

附錄一

受測裝置之測試結果

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1. 場強輻射之量測

【經實驗室評估量測後，以最差之調變方式 8DPSK 進行本章節之測試】

對受測物裝置之其他不必要之發射(測至本地振盪頻率之 10 次諧波)依下列測試模式分別於電波暗室內進行量測，選擇低、中、高頻率來進行量測，並將下列測試模式之測試數據隨案件所附。所得讀值資料請見章節 1.1 ~1.2：

模式	動作狀態	基本頻率	量測頻率範圍
BT (8DPSK)	發射	2402MHz (CH0)	1000-25000MHz
	發射	2441MHz (CH39)*	30-1000MHz
			1000-25000MHz
	發射	2480MHz (CH78)	1000-25000MHz
	接收	2441MHz(CH39)	30-1000MHz
			1000-25000MHz

註：*：經評估後，以最差頻率進行 30-1000MHz 量測。

對受測物裝置落於技術規範第 2.7 章節的禁用頻率之混附發射以下列測試模式依規定分別進行量測，所得量測資料請見章節 1.3。

模式	動作狀態	基本頻率	量測頻率範圍
BT (8-DPSK)	發射	2402MHz (CH0)	2310-2430MHz
		2480MHz (CH78)	2450-2530MHz

測試日期	2019/03/20	環境溫/濕度	23°C/49%
測試電壓	DC 12V (經直流電源供應器供電)		

1.1. 30-1000MHz 頻率範圍，其他不必要發射量測

Mode	8DPSK	Frequency	TX 2441MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
59.10	12.69	1.72	12.49	26.90	40.00	13.10	Peak
131.85	17.99	2.68	6.36	27.03	43.50	16.47	Peak
255.04	18.91	3.99	4.75	27.65	46.00	18.35	Peak
422.85	22.73	6.09	8.17	36.99	46.00	9.01	Peak
494.63	23.64	6.71	3.87	34.22	46.00	11.78	Peak
798.24	26.48	7.89	4.50	38.87	46.00	7.13	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
59.10	12.69	1.72	13.09	27.50	40.00	12.50	Peak
116.33	18.43	2.49	8.33	29.25	43.50	14.25	Peak
129.91	18.09	2.65	6.97	27.71	43.50	15.79	Peak
162.89	16.34	3.04	6.45	25.83	43.50	17.67	Peak
332.64	20.66	4.95	4.79	30.40	46.00	15.60	Peak
422.85	22.73	6.09	6.81	35.63	46.00	10.37	Peak

Mode	---	Frequency	RX 2441MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
57.16	13.09	1.68	12.82	27.59	40.00	12.41	Peak
101.78	17.50	2.31	5.83	25.64	43.50	17.86	Peak
143.49	17.38	2.81	6.49	26.68	43.50	16.82	Peak
321.97	20.37	4.78	5.77	30.92	46.00	15.08	Peak
422.85	22.73	6.09	8.53	37.35	46.00	8.65	Peak
786.60	26.37	7.83	6.28	40.48	46.00	5.52	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
58.13	12.87	1.70	14.25	28.82	40.00	11.18	Peak
94.02	16.25	2.21	10.78	29.24	43.50	14.26	Peak
160.95	16.44	3.02	8.51	27.97	43.50	15.53	Peak
343.31	20.96	5.11	3.51	29.58	46.00	16.42	Peak
422.85	22.73	6.09	7.22	36.04	46.00	9.96	Peak
494.63	23.64	6.71	4.09	34.44	46.00	11.56	Peak

1.2. 1000MHz 以上頻率範圍，其他不必要發射量測

頻率範圍量測至主波發射的 10 倍諧波，其他未列在報告上乃因訊號太小無法量測。

Mode	8DPSK	Frequency	TX 2402MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4804.00	34.19	10.31	0.03	44.53	54.00	9.47	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4804.00	34.19	10.31	0.28	44.78	54.00	9.22	Peak

Mode	8DPSK	Frequency	TX 2441MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4882.00	34.24	10.38	-0.54	44.08	54.00	9.92	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4882.00	34.24	10.38	-1.12	43.50	54.00	10.50	Peak

Mode	8DPSK	Frequency	TX 2480MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4960.00	34.28	10.45	-1.59	43.14	74.00	30.86	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4960.00	34.28	10.45	-1.50	43.23	74.00	30.77	Peak

Mode	---	Frequency	RX 2441MHz
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Antenna at Horizontal Polarization

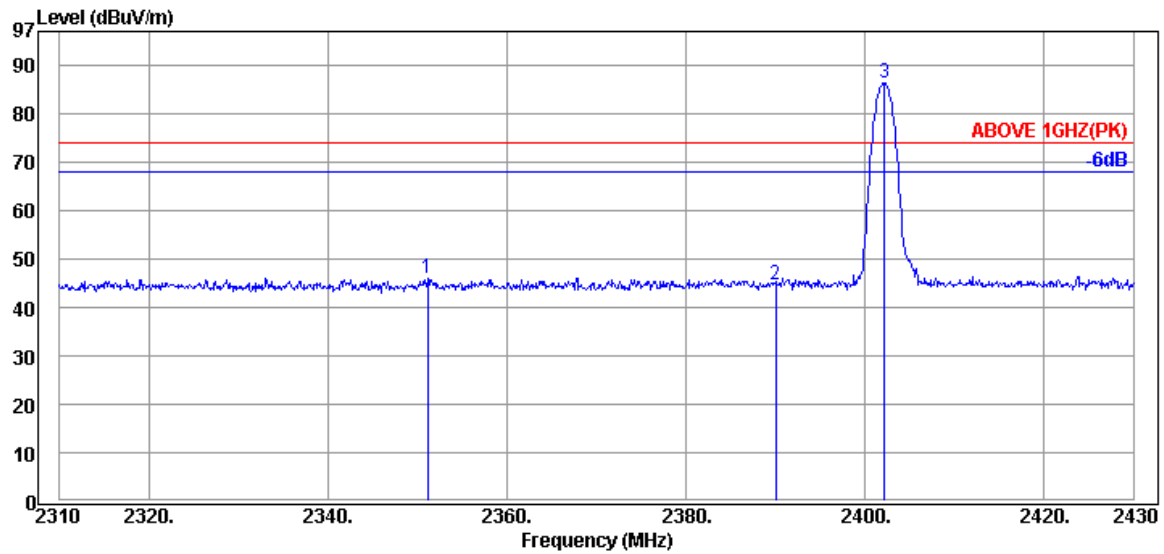
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4882.00	34.24	10.38	-0.71	43.91	74.00	30.09	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4882.00	34.24	10.38	-1.13	43.49	74.00	30.51	Peak

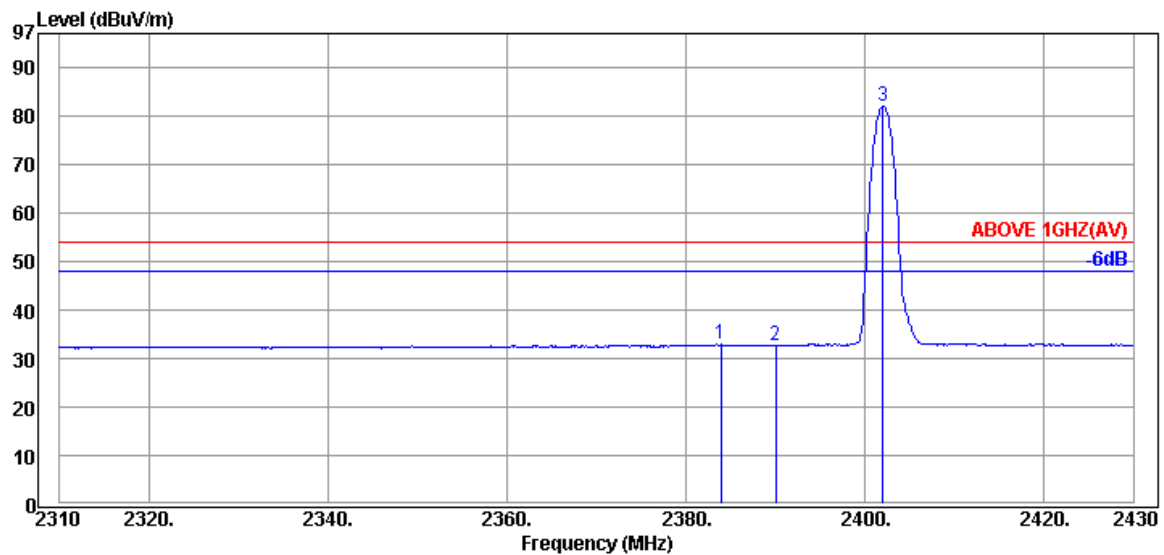
1.3. 禁用頻帶量測結果 (其他不必要發射)

Mode	8-DPSK	Frequency	TX 2402MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2351.16	32.37	8.16	5.47	46.00	74.00	28.00	Peak
2390.04	32.52	8.17	4.08	44.77	74.00	29.23	Peak
@ 2402.16	32.58	8.18	45.59	86.35	---	---	Peak

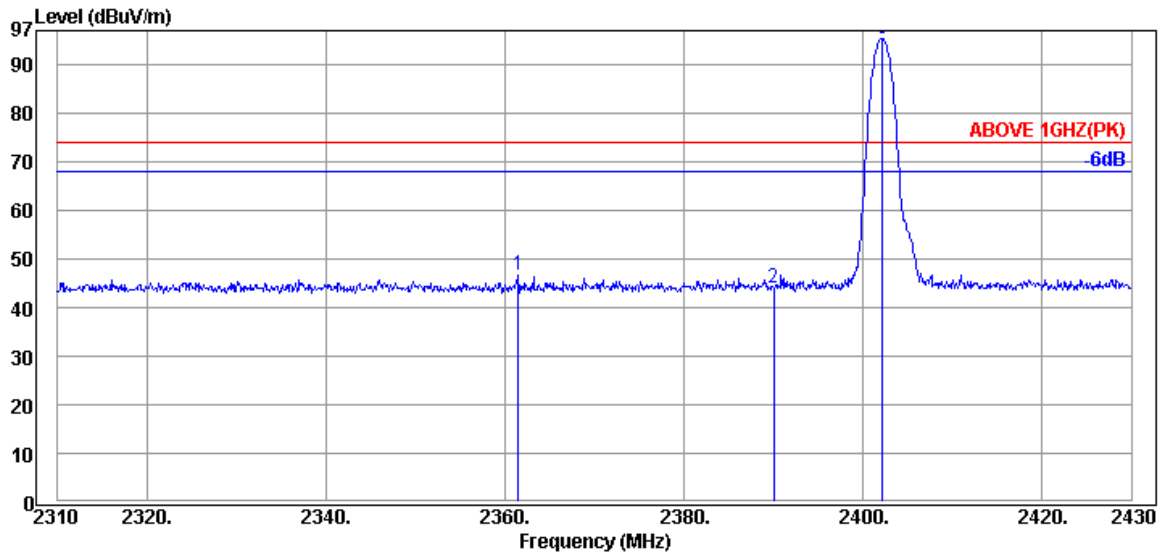


Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2383.92	32.52	8.17	-7.83	32.86	54.00	21.14	Average
2390.04	32.52	8.17	-7.96	32.73	54.00	21.27	Average
@ 2402.04	32.58	8.18	41.34	82.10	---	---	Average

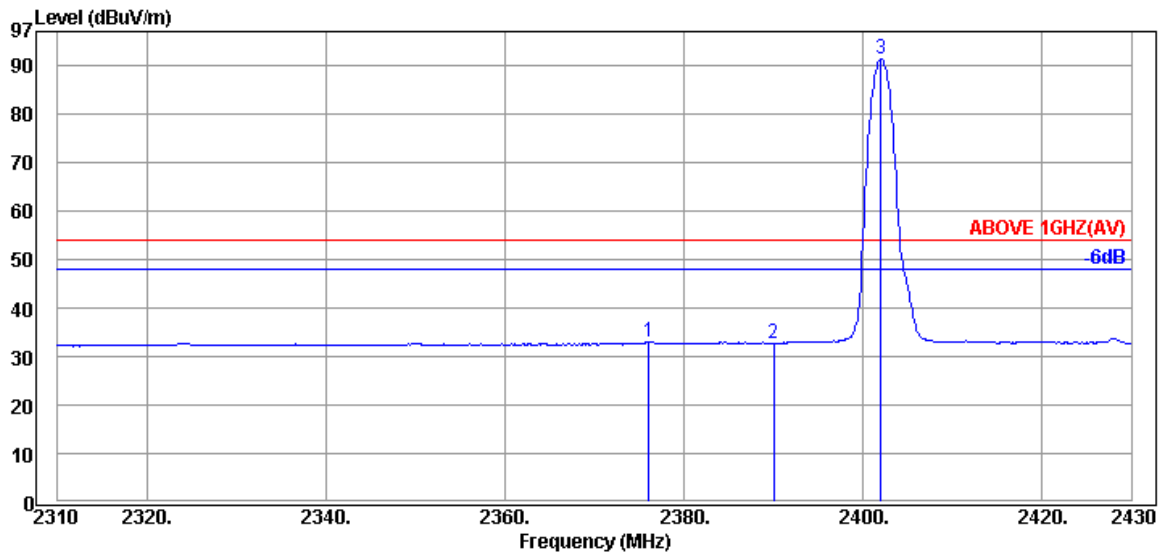
備註：“@”為主波，在此章節是不予以判定。

Mode	8-DPSK	Frequency	TX 2402MHz
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Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBUV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
2361.48	32.40	8.16	5.97	46.53	74.00	27.47	Peak
2390.04	32.52	8.17	3.40	44.09	74.00	29.91	Peak
@ 2402.16	32.58	8.18	54.68	95.44	---	---	Peak

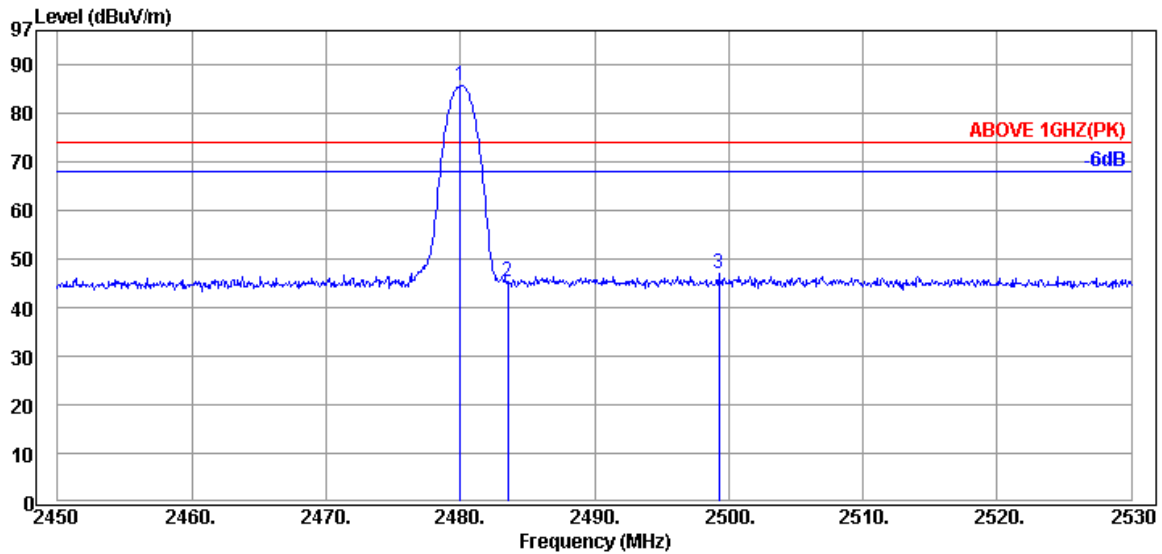


Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBUV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
2376.12	32.46	8.17	-7.57	33.06	54.00	20.94	Average
2390.04	32.52	8.17	-7.95	32.74	54.00	21.26	Average
@ 2402.04	32.58	8.18	50.50	91.26	---	---	Average

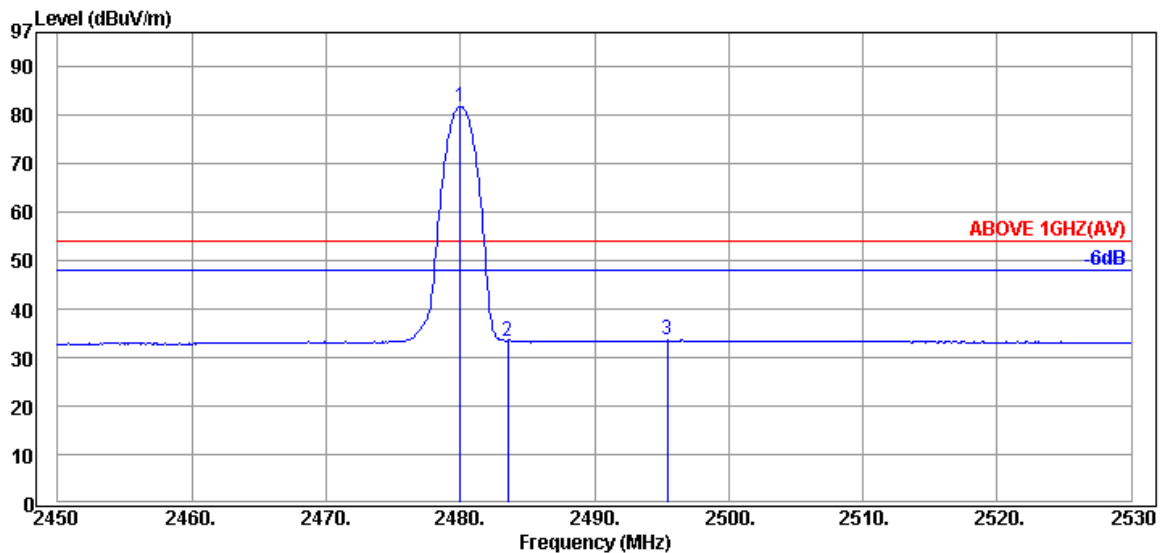
備註：“@”為主波，在此章節是不予以判定。

Mode	8-DPSK	Frequency	TX 2480MHz
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Antenna at Horizontal Polarization

	Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@	2480.00	32.91	8.20	44.70	85.81	---	---	Peak
	2483.52	32.94	8.20	4.07	45.21	74.00	28.79	Peak
	2499.28	33.00	8.21	5.67	46.88	74.00	27.12	Peak

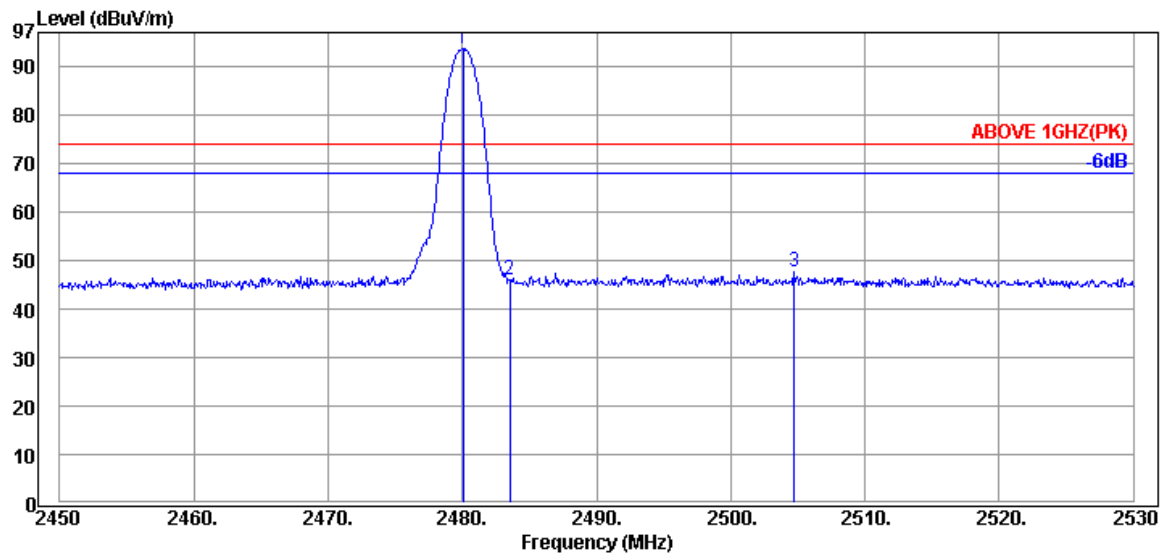


Antenna at Horizontal Polarization

	Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@	2480.00	32.91	8.20	40.61	81.72	---	---	Average
	2483.52	32.94	8.20	-7.71	33.43	54.00	20.57	Average
	2495.44	32.97	8.21	-7.65	33.53	54.00	20.47	Average

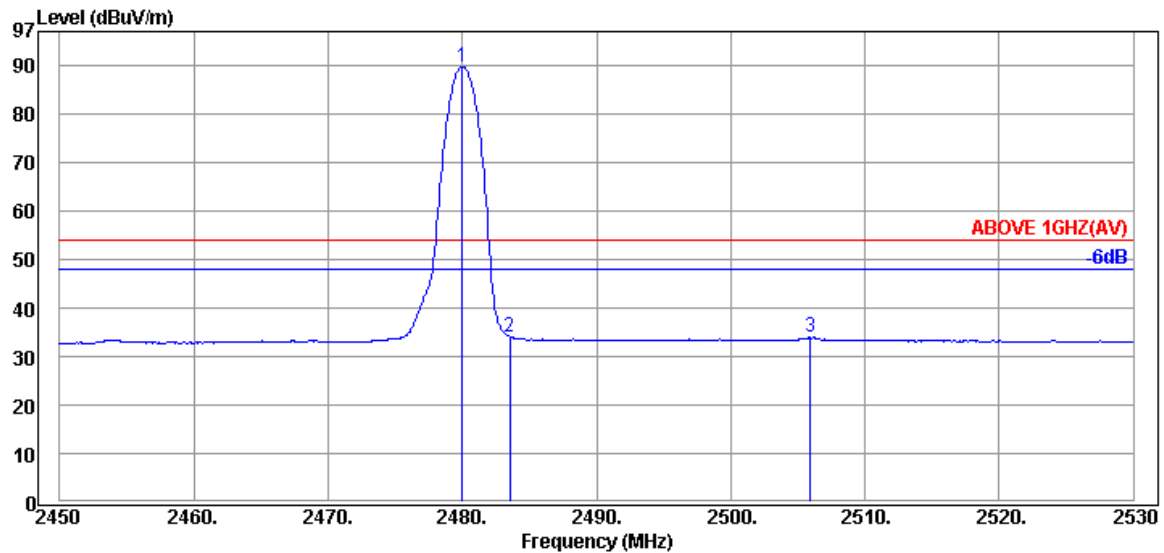
備註：“@”為主波，在此章節是不予以判定。

Mode	8-DPSK	Frequency	TX 2480MHz
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Antenna at Vertical Polarization

	Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@	2480.08	32.91	8.20	52.67	93.78	---	---	Peak
	2483.52	32.94	8.20	4.79	45.93	74.00	28.07	Peak
	2504.72	33.00	8.21	6.36	47.57	74.00	26.43	Peak



Antenna at Vertical Polarization

	Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@	2480.00	32.91	8.20	48.60	89.71	---	---	Average
	2483.52	32.94	8.20	-7.04	34.10	54.00	19.90	Average
	2505.92	33.00	8.22	-7.25	33.97	54.00	20.03	Average

備註：“@”為主波，在此章節是不予以判定。

2. 峰值輸出功率之量測

測試日期	2019/03/14	環境溫/濕度	22°C/55%
電纜損失	1.2dB	測試電壓	DC 12V (經直流電源供應器供電)

2.1. 峰值輸出功率

模式	測試頻率 (MHz)	峰值輸出功率(dBm)
GFSK	2402	-1.36
	2441	-0.97
	2480	-1.88

模式	測試頻率 (MHz)	峰值輸出功率(dBm)
8-DPSK	2402	0.50
	2441	0.77
	2480	-0.07

2.2. 峰值輸出功率之量測圖

