TEST REPORT

Product Name : Smart Access Control Terminal
Model Number : F18 Pro
FCC ID : 2AJ9T-20704

Prepared for	:	ZKTECO CO., LTD.
Address	:	No.32, Pingshan Industrial Avenue, Tangxia Town, Dongguan City, Guangdong Province, China 523728
Prepared by	:	EMTEK (SHENZHEN) CO., LTD.
Address	:	Building 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, China Tel: (0755) 26954280 Fax: (0755) 26954282

Report Number	:	ENS2601300388W00301R
Date(s) of Tests	:	February 9, 2026 to April 26, 2026
Date of issue	:	April 26, 2026

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1 TEST RESULT CERTIFICATION

Applicant	:	ZKTECO CO., LTD.
Address	:	No.32, Pingshan Industrial Avenue, Tangxia Town, Dongguan City, Guangdong Province, China 523728
Manufacturer	:	ZKTECO CO., LTD.
Address	:	No.32, Pingshan Industrial Avenue, Tangxia Town, Dongguan City, Guangdong Province, China 523728
EUT	:	Smart Access Control Terminal
Model Name	:	F18 Pro
Trademark	:	N/A

Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	**TEST RESULT**
FCC 47 CFR Part 15 , Subpart C	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 15.247

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

Date of Test : February 9, 2026 to April 26, 2026

Prepared by : Cai Zefeng /Editor

Reviewer : Xia Lilu /Editor

Approve & Authorized Signer : Wang Li /Manager

2 EUT TECHNICAL DESCRIPTION

Characteristics	Description
Product:	Smart Access Control Terminal
Model Number:	F18 Pro
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/ax;
Operating Frequency Range	☒2412-2462MHz for 802.11b/g/n(HT20)/ax(VHT20); ☒2422-2452MHz for 802.11n(HT40)/ax(VHT40);
Number of Channels	☒11 channels for 802.11b/g/n(HT20)/ax(VHT20); ☒7 Channels for 802.11n(HT40)/ax(VHT40);
Transmit Power Max	14.91 dBm
Antenna Type	FPC Antenna
Antenna Gain	2.71 dBi Note: The antenna information provided by the manufacturer will have a certain impact on the test results.
Power Supply	DC 12V from adapter
Test Voltage	AC 120V/60Hz
Adapter	MODEL:ADS-26FSG-12, 12018EPCU INPUT: AC100-240V, 50Hz/60Hz,Max.0.7A OUTPUT:12V,1.5A
Temperature Range	0°C ~ +45°C

Note: *for more details, please refer to the User's manual of the EUT.*

Modified Information

Version	Report No.	Revision Date	Summary
Ver1.0	ENS2601300388W00301R	/	Original Report

3 SUMMARY OF TEST RESULT

FCC PartClause	Test Parameter	Verdict	Remark
15.247(a)(2)	DTS (6dB) Bandwidth	PASS	
15.247(b)(3)	Maximum Peak Conducted Output Power	PASS	
15.247(e)	Maximum Power Spectral Density Level	PASS	
15.247(d)	Unwanted Emission Into Non-Restricted Frequency Bands	PASS	
15.247(d) 15.209	Unwanted Emission Into Restricted Frequency Bands (conducted)	PASS	
15.247(d) 15.209	Radiated Spurious Emission	PASS	
15.207	Conducted EmissionTest	PASS	
15.247(b)	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. NOTE3: The time on the test data photo is wrong, The correct test time is as described on the report.If there is fraud, Our laboratory assumes full responsibility.			

RELATED SUBMITTAL(S) / GRANT(S):

This submittal(s) (test report) is intended for FCC ID: **2AJ9T-20704** filing to comply with Section 15.247 of the FCC Part 15, Subpart C 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
FCC KDB 558074 D01 15.247 Meas Guidance v05r02

4.2 MEASUREMENT EQUIPMENT USED

4.2.1 Conducted Emission Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
EMI Test Receiver	Rohde & Schwarz	ESCI	101045	2025/5/9	1Year
PULSE LIMTER	Rohde & Schwarz	ESH3-Z2	100107	2025/5/9	1Year
AMN	Rohde & Schwarz	ESH3-Z5	100191	2025/5/9	1Year
AMN	Schwarzbeck	NNLK 8129	8129203	2025/5/9	1Year
V-Network	Rohde & Schwarz	ESH3-Z6	100011	2025/5/9	1Year
V-Network	Rohde & Schwarz	ESH3-Z6	100253	2025/5/9	1Year

4.2.2 Radiated Emission Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Pre-Amplifier	HP	8447F	2944A07999	2025/5/9	1Year
EMI Test Receiver	Rohde & Schwarz	ESCI	101414	2025/5/9	1Year
Bilog Antenna	Schwarzbeck	VULB9163	712	2025/7/5	2 Year
Horn antenna	Schwarzbeck	BBHA9120D	9120D-1178	2025/8/9	2 Year
Pre-Amplifie	Bonn	BLMA 0118-5G	2213967B-01	2025/10/16	1Year
Spectrum Analyzer	Rohde & Schwarz	FSV40	100967	2025/5/9	1Year
Horn antenna	Schwarzbeck	BBHA9170	9170-399	2025/5/13	2 Year
Loop Antenna	Schwarzbeck	FMZB1519	1519-012	2025/5/13	2 Year
CabCoaxial Cable	TIMES	NmNm-7-C1570 2	N/A	2025/5/22	1Year
Coaxial Cable	TIMES	HF290-NMSM-6. 5M	N/A	2025/5/22	1Year
Coaxial Cable	TIMES	LMR-240 N-N	N/A	2025/5/22	1Year

4.2.3 Radio Frequency Test Equipment

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	2025/5/10	N/A
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 802.11b/g/n (HT20)/ax(VHT20):

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

☒Frequency and Channel list for 802.11n (HT40)/ax(VHT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
		6	2437		
		7	2442		
3	2422	8	2447		
4	2427	9	2452		
5	2432				

☒Test Frequency and Channel for 802.11b/g/n (HT20)/ax(VHT20):

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)/ax(VHT40):

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

5 FACILITIES AND ACCREDITATIONS

5.1 FACILITIES

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

Bldg 69, Majialong Industry Zone District, Nanshan District, Shenzhen, China
The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.10 and CISPR Publication 22.

5.2 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:

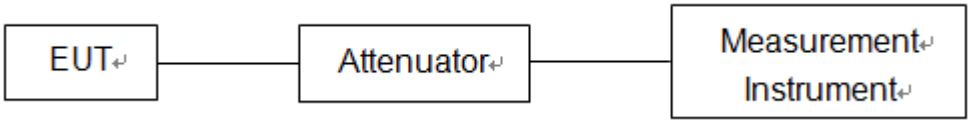
Parameter	Uncertainty
Radio Frequency	±1x10^-5
Maximum Peak Output Power Test	±1.0dB
Conducted Emissions Test	±2.0dB
Radiated Emission Test	±2.0dB
Power Density	±2.0dB
Occupied Bandwidth Test	±1.0dB
Band Edge Test	±3dB
All emission, radiated	±3dB
Antenna Port Emission	±3dB
Temperature	±0.5℃
Humidity	±3%

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.

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 androtated about its vertical axis formaximum response at each azimuth about the EUT. The center of the loopshall be 1 m above the ground.For certain applications, the loop antennaplane may also need to be positioned horizontally at the specified distance from the EUT.

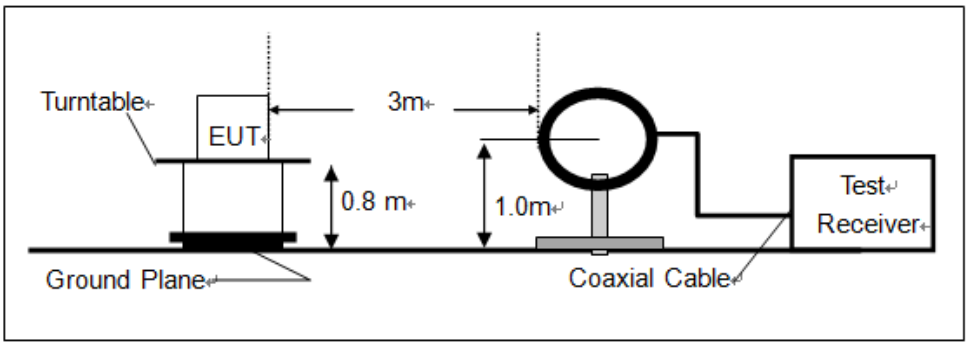
30MHz-1GHz：

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).

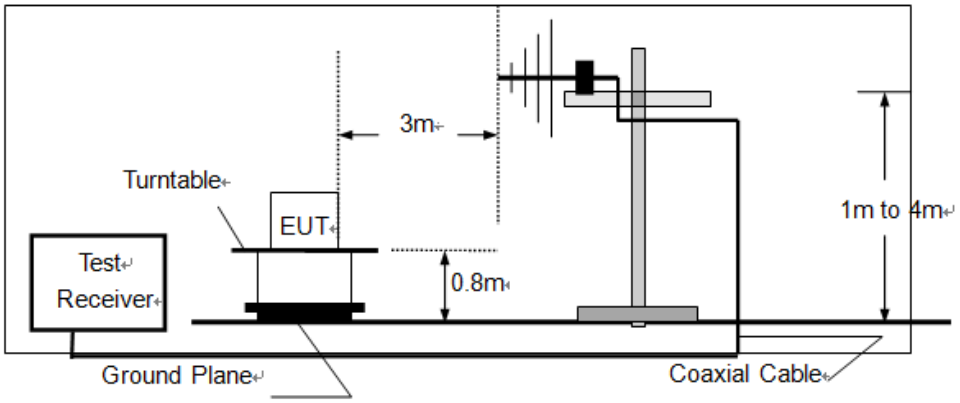
Above 1GHz：

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).

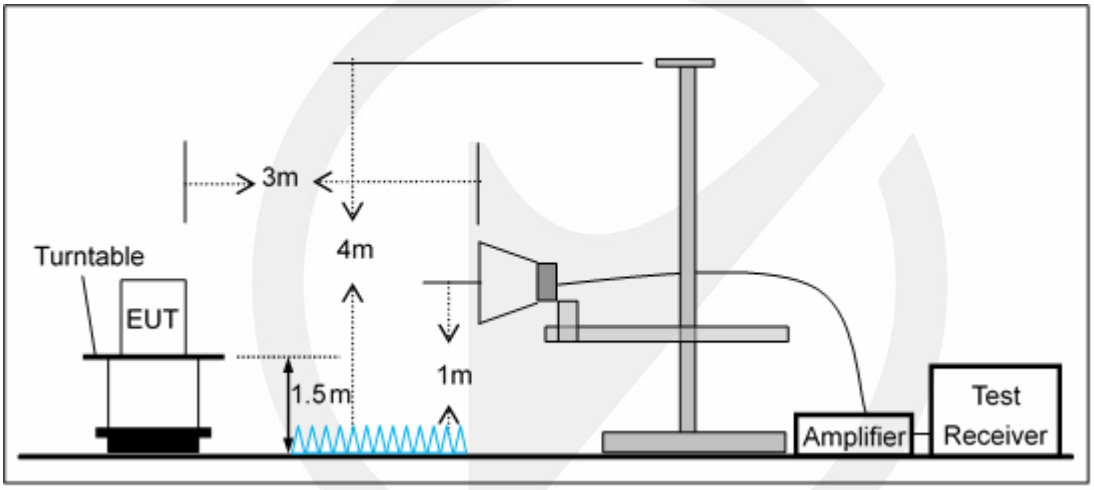
(a) Radiated Emission Test Set-Up, Frequency Below 30MHz



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

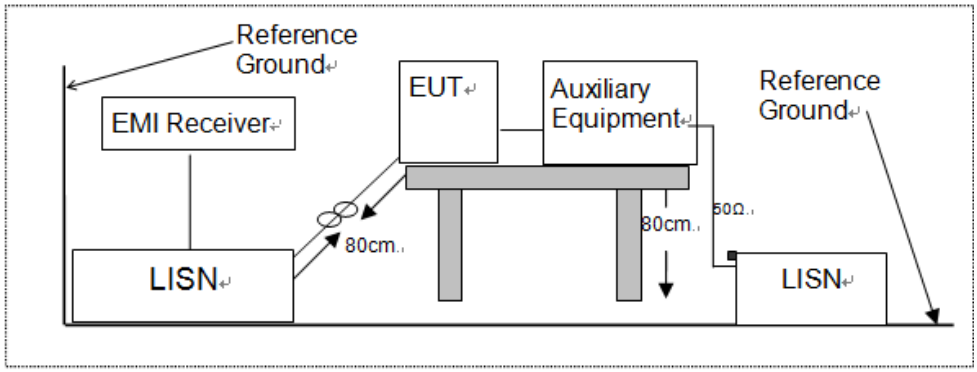


(c) Radiated Emission Test Set-Up, Frequency above 1000MHz

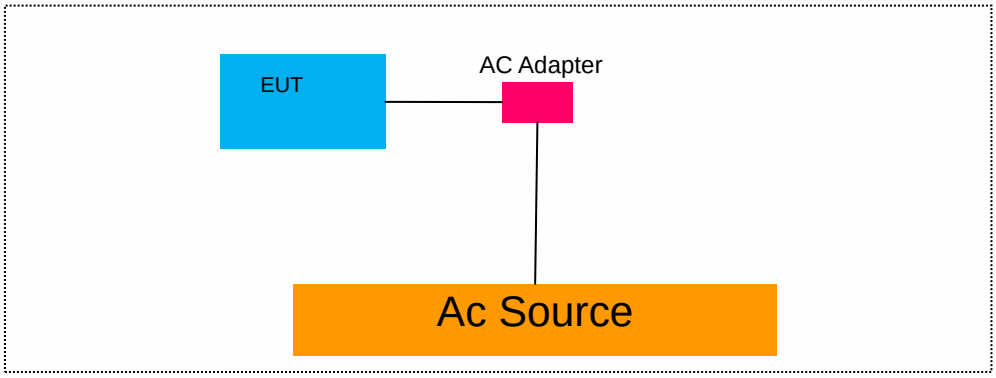


7.3 CONDUCTED EMISSION TEST SETUP

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 0.1 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.


Reference Ground
EMI Receiver
EUT
Auxiliary Equipment
Reference Ground
80cm
80cm
50Ω
LISN
LISN

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
PC (For EMI test)	Lenovo	ThinkCentre 8701	8701A53L3BC108

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.*
3. *Unless otherwise denoted as EUT in 『Remark』 column , device(s) used in tested system is a support equipment*

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

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 7.1 radio frequency test setup 1

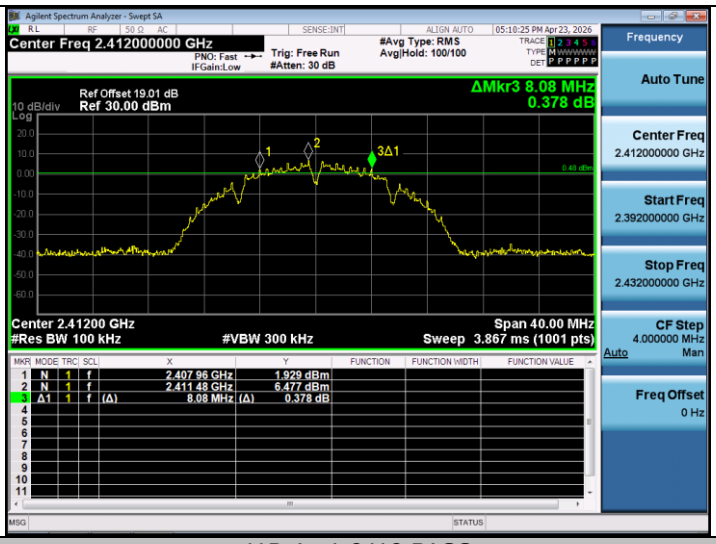
8.1.4 Test Procedure

The EUT was operating in IEEE 802.11b/g/n 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.

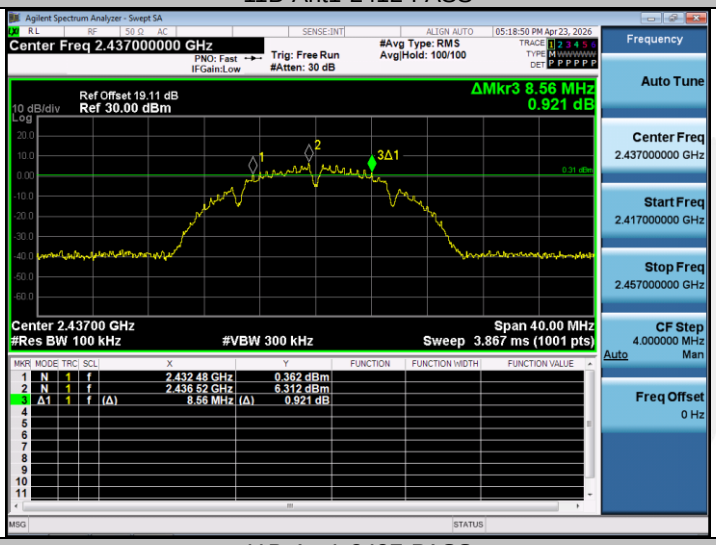
8.1.5 Test Results

Temperature:	23.5° C
Relative Humidity:	51%
ATM Pressure:	1011 mbar

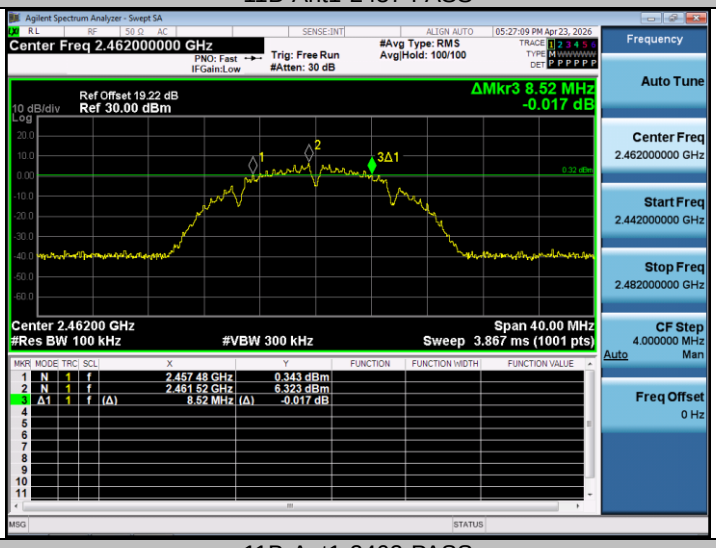
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	8.080	2407.960	2416.040	0.5	PASS
11B	Ant1	2437	8.560	2432.480	2441.040	0.5	PASS
11B	Ant1	2462	8.520	2457.480	2466.000	0.5	PASS
11G	Ant1	2412	16.360	2403.840	2420.200	0.5	PASS
11G	Ant1	2437	16.360	2428.840	2445.200	0.5	PASS
11G	Ant1	2462	16.400	2453.800	2470.200	0.5	PASS
11N20SISO	Ant1	2412	17.680	2403.160	2420.840	0.5	PASS
11N20SISO	Ant1	2437	17.560	2428.240	2445.800	0.5	PASS
11N20SISO	Ant1	2462	17.640	2453.200	2470.840	0.5	PASS
11N40SISO	Ant1	2422	35.440	2404.080	2439.520	0.5	PASS
11N40SISO	Ant1	2437	35.920	2418.840	2454.760	0.5	PASS
11N40SISO	Ant1	2452	35.120	2434.480	2469.600	0.5	PASS
11AX20SISO	Ant1	2412	18.520	2402.600	2421.120	0.5	PASS
11AX20SISO	Ant1	2437	18.400	2427.800	2446.200	0.5	PASS
11AX20SISO	Ant1	2462	18.360	2452.840	2471.200	0.5	PASS
11AX40SISO	Ant1	2422	36.720	2403.600	2440.320	0.5	PASS
11AX40SISO	Ant1	2437	36.000	2418.600	2454.600	0.5	PASS
11AX40SISO	Ant1	2452	36.560	2433.680	2470.240	0.5	PASS



11B-Ant1-2412-PASS



11B-Ant1-2437-PASS



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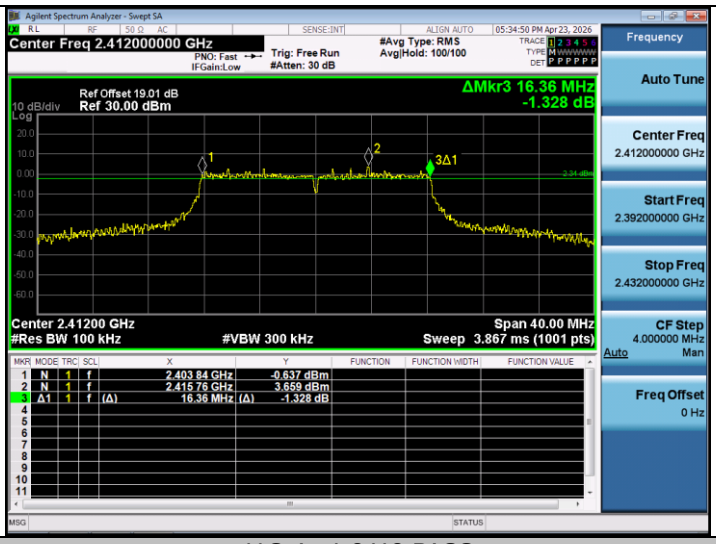
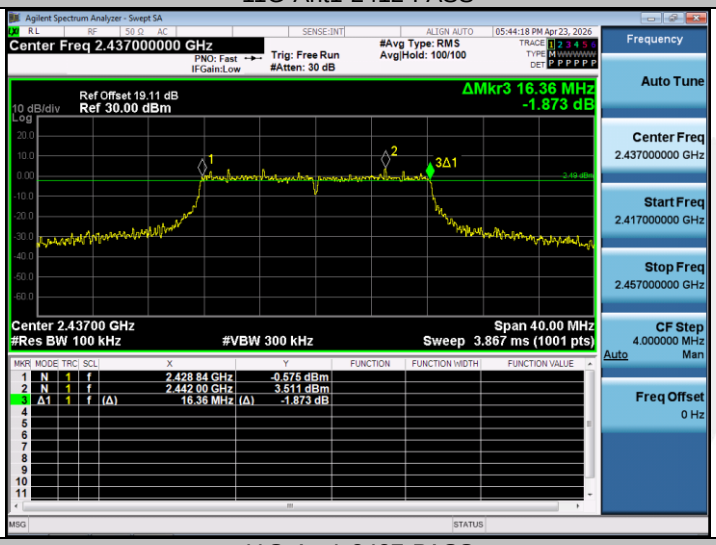


11G-Ant1-2412-PASS



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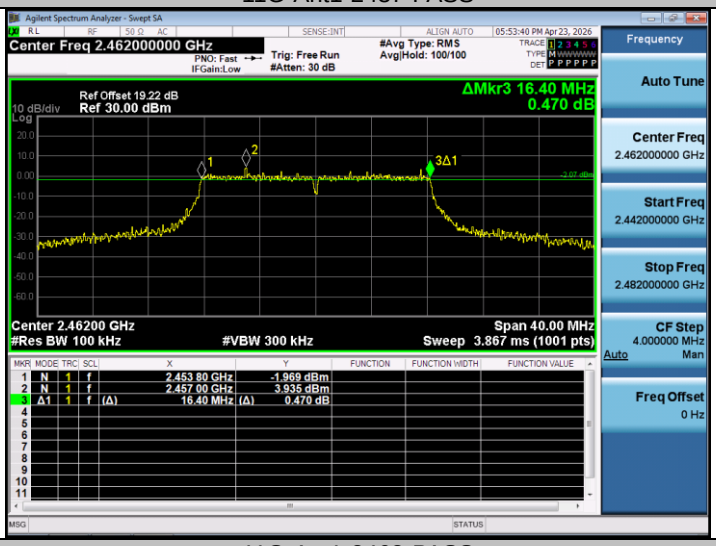

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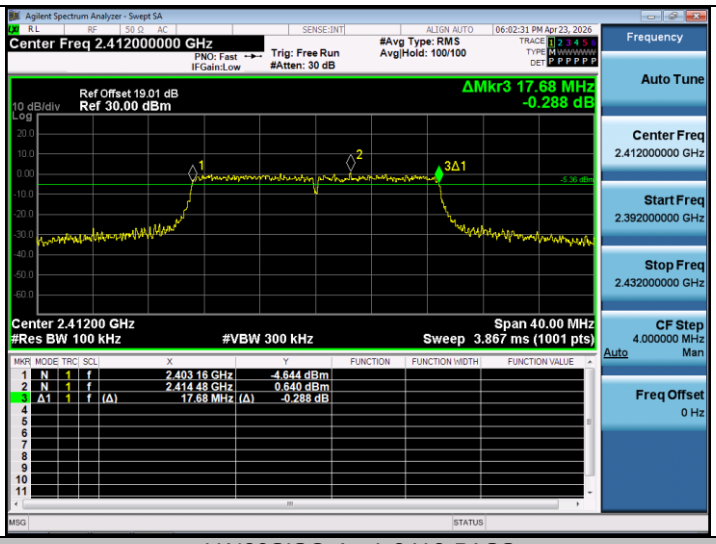
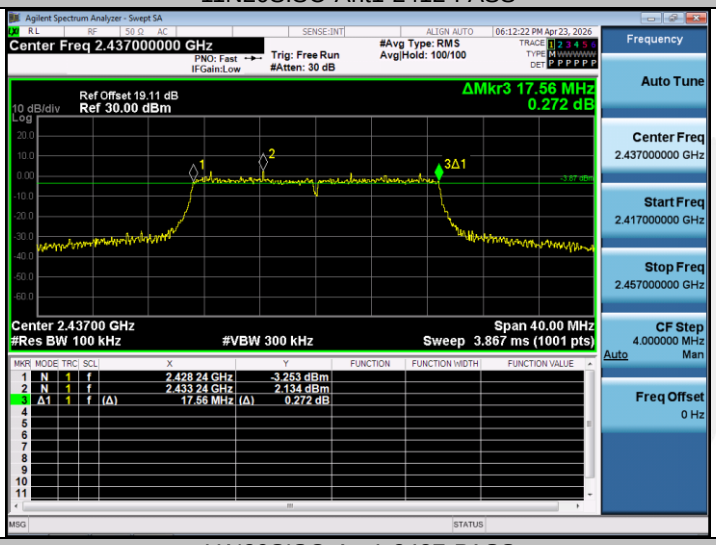


11N20SISO-Ant1-2412-PASS



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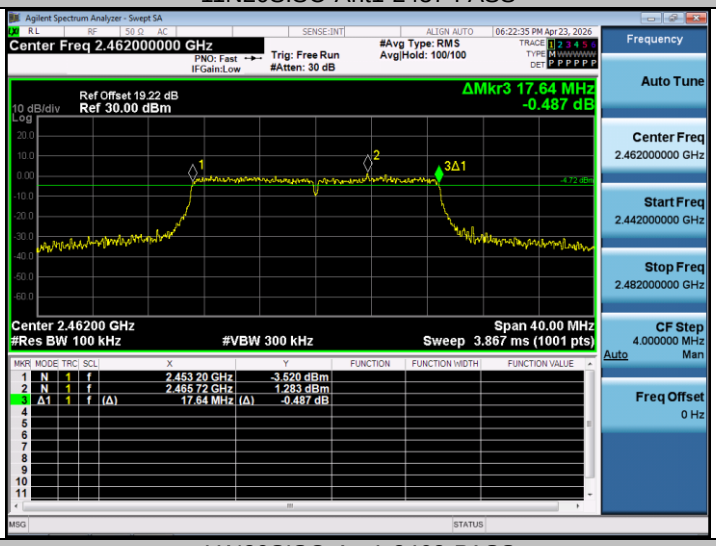

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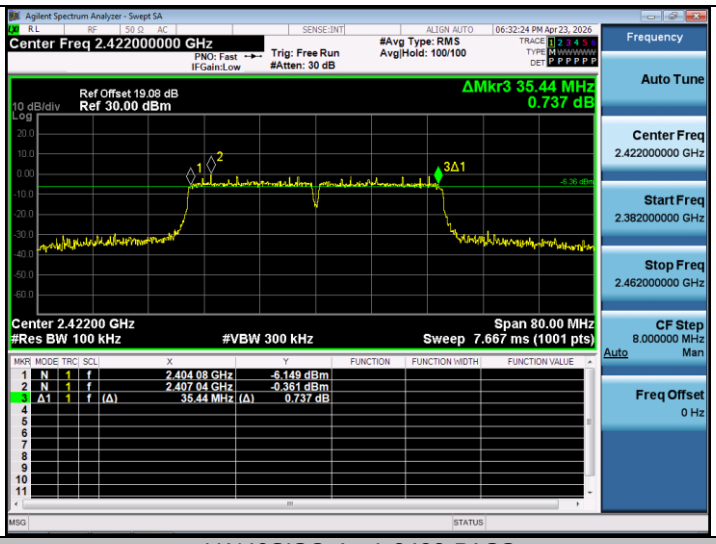
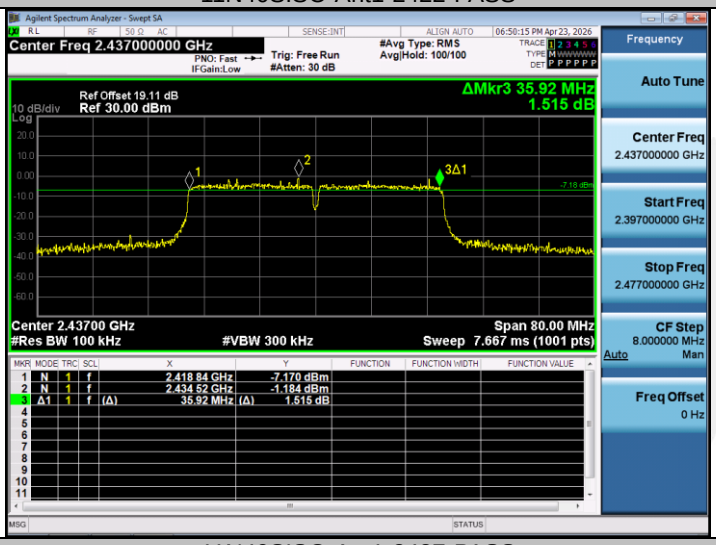


11N40SISO-Ant1-2422-PASS



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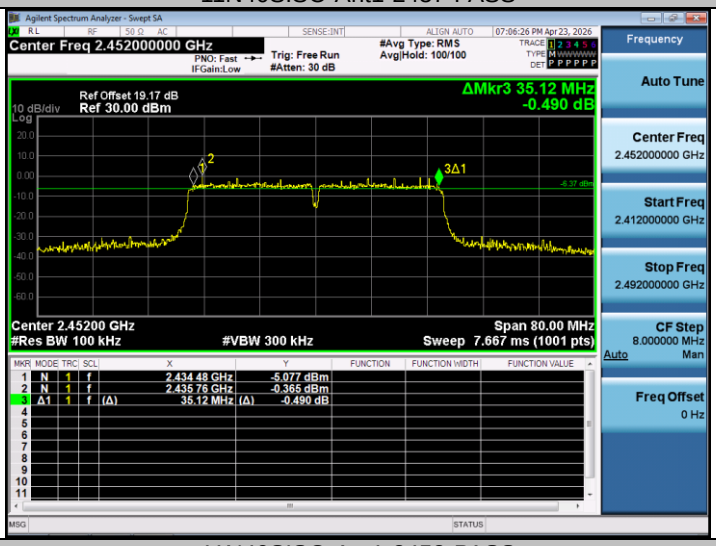

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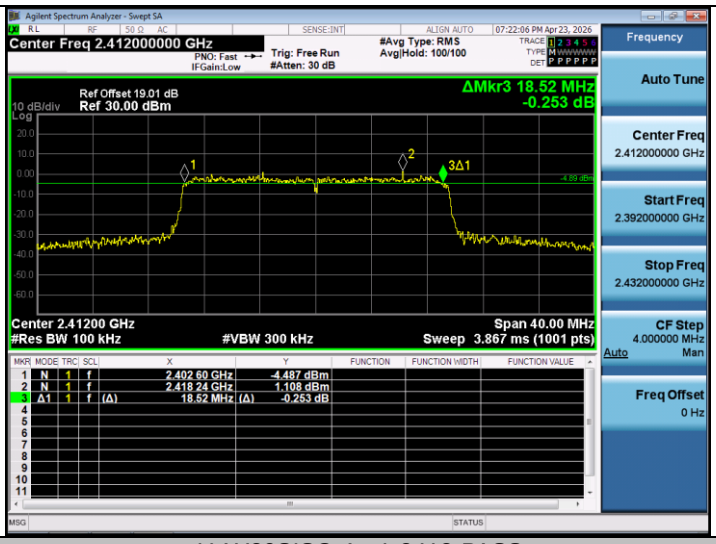

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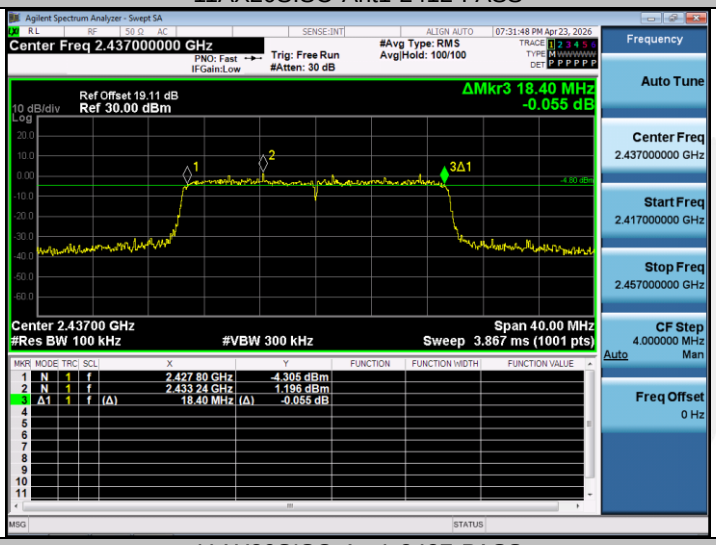

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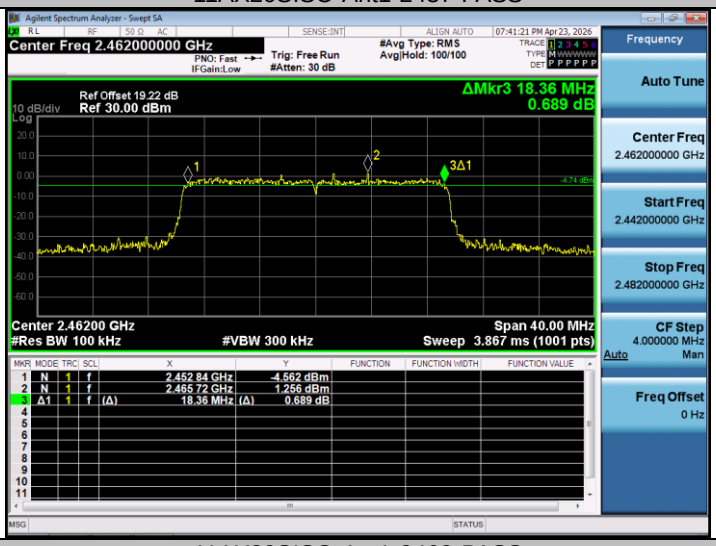

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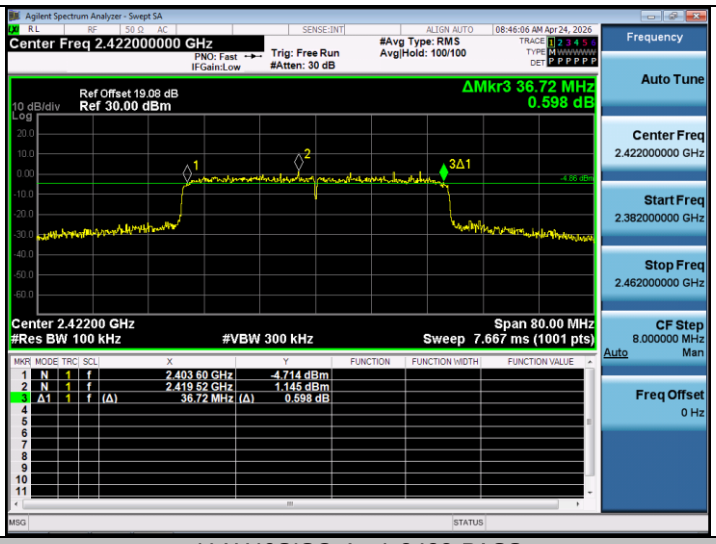

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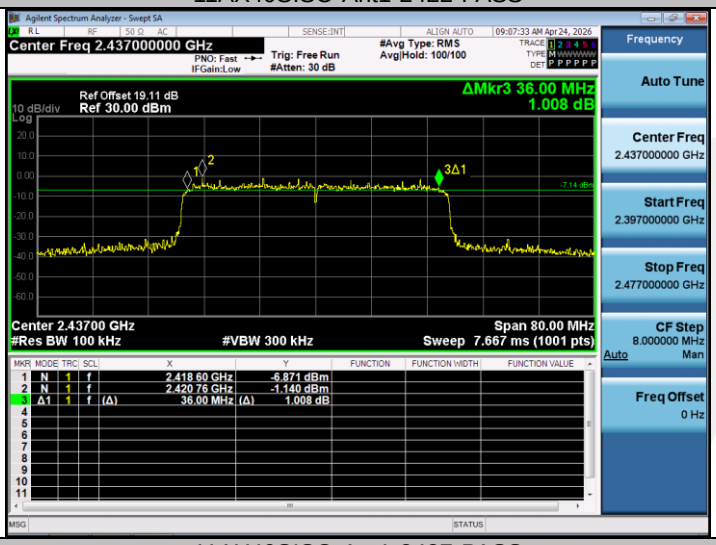

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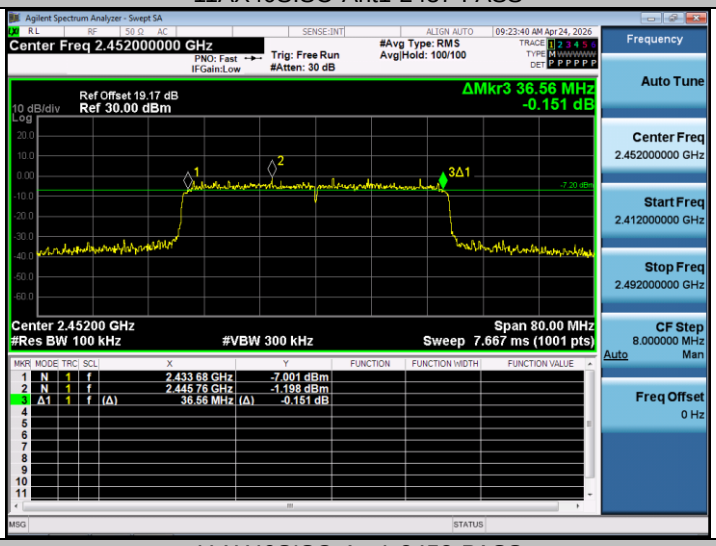


11AX40SISO-Ant1-2452-PASS

8.2 MAXIMUM PEAK CONDUCTED OUTPUT POWER

8.2.1 Applicable Standard

According to FCC Part15.247 (b)(3) and KDB 558074 D01 15.247 Meas Guidance v05r02

8.2.2 Conformance Limit

The maximum peak 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).

8.2.3 Test Configuration

Test according to clause 7.1 radio frequency test setup 1

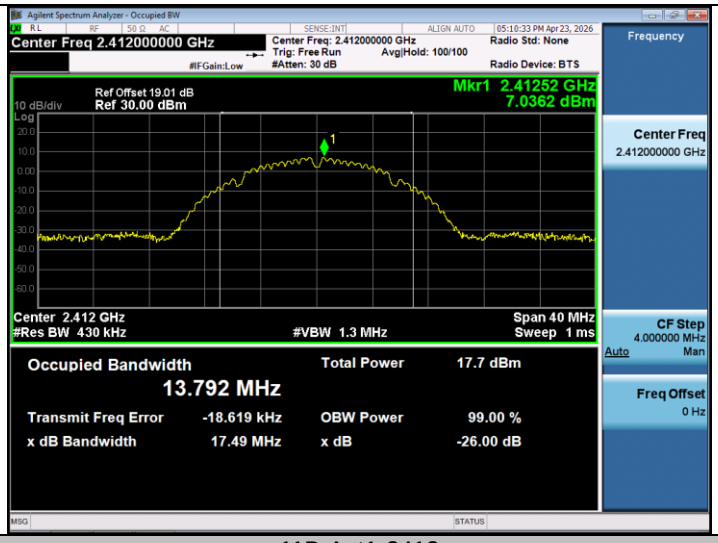
8.2.4 Test Procedure

■ According to FCC Part15.247(b)(3)
The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall utilize a fast-responding diode detector.
The testing follows FCC public Notice DA 00-705 Measurement Guidelines.
The RF output of EUT was connected to the power meter by RF cable and attnuator. The path loss was compensated to the results for each measurement.
Set to the maximum output power setting and enable the EUT transmit continuously.
Measure the conducted output power with cable loss and record the results in the test report.
Measure and record the results in the report.
■ 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)

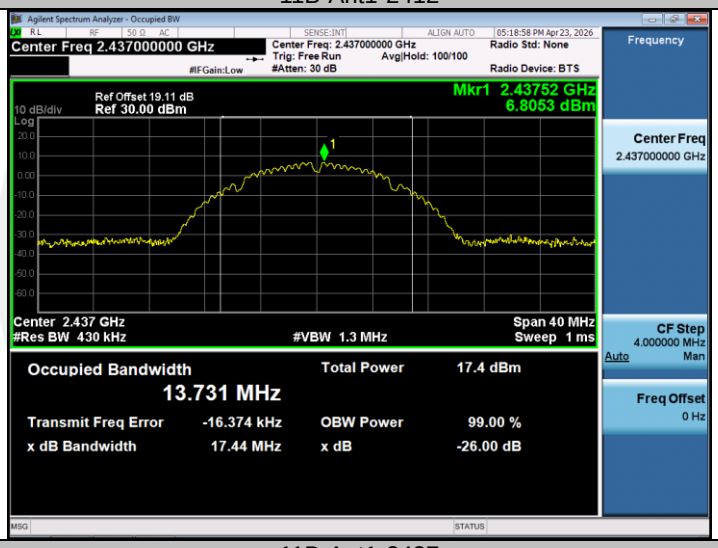
8.2.5 Test Results

Temperature:	23.5° C
Relative Humidity:	51%
ATM Pressure:	1011 mbar

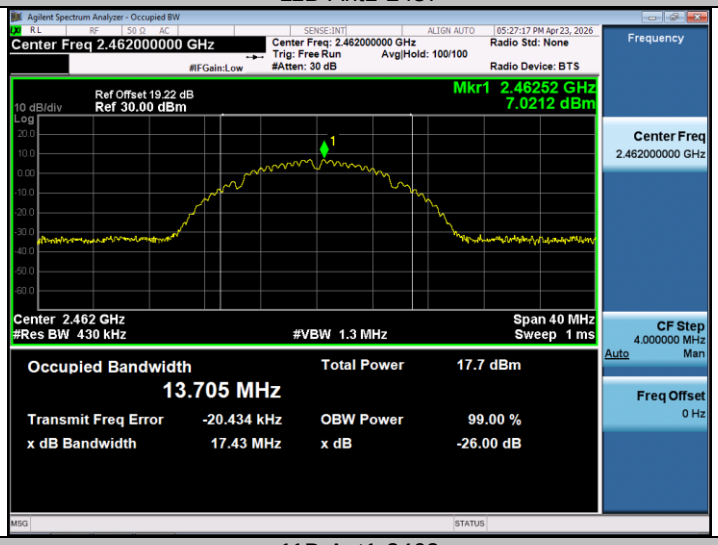
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.792	2405.0854	2418.8774	---	---
11B	Ant1	2437	13.731	2430.1181	2443.8491	---	---
11B	Ant1	2462	13.705	2455.1271	2468.8321	---	---
11G	Ant1	2412	17.262	2403.3937	2420.6557	---	---
11G	Ant1	2437	17.186	2428.4204	2445.6064	---	---
11G	Ant1	2462	17.083	2453.4493	2470.5323	---	---
11N20SISO	Ant1	2412	18.023	2402.9783	2421.0013	---	---
11N20SISO	Ant1	2437	17.990	2428.0102	2446.0002	---	---
11N20SISO	Ant1	2462	18.051	2452.9773	2471.0283	---	---
11N40SISO	Ant1	2422	36.482	2403.7426	2440.2246	---	---
11N40SISO	Ant1	2437	36.382	2418.7905	2455.1725	---	---
11N40SISO	Ant1	2452	36.467	2433.7469	2470.2139	---	---
11AX20SISO	Ant1	2412	18.838	2402.5911	2421.4291	---	---
11AX20SISO	Ant1	2437	18.864	2427.6188	2446.4828	---	---
11AX20SISO	Ant1	2462	18.860	2452.5736	2471.4336	---	---
11AX40SISO	Ant1	2422	37.731	2403.0967	2440.8277	---	---
11AX40SISO	Ant1	2437	37.717	2418.1476	2455.8646	---	---
11AX40SISO	Ant1	2452	37.574	2433.2083	2470.7823	---	---



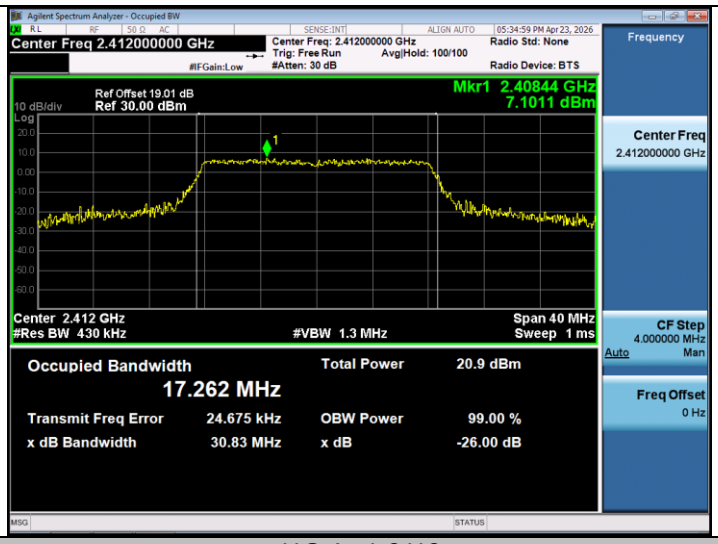
11B-Ant1-2412



11B-Ant1-2437



11B-Ant1-2462



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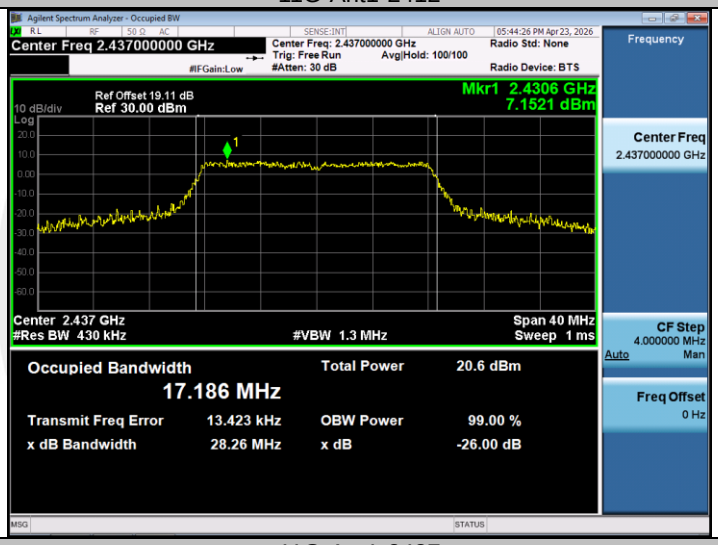

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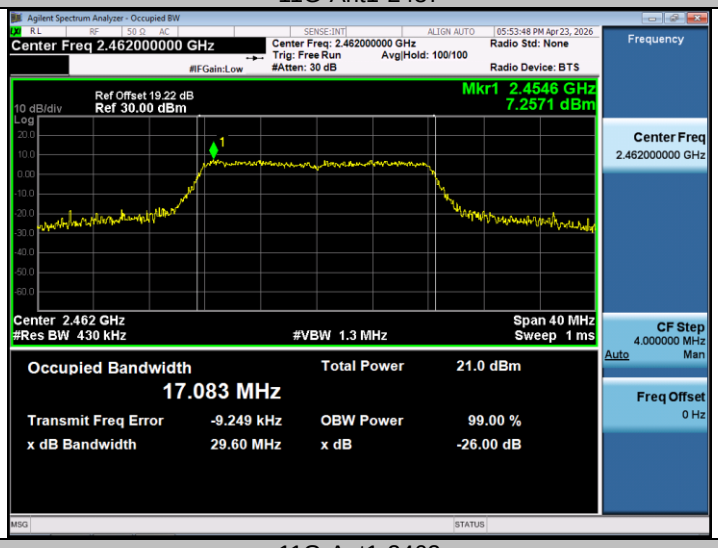

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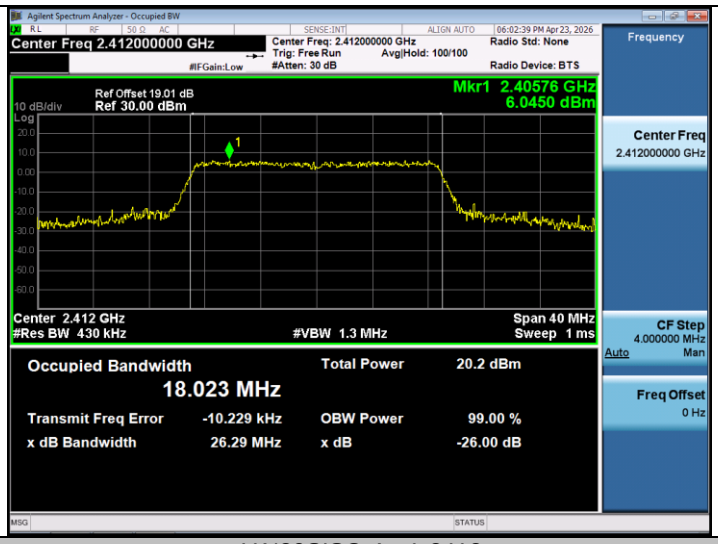

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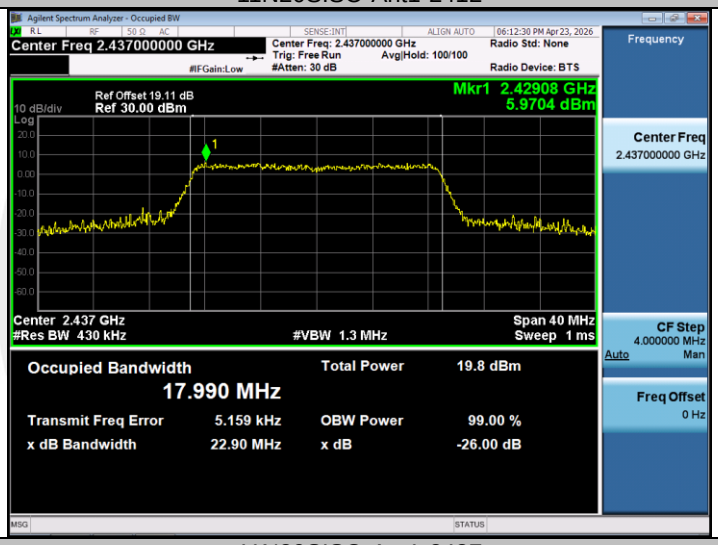

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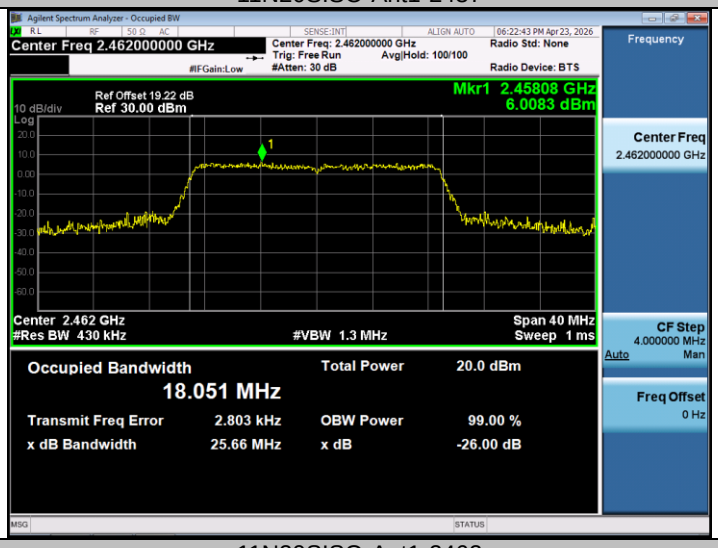

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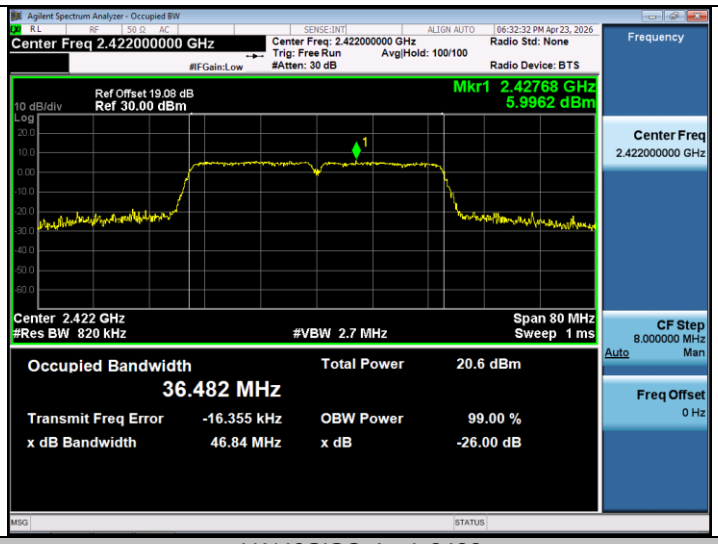

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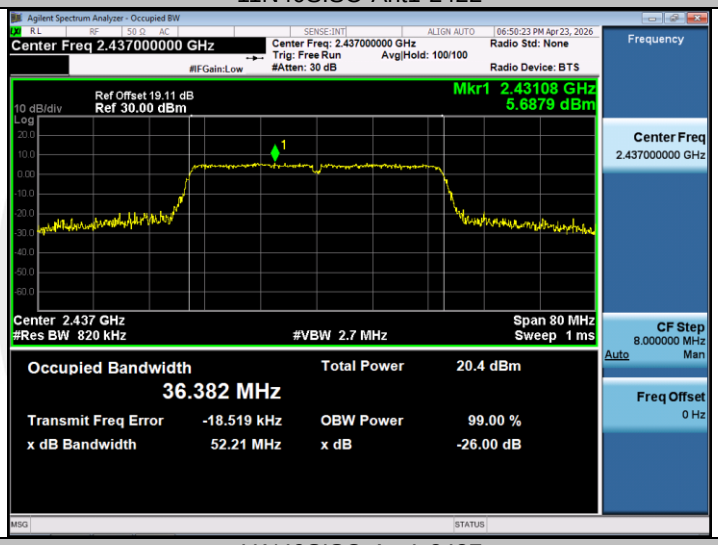

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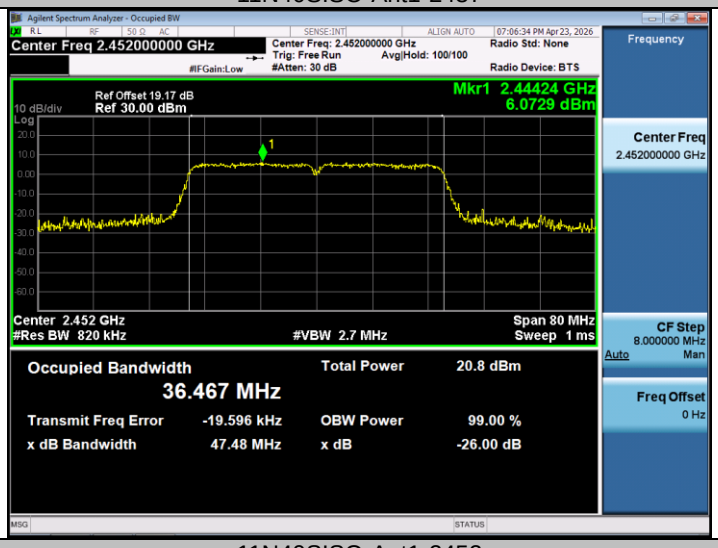

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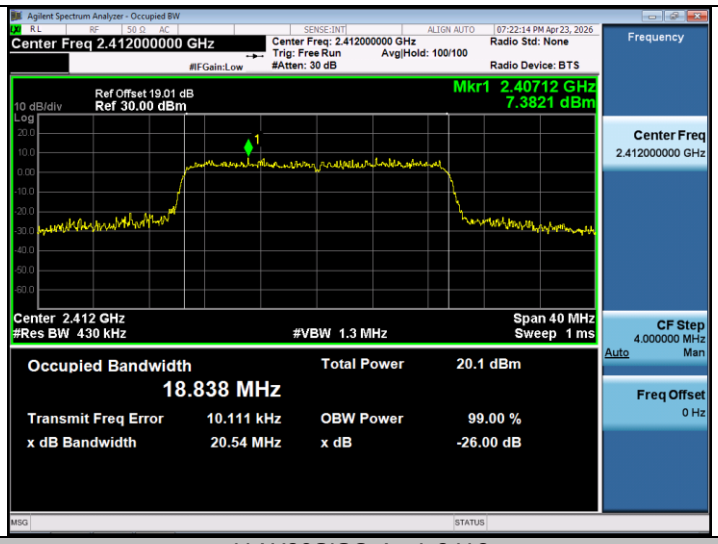

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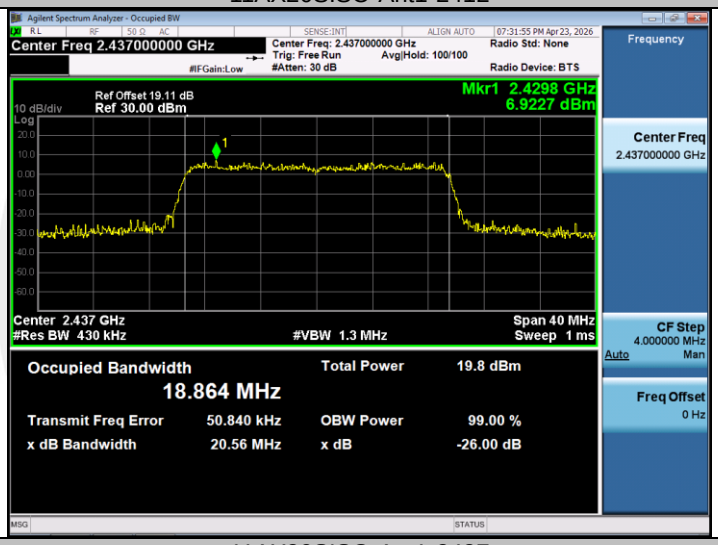

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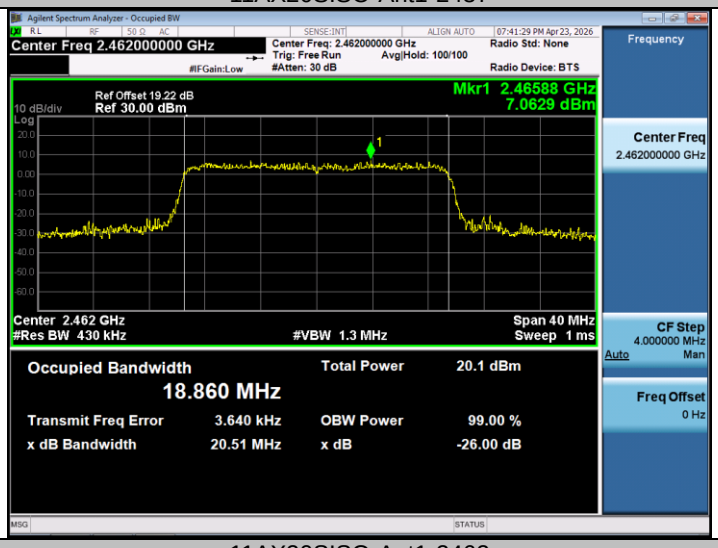

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