

RF TEST REPORT

Applicant New H3C Intelligence Terminal Co., Ltd.
FCC ID 2BNRD-NX54
Product Dual-Band Gigabit Wi-Fi 6 Router
Brand H3C
Model H3C Magic NX54
Report No. EFTA25010260-IE-04-R1
Issue Date September 2, 2025

Eurofins TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 15C (2024)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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Summary of Measurement Results

Number	Test Case	Clause in FCC rules	Verdict
1	Maximum output power	15.247(b)(3)	PASS
2	99% Bandwidth and 6dB Bandwidth	15.247(a)(2) C63.10 6.9	PASS
3	Power spectral density	15.247(e)	PASS
4	Band Edge	15.247(d), 15.205, 15.209	PASS
5	Spurious RF Conducted Emissions	15.247(d)	PASS
6	Unwanted Emissions	15.247(d), 15.205, 15.209	PASS
7	Conducted Emissions	15.207	PASS
Date of Testing: January 20, 2025~ August 20, 2025			
Date of Sample Received: January 20, 2025			
Note: All indications of Pass/Fail in this report are opinions expressed by Eurofins TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.			

1. Test Laboratory

1.1. Notes of the Test Report

This report shall not be reproduced in full or partial, without the written approval of **Eurofins TA Technology (Shanghai) Co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

1.2. Test Facility

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

Eurofins TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform measurements.

A2LA (Certificate Number: 3857.01)

Eurofins TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform measurement.

1.3. Testing Location

Company: Eurofins TA Technology (Shanghai) Co., Ltd.
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2. General Description of Equipment Under Test

2.1. Applicant and Manufacturer Information

Applicant	New H3C Intelligence Terminal Co., Ltd.
Applicant address	Room 406-100, 1 Yichuang Street, China-Singapore Guangzhou Knowledge City, Huangpu District, Guangzhou.
Manufacturer	New H3C Intelligence Terminal Co., Ltd.
Manufacturer address	Room 406-100, 1 Yichuang Street, China-Singapore Guangzhou Knowledge City, Huangpu District, Guangzhou.

2.2. General Information

EUT Description	
Model	H3C Magic NX54
Lab internal SN	EFTA25010260-IE-04/S01
Hardware Version	A0
Software Version	R005
Power Supply	AC adapter
Antenna Type	External Antenna
Antenna Connector	Soldering (meet with the standard FCC Part 15.203 requirement)
Antenna Gain	Antenna 1: 5.0 dBi Antenna 2: 5.0 dBi
Direction Gain	MIMO: 5.0 dBi Beamforming: 8.01dBi
Operating Frequency Range(s)	802.11b/g/n(HT20)/ax(HE20): 2412 ~ 2462 MHz 802.11n(HT40)/ax(HE40): 2422 ~ 2452 MHz
Modulation Type	802.11b: DSSS 802.11g/n: OFDM 802.11ax: OFDM 802.11ax RU: OFDMA
Max. Output Power	Wi-Fi 2.4GHz: 29.72 dBm
Operating voltage range	11.40 Vdc to 12.60 Vdc
State voltage	12 Vdc
EUT Accessory	
Adapter	Manufacturer: Mentech Model: MAUS-1202002400
Note: 1. The EUT is sent from the applicant to Eurofins TA and the information of the EUT is declared by the applicant.	

3. Applied Standards

According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

Test standards:

FCC CFR47 Part 15C (2024) Radio Frequency Devices

ANSI C63.10-2020

Reference standard:

KDB 558074 D01 15.247 Meas Guidance v05r02

KDB 662911 D01 Multiple Transmitter Output v02r01

4. Test Configuration

Test Mode

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

The radiated emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in lie-down position (Z axis) and the loop antenna is vertical, the others are vertical and horizontal. and the worst case was recorded.

In order to find the worst case condition, Pre-tests are needed at the presence of different data rate. Preliminary tests have been done on all the configuration for confirming worst case. Data rate below means worst-case rate of each test item.

Worst-case data rates are shown as following table.

Test Mode	Data Rate	
	SISO Antenna 1	SISO Antenna 2
802.11b	1 Mbps	1 Mbps
802.11g	6 Mbps	6 Mbps
Test Mode	Data Rate	
	MIMO	Beamforming
802.11n HT20	MCS8	MCS8
802.11n HT40	MCS8	MCS8
802.11ax HE20	MCS0	MCS0
802.11ax HE40	MCS0	MCS0

The worst case Antenna mode for each of the following tests for Wi-Fi:

SU Mode

Test Cases	SISO	
	Antenna 1	Antenna 2
Maximum output power	802.11b/g	802.11b/g
6dB Bandwidth	--	802.11b/g
Band Edge	--	802.11b/g
Power Spectral Density	802.11b/g	802.11b/g
Spurious RF Conducted Emissions	--	802.11b/g
Unwanted Emissions	--	802.11b/g
Conducted Emission	--	--
Note: Only the worst data was recorded in this report.		

Test Cases	MIMO	Beamforming
Maximum output power	802.11n HT20/ HT40 802.11ax HE20/ HE40	802.11n HT20/ HT40 802.11ax HE20/ HE40
6dB Bandwidth	802.11n HT20/ HT40 802.11ax HE20/ HE40	--
Band Edge	802.11n HT20/ HT40 802.11ax HE20/ HE40	--
Power Spectral Density	802.11n HT20/ HT40 802.11ax HE20/ HE40	802.11n HT20/ HT40 802.11ax HE20/ HE40
Spurious RF Conducted Emissions	802.11n HT20/ HT40 802.11ax HE20/ HE40	--
Unwanted Emissions	802.11n HT20/ HT40 802.11ax HE20/ HE40	--
Conducted Emission	802.11n HT20/ HT40 802.11ax HE20/ HE40	--
Note: Only the worst data was recorded in this report.		

RU Mode

Test Cases	MIMO	Beamforming
Maximum output power	802.11ax HE20/ HE40	802.11ax HE20/ HE40
6dB Bandwidth	802.11ax HE20/ HE40	--
Band Edge	802.11ax HE20/ HE40	--
Power Spectral Density	802.11ax HE20/ HE40	802.11ax HE20/ HE40
Spurious RF Conducted Emissions	802.11ax HE20/ HE40	--
Unwanted Emissions	802.11ax HE20/ HE40	--
Conducted Emission	802.11ax HE20/ HE40	--
Note: Only the worst data was recorded in this report.		

5. Test Case Results

5.1. Maximum output power

Ambient Condition

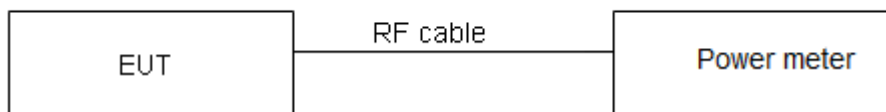
Temperature	Relative humidity
15°C ~ 35°C	20% ~ 80%

Methods of Measurement

During the process of the testing, The EUT was connected to Power meter with a known loss. The EUT is max power transmission with proper modulation.

The conducted Power is measured at each antenna port. The measured results at the various antenna ports are then summed mathematically.

Test Setup



Limits

Rule Part 15.247 (b) (3) specifies that " For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz: 1 Watt."

Average Output Power	$\leq 1\text{W (30dBm)}$
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Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 0.44$ dB.

Test Results

SU Mode

Test Mode	Carrier frequency (MHz)/CH	SISO Power Index	
		Antenna 1	Antenna 2
802.11b	2412/CH 1	24	24
	2437/CH 6	24	24
	2462/CH11	23	23
802.11g	2412/CH 1	21	21
	2417/CH 2	25	25
	2437/CH 6	28	28
	2457/CH 10	25	25
	2462/CH11	21	21

Test Mode	Carrier frequency (MHz)/CH	MIMO Power Index	
		Antenna 1	Antenna 2
802.11n HT20	2412/CH 1	17	17
	2417/CH 2	21	21
	2422/CH 3	23	23
	2437/CH 6	24	24
	2452/CH 9	23	23
	2457/CH 10	20	20
	2462/CH11	17	17
802.11n HT40	2422/CH3	16	16
	2427/CH4	16	16
	2432/CH5	16	16
	2437/CH6	19	19
	2442/CH7	16	16
	2447/CH8	15	15
	2452/CH9	15	15
802.11ax HE20	2412/CH 1	18	18
	2417/CH 2	21	21
	2422/CH 3	22	22
	2427/CH 4	24	24
	2437/CH 6	25	25
	2447/CH 8	23	23
	2452/CH 9	22	22
	2457/CH 10	18	18
	2462/CH11	17	17
802.1ax HE40	2422/CH3	15	15

	2427/CH4	15	15
	2432/CH5	16	16
	2437/CH6	18	18
	2442/CH7	16	16
	2447/CH8	15	15
	2452/CH9	15	15

Test Mode	Carrier frequency (MHz)/CH	Beamforming Power Index	
		Antenna 1	Antenna 2
802.11n HT20	2412/CH 1	17	17
	2417/CH 2	21	21
	2422/CH 3	23	23
	2437/CH 6	24	24
	2452/CH 9	23	23
	2457/CH 10	20	20
	2462/CH11	17	17
802.11n HT40	2422/CH3	16	16
	2427/CH4	16	16
	2432/CH5	16	16
	2437/CH6	19	19
	2442/CH7	16	16
	2447/CH8	15	15
	2452/CH9	15	15
802.11ax HE20	2412/CH 1	18	18
	2417/CH 2	21	21
	2422/CH 3	22	22
	2427/CH 4	24	24
	2437/CH 6	23	23
	2447/CH 8	23	23
	2452/CH 9	22	22
	2457/CH 10	18	18
	2462/CH11	17	17
802.1ax HE40	2422/CH3	15	15
	2427/CH4	15	15
	2432/CH5	16	16
	2437/CH6	18	18
	2442/CH7	16	16
	2447/CH8	15	15
	2452/CH9	15	15

Test Mode	Duty cycle	Duty cycle correction Factor (dB)
802.11b	1.00	0.00
802.11g	1.00	0.00
802.11n HT20	1.00	0.00
802.11n HT40	1.00	0.00
802.11ax HE20	1.00	0.00
802.11ax HE40	1.00	0.00
Note: when Duty cycle ≥ 0.98 , Duty cycle correction Factor not required.		

SISO
Antenna 1

Test Mode	Carrier frequency (MHz)/ Channel	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11b	2412/CH1	25.21	25.21	30	PASS
	2437/CH6	25.36	25.36	30	PASS
	2462/CH11	24.19	24.19	30	PASS
802.11g	2412/CH1	21.50	21.50	30	PASS
	2417/CH2	26.50	26.50	30	PASS
	2437/CH6	26.70	26.70	30	PASS
	2457/CH10	26.16	26.16	30	PASS
	2462/CH11	21.60	21.60	30	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor.					

Antenna 2

Test Mode	Carrier frequency (MHz)/ Channel	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11b	2412/CH1	25.08	25.08	30	PASS
	2437/CH6	25.23	25.23	30	PASS
	2462/CH11	24.25	24.25	30	PASS
802.11g	2412/CH1	21.29	21.29	30	PASS
	2417/CH2	26.48	26.48	30	PASS
	2437/CH6	26.79	26.79	30	PASS
	2457/CH10	26.41	26.41	30	PASS
	2462/CH11	21.57	21.57	30	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor.					

MIMO

Test Mode	Carrier frequency (MHz) / Channel	MIMO Antenna 1		MIMO Antenna 2		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11n HT20	2412/CH 1	17.29	17.29	17.19	17.19	20.25	30	PASS
	2417/CH 2	22.58	22.58	23.38	23.38	26.01	30	PASS
	2422/CH 3	24.49	24.49	24.39	24.39	27.45	30	PASS
	2437/CH 6	25.51	25.51	25.66	25.66	28.60	30	PASS
	2452/CH 9	24.53	24.53	24.52	24.52	27.54	30	PASS
	2457/CH 10	20.48	20.48	20.40	20.40	23.45	30	PASS
	2462/CH11	17.34	17.34	17.34	17.34	20.35	30	PASS
802.11n HT40	2422/CH3	17.04	17.04	16.64	16.64	19.86	30	PASS
	2427/CH4	16.93	16.93	16.68	16.68	19.82	30	PASS
	2432/CH5	16.90	16.90	16.71	16.71	19.82	30	PASS
	2437/CH6	19.91	19.91	19.67	19.67	22.81	30	PASS
	2442/CH7	16.90	16.90	16.82	16.82	19.87	30	PASS
	2447/CH8	15.86	15.86	15.85	15.85	18.86	30	PASS
	2452/CH9	15.90	15.90	15.79	15.79	18.85	30	PASS
802.11ax HE20	2412/CH 1	18.44	18.44	17.81	17.81	21.14	30	PASS
	2417/CH 2	21.55	21.55	21.61	21.61	24.59	30	PASS
	2422/CH 3	22.71	22.71	23.50	23.50	26.13	30	PASS
	2427/CH 4	25.63	25.63	25.51	25.51	28.58	30	PASS
	2437/CH 6	26.87	26.87	26.55	26.55	29.72	30	PASS
	2447/CH 8	24.67	24.67	24.34	24.34	27.52	30	PASS
	2452/CH 9	23.69	23.69	23.24	23.24	26.48	30	PASS
	2457/CH 10	18.50	18.50	18.48	18.48	21.50	30	PASS
	2462/CH11	17.41	17.41	17.43	17.43	20.43	30	PASS
802.11ax HE40	2422/CH3	15.66	15.66	15.40	15.40	18.54	30	PASS
	2427/CH4	15.70	15.70	15.29	15.29	18.51	30	PASS
	2432/CH5	16.72	16.72	16.35	16.35	19.55	30	PASS
	2437/CH6	18.66	18.66	18.41	18.41	21.55	30	PASS
	2442/CH7	16.63	16.63	16.46	16.46	19.56	30	PASS
	2447/CH8	15.61	15.61	15.46	15.46	18.55	30	PASS
	2452/CH9	15.53	15.53	15.47	15.47	18.51	30	PASS

Note: 1.Average Power with duty factor = Average Power Measured +Duty cycle correction factor

2. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power = $10\log(10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)})$.

3. According to KDB 662911 D01 Multiple Transmitter Output v02r01 F)2) (ii): If all transmit signals are completely uncorrelated with each other, Directional gain = 5dBi<6dBi. So the power limit is 30.00 dBm.

Beamforming

Test Mode	Carrier frequency (MHz) / Channel	Beamforming Antenna 1		Beamforming Antenna 2		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11n HT20	2412/CH 1	17.29	17.29	17.19	17.19	20.25	27.99	PASS
	2417/CH 2	22.58	22.58	23.38	23.38	26.01	27.99	PASS
	2422/CH 3	24.49	24.49	24.39	24.39	27.45	27.99	PASS
	2437/CH 6	24.23	24.23	24.28	24.28	27.26	27.99	PASS
	2452/CH 9	24.53	24.53	24.52	24.52	27.54	27.99	PASS
	2457/CH 10	20.48	20.48	20.40	20.40	23.45	27.99	PASS
	2462/CH11	17.34	17.34	17.34	17.34	20.35	27.99	PASS
802.11n HT40	2422/CH3	17.04	17.04	16.64	16.64	19.86	27.99	PASS
	2427/CH4	16.93	16.93	16.68	16.68	19.82	27.99	PASS
	2432/CH5	16.90	16.90	16.71	16.71	19.82	27.99	PASS
	2437/CH6	19.91	19.91	19.67	19.67	22.81	27.99	PASS
	2442/CH7	16.90	16.90	16.82	16.82	19.87	27.99	PASS
	2447/CH8	15.86	15.86	15.85	15.85	18.86	27.99	PASS
	2452/CH9	15.90	15.90	15.79	15.79	18.85	27.99	PASS
802.11ax HE20	2412/CH 1	18.44	18.44	17.81	17.81	21.14	27.99	PASS
	2417/CH 2	21.55	21.55	21.61	21.61	24.59	27.99	PASS
	2422/CH 3	22.71	22.71	23.50	23.50	26.13	27.99	PASS
	2427/CH 4	24.38	24.38	24.29	24.29	27.34	27.99	PASS
	2437/CH 6	24.23	24.23	24.38	24.38	27.31	27.99	PASS
	2447/CH 8	24.67	24.67	24.34	24.34	27.52	27.99	PASS
	2452/CH 9	23.69	23.69	23.24	23.24	26.48	27.99	PASS
	2457/CH 10	18.50	18.50	18.48	18.48	21.50	27.99	PASS
	2462/CH11	17.41	17.41	17.43	17.43	20.43	27.99	PASS
802.11ax HE40	2422/CH3	15.66	15.66	15.40	15.40	18.54	27.99	PASS
	2427/CH4	15.70	15.70	15.29	15.29	18.51	27.99	PASS
	2432/CH5	16.72	16.72	16.35	16.35	19.55	27.99	PASS
	2437/CH6	18.66	18.66	18.41	18.41	21.55	27.99	PASS
	2442/CH7	16.63	16.63	16.46	16.46	19.56	27.99	PASS
	2447/CH8	15.61	15.61	15.46	15.46	18.55	27.99	PASS
	2452/CH9	15.53	15.53	15.47	15.47	18.51	27.99	PASS

Note: 1.Average Power with duty factor = Average Power Measured +Duty cycle correction factor

2. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power = $10\log(10^{(\text{Power antenna1 in dBm}/10)} + 10^{(\text{Power antenna2 in dBm}/10)})$.

3. According to KDB 662911 D01 Multiple Transmitter Output v02r01 F)2) (i): If all transmit signals are correlated with each other, Directional gain = $G_{\text{ANT}} + 10 \log(N_{\text{ANT}}) = 5 + 3.01 = 8.01\text{dBi} > 6\text{dBi}$. So the power limit is 27.99dBm.

RU Mode

MIMO Power Index				
Test Mode	Carrier frequency (MHz)/CH	RU Index	Antenna 1	Antenna 2
802.11ax HE20 242-Tones	2412/CH 1	61	16	16
	2417/CH 2	61	19	19
	2422/CH 3	61	23	23
	2427/CH 4	61	24	24
	2437/CH 6	61	25	25
	2442/CH 7	61	24	24
	2447/CH 8	61	23	23
	2452/CH 9	61	22	22
	2457/CH 10	61	18	18
	2462/CH11	61	16	16
802.11ax HE40 484-Tones	2422/CH3	65	16	16
	2427/CH4	65	16	16
	2432/CH5	65	17	17
	2437/CH6	65	19	19
	2442/CH7	65	16	16
	2447/CH8	65	16	16
	2452/CH9	65	16	16

Beamforming Power Index				
Test Mode	Carrier frequency (MHz)/CH	RU Index	Antenna 1	Antenna 2
802.11ax HE20 242-Tones	2412/CH 1	61	16	16
	2417/CH 2	61	19	19
	2422/CH 3	61	23	23
	2427/CH 4	61	23	23
	2437/CH 6	61	23	23
	2442/CH 7	61	23	23
	2447/CH 8	61	23	23
	2452/CH 9	61	22	22
	2457/CH 10	61	18	18
	2462/CH11	61	16	16
802.11ax HE40 484-Tones	2422/CH3	65	16	16
	2427/CH4	65	16	16
	2432/CH5	65	17	17
	2437/CH6	65	19	19
	2442/CH7	65	16	16
	2447/CH8	65	16	16
	2452/CH9	65	16	16

Test Mode	Duty cycle	Duty cycle correction Factor (dB)
802.11ax HE20 242-Tones:RU Index 61	0.954	0.20
802.11ax HE40 484-Tones:RU Index 65	0.953	0.21
Note: when Duty cycle ≥ 0.98 , Duty cycle correction Factor not required.		

MIMO

Test Mode	Carrier frequency (MHz) / Channel	RU Index	MIMO Antenna 1		MIMO Antenna 2		Total Power (dBm)	Limit (dBm)	Conclusion
			Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11ax HE20 242-Tones	2412/CH 1	61	16.44	16.64	15.76	15.96	19.32	30	PASS
	2417/CH 2	61	19.37	19.57	18.76	18.96	22.28	30	PASS
	2422/CH 3	61	24.43	24.63	23.89	24.09	27.38	30	PASS
	2427/CH 4	61	25.60	25.80	24.94	25.14	28.49	30	PASS
	2437/CH 6	61	25.99	26.19	26.11	26.31	29.26	30	PASS
	2442/CH 7	61	25.47	25.67	25.21	25.41	28.55	30	PASS
	2447/CH 8	61	24.07	24.27	23.68	23.88	27.09	30	PASS
	2452/CH 9	61	22.79	22.99	22.97	23.17	26.09	30	PASS
	2457/CH 10	61	18.16	18.36	17.53	17.73	21.07	30	PASS
	2462/CH11	61	16.16	16.36	15.54	15.74	19.07	30	PASS
802.11ax HE40 484-Tones	2422/CH3	65	16.22	16.43	15.75	15.96	19.21	30	PASS
	2427/CH4	65	16.06	16.27	15.94	16.15	19.22	30	PASS
	2432/CH5	65	17.02	17.23	16.85	17.06	20.16	30	PASS
	2437/CH6	65	18.76	18.97	18.86	19.07	22.03	30	PASS
	2442/CH7	65	16.12	16.33	15.94	16.15	19.25	30	PASS
	2447/CH8	65	16.01	16.22	15.87	16.08	19.16	30	PASS
	2452/CH9	65	16.21	16.42	16.03	16.24	19.34	30	PASS

Note: 1. Average Power with duty factor = Average Power Measured +Duty cycle correction factor

2. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power = $10\log(10^{(\text{Power antenna1 in dBm}/10)} + 10^{(\text{Power antenna2 in dBm}/10)})$.

3. According to KDB 662911 D01 Multiple Transmitter Output v02r01 F)2) (ii): If all transmit signals are completely uncorrelated with each other, Directional gain = 5dBi<6dBi. So the power limit is 30.00 dBm.

Beamforming

Test Mode	Carrier frequency (MHz) / Channel	RU Index	Beamforming Antenna 1		Beamforming Antenna 2		Total Power (dBm)	Limit (dBm)	Conclusion
			Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11ax HE20 242-Tones	2412/CH 1	61	16.44	16.64	15.76	15.96	19.32	27.99	PASS
	2417/CH 2	61	19.37	19.57	18.76	18.96	22.28	27.99	PASS
	2422/CH 3	61	24.43	24.63	23.89	24.09	27.38	27.99	PASS
	2427/CH 4	61	23.91	24.11	23.94	24.14	27.13	27.99	PASS
	2437/CH 6	61	24.02	24.22	24.11	24.31	27.27	27.99	PASS
	2442/CH 7	61	24.23	24.43	23.96	24.16	27.31	27.99	PASS
	2447/CH 8	61	24.07	24.27	23.68	23.88	27.09	27.99	PASS
	2452/CH 9	61	22.79	22.99	22.97	23.17	26.09	27.99	PASS
	2457/CH 10	61	18.16	18.36	17.53	17.73	21.07	27.99	PASS
	2462/CH11	61	16.16	16.36	15.54	15.74	19.07	27.99	PASS
802.11ax HE40 484-Tones	2422/CH3	65	16.22	16.43	15.75	15.96	19.21	27.99	PASS
	2427/CH4	65	16.06	16.27	15.94	16.15	19.22	27.99	PASS
	2432/CH5	65	17.02	17.23	16.85	17.06	20.16	27.99	PASS
	2437/CH6	65	18.76	18.97	18.86	19.07	22.03	27.99	PASS
	2442/CH7	65	16.12	16.33	15.94	16.15	19.25	27.99	PASS
	2447/CH8	65	16.01	16.22	15.87	16.08	19.16	27.99	PASS
	2452/CH9	65	16.21	16.42	16.03	16.24	19.34	27.99	PASS

Note: 1. Average Power with duty factor = Average Power Measured +Duty cycle correction factor

2. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power = $10\log(10^{(\text{Power antenna1 in dBm}/10)} + 10^{(\text{Power antenna2 in dBm}/10)})$.

3. According to KDB 662911 D01 Multiple Transmitter Output v02r01 F)2) (i): If all transmit signals are correlated with each other, Directional gain = $G_{\text{ANT}} + 10 \log(N_{\text{ANT}}) = 5 + 3.01 = 8.01 \text{ dBi} > 6 \text{ dBi}$. So the power limit is 27.99dBm

5.2. 99% Bandwidth and 6dB Bandwidth

Ambient Condition

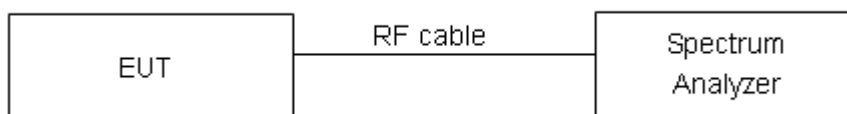
Temperature	Relative humidity
15°C ~ 35°C	20% ~ 80%

Method of Measurement

The EUT was connected to the spectrum analyzer through an external attenuator (20dB) and a known loss cable. RBW is set to 100 kHz; VBW is set to 300 kHz on spectrum analyzer.
Detector =Peak, Trace mode=max hold.

The EUT was connected to the spectrum analyzer through a known loss cable. The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the actual occupied / x dB bandwidth and the video bandwidth (VBW) shall not be smaller than three times the RBW value.

Test Setup



Limits

Rule Part 15.247 (a) (2) specifies that “Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.”

minimum 6 dB bandwidth	≥ 500 kHz
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Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 936$ Hz.

SU Mode
Test Results:

Test Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 6 dB bandwidth (MHz)	Limit (kHz)	Conclusion
802.11b	2412	13.026	7.629	500	PASS
802.11b	2437	13.020	7.661	500	PASS
802.11b	2462	12.858	8.159	500	PASS
802.11g	2412	16.212	13.973	500	PASS
802.11g	2417	16.175	14.738	500	PASS
802.11g	2437	19.098	15.043	500	PASS
802.11g	2457	16.221	13.926	500	PASS
802.11g	2462	16.189	13.929	500	PASS
802.11n(HT20)	2412	17.427	13.875	500	PASS
802.11n(HT20)	2417	17.439	16.096	500	PASS
802.11n(HT20)	2422	17.500	14.090	500	PASS
802.11n(HT20)	2437	17.491	15.242	500	PASS
802.11n(HT20)	2452	17.502	13.613	500	PASS
802.11n(HT20)	2457	17.420	13.480	500	PASS
802.11n(HT20)	2462	17.425	11.993	500	PASS
802.11n(HT40)	2422	35.604	32.836	500	PASS
802.11n(HT40)	2427	35.597	28.468	500	PASS
802.11n(HT40)	2432	35.660	30.039	500	PASS
802.11n(HT40)	2437	35.562	33.140	500	PASS
802.11n(HT40)	2442	35.597	33.180	500	PASS
802.11n(HT40)	2447	35.639	31.599	500	PASS
802.11n(HT40)	2452	35.627	28.266	500	PASS
802.11ax (HE20)	2412	18.654	16.371	500	PASS
802.11ax (HE20)	2417	18.714	12.931	500	PASS
802.11ax (HE20)	2422	18.754	15.898	500	PASS
802.11ax (HE20)	2427	18.859	16.721	500	PASS
802.11ax (HE20)	2437	19.258	17.861	500	PASS
802.11ax (HE20)	2447	18.729	16.382	500	PASS
802.11ax (HE20)	2452	18.690	14.944	500	PASS
802.11ax (HE20)	2457	18.681	14.757	500	PASS

802.11ax (HE20)	2462	18.742	11.370	500	PASS
802.11ax (HE40)	2422	37.395	33.912	500	PASS
802.11ax (HE40)	2427	37.190	30.847	500	PASS
802.11ax (HE40)	2432	37.233	32.546	500	PASS
802.11ax (HE40)	2437	37.148	30.659	500	PASS
802.11ax (HE40)	2442	37.200	28.087	500	PASS
802.11ax (HE40)	2447	37.182	31.170	500	PASS
802.11ax (HE40)	2452	37.352	24.447	500	PASS

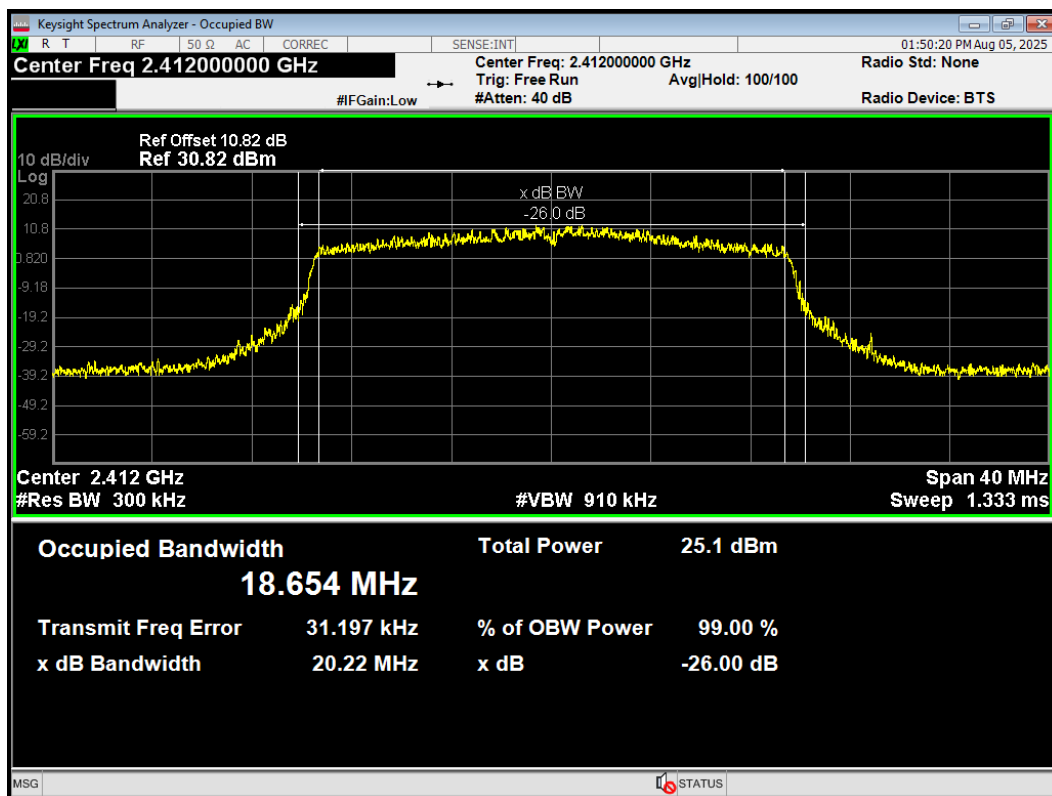
RU Mode

Test Mode	Carrier frequency (MHz)	RU Index	99% bandwidth (MHz)	Minimum 6 dB bandwidth (MHz)	Limit (kHz)	Conclusion
802.11ax HE20 242-Tones	2412	61	18.665	15.583	500	PASS
	2417	61	18.664	14.832	500	PASS
	2422	61	18.748	15.189	500	PASS
	2427	61	18.830	16.881	500	PASS
	2437	61	18.806	17.186	500	PASS
	2442	61	18.819	16.623	500	PASS
	2447	61	18.727	15.236	500	PASS
	2452	61	18.790	14.107	500	PASS
	2457	61	18.674	15.161	500	PASS
	2462	61	18.645	14.603	500	PASS
802.11ax HE40 484-Tones	2422	65	37.160	31.923	500	PASS
	2427	65	37.300	34.521	500	PASS
	2432	65	37.275	32.520	500	PASS
	2437	65	37.295	29.569	500	PASS
	2442	65	37.102	23.353	500	PASS
	2447	65	37.177	31.381	500	PASS
	2452	65	37.190	29.699	500	PASS

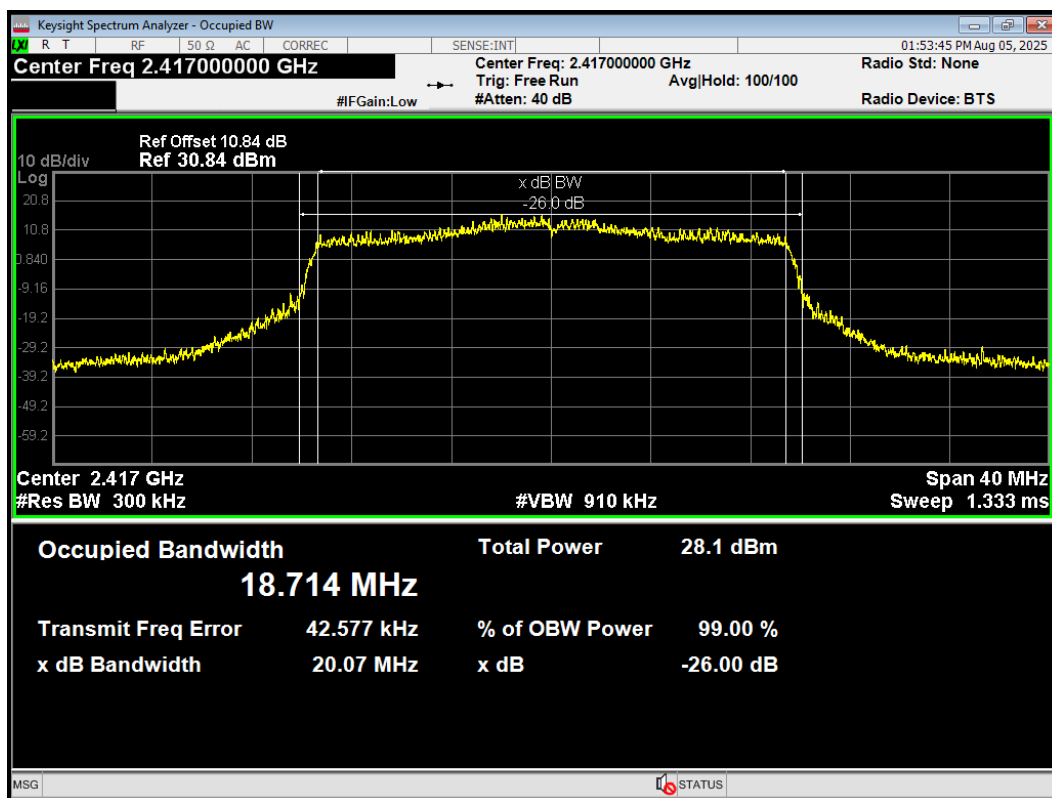
SU Mode

99%bandwidth

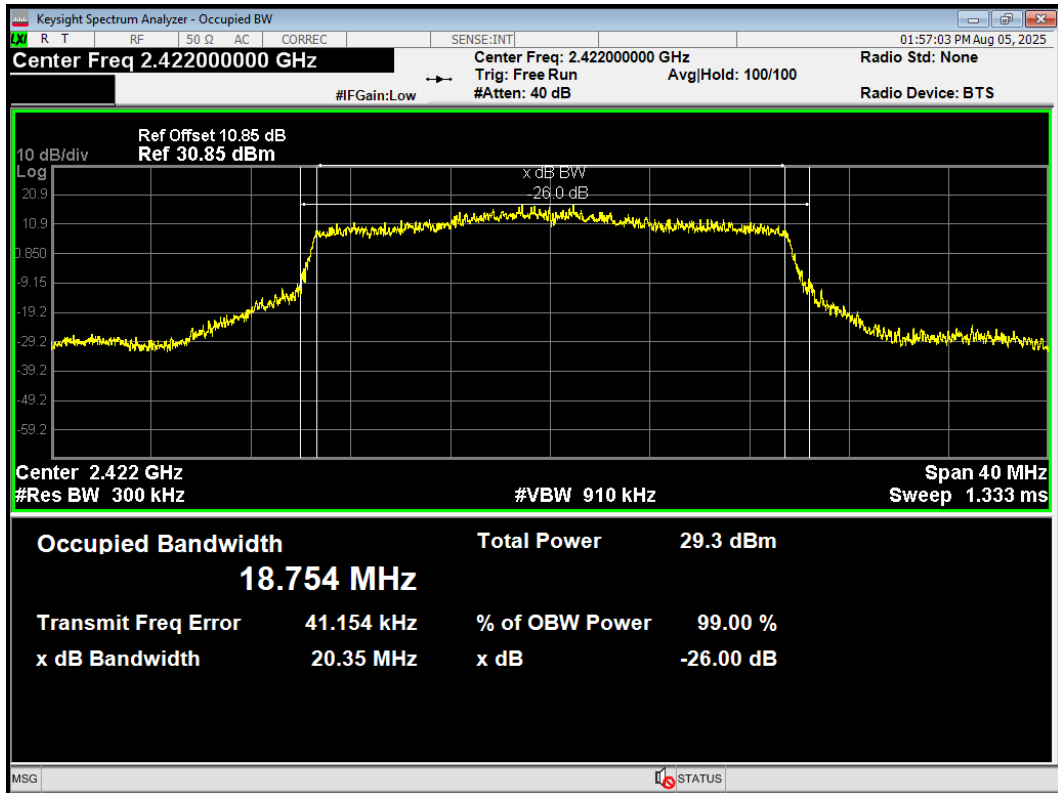
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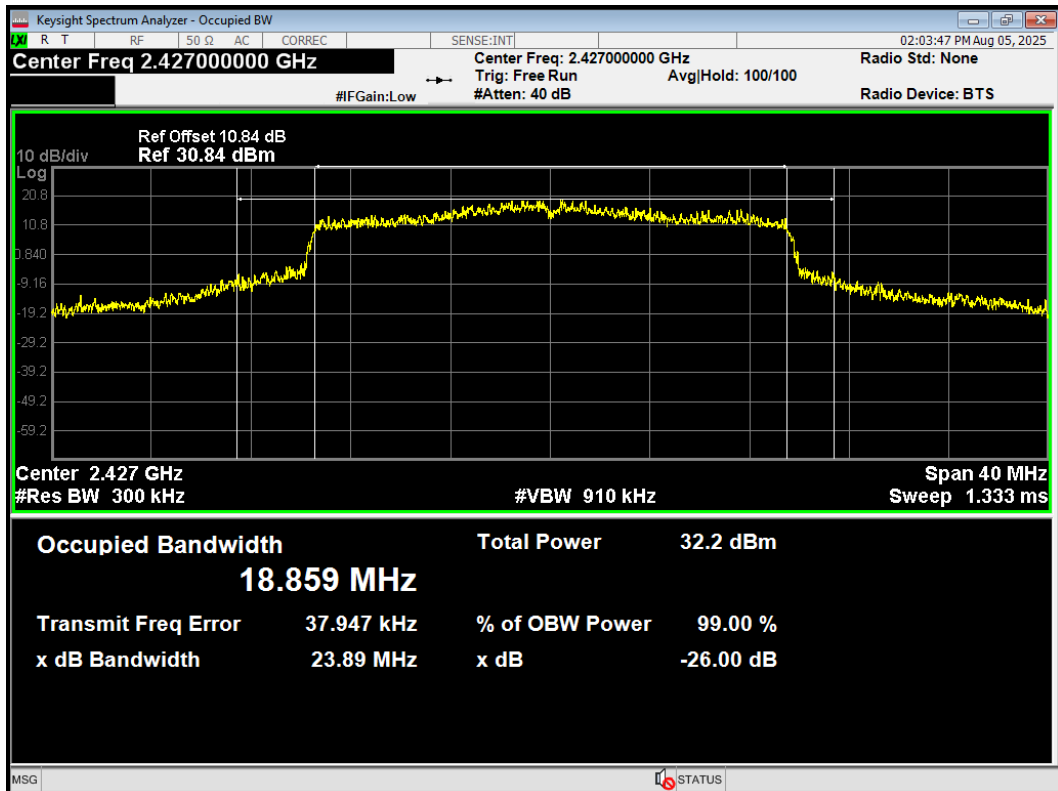
OBW 802.11ax(HE20) 2417MHz



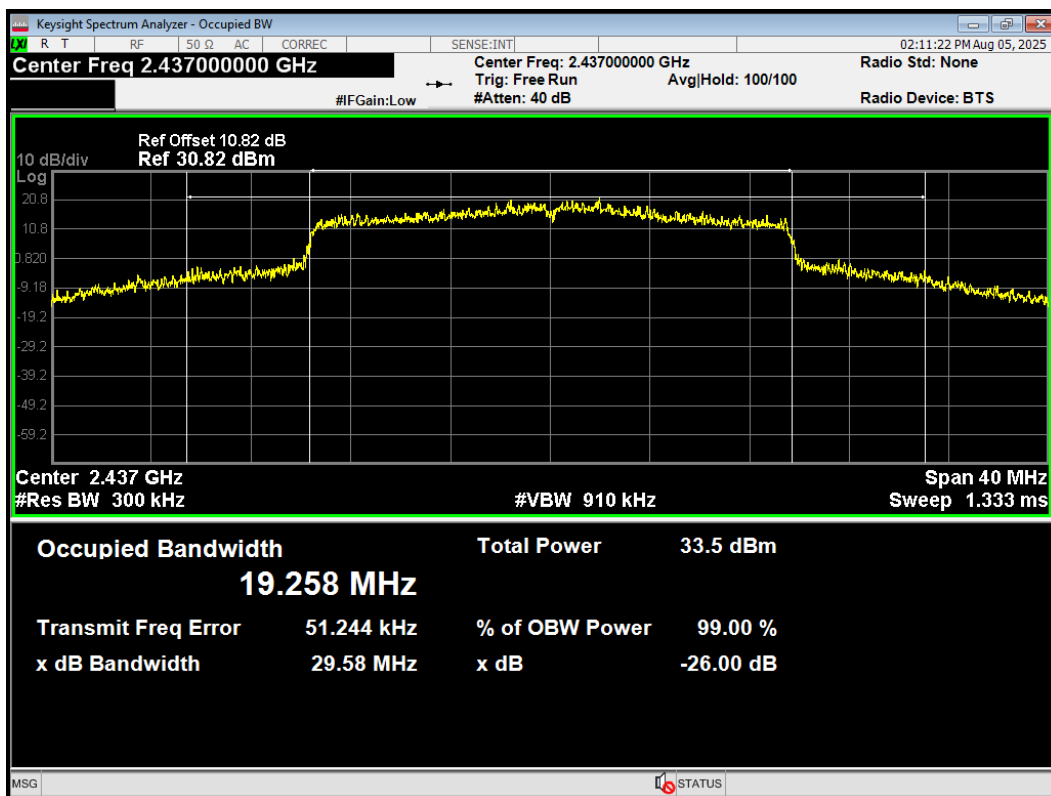
OBW 802.11ax(HE20) 2422MHz



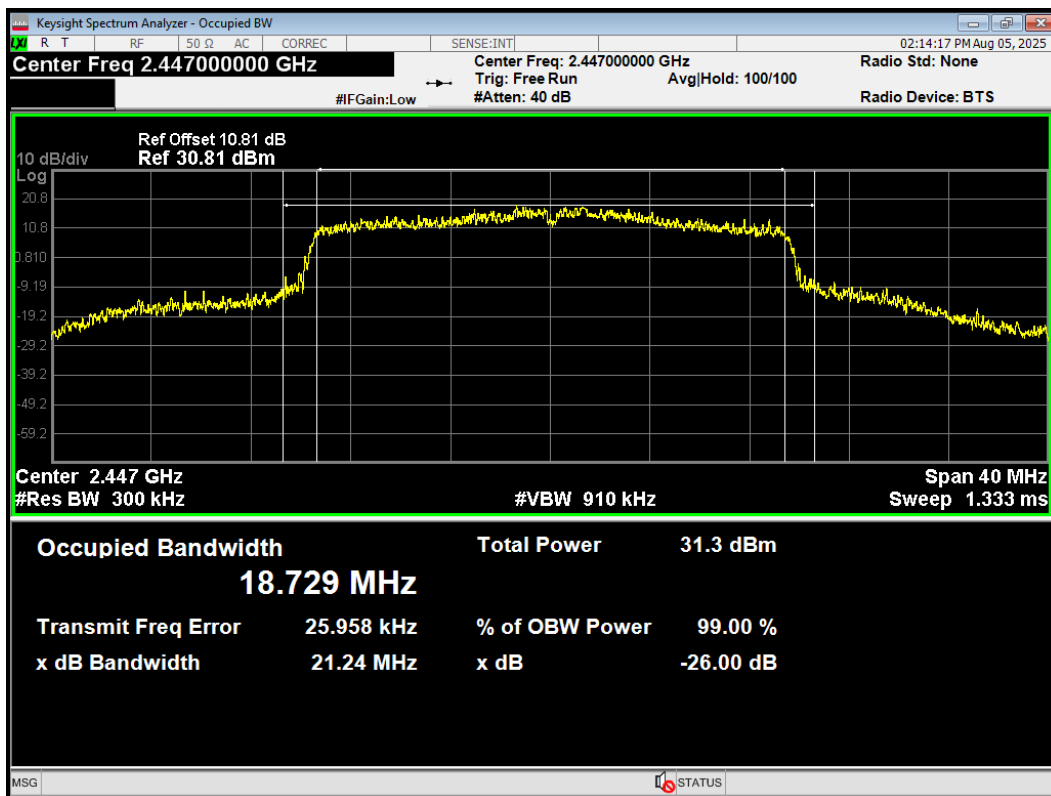
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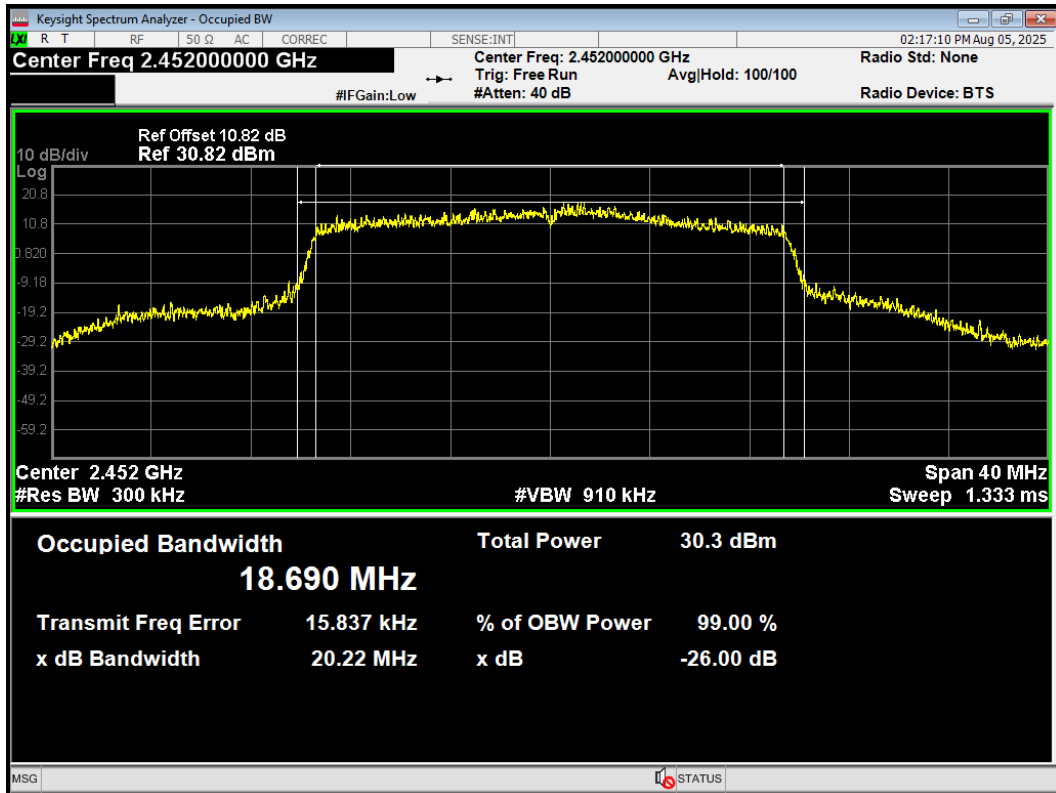
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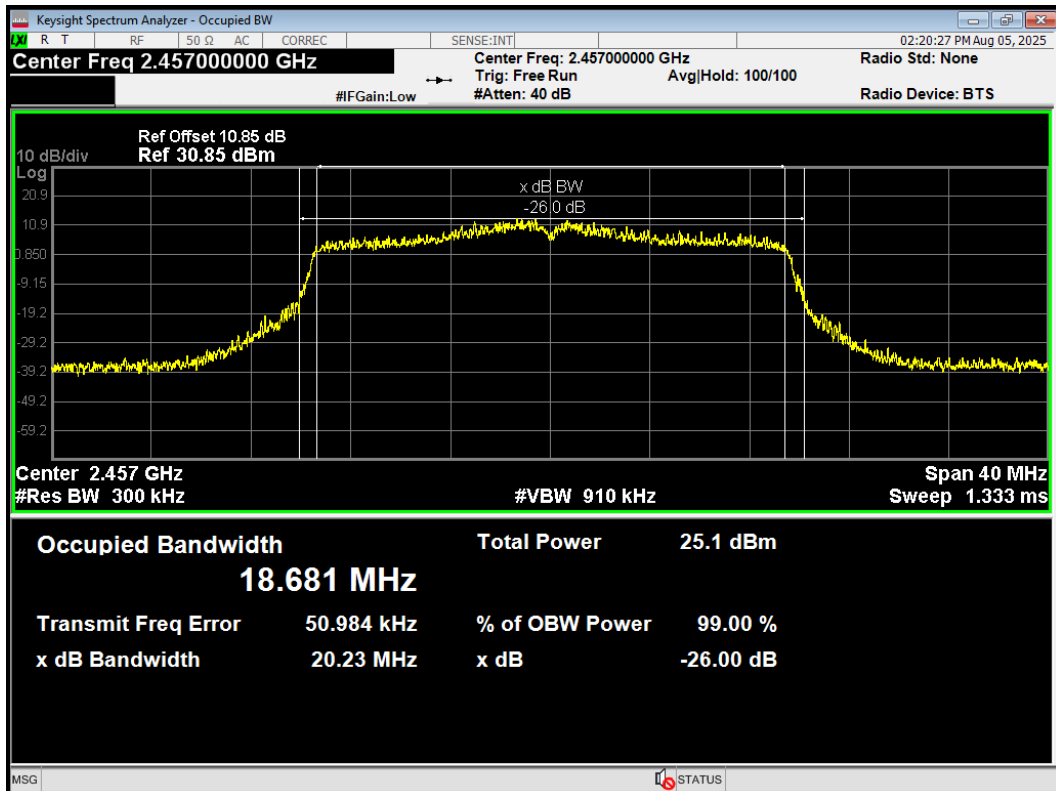
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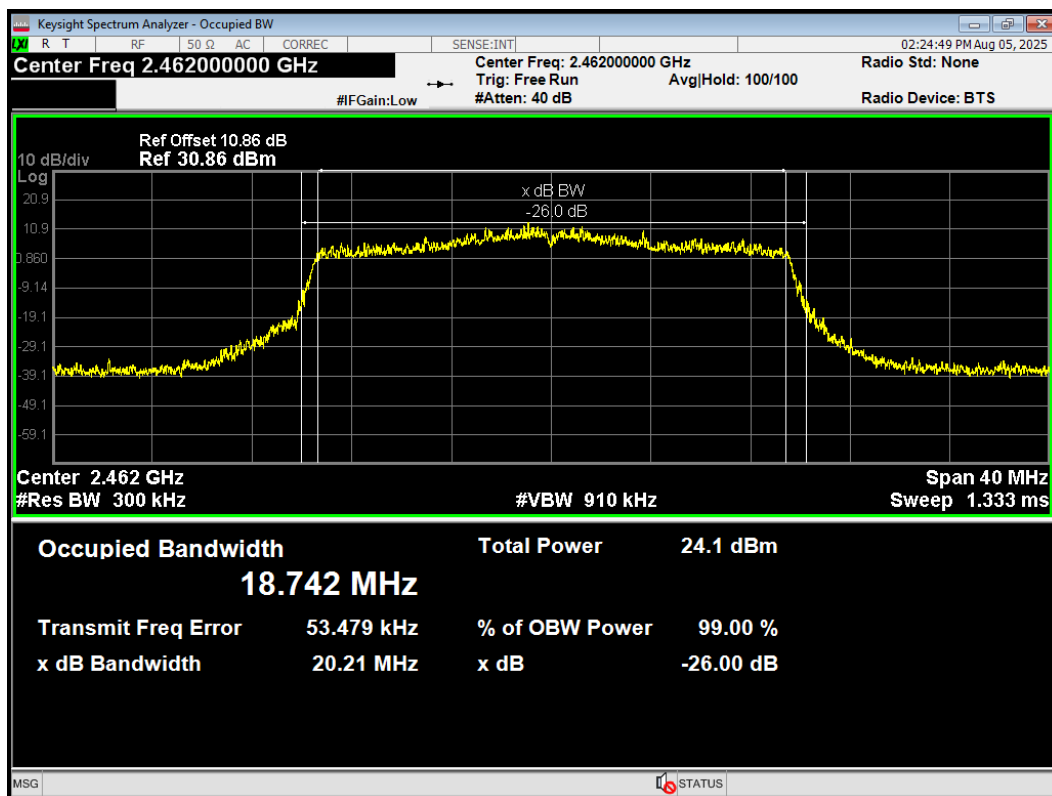
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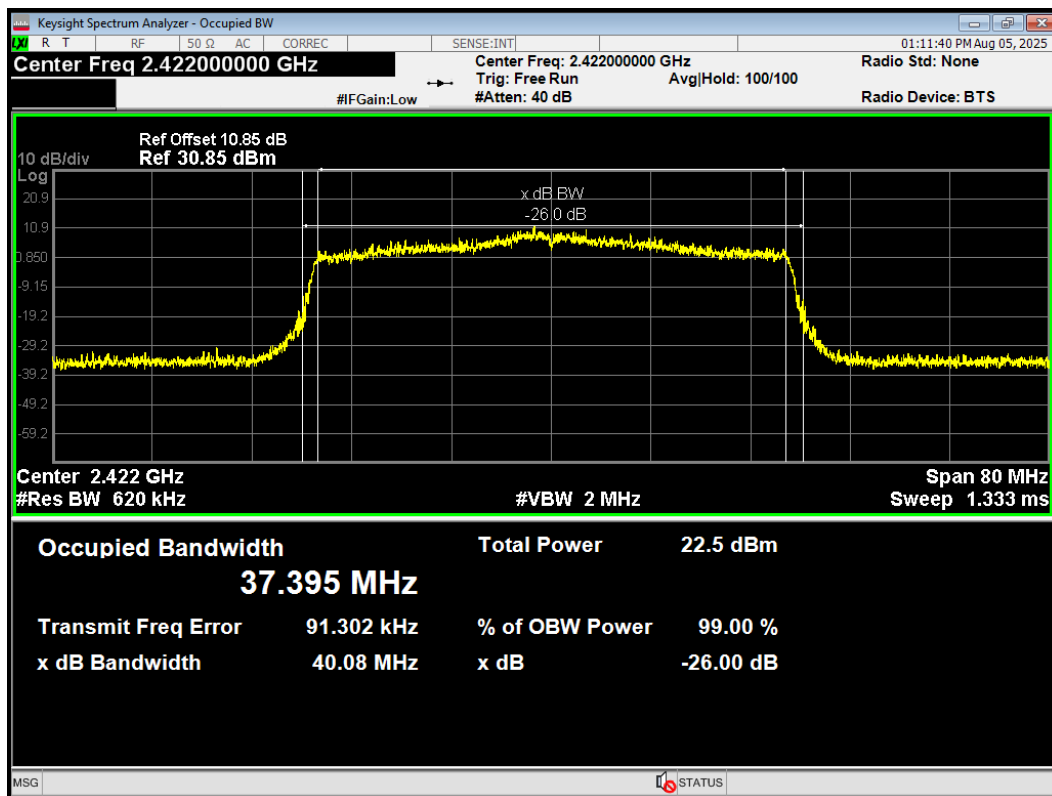
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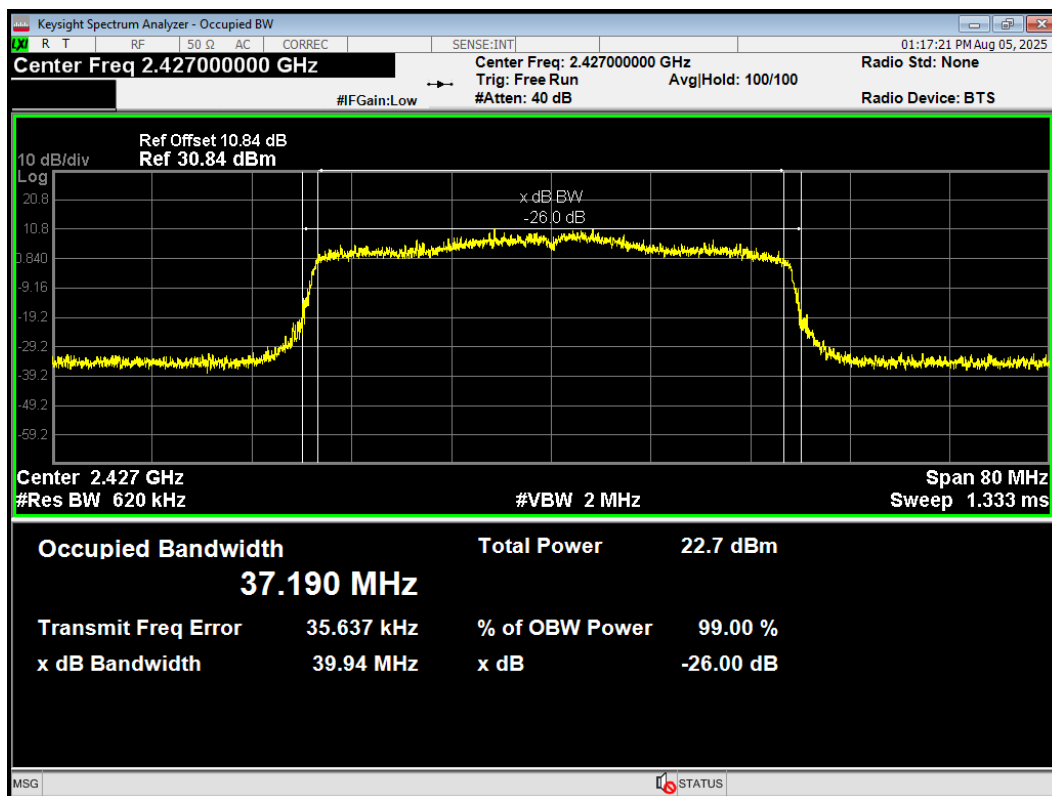
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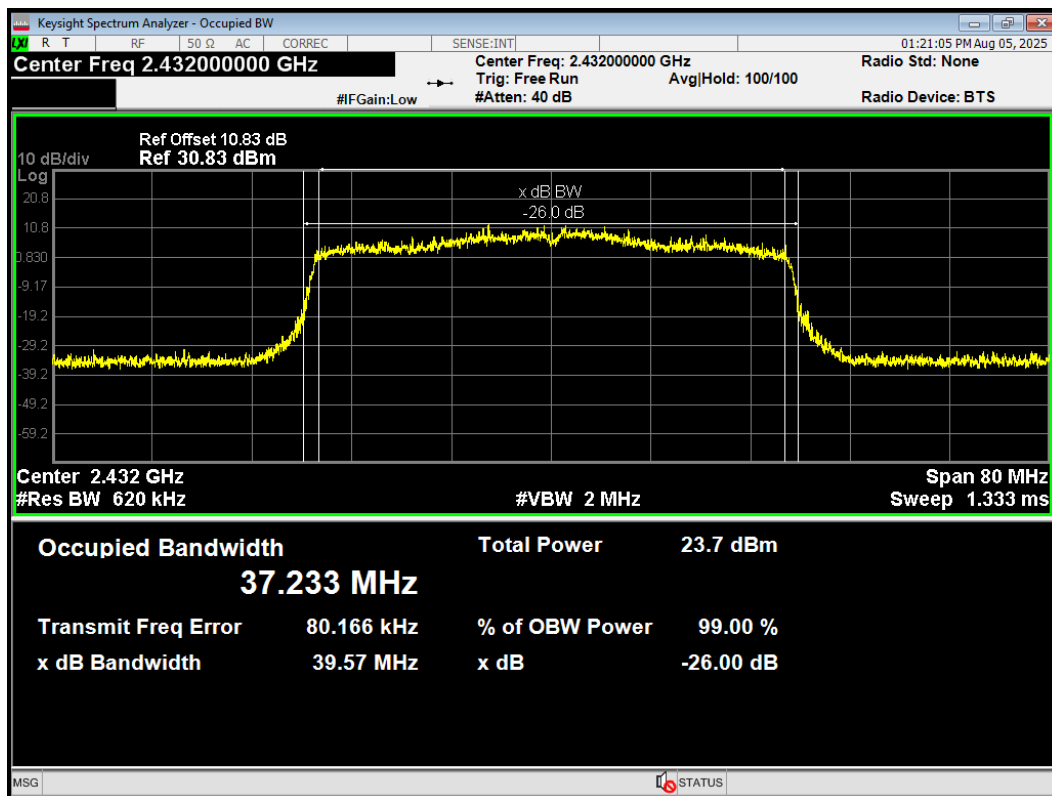
OBW 802.11ax(HE40) 2422MHz



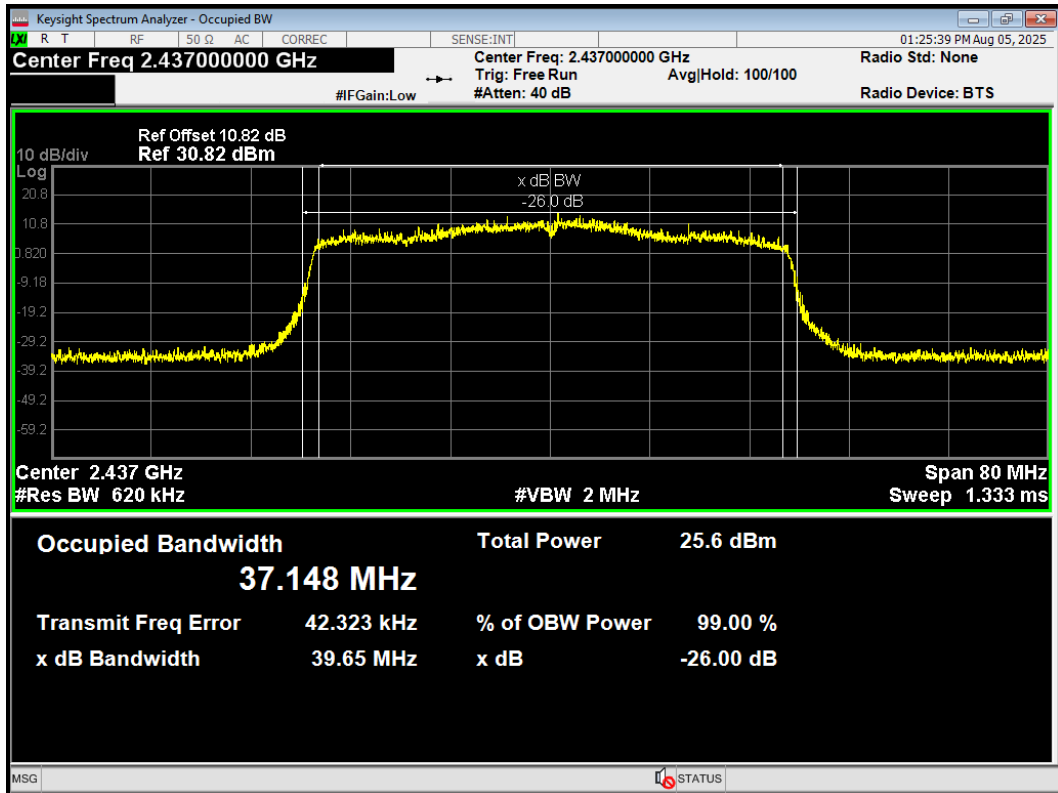
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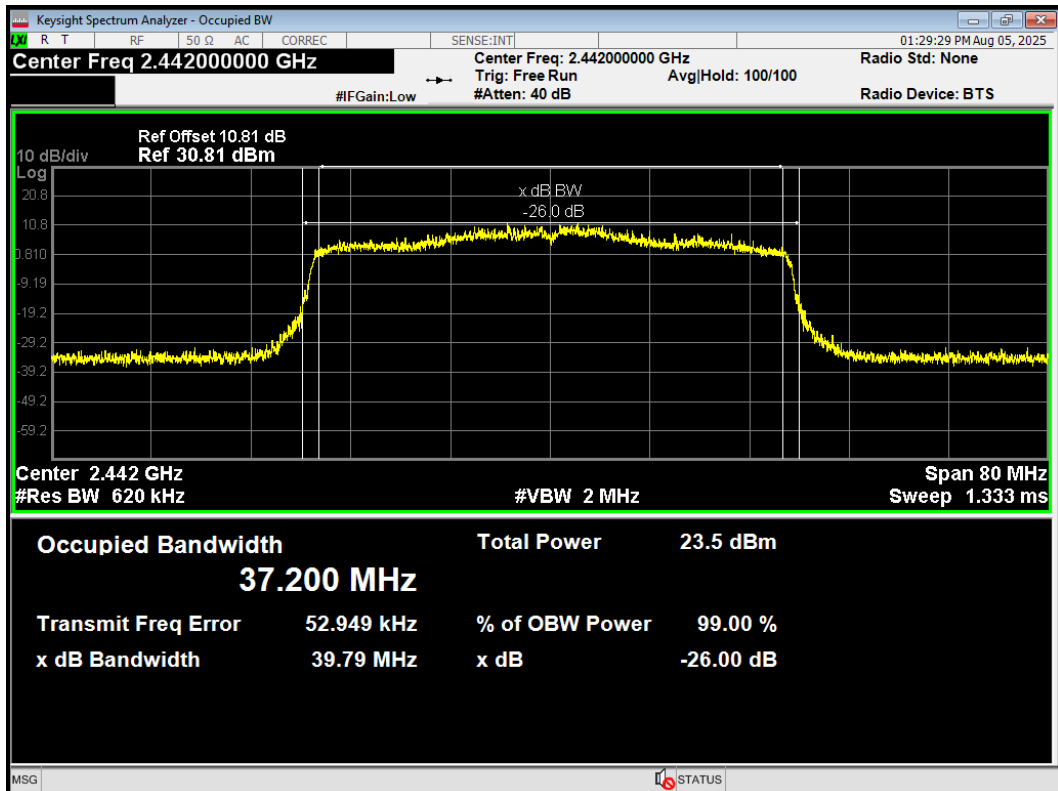
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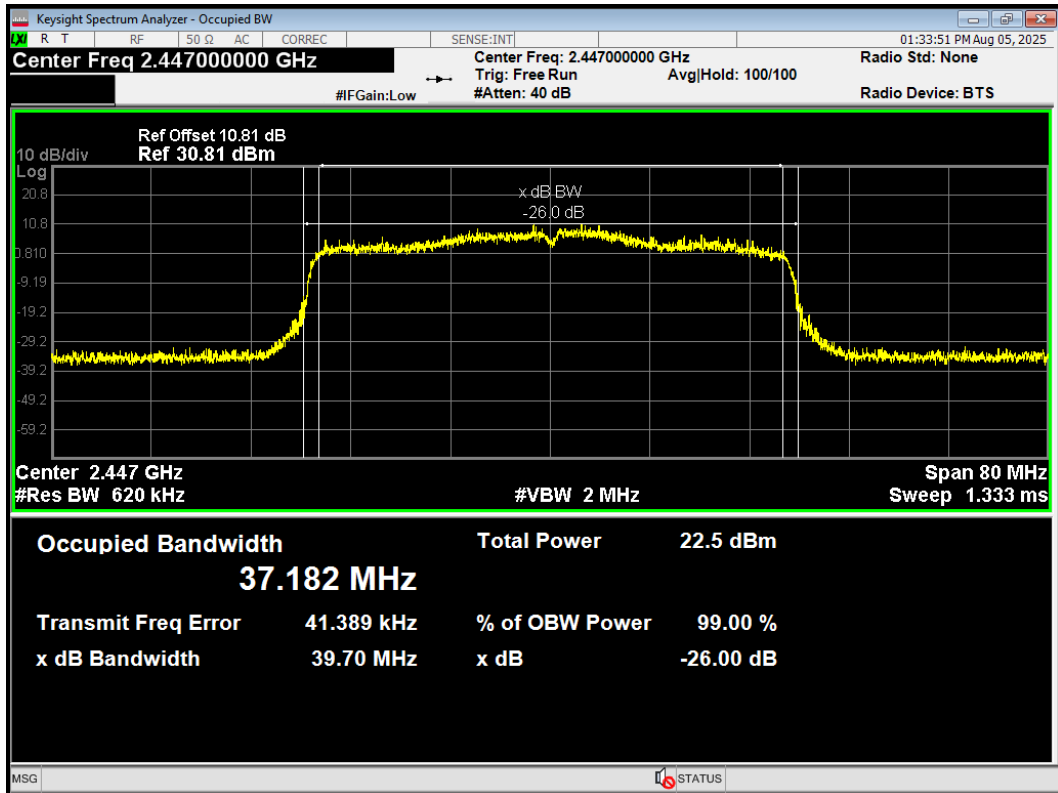
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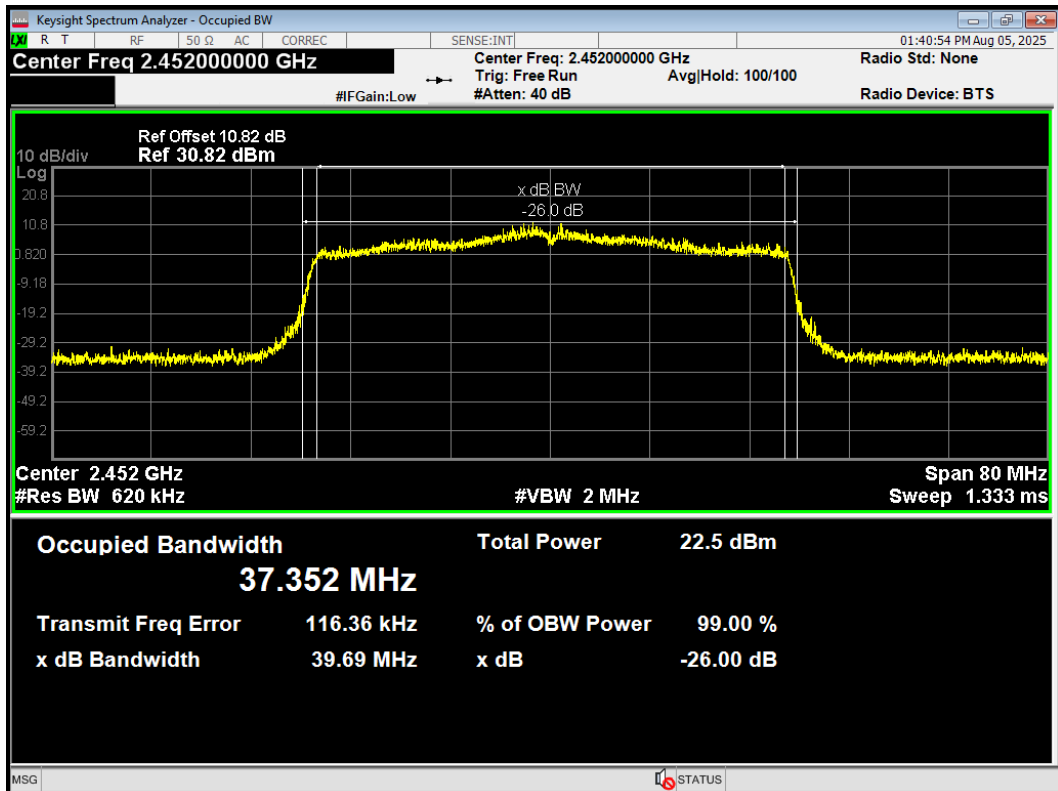
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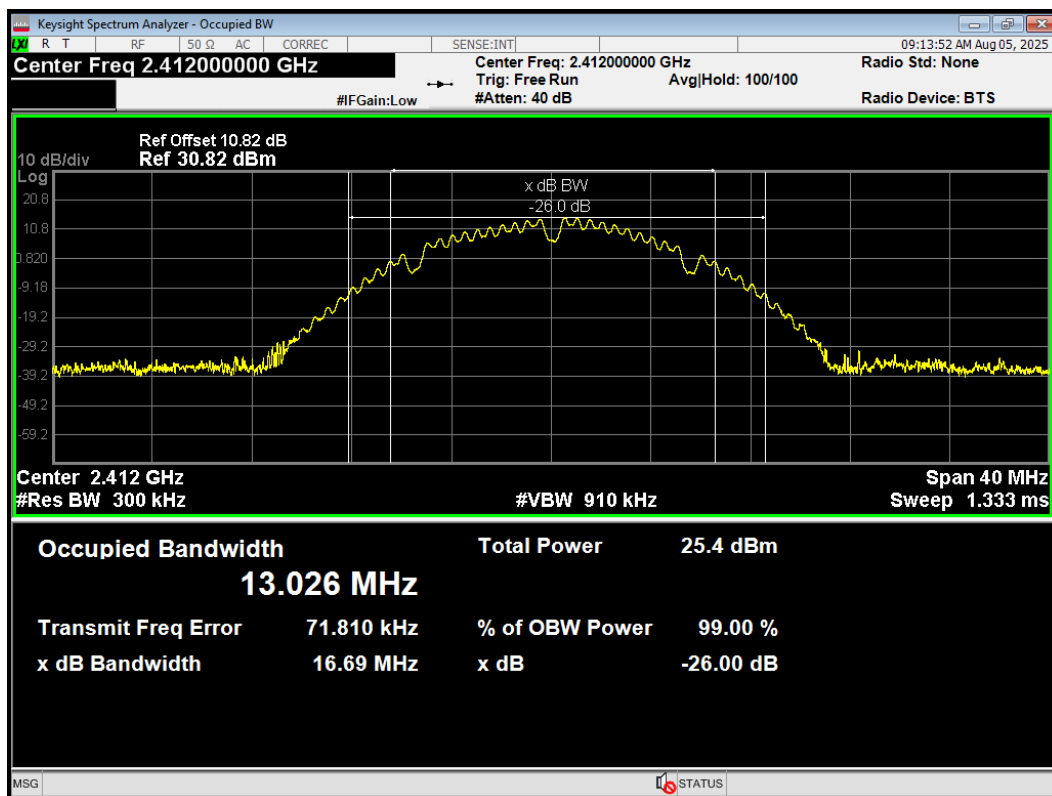
OBW 802.11ax(HE40) 2447MHz



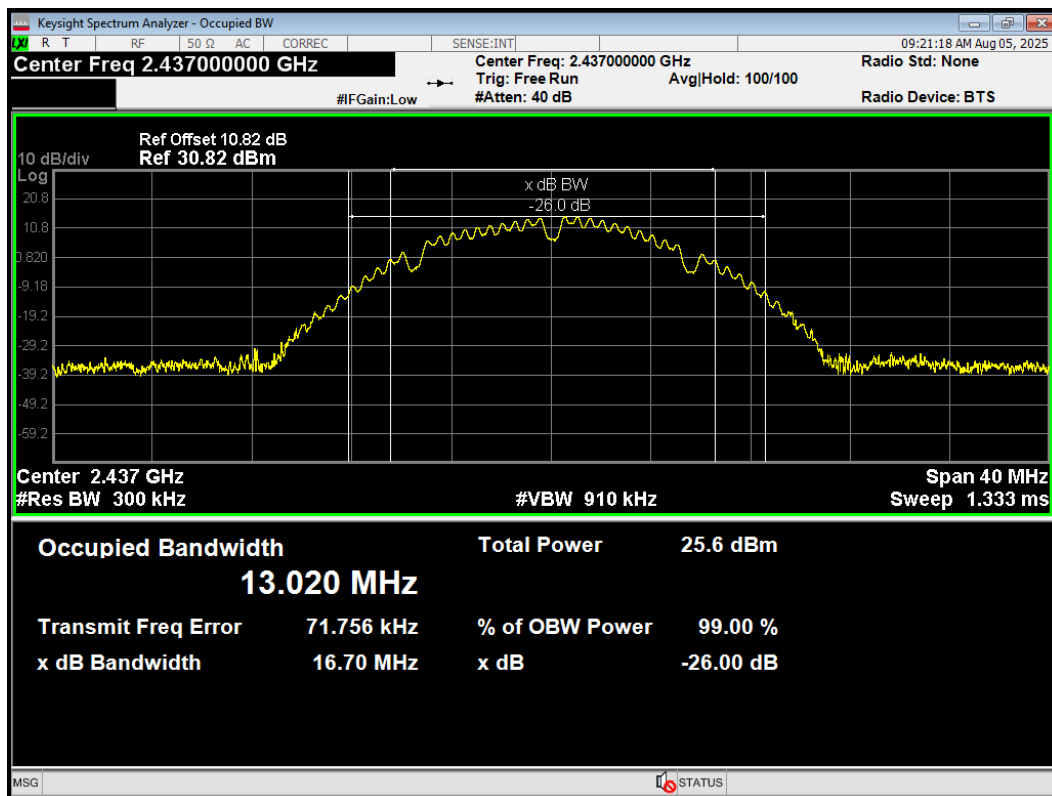
OBW 802.11ax(HE40) 2452MHz



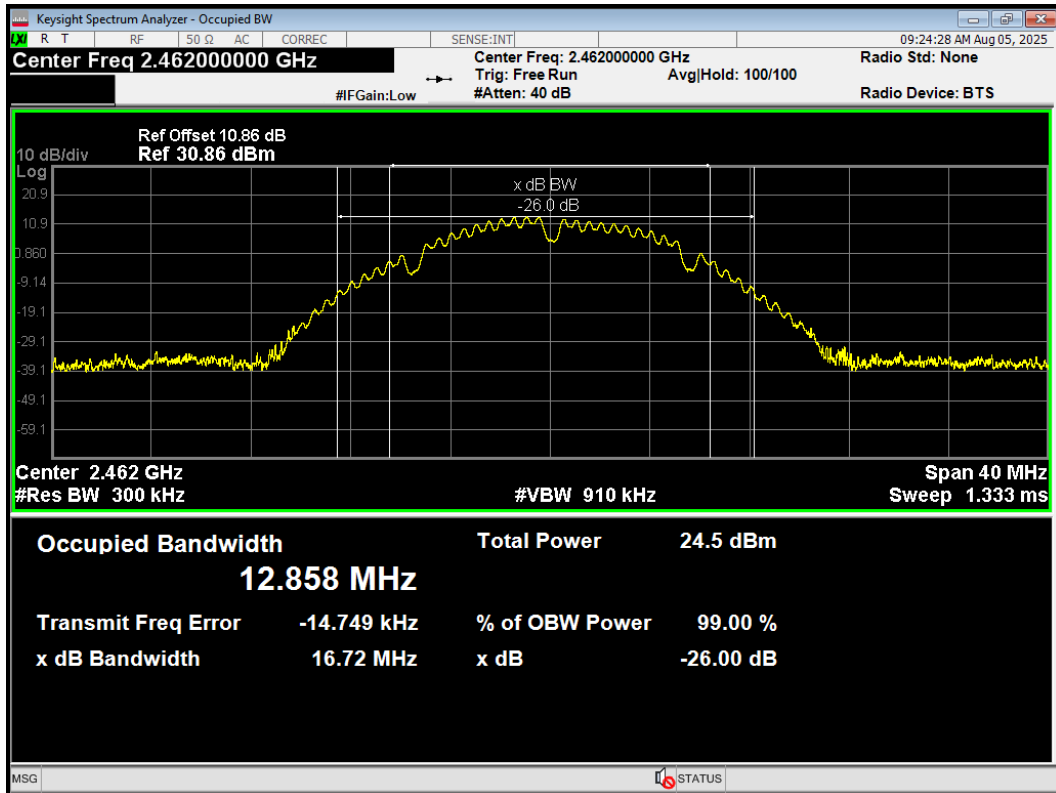
OBW 802.11b 2412MHz



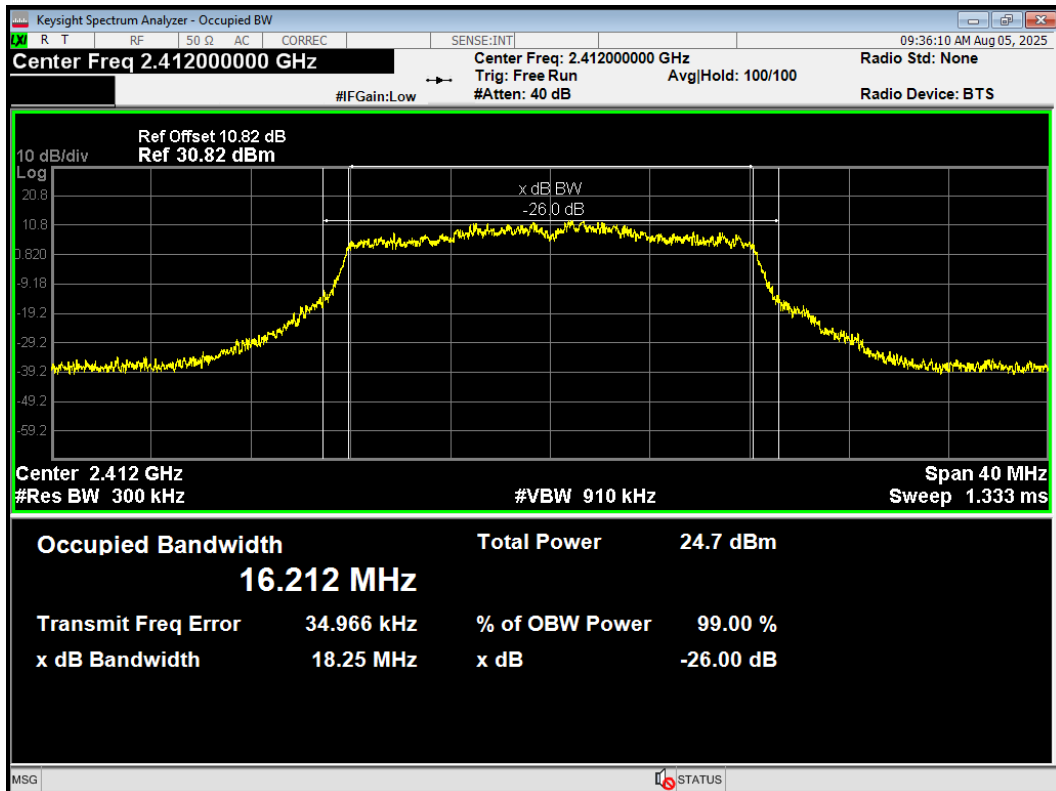
OBW 802.11b 2437MHz



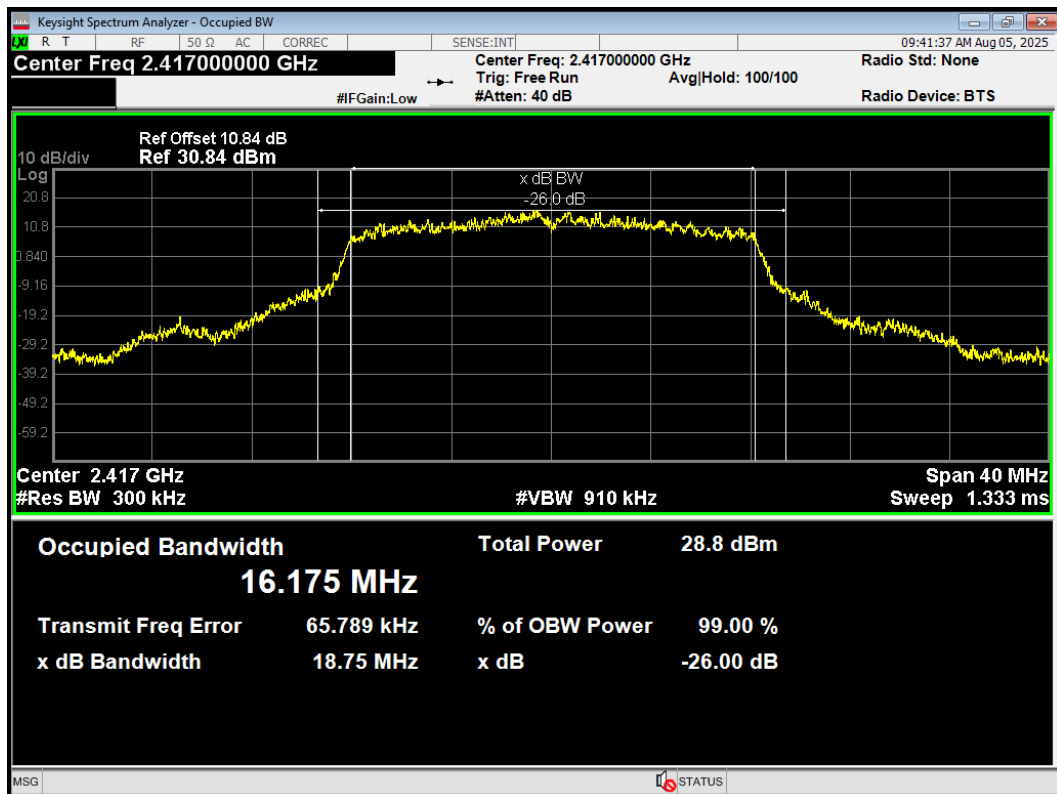
OBW 802.11b 2462MHz



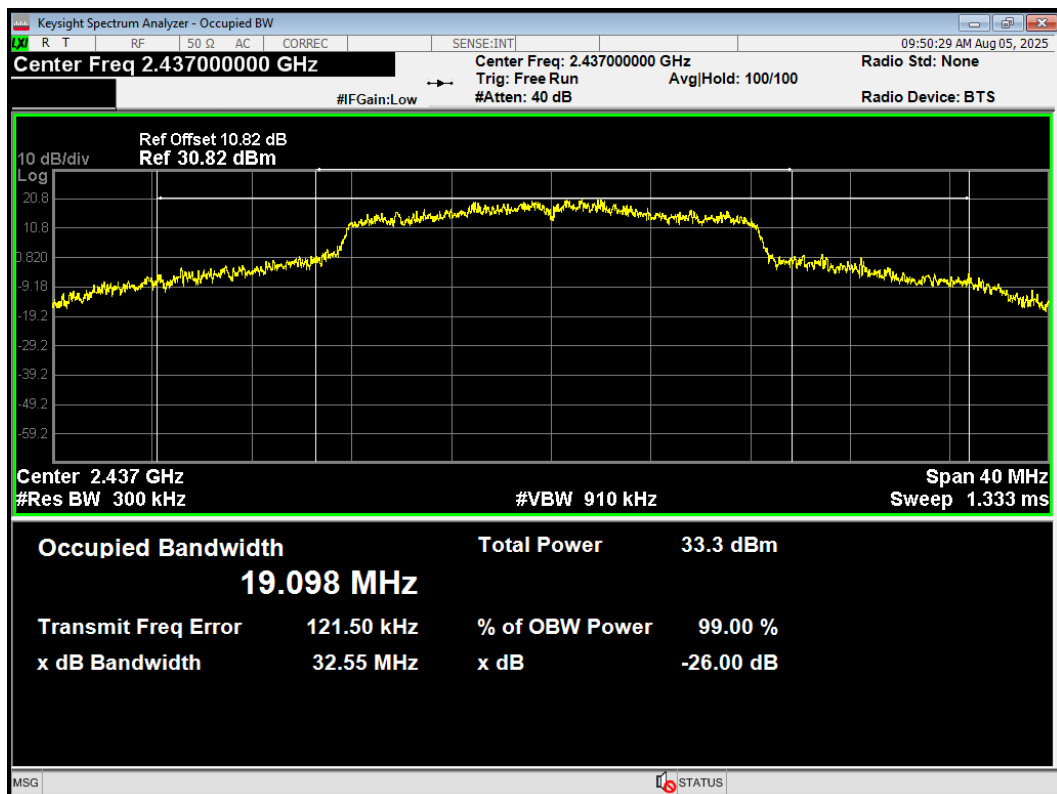
OBW 802.11g 2412MHz



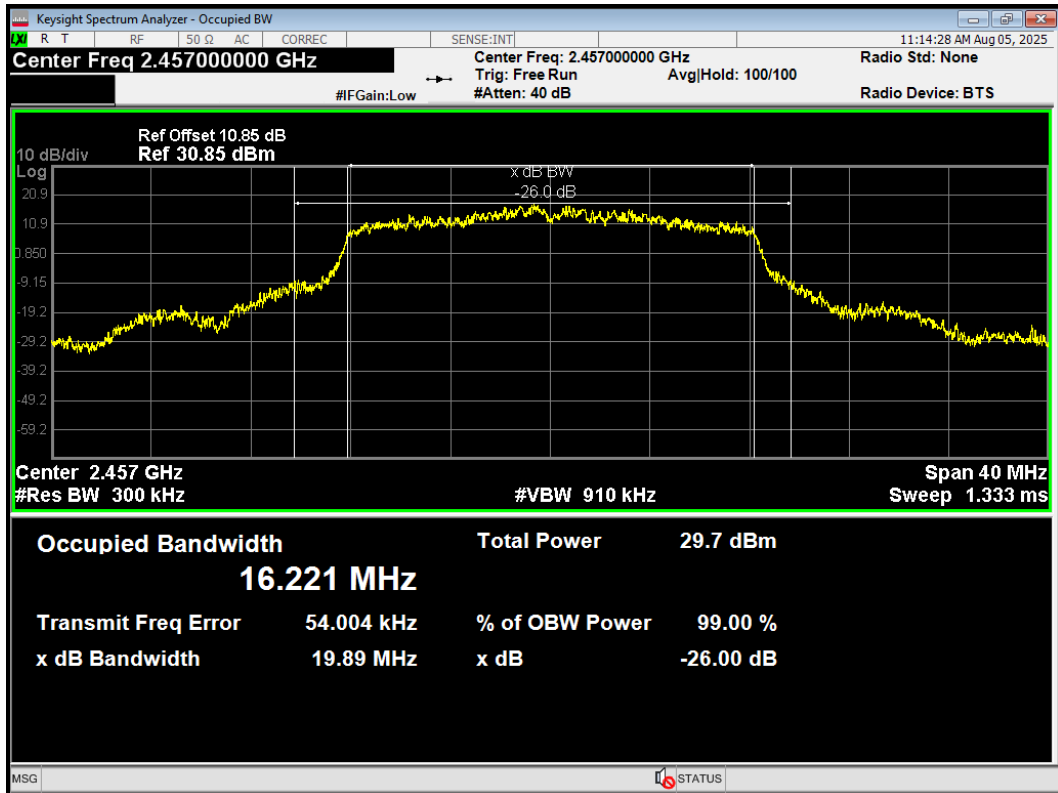
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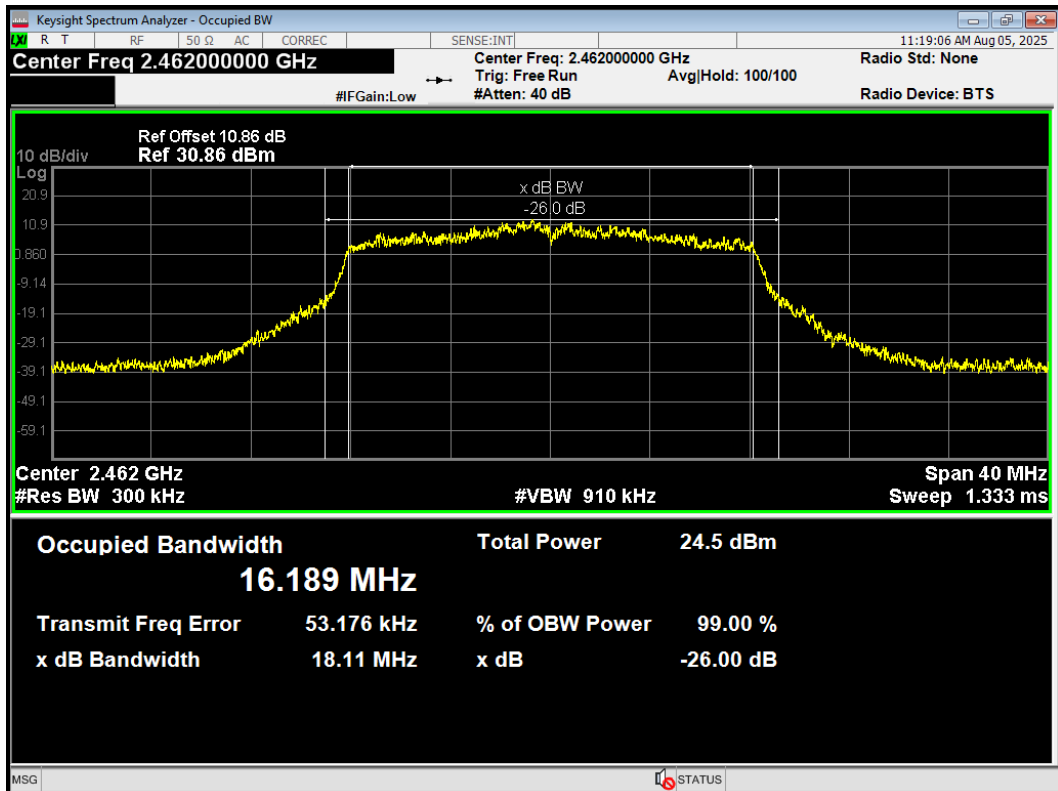
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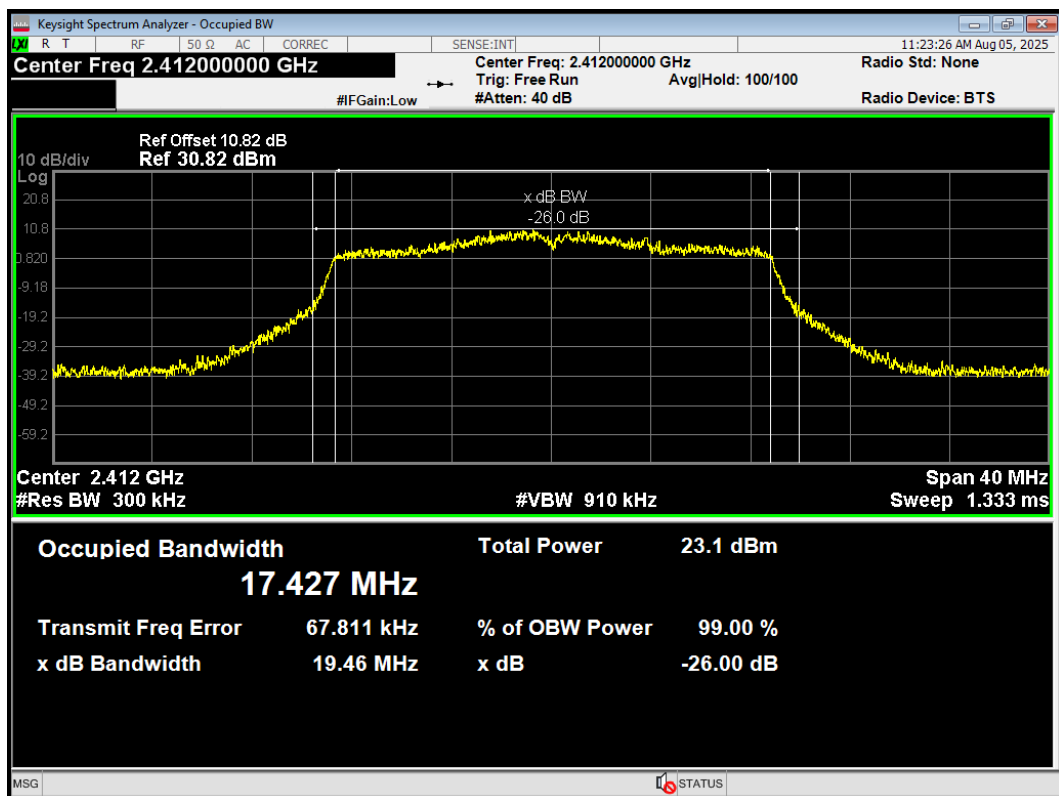
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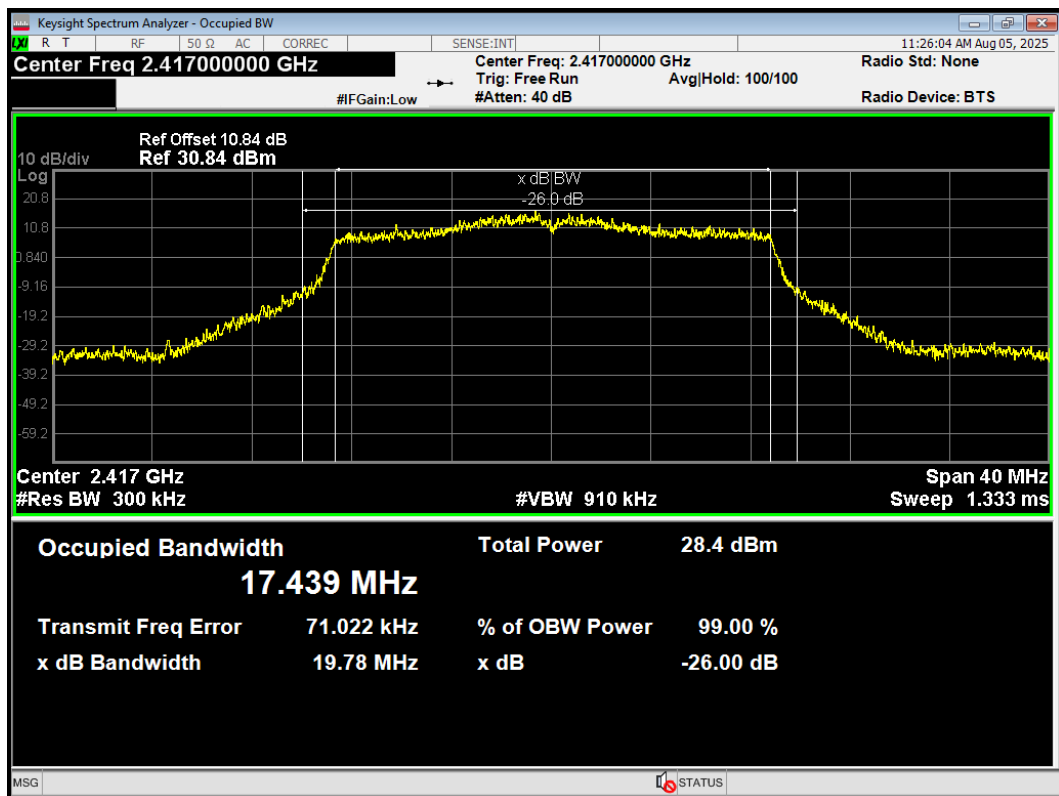
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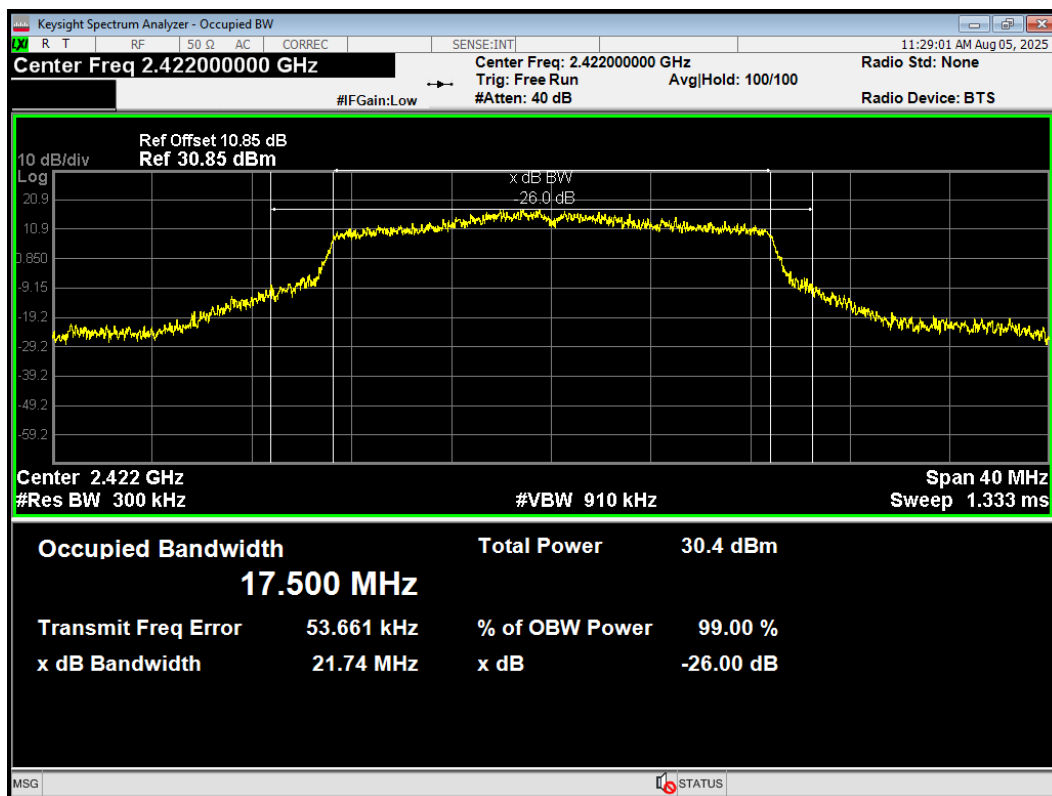
OBW 802.11n(HT20) 2412MHz



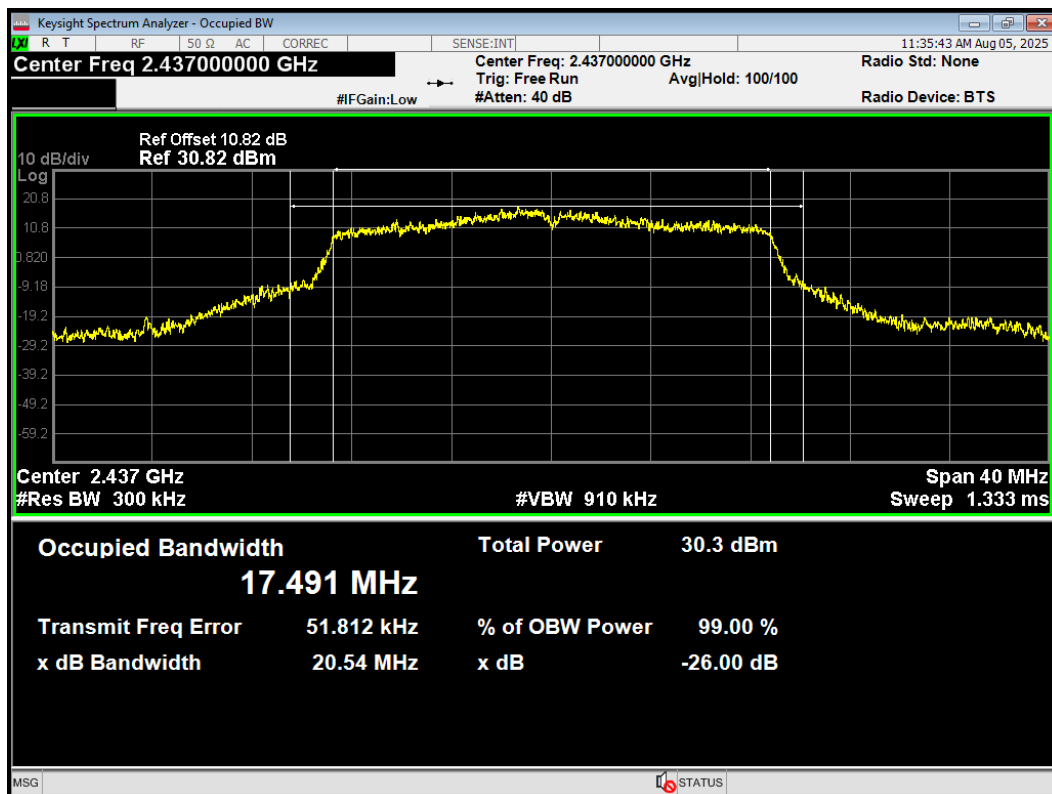
OBW 802.11n(HT20) 2417MHz



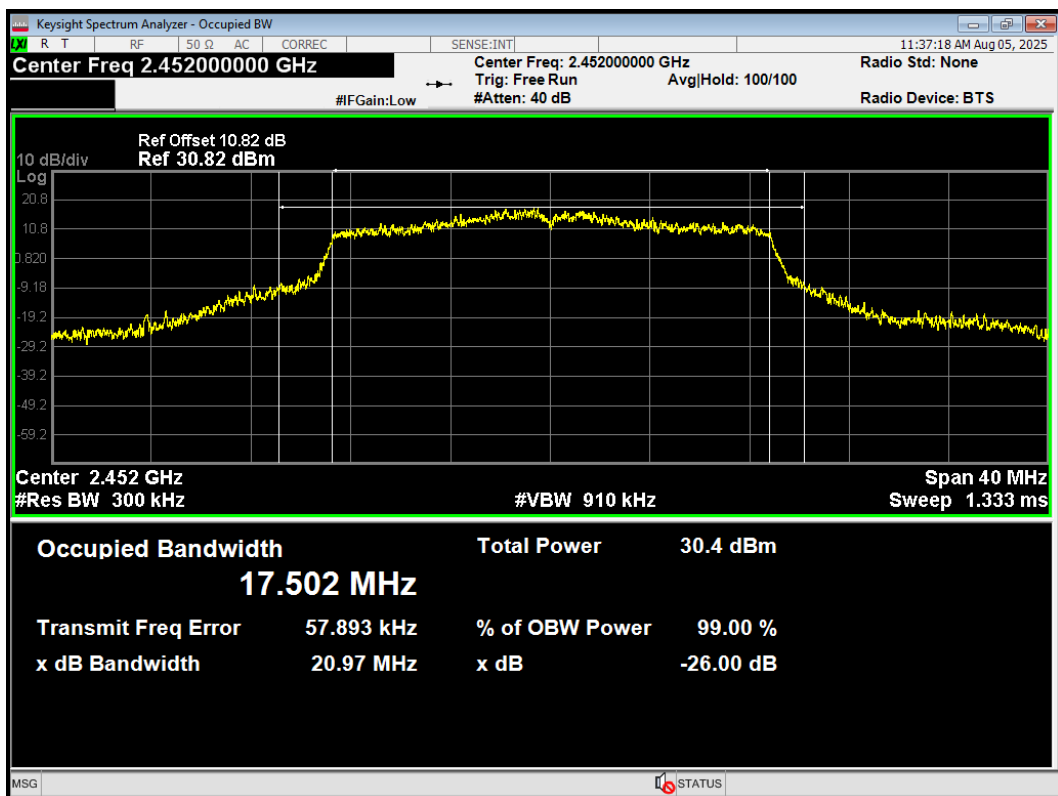
OBW 802.11n(HT20) 2422MHz



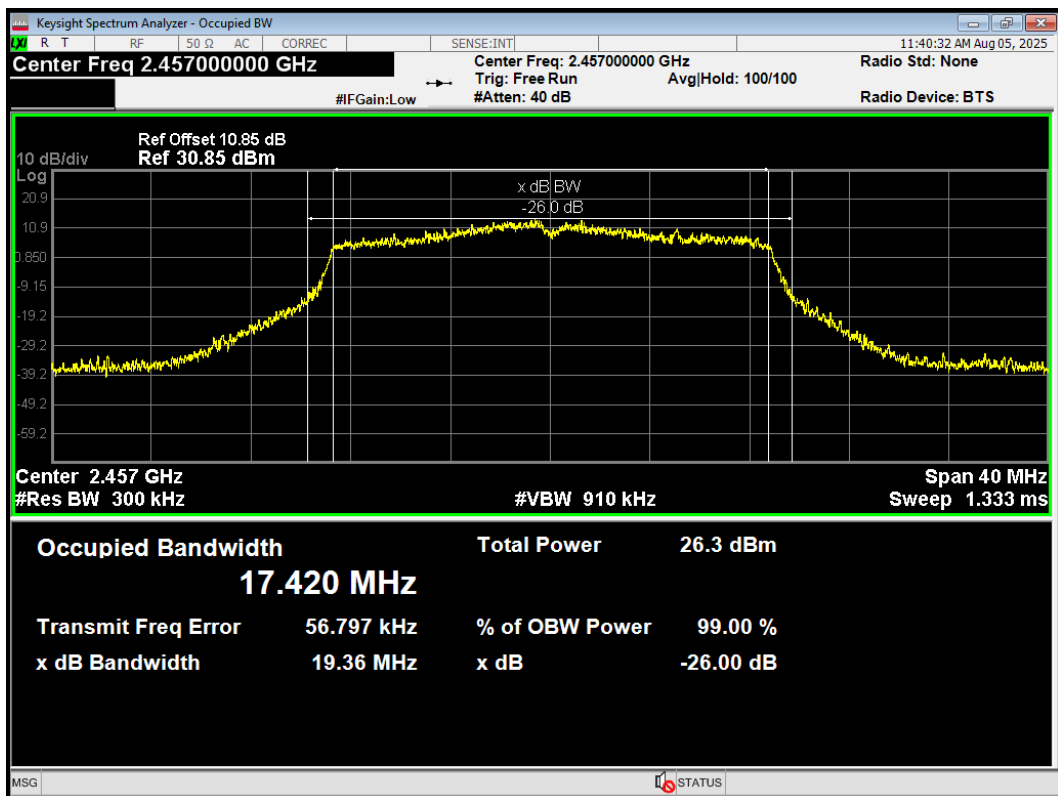
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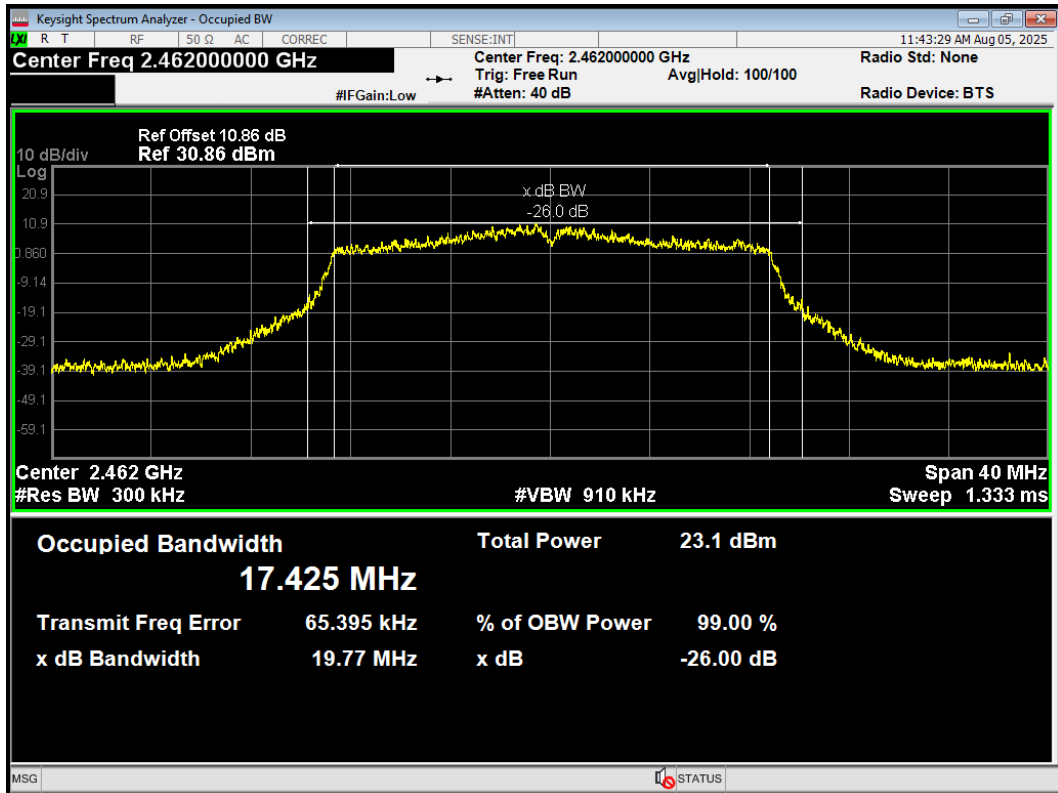
OBW 802.11n(HT20) 2452MHz



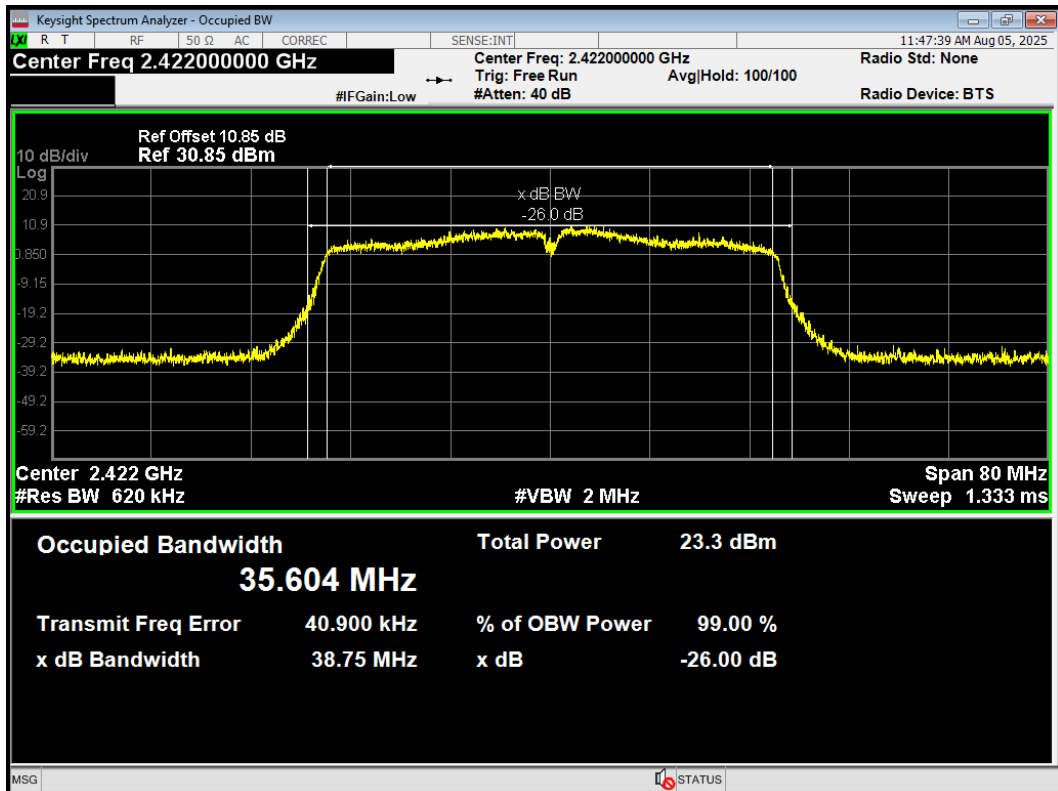
OBW 802.11n(HT20) 2457MHz



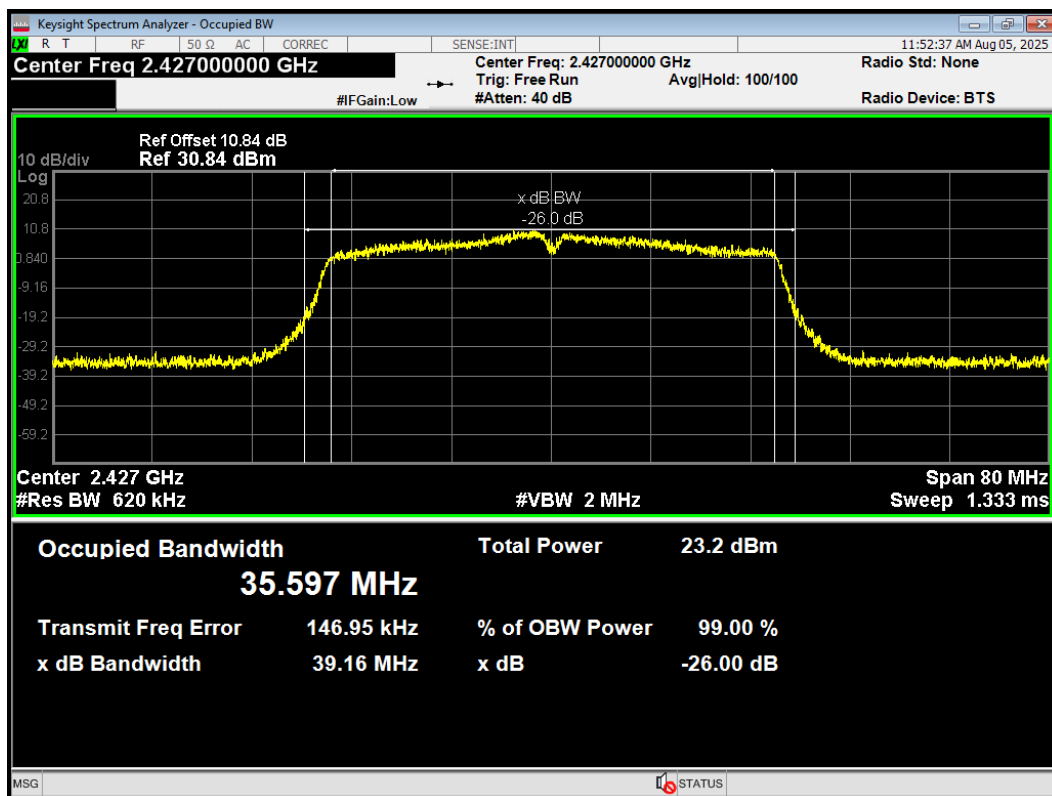
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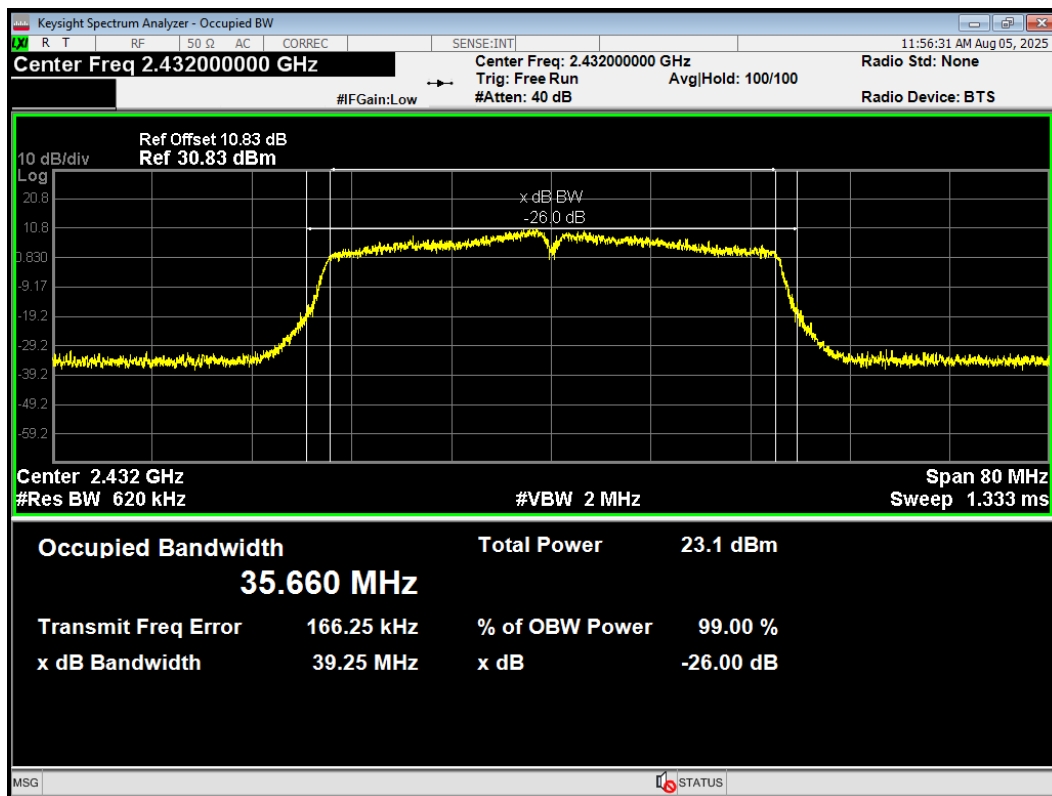
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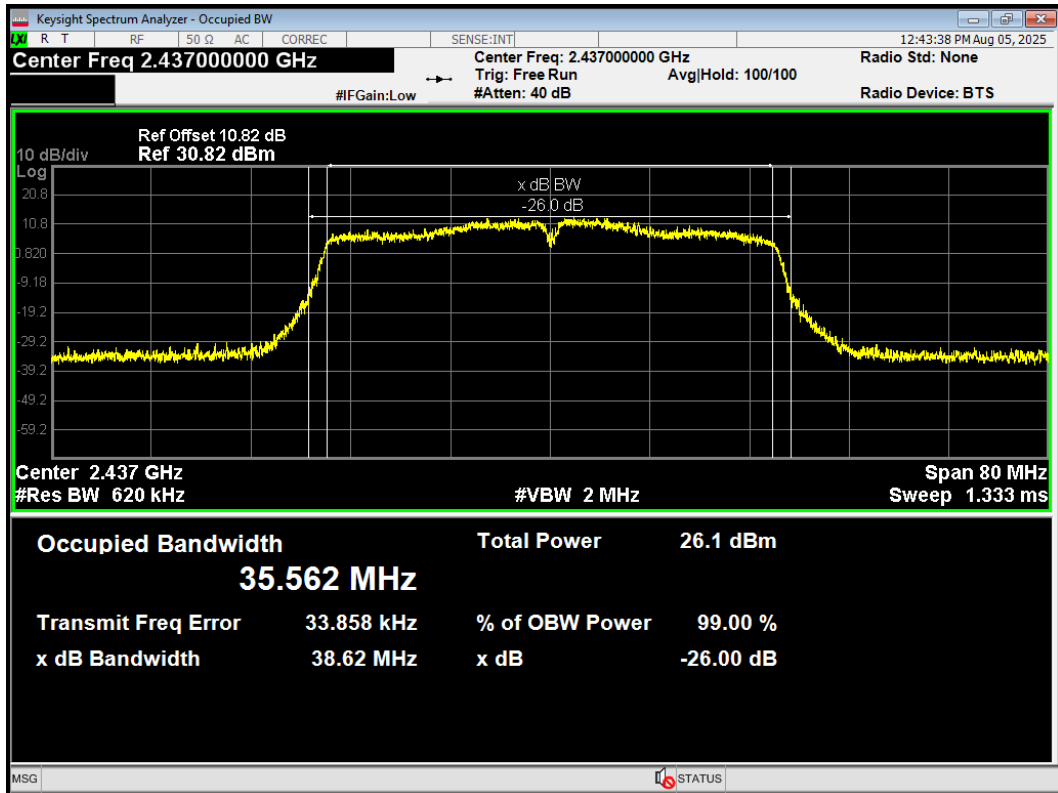
OBW 802.11n(HT40) 2427MHz



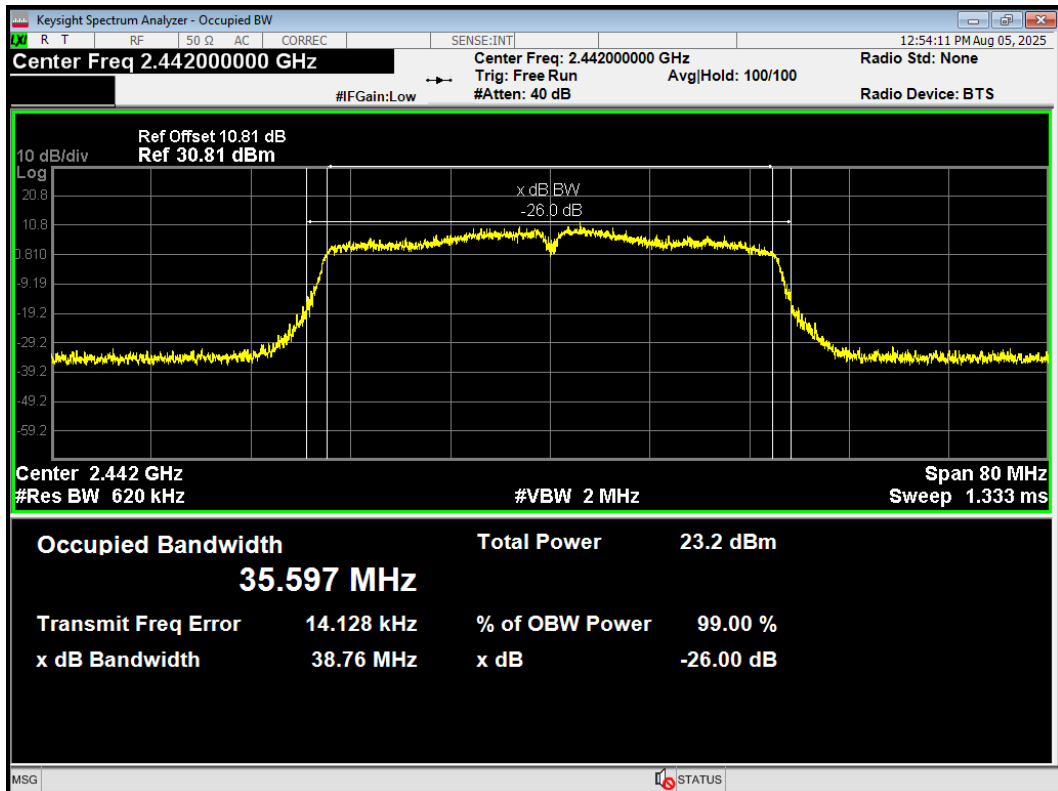
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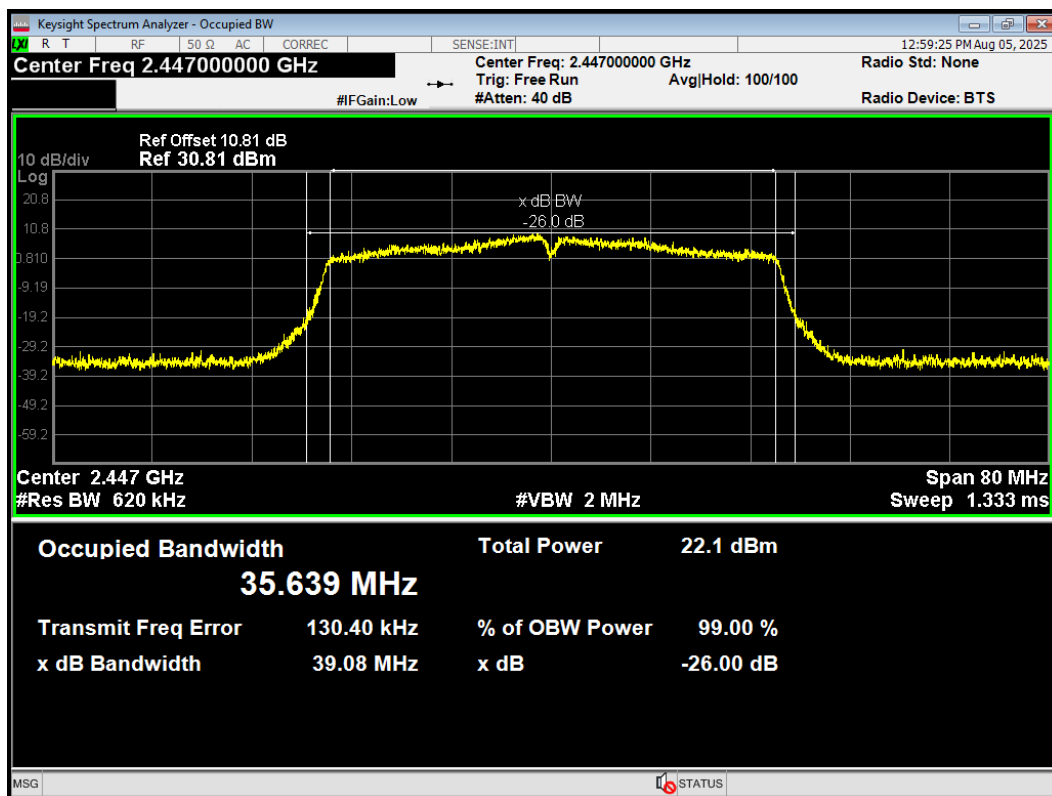
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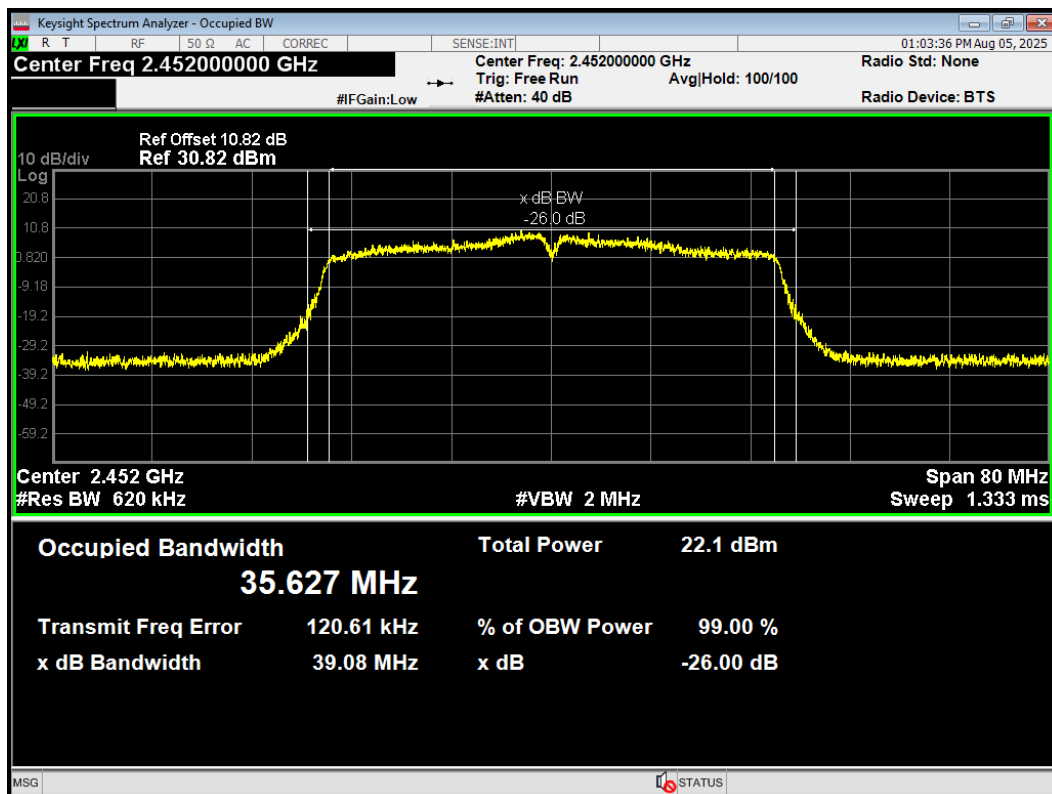
OBW 802.11n(HT40) 2442MHz



OBW 802.11n(HT40) 2447MHz

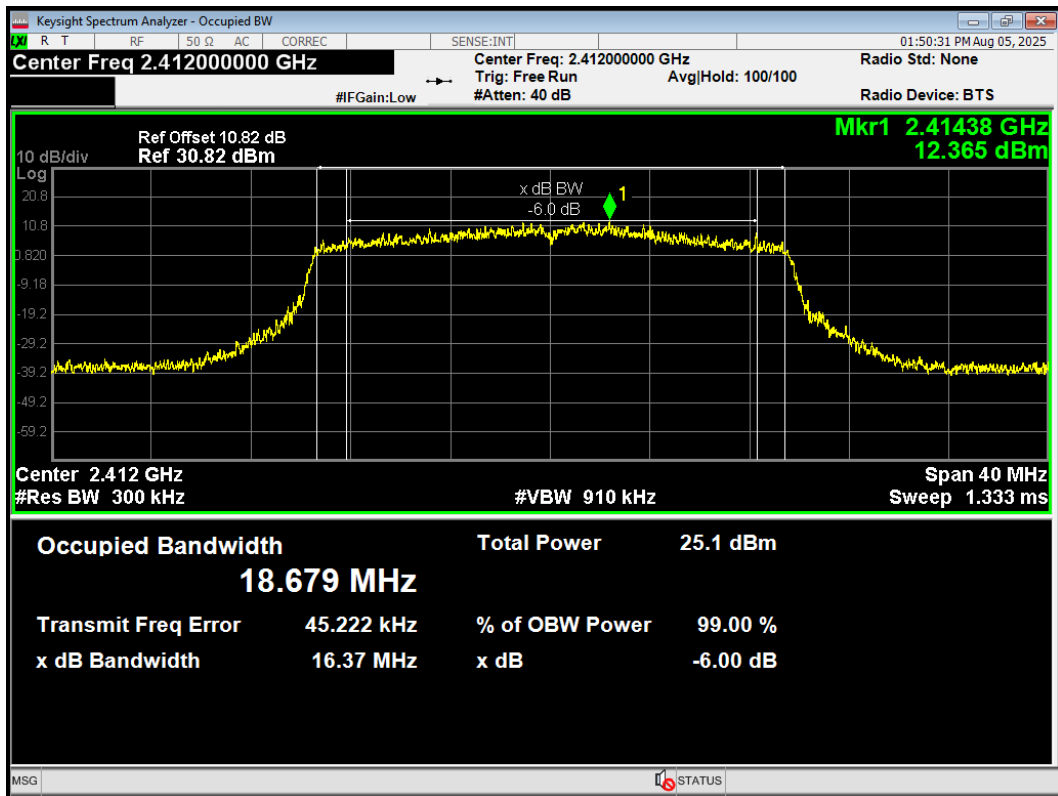


OBW 802.11n(HT40) 2452MHz

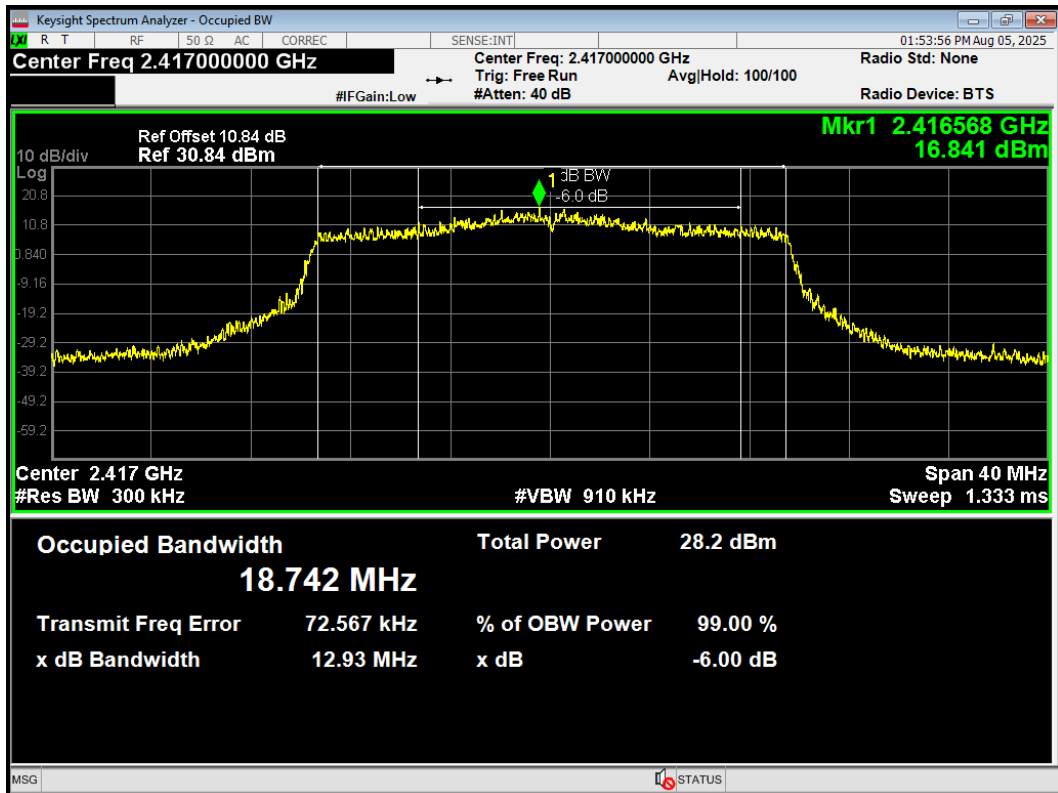


6 dB bandwidth

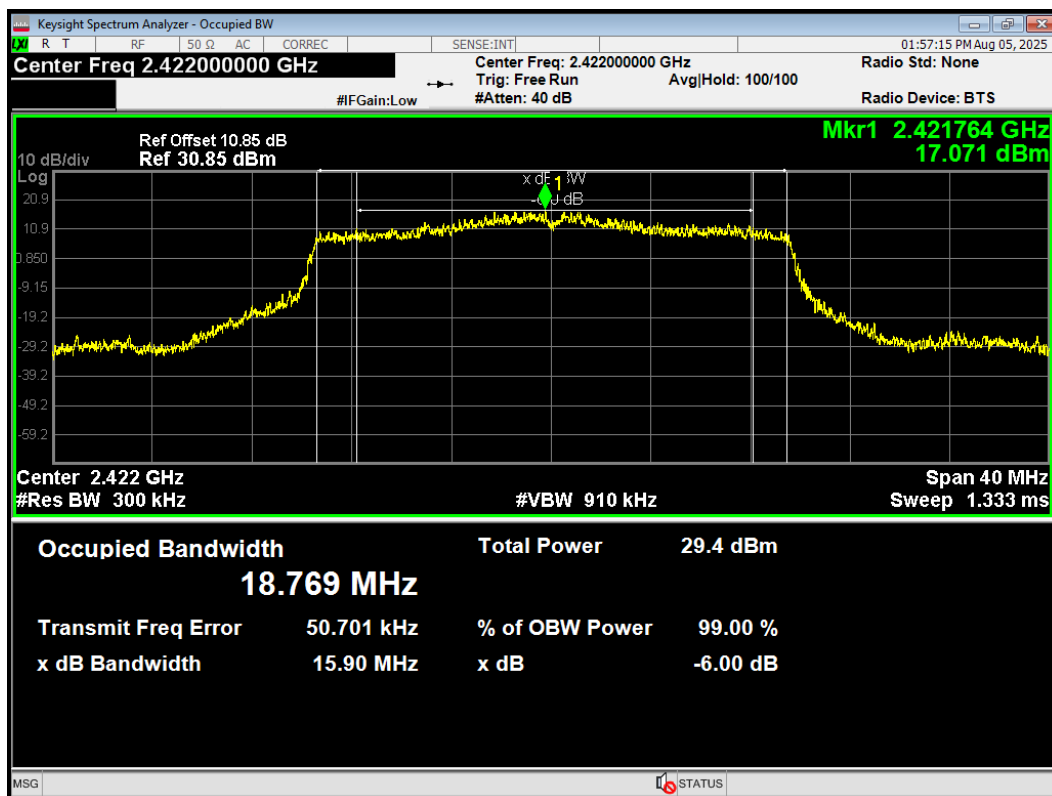
-6dB Bandwidth 802.11ax(HE20) 2412MHz



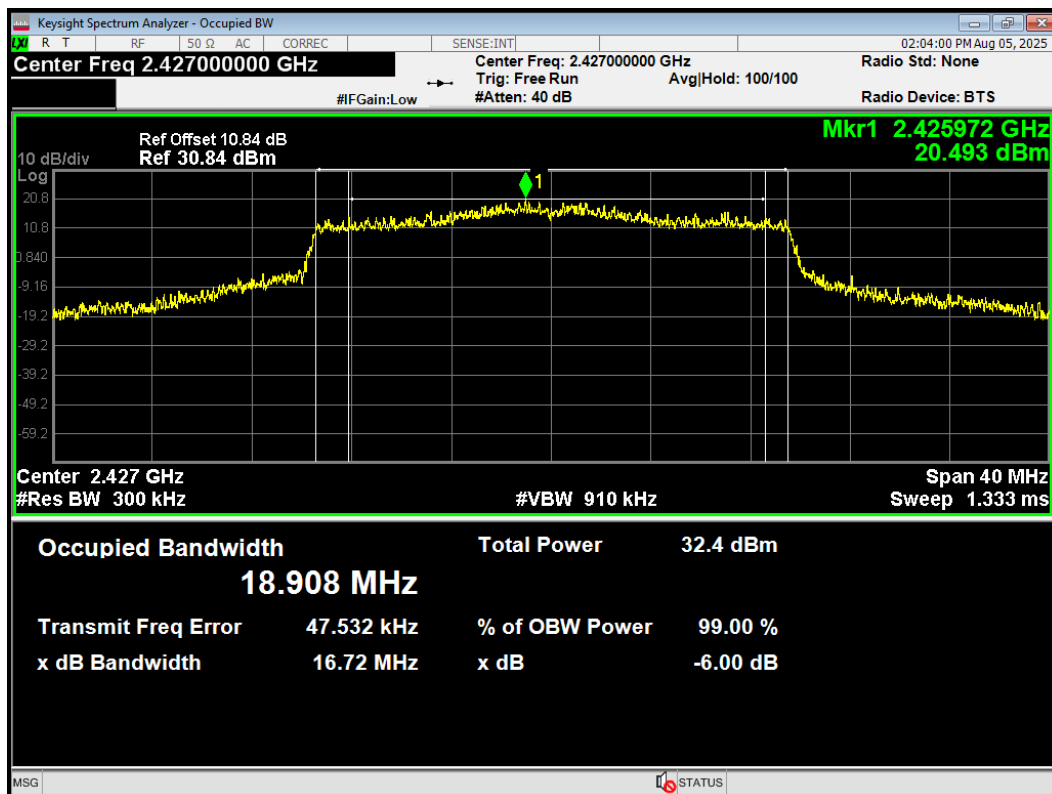
-6dB Bandwidth 802.11ax(HE20) 2417MHz



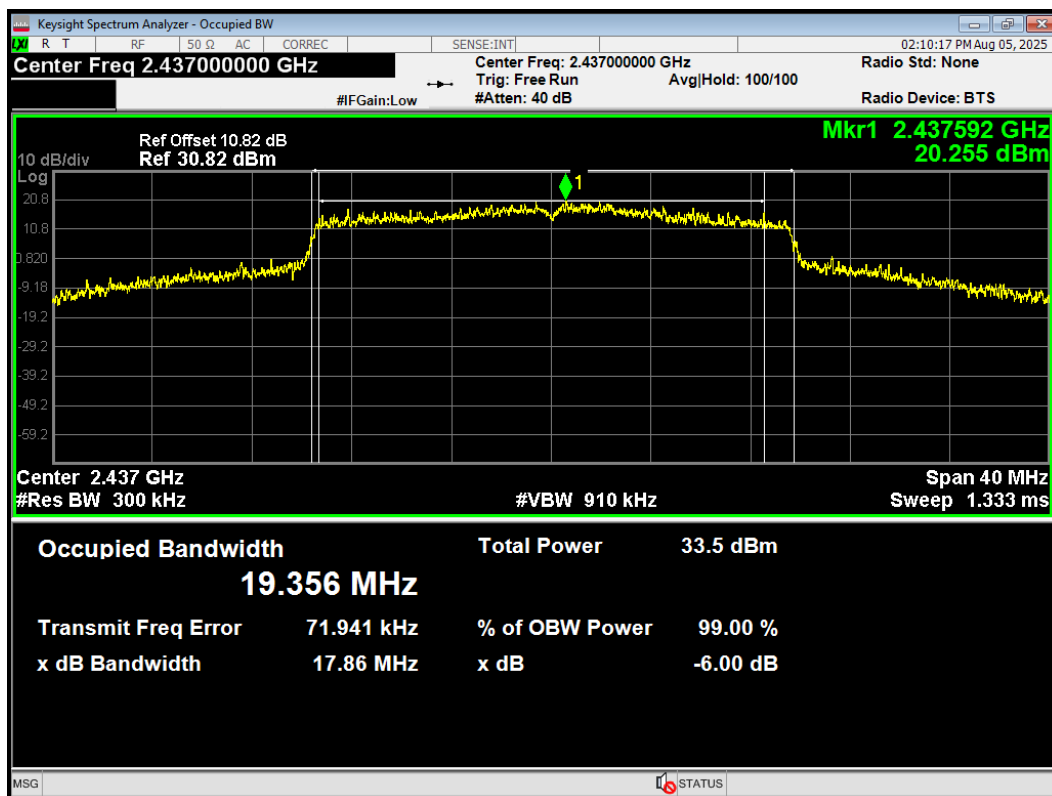
-6dB Bandwidth 802.11ax(HE20) 2422MHz



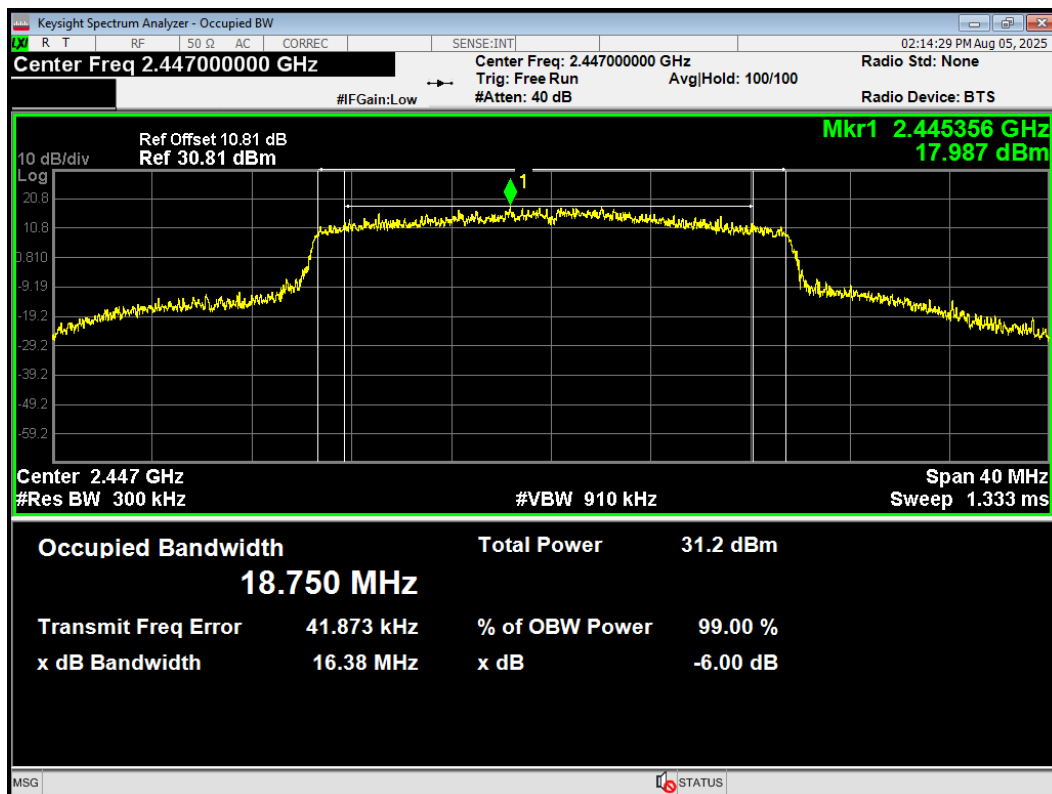
-6dB Bandwidth 802.11ax(HE20) 2427MHz



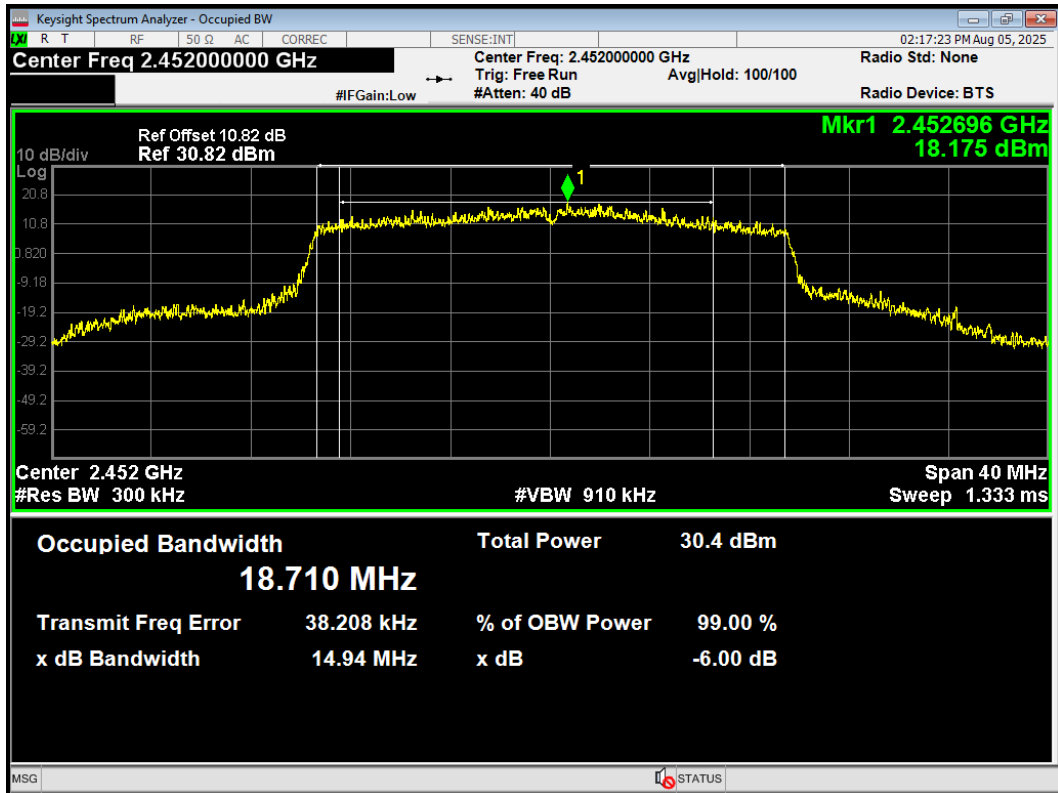
-6dB Bandwidth 802.11ax(HE20) 2437MHz



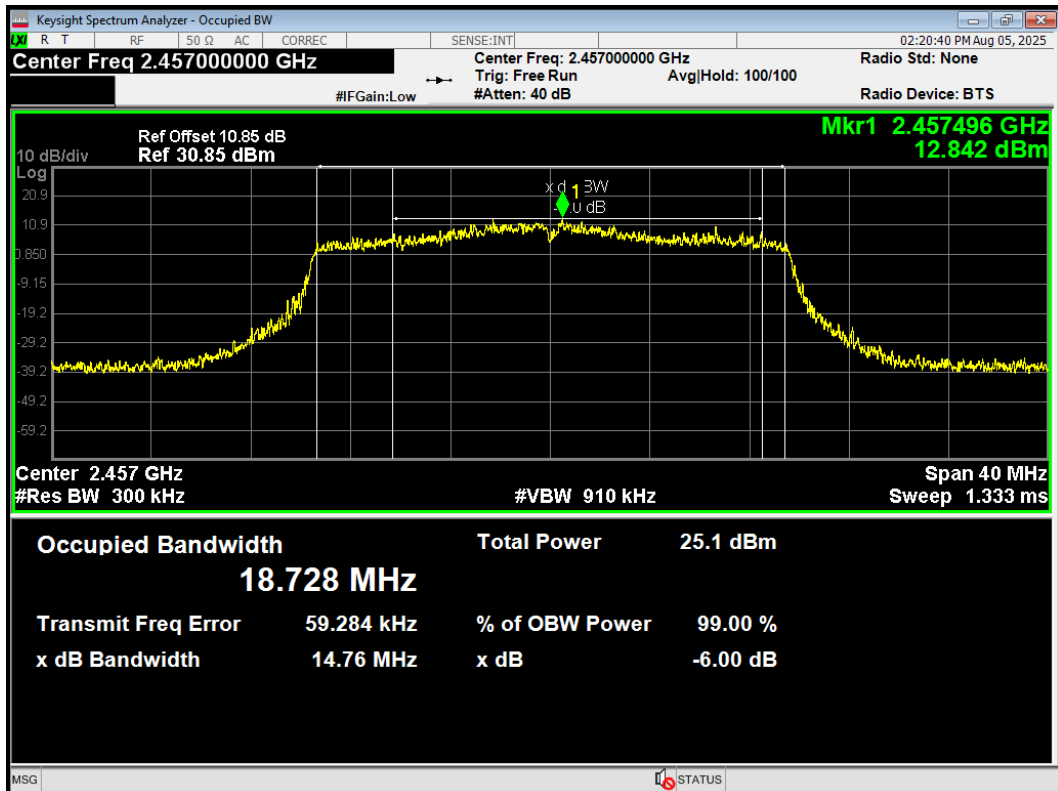
-6dB Bandwidth 802.11ax(HE20) 2447MHz



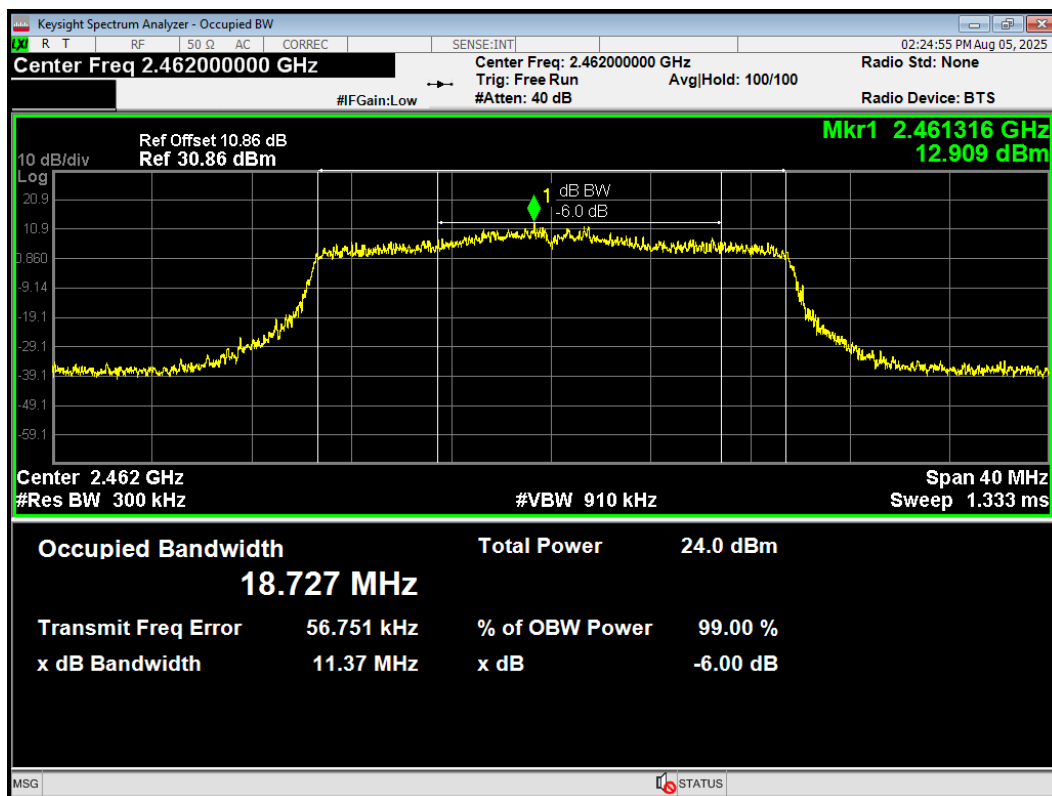
-6dB Bandwidth 802.11ax(HE20) 2452MHz



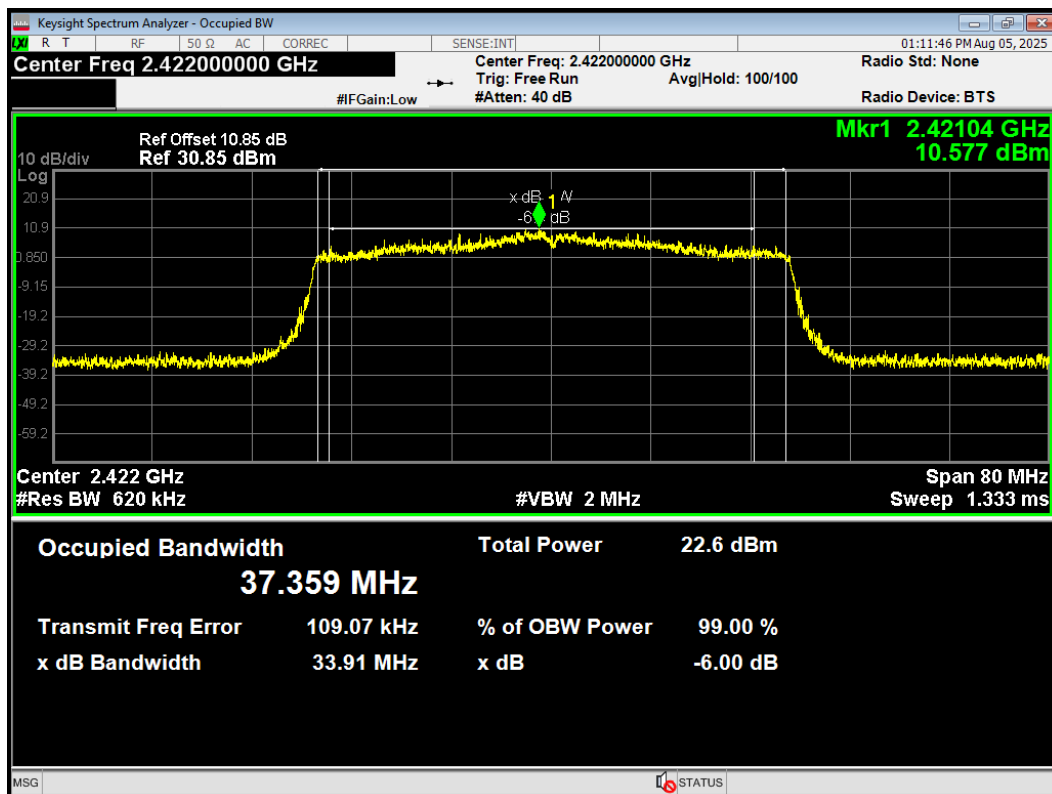
-6dB Bandwidth 802.11ax(HE20) 2457MHz



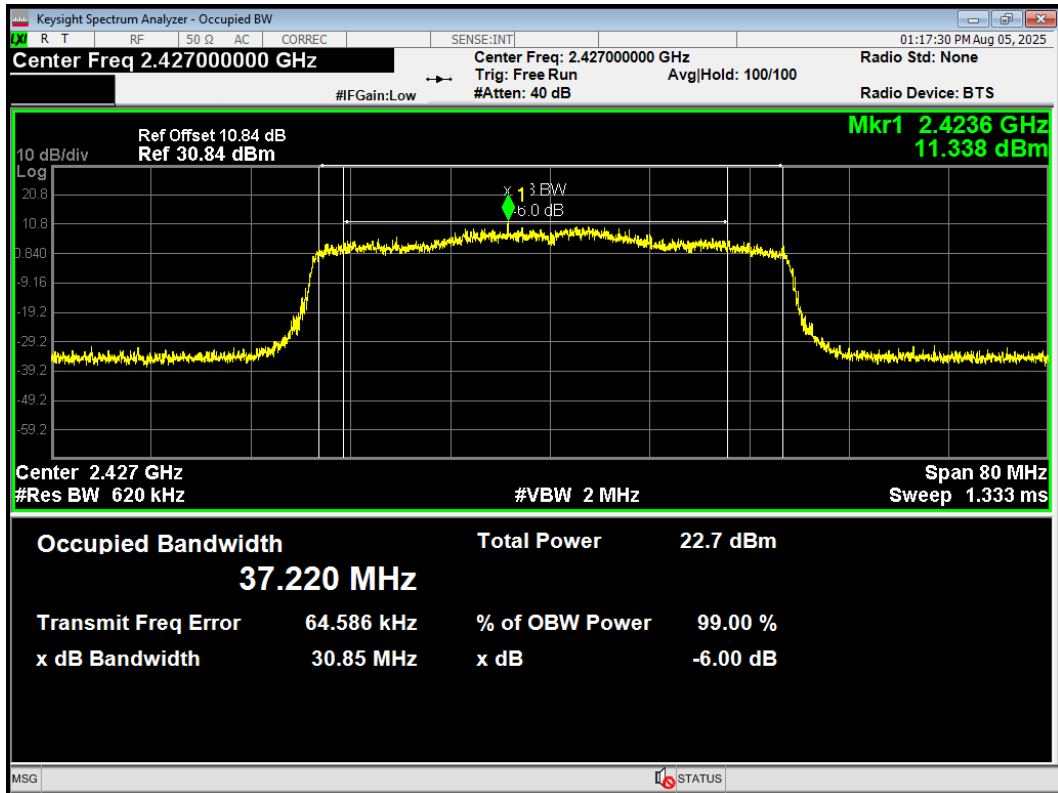
-6dB Bandwidth 802.11ax(HE20) 2462MHz



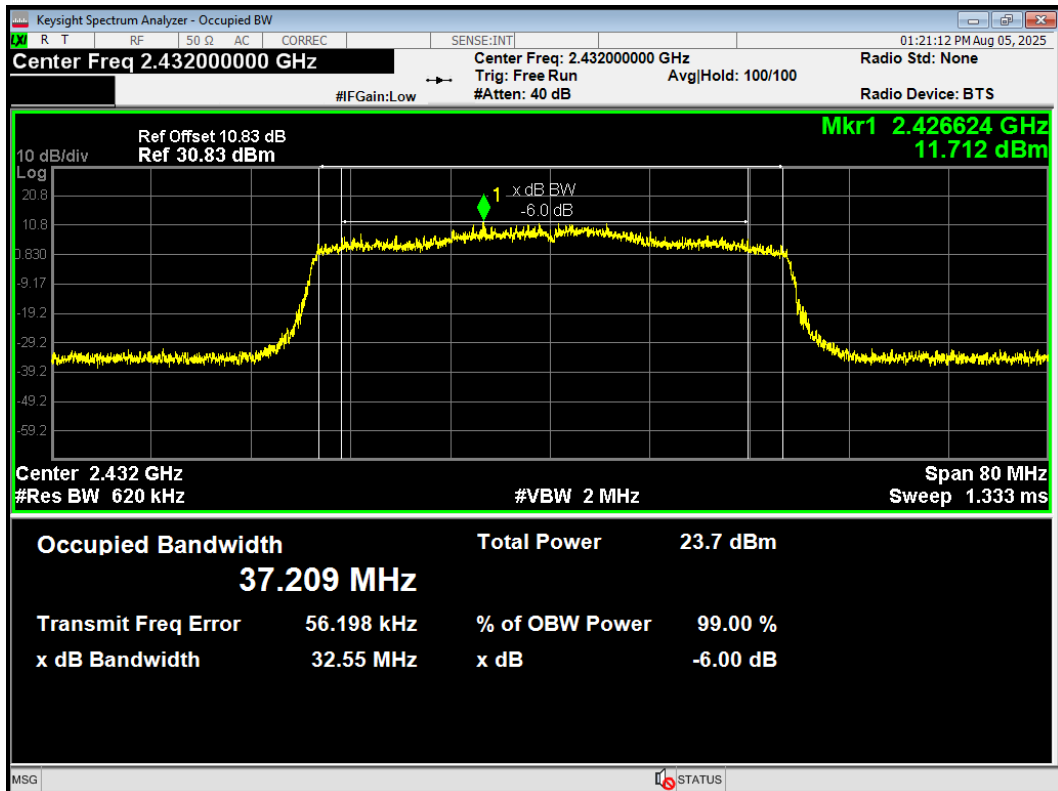
-6dB Bandwidth 802.11ax(HE40) 2422MHz



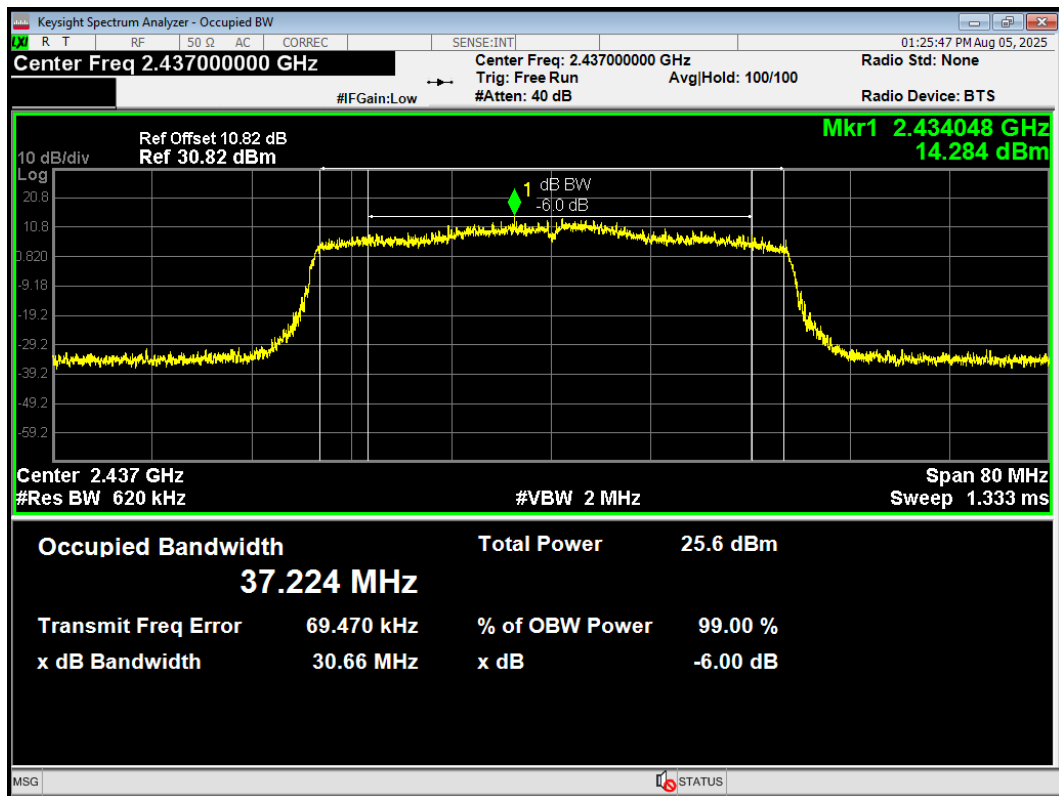
-6dB Bandwidth 802.11ax(HE40) 2427MHz



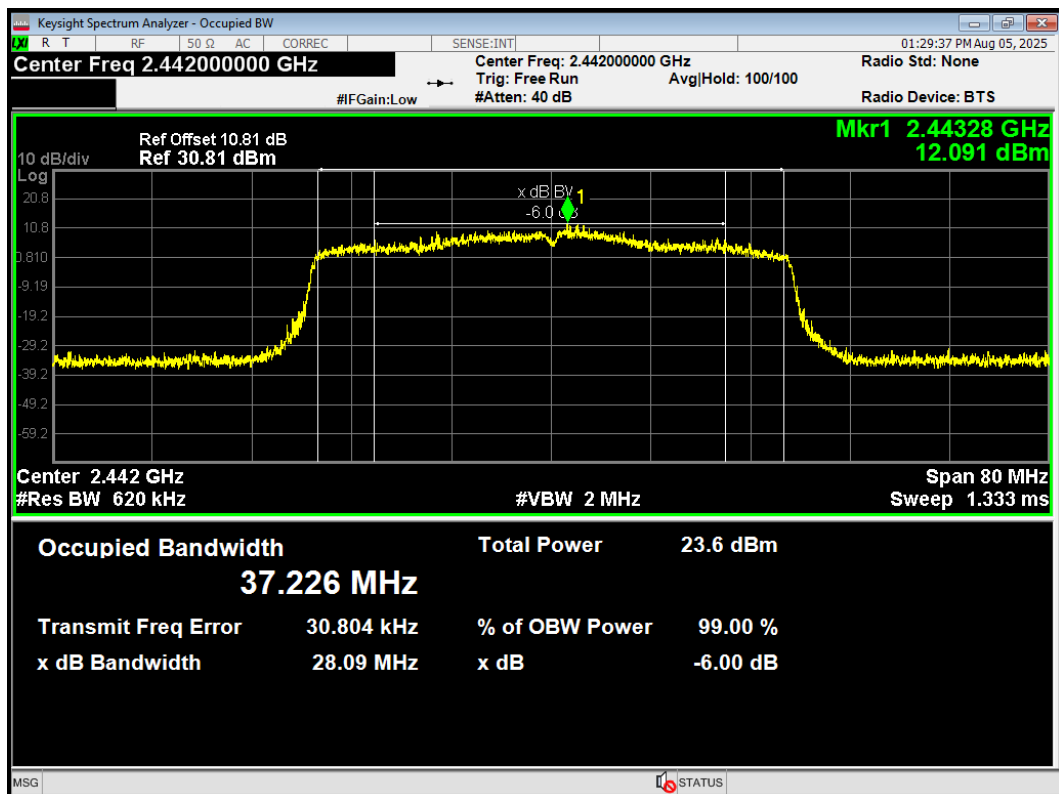
-6dB Bandwidth 802.11ax(HE40) 2432MHz



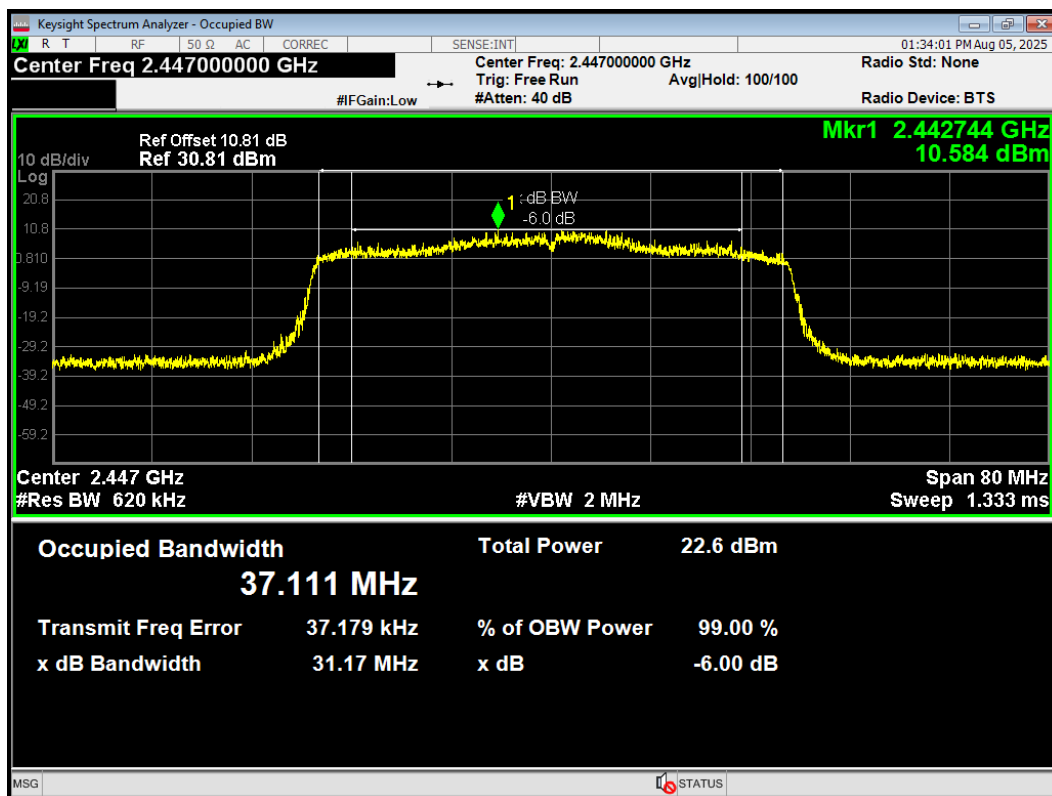
-6dB Bandwidth 802.11ax(HE40) 2437MHz



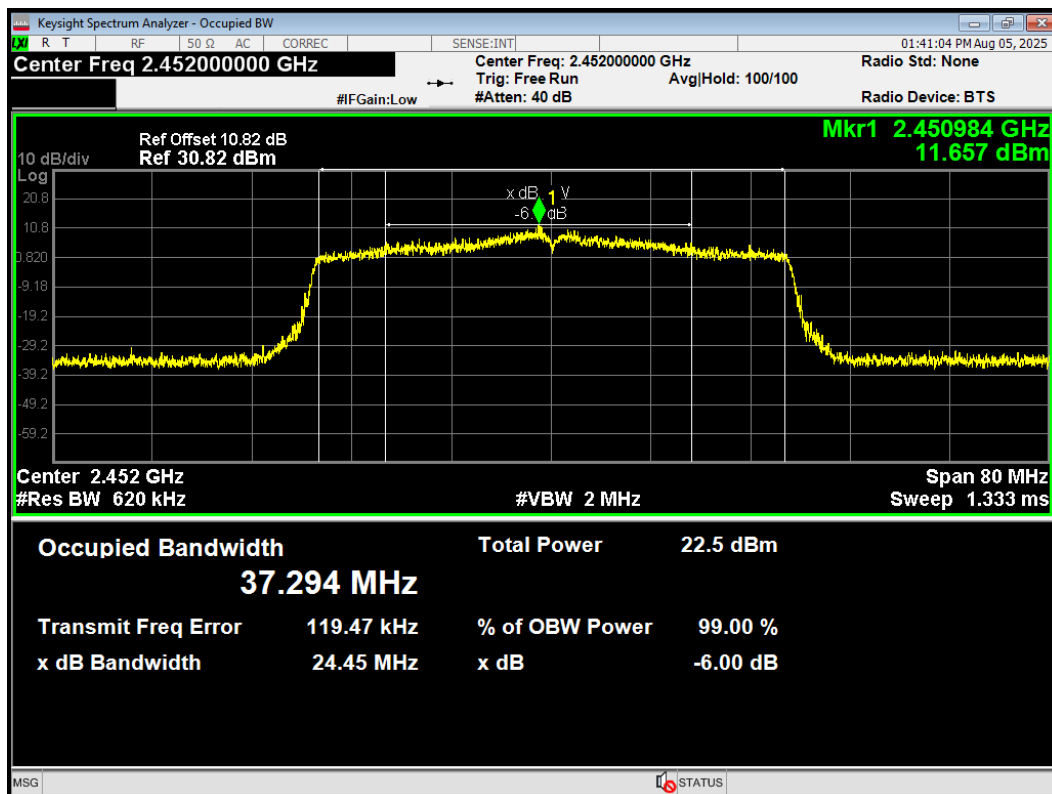
-6dB Bandwidth 802.11ax(HE40) 2442MHz



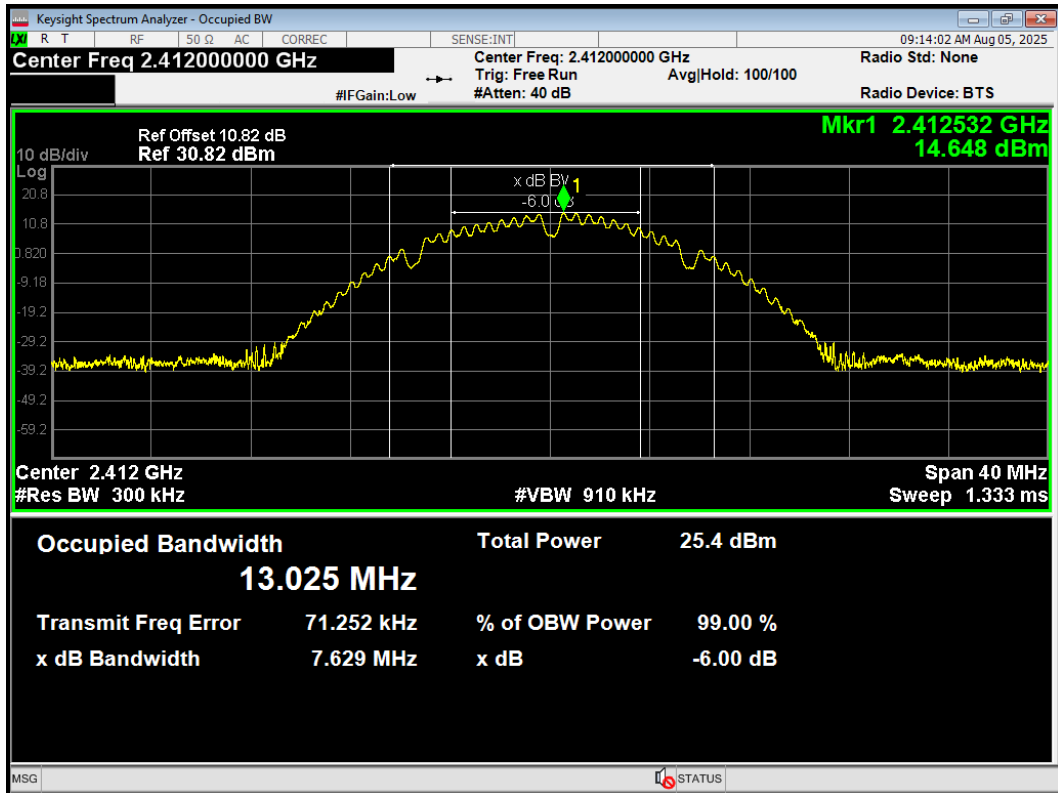
-6dB Bandwidth 802.11ax(HE40) 2447MHz



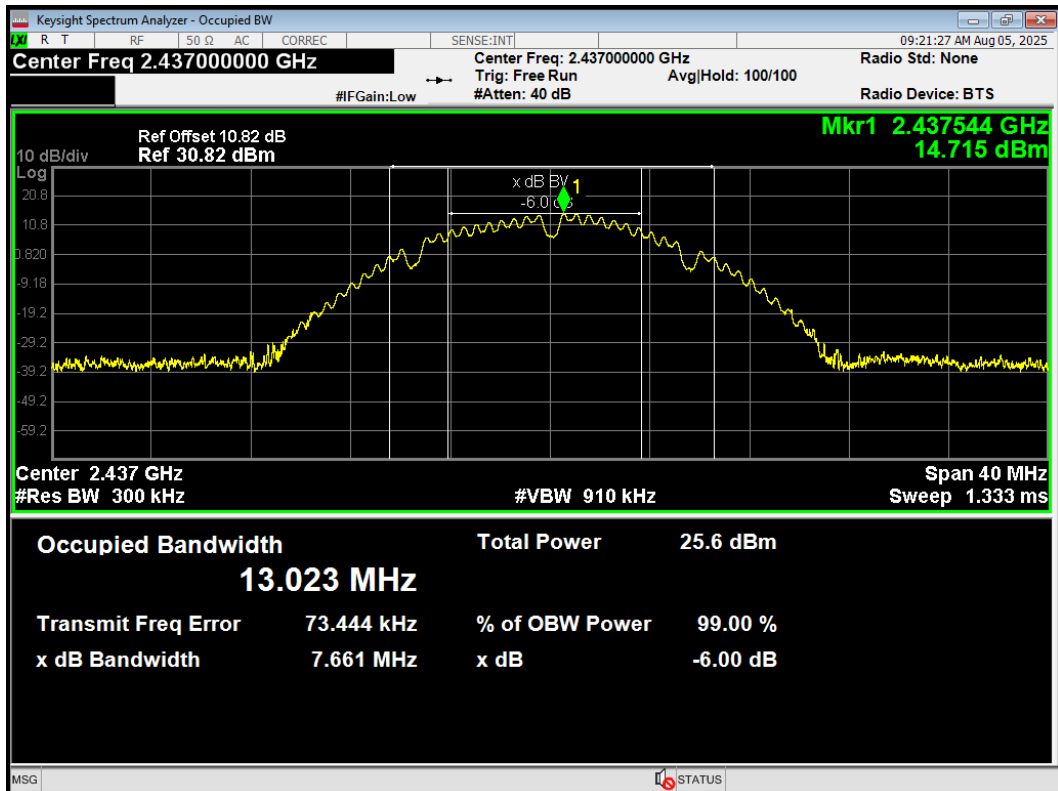
-6dB Bandwidth 802.11ax(HE40) 2452MHz



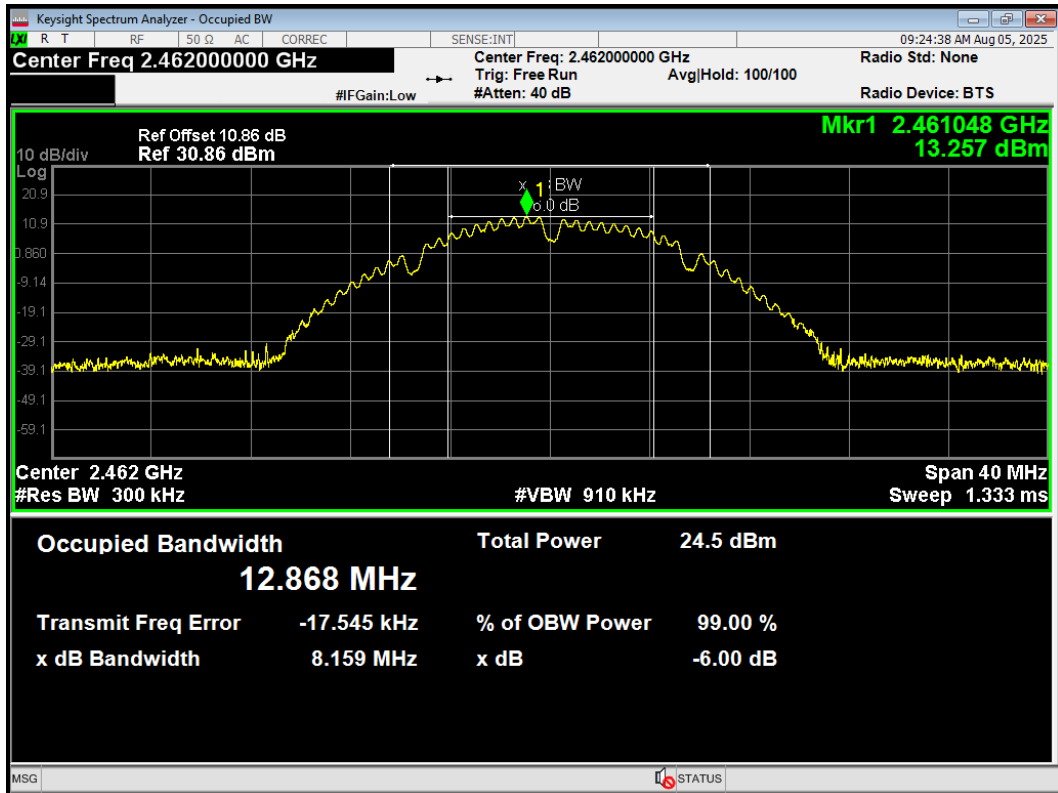
-6dB Bandwidth 802.11b 2412MHz



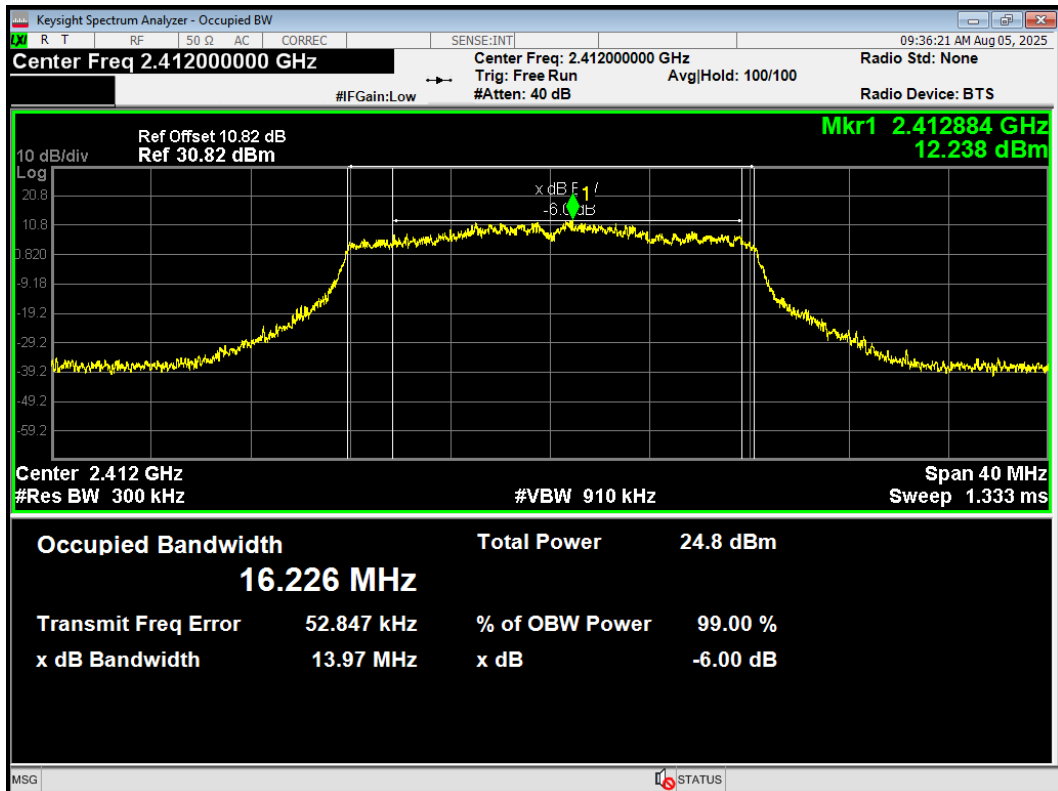
-6dB Bandwidth 802.11b 2437MHz



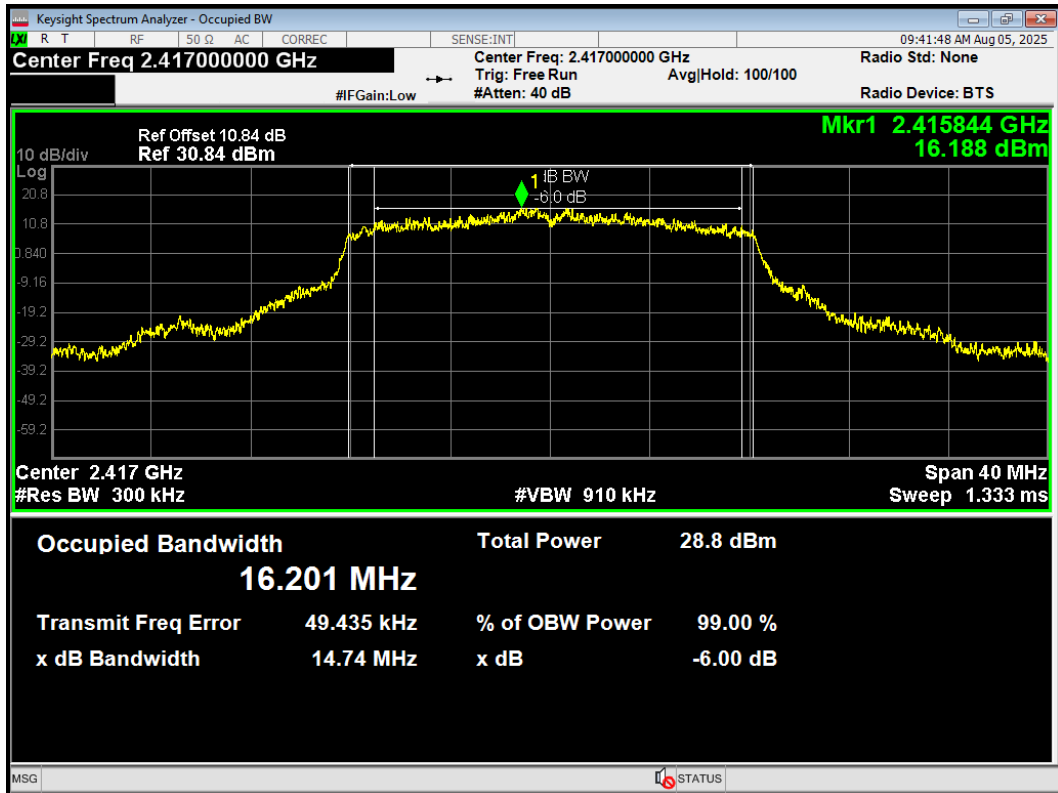
-6dB Bandwidth 802.11b 2462MHz



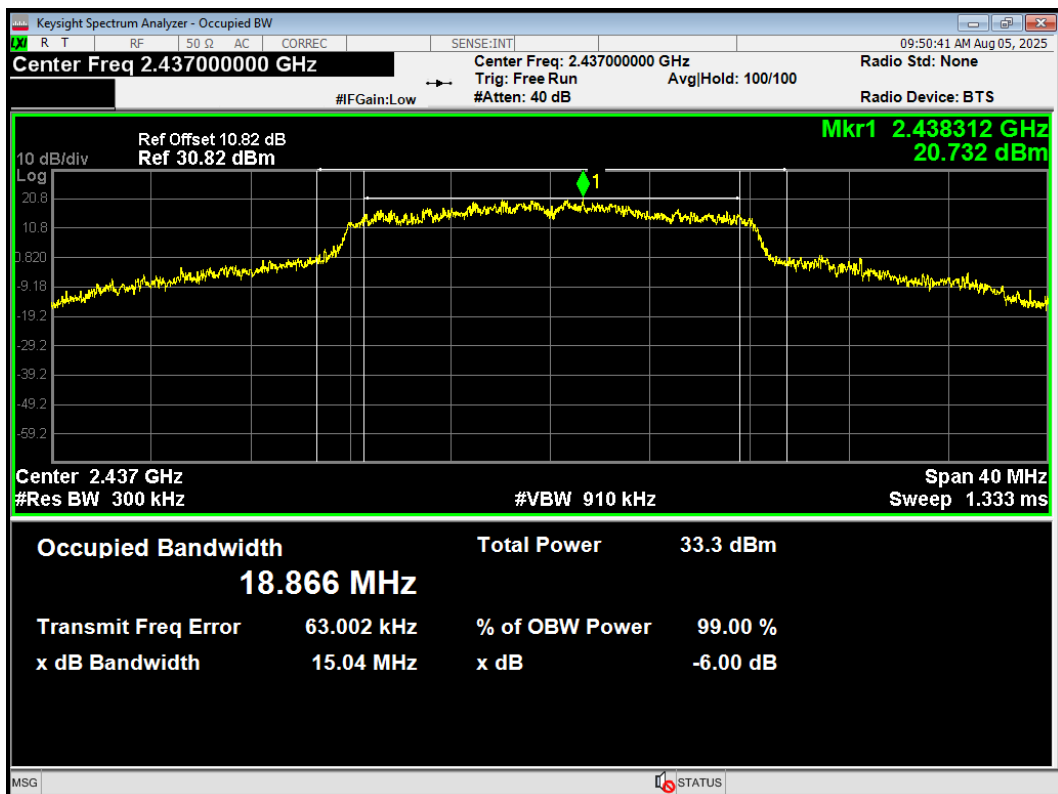
-6dB Bandwidth 802.11g 2412MHz



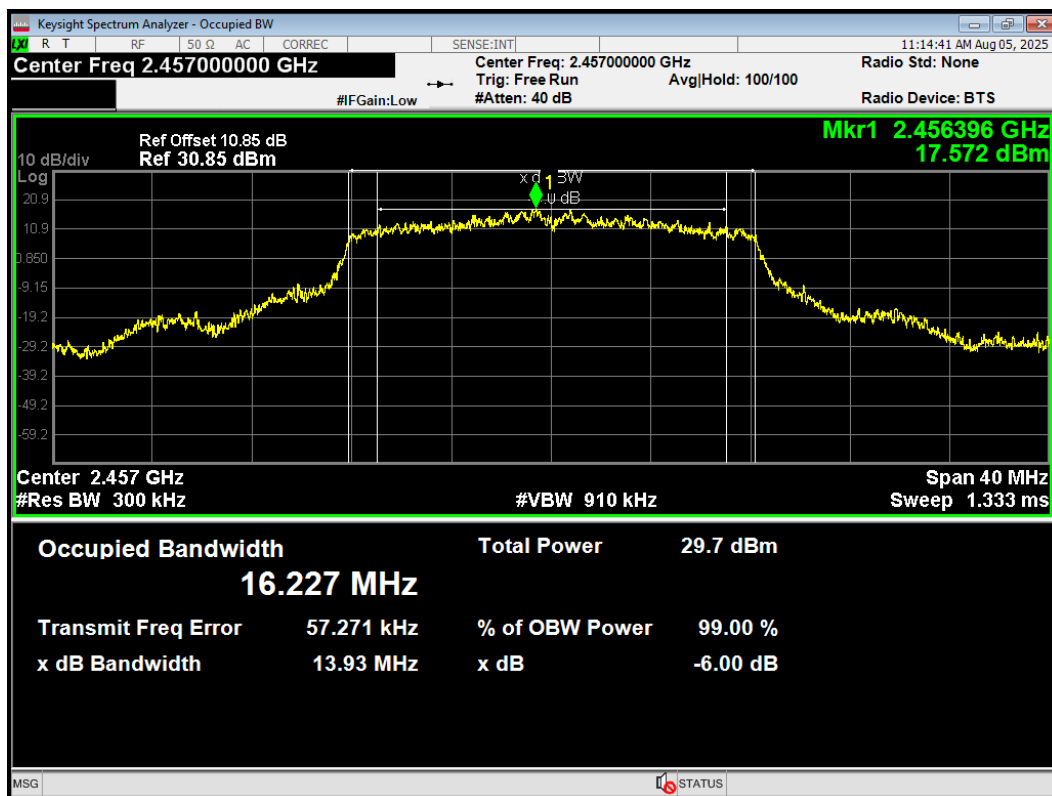
-6dB Bandwidth 802.11g 2417MHz



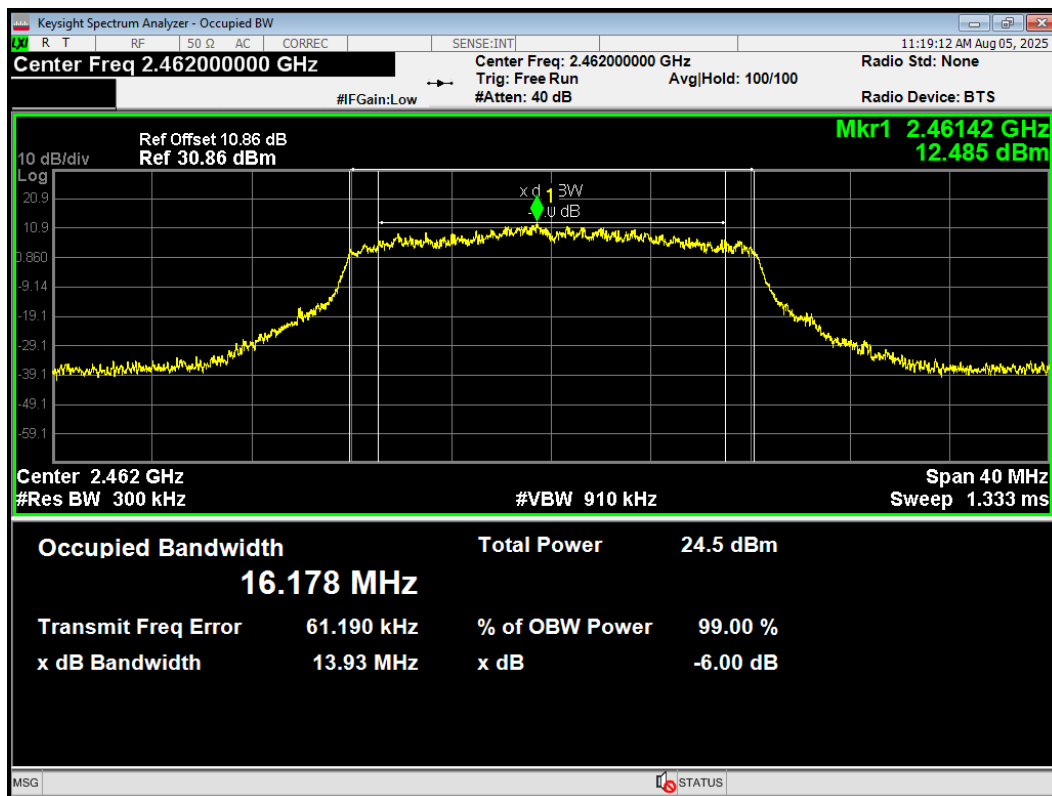
-6dB Bandwidth 802.11g 2437MHz



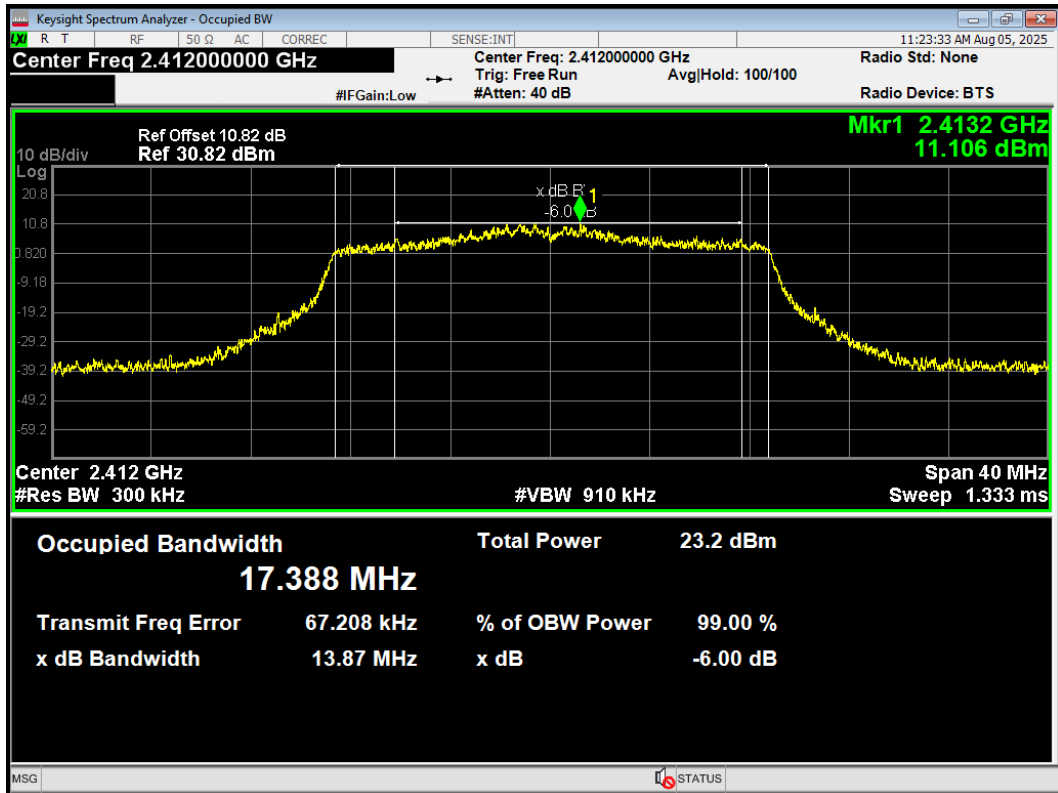
-6dB Bandwidth 802.11g 2457MHz



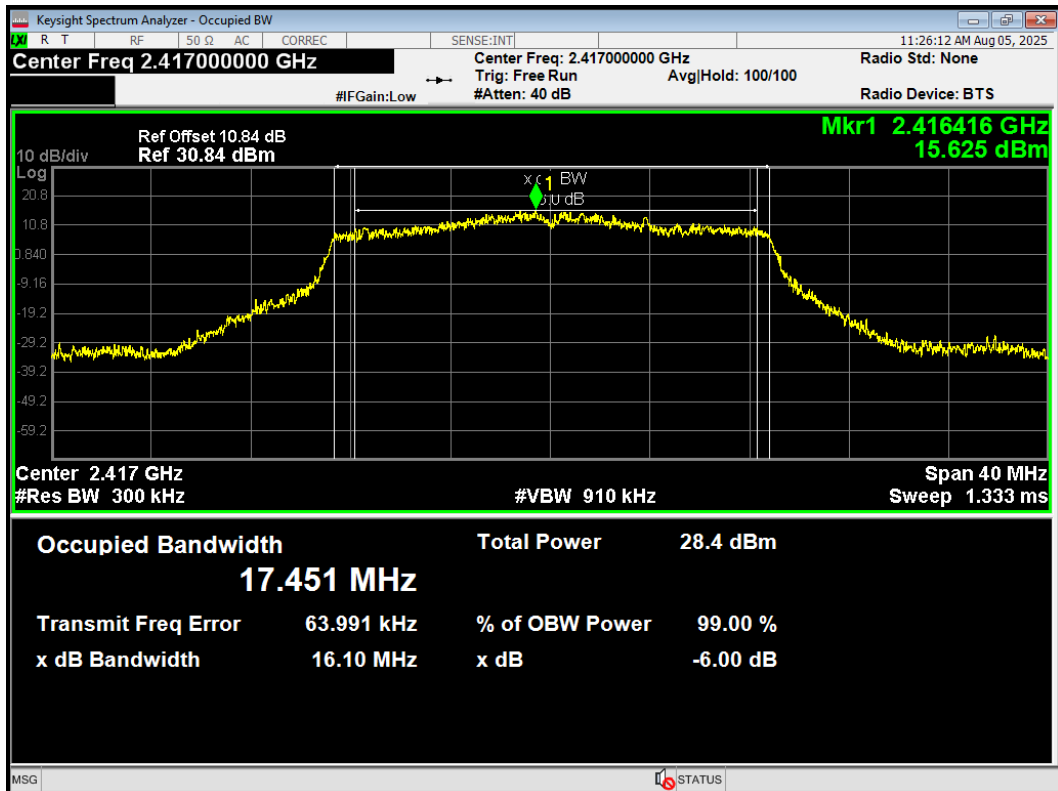
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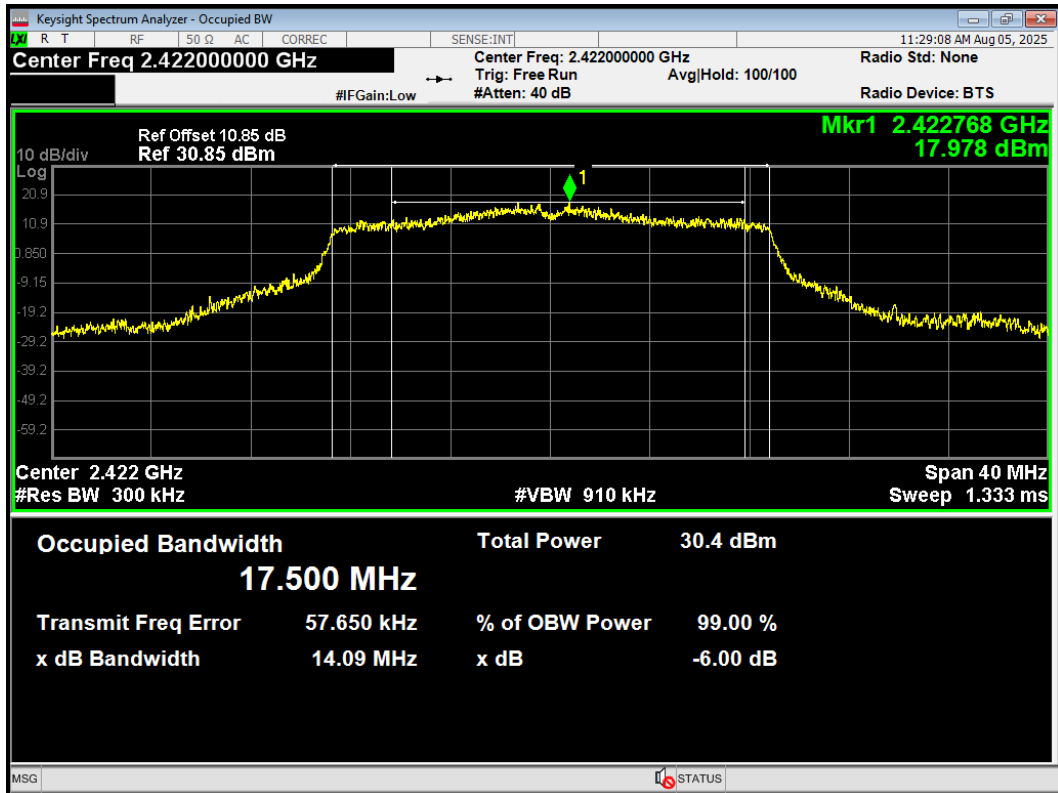
-6dB Bandwidth 802.11n(HT20) 2412MHz



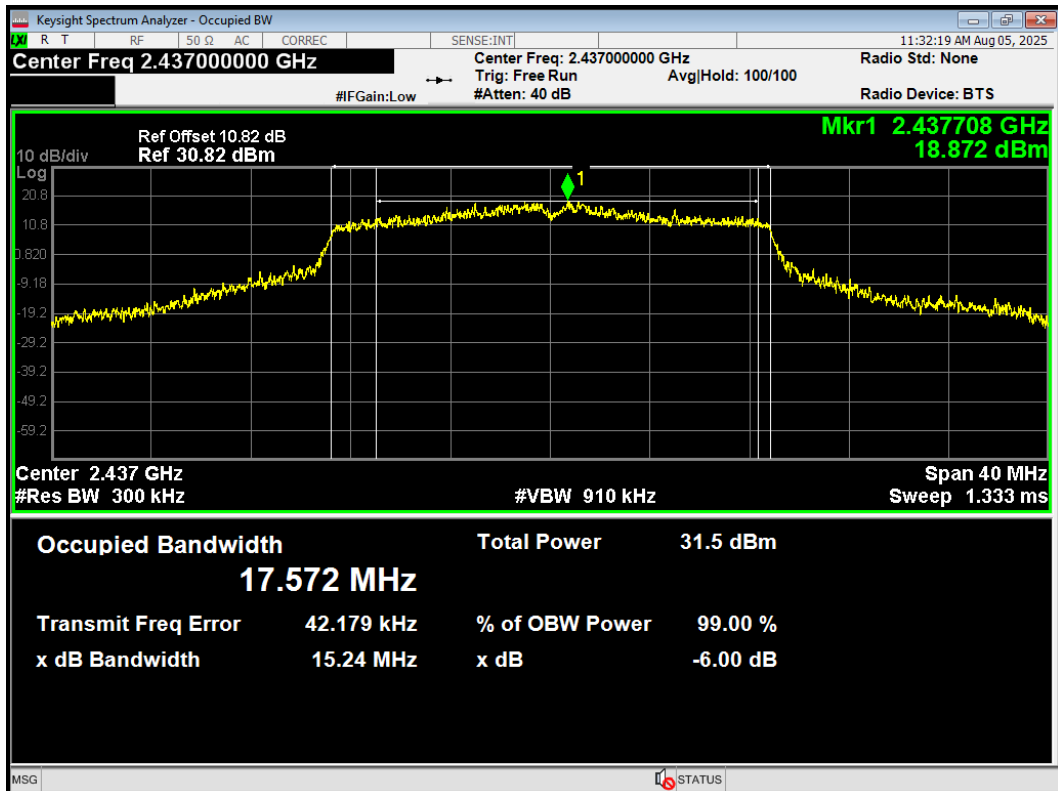
-6dB Bandwidth 802.11n(HT20) 2417MHz



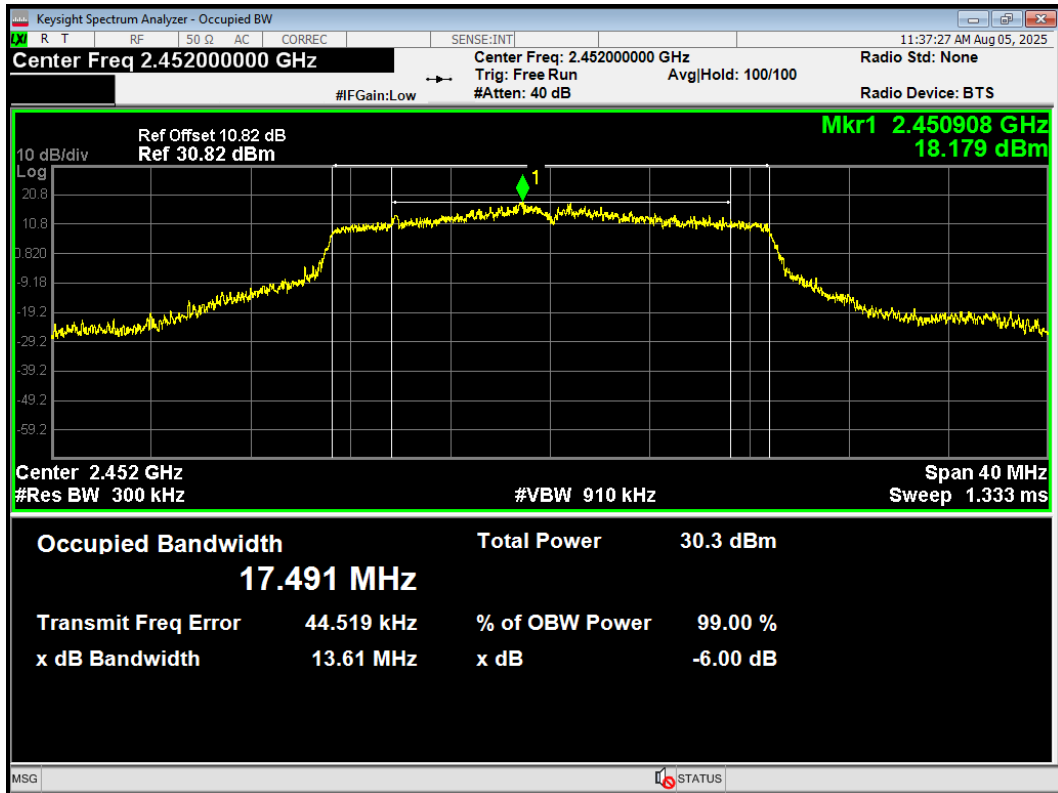
-6dB Bandwidth 802.11n(HT20) 2422MHz



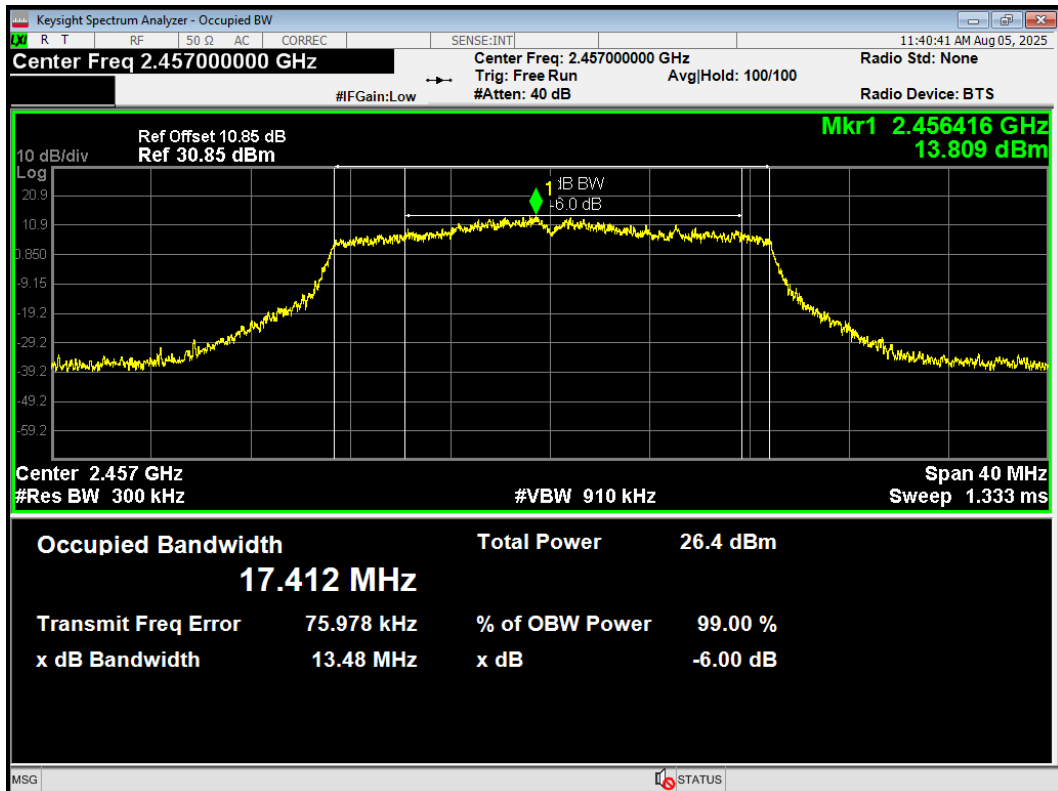
-6dB Bandwidth 802.11n(HT20) 2437MHz



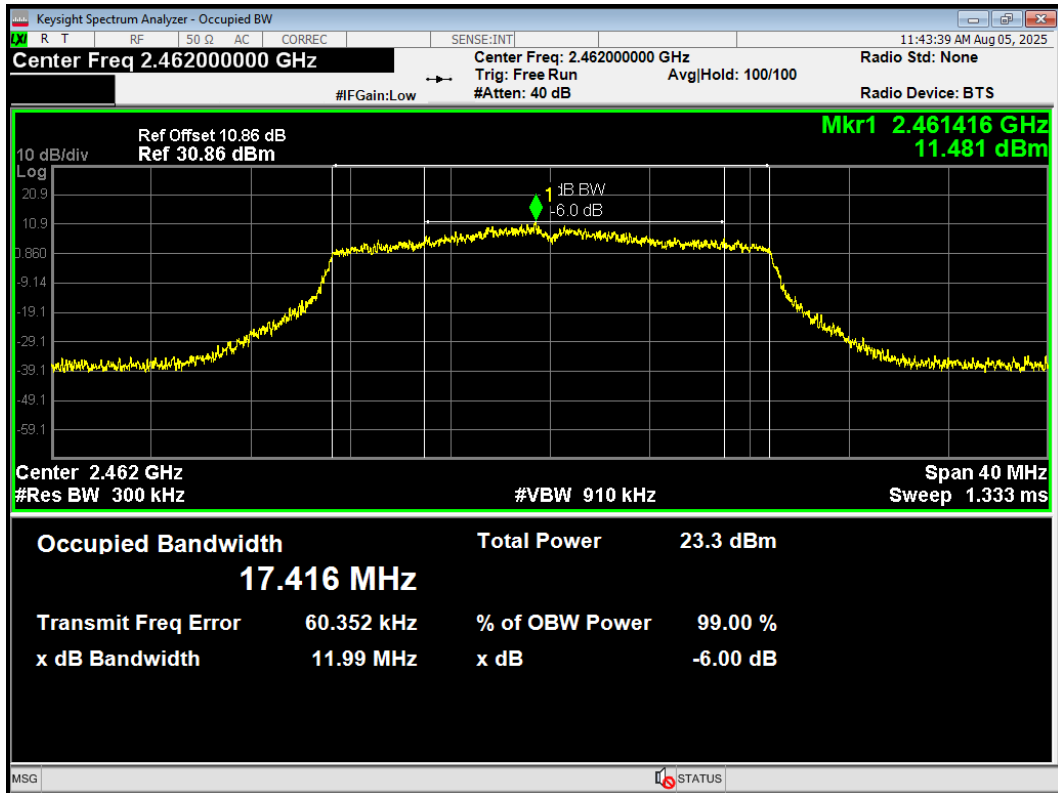
-6dB Bandwidth 802.11n(HT20) 2452MHz



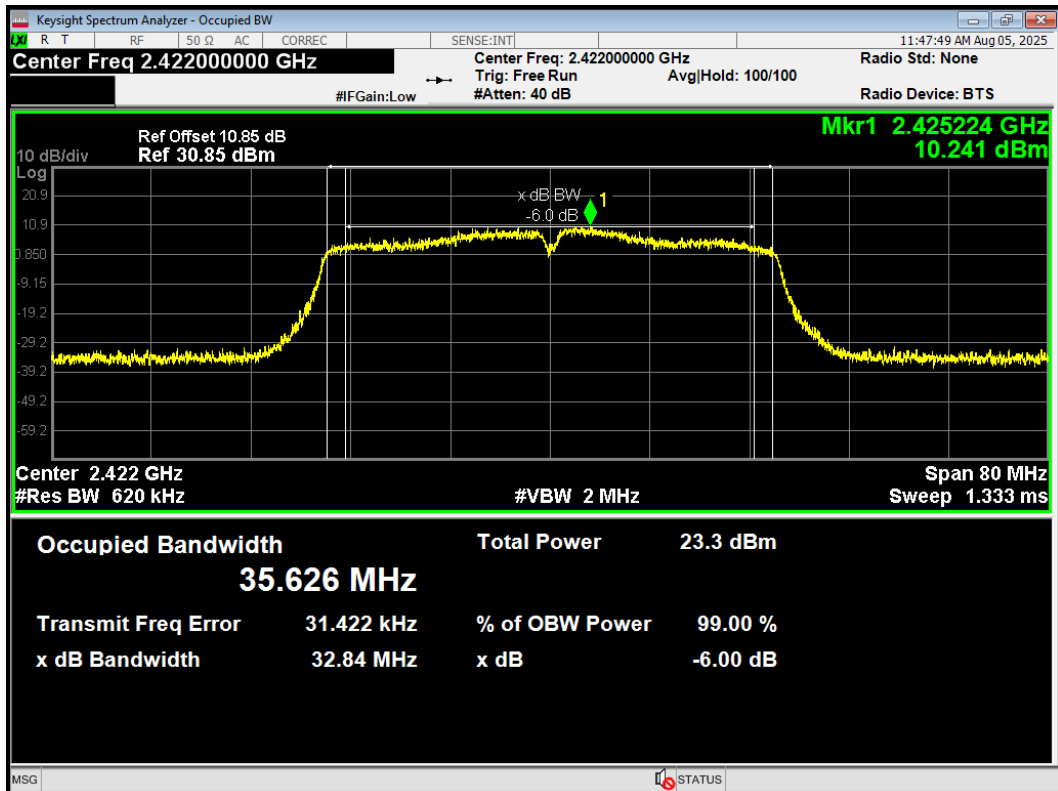
-6dB Bandwidth 802.11n(HT20) 2457MHz



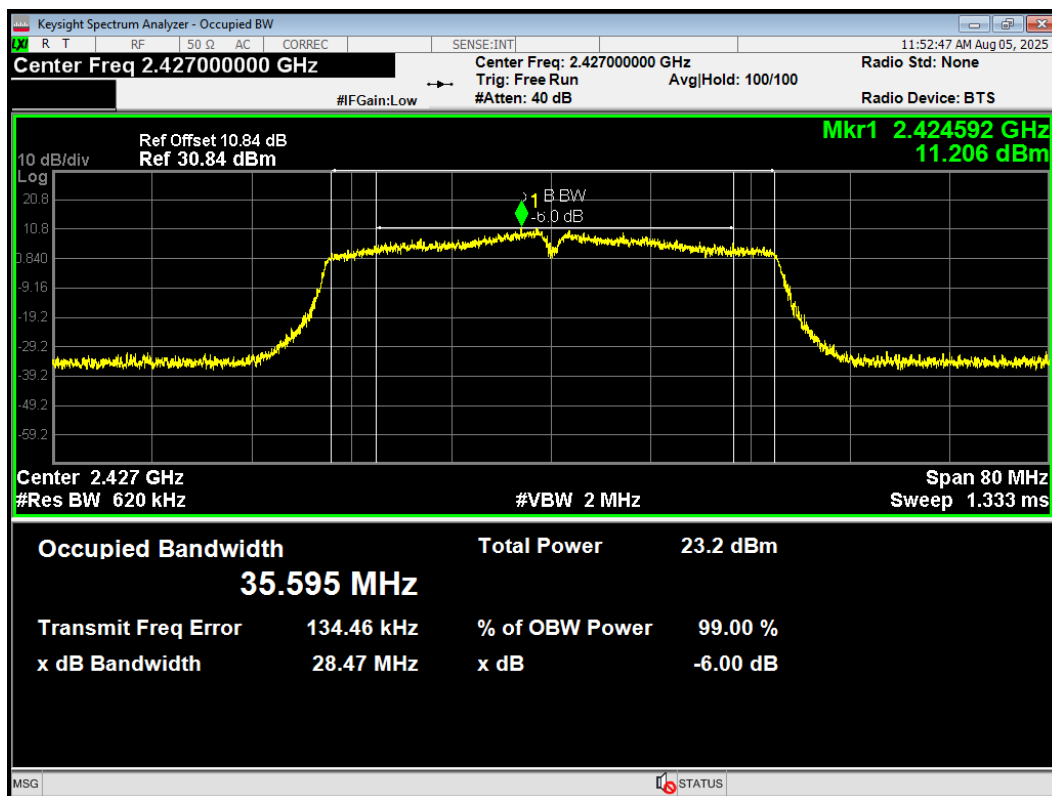
-6dB Bandwidth 802.11n(HT20) 2462MHz



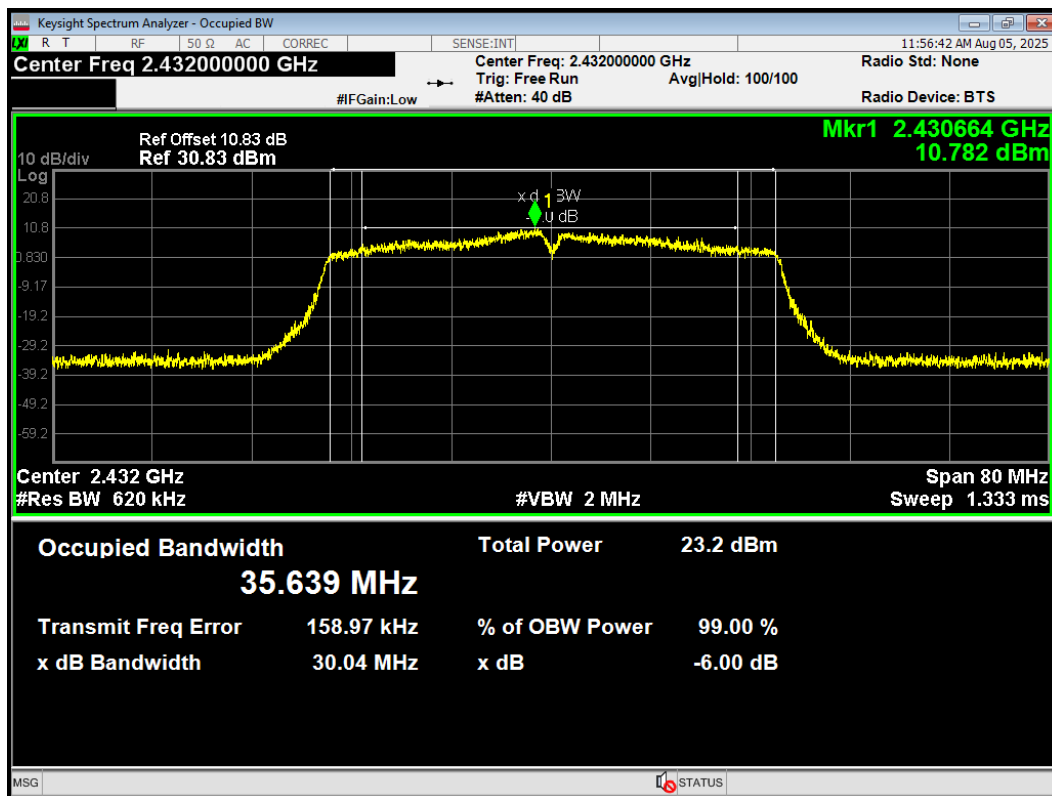
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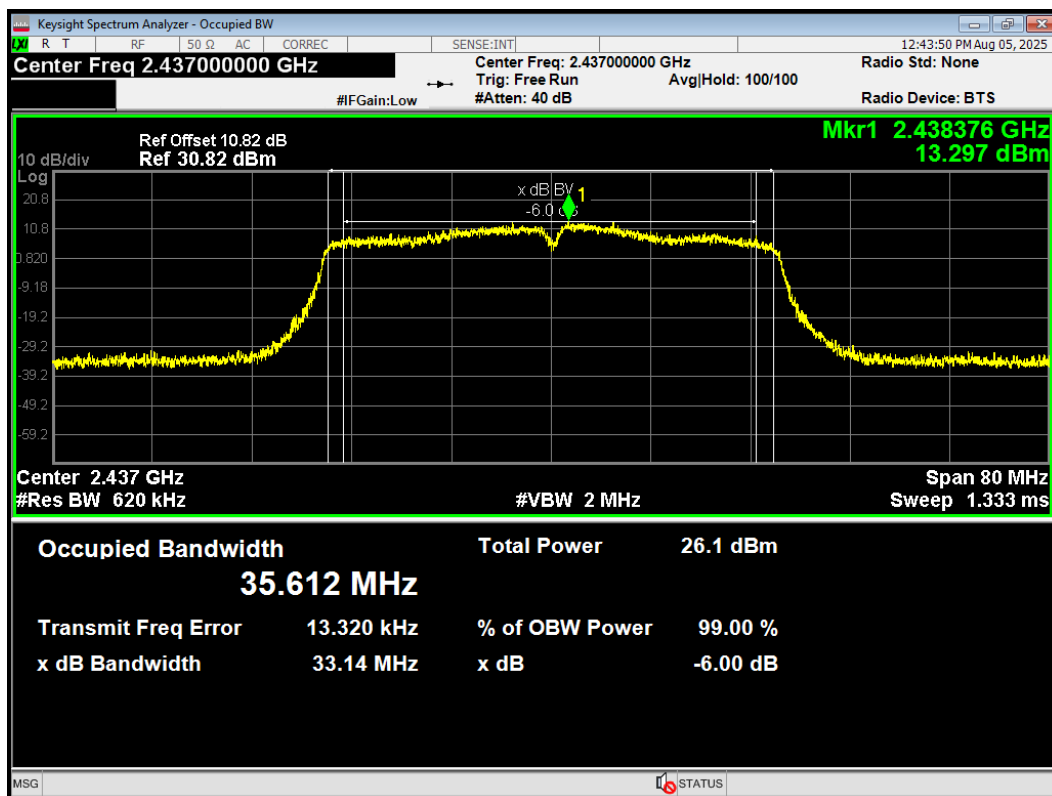
-6dB Bandwidth 802.11n(HT40) 2427MHz



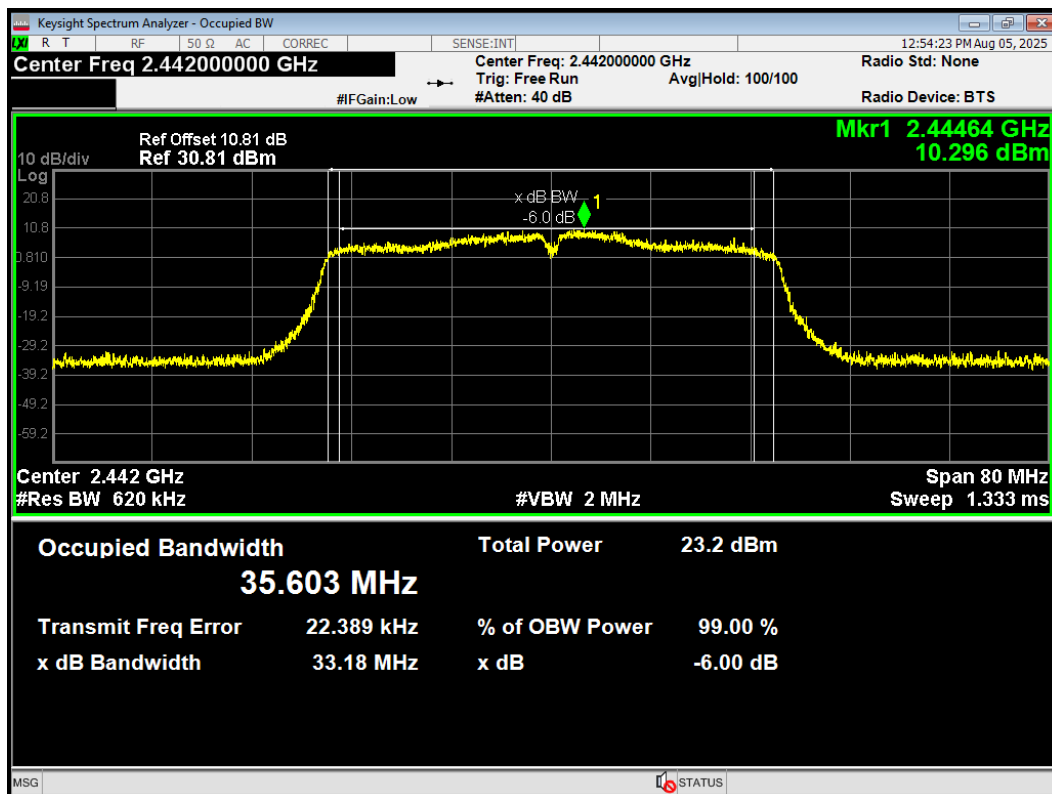
-6dB Bandwidth 802.11n(HT40) 2432MHz



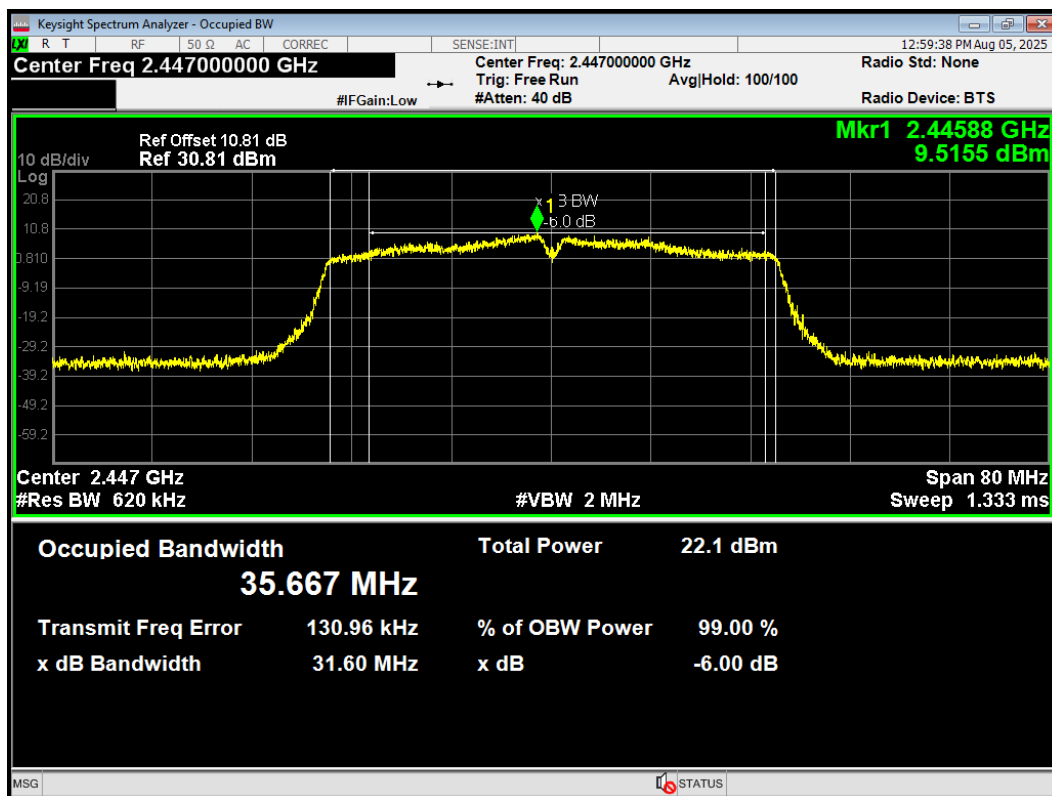
-6dB Bandwidth 802.11n(HT40) 2437MHz



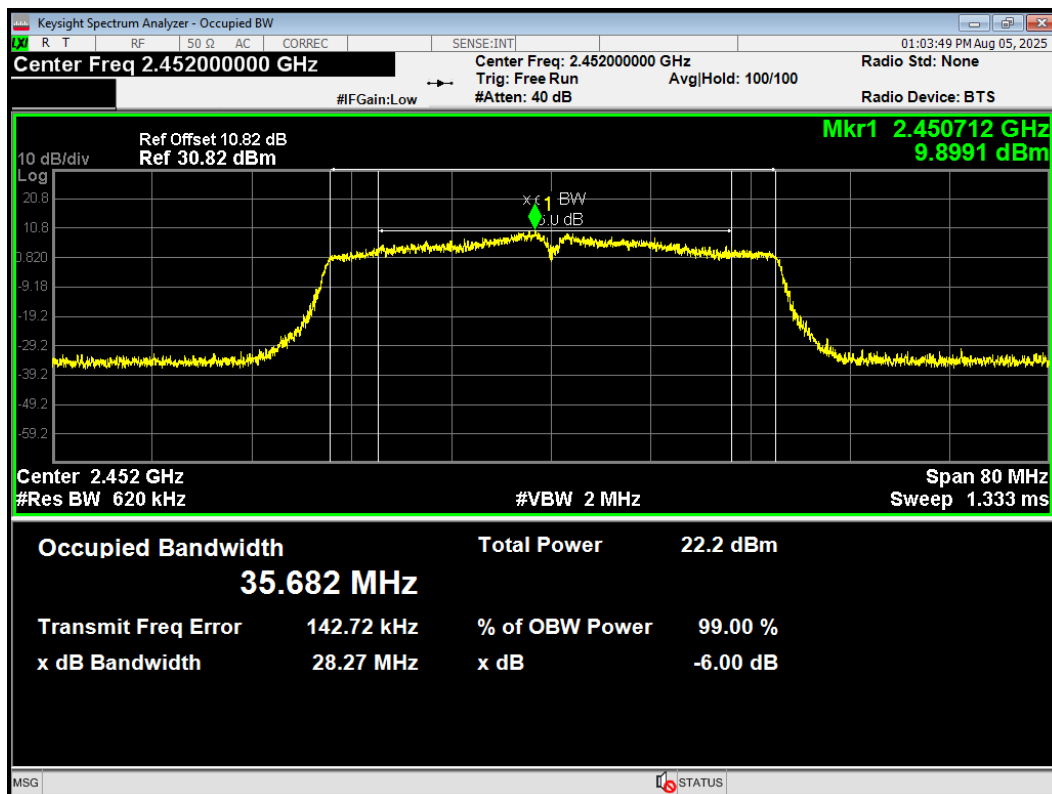
-6dB Bandwidth 802.11n(HT40) 2442MHz



-6dB Bandwidth 802.11n(HT40) 2447MHz



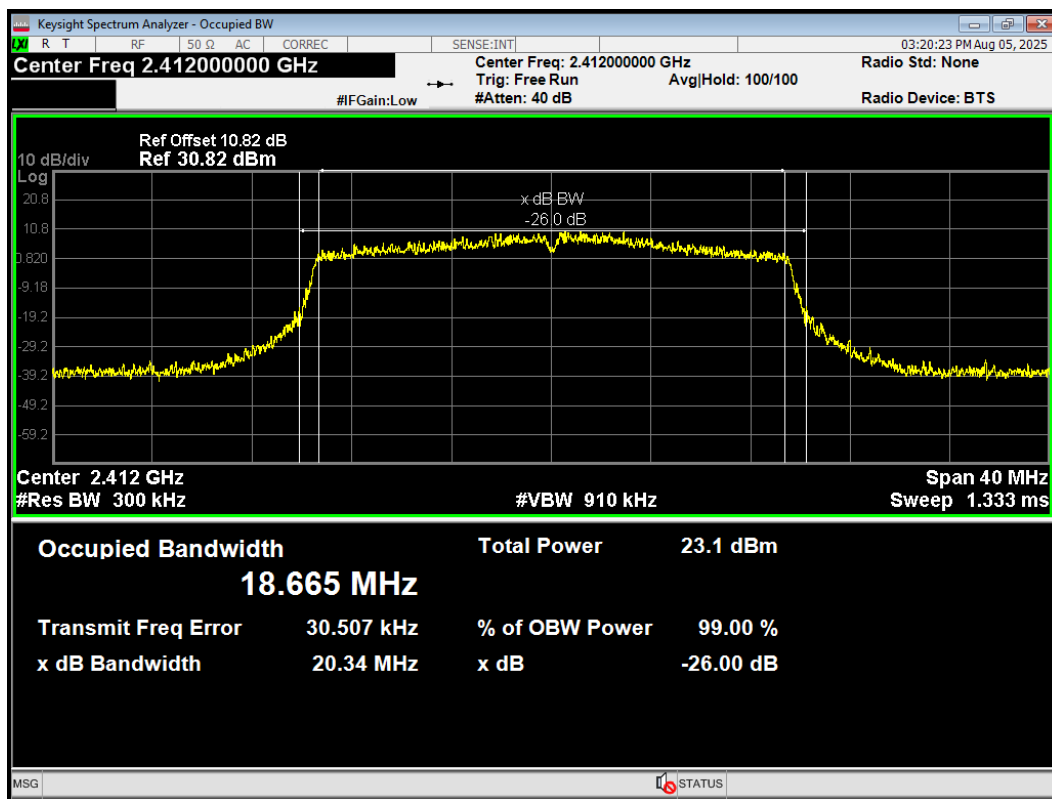
-6dB Bandwidth 802.11n(HT40) 2452MHz



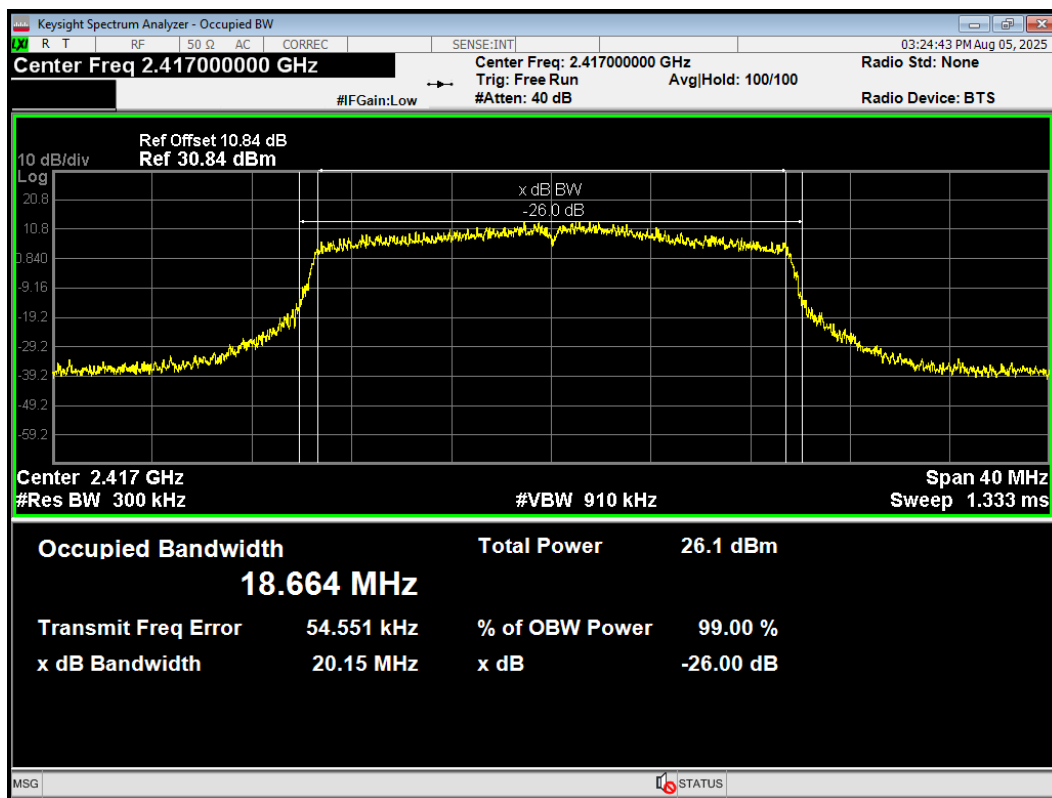
RU Mode

99%bandwidth

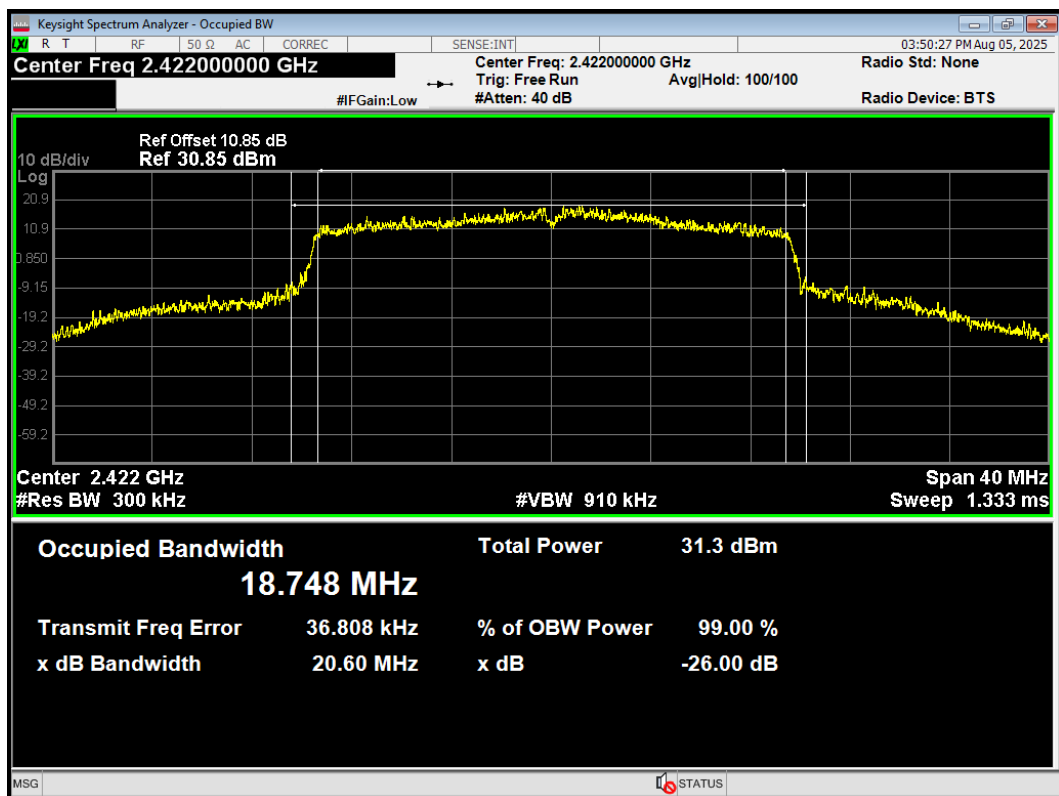
OBW 802.11ax(HE20)Index61 2412MHz



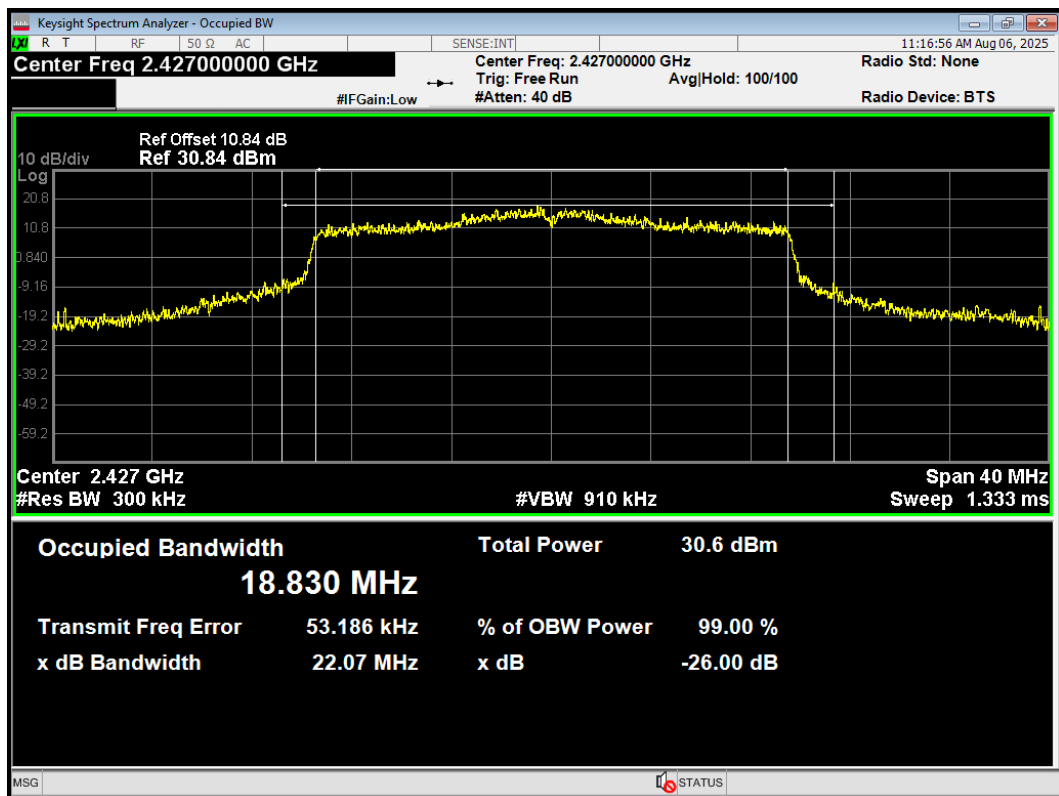
OBW 802.11ax(HE20)Index61 2417MHz



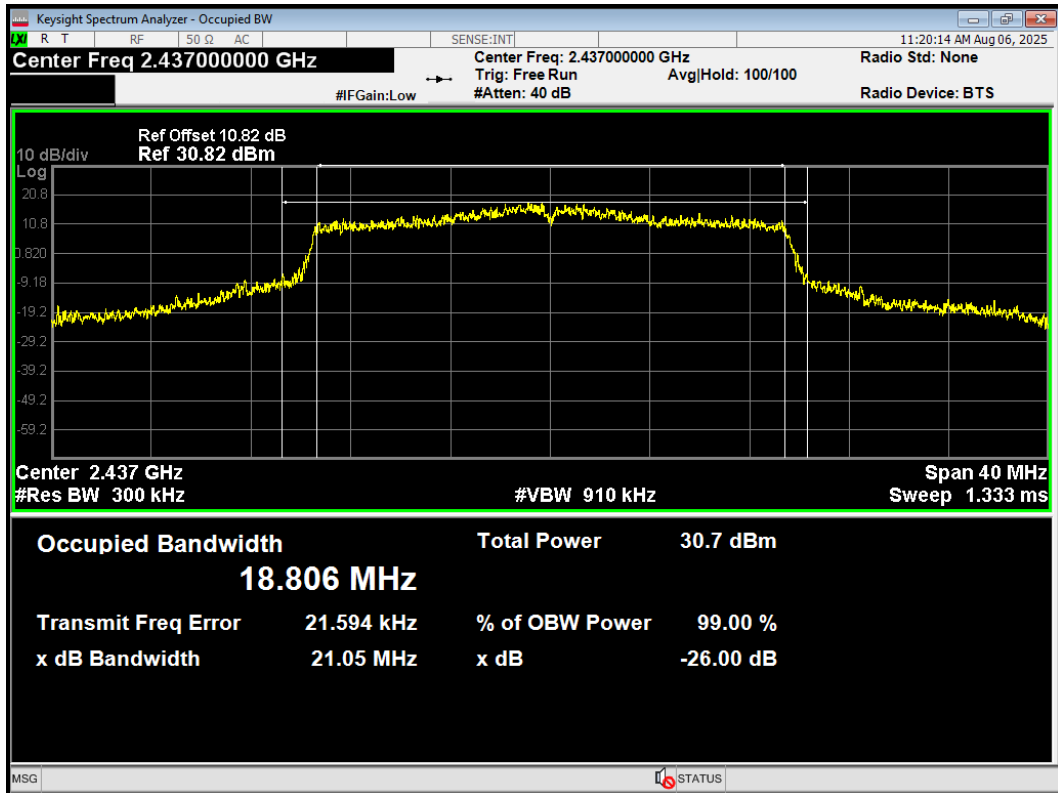
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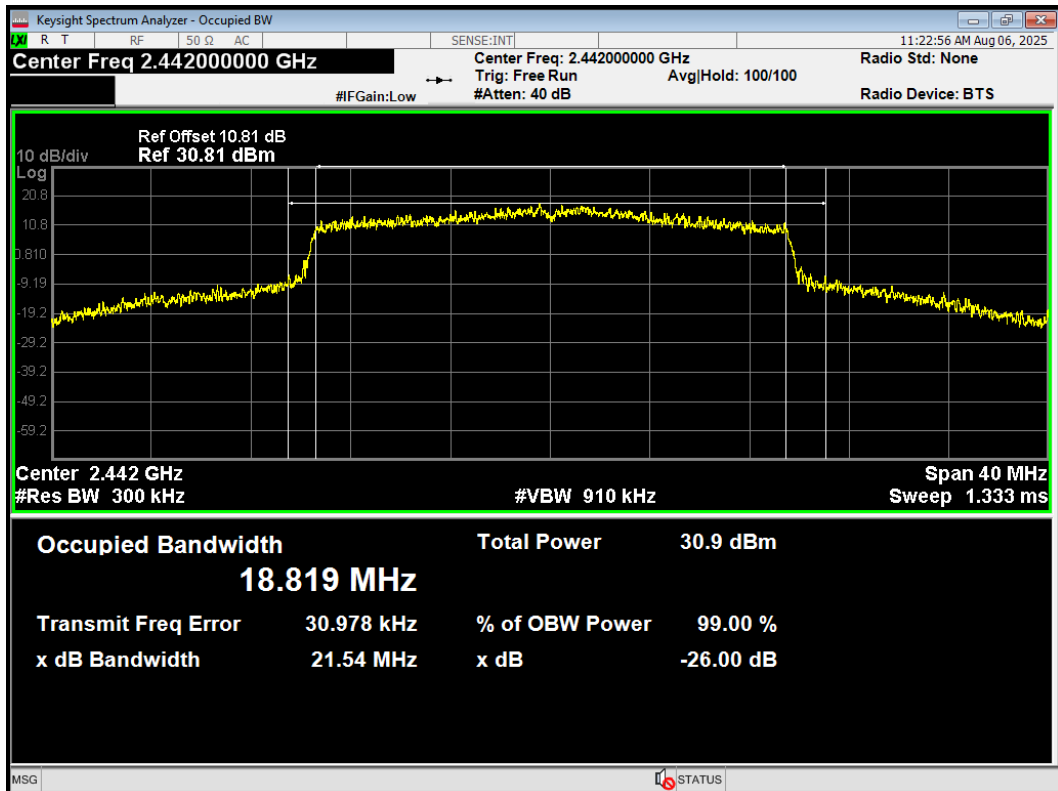
OBW 802.11ax(HE20)Index61 2427MHz



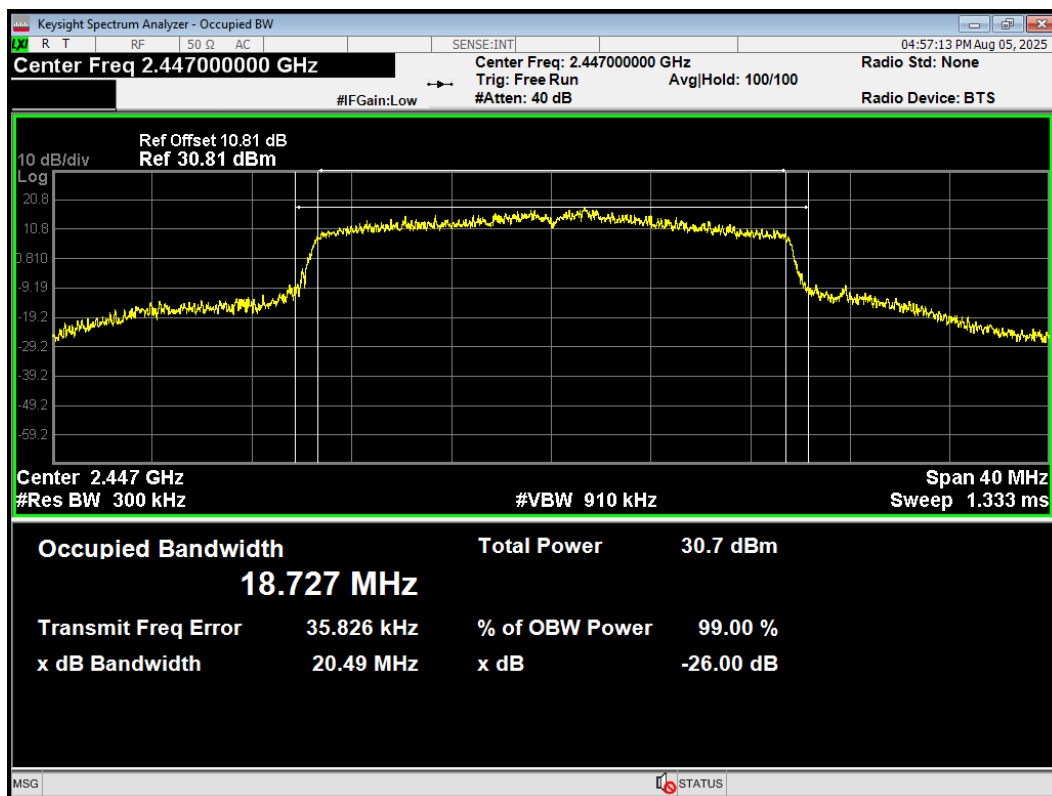
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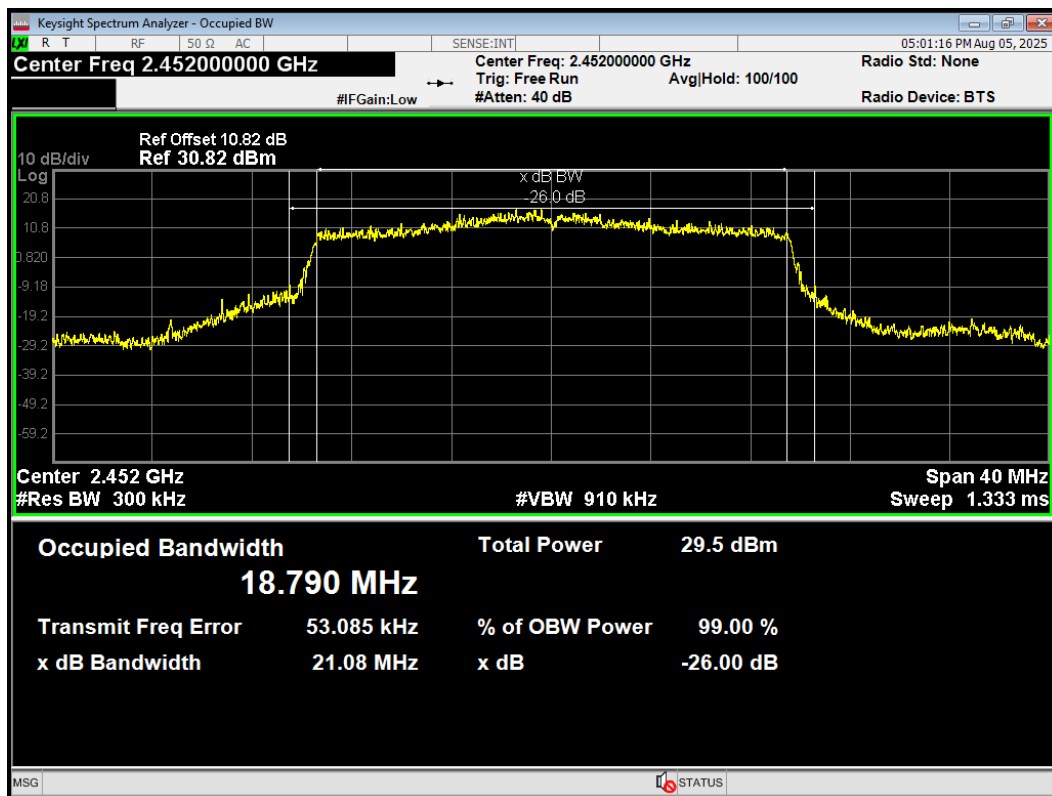
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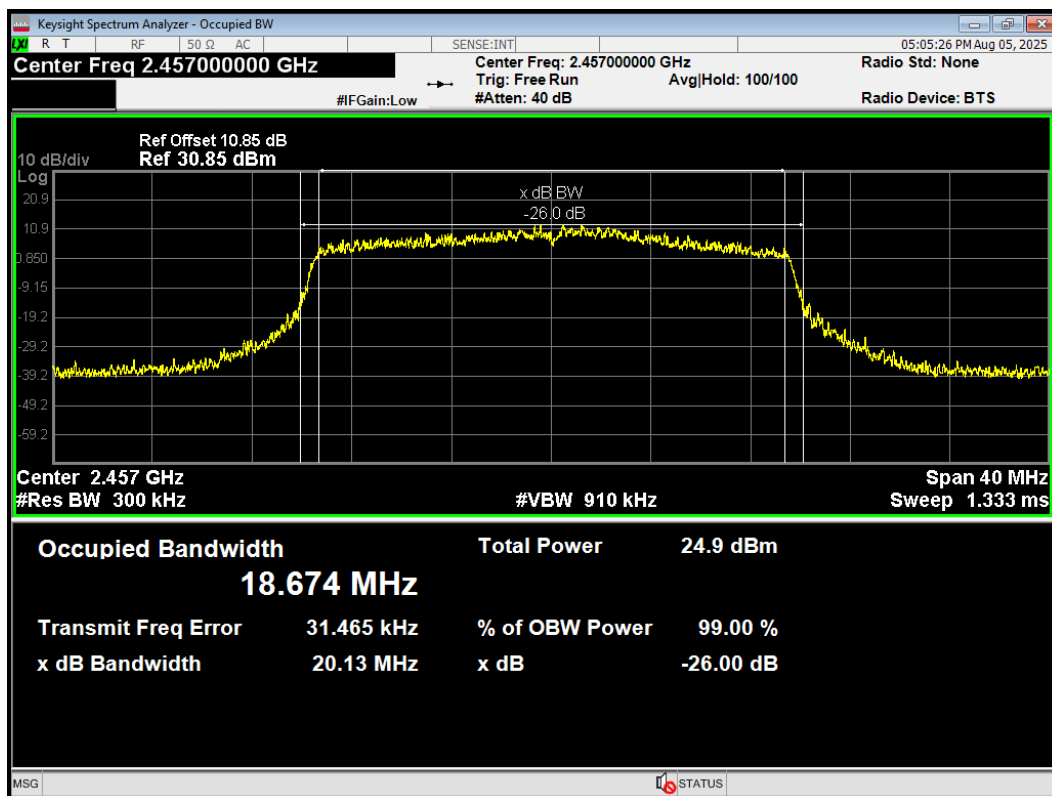
OBW 802.11ax(HE20)Index61 2447MHz



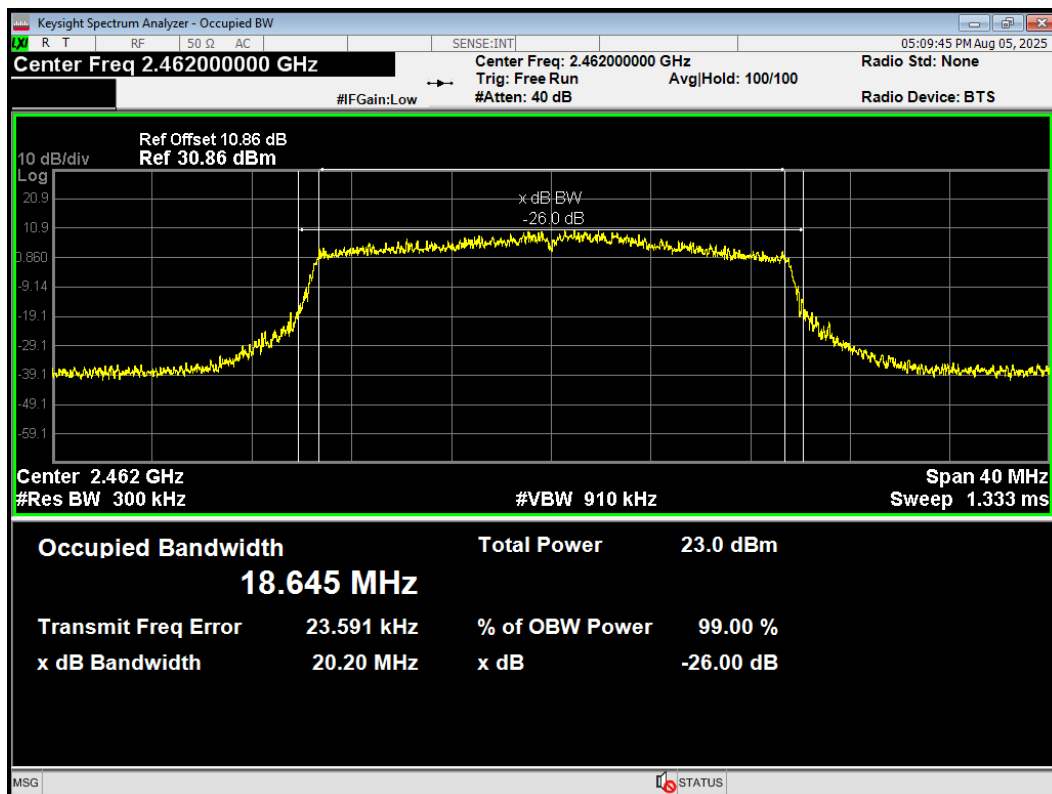
OBW 802.11ax(HE20)Index61 2452MHz



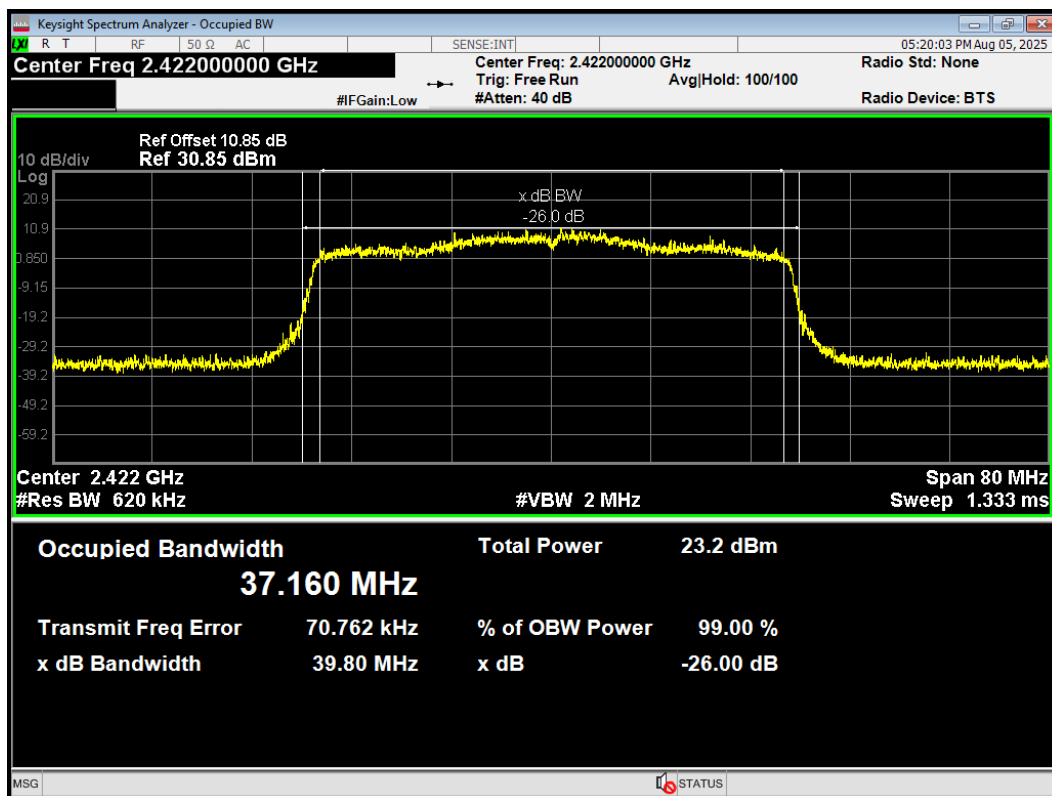
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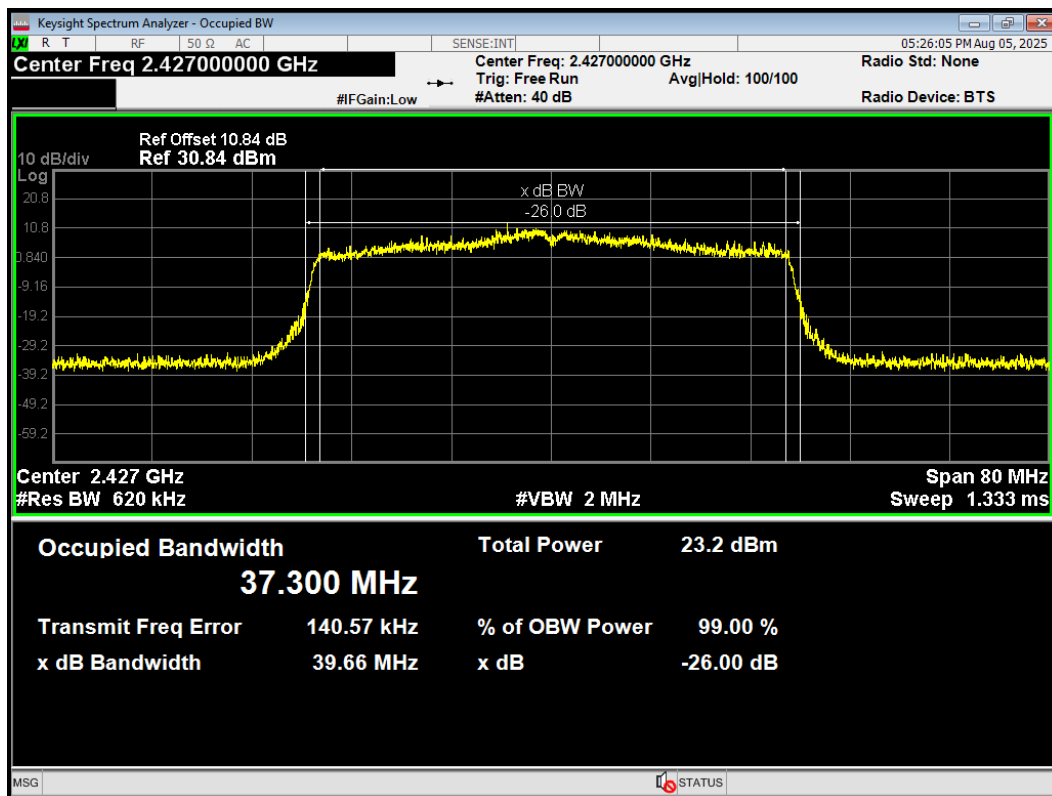
OBW 802.11ax(HE20)Index61 2462MHz



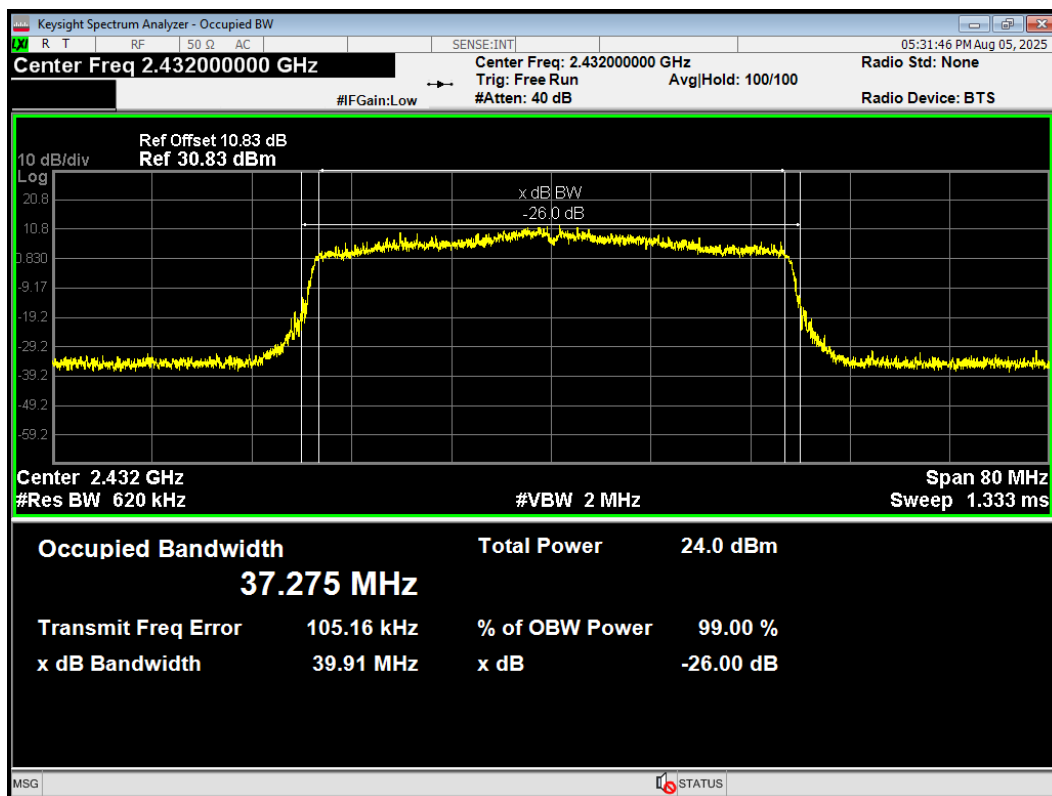
OBW 802.11ax(HE40)484T Index65 2422MHz



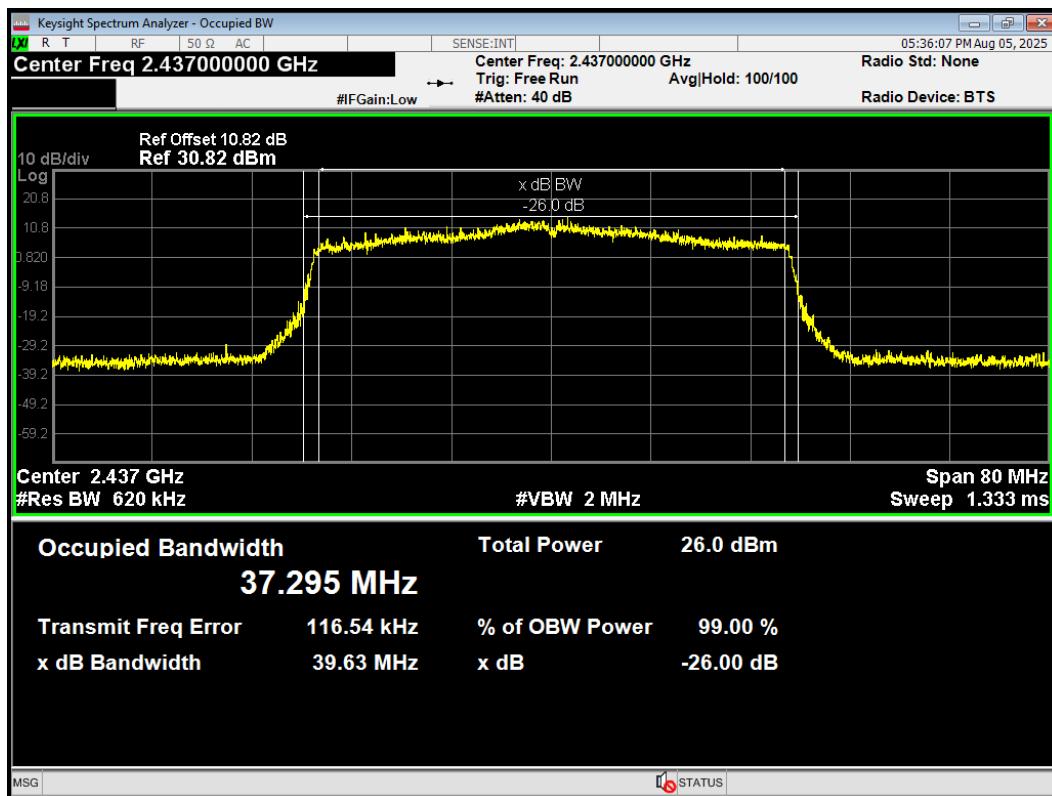
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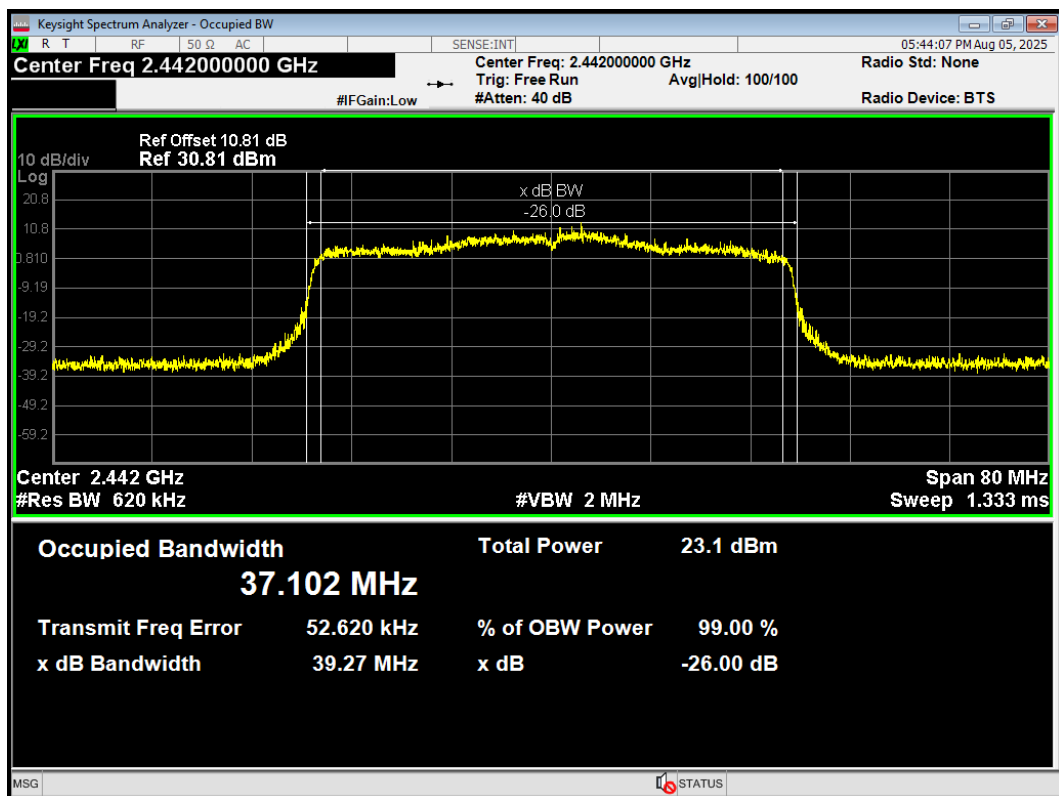
OBW 802.11ax(HE40)484T Index65 2432MHz



OBW 802.11ax(HE40)484T Index65 2437MHz



OBW 802.11ax(HE40)484T Index65 2442MHz



OBW 802.11ax(HE40)484T Index65 2447MHz

