

TEST REPORT

Product Name : Central Control Screen
Model Number : Epad
FCC ID : 2AYT3-EPAD
IC : 29079-EPAD

Prepared for : SHENZHEN POWEROAK NEWENER CO., LTD
Address : F19, BLD No.1, Kaidaer Tongsha Rd No.168, Xili Street,
Nanshan, Shenzhen, China

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Date(s) of Tests : August 30, 2025 to January 22, 2026
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1 TEST RESULT CERTIFICATION

Applicant : SHENZHEN POWEROAK NEWENER CO., LTD
Address : F19, BLD No.1, Kaidaer Tongsha Rd No.168, Xili Street, Nanshan, Shenzhen, China
Manufacturer : SHENZHEN POWEROAK NEWENER CO., LTD
Address : F19, BLD No.1, Kaidaer Tongsha Rd No.168, Xili Street, Nanshan, Shenzhen, China
EUT : Central Control Screen
Model Number : Epad
Trade mark : BLUETTI

Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
FCC 47 CFR Part 2, Subpart J FCC 47 CFR Part 15, Subpart C	PASS
IC RSS-GEN, Issue 5(04-2018)+A1(03-2019)+A2(02-2021) IC RSS-247 Issue 4(07-2025)	PASS

The above equipment was tested by EMTEK(SHENZHEN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2020) and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules Part 2, Part 15.247, IC RSS-247 Issue 4 and IC RSS-GEN, Issue 5.

The test results of this report relate only to the tested sample identified in this report.

Date of Test : August 30, 2025 to January 22, 2026

Prepared by : 
Yu Xiaolan /Editor

Reviewer : 
Xia Lili /Supervisor

Approve & Authorized Signer : 
Wang Li /Manager



Modified History

Version	Report No.	Revision Date	Summary
Ver.1.0	ENS2508140053W00702R	/	Original Report



2 EUT TECHNICAL DESCRIPTION

Characteristics	Description
Product:	Central Control Screen
Model Number:	Epad
IEEE 802.11 WLAN Mode Supported:	802.11b 802.11g 802.11n(20MHz channel bandwidth) 802.11n(40MHz channel bandwidth) 802.11ax(20MHz channel bandwidth) 802.11ax(40MHz channel bandwidth)
Modulation:	DSSS with DBPSK/DQPSK/CCK for 802.11b OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n OFDMA with BPSK/QPSK/16QAM/64QAM/256QAM/1024QAM for 802.11ax
Operating Frequency Range:	2412-2462MHz for 802.11b/g/n(HT20)/ax(HT20); 2422-2452MHz for 802.11n(HT40)/ax(HT40);
Number of Channels:	11 channels for 802.11b/g/n(HT20) /ax(HT20); 7 Channels for 802.11n(HT40) /ax(HT40);
Antenna Port:	☒ Antenna port 1
Antenna Type:	☒ Ant 1: FPC Antenna
Antenna Gain:	3.1 dBi (Note: The antenna information is provided by the manufacturer, which will have a certain impact on the test results.)
Transmit Power Max:	16.10 dBm
Power Supply:	DC 5V
HVIN:	Epad
FVIN:	25.0301.30045.01
Date of Received:	August 29, 2025
Temperature Range:	-10°C ~ +55°C

3 SUMMARY OF TEST RESULT

FCC Part Clause	IC Part Clause	Test Parameter	Verdict	Remark
15.247(a)(2)	RSS-247, 5.2(a) RSS-Gen6.7	Emission Bandwidth	PASS	
15.247(b)(3)	RSS-247, 5.4(d) RSS-Gen6.12	Maximum Peak Conducted Output Power	PASS	
15.247(e)	RSS-247, 5.2(b) RSS-Gen6.12	Maximum Power Spectral Density Level	PASS	
15.247(d)	RSS-247, 5.5	Unwanted Emission Into Non-Restricted Frequency Bands	PASS	
15.247(d)	RSS-247, 5.5	Unwanted Emission Into Restricted Frequency Bands (conducted)	PASS	
15.247(d) 15.209 15.205	RSS-Gen 8.9 RSS-Gen 8.10 RSS-Gen 6.13 RSS-247, 3.3 RSS-247, 5.5	Radiated Spurious Emission	PASS	
15.207	RSS-Gen 8.8	Conducted Emission Test	N/A	
15.203 15.247(b)	RSS-Gen 6.8 RSS-247, 5.4	Antenna Application	PASS	
NOTE1:N/A (Not Applicable) NOTE2:According to FCC OET KDB 558074, the report use radiated measurements in the restricted frequency bands. In addition, the radiated test is also performed to ensure the emissions emanating from the device cabinet also comply with the applicable limits.				

RELATED SUBMITTAL(S) / GRANT(S):

This submittal(s) (test report) is intended for **FCC ID: 2AYT3-EPAD** filing to comply with Section 15.247 of the FCC Part 15, Subpart C Rules.

This submittal(s) (test report) is intended for **IC: 29079-EPAD** filing to comply with RSS-247 Rules.

4 TEST METHODOLOGY

4.1 GENERAL DESCRIPTION OF APPLIED STANDARDS

According to its specifications, the EUT must comply with the requirements of the following standards:

FCC 47 CFR Part 2, Subpart J

FCC 47 CFR Part 15, Subpart C

IC RSS-GEN, Issue 5(04-2018)+A1(03-2019)+A2(02-2021)

IC RSS-247 Issue 4(07-2025)

FCC KDB 558074 D01 15.247 Meas Guidance v05r02

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

4.2 MEASUREMENT EQUIPMENT USED

Conducted Emission Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Test Receiver	Rohde & Schwarz	ESCI	101384	2025/5/9	1 Year
L.I.S.N.	Rohde & Schwarz	ENV216	101161	2025/5/9	1 Year
L.I.S.N.	Kyoritsu	KNW-407	8-1492-9	2025/5/10	1 Year

For Spurious Emissions Test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Pre-Amplifier	Bonn	BLMA 011001N	2213967A	2025/10/16	1 Year
EMI Test Receiver	Rohde & Schwarz	ESR7	102551	2025/10/16	1 Year
Bilog Antenna	Schwarzbeck	VULB9163	9163142	2024/7/8	2 Year
Horn antenna	Schwarzbeck	BBHA9120D	9120D-1198	2025/5/13	2 Year
Pre-Amplifier	Bonn	BLMA 0118-5G	2213967B-01	2025/10/16	1 Year
Spectrum Analyzer	Rohde & Schwarz	FSV3044	101290	2025/10/16	1 Year
Coaxial Cable	TIMES	NmNm-7-C15702	N/A	2025/5/22	1 Year
Coaxial Cable	TIMES	HF290-NMSM-6.5M	N/A	2025/5/22	1 Year
Coaxial Cable	TIMES	LMR-240 N-N	N/A	2025/5/22	1 Year
Wideband Radio Communication Tester	R&S	CMW500	171168	2025/9/9	1 Year

For other test items:

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Wideband Radio Communication Tester	R&S	CMW500	171168	2025/9/9	1 Year
Frequency Extender	R&S	CMW-Z800A	100430	2025/9/9	1 Year
Spectrum Analyzer	R&S	FSV3044	101290	2025/10/16	1 Year
Analog Signal Generator	R&S	SMB100A	183237	2025/9/9	1 Year
Vector Signal Generator	R&S	SMM100A	101808	2025/9/9	1 Year
RF Control Unit	Tonscend	JS0806-2	22C8060567	2025/9/9	1 Year
Temperature&Humidity Chamber	ESPEC	EL-02KA	12107166	2025/5/10	1 Year

4.3 DESCRIPTION OF TEST MODES

The EUT has been tested under its typical operating condition.

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

Test of channel included the lowest and middle and highest frequency to perform the test, then record on this report.

Those data rates (802.11b: 1 Mbps; 802.11g: 6 Mbps; 802.11n (HT20): MCS0; 802.11n (HT40): MCS0;) were used for all test.

Pre-defined engineering program for regulatory testing used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

Frequency and Channel list for 802.11 b/g/n(HT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	5	2432	9	2452
2	2417	6	2437	10	2457
3	2422	7	2442	11	2462
4	2427	8	2447		

Frequency and Channel list for 802.11n(HT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
3	2422	6	2437	9	2452

Test Frequency and Channel for 802.11 b/g/n(HT20):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	6	2437	11	2462

Test Frequency and channel for 802.11n(HT40):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
3	2422	6	2437	9	2452

Power Level Setting:

Channel	1	2	6	10	11
	2412	2417	2437	2457	2462
B	10	10	10	10	10
G	11	11	20	11	11
N20	10	10	20	10	10
AX20	11	11	20	11	11
Channel	3	4	6	8	9
	2422	2427	2437	2447	2452
N40	11	11	20	11	11
AX40	11	11	20	11	11

5 FACILITIES AND ACCREDITATIONS

5.1 FACILITIES

All measurement facilities used to collect the measurement data are located at:

EMTEK (Shenzhen) Co., Ltd.

Building 69, Majialong Industry Zone District, Nanshan District, Shenzhen, China

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.

5.2 EQUIPMENT

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, biconical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with preselectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

5.3 LABORATORY ACCREDITATIONS AND LISTINGS

Site Description

EMC Lab. : **Accredited by CNAS**
The Certificate Registration Number is L2291.
The Laboratory has been assessed and proved to be in compliance with CNAS-CL01 (identical to ISO/IEC 17025:2017)

Accredited by FCC
Designation Number: CN1204
Test Firm Registration Number: 882943

Accredited by A2LA
The Certificate Number is 4321.01.

Accredited by Industry Canada
The Conformity Assessment Body Identifier is CN0008

Name of Firm : EMTEK (SHENZHEN) CO., LTD.
Site Location : Building 69, Majialong Industry Zone,
Nanshan District, Shenzhen, Guangdong, China

6 TEST SYSTEM UNCERTAINTY

The following measurement uncertainty levels have been estimated for tests performed on the apparatus:

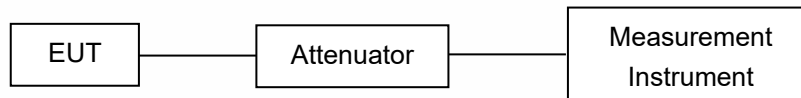
Test Parameter	Measurement Uncertainty
Frequency error	$\pm 20\text{Hz}$
Occupied Bandwidth	$\pm 0.5\text{KHz}$
Transmitter output power	$\pm 0.6\text{dB}$
Conducted spurious emissions	$\pm 3.2\text{dB}$
Radiated spurious emissions	$\pm 4.5\text{dB}$
Temperature	$\pm 1.2^\circ\text{C}$
Humidity	$\pm 3\%$
DC voltages	$\pm 0.25\text{V}$
Time	$\pm 1\%$

Measurement Uncertainty for a level of Confidence of 95%

7 SETUP OF EQUIPMENT UNDER TEST

7.1 RADIO FREQUENCY TEST SETUP 1

The WLAN component's antenna ports(s) of the EUT are connected to the measurement instrument per an appropriate attenuator. The EUT is controlled by PC/software to emit the specified signals for the purpose of measurements.



7.2 RADIO FREQUENCY TEST SETUP 2

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4 dB according to the standards: ANSI C63.10. The test distance is 3m. The setup is according to the requirements in Section 13.1.4.1 of ANSI C63.10-2020 and CAN/CSA-CEI/IEC CISPR 22.

The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).

Below 30MHz:

The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna (loop antenna). The Antenna should be positioned with its plane vertical at the specified distance from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. The center of the loop shall be 1 m above the ground. For certain applications, the loop antenna plane may also need to be positioned horizontally at the specified distance from the EUT.

Above 30MHz:

The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).

Above 1GHz:

The EUT is placed on a turntable 1.5 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).

Measurements shall be taken, using the following steps, at a test site that has been validated using the procedures of ANSI C63.4 or the latest CISPR 16-1-4 for measurements above 1 GHz, so as to simulate a near free-space environment (see RSS-Gen for applicable versions of ANSI and CISPR standards).

- (1) Line the ground plane with absorbers between the transmitter and the receive antenna to minimize reflections. The absorbers used should have a minimum-rated attenuation of 20 dB through the measurement frequency range of interest. The absorbers shall be positioned to replicate the layout used when compliance with the applicable acceptability criterion was achieved, as set forth in the aforementioned standards on site validation.
- (2) Set the height of the receive antenna to 1.5 m. The receive antenna must be one that was designed and fabricated to operate over the entire frequency range of interest, for example, an appropriate standard gain horn.
- (3) The distance between the receive antenna and the radiating source shall be sufficient in order to ensure far-field conditions.
- (4) Mount the transmitter at a height of 1.5 m.
- (5) Configure the device under test (DUT) to produce the maximum power spectral density as measured while assessing compliance with Section 6.2.2 (i.e. channel frequency, modulation type and data rate). If the DUT is equipped with a detachable antenna and the antenna is intended for remote installation (i.e.

tower-mounted), the DUT may be substituted with a suitable signal generator. The level and frequency settings on the generator shall be set so as to reproduce the maximum power spectral density, measured within a 1 MHz bandwidth, obtained while assessing compliance to Section 6.2.2.

(6) Position the transmitter or the radiating antenna so that elevation pattern measurements can be taken.

(7) Find the 0° reference point in the horizontal plane.

(8) Care should be taken when positioning the receive antenna to avoid cross-polarization. Antennas of known mounting polarization should be assessed with the receive antenna oriented in the same polarity. If the polarization of the transmit antenna is unknown or the transmit antenna can be mounted in either polarization, e.i.r.p. measurements should be performed to find which mounting polarity provides the highest e.i.r.p. value. Testing shall be carried out with the receive antenna and the DUT mounted in each polarity.

(9) The emission shall be centred on the display of the spectrum analyzer with the following settings:

i. If the power spectral density of the DUT was assessed with a peak detector and the antenna cannot be detached from the DUT, the spectrum analyzer shall be set to a peak detector with a resolution bandwidth and video bandwidth of 1 MHz.

ii. If the power spectral density of the DUT was assessed using a sample detector with power averaging and the antenna cannot be detached from the DUT, the spectrum analyzer shall be set to a sample detector, configured to produce 100 power averages and set with a resolution bandwidth, as well as a video bandwidth of 1 MHz.

iii. If the antenna can be detached from the DUT, a continuous wave (CW) signal equal to that of the power spectral density measurement may be used, the spectrum analyzer shall be set to peak detector with a resolution bandwidth and video bandwidth of 1 MHz.

(10) Rotate the turntable 360° recording the field strength at each step. Throughout the main beam of the antenna, the step size shall be kept to a maximum of 1°.

Once outside the main beam of the antenna, the maximum step size shall be as follows, when compared to the requirements of Section 6.2.2:

i. Between 0° and 8°, maximum step size of 2°;

ii. Between 8° and 40°, maximum step size of 4°;

iii. Between 40° and 45°, maximum step size of 1°;

iv. Between 45° and 90°, maximum step size of 5°.

Once the mask reaches 90°, the mask will be inverted and the step size will follow in the same manner as above.

For the purpose of this procedure, the main beam of the antenna is defined as the 3 dB beamwidth.

(11) Convert the measured field strength values in terms of e.i.r.p. density (dBW/1 MHz) using the following equation:

$$\text{e.i.r.p. density (dBW/MHz)} = 10 \log((E \cdot r)^2 / 30)$$

E = field strength in V/m

r = measurement distance in metres

(12) Plot the results against the emission mask with reference to the horizontal plane.

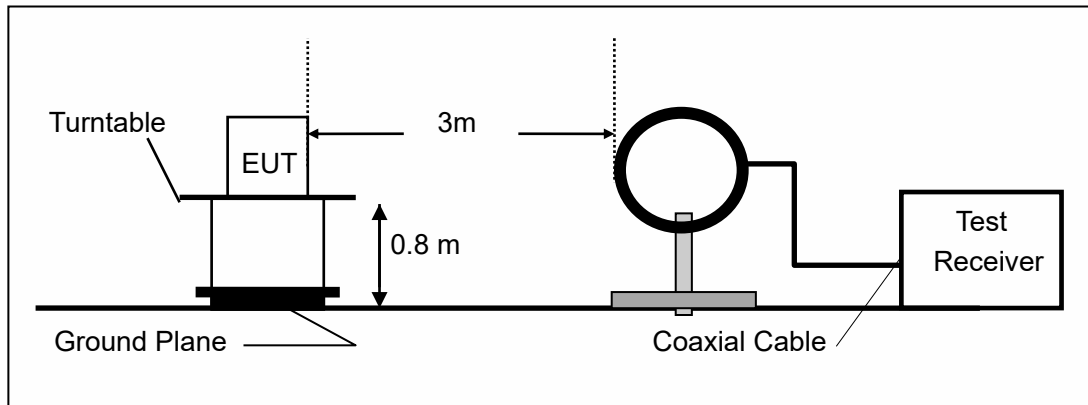
(13) Using the plot, the 0° can be rotated to determine the worst-case installation tilt angle.

(14) Testing shall be performed using the highest gain antenna for every antenna type, if applicable.

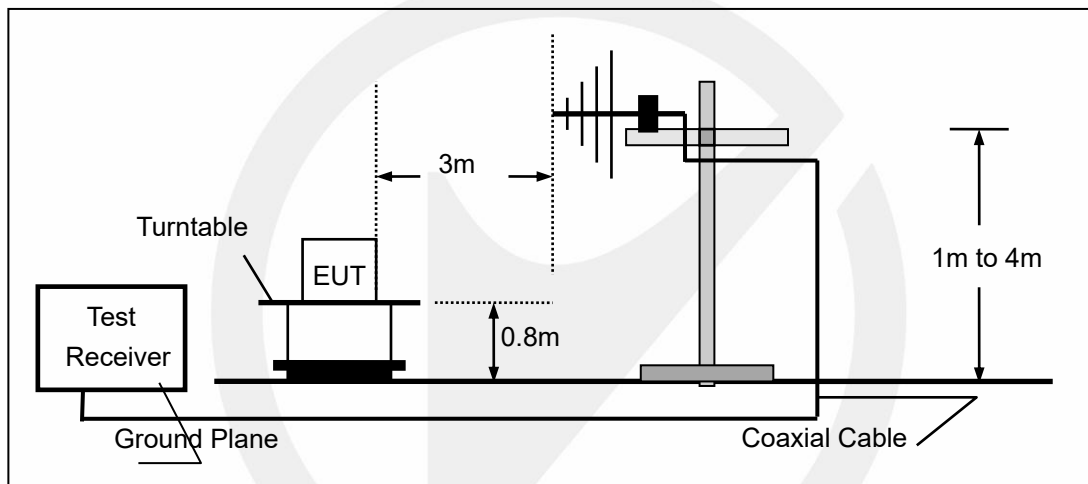
(15) Antenna type(s), antenna model number(s), and worst-case tilt angle(s) necessary to remain compliant with the elevation mask requirement set forth in Section 6.2.2(3) of RSS-247 shall be clearly indicated in the user manual.

The following figure is an example of a polar elevation mask measured using the Method 1 reference to dBμV/m at 3 m.

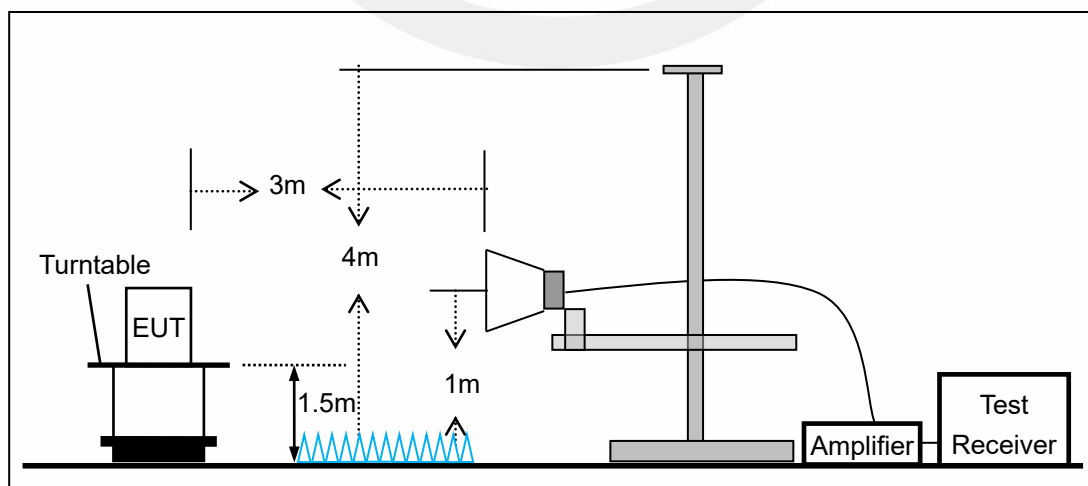
(a) Radiated Emission Test Set-Up, Frequency Below 30MHz



(b) Radiated Emission Test Set-Up, Frequency Below 1000MHz



(c) Radiated Emission Test Set-Up, Frequency above 1000MHz

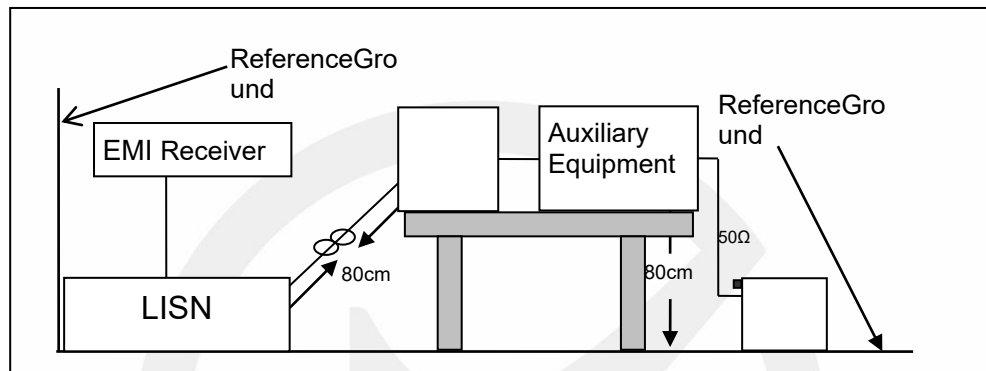


7.3 CONDUCTED EMISSION TEST SETUP

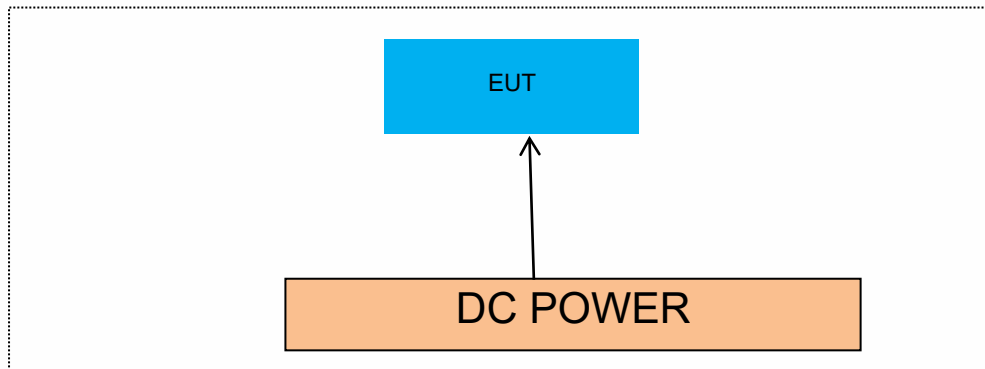
The mains cable of the EUT (maybe per AC/DC Adapter) must be connected to LISN. The LISN shall be placed 0.8 m from the boundary of EUT and bonded to a ground reference plane for LISN mounted on top of the ground reference plane. This distance is between the closest points of the LISN and the EUT. All other units of the EUT and associated equipment shall be at least 0.8m from the LISN.

Ground connections, where required for safety purposes, shall be connected to the reference ground point of the LISN and, where not otherwise provided or specified by the manufacturer, shall be of same length as the mains cable and run parallel to the mains connection at a separation distance of not more than 0.8 m.

According to the requirements in Section 13.1.4.1 of ANSI C63.10-2020 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode.



7.4 BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM



7.5 SUPPORT EQUIPMENT

EUT Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
/	/	/	/

Auxiliary Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
/	/	/	/

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
/	/	/	/

Notes:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

8 TEST REQUIREMENTS

8.1 DTS 6DB BANDWIDTH

8.1.1 Applicable Standard

According to FCC Part15.247 (a)(2) and KDB 558074 D01 15.247 Meas Guidance v05r02
According to RSS-247, 5.2(a)

8.1.2 Conformance Limit

The minimum -6 dB bandwidth shall be at least 500 kHz.

8.1.3 Test Configuration

Test according to clause 6.1 radio frequency test setup

8.1.4 Test Procedure

The EUT was operating in WIFI mode and controlled its channel. Printed out the test result from the spectrum by hard copy function.

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously

Set RBW = 100 kHz.

Set the video bandwidth (VBW) =300kHz.

Set Span=2 times OBW

Set Detector = Peak.

Set Trace mode = max hold.

Set Sweep = auto couple.

Allow the trace to stabilize.

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.

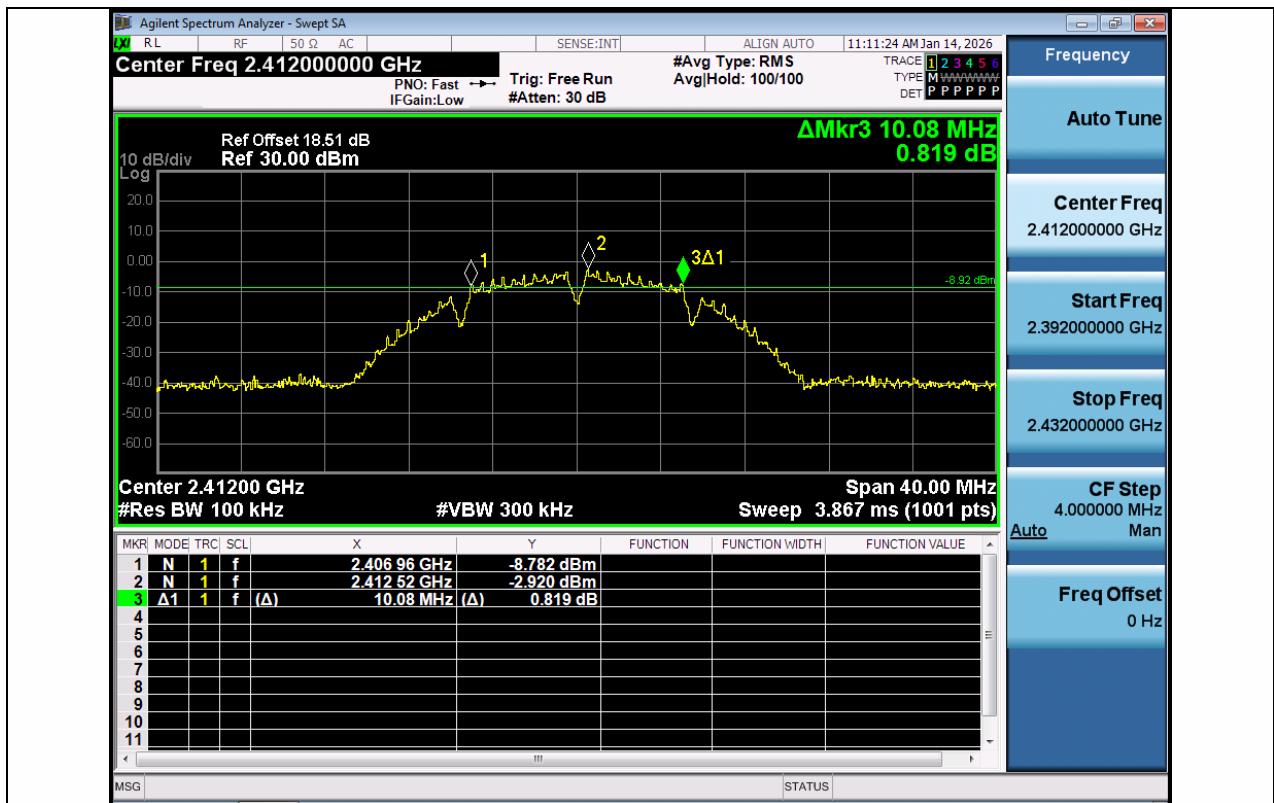
Measure and record the results in the test report.

8.1.5 Test Results

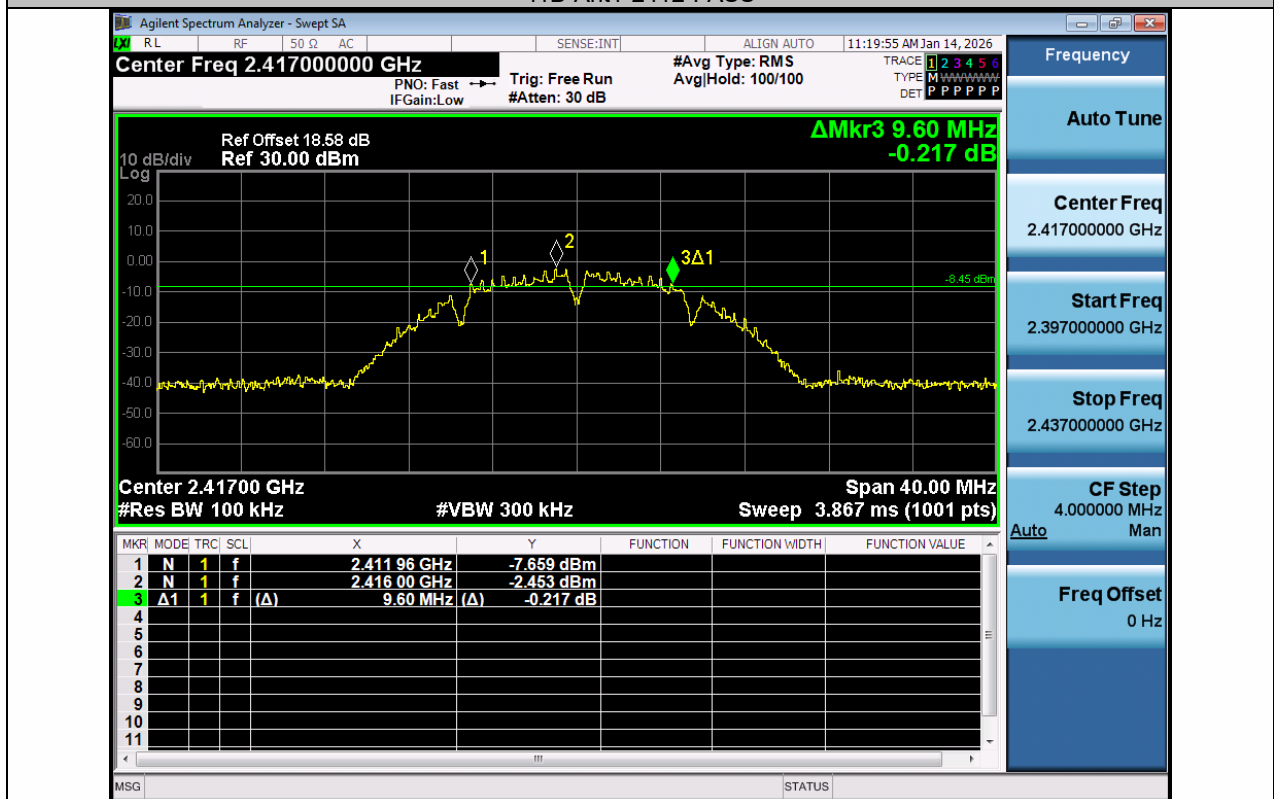
Temperature:	23.4°C
Relative Humidity:	37%
ATM Pressure:	1011 mbar
Test Engineer:	Zhu Guangjun

Note: N/A

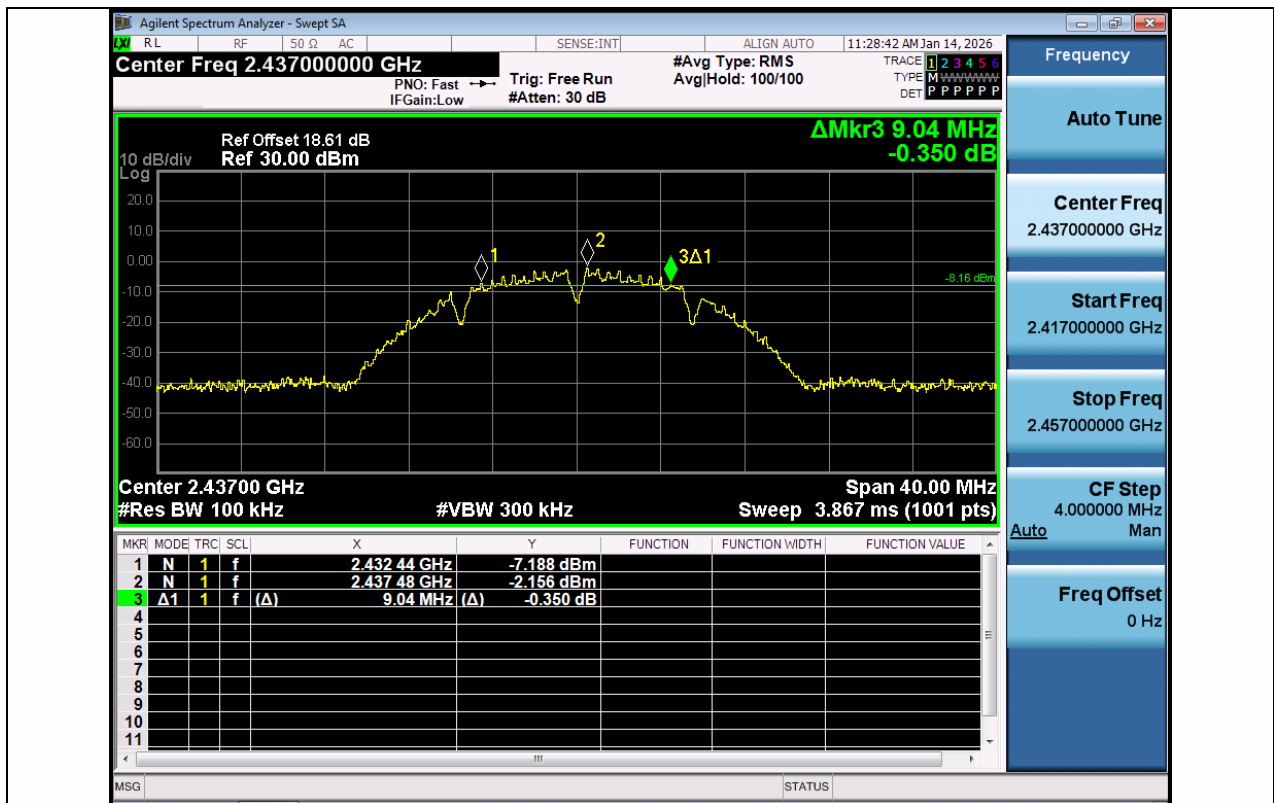
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	10.080	2406.960	2417.040	0.5	PASS
11B	Ant1	2417	9.600	2411.960	2421.560	0.5	PASS
11B	Ant1	2437	9.040	2432.440	2441.480	0.5	PASS
11B	Ant1	2457	10.040	2452.000	2462.040	0.5	PASS
11B	Ant1	2462	9.600	2456.960	2466.560	0.5	PASS
11G	Ant1	2412	16.280	2403.880	2420.160	0.5	PASS
11G	Ant1	2417	15.080	2409.480	2424.560	0.5	PASS
11G	Ant1	2437	14.360	2430.120	2444.480	0.5	PASS
11G	Ant1	2457	15.080	2449.440	2464.520	0.5	PASS
11G	Ant1	2462	15.760	2454.120	2469.880	0.5	PASS
11N20SISO	Ant1	2412	17.520	2403.240	2420.760	0.5	PASS
11N20SISO	Ant1	2417	17.520	2408.240	2425.760	0.5	PASS
11N20SISO	Ant1	2437	17.360	2428.400	2445.760	0.5	PASS
11N20SISO	Ant1	2457	14.160	2450.360	2464.520	0.5	PASS
11N20SISO	Ant1	2462	17.080	2453.360	2470.440	0.5	PASS
11N40SISO	Ant1	2422	35.440	2404.160	2439.600	0.5	PASS
11N40SISO	Ant1	2427	35.040	2409.160	2444.200	0.5	PASS
11N40SISO	Ant1	2437	36.080	2419.080	2455.160	0.5	PASS
11N40SISO	Ant1	2447	36.000	2428.840	2464.840	0.5	PASS
11N40SISO	Ant1	2452	30.880	2436.400	2467.280	0.5	PASS
11AX20SISO	Ant1	2412	17.000	2403.680	2420.680	0.5	PASS
11AX20SISO	Ant1	2417	15.600	2409.520	2425.120	0.5	PASS
11AX20SISO	Ant1	2437	18.280	2427.720	2446.000	0.5	PASS
11AX20SISO	Ant1	2457	18.400	2447.760	2466.160	0.5	PASS
11AX20SISO	Ant1	2462	18.920	2452.520	2471.440	0.5	PASS
11AX40SISO	Ant1	2422	37.040	2403.680	2440.720	0.5	PASS
11AX40SISO	Ant1	2427	34.560	2409.400	2443.960	0.5	PASS
11AX40SISO	Ant1	2437	35.920	2419.480	2455.400	0.5	PASS
11AX40SISO	Ant1	2447	34.320	2431.000	2465.320	0.5	PASS
11AX40SISO	Ant1	2452	34.240	2433.840	2468.080	0.5	PASS



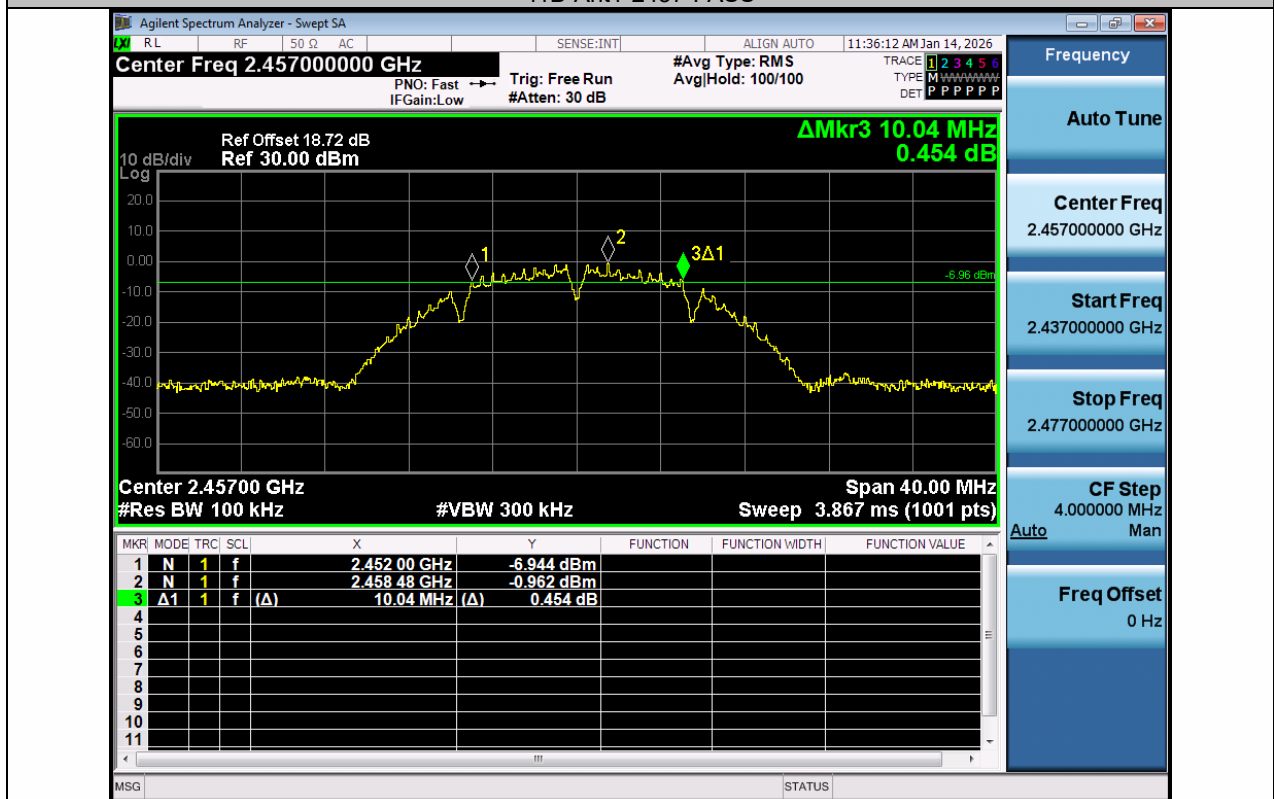
11B-Ant1-2412-PASS



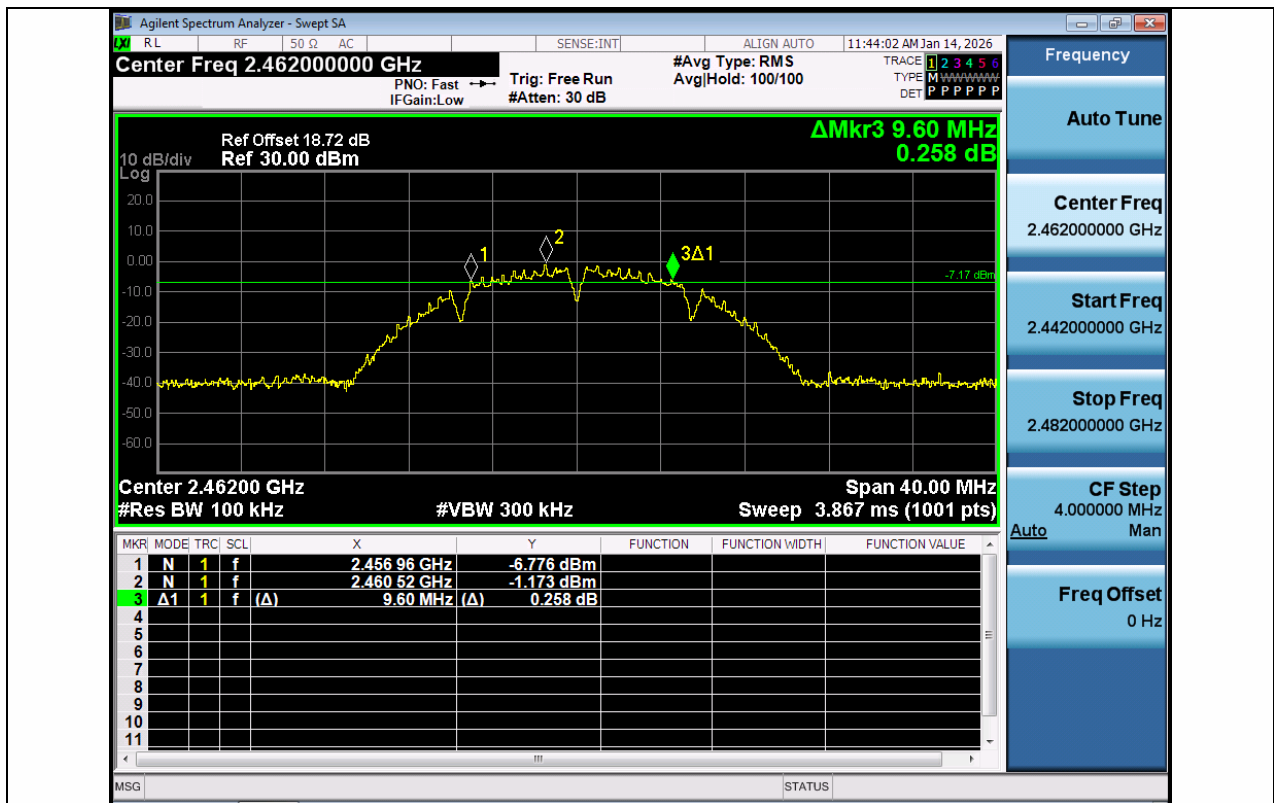
11B-Ant1-2417-PASS



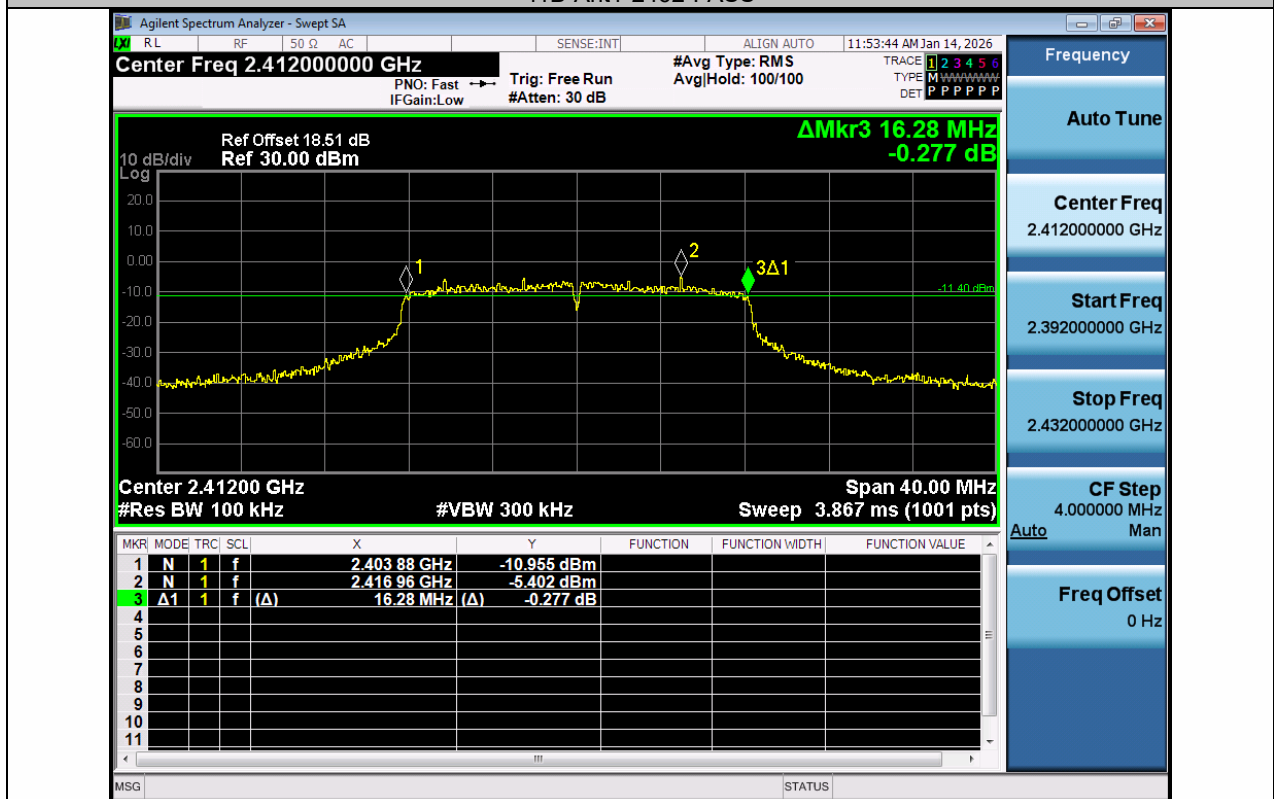
11B-Ant1-2437-PASS



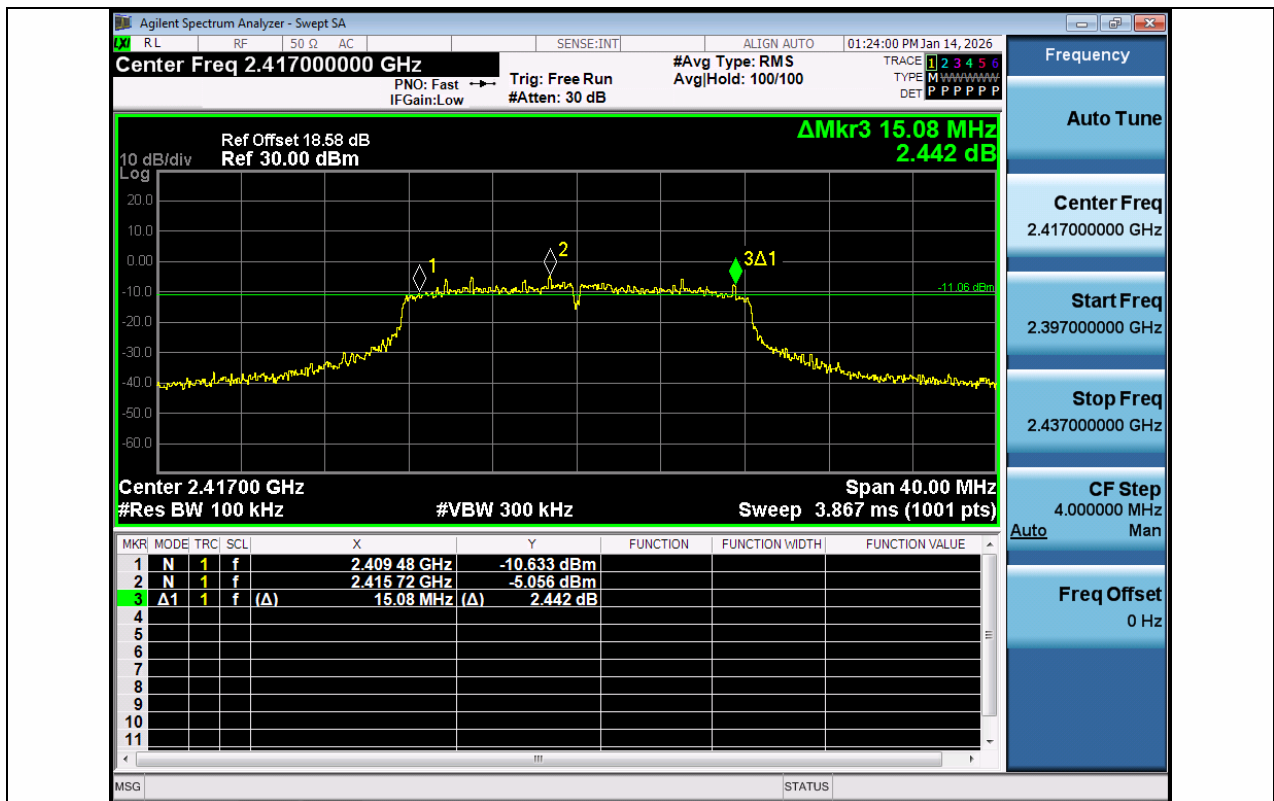
11B-Ant1-2457-PASS



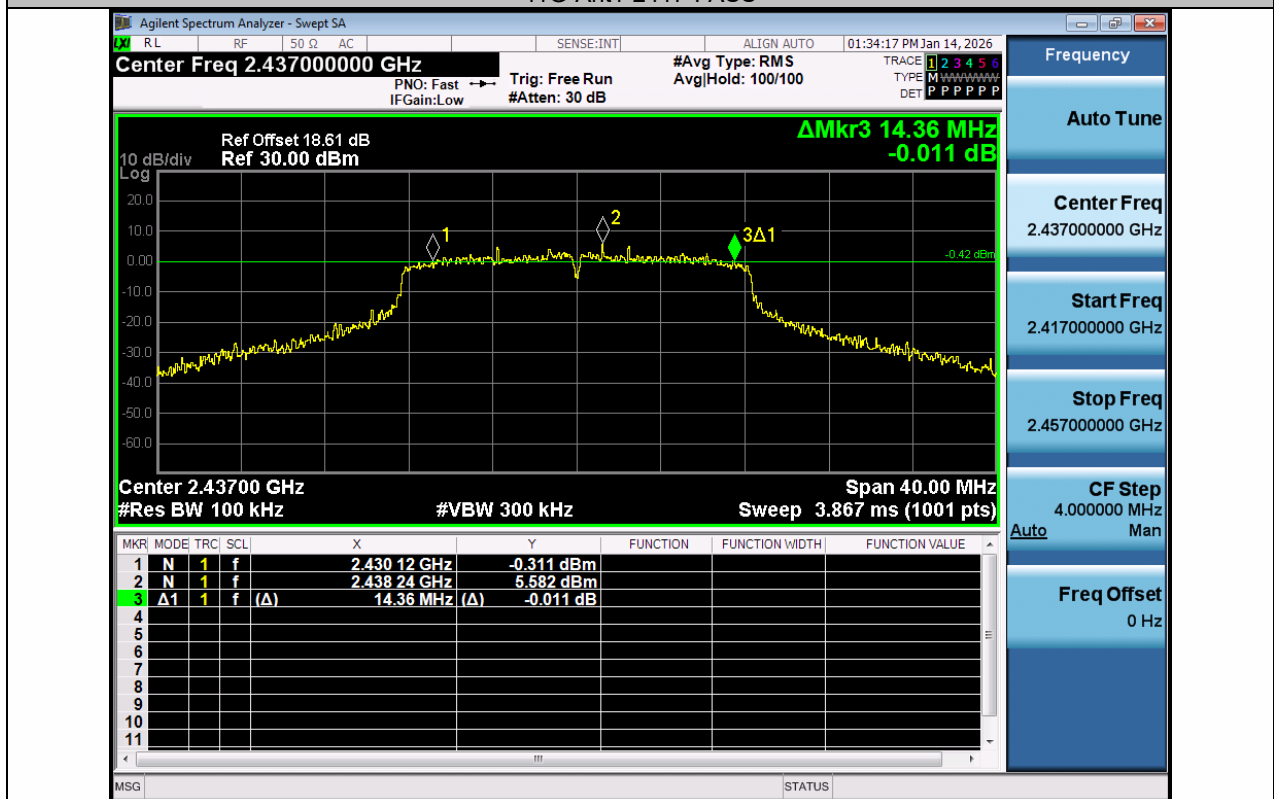
11B-Ant1-2462-PASS



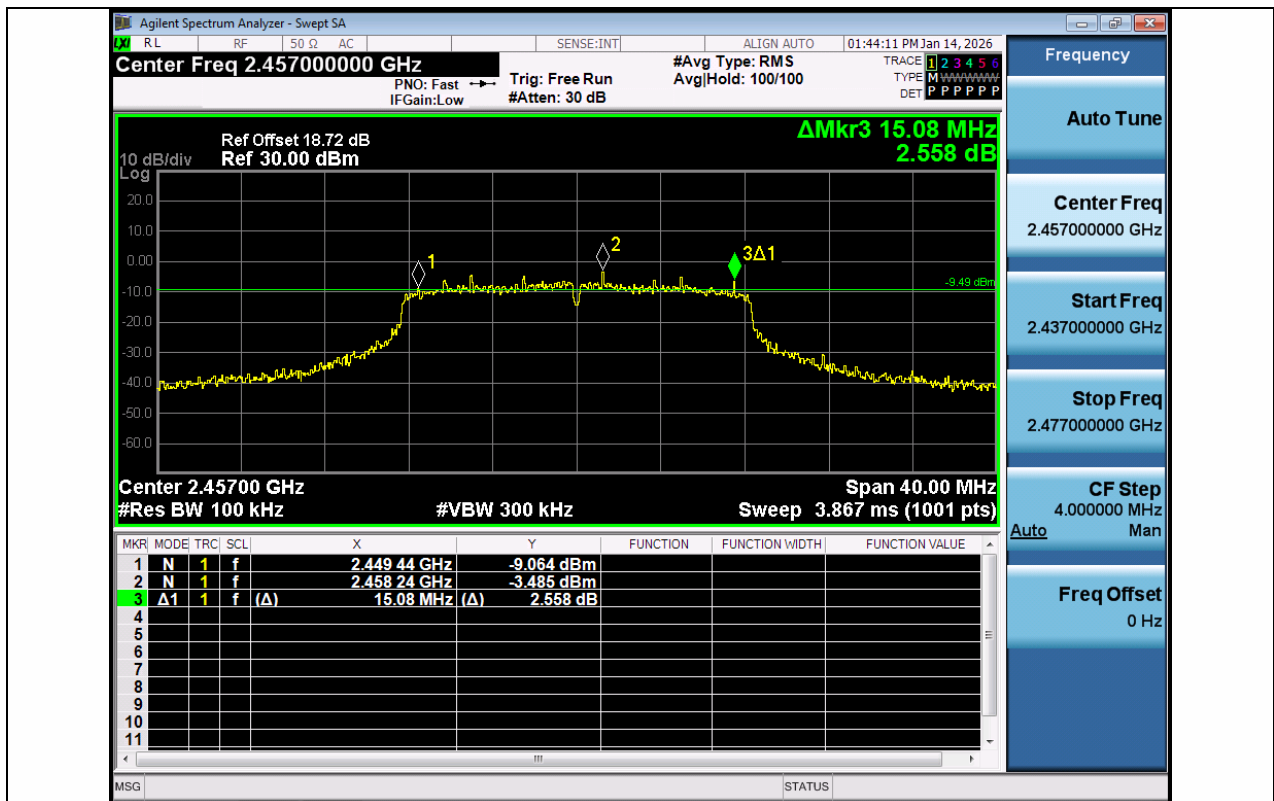
11G-Ant1-2412-PASS



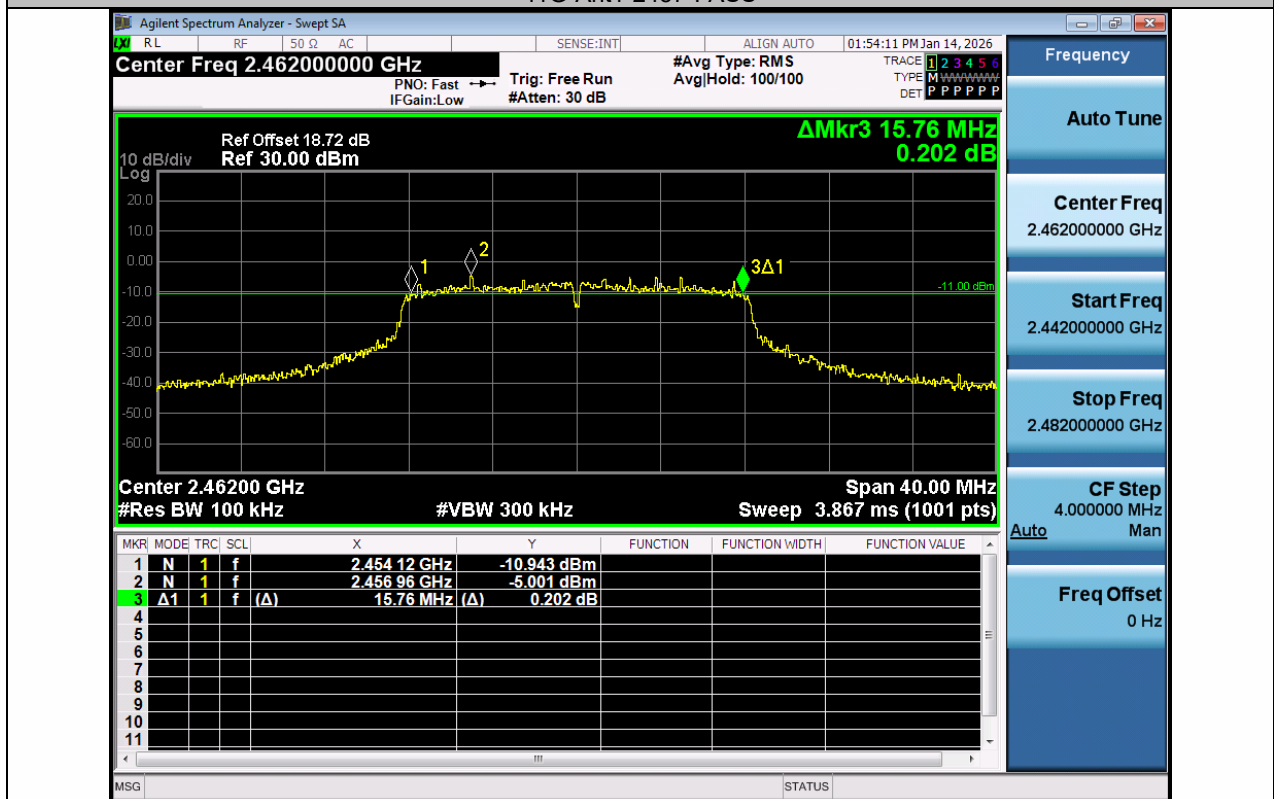
11G-Ant1-2417-PASS



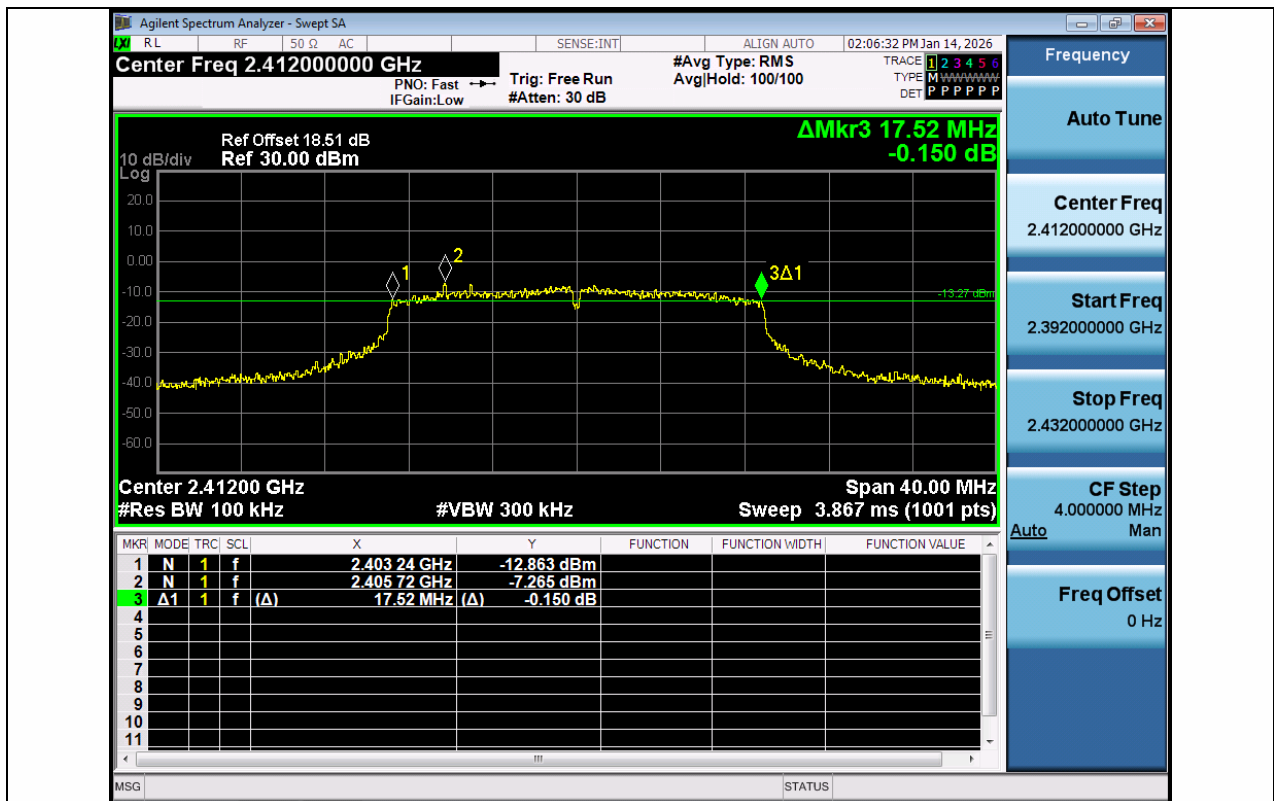
11G-Ant1-2437-PASS



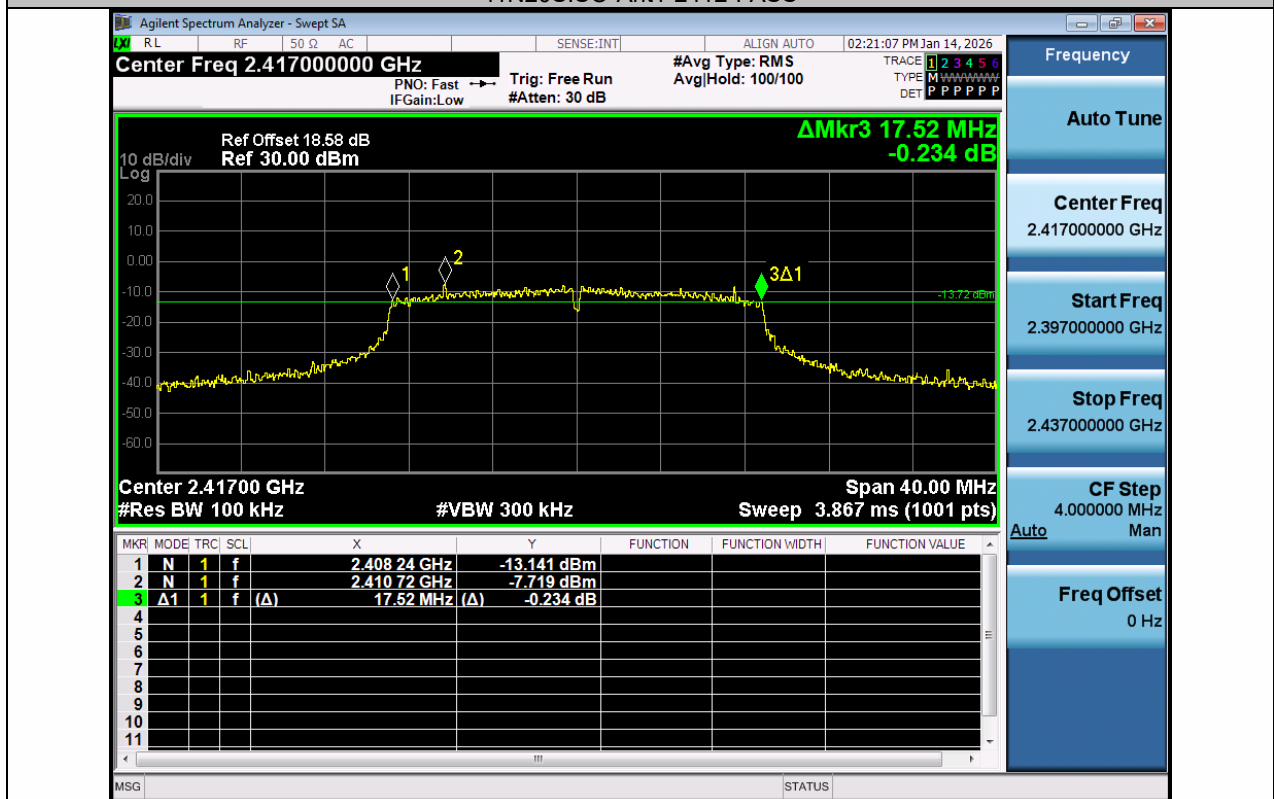
11G-Ant1-2457-PASS



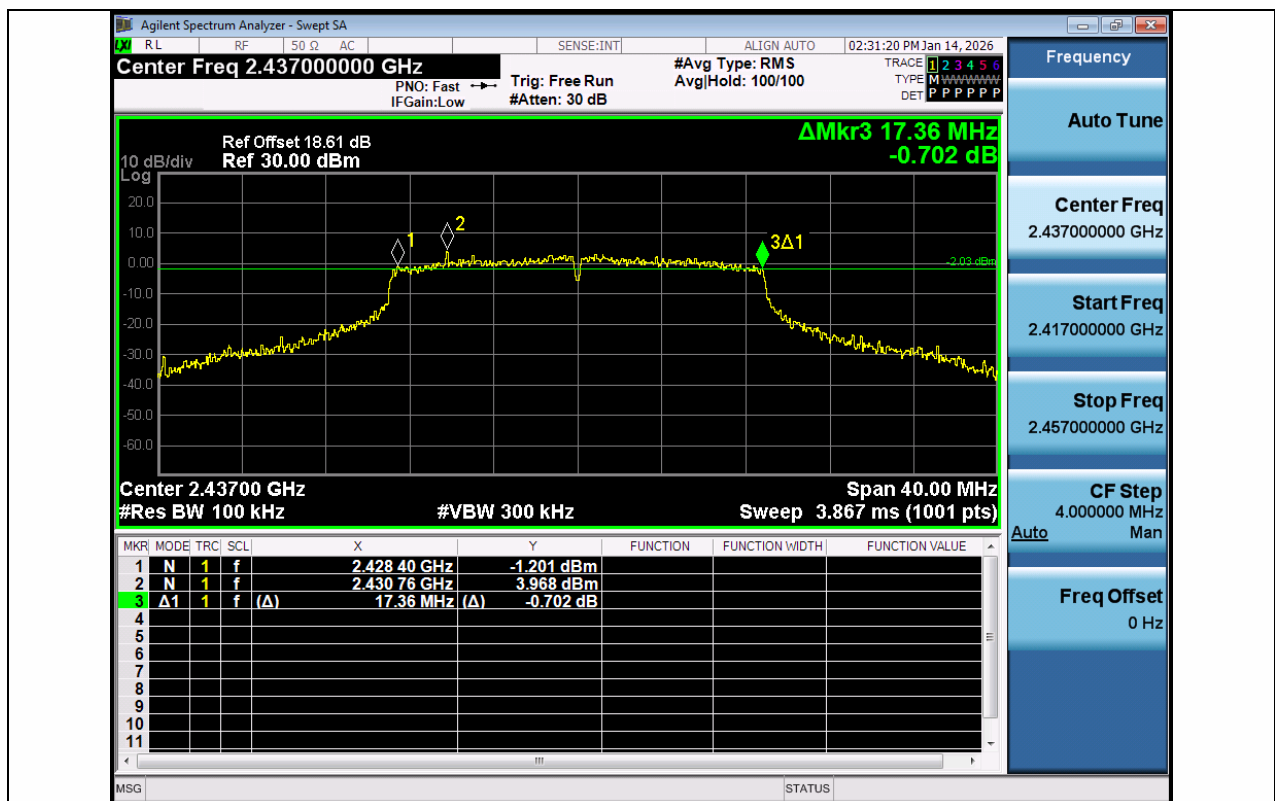
11G-Ant1-2462-PASS



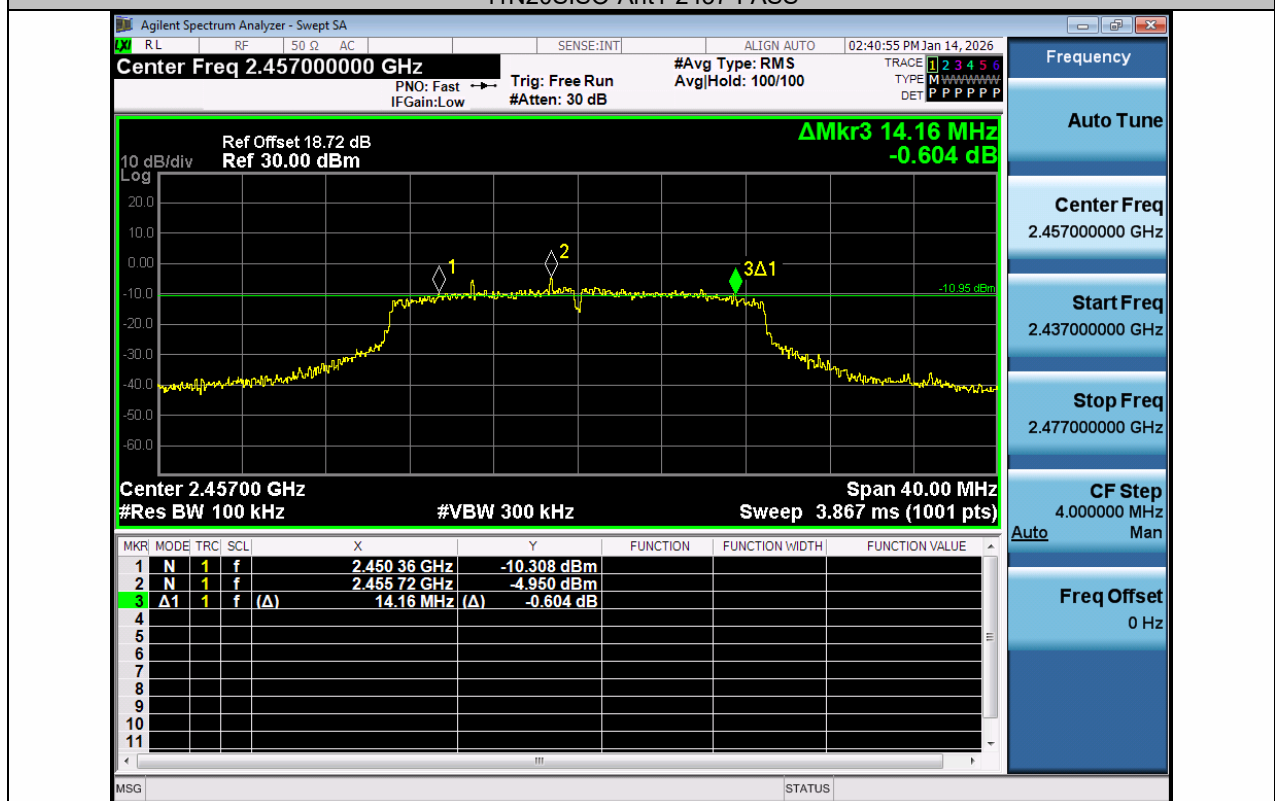
11N20SISO-Ant1-2412-PASS



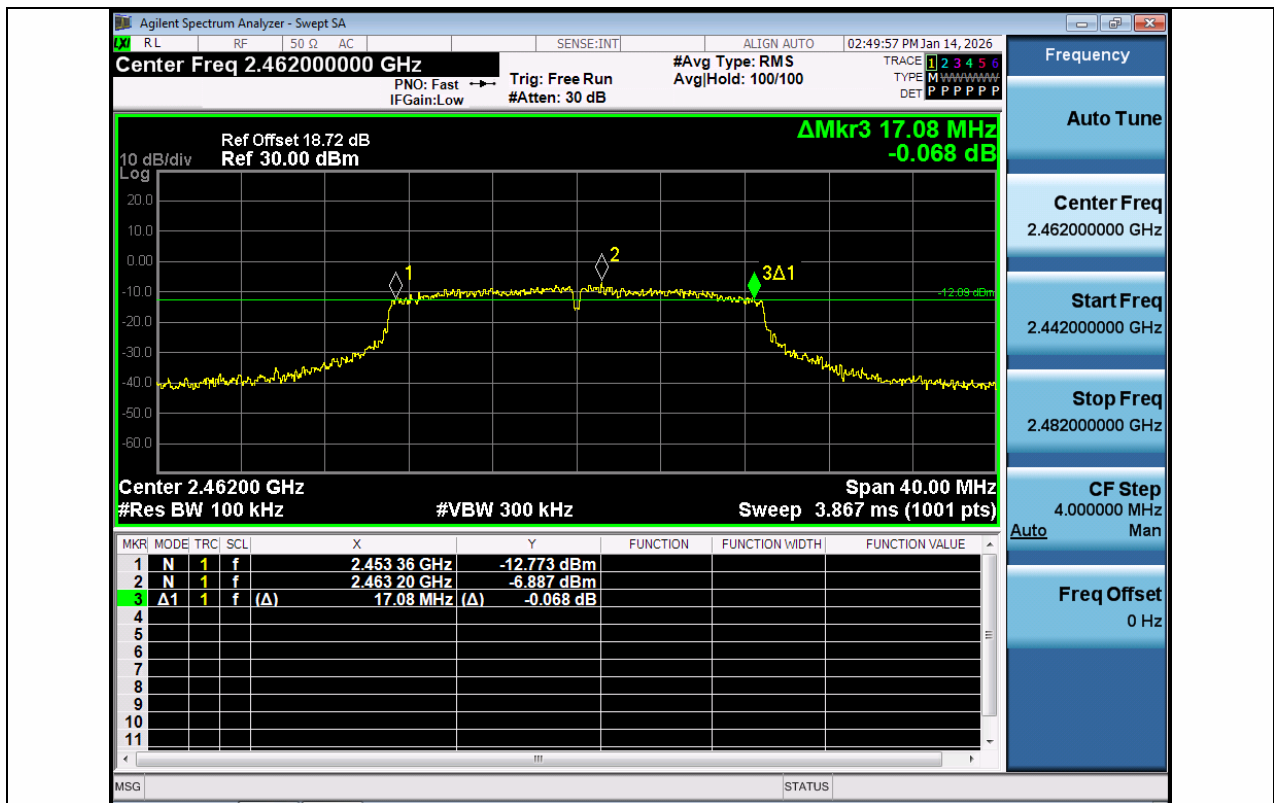
11N20SISO-Ant1-2417-PASS



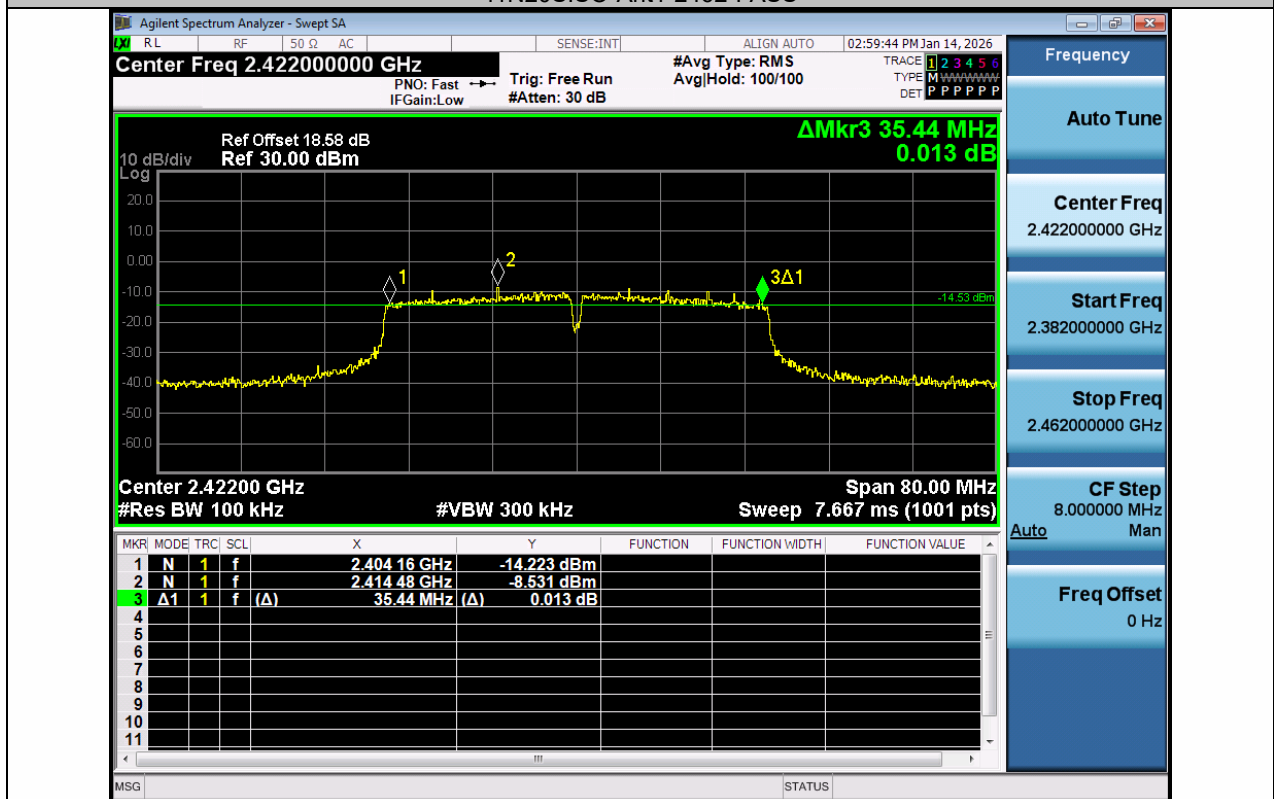
11N20SISO-Ant1-2437-PASS



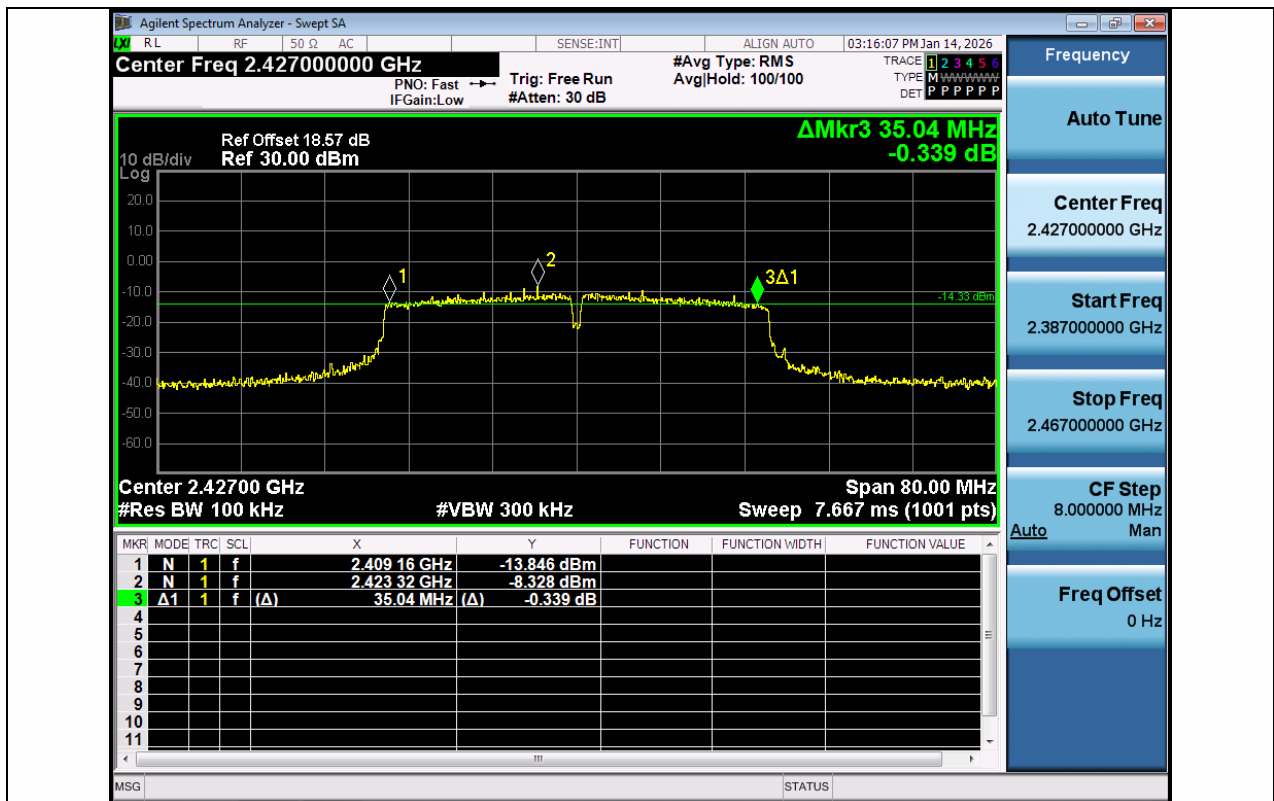
11N20SISO-Ant1-2457-PASS



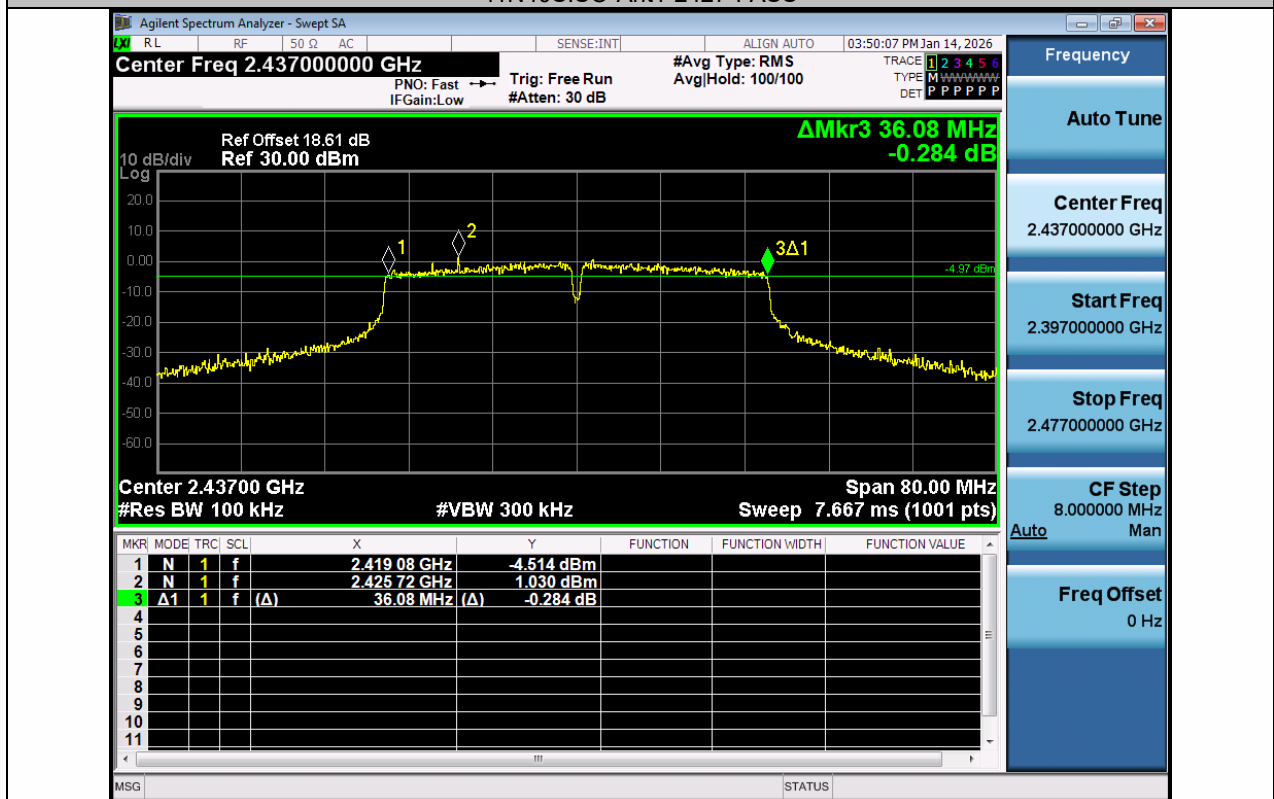
11N20SISO-Ant1-2462-PASS



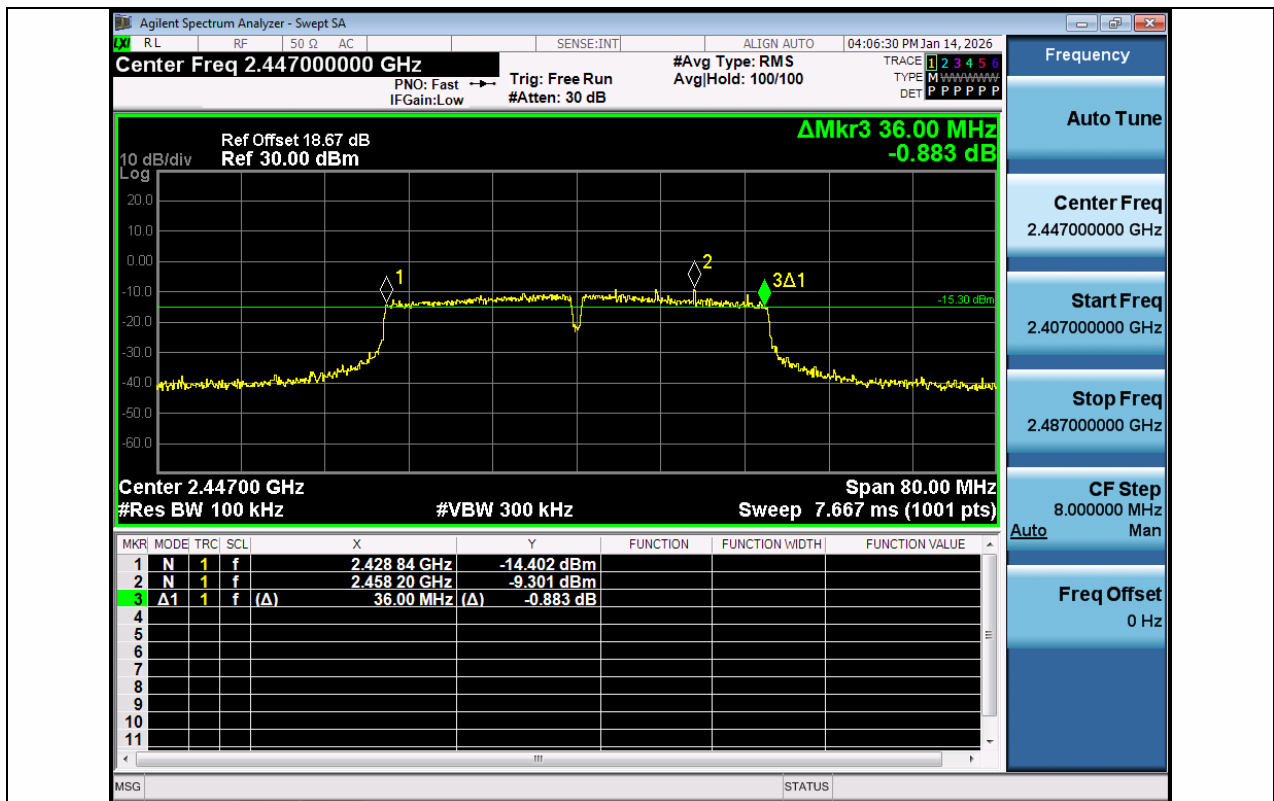
11N40SISO-Ant1-2422-PASS



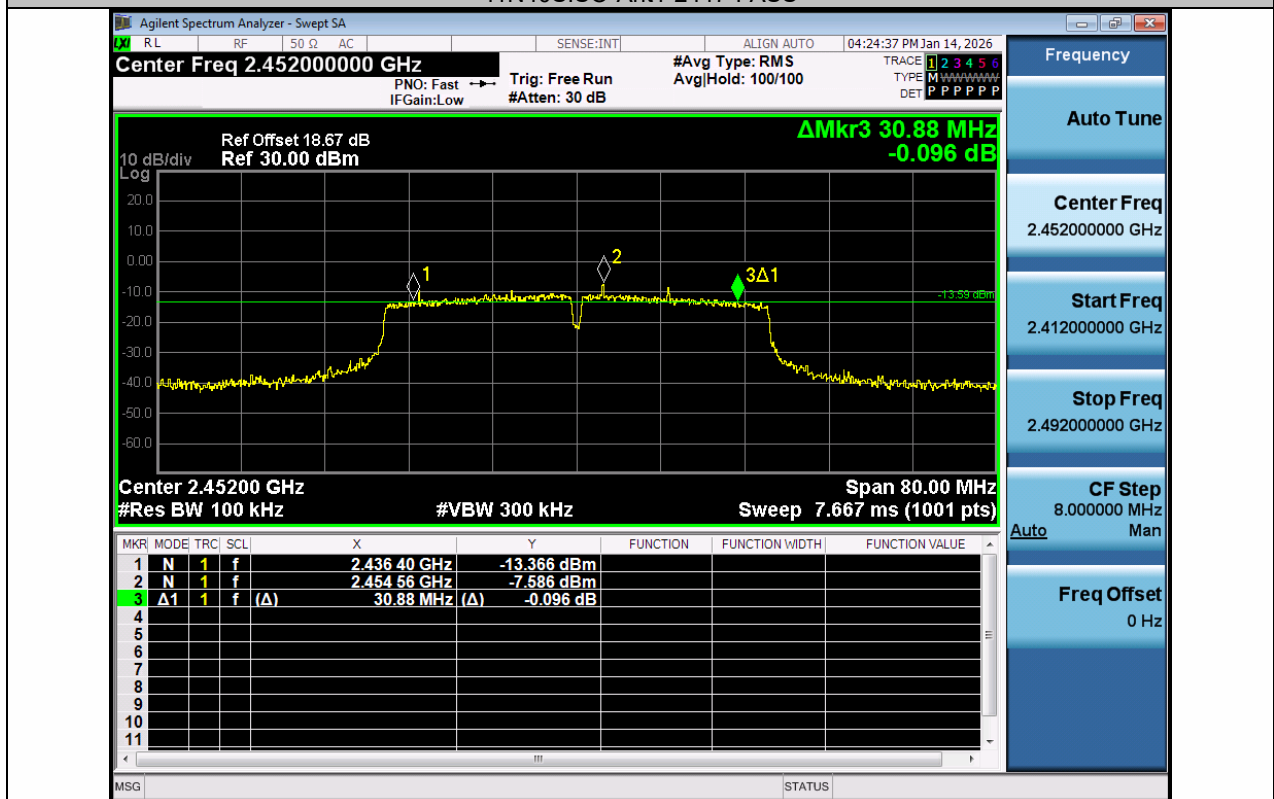
11N40SISO-Ant1-2427-PASS



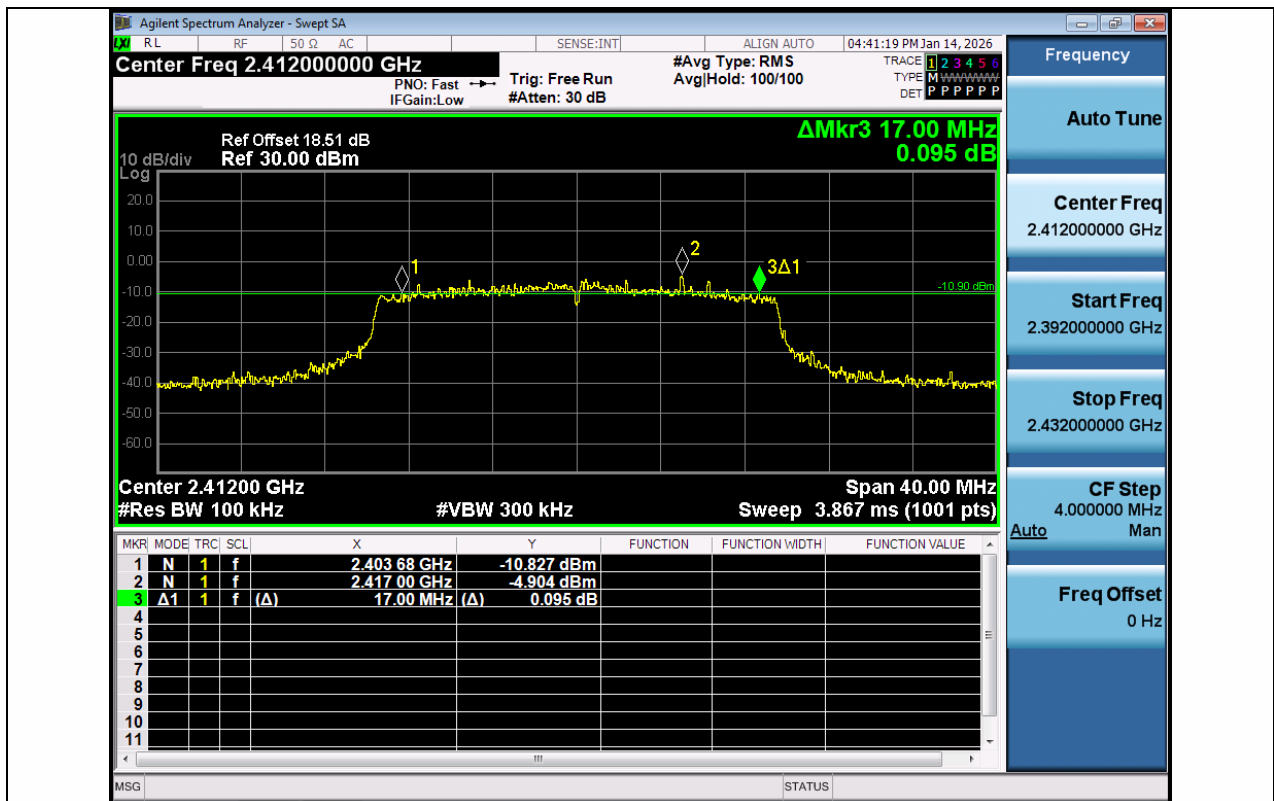
11N40SISO-Ant1-2437-PASS



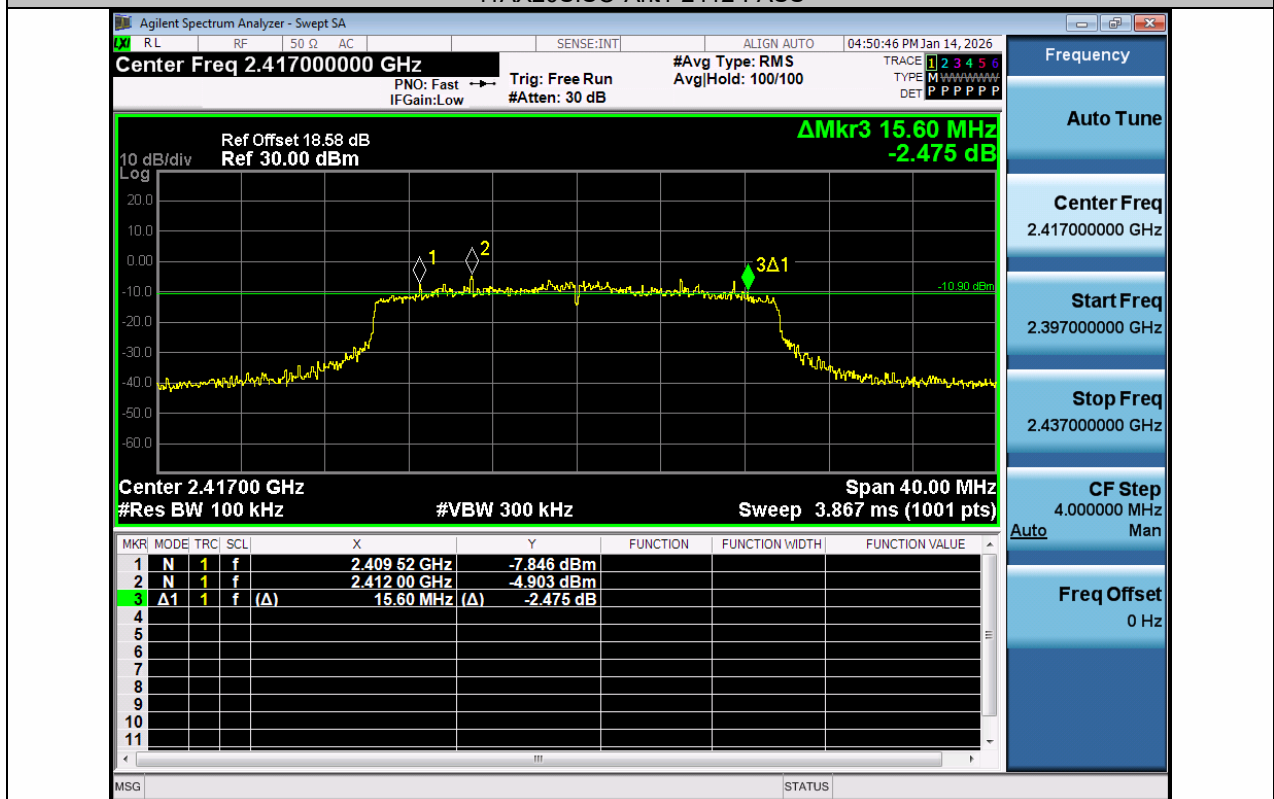
11N40SISO-Ant1-2447-PASS



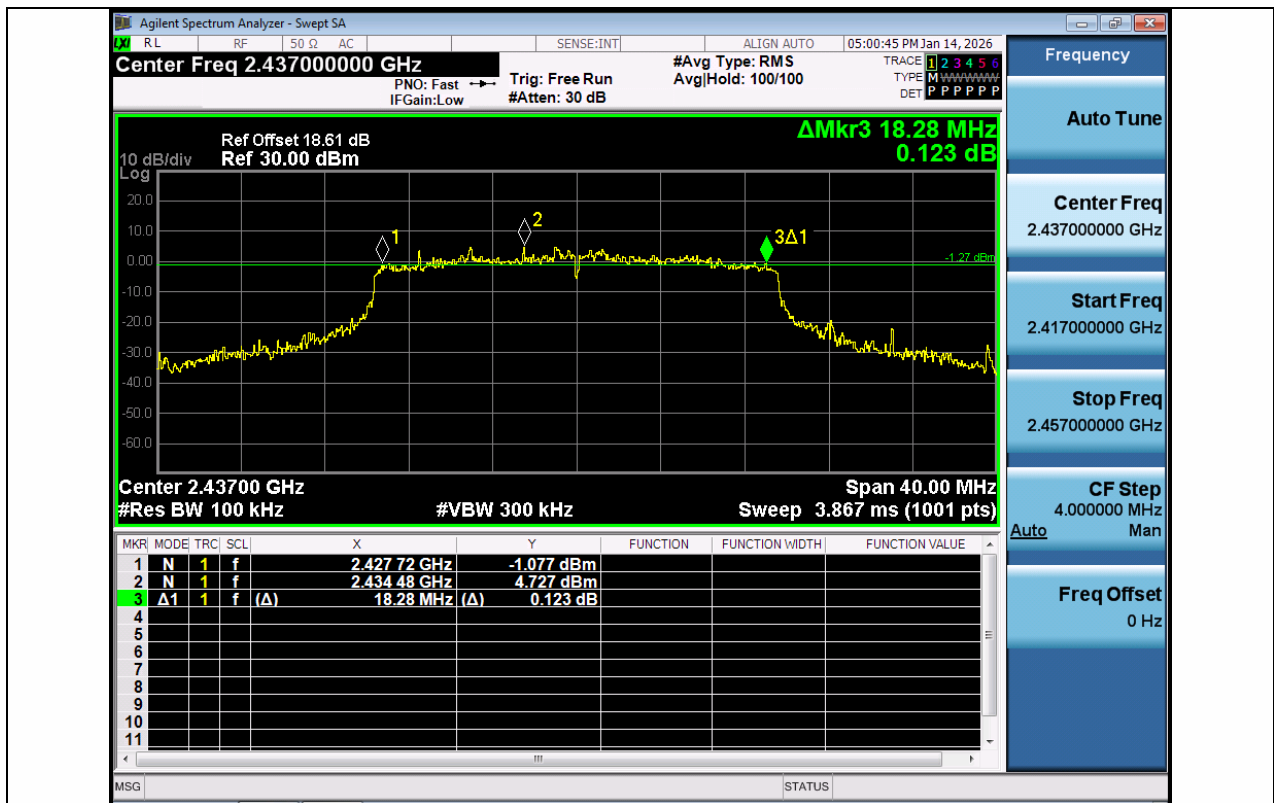
11N40SISO-Ant1-2452-PASS



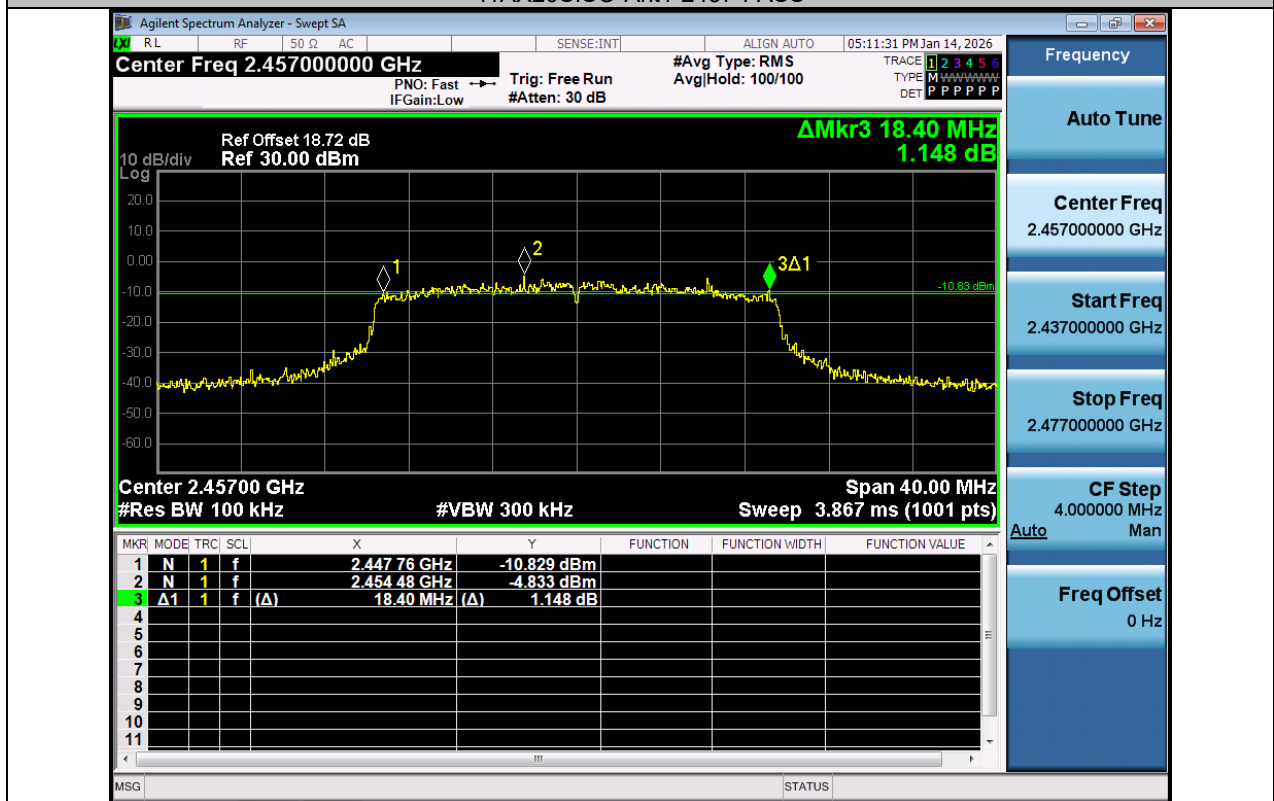
11AX20SISO-Ant1-2412-PASS



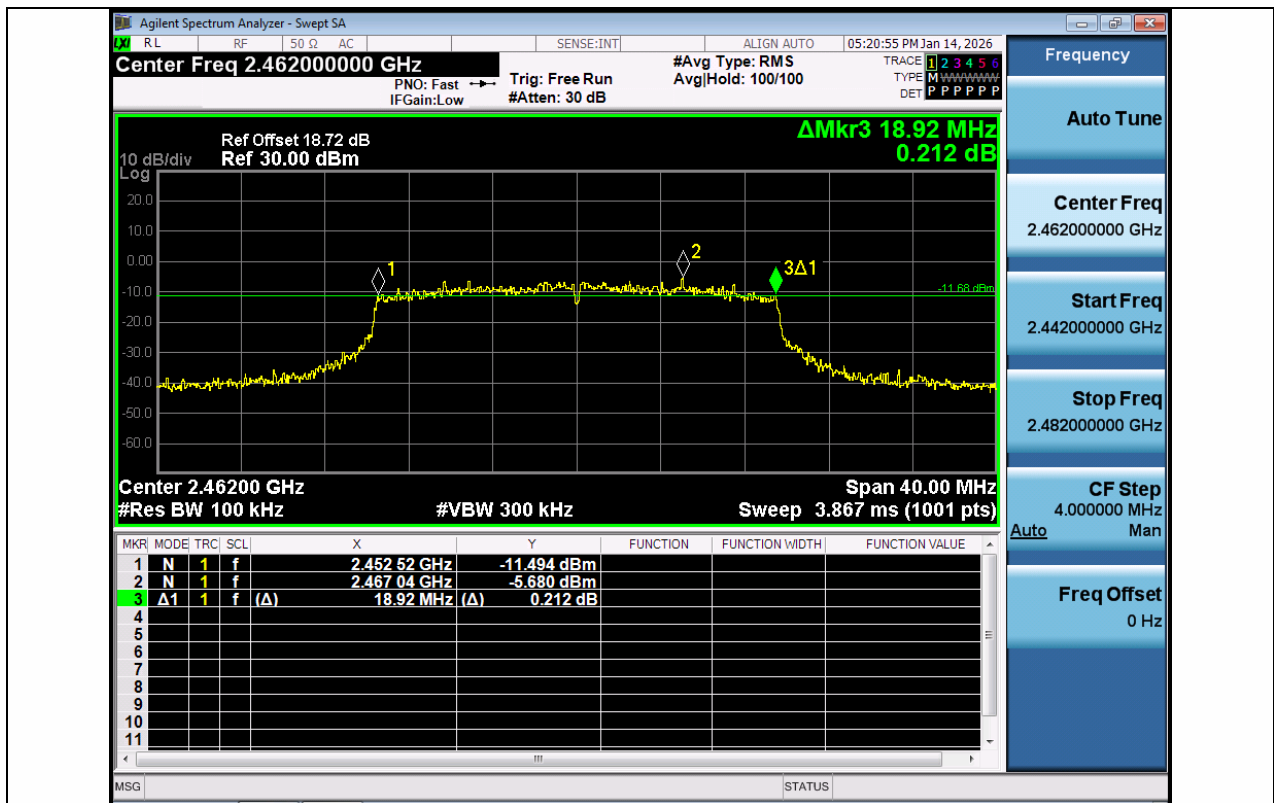
11AX20SISO-Ant1-2417-PASS



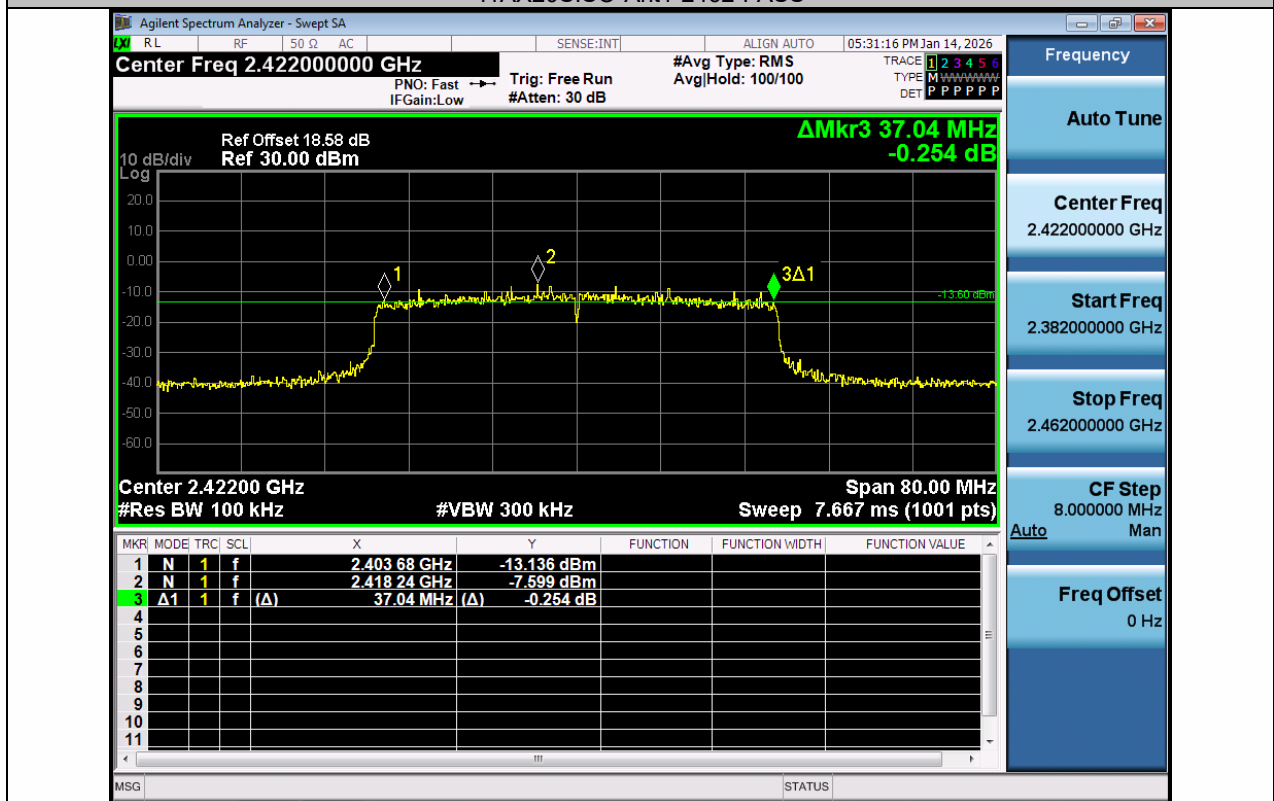
11AX20SISO-Ant1-2437-PASS



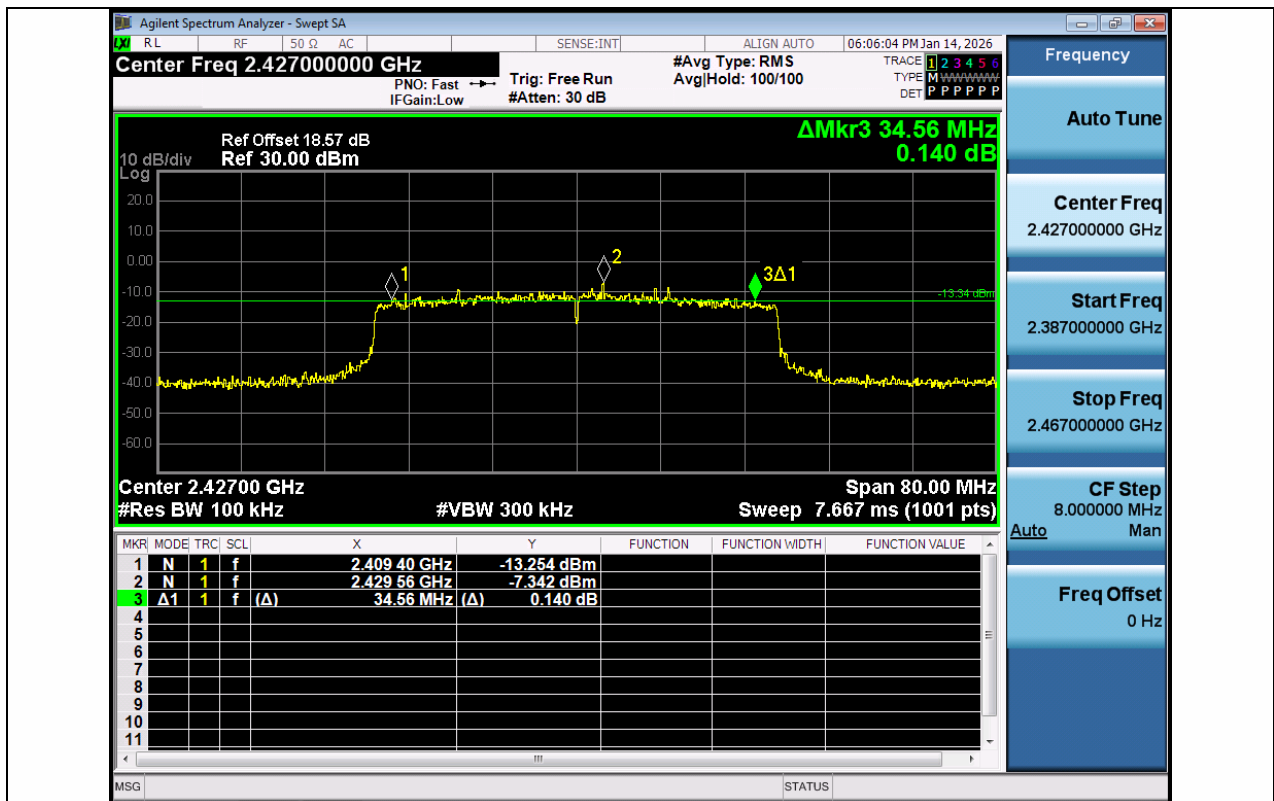
11AX20SISO-Ant1-2457-PASS



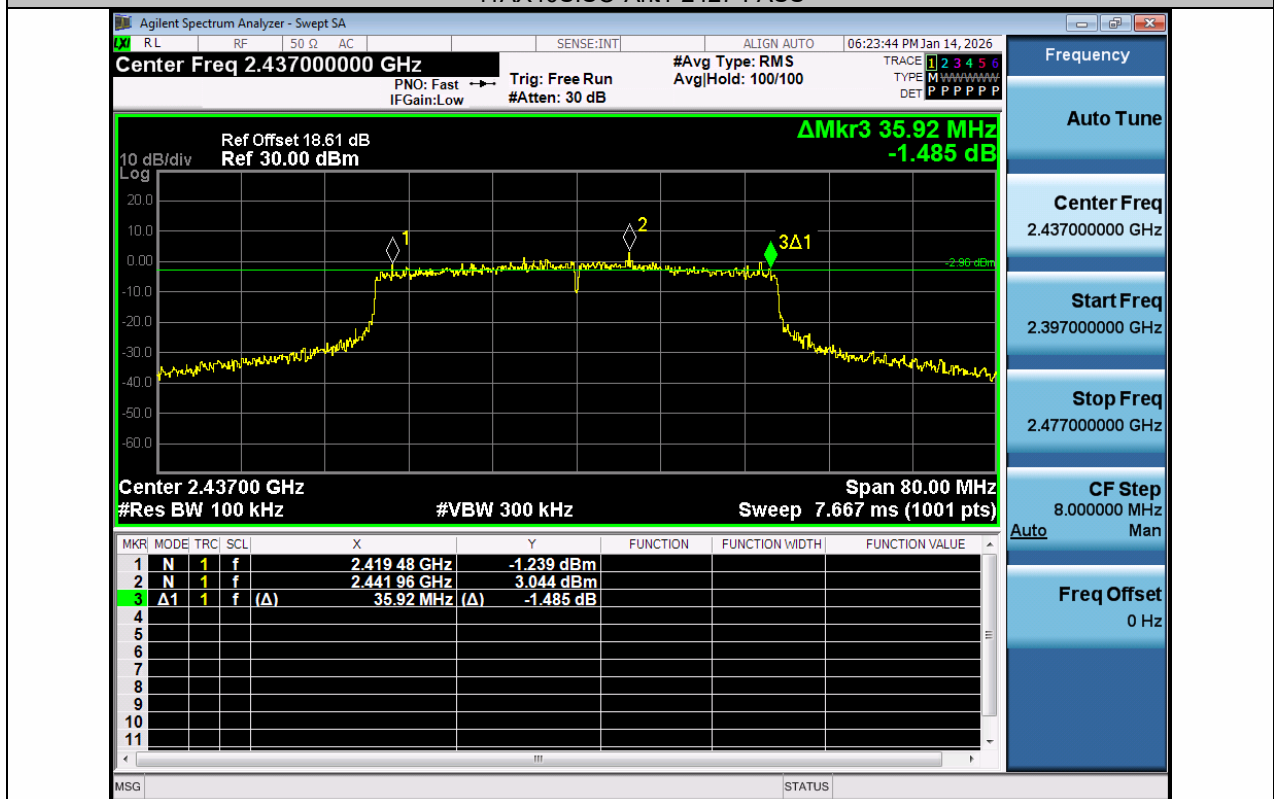
11AX20SISO-Ant1-2462-PASS



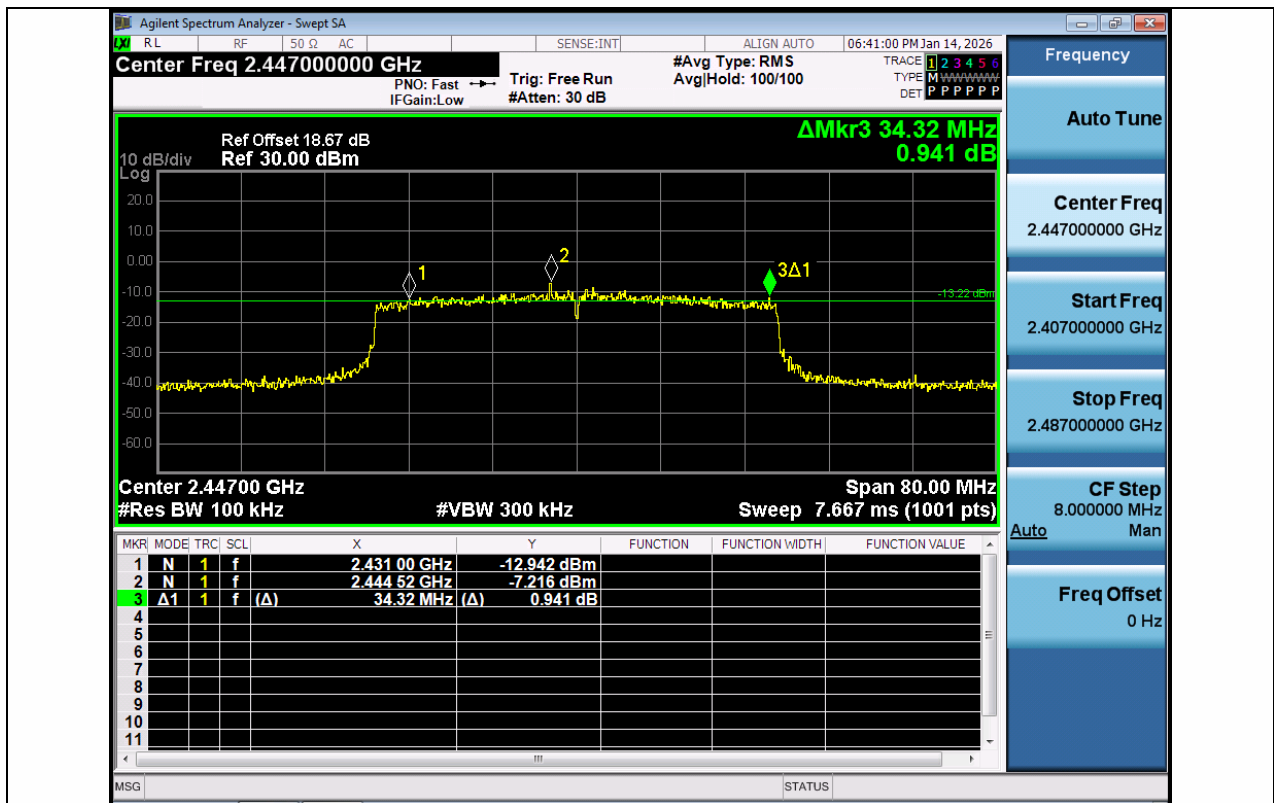
11AX40SISO-Ant1-2422-PASS



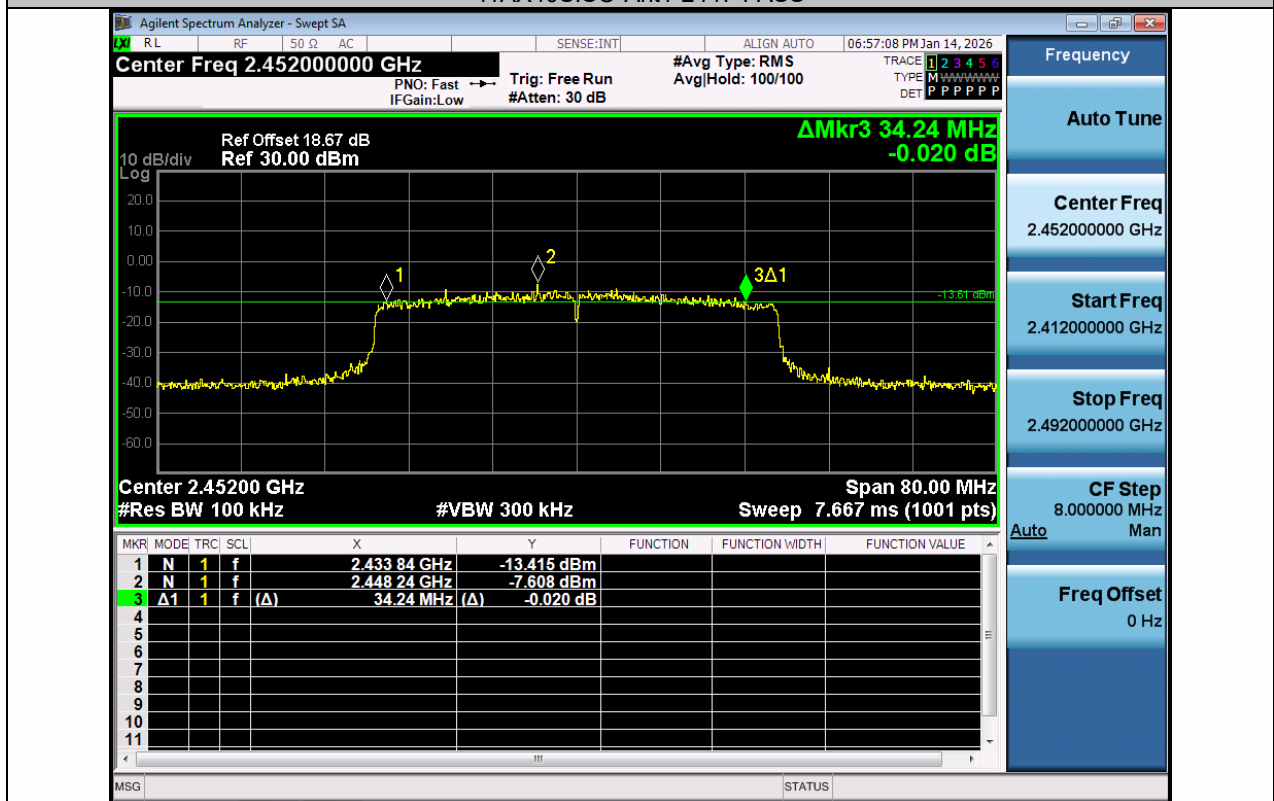
11AX40SISO-Ant1-2427-PASS



11AX40SISO-Ant1-2437-PASS



11AX40SISO-Ant1-2447-PASS



11AX40SISO-Ant1-2452-PASS

8.2 DTS 99%BANDWIDTH

8.2.1 Applicable Standard

According to RSS-Gen6.7 and KDB 558074 D01 DTS Meas Guidance v05r02

8.2.2 Test Configuration

Test according to clause 7.1 radio frequency test setup 1

8.2.3 Test Procedure

The EUT was operating in Bluetooth mode and controlled its channel. Printed out the test result from the spectrum by hard copy function.

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously

Set RBW = 1%-5% OBW.

Set the video bandwidth (VBW) $\geq 3 \times \text{RBW}$.

Set Span=approximately 2 to 3 times the 20 dB bandwidth.

Set Detector = Peak.

Set Trace mode = max hold.

Set Sweep = auto couple.

Allow the trace to stabilize.

Use the 99 % power bandwidth function of the instrument

Measure the maximum width of the emission.

If this value varies with different modes of operation (e.g., data rate, modulation format, etc.), repeat this test for each variation.

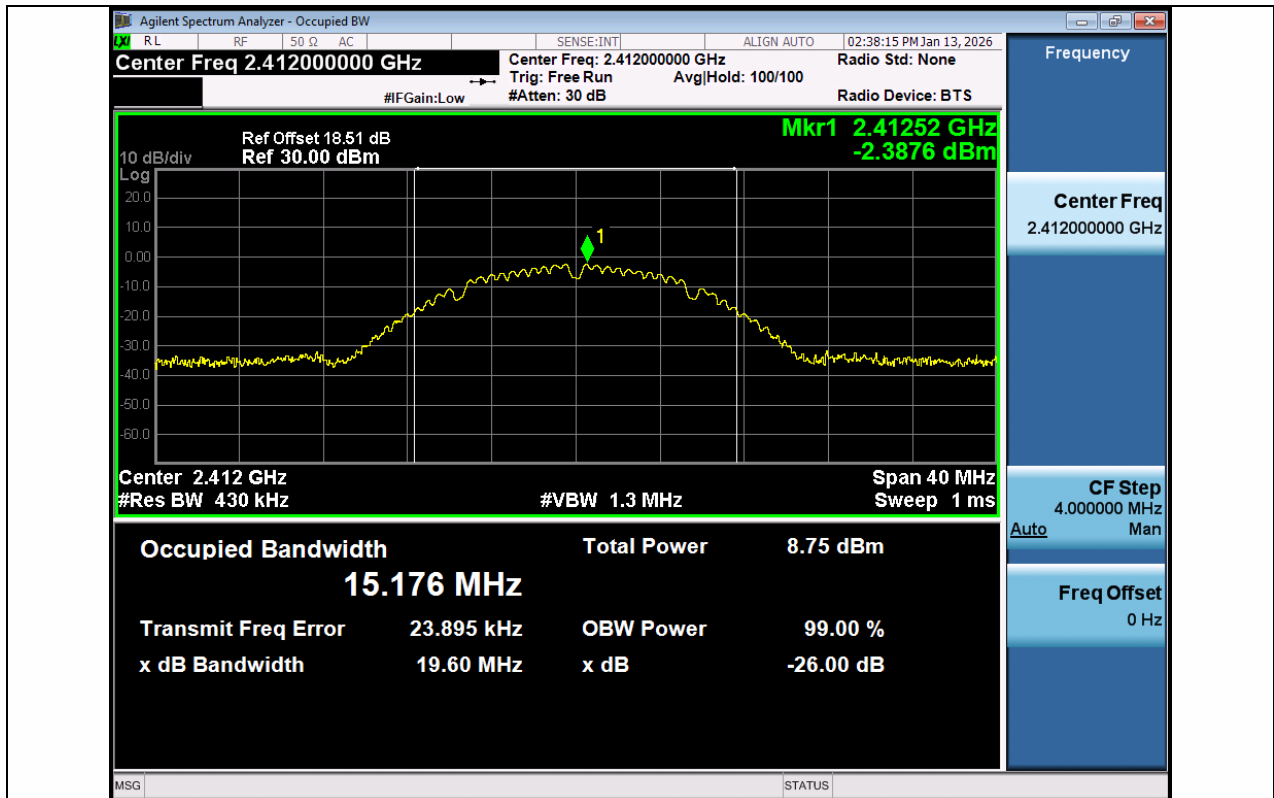
Measure and record the results in the test report.

8.2.4 Test Results

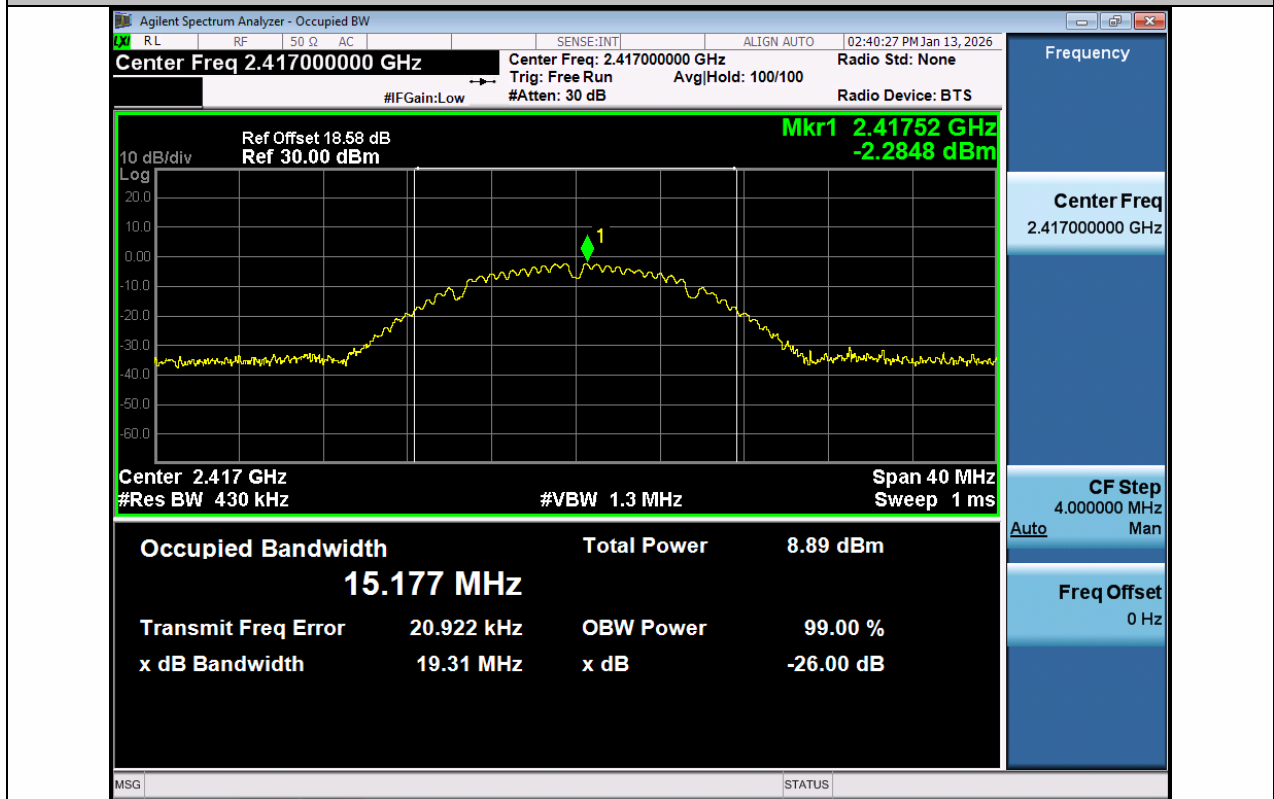
Temperature:	23.4°C
Relative Humidity:	37%
ATM Pressure:	1011 mbar
Test Engineer:	Zhu Guangjun

Note: N/A

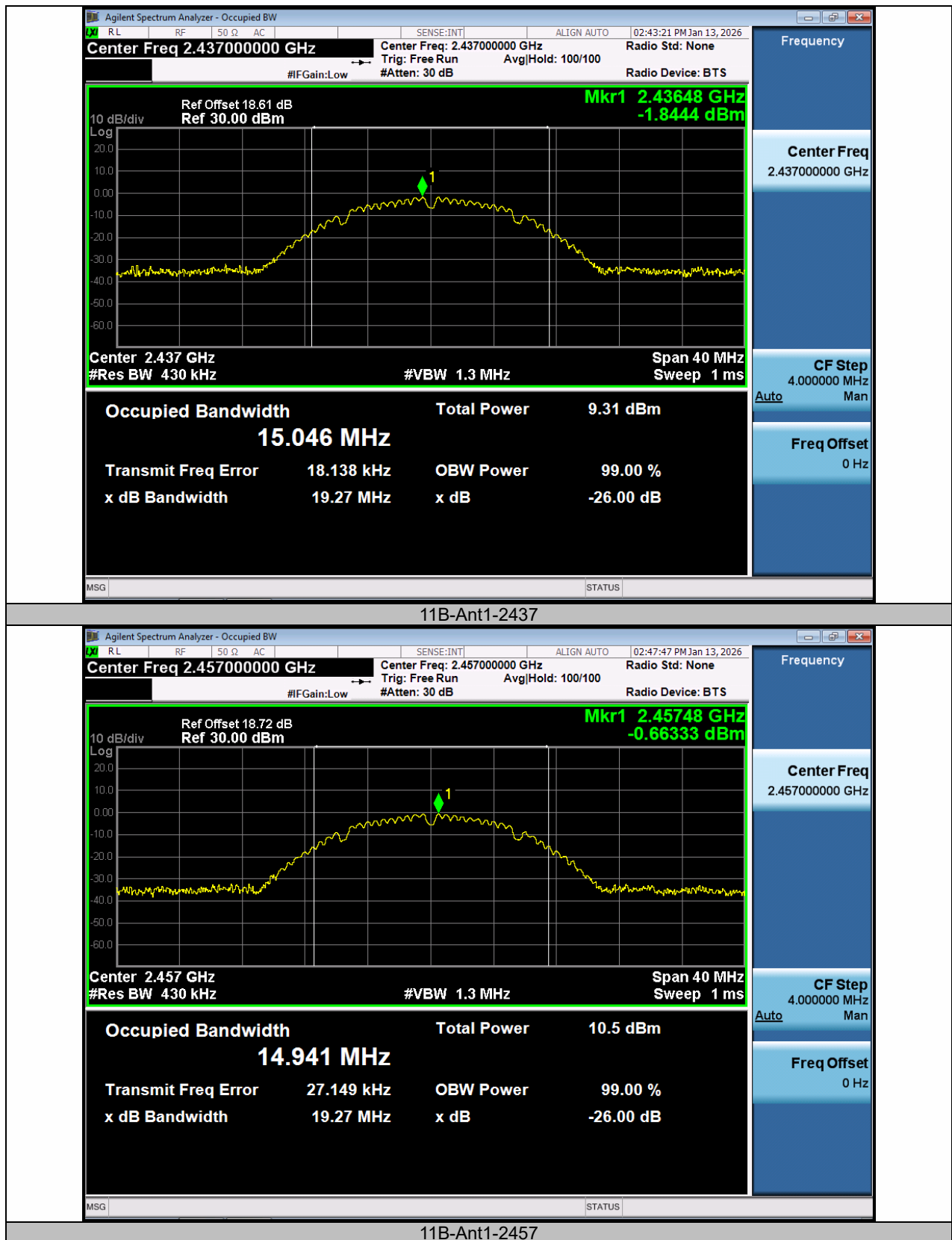
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	15.176	2404.4359	2419.6119	---	---
11B	Ant1	2417	15.177	2409.4324	2424.6094	---	---
11B	Ant1	2437	15.046	2429.4951	2444.5411	---	---
11B	Ant1	2457	14.941	2449.5567	2464.4977	---	---
11B	Ant1	2462	14.931	2454.5563	2469.4873	---	---
11G	Ant1	2412	17.324	2403.3256	2420.6496	---	---
11G	Ant1	2417	17.443	2408.2605	2425.7035	---	---
11G	Ant1	2437	17.477	2428.2668	2445.7438	---	---
11G	Ant1	2457	17.428	2448.2483	2465.6763	---	---
11G	Ant1	2462	17.357	2453.3010	2470.6580	---	---
11N20SISO	Ant1	2412	18.564	2402.7002	2421.2642	---	---
11N20SISO	Ant1	2417	18.528	2407.7410	2426.2690	---	---
11N20SISO	Ant1	2437	18.474	2427.7503	2446.2243	---	---
11N20SISO	Ant1	2457	18.531	2447.8054	2466.3364	---	---
11N20SISO	Ant1	2462	18.556	2452.7136	2471.2696	---	---
11N40SISO	Ant1	2422	37.452	2403.1728	2440.6248	---	---
11N40SISO	Ant1	2427	37.357	2408.2517	2445.6087	---	---
11N40SISO	Ant1	2437	37.376	2418.4246	2455.8006	---	---
11N40SISO	Ant1	2447	37.413	2428.1674	2465.5804	---	---
11N40SISO	Ant1	2452	37.384	2433.3609	2470.7449	---	---
11AX20SISO	Ant1	2412	19.204	2402.3894	2421.5934	---	---
11AX20SISO	Ant1	2417	19.200	2407.3838	2426.5838	---	---
11AX20SISO	Ant1	2437	19.269	2427.3568	2446.6258	---	---
11AX20SISO	Ant1	2457	19.183	2447.3899	2466.5729	---	---
11AX20SISO	Ant1	2462	19.276	2452.4093	2471.6853	---	---
11AX40SISO	Ant1	2422	38.206	2402.8130	2441.0190	---	---
11AX40SISO	Ant1	2427	38.078	2407.9502	2446.0282	---	---
11AX40SISO	Ant1	2437	38.164	2417.9983	2456.1623	---	---
11AX40SISO	Ant1	2447	38.124	2427.9897	2466.1137	---	---
11AX40SISO	Ant1	2452	38.163	2432.9999	2471.1629	---	---

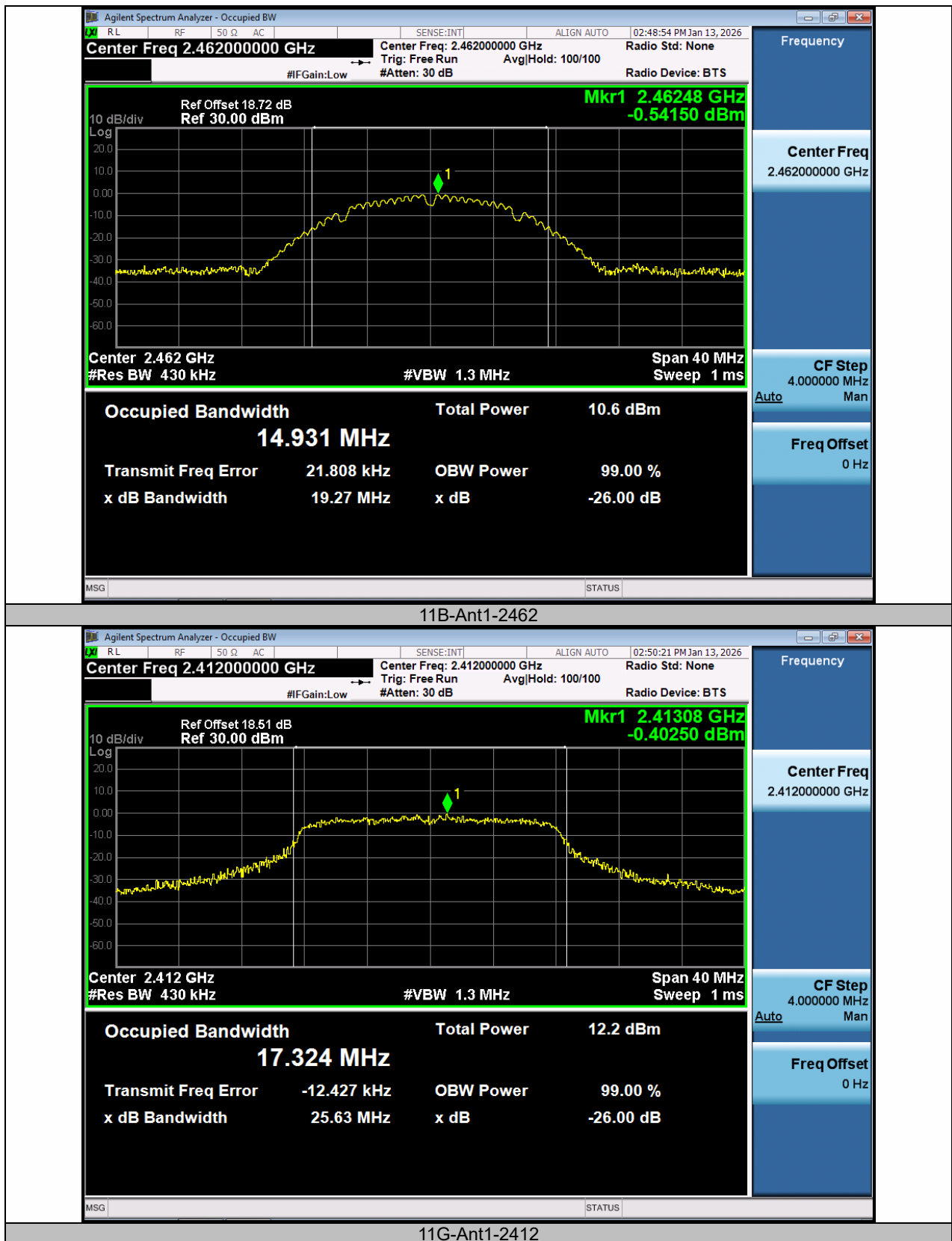


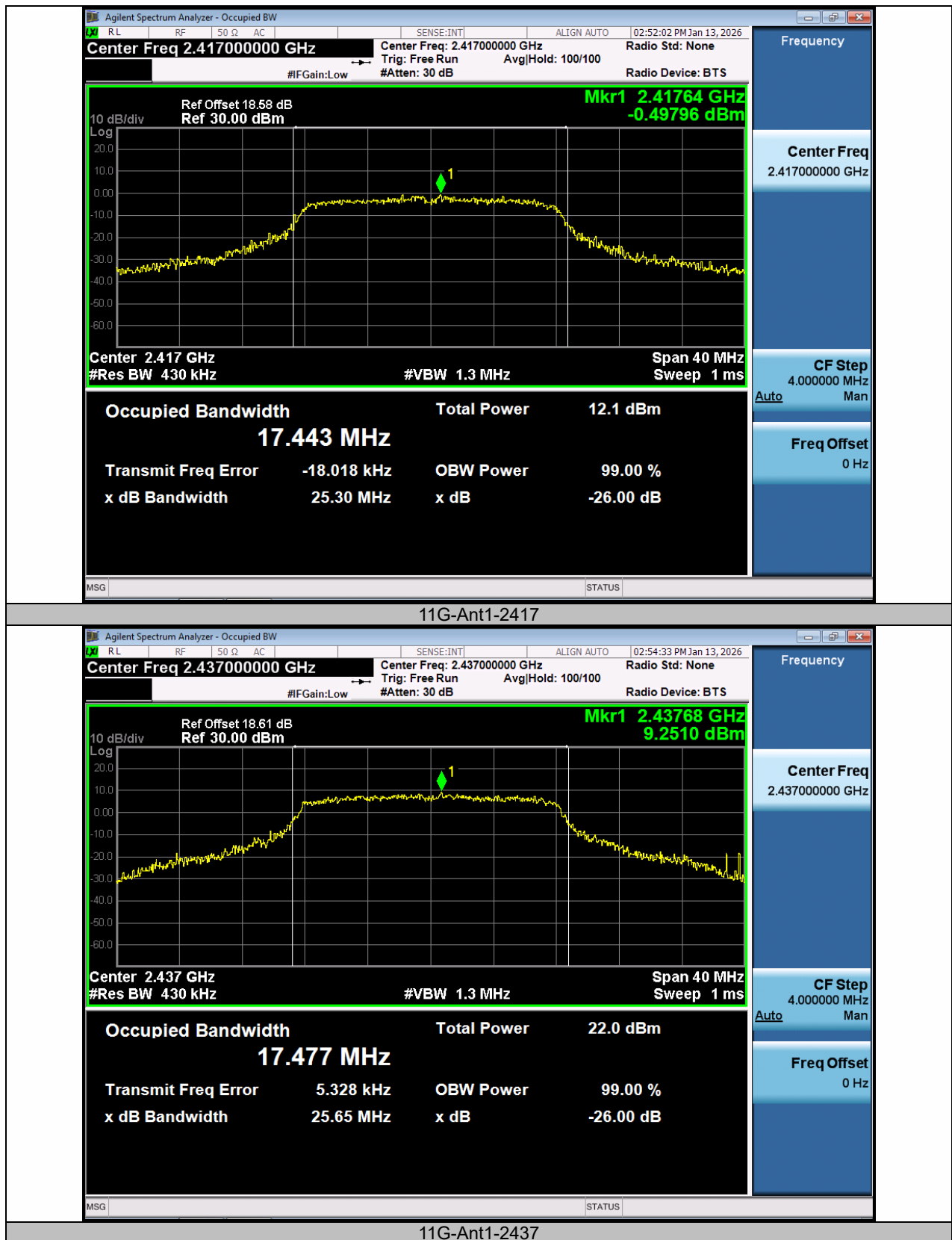
11B-Ant1-2412

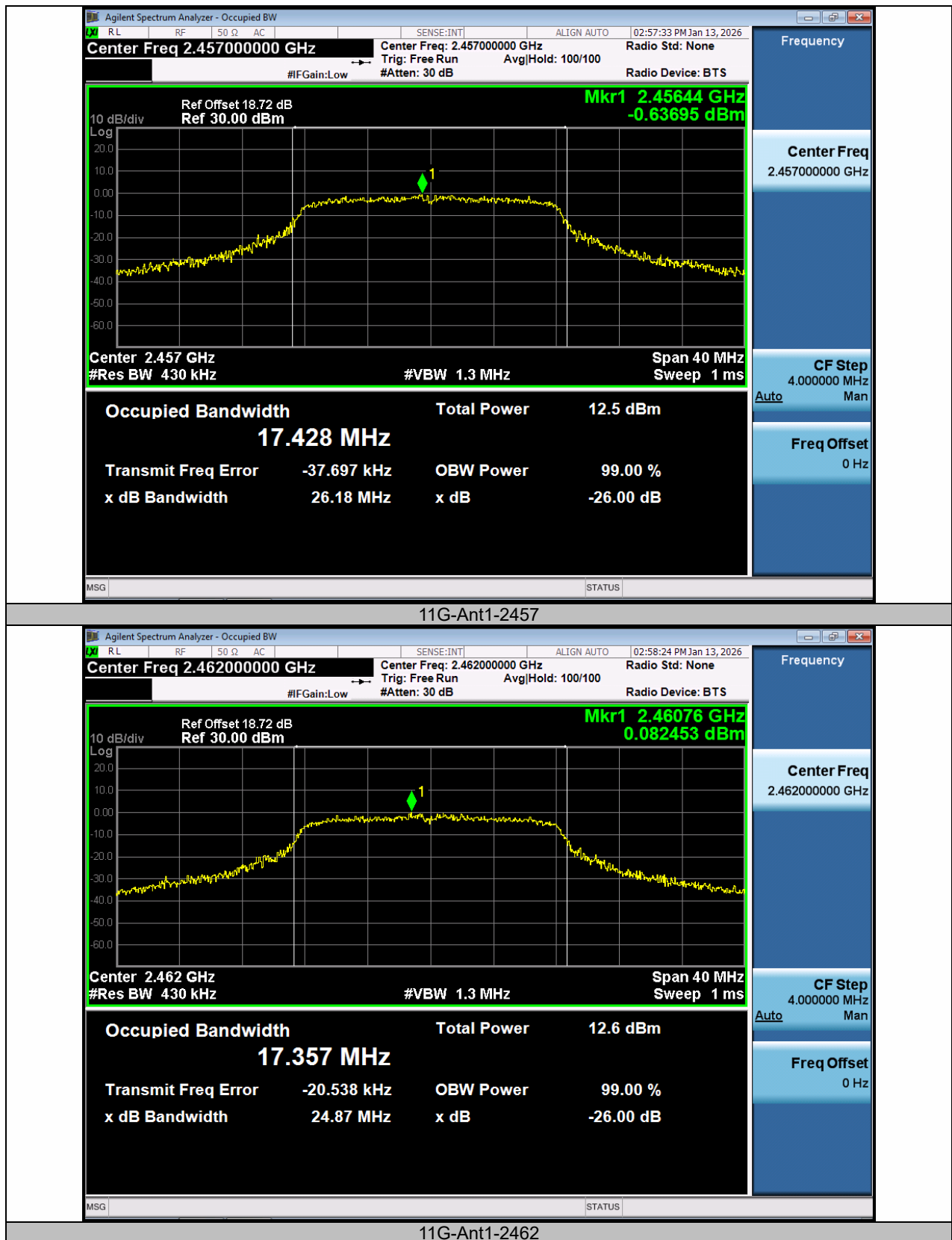


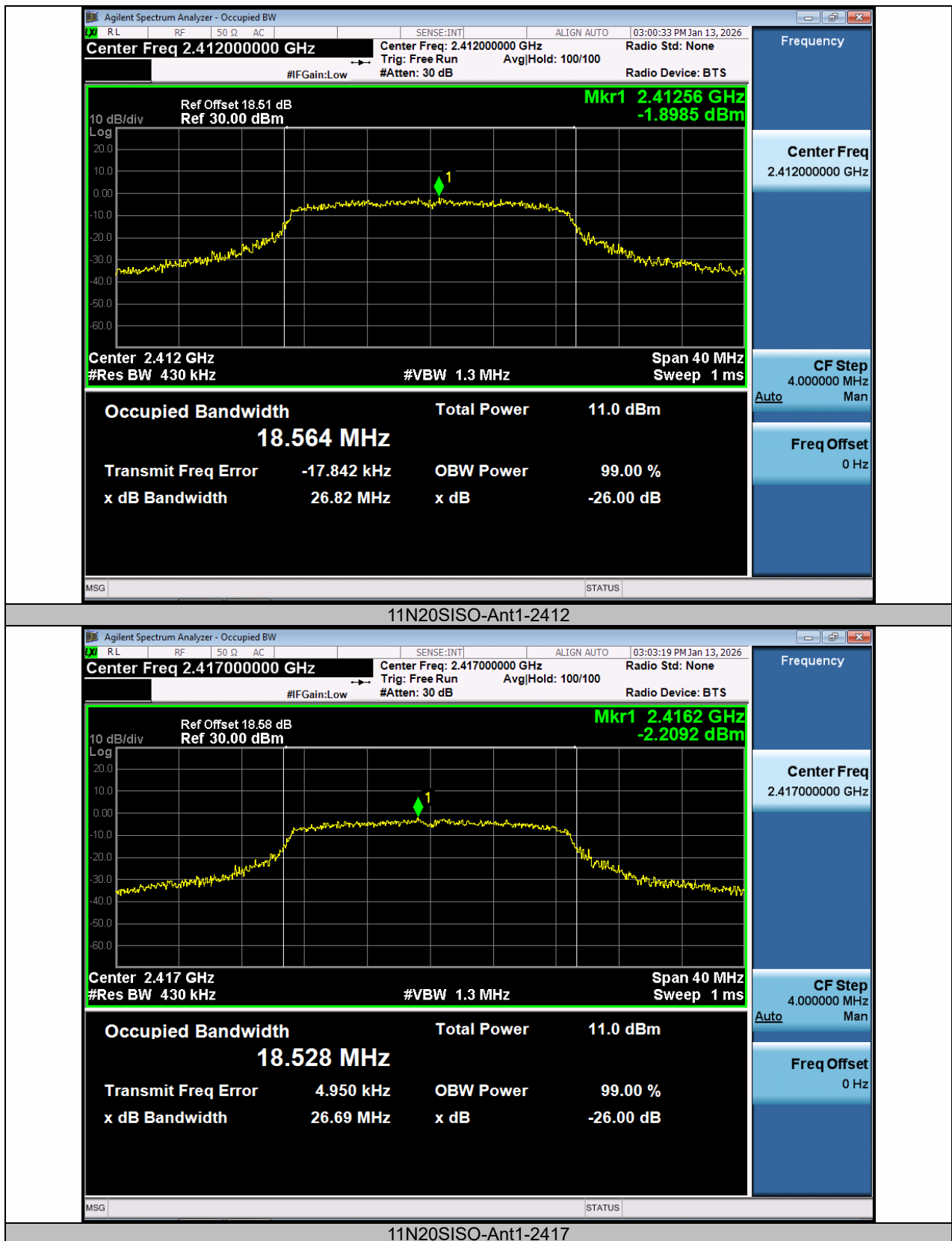
11B-Ant1-2417

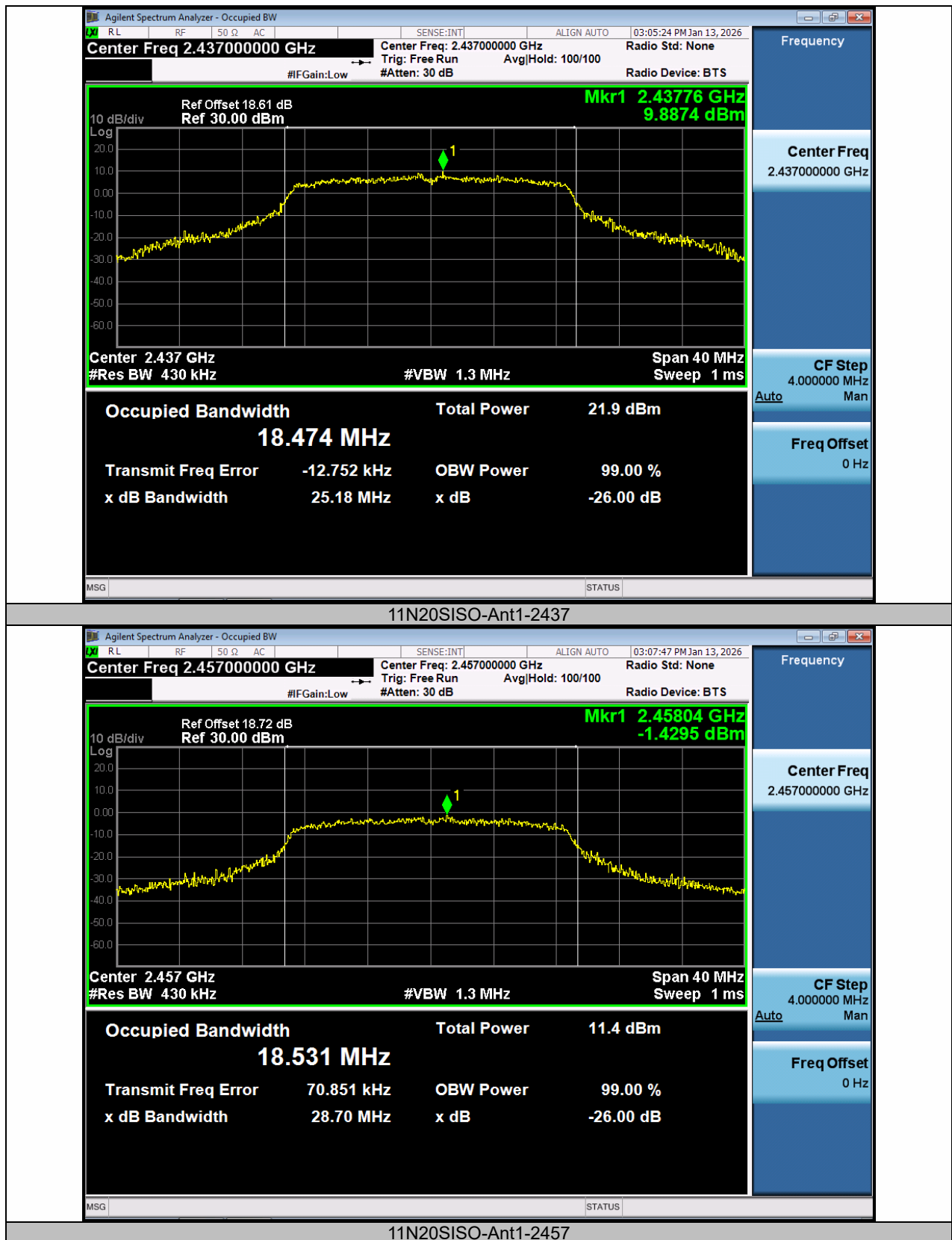


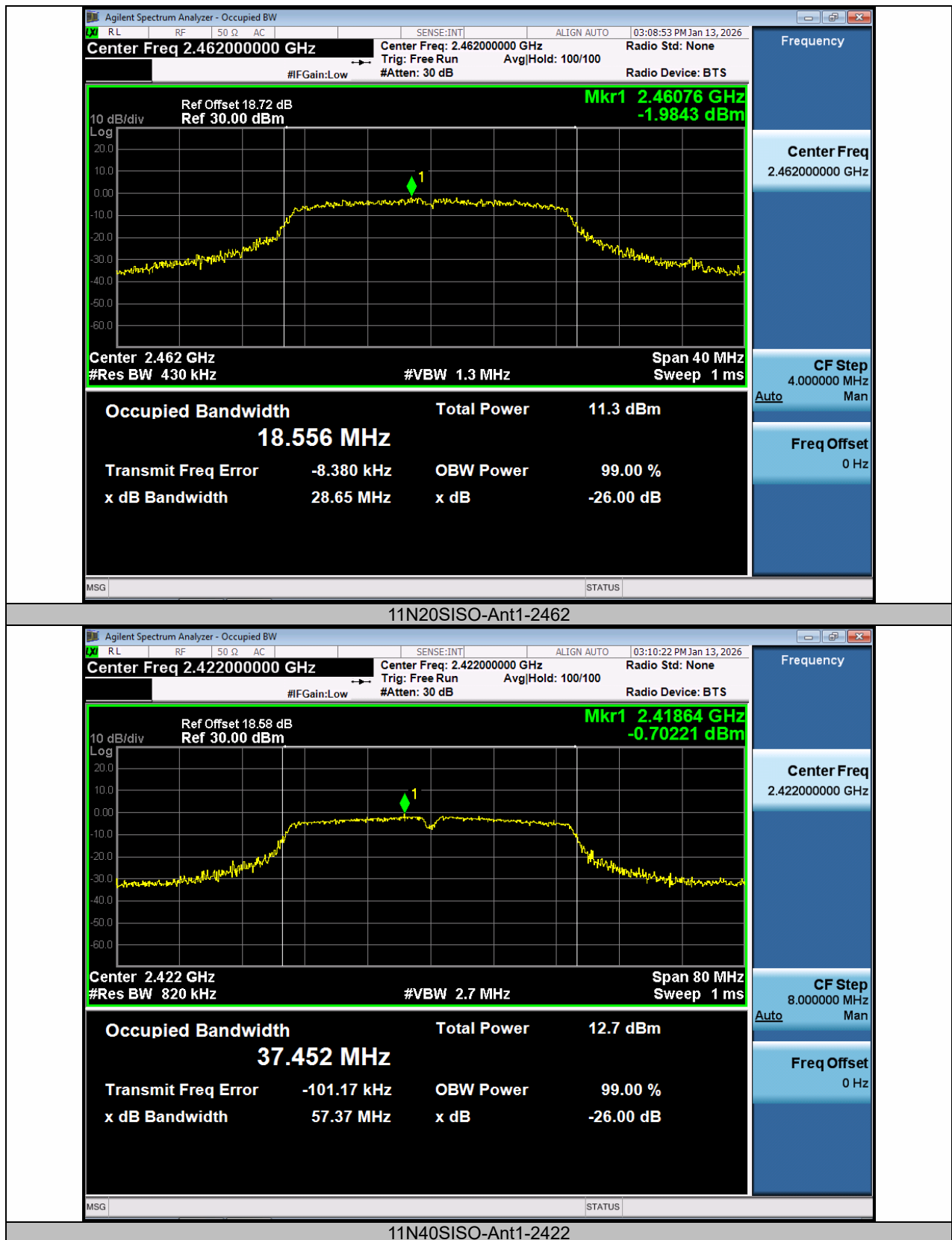


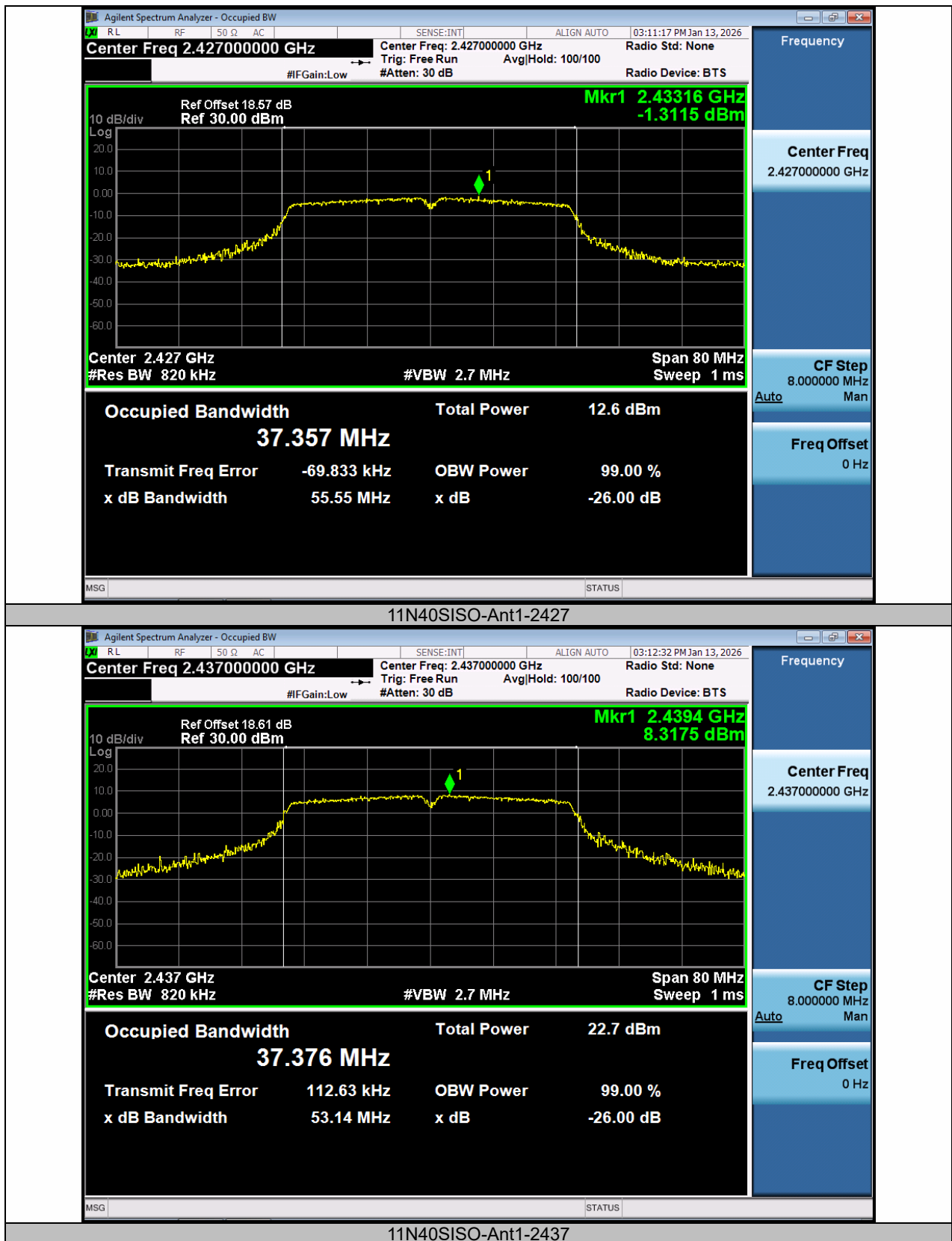


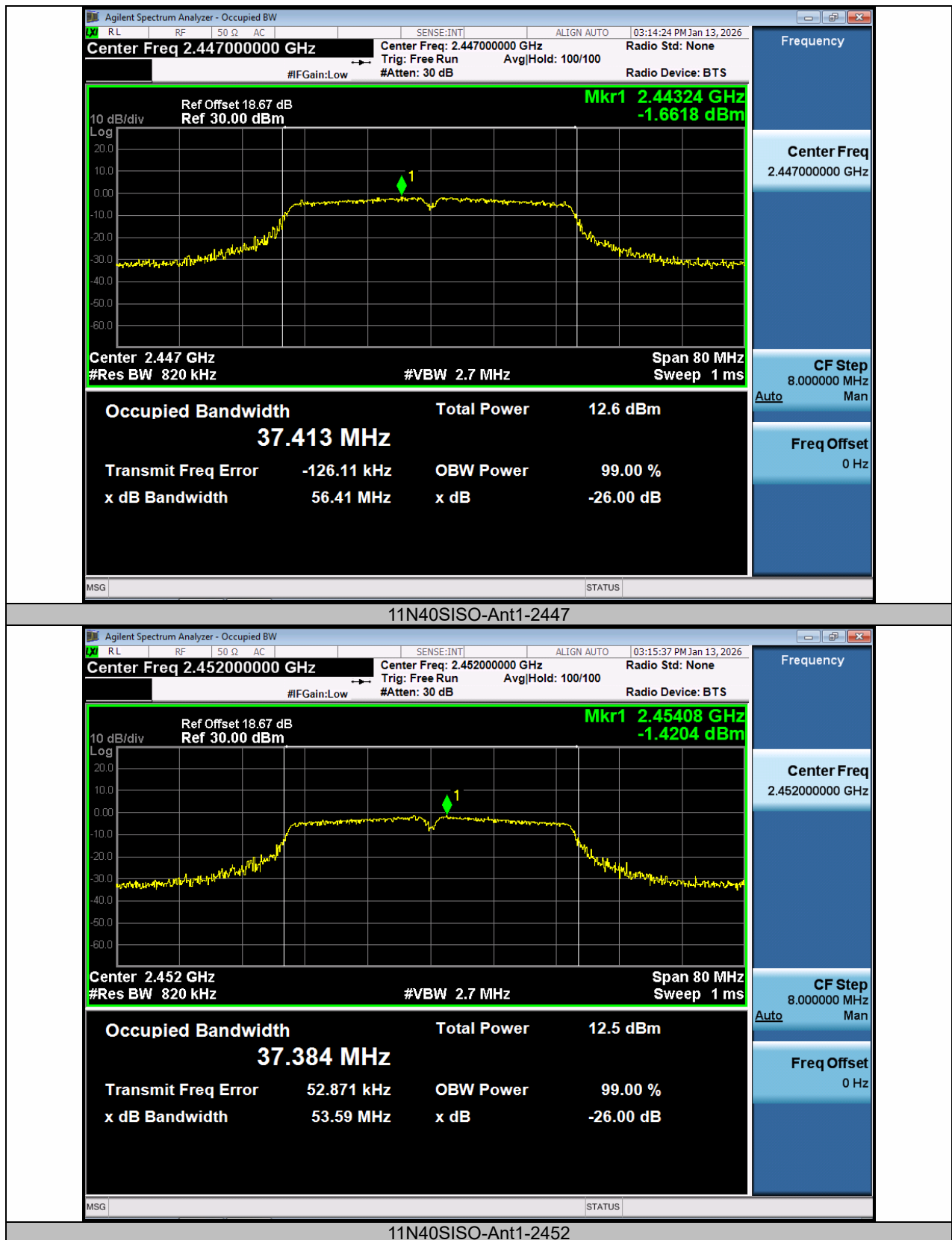


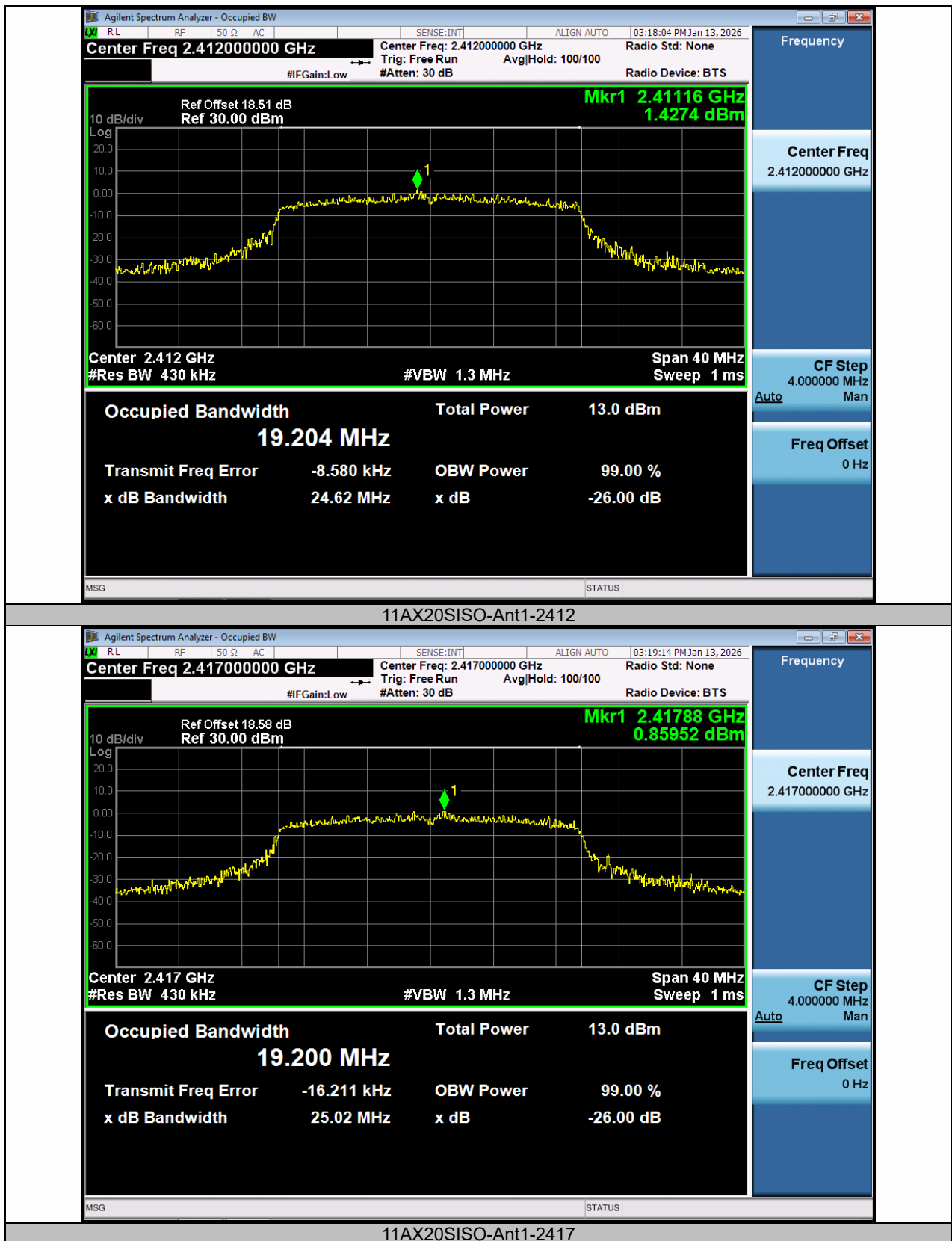


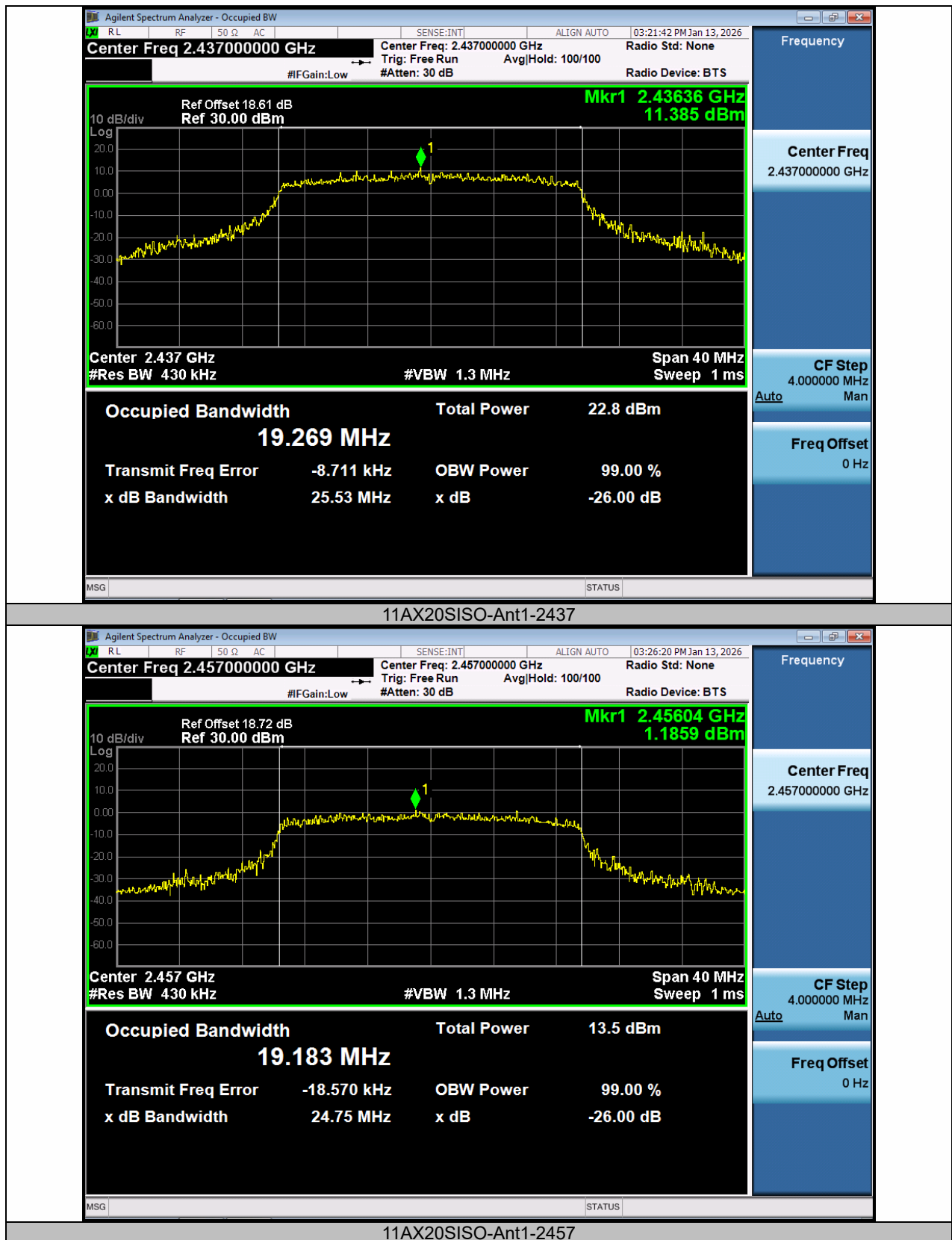


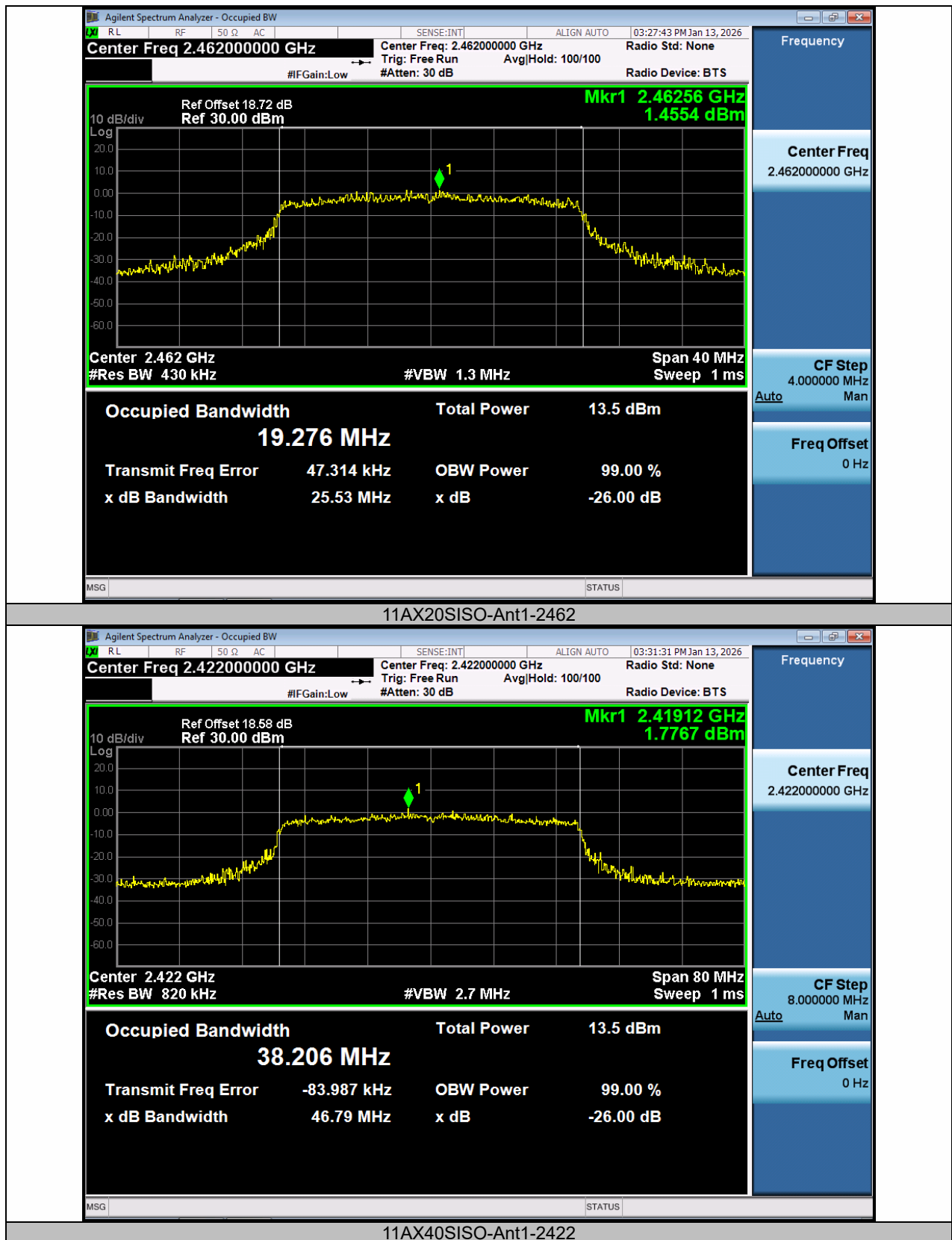


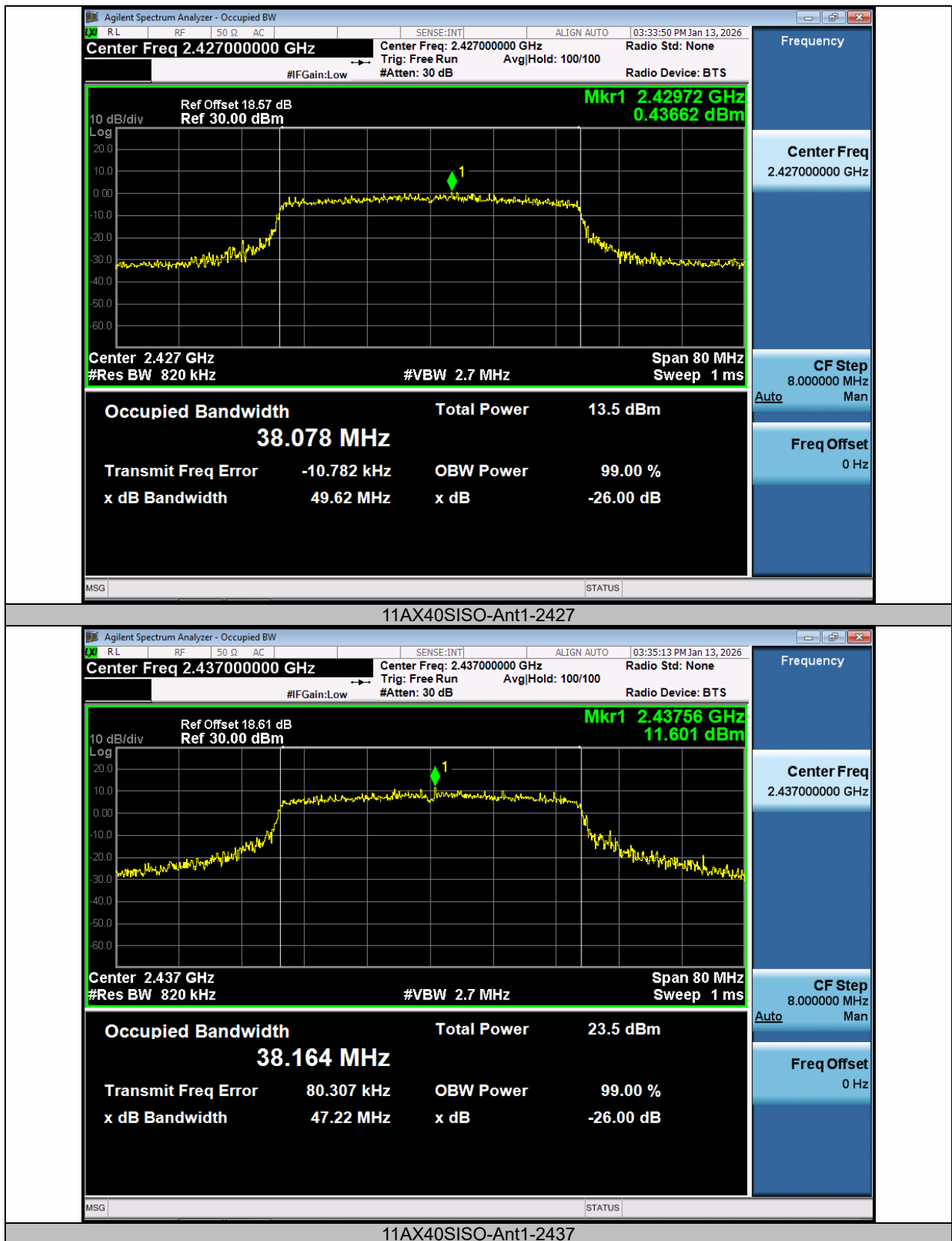


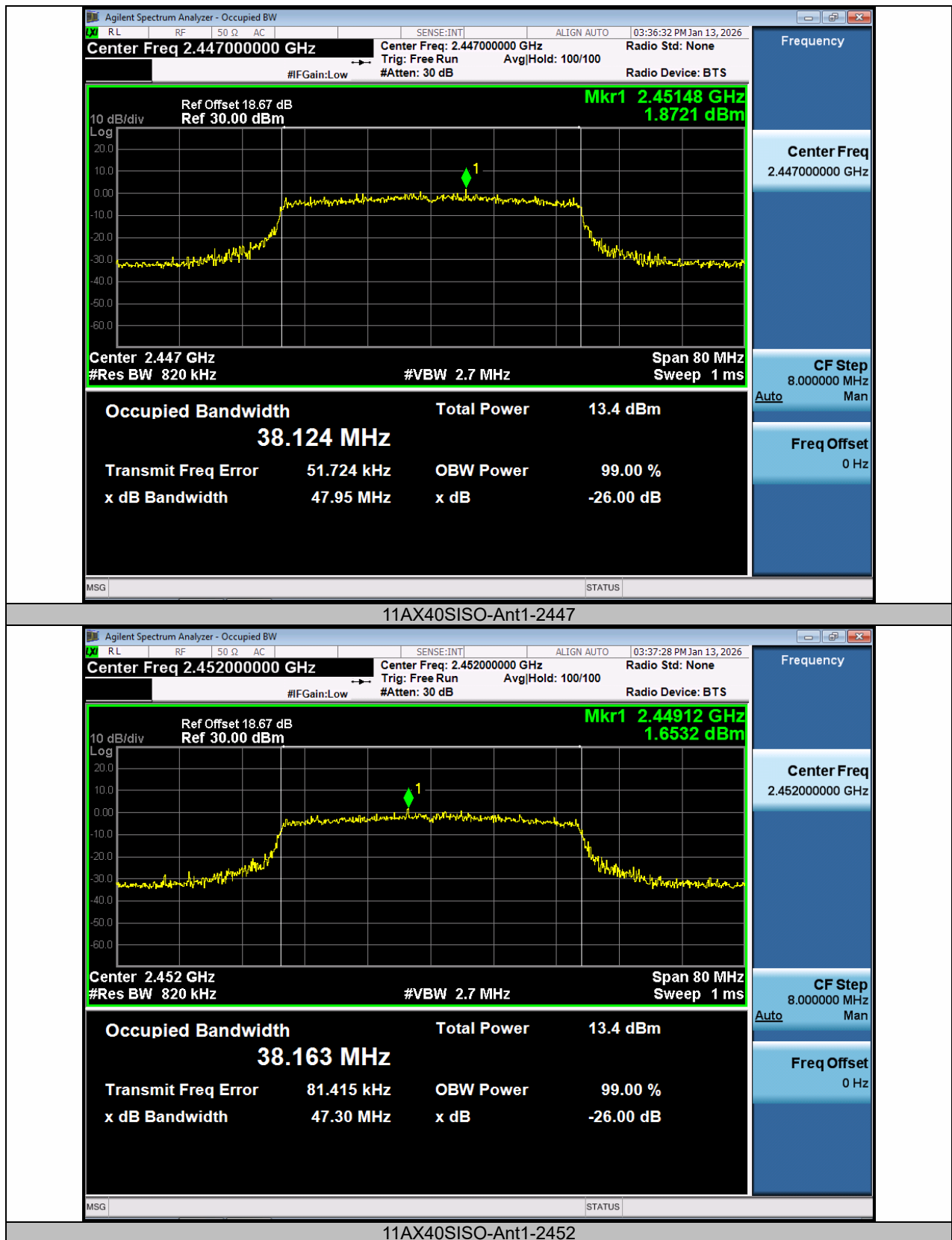












8.3 MAXIMUM PEAK CONDUCTED OUTPUT POWER

8.3.1 Applicable Standard

According to FCC Part15.247 (b)(3) and KDB 558074 D01 15.247 Meas Guidance v05r02
According to RSS-247, 5.4(d) and RSS-Gen6.12

8.3.2 Conformance Limit

The maximum conducted output power of the intentional radiator for systems using digital modulation in the 2400 - 2483.5 MHz bands shall not exceed: 1 Watt (30dBm).

8.3.3 Test Configuration

Test according to clause 6.1 radio frequency test setup

8.3.4 Test Procedure

- a) Set span to at least 1.5 times the OBW.
- b) Set RBW = 1-5% of the OBW, not to exceed 1 MHz.
- c) Set VBW $\geq 3 \times$ RBW.
- d) Number of points in sweep $\geq 2 \times \text{span} / \text{RBW}$. (This gives bin-to-bin spacing $\leq \text{RBW}/2$, so that narrowband signals are not lost between frequency bins.)
- e) Sweep time = auto.
- f) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
- g) If transmit duty cycle < 98 %, use a sweep trigger with the level set to enable triggering only on full power pulses. The transmitter shall operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle ≥ 98 %, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to “free run” .
- h) Trace average at least 100 traces in power averaging (i.e., RMS) mode.
- i) Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function, with band limits set equal to the OBW band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.

■ According to FCC Part 15.247(b)(4):

Conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Note: If antenna Gain exceeds 6 dBi, then Output power Limit=30-(Gain- 6)

8.3.5 Test Results

Temperature:	23.4°C
Relative Humidity:	37%
ATM Pressure:	1011 mbar
Test Engineer:	Zhu Guangjun

Note: N/A

Note: EIRP = conducted power + directional gain

Test Mode	Antenna	Frequency[MHz]	Duty Cycle [%]	DC Factor [dBm]	Result [dBm]	Limit [dBm]	Gain [dBi]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
11B	Ant1	2412	98.36	0.07	5.78	≤30.00	3.10	8.88	≤36.00	PASS
11B	Ant1	2417	98.48	0.07	5.93	≤30.00	3.10	9.03	≤36.00	PASS
11B	Ant1	2437	98.59	0.06	6.24	≤30.00	3.10	9.34	≤36.00	PASS
11B	Ant1	2457	98.48	0.07	7.38	≤30.00	3.10	10.48	≤36.00	PASS
11B	Ant1	2462	98.36	0.07	7.64	≤30.00	3.10	10.74	≤36.00	PASS
11G	Ant1	2412	89.68	0.47	6.13	≤30.00	3.10	9.23	≤36.00	PASS
11G	Ant1	2417	90.85	0.42	5.98	≤30.00	3.10	9.08	≤36.00	PASS
11G	Ant1	2437	90.85	0.42	16.10	≤30.00	3.10	19.20	≤36.00	PASS
11G	Ant1	2457	90.32	0.44	6.24	≤30.00	3.10	9.34	≤36.00	PASS
11G	Ant1	2462	90.85	0.42	6.48	≤30.00	3.10	9.58	≤36.00	PASS
11N20SIS O	Ant1	2412	94.26	0.26	5.08	≤30.00	3.10	8.18	≤36.00	PASS
11N20SIS O	Ant1	2417	94.26	0.26	4.88	≤30.00	3.10	7.98	≤36.00	PASS
11N20SIS O	Ant1	2437	94.26	0.26	15.99	≤30.00	3.10	19.09	≤36.00	PASS
11N20SIS O	Ant1	2457	94.26	0.26	4.89	≤30.00	3.10	7.99	≤36.00	PASS
11N20SIS O	Ant1	2462	94.26	0.26	5.04	≤30.00	3.10	8.14	≤36.00	PASS
11N40SIS O	Ant1	2422	94.04	0.27	5.61	≤30.00	3.10	8.71	≤36.00	PASS
11N40SIS O	Ant1	2427	94.05	0.27	5.77	≤30.00	3.10	8.87	≤36.00	PASS
11N40SIS O	Ant1	2437	94.04	0.27	15.74	≤30.00	3.10	18.84	≤36.00	PASS
11N40SIS O	Ant1	2447	94.05	0.27	5.69	≤30.00	3.10	8.79	≤36.00	PASS
11N40SIS O	Ant1	2452	94.05	0.27	5.61	≤30.00	3.10	8.71	≤36.00	PASS
11AX20SI SO	Ant1	2412	92.36	0.35	5.95	≤30.00	3.10	9.05	≤36.00	PASS
11AX20SI SO	Ant1	2417	92.58	0.33	5.78	≤30.00	3.10	8.88	≤36.00	PASS
11AX20SI SO	Ant1	2437	92.58	0.33	15.78	≤30.00	3.10	18.88	≤36.00	PASS
11AX20SI SO	Ant1	2457	92.36	0.35	5.82	≤30.00	3.10	8.92	≤36.00	PASS
11AX20SI SO	Ant1	2462	92.60	0.33	6.33	≤30.00	3.10	9.43	≤36.00	PASS
11AX40SI SO	Ant1	2422	92.58	0.33	5.51	≤30.00	3.10	8.61	≤36.00	PASS
11AX40SI SO	Ant1	2427	92.58	0.33	5.60	≤30.00	3.10	8.70	≤36.00	PASS
11AX40SI SO	Ant1	2437	92.58	0.33	15.40	≤30.00	3.10	18.50	≤36.00	PASS
11AX40SI SO	Ant1	2447	92.34	0.35	5.56	≤30.00	3.10	8.66	≤36.00	PASS
11AX40SI SO	Ant1	2452	92.58	0.33	5.57	≤30.00	3.10	8.67	≤36.00	PASS

