

RF Test Data for 2.4G Wi-Fi (Conducted Measurements)

General Description of EUT	
Product Name:	WiFi & BT combo module
Test Model:	EWN-8852BER3BB-HF
Sample ID:	202205-0049-01-02#
Environmental Conditions	
Temperature:	25°C
Relative Humidity:	55%
Test Voltage:	DC 3.3V
Test Engineer:	Huangjianping
Note: For a more detailed features description, please refer to the report TBR-C-202205-0049-12	

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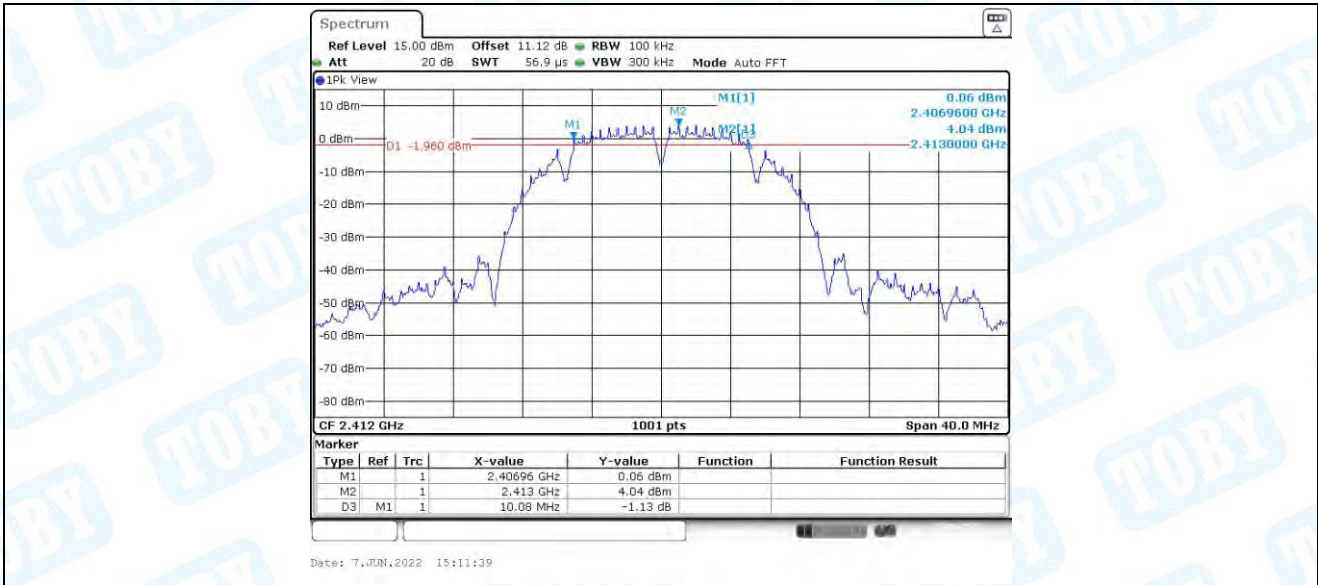
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1. DTS Bandwidth

1.1. Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	10.08	2406.96	2417.04	0.5	PASS
	Ant2	2412	10.12	2406.92	2417.04	0.5	PASS
	Ant1	2437	10.12	2431.92	2442.04	0.5	PASS
	Ant2	2437	11.08	2430.96	2442.04	0.5	PASS
	Ant1	2462	10.12	2456.92	2467.04	0.5	PASS
	Ant2	2462	12.00	2456.00	2468.00	0.5	PASS
11G	Ant1	2412	16.32	2403.84	2420.16	0.5	PASS
	Ant2	2412	16.32	2403.84	2420.16	0.5	PASS
	Ant1	2437	16.32	2428.84	2445.16	0.5	PASS
	Ant2	2437	16.32	2428.84	2445.16	0.5	PASS
	Ant1	2462	16.36	2453.80	2470.16	0.5	PASS
	Ant2	2462	16.32	2453.84	2470.16	0.5	PASS
11N20MIMO	Ant1	2412	17.52	2403.24	2420.76	0.5	PASS
	Ant2	2412	16.64	2404.16	2420.80	0.5	PASS
	Ant1	2437	17.16	2428.60	2445.76	0.5	PASS
	Ant2	2437	16.28	2429.48	2445.76	0.5	PASS
	Ant1	2462	16.92	2453.84	2470.76	0.5	PASS
	Ant2	2462	16.28	2454.48	2470.76	0.5	PASS
11N40MIMO	Ant1	2422	35.20	2404.40	2439.60	0.5	PASS
	Ant2	2422	34.48	2405.68	2440.16	0.5	PASS
	Ant1	2437	35.92	2419.24	2455.16	0.5	PASS
	Ant2	2437	35.76	2419.40	2455.16	0.5	PASS
	Ant1	2452	36.32	2433.84	2470.16	0.5	PASS
	Ant2	2452	35.84	2434.40	2470.24	0.5	PASS
11AX20MIMO	Ant1	2412	15.08	2404.48	2419.56	0.5	PASS
	Ant2	2412	13.84	2405.68	2419.52	0.5	PASS
	Ant1	2437	18.88	2427.56	2446.44	0.5	PASS
	Ant2	2437	18.52	2427.92	2446.44	0.5	PASS
	Ant1	2462	18.52	2452.88	2471.40	0.5	PASS
	Ant2	2462	18.52	2452.92	2471.44	0.5	PASS
11AX40MIMO	Ant1	2422	35.04	2404.48	2439.52	0.5	PASS
	Ant2	2422	31.28	2408.24	2439.52	0.5	PASS
	Ant1	2437	35.92	2419.24	2455.16	0.5	PASS
	Ant2	2437	34.48	2420.68	2455.16	0.5	PASS
	Ant1	2452	36.32	2433.84	2470.16	0.5	PASS
	Ant2	2452	35.68	2434.48	2470.16	0.5	PASS

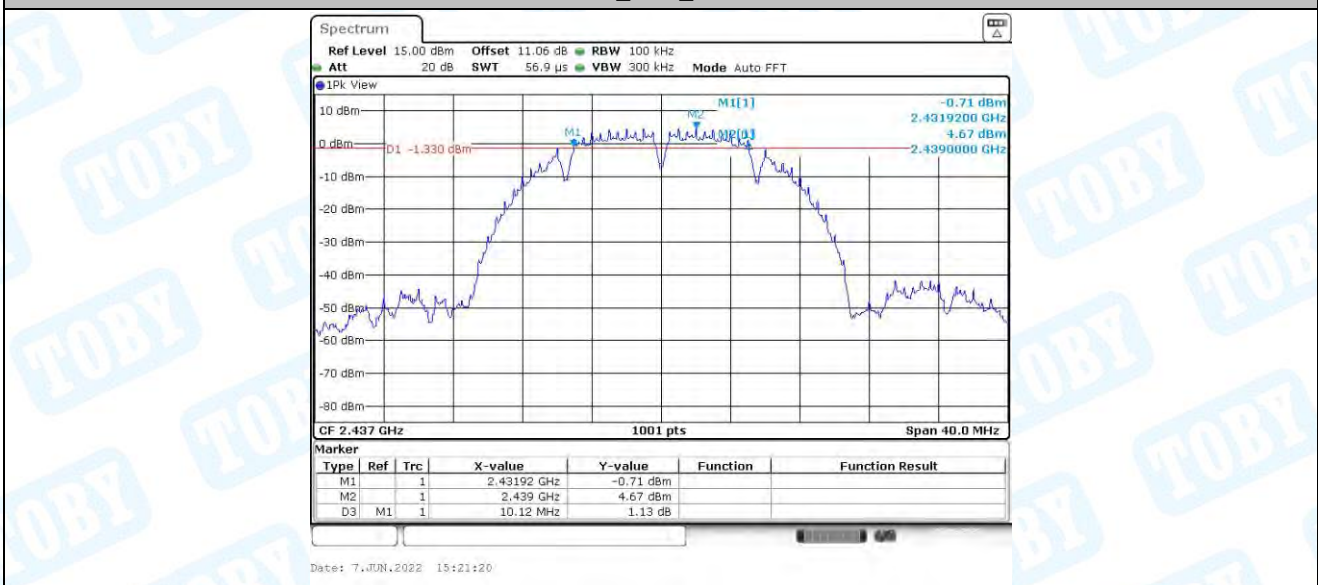
1.2. Test Graphs



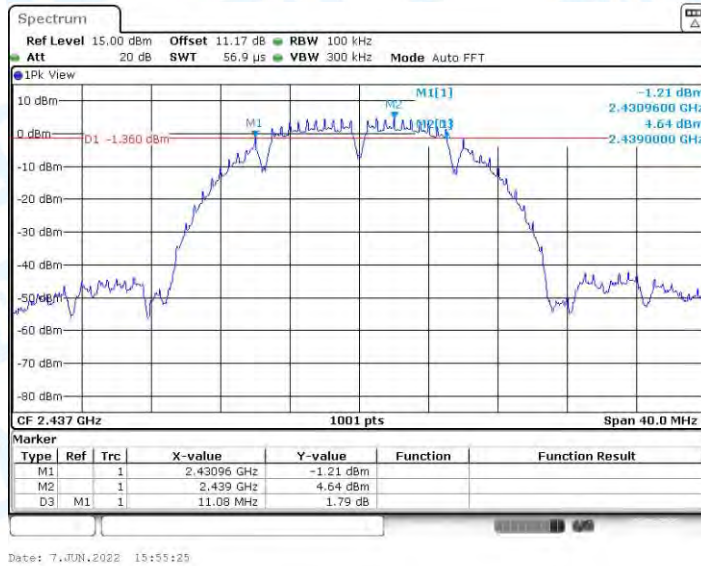
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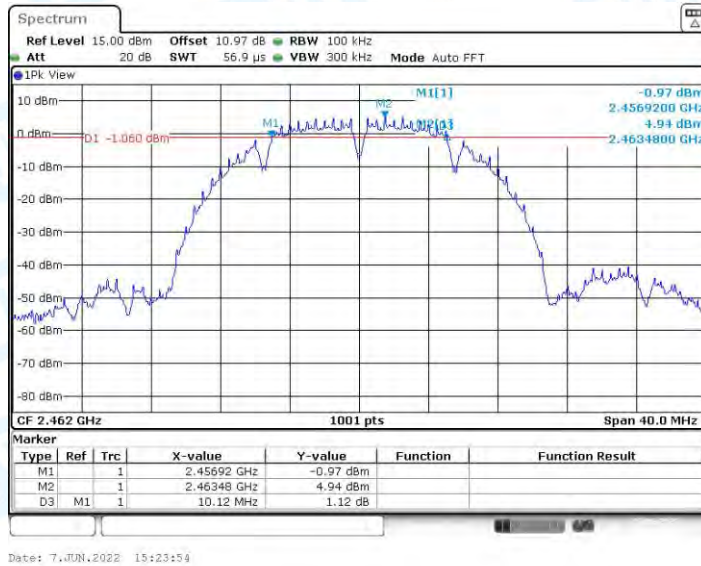
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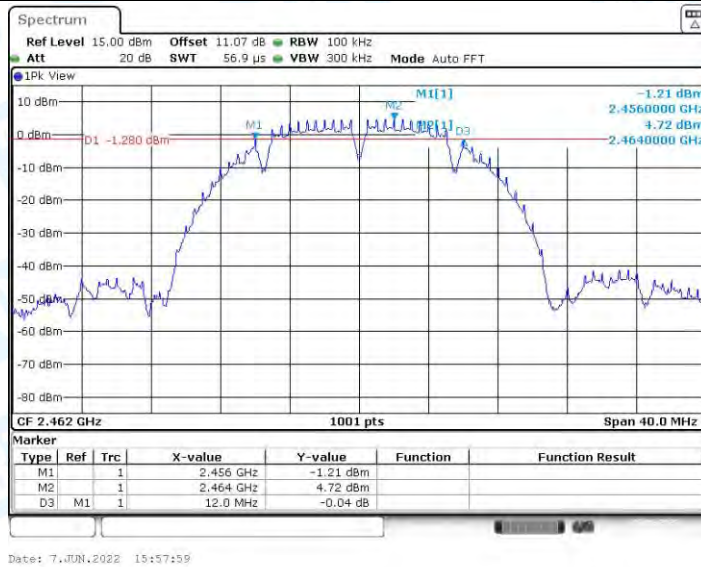
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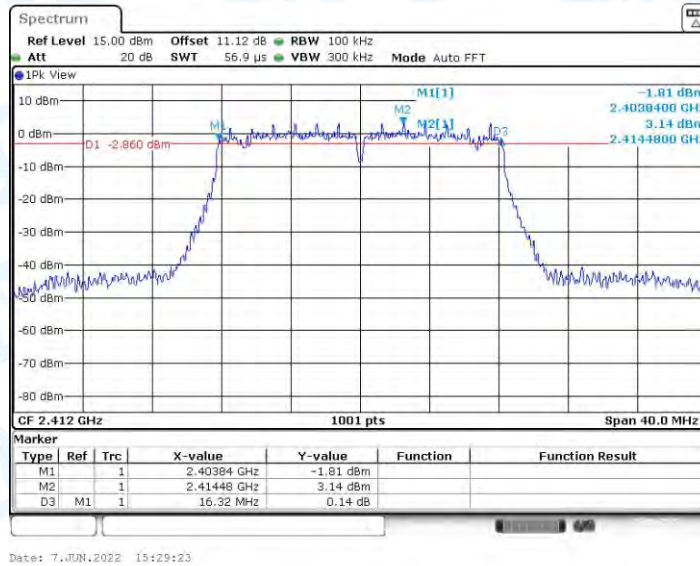
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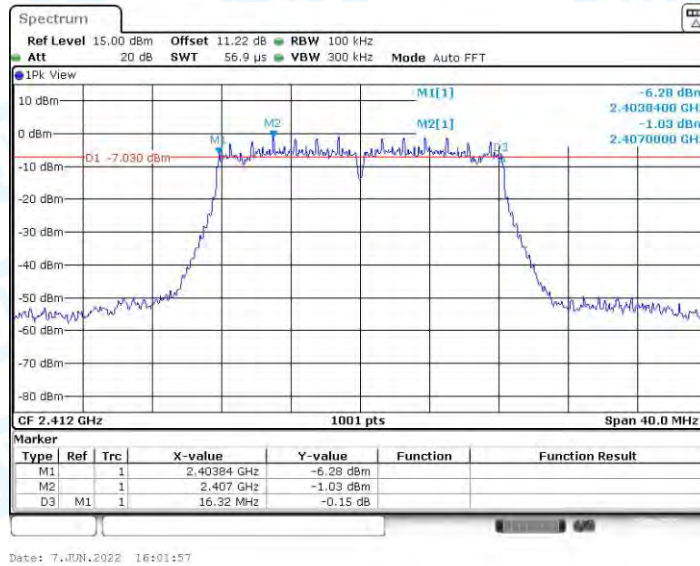
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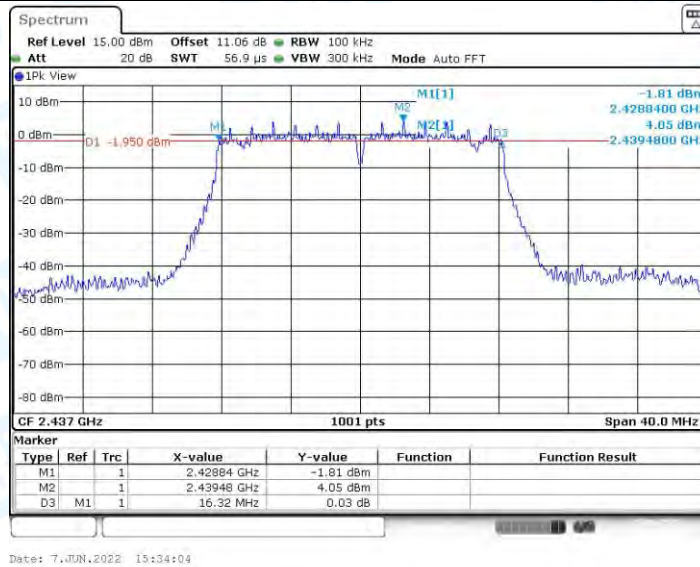
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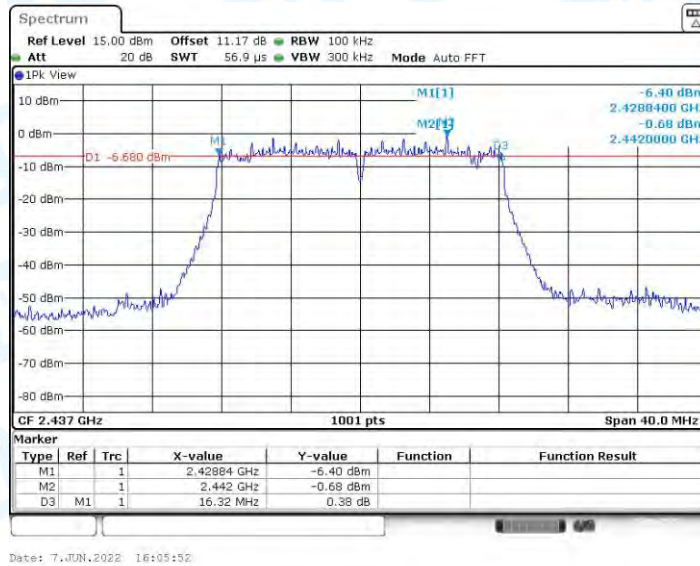
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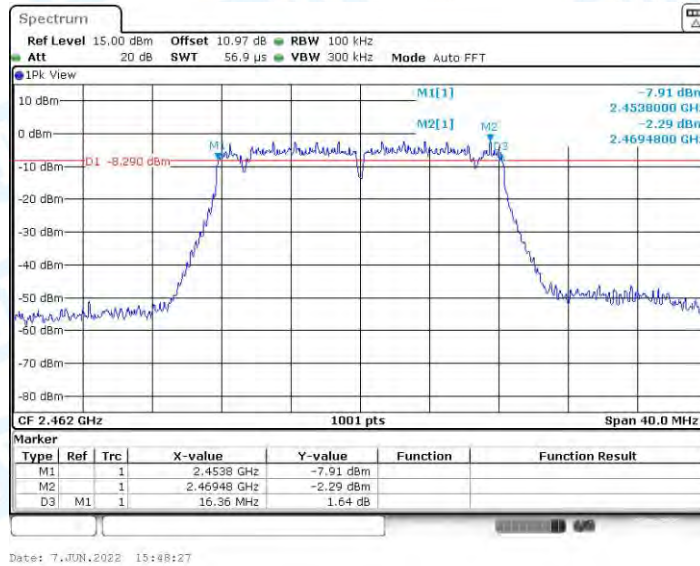
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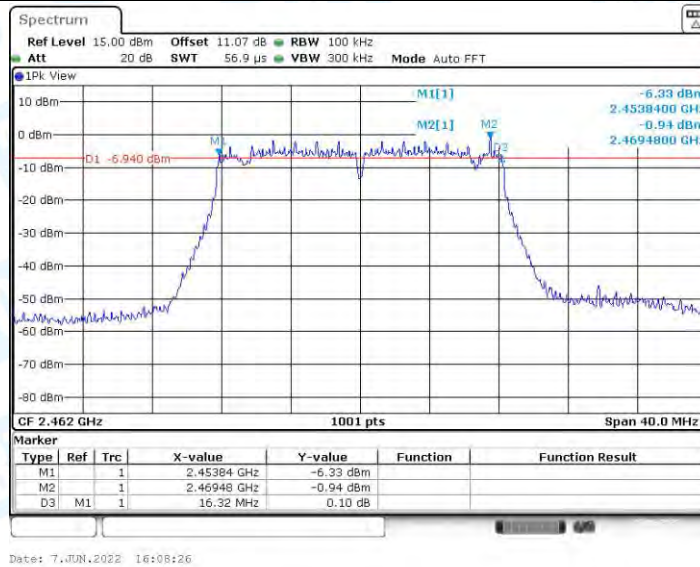
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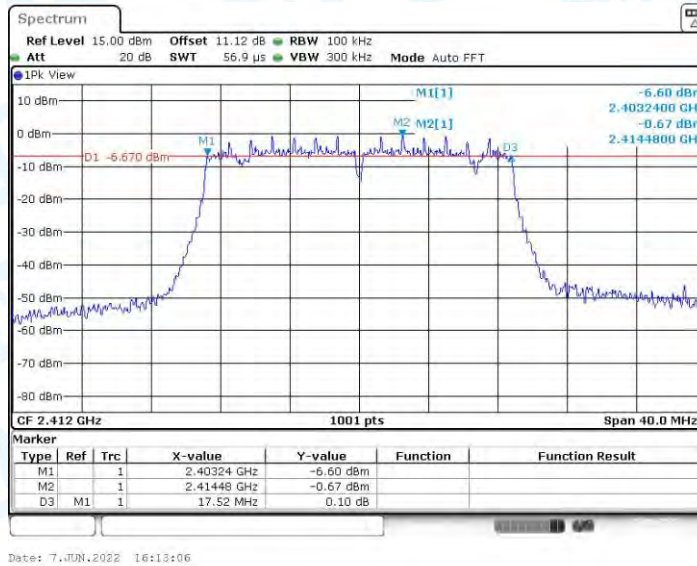
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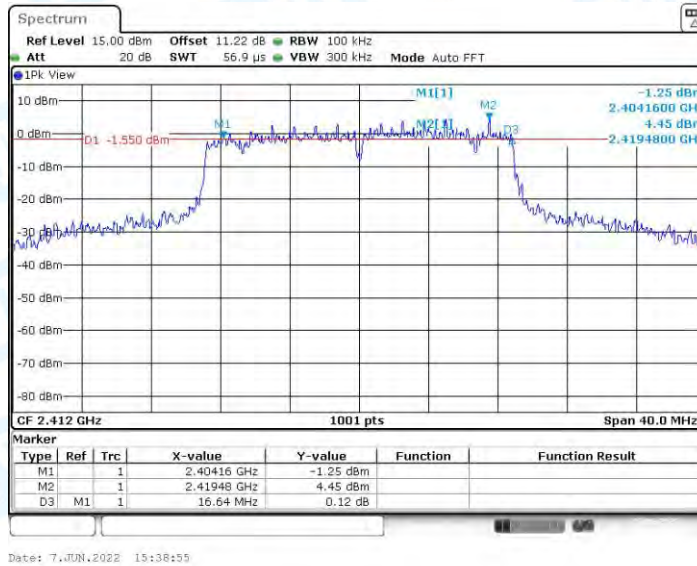
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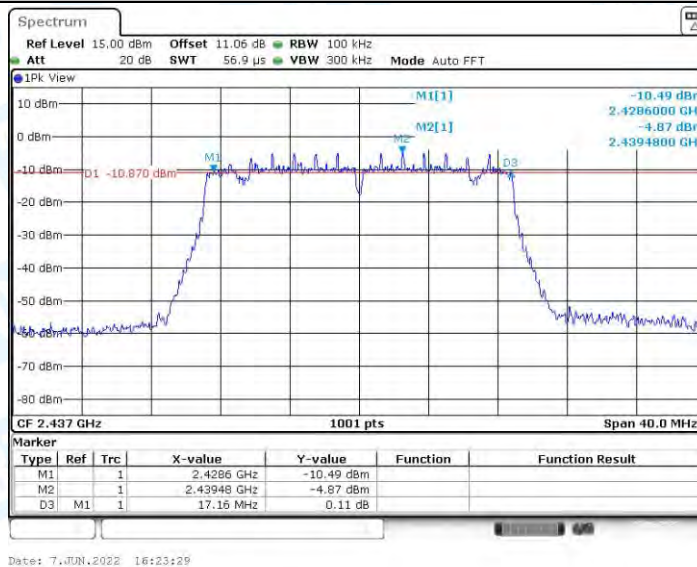
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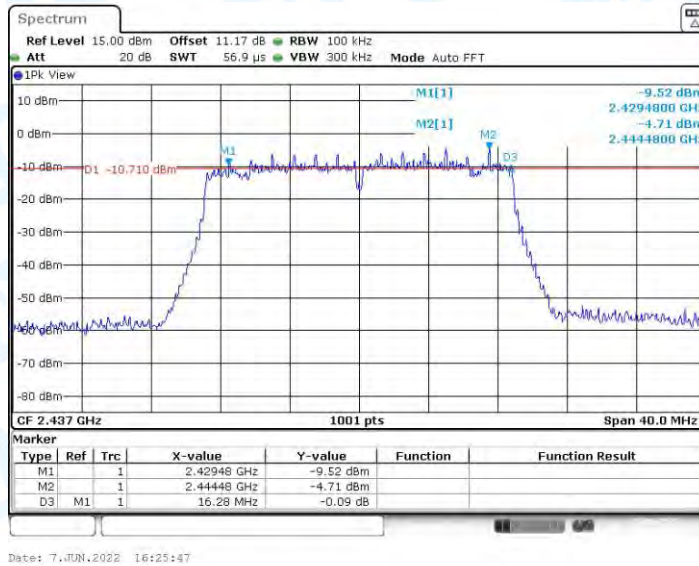
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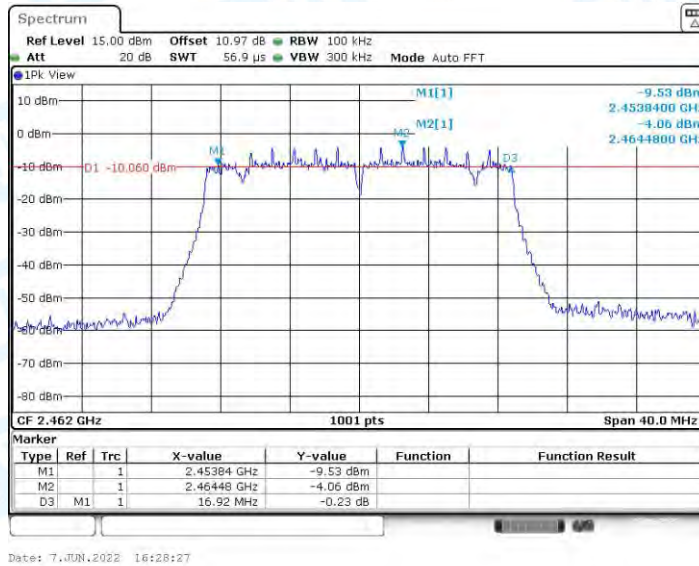
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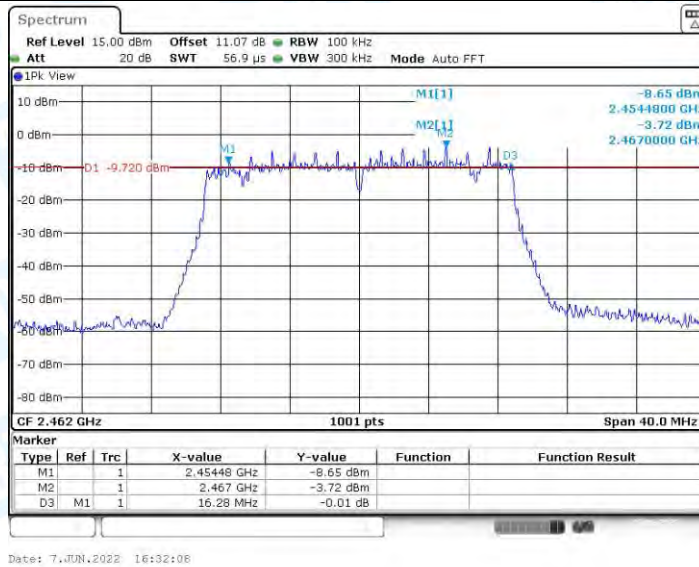
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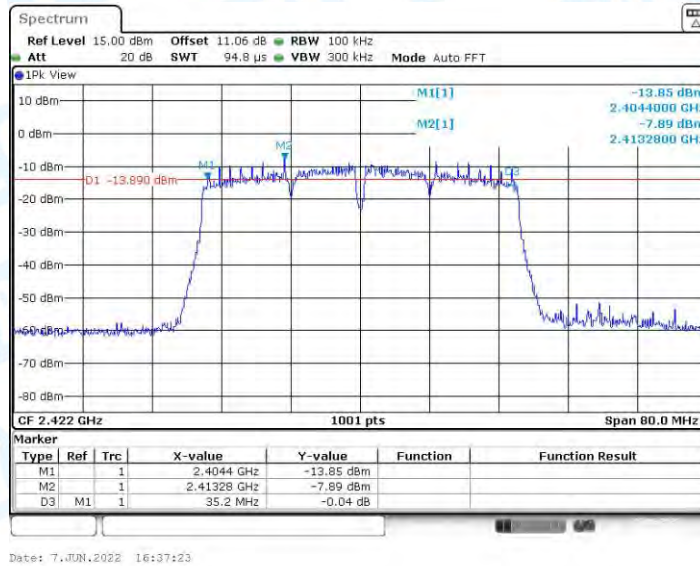
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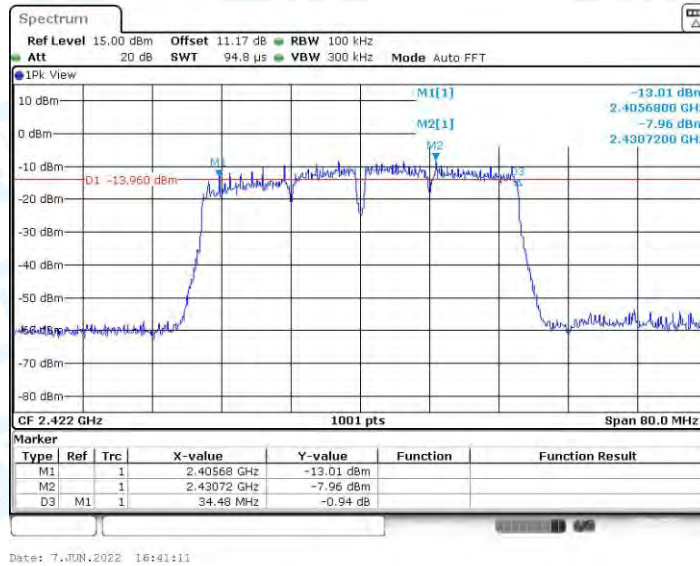
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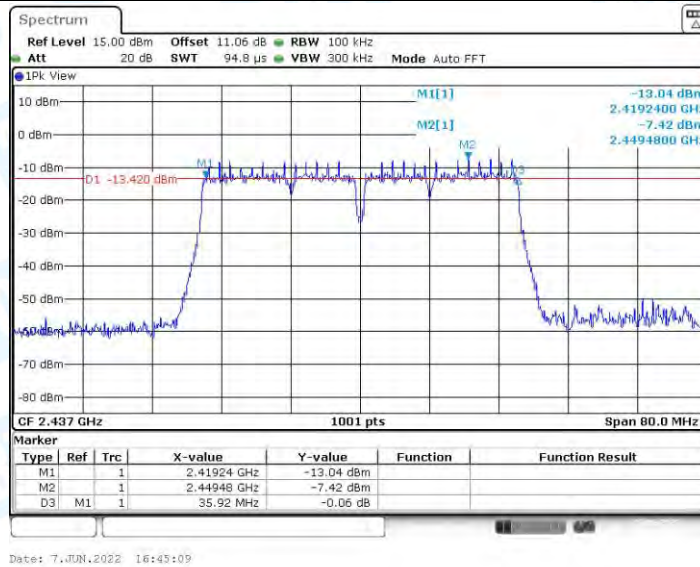
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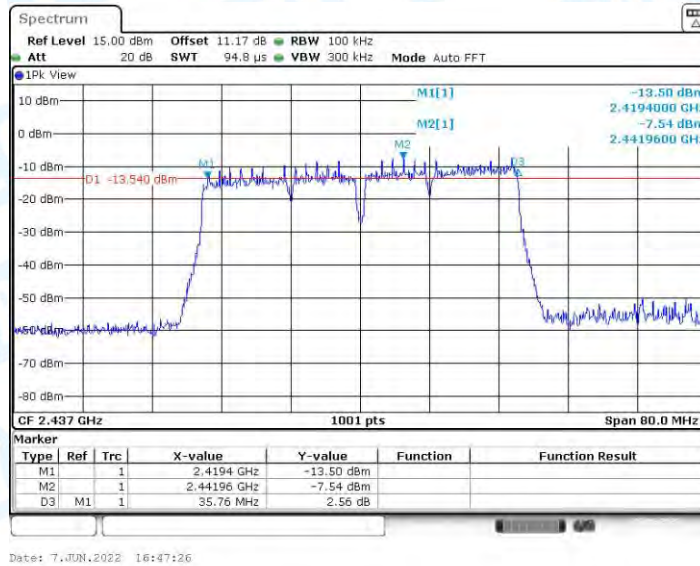
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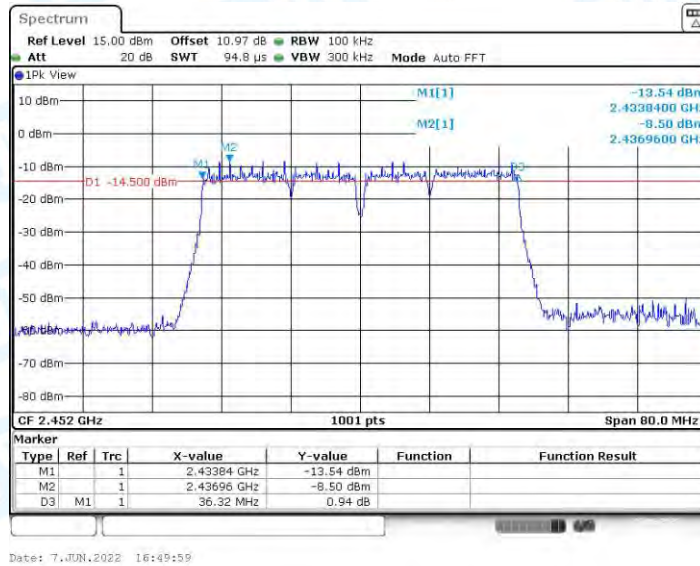
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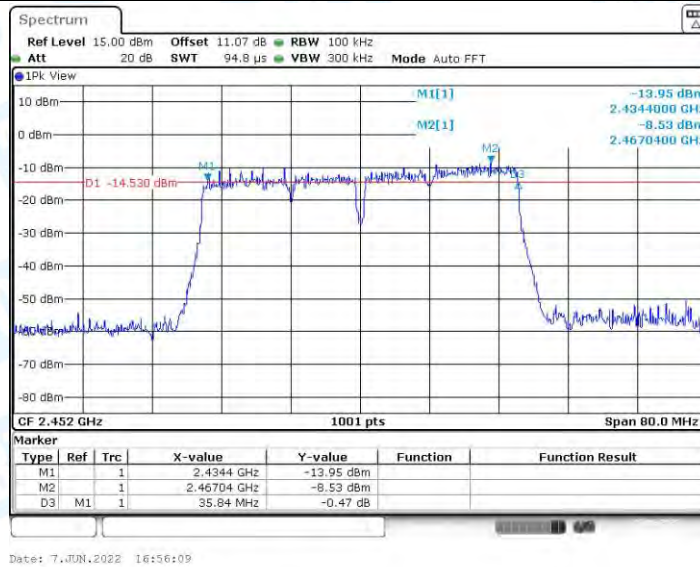
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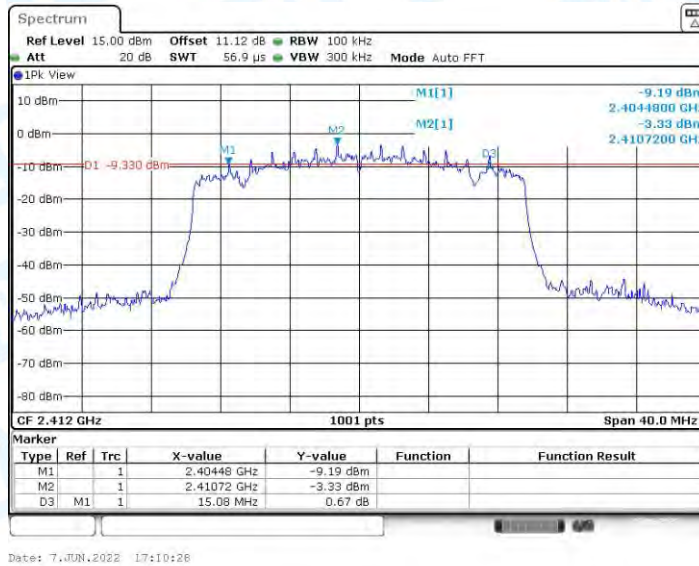
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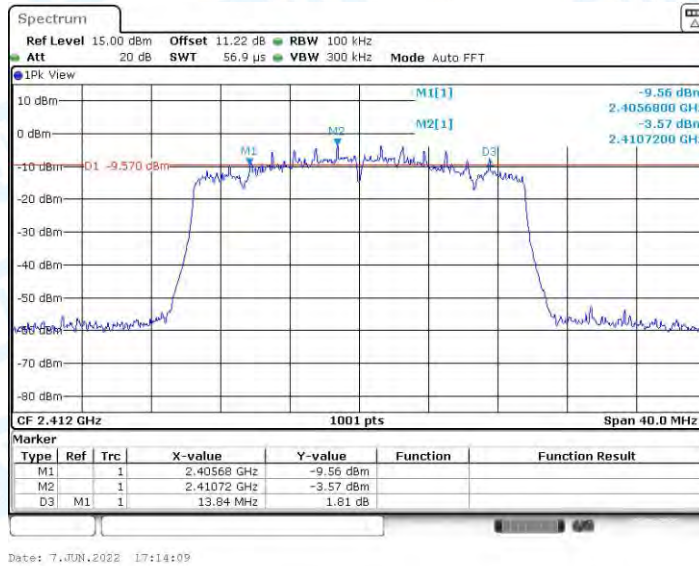
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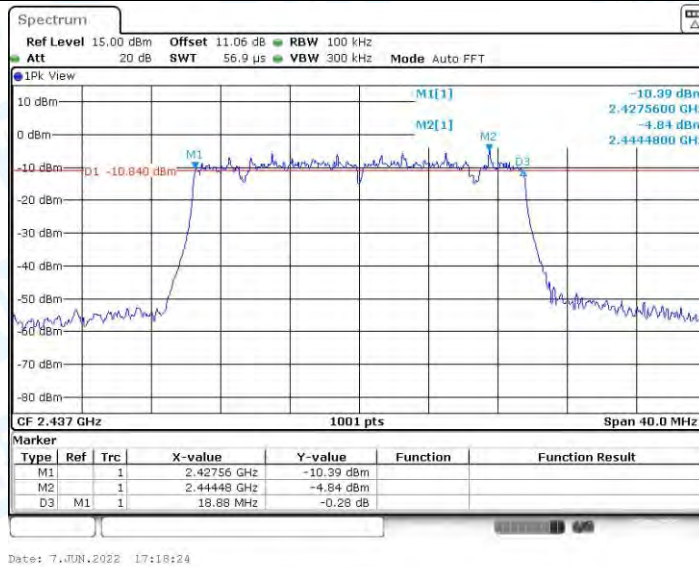
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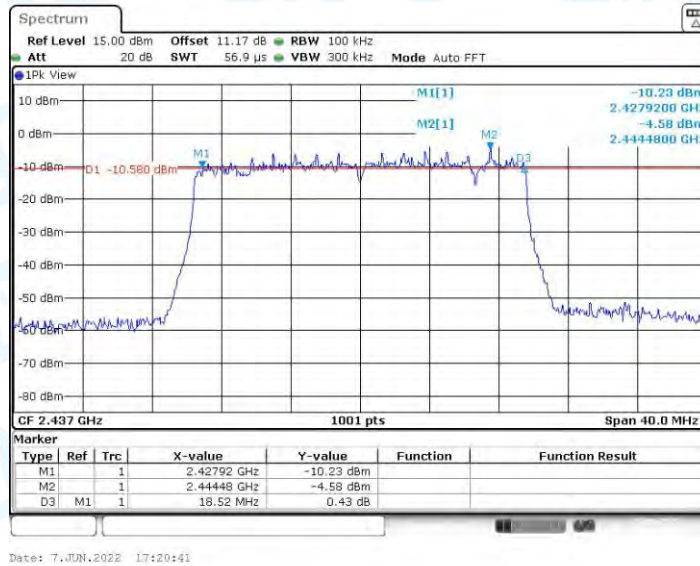
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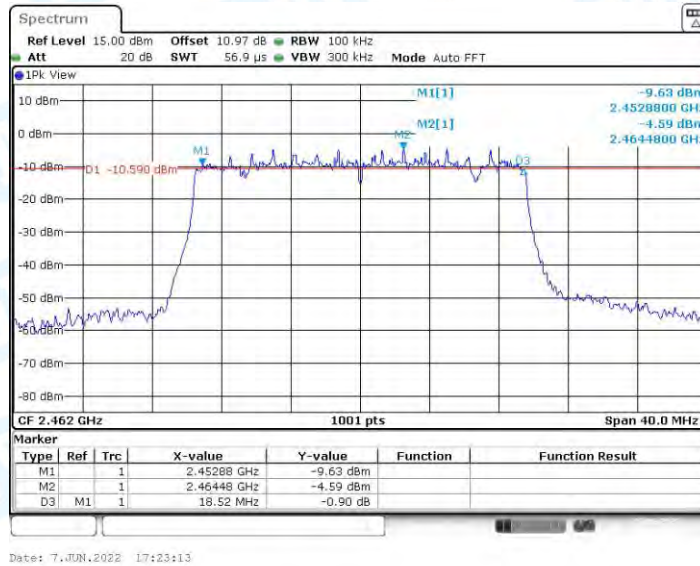
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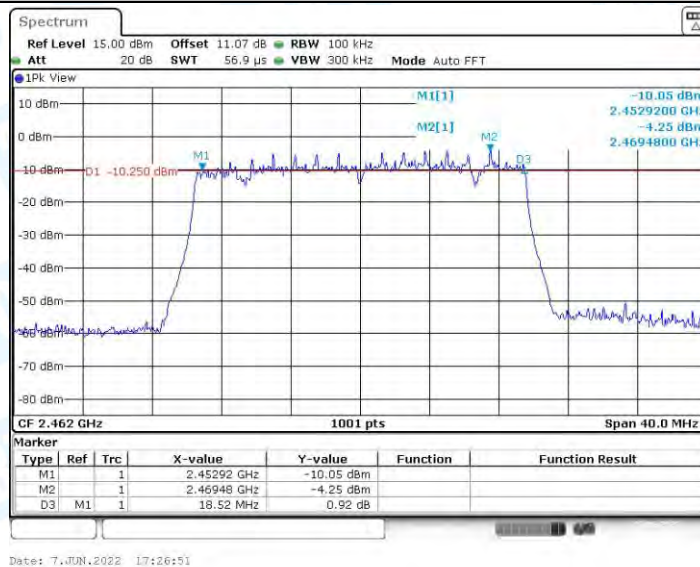
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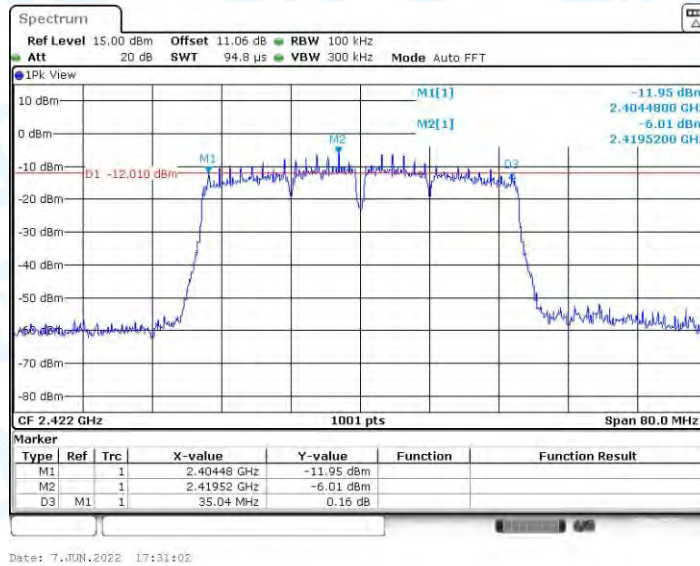
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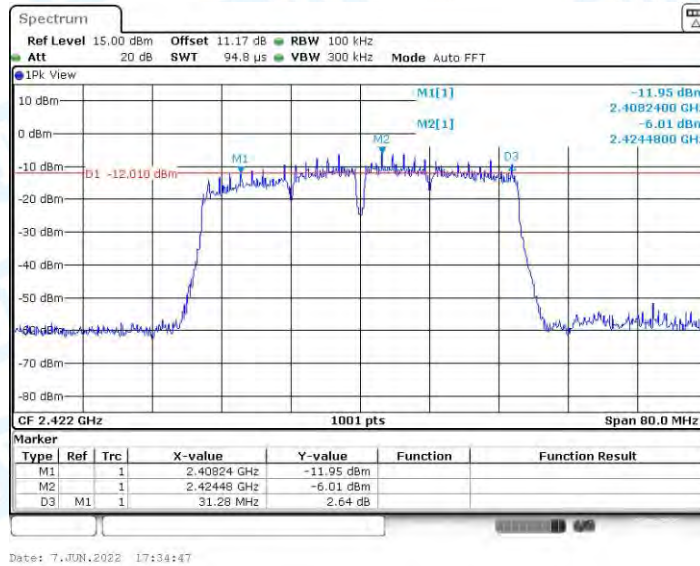
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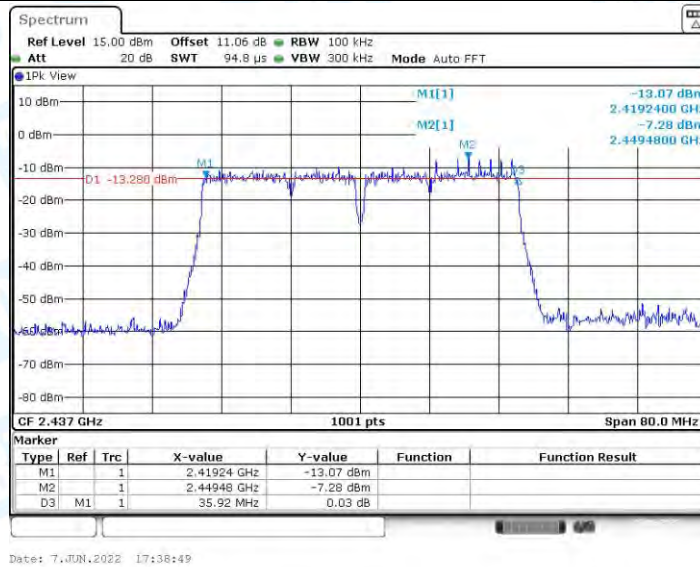
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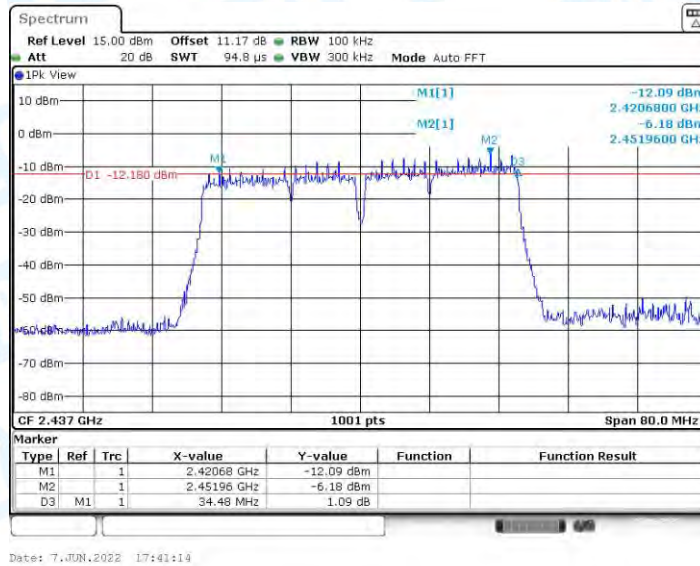
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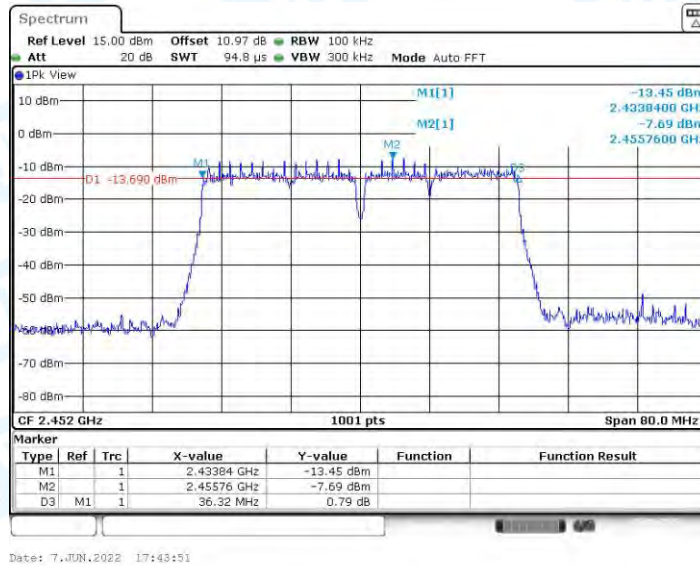
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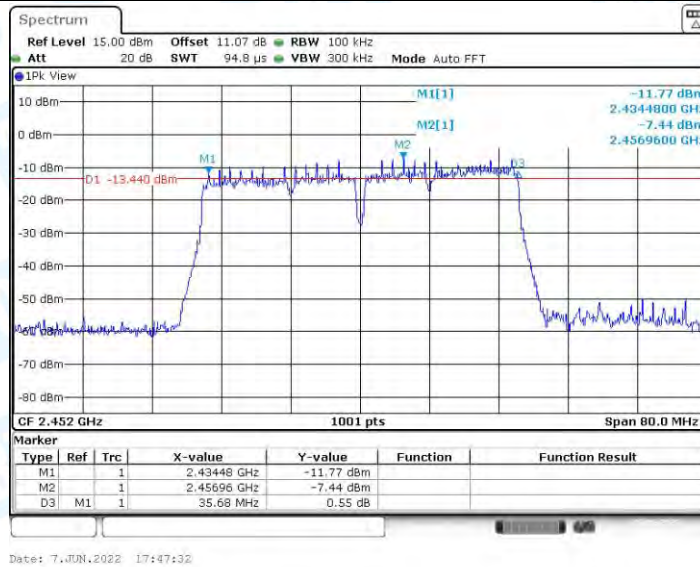
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11AX40MIMO_Ant2_2437



11AX40MIMO_Ant1_2452



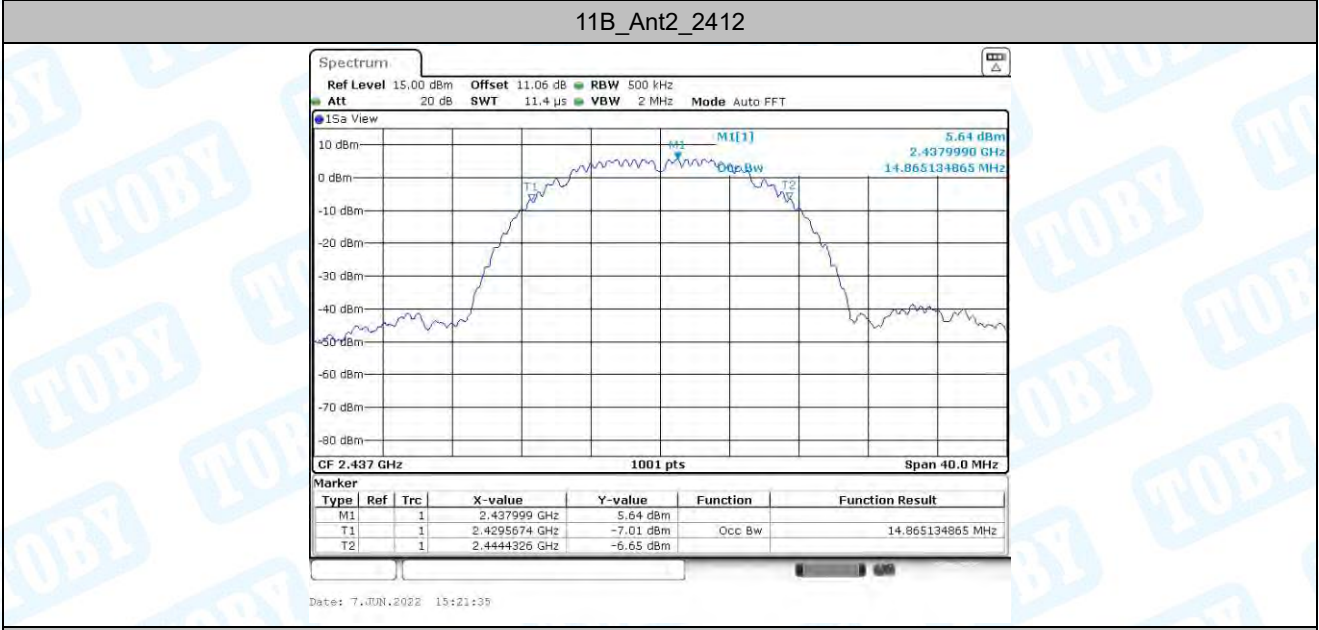
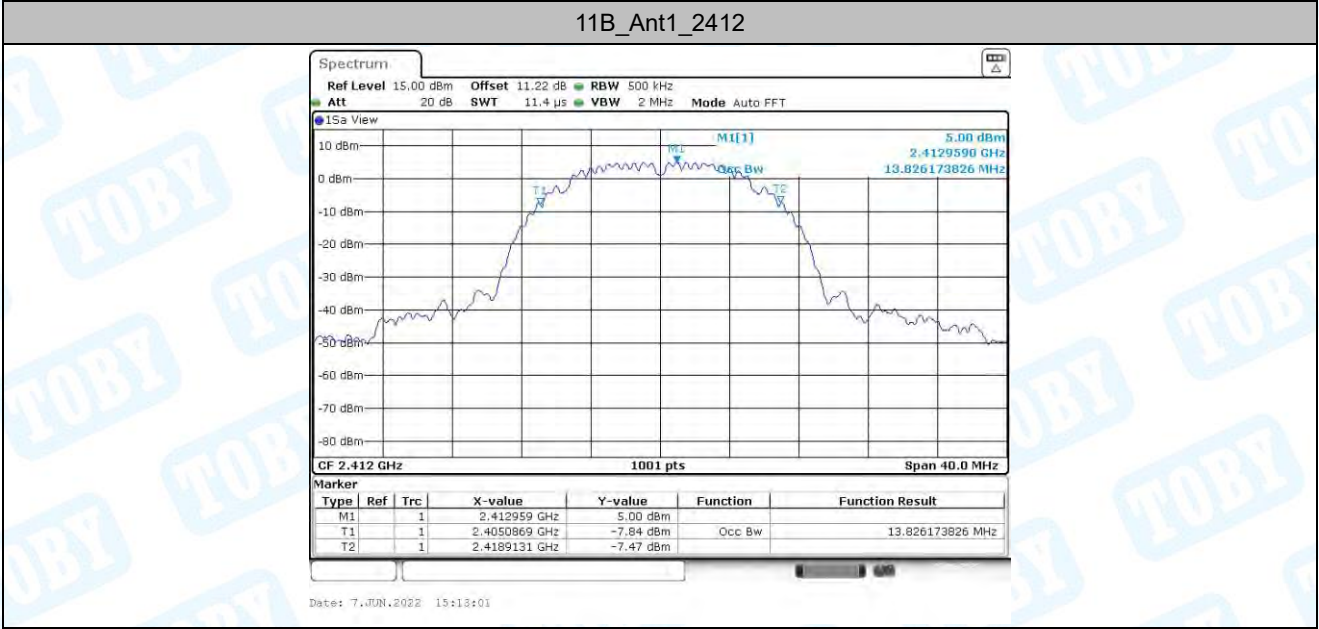
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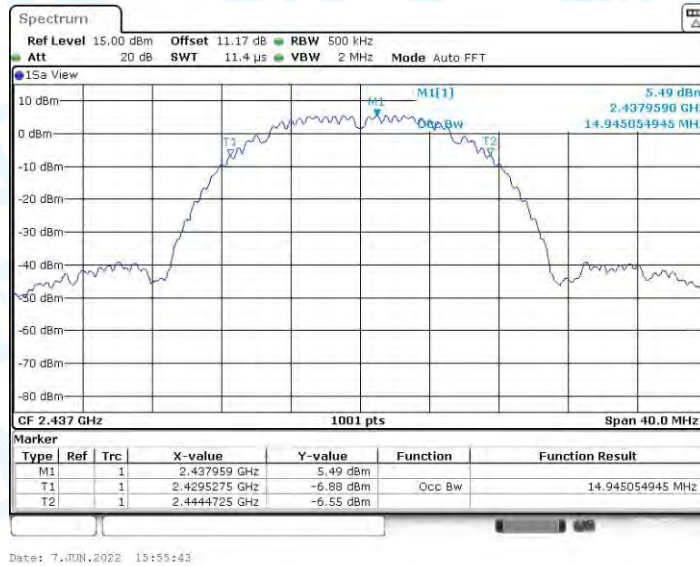
2. Occupied Channel Bandwidth

2.1. Test Result

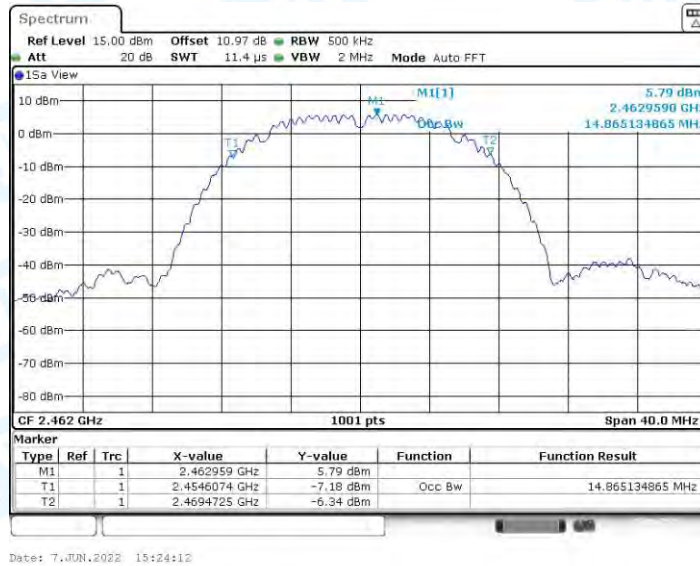
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.826	2405.087	2418.913	---	---
	Ant2	2412	13.826	2405.087	2418.913	---	---
	Ant1	2437	14.865	2429.567	2444.433	---	---
	Ant2	2437	14.945	2429.527	2444.473	---	---
	Ant1	2462	14.865	2454.607	2469.473	---	---
	Ant2	2462	14.905	2454.567	2469.473	---	---
11G	Ant1	2412	16.583	2403.688	2420.272	---	---
	Ant2	2412	16.583	2403.688	2420.272	---	---
	Ant1	2437	16.663	2428.688	2445.352	---	---
	Ant2	2437	16.583	2428.688	2445.272	---	---
	Ant1	2462	16.623	2453.728	2470.352	---	---
	Ant2	2462	16.503	2453.728	2470.232	---	---
11N20MIMO	Ant1	2412	17.702	2403.129	2420.831	---	---
	Ant2	2412	17.862	2403.169	2421.031	---	---
	Ant1	2437	17.662	2428.169	2445.831	---	---
	Ant2	2437	17.622	2428.209	2445.831	---	---
	Ant1	2462	17.742	2453.129	2470.871	---	---
	Ant2	2462	17.662	2453.249	2470.911	---	---
11N40MIMO	Ant1	2422	36.044	2403.938	2439.982	---	---
	Ant2	2422	35.485	2404.498	2439.982	---	---
	Ant1	2437	36.364	2418.858	2455.222	---	---
	Ant2	2437	36.284	2419.018	2455.302	---	---
	Ant1	2452	36.444	2433.778	2470.222	---	---
	Ant2	2452	36.204	2434.098	2470.302	---	---
11AX20MIMO	Ant1	2412	18.781	2402.609	2421.391	---	---
	Ant2	2412	18.661	2402.649	2421.311	---	---
	Ant1	2437	19.021	2427.490	2446.510	---	---
	Ant2	2437	19.101	2427.490	2446.590	---	---
	Ant1	2462	19.101	2452.450	2471.550	---	---
	Ant2	2462	19.181	2452.490	2471.670	---	---
11AX40MIMO	Ant1	2422	35.884	2404.018	2439.902	---	---
	Ant2	2422	35.804	2404.258	2440.062	---	---
	Ant1	2437	36.364	2418.778	2455.142	---	---
	Ant2	2437	36.124	2419.178	2455.302	---	---
	Ant1	2452	36.523	2433.858	2470.382	---	---
	Ant2	2452	36.284	2434.018	2470.302	---	---

2.2. Test Graphs

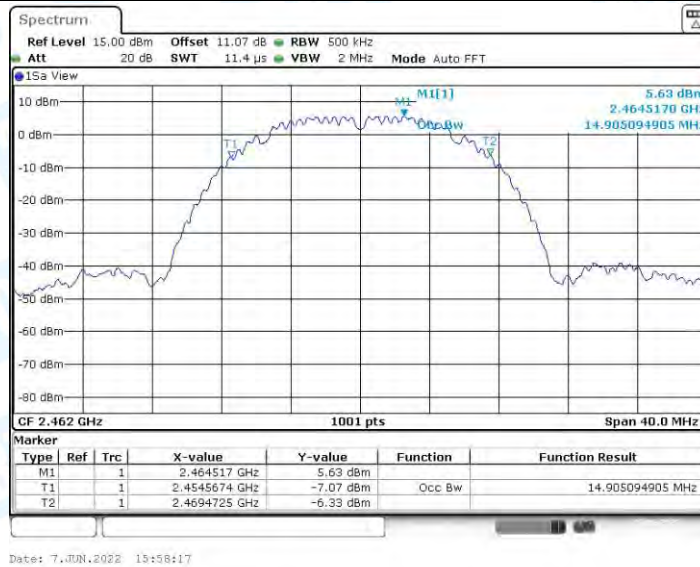




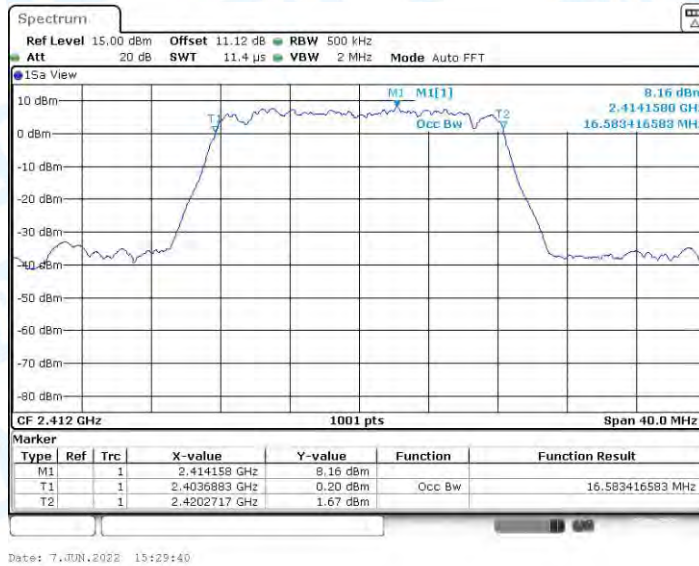
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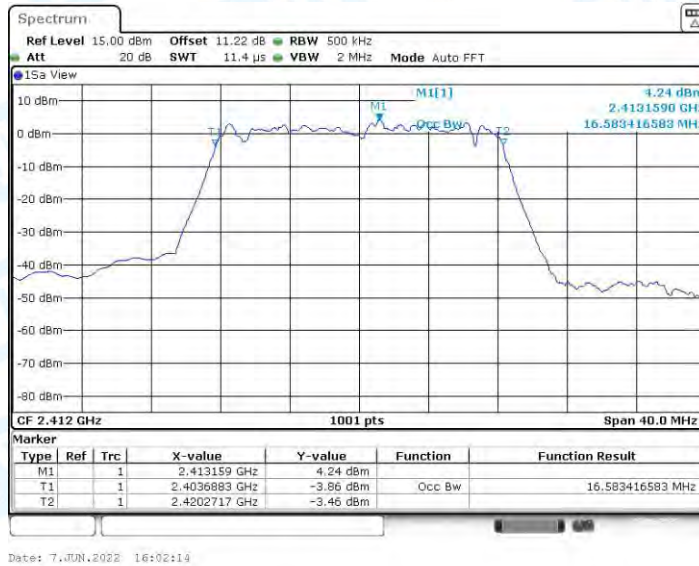
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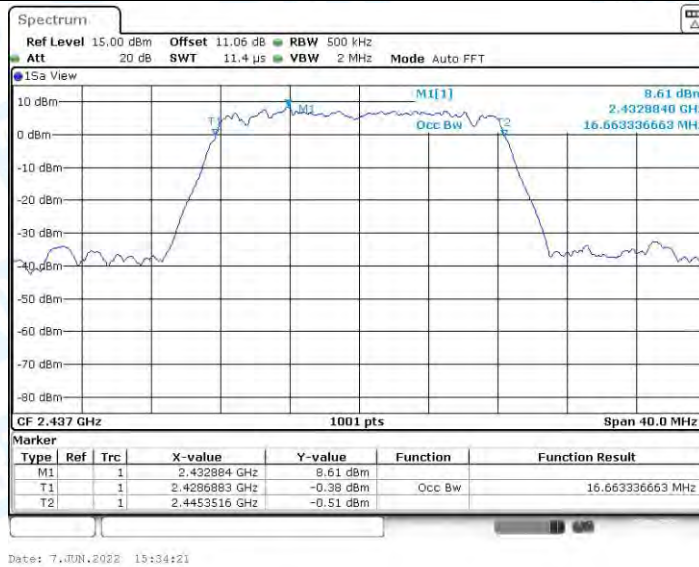
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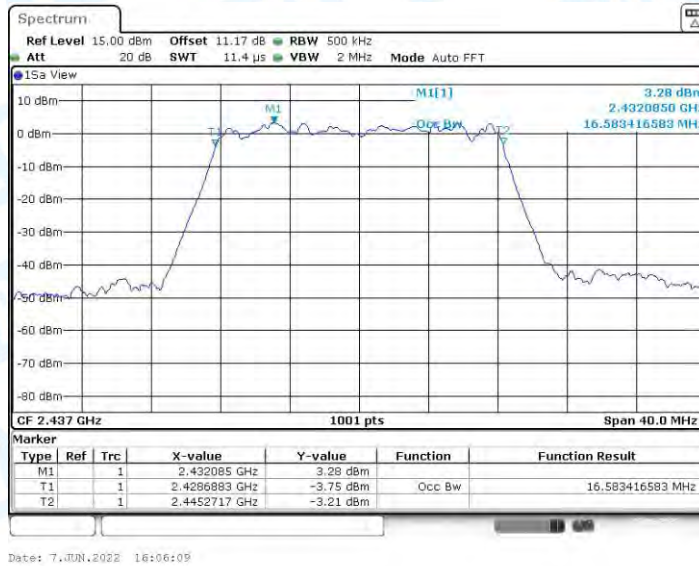
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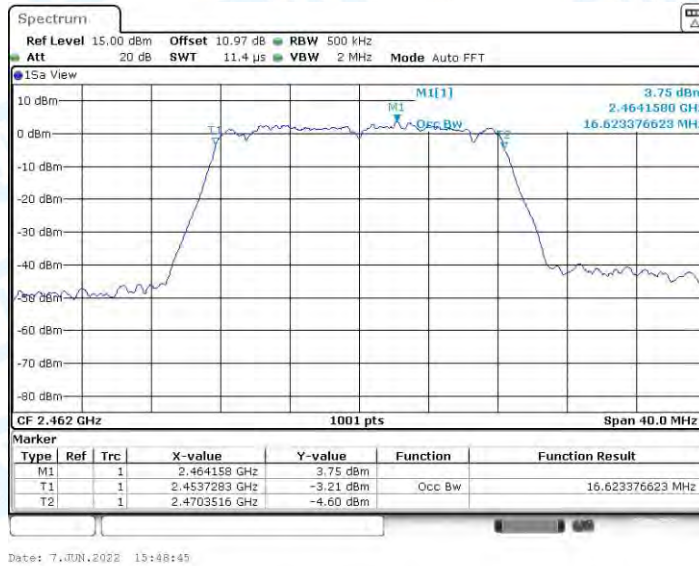
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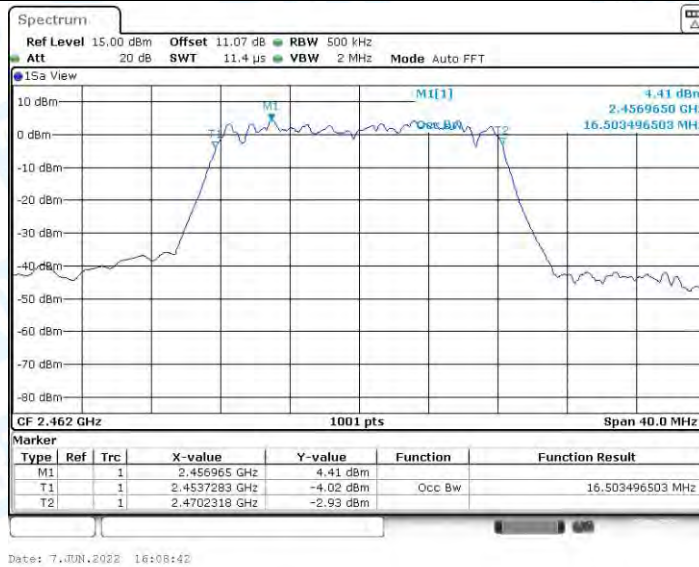
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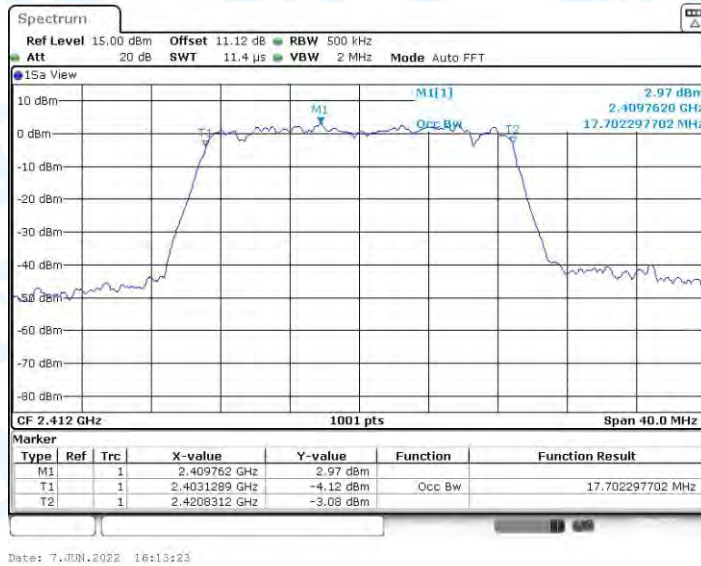
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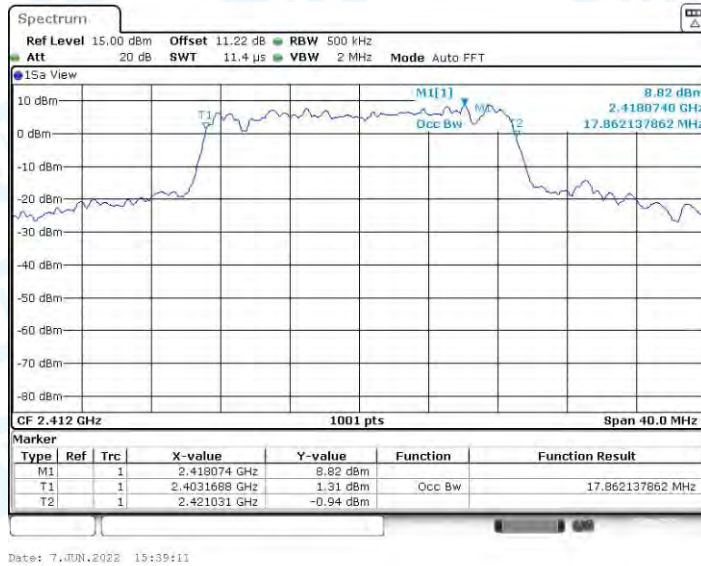
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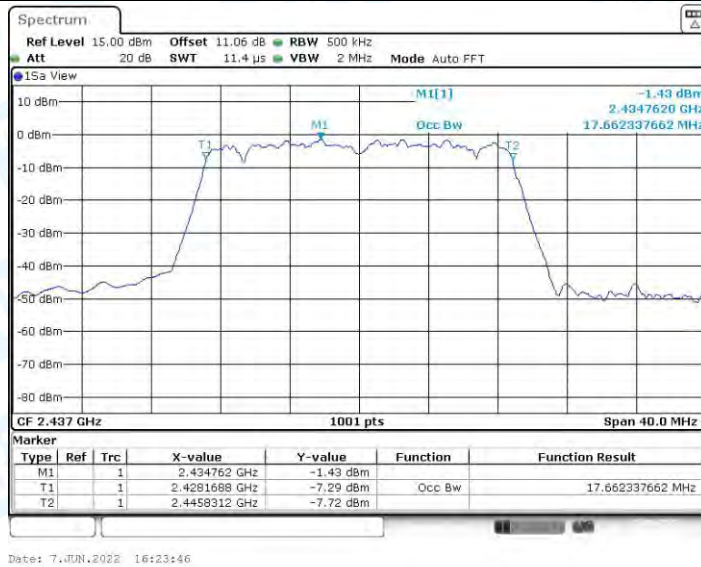
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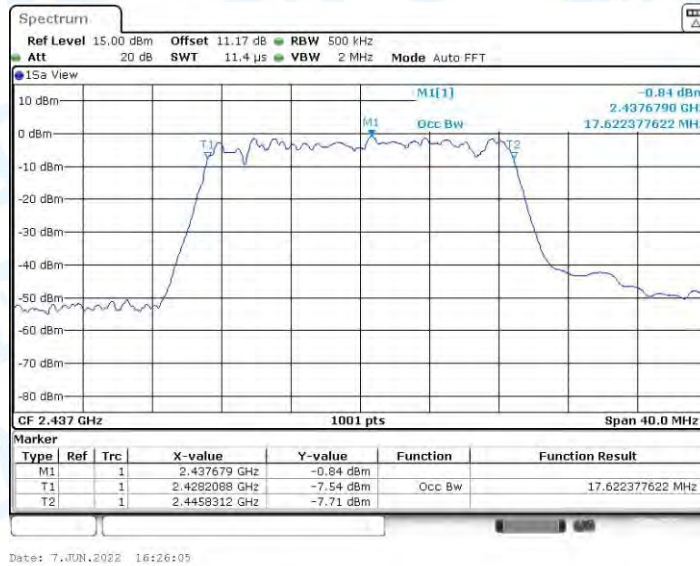
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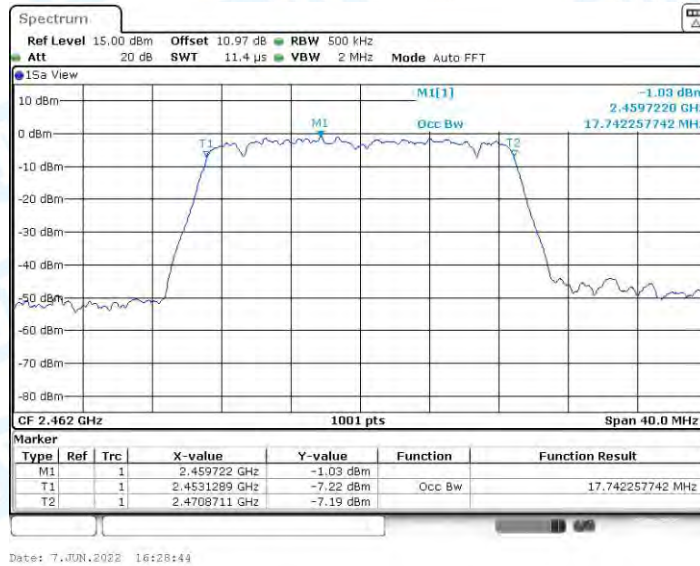
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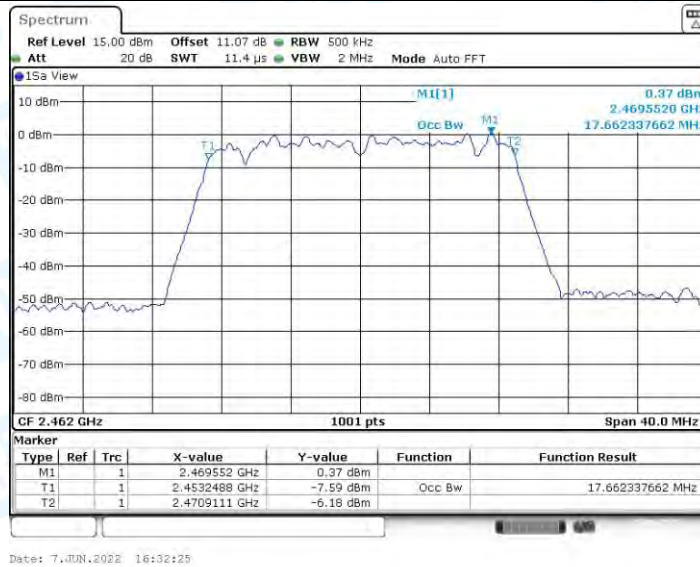
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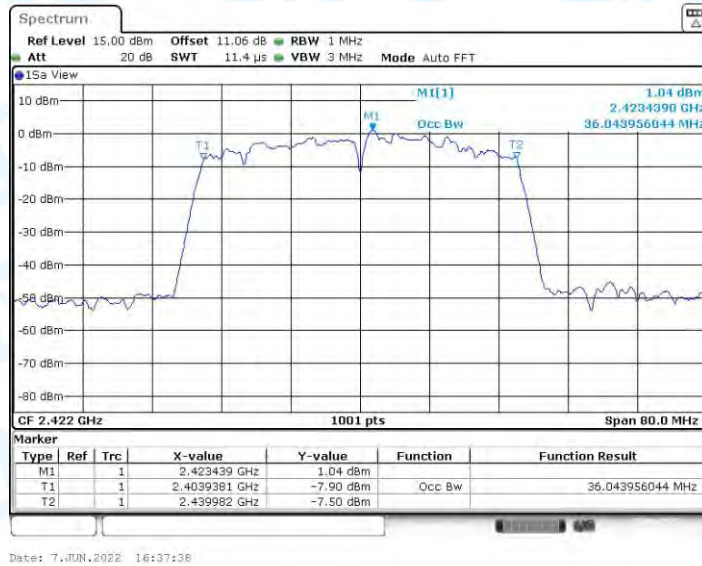
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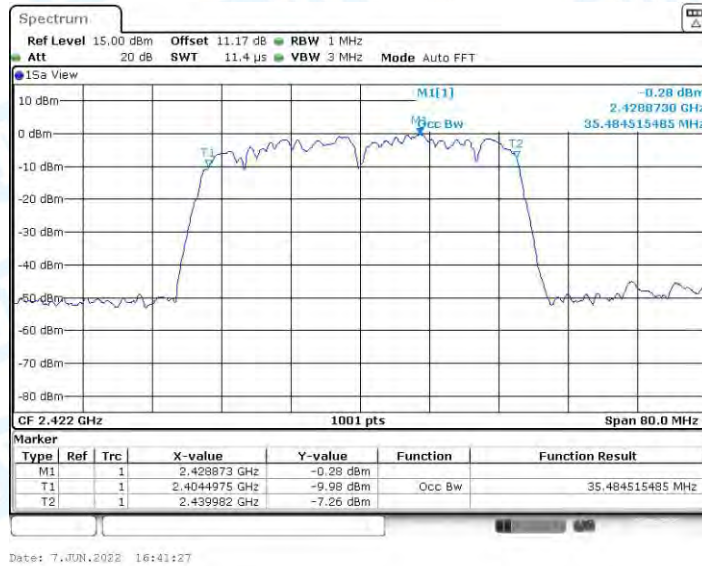
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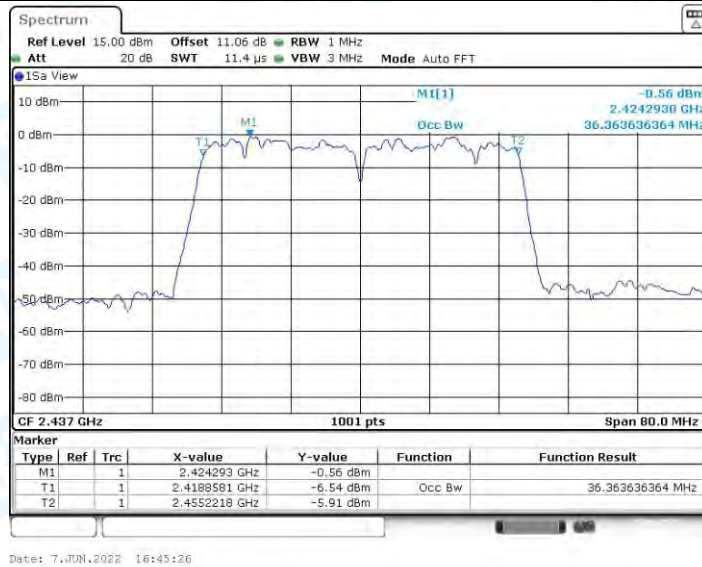
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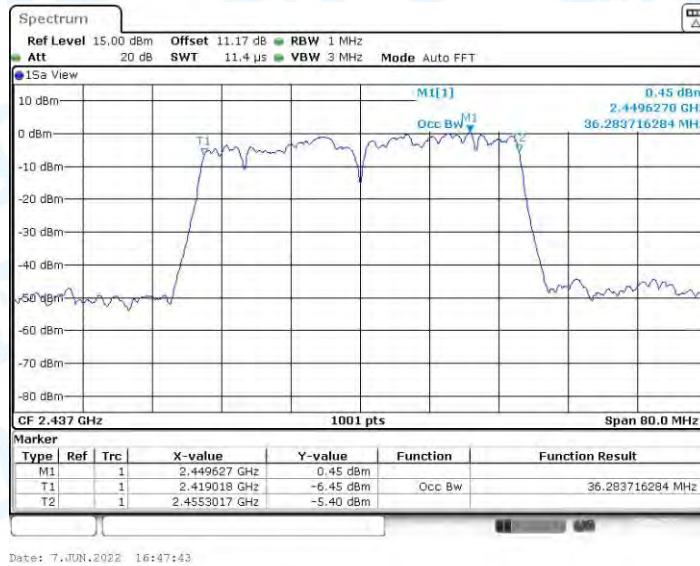
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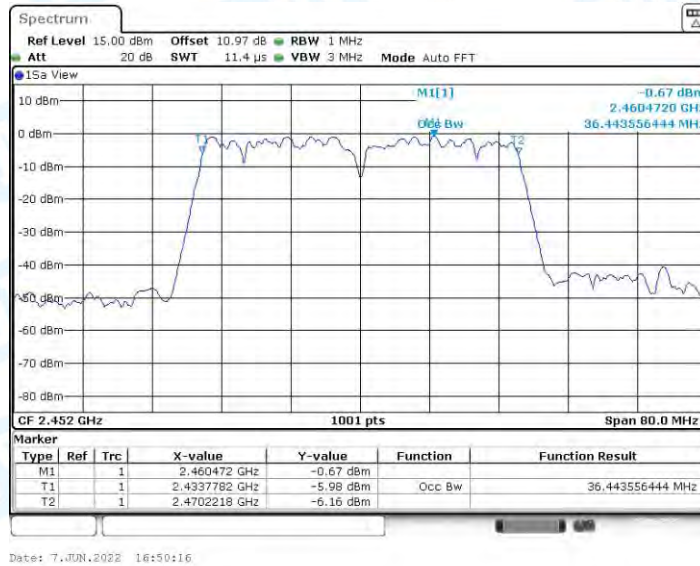
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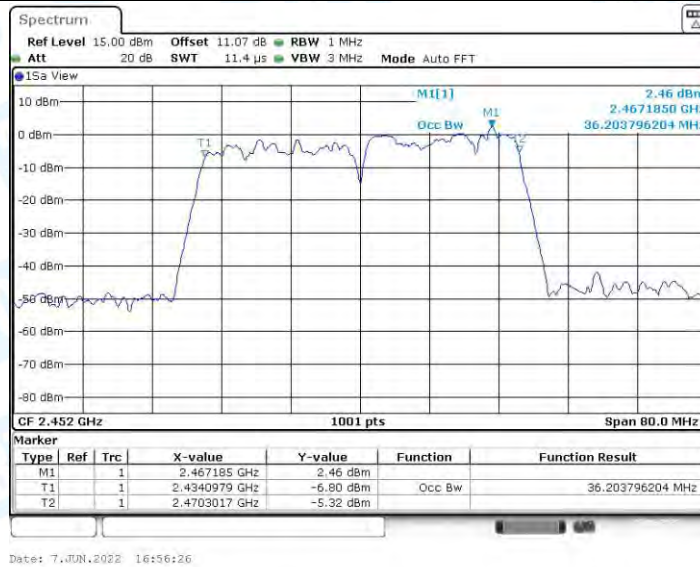
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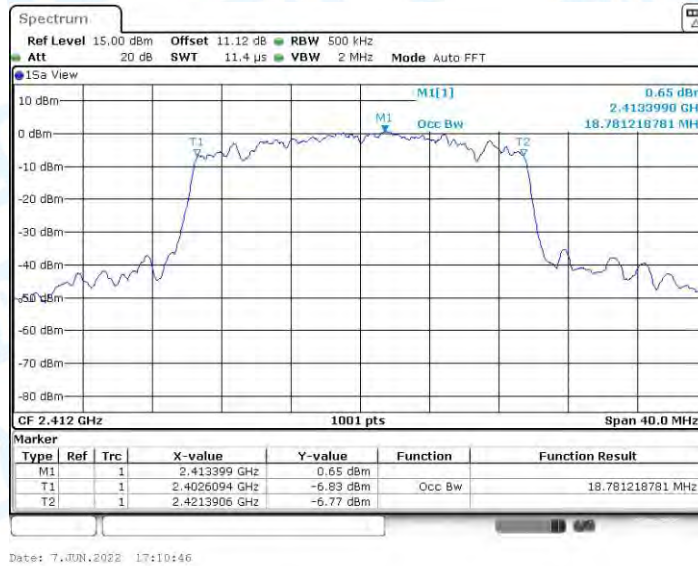
11N40MIMO_Ant2_2437



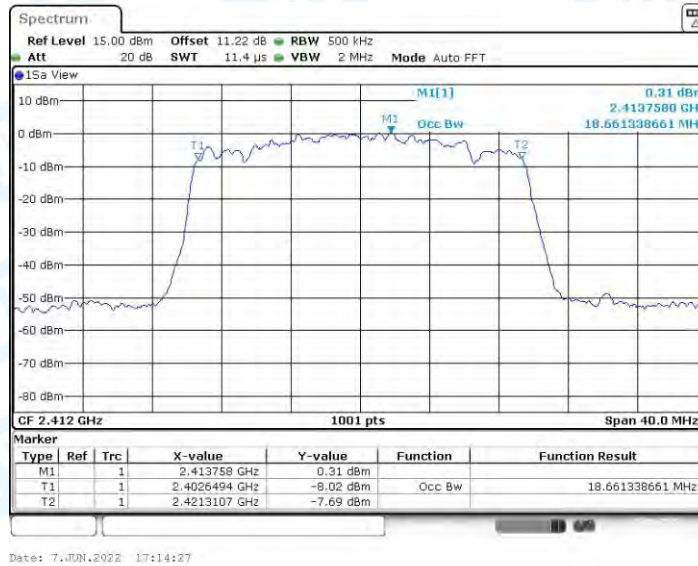
11N40MIMO_Ant1_2452



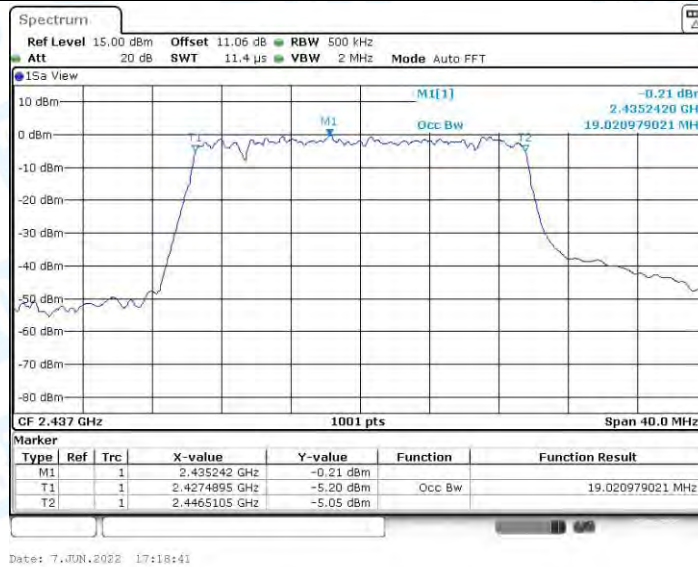
11N40MIMO_Ant2_2452



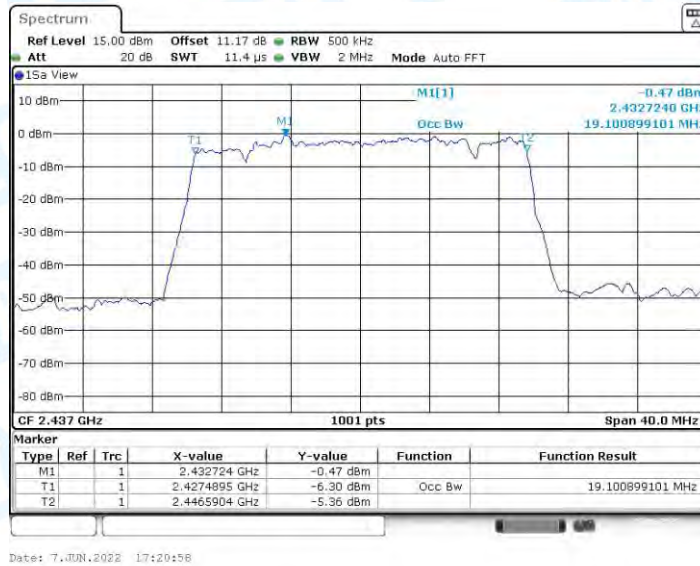
11AX20MIMO_Ant1_2412



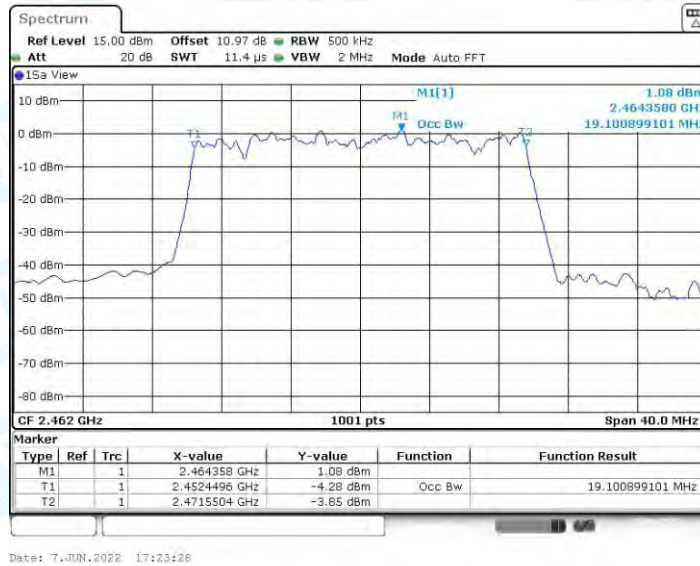
11AX20MIMO_Ant2_2412



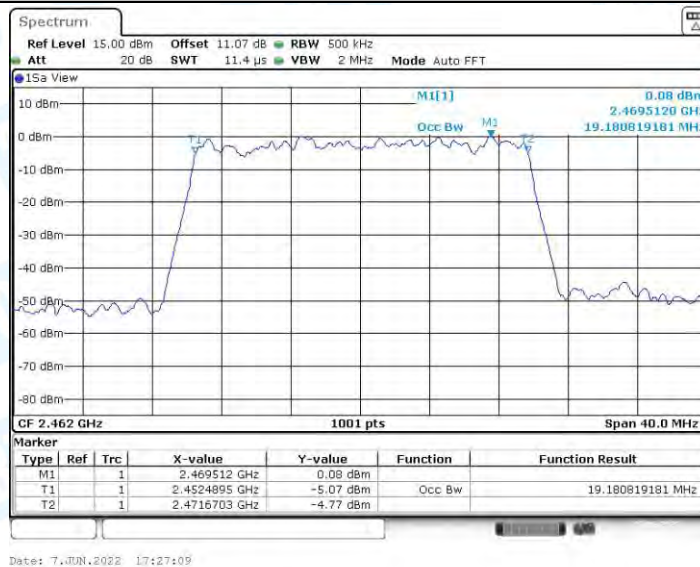
11AX20MIMO_Ant1_2437



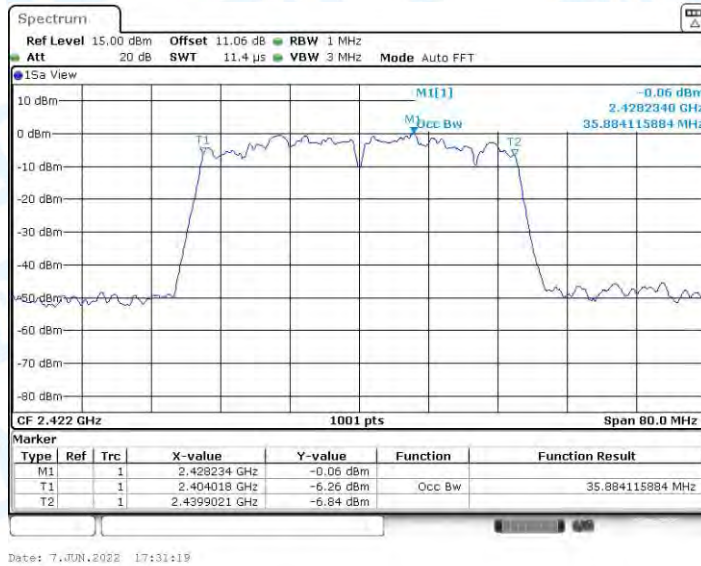
11AX20MIMO_Ant2_2437



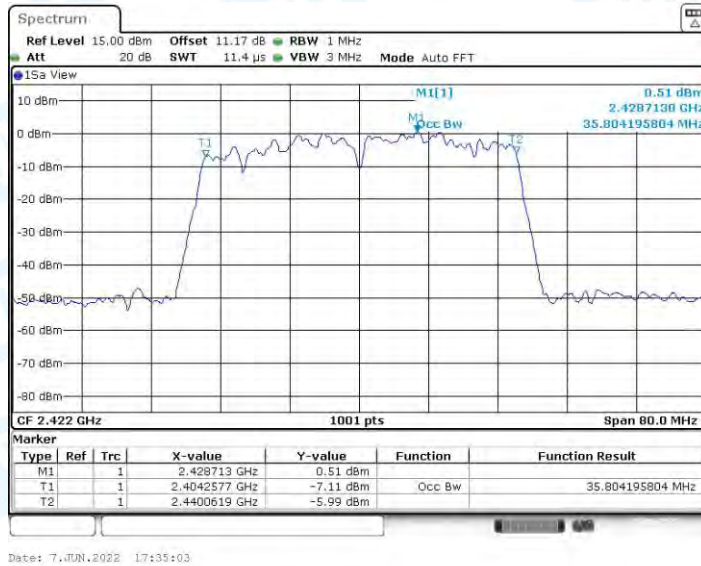
11AX20MIMO_Ant1_2462



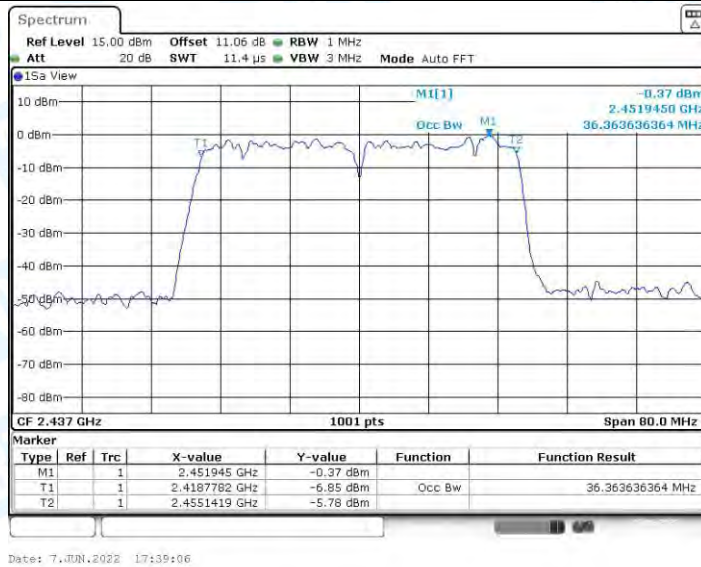
11AX20MIMO_Ant2_2462



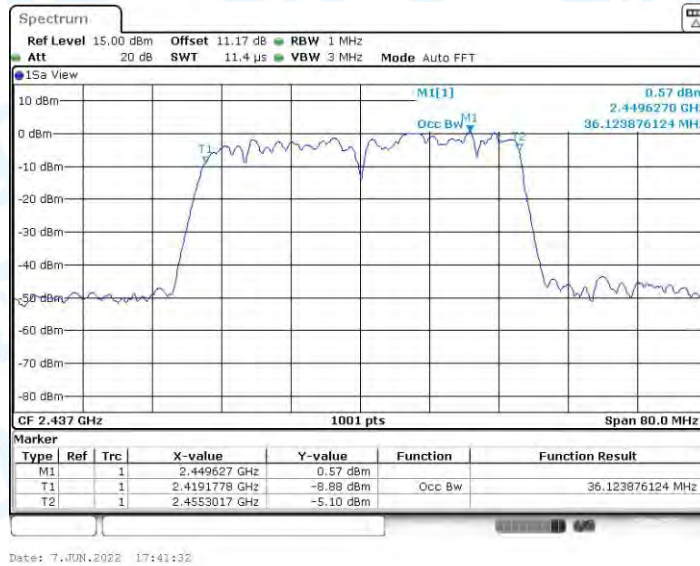
11AX40MIMO_Ant1_2422



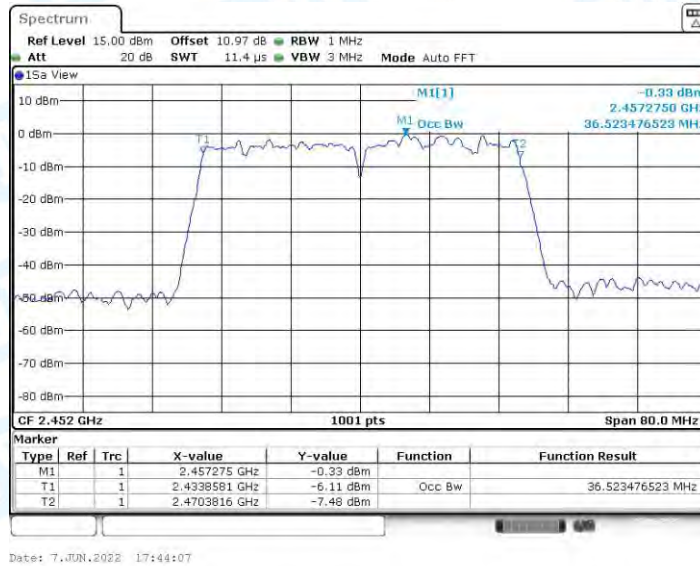
11AX40MIMO_Ant2_2422



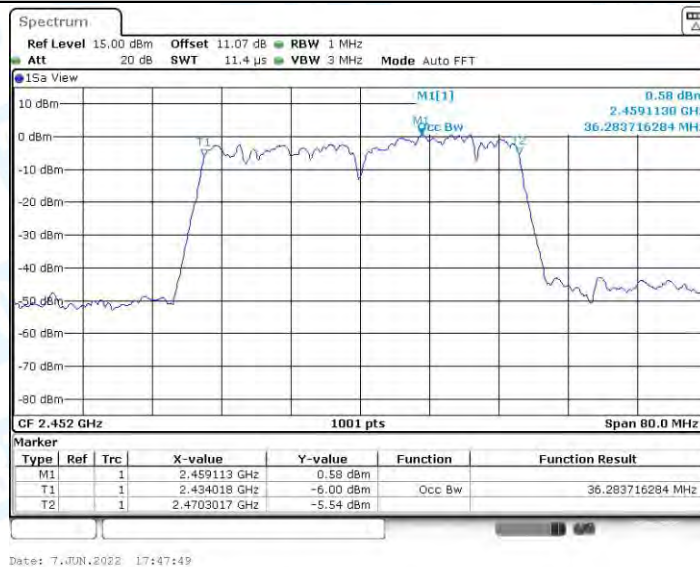
11AX40MIMO_Ant1_2437



11AX40MIMO_Ant2_2437



11AX40MIMO_Ant1_2452



11AX40MIMO_Ant2_2452

3. Maximum conducted output power

3.1. Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	20.44	≤30.00	PASS
	Ant2	2412	20.01	≤30.00	PASS
	Ant1	2437	20.19	≤30.00	PASS
	Ant2	2437	19.86	≤30.00	PASS
	Ant1	2462	19.26	≤30.00	PASS
	Ant2	2462	20.64	≤30.00	PASS
11G	Ant1	2412	20.45	≤30.00	PASS
	Ant2	2412	20.52	≤30.00	PASS
	Ant1	2437	20.39	≤30.00	PASS
	Ant2	2437	20.54	≤30.00	PASS
	Ant1	2462	20.57	≤30.00	PASS
	Ant2	2462	20.60	≤30.00	PASS
11N20MIMO	Ant1	2412	17.90	≤30.00	PASS
	Ant2	2412	17.50	≤30.00	PASS
	total	2412	20.71	≤30.00	PASS
	Ant1	2437	17.78	≤30.00	PASS
	Ant2	2437	17.71	≤30.00	PASS
	total	2437	20.76	≤30.00	PASS
	Ant1	2462	17.81	≤30.00	PASS
	Ant2	2462	17.60	≤30.00	PASS
	total	2462	20.72	≤30.00	PASS
11N40MIMO	Ant1	2422	18.08	≤30.00	PASS
	Ant2	2422	17.92	≤30.00	PASS
	total	2422	21.01	≤30.00	PASS
	Ant1	2437	18.06	≤30.00	PASS
	Ant2	2437	18.00	≤30.00	PASS
	total	2437	21.04	≤30.00	PASS
	Ant1	2452	18.16	≤30.00	PASS
	Ant2	2452	18.34	≤30.00	PASS
	total	2452	21.26	≤30.00	PASS
11AX20MIMO	Ant1	2412	17.68	≤30.00	PASS
	Ant2	2412	17.40	≤30.00	PASS
	total	2412	20.55	≤30.00	PASS
	Ant1	2437	18.10	≤30.00	PASS
	Ant2	2437	17.63	≤30.00	PASS
	total	2437	20.88	≤30.00	PASS
	Ant1	2462	17.98	≤30.00	PASS
	Ant2	2462	17.97	≤30.00	PASS
	total	2462	20.99	≤30.00	PASS
11AX40MIMO	Ant1	2422	18.05	≤30.00	PASS
	Ant2	2422	18.06	≤30.00	PASS

total	2422	21.07	≤30.00	PASS
Ant1	2437	18.11	≤30.00	PASS
Ant2	2437	18.03	≤30.00	PASS
total	2437	21.08	≤30.00	PASS
Ant1	2452	18.28	≤30.00	PASS
Ant2	2452	18.16	≤30.00	PASS
total	2452	21.23	≤30.00	PASS

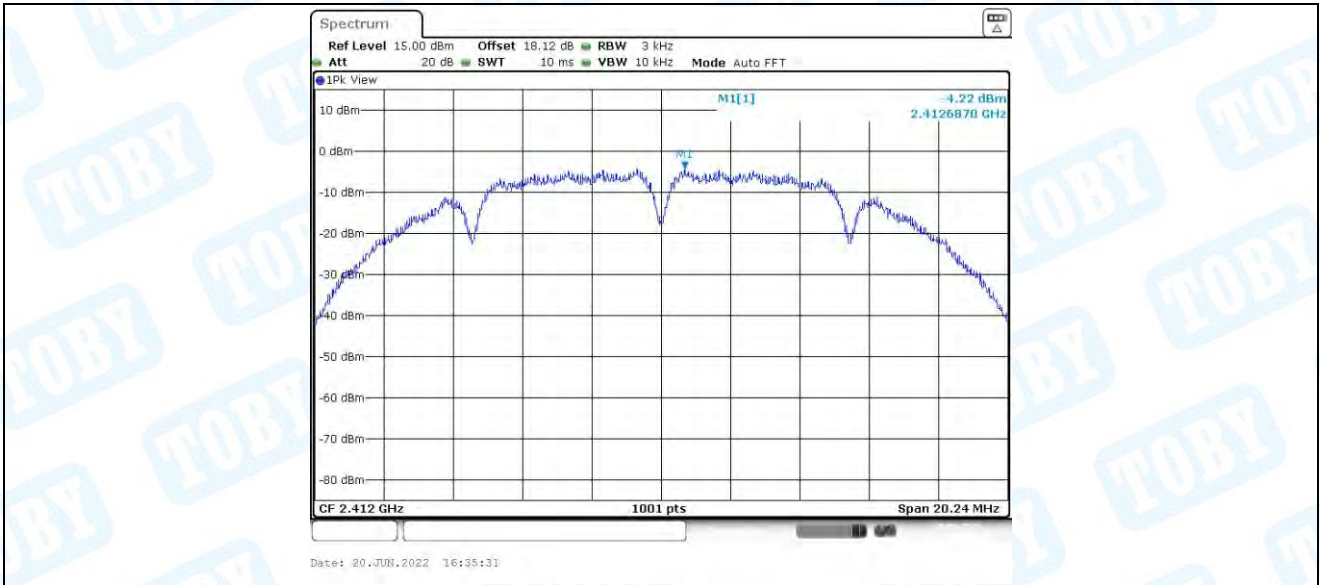
4. Maximum power spectral density

4.1. Test Result

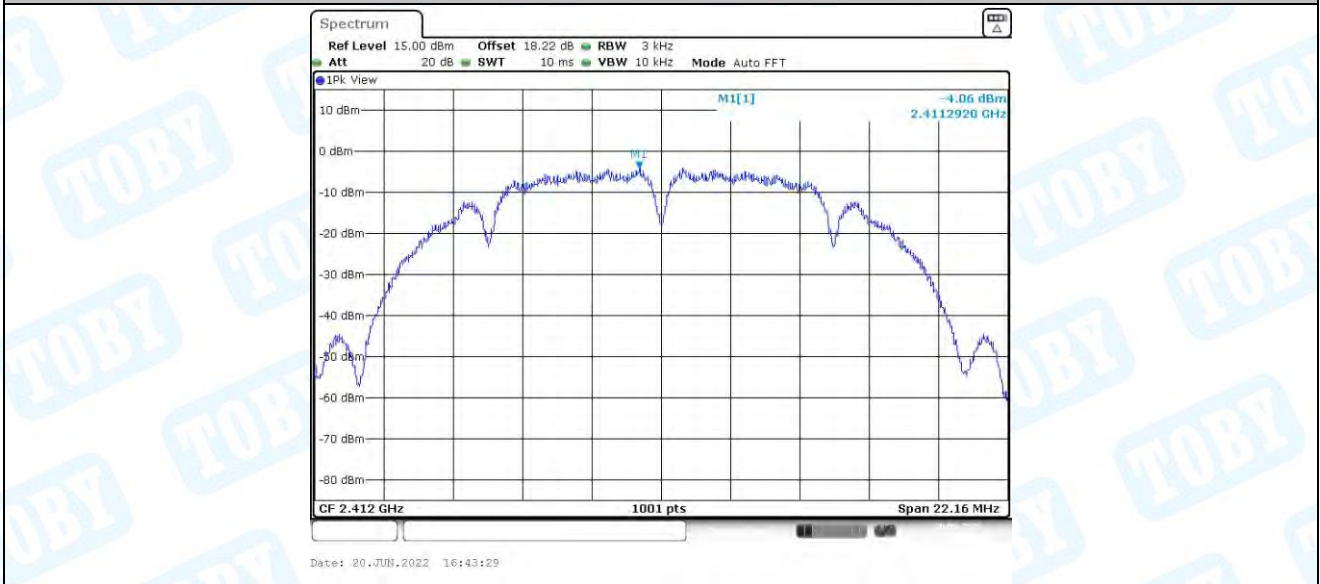
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-4.22	≤8.00	PASS
	Ant2	2412	-4.06	≤8.00	PASS
	Ant1	2437	-4.31	≤8.00	PASS
	Ant2	2437	-4.31	≤8.00	PASS
	Ant1	2462	-4.24	≤8.00	PASS
	Ant2	2462	-4.47	≤8.00	PASS
11G	Ant1	2412	-8.23	≤8.00	PASS
	Ant2	2412	-7.82	≤8.00	PASS
	Ant1	2437	-8.19	≤8.00	PASS
	Ant2	2437	-7.89	≤8.00	PASS
	Ant1	2462	-8.24	≤8.00	PASS
	Ant2	2462	-7.81	≤8.00	PASS
11N20MIMO	Ant1	2412	-10.66	≤8.00	PASS
	Ant2	2412	-8.67	≤8.00	PASS
	total	2412	-6.54	≤8.00	PASS
	Ant1	2437	-10.69	≤8.00	PASS
	Ant2	2437	-9.6	≤8.00	PASS
	total	2437	-7.10	≤8.00	PASS
	Ant1	2462	-10.6	≤8.00	PASS
	Ant2	2462	-9.48	≤8.00	PASS
	total	2462	-6.99	≤8.00	PASS
11N40MIMO	Ant1	2422	-13.44	≤8.00	PASS
	Ant2	2422	-13.66	≤8.00	PASS
	total	2422	-10.54	≤8.00	PASS
	Ant1	2437	-14.49	≤8.00	PASS
	Ant2	2437	-14.16	≤8.00	PASS
	total	2437	-11.31	≤8.00	PASS
	Ant1	2452	-14.85	≤8.00	PASS
	Ant2	2452	-13.74	≤8.00	PASS
	total	2452	-11.25	≤8.00	PASS
11AX20MIMO	Ant1	2412	-9.14	≤8.00	PASS
	Ant2	2412	-8.22	≤8.00	PASS
	total	2412	-5.65	≤8.00	PASS
	Ant1	2437	-9.58	≤8.00	PASS
	Ant2	2437	-9.82	≤8.00	PASS
	total	2437	-6.69	≤8.00	PASS
	Ant1	2462	-9.61	≤8.00	PASS
	Ant2	2462	-9.99	≤8.00	PASS
	total	2462	-6.79	≤8.00	PASS
11AX40MIMO	Ant1	2422	-11.67	≤8.00	PASS
	Ant2	2422	-12.51	≤8.00	PASS

total	2422	-9.06	≤8.00	PASS
Ant1	2437	-12.97	≤8.00	PASS
Ant2	2437	-13.41	≤8.00	PASS
total	2437	-10.17	≤8.00	PASS
Ant1	2452	-13.03	≤8.00	PASS
Ant2	2452	-12.81	≤8.00	PASS
total	2452	-9.91	≤8.00	PASS

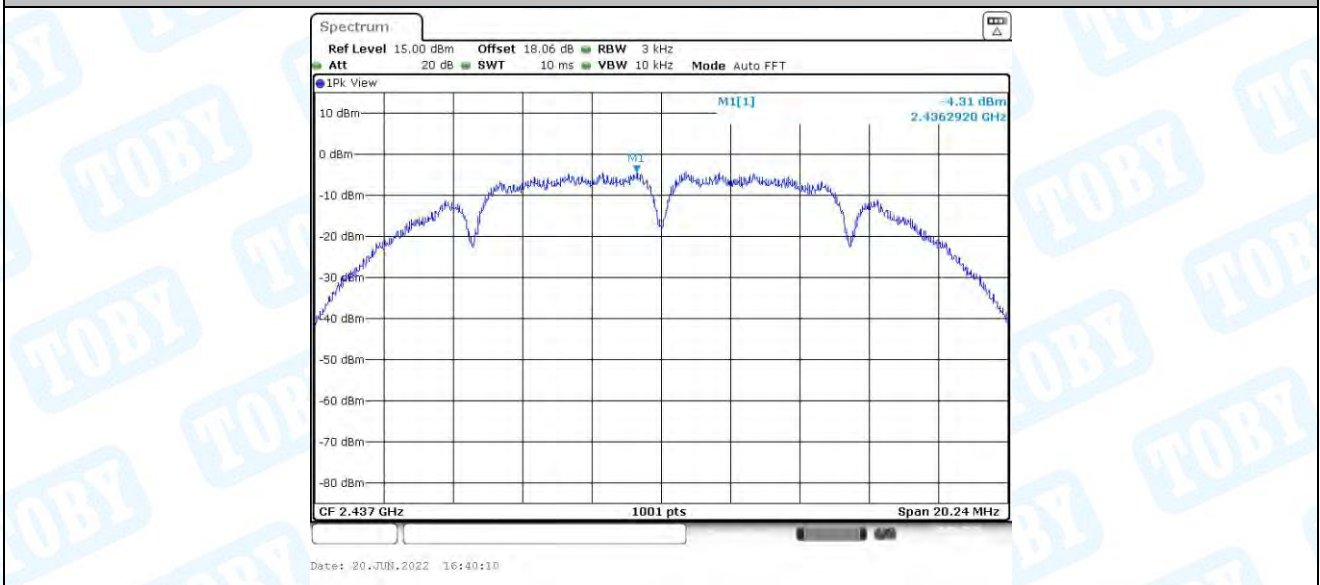
4.2. Test Graphs



11B_Ant1_2412



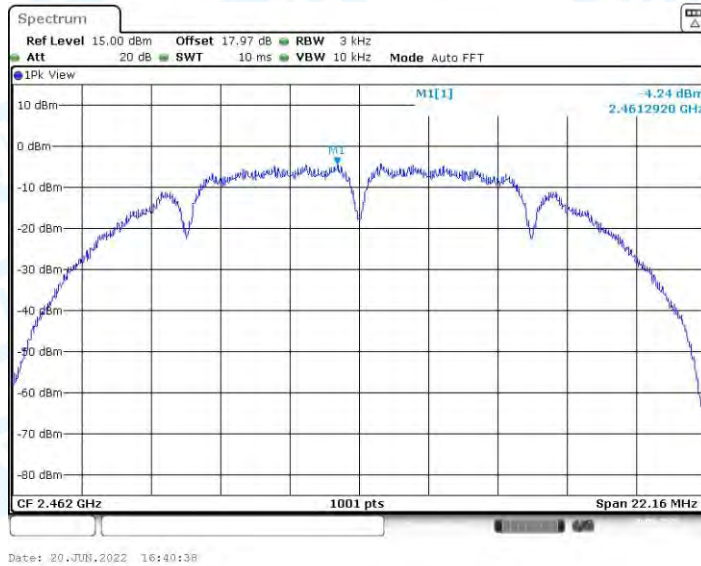
11B_Ant2_2412



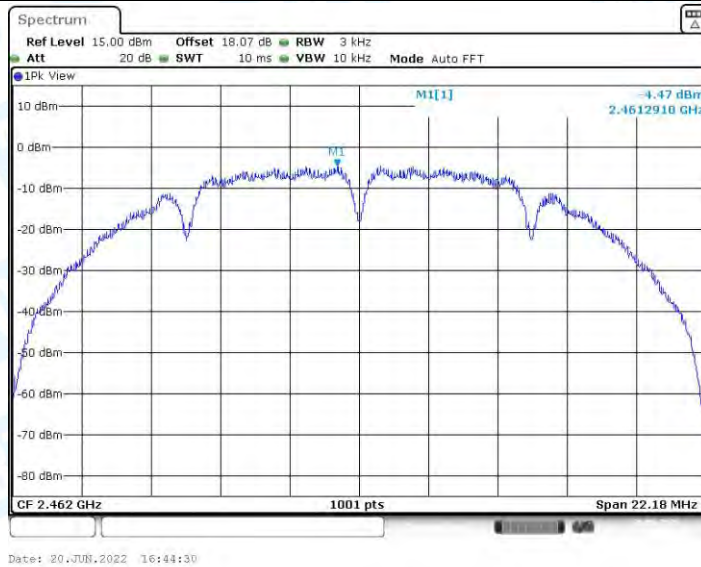
11B_Ant1_2437



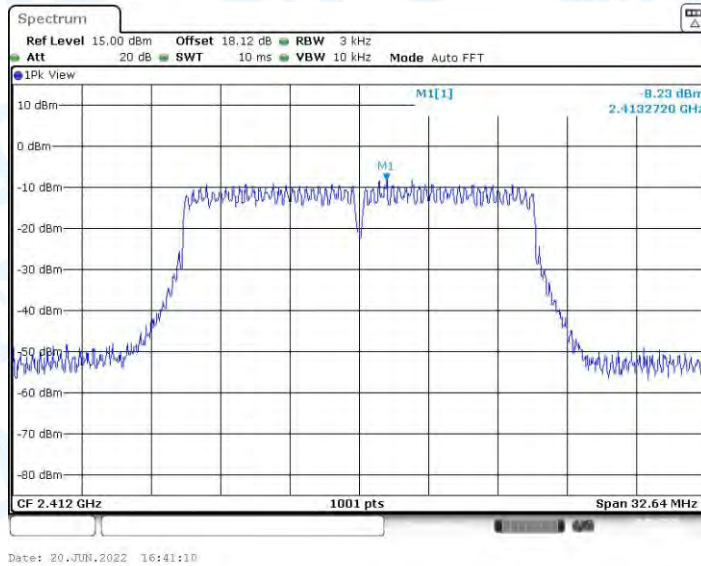
11B_Ant2_2437



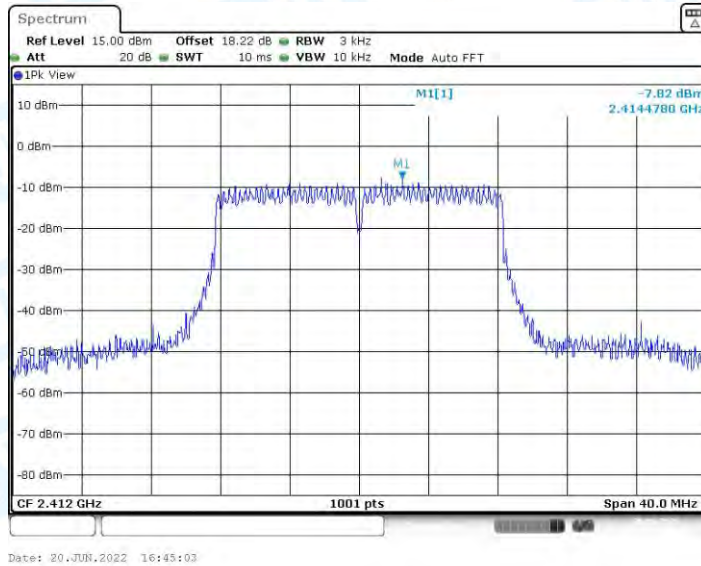
11B_Ant1_2462



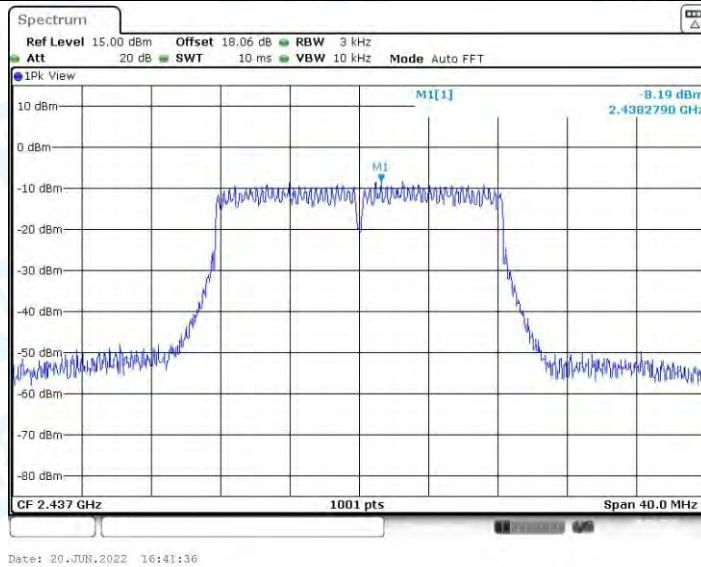
11B_Ant2_2462



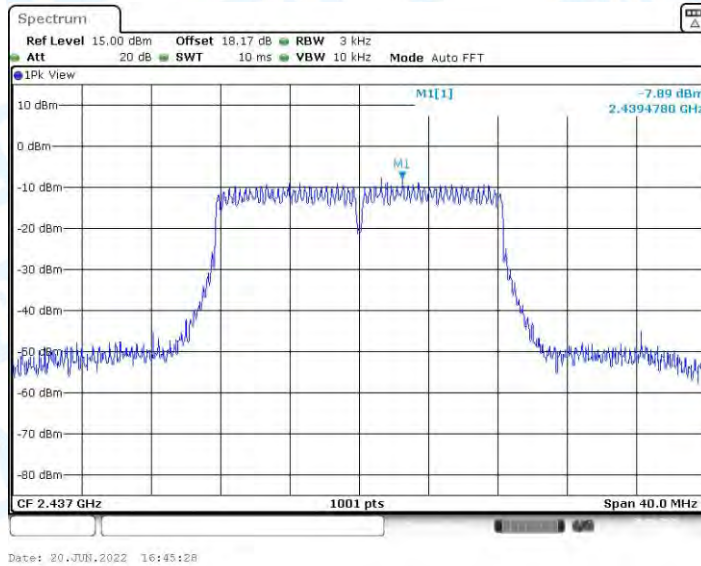
11G_Ant1_2412



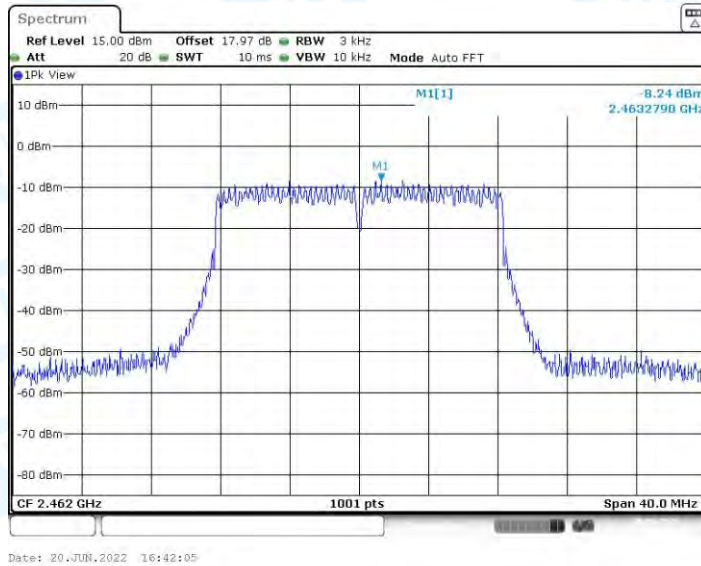
11G_Ant2_2412



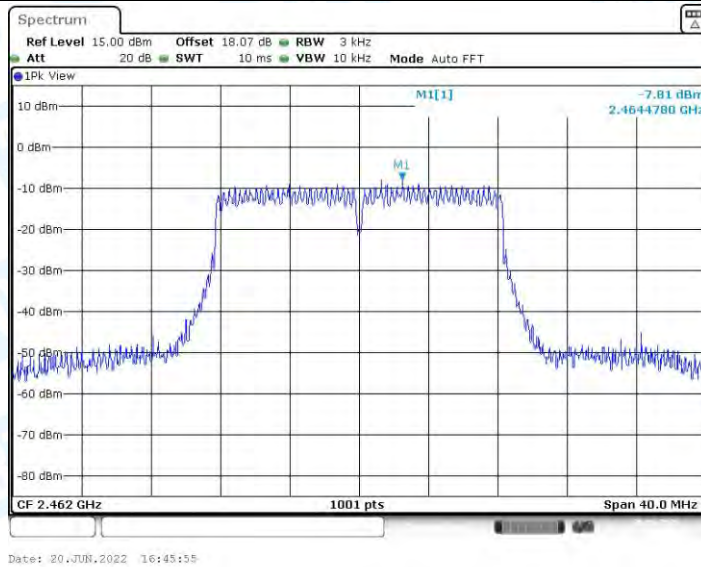
11G_Ant1_2437



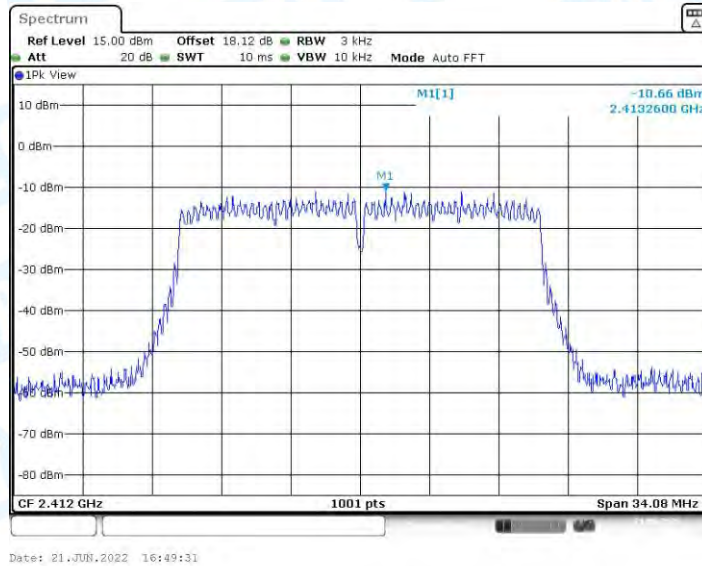
11G_Ant2_2437



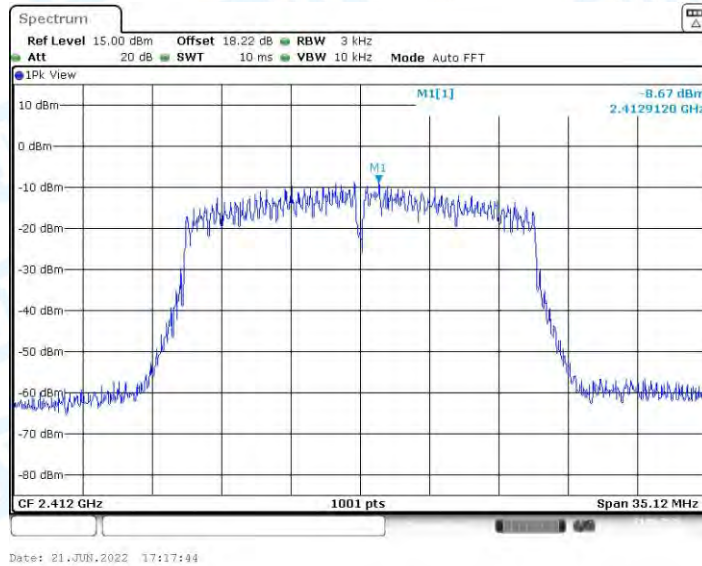
11G_Ant1_2462



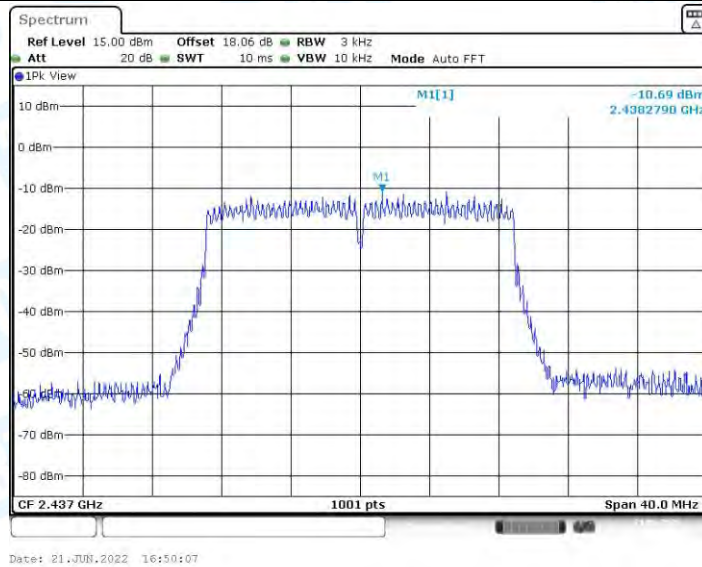
11G_Ant2_2462



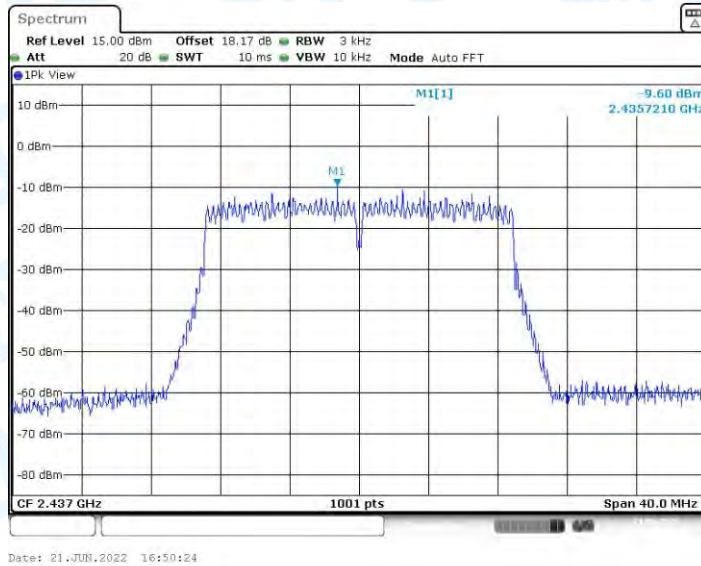
11N20MIMO_Ant1_2412



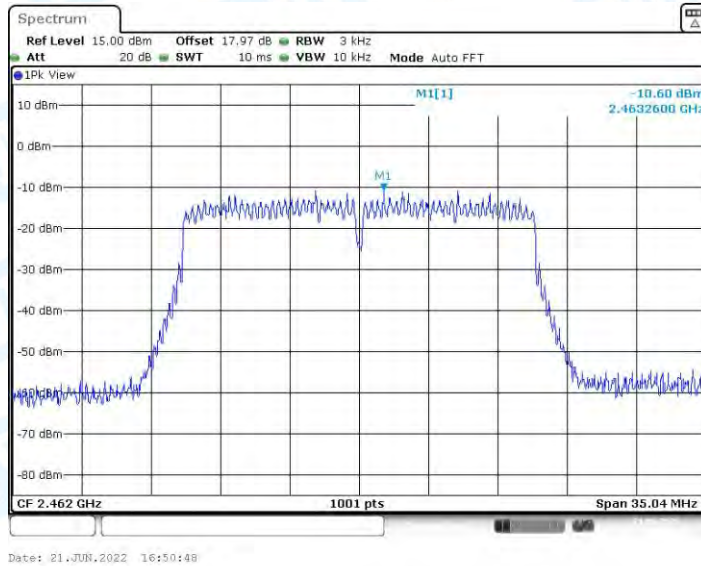
11N20MIMO_Ant2_2412



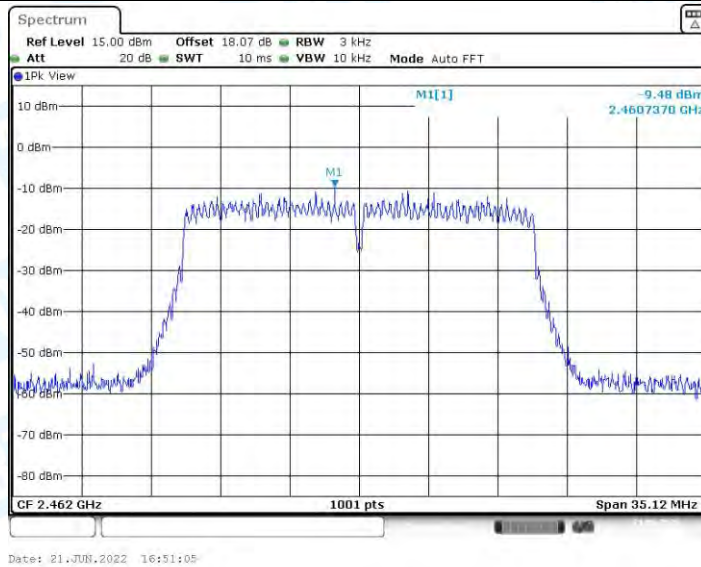
11N20MIMO_Ant1_2437



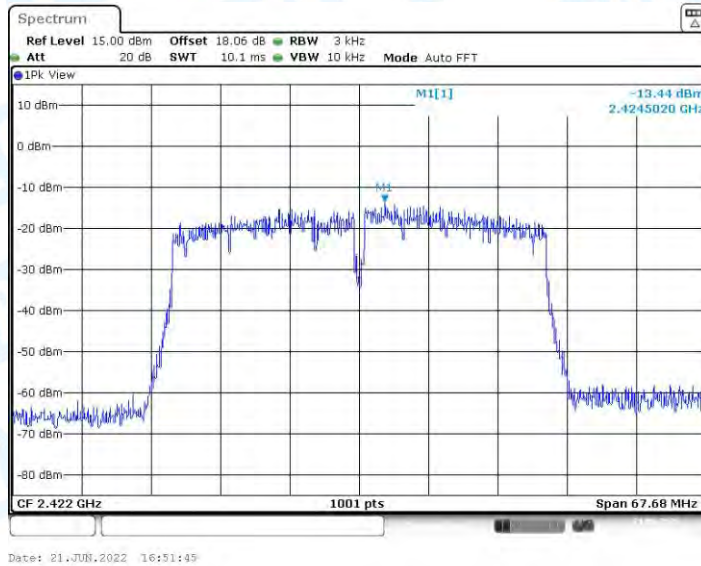
11N20MIMO_Ant2_2437



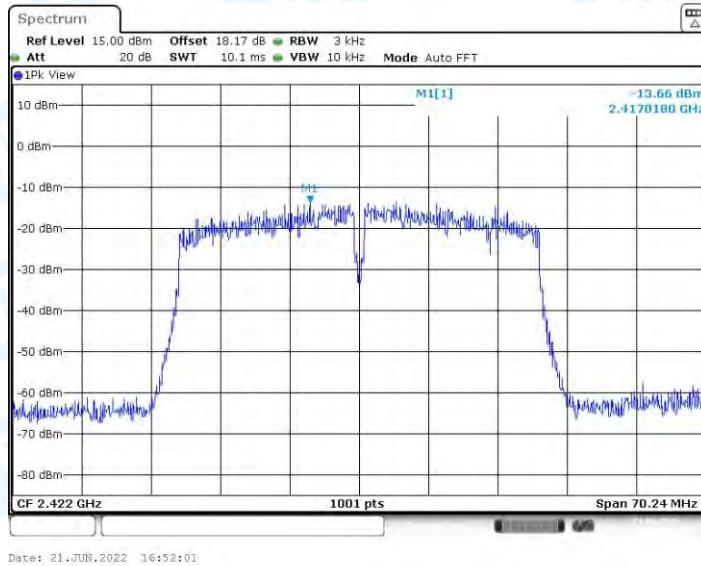
11N20MIMO_Ant1_2462



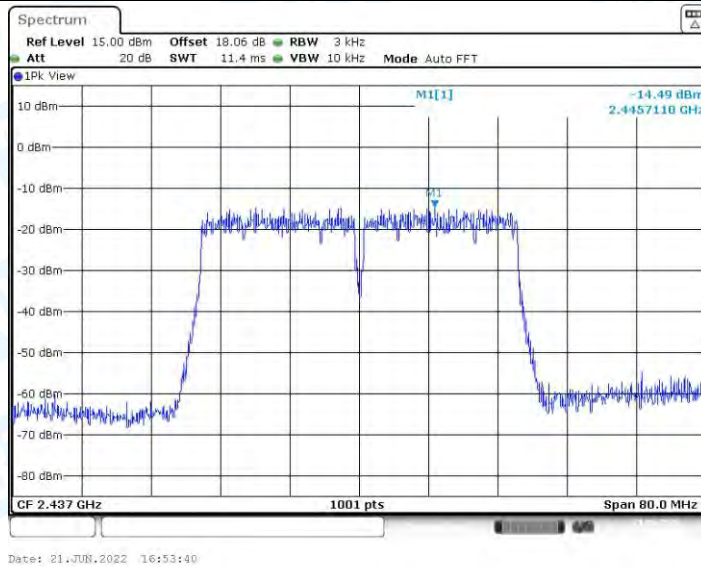
11N20MIMO_Ant2_2462



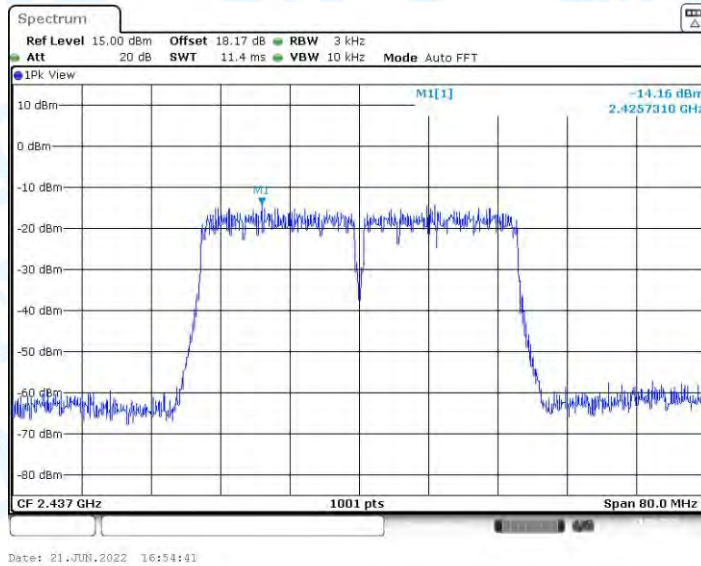
11N40MIMO_Ant1_2422



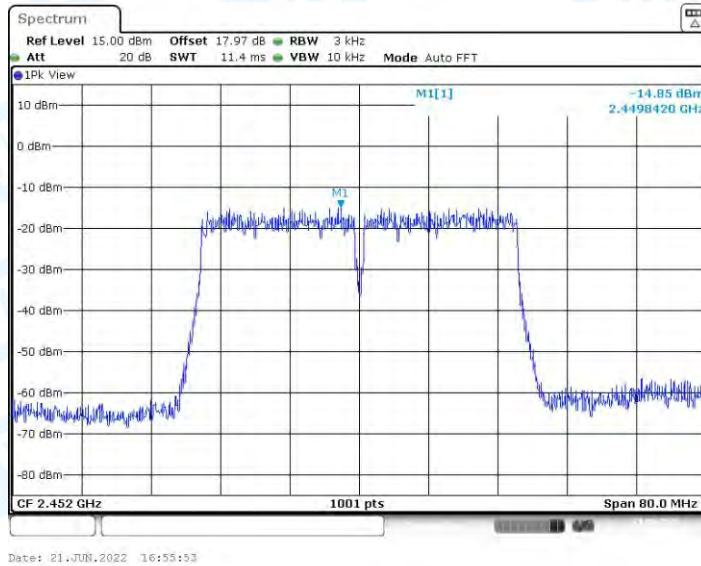
11N40MIMO_Ant2_2422



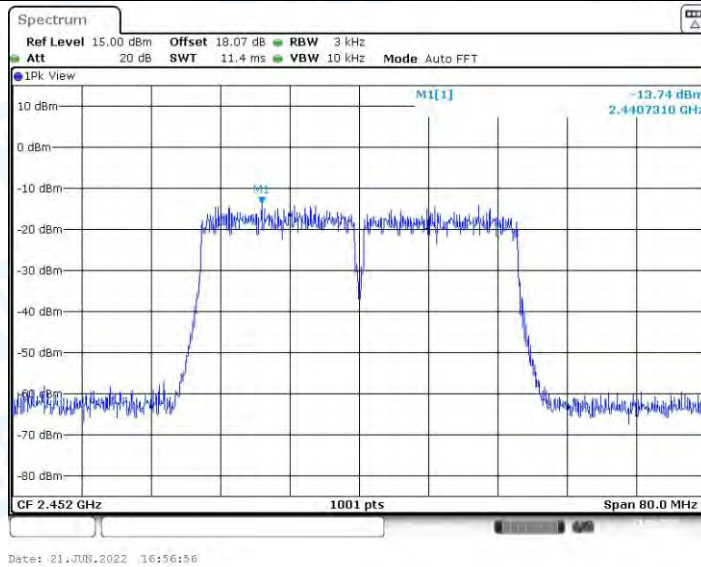
11N40MIMO_Ant1_2437



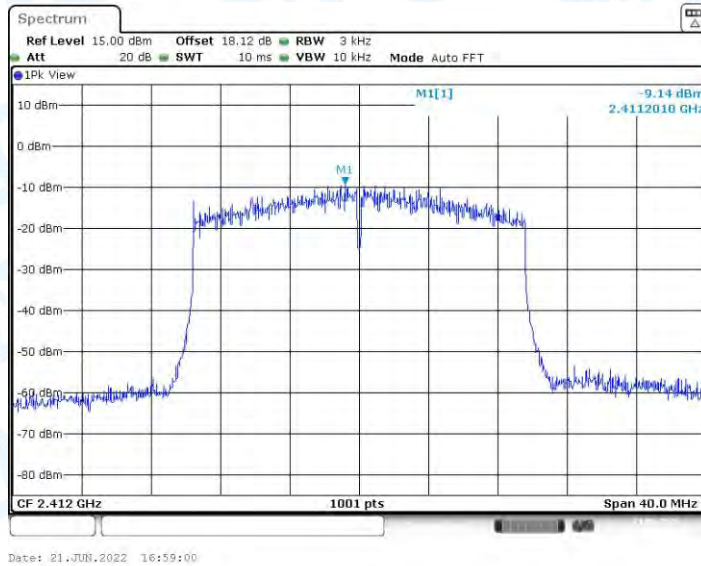
11N40MIMO_Ant2_2437



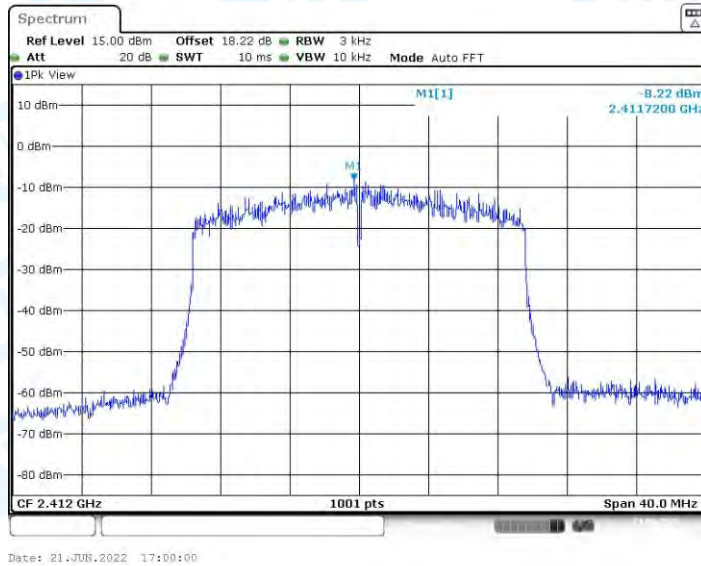
11N40MIMO_Ant1_2452



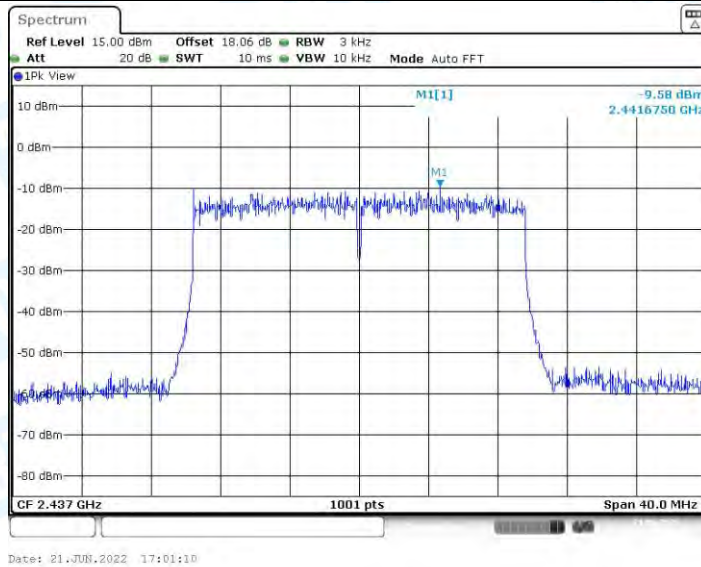
11N40MIMO_Ant2_2452



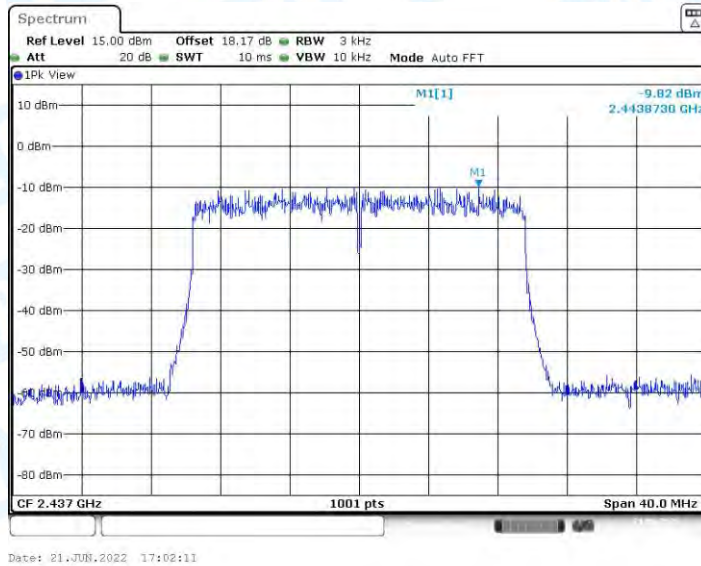
11AX20MIMO_Ant1_2412



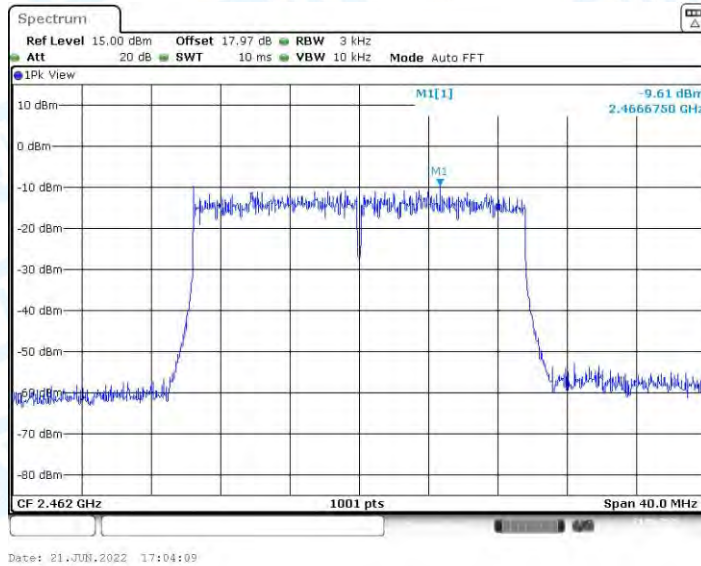
11AX20MIMO_Ant2_2412



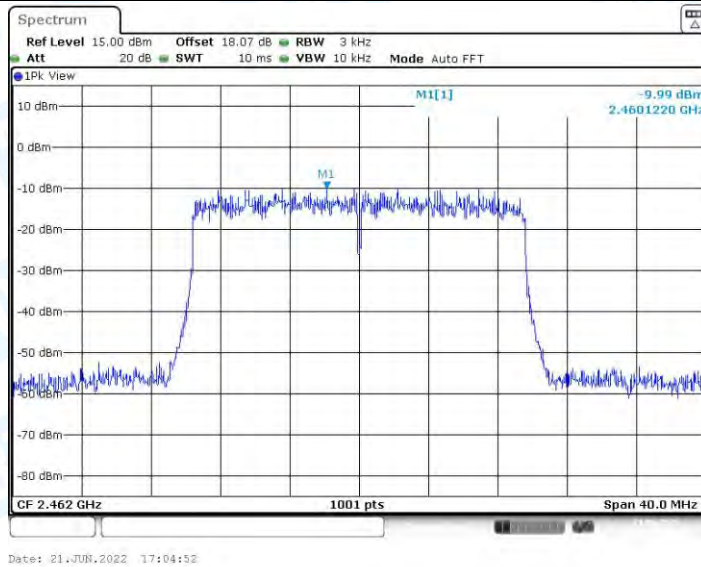
11AX20MIMO_Ant1_2437



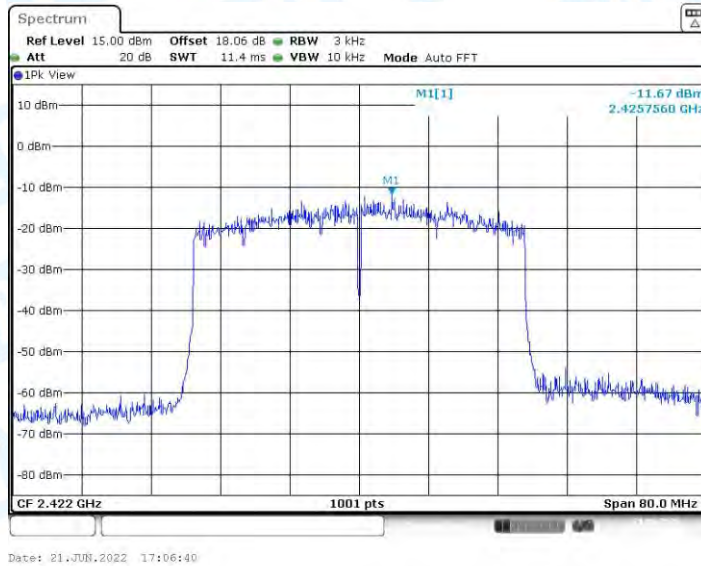
11AX20MIMO_Ant2_2437



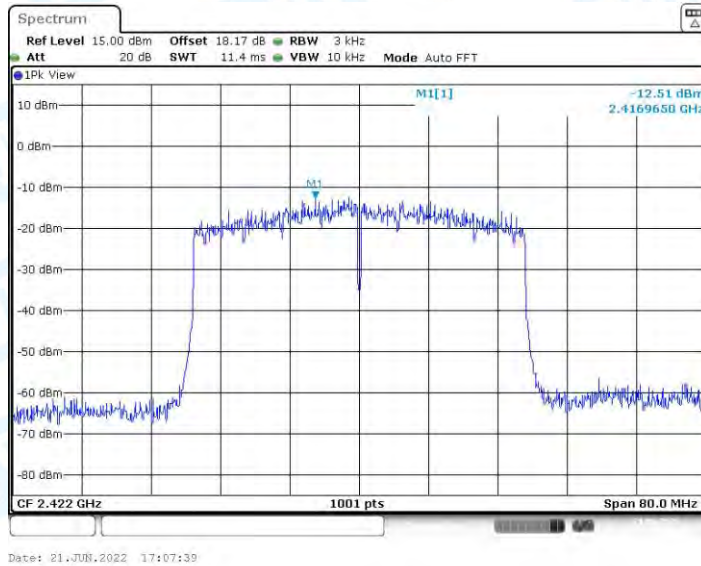
11AX20MIMO_Ant1_2462



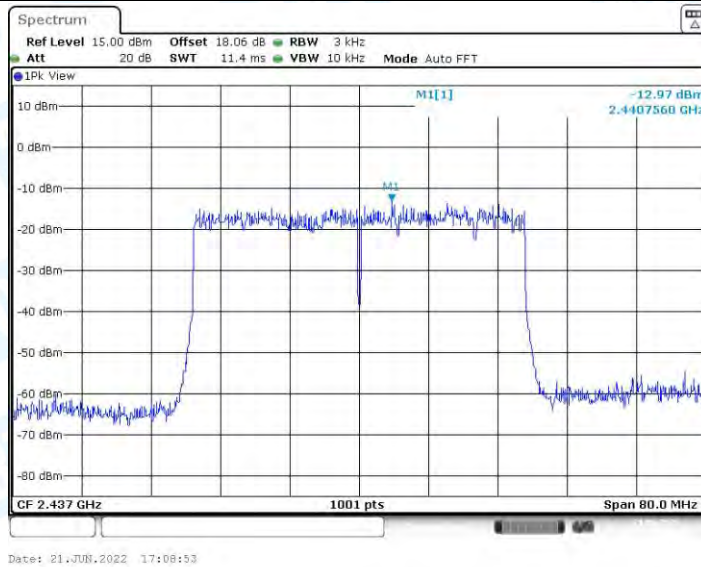
11AX20MIMO_Ant2_2462



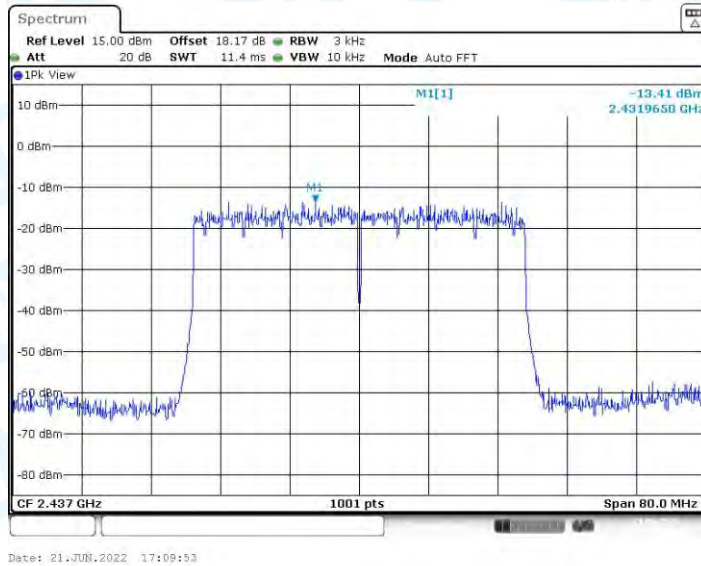
11AX40MIMO_Ant1_2422



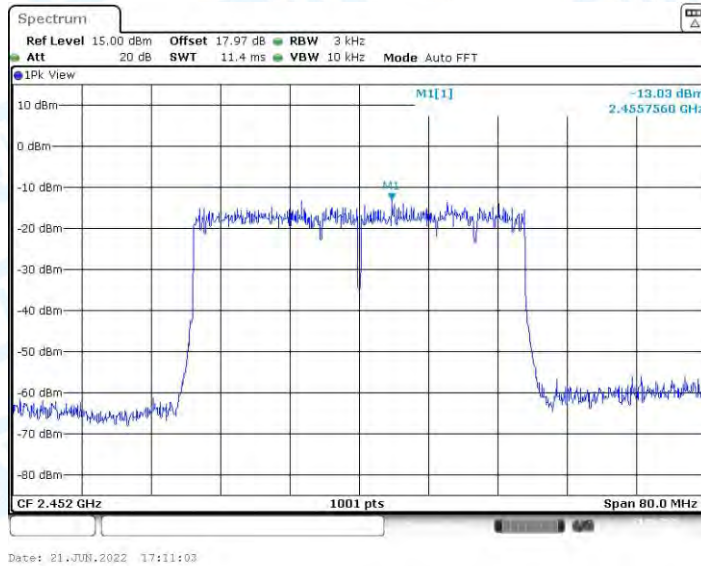
11AX40MIMO_Ant2_2422



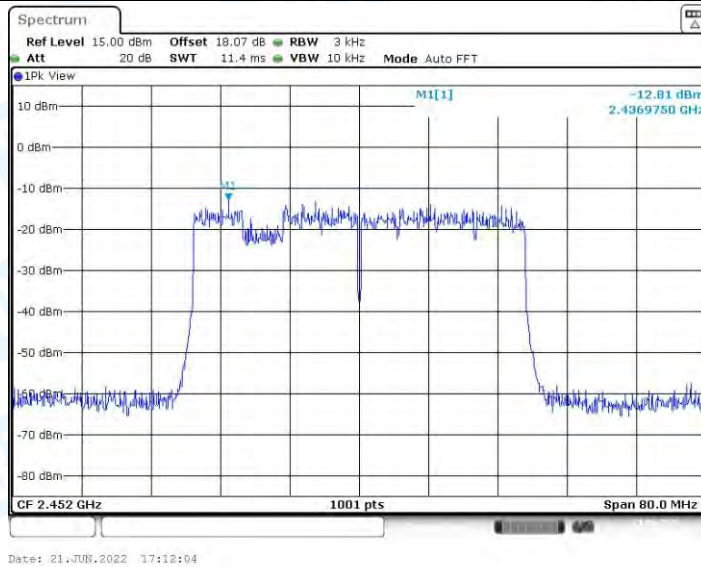
11AX40MIMO_Ant1_2437



11AX40MIMO_Ant2_2437



11AX40MIMO_Ant1_2452



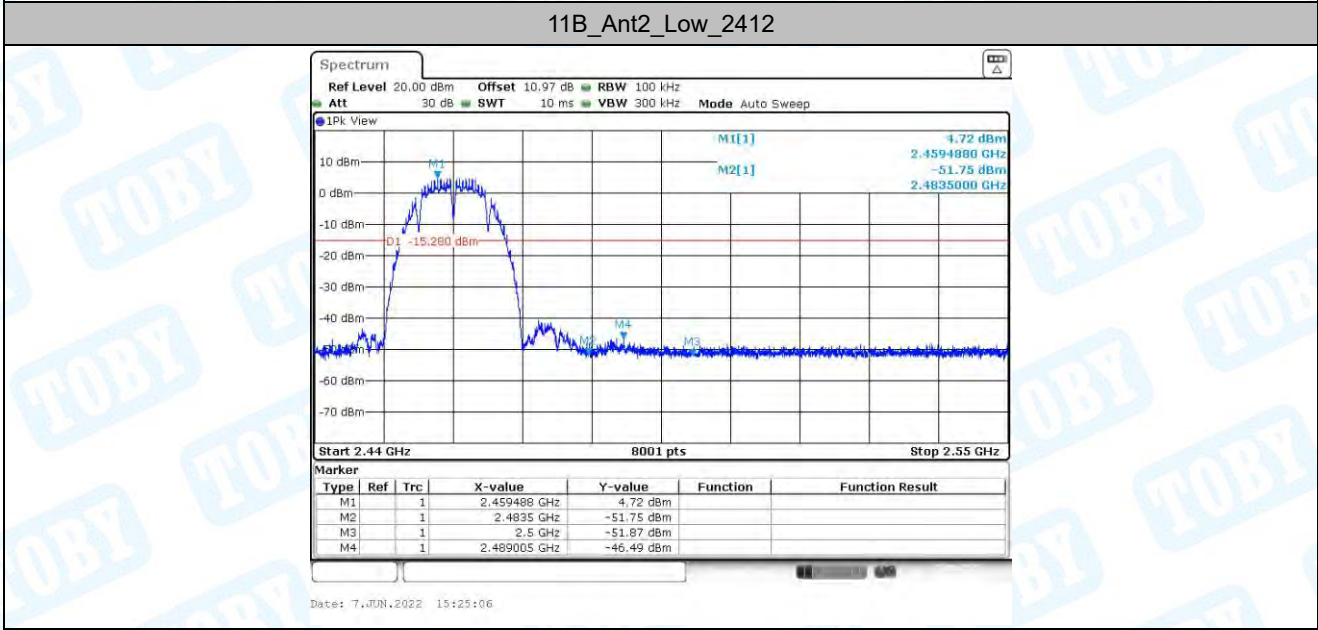
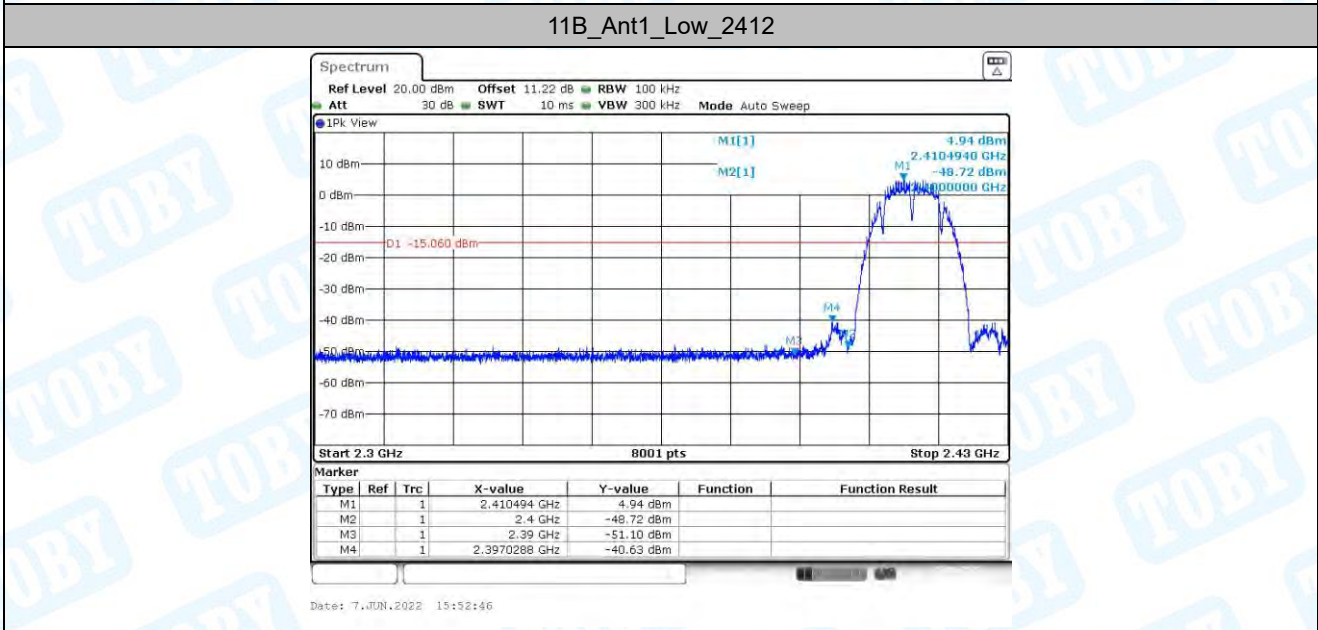
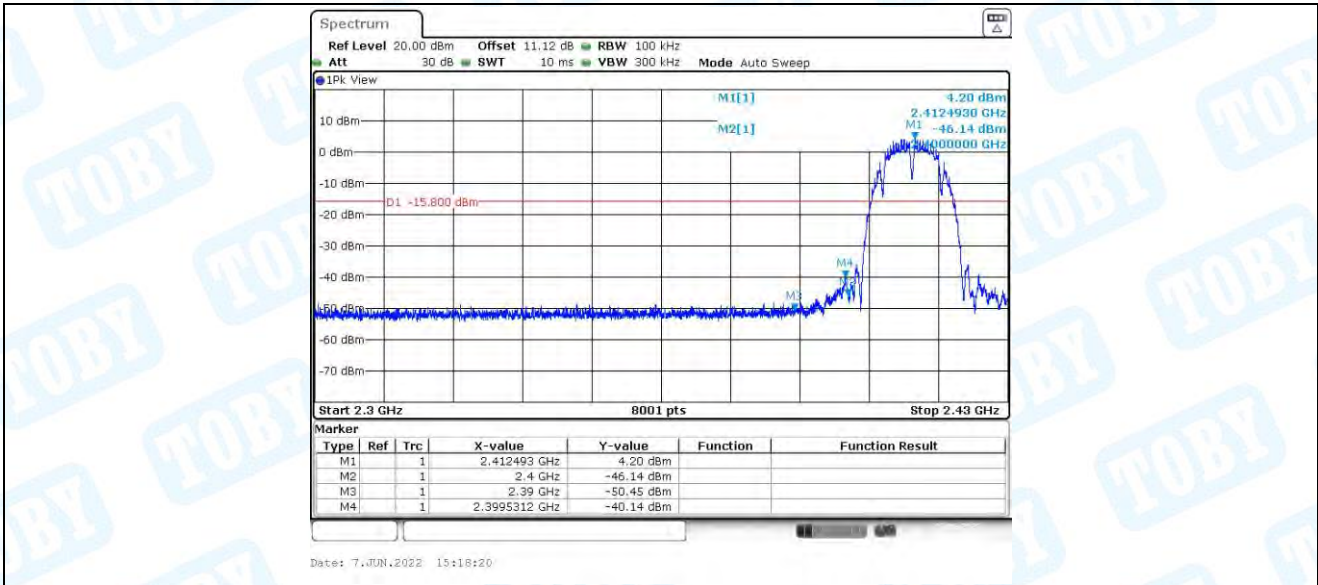
11AX40MIMO_Ant2_2452

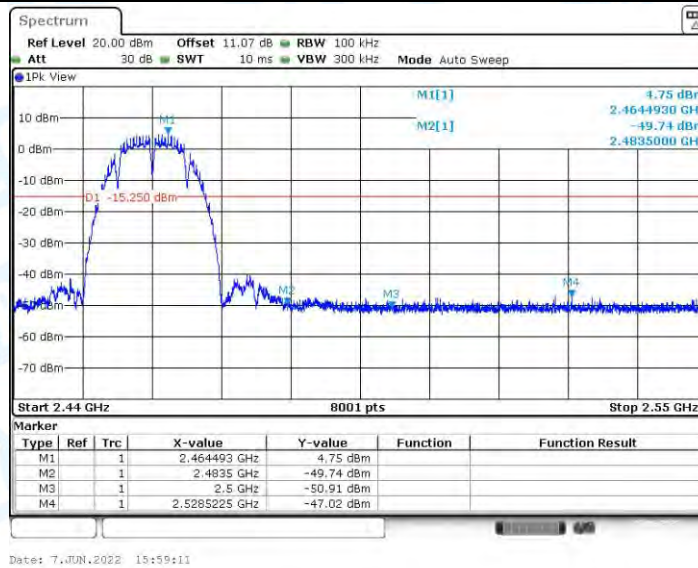
5. Band edge measurements

5.1. Test Result

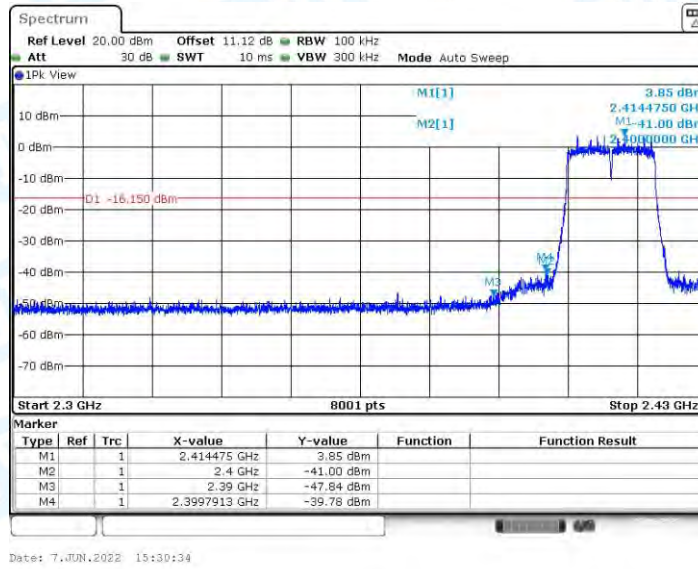
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	4.20	-40.14	≤-15.8	PASS
	Ant2	Low	2412	4.94	-40.63	≤-15.06	PASS
	Ant1	High	2462	4.72	-46.49	≤-15.28	PASS
	Ant2	High	2462	4.75	-47.02	≤-15.25	PASS
11G	Ant1	Low	2412	3.85	-39.78	≤-16.15	PASS
	Ant2	Low	2412	-0.87	-45.94	≤-20.87	PASS
	Ant1	High	2462	-0.91	-47.67	≤-20.91	PASS
	Ant2	High	2462	-0.71	-47	≤-20.71	PASS
11N20MIMO	Ant1	Low	2412	-5.00	-48.29	≤-25	PASS
	Ant2	Low	2412	-3.96	-47.88	≤-23.96	PASS
	Ant1	High	2462	-4.67	-47.88	≤-24.67	PASS
	Ant2	High	2462	-4.39	-47.66	≤-24.39	PASS
11N40MIMO	Ant1	Low	2422	-6.28	-48.17	≤-26.28	PASS
	Ant2	Low	2422	-6.43	-47.67	≤-26.43	PASS
	Ant1	High	2452	-7.46	-46.91	≤-27.46	PASS
	Ant2	High	2452	-6.77	-47.78	≤-26.77	PASS
11AX20MIMO	Ant1	Low	2412	-3.71	-47.27	≤-23.71	PASS
	Ant2	Low	2412	-4.49	-48.34	≤-24.49	PASS
	Ant1	High	2462	-4.88	-48.01	≤-24.88	PASS
	Ant2	High	2462	-4.12	-46.74	≤-24.12	PASS
11AX40MIMO	Ant1	Low	2422	-6.89	-48.32	≤-26.89	PASS
	Ant2	Low	2422	-6.21	-48.67	≤-26.21	PASS
	Ant1	High	2452	-7.49	-46.83	≤-27.49	PASS
	Ant2	High	2452	-6.41	-46.28	≤-26.41	PASS

5.2. Test Graphs

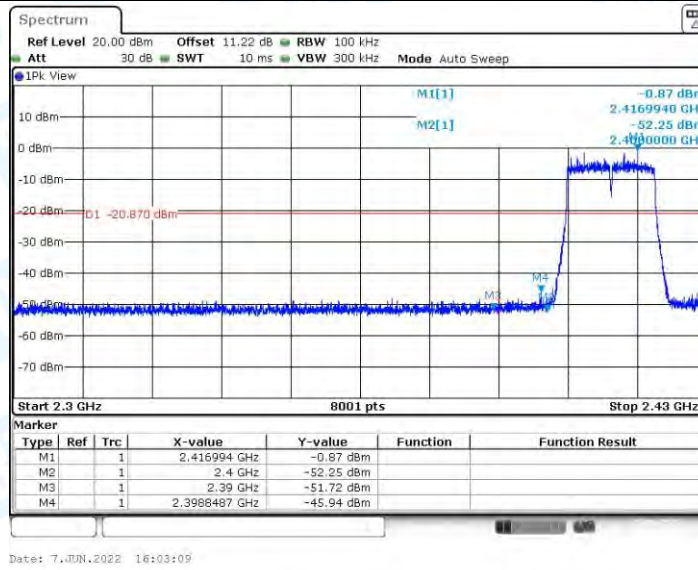




11B_Ant2_High_2462



11G_Ant1_Low_2412



11G_Ant2_Low_2412