



11B-Ant1-2462-PASS



11G-Ant1-2412-PASS



11G-Ant1-2437-PASS



11G-Ant1-2462-PASS



11N20SISO-Ant1-2412-PASS



11N20SISO-Ant1-2437-PASS



11N20SISO-Ant1-2462-PASS



11N40SISO-Ant1-2422-PASS



11N40SISO-Ant1-2437-PASS



11N40SISO-Ant1-2452-PASS



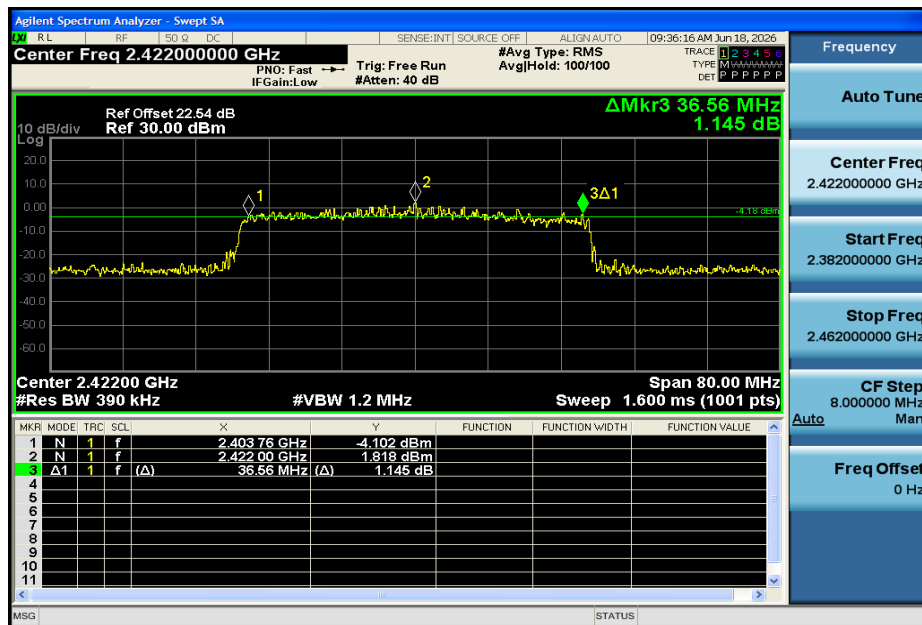
11AX20SISO-Ant1-2412-PASS



11AX20SISO-Ant1-2437-PASS



11AX20SISO-Ant1-2462-PASS



11AX40SISO-Ant1-2422-PASS



11AX40SISO-Ant1-2437-PASS

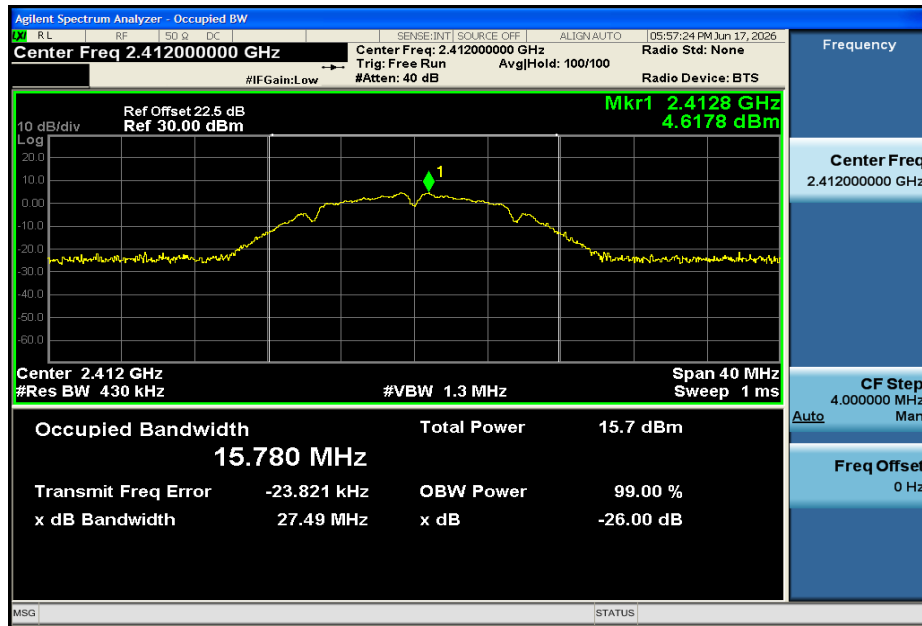


11AX40SISO-Ant1-2452-PASS

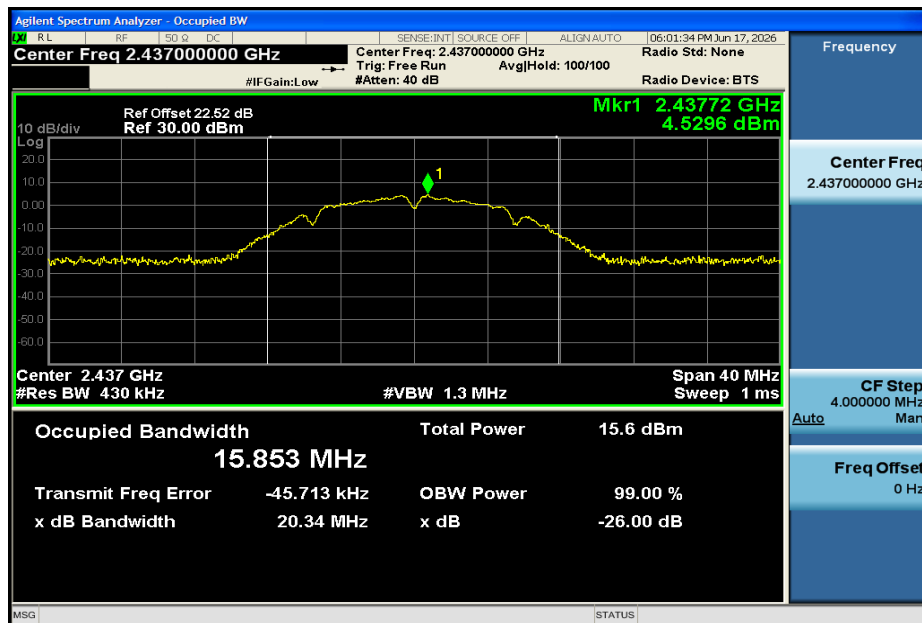
Occupied Channel Bandwidth

Test Mode	Antenna	Channel Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11B	Ant1	2412	15.780	2404.0862	2419.8662	---	---
11B	Ant1	2437	15.853	2429.0278	2444.8808	---	---
11B	Ant1	2462	16.073	2453.9875	2470.0605	---	---
11G	Ant1	2412	17.401	2403.2899	2420.6909	---	---
11G	Ant1	2437	17.202	2428.3727	2445.5747	---	---
11G	Ant1	2462	17.180	2453.2702	2470.4502	---	---
11N20SISO	Ant1	2412	18.441	2402.7042	2421.1452	---	---
11N20SISO	Ant1	2437	18.492	2427.6948	2446.1868	---	---
11N20SISO	Ant1	2462	18.655	2452.6431	2471.2981	---	---
11N40SISO	Ant1	2422	37.687	2402.9822	2440.6692	---	---
11N40SISO	Ant1	2437	37.150	2418.3644	2455.5144	---	---
11N40SISO	Ant1	2452	37.334	2433.2159	2470.5499	---	---
11AX20SISO	Ant1	2412	19.162	2402.4300	2421.5920	---	---
11AX20SISO	Ant1	2437	19.122	2427.4129	2446.5349	---	---
11AX20SISO	Ant1	2462	19.219	2452.3836	2471.6026	---	---
11AX40SISO	Ant1	2422	38.111	2402.9317	2441.0427	---	---
11AX40SISO	Ant1	2437	38.201	2417.8682	2456.0692	---	---
11AX40SISO	Ant1	2452	38.418	2432.8326	2471.2506	---	---

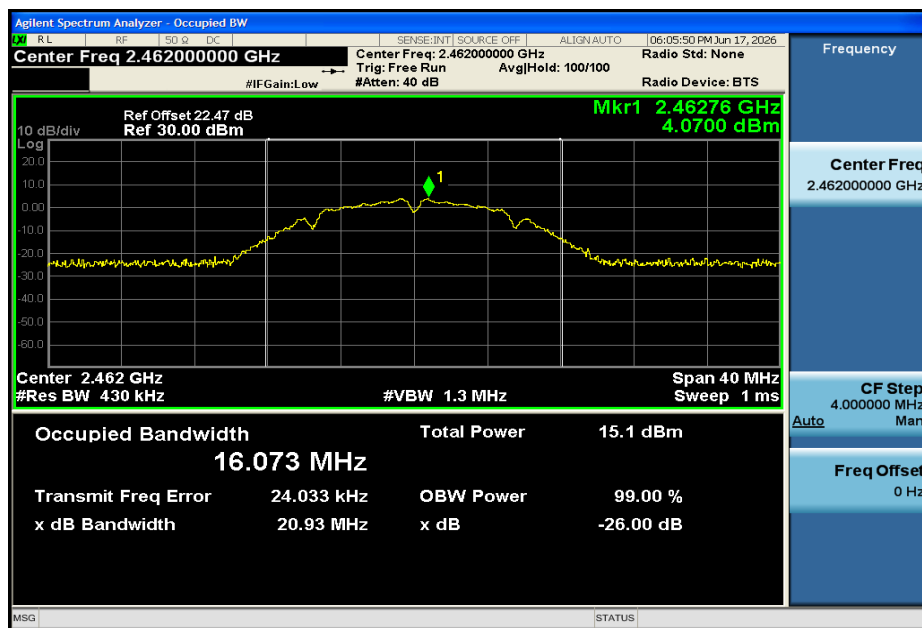
Test Graphs



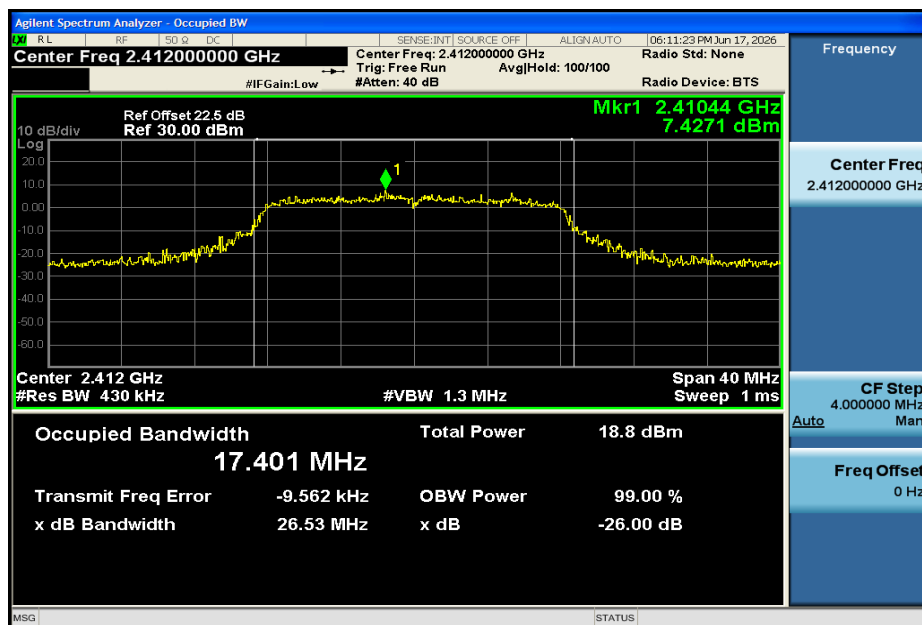
11B-Ant1-2412



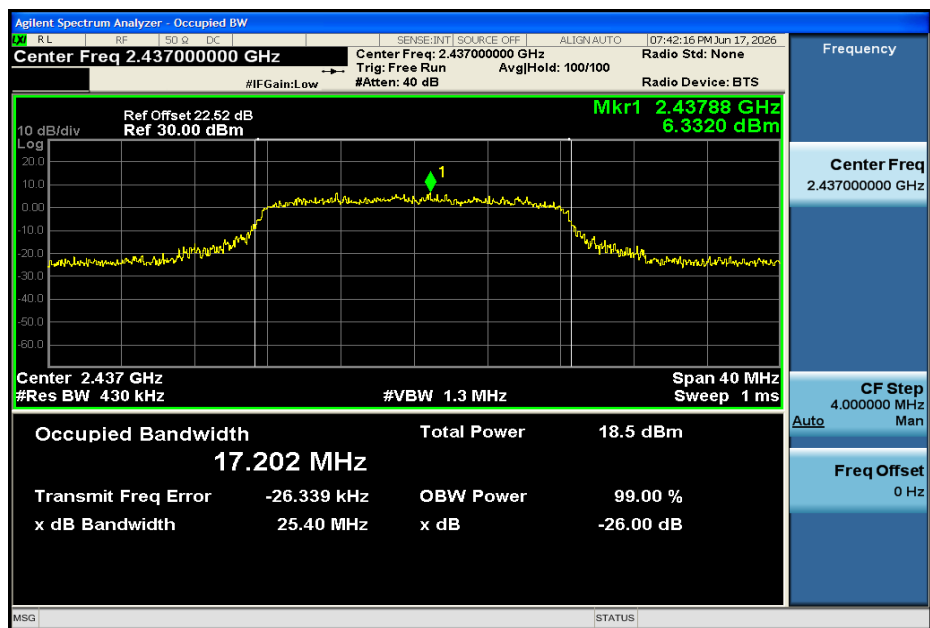
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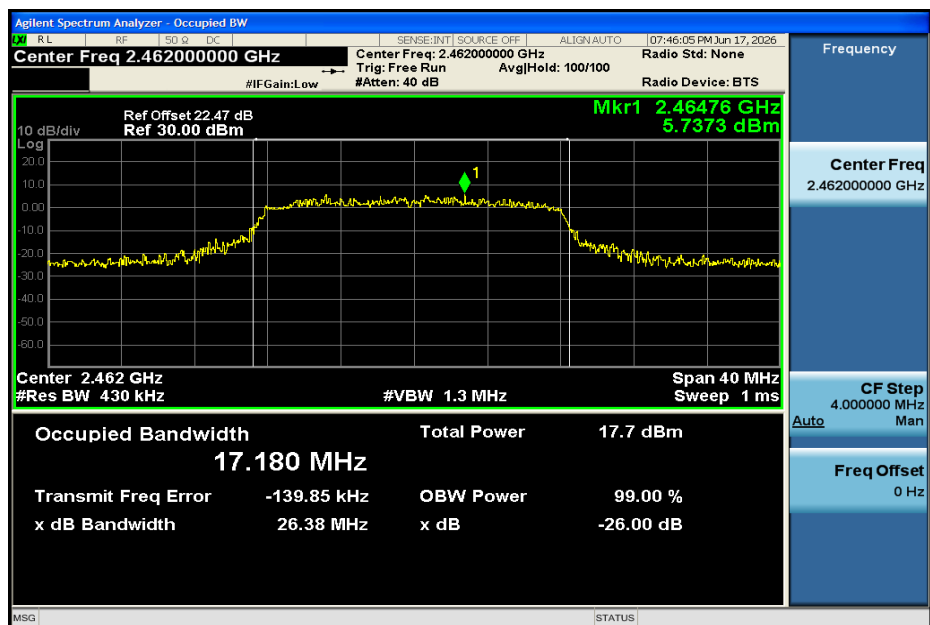
11B-Ant1-2462



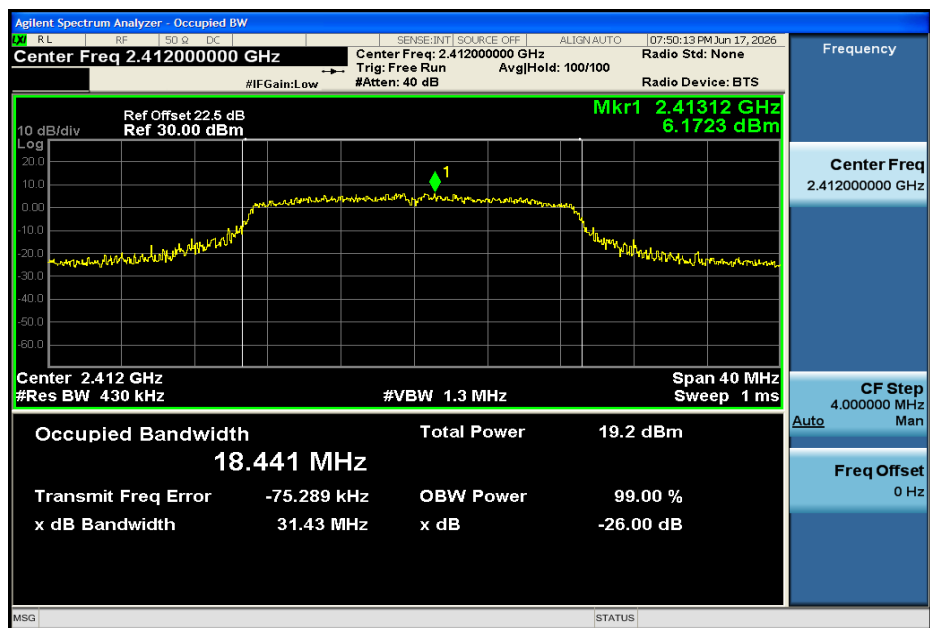
11G-Ant1-2412



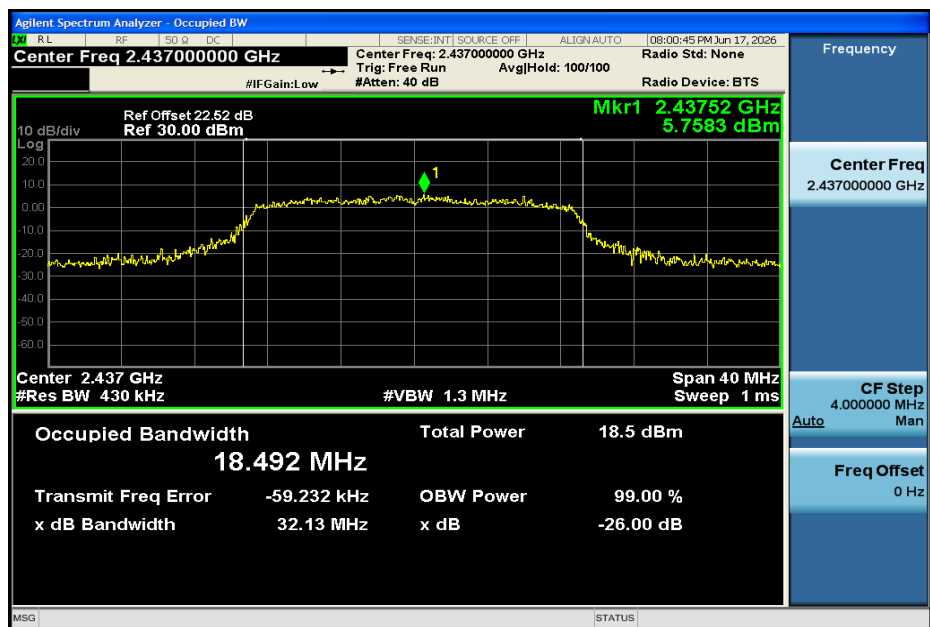
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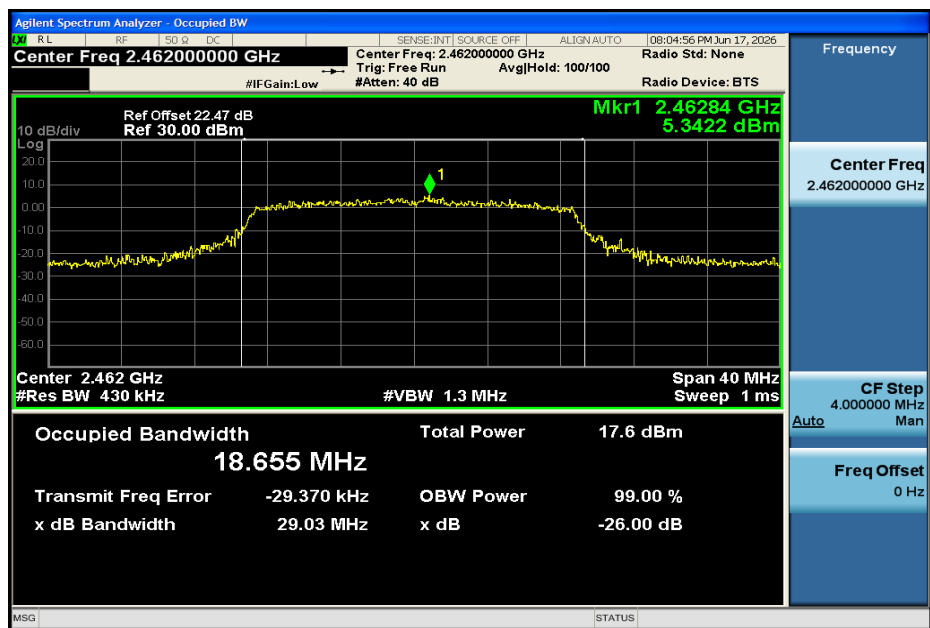
11G-Ant1-2462



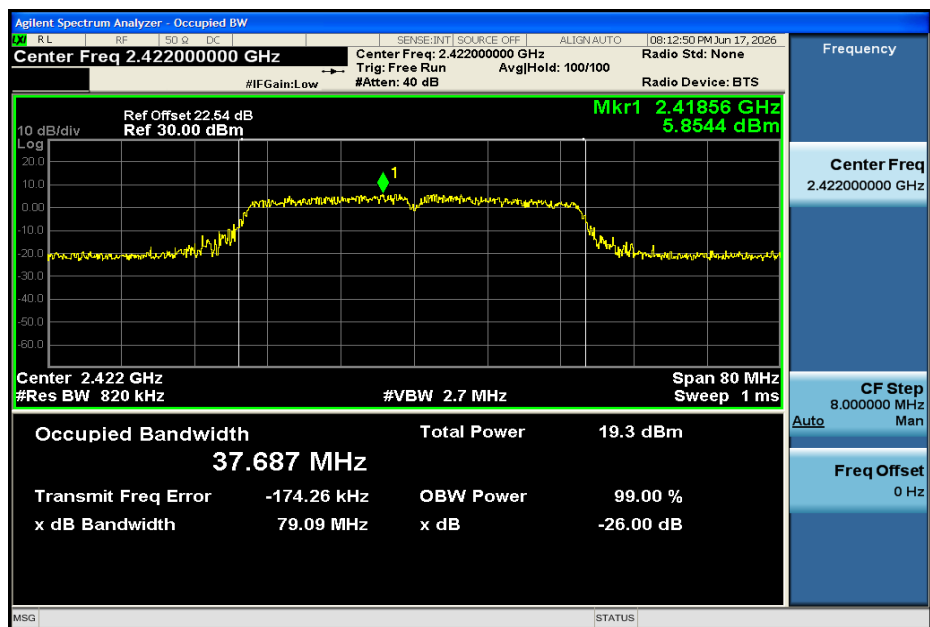
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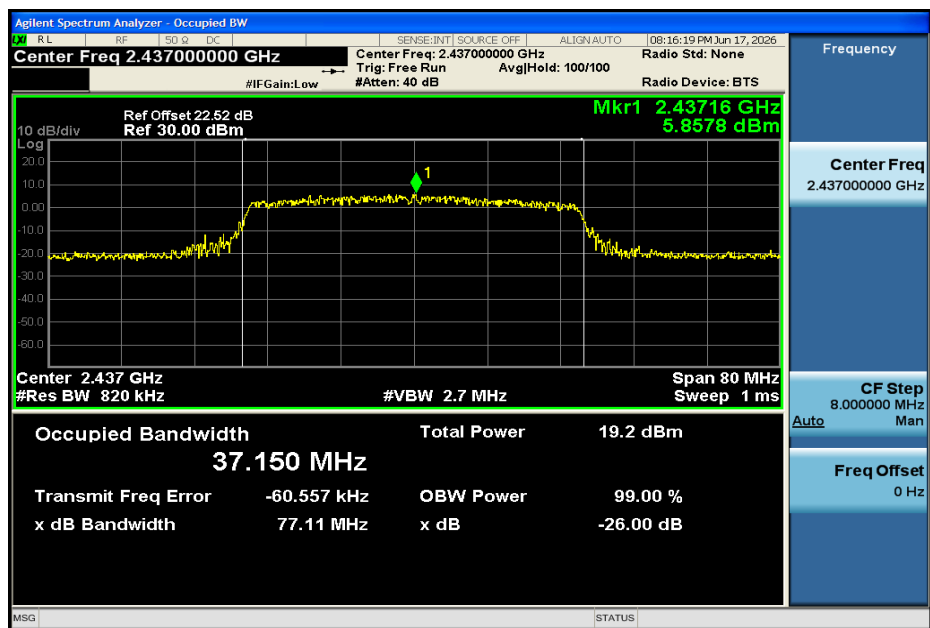
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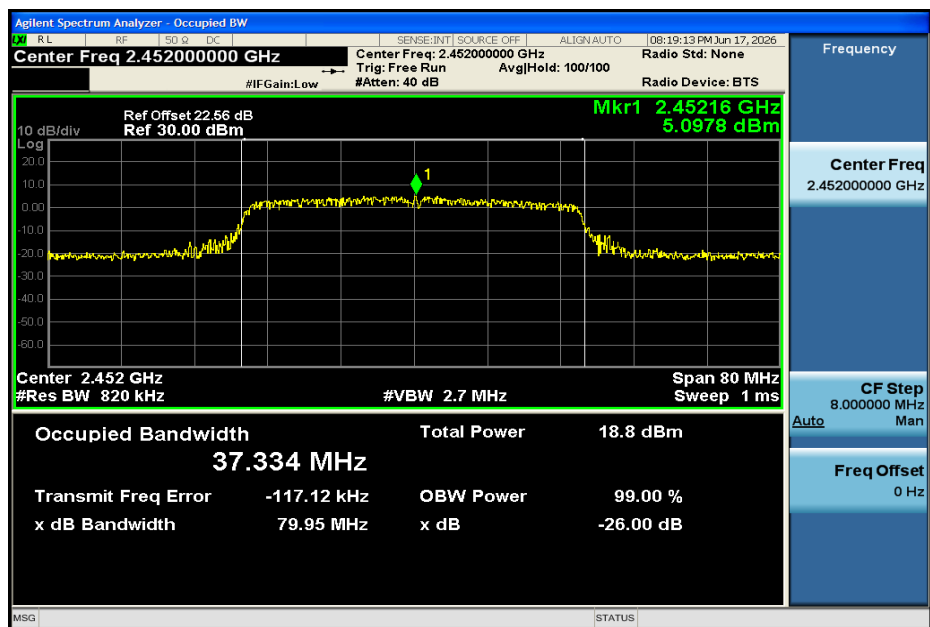
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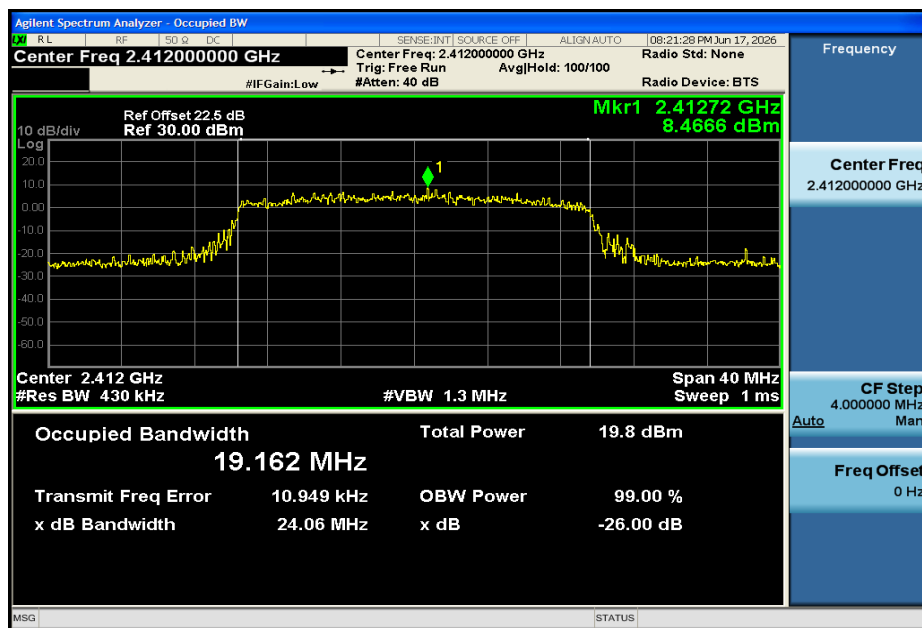
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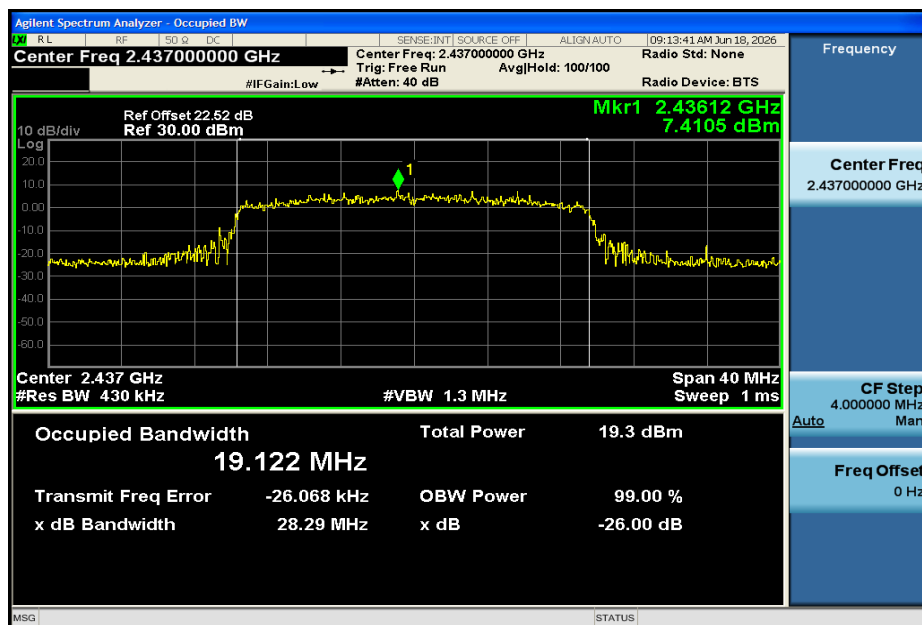
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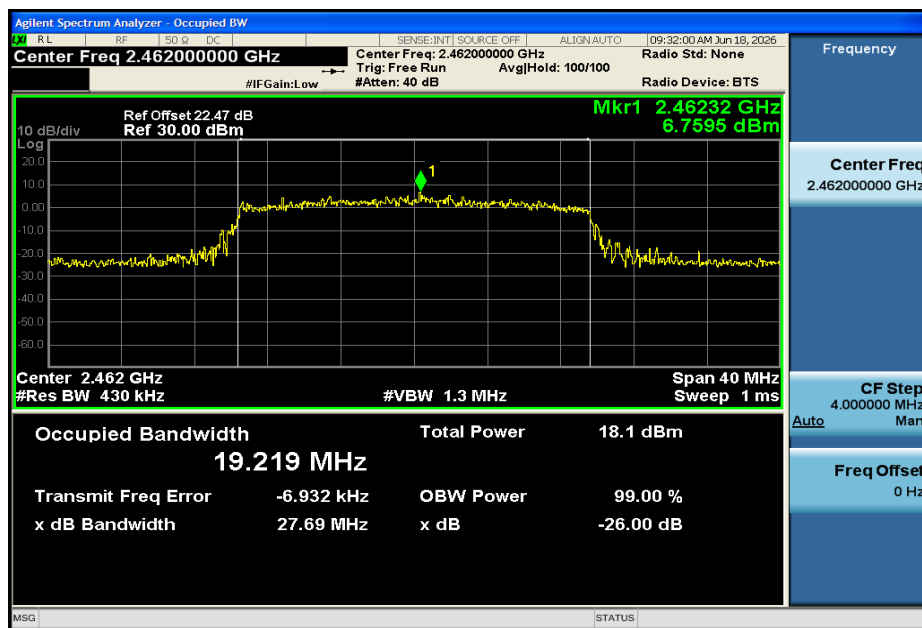
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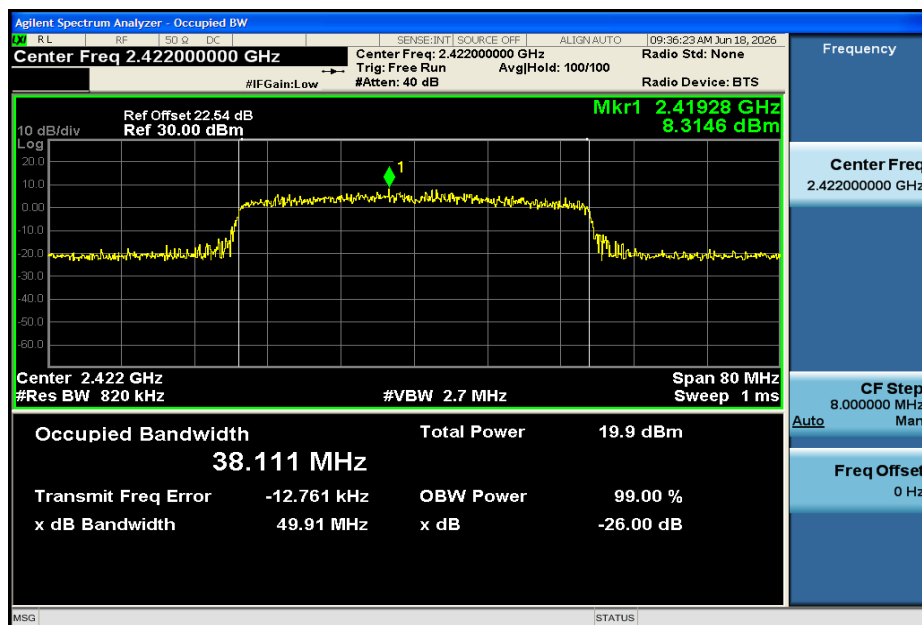
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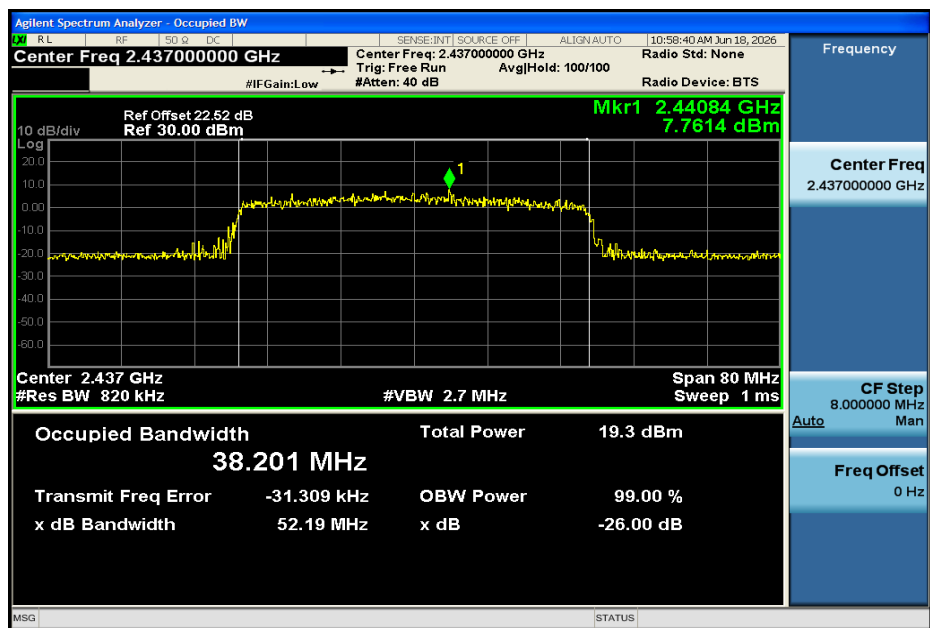
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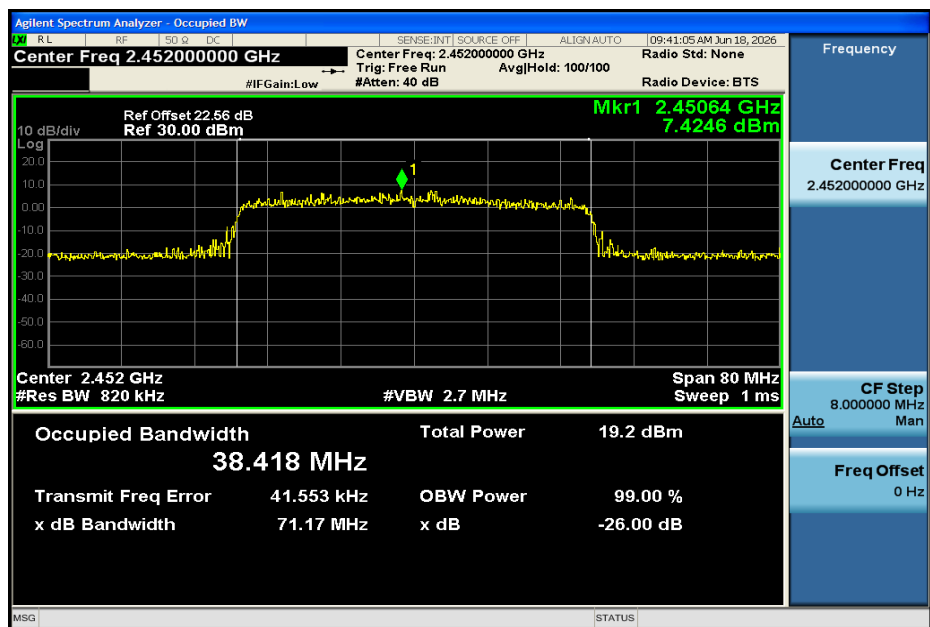
11AX20SISO-Ant1-2462



11AX40SISO-Ant1-2422



11AX40SISO-Ant1-2437



11AX40SISO-Ant1-2452

3.5 Maximum conducted output power

3.5.1 Limit

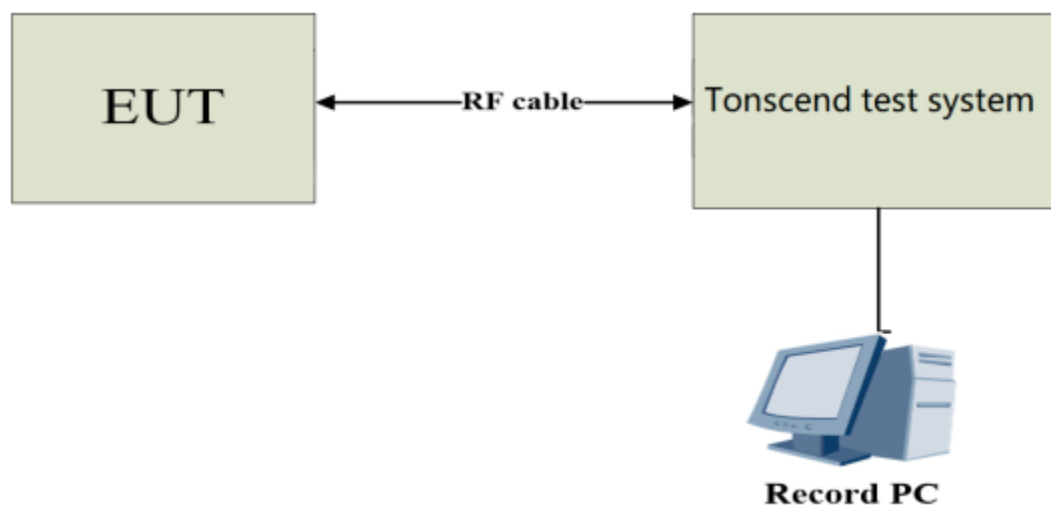
For systems using digital modulation in the 2400~2483.5MHz, The Maximum output Power shall not exceed 1W(30dBm)

3.5.2 Test Procedure

Test Method	
☒ Conducted Measurement	☐ Radiated Measurement
Test Channels	
☒ Lowest, Middle and Highest Channel	☐ Lowest and Highest Channel
Environmental conditions	
☒ Normal	☐ Normal and Extreme
Note: ● : Test ○ : No Test	

- The EUT was directly connected to the tonscend test system and antenna output port as show in the block diagram below.
- The maximum conducted output power was performed in accordance with method 11.9.2.3.1 (for method AVGPM)of ANSI C63.10-2020.

3.5.3 Test Setup



3.5.4 Table of Parameters of Text Software Setting

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

Test Software Version	UART FF		
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	Default	Default	Default
IEEE 802.11g	Default	Default	Default
IEEE 802.11n20	Default	Default	Default
IEEE 802.11ax20	Default	Default	Default
Frequency (MHz)	2422	2437	2452
IEEE 802.11n40	Default	Default	Default
IEEE 802.11ax20	Default	Default	Default

3.5.5 The Result

Test Mode	Antenna	Frequency[MHz]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	10.86	≤30.00	PASS
11B	Ant1	2437	10.62	≤30.00	PASS
11B	Ant1	2462	11.25	≤30.00	PASS
11G	Ant1	2412	13.83	≤30.00	PASS
11G	Ant1	2437	14.04	≤30.00	PASS
11G	Ant1	2462	12.45	≤30.00	PASS
11N20SISO	Ant1	2412	13.50	≤30.00	PASS
11N20SISO	Ant1	2437	12.77	≤30.00	PASS
11N20SISO	Ant1	2462	11.53	≤30.00	PASS
11N40SISO	Ant1	2422	13.25	≤30.00	PASS
11N40SISO	Ant1	2437	13.06	≤30.00	PASS
11N40SISO	Ant1	2452	12.95	≤30.00	PASS
11AX20SISO	Ant1	2412	14.49	≤30.00	PASS
11AX20SISO	Ant1	2437	13.45	≤30.00	PASS
11AX20SISO	Ant1	2462	11.82	≤30.00	PASS
11AX40SISO	Ant1	2422	14.60	≤30.00	PASS
11AX40SISO	Ant1	2437	12.38	≤30.00	PASS
11AX40SISO	Ant1	2452	12.34	≤30.00	PASS

Note: The duty cycle factor is compensated in the average conducted output power.

3.6 Power Spectral Density

3.6.1 Limit

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

3.6.2 Test Procedure

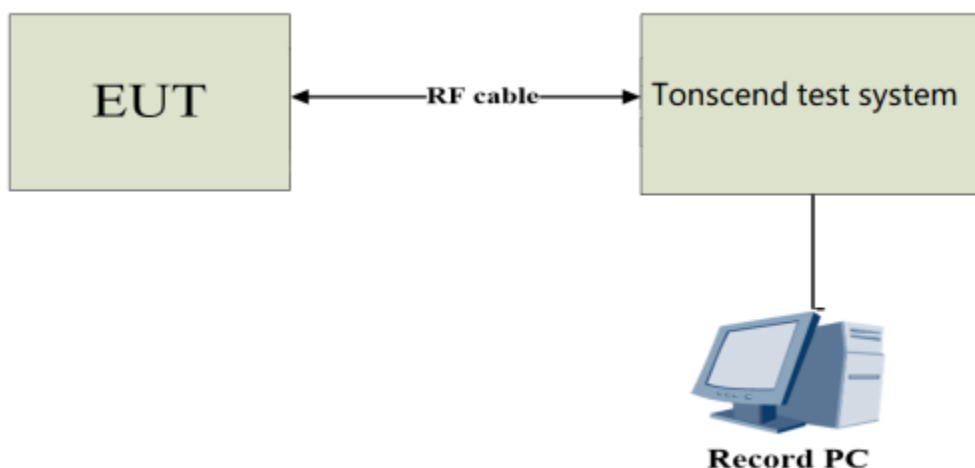
Test Method	
☒ Conducted Measurement	☐ Radiated Measurement
Test Channels	
☒ Lowest, Middle and Highest Channel	☐ Lowest and Highest Channel
Environmental conditions	
☒ Normal	☐ Normal and Extreme
Note: ☒ : Test ☐ : No Test	

a) The EUT was directly connected to the tonskend test system and antenna output port as show in the block diagram below.

b) Spectrum analyser settings as following:

Spectrum Parameters	Setting
Span Frequency	2 times the OBW bandwidth
RBW	3 kHz
VBW	10 kHz
Detector	RMS
Trace	RMS
Sweep Time	Auto

3.6.3 Test Setup



3.6.4 The Result

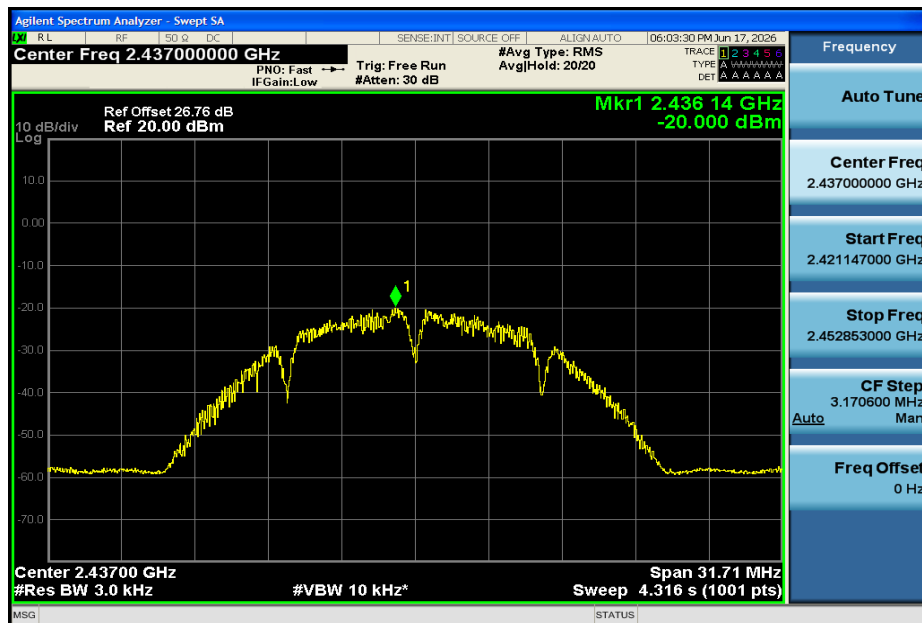
Test Mode	Antenna	Frequency [MHz]	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11B	Ant1	2412	-18.84	≤8.00	PASS
11B	Ant1	2437	-20.00	≤8.00	PASS
11B	Ant1	2462	-19.49	≤8.00	PASS
11G	Ant1	2412	-18.21	≤8.00	PASS
11G	Ant1	2437	-18.78	≤8.00	PASS
11G	Ant1	2462	-20.69	≤8.00	PASS
11N20SISO	Ant1	2412	-19.65	≤8.00	PASS
11N20SISO	Ant1	2437	-19.89	≤8.00	PASS
11N20SISO	Ant1	2462	-17.16	≤8.00	PASS
11N40SISO	Ant1	2422	-1.53	≤8.00	PASS
11N40SISO	Ant1	2437	-3.75	≤8.00	PASS
11N40SISO	Ant1	2452	-2.41	≤8.00	PASS
11AX20SISO	Ant1	2412	-19.40	≤8.00	PASS
11AX20SISO	Ant1	2437	-21.16	≤8.00	PASS
11AX20SISO	Ant1	2462	-22.48	≤8.00	PASS
11AX40SISO	Ant1	2422	1.05	≤8.00	PASS
11AX40SISO	Ant1	2437	0.03	≤8.00	PASS
11AX40SISO	Ant1	2452	-1.01	≤8.00	PASS

Note: The duty cycle factor has been included in the test diagram.

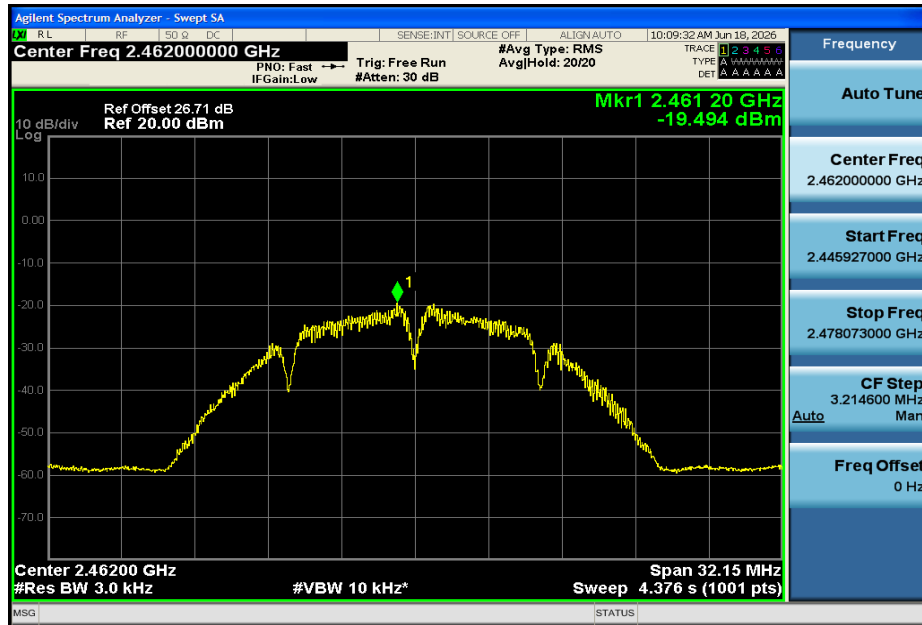
Test Graphs



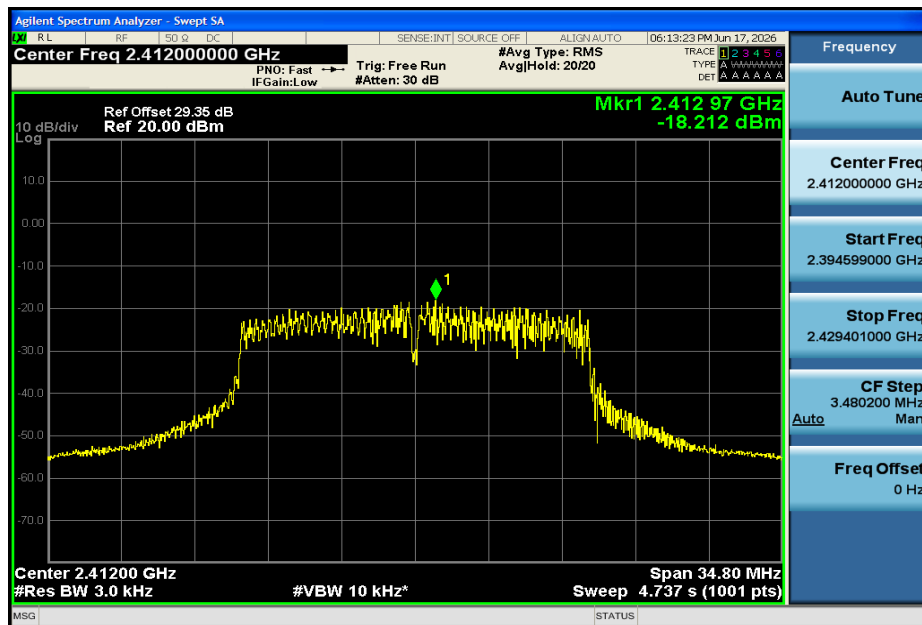
11B-Ant1-2412-PASS



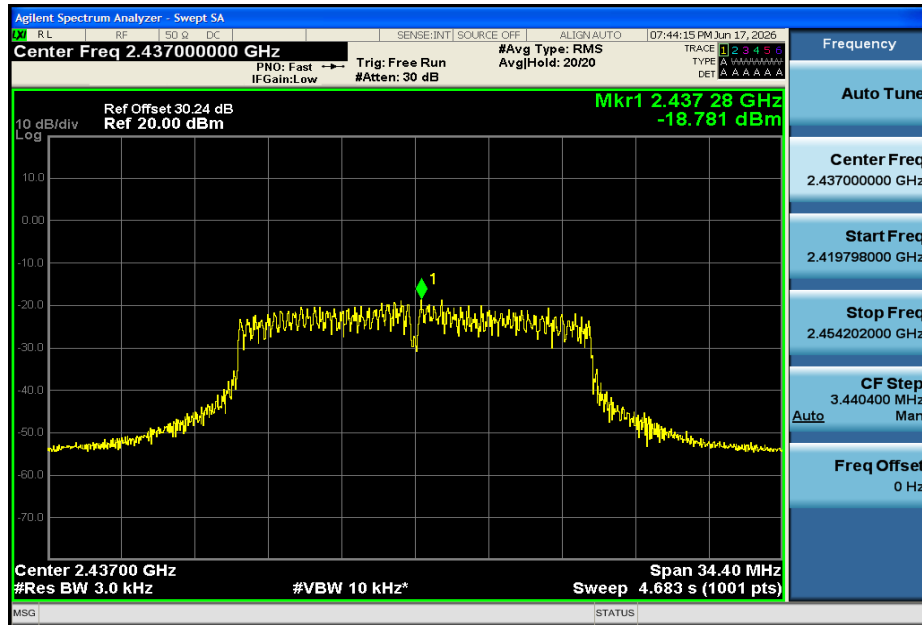
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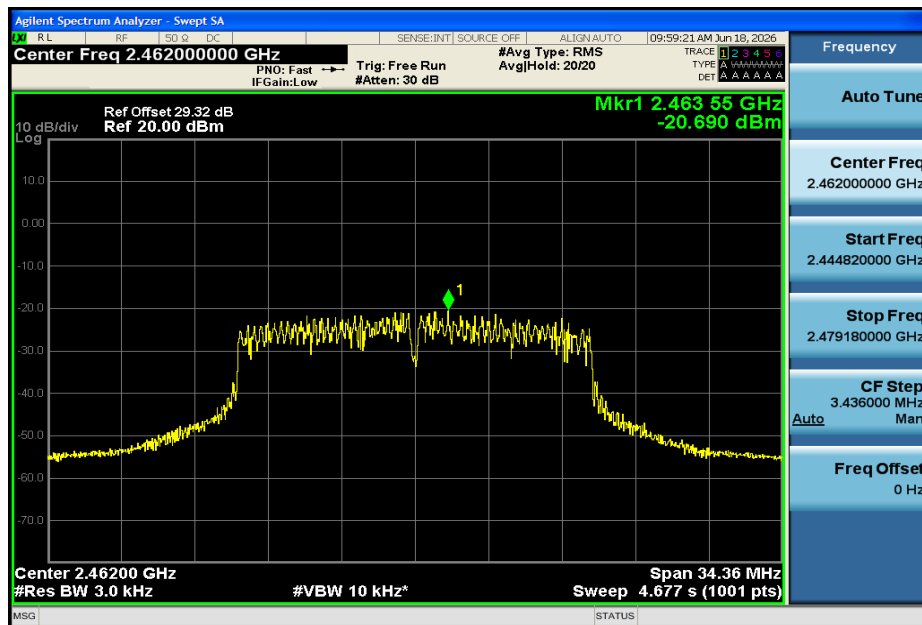
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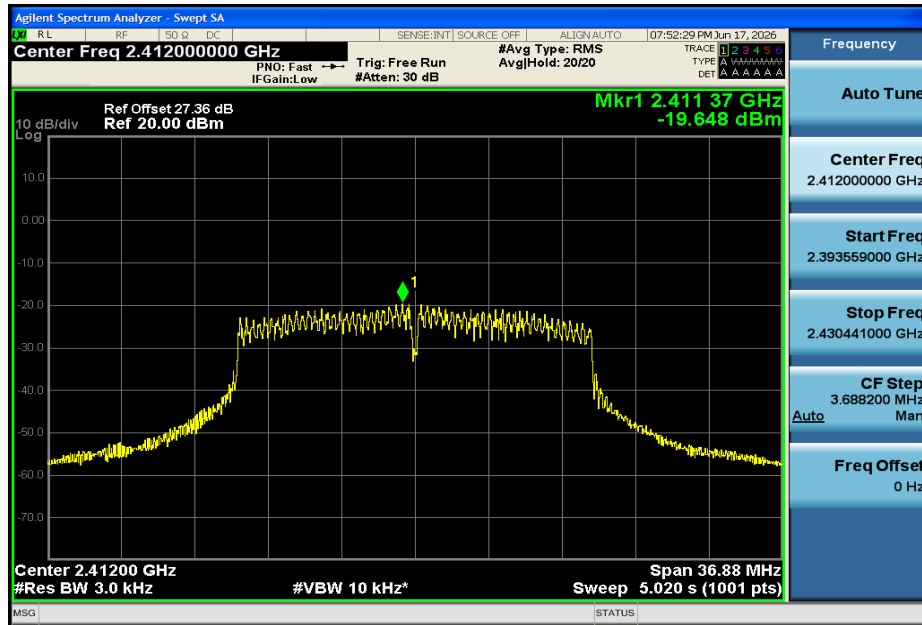
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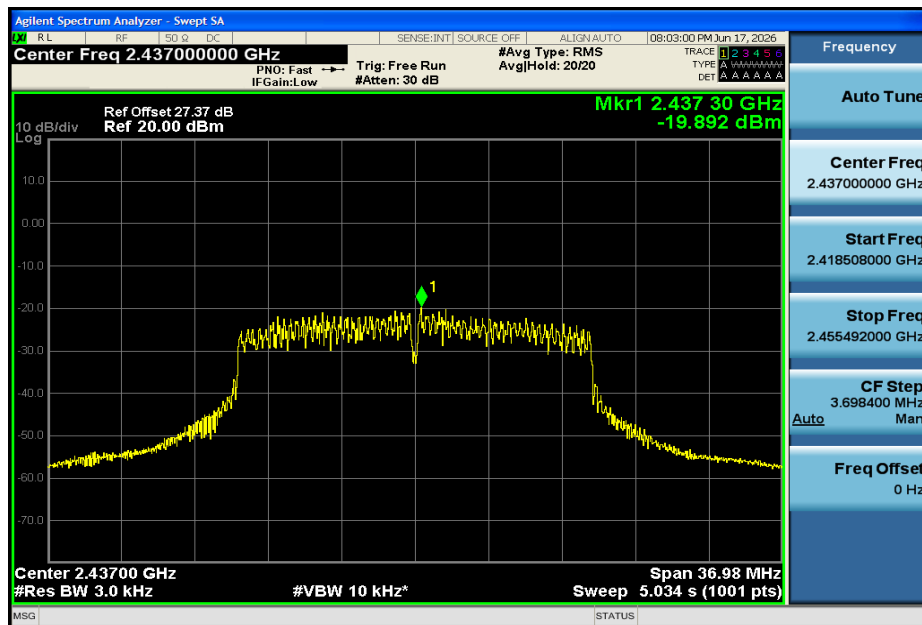
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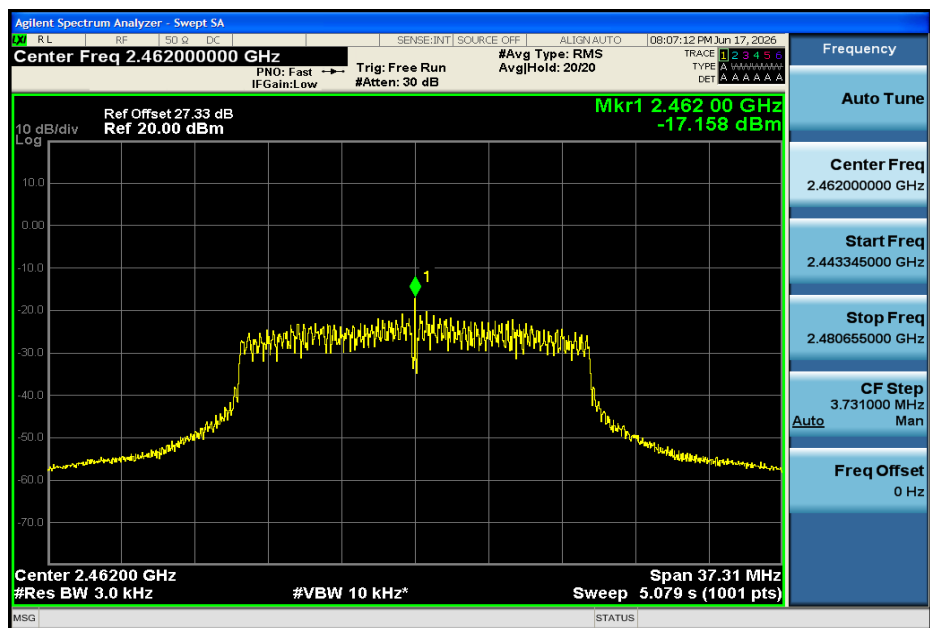
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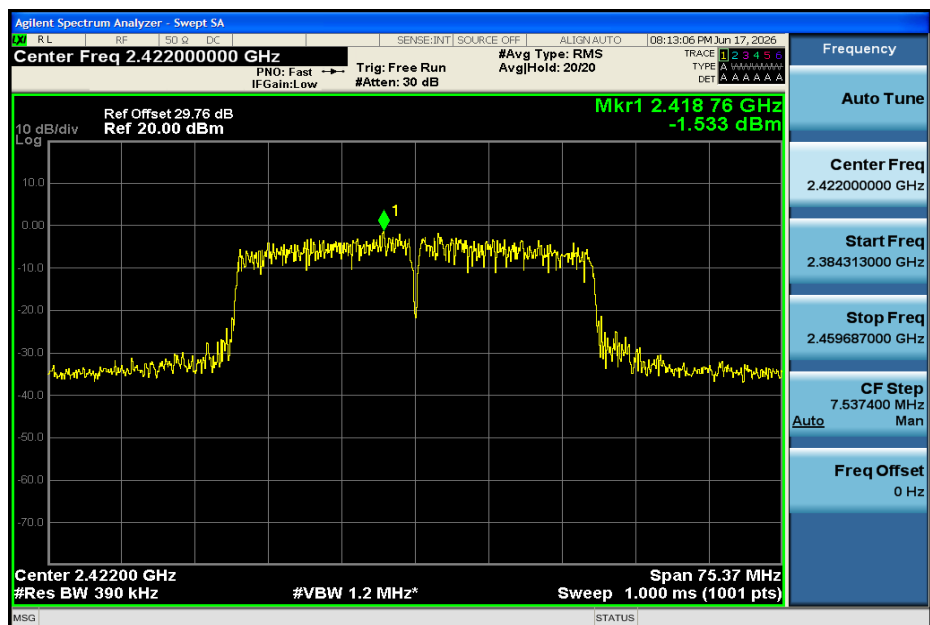
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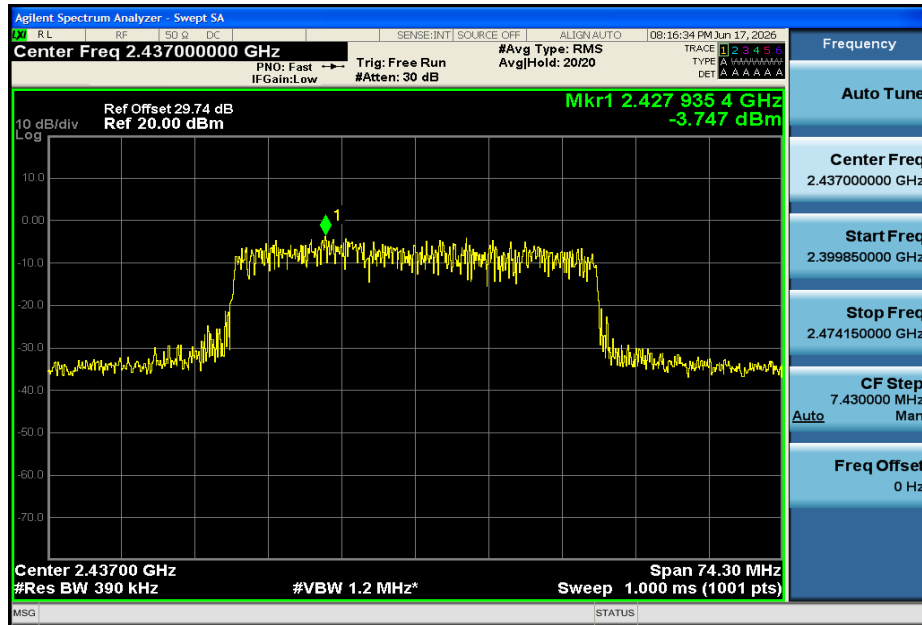
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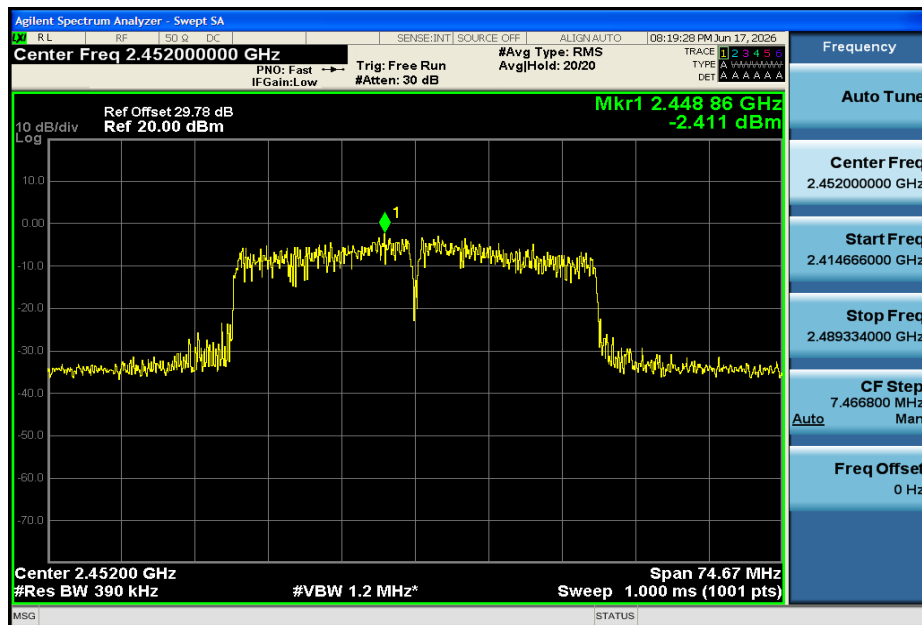
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11N40SISO-Ant1-2422-PASS



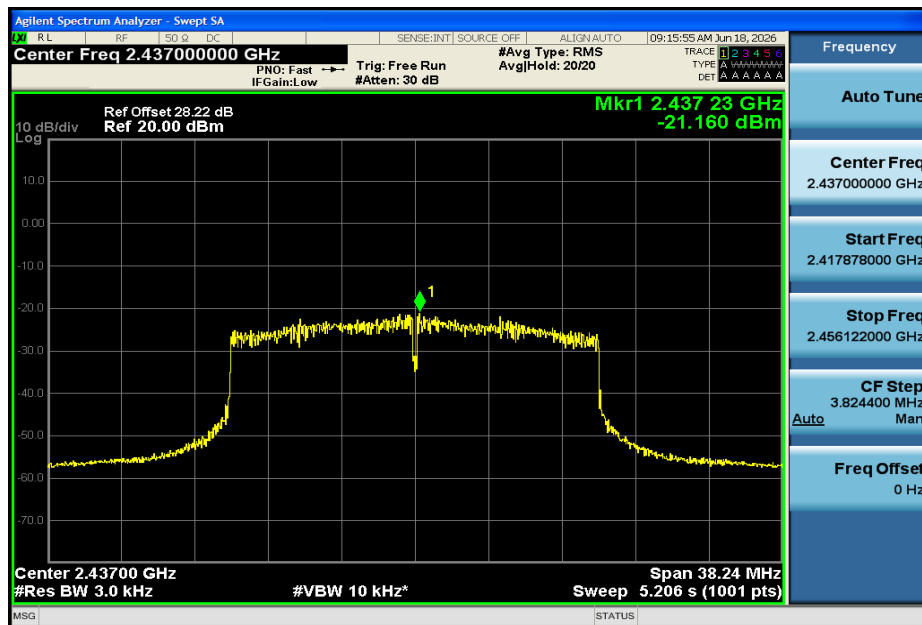
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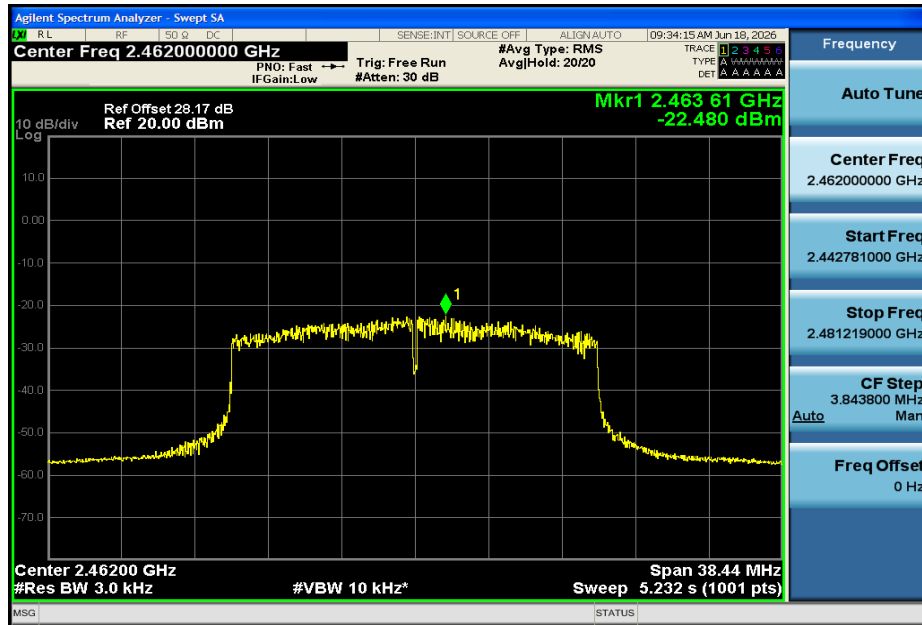
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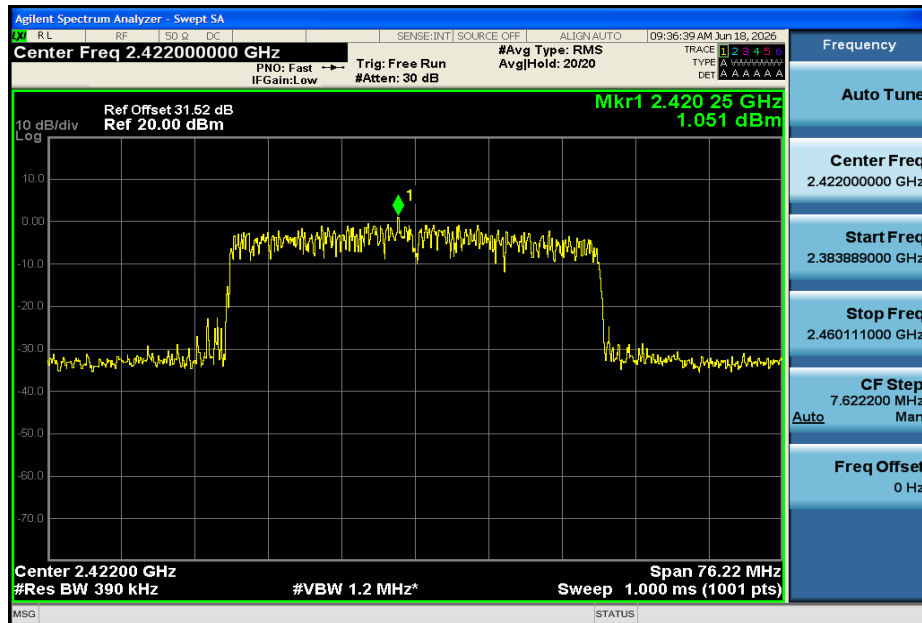
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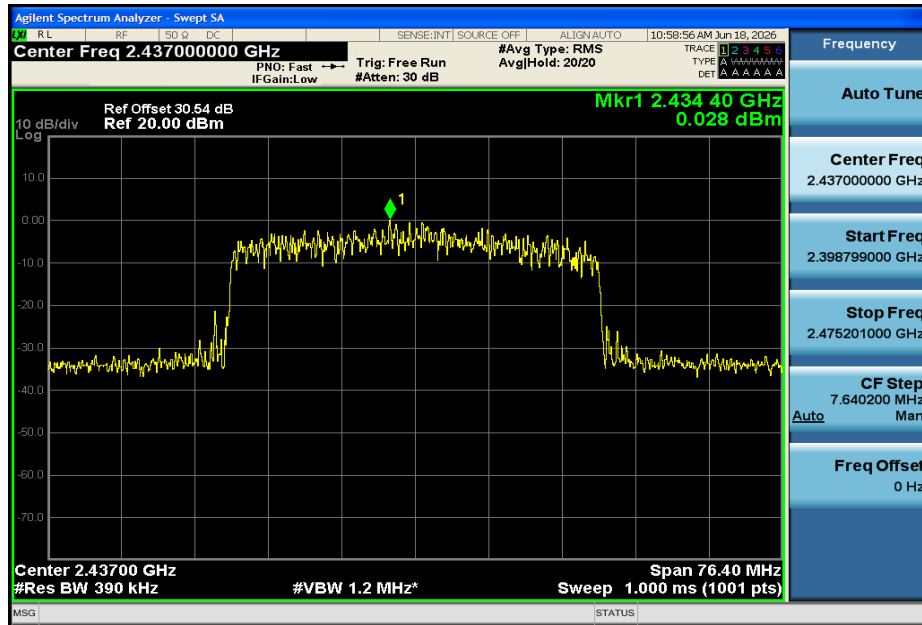
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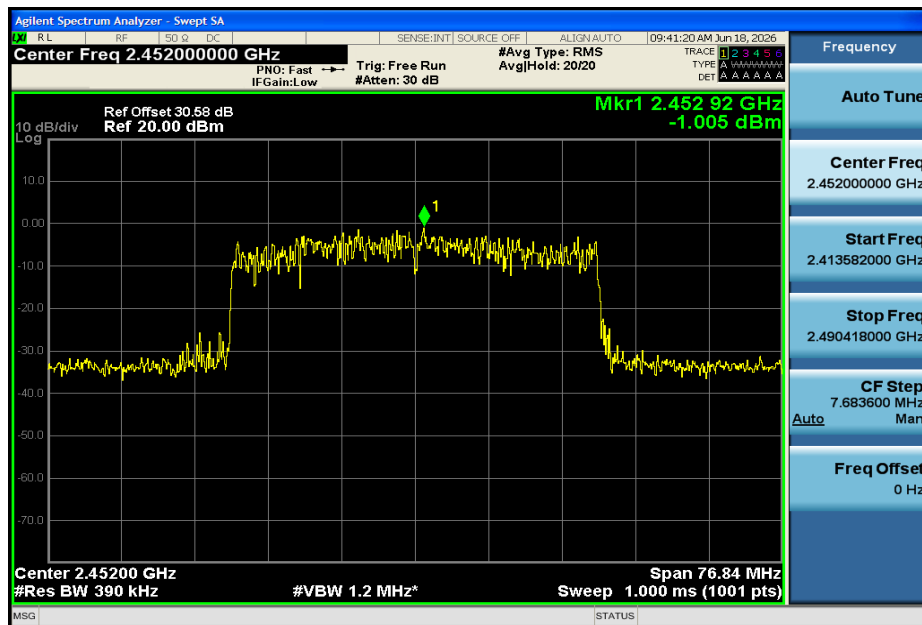
11AX20SISO-Ant1-2462-PASS



11AX40SISO-Ant1-2422-PASS



11AX40SISO-Ant1-2437-PASS



11AX40SISO-Ant1-2452-PASS

Statement

1. The report is invalid without the official seal or special seal of Shenzhen Haiyun Standard Technical Co., Ltd. (hereinafter referred to as the unit).
2. The report is invalid without the signature of the approver.
3. The report is invalid if altered arbitrarily.
4. The report shall not be partially copied without the written approval of the unit.
5. The reported test results are only valid for the tested samples.
6. If there is any objection to the test report, it shall be submitted to the test unit within 15 days from the date of receiving the report, and the overdue shall not be accepted.

Shenzhen Haiyun Standard Technical Co., Ltd.

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End of Test Report