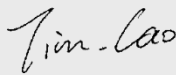
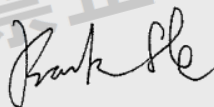


Test report No:

2650431R.701

2.4GHz Wideband Low Power Data Communication System Test Report

Product Name	LED tube
Trademark	PHILIPS; hue
Model and /or type reference	929003555701; 929003555701A; 929004456101
Applicant's name / address	Signify Netherlands B.V. High Tech Campus 48 5656 AE Eindhoven THE NETHERLANDS
Test method requested, standard	Article 2 paragraph 1 item (19) ARIB STD-T66 V3.7 (2014-10)
Verdict Summary	IN COMPLIANCE
Documented by (name / position & signature)	Tim Cao / Project Manager 
Approved by (name / position & signature)	Frank He / Technical Manager 
Date of issue	2026-06-22
Report template No	Template_STD-T66-RF-V1.0

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COMPETENCES AND GUARANTEES

DEKRA is a testing laboratory competent to carry out the tests described in this report.

In order to assure the traceability to other national and international laboratories, DEKRA has a calibration and maintenance program for its measurement equipment.

DEKRA guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated in the report and it is based on the knowledge and technical facilities available at DEKRA at the time of performance of the test.

DEKRA is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

IMPORTANT: No parts of this report may be reproduced or quoted out of context, in any form or by any means, except in full, without the previous written permission of DEKRA.

GENERAL CONDITIONS

Test Location	No. 99, Hongye Road, Suzhou Industrial Park Suzhou, 215006, P.R. China
Date (receive sample)	May.30, 2022
Date (start test)	Jun. 01, 2022
Date (finish test)	Jun. 19, 2022

1. This report is only referred to the item that has undergone the test.
2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or Competent Authorities.
3. This document is only valid if complete; no partial reproduction can be made without previous written permission of DEKRA.
4. This test report cannot be used partially or in full for publicity and/or promotional purposes without previous written permission of DEKRA.

ENVIRONMENTAL CONDITIONS

The climatic conditions during the tests are within the limits specified by the manufacturer for the operation of the EUT and the test equipment. The climatic conditions during the tests were within the following limits:

Ambient temperature	15 °C – 35 °C
Relative Humidity air	30% - 60%

If explicitly required in the basic standard or applied product / product family standard the climatic values are recorded and documented separately in this test report.

POSSIBLE TEST CASE VERDICTS

Test case does not apply to test object	N/A
Test object does meet requirement	P (Pass) / PASS
Test object does not meet requirement	F (Fail) / FAIL
Not measured	N/M

ABBREVIATIONS

For the purposes of the present document, the following abbreviations apply:

EUT	: Equipment Under Test
QP	: Quasi-Peak
CAV	: CISPR Average
AV	: Average
CDN	: Coupling Decoupling Network
SAC	: Semi-Anechoic Chamber
OATS	: Open Area Test Site
BW	: Bandwidth
AM	: Amplitude Modulation
PM	: Pulse Modulation
HCP	: Horizontal Coupling Plane
VCP	: Vertical Coupling Plane
U_N	: Nominal voltage
Tx	: Transmitter
Rx	: Receiver
N/A	: Not Applicable
N/M	: Not Measured

DOCUMENT HISTORY

Report No.	Version	Description	Issued Date
2650431R.701	V1.0	Initial issue of report.	2026-06-22

REMARKS AND COMMENTS

1. The equipment under test (EUT) does meet the essential requirements of the stated standard(s)/test(s).
2. These test results on a sample of the device are for the purpose of demonstrating Compliance with with ARIB STD-T66.
3. The measurement result is considered in conformance with the requirement if it is within the prescribed limit, It is not necessary to account the uncertainty associated with the measurement result.
4. The test results presented in this report relate only to the object tested.
5. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification (Suzhou) Co., Ltd.
6. This report will not be used for social proof function in China market.
7. DEKRA declines any responsibility with the following test data provided by customer that may affect the validity of result:
 - Chapter 1.1 General Description of the Item(s);
 - Chapter 1.2 Antenna Information;
 - Chapter 1.3 Channel List.
8. This report is based on report number 2250865R-RF-JP-P01V02, with a new model (929004456101) added. The only difference is the length of the lamp tube; all other wireless functions are completely identical. According to technical evaluation, no additional RF testing is required, and the test data are referenced from the previous report (report number: 2250865R-RF-JP-P01V02).

USED EQUIPMENT

Output Power and Output Power Tolerance / Spread Bandwidth and Spread Factor / Occupied Bandwidth / Frequency Tolerance / Transmitter Spurious Emissions / Receiver Spurious Emissions / TR8

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
4TX MIMO Power Sensor	Keysight	X8750A	MY59400102	2022.03.16	2023.03.15
DC Power Supply	IDRC	CD-035-020PR	977272	N/A	N/A
MXA Signal Analyzer	Keysight	N9020A	MY56060147	2021.07.11	2022.07.10
Spectrum Analyzer	Agilent	N9010A	MY48030494	2021.07.11	2022.07.10
Signal Analyzer	R&S	FSV	104212	2021.11.18	2022.11.17
Temperature/Humidity Meter	RTS	RTS-8S	RF08	2021.07.09	2022.07.08

UNCERTAINTY

Uncertainties have been calculated according to the DEKRA internal document. The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%. The Uncertainties is comply with standard required as below.

Test item	Uncertainty
Output Power and Output Power Tolerance	$\pm 1.27\text{dB}$
Spread Bandwidth and Spread Factor	$\pm 150\text{Hz}$
Occupied Bandwidth	$\pm 1.27\text{dB}$
Frequency Tolerance	$\pm 150\text{Hz}$
Transmitter Spurious Emissions	$\pm 1.27\text{dB}$
Receiver Spurious Emissions	$\pm 1.27\text{dB}$
Carrier Sensing	$\pm 1.27\text{dB}$

1 GENERAL INFORMATION

1.1 General Description of the Item(s)

Product Name	LED tube
Model No.	929003555701; 929003555701A; 929004456101
Trademark.	PHILIPS; hue
Model Difference	The PSU and RF box are completely identical; the only difference is the length of the lamp.
Manufacturer	Signify Netherlands B.V.
Manufacturer Address	High Tech Campus 48 5656 AE Eindhoven THE NETHERLANDS

Wireless specification	Bluetooth
Operating frequency range(s)	2400~2483.5MHz
Type of Modulation	GFSK
PHYs	☒ LE 1M ☒ LE 2M ☒ LE Coded S=2/8
Data Rate	☒ 1Mbit/s ☒ 2Mbit/s ☒ 500/125 Kbit/s
Number of channel	40
Declared power	8mW

Rated power supply	Voltage and Frequency	
	☐	AC: 220 – 240 V, 50/60 Hz
	☒	AC: 100-120V, 50/60Hz,
	☐	Battery: 3.7-4.2V, Charging voltage is 5.0V
	☐	DC:3Vdc
	☐	PoE: 48V

1.2 Antenna Information

Antenna model / type number	N/A		
Antenna serial number	N/A		
Antenna Delivery	☒	1TX + 1RX	
	☐	2TX + 2RX	
	☐	Others:.....	
Antenna technology	☒	SISO	
	☐	MIMO	☐ CDD
			☐ Beam-forming
Antenna Type	☐	External	☐ Dipole
			☐ Sectorized
	☒	Internal	☒ PIFA
			☐ PCB
			☐ Dipole
			☐ Others.....
Antenna Gain	2.08 dBi		

1.3 Channel List

Bluetooth Working Frequency of Each Channel: (For v5.0)							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
00	2402 MHz	01	2404 MHz	02	2406 MHz	03	2408 MHz
04	2410 MHz	05	2412 MHz	06	2414 MHz	07	2416 MHz
08	2418 MHz	09	2420 MHz	10	2422 MHz	11	2424 MHz
12	2426 MHz	13	2428 MHz	14	2430 MHz	15	2432 MHz
16	2434 MHz	17	2436 MHz	18	2438 MHz	19	2440 MHz
20	2442 MHz	21	2444 MHz	22	2446 MHz	23	2448 MHz
24	2450 MHz	25	2452 MHz	26	2454 MHz	27	2456 MHz
28	2458 MHz	29	2460 MHz	30	2462 MHz	31	2464 MHz
32	2466 MHz	33	2468 MHz	34	2470 MHz	35	2472 MHz
36	2474 MHz	37	2476 MHz	38	2478 MHz	39	2480 MHz

Note: The general description of the Item(s), antenna information, model list and channel list in clause 1 are provided and confirmed by the client.

2 DESCRIPTION OF TEST SETUP

2.1 Operating mode(s) used for tests

During the tests the following operating mode(s) has(have) been used.

Test Mode	Mode1: Transmit by LE_ 1Mbps
	Mode2: Transmit by LE_ 2Mbps
	Mode3: Transmit by LE_ Coded S=2
	Mode4: Transmit by LE_ Coded S=8
	Mode5: Receive by LE_ 1Mbps
	Mode6: Receive by LE_ 2Mbps
	Mode7: Receive by LE_ Coded S=2
	Mode8: Receive by LE_ Coded S=8

2.2 Accessories Information

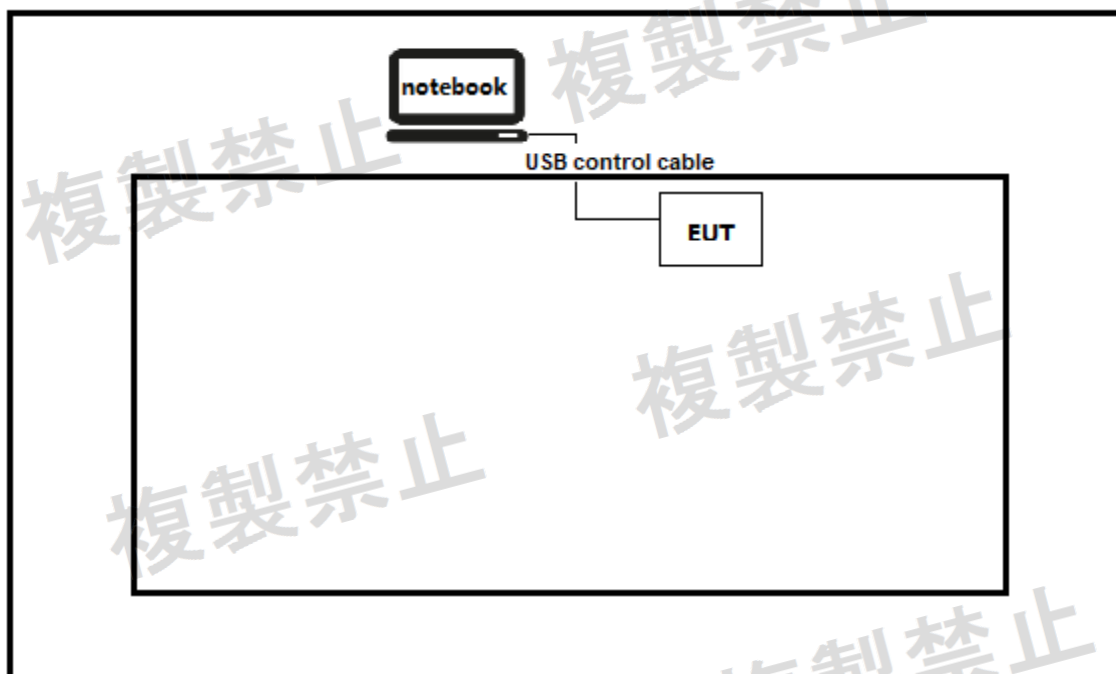
Accessories Information	Brand/model name	Cable		
		Length used during test [m]	Attached during test	Shielded
USB-serial Cable	N/A	1m	☒	☐

2.3 Auxiliary equipment / Test software for the EUT

Auxiliary equipment	Type / Version	Manufacturer	Supplied by
N/A	N/A	N/A	N/A
software	Type / Version	Manufacturer	Supplied by
N/A	N/A	N/A	N/A

2.4 Test Configuration / Block diagram used for tests

Test setup Diagram- Conducted test



2.5 Testing process

1	Setup the EUT as shown in Section 2.4
2	Execute the test program.
3	Configure the test mode and test channel.
4	Verify that the EUT works properly.

2.6 Test Voltage

Power supply voltage fluctuation test

Voltage Fluctuation Test	Normal Voltage	High Voltage Normal Voltage +10% of	Low Voltage Normal Voltage -10% of
Input To EUT	DC 120V	DC 132V	DC 108V
Test Result	3.30V	3.30V	3.30V
Voltage Variation	Reference	0%	0%

Note:

Changing the supply voltage of the EUT will not change the voltage of the RF module.

During the input supply voltage to the EUT from the external power source is varied by +/- 10%, if output voltage had been confirmed that the fluctuation of power supply to the RF circuit of EUT (excluding power source) is equal to or less than +/-1%. Exempt extremely high and low supply voltage condition test, EUT only operated in normal voltage to test all regulations.

3 VERDICT SUMMARY SECTION

This chapter presents an overview of standards and results. Refer to the next chapters for details of measured test results and applied test levels.

3.1 Standards

Standard	Year	Description
ARIB STD-T66	2014	SECOND GENERATION LOW POWER DATA COMMUNICATION SYSTEM/ WIRELESS LAN SYSTEM
--	--	--
--	--	--
--	--	--

3.2 Deviation(s) from the Standard(s) / Test Specification(s)

No deviation

3.3 Overview of results

Test Item – ARIB STD-T66				
Performed Test Item	Normative References	Test Performed	Verdict	Remark
Output Power and Output Power Tolerance	ARIB STD-T66	Yes	PASS	--
Spread Bandwidth and Spread Factor	ARIB STD-T66	N/A	N/A	--
Occupied Bandwidth	ARIB STD-T66	Yes	PASS	
Frequency Tolerance	ARIB STD-T66	Yes	PASS	
Transmitter Spurious Emissions	ARIB STD-T66	Yes	PASS	
Receiver Spurious Emissions	ARIB STD-T66	Yes	PASS	--

4 TEST RESULTS

4.1 Output Power and Output Power Tolerance

VERDICT: PASS

4.1.1 Limit

Standard

ARIB STD-T66

Output Power

- | | |
|-------------------------------------|---|
| ☐ | Channel Power of DSSS, the limit should $\leq 10\text{mW/MHz}$ |
| ☐ | Channel Power of FHSS, the limit should $\leq 3\text{mW/MHz}$ |
| ☐ | Channel Power of OFDM |
| ☐ | Nominal Bandwidth = 20MHz, the limit should $\leq 10\text{mW/MHz}$ |
| ☐ | Nominal Bandwidth = 40MHz, the limit should $\leq 5\text{mW/MHz}$ |
| ☒ | Channel Power of other situation, the limit should $\leq 10\text{mW}$ |

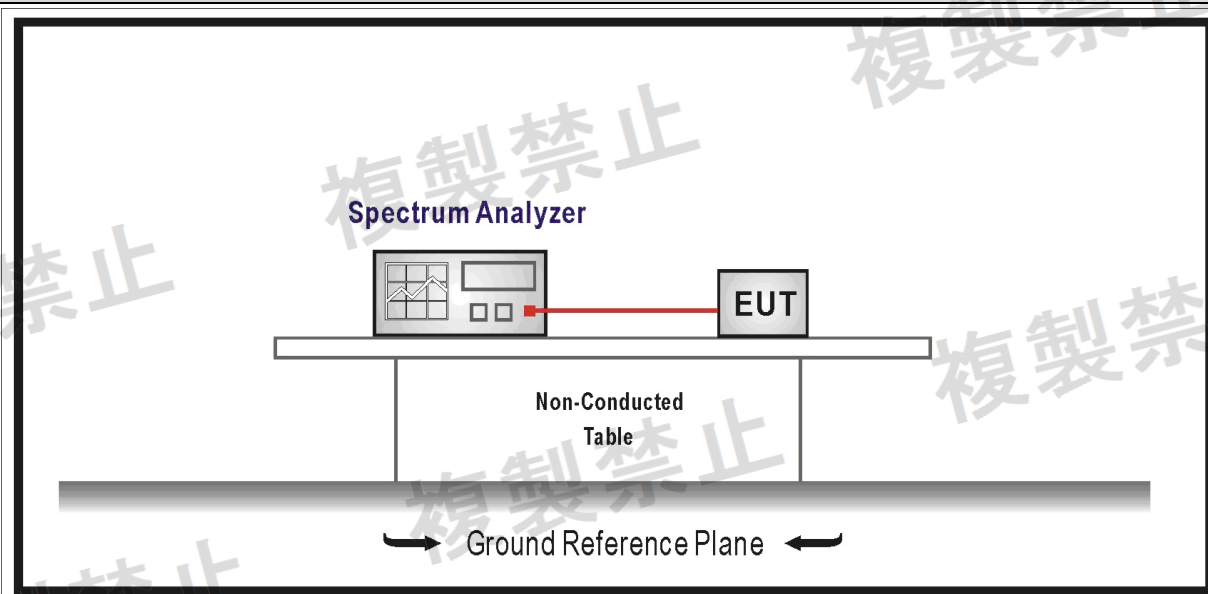
E.I.R.P.

- | | |
|-------------------------------------|-------------------------------|
| ☒ | Undirected: 12.14dBm or less |
| ☐ | Directional: 22.14dBm or less |

Output Power Tolerance

- | | |
|-------------------------------------|--------------------------------------|
| ☒ | Output Power Tolerance: +20% to -80% |
|-------------------------------------|--------------------------------------|

4.1.2 Test Set up



4.1.3 Test Procedure

References Rule

☒	ARIB STD-T66
-------------------------------------	--------------

Step 1

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

1. A sample detector function must be used.
2. A measurement instrument with an integrated 1MHz power bandwidth function may be used to automate the test process.
3. Connect the power meter to the IF output of the spectrum analyzer.
4. Set zero span of spectrum analyzer and 'Maximum Hold' than test result will show in power.

4.1.4 Test Data

Mode	Frequency (MHz)	Conducted Output Power (dBm)	Conducted Output Power Limit (dBm/MHz)	EIRP (dBm)	EIRP Limit (dBm/MHz)
Mode 1	2402	8.72	10	10.80	12.14
Mode 1	2440	8.81	10	10.89	12.14
Mode 1	2480	8.55	10	10.63	12.14
Mode 2	2402	8.80	10	10.88	12.14
Mode 2	2440	8.82	10	10.90	12.14
Mode 2	2480	8.54	10	10.62	12.14
Mode 3	2402	8.74	10	10.82	12.14
Mode 3	2440	8.80	10	10.88	12.14
Mode 3	2480	8.54	10	10.62	12.14
Mode 4	2402	8.74	10	10.82	12.14
Mode 4	2440	8.84	10	10.92	12.14
Mode 4	2480	8.68	10	10.76	12.14

EIRP = Conducted Output Power + Antenna Gain

Mode	Frequency (MHz)	Declared Output Power (mW)	Output Power (mW)	Tolerance (%)	Limit
Mode 1	2402	8.0	7.45	-6.88	+20% to -80%
Mode 1	2440	8.0	7.60	-5.00	+20% to -80%
Mode 1	2480	8.0	7.16	-10.50	+20% to -80%
Mode 2	2402	8.0	7.59	-5.13	+20% to -80%
Mode 2	2440	8.0	7.62	-4.75	+20% to -80%
Mode 2	2480	8.0	7.15	-10.63	+20% to -80%
Mode 3	2402	8.0	7.48	-6.50	+20% to -80%
Mode 3	2440	8.0	7.59	-5.13	+20% to -80%
Mode 3	2480	8.0	7.15	-10.63	+20% to -80%
Mode 4	2402	8.0	7.48	-6.50	+20% to -80%
Mode 4	2440	8.0	7.66	-4.25	+20% to -80%
Mode 4	2480	8.0	7.38	-7.75	+20% to -80%

Note: Deviation = (Output Power - Declared Output Power) / Declared Output Power * 100%

4.2 Spread Bandwidth and Spread Factor

VERDICT: N/A

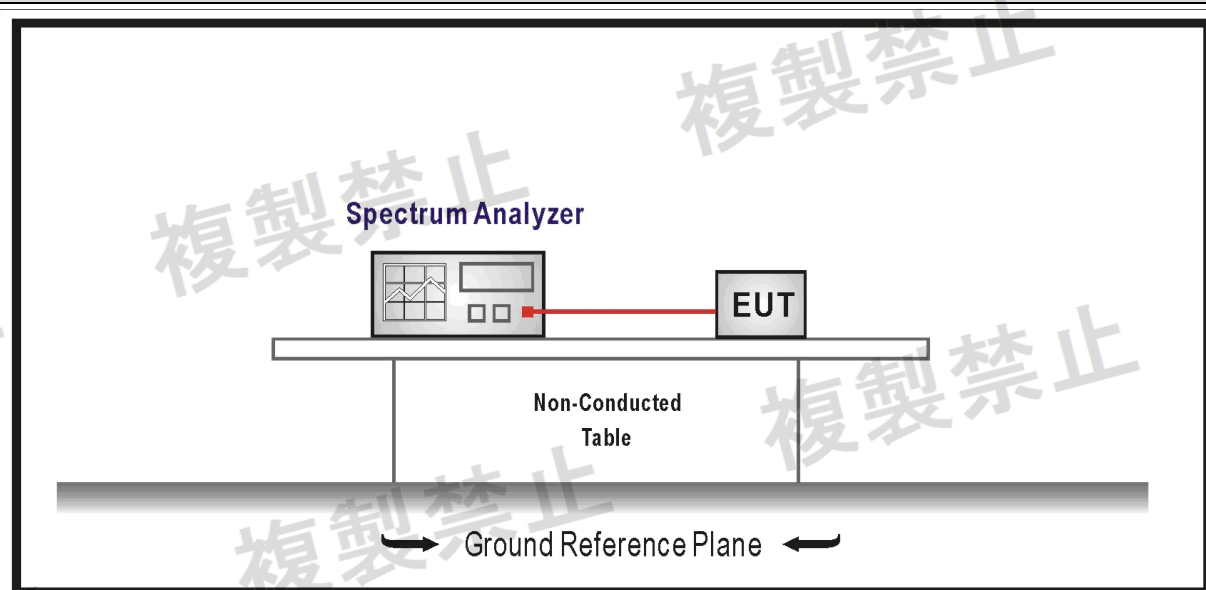
4.2.1 Limit

Standard

ARIB STD-T66

Spread Bandwidth ≥ 500 kHzSpread Factor ≥ 5 for 2400 – 2483.5 MHz, ≥ 10 for 2471 – 2497 MHz

4.2.2 Test Setup



4.2.3 Test Procedure

References Rule
☒ ARIB STD-T66

Step 1

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

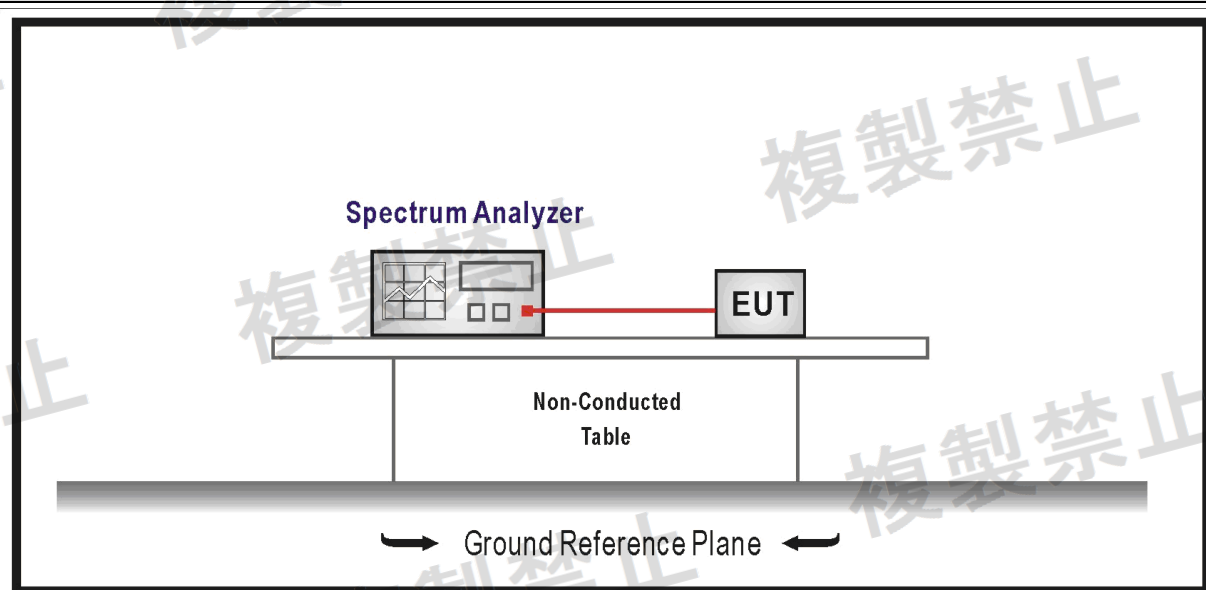
1. A positive peak detector function must be used.
2. A measurement instrument with an integrated 90% power bandwidth function may be used to automate the test process
3. The measurement instrument bandwidth and span must be set sufficiently with, and, the scan time set sufficiently slow, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result
4. 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided the emission is repetitive in nature.

4.2.4 Test Data

N/A: This test item is applicable to FHSS device and other DSSS spread spectrum device.

4.3 Occupied Bandwidth**VERDICT: PASS****4.3.1 Limit**

Standard		ARIB STD-T66
☐	Channel Power of DSSS, the limit should ≤ 26 MHz	
☐	Channel Power of FHSS, the limit should ≤ 83.5 MHz	
☐	Channel Power of OFDM	
☐	Nominal Bandwidth=20MHz, the limit should ≤ 26 MHz	
☐	Nominal Bandwidth=40MHz, the limit should ≤ 38 MHz	
☒	Channel Power of other situation, the limit should ≤ 26 MHz	

4.3.2 Test Setup

4.3.3 Test Procedure

References Rule

☒	ARIB STD-T66
-------------------------------------	--------------

Step 1

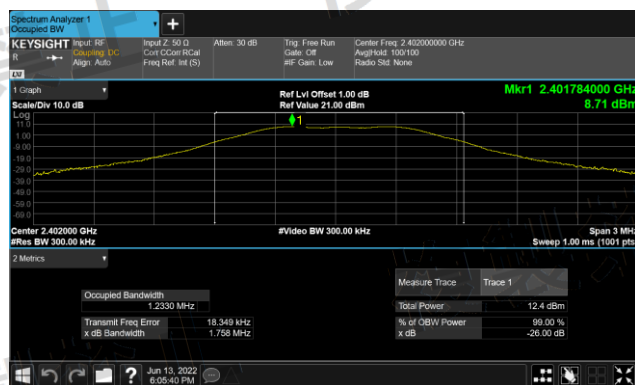
A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

1. A positive peak detector function must be used.
2. A measurement instrument with an integrated 99% power bandwidth function may be used to automate the test process.
3. The measurement instrument bandwidth and span must be set sufficiently with, and, the scan time set sufficiently slow, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.
4. 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided the emission is repetitive in nature.

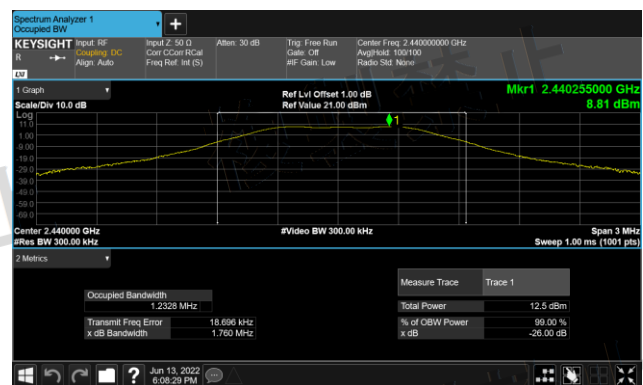
4.3.4 Test Data

Mode	Channel No.	Frequency (MHz)	99% Bandwidth (MHz)	Limit (MHz)
Mode 1	00	2402	1.233	≤ 26
Mode 1	19	2440	1.233	≤ 26
Mode 1	39	2480	1.232	≤ 26
Mode 2	00	2402	2.152	≤ 26
Mode 2	19	2440	2.159	≤ 26
Mode 2	39	2480	2.165	≤ 26
Mode 3	00	2402	1.329	≤ 26
Mode 3	19	2440	1.326	≤ 26
Mode 3	39	2480	1.323	≤ 26
Mode 4	00	2402	1.326	≤ 26
Mode 4	19	2440	1.325	≤ 26
Mode 4	39	2480	1.323	≤ 26

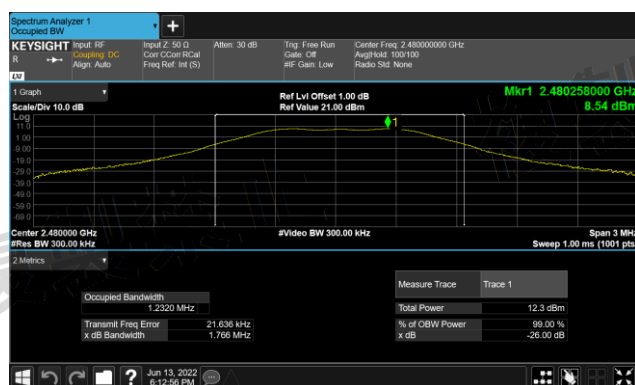
Mode 1 2402MHz



Mode 1 2440MHz



Mode 1 2480MHz



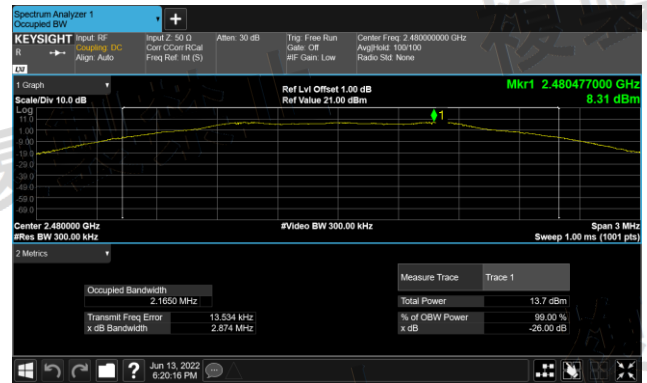
Mode 2 2402MHz



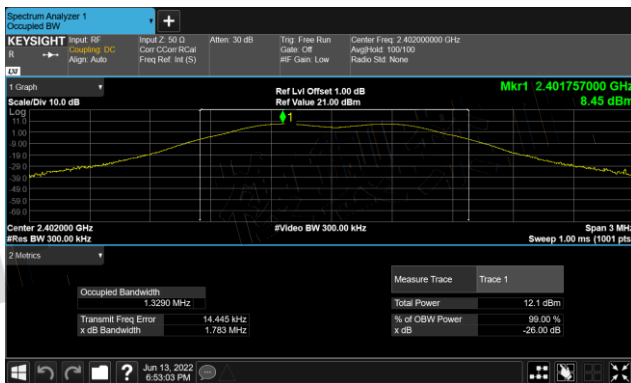
Mode 2 2440MHz



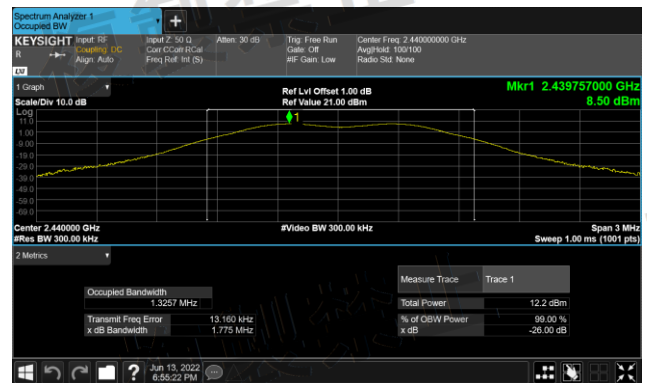
Mode 2 2480MHz



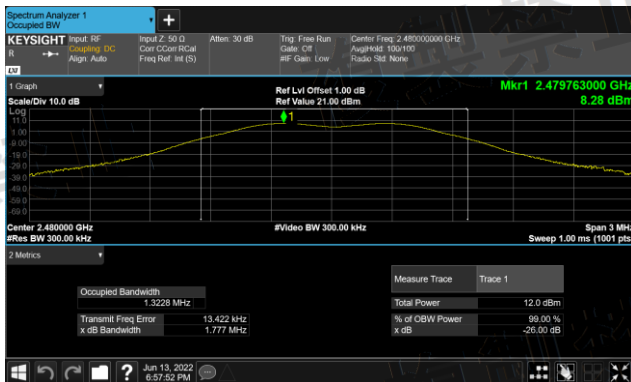
Mode 3 2402MHz



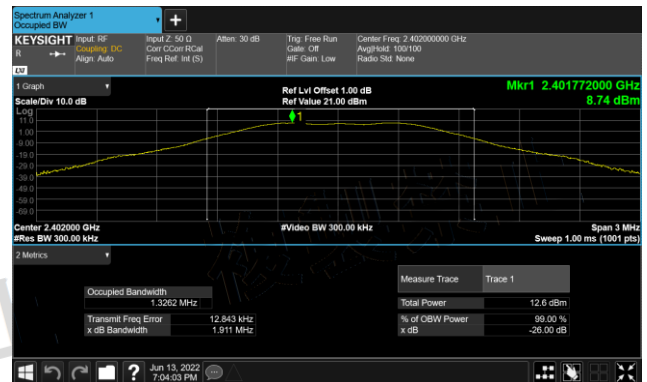
Mode 3 2440MHz



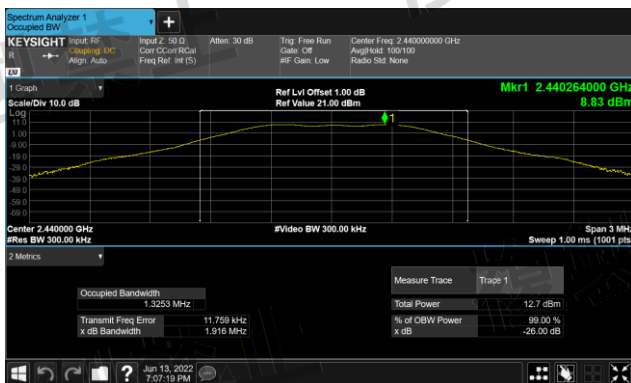
Mode 3 2480MHz



Mode 4 2402MHz



Mode 4 2440MHz



Mode 4 2480MHz



4.4 Frequency Tolerance

VERDICT: PASS

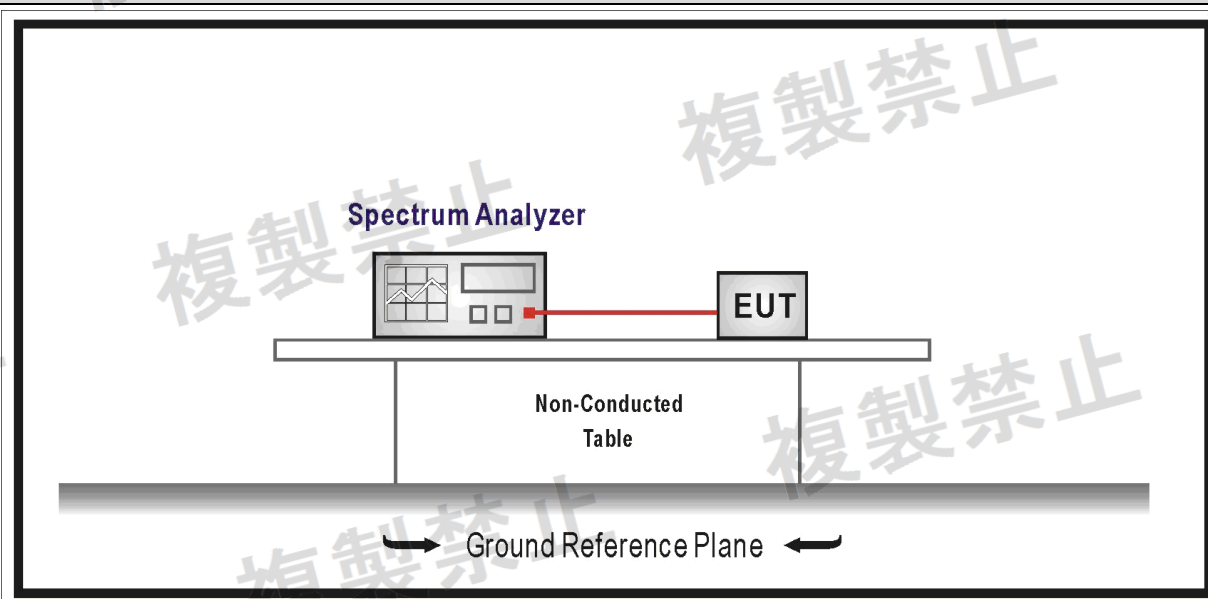
4.4.1 Limit

Standard

ARIB STD-T66

$\leq \pm 50$ ppm

4.4.2 Test Setup



4.4.3 Test Procedure

References Rule

☒	ARIB STD-T66
-------------------------------------	--------------

Step 1

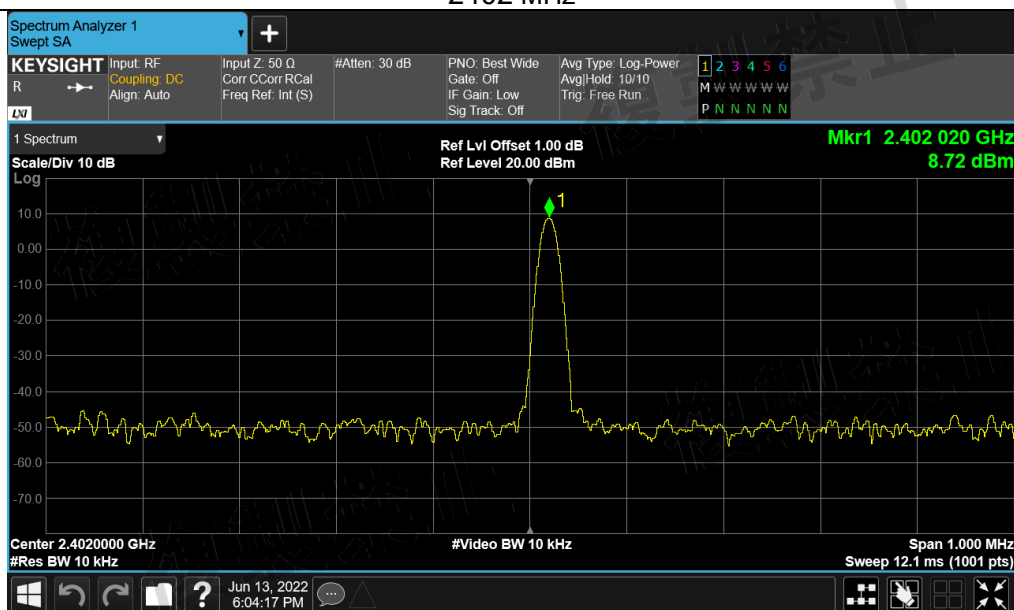
A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

1. A positive peak detector function must be used.
2. The measurement instrument bandwidth and span must be set sufficiently with, and, the scan time set sufficiently slow, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.
3. 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided the emission is repetitive in nature.

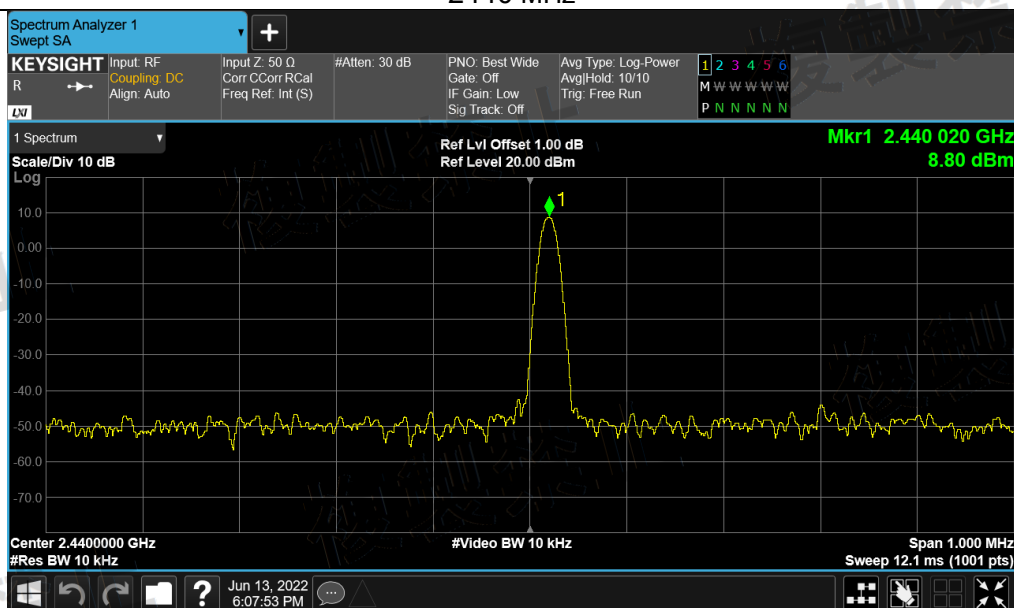
4.4.4 Test Data

Channel No.	Frequency (MHz)	Reading Value (MHz)	Tolerance (ppm)	Limit (ppm)
00	2402	2402.02	8.33	$\leq \pm 50$
19	2440	2440.02	8.2	$\leq \pm 50$
39	2480	2480.025	10.08	$\leq \pm 50$

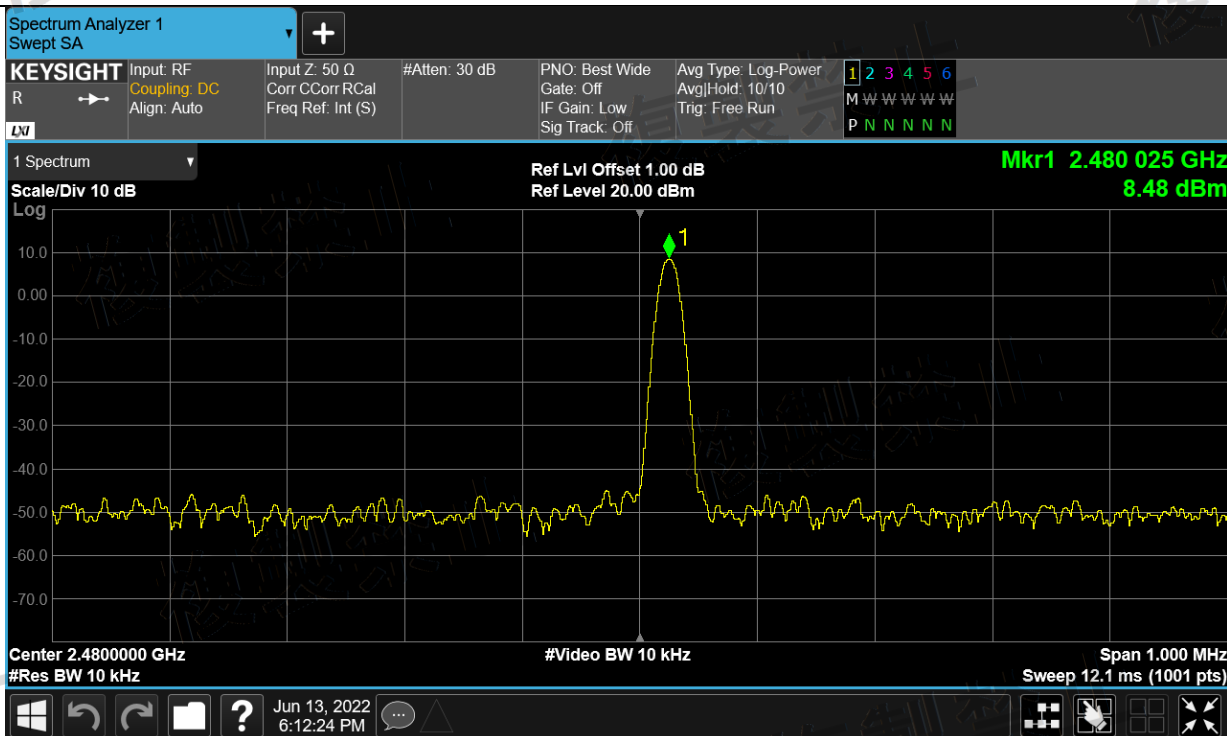
2402 MHz



2440 MHz



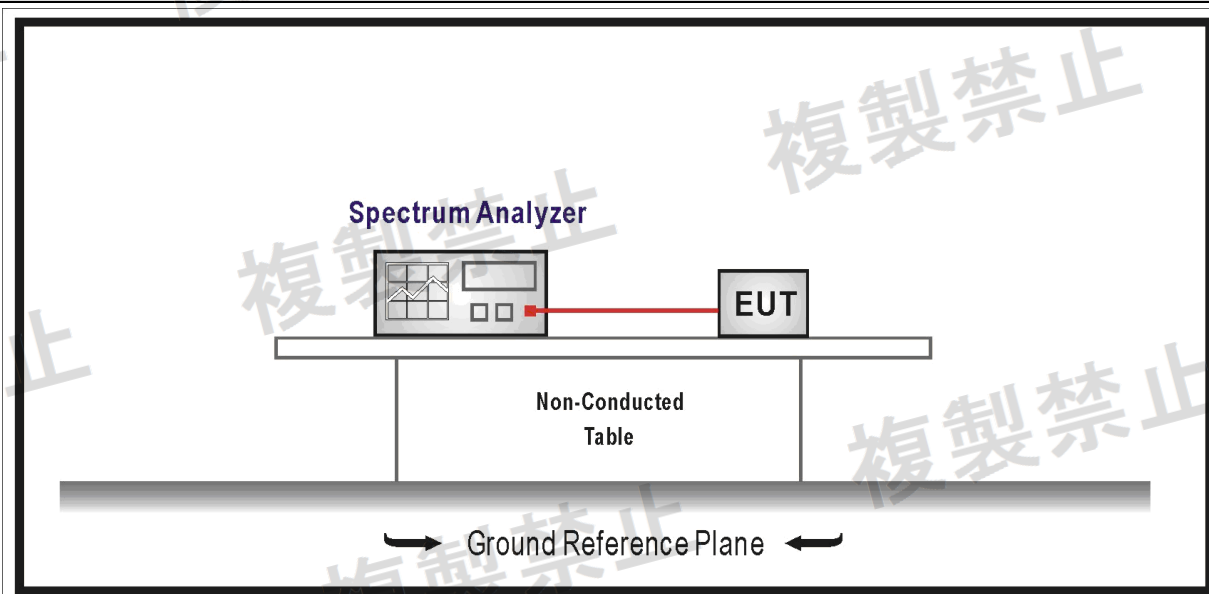
2480 MHz



Note: All modes were tested, showing only the data for the worst mode.

4.5 Transmitter Spurious Emission**VERDICT: PASS****4.5.1 Limit****Standard** ARIB STD-T66

☒	Frequency between 10 – 2387 MHz, $\leq 2.5\mu\text{W}$
☒	Frequency between 2387 – 2400 MHz, $\leq 25\mu\text{W}$
☒	Frequency between 2483.5 – 2496.5 MHz, $\leq 25\mu\text{W}$
☒	Frequency between 2496.5 – 12750, $\leq 2.5\mu\text{W}$

4.5.2 Test Setup

4.5.3 Test Procedure

References Rule

☒	ARIB STD-T66
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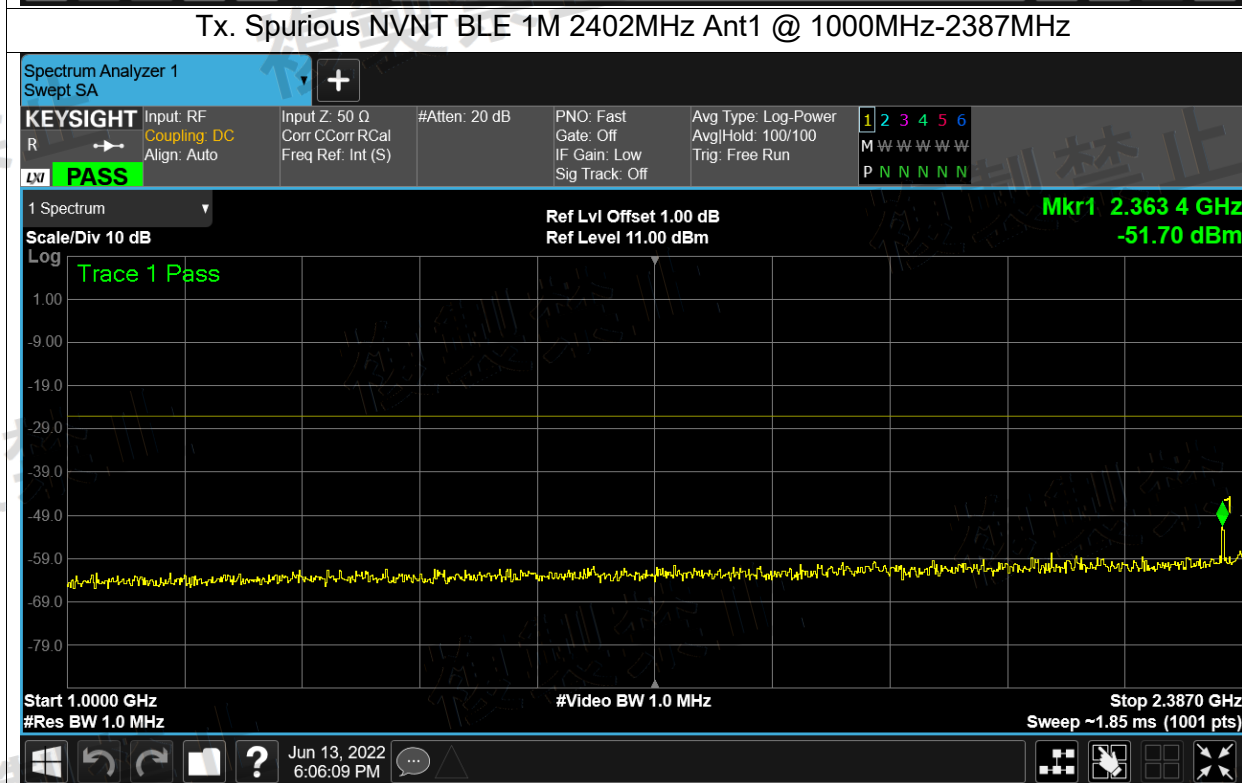
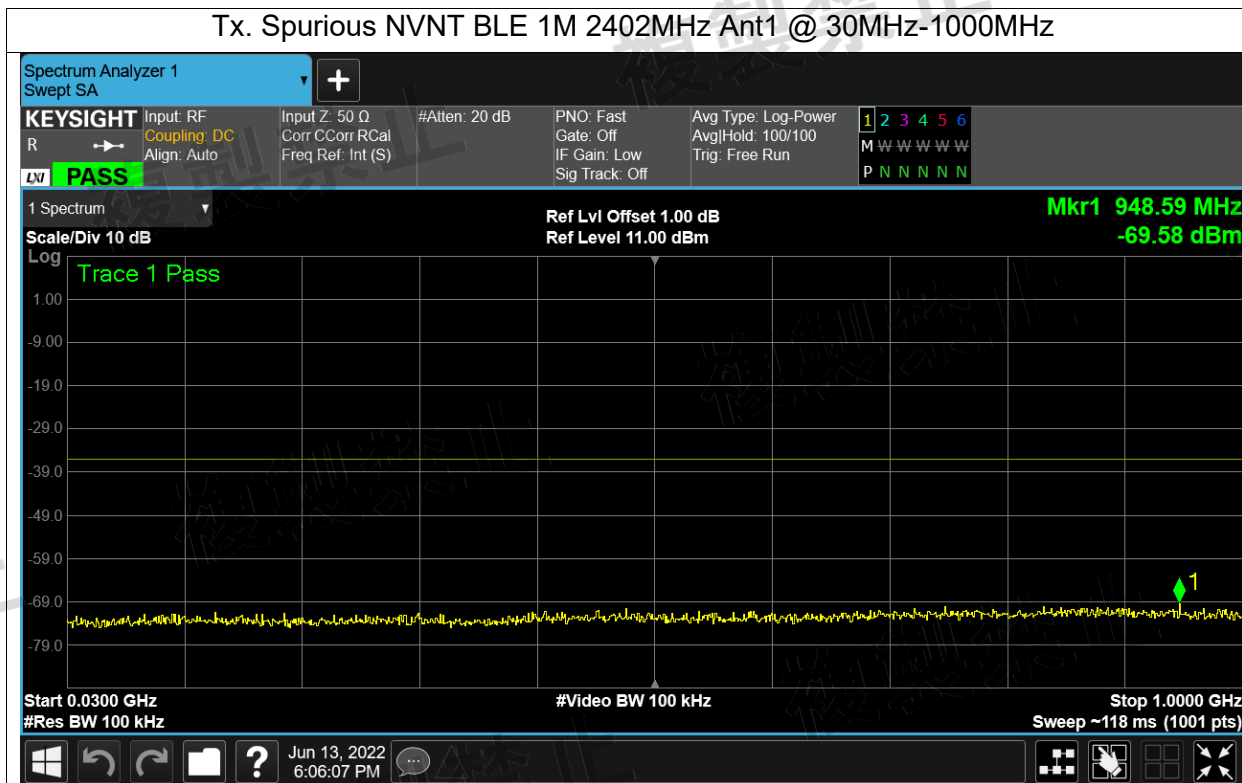
Step 1

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

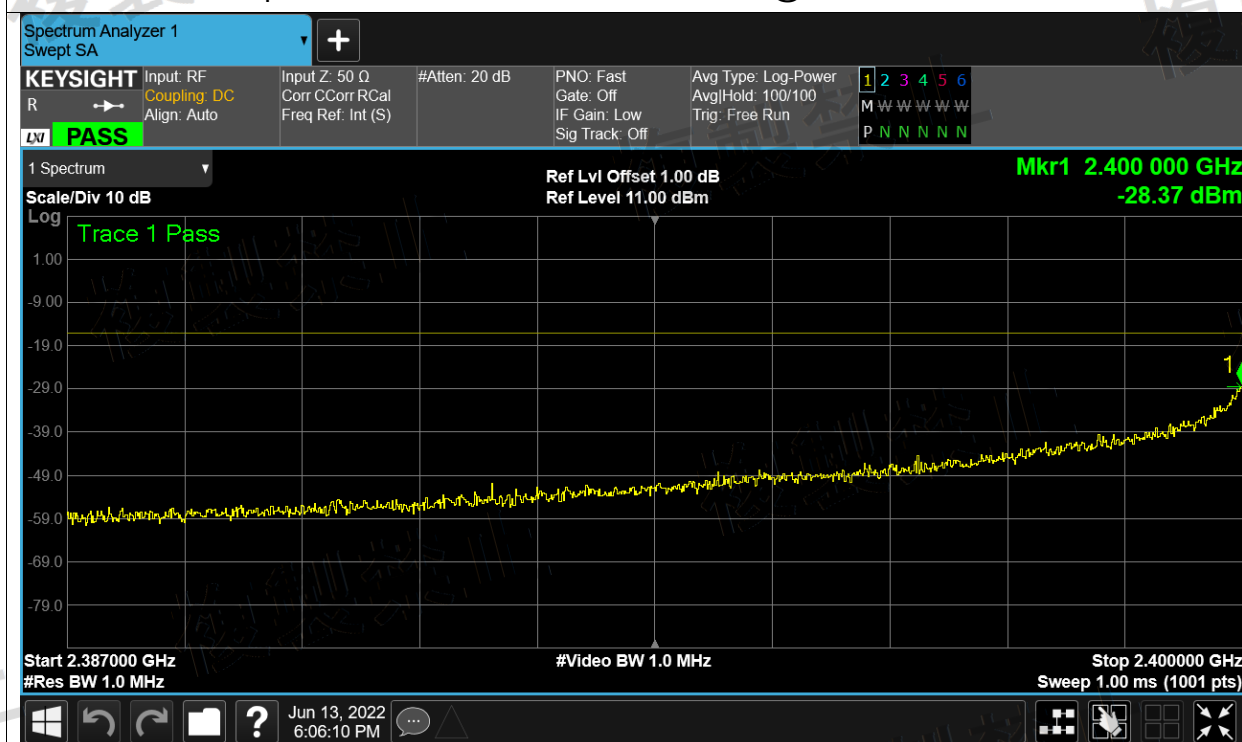
1. A positive peak detector function must be used.
2. A measurement instrument with an integrated 99% power bandwidth function may be used to automate the test process.
3. The measurement instrument bandwidth and span must be set sufficiently with, and, the scan time set sufficiently slow, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.
4. 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided the emission is repetitive in nature.

4.5.4 Test Data

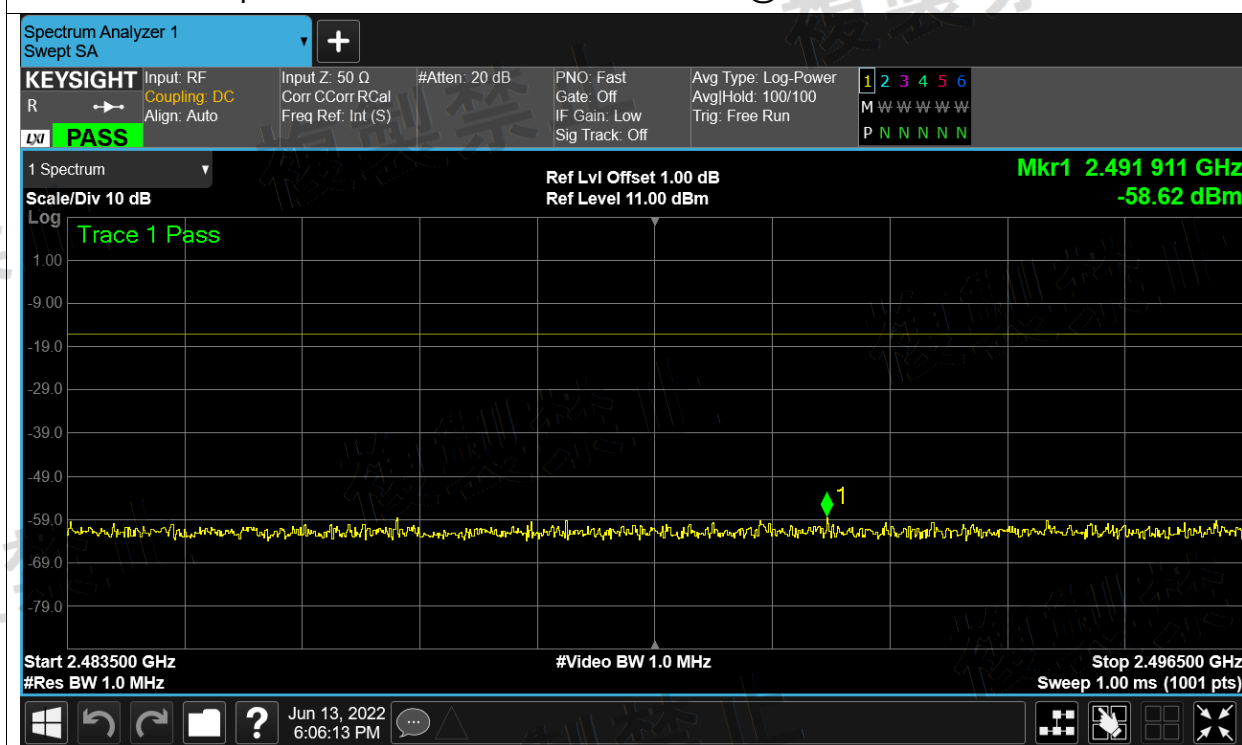
Mode1:

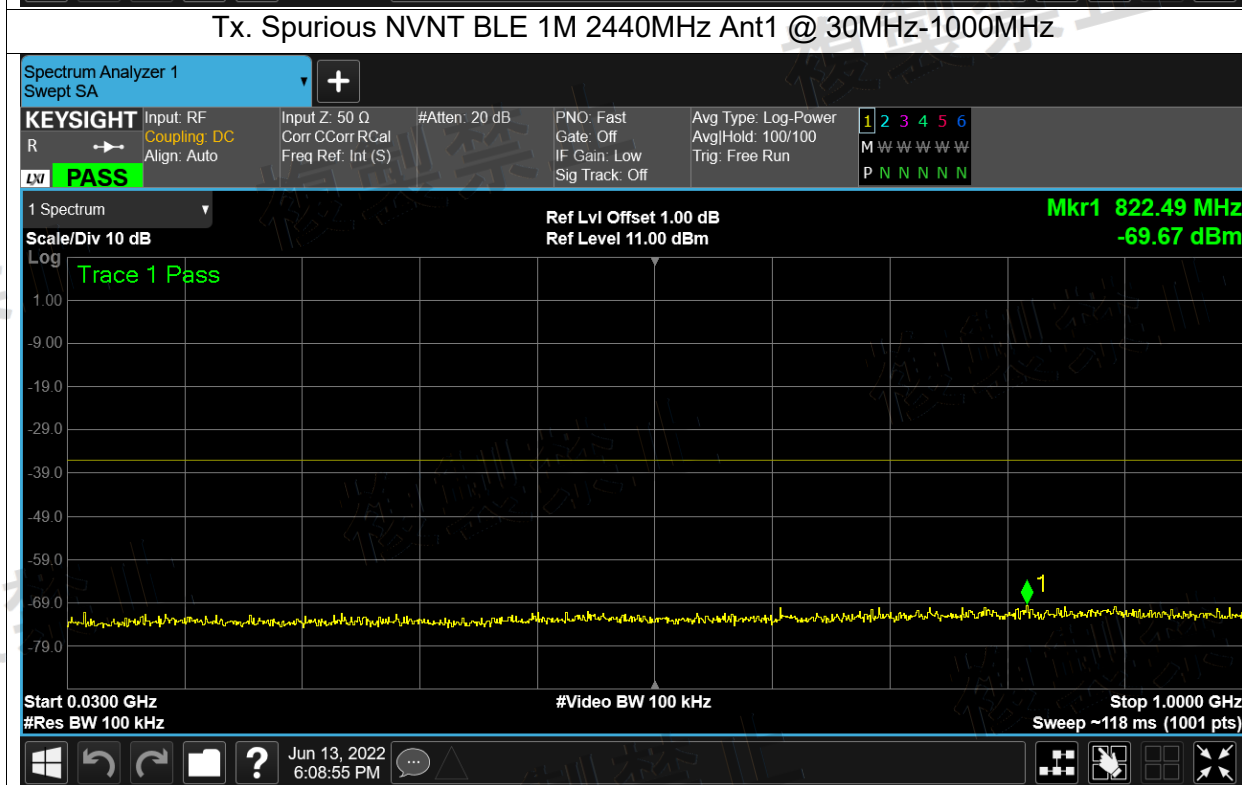
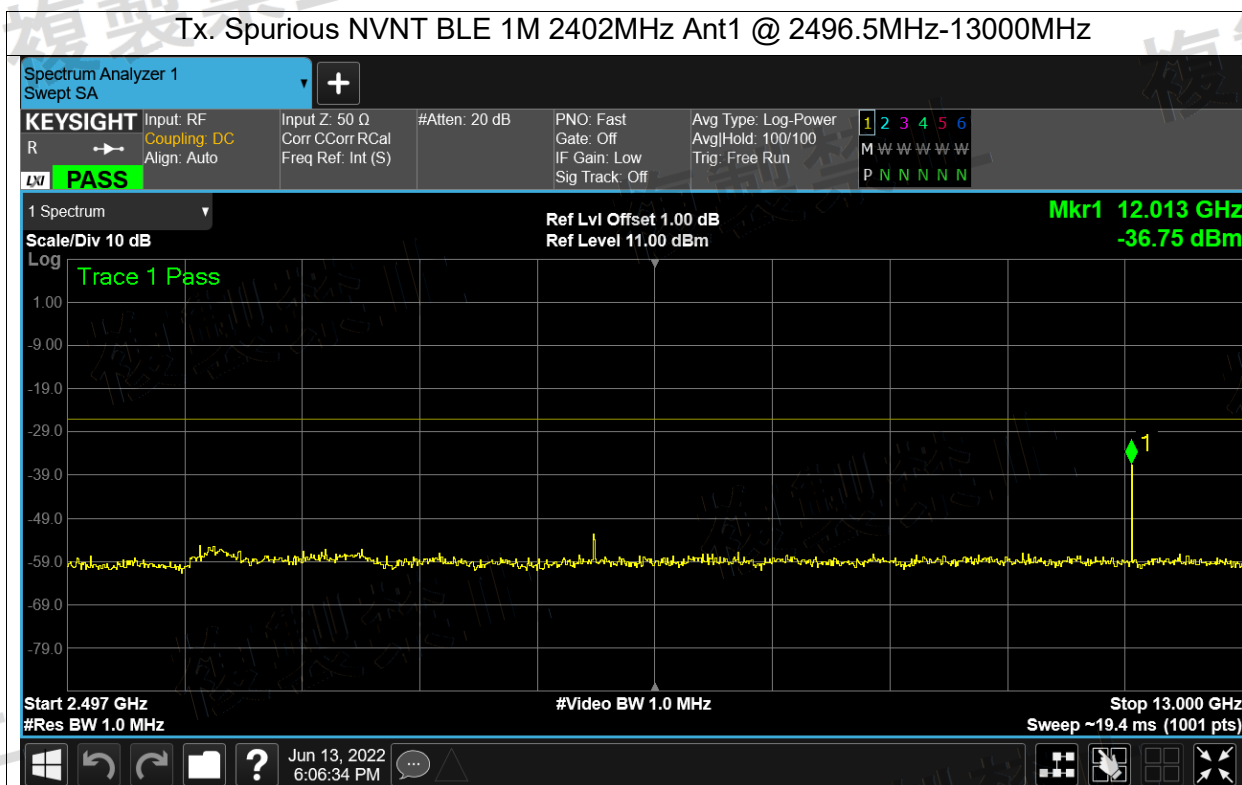


Tx. Spurious NVNT BLE 1M 2402MHz Ant1 @ 2387MHz-2400MHz

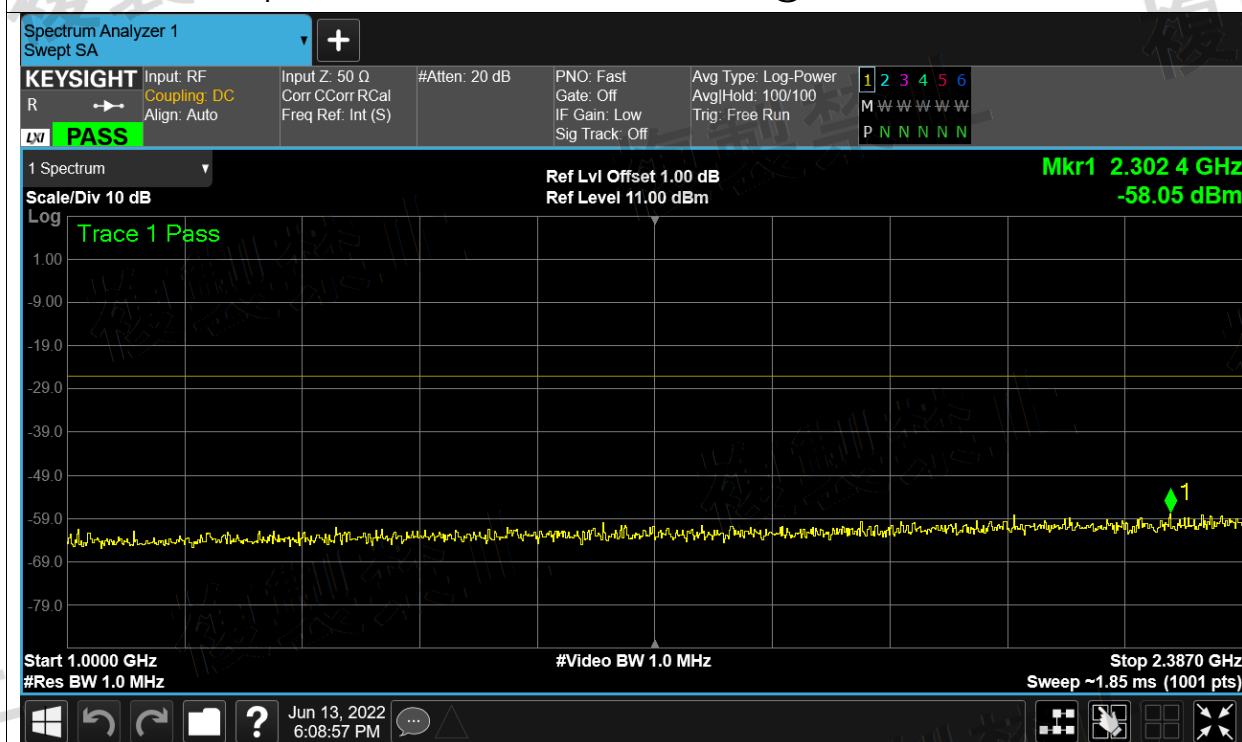


Tx. Spurious NVNT BLE 1M 2402MHz Ant1 @ 2483.5MHz-2496.5MHz

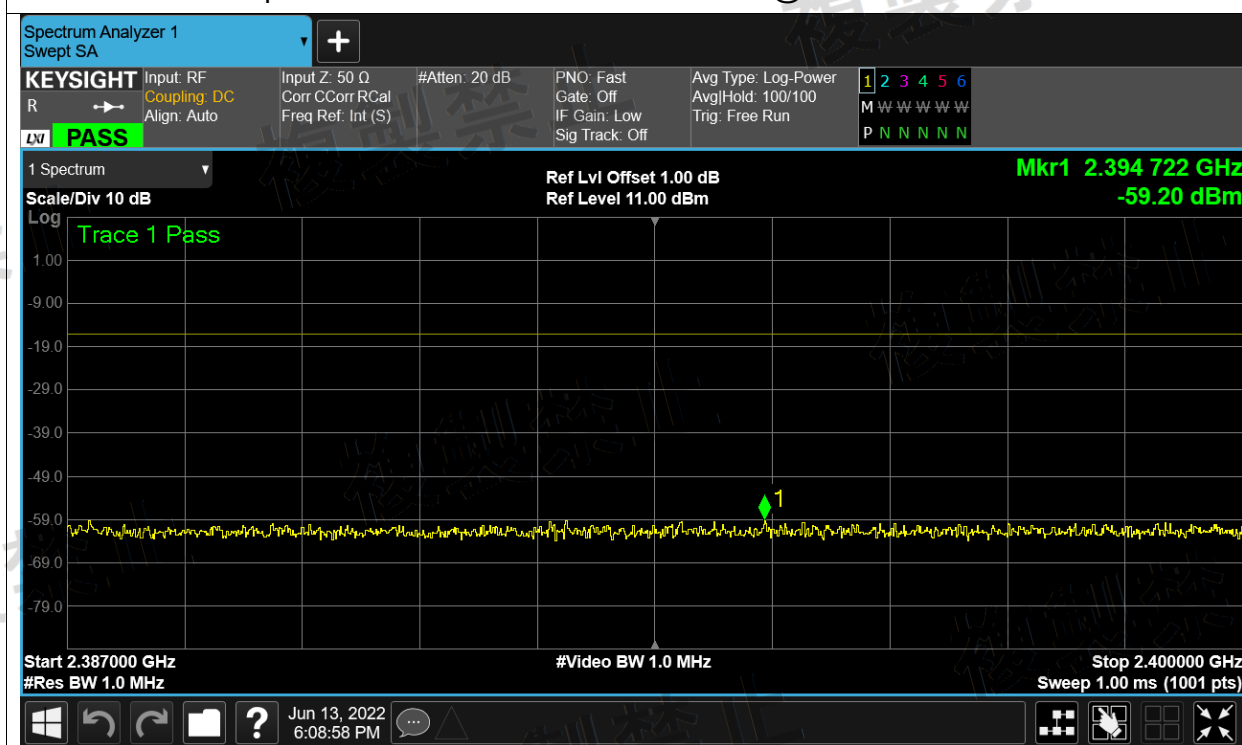


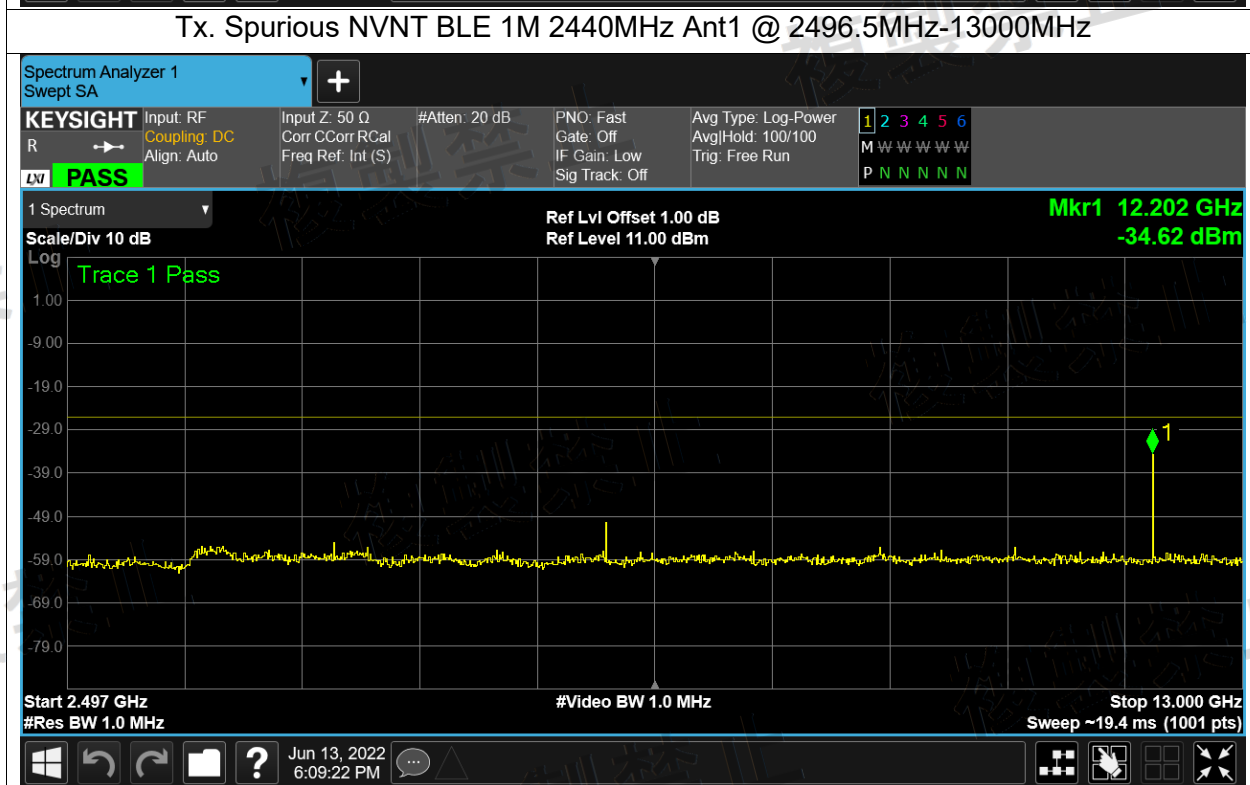
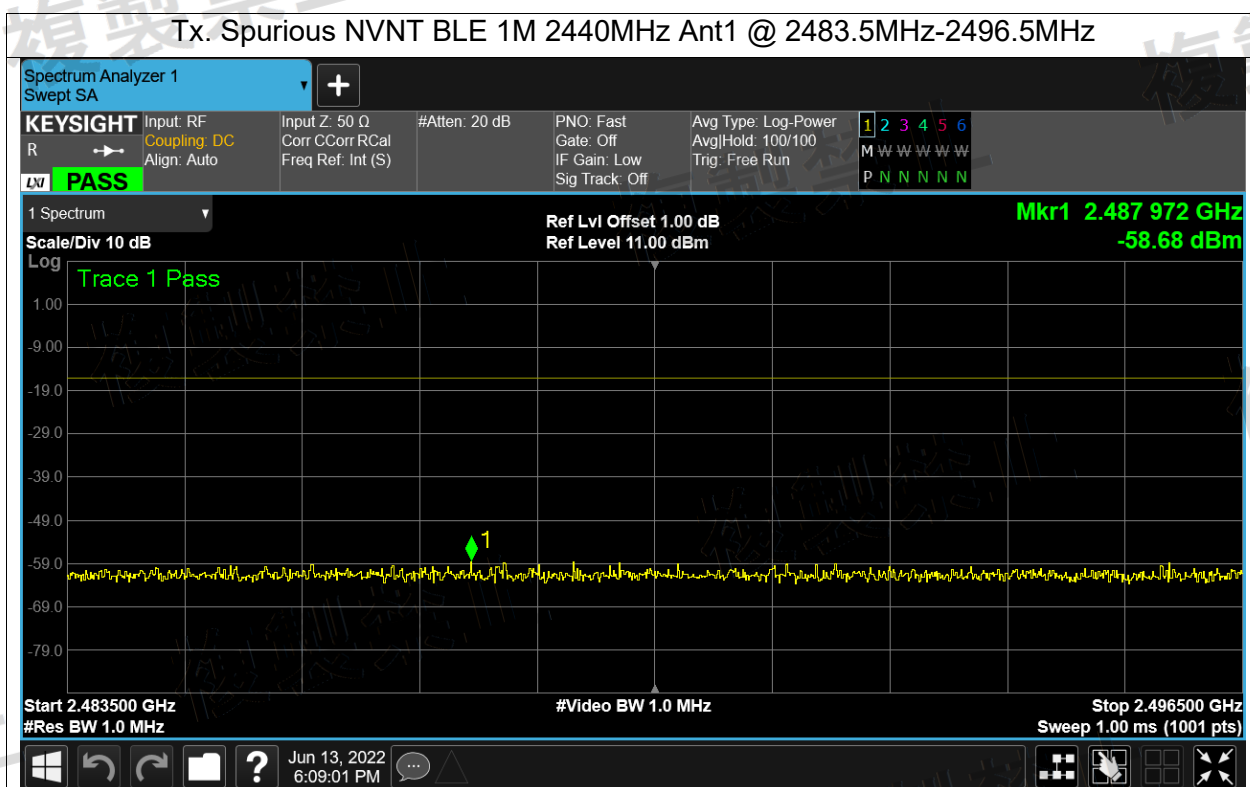


Tx. Spurious NVNT BLE 1M 2440MHz Ant1 @ 1000MHz-2387MHz

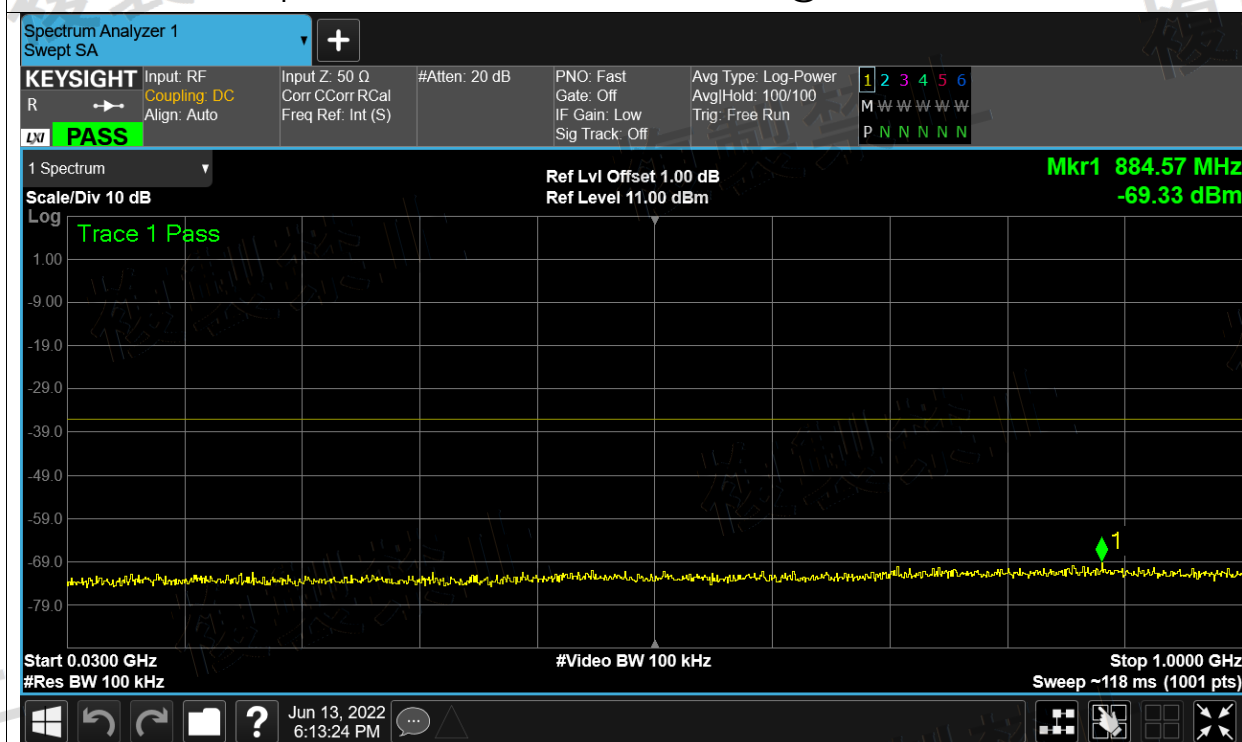


Tx. Spurious NVNT BLE 1M 2440MHz Ant1 @ 2387MHz-2400MHz

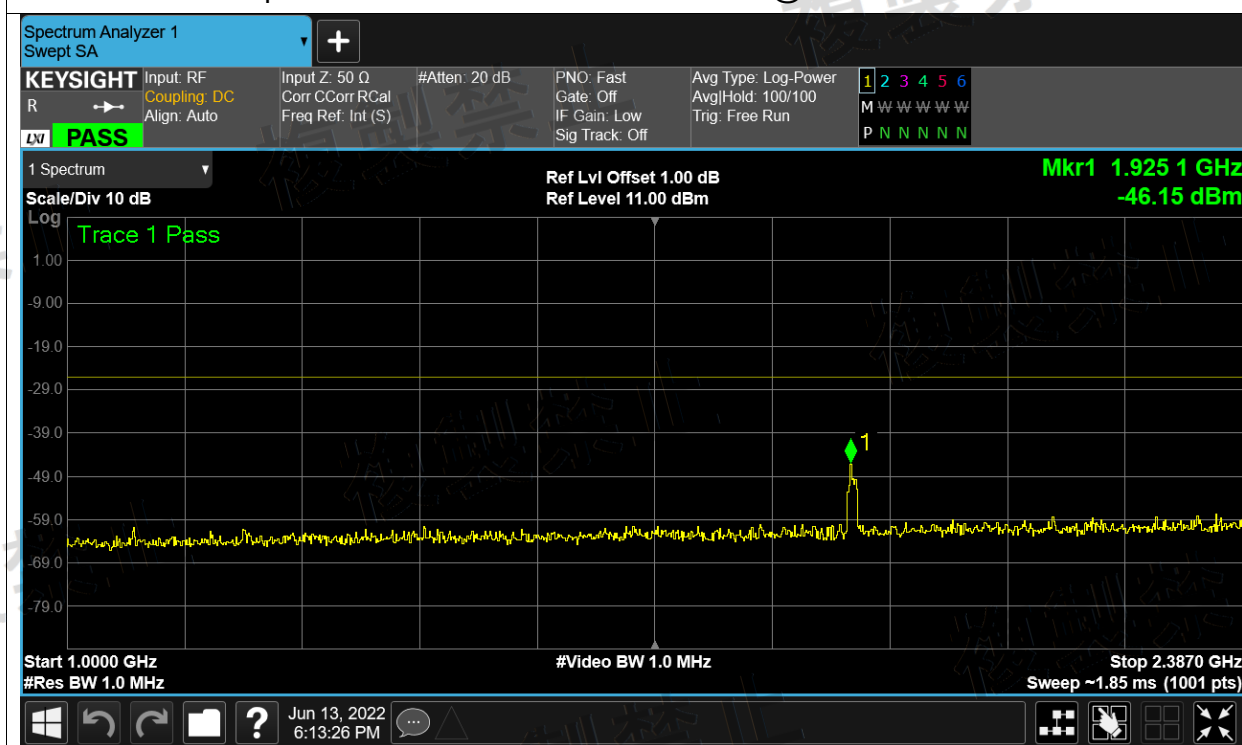




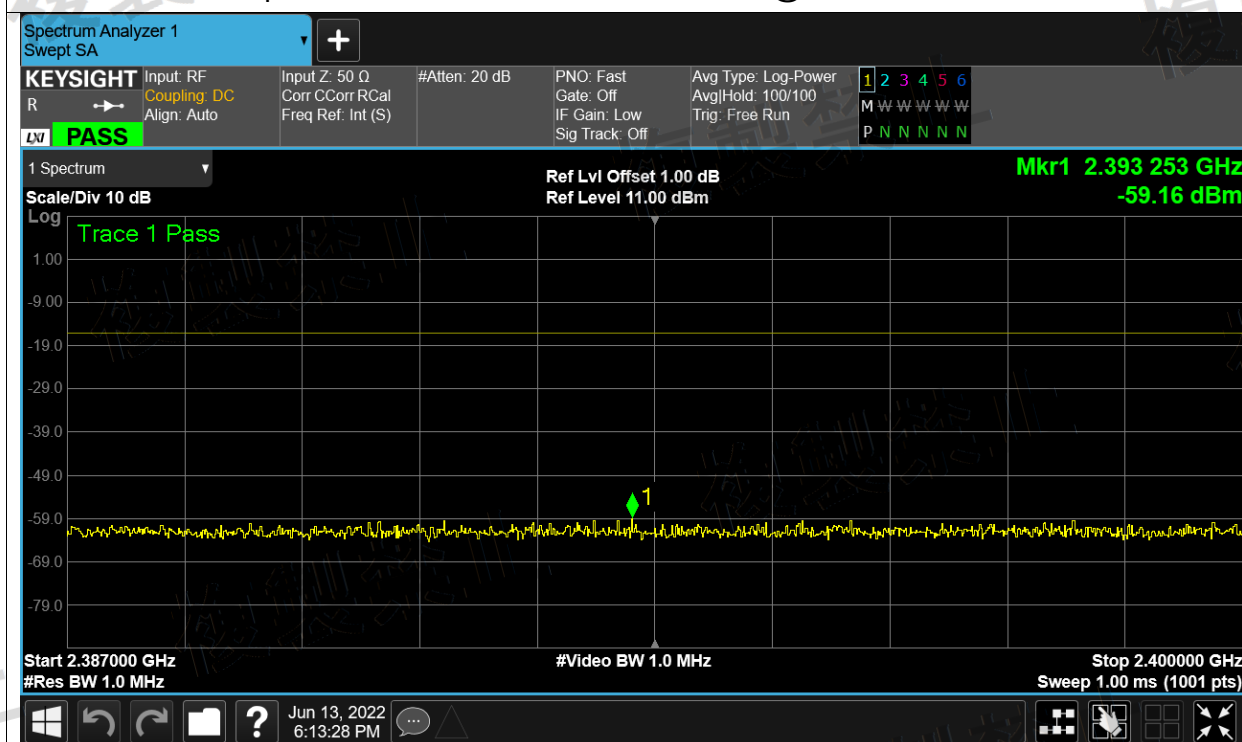
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 @ 30MHz-1000MHz



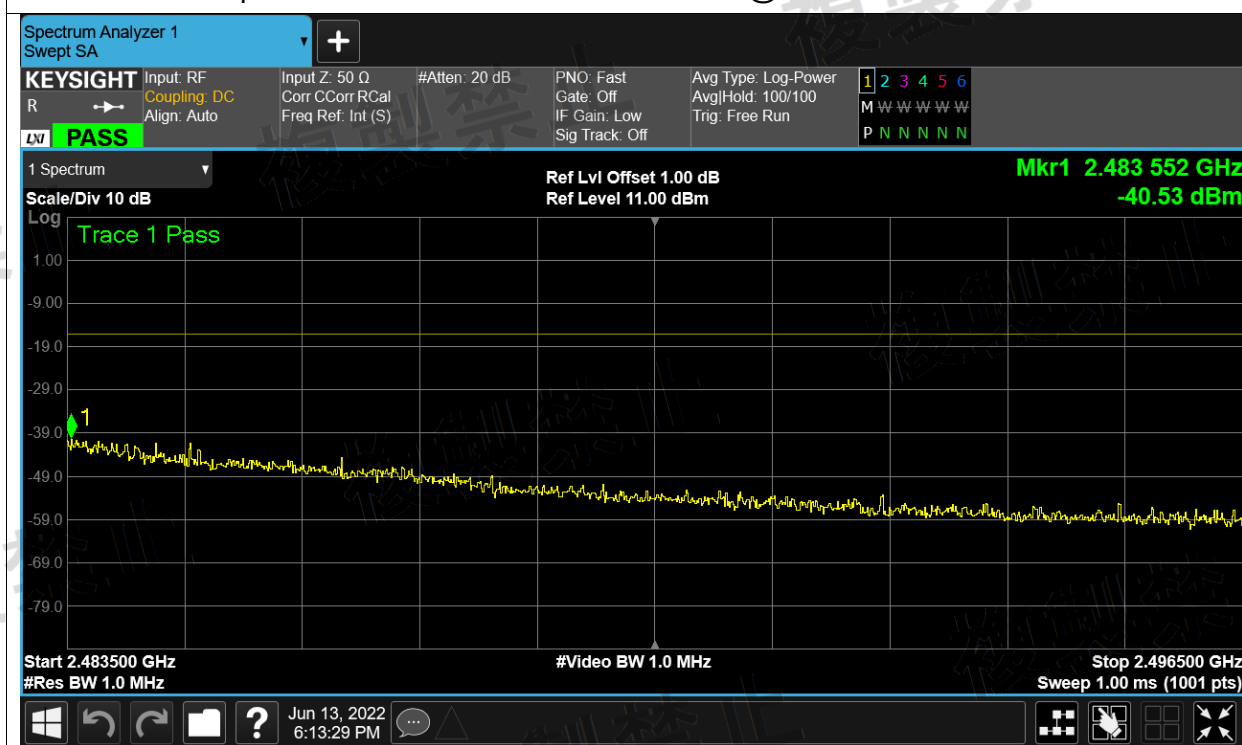
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 @ 1000MHz-2387MHz

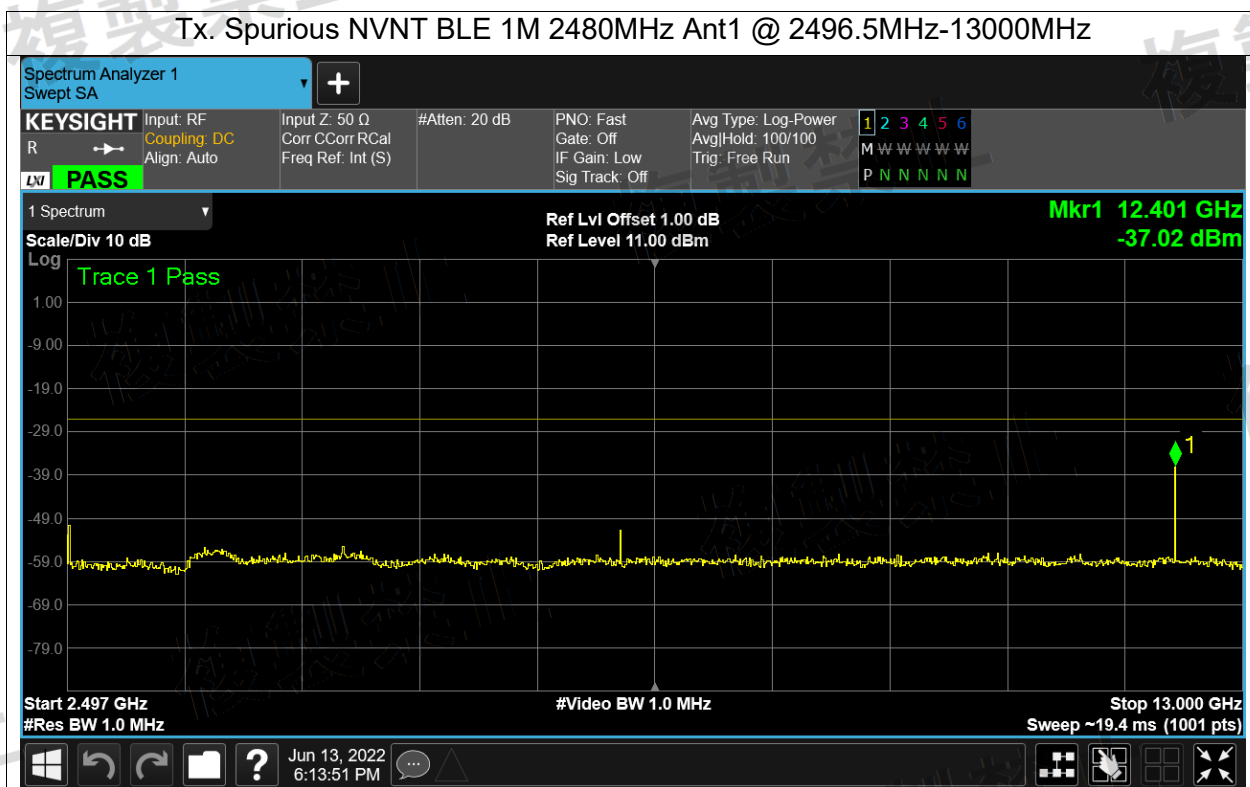


Tx. Spurious NVNT BLE 1M 2480MHz Ant1 @ 2387MHz-2400MHz

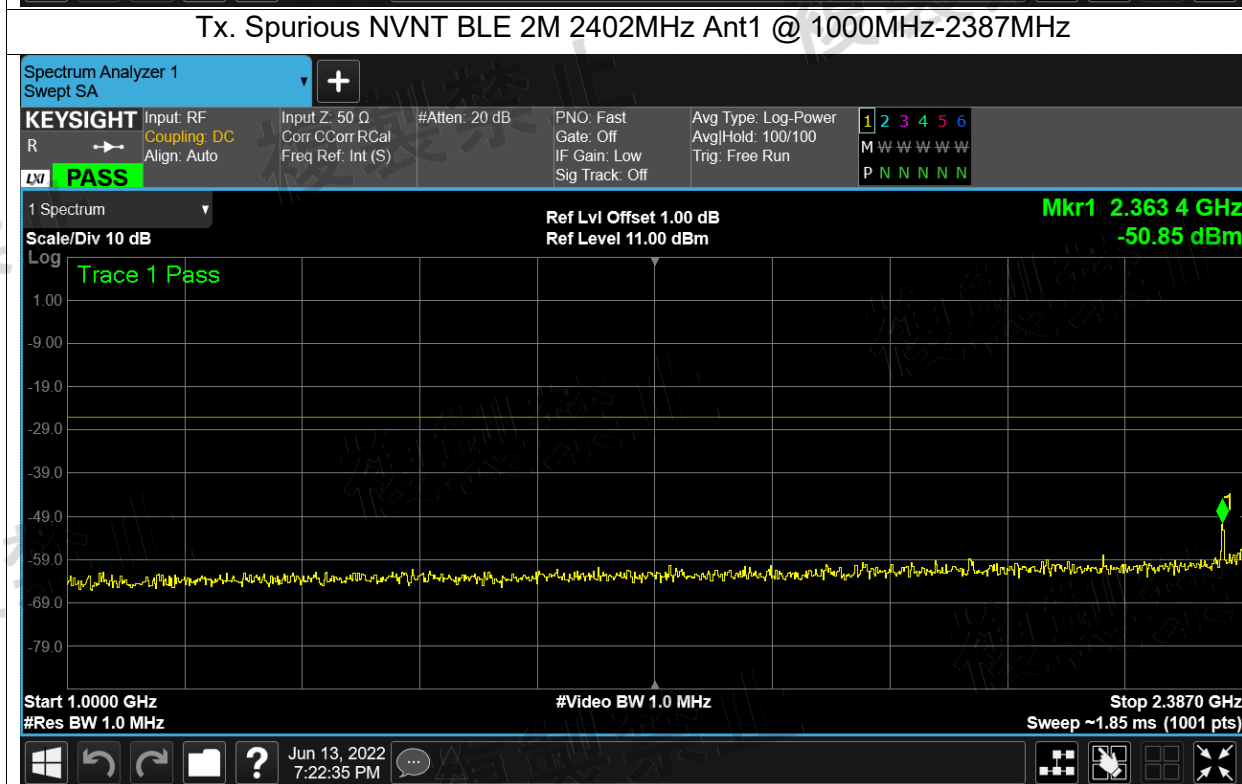
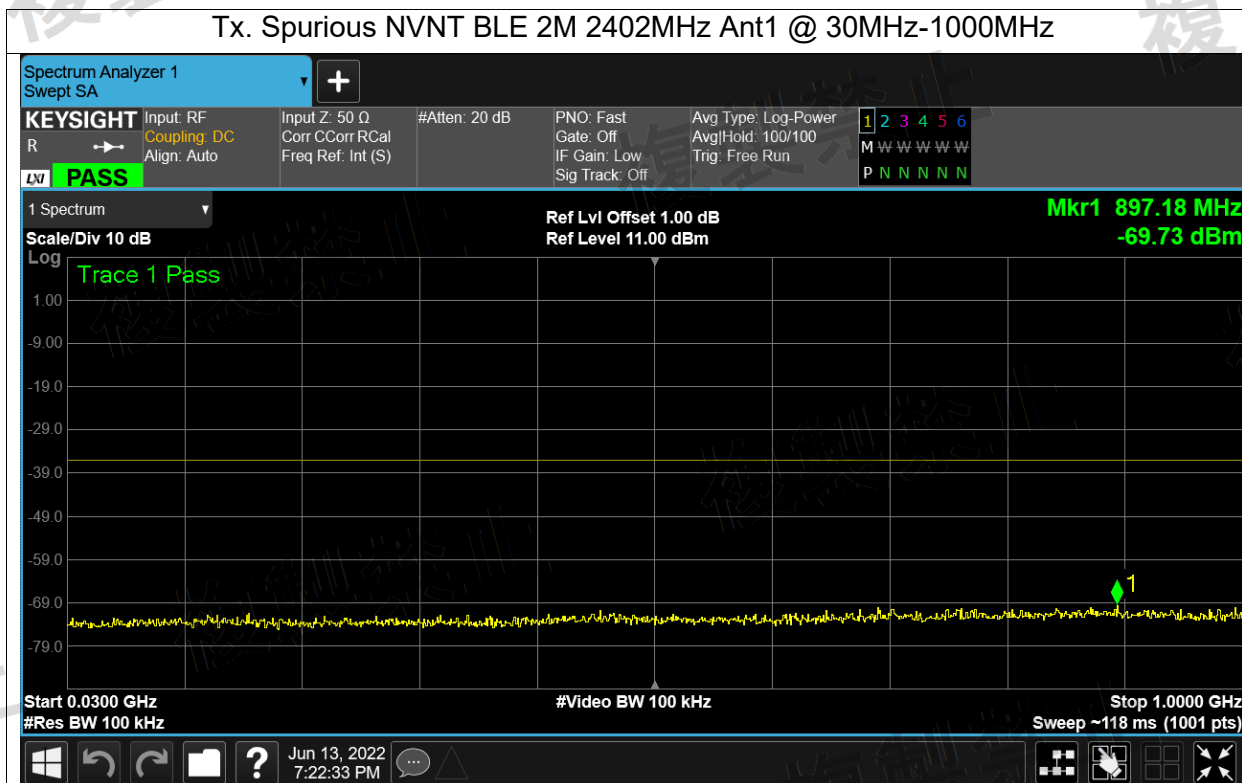


Tx. Spurious NVNT BLE 1M 2480MHz Ant1 @ 2483.5MHz-2496.5MHz

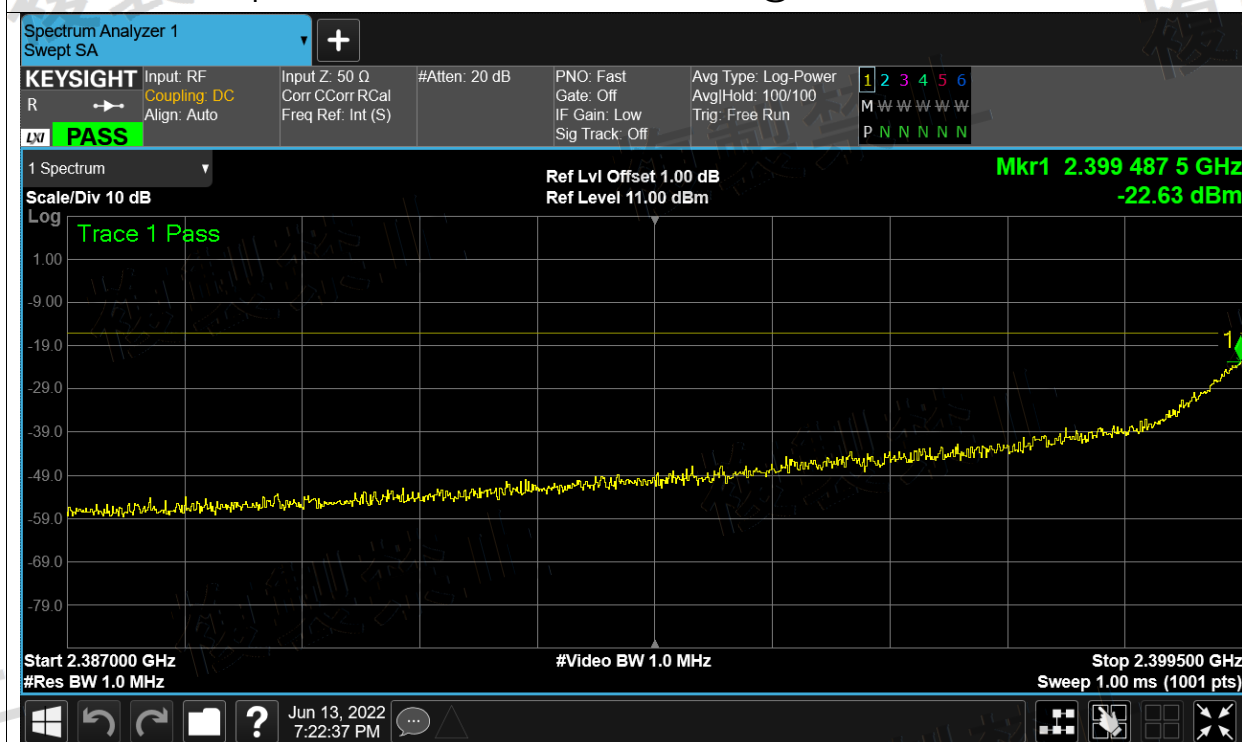




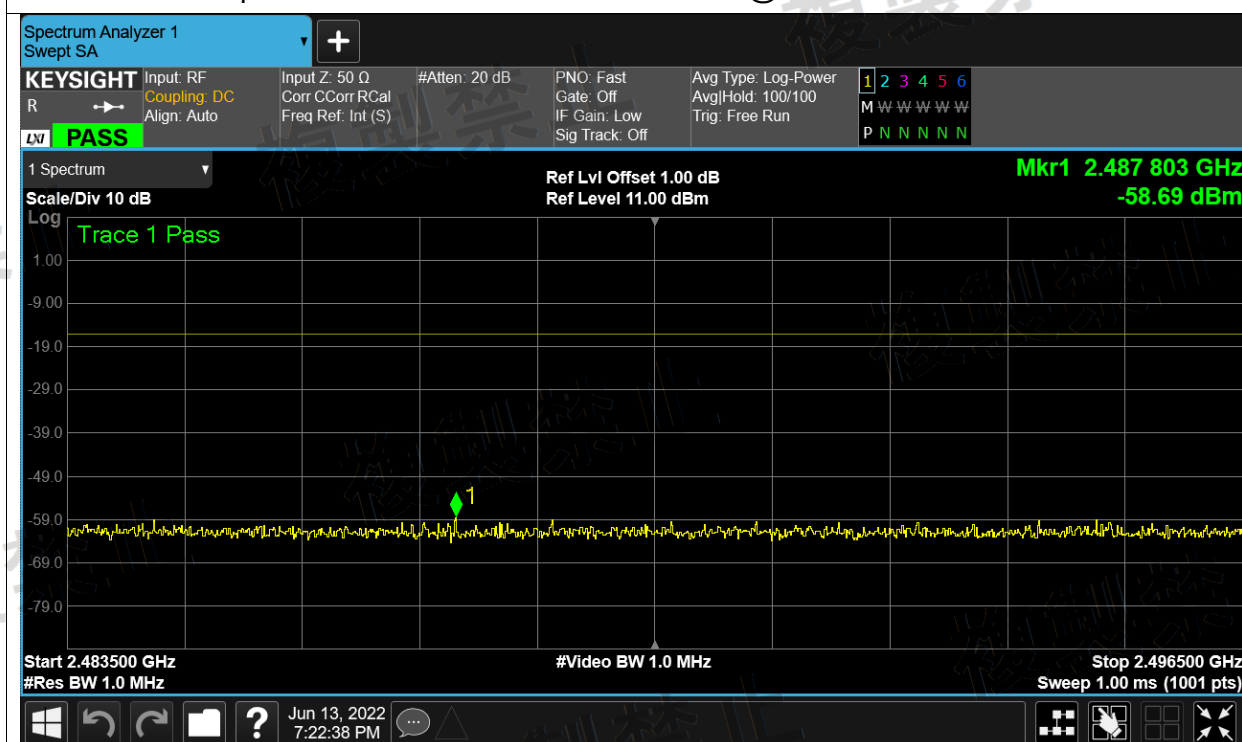
Mode2:

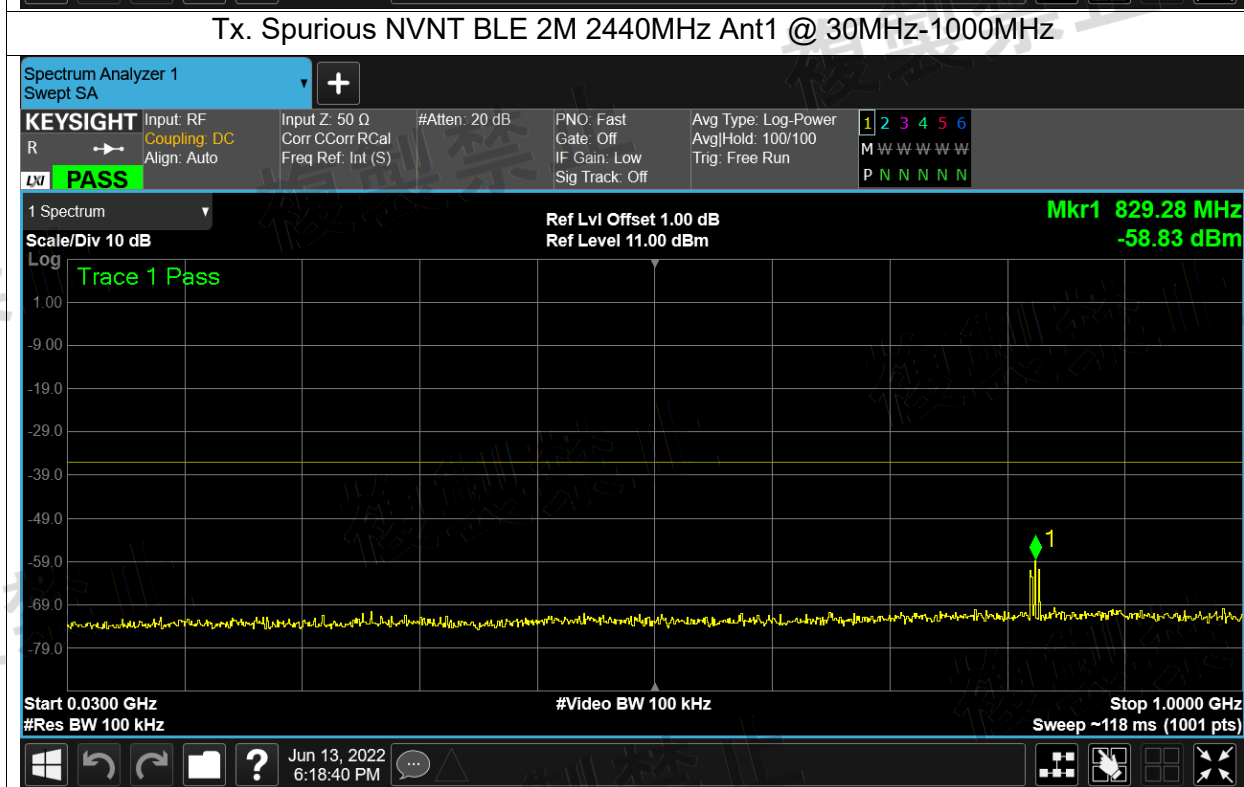
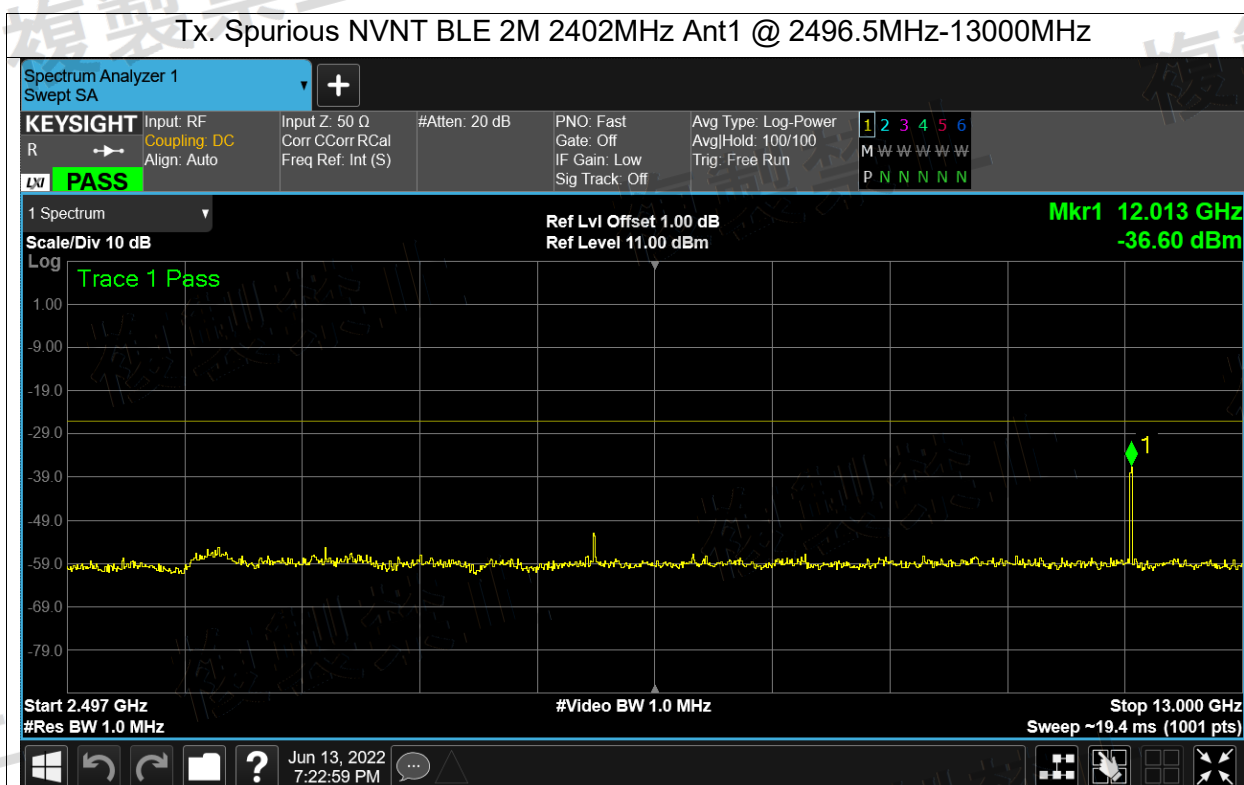


Tx. Spurious NVNT BLE 2M 2402MHz Ant1 @ 2387MHz-2399.5MHz

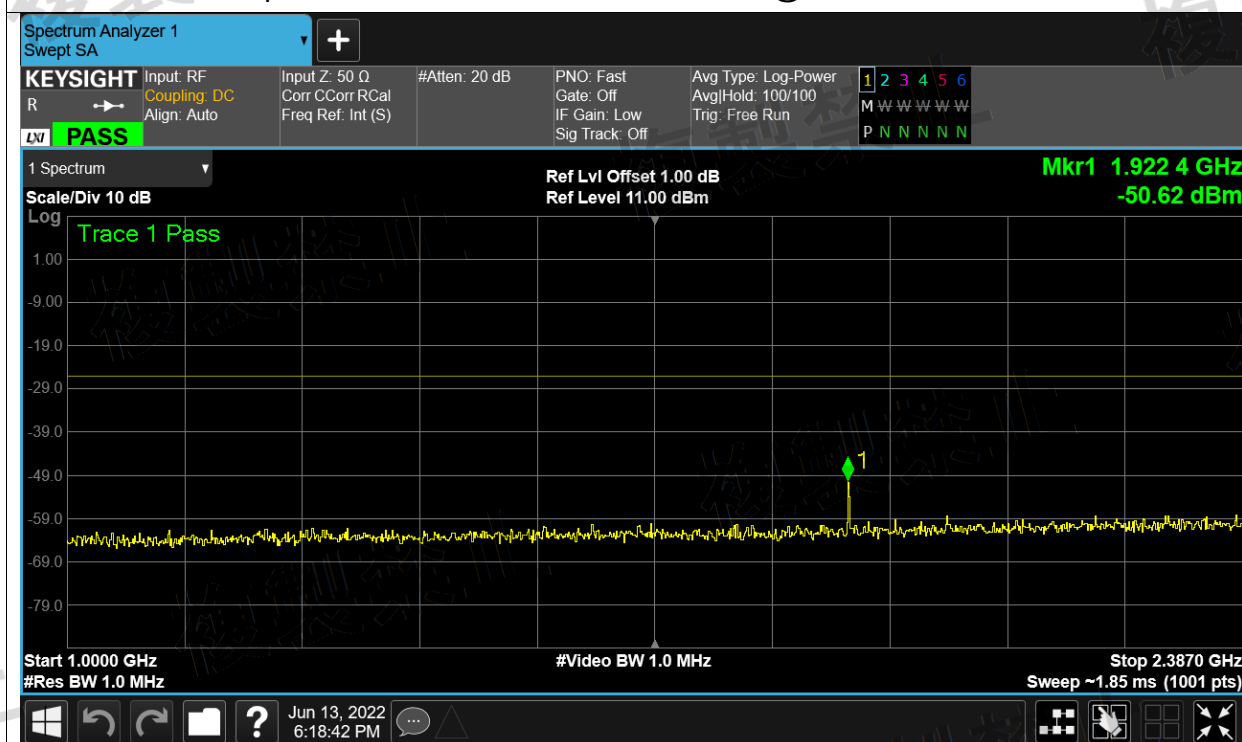


Tx. Spurious NVNT BLE 2M 2402MHz Ant1 @ 2483.5MHz-2496.5MHz

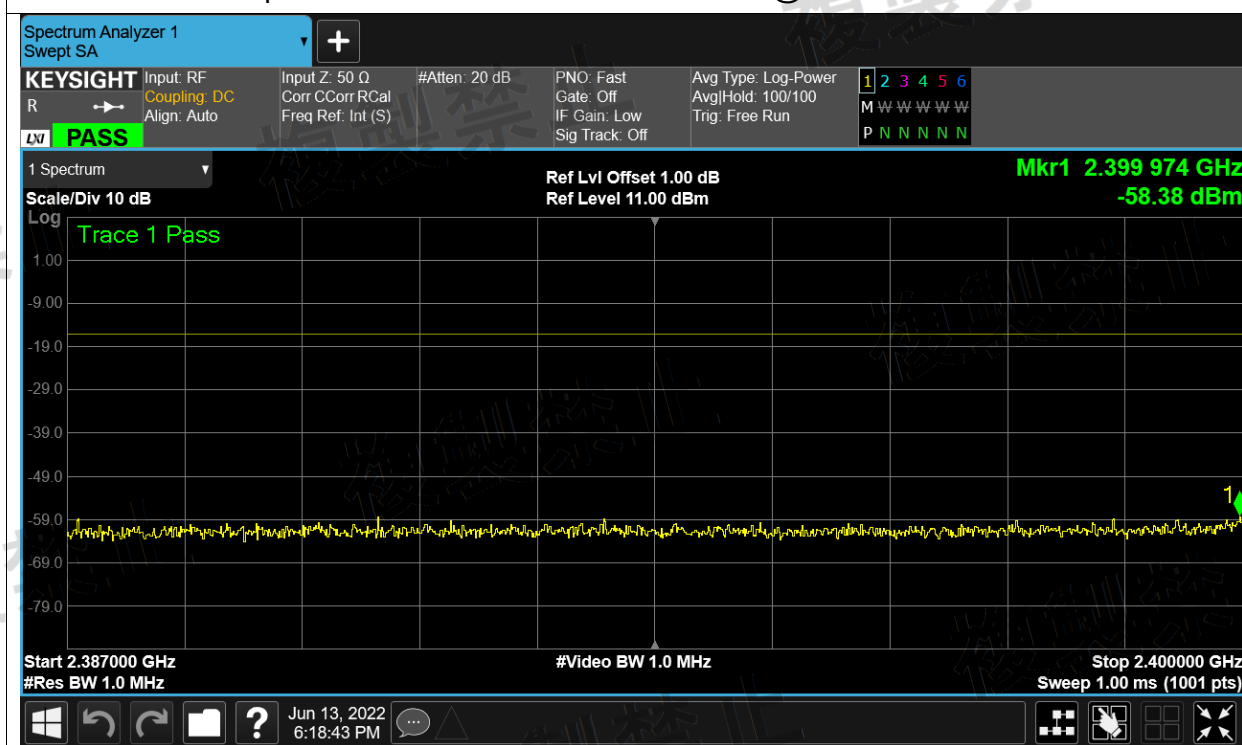


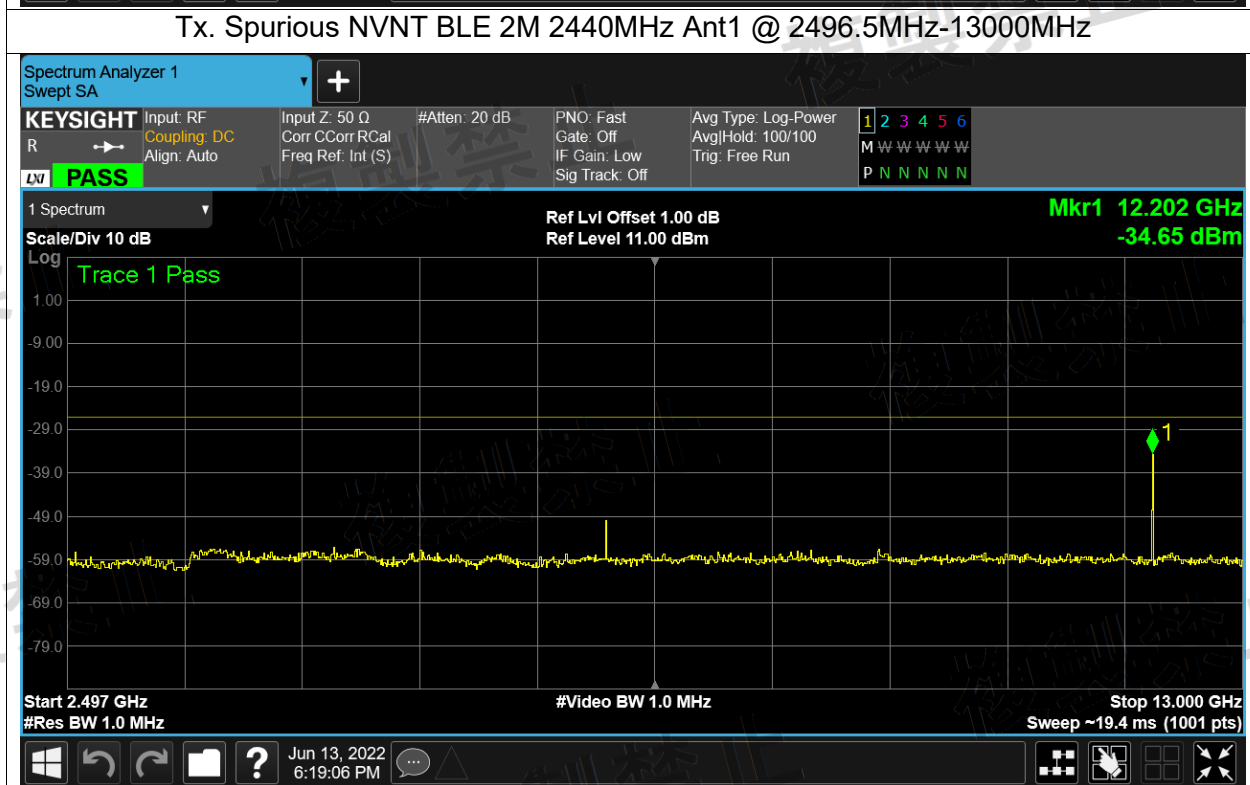
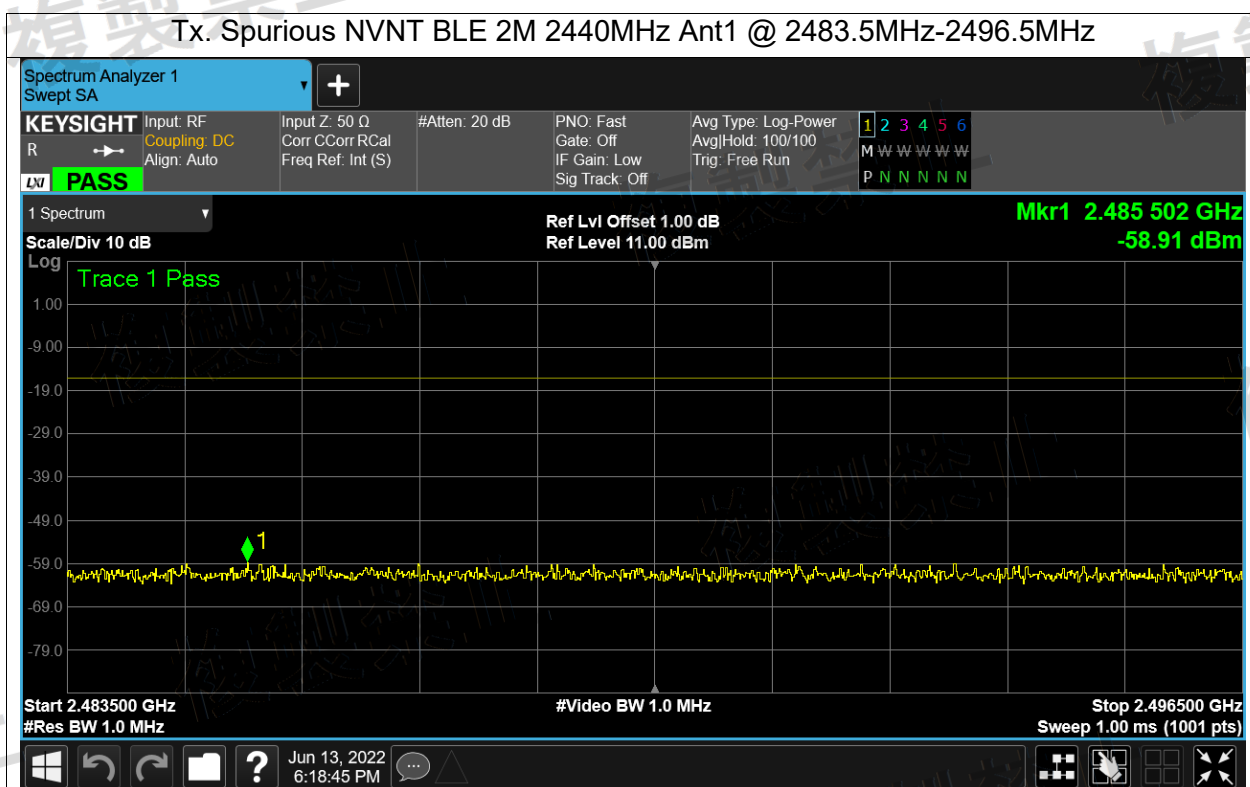


Tx. Spurious NVNT BLE 2M 2440MHz Ant1 @ 1000MHz-2387MHz

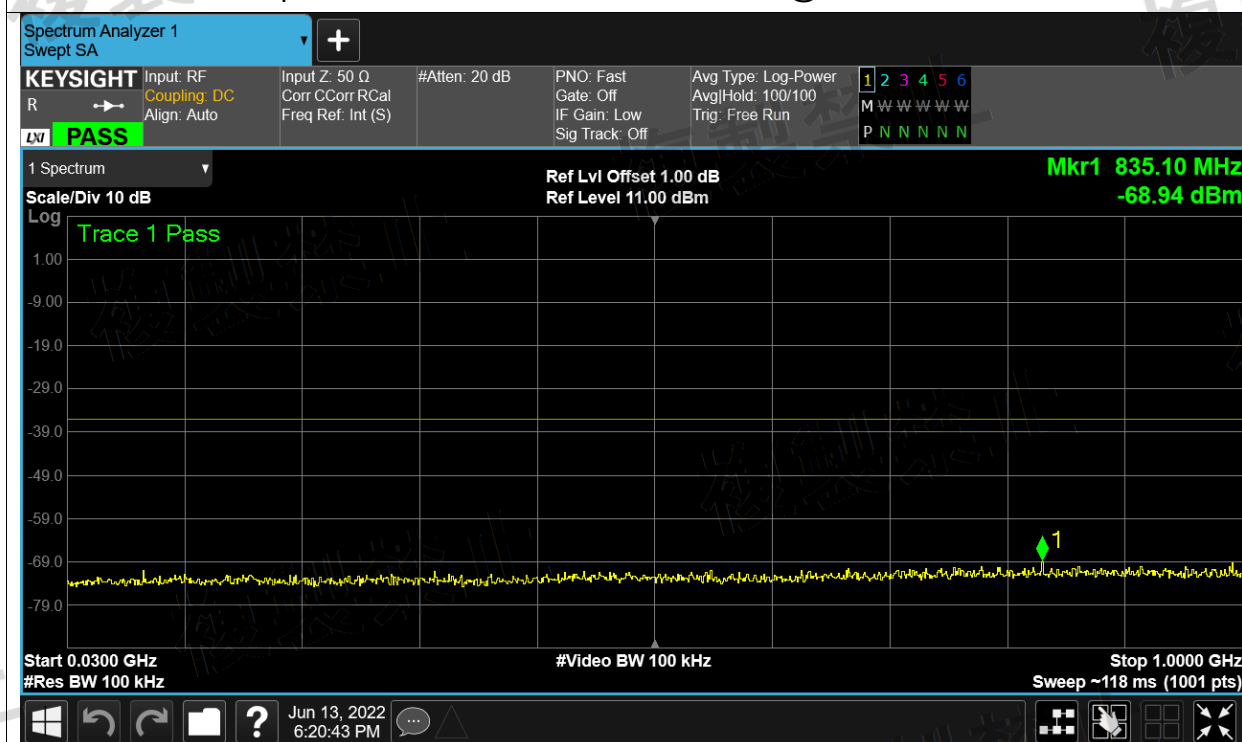


Tx. Spurious NVNT BLE 2M 2440MHz Ant1 @ 2387MHz-2400MHz

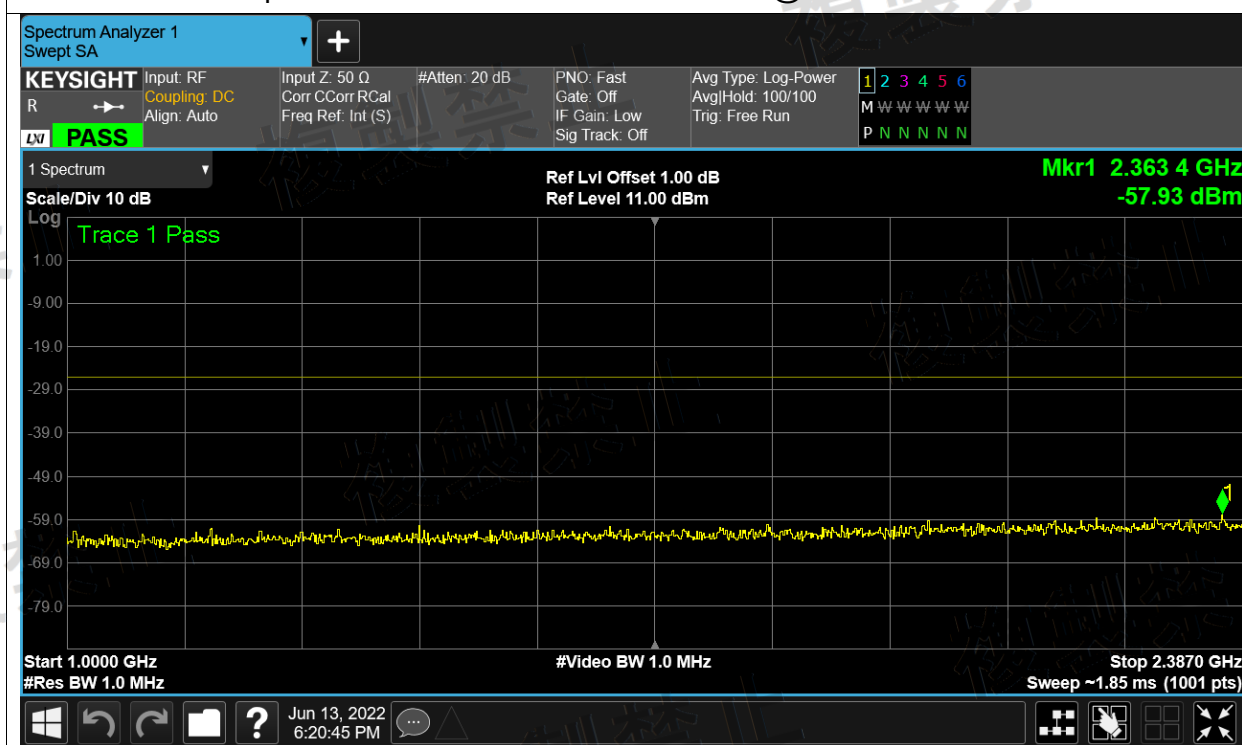




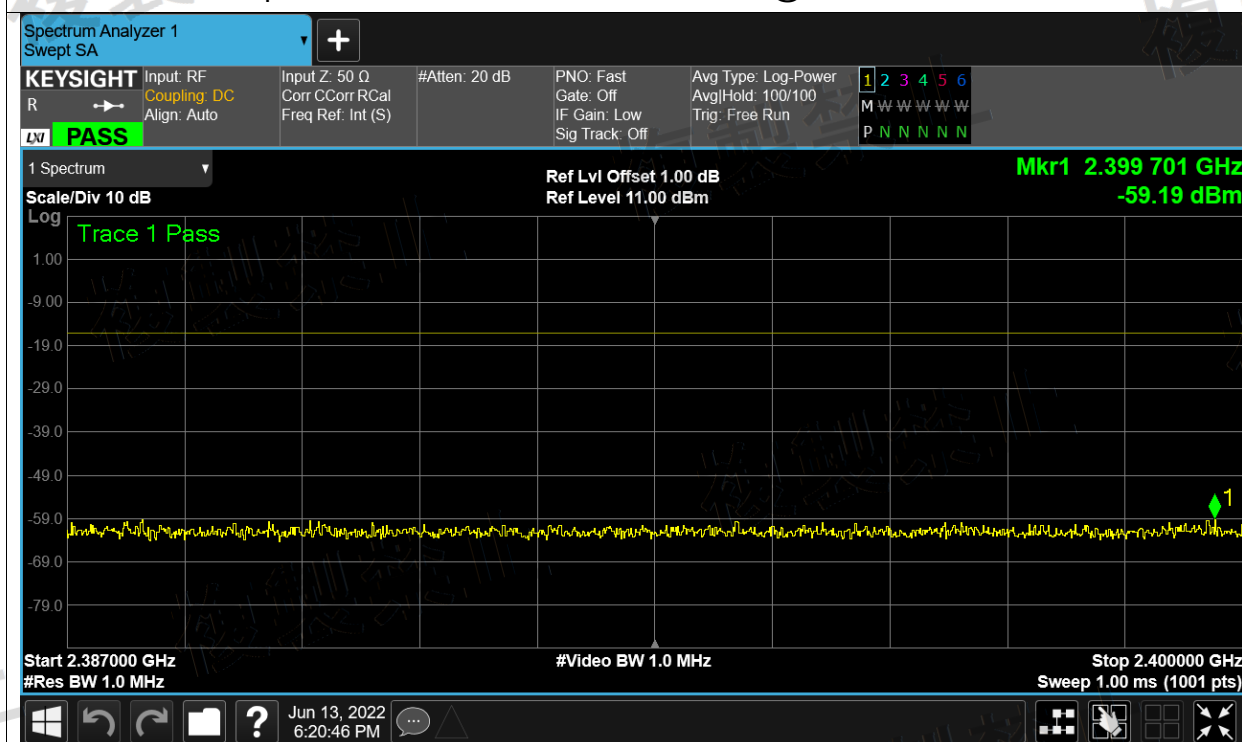
Tx. Spurious NVNT BLE 2M 2480MHz Ant1 @ 30MHz-1000MHz



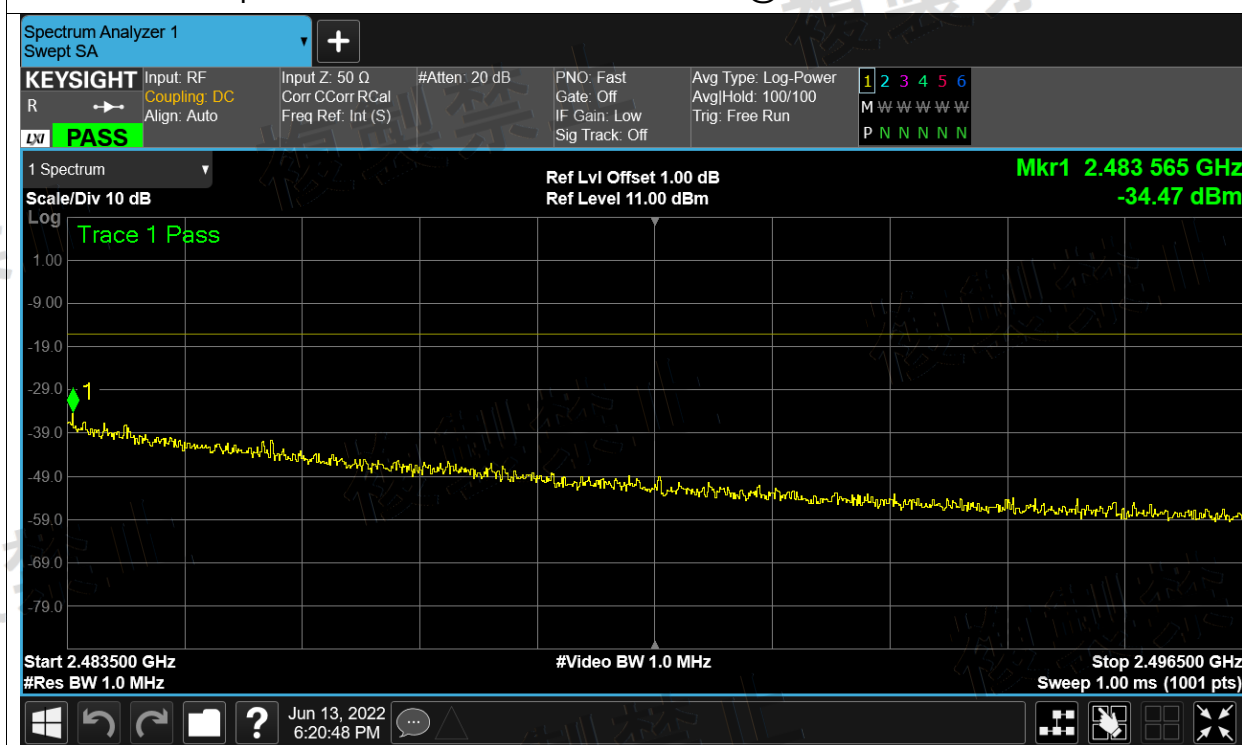
Tx. Spurious NVNT BLE 2M 2480MHz Ant1 @ 1000MHz-2387MHz

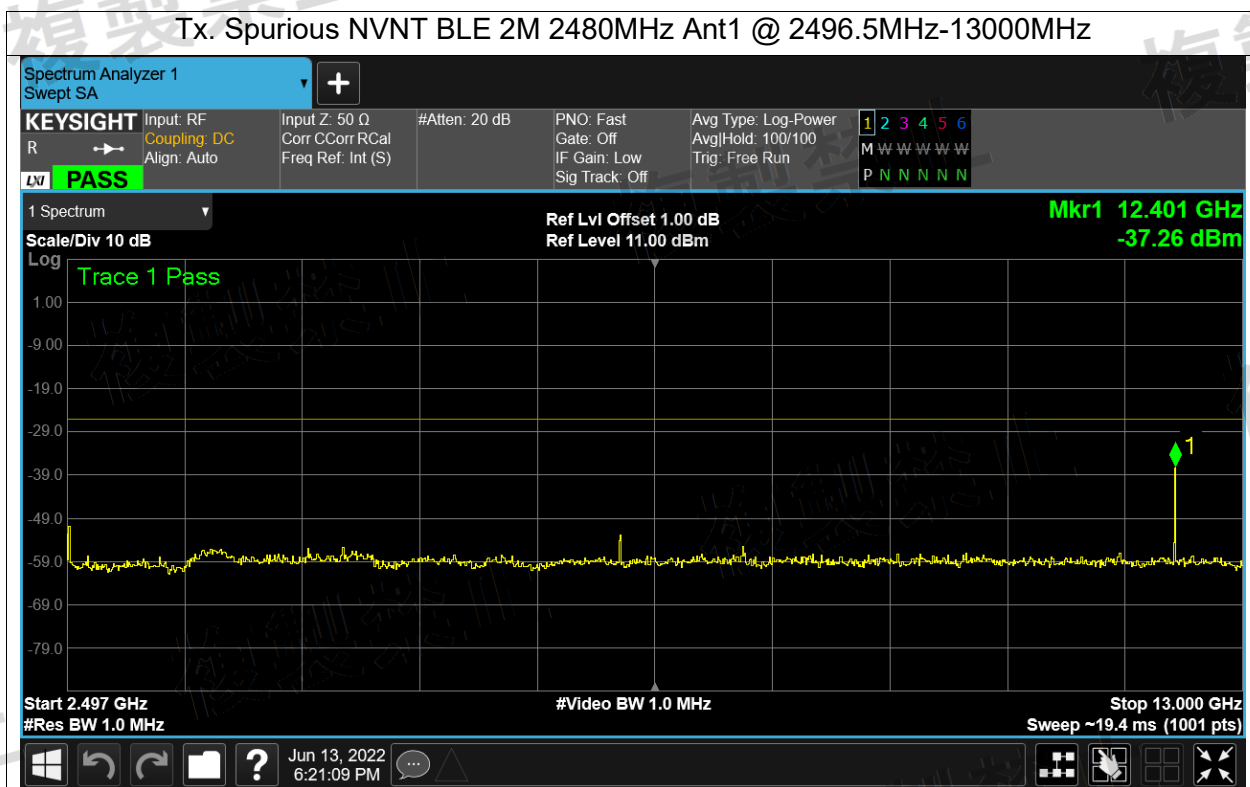


Tx. Spurious NVNT BLE 2M 2480MHz Ant1 @ 2387MHz-2400MHz

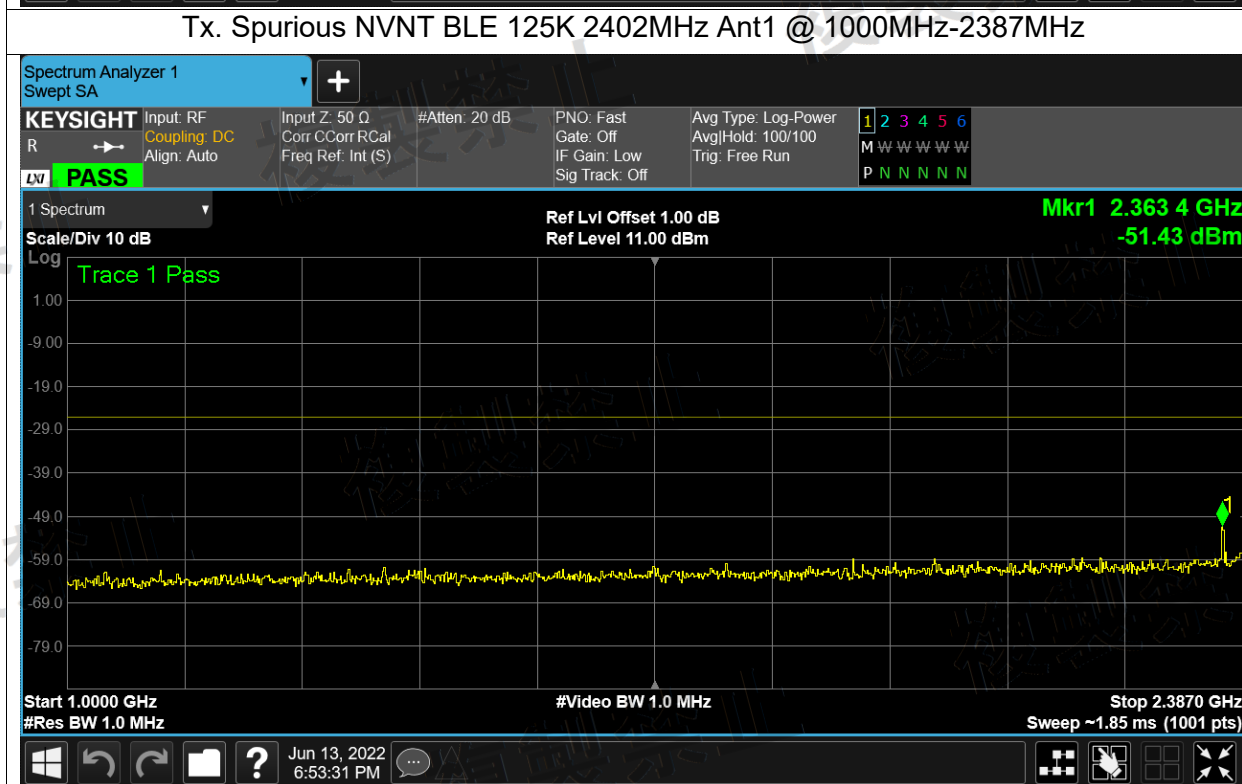
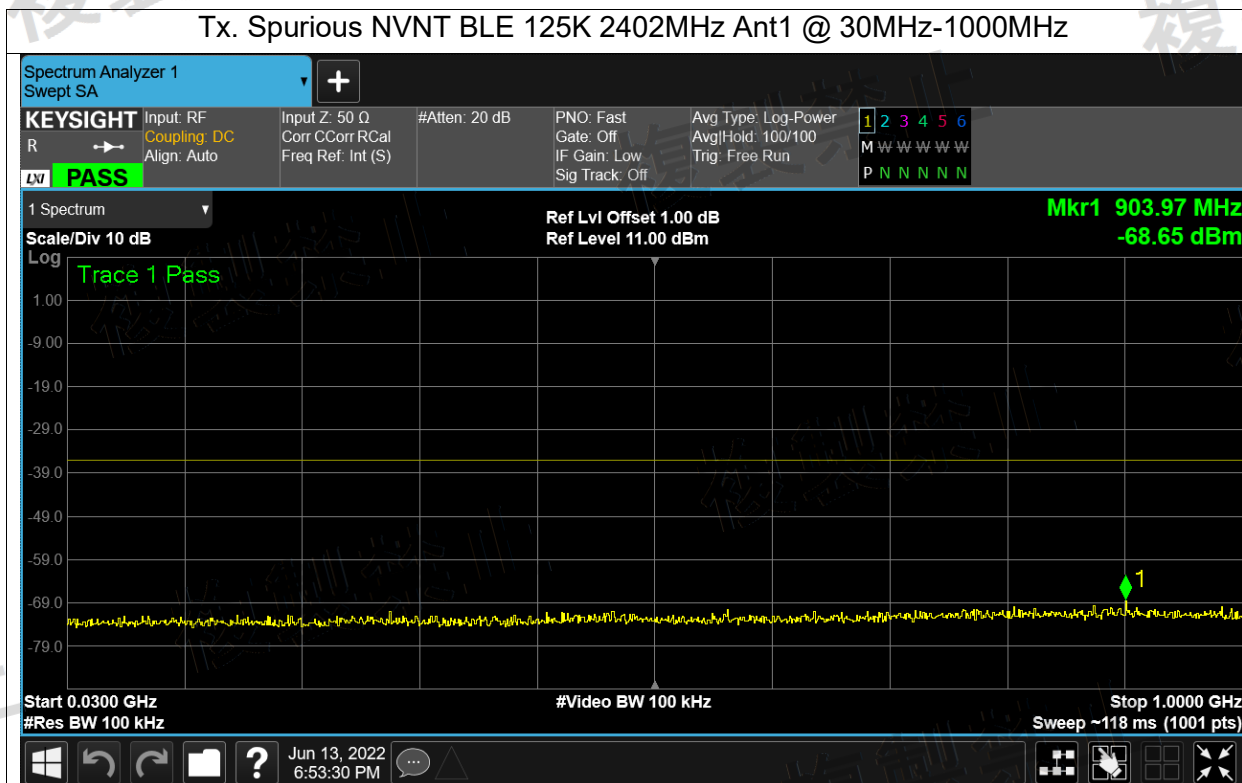


Tx. Spurious NVNT BLE 2M 2480MHz Ant1 @ 2483.5MHz-2496.5MHz

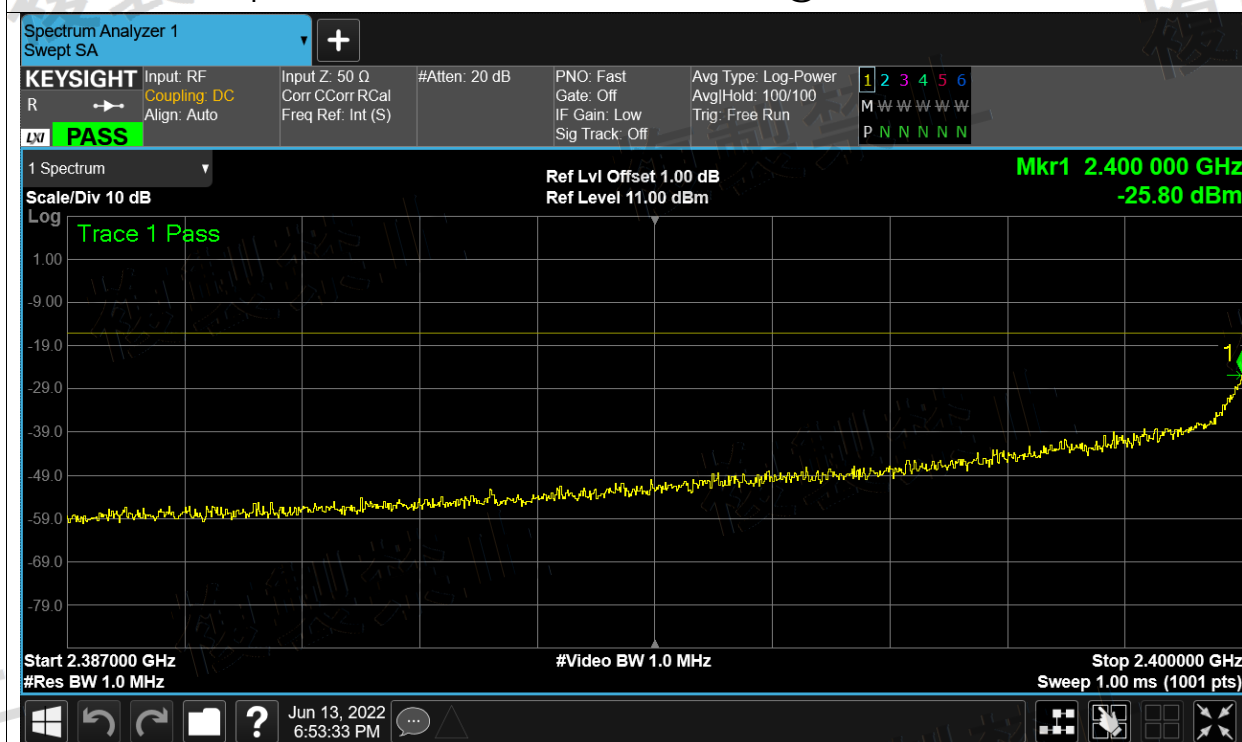




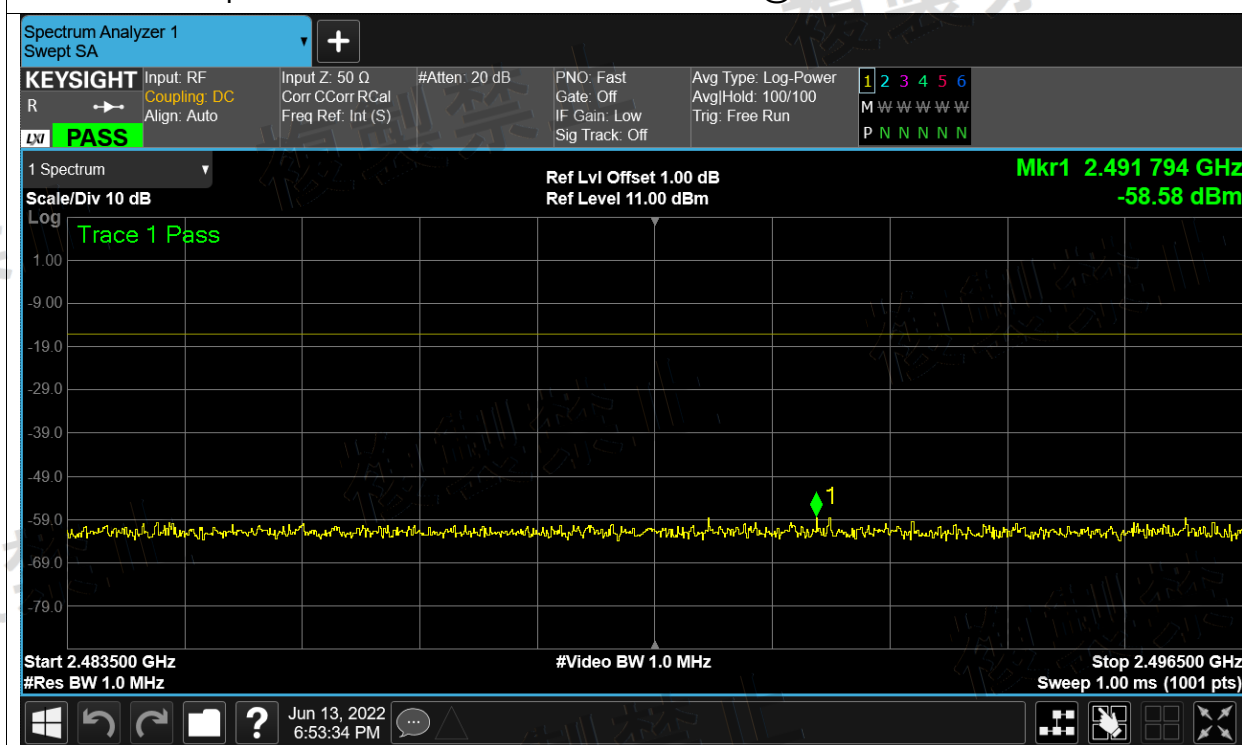
Mode3:



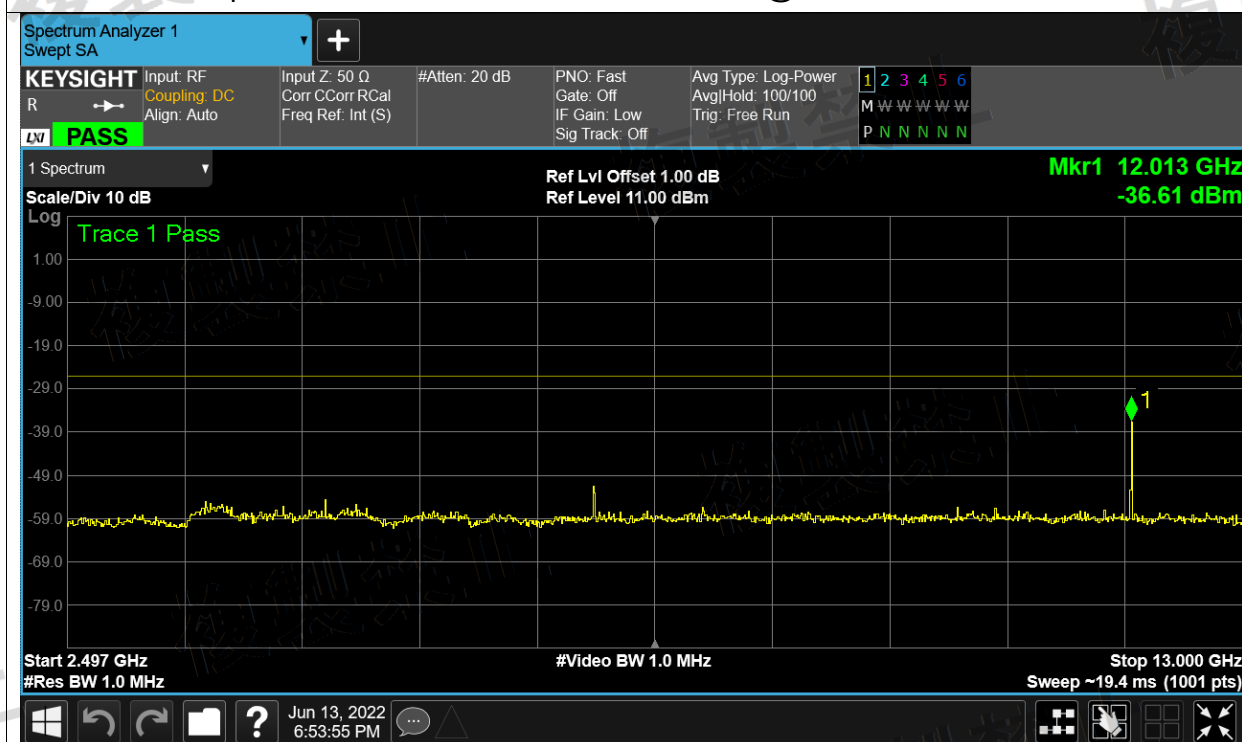
Tx. Spurious NVNT BLE 125K 2402MHz Ant1 @ 2387MHz-2400MHz



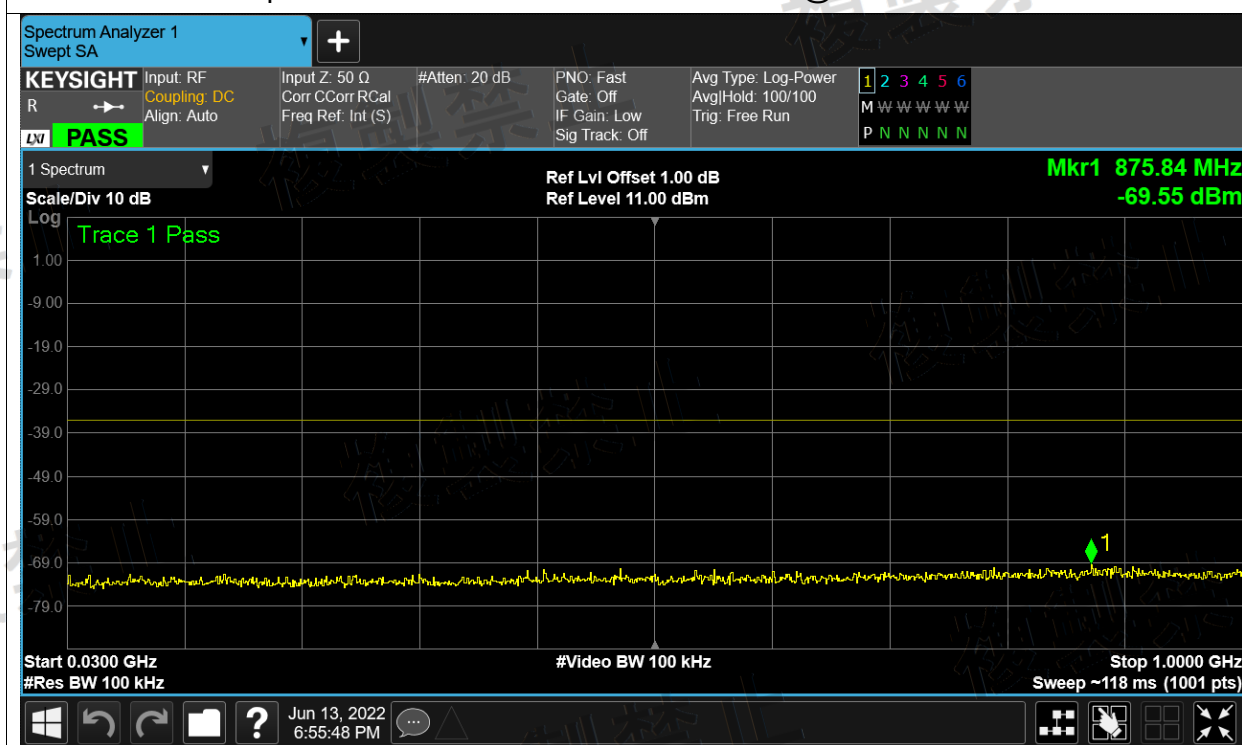
Tx. Spurious NVNT BLE 125K 2402MHz Ant1 @ 2483.5MHz-2496.5MHz



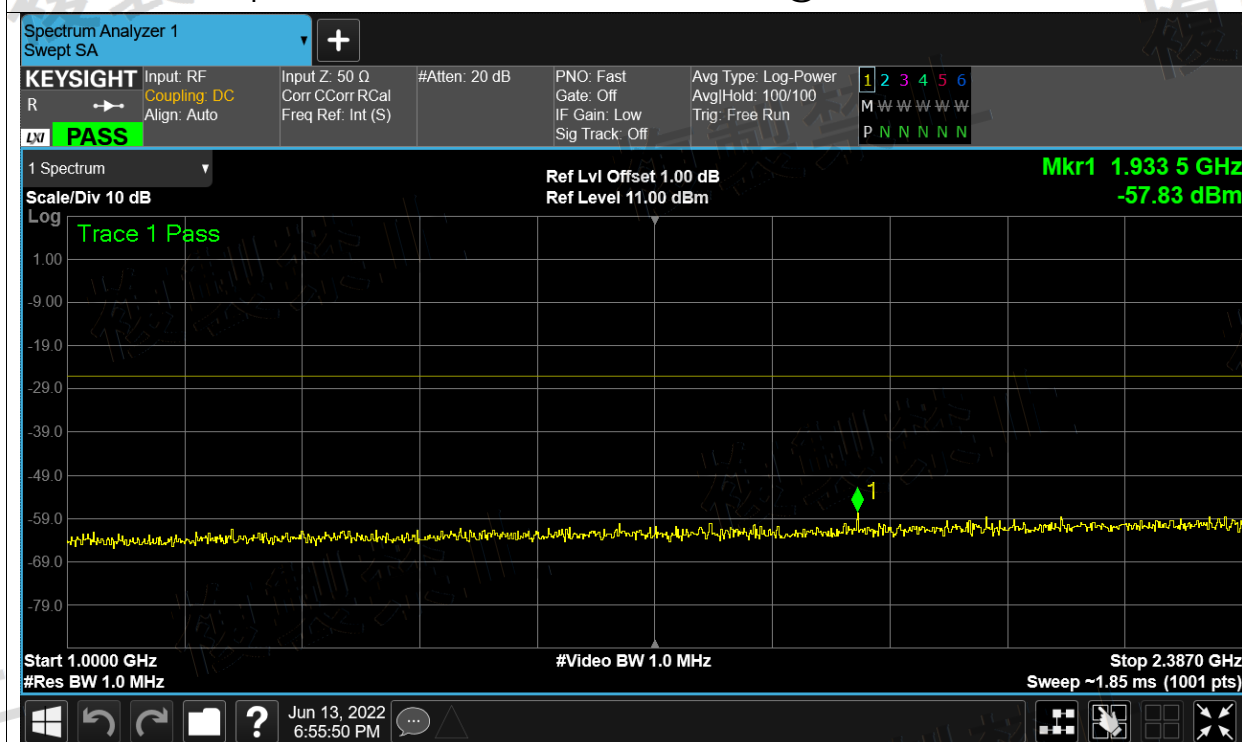
Tx. Spurious NVNT BLE 125K 2402MHz Ant1 @ 2496.5MHz-13000MHz



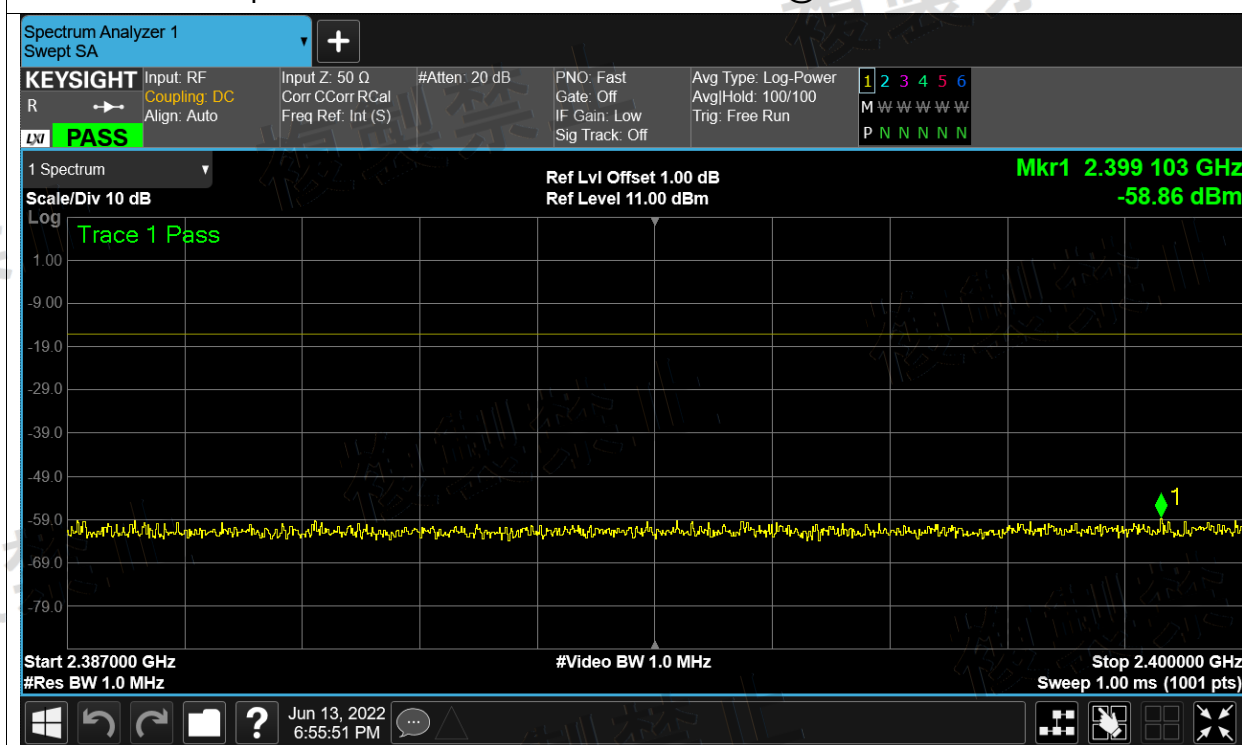
Tx. Spurious NVNT BLE 125K 2440MHz Ant1 @ 30MHz-1000MHz



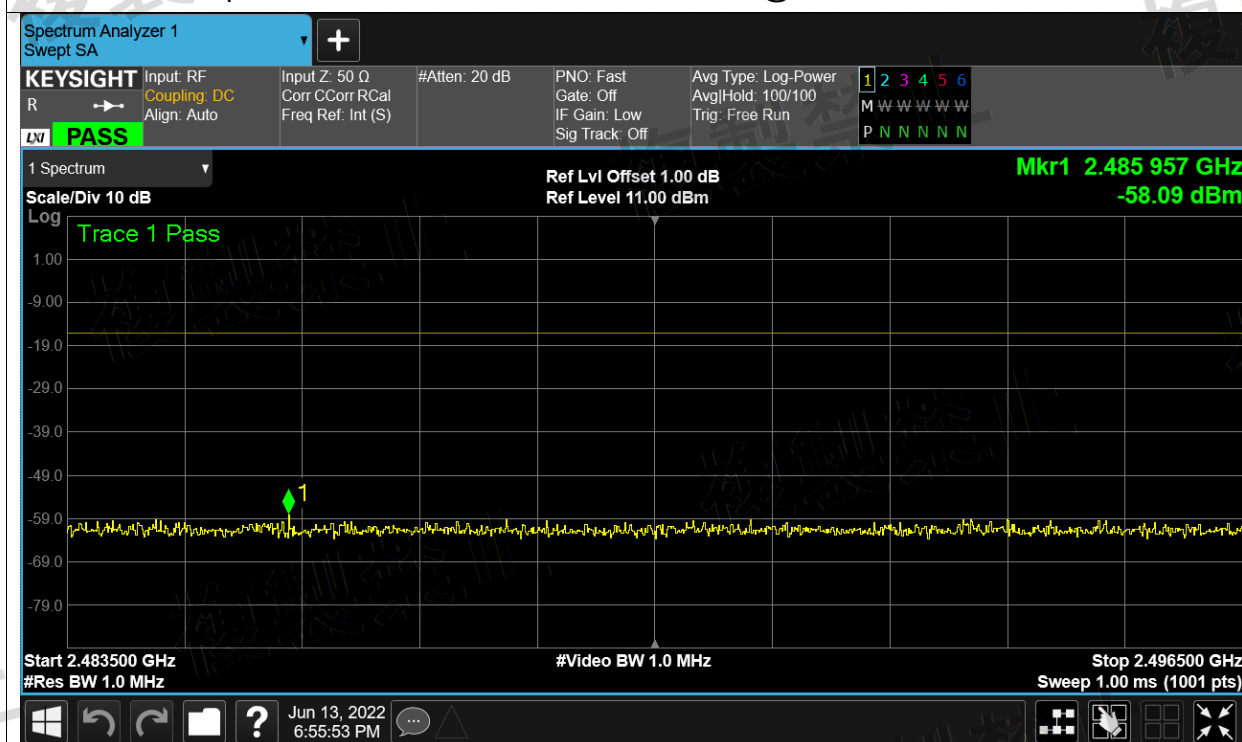
Tx. Spurious NVNT BLE 125K 2440MHz Ant1 @ 1000MHz-2387MHz



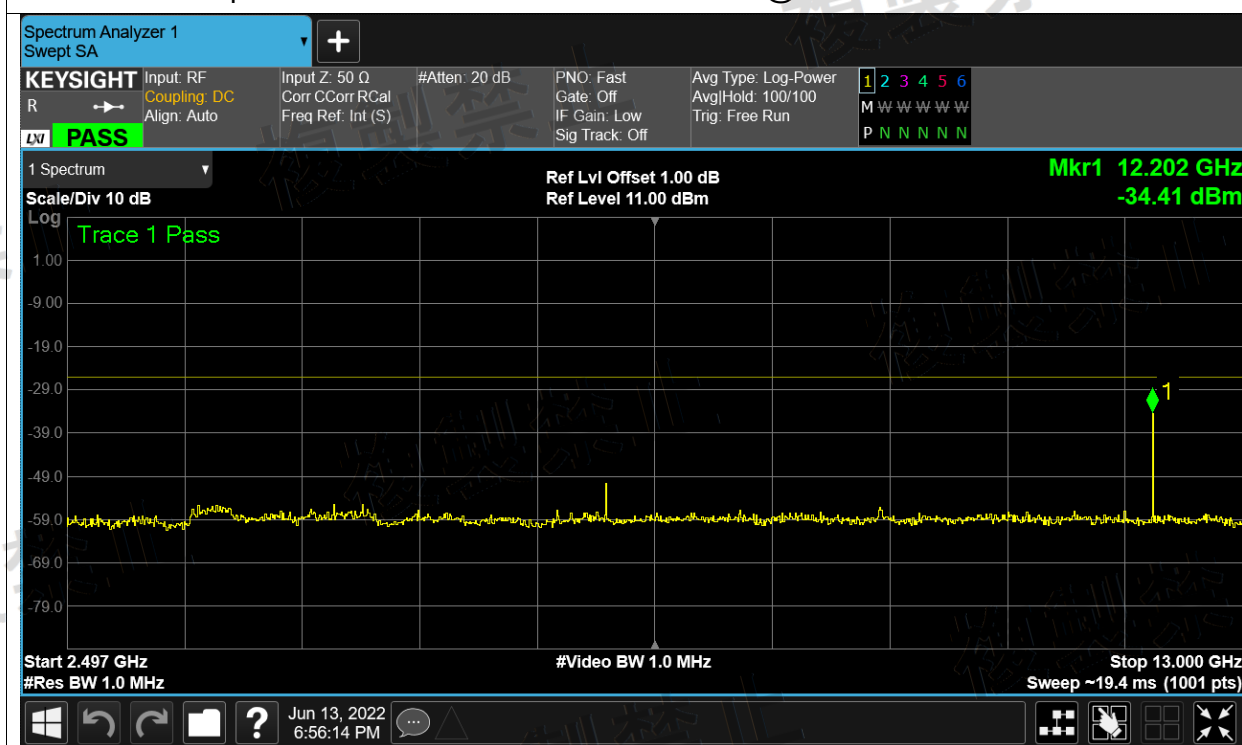
Tx. Spurious NVNT BLE 125K 2440MHz Ant1 @ 2387MHz-2400MHz



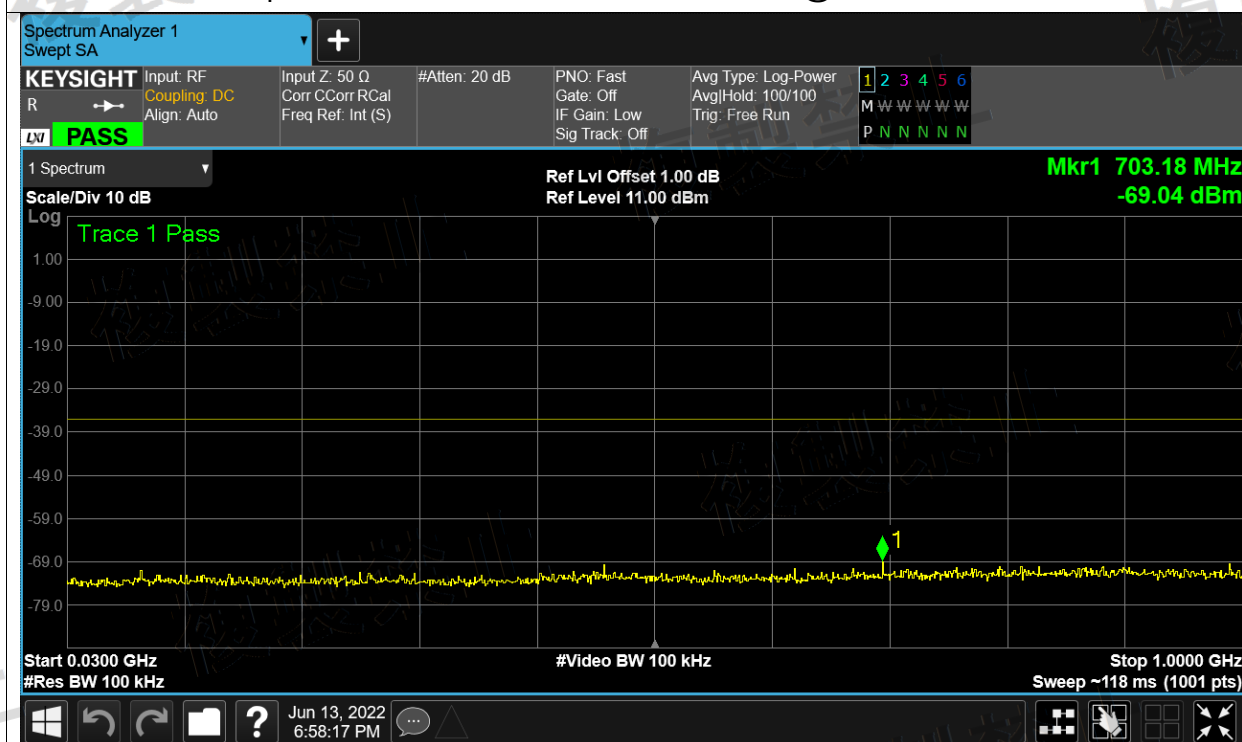
Tx. Spurious NVNT BLE 125K 2440MHz Ant1 @ 2483.5MHz-2496.5MHz



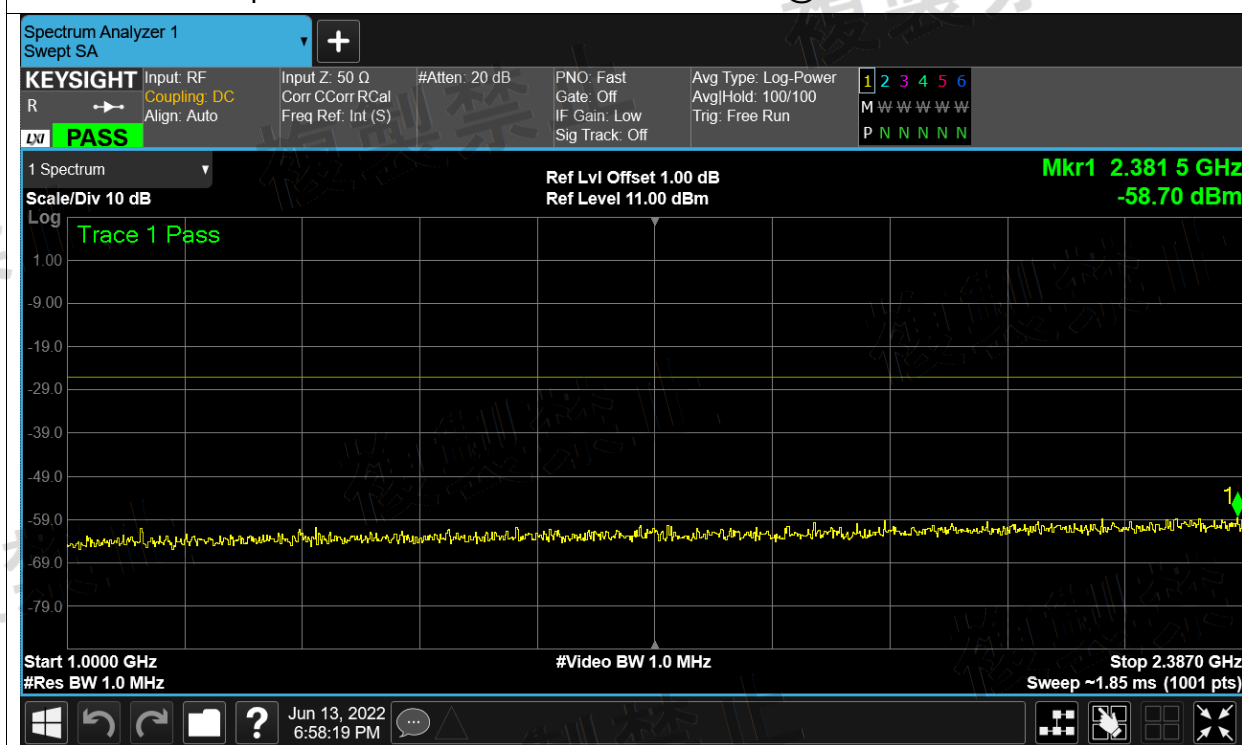
Tx. Spurious NVNT BLE 125K 2440MHz Ant1 @ 2496.5MHz-13000MHz



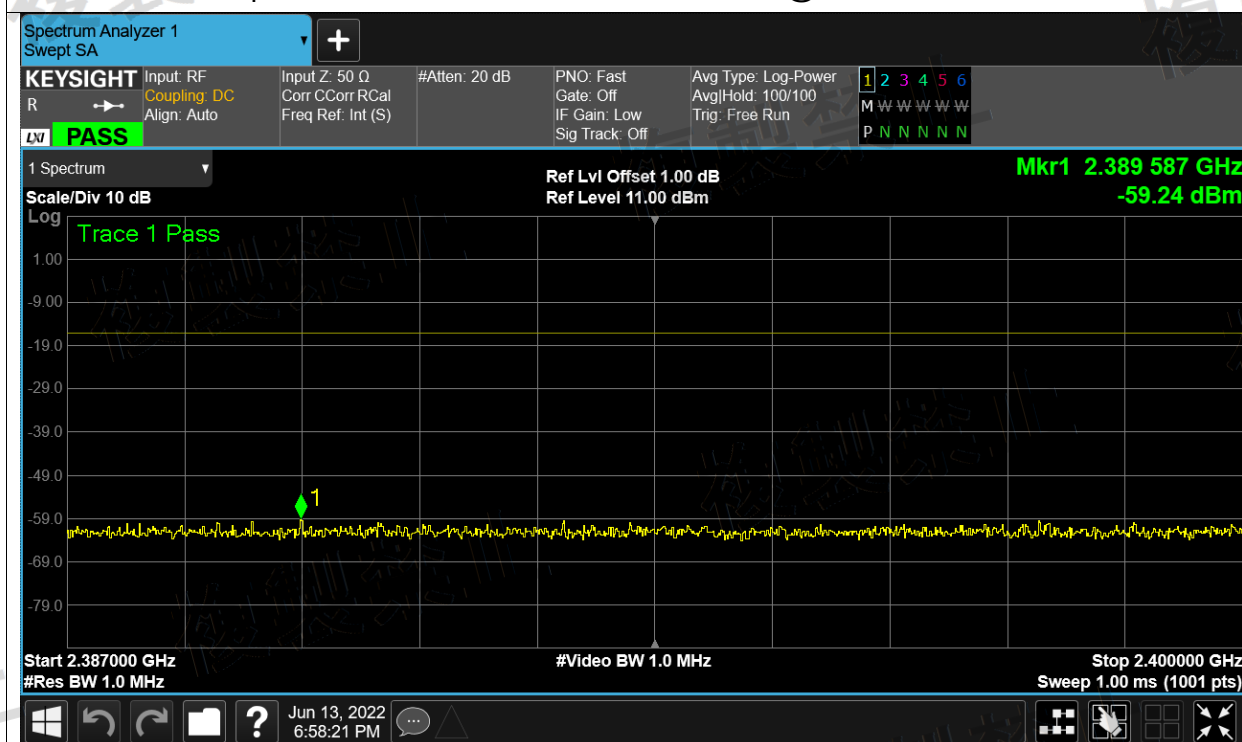
Tx. Spurious NVNT BLE 125K 2480MHz Ant1 @ 30MHz-1000MHz



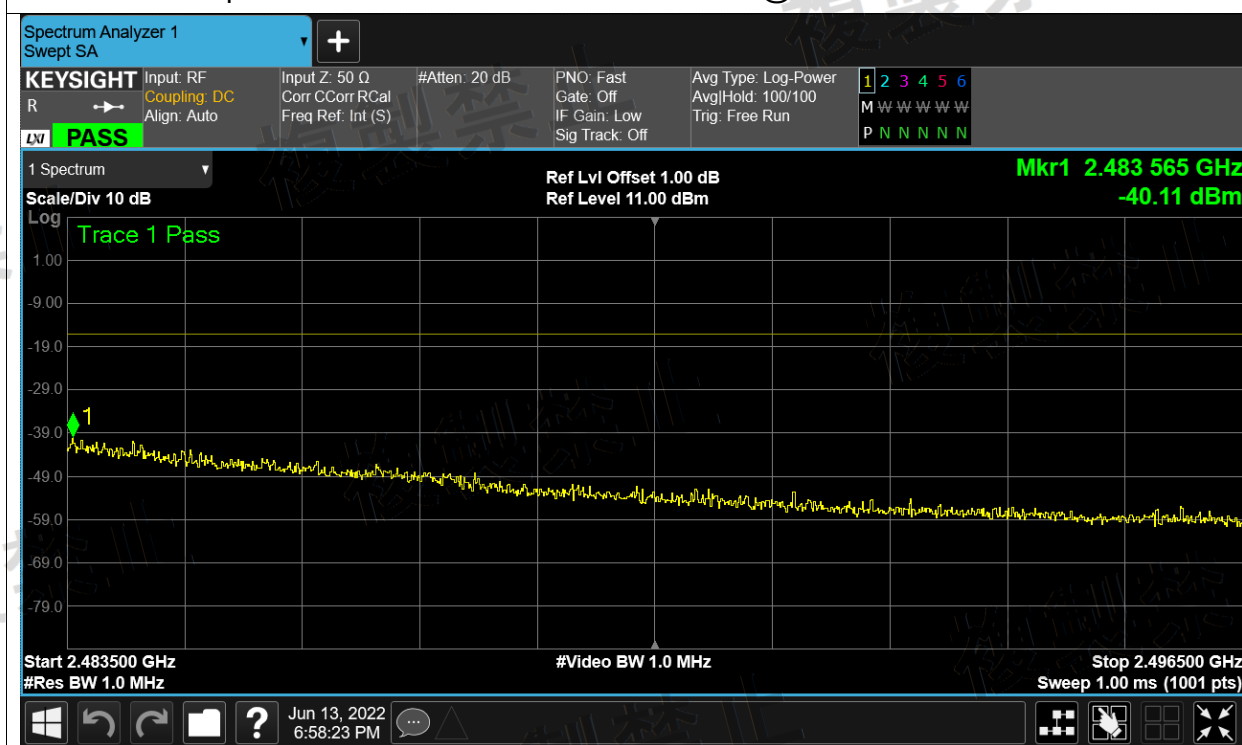
Tx. Spurious NVNT BLE 125K 2480MHz Ant1 @ 1000MHz-2387MHz

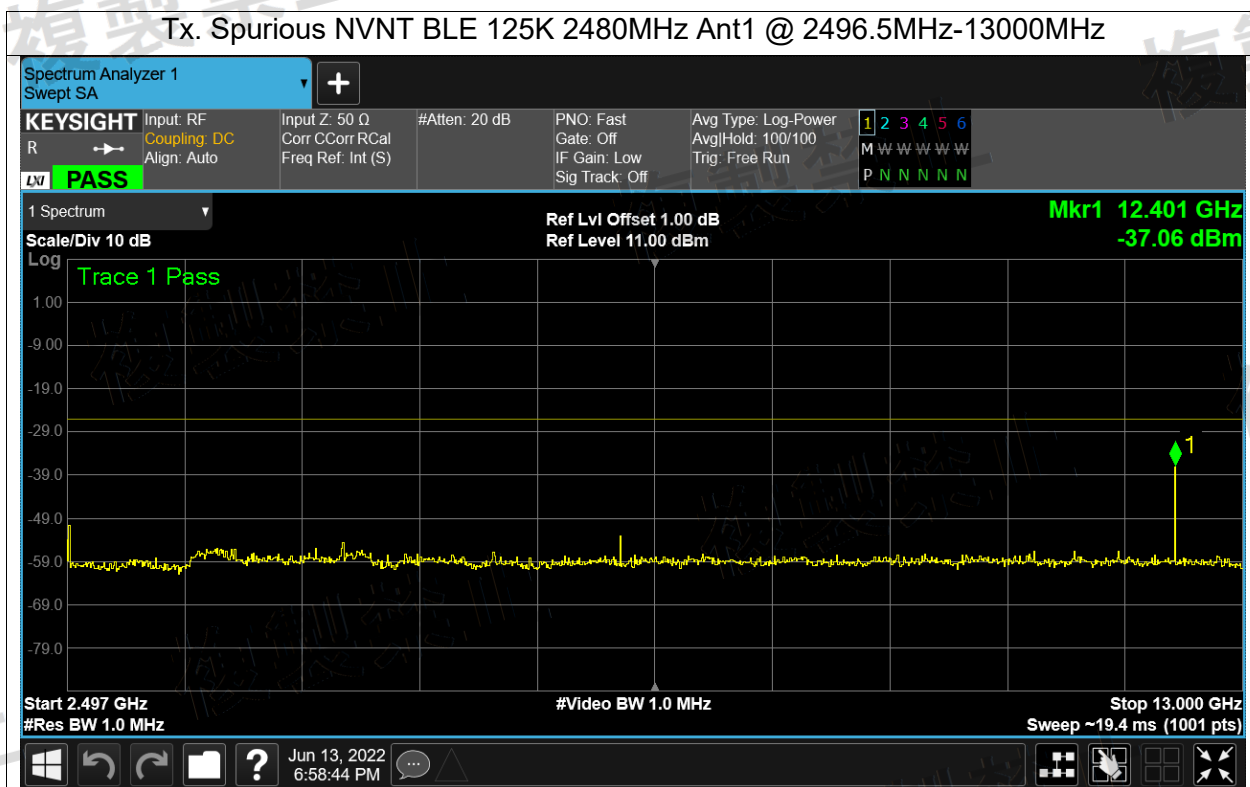


Tx. Spurious NVNT BLE 125K 2480MHz Ant1 @ 2387MHz-2400MHz

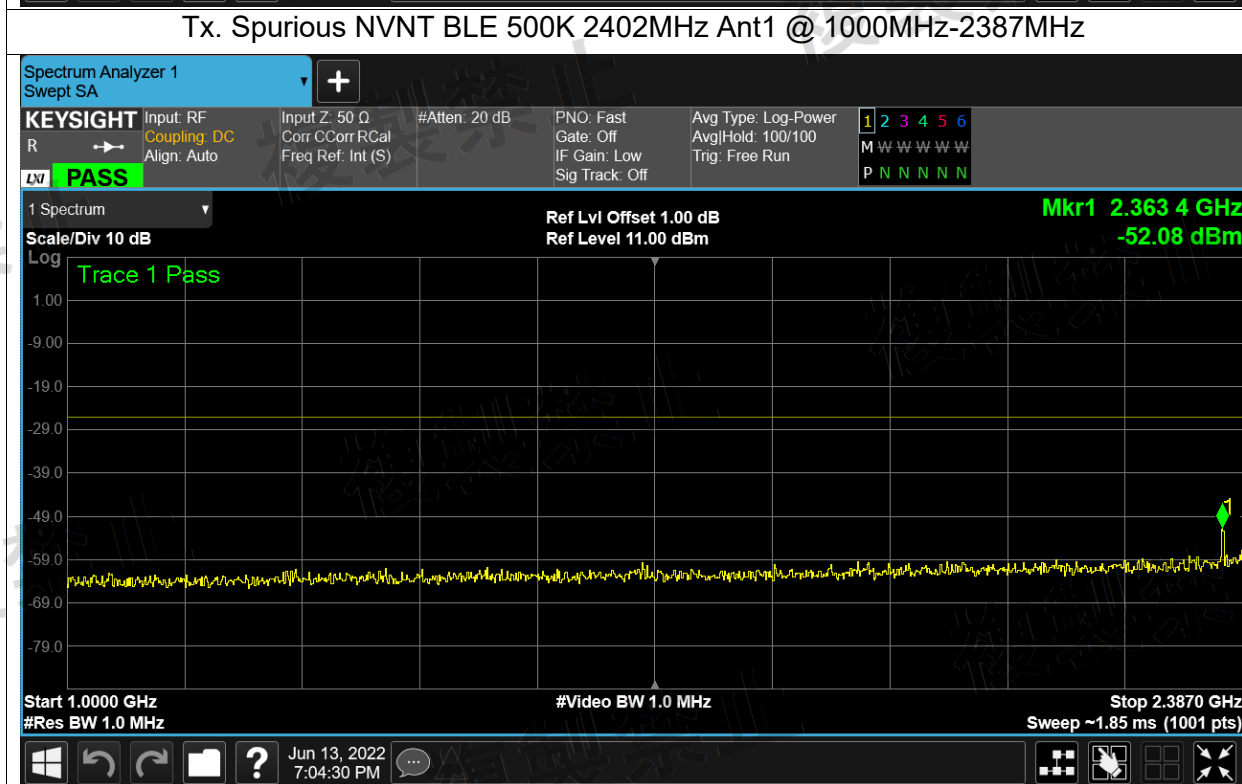
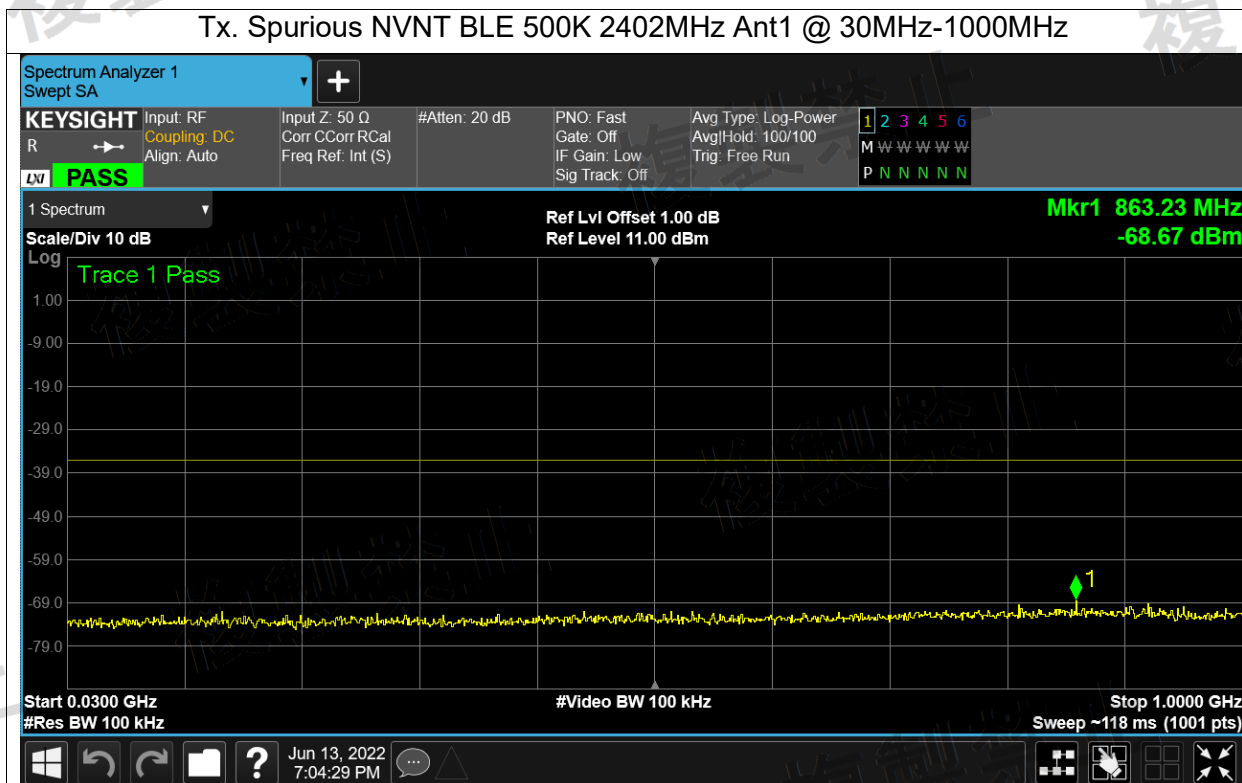


Tx. Spurious NVNT BLE 125K 2480MHz Ant1 @ 2483.5MHz-2496.5MHz

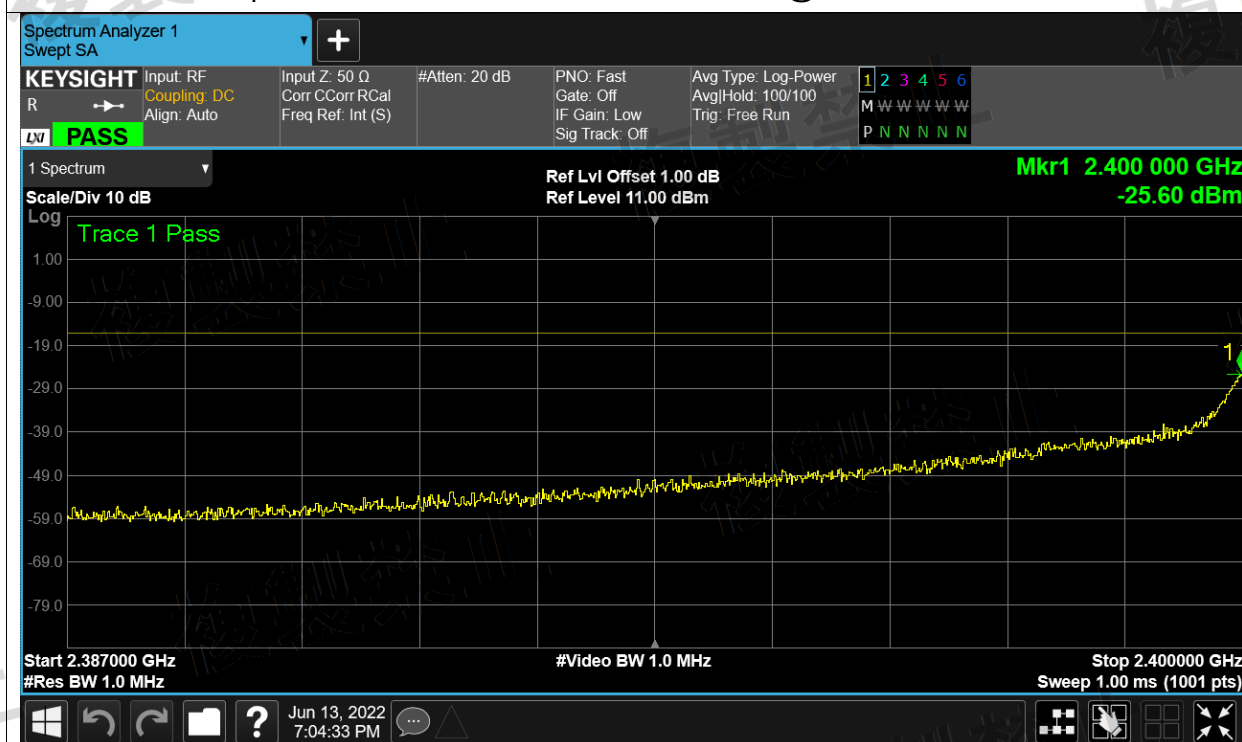




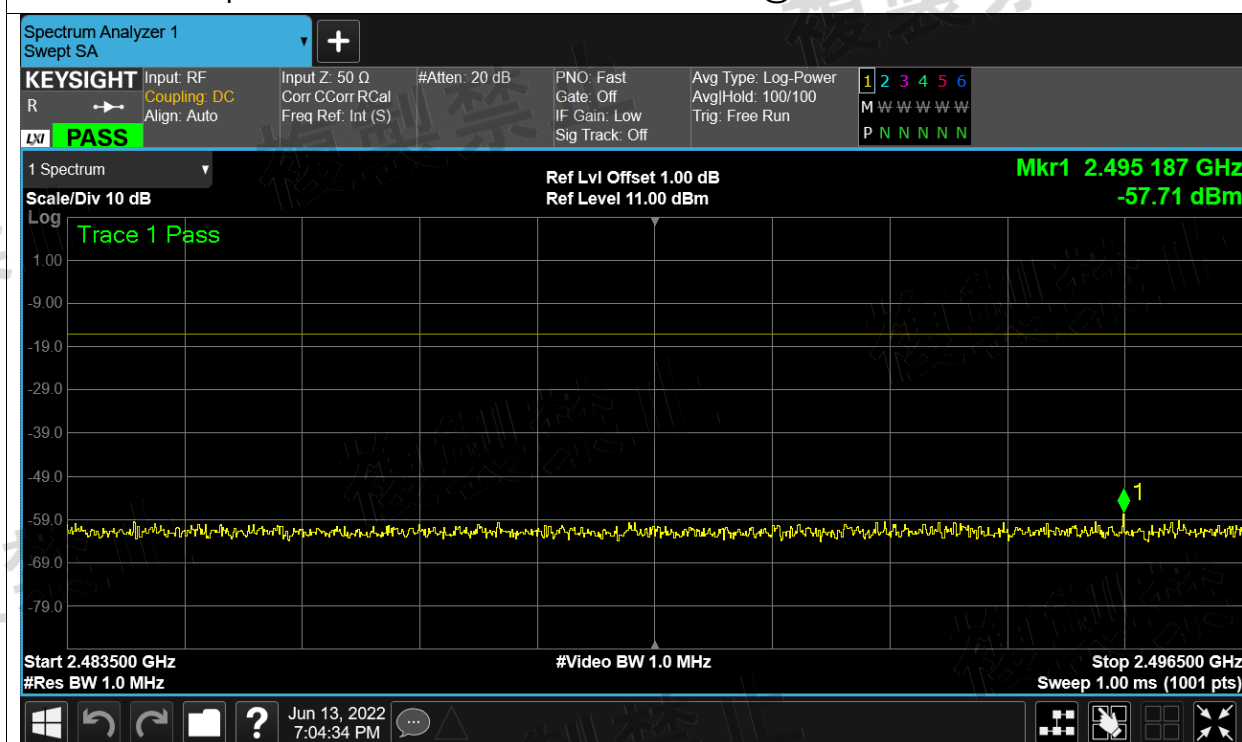
Mode4:

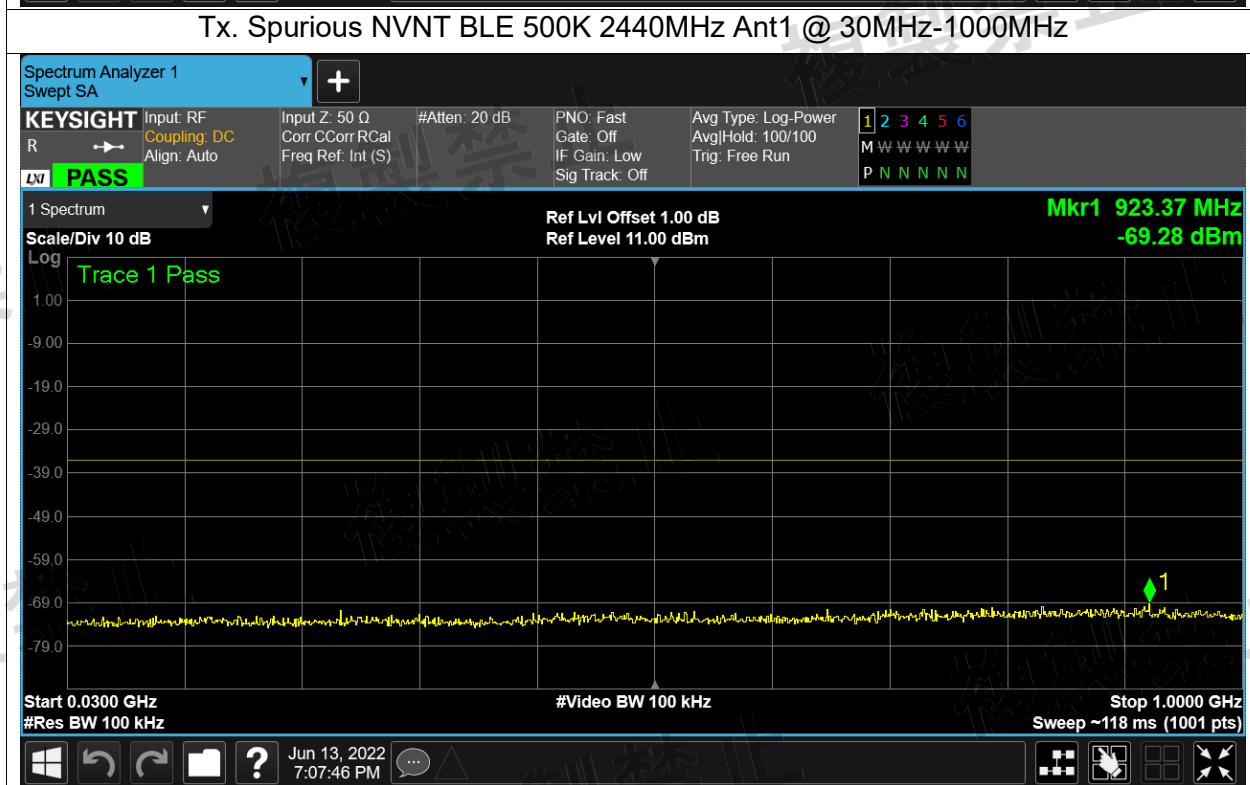
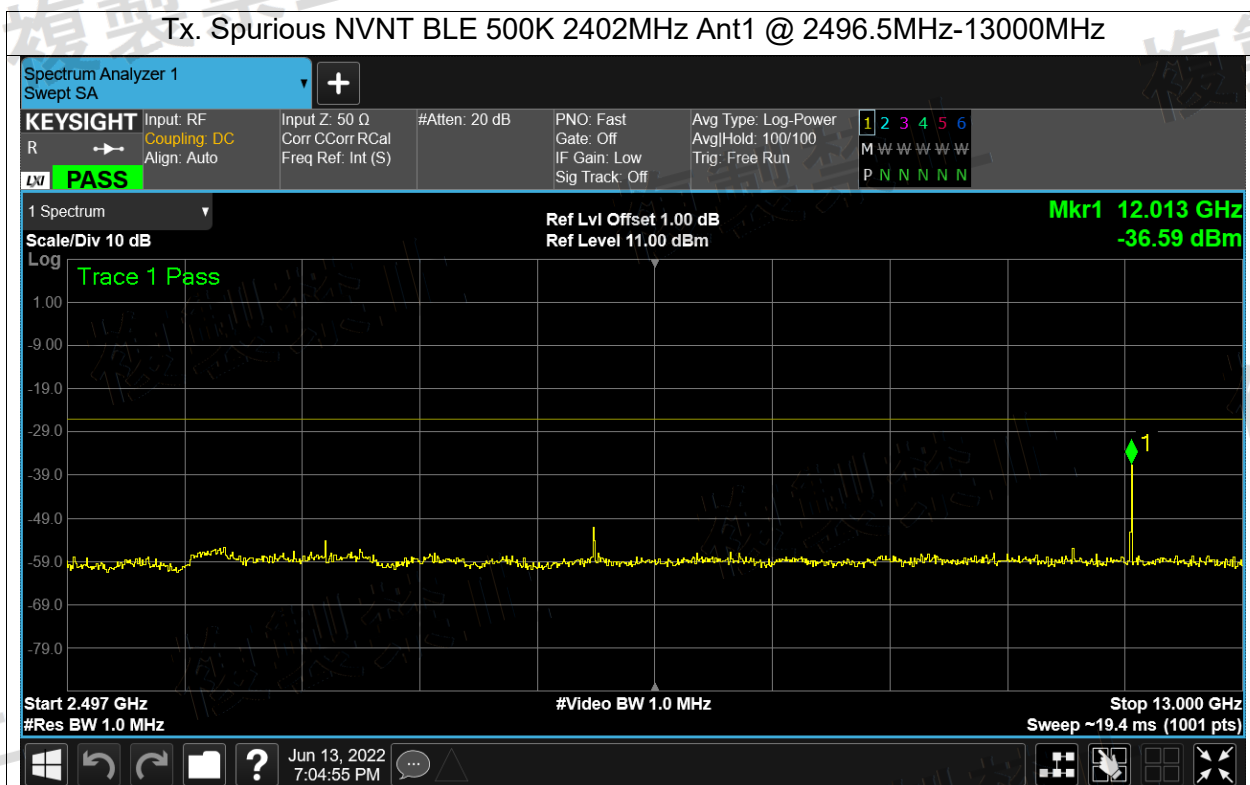


Tx. Spurious NVNT BLE 500K 2402MHz Ant1 @ 2387MHz-2400MHz

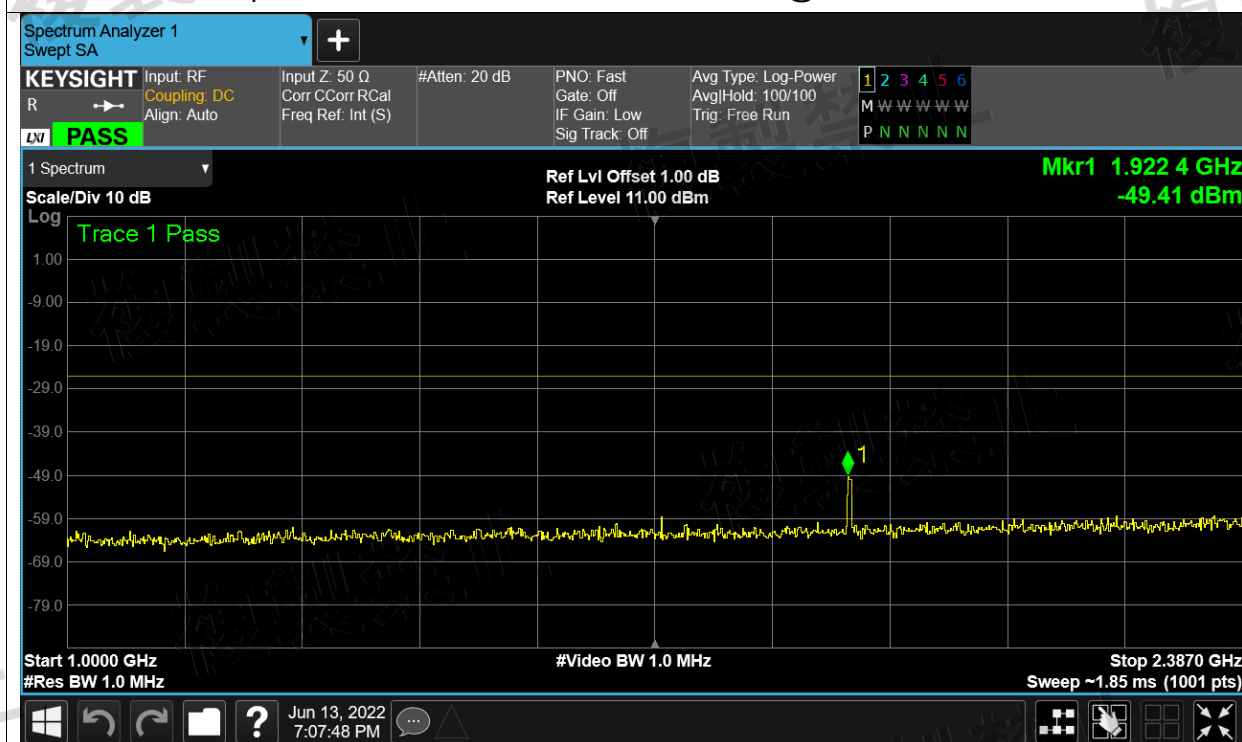


Tx. Spurious NVNT BLE 500K 2402MHz Ant1 @ 2483.5MHz-2496.5MHz

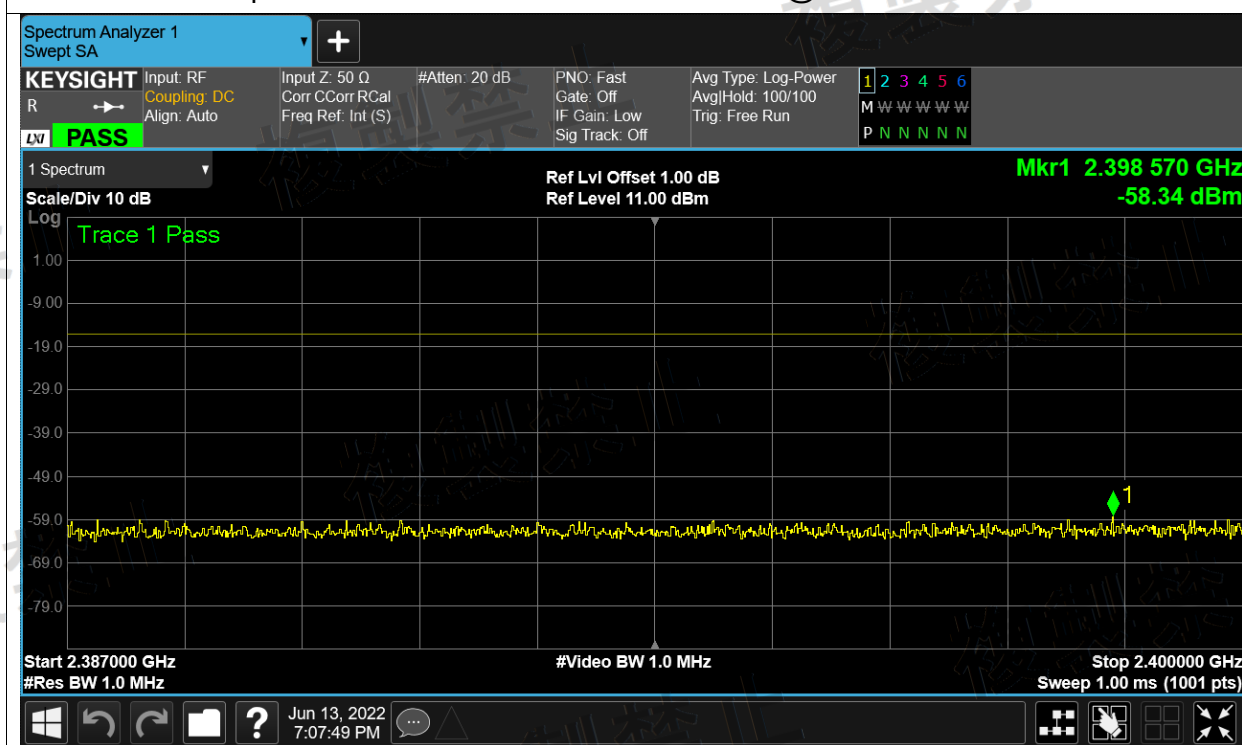




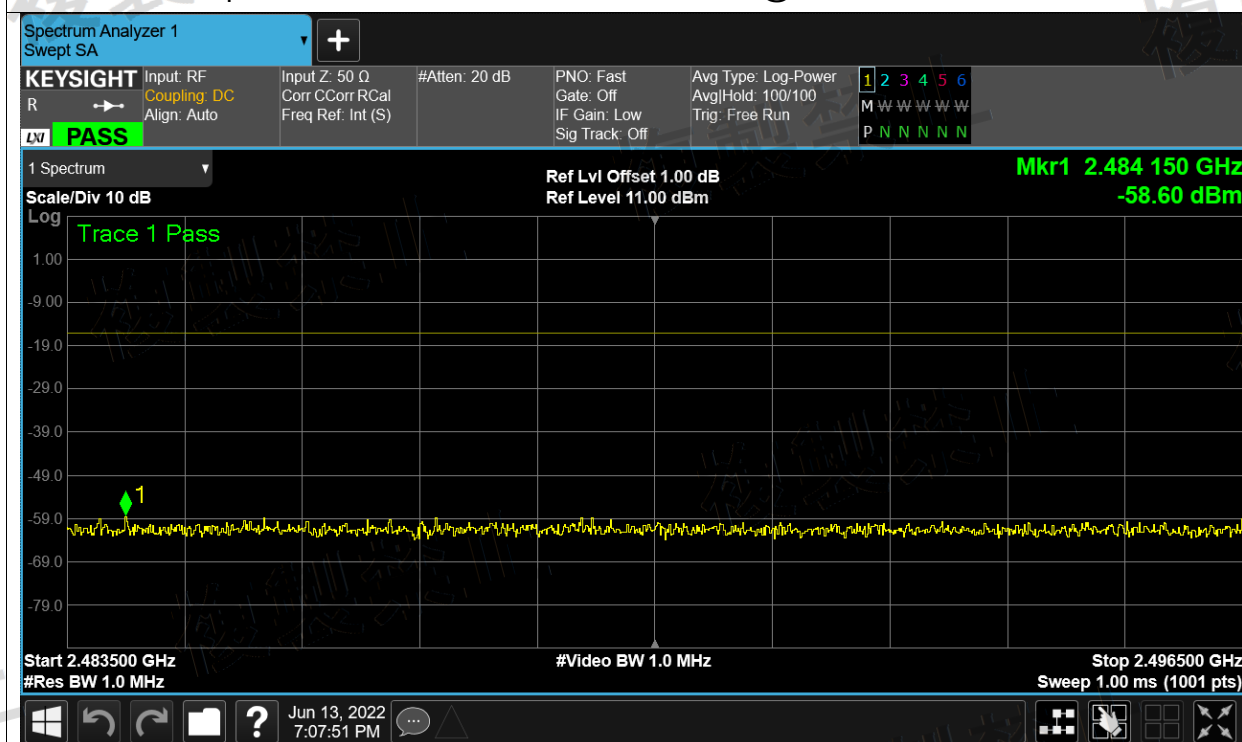
Tx. Spurious NVNT BLE 500K 2440MHz Ant1 @ 1000MHz-2387MHz



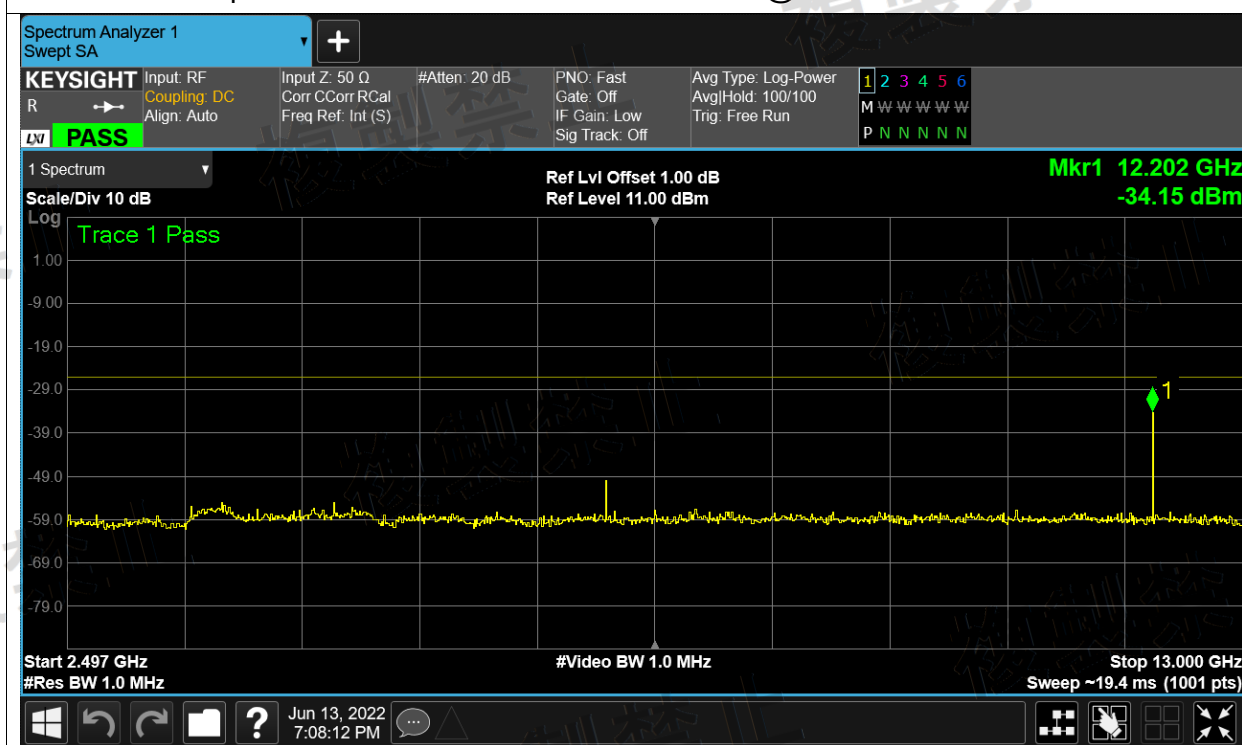
Tx. Spurious NVNT BLE 500K 2440MHz Ant1 @ 2387MHz-2400MHz



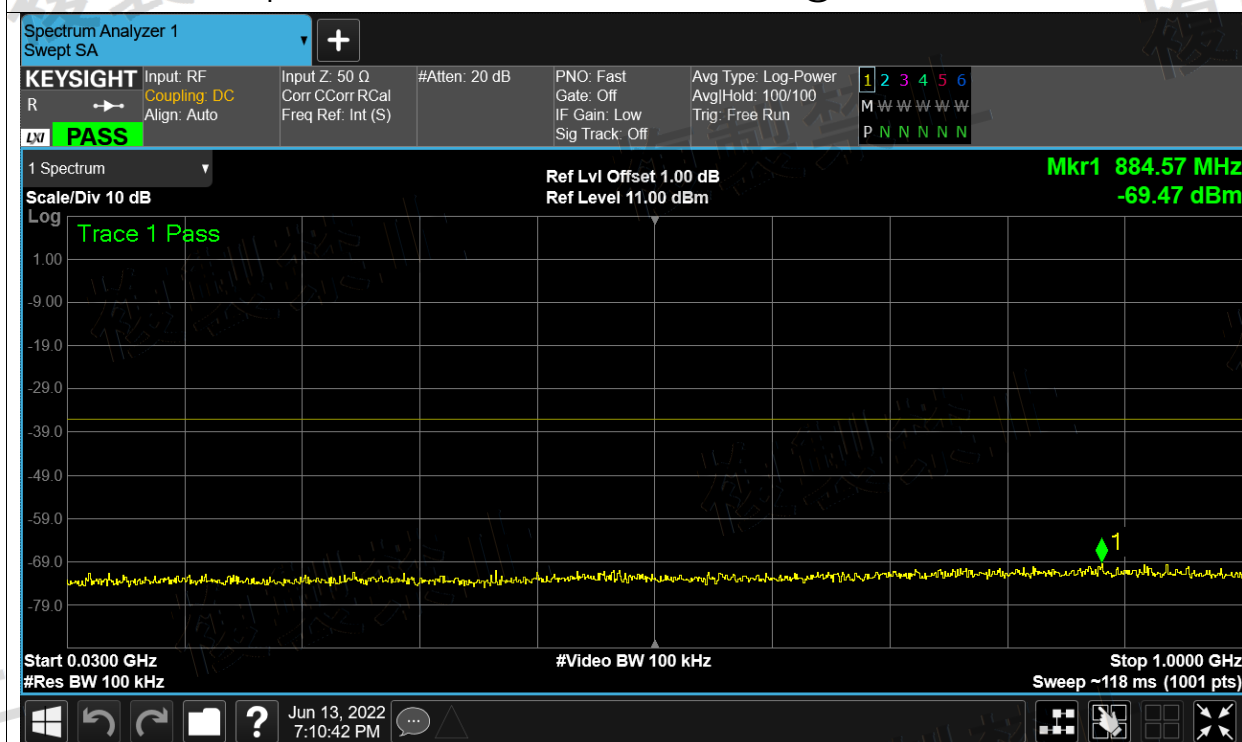
Tx. Spurious NVNT BLE 500K 2440MHz Ant1 @ 2483.5MHz-2496.5MHz



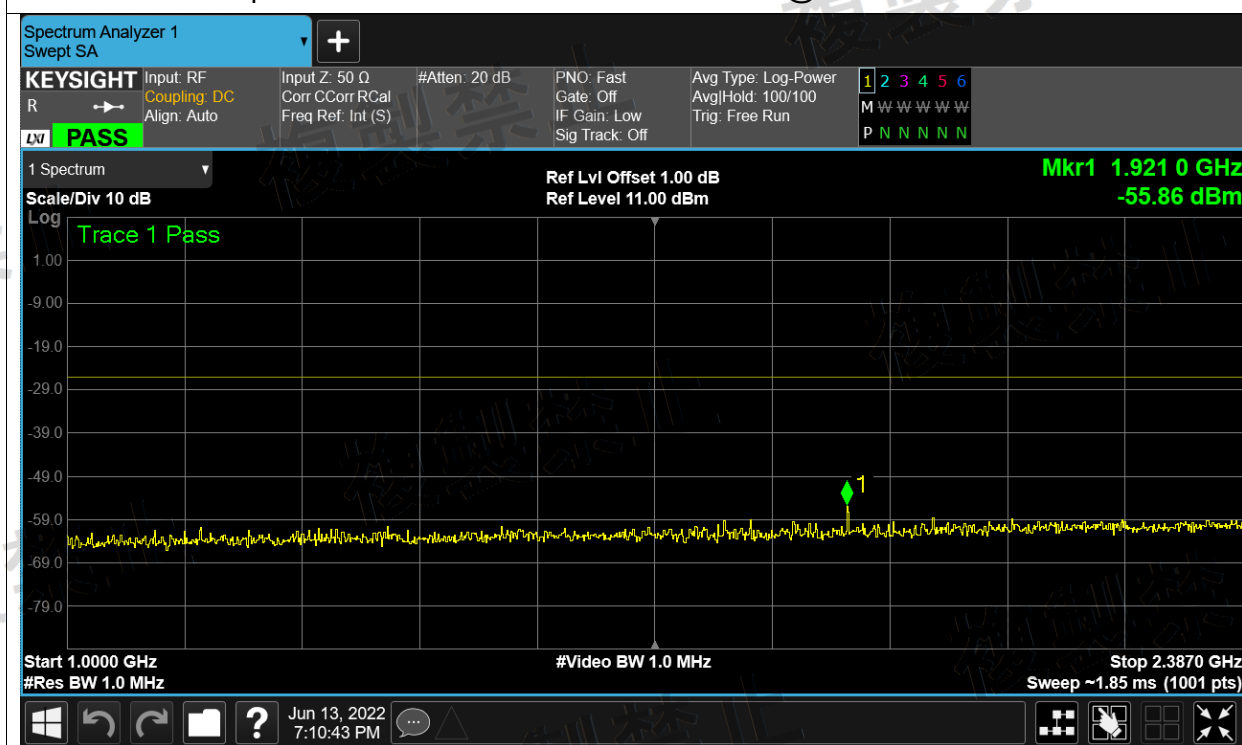
Tx. Spurious NVNT BLE 500K 2440MHz Ant1 @ 2496.5MHz-13000MHz



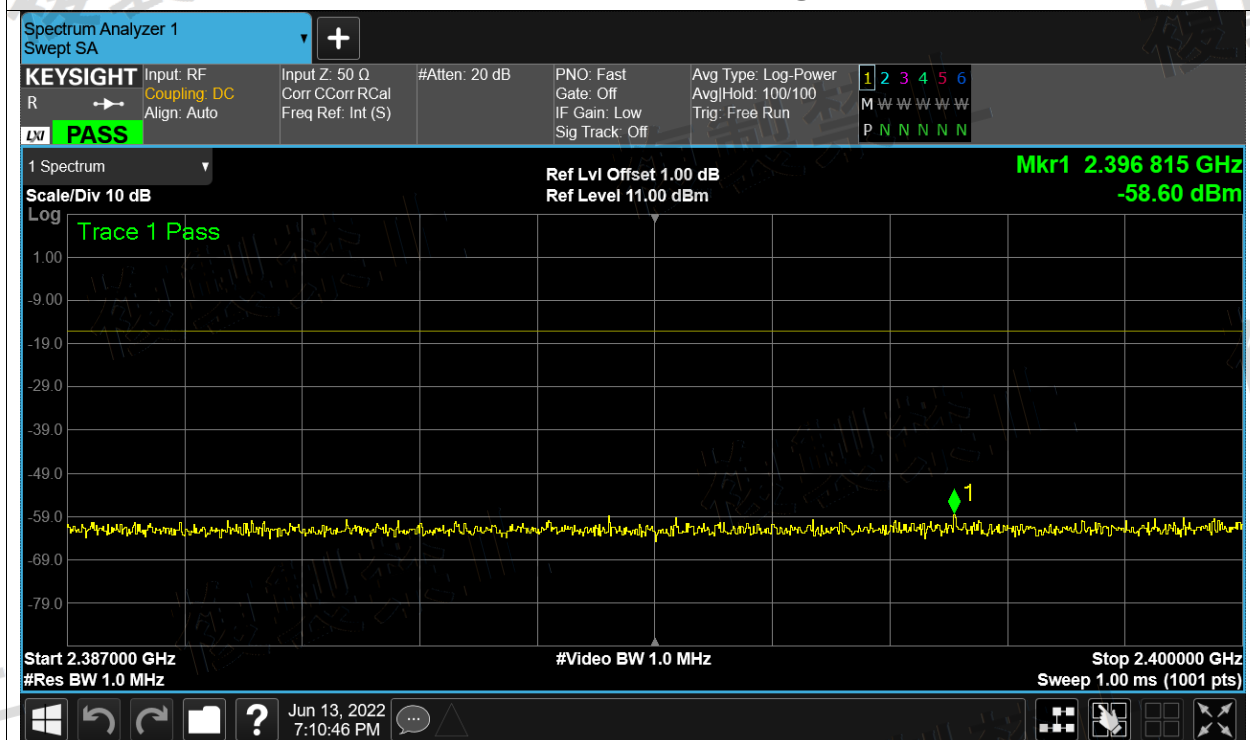
Tx. Spurious NVNT BLE 500K 2480MHz Ant1 @ 30MHz-1000MHz



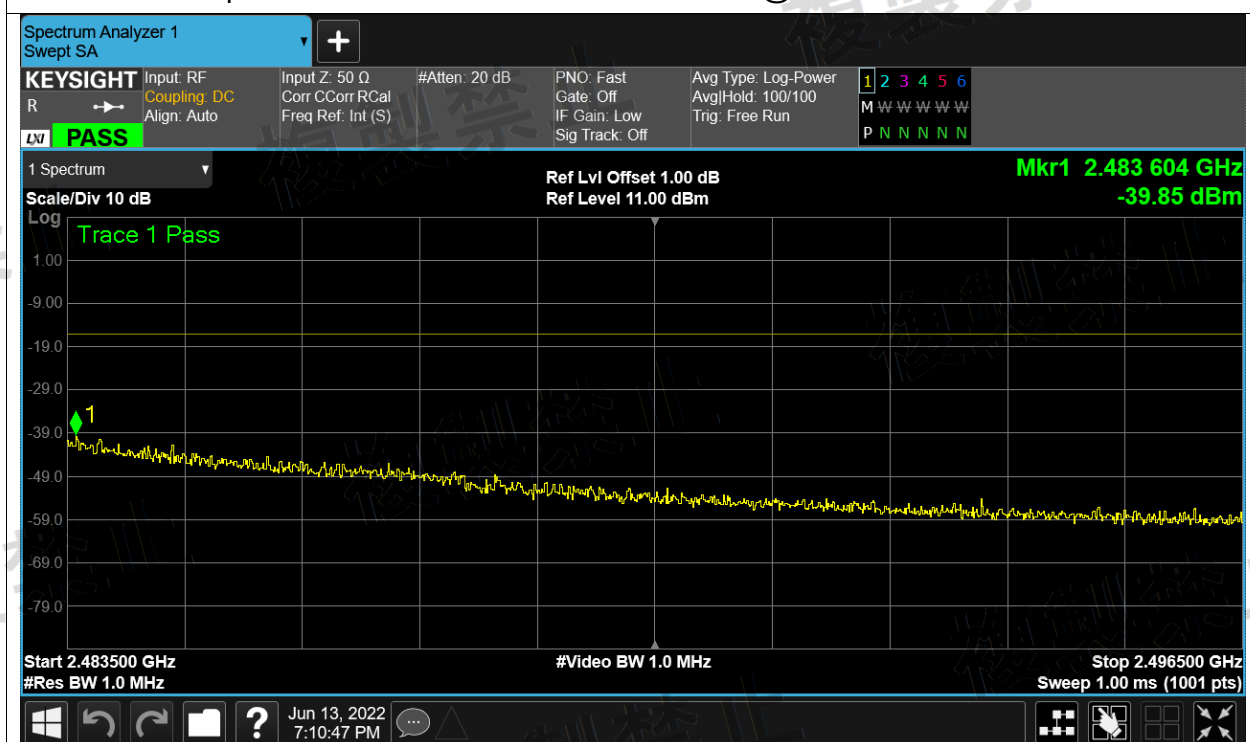
Tx. Spurious NVNT BLE 500K 2480MHz Ant1 @ 1000MHz-2387MHz

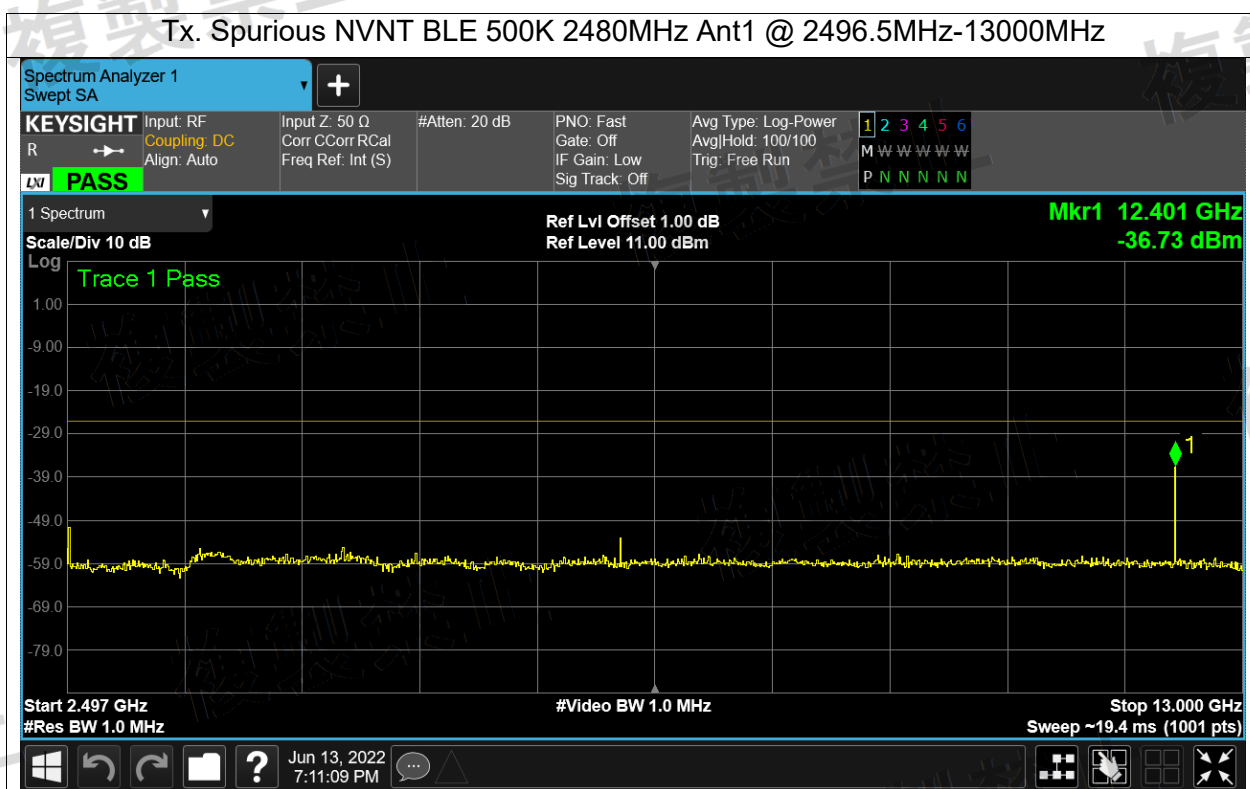


Tx. Spurious NVNT BLE 500K 2480MHz Ant1 @ 2387MHz-2400MHz



Tx. Spurious NVNT BLE 500K 2480MHz Ant1 @ 2483.5MHz-2496.5MHz





4.6 Receiver Spurious Emission**VERDICT: PASS****4.6.1 Limit****Standard**

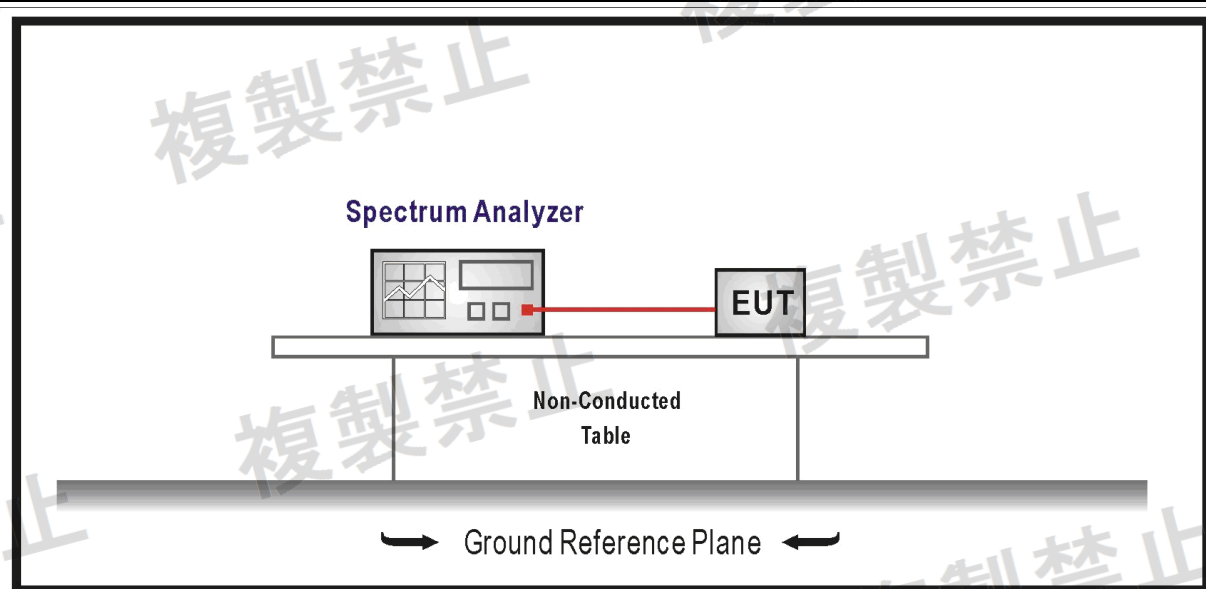
ARIB STD-T66

<= 4nW for 10 – 1000 MHz

<= 20nW for 1000 – 3000 MHz

<= 20nW for 3000 – 8000 MHz

<= 20nW for 8000 – 12750 MHz

4.6.2 Test Setup**4.6.3 Test Procedure****References Rule**☒ ARIB STD-T66**Step 1**

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

1. A positive peak detector function must be used.
2. The measurement instrument bandwidth and span must be set sufficiently with, and the scan time set sufficiently slowly, to ensure all major modulation products are captured. Note that
3. The measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.
4. 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided the emission is repetitive in nature.

4.6.4 Test Data

Note: The data of receiver spurious emissions is the noise base, so no receive data was showed.

4.7 Interference Prevention Function Measurement

VERDICT: PASS

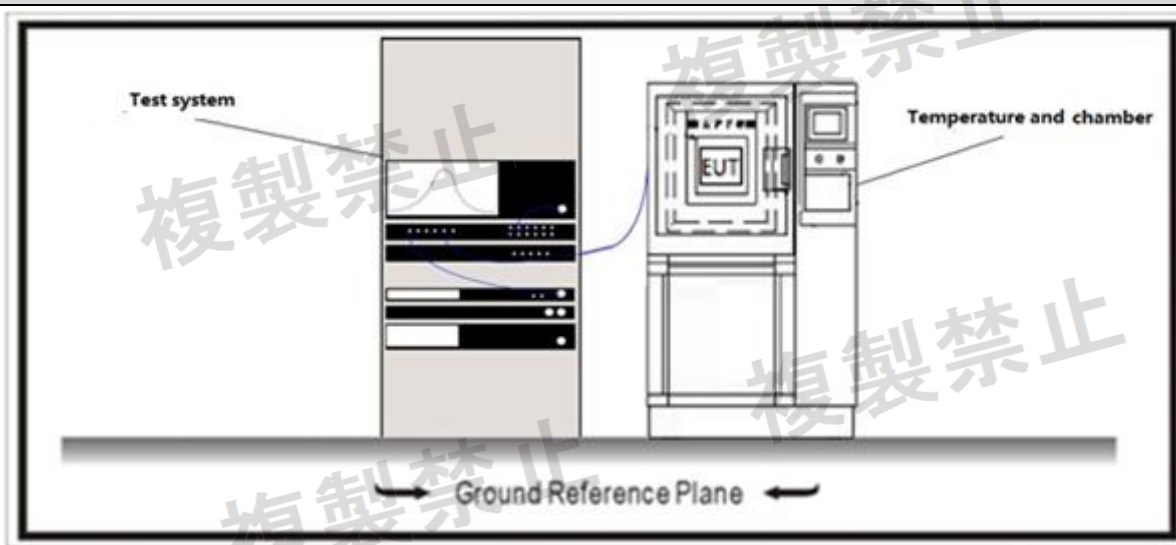
4.7.1 Limit

Standard

ARIB STD-T66

The one automatically to transmit and to receive identification code with the wireless equipment of the wireless station used in the same premises.

4.7.2 Test Setup



4.7.3 Test Procedure

References Rule

☒ ARIB STD-T66

Step 1

1. Establish communication between EUT and auxiliary equipment, auxiliary must have an ability to parse and display the identifier code.
2. When the test equipment has the function of automatically transmitting the identification code.
 - A. The test equipment sends the identification code specified in the equipment rules.
 - B. Check the identification code sent by the demodulator.
3. When the test equipment has the function of automatically receiving the identification code.
 - A. The opposite device transmits the identification code specified in the device rules.
 - B. Verify that a dedicated fixture is used to communicate with the test equipment.
 - C. Send a code from the counter that differs from the identification code specified in the equipment rules.
 - D. Verify that the test equipment stops transmitting or displays a different ID.
4. If the encoding specified in the device rules is the same as the demodulated encoding, recoded as "Good", otherwise record as "No".

4.7.4 Test Data

Test Item	:	Interference Prevention Function Measurement
Test Site	:	TR8
Test Mode	:	Mode: Normal Mode
EUT MAC Address	:	00:17:88:01:10:87:71:2B

5 CONFORMING THE STRUCTURE THAT IS DIFFICULT TO OPEN

The Radio Equipment:	
☐	Use Special Screw
☐	Metal Shielding is Soldered
☐	Use Ball Grid Array (BGA)
☐	RF module/Chip Pins > 20
☒	RF module/Chip Pins distance < 1.5 mm

The high-frequency section and modulation section (except for the antenna system) are not capable of being opened easily.

6 SETUP PHOTO AND EUT PHOTO

Remark: The test setup photo and EUT Photo please see appendix.

The End