

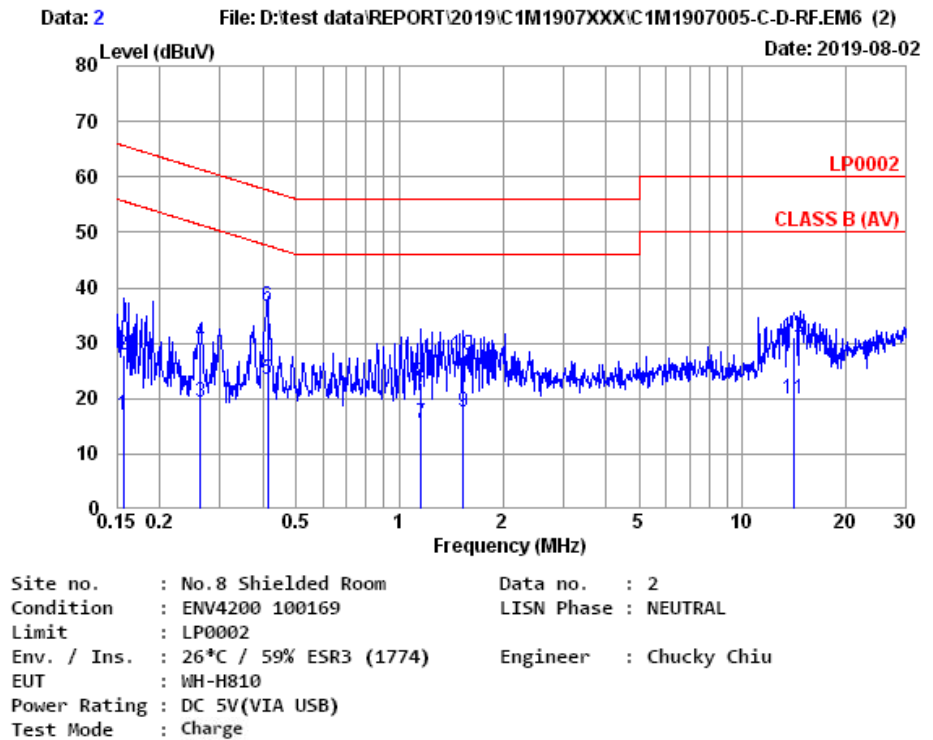
附錄一

受測裝置之測試結果

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1. 電源線傳導干擾之量測

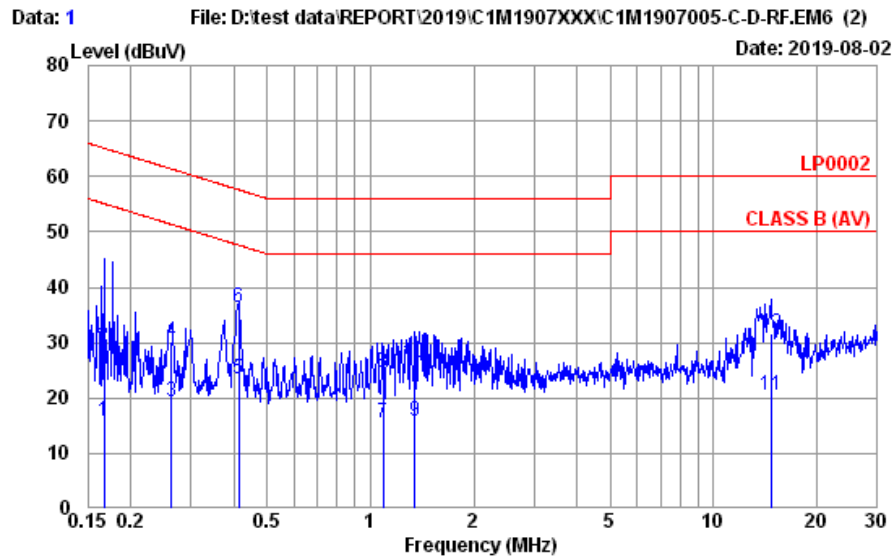
測試日期	2019/08/02	環境溫/濕度	26°C/59%
測試電壓	DC 5V (透過 USB 由筆記型電腦供電)		



	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.156	10.69	0.03	9.86	-3.63	16.95	55.65	38.70	Average
2	0.156	10.69	0.03	9.86	7.20	27.78	65.65	37.87	QP
3	0.263	10.57	0.03	9.86	-1.15	19.31	51.34	32.03	Average
4	0.263	10.57	0.03	9.86	9.62	30.08	61.34	31.26	QP
5	0.413	10.49	0.04	9.86	3.01	23.40	47.60	24.20	Average
6	0.413	10.49	0.04	9.86	16.28	36.67	57.60	20.93	QP
7	1.153	10.48	0.06	9.86	-4.89	15.51	46.00	30.49	Average
8	1.153	10.48	0.06	9.86	2.58	22.98	56.00	33.02	QP
9	1.535	10.49	0.06	9.86	-2.85	17.56	46.00	28.44	Average
10	1.535	10.49	0.06	9.86	7.34	27.75	56.00	28.25	QP
11	14.138	12.46	0.22	9.92	-2.71	19.89	50.00	30.11	Average
12	14.138	12.46	0.22	9.92	8.45	31.05	60.00	28.95	QP

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Pulse Att. + Reading.
2. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

測試日期	2019/08/02	環境溫/濕度	26°C/59%
測試電壓	DC 5V (透過 USB 由筆記型電腦供電)		



Site no. : No.8 Shielded Room Data no. : 1
Condition : ENV4200 100169 LISN Phase : LINE
Limit : LP0002
Env. / Ins. : 26°C / 59% ESR3 (1774) Engineer : Chucky Chiu
EUT : WH-H810
Power Rating : DC 5V(VIA USB)
Test Mode : Operating
Charge

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.168	10.59	0.03	9.86	-4.62	15.86	55.08	39.22	Average
2	0.168	10.59	0.03	9.86	8.87	29.35	65.08	35.73	QP
3	0.263	10.50	0.03	9.86	-1.04	19.35	51.33	31.98	Average
4	0.263	10.50	0.03	9.86	9.87	30.26	61.33	31.07	QP
5	0.413	10.45	0.04	9.86	2.96	23.31	47.58	24.27	Average
6	0.413	10.45	0.04	9.86	16.13	36.48	57.58	21.10	QP
7	1.091	10.42	0.06	9.86	-4.72	15.62	46.00	30.38	Average
8	1.091	10.42	0.06	9.86	4.23	24.57	56.00	31.43	QP
9	1.345	10.43	0.06	9.86	-4.40	15.95	46.00	30.05	Average
10	1.345	10.43	0.06	9.86	5.99	26.34	56.00	29.66	QP
11	14.672	12.24	0.23	9.92	-1.96	20.43	50.00	29.57	Average
12	14.672	12.24	0.23	9.92	9.18	31.57	60.00	28.43	QP

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Pulse Att. + Reading.
2. If the average limit is met when using a quasi-peak detector,
the EUT shall be deemed to meet both limits and measurement
with average detector is unnecessary.

2. 場強輻射之量測

【經實驗室評估量測後，以最差之調變方式 GFSK 進行本章節之測試】

本裝置有兩種電源供應模式分別為(1)電池(DC 3.7V)、(2)USB (DC 5V)僅供充電使用，故實驗室以單機(電池供電)低、中、高頻率來進行量測，並將下列測試模式之測試數據檢附於附錄中；最後，選擇較差模式進行讀值之測量，所得讀值資料請見章節 2.1 ~2.2：

模式	動作狀態	基本頻率	量測頻率範圍
---	充電	---	30-1000MHz
---	Normal	---	30-1000MHz
			1000-25000MHz
BT (GFSK)	發射	2402MHz (CH0)	1000-25000MHz
	發射	2441MHz (CH39)	1000-25000MHz
	發射	2480MHz (CH78)*	30-1000MHz
			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 2.3。

模式	動作狀態	基本頻率	量測頻率範圍
BT (GFSK)	發射	2402MHz (CH0)	2310-2410MHz
		2480MHz (CH78)	2430-2530MHz
BT (8-DPSK)	發射	2402MHz (CH0)	2310-2410MHz
		2480MHz (CH78)	2430-2530MHz

測試日期	2019/08/02 ~ 13	環境溫/濕度	24 ~ 25°C/44 ~ 50%
測試電壓	(1)DC 3.7V (透過內建鋰電池供電) (Normal 及 BT 模式) (2)DC 5V (透過 USB 由筆記型電腦供電) (充電模式)		

2.1. 30-1000MHz 頻率範圍，其他不必要發射量測

Mode	充電	Frequency	---
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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
31.94	24.34	1.23	1.87	27.44	40.00	12.56	Peak
121.18	18.58	2.55	1.57	22.70	43.50	20.80	Peak
413.15	22.59	6.00	2.02	30.61	46.00	15.39	Peak
588.72	24.66	6.87	1.55	33.08	46.00	12.92	Peak
908.82	27.39	8.50	3.00	38.89	46.00	7.11	Peak
990.30	27.99	8.99	1.87	38.85	54.00	15.15	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
32.91	23.73	1.25	2.63	27.61	40.00	12.39	Peak
116.33	18.43	2.49	1.29	22.21	43.50	21.29	Peak
346.22	21.06	5.15	2.14	28.35	46.00	17.65	Peak
539.25	24.15	6.80	2.63	33.58	46.00	12.42	Peak
829.28	26.75	8.07	2.09	36.91	46.00	9.09	Peak
991.27	27.99	8.99	1.79	38.77	54.00	15.23	Peak

Mode	Normal	Frequency	---
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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
31.94	24.34	1.23	1.59	27.16	40.00	12.84	Peak
120.21	18.63	2.53	1.73	22.89	43.50	20.61	Peak
340.40	20.89	5.06	1.75	27.70	46.00	18.30	Peak
477.17	23.43	6.57	1.21	31.21	46.00	14.79	Peak
808.91	26.58	7.95	1.09	35.62	46.00	10.38	Peak
967.02	27.82	8.85	1.87	38.54	54.00	15.46	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
35.82	21.86	1.31	2.30	25.47	40.00	14.53	Peak
122.15	18.53	2.56	1.58	22.67	43.50	20.83	Peak
390.84	22.17	5.75	3.13	31.05	46.00	14.95	Peak
698.33	25.44	7.35	1.68	34.47	46.00	11.53	Peak
876.81	27.14	8.33	2.21	37.68	46.00	8.32	Peak
990.30	27.99	8.99	1.72	38.70	54.00	15.30	Peak

Mode	GFSK	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
33.88	23.04	1.27	1.58	25.89	40.00	14.11	Peak
118.27	18.55	2.51	1.34	22.40	43.50	21.10	Peak
360.77	21.42	5.35	1.71	28.48	46.00	17.52	Peak
581.93	24.60	6.86	2.19	33.65	46.00	12.35	Peak
832.19	26.77	8.08	2.56	37.41	46.00	8.59	Peak
961.20	27.79	8.82	2.02	38.63	54.00	15.37	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
30.97	25.03	1.21	2.02	28.26	40.00	11.74	Peak
125.06	18.36	2.59	1.18	22.13	43.50	21.37	Peak
324.88	20.43	4.83	2.55	27.81	46.00	18.19	Peak
614.91	24.87	6.96	1.25	33.08	46.00	12.92	Peak
874.87	27.11	8.32	2.78	38.21	46.00	7.79	Peak
979.63	27.92	8.92	1.91	38.75	54.00	15.25	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
31.94	24.34	1.23	1.34	26.91	40.00	13.09	Peak
136.70	17.73	2.73	1.75	22.21	43.50	21.29	Peak
331.67	20.63	4.93	1.68	27.24	46.00	18.76	Peak
617.82	24.90	6.97	1.22	33.09	46.00	12.91	Peak
888.45	27.21	8.39	1.25	36.85	46.00	9.15	Peak
975.75	27.89	8.90	2.10	38.89	54.00	15.11	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
30.97	25.03	1.21	1.73	27.97	40.00	12.03	Peak
119.24	18.63	2.52	1.27	22.42	43.50	21.08	Peak
352.04	21.19	5.23	0.96	27.38	46.00	18.62	Peak
686.69	25.36	7.30	1.52	34.18	46.00	11.82	Peak
900.09	27.31	8.45	2.11	37.87	46.00	8.13	Peak
963.14	27.79	8.83	2.68	39.30	54.00	14.70	Peak

2.2. 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	Normal	Frequency	---
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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
2324.00	32.00	8.15	5.85	46.00	54.00	8.00	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
2342.00	32.00	8.16	5.91	46.07	54.00	7.93	Peak

Mode	GFSK	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	33.92	10.31	2.85	47.08	54.00	6.92	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
4804.00	33.92	10.31	4.40	48.63	54.00	5.37	Peak

Mode	GFSK	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	34.36	10.38	1.26	46.00	54.00	8.00	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	34.36	10.38	2.43	47.17	54.00	6.83	Peak

Mode	GFSK	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	34.32	10.45	0.56	45.33	54.00	8.67	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	34.32	10.45	4.35	49.12	54.00	4.88	Peak

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

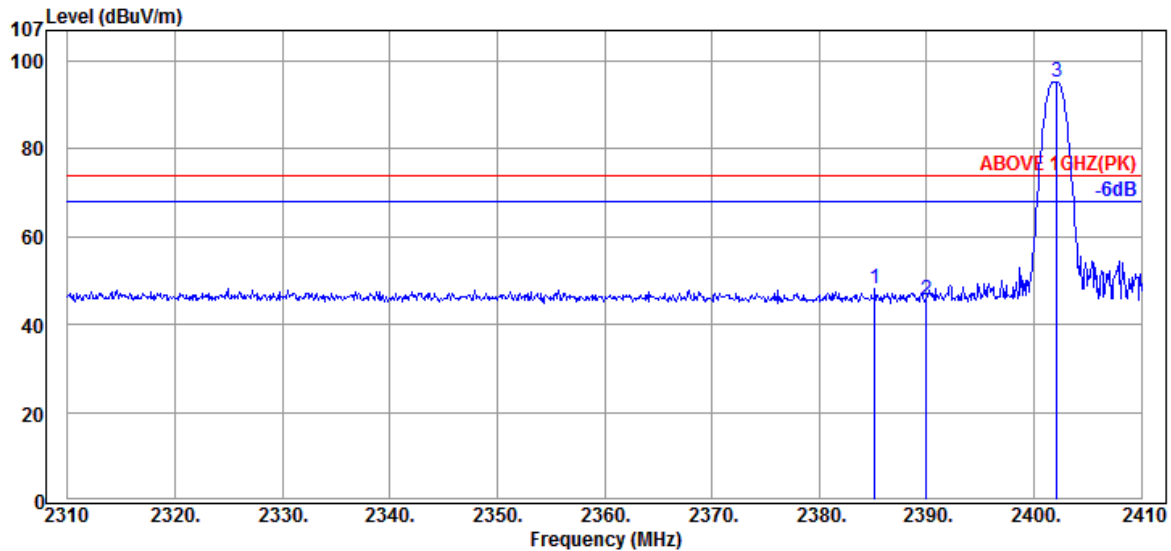
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2306.00	32.00	8.14	5.06	45.20	54.00	8.80	Peak

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
2304.00	32.00	8.14	5.61	45.75	54.00	8.25	Peak

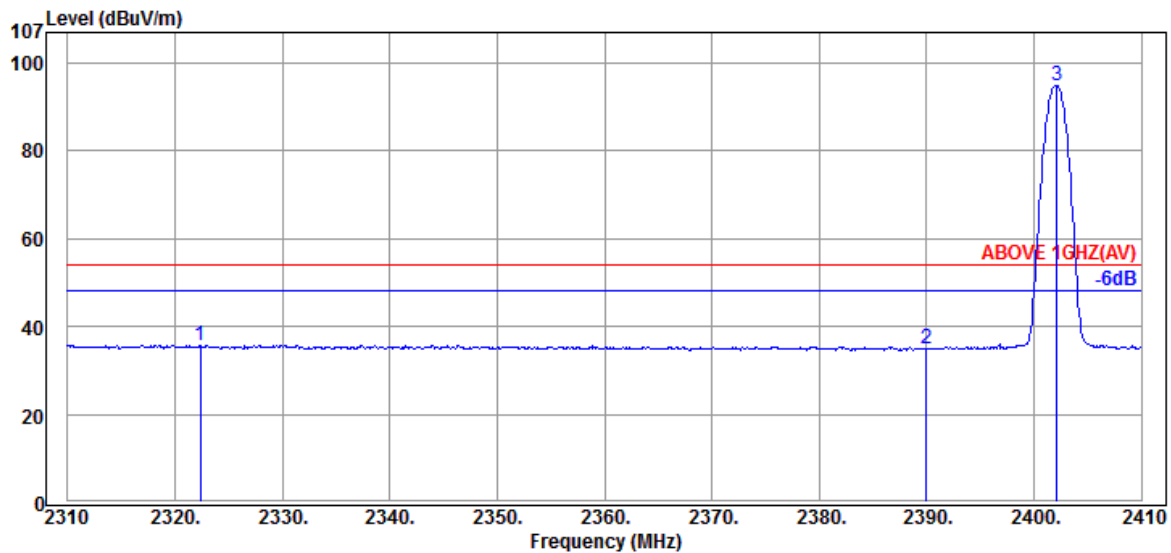
2.3. 禁用頻帶量測結果 (其他不必要發射)

Mode	GFSK	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
2385.20	32.00	8.17	7.91	48.08	74.00	25.92	Peak
2390.00	32.00	8.17	5.51	45.68	74.00	28.32	Peak
@ 2402.10	32.03	8.18	55.01	95.22	---	---	Peak

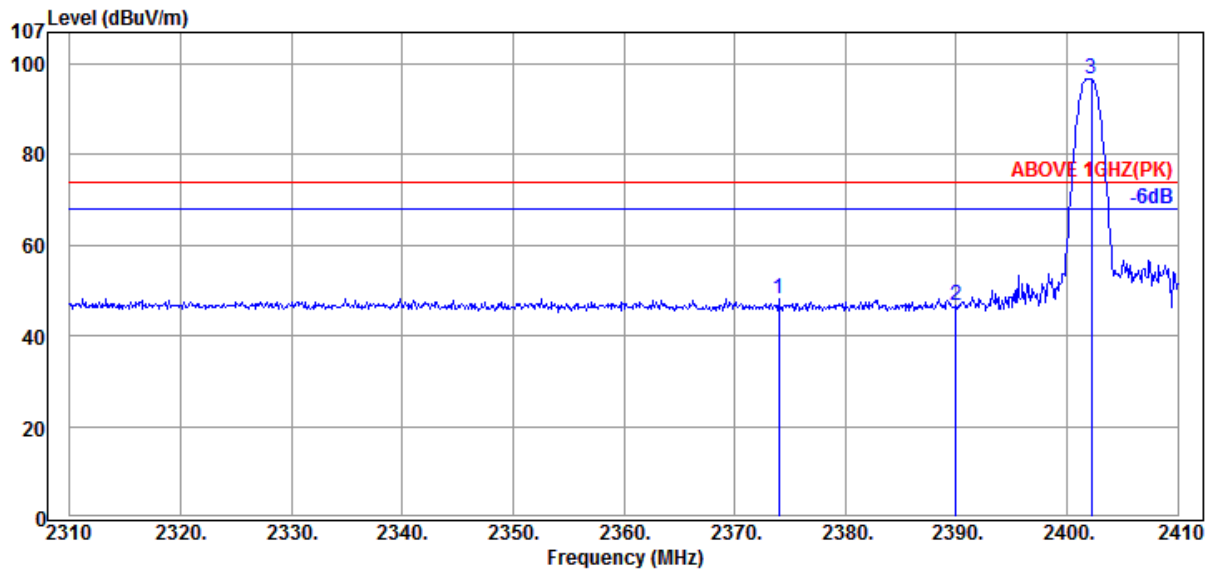


Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2322.40	32.00	8.15	-4.37	35.78	54.00	18.22	Average
2390.00	32.00	8.17	-5.09	35.08	54.00	18.92	Average
@ 2402.10	32.03	8.18	54.82	95.03	---	---	Average

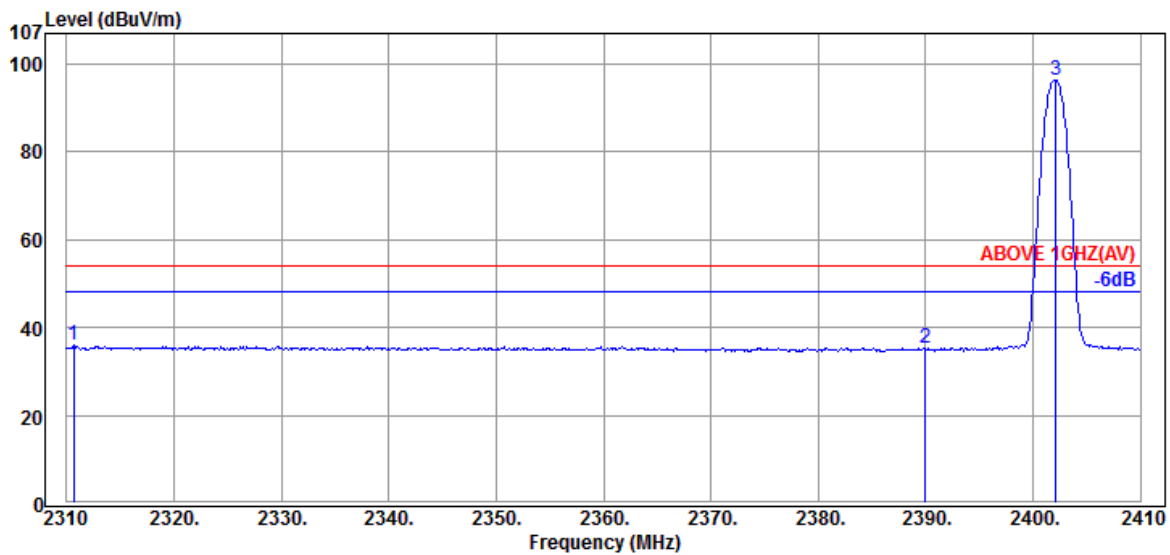
備註：“@”為主波，在此章節是不予以判定。

Mode	GFSK	Frequency	TX 2402MHz
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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
2374.00	32.00	8.17	8.13	48.30	74.00	25.70	Peak
2390.00	32.00	8.17	6.55	46.72	74.00	27.28	Peak
@ 2402.20	32.03	8.18	56.50	96.71	---	---	Peak

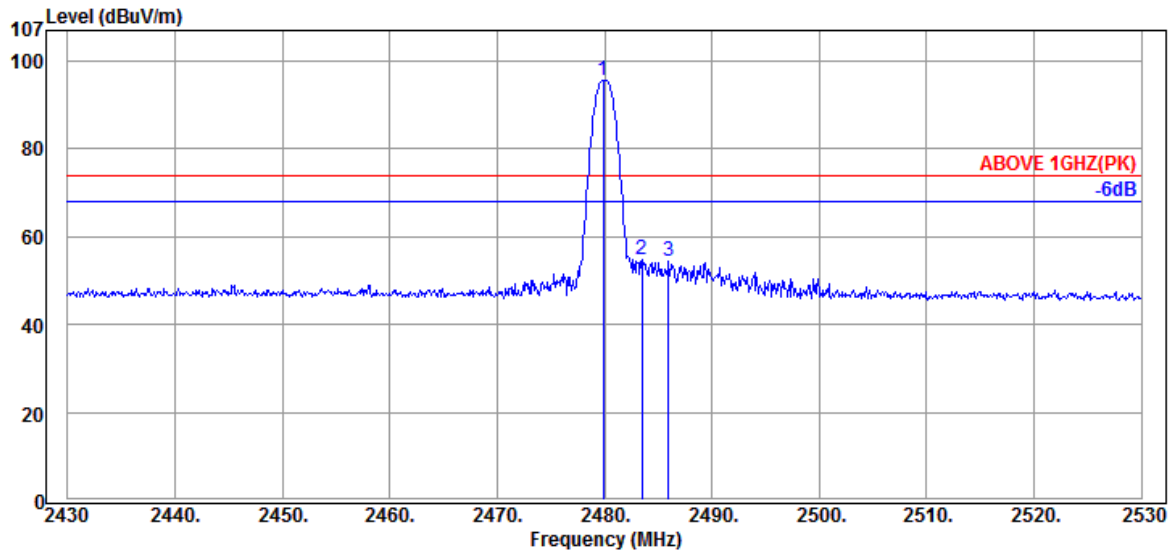


Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2310.70	32.00	8.15	-4.24	35.91	54.00	18.09	Average
2390.00	32.00	8.17	-4.98	35.19	54.00	18.81	Average
@ 2402.10	32.03	8.18	56.28	96.49	---	---	Average

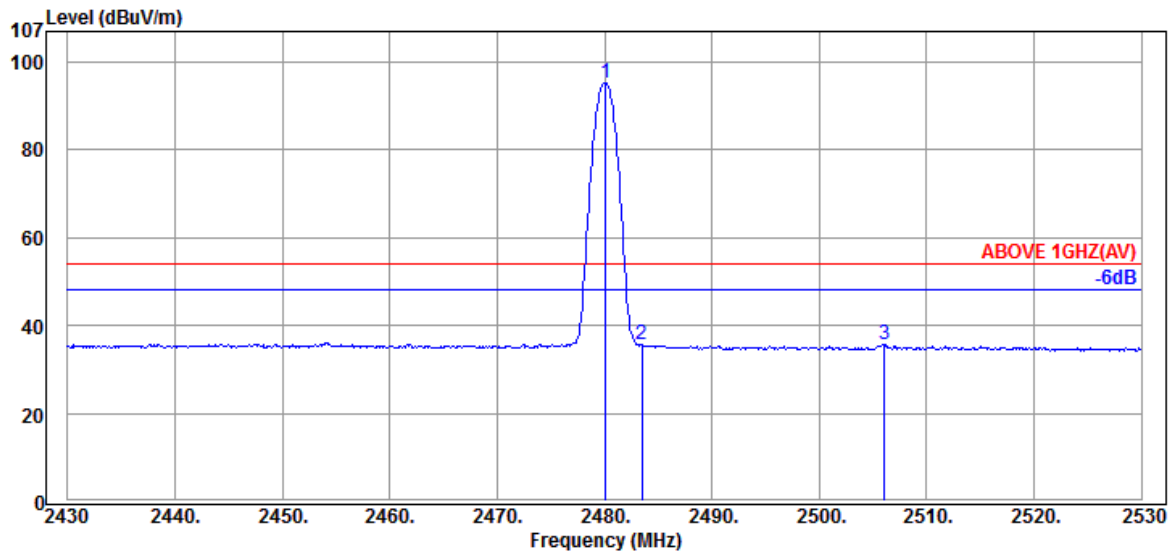
備註：“@”為主波，在此章節是不予以判定。

Mode	GFSK	Frequency	TX 2480MHz
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Antenna at Horizontal Polarization

	Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBUV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@	2479.90	32.58	8.20	54.81	95.59	---	---	Peak
	2483.50	32.57	8.20	14.00	54.77	74.00	19.23	Peak
	2486.00	32.56	8.21	13.49	54.26	74.00	19.74	Peak

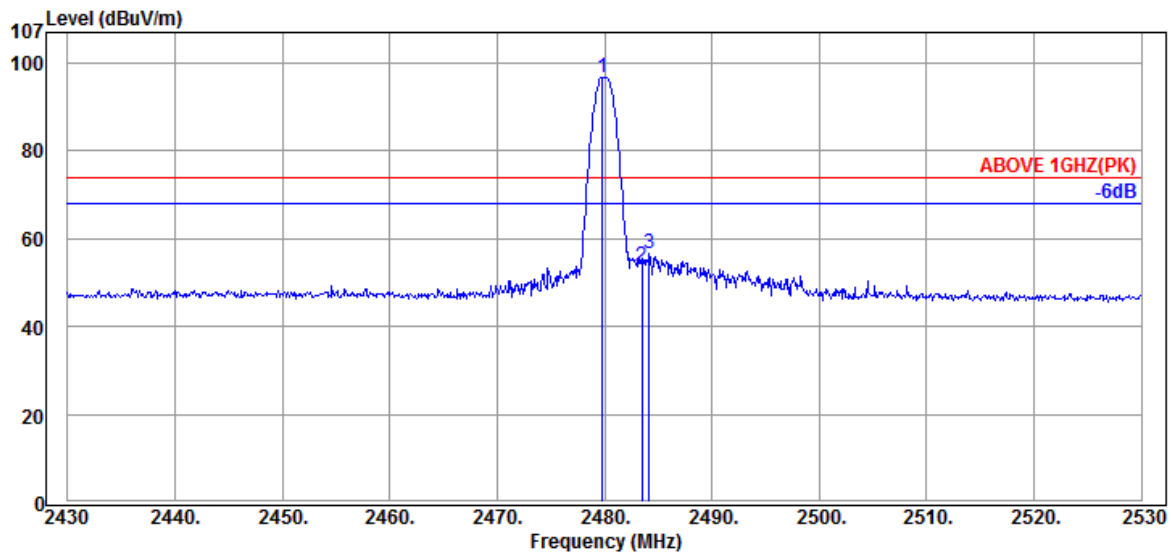


Antenna at Horizontal Polarization

	Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBUV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@	2480.10	32.58	8.20	54.58	95.36	---	---	Average
	2483.50	32.57	8.20	-5.03	35.74	54.00	18.26	Average
	2506.10	32.43	8.22	-4.85	35.80	54.00	18.20	Average

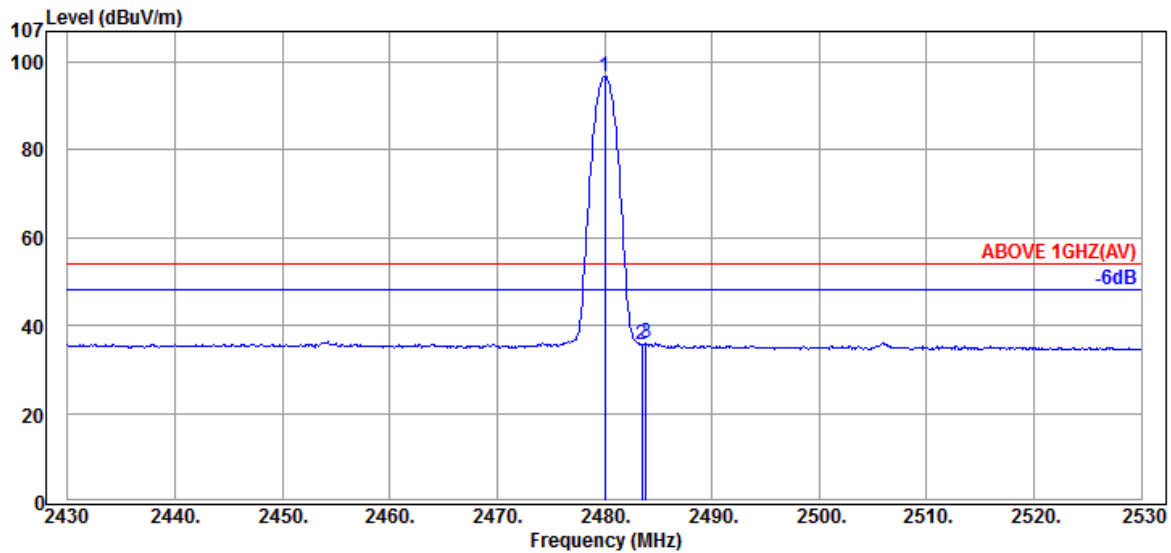
備註：“@”為主波，在此章節是不予以判定。

Mode	GFSK	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
@	2479.80	32.58	8.20	56.09	96.87	---	---	Peak
	2483.50	32.57	8.20	12.91	53.68	74.00	20.32	Peak
	2484.20	32.56	8.20	15.86	56.62	74.00	17.38	Peak

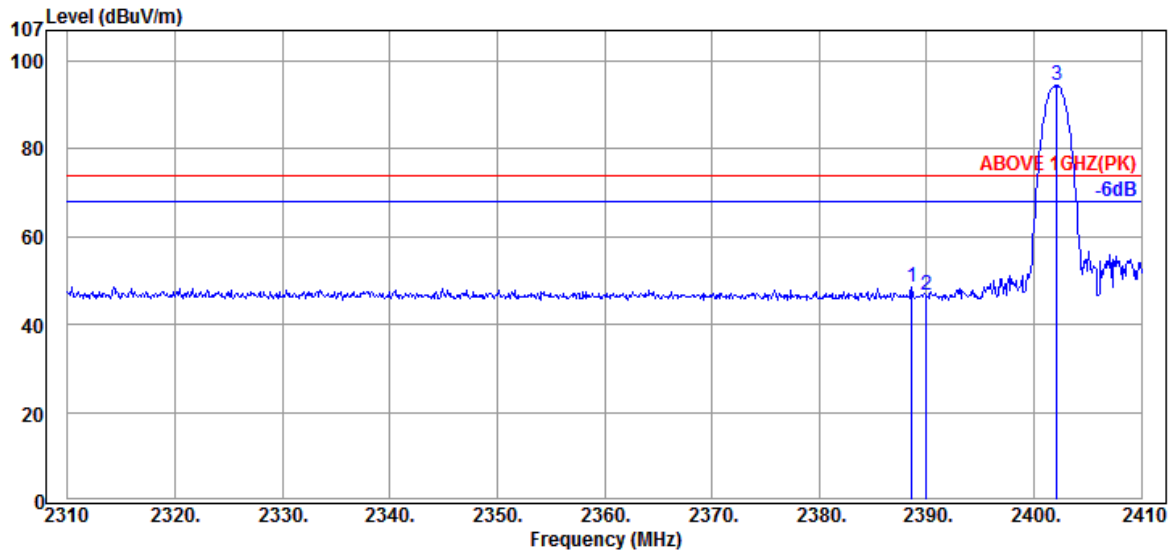


Antenna at Vertical Polarization

	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	32.58	8.20	55.89	96.67	---	---	Average
	2483.50	32.57	8.20	-5.12	35.65	54.00	18.35	Average
	2483.90	32.56	8.20	-4.75	36.01	54.00	17.99	Average

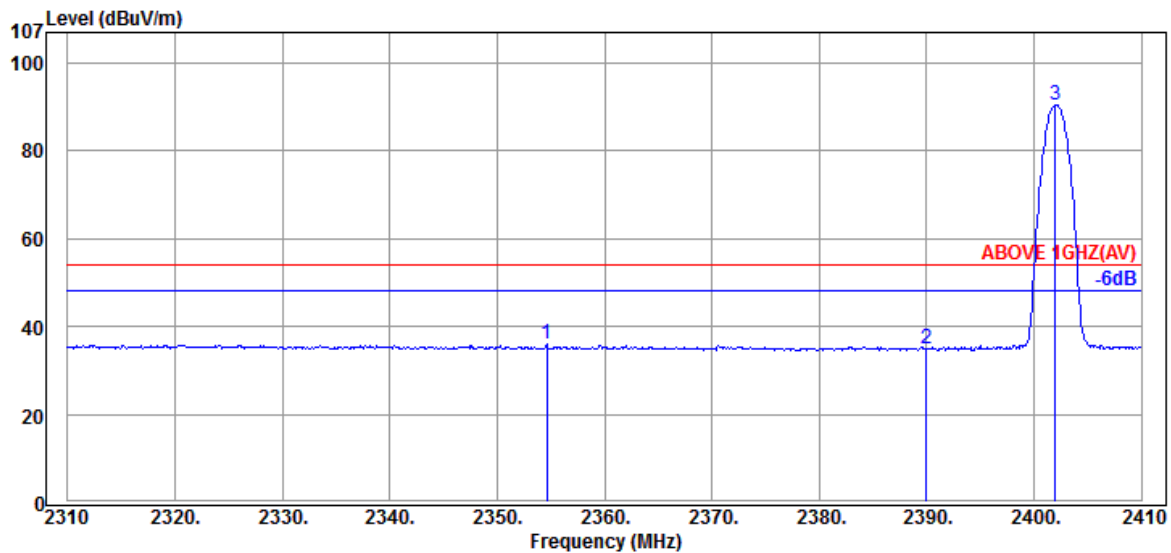
備註：“@”為主波，在此章節是不予以判定。

Mode	8-DPSK	Frequency	TX 2402MHz
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Antenna at 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
2388.60	32.00	8.17	8.51	48.68	74.00	25.32	Peak
2390.00	32.00	8.17	6.67	46.84	74.00	27.16	Peak
@ 2402.10	32.03	8.18	54.18	94.39	---	---	Peak

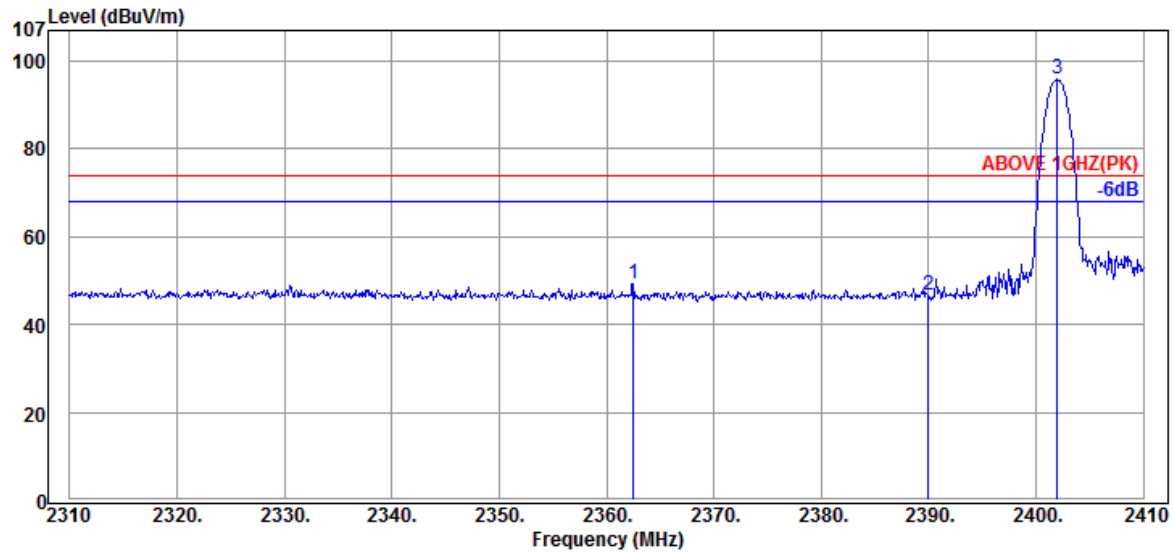


Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2354.60	32.00	8.16	-4.30	35.86	54.00	18.14	Average
2390.00	32.00	8.17	-5.22	34.95	54.00	19.05	Average
@ 2402.00	32.03	8.18	50.21	90.42	---	---	Average

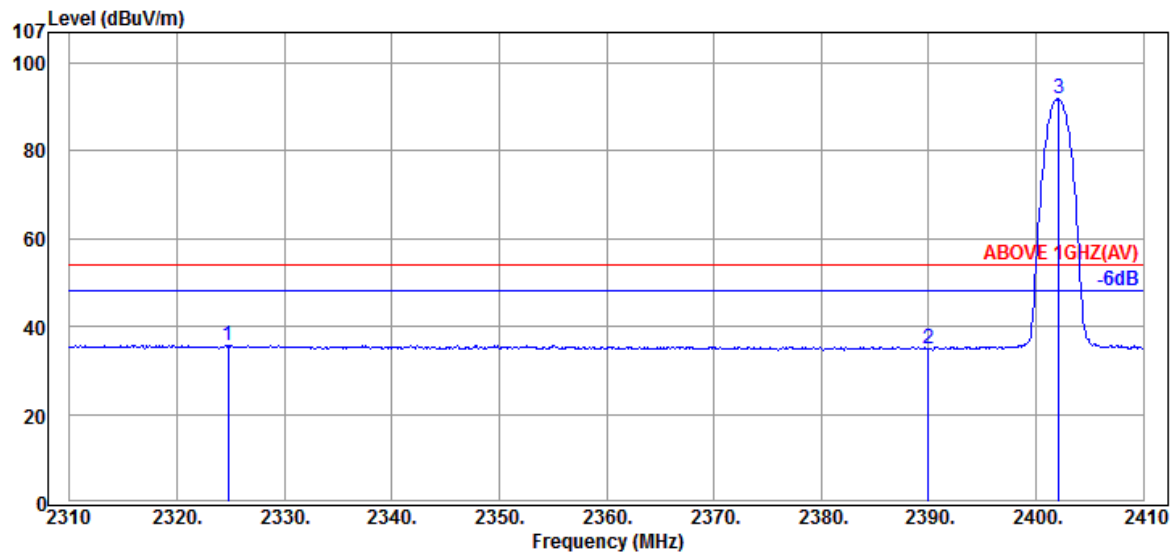
備註：“@”為主波，在此章節是不予以判定。

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
2362.50	32.00	8.16	9.24	49.40	74.00	24.60	Peak
2390.00	32.00	8.17	6.39	46.56	74.00	27.44	Peak
@ 2402.00	32.03	8.18	55.60	95.81	---	---	Peak

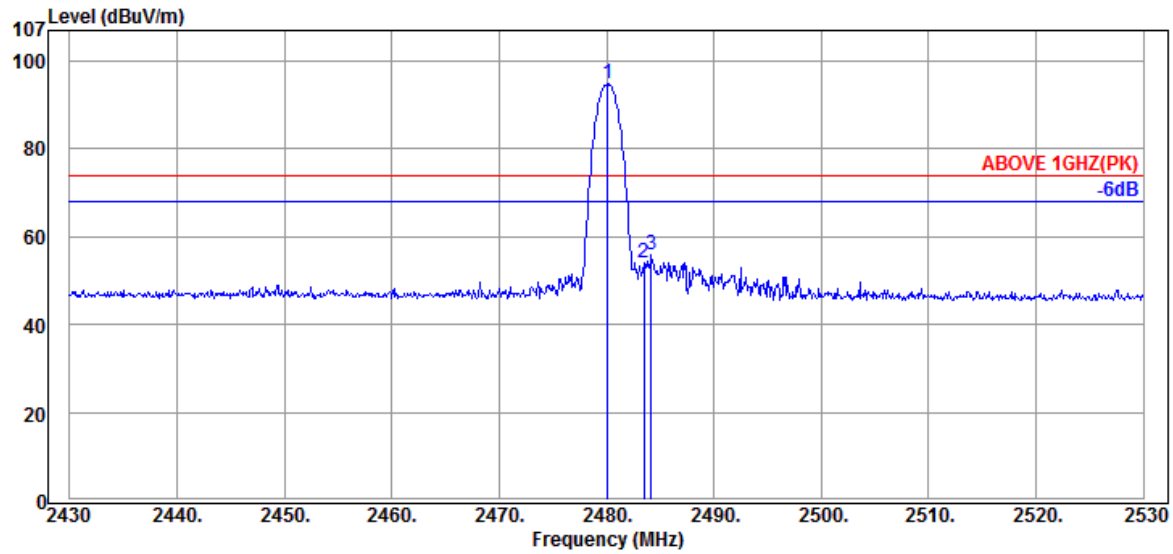


Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBUV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
2324.80	32.00	8.15	-4.38	35.77	54.00	18.23	Average
2390.00	32.00	8.17	-5.14	35.03	54.00	18.97	Average
@ 2402.10	32.03	8.18	51.54	91.75	---	---	Average

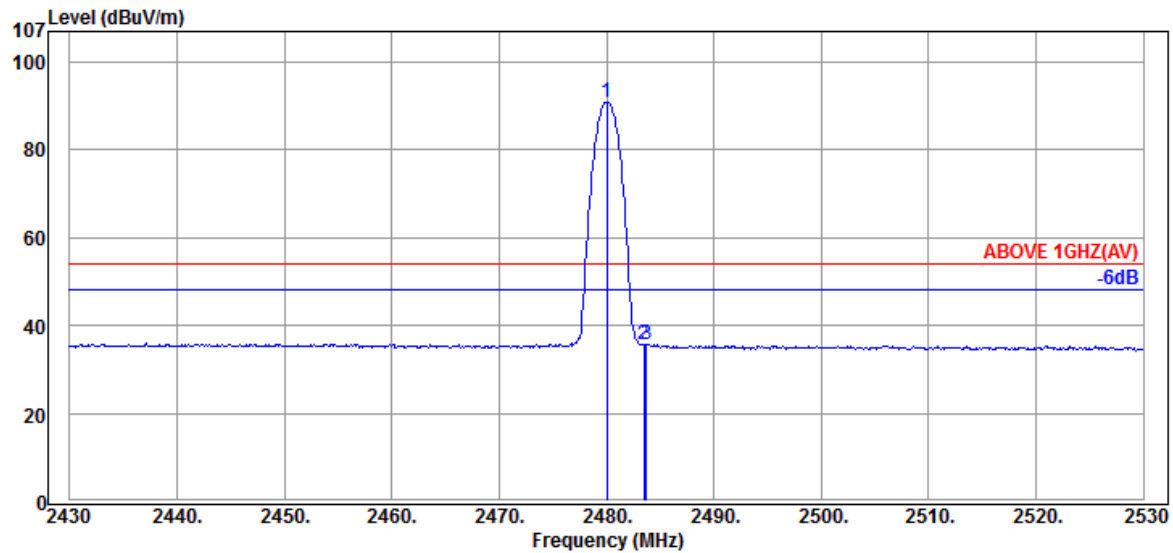
備註：“@”為主波，在此章節是不予以判定。

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
@ 2480.10	32.58	8.20	54.09	94.87	---	---	Peak
2483.50	32.57	8.20	13.12	53.89	74.00	20.11	Peak
2484.20	32.56	8.20	14.96	55.72	74.00	18.28	Peak

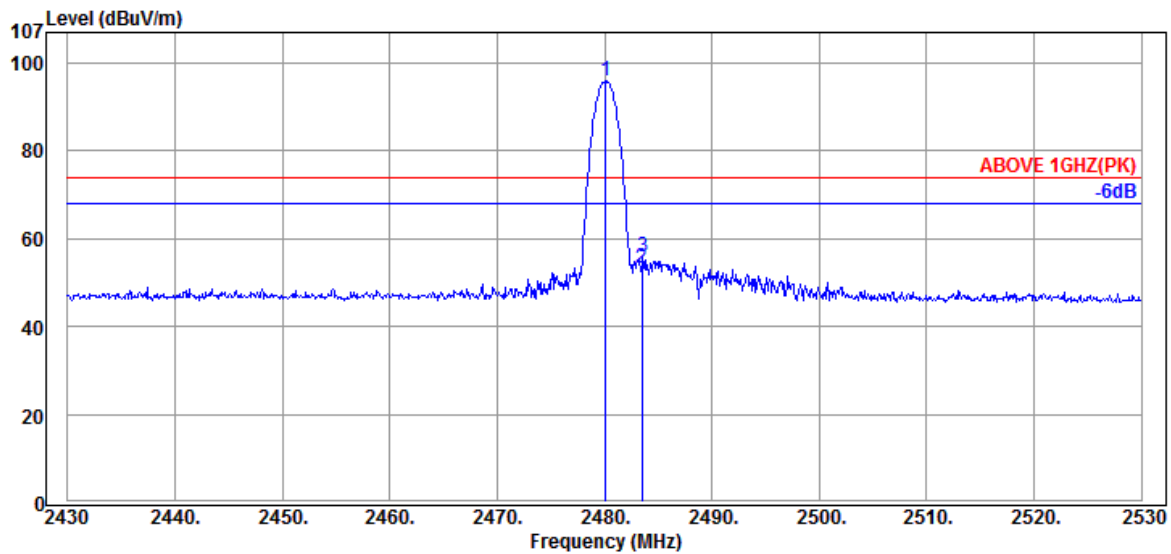


Antenna at Horizontal Polarization

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	32.58	8.20	50.17	90.95	---	---	Average
2483.50	32.57	8.20	-5.13	35.64	54.00	18.36	Average
2483.70	32.57	8.20	-4.94	35.83	54.00	18.17	Average

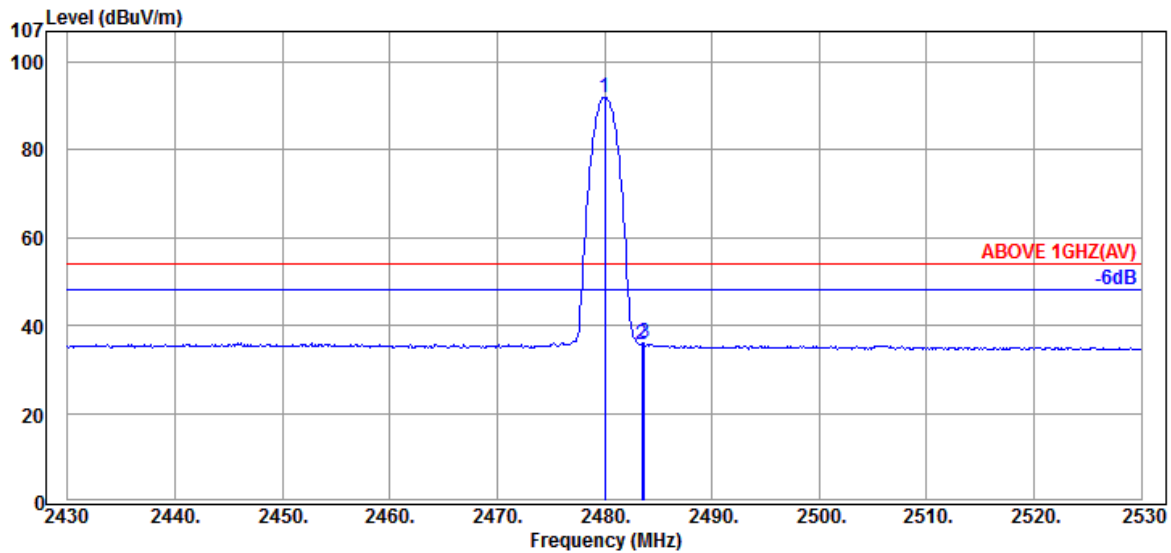
備註：“@”為主波，在此章節是不予以判定。

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
@	2480.10	32.58	8.20	55.18	95.96	---	---	Peak
	2483.50	32.57	8.20	12.63	53.40	74.00	20.60	Peak
	2483.60	32.57	8.20	14.97	55.74	74.00	18.26	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	32.58	8.20	51.28	92.06	---	---	Average
	2483.50	32.57	8.20	-4.97	35.80	54.00	18.20	Average
	2483.70	32.57	8.20	-4.76	36.01	54.00	17.99	Average

備註：“@”為主波，在此章節是不予以判定。

3. 20dB 頻寬之量測

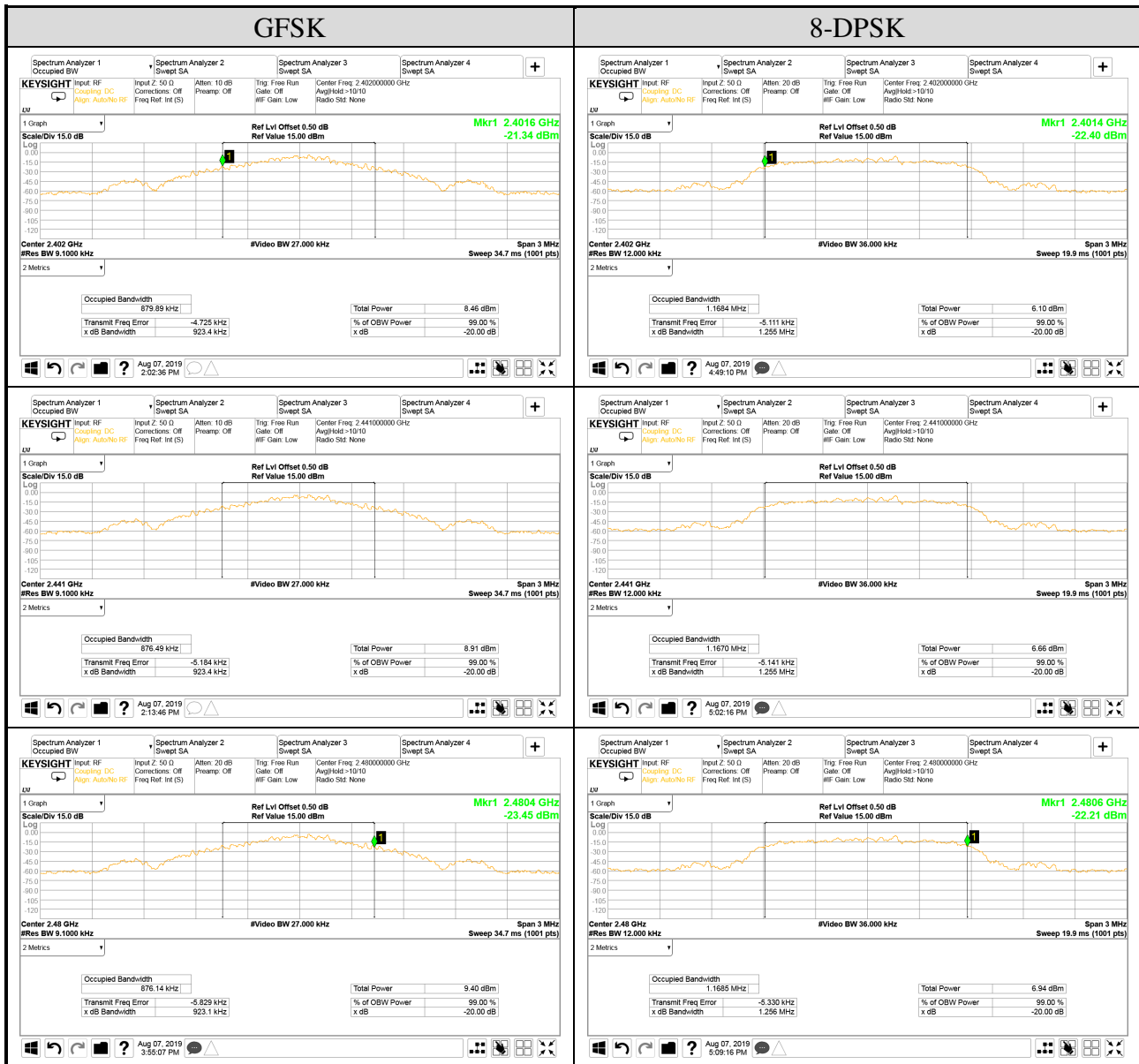
測試日期	2019/08/07	環境溫/濕度	23°C/41%
電纜損失	0.50dB	測試電壓	DC 3.7V (透過內建鋰電池供電)

3.1. 20dB 頻寬

模式	測試頻率 (MHz)	20dB 頻寬 (MHz)	頻道間隔參考限制值 2/3 (20dB 頻寬) (MHz)
GFSK	2402	0.9234	0.616
	2441	0.9234	0.616
	2480	0.9231	0.615

模式	測試頻率 (MHz)	20dB 頻寬 (MHz)	頻道間隔參考限制值 2/3 (20dB 頻寬) (MHz)
8-DPSK	2402	1.255	0.837
	2441	1.255	0.837
	2480	1.256	0.837

3.2. 20dB 頻寬之量測圖



4. 載波頻率間隔之量測

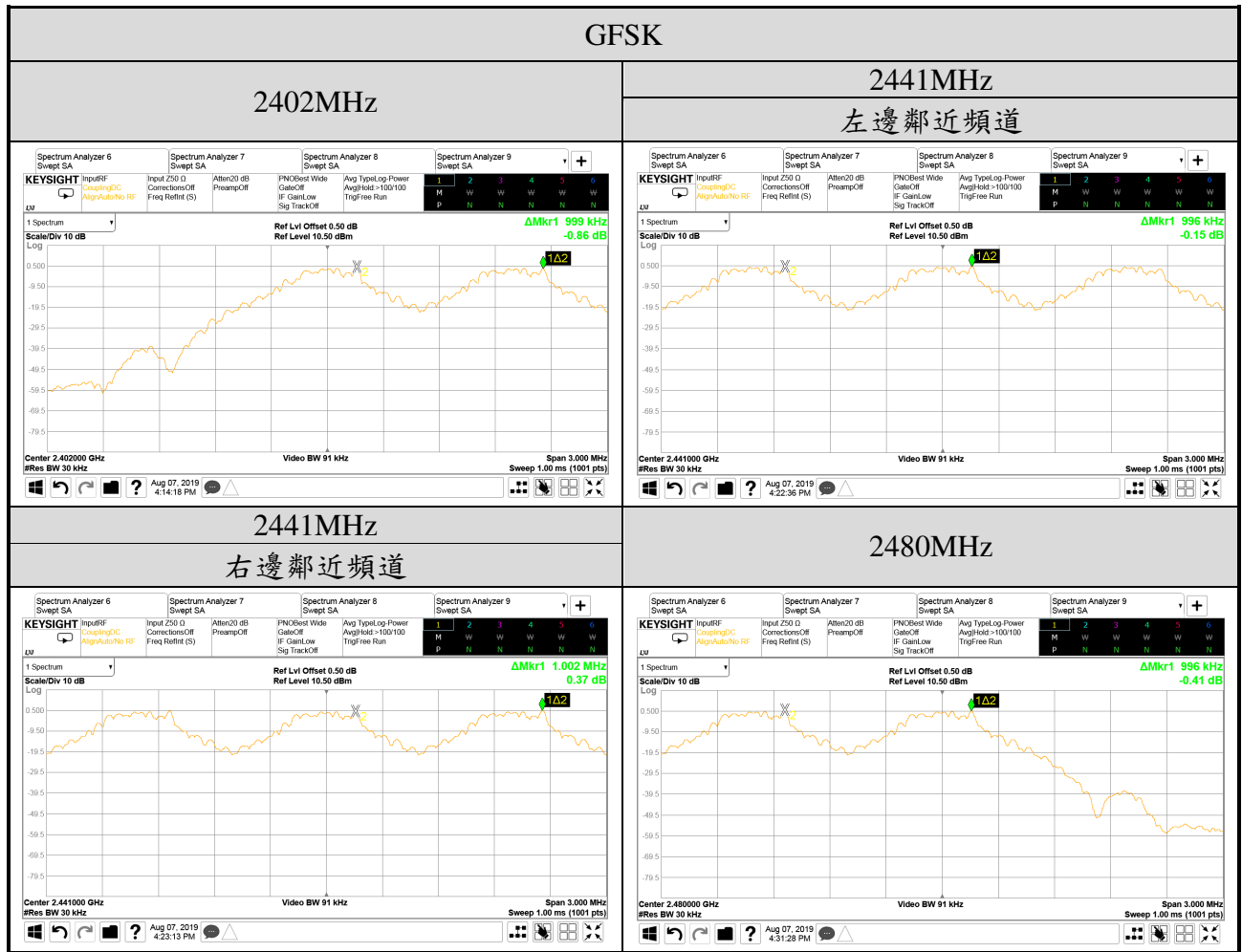
測試日期	2019/08/07	環境溫/濕度	23°C/41%
電纜損失	0.50dB	測試電壓	DC 3.7V (透過內建鋰電池供電)

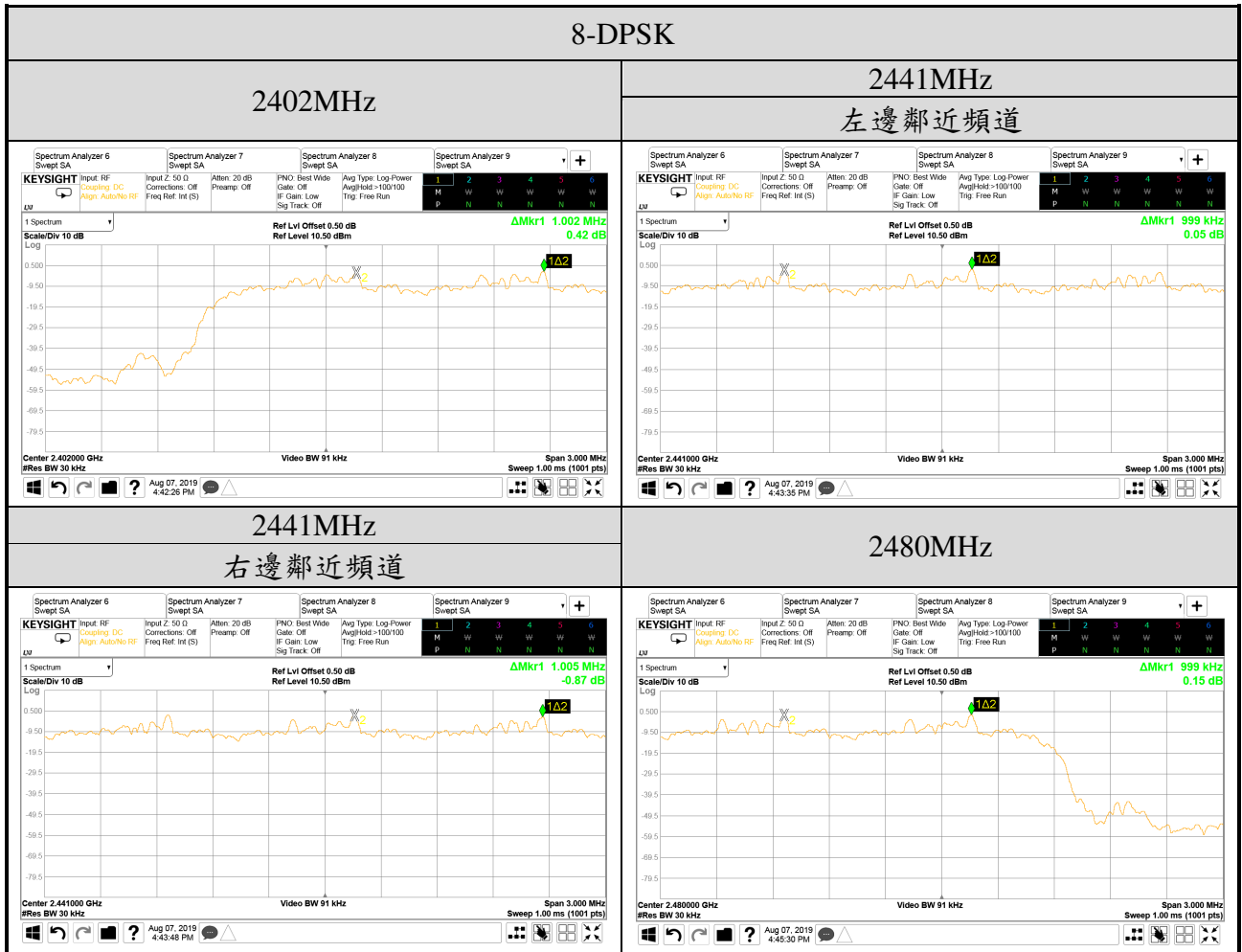
4.1. 載波頻率間隔

模式 (Mode)	測試頻率 (MHz)	頻道間隔(MHz)	頻道間隔參考限制值 2/3 (20dB 頻寬) (MHz)
GFSK	2402	0.999	> 0.616
	2441 (左邊鄰近頻道)	0.996	
	2441 (右邊鄰近頻道)	1.002	
	2480	0.996	

模式 (Mode)	測試頻率 (MHz)	頻道間隔(MHz)	頻道間隔參考限制值 2/3 (20dB 頻寬) (MHz)
8-DPSK	2402	1.002	> 0.837
	2441 (左邊鄰近頻道)	0.999	
	2441 (右邊鄰近頻道)	1.005	
	2480	0.999	

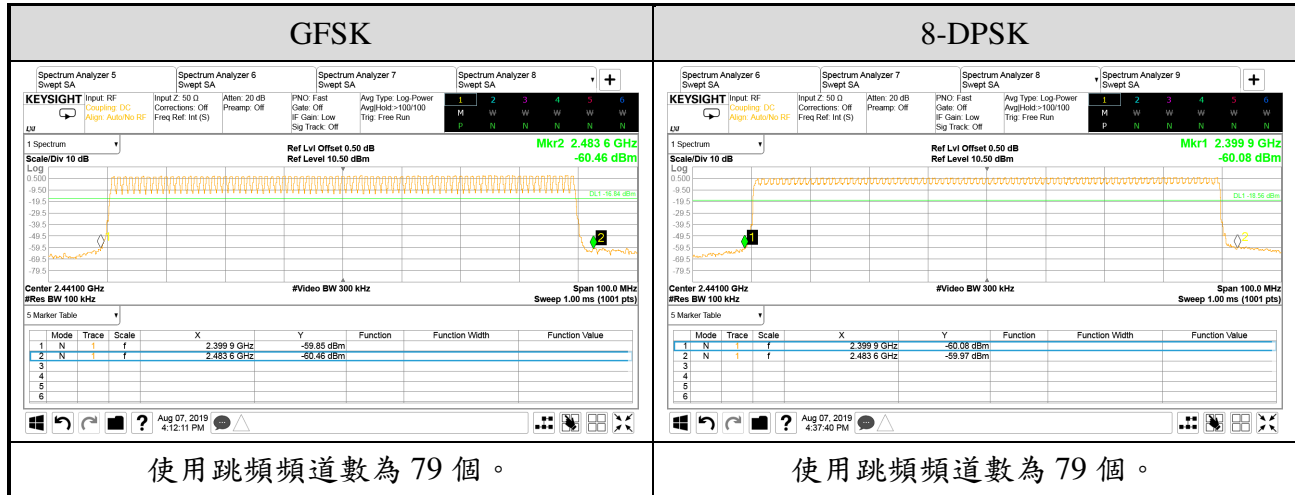
4.2. 載波頻率間隔之量測圖





5. 跳頻頻率數目之量測

測試日期	2019/08/07	環境溫/濕度	23°C/41%
電纜損失	0.50dB	測試電壓	DC 3.7V (透過內建鋰電池供電)



6. 佔用時間(停留時間)之量測

測試日期	2019/08/07	環境溫/濕度	23°C/41%
電纜損失	0.50dB	測試電壓	DC 3.7V (透過內建鋰電池供電)

6.1. 佔用時間(停留時間)

模式	測試頻率 (MHz)	封包	每秒出現 頻道數	佔用時間 (ms)	佔用時間加總 (ms)	限制值 (ms)
GFSK	2402	DH1	10	0.370	116.920	<400
		DH3	5	1.630	257.540	<400
		DH5	3	2.870	272.076	<400

週期之計算: 79 頻道數 0.4 秒= 31.6 秒

封包模式: DH1

以每1秒出現 10 個頻道數為例, 每 31.6 秒內之最長佔用時間為:

10 頻道數 31.6 秒* 0.370 ms= 116.920 ms (<400ms)

封包模式: DH3

以每1秒出現 5 個頻道數為例, 每 31.6 秒內之最長佔用時間為:

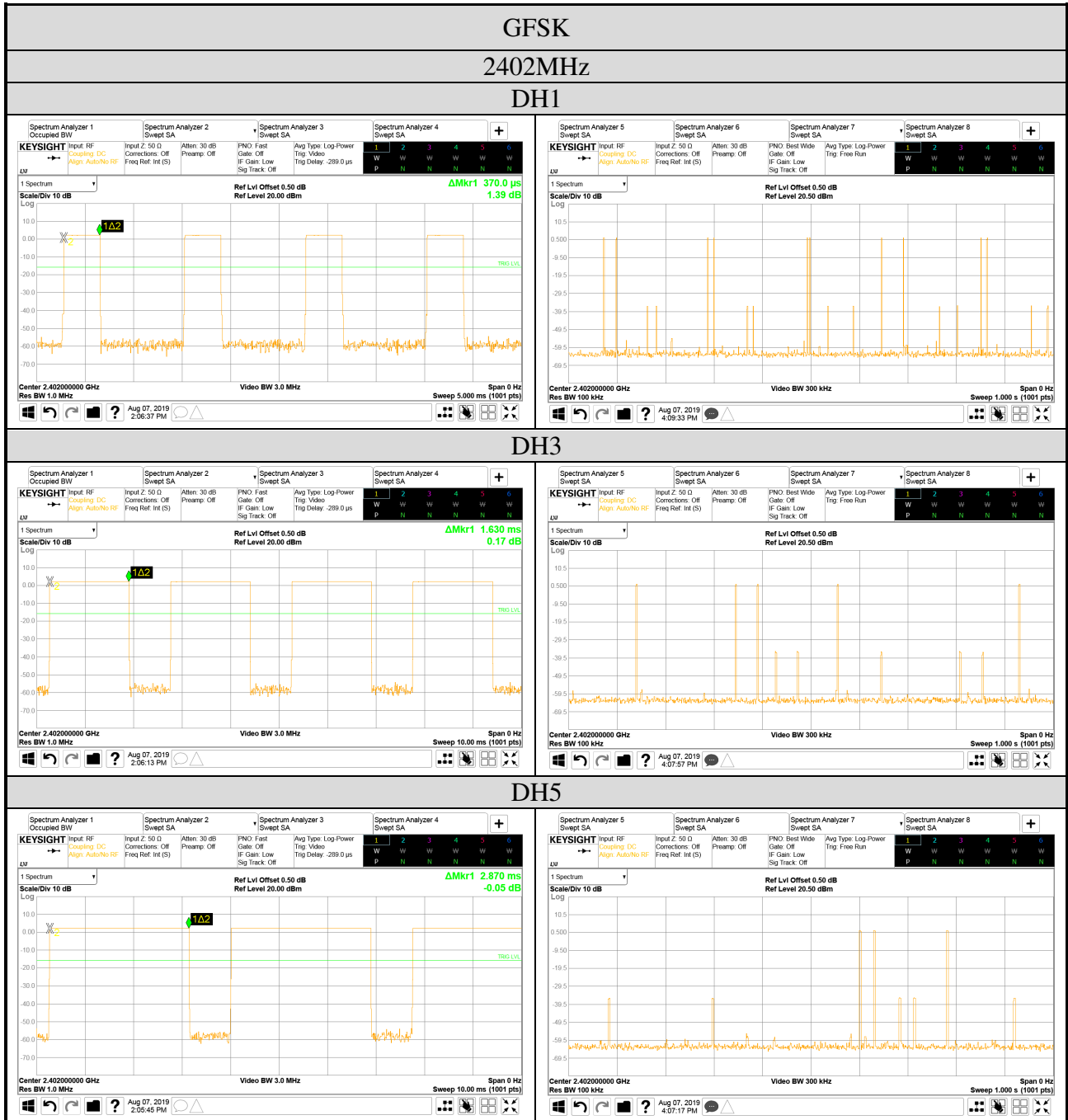
5 頻道數 31.6 秒* 1.630 ms= 257.540 ms (<400ms)

封包模式: DH5

以每1秒出現 3 個頻道數為例, 每 31.6 秒內之最長佔用時間為:

3 頻道數 31.6 秒* 2.870 ms= 272.076 ms (<400ms)

●佔用時間(停留時間)之量測圖



模式	測試頻率 (MHz)	封包	每秒出現 頻道數	佔用時間 (ms)	佔用時間加總 (ms)	限制值 (ms)
GFSK	2441	DH1	10	0.370	116.920	<400
		DH3	5	1.620	255.960	<400
		DH5	3	2.880	273.024	<400

週期之計算: 79 頻道數 0.4 秒 = 31.6 秒

封包模式: DH1

以每1秒出現 10 個頻道數為例, 每 31.6 秒內之最長佔用時間為:

10 頻道數 31.6 秒 * 0.370 ms = 116.920 ms (<400ms)

封包模式: DH3

以每1秒出現 5 個頻道數為例, 每 31.6 秒內之最長佔用時間為:

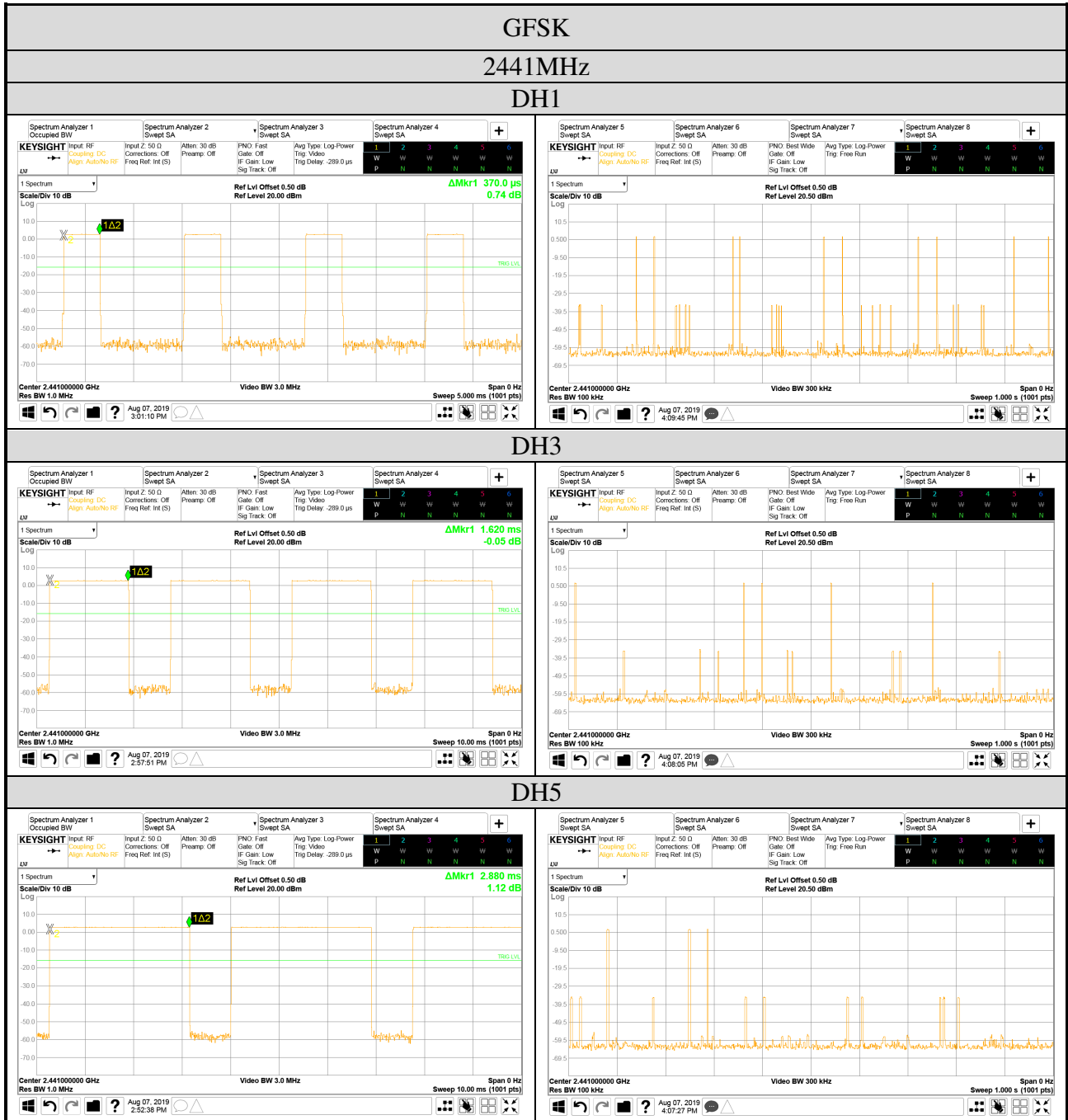
5 頻道數 31.6 秒 * 1.620 ms = 255.960 ms (<400ms)

封包模式: DH5

以每1秒出現 3 個頻道數為例, 每 31.6 秒內之最長佔用時間為:

3 頻道數 31.6 秒 * 2.880 ms = 273.024 ms (<400ms)

●佔用時間(停留時間)之量測圖



模式	測試頻率 (MHz)	封包	每秒出現 頻道數	佔用時間 (ms)	佔用時間加總 (ms)	限制值 (ms)
GFSK	2480	DH1	10	0.370	116.920	<400
		DH3	5	1.620	255.960	<400
		DH5	3	2.880	273.024	<400

週期之計算: 79 頻道數 0.4 秒 = 31.6 秒

封包模式: DH1

以每1秒出現 10 個頻道數為例, 每 31.6 秒內之最長佔用時間為:

10 頻道數 31.6 秒 * 0.370 ms = 116.920 ms (<400ms)

封包模式: DH3

以每1秒出現 5 個頻道數為例, 每 31.6 秒內之最長佔用時間為:

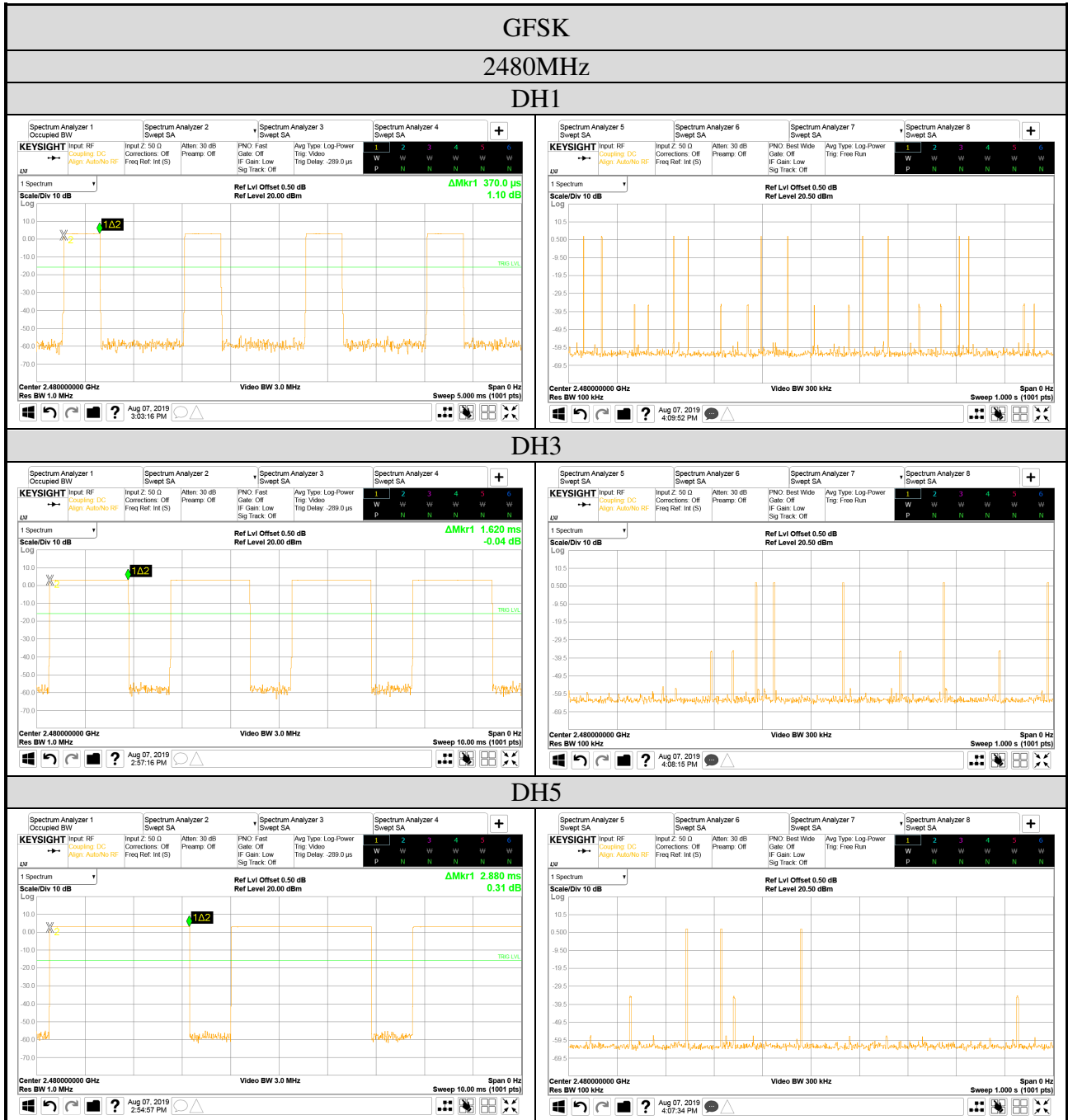
5 頻道數 31.6 秒 * 1.620 ms = 255.960 ms (<400ms)

封包模式: DH5

以每1秒出現 3 個頻道數為例, 每 31.6 秒內之最長佔用時間為:

3 頻道數 31.6 秒 * 2.880 ms = 273.024 ms (<400ms)

●佔用時間(停留時間)之量測圖



模式	測試頻率 (MHz)	封包	每秒出現 頻道數	佔用時間 (ms)	佔用時間加總 (ms)	限制值 (ms)
8-DPSK	2402	3DH1	10	0.370	116.920	<400
		3DH3	5	1.630	257.540	<400
		3DH5	3	2.880	273.024	<400

週期之計算: 79 頻道數 0.4 秒 = 31.6 秒

封包模式: 3DH1

以每1秒出現 10 個頻道數為例, 每 31.6 秒內之最長佔用時間為:

10 頻道數 31.6 秒 * 0.370 ms = 116.920 ms (<400ms)

封包模式: 3DH3

以每1秒出現 5 個頻道數為例, 每 31.6 秒內之最長佔用時間為:

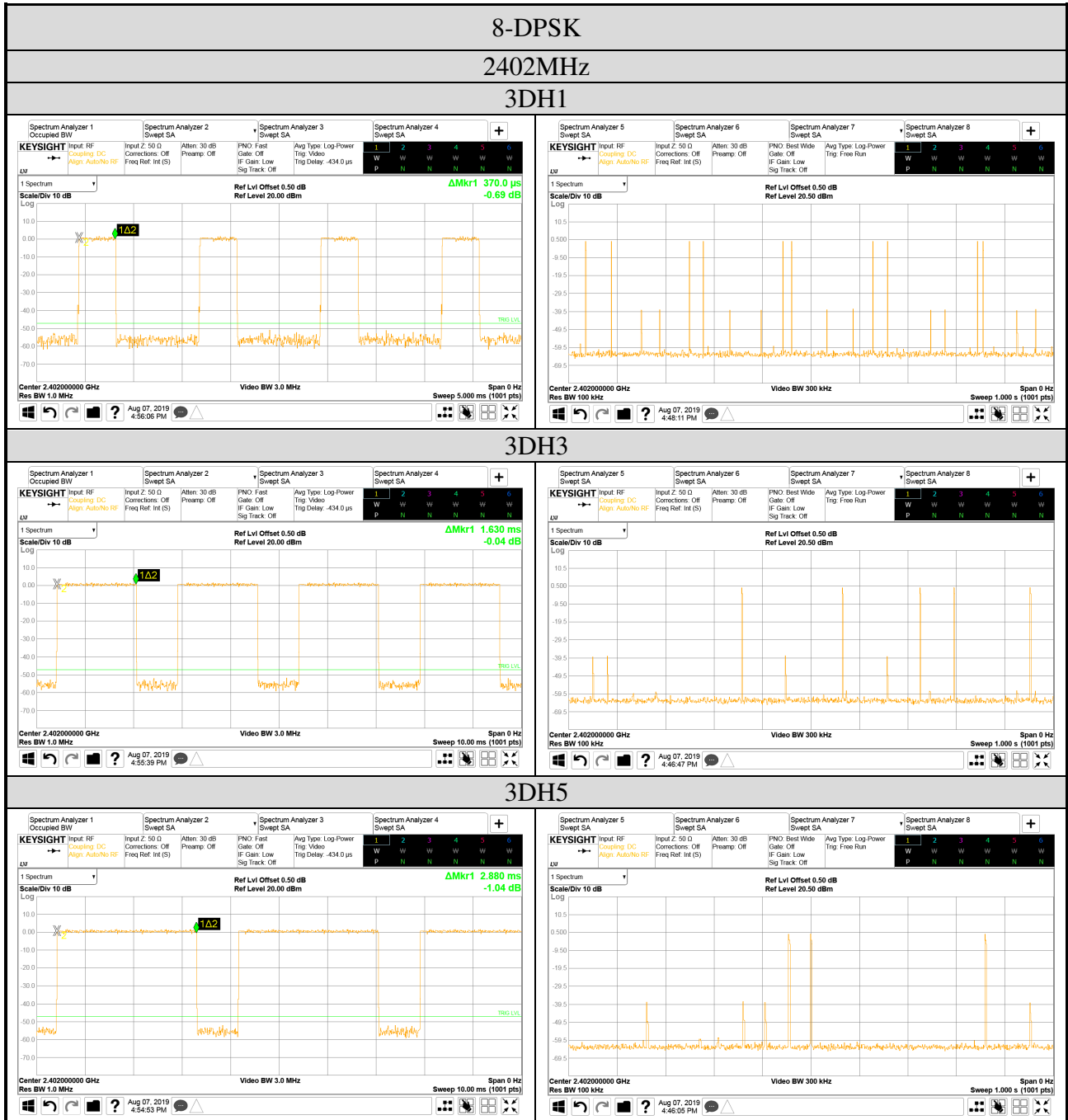
5 頻道數 31.6 秒 * 1.630 ms = 257.540 ms (<400ms)

封包模式: 3DH5

以每1秒出現 3 個頻道數為例, 每 31.6 秒內之最長佔用時間為:

3 頻道數 31.6 秒 * 2.880 ms = 273.024 ms (<400ms)

●佔用時間(停留時間)之量測圖



模式	測試頻率 (MHz)	封包	每秒出現 頻道數	佔用時間 (ms)	佔用時間加總 (ms)	限制值 (ms)
8-DPSK	2441	3DH1	10	0.370	116.920	<400
		3DH3	5	1.620	255.960	<400
		3DH5	3	2.880	273.024	<400

週期之計算: 79 頻道數 0.4 秒 = 31.6 秒

封包模式: 3DH1

以每1秒出現 10 個頻道數為例, 每 31.6 秒內之最長佔用時間為:

10 頻道數 31.6 秒 * 0.370 ms = 116.920 ms (<400ms)

封包模式: 3DH3

以每1秒出現 5 個頻道數為例, 每 31.6 秒內之最長佔用時間為:

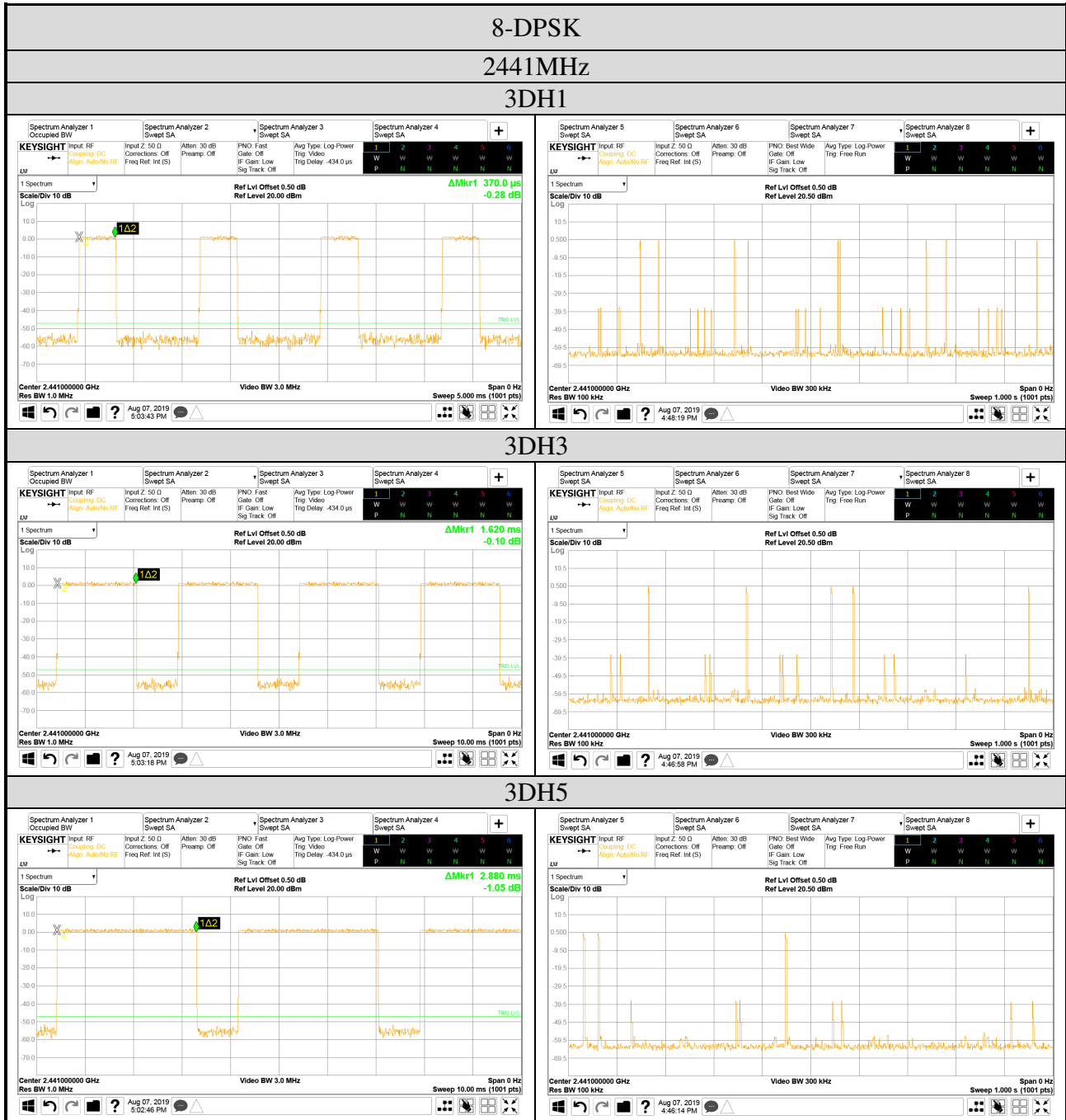
5 頻道數 31.6 秒 * 1.620 ms = 255.960 ms (<400ms)

封包模式: 3DH5

以每1秒出現 3 個頻道數為例, 每 31.6 秒內之最長佔用時間為:

3 頻道數 31.6 秒 * 2.880 ms = 273.024 ms (<400ms)

●佔用時間(停留時間)之量測圖



模式	測試頻率 (MHz)	封包	每秒出現 頻道數	佔用時間 (ms)	佔用時間加總 (ms)	限制值 (ms)
8-DPSK	2480	3DH1	10	0.380	120.080	<400
		3DH3	5	1.630	257.540	<400
		3DH5	3	2.880	273.024	<400

週期之計算: 79 頻道數 0.4 秒= 31.6 秒

封包模式: 3DH1

以每1秒出現 10 個頻道數為例, 每 31.6 秒內之最長佔用時間為:

10 頻道數 31.6 秒* 0.380 ms= 120.080 ms (<400ms)

封包模式: 3DH3

以每1秒出現 5 個頻道數為例, 每 31.6 秒內之最長佔用時間為:

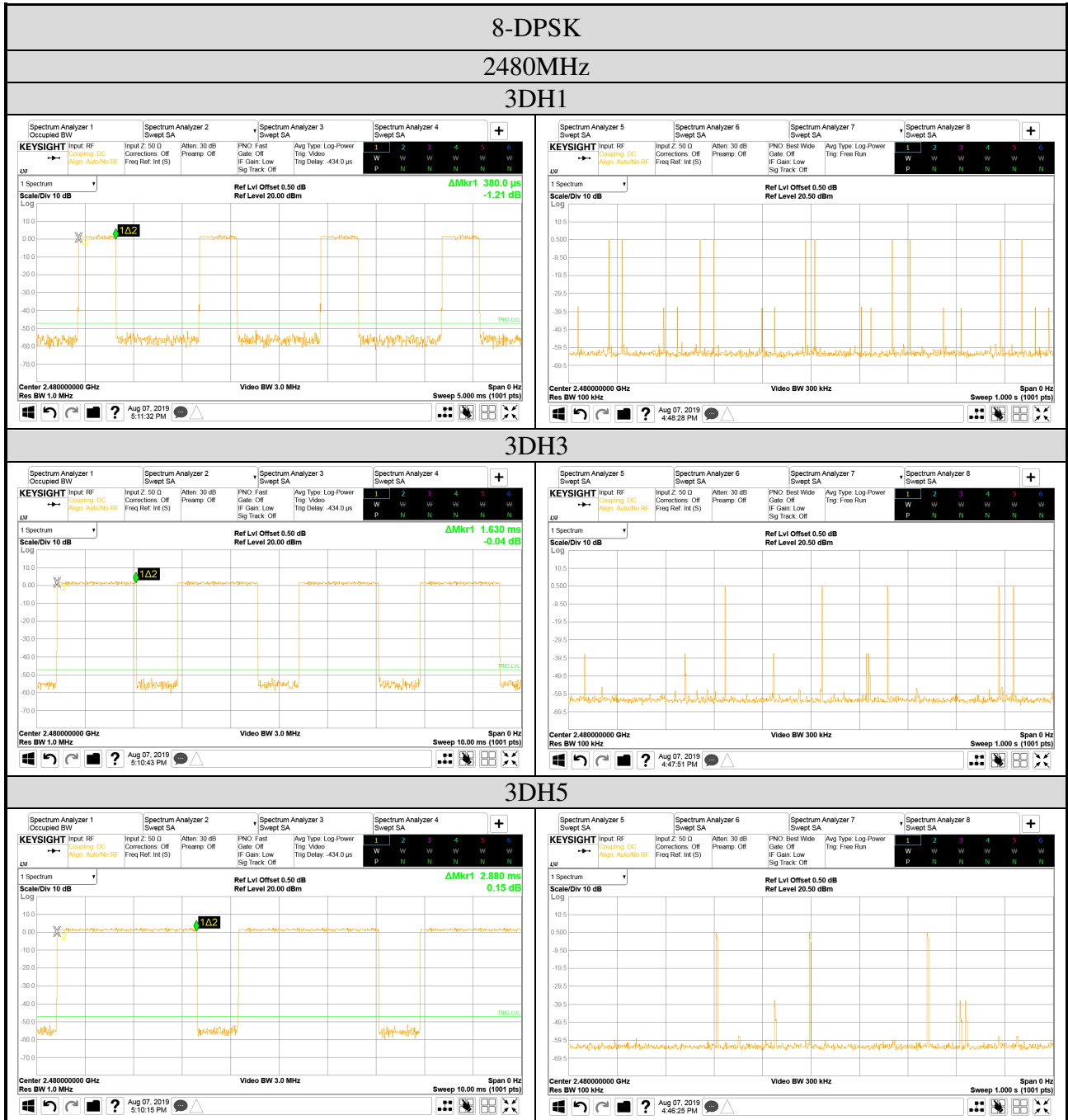
5 頻道數 31.6 秒* 1.630 ms= 257.540 ms (<400ms)

封包模式: 3DH5

以每1秒出現 3 個頻道數為例, 每 31.6 秒內之最長佔用時間為:

3 頻道數 31.6 秒* 2.880 ms= 273.024 ms (<400ms)

●佔用時間(停留時間)之量測圖



7. 峰值輸出功率之量測

測試日期	2019/07/17	環境溫/濕度	22°C/44%
電纜損失	0.50dB	測試電壓	DC 3.7V (透過內建鋰電池供電)

7.1. 峰值輸出功率

模式	測試頻率 (MHz)	峰值輸出功率(dBm)
GFSK	2402	2.45
	2441	2.98
	2480	3.42

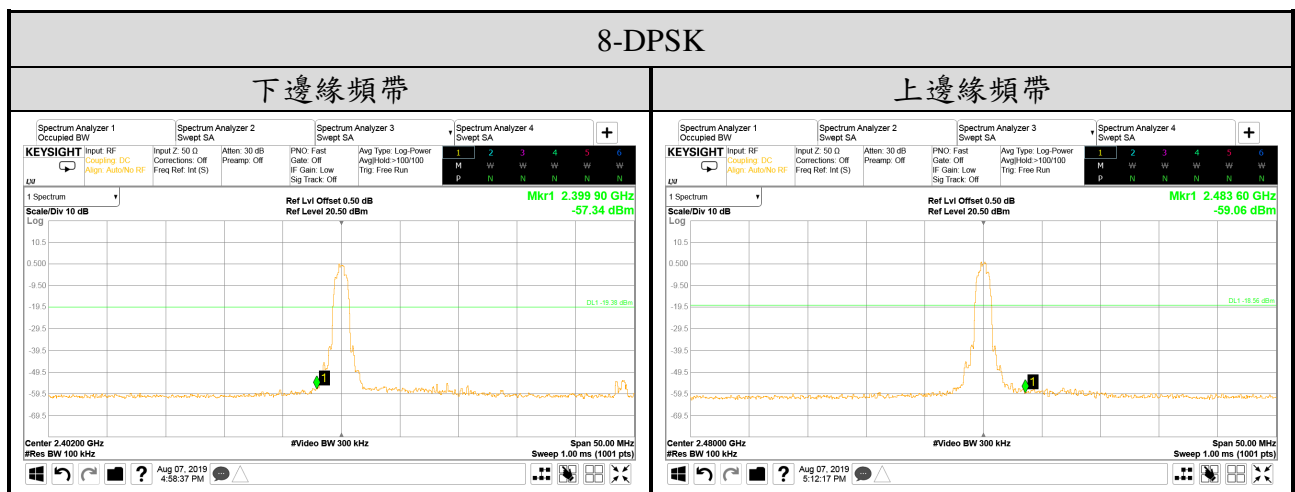
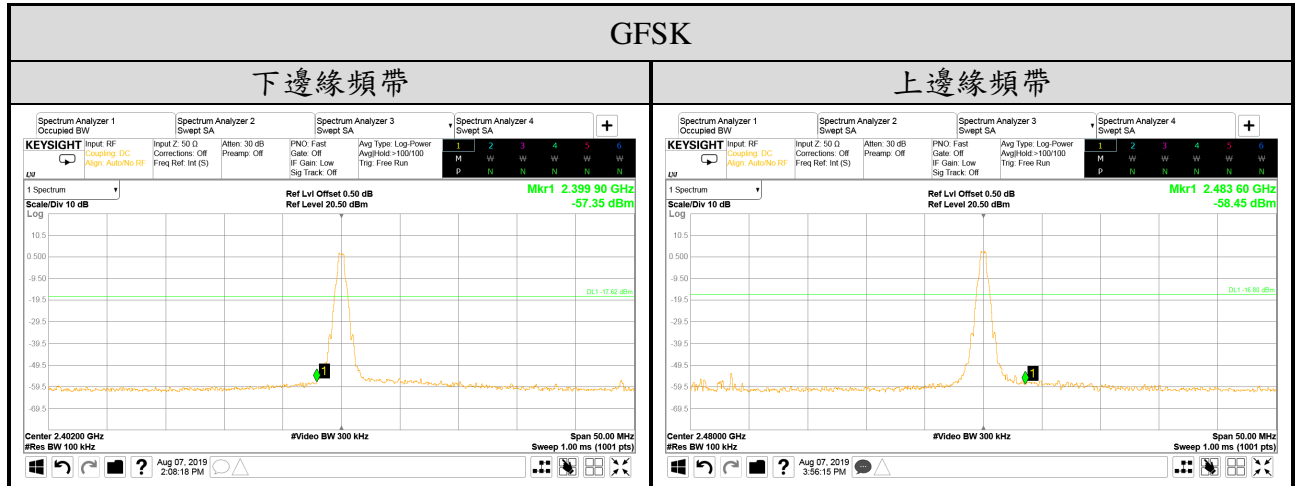
模式	測試頻率 (MHz)	峰值輸出功率(dBm)
8-DPSK	2402	2.03
	2441	2.59
	2480	3.03

7.2. 峰值輸出功率之量測圖



8. 頻帶邊緣之 RF 傳導發射之量測

測試日期	2019/08/07	環境溫/濕度	23°C/41%
電纜損失	0.50dB	測試電壓	DC 3.7V (透過內建鋰電池供電)



9. 混附發射之 RF 傳導發射之量測

測試日期	2019/08/07	環境溫/濕度	23°C/41%
電纜損失	0.50dB	測試電壓	DC 3.7V (透過內建鋰電池供電)

