

Biomobie (Shanghai) Healthcare Co., Ltd.

RF TEST REPORT

Report Type:

FCC Part 15.247 RF report

Model:

NR-2026

REPORT NUMBER:

260400172SHA-001

ISSUE DATE:

July 14, 2026

DOCUMENT CONTROL NUMBER:

TTRF15.247-02_V1 © 2018 Intertek



TEST REPORT

Telephone: 86 21 6127 8200
www.intertek.com

Report no.: 260400172SHA-001

Applicant: Biomobie (Shanghai) Healthcare Co., Ltd.
1388 KaiXuan Rd, IM Shanghai, T1, 7F, Unit 704, Changning District,
Shanghai, 200052, China

Manufacturer: Biomobie (Shanghai) Healthcare Co., Ltd.
1388 KaiXuan Rd, IM Shanghai, T1, 7F, Unit 704, Changning District,
Shanghai, 200052, China

Manufacturing site: Biomobie (Shanghai) Healthcare Co., Ltd.
1388 KaiXuan Rd, IM Shanghai, T1, 7F, Unit 704, Changning District,
Shanghai, 200052, China

FCC ID: 2BV53NR-2026

SUMMARY:

The equipment complies with the requirements according to the following standard(s) or Specification:

47CFR Part 15 (2024): Radio Frequency Devices (Subpart C)

C63.10-2020 +Cor. 1-2023 +C63.10a-2024 +Errata to C63.10a-2024: American National
Standard of Procedures for Compliance Testing of Unlicensed Wireless Device – Corrigendum 1

PREPARED BY:

REVIEWED BY:

Project Engineer
Kinsley Jin

Reviewer
Wakeyou Wang

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

TEST REPORT

Content

REVISION HISTORY.....	5
MEASUREMENT RESULT SUMMARY	6
1 GENERAL INFORMATION	7
1.1 DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)	7
1.2 TECHNICAL SPECIFICATION.....	7
1.3 DESCRIPTION OF TEST FACILITY	8
2 TEST SPECIFICATIONS.....	9
2.1 STANDARDS OR SPECIFICATION	9
2.2 MODE OF OPERATION DURING THE TEST	9
2.3 TEST SOFTWARE LIST	10
2.4 TEST PERIPHERALS LIST.....	10
2.5 TEST ENVIRONMENT CONDITION:.....	10
2.6 INSTRUMENT LIST	11
2.7 MEASUREMENT UNCERTAINTY.....	12
3 MINIMUM 6DB BANDWIDTH.....	13
3.1 LIMIT	13
3.2 MEASUREMENT PROCEDURE	13
3.3 TEST CONFIGURATION	13
3.4 TEST RESULTS OF MINIMUM 6DB BANDWIDTH.....	13
4 MAXIMUM CONDUCTED OUTPUT POWER AND E.I.R.P.....	14
4.1 LIMIT	14
4.2 MEASUREMENT PROCEDURE	14
4.3 TEST CONFIGURATION	14
4.4 TEST RESULTS OF MAXIMUM CONDUCTED OUTPUT POWER.....	14
5 POWER SPECTRUM DENSITY	15
5.1 LIMIT	15
5.2 MEASUREMENT PROCEDURE	15
5.3 TEST CONFIGURATION	15
5.4 TEST RESULTS OF POWER SPECTRUM DENSITY	15
6 EMISSION OUTSIDE THE FREQUENCY BAND	16
6.1 LIMIT	16
6.2 MEASUREMENT PROCEDURE	16
6.3 TEST CONFIGURATION	17
6.4 THE RESULTS OF EMISSION OUTSIDE THE FREQUENCY BAND.....	17
7 RADIATED EMISSIONS IN RESTRICTED FREQUENCY BANDS.....	18
7.1 LIMIT	18
7.2 MEASUREMENT PROCEDURE	18
7.3 TEST CONFIGURATION	20
7.4 TEST RESULTS OF RADIATED EMISSIONS	22
8 POWER LINE CONDUCTED EMISSION.....	28
8.1 LIMIT	28
8.2 TEST CONFIGURATION	28
8.3 MEASUREMENT PROCEDURE	29

TEST REPORT

8.4	TEST RESULTS OF POWER LINE CONDUCTED EMISSION	30
9	OCCUPIED BANDWIDTH	32
9.1	LIMIT	32
9.2	MEASUREMENT PROCEDURE	32
9.3	TEST CONFIGURATION	32
9.4	THE RESULTS OF OCCUPIED BANDWIDTH	32
10	ANTENNA REQUIREMENT	33

Revision History

Report No.	Version	Description	Issued Date
260400172SHA-001	Rev. 01	Initial issue of report	July 14, 2026

Measurement result summary

TEST ITEM	FCC REFERENCE	RESULT
Minimum 6dB Bandwidth	15.247(a)(2)	Pass
Maximum conducted output power and e.i.r.p.	15.247(b)(3)	Pass
Power spectrum density	15.247(e)	Pass
Emission outside the frequency band	15.247(d)	Pass
Radiated Emissions in restricted frequency bands	15.247(d), 15.205&15.209	Pass
Power line conducted emission	15.207(a)	Pass
Occupied bandwidth	-	Tested
Antenna requirement	15.203	Pass

Notes:

1. NA =Not Applicable
2. Determination of the test conclusion is based on IEC Guide 115 in consideration of measurement uncertainty.
3. Additions, Deviations and Exclusions from Standards: None.

1 GENERAL INFORMATION

Description of Equipment Under Test (EUT)

Product name:	NeuroRester
Type/Model:	NR-2026
Description of EUT:	The EUT is a NeuroRester, it supports Bluetooth function. We tested it and listed the worst results in this report.
Rating:	Input: 5V = 1A (Type-C Interface) Output: 5V = 0.5A
Category of EUT:	Class B
EUT type:	☒ Tabletop ☐ Floor standing
Software Version:	-
Hardware Version:	-
Serial Numbers:	A260421-32
Sample received date:	April 22, 2026
Date of test:	April 22, 2026 to July 08, 2026

Technical Specification

Frequency Range:	2402 - 2480MHz
Support Standards:	Bluetooth Low Energy
Type of Modulation:	GFSK
Channel Number:	40
Data Rate:	1Mbps, 2Mbps, 125Kbps, 500Kbps
Channel Separation:	2MHz
Antenna Information:	2 dBi Gain, LTCC Antenna

TEST REPORT

Description of Test Facility

Name:	Intertek Testing Services (Shanghai FTZ) Co., Ltd.
Address:	Building 86, No. 1198 Qinzhou Road (North), Shanghai 200233, P.R. China
Telephone:	86 21 61278200
Telefax:	86 21 54262353

The test facility is recognized, certified, or accredited by these organizations:	CNAS Accreditation Lab Registration No. CNAS L21189
	FCC Accredited Lab Designation Number: CN0175
	IC Registration Lab CAB identifier: CN0014
	VCCI Registration Lab Registration No.: R-14243, G-10845, C-14723, T-12252
	A2LA Accreditation Lab Certificate Number: 3309.02

TEST REPORT

2 TEST SPECIFICATIONS

Standards or Specification

47CFR Part 15 (2024)

C63.10-2020 +Cor. 1-2023 +C63.10a-2024 +Errata to C63.10a-2024

KDB 558074 (v05r02)

Mode of operation during the test

The lowest, middle and highest channel were tested as representatives.

Frequency Band (MHz)				2402 ~ 2480			
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	10	2422	20	2442	30	2462
1	2404	11	2424	21	2444	31	2464
2	2406	12	2426	22	2446	32	2466
3	2408	13	2428	23	2448	33	2468
4	2410	14	2430	24	2450	34	2470
5	2412	15	2432	25	2452	35	2472
6	2414	16	2434	26	2454	36	2474
7	2416	17	2436	27	2456	37	2476
8	2418	18	2438	28	2458	38	2478
9	2420	19	2440	29	2460	39	2480

Data rate VS Power:

The test setting software is offered by the manufactory. The pre-scan for the conducted power with all rates in each modulation and bands was used, and the worst case was found and used in all test cases.

Test software and Power Setting parameter			
Test Software	SmartRF Studio 7-2.32.0		
Working Mode	BLE		
Test Channel	2402MHz	2440MHz	2480MHz
Power Setting	Default	Default	Default

TEST REPORT

Test software list

Test Items	Software	Manufacturer	Version
Conducted emission	ESxS-K1	R&S	V2.1.0
Radiated emission	ES-K1	R&S	V1.71

Test peripherals list

Item No.	Name	Band and Model	Description
1	Laptop computer	DELL, 5480	/
2	Charge	HUAWEI, HW-059200CHQ	/

Test environment condition:

Test items	Temperature	Humidity
Minimum 6dB Bandwidth	24°C	54% RH
Maximum conducted output power and e.i.r.p.		
Power spectrum density		
Emission outside the frequency band		
Occupied bandwidth		
Radiated Emissions in restricted frequency bands	25°C	55% RH
Power line conducted emission	24°C	54% RH

TEST REPORT

Instrument list

Conducted Emission					
Used	Equipment	Manufacturer	Type	Internal no.	Due date
☒	Test Receiver	R&S	ESR7	EC 6194	2027-02-09
☒	Attenuator	Hua Xiang	Ts5-10db-6g	EC 6194-1	2027-01-13
☒	A.M.N.	R&S	ENV4200	EC 3558	2027-06-03
Radiated Emission					
Used	Equipment	Manufacturer	Type	Internal no.	Due date
☒	Test Receiver	R&S	ESIB 26	EC 3045	2026-08-05
☒	Test Receiver	R&S	ESR	EC 6501	2026-10-19
☒	TRILOG broadband Antenna	Schwarzbeck	VULB9168	EC 6402	2027-04-05
☒	Pre-amplifier	R&S	AFS42-00101800-25-S-42	EC 5262	2026-11-06
☒	Pre-amplifier	Tonscend	tap01018050	EC 6432-1	2026-12-09
☒	Horn antenna	Tonscend	bha9120d	EC 6432-2	2027-04-09
☒	Horn antenna	ETS	3117	EC 4792-1	2026-09-27
☒	Horn antenna	TOYO	HAP18-26W	EC 4792-3	2026-09-12
☒	Horn antenna	ETS	3116c	EC 5955	2026-08-24
RF test					
Used	Equipment	Manufacturer	Type	Internal no.	Due date
☒	PXA Signal Analyzer	Keysight	N9030A	EC 5338	2027-05-24
Tet Site					
Used	Equipment	Manufacturer	Type	Internal no.	Due date
☒	Shielded room	Zhongyu	-	EC 2838	2027-01-08
☒	Shielded room	Zhongyu	-	EC 2839	2027-01-08
☒	Semi-anechoic chamber	Albatross project	-	EC 3048	2026-07-11
Additional instrument					
Used	Equipment	Manufacturer	Type	Internal no.	Due date
☒	Thermo-Hygrograph	Testo	175h1	EC 6640	2026-08-03
☒	Thermo-Hygrograph	Testo	175h1	EC 6642	2026-08-03
☒	Thermo-Hygrograph	Testo	175h1	EC 6643	2026-08-25

TEST REPORT

Measurement uncertainty

The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Test item	Measurement uncertainty
Maximum peak output power	$\pm 0.74\text{dB}$
Power spectrum density	$\pm 0.74\text{dB}$
Radiated Emissions in restricted frequency bands below 1GHz	$\pm 4.90\text{dB}$
Radiated Emissions in restricted frequency bands above 1GHz	$\pm 5.02\text{dB}$
Emission outside the frequency band	$\pm 2.89\text{dB}$
Power line conducted emission	$\pm 3.19\text{dB}$
Minimum 6dB Bandwidth	$\pm 0.84 \times 10^{-7}$
Occupied bandwidth	$\pm 0.84 \times 10^{-7}$

TEST REPORT

3 Minimum 6dB bandwidth

Test result: Pass

Limit

For systems using digital modulation techniques that may operate in the 902 - 928 MHz, 2400 - 2483.5 MHz and 5725 - 5850 MHz bands, the minimum 6 dB bandwidth shall be at least 500 kHz.

Measurement Procedure

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Test Configuration



Test Results of Minimum 6dB bandwidth

Please refer to Appendix A

TEST REPORT

4 Maximum conducted output power and e.i.r.p.

Test result: Pass

Limit

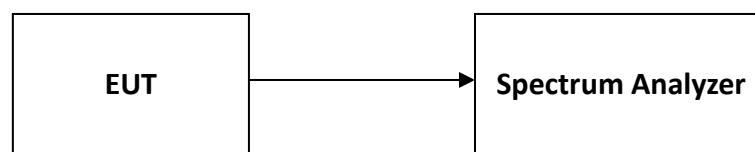
For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 W. (The e.i.r.p. shall not exceed 4 W)

If the transmitting antenna of directional gain greater than 6dBi is used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi. If there have a beam forming type, the limit should be the minimum of 30dBm and 30+ (6 –antenna gain-beam forming gain).

Measurement Procedure

- a) Set the RBW $\geq$ DTS bandwidth.
- b) Set VBW $\geq 3 \times$ RBW.
- c) Set span $\geq 3 \times$ RBW
- d) Sweep time = auto couple.
- e) Detector = peak.
- f) Trace mode = max hold.
- g) Allow trace to fully stabilize.
- h) Use peak marker function to determine the peak amplitude level.

Test Configuration



Test Results of Maximum conducted output power

Please refer to Appendix A

TEST REPORT

5 Power spectrum density

Test result: Pass

Limit

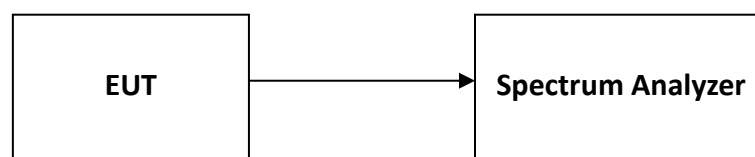
For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3 kHz band during any time interval of continuous transmission.

If the transmitting antenna of directional gain greater than 6dBi is used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi. If there have a beam forming type, the limit should be the minimum of 8dBm/MHz and $8 + (6 - \text{antenna gain} - \text{beam forming gain})$.

Measurement Procedure

- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span to 1.5 times the DTS bandwidth.
- c) Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- d) Set the VBW $\geq 3 \times \text{RBW}$.
- e) Detector = peak.
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.
- j) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

Test Configuration



Test Results of Power spectrum density

Please refer to Appendix A

TEST REPORT

6 Emission outside the frequency band

Test result: Pass

Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

Measurement Procedure

Reference level measurement

Establish a reference level by using the following procedure:

- a) Set instrument center frequency to DTS channel center frequency.
- b) Set the span to ≥ 1.5 times the DTS bandwidth.
- c) Set the RBW = 100 kHz.
- d) Set the VBW $\geq 3 \times$ RBW.
- e) Detector = peak.
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum PSD level.

Emission level measurement

- a) Set the center frequency and span to encompass frequency range to be measured.
- b) Set the RBW = 100 kHz.
- c) Set the VBW $\geq 3 \times$ RBW.
- d) Detector = peak.
- e) Sweep time = auto couple.
- f) Trace mode = max hold.
- g) Allow trace to fully stabilize.
- h) Use the peak marker function to determine the maximum amplitude level.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) are attenuated by at least the minimum requirements specified in 11.1 a) or 11.1 b). Report the three highest emissions relative to the limit.

TEST REPORT**Test Configuration****The results of Emission outside the frequency band**

Please refer to Appendix A

TEST REPORT

7 Radiated Emissions in restricted frequency bands

Test result: Pass

Limit

The radiated emissions which fall in the restricted bands, must also comply with the radiated emission limits specified showed as below:

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

Measurement Procedure

For Radiated emission below 30MHz:

- The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- Both X and Y axes of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

NOTE:

- The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

TEST REPORT**For Radiated emission above 30MHz:**

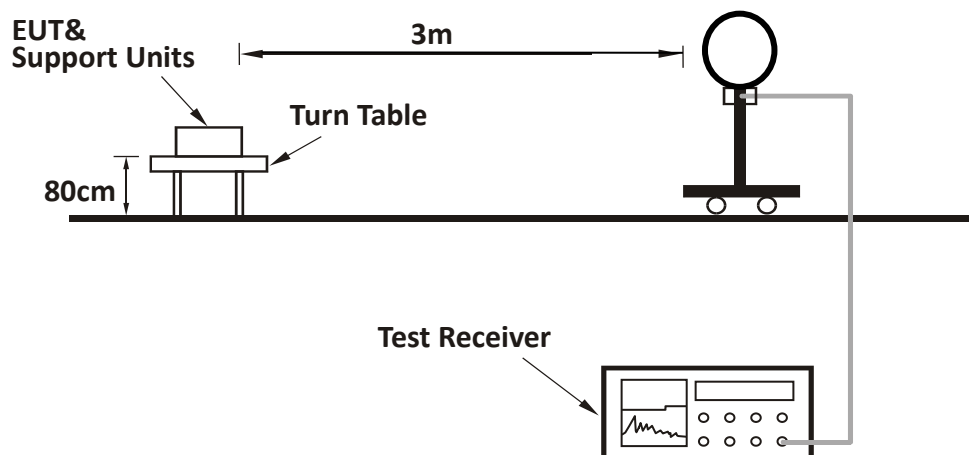
- a) The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3-meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b) The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c) The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d) For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e) The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f) The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

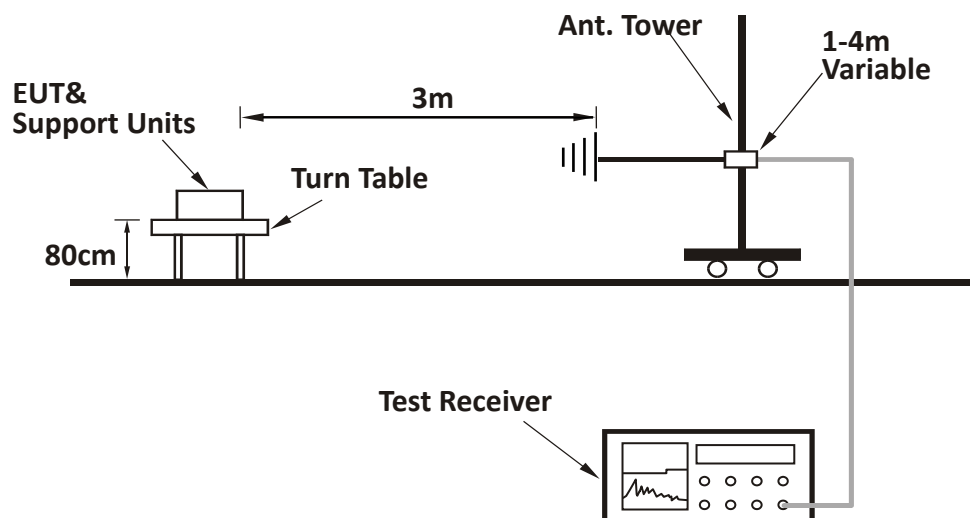
- 1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
- 2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
- 3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is $\geq 1/T$ (Duty cycle < 98%) or 3 x RBW (Duty cycle $\geq$ 98%) for Average detection (AV) at frequency above 1GHz.
- 4. All modes of operation were investigated and the worst-case emissions are reported

Test Configuration

For Radiated emission below 30MHz:

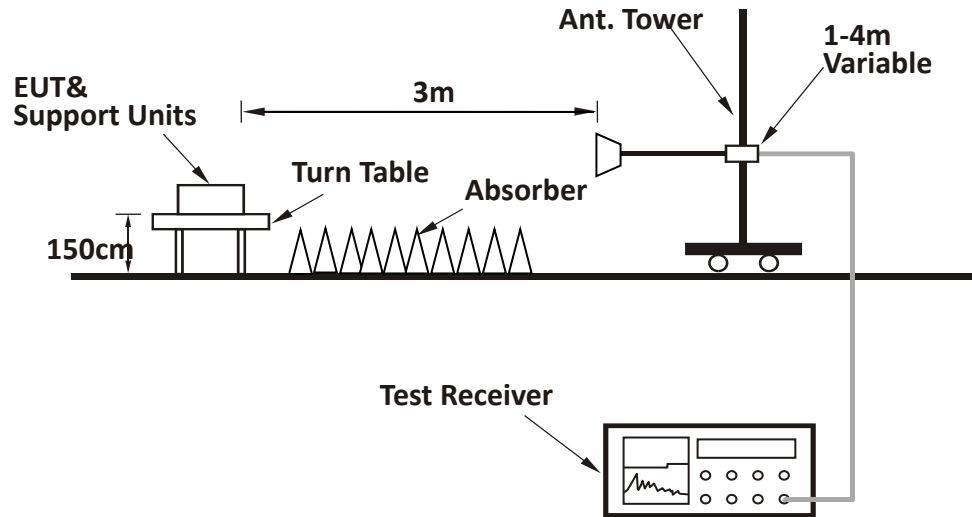


For Radiated emission 30MHz to 1GHz:



TEST REPORT

For Radiated emission above 1GHz:

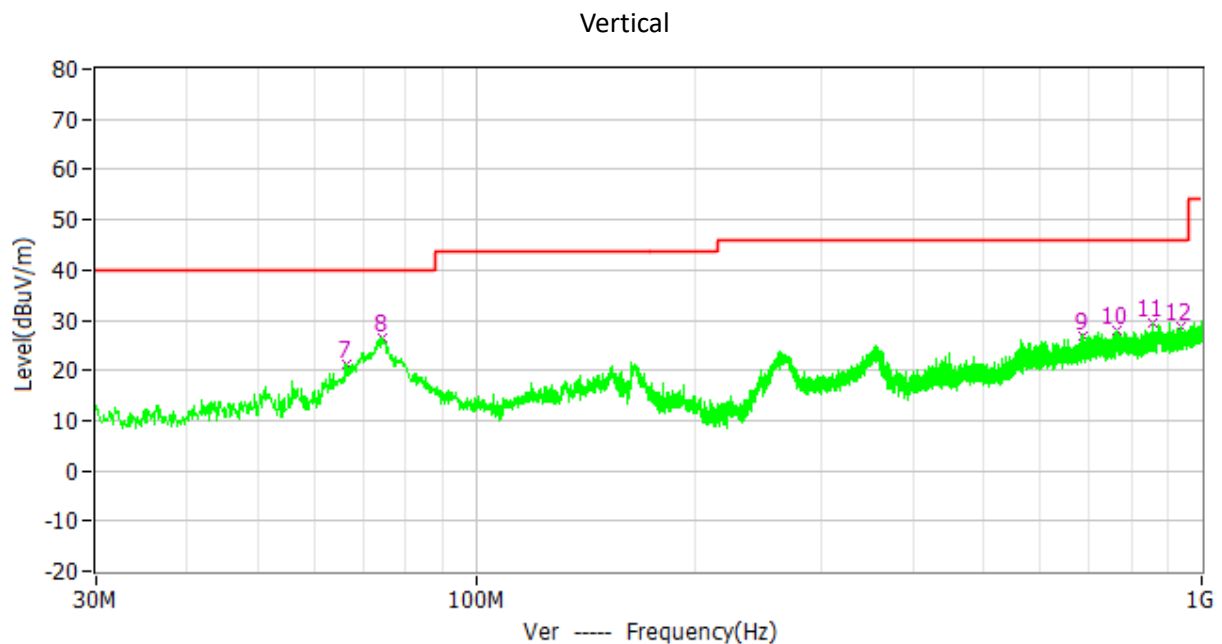
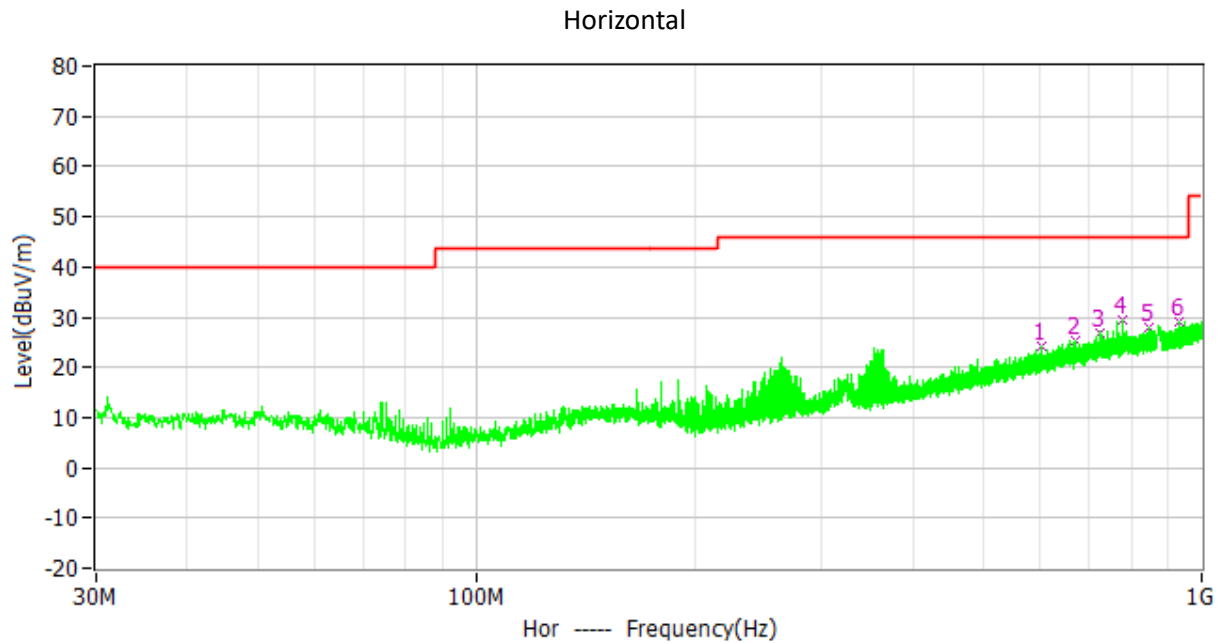


TEST REPORT

Test Results of Radiated Emissions

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

The worst waveform from 30MHz to 1000MHz is listed as below:



TEST REPORT

Test data below 1GHz

Antenna Polarization	Frequency	Limit (dBμV/m)	Level (dBμV/m)	Delta (dB)	Reading (dBμV)	Factor dB/m	Detector
H	600.263MHz	46.00	24.10	-21.90	0.50	23.60	PK
	668.260MHz	46.00	25.40	-20.60	0.60	24.80	PK
	725.878MHz	46.00	27.00	-19.00	1.10	25.90	PK
	778.646MHz	46.00	29.40	-16.60	2.50	26.90	PK
	847.322MHz	46.00	27.80	-18.20	0.50	27.30	PK
	928.414MHz	46.00	29.10	-16.90	1.30	27.80	PK
V	66.278MHz	40.00	21.10	-18.90	8.60	12.50	PK
	74.232MHz	40.00	26.60	-13.40	15.70	10.90	PK
	687.951MHz	46.00	27.00	-19.00	1.80	25.20	PK
	765.357MHz	46.00	27.80	-18.20	1.30	26.50	PK
	854.791MHz	46.00	29.40	-16.60	2.10	27.30	PK
	939.181MHz	46.00	28.80	-17.20	0.70	28.10	PK

- Remark: 1. Correct Factor = Antenna Factor + Cable Loss (- Amplifier, for higher than 1GHz), the value was added to Original Receiver Reading by the software automatically.
2. Level = Original Receiver Reading + Correct Factor
3. Delta = Level - Limit
4. If the PK Corrected Reading is lower than AV limit, the AV test can be elided.

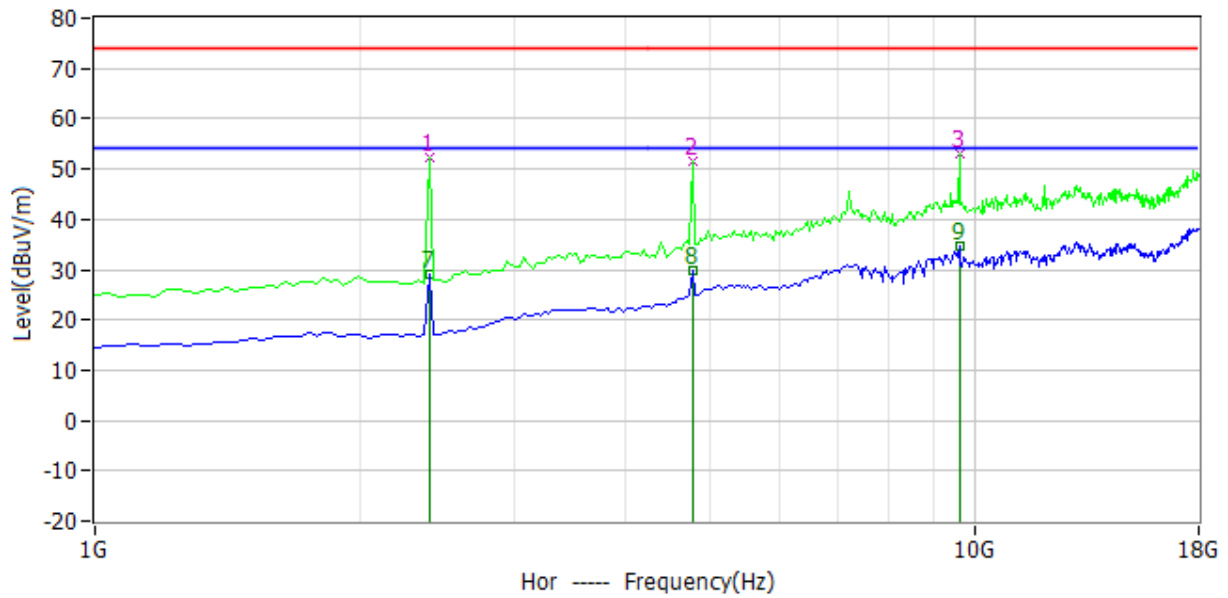
TEST REPORT

Test result above 1GHz:

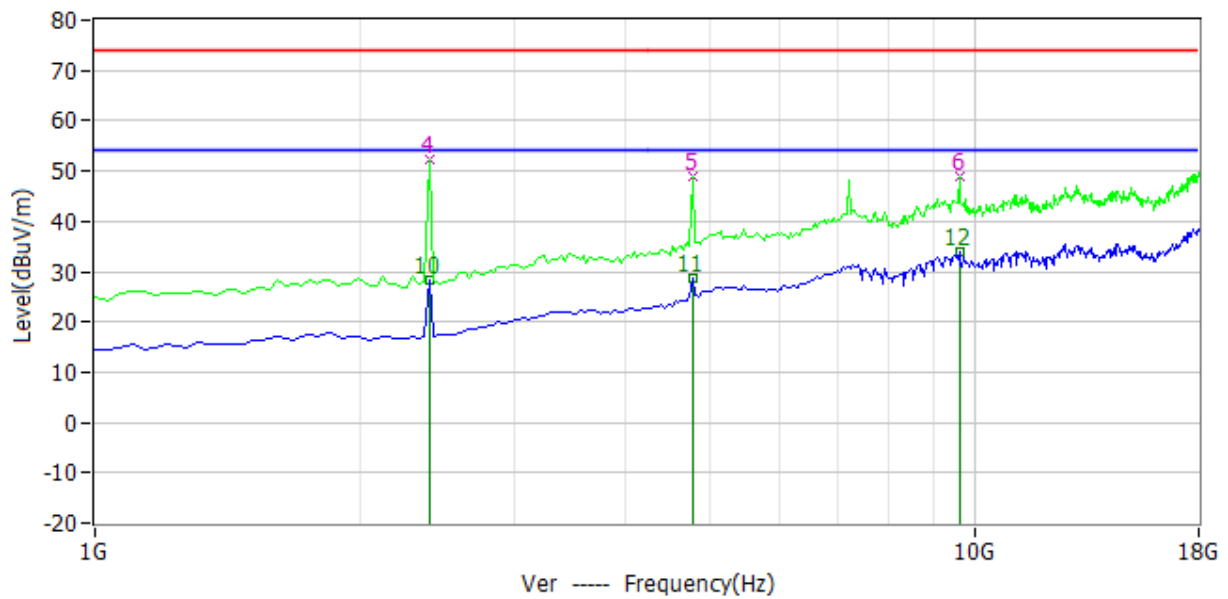
The emission was conducted from 1GHz to 25GHz

2402MHz

Horizontal



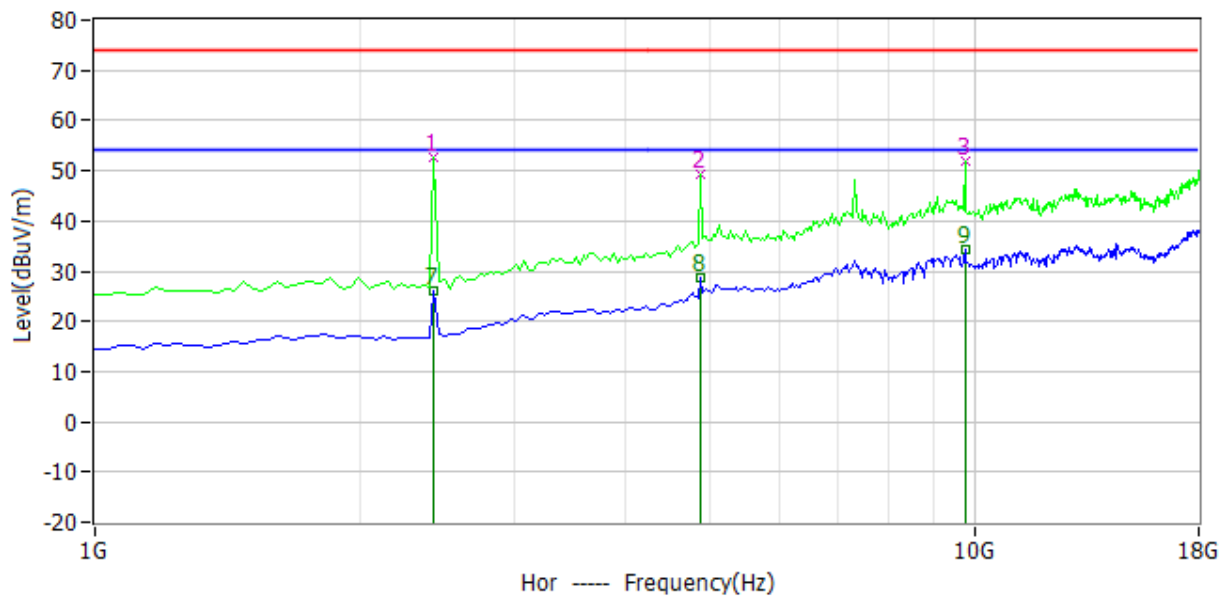
Vertical



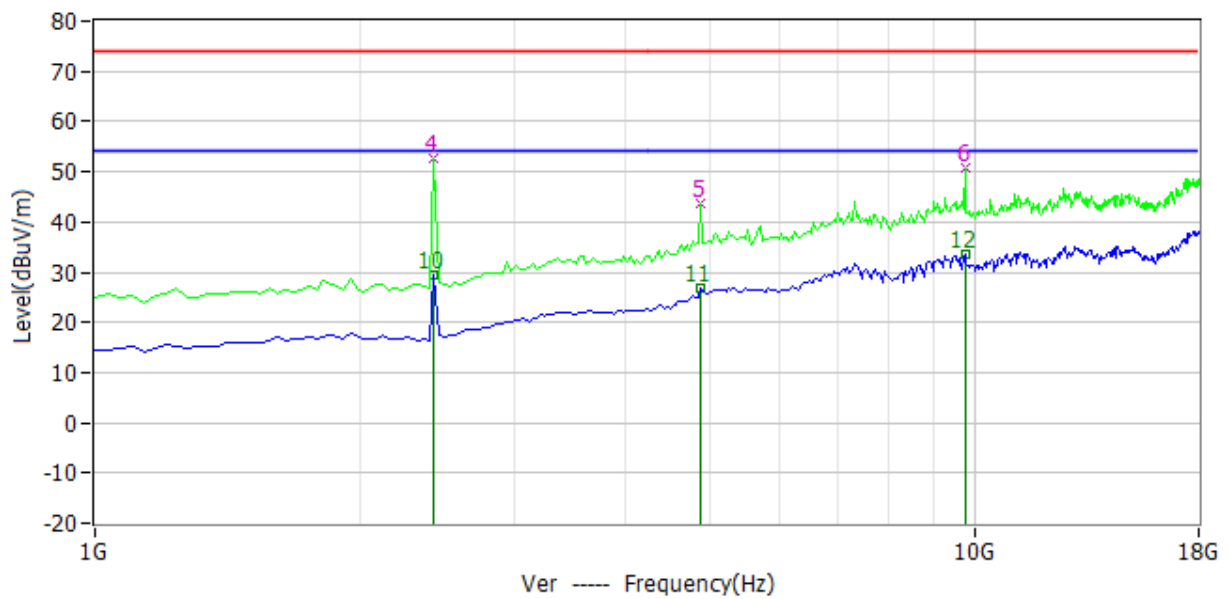
TEST REPORT

2440MHz

Horizontal



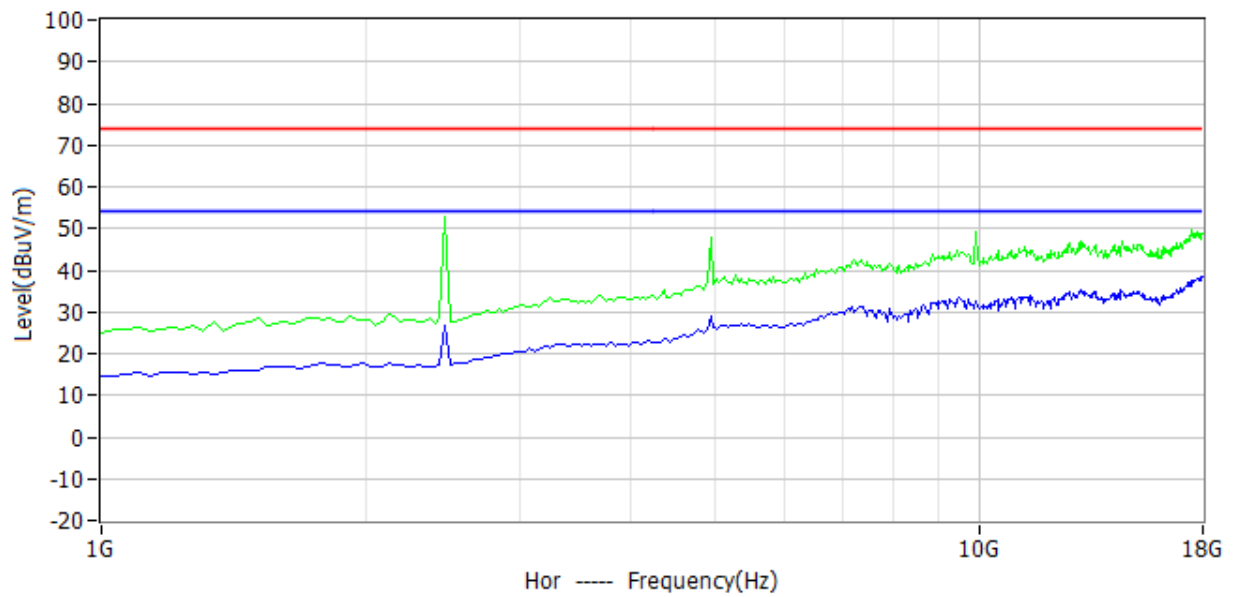
Vertical



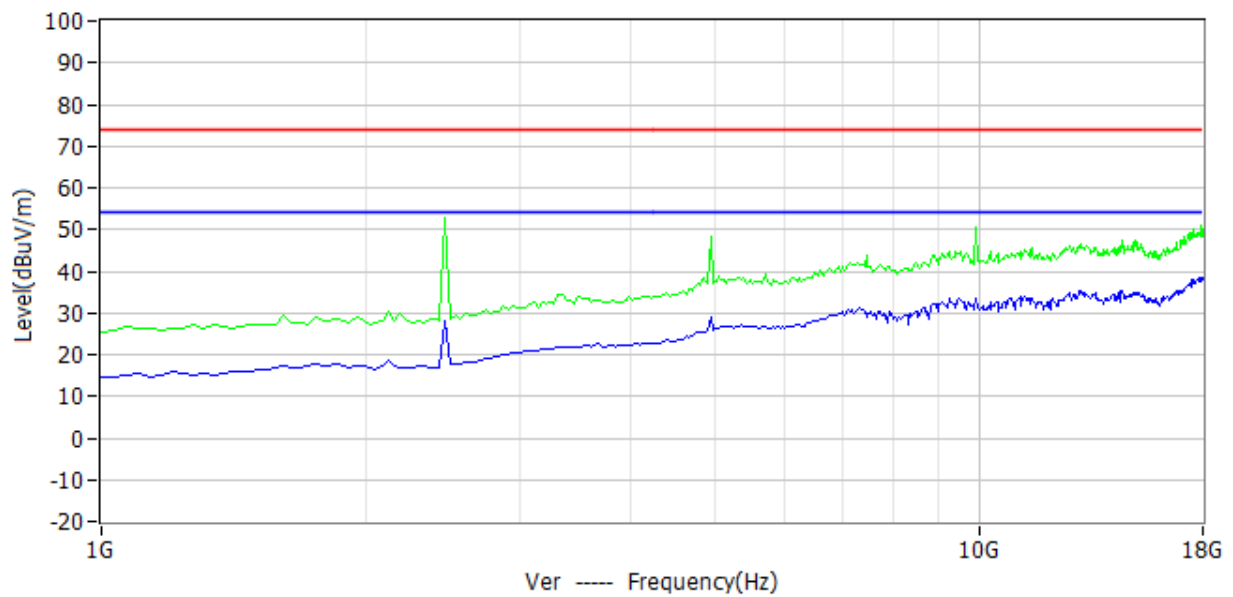
TEST REPORT

2480MHz

Horizontal



Vertical



TEST REPORT

CH	Antenna	Frequency (MHz)	Corrected Reading (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
L	H	2390.00	36.20	74.00	37.80	PK
	V	2390.00	36.80	74.00	37.20	PK
	H	4782.00	51.48	74.00	22.52	PK
	V	4782.00	48.81	74.00	25.19	PK
M	H	4884.00	49.23	74.00	24.77	PK
	V	4884.00	43.75	74.00	30.25	PK
H	H	2483.50	34.80	74.00	39.20	PK
	V	2483.50	35.40	74.00	38.60	PK
	H	4952.00	48.08	74.00	25.92	PK
	V	4952.00	48.31	74.00	25.69	PK

Remark: 1. Correct Factor = Antenna Factor + Cable Loss (- Amplifier, for higher than 1GHz), the value was added to Original Receiver Reading by the software automatically.
2. Corrected Reading = Original Receiver Reading + Correct Factor
3. Margin = Limit - Corrected Reading
4. If the PK Corrected Reading is lower than AV limit, the AV test can be elided.

Example: Assuming Antenna Factor = 30.20dB/m, Cable Loss = 2.00dB,
Gain of Preamplifier = 32.00dB, Original Receiver Reading = 10.00dBuV,
Limit = 40.00dBuV/m.
Then Correct Factor = 30.20 + 2.00 – 32.00 = 0.20dB/m;
Corrected Reading = 10dBuV + 0.20dB/m = 10.20dBuV/m;
Margin = 40.00dBuV/m - 10.20dBuV/m = 29.80dB.

TEST REPORT

8 Power line conducted emission

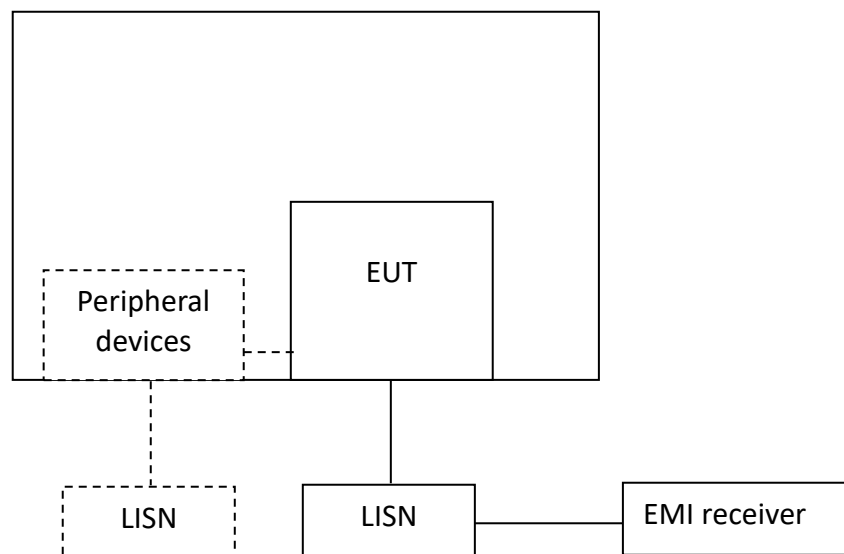
Test result: Pass

Limit

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	QP	AV
0.15-0.5	66 to 56*	56 to 46 *
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

Test Configuration



TEST REPORT**Measurement Procedure**

Measured levels of ac power-line conducted emission shall be the emission voltages from the voltage probe, where permitted, or across the 50 Ω LISN port (to which the EUT is connected), where permitted, terminated into a 50 Ω measuring instrument. All emission voltage and current measurements shall be made on each current-carrying conductor at the plug end of the EUT power cord by the use of mating plugs and receptacles on the LISN, if used. Equipment shall be tested with power cords that are normally supplied or recommended by the manufacturer and that have electrical and shielding characteristics that are the same as those cords normally supplied or recommended by the manufacturer. For those measurements using a LISN, the 50 Ω measuring port is terminated by a measuring instrument having 50 Ω input impedance. All other ports are terminated in 50 Ω loads.

Tabletop devices shall be placed on a platform of nominal size 1 m by 1.5 m, raised 80 cm above the reference ground plane. The vertical conducting plane or wall of an RF-shielded (screened) room shall be located 40 cm to the rear of the EUT. Floor-standing devices shall be placed either directly on the reference ground-plane or on insulating material as described in ANSI C63.4. All other surfaces of tabletop or floor-standing EUTs shall be at least 80 cm from any other grounded conducting surface, including the case or cases of one or more LISNs.

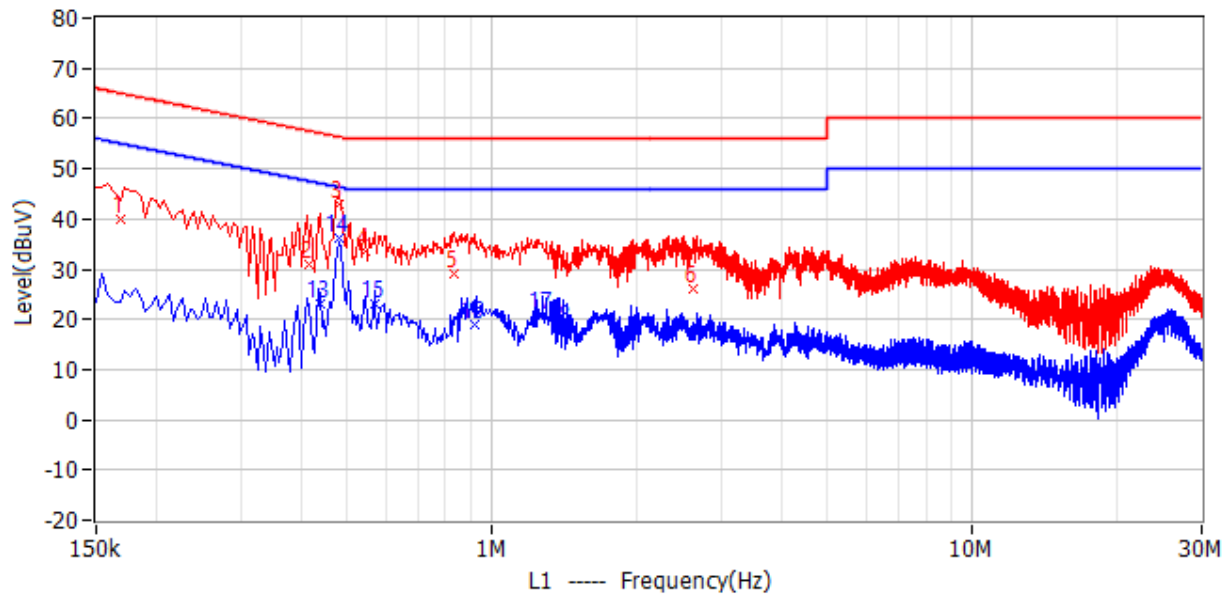
The bandwidth of the test receiver is set at 9 kHz.

TEST REPORT

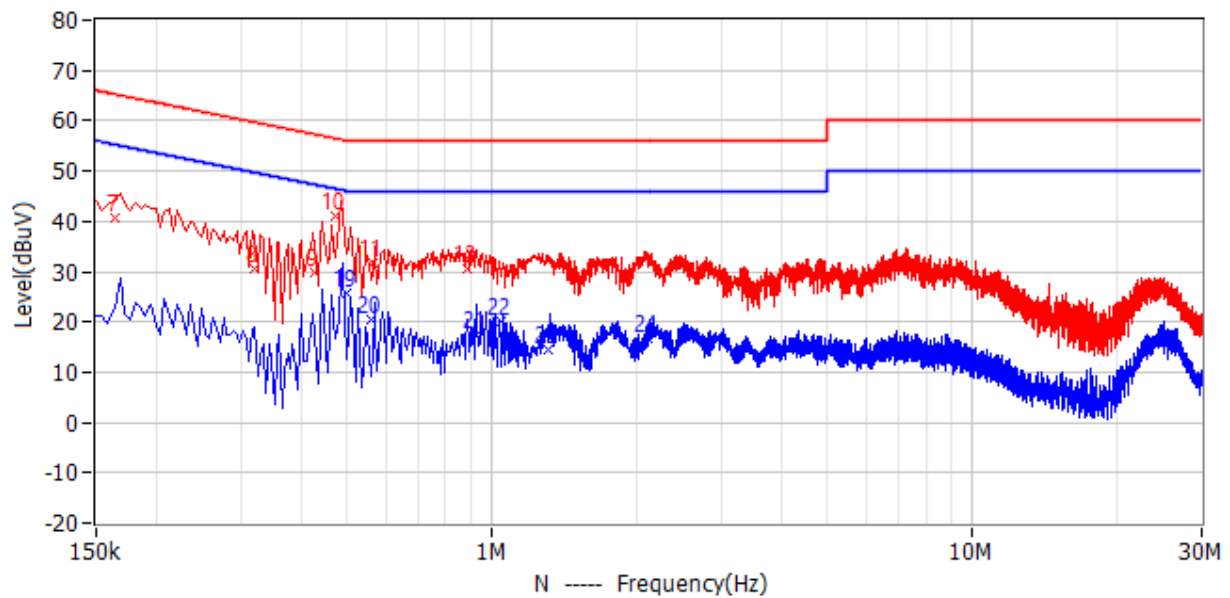
Test Results of Power line conducted emission

Test Curve:

L Line



N Line



TEST REPORT

Test Data:

No.	Frequency	Limit (dBμV)	Level (dBμV)	Delta (dB)	Reading (dBμV)	Factor (dB)	Detector	Phase
1	168.000kHz	65.06	40.06	-25.00	29.86	10.20	QP	L1
2	415.500kHz	57.54	30.93	-26.61	20.73	10.20	QP	L1
3	478.500kHz	56.37	42.89	-13.48	32.69	10.20	QP	L1
4	546.000kHz	56.00	33.45	-22.55	23.25	10.20	QP	L1
5	834.000kHz	56.00	28.90	-27.10	18.60	10.30	QP	L1
6	2.634MHz	56.00	26.22	-29.78	15.72	10.50	QP	L1
7	163.500kHz	65.28	40.52	-24.76	30.42	10.10	QP	N
8	321.000kHz	59.68	30.50	-29.18	20.40	10.10	QP	N
9	429.000kHz	57.27	29.66	-27.61	19.46	10.20	QP	N
10	474.000kHz	56.44	41.07	-15.37	30.87	10.20	QP	N
11	564.000kHz	56.00	31.64	-24.36	21.44	10.20	QP	N
12	888.000kHz	56.00	30.43	-25.57	20.13	10.30	QP	N
13	438.000kHz	47.10	23.05	-24.05	12.85	10.20	CAV	L1
14	478.500kHz	46.37	36.00	-10.37	25.80	10.20	CAV	L1
15	568.500kHz	46.00	23.03	-22.97	12.83	10.20	CAV	L1
16	924.000kHz	46.00	18.90	-27.10	8.60	10.30	CAV	L1
17	1.271MHz	46.00	20.73	-25.27	10.43	10.30	CAV	L1
18	1.388MHz	46.00	18.09	-27.91	7.79	10.30	CAV	L1
19	496.500kHz	46.06	25.88	-20.18	15.68	10.20	CAV	N
20	559.500kHz	46.00	20.56	-25.44	10.36	10.20	CAV	N
21	933.000kHz	46.00	17.29	-28.71	6.99	10.30	CAV	N
22	1.041MHz	46.00	20.26	-25.74	9.96	10.30	CAV	N
23	1.307MHz	46.00	14.28	-31.72	3.98	10.30	CAV	N
24	2.121MHz	46.00	16.83	-29.17	6.33	10.50	CAV	N

- Remark:** 1. Correct Factor = LISN Factor + Cable Loss, the value was added to Original Receiver Reading by the software automatically.
2. Corrected Reading = Original Receiver Reading + Correct Factor
3. Margin = Limit - Corrected Reading
4. If the PK Corrected Reading is lower than AV limit, the AV test can be elided.

TEST REPORT

9 Occupied Bandwidth

Test result: **Tested**

Limit

None

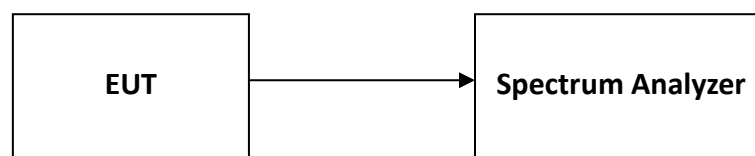
Measurement Procedure

The occupied bandwidth per RSS-Gen was measured using the Spectrum Analyzer.

The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts.

The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the occupied bandwidth (OBW) and video bandwidth (VBW) shall be approximately 3x RBW.

Test Configuration



The results of Occupied Bandwidth

Please refer to Appendix A

10 Antenna requirement

Requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

Result:

EUT uses permanently attached antenna to the intentional radiator, so it can comply with the provisions of this section.

TEST REPORT

Appendix A: Test Results

DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.724	2401.668	2402.392	0.5	PASS
BLE_1M	Ant1	2440	0.708	2439.668	2440.376	0.5	PASS
BLE_1M	Ant1	2480	0.716	2479.672	2480.388	0.5	PASS
BLE_2M	Ant1	2402	1.388	2401.344	2402.732	0.5	PASS
BLE_2M	Ant1	2440	1.528	2439.268	2440.796	0.5	PASS
BLE_2M	Ant1	2480	1.500	2479.300	2480.800	0.5	PASS
BLE_125K	Ant1	2402	0.752	2401.644	2402.396	0.5	PASS
BLE_125K	Ant1	2440	0.756	2439.656	2440.412	0.5	PASS
BLE_125K	Ant1	2480	0.764	2479.648	2480.412	0.5	PASS
BLE_500K	Ant1	2402	0.676	2401.692	2402.368	0.5	PASS
BLE_500K	Ant1	2440	0.720	2439.660	2440.380	0.5	PASS
BLE_500K	Ant1	2480	0.708	2479.676	2480.384	0.5	PASS

TEST REPORT

Test Graphs

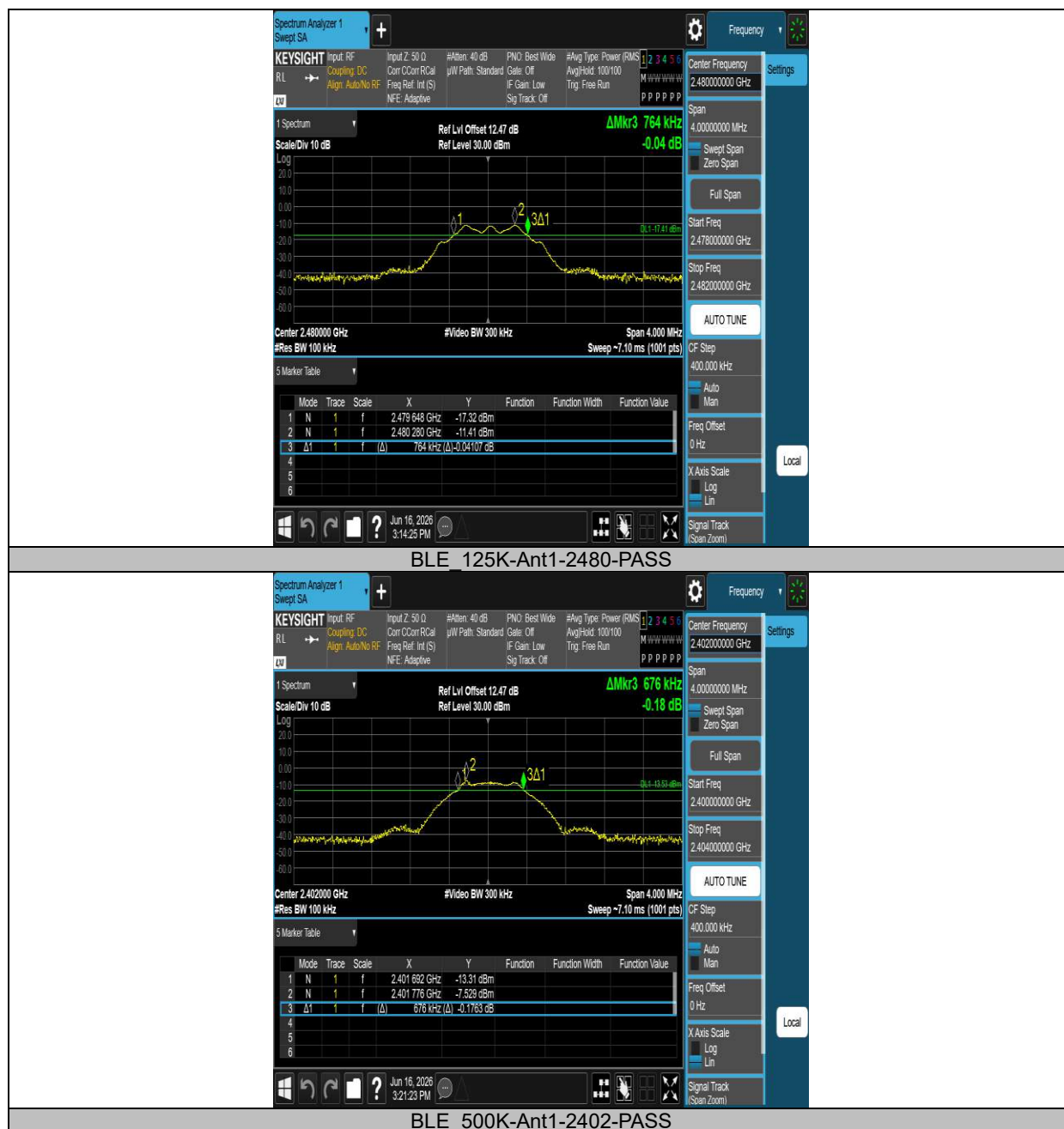


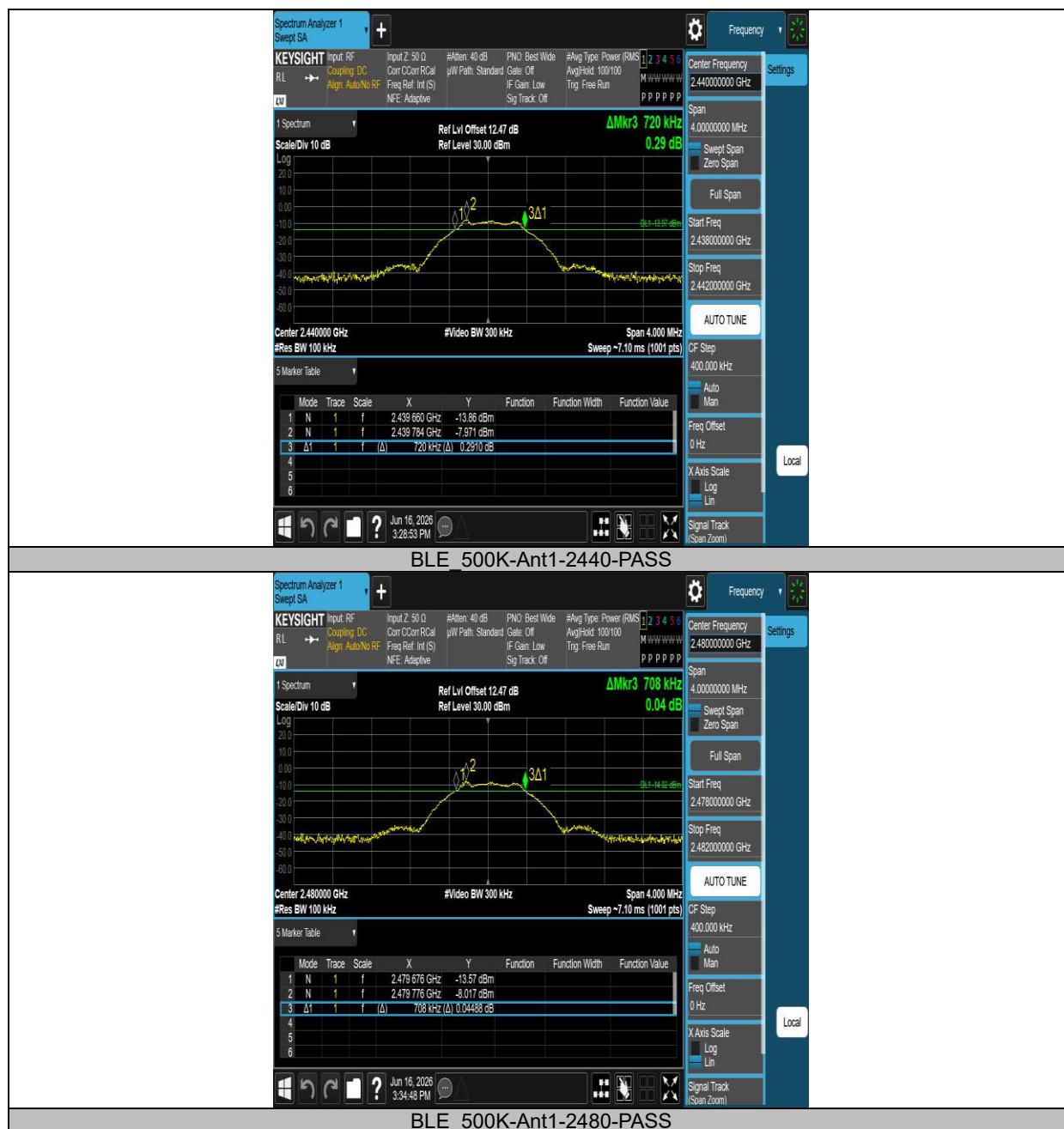






TEST REPORT





TEST REPORT

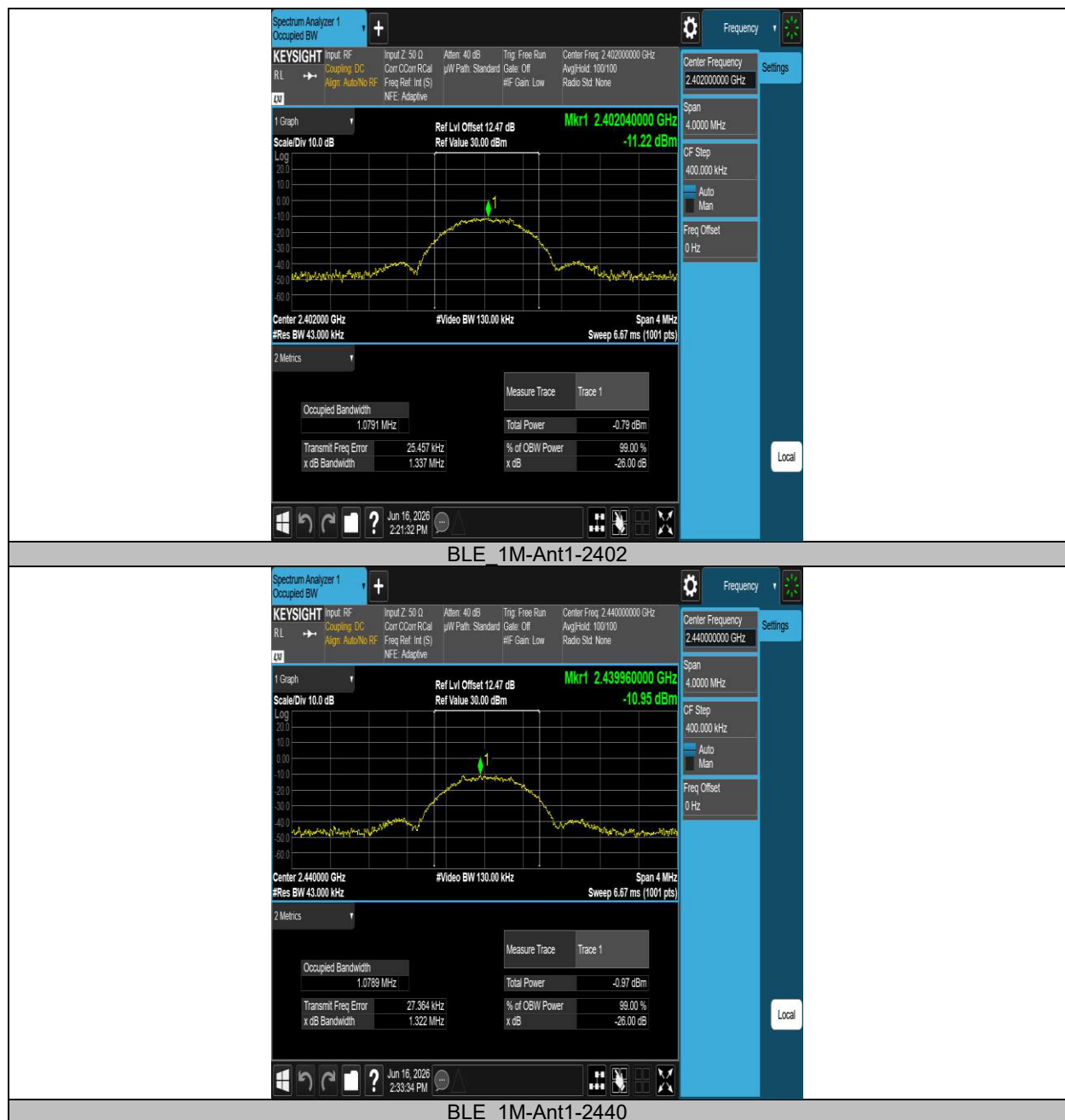
Occupied Channel Bandwidth

Test Result

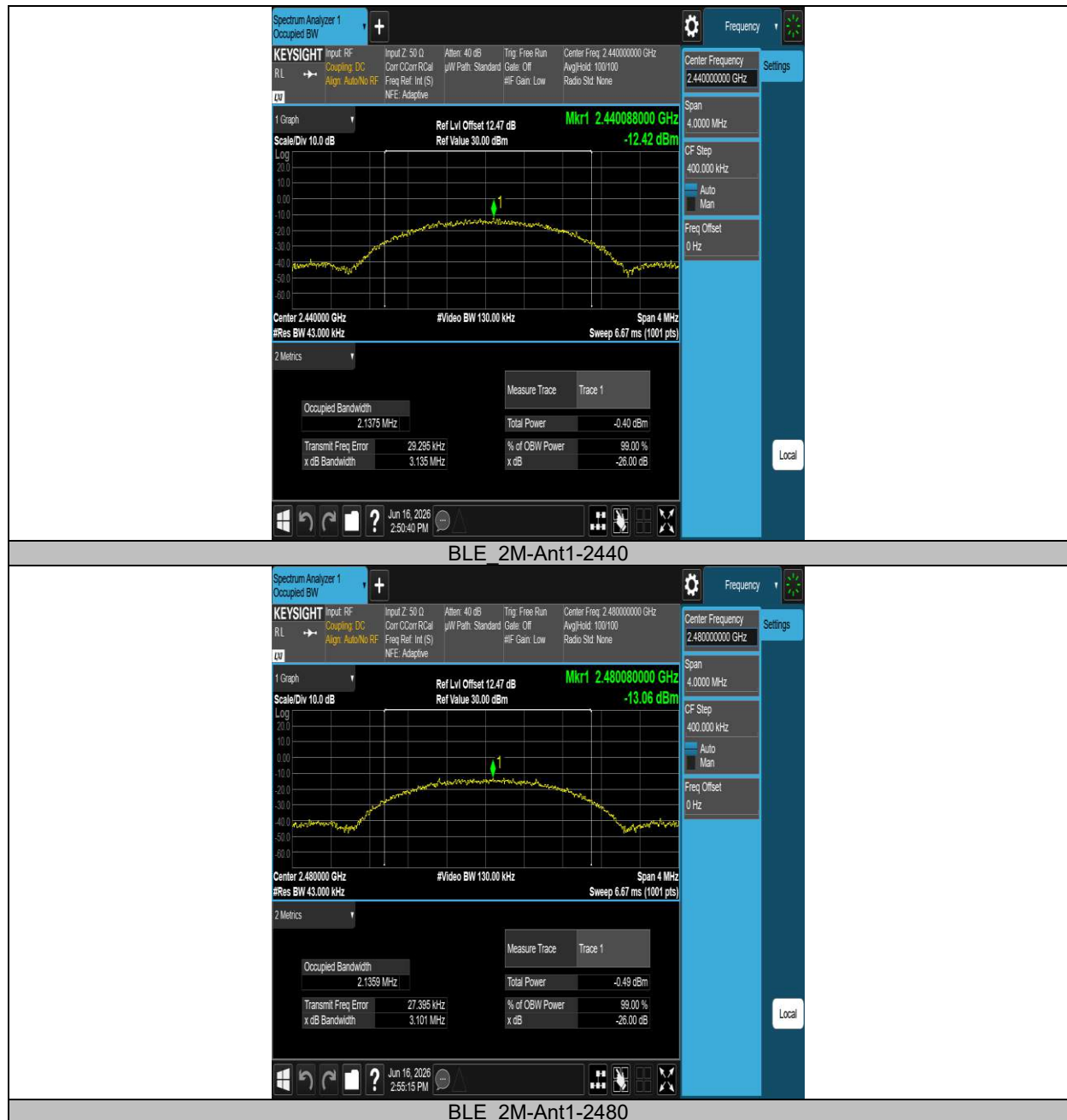
TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0791	2401.4859	2402.5650	---	---
BLE_1M	Ant1	2440	1.0789	2439.4879	2440.5668	---	---
BLE_1M	Ant1	2480	1.0920	2479.4846	2480.5766	---	---
BLE_2M	Ant1	2402	2.1057	2400.9732	2403.0789	---	---
BLE_2M	Ant1	2440	2.1375	2438.9605	2441.0980	---	---
BLE_2M	Ant1	2480	2.1359	2478.9595	2481.0954	---	---
BLE_125K	Ant1	2402	1.1266	2401.4666	2402.5932	---	---
BLE_125K	Ant1	2440	1.1344	2439.4629	2440.5973	---	---
BLE_125K	Ant1	2480	1.1479	2479.4556	2480.6035	---	---
BLE_500K	Ant1	2402	1.0652	2401.4956	2402.5608	---	---
BLE_500K	Ant1	2440	1.0894	2439.4843	2440.5737	---	---
BLE_500K	Ant1	2480	1.0921	2479.4854	2480.5775	---	---

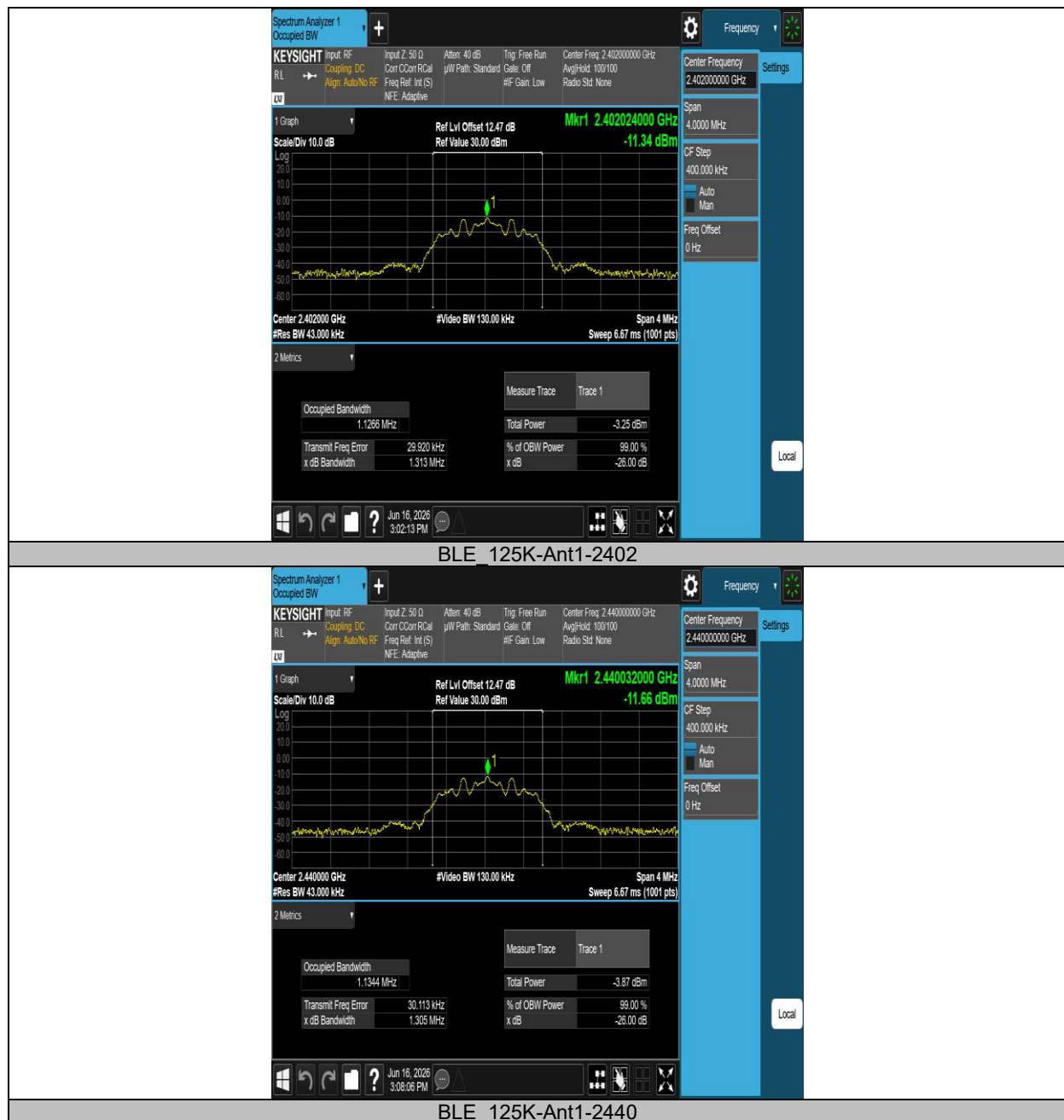
TEST REPORT

Test Graphs













TEST REPORT

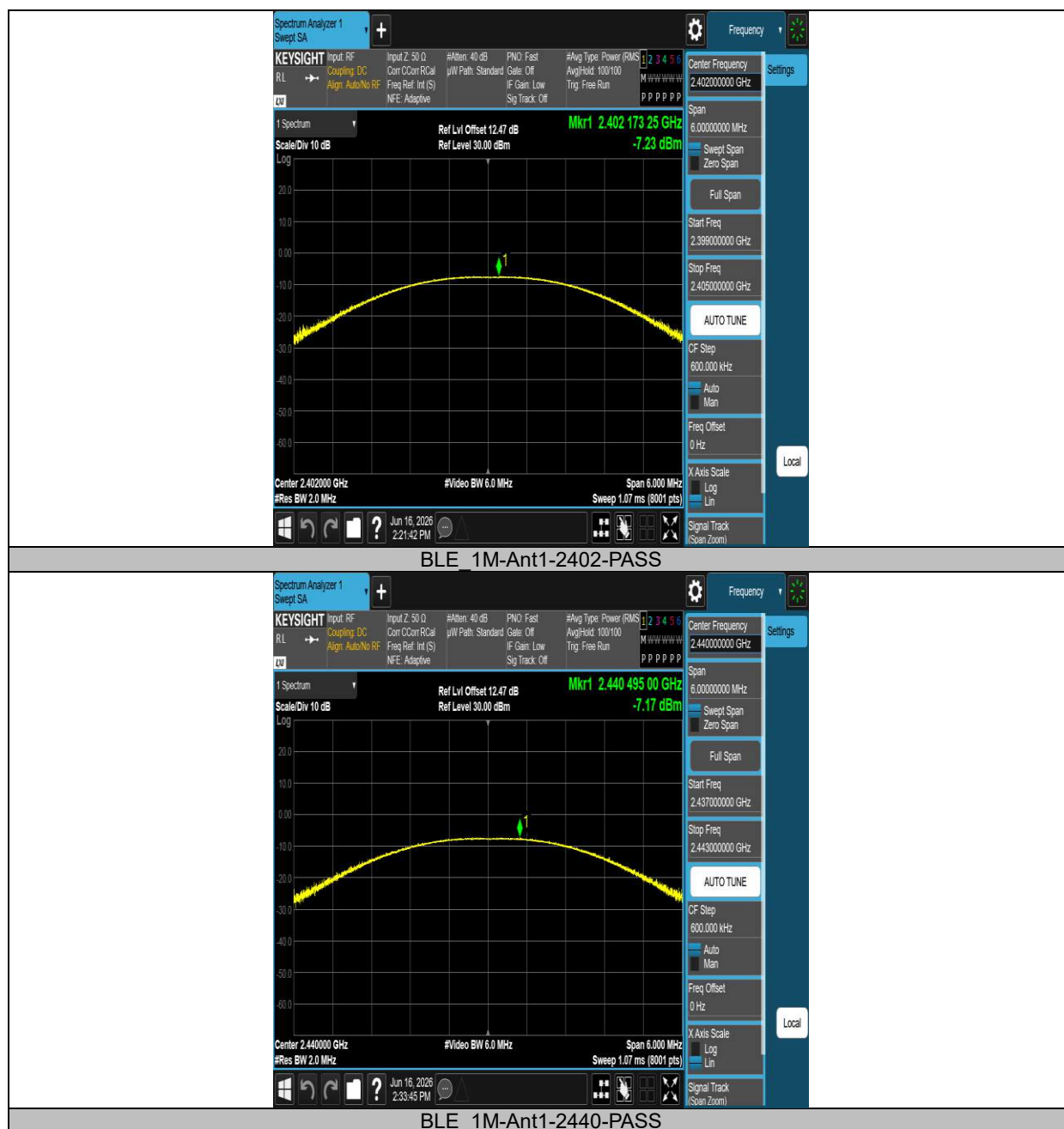
Maximum conducted output power

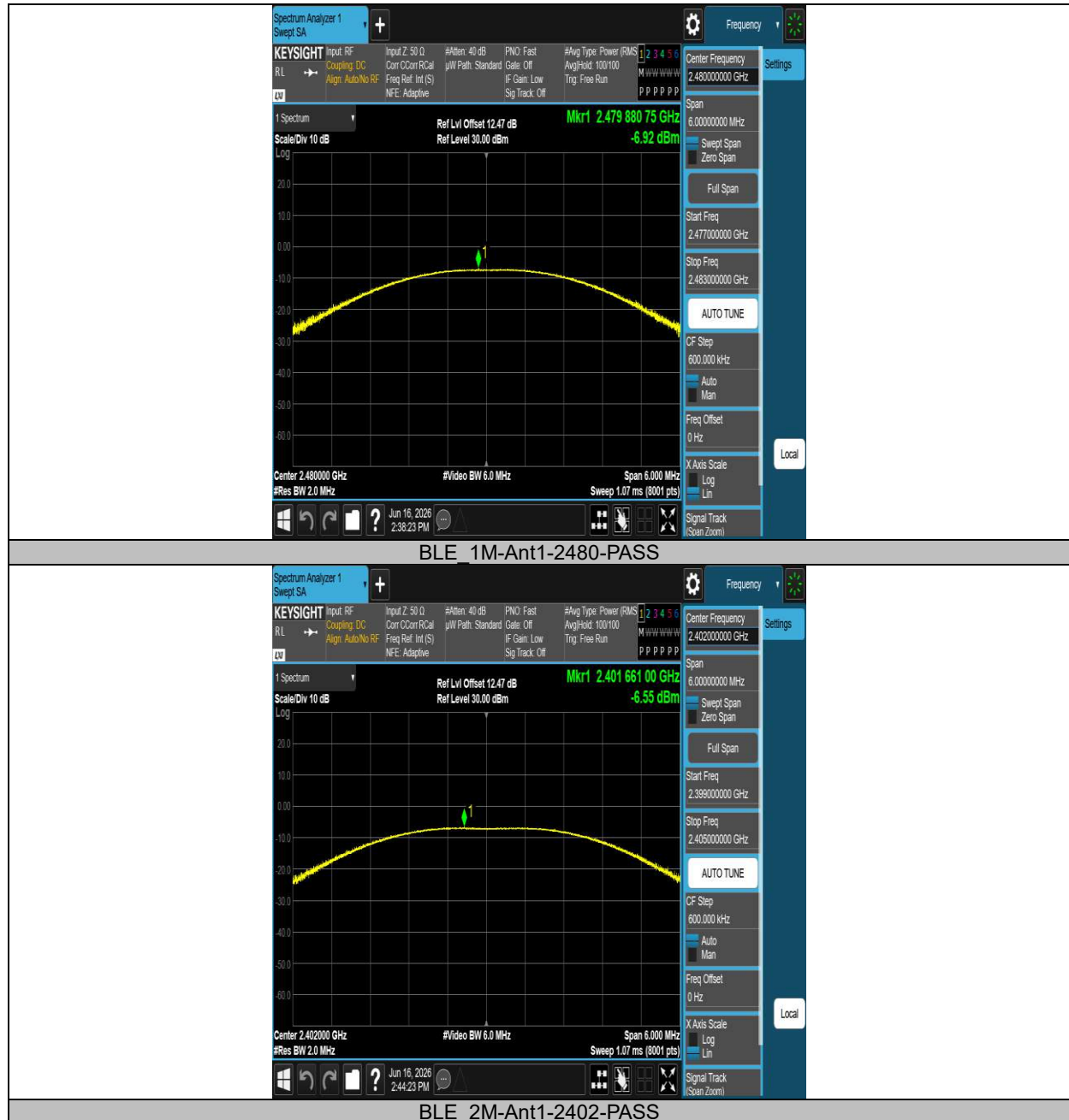
Test Result Peak

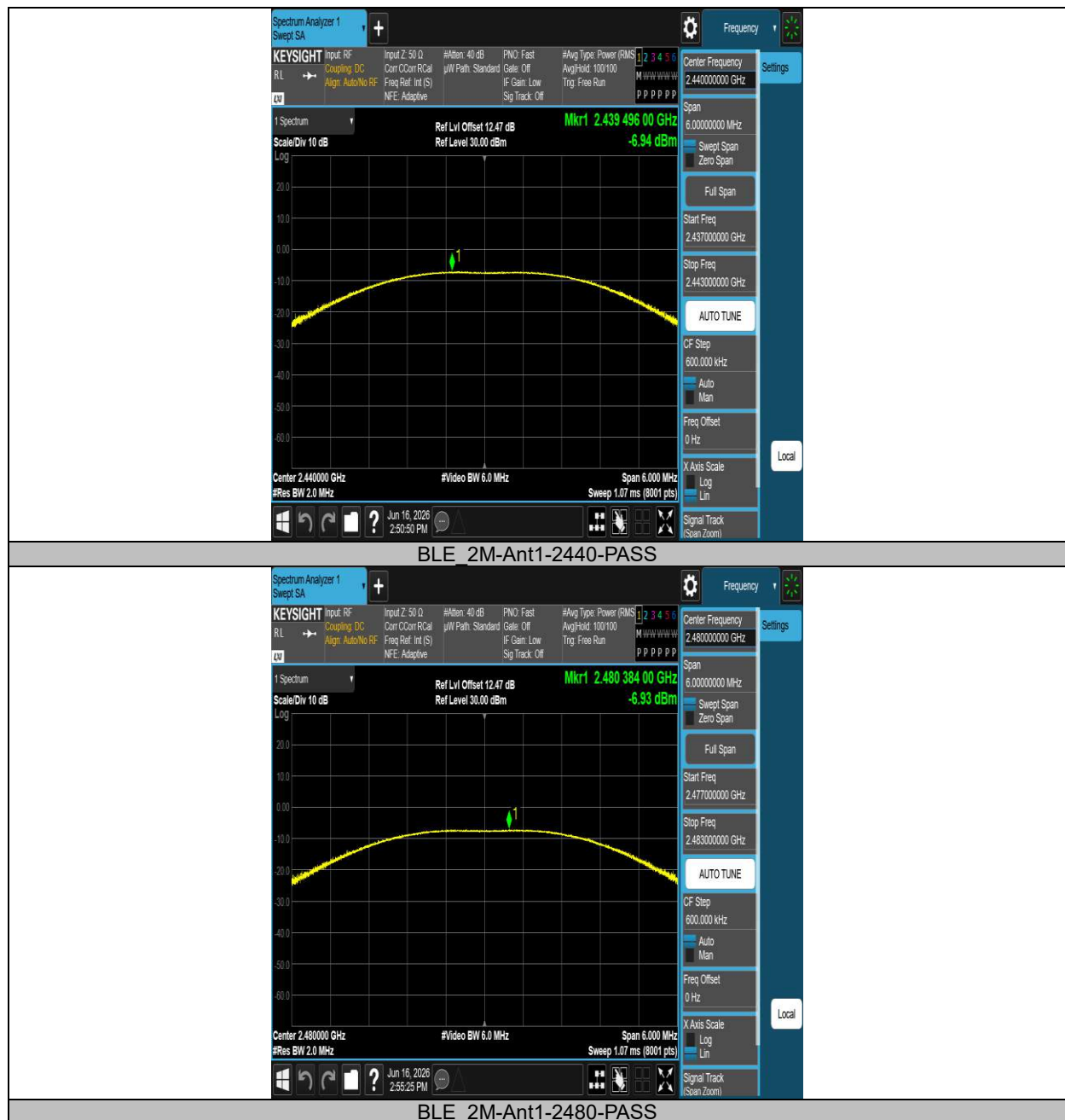
TestMode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	EIRP[dBm]	EIRP Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-7.23	≤30	-5.23	≤36	PASS
BLE_1M	Ant1	2440	-7.17	≤30	-5.17	≤36	PASS
BLE_1M	Ant1	2480	-6.92	≤30	-4.92	≤36	PASS
BLE_2M	Ant1	2402	-6.55	≤30	-4.55	≤36	PASS
BLE_2M	Ant1	2440	-6.94	≤30	-4.94	≤36	PASS
BLE_2M	Ant1	2480	-6.93	≤30	-4.93	≤36	PASS
BLE_125K	Ant1	2402	-6.31	≤30	-4.31	≤36	PASS
BLE_125K	Ant1	2440	-6.94	≤30	-4.94	≤36	PASS
BLE_125K	Ant1	2480	-7.14	≤30	-5.14	≤36	PASS
BLE_500K	Ant1	2402	-6.52	≤30	-4.52	≤36	PASS
BLE_500K	Ant1	2440	-6.91	≤30	-4.91	≤36	PASS
BLE_500K	Ant1	2480	-6.97	≤30	-4.97	≤36	PASS

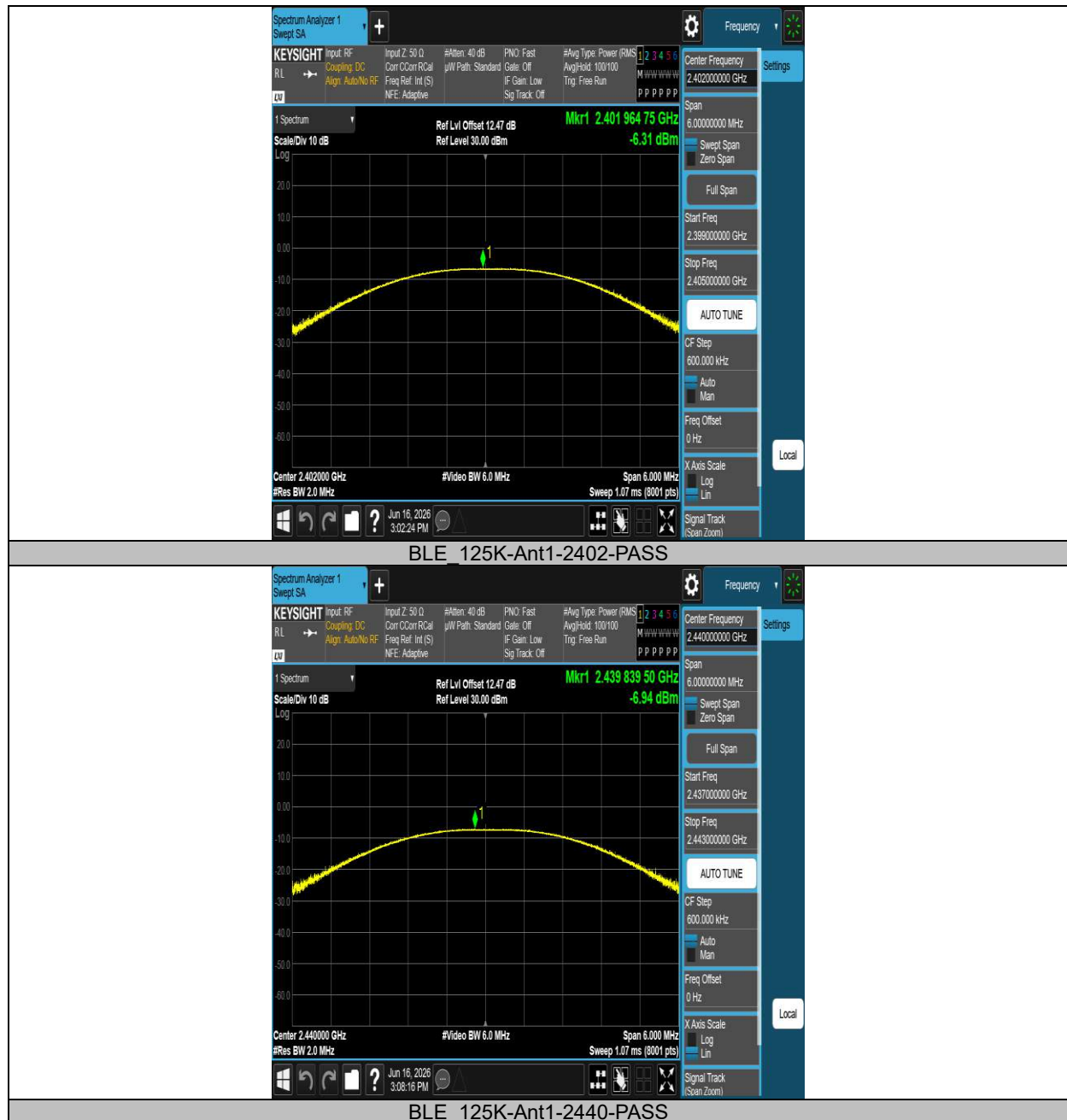
TEST REPORT

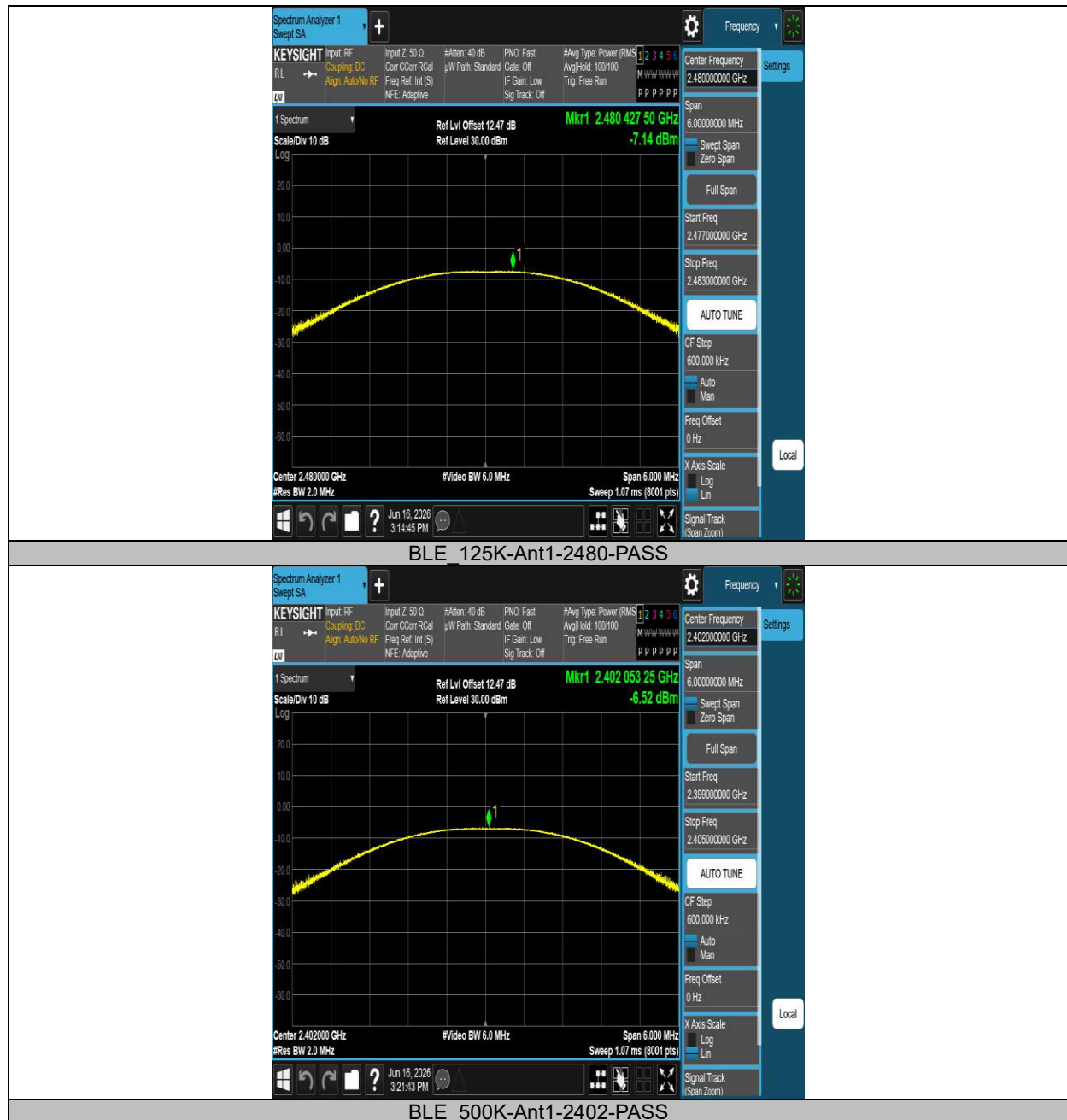
Test Graphs Peak

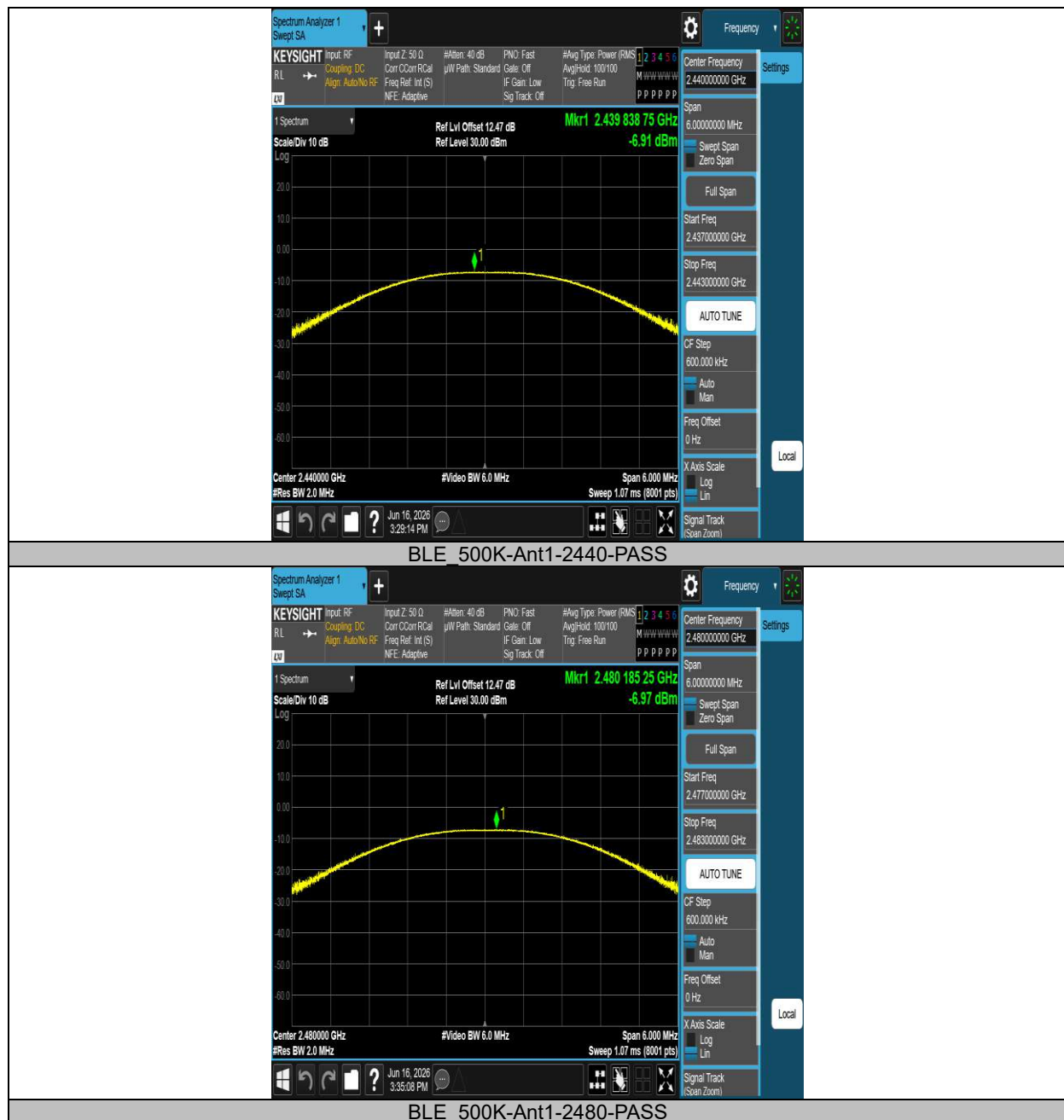












TEST REPORT

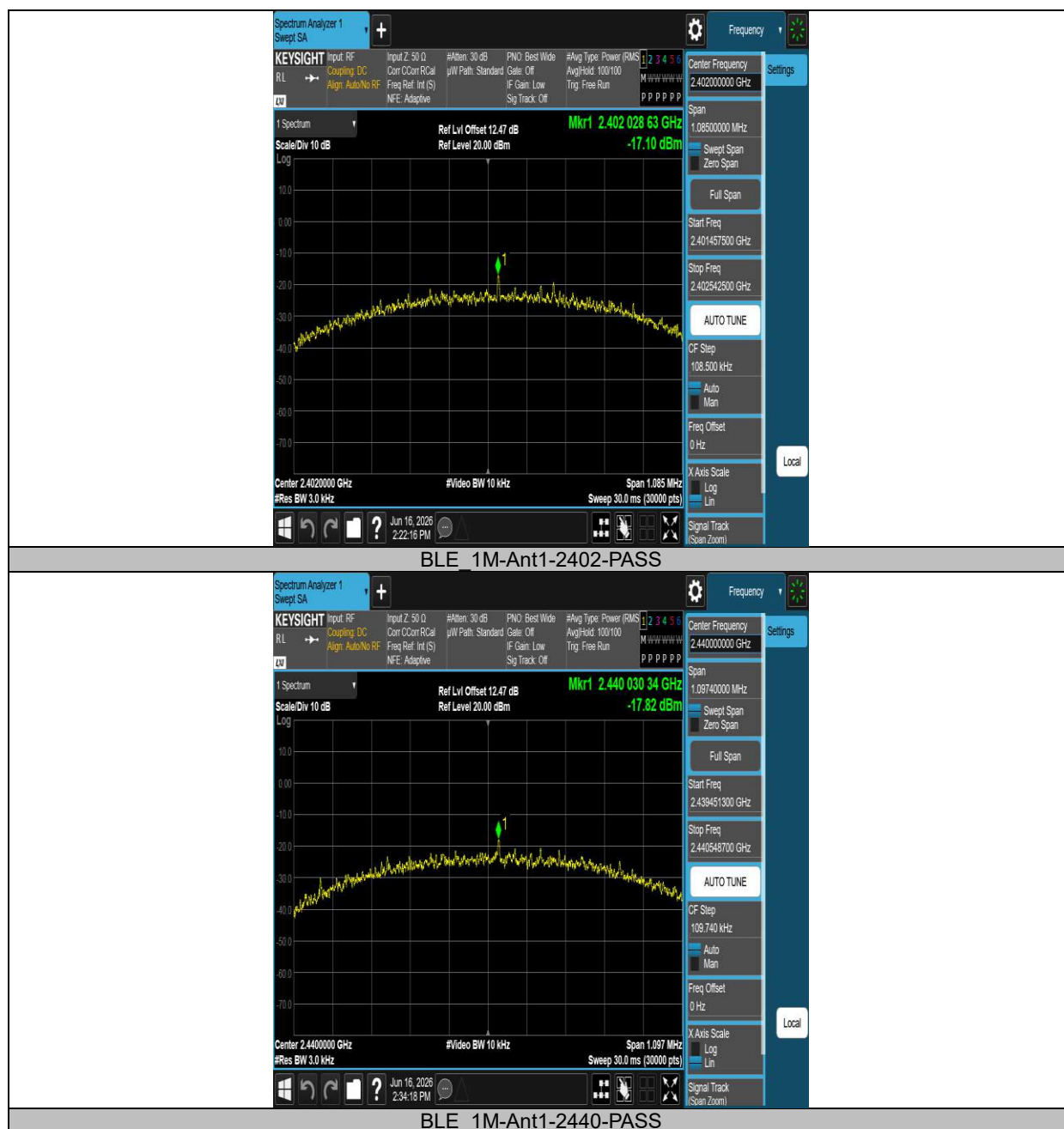
Maximum power spectral density

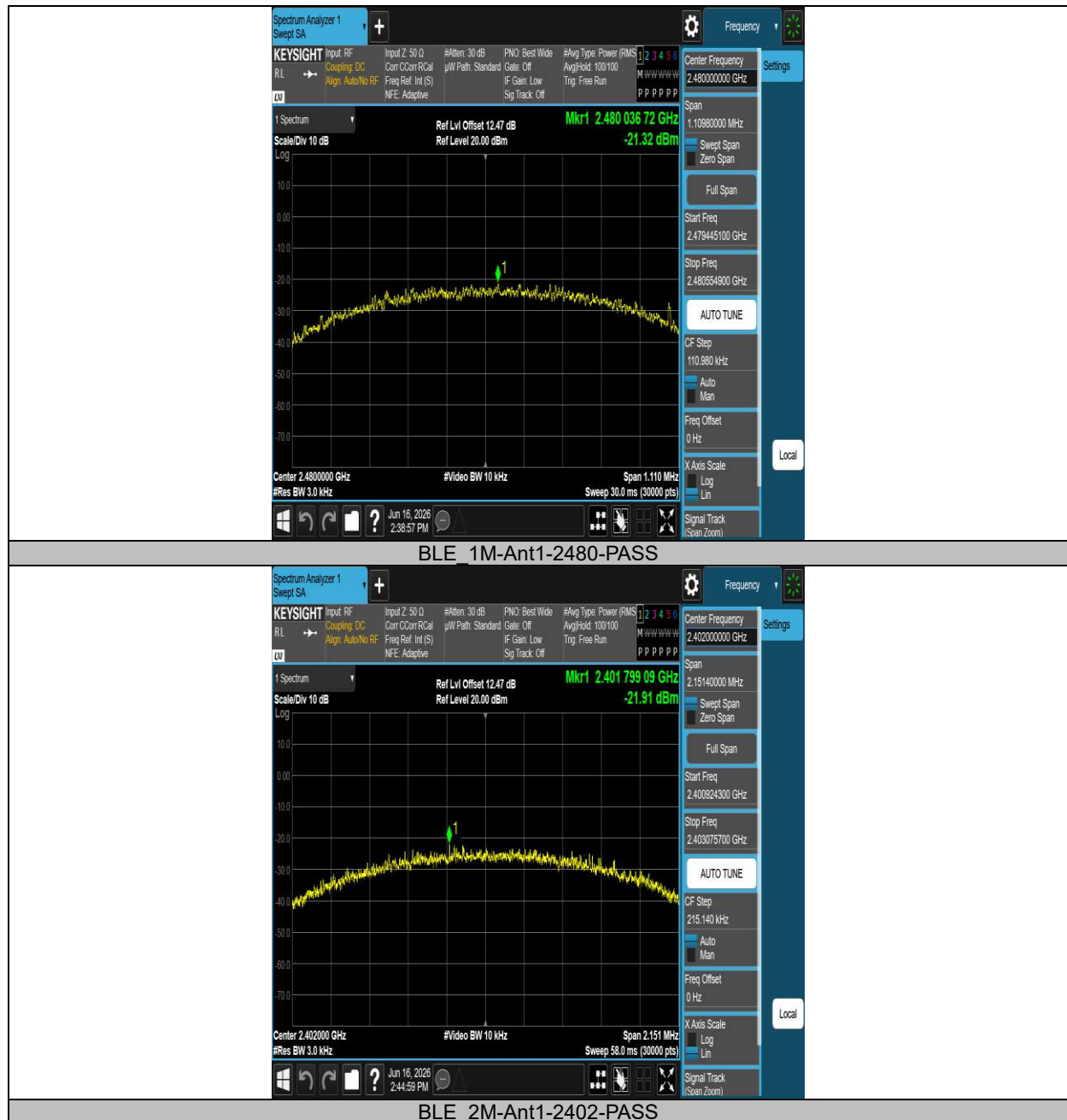
Test Result

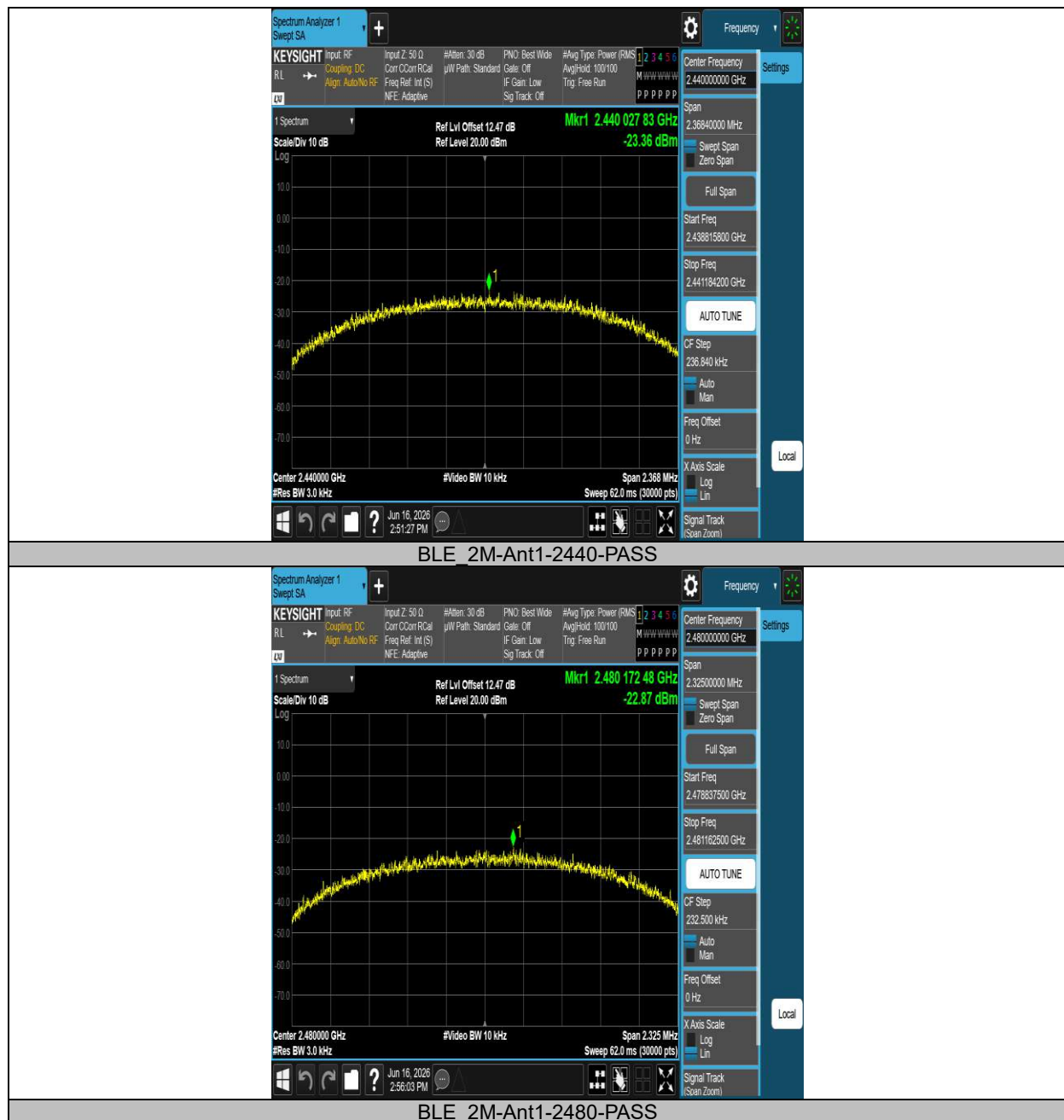
TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-17.10	≤8.00	PASS
BLE_1M	Ant1	2440	-17.82	≤8.00	PASS
BLE_1M	Ant1	2480	-21.32	≤8.00	PASS
BLE_2M	Ant1	2402	-21.91	≤8.00	PASS
BLE_2M	Ant1	2440	-23.36	≤8.00	PASS
BLE_2M	Ant1	2480	-22.87	≤8.00	PASS
BLE_125K	Ant1	2402	-13.03	≤8.00	PASS
BLE_125K	Ant1	2440	-14.13	≤8.00	PASS
BLE_125K	Ant1	2480	-13.87	≤8.00	PASS
BLE_500K	Ant1	2402	-20.19	≤8.00	PASS
BLE_500K	Ant1	2440	-20.80	≤8.00	PASS
BLE_500K	Ant1	2480	-20.96	≤8.00	PASS

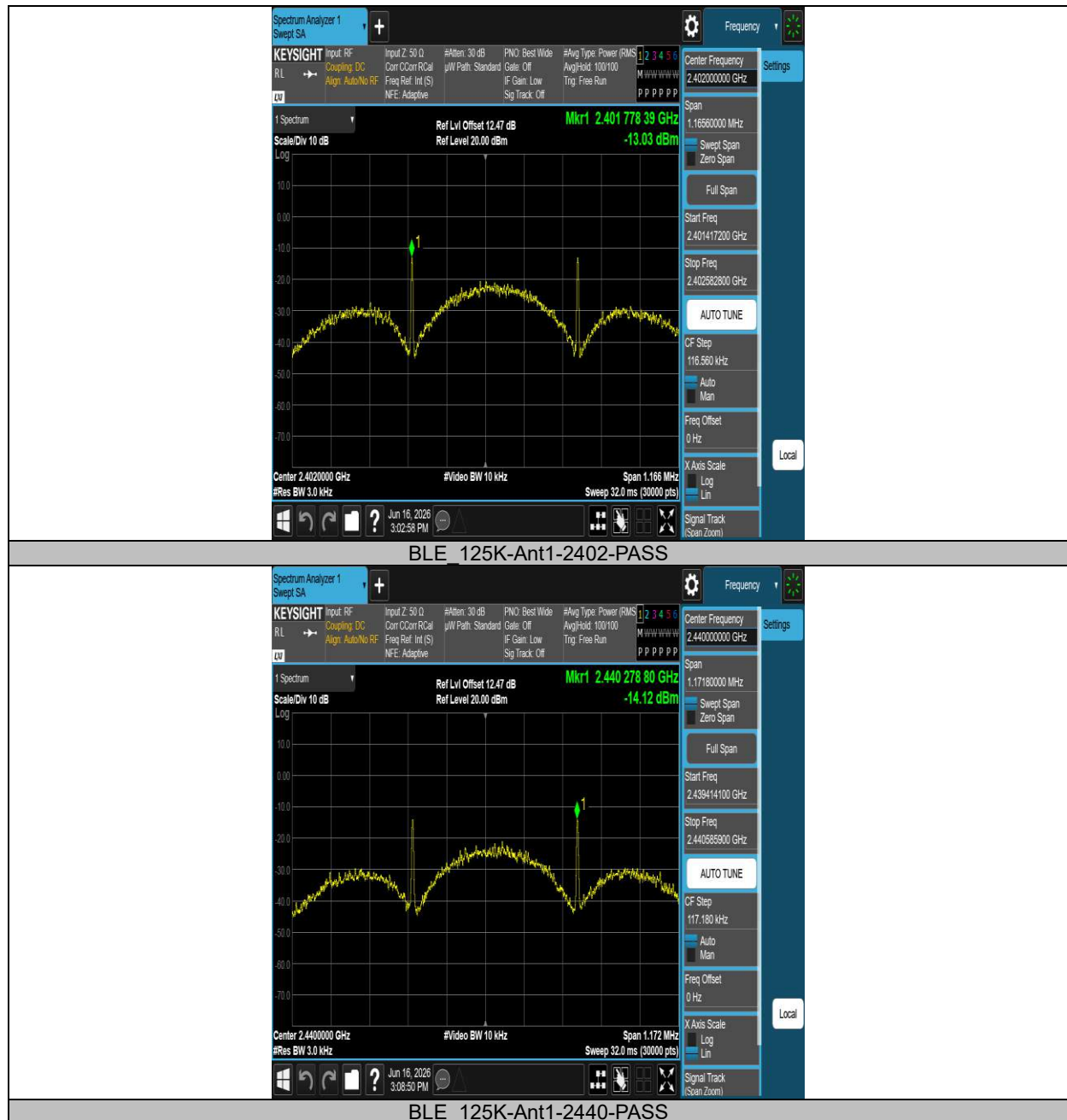
TEST REPORT

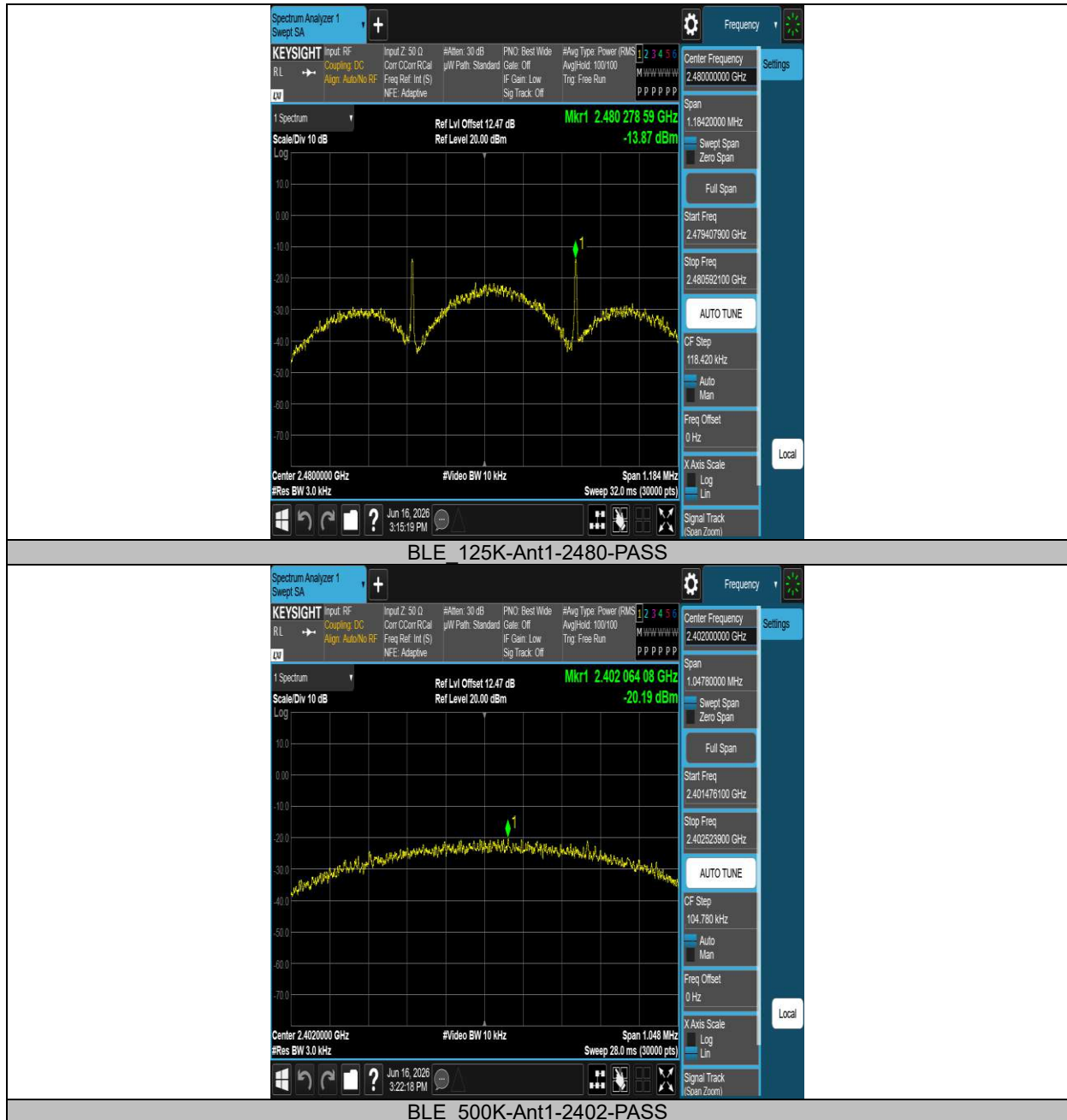
Test Graphs

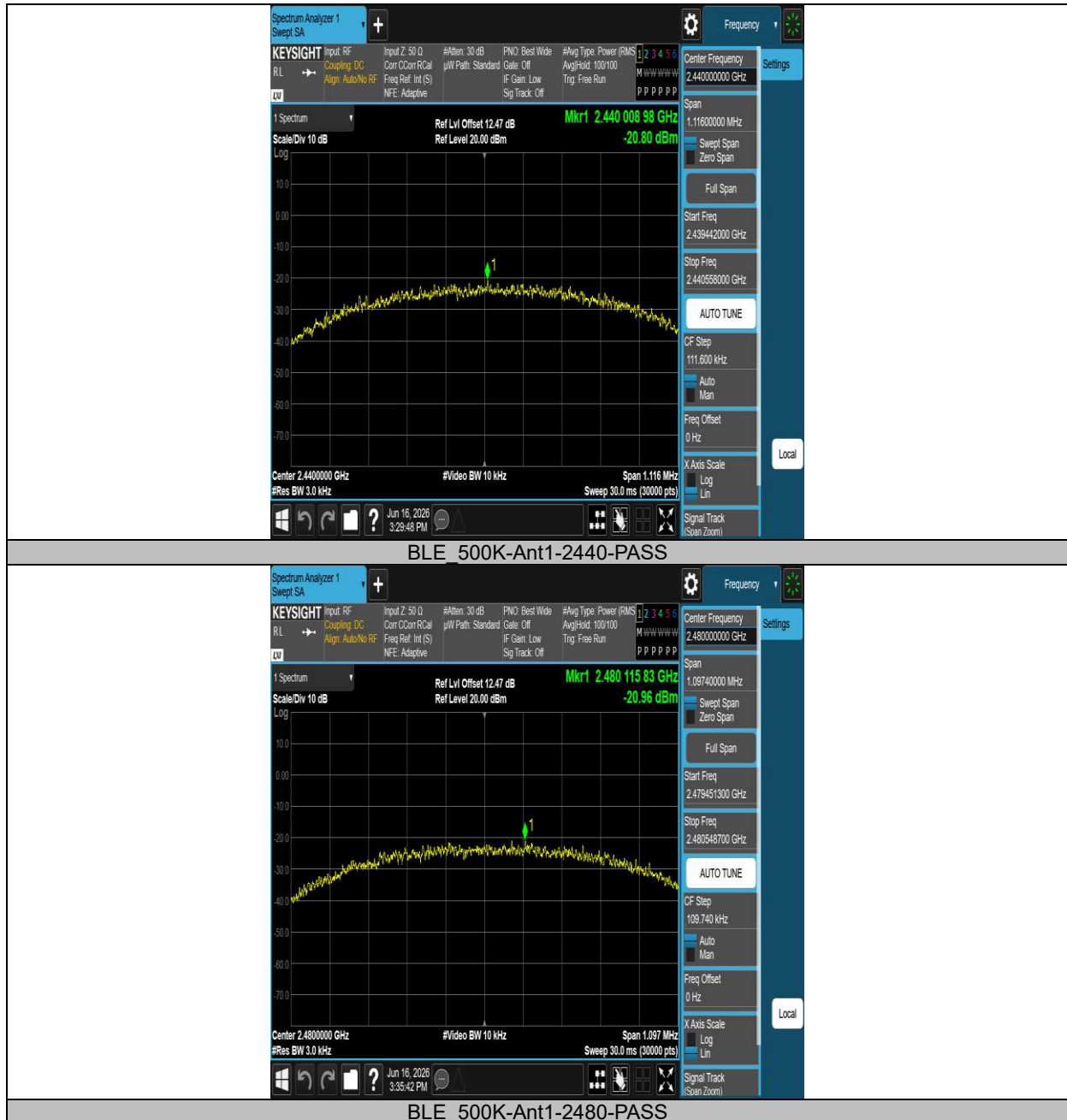












TEST REPORT

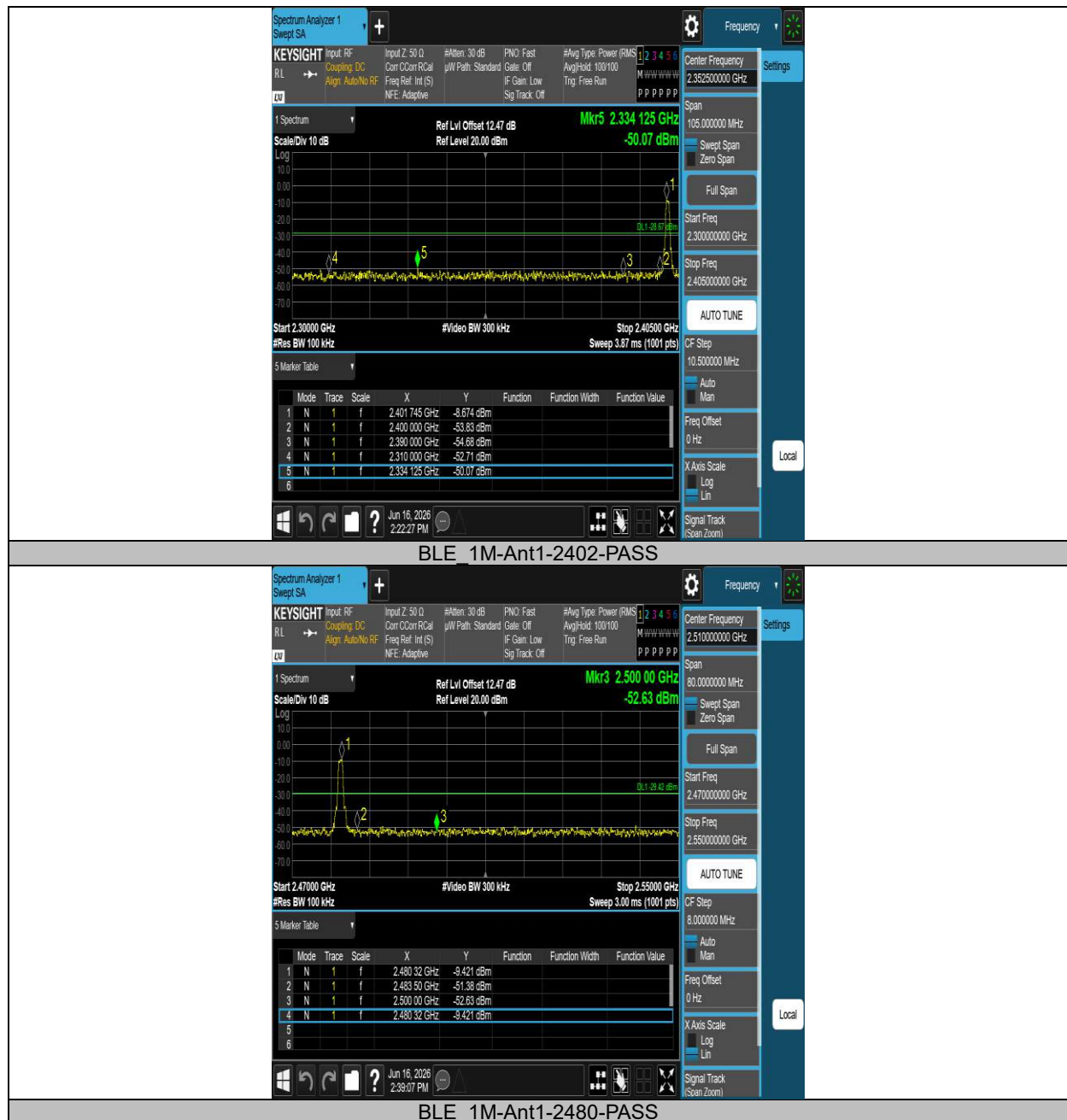
Band edge measurements

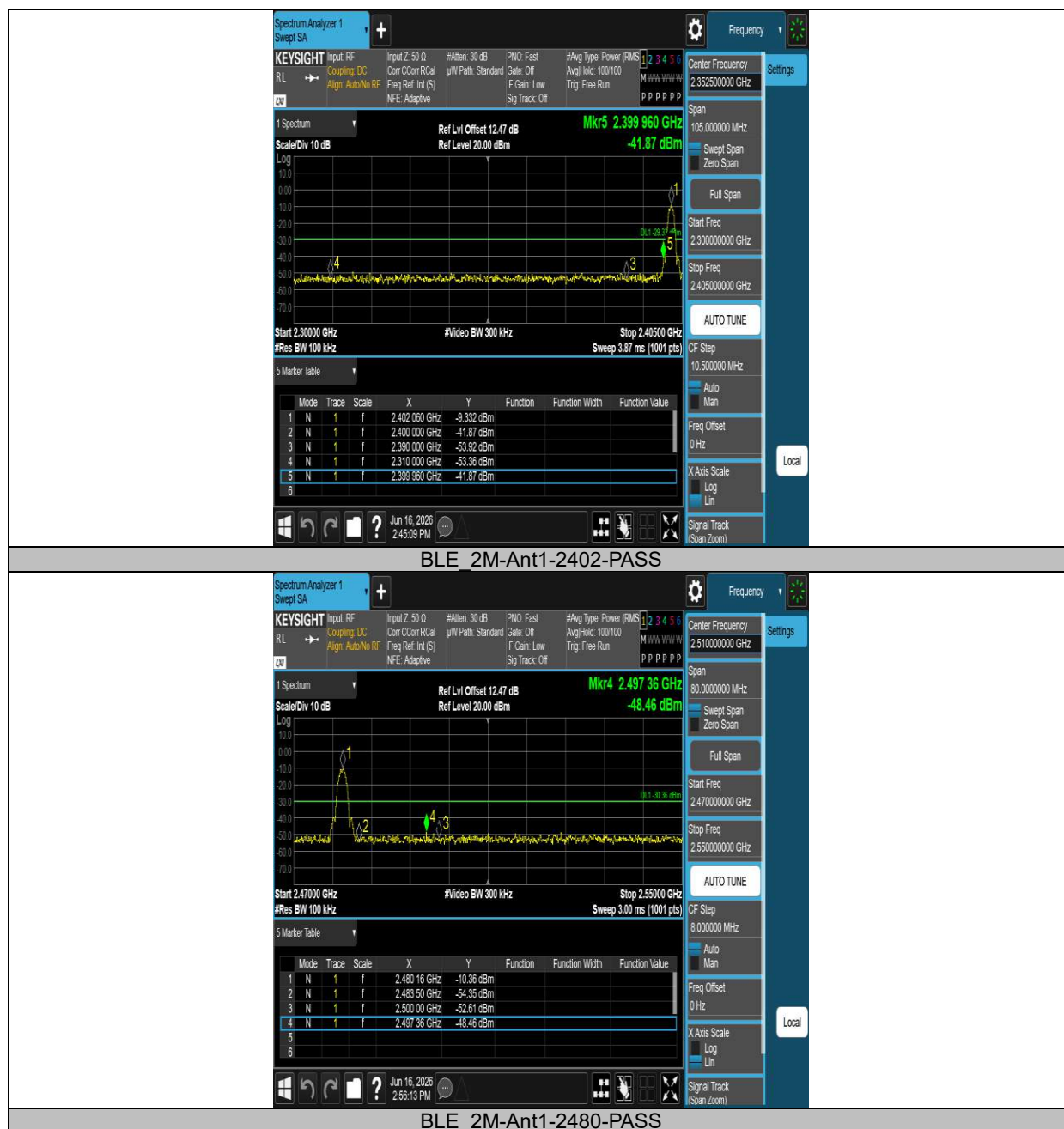
Test Result

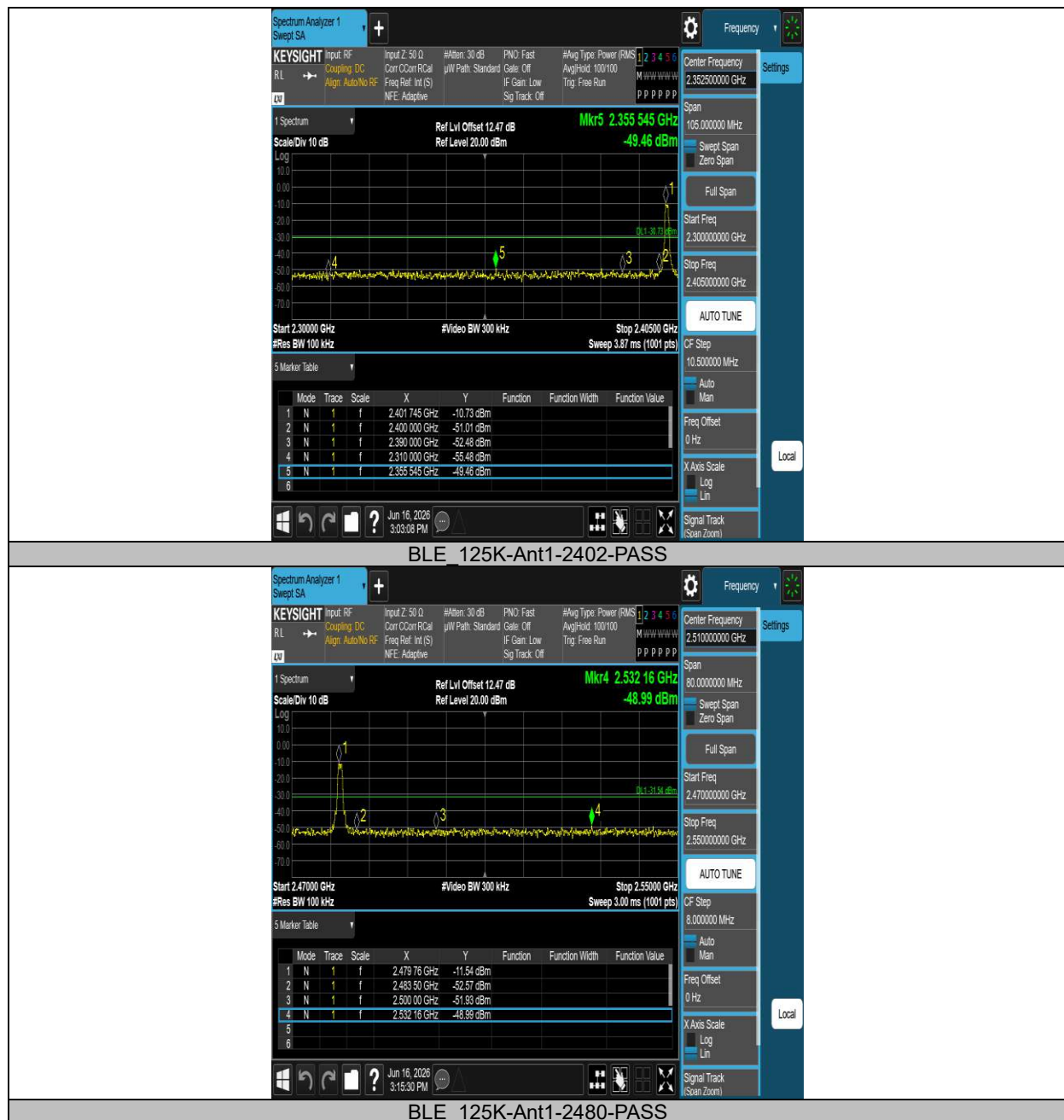
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-8.67	-50.08	≤-28.67	PASS
BLE_1M	Ant1	High	2480	-9.42	-48.9	≤-29.42	PASS
BLE_2M	Ant1	Low	2402	-9.33	-41.87	≤-29.33	PASS
BLE_2M	Ant1	High	2480	-10.36	-48.46	≤-30.36	PASS
BLE_125K	Ant1	Low	2402	-10.73	-49.46	≤-30.73	PASS
BLE_125K	Ant1	High	2480	-11.54	-48.99	≤-31.54	PASS
BLE_500K	Ant1	Low	2402	-7.48	-49.32	≤-27.48	PASS
BLE_500K	Ant1	High	2480	-7.86	-48.8	≤-27.86	PASS

TEST REPORT

Test Graphs









TEST REPORT

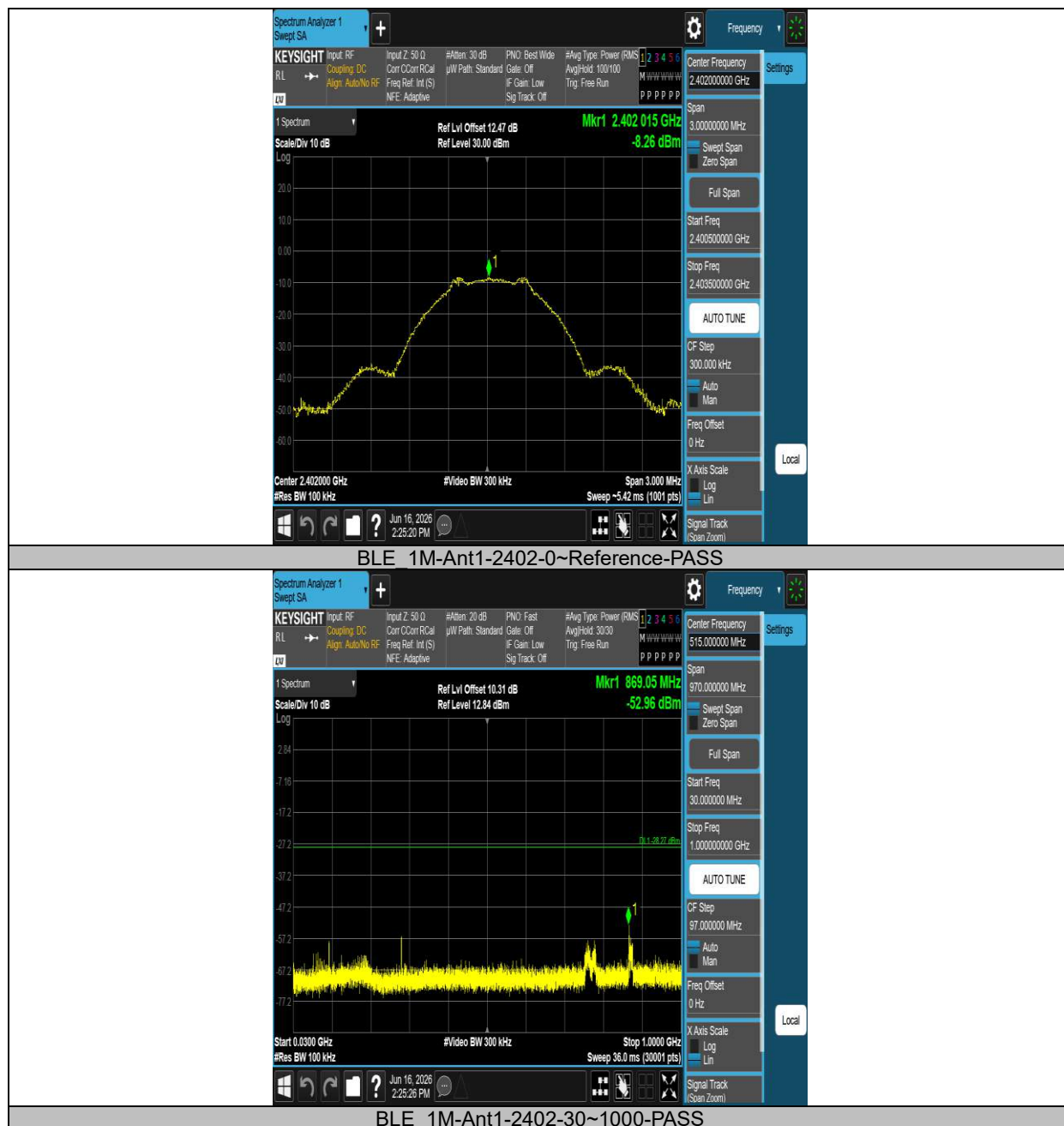
Conducted Spurious Emission

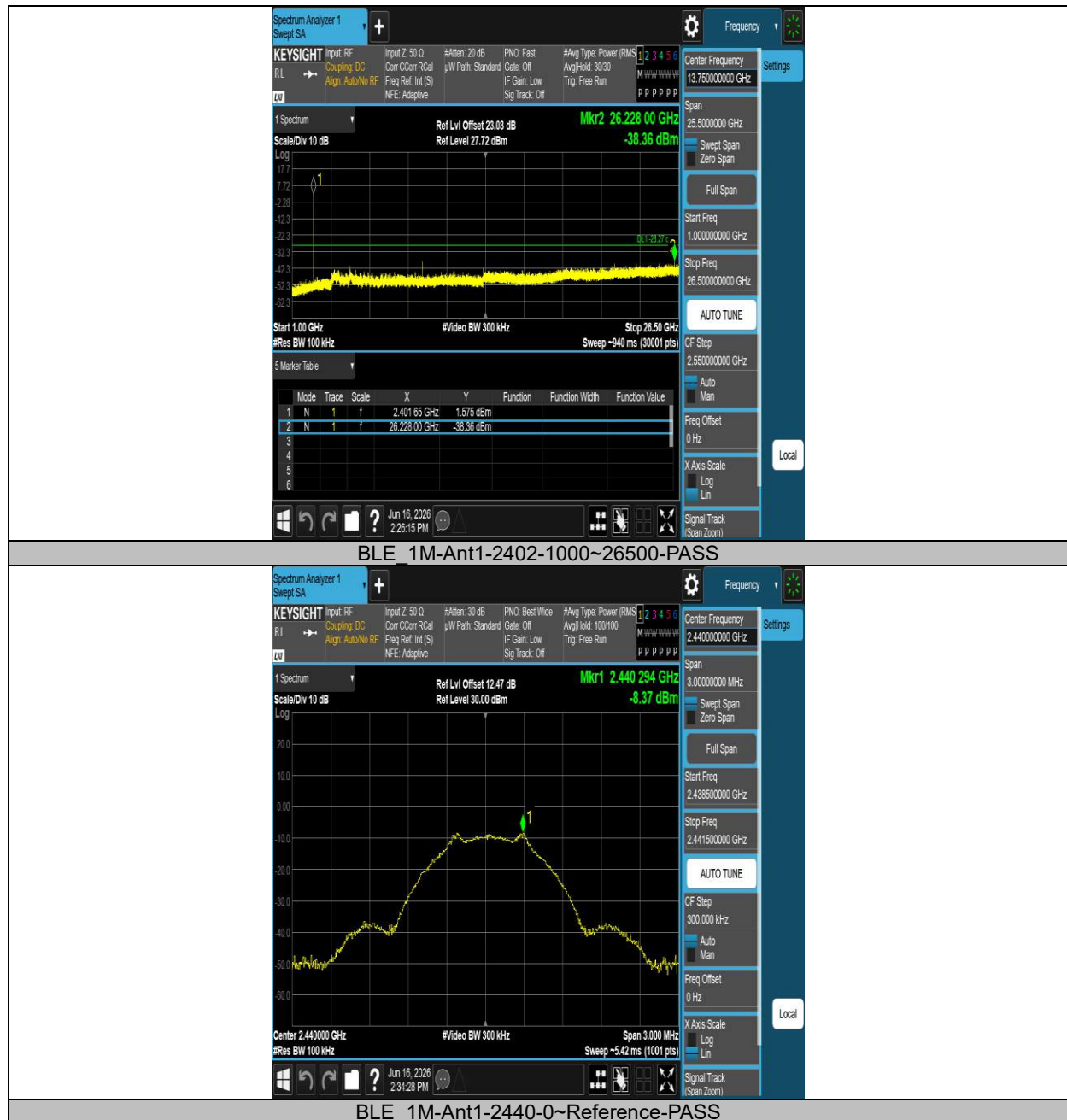
Test Result

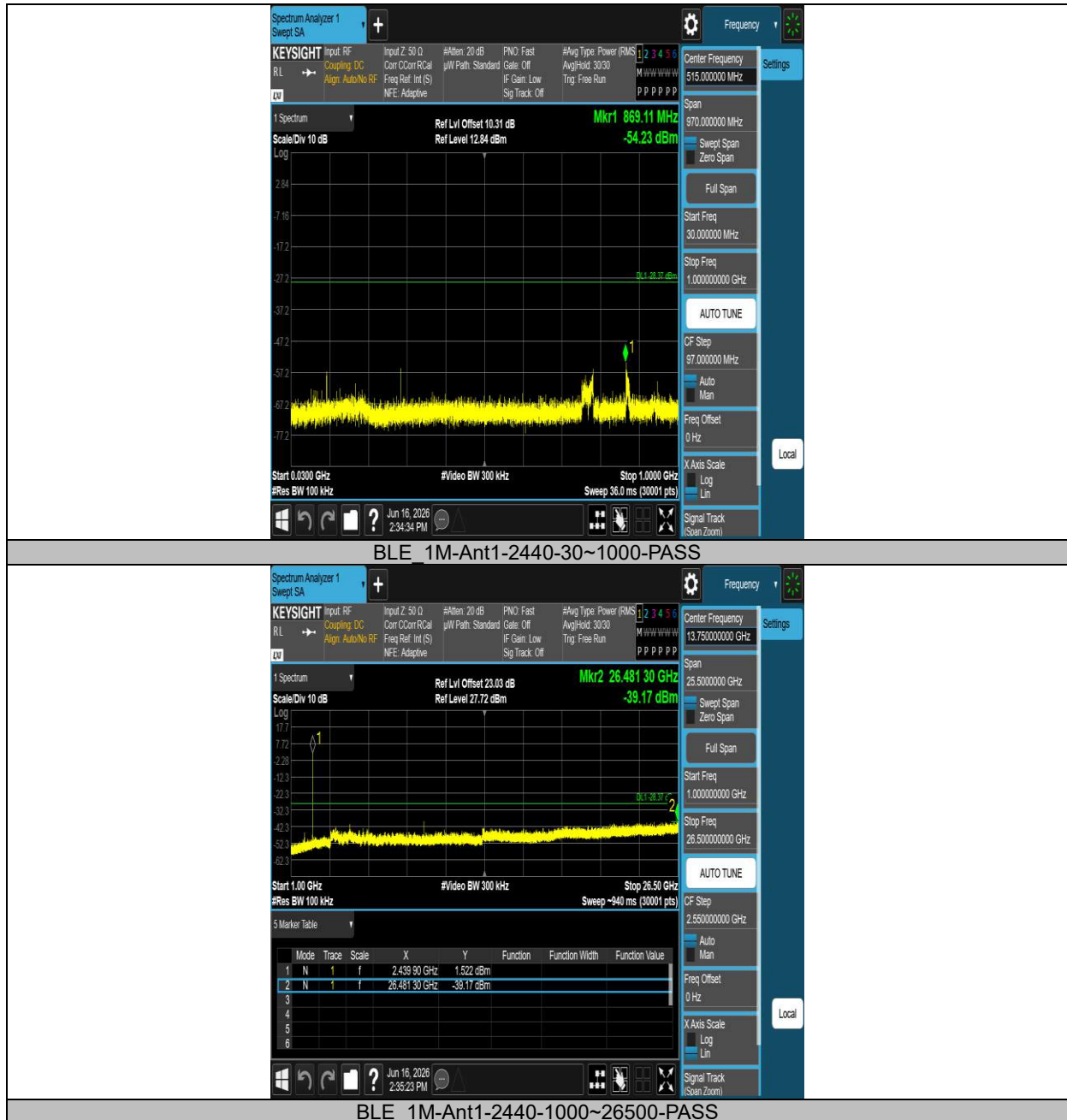
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	-8.27	-8.27	---	PASS
BLE_1M	Ant1	2402	30~1000	-8.27	-52.96	≤-28.27	PASS
BLE_1M	Ant1	2402	1000~26500	-8.27	-38.36	≤-28.27	PASS
BLE_1M	Ant1	2440	0~Reference	-8.37	-8.37	---	PASS
BLE_1M	Ant1	2440	30~1000	-8.37	-54.23	≤-28.37	PASS
BLE_1M	Ant1	2440	1000~26500	-8.37	-39.17	≤-28.37	PASS
BLE_1M	Ant1	2480	0~Reference	-8.11	-8.11	---	PASS
BLE_1M	Ant1	2480	30~1000	-8.11	-54.08	≤-28.11	PASS
BLE_1M	Ant1	2480	1000~26500	-8.11	-39.19	≤-28.11	PASS
BLE_2M	Ant1	2402	0~Reference	-8.70	-8.70	---	PASS
BLE_2M	Ant1	2402	30~1000	-8.70	-54.94	≤-28.7	PASS
BLE_2M	Ant1	2402	1000~26500	-8.70	-39.16	≤-28.7	PASS
BLE_2M	Ant1	2440	0~Reference	-9.58	-9.58	---	PASS
BLE_2M	Ant1	2440	30~1000	-9.58	-55.65	≤-29.58	PASS
BLE_2M	Ant1	2440	1000~26500	-9.58	-38.98	≤-29.58	PASS
BLE_2M	Ant1	2480	0~Reference	-9.29	-9.29	---	PASS
BLE_2M	Ant1	2480	30~1000	-9.29	-54.12	≤-29.29	PASS
BLE_2M	Ant1	2480	1000~26500	-9.29	-39.09	≤-29.29	PASS
BLE_125K	Ant1	2402	0~Reference	-10.64	-10.64	---	PASS
BLE_125K	Ant1	2402	30~1000	-10.64	-53.98	≤-30.64	PASS
BLE_125K	Ant1	2402	1000~26500	-10.64	-38.41	≤-30.64	PASS
BLE_125K	Ant1	2440	0~Reference	-11.71	-11.71	---	PASS
BLE_125K	Ant1	2440	30~1000	-11.71	-51.44	≤-31.71	PASS
BLE_125K	Ant1	2440	1000~26500	-11.71	-38.81	≤-31.71	PASS
BLE_125K	Ant1	2480	0~Reference	-11.51	-11.51	---	PASS
BLE_125K	Ant1	2480	30~1000	-11.51	-53.46	≤-31.51	PASS
BLE_125K	Ant1	2480	1000~26500	-11.51	-38.47	≤-31.51	PASS
BLE_500K	Ant1	2402	0~Reference	-7.44	-7.44	---	PASS
BLE_500K	Ant1	2402	30~1000	-7.44	-53.89	≤-27.44	PASS
BLE_500K	Ant1	2402	1000~26500	-7.44	-38.02	≤-27.44	PASS
BLE_500K	Ant1	2440	0~Reference	-8.32	-8.32	---	PASS
BLE_500K	Ant1	2440	30~1000	-8.32	-55.29	≤-28.32	PASS
BLE_500K	Ant1	2440	1000~26500	-8.32	-38.77	≤-28.32	PASS
BLE_500K	Ant1	2480	0~Reference	-7.88	-7.88	---	PASS
BLE_500K	Ant1	2480	30~1000	-7.88	-54.7	≤-27.88	PASS
BLE_500K	Ant1	2480	1000~26500	-7.88	-39.22	≤-27.88	PASS

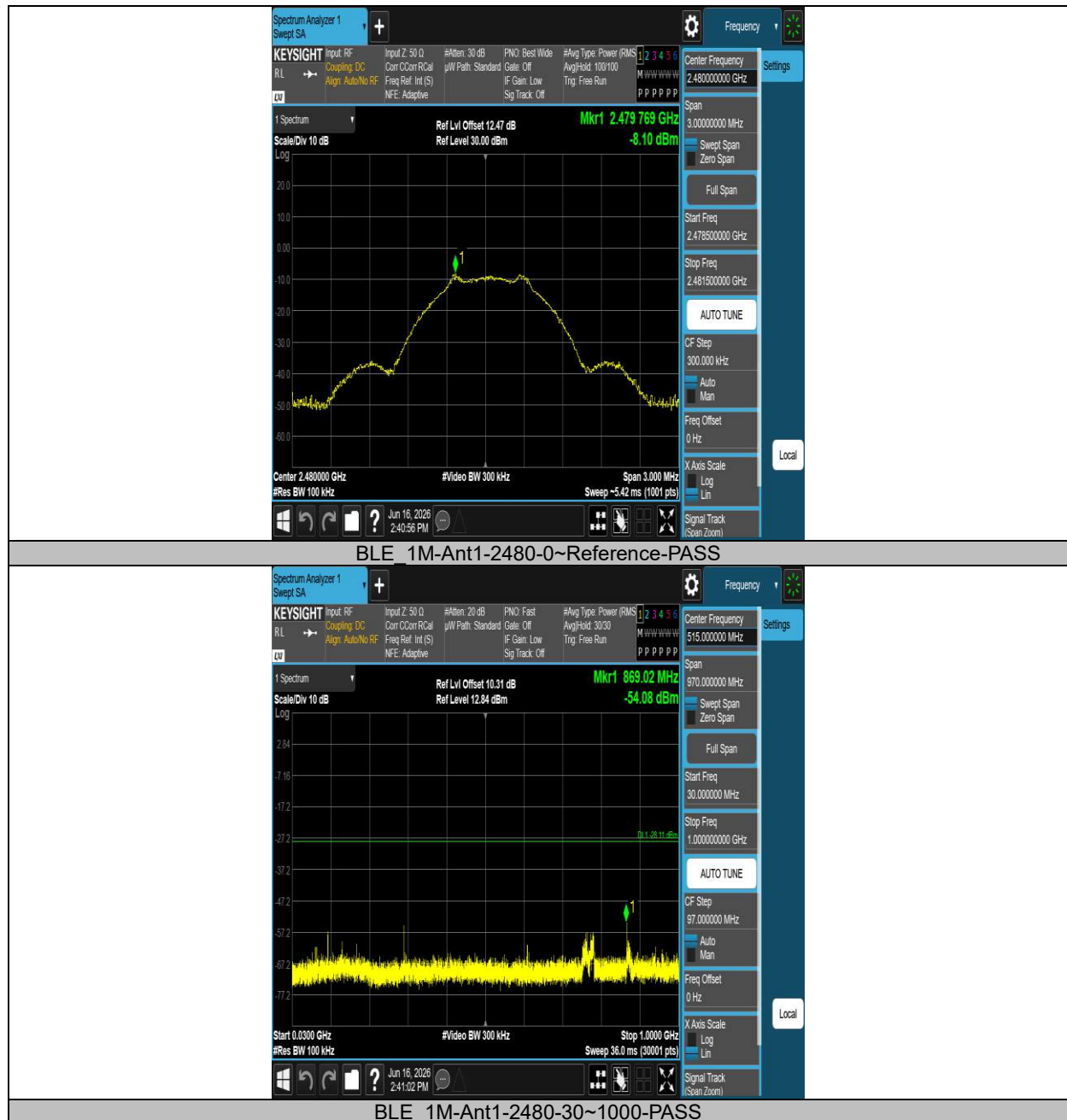
TEST REPORT

Test Graphs



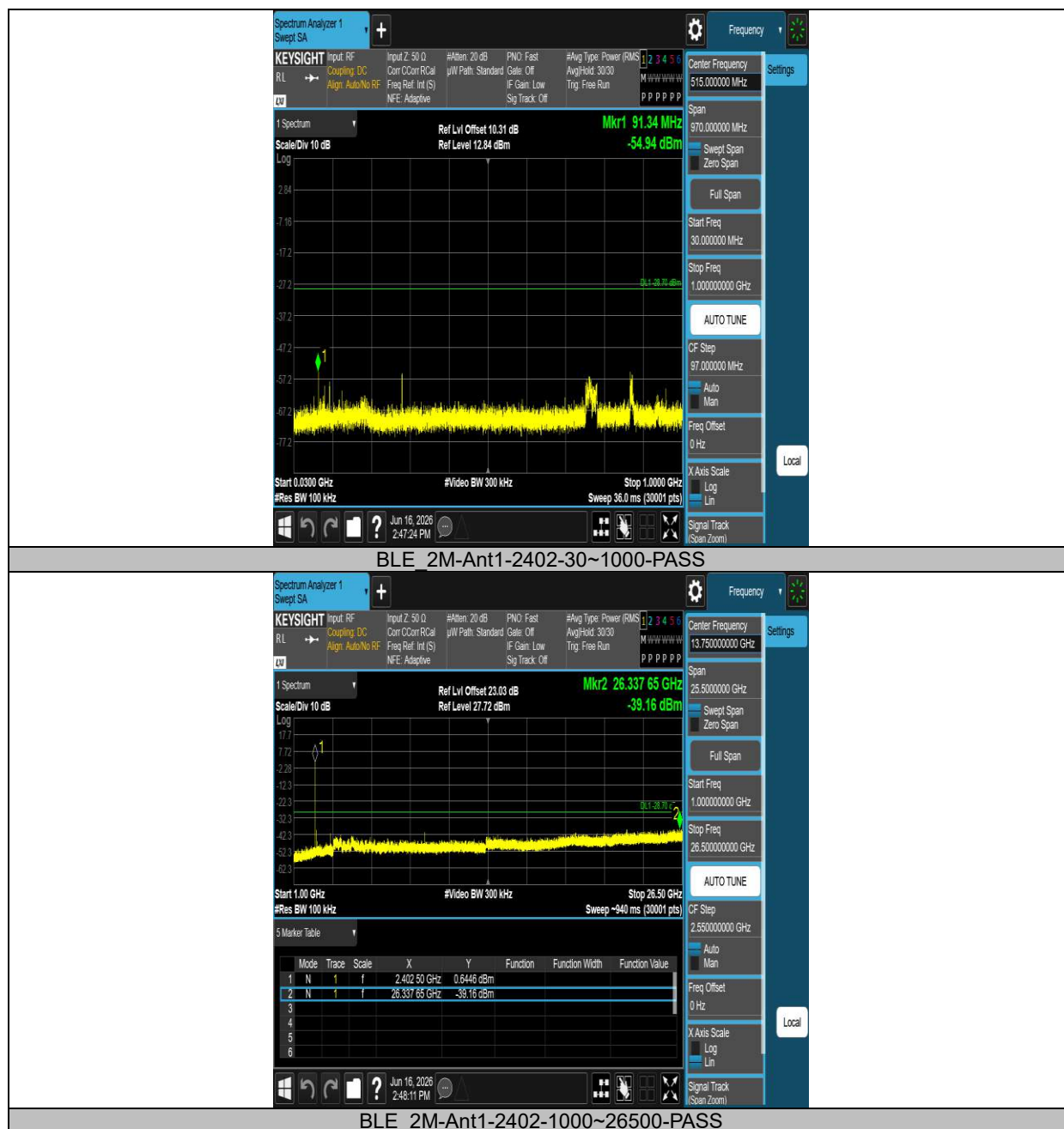


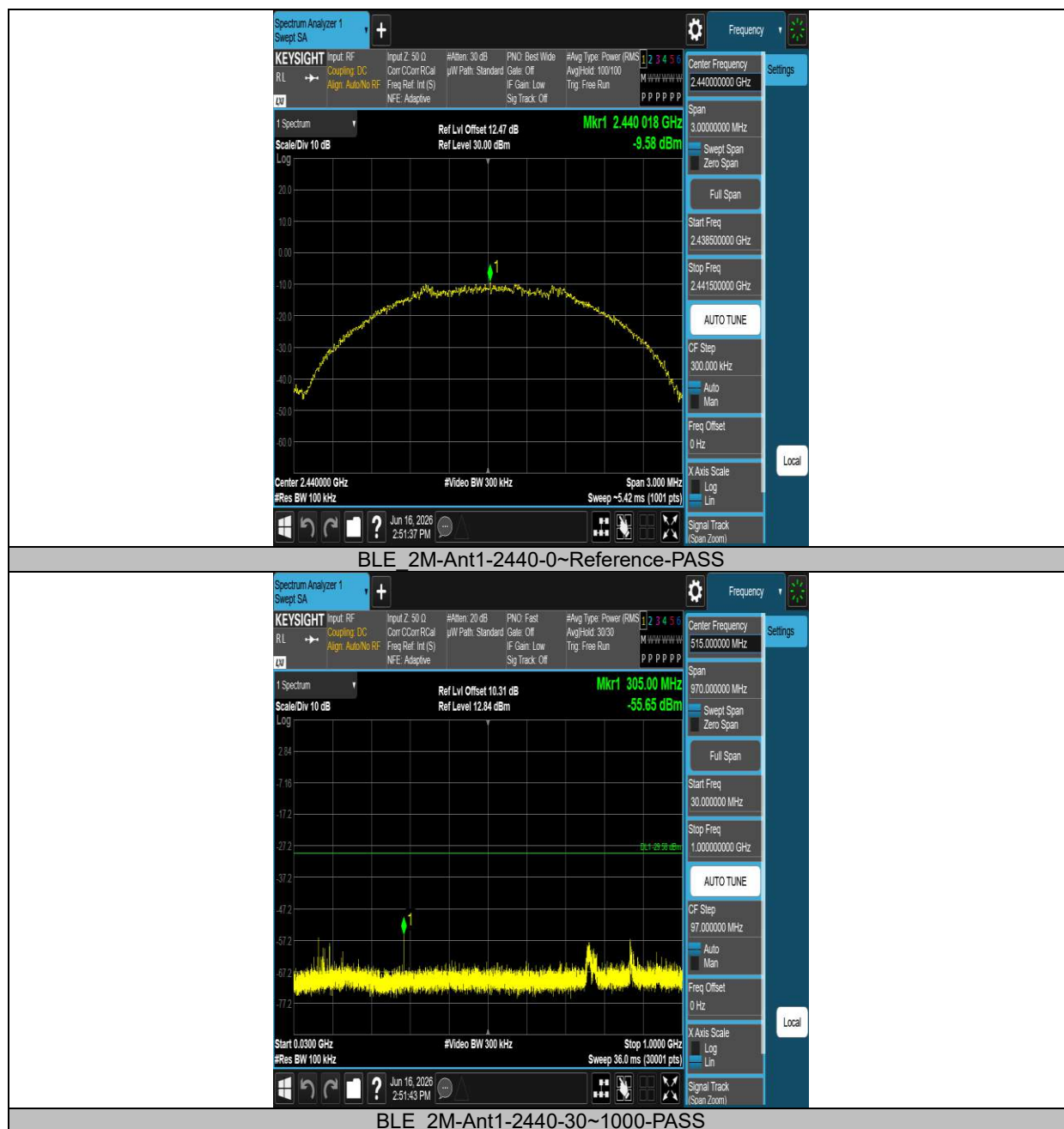






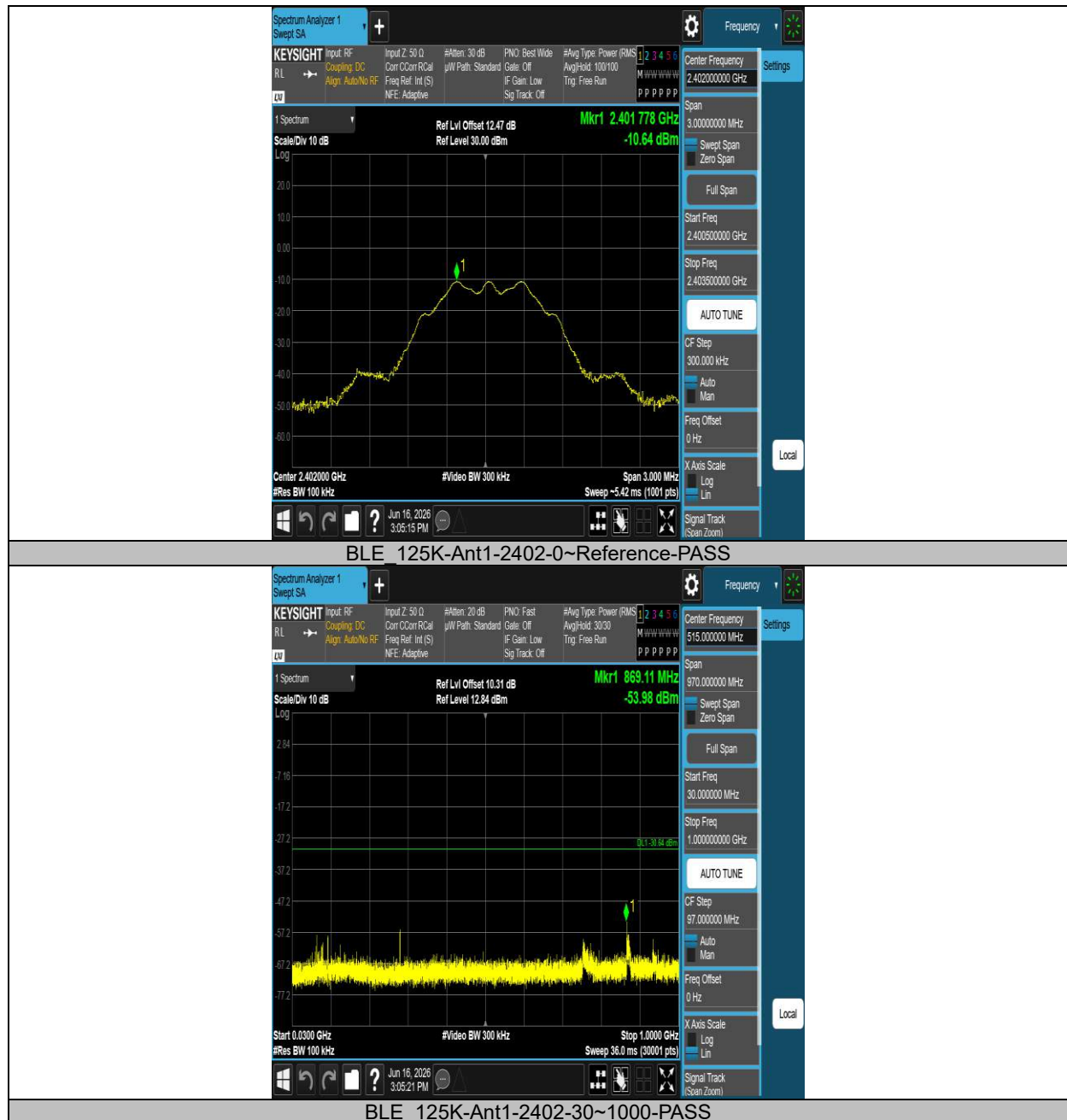
TEST REPORT

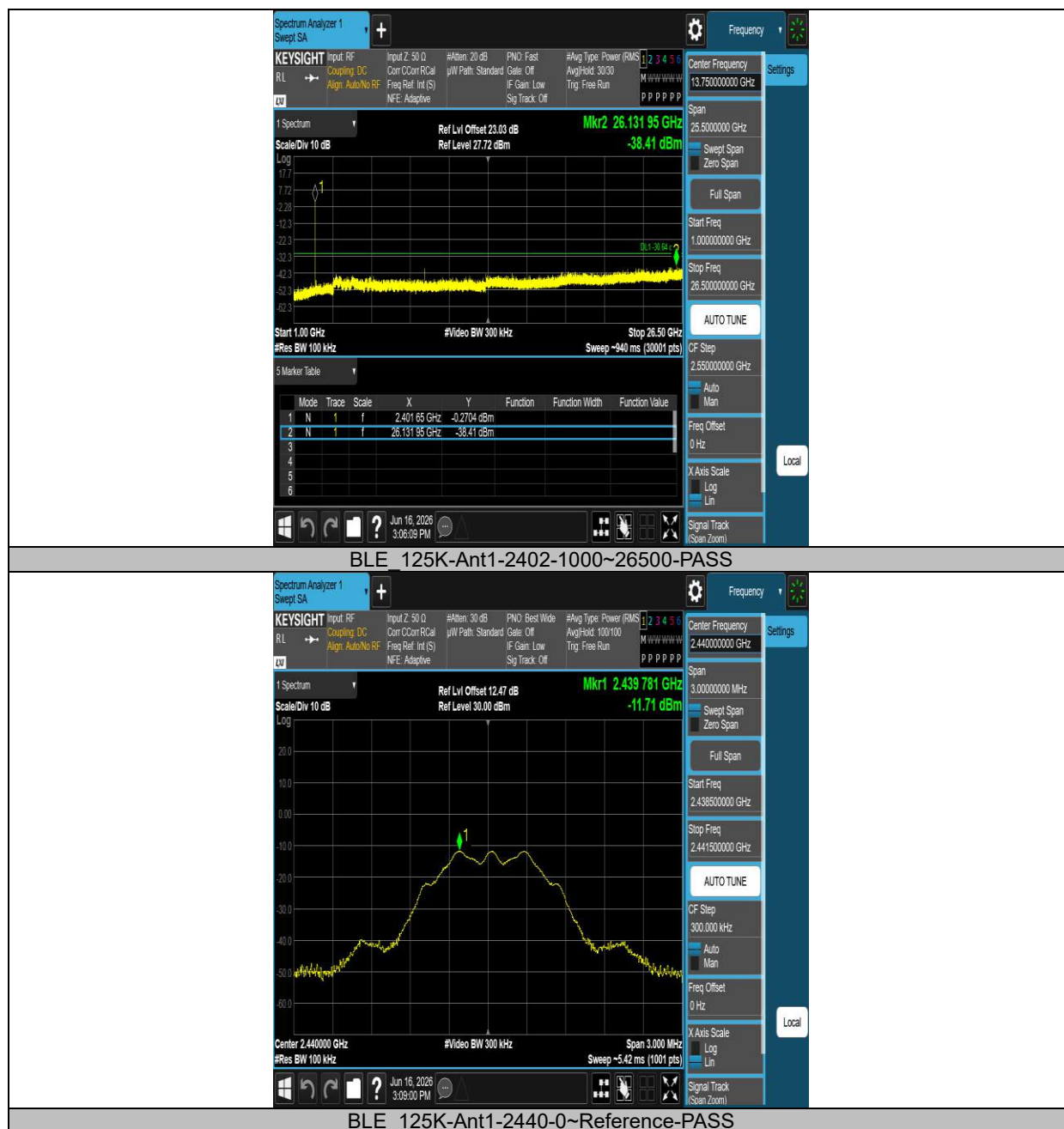




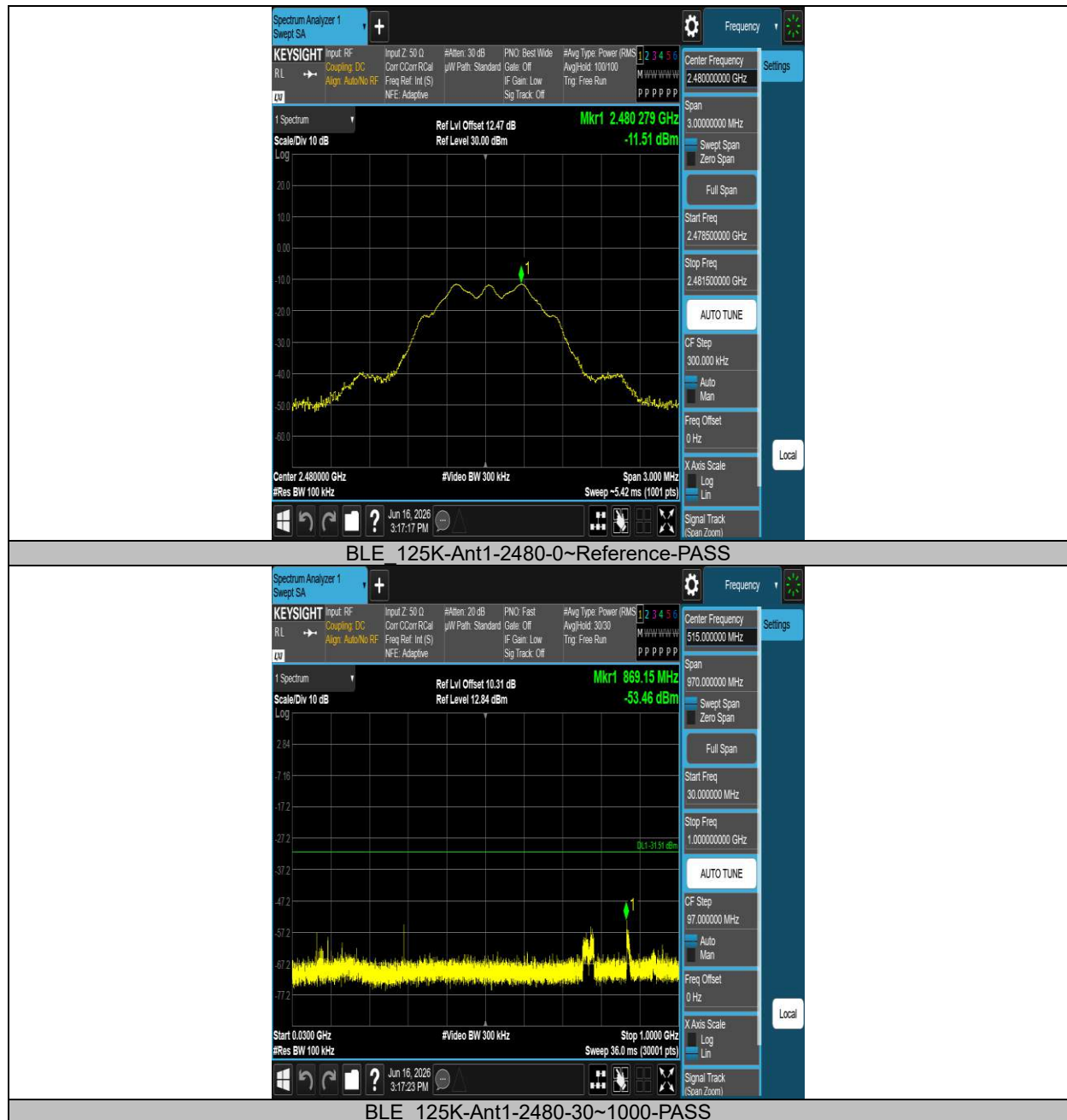


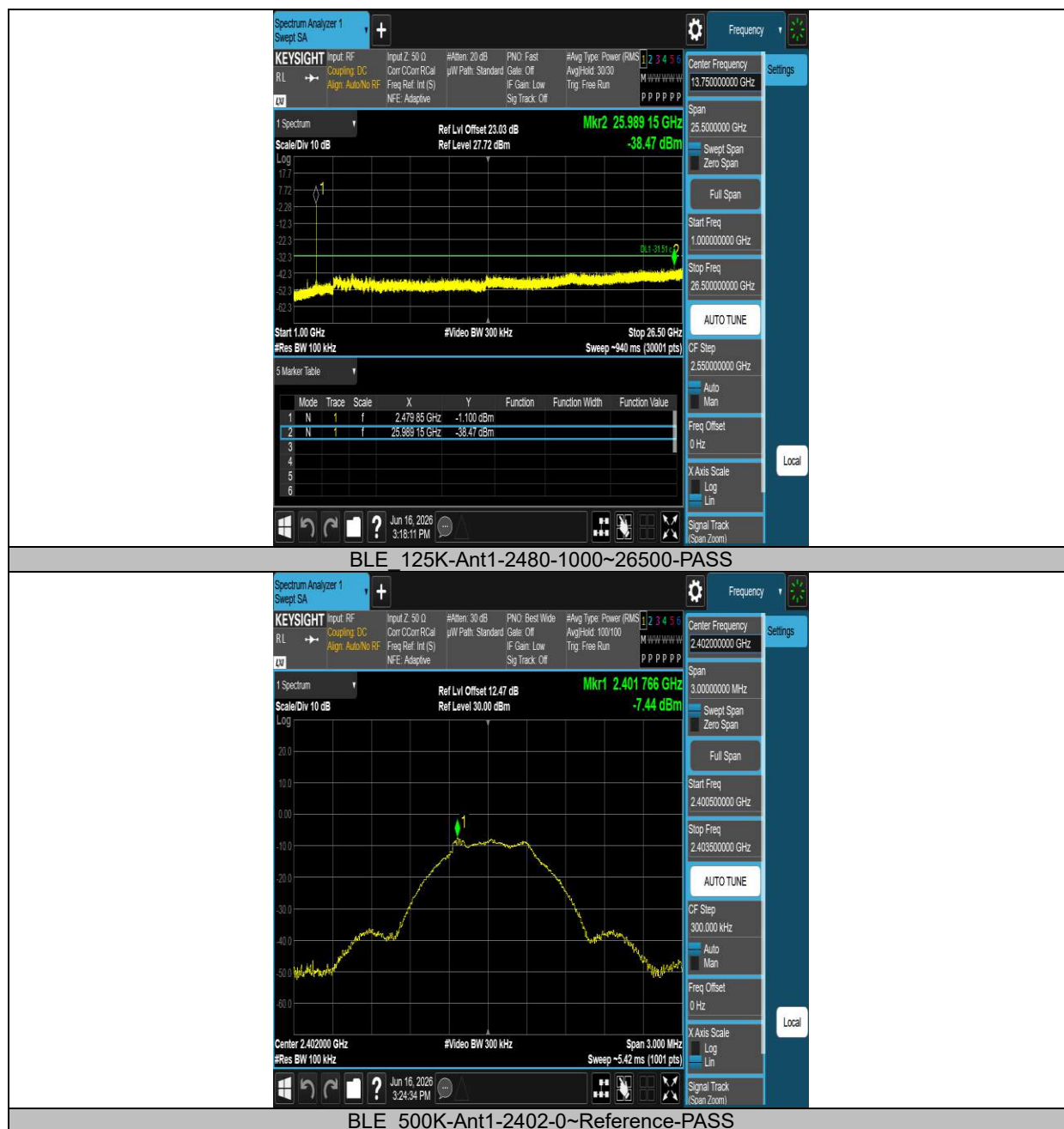


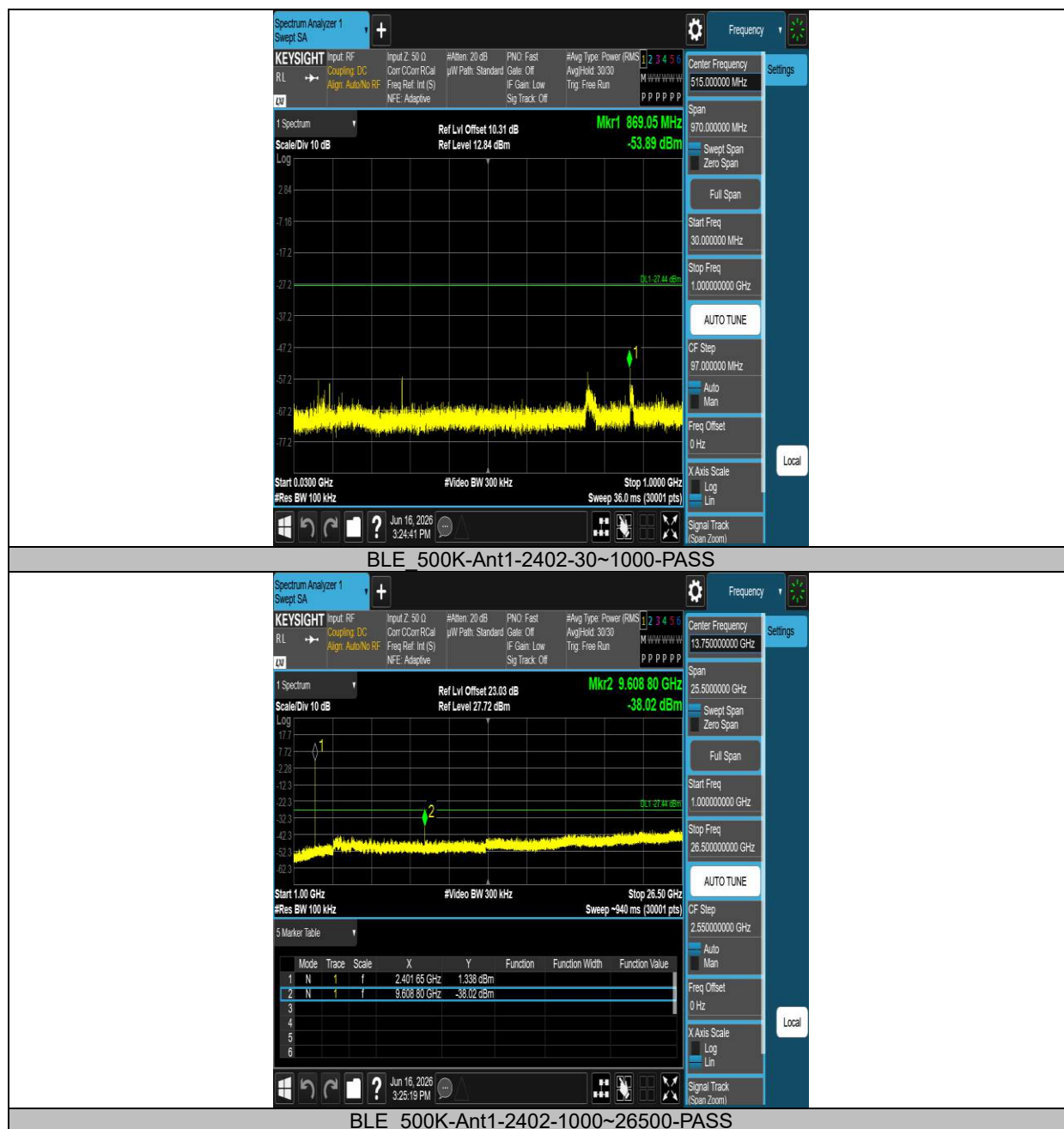


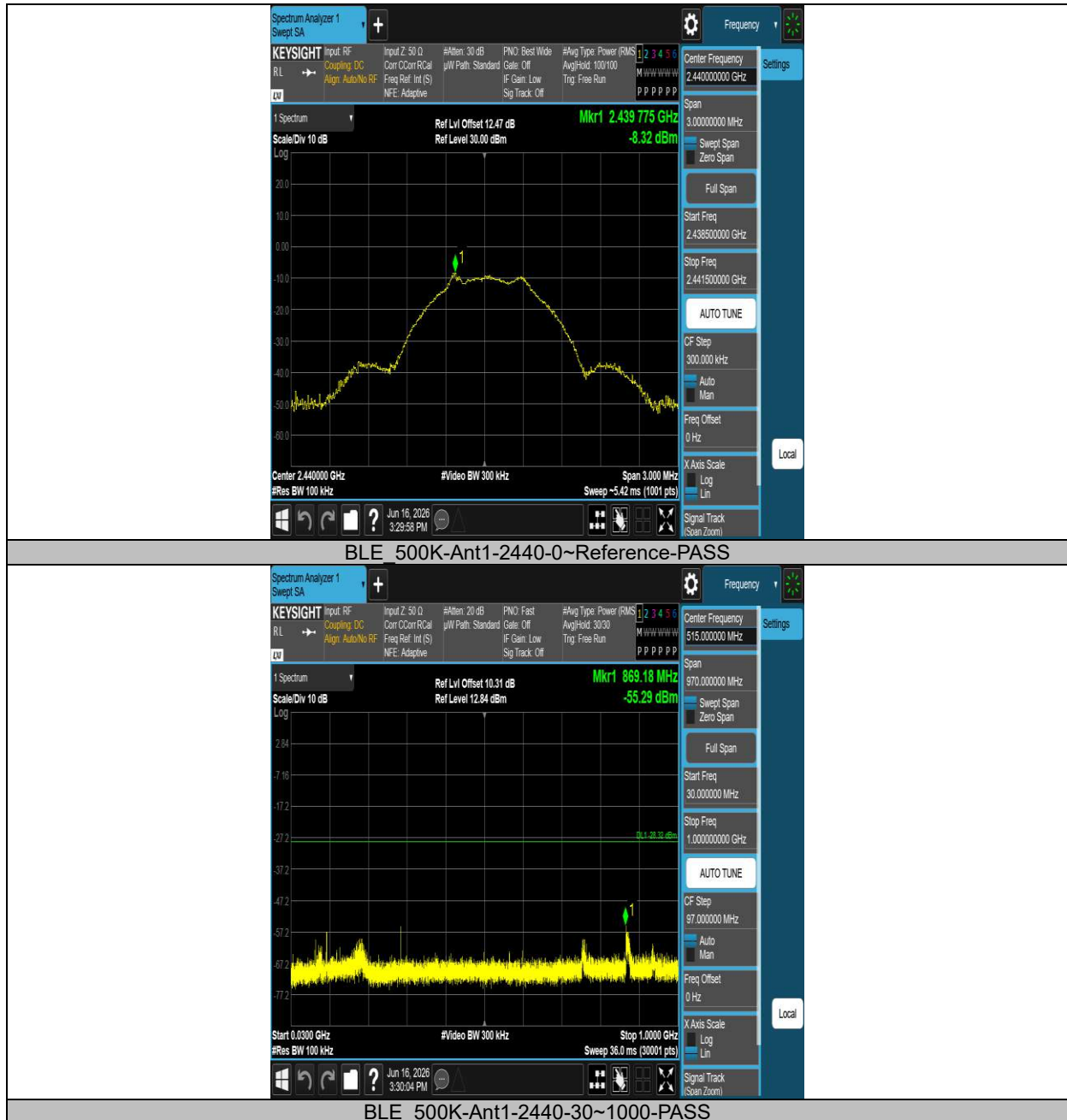


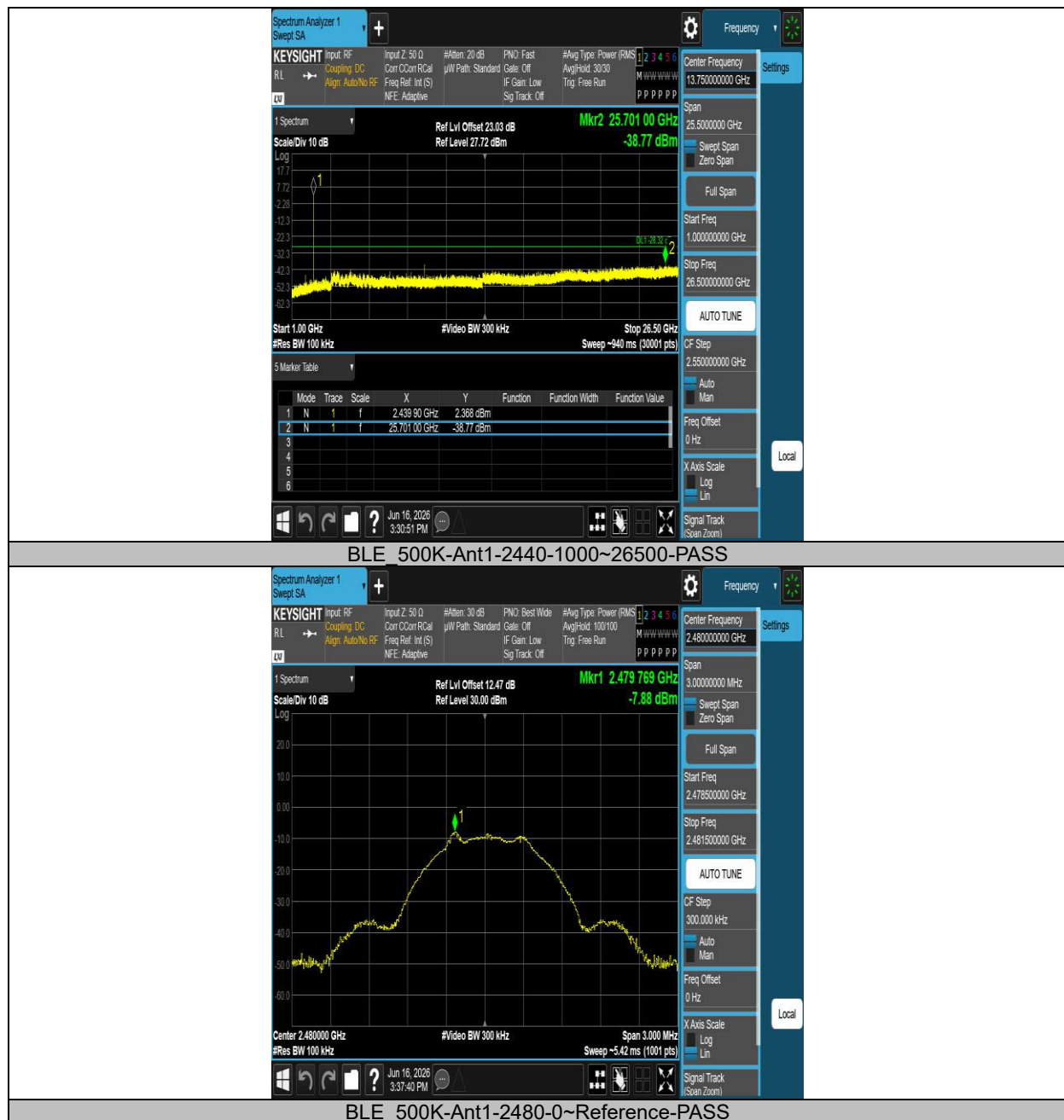


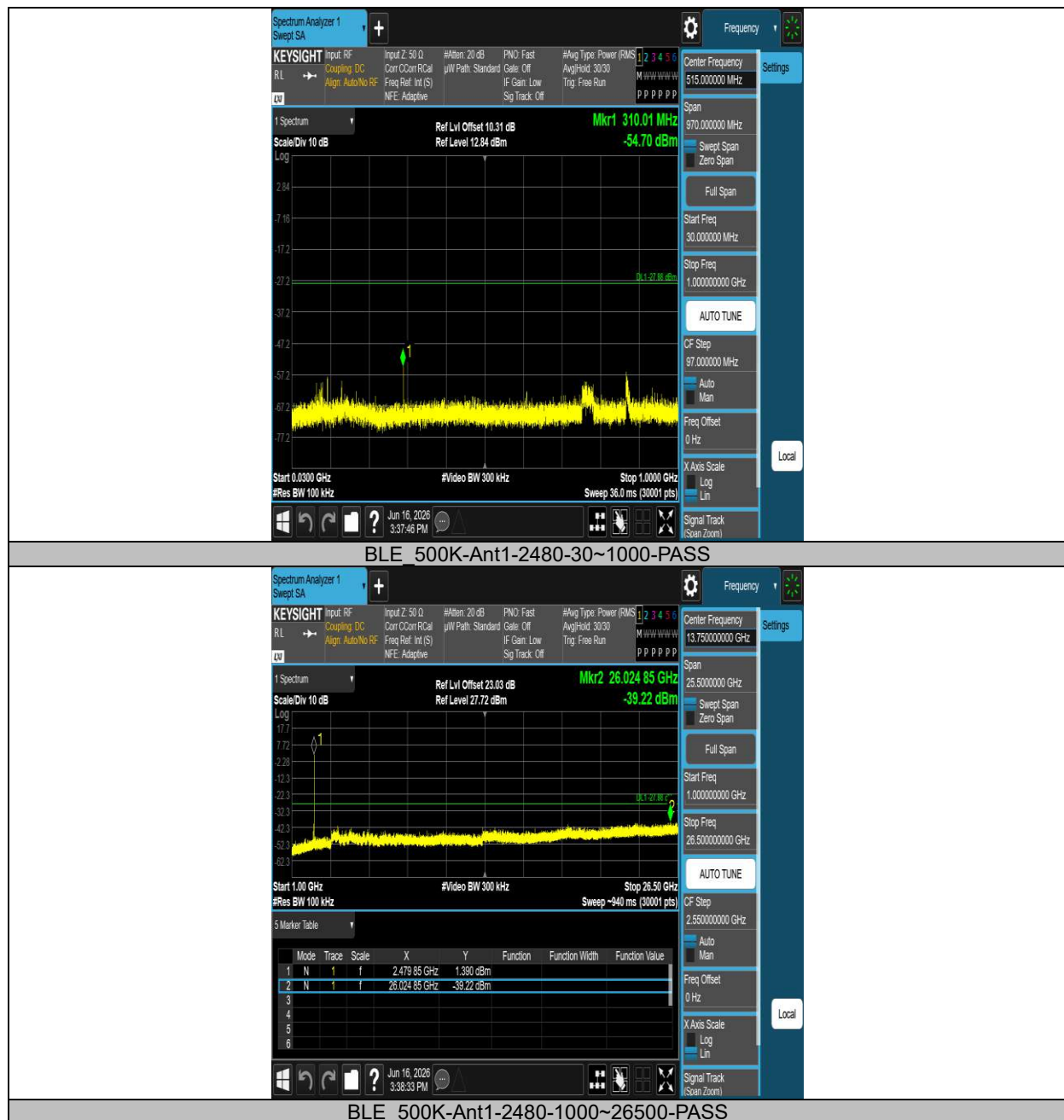












TEST REPORT

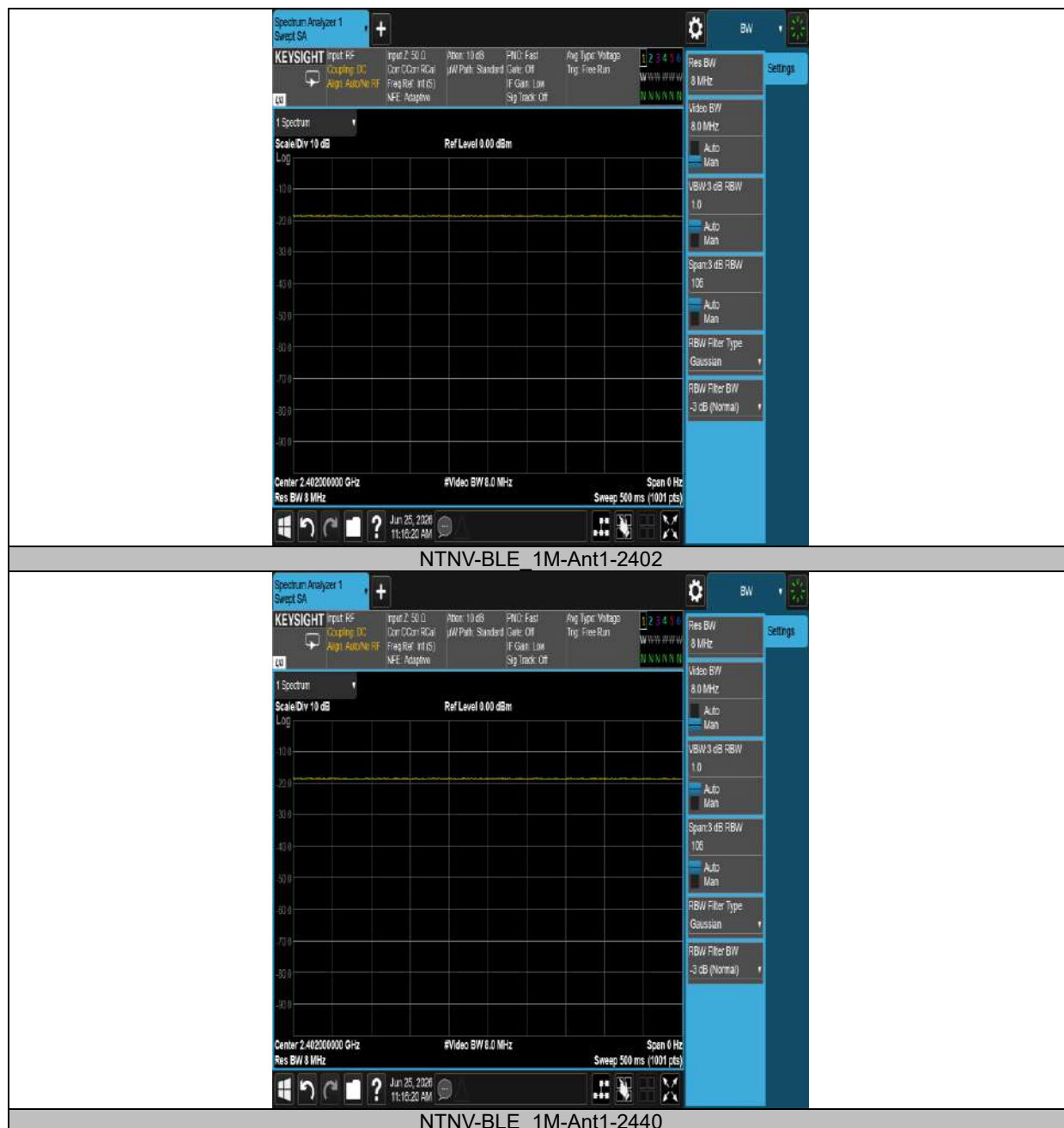
Duty Cycle

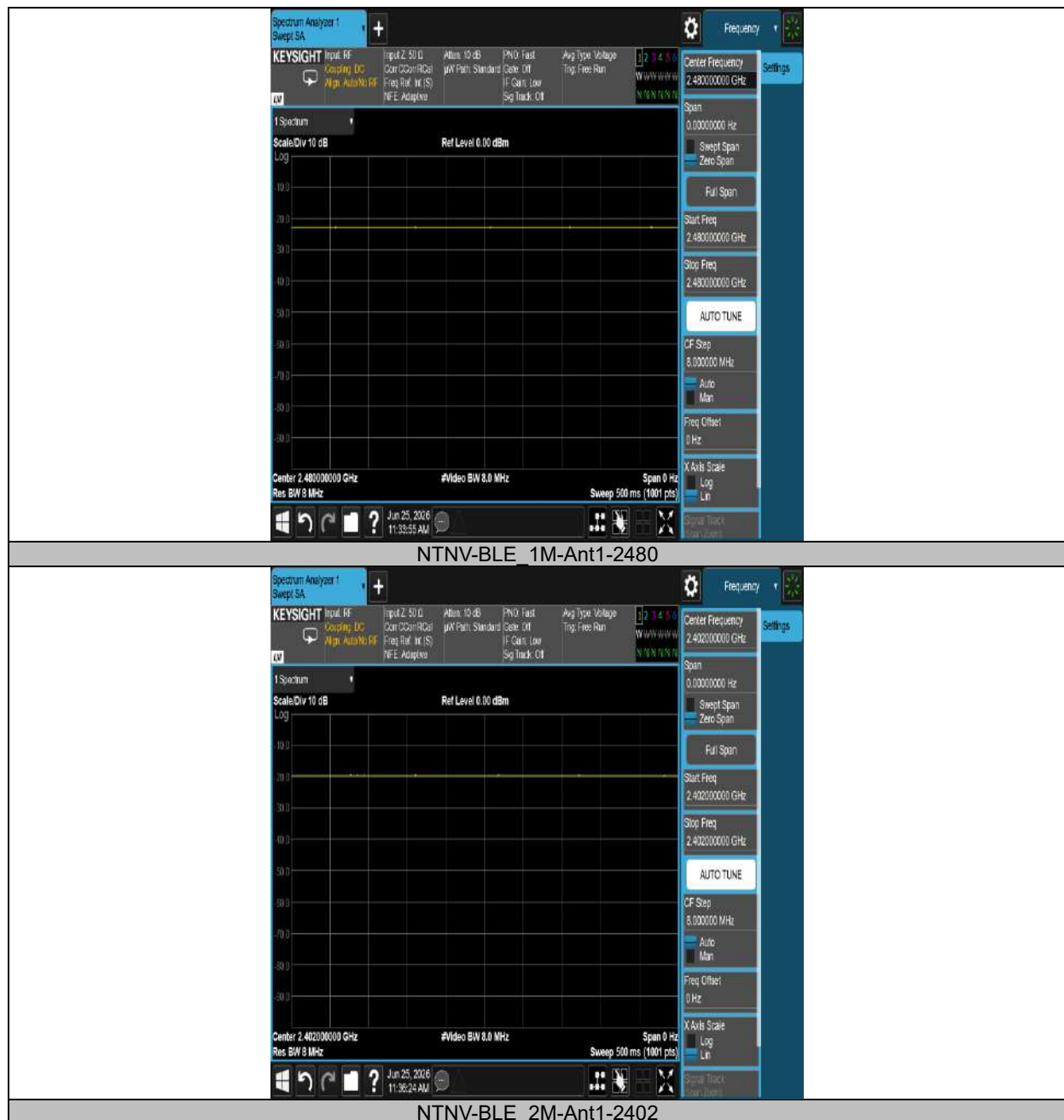
Test Result

TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]
BLE_1M	Ant1	2402	500.00	500.00	100.00
BLE_1M	Ant1	2440	500.00	500.00	100.00
BLE_1M	Ant1	2480	500.00	500.00	100.00
BLE_2M	Ant1	2402	500.00	500.00	100.00
BLE_2M	Ant1	2440	500.00	500.00	100.00
BLE_2M	Ant1	2480	500.00	500.00	100.00
BLE_125K	Ant1	2402	500.00	500.00	100.00
BLE_125K	Ant1	2440	500.00	500.00	100.00
BLE_125K	Ant1	2480	500.00	500.00	100.00
BLE_500K	Ant1	2402	500.00	500.00	100.00
BLE_500K	Ant1	2440	500.00	500.00	100.00
BLE_500K	Ant1	2480	500.00	500.00	100.00

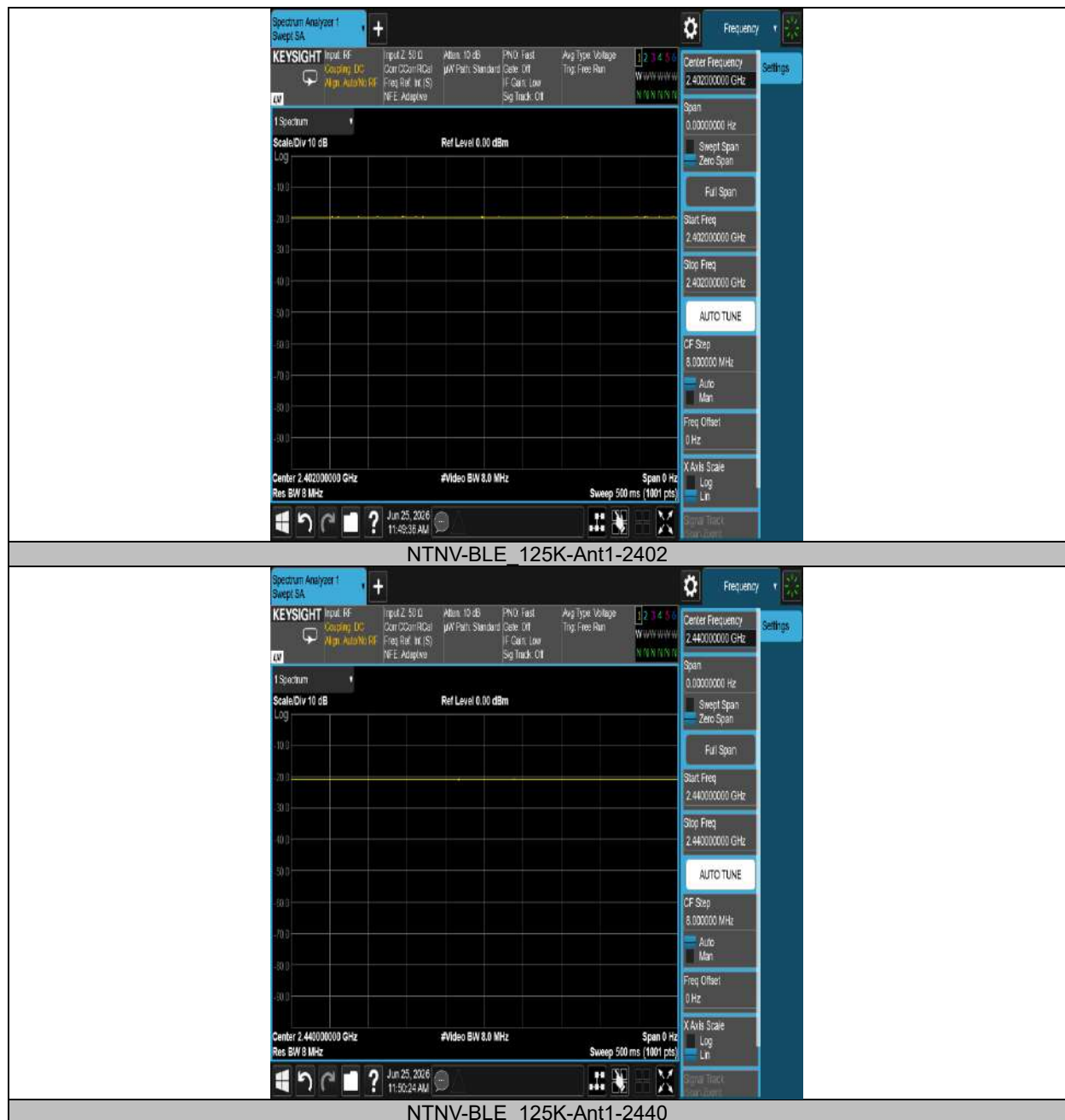
TEST REPORT

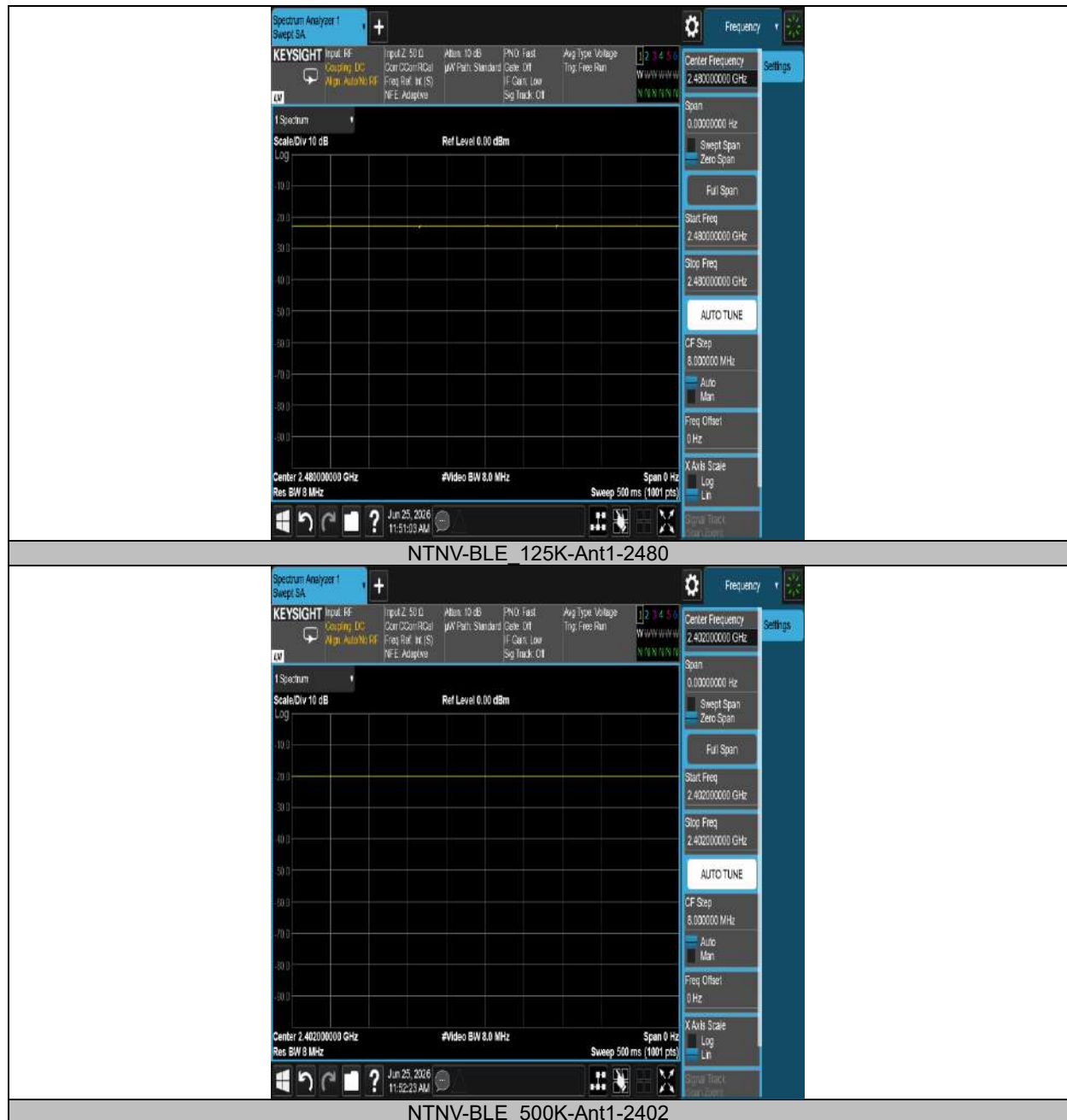
Test Graphs













***** END *****