	-81.3	23.7	0.002 PK	600
2	231	-41.8	-77.0	23.6	0.058 PK	1000

REMARKS:

1. The measured power level is converted to EIRP using the equation:

$$\text{EIRP} = \text{Raw Value} - \text{Receiver Antenna Gain} + 20 \cdot \log(4 \cdot 3.1416 \cdot D / \lambda)$$

where:

D is the measurement distance

λ is the wavelength

*Measurements made at 1 meter distance.

2. The far-field boundary is given in ANSI 63.10 as:

$$R \text{ far field} = (2 \cdot L^2) / \lambda$$

L is the Largest Antenna Dimension, including the reflector

λ is the wavelength

Frequency (GHz)	L (m)	Lambda (m)	R (Far Field) (m)
76.538	0.025	0.00392	0.319

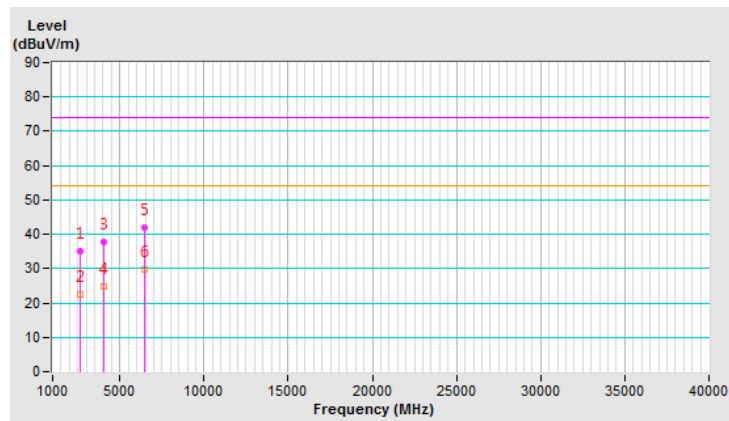
4.6.2 混附接收

操作模式：	接收		
基本波頻率：	76.538 GHz	測試儀器：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3MHz
量測場地溫度：	22°C	量測場地濕度：	67%RH
測試日期：	108 年 2 月 13 日	測試者：	何欣儒

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2669.82	35.2 PK	74.0	-38.8	2.00 H	153	36.8	-1.6
2	2669.82	22.6 AV	54.0	-31.4	2.00 H	153	24.2	-1.6
3	4068.50	37.8 PK	74.0	-36.2	1.50 H	306	37.0	0.8
4	4068.50	24.9 AV	54.0	-29.1	1.50 H	306	24.1	0.8
5	6423.85	41.8 PK	74.0	-32.2	2.00 H	328	36.2	5.6
6	6423.85	29.6 AV	54.0	-24.4	2.00 H	328	24.0	5.6

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

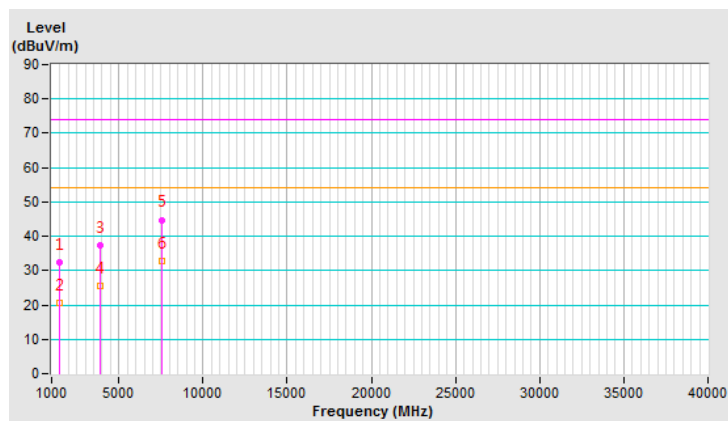


操作模式：	接收		
基本波頻率：	76.538 GHz	測試儀器：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3MHz
量測場地溫度：	22°C	量測場地濕度：	67%RH
測試日期：	108 年 2 月 13 日	測試者：	何欣儒

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	1481.10	32.5 PK	74.0	-41.5	1.50 V	332	37.1	-4.6
2	1481.10	20.6 AV	54.0	-33.4	1.50 V	332	25.2	-4.6
3	3902.32	37.5 PK	74.0	-36.5	1.50 V	300	37.0	0.5
4	3902.32	25.6 AV	54.0	-28.4	1.50 V	300	25.1	0.5
5	7522.05	44.8 PK	74.0	-29.2	1.50 V	335	36.3	8.5
6	7522.05	32.9 AV	54.0	-21.1	1.50 V	335	24.4	8.5

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value



4.7 量測結果 (76.547GHz)

4.7.1 混附發射

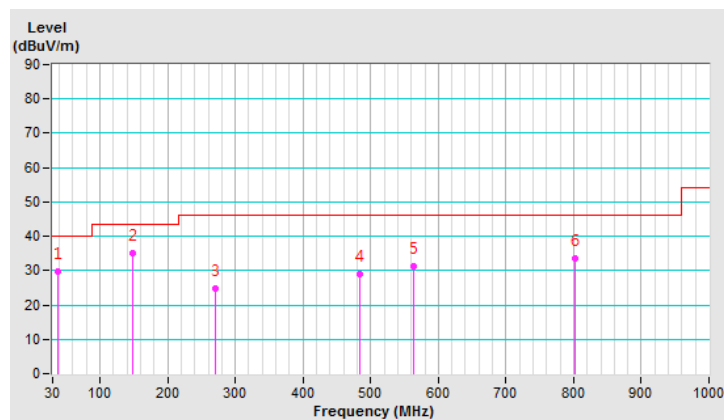
Below 1GHz Data

操作模式：	發射接收	頻率範圍：	30MHz ~ 1GHz
基本波頻率：	CH 2 : 76.547 GHz	測試儀器：	(QP) RB=120kHz
量測場地溫度：	22°C	量測場地濕度：	66%RH
測試日期：	108 年 2 月 13 日	測試者：	何欣儒

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	37.78	29.7 QP	40.0	-10.3	2.50 H	309	39.4	-9.7
2	149.26	35.0 QP	43.5	-8.5	2.00 H	72	43.0	-8.0
3	271.19	24.7 QP	46.0	-21.3	2.50 H	121	32.8	-8.1
4	483.94	28.9 QP	46.0	-17.1	1.50 H	62	31.5	-2.6
5	563.35	31.2 QP	46.0	-14.8	1.50 H	131	32.3	-1.1
6	801.34	33.7 QP	46.0	-12.3	2.00 H	308	30.5	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. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz.

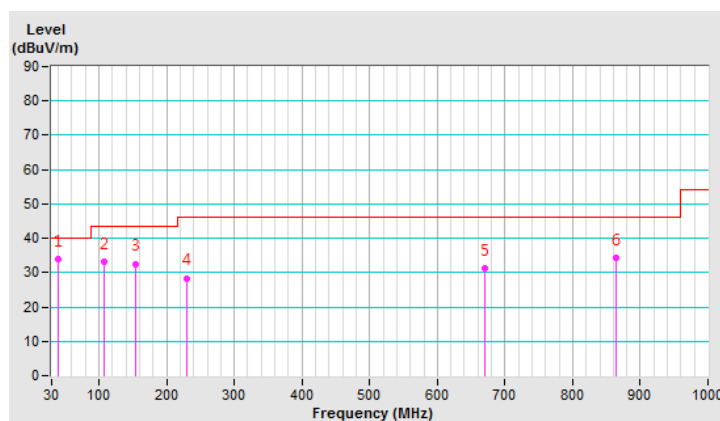


操作模式：	發射接收	頻率範圍：	30MHz ~ 1GHz
基本波頻率：	CH 2 : 76.547 GHz	測試儀器：	(QP) RB=120kHz
量測場地溫度：	22°C	量測場地濕度：	66%RH
測試日期：	108 年 2 月 13 日	測試者：	何欣儒

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	38.86	33.8 QP	40.0	-6.2	1.00 V	162	43.3	-9.5
2	107.61	33.2 QP	43.5	-10.3	1.50 V	345	44.6	-11.4
3	153.20	32.6 QP	43.5	-10.9	1.50 V	286	40.7	-8.1
4	229.62	28.4 QP	46.0	-17.6	1.00 V	13	38.5	-10.1
5	669.26	31.3 QP	46.0	-14.7	2.00 V	231	30.1	1.2
6	863.70	34.2 QP	46.0	-11.8	1.00 V	276	29.9	4.3

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. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz.



Above 1GHz Data

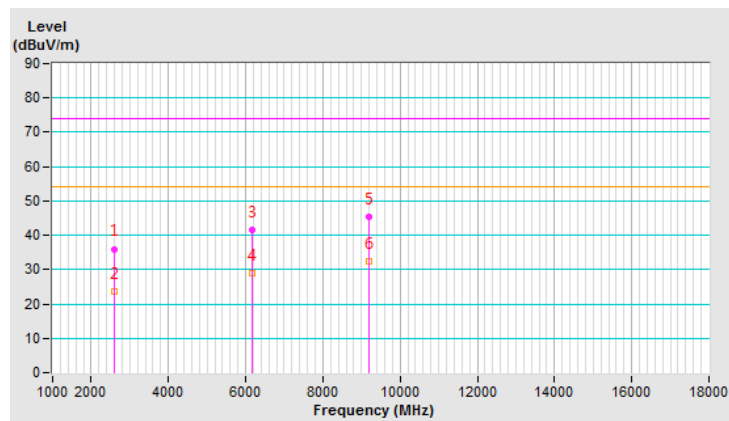
操作模式：	發射	頻率範圍：	1GHz ~ 18GHz
基本波頻率：	76.547 GHz	測試儀器：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3MHz
量測場地溫度：	22°C	量測場地濕度：	67%RH
測試日期：	108 年 2 月 13 日	測試者：	何欣儒

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2606.93	36.0 PK	74.0	-38.0	2.50 H	282	37.9	-1.9
2	2606.93	23.7 AV	54.0	-30.3	2.50 H	282	25.6	-1.9
3	6157.37	41.7 PK	74.0	-32.3	2.00 H	319	37.3	4.4
4	6157.37	29.1 AV	54.0	-24.9	2.00 H	319	24.7	4.4
5	9185.50	45.4 PK	74.0	-28.6	2.50 H	30	35.2	10.2
6	9185.50	32.4 AV	54.0	-21.6	2.50 H	30	22.2	10.2

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

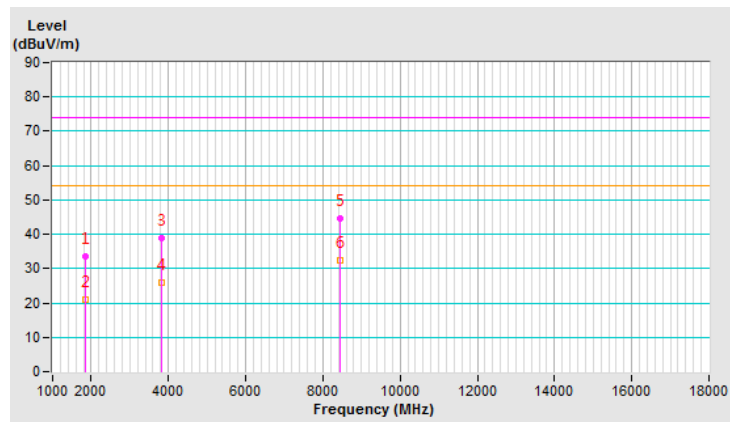


操作模式：	發射	頻率範圍：	1GHz ~ 18GHz
基本波頻率：	76.547 GHz	測試儀器：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3MHz
量測場地溫度：	22°C	量測場地濕度：	67%RH
測試日期：	108 年 2 月 13 日	測試者：	何欣儒

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	1847.87	33.7 PK	74.0	-40.3	1.50 V	310	38.1	-4.4
2	1847.87	21.1 AV	54.0	-32.9	1.50 V	310	25.5	-4.4
3	3813.07	38.8 PK	74.0	-35.2	1.50 V	89	38.6	0.2
4	3813.07	25.9 AV	54.0	-28.1	1.50 V	89	25.7	0.2
5	8436.23	44.7 PK	74.0	-29.3	2.00 V	326	35.6	9.1
6	8436.23	32.4 AV	54.0	-21.6	2.00 V	326	23.3	9.1

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value



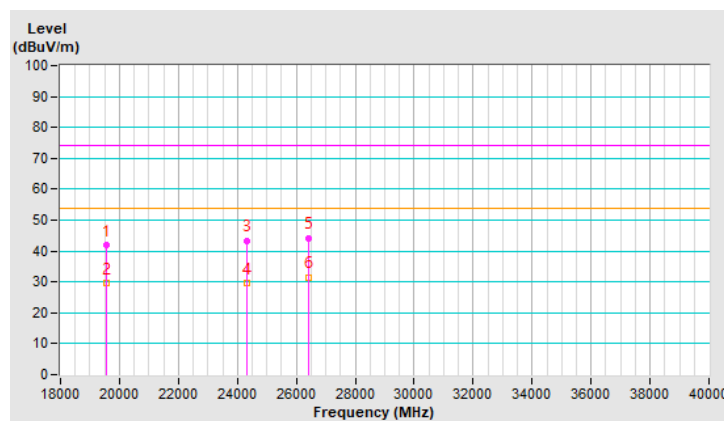
操作模式：	發射	頻率範圍：	18GHz ~ 40GHz
基本波頻率：	76.547 GHz	測試儀器：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3MHz
量測場地溫度：	21°C	量測場地濕度：	72%RH
測試日期：	108 年 2 月 19 日	測試者：	何欣儒

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	19541.00	41.8 PK	74.0	-32.2	1.46 H	117	52.8	-11.0
2	19541.00	29.5 AV	54.0	-24.5	1.46 H	117	40.5	-11.0
3	24335.90	43.2 PK	74.0	-30.8	1.52 H	241	51.2	-8.0
4	24335.90	29.5 AV	54.0	-24.5	1.52 H	241	37.5	-8.0
5	26404.10	44.1 PK	74.0	-29.9	1.63 H	265	50.3	-6.2
6	26404.10	31.4 AV	54.0	-22.6	1.63 H	265	37.6	-6.2

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value



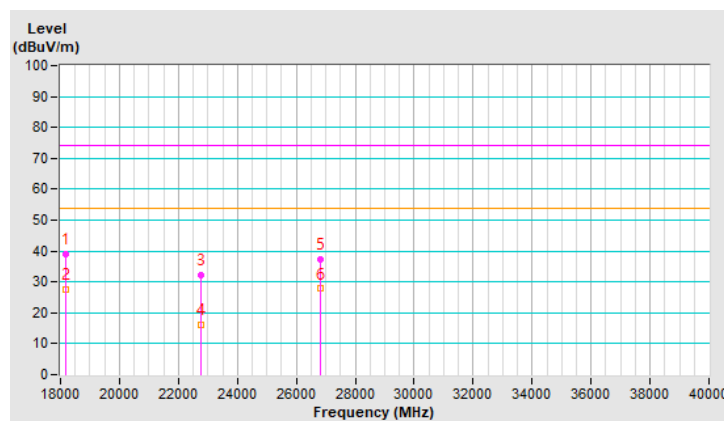
操作模式：	發射	頻率範圍：	18GHz ~ 40GHz
基本波頻率：	76.547 GHz	測試儀器：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3MHz
量測場地溫度：	21°C	量測場地濕度：	72%RH
測試日期：	108 年 2 月 19 日	測試者：	何欣儒

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	18175.92	39.0 PK	74.0	-35.0	1.52 V	164	50.4	-11.4
2	18175.92	27.6 AV	54.0	-26.4	1.52 V	164	39.0	-11.4
3	22750.00	32.1 PK	74.0	-41.9	1.62 V	278	40.4	-8.3
4	22750.00	16.1 AV	54.0	-37.9	1.62 V	278	24.4	-8.3
5	26800.10	37.2 PK	74.0	-36.8	1.59 V	78	44.4	-7.2
6	26800.10	27.8 AV	54.0	-26.2	1.59 V	78	35.0	-7.2

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value



操作模式：	發射	頻率範圍：	40GHz ~ 231GHz
基本波頻率：	76.547 GHz	測試儀器：	(PK) RB=1MHz, VB=3MHz
量測場地溫度：	25°C	量測場地濕度：	62%RH
測試日期：	108 年 1 月 25 日	測試者：	羅益偉

ANTENNA POLARITY: HORIZONTAL						
NO.	Frequency (GHz)	EIRP Level (dBm/MHz)	Raw Value (dBm/MHz)	Receiver Antenna Gain (dBi)	Power Density (pW/cm ²)	Power Density Limit (pW/cm ²)
1	153.094	-56.7	-80.8	23.7	0.002 PK	600
2	231	-41.6	-76.9	23.6	0.061 PK	1000
ANTENNA POLARITY: VERTICAL						
NO.	Frequency (GHz)	EIRP Level (dBm/MHz)	Raw Value (dBm/MHz)	Receiver Antenna Gain (dBi)	Power Density (pW/cm ²)	Power Density Limit (pW/cm ²)
1	153.094	-57.1	-81.0	23.7	0.002 PK	600
2	231	-41.0	-76.6	23.6	0.07 PK	1000

REMARKS:

1. The measured power level is converted to EIRP using the equation:

$$\text{EIRP} = \text{Raw Value} - \text{Receiver Antenna Gain} + 20 \cdot \log(4 \cdot 3.1416 \cdot D / \lambda)$$

where:

D is the measurement distance

λ is the wavelength

*Measurements made at 1 meter distance.

2. The far-field boundary is given in ANSI 63.10 as:

$$R \text{ far field} = (2 \cdot L^2) / \lambda$$

L is the Largest Antenna Dimension, including the reflector

λ is the wavelength

Frequency (GHz)	L (m)	Lambda (m)	R (Far Field) (m)
76.547	0.025	0.00392	0.319

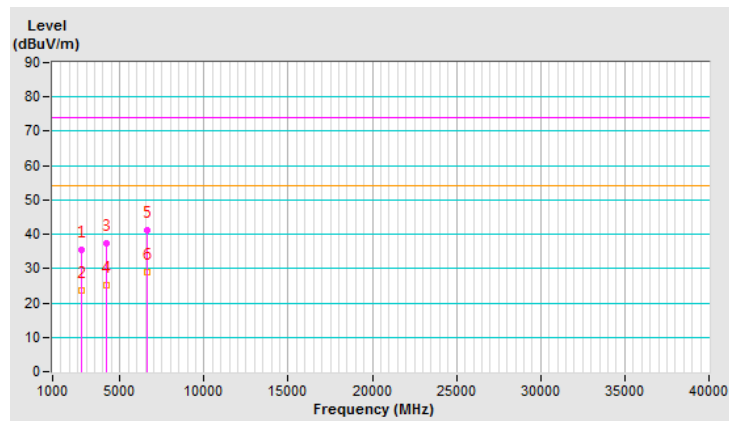
4.7.2 混附接收

操作模式：	接收		
基本波頻率：	CH 2 : 76.547 GHz	測試儀器：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3MHz
量測場地溫度：	22°C	量測場地濕度：	67%RH
測試日期：	108 年 2 月 13 日	測試者：	何欣儒

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2726.26	35.6 PK	74.0	-38.4	2.00 H	163	37.1	-1.5
2	2726.26	23.7 AV	54.0	-30.3	2.00 H	163	25.2	-1.5
3	4172.26	37.3 PK	74.0	-36.7	2.00 H	299	36.4	0.9
4	4172.26	25.1 AV	54.0	-28.9	2.00 H	299	24.2	0.9
5	6613.61	41.1 PK	74.0	-32.9	2.00 H	287	34.8	6.3
6	6613.61	29.1 AV	54.0	-24.9	2.00 H	287	22.8	6.3

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

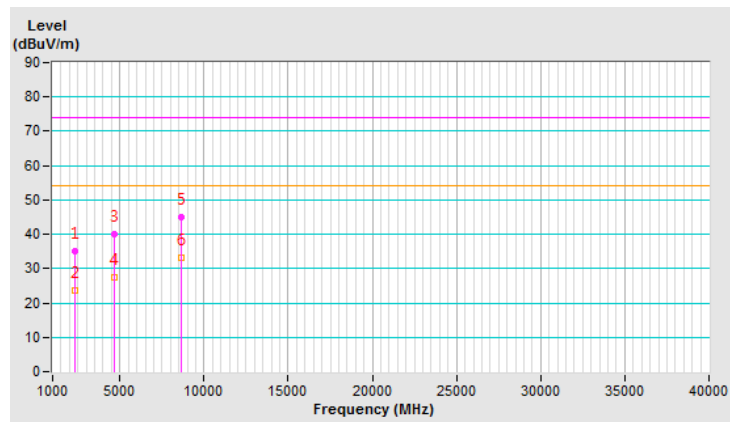


操作模式：	接收		
基本波頻率：	CH 2 : 76.547 GHz	測試儀器：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3MHz
量測場地溫度：	22°C	量測場地濕度：	67%RH
測試日期：	108 年 2 月 13 日	測試者：	何欣儒

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2326.00	34.9 PK	74.0	-39.1	1.50 V	19	36.8	-1.9
2	2326.00	23.6 AV	54.0	-30.4	1.50 V	19	25.5	-1.9
3	4632.90	39.9 PK	74.0	-34.1	1.50 V	248	37.9	2.0
4	4632.90	27.6 AV	54.0	-26.4	1.50 V	248	25.6	2.0
5	8630.87	45.0 PK	74.0	-29.0	1.50 V	192	35.5	9.5
6	8630.87	33.1 AV	54.0	-20.9	1.50 V	192	23.6	9.5

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value



4.8 量測結果 (76.8GHz)

4.8.1 混附發射

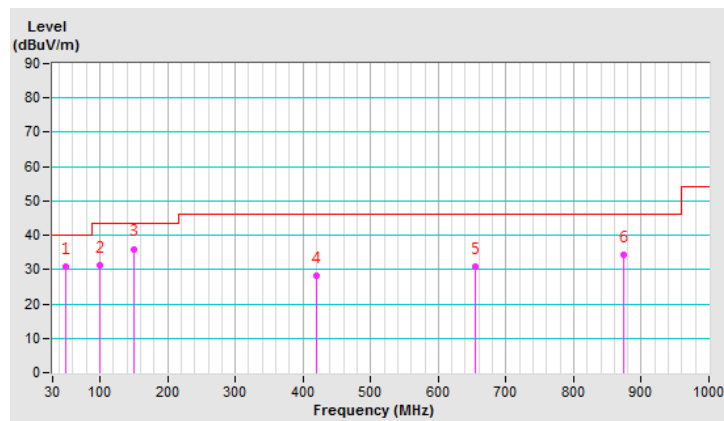
Below 1GHz Data

操作模式：	發射接收	頻率範圍：	30MHz ~ 1GHz
基本波頻率：	CH 3 : 76.8 GHz	測試儀器：	(QP) RB=120kHz
量測場地溫度：	22°C	量測場地濕度：	66%RH
測試日期：	108 年 2 月 13 日	測試者：	何欣儒

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	49.52	31.0 QP	40.0	-9.0	1.50 H	0	39.9	-8.9
2	100.69	31.2 QP	43.5	-12.3	2.00 H	51	43.6	-12.4
3	150.57	36.0 QP	43.5	-7.5	1.50 H	86	44.0	-8.0
4	420.45	28.1 QP	46.0	-17.9	2.50 H	0	32.3	-4.2
5	655.50	31.0 QP	46.0	-15.0	1.50 H	0	30.0	1.0
6	873.10	34.4 QP	46.0	-11.6	3.00 H	100	30.1	4.3

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. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz.



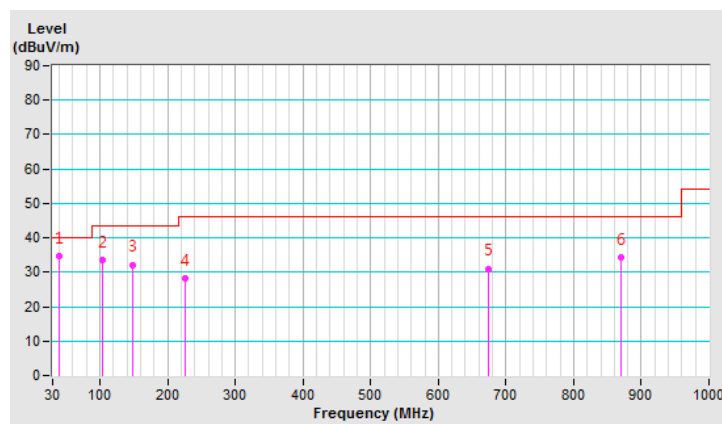
操作模式：	發射接收	頻率範圍：	30MHz ~ 1GHz
基本波頻率：	CH 3 : 76.8 GHz	測試儀器：	(QP) RB=120kHz
量測場地溫度：	22°C	量測場地濕度：	66%RH
測試日期：	108 年 2 月 13 日	測試者：	何欣儒

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	40.19	34.6 QP	40.0	-5.4	1.00 V	143	44.1	-9.5
2	103.31	33.5 QP	43.5	-10.0	1.50 V	360	45.5	-12.0
3	148.53	32.2 QP	43.5	-11.3	1.50 V	303	40.3	-8.1
4	226.69	28.1 QP	46.0	-17.9	1.00 V	2	38.4	-10.3
5	673.26	31.1 QP	46.0	-14.9	2.00 V	201	29.9	1.2
6	870.00	34.4 QP	46.0	-11.6	1.00 V	298	30.1	4.3

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. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz.



Above 1GHz Data

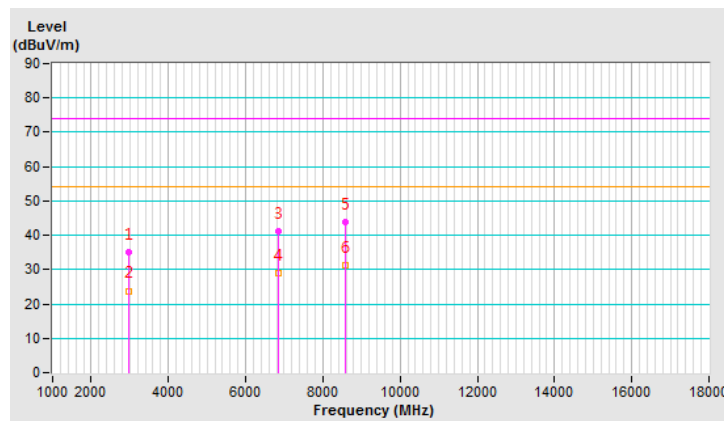
操作模式：	發射	頻率範圍：	1GHz ~ 18GHz
基本波頻率：	CH 3 : 76.8 GHz	測試儀器：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3MHz
量測場地溫度：	22°C	量測場地濕度：	67%RH
測試日期：	108 年 2 月 13 日	測試者：	何欣儒

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2986.87	35.1 PK	74.0	-38.9	2.00 H	221	36.2	-1.1
2	2986.87	23.8 AV	54.0	-30.2	2.00 H	221	24.9	-1.1
3	6831.43	41.0 PK	74.0	-33.0	2.00 H	357	34.4	6.6
4	6831.43	29.1 AV	54.0	-24.9	2.00 H	357	22.5	6.6
5	8582.85	43.8 PK	74.0	-30.2	2.50 H	187	34.3	9.5
6	8582.85	31.4 AV	54.0	-22.6	2.50 H	187	21.9	9.5

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

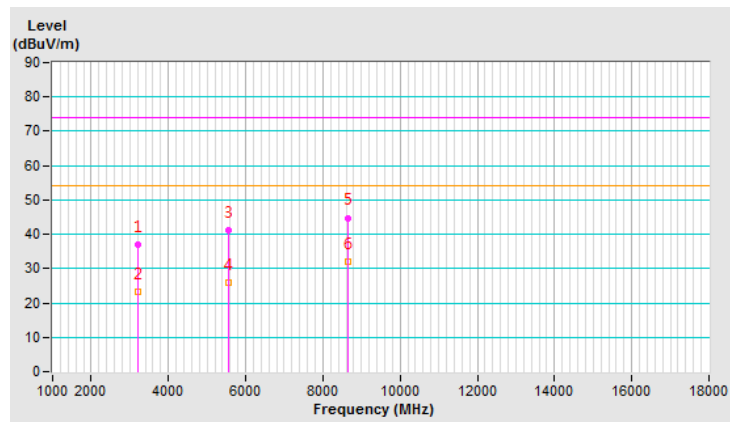


操作模式：	發射	頻率範圍：	1GHz ~ 18GHz
基本波頻率：	CH 3 : 76.8 GHz	測試儀器：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3MHz
量測場地溫度：	22°C	量測場地濕度：	67%RH
測試日期：	108 年 2 月 13 日	測試者：	何欣儒

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	3199.80	37.0 PK	74.0	-37.0	2.00 V	199	37.7	-0.7
2	3199.80	23.1 AV	54.0	-30.9	2.00 V	199	23.8	-0.7
3	5567.90	41.3 PK	74.0	-32.7	1.50 V	145	38.0	3.3
4	5567.90	25.8 AV	54.0	-28.2	1.50 V	145	22.5	3.3
5	8641.50	44.8 PK	74.0	-29.2	1.50 V	264	35.3	9.5
6	8641.50	32.1 AV	54.0	-21.9	1.50 V	264	22.6	9.5

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value



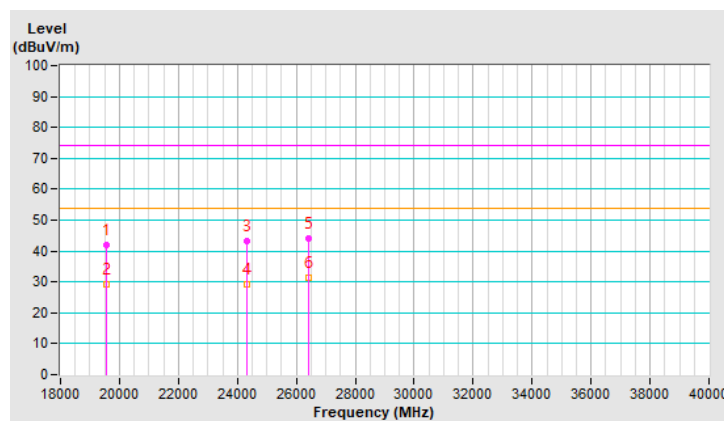
操作模式：	發射	頻率範圍：	18GHz ~ 40GHz
基本波頻率：	CH 3 : 76.8 GHz	測試儀器：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3MHz
量測場地溫度：	21°C	量測場地濕度：	72%RH
測試日期：	108 年 2 月 19 日	測試者：	何欣儒

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	19540.10	42.0 PK	74.0	-32.0	1.56 H	241	53.0	-11.0
2	19540.10	29.3 AV	54.0	-24.7	1.56 H	241	40.3	-11.0
3	24335.90	43.3 PK	74.0	-30.7	1.66 H	271	51.3	-8.0
4	24335.90	29.2 AV	54.0	-24.8	1.66 H	271	37.2	-8.0
5	26403.00	44.2 PK	74.0	-29.8	1.58 H	105	50.4	-6.2
6	26403.00	31.3 AV	54.0	-22.7	1.58 H	205	37.5	-6.2

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value



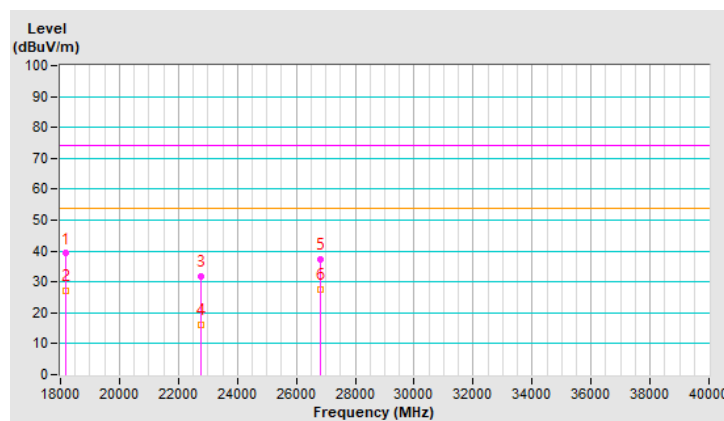
操作模式：	發射	頻率範圍：	18GHz ~ 40GHz
基本波頻率：	CH 3 : 76.8 GHz	測試儀器：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3MHz
量測場地溫度：	21°C	量測場地濕度：	72%RH
測試日期：	108 年 2 月 19 日	測試者：	何欣儒

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	18175.90	39.2 PK	74.0	-34.8	1.50 V	145	50.6	-11.4
2	18175.90	27.3 AV	54.0	-26.7	1.50 V	145	38.7	-11.4
3	22751.00	31.9 PK	74.0	-42.1	1.64 V	265	40.2	-8.3
4	22751.00	16.3 AV	54.0	-37.7	1.64 V	265	24.6	-8.3
5	26800.00	37.4 PK	74.0	-36.6	1.53 V	281	44.6	-7.2
6	26800.00	27.6 AV	54.0	-26.4	1.53 V	281	34.8	-7.2

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value



操作模式：	發射	頻率範圍：	40GHz ~ 231GHz
基本波頻率：	76.8 GHz	測試儀器：	(PK) RB=1MHz, VB=3MHz
量測場地溫度：	25°C	量測場地濕度：	62%RH
測試日期：	108 年 1 月 25 日	測試者：	羅益偉

ANTENNA POLARITY: HORIZONTAL						
NO.	Frequency (GHz)	EIRP Level (dBm/MHz)	Raw Value (dBm/MHz)	Receiver Antenna Gain (dBi)	Power Density (pW/cm ²)	Power Density Limit (pW/cm ²)
1	153.6	-57.3	-81.1	23.7	0.002 PK	600
2	231	-41.0	-76.6	23.6	0.07 PK	1000
ANTENNA POLARITY: VERTICAL						
NO.	Frequency (GHz)	EIRP Level (dBm/MHz)	Raw Value (dBm/MHz)	Receiver Antenna Gain (dBi)	Power Density (pW/cm ²)	Power Density Limit (pW/cm ²)
1	153.6	-57.5	-81.2	23.7	0.002 PK	600
2	231	-41.4	-76.8	23.6	0.064 PK	1000

REMARKS:

1. The measured power level is converted to EIRP using the equation:

$$\text{EIRP} = \text{Raw Value} - \text{Receiver Antenna Gain} + 20 \cdot \log(4 \cdot 3.1416 \cdot D / \lambda)$$

where:

D is the measurement distance

λ is the wavelength

*Measurements made at 1 meter distance.

2. The far-field boundary is given in ANSI 63.10 as:

$$R \text{ far field} = (2 \cdot L^2) / \lambda$$

L is the Largest Antenna Dimension, including the reflector

λ is the wavelength

Frequency (GHz)	L (m)	Lambda (m)	R (Far Field) (m)
76.8	0.025	0.00391	0.32

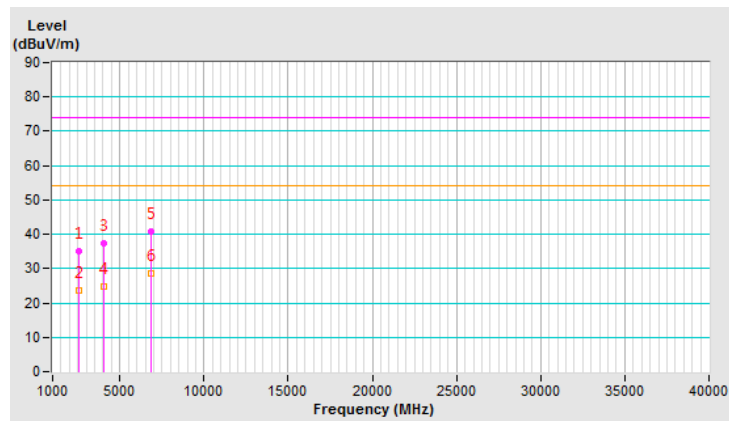
4.8.2 混附接收

操作模式：	接收		
基本波頻率：	CH 3 : 76.8 GHz	測試儀器：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3MHz
量測場地溫度：	22°C	量測場地濕度：	67%RH
測試日期：	108 年 2 月 13 日	測試者：	何欣儒

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2546.26	35.2 PK	74.0	-38.8	2.00 H	196	37.2	-2.0
2	2546.26	23.5 AV	54.0	-30.5	2.00 H	196	25.5	-2.0
3	4006.17	37.2 PK	74.0	-36.8	2.50 H	36	36.4	0.8
4	4006.17	24.7 AV	54.0	-29.3	2.50 H	36	23.9	0.8
5	6817.26	40.7 PK	74.0	-33.3	2.00 H	254	34.1	6.6
6	6817.26	28.7 AV	54.0	-25.3	2.00 H	254	22.1	6.6

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

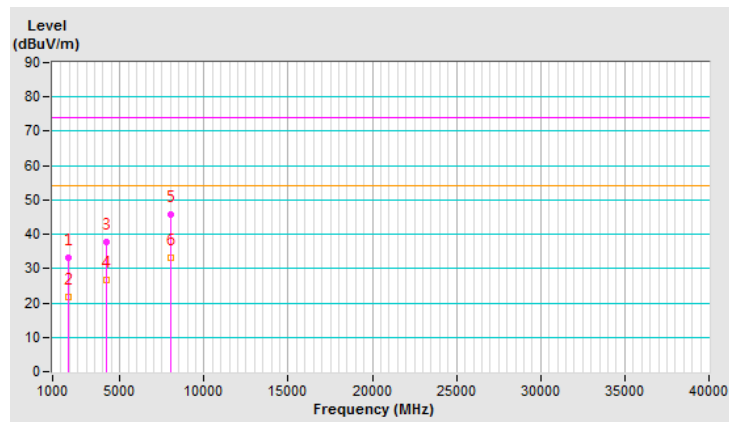


操作模式：	接收		
基本波頻率：	CH 3 : 76.8 GHz	測試儀器：	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3MHz
量測場地溫度：	22°C	量測場地濕度：	67%RH
測試日期：	108 年 2 月 13 日	測試者：	何欣儒

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	1919.70	33.2 PK	74.0	-40.8	1.50 V	324	37.3	-4.1
2	1919.70	21.7 AV	54.0	-32.3	1.50 V	324	25.8	-4.1
3	4204.50	37.8 PK	74.0	-36.2	1.50 V	221	37.0	0.8
4	4204.50	26.8 AV	54.0	-27.2	1.50 V	221	26.0	0.8
5	8033.32	45.9 PK	74.0	-28.1	1.50 V	339	36.4	9.5
6	8033.32	33.2 AV	54.0	-20.8	1.50 V	339	23.7	9.5

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value



4.9 量測結果判定

依據測試數據結果，符合低功率射頻電機技術規範之要求。

4.10 配置照片

請參照 Test Setup Photos

5 發射功率密度之量測

5.1 適用標準

請見本報告 3.1 節第(4)項的規定。

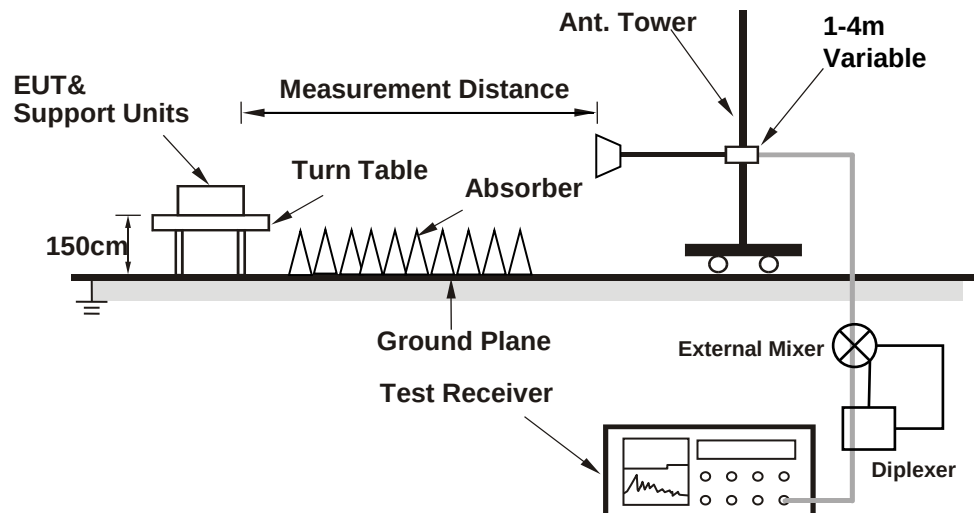
5.2 量測方法

將待測物置於 1.5 米高的非金屬桌面，使其操作在工作狀態。接收天線置於適當量測距離。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，以找出最大的發射功率密度強度，接收天線分別置於水平、垂直極化各執行測試一次。

5.3 量測儀器

同 4.3 節

5.4 測試配置



5.5 量測結果 (76.538GHz)

操作模式	發射	測試日期	108 年 1 月 25 日
量測場地溫度	25°C	測試儀器	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3MHz
量測場地濕度	62%RH	測試者	羅益偉

Antenna Polarity: Horizontal						
No.	Frequency (GHz)	EIRP Level (dBm)	Raw Value (dBm)	Receiver Antenna Gain (dBi)	Power Density Limit (dBm)	Pass/Fail
1	76.538	4.7 PK	-41.8	23.6	55	Pass
2	76.538	3.4 AV	-43.1	23.6	50	Pass

Antenna Polarity: Vertical						
No.	Frequency (GHz)	EIRP Level (dBm)	Raw Value (dBm)	Receiver Antenna Gain (dBi)	Power Density Limit (dBm)	Pass/Fail
1	76.538	28.7 PK	-17.9	23.6	55	Pass
2	76.538	24.7 AV	-21.9	23.6	50	Pass

REMARKS:

1. The measured power level is converted to EIRP using the equation:

$$\text{EIRP} = \text{Raw Value} - \text{Receiver Antenna Gain} + 20 \cdot \log(4 \cdot 3.1416 \cdot D / \lambda)$$

where:

D is the measurement distance

λ is the wavelength

*Measurements made at 1 meter distance.

2. The far-field boundary is given in ANSI 63.10 as:

$$R \text{ far field} = (2 \cdot L^2) / \lambda$$

L is the Largest Antenna Dimension, including the reflector

λ is the wavelength

Frequency (GHz)	L (m)	Lambda (m)	R (Far Field) (m)
76.538	0.025	0.00392	0.319

5.6 量測結果 (76.547GHz)

操作模式	發射	測試日期	108 年 1 月 25 日
量測場地溫度	25°C	測試儀器	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3MHz
量測場地濕度	62%RH	測試者	羅益偉

Antenna Polarity: Horizontal						
No.	Frequency (GHz)	EIRP Level (dBm)	Raw Value (dBm)	Receiver Antenna Gain (dBi)	Power Density Limit (dBm)	Pass/Fail
1	76.547	3.5 PK	-43.0	23.6	55	Pass
2	76.547	2.8 AV	-43.7	23.6	50	Pass

Antenna Polarity: Vertical						
No.	Frequency (GHz)	EIRP Level (dBm)	Raw Value (dBm)	Receiver Antenna Gain (dBi)	Power Density Limit (dBm)	Pass/Fail
1	76.547	26.3 PK	-20.2	23.6	55	Pass
2	76.547	25.1 AV	-21.4	23.6	50	Pass

REMARKS:

1. The measured power level is converted to EIRP using the equation:

$$\text{EIRP} = \text{Raw Value} - \text{Receiver Antenna Gain} + 20 \cdot \log(4 \cdot 3.1416 \cdot D / \lambda)$$

where:

D is the measurement distance

λ is the wavelength

*Measurements made at 1 meter distance.

2. The far-field boundary is given in ANSI 63.10 as:

$$R \text{ far field} = (2 \cdot L^2) / \lambda$$

L is the Largest Antenna Dimension, including the reflector

λ is the wavelength

Frequency (GHz)	L (m)	Lambda (m)	R (Far Field) (m)
76.547	0.025	0.00392	0.319

5.7 量測結果 (76.8GHz)

操作模式	發射	測試日期	108 年 1 月 25 日
量測場地溫度	25°C	測試儀器	(PK) RB=1MHz, VB=3MHz (AV) RB=1MHz, VB=3MHz
量測場地濕度	62%RH	測試者	羅益偉

Antenna Polarity: Horizontal						
No.	Frequency (GHz)	EIRP Level (dBm)	Raw Value (dBm)	Receiver Antenna Gain (dBi)	Power Density Limit (dBm)	Pass/Fail
1	76.8	3.4 PK	-43.1	23.6	55	Pass
2	76.8	3.1 AV	-43.5	23.6	50	Pass

Antenna Polarity: Vertical						
No.	Frequency (GHz)	EIRP Level (dBm)	Raw Value (dBm)	Receiver Antenna Gain (dBi)	Power Density Limit (dBm)	Pass/Fail
1	76.8	26.5 PK	-20.0	23.6	55	Pass
2	76.8	26.0 AV	-20.6	23.6	50	Pass

REMARKS:

1. The measured power level is converted to EIRP using the equation:

$$\text{EIRP} = \text{Raw Value} - \text{Receiver Antenna Gain} + 20 \cdot \log(4 \cdot 3.1416 \cdot D / \lambda)$$

where:

D is the measurement distance

λ is the wavelength

*Measurements made at 1 meter distance.

2. The far-field boundary is given in ANSI 63.10 as:

$$R_{\text{far field}} = (2 \cdot L^2) / \lambda$$

L is the Largest Antenna Dimension, including the reflector

λ is the wavelength

Frequency (GHz)	L (m)	Lambda (m)	R (Far Field) (m)
76.8	0.025	0.00391	0.32

5.8 量測結果判定

依據測試數據結果，符合低功率射頻電機技術規範之要求。

6 頻率穩定度之量測

6.1 適用標準

請見本報告 3.1 節第(6)項的規定。

6.2 量測方法

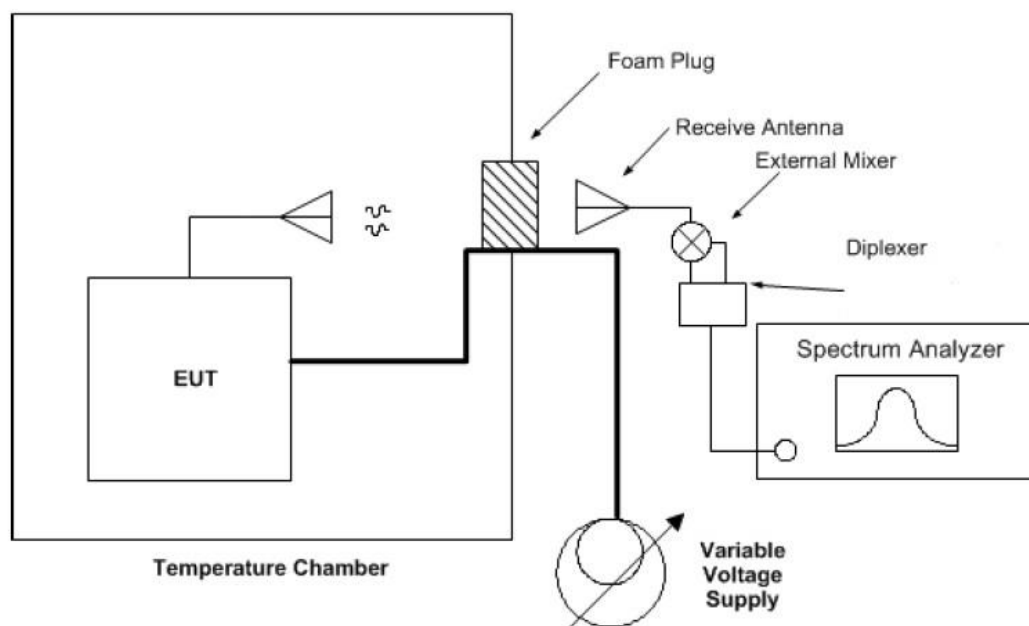
- 將待測物之天線對準接收天線並連至測試儀器。
- 設定待測物為無調變狀況,設定解析頻寬為 10 kHz, 視訊頻寬大於解析頻寬。
- 觀察其頻率飄移的狀況。
- 依不同溫度和電壓變化狀況,依上面步驟重覆測試。
- 將所測的頻率飄移狀況記錄於報告內。

6.3 量測儀器

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer R&S	FSV40	100964	June 20, 2018	June 19, 2019
Fixed Attenuator Mini-Circuits	MDCS18N-10	MDCS18N-10-01	Apr. 16, 2018	Apr. 15, 2019
DC Power Supply Topward	6603D	795558	NA	NA
Temperature & Humidity Chamber Giant Force	GTH-150-40-SP-AR	MAA0812-008	Jan. 10, 2018	Jan. 09, 2019
True RMS Clamp Meter FLUKE	325	31130711WS	May 22, 2018	May 21, 2019

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：	107年12月05日
量測場地溫度：	25°C	量測場地濕度：	62%RH
測試者：	羅益偉		

Frequency Stability Versus Temp.									
Operating Frequency: 76538MHz									
TEMP. (°C)	Power Supply (Vdc)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Reading (MHz)	Pass/Fail	Reading (MHz)	Pass/Fail	Reading (MHz)	Pass/Fail	Reading (MHz)	Pass/Fail
50	12	76538.2765	PASS	76538.2896	PASS	76538.3193	PASS	76538.3058	Pass
40	12	76537.6423	PASS	76537.656	PASS	76537.6115	PASS	76537.5975	Pass
30	12	76538.1931	PASS	76538.19	PASS	76538.1883	PASS	76538.1644	Pass
20	12	76538.2819	PASS	76538.266	PASS	76538.3147	PASS	76538.2753	Pass
10	12	76537.8287	PASS	76537.83	PASS	76537.8078	PASS	76537.8288	Pass
0	12	76537.9961	PASS	76537.9638	PASS	76537.9392	PASS	76537.9898	Pass
-10	12	76538.2237	PASS	76538.2168	PASS	76538.244	PASS	76538.2338	Pass
-20	12	76538.1833	PASS	76538.1643	PASS	76538.1638	PASS	76538.2186	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 76538MHz									
TEMP. (°C)	Power Supply (Vdc)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Reading (MHz)	Pass/Fail	Reading (MHz)	Pass/Fail	Reading (MHz)	Pass/Fail	Reading (MHz)	Pass/Fail
20	13.8	76538.2757	PASS	76538.2679	PASS	76538.3298	PASS	76538.2602	Pass
	12	76538.2819	PASS	76538.266	PASS	76538.3147	PASS	76538.2753	Pass
	10.2	76538.2686	PASS	76538.2543	PASS	76538.3194	PASS	76538.2719	Pass

6.6 量測結果判定

依據測試數據結果，符合低功率射頻電機技術規範之要求。

7 天線之要求

7.1 適用標準

請見本報告 3.1 節第(3)項的規定。

7.2 天線之規定

此待測物搭配 Planar micro strip patch antenna，無使用天線接頭。

7.3 結果判定

符合低功率射頻電機技術規範之要求，請參照附件之天線規格。

8 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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