



FCC PART 15C TEST REPORT No.25T04Z100363-007

for

Luxshare Precision Limited

5G Mobile Phone

TMRV08P5G

FCC ID: 2BNRMTMRV08P5G

with

Hardware Version: v1.0

Software Version: TMRV08P5G_0.02.01

Issued Date: 2025-06-04

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:

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
25T04Z100363-007	Rev.0	1st edition	2025-06-04

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

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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(Gaolizhang Road)

Address: Cuihu Cloud Center, No.1, Gaolizhang Road, Wenquan,
Haidian District, Beijing, China

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: 2025-03-31
Testing End Date: 2025-04-23

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: Luxshare Precision Limited
Address: Suite 1621, 16/F., Ocean Centre, Harbour City, 5 Canton Road, Tsim
Sha Tsui, Kowloon.
Contact: Ri Sa
Email: Rui.Sha@luxshare-ict.com
Telephone: +8613917939276
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2.2. Manufacturer Information

Company Name: Luxshare Precision Limited
Address: Suite 1621, 16/F., Ocean Centre, Harbour City, 5 Canton Road, Tsim
Sha Tsui, Kowloon.
Contact: Ri Sa
Email: Rui.Sha@luxshare-ict.com
Telephone: +8613917939276
Fax: /

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

3.1. About EUT

Description	5G Mobile Phone
Model name	TMRV08P5G
FCC ID	2BNRMTMRV08P5G
With WLAN Function	Yes
Frequency Band	ISM 2400MHz~2483.5MHz
Type of Modulation	DSSS/CCK/OFDM
Number of Channels	11
Antenna	Integral Antenna
MAX Conducted Power	29.04dBm
Nominal Voltage	3.87V

3.2. Internal Identification of EUT

EUT ID*	SN or IMEI	HW Version	SW Version	Date of receipt
UT27a	861370070001529/ 861370070001537	V1.0	TMRV08P5G_0.02.01	2025-3-28
UT84a	861370070020602/ 861370070020610	V1.0	TMRV08P5G_0.02.01	2025-3-28

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

UT27a is used for Conduction test, UT84a is used for Radiation test.

3.3. Internal Identification of AE

AE ID*	Description	Note	Manufacturer
AE1	Battery	TM002	Jiade Energy Technology(Zhuhai) Co.,Ltd.
AE2	Charger	/	/
AE3	USB cable	HX-WT-58	WASHIN

*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 5G 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.

Reference	Title	Version
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

Note:KDB 558074 D01 is not in the scope of ISO/IEC 17025 accreditation by A2LA.



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)	/	P
Peak Power Spectral Density	15.247 (e)	/	P
Occupied 6dB Bandwidth	15.247 (a)	/	P
Band Edges Compliance	15.247 (d)	/	P
Transmitter Spurious Emission - Conducted	15.247 (d)	/	P
Transmitter Spurious Emission - Radiated	15.247, 15.205, 15.209	/	P
AC Powerline Conducted Emission	15.107, 15.207	/	P

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. 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.

6.3. 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	2025-04-30
2	Test Receiver	ESCI 3	100344	R&S	2 years	2026-04-01
3	LISN	ENV216	101200	R&S	2 years	2026-05-16
4	Attenuator	10dB/2W	/	Rosenberger	/	/
5	Power Sensor	U2021XA	MY54460006	Agilent	1 year	2025-06-17
6	Data Acquisition Unit	U2531A	TW54433522	Agilent	/	/
7	Shielding Room	S81	/	ETS-Lindgren	/	/

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Test Receiver	ESW44	103023	R&S	1 year	2025-06-06
2	EMI Antenna	VULB 9163	01222	SCHWARZBECK	1 year	2025-09-11
3	EMI Antenna	3115	00167250	ETS-Lindgren	2 years	2026-04-11
4	Bluetooth Tester	CBT	101042	R&S	1 year	2026-01-20

Test software information(HL)

Test Item	Software	Manufacturer
AC Powerline Conducted Emission	EMC32 V8.53.0	R&S
Radiated Unwanted Emission	EMC32 V11.50.00	R&S

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

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

8.6. 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

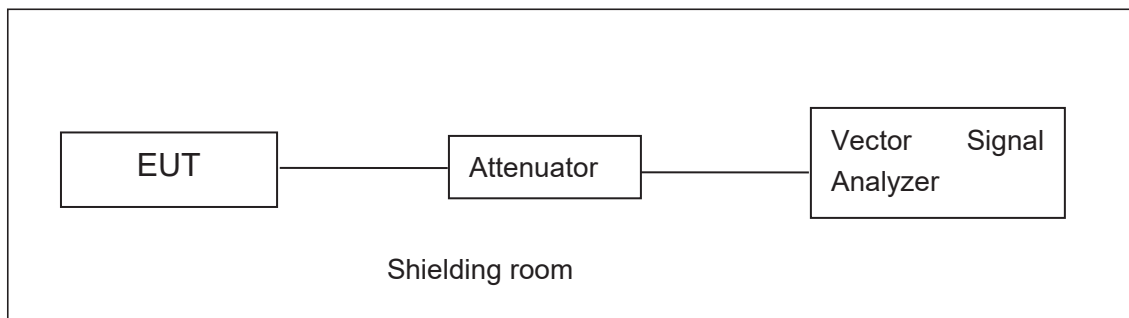


Fig.A.1.1.1: Test Setup Diagram for Conducted Measurements

A.1.2. Radiated Emission Measurements

In the case of radiated emission, the used settings are as follows,

Sweep frequency from 30 MHz to 1GHz, RBW = 100 kHz, VBW = 300 kHz;

Sweep frequency from 1 GHz to 26GHz, RBW = 1MHz, VBW = 3MHz;

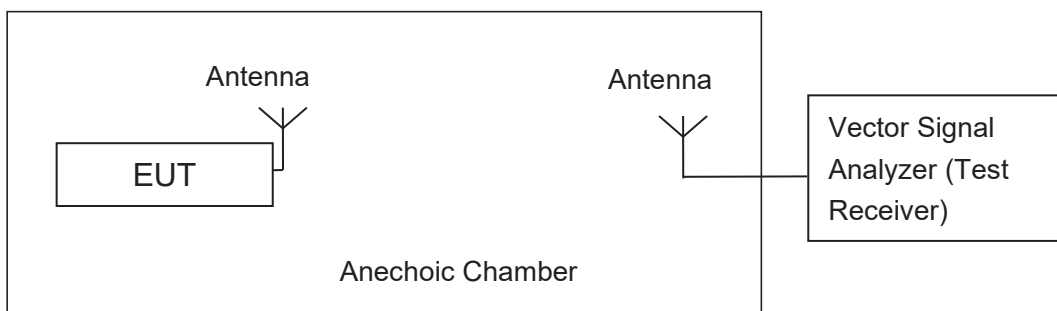


Fig.A.1.2.1: Test Setup Diagram for Radiated Measurements

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 -4.61dBi/-3.51dBi(Ant6/Ant9) and the value is supplied by the applicant or manufacturer

A.2.2. Peak Output Power-conducted

EUT ID: UT27a

Measurement Results:

Full RU SISO

Mode	Data Rate (Mbps)	Test Result (dBm)					
		2412MHz(Ch1)		2437MHz(Ch6)		2462 MHz(Ch11)	
		Ant6	Ant9	Ant6	Ant9	Ant6	Ant9
802.11b (20MHz)	1	22.91	19.29	22.52	19.68	22.97	19.81
802.11g (20MHz)	6	24.71	23.36	26.08	24.34	26.42	24.36

Full RU MIMO

Mode	Data Rate (Mbps)	Test Result (dBm)								
		2412MHz(Ch1)			2437MHz(Ch6)			2462 MHz(Ch11)		
		Ant6	Ant9	MIMO	Ant6	Ant9	MIMO	Ant6	Ant9	MIMO
802.11n (20MHz)	MCS0	23.53	22.36	25.99	24.51	24.14	27.34	24.97	24.14	27.59
802.11ax (20MHz)	MCS0	24.41	23.21	26.86	25.47	25.14	28.32	25.9	25.13	28.54
Mode	Data Rate (Mbps)	Test Result (dBm)								
		2422MHz(Ch3)			2437MHz(Ch6)			2452 MHz(Ch9)		
		Ant6	Ant9	MIMO	Ant6	Ant9	MIMO	Ant6	Ant9	MIMO
802.11n (40MHz)	MCS0	22.07	21.29	24.71	23.56	22.81	26.21	21.98	20.64	24.37
802.11ax (40MHz)	MCS0	22.31	21.35	24.87	23.86	23.02	26.47	22.39	20.85	24.70

RU MIMO

Mode	Data Rate (Mbps)	Test Result (dBm)								
		2412MHz(Ch1)			2437MHz(Ch6)			2462 MHz(Ch11)		
		Ant6	Ant9	MIMO	Ant6	Ant9	MIMO	Ant6	Ant9	MIMO
802.11ax-HE20 RU26-left	MCS0	17.16	16.82	20.00	15.01	17.93	19.72	16.39	16.33	19.37
802.11ax-HE20 RU26-right	MCS0	16.55	15.68	19.15	16.11	15.04	18.62	15.19	13.85	17.58
802.11ax-HE20 RU52-left	MCS0	19.72	19.61	22.68	18.14	20.55	22.52	19.76	19.72	22.75
802.11ax-HE20 RU52-right	MCS0	19.18	18.20	21.73	18.80	17.72	21.30	18.47	16.72	20.69
802.11ax-HE20 RU106-left	MCS0	21.55	19.89	23.81	20.51	20.08	23.31	21.72	21.54	24.64
802.11ax-HE20 RU106-right	MCS0	21.13	19.76	23.51	21.07	20.10	23.62	20.79	19.11	23.04

The data rate 1Mbps (11b mode),6Mbps (11g mode), MCS0 (11n-HT20 mode) ,MCS0 (11ax-HE20 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: UT27a

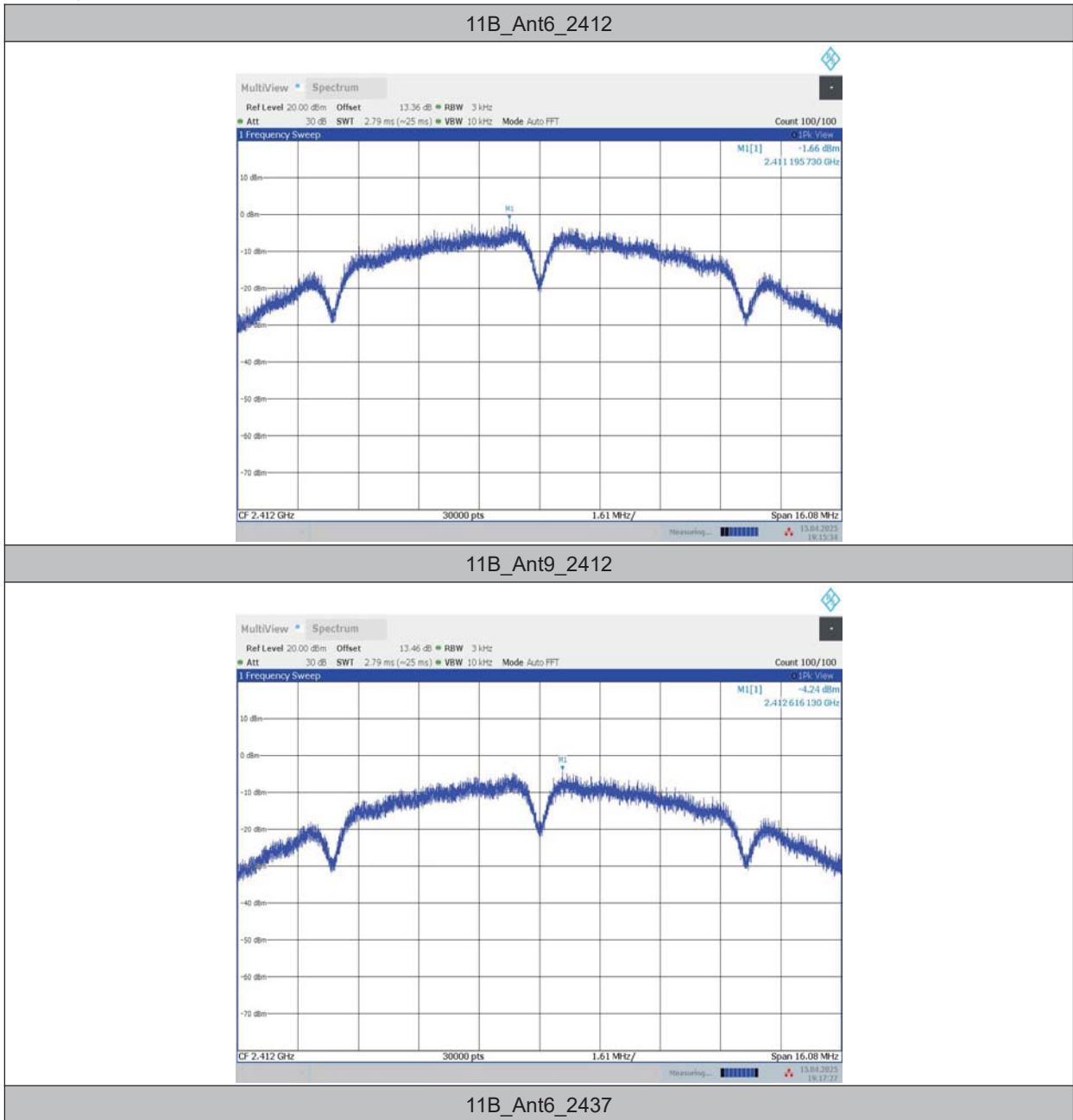
Measurement Results:

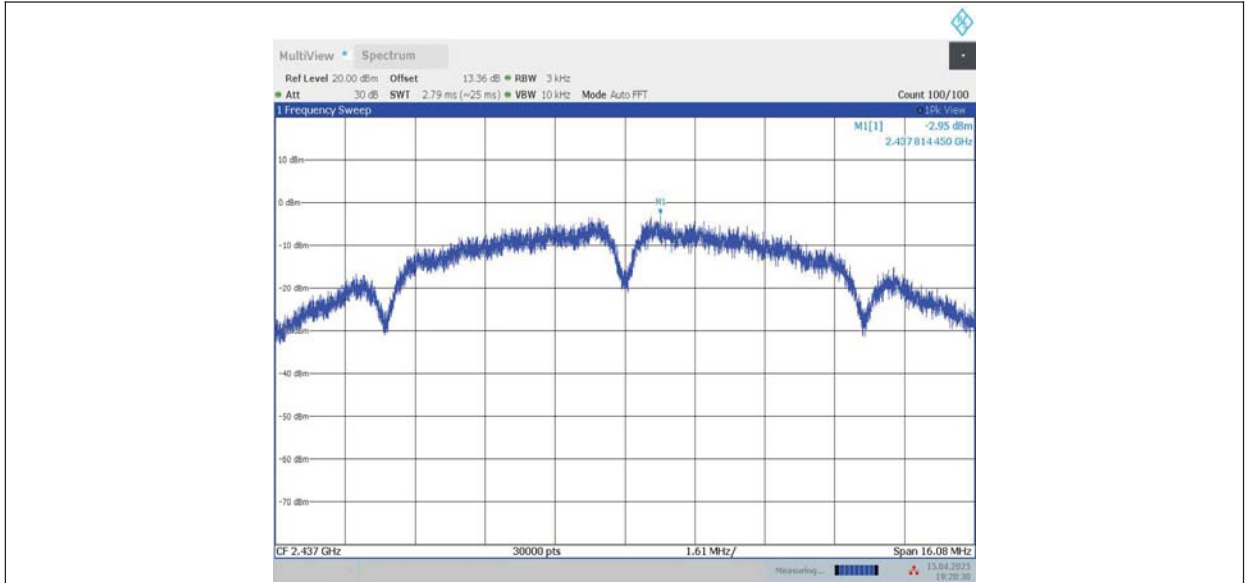
Full RU

TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant6	2412	-1.66	≤8.00	PASS
	Ant9	2412	-4.24	≤8.00	PASS
	Ant6	2437	-2.95	≤8.00	PASS
	Ant9	2437	-3.30	≤8.00	PASS
	Ant6	2462	-2.64	≤8.00	PASS
	Ant9	2462	-3.50	≤8.00	PASS
11G	Ant6	2412	-8.25	≤8.00	PASS
	Ant9	2412	-9.43	≤8.00	PASS
	Ant6	2437	-5.75	≤8.00	PASS
	Ant9	2437	-5.87	≤8.00	PASS
	Ant6	2462	-4.72	≤8.00	PASS
	Ant9	2462	-5.27	≤8.00	PASS
11N20MIMO	Ant6	2412	-7.73	≤8.00	PASS
	Ant9	2412	-9.84	≤8.00	PASS
	total	2412	-5.65	≤8.00	PASS
	Ant6	2437	-6.91	≤8.00	PASS
	Ant9	2437	-7.04	≤8.00	PASS
	total	2437	-3.96	≤8.00	PASS
	Ant6	2462	-6.70	≤8.00	PASS
	Ant9	2462	-7.54	≤8.00	PASS
	total	2462	-4.09	≤8.00	PASS

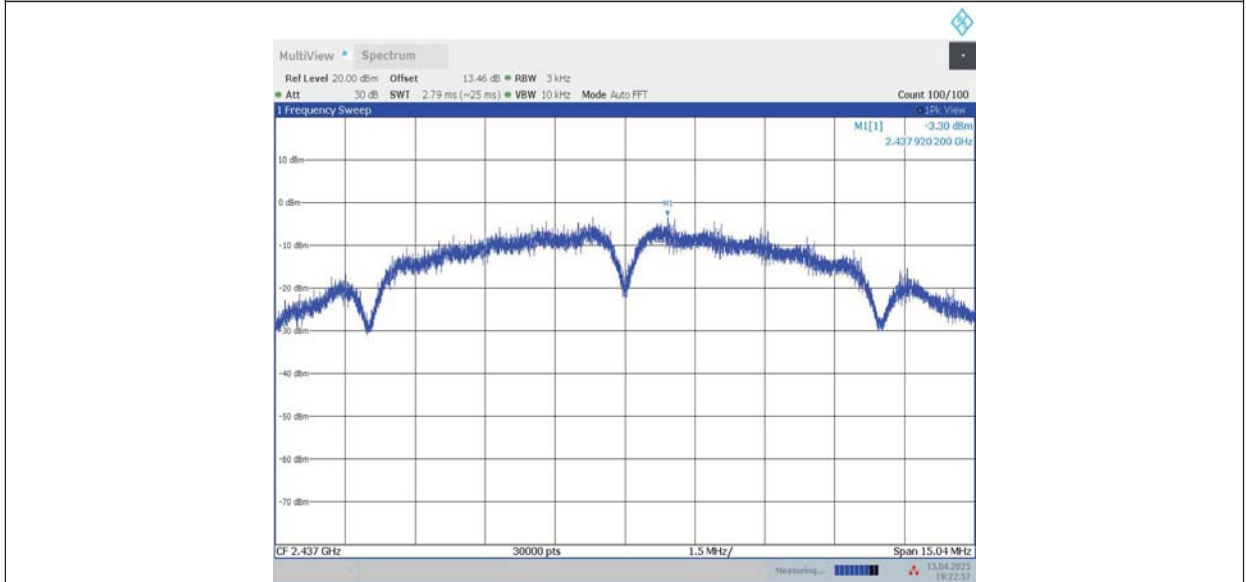
11N40MIMO	Ant6	2422	-13.87	≤8.00	PASS
	Ant9	2422	-14.03	≤8.00	PASS
	total	2422	-10.94	≤8.00	PASS
	Ant6	2437	-11.94	≤8.00	PASS
	Ant9	2437	-12.74	≤8.00	PASS
	total	2437	-9.31	≤8.00	PASS
	Ant6	2452	-13.23	≤8.00	PASS
	Ant9	2452	-15.11	≤8.00	PASS
	total	2452	-11.06	≤8.00	PASS
11AX20MIMO	Ant6	2412	-9.73	≤8.00	PASS
	Ant9	2412	-10.88	≤8.00	PASS
	total	2412	-7.26	≤8.00	PASS
	Ant6	2437	-7.52	≤8.00	PASS
	Ant9	2437	-7.89	≤8.00	PASS
	total	2437	-4.69	≤8.00	PASS
	Ant6	2462	-7.28	≤8.00	PASS
	Ant9	2462	-8.53	≤8.00	PASS
	total	2462	-4.85	≤8.00	PASS
11AX40MIMO	Ant6	2422	-15.81	≤8.00	PASS
	Ant9	2422	-15.68	≤8.00	PASS
	total	2422	-12.73	≤8.00	PASS
	Ant6	2437	-13.93	≤8.00	PASS
	Ant9	2437	-14.44	≤8.00	PASS
	total	2437	-11.17	≤8.00	PASS
	Ant6	2452	-14.80	≤8.00	PASS
	Ant9	2452	-16.50	≤8.00	PASS
	total	2452	-12.56	≤8.00	PASS

Test graphs as below:

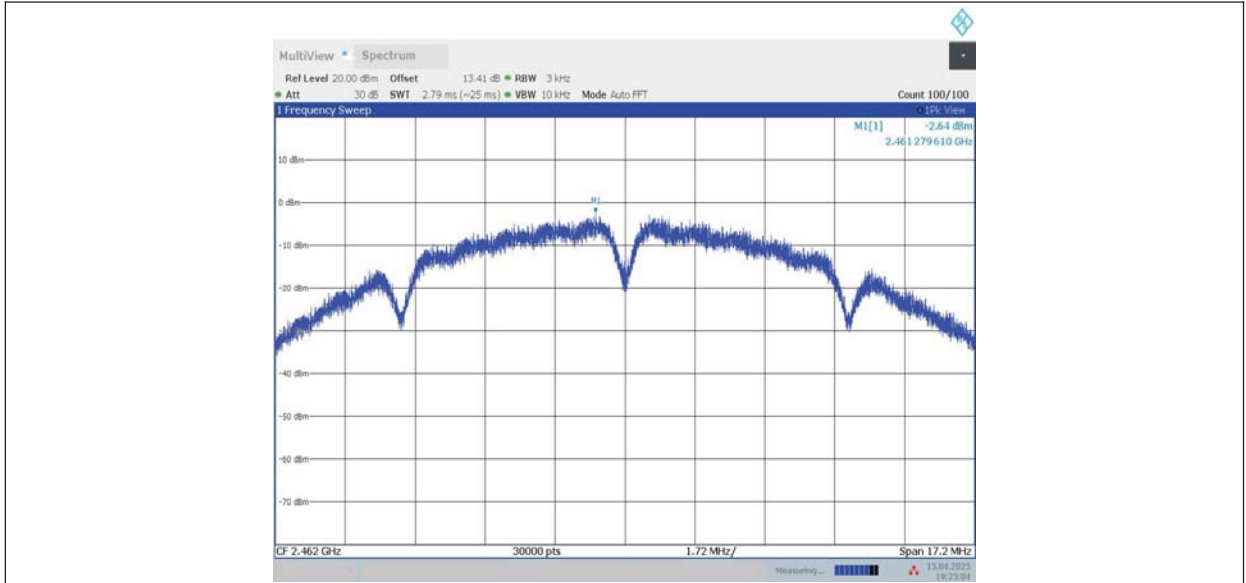




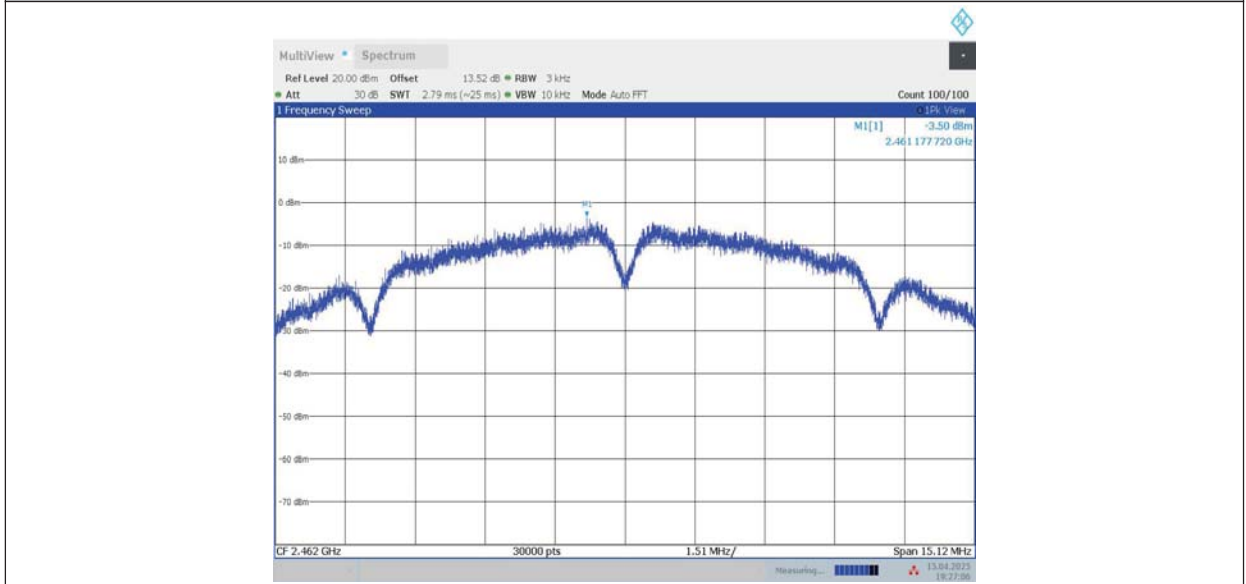
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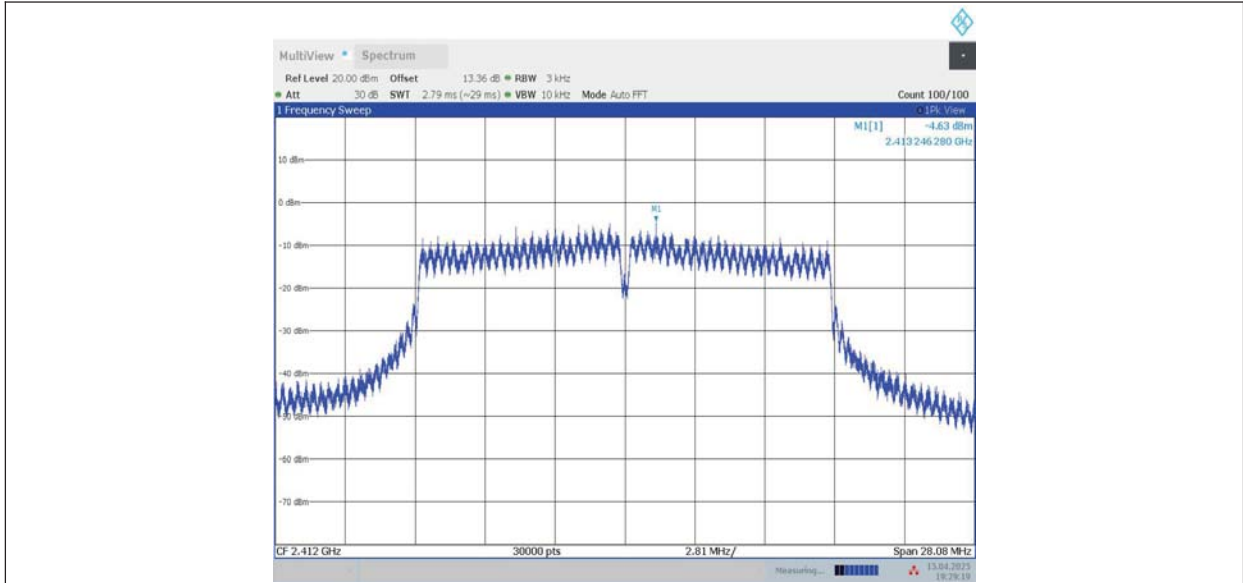
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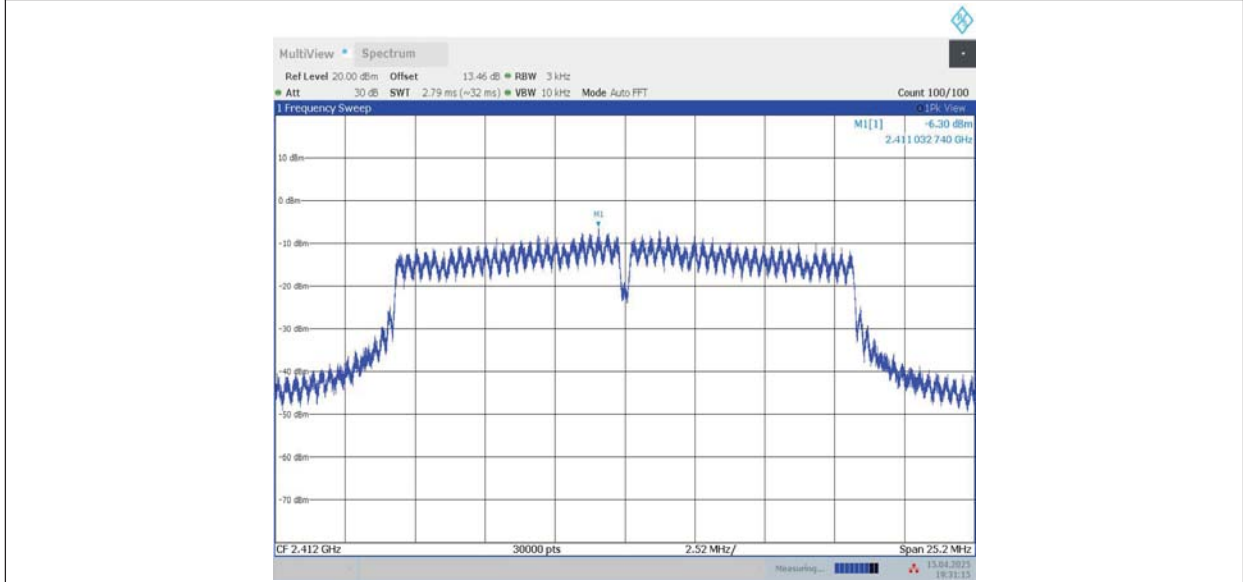
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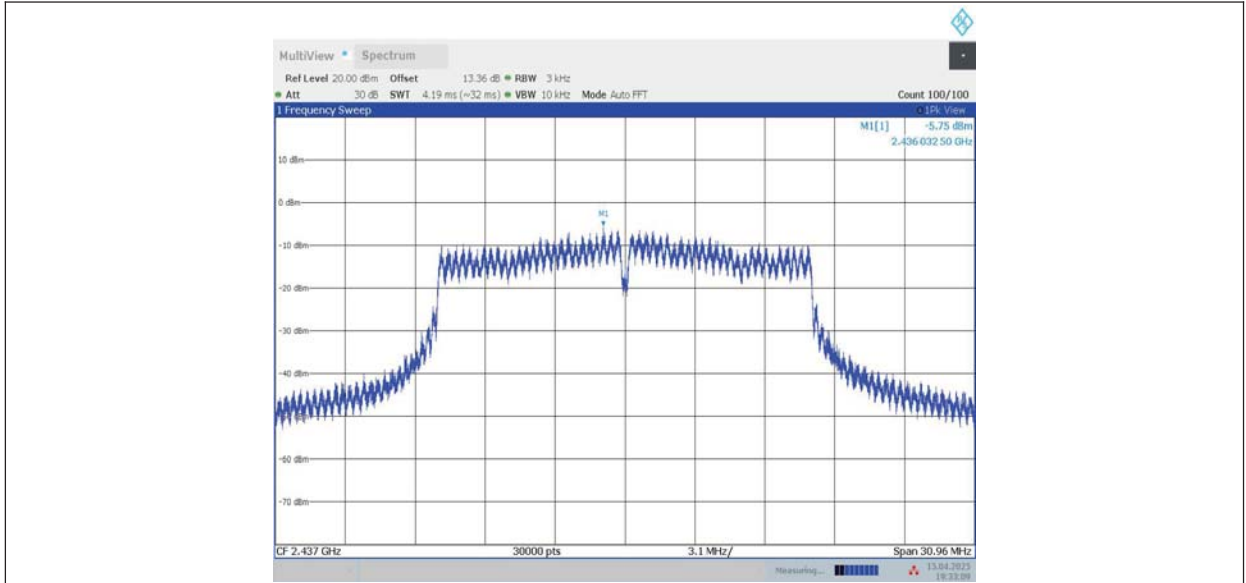
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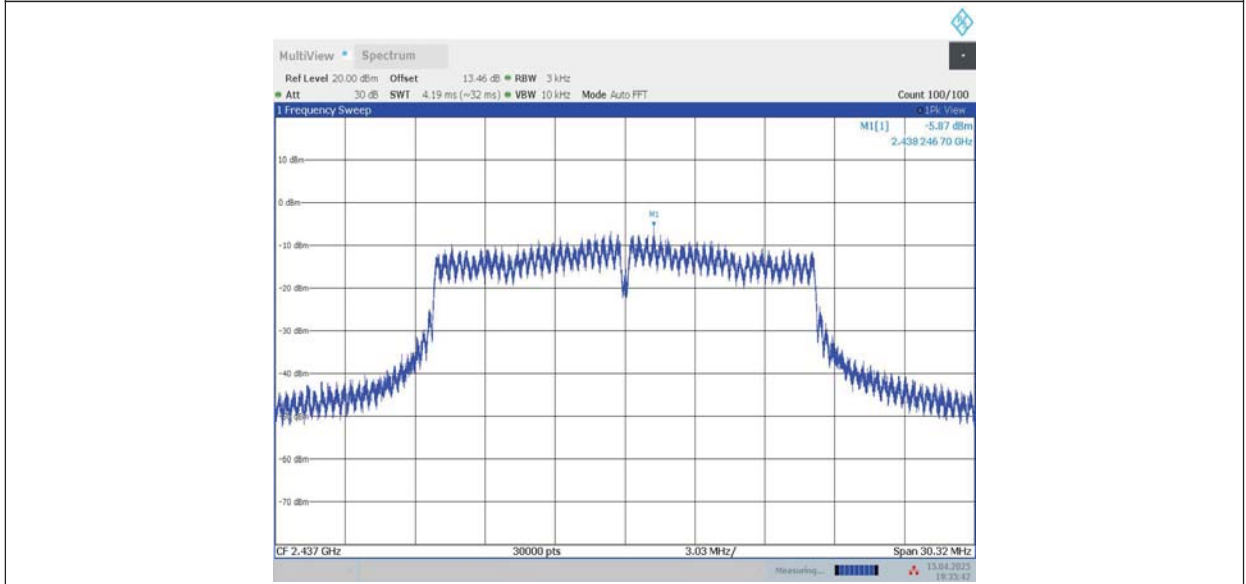
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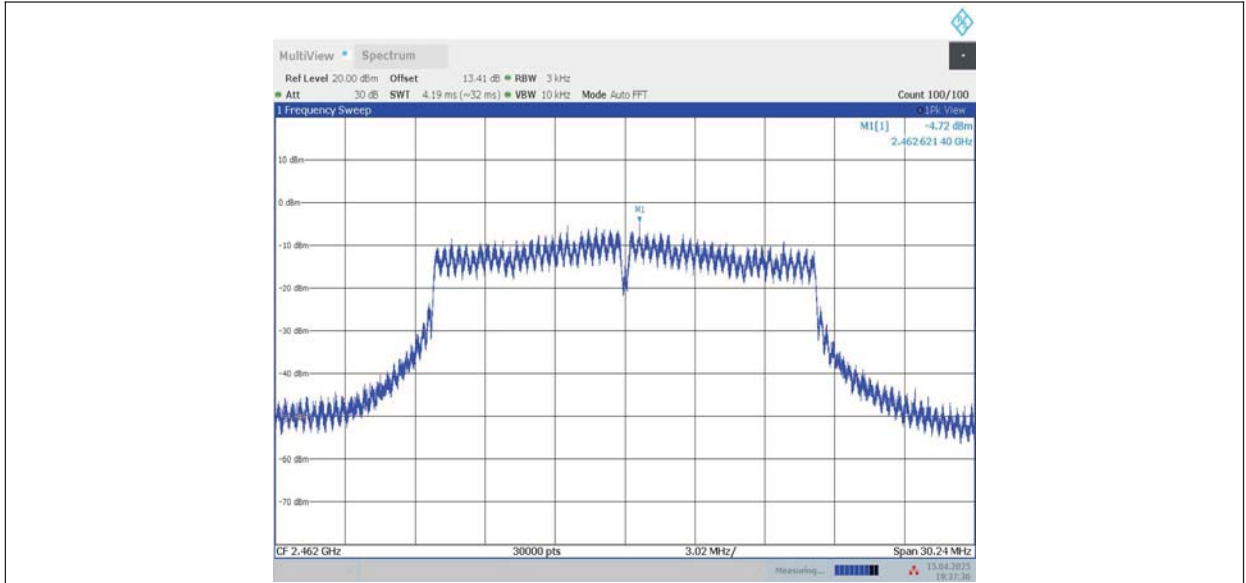
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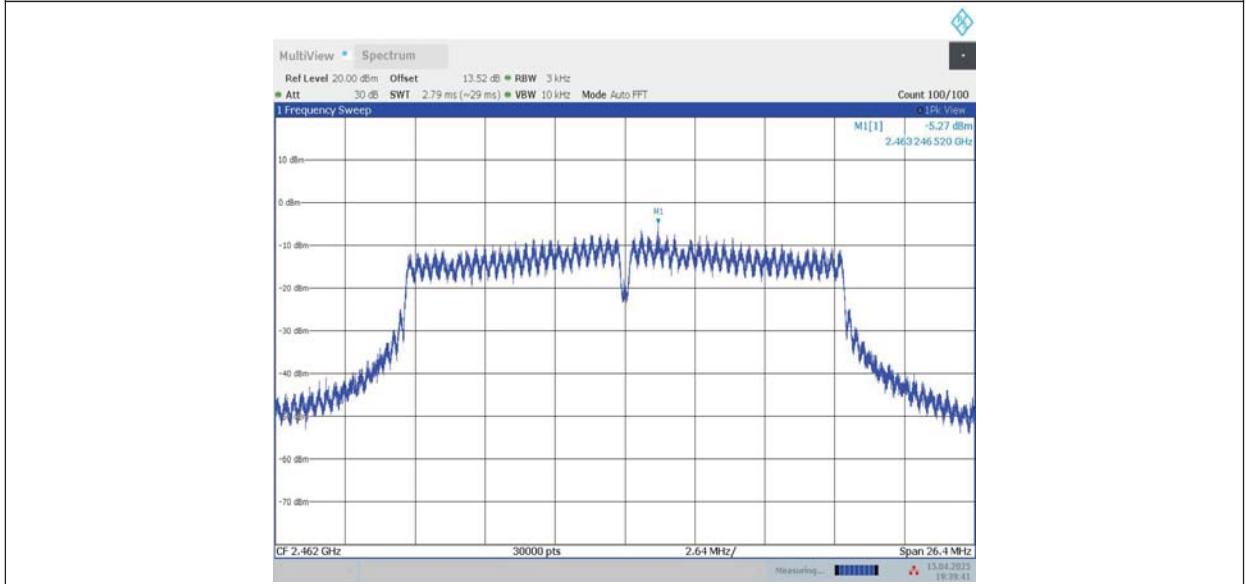
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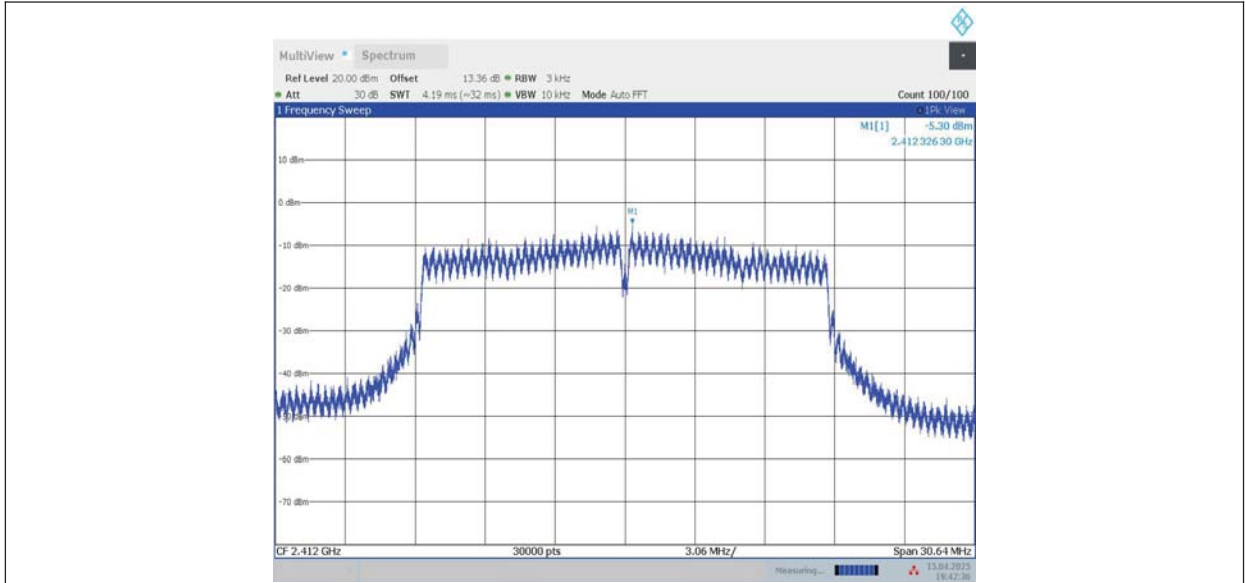
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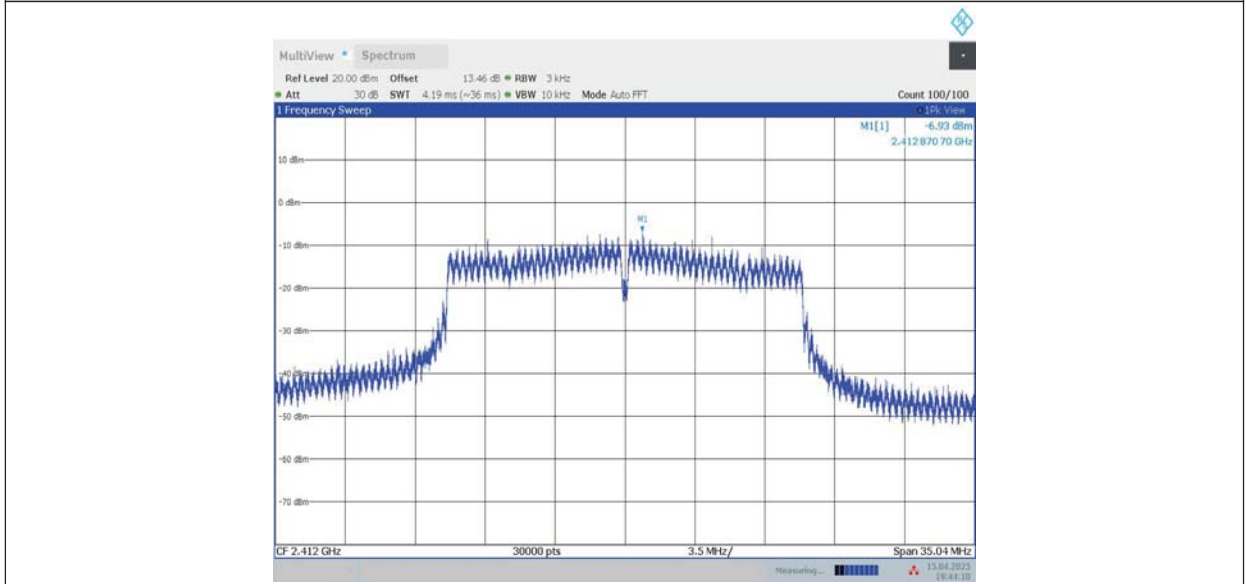
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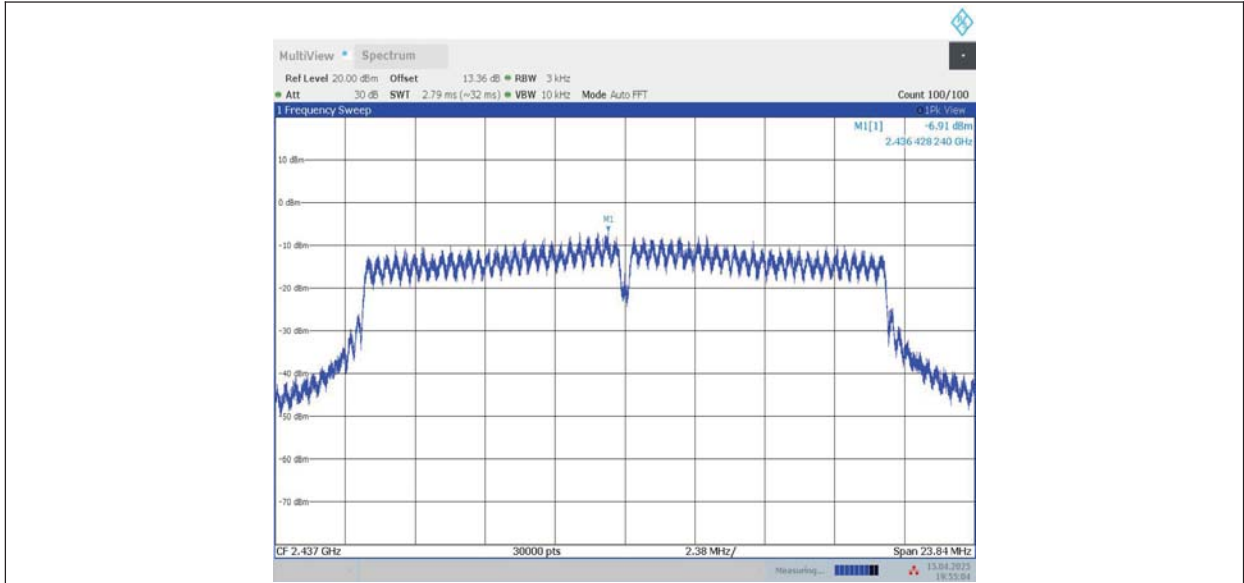
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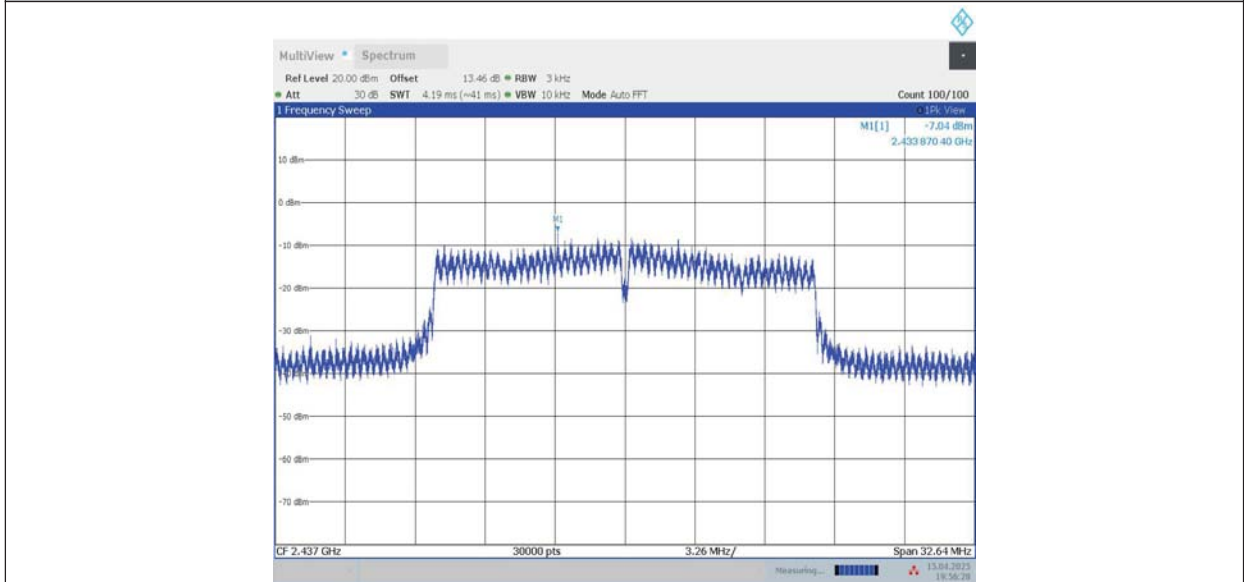
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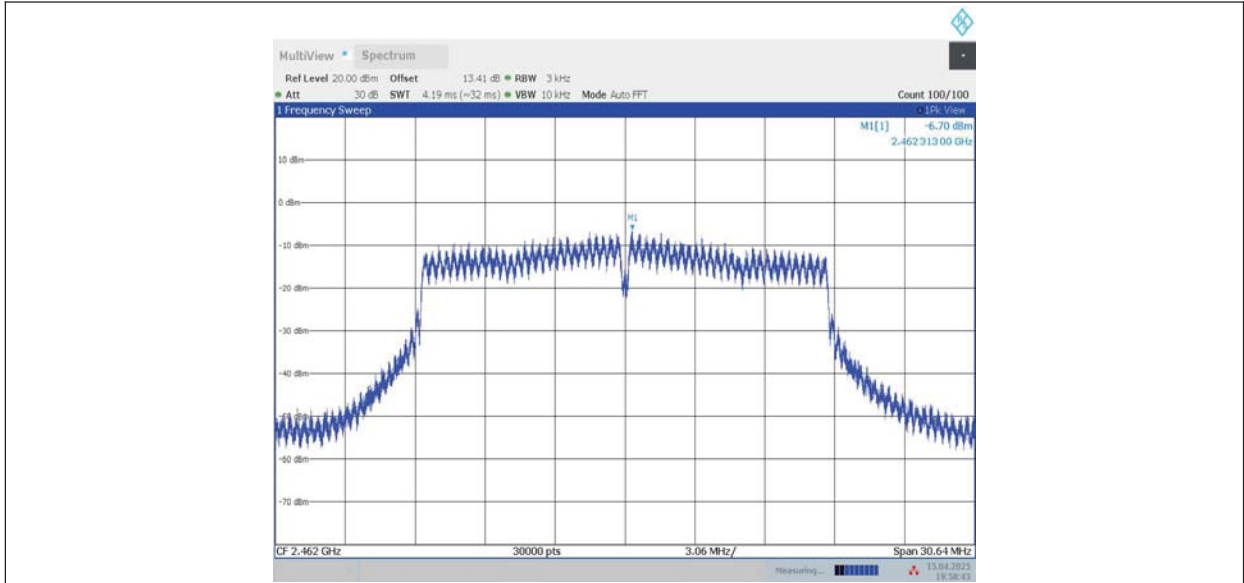
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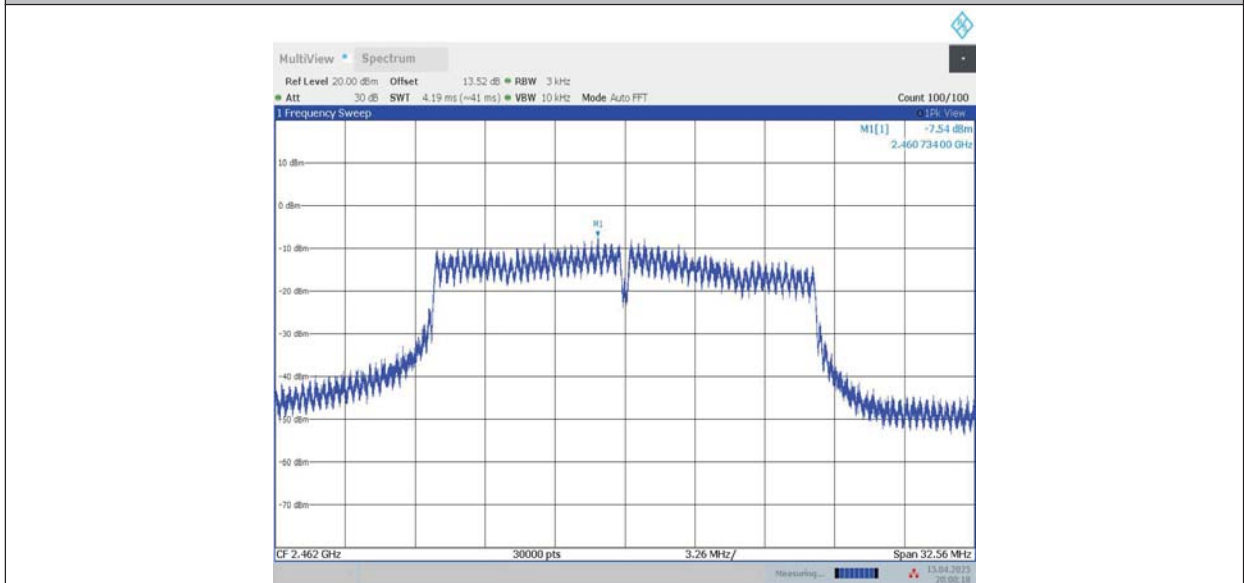
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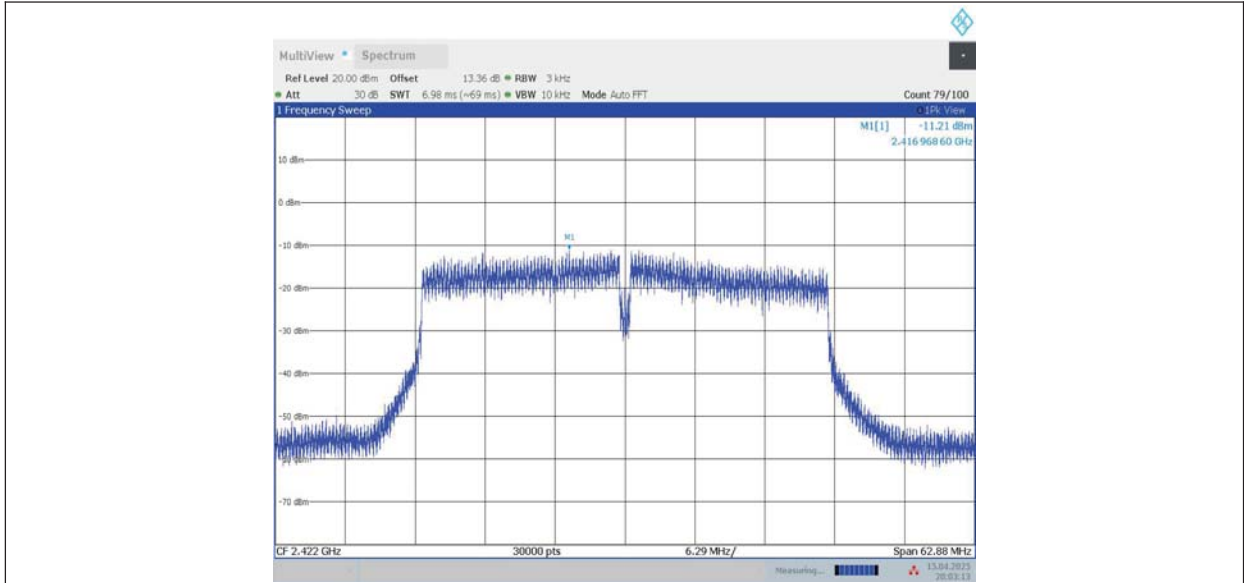
11N20MIMO_Ant6_2462



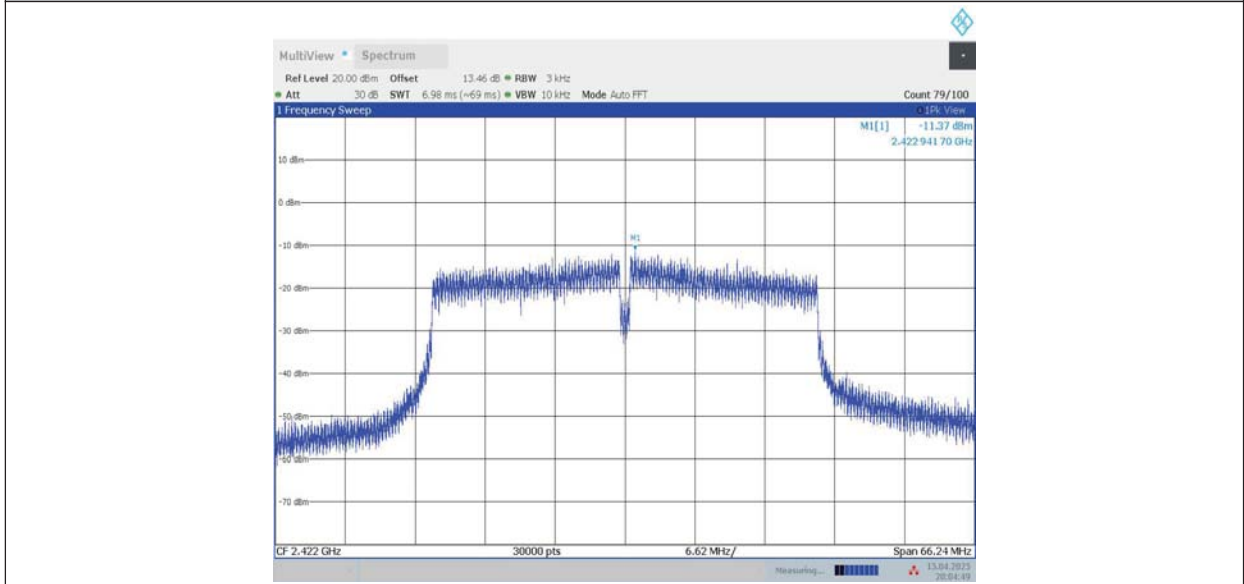
11N20MIMO_Ant9_2462



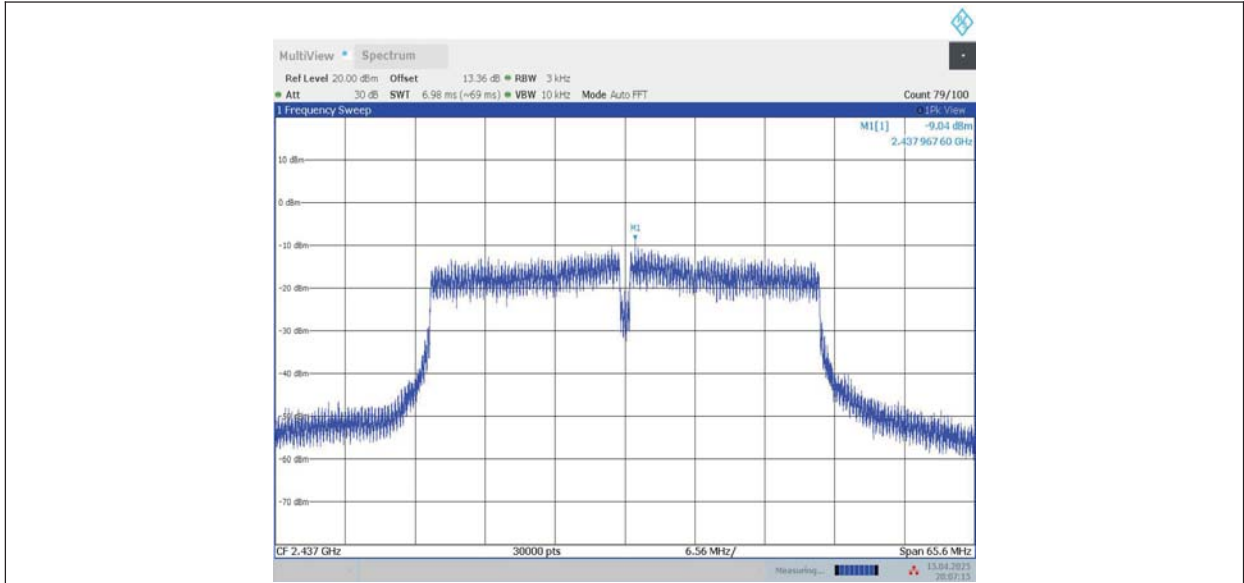
11N40MIMO_Ant6_2422



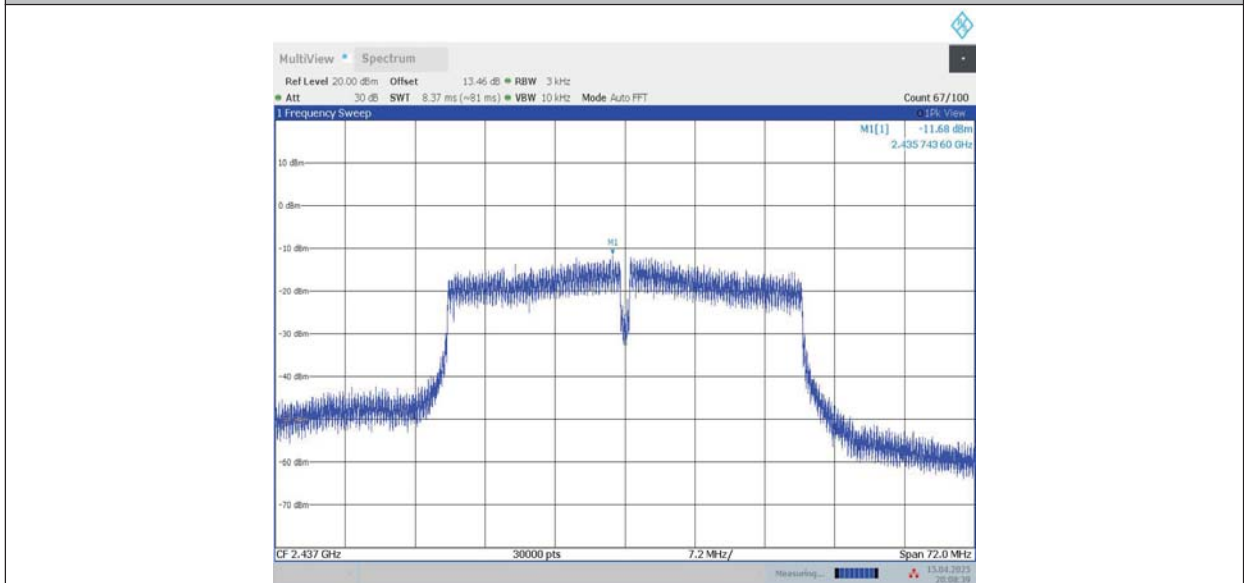
11N40MIMO_Ant9_2422



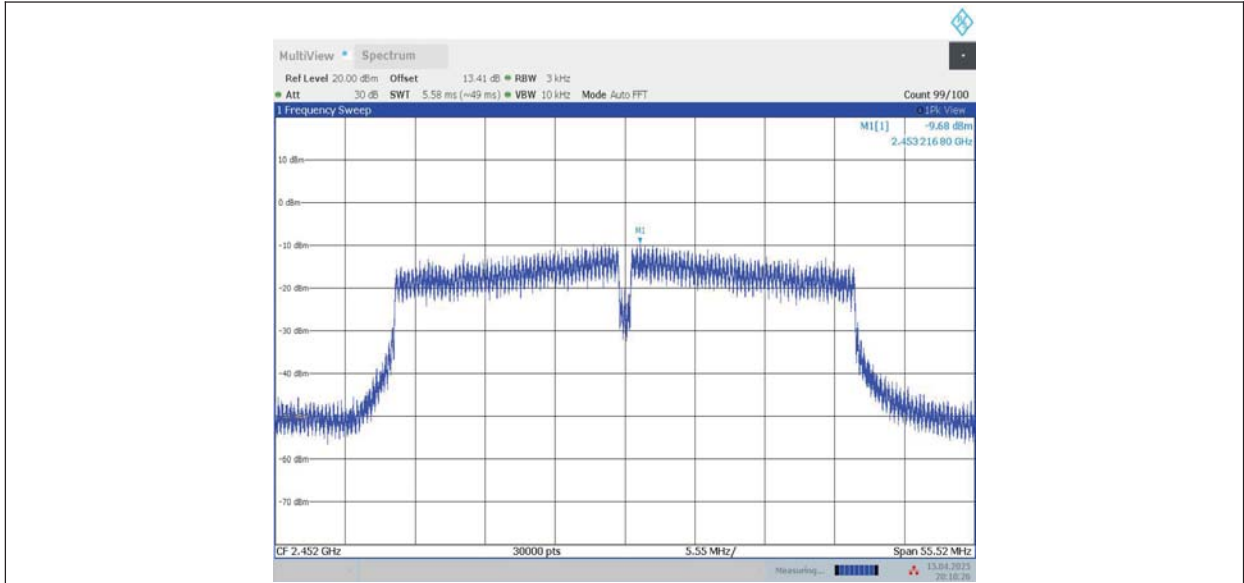
11N40MIMO_Ant6_2437



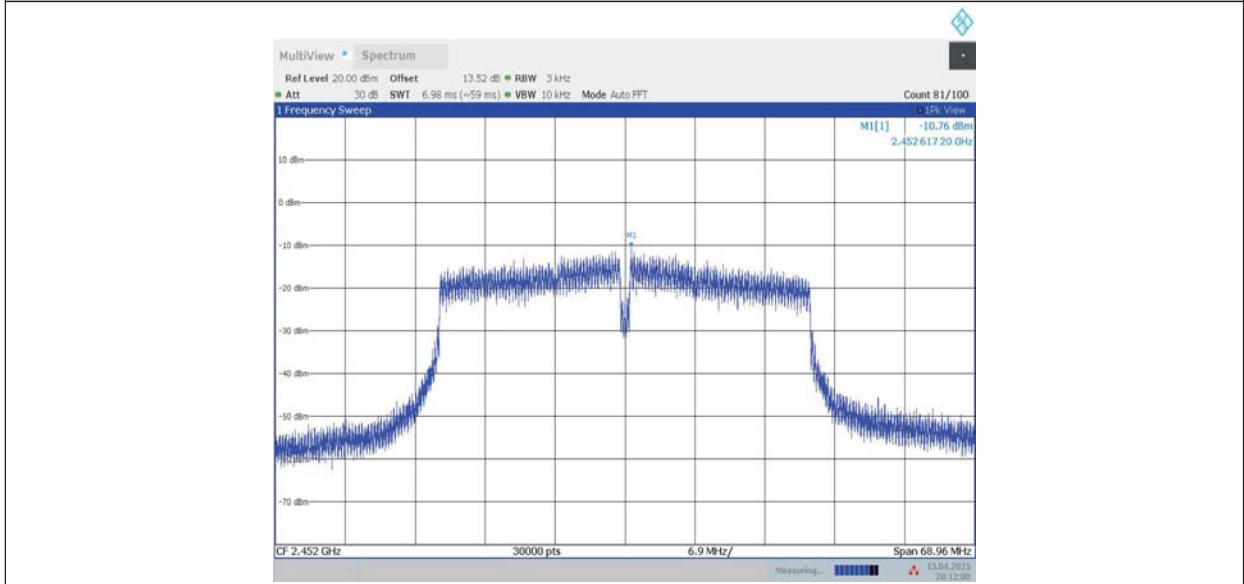
11N40MIMO_Ant9_2437



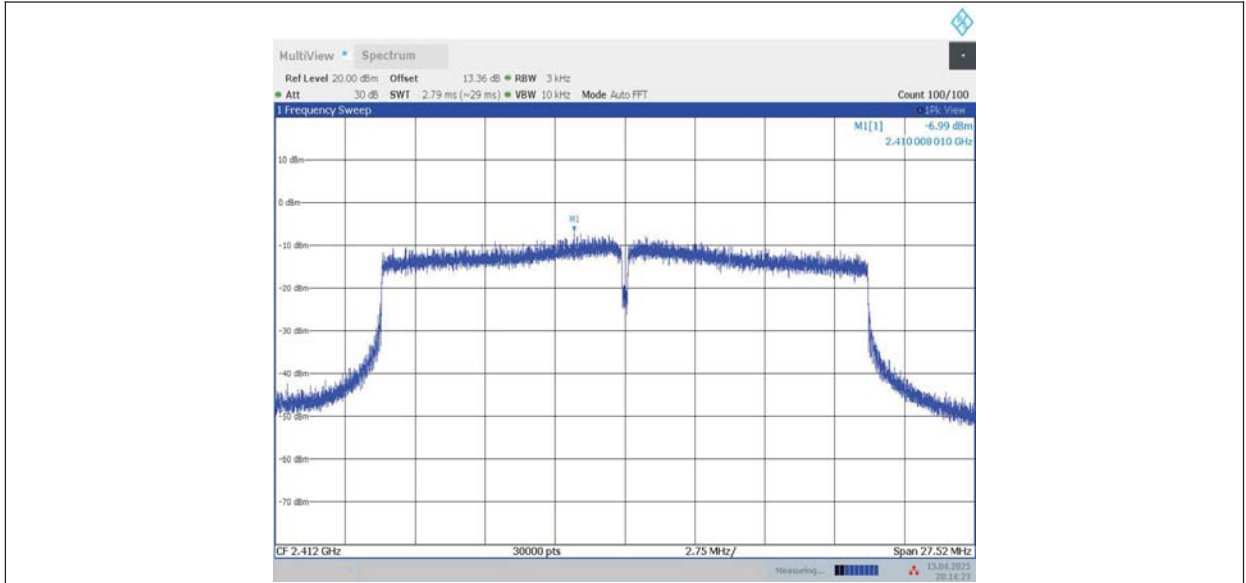
11N40MIMO_Ant6_2452



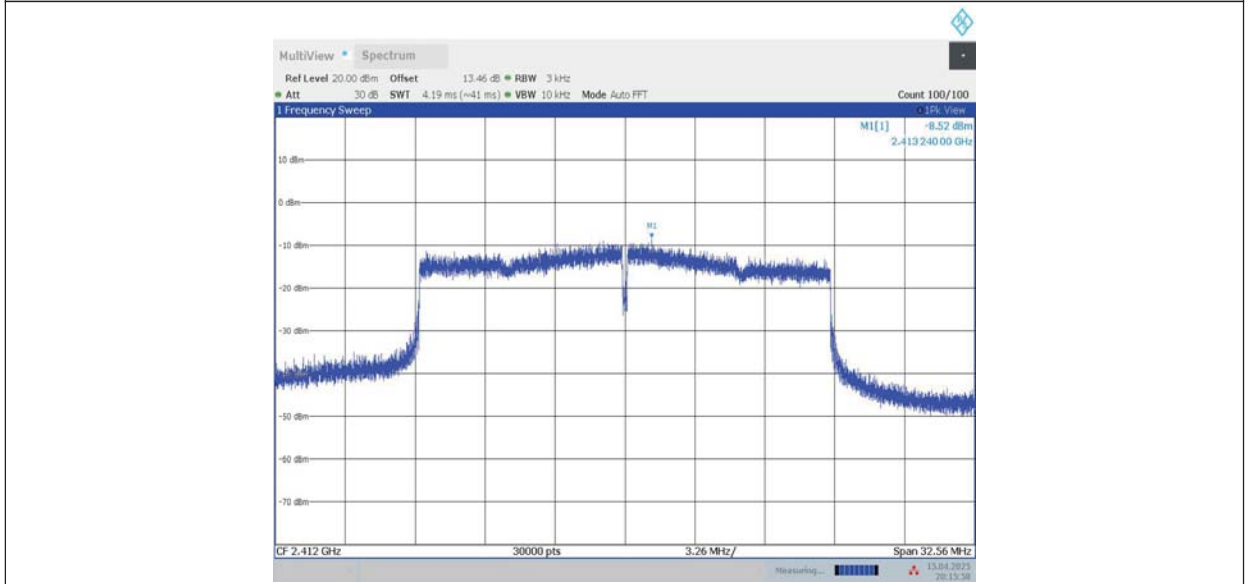
11N40MIMO_Ant9_2452



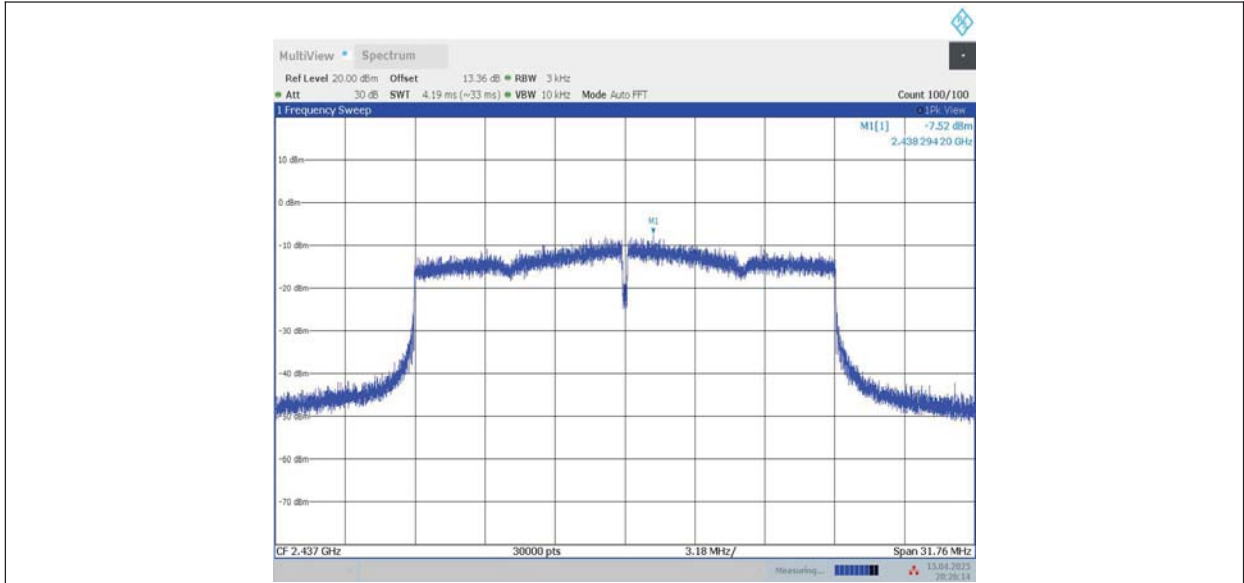
11AX20MIMO_Ant6_2412



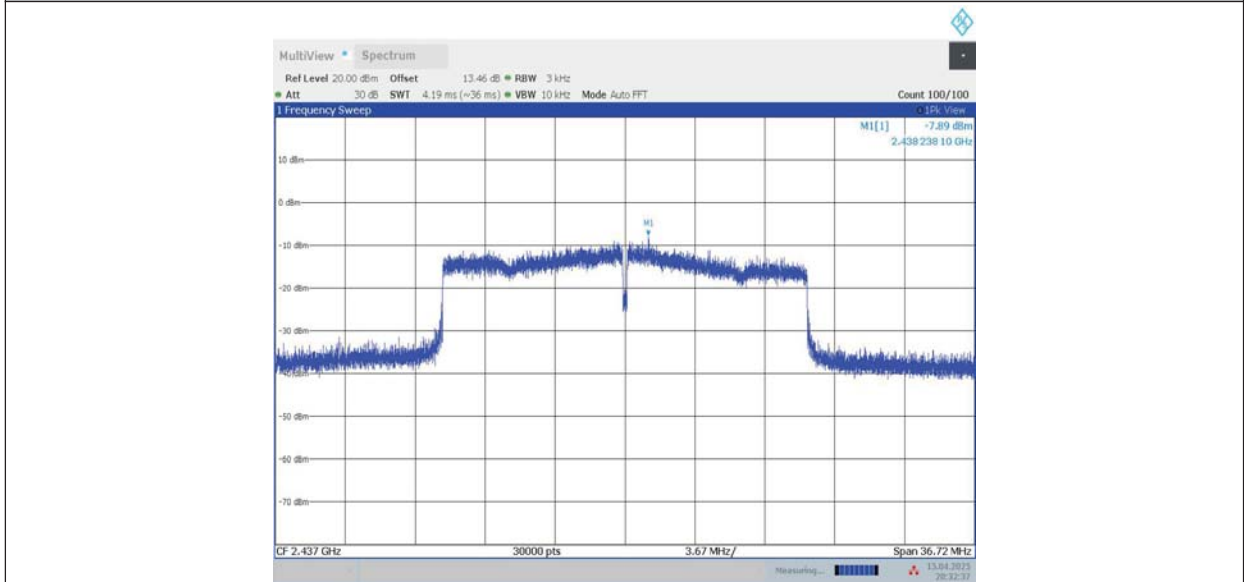
11AX20MIMO_Ant9_2412



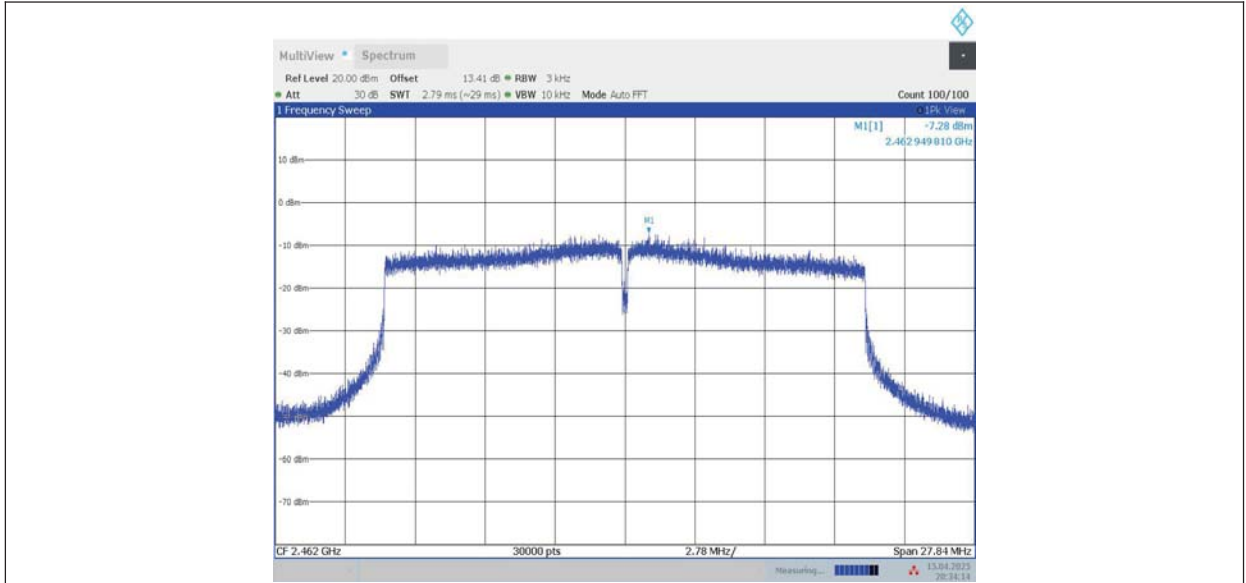
11AX20MIMO_Ant6_2437



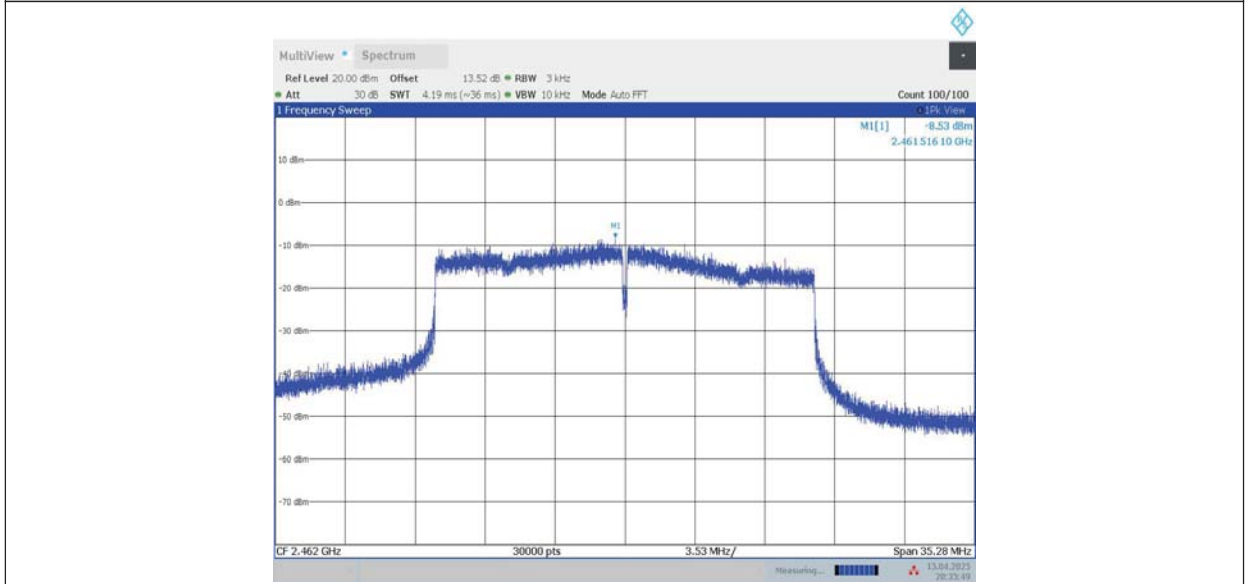
11AX20MIMO_Ant9_2437



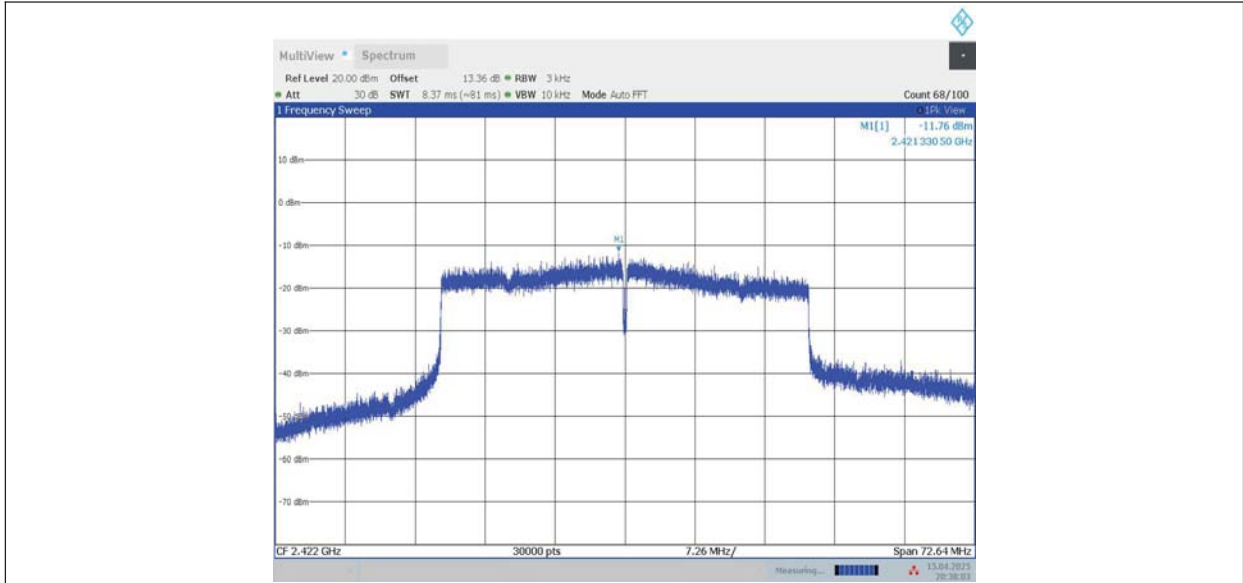
11AX20MIMO_Ant6_2462



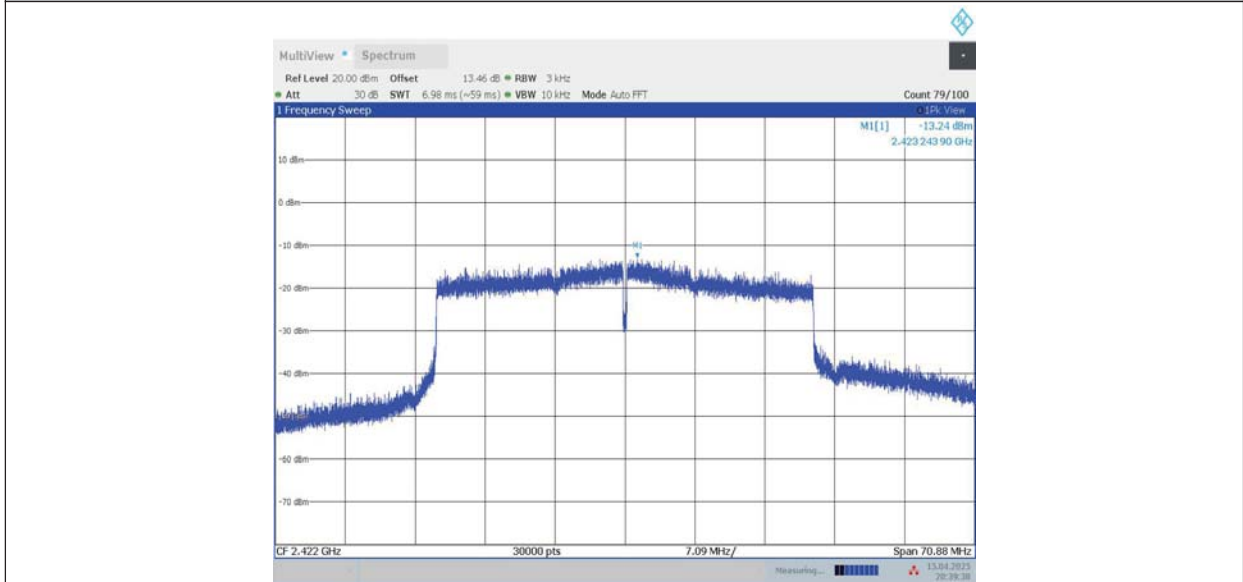
11AX20MIMO_Ant9_2462



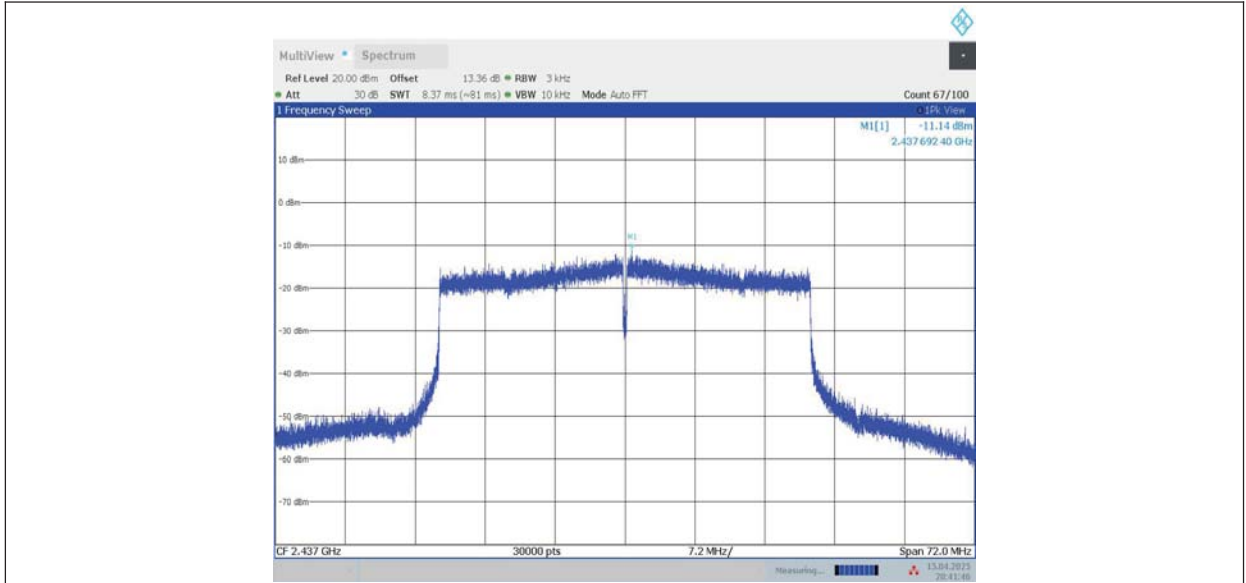
11AX40MIMO_Ant6_2422



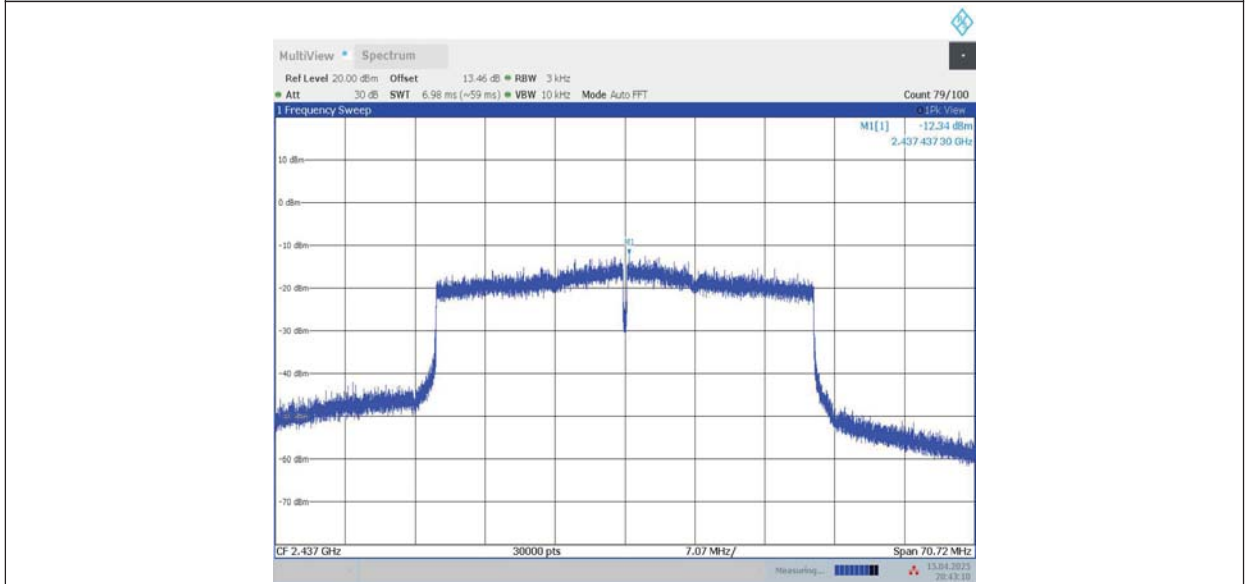
11AX40MIMO_Ant9_2422



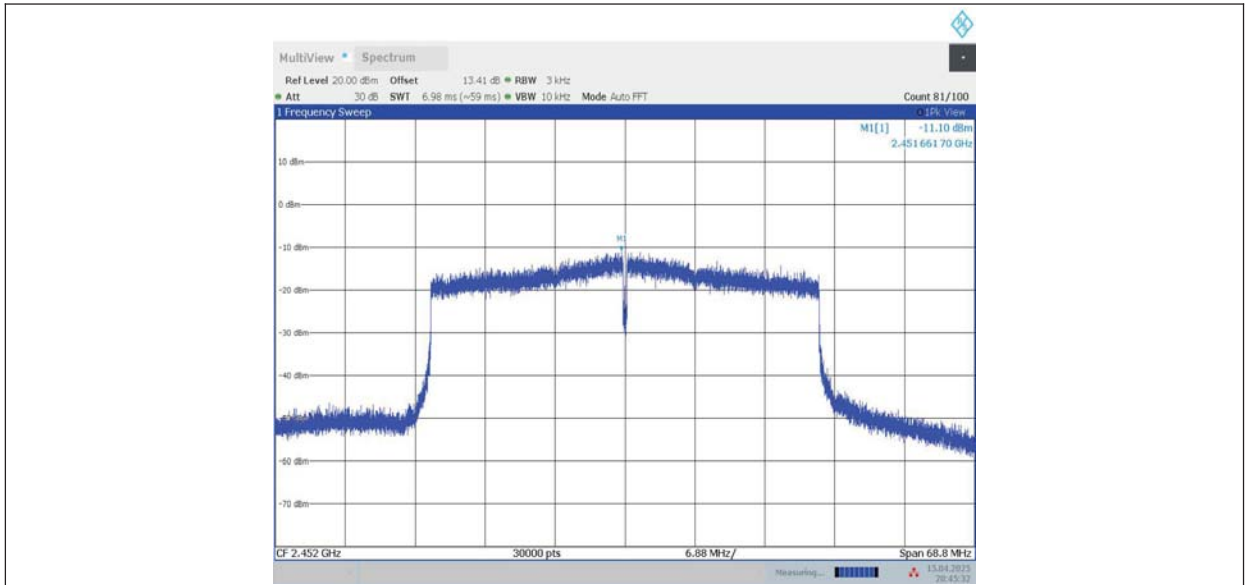
11AX40MIMO_Ant6_2437



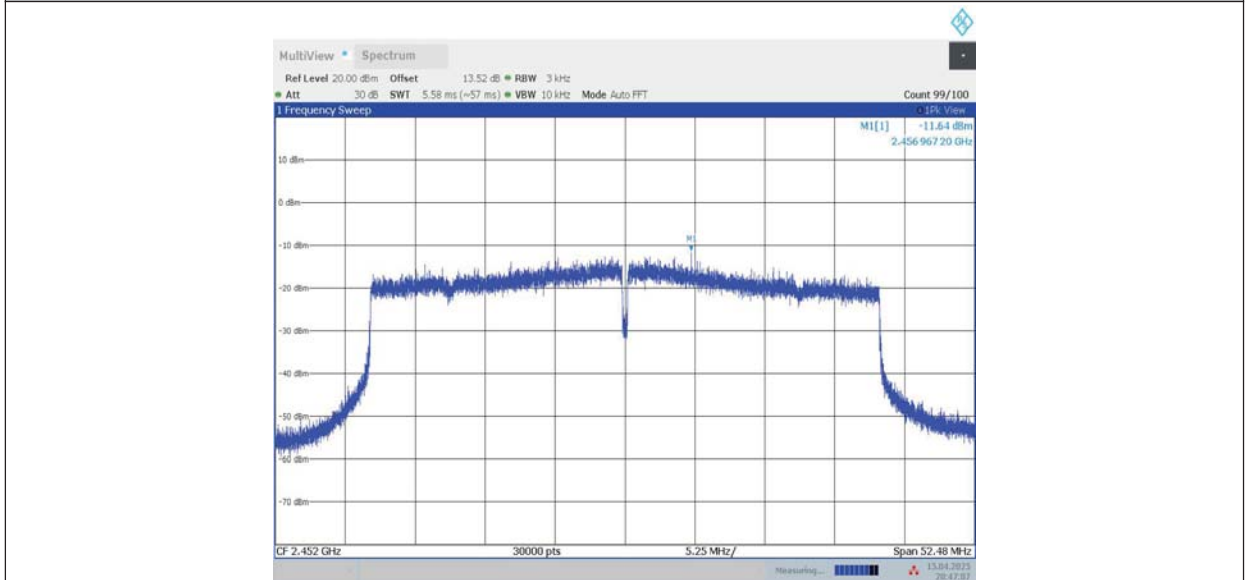
11AX40MIMO_Ant9_2437



11AX40MIMO_Ant6_2452



11AX40MIMO_Ant9_2452

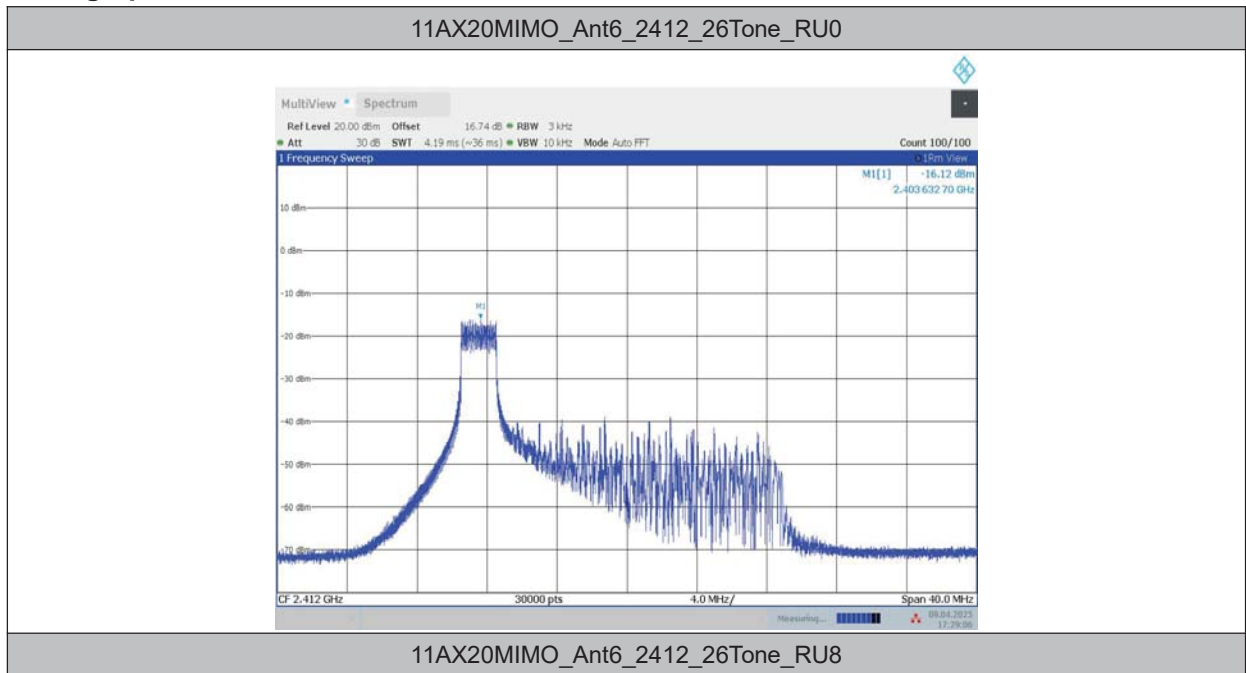


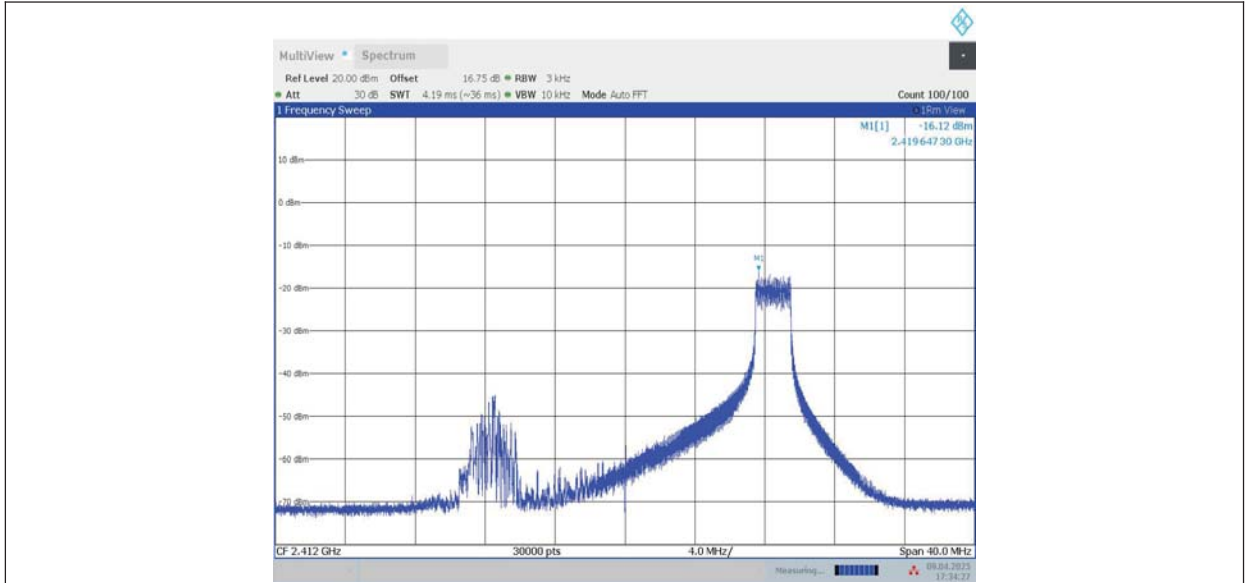
RU MIMO

TestMode	Antenna	Frequency[MHz]	RuSize	RuIndex	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11AX20MIMO	Ant6	2412	26Tone	RU0	-16.12	≤8.00	PASS
				RU8	-16.12	≤8.00	PASS
			52Tone	RU37	-16.03	≤8.00	PASS
				RU40	-17.33	≤8.00	PASS
			106Tone	RU53	-16.73	≤8.00	PASS
				RU54	-17.00	≤8.00	PASS
	Ant9	2412	26Tone	RU0	-18.86	≤8.00	PASS
				RU8	-17.76	≤8.00	PASS
			52Tone	RU37	-15.55	≤8.00	PASS
				RU40	-18.29	≤8.00	PASS
			106Tone	RU53	-17.63	≤8.00	PASS
				RU54	-17.85	≤8.00	PASS
	total	2412	26Tone	RU0	-14.27	≤8.00	PASS
				RU8	-13.85	≤8.00	PASS
			52Tone	RU37	-12.77	≤8.00	PASS
				RU40	-14.77	≤8.00	PASS
			106Tone	RU53	-14.15	≤8.00	PASS
				RU54	-14.39	≤8.00	PASS
	Ant6	2437	26Tone	RU0	-19.16	≤8.00	PASS
				RU8	-18.00	≤8.00	PASS
			52Tone	RU37	-18.41	≤8.00	PASS
				RU40	-17.83	≤8.00	PASS
			106Tone	RU53	-16.72	≤8.00	PASS
				RU54	-17.70	≤8.00	PASS
	Ant9	2437	26Tone	RU0	-14.83	≤8.00	PASS
				RU8	-18.86	≤8.00	PASS
			52Tone	RU37	-15.23	≤8.00	PASS
				RU40	-18.94	≤8.00	PASS
			106Tone	RU53	-17.32	≤8.00	PASS
				RU54	-18.25	≤8.00	PASS
total	2437	26Tone	RU0	-13.47	≤8.00	PASS	
			RU8	-15.40	≤8.00	PASS	
		52Tone	RU37	-13.52	≤8.00	PASS	
			RU40	-15.34	≤8.00	PASS	
		106Tone	RU53	-14.00	≤8.00	PASS	
			RU54	-14.96	≤8.00	PASS	
Ant6	2462	26Tone	RU0	-17.06	≤8.00	PASS	
			RU8	-16.95	≤8.00	PASS	

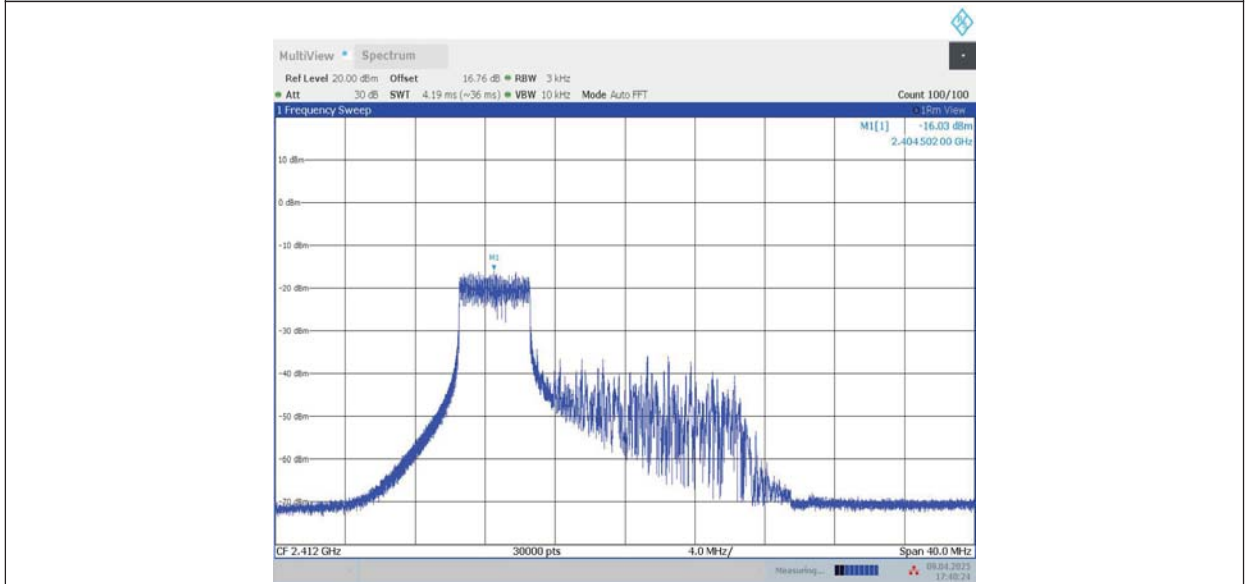
	Ant9	2462	52Tone	RU37	-17.26	≤ 8.00	PASS
				RU40	-17.60	≤ 8.00	PASS
			106Tone	RU53	-16.77	≤ 8.00	PASS
				RU54	-16.54	≤ 8.00	PASS
			26Tone	RU0	-17.19	≤ 8.00	PASS
				RU8	-19.85	≤ 8.00	PASS
	total	2462	52Tone	RU37	-16.41	≤ 8.00	PASS
				RU40	-19.85	≤ 8.00	PASS
			106Tone	RU53	-16.86	≤ 8.00	PASS
				RU54	-19.40	≤ 8.00	PASS
			26Tone	RU0	-14.11	≤ 8.00	PASS
				RU8	-15.15	≤ 8.00	PASS
			52Tone	RU37	-13.80	≤ 8.00	PASS
				RU40	-15.57	≤ 8.00	PASS
			106Tone	RU53	-13.80	≤ 8.00	PASS
				RU54	-14.73	≤ 8.00	PASS

Test graphs as below:

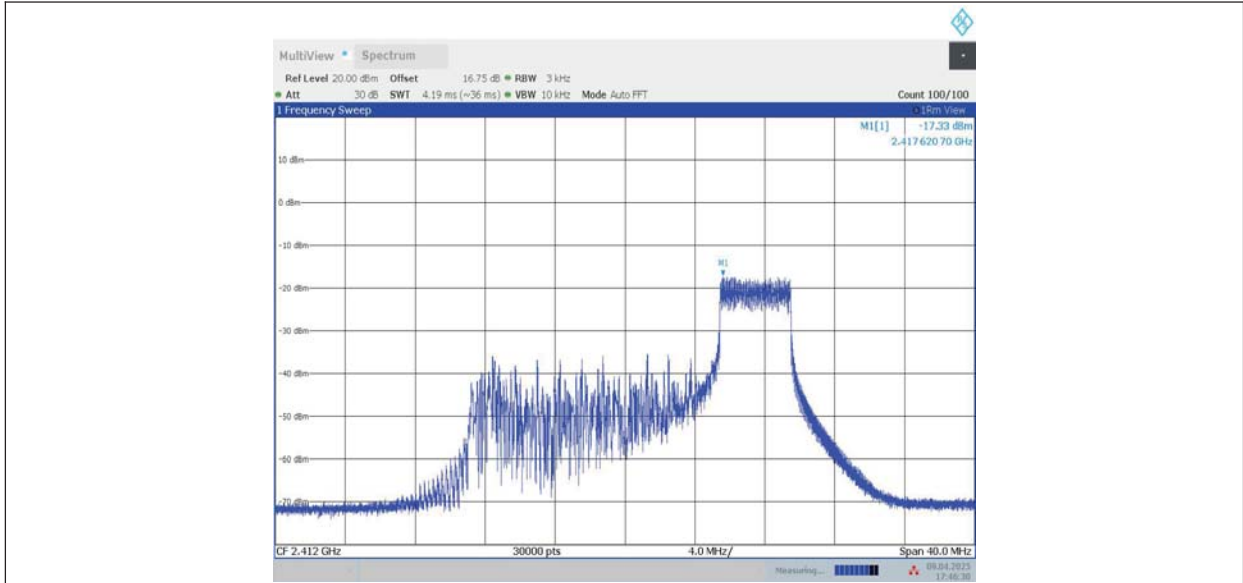




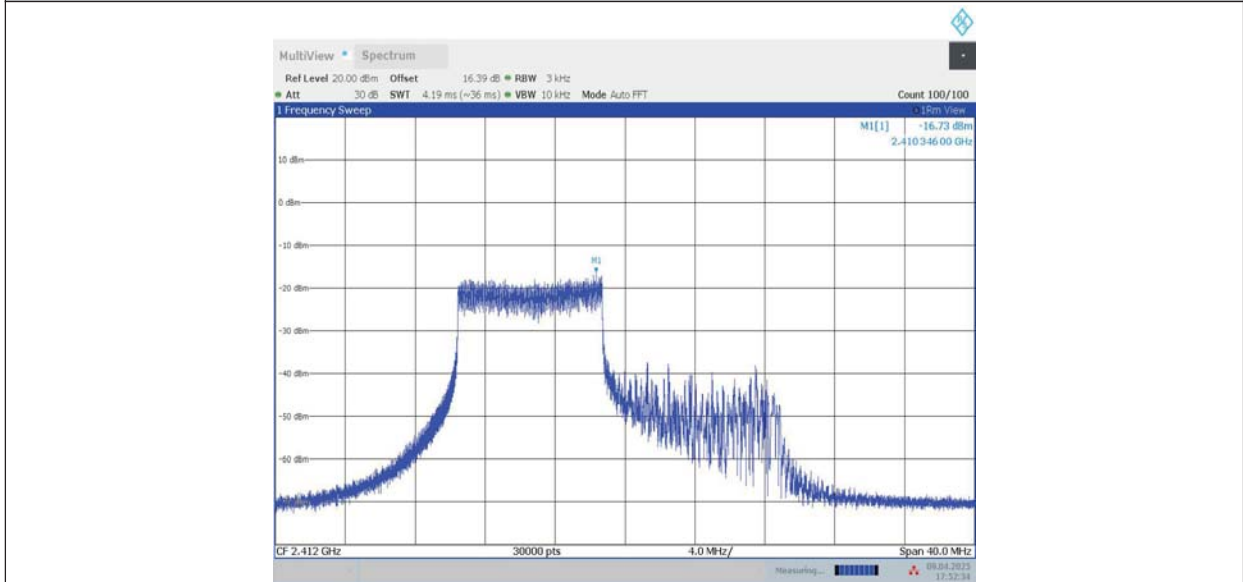
11AX20MIMO_Ant6_2412_52Tone_RU37



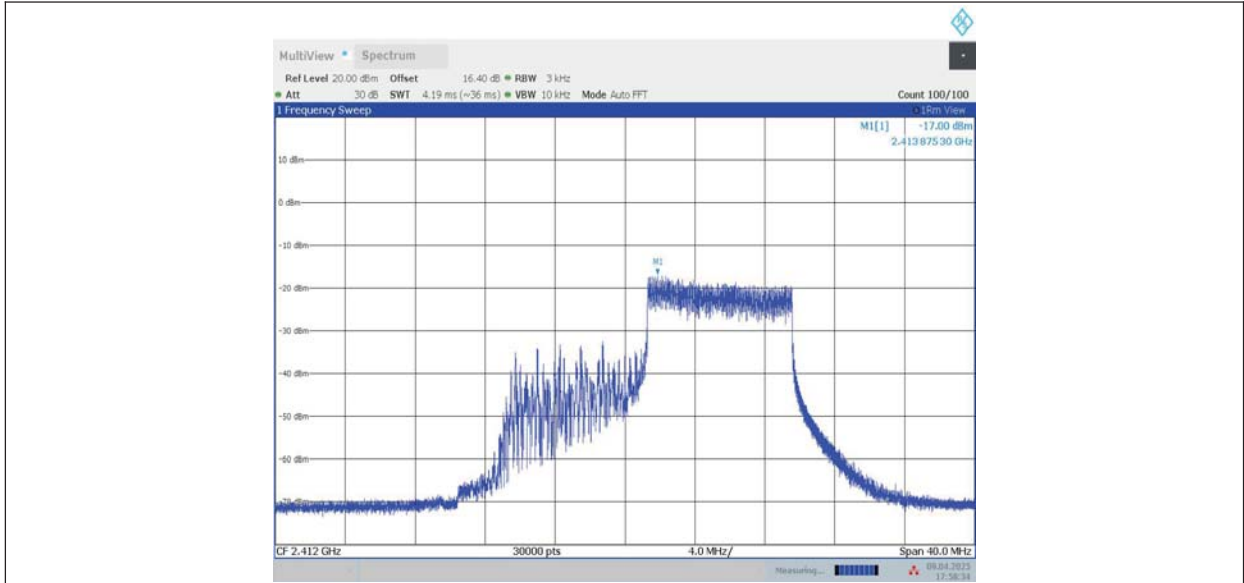
11AX20MIMO_Ant6_2412_52Tone_RU40



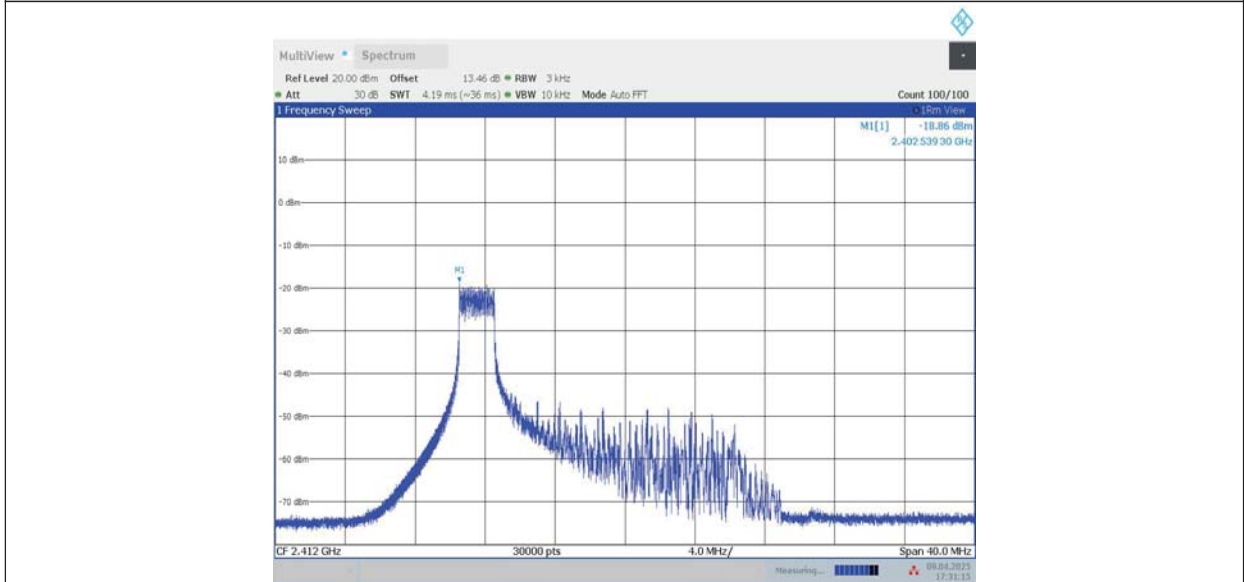
11AX20MIMO_Ant6_2412_106Tone_RU53



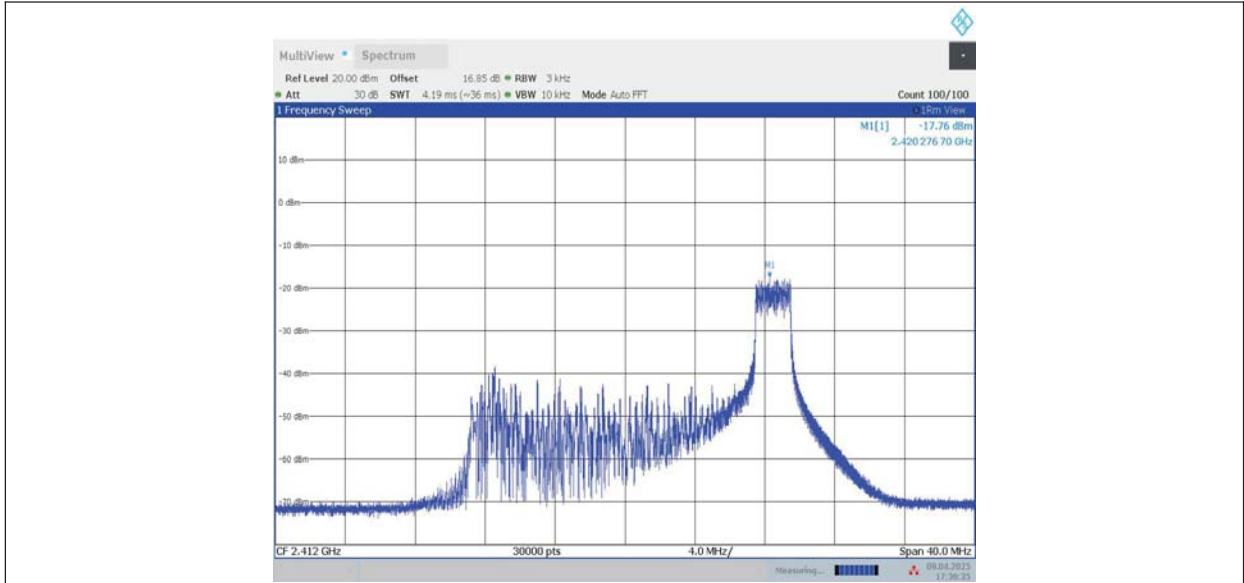
11AX20MIMO_Ant6_2412_106Tone_RU54



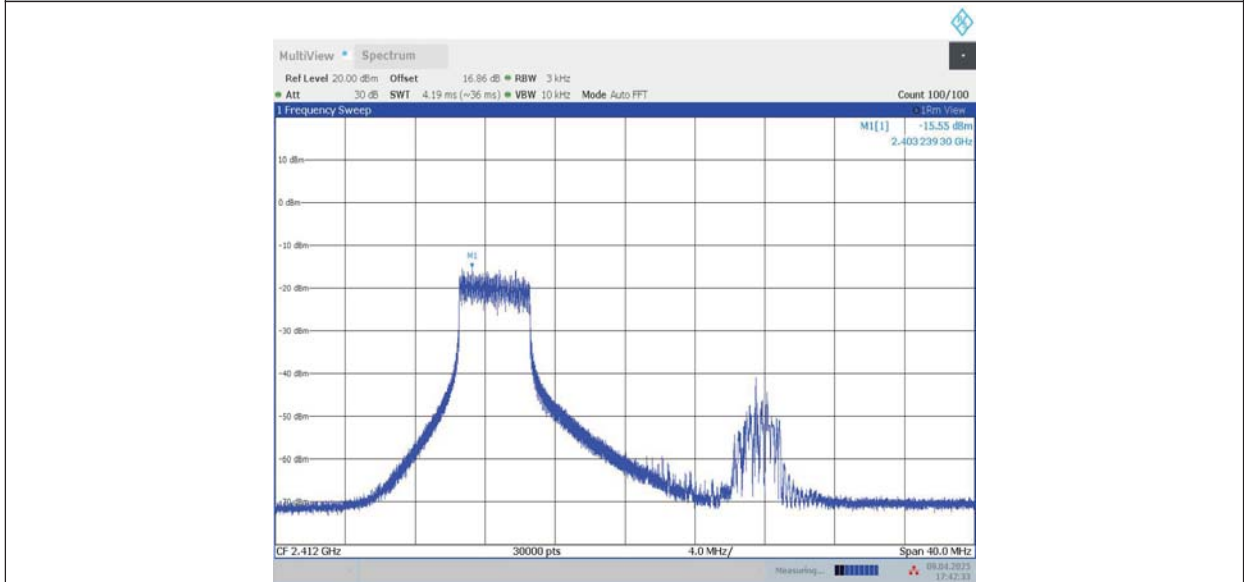
11AX20MIMO_Ant9_2412_26Tone_RU0



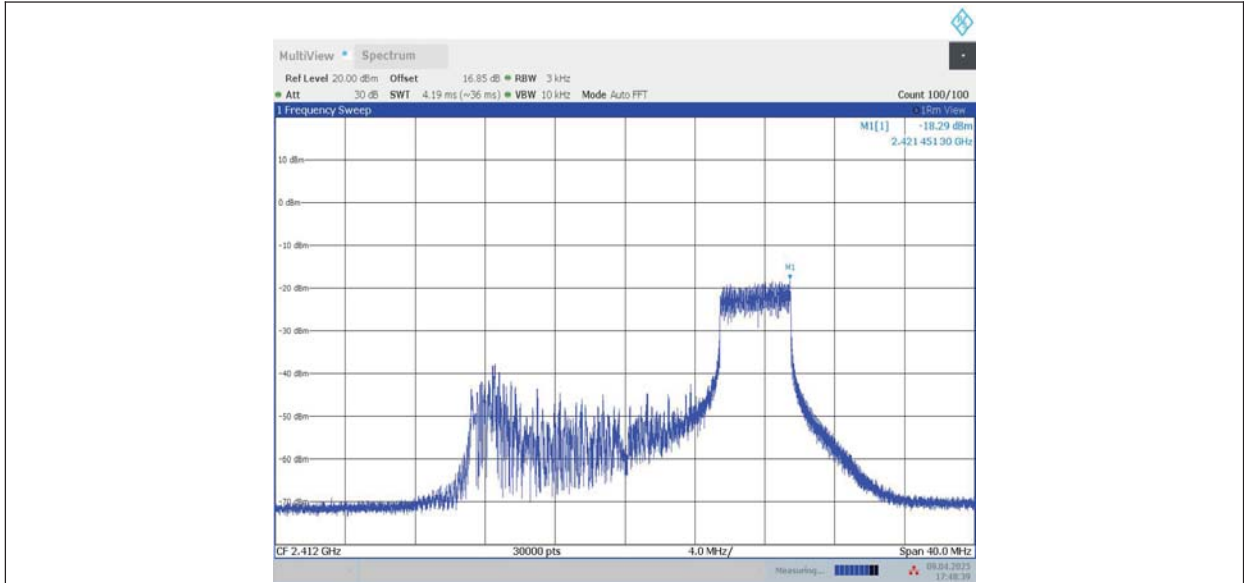
11AX20MIMO_Ant9_2412_26Tone_RU8



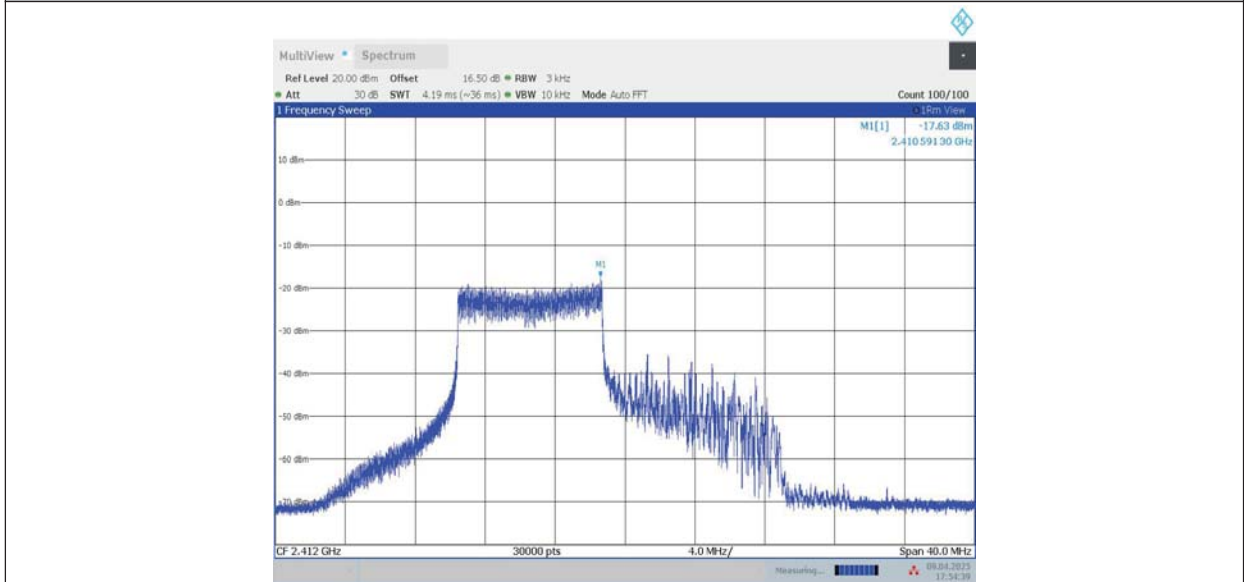
11AX20MIMO_Ant9_2412_52Tone_RU37



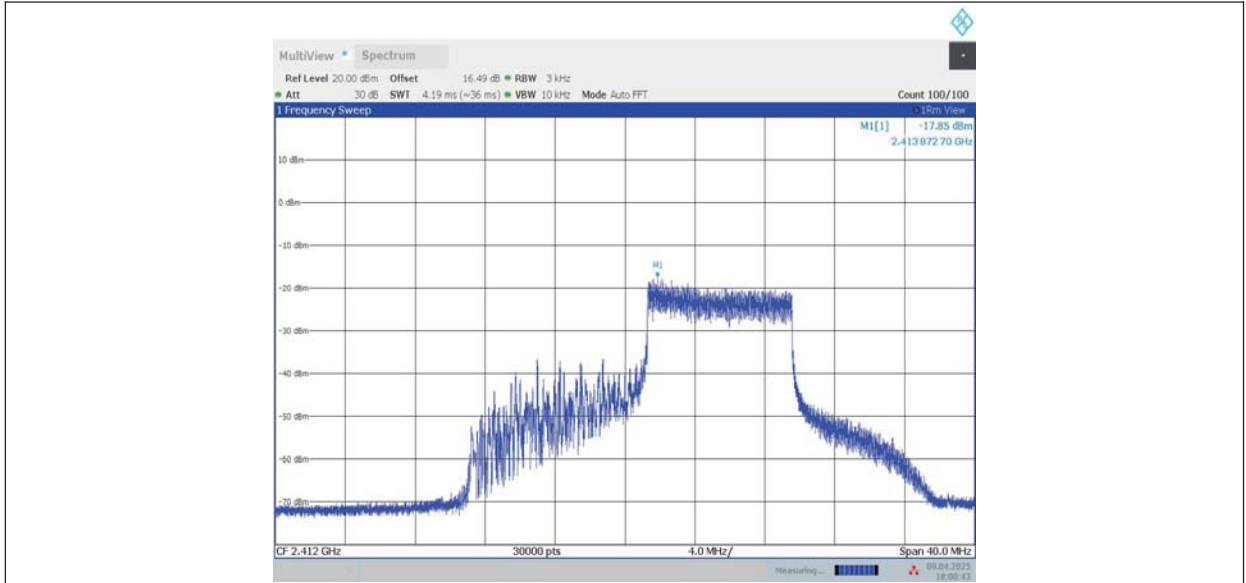
11AX20MIMO_Ant9_2412_52Tone_RU40



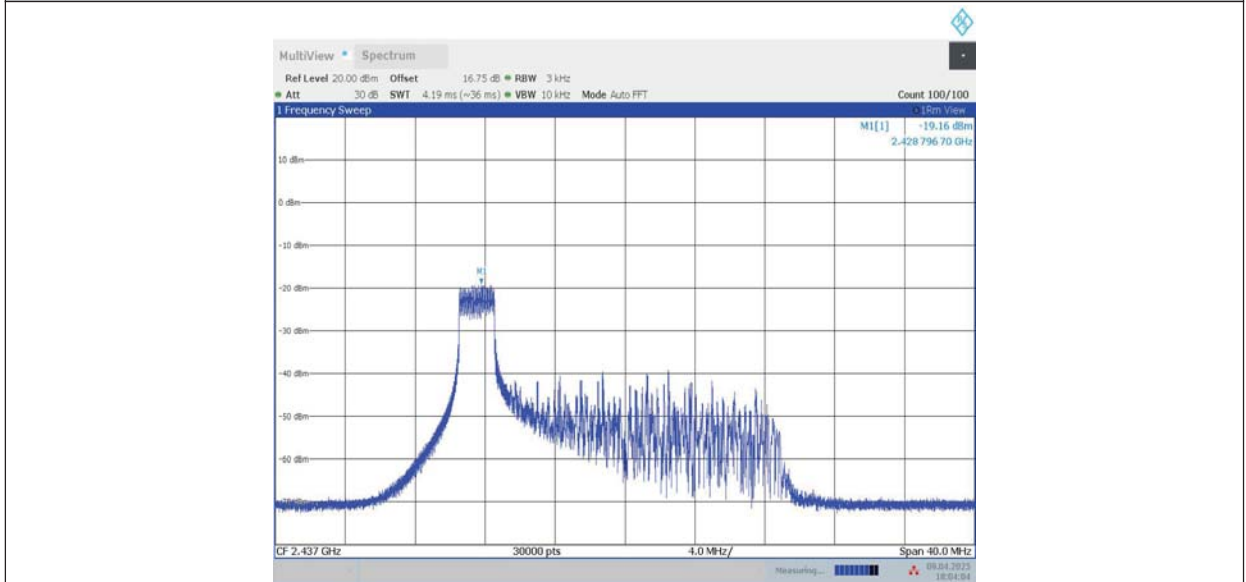
11AX20MIMO_Ant9_2412_106Tone_RU53



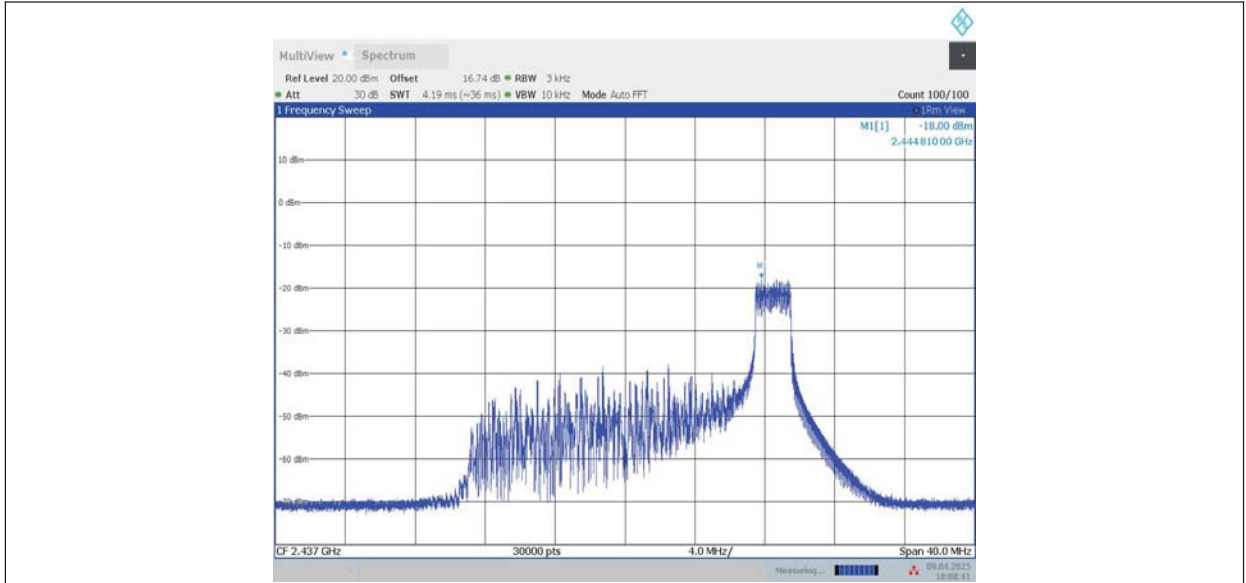
11AX20MIMO_Ant9_2412_106Tone_RU54



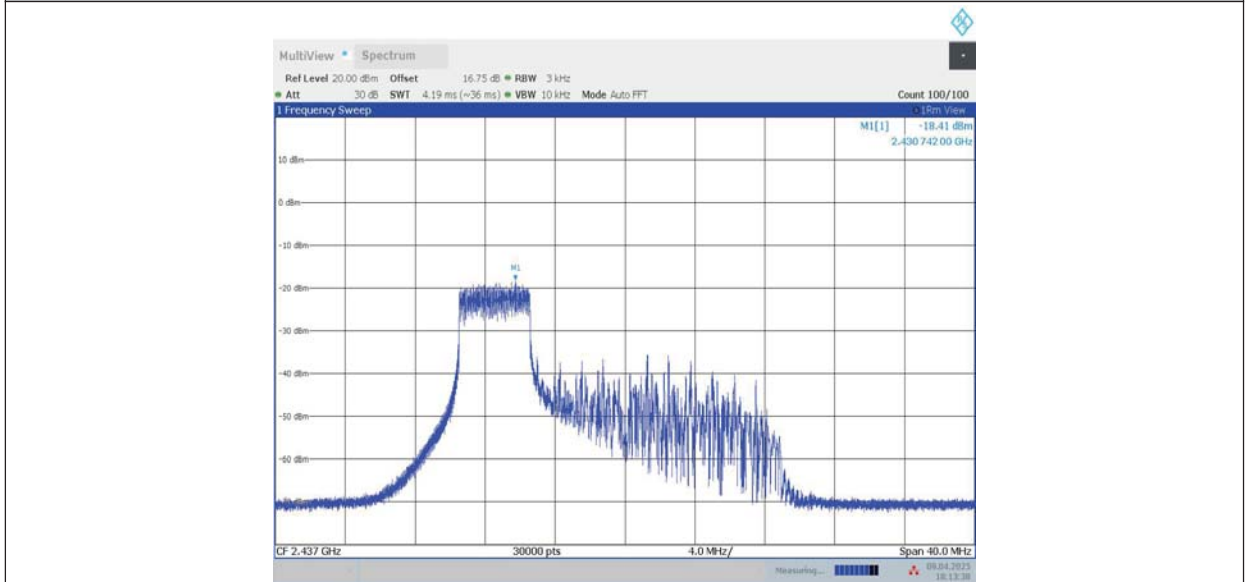
11AX20MIMO_Ant6_2437_26Tone_RU0



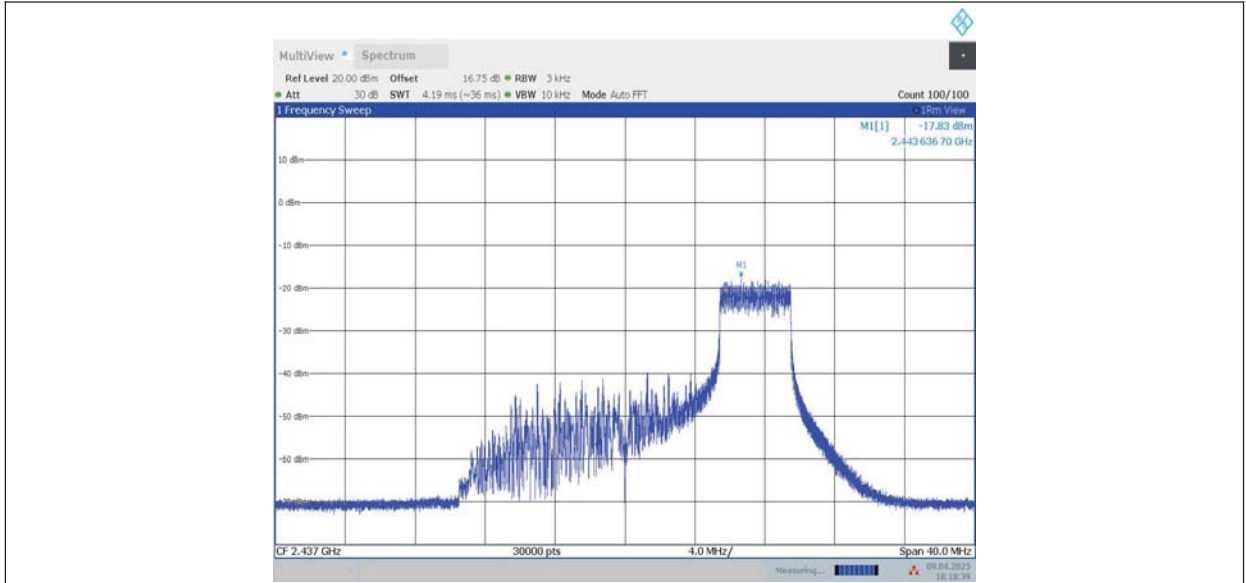
11AX20MIMO_Ant6_2437_26Tone_RU8



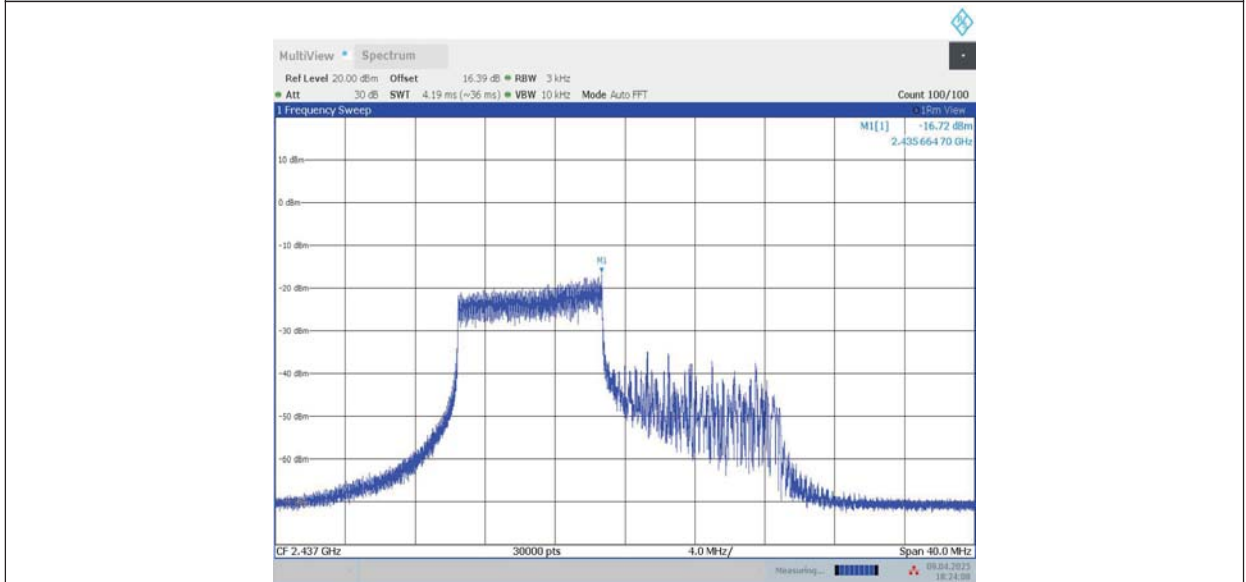
11AX20MIMO_Ant6_2437_52Tone_RU37



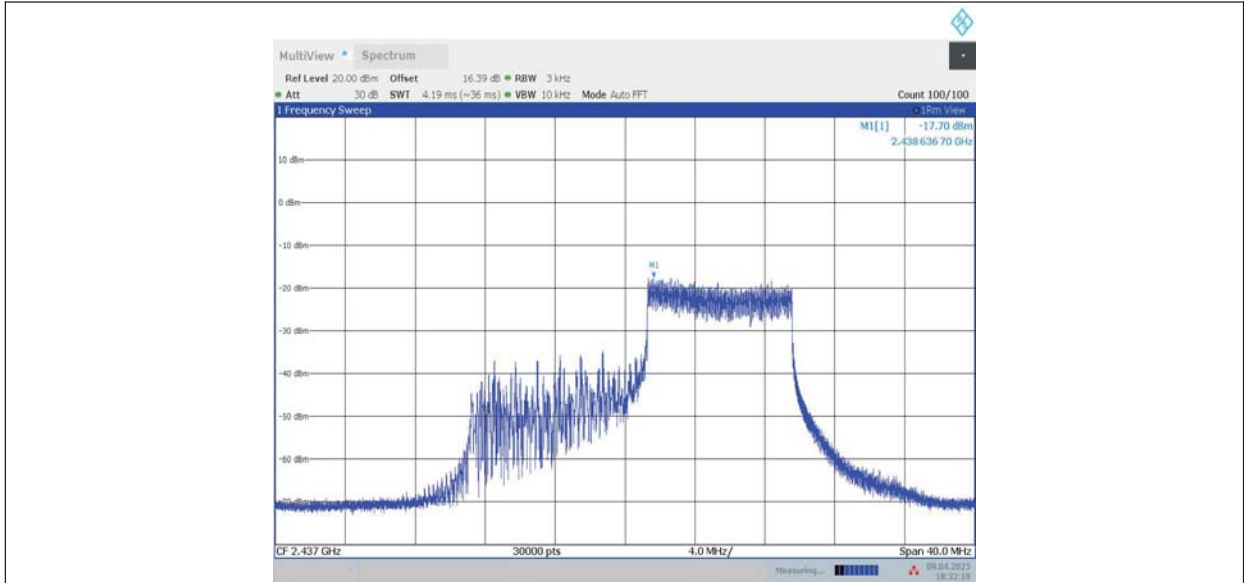
11AX20MIMO_Ant6_2437_52Tone_RU40



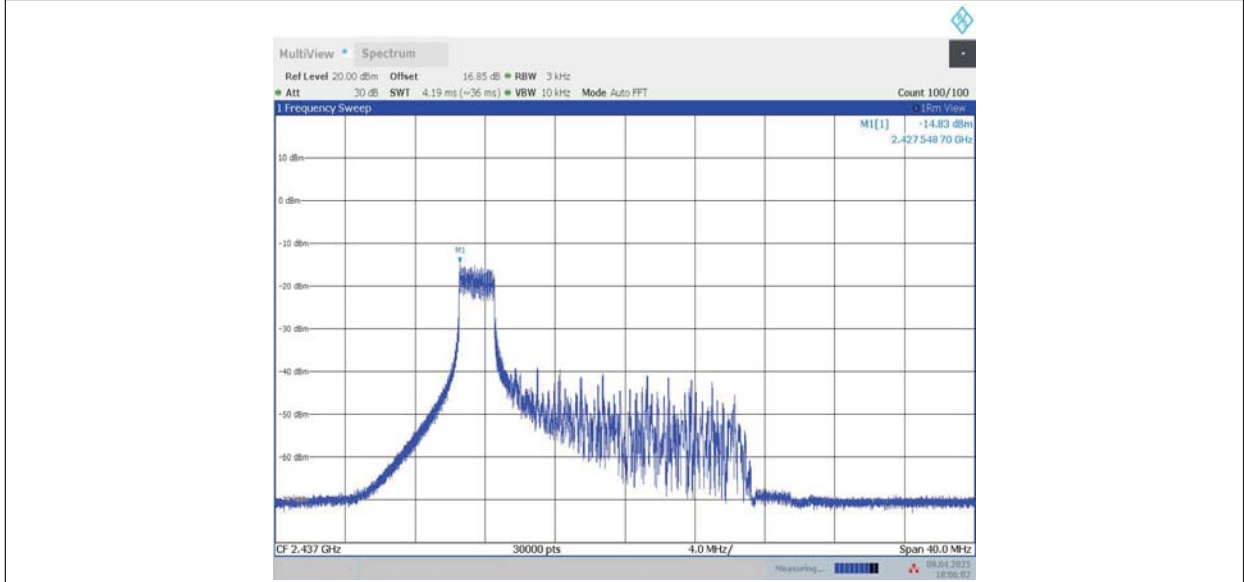
11AX20MIMO_Ant6_2437_106Tone_RU53



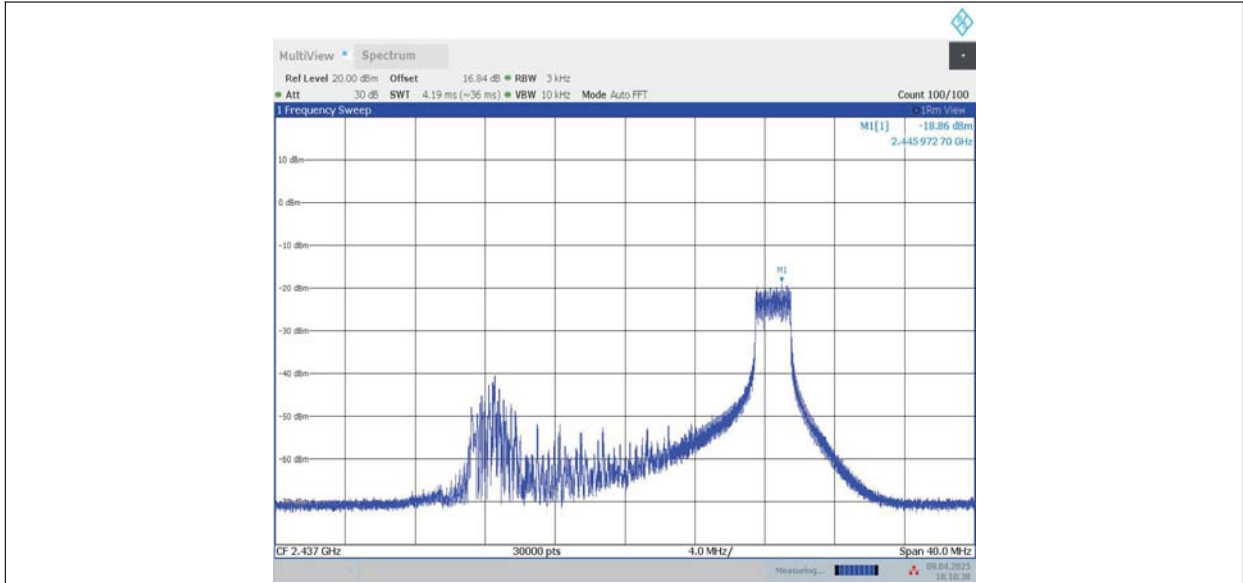
11AX20MIMO_Ant6_2437_106Tone_RU54



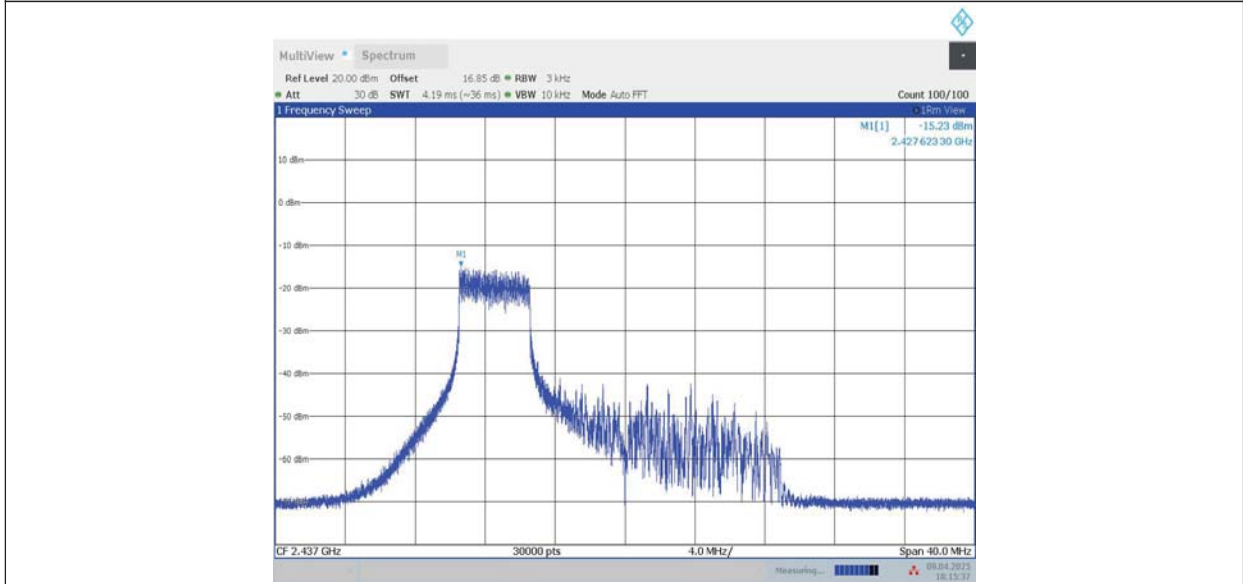
11AX20MIMO_Ant9_2437_26Tone_RU0



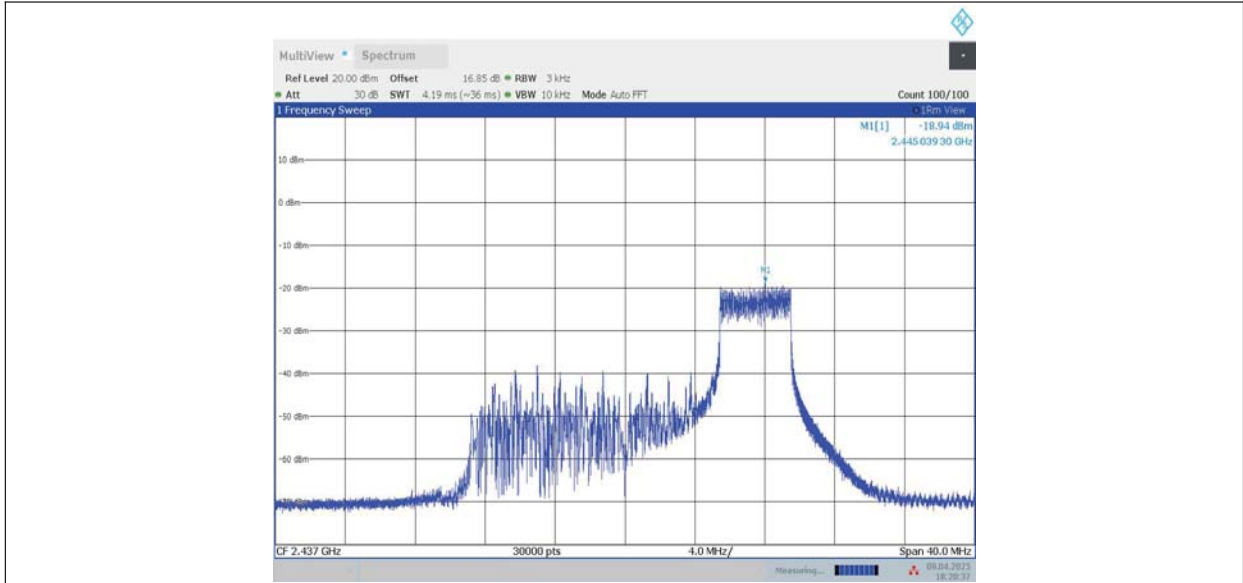
11AX20MIMO_Ant9_2437_26Tone_RU8



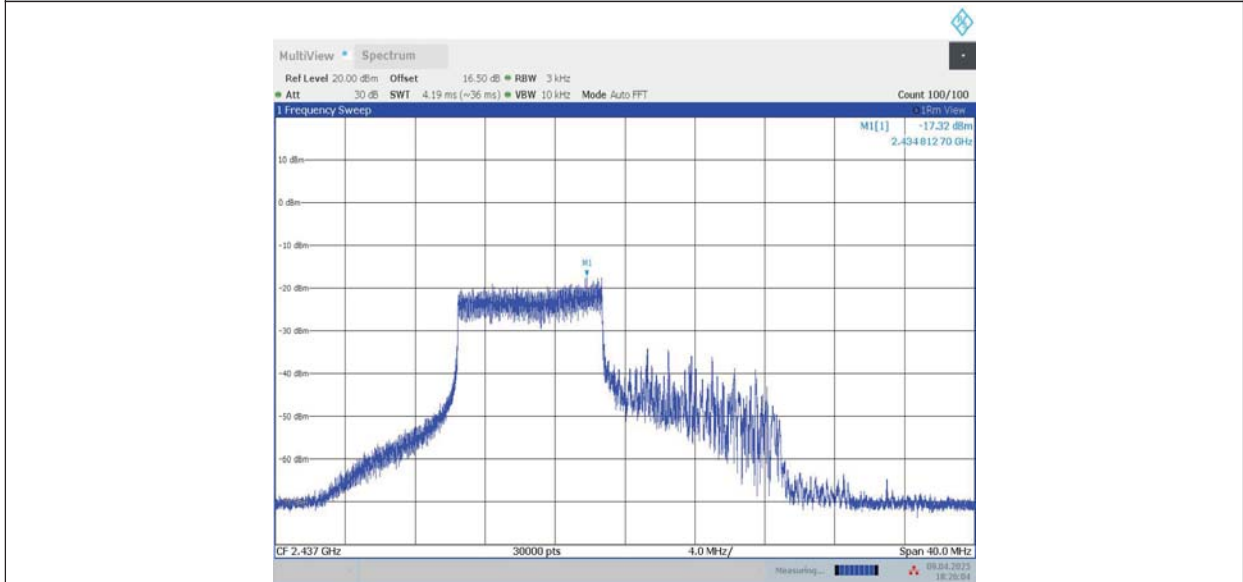
11AX20MIMO_Ant9_2437_52Tone_RU37



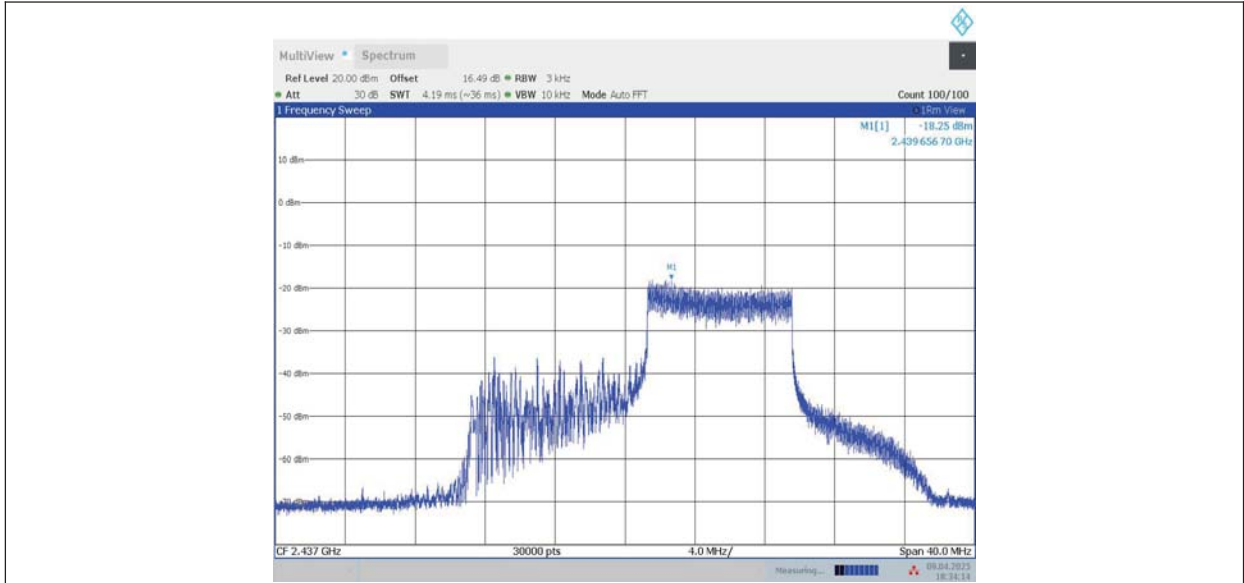
11AX20MIMO_Ant9_2437_52Tone_RU40



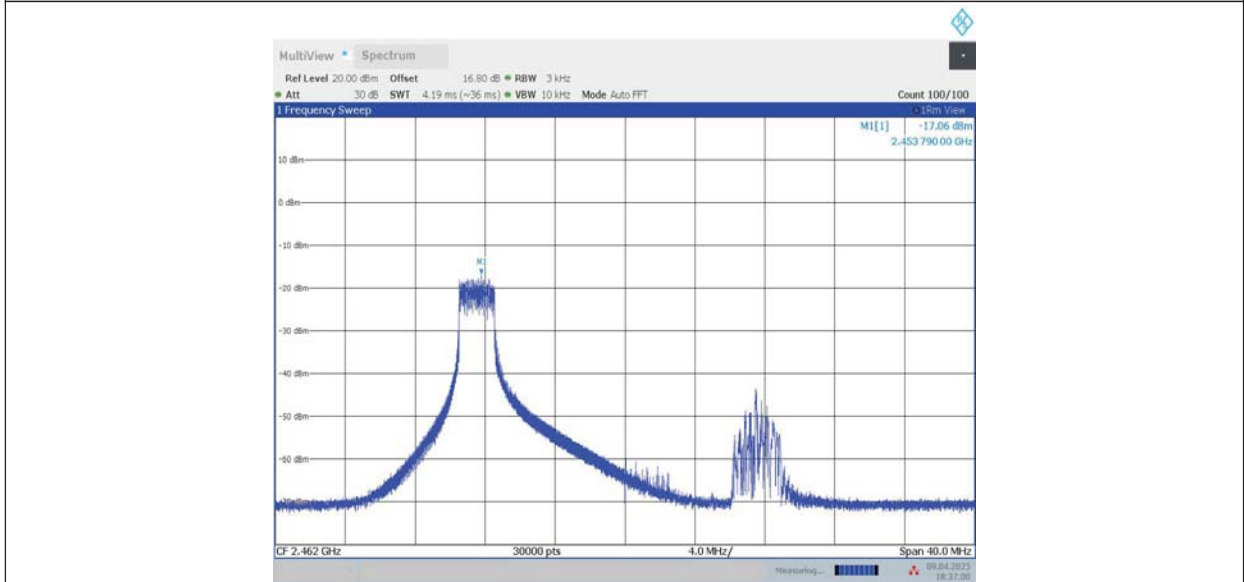
11AX20MIMO_Ant9_2437_106Tone_RU53



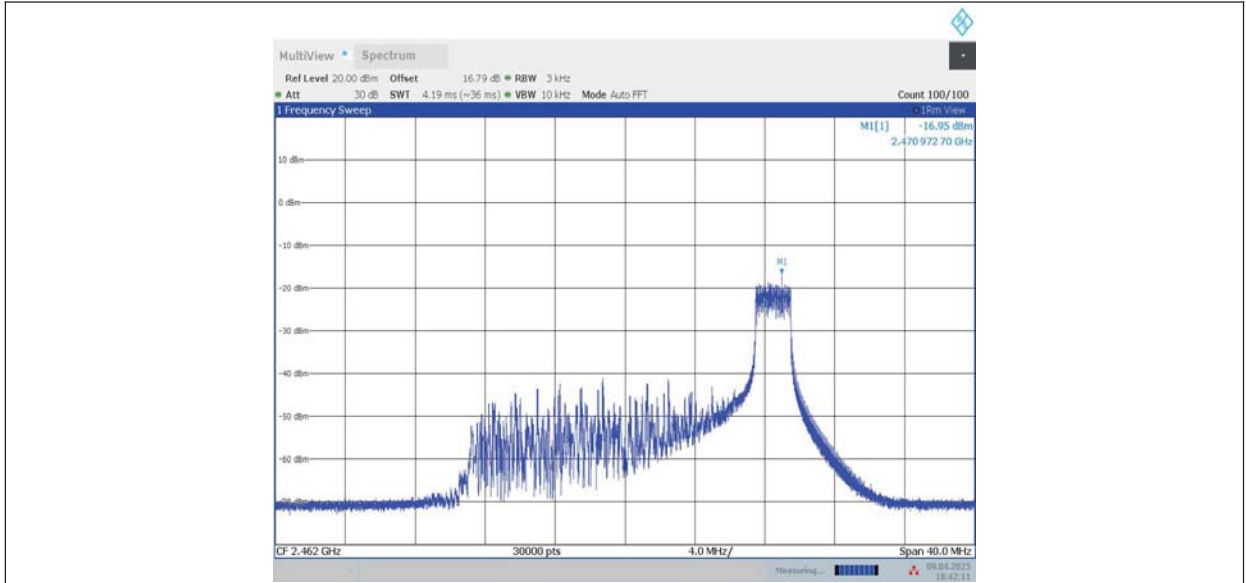
11AX20MIMO_Ant9_2437_106Tone_RU54



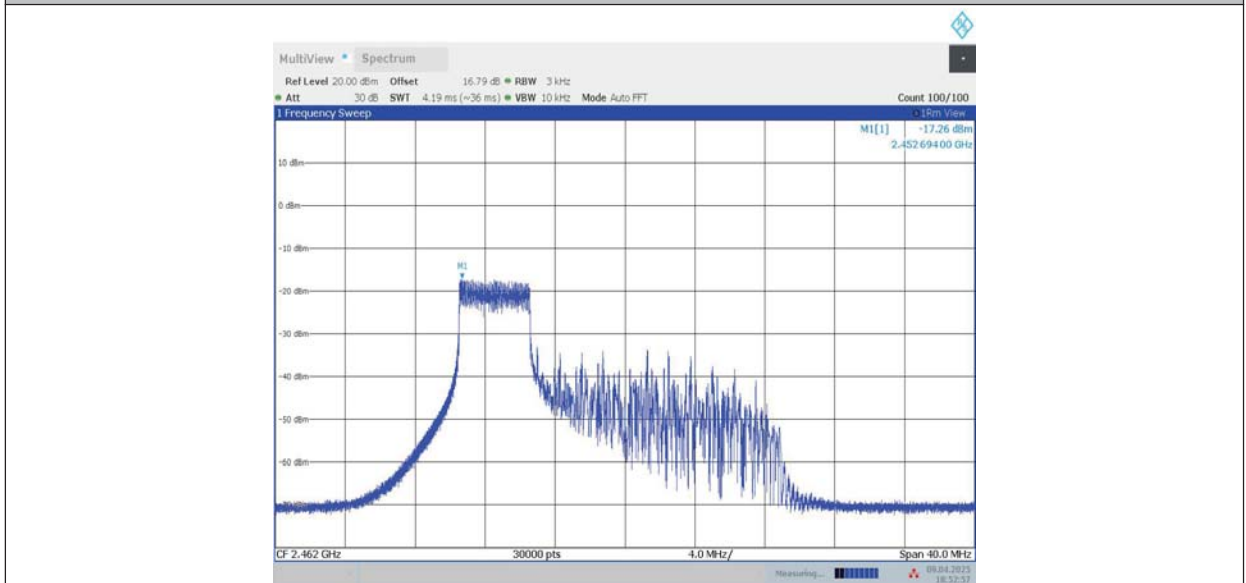
11AX20MIMO_Ant6_2462_26Tone_RU0



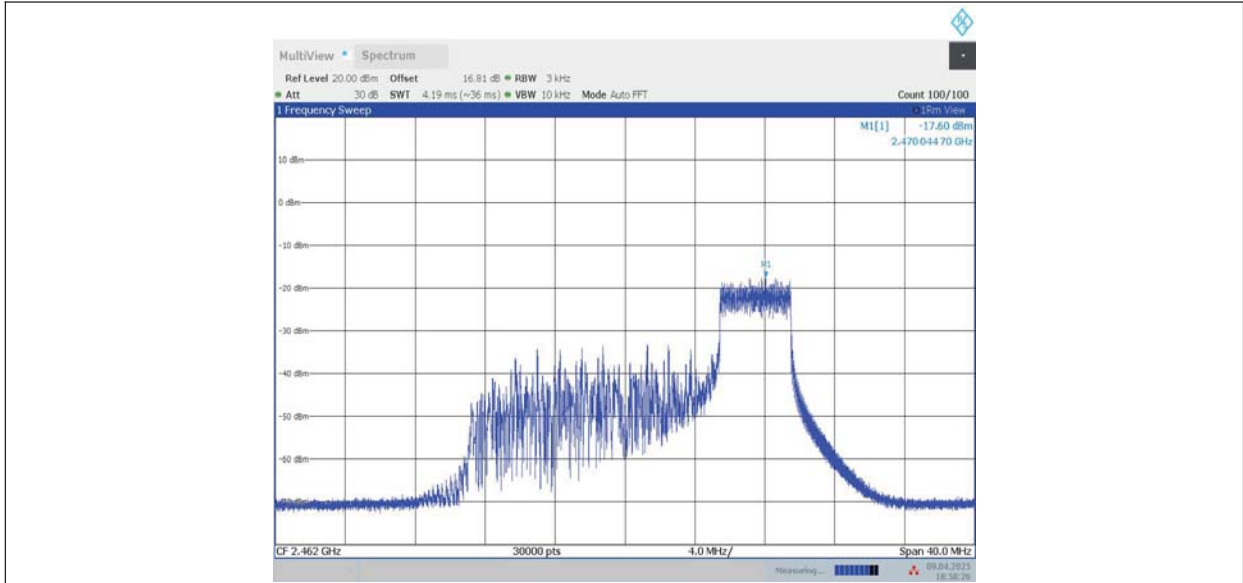
11AX20MIMO_Ant6_2462_26Tone_RU8



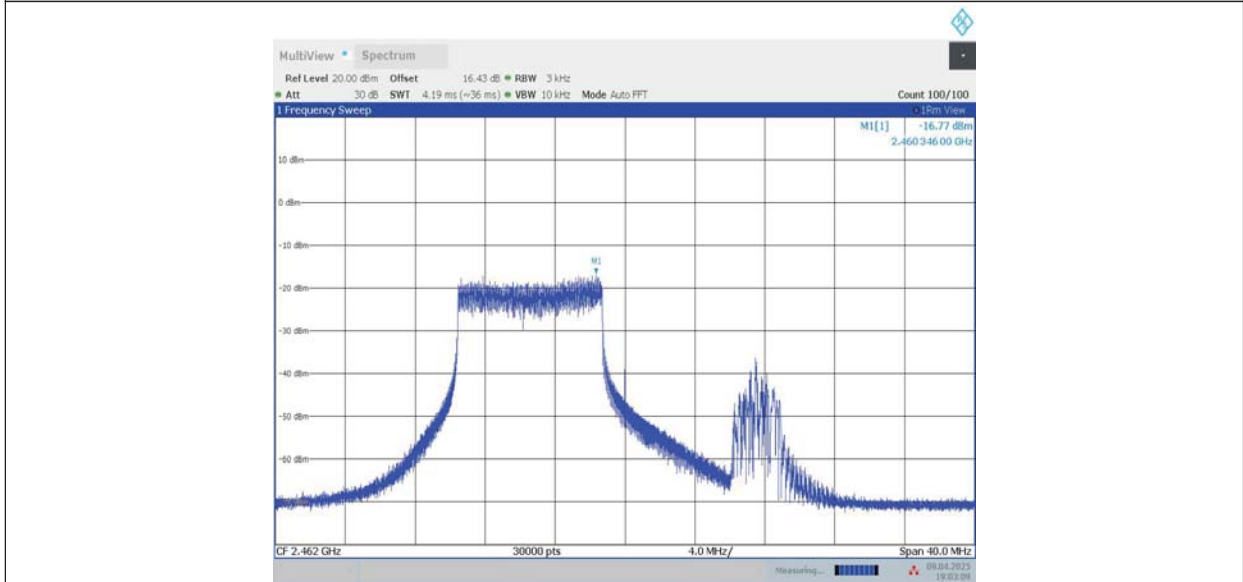
11AX20MIMO_Ant6_2462_52Tone_RU37



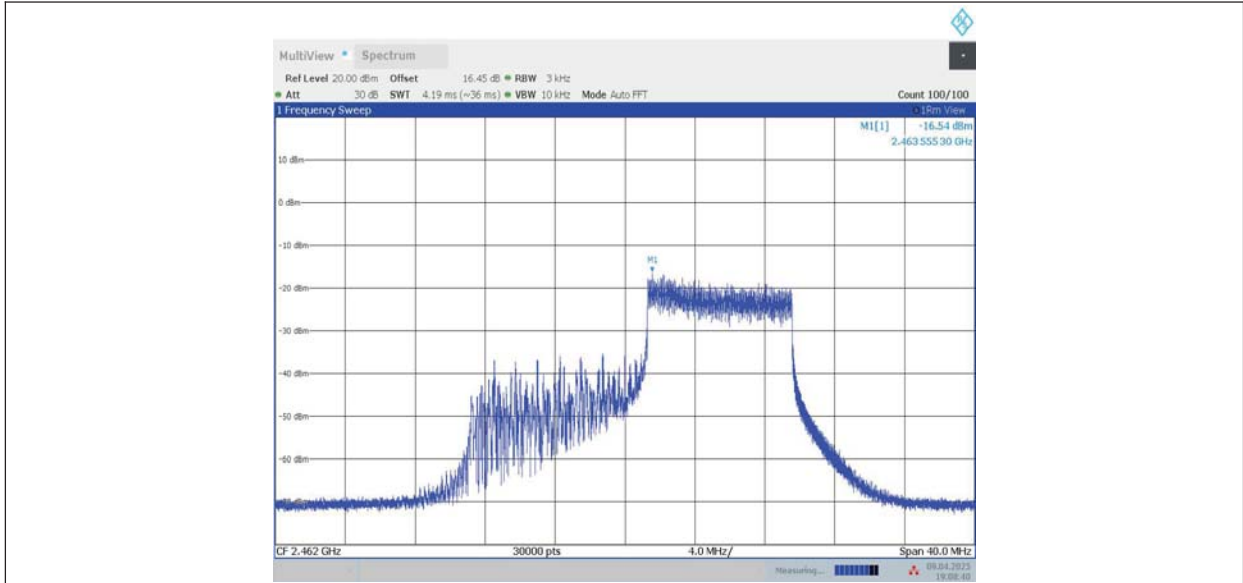
11AX20MIMO_Ant6_2462_52Tone_RU40



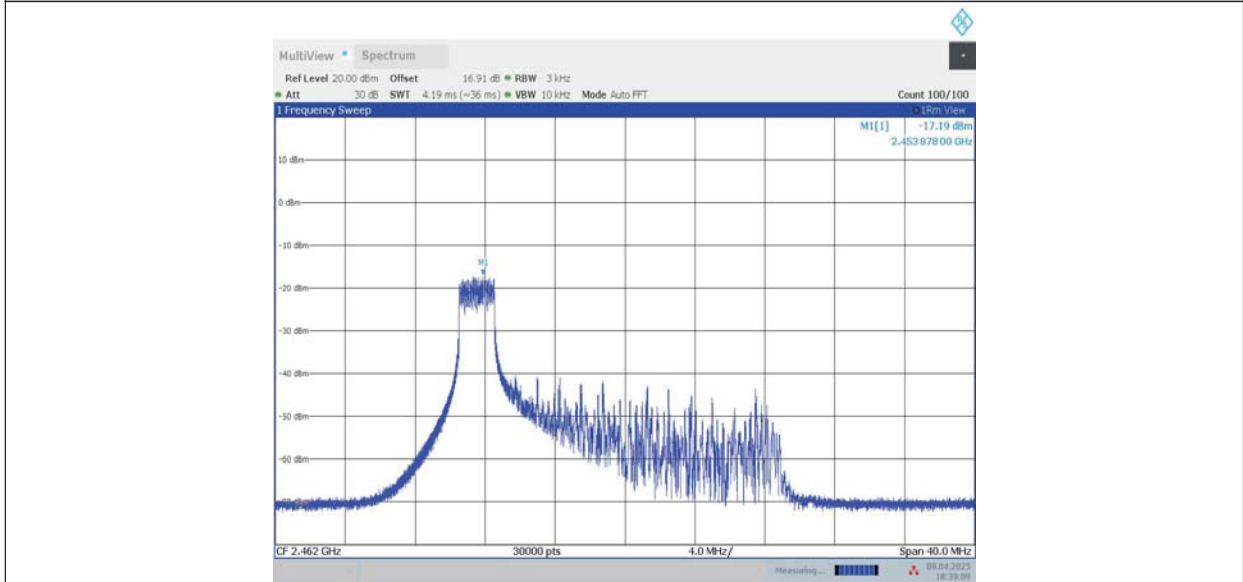
11AX20MIMO_Ant6_2462_106Tone_RU53



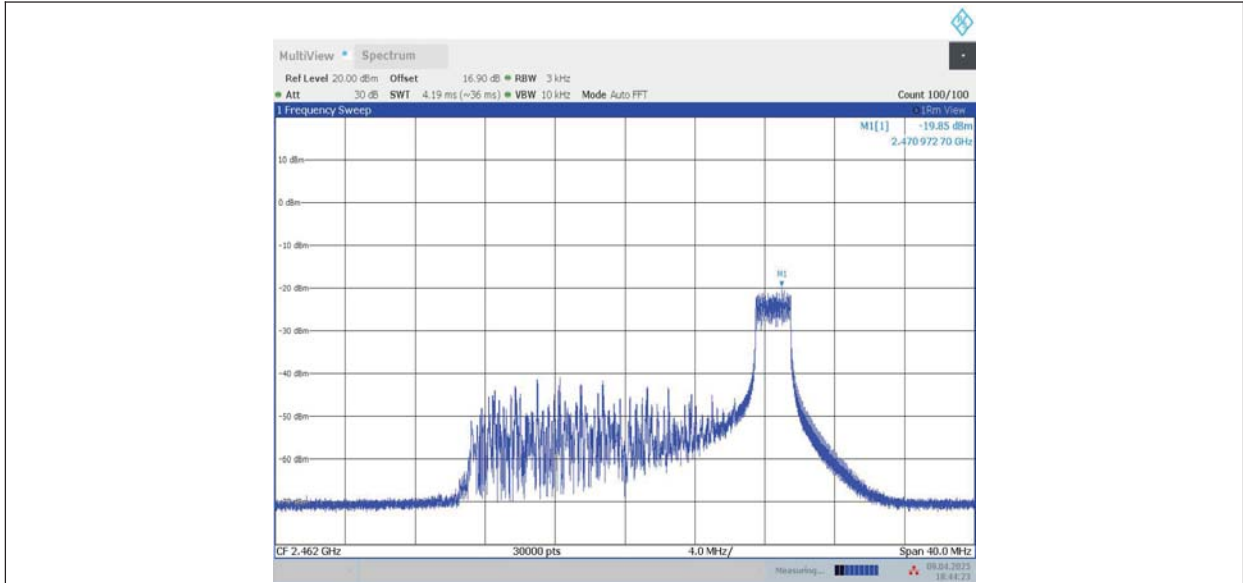
11AX20MIMO_Ant6_2462_106Tone_RU54



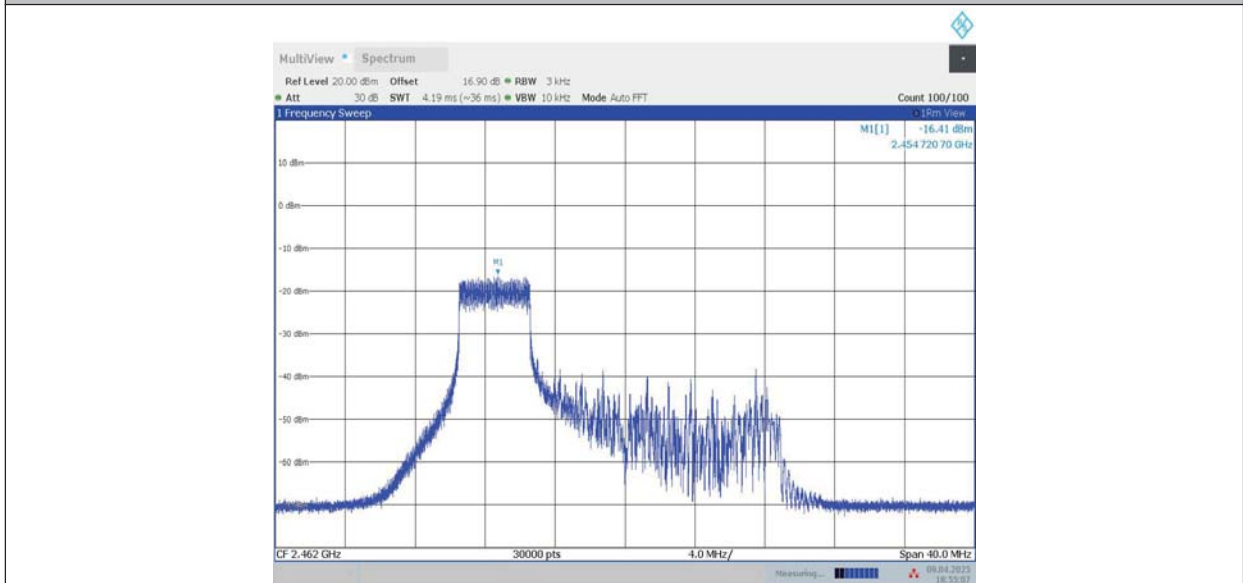
11AX20MIMO_Ant9_2462_26Tone_RU0



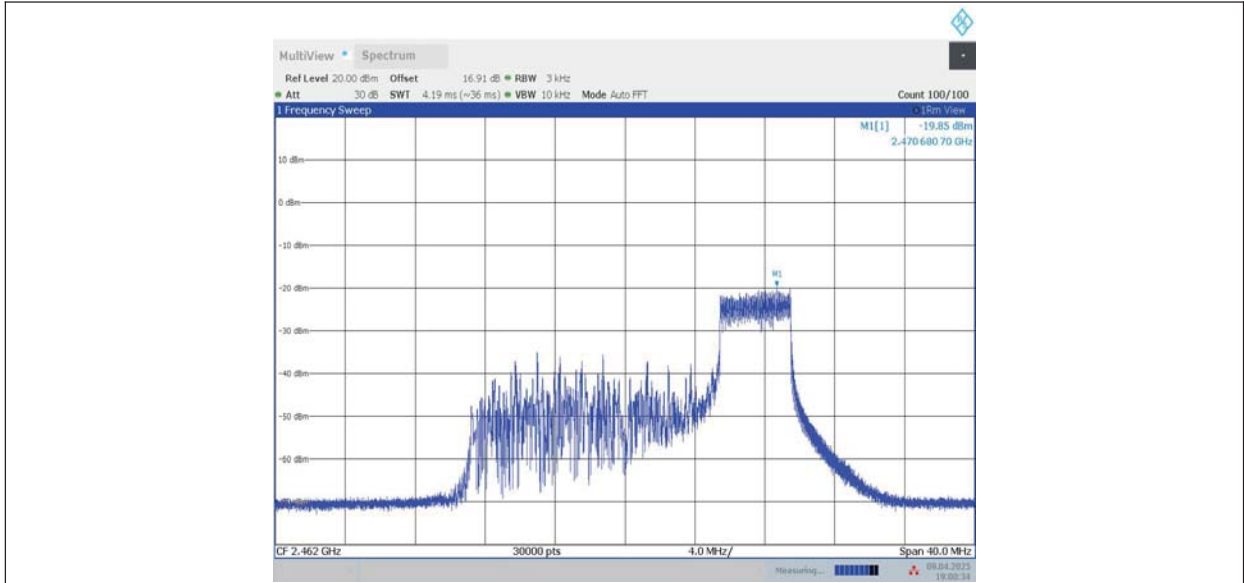
11AX20MIMO_Ant9_2462_26Tone_RU8



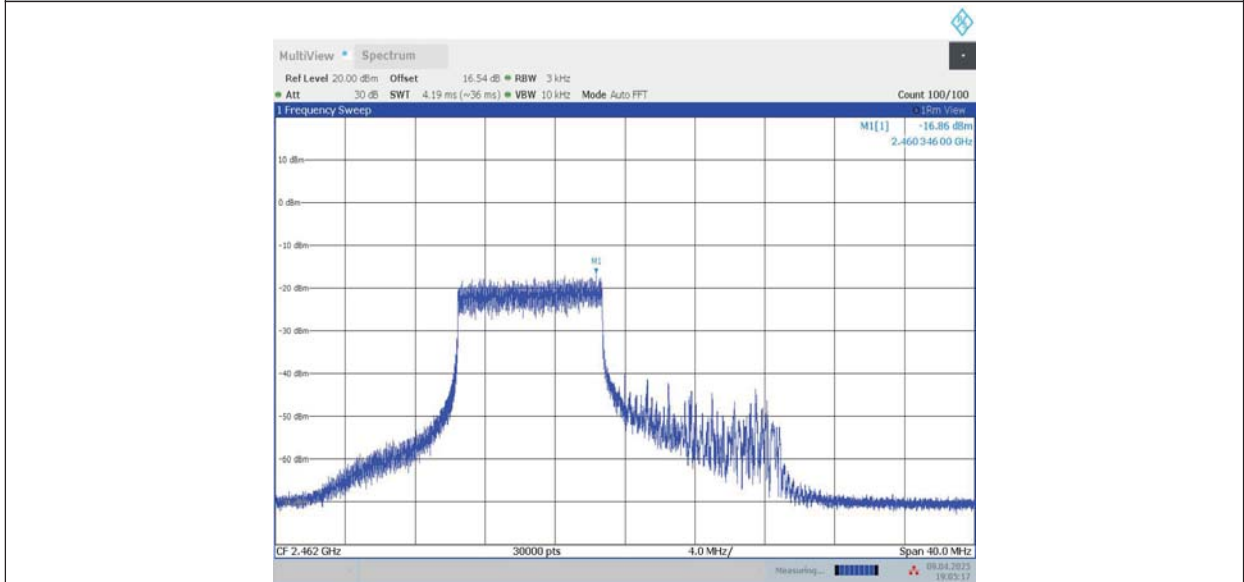
11AX20MIMO_Ant9_2462_52Tone_RU37



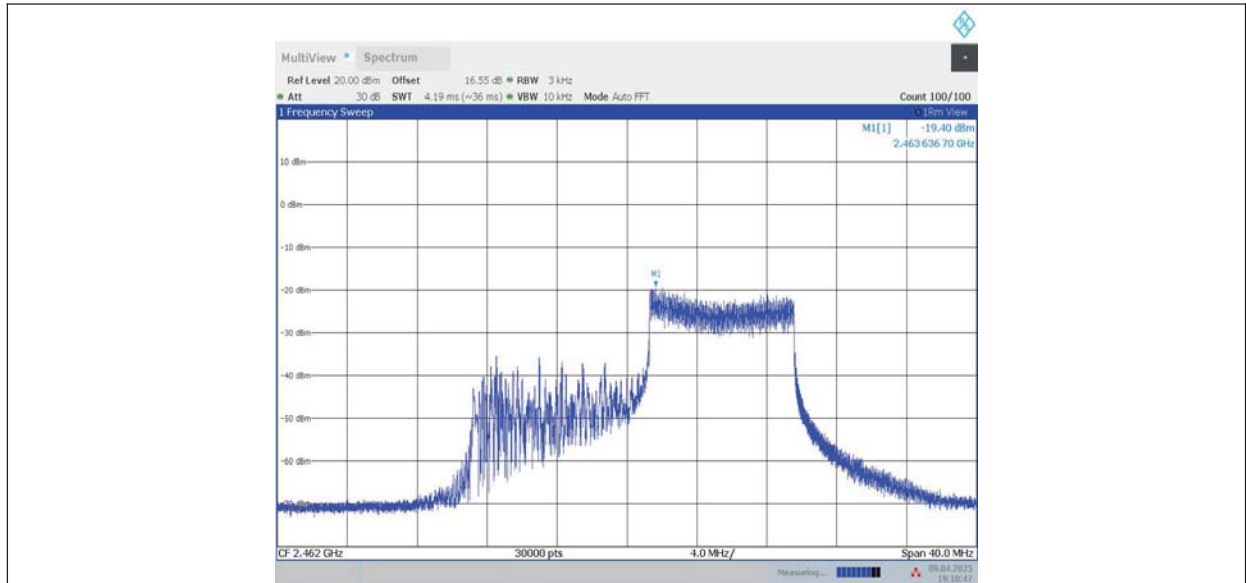
11AX20MIMO_Ant9_2462_52Tone_RU40



11AX20MIMO_Ant9_2462_106Tone_RU53



11AX20MIMO_Ant9_2462_106Tone_RU54



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

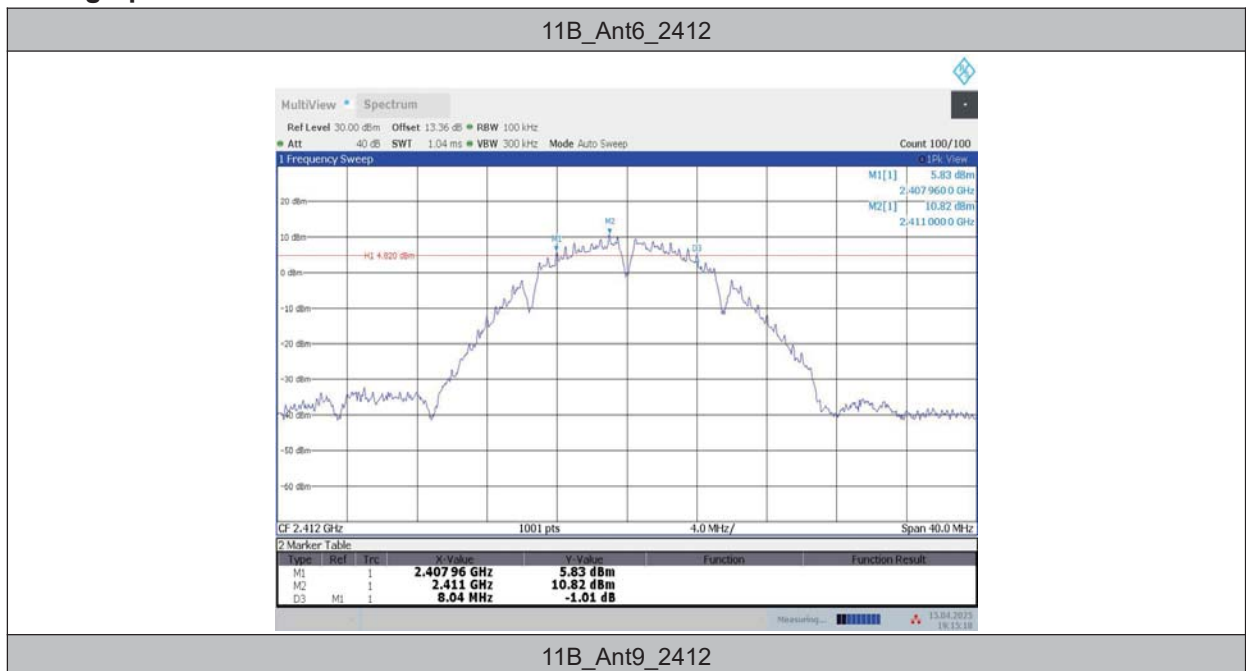
EUT ID: UT27a

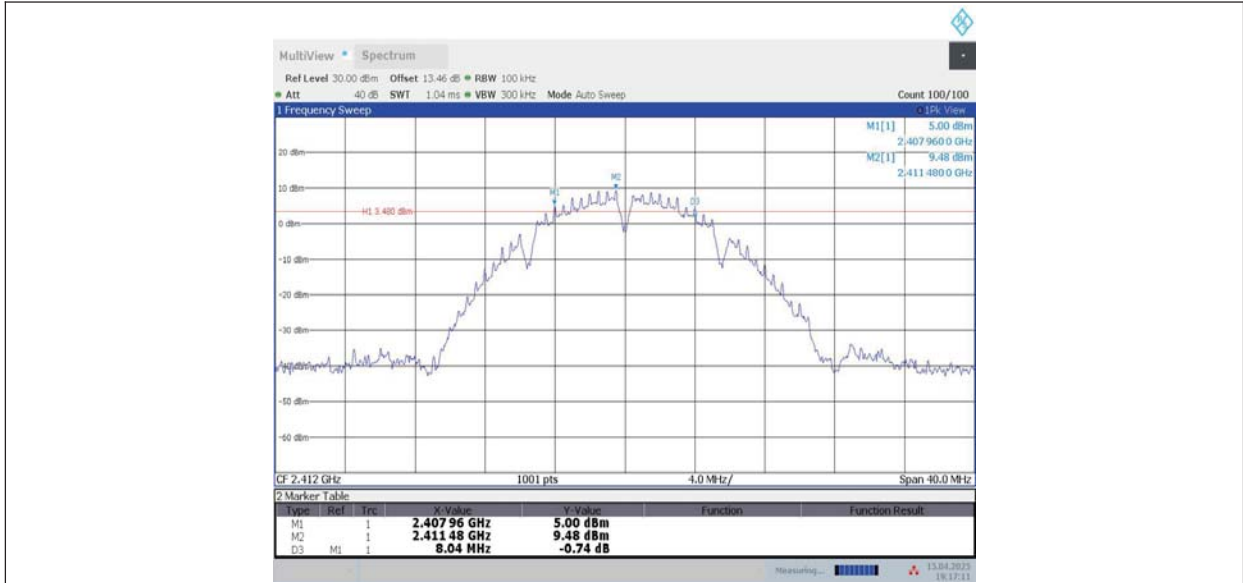
Measurement Result:

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant6	2412	8.04	2407.96	2416.00	0.5	PASS
	Ant9	2412	8.04	2407.96	2416.00	0.5	PASS
	Ant6	2437	8.04	2432.96	2441.00	0.5	PASS
	Ant9	2437	7.52	2433.00	2440.52	0.5	PASS
	Ant6	2462	8.60	2457.44	2466.04	0.5	PASS
	Ant9	2462	7.56	2458.44	2466.00	0.5	PASS
11G	Ant6	2412	14.04	2404.48	2418.52	0.5	PASS
	Ant9	2412	12.60	2405.72	2418.32	0.5	PASS
	Ant6	2437	15.48	2429.40	2444.88	0.5	PASS
	Ant9	2437	15.16	2429.40	2444.56	0.5	PASS
	Ant6	2462	15.12	2454.44	2469.56	0.5	PASS
	Ant9	2462	13.20	2455.68	2468.88	0.5	PASS
11N20MIMO	Ant6	2412	15.32	2403.56	2418.88	0.5	PASS
	Ant9	2412	17.52	2403.20	2420.72	0.5	PASS
	Ant6	2437	11.92	2430.08	2442.00	0.5	PASS
	Ant9	2437	16.32	2428.20	2444.52	0.5	PASS
	Ant6	2462	15.32	2453.80	2469.12	0.5	PASS
	Ant9	2462	16.28	2453.20	2469.48	0.5	PASS
11N40MIMO	Ant6	2422	31.44	2405.92	2437.36	0.5	PASS
	Ant9	2422	33.12	2404.48	2437.60	0.5	PASS
	Ant6	2437	32.80	2421.72	2454.52	0.5	PASS

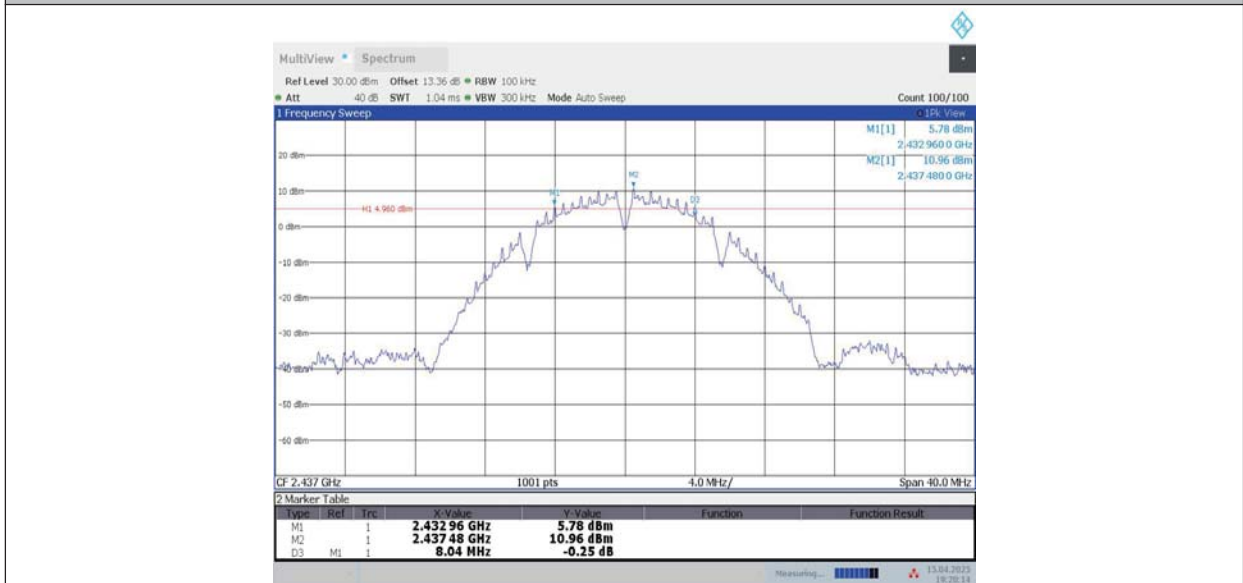
	Ant9	2437	36.00	2419.16	2455.16	0.5	PASS
	Ant6	2452	27.76	2436.72	2464.48	0.5	PASS
	Ant9	2452	34.48	2435.04	2469.52	0.5	PASS
11AX20MIMO	Ant6	2412	13.76	2403.48	2417.24	0.5	PASS
	Ant9	2412	16.28	2403.28	2419.56	0.5	PASS
	Ant6	2437	15.88	2429.88	2445.76	0.5	PASS
	Ant9	2437	18.36	2427.52	2445.88	0.5	PASS
	Ant6	2462	13.92	2453.76	2467.68	0.5	PASS
	Ant9	2462	17.64	2452.48	2470.12	0.5	PASS
11AX40MIMO	Ant6	2422	36.32	2402.96	2439.28	0.5	PASS
	Ant9	2422	35.44	2403.44	2438.88	0.5	PASS
	Ant6	2437	36.00	2419.32	2455.32	0.5	PASS
	Ant9	2437	35.36	2418.68	2454.04	0.5	PASS
	Ant6	2452	34.40	2435.52	2469.92	0.5	PASS
	Ant9	2452	26.24	2443.28	2469.52	0.5	PASS

Test graphs as below:

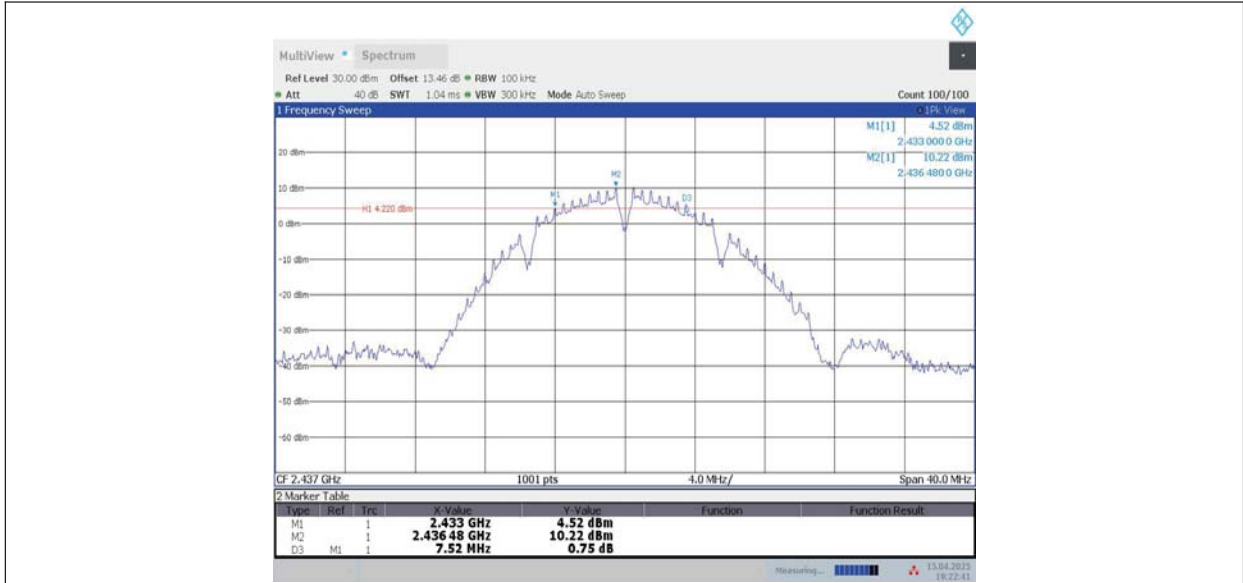




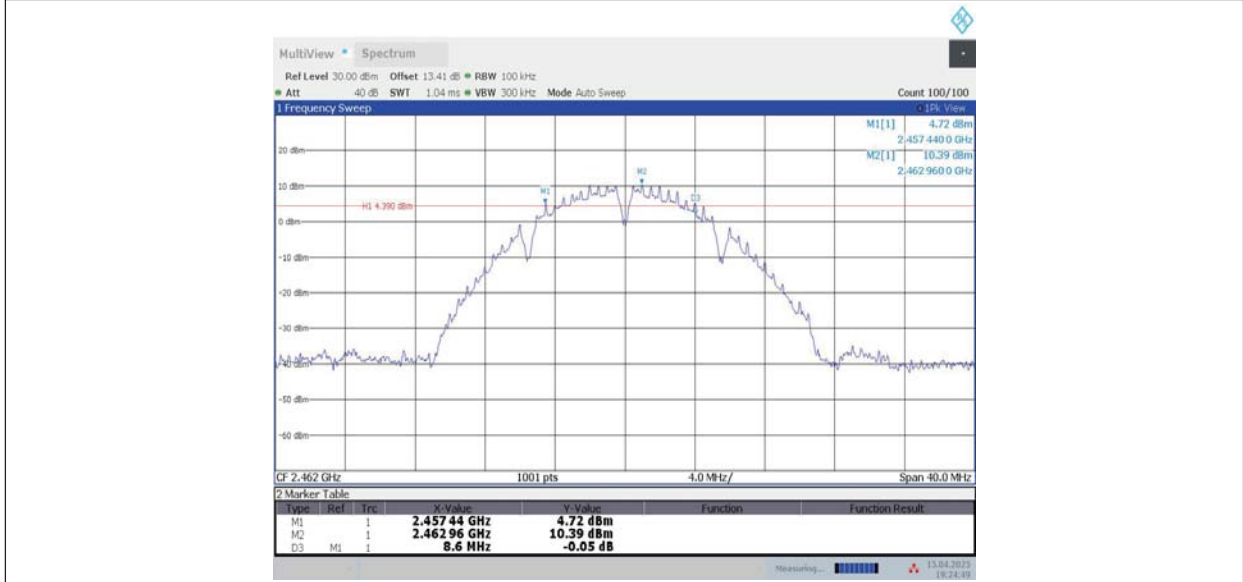
11B_Ant6_2437



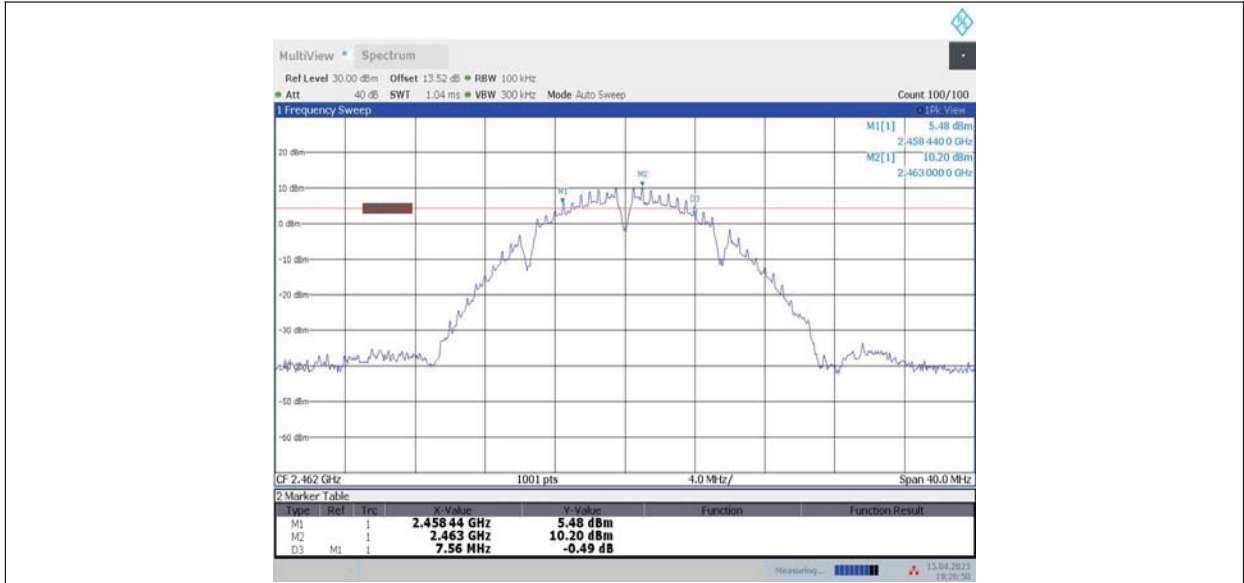
11B_Ant9_2437



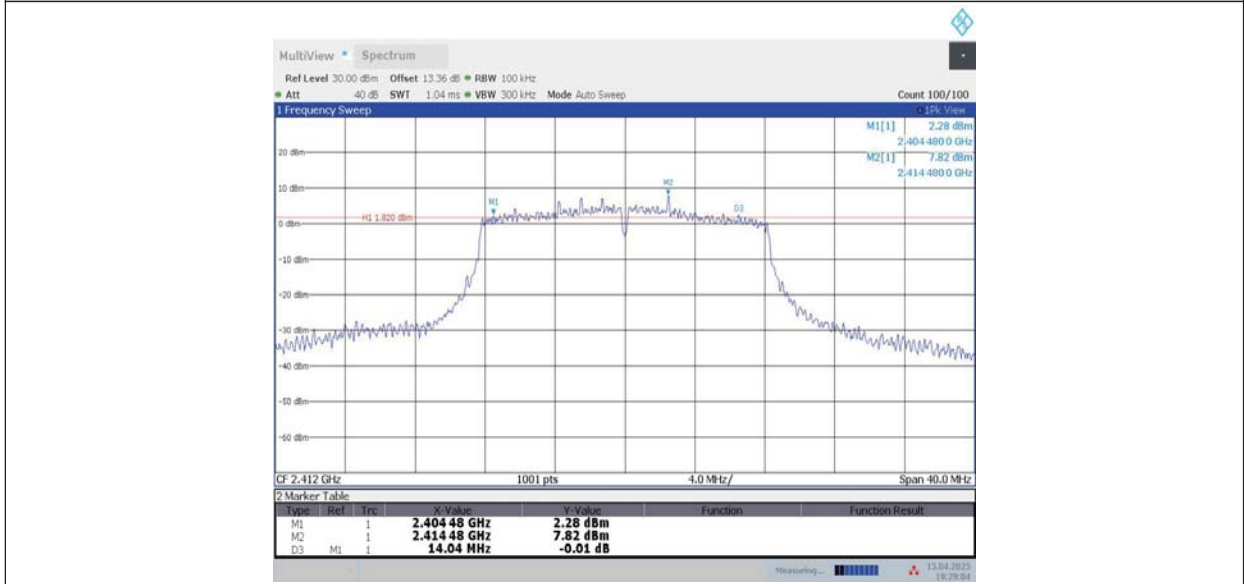
11B_Ant6_2462



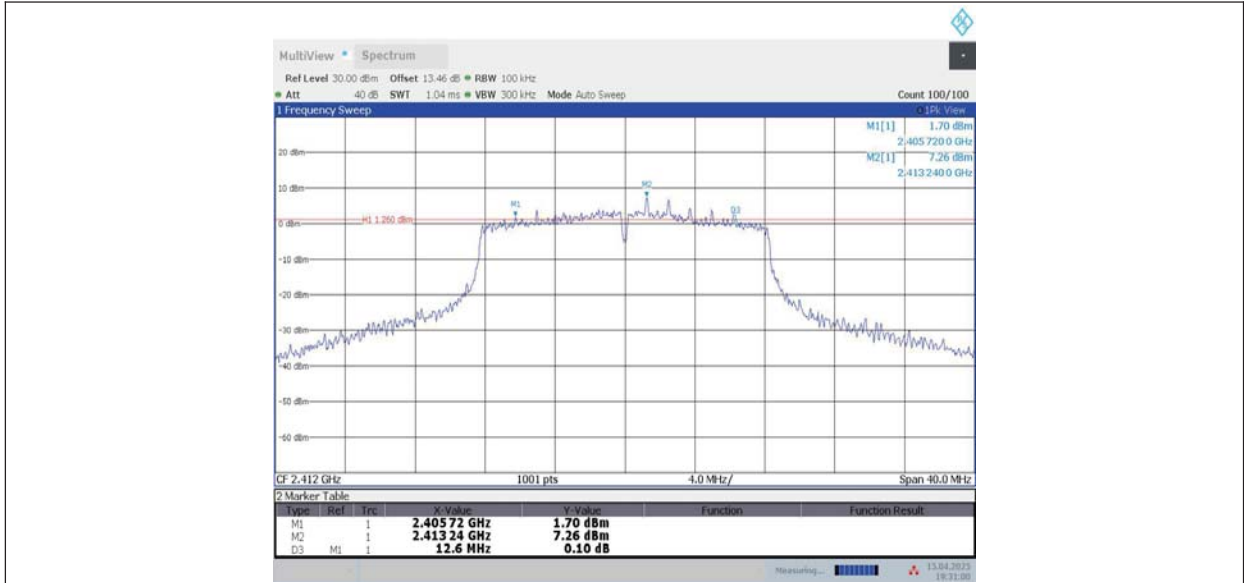
11B_Ant9_2462



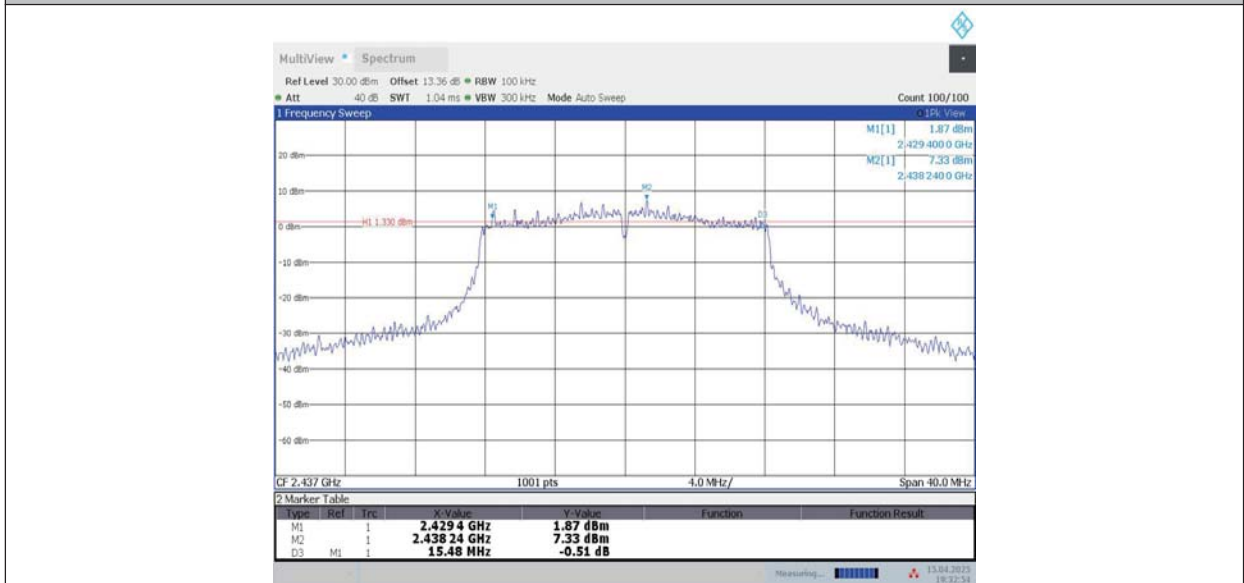
11G_Ant6_2412



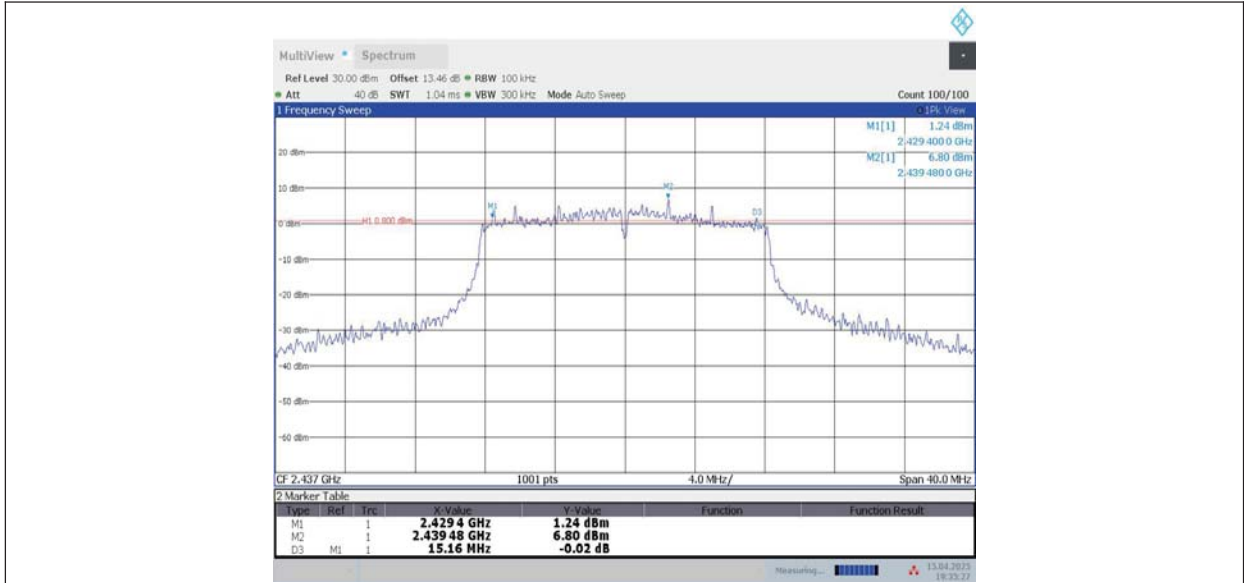
11G_Ant9_2412



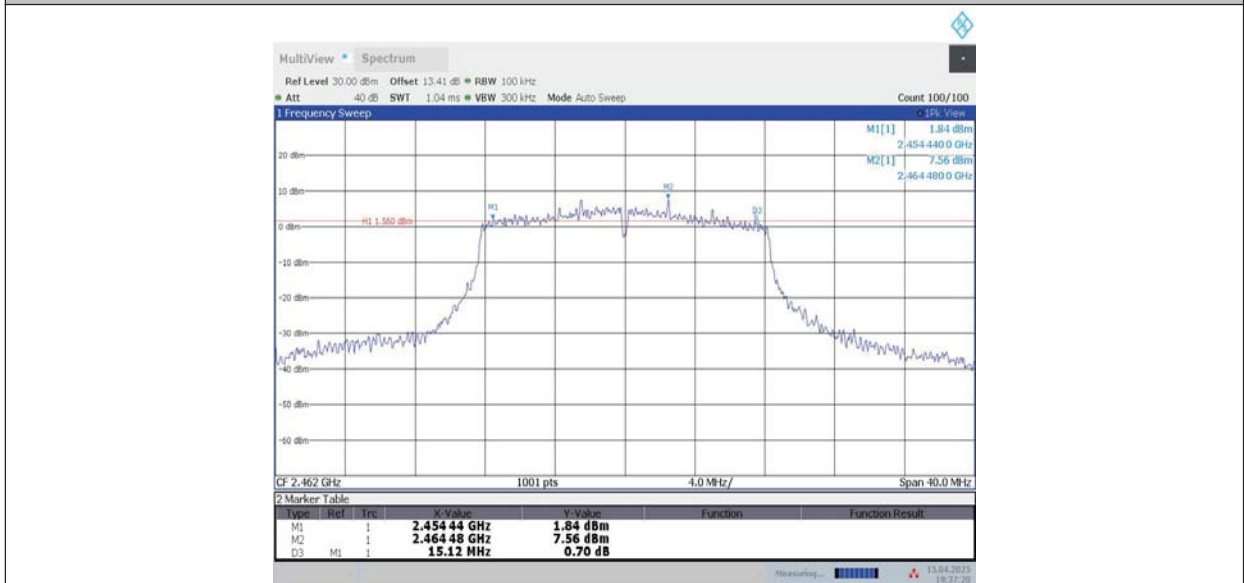
11G_Ant6_2437



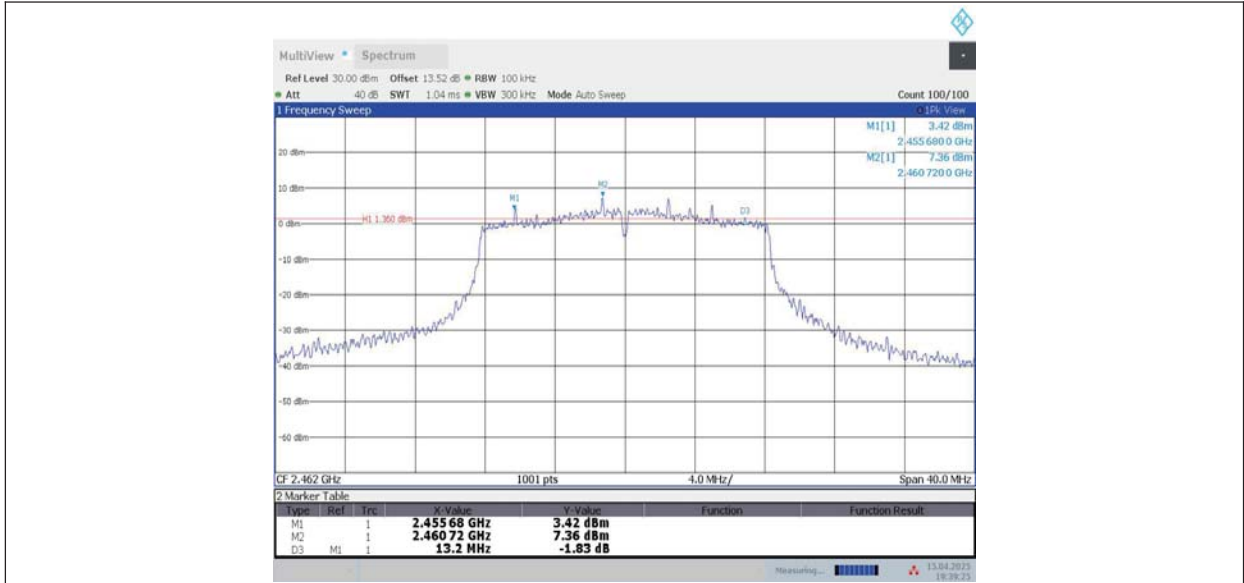
11G_Ant9_2437



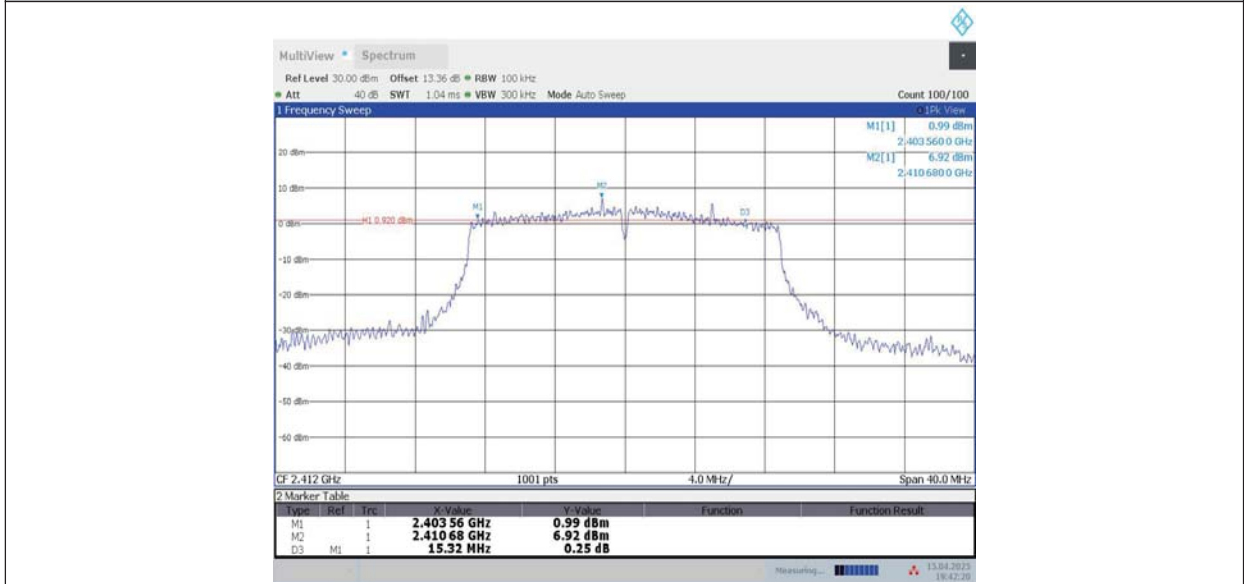
11G_Ant6_2462



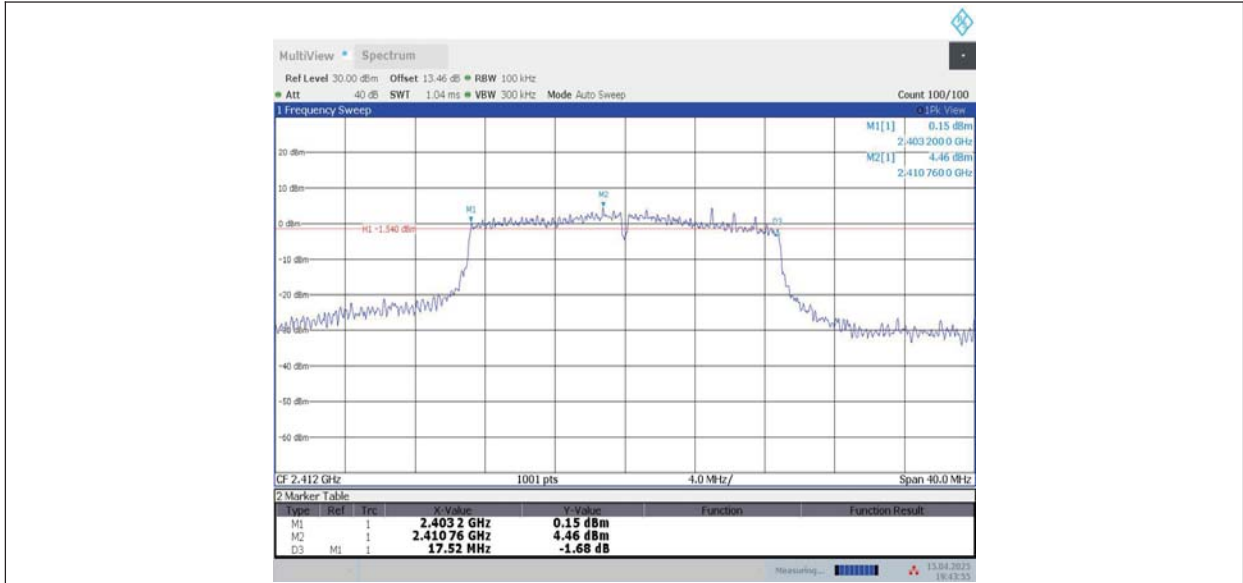
11G_Ant9_2462



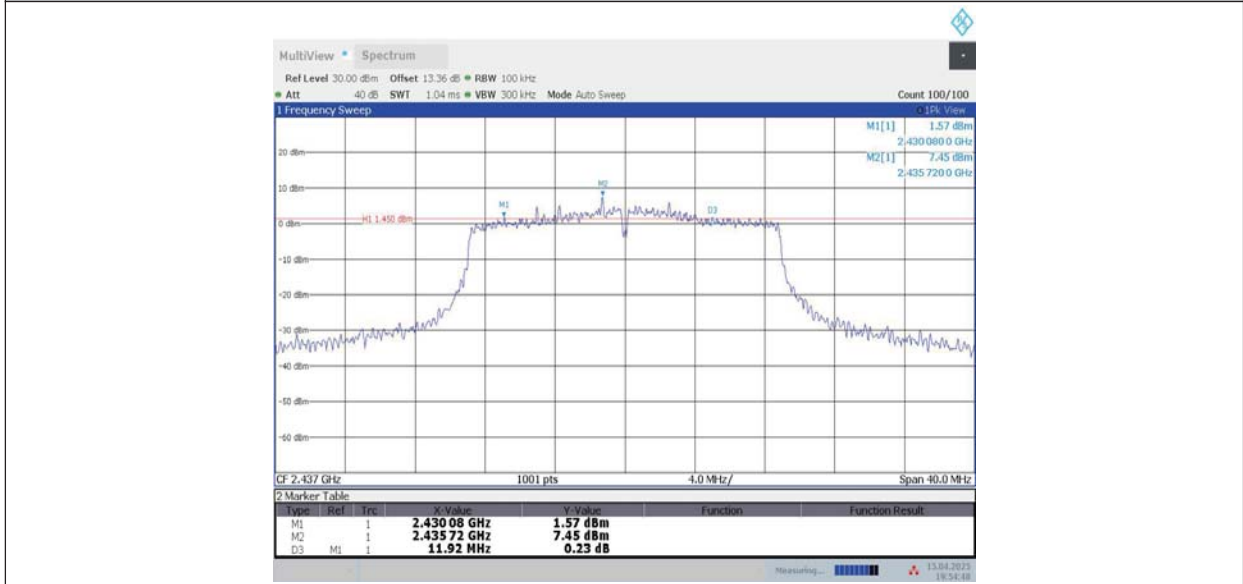
11N20MIMO_Ant6_2412



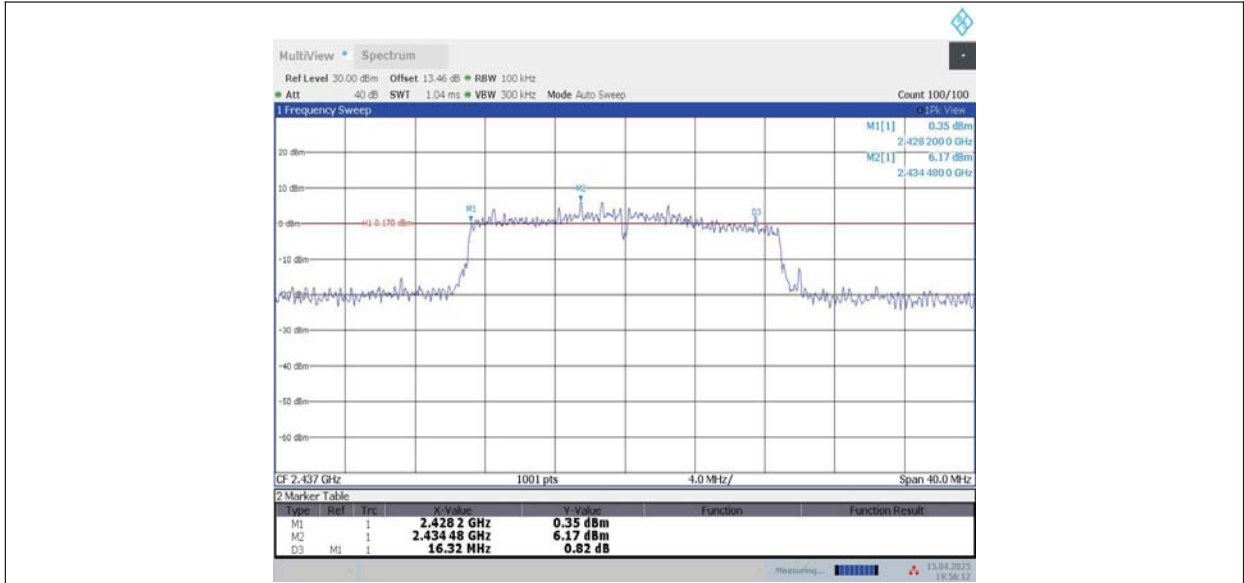
11N20MIMO_Ant9_2412



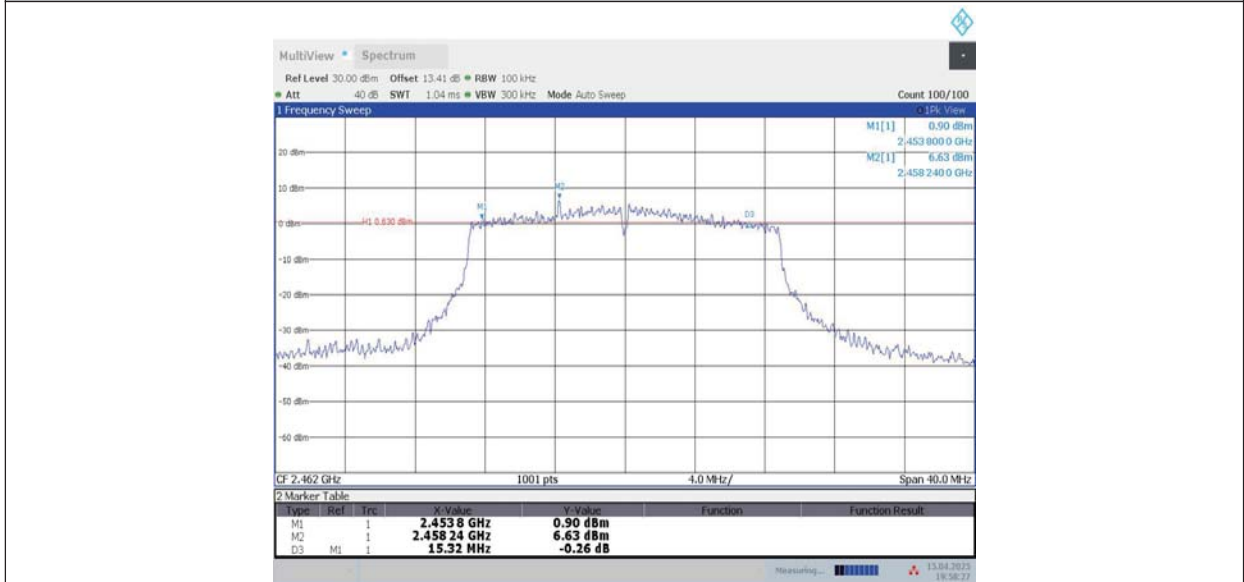
11N20MIMO_Ant6_2437



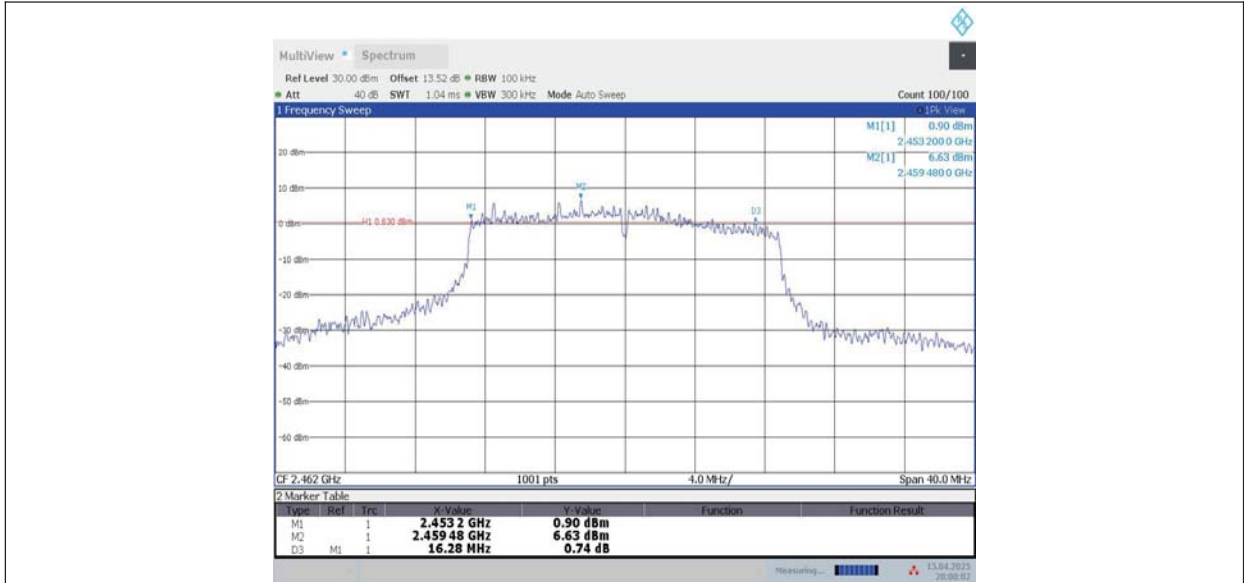
11N20MIMO_Ant9_2437



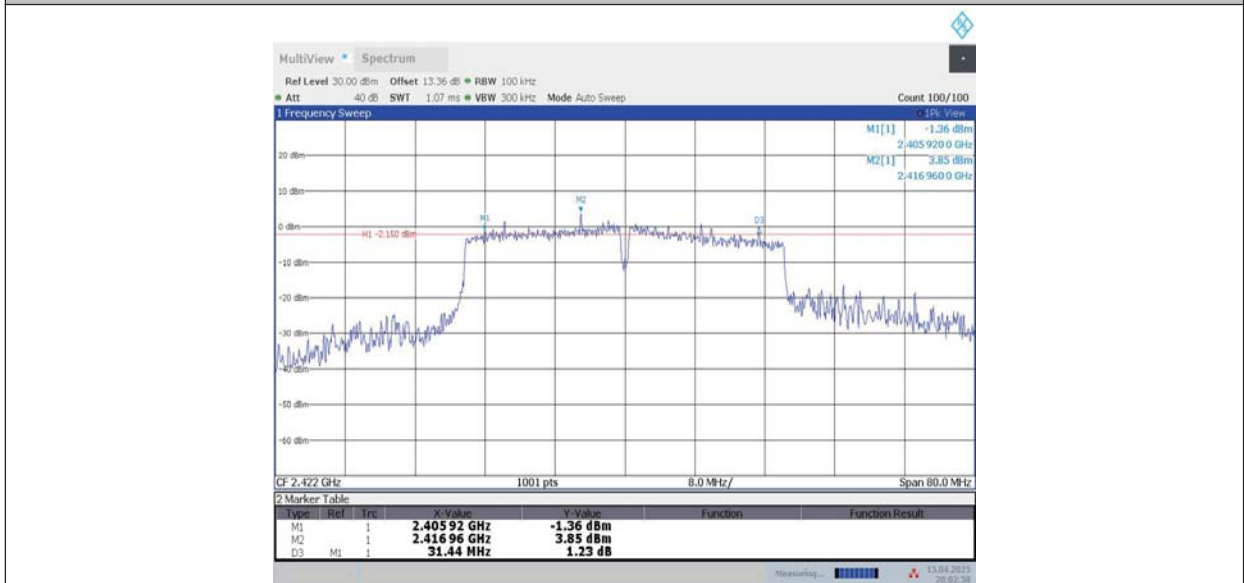
11N20MIMO_Ant6_2462



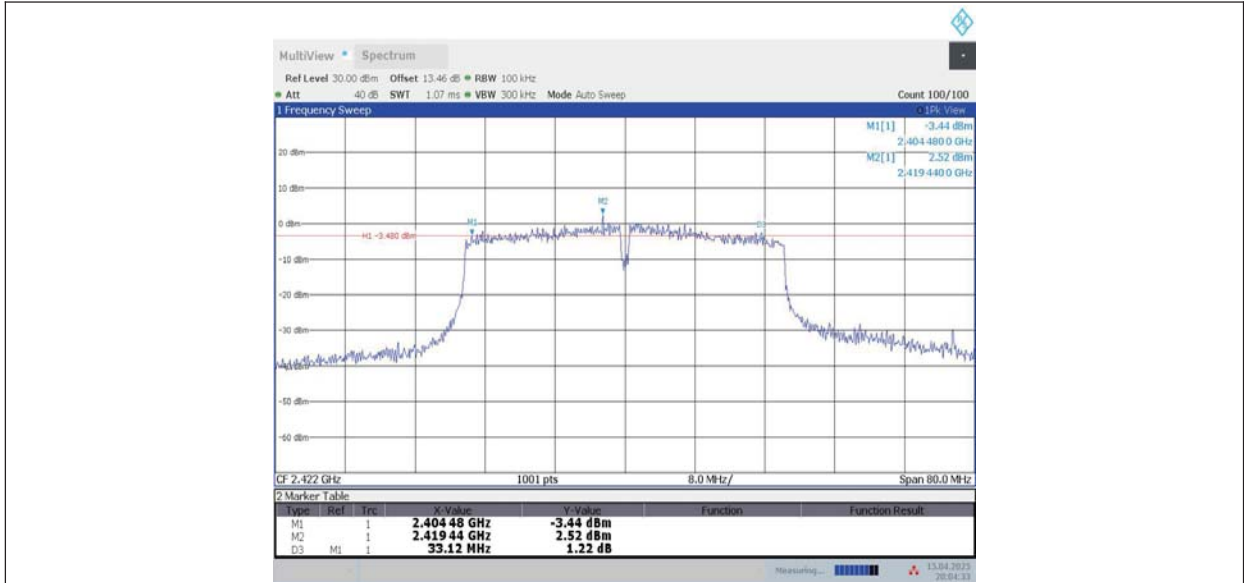
11N20MIMO_Ant9_2462



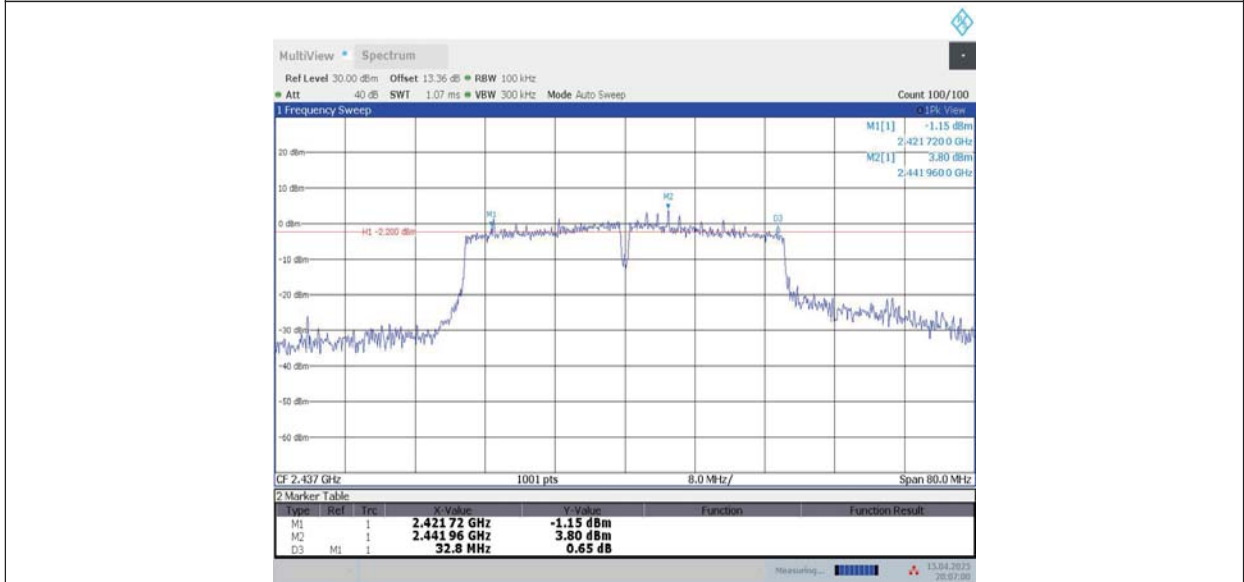
11N40MIMO_Ant6_2422



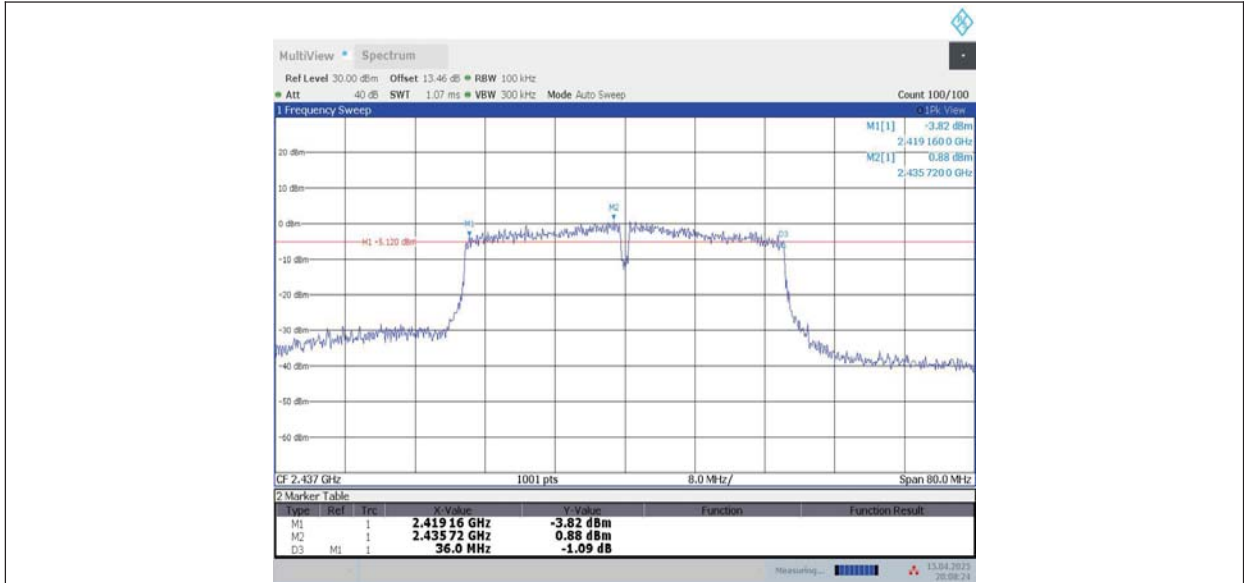
11N40MIMO_Ant9_2422



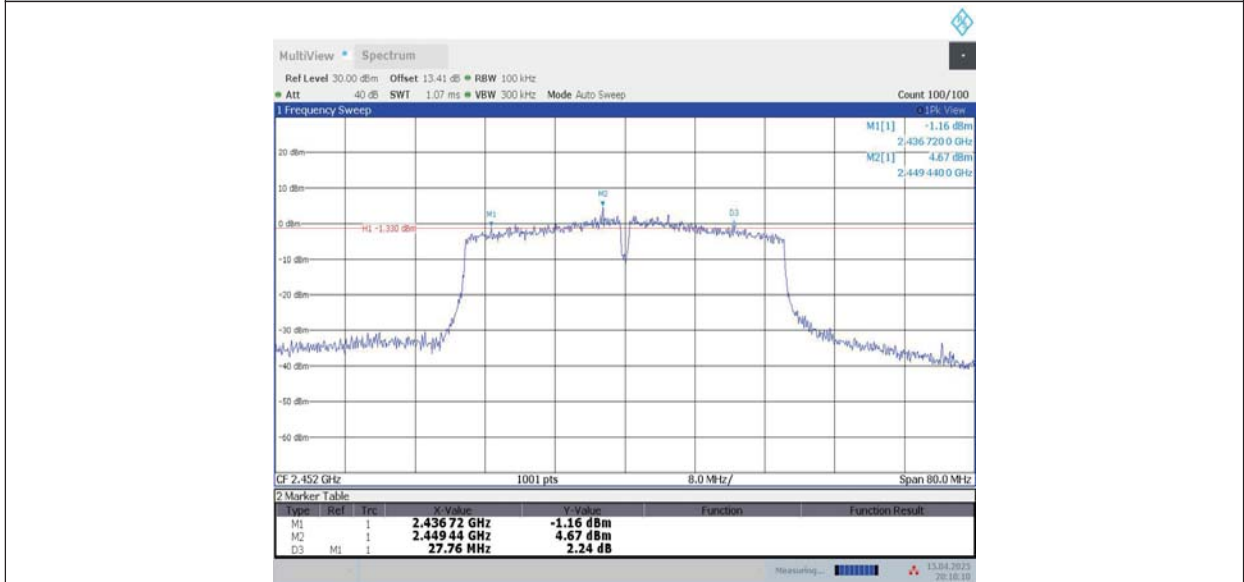
11N40MIMO_Ant6_2437



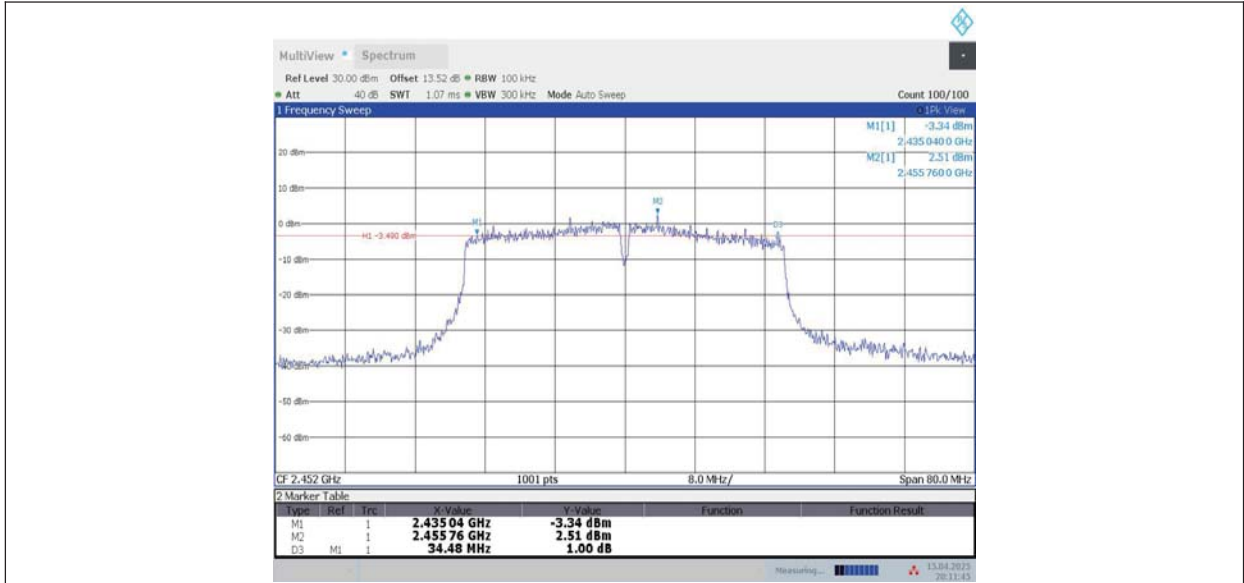
11N40MIMO_Ant9_2437



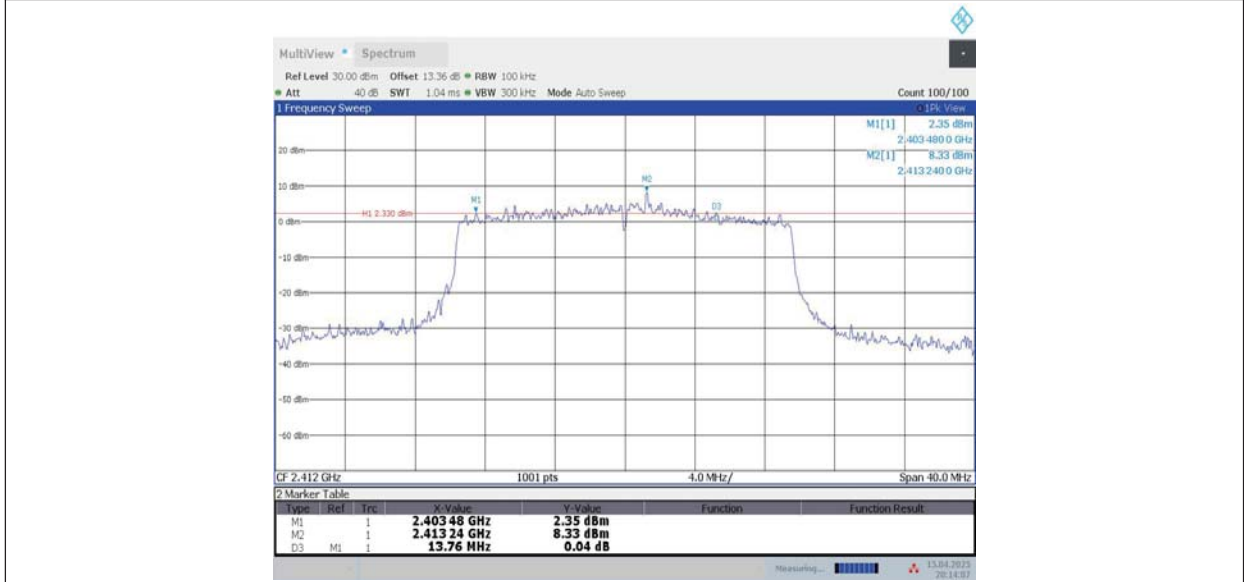
11N40MIMO_Ant6_2452



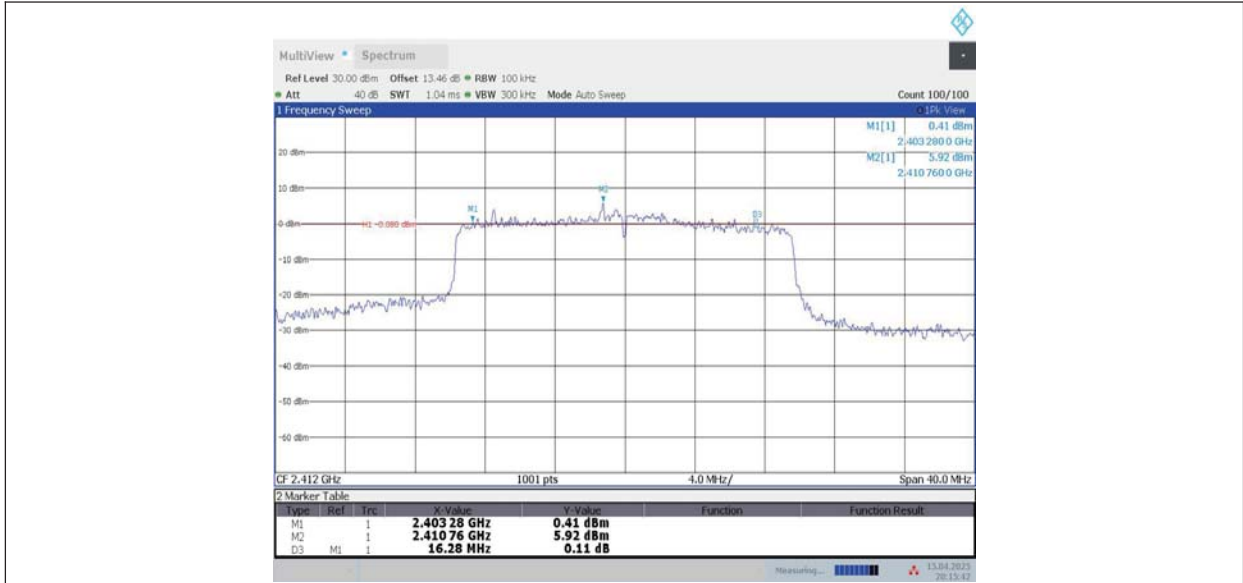
11N40MIMO_Ant9_2452



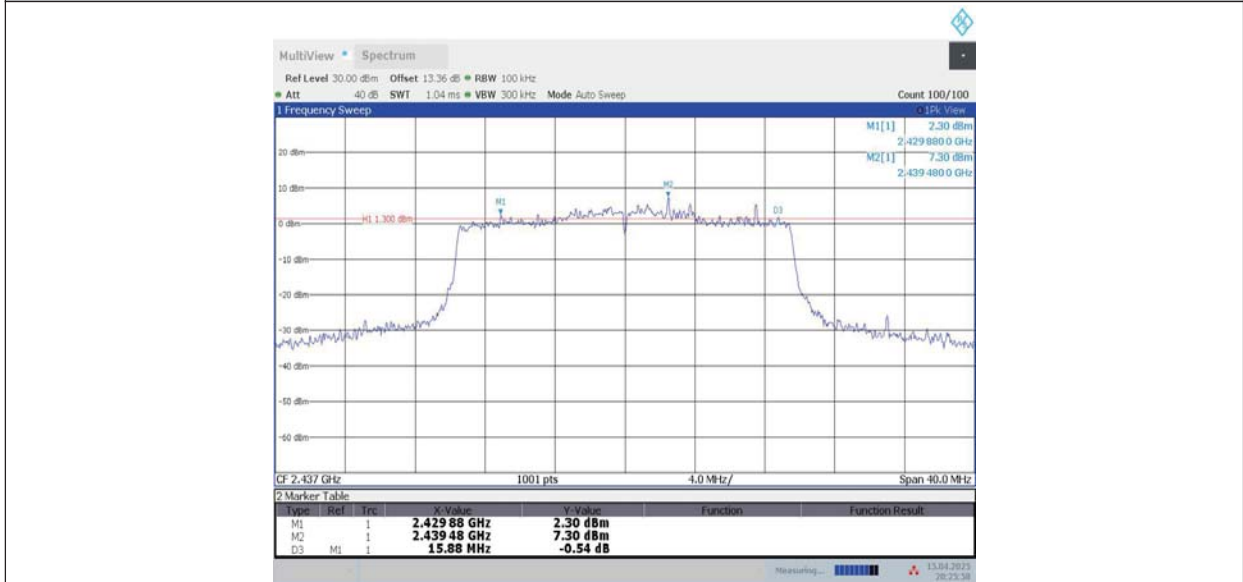
11AX20MIMO_Ant6_2412



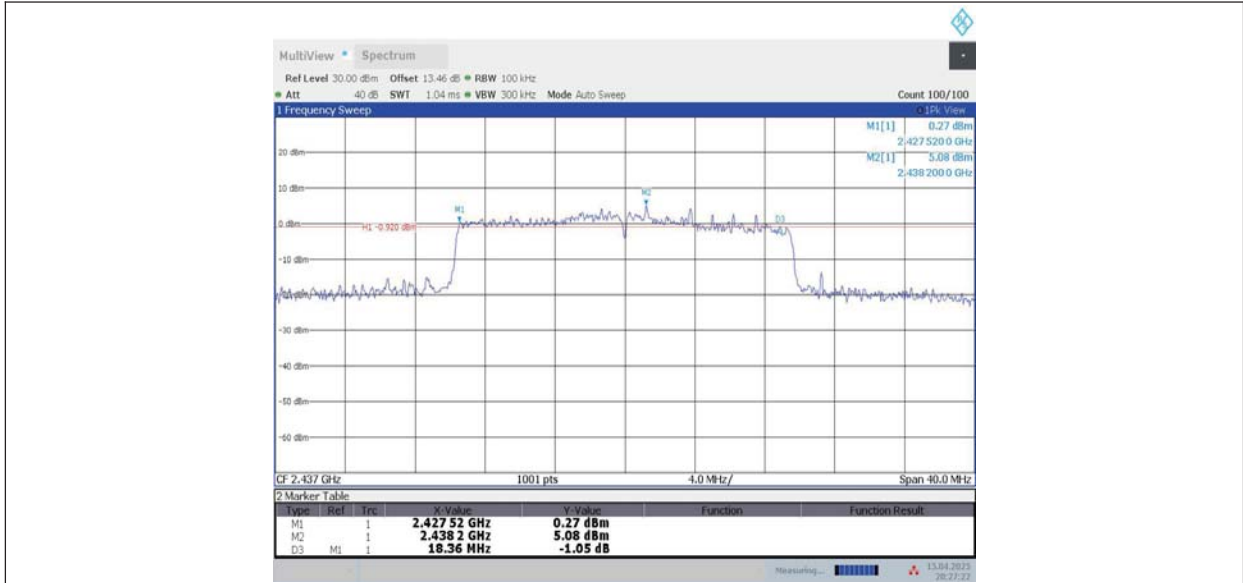
11AX20MIMO_Ant9_2412



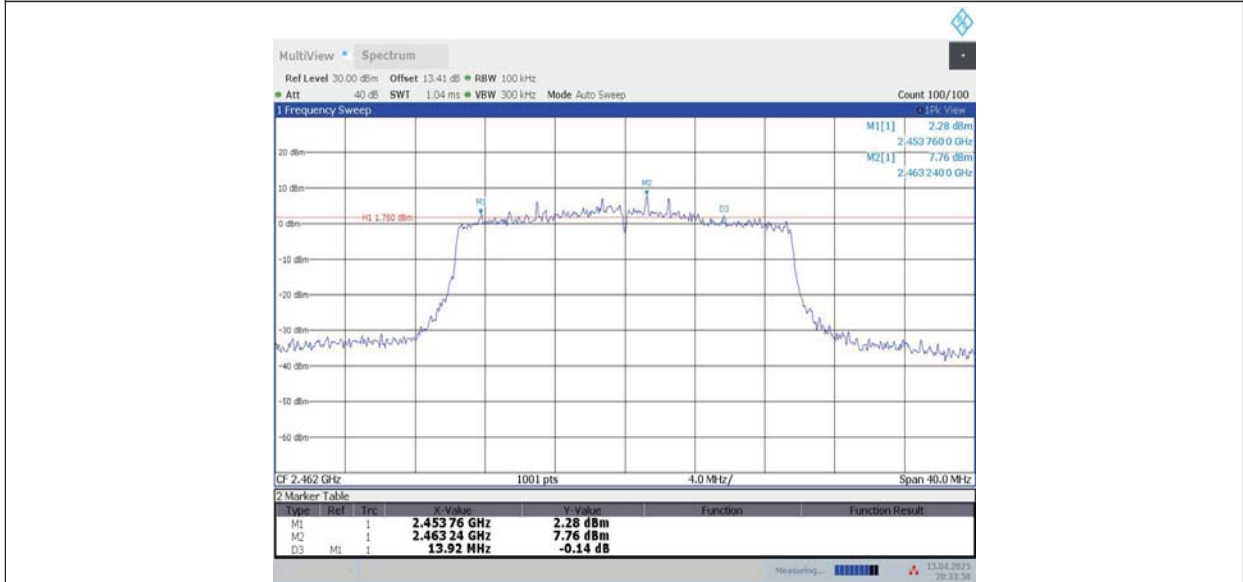
11AX20MIMO_Ant6_2437



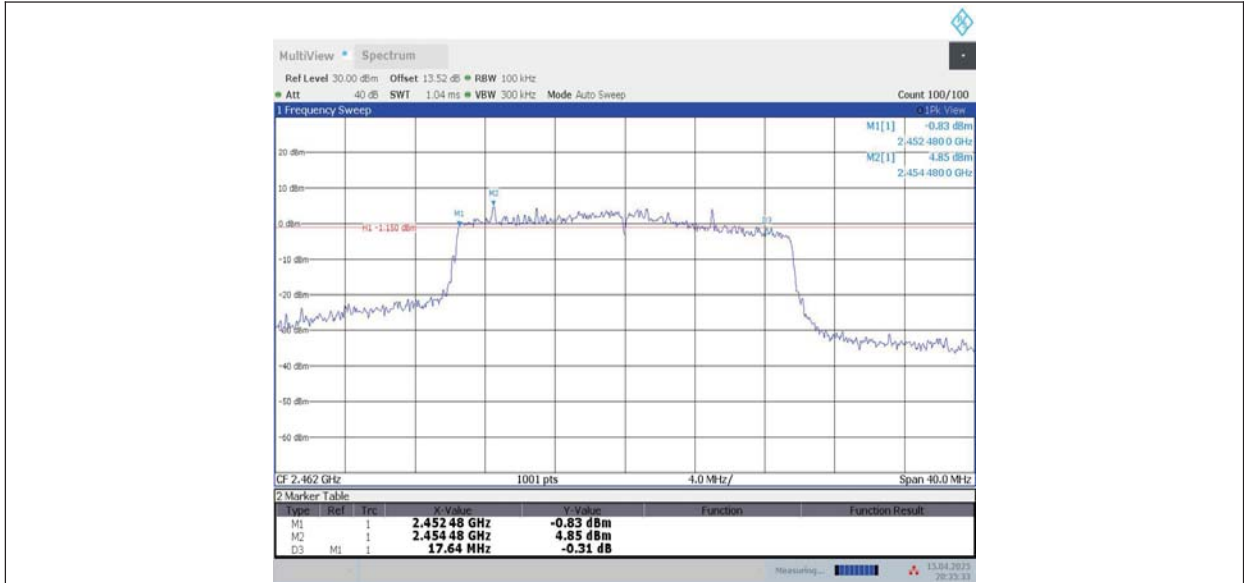
11AX20MIMO_Ant9_2437



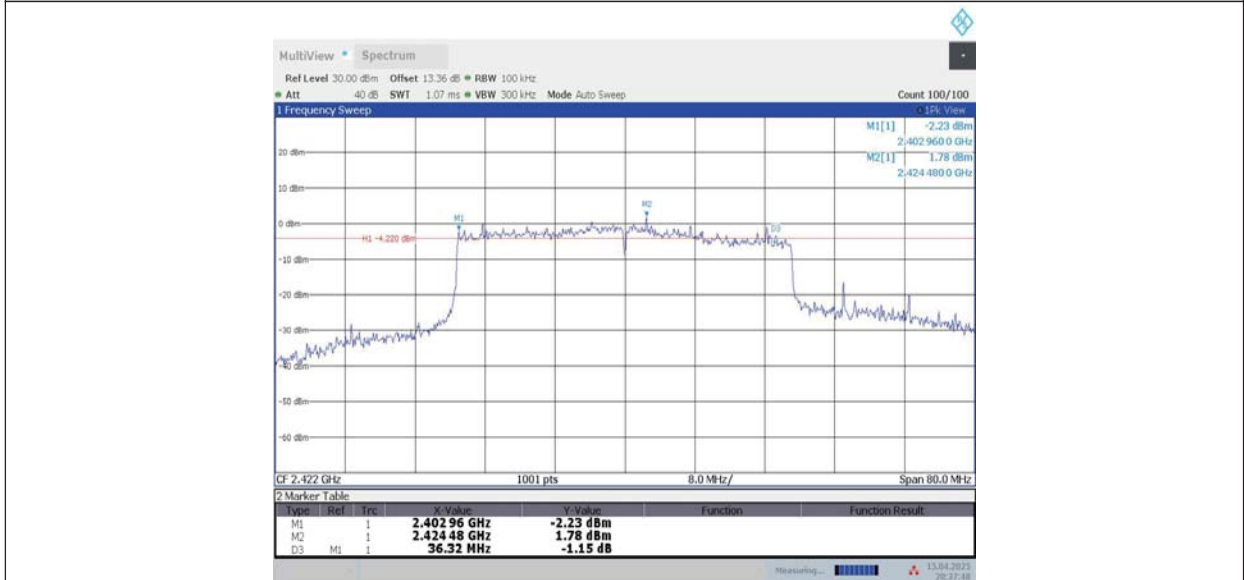
11AX20MIMO_Ant6_2462



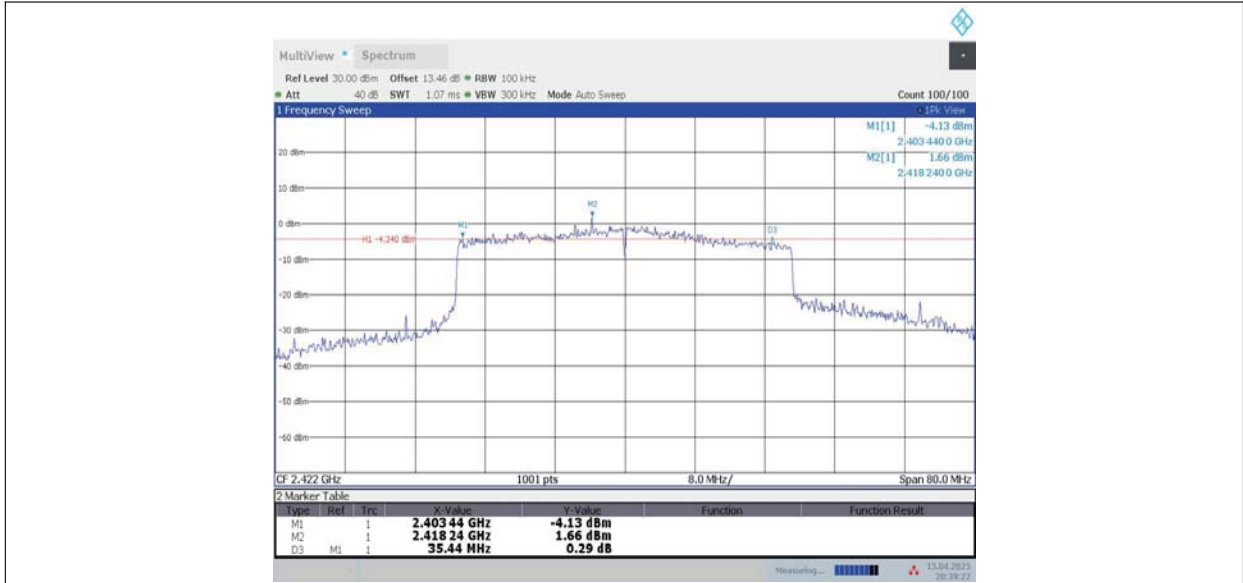
11AX20MIMO_Ant9_2462



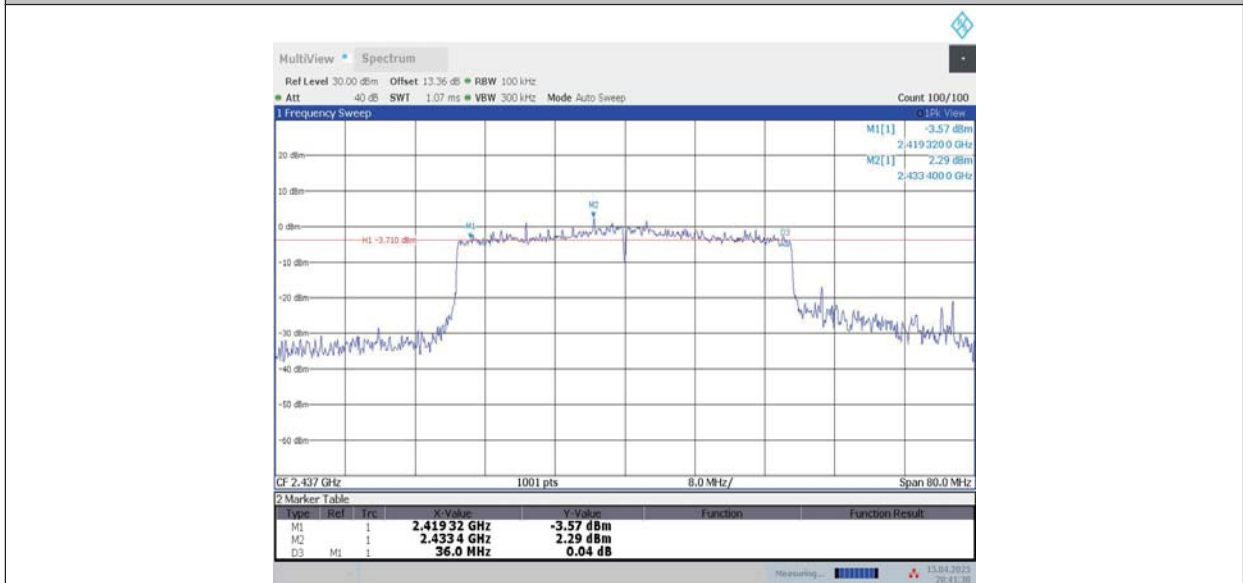
11AX40MIMO_Ant6_2422



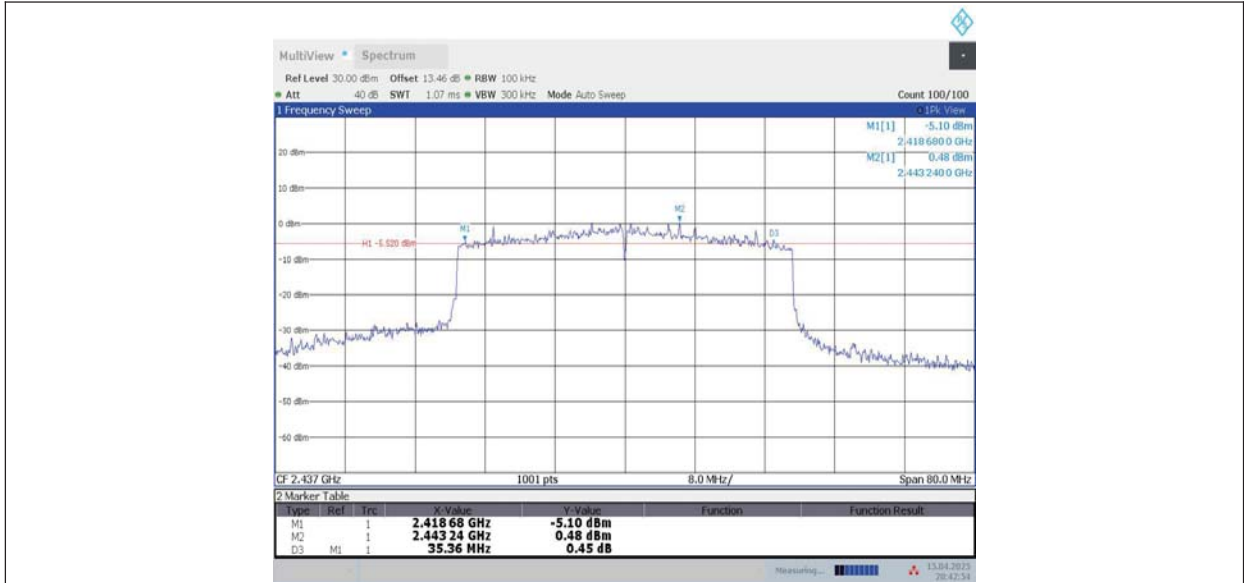
11AX40MIMO_Ant9_2422



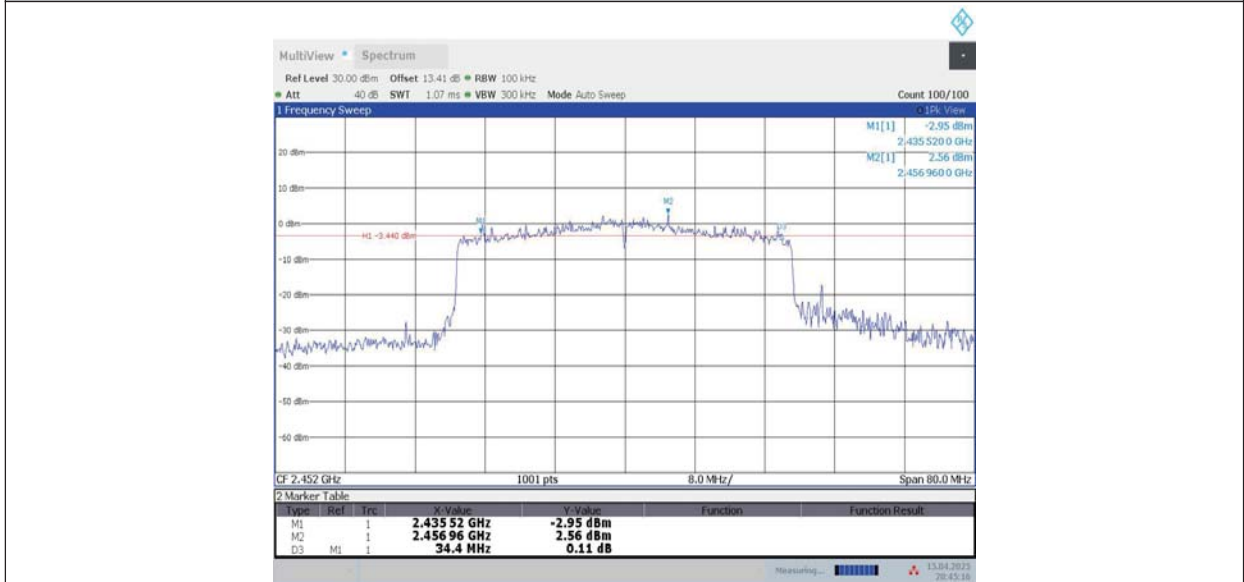
11AX40MIMO_Ant6_2437



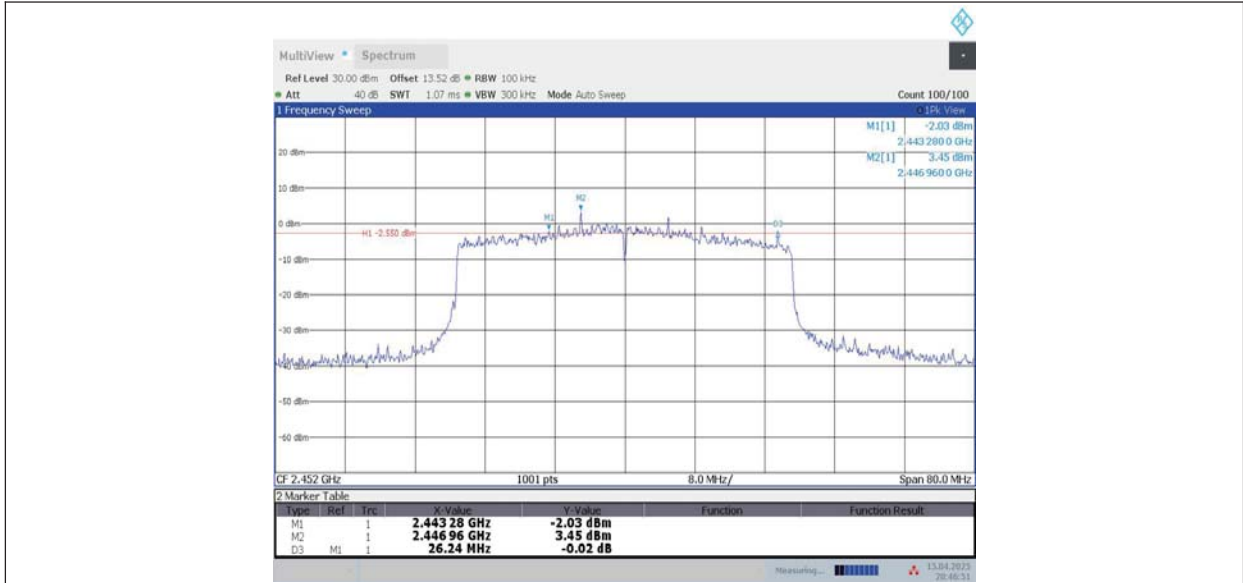
11AX40MIMO_Ant9_2437



11AX40MIMO_Ant6_2452



11AX40MIMO_Ant9_2452



Conclusion: Pass

A.5. Band Edges Compliance

Method of Measurement: See ANSI C63.10-2013-clause 6.10.4

Connect the spectrum analyzer to the EUT using an appropriate RF cable connected to the EUT output. Configure the spectrum analyzer settings as described below.

- a) Set Span = 100MHz
- b) Sweep Time: coupled
- c) Set the RBW= 100 kHz
- c) Set the VBW= 300 kHz
- d) Detector: Peak
- e) Trace: Max hold

Measurement Limit:

Standard	Limit (dBc)
FCC 47 CFR Part 15.247 (d)	> 20

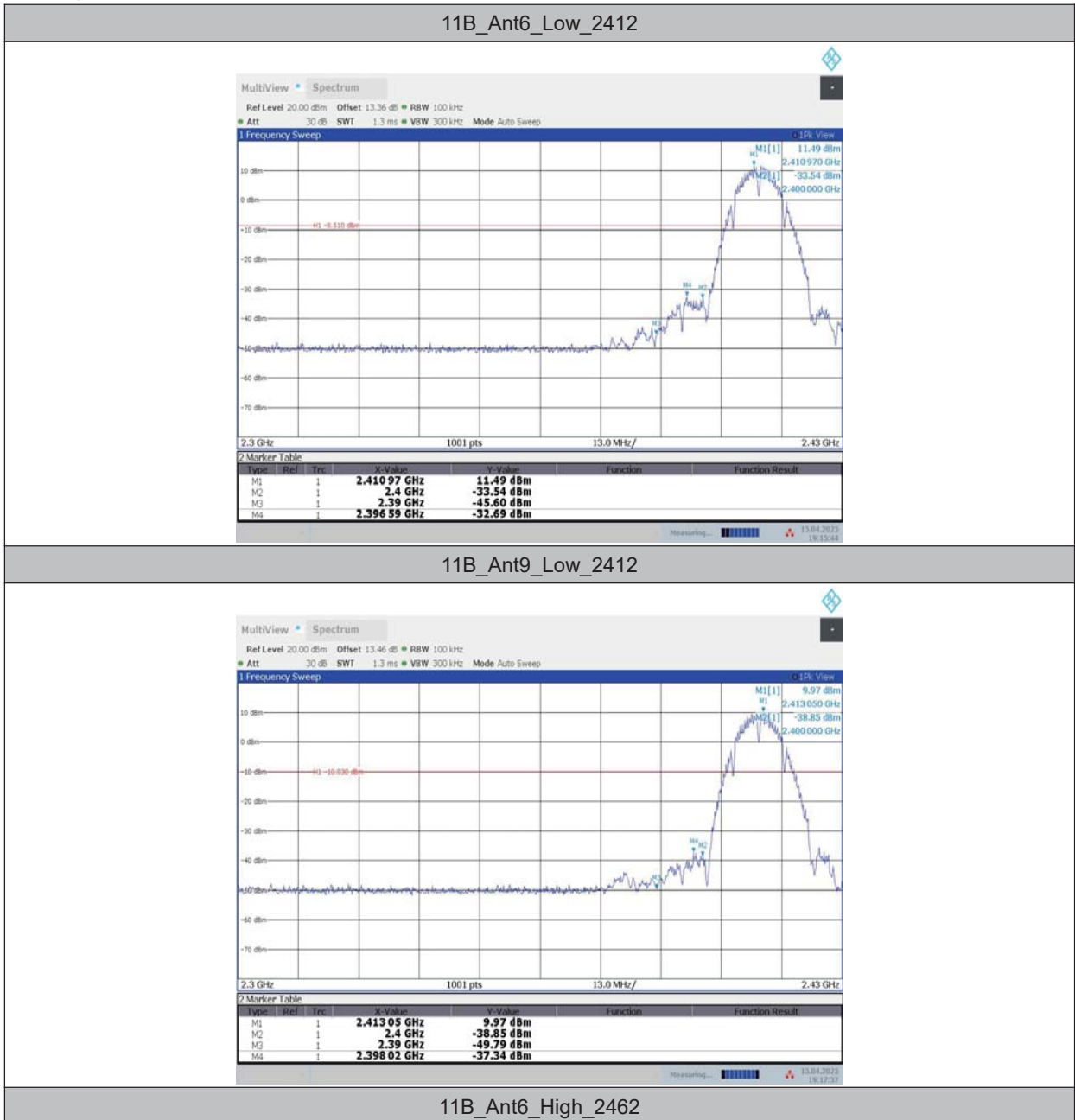
EUT ID: UT27a

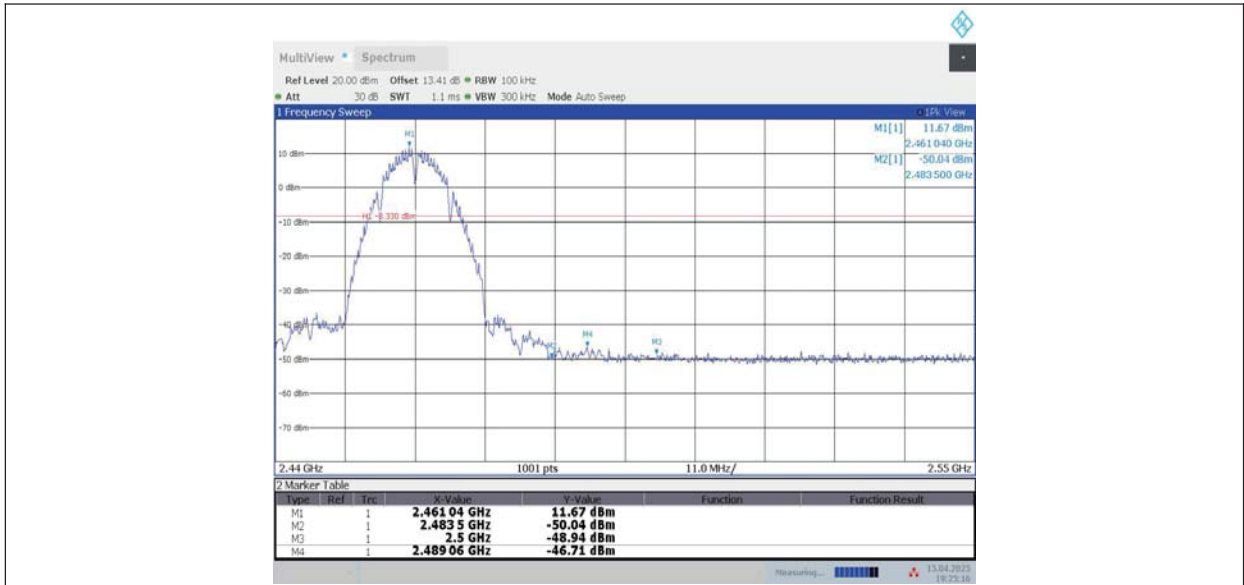
Measurement Result:

TestMode	Antenna	Channel	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant6	Low	2412	11.49	-32.69	≤-8.51	PASS
	Ant9	Low	2412	9.97	-37.34	≤-10.03	PASS
	Ant6	High	2462	11.67	-46.71	≤-8.33	PASS
	Ant9	High	2462	10.39	-46.97	≤-9.61	PASS
11G	Ant6	Low	2412	8.85	-26.36	≤-11.15	PASS
	Ant9	Low	2412	7.36	-23.3	≤-12.64	PASS
	Ant6	High	2462	9.02	-37.9	≤-10.98	PASS
	Ant9	High	2462	7.84	-43.6	≤-12.16	PASS
11N20MIMO	Ant6	Low	2412	7.08	-26.52	≤-12.92	PASS
	Ant9	Low	2412	6.38	-20.85	≤-13.62	PASS
	Ant6	High	2462	8.81	-39.36	≤-11.19	PASS
	Ant9	High	2462	7.19	-34.67	≤-12.81	PASS
11N40MIMO	Ant6	Low	2422	3.32	-35.46	≤-16.68	PASS
	Ant9	Low	2422	2.73	-31.19	≤-17.27	PASS
	Ant6	High	2452	5.17	-31.59	≤-14.83	PASS
	Ant9	High	2452	4.09	-32.79	≤-15.91	PASS
11AX20MIMO	Ant6	Low	2412	8.83	-27.32	≤-11.17	PASS
	Ant9	Low	2412	6.76	-18.56	≤-13.24	PASS
	Ant6	High	2462	8.43	-35.71	≤-11.57	PASS
	Ant9	High	2462	6.44	-31.84	≤-13.56	PASS
11AX40MIMO	Ant6	Low	2422	2.90	-23.94	≤-17.1	PASS
	Ant9	Low	2422	2.94	-25.34	≤-17.06	PASS
	Ant6	High	2452	5.28	-31.66	≤-14.72	PASS

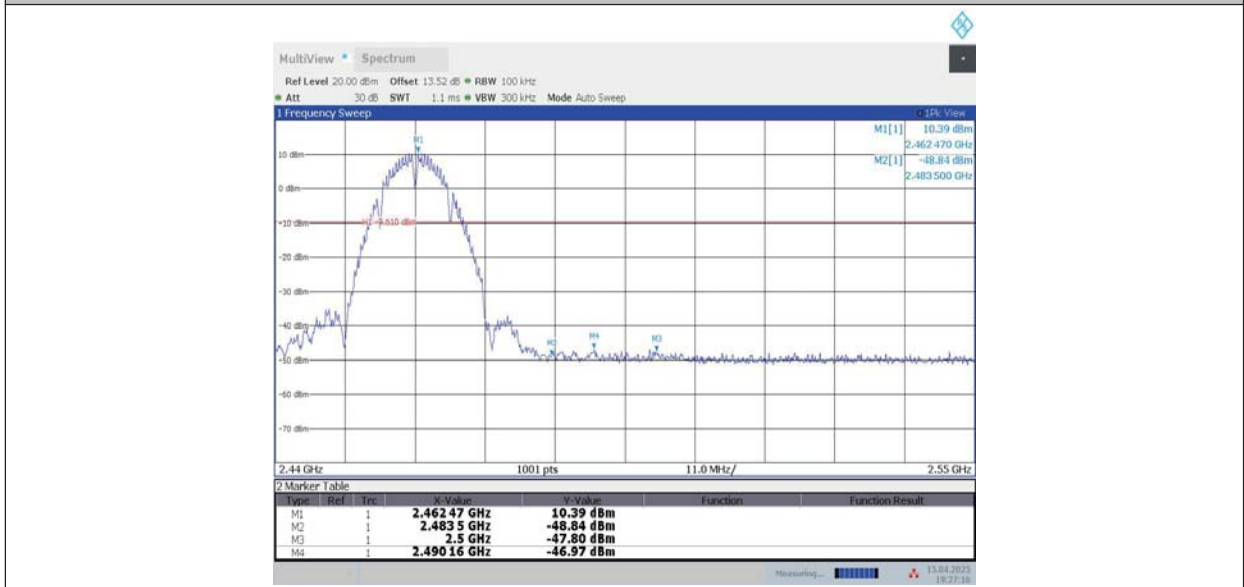
	Ant9	High	2452	3.57	-33.86	≤-16.43	PASS
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Test graphs as below:





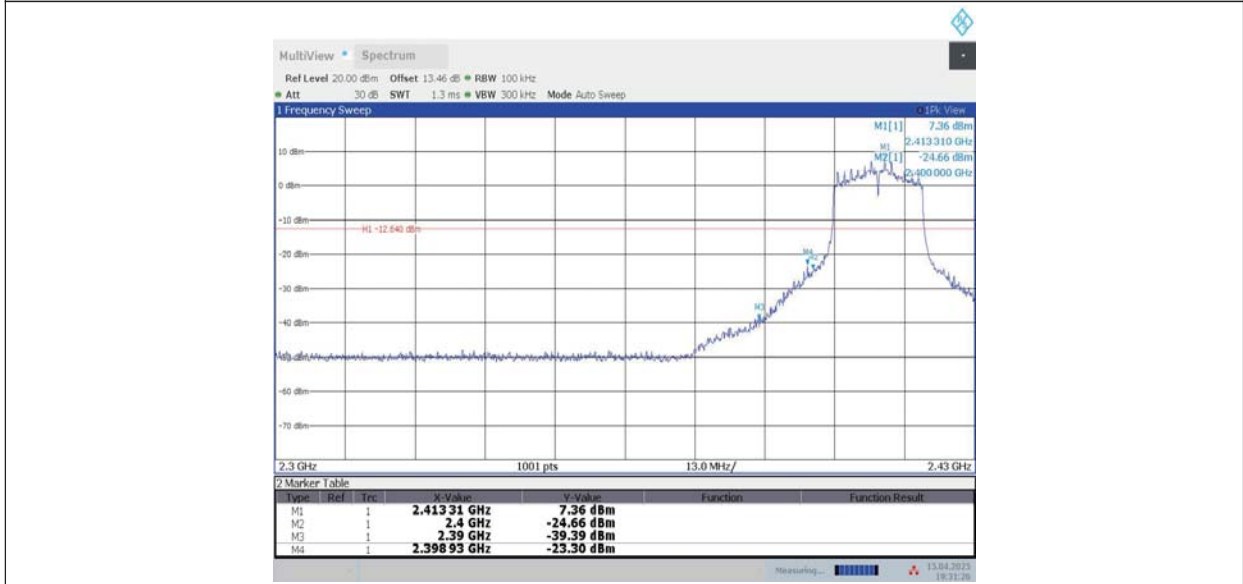
11B_Ant9_High_2462



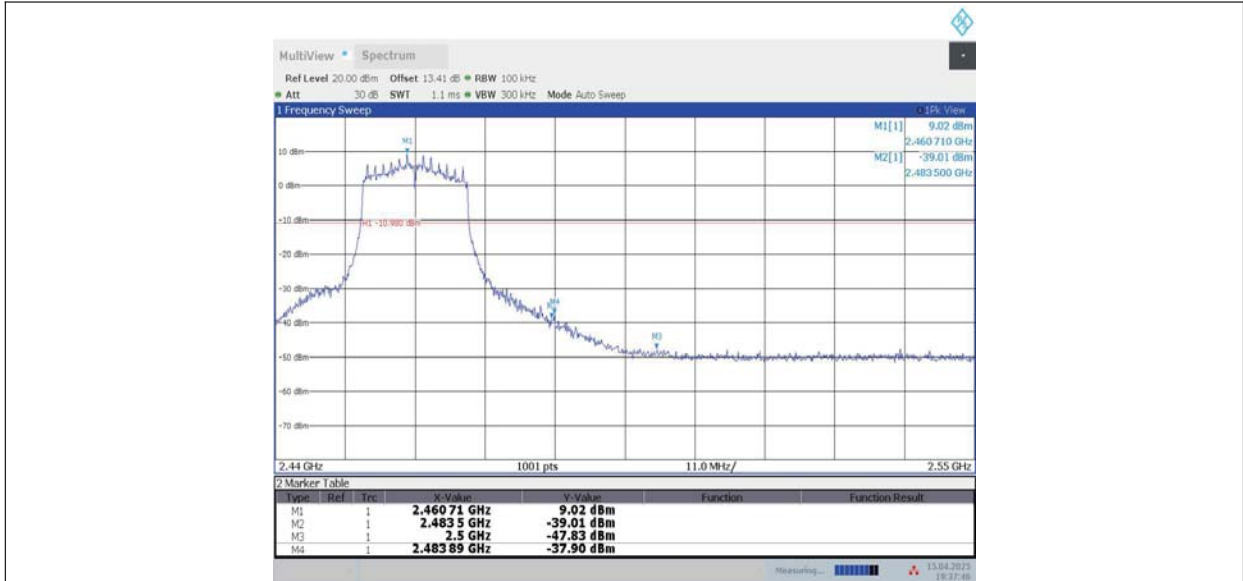
11G_Ant6_Low_2412



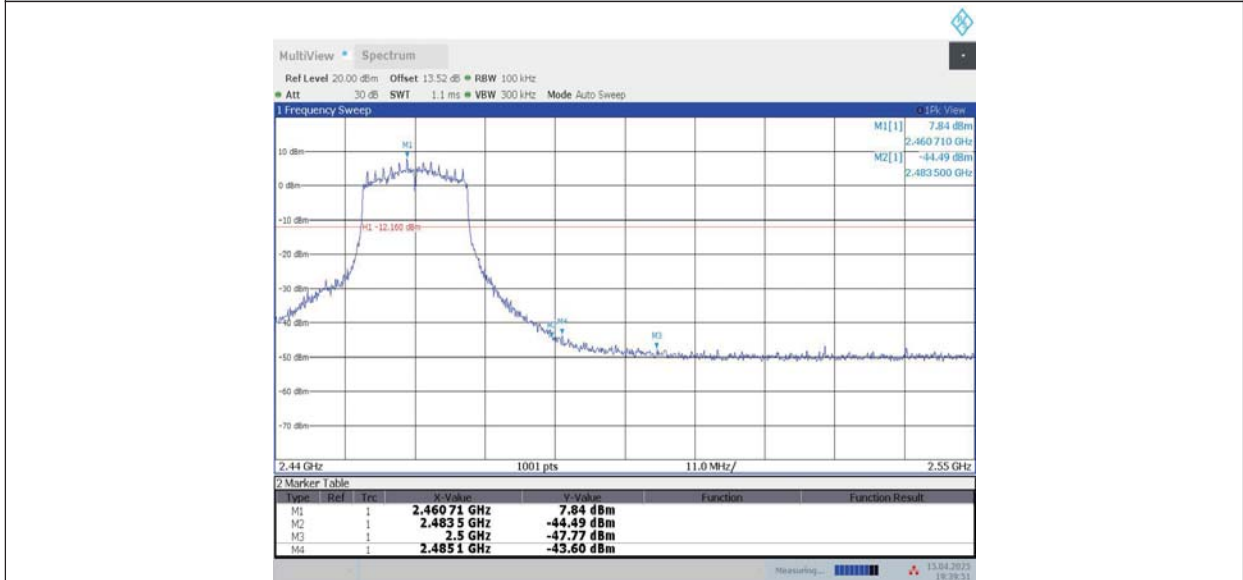
11G_Ant9_Low_2412



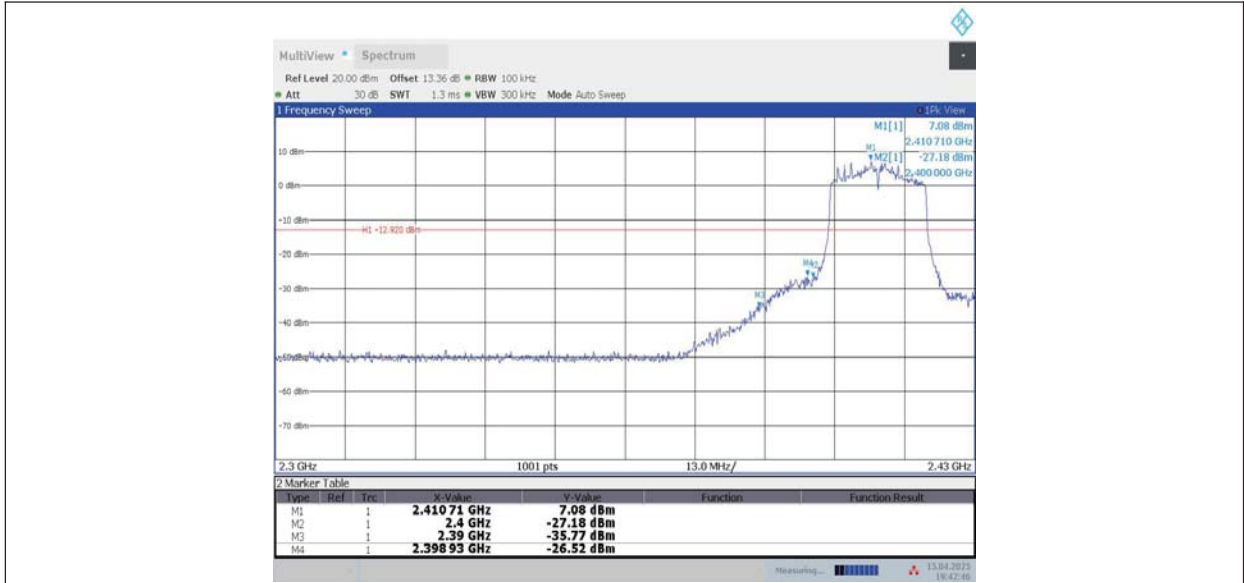
11G_Ant6_High_2462



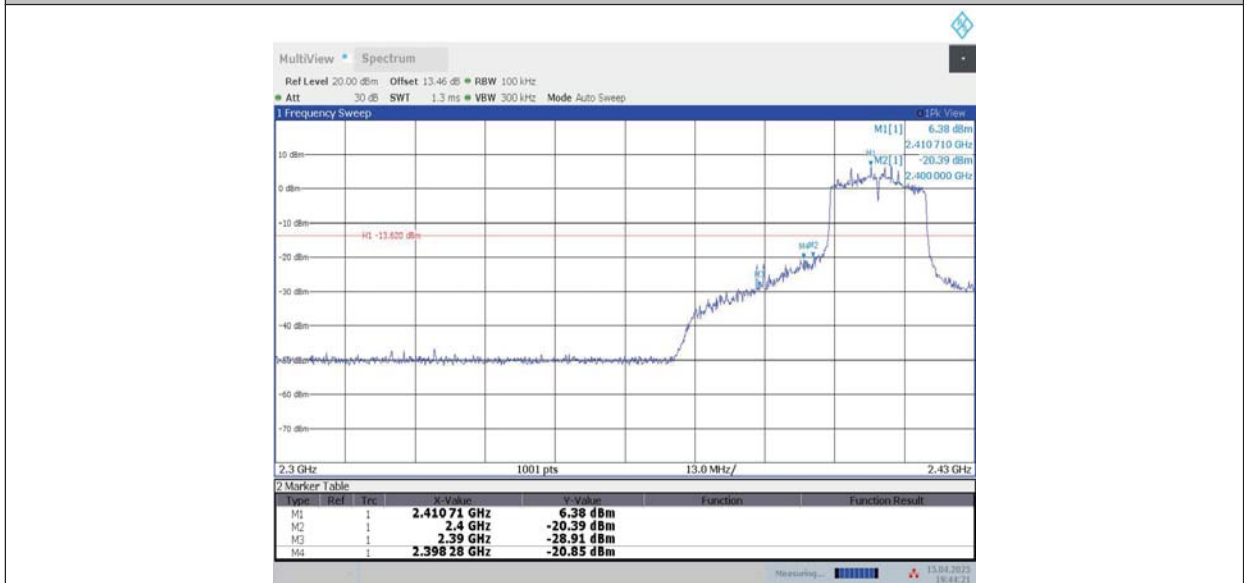
11G_Ant9_High_2462



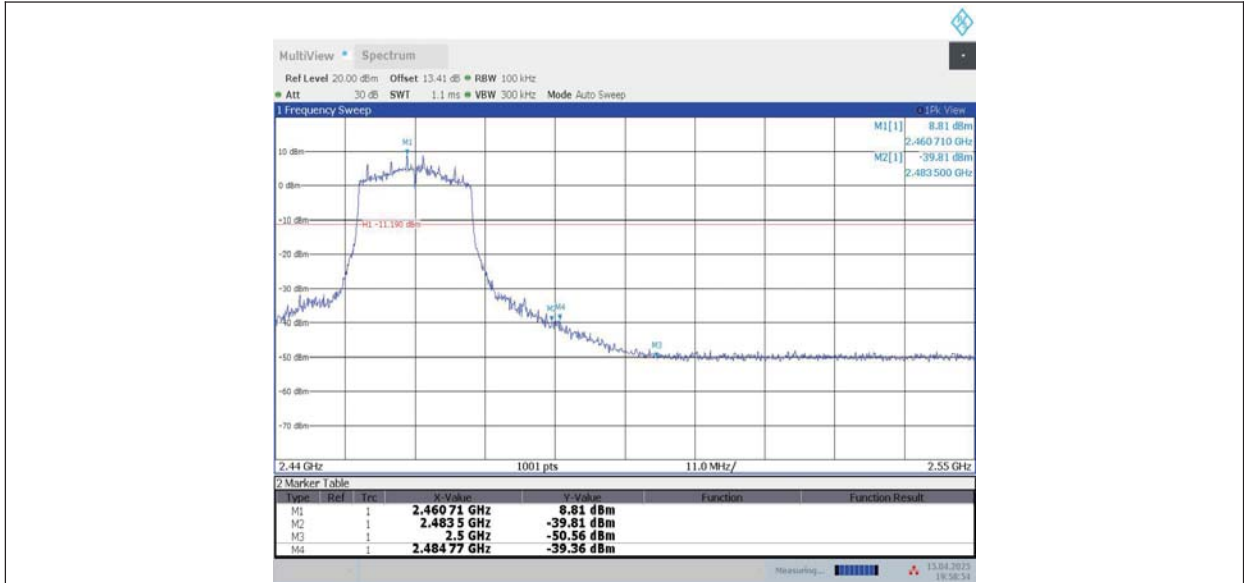
11N20MIMO_Ant6_Low_2412



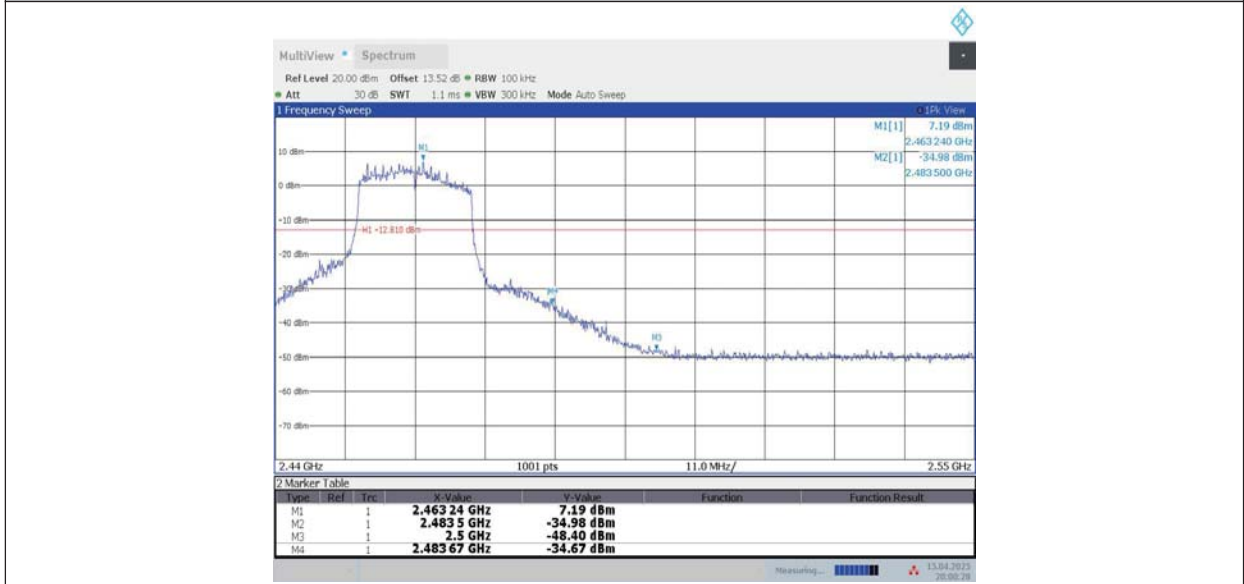
11N20MIMO_Ant9_Low_2412



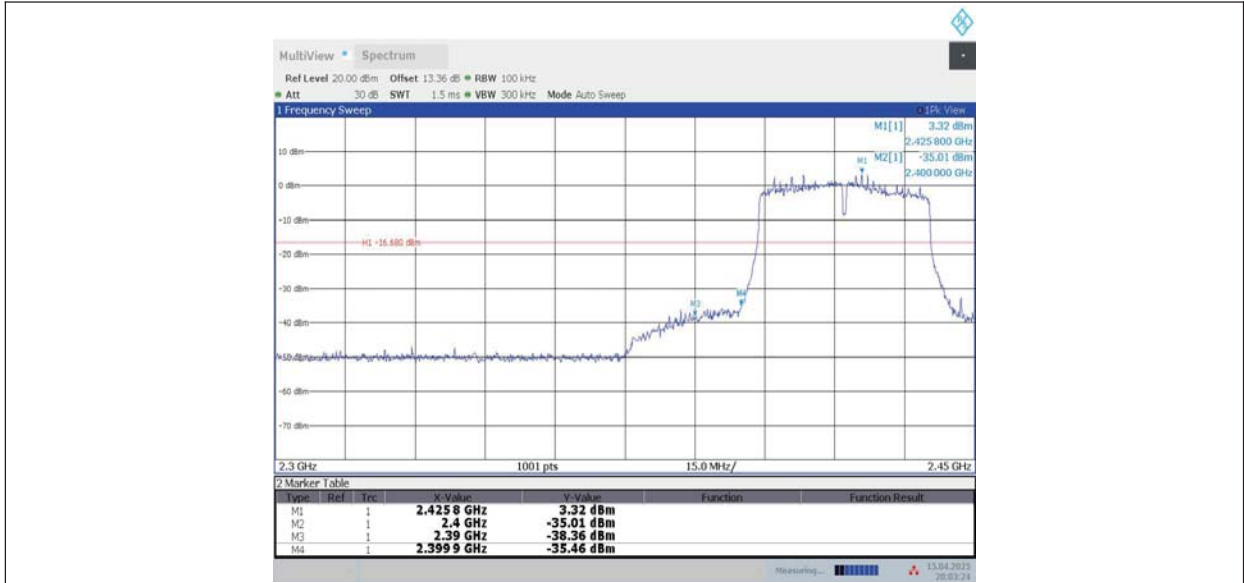
11N20MIMO_Ant6_High_2462



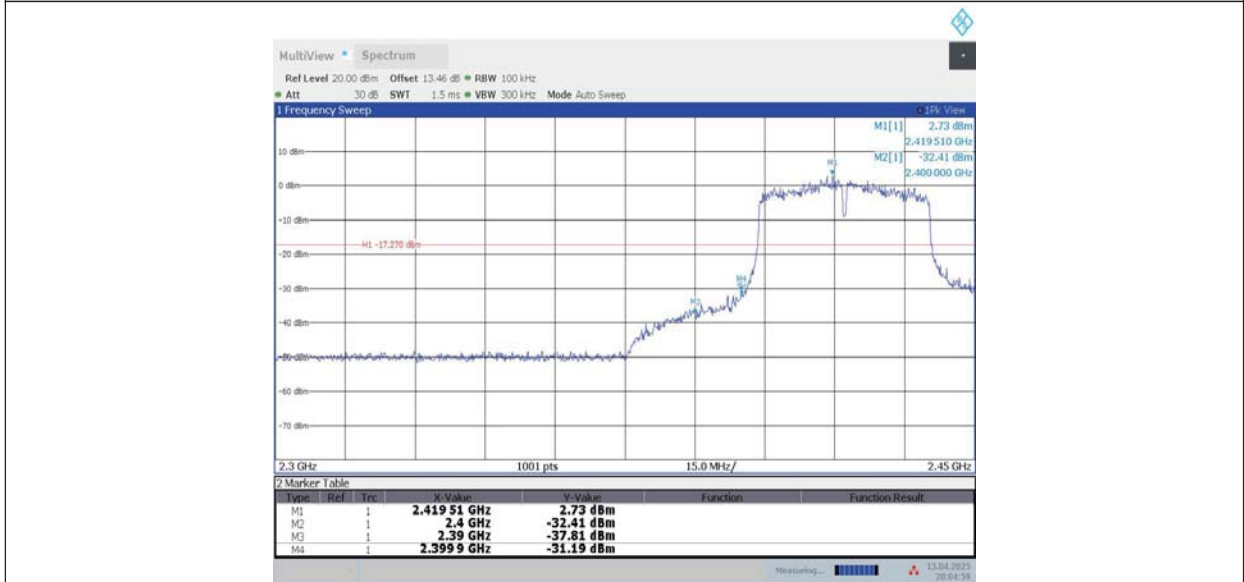
11N20MIMO_Ant9_High_2462



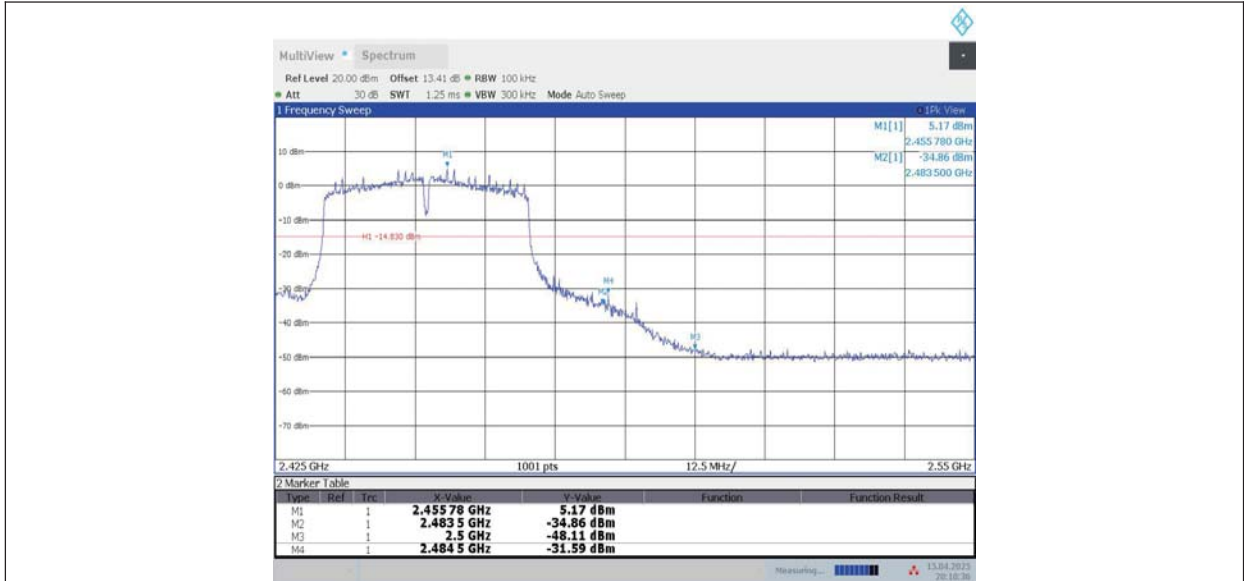
11N40MIMO_Ant6_Low_2422



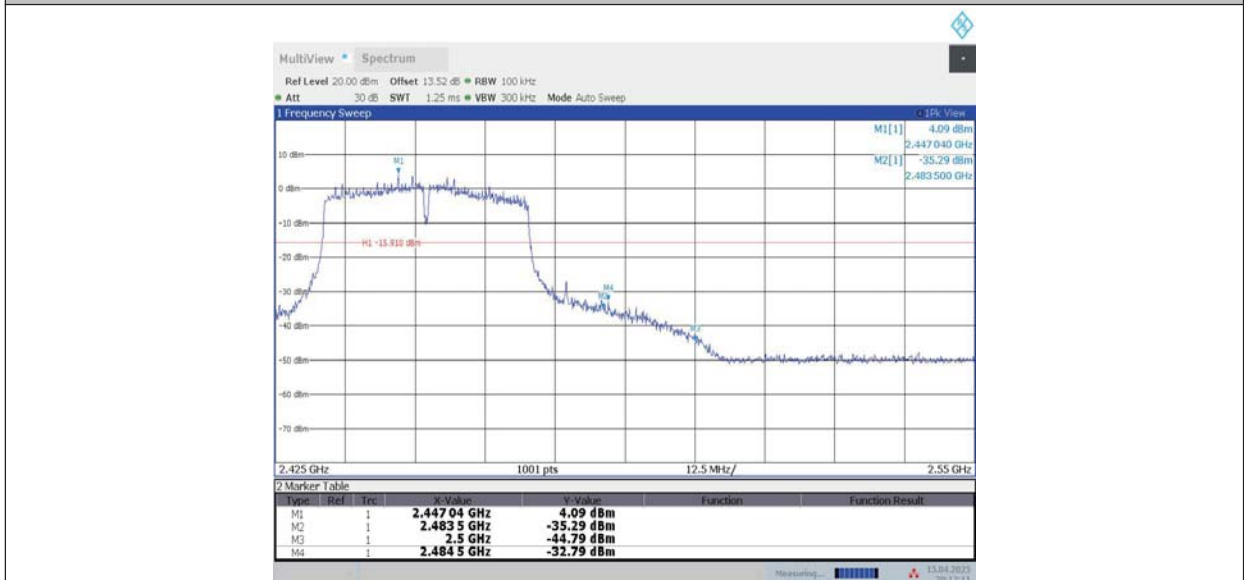
11N40MIMO_Ant9_Low_2422



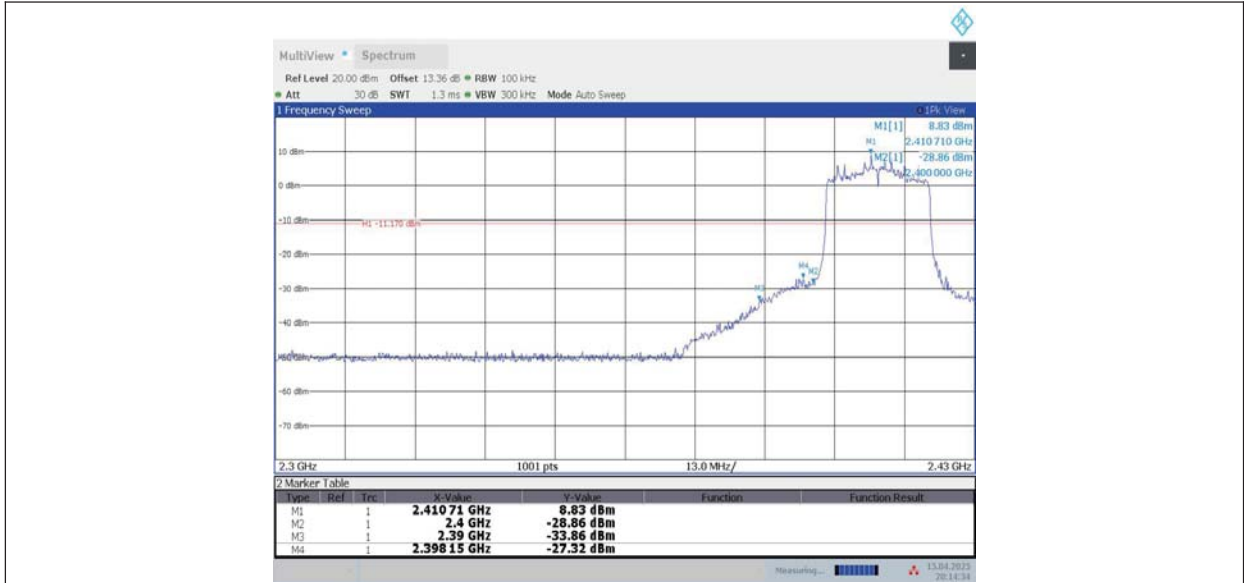
11N40MIMO_Ant6_High_2452



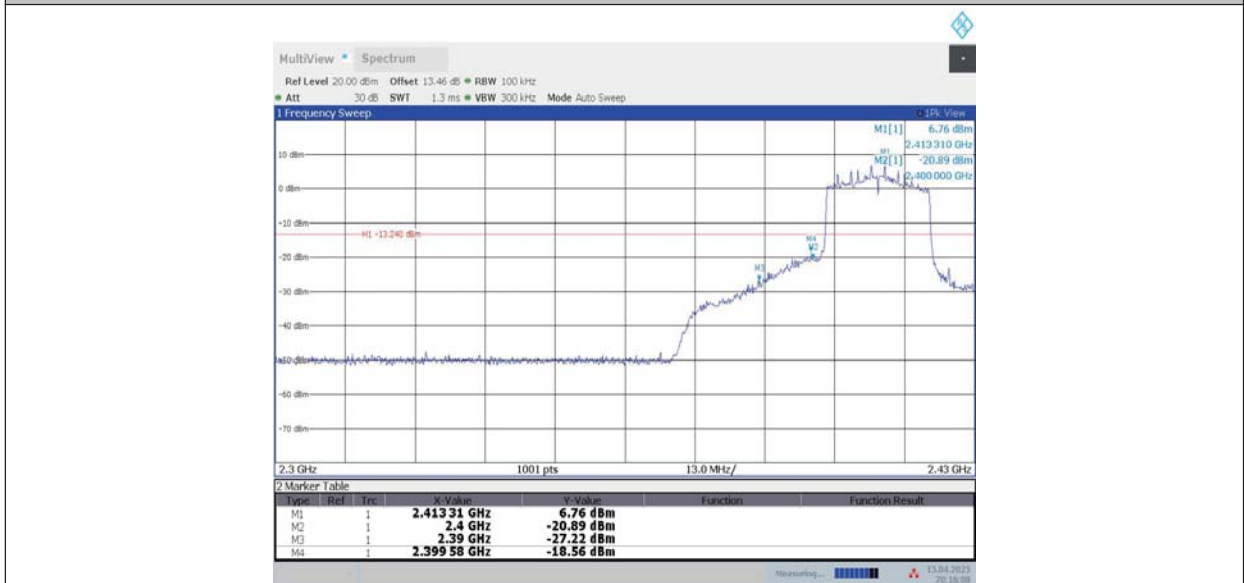
11N40MIMO_Ant9_High_2452



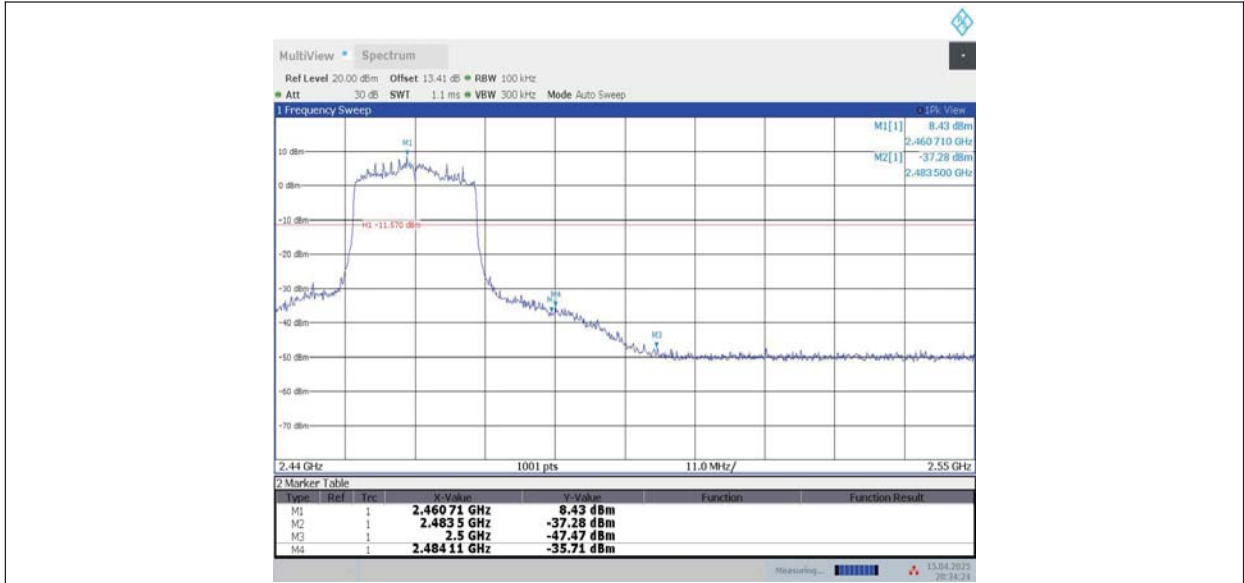
11AX20MIMO_Ant6_Low_2412



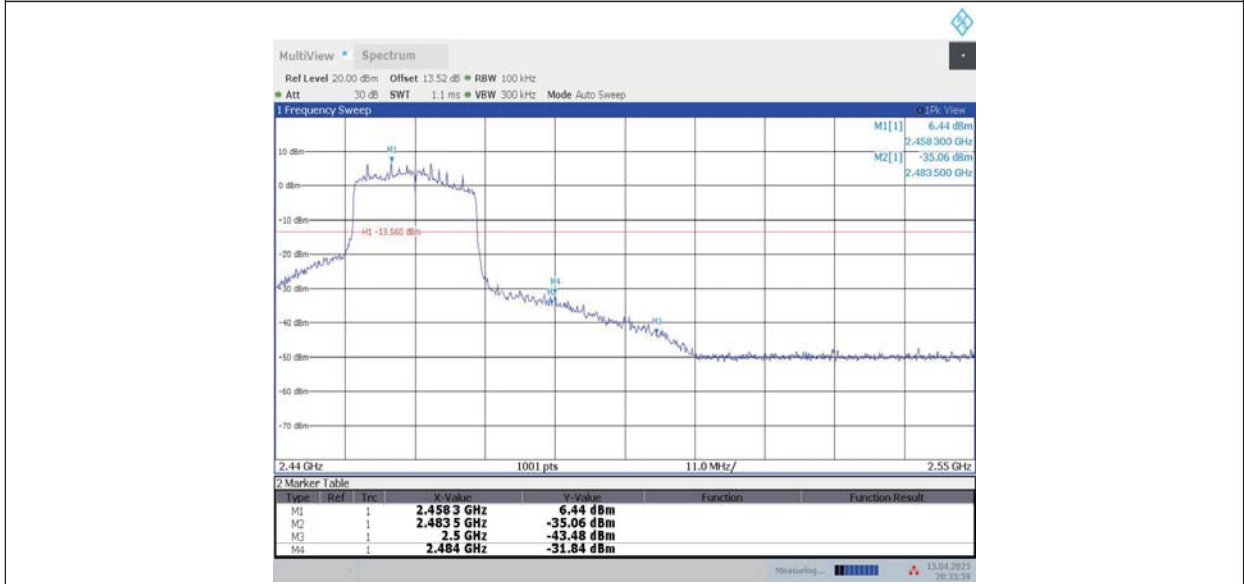
11AX20MIMO_Ant9_Low_2412



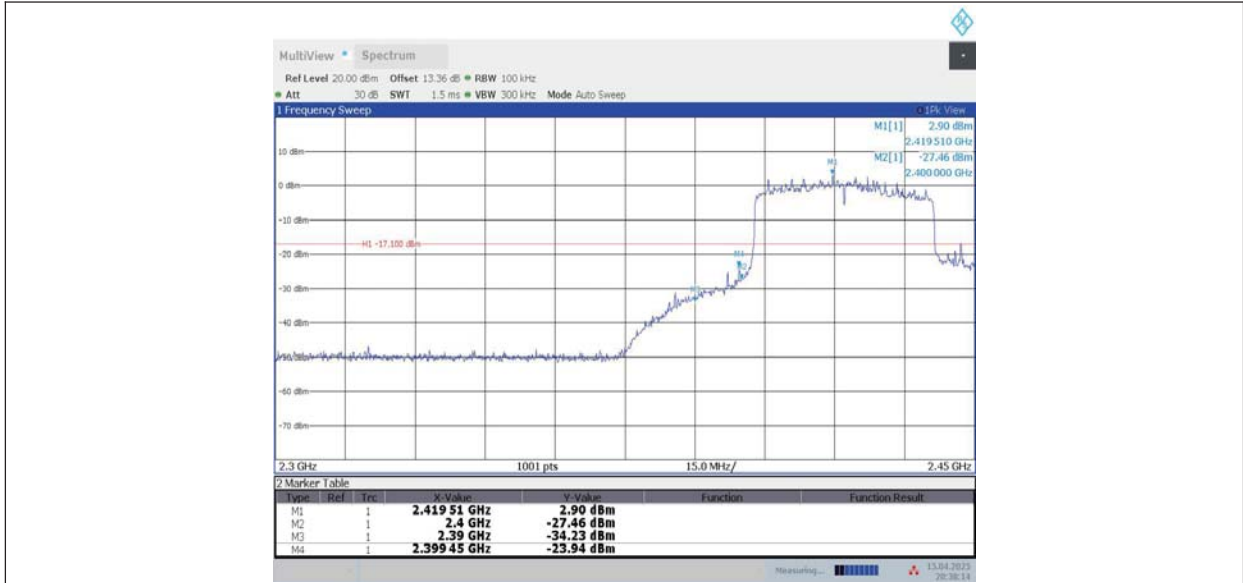
11AX20MIMO_Ant6_High_2462



11AX20MIMO_Ant9_High_2462



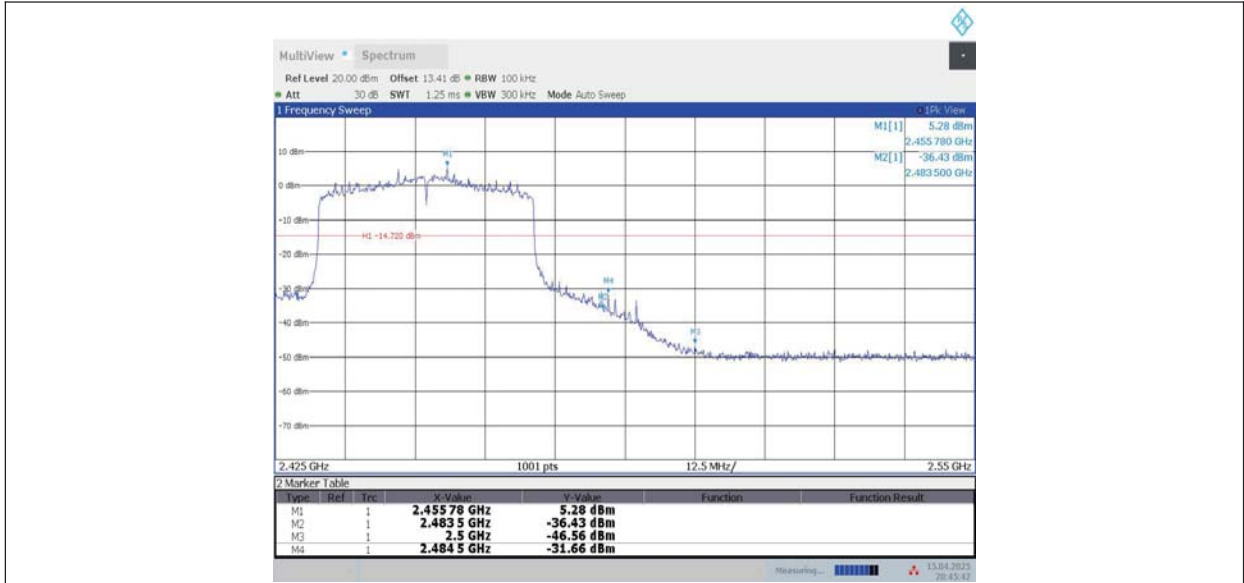
11AX40MIMO_Ant6_Low_2422



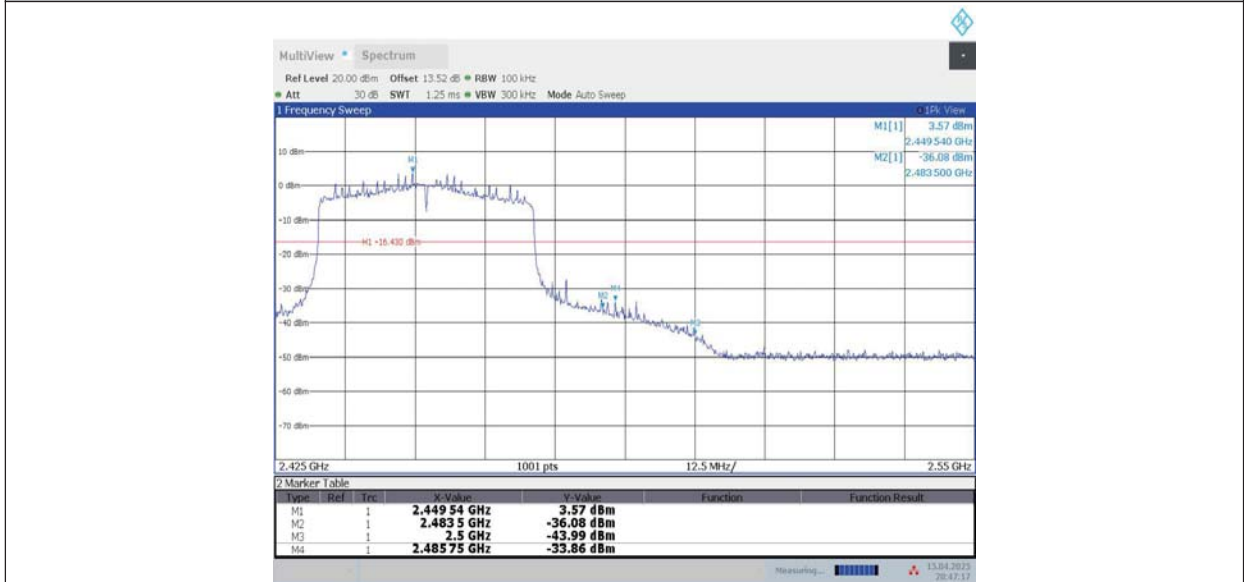
11AX40MIMO_Ant9_Low_2422



11AX40MIMO_Ant6_High_2452



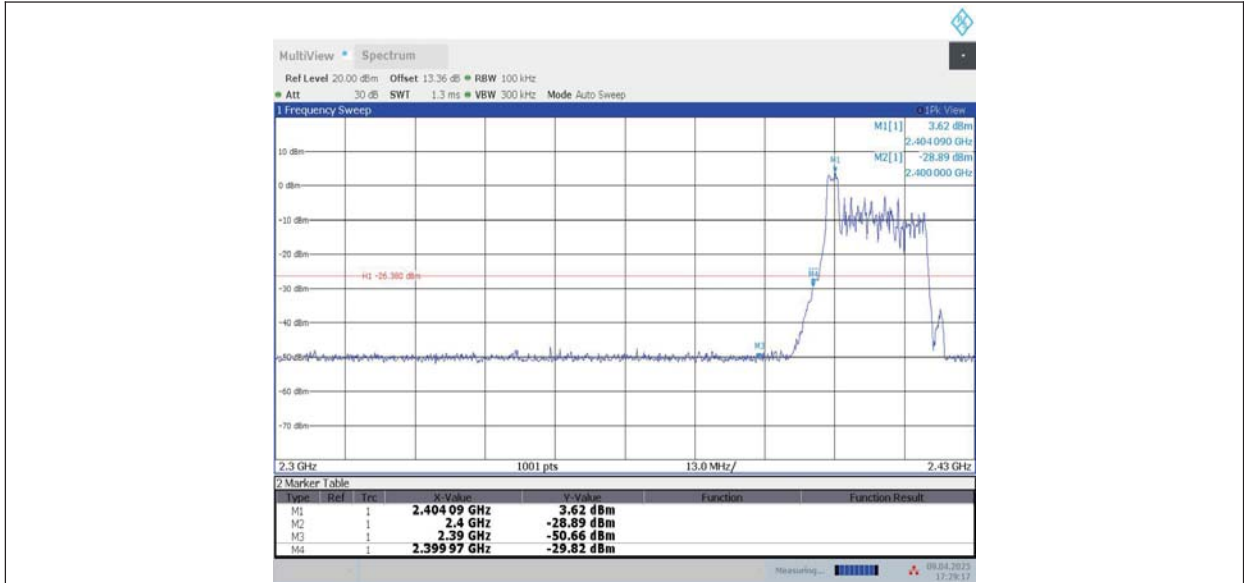
11AX40MIMO_Ant9_High_2452



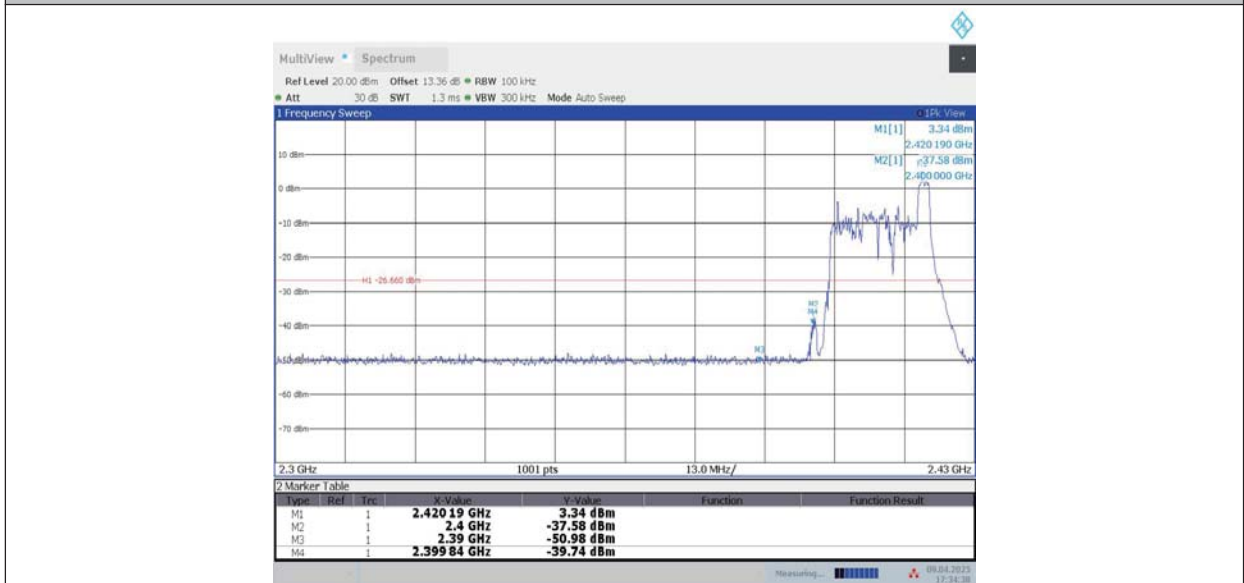
RU MIMO

Test Mode	Antenna	ChName	Frequency [MHz]	Ru Size	Ru Index	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11AX20 MIMO	Ant6	Low	2412	26Tone	RU0	3.62	-29.82	≤-26.38	PASS
					RU8	3.34	-39.74	≤-26.66	PASS
				52Tone	RU37	3.24	-30.14	≤-26.76	PASS
					RU40	2.68	-43.05	≤-27.32	PASS
				106Tone	RU53	-1.88	-37.17	≤-31.88	PASS
					RU54	2.43	-33.18	≤-27.57	PASS
	Ant9	Low	2412	26Tone	RU0	3.40	-33.35	≤-26.6	PASS
					RU8	1.97	-44.01	≤-28.03	PASS
				52Tone	RU37	3.45	-31.93	≤-26.55	PASS
					RU40	2.62	-42.81	≤-27.38	PASS
				106Tone	RU53	1.53	-32.82	≤-28.47	PASS
					RU54	0.65	-37.76	≤-29.35	PASS
	Ant6	High	2462	26Tone	RU0	2.75	-48.02	≤-27.25	PASS
					RU8	1.28	-47.65	≤-28.72	PASS
				52Tone	RU37	3.26	-47.69	≤-26.74	PASS
					RU40	1.97	-47.21	≤-28.03	PASS
				106Tone	RU53	2.73	-43.08	≤-27.27	PASS
					RU54	2.51	-44.53	≤-27.49	PASS
	Ant9	High	2462	26Tone	RU0	3.44	-47.28	≤-26.56	PASS
					RU8	-0.13	-47.87	≤-30.13	PASS
52Tone				RU37	3.28	-43.7	≤-26.72	PASS	
				RU40	-0.37	-45.62	≤-30.37	PASS	
106Tone				RU53	3.37	-39.71	≤-26.63	PASS	
				RU54	1.50	-37.7	≤-28.5	PASS	

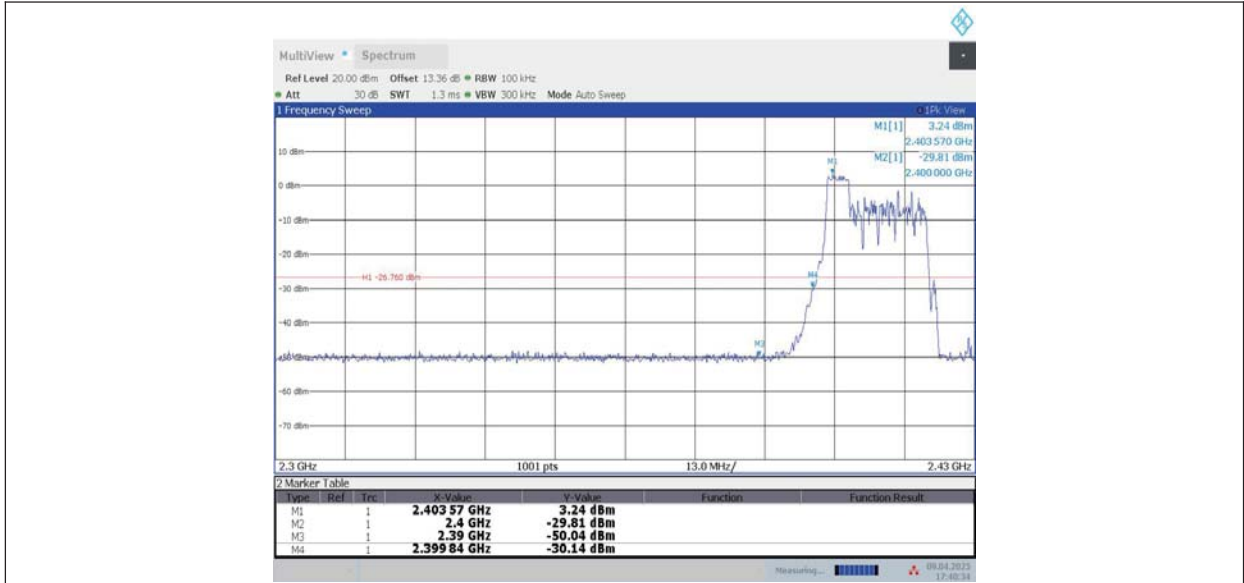
11AX20MIMO_Ant6_Low_2412_26Tone_RU0



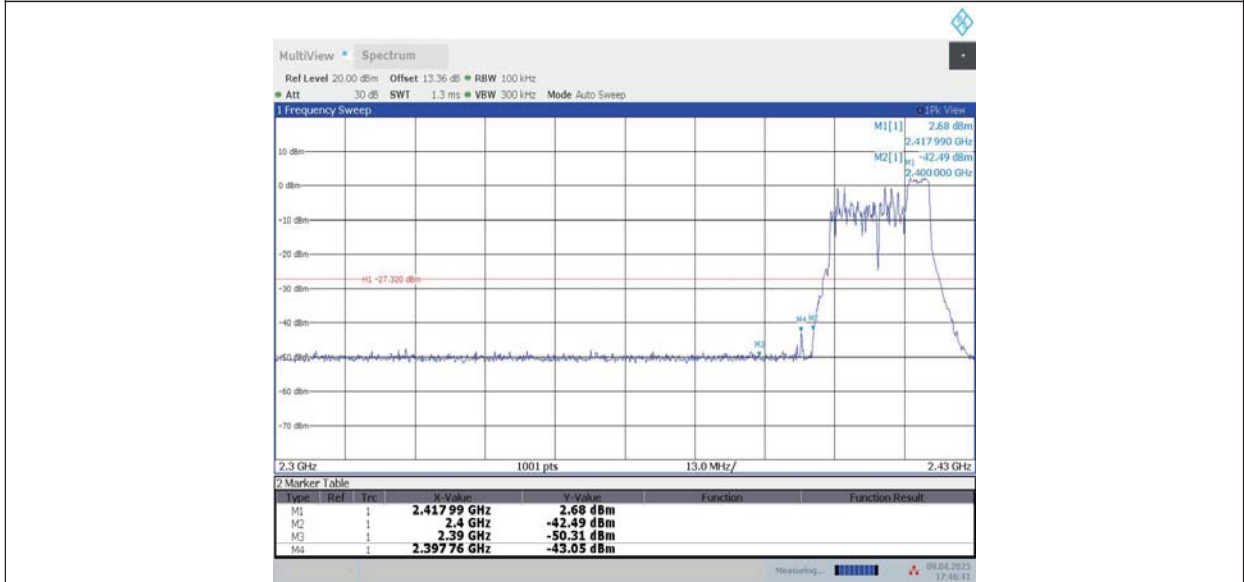
11AX20MIMO_Ant6_Low_2412_26Tone_RU8



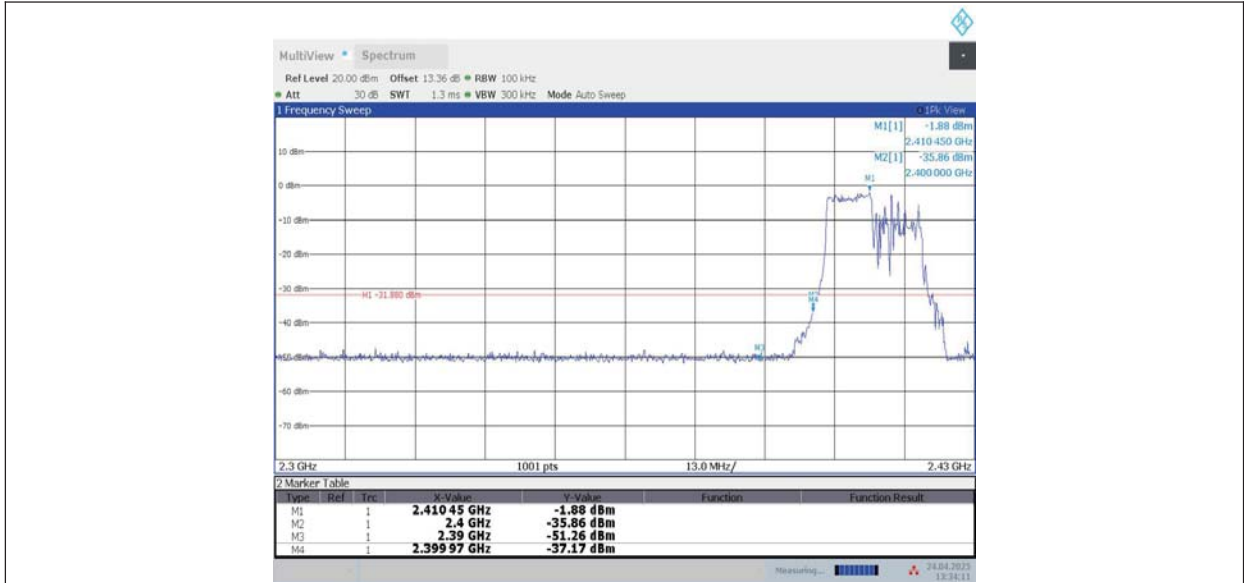
11AX20MIMO_Ant6_Low_2412_52Tone_RU37



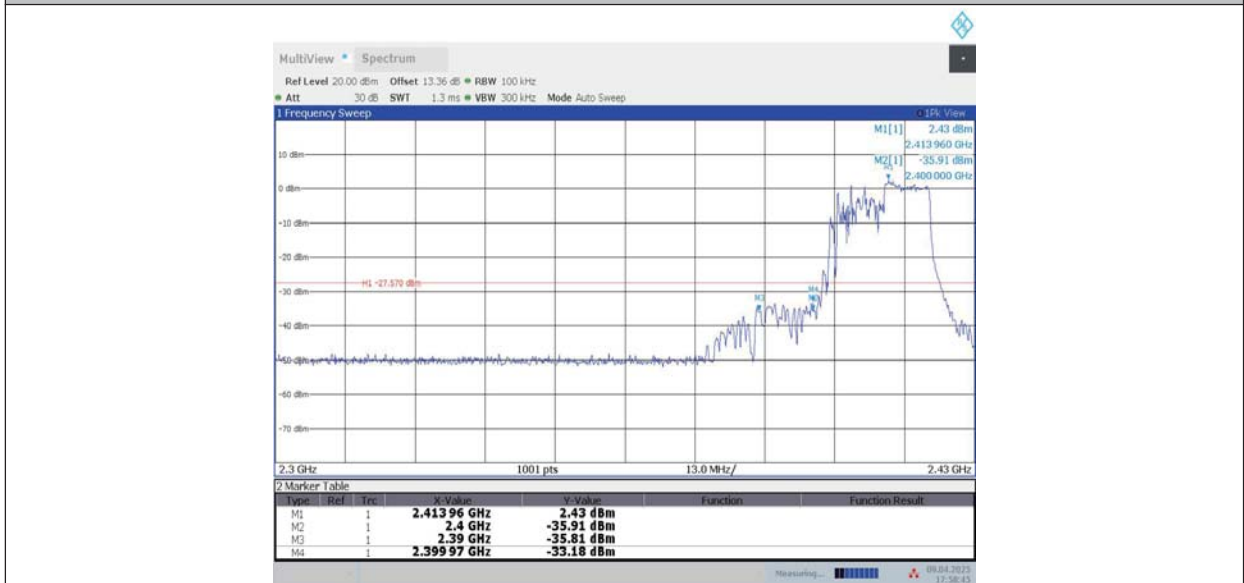
11AX20MIMO_Ant6_Low_2412_52Tone_RU40



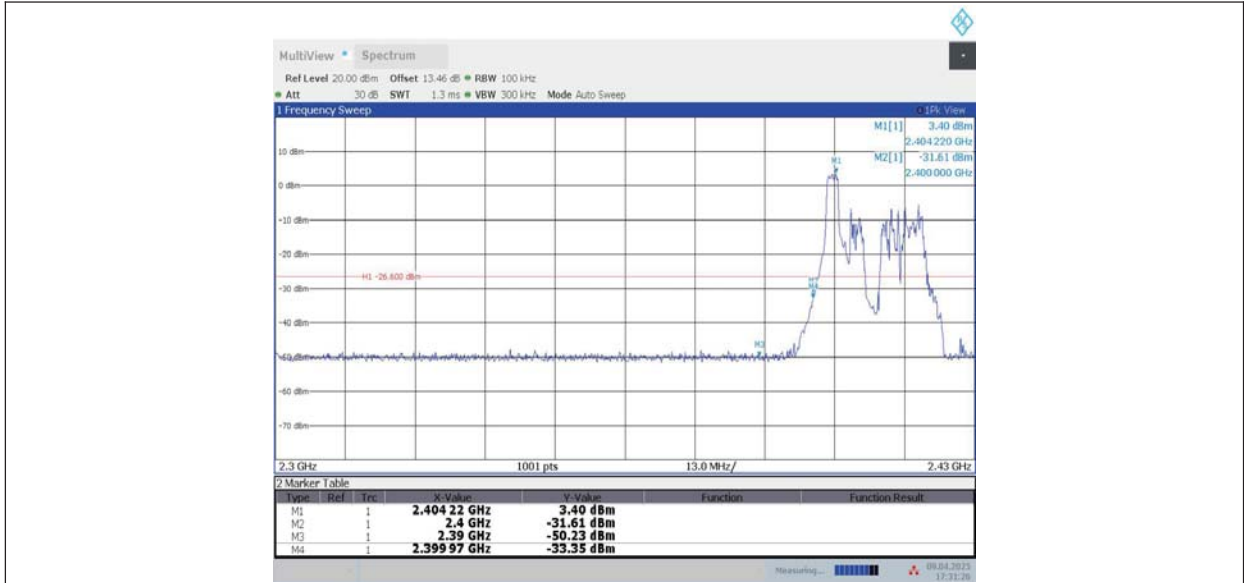
11AX20MIMO_Ant6_Low_2412_106Tone_RU53



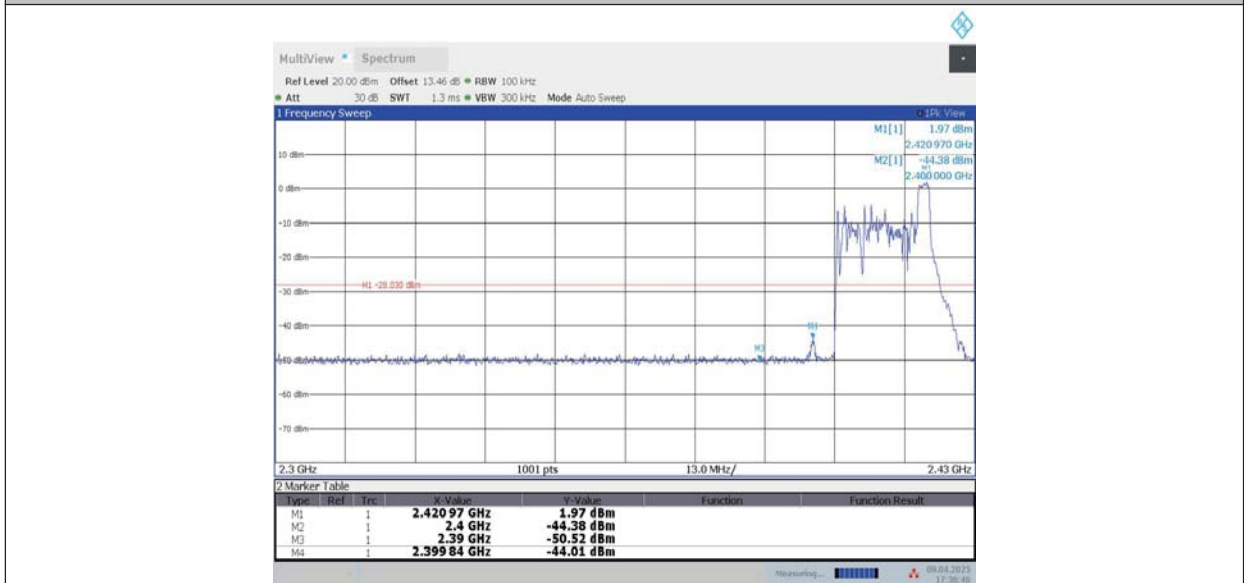
11AX20MIMO_Ant6_Low_2412_106Tone_RU54



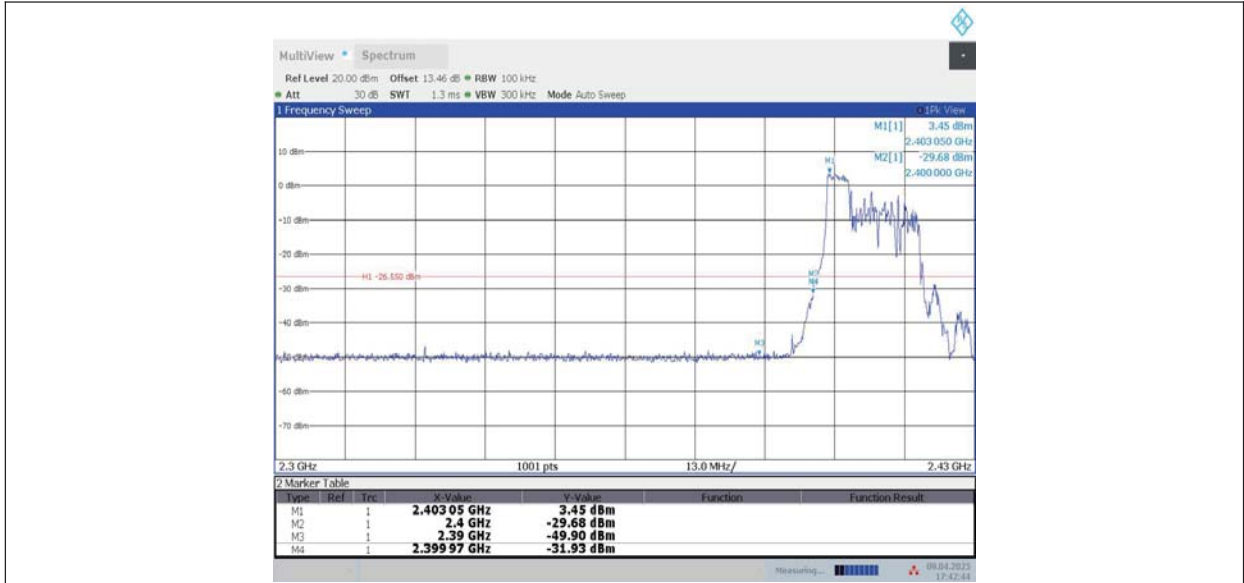
11AX20MIMO_Ant9_Low_2412_26Tone_RU0



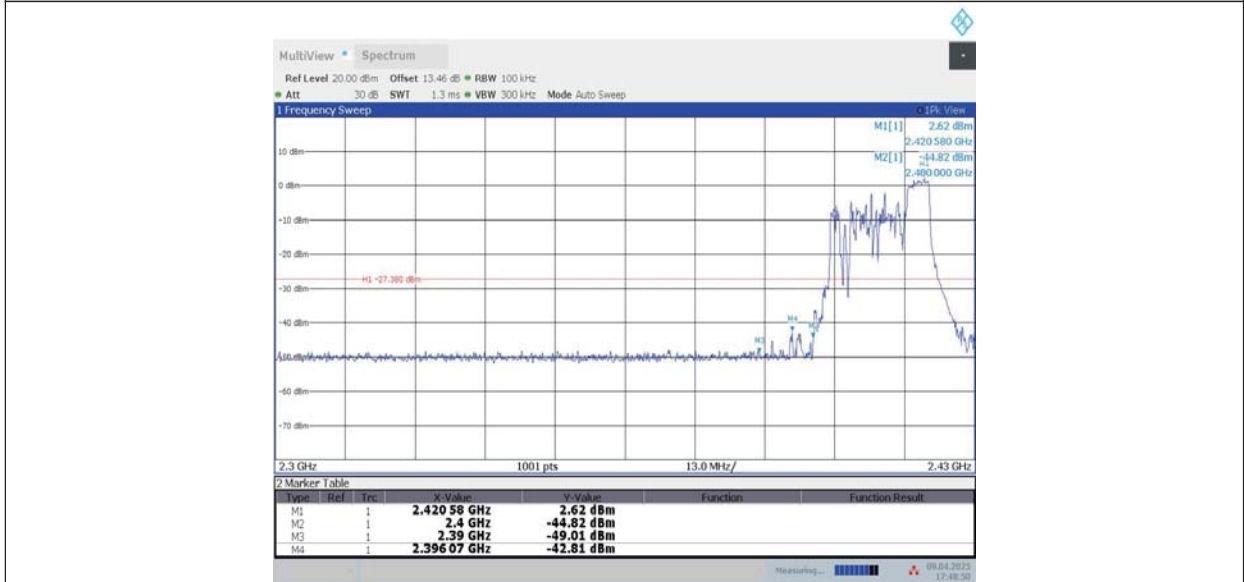
11AX20MIMO_Ant9_Low_2412_26Tone_RU8



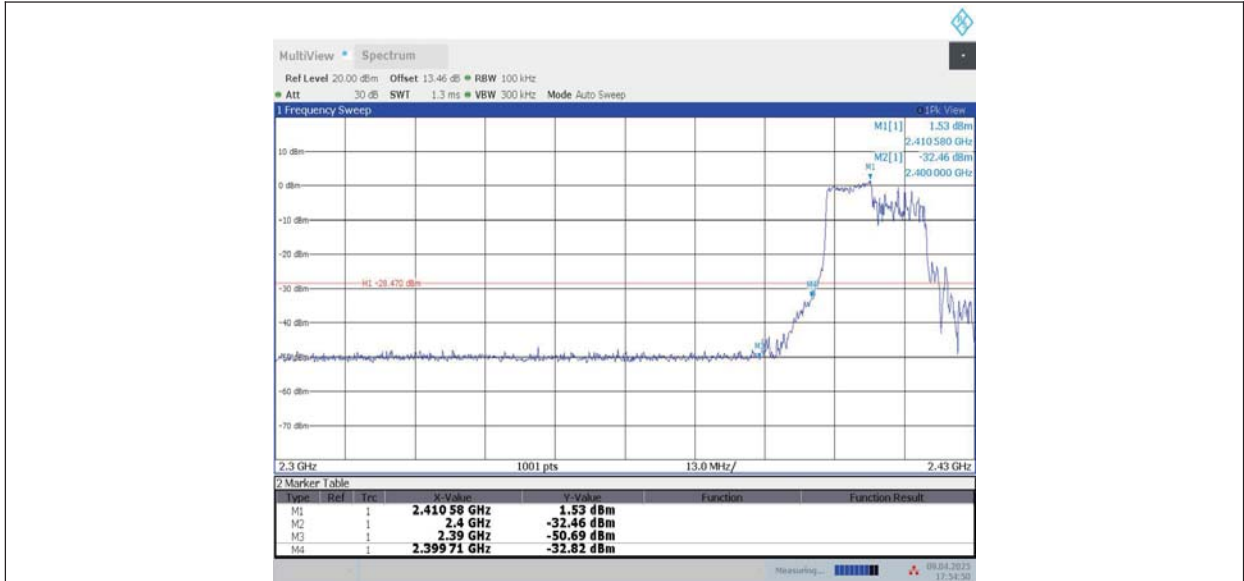
11AX20MIMO_Ant9_Low_2412_52Tone_RU37



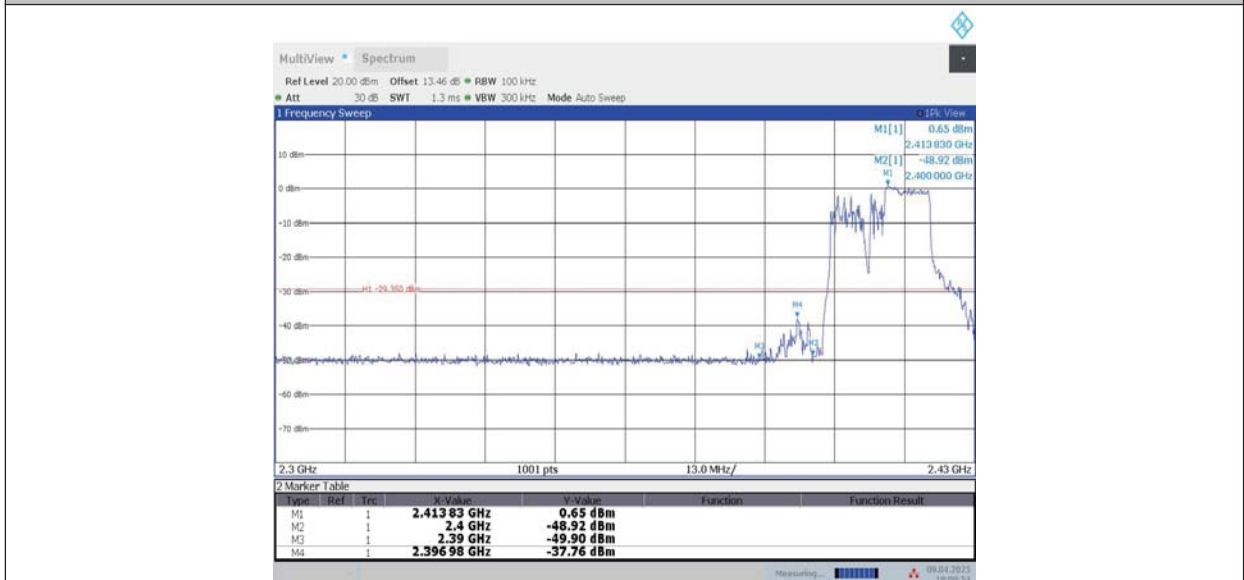
11AX20MIMO_Ant9_Low_2412_52Tone_RU40



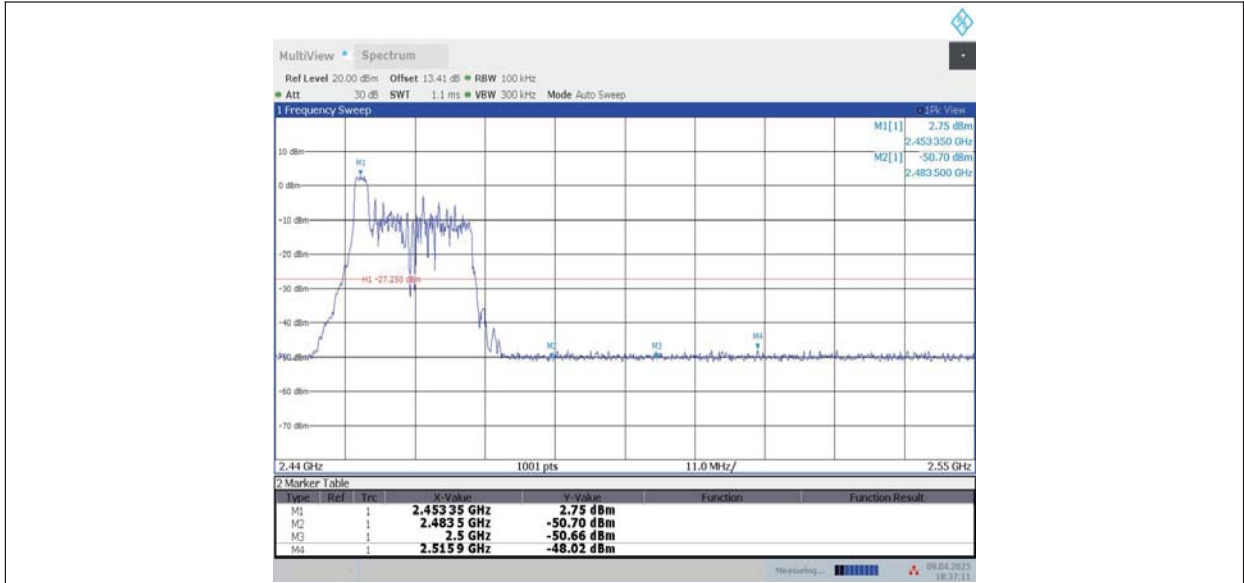
11AX20MIMO_Ant9_Low_2412_106Tone_RU53



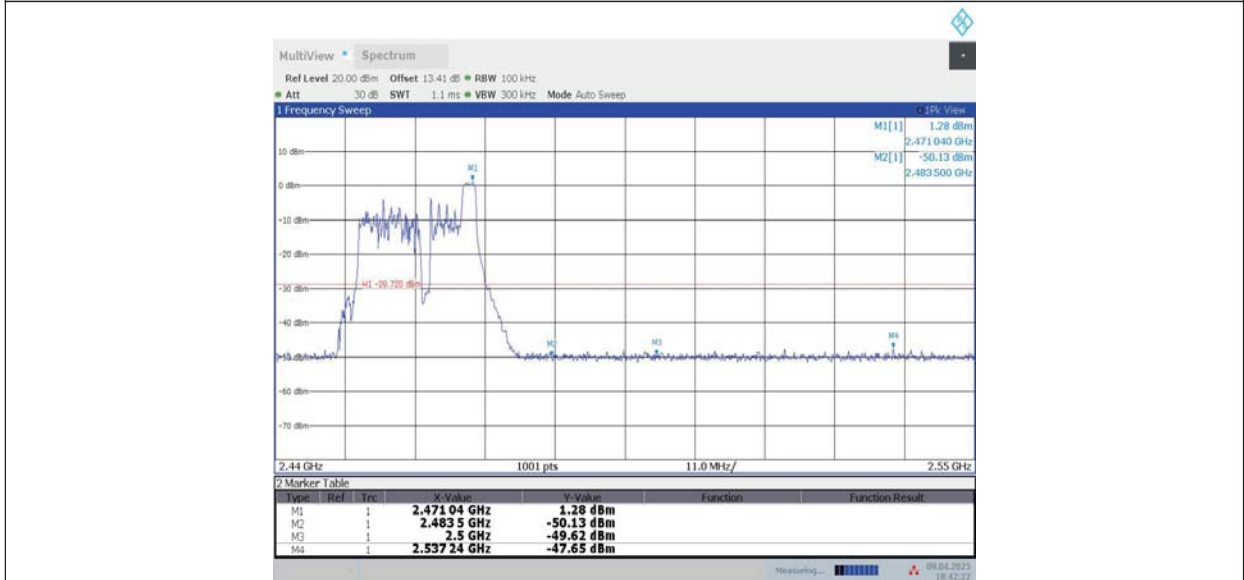
11AX20MIMO_Ant9_Low_2412_106Tone_RU54



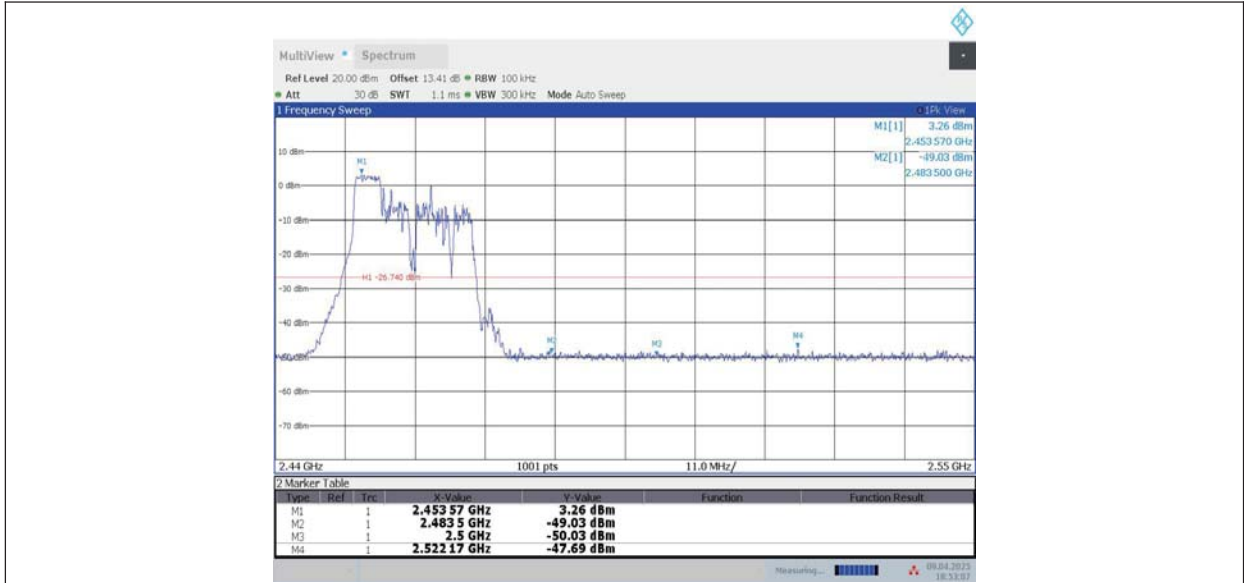
11AX20MIMO_Ant6_High_2462_26Tone_RU0



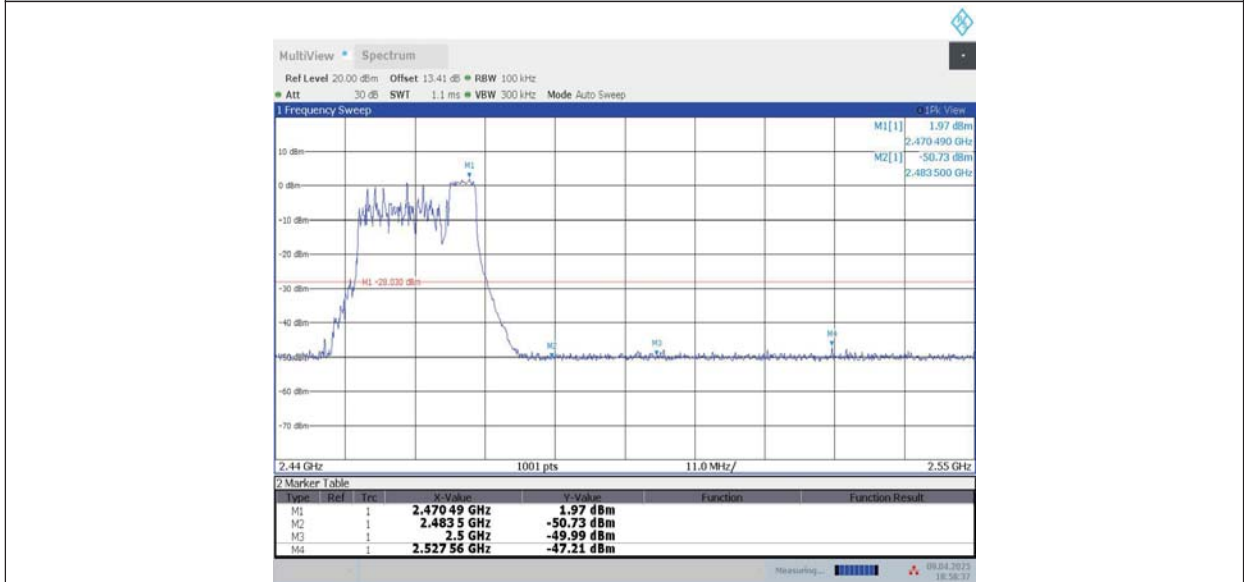
11AX20MIMO_Ant6_High_2462_26Tone_RU8



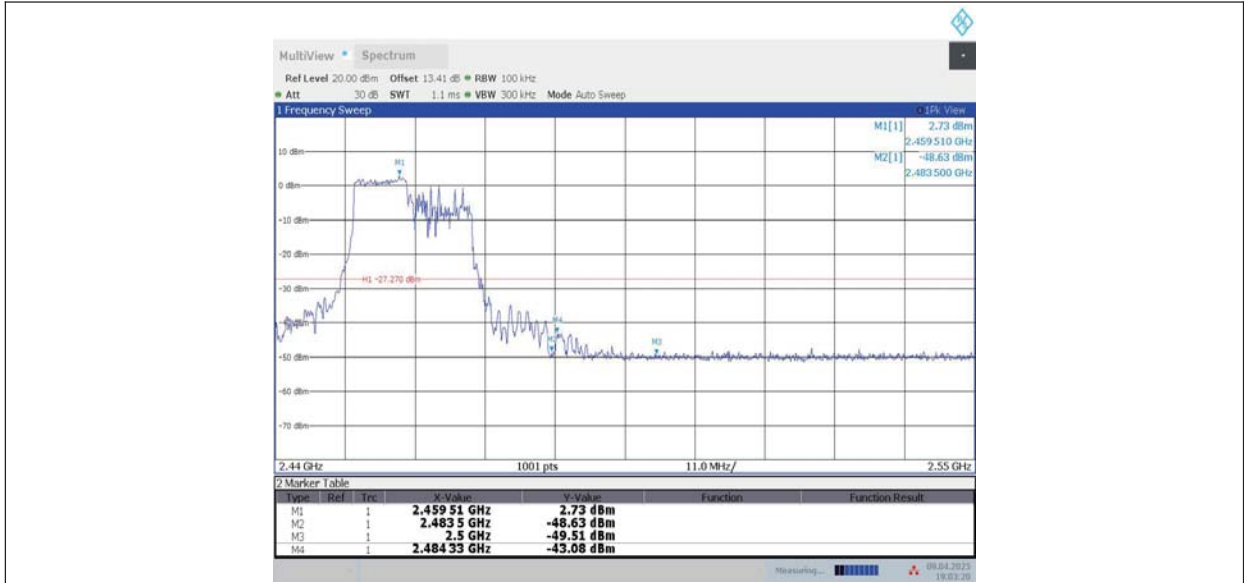
11AX20MIMO_Ant6_High_2462_52Tone_RU37



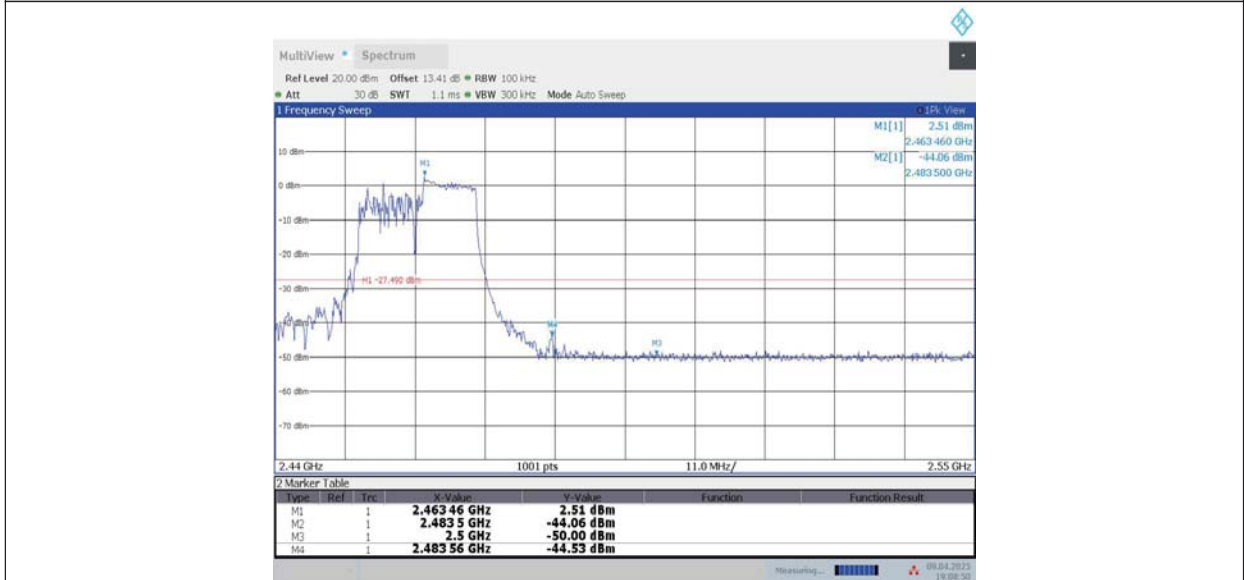
11AX20MIMO_Ant6_High_2462_52Tone_RU40



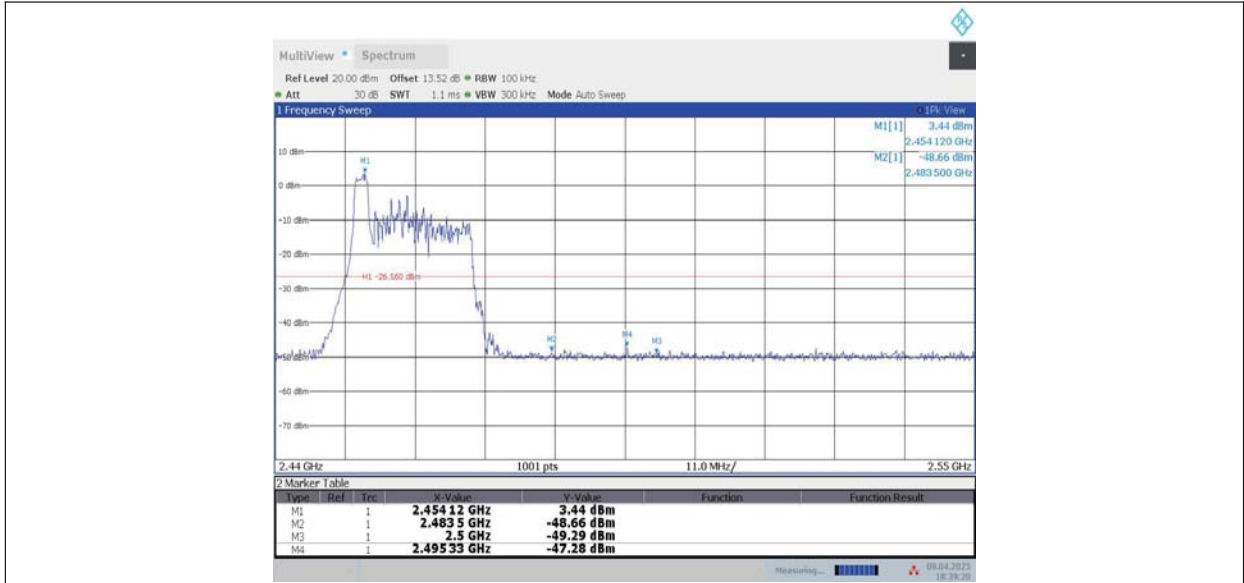
11AX20MIMO_Ant6_High_2462_106Tone_RU53



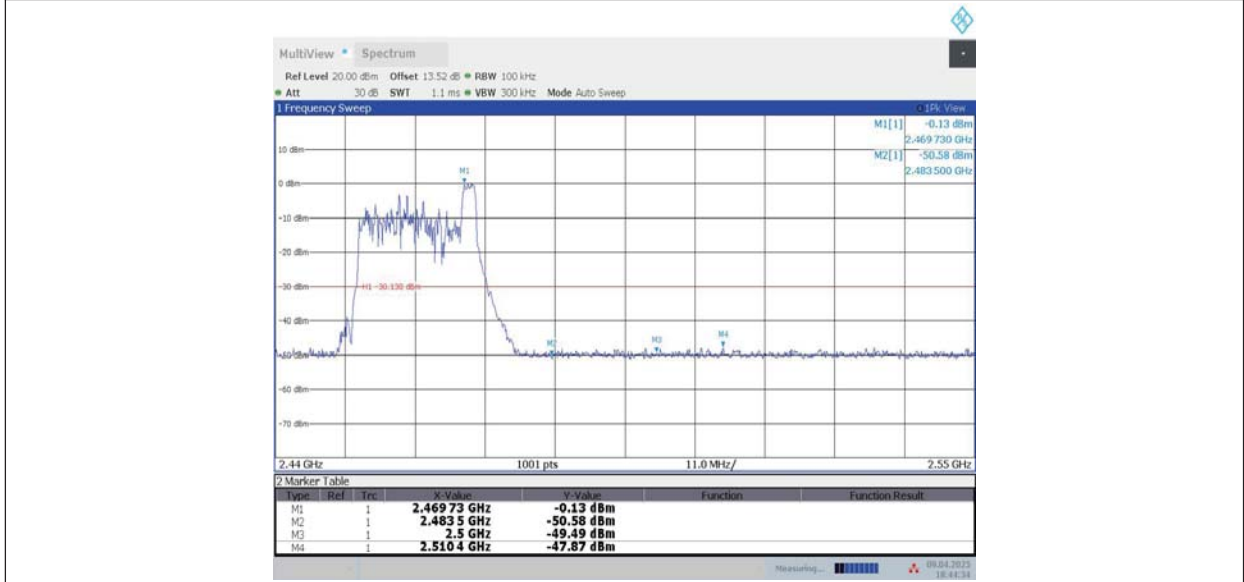
11AX20MIMO_Ant6_High_2462_106Tone_RU54



11AX20MIMO_Ant9_High_2462_26Tone_RU0



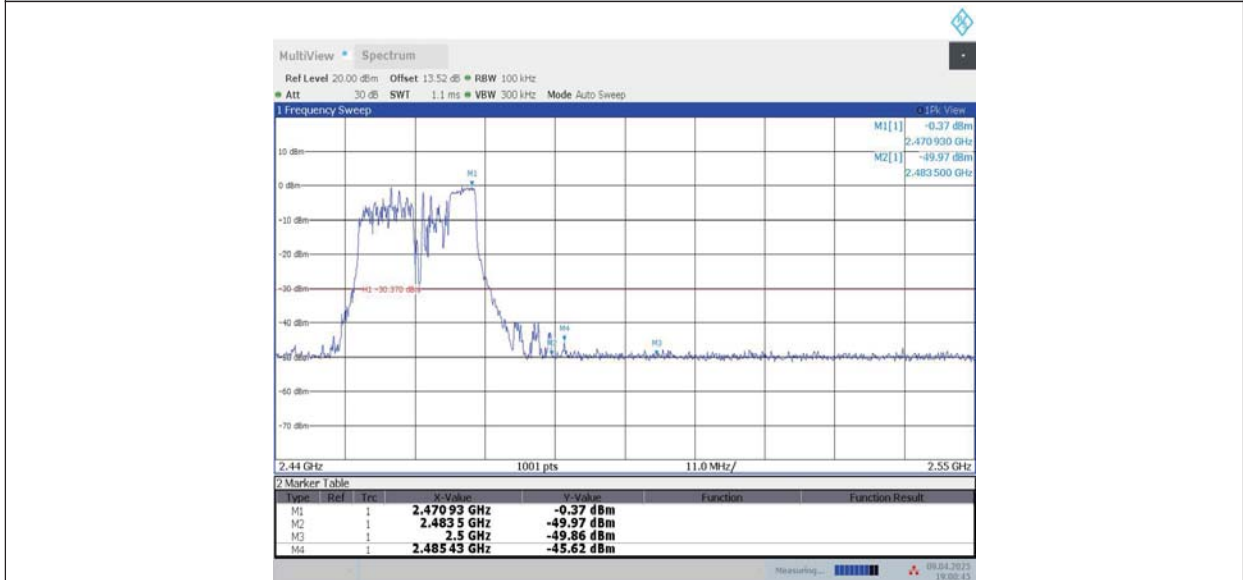
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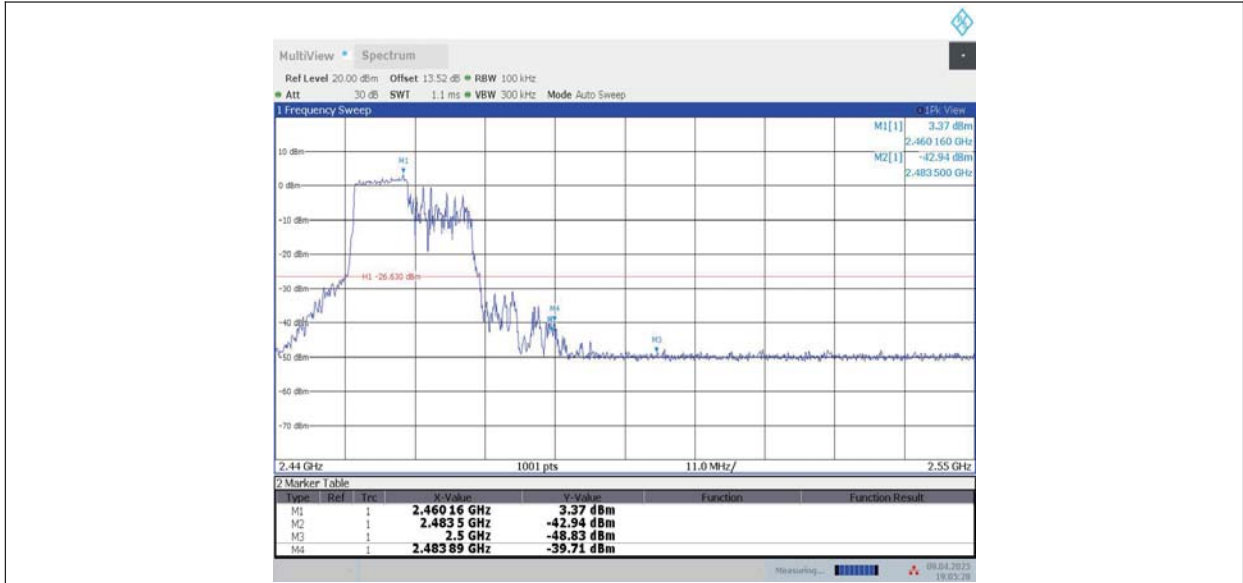
11AX20MIMO_Ant9_High_2462_52Tone_RU37



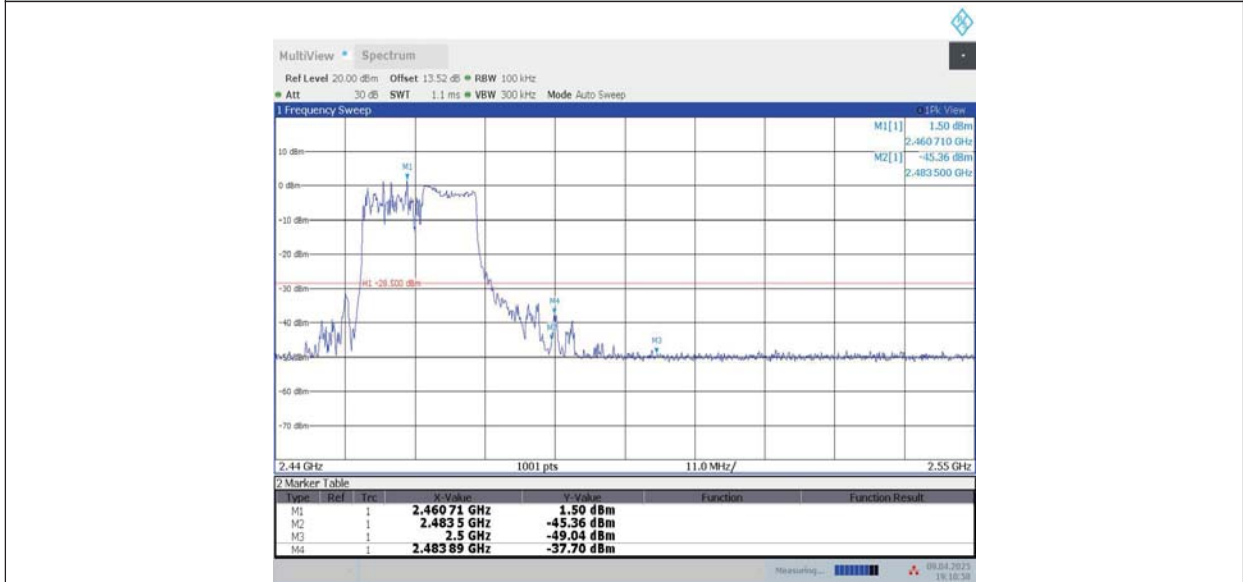
11AX20MIMO_Ant9_High_2462_52Tone_RU40



11AX20MIMO_Ant9_High_2462_106Tone_RU53



11AX20MIMO_Ant9_High_2462_106Tone_RU54



Conclusion: Pass

A.6. Transmitter Spurious Emission

A.6.1 Transmitter Spurious Emission – Conducted

Method of Measurement: See ANSI C63.10-2013-clause 11.11

Establish a reference level by using the following procedure:

- a) Set instrument center frequency to DTS channel center frequency
- b) Set the span to ≥ 1.5 times the DTS bandwidth
- c) Set the RBW= 100 kHz
- d) Set the VBW= 300 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 PSD level

Note that the channel found to contain the maximum PSD level can be used to establish the reference level.

Establish an emission level by using the following procedure:

- a) Set the center frequency and span to encompass frequency range to be measured.
- b) Set the RBW = 100 kHz.
- c) Set the VBW = 300 kHz.
- d) Detector = peak.
- e) Sweep time = auto couple.
- f) Trace mode = max hold.
- g) Allow trace to fully stabilize.
- h) Use the peak marker function to determine the maximum amplitude level.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11. Report the three highest emissions relative to the limit.

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247 (d)	20dB below peak output power in 100 kHz bandwidth

EUT ID: UT27a

Measurement Results:

Test Mode	Antenna	Frequency [MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant6	2412	Reference	10.73	10.73	---	PASS
			30~1000	10.73	-56.32	≤ -9.27	PASS
			1000~26500	10.73	-43.46	≤ -9.27	PASS
	Ant9	2412	Reference	10.11	10.11	---	PASS
			30~1000	10.11	-55.64	≤ -9.89	PASS

	Ant6	2437	1000~26500	10.11	-49.26	≤ -9.89	PASS
			Reference	10.49	10.49	---	PASS
			30~1000	10.49	-56.14	≤ -9.51	PASS
	Ant9	2437	1000~26500	10.49	-47.83	≤ -9.51	PASS
			Reference	10.30	10.30	---	PASS
			30~1000	10.30	-56.21	≤ -9.7	PASS
	Ant6	2462	1000~26500	10.30	-49.25	≤ -9.7	PASS
			Reference	11.12	11.12	---	PASS
			30~1000	11.12	-55.82	≤ -8.88	PASS
	Ant9	2462	1000~26500	11.12	-48.85	≤ -8.88	PASS
			Reference	10.21	10.21	---	PASS
			30~1000	10.21	-56.23	≤ -9.79	PASS
11G	Ant6	2412	1000~26500	10.21	-48.9	≤ -9.79	PASS
			Reference	8.36	8.36	---	PASS
			30~1000	8.36	-56.7	≤ -11.64	PASS
	Ant9	2412	1000~26500	8.36	-49.54	≤ -11.64	PASS
			Reference	6.62	6.62	---	PASS
			30~1000	6.62	-56.24	≤ -13.38	PASS
	Ant6	2437	1000~26500	6.62	-48.8	≤ -13.38	PASS
			Reference	8.33	8.33	---	PASS
			30~1000	8.33	-55.61	≤ -11.67	PASS
	Ant9	2437	1000~26500	8.33	-49.32	≤ -11.67	PASS
			Reference	7.56	7.56	---	PASS
			30~1000	7.56	-55.55	≤ -12.44	PASS
Ant6	2462	1000~26500	7.56	-49.92	≤ -12.44	PASS	
		Reference	8.52	8.52	---	PASS	
		30~1000	8.52	-56.33	≤ -11.48	PASS	
Ant9	2462	1000~26500	8.52	-49.82	≤ -11.48	PASS	
		Reference	7.19	7.19	---	PASS	
		30~1000	7.19	-55.59	≤ -12.81	PASS	
11N20MIMO	Ant6	2412	1000~26500	7.19	-49.33	≤ -12.81	PASS
			Reference	8.27	8.27	---	PASS
			30~1000	8.27	-56.41	≤ -11.73	PASS
	Ant9	2412	1000~26500	8.27	-48.49	≤ -11.73	PASS
			Reference	6.36	6.36	---	PASS
			30~1000	6.36	-56.18	≤ -13.64	PASS
	Ant6	2437	1000~26500	6.36	-44.5	≤ -13.64	PASS
			Reference	7.54	7.54	---	PASS
			30~1000	7.54	-56.15	≤ -12.46	PASS
	Ant9	2437	1000~26500	7.54	-49.63	≤ -12.46	PASS
			Reference	6.24	6.24	---	PASS
			30~1000	6.24	-56.14	≤ -13.76	PASS