TEST REPORT

Report Number: 105683076MPK-001
Project Number: G105683076
Original Issue Date: March 29, 2024
Revised Date: May 16, 2024

Testing performed on
Model X Controller
Model Number: T14399

to

FCC Part 15 Subpart C (15.247)
ISED RSS-247, Issue 3

For

Traeger Pellet Grills LLC.

Test Performed by:	**Test Authorized by:**
Intertek	Traeger INC.
1365 Adams Court	533 South 400 West,
Menlo Park, CA 94025 USA	Salt Lake City, UT, 84101, USA

Prepared by: _____ **Date:** March 29, 2024
Gilberto Gallegos Rangel

Reviewed by: _____ **Date:** March 29, 2024
Minh Ly

Report No. 105683076MPK-001	
Equipment Under Test:	Model X Controller
Model Number:	T14399
Applicant:	Traeger Pellet Grills LLC
Contact:	Chuck Benson
Address:	Traeger Pellet Grills LLC 533 South 400 West, Salt Lake City, UT, 84101, USA
Country:	USA
Tel. Number:	(503)-780-9527
Email:	cbenson@traegergrills.com
Applicable Regulation:	FCC Part 15 Subpart C (15.247) ISED RSS-247 Issue 3
Date of Test:	January 22-30, 2024 & March 5-6, 2024

We attest to the accuracy of this report:

Gilberto Gallegos Rangel
EMC Engineer

Minh Ly
EMC Team Lead

TABLE OF CONTENTS

1.0 Summary of Tests

Test	Reference FCC	Reference Industry Canada	Result
RF Output Power	15.247(b)(3)	RSS-247, 5.4.d)	Complies
6 dB Bandwidth	15.247(a)(2)	RSS-247, 5.2.a)	Complies
Power Density	15.247(e)	RSS-247, 5.2.b)	Complies
Out of Band Antenna Conducted Emission	15.247(d)	RSS-247, 5.5	Complies
Transmitter Radiated Emissions	15.247(d), 15.209, 15.205	RSS-247, 5.5	Complies
AC Line Conducted Emission	15.207	RSS-GEN	Complies
Antenna Requirement	15.203	RSS-GEN	Complies (Internal Antenna)

EUT receive date: January 22, 2024

EUT receive condition: The pre-production version of the EUT was received in good condition with no apparent damage. As declared by the Applicant, it is identical to the production units.

Test start date: January 22, 2024

Test completion date: March 6, 2024

The test results in this report pertain only to the item tested.

2.0 General Information

2.1 Product Description

Traeger Pellet Grills LLC supplied the following description of the EUT:

The Model X controller is a controller installed into a grill to control and monitor its setting and attached peripherals.

For more information, see user's manual provided by the manufacturer.

This test report covers only the 2.4GHz WiFi radio.

Information about the WiFi radio is presented below:

The EUT supports a wide range of data rates in the 2.4GHz band:

IEEE 802.11b
IEEE 802.11g
IEEE 802.11n 20MHz
IEEE 802.11n 40MHz

Radio Information	
Applicant	Traeger Pellet Grills LLC
Model Number	Model X Controller
Modulation Technique	DSSS (BPSK, QPSK, CCK), OFDM (BPSK, QPSK, 16QAM, 64QAM)
Rated RF Output	802.11b: 17.29 dBm 802.11g: 16.92 dBm 802.11n 20MHz: 15.59 dBm 802.11n 40MHz: 14.71 dBm
Frequency Range	2412 – 2462 MHz, 802.11b/g/n
Type of modulation	BPSK, QPSK, 16QAM, 64QAM
Number of Channel(s)	11 for 802.11b/g/n
Antenna(s) & Gain	Internal Antenna, Gain: 4.01dBi
Applicant Name & Address	Traeger Pellet Grills LLC 533 South 400 West, Salt Lake City, UT, 84101, USA

2.2 Related Submittal(s) Grants

None.

2.3 Test Facility

The test site used to collect the radiated data is site 1 (10-m semi-anechoic chamber). This test facility and site measurement data have been fully placed on file with the FCC, IC and A2LA accredited.

2.4 Test Methodology

Antenna conducted measurements were performed according to the FCC documents "Guidance for Performing Compliance Measurement on Digital Transmission Systems (DTS) Operating under §15.247" (KDB 558074 D01 DTS Meas Guidance v05r02), and RSS-247 Issue 3, RSS-GEN Issue 5.

Radiated emissions and AC mains conducted emissions measurements were performed according to the procedures in ANSI C63.10: 2013. Radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the "Data Sheet" of this report.

2.5 Measurement Uncertainty

Compliance with the limits was based on the results of the measurements and doesn't take into account the measurement uncertainty.

Estimated Measurement Uncertainty

Measurement	Expanded Uncertainty (k=2)		
	0.15 MHz – 1 GHz	1 GHz – 2.5 GHz	> 2.5 GHz
RF Power and Power Density – antenna conducted	-	0.7 dB	-
Unwanted emissions – antenna conducted	1.1 dB	1.3 dB	1.9 dB
Bandwidth – antenna conducted	-	30 Hz	-

Measurement	Expanded Uncertainty (k=2)			
	0.15 MHz – 30MHz	30 – 200 MHz	200 MHz – 1 GHz	1 GHz – 18 GHz
Radiated emissions	-	4.7	4.6	5.1 dB
AC mains conducted emissions	2.1 dB	-	-	-

3.0 System Test Configuration

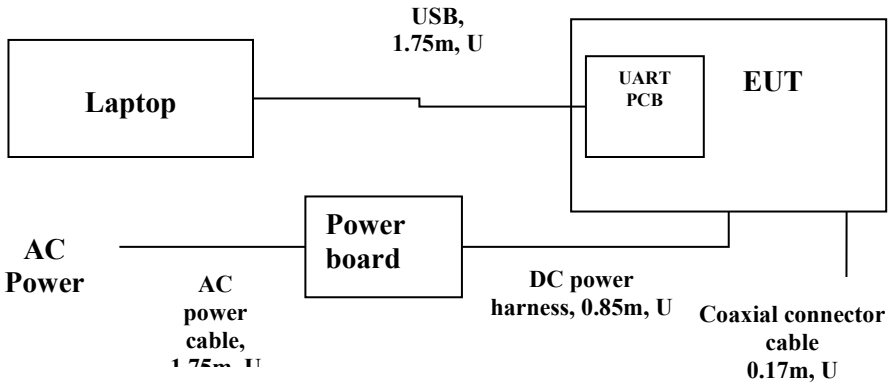
3.1 Equipment Under Test (EUT) & Support Equipment

Equipment Under Test			
Description	**Manufacturer**	**Model**	**Serial Number/ID**
Model X Controller– Conducted Unit	Traeger Pellets Grills LLC	T14038 v.C1	U2C123520120E
Model X Controller – Radiated Unit	Traeger Pellets Grills LLC	T14038 v.C1	U2C123520152D

Support Equipment		
Description	**Manufacturer**	**Model**
Programming Board	Traeger Pellet Grills	763-1-1608
Power Board	Traeger Pellet Grills	T14707
Fan	Guangdong Fangzhan Motor Co.	FZ-BLDC12038
Auger	Guangdong Fangzhan Motor Co.	FZ6020C-614
Ignitor	Yandi	T14588
RTD Temperature Sensor Cavity	Yandi	T14665
Meat Probe Temperature Sensor	Yandi	BAC289/BAC329
Pellet Sensor	Traeger Pellet Grills	T00261

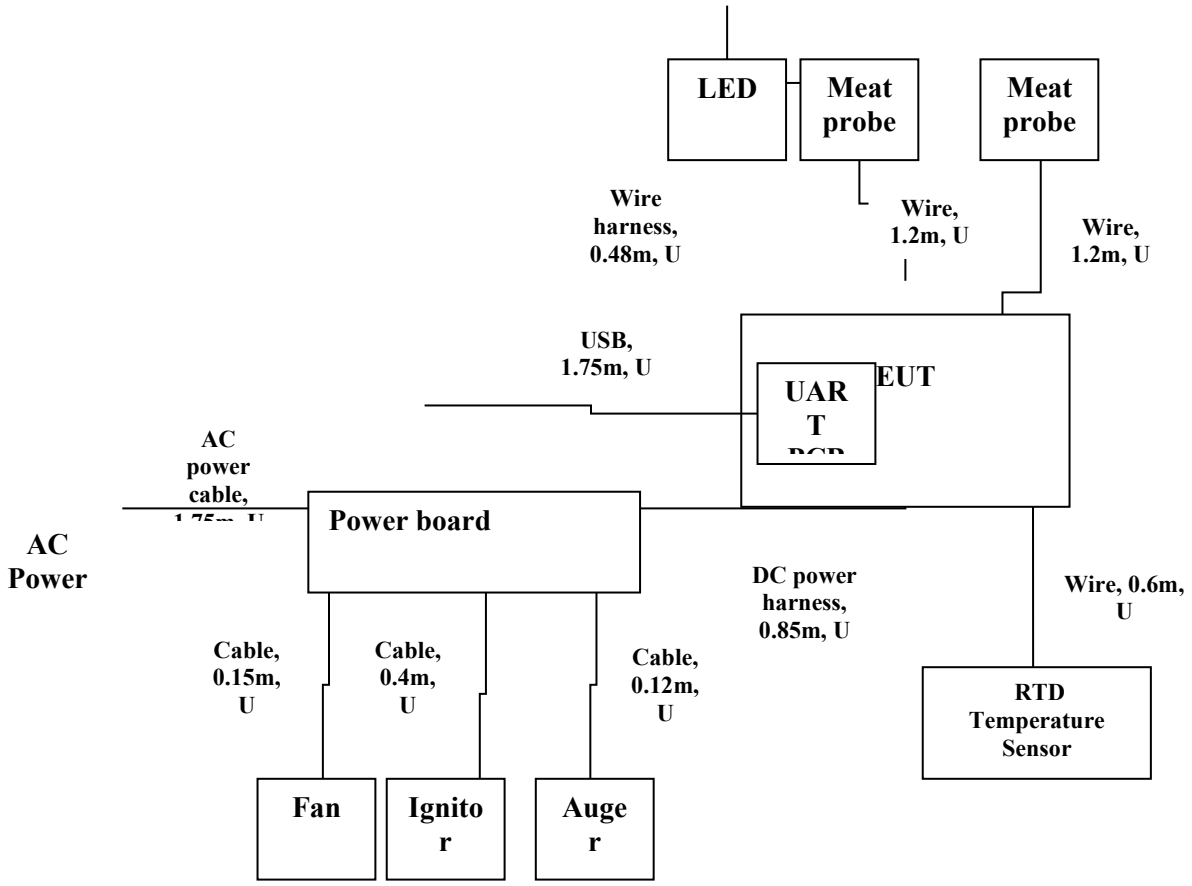
3.2 Block Diagram of Test Setup

Conducted setup



S = Shielded **U** = Unshielded	**F** = With Ferrite **m** = Meter

Radiated setup



S = Shielded **U** = Unshielded	**F** = With Ferrite **m** = Length in Meters

EUT Photos

3.3 Justification

Preliminary testing was performed for all modulation/data rate modes. The worse-case data rate with highest power and widest spectrum were selected for final measurements:

CCK 11 Mbps – for 802.11b
OFDM 6 Mbps – for 802.11g
OFDM MCS0 – for 802.11n for 20MHz and 40MHz

For radiated emission measurements the EUT is placed on a non-conductive table. The EUT was configured to continuously transmit. Different orientation of the EUT were tested and only the worse-case emissions were reported.

The EUT was tested in 1 configuration with EUT in horizontal and upright positions:
A/ Normal mode: tested in AC Mode

The EUT was set to continuous transmit mode with the duty cycle >98%.

3.4 Software Exercise Program

The EUT exercise program used during radiated and conducted testing was provided by Vocera Communications, Inc.

3.5 Mode of Operation During Test

During transmitter testing, the transmitter was setup to transmit continuously using the RF power setting provided by the manufacturers via test scripts with the duty cycle >98%. The corresponding output power in dBm can be found in section 4.2 of this report.

The table below reflects the RF power setting needed to be compliant with radiated restricted band edge requirements of 15.205 & 15.209.

802.11b		
Freq. MHz	Channel	GUI
2412	1	0
2437	6	0
2462	11	0

802.11g		
Freq. MHz	Channel	GUI
2412	1	20
2417	2	8
2422	3	0
2437	6	0
2447	8	0
2452	9	4
2457	10	12
2462	11	24

802.11n20 HT0		
Freq. MHz	Channel	GUI
2412	1	20
2417	2	6
2422	3	0
2437	6	0
2452	9	0
2457	10	4
2462	11	20

802.11n40 HT0		
Freq. MHz	Channel	GUI
2422	3	24
2427	4	20
2432	5	10
2437	6	4
2442	7	4
2447	8	4
2452	9	24

Note: GUI number settings are for attenuation applied to Power Setting

3.6 Modifications Required for Compliance

No modifications were made by the manufacturer or Intertek to the EUT in order to bring the EUT into compliance.

3.7 Additions, Deviations and Exclusions from Standards

No additions, deviations or exclusions from the standard were made.

4.0 Measurement Results

4.1 6-dB Bandwidth and 99% Occupied Bandwidth
FCC Rule: 15.247(a)(2); RSS-247, 5.2.a) and RSS-GEN;

4.1.1 Requirement

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

4.1.2 Procedure

A spectrum analyzer was connected to the antenna port of the transmitter.

For FCC 6dB Channel Bandwidth the Procedure described in the FCC Publication KDB 558074 D01 Meas Guidance v05r02 was used to determine the DTS occupied bandwidth. Section 11.8.1 Option 1 of ANSI 63.10 was used.

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 x RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. 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.

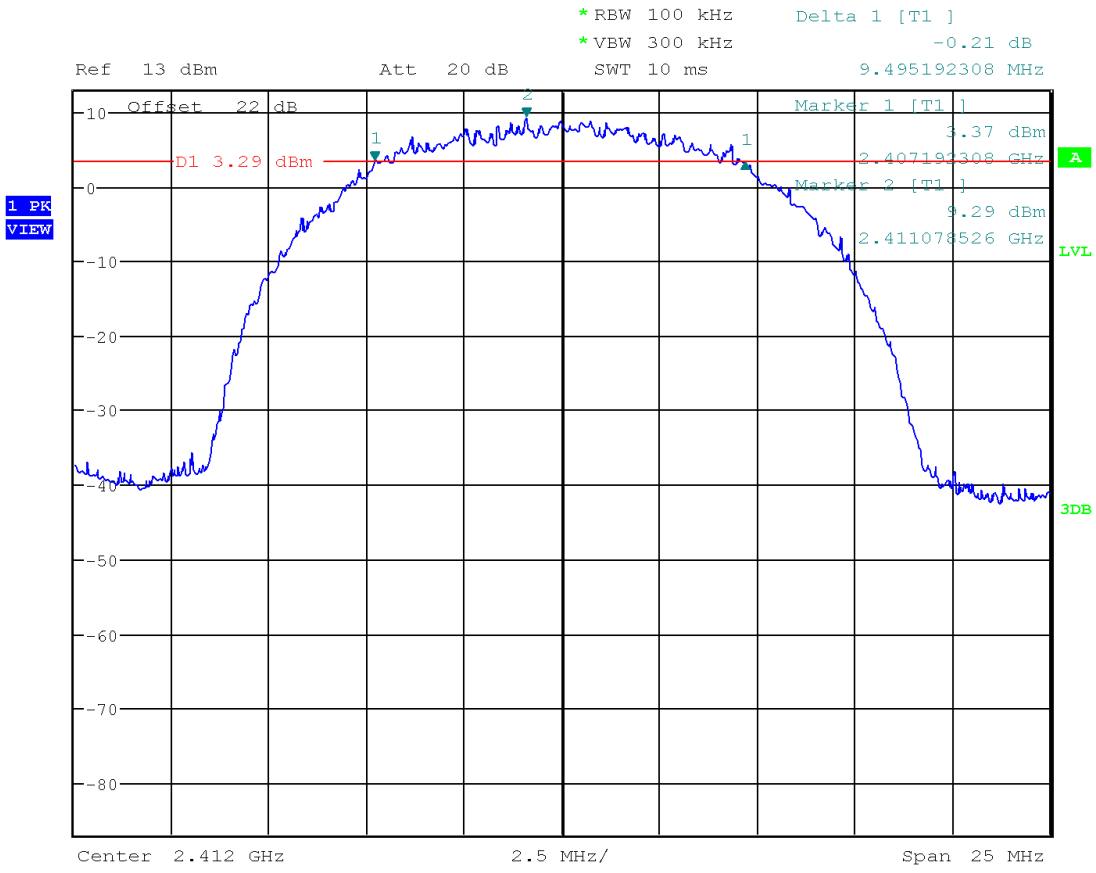
For 99% power bandwidth measurement, the bandwidth was determined by using the built-in 99% occupied bandwidth function of the spectrum analyzer. The resolution bandwidth is set to 1% of the selected span as is without being below 1%. The video bandwidth shall be set to 3 times the resolution bandwidth.

Tested By	Test Date
Erica Chan	March 5 & 6, 2024

4.1.3 Test Result

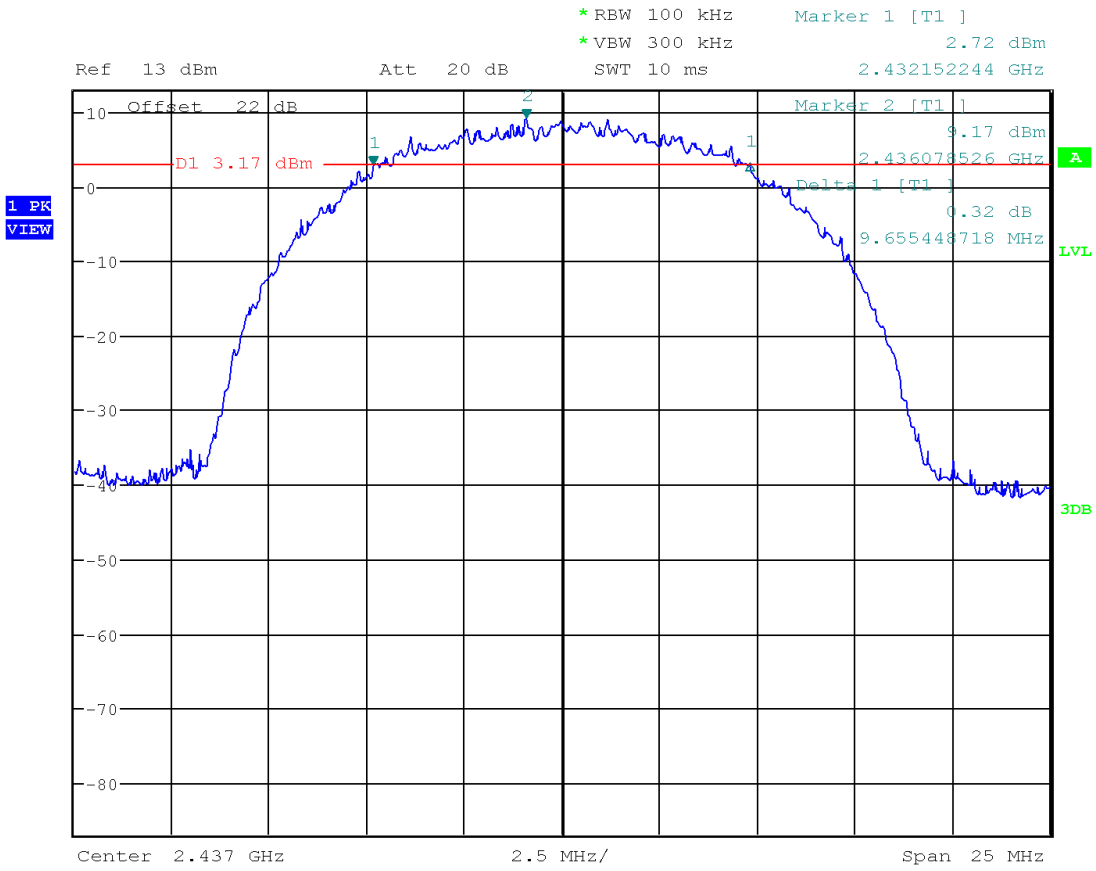
Frequency MHz	Ch.	Frequency MHz	6 dB FCC Bandwidth, MHz	Plot #	99% Bandwidth, MHz	Plot #
802.11b	1	2412	9.495	1.1	12.860	1.4
	6	2437	9.655	1.2	12.860	1.5
	11	2462	9.575	1.3	12.860	1.6
802.11g	1	2412	16.346	1.7	16.538	1.10
	6	2437	16.346	1.8	16.538	1.11
	11	2462	16.354	1.9	16.538	1.12
802.11n 20MHz	1	2412	16.826	1.13	17.355	1.16
	6	2437	16.826	1.14	17.307	1.17
	11	2462	16.538	1.15	17.307	1.18
802.11n 40MHz	3	2422	35.096	1.19	35.817	1.22
	6	2437	35.096	1.20	35.817	1.23
	9	2452	35.080	1.21	35.817	1.24

Plot 1.1 – 6dB Bandwidth (FCC)



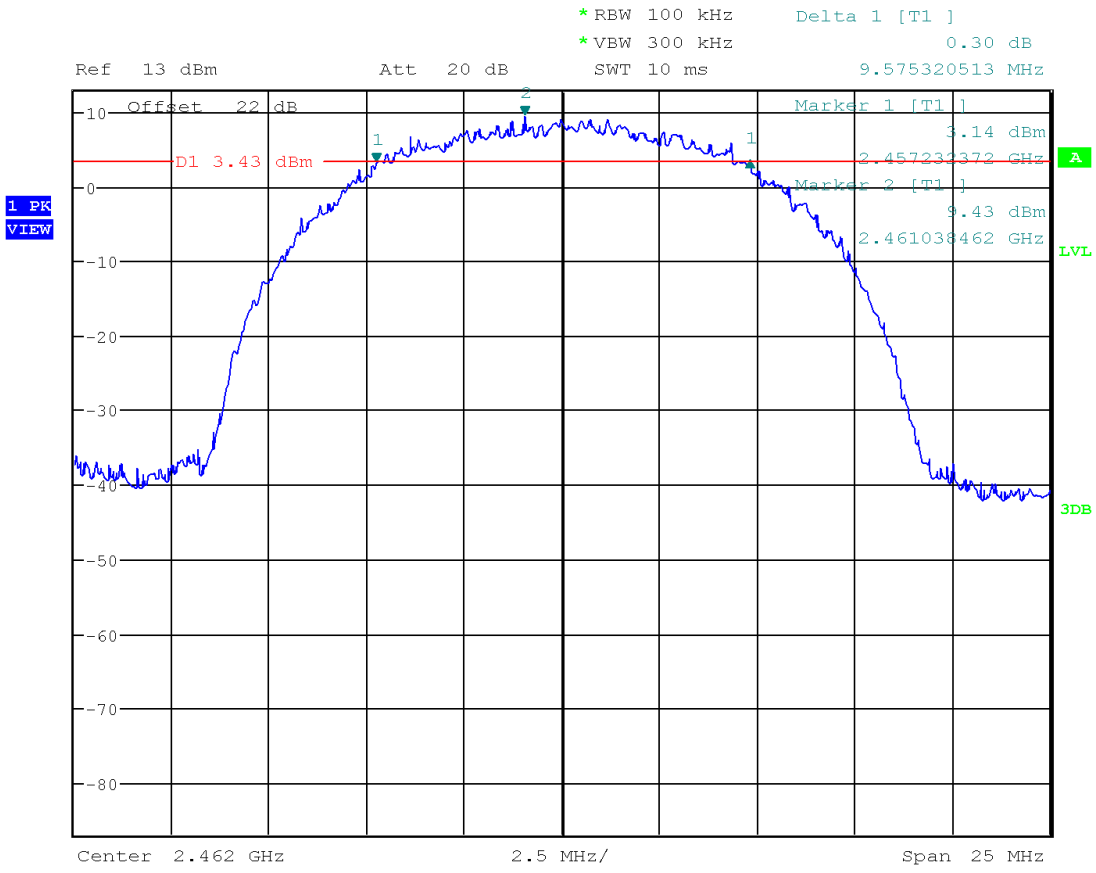
Date: 6.MAR.2024 01:07:59

Plot 1.2 – 6dB Bandwidth (FCC)



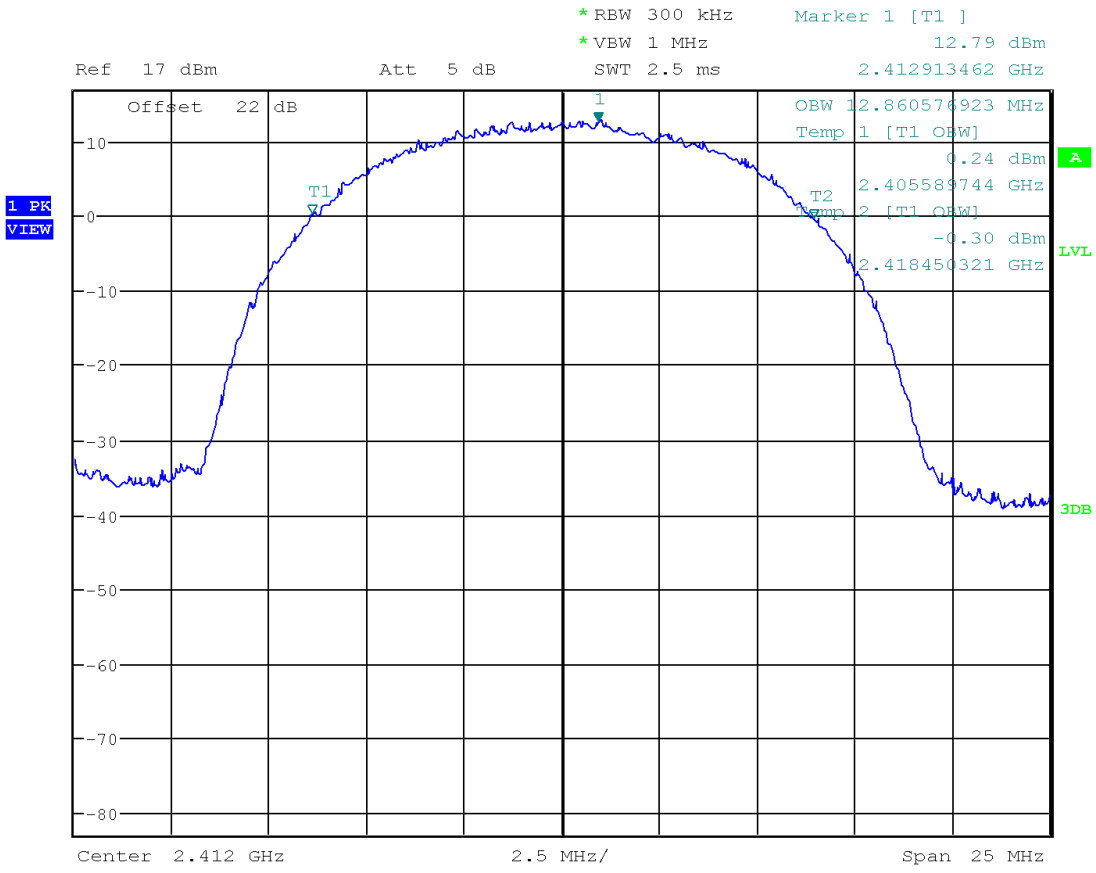
Date: 6.MAR.2024 01:09:48

Plot 1 3 – 6dB Bandwidth (FCC)



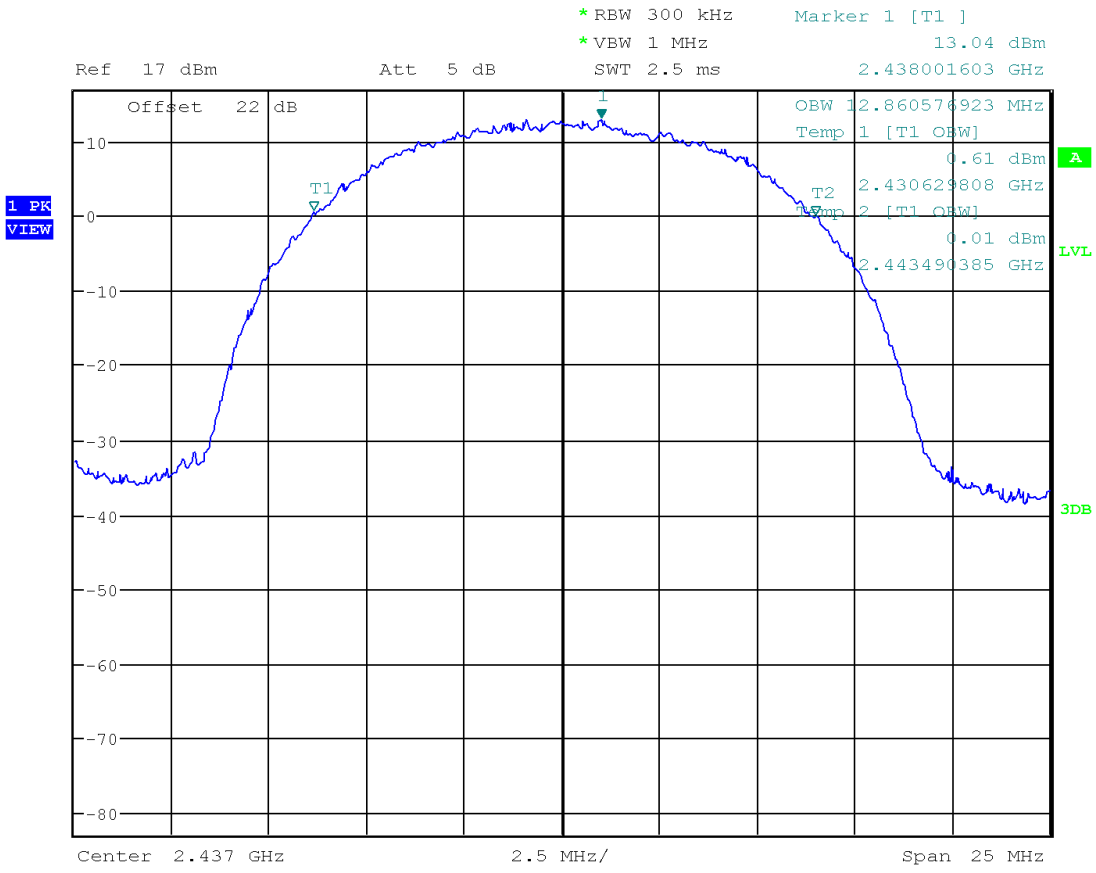
Date: 6.MAR.2024 01:11:41

Plot 1.4 – 99% Bandwidth



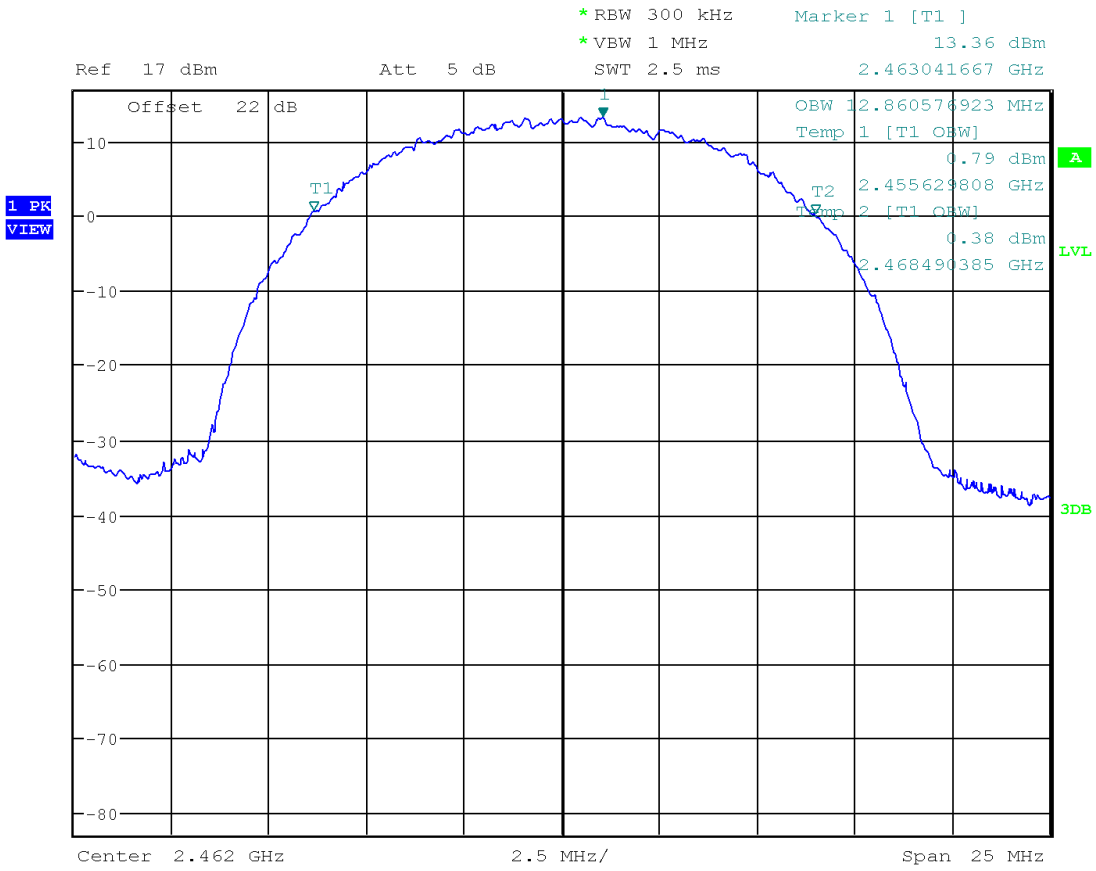
Date: 5.MAR.2024 23:12:30

Plot 1.5 – 99% Bandwidth



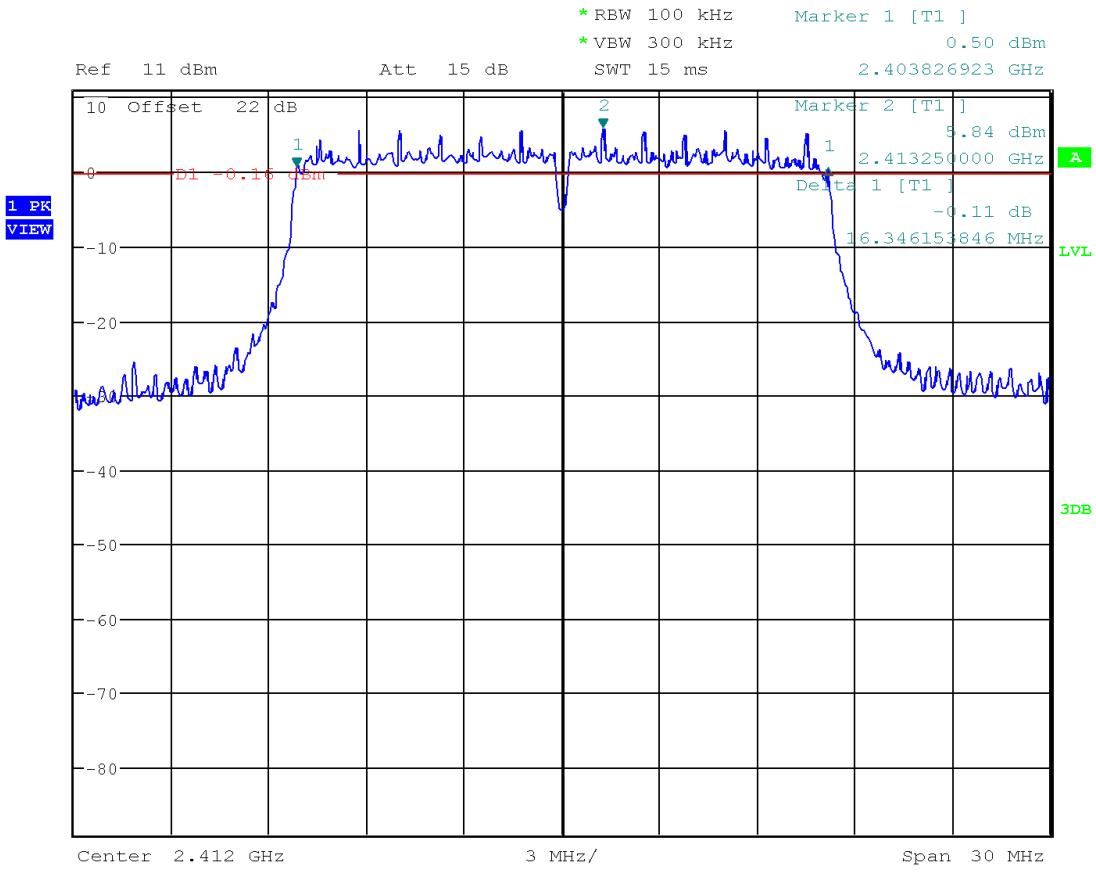
Date: 5.MAR.2024 23:14:14

Plot 1.6 – 99% Bandwidth



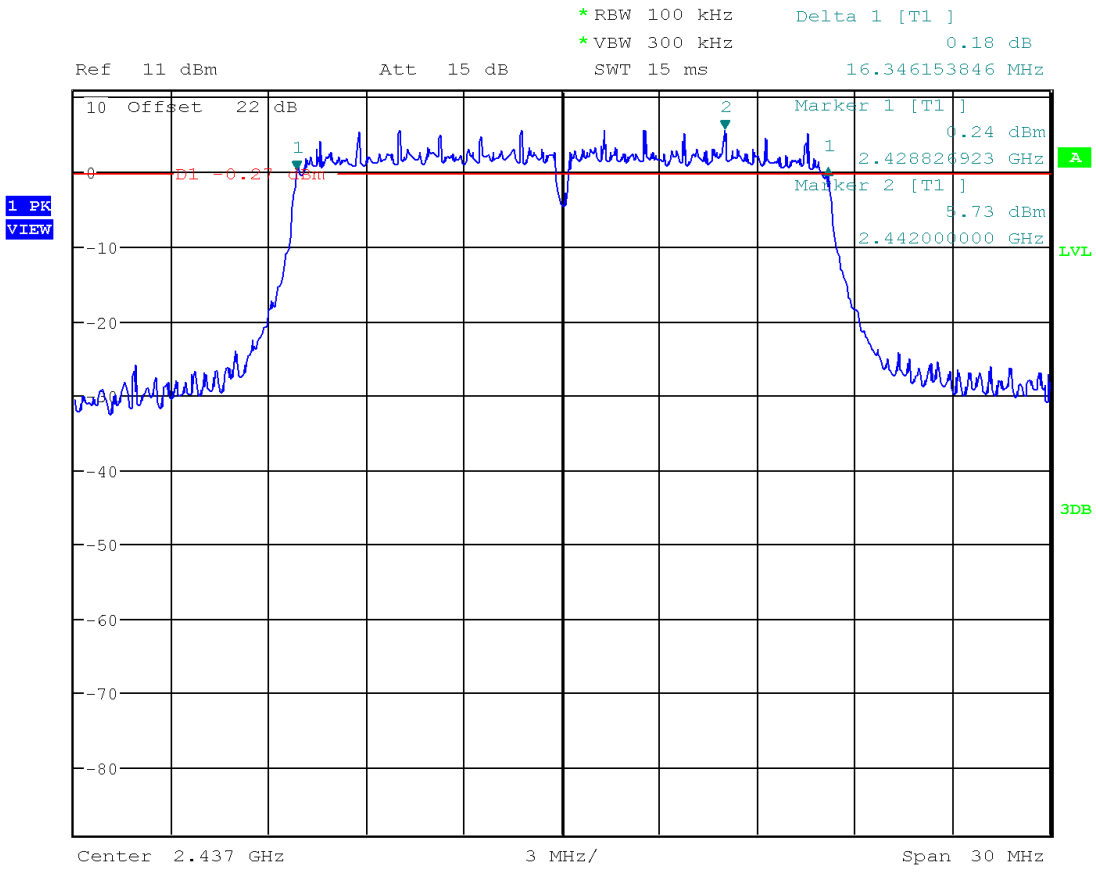
Date: 5.MAR.2024 23:16:01

Plot 1.7 – 6dB Bandwidth (FCC)



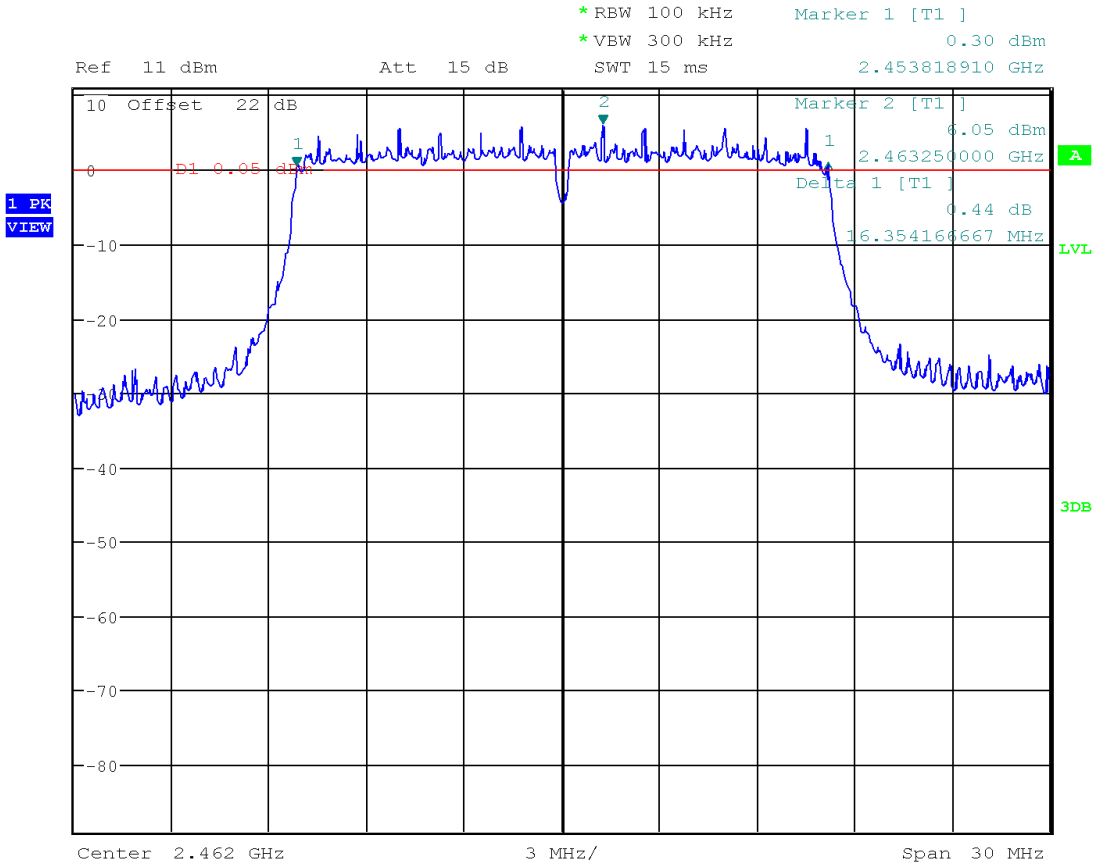
Date: 6.MAR.2024 01:18:37

Plot 1.8 – 6dB Bandwidth (FCC)

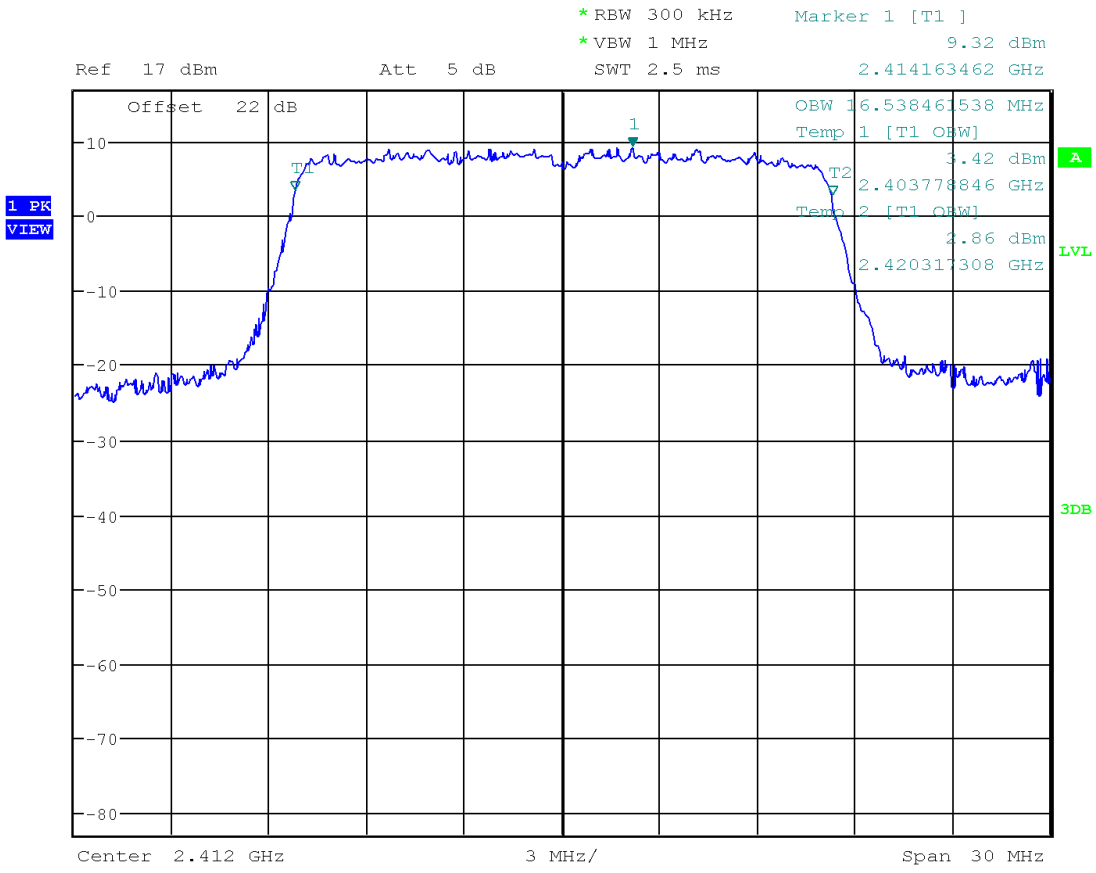


Date: 6.MAR.2024 01:16:30

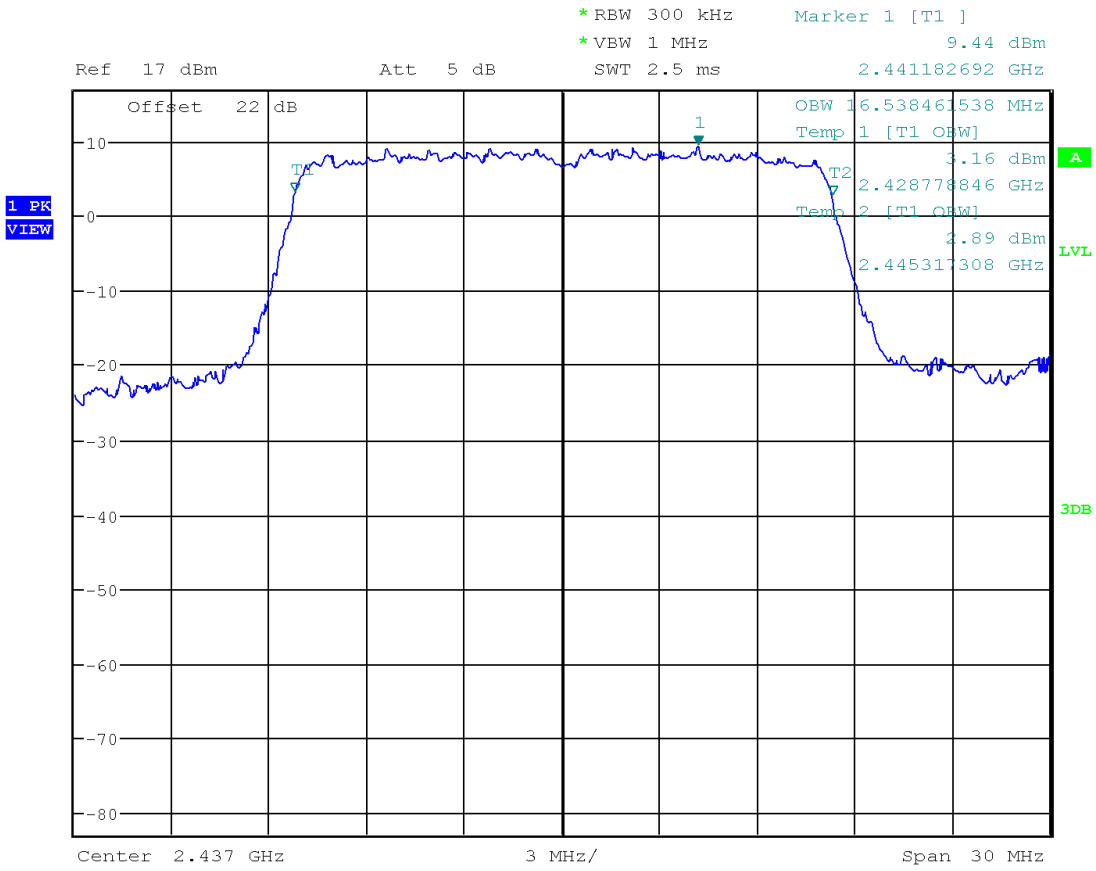
Plot 1.9 – 6dB Bandwidth (FCC)



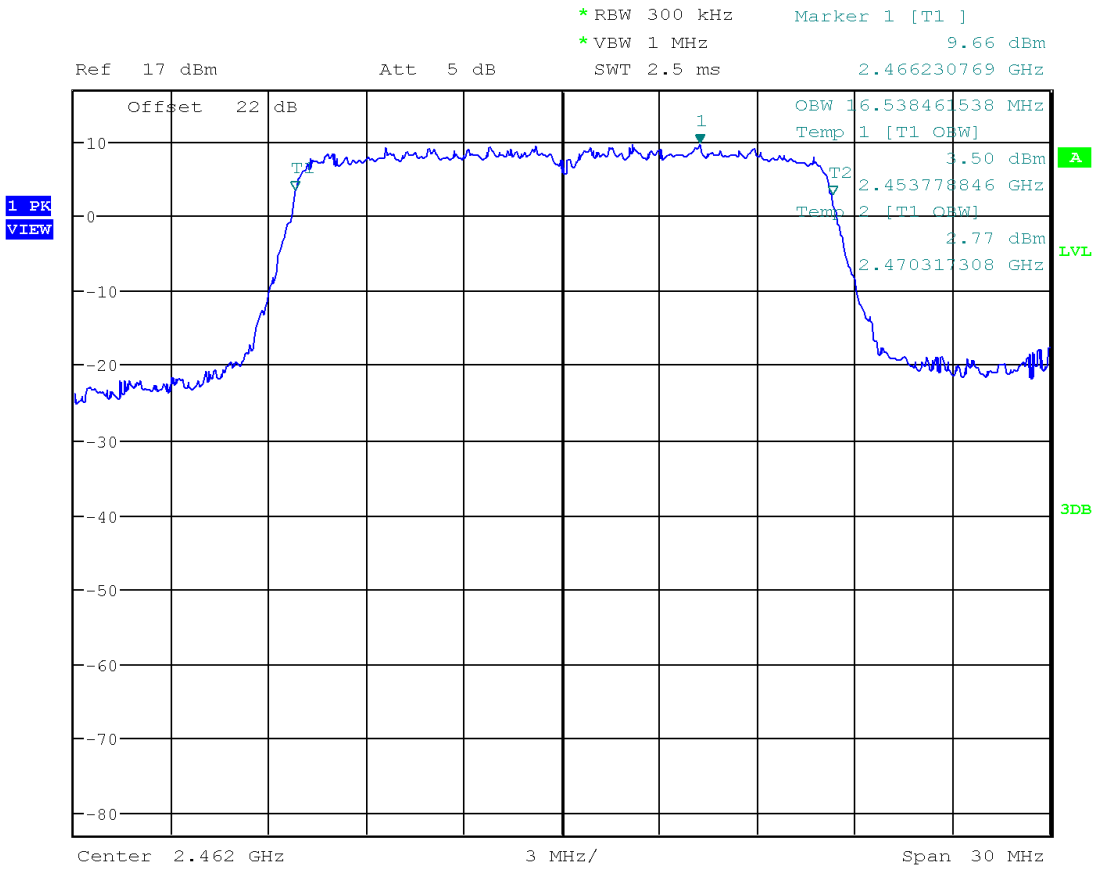
Plot 1.10 – 99% Bandwidth



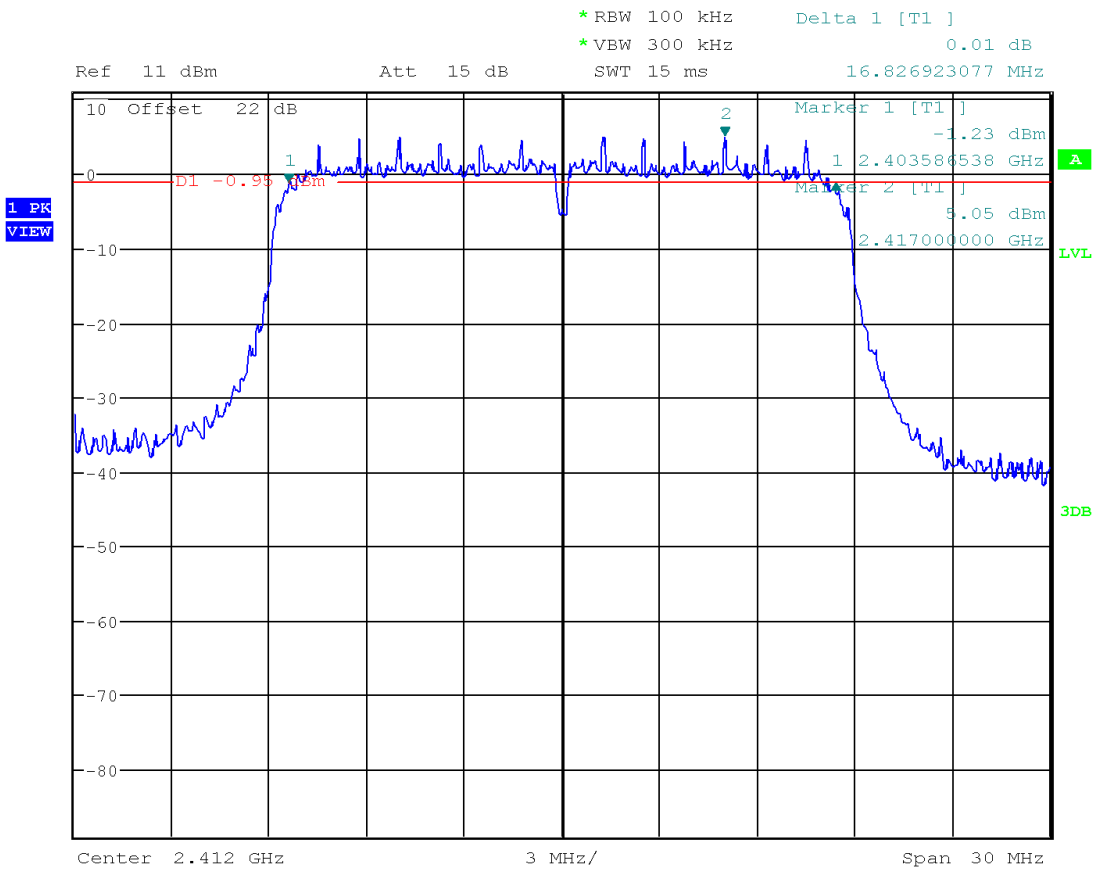
Plot 1.11 – 99% Bandwidth



Plot 1.12 – 99% Bandwidth

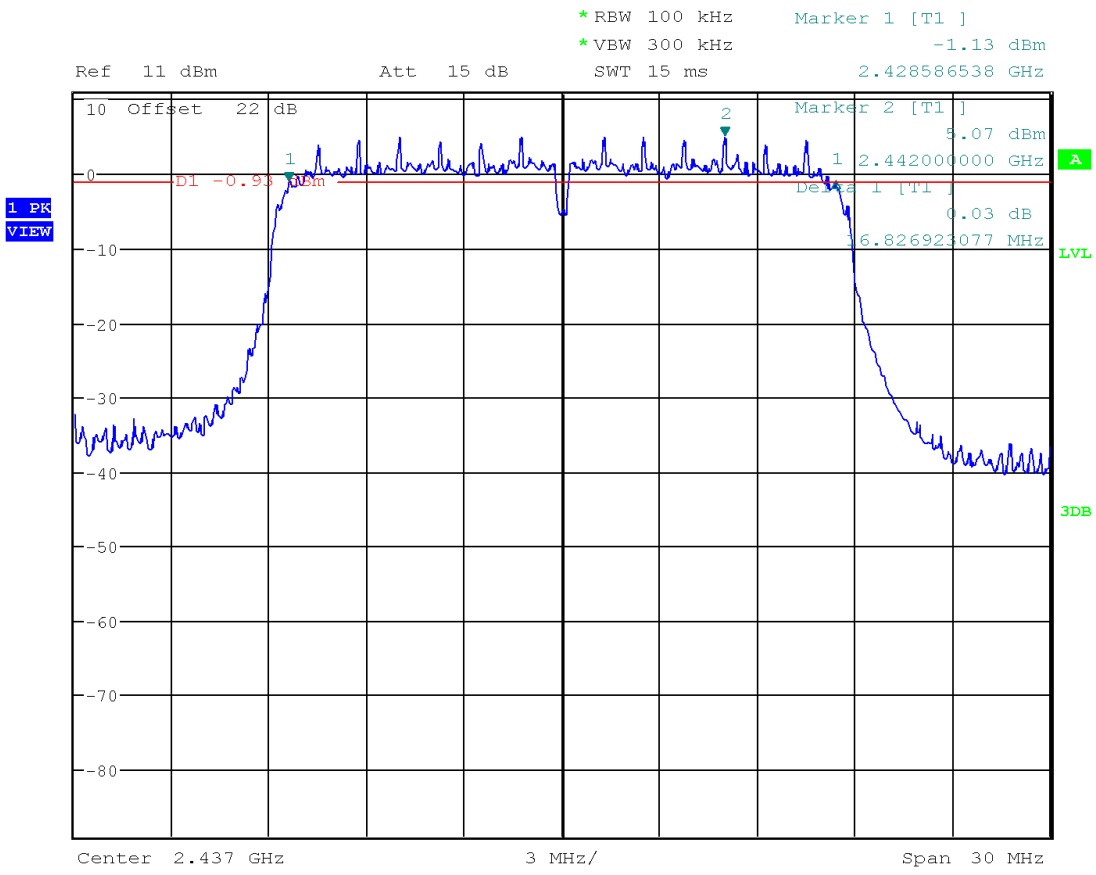


Plot 1.13 – 6dB Bandwidth (FCC)



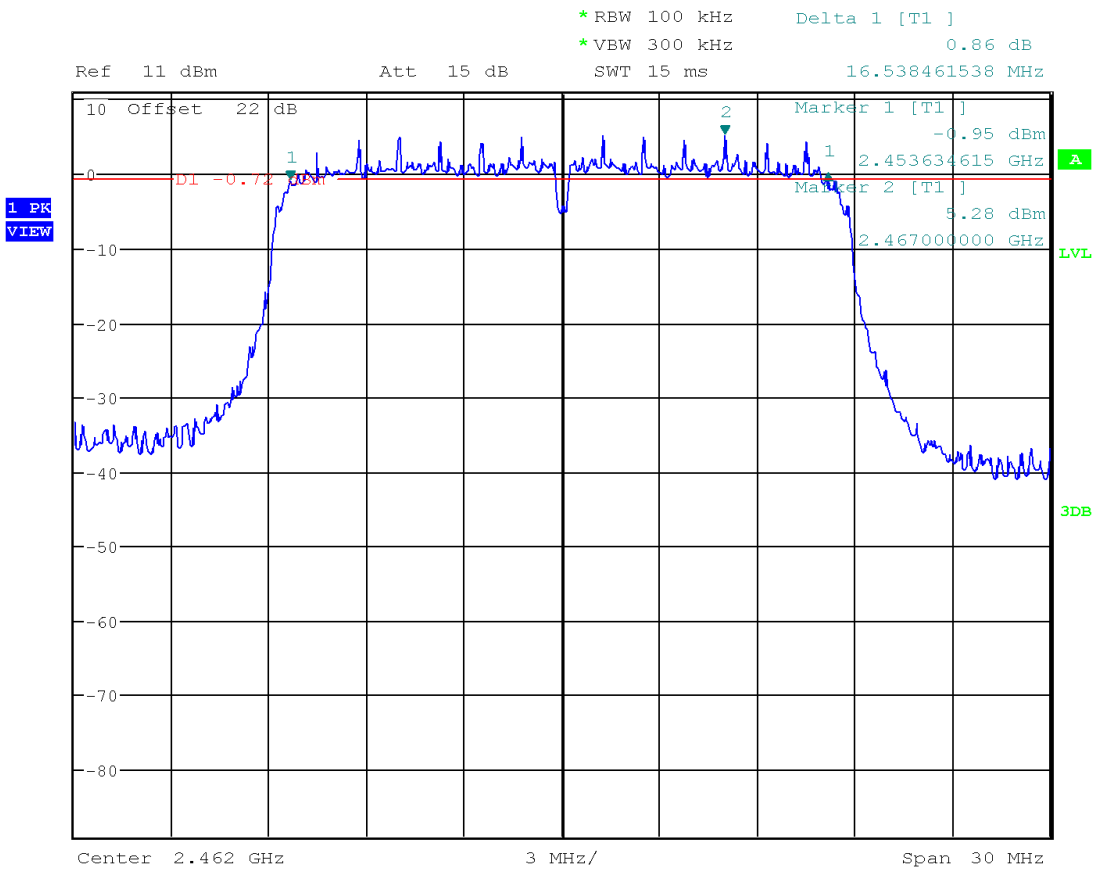
Date: 6.MAR.2024 01:20:49

Plot 1.14 – 6dB Bandwidth (FCC)



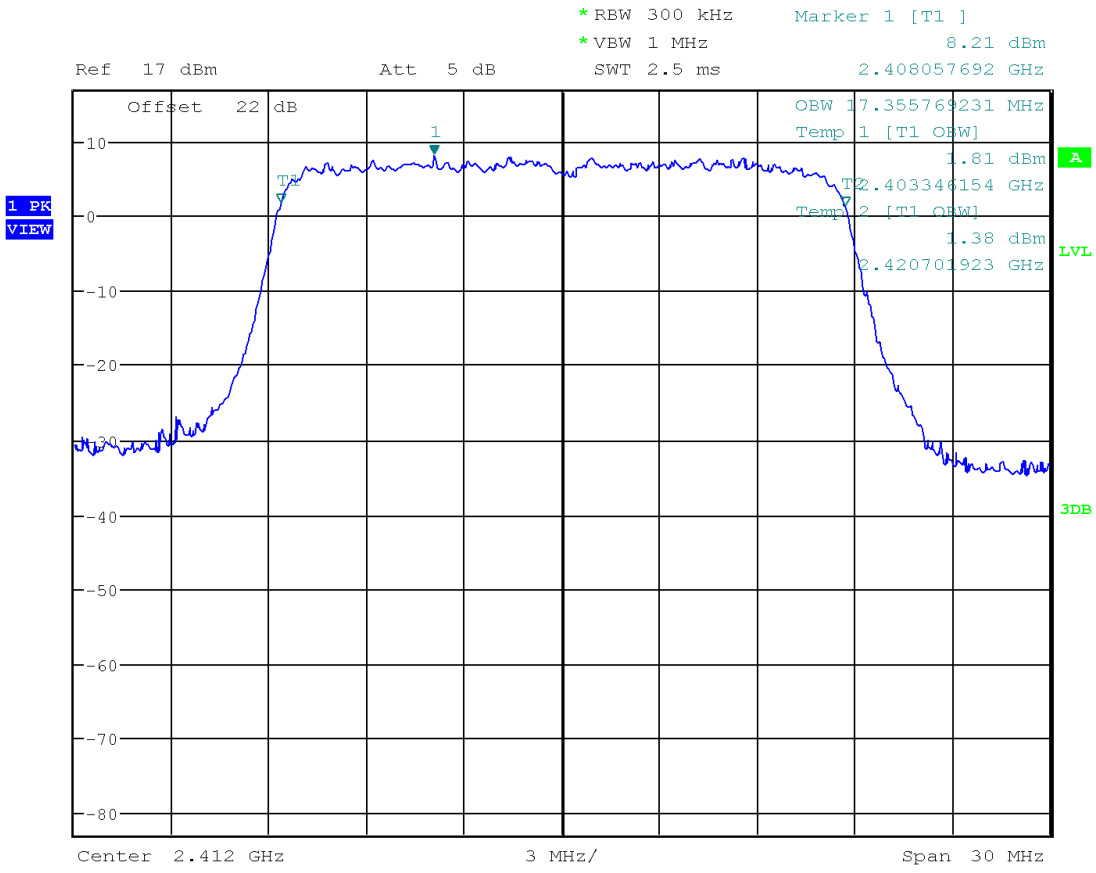
Date: 6.MAR.2024 01:23:54

Plot 1.15 – 6dB Bandwidth (FCC)



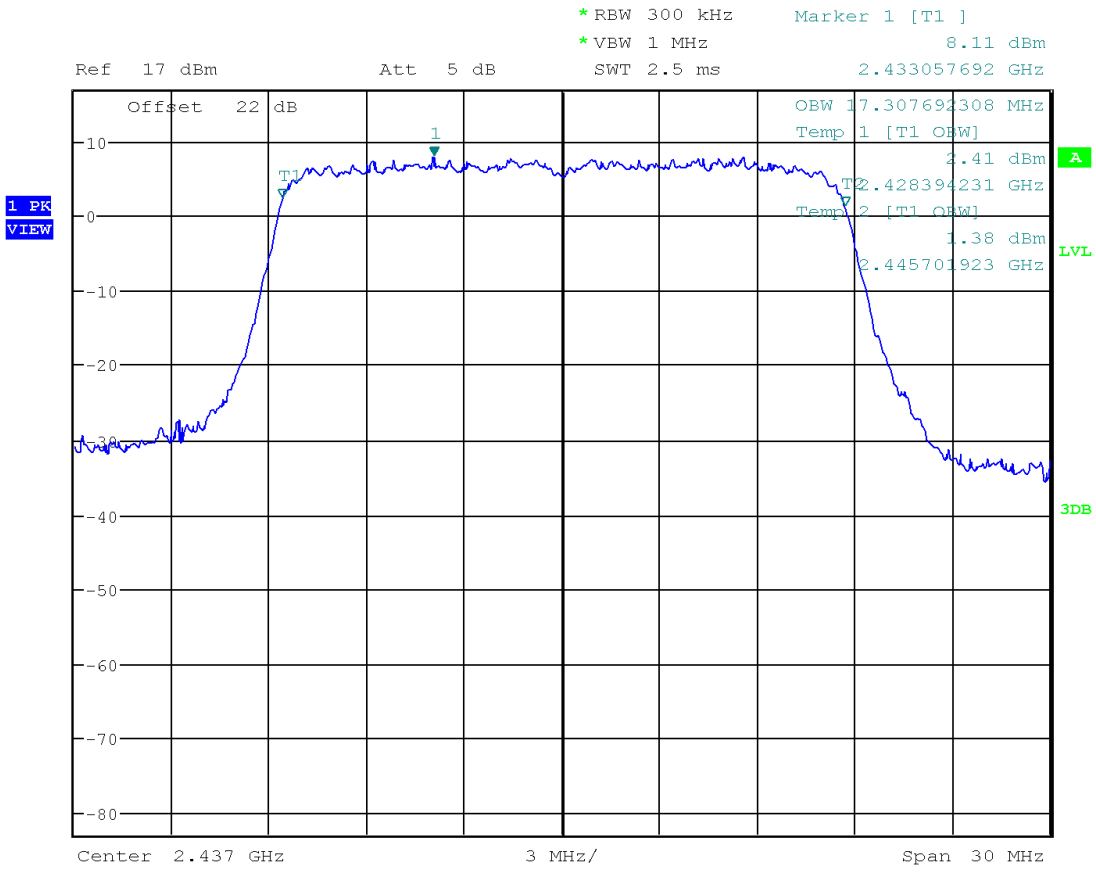
Date: 6.MAR.2024 01:26:49

Plot 1.16 – 99% Bandwidth



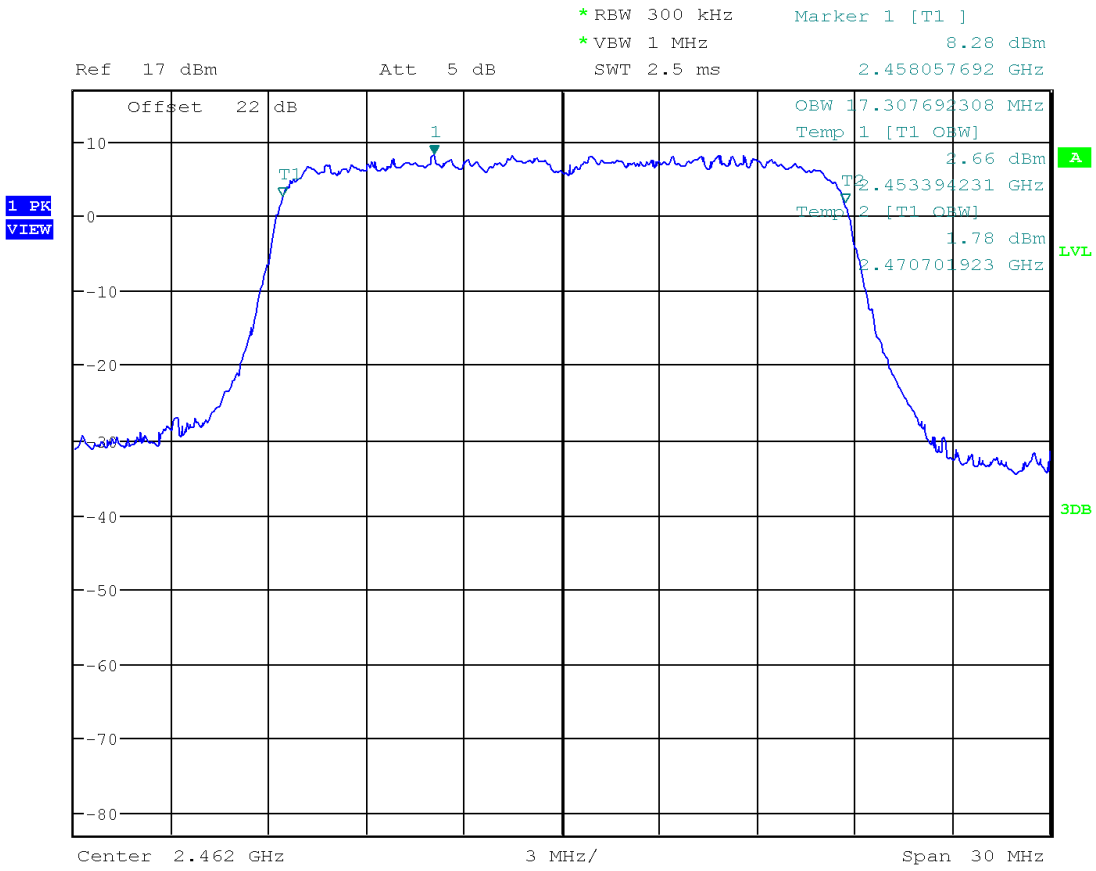
Date: 5.MAR.2024 23:26:03

Plot 1.17 – 99% Bandwidth

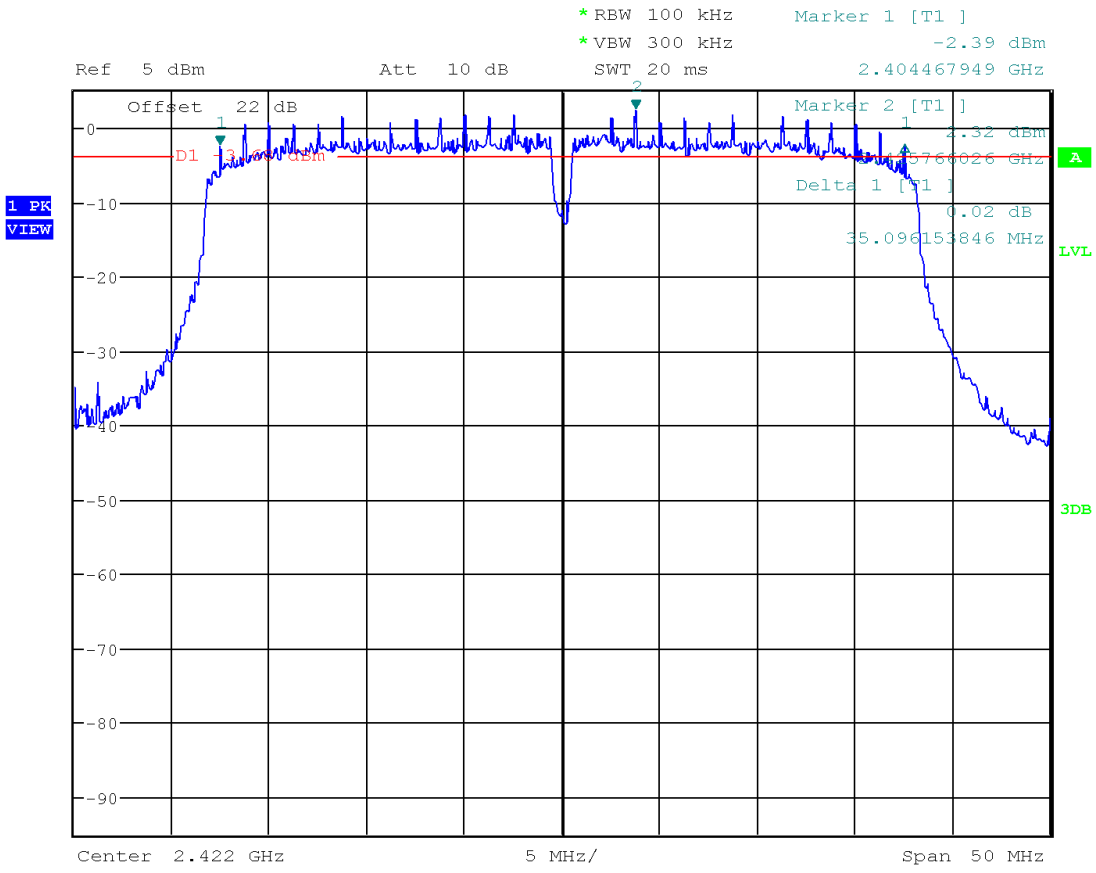


Date: 5.MAR.2024 23:27:17

Plot 1.18 – 99% Bandwidth

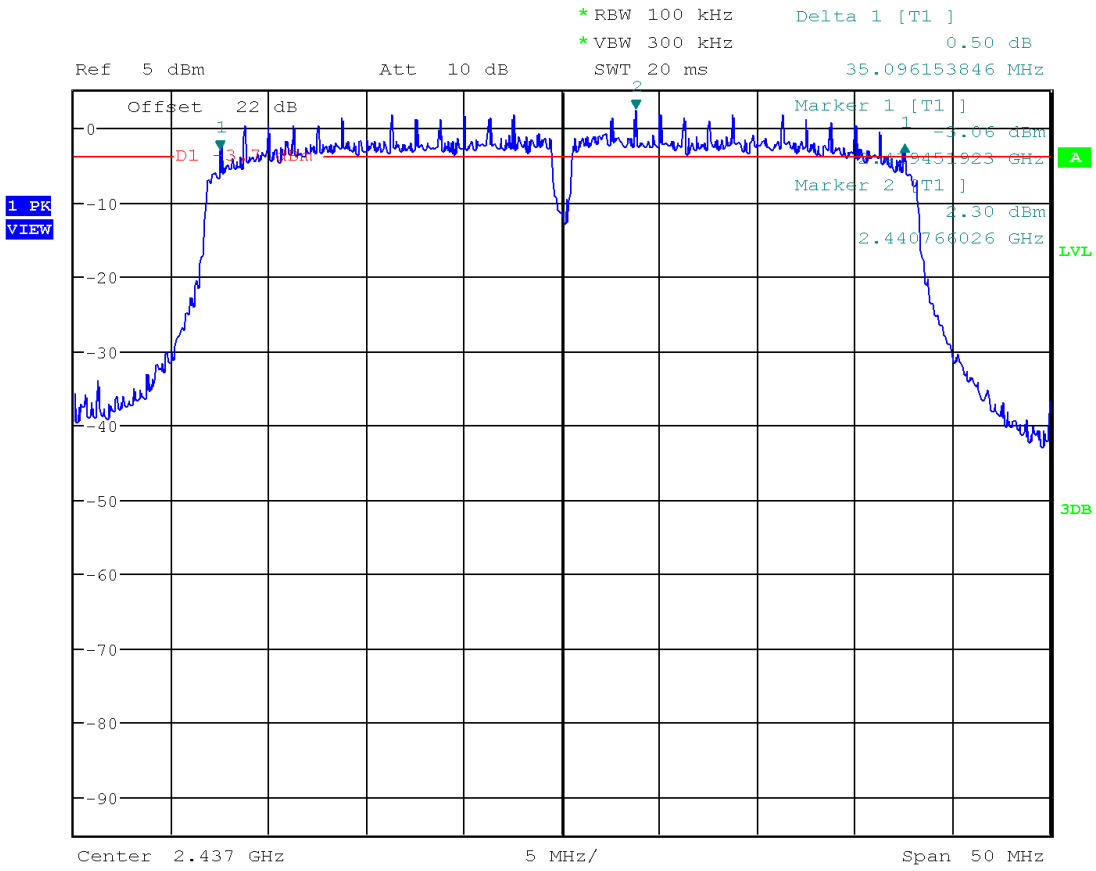


Plot 1.19 – 6dB Bandwidth (FCC)



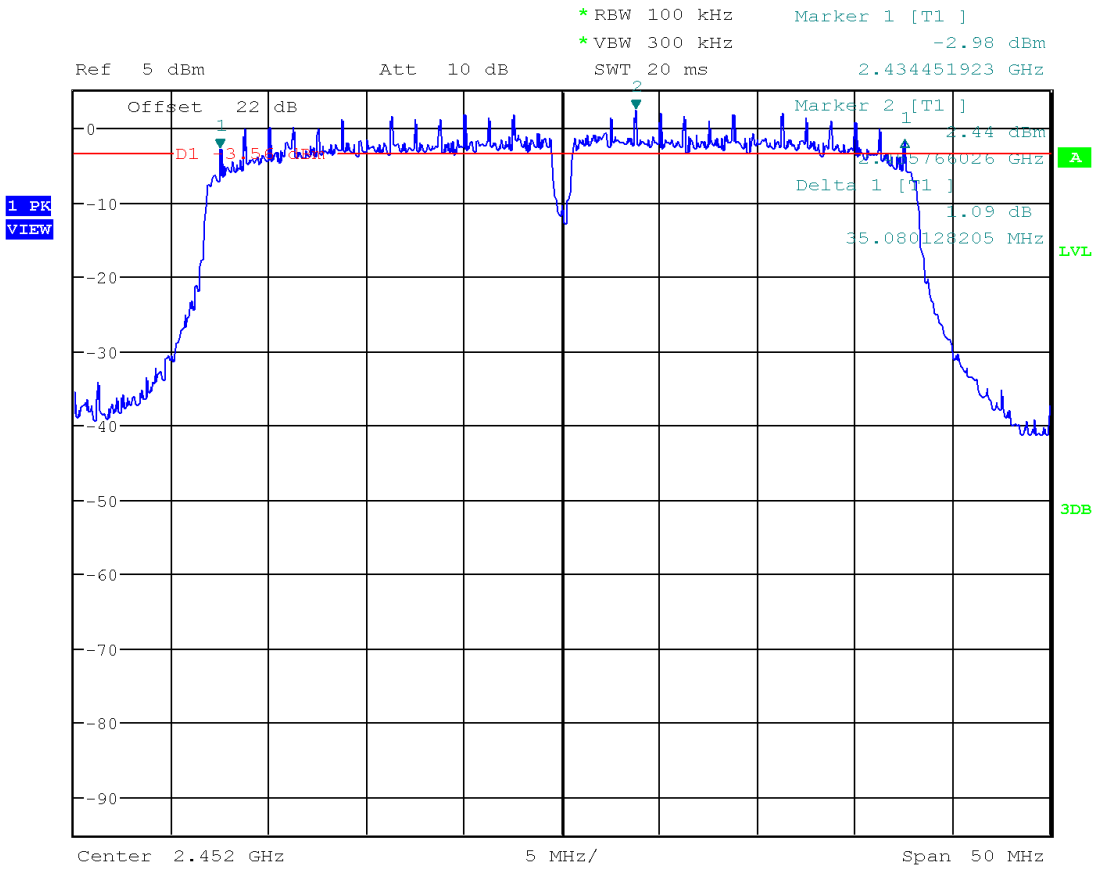
Date: 6.MAR.2024 01:29:30

Plot 1.20 – 6dB Bandwidth (FCC)



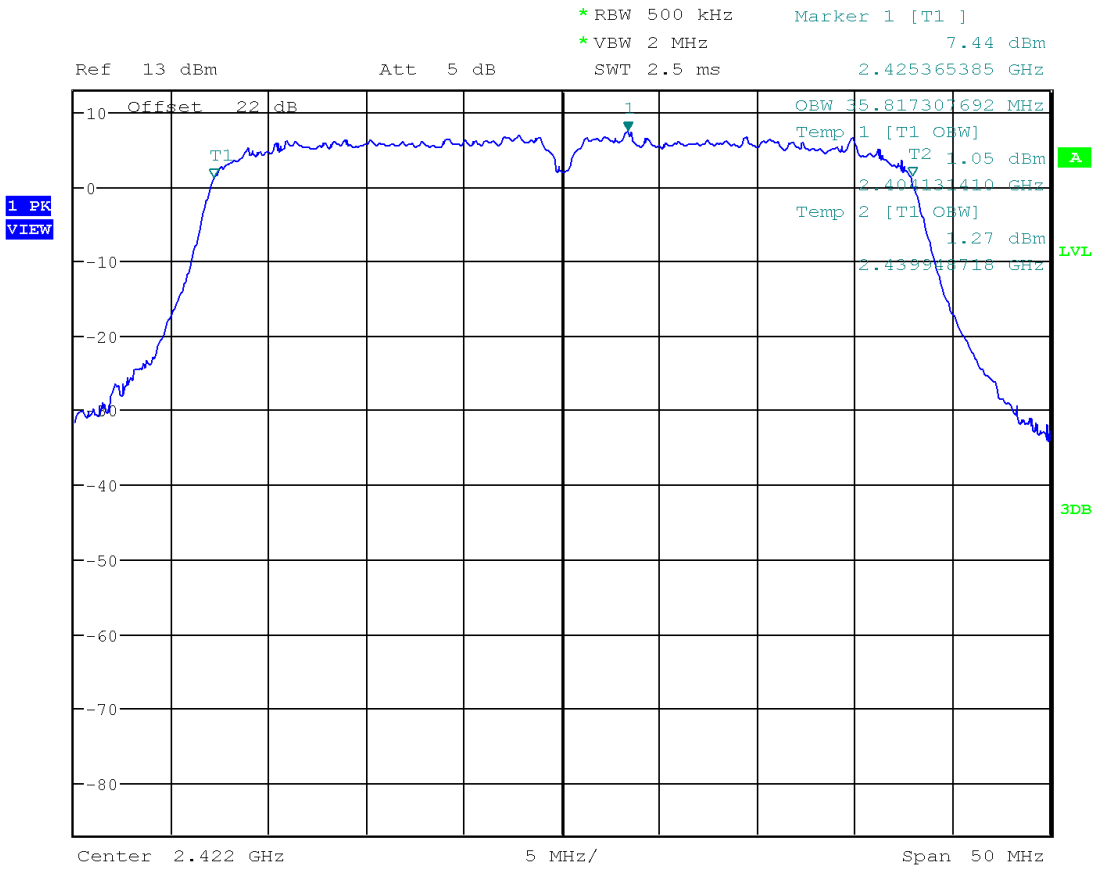
Date: 6.MAR.2024 01:31:47

Plot 1.21 – 6dB Bandwidth (FCC)



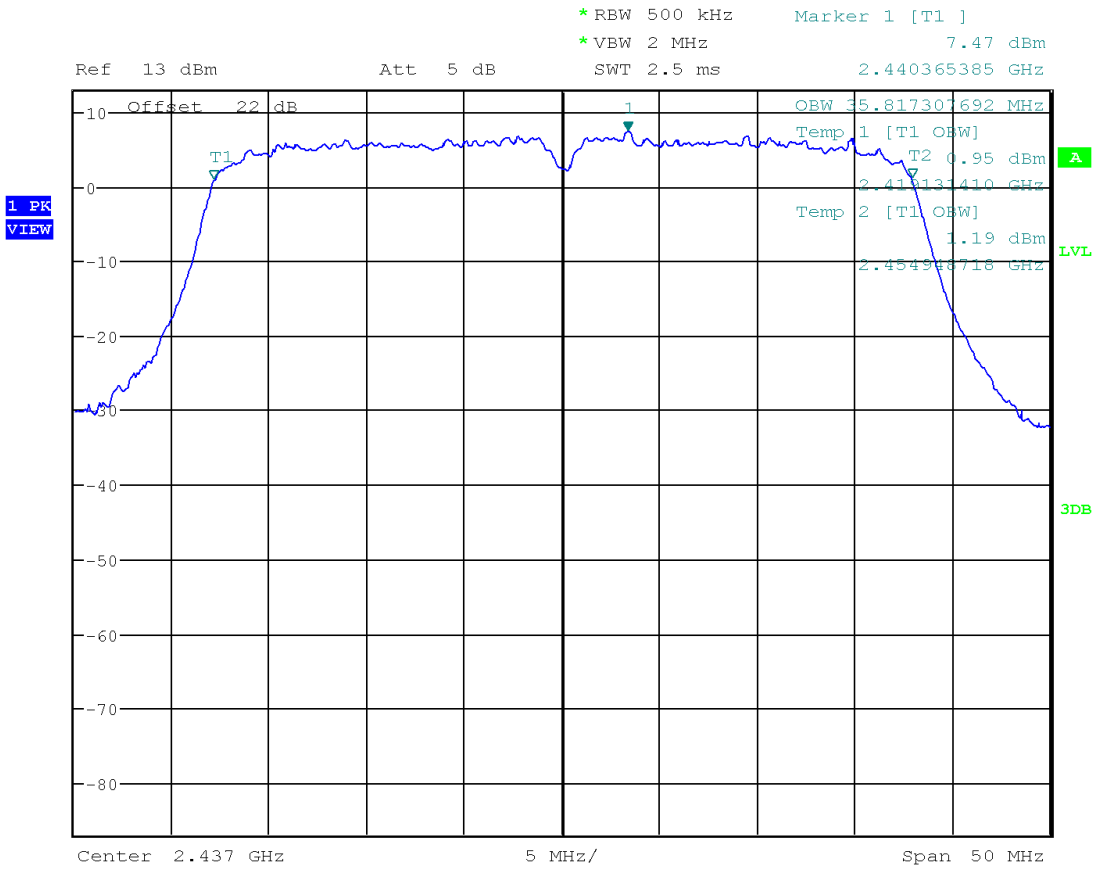
Date: 6.MAR.2024 01:33:59

Plot 1.22 – 99% Bandwidth



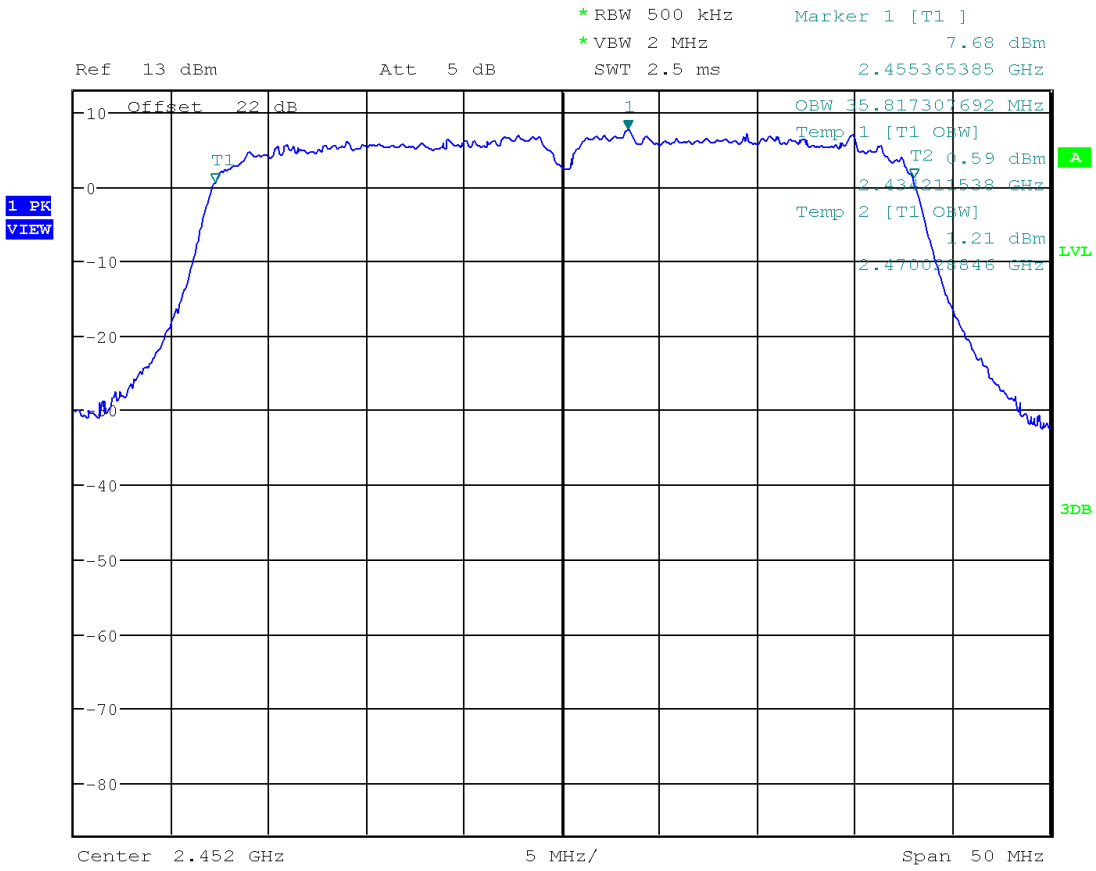
Date: 5.MAR.2024 23:30:01

Plot 1.23 – 99% Bandwidth



Date: 5.MAR.2024 23:31:18

Plot 1.24 – 99% Bandwidth



Date: 5.MAR.2024 23:32:31

4.2 Maximum Conducted Output Power at Antenna Terminals
FCC Rule: 15.247(b)(3); RSS-247, 5.4.d);

4.2.1 Requirement

For antennas with gains of 6 dBi or less, maximum allowed transmitter output is 1 watt (+30 dBm).
For antennas with gains greater than 6 dBi, transmitter output level must be decreased appropriately, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

4.2.2 Procedure

The antenna port of the EUT was connected to the input of a spectrum analyzer to measure the Maximum Conducted Transmitter Output Power. The offset programmed on the analyzer is corrected to include cable loss, attenuator and duty cycle correction.

The procedure described in FCC Publication KDB 558074 D01 Meas Guidance v05r02 was used. Specifically, section 11.9.2.2.2 Method AVGSA-1 in ANSI 63.10.

The procedure for this method is as follows:

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

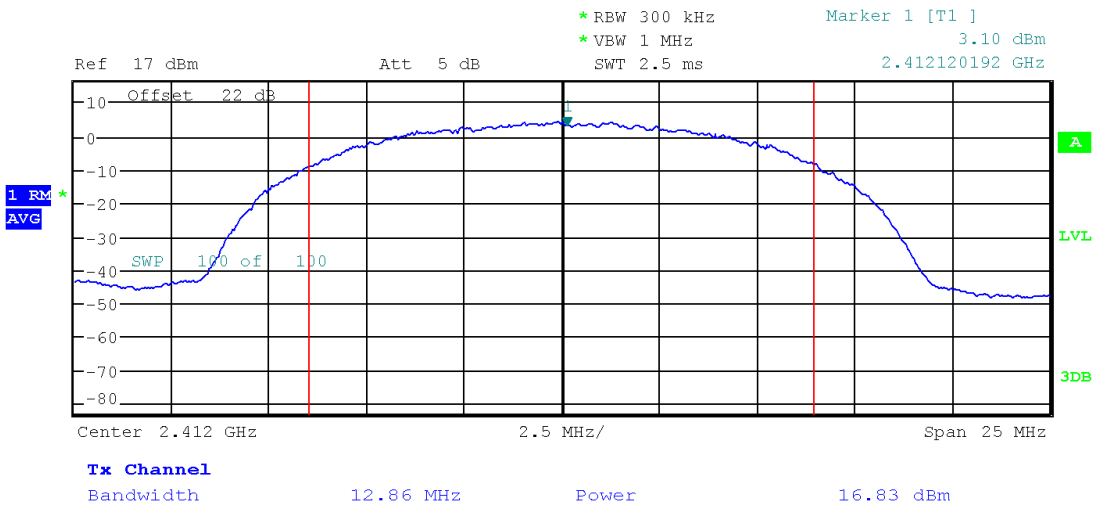
Tested By	Test Date
Gilberto Gallegos Rangel	March 5 & 6, 2024

4.2.3 Test Result

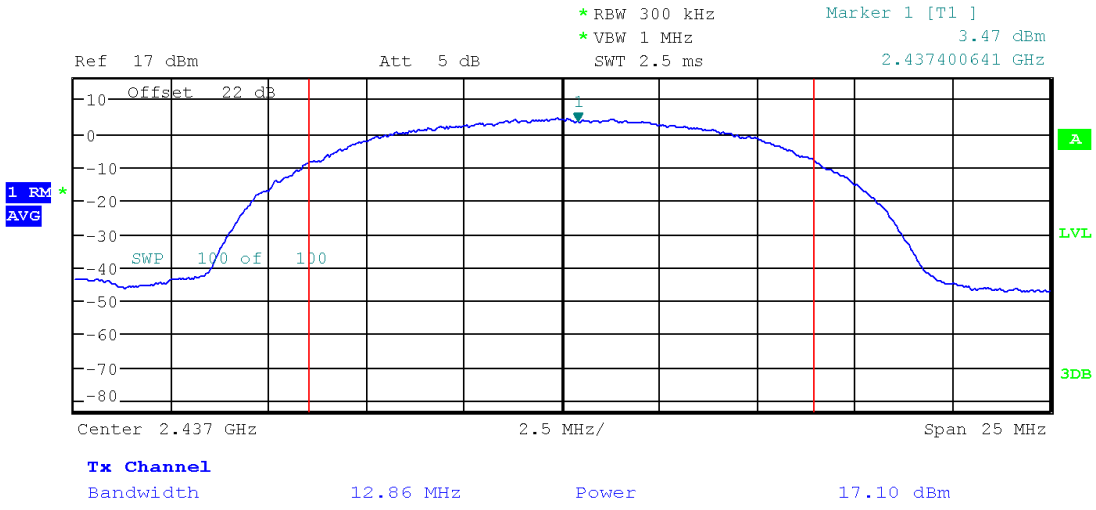
Refer to the following plots for the test result:

Standard	Data Rate	Channel	Frequency MHz	Conducted Average Power dBm	Conducted Average Power mW	Plot #
802.11b	1 Mbps	1	2412	16.83	48.194	2.1
		6	2437	17.1	51.286	2.2
		11	2462	17.29	53.579	2.3
802.11g	6 Mbps	1	2412	12.46	17.619	2.4
		2	2417	15.19	33.036	2.5
		3	2422	16.85	48.417	2.6
		6	2437	16.76	47.424	2.7
		8	2447	16.92	49.203	2.8
		9	2452	16.03	40.086	2.9
		10	2457	14.39	27.478	2.10
		11	2462	11.44	13.931	2.11
802.11n 20MHz	MCS0	1	2412	11.02	12.647	2.12
		2	2417	14.31	26.977	2.13
		3	2422	15.59	36.224	2.14
		6	2437	15.51	35.563	2.15
		9	2452	15.58	36.14	2.16
		10	2457	15.02	31.768	2.17
		11	2462	11.12	12.941	2.18
802.11n 40MHz	MCS0	3	2422	9.39	8.689	2.19
		4	2427	11.01	12.618	2.20
		5	2432	13.44	22.08	2.21
		6	2437	14.49	28.119	2.22
		7	2442	14.64	29.107	2.23
		8	2447	14.71	29.58	2.24
		9	2452	9.3	8.511	2.25

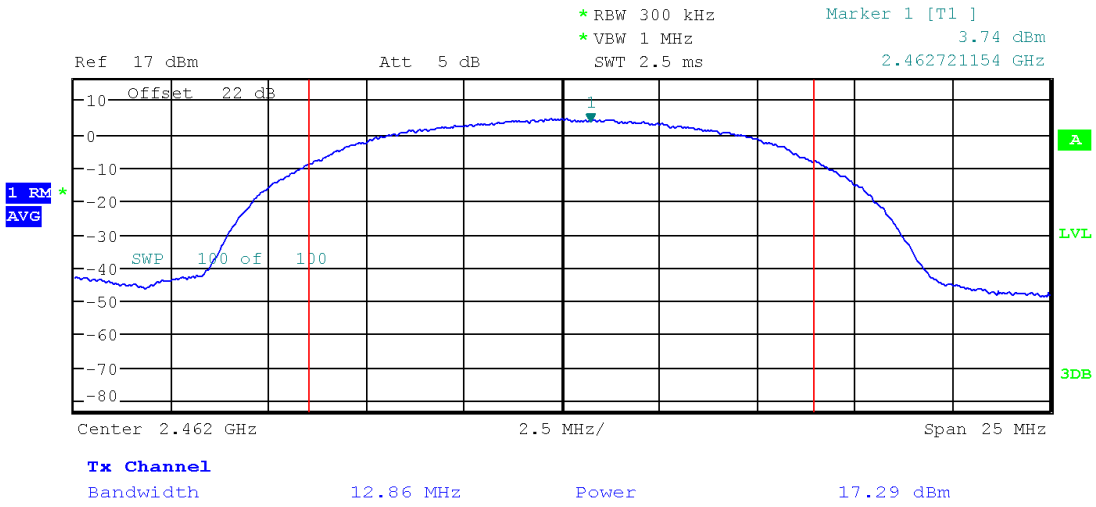
Plot 2. 1



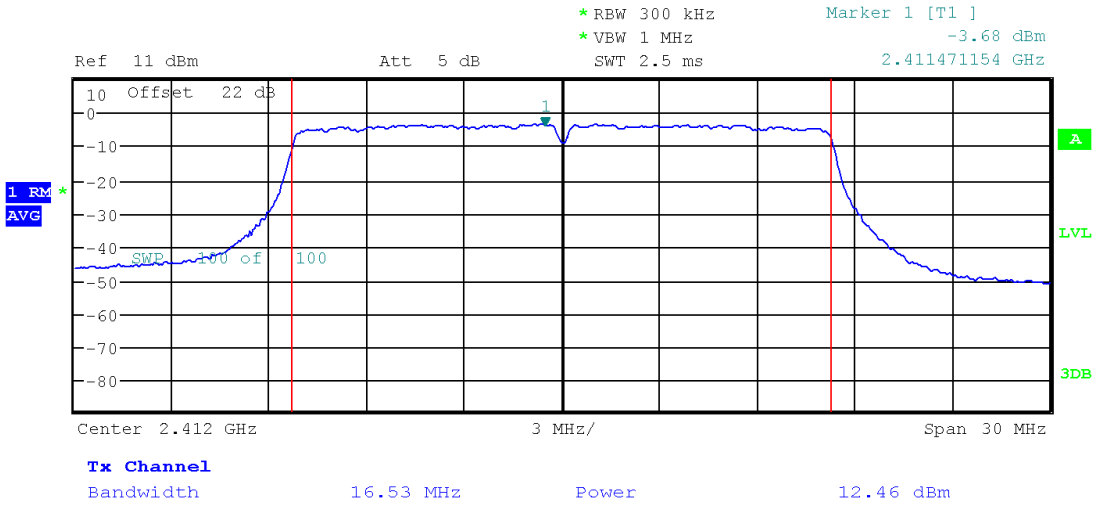
Plot 2. 2



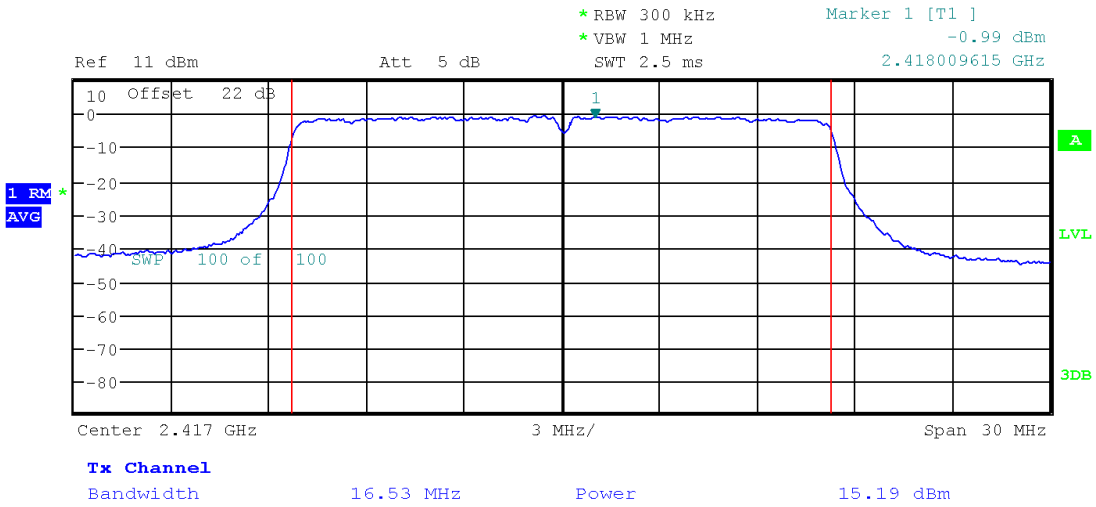
Plot 2. 3



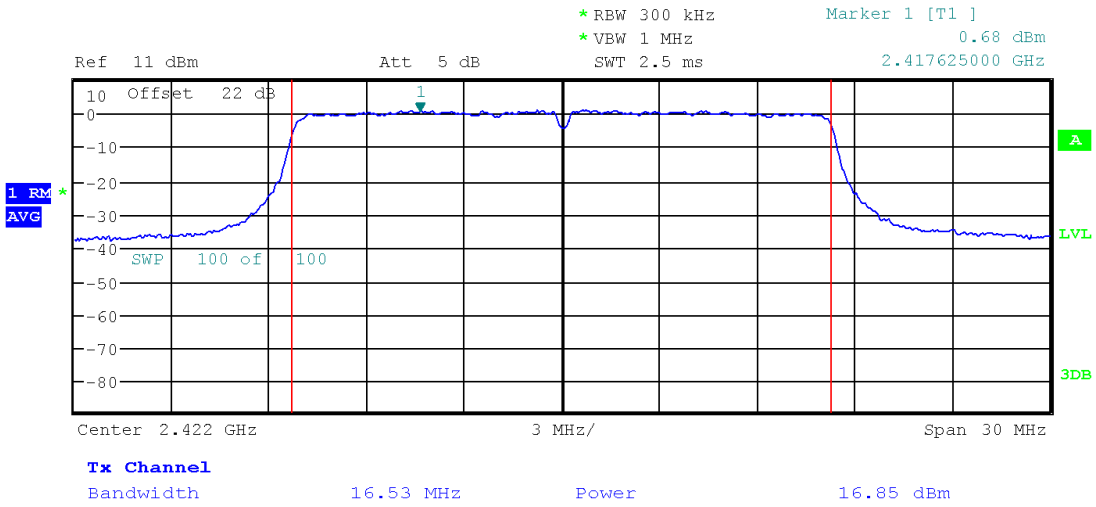
Plot 2. 4



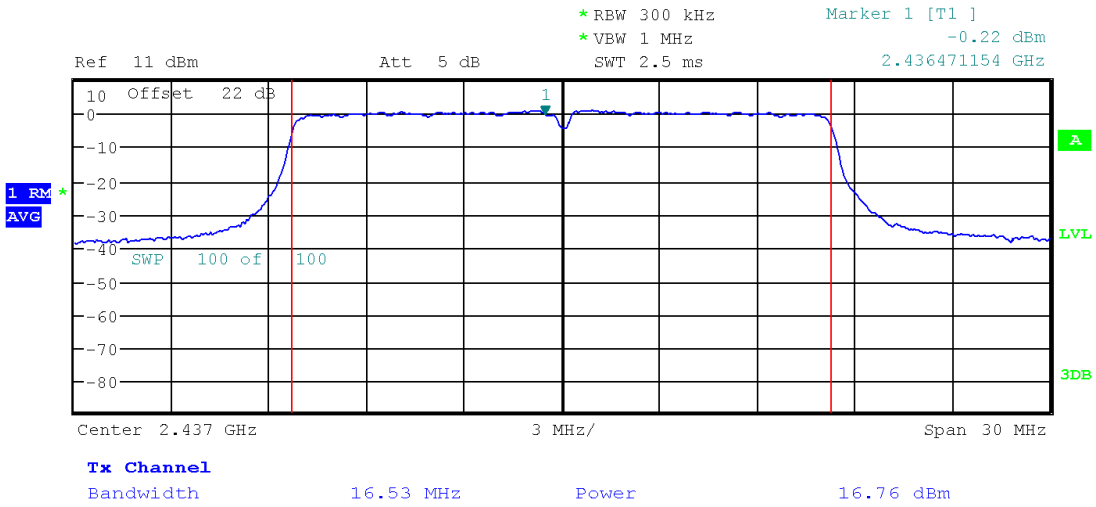
Plot 2. 5



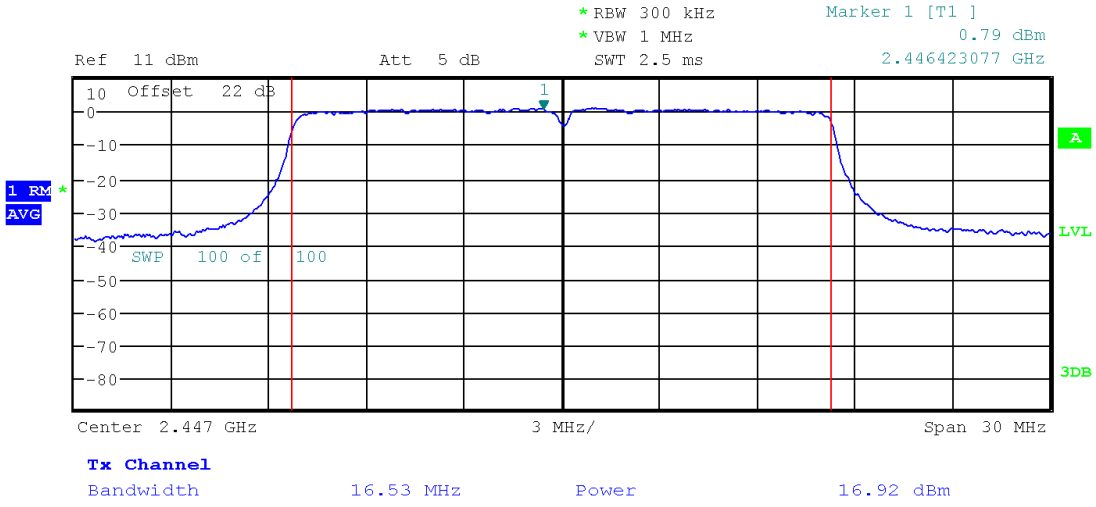
Plot 2. 6



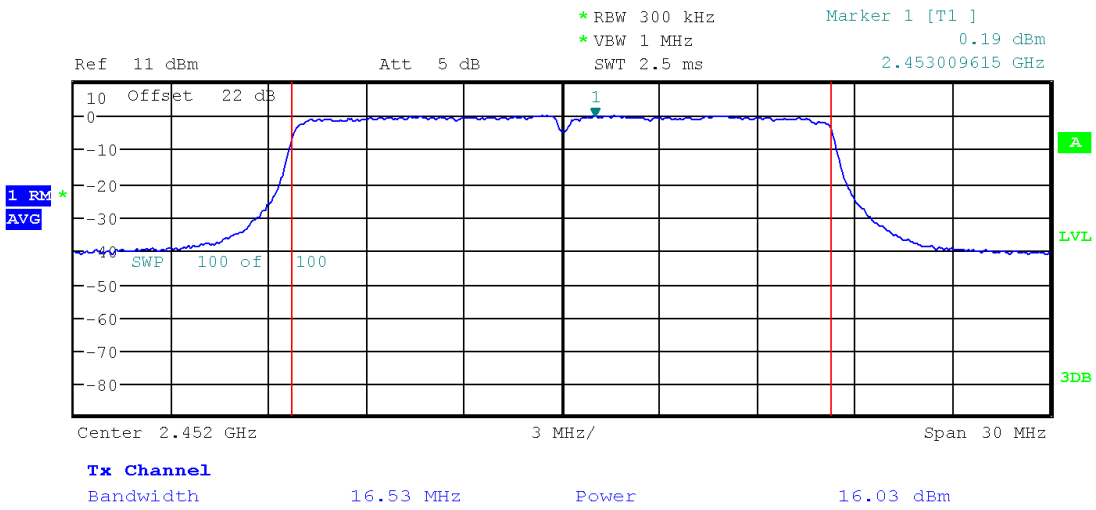
Plot 2. 7



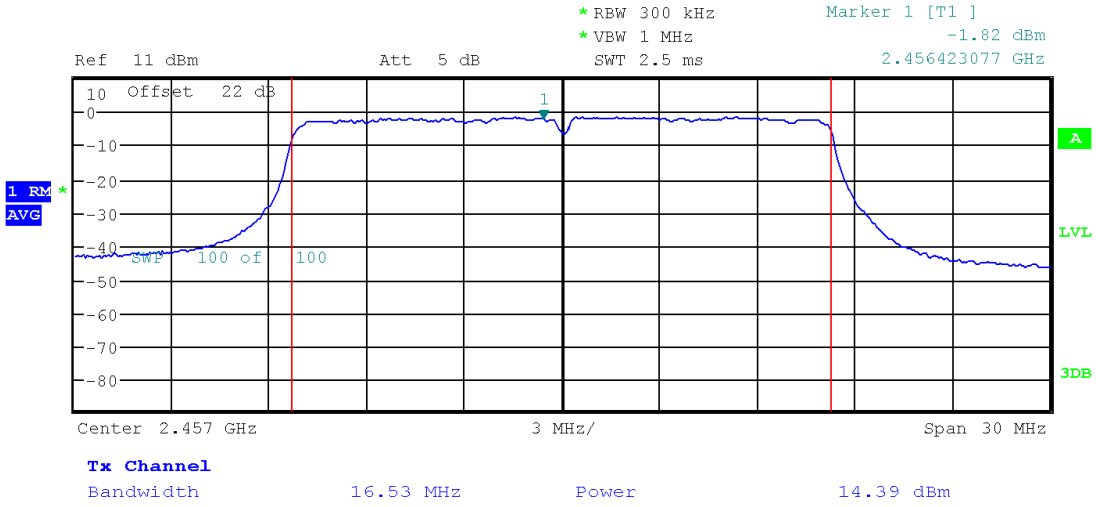
Plot 2. 8



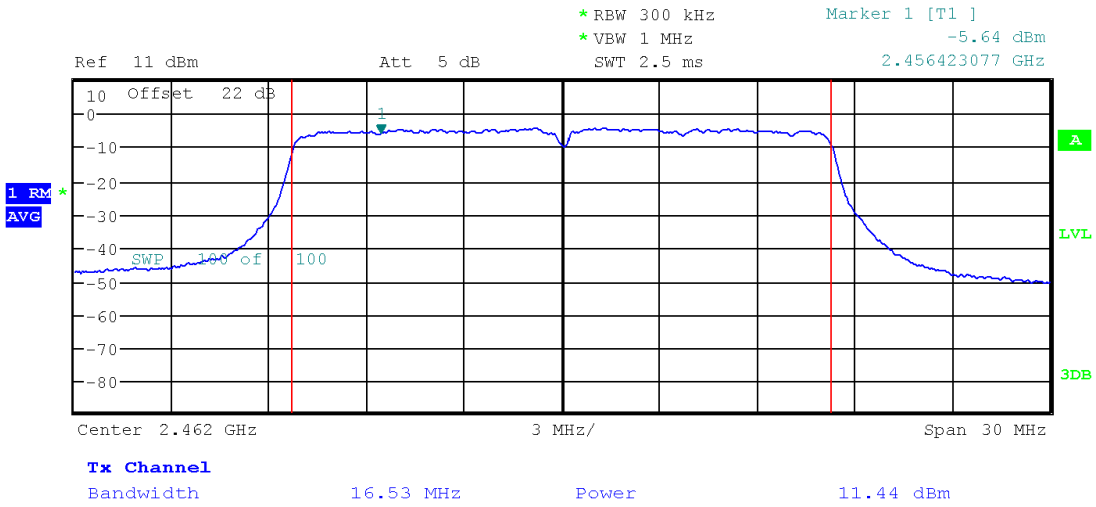
Plot 2. 9



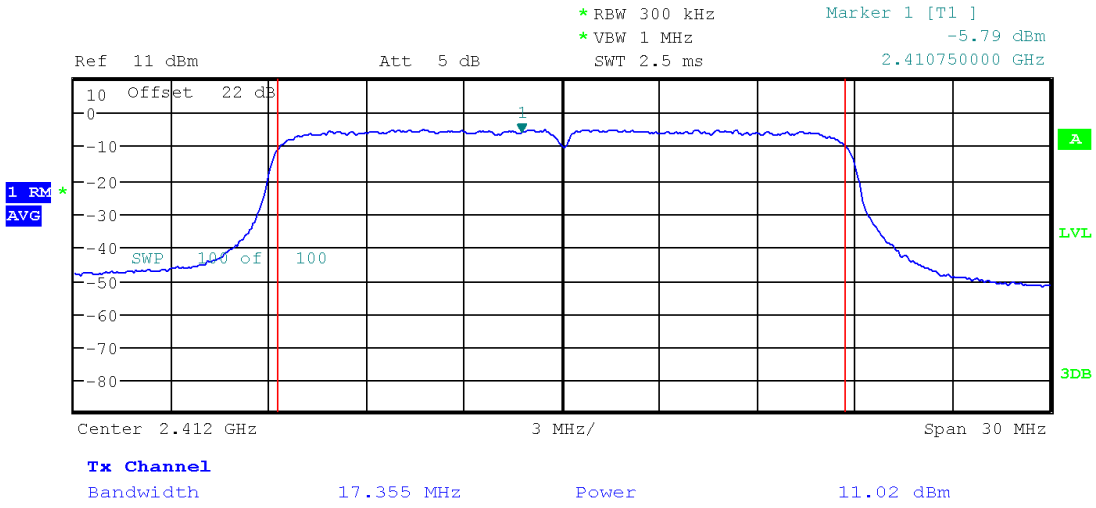
Plot 2. 10



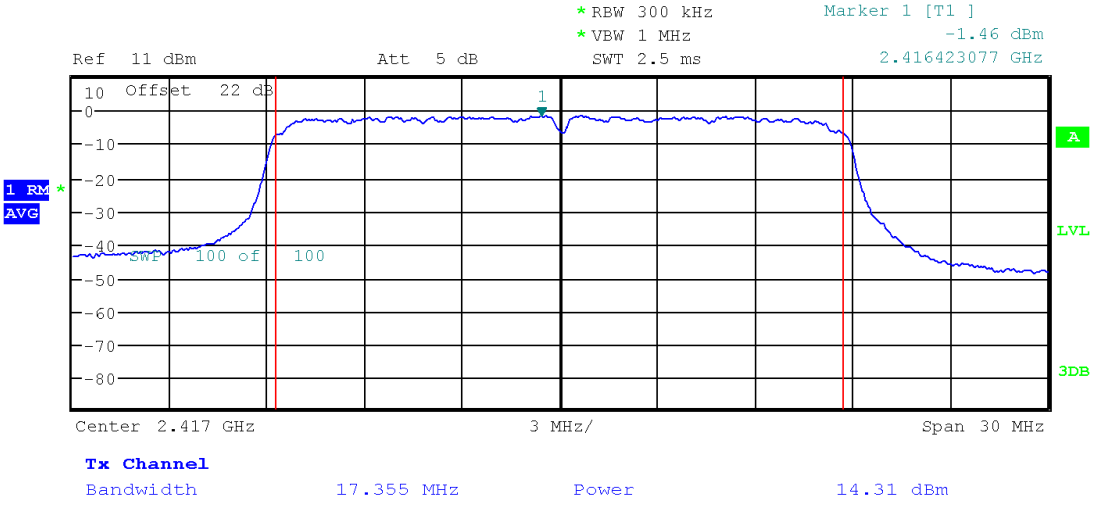
Plot 2. 11


* RBW 300 kHz
* VBW 1 MHz
SWT 2.5 ms
Marker 1 [T1]
-5.64 dBm
2.456423077 GHz
Ref 11 dBm
Att 5 dB
Offset 22 dB
1 RM
AVG
SWP 100 of 100
A
LVL
3DB
Center 2.462 GHz
3 MHz/
Span 30 MHz
Tx Channel
Bandwidth 16.53 MHz
Power 11.44 dBm

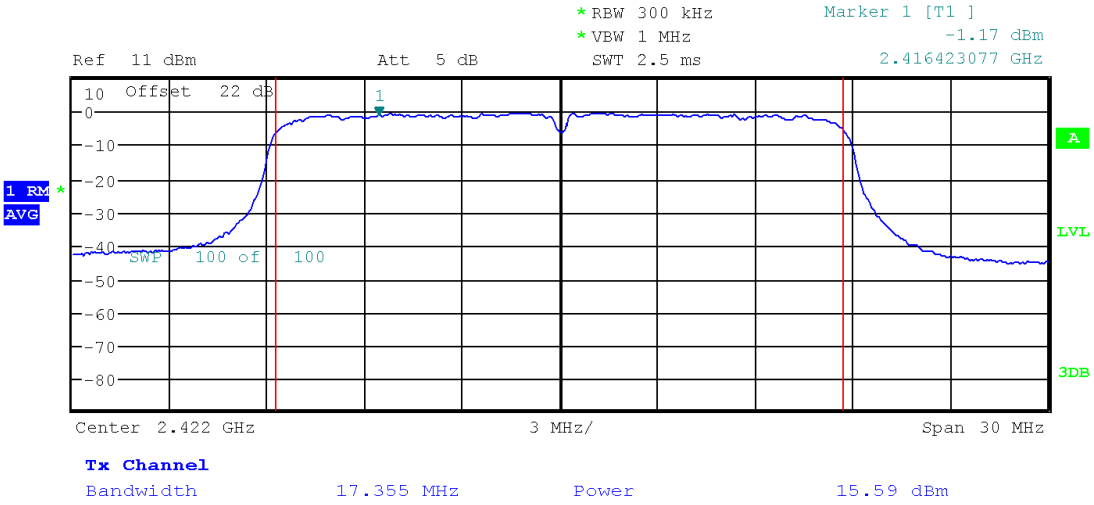
Plot 2. 12


* RBW 300 kHz
* VBW 1 MHz
SWT 2.5 ms
Marker 1 [T1]
-5.79 dBm
2.410750000 GHz
Ref 11 dBm
Att 5 dB
Offset 22 dB
1 RM
AVG
SWP 100 of 100
A
LVL
3DB
Center 2.412 GHz
3 MHz/
Span 30 MHz
Tx Channel
Bandwidth 17.355 MHz
Power 11.02 dBm

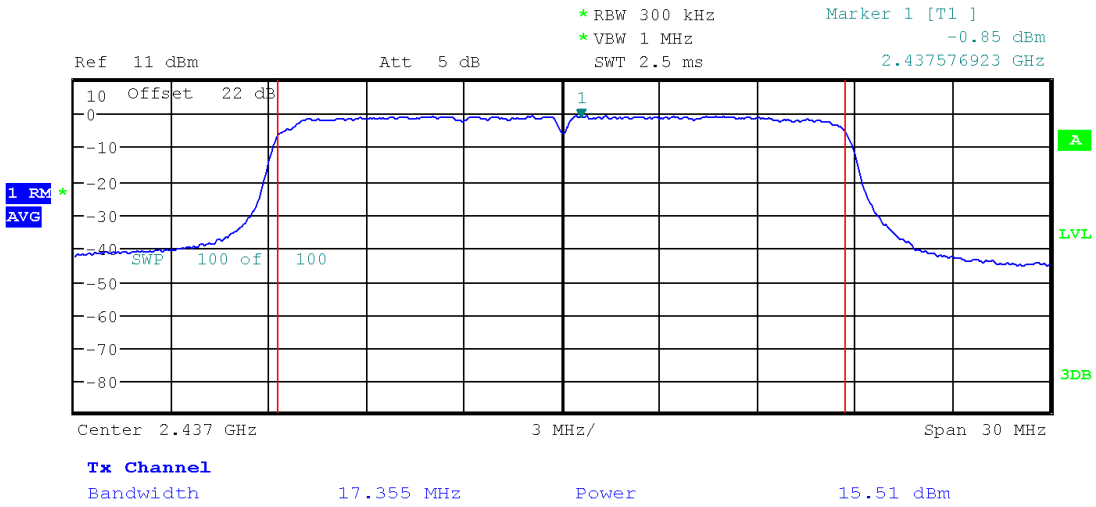
Plot 2. 13



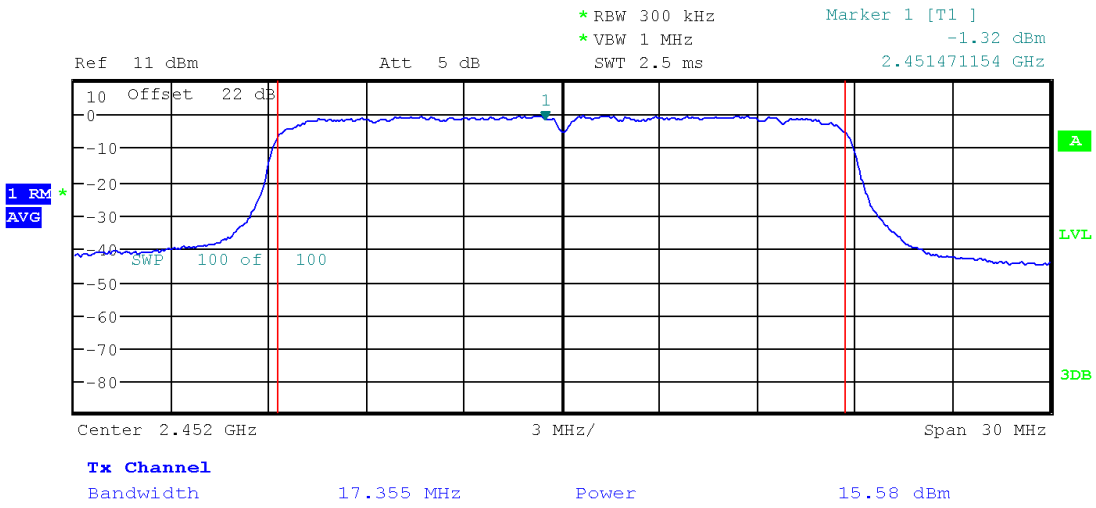
Plot 2. 14



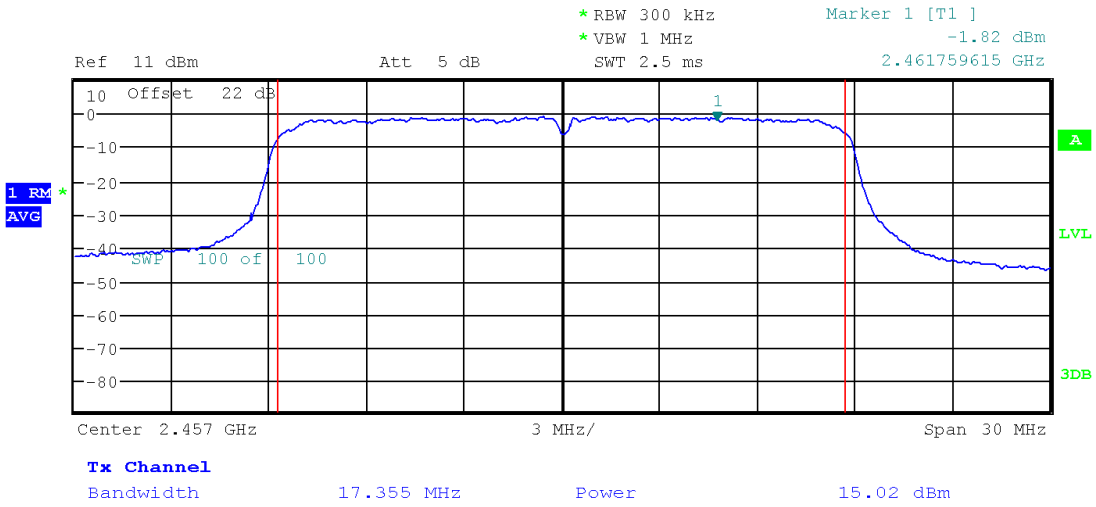
Plot 2. 15



Plot 2. 16



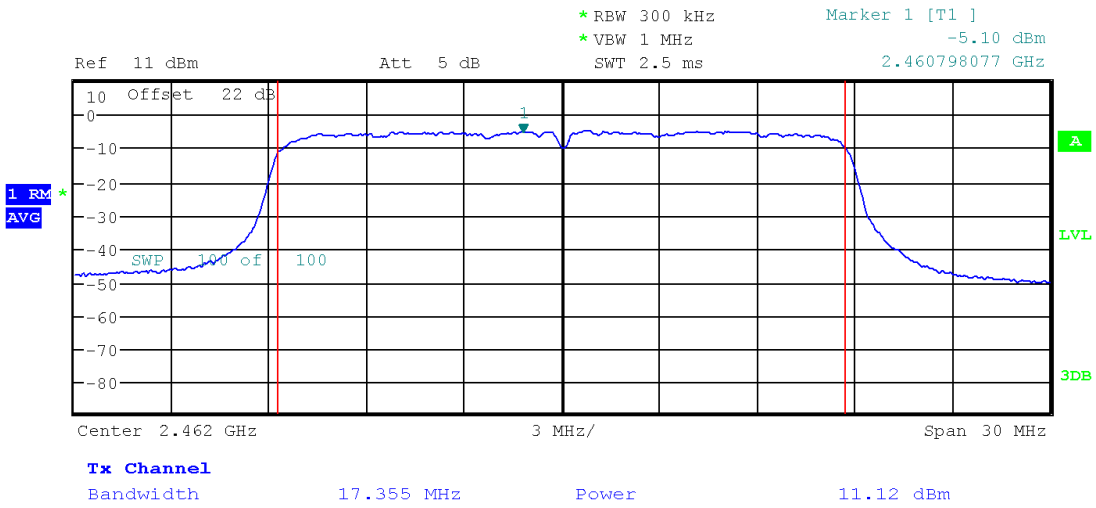
Plot 2. 17



Tx Channel

Bandwidth	17.355 MHz	Power	15.02 dBm

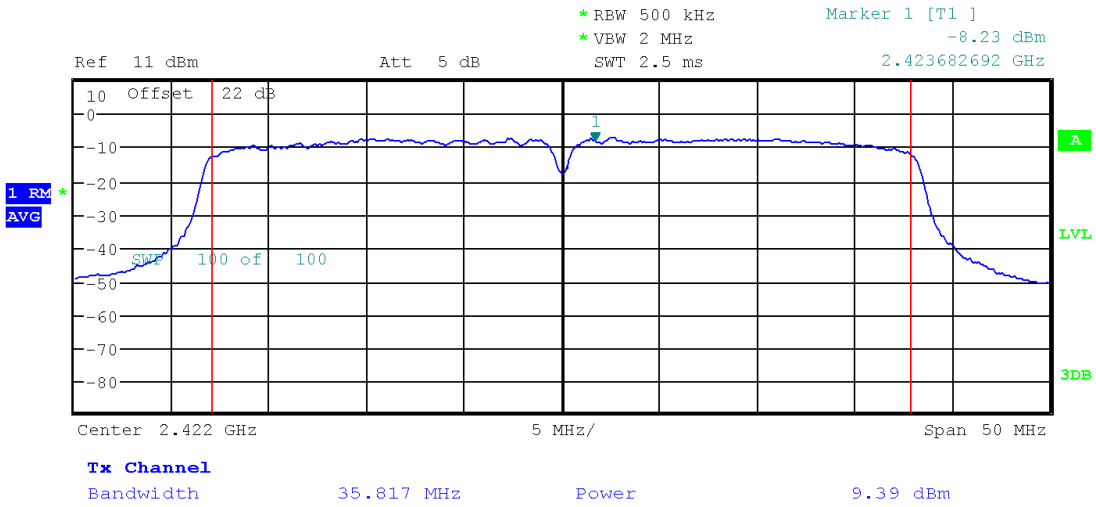
Plot 2. 18



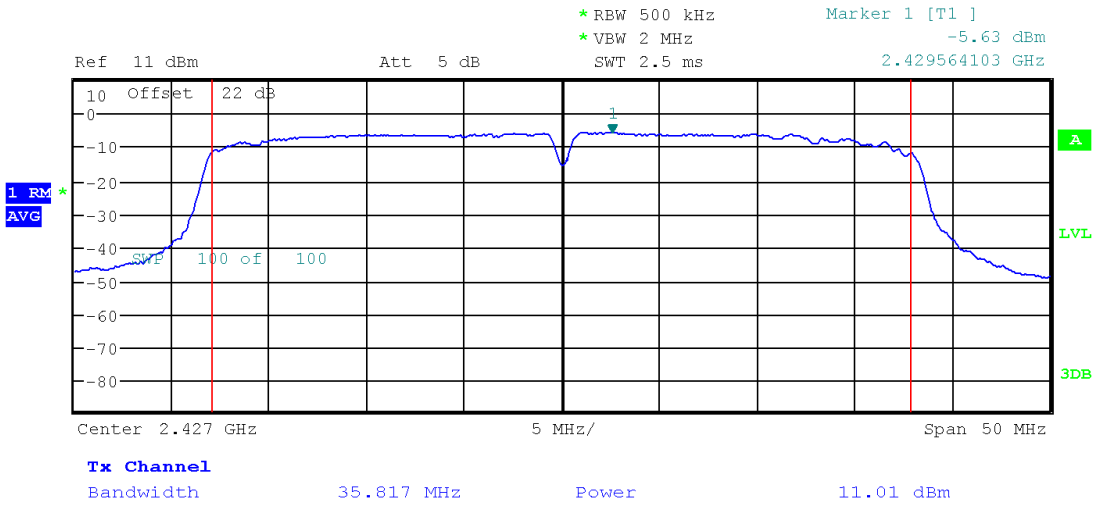
Tx Channel

Bandwidth	17.355 MHz	Power	11.12 dBm

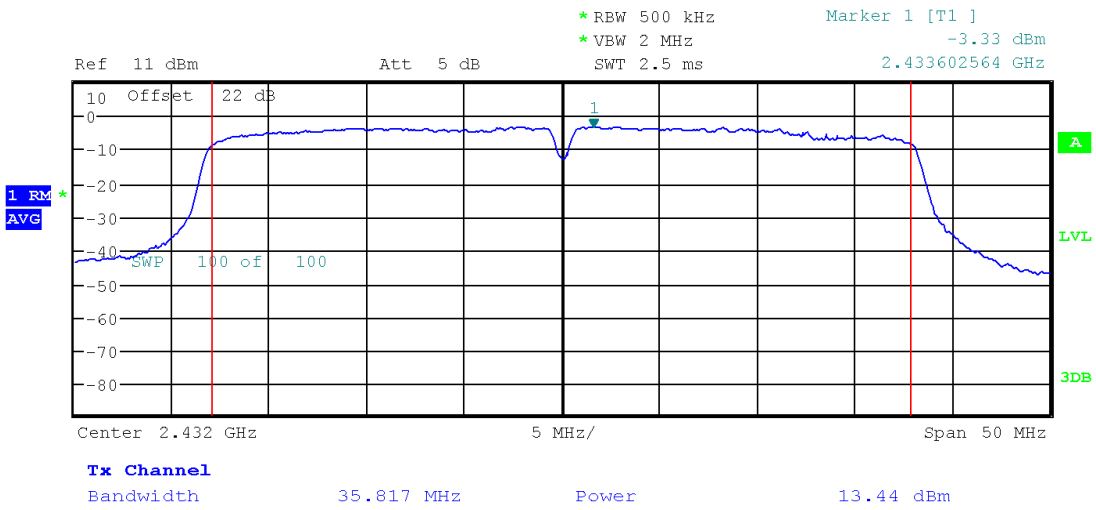
Plot 2. 29



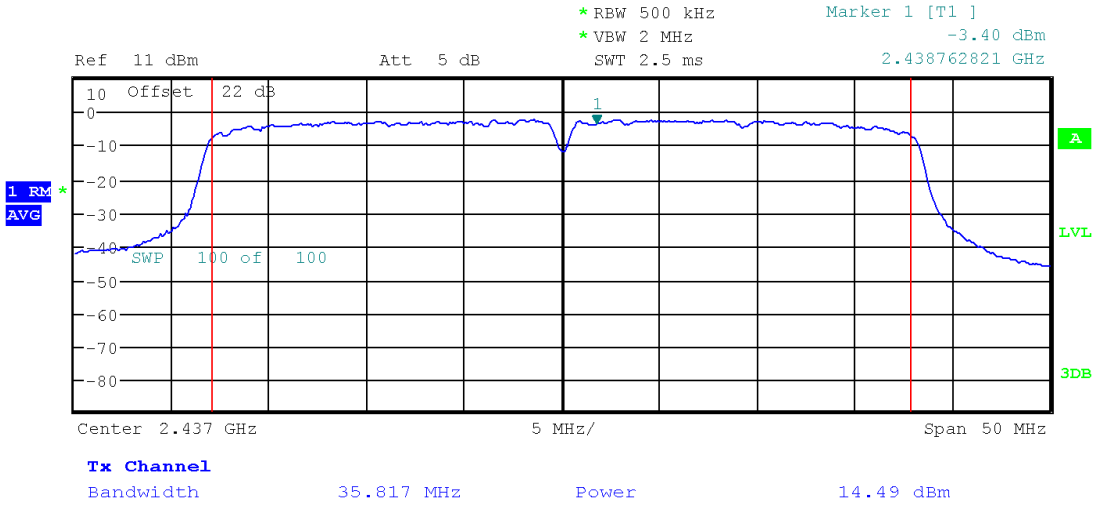
Plot 2. 20



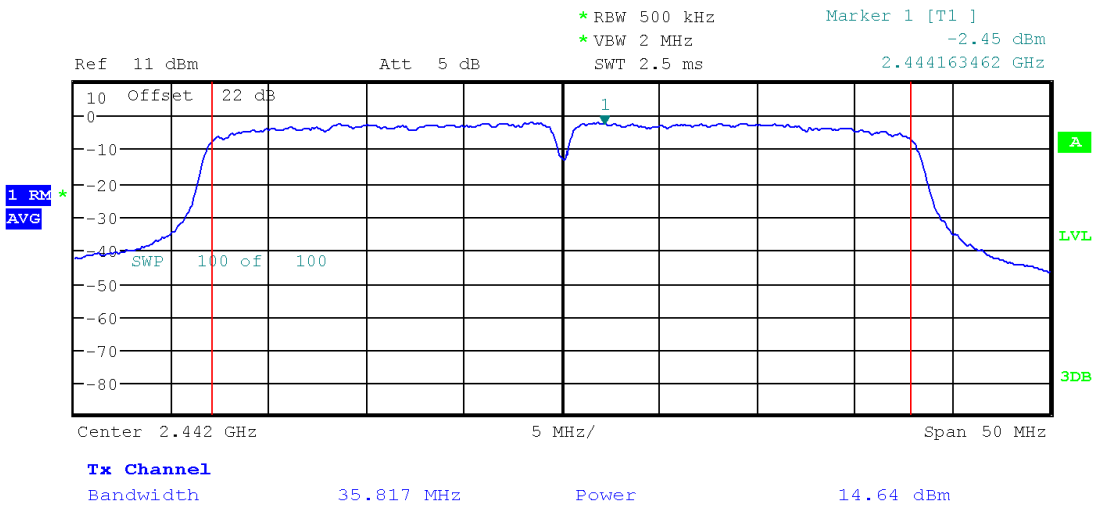
Plot 2. 21



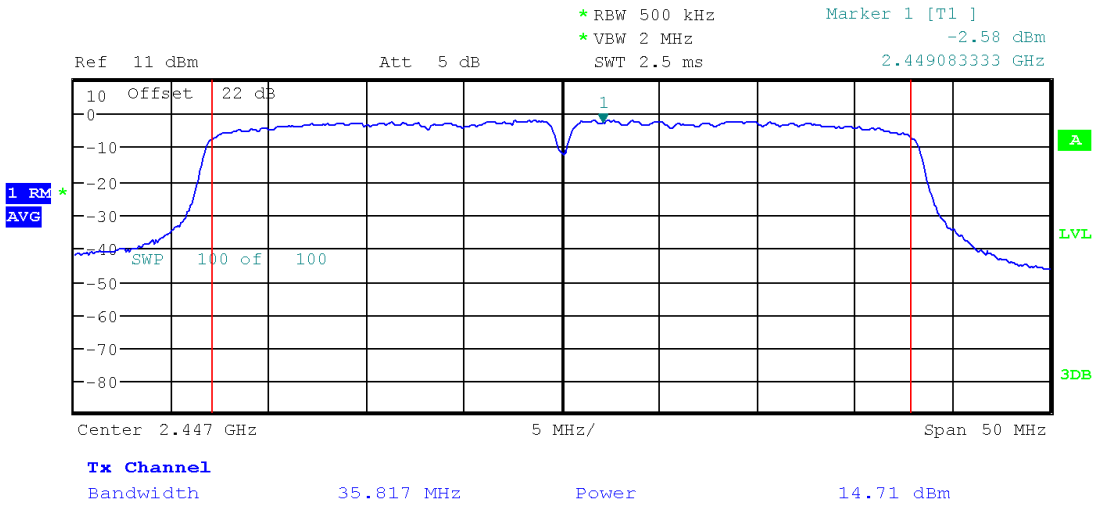
Plot 2. 22



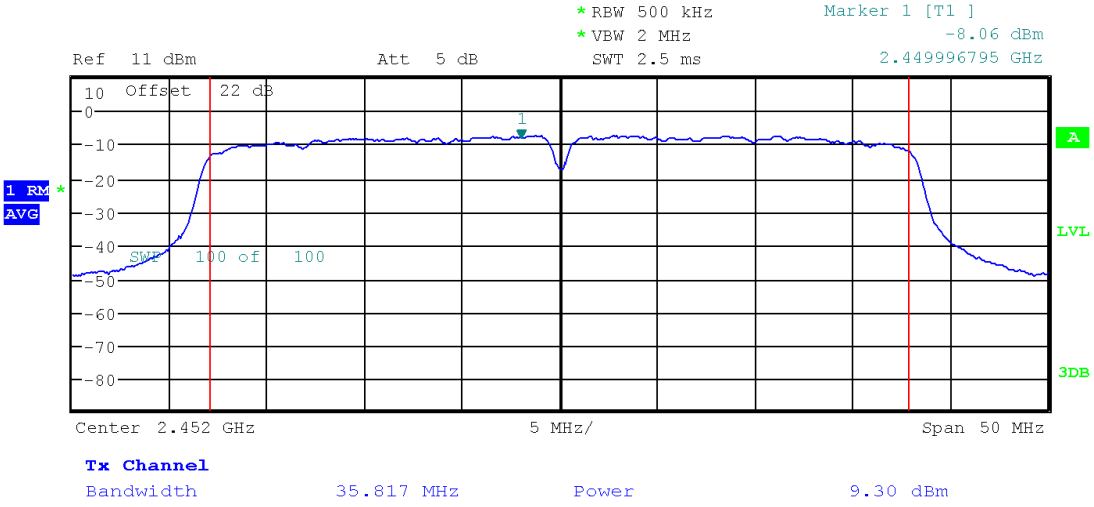
Plot 2. 23



Plot 2. 24



Plot 2. 25


* RBW 500 kHz
* VBW 2 MHz
SWT 2.5 ms
Marker 1 [T1]
-8.06 dBm
2.449996795 GHz
Ref 11 dBm
Att 5 dB
10 Offset 22 dB
1 RM
AVG
SWP 100 of 100
A
LVL
3DB
Center 2.452 GHz
5 MHz/
Span 50 MHz
Tx Channel
Bandwidth 35.817 MHz
Power 9.30 dBm

4.3 Power Spectral Density
FCC: 15.247 (e); RSS-247, 5.2.b);

4.3.1 Requirement

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna should not be greater than 8dBm in any 3 kHz band during any time interval of continuous transmission.

4.3.2 Procedure

The antenna port of the EUT was connected to the input of a spectrum analyzer to measure the Transmitter Power Density (PSD). The offset programmed on the analyzer is corrected to include cable loss, attenuator.

The procedure described in FCC Publication FCC Publication KDB 558074 D01 Meas Guidance v05r02, specifically section 11.10.2 Method PKPSD (peak PSD) of ANSI 63.10.

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the *DTS bandwidth*.
3. Set the RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
4. Set the VBW ≥ 3 x RBW.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level within the RBW.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

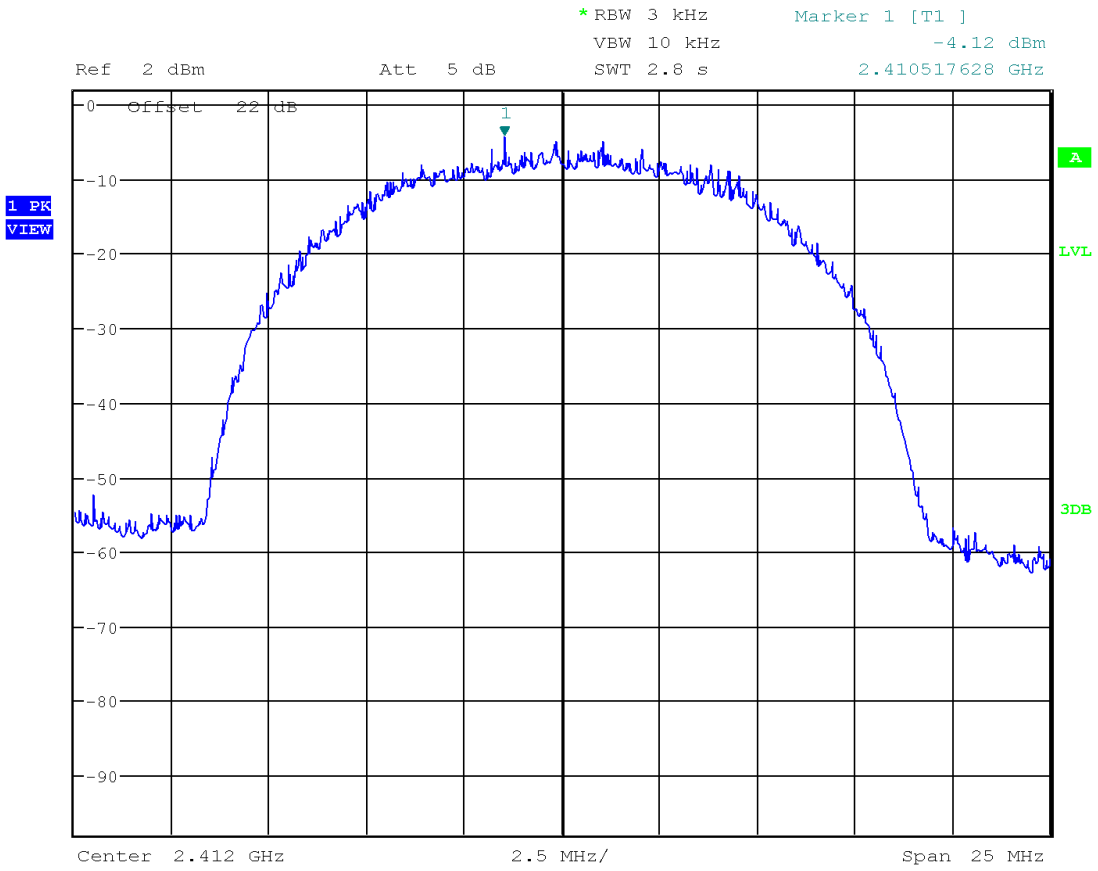
Tested By	Test Date
Gilberto Gallegos Rangel	January 24, 2024 & March 5, 2024

4.3.3 Test Result

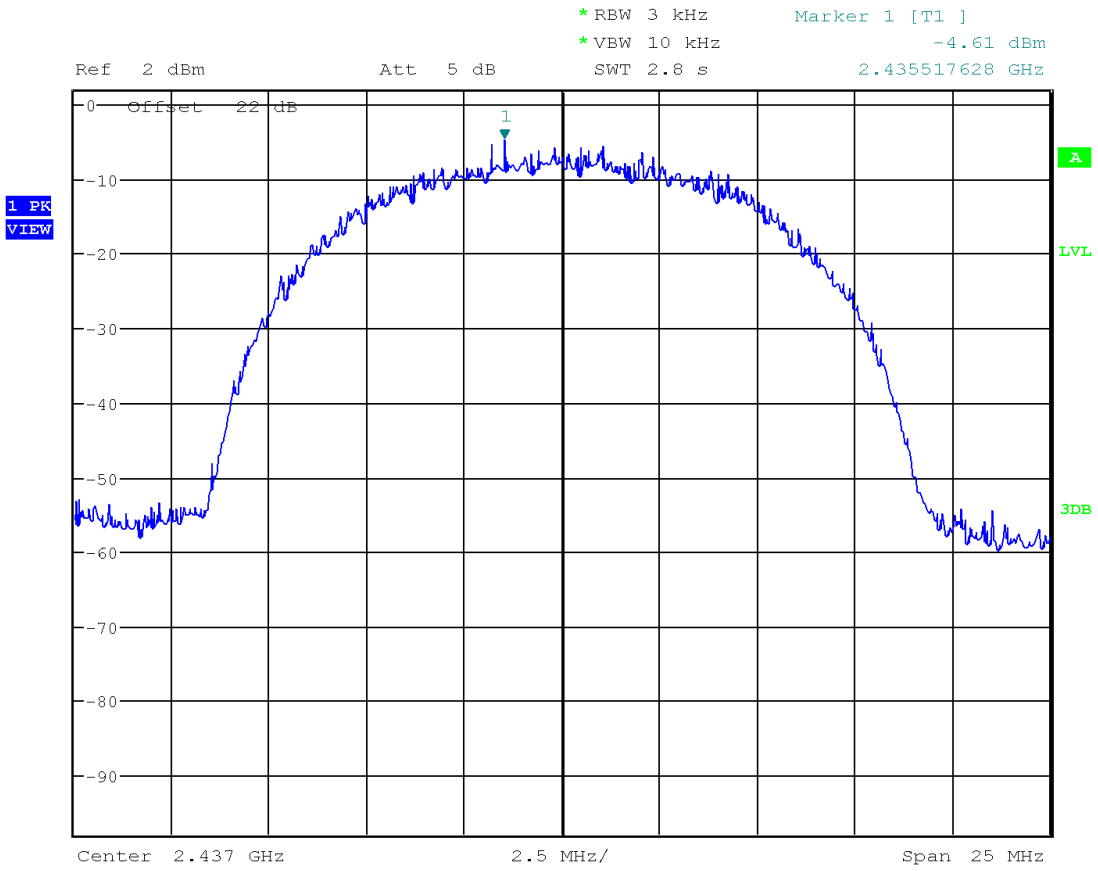
Refer to the following plots for the test result:

Standard	Channel	Frequency MHz	PSD (Peak) dBm	Margin to 8dBm Limit dB	Plot #
802.11b	1	2412	-4.12	-12.12	3.1
	6	2437	-4.61	-12.61	3.2
	11	2462	-4.80	-12.8	3.3
802.11g	1	2412	-11.86	-19.86	3.4
	2	2417	-9.36	-17.36	3.5
	3	2422	-7.62	-15.62	3.6
	6	2437	-7.74	-15.74	3.7
	8	2447	-7.30	-15.3	3.8
	9	2452	-8.15	-16.15	3.9
	10	2457	-10.08	-18.08	3.10
	11	2462	-12.75	-20.75	3.11
802.11n 20MHz	1	2412	-12.40	-20.4	3.12
	2	2417	-9.46	-17.46	3.13
	3	2422	-8.58	-16.58	3.14
	6	2437	-8.68	-16.68	3.15
	9	2452	-8.46	-16.46	3.16
	10	2457	-9.19	-17.19	3.17
	11	2462	-13.10	-21.1	3.18
802.11n 40MHz	3	2422	-16.82	-24.82	3.19
	4	2427	-15.13	-23.13	3.20
	5	2432	-13.14	-21.14	3.21
	6	2437	-11.95	-19.95	3.22
	7	2442	-12.20	-20.2	3.23
	8	2447	-11.92	-19.92	3.24
	9	2452	-17.28	-25.28	3.25

Plot 3. 1

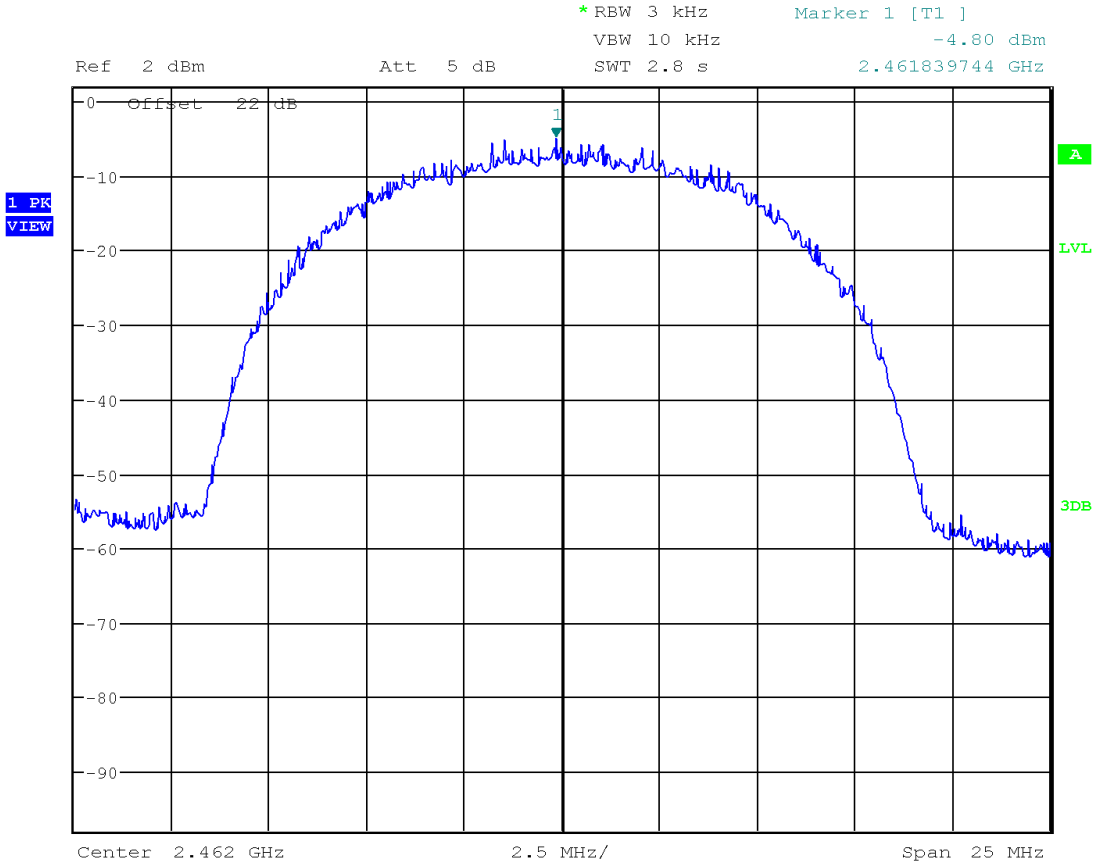

* RBW 3 kHz
VBW 10 kHz
SWT 2.8 s
Marker 1 [T1]
-4.12 dBm
2.410517628 GHz
Ref 2 dBm
Att 5 dB
Offset 22 dB
1 PK
VIEW
A
LVL
3DB
Center 2.412 GHz
2.5 MHz/
Span 25 MHz
Date: 24.JAN.2024 22:07:40

Plot 3. 2



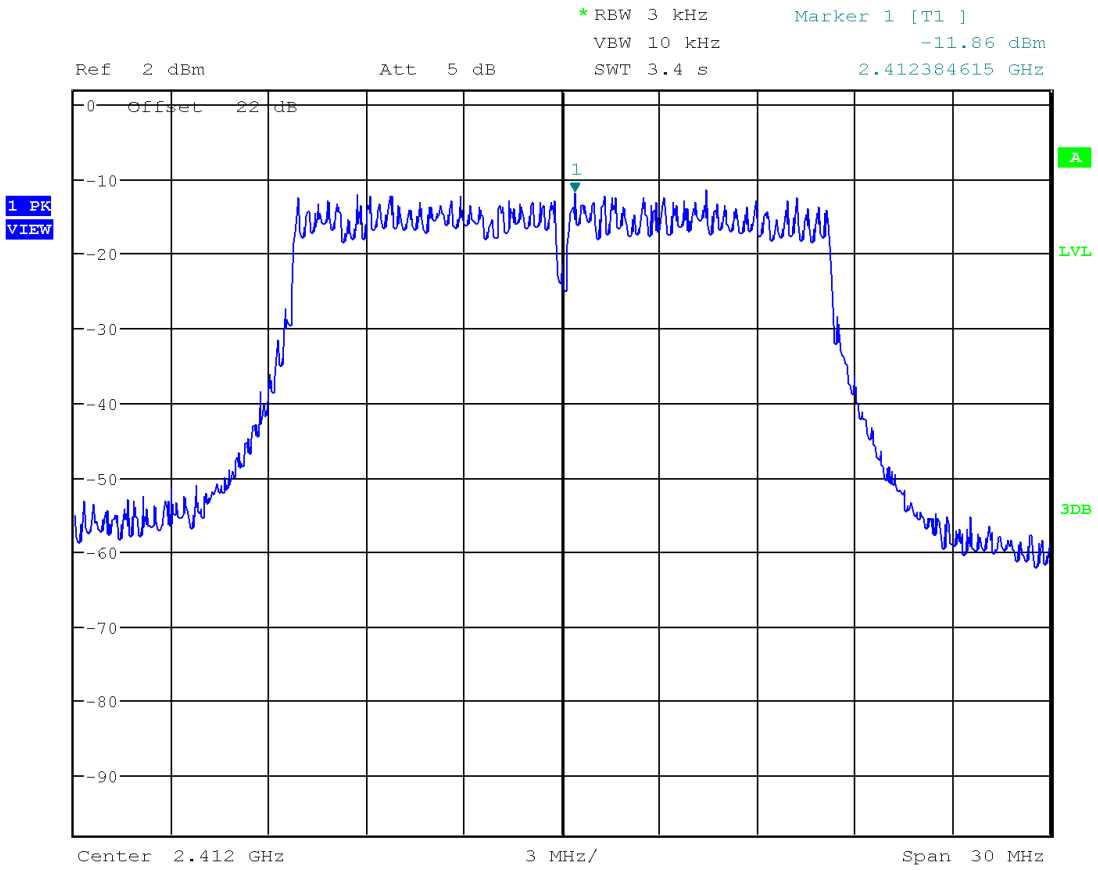
Date: 5.MAR.2024 23:05:45

Plot 3. 3

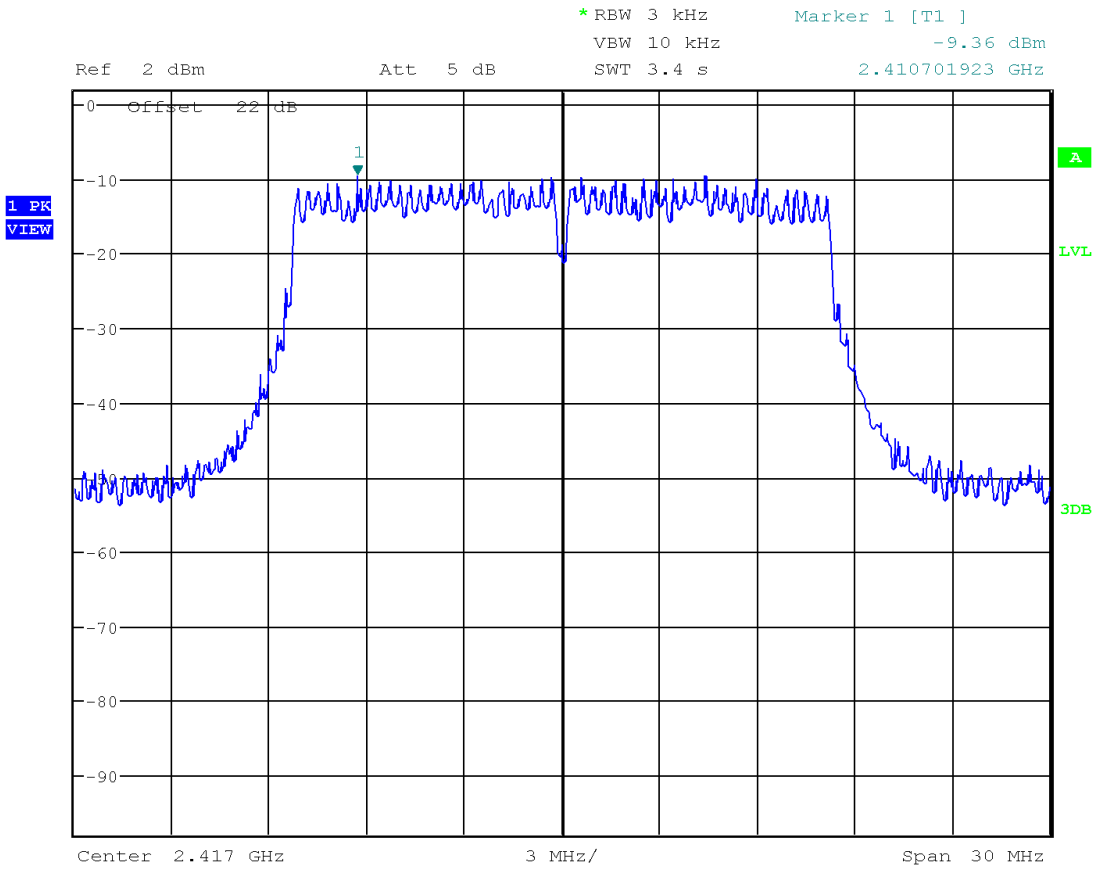


Date: 24.JAN.2024 22:11:42

Plot 3. 4

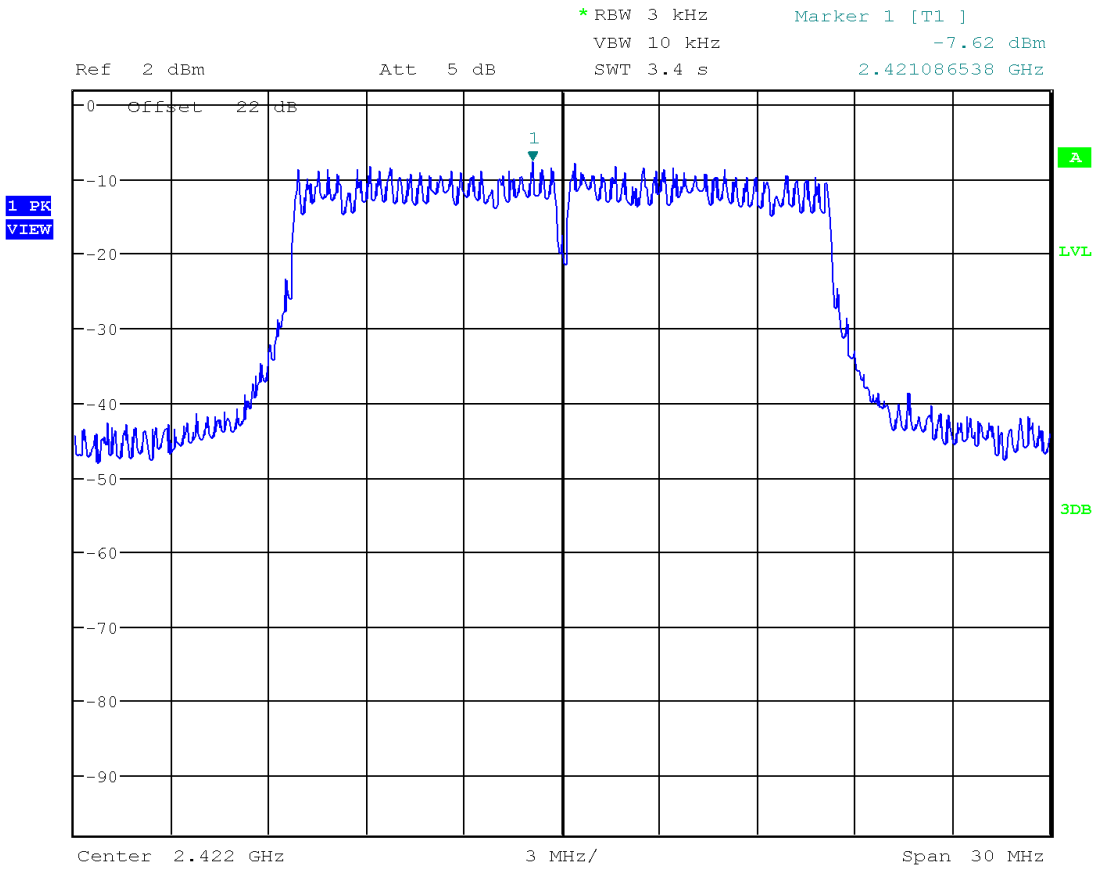

* RBW 3 kHz
VBW 10 kHz
SWT 3.4 s
Marker 1 [T1]
-11.86 dBm
2.412384615 GHz
Ref 2 dBm
Att 5 dB
Offset 22 dB
1 PK
VIEW
A
LVL
3DB
Center 2.412 GHz
3 MHz/
Span 30 MHz
Date: 24.JAN.2024 22:22:54

Plot 3. 5

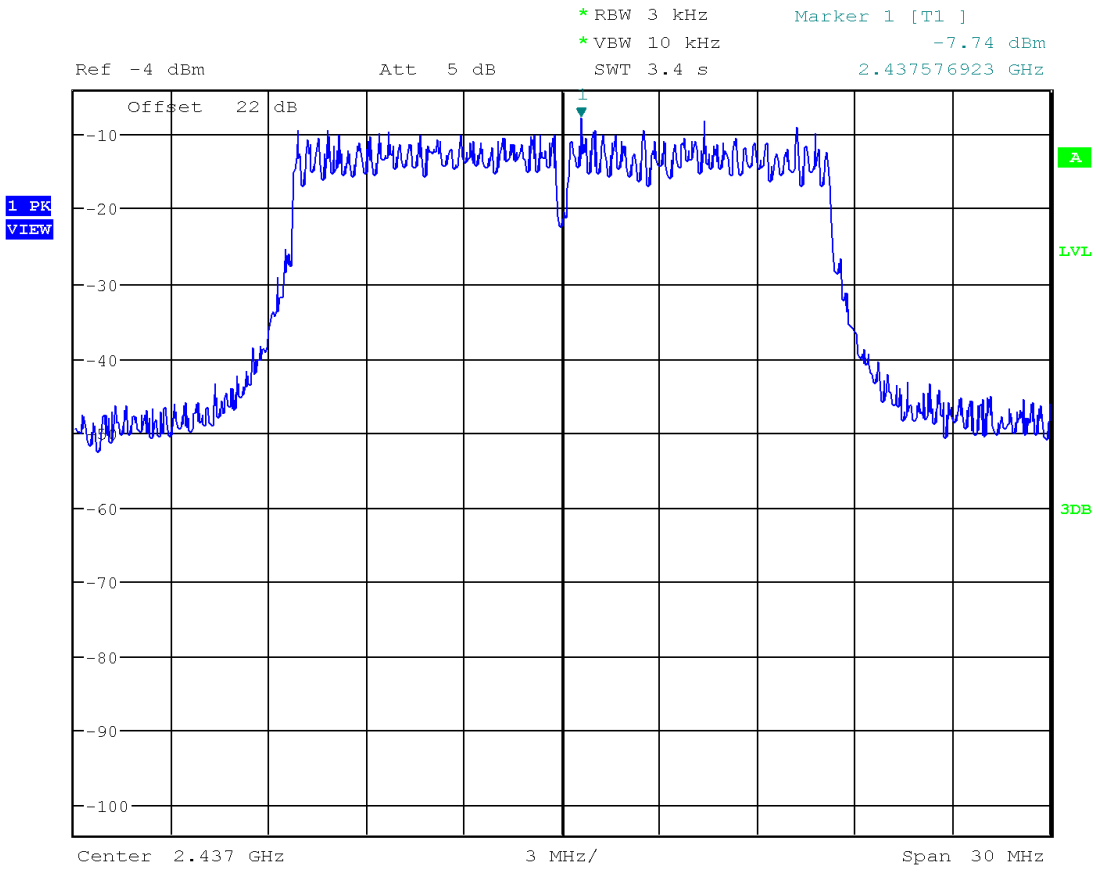


Date: 24.JAN.2024 22:24:44

Plot 3. 6

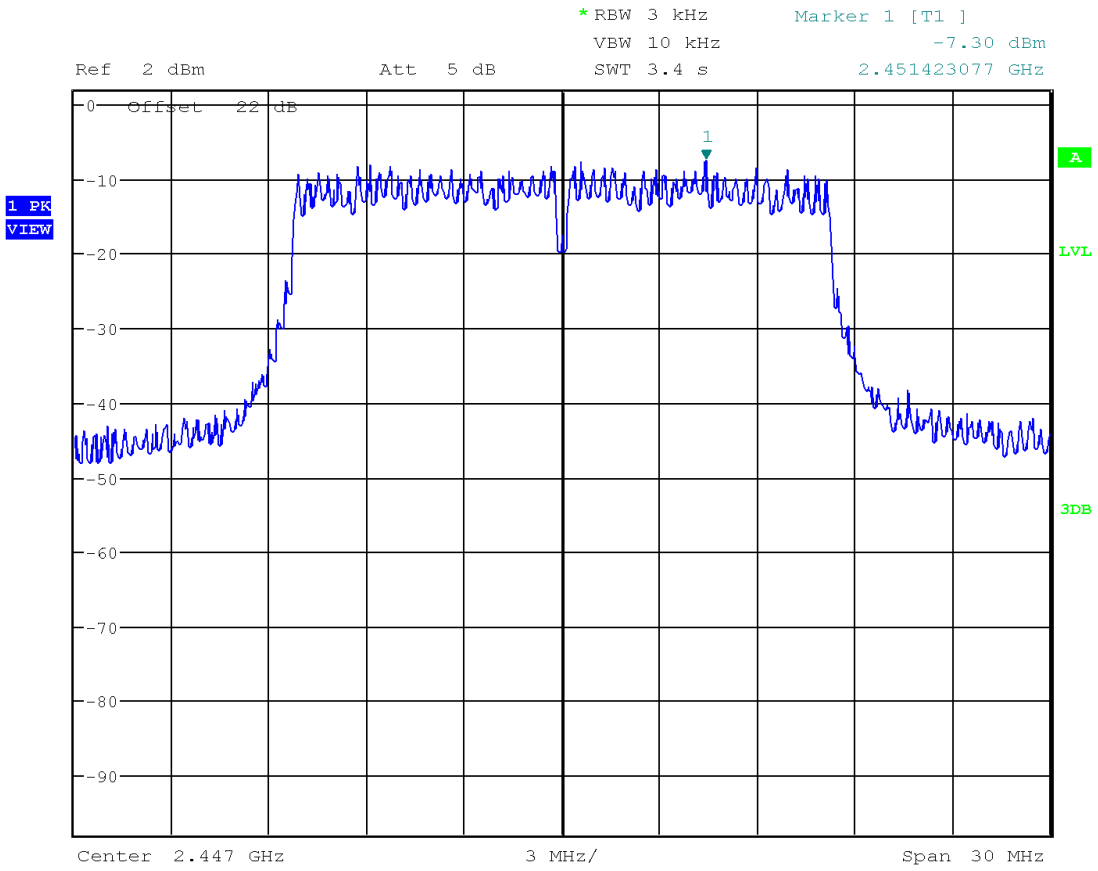

*RBW 3 kHz
VBW 10 kHz
SWT 3.4 s
Marker 1 [T1]
-7.62 dBm
2.421086538 GHz
Ref 2 dBm
Att 5 dB
Offset 22 dB
1 PK
VIEW
A
LVL
3DB
Center 2.422 GHz
3 MHz/
Span 30 MHz
Date: 24.JAN.2024 22:28:46

Plot 3. 7

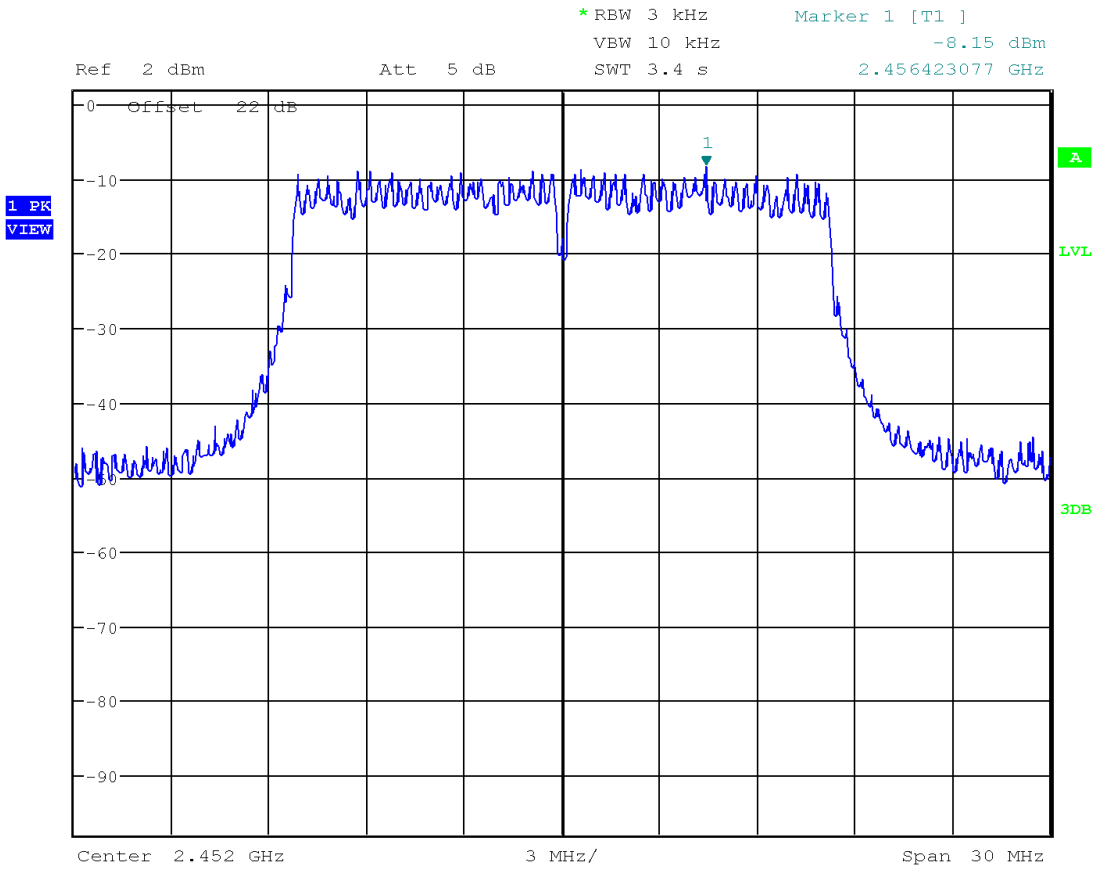


Date: 5.MAR.2024 23:01:01

Plot 3. 8

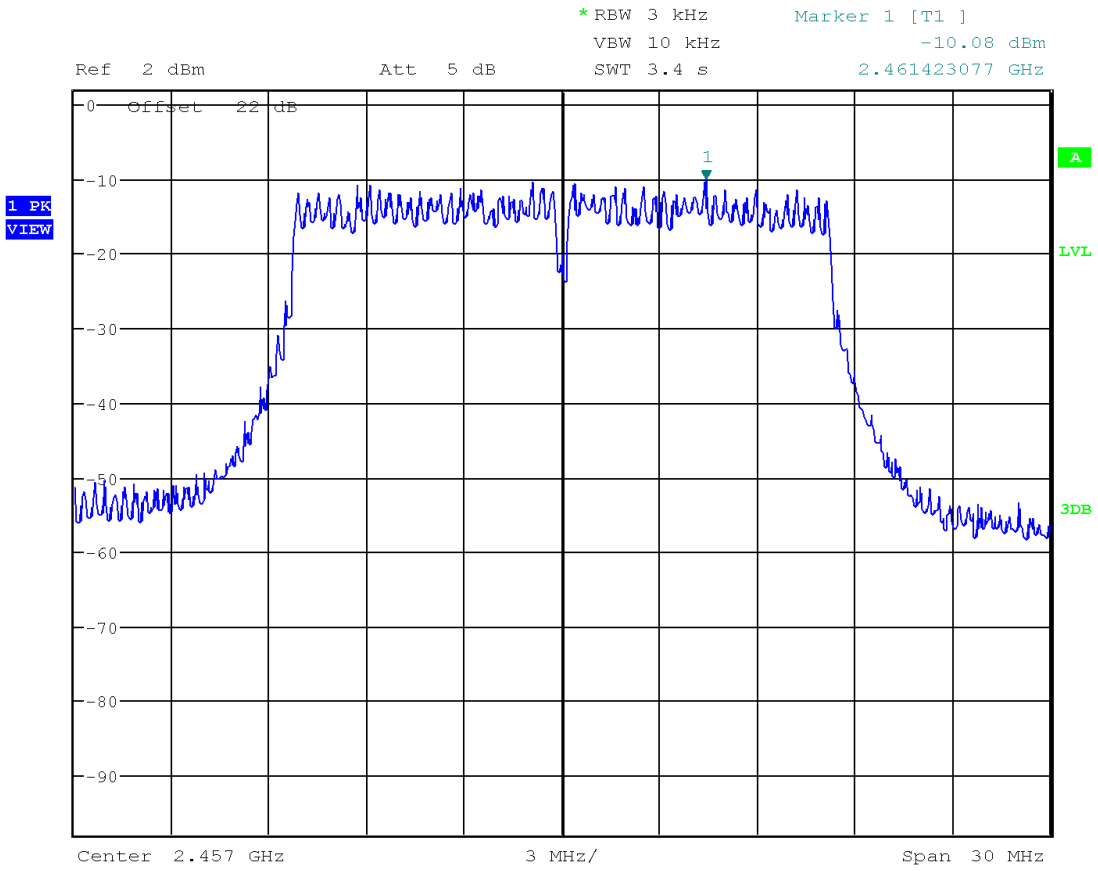

* RBW 3 kHz
VBW 10 kHz
SWT 3.4 s
Marker 1 [T1]
-7.30 dBm
2.451423077 GHz
Ref 2 dBm
Att 5 dB
Offset 22 dB
1 PK
VIEW
A
LVL
3DB
Center 2.447 GHz
3 MHz/
Span 30 MHz
Date: 24.JAN.2024 22:30:30

Plot 3. 9

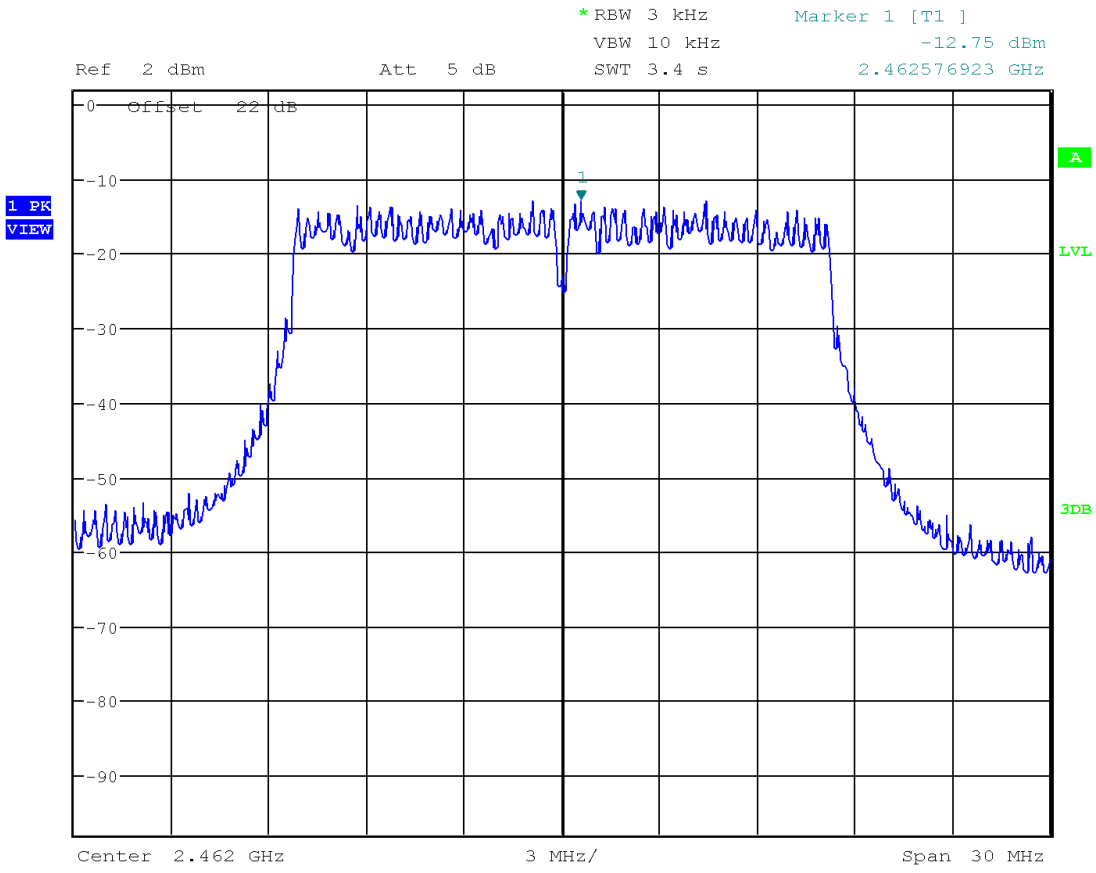


Date: 24.JAN.2024 22:32:49

Plot 3. 10

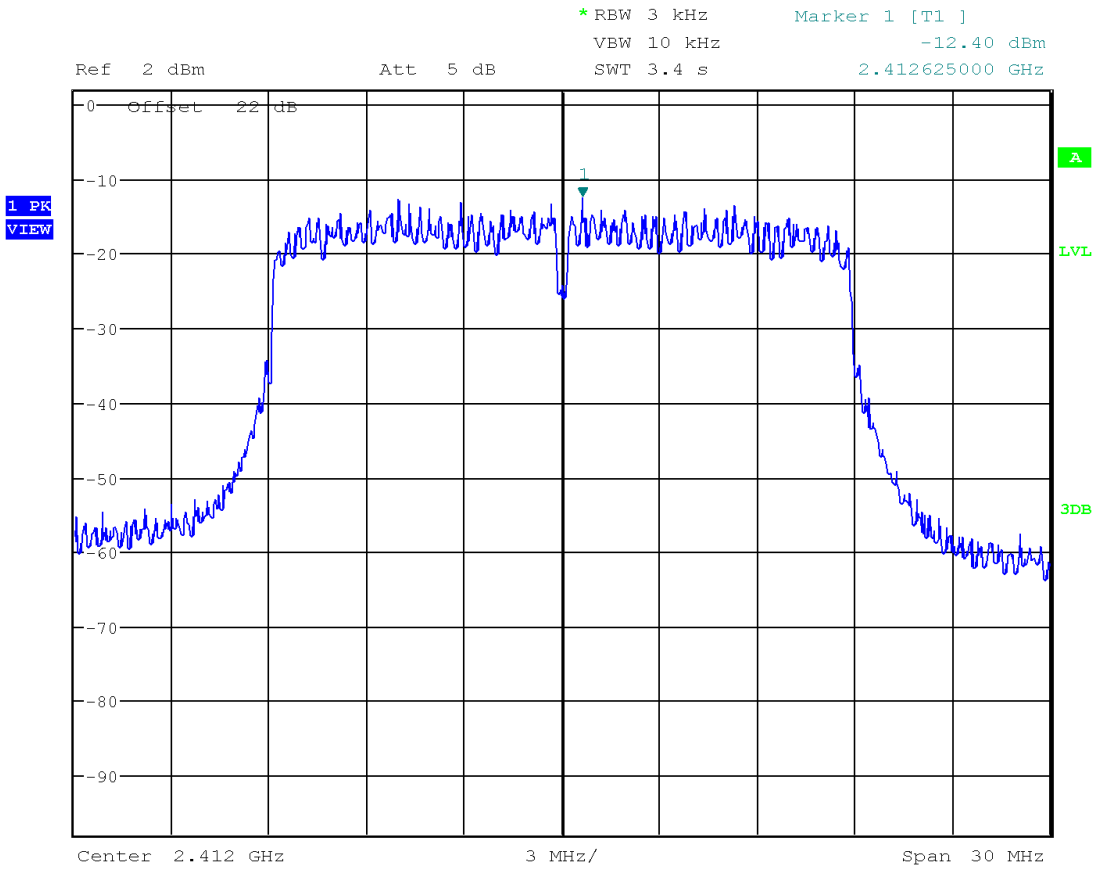

* RBW 3 kHz
VBW 10 kHz
SWT 3.4 s
Marker 1 [T1]
-10.08 dBm
2.461423077 GHz
Ref 2 dBm
Att 5 dB
Offset 22 dB
1 PK
VIEW
A
LVL
3DB
Center 2.457 GHz
3 MHz/
Span 30 MHz
Date: 24.JAN.2024 22:35:23

Plot 3. 71

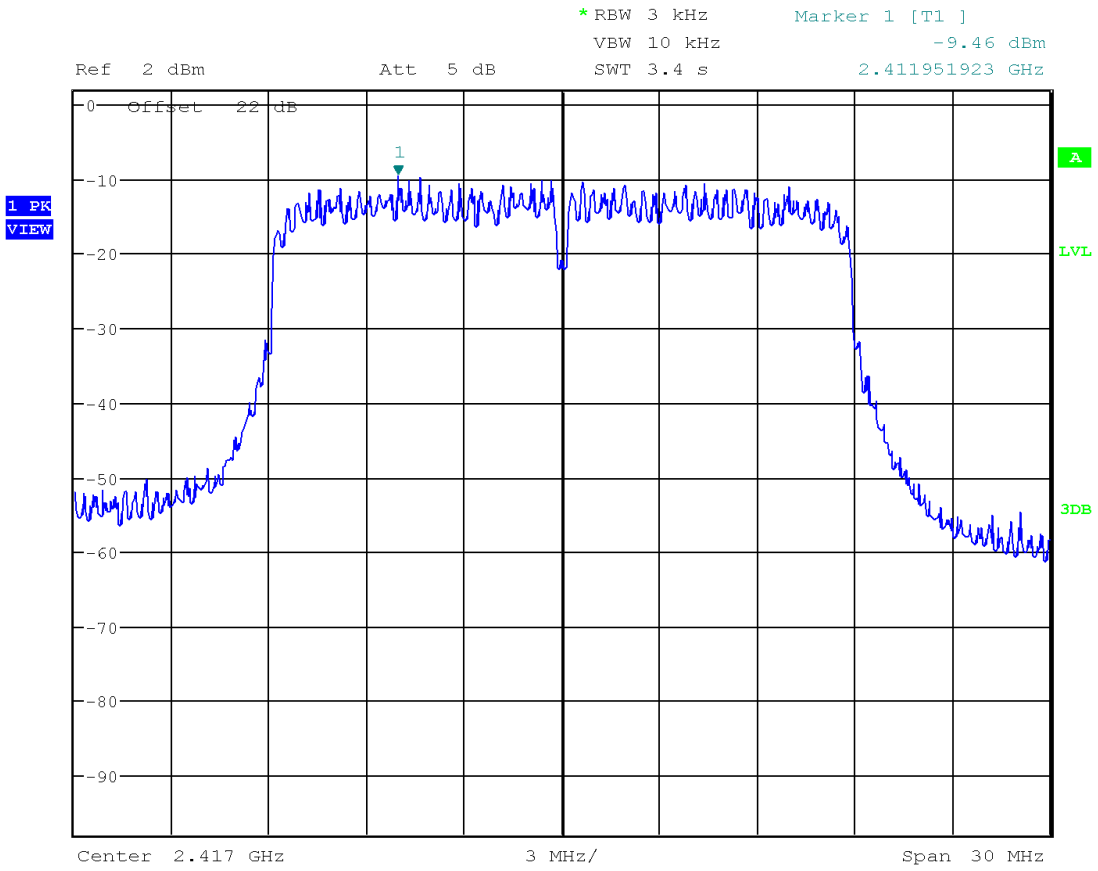


Date: 24.JAN.2024 22:42:36

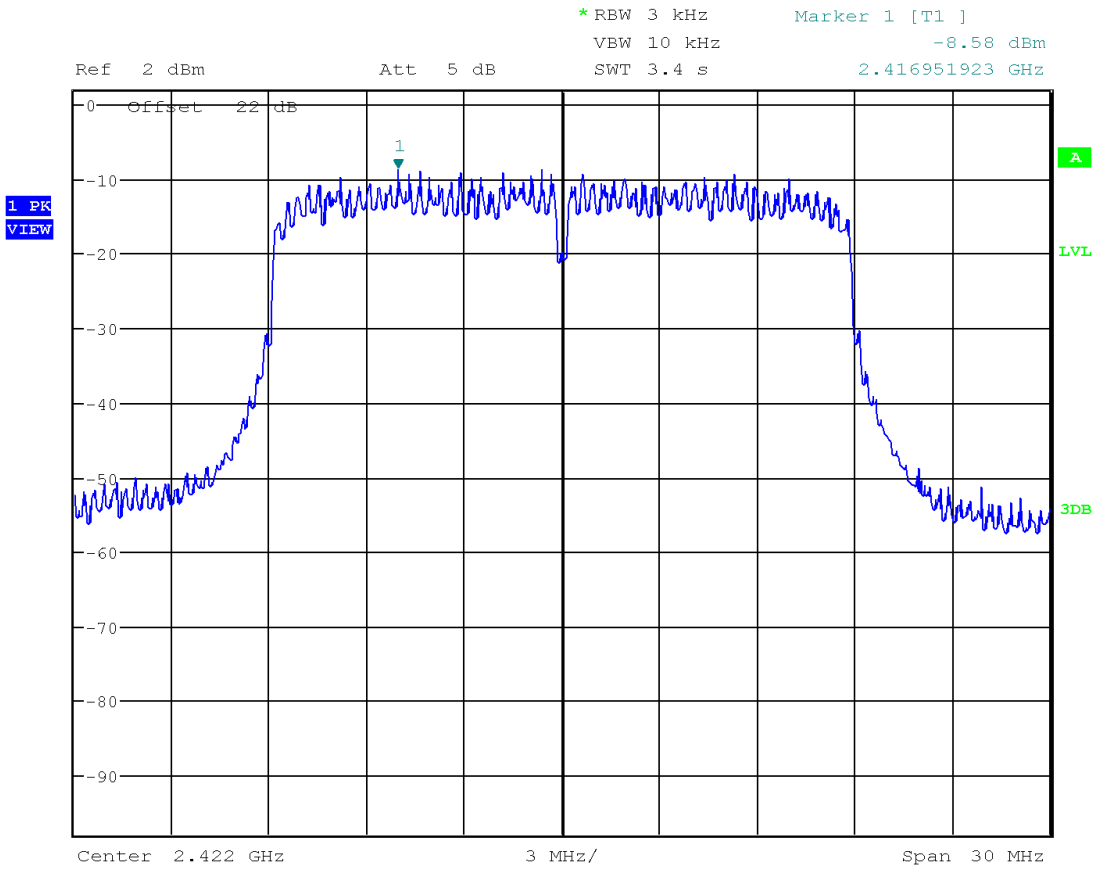
Plot 3. 12


* RBW 3 kHz
VBW 10 kHz
SWT 3.4 s
Marker 1 [T1]
-12.40 dBm
2.412625000 GHz
Ref 2 dBm
Att 5 dB
Offset 22 dB
1 PK
VIEW
A
LVL
3DB
Center 2.412 GHz
3 MHz/
Span 30 MHz
Date: 24.JAN.2024 22:51:22

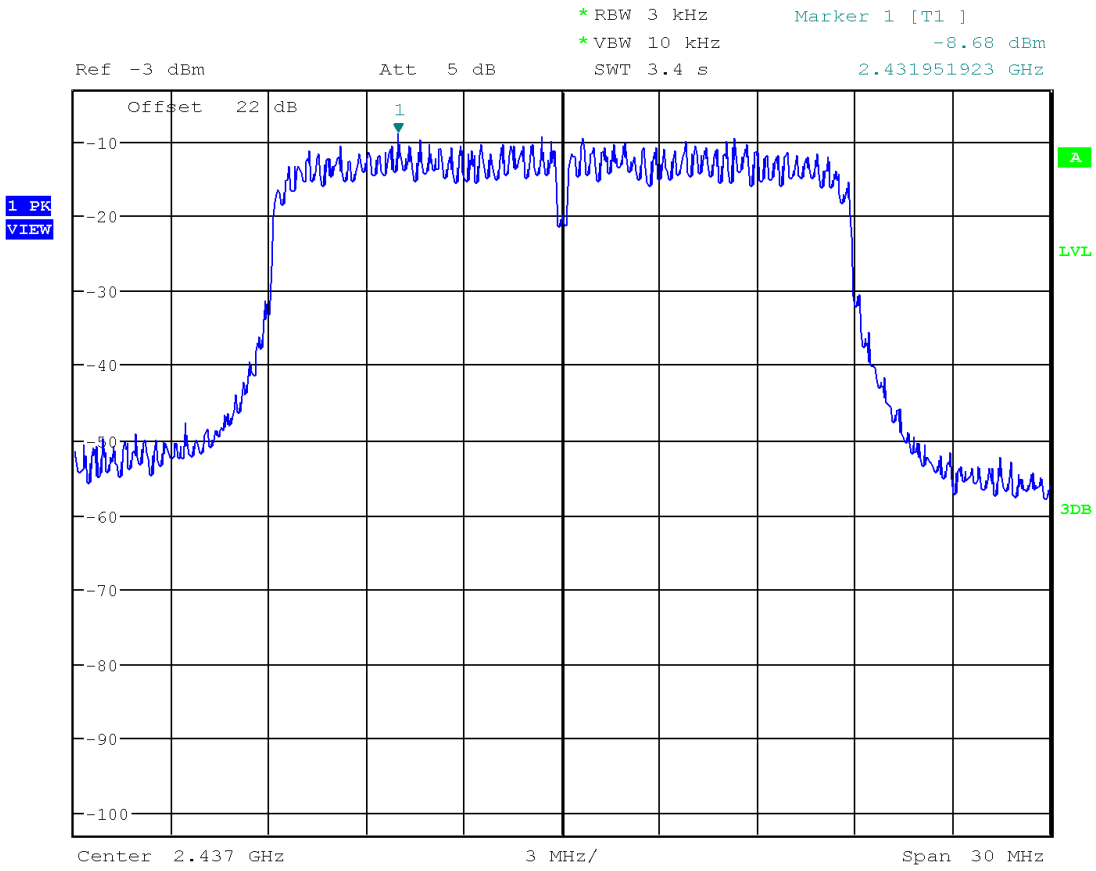
Plot 3. 13


* RBW 3 kHz
VBW 10 kHz
SWT 3.4 s
Marker 1 [T1]
-9.46 dBm
2.411951923 GHz
Ref 2 dBm
Att 5 dB
Offset 22 dB
1 PK
VIEW
A
LVL
3DB
Center 2.417 GHz
3 MHz/
Span 30 MHz
Date: 24.JAN.2024 22:54:45

Plot 3. 14

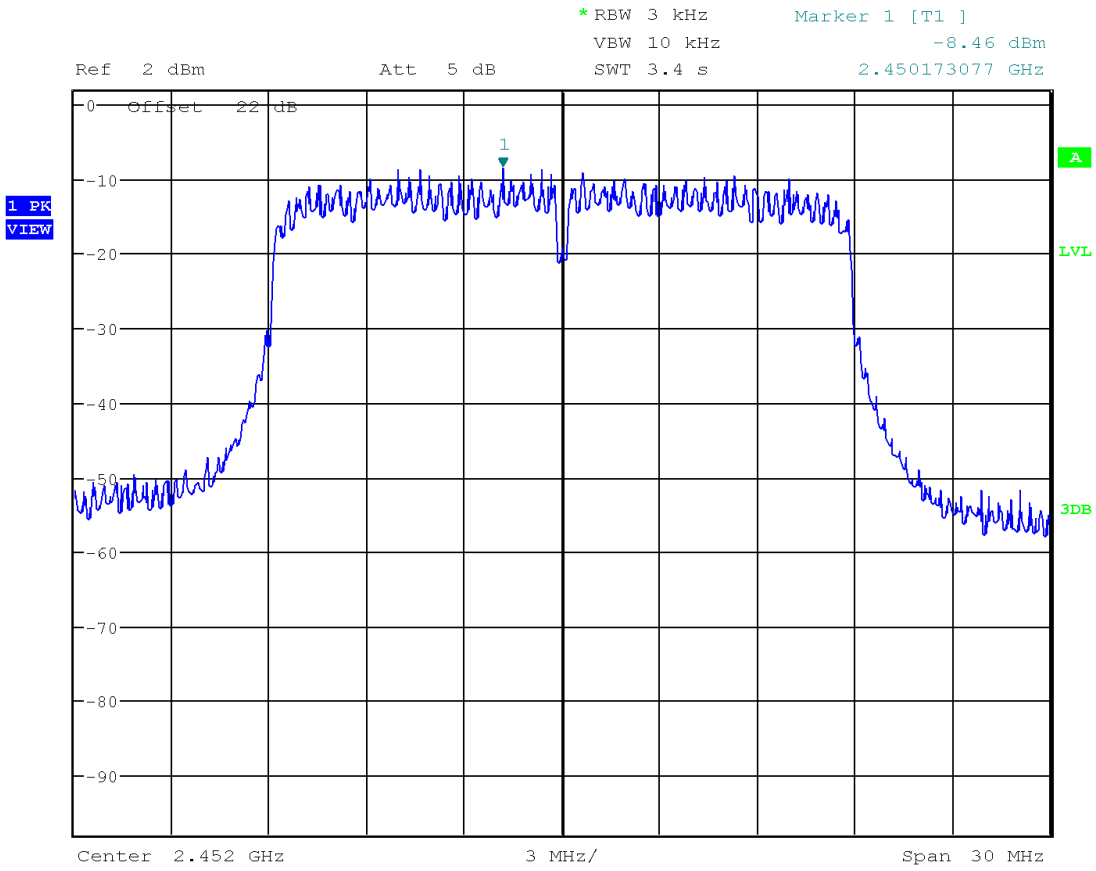

* RBW 3 kHz
VBW 10 kHz
SWT 3.4 s
Marker 1 [T1]
-8.58 dBm
2.416951923 GHz
Ref 2 dBm
Att 5 dB
Offset 22 dB
1 PK
VIEW
A
LVL
3DB
Center 2.422 GHz
3 MHz/
Span 30 MHz
Date: 24.JAN.2024 22:57:31

Plot 3. 15

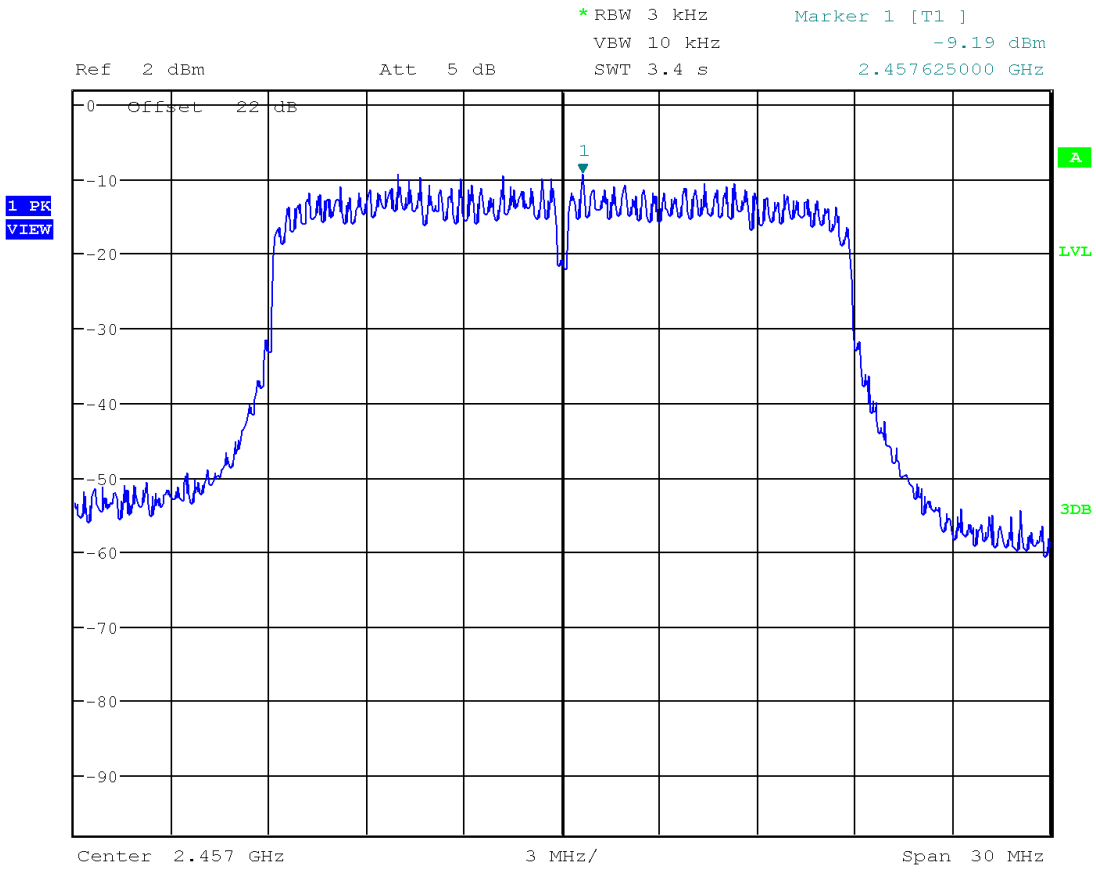


Date: 5.MAR.2024 23:08:05

Plot 3. 16

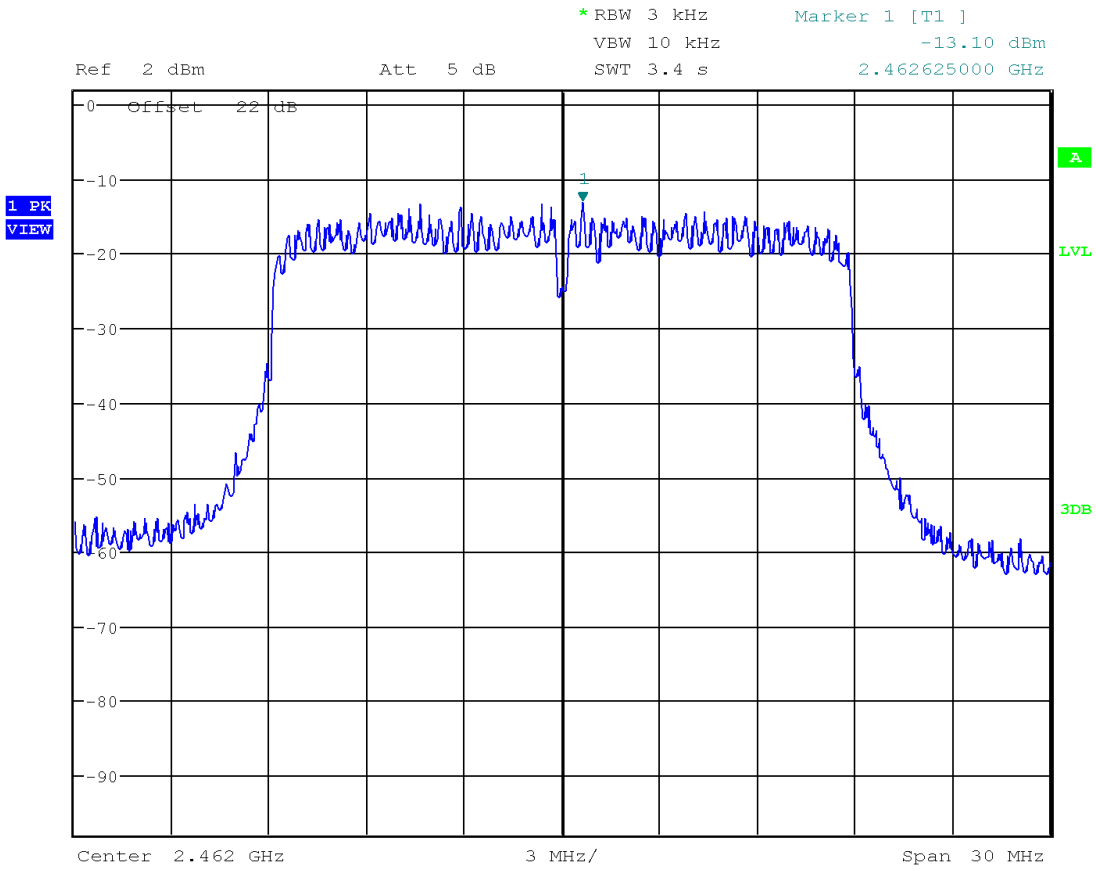

* RBW 3 kHz
VBW 10 kHz
SWT 3.4 s
Marker 1 [T1]
-8.46 dBm
2.450173077 GHz
Ref 2 dBm
Att 5 dB
Offset 22 dB
1 PK
VIEW
A
LVL
3DB
Center 2.452 GHz
3 MHz/
Span 30 MHz
Date: 24.JAN.2024 22:59:40

Plot 3. 17

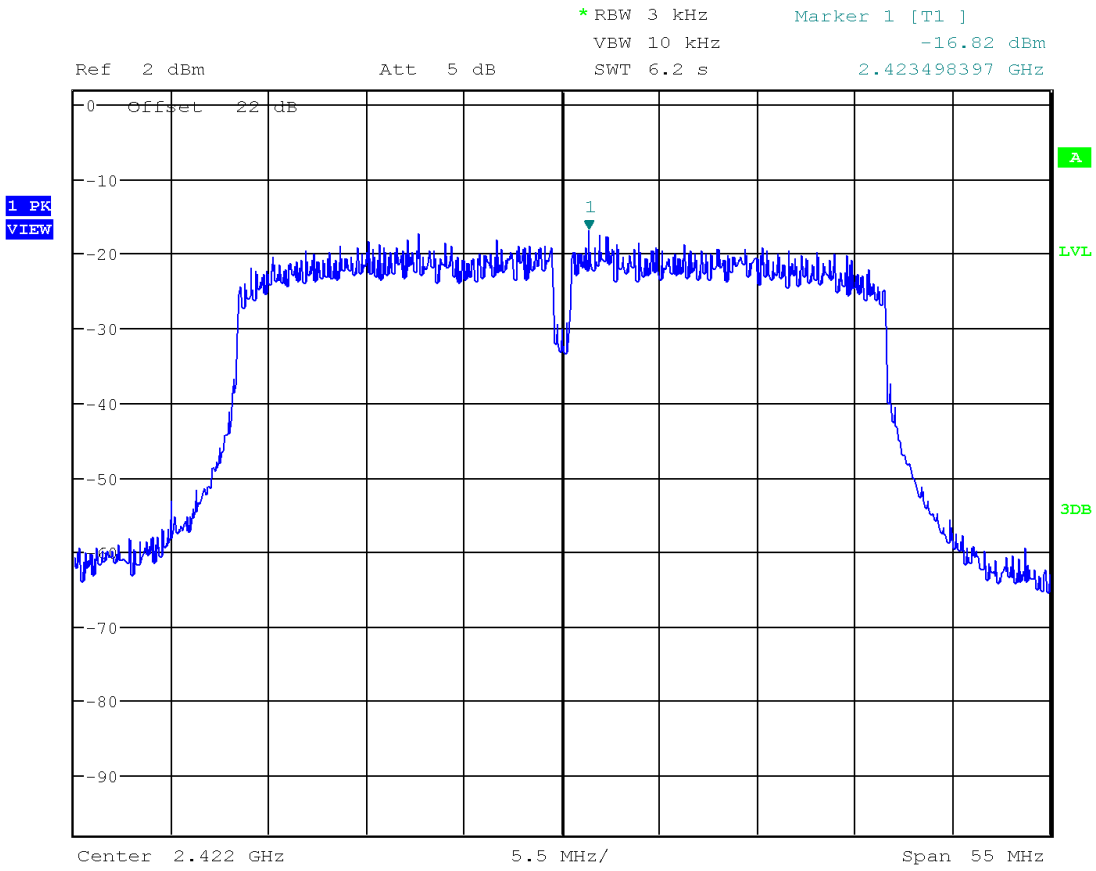


Date: 24.JAN.2024 23:02:22

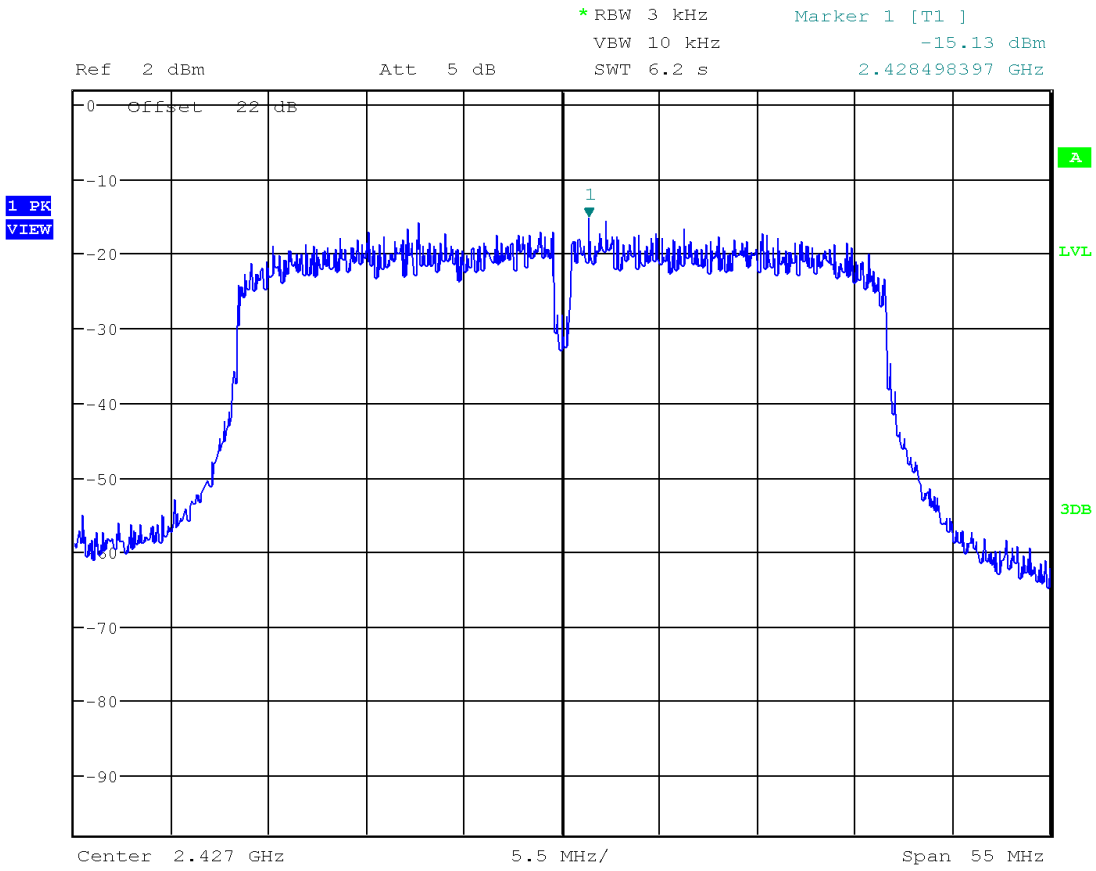
Plot 3. 18


* RBW 3 kHz
VBW 10 kHz
SWT 3.4 s
Marker 1 [T1]
-13.10 dBm
2.462625000 GHz
Ref 2 dBm
Att 5 dB
Offset 22 dB
1 PK
VIEW
A
LVL
3DB
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
Center 2.462 GHz
3 MHz/
Span 30 MHz
Date: 24.JAN.2024 23:05:00

Plot 3. 19


* RBW 3 kHz
VBW 10 kHz
SWT 6.2 s
Marker 1 [T1]
-16.82 dBm
2.423498397 GHz
Ref 2 dBm
Att 5 dB
Offset 22 dB
1 PK
VIEW
A
LVL
3DB
Center 2.422 GHz
5.5 MHz/
Span 55 MHz
Date: 24.JAN.2024 23:08:53

Plot 3. 20


* RBW 3 kHz
VBW 10 kHz
SWT 6.2 s
Marker 1 [T1]
-15.13 dBm
2.428498397 GHz
Ref 2 dBm
Att 5 dB
Offset 22 dB
1 PK
VIEW
A
LVL
3DB
Center 2.427 GHz
5.5 MHz/
Span 55 MHz
Date: 24.JAN.2024 23:11:35