TEST REPORT

Applicant:	Janam Technologies LLC
Address:	999 South Oyster Bay Rd Suite 409 Bethpage, NY 11714
Equipment Type:	Mobile Computer
Model Name:	XT4
Brand Name:	Janam
FCC ID:	UTWXT4WA
ISED Number:	6914A-XT4WA
Test Standard:	47 CFR Part 15 Subpart E RSS-Gen Issue 5 RSS-248 Issue 3 (refer to section 3.1)
Sample Arrival Date:	Nov. 15, 2024
Test Date:	Apr. 18, 2025 - Apr. 30, 2025
Date of Issue:	May 12, 2025

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Julie Zhu

Checked by: Ye Hongji

Approved by: Sunny Zou

(Technical Director)

Revision History

Version	Issue Date	Revisions
Rev. 01	May 12, 2025	Initial Issue

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1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	☑ Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	☐ 1/F, Building B, Ganghongji High-tech Intelligent Industrial Park, No. 1008, Songbai Road, Yangguang Community, Xili Sub-district, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196. The laboratory has been listed by Industry Canada to perform electromagnetic emission measurements. The recognition numbers of test site are 11524A.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Janam Technologies LLC
Address	999 South Oyster Bay Rd Suite 409 Bethpage, NY 11714

2.2 Manufacturer Information

Manufacturer	Janam Technologies LLC
Address	999 South Oyster Bay Rd Suite 409 Bethpage, NY 11714

2.3 General Description for Equipment under Test (EUT)

EUT Name	Mobile Computer
Model Name Under Test	XT4
Series Model Name	N/A
Description of Model name differentiation	N/A
Serial Number	8A24410001
Hardware Version	QDC537
Software Version	XT4_CN_XX_WE__DS__R01_D_250109_01
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Technical Information

Network and Wireless connectivity	2G Network GPRS/EDGE 850/1900 3G Network WCDMA/HSDPA/HSUPA Band 2/4/5 4G Network FDD LTE Band 2/4/5/7/12/13/14/17/25/26/66/71 TDD LTE Band 38/41/42/43/48 5G Network SA: NR n2/n5/n7/n12/n13/n14/n25/n26/n38/n41/n48/n66/n71/n77/n78 NSA(EN-DC): DC_2A_n5A, DC_2A_n41A, DC_2A_n66A, DC_2A_n71A, DC_2A_n78A, DC_5A_n2A, DC_5A_n7A, DC_5A_n48A, DC_5A_n66A, DC_5A_n78A, DC_7A_n5A, DC_7A_n66A, DC_7A_n77A, DC_7A_n78A, DC_12A_n2A, DC_12A_n25A, DC_12A_n66A, DC_13A_n2A, DC_13A_n48A, DC_13A_n66A, DC_26A_n41A, DC_26A_n78A, DC_48A_n5A, DC_48A_n55A, DC_66A_n2A, DC_66A_n5A, DC_66A_n7A, DC_66A_n25A, DC_66A_n41A, DC_66A_n48A, DC_66A_n71A, DC_66A_n78A Bluetooth (BR+EDR+BLE) WIFI 802.11a, 802.11b, 802.11g, 802.11n(HT20/40), 802.11ac(VHT20/40/80/160) and 802.11ax(HE20/40/80/160) GPS, GLONASS, Galileo, BDS, NFC

The requirement for the following technical information of the EUT was tested in this report:

Frequency Range		U-NII-5: 5925 MHz to 6425 MHz, U-NII-7: 6525 MHz to 6875 MHz
Product Type		☐ Mobile ☒ Portable ☐ Fix Location Indoor for IC standard
Equipment Classes		6CD
Modulation technology		OFDM, OFDMA
Modulation Type		1024QAM, 256QAM, 64QAM, 16QAM, BPSK, QPSK
Transfer Rate (Mbps) (Single RF path)		802.11ax up to 1201 Mbps
Channel Bandwidth		802.11ax: 20 MHz, 40 MHz, 80 MHz, 160MHz
Maximum Output Power		U-NII-5: 49.66 mW U-NII-7: 49.77 mW
Antenna System (eg., MIMO, Smart Antenna)		Multi Input Multi Output (MIMO) for 802.11ax
Categorization as Correlated or Completely Uncorrelated		Categorization as Uncorrelated for 802.11ax
Antenna Type	SISO-Antenna 8	PIFA Antenna
	SISO-	

	Antenna 9	
Antenna Gain	SISO-Antenna 8	U-NII-5: 5925 MHz to 6425 MHz: -0.71 dBi U-NII-7: 6525 MHz to 6875 MHz: 1.13 dBi
	SISO-Antenna 9	U-NII-5: 5925 MHz to 6425 MHz: -3.54 dBi U-NII-7: 6525 MHz to 6875 MHz: -3.72 dBi
About the Product		The equipment is Mobile Computer, intended for used with information technology equipment.

Note: The above EUT information in section 2.4 was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 15 Subpart E	Unlicensed National Information Infrastructure Devices
2	KDB Publication 789033 D02v02r01	Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E
3	KDB Publication 987594 D02v03	Guidelines for Compliance Testing of Unlicensed National Information Infrastructure 6 GHz (U-NII) Devices Part 15, Subpart E
4	KDB Publication 662911 D01v02r01	Emissions Testing of Transmitters with Multiple Outputs in the Same Band (e.g., MIMO, Smart Antenna, etc)
5	RSS-Gen Issue 5	General Requirements for Compliance of Radio Apparatus
6	RSS-248 Issue 3	Radio Local Area Network (RLAN) Devices Operating in the 5925-7125 MHz Band
7	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices

3.2 Test Verdict

No.	Description	FCC Part No.	RSS Part No.	Test Result	Verdict
1	Proper Power Adjustment, Client Devices Connected to a Standard Power Access Point(APC)	15.407 KDB 987594 D02 Section II. L.	RSS-248, 4.5	ANNEX A.1	Pass
2	Dual Client Test, Demonstration of Proper Power Adjustment based on Associated AP	15.407 KDB 987594 D02 Section II. K.	RSS-248, 4.5	ANNEX A.2	Pass

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments

During the measurement, the normal environmental conditions were within the listed ranges:

Relative Humidity	46% to 63%	
Atmospheric Pressure	100 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+22.7℃ to +26.3℃
Working Voltage of the EUT	NV (Normal Voltage)	3.84 V

4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Signaling Unit	ROHDE&SCHWARZ	CMX500	101243	2024.12.16	2025.12.15

4.3 Test Software List

Description	Manufacturer	Software Version	Serial No.	Applicable test Setup
BL410R	BALUN	V2.1.1.488	N/A	The section 4.5.1

4.4 Measurement Uncertainty

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2.

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

Parameters	Uncertainty
RF output power, conducted	1.28 dB
Temperature	0.8°C
Humidity	4%

5 TEST ITEMS

5.1 Proper Power Adjustment, Client Devices Connected to a Standard Power Access Point (APC)

5.1.1 Test Limit

FCC §15.407 KDB 987594 D02 Section II. L.
A client device that connects to a Standard Power AP must limit its power to a minimum of 6 dB lower than its associated Standard Power access point's authorized transmit power. The term "authorized" means the AFCapproved power level for the AP to use on a particular channel.

5.1.2 Test Setup

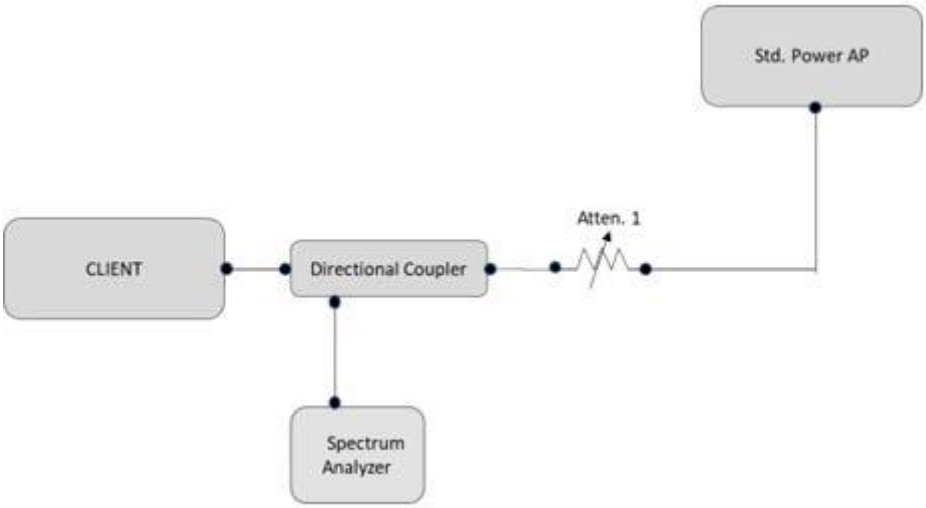


Figure 1. Test setup for conducted testing

5.1.3 Test Procedure

1. Connect equipment as shown in Figure 1 below.

2. In the figure, the Std Power AP can be configured using a developmental board, an Access Point incorporated with test software, or any other hardware configuration that adequately demonstrates proper client power adjustment.

3. Adjust Atten 1 to Std Power AP to facilitate error-free communication with the Client but protect the Client receiver from overload or damage.

4. Configure the Client and AP to associate and send data (stream data). The AP should be configured so its registered power is 36 dBm EIRP.

5. Verify transmission between the Client and the Standard Power AP. Additional attenuators may be required to protect measurement equipment. Measure the Client RF power using any of the methods in C63.10 for NII devices. Use this power and its antenna gain to calculate the Client EIRP.

6. The Client EIRP should be minimally 6 dB lower than the APs.

7. Repeat Steps 2 through 5 at two other selected measurement points—the first at the midpoint and the second at the client's lowest rated power, as declared by the manufacturer.

5.1.4 Test Result

Please refer to ANNEX A.1.

5.2 Dual Client Test, Demonstration of Proper Power Adjustment based on Associated AP

5.2.1 Limit

FCC §15.407 KDB 987594 D02 Section II. K.
A client device may connect to a Standard Power AP with a maximum power level of 30 dBm EIRP or a Low Power indoor AP, but the power level is limited to a maximum of 24 dBm EIRP. If a client has the flexibility to connect to both APs, verification is needed to show that it can distinguish between the two configurations and then control the power levels accordingly.

5.2.2 Test Setup

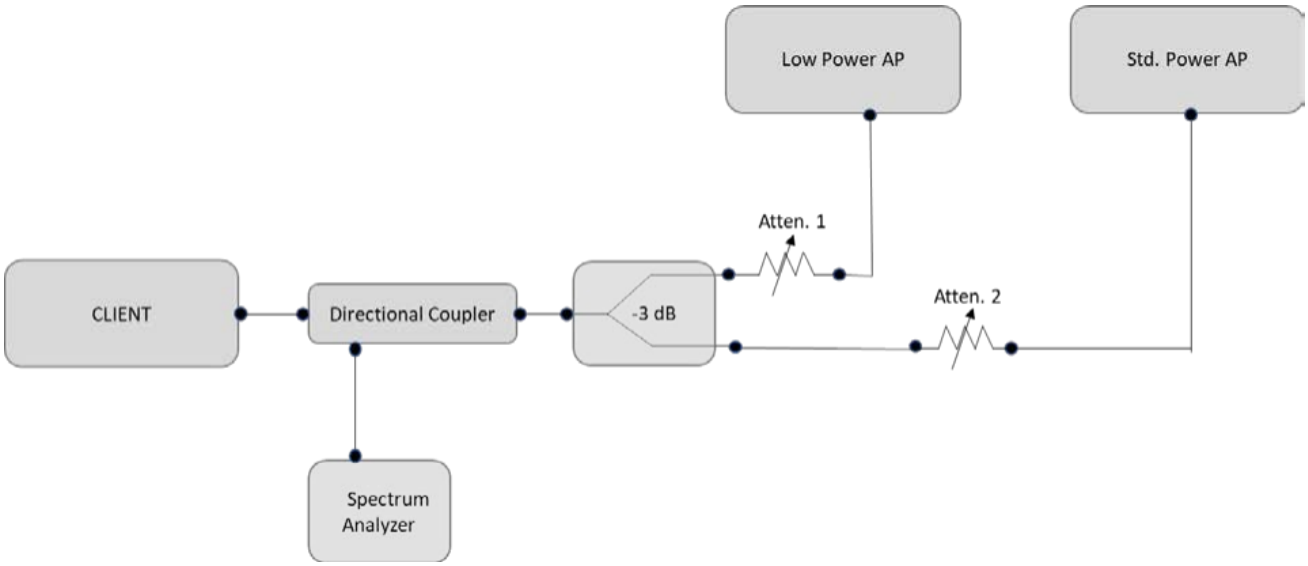


Figure 2. Test setup for conducted testing

5.2.3 Test Procedure

8. Connect equipment as shown in Figure 2 below.

9. Adjust Atten 2 to Standard Power AP to facilitate error-free communication with the Client (Atten 1 should be set to High on the RF path to the Low Power AP).

10. Configure the Client and APs to associate and send data (stream data). The client must be configured to transmit at its highest power level. Initially, because the attenuation on Atten 1 is set high, the Client will only associate with the Std Power AP.

11. Verify transmission between the Client and the Standard Power AP. Additional attenuators may be required to protect measurement equipment. Measure the Client RF power using any of the methods in C63.10 for NII devices.

12. Gradually increase Atten 2 while decreasing Atten 1. This simulates the Client moving from outdoors to indoors. At some level of attenuation, the Client should associate with the Low-Power indoor AP. Verify transmission between the Client and the Low-Power AP.

13. Measure the RF power of the Client device using the same method as in step 4. Verify the power is no more than 24 dBm EIRP.

5.2.4 Test Result

Please refer to ANNEX A.2.

ANNEX A TEST RESULT

A.1 Proper Power Adjustment, Client Devices Connected to a Standard Power Access Point (APC)

Test Data

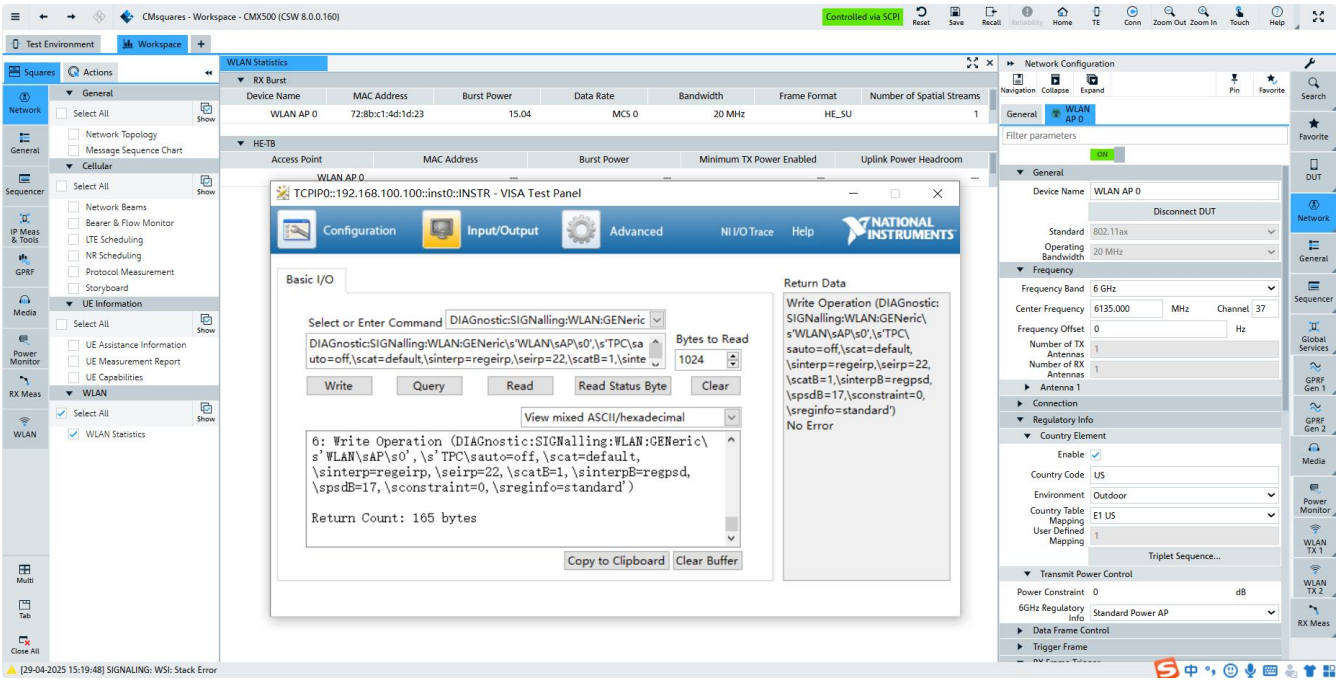
802.11ax 20MHz bandwidth

Test channel: 37	Client EIRP (dBm)			AP EIRP (dBm)	AP to client EIRP Delta (dB)	Requirement	Result
	MAIN	AUX	MIMO				
Maximum EIRP	14.33	8.43	15.32	22	6.68	At least 6 dB	Pass
Midpoint EIRP	8.39	2.31	9.35	16	6.65		Pass
Lowest EIRP	1.39	-2.58	2.85	10	7.15		Pass

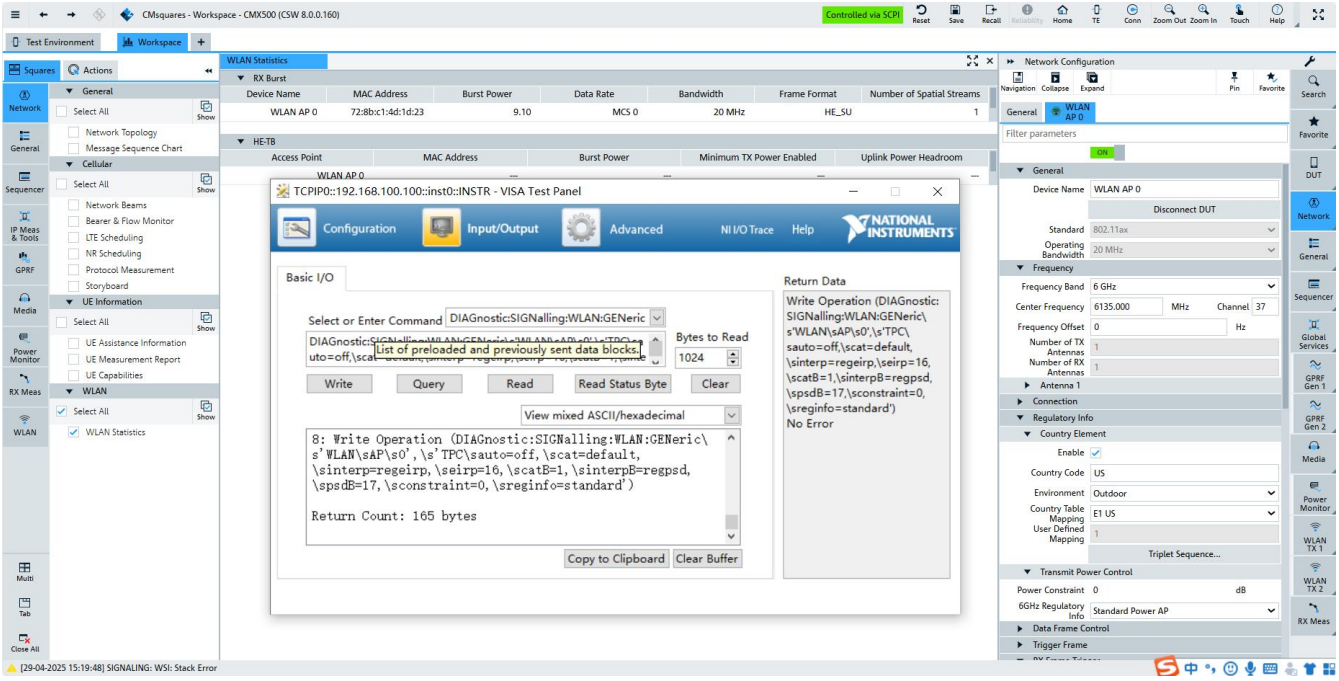
Test Plots

Main Antenna

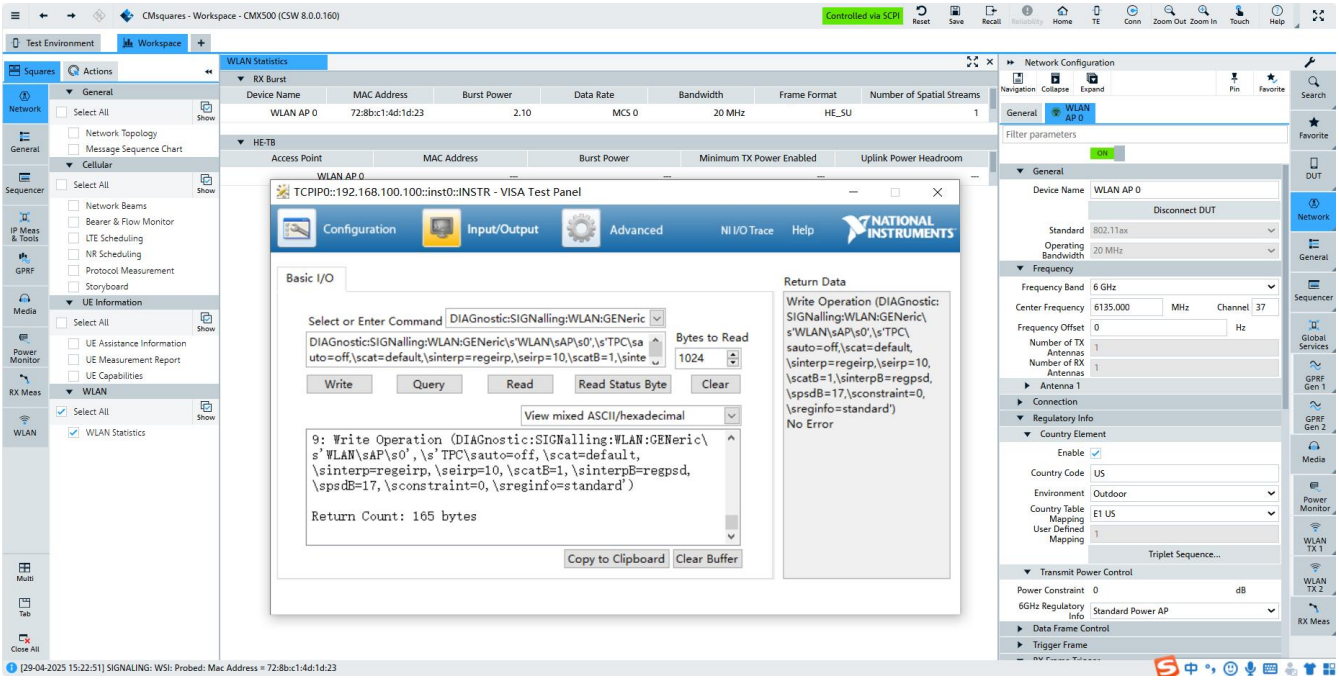
Measured highest power



Measured mid-point power

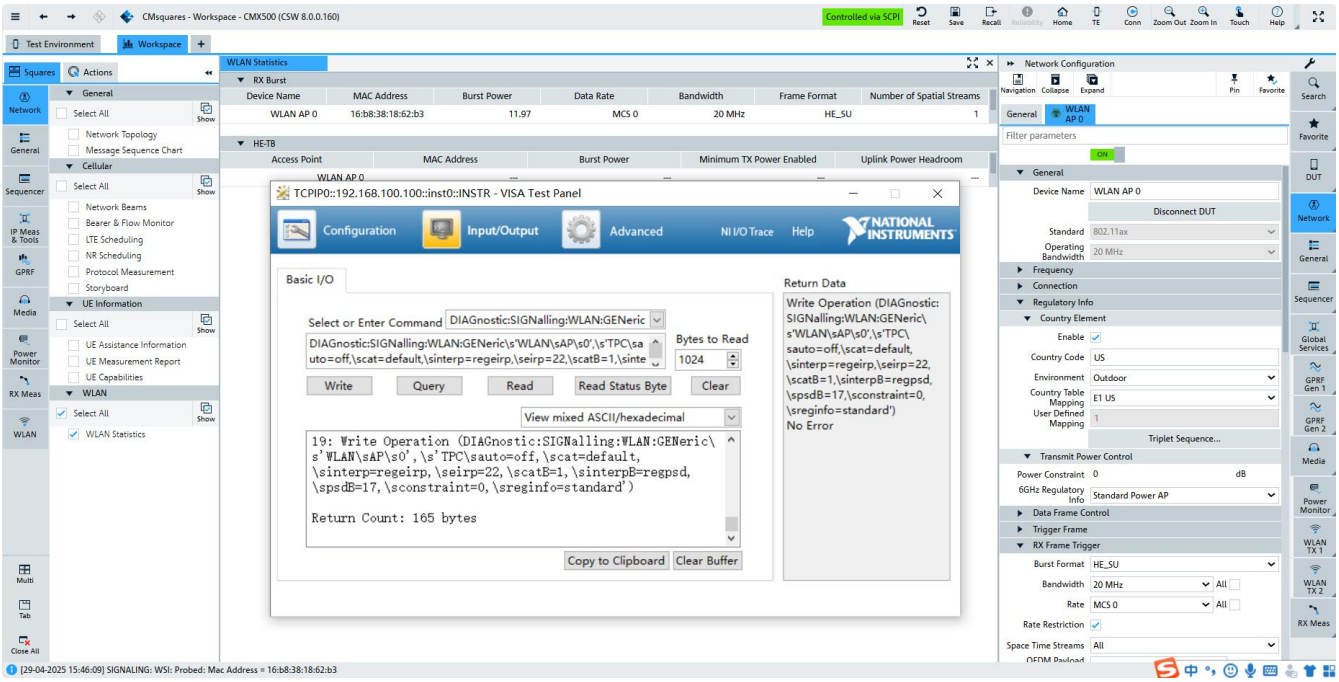


Measured lowest power

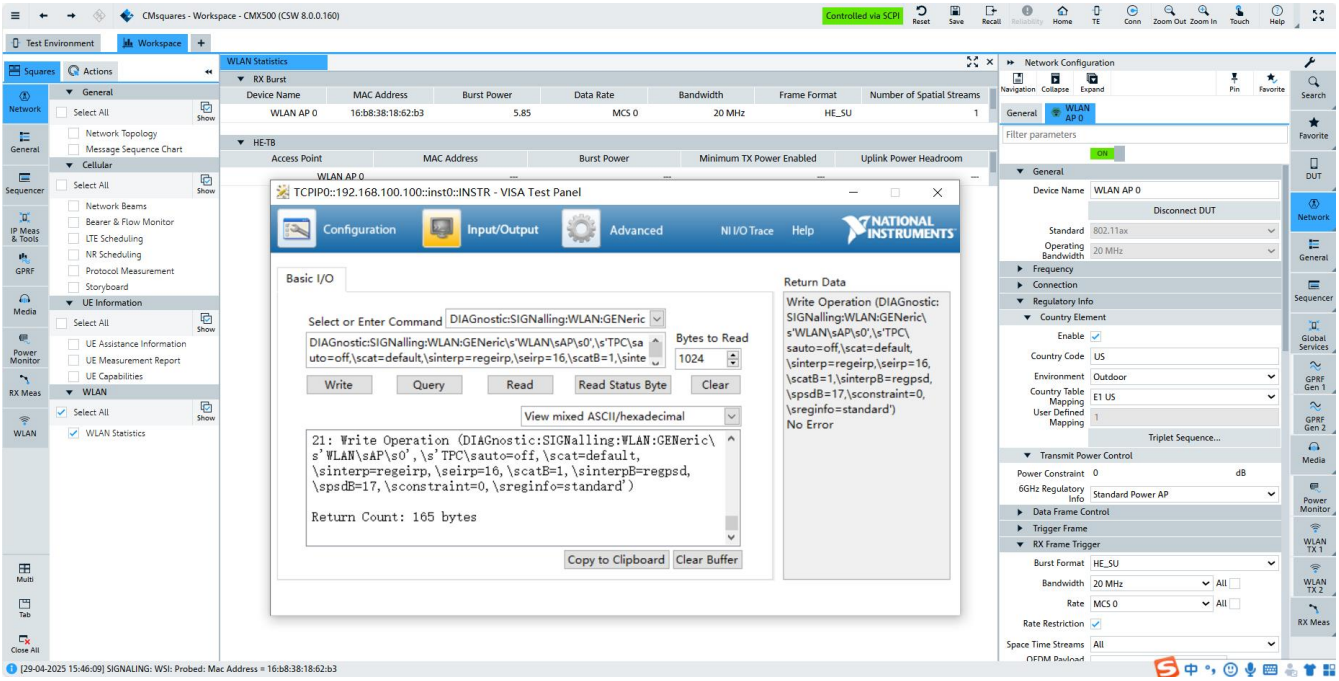


Aux. Antenna

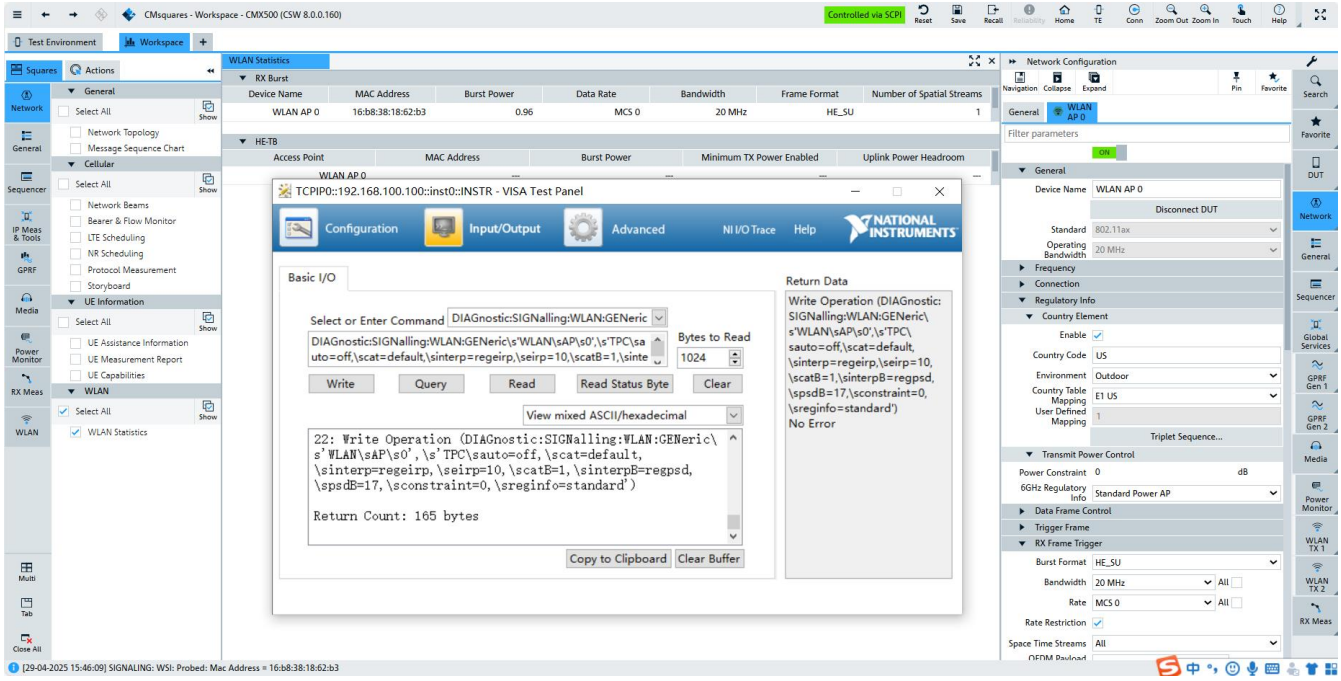
Measured highest power



Measured mid-point power



Measured lowest power



A.2 Dual Client Test, Demonstration of Proper Power Adjustment based on Associated AP

Test Data

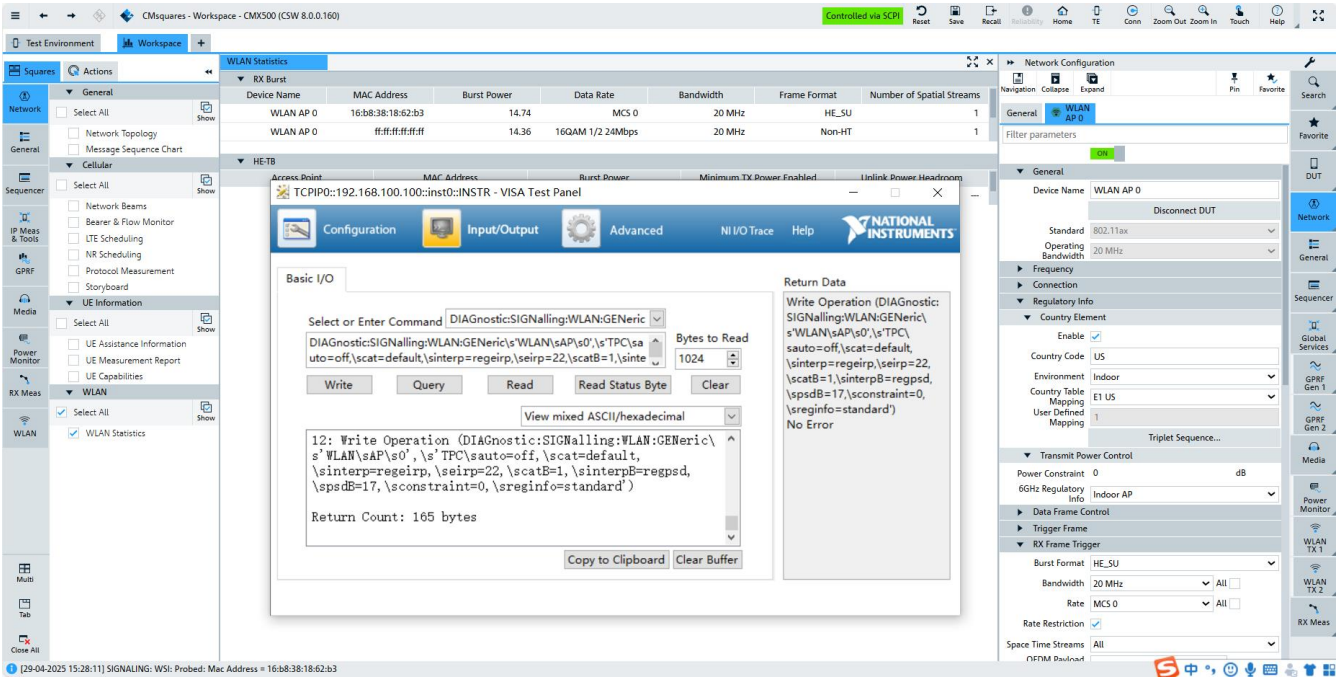
802.11ax 20MHz bandwidth

Test channel: 37	Client EIRP (dBm)			Limit EIRP (dBm)	Result
	MAIN	AUX	MIMO		
Std. Power AP	14.03	8.62	15.13	22	Pass
Low Power AP	1.40	-2.57	2.86	10	Pass

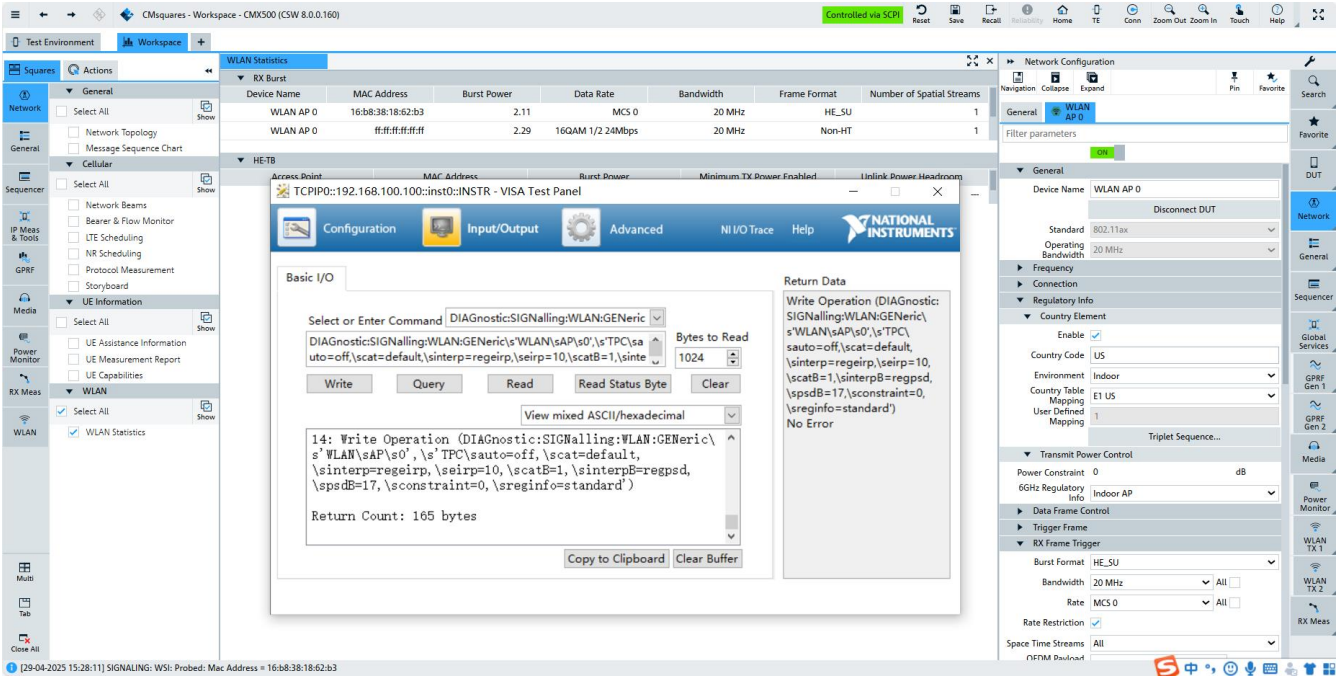
Test Plots

Main Antenna

Measured Indoor power

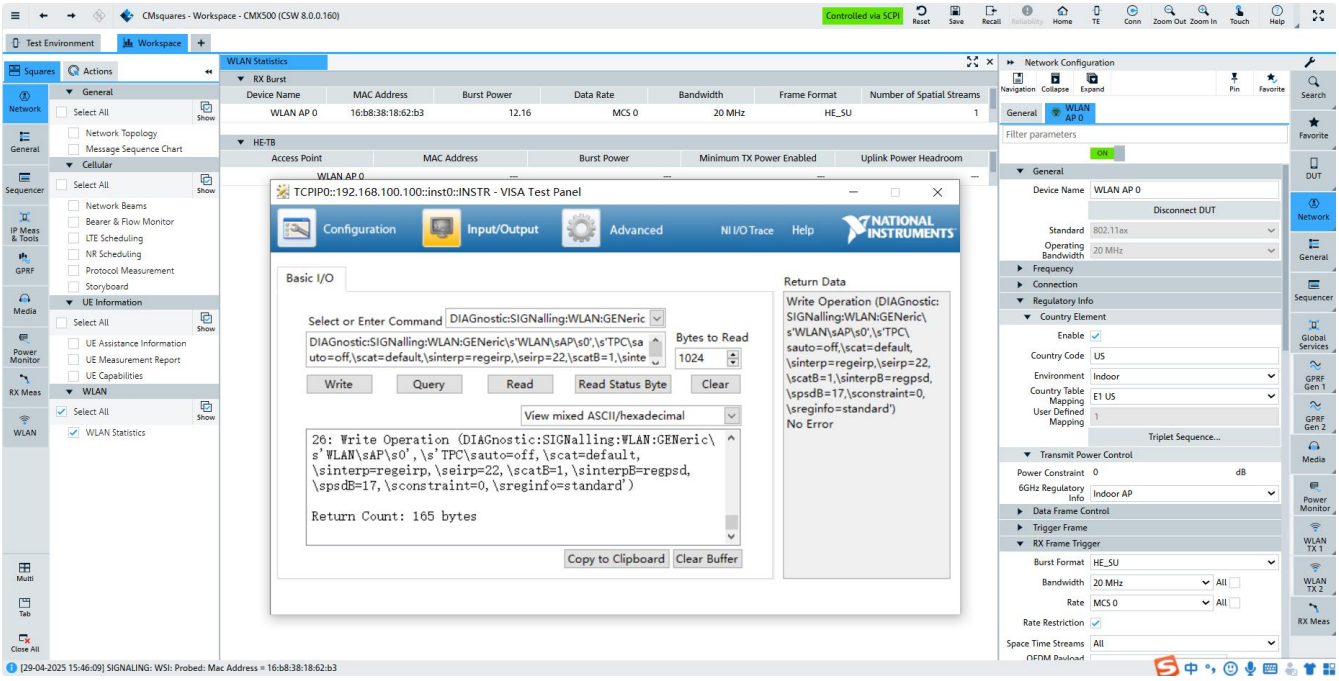


Measured Standard power

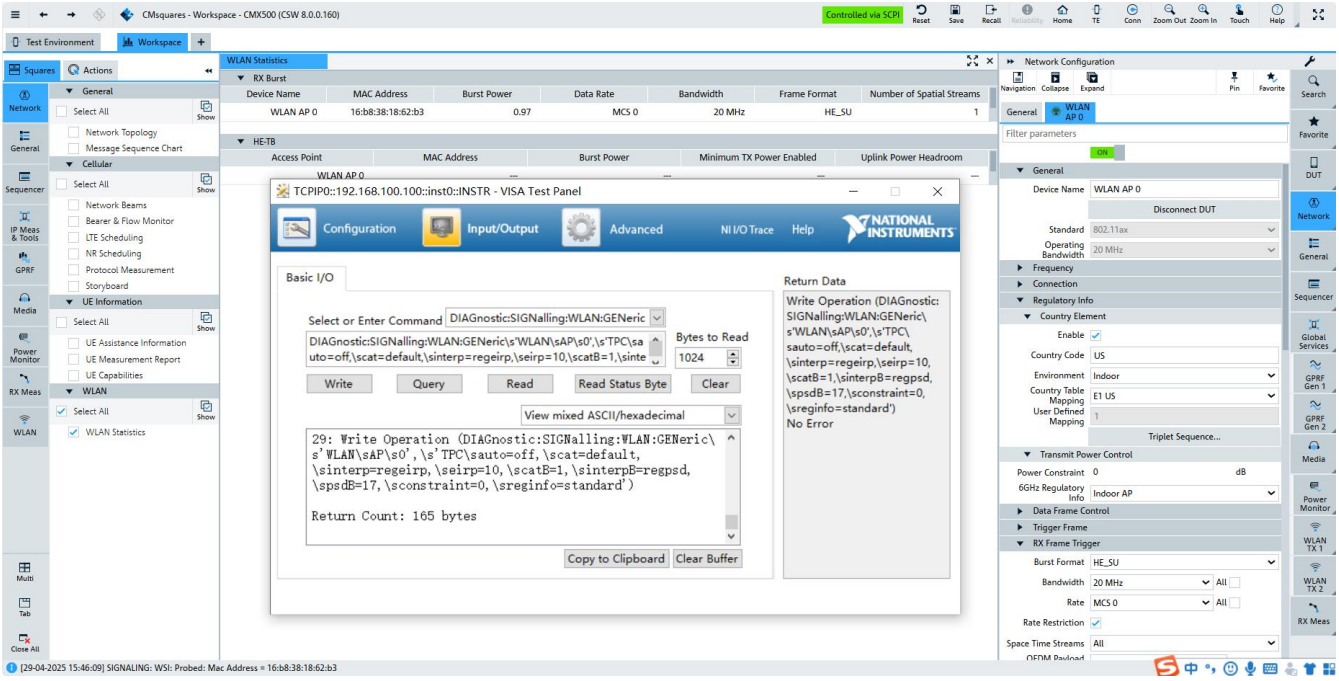


Aux. Antenna

Measured Indoor power



Measured Standard power



ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ24B0764-AR-1.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ24B0764-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ24B0764-AI.PDF”.

Statement

1. The laboratory guarantees the scientificity, accuracy and impartiality of the test, and is responsible for all the information in the report, except the information provided by the customer. The customer is responsible for the impact of the information provided on the validity of the results.
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--END OF REPORT--