

別紙 TEST DATA

(for Bluetooth Low Energy)

1. 周波数の偏差

1.1. 試験結果

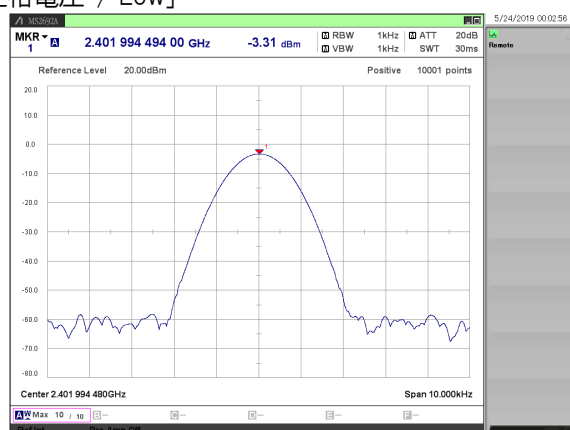
Test Voltage	Channel [MHz]	Read. Frequency [MHz]	Tolerance [kHz]	Tolerance [ppm]	Limit [ppm]
DC 3.70 V	2402	2401.99449	-5.51	-2.29	± 50.0
	2440	2439.99417	-5.83	-2.39	± 50.0
	2480	2479.99395	-6.05	-2.44	± 50.0

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

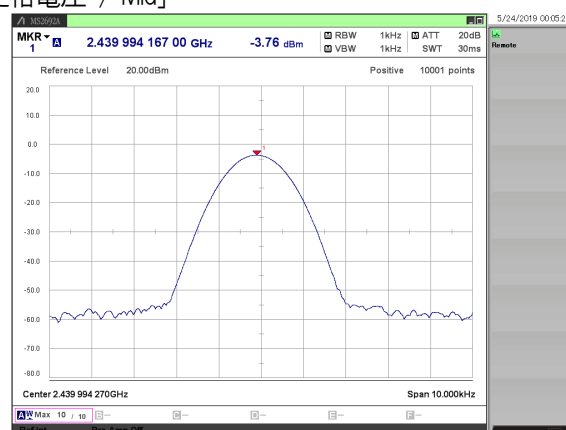
$$\text{Tolerance [ppm]} = \text{Tolerance [kHz]} \times 10^{-3} / \text{Channel [MHz]} \times 10^6$$

1.2. 測定器画面データ

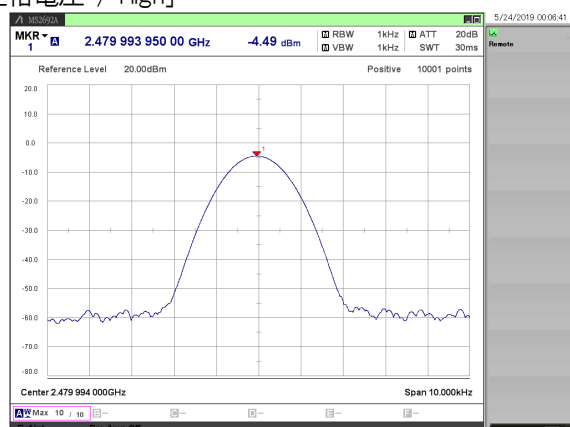
[定格電圧 / Low]



[定格電圧 / Mid]



[定格電圧 / High]



2. 占有周波数帯幅

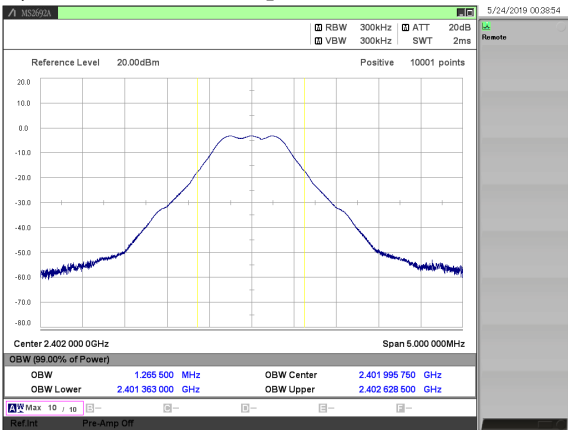
2.1. 試験結果

[1Mbps]

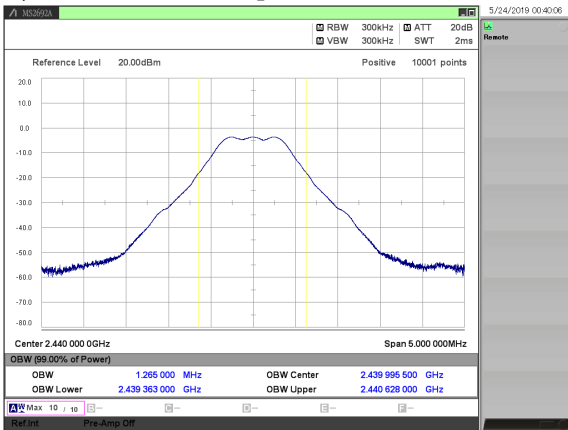
Mode	Channel [MHz]	Result [MHz]	Limit [MHz]
DC 3.70 V	2402	1.266	26.0
	2440	1.265	26.0
	2480	1.268	26.0

2.2. 測定器画面データ

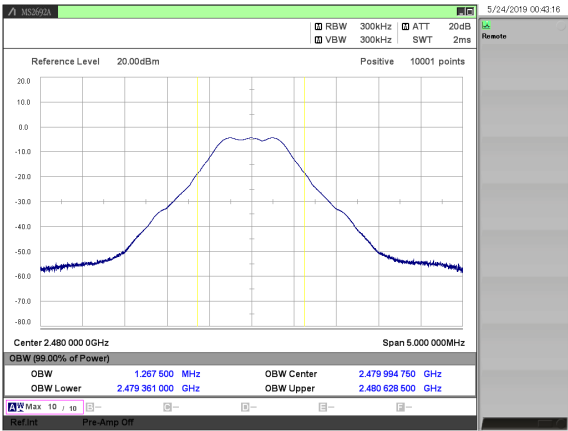
[1Mbps / 定格電圧 / Low]



[1Mbps / 定格電圧 / Mid]



[1Mbps / 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

[1Mbps]

Test Voltage	Channel [MHz]	Frequency [MHz]	S/A Read. [dBm]	C.F. [dB]	Result [dBm]	Result [uW]	Limit [dBm]	Limit [uW]	Margin [dB]
DC 3.70 V	2402	2370.02	-60.83	10.85	-49.98	0.01005	-26.02	2.5	23.96
		2386.94	-53.89	10.86	-43.03	0.04977	-26.02	2.5	17.01
		2400.00	-39.61	10.86	-28.75	1.33352	-16.02	25.0	12.73
		2486.14	-56.63	10.86	-45.77	0.02649	-16.02	25.0	29.75
		2507.39	-55.75	10.86	-44.89	0.03243	-26.02	2.5	18.87
		4804.32	-52.03	10.99	-41.04	0.07870	-26.02	2.5	15.02
	2440	2350.33	-60.93	10.85	-50.08	0.00982	-26.02	2.5	24.06
		2378.37	-55.29	10.85	-44.44	0.03597	-26.02	2.5	18.42
		2399.91	-55.12	10.86	-44.26	0.03750	-16.02	25.0	28.24
		2483.76	-56.17	10.86	-45.31	0.02944	-16.02	25.0	29.29
		2498.61	-56.11	10.86	-45.25	0.02985	-26.02	2.5	19.23
		4879.25	-53.34	11.00	-42.34	0.05834	-26.02	2.5	16.32
	2480	2336.03	-61.30	10.85	-50.45	0.00902	-26.02	2.5	24.43
		2376.78	-54.95	10.85	-44.10	0.03890	-26.02	2.5	18.08
		2387.35	-55.00	10.86	-44.14	0.03855	-16.02	25.0	28.12
		2483.60	-47.15	10.86	-36.29	0.23496	-16.02	25.0	20.27
		2503.42	-54.85	10.86	-43.99	0.03990	-26.02	2.5	17.97
		4959.17	-54.89	11.00	-43.89	0.04083	-26.02	2.5	17.87

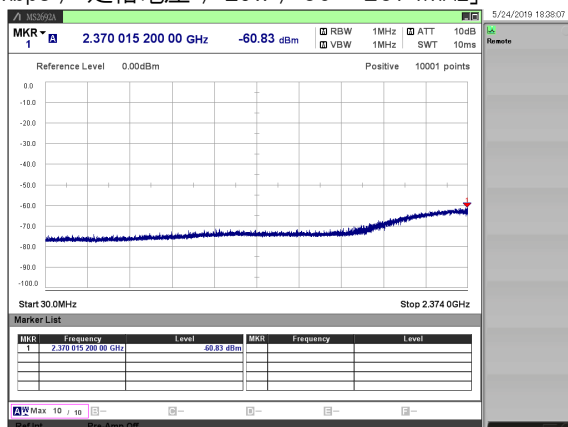
$$\text{Result [uW]} = 10^{\{(S/A \text{ Read. [dBm]} + C.F. [dB])/10\}} * 10^3$$

※ 1GHz 未満は RBW : 1MHz で実施した結果を記載

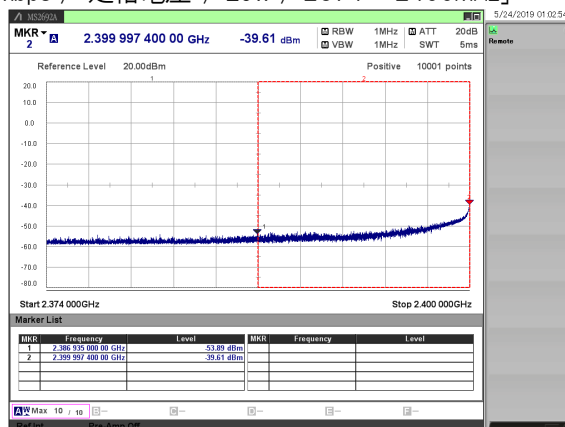
参照帯域幅 (RBW : 100kHz) 当たりに換算した値、および RBW : 100kHz で実施した結果を RBW : 1MHz 当たりに換算した値については、上記結果より小さくなるため記載を省略

3.2. 測定器画面データ

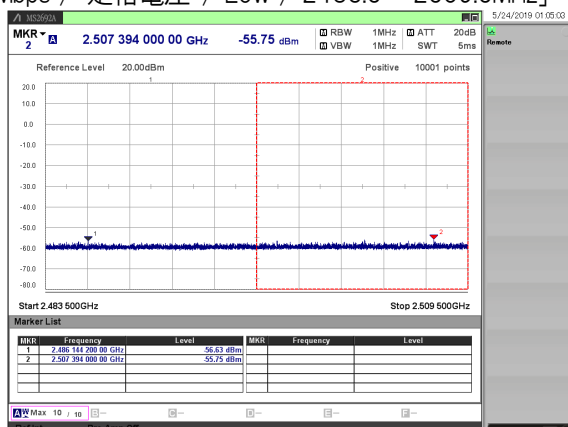
[1Mbps / 定格電圧 / Low / 30 - 2374MHz]



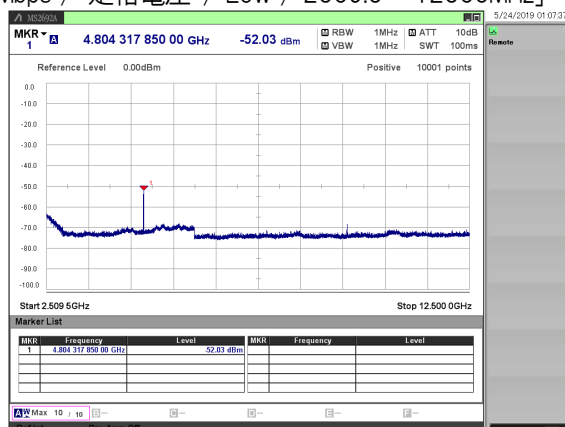
[1Mbps / 定格電圧 / Low / 2374 - 2400MHz]



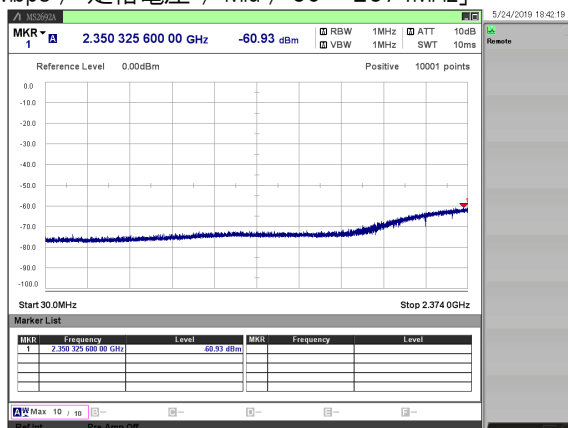
[1Mbps / 定格電圧 / Low / 2483.5 - 2509.5MHz]



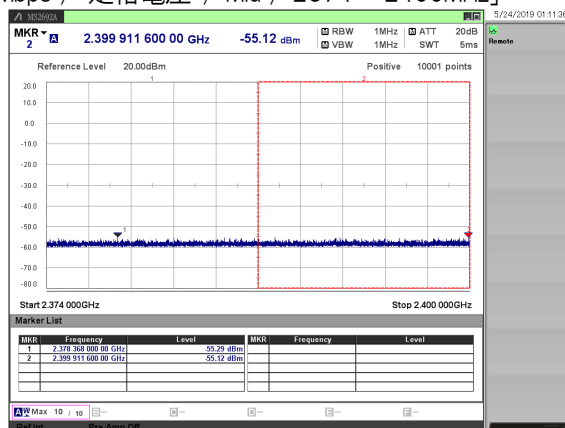
[1Mbps / 定格電圧 / Low / 2509.5 - 12500MHz]



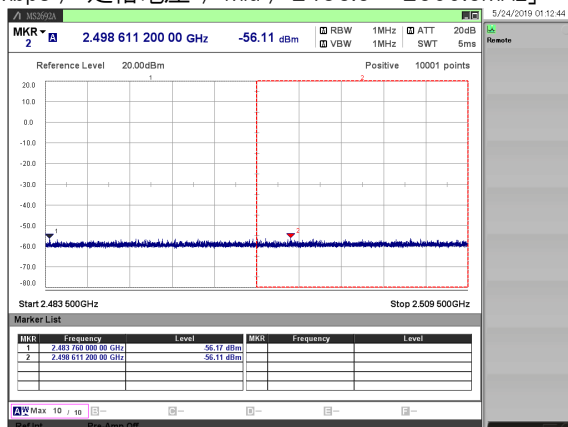
[1Mbps / 定格電圧 / Mid / 30 - 2374MHz]



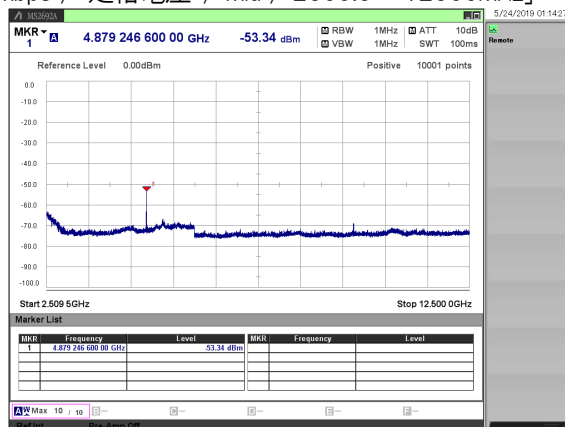
[1Mbps / 定格電圧 / Mid / 2374 - 2400MHz]



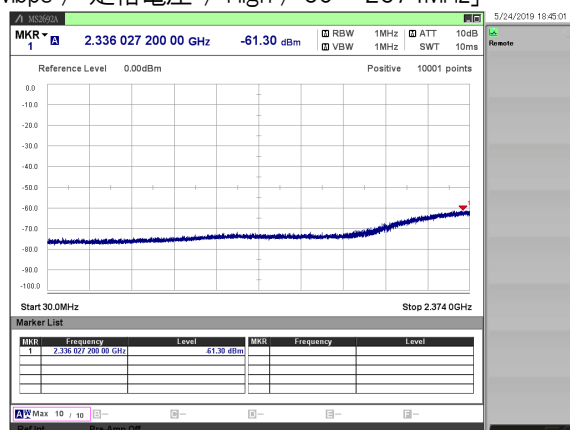
[1Mbps / 定格電圧 / Mid / 2483.5 - 2509.5MHz]



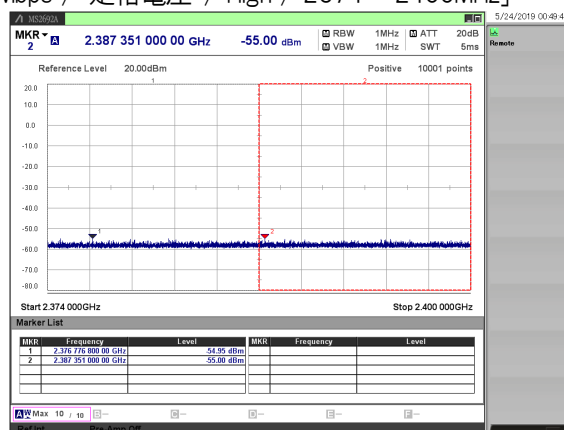
[1Mbps / 定格電圧 / Mid / 2509.5 - 12500MHz]



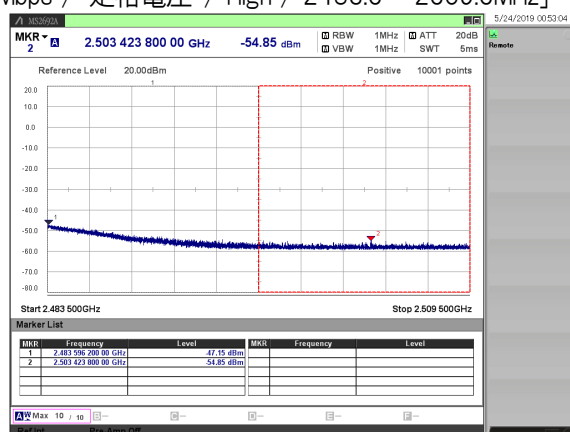
[1Mbps / 定格電圧 / High / 30 - 2374MHz]



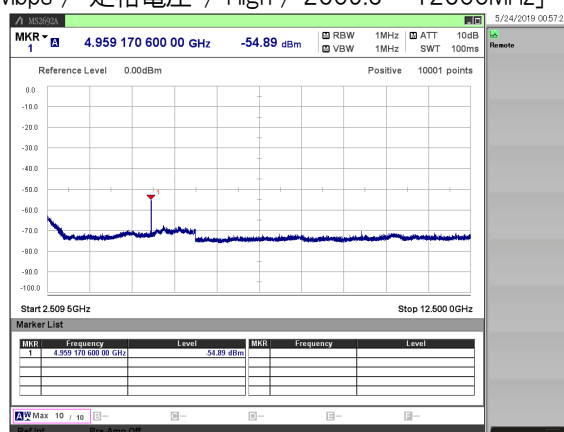
[1Mbps / 定格電圧 / High / 2374 - 2400MHz]



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



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



4. 空中線電力の偏差

4.1. 試験結果

[1Mbps]

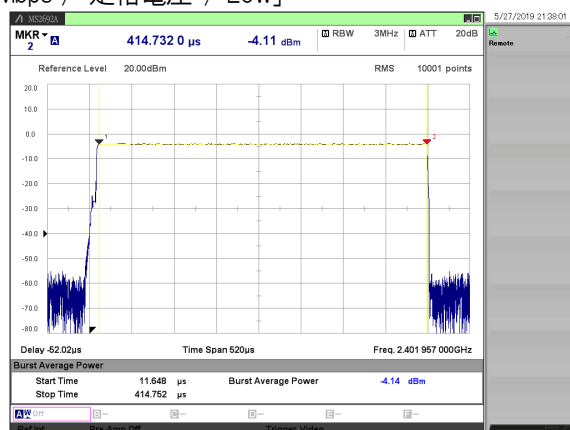
Test Voltage	Channel [MHz]	S/A Read. [dBm]	C.F. [dB]	Power [mW]	Power Limit [mW]	Tolerance [%]	Tolerance Limit [%]
DC 3.70 V	2402	-4.14	10.86	4.6989	10.0000	-19.50	+20 ~ -80
	2440	-4.69	10.86	4.1400	10.0000	-29.08	+20 ~ -80
	2480	-5.52	10.86	3.4198	10.0000	-41.42	+20 ~ -80

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

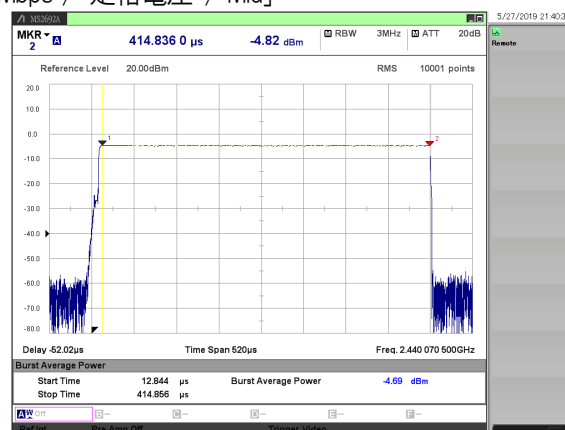
$$\text{Tolerance [\%]} = \text{Power [mW]} / \text{申請定格電力 [mW]} * 100 - 100$$

4.2. 測定器画面データ

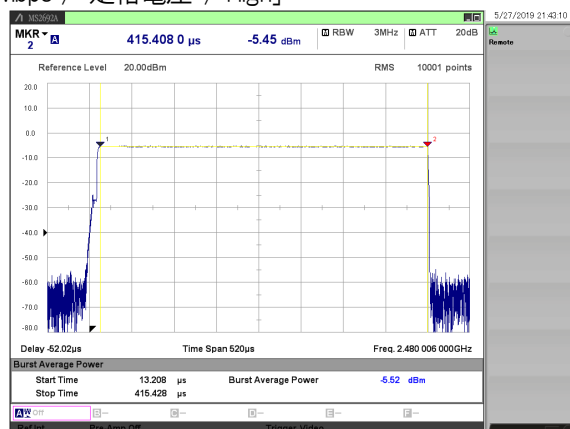
[1Mbps / 定格電圧 / Low]



[1Mbps / 定格電圧 / Mid]



[1Mbps / 定格電圧 / High]



5. 副次的に発する電波等の限度

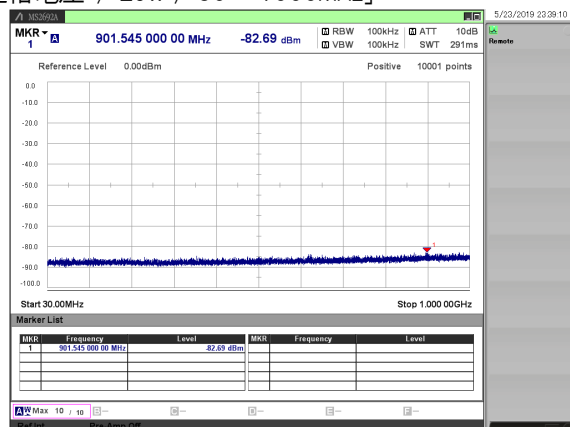
5.1. 試験結果

Test Voltage	Channel [MHz]	Frequency [MHz]	S/A Read. [dBm]	C.F. [dB]	Result [dBm]	Result [nW]	Limit [dBm]	Limit [nW]	Margin [dB]
DC 3.70 V	2402	901.55	-82.69	0.57	-82.12	0.00614	-53.97	4.0	28.15
		5635.65	-68.45	0.91	-67.54	0.17620	-46.98	20.0	20.56
	2440	974.59	-82.42	0.58	-81.84	0.00655	-53.97	4.0	27.87
		5626.45	-67.45	0.91	-66.54	0.22182	-46.98	20.0	19.56
	2480	974.88	-82.75	0.58	-82.17	0.00607	-53.97	4.0	28.20
		5488.45	-67.69	0.89	-66.80	0.20893	-46.98	20.0	19.82

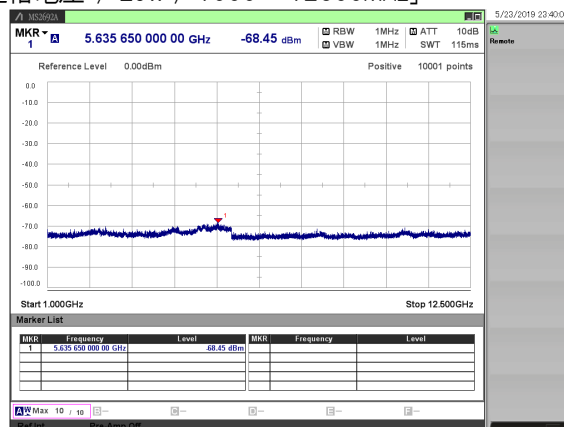
$$\text{Result [nW]} = 10^{\{(S/A \text{ Read. [dBm]} + C.F. [dB])/10\}} * 10^6$$

5.2. 測定器画面データ

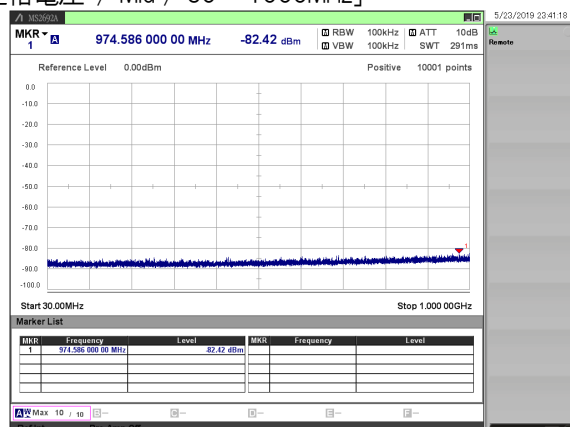
[定格電圧 / Low / 30 - 1000MHz]



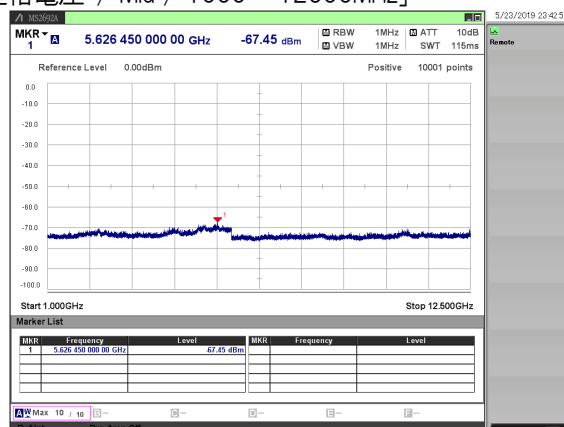
[定格電圧 / Low / 1000 - 12500MHz]



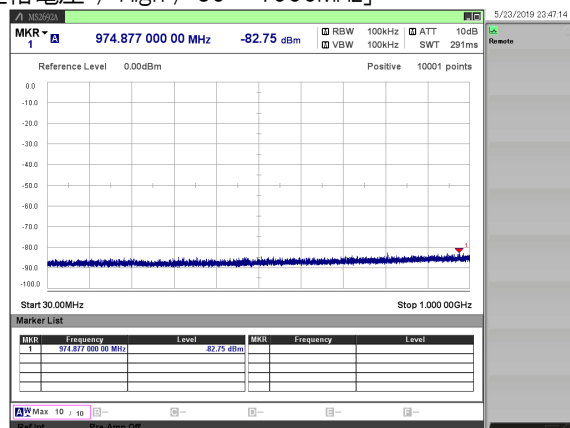
[定格電圧 / Mid / 30 - 1000MHz]



[定格電圧 / Mid / 1000 - 12500MHz]



[定格電圧 / High / 30 - 1000MHz]



[定格電圧 / High / 1000 - 12500MHz]

