

TEST REPORT

Report number : KR26-SRT0019

Issue date : 2026-03-10

Applicant : ATECH CO., LTD.
8-3, Osongsaengmyeong 14-ro, Osong-eup, Heungdeok-gu,
Cheongju-si, Chungcheongbuk-do, Republic of Korea
TEL : 043-232-5951
FAX : 043-232-5961

Equipment under test (EUT) : A862i

Model name : A862i

Date of test : 2026-02-13 ~ 2026-03-05

Test place : Eurofins KCTL Co., Ltd.
65 Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do,
Korea

Test results : PASS

The results in this report are applicable only to the equipment tested.

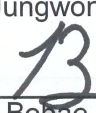
This report shall not be re-produced except in full without the written approval of **Eurofins KCTL Co., Ltd.**

Eurofins KCTL Co., Ltd. is in compliance with KS Q ISO 17025.

Tested by;


Jungwon Seo

Approved by;


Bobae Lee

1. Summary of Test

1. Purpose of test

Ordinance on Technical Standards Conformity Certification of Specified Radio Equipment
Telemetry, telecontrol and data transmission

2. Standards

Certification Ordinance Article 2 Clause 1 Item 8

1) Test Methods

Ministry of Internal Affairs and Communications Notification Article 88 Appendix 22-2

2) Deviation from standards

None

3. List of applied test to the EUT

Article 88 Appendix 22-2	Classification of EUT	Condition	Result
2	Frequency Tolerance	Conducted	PASS
3	Occupied Bandwidth	Conducted	PASS
4	Unwanted (Spurious) Emission Strength	Conducted	PASS
5	RF Output Power Tolerance	Conducted	PASS
6	Adjacent Channel Leakage Power	Conducted	PASS
7	Secondary Emitted Radio Wave Strength	Conducted	PASS
8	Transmission time limiting device	Conducted	PASS
9	Carrier sensing function	Conducted	PASS

1) Test set up

Table-Top

2) Modification to the EUT by laborator

None

1. Test Information

1. Applicant

ATECH CO., LTD.

8-3, Osongsaengmyeong 14-ro, Osong-eup, Heungdeok-gu, Cheongju-si, Chungcheongbuk-do,
Republic of Korea

2. Equipment under test

A862i

3. Model number

A862i

4. Serial number

A862i_TX_MAIN_V1.2

5. Size

(W) 223.8 mm x (D) 91.9 mm x (H) 85.25 mm

6. Terminal limitation

-25°C ~ 70°C

7. RF Specification Frequency range

429.175-429.7375MHz

8. Number of RF Channels

46 Channels

9. Modulation method

GFSK

10. Data rate

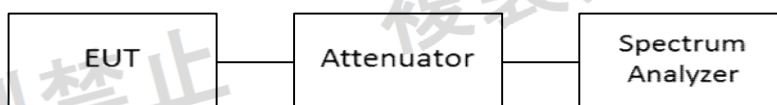
2400 bps

11. Variation of the family model(s)

None

2. Configuration of equipment

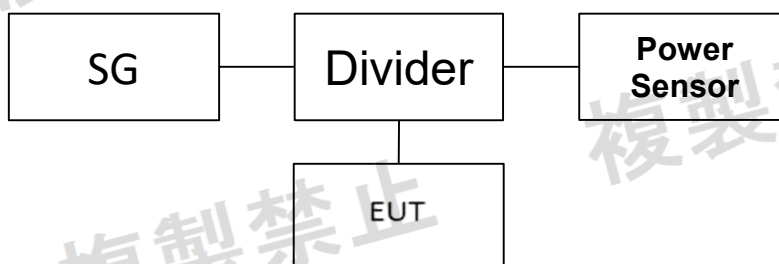
1. Frequency tolerance, Occupied Bandwidth, Unwanted(Spurious) emission strength, Adjacent Channel Leakage Power, Secondary emitted radio wave strength, Transmission time limiting device



2. RF output power tolerance



3. Carrier sense function



3. 試驗結果

Test results

Environment of test room	Date of test	2026-02-16	2026-02-23	2026-03-04	2026-03-05
	Temperature	23.8 °C	23.3 °C	23.1 °C	23.3 °C
	Humidity	49.5 %	50.1 %	49.9 %	49.8 %

Peak Antenna Gain	-0.83	dBi
Declaration Output Power	15	mW
	11.7609	dBm
E.I.R.P.	10.9309	dBm
Input Power Voltage	3.7	VDC

Tested Circuit Insertion Loss		0	dB
Transmission Time (*Low channel only)	ON TIME (40 sec or less)	10.00	sec
	OFF TIME (2 sec or more)	2.05	sec
	Ratio	82.99	%
Packet Type (Mode)		-Not applicable-	mode

Using TDF and offset function in Spectrum Analyzer.

Measurement of plots are included Loss value.

(Att : 10dB + Cable loss + EUT cable: 0.5dB offset)

Test category ;	Specified low power radio equipment for Telemetry band 400MHz, telecontrol, data transmissions
The reason why the tests are performed only at rated voltage :	When the input voltage to receiver RF circuit varies below $\pm 1\%$ as the input voltage from the external power supply to the receiver varies $\pm 10\%$ (excluding power supply).

Channel Number		Ch.	1	24	46	Result	Limit	Note
Measurement Frequency		MHz	429.175	429.4625	429.7375			
Frequency Measurements		MHz	429.17504	429.46246	429.73744	----	----	
Frequency Tolerance		ppm	0.093	-0.093	-0.140	PASS	$\pm 4 \times 10^{-6}$	
Occupied Bandwidth		kHz	5.182	5.204	5.155	PASS	5.8kHz or below	
RF Output Power		mW	9.078	14.928	14.997	PASS	1000mW or below	
RF Output Power Tolerance		%	-39.479	-0.480	-0.021	PASS	+20 to -50%	
Unwanted (Spurious) Emission Strength	30 to 429MHz *1	uW	0.003443	0.003508	0.002570	PASS	2.5uW or below	
		MHz	427.980	241.970	218.610	----		
	430 to 1000MHz *1	uW	0.952796	0.582103	0.582103	PASS	2.5uW or below	
		MHz	858.535	859.183	859.818	----		
	1000 to 3000MHz	uW	0.058076	0.042364	0.055335	PASS	2.5uW or below	
		MHz	2413.600	2413.600	2841.200	----		
	± 1 MHz Carrier Frequency *2 *3	uW	0.086497	0.148594	0.173380	PASS	2.5uW or below	RBW,VBW : 3kHz
		MHz	429.090	429.546	429.608	----		+15.2 dB
	± 62.5 kHz Carrier Frequency *2 *4	uW	0.055463	0.103276	0.104232	PASS	2.5uW or below	RBW,VBW : 30Hz-1kHz or below
		MHz	429.710	429.467	429.733	----		

*1:Carrier frequency, excluding ± 1 MHz.

*2:Value of the Adjacent Channel Leakage Power

*3:Carrier frequency, excluding ± 62.5 kHz.

*4:Carrier frequency, excluding ± 4.25 kHz.

Adjacent Channel Leakage Power	fc	dBm	9.15	10.85	10.9	Result	Limit	Note
	fc -12.5kHz	dBc	-67.23	-67.72	-67.8	PASS	-40dBc or below	
	fc +12.5kHz	dBc	-67.24	-67.65	-67.85	PASS	-40dBc or below	
Secondary Emitted Radio Wave Strength	150kHz to 30MHz	nW	0.00142	0.00155	0.00122	PASS	4nW or below	
		MHz	27.003	28.136	21.725	-----		
	30 to 1000MHz	nW	0.009	0.006	0.008	PASS	4nW or below	
		MHz	35.330	34.360	34.360	-----		
	1000 to 3000MHz	nW	0.084	0.088	0.092	PASS	4nW or below	
		MHz	2901.100	2575.400	2907.100	-----		
Carrier Sensing Function			Good	Good	Good	PASS	Pd or Pd-ΔP0	
Peak Antenna Gain		dB _i	-0.83			-----	-----	
* Pd = -96dBm, ΔP0 = The portion exceeding 10mW(10dBm) of the antenna power(dB)								
Channel Number		Ch.	1	3	6			
Measurement Frequency		MHz	429.175	429.2	429.2375	Result	Limit	Note
Trasmission time limiting device		TX Time	Good	Good	Good	PASS	40s or below	
		TX rest time	Good	Good	Good	PASS	2s or more	

4. 試験機器リスト

Measurement equipment list

USE	Equipment	Company	Model No.	Serial No.	Calibrated by	Cal. Method	Cal. Due	Cal. Date
X	Spectrum analyzer	R&S	FSV3030	101239	KTICC	(c)	2027.02.02	2026.02.02
X	DC Power supply	TOYOTECH	TL305TP	21040051	HCT	(c)	2026.06.30	2025.06.30
X	Signal generator	R&S	SMB100A	176206	HCT	(c)	2027.01.15	2026.01.15
X	Attenuator	HUBER+SUHNER	6610_SK-50-1/199_NE	ATT03	HCT	(c)	2026.07.01	2025.07.01
X	Wideband Power Sensor	R&S	NRP-Z81	1137.9009.02-106224-tg	HCT	(c)	2026.07.01	2025.07.01
X	Attenuator	R&S	DNF Dämpfungsglied 10 dB in N 50 Ohm	31210	HCT	(c)	2026.04.23	2025.04.23
X	Power Divider	Aeromex/ Weinschel Inc.	1580-1	PE430	HCT	(c)	2026.06.27	2025.06.27

Note1: "X" は使用した測定機器です。

"X" used equipment.

Note2: 較正期限は、較正を行った日の翌月から起算して1年以内です。

The validity of measurement equipment is one year from the first day of the following month of the calibration date.

Note3: 較正方法 ...

Cal.Method ...

1) : 国立研究開発法人情報通信研究機構 (NICT) (以下「機構」という。)又は第百二条の十八第一項の指定較正

機関 (TELEC, インターテックジャパン、キーサイト) が行う較正

a) : Calibration conducted by the National Institute of Information and Communications Technology ~ NICT ~ or a designated calibration agency under Article 102-18 paragraph (1) ~ Telecom Engineering Center, Intertek Japan K.K.,

Keysight Technologies, Inc. ~

b) : 計量法 (平成四年法律第五十一号) 第百三十五条 又は第百四十四条の規定に基づく校正 (JCSS 校正)

b) : Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law

(Law No. 51 of 1992) ~ Japan Calibration Service System ~

c) : 外国において行う較正であつて、機構又は第百二条の十八第一項の指定較正機関

(TELEC, インターテックジャパン、キーサイト) が行う較正に相当するもの

c) : Calibration conducted in foreign countries, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph (1) ~ Telecom Engineering Center, Intertek Japan K.K.,

Keysight Technologies, Inc. ~

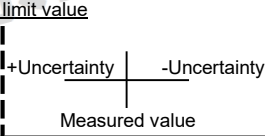
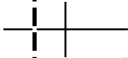
2) : イからハまでのいずれかに掲げる較正等を受けたものを用いて行う較正等

d) : Calibration conducted by using other equipment that listed above from a) to c)

5. 測定の不確かさ

About uncertainty of measured value

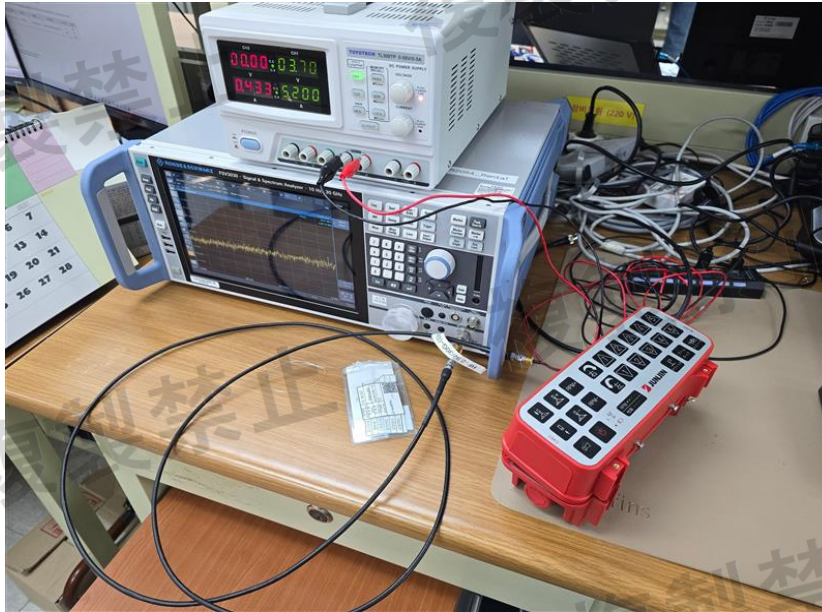
Parameter	Uncertainty
Total RF power conducted	$\pm 0.9\text{dB}$
Spurious emissions conducted	$\pm 1.7\text{dB}$
Temperature	$\pm 0.8^{\circ}\text{C}$
Humidity	$\pm 3.9\%$
Tolerance	0.03 ppm
OBW	0.9%

Judge	Measured value and standard limit value	
PASS	Case1  Even if it takes uncertainty into consideration, a standard limit value is fulfilled.	
	Case2  Although measured value is in a standard limit value, a limit value won't be fulfilled if uncertainty is taken into consideration.	
FAIL	Case3  Although measured value exceeds a standard limit value, a limit value will be fulfilled if uncertainty is taken into consideration.	
	Case4  Even if it takes uncertainty into consideration, a standard limit value isn't fulfilled.	

6. 測定写真

Photographs

Conducted Measurement Photo



5. 測定チャート

Test chart

5.1 周波数偏差

Frequency tolerance

Ch.1: 429.175MHz



Ch.24: 429.4625MHz



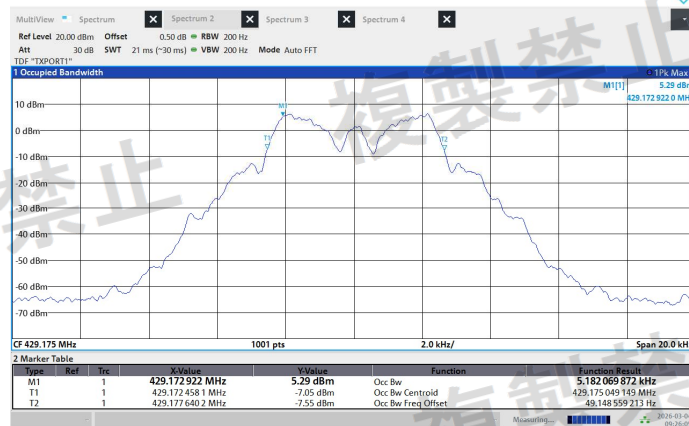
Ch.46: 429.7375MHz



5.2 占有周波数帯幅

Occupied bandwidth

Ch.1: 429.175MHz



Ch.24: 429.4625MHz



Ch.46: 429.7375MHz

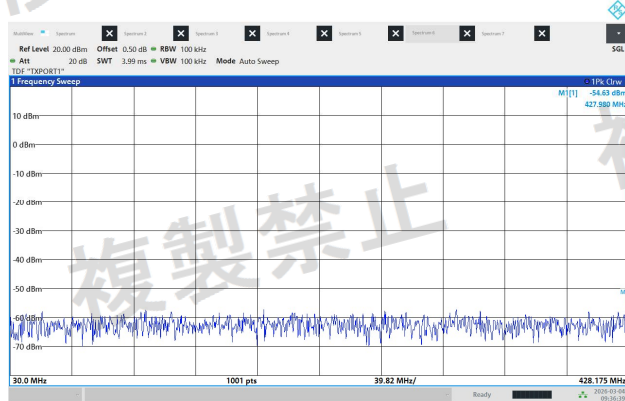


5.3 スプリアス発射又は不要発射の強度(Ch.1)

Unwanted(Spurious) emission strength

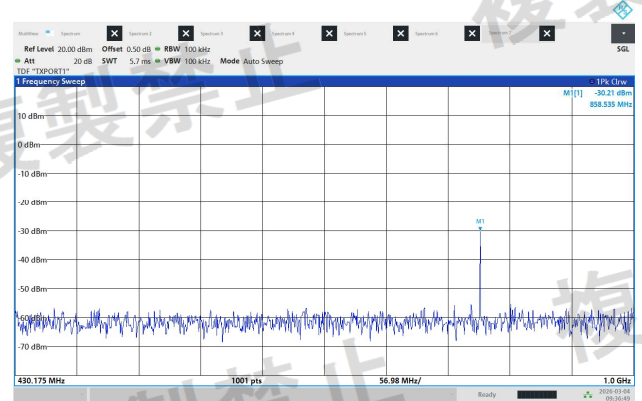
Ch.1: 429.175MHz

30-429MHz 428.175 to 430.175 MHz are excluded.

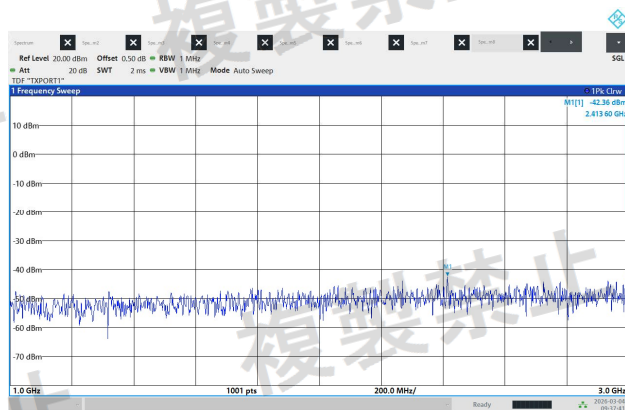


430-1000MHz

428.175 to 430.175 MHz are excluded.

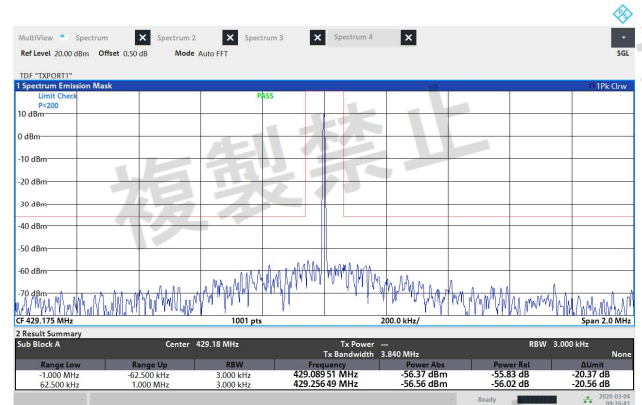


1000-3000MHz



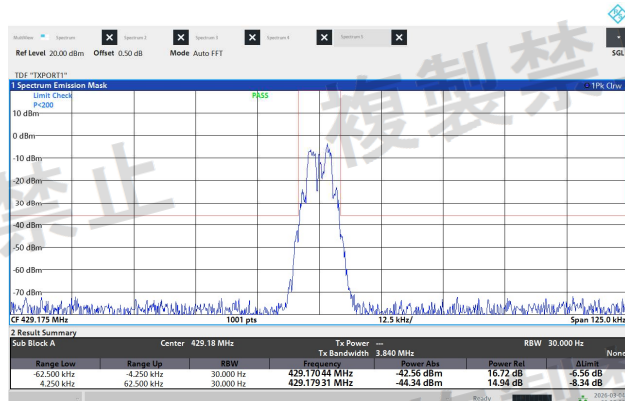
±1MHz Carrier Frequency(excluding ±62.5kHz.)

429.1125 to 429.2375 MHz are excluded.



±62.5kHz Carrier Frequency(excluding ±4.25kHz.)

429.17075 to 429.17925 MHz are excluded.

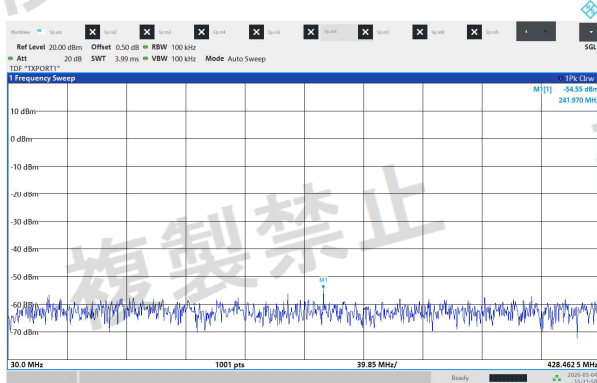


5.3 スプリアス発射又は不要発射の強度(Ch. 24)

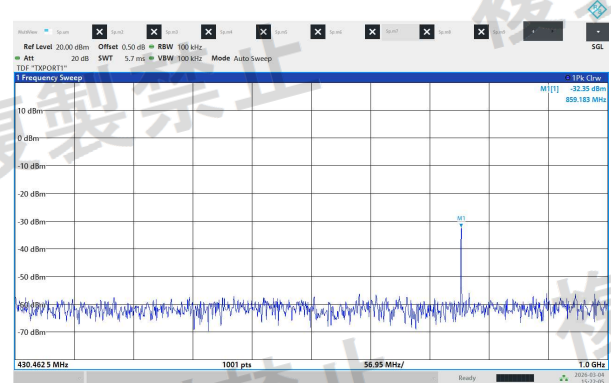
Unwanted(Spurious) emission strength

Ch.24: 429.4625MHz

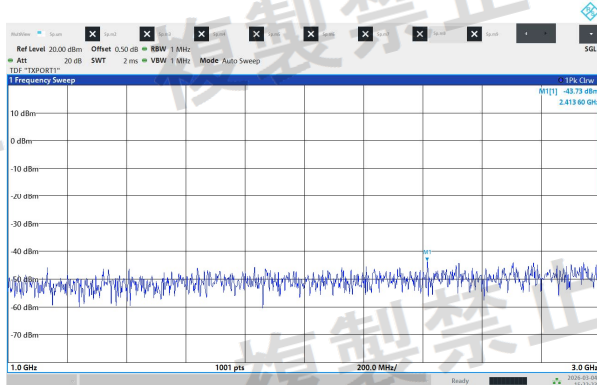
30-429MHz 428.4625 to 430.4625 MHz are excluded.



430-1000MHz 428.4625 to 430.4625 MHz are excluded.

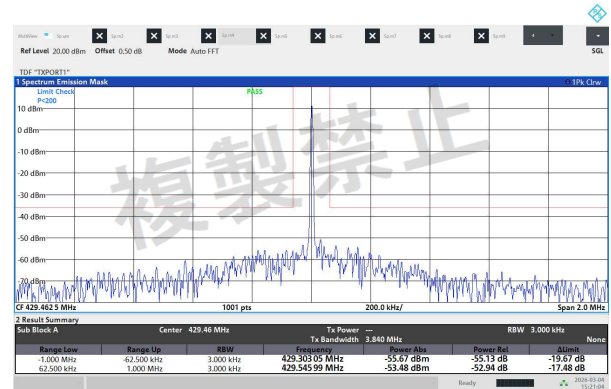


1000-3000MHz



±1MHz Carrier Frequency(excluding ±62.5kHz.)

429.4 to 429.525 MHz are excluded.



±62.5kHz Carrier Frequency(excluding ±4.25kHz.)

429.45825 to 429.46675 MHz are excluded.

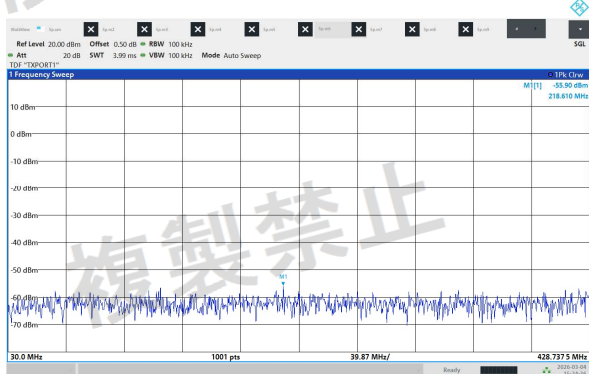


5.3 スプリアス発射又は不要発射の強度(Ch. 46)

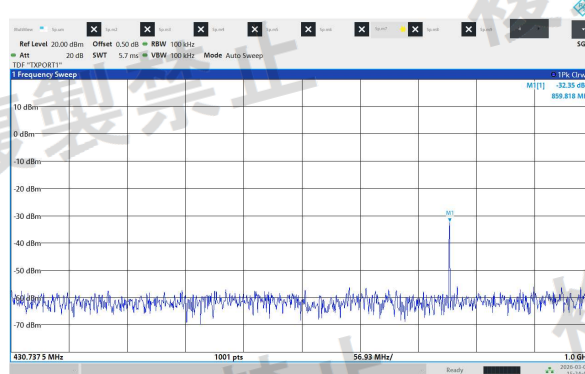
Unwanted(Spurious) emission strength

Ch.46: 429.7375MHz

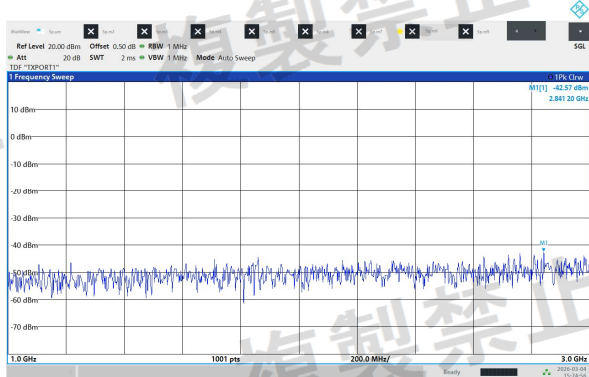
30-429MHz 428.7375 to 430.7375 MHz are excluded.



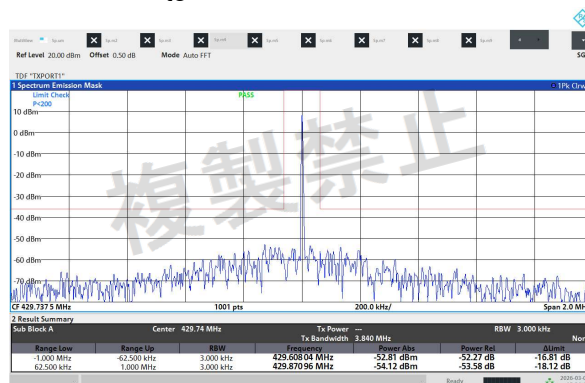
430-1000MHz 428.7375 to 430.7375 MHz are excluded.



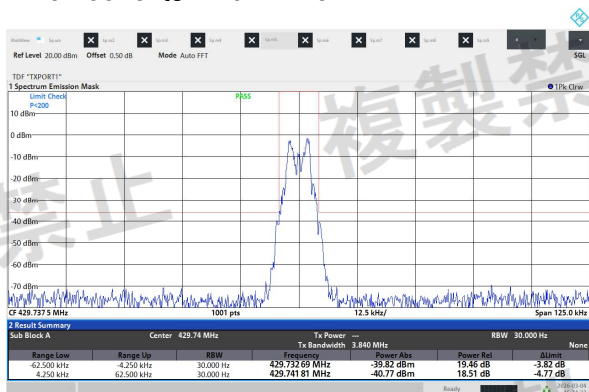
1000-3000MHz



± 1 MHz Carrier Frequency(excluding ± 62.5 kHz.)
429.675 to 429.8 MHz are excluded.

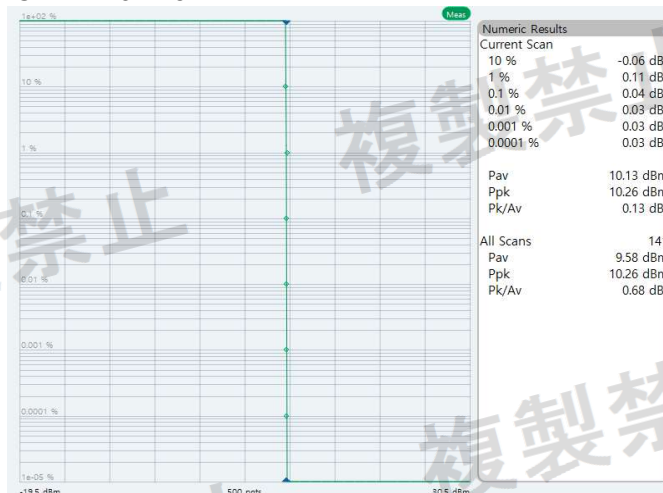


± 62.5 kHz Carrier Frequency(excluding ± 4.25 kHz.)
429.73325 to 429.74175 MHz are excluded.

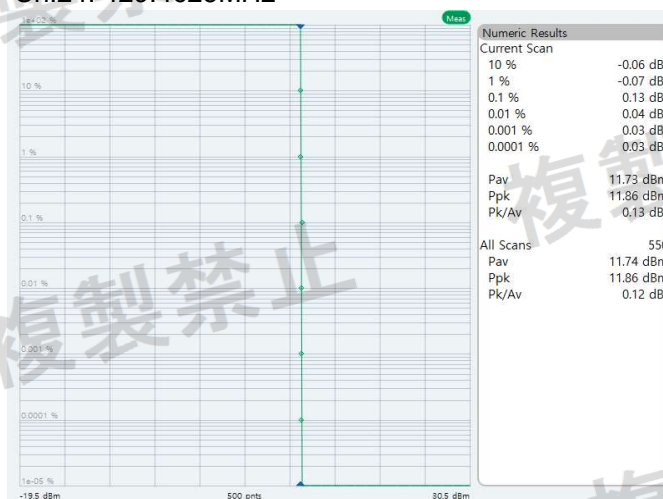


5.4 空中線電力の偏差 RF output power tolerance

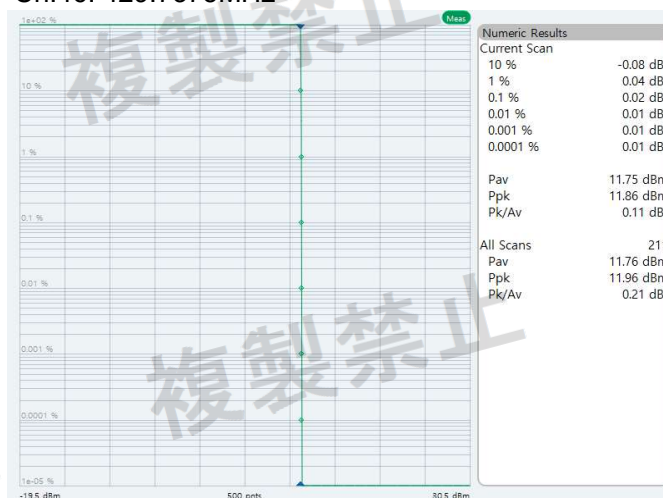
Ch.1: 429.175MHz



Ch.24: 429.4625MHz



Ch.46: 429.7375MHz

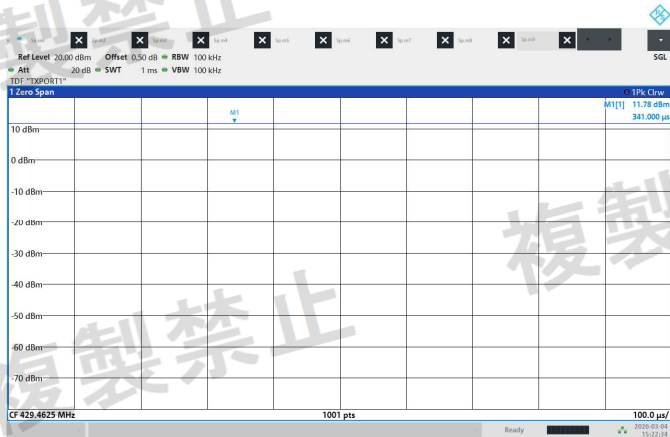


ON/OFF Time

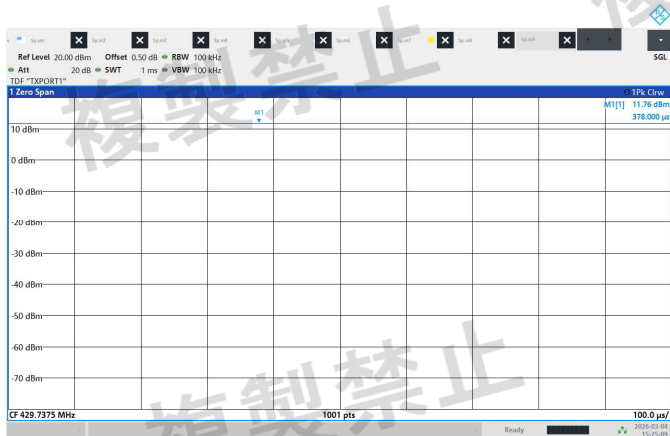
Ch.1: 429.175MHz



Ch.24: 429.4625MHz



Ch.46: 429.7375MHz



5.5 隣接チャネル漏洩電力 Adjacent Channel Leakage Power

Ch.1: 429.175MHz



Ch.24: 429.4625MHz

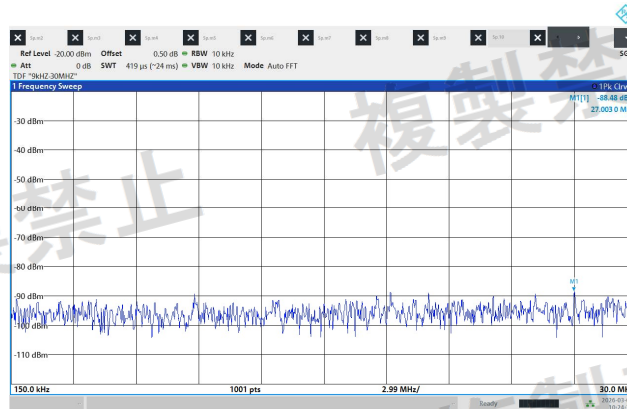


Ch.46: 429.7375MHz

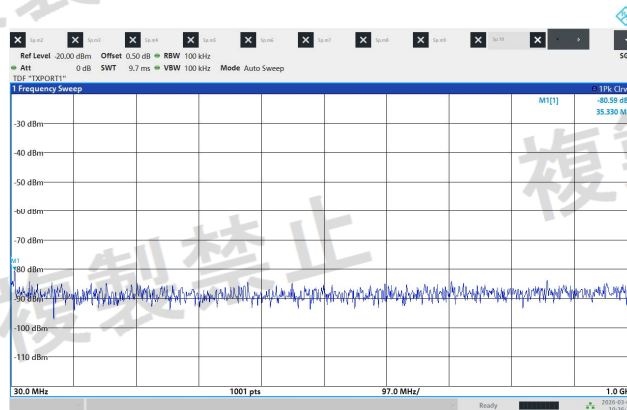


5.6 副次的に発する電波等の限度(Ch.1) Secondary emitted radio wave strength

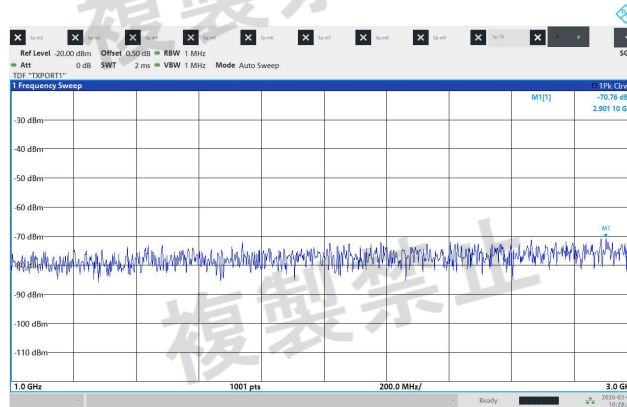
Ch.1: 429.175MHz
150kHz-30MHz



30-1000MHz



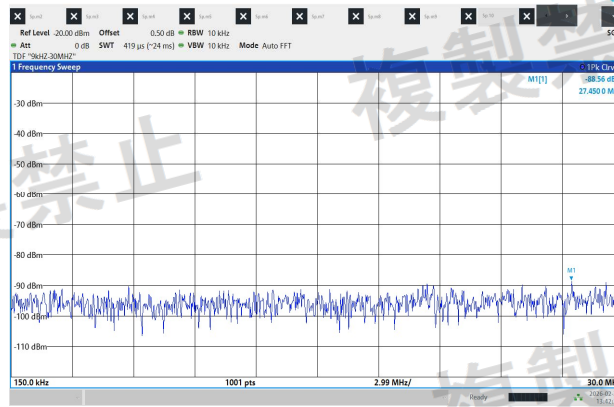
1000-3000MHz



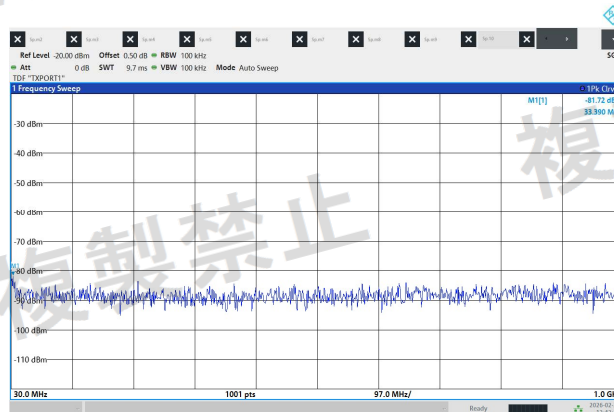
5.6 副次的に発する電波等の限度(Ch.13)

Secondary emitted radio wave strength

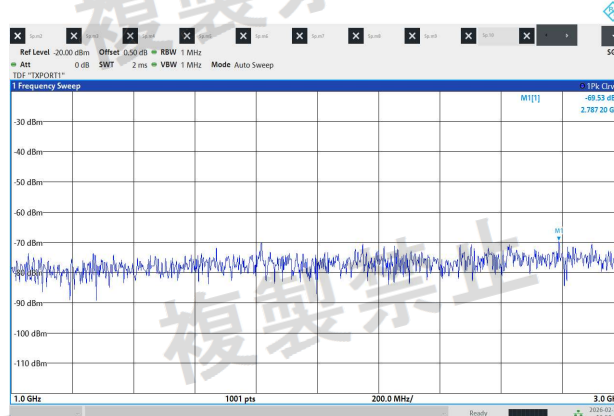
Ch.24: 429.4625MHz
150kHz-30MHz



30-1000MHz



1000-3000MHz

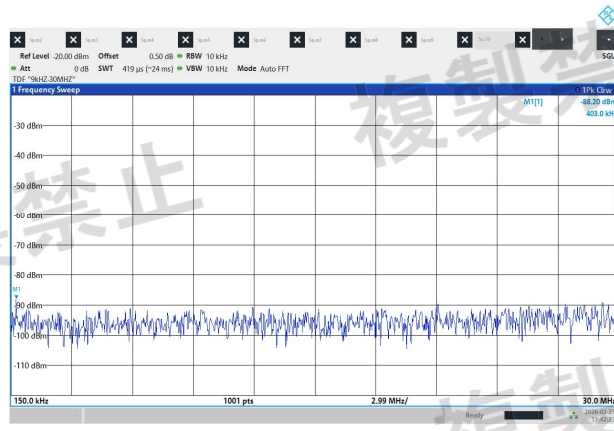


5.6 副次的に発する電波等の限度 (Ch.16)

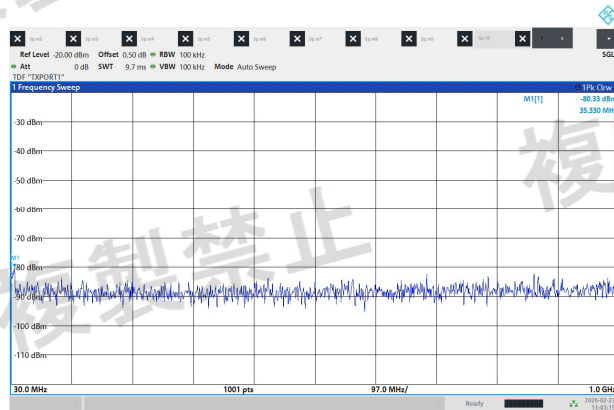
Secondary emitted radio wave strength

Ch.46: 429.7375MHz

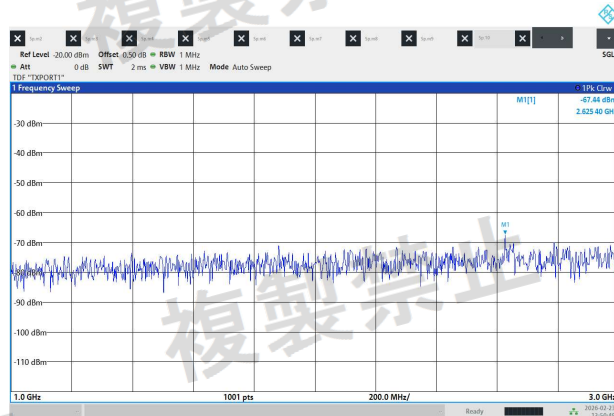
150kHz-30MHz



30-1000MHz



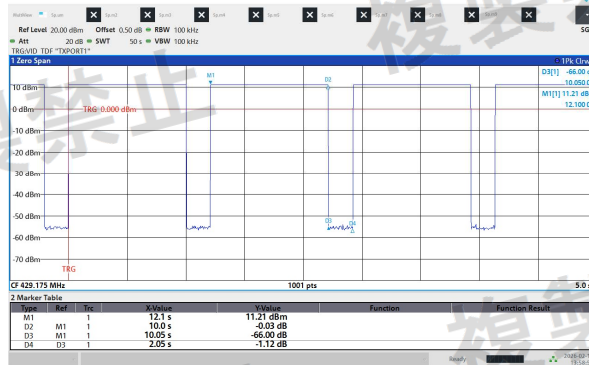
1000-3000MHz



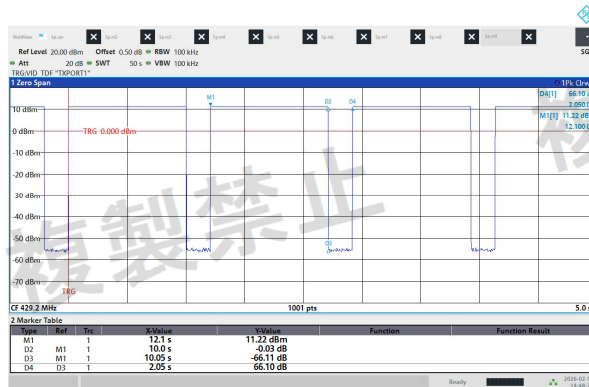
5.7 送信時間制限装置 Transmission time limiting device

通信時間を自動的に40秒以内に制限され、通信終了後2秒以上経過していることの証明
*Proof of it is limited communication time automatically **within 40 seconds**, and passing after the communication end **more than 2 seconds**.*

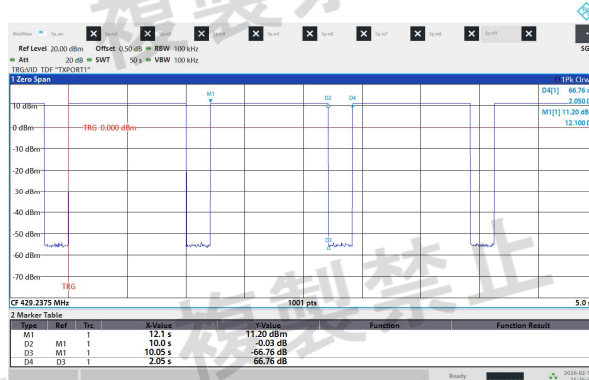
Ch.1: 429.175MHz



Ch.3: 429.200MHz



Ch.6: 429.2375MHz



8. Laboratory description

1. Location

Name: Eurofins KCTL Co., Ltd

65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea

Telephone Number: +82 70 4904 0113

Facsimile Number: +82 505 299 8311

2. Accreditation and Registration

1) FCC

Site Designation No.: KR0040

Site Registration No.: 687132

2) VCCI

Registration No.: R-20080, G-20078, C-20059, T20056

3) Industry Canada

Registration No.: 8035A

Test Site No.: 8035A-2

4) KOLAS

Registration No.: KT231