



# FCC PART 15C TEST REPORT No.24T04Z101591-002

for

**Guangdong OPPO Mobile Telecommunications Corp., Ltd.**

**Mobile Phone**

**CPH2659**

**FCC ID: R9C-OP23216**

with

**Hardware Version: 11**

**Software Version: Color OS 15.0**

**Issued Date: 2024-10-09**

**Note:**

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of CTTL.

**Test Laboratory:**

**CTTL-Telecommunication Technology Labs, CAICT**

No. 52, Huayuan North Road, Haidian District, Beijing, P. R. China 100191.

Tel:+86(0)10-62304633-2512, Fax:+86(0)10-62304633-2504

Email: [ctl\\_terminals@caict.ac.cn](mailto:ctl_terminals@caict.ac.cn), website: [www.caict.ac.cn](http://www.caict.ac.cn)



## **REPORT HISTORY**

<b>Report Number</b>	<b>Revision</b>	<b>Description</b>	<b>Issue Date</b>
24T04Z101591-002	Rev.0	1st edition	2024-09-11
24T04Z101591-002	Rev.1	Added OFDMA modulation type.	2024-10-09

Note: the latest revision of the test report supersedes all previous version.

## **CONTENTS**

<b>TEST REPORT</b> .....	<b>1</b>
<b>1. TEST LABORATORY</b> .....	<b>5</b>
1.1. INTRODUCTION & ACCREDITATION .....	5
1.2. TESTING LOCATION .....	5
1.3. TESTING ENVIRONMENT.....	6
1.4. PROJECT DATE .....	6
1.5. SIGNATURE .....	6
<b>2. CLIENT INFORMATION</b> .....	<b>7</b>
2.1. APPLICANT INFORMATION .....	7
2.2. MANUFACTURER INFORMATION .....	7
<b>3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT (AE)</b> .....	<b>8</b>
3.1. ABOUT EUT .....	8
3.2. INTERNAL IDENTIFICATION OF EUT .....	8
3.3. INTERNAL IDENTIFICATION OF AE.....	8
3.4. GENERAL DESCRIPTION.....	8
3.5. INTERPRETATION OF THE TEST ENVIRONMENT.....	9
<b>4. REFERENCE DOCUMENTS</b> .....	<b>10</b>
4.1. DOCUMENTS SUPPLIED BY APPLICANT .....	10
4.2. REFERENCE DOCUMENTS FOR TESTING.....	10
<b>5. LABORATORY ENVIRONMENT</b> .....	<b>11</b>
<b>6. TEST RESULTS</b> .....	<b>12</b>
6.1. SUMMARY OF TEST RESULTS.....	12
6.2. FOR CONDUCTED RESULT : .....	12
6.3. ANTENNA GAIN .....	13
6.4. STATEMENTS.....	13
6.5. TEST CONDITIONS .....	13
<b>7. TEST FACILITIES UTILIZED</b> .....	<b>14</b>
<b>8. MEASUREMENT UNCERTAINTY</b> .....	<b>15</b>
8.1. MAXIMUM OUTPUT POWER.....	15
8.2. PEAK POWER SPECTRAL DENSITY .....	15
8.3. DTS 6-DB SIGNAL BANDWIDTH.....	15
8.4. BAND EDGES COMPLIANCE .....	15
8.5. TRANSMITTER SPURIOUS EMISSION .....	15
8.7. AC POWER-LINE CONDUCTED EMISSION .....	15
<b>ANNEX A: DETAILED TEST RESULTS</b> .....	<b>16</b>



**A.1. MEASUREMENT METHOD..... 16**

**A.2. MAXIMUM OUTPUT POWER..... 17**

    A.2.1 ANTENNA GAIN ..... 17

    A.2.2. PEAK OUTPUT POWER-CONDUCTED ..... 17

**A.3. PEAK POWER SPECTRAL DENSITY..... 20**

**A.4. DTS 6-DB SIGNAL BANDWIDTH ..... 92**

**A.5. BAND EDGES COMPLIANCE .....112**

**A.6. TRANSMITTER SPURIOUS EMISSION..... 157**

    A.6.1 TRANSMITTER SPURIOUS EMISSION – CONDUCTED ..... 157

**A.7. RADIATED UNWANTED EMISSION ..... 366**

**A.8. AC POWER-LINE CONDUCTED EMISSION ..... 387**

**A.9. ANTENNA REQUIREMENT ..... 391**

**ANNEX B: EUT PARAMETERS..... 392**

**ANNEX C: ACCREDITATION CERTIFICATE ..... 392**



## **1. Test Laboratory**

### **1.1. Introduction & Accreditation**

**Telecommunication Technology Labs, CAICT** is an ISO/IEC 17025:2017 accredited test laboratory under American Association for Laboratory Accreditation (A2LA) with lab code 7049.01, and is also an FCC accredited test laboratory (CN1349), and ISED accredited test laboratory (CAB identifier:CN0066). The detail accreditation scope can be found on A2LA website.

### **1.2. Testing Location**

Location 1:CTTL(Huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing,  
P. R. China100191

Location 2:CTTL(huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing,  
100191, P. R. China

### **1.3. Testing Environment**

Normal Temperature: 15-35°C  
Relative Humidity: 20-75%

### **1.4. Project date**


Testing Start Date: 2024-08-27  
Testing End Date: 2024-09-11

### **1.5. Signature**



---

Dong Jiaxuan  
( Prepared this test report )



---

Zheng Wei  
(Reviewed this test report)



---

Pang Shuai  
(Approved this test report)



## **2. Client Information**

### **2.1. Applicant Information**

Company Name: Guangdong OPPO Mobile Telecommunications Corp., Ltd.  
Company Addr: NO.18 HaiBin Road, Wusha Village, Chang'an Town, DongGuan City,  
Guangdong Province, P.R. China  
Contact Name: Xiong Bo  
Tel No: (86)76986076999  
E-mail: xiongbo@oppo.com

### **2.2. Manufacturer Information**

Company Name: Guangdong OPPO Mobile Telecommunications Corp., Ltd.  
Company Addr: NO.18 HaiBin Road, Wusha Village, Chang'an Town, DongGuan City,  
Guangdong Province, P.R. China  
Contact Name: Xiong Bo  
Tel No: (86)76986076999  
E-mail: xiongbo@oppo.com

### **3. Equipment Under Test (EUT) and Ancillary Equipment (AE)**

#### **3.1. About EUT**

Description	Mobile Phone
Model name	CPH2659
FCC ID	R9C-OP23216
With WLAN Function	Yes
Frequency Band	ISM 2400MHz~2483.5MHz
Type of Modulation	DSSS/CCK/OFDM/OFDMA
Number of Channels	11
Antenna	Integral Antenna
MAX Conducted Power	29.23dBm
Nominal Voltage	3.87V
Extreme High Voltage	4.5V
Extreme Low Voltage	3.6V

#### **3.2. Internal Identification of EUT**

<b>EUT ID*</b>	<b>SN or IMEI</b>	<b>HW Version</b>	<b>SW Version</b>
UT02a	866185070019957/ 866185070019940	11	Color OS 15.0
UT12a	866185070033131	11	Color OS 15.0
UT10a	866185070033115	11	Color OS 15.0

\*EUT ID: is used to identify the test sample in the lab internally.

UT02a is used for Conduction test, UT10a and UT12a is used for Radiation test.

#### **3.3. Internal Identification of AE**

<b>AE ID*</b>	<b>Description</b>	<b>Model</b>	<b>Manufacturer</b>
AE1	Battery	BLPB05	Dongguan NVT Technology Co., Ltd
AE2	Adapter	VCB8OAUH	Dongguan Aohai Technology Co.,Ltd.
AE3	Cable	DL129	DUWEI

\*AE ID: is used to identify the test sample in the lab internally.

#### **3.4. General Description**

The Equipment under Test (EUT) is a model of Mobile Phone with integrated antenna and inbuilt battery.

It consists of normal options: travel charger, USB cable.

Manual and specifications of the EUT were provided to fulfil the test.

Samples undergoing test were selected by the client.



### 3.5. Interpretation of the Test Environment

For the test methods, the test environment uncertainty figures correspond to an expansion factor  $k=2$ .

#### Measurement Uncertainty

Parameter	Uncertainty
temperature	0.48°C
humidity	2 %
DC voltages	0.003V

## **4. Reference Documents**

### **4.1. Documents supplied by applicant**

EUT feature information is supplied by the applicant or manufacturer, which is the basis of testing.

### **4.2. Reference Documents for testing**

The following documents listed in this section are referred for testing.

<b>Reference</b>	<b>Title</b>	<b>Version</b>
FCC Part15	FCC CFR 47, Part 15, Subpart C: 15.205 Restricted bands of operation; 15.209 Radiated emission limits, general requirements; 15.247 Operation within the bands 902-928MHz, 2400-2483.5 MHz, and 5725-5850 MHz.	2021
ANSI C63.10	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices	2013
KDB 558074 D01	Federal Communications Commission Office of Engineering and Technology Laboratory Division GUIDANCE FOR COMPLIANCE MEASUREMENTS ON DIGITAL TRANSMISSION SYSTEM, FREQUENCY HOPPING SPREAD SPECTRUM SYSTEM, AND HYBRID SYSTEM DEVICES OPERATING UNDER SECTION 15.247 OF THE FCC RULES	2019



## 5. LABORATORY ENVIRONMENT

Conducted RF performance testing is performed in shielding room.

EMC performance testing is performed in Semi-anechoic chamber.

## 6. Test Results

### 6.1. Summary of Test Results

SUMMARY OF MEASUREMENT RESULTS	Sub-clause of Part15C	Sub-clause of IC	Verdict
Maximum Peak Output Power	15.247 (b)	/	<b>P</b>
Peak Power Spectral Density	15.247 (e)	/	<b>P</b>
Occupied 6dB Bandwidth	15.247 (a)	/	<b>P</b>
Band Edges Compliance	15.247 (d)	/	<b>P</b>
Transmitter Spurious Emission - Conducted	15.247 (d)	/	<b>P</b>
Radiated Unwanted Emission	15.247, 15.205, 15.209	/	<b>P</b>
AC Powerline Conducted Emission	15.107, 15.207	/	<b>P</b>

Please refer to **ANNEX A** for detail.

Terms used in Verdict column

P	Pass, The EUT complies with the essential requirements in the standard.
NP	Not Perform, The test was not performed by CTTL
NA	Not Applicable, The test was not applicable
F	Fail, The EUT does not comply with the essential requirements in the standard

### 6.2. **For conducted result :**

1. EUT support 802.11b/g/n/ax/be modes on 2.4G, and can't transmit simultaneously in 2.4G.
2. As WLAN SISO(1x1) & MIMO(2x2) mode have the same power setting, the whole testing has assessed only MIMO mode.
3. 802.11ax support full RU and single RU modes.
4. 802.11be support full RU, single RU, MRU, large MRU and puncturing modes.
5. For 802.11b/g/n/ax full RU/be full RU, the whole testing (PSD/6dB bandwidth/band edges/ Transmitter Spurious Emission-Conducted) has reported only 802.11b/g/ax-HE20/ax-HE40 by referring to the higher output power.
6. For 802.11ax single RU and 802.11be single RU modes, the whole testing (PSD/band edges/ Transmitter Spurious Emission-Conducted) has reported only 802.11be- EHT20-single RU by referring to the higher output power.
7. For 802.11be-EHT20/40MHz MRU mode, the whole testing (PSD/band edges/ Transmitter Spurious Emission-Conducted) has reported only 802.11be- EHT20 by referring to the higher output power.
  - 52 Tone,index38 + 26Tone,index1, 52 Tone,index39 + 26Tone,index7
  - 106 Tone,index53 + 26Tone,index4, 106 Tone,index54 + 26Tone,index4.

### 6.3. Antenna Gain

Mode	Ant12(dBi)	Ant7(dBi)	Power(dBi)	PSD(dBi)
CDD	-0.5	2.5	2.5	2.5
BF	-0.5	2.5	4.14	4.14

Note :

1. For BF transmissions, power and PSD directional gain is calculated as:

Directional gain =  $10 \log [(10^{G1/20} + 10^{G2/20} + \dots + 10^{Gn/20})^2 / \text{NANT}]$  dBi, as following

table for PSD. NANT = number of transmit antennas NSS = number of spatial streams.

(When NSS=1 or 2, both powersettings are the same,The worst case directional gain will occur when NSS = 1)

2. For CDD transmissions, directional gain is calculated as:

a. For power, the directional gain GANT is set equal to the antenna having the highest gain, i.e., Directional gain = GANT MAX (Ant.1 Gain, Ant.2 Gain, ...) + Array Gain, where Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 4.

b. For PSD, the directional gain calculation is following:

Directional gain =  $10 \log [(10^{G1/20} + 10^{G2/20} + \dots + 10^{Gn/20})^2 / \text{NANT}]$  dBi. NANT = number of transmit antennas NSS = number of spatial streams. (When NSS=1 or 2, both powersettings are the same,The worst case directional gain will occur when NSS = 1).

3. 802.11g support CDD mode ;
4. 802.11n support CDD and STBC mode, as they use the same power setting, only eirp results of CDD have been reported.
5. 802.11ax/be support CDD, BF and STBC mode, as they use the same power setting, only eirp results of BF have been reported.
6. The device what use a permanently attached antenna were considered sufficient to comply with the provisions of 15.203.

### 6.4. Statements

CTTL has evaluated the test cases as listed in section 6.1 of this report for the EUT specified in section 3 according to the standards or reference documents listed in section 4.

This report only deals with the WLAN function among the features described in section 3.

### 6.5. Test Conditions

For this report, all the test cases are tested under normal temperature and normal voltage, and also under norm humidity, the specific condition is shown as follows:

Temperature	26°C
Voltage	3.87V
Humidity	44%

## 7. Test Facilities Utilized

### Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Vector Signal Analyzer	FSW67	104051	Rohde & Schwarz	1 year	2025-04-01
2	LISN	ENV216	101200	R&S	1 Year	2025-05-17
3	Test Receiver	ESCI	100344	R&S	1 Year	2025-05-01
4	Attenuator	10dB/2W	/	Rosenberger	/	/
5	Shielding Room	S81	/	ETS-Lindgren	/	/

### Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Test Receiver	ESW44	103144	R&S	1 year	2024-11-26
2	EMI Antenna	VULB 9163	01222	SCHWARZBECK	1 year	2025-07-30
3	EMI Antenna	3115	00167250	ETS-Lindgren	1 year	2025-04-11

## 8. Measurement Uncertainty

### 8.1. Maximum Output Power

Measurement Uncertainty: 0.387dB,k=1.96

### 8.2. Peak Power Spectral Density

Measurement Uncertainty: 0.705dB,k=1.96

### 8.3. DTS 6-dB Signal Bandwidth

Measurement Uncertainty: 60.80Hz,k=1.96

### 8.4. Band Edges Compliance

Measurement Uncertainty : 0.62dB,k=1.96

### 8.5. Transmitter Spurious Emission

Conducted (k=1.96)

Frequency Range	Uncertainty(dB)
$30\text{MHz} \leq f \leq 2\text{GHz}$	1.22
$2\text{GHz} \leq f \leq 3.6\text{GHz}$	1.22
$3.6\text{GHz} \leq f \leq 8\text{GHz}$	1.22
$8\text{GHz} \leq f \leq 12.75\text{GHz}$	1.51
$12.75\text{GHz} \leq f \leq 26\text{GHz}$	1.51
$26\text{GHz} \leq f \leq 40\text{GHz}$	1.59

### 8.6. Radiated Unwanted Emission

Radiated (k=2)

Frequency Range	Uncertainty(dB)
9kHz-30MHz	/
$30\text{MHz} \leq f \leq 1\text{GHz}$	4.72
$1\text{GHz} \leq f \leq 18\text{GHz}$	4.84
$18\text{GHz} \leq f \leq 40\text{GHz}$	5.12

### 8.7. AC Power-line Conducted Emission

Measurement Uncertainty : 3.08dB,k=2

## **ANNEX A: Detailed Test Results**

### **A.1. Measurement Method**

#### **A.1.1. Conducted Measurements**

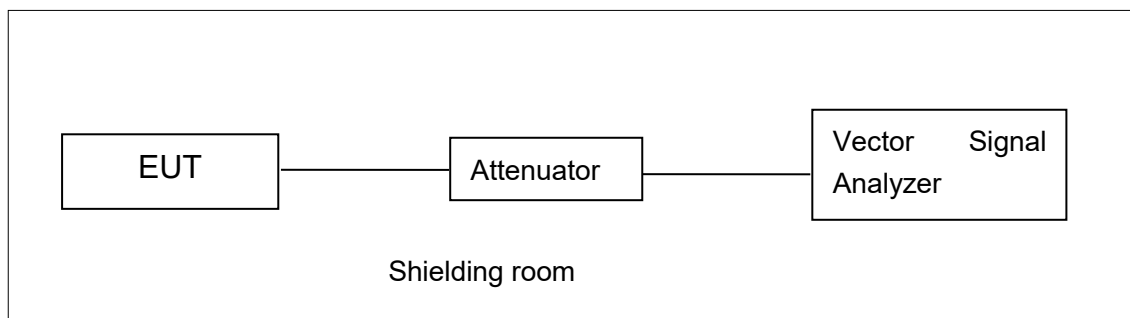
Connect the EUT to the test system as Fig.A.1.1.1 shows.

Set the EUT to the required work mode.

Set the EUT to the required channel.

Set the Vector Signal Analyzer and start measurement.

Record the values. Vector Signal Analyzer



**Fig.A.1.1.1: Test Setup Diagram for Conducted Measurements**

#### **A.1.2. Radiated Emission Measurements**

The measurement is made according to ANSI C63.10

The radiated emission test is performed in semi-anechoic chamber. The EUT was placed on a non-conductive table with 80cm above the ground plane for measurement below 1GHz and 1.5m above the ground plane for measurement above 1GHz. The measurement antenna was placed at a distance of 3 meters from the EUT. The test is carried out on both vertical and horizontal polarization and only maximization result of both polarizations is kept. During the test, the turntable is rotated from 0° to 360° and the measurement antenna is moved from 1m to 4m to get the maximization result. The maximization process was repeated with the EUT positioned in each of its three orthogonal orientation



## **A.2. Maximum Output Power**

**Method of Measurement: See ANSI C63.10-2013-clause 11.9.1.3**

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 use a fast-responding diode detector.

**Measurement Limit:**

Standard	Limit (dBm)
FCC CRF Part 15.247(b)	< 30

### **A.2.1 Antenna Gain**

Antenna gain is -0.5dBi/2.5dBi(Ant12/Ant7)and the value is supplied by the applicant or manufacturer.

### **A.2.2. Peak Output Power-conducted**

**EUT ID: UT02a**

**Measurement Results:**

**Full RU MIMO**

Mode	Data Rate (Mbps)	Test Result (dBm)								
		2412MHz(Ch1)			2437MHz(Ch6)			2462 MHz(Ch11)		
		Ant12	Ant7	MIMO	Ant12	Ant7	MIMO	Ant12	Ant7	MIMO
802.11b (20MHz)	1	20.96	20.22	23.62	20.76	20.99	23.89	20.66	19.94	23.33
802.11g (20MHz)	6	20.09	19.99	23.05	26.00	26.40	29.21	19.51	19.52	22.53
802.11n (20MHz)	MCS0	19.90	19.92	22.92	25.76	26.21	29.00	19.47	19.34	22.42
802.11ac (20MHz)	MCS0	20.25	20.01	23.14	25.72	26.28	29.02	19.52	19.35	22.45
802.11ax (20MHz)	MCS0	20.92	20.49	23.72	26.08	26.35	29.23	20.33	19.98	23.17
802.11be (20MHz)	MCS0	20.85	20.35	23.62	26.01	26.42	29.23	20.32	19.95	23.15

**RU MIMO**

Mode	Data Rate (Mbps)	Test Result (dBm)								
		2412MHz(Ch1)			2437MHz(Ch6)			2462 MHz(Ch11)		
		Ant12	Ant7	MIMO	Ant12	Ant7	MIMO	Ant12	Ant7	MIMO
802.11ax-HE20-RU26-left	MCS0	11.26	10.59	13.95	11.41	11.61	14.52	11.25	10.73	14.01
802.11ax-HE20-RU26-right	MCS0	11.97	10.70	14.39	11.98	11.53	14.77	10.78	10.53	13.67
802.11ax-HE20-RU52-left	MCS0	13.17	14.66	16.99	14.72	15.82	18.32	13.92	14.62	17.29
802.11ax-HE20-RU52-right	MCS0	13.34	15.42	17.51	14.25	15.70	18.05	13.39	14.61	17.05
802.11ax-HE20-RU106-left	MCS0	18.82	18.54	21.69	18.78	18.80	21.80	17.87	18.13	21.01
802.11ax-HE20-RU106-right	MCS0	18.00	17.94	20.98	18.49	18.98	21.75	17.95	17.55	20.76
802.11be-EHT20-RU26-left	MCS0	11.26	10.59	13.95	11.41	11.61	14.52	11.25	10.73	14.01
802.11be-EHT20-RU26-right	MCS0	11.46	10.72	14.12	11.50	11.82	14.67	11.21	10.66	13.95
802.11be-EHT20-RU26-left	MCS0	10.11	10.84	13.50	11.94	11.47	14.72	10.81	10.52	13.68
802.11be-EHT20-RU52-left	MCS0	13.12	15.38	17.41	14.73	15.79	18.30	12.68	14.38	16.62
802.11be-EHT20-RU52-right	MCS0	13.20	15.22	17.34	14.29	15.77	18.10	13.66	14.65	17.19
802.11be-EHT20-RU106-left	MCS0	18.59	18.38	21.50	18.54	18.76	21.66	17.84	18.08	20.97
802.11be-EHT20-RU106-right	MCS0	17.94	17.91	20.94	18.37	19.08	21.75	17.84	17.53	20.70

**MRU MIMO**

Mode	Data Rate (Mbps)	Test Result (dBm)								
		2412MHz(Ch1)			2437MHz(Ch6)			2462 MHz(Ch11)		
		Ant12	Ant7	MIMO	Ant12	Ant7	MIMO	Ant12	Ant7	MIMO
52 Tone,index38 + 26Tone,index1	MCS0	14.23	15.23	17.77	14.52	15.51	18.05	13.64	14.52	17.11
52 Tone,index39 + 26Tone,index7	MCS0	13.60	14.96	17.34	14.25	15.41	17.88	13.57	14.45	17.04
106 Tone,index53 + 26Tone,index4	MCS0	18.61	18.23	21.43	18.53	18.68	21.62	17.71	17.59	20.66
106 Tone,index54 + 26Tone,index4	MCS0	18.00	17.81	20.92	18.24	18.91	21.60	17.73	17.35	20.55

The data rate 1Mbps (11b mode),6Mbps (11g mode), MCS0 (11n-HT20 mode), MCS0 (11ac-VHT20 mode),MCS0 (11ax-HE20 mode),MCS0 (11be-EHT20 mode),are selected as the worst condition; as the maximum power is got with these data rate. The following cases are performed with this condition.

The duty cycle of all mode >98%

**Conclusion: Pass**

### **A.3. Peak Power Spectral Density**

**Method of Measurement: See ANSI C63.10-2013-clause 11.10.2**

- 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 RBW = 3 kHz.
- d) Set the VBW = 10 kHz.
- 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.

**Measurement Limit:**

Standard	Limit
FCC CRF Part 15.247(e)	< 8 dBm/3 kHz

**EUT ID: UT02a**

**Measurement Results:**

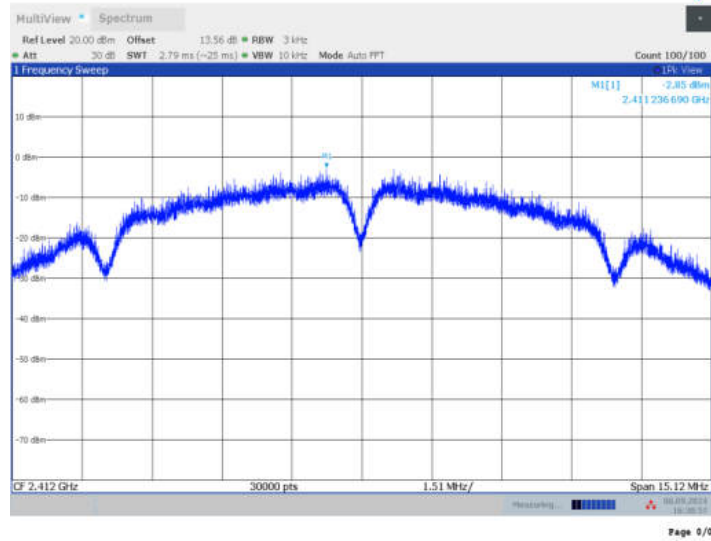
**Full RU MIMO**

TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B-CDD	Ant12	2412	-2.85	≤8.00	PASS
	Ant7	2412	-3.64	≤8.00	PASS
	total	2412	-0.22	≤8.00	PASS
	Ant12	2437	-4.33	≤8.00	PASS
	Ant7	2437	-4.19	≤8.00	PASS
	total	2437	-1.25	≤8.00	PASS
	Ant12	2462	-4.10	≤8.00	PASS
	Ant7	2462	-4.75	≤8.00	PASS
	total	2462	-1.40	≤8.00	PASS
11G-CDD	Ant12	2412	-10.25	≤8.00	PASS
	Ant7	2412	-12.33	≤8.00	PASS
	total	2412	-8.16	≤8.00	PASS
	Ant12	2437	-6.17	≤8.00	PASS
	Ant7	2437	-6.29	≤8.00	PASS
	total	2437	-3.22	≤8.00	PASS
	Ant12	2462	-13.06	≤8.00	PASS
	Ant7	2462	-13.35	≤8.00	PASS
	total	2462	-10.19	≤8.00	PASS
11N20MIMO	Ant12	2412	-11.73	≤8.00	PASS
	Ant7	2412	-11.53	≤8.00	PASS
	total	2412	-8.62	≤8.00	PASS

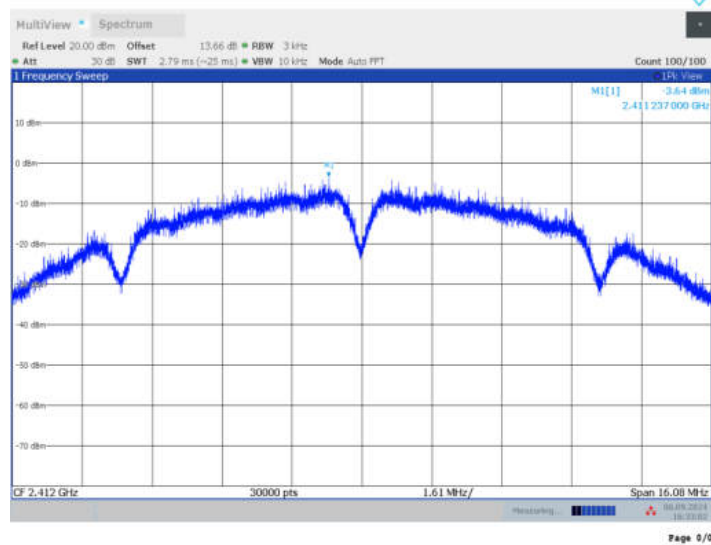
	Ant12	2437	-7.07	≤8.00	PASS
	Ant7	2437	-6.84	≤8.00	PASS
	total	2437	-3.94	≤8.00	PASS
	Ant12	2462	-12.49	≤8.00	PASS
	Ant7	2462	-13.89	≤8.00	PASS
	total	2462	-10.12	≤8.00	PASS
11AC20MIMO	Ant12	2412	-12.54	≤8.00	PASS
	Ant7	2412	-13.26	≤8.00	PASS
	total	2412	-9.87	≤8.00	PASS
	Ant12	2437	-7.43	≤8.00	PASS
	Ant7	2437	-7.12	≤8.00	PASS
	total	2437	-4.26	≤8.00	PASS
	Ant12	2462	-13.33	≤8.00	PASS
	Ant7	2462	-13.96	≤8.00	PASS
total	2462	-10.62	≤8.00	PASS	
11AX20MIMO	Ant12	2412	-13.53	≤8.00	PASS
	Ant7	2412	-13.35	≤8.00	PASS
	total	2412	-10.43	≤8.00	PASS
	Ant12	2437	-8.89	≤8.00	PASS
	Ant7	2437	-8.67	≤8.00	PASS
	total	2437	-5.77	≤8.00	PASS
	Ant12	2462	-14.32	≤8.00	PASS
	Ant7	2462	-13.94	≤8.00	PASS
total	2462	-11.12	≤8.00	PASS	
11BE20MIMO	Ant12	2412	-13.36	≤8.00	PASS
	Ant7	2412	-13.48	≤8.00	PASS
	total	2412	-10.41	≤8.00	PASS
	Ant12	2437	-7.99	≤8.00	PASS
	Ant7	2437	-9.04	≤8.00	PASS
	total	2437	-5.47	≤8.00	PASS
	Ant12	2462	-13.80	≤8.00	PASS
	Ant7	2462	-15.12	≤8.00	PASS
total	2462	-11.40	≤8.00	PASS	

Test graphs as below:

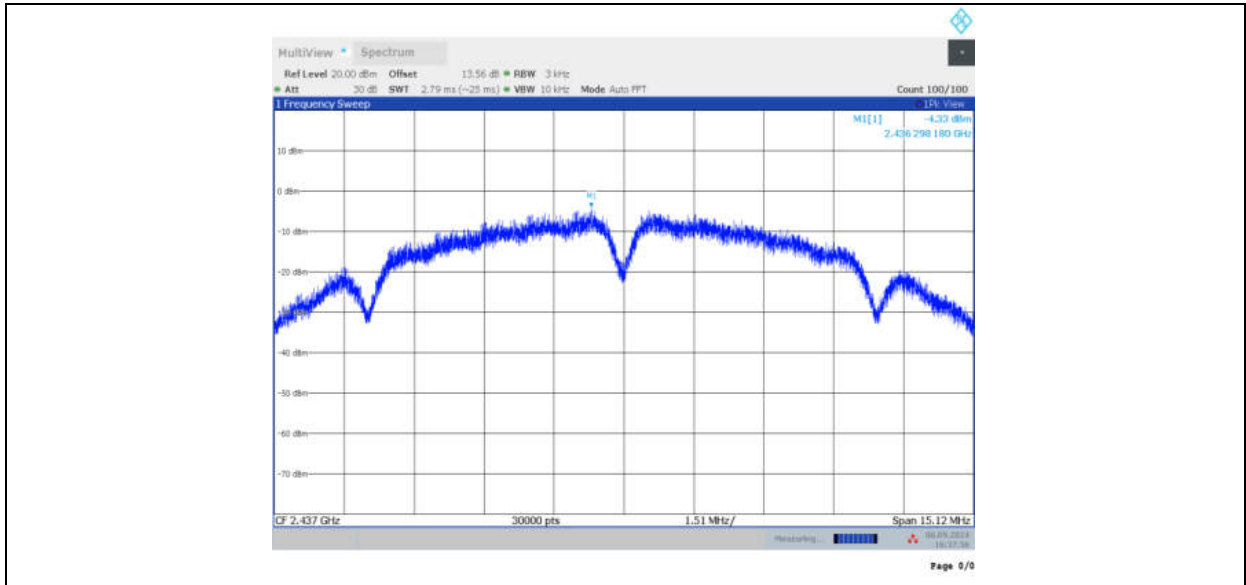
11B-CDD\_Ant12\_2412



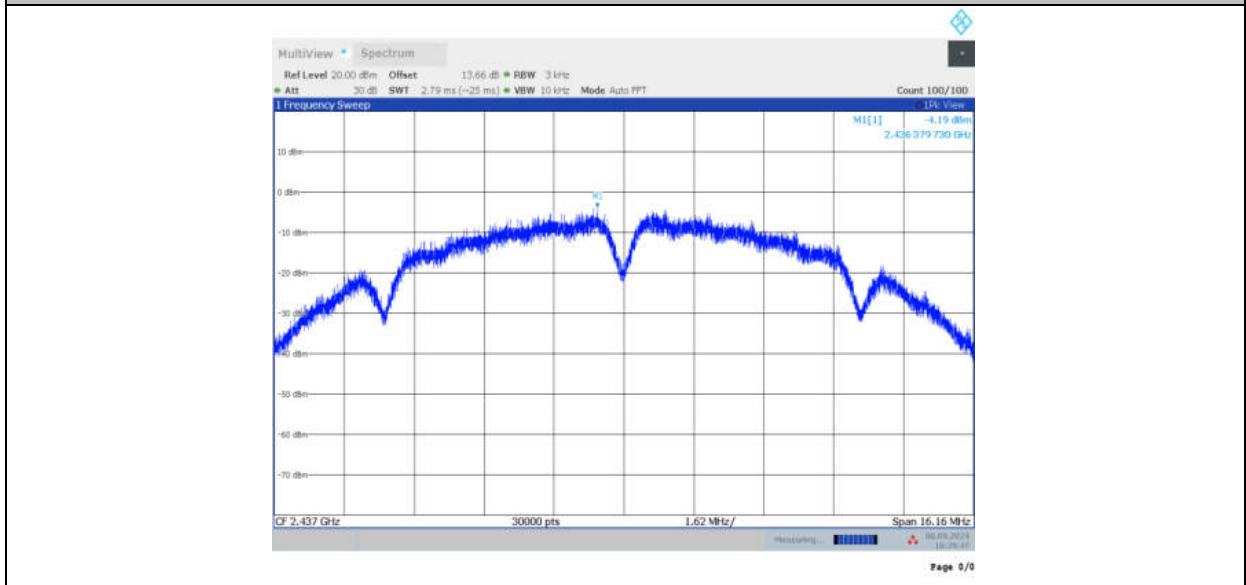
11B-CDD\_Ant7\_2412



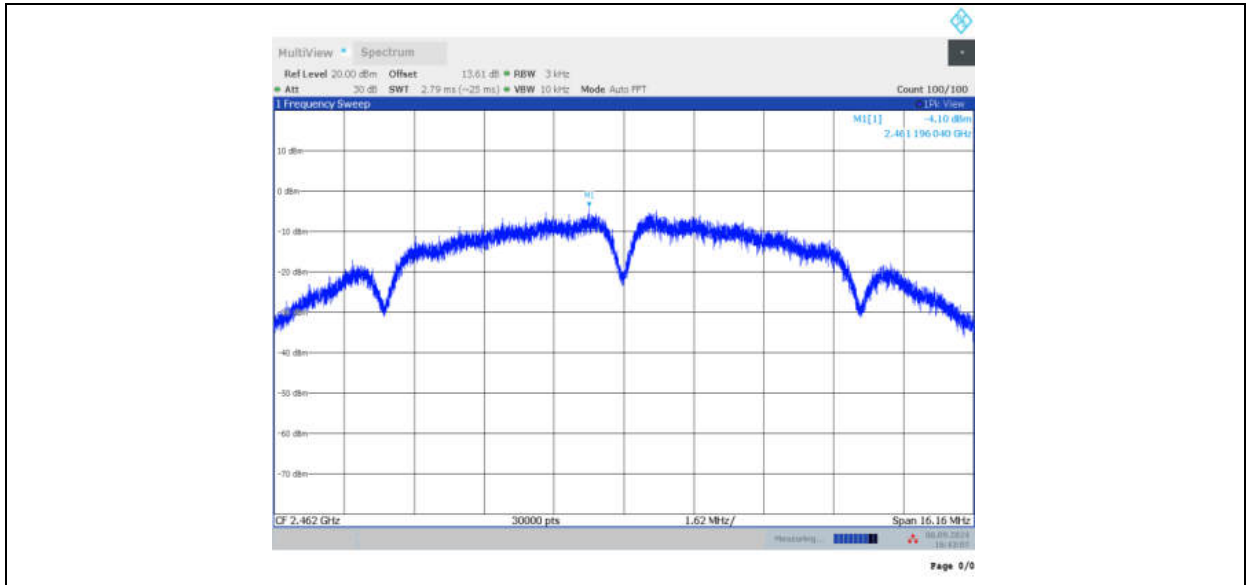
11B-CDD\_Ant12\_2437



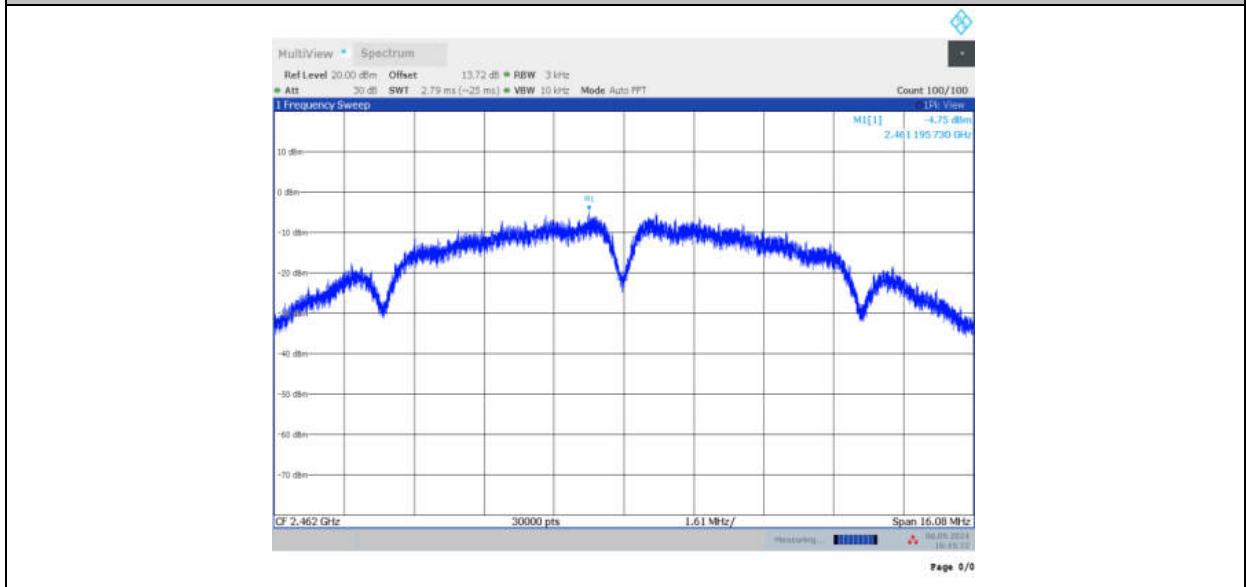
11B-CDD\_Ant7\_2437



11B-CDD\_Ant12\_2462

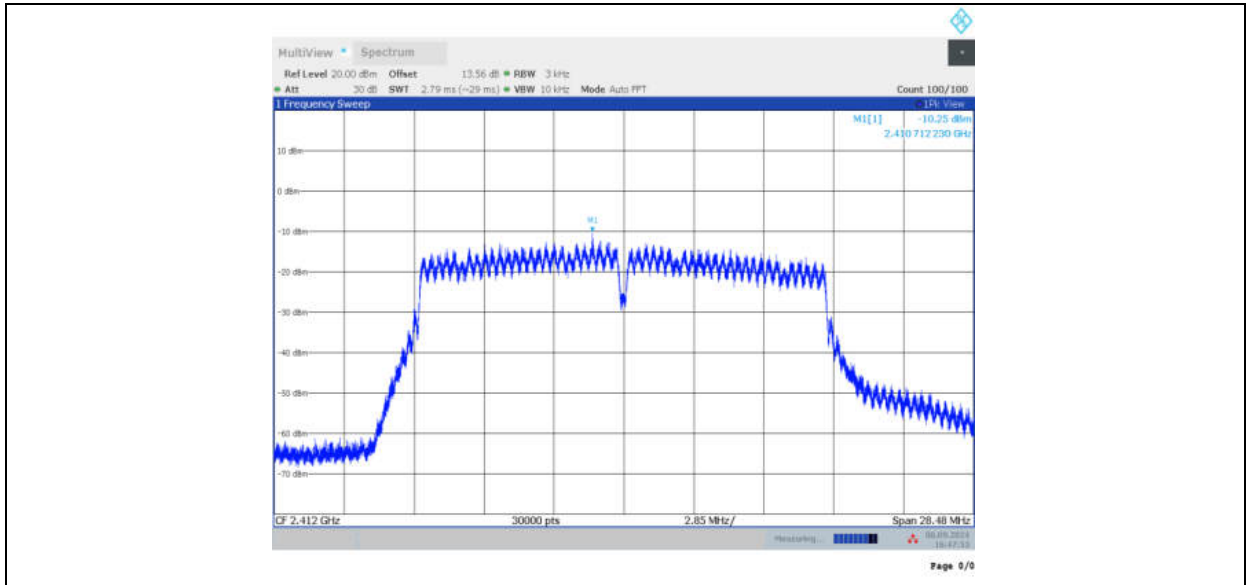


11B-CDD\_Ant7\_2462

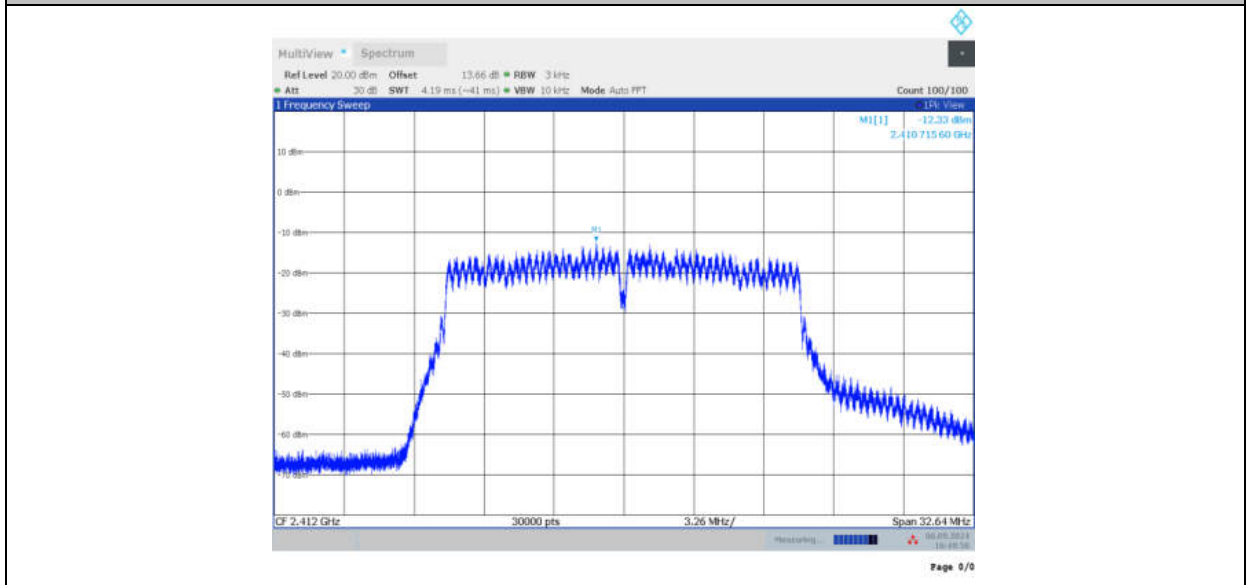


11G-CDD\_Ant12\_2412

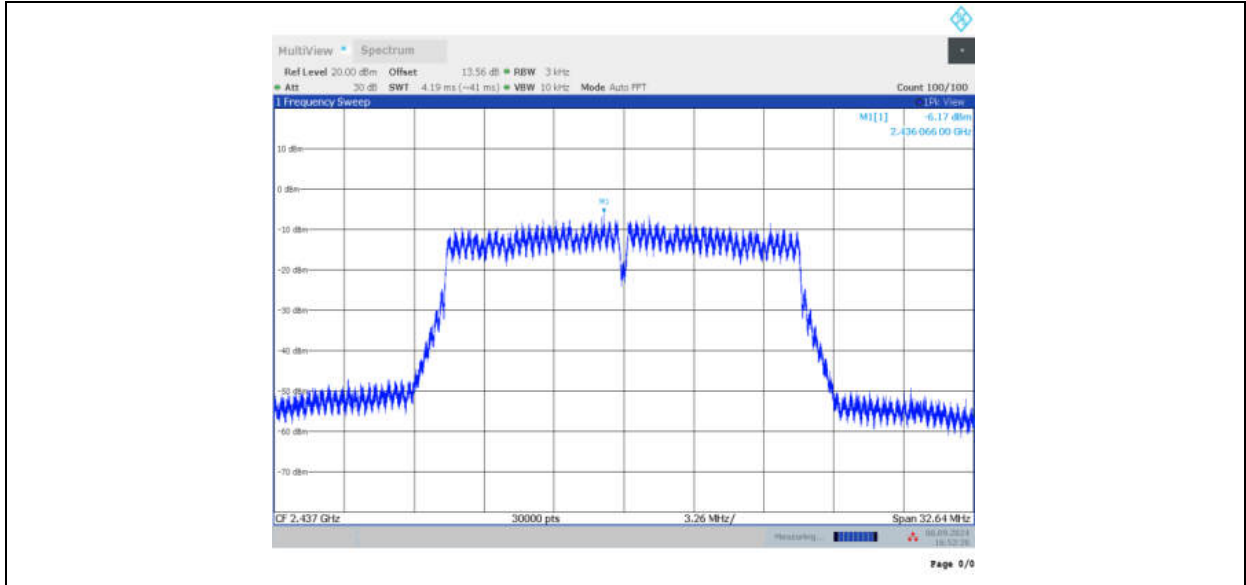




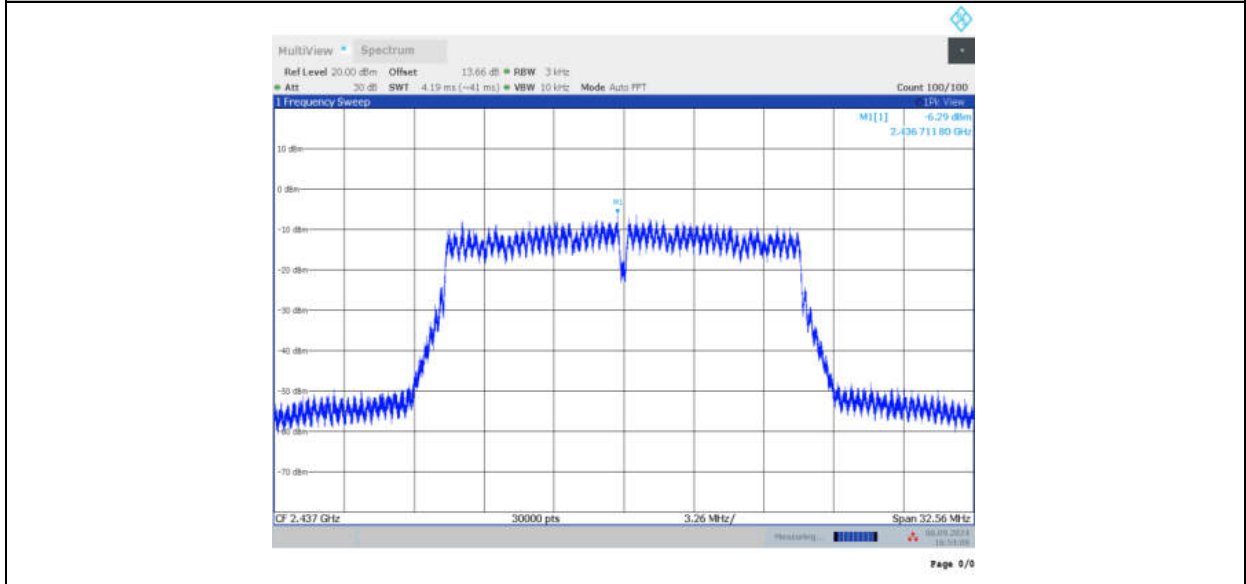
11G-CDD\_Ant7\_2412



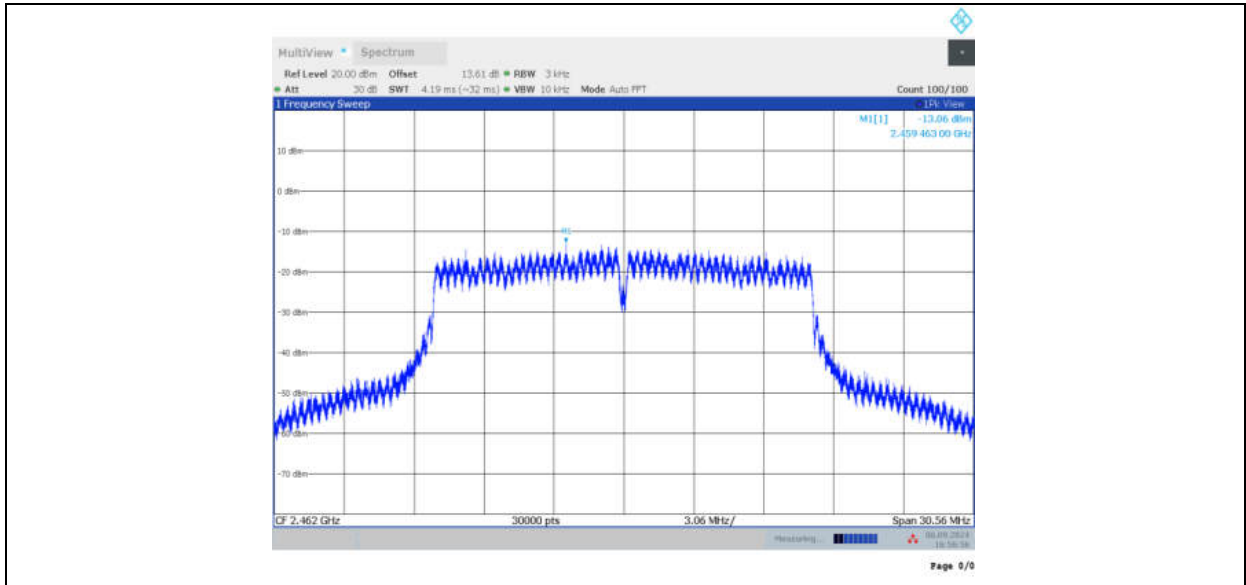
11G-CDD\_Ant12\_2437



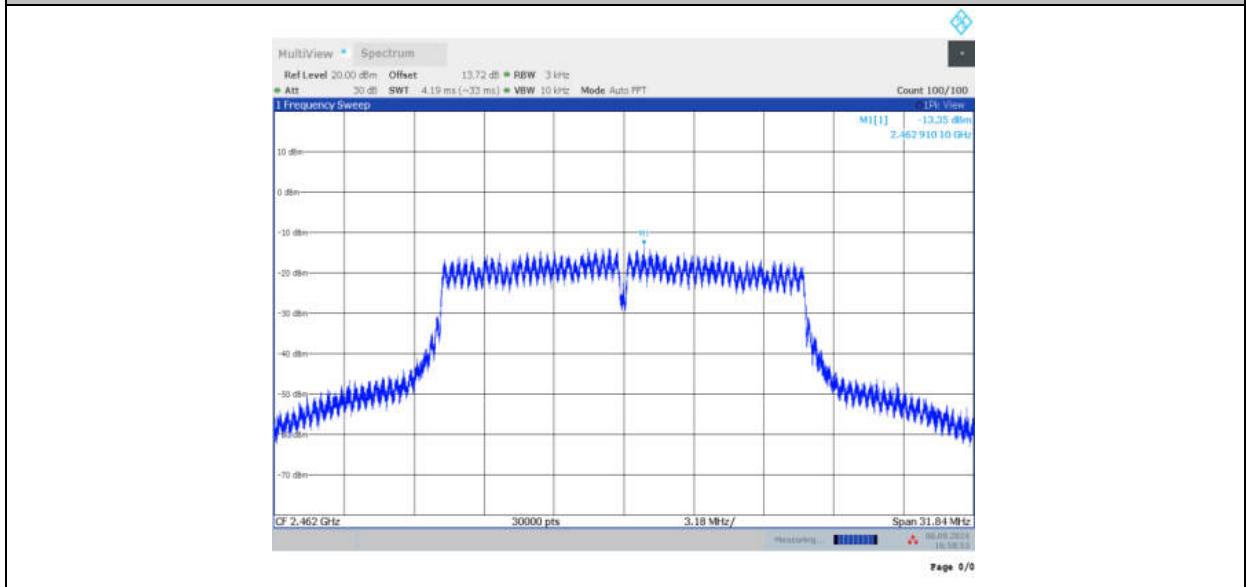
11G-CDD\_Ant7\_2437



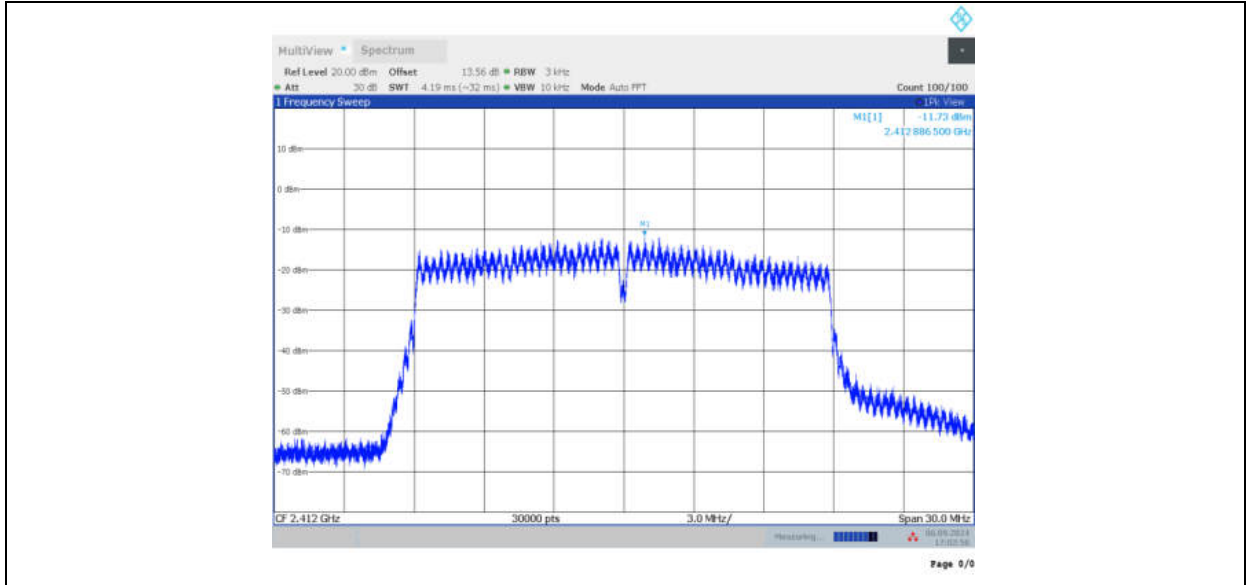
11G-CDD\_Ant12\_2462



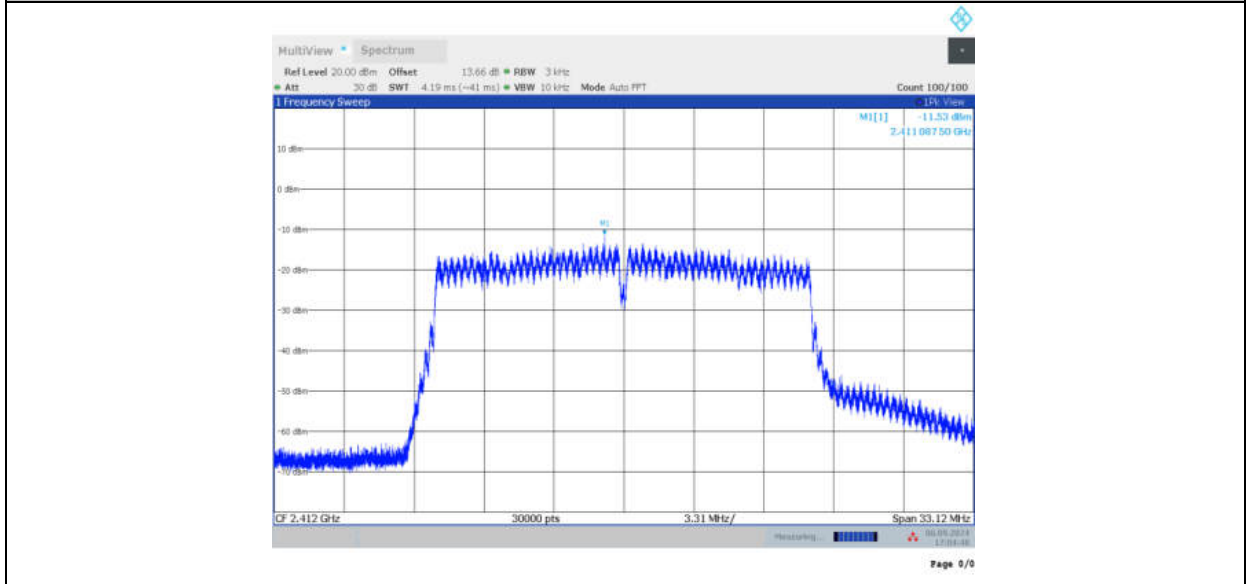
11G-CDD\_Ant7\_2462



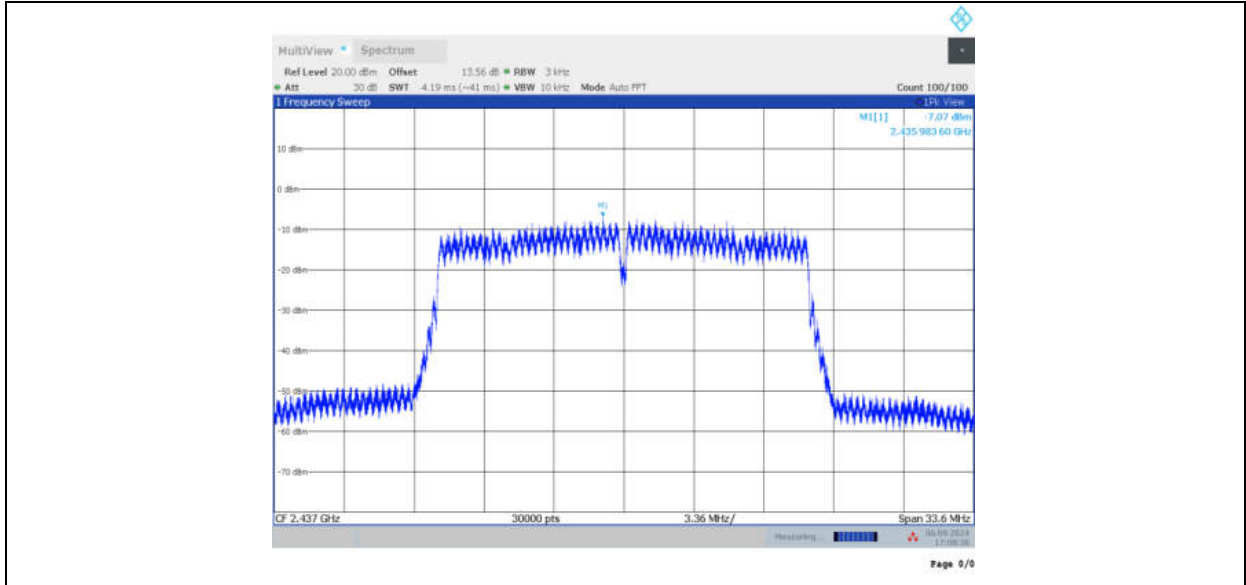
11N20MIMO\_Ant12\_2412



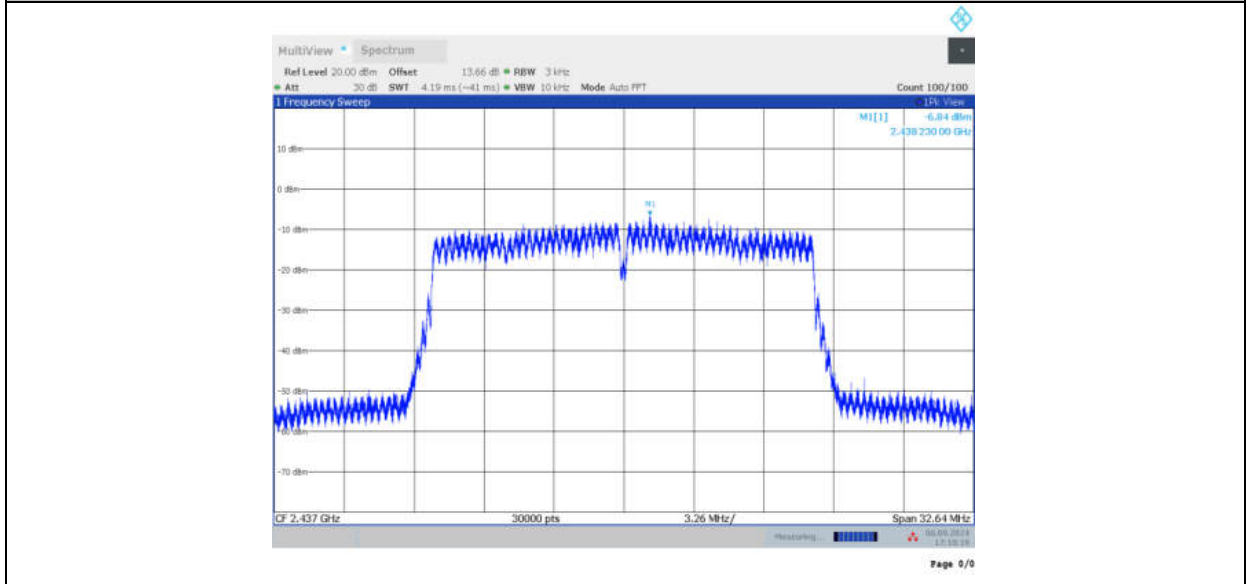
11N20MIMO\_Ant7\_2412



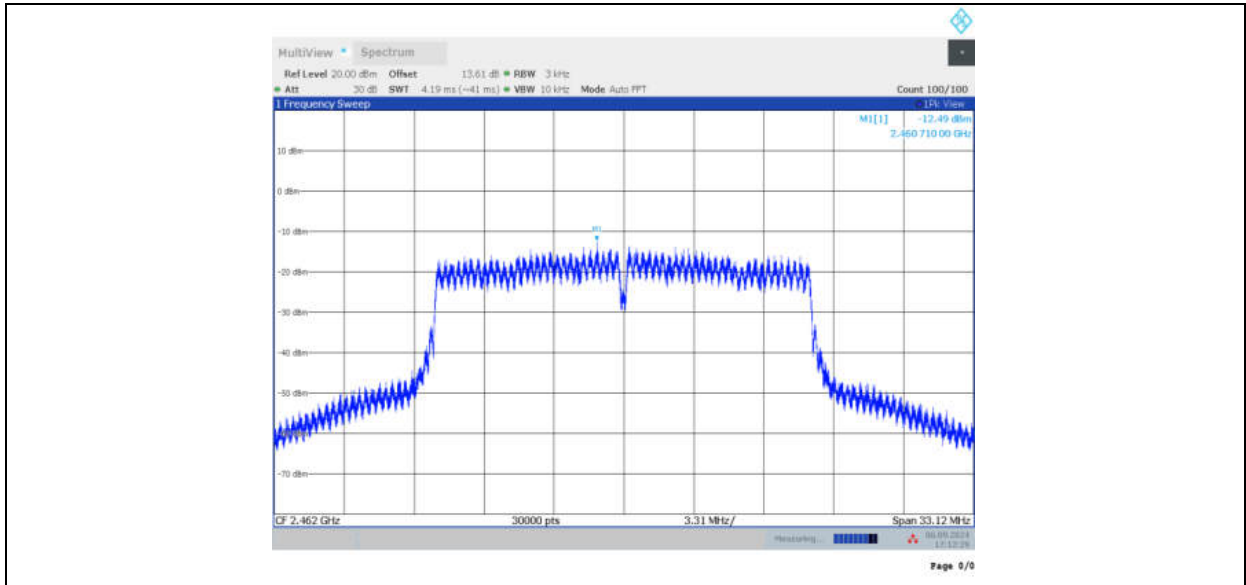
11N20MIMO\_Ant12\_2437



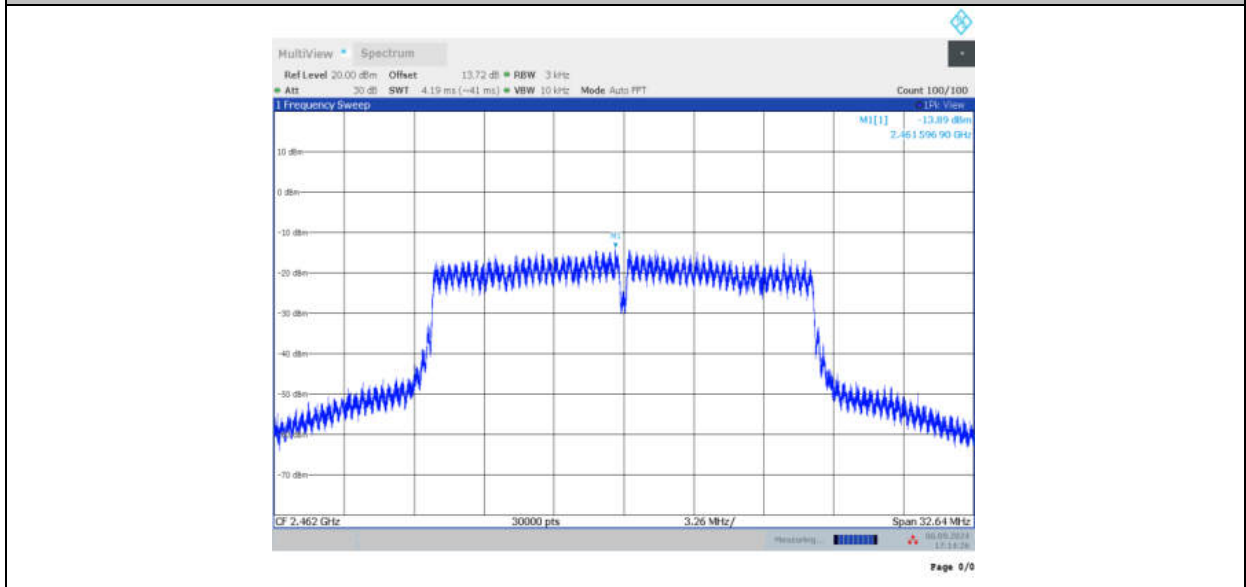
11N20MIMO\_Ant7\_2437



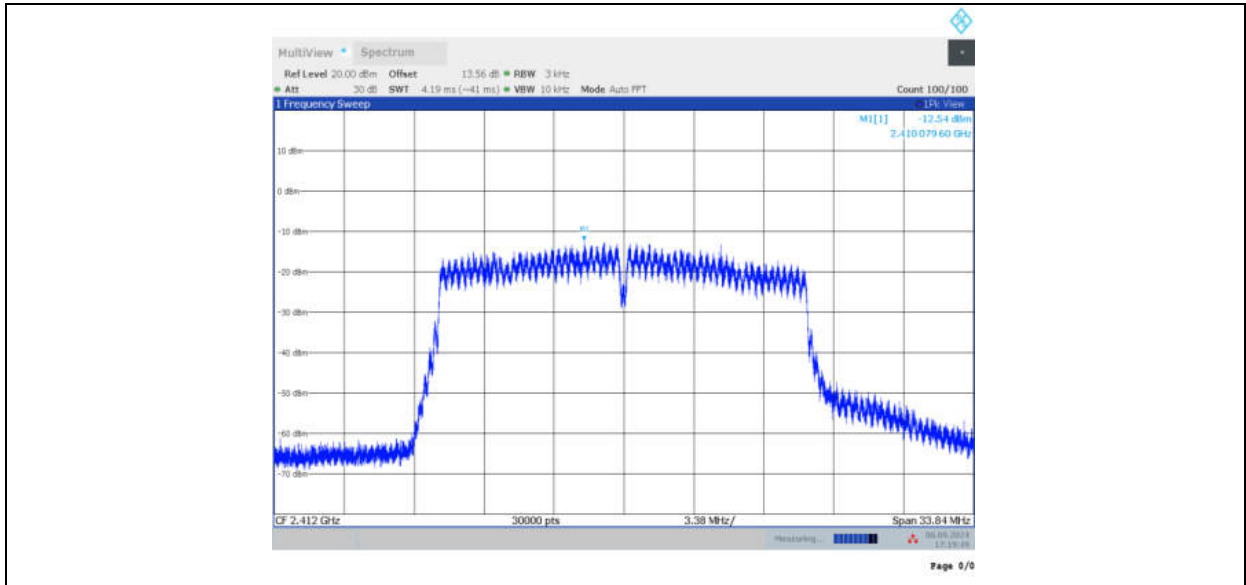
11N20MIMO\_Ant12\_2462



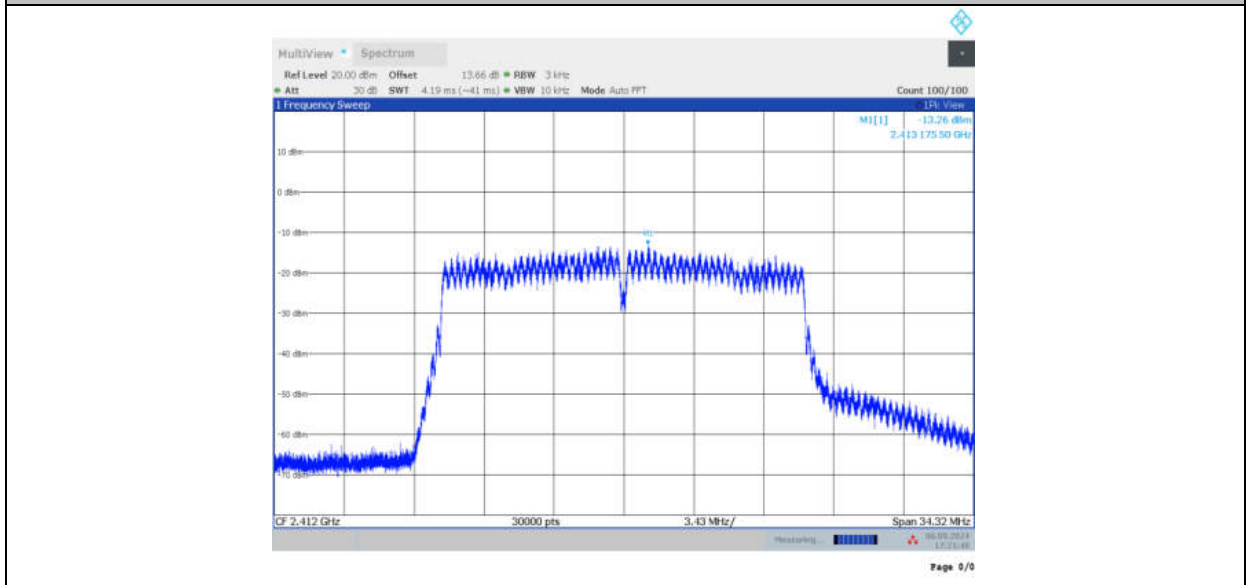
11N20MIMO\_Ant7\_2462



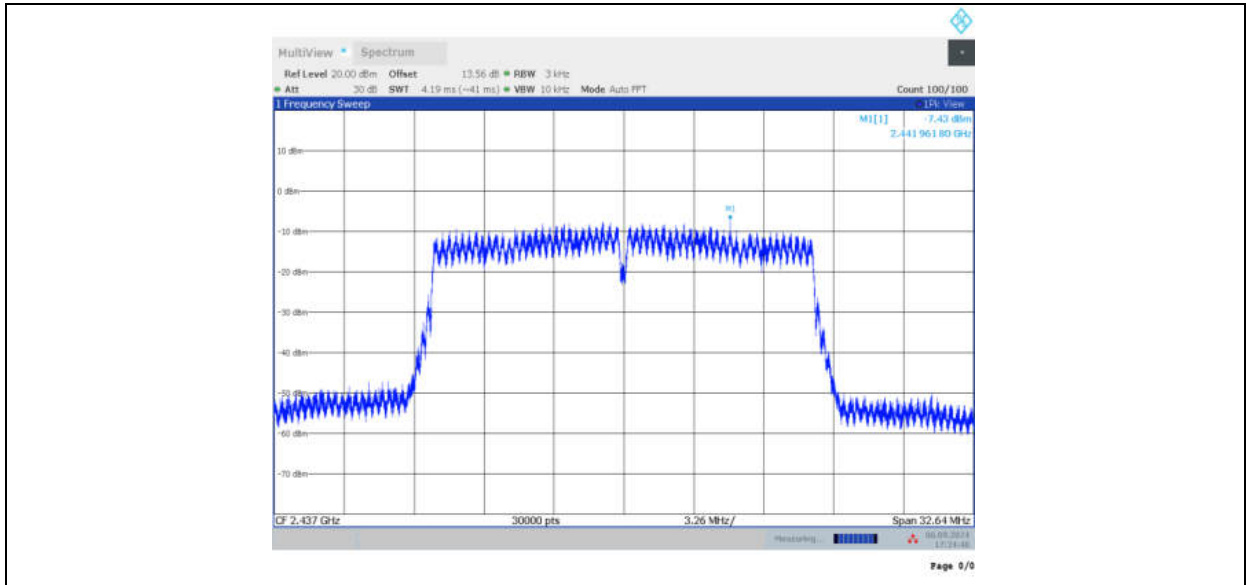
11AC20MIMO\_Ant12\_2412



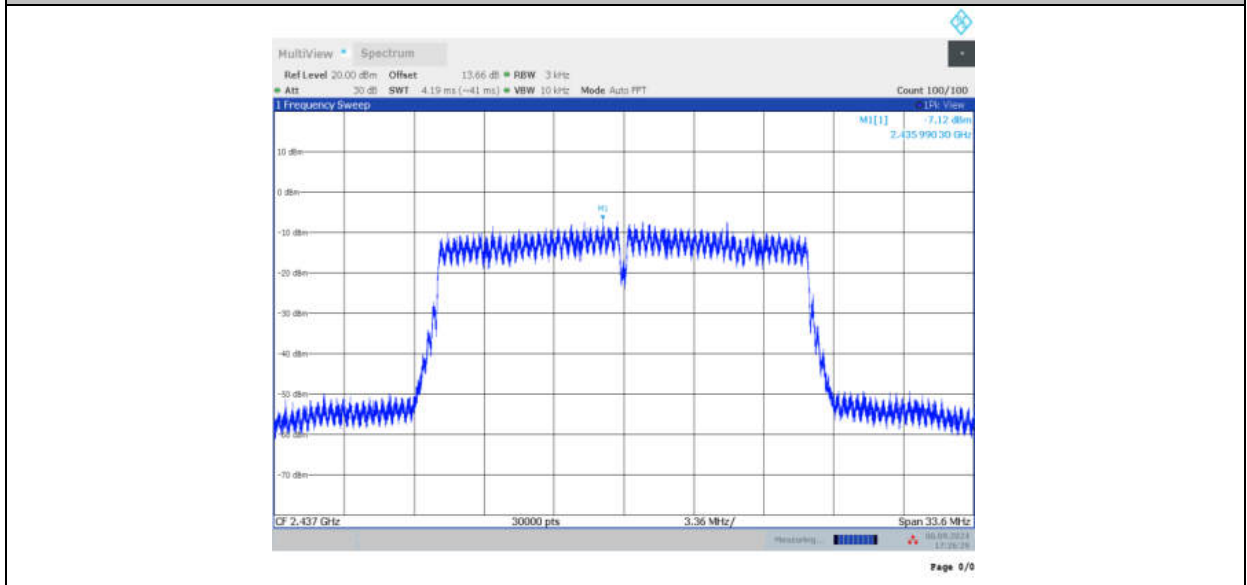
11AC20MIMO\_Ant7\_2412



11AC20MIMO\_Ant12\_2437

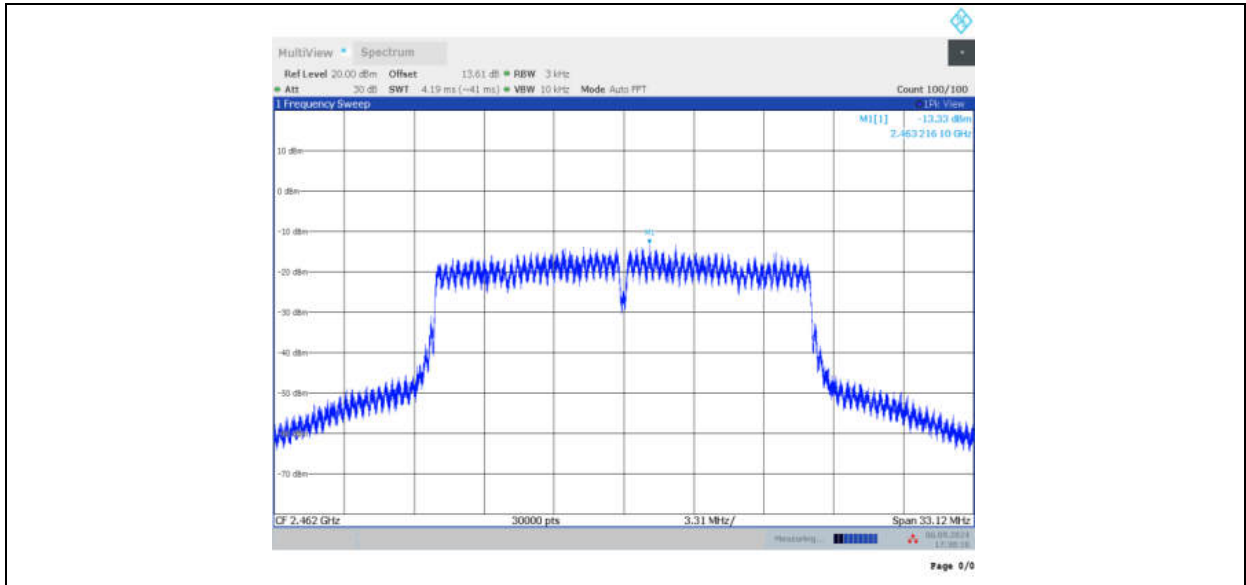


11AC20MIMO\_Ant7\_2437

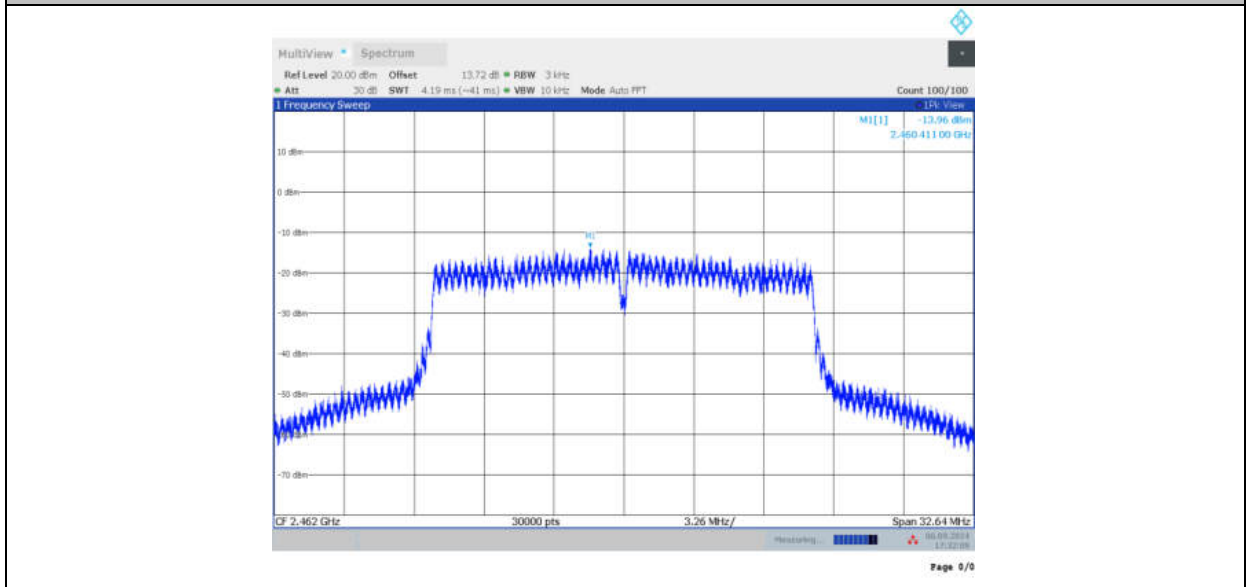


11AC20MIMO\_Ant12\_2462

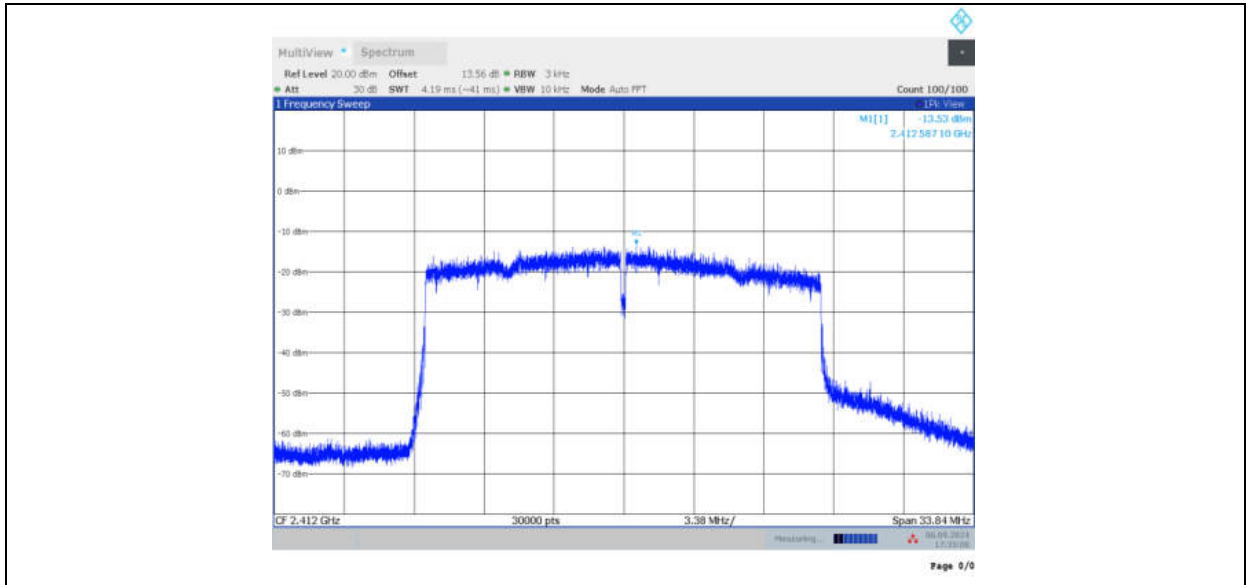




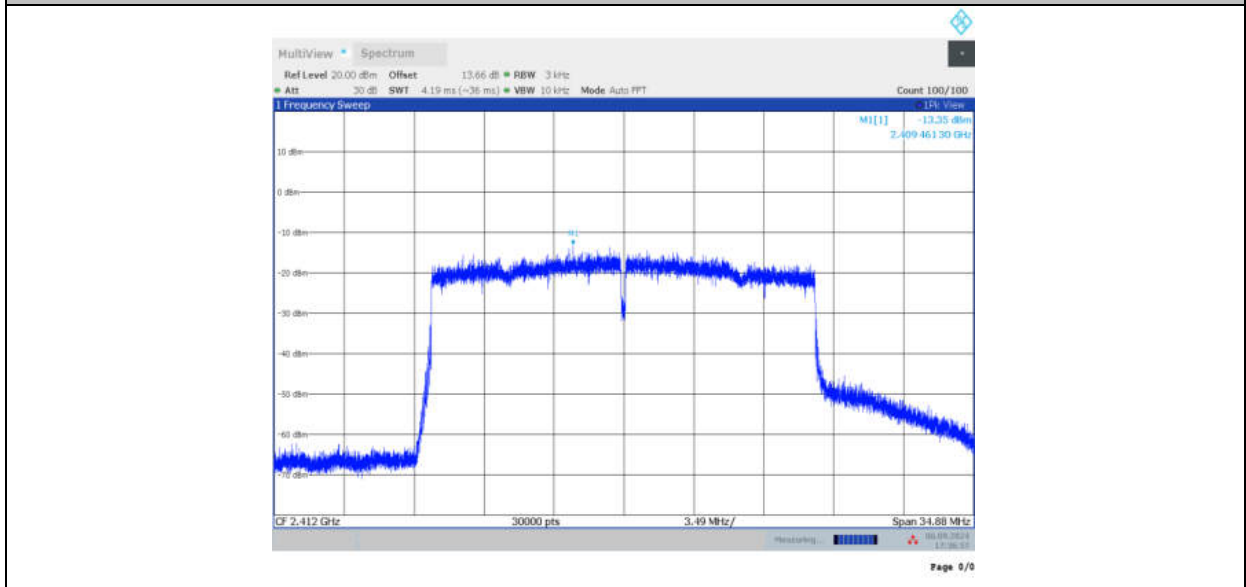
11AC20MIMO\_Ant7\_2462



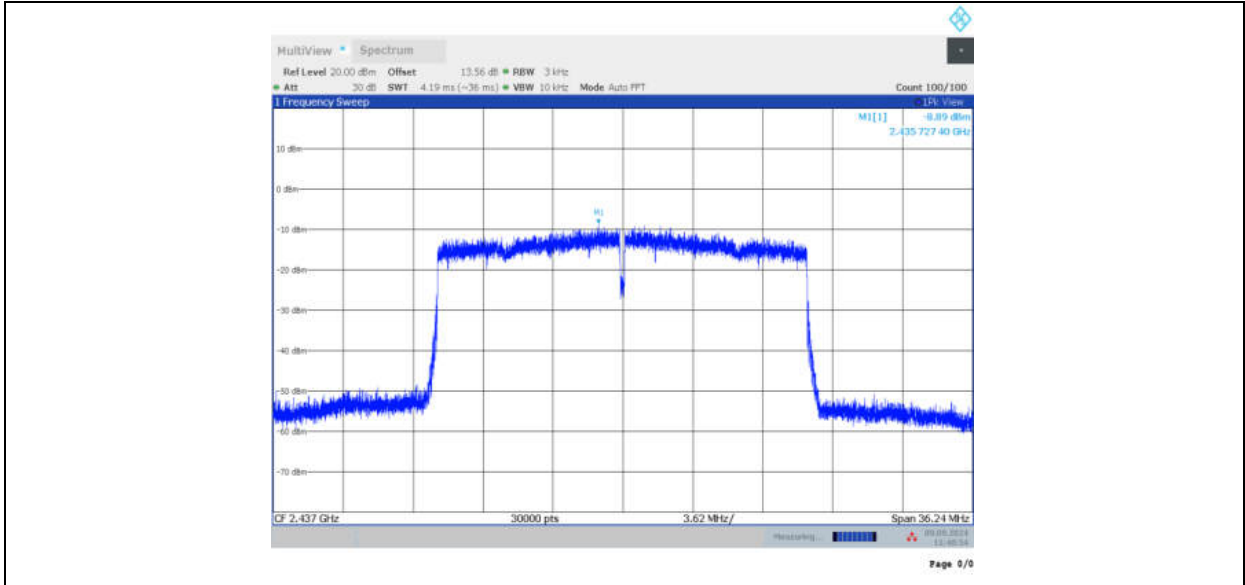
11AX20MIMO\_Ant12\_2412



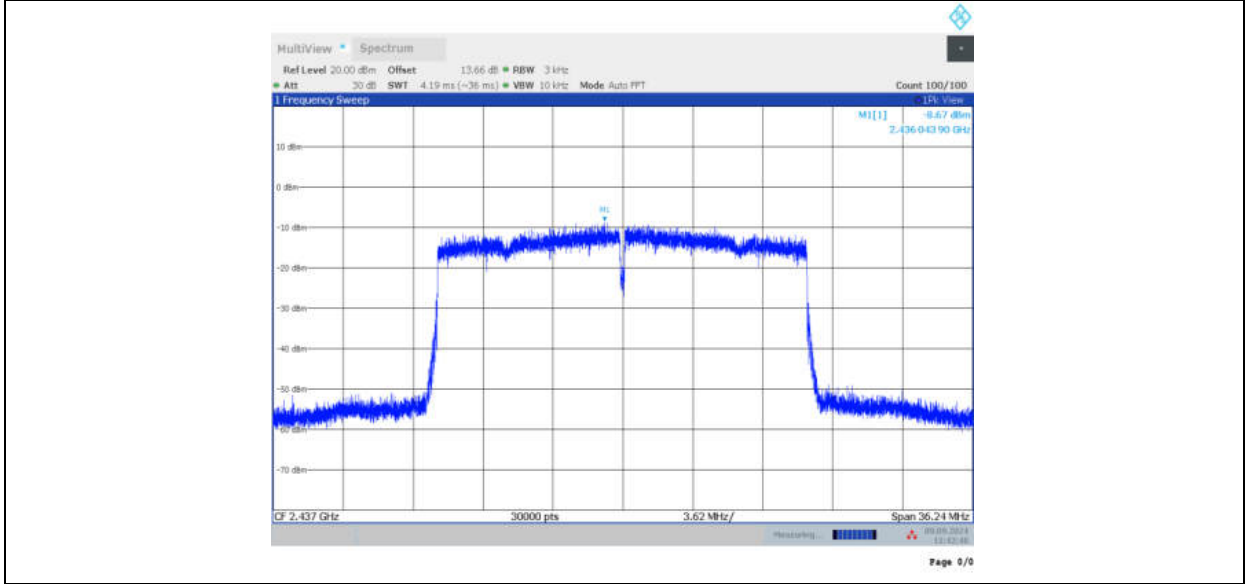
11AX20MIMO\_Ant7\_2412



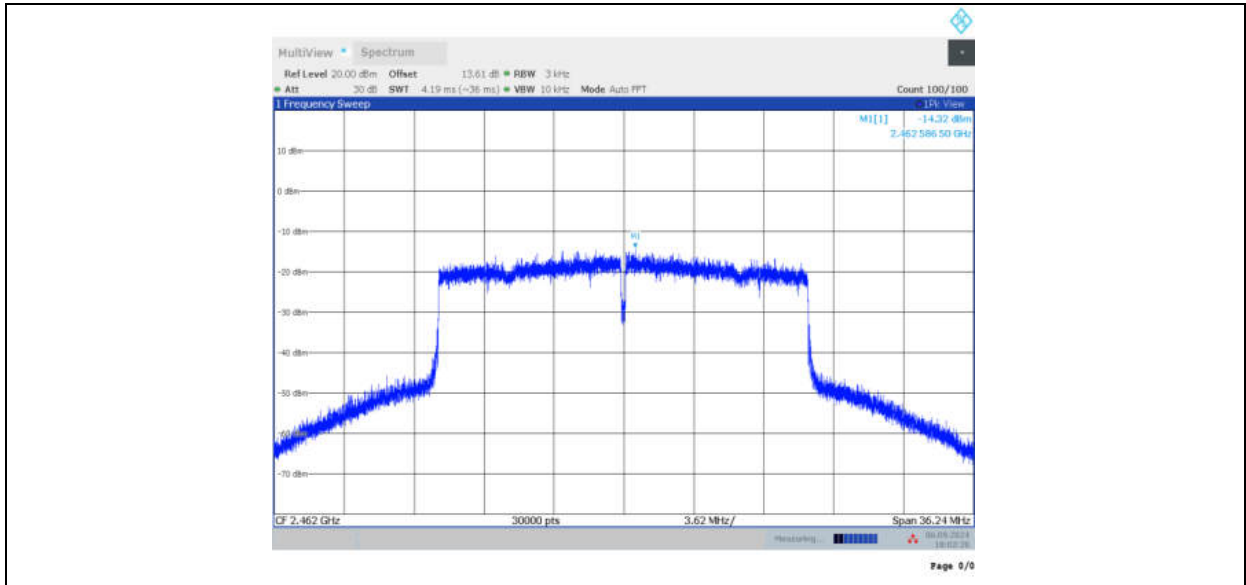
11AX20MIMO\_Ant12\_2437



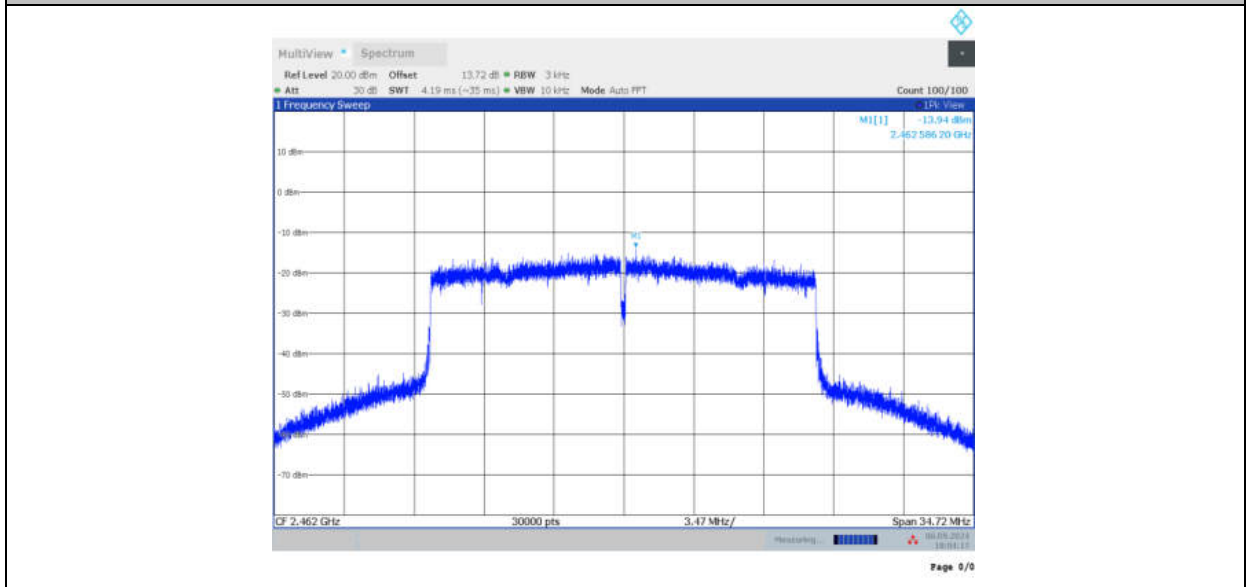
11AX20MIMO\_Ant7\_2437



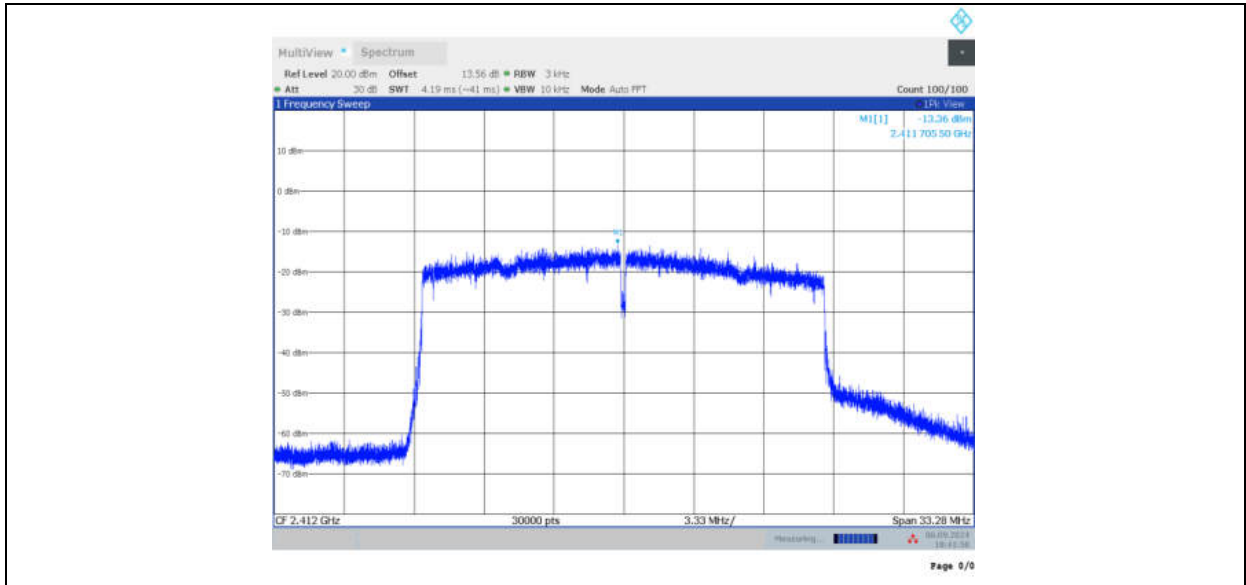
11AX20MIMO\_Ant12\_2462



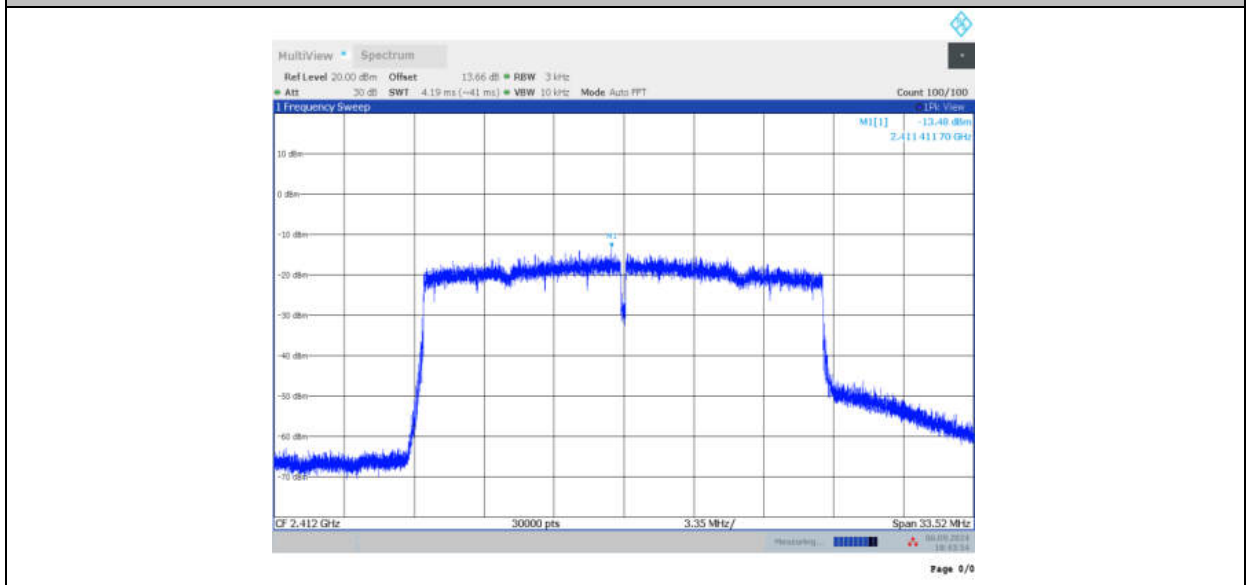
11AX20MIMO\_Ant7\_2462



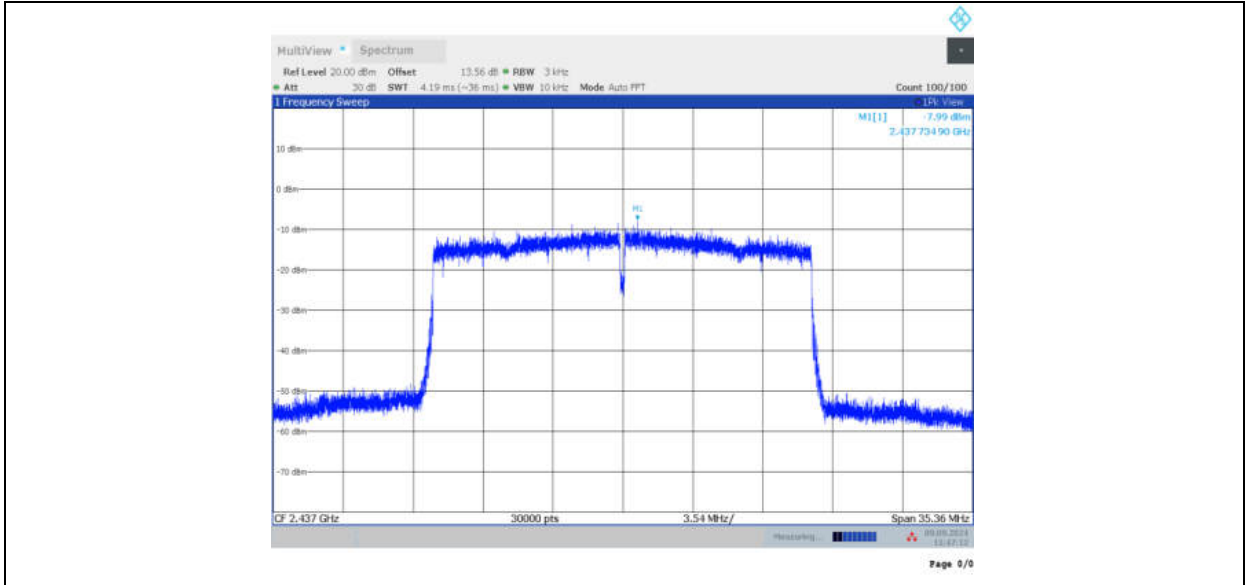
11BE20MIMO\_Ant12\_2412



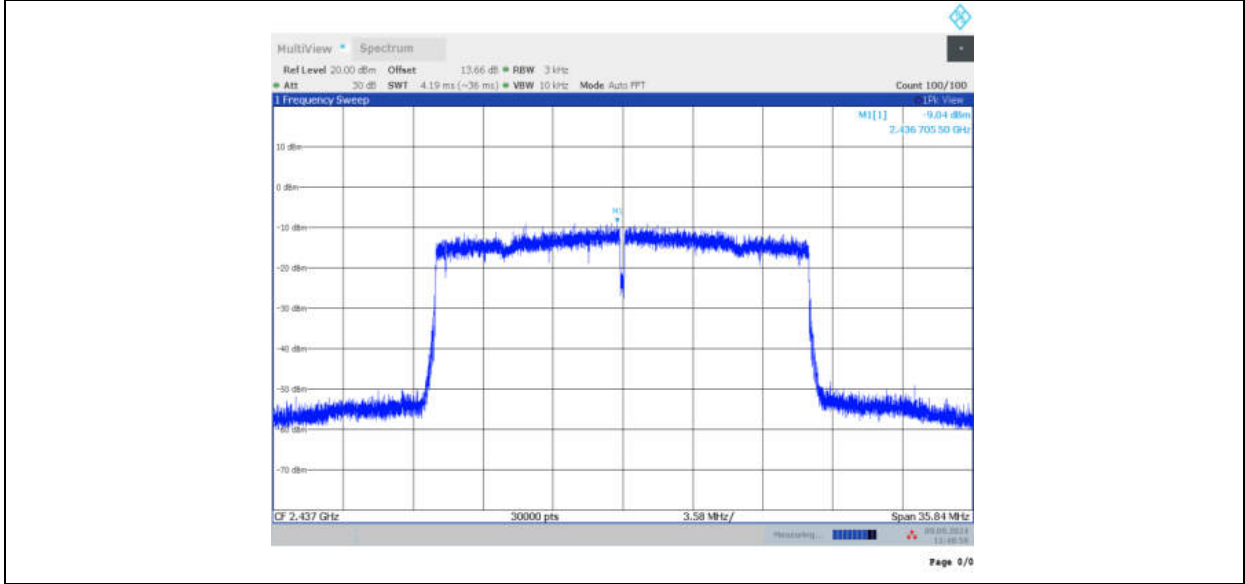
11BE20MIMO\_Ant7\_2412



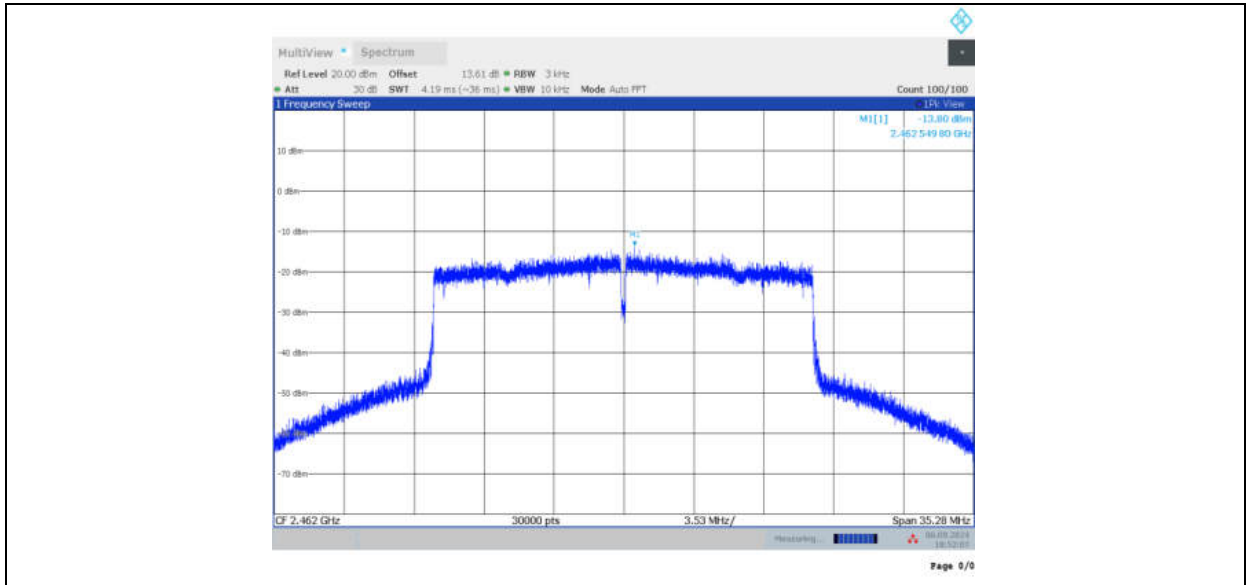
11BE20MIMO\_Ant12\_2437



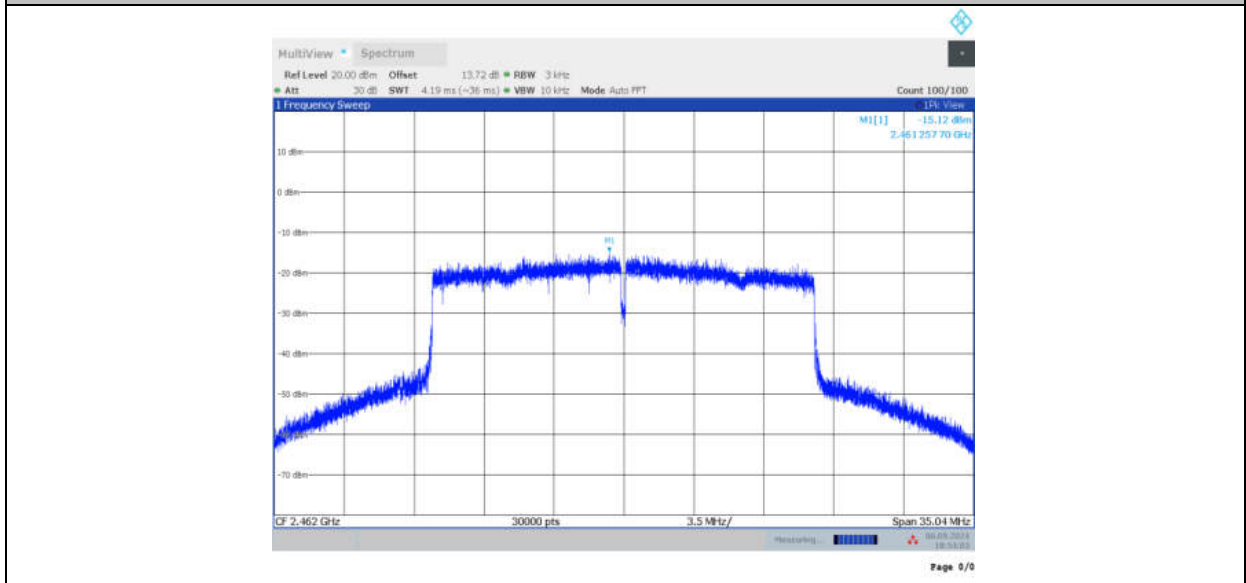
11BE20MIMO\_Ant7\_2437



11BE20MIMO\_Ant12\_2462



11BE20MIMO\_Ant7\_2462



**RU MIMO**

TestMode	Antenna	Frequency[MHz]	RuSize	RuIndex	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11AX20MIMO	Ant12	2412	26Tone	RU0	-22.44	≤8.00	PASS
				RU8	-24.36	≤8.00	PASS
			52Tone	RU37	-23.73	≤8.00	PASS
				RU40	-24.71	≤8.00	PASS
			106Tone	RU53	-21.77	≤8.00	PASS
				RU54	-22.13	≤8.00	PASS
	Ant7	2412	26Tone	RU0	-23.26	≤8.00	PASS
				RU8	-23.55	≤8.00	PASS
			52Tone	RU37	-22.13	≤8.00	PASS
				RU40	-23.39	≤8.00	PASS
			106Tone	RU53	-22.51	≤8.00	PASS
				RU54	-22.49	≤8.00	PASS
	total	2412	26Tone	RU0	-19.82	≤8.00	PASS
				RU8	-20.93	≤8.00	PASS
			52Tone	RU37	-19.85	≤8.00	PASS
				RU40	-20.99	≤8.00	PASS
			106Tone	RU53	-19.11	≤8.00	PASS
				RU54	-19.30	≤8.00	PASS
	Ant12	2437	26Tone	RU0	-22.76	≤8.00	PASS
				RU8	-21.66	≤8.00	PASS
			52Tone	RU37	-23.62	≤8.00	PASS
				RU40	-23.57	≤8.00	PASS
			106Tone	RU53	-22.74	≤8.00	PASS
				RU54	-22.68	≤8.00	PASS
	Ant7	2437	26Tone	RU0	-22.37	≤8.00	PASS
				RU8	-22.63	≤8.00	PASS
			52Tone	RU37	-22.81	≤8.00	PASS
				RU40	-22.99	≤8.00	PASS
			106Tone	RU53	-22.39	≤8.00	PASS
				RU54	-22.24	≤8.00	PASS
total	2437	26Tone	RU0	-19.55	≤8.00	PASS	
			RU8	-19.11	≤8.00	PASS	
		52Tone	RU37	-20.19	≤8.00	PASS	
			RU40	-20.26	≤8.00	PASS	
		106Tone	RU53	-19.55	≤8.00	PASS	
			RU54	-19.44	≤8.00	PASS	
Ant12	2462	26Tone	RU0	-22.95	≤8.00	PASS	
			RU8	-23.36	≤8.00	PASS	
		52Tone	RU37	-24.51	≤8.00	PASS	

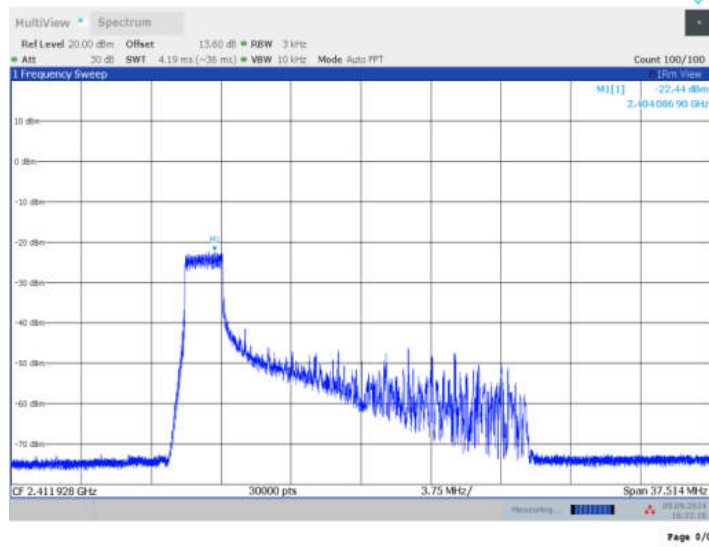


			106Tone	RU40	-24.51	≤8.00	PASS
				RU53	-23.63	≤8.00	PASS
				RU54	-23.37	≤8.00	PASS
	Ant7	2462	26Tone	RU0	-23.30	≤8.00	PASS
				RU8	-23.18	≤8.00	PASS
			52Tone	RU37	-23.88	≤8.00	PASS
				RU40	-23.71	≤8.00	PASS
			106Tone	RU53	-23.24	≤8.00	PASS
				RU54	-23.66	≤8.00	PASS
	total	2462	26Tone	RU0	-20.11	≤8.00	PASS
				RU8	-20.26	≤8.00	PASS
			52Tone	RU37	-21.17	≤8.00	PASS
				RU40	-21.08	≤8.00	PASS
			106Tone	RU53	-20.42	≤8.00	PASS
				RU54	-20.50	≤8.00	PASS
11BE20MIMO	Ant12	2412	26Tone	RU0	-22.43	≤8.00	PASS
				RU8	-24.07	≤8.00	PASS
			52Tone	RU37	-24.11	≤8.00	PASS
				RU40	-24.81	≤8.00	PASS
			106Tone	RU53	-21.93	≤8.00	PASS
				RU54	-22.38	≤8.00	PASS
	Ant7	2412	26Tone	RU0	-23.08	≤8.00	PASS
				RU8	-23.51	≤8.00	PASS
			52Tone	RU37	-22.87	≤8.00	PASS
				RU40	-23.08	≤8.00	PASS
			106Tone	RU53	-22.33	≤8.00	PASS
				RU54	-22.29	≤8.00	PASS
	total	2412	26Tone	RU0	-19.73	≤8.00	PASS
				RU8	-20.77	≤8.00	PASS
			52Tone	RU37	-20.44	≤8.00	PASS
				RU40	-20.85	≤8.00	PASS
			106Tone	RU53	-19.12	≤8.00	PASS
				RU54	-19.32	≤8.00	PASS
	Ant12	2437	26Tone	RU0	-22.25	≤8.00	PASS
				RU8	-22.43	≤8.00	PASS
			52Tone	RU37	-24.08	≤8.00	PASS
				RU40	-24.35	≤8.00	PASS
			106Tone	RU53	-22.62	≤8.00	PASS
				RU54	-23.17	≤8.00	PASS
Ant7	2437	26Tone	RU0	-22.41	≤8.00	PASS	
			RU8	-23.03	≤8.00	PASS	
		52Tone	RU37	-23.01	≤8.00	PASS	

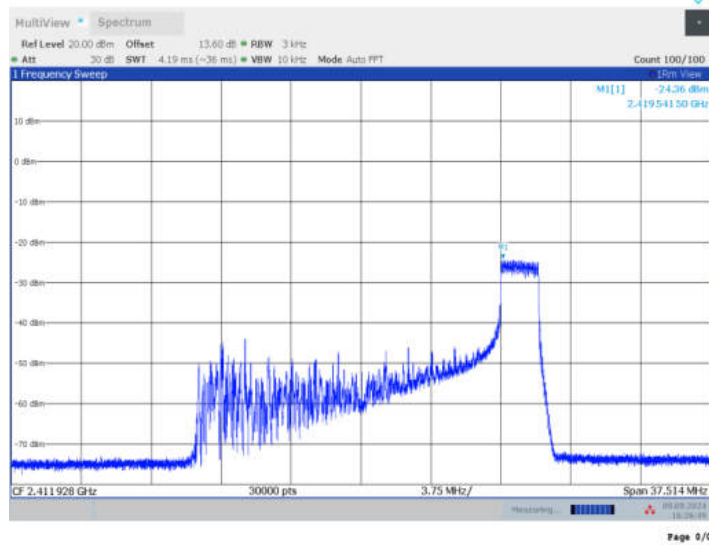
			106Tone	RU40	-22.91	≤8.00	PASS
				RU53	-22.31	≤8.00	PASS
				RU54	-21.43	≤8.00	PASS
	total	2437	26Tone	RU0	-19.32	≤8.00	PASS
				RU8	-19.71	≤8.00	PASS
			52Tone	RU37	-20.50	≤8.00	PASS
				RU40	-20.56	≤8.00	PASS
			106Tone	RU53	-19.45	≤8.00	PASS
				RU54	-19.20	≤8.00	PASS
	Ant12	2462	26Tone	RU0	-22.63	≤8.00	PASS
				RU8	-23.32	≤8.00	PASS
			52Tone	RU37	-24.77	≤8.00	PASS
				RU40	-25.23	≤8.00	PASS
			106Tone	RU53	-23.37	≤8.00	PASS
				RU54	-23.54	≤8.00	PASS
	Ant7	2462	26Tone	RU0	-23.32	≤8.00	PASS
				RU8	-23.37	≤8.00	PASS
			52Tone	RU37	-23.57	≤8.00	PASS
				RU40	-23.83	≤8.00	PASS
			106Tone	RU53	-23.23	≤8.00	PASS
RU54				-23.44	≤8.00	PASS	
total	2462	26Tone	RU0	-19.95	≤8.00	PASS	
			RU8	-20.33	≤8.00	PASS	
		52Tone	RU37	-21.12	≤8.00	PASS	
			RU40	-21.46	≤8.00	PASS	
		106Tone	RU53	-20.29	≤8.00	PASS	
			RU54	-20.48	≤8.00	PASS	

Test graphs as below:

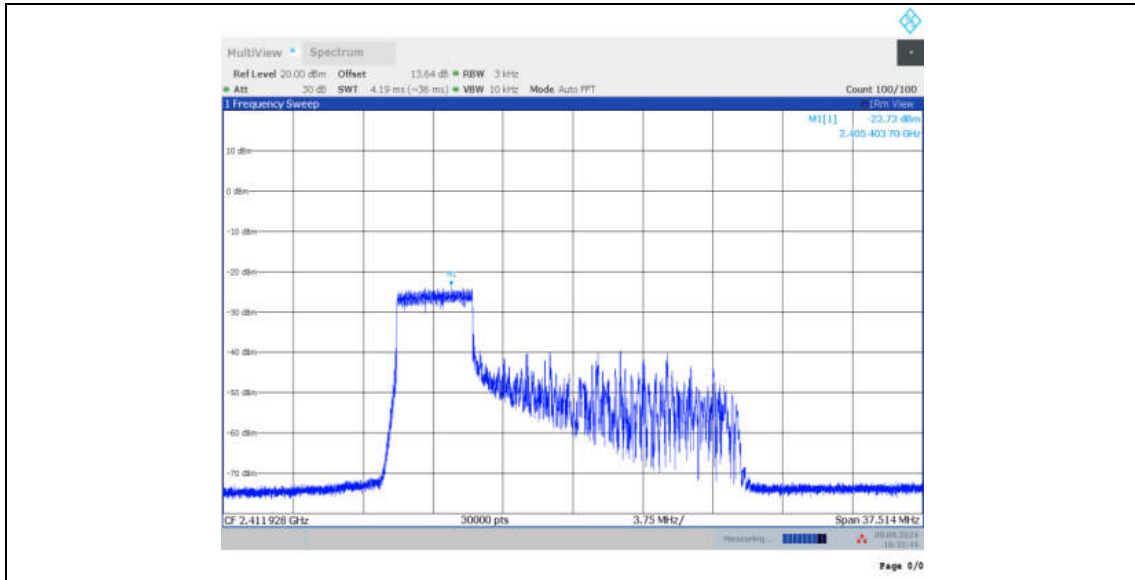
11AX20MIMO\_Ant12\_2412\_26Tone\_RU0



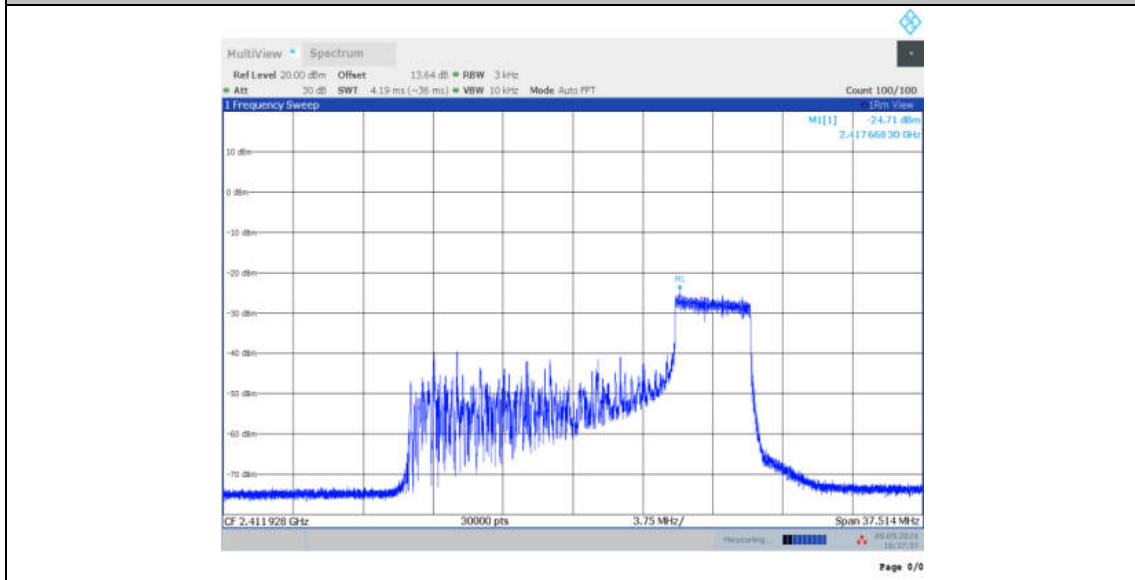
11AX20MIMO\_Ant12\_2412\_26Tone\_RU8



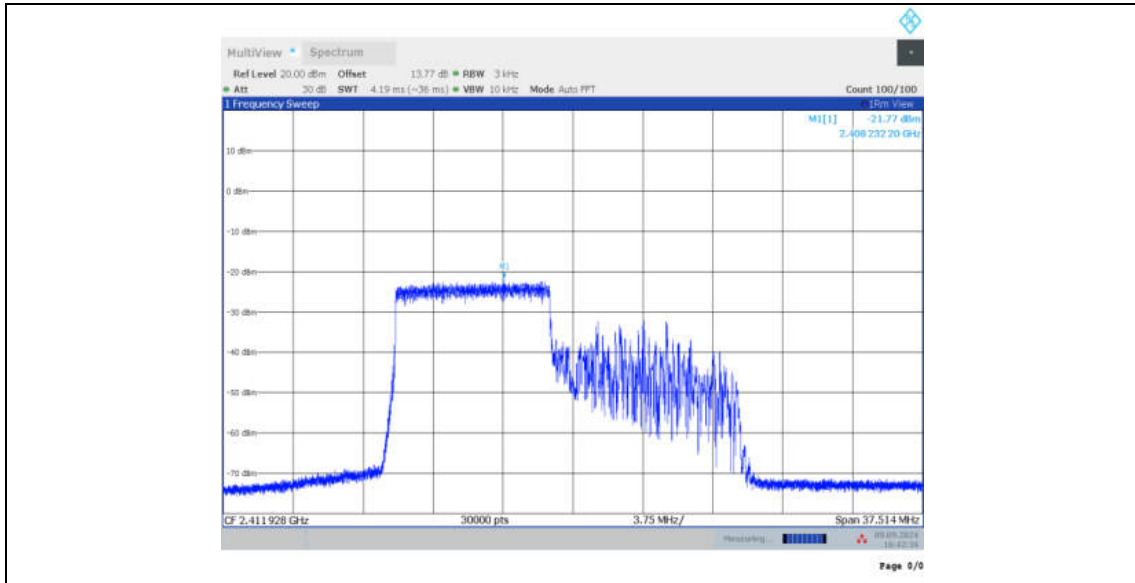
11AX20MIMO\_Ant12\_2412\_52Tone\_RU37



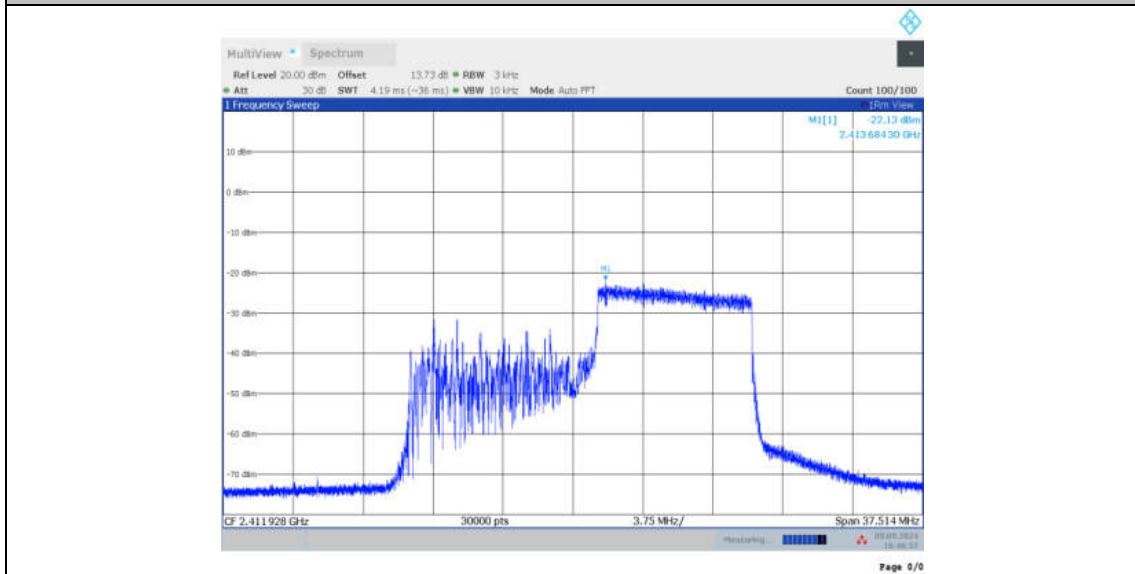
11AX20MIMO\_Ant12\_2412\_52Tone\_RU40



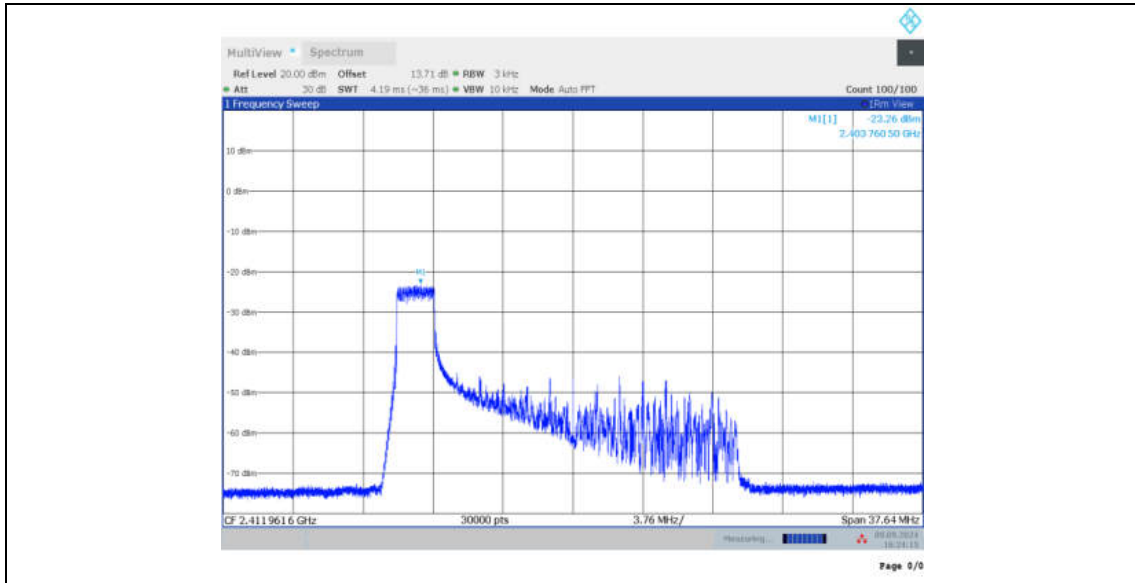
11AX20MIMO\_Ant12\_2412\_106Tone\_RU53



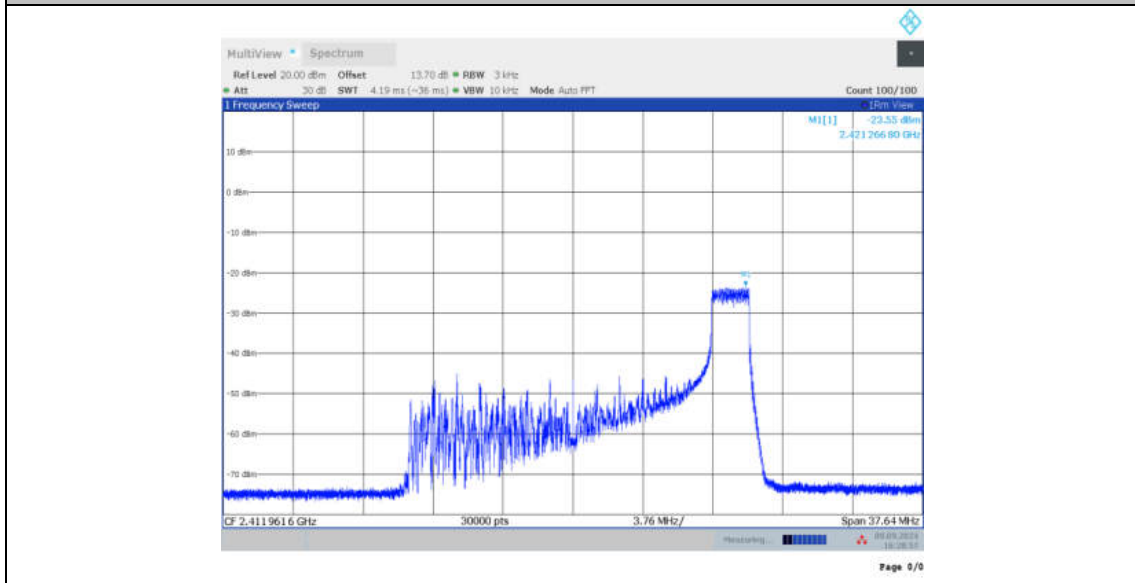
11AX20MIMO\_Ant12\_2412\_106Tone\_RU54



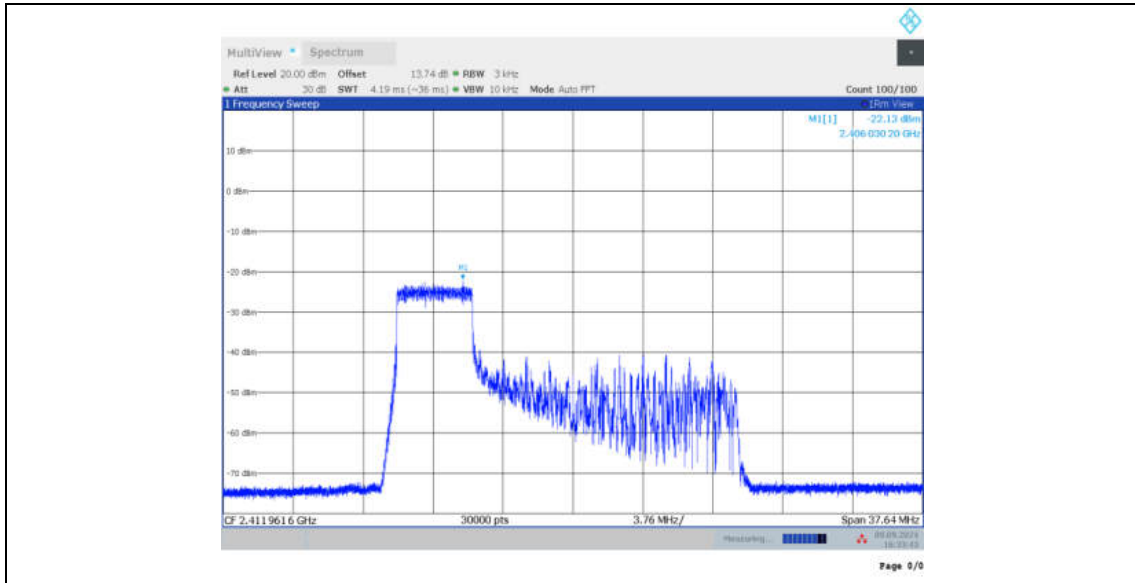
11AX20MIMO\_Ant7\_2412\_26Tone\_RU0



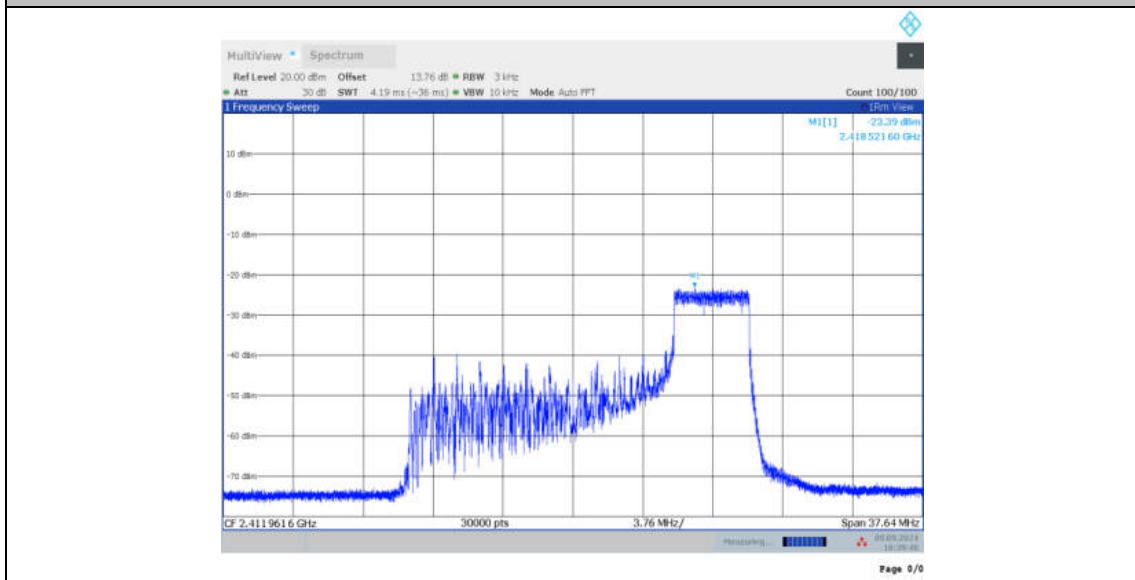
11AX20MIMO\_Ant7\_2412\_26Tone\_RU8



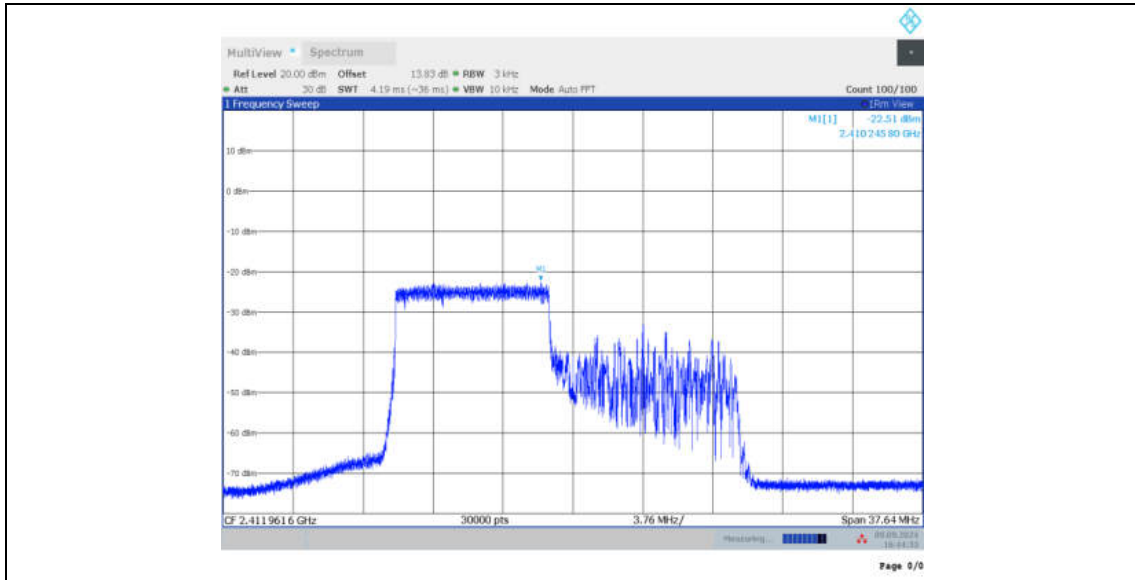
11AX20MIMO\_Ant7\_2412\_52Tone\_RU37



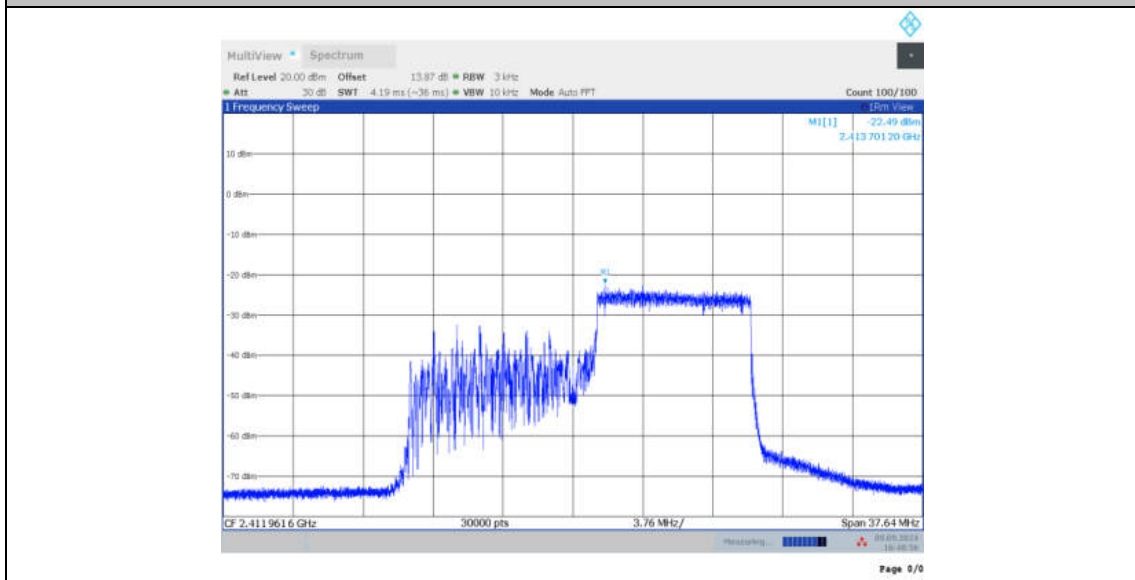
11AX20MIMO\_Ant7\_2412\_52Tone\_RU40



11AX20MIMO\_Ant7\_2412\_106Tone\_RU53

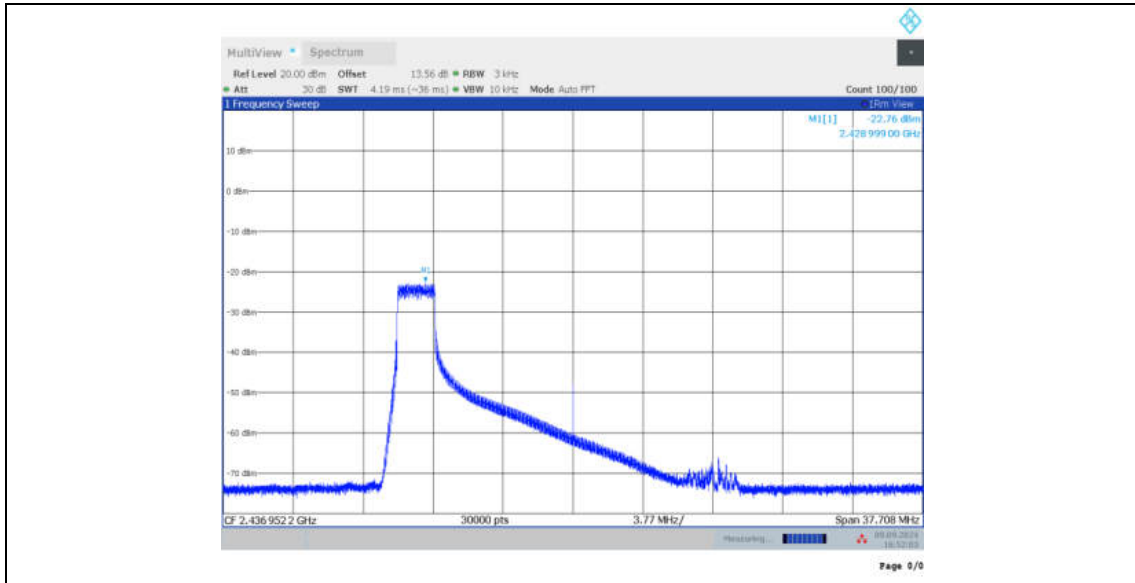


11AX20MIMO\_Ant7\_2412\_106Tone\_RU54

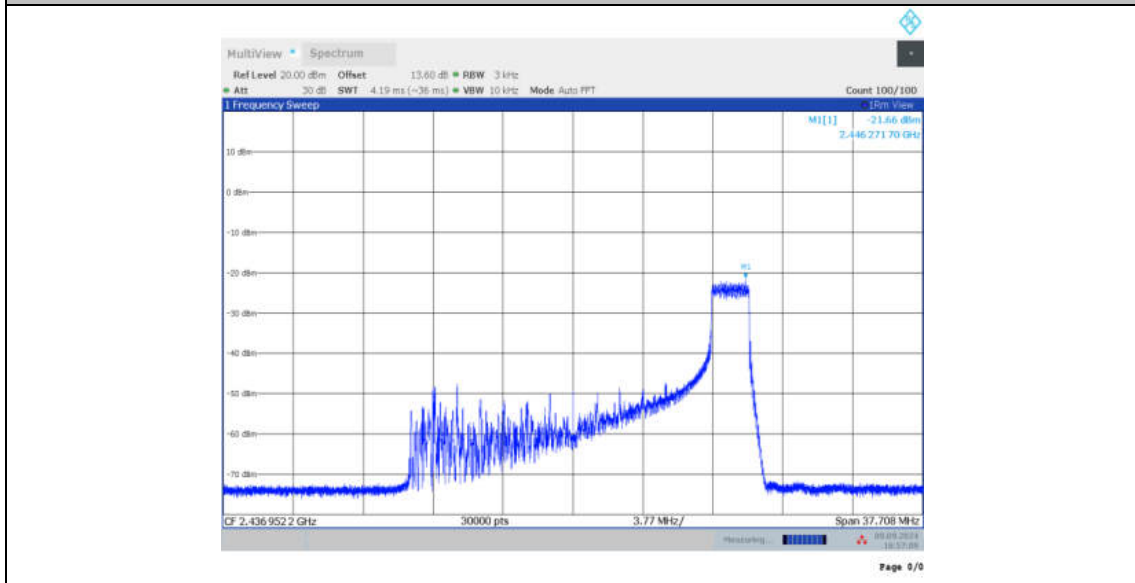


11AX20MIMO\_Ant12\_2437\_26Tone\_RU0

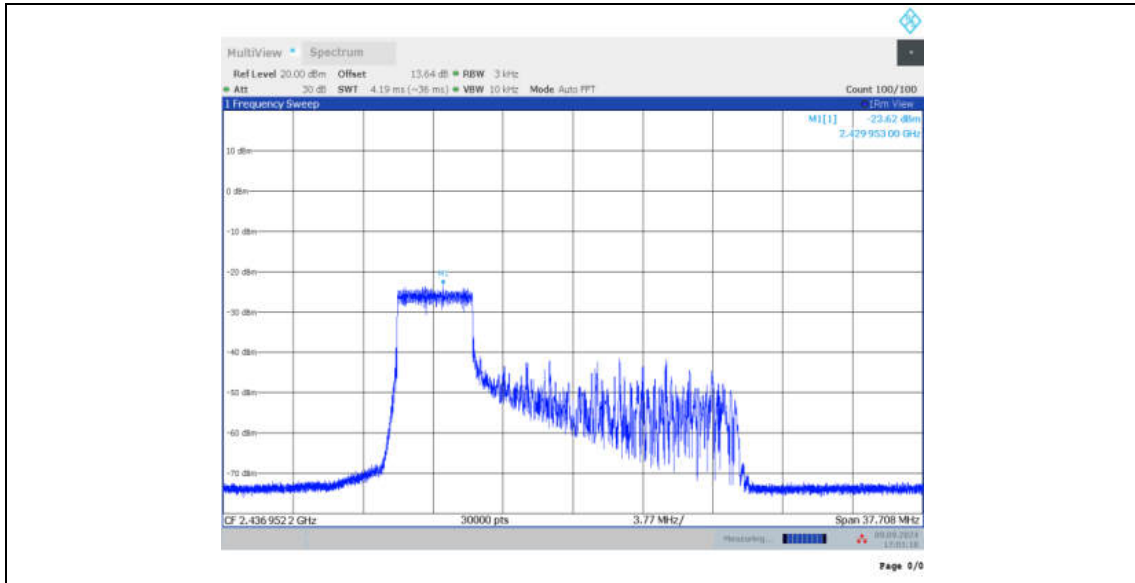




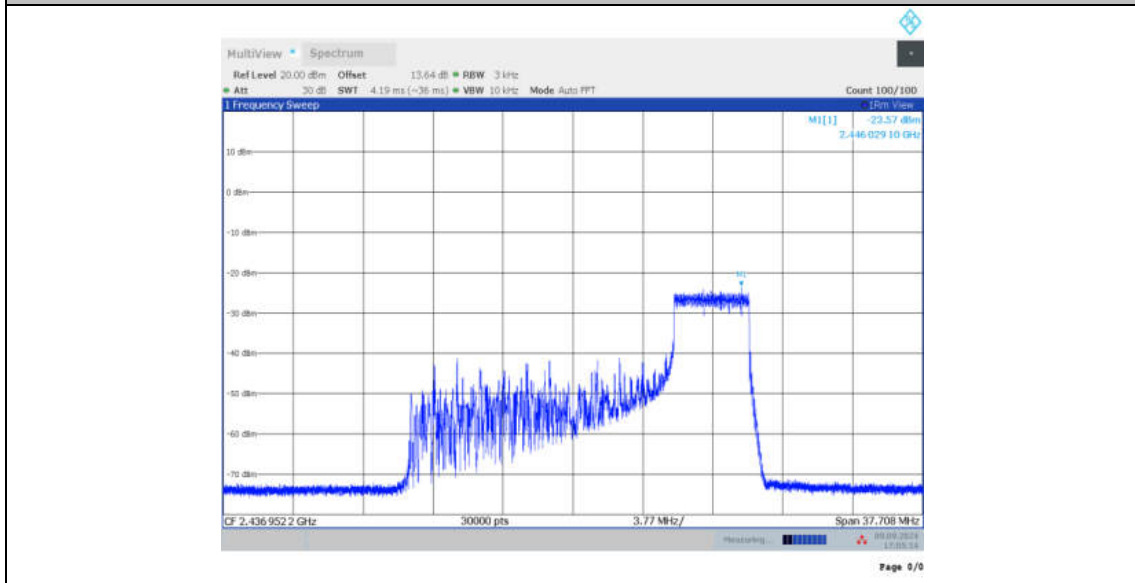
11AX20MIMO\_Ant12\_2437\_26Tone\_RU8



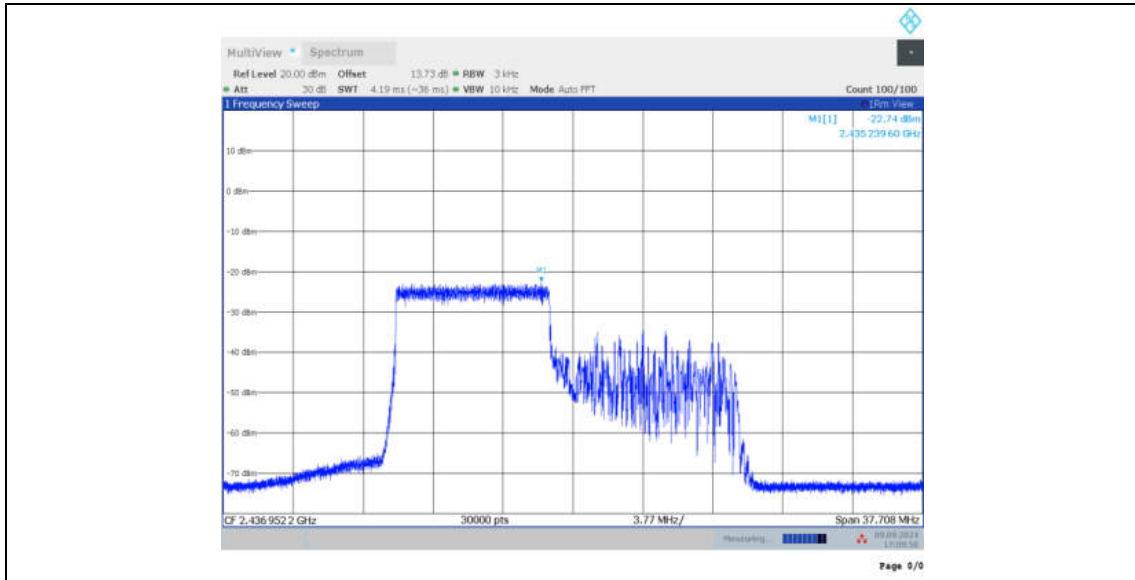
11AX20MIMO\_Ant12\_2437\_52Tone\_RU37



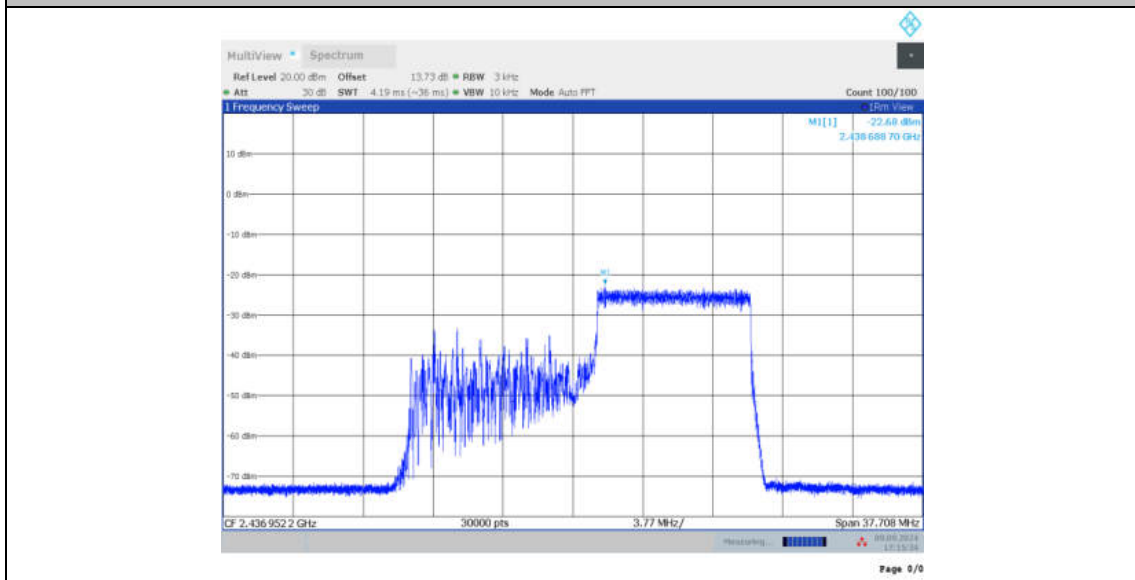
11AX20MIMO\_Ant12\_2437\_52Tone\_RU40



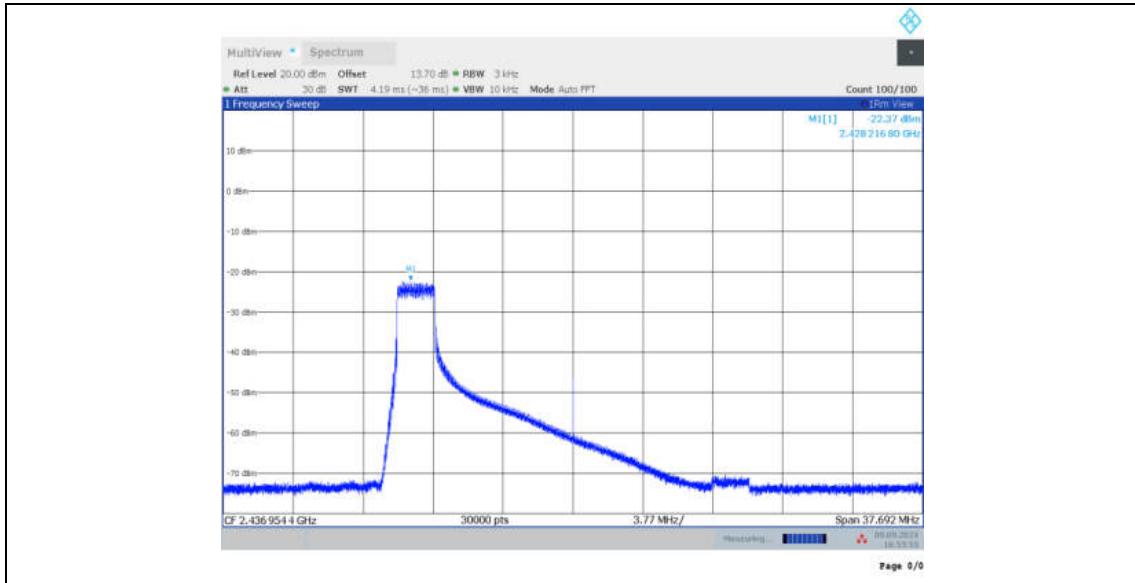
11AX20MIMO\_Ant12\_2437\_106Tone\_RU53



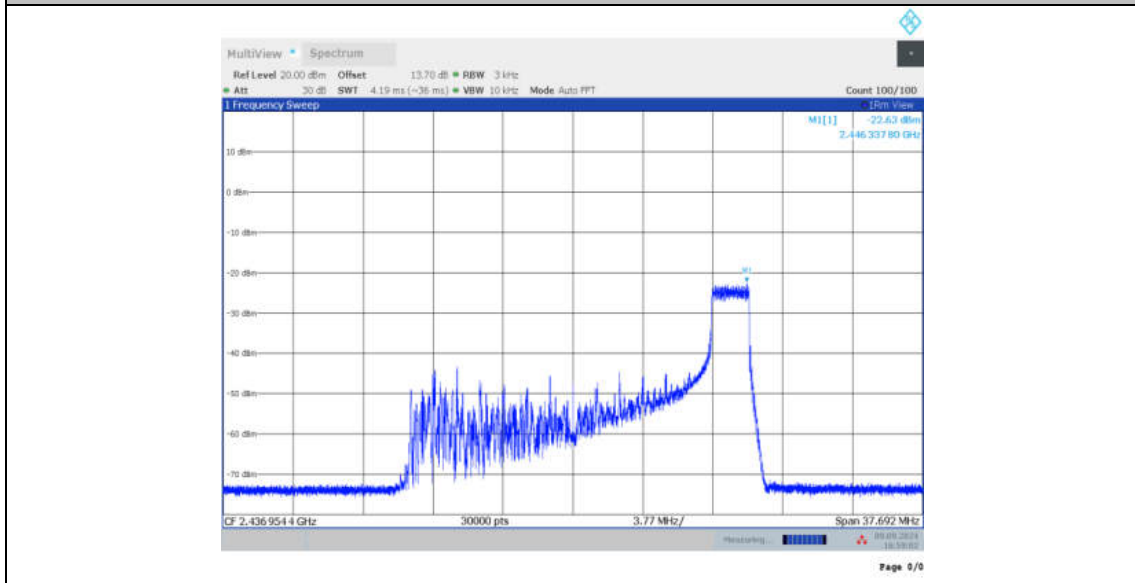
11AX20MIMO\_Ant12\_2437\_106Tone\_RU54



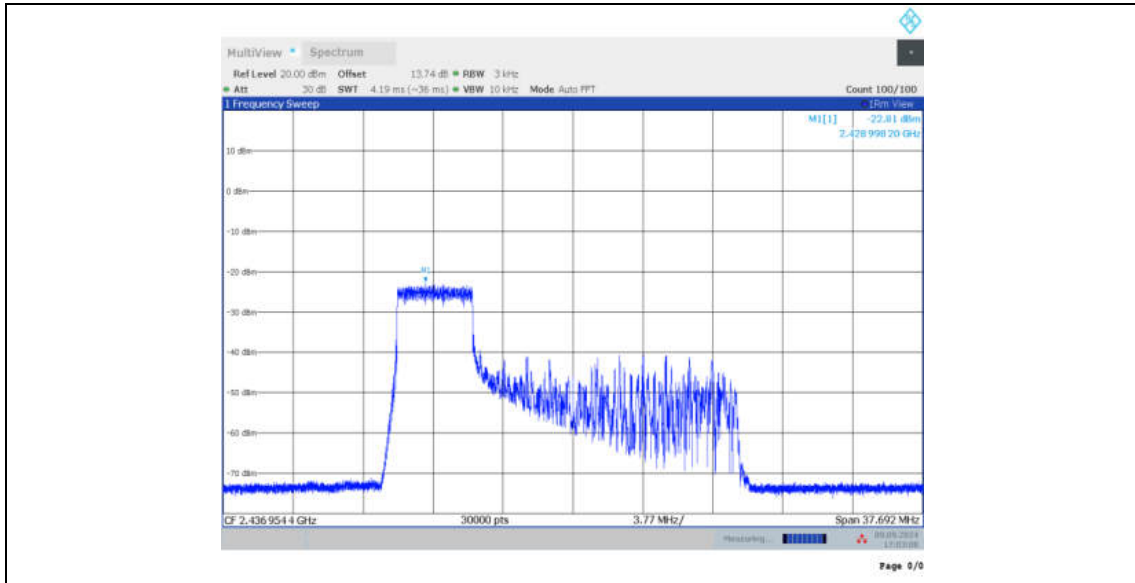
11AX20MIMO\_Ant7\_2437\_26Tone\_RU0



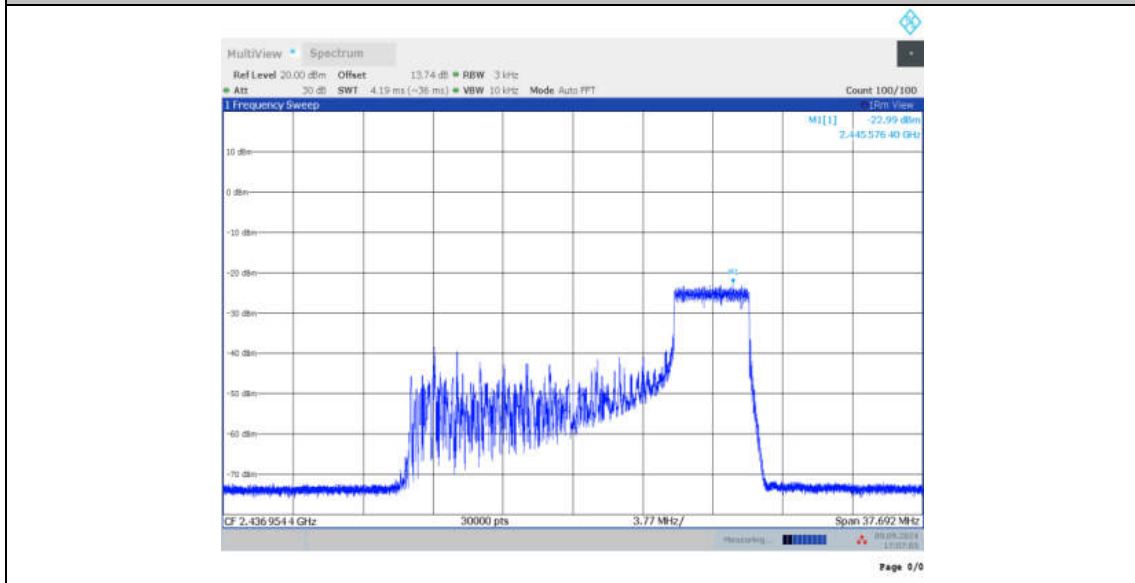
11AX20MIMO\_Ant7\_2437\_26Tone\_RU8



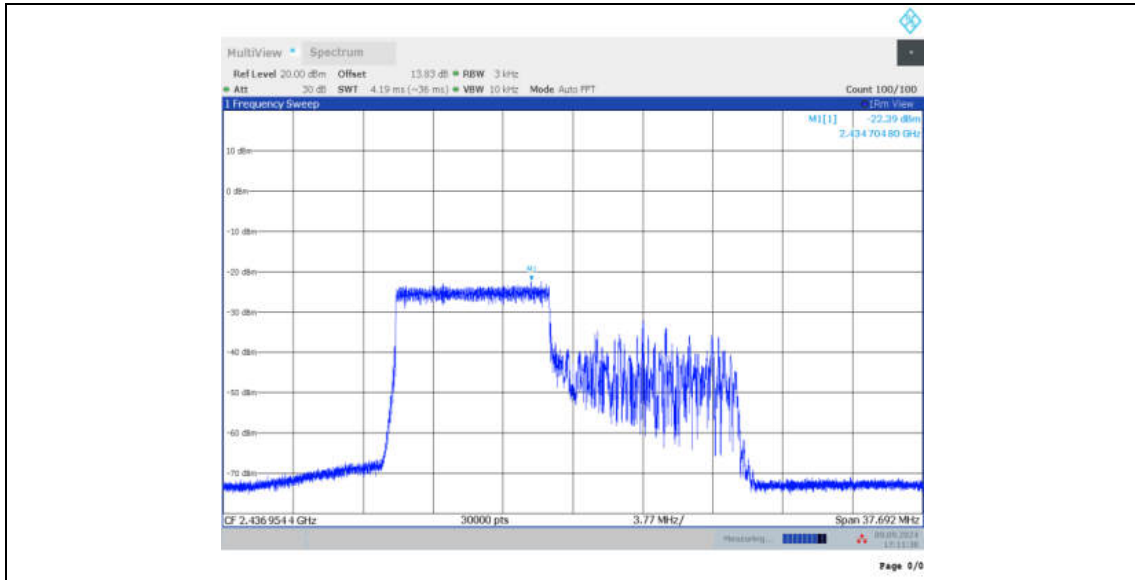
11AX20MIMO\_Ant7\_2437\_52Tone\_RU37



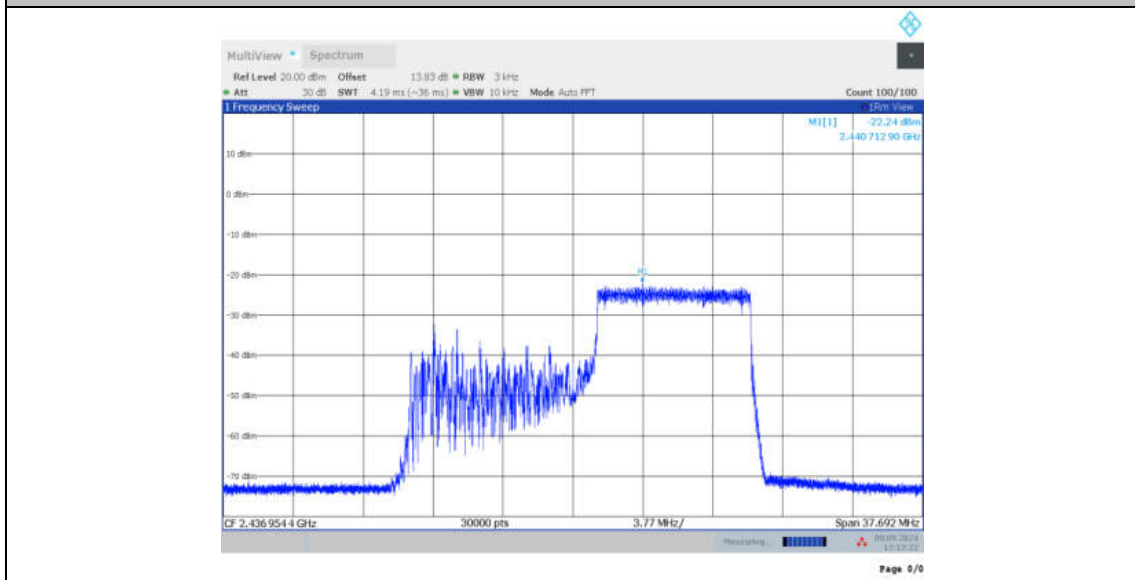
11AX20MIMO\_Ant7\_2437\_52Tone\_RU40



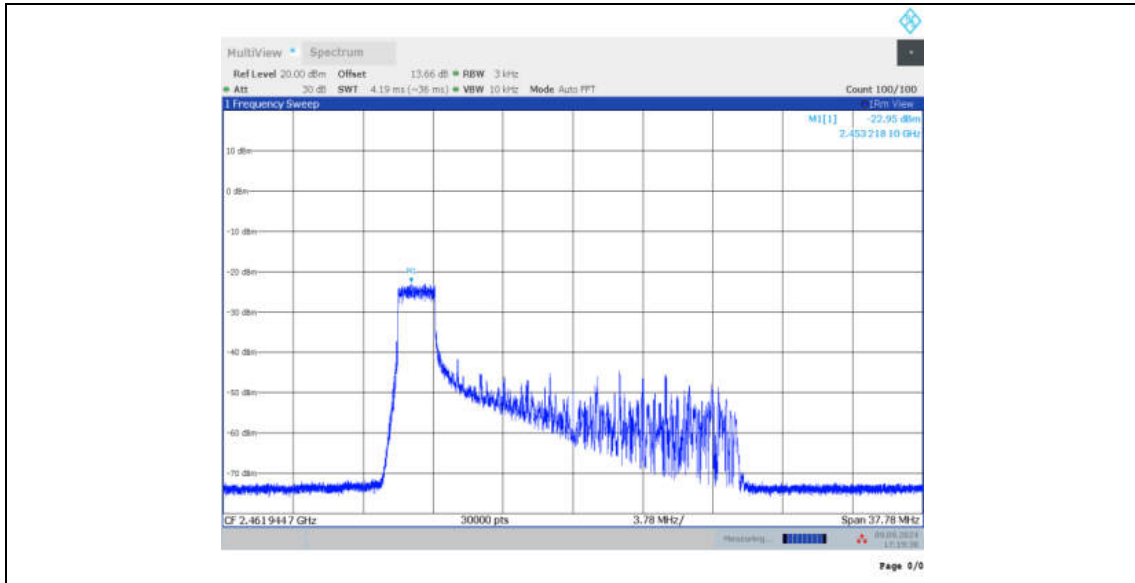
11AX20MIMO\_Ant7\_2437\_106Tone\_RU53



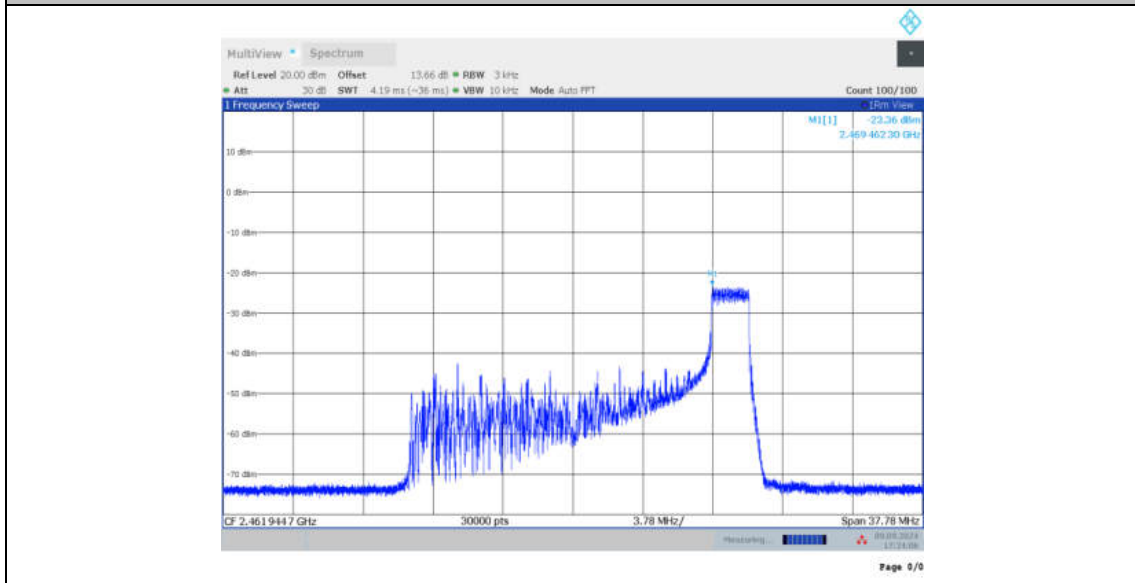
11AX20MIMO\_Ant7\_2437\_106Tone\_RU54



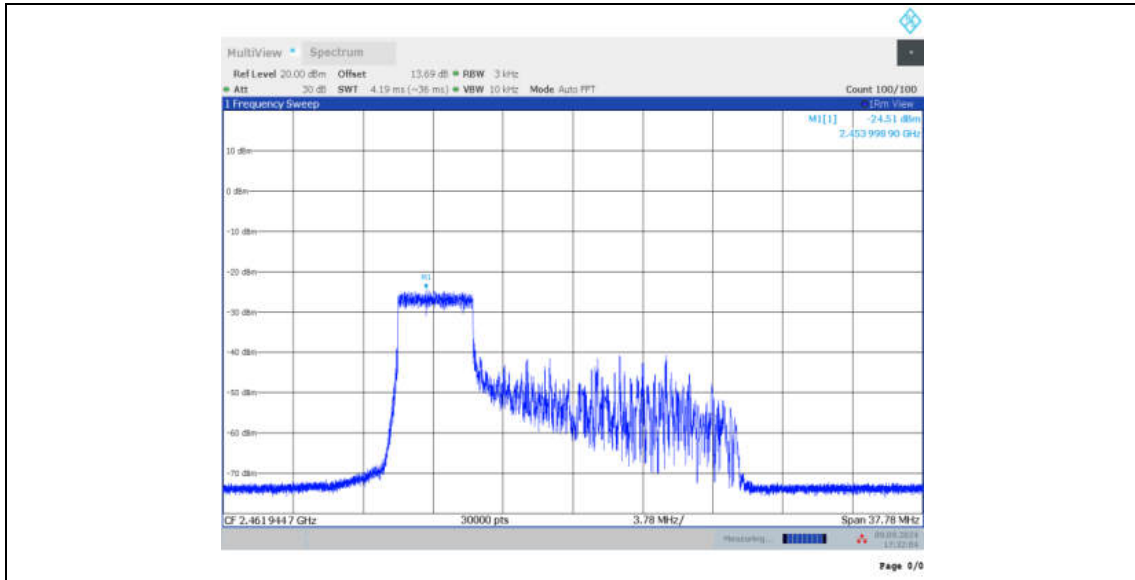
11AX20MIMO\_Ant12\_2462\_26Tone\_RU0



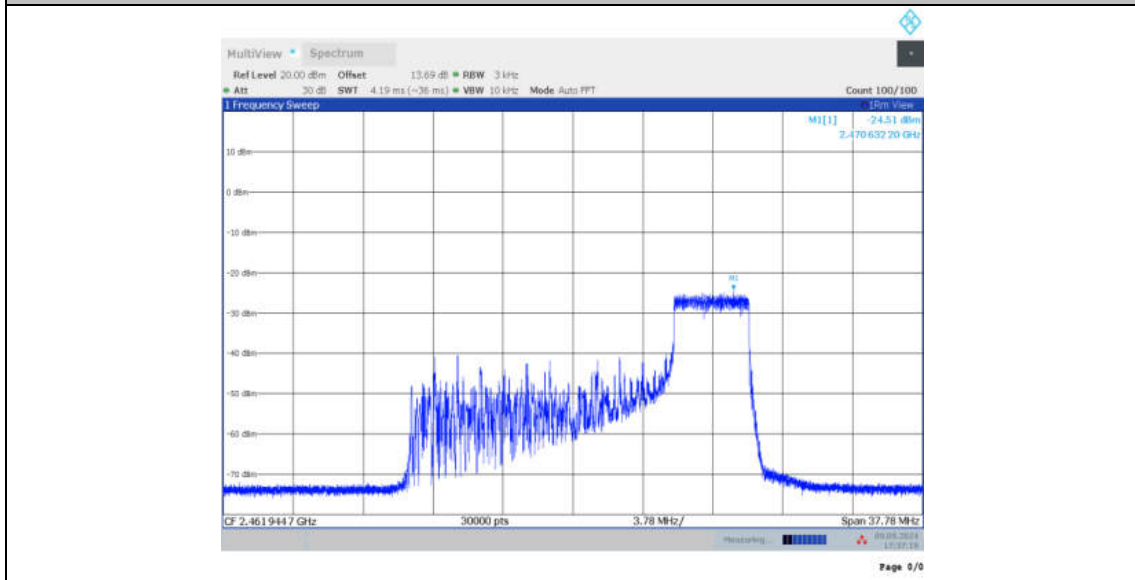
11AX20MIMO\_Ant12\_2462\_26Tone\_RU8



11AX20MIMO\_Ant12\_2462\_52Tone\_RU37

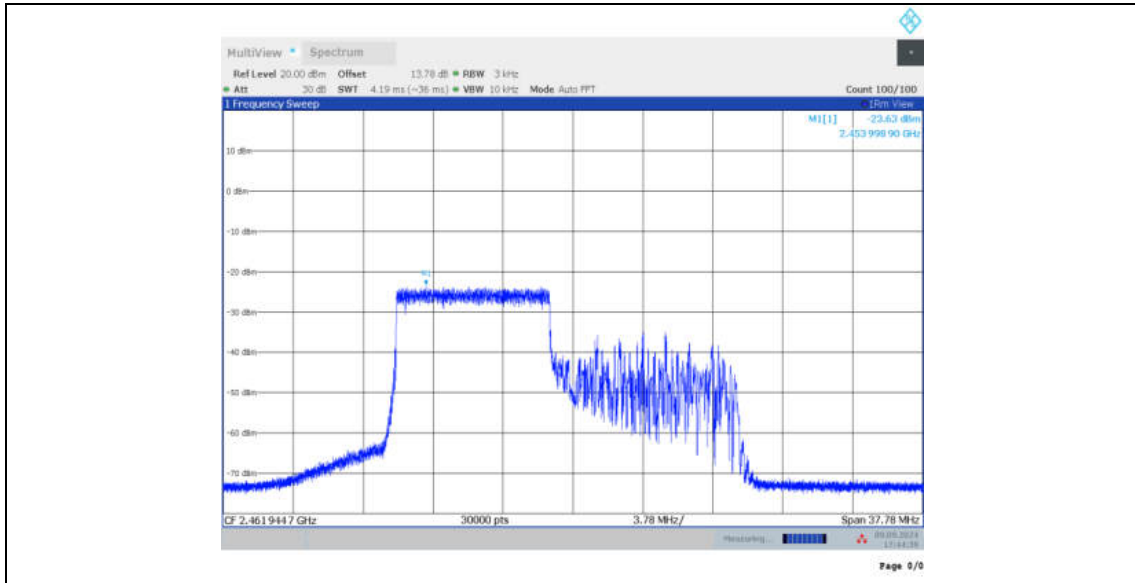


11AX20MIMO\_Ant12\_2462\_52Tone\_RU40

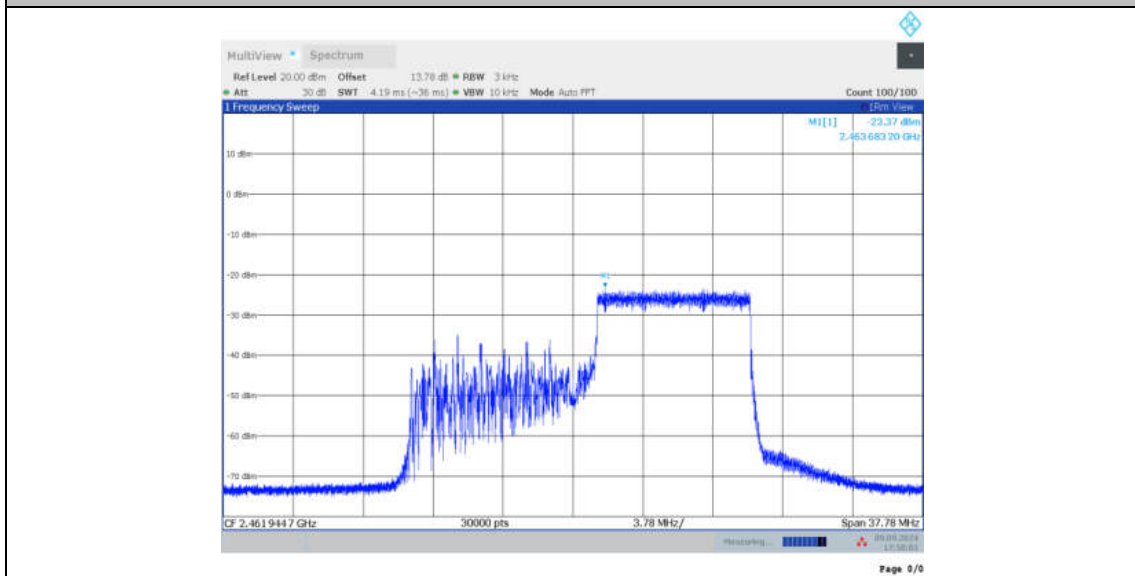


11AX20MIMO\_Ant12\_2462\_106Tone\_RU53

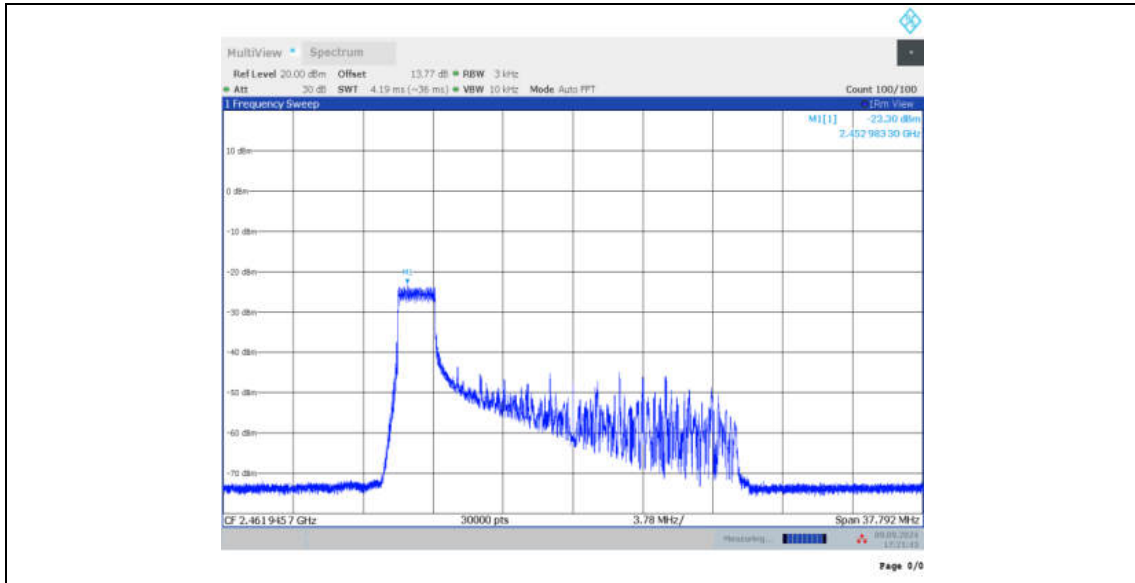




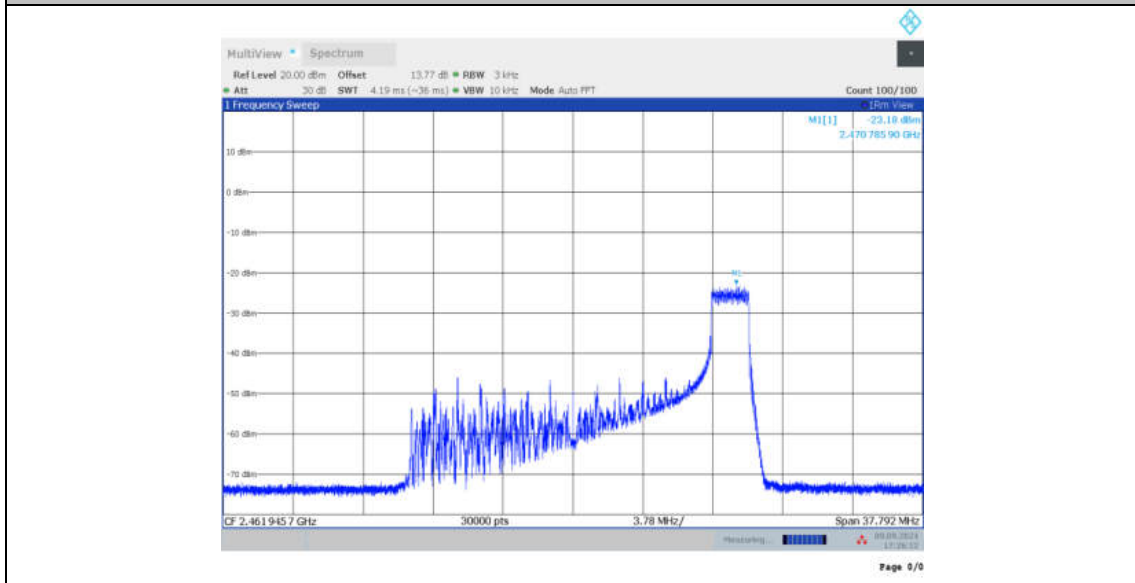
11AX20MIMO\_Ant12\_2462\_106Tone\_RU54



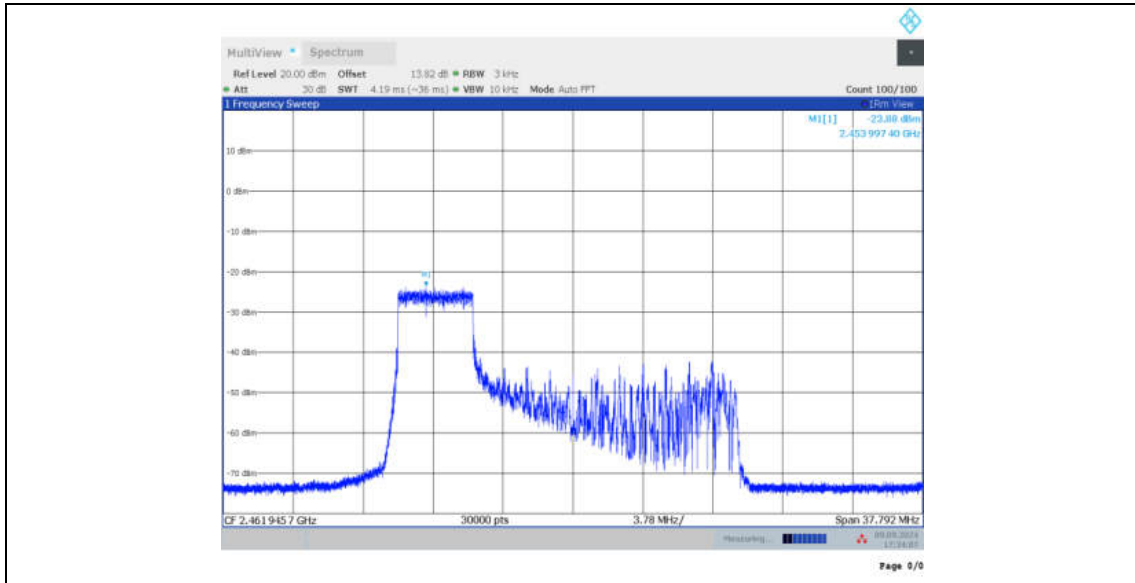
11AX20MIMO\_Ant7\_2462\_26Tone\_RU0



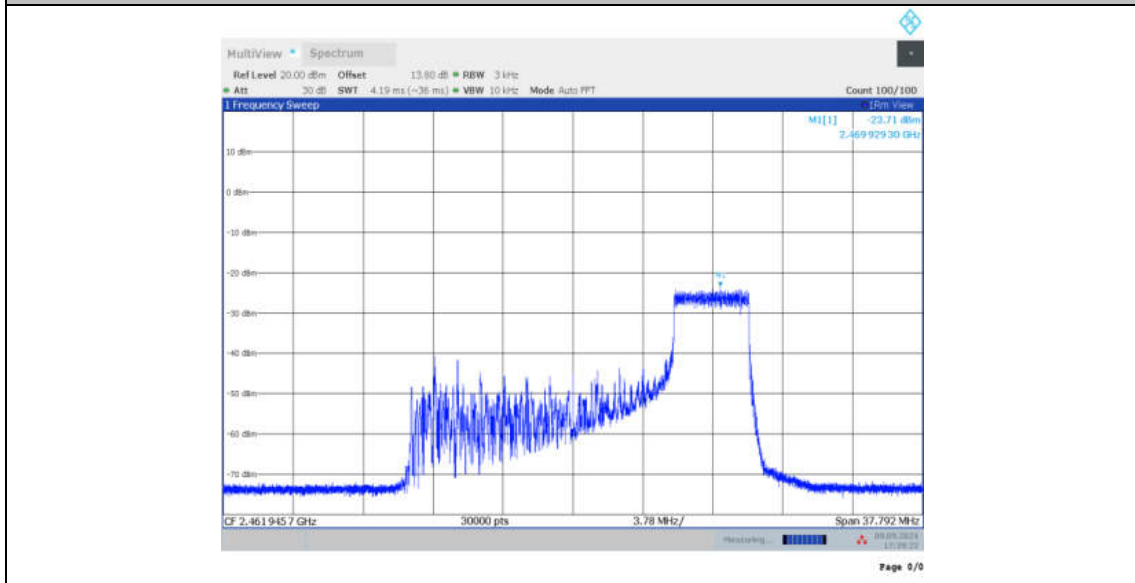
11AX20MIMO\_Ant7\_2462\_26Tone\_RU8



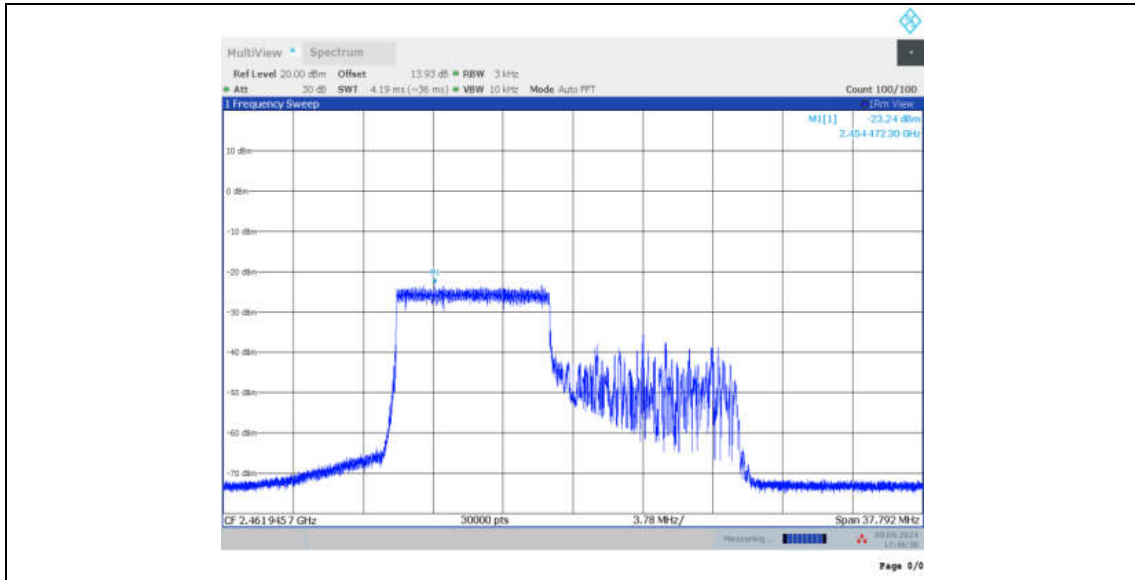
11AX20MIMO\_Ant7\_2462\_52Tone\_RU37



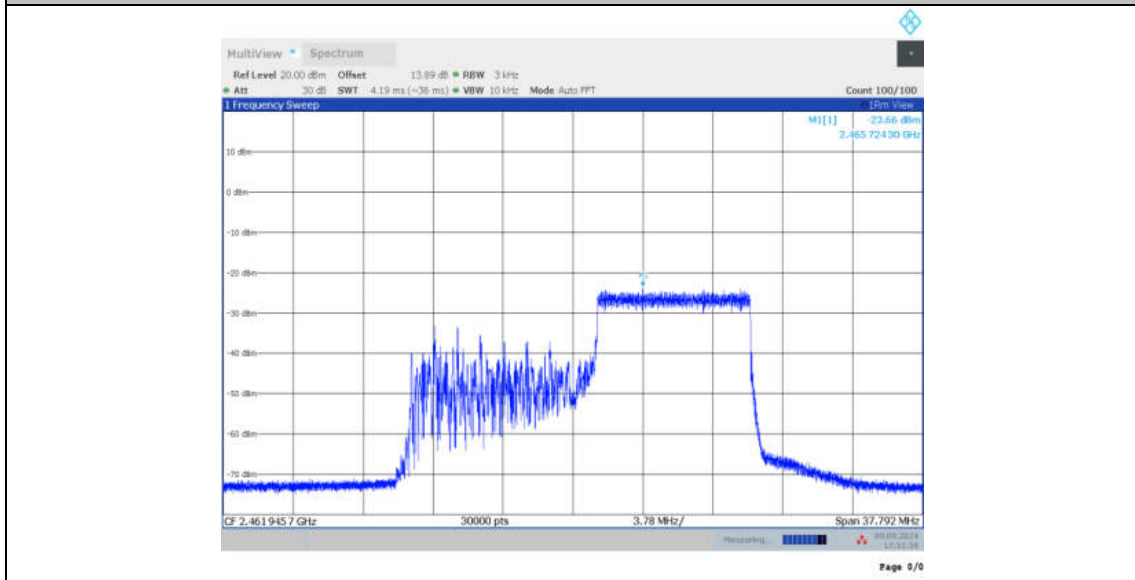
11AX20MIMO\_Ant7\_2462\_52Tone\_RU40



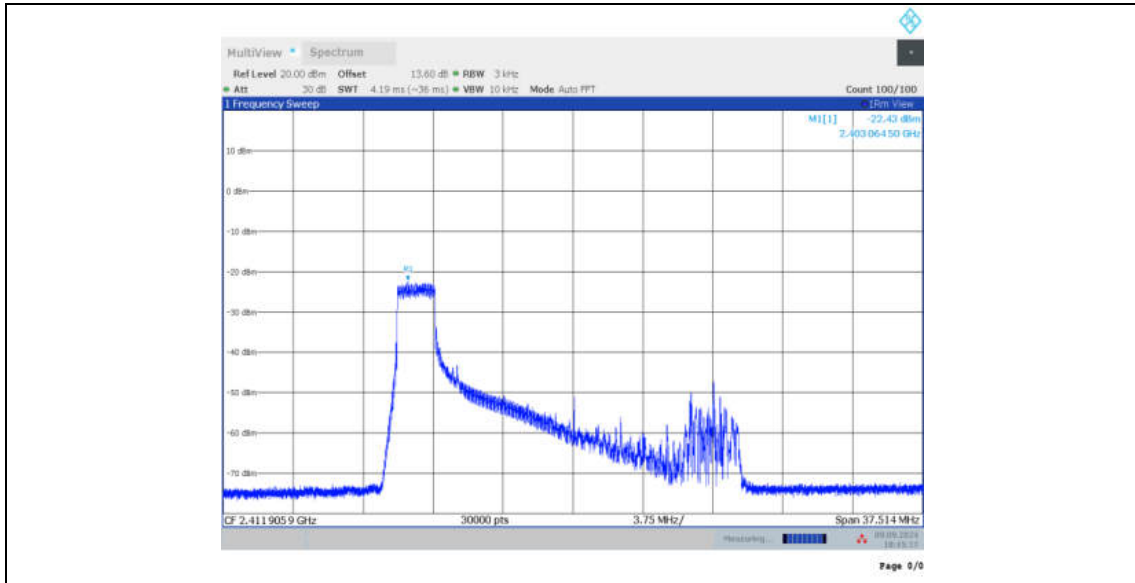
11AX20MIMO\_Ant7\_2462\_106Tone\_RU53



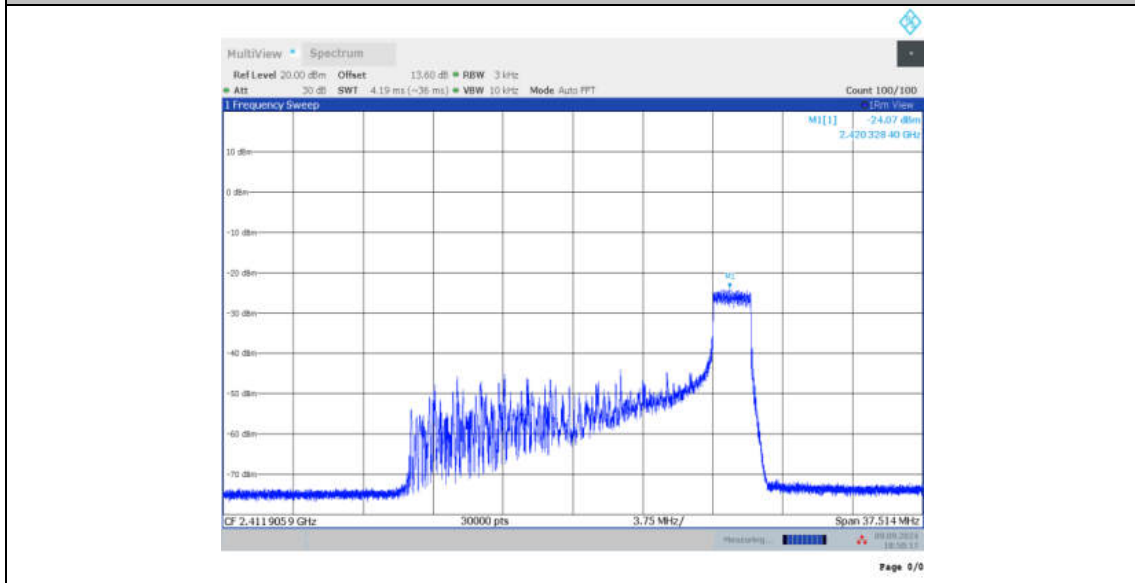
11AX20MIMO\_Ant7\_2462\_106Tone\_RU54



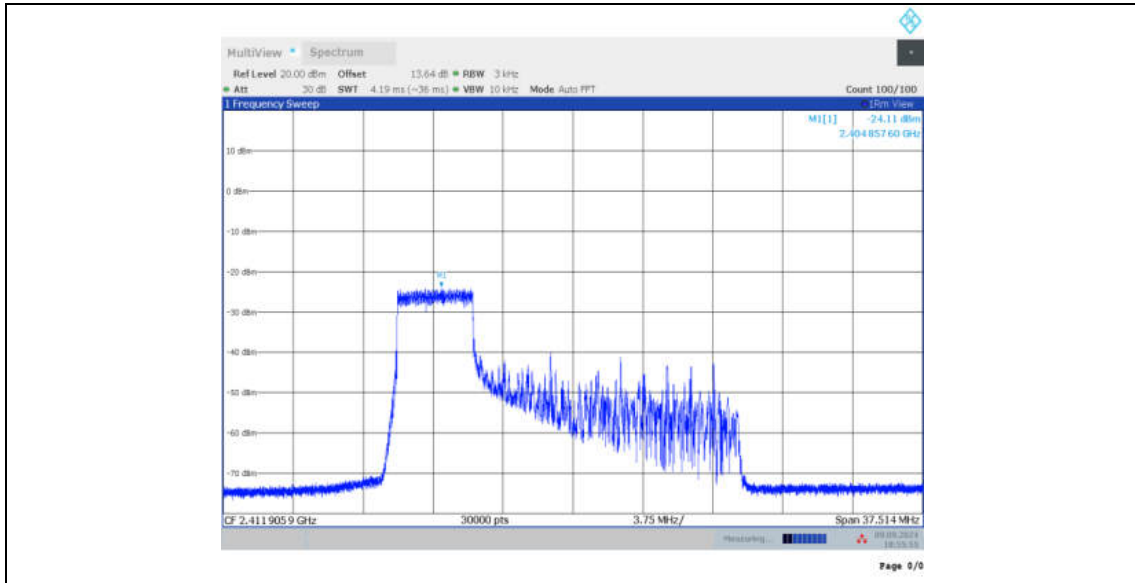
11BE20MIMO\_Ant12\_2412\_26Tone\_RU0



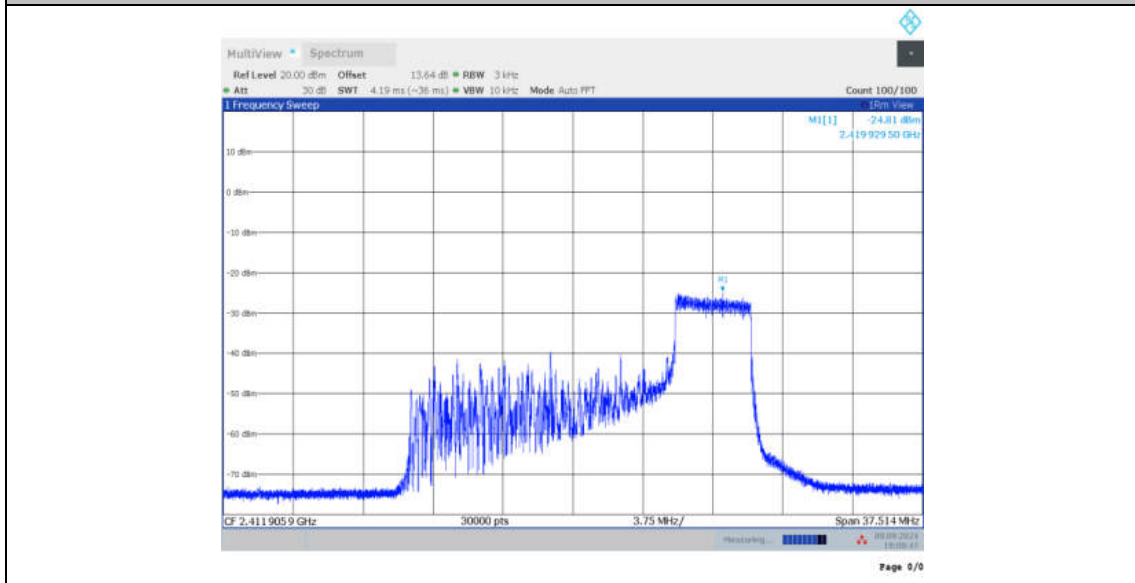
11BE20MIMO\_Ant12\_2412\_26Tone\_RU8



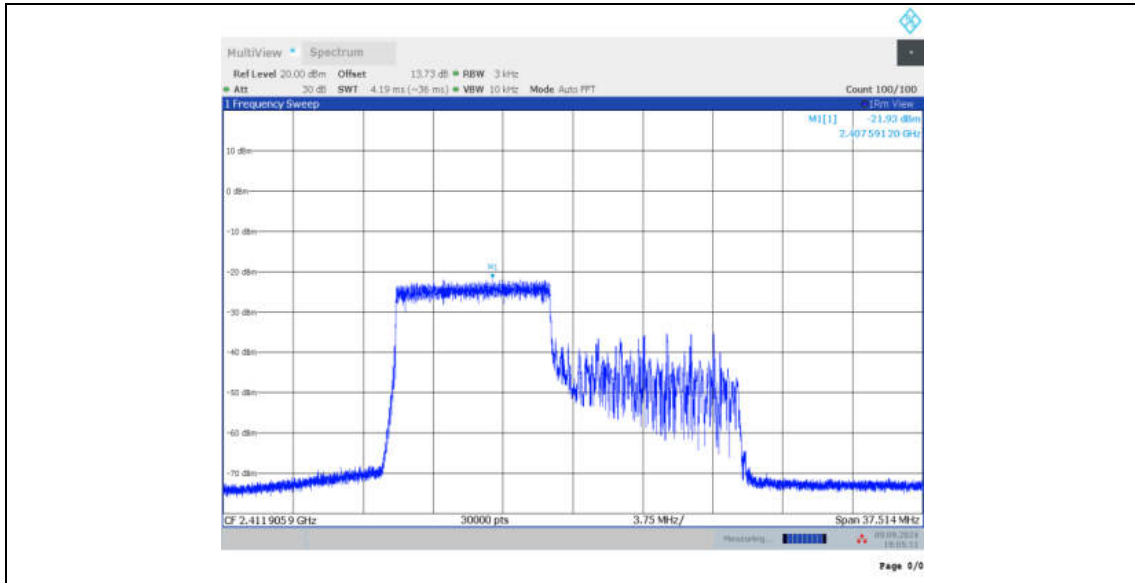
11BE20MIMO\_Ant12\_2412\_52Tone\_RU37



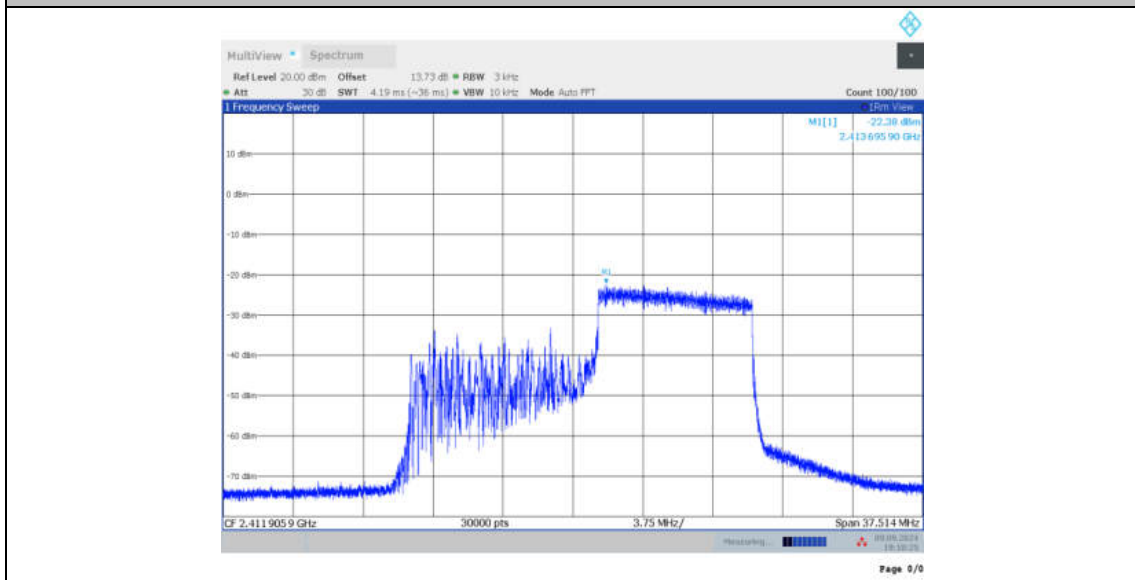
11BE20MIMO\_Ant12\_2412\_52Tone\_RU40



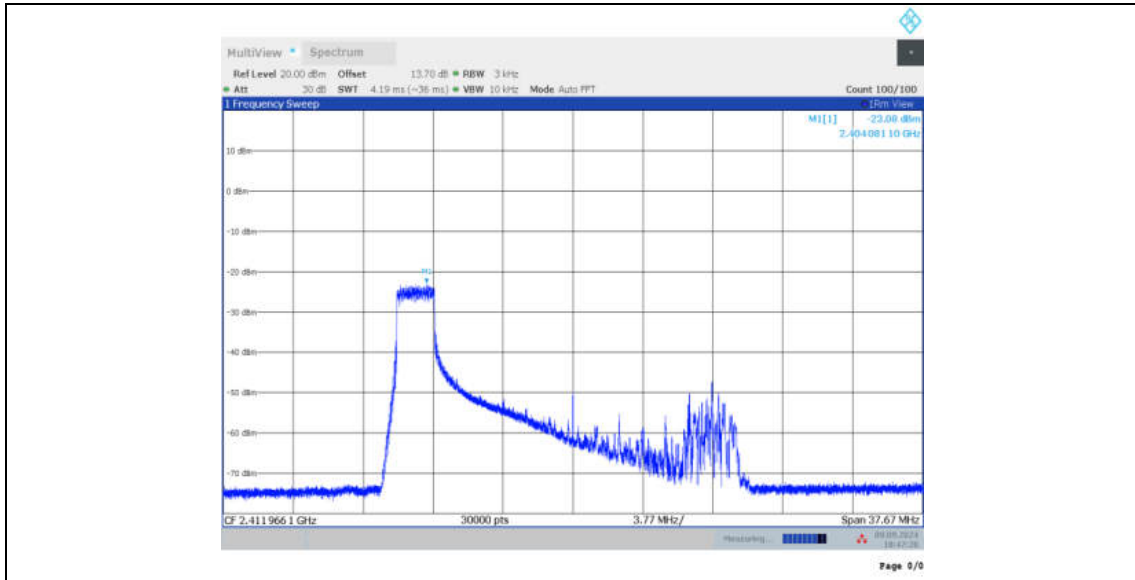
11BE20MIMO\_Ant12\_2412\_106Tone\_RU53



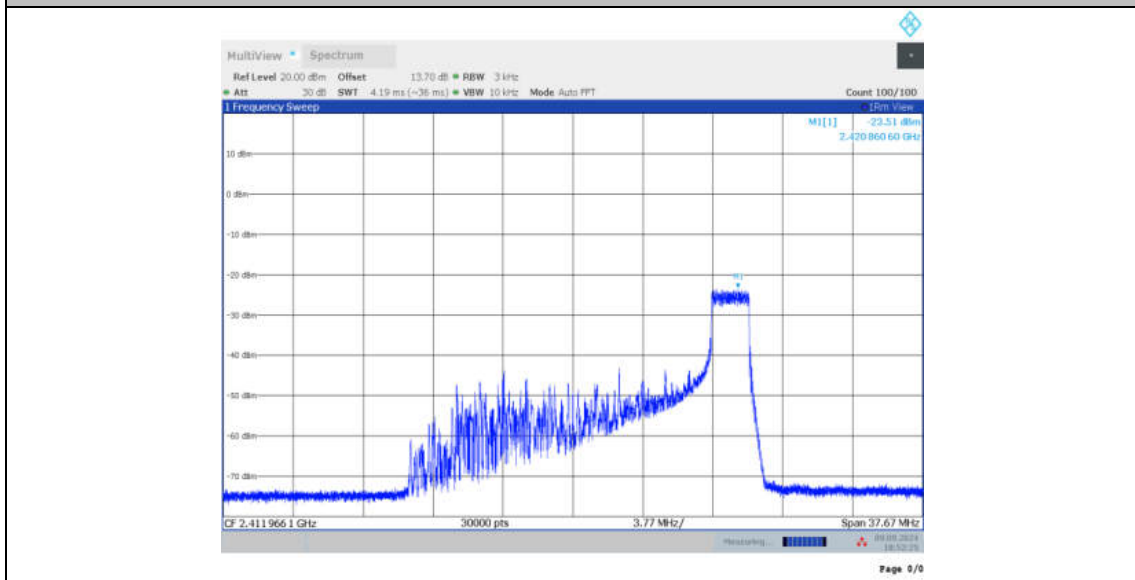
11BE20MIMO\_Ant12\_2412\_106Tone\_RU54



11BE20MIMO\_Ant7\_2412\_26Tone\_RU0

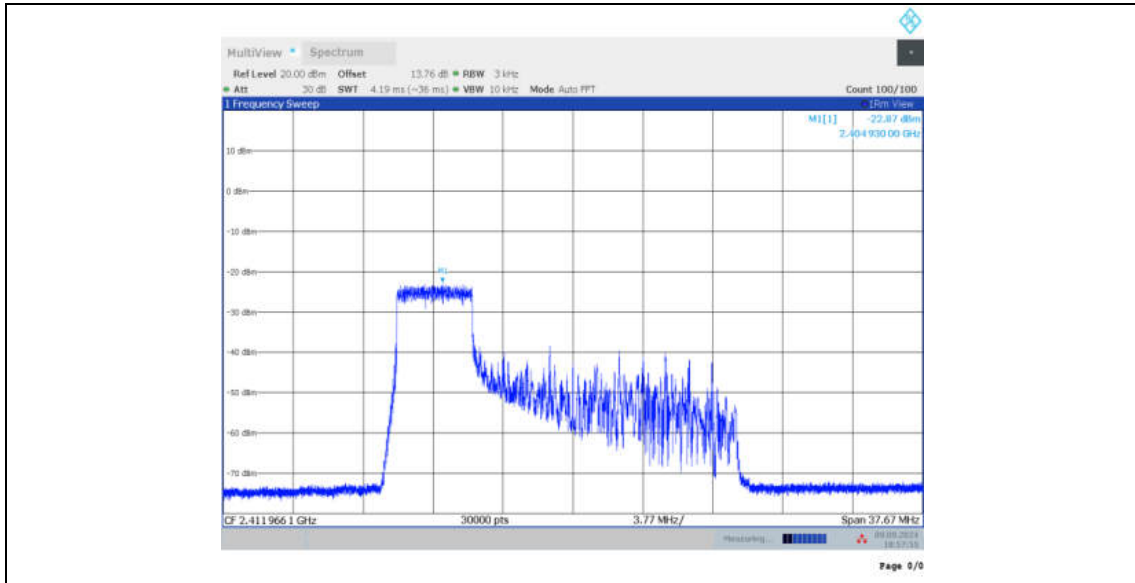


11BE20MIMO\_Ant7\_2412\_26Tone\_RU8

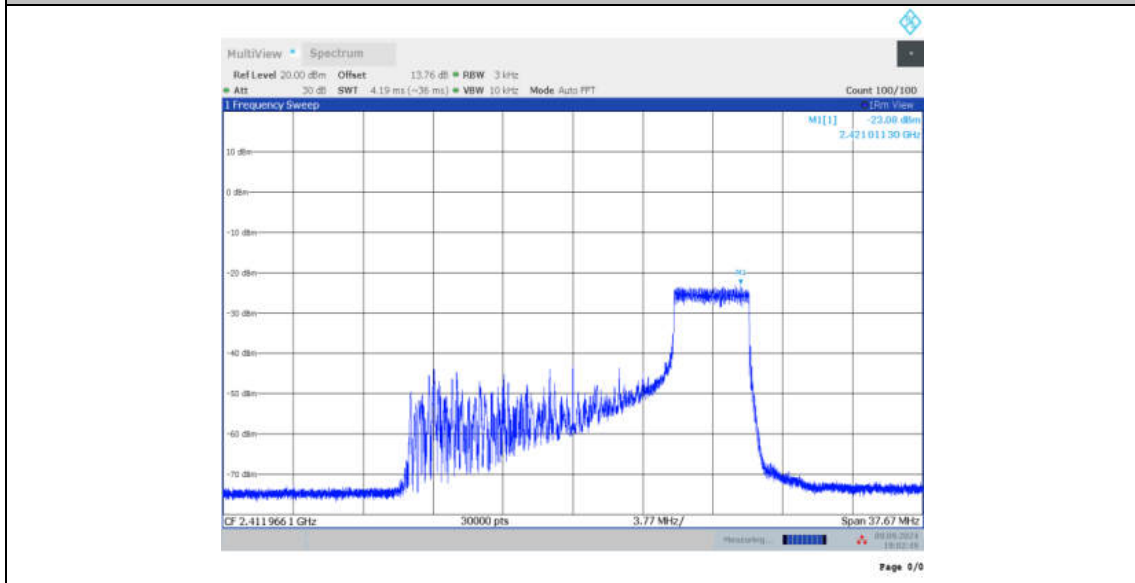


11BE20MIMO\_Ant7\_2412\_52Tone\_RU37

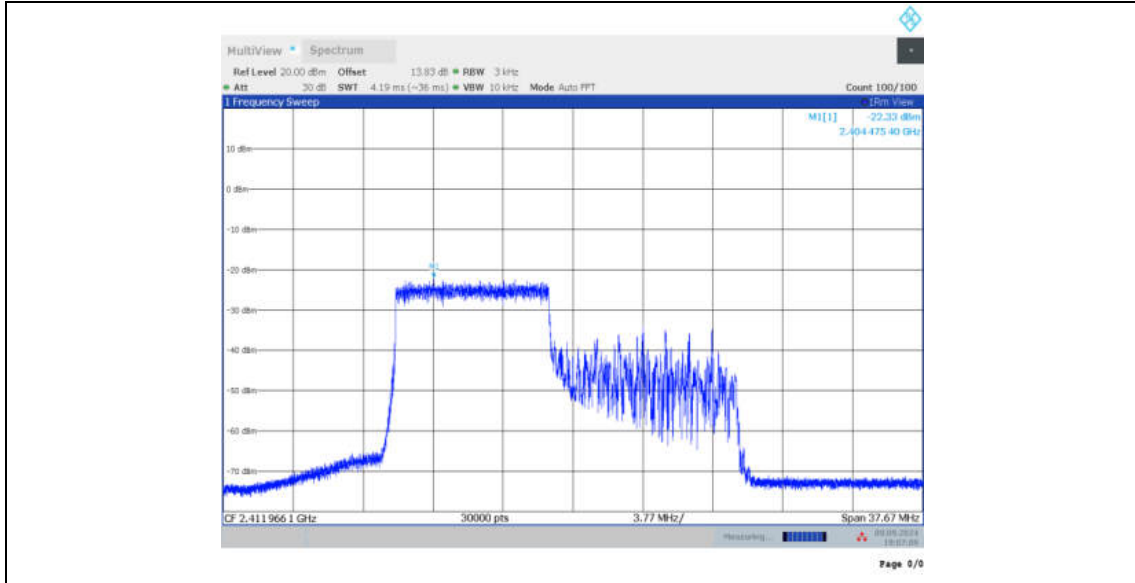




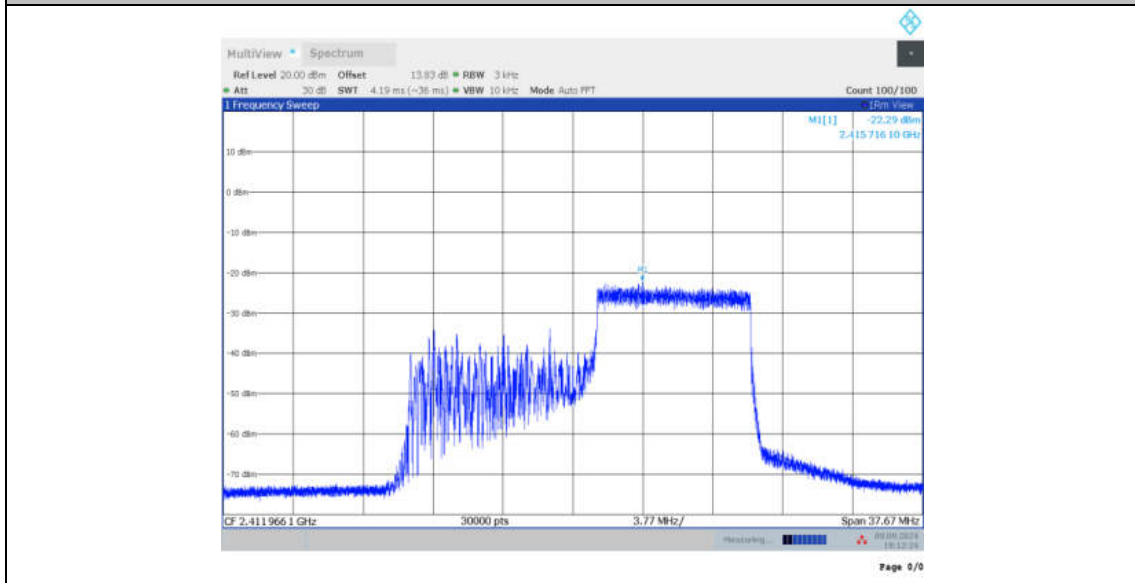
11BE20MIMO\_Ant7\_2412\_52Tone\_RU40



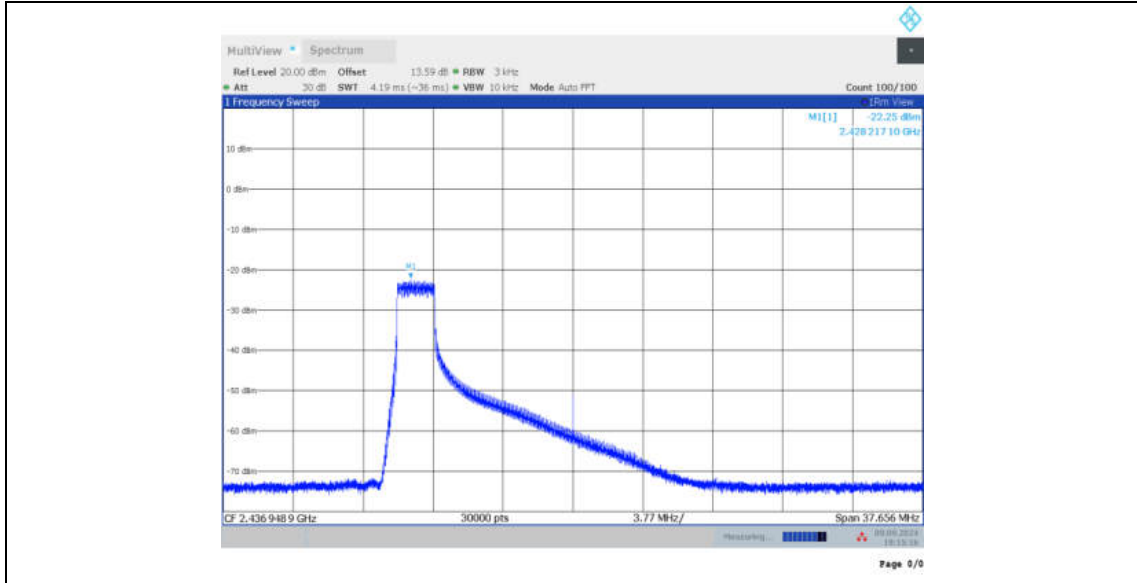
11BE20MIMO\_Ant7\_2412\_106Tone\_RU53



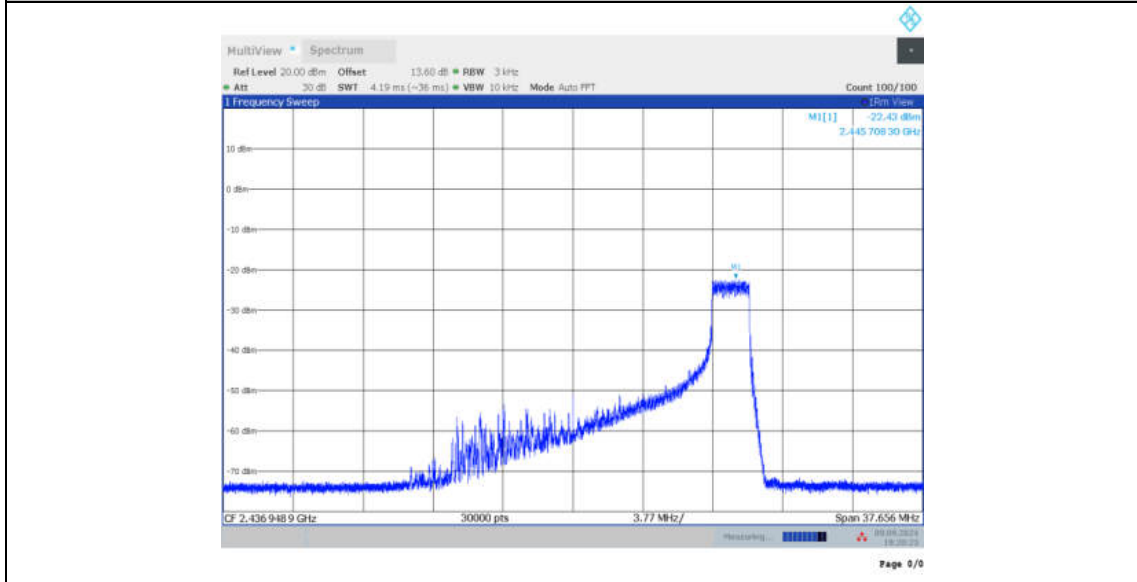
11BE20MIMO\_Ant7\_2412\_106Tone\_RU54



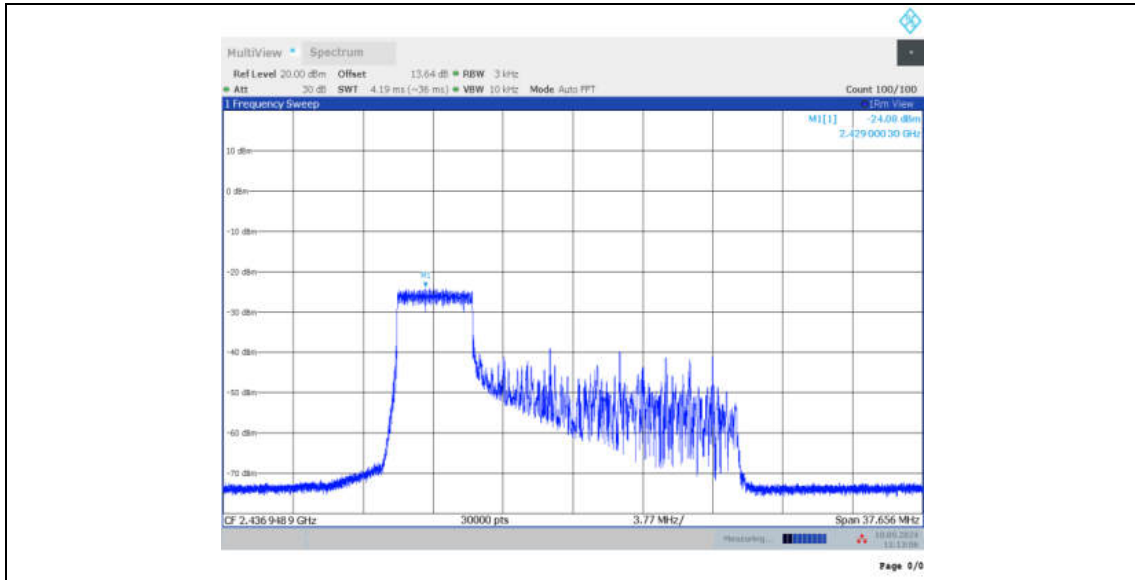
11BE20MIMO\_Ant12\_2437\_26Tone\_RU0



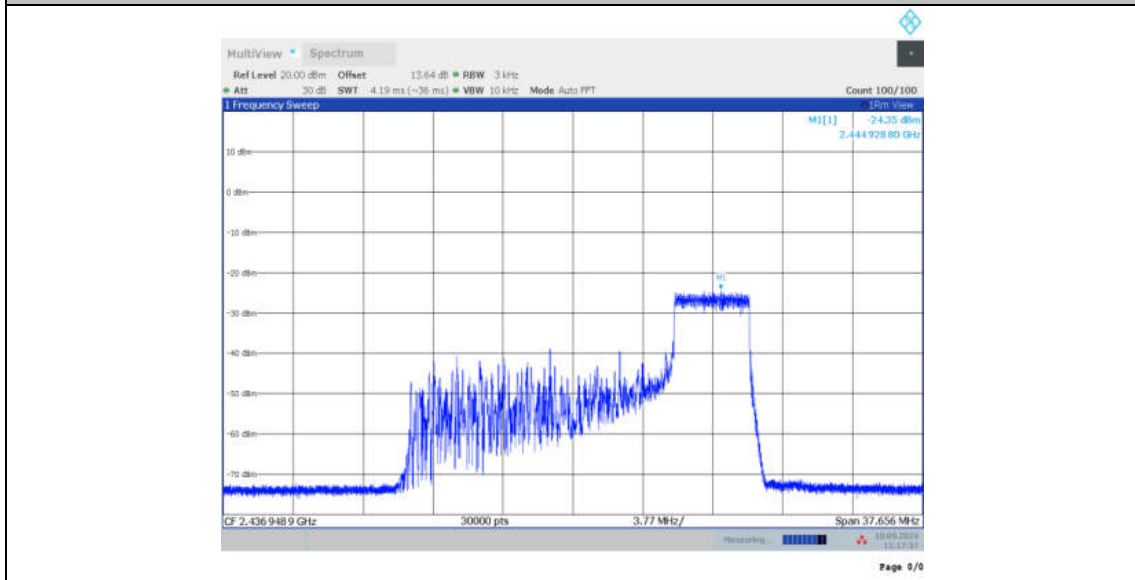
11BE20MIMO\_Ant12\_2437\_26Tone\_RU8



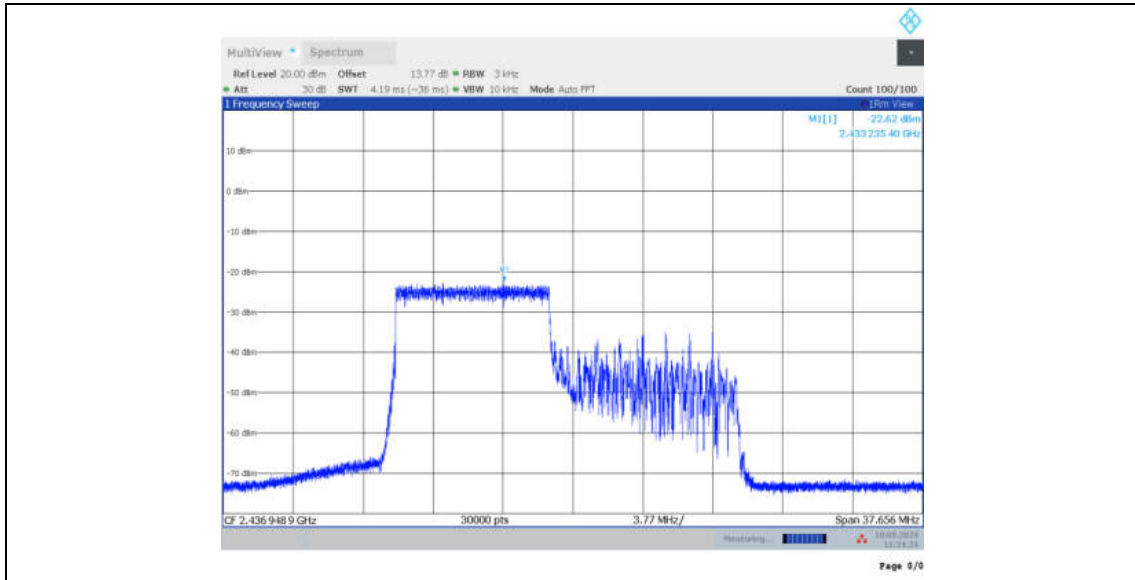
11BE20MIMO\_Ant12\_2437\_52Tone\_RU37



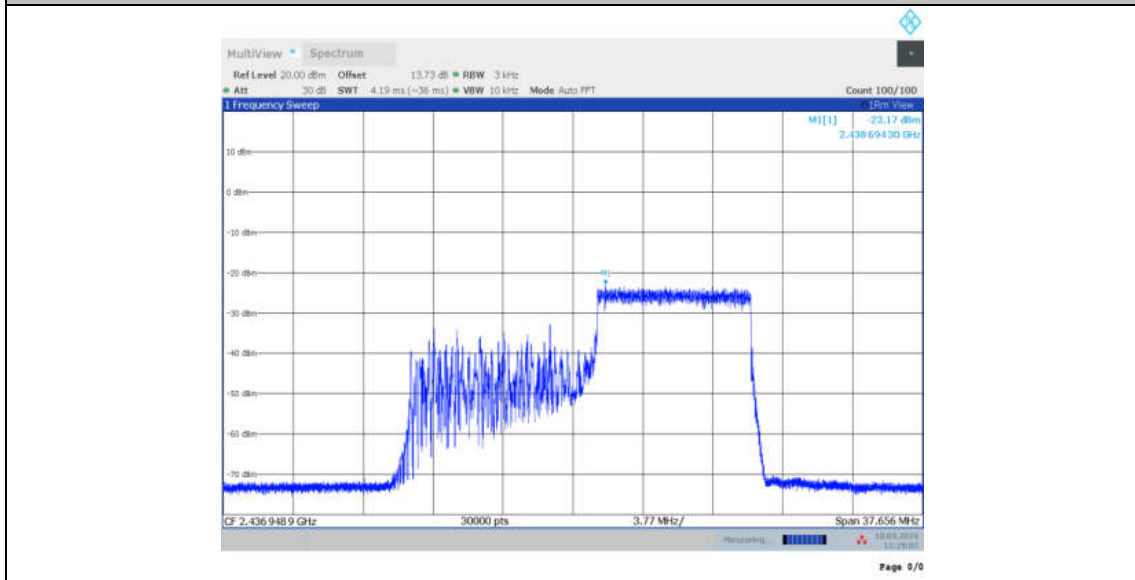
11BE20MIMO\_Ant12\_2437\_52Tone\_RU40



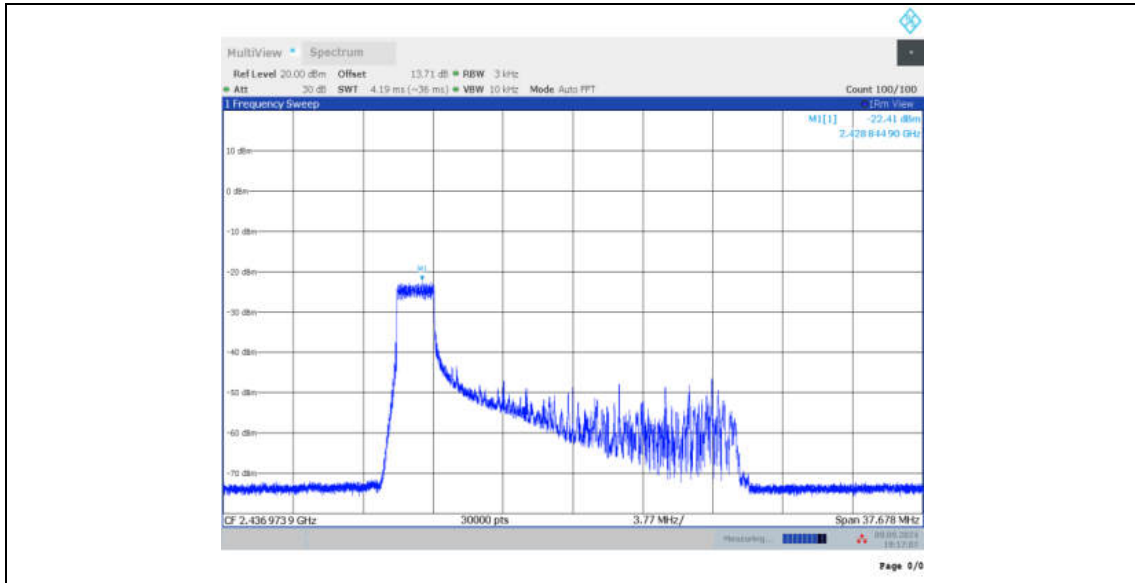
11BE20MIMO\_Ant12\_2437\_106Tone\_RU53



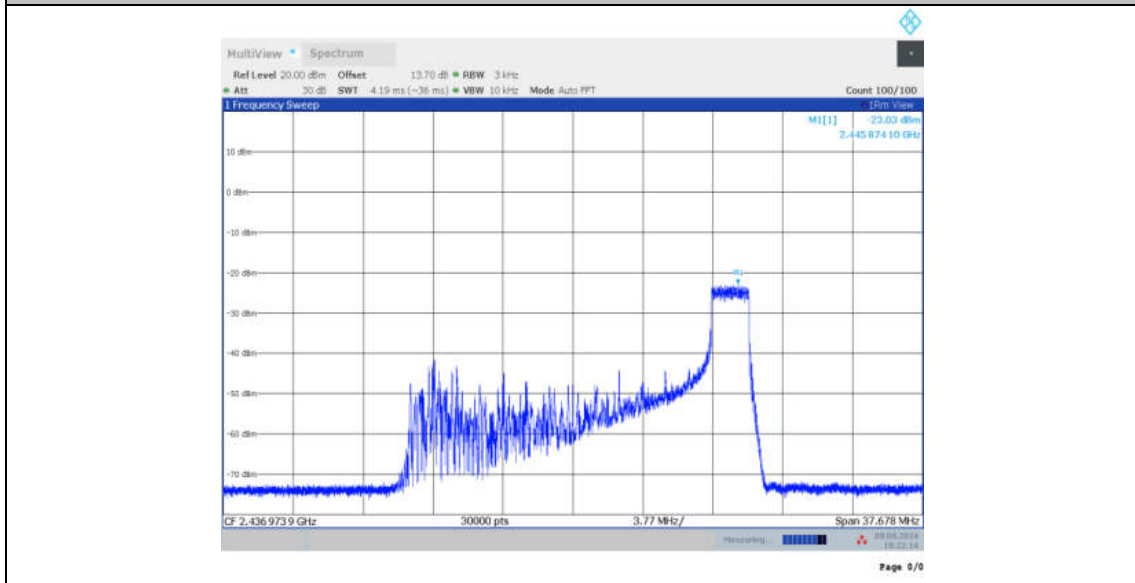
11BE20MIMO\_Ant12\_2437\_106Tone\_RU54



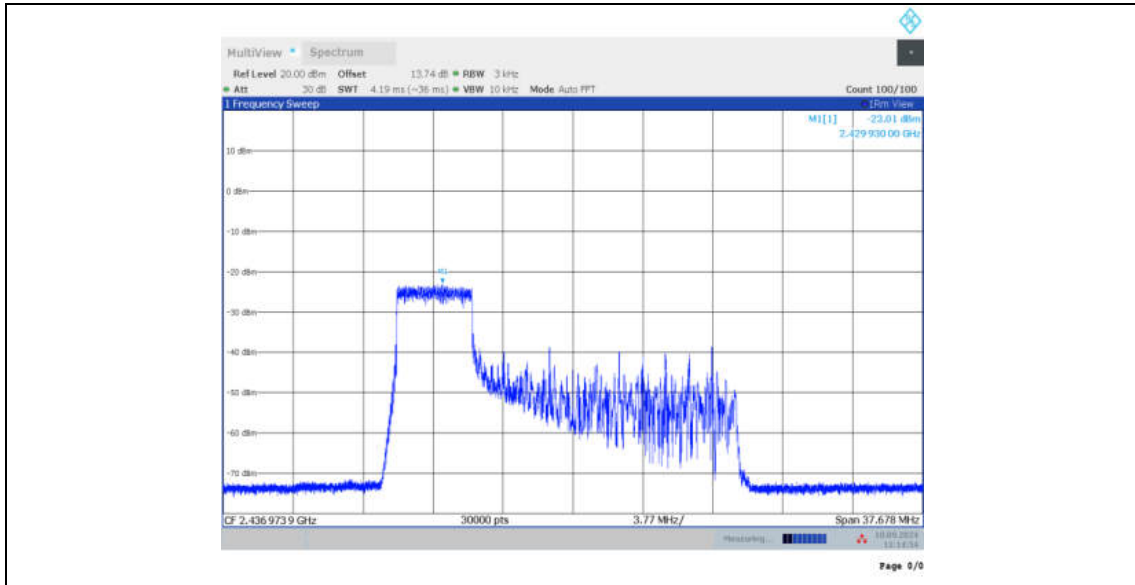
11BE20MIMO\_Ant7\_2437\_26Tone\_RU0



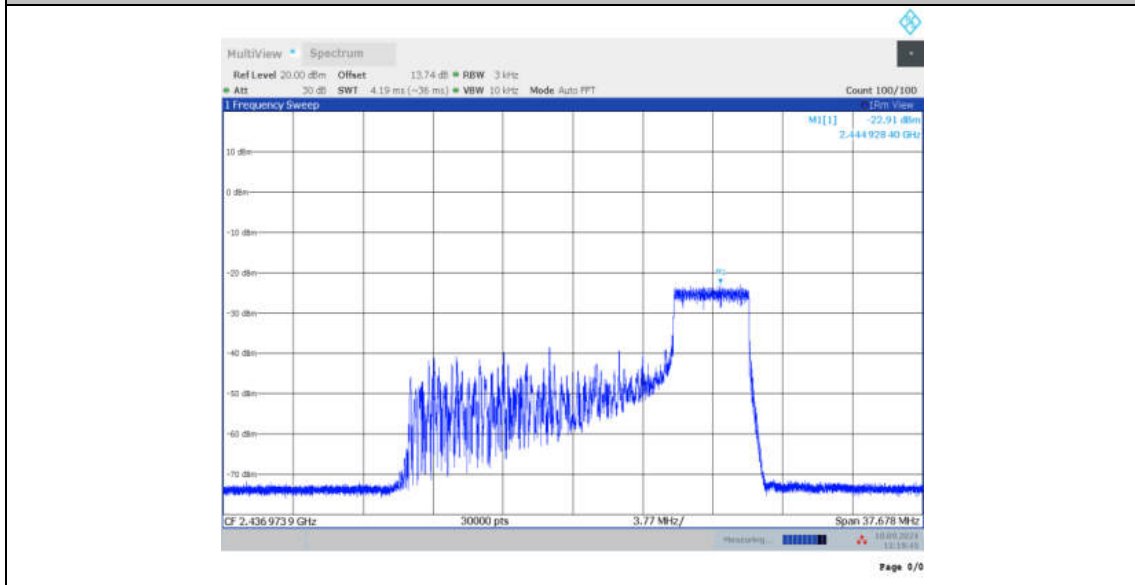
11BE20MIMO\_Ant7\_2437\_26Tone\_RU8



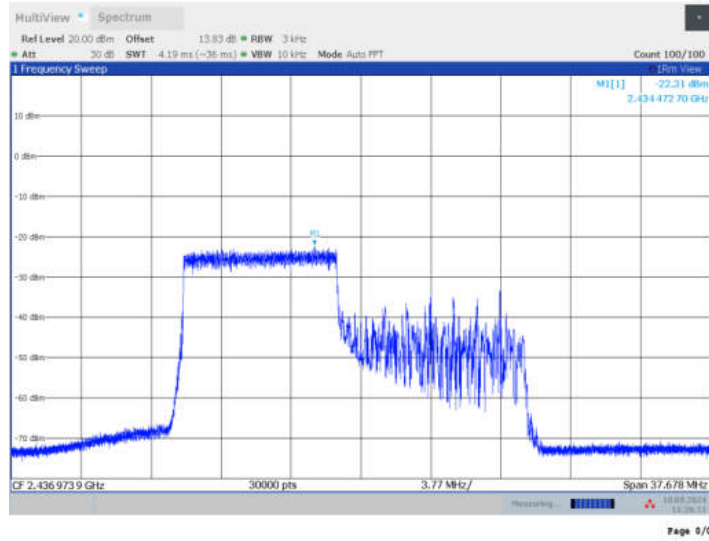
11BE20MIMO\_Ant7\_2437\_52Tone\_RU37



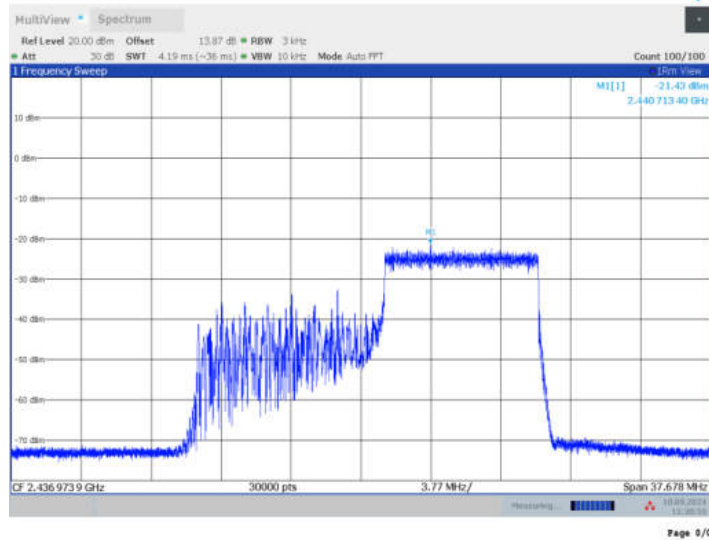
11BE20MIMO\_Ant7\_2437\_52Tone\_RU40



11BE20MIMO\_Ant7\_2437\_106Tone\_RU53

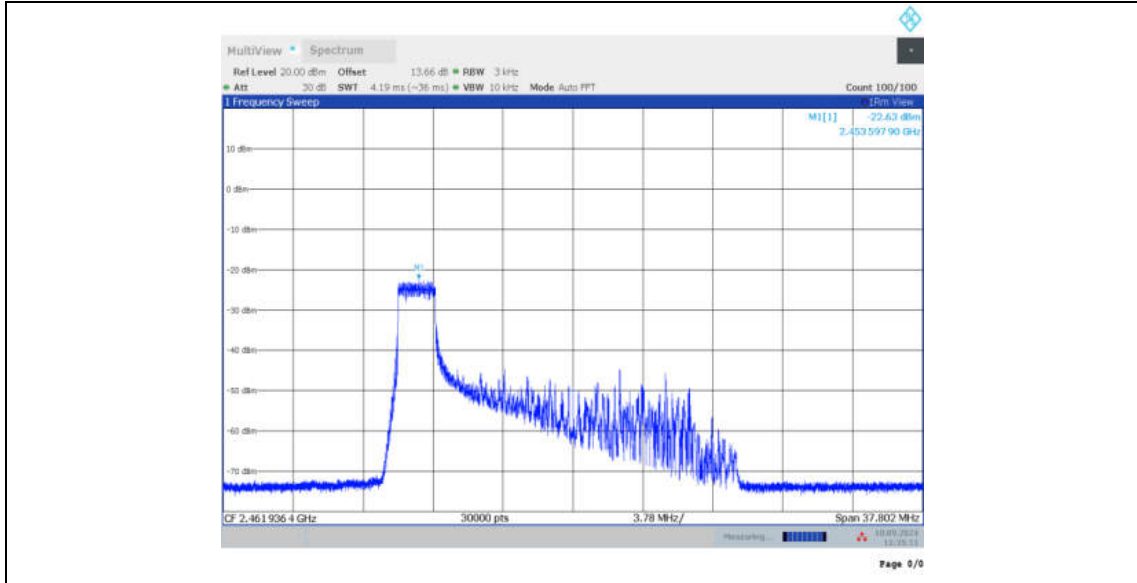


11BE20MIMO\_Ant7\_2437\_106Tone\_RU54

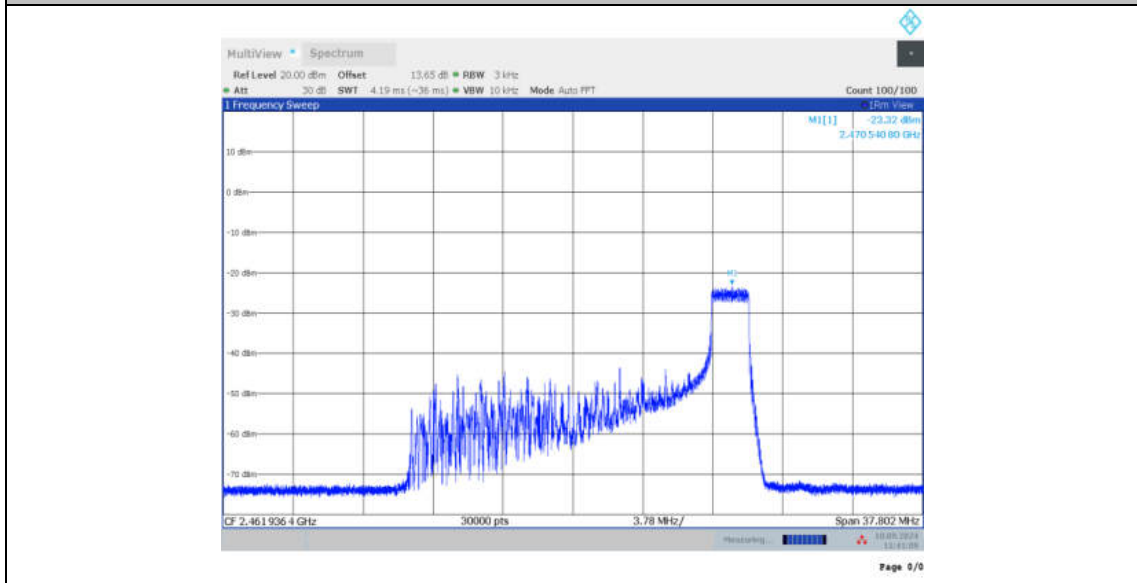


11BE20MIMO\_Ant12\_2462\_26Tone\_RU0

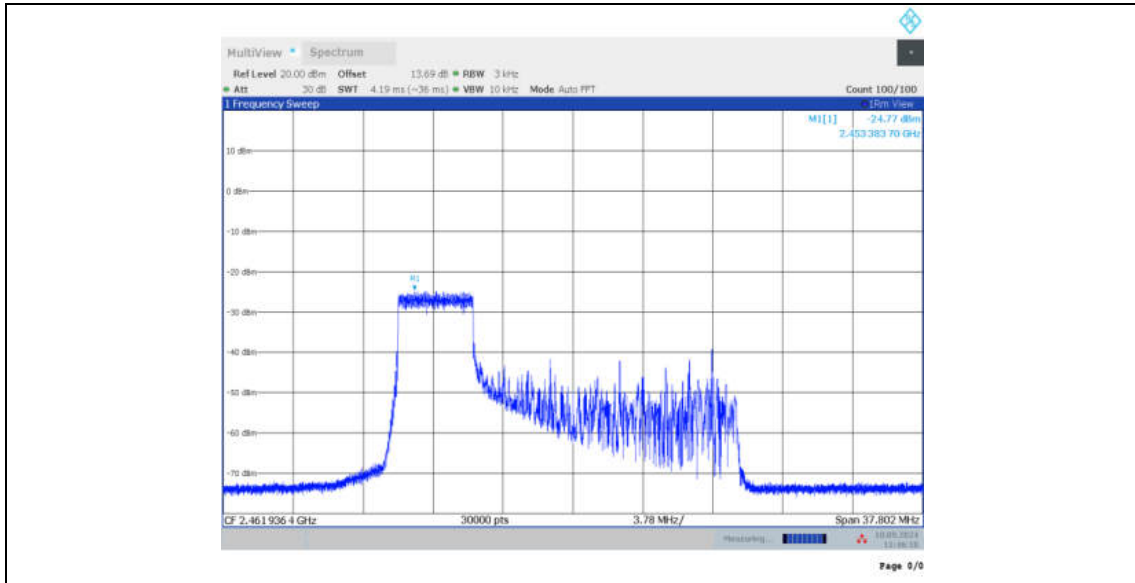




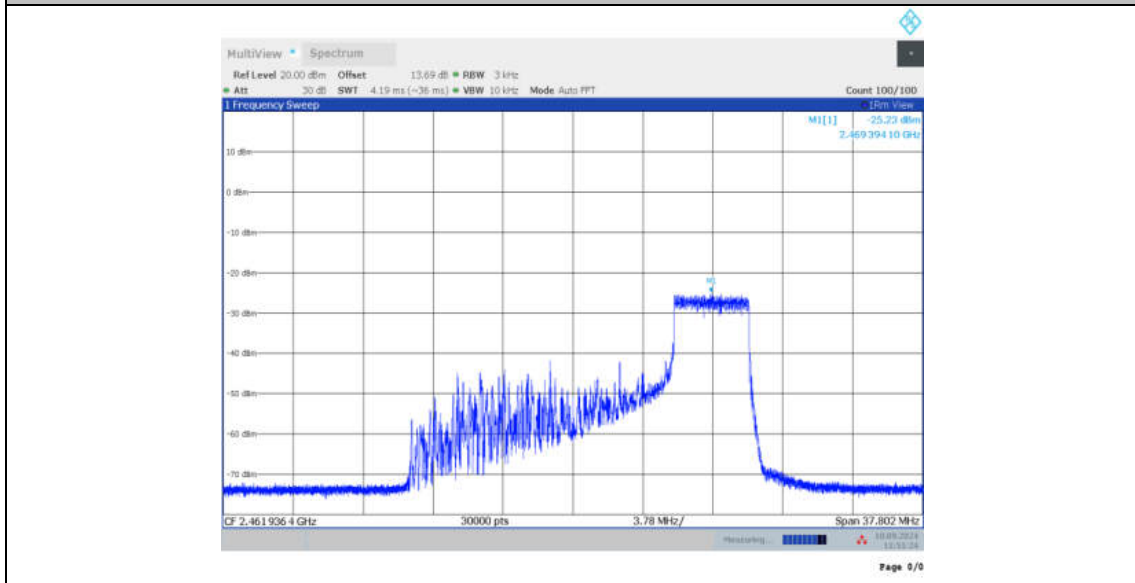
11BE20MIMO\_Ant12\_2462\_26Tone\_RU8



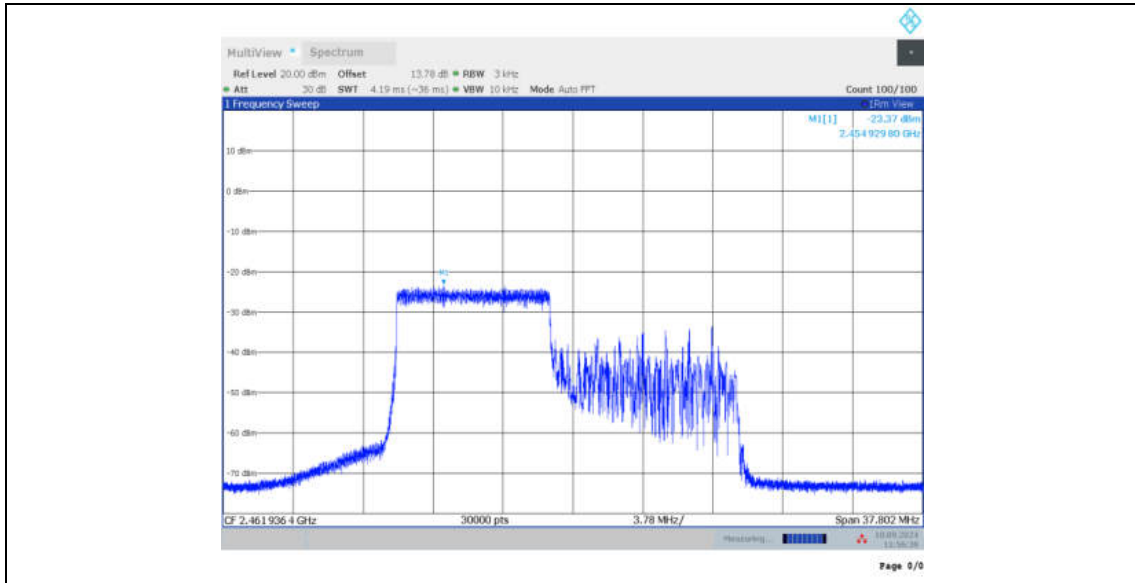
11BE20MIMO\_Ant12\_2462\_52Tone\_RU37



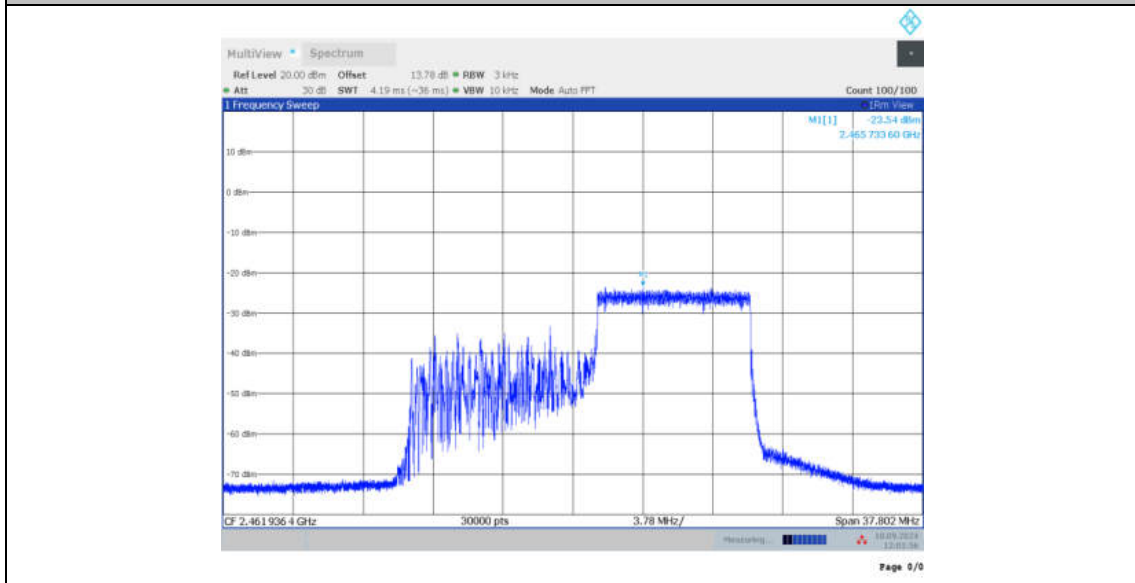
11BE20MIMO\_Ant12\_2462\_52Tone\_RU40



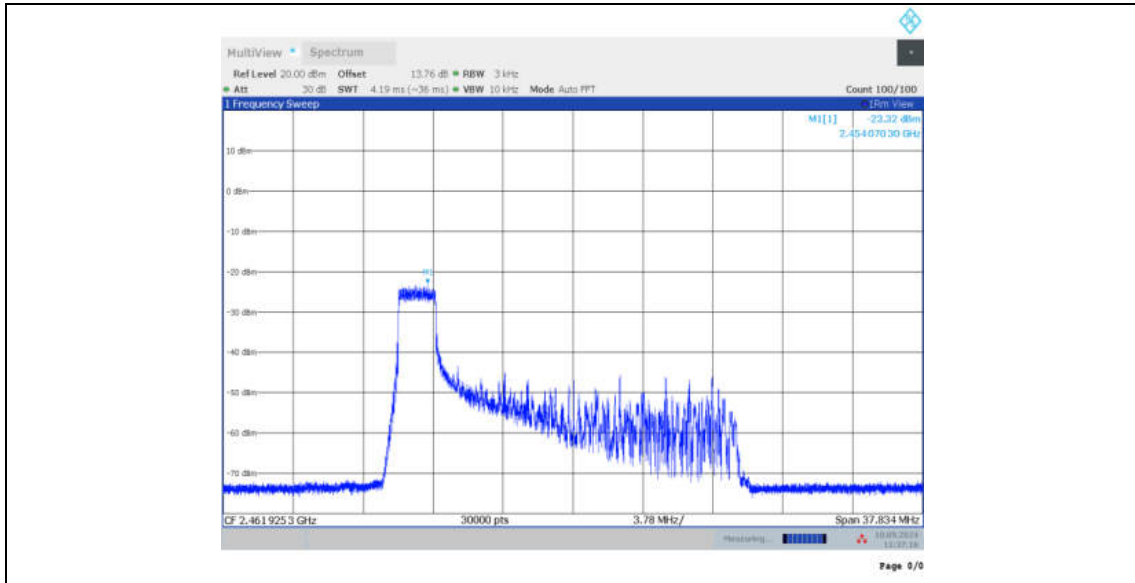
11BE20MIMO\_Ant12\_2462\_106Tone\_RU53



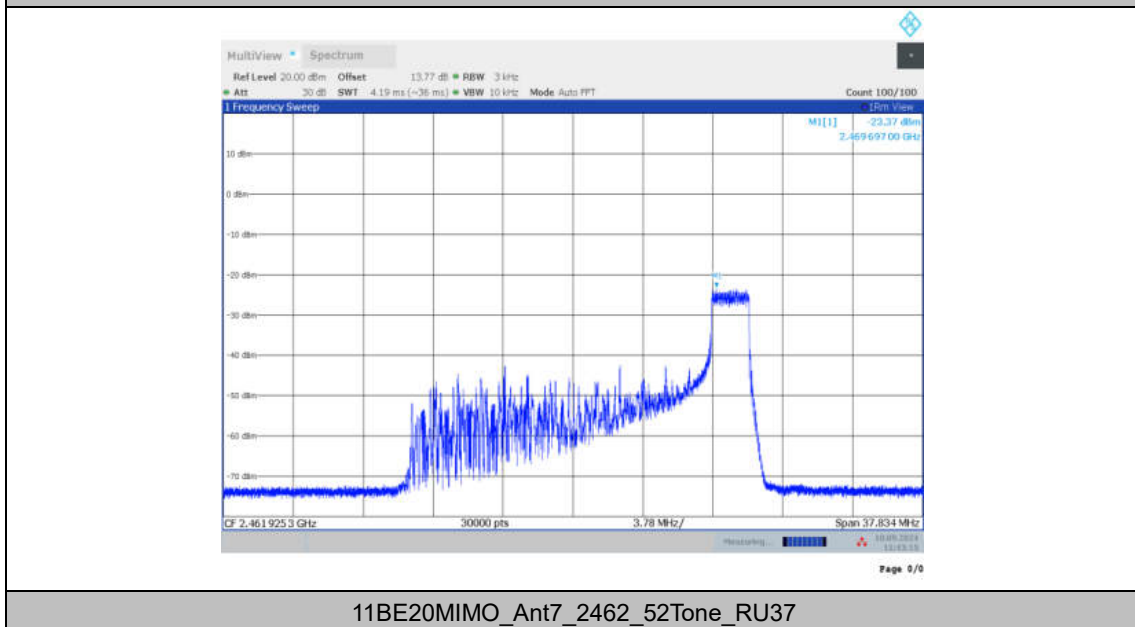
11BE20MIMO\_Ant12\_2462\_106Tone\_RU54



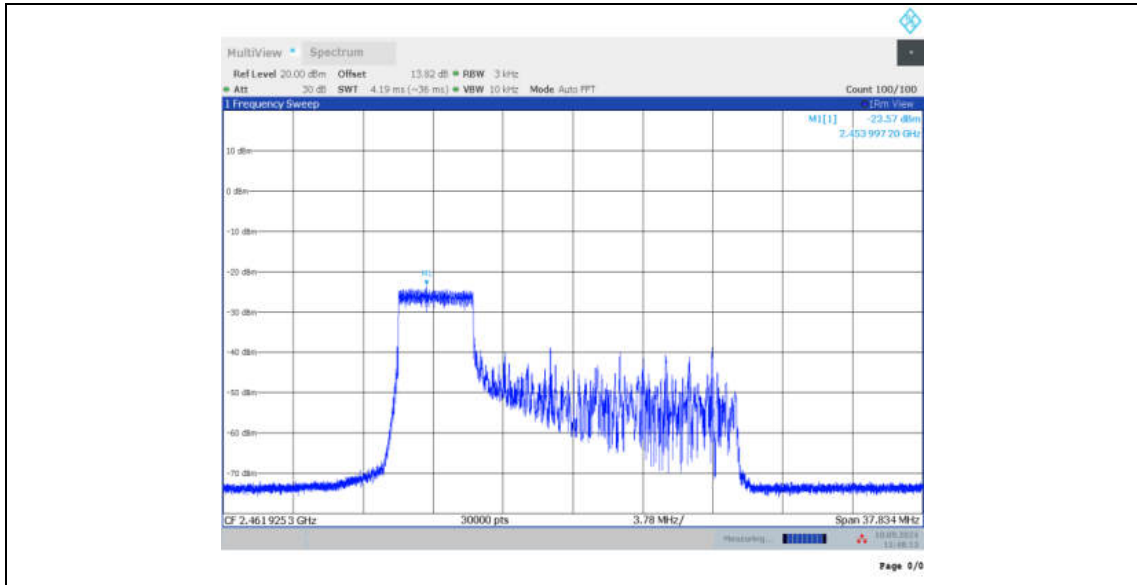
11BE20MIMO\_Ant7\_2462\_26Tone\_RU0



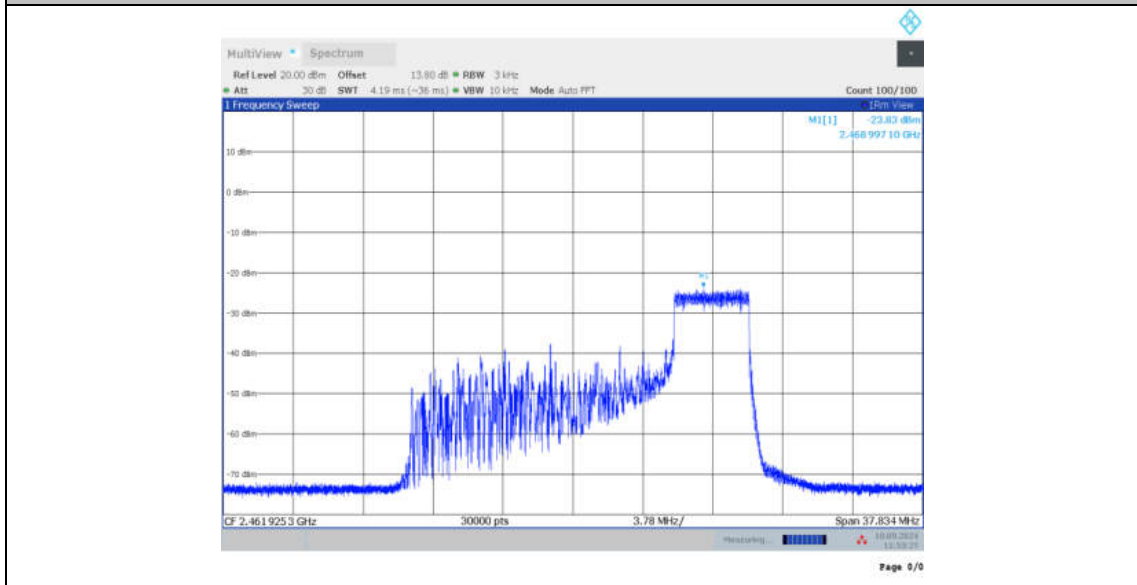
11BE20MIMO\_Ant7\_2462\_26Tone\_RU8



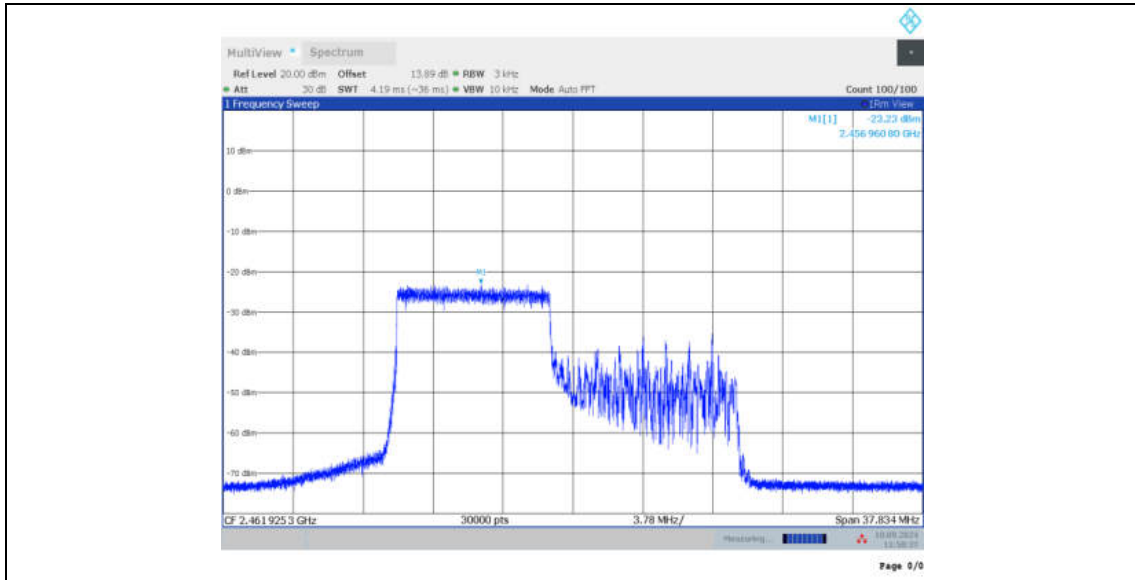
11BE20MIMO\_Ant7\_2462\_52Tone\_RU37



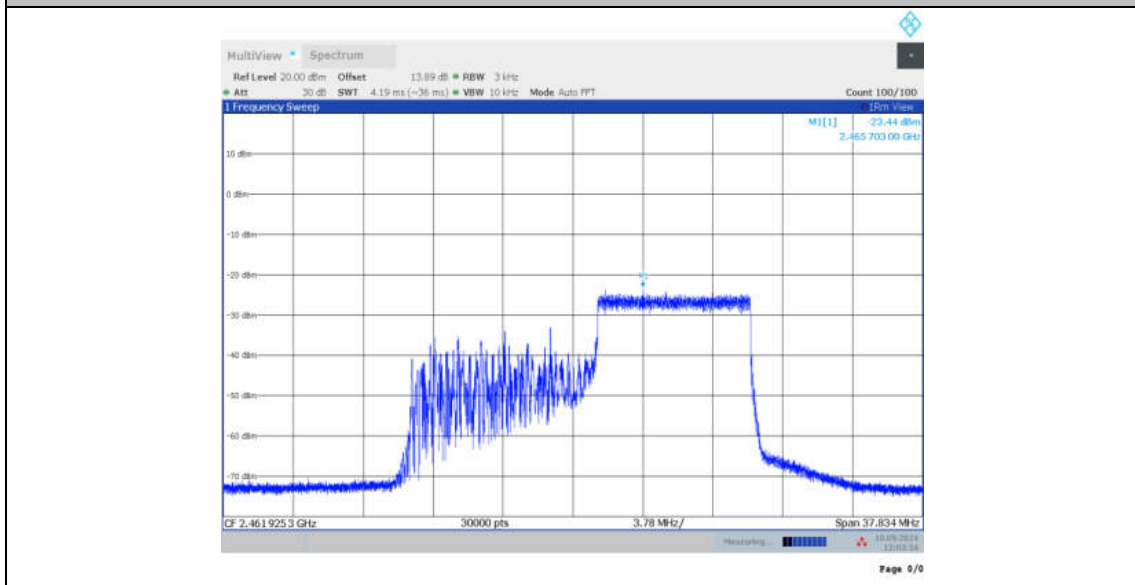
11BE20MIMO\_Ant7\_2462\_52Tone\_RU40



11BE20MIMO\_Ant7\_2462\_106Tone\_RU53



11BE20MIMO\_Ant7\_2462\_106Tone\_RU54

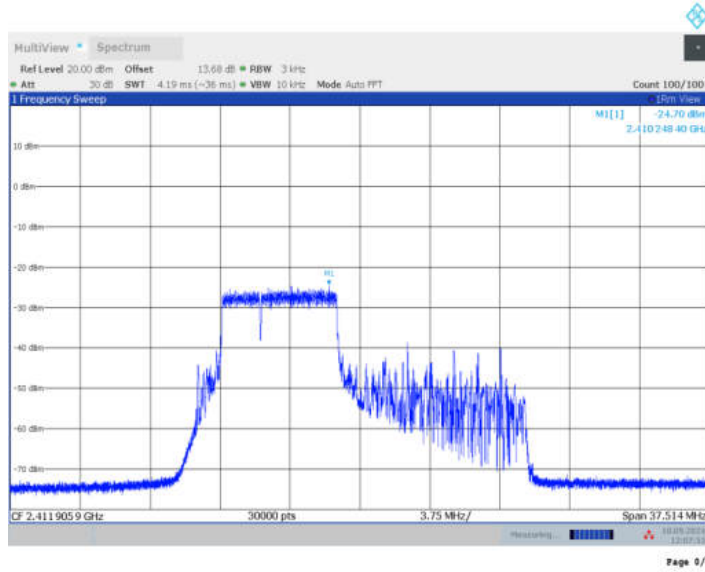


**MRU MIMO**

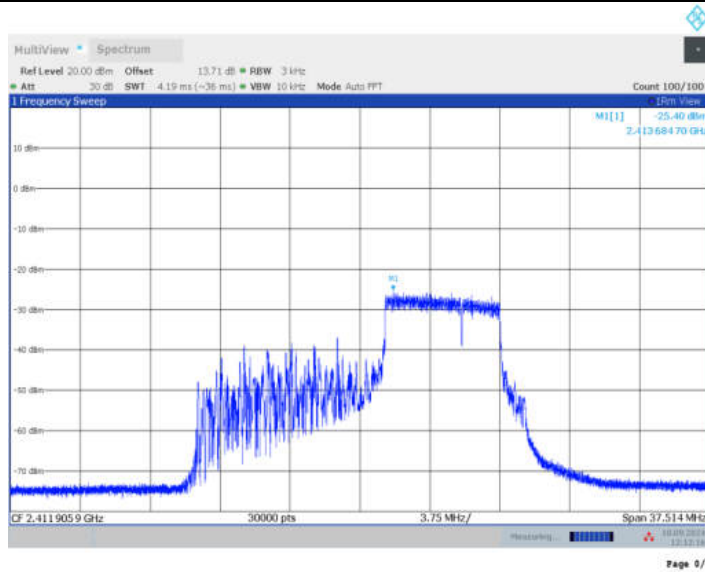
TestMode	Antenna	Channel	Mru Type	Mru Index	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11BE20MIMO	Ant12	2412	52+26_OFDMA	1	-24.70	≤8.00	PASS
				2	-25.40	≤8.00	PASS
			106+26_OFDMA	1	-20.92	≤8.00	PASS
				4	-21.26	≤8.00	PASS
	Ant7	2412	52+26_OFDMA	1	-23.61	≤8.00	PASS
				2	-24.01	≤8.00	PASS
			106+26_OFDMA	1	-21.81	≤8.00	PASS
				4	-22.07	≤8.00	PASS
	total	2412	52+26_OFDMA	1	-21.11	≤8.00	PASS
				2	-21.64	≤8.00	PASS
			106+26_OFDMA	1	-18.33	≤8.00	PASS
				4	-18.64	≤8.00	PASS
	Ant12	2437	52+26_OFDMA	1	-24.25	≤8.00	PASS
				2	-25.31	≤8.00	PASS
			106+26_OFDMA	1	-22.19	≤8.00	PASS
				4	-21.70	≤8.00	PASS
	Ant7	2437	52+26_OFDMA	1	-23.57	≤8.00	PASS
				2	-24.60	≤8.00	PASS
			106+26_OFDMA	1	-21.63	≤8.00	PASS
				4	-21.71	≤8.00	PASS
	total	2437	52+26_OFDMA	1	-20.89	≤8.00	PASS
				2	-21.93	≤8.00	PASS
			106+26_OFDMA	1	-18.89	≤8.00	PASS
				4	-18.69	≤8.00	PASS
	Ant12	2462	52+26_OFDMA	1	-25.63	≤8.00	PASS
				2	-26.15	≤8.00	PASS
			106+26_OFDMA	1	-22.94	≤8.00	PASS
				4	-21.49	≤8.00	PASS
	Ant7	2462	52+26_OFDMA	1	-24.89	≤8.00	PASS
				2	-25.01	≤8.00	PASS
			106+26_OFDMA	1	-22.94	≤8.00	PASS
				4	-22.77	≤8.00	PASS
	total	2462	52+26_OFDMA	1	-22.23	≤8.00	PASS
				2	-22.53	≤8.00	PASS
			106+26_OFDMA	1	-19.93	≤8.00	PASS
				4	-19.07	≤8.00	PASS

Test graphs as below:

11BE20MIMO\_Ant12\_2412\_52+26\_OFDMA\_1

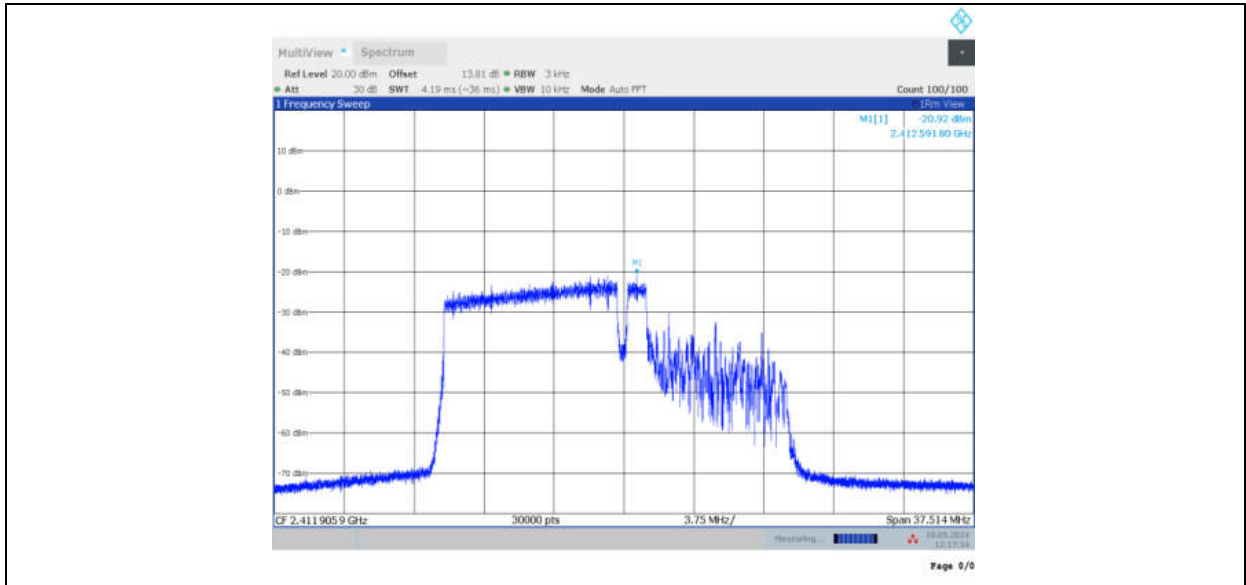


11BE20MIMO\_Ant12\_2412\_52+26\_OFDMA\_2

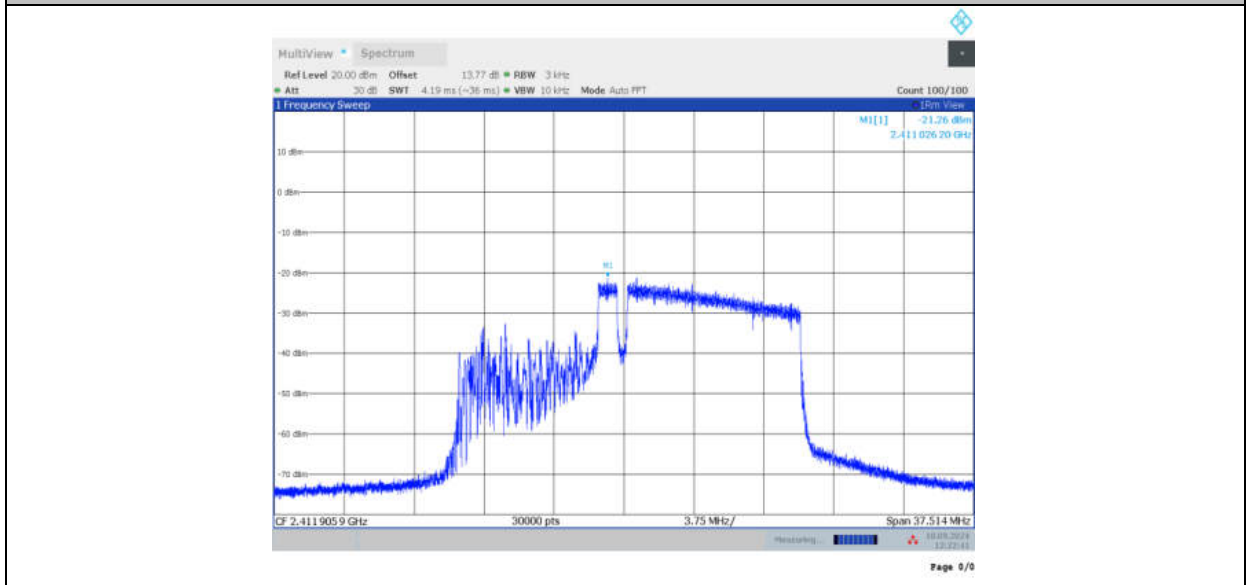


11BE20MIMO\_Ant12\_2412\_106+26\_OFDMA\_1

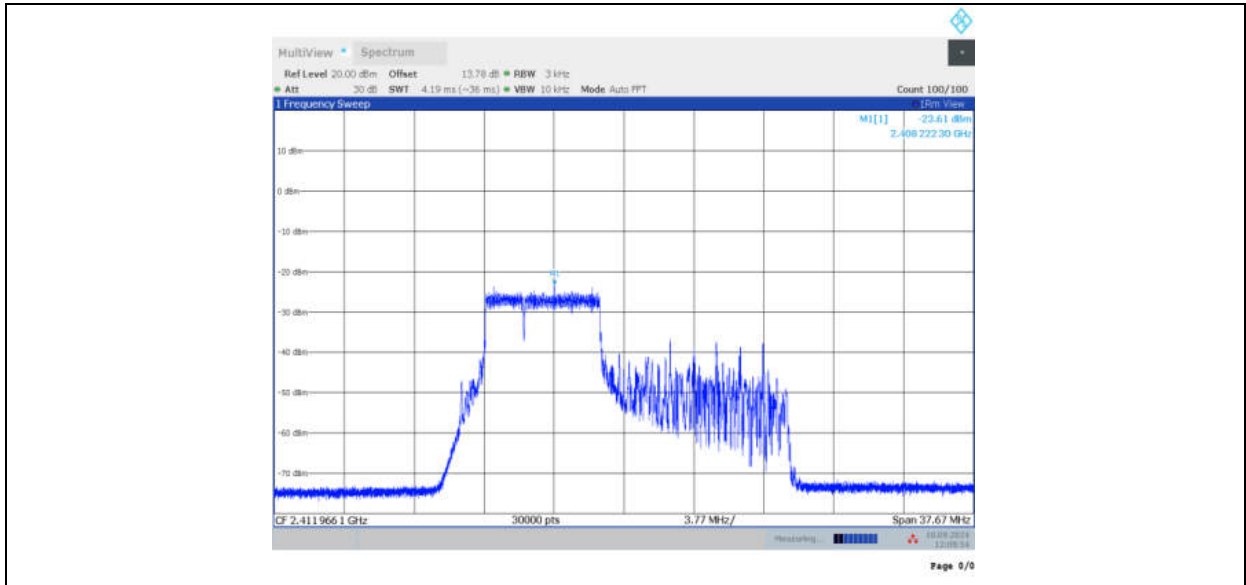




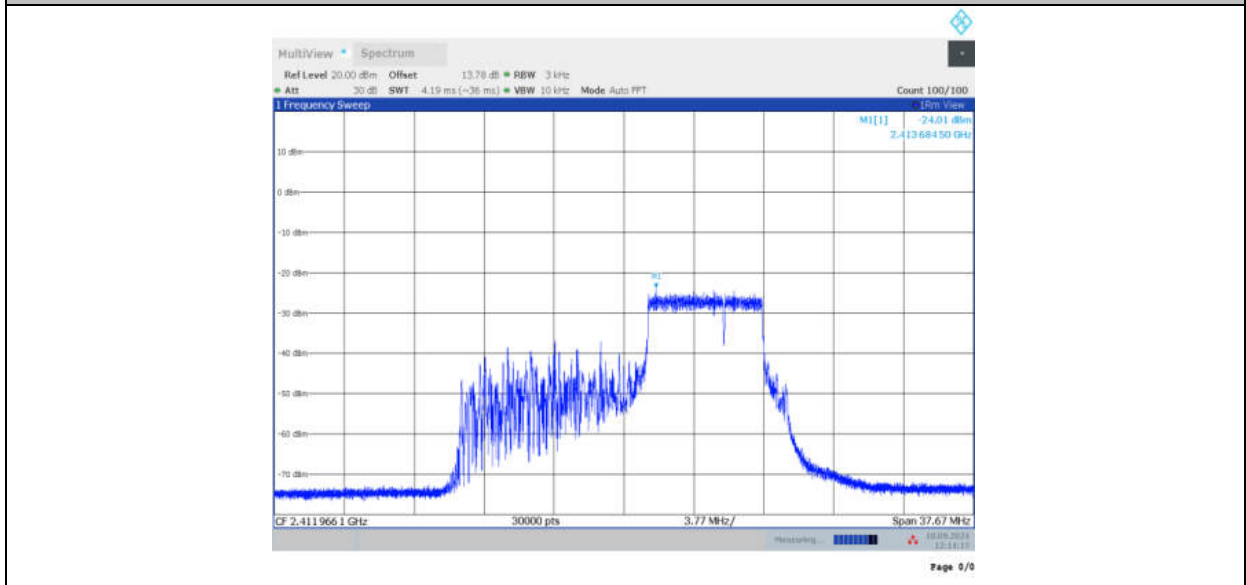
11BE20MIMO\_Ant12\_2412\_106+26\_OFDMA\_4



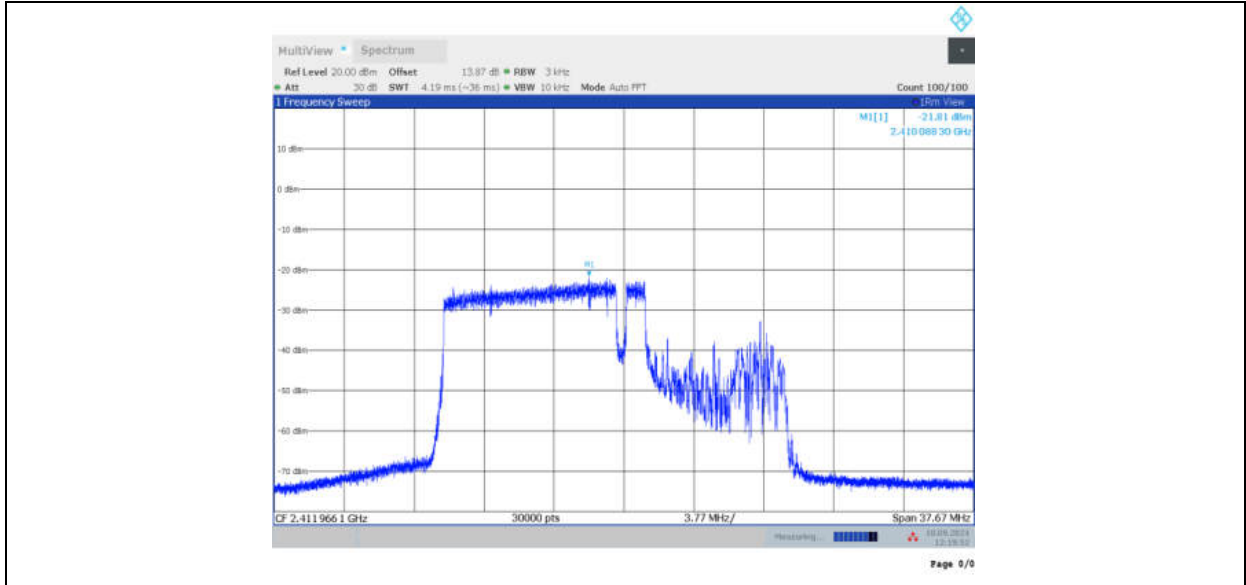
11BE20MIMO\_Ant7\_2412\_52+26\_OFDMA\_1



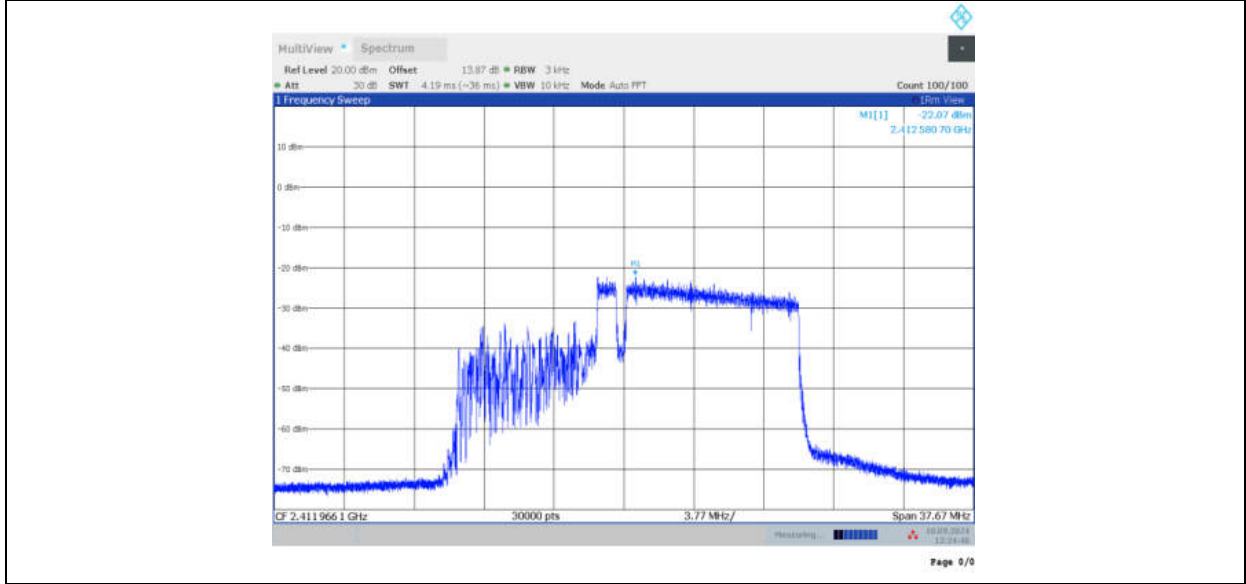
11BE20MIMO\_Ant7\_2412\_52+26\_OFDMA\_2



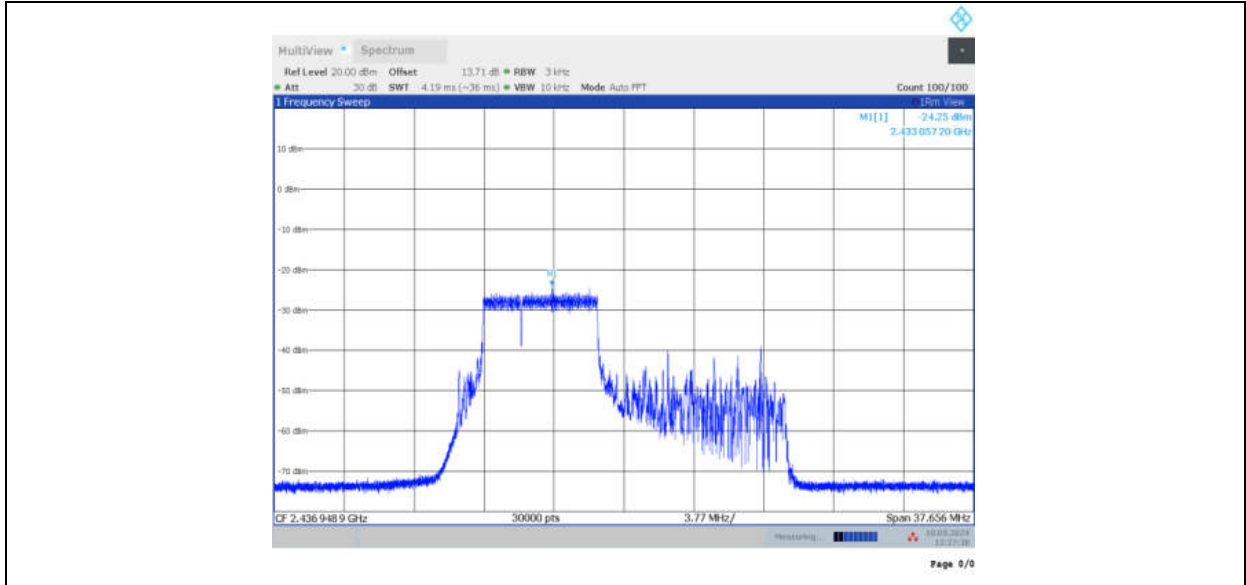
11BE20MIMO\_Ant7\_2412\_106+26\_OFDMA\_1



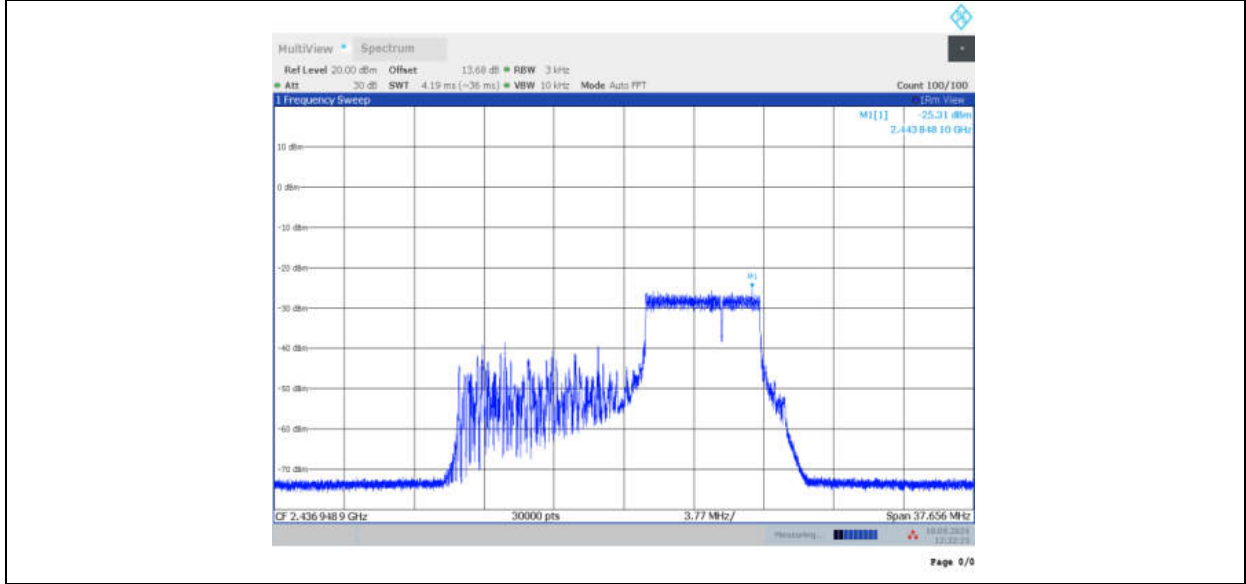
11BE20MIMO\_Ant7\_2412\_106+26\_OFDMA\_4



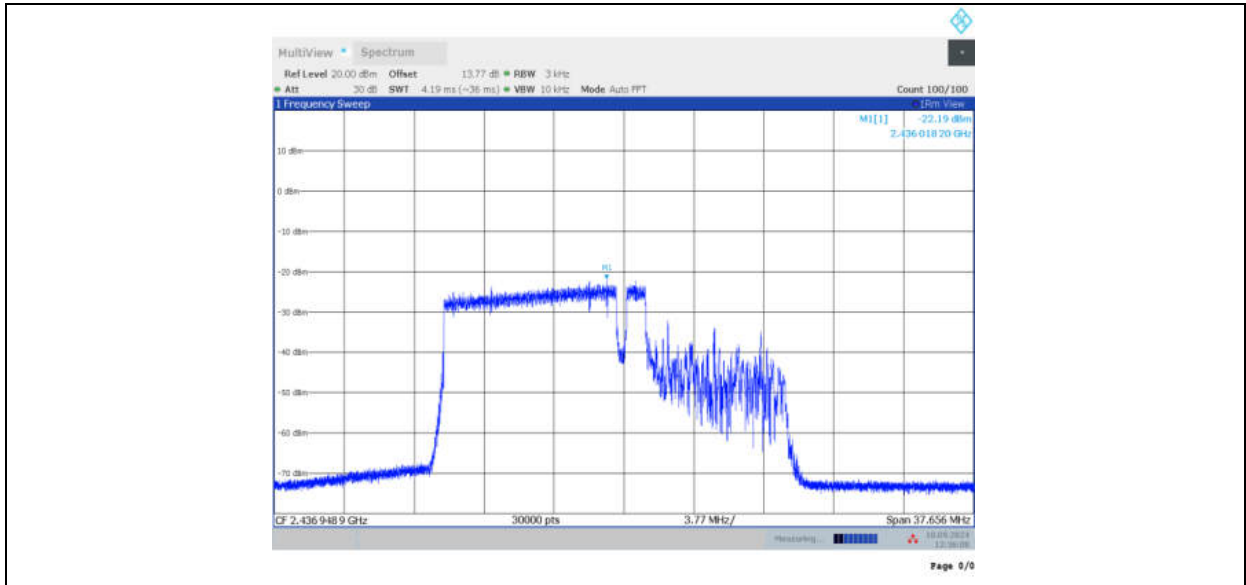
11BE20MIMO\_Ant12\_2437\_52+26\_OFDMA\_1



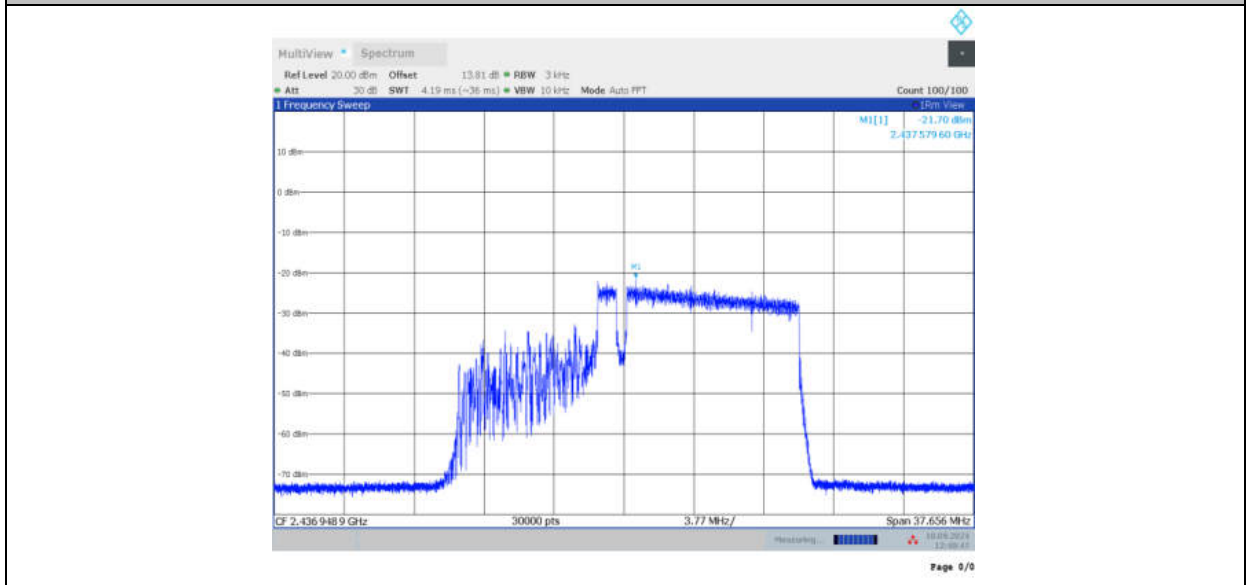
11BE20MIMO\_Ant12\_2437\_52+26\_OFDMA\_2



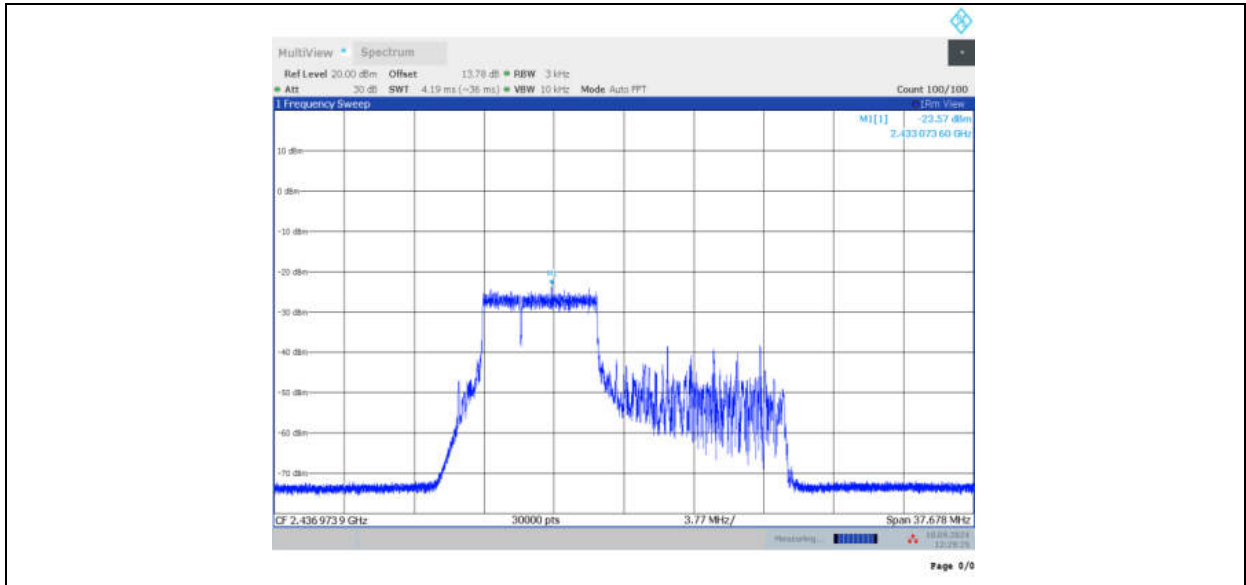
11BE20MIMO\_Ant12\_2437\_106+26\_OFDMA\_1



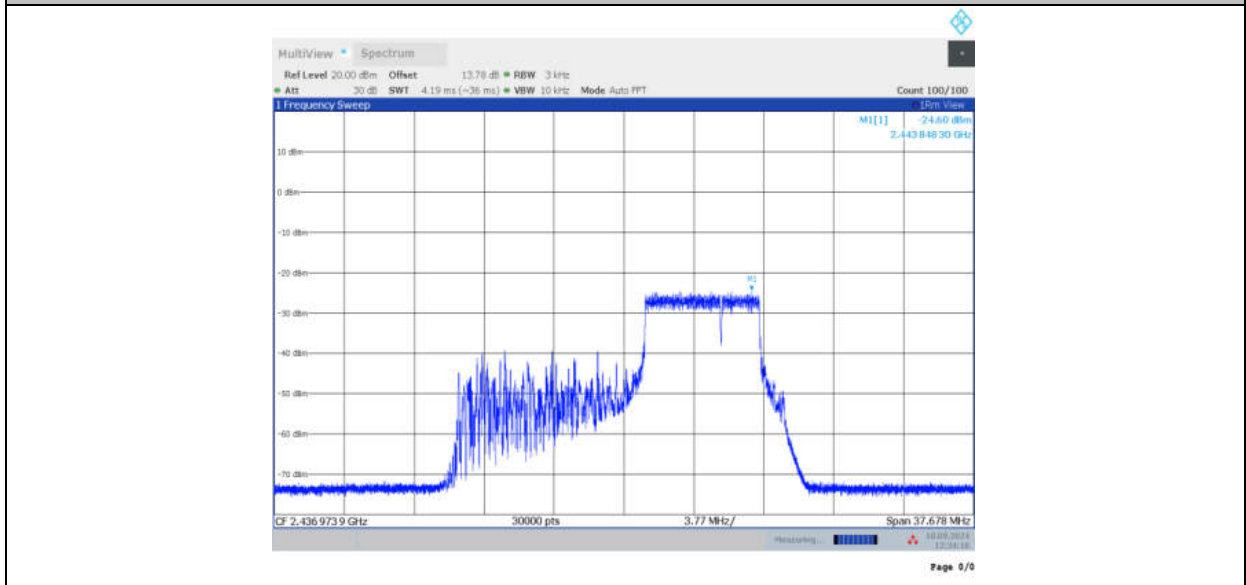
11BE20MIMO\_Ant12\_2437\_106+26\_OFDMA\_4



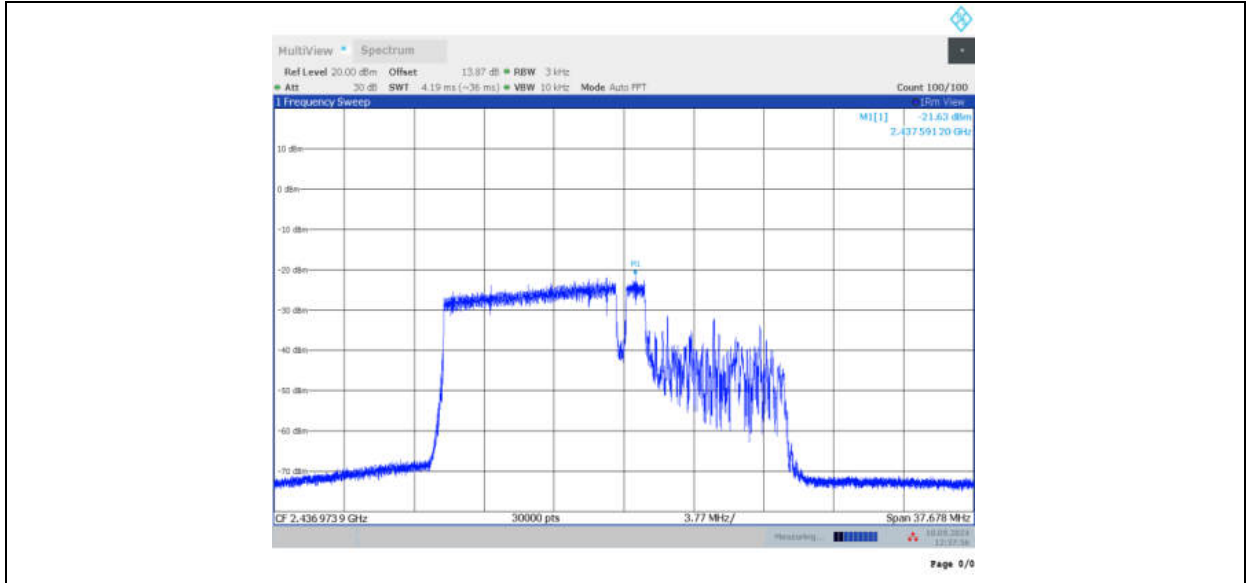
11BE20MIMO\_Ant7\_2437\_52+26\_OFDMA\_1



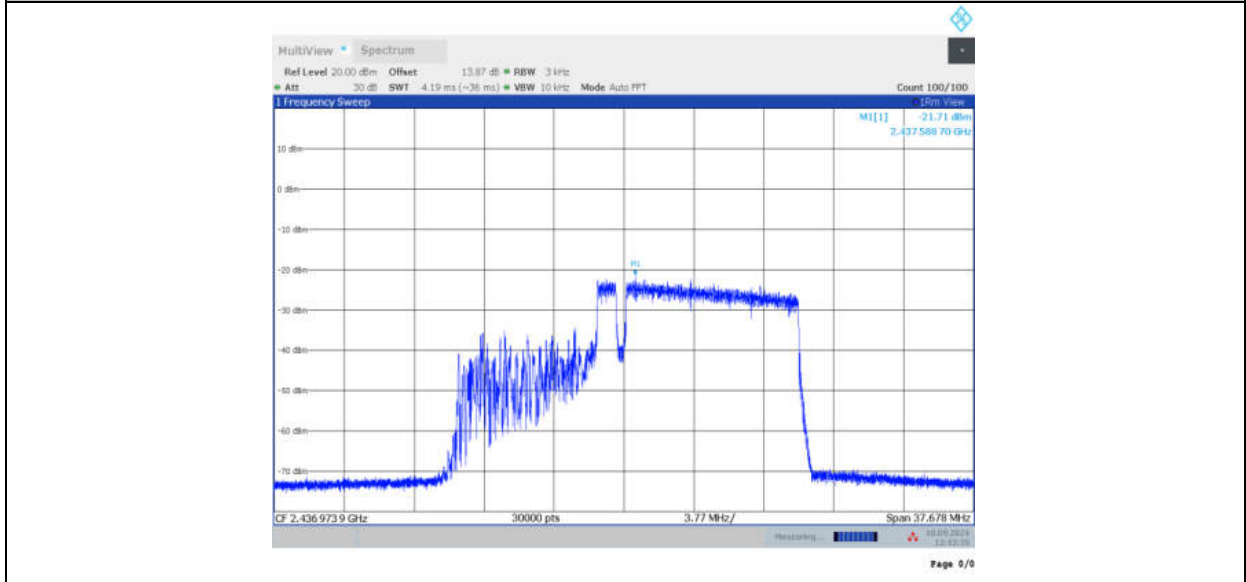
11BE20MIMO\_Ant7\_2437\_52+26\_OFDMA\_2



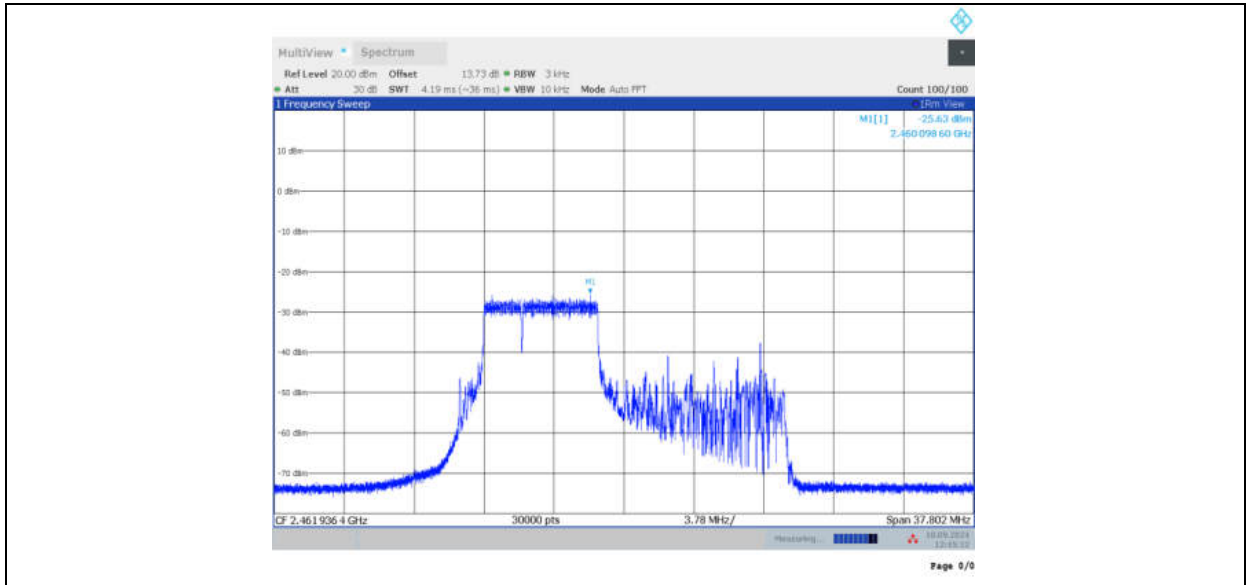
11BE20MIMO\_Ant7\_2437\_106+26\_OFDMA\_1



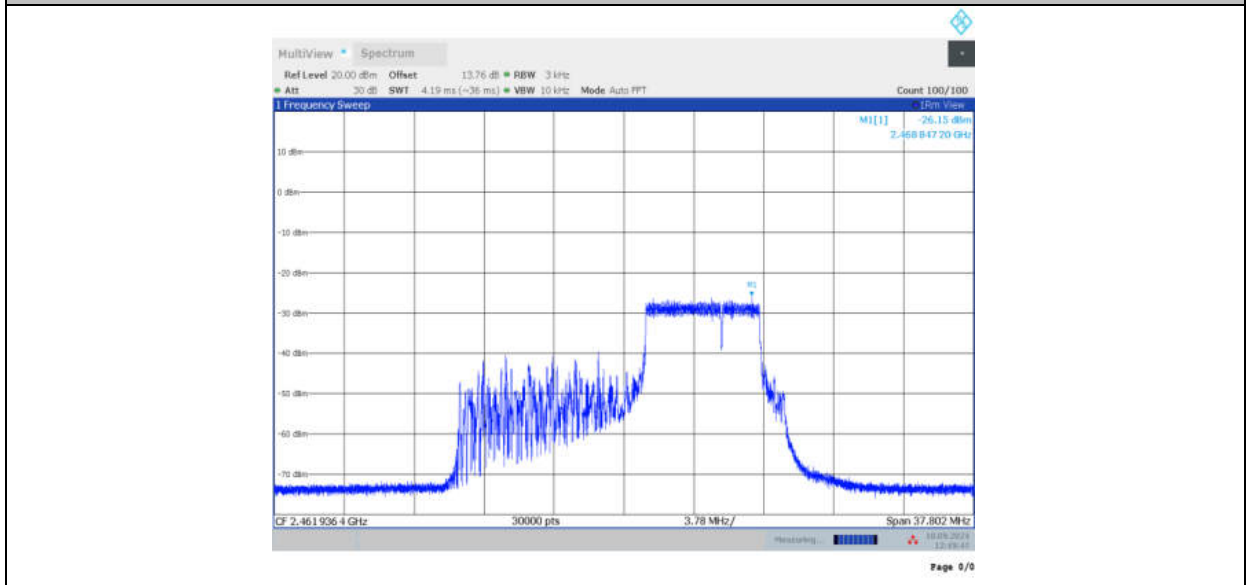
11BE20MIMO\_Ant7\_2437\_106+26\_OFDMA\_4



11BE20MIMO\_Ant12\_2462\_52+26\_OFDMA\_1

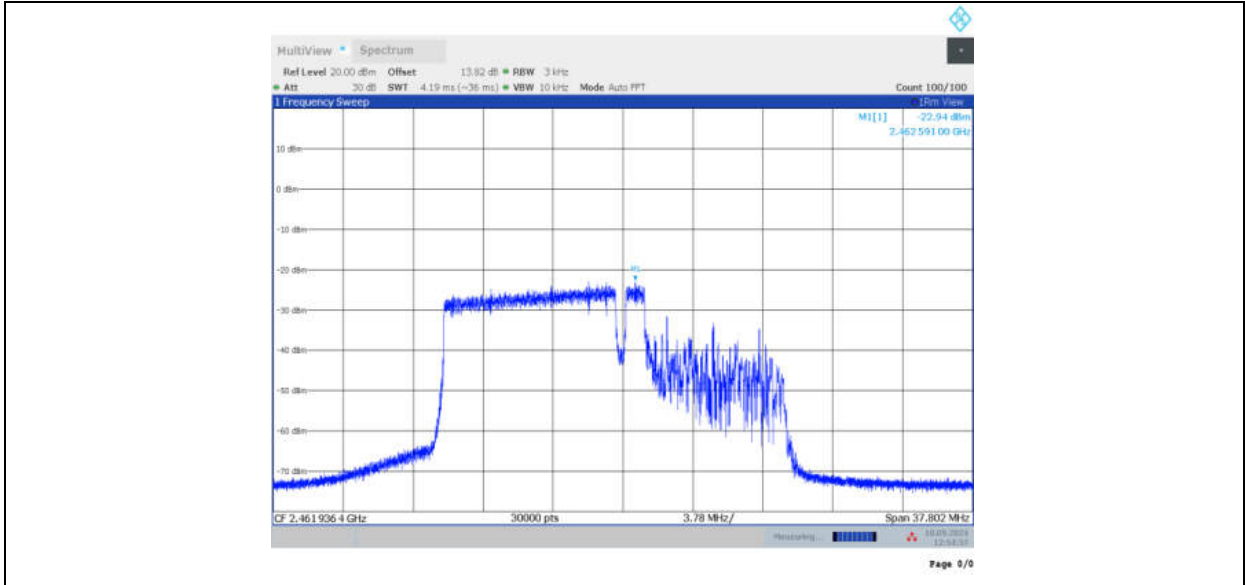


11BE20MIMO\_Ant12\_2462\_52+26\_OFDMA\_2

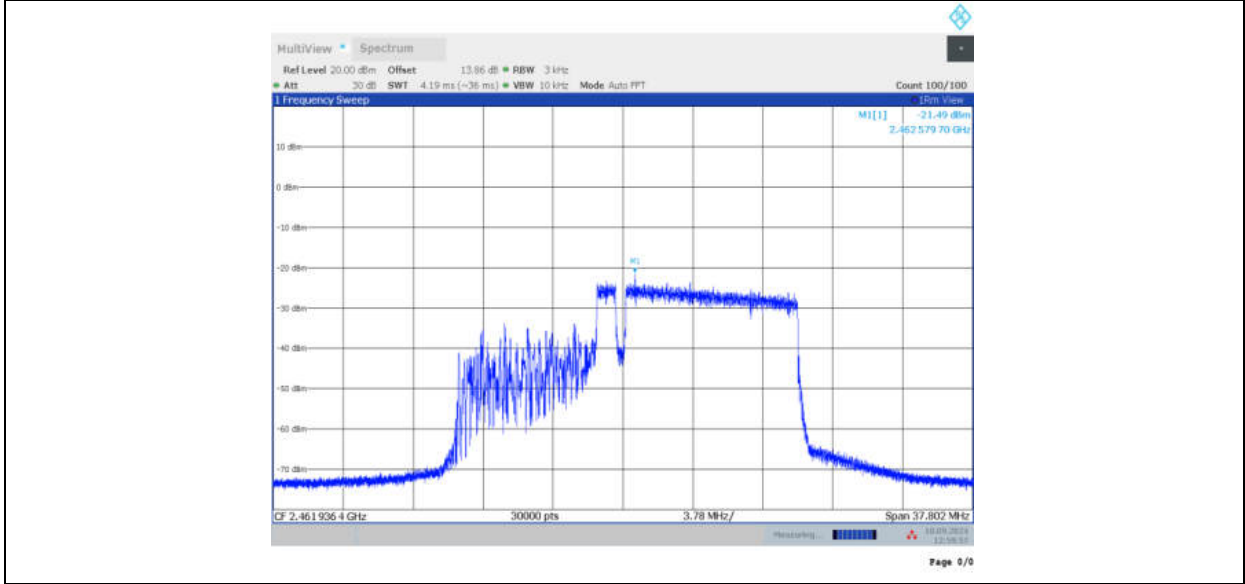


11BE20MIMO\_Ant12\_2462\_106+26\_OFDMA\_1

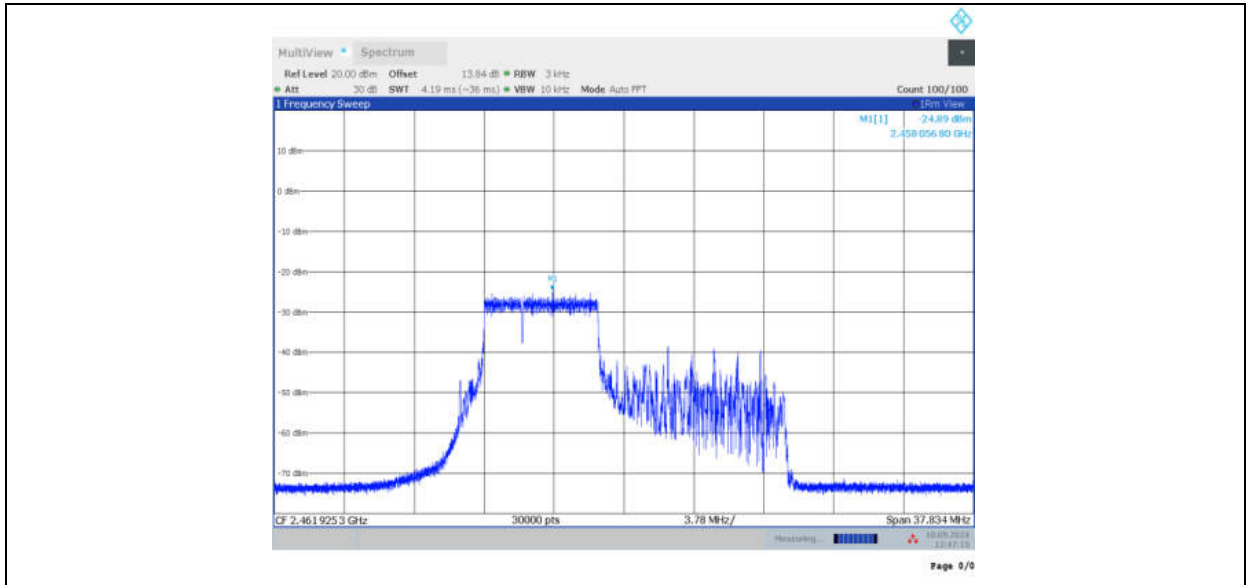




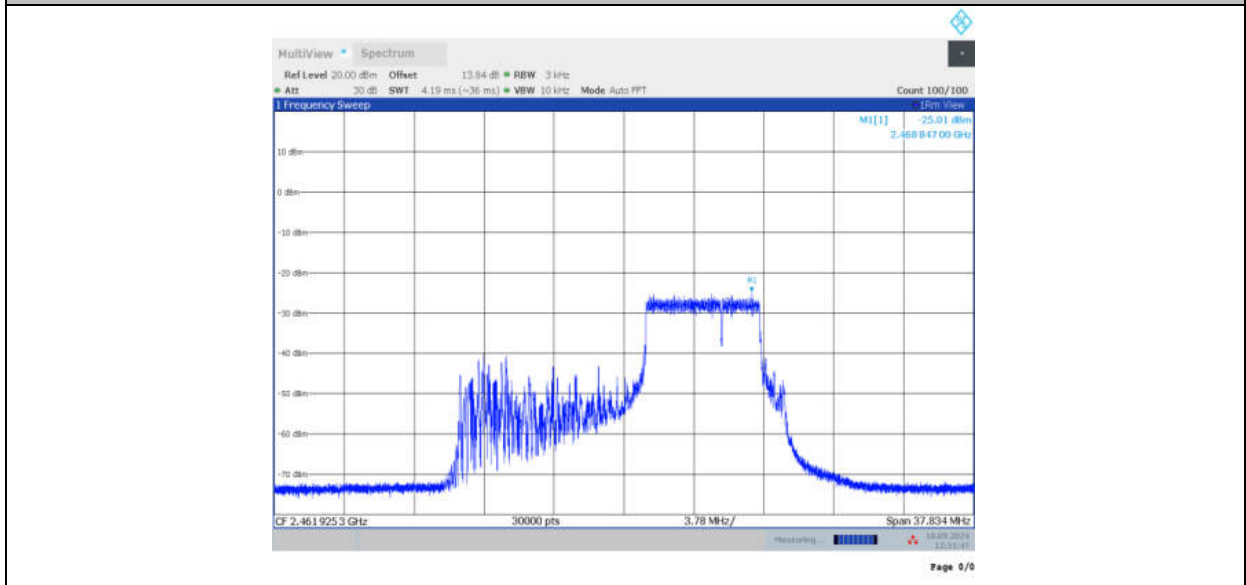
11BE20MIMO\_Ant12\_2462\_106+26\_OFDMA\_4



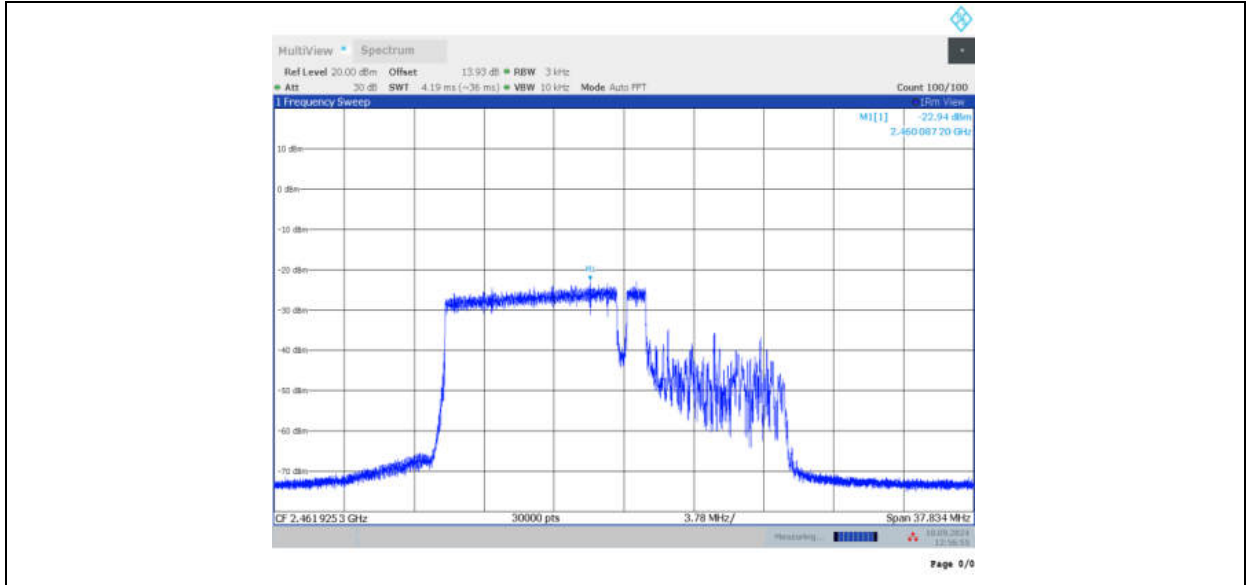
11BE20MIMO\_Ant7\_2462\_52+26\_OFDMA\_1



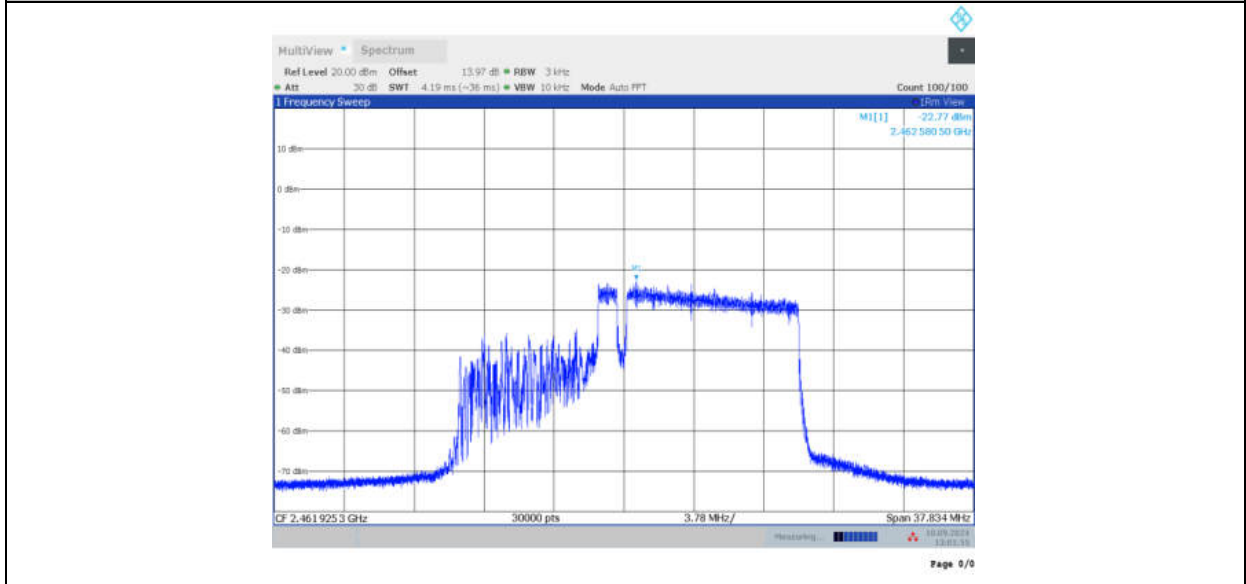
11BE20MIMO\_Ant7\_2462\_52+26\_OFDMA\_2



11BE20MIMO\_Ant7\_2462\_106+26\_OFDMA\_1



11BE20MIMO\_Ant7\_2462\_106+26\_OFDMA\_4



**Conclusion: Pass**

#### **A.4. DTS 6-dB Signal Bandwidth**

**Method of Measurement: See ANSI C63.10-2013 section 11.8.1.**

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) = 300 kHz.
- 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.

**Measurement Limit:**

Standard	Limit (kHz)
FCC 47 CFR Part 15.247 (a)	≥ 500

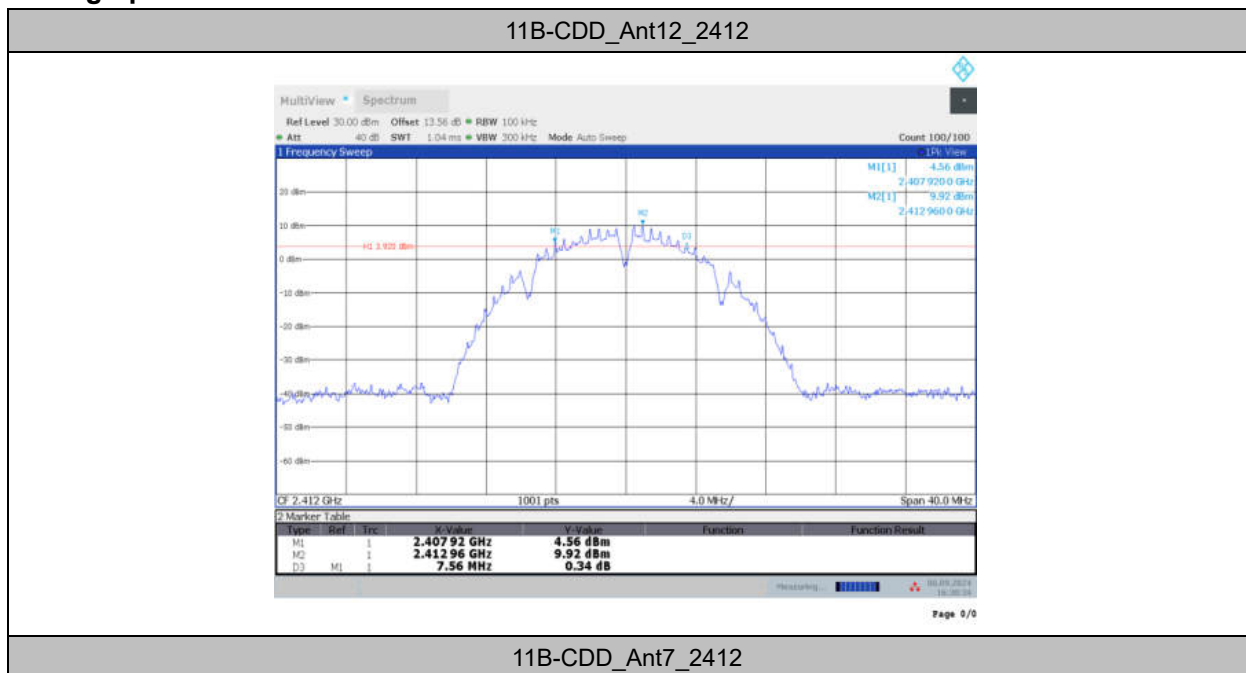
**EUT ID: UT02a**

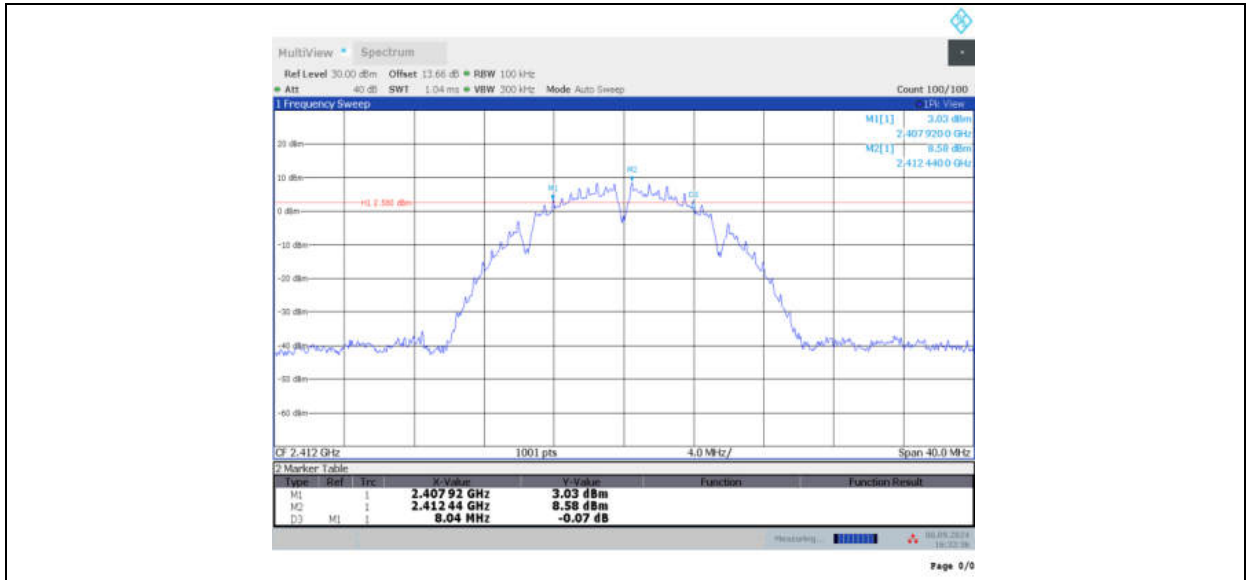
**Measurement Result:**

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B-CDD	Ant12	2412	7.56	2407.92	2415.48	0.5	PASS
	Ant7	2412	8.04	2407.92	2415.96	0.5	PASS
	Ant12	2437	7.56	2433.40	2440.96	0.5	PASS
	Ant7	2437	8.08	2432.92	2441.00	0.5	PASS
	Ant12	2462	8.08	2457.92	2466.00	0.5	PASS
	Ant7	2462	8.04	2457.92	2465.96	0.5	PASS
11G-CDD	Ant12	2412	14.24	2404.04	2418.28	0.5	PASS
	Ant7	2412	16.32	2403.80	2420.12	0.5	PASS
	Ant12	2437	16.32	2428.80	2445.12	0.5	PASS
	Ant7	2437	16.28	2428.80	2445.08	0.5	PASS
	Ant12	2462	15.28	2454.44	2469.72	0.5	PASS
	Ant7	2462	15.92	2453.80	2469.72	0.5	PASS
11N20MIMO	Ant12	2412	15.00	2404.48	2419.48	0.5	PASS
	Ant7	2412	16.56	2403.56	2420.12	0.5	PASS
	Ant12	2437	16.80	2428.56	2445.36	0.5	PASS
	Ant7	2437	16.32	2428.80	2445.12	0.5	PASS
	Ant12	2462	16.56	2453.56	2470.12	0.5	PASS
	Ant7	2462	16.32	2453.80	2470.12	0.5	PASS
11AC20MIMO	Ant12	2412	16.92	2403.16	2420.08	0.5	PASS
	Ant7	2412	17.16	2403.20	2420.36	0.5	PASS
	Ant12	2437	16.32	2428.80	2445.12	0.5	PASS

	Ant7	2437	16.80	2428.56	2445.36	0.5	PASS
	Ant12	2462	16.56	2453.56	2470.12	0.5	PASS
	Ant7	2462	16.32	2453.80	2470.12	0.5	PASS
11AX20MIMO	Ant12	2412	16.92	2402.60	2419.52	0.5	PASS
	Ant7	2412	17.44	2402.92	2420.36	0.5	PASS
	Ant12	2437	18.12	2427.68	2445.80	0.5	PASS
	Ant7	2437	18.12	2427.84	2445.96	0.5	PASS
	Ant12	2462	18.12	2452.68	2470.80	0.5	PASS
	Ant7	2462	17.36	2452.68	2470.04	0.5	PASS
11BE20MIMO	Ant1	2412	16.64	2402.88	2419.52	0.5	PASS
	Ant2	2412	16.76	2402.96	2419.72	0.5	PASS
	Ant1	2437	17.68	2427.76	2445.44	0.5	PASS
	Ant2	2437	17.92	2427.84	2445.76	0.5	PASS
	Ant1	2462	17.64	2453.52	2471.16	0.5	PASS
	Ant2	2462	17.52	2453.16	2470.68	0.5	PASS

Test graphs as below:

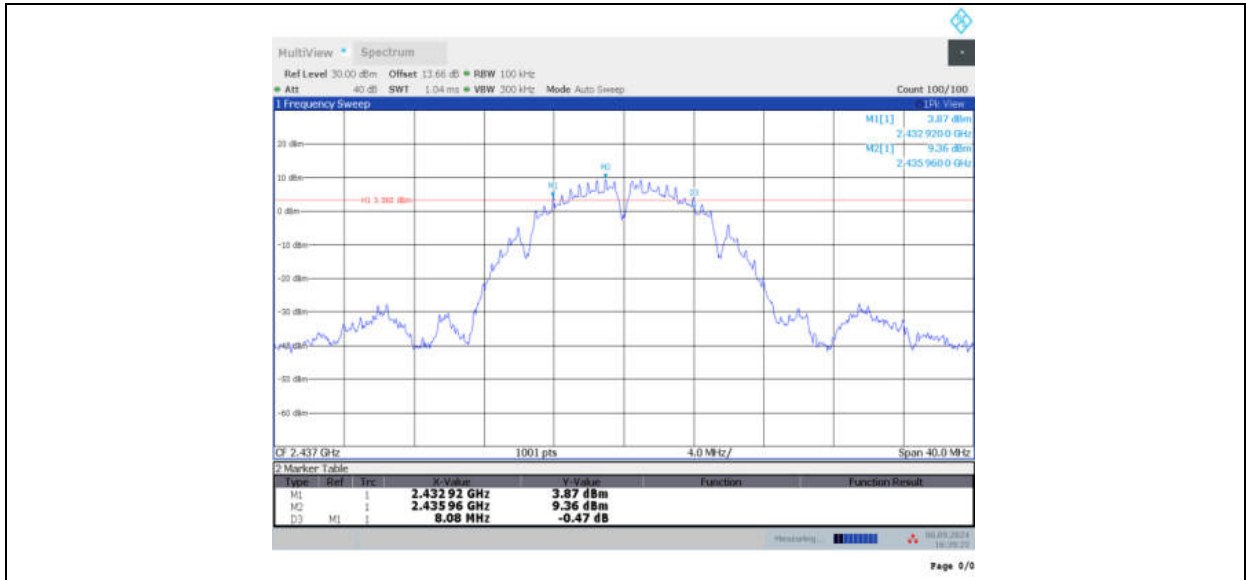




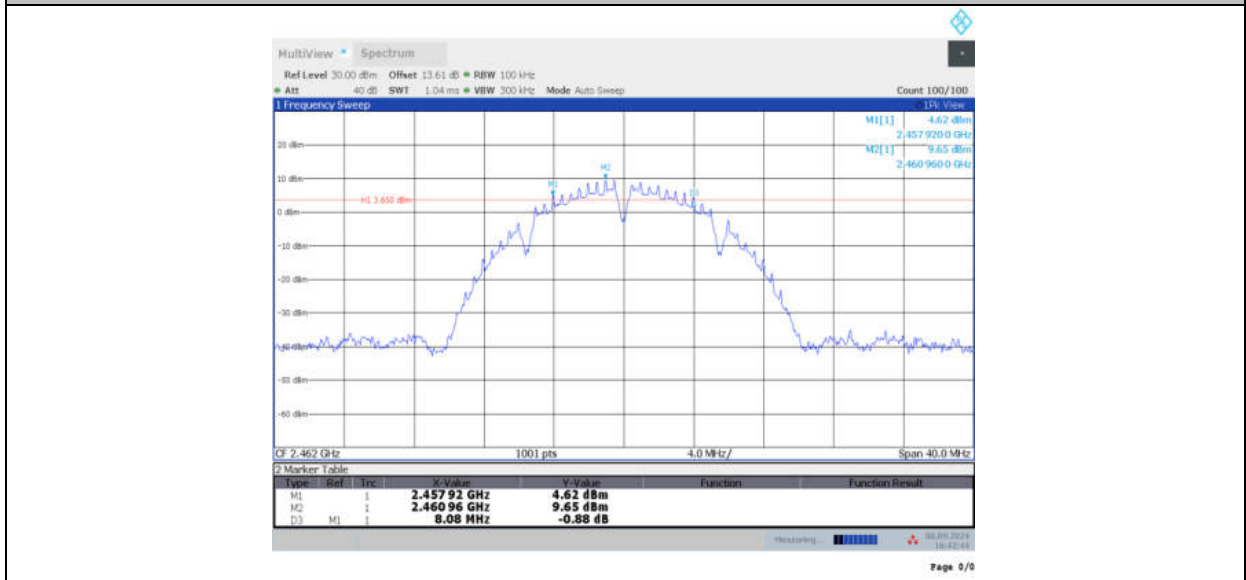
11B-CDD\_Ant12\_2437



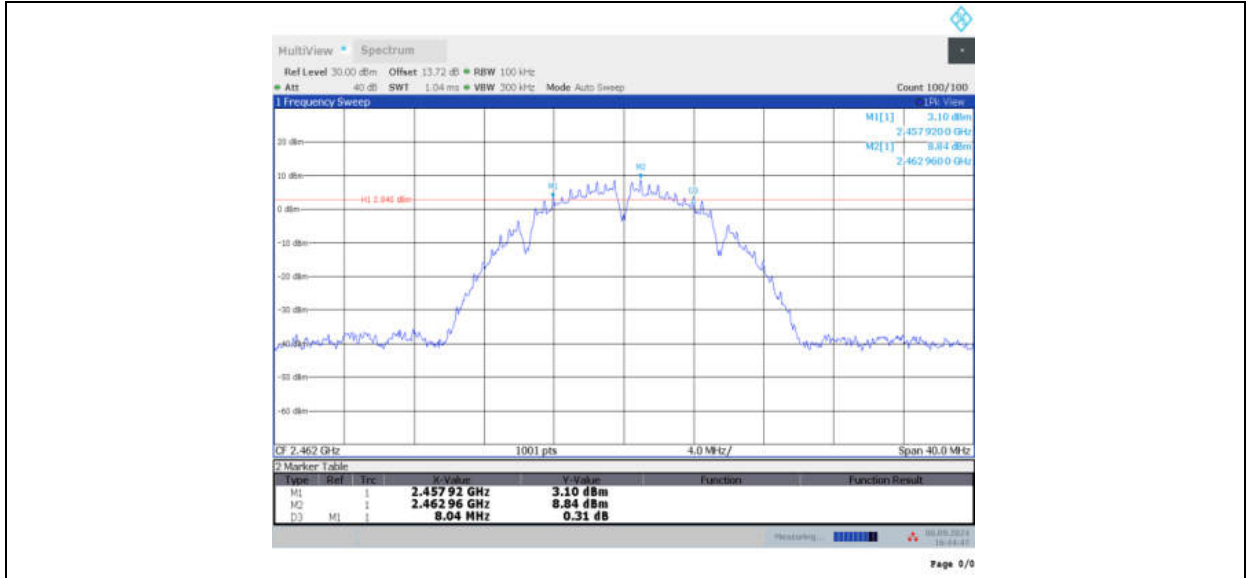
11B-CDD\_Ant7\_2437



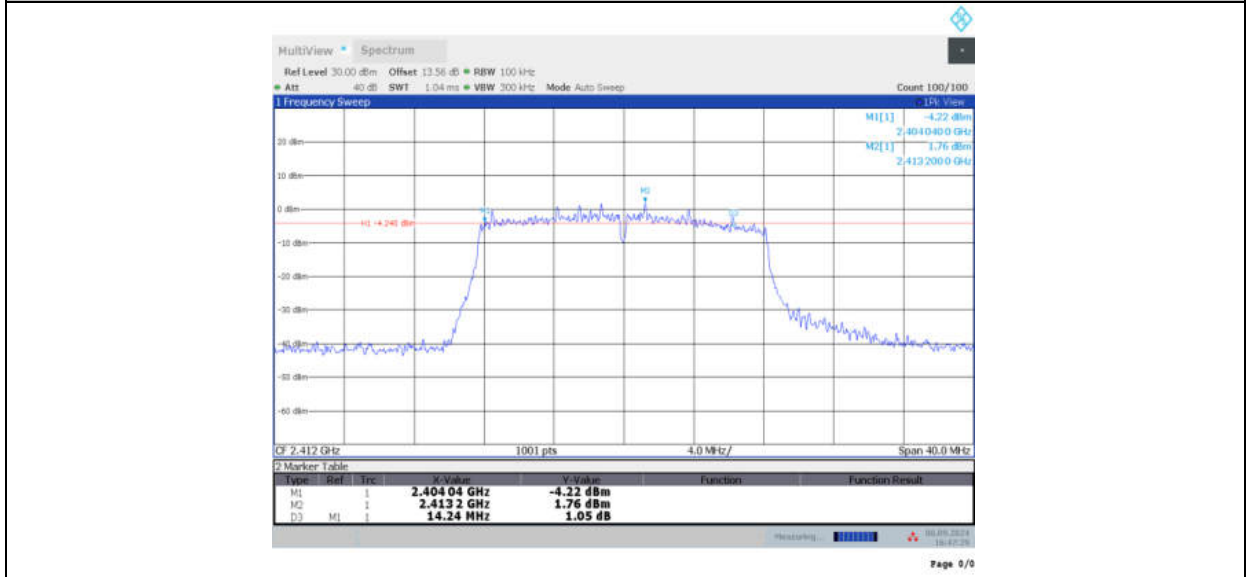
11B-CDD\_Ant12\_2462



11B-CDD\_Ant7\_2462

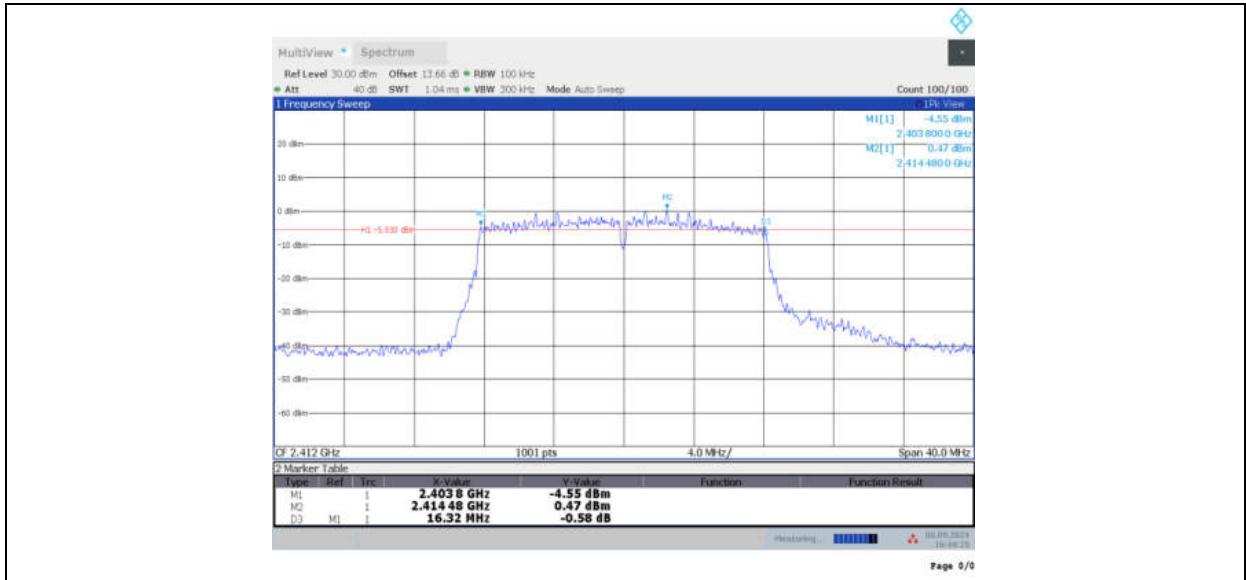


11G-CDD\_Ant12\_2412

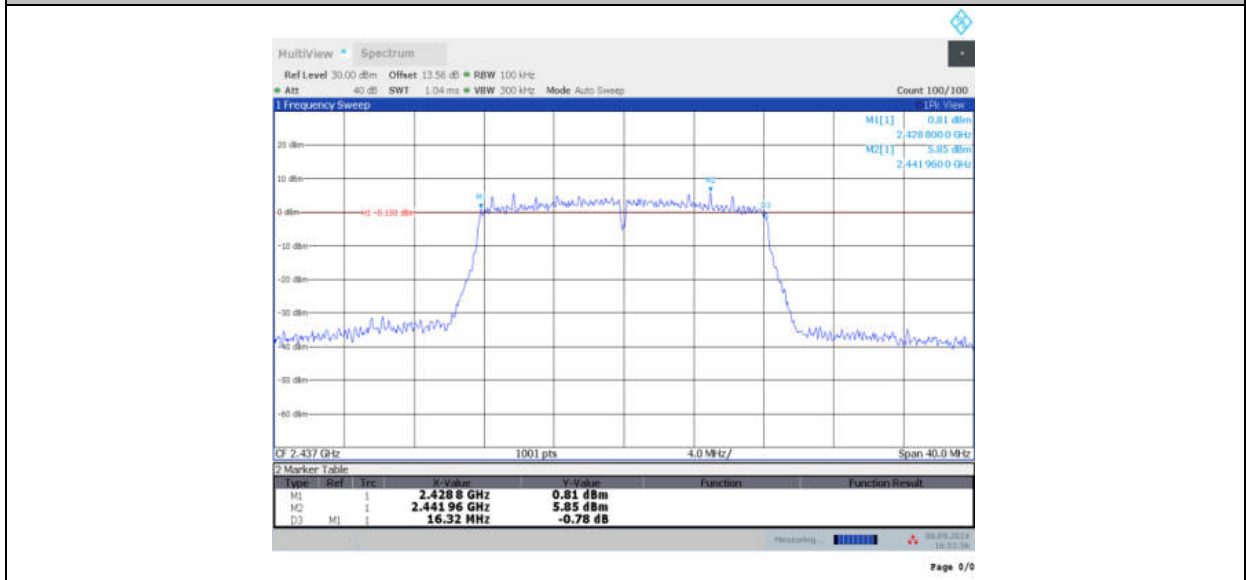


11G-CDD\_Ant7\_2412

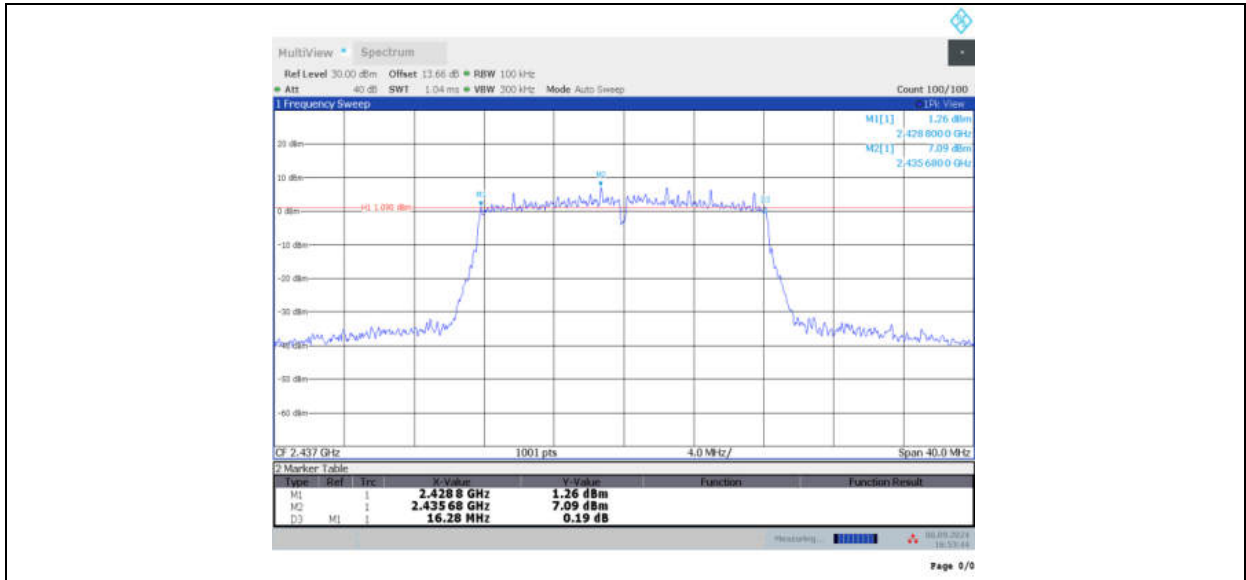




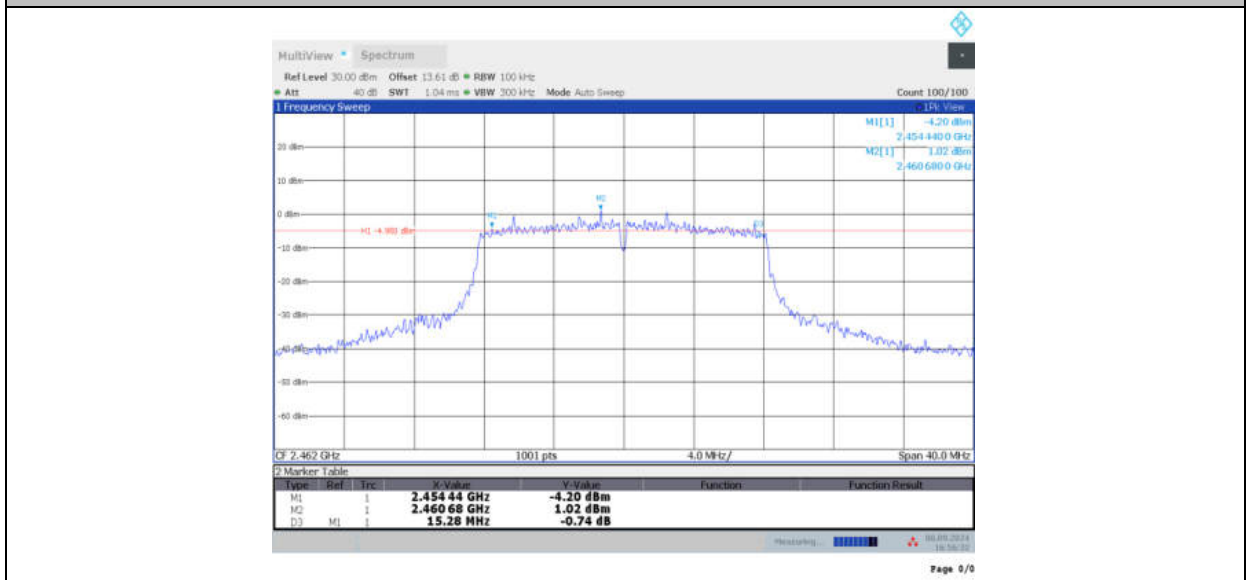
11G-CDD\_Ant12\_2437



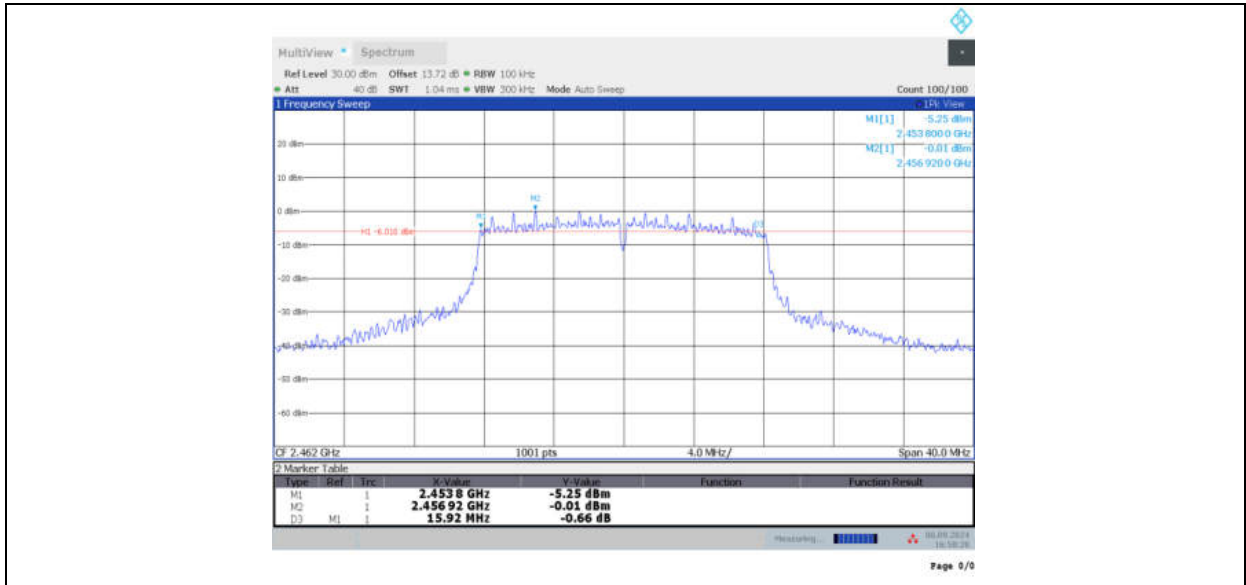
11G-CDD\_Ant7\_2437



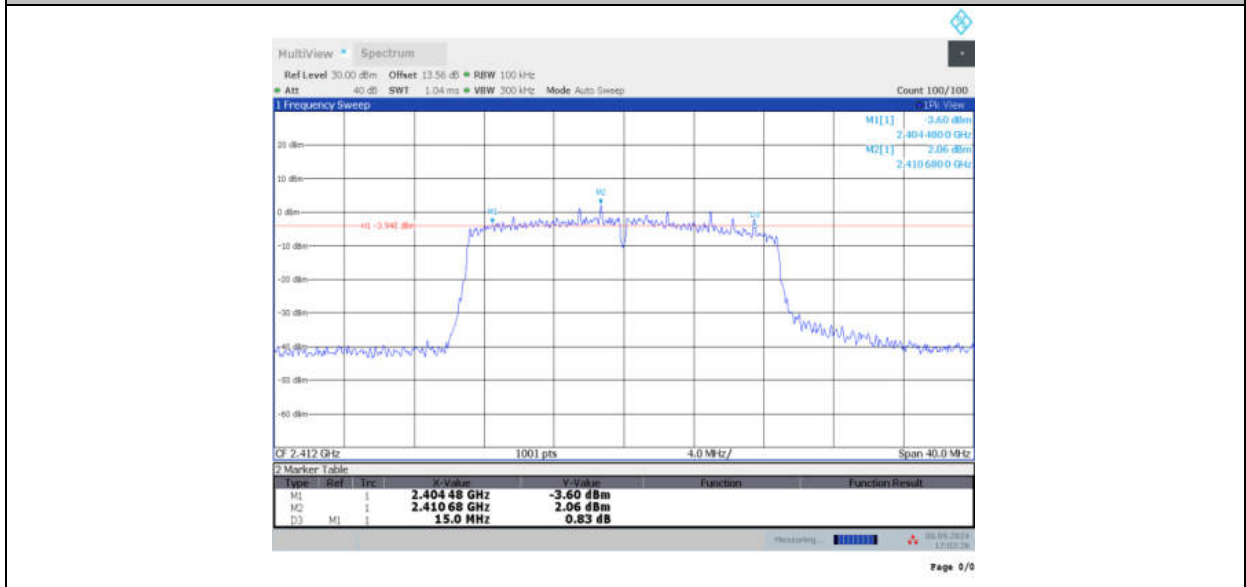
11G-CDD\_Ant12\_2462



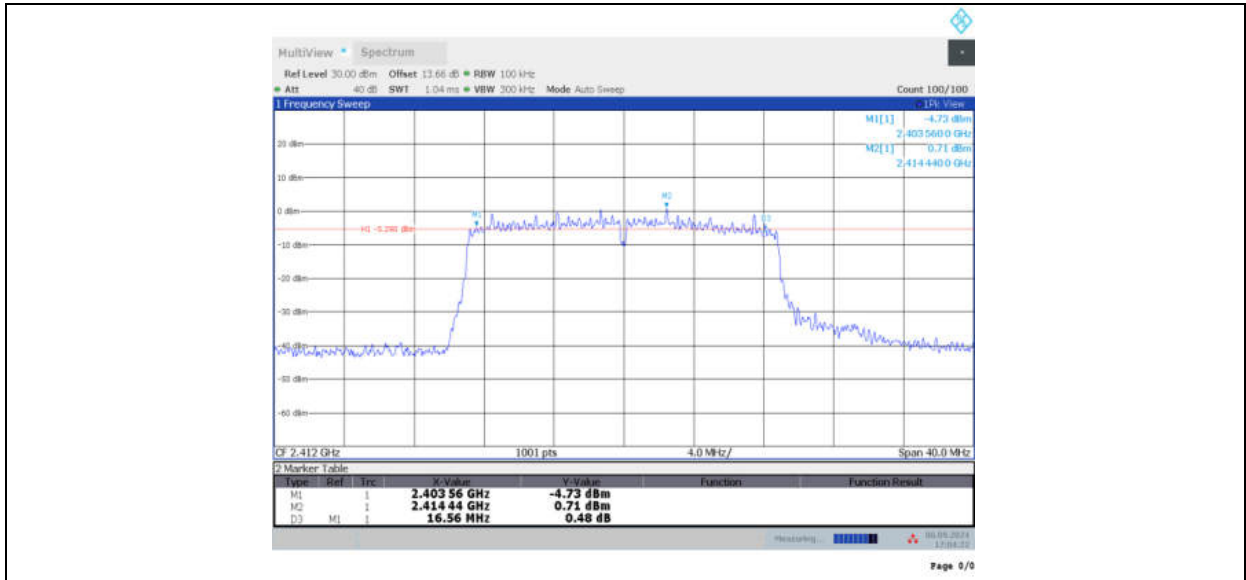
11G-CDD\_Ant7\_2462



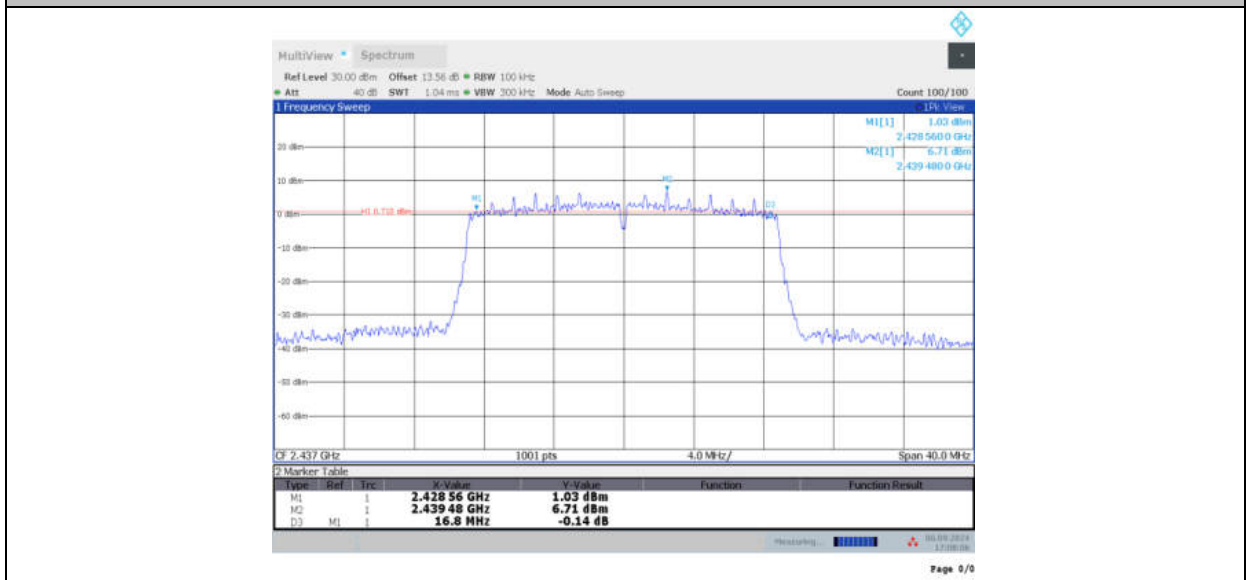
11N20MIMO\_Ant12\_2412



11N20MIMO\_Ant7\_2412



11N20MIMO\_Ant12\_2437



11N20MIMO\_Ant7\_2437