

別紙 TEST DATA

(for Bluetooth Low Energy)

1. 周波数の偏差

1.1. 試験結果

[1 Mbps]

Test Voltage	Channel [MHz]	Read. Frequency [MHz]	Tolerance [kHz]	Tolerance [ppm]	Limit [ppm]
DC 3.85 V	2402	2401.99031	-9.70	-4.04	± 50.0
	2442	2441.99010	-9.90	-4.06	± 50.0
	2480	2479.98993	-10.07	-4.06	± 50.0

$$\text{Tolerance [kHz]} = (\text{Read. Frequency [MHz]} - \text{Channel [MHz]}) \times 10^3$$

$$\text{Tolerance [ppm]} = \text{Tolerance [kHz]} \times 10^{-3} / \text{Channel [MHz]} \times 10^6$$

1.2. 測定器画面データ

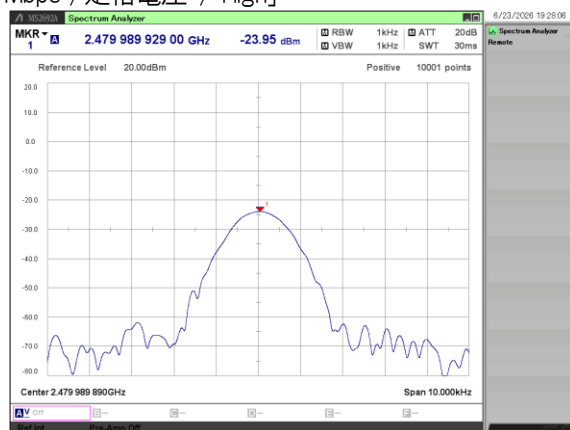
[1 Mbps / 定格電圧 / Low]



[1 Mbps / 定格電圧 / Mid]



[1 Mbps / 定格電圧 / High]



2. 占有周波数帯幅

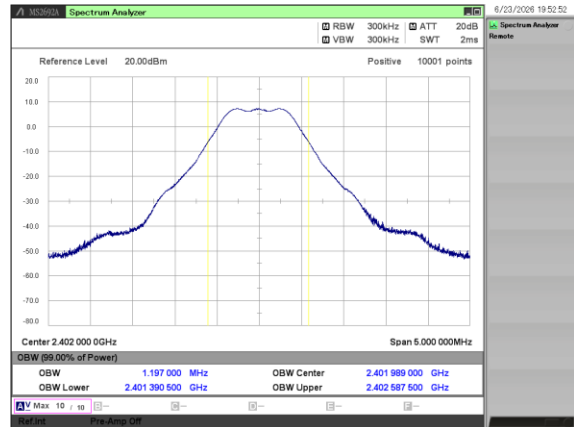
2.1. 試験結果

[1 Mbps]

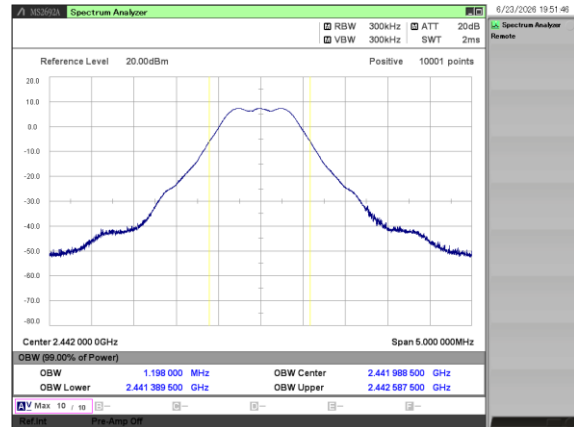
Mode	Channel [MHz]	Result [MHz]	Limit [MHz]
DC 3.85 V	2402	1.197	≤ 26.0
	2442	1.198	≤ 26.0
	2480	1.200	≤ 26.0

2.2. 測定器画面データ

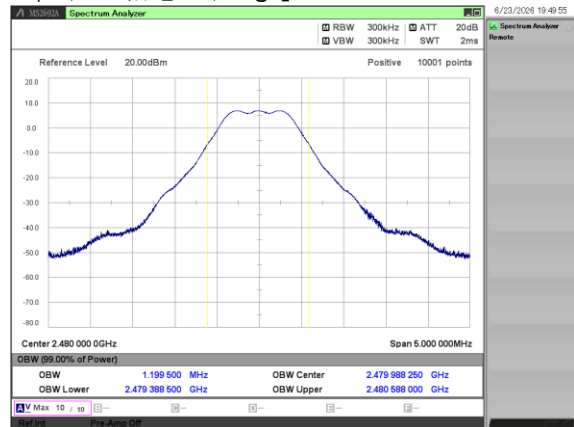
[1 Mbps / 定格電圧 / Low]



[1 Mbps / 定格電圧 / Mid]



[1 Mbps / 定格電圧 / High]



3. スプリアス発射または不要発射の強度

3.1. 試験結果

[1 Mbps]

Test Voltage	Channel [MHz]	Frequency [MHz]	S/A Read. [dBm]	C.F. [dB]	Result [dBm]	Result [uW]	Limit [dBm]	Limit [uW]	Margin [dB]
DC 3.85 V	2402	2306.49	-61.07	1.13	-59.94	0.00101	≤ -26.02	≤ 2.5	33.92
		2370.71	-58.59	1.14	-57.45	0.00180	≤ -26.02	≤ 2.5	31.43
		2382.53	-52.65	1.14	-51.51	0.00706	≤ -26.02	≤ 2.5	25.49
		2399.90	-31.96	1.14	-30.82	0.82756	≤ -16.02	≤ 25.0	14.80
		2486.77	-55.23	1.15	-54.08	0.00391	≤ -16.02	≤ 25.0	38.06
		2497.61	-53.38	1.15	-52.23	0.00598	≤ -26.02	≤ 2.5	26.21
		2594.41	-65.68	1.16	-64.52	0.00035	≤ -26.02	≤ 2.5	38.50
		4804.31	-57.35	1.34	-56.01	0.00251	≤ -26.02	≤ 2.5	29.99
	2442	2346.34	-60.68	1.13	-59.55	0.00111	≤ -26.02	≤ 2.5	33.53
		2378.69	-54.28	1.14	-53.14	0.00485	≤ -26.02	≤ 2.5	27.12
		2392.47	-54.15	1.14	-53.01	0.00500	≤ -16.02	≤ 25.0	36.99
		2488.82	-55.13	1.15	-53.98	0.00400	≤ -16.02	≤ 25.0	37.96
		2501.46	-55.27	1.15	-54.12	0.00388	≤ -26.02	≤ 2.5	28.10
		2537.47	-60.30	1.15	-59.15	0.00122	≤ -26.02	≤ 2.5	33.13
		4884.24	-57.06	1.34	-55.72	0.00268	≤ -26.02	≤ 2.5	29.70
	2480	2287.74	-66.79	1.13	-65.66	0.00027	≤ -26.02	≤ 2.5	39.64
		2384.34	-52.99	1.14	-51.85	0.00653	≤ -26.02	≤ 2.5	25.83
		2397.02	-54.52	1.14	-53.38	0.00459	≤ -16.02	≤ 25.0	37.36
		2483.61	-47.56	1.15	-46.41	0.02286	≤ -16.02	≤ 25.0	30.39
		2499.12	-53.19	1.15	-52.04	0.00625	≤ -26.02	≤ 2.5	26.02
		2509.50	-60.71	1.15	-59.56	0.00111	≤ -26.02	≤ 2.5	33.54
		2575.43	-60.88	1.16	-59.72	0.00107	≤ -26.02	≤ 2.5	33.70
		4960.16	-57.96	1.35	-56.61	0.00218	≤ -26.02	≤ 2.5	30.59

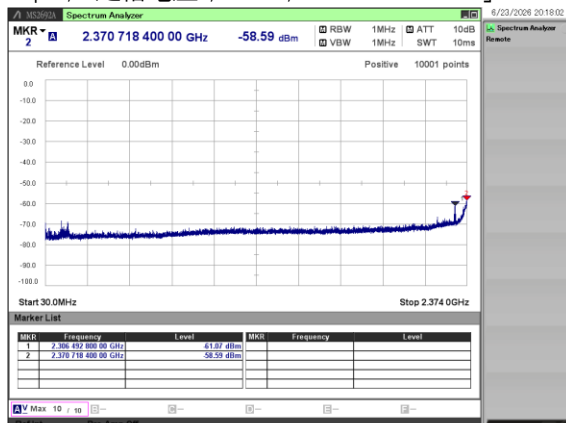
$$\text{Result [uW]} = 10^{\{(S/A \text{ Read. [dBm]} + C.F. [dB])/10\}} * 10^3$$

※ 1 GHz 未満は RBW : 1 MHz で実施した結果を記載

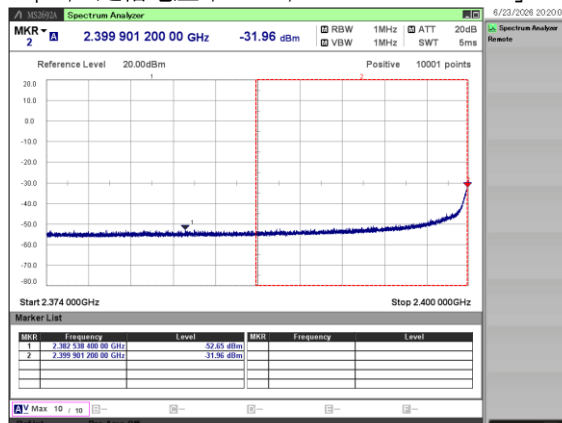
参照帯域幅 (RBW : 100 kHz) 当たりに換算した値、および RBW : 100 kHz で実施した結果を RBW : 1 MHz 当たりに換算した値については、上記結果より小さくなるため記載を省略

3.2. 測定器画面データ

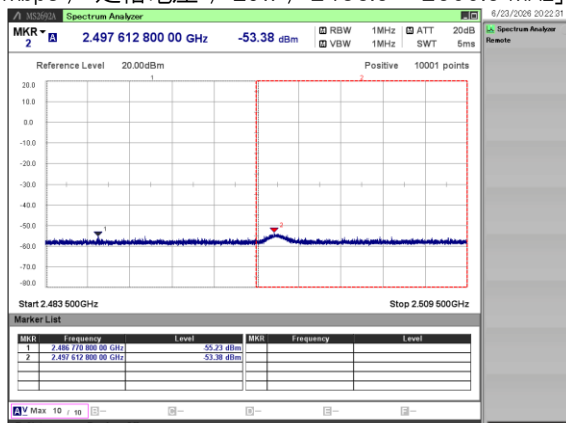
[1 Mbps / 定格電圧 / Low / 30 - 2374 MHz]



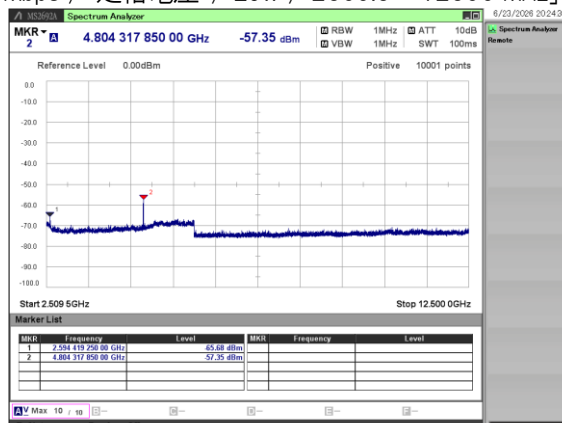
[1 Mbps / 定格電圧 / Low / 2374 - 2400 MHz]



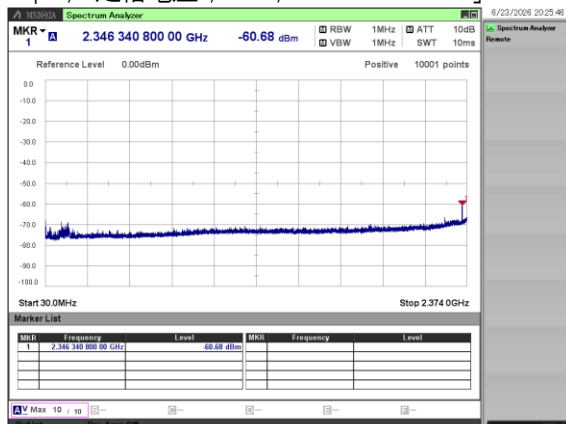
[1 Mbps / 定格電圧 / Low / 2483.5 - 2509.5 MHz]



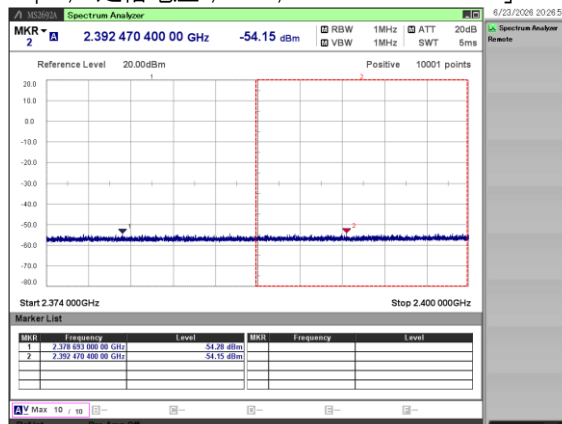
[1 Mbps / 定格電圧 / Low / 2509.5 - 12500 MHz]



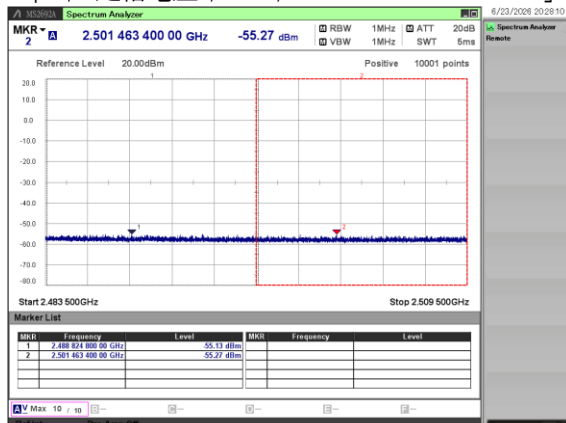
[1 Mbps / 定格電圧 / Mid / 30 - 2374 MHz]



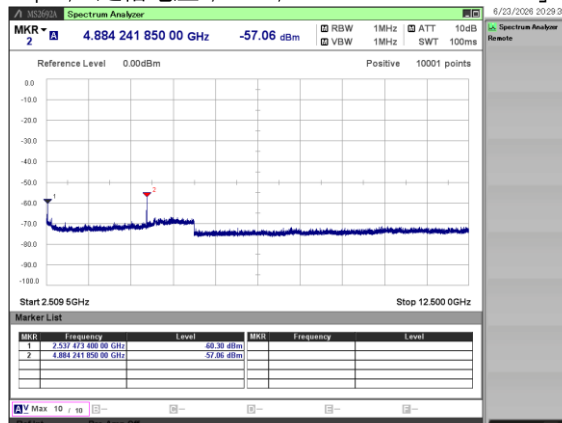
[1 Mbps / 定格電圧 / Mid / 2374 - 2400 MHz]



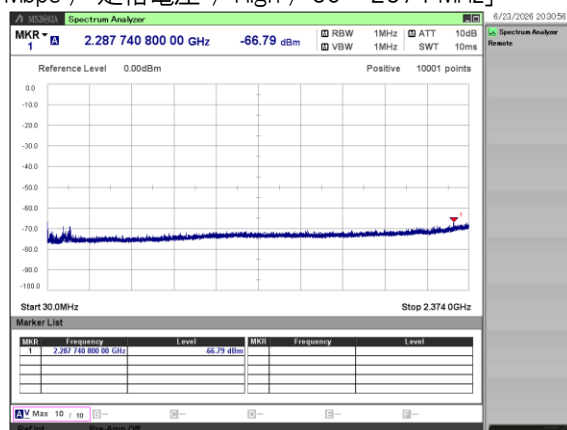
[1 Mbps / 定格電圧 / Mid / 2483.5 - 2509.5 MHz]



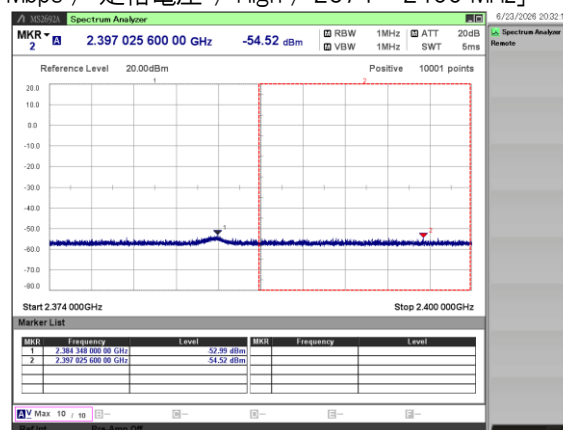
[1 Mbps / 定格電圧 / Mid / 2509.5 - 12500 MHz]



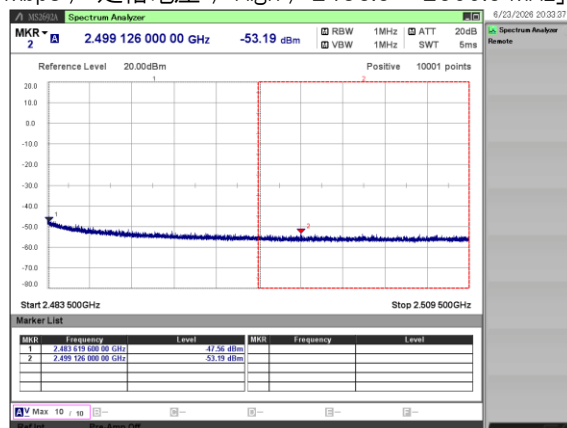
[1 Mbps / 定格電圧 / High / 30 - 2374 MHz]



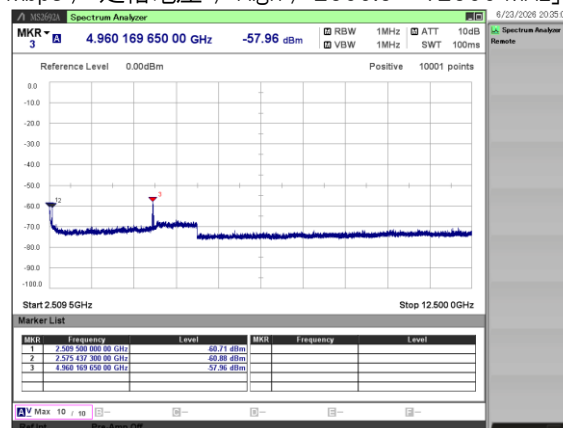
[1 Mbps / 定格電圧 / High / 2374 - 2400 MHz]



[1 Mbps / 定格電圧 / High / 2483.5 - 2509.5 MHz]



[1 Mbps / 定格電圧 / High / 2509.5 - 12500 MHz]



4. 空中線電力の偏差

4.1. 試験結果

[1 Mbps]

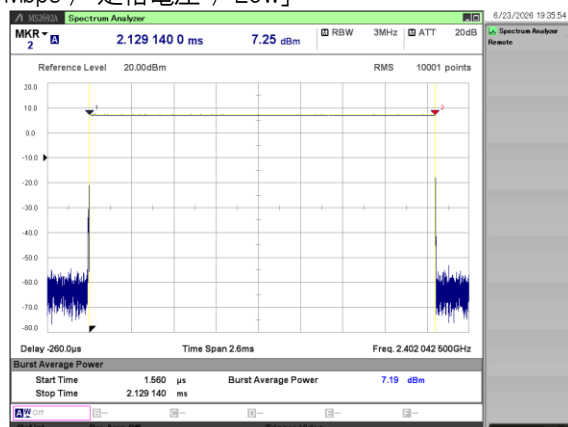
Test Voltage	Channel [MHz]	S/A Read. [dBm]	C.F. [dB]	Power [mW]	Power Limit [mW]	Tolerance [%]	Tolerance Limit [%]
DC 3.85 V	2402	7.19	1.14	6.81	≤10.00	-31.90	≤ +20
	2442	7.28	1.14	6.95	≤10.00	-30.50	≤ +20
	2480	6.86	1.15	6.32	≤10.00	-36.80	≤ +20

$$\text{Power [mW]} = 10^{\{(S/A \text{ Read. [dBm]} + C.F. [dB])/10\}}$$

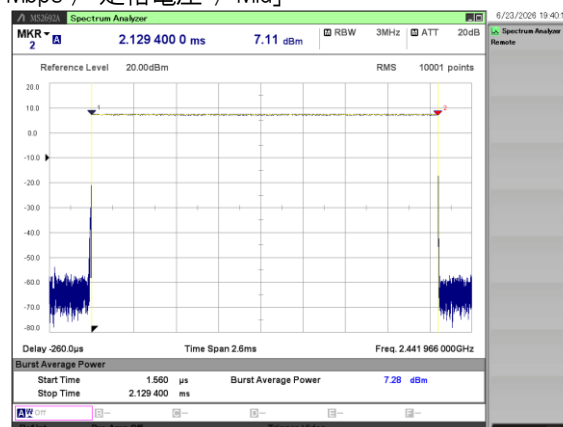
$$\text{Tolerance [\%]} = \text{Power [mW]} / \text{申請定格電力 [mW]} * 100 - 100$$

4.2. 測定器画面データ

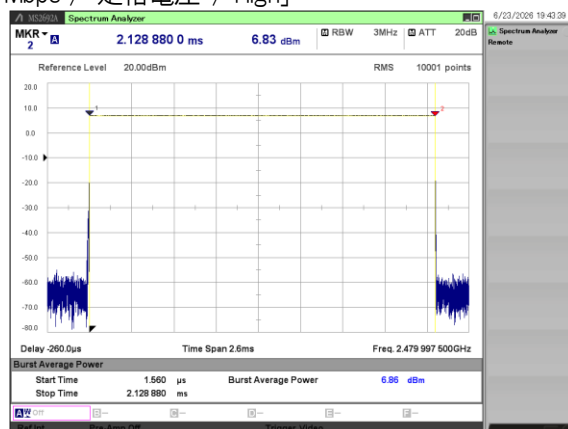
[1 Mbps / 定格電圧 / Low]



[1 Mbps / 定格電圧 / Mid]



[1 Mbps / 定格電圧 / High]



5. 副次的に発する電波等の限度

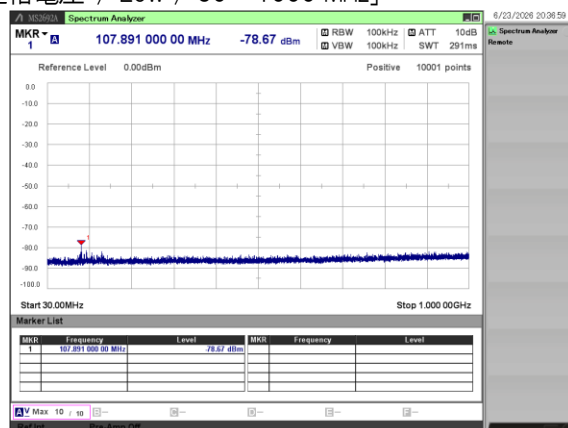
5.1. 試験結果

Test Voltage	Channel [MHz]	Frequency [MHz]	S/A Read. [dBm]	C.F. [dB]	Result [dBm]	Result [nW]	Limit [dBm]	Limit [nW]	Margin [dB]
DC 3.85 V	2402	107.89	-78.67	0.87	-77.80	0.01659	≤ -53.97	≤ 4.0	23.83
		5706.95	-67.53	1.39	-66.14	0.24344	≤ -46.98	≤ 20.0	19.16
	2442	120.01	-80.70	0.88	-79.82	0.01042	≤ -53.97	≤ 4.0	25.85
		5610.35	-67.29	1.38	-65.91	0.25621	≤ -46.98	≤ 20.0	18.93
	2480	120.11	-81.18	0.88	-80.30	0.00934	≤ -53.97	≤ 4.0	26.33
		5345.85	-67.40	1.37	-66.03	0.24957	≤ -46.98	≤ 20.0	19.05

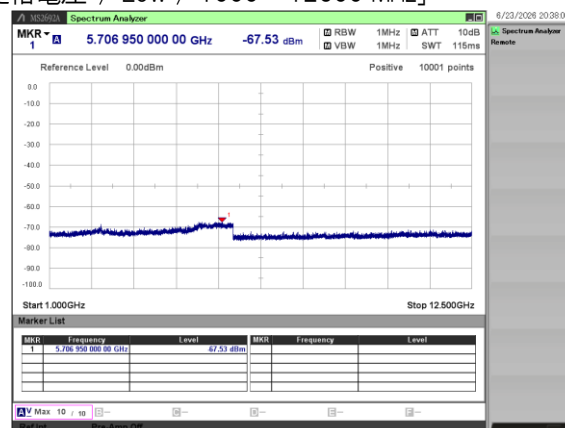
$$\text{Result [nW]} = 10^{\{(S/A \text{ Read. [dBm]} + C.F. [dB])/10\}} \times 10^6$$

5.2. 測定器画面データ

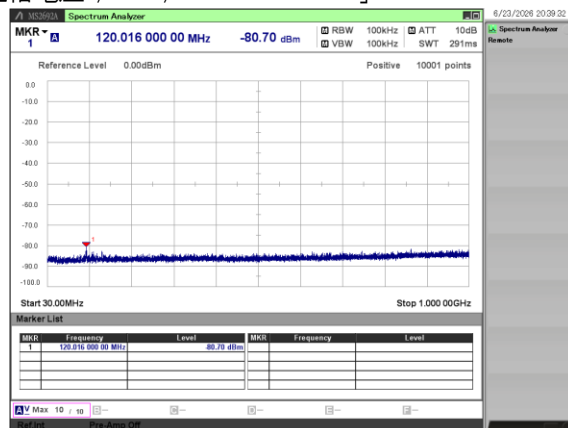
[定格電圧 / Low / 30 - 1000 MHz]



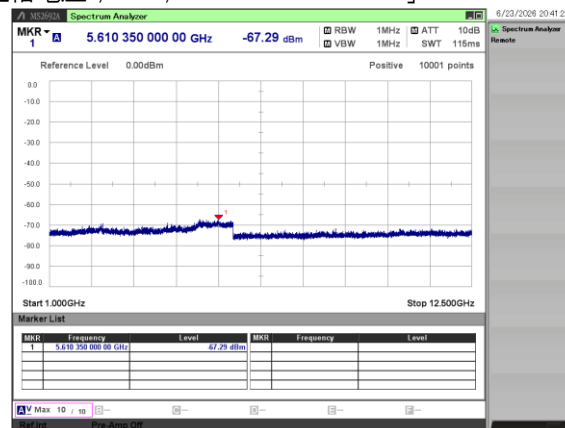
[定格電圧 / Low / 1000 - 12500 MHz]



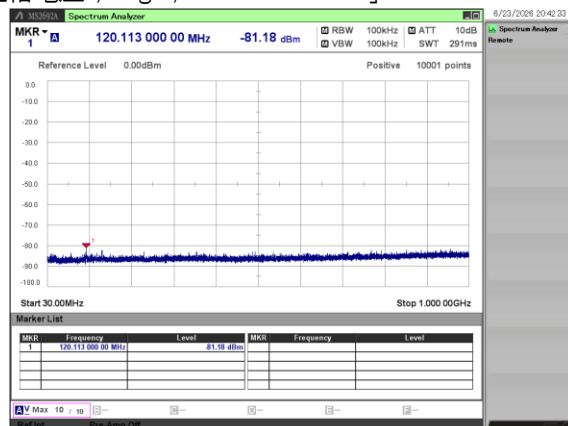
[定格電圧 / Mid / 30 - 1000 MHz]



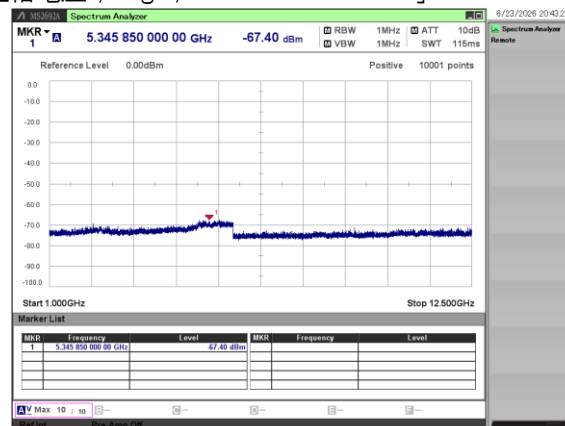
[定格電圧 / Mid / 1000 - 12500 MHz]



[定格電圧 / High / 30 - 1000 MHz]



[定格電圧 / High / 1000 - 12500 MHz]



6. 混信防止機能

6.1. 試験結果

[1 Mbps]

識別符号	A4:C1:F8:00:02:5B
良否判定	良

End of Test Report