

TEST REPORT

Report number : KR25-SRT0015

Issue date : 2025-08-25

Applicant : THINKWARE CORPORATION
A, 9FL., Samwhan Hipex, 240, Pangyoyeok-ro,
Bundang-gu, Seongnam-si, Gyeonggi-do,
South Korea

Equipment under test (EUT) : RADAR sensor module

Model name : AT60MF1T1RP32A

Date of test : 2025-08-07 ~ 2025-08-24

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.**

Tested by;


Seongil Choi

Approved by;


Kwonse Kim

1. Summary of Test

1. Purpose of test

60GHz band sensors for detecting or measuring mobile objects for specified low power radio station

2. Standards

Certification Ordinance Article 2 Clause 1 Item8

1) Test Methods

Test methods to be determined on a temporary basis by TÜV SÜD Japan. JPD_W_07.050J

2) Deviation from standards

None

3. List of applied test to the EUT

	Classification of EUT	Condition	Result
1	Voltage fluctuation	-	PASS
2	Frequency Tolerance	Radiated	PASS
3	Occupied Bandwidth	Radiated	PASS
4	Unwanted (Spurious) Emission Strength	Radiated	PASS
5	RF Output Power Tolerance	Radiated	PASS
6	Secondary Emitted Radio Wave Strength	Radiated	PASS
8	Trasmission time limiting	Radiated	PASS
9	Carrier Sensing Function	-	N/A
10	Interference Prevention Function	Radiated	PASS

1) Test set up

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2) Modification to the EUT by laboratory

None

1. Test Information

1. Applicant

THINKWARE CORPORATION
A, 9FL., Samwhan Hipex, 240, Pangyoyeok-ro, Bundang-gu, Seongnam-si,
Gyeonggi-do, South Korea

2. Equipment under test
RADAR sensor module

3. Model number
AT60MF1T1RP32A

4. Serial number
AT60-2507A10001

5. Size
(W) 12 × (D) 13 × (H) 6.38 mm

6. Terminal limitation
-30°C to 85°C

7. RF Specification Frequency range
61.997 - 62.325 GHz

8. Number of RF Channels
3 Channels

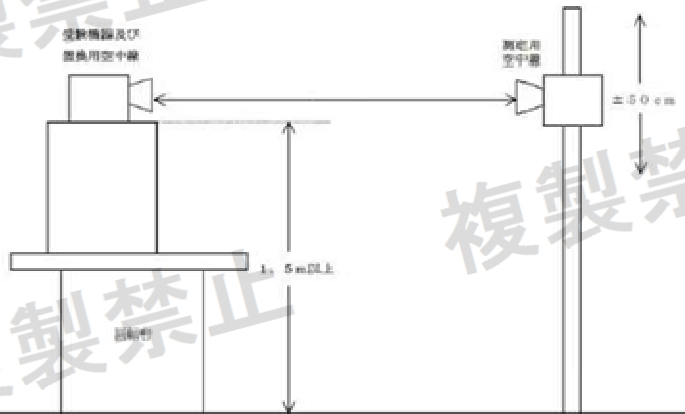
9. Modulation method
FMCW

10. Data rate
None

11. Variation of the family model(s)
TWDF-601, TWDR-601

2. Configuration of equipment

◎Measurement Facilities



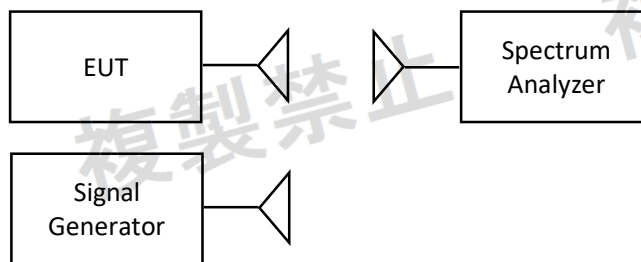
30 MHz - 40 GHz were measured at a distance of 3 m, and 40 GHz and above were measured at a distance of 1 m. compensation values were inserted for each distance.

◎Test setup

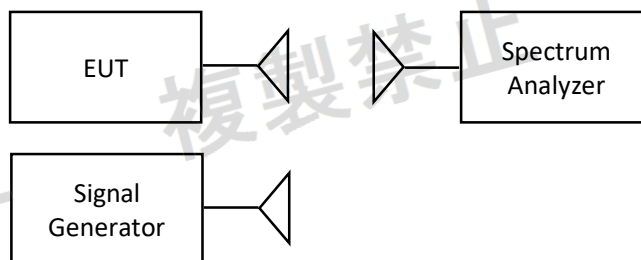
1. Frequency tolerance, Occupied bandwidth



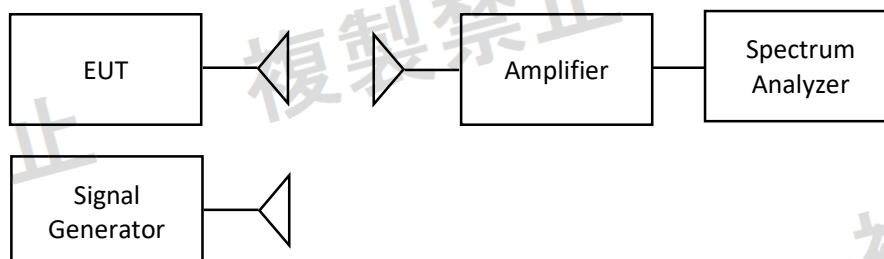
2. Unwanted(Spurious) emission strength



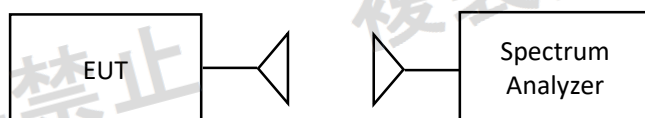
2. RF output power tolerance



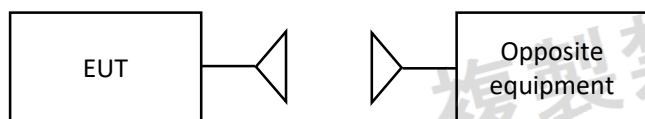
3. Secondary emitted radio wave strength



4. Trasmission time limiting



5. Interference prevention function



4. 試驗結果

Test results

S/N:AT60-2507A10001

Environment of test room	Date of test	2025-08-07	2025-08-21	2025-08-24
	Temperature	23 °C	22.3 °C	22 °C
	Humidity	47.8 %	48.1 %	47.5 %

Peak Antenna Gain	4	dBi	2025-08-29
Declaration Output Power	6	mW	22.5 °C
AT60-2507A10001	7.7815	dBm	48.3 %
E.I.R.P.	11.7815	dBm	
Input Power Voltage	3.30	VDC	

Tested Circuit Insertion Loss	Tx1	0	dB
Transmission Time	ON TIME	1	ms
	OFF TIME	0	ms
	Ratio	1.0000	-

Test category :	Specified low-power devices for moving object detection sensors(60GHz band_FMCW)
The reason why the tests are performed only at rated voltage :	

Measurement Frequency		GHz	61.997	62.161	62.325	Result	Limit	Note
Channel Number		Ch.	1	2	3	---	---	
Frequency Tolerance		Lower	61.995709	62.159982	62.323093	PASS	±500×10-6(500ppm) or 57GHz < f < 64GHz (Lower & Upper)	
		Upper	61.999742	62.163987	62.327108	PASS		
Occupied Bandwidth		GHz	0.0040	0.0040	0.0040	PASS	7GHz or below	
RF Output Power		mW	2.01	2.10	2.31	PASS	10mW or below	
RF Output Power Tolerance		%	-66.51	-65.04	-61.50		+50 to -70%	
Declaration Output Power		dBm	7.78			----	----	
EIRP		dBm	11.78			PASS	13dBm or below	
Unwanted (Spurious) Emission Strength	30 to 1000MHz	dBm/MHz	-51.54	-51.74	-53.47	PASS	-30dBm/MHz or below	
		MHz	159.99	159.99	159.99	----		
	1000 to 55620MHz	dBm/MHz	-42.81	-42.01	-42.46	PASS	-30dBm/MHz or below	
		MHz	44689.00	44689.00	44705.00	----		
	55620 to 57000MHz	dBm/MHz	-42.62	-43.03	-43.23	PASS	-26dBm/MHz or below	
		MHz	56194.20	56199.70	56201.10	----		
	64000 to 67500MHz	dBm/MHz	-42.99	-42.48	-41.32	PASS	-26dBm/MHz or below	
		MHz	64631.10	64627.60	64634.60	----		
	67500 to 135000MHz	dBm/MHz	-35.24	-35.34	-36.19	PASS	-30dBm/MHz or below	
		MHz	105776.00	105653.00	104916.00	----		
Secondary Emitted Radio Wave Strength	30 to 1000MHz	dBm/MHz	-69.13	-69.66	-69.95	PASS	-30dBm/MHz or below	
		MHz	34.48	34.88	34.93	----		
	1000 to 55620MHz	dBm/MHz	-41.13	-41.44	-42.66	PASS	-30dBm/MHz or below	
		MHz	44705.00	44705.00	44705.00	----		
	55620 to 57000MHz	dBm/MHz	-42.79	-42.66	-42.44	PASS	-26dBm/MHz or below	
		MHz	56197.00	56197.00	56203.80	----		
	64000 to 67500MHz	dBm/MHz	-38.04	-37.38	-42.12	PASS	-26dBm/MHz or below	
		MHz	66529.70	66900.30	64771.00	----		
	67500 to 135000MHz	dBm/MHz	-34.24	-38.23	-35.85	PASS	-30dBm/MHz or below	
		MHz	124248.00	84695.00	112985.00	----		
Trasmission time limiting device		----	Good	Good	Good	PASS	3ms or below (Transmission time is less than 3 ms between sweep times of 33 ms)	
Interference prevention function		----	PASS	PASS	PASS	PASS		

4. 試驗結果

Test results

S/N:AT60-2507A10001

Environment of test room	Date of test	2025-08-07	2025-08-21	2025-08-24
	Temperature	23 °C	22.3 °C	22 °C
	Humidity	47.8 %	48.1 %	47.5 %

Peak Antenna Gain	4	dBi	2025-08-29
Declaration Output Power	6	mW	22.5 °C
AT60-2507A10001	7.7815	dBm	48.3 %
E.I.R.P.	11.7815	dBm	
Input Power Voltage	2.97	VDC	

Tested Circuit Insertion Loss	Tx1	0	dB
Transmission Time	ON TIME	1	ms
	OFF TIME	0	ms
	Ratio	1.0000	-

Test category :	Specified low-power devices for moving object detection sensors(60GHz band_FMCW)
The reason why the tests are performed only at rated voltage :	

Measurement Frequency		GHz	61.997	62.161	62.325	Result	Limit	Note
Channel Number		Ch.	1	2	3	---	---	
Frequency Tolerance		Lower	61.995655	62.159961	62.323064	PASS	±500×10-6(500ppm) or 57GHz < f < 64GHz (Lower & Upper)	
		Upper	61.999703	62.163984	62.327159	PASS		
Occupied Bandwidth		GHz	0.0040	0.0040	0.0041	PASS	7GHz or below	
RF Output Power		mW	2.55	2.71	2.82	PASS	10mW or below	
RF Output Power Tolerance		%	-57.45	-54.75	-53.07		+50 to -70%	
Declaration Output Power		dBm	7.78			----	----	
EIRP		dBm	11.78			PASS	13dBm or below	
Unwanted (Spurious) Emission Strength	30 to 1000MHz	dBm/MHz	-48.48	-48.58	-47.58	PASS	-30dBm/MHz or below	
		MHz	156.01	156.01	156.01	----		
	1000 to 55620MHz	dBm/MHz	-40.91	-41.98	-42.59	PASS	-30dBm/MHz or below	
		MHz	44705.00	44705.00	44689.00	----		
	55620 to 57000MHz	dBm/MHz	-43.03	-43.04	-43.03	PASS	-26dBm/MHz or below	
		MHz	56206.60	56188.70	56202.50	----		
	64000 to 67500MHz	dBm/MHz	-41.13	-40.28	-42.31	PASS	-26dBm/MHz or below	
		MHz	64970.30	64963.30	64935.30	----		
	67500 to 135000MHz	dBm/MHz	-37.19	-36.43	-35.72	PASS	-30dBm/MHz or below	
		MHz	97748.00	98280.00	105325.20	----		
Secondary Emitted Radio Wave Strength	30 to 1000MHz	dBm/MHz	-65.42	-63.49	-61.76	PASS	-30dBm/MHz or below	
		MHz	862.50	831.61	796.64	----		
	1000 to 55620MHz	dBm/MHz	-42.58	-41.44	-42.61	PASS	-30dBm/MHz or below	
		MHz	44705.00	44705.00	44705.00	----		
	55620 to 57000MHz	dBm/MHz	-42.86	-42.79	-42.39	PASS	-26dBm/MHz or below	
		MHz	56188.70	56202.50	56212.10	----		
	64000 to 67500MHz	dBm/MHz	-41.11	-40.90	-39.24	PASS	-26dBm/MHz or below	
		MHz	66229.00	66449.30	66914.30	----		
	67500 to 135000MHz	dBm/MHz	-37.33	-41.84	-36.89	PASS	-30dBm/MHz or below	
		MHz	97297.00	68069.00	95946.00	----		
Trasmission time limiting device		----	Good	Good	Good	PASS	3ms or below (Transmission time is less than 3 ms between sweep times of 33 ms)	
Interference prevention function		----	PASS	PASS	PASS	PASS		

4. 試驗結果

Test results

S/N:AT60-2507A10001

Environment of test room	Date of test	2025-08-07	2025-08-21	2025-08-24
	Temperature	23 °C	22.3 °C	22 °C
	Humidity	47.8 %	48.1 %	47.5 %

Peak Antenna Gain	4	dBi	2025-08-29
Declaration Output Power	6	mW	22.5 °C
AT60-2507A10001	7.7815	dBm	48.3 %
E.I.R.P.	11.7815	dBm	
Input Power Voltage	3.63	VDC	

Tested Circuit Insertion Loss	Tx1	0	dB
Transmission Time	ON TIME	1	ms
	OFF TIME	0	ms
	Ratio	1.0000	-

Test category :	Specified low-power devices for moving object detection sensors(60GHz band_FMCW)
The reason why the tests are performed only at rated voltage :	

Measurement Frequency		GHz	61.997	62.161	62.325	Result	Limit	Note
Channel Number		Ch.	1	2	3	---	---	
Frequency Tolerance		Lower	61.995672	62.159885	62.163892	PASS	±500×10-6(500ppm) or 57GHz < f < 64GHz (Lower & Upper)	
		Upper	61.999685	62.159887	62.164183	PASS		
Occupied Bandwidth		GHz	0.0040	0.0040	0.0040	PASS	7GHz or below	
RF Output Power		mW	2.69	2.68	2.56	PASS	10mW or below	
RF Output Power Tolerance		%	-55.14	-55.37	-57.30		+50 to -70%	
Declaration Output Power		dBm	7.78			----	----	
EIRP		dBm	11.78			PASS	13dBm or below	
Unwanted (Spurious) Emission Strength	30 to 1000MHz	dBm/MHz	-41.58	-42.41	-41.74	PASS	-30dBm/MHz or below	
		MHz	577.76	624.42	577.76	----		
	1000 to 55620MHz	dBm/MHz	-42.77	-41.79	-42.73	PASS	-30dBm/MHz or below	
		MHz	44689.00	44689.00	44705.00	----		
	55620 to 57000MHz	dBm/MHz	-43.36	-42.63	-43.40	PASS	-26dBm/MHz or below	
		MHz	56190.10	56188.70	56172.10	----		
	64000 to 67500MHz	dBm/MHz	-41.52	-41.88	-41.24	PASS	-26dBm/MHz or below	
		MHz	64973.80	64879.40	64935.30	----		
	67500 to 135000MHz	dBm/MHz	-36.61	-36.73	-37.32	PASS	-30dBm/MHz or below	
		MHz	97584.00	104096.00	99263.00	----		
Secondary Emitted Radio Wave Strength	30 to 1000MHz	dBm/MHz	-64.07	-61.96	-62.96	PASS	-30dBm/MHz or below	
		MHz	846.19	818.63	863.99	----		
	1000 to 55620MHz	dBm/MHz	-42.41	-41.92	-42.36	PASS	-30dBm/MHz or below	
		MHz	44705.00	44689.00	44689.00	----		
	55620 to 57000MHz	dBm/MHz	-43.26	-42.81	-42.61	PASS	-26dBm/MHz or below	
		MHz	56212.10	56195.60	56205.20	----		
	64000 to 67500MHz	dBm/MHz	-41.88	-40.05	-42.24	PASS	-26dBm/MHz or below	
		MHz	66082.20	66641.60	65281.50	----		
	67500 to 135000MHz	dBm/MHz	-41.00	-35.86	-40.11	PASS	-30dBm/MHz or below	
		MHz	76911.00	96560.00	70002.00	----		
Trasmission time limiting device		----	Good	Good	Good	PASS	3ms or below (Transmission time is less than 3 ms between sweep times of 33 ms)	
Interference prevention function		----	PASS	PASS	PASS	PASS		

4. Measurement equipment list

USE	Equipment	Company	Model No.	Serial No.	Calibrated by	Cal. Method	Cal. Due	Cal. Date
X	Signal Generator	R&S	SMB100A	176206	HCT	ハ(c)	26.01.17	25.01.17
X	UXA Signal Analyzer	KEYSIGHT	N9041B	MY60100003	HCT	ハ(c)	26.01.21	25.01.21
X	Spectrum Analyzer	R&S	FSW50	101013	HCT	ハ(c)	26.06.30	25.06.30
X	Millimeter Wave Source Module	OML, Inc.	S19MS-A	190725-1	HCT	ハ(c)	26.02.11	25.02.11
X	Millimeter Wave Source Module	OML, Inc.	S12MS-A	190621-1	HCT	ハ(c)	25.10.15	24.10.15
X	Millimeter Wave Source Module	OML, Inc.	S08MS-A	190621-1	HCT	ハ(c)	25.10.15	24.10.15
X	Horn Antenna	OML, Inc.	M19RH	190621-2	HCT	ハ(c)	26.02.13	25.02.13
X	Horn Antenna	OML, Inc.	M12RH	190621-1	HCT	ハ(c)	25.10.23	24.10.23
X	Horn Antenna	OML, Inc.	M08RH	190621-1	HCT	ハ(c)	25.10.23	24.10.23
X	Horn Antenna	ERAVANT	SAZ-2410-15-S1	01731-04	HCT	ハ(c)	26.01.23	24.10.23
X	mmWave Down Converter	C&K Technologies, Inc.	DC4060FS-01A	1	HCT	ハ(c)	26.02.06	25.02.06
X	mmWave Down Converter	C&K Technologies, Inc.	DC6091FS-01A	1	HCT	ハ(c)	26.02.06	25.02.06
X	mmWave Down Converter	C&K Technologies, Inc.	DC90140FS-01A	1	HCT	ハ(c)	26.02.06	25.02.06
X	Horn Antenna	OML, Inc.	M19RH	190621-3	HCT	ハ(c)	26.01.23	25.01.23
X	Horn Antenna	OML, Inc.	M12RH	190621-3	HCT	ハ(c)	26.01.23	25.01.23
X	Horn Antenna	OML, Inc.	M08RH	190621-3	HCT	ハ(c)	26.01.21	25.01.21
X	DC Power Supply	AGILENT	E3632A	KR75304571	HCT	ハ(c)	26.04.23	25.04.23
X	mmWave Single-Axis measuring jig	C&K Technologies, Inc.	N/A	MWJ01	HCT	ハ(c)	N/A	N/A
X	Single-Axis Control Driver & Power Supply	C&K Technologies, Inc.	DACD&P-4801	0001	HCT	ハ(c)	N/A	N/A
X	Bilog Antenna	Teseq GmbH	CBL 6143A	Dec. 1995	HCT	ハ(c)	26.05.12	25.05.12
X	Bilog Antenna	ETS.LINDGREN	'3143B	May. 2525	HCT	ハ(c)	26.07.03	25.07.03
X	Horn Antenna	ETS.lindgren	Jul. 1908	Jun. 2341	HCT	ハ(c)	26.05.08	25.05.08
X	Horn Antenna	ETS.lindgren	Jul. 1908	Nov. 2522	HCT	ハ(c)	26.05.12	25.05.12
X	Horn Antenna	ETS-LINDGREN	3116C	Aug. 2588	HCT	ハ(c)	26.01.20	25.01.20
X	Horn Antenna	ETS.lindgren	Jul. 1908	00086635	HCT	ハ(c)	26.01.25	25.01.25
X	Attenuator	Qualwave Inc.	QFA1802-18-6-N		HCT	ハ(c)	26.01.17	25.01.17
X	Amplifier	SONOMA INSTRUMENT	310N	Feb. 3055	HCT	ハ(c)	26.01.17	25.01.17
X	Amplifier	Narda-MITEQ	LNAS-55-01001800-22-10p	2265313	HCT	ハ(c)	26.01.17	25.01.17
X	LOW NOISE AMPLIFIER	L-3 Narda-MITEQ	LNAS-50-18004000-33-5P	Jan. 7951	HCT	ハ(c)	26.04.29	25.04.29
X	Spectrum Analyzer	AGILENT	N9040B	MY57010132	HCT	ハ(c)	25.10.10	24.10.10
X	DC Power Supply	AGILENT	E3632A	MY40017108	HCT	ハ(c)	26.04.23	25.04.23
X	Antenna Stand	innco systems GmbH	AS1500-EP-10kg	AS001	HCT	ハ(c)	N/A	N/A
X	Antenna Stand	innco systems GmbH	AS1500-EP-10kg	AS002	HCT	ハ(c)	N/A	N/A
X	Compact Table	innco systems GmbH	CT1000	CT001	HCT	ハ(c)	N/A	N/A

Note1: "X" は使用した測定機器です。
"X" used equipment.

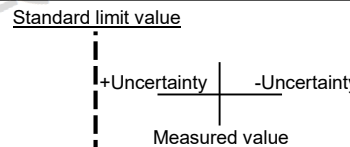
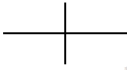
Note2: 較正期限は、較正を行った日の翌月から起算して1年以内です。
The validity of measurement equipment is one year from the first day of the following month of the calibration date.

Note3: 較正方法 ...
Cal.Method ...

- i) : 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～.
- ii) : 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～
- iii) : 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～.
- iv) : 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. Uncertainty

Parameter	Uncertainty
Total RF power	± 4.1 dB
Spurious emissions	± 4.5 dB
Temperature	± 1.0 °C
Humidity	± 3.8 %

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. Photographs

Setup Photo

Radiated Measurement Photo

30 - 1 000 MHz



Radiated Measurement Photo

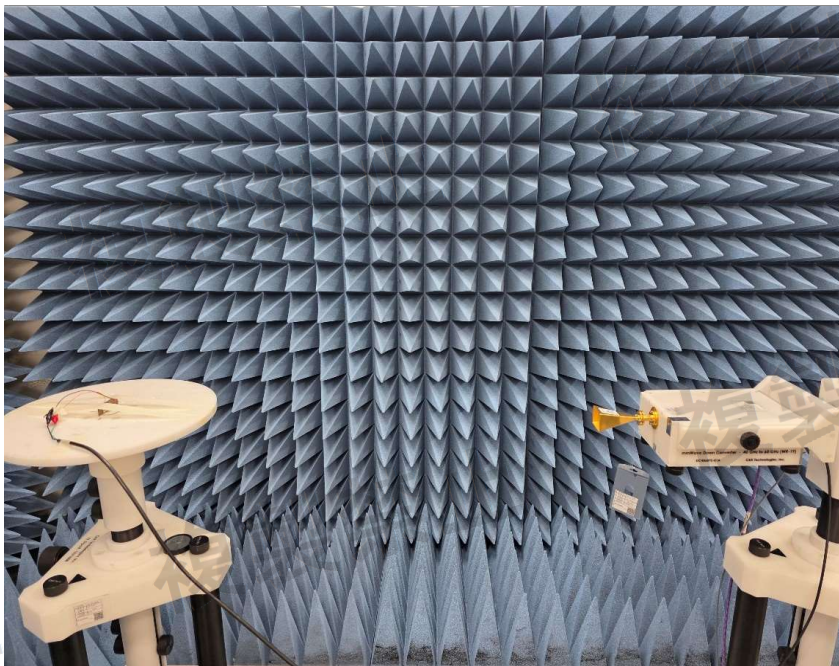
1 - 18 GHz



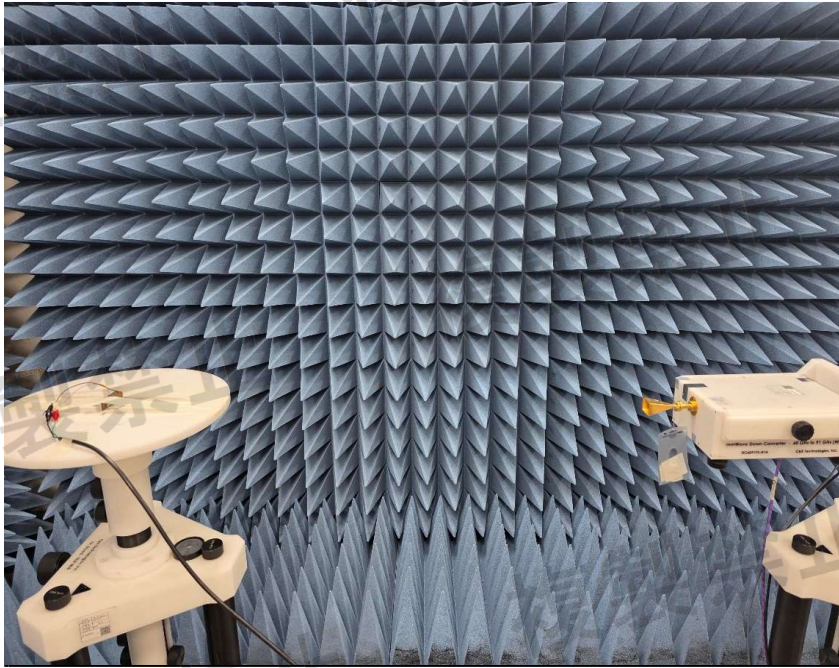
Radiated Measurement Photo
18 - 40 GHz



Radiated Measurement Photo
40 - 60 GHz



Radiated Measurement Photo
60 - 90 GHz

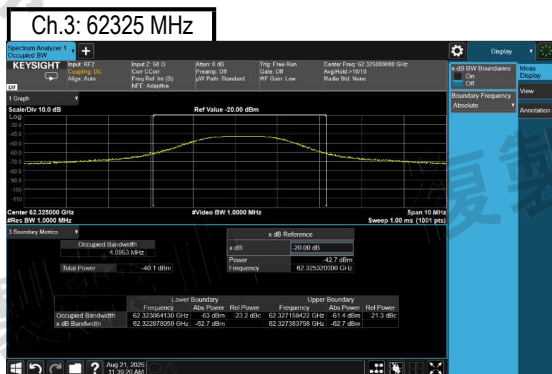
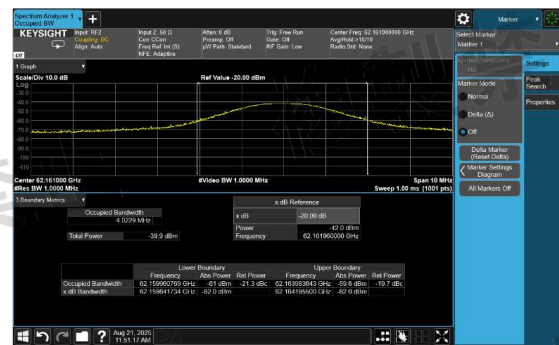
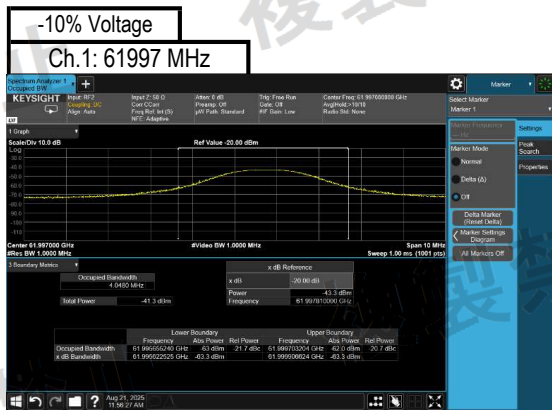
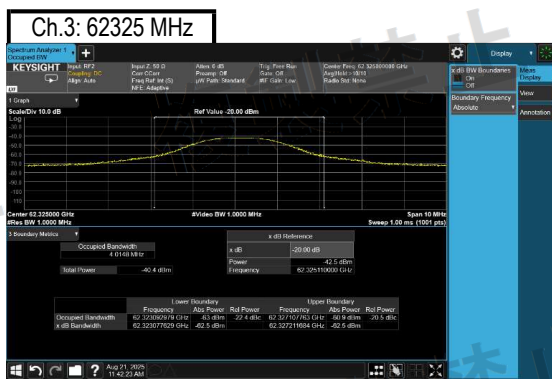
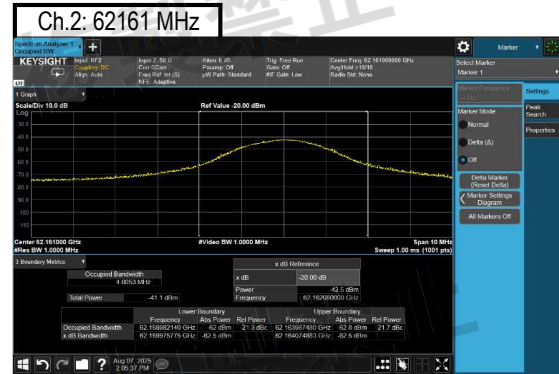
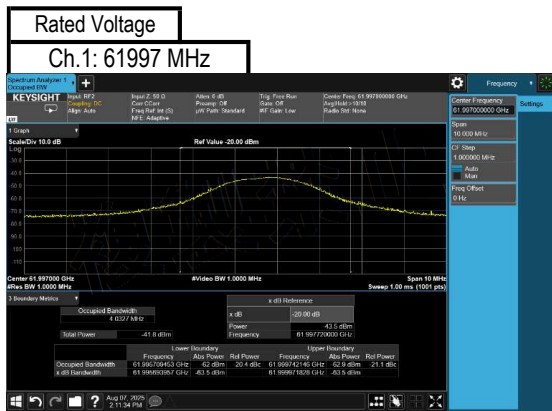


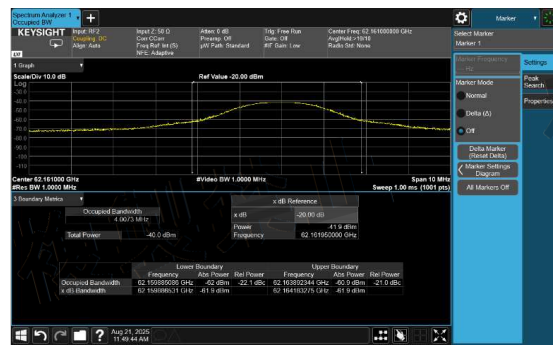
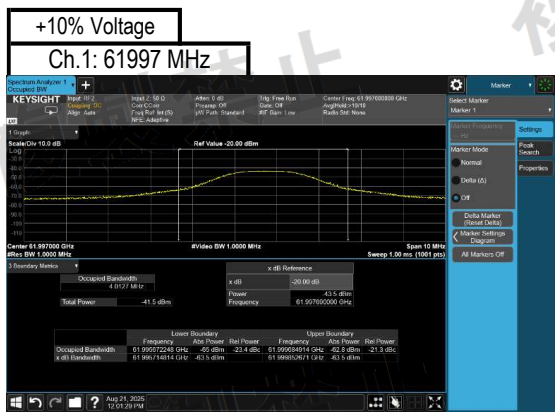
Radiated Measurement Photo
90 - 135 GHz



7. Test chart

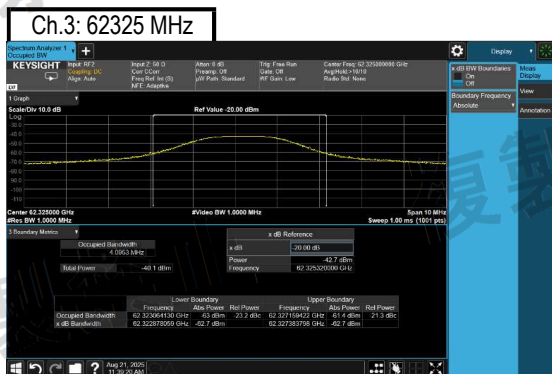
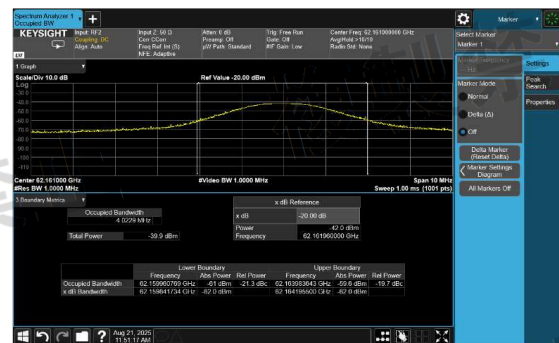
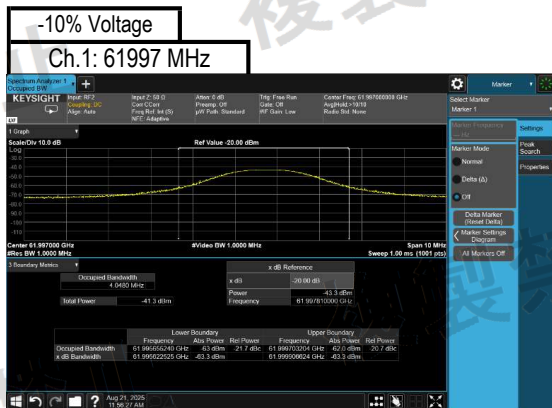
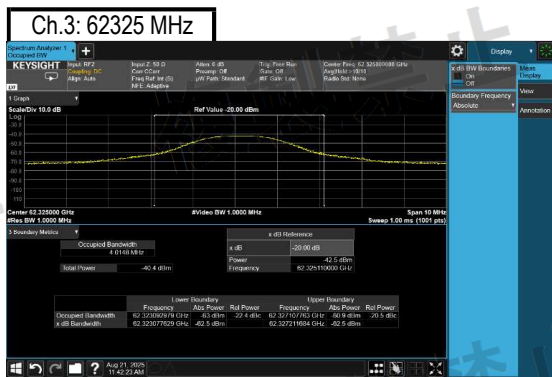
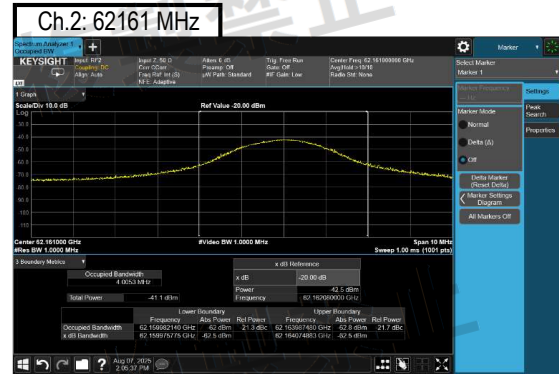
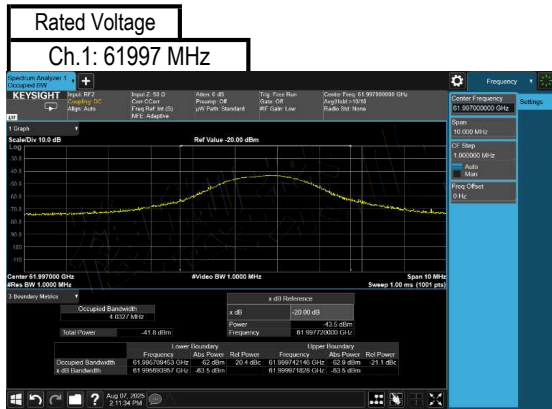
7.1 Frequency tolerance

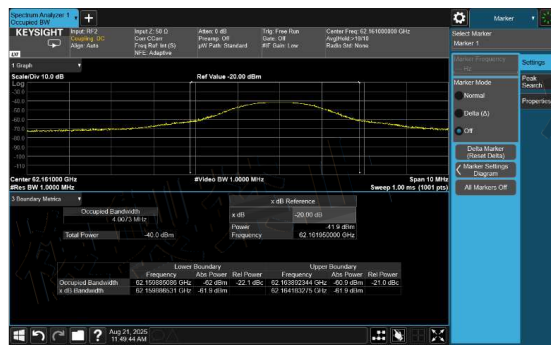
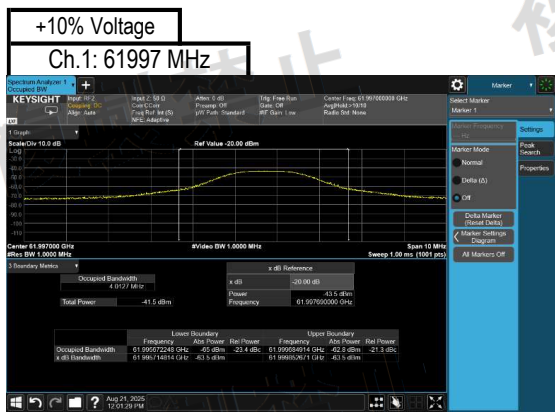




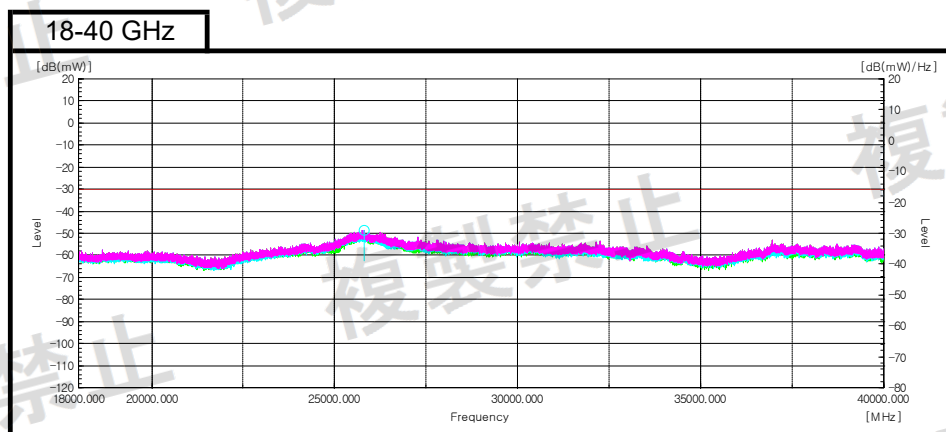
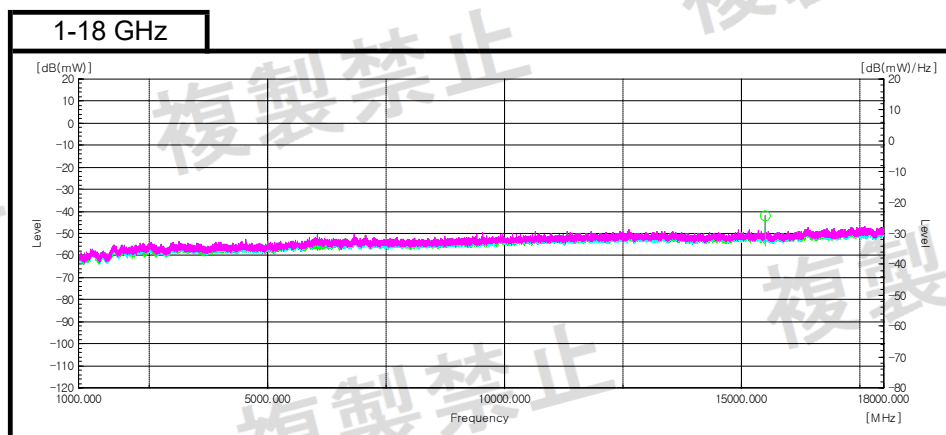
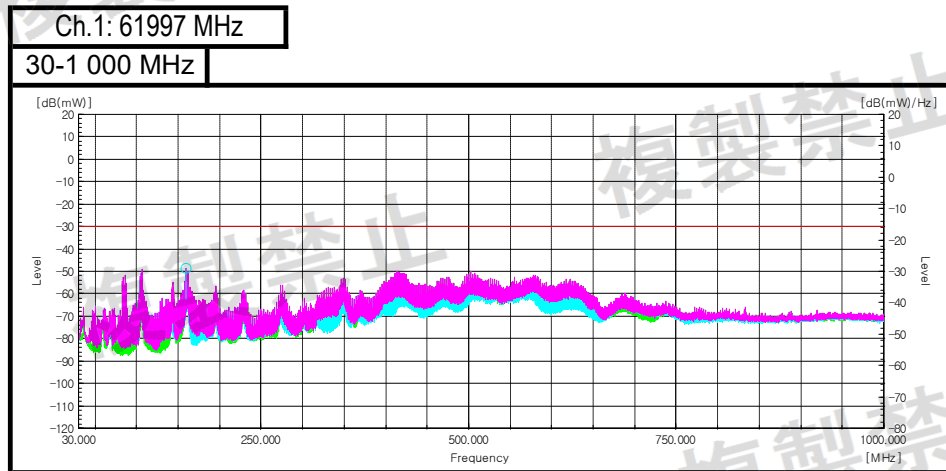
7. Test chart

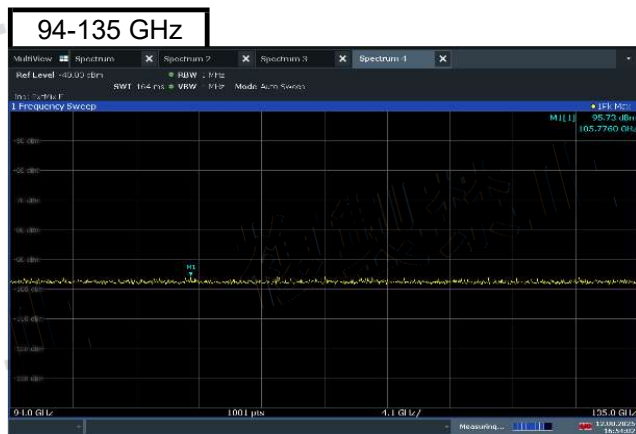
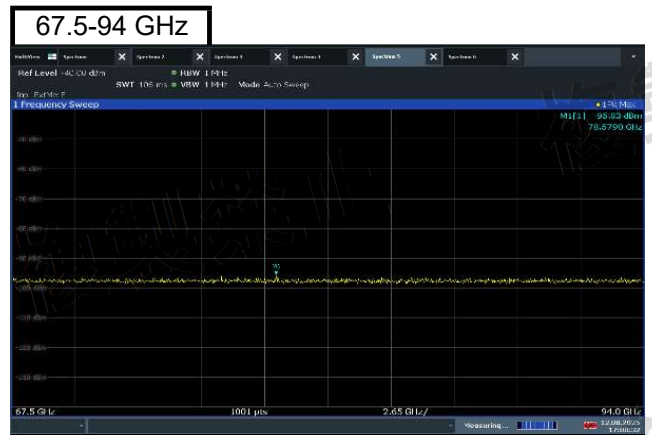
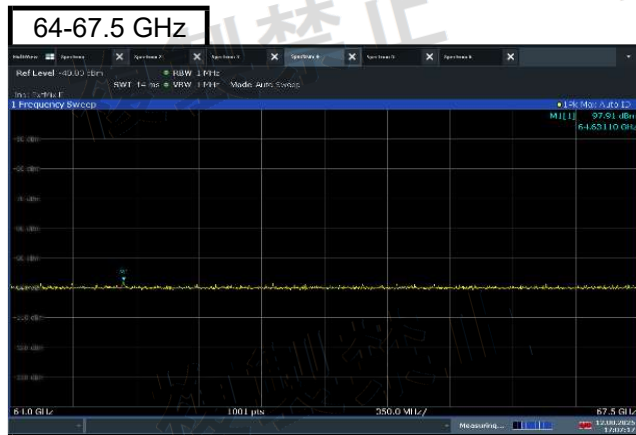
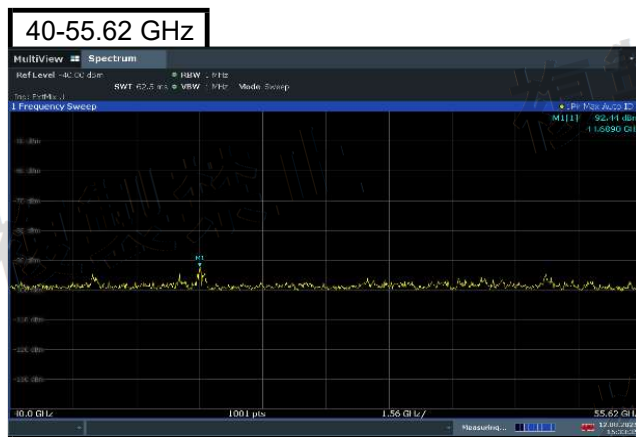
7.2 Occupied bandwidth





7.3 Unwanted(Spurious) emission strength (Rated Voltage)



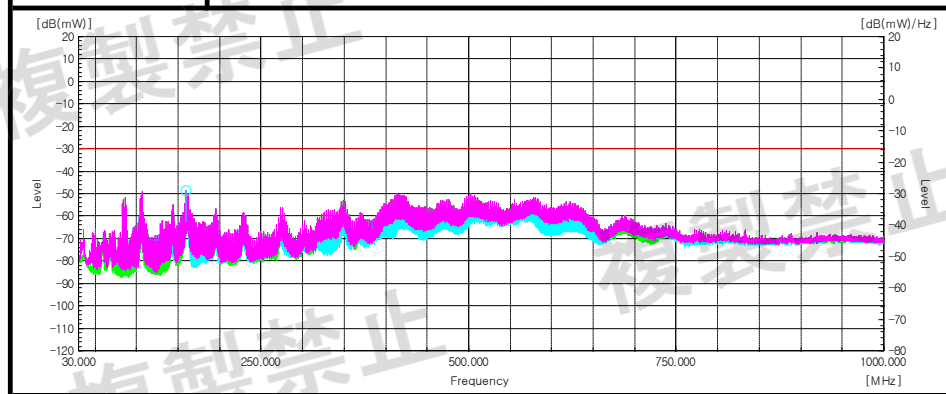


***Substitution Data**

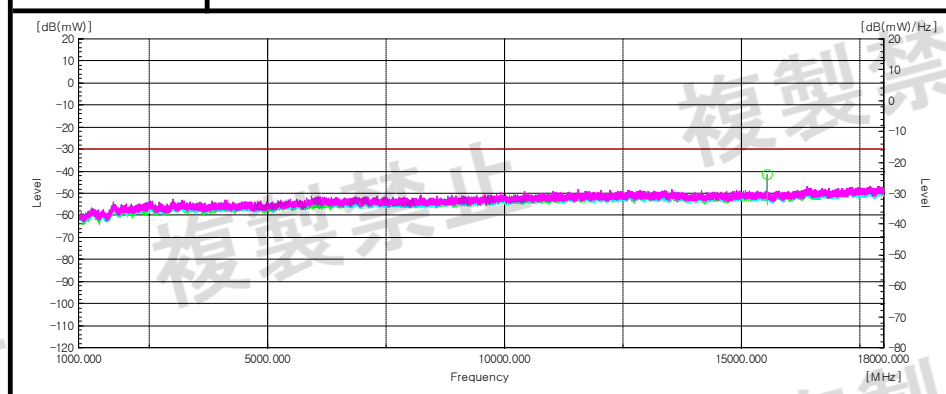
H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Cable loss [dB]	Source Out [dB]	Subs. Ant. Gain [dBi]	EUT Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss[dB]	RX Antenna							
H	159.99	-44.90	32.47	-	1.58	9.30	-48.82	2.12	-	3.40	4.00	-51.54	-30
H	15581.56	-51.50	59.81	-	11.11	39.76	-38.30	18.25	-	13.80	4.00	-46.75	-30
V	25796.76	-62.10	56.75	-	15.59	46.49	-28.85	31.96	-	12.10	4.00	-52.71	-30
H	44689.00	-92.44	-	10.50	0.69	40.67	-67.41	-	-6.19	22.40	4.00	-42.81	-30
H	56194.20	-95.27	-	12.23	0.69	42.36	-72.54	-	-11.04	22.88	4.00	-42.62	-26
H	64631.10	-97.91	-	12.46	0.69	43.76	-52.28	-	9.21	22.50	4.00	-42.99	-26
H	77282.00	-95.83	-	12.61	0.69	45.17	-48.30	-	9.87	22.81	4.00	-39.35	-30
H	105776.00	-95.73	-	17.74	0.69	50.15	-53.26	-	0.55	22.57	4.00	-35.24	-30

Ch.2: 62161 MHz

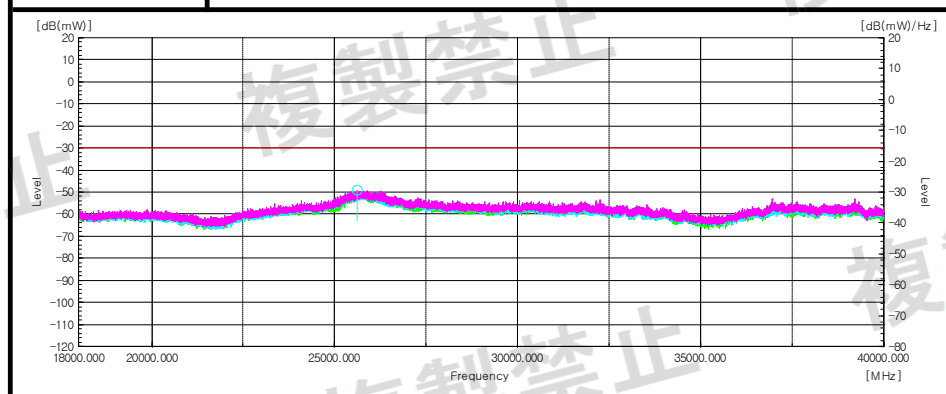
30-1 000 MHz

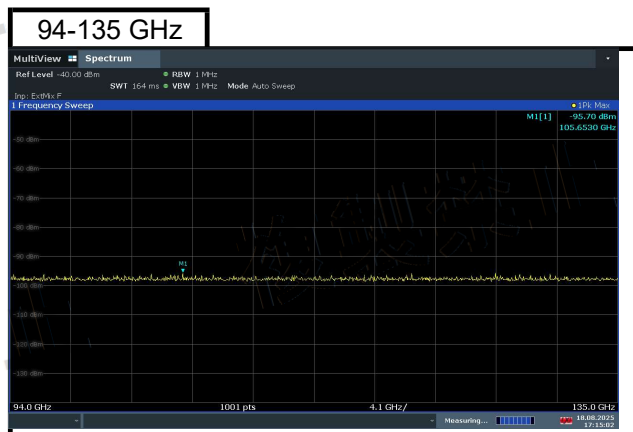
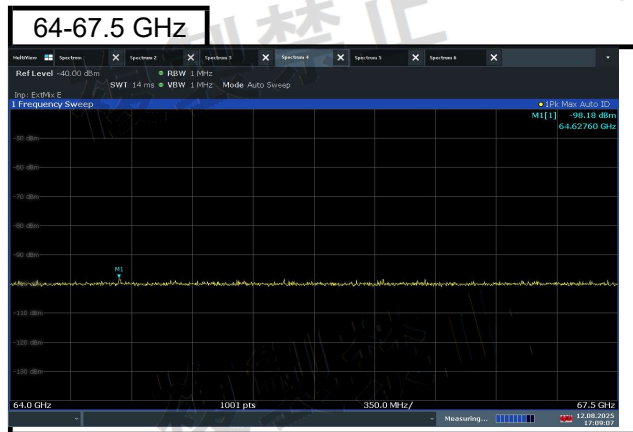
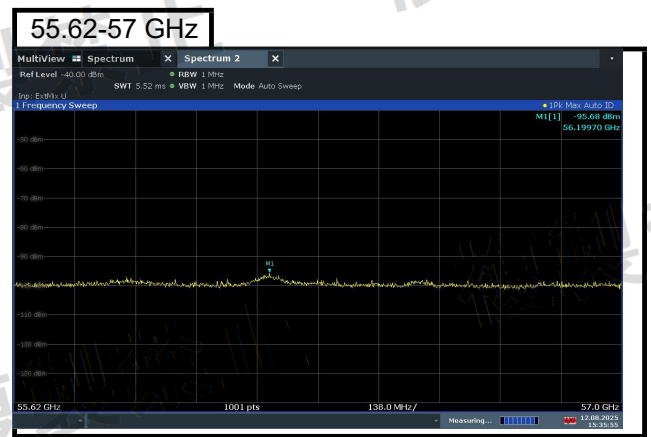
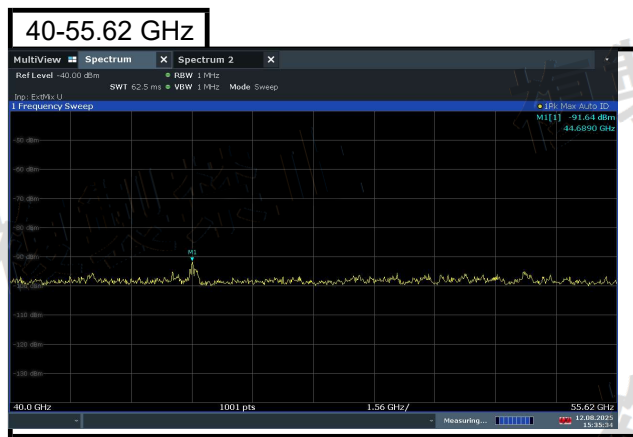


1-18 GHz



18-40 GHz



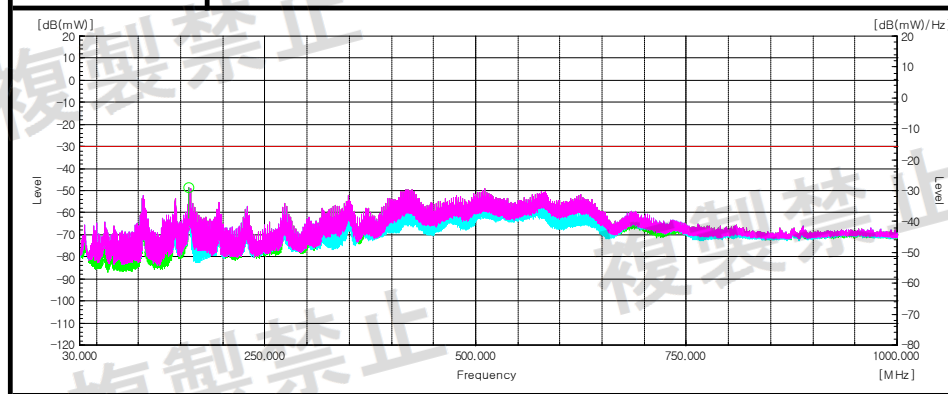


*Substitution Data

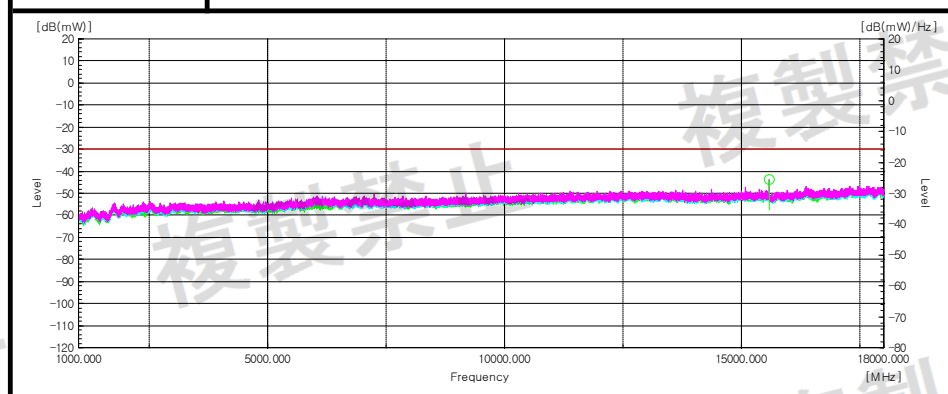
H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Cable loss [dB]	Source Out [dB]	Subs Ant. Gain [dBi]	EUT Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss[dB]	RX Antenna							
H	159.99	-45.10	32.47	-	1.58	9.30	-49.02	2.12	-	3.40	4.00	-51.74	-30
H	15540.32	-50.70	59.86	-	11.20	39.70	-37.08	18.34	-	13.78	4.00	-45.63	-30
V	25605.77	-62.80	56.60	-	15.36	46.39	-29.31	31.99	-	12.01	4.00	-53.29	-30
H	44689.00	-91.64	-	10.50	0.69	40.67	-66.61	-	-6.19	22.40	4.00	-42.01	-30
H	56199.70	-95.68	-	12.22	0.69	42.36	-72.95	-	-11.04	22.88	4.00	-43.03	-26
H	64627.60	-98.18	-	12.46	0.69	43.76	-51.78	-	9.21	22.50	4.00	-42.48	-26
H	77282.00	-95.90	-	12.61	0.69	45.17	-48.51	-	9.10	22.90	4.00	-38.71	-30
H	105653.00	-95.70	-	17.71	0.69	50.15	-53.32	-	0.59	22.56	4.00	-35.34	-30

Ch.3: 62325 MHz

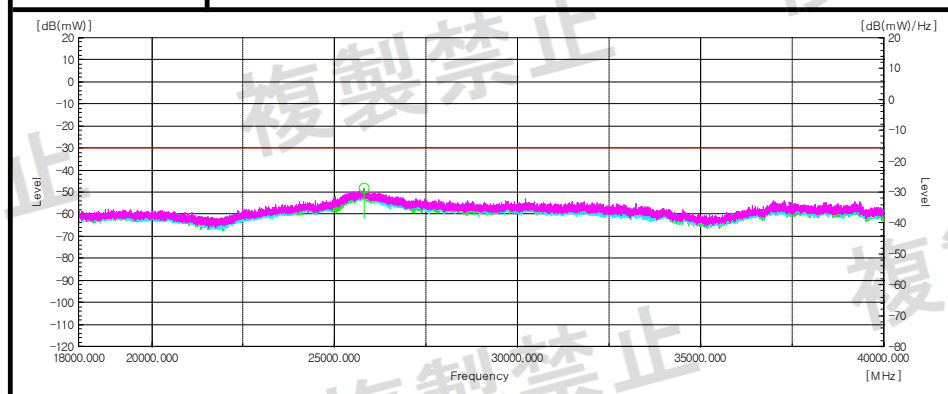
30-1 000 MHz

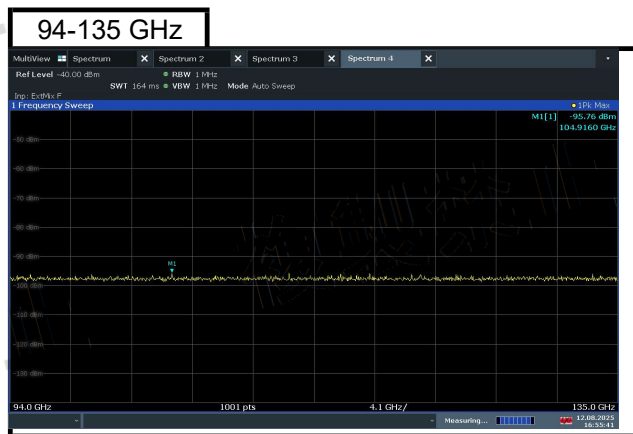
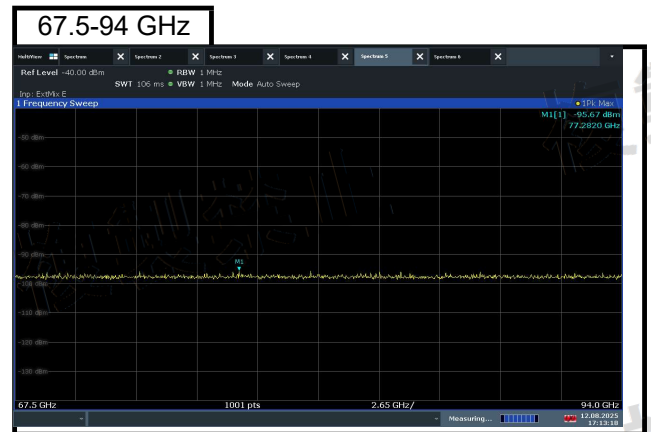
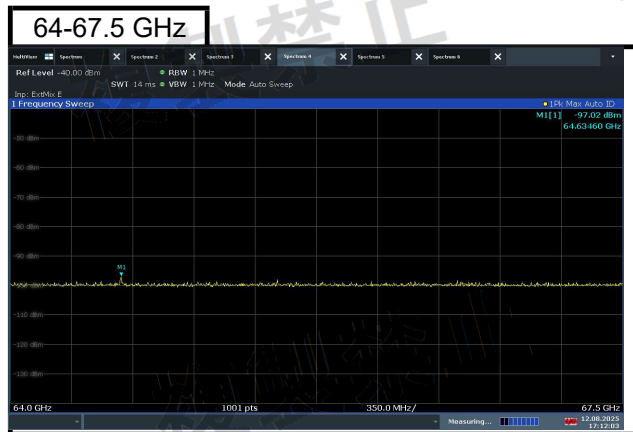
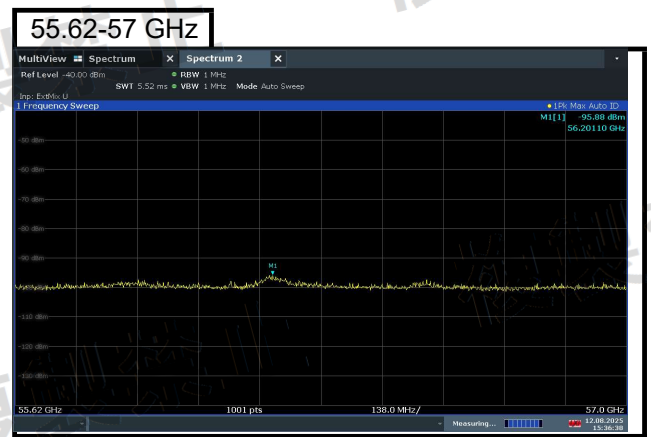
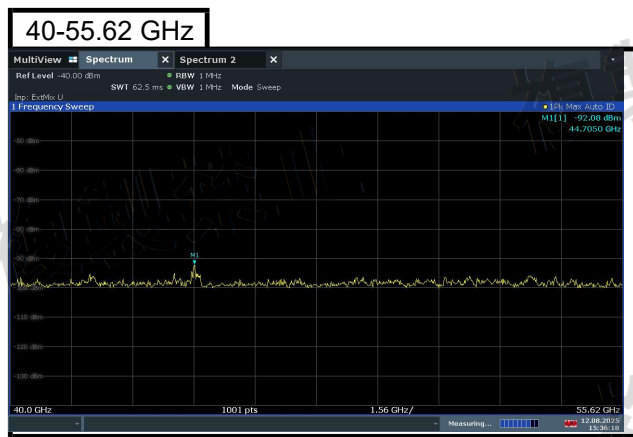


1-18 GHz



18-40 GHz





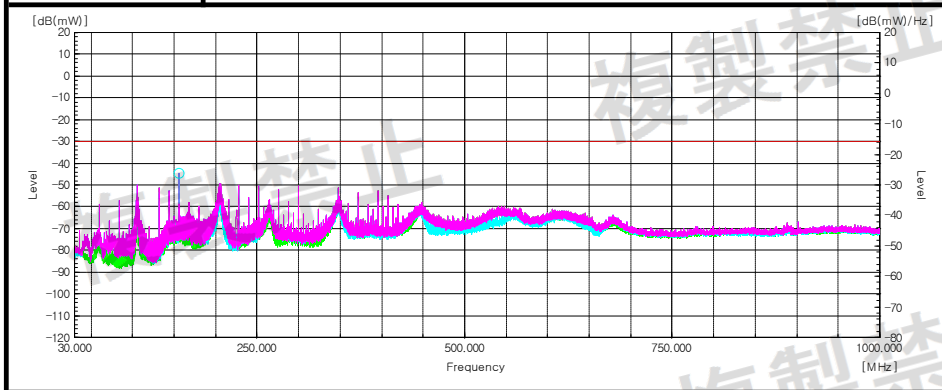
*Substitution Data

H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Cable loss [dB]	Source Out [dB]	Subs Ant. Gain [dBi]	EUT Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss [dB]	RX Antenna							
V	159.99	-45.90	32.47	-	1.58	9.30	-50.75	2.12	-	3.40	4.00	-53.47	-30
H	15499.08	-51.50	59.81	-	11.11	39.76	-39.40	18.25	-	13.80	4.00	-47.85	-30
H	25804.25	-61.80	56.75	-	15.57	46.50	-28.22	31.96	-	12.10	4.00	-52.08	-30
H	44705.00	-92.08	-	10.50	0.69	40.67	-67.06	-	-6.20	22.40	4.00	-42.46	-30
H	56201.10	-95.88	-	12.22	0.69	42.36	-73.15	-	-11.04	22.88	4.00	-43.23	-26
H	64634.60	-97.02	-	12.46	0.69	43.76	-50.62	-	9.21	22.50	4.00	-41.32	-26
H	77282.00	-95.67	-	12.61	0.69	45.17	-48.21	-	9.75	22.90	4.00	-39.06	-30
H	104916.00	-95.76	-	19.16	0.69	50.30	-53.90	-	0.84	22.55	4.00	-36.19	-30

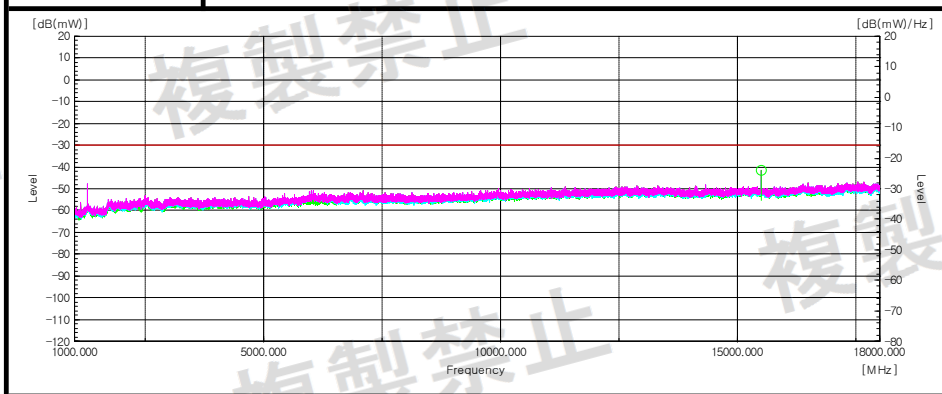
7.3 Unwanted(Spurious) emission strength (-10% Voltage)

Ch.1: 61997 MHz

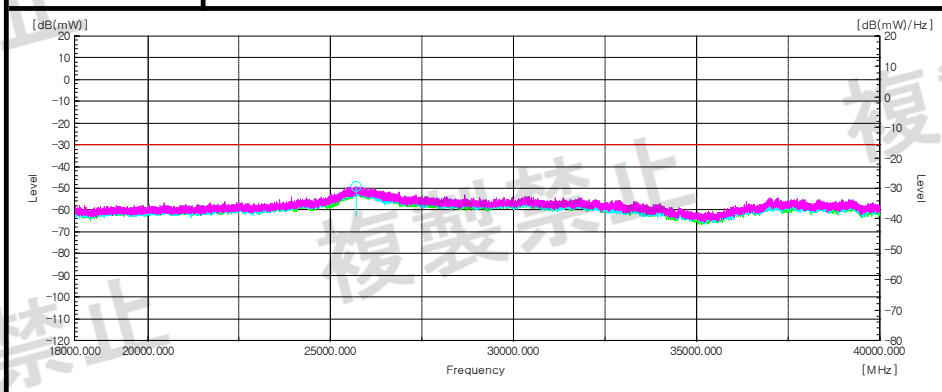
30-1 000 MHz

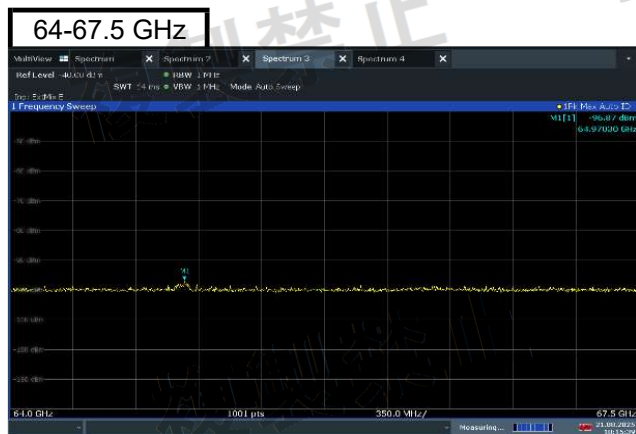
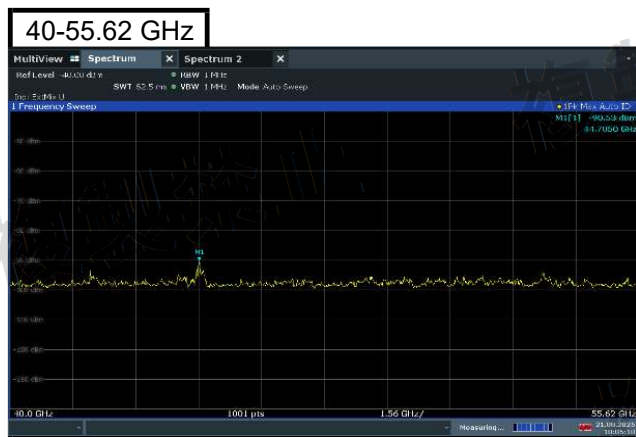


1-18 GHz



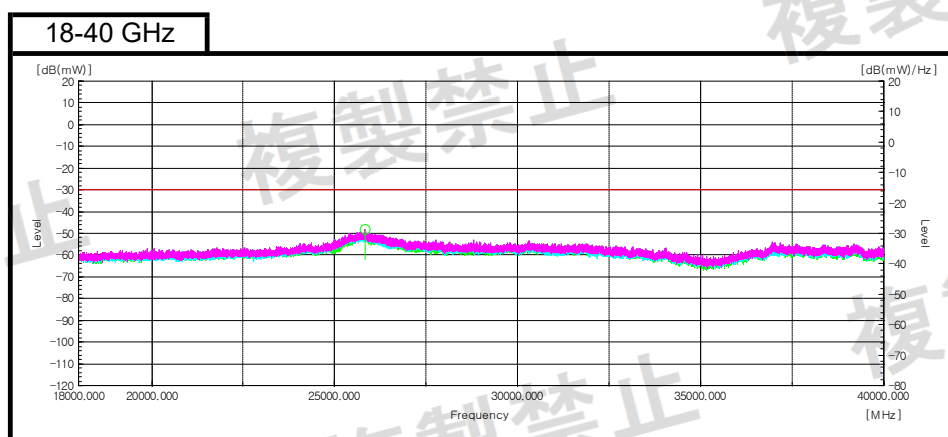
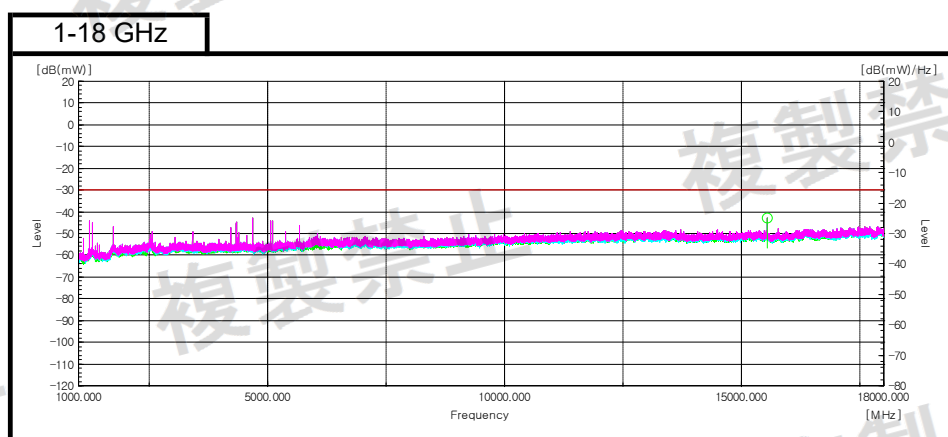
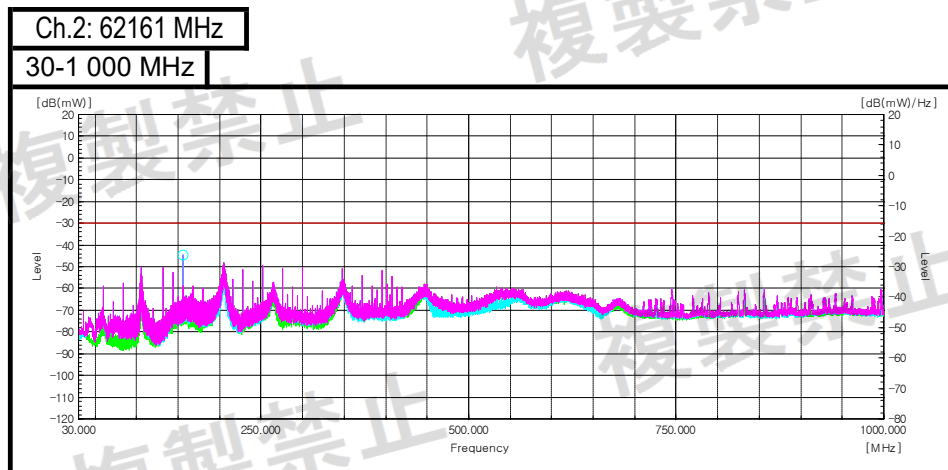
18-40 GHz

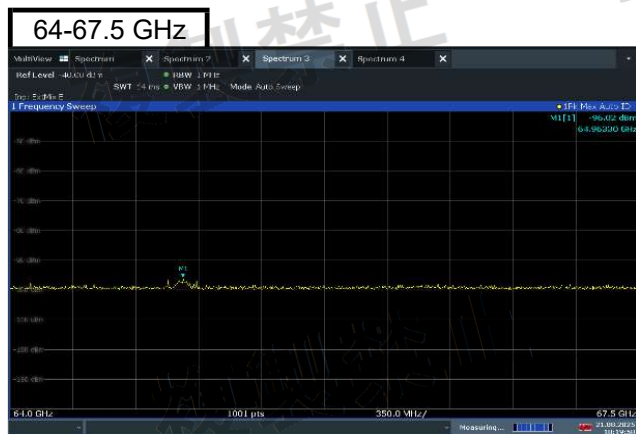
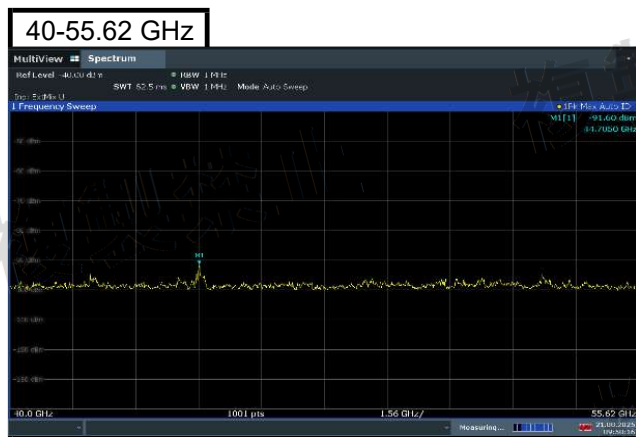




***Substitution Data**

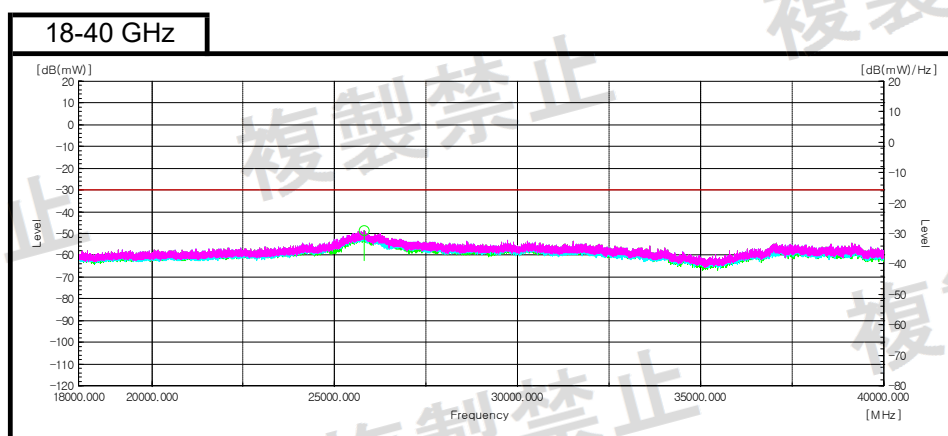
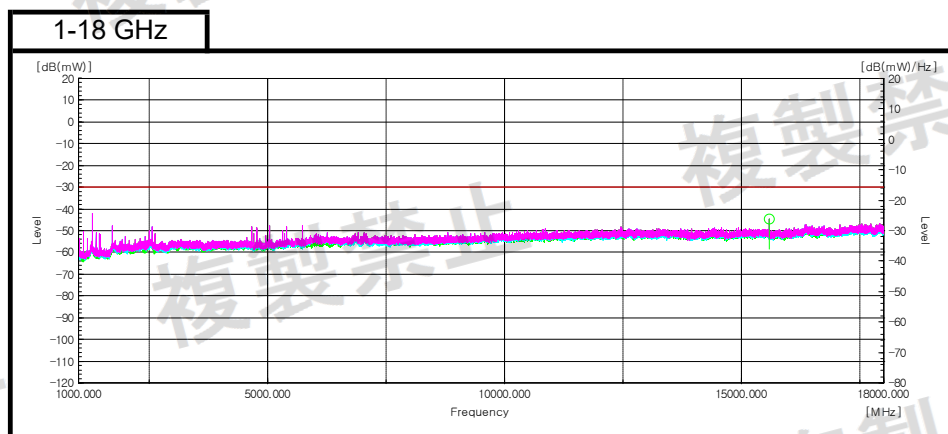
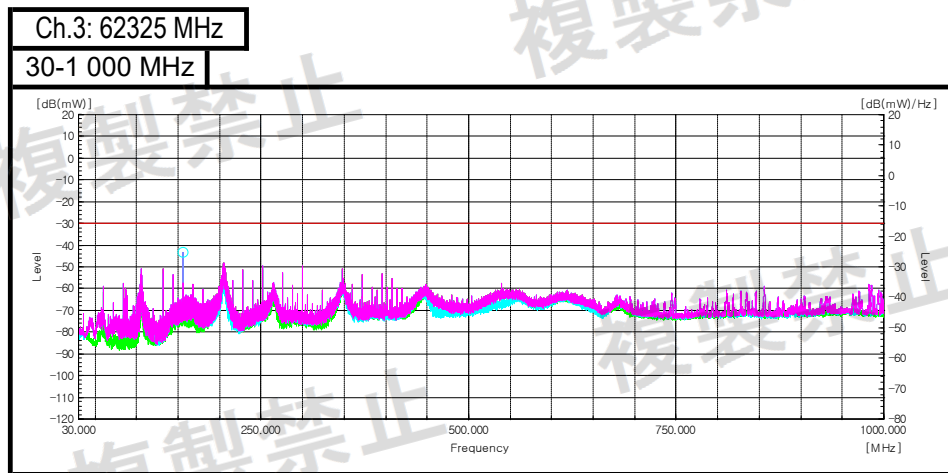
H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Cable loss [dB]	Source Out [dB]	Subs. Ant. Gain [dBi]	EUT Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss [dB]	RX Antenna							
V	156.01	-41.40	32.47	-	1.50	10.10	-45.30	2.09	-	2.90	4.00	-48.48	-30
H	15499.81	-51.10	59.91	-	11.29	39.70	-37.00	18.42	-	13.70	4.00	-45.72	-30
V	25686.28	-62.60	56.73	-	15.53	46.45	-28.03	32.02	-	12.10	4.00	-51.95	-30
H	44705.00	-90.53	-	10.50	0.69	40.67	-65.68	-	-6.20	22.57	4.00	-40.91	-30
H	56206.60	-95.68	-	12.21	0.69	42.36	-72.95	-	-11.04	22.88	4.00	-43.03	-26
H	64970.30	-96.87	-	13.21	0.69	43.97	-50.43	-	9.20	22.50	4.00	-41.13	-26
H	76541.00	-97.67	-	12.79	0.69	44.70	-50.19	-	9.79	22.85	4.00	-41.12	-30
H	97748.00	-96.18	-	10.77	0.69	47.96	-55.95	-	-0.42	22.33	4.00	-37.19	-30

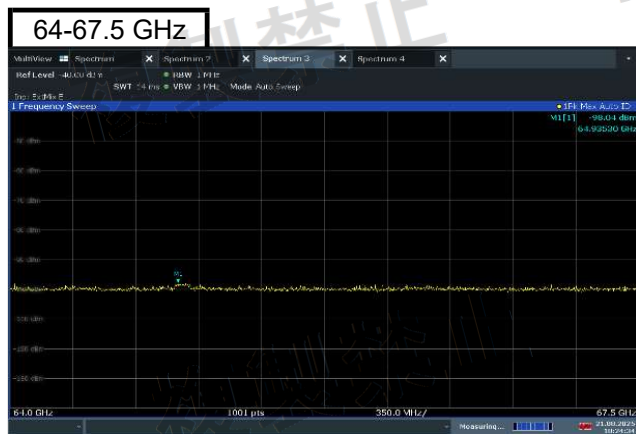
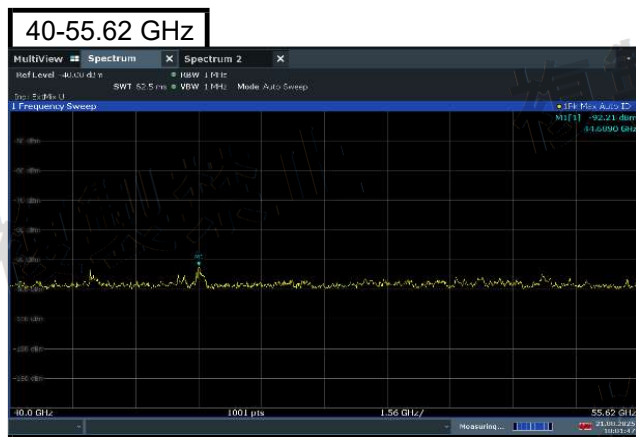




***Substitution Data**

H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Cable loss [dB]	Source Out [dB]	Subs. Ant. Gain [dBi]	EUT Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss[dB]	RX Antenna							
V	156.01	-41.50	32.47	-	1.50	10.10	-45.30	2.09	-	2.90	4.00	-48.48	-30
H	15540.32	-51.90	59.86	-	11.20	39.70	-37.00	18.42	-	13.70	4.00	-45.72	-30
H	25819.23	-61.80	56.75	-	15.60	46.50	-28.03	32.02	-	12.10	4.00	-51.95	-30
H	44705.00	-91.60	-	10.50	0.69	40.67	-65.68	-	-6.20	22.57	4.00	-40.91	-30
H	56188.70	-95.68	-	12.24	0.69	42.36	-72.95	-	-11.04	22.88	4.00	-43.03	-26
H	64963.30	-96.02	-	13.20	0.69	43.96	-50.43	-	9.20	22.50	4.00	-41.13	-26
H	71881.00	-97.03	-	12.04	0.69	44.11	-50.19	-	9.79	22.85	4.00	-41.12	-30
H	98280.00	-95.25	-	10.48	0.69	48.00	-55.95	-	-0.42	22.33	4.00	-37.19	-30



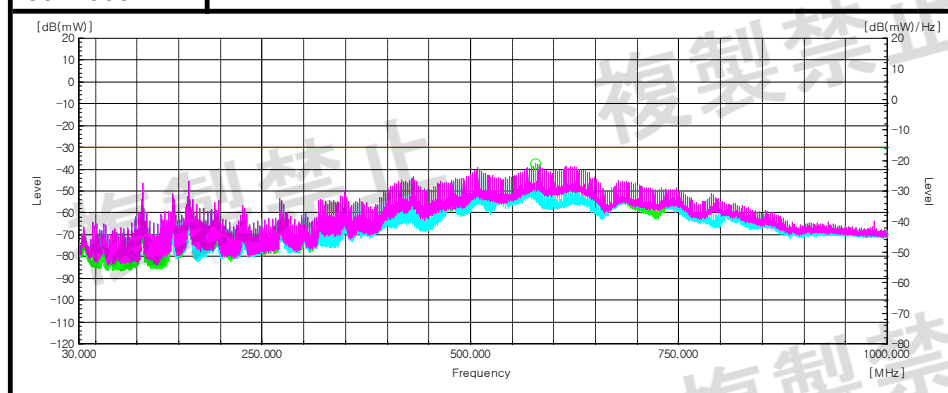


***Substitution Data**

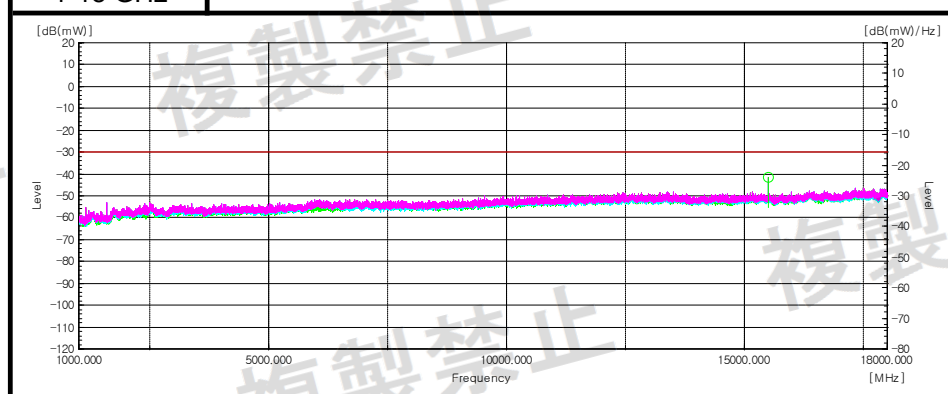
H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Cable loss [dB]	Source Out [dB]	Subs Ant. Gain [dBi]	EUT Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss[dB]	RX Antenna							
V	156.01	-40.50	32.47	-	1.50	10.10	-44.40	2.09	-	2.90	4.00	-47.58	-30
H	15581.56	-53.20	59.81	-	11.11	39.76	-40.12	18.25	-	13.80	4.00	-48.57	-30
H	25794.88	-62.10	56.73	-	15.53	46.44	-28.22	32.03	-	12.10	4.00	-52.15	-30
H	44689.00	-92.21	-	10.50	0.69	40.67	-67.35	-	-6.19	22.57	4.00	-42.59	-30
H	56202.50	-95.68	-	12.21	0.69	42.36	-72.95	-	-11.04	22.88	4.00	-43.03	-26
H	64935.30	-98.04	-	13.16	0.69	43.91	-51.61	-	9.20	22.50	4.00	-42.31	-26
H	74529.00	-97.68	-	12.37	0.69	44.14	-50.63	-	9.79	22.90	4.00	-41.51	-30
H	105325.20	-95.73	-	10.83	0.69	48.49	-53.58	-	0.70	22.56	4.00	-35.72	-30

7.3 Unwanted(Spurious) emission strength (+10% Voltage)

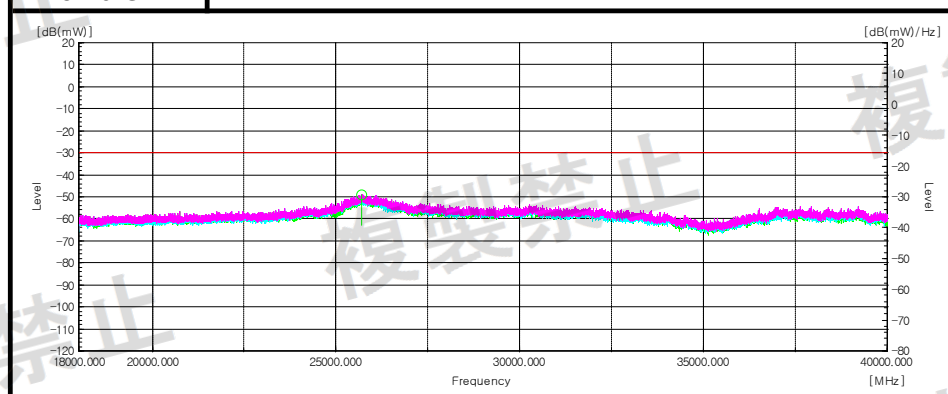
Ch.1: 61997 MHz
30-1 000 MHz

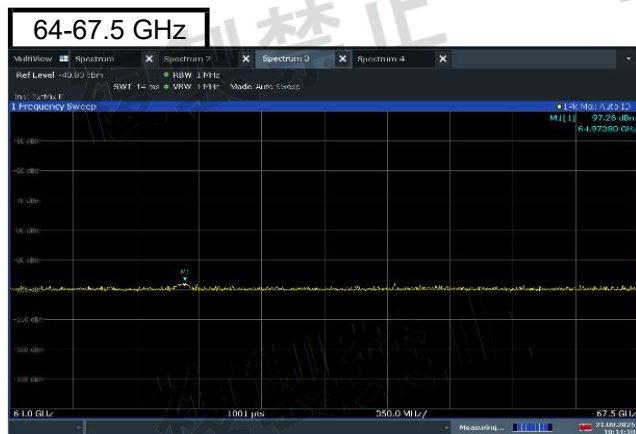
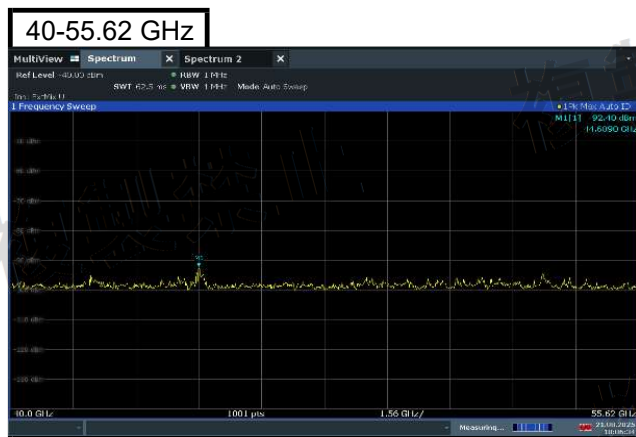


1-18 GHz



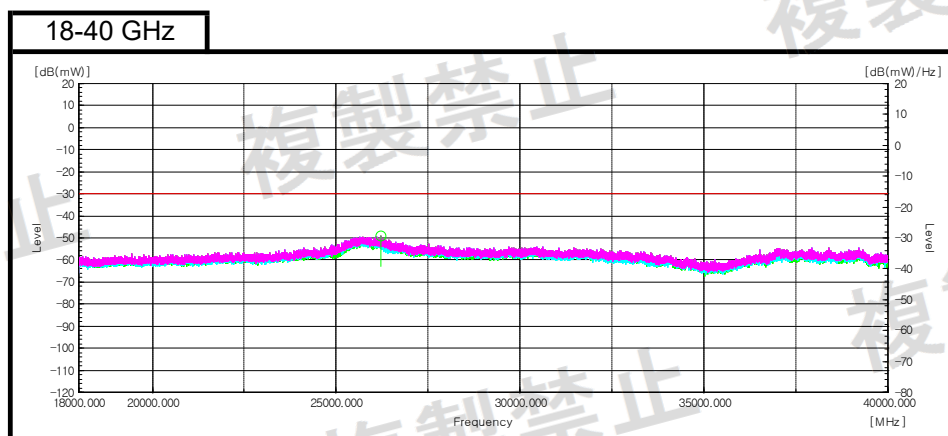
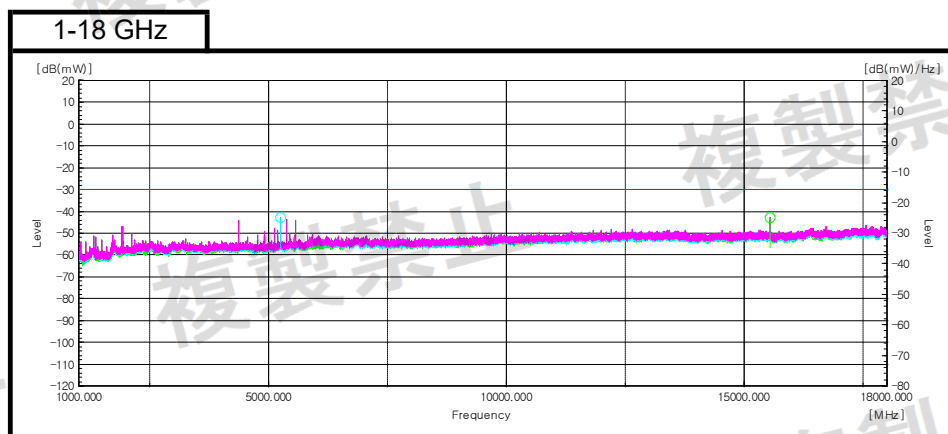
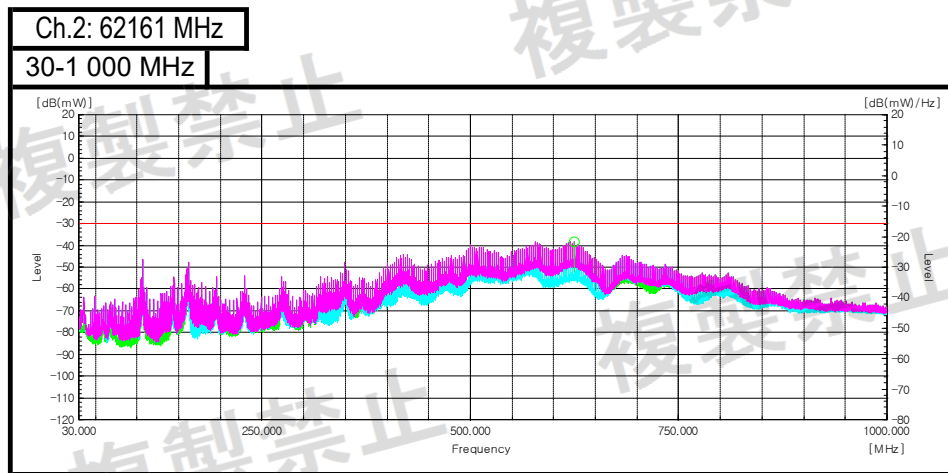
18-40 GHz

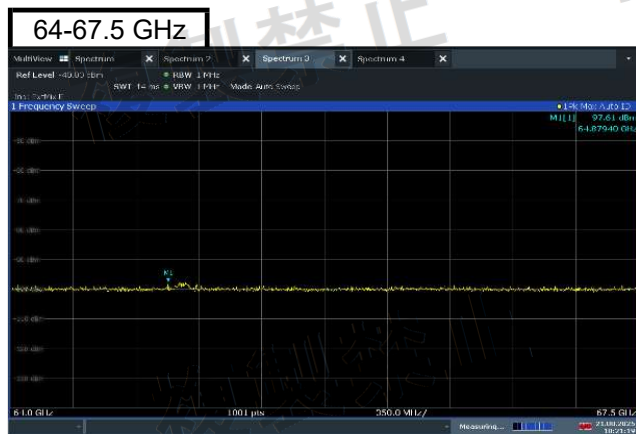
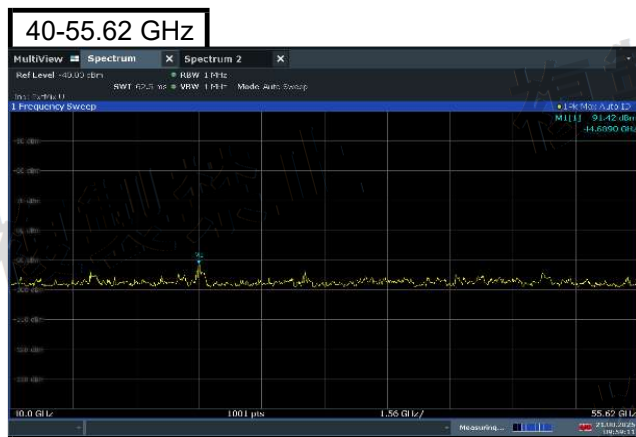




***Substitution Data**

H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Cable loss [dB]	Source Out [dB]	Subs Ant. Gain [dBi]	EUT Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss[dB]	RX Antenna							
V	577.76	-41.90	32.85	-	2.98	1.00	-40.34	4.20	-	6.96	4.00	-41.58	-30
H	15499.08	-51.10	59.91	-	11.29	39.70	-37.03	18.42	-	13.70	4.00	-45.75	-30
V	25705.94	-62.60	56.68	-	15.35	46.31	-28.97	32.21	-	12.10	4.00	-53.08	-30
H	44689.00	-92.40	-	10.50	0.69	40.67	-67.54	-	-6.19	22.57	4.00	-42.77	-30
H	56190.10	-96.00	-	12.23	0.69	42.36	-73.27	-	-11.04	22.88	4.00	-43.36	-26
H	64973.80	-97.26	-	12.43	0.69	43.80	-50.82	-	9.20	22.50	4.00	-41.52	-26
H	74529.00	-97.37	-	12.74	0.69	44.70	-50.32	-	9.79	22.90	4.00	-41.20	-30
H	97584.00	-95.62	-	10.90	0.69	47.96	-55.36	-	-0.42	22.33	4.00	-36.61	-30



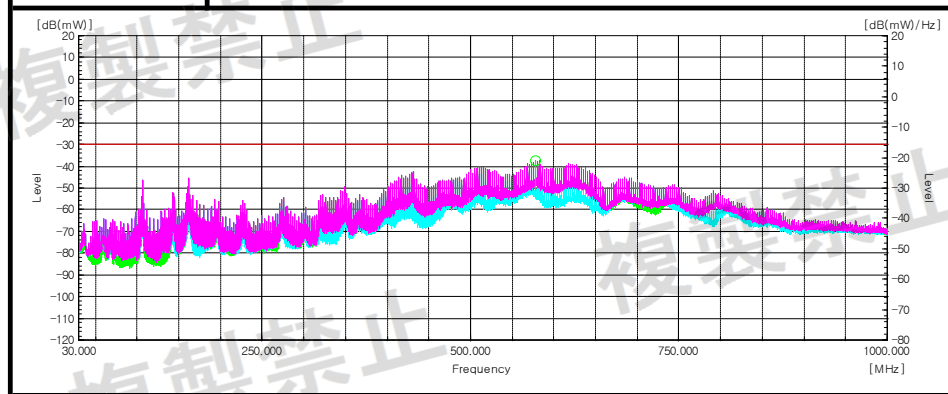


***Substitution Data**

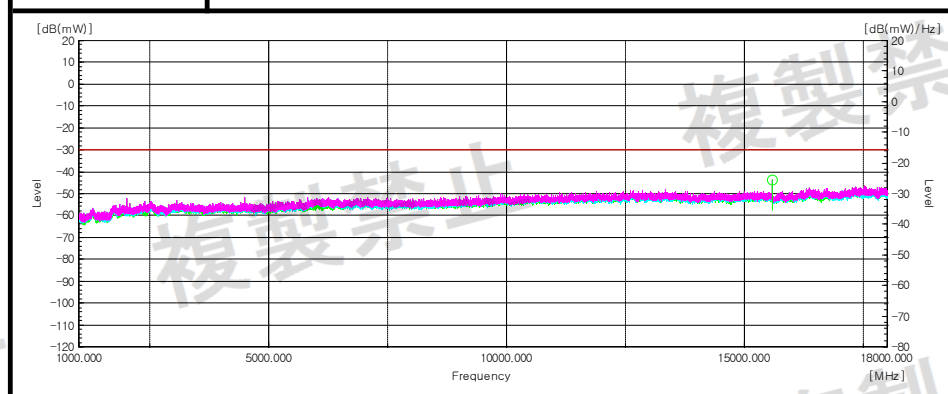
H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Cable loss [dB]	Source Out [dB]	Subs Ant. Gain [dBi]	EUT Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss[dB]	RX Antenna							
H	624.42	-44.20	32.84	-	2.99	1.00	-41.41	4.39	-	7.39	4.00	-42.41	-30
H	5245.84	-42.00	58.30	-	6.68	34.20	-43.03	10.14	-	10.49	4.00	-46.68	-30
H	15540.32	-52.20	59.86	-	11.20	39.70	-38.65	18.34	-	13.78	4.00	-47.20	-30
H	26212.43	-61.60	56.90	-	15.04	47.01	-28.68	32.36	-	12.11	4.00	-52.92	-30
H	44689.00	-91.42	-	10.50	0.69	40.67	-66.56	-	-6.19	22.57	4.00	-41.79	-26
H	56188.70	-95.27	-	12.24	0.69	42.36	-72.54	-	-11.04	22.88	4.00	-42.63	-26
H	64879.40	-97.61	-	12.44	0.69	43.79	-51.18	-	9.20	22.50	4.00	-41.88	-30
H	79579.00	-98.10	-	12.52	0.69	45.26	-50.25	-	9.88	23.02	4.00	-41.12	-30
H	104096.00	-95.83	-	10.26	0.69	48.36	-54.49	-	0.76	22.52	4.00	-36.73	-30

Ch.3: 62325 MHz

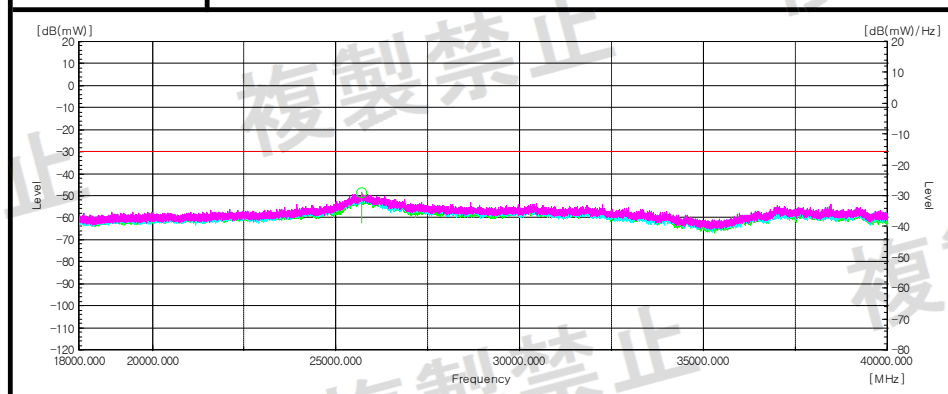
30-1 000 MHz

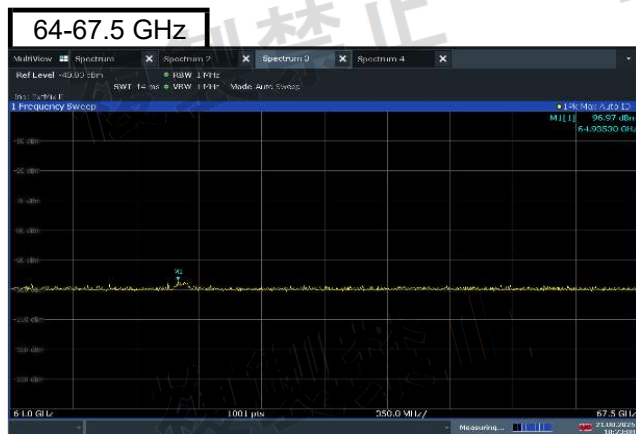
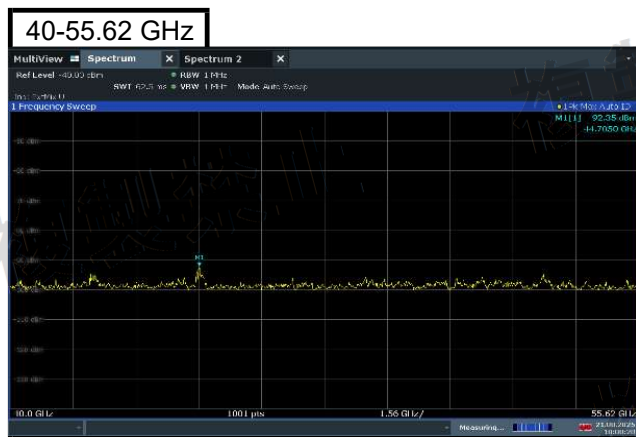


1-18 GHz



18-40 GHz

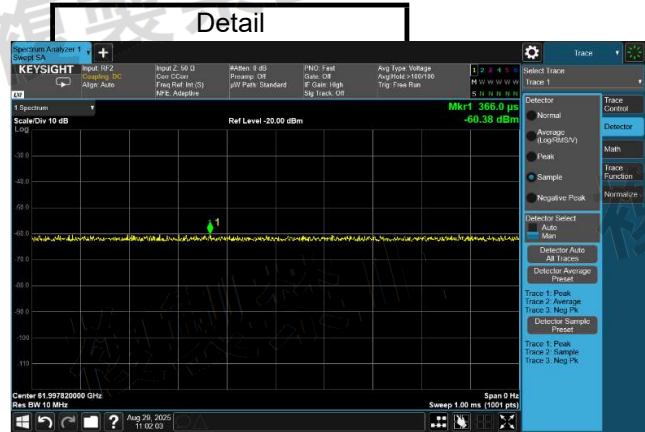
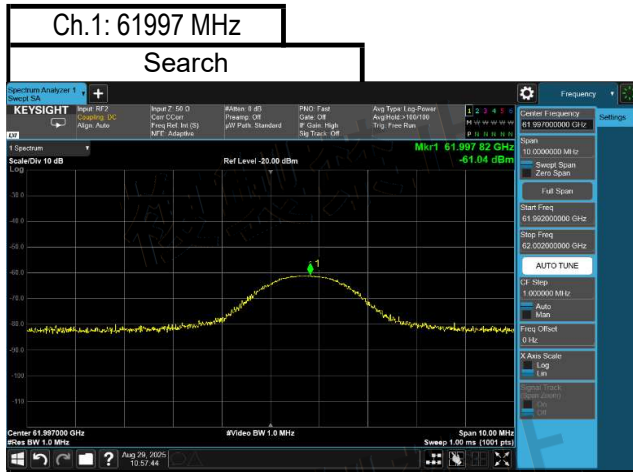




***Substitution Data**

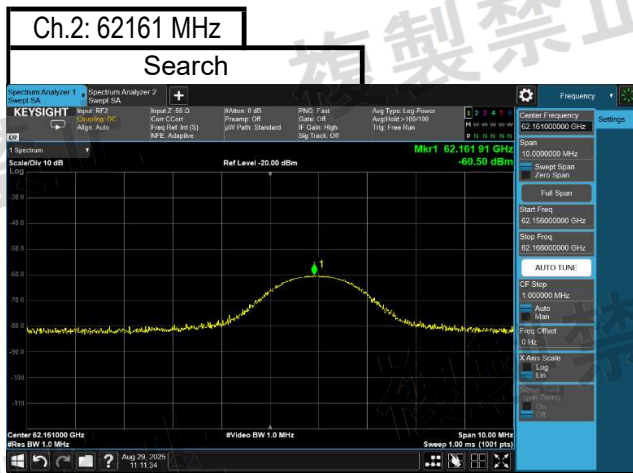
H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Cable loss [dB]	Source Out [dB]	Subs Ant. Gain [dBi]	EUT Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss[dB]	RX Antenna							
H	577.76	-41.90	32.85	-	2.98	1.00	-40.50	4.20	-	6.96	4.00	-41.74	-30
H	15581.56	-52.40	59.81	-	11.11	39.76	-39.32	18.25	-	13.80	4.00	-47.77	-30
H	25683.47	-62.60	56.66	-	15.33	46.32	-29.19	32.19	-	12.08	4.00	-53.30	-30
H	44705.00	-92.35	-	10.50	0.69	40.67	-67.50	-	-6.20	22.57	4.00	-42.73	-30
H	56172.10	-96.04	-	12.27	0.69	42.35	-73.31	-	-11.03	22.88	4.00	-43.40	-26
H	64935.30	-96.97	-	12.44	0.69	43.79	-50.54	-	9.20	22.50	4.00	-41.24	-26
H	72490.00	-97.30	-	12.54	0.69	44.50	-50.66	-	9.67	22.85	4.00	-41.49	-30
H	99263.00	-95.82	-	10.28	0.69	48.06	-56.32	-	-0.62	22.39	4.00	-37.32	-30

7.4 RF output power tolerance (Rated Voltage)



*Substitution Data

H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Source Out [dB]	Subs Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss[dB]	RX Antenna					
H	61997.82	-60.380	-	-	20.34	42.90	-6.18	8.99	22.20	7.0305668	14



*Substitution Data

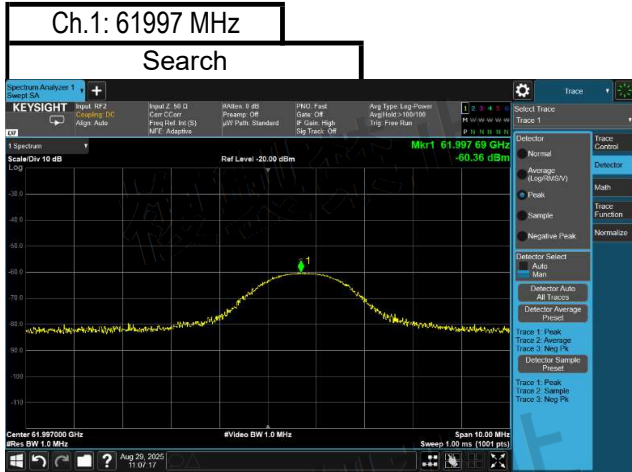
H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Source Out [dB]	Subs Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss[dB]	RX Antenna					
H	62161.91	-60.330	-	-	20.34	42.88	-5.98	9.02	22.22	7.2176235	14



*Substitution Data

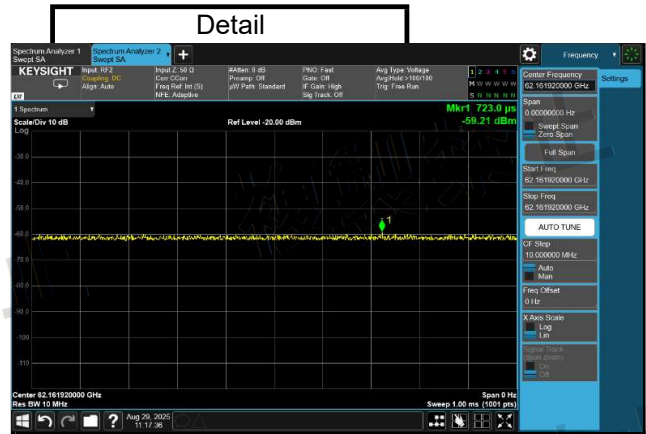
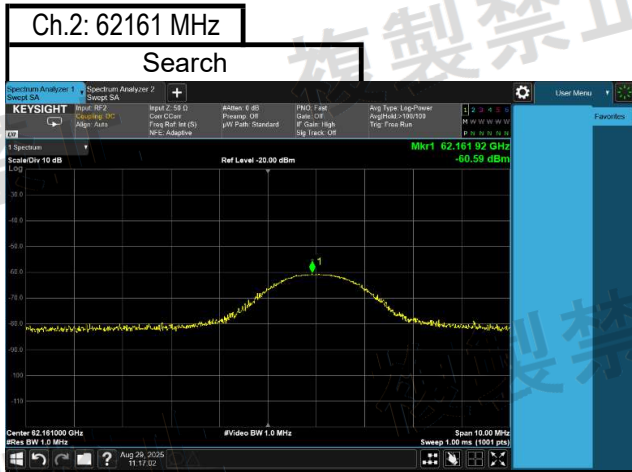
H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Source Out [dB]	Subs Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss [dB]	RX Antenna					
H	62325.02	-60.050		-	20.34	42.87	-5.55	9.05	22.23	7.6362670	14

7.4 RF output power tolerance (-10% Voltage)



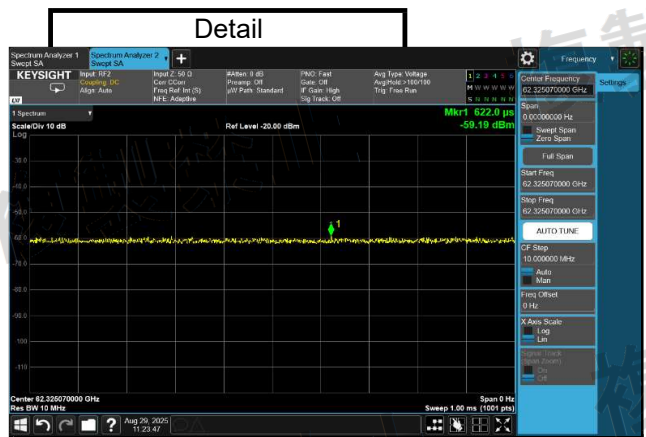
*Substitution Data

H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Source Out [dB]	Subs Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss[dB]	RX Antenna					
H	61997.69	-59.340	-	-	20.34	42.90	-5.14	8.99	22.20	8.0706006	14



*Substitution Data

H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Source Out [dB]	Subs Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss[dB]	RX Antenna					
H	62161.92	-59.210	-	-	20.34	42.88	-4.86	9.02	22.22	8.3376320	14



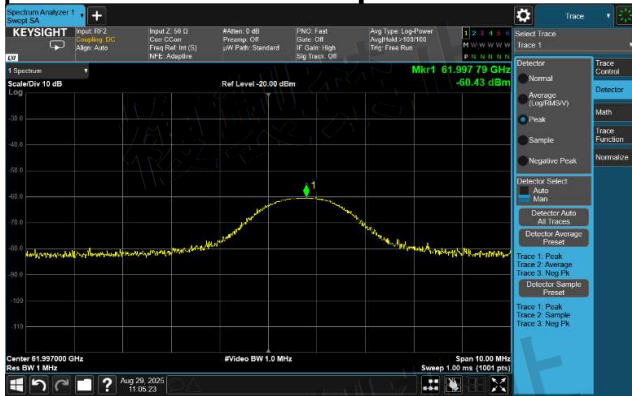
*Substitution Data

H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Source Out [dB]	Subs Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss [dB]	RX Antenna					
H	62325.07	-59.190	-	-	20.34	42.87	-4.69	9.05	22.23	8.4963095	14

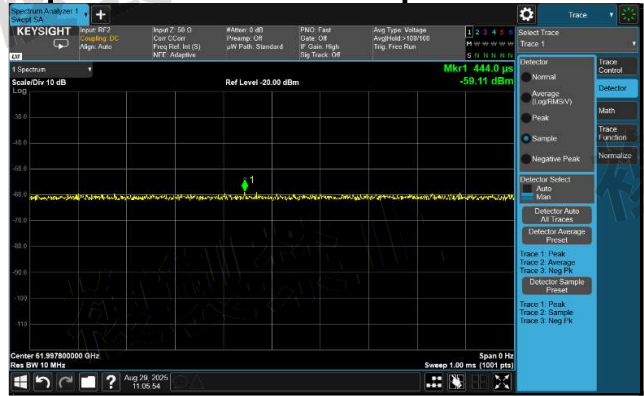
7.4 RF output power tolerance (+10% Voltage)

Ch.1: 61997 MHz

Search



Detail

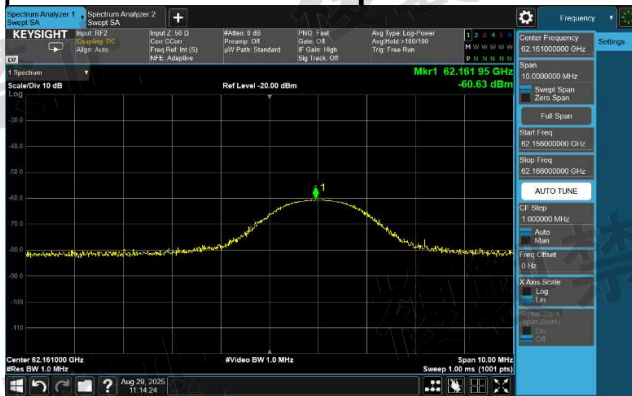


*Substitution Data

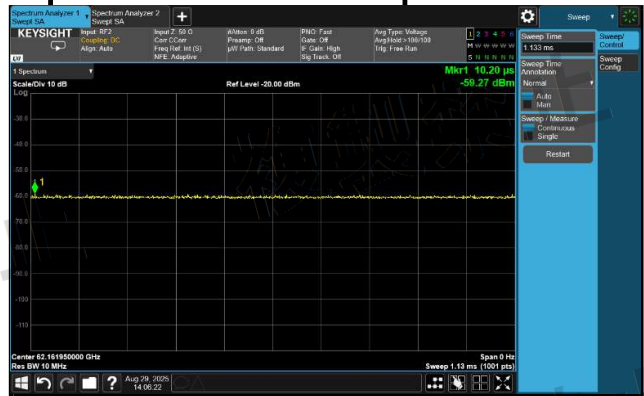
H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Source Out [dB]	Subs Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss[dB]	RX Antenna					
H	61997.78	-59.110	-	-	20.34	42.90	-4.91	8.99	22.20	8.3005772	14

Ch.2: 62161 MHz

Search



Detail



*Substitution Data

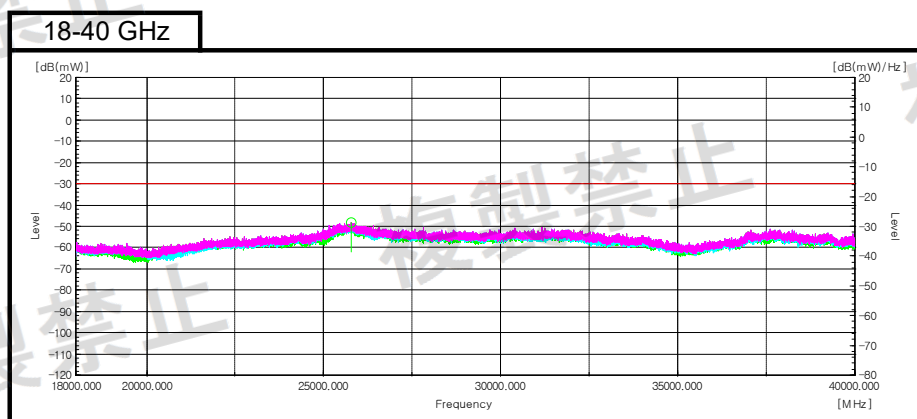
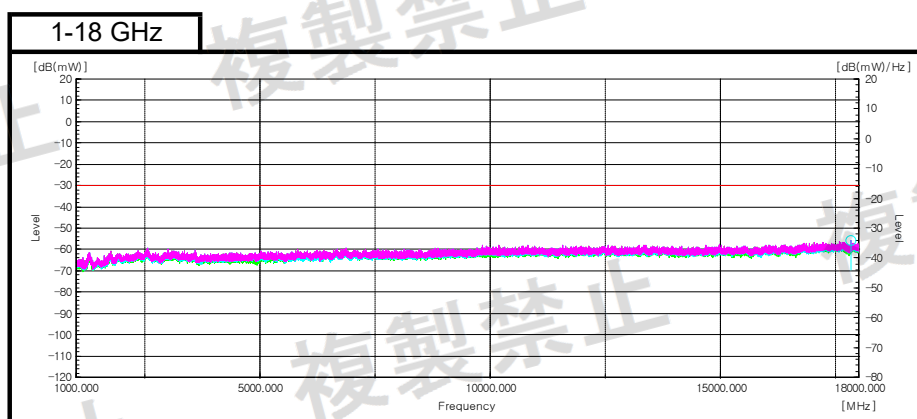
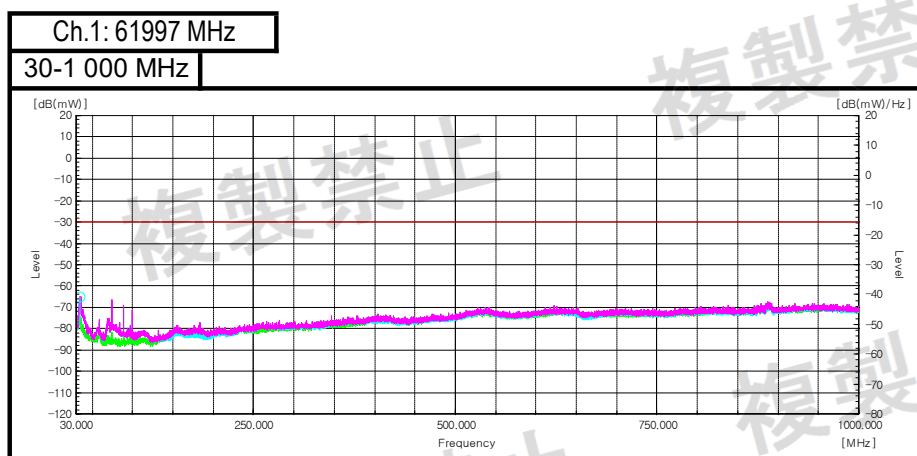
H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Source Out [dB]	Subs Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss[dB]	RX Antenna					
H	62161.95	-59.270	-	-	20.34	42.88	-4.92	9.02	22.22	8.2776575	14

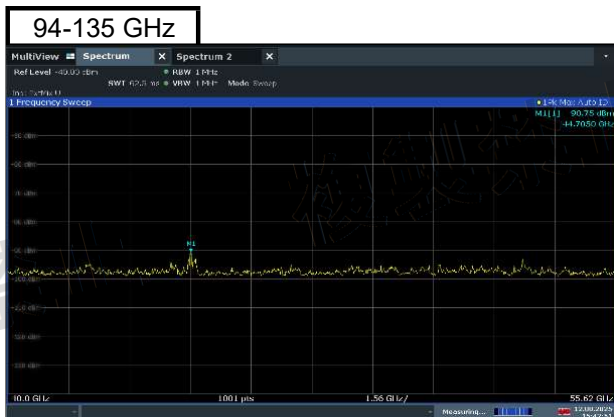


*Substitution Data

H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Source Out [dB]	Subs Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss[dB]	RX Antenna					
H	62325.05	-59.600		-	20.34	42.87	-5.10	9.05	22.23	8.0862925	14

7.5 Secondary emitted radio wave strength (Rated Voltage)

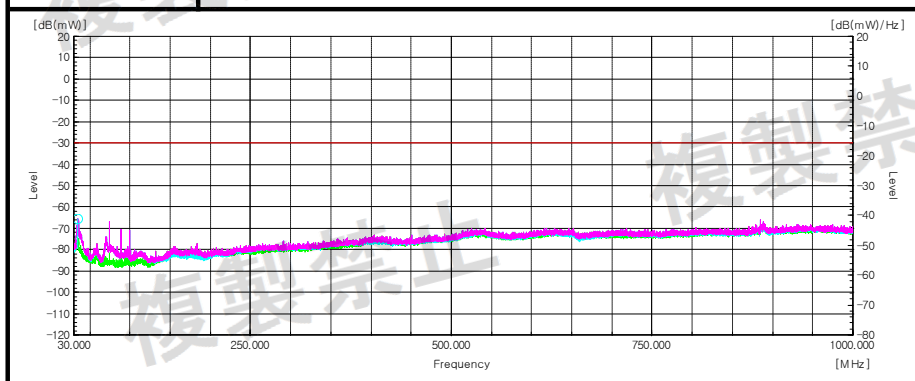




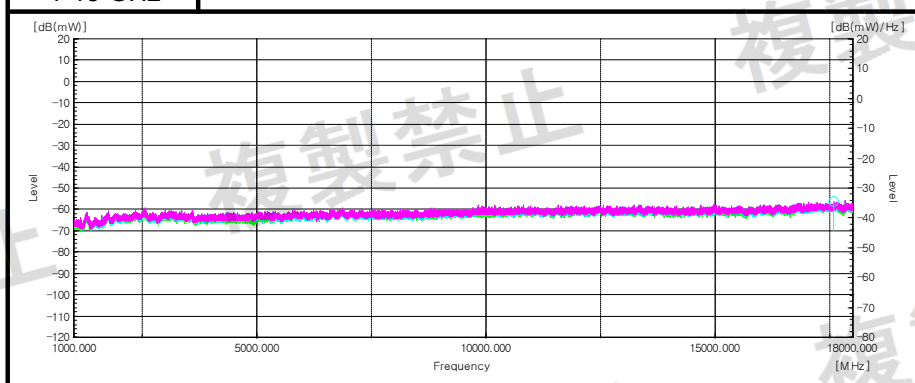
*Substitution Data

H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Cable loss [dB]	Source Out [dB]	Subs Ant. Gain [dBi]	EUT Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss[dB]	RX Antenna							
V	34.48	-62.600	32.51	-	0.66	13.76	-43.85	1.07	-	-20.21	4.00	-69.13	-30
V	17827.82	-60.000	58.13	-	11.63	41.30	-41.86	19.94	-	13.74	4.00	-52.05	-30
H	25773.35	-61.700	56.73	-	15.53	46.45	-28.03	32.02	-	12.10	4.00	-51.95	-30
H	44705.00	-90.750	-	10.07	0.69	40.80	-65.90	-	-6.20	22.57	4.00	-41.13	-30
H	56197.00	-95.440	-	12.14	0.69	42.50	-72.71	-	-11.04	22.88	4.00	-42.79	-26
H	66529.70	-95.680	-	12.92	0.69	43.90	-47.85	-	8.80	22.60	4.00	-38.04	-26
H	76144.00	-95.530	-	12.02	0.69	44.94	-48.00	-	9.87	22.81	4.00	-39.05	-30
H	124248.00	-95.980	-	12.77	0.69	49.10	-52.53	-	0.52	22.81	4.00	-34.24	-30

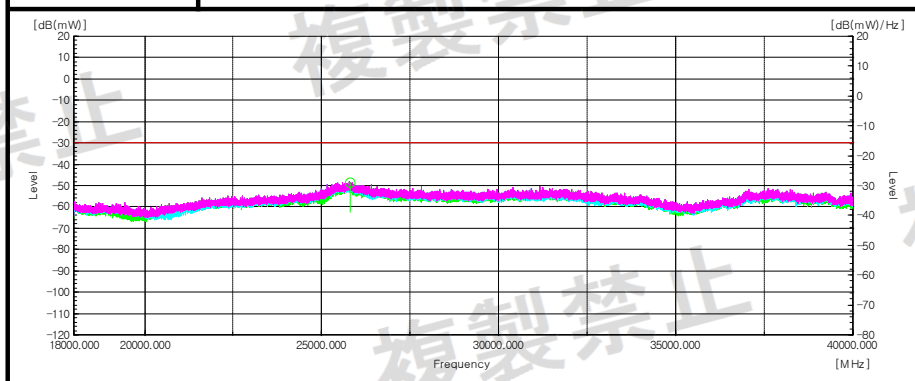
Ch.2: 62161 MHz
30-1 000 MHz

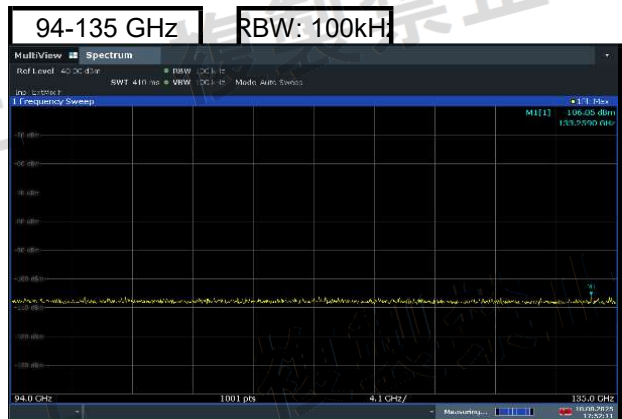
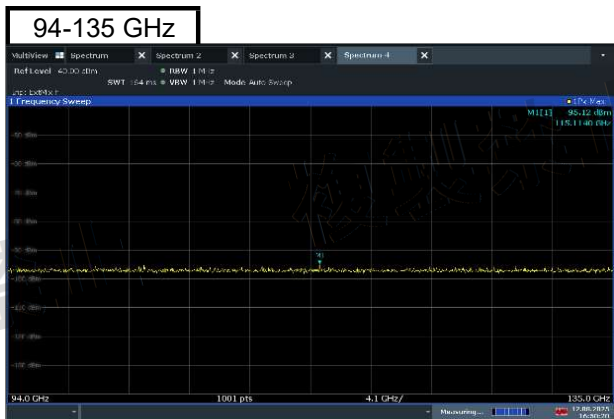
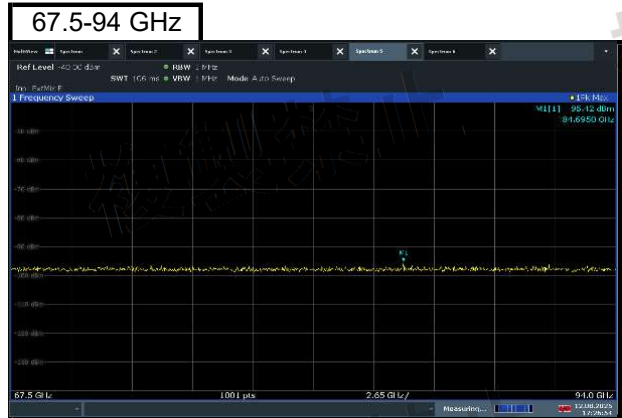
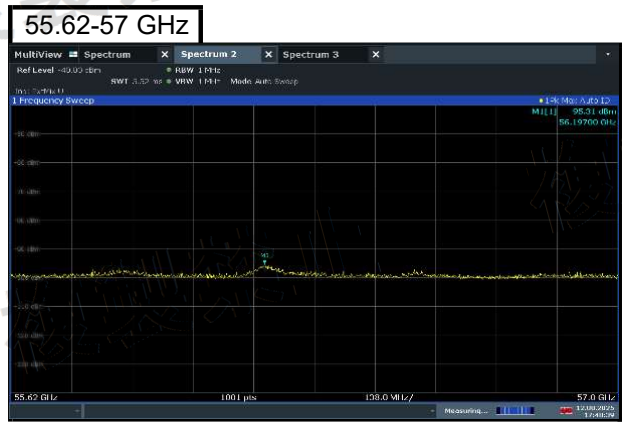
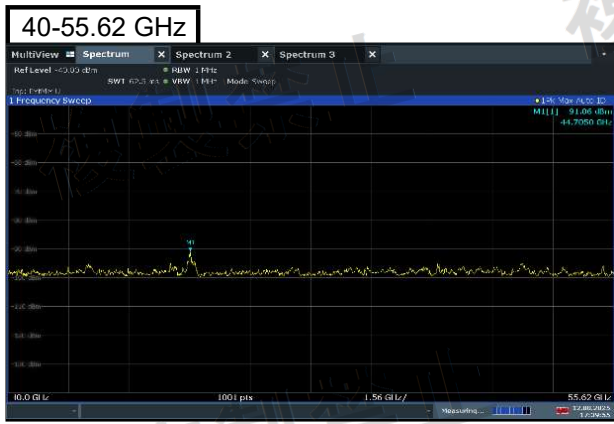


1-18 GHz



18-40 GHz



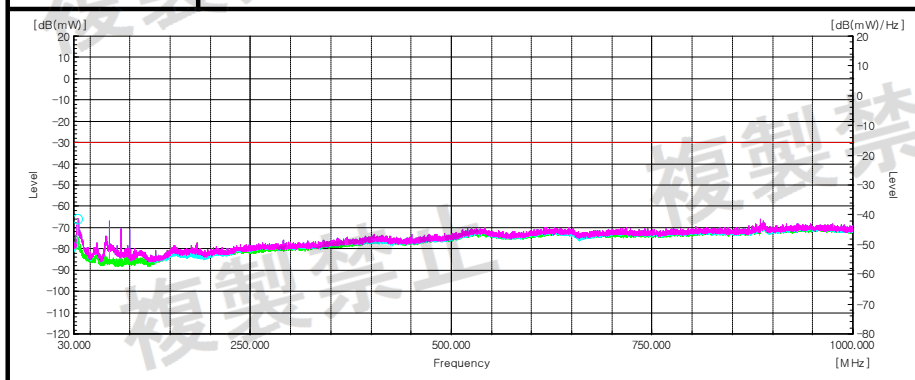


*Substitution Data

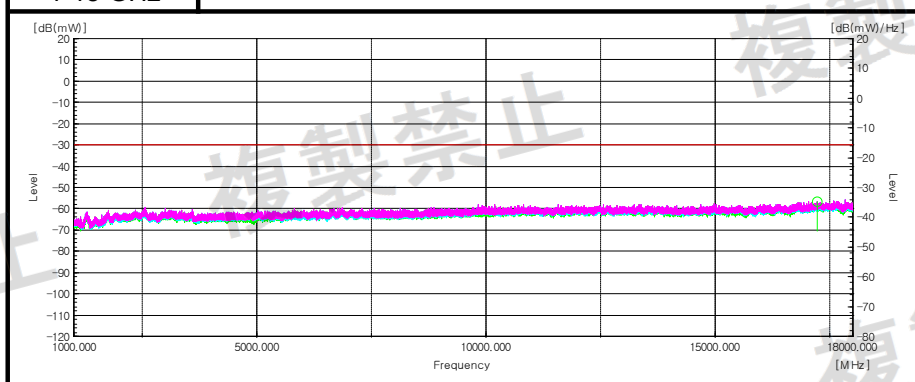
H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Cable loss [dB]	Source Out [dB]	Subs Ant. Gain [dBi]	EUT Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss[dB]	RX Antenna							
V	34.88	-63.20	32.51	-	0.66	13.56	-44.53	1.08	-	-20.05	4.00	-69.66	-30
V	17589.81	-60.50	58.14	-	11.85	40.98	-43.35	19.60	-	14.22	4.00	-52.73	-30
H	25798.63	-62.40	56.75	-	15.60	46.50	-28.82	31.95	-	12.10	4.00	-52.68	-30
H	44705.00	-91.06	-	10.07	0.69	40.80	-66.21	-	-6.20	22.57	4.00	-41.44	-30
H	56197.00	-95.31	-	12.14	0.69	42.50	-72.58	-	-11.04	22.88	4.00	-42.66	-26
H	66900.30	-95.95	-	13.58	0.69	43.90	-47.11	-	8.87	22.60	4.00	-37.38	-26
H	84695.00	-95.42	-	12.48	0.69	45.80	-48.03	-	9.10	22.90	4.00	-38.23	-30
H	*115114.00	-95.12	-	13.58	0.69	48.40	-50.13	-	0.64	22.74	4.00	-32.03	-30

* Noise Level, Not Detected

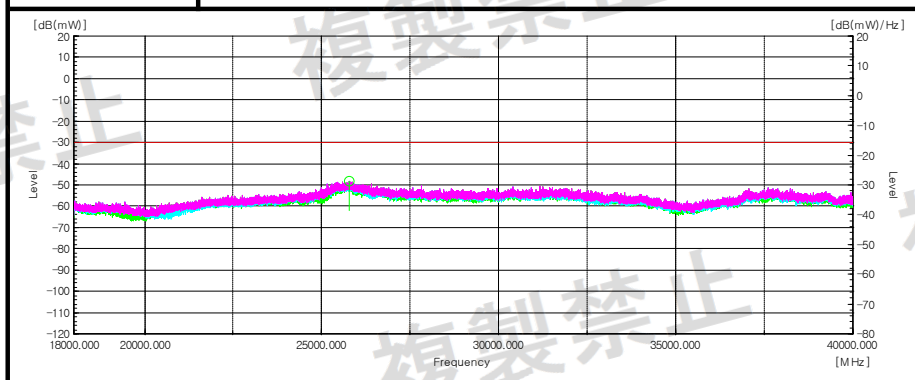
Ch.3: 62325 MHz
30-1 000 MHz



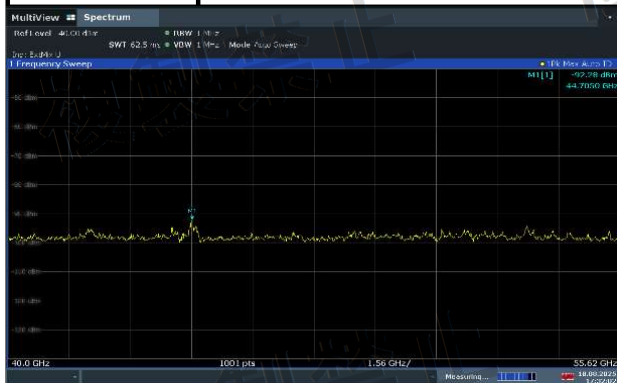
1-18 GHz



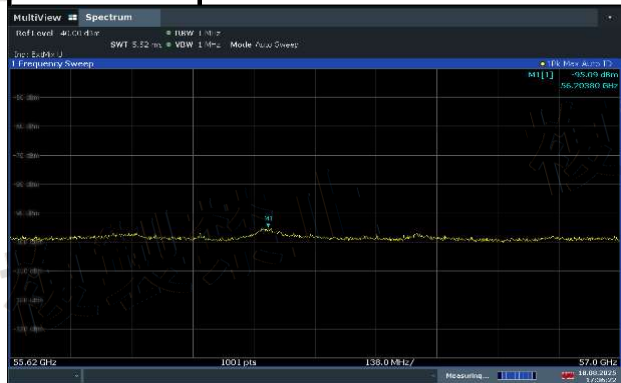
18-40 GHz



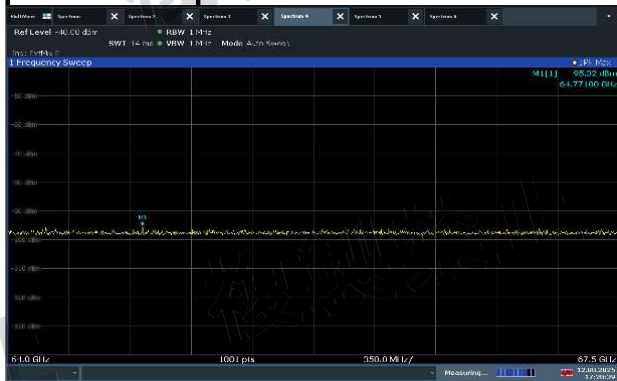
40-55.62 GHz



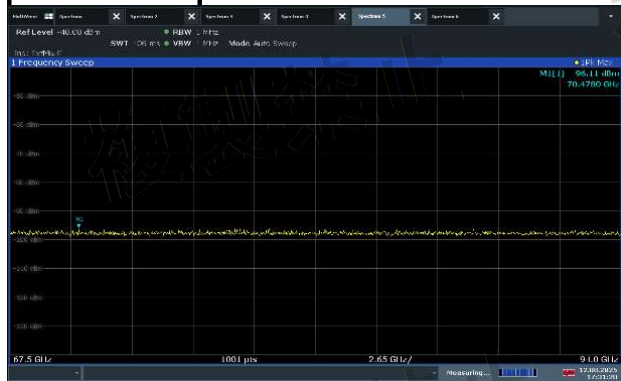
55.62-57 GHz



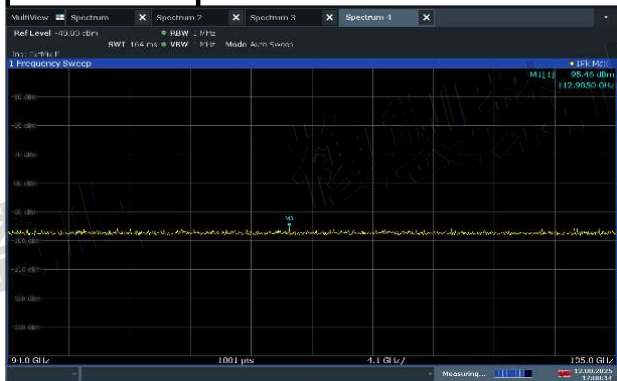
64-67.5 GHz



67.5-94 GHz



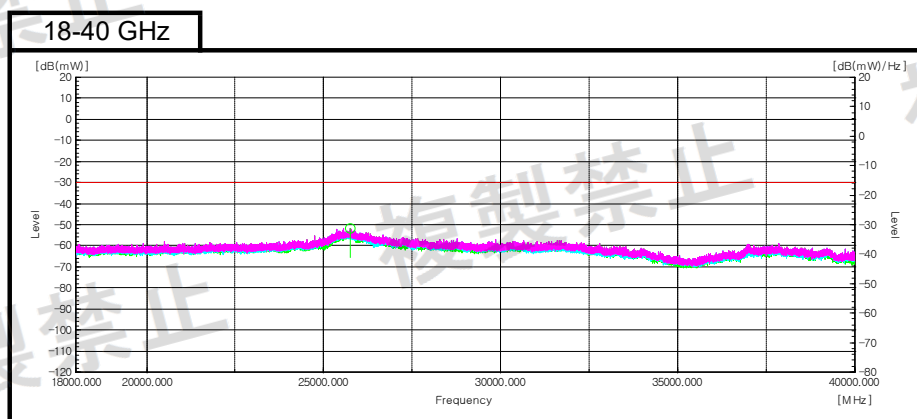
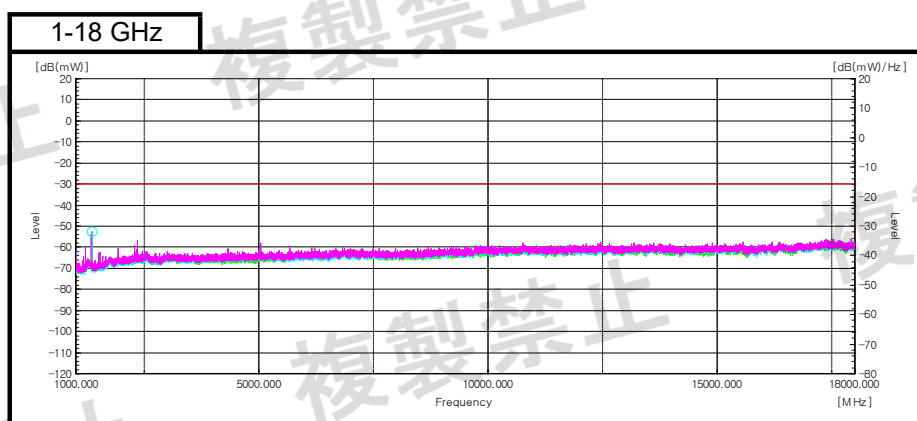
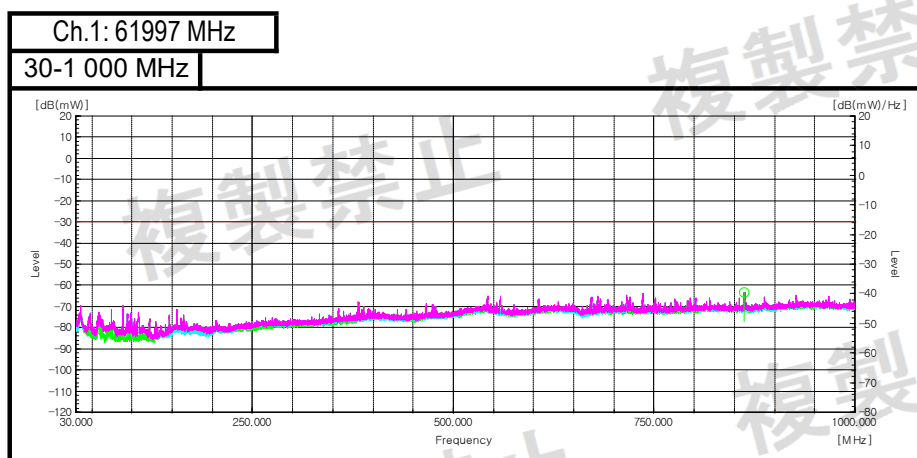
94-135 GHz

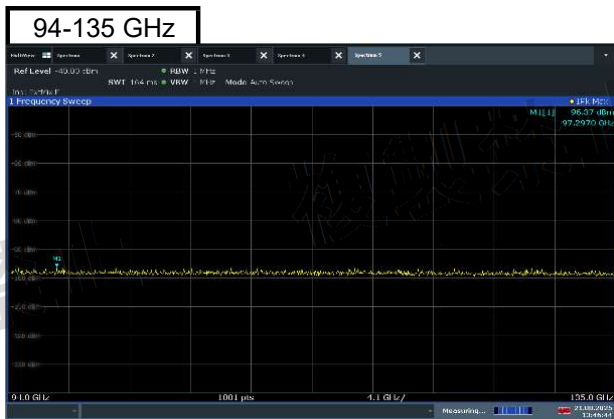
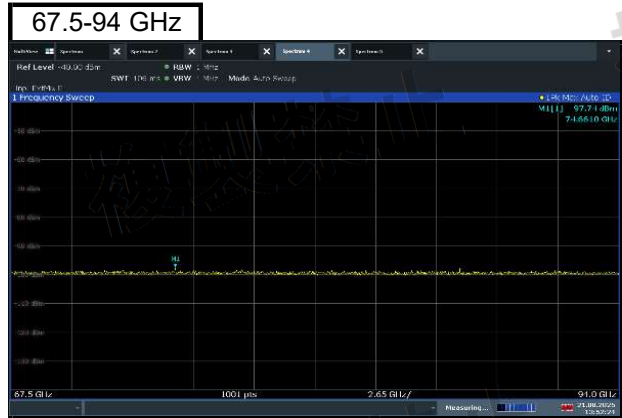
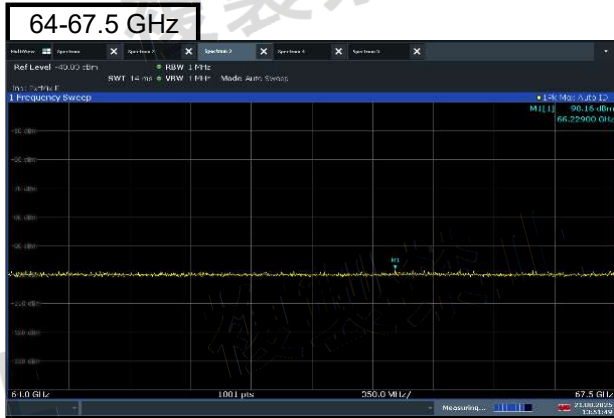
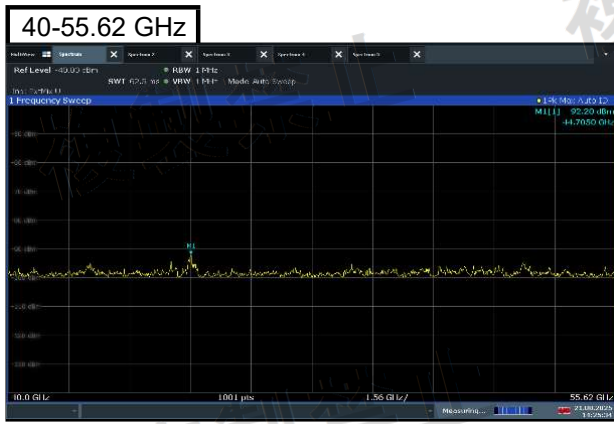


*Substitution Data

H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Cable loss [dB]	Source Out [dB]	Subs Ant. Gain [dBi]	EUT Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss[dB]	RX Antenna							
V	34.93	-63.50	32.51	-	0.66	13.76	-44.84	1.08	-	-20.03	4.00	-69.95	-30
H	17220.14	-59.90	58.42	-	11.34	40.76	-42.47	19.51	-	13.74	4.00	-52.24	-30
H	25772.41	-61.90	56.73	-	15.53	46.44	-28.22	32.03	-	12.10	4.00	-52.15	-30
H	44705.00	-92.28	-	10.07	0.69	40.80	-67.43	-	-6.20	22.57	4.00	-42.66	-30
H	56203.80	-95.09	-	12.14	0.69	42.50	-72.36	-	-11.04	22.88	4.00	-42.44	-26
H	64771.00	-95.32	-	12.26	0.69	43.77	-52.27	-	8.44	22.60	4.00	-42.12	-26
H	70478.00	-96.11	-	13.65	0.69	44.30	-48.40	-	9.38	22.65	4.00	-39.14	-30
H	112985.00	-95.46	-	12.77	0.69	48.50	-53.43	-	0.81	22.39	4.00	-35.85	-30

7.5 Secondary emitted radio wave strength (-10% Voltage)

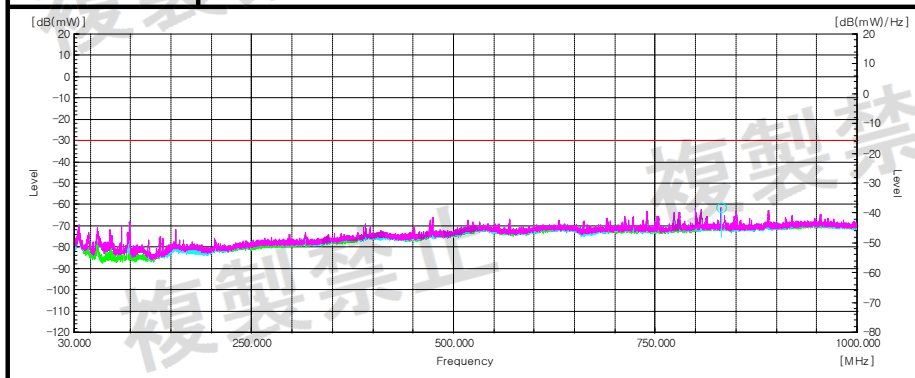




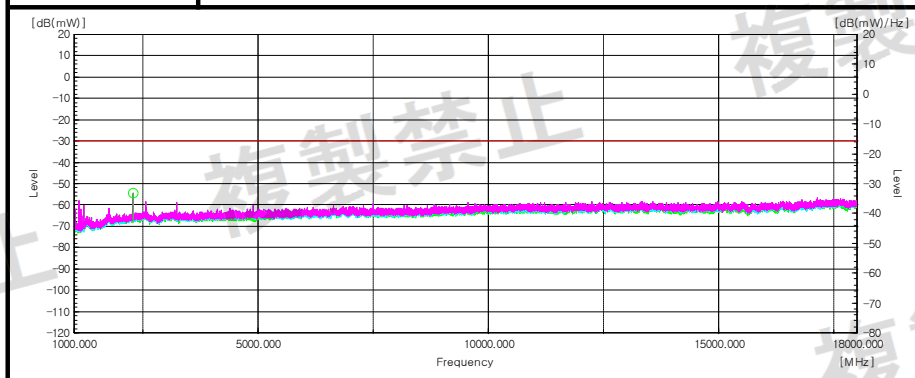
*Substitution Data

H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Cable loss [dB]	Source Out [dB]	Subs Ant. Gain [dBi]	EUT Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss[dB]	RX Antenna							
H	862.50	-69.800	32.20	-	3.52	1.00	-64.76	5.21	-	8.55	4.00	-65.42	-30
V	1360.27	-33.400	58.12	-	3.34	28.20	-43.54	5.01	-	4.08	4.00	-48.46	-30
H	25755.56	-65.700	56.71	-	15.48	46.41	-31.96	32.07	-	12.10	4.00	-55.94	-30
H	44705.00	-92.200	-	10.50	0.69	40.67	-67.35	-	-6.20	22.57	4.00	-42.58	-30
H	56188.70	-95.500	-	12.24	0.69	42.36	-72.77	-	-11.04	22.88	4.00	-42.86	-26
H	66229.00	-98.160	-	13.21	0.69	43.97	-50.96	-	8.75	22.60	4.00	-41.11	-26
H	74661.00	-97.740	-	12.79	0.69	44.70	-50.54	-	9.82	22.90	4.00	-41.46	-30
H	97297.00	-96.370	-	11.12	0.69	47.94	-56.06	-	-0.41	22.32	4.00	-37.33	-30

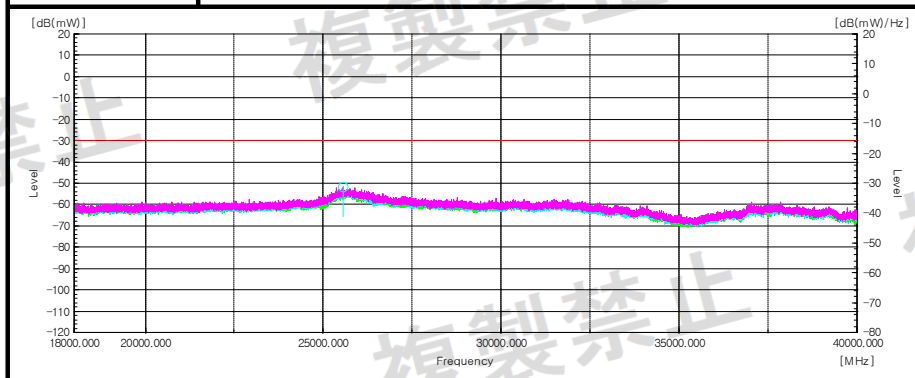
Ch.2: 62161 MHz
30-1 000 MHz

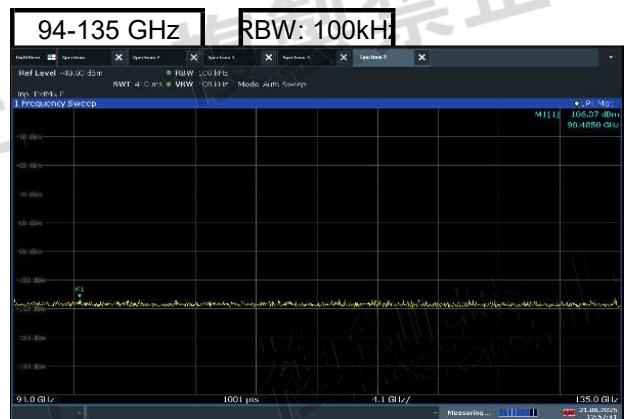
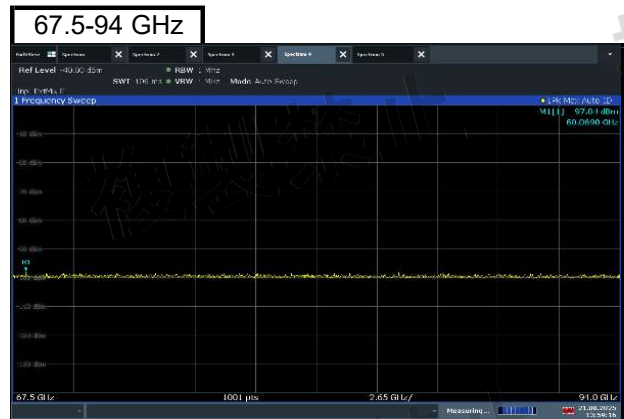
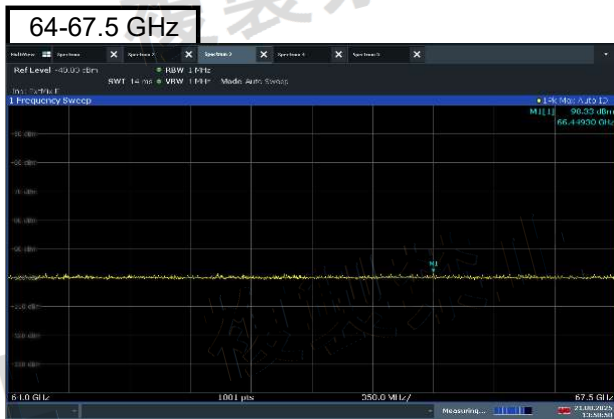


1-18 GHz



18-40 GHz



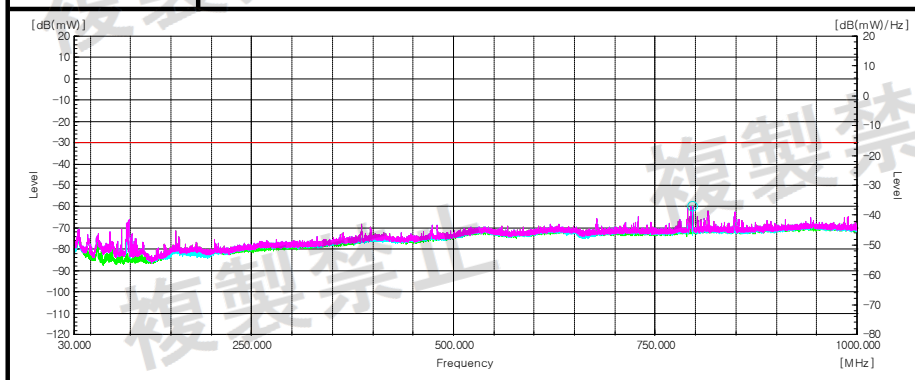


*Substitution Data

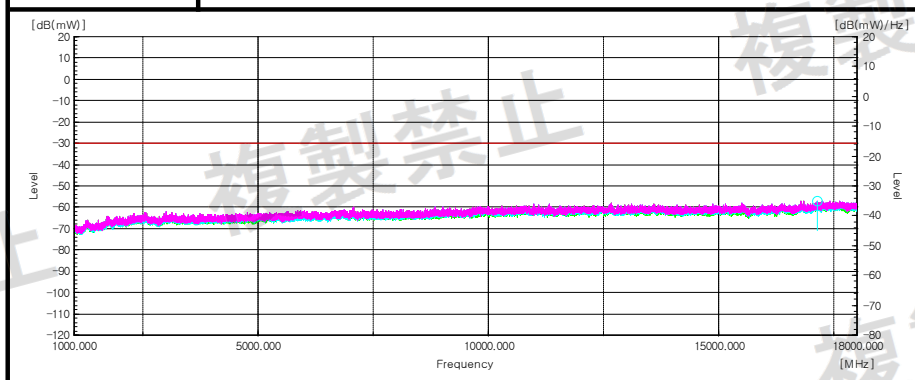
H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Cable loss [dB]	Source Out [dB]	Subs Ant. Gain [dBi]	EUT Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss[dB]	RX Antenna							
V	831.61	-68.00	32.44	-	3.48	1.00	-63.03	5.13	-	8.66	4.00	-63.49	-30
H	2271.80	-39.10	58.49	-	4.16	31.80	-44.71	6.43	-	5.34	4.00	-49.80	-30
V	25550.53	-65.50	56.56	-	15.32	46.40	-32.24	31.82	-	12.05	4.00	-56.01	-30
H	44705.00	-91.06	-	10.50	0.69	40.67	-66.21	-	-6.20	22.57	4.00	-41.44	-30
H	56202.50	-95.44	-	12.21	0.69	42.36	-72.71	-	-11.04	22.88	4.00	-42.79	-26
H	66449.30	-98.33	-	13.20	0.69	43.96	-50.72	-	8.78	22.60	4.00	-40.90	-26
H	68069.00	-97.84	-	12.04	0.69	44.11	-51.17	-	9.20	22.52	4.00	-41.84	-30
H	*111510.00	-95.28	-	12.50	0.69	48.84	-51.25	-	0.06	22.69	4.00	-32.62	-30

* Noise Level, Not Detected

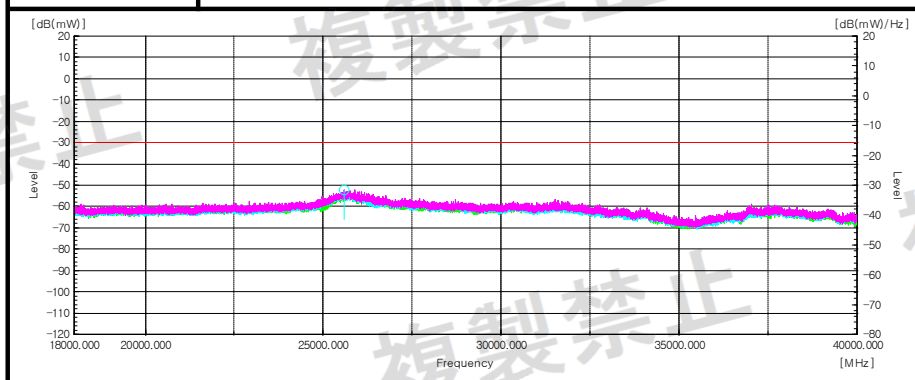
Ch.3: 62325 MHz
30-1 000 MHz

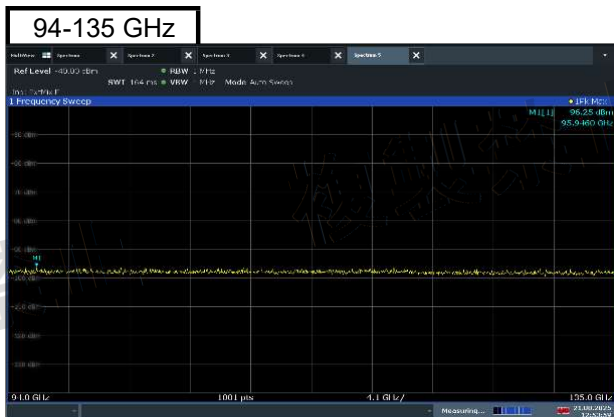
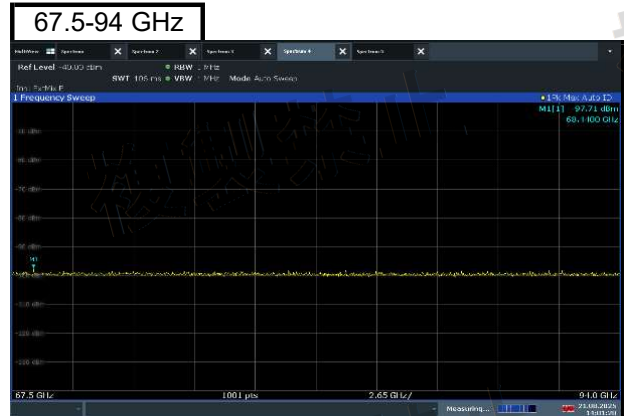
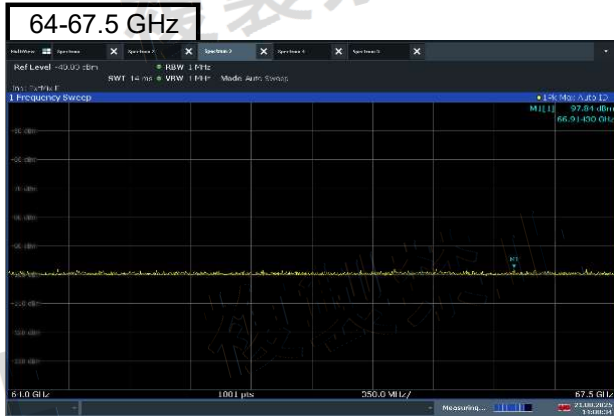
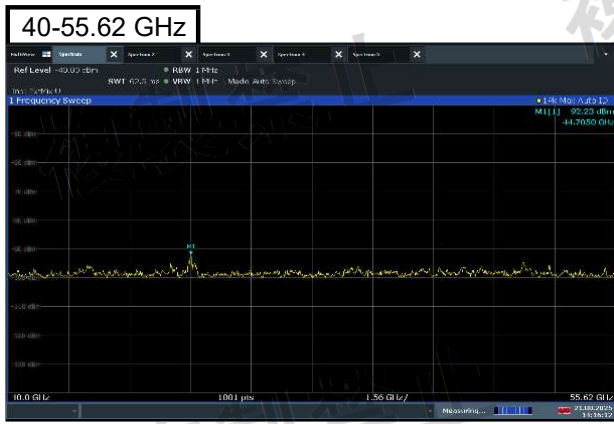


1-18 GHz



18-40 GHz

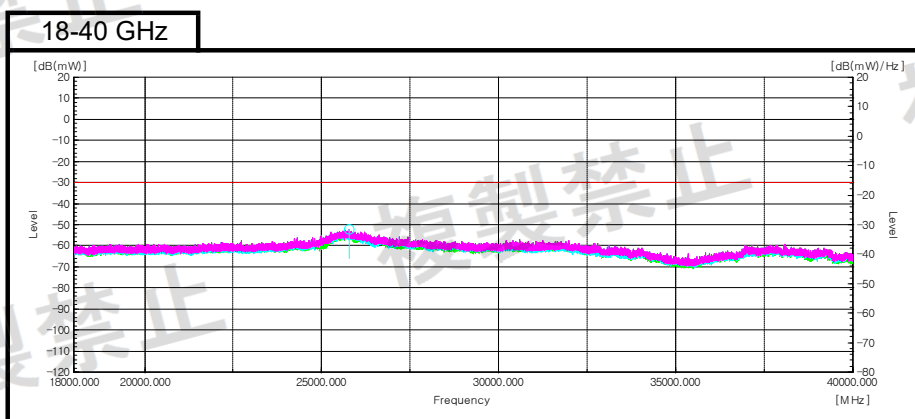
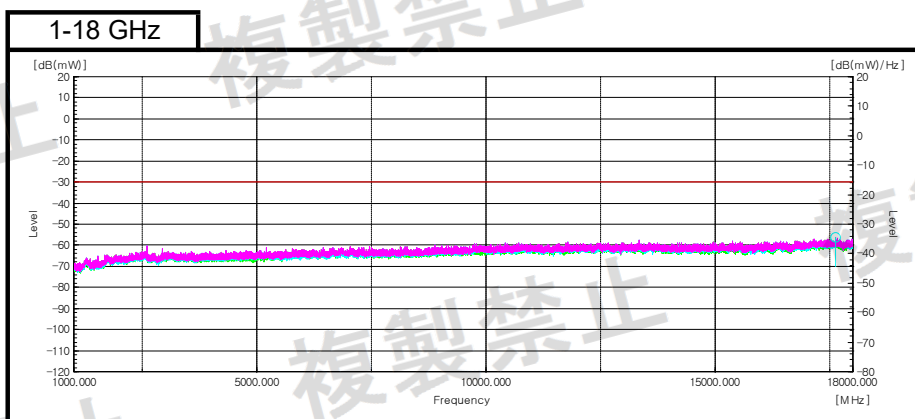
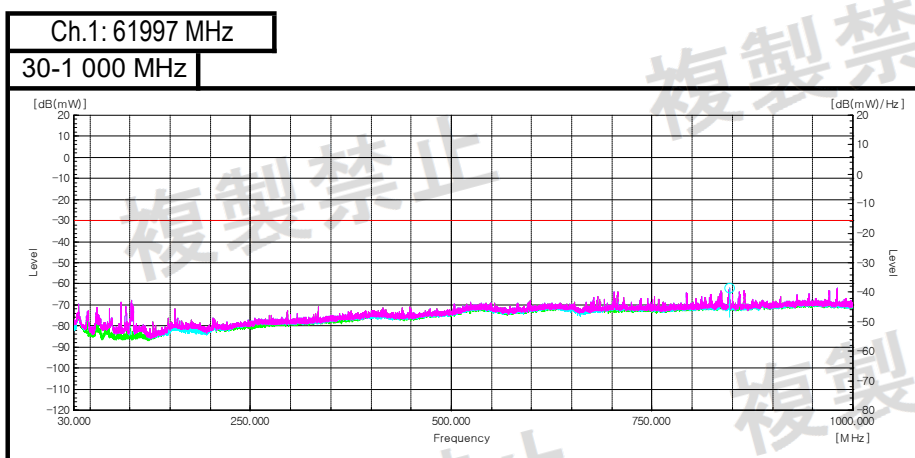


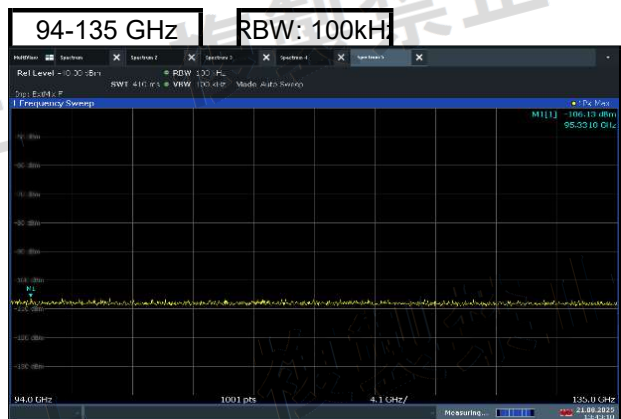
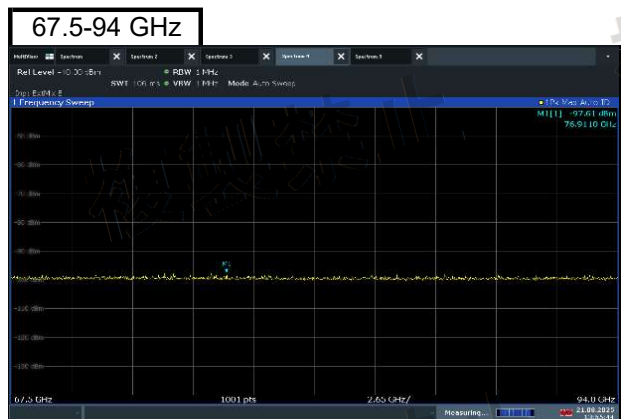
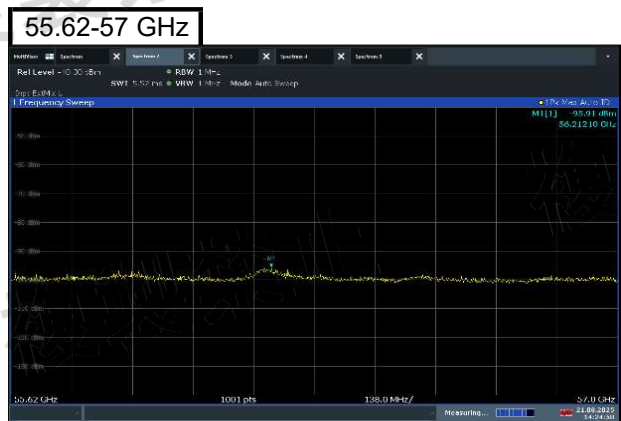
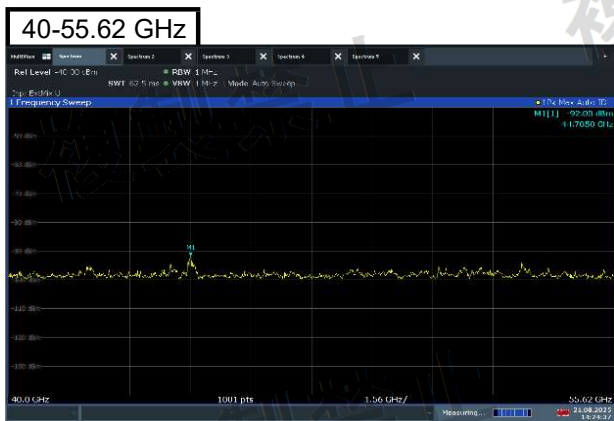


*Substitution Data

H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Cable loss [dB]	Source Out [dB]	Subs Ant. Gain [dBi]	EUT Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss[dB]	RX Antenna							
V	796.64	-65.70	32.66	-	3.38	1.00	-61.21	4.95	-	8.40	4.00	-61.76	-30
V	17128.26	-61.00	58.51	-	11.47	40.94	-43.14	19.46	-	13.56	4.00	-53.04	-30
V	25577.68	-65.70	56.58	-	15.34	46.40	-32.32	31.91	-	12.02	4.00	-56.20	-30
H	44705.00	-92.23	-	10.50	0.69	40.67	-67.38	-	-6.20	22.57	4.00	-42.61	-30
H	56212.10	-95.04	-	12.20	0.69	42.36	-72.31	-	-11.04	22.88	4.00	-42.39	-26
H	66914.30	-97.84	-	13.16	0.69	43.91	-48.96	-	8.87	22.60	4.00	-39.24	-26
H	68440.00	-97.71	-	12.37	0.69	44.14	-51.18	-	9.29	22.63	4.00	-41.84	-30
H	95946.00	-96.25	-	11.78	0.69	47.86	-55.36	-	-0.20	22.27	4.00	-36.89	-30

7.5 Secondary emitted radio wave strength (+10% Voltage)



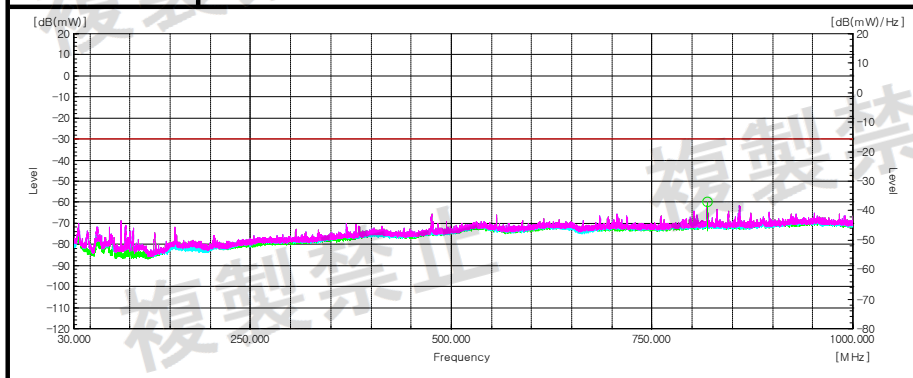


*Substitution Data

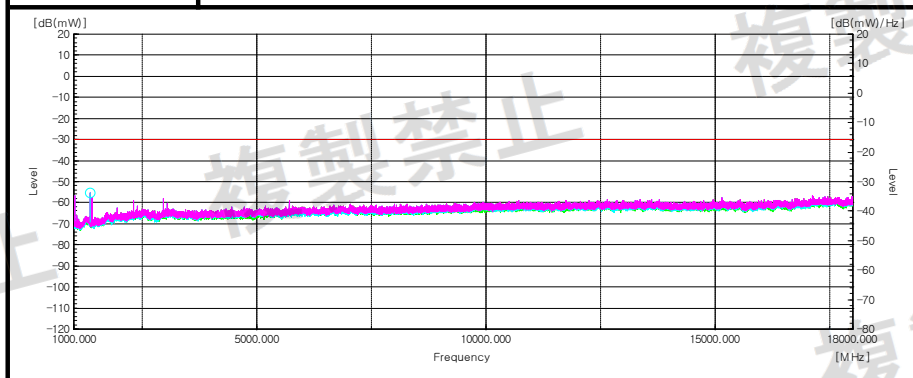
H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Cable loss [dB]	Source Out [dB]	Subs Ant. Gain [dBi]	EUT Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss[dB]	RX Antenna							
V	846.19	-68.300	32.35	-	3.46	1.00	-63.46	5.21	-	8.60	4.00	-64.07	-30
V	17615.13	-60.600	58.14	-	11.84	41.03	-43.18	19.64	-	14.17	4.00	-52.65	-30
V	25774.29	-65.900	56.73	-	15.53	46.45	-32.52	32.02	-	12.10	4.00	-56.44	-30
H	44705.00	-92.030	-	10.50	0.69	40.67	-67.18	-	-6.20	22.57	4.00	-42.41	-30
H	56212.10	-95.910	-	12.20	0.69	42.36	-73.18	-	-11.04	22.88	4.00	-43.26	-26
H	66082.20	-98.390	-	13.22	0.69	43.99	-51.78	-	8.71	22.60	4.00	-41.88	-26
H	76911.00	-97.610	-	12.51	0.69	45.17	-50.18	-	9.71	22.89	4.00	-41.00	-30
H	*109052.00	-95.670	-	11.52	0.69	48.67	-51.84	-	-0.28	22.64	4.00	-32.92	-30

* Noise Level, Not Detected

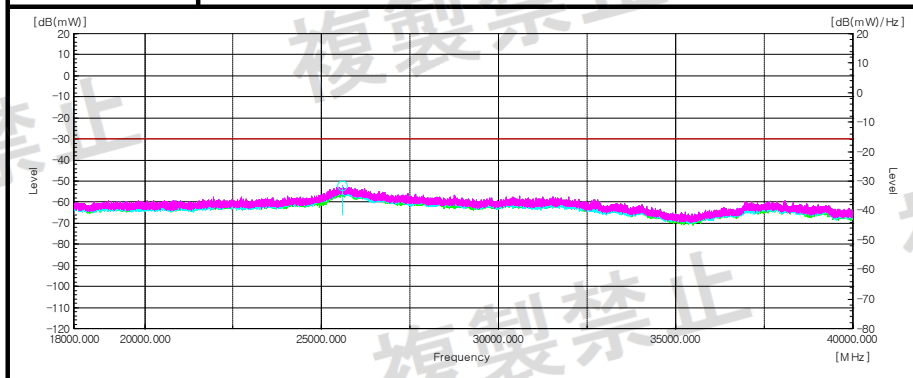
Ch.2: 62161 MHz
30-1 000 MHz



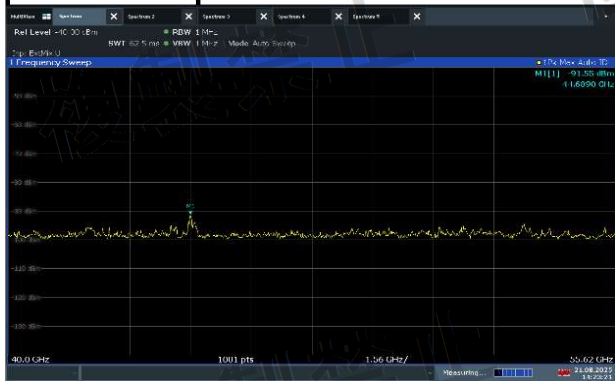
1-18 GHz



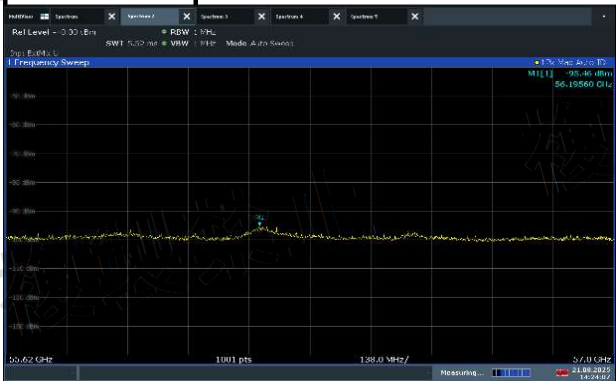
18-40 GHz



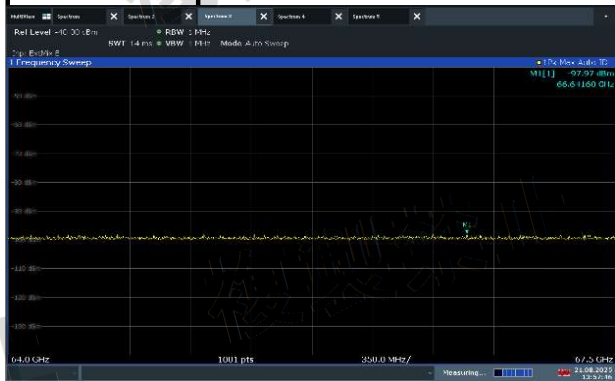
40-55.62 GHz



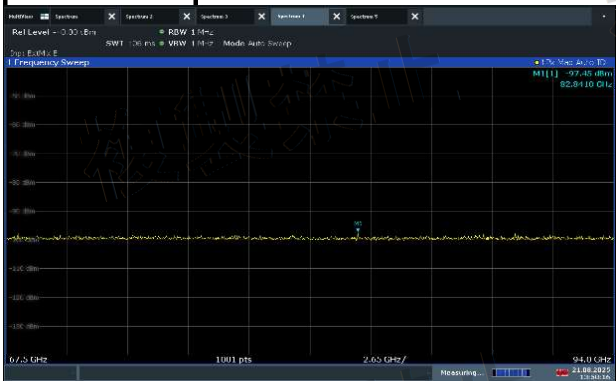
55.62-57 GHz



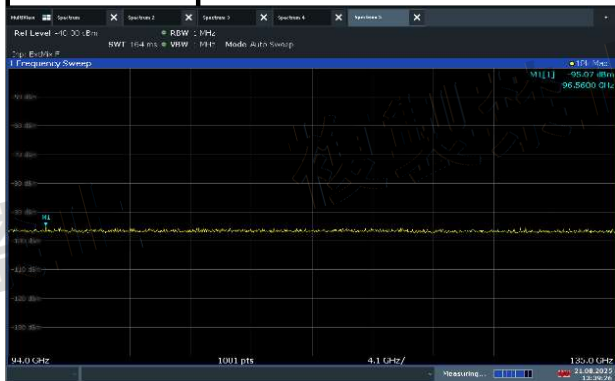
64-67.5 GHz



67.5-94 GHz



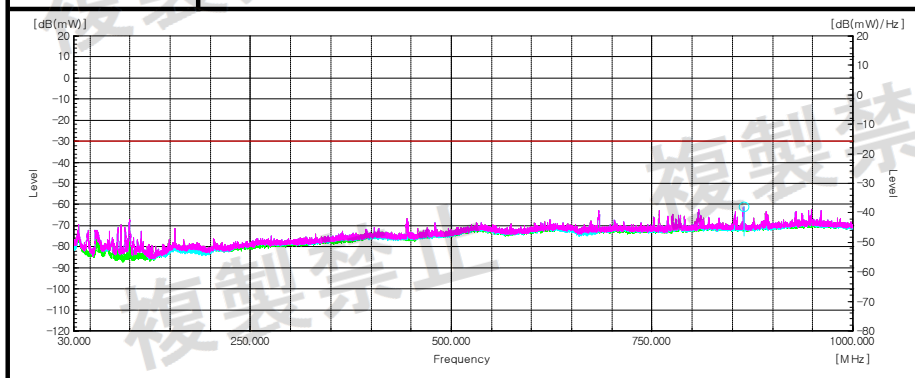
94-135 GHz



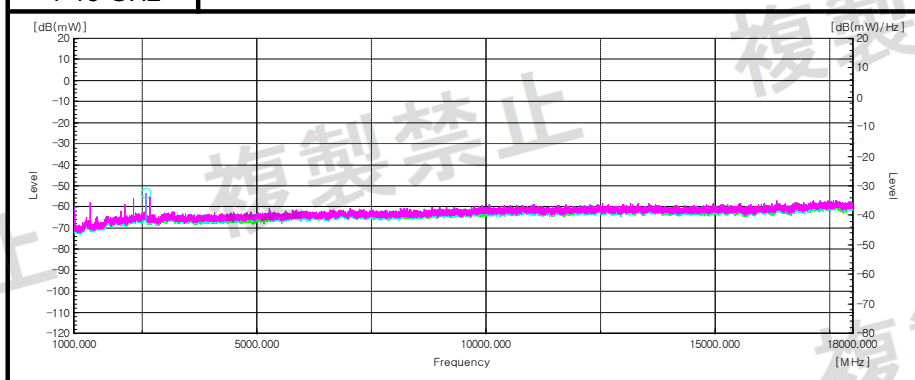
*Substitution Data

H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Cable loss [dB]	Source Out [dB]	Subs Ant. Gain [dBi]	EUT Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss[dB]	RX Antenna							
H	818.63	-66.40	32.53	-	3.27	1.00	-61.53	5.03	-	8.60	4.00	-61.96	-30
V	1366.06	-35.80	58.12	-	3.36	28.14	-45.40	5.02	-	4.19	4.00	-50.23	-30
H	25583.30	-65.90	56.58	-	15.34	46.40	-32.96	31.92	-	12.02	4.00	-56.87	-30
H	44689.00	-91.55	-	10.50	0.69	40.67	-66.69	-	-6.19	22.57	4.00	-41.92	-30
H	56195.60	-95.46	-	12.22	0.69	42.36	-72.73	-	-11.04	22.88	4.00	-42.81	-26
H	66641.60	-97.97	-	13.18	0.69	43.94	-49.83	-	8.82	22.60	4.00	-40.05	-26
H	82841.00	-97.45	-	12.51	0.69	45.50	-49.98	-	9.21	23.07	4.00	-40.13	-30
H	96560.00	-95.07	-	11.53	0.69	47.89	-54.48	-	-0.32	22.29	4.00	-35.86	-30

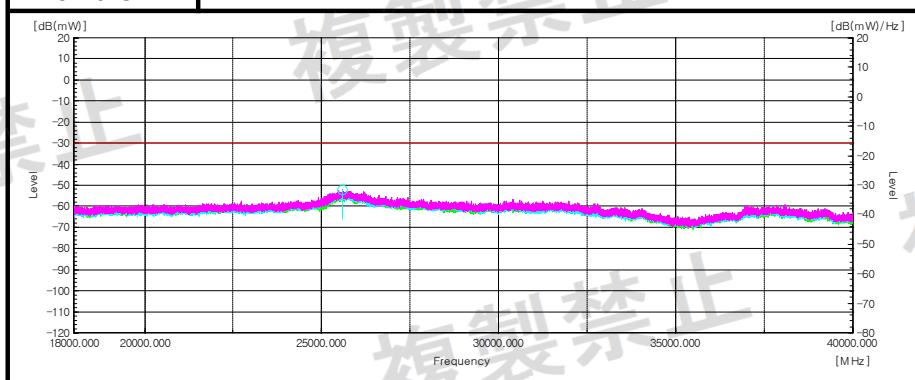
Ch.3: 62325 MHz
30-1 000 MHz



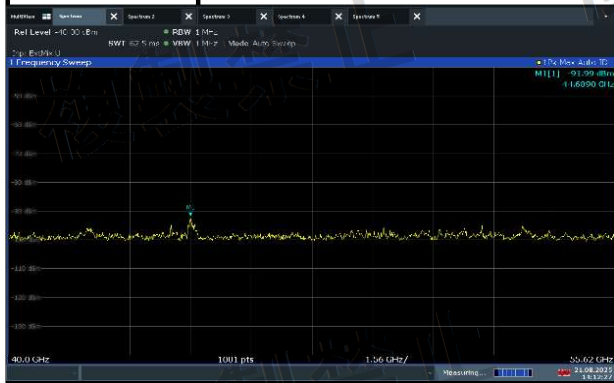
1-18 GHz



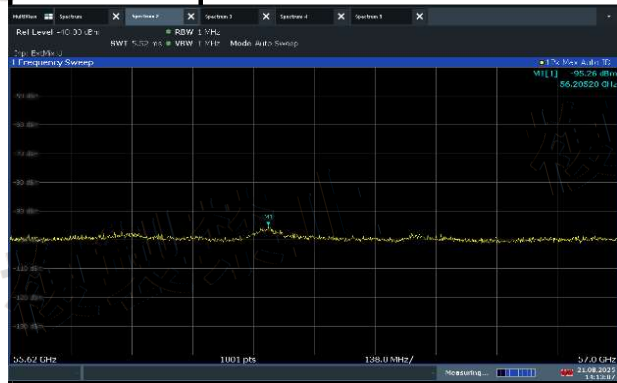
18-40 GHz



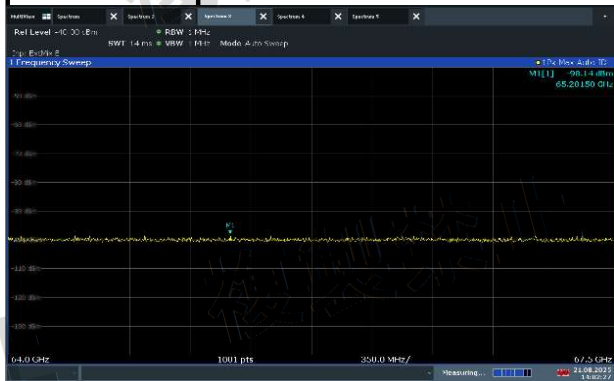
40-55.62 GHz



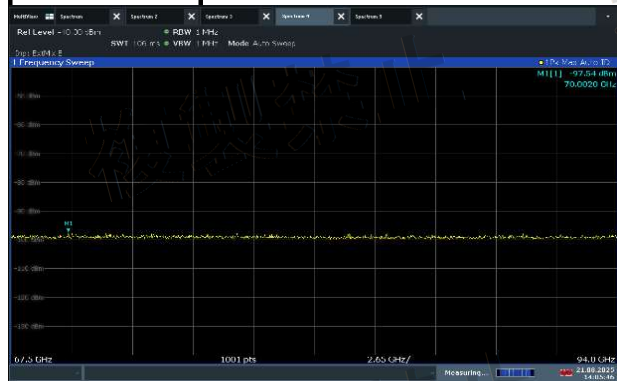
55.62-57 GHz



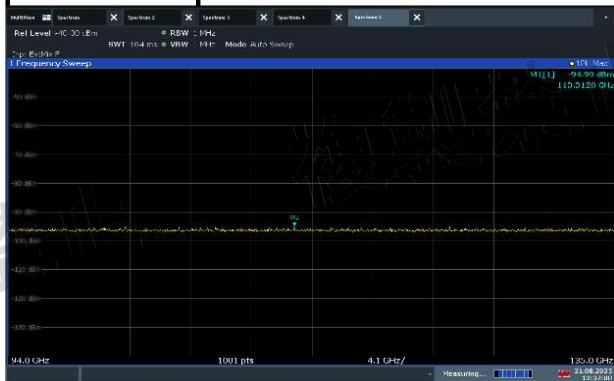
64-67.5 GHz



67.5-94 GHz

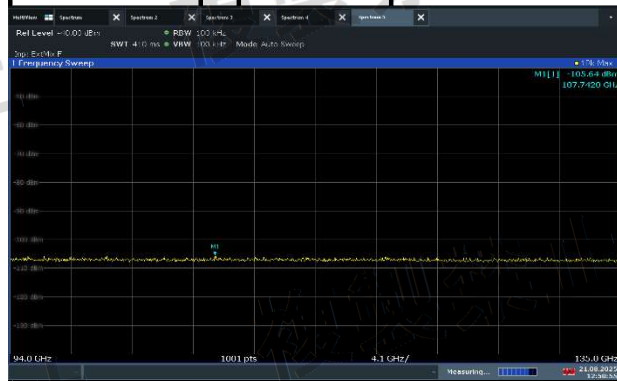


94-135 GHz



94-135 GHz

RBW: 100kHz



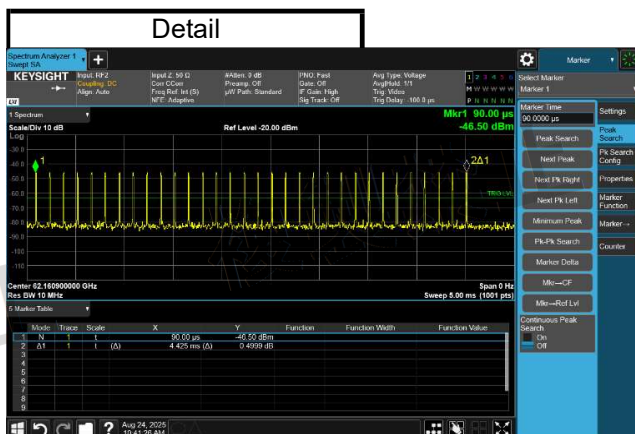
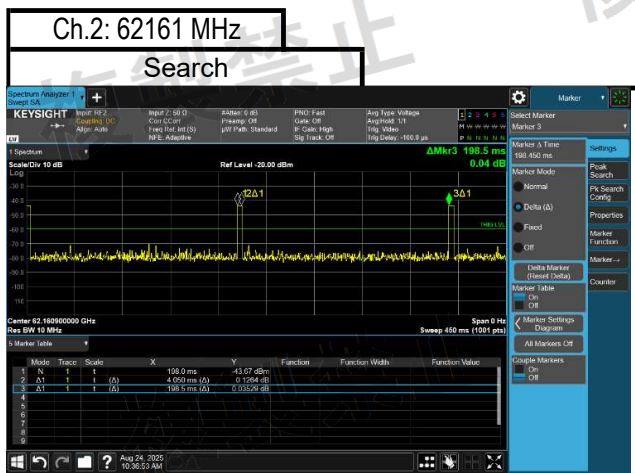
*Substitution Data

H/V	Frequency [MHz]	SA Reading [dBm]	Rx Factor [dB]				SG Reading [dBm]	Cable loss [dB]	Source Out [dB]	Subs Ant. Gain [dBi]	EUT Ant. Gain [dBi]	Result [dBm]	Limit [dBm]
			Amplifier [dB]	Mixer & Down Convert	RX Cable Loss[dB]	RX Antenna							
V	863.99	-67.40	32.19	-	3.50	1.00	-62.27	5.21	-	8.52	4.00	-62.96	-30
H	2572.75	-39.50	58.59	-	4.50	32.23	-45.02	6.81	-	6.19	4.00	-49.64	-30
V	25585.17	-65.70	56.58	-	15.35	46.40	-32.29	31.93	-	12.01	4.00	-56.20	-30
H	44689.00	-91.99	-	10.50	0.69	40.67	-67.13	-	-6.19	22.57	4.00	-42.36	-30
H	56205.20	-95.26	-	12.21	0.69	42.36	-72.53	-	-11.04	22.88	4.00	-42.61	-26
H	65281.50	-98.14	-	12.66	0.69	43.86	-51.71	-	9.06	22.53	4.00	-42.24	-26
H	70002.00	-97.54	-	13.22	0.69	44.20	-49.40	-	9.31	22.60	4.00	-40.11	-30
H	*113321.00	-94.99	-	11.53	0.69	48.96	-48.64	-	0.70	22.71	4.00	-30.62	-30

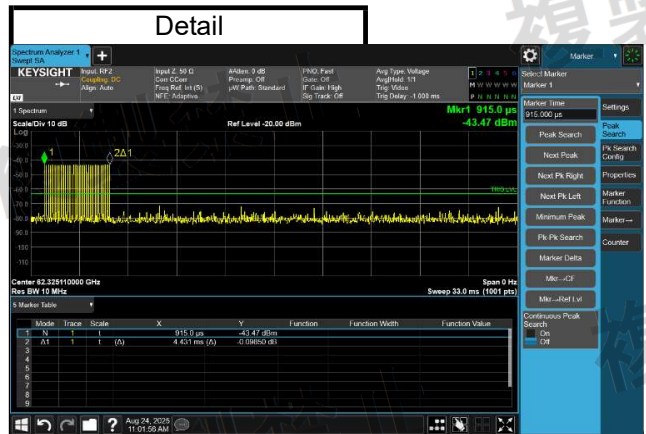
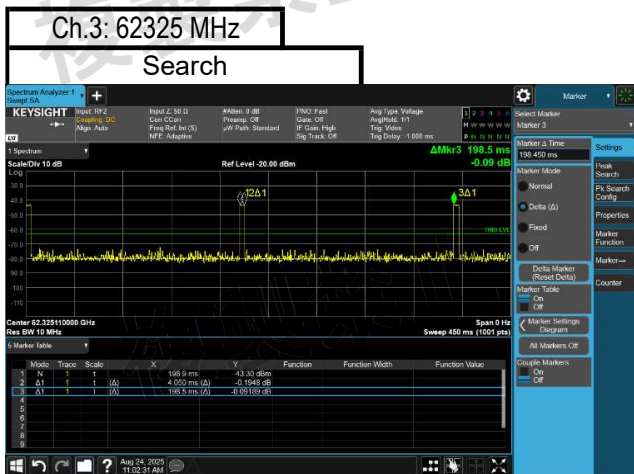
* Noise Level, Not Detected

7.6 Trasmission time limiting (Rated Voltage)



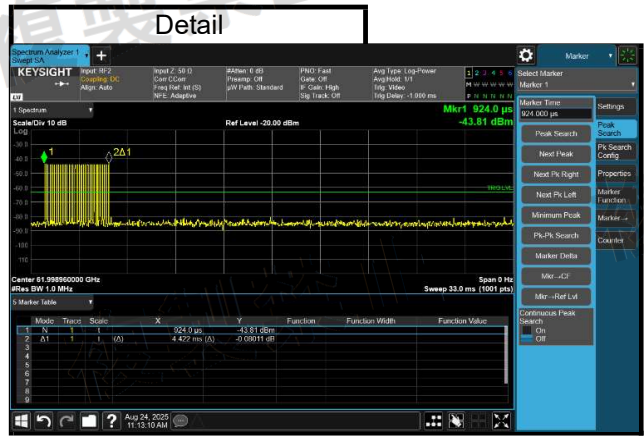
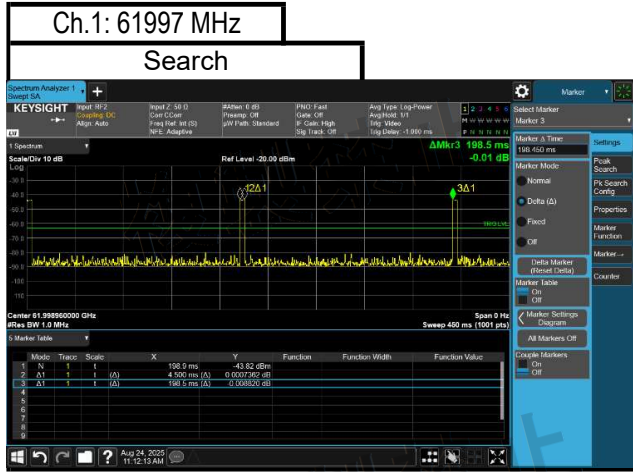


Signal Period [ms]	Tx On Time [us]	Count	Minimum Tx On Duration [ms]	Tx On Limit [ms]	Result
33.000	4.500	32.000	0.144	< 3.3	Good

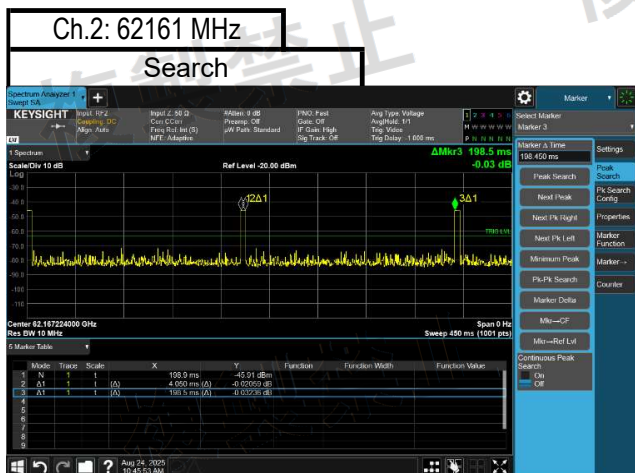


Signal Period [ms]	Tx On Time [us]	Count	Minimum Tx On Duration [ms]	Tx On Limit [ms]	Result
33.000	2.400	32.000	0.077	< 3.3	Good

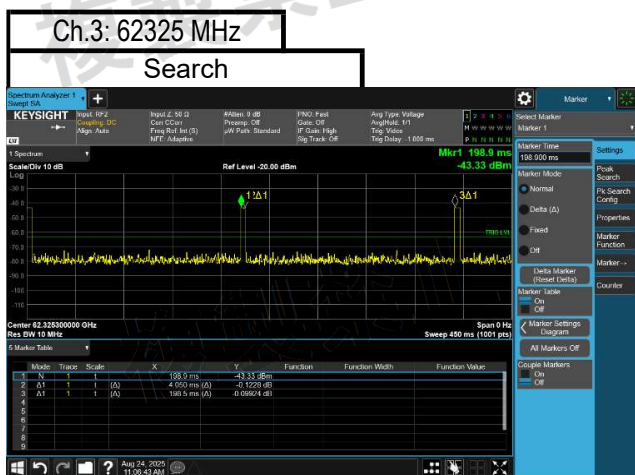
7.6 Trasmmission time limiting (-10% Voltage)



Signal Period [ms]	Tx On Time [us]	Count	Minimum Tx On Duration [ms]	Tx On Limit [ms]	Result
33.000	3.600	32.000	0.115	< 3.3	Good

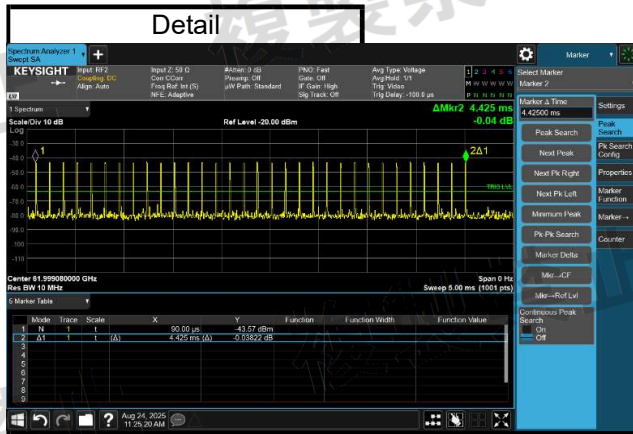
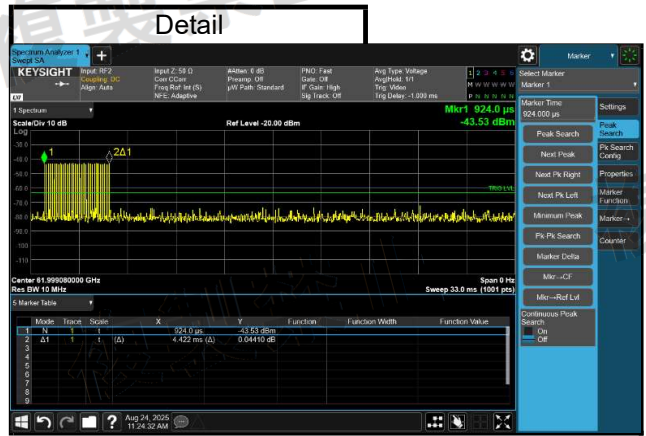
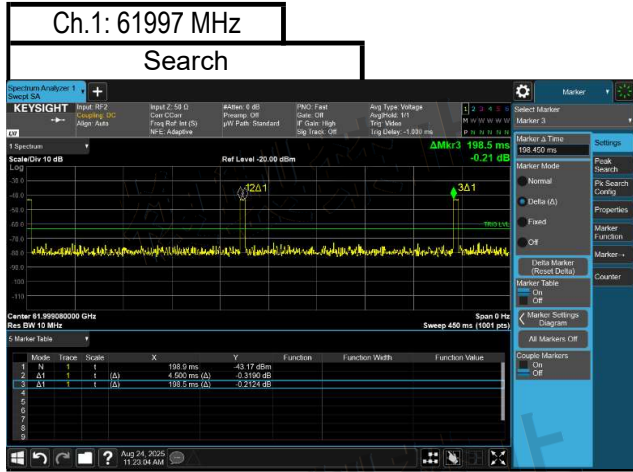


Signal Period [ms]	Tx On Time [us]	Count	Minimum Tx On Duration [ms]	Tx On Limit [ms]	Result
33.000	4.200	32.000	0.134	< 3.3	Good

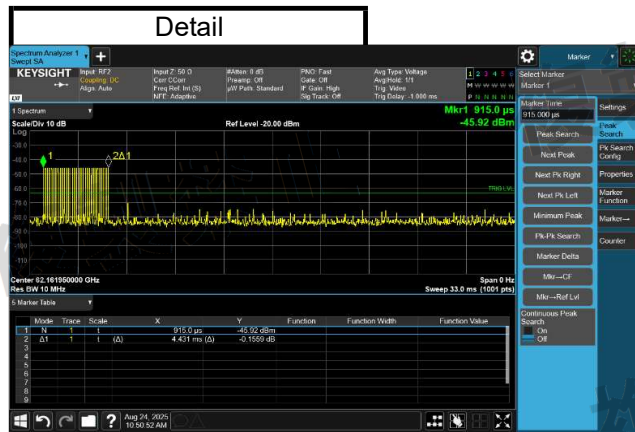
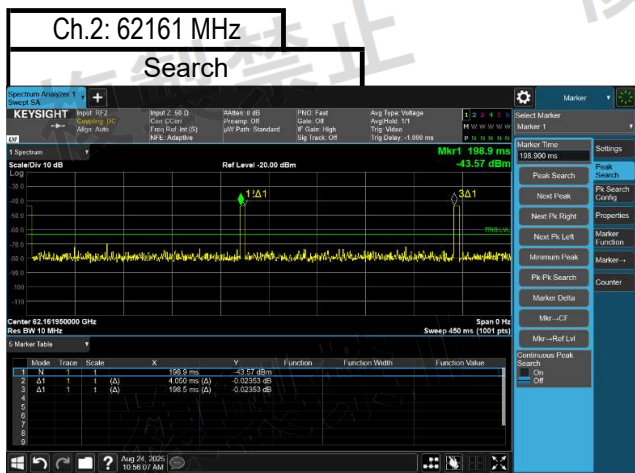


Signal Period [ms]	Tx On Time [us]	Count	Minimum Tx On Duration [ms]	Tx On Limit [ms]	Result
33.000	2.400	32.000	0.077	< 3.3	Good

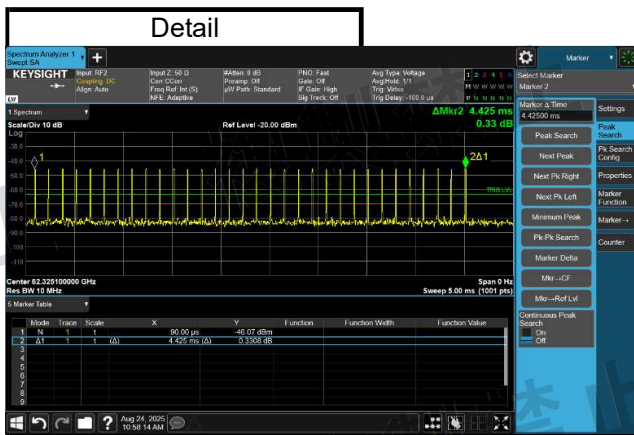
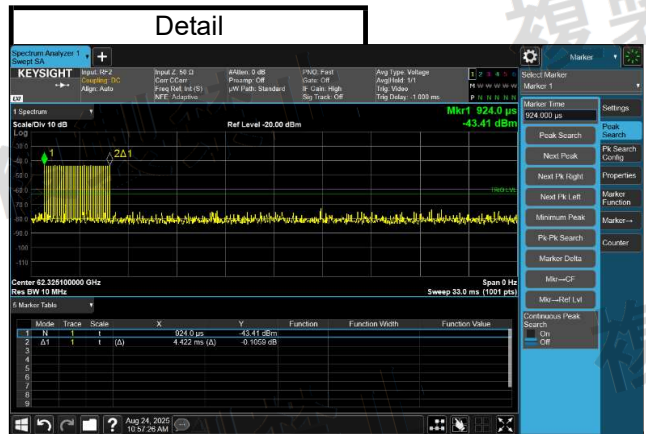
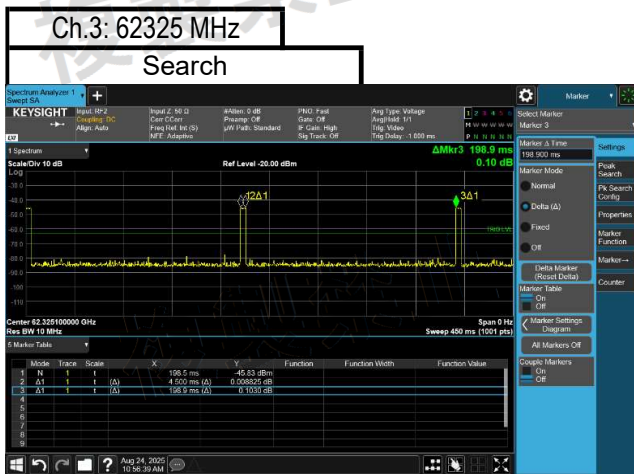
7.6 Trasmission time limiting (+10% Voltage)



Signal Period [ms]	Tx On Time [us]	Count	Minimum Tx On Duration [ms]	Tx On Limit [ms]	Result
33.000	5.400	32.000	0.173	< 3.3	Good



Signal Period [ms]	Tx On Time [us]	Count	Minimum Tx On Duration [ms]	Tx On Limit [ms]	Result
33.000	4.200	32.000	0.134	< 3.3	Good



Signal Period [ms]	Tx On Time [us]	Count	Minimum Tx On Duration [ms]	Tx On Limit [ms]	Result
33.000	2.700	32.000	0.086	< 3.3	Good

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, T-20056

3) Industry Canada

Registration No.: 8035A

Test Site : 8035A-2

4) KOLAS

Registration : KT231