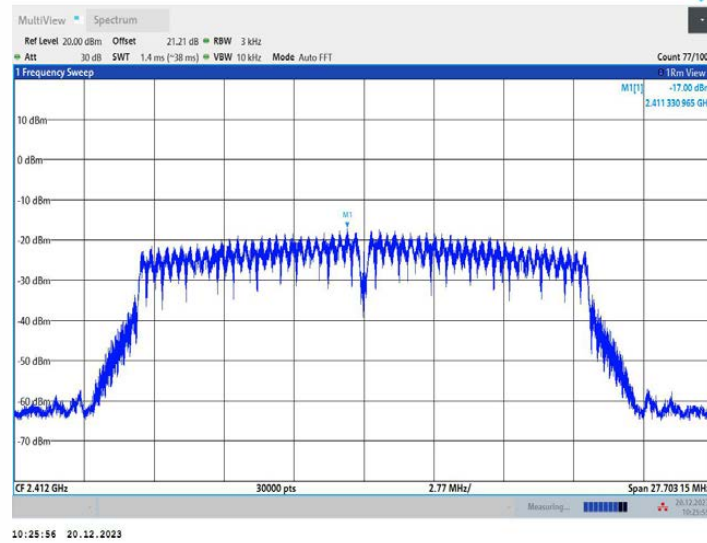
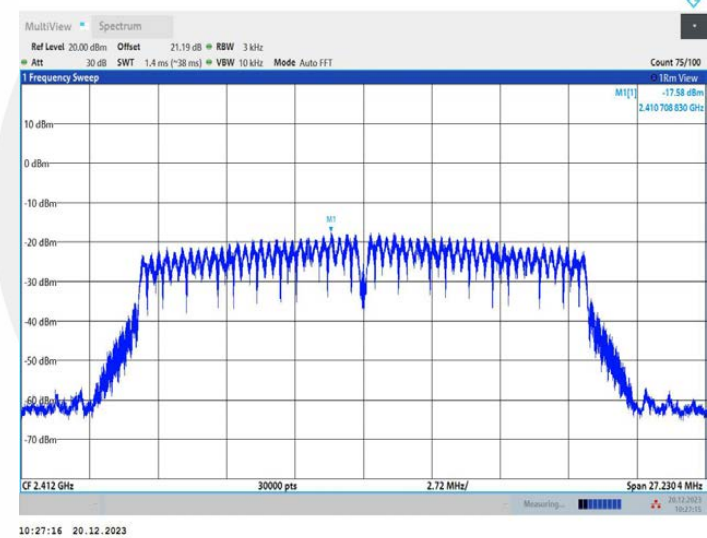


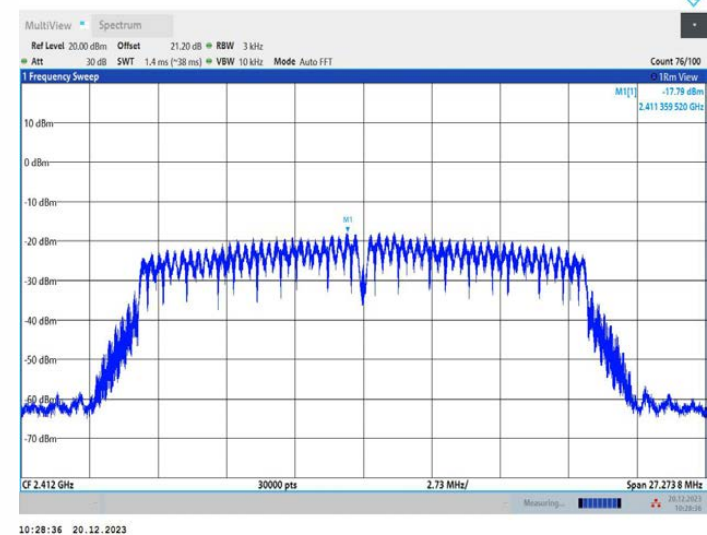
11N20MIMO_Ant1_2412



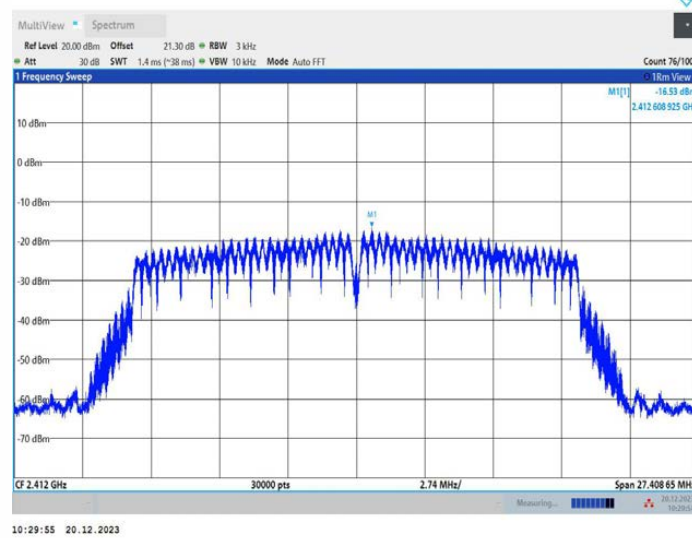
11N20MIMO_Ant2_2412



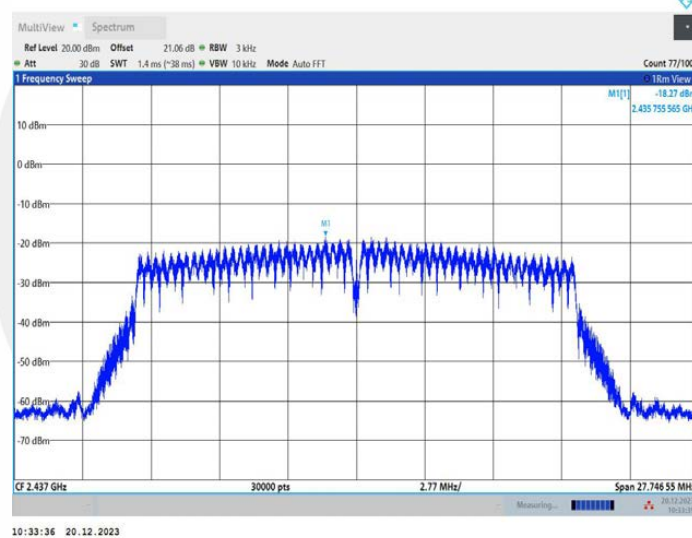
11N20MIMO_Ant3_2412



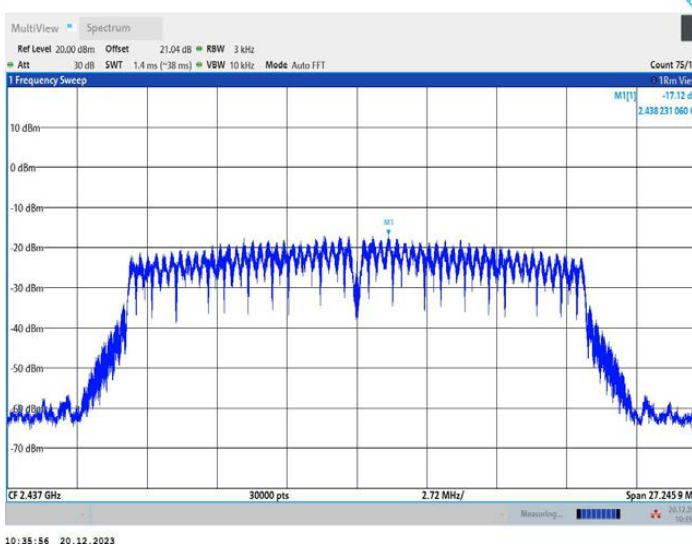
11N20MIMO_Ant4_2412



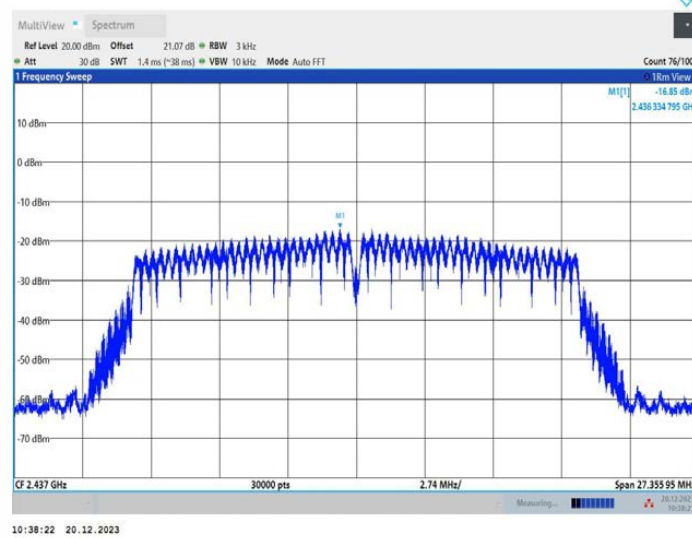
11N20MIMO_Ant1_2437



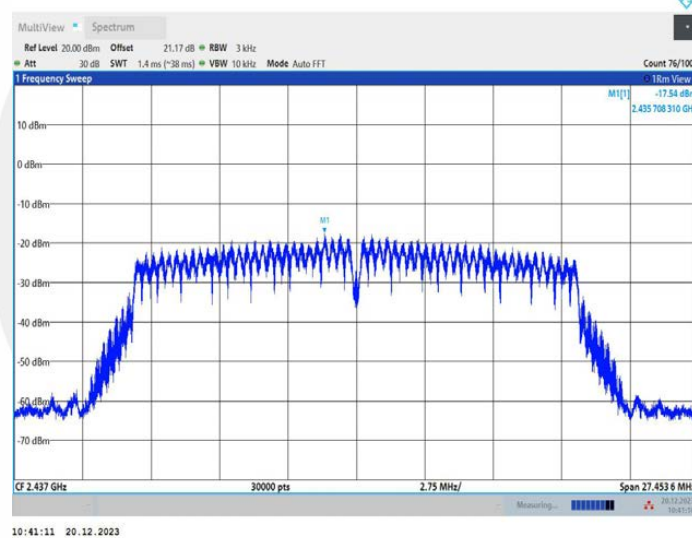
11N20MIMO_Ant2_2437



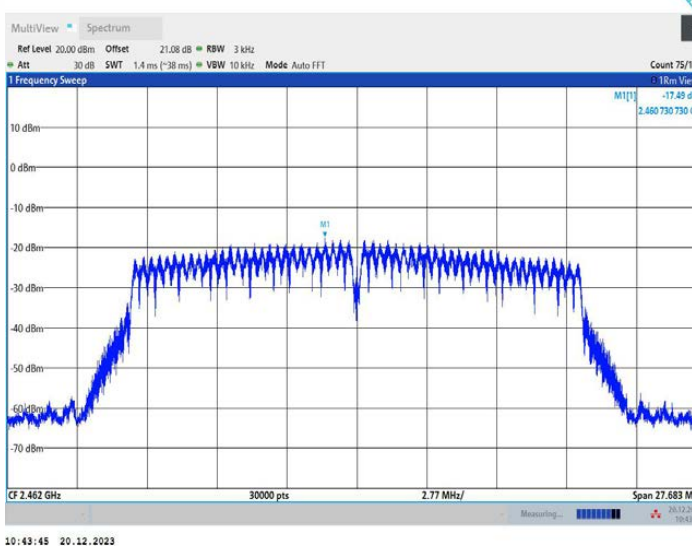
11N20MIMO_Ant3_2437



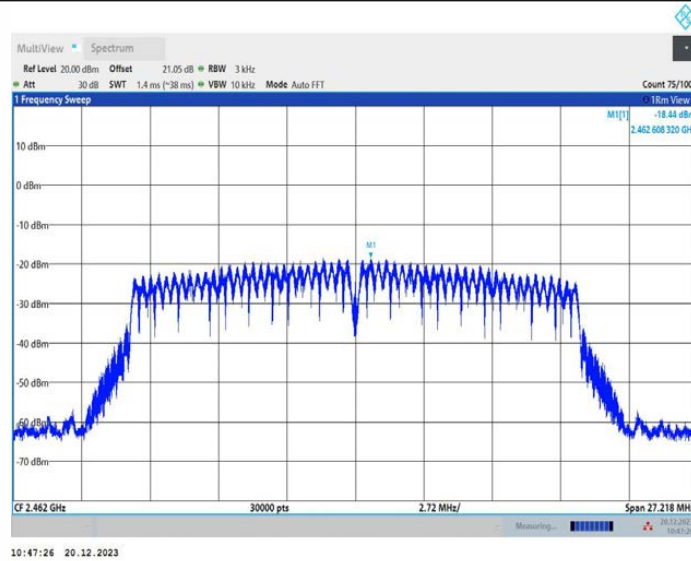
11N20MIMO_Ant4_2437



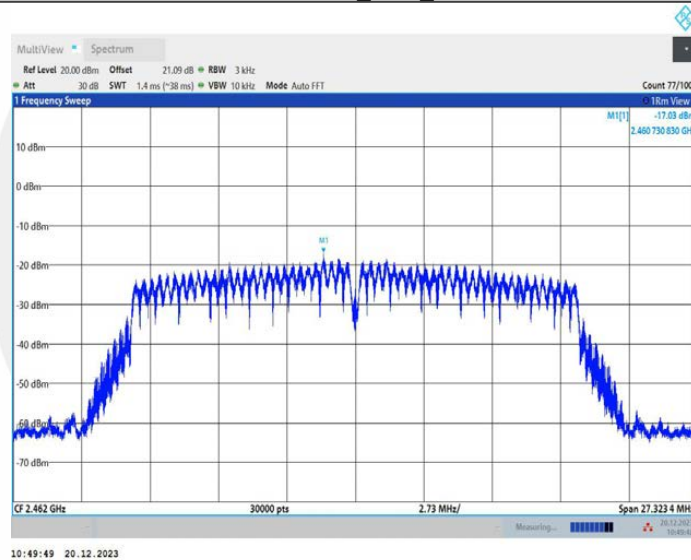
11N20MIMO_Ant1_2462



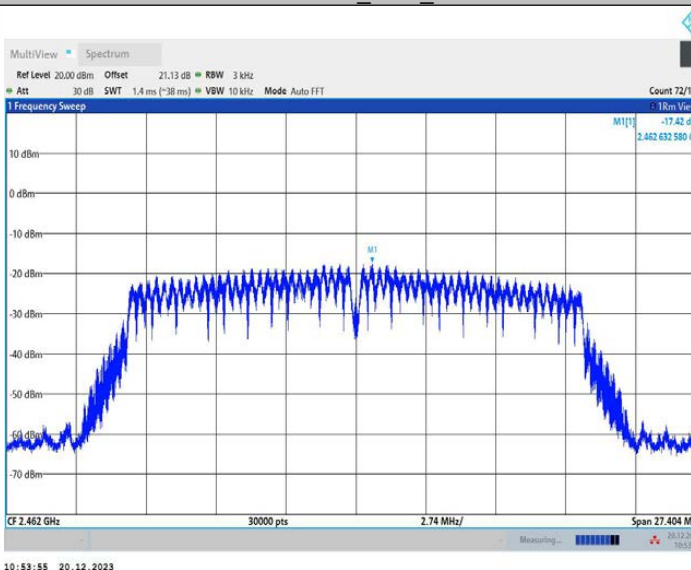
11N20MIMO_Ant2_2462



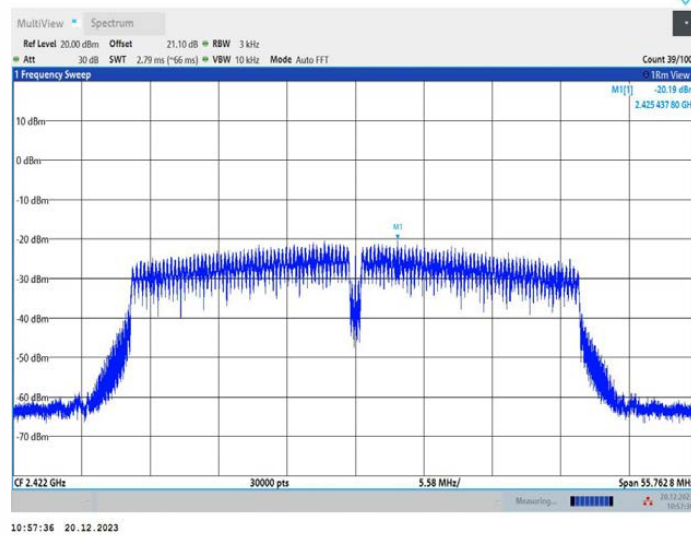
11N20MIMO_Ant3_2462



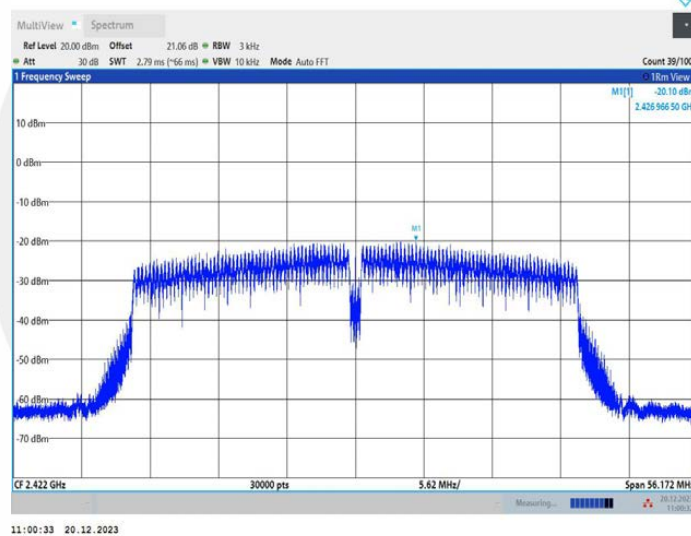
11N20MIMO_Ant4_2462



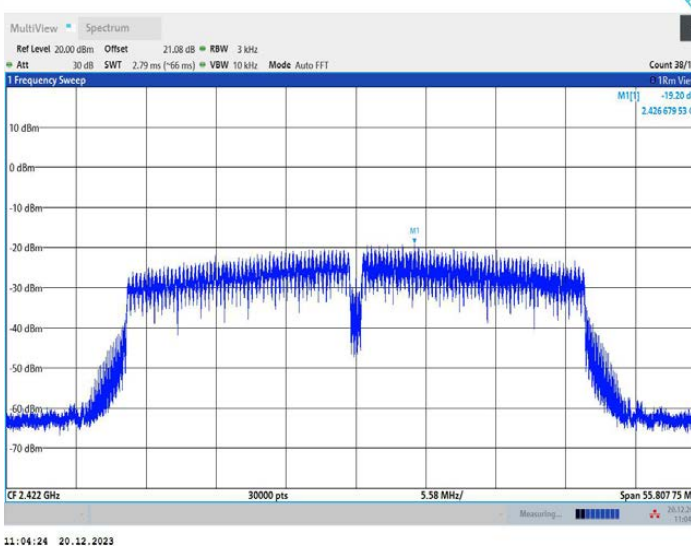
11N40MIMO_Ant1_2422



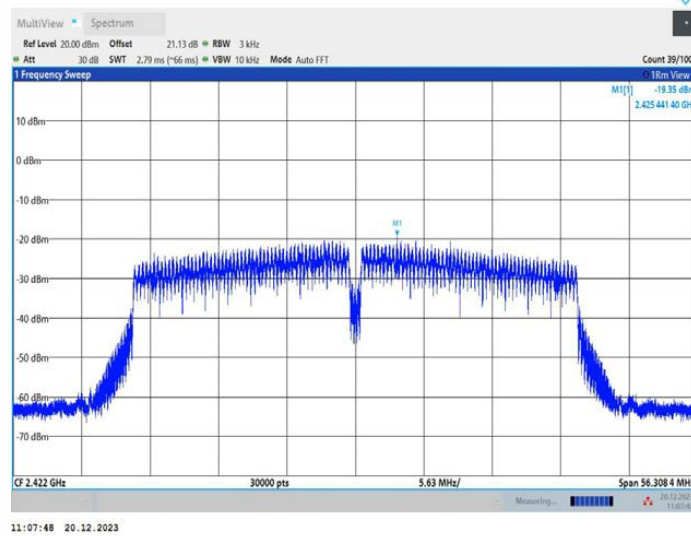
11N40MIMO_Ant2_2422



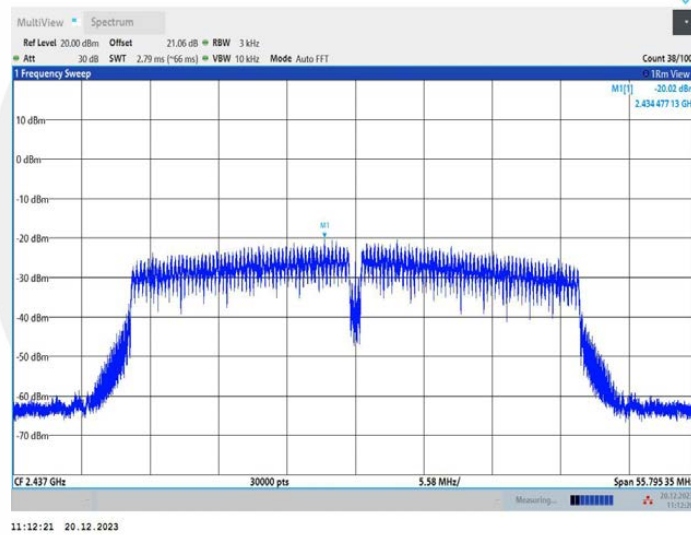
11N40MIMO_Ant3_2422



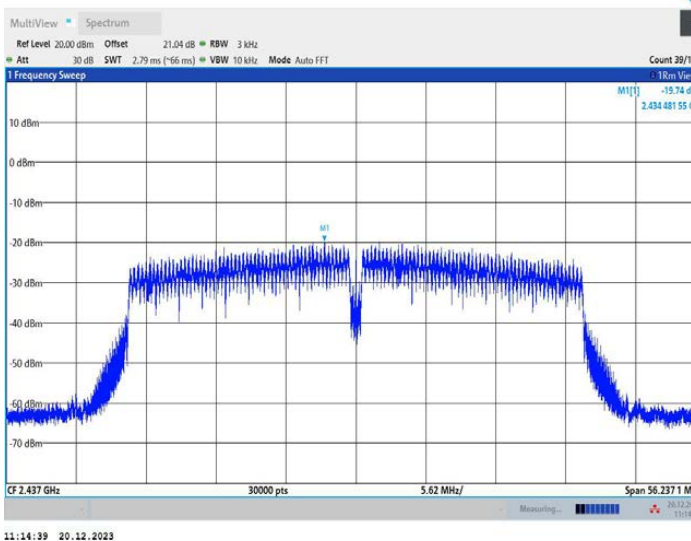
11N40MIMO_Ant4_2422



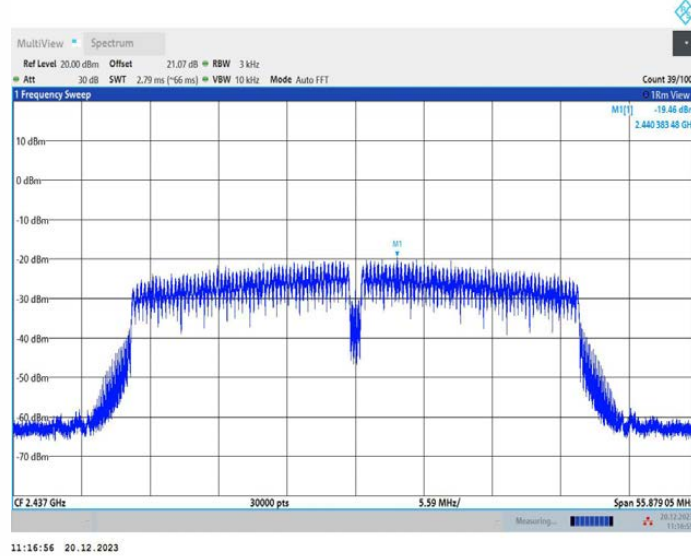
11N40MIMO_Ant1_2437



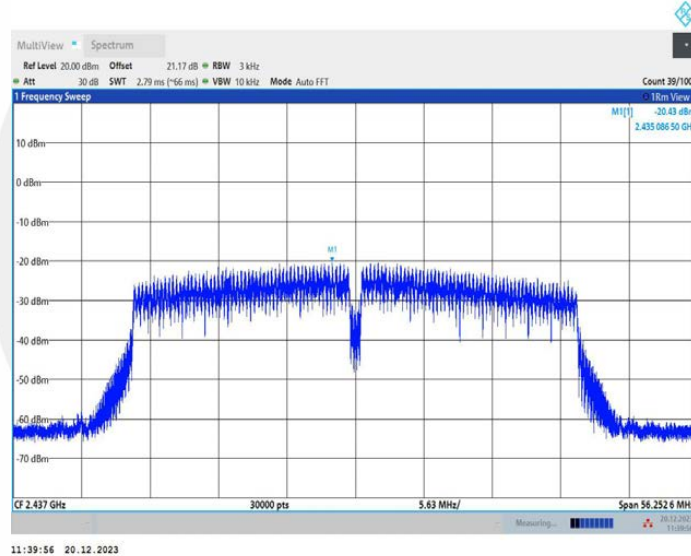
11N40MIMO_Ant2_2437



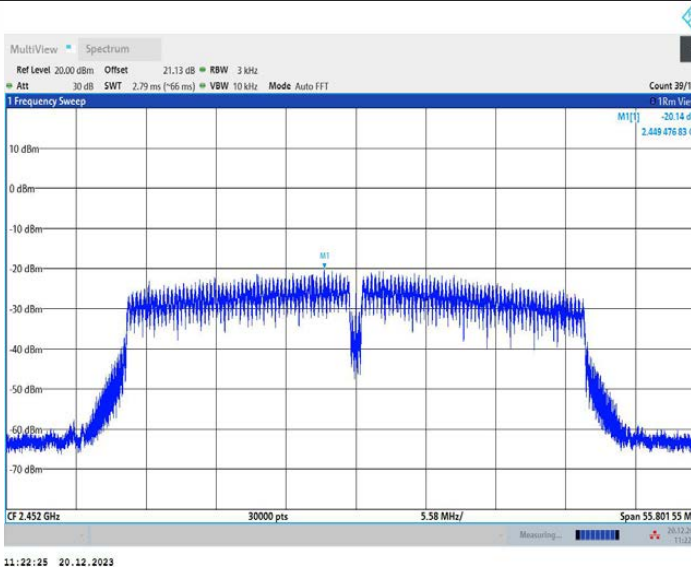
11N40MIMO_Ant3_2437



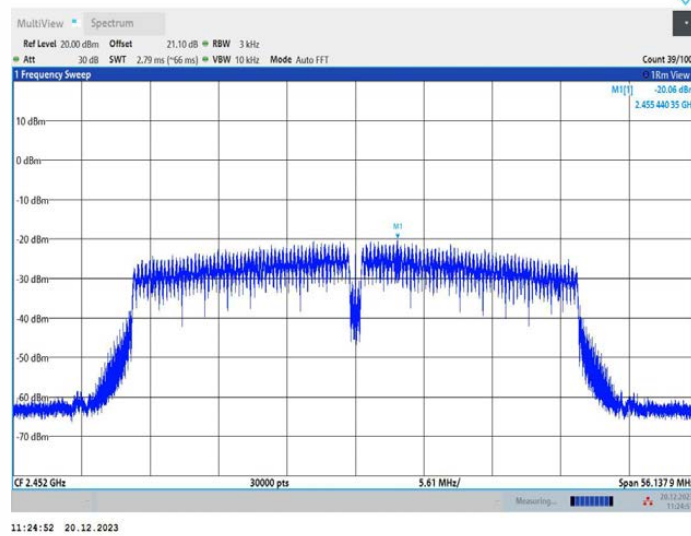
11N40MIMO_Ant4_2437



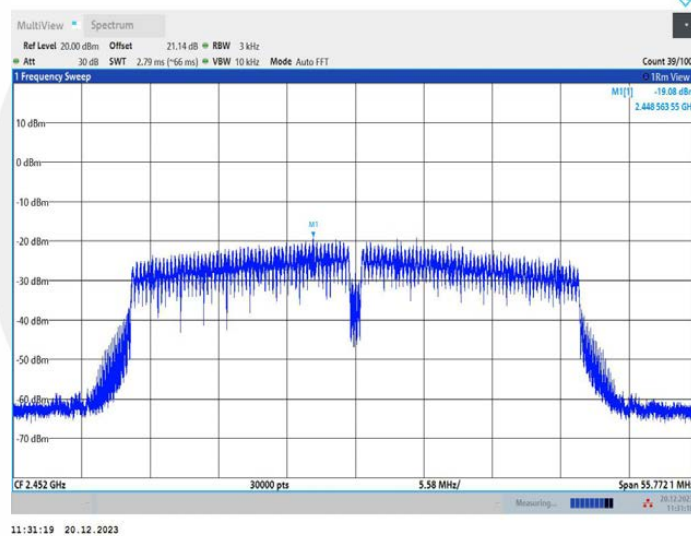
11N40MIMO_Ant1_2452



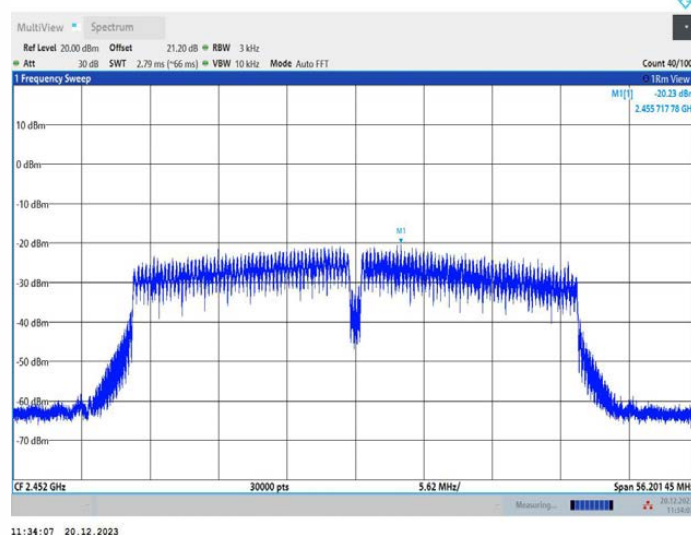
11N40MIMO_Ant2_2452



11N40MIMO_Ant3_2452



11N40MIMO_Ant4_2452



7.4 UNWANTED SPURIOUS EMISSIONS

7.4.1 Applicable Standard

According to FCC Part 15.247(d) and KDB 558074 D01 15.247 Meas Guidance v05r02.

7.4.2 Conformance Limit

According to FCC Part 15.247(d):

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

7.4.3 Test Configuration

Test according to clause 6.1 radio frequency test setup 1.

7.4.4 Test Procedure

The transmitter output (antenna port) was connected to the spectrum analyzer.

■ Reference level measurement

Establish a reference level by using the following procedure:

Set instrument center frequency to DTS channel center frequency.

Set the span to ≥ 1.5 times the DTS bandwidth.

Set the RBW = 100 kHz.

Set the VBW $\geq 3 \times$ RBW.

Set Detector = peak.

Set Sweep time = auto couple.

Set Trace mode = max hold.

Allow trace to fully stabilize.

Use the peak marker function to determine the maximum PSD level.

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

■ Emission level measurement

Set the center frequency and span to encompass frequency range to be measured.

Set the RBW = 100 kHz.

Set the VBW = 300 kHz.

Set Detector = peak.

Sweep time = auto couple.

Trace mode = max hold.

Allow trace to fully stabilize.

Use the peak marker function to determine the maximum amplitude level.

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

7.4.5 Test Results

Temperature : 25°C
Humidity : 45 %

ATM Pressure:: 1011 mbar
Test Engineer: XXH

All modulation modes were tested, and the worst data is shown in the table below:

Band edge measurements

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	9.91	-35.32	≤-20.09	PASS
	Ant2	Low	2412	10.44	-33.89	≤-19.56	PASS
	Ant3	Low	2412	10.21	-35.4	≤-19.79	PASS
	Ant4	Low	2412	9.92	-35.05	≤-20.08	PASS
	Ant1	High	2462	8.72	-37.22	≤-21.28	PASS
	Ant2	High	2462	9.14	-37.16	≤-20.86	PASS
	Ant3	High	2462	9.51	-36.22	≤-20.49	PASS
	Ant4	High	2462	9.26	-36.88	≤-20.74	PASS
11G	Ant1	Low	2412	8.62	-33.45	≤-21.38	PASS
	Ant2	Low	2412	8.61	-31.74	≤-21.39	PASS
	Ant3	Low	2412	8.32	-32.34	≤-21.68	PASS
	Ant4	Low	2412	8.70	-31.95	≤-21.3	PASS
	Ant1	High	2462	8.63	-36.98	≤-21.37	PASS
	Ant2	High	2462	8.12	-37	≤-21.88	PASS
	Ant3	High	2462	8.37	-35.75	≤-21.63	PASS
	Ant4	High	2462	8.49	-36.85	≤-21.51	PASS
11N20MIMO	Ant1	Low	2412	4.13	-35.76	≤-25.87	PASS
	Ant2	Low	2412	4.04	-36.25	≤-25.96	PASS
	Ant3	Low	2412	3.69	-35.95	≤-26.31	PASS
	Ant4	Low	2412	3.97	-35.96	≤-26.03	PASS
	Ant1	High	2462	4.08	-36.88	≤-25.92	PASS
	Ant2	High	2462	3.41	-36.99	≤-26.59	PASS
	Ant3	High	2462	3.28	-36.88	≤-26.72	PASS
	Ant4	High	2462	3.72	-37.07	≤-26.28	PASS
11N40MIMO	Ant1	Low	2422	1.18	-35.94	≤-28.82	PASS
	Ant2	Low	2422	1.62	-36.01	≤-28.38	PASS
	Ant3	Low	2422	1.32	-35.59	≤-28.68	PASS
	Ant4	Low	2422	1.49	-35.73	≤-28.51	PASS
	Ant1	High	2452	0.82	-36.83	≤-29.18	PASS
	Ant2	High	2452	0.83	-36.78	≤-29.17	PASS
	Ant3	High	2452	1.65	-36.91	≤-28.35	PASS
	Ant4	High	2452	1.20	-37.02	≤-28.8	PASS

Emission level measurement

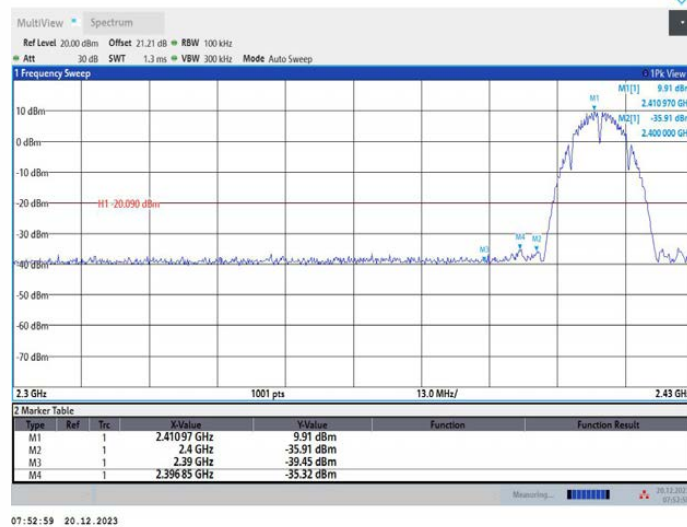
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	9.48	9.48	---	PASS
			30~1000	9.48	-43.49	≤-20.52	PASS
			1000~26500	9.48	-39.78	≤-20.52	PASS
	Ant2	2412	Reference	10.55	10.55	---	PASS
			30~1000	10.55	-43.97	≤-19.45	PASS
			1000~26500	10.55	-40.11	≤-19.45	PASS
	Ant3	2412	Reference	9.62	9.62	---	PASS
			30~1000	9.62	-44.28	≤-20.38	PASS
			1000~26500	9.62	-40.22	≤-20.38	PASS
	Ant4	2412	Reference	9.92	9.92	---	PASS
			30~1000	9.92	-43.57	≤-20.08	PASS
			1000~26500	9.92	-40.63	≤-20.08	PASS
	Ant1	2437	Reference	9.15	9.15	---	PASS
			30~1000	9.15	-44.02	≤-20.85	PASS
			1000~26500	9.15	-38.33	≤-20.85	PASS
	Ant2	2437	Reference	10.50	10.50	---	PASS
			30~1000	10.50	-44.06	≤-19.5	PASS
			1000~26500	10.50	-39.88	≤-19.5	PASS
	Ant3	2437	Reference	10.11	10.11	---	PASS
			30~1000	10.11	-43.89	≤-19.89	PASS
			1000~26500	10.11	-40.97	≤-19.89	PASS
	Ant4	2437	Reference	9.36	9.36	---	PASS
			30~1000	9.36	-43.97	≤-20.64	PASS
			1000~26500	9.36	-40.64	≤-20.64	PASS
	Ant1	2462	Reference	9.91	9.91	---	PASS
			30~1000	9.91	-43.72	≤-20.09	PASS
			1000~26500	9.91	-37.3	≤-20.09	PASS
	Ant2	2462	Reference	9.14	9.14	---	PASS
			30~1000	9.14	-43.76	≤-20.86	PASS
			1000~26500	9.14	-38.54	≤-20.86	PASS
	Ant3	2462	Reference	9.51	9.51	---	PASS
			30~1000	9.51	-43.42	≤-20.49	PASS
			1000~26500	9.51	-41.09	≤-20.49	PASS
	Ant4	2462	Reference	9.26	9.26	---	PASS
			30~1000	9.26	-44.16	≤-20.74	PASS
			1000~26500	9.26	-40.4	≤-20.74	PASS
11G	Ant1	2412	Reference	8.65	8.65	---	PASS
			30~1000	8.65	-42.71	≤-21.35	PASS
			1000~26500	8.65	-40.03	≤-21.35	PASS
	Ant2	2412	Reference	8.69	8.69	---	PASS
			30~1000	8.69	-44.05	≤-21.31	PASS
			1000~26500	8.69	-40.15	≤-21.31	PASS
	Ant3	2412	Reference	8.36	8.36	---	PASS
			30~1000	8.36	-43.49	≤-21.64	PASS
			1000~26500	8.36	-40.51	≤-21.64	PASS
	Ant4	2412	Reference	8.74	8.74	---	PASS
			30~1000	8.74	-43.64	≤-21.26	PASS
			1000~26500	8.74	-40.53	≤-21.26	PASS
	Ant1	2437	Reference	7.83	7.83	---	PASS
			30~1000	7.83	-44.16	≤-22.17	PASS
			1000~26500	7.83	-40.56	≤-22.17	PASS
	Ant2	2437	Reference	8.94	8.94	---	PASS
			30~1000	8.94	-44.17	≤-21.06	PASS

	Ant3	2437	1000~26500	8.94	-40.77	≤ -21.06	PASS
			Reference	8.90	8.90	---	PASS
			30~1000	8.90	-44.54	≤ -21.1	PASS
			1000~26500	8.90	-40.69	≤ -21.1	PASS
	Ant4	2437	Reference	8.27	8.27	---	PASS
			30~1000	8.27	-43.16	≤ -21.73	PASS
			1000~26500	8.27	-39.23	≤ -21.73	PASS
	Ant1	2462	Reference	8.65	8.65	---	PASS
			30~1000	8.65	-43.78	≤ -21.35	PASS
			1000~26500	8.65	-40.2	≤ -21.35	PASS
	Ant2	2462	Reference	8.02	8.02	---	PASS
			30~1000	8.02	-43.84	≤ -21.98	PASS
			1000~26500	8.02	-40.67	≤ -21.98	PASS
11N20MIMO	Ant3	2462	Reference	8.30	8.30	---	PASS
			30~1000	8.30	-43.89	≤ -21.7	PASS
			1000~26500	8.30	-40.34	≤ -21.7	PASS
	Ant4	2462	Reference	8.49	8.49	---	PASS
			30~1000	8.49	-43.98	≤ -21.51	PASS
			1000~26500	8.49	-40.27	≤ -21.51	PASS
	Ant1	2412	Reference	4.14	4.14	---	PASS
			30~1000	4.14	-44.08	≤ -25.86	PASS
			1000~26500	4.14	-40.06	≤ -25.86	PASS
	Ant2	2412	Reference	4.03	4.03	---	PASS
			30~1000	4.03	-43.56	≤ -25.97	PASS
			1000~26500	4.03	-40.64	≤ -25.97	PASS
	Ant3	2412	Reference	3.87	3.87	---	PASS
			30~1000	3.87	-43.59	≤ -26.13	PASS
			1000~26500	3.87	-40.76	≤ -26.13	PASS
	Ant4	2412	Reference	4.02	4.02	---	PASS
			30~1000	4.02	-42.97	≤ -25.98	PASS
			1000~26500	4.02	-40.46	≤ -25.98	PASS
	Ant1	2437	Reference	2.91	2.91	---	PASS
			30~1000	2.91	-43.13	≤ -27.09	PASS
			1000~26500	2.91	-40.45	≤ -27.09	PASS
	Ant2	2437	Reference	4.23	4.23	---	PASS
			30~1000	4.23	-43.91	≤ -25.77	PASS
			1000~26500	4.23	-40.99	≤ -25.77	PASS
	Ant3	2437	Reference	3.98	3.98	---	PASS
			30~1000	3.98	-44.93	≤ -26.02	PASS
			1000~26500	3.98	-41.3	≤ -26.02	PASS
	Ant4	2437	Reference	3.47	3.47	---	PASS
			30~1000	3.47	-44.2	≤ -26.53	PASS
			1000~26500	3.47	-40.15	≤ -26.53	PASS
	Ant1	2462	Reference	4.05	4.05	---	PASS
			30~1000	4.05	-44.36	≤ -25.95	PASS
			1000~26500	4.05	-40.73	≤ -25.95	PASS
	Ant2	2462	Reference	3.33	3.33	---	PASS
			30~1000	3.33	-43.13	≤ -26.67	PASS
			1000~26500	3.33	-40.74	≤ -26.67	PASS
	Ant3	2462	Reference	3.30	3.30	---	PASS
			30~1000	3.30	-44.07	≤ -26.7	PASS
			1000~26500	3.30	-40.82	≤ -26.7	PASS
	Ant4	2462	Reference	3.69	3.69	---	PASS
			30~1000	3.69	-44.16	≤ -26.31	PASS
			1000~26500	3.69	-40.53	≤ -26.31	PASS
11N40MIMO	Ant1	2422	Reference	1.05	1.05	---	PASS

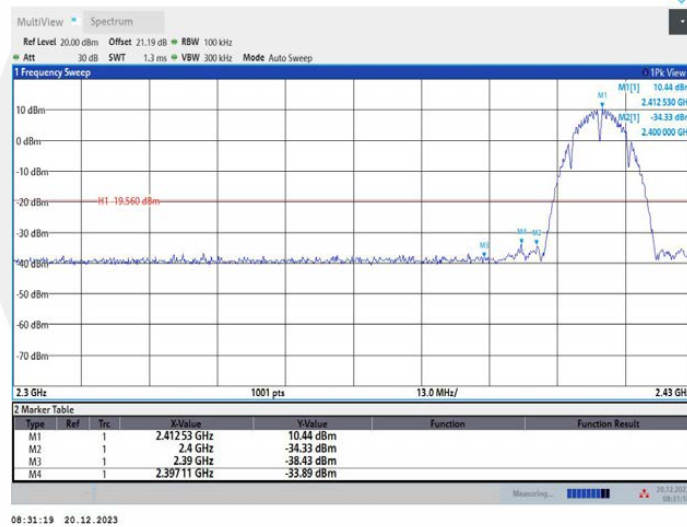
			30~1000	1.05	-44.27	≤-28.95	PASS
			1000~26500	1.05	-41.04	≤-28.95	PASS
	Ant2	2422	Reference	1.66	1.66	---	PASS
			30~1000	1.66	-43.58	≤-28.34	PASS
			1000~26500	1.66	-40.64	≤-28.34	PASS
	Ant3	2422	Reference	1.30	1.30	---	PASS
			30~1000	1.30	-44.32	≤-28.7	PASS
			1000~26500	1.30	-40.64	≤-28.7	PASS
	Ant4	2422	Reference	1.44	1.44	---	PASS
			30~1000	1.44	-44.53	≤-28.56	PASS
			1000~26500	1.44	-40.71	≤-28.56	PASS
	Ant1	2437	Reference	0.23	0.23	---	PASS
			30~1000	0.23	-43.17	≤-29.77	PASS
			1000~26500	0.23	-40.52	≤-29.77	PASS
	Ant2	2437	Reference	1.56	1.56	---	PASS
			30~1000	1.56	-43.67	≤-28.44	PASS
			1000~26500	1.56	-40.52	≤-28.44	PASS
	Ant3	2437	Reference	1.26	1.26	---	PASS
			30~1000	1.26	-44.2	≤-28.74	PASS
			1000~26500	1.26	-39.73	≤-28.74	PASS
	Ant4	2437	Reference	1.17	1.17	---	PASS
			30~1000	1.17	-43.91	≤-28.83	PASS
			1000~26500	1.17	-40.54	≤-28.83	PASS
	Ant1	2452	Reference	0.84	0.84	---	PASS
			30~1000	0.84	-43.66	≤-29.16	PASS
			1000~26500	0.84	-40.49	≤-29.16	PASS
	Ant2	2452	Reference	0.84	0.84	---	PASS
			30~1000	0.84	-44.32	≤-29.16	PASS
			1000~26500	0.84	-40.96	≤-29.16	PASS
	Ant3	2452	Reference	1.66	1.66	---	PASS
			30~1000	1.66	-43.11	≤-28.34	PASS
			1000~26500	1.66	-39.9	≤-28.34	PASS
	Ant4	2452	Reference	1.16	1.16	---	PASS
			30~1000	1.16	-44	≤-28.84	PASS
			1000~26500	1.16	-40.9	≤-28.84	PASS

Band edge measurements

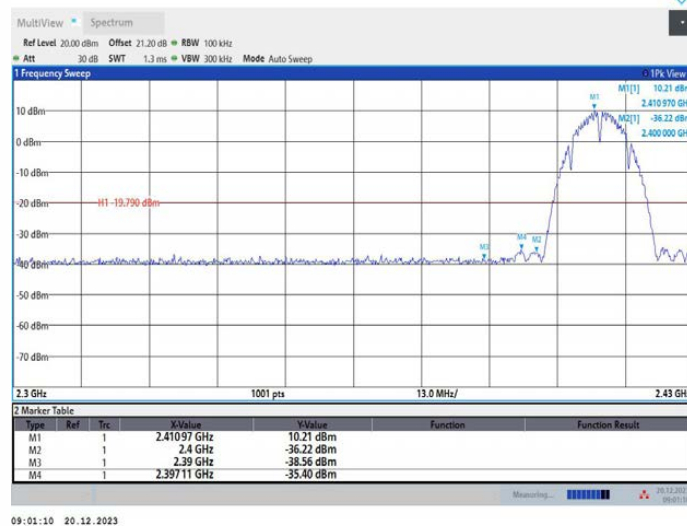
11B_Ant1_Low_2412



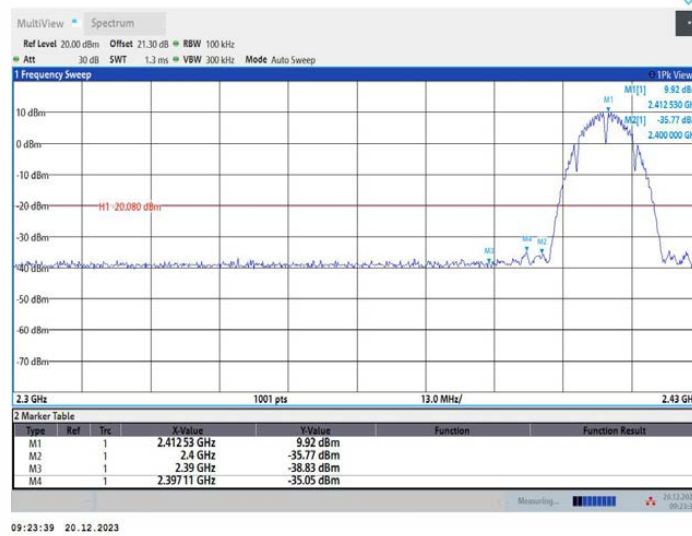
11B_Ant2_Low_2412



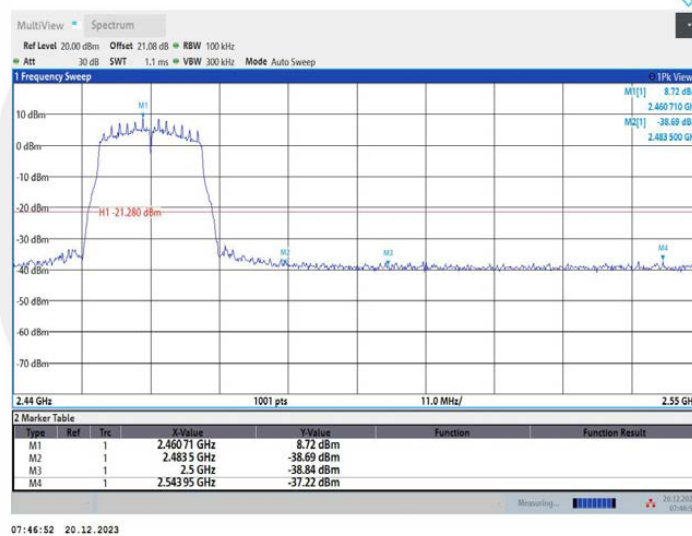
11B_Ant3_Low_2412



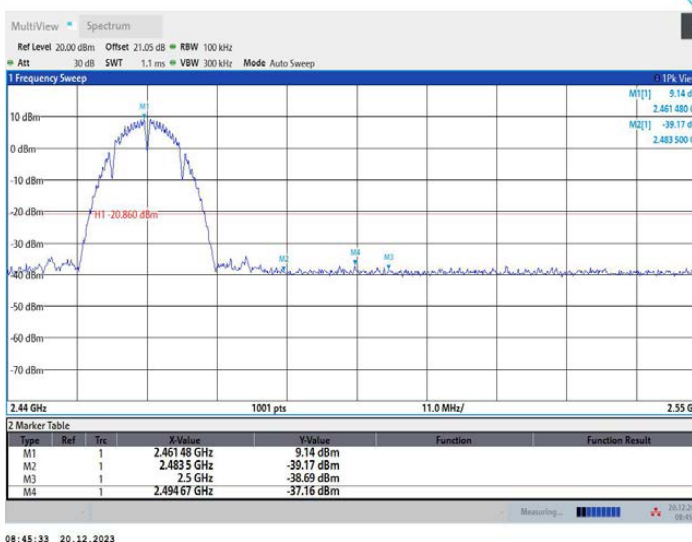
11B_Ant4_Low_2412



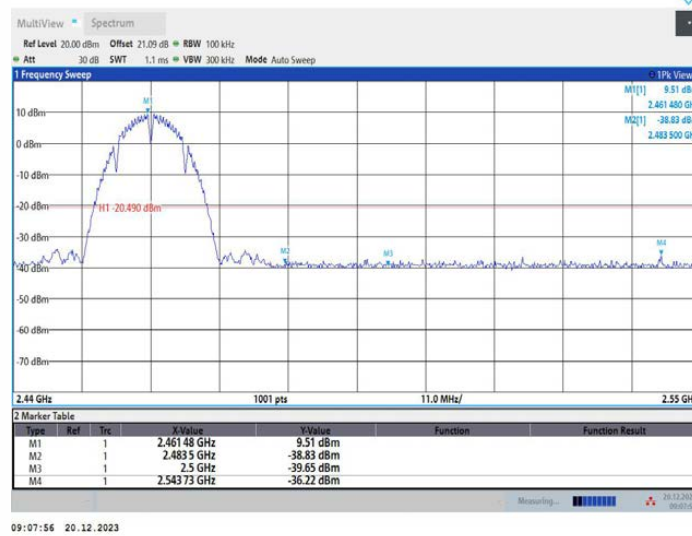
11B_Ant1_High_2462



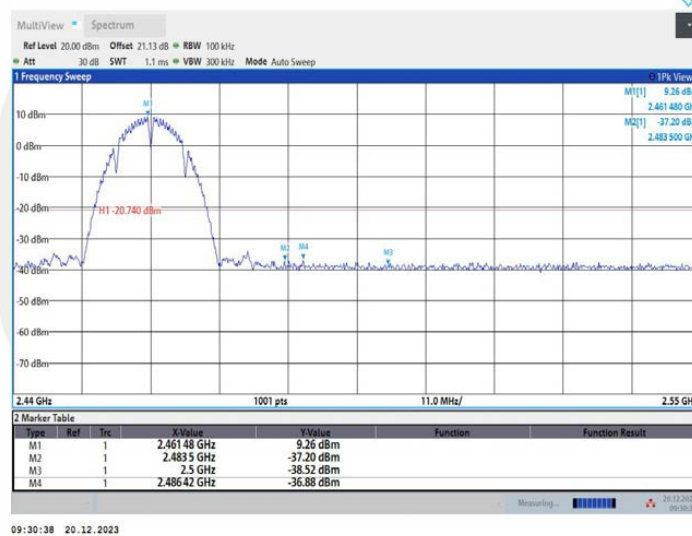
11B_Ant2_High_2462



11B_Ant3_High_2462



11B_Ant4_High_2462



11G_Ant1_Low_2412



11G_Ant2_Low_2412



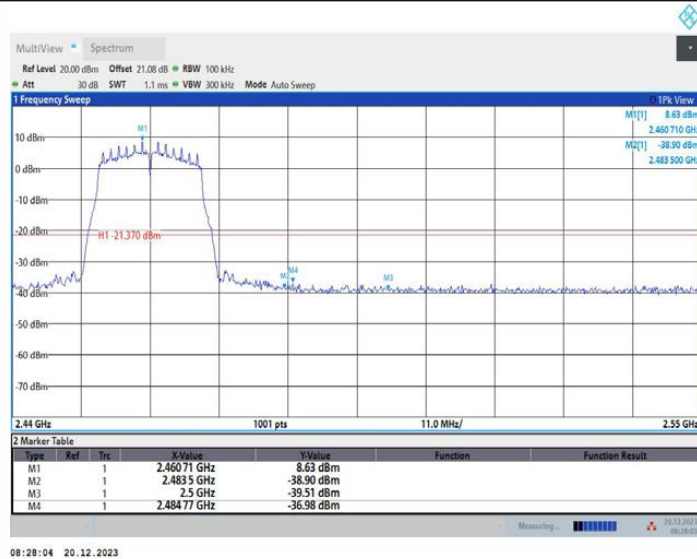
11G_Ant3_Low_2412



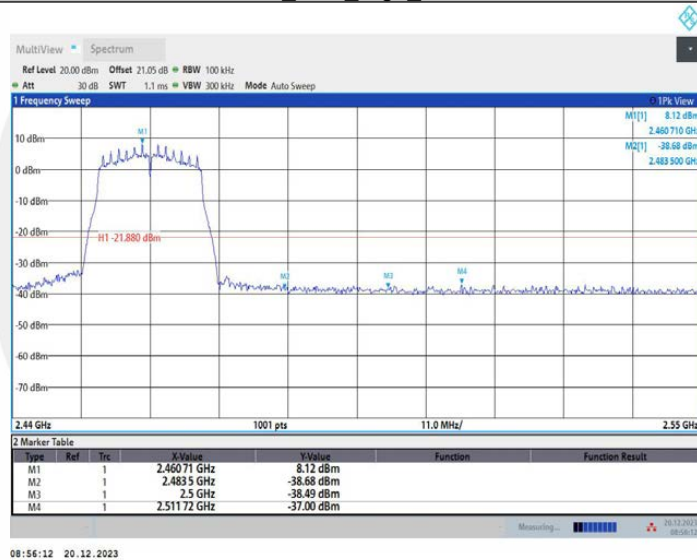
11G_Ant4_Low_2412



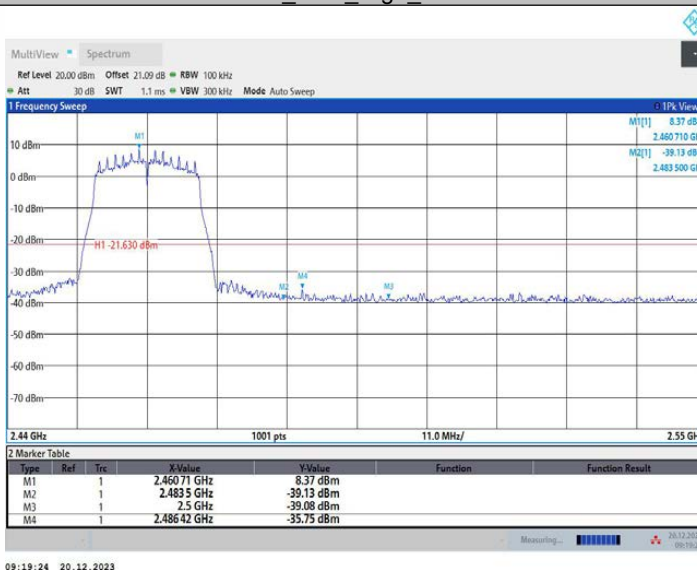
11G_Ant1_High_2462



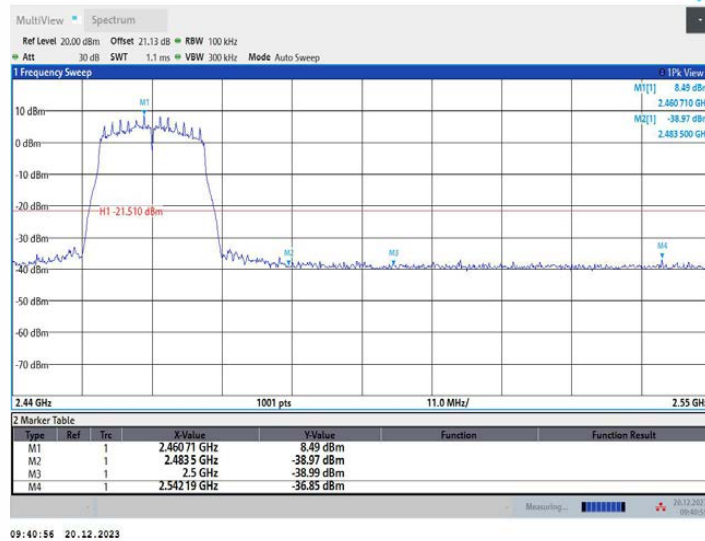
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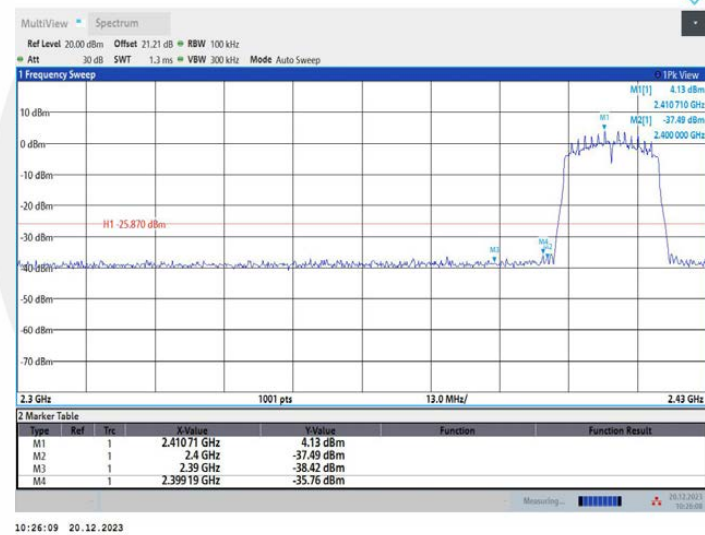
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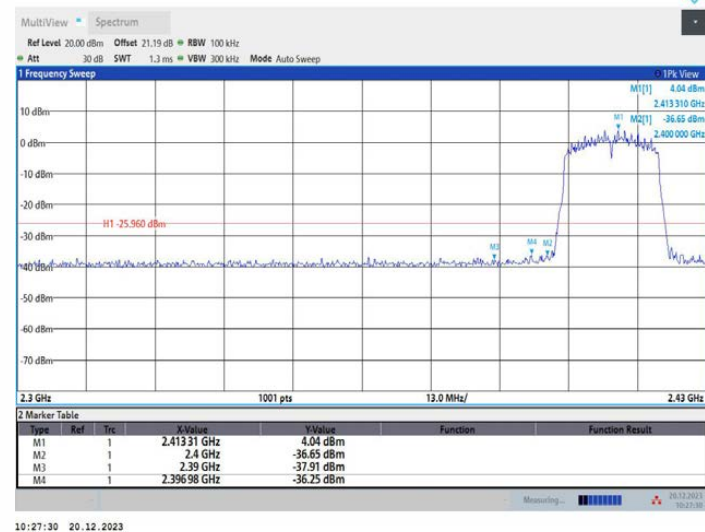
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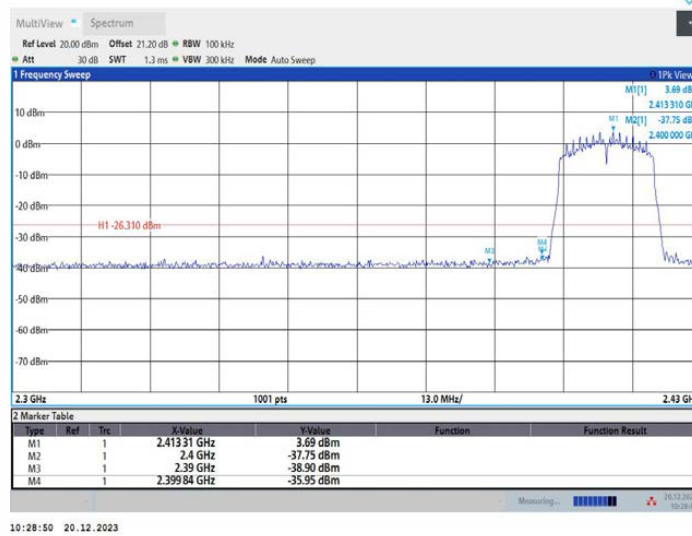
11N20MIMO_Ant1_Low_2412



11N20MIMO_Ant2_Low_2412



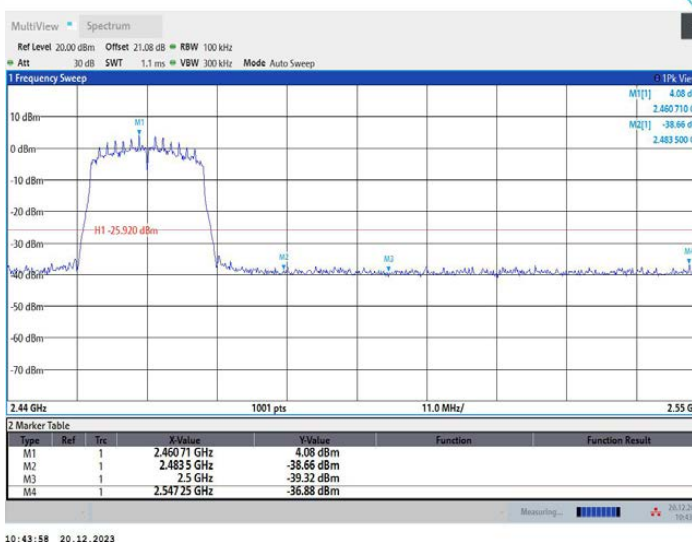
11N20MIMO_Ant3_Low_2412



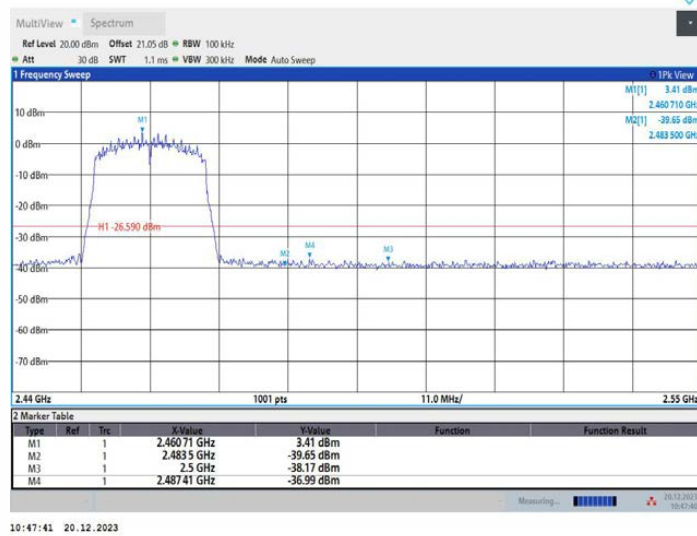
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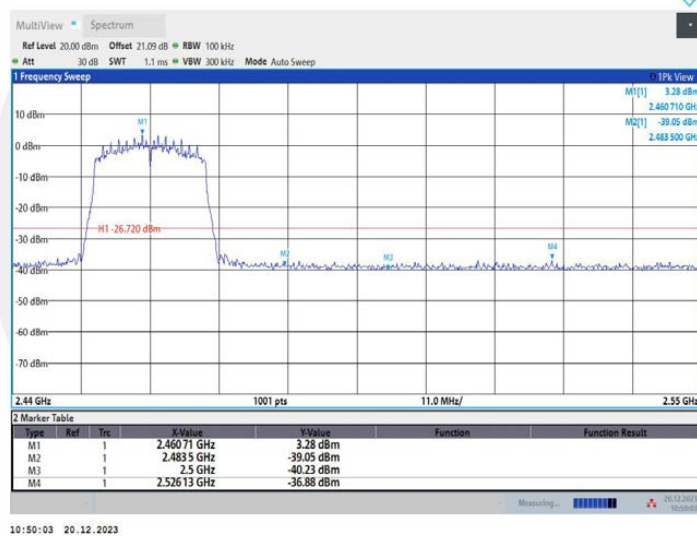
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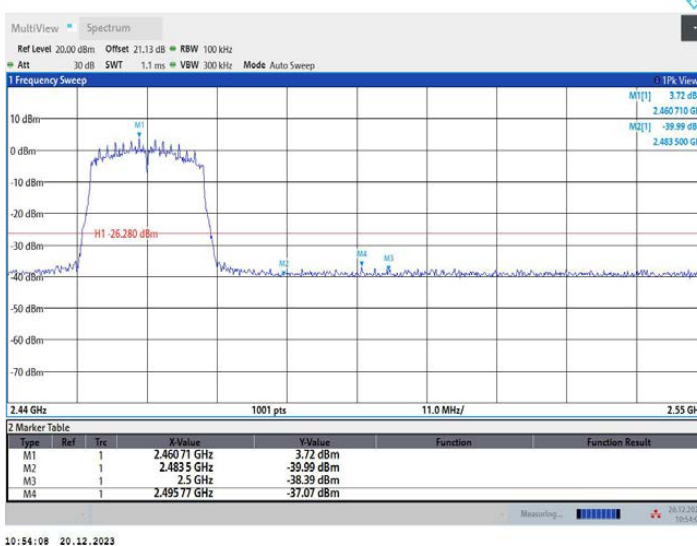
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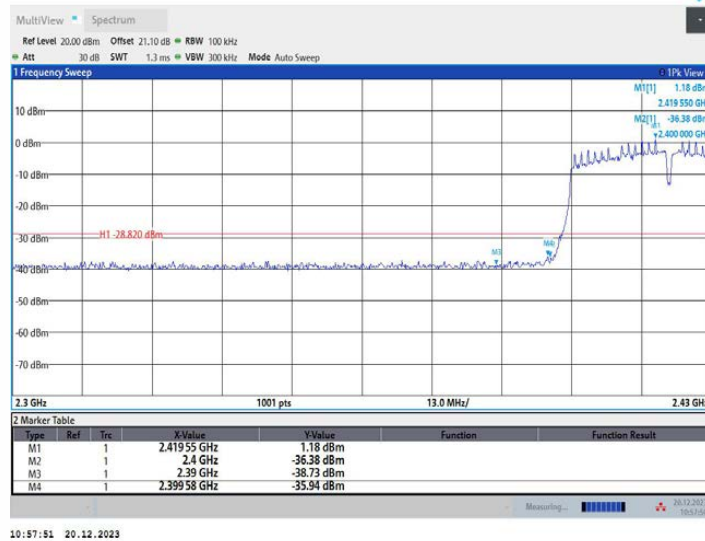
11N20MIMO_Ant3_High_2462



11N20MIMO_Ant4_High_2462



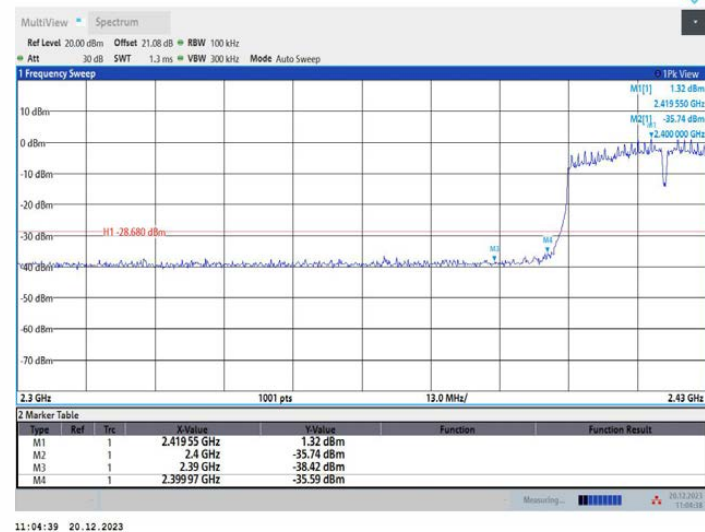
11N40MIMO_Ant1_Low_2422



11N40MIMO_Ant2_Low_2422



11N40MIMO_Ant3_Low_2422



11N40MIMO_Ant4_Low_2422



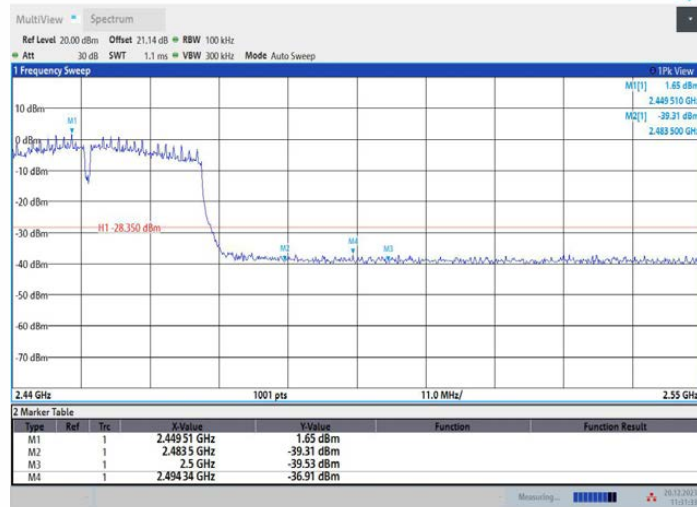
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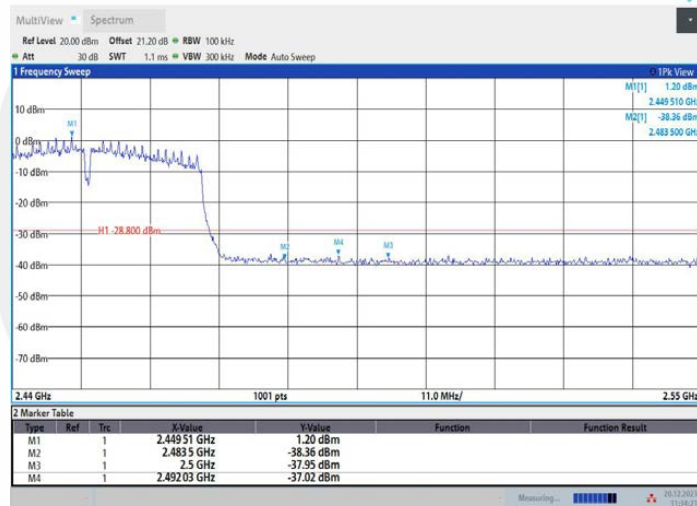
11N40MIMO_Ant2_High_2452



11N40MIMO_Ant3_High_2452

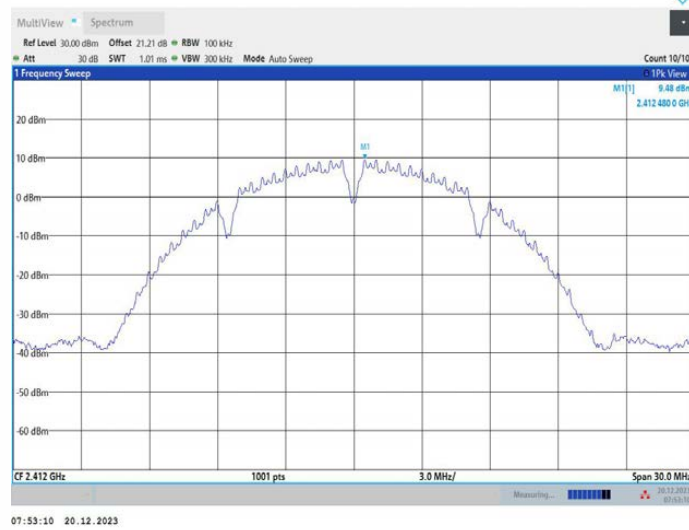


11N40MIMO_Ant4_High_2452

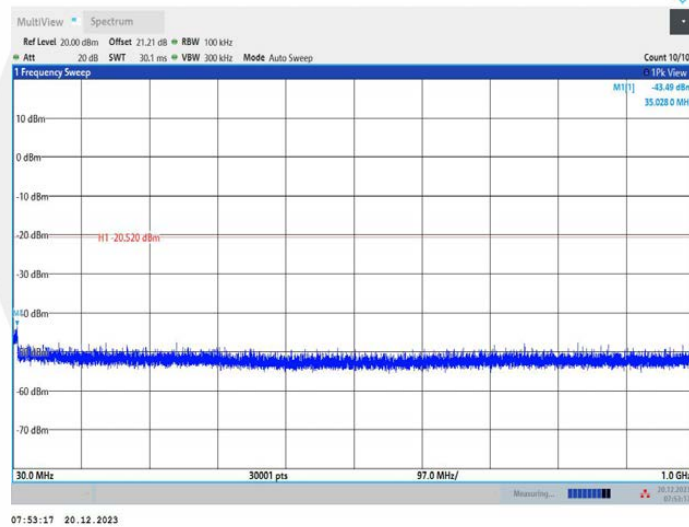


Emission level measurement

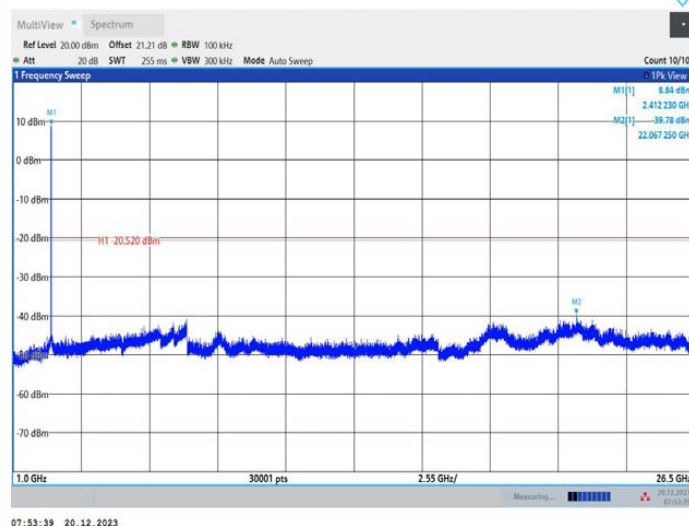
11B_Ant1_2412_0~Reference



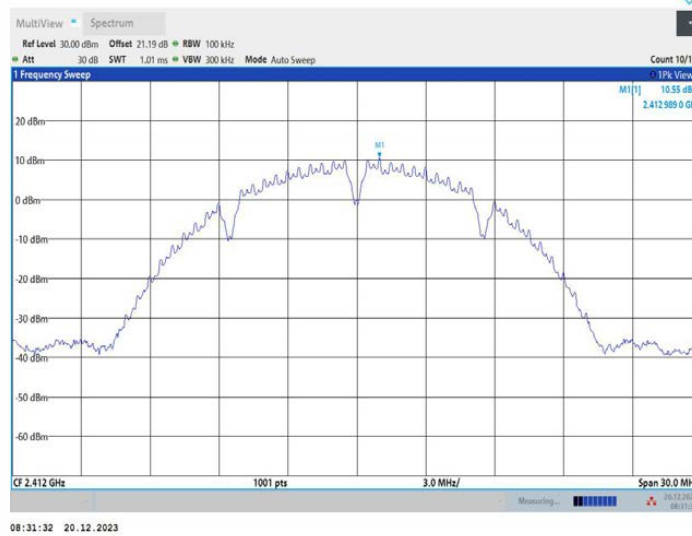
11B_Ant1_2412_30~1000



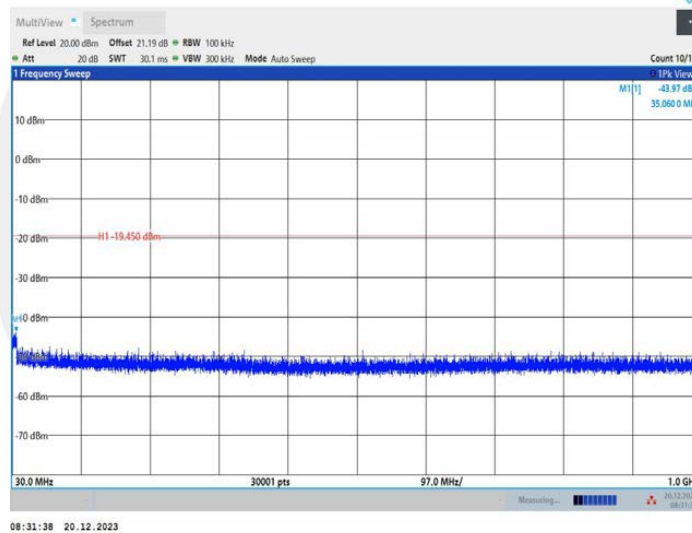
11B_Ant1_2412_1000~26500



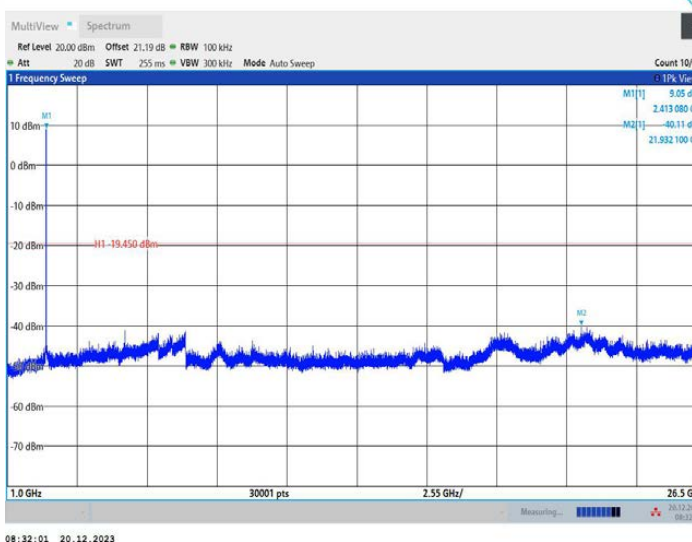
11B_Ant2_2412_0~Reference



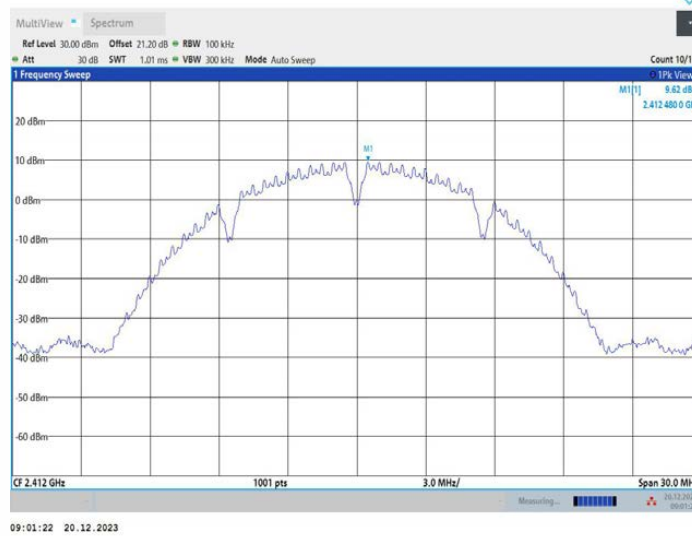
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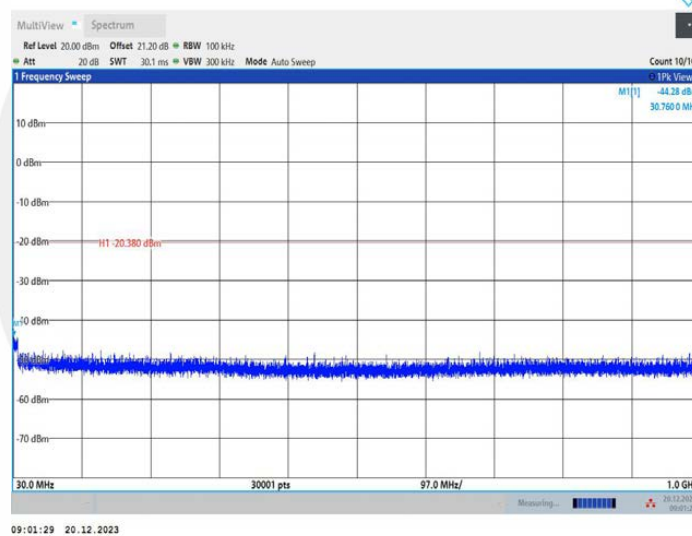
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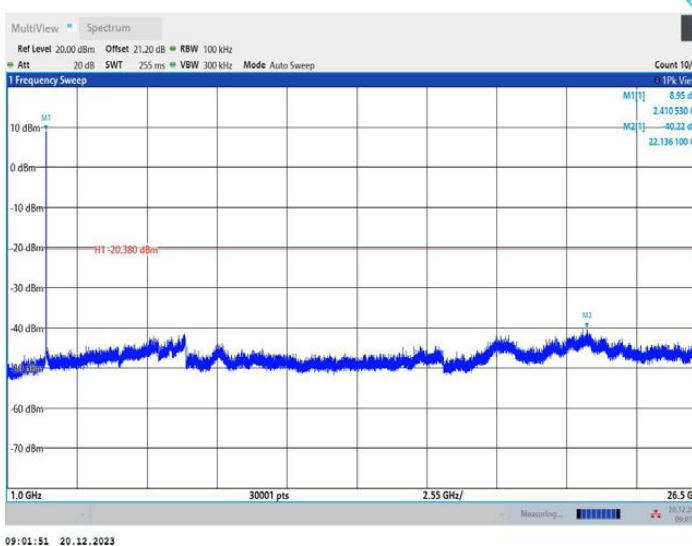
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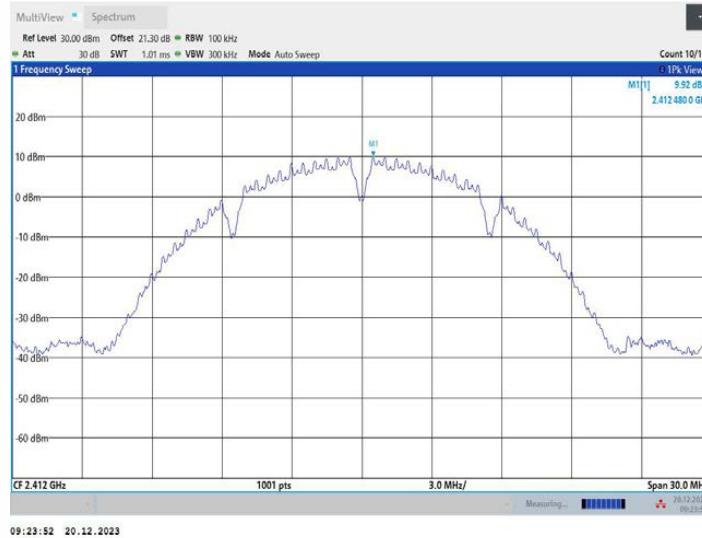
11B_Ant3_2412_30~1000



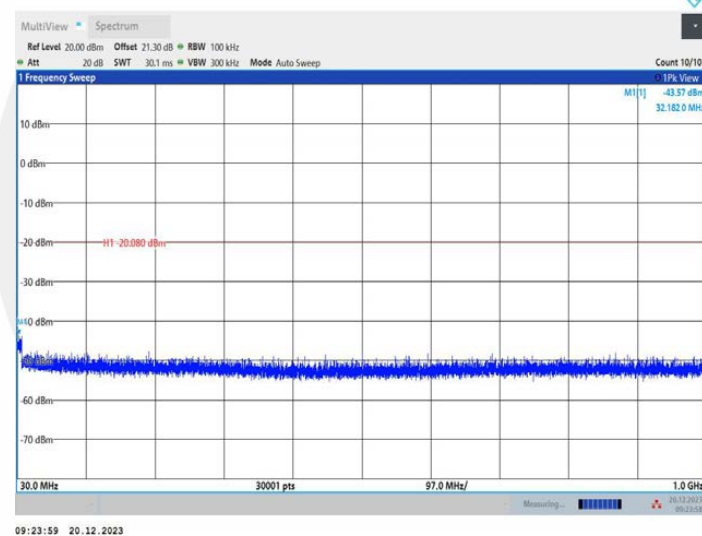
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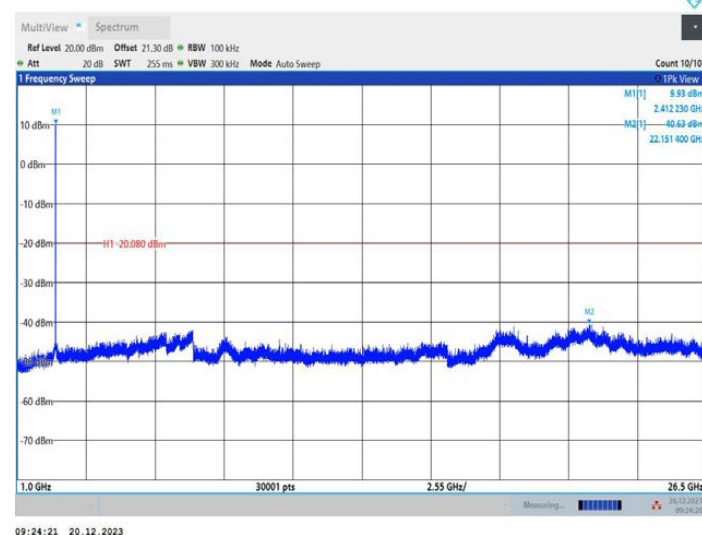
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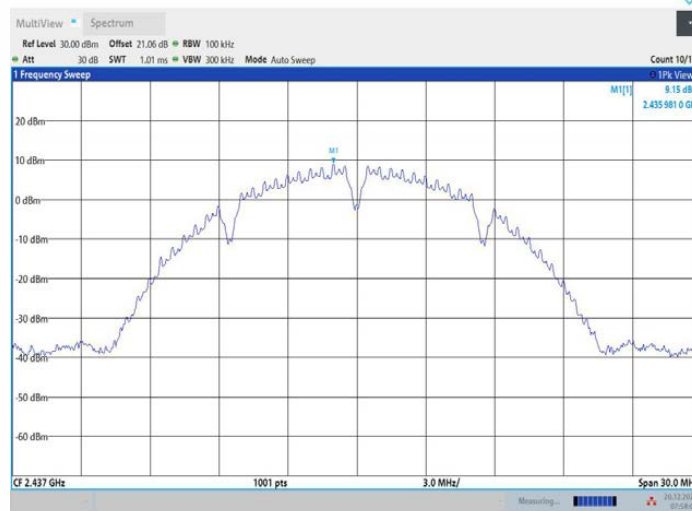
11B_Ant4_2412_30~1000



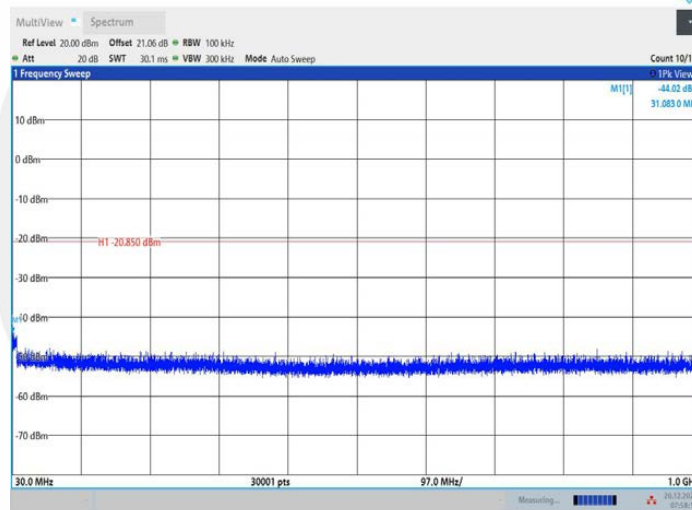
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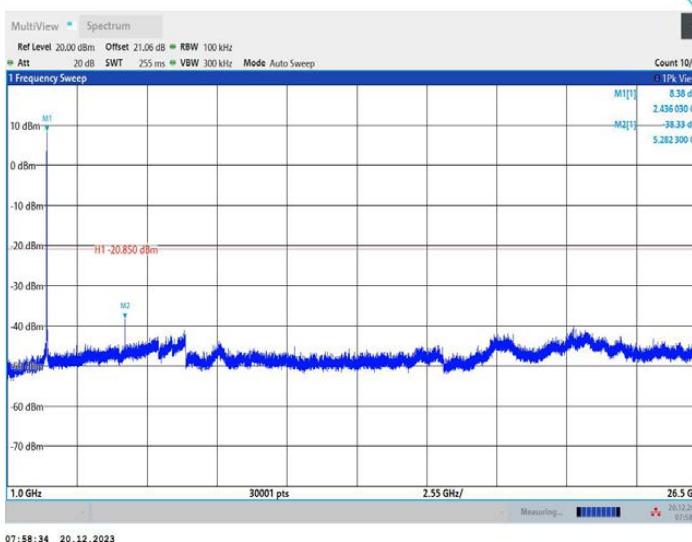
11B_Ant1_2437_0~Reference



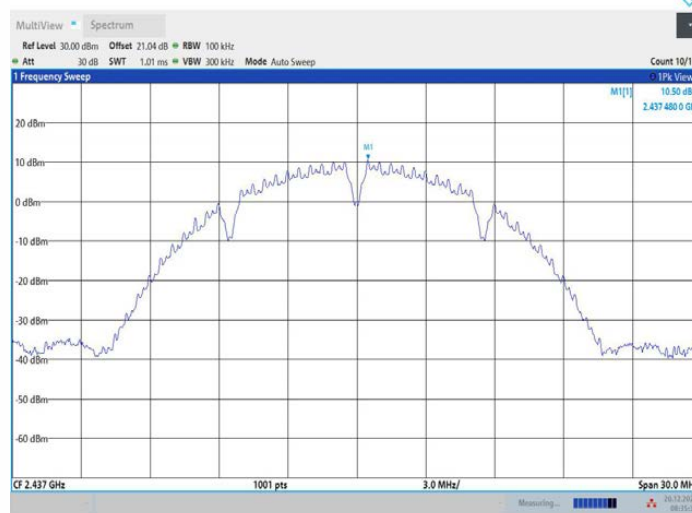
11B_Ant1_2437_30~1000



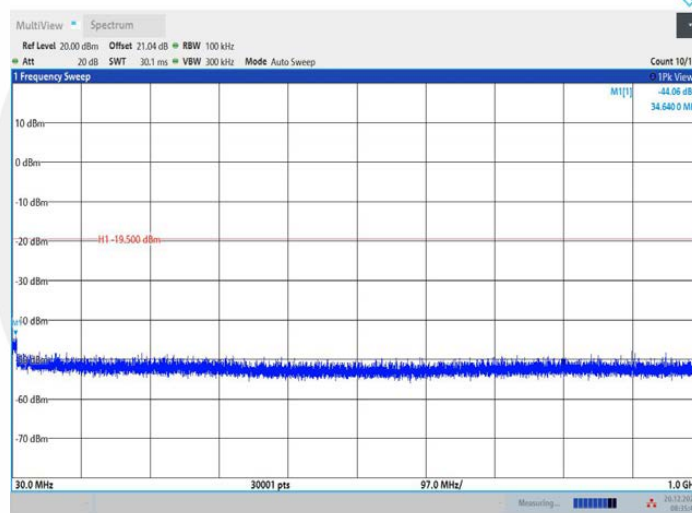
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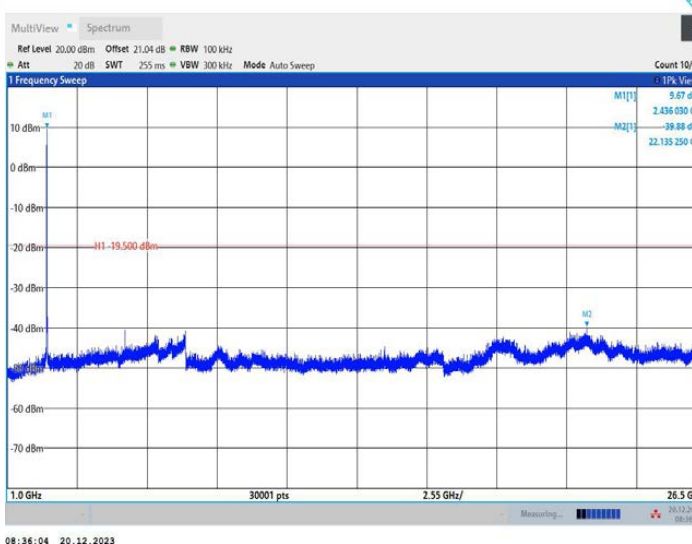
11B_Ant2_2437_0~Reference



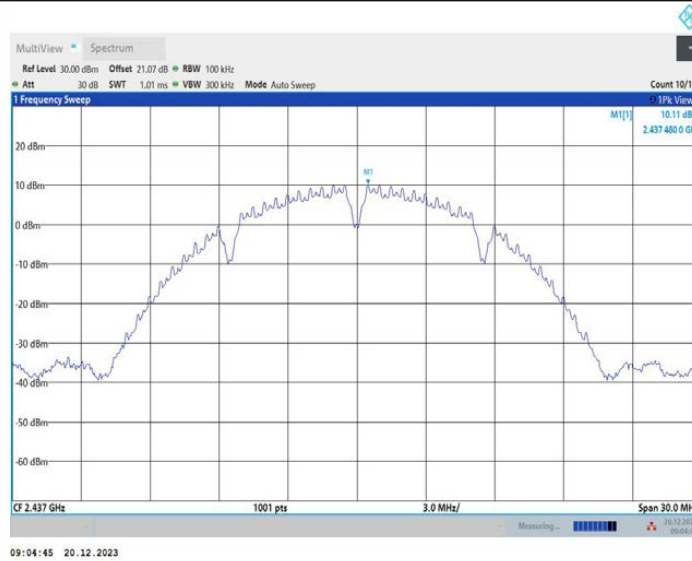
11B_Ant2_2437_30~1000



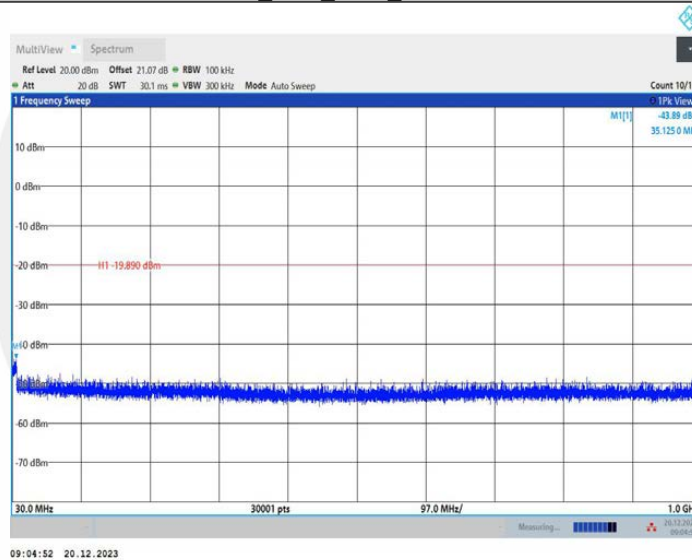
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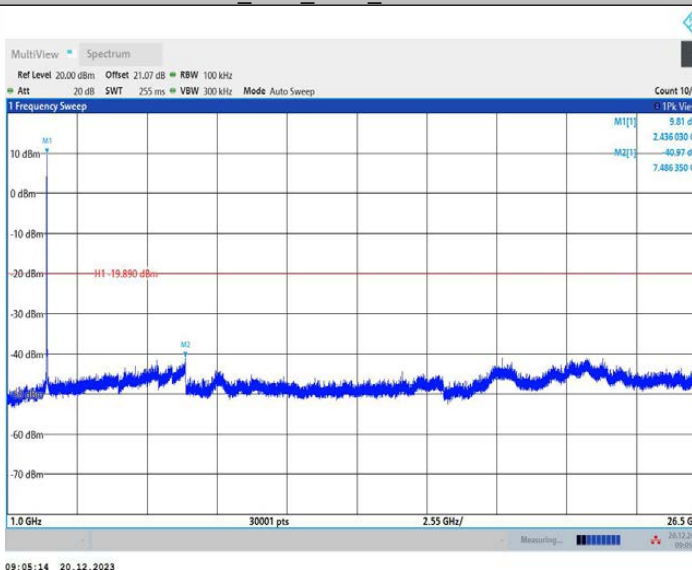
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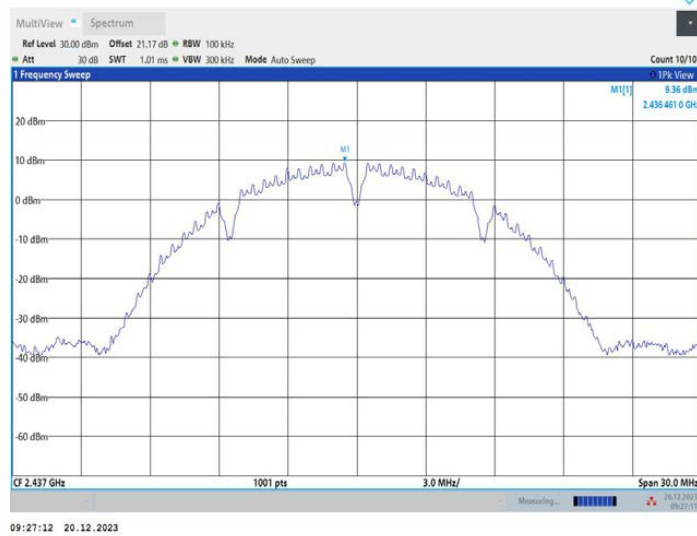
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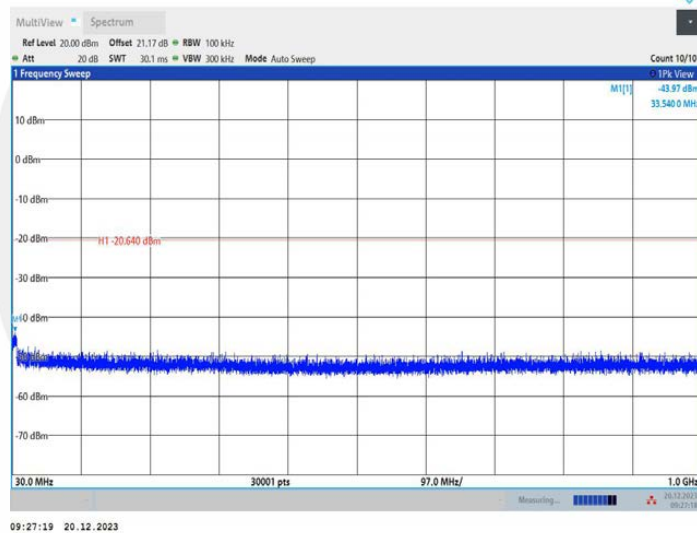
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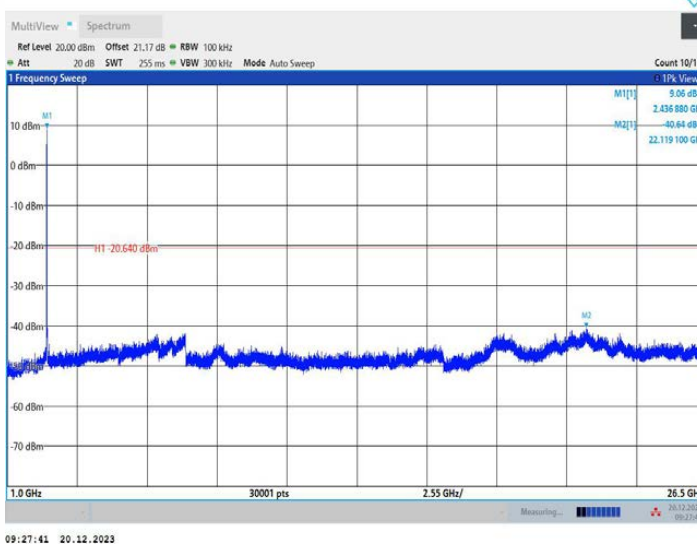
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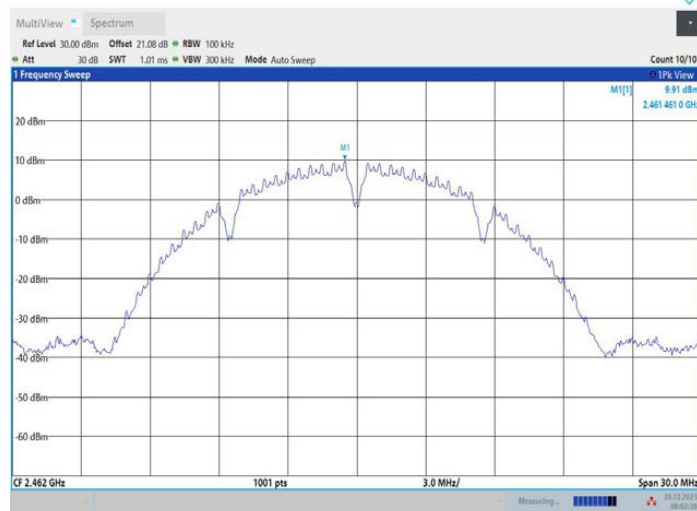
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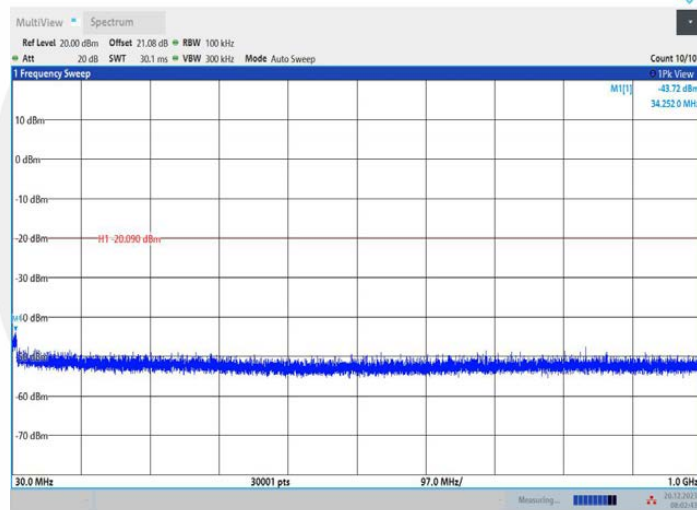
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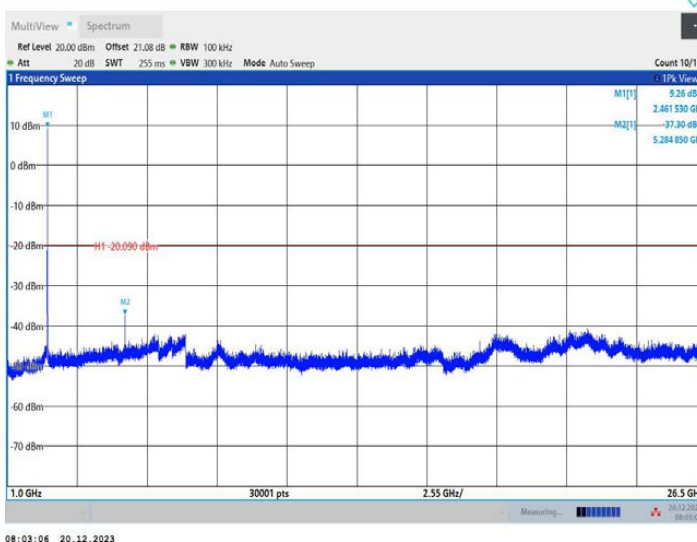
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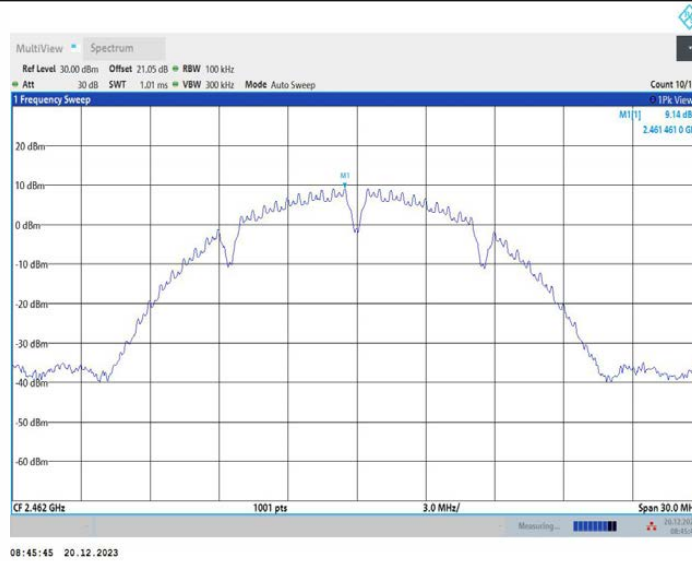
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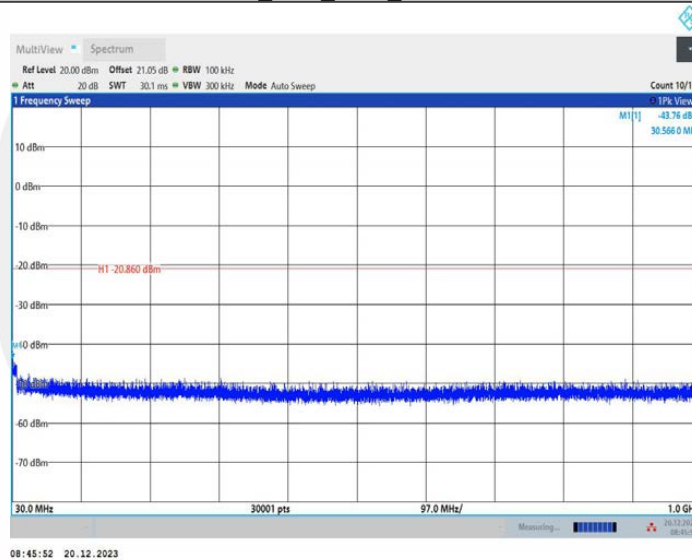
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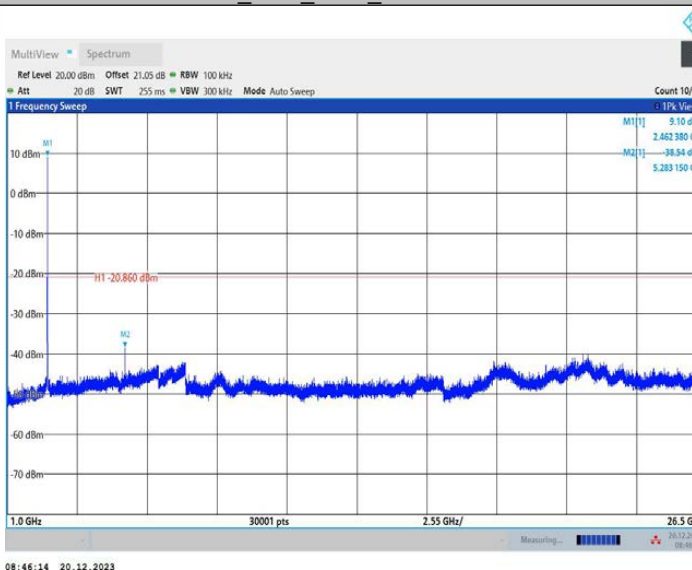
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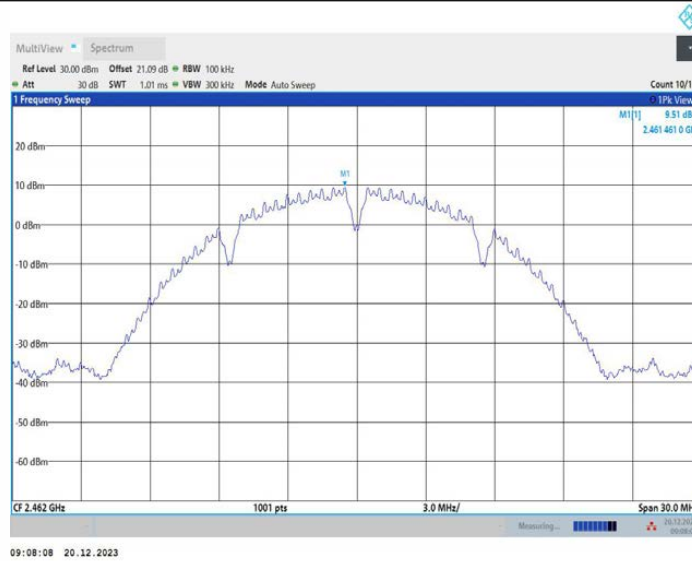
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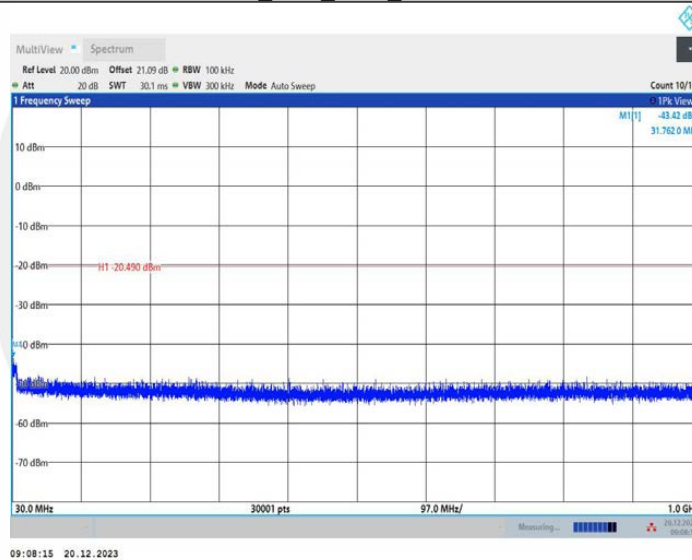
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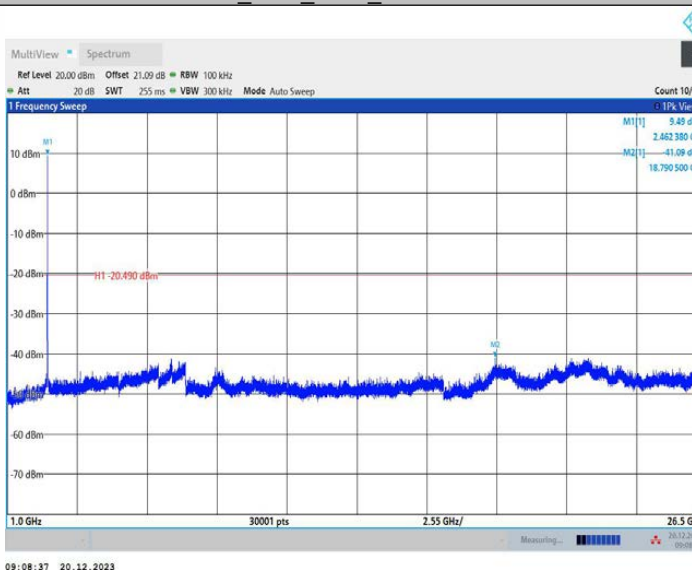
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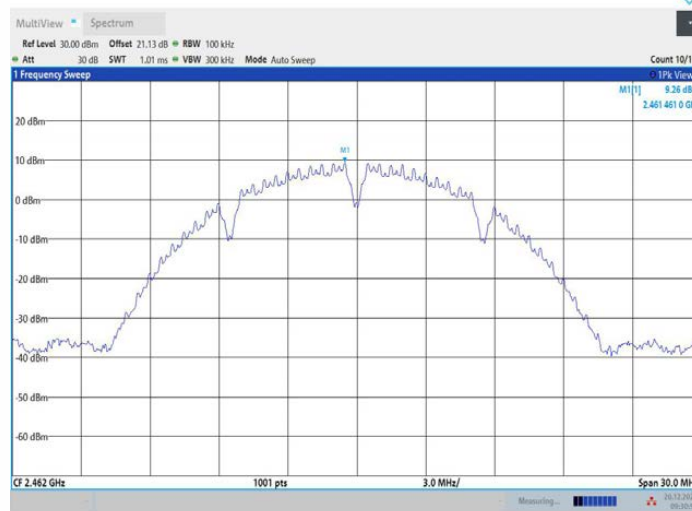
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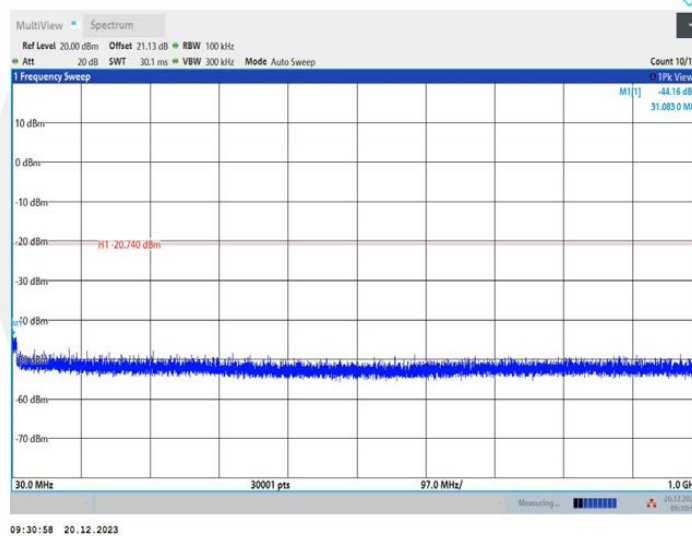
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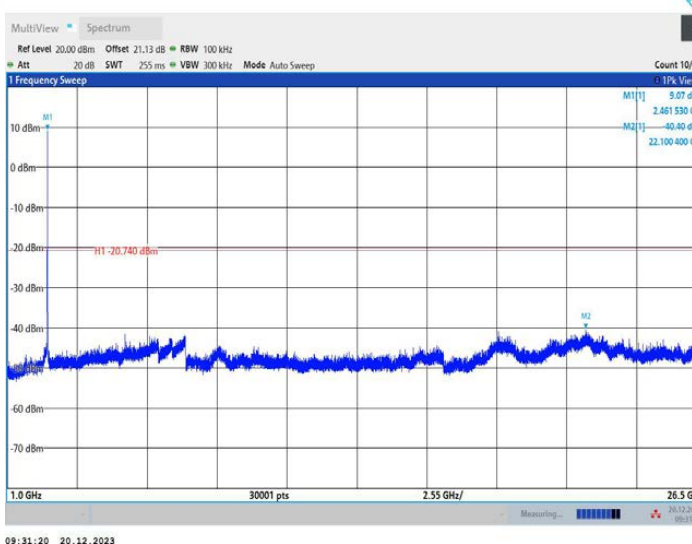
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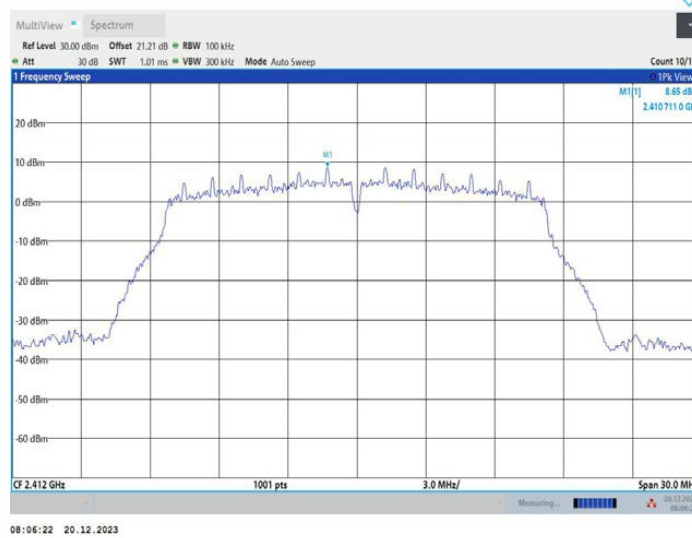
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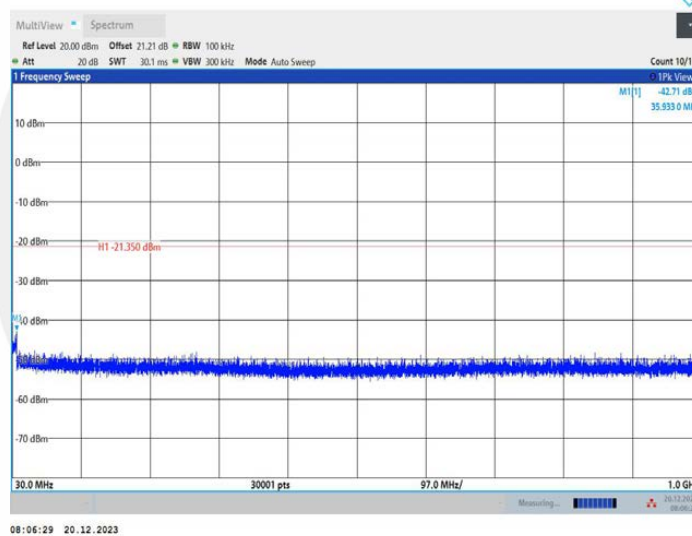
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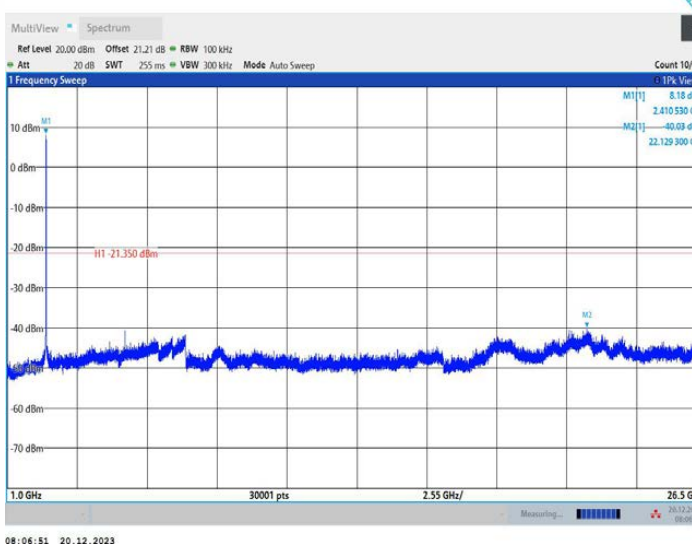
11G_Ant1_2412_0~Reference



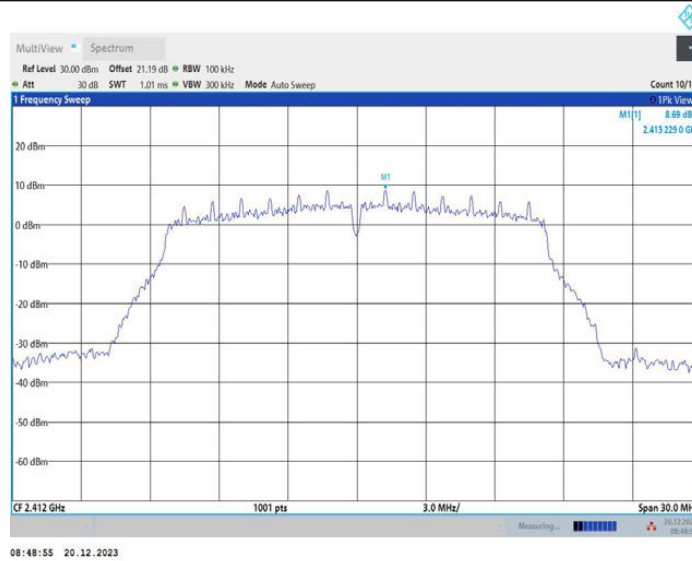
11G_Ant1_2412_30~1000



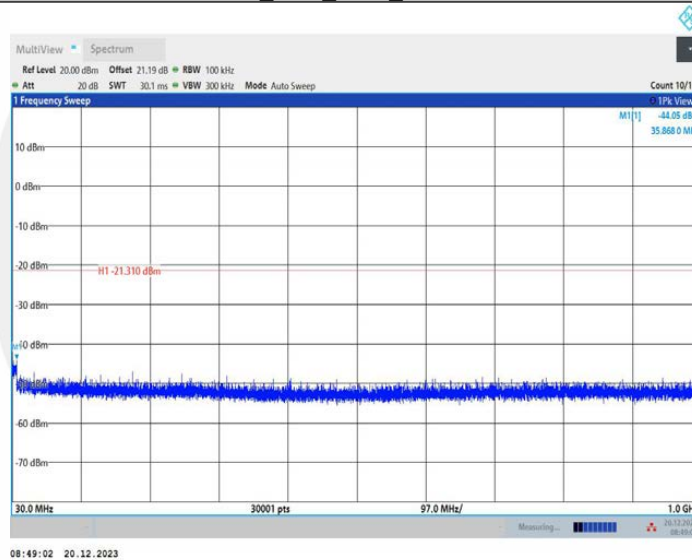
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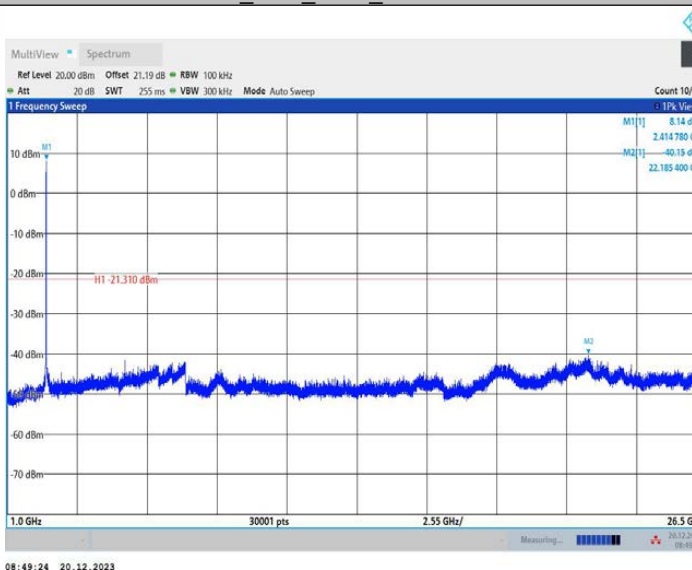
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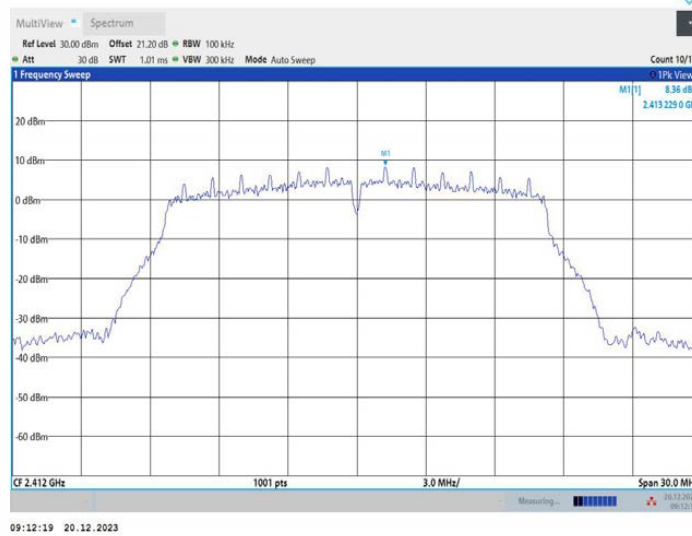
11G_Ant2_2412_30~1000



11G_Ant2_2412_1000~26500

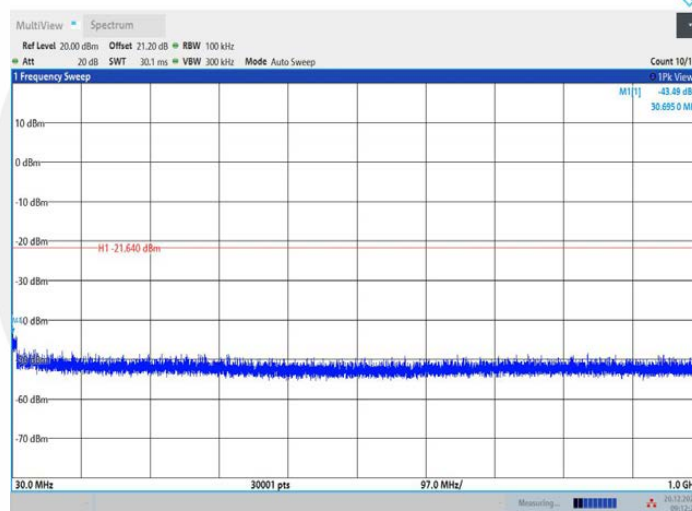


11G_Ant3_2412_0~Reference



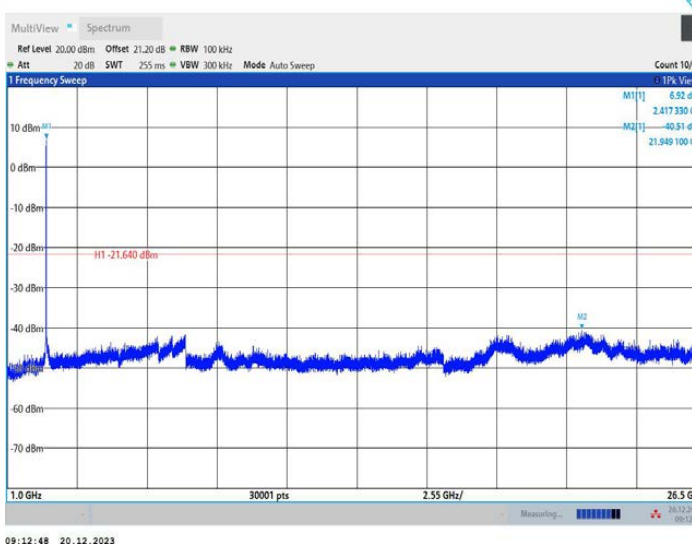
09:12:19 20.12.2023

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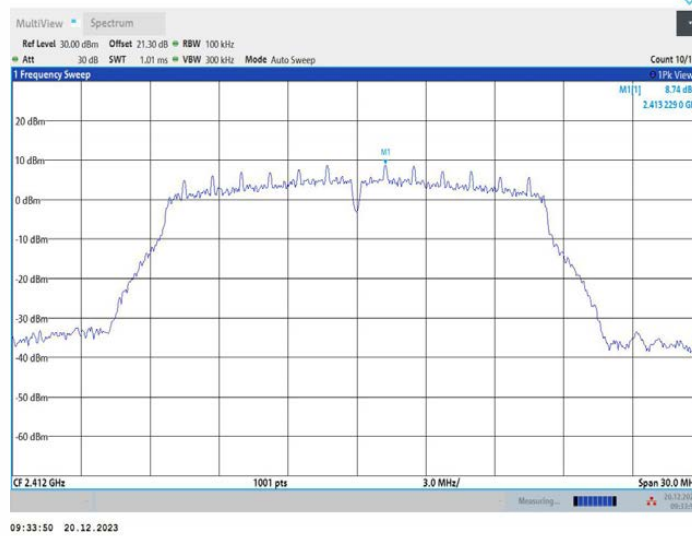
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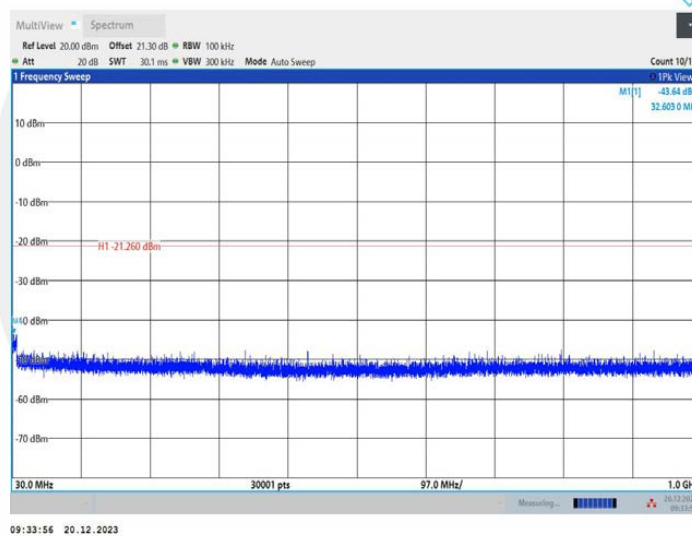


09:12:48 20.12.2023

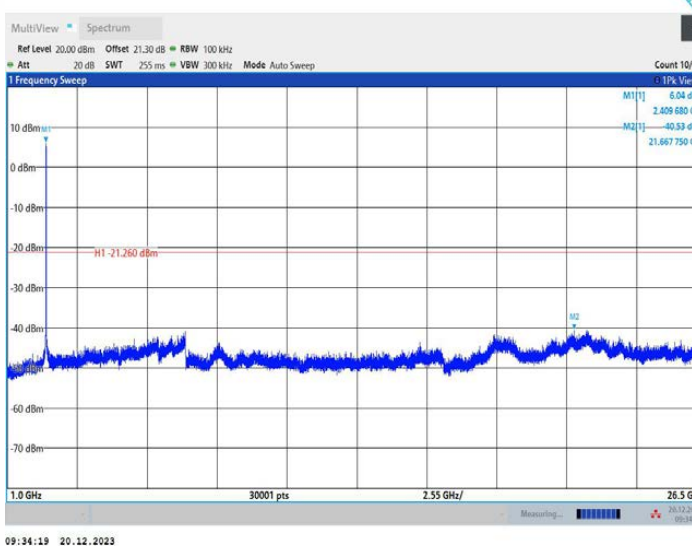
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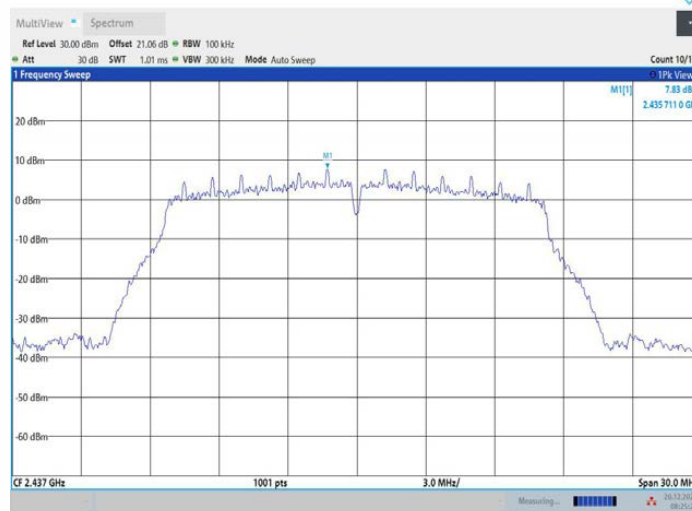
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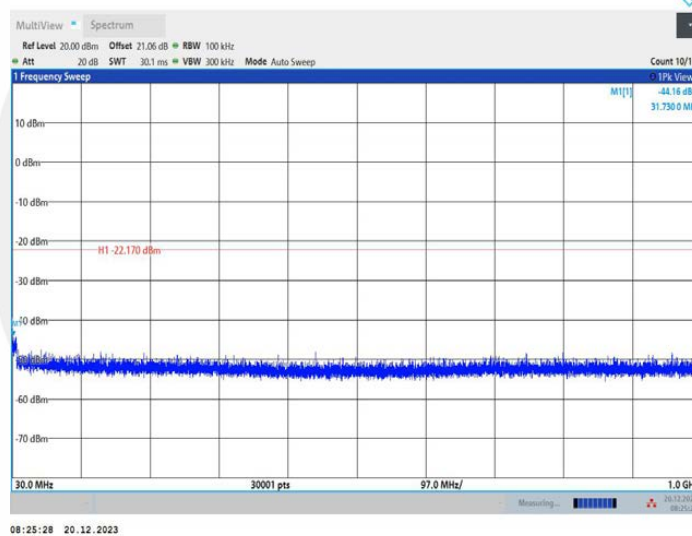
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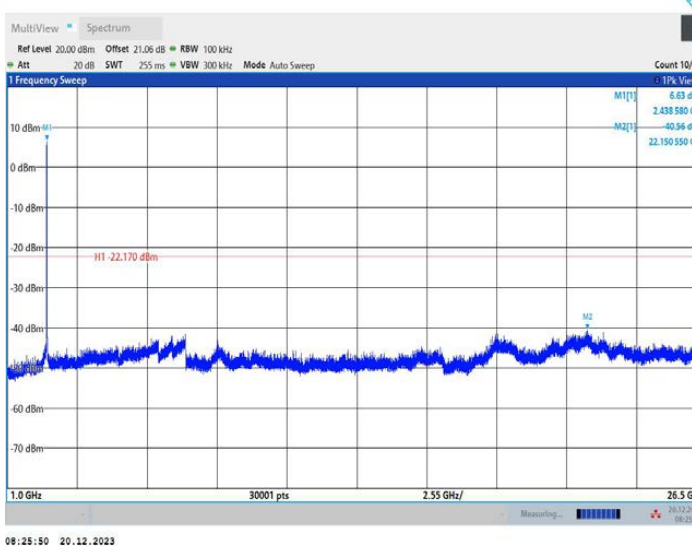
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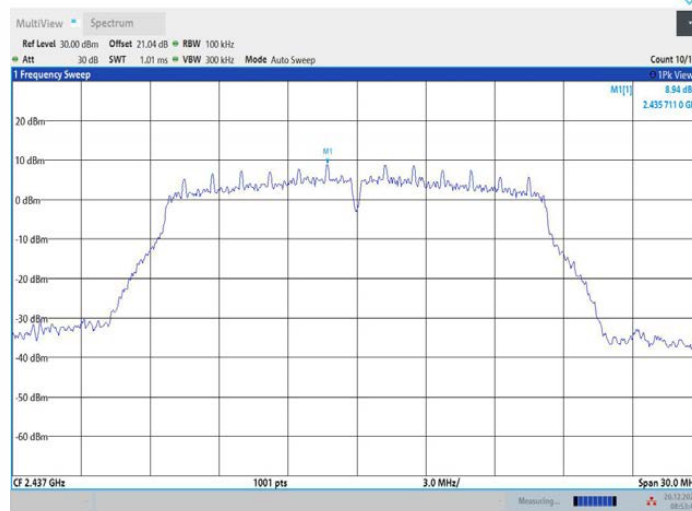
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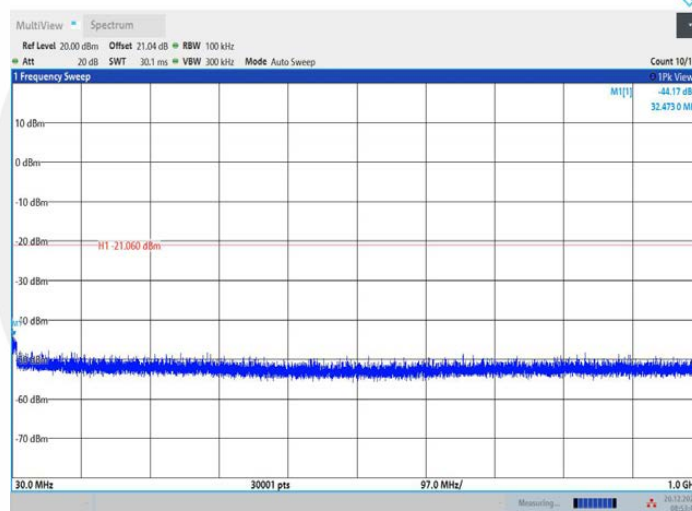
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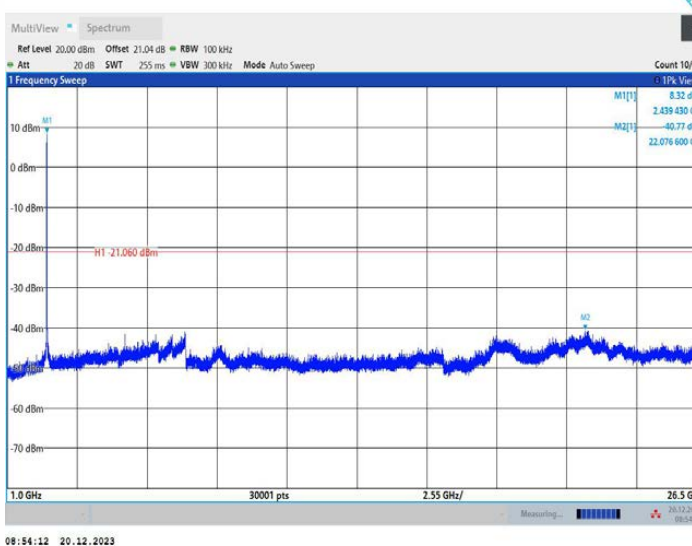
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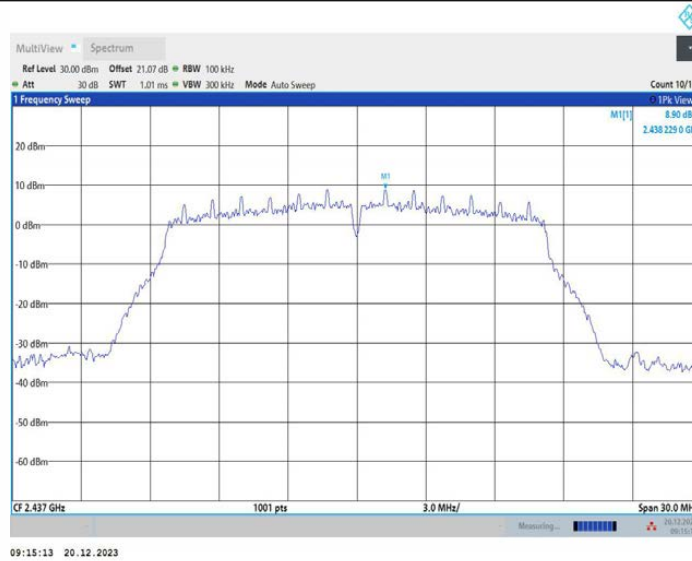
11G_Ant2_2437_30~1000



11G_Ant2_2437_1000~26500

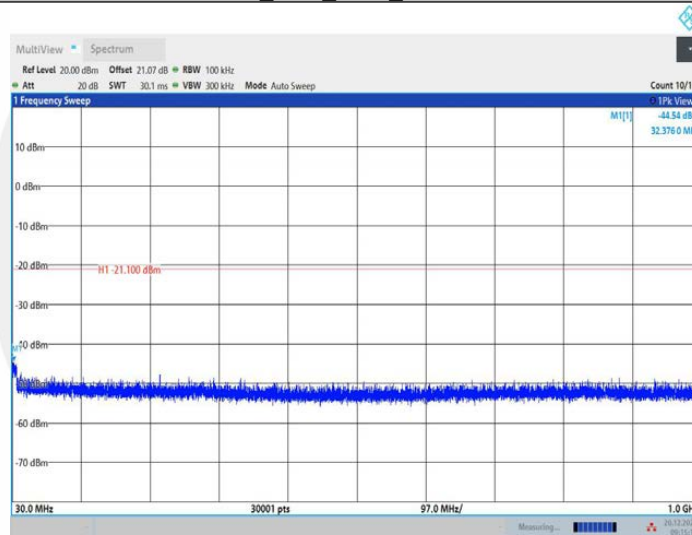


11G_Ant3_2437_0~Reference



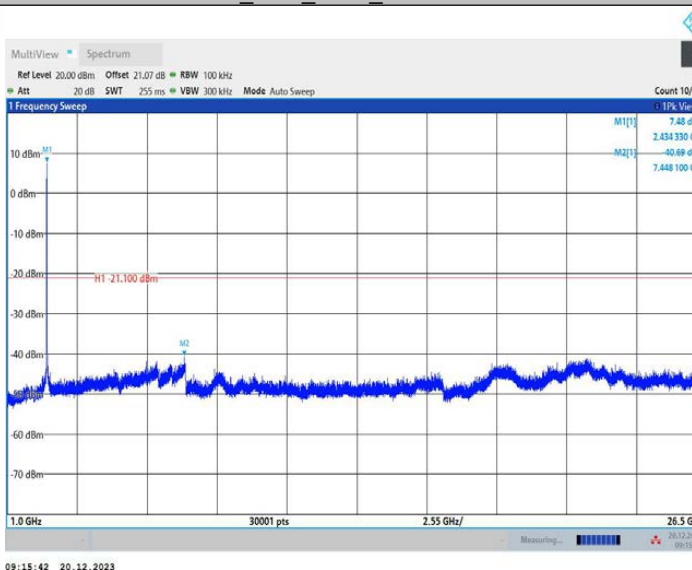
09:15:13 20.12.2023

11G_Ant3_2437_30~1000



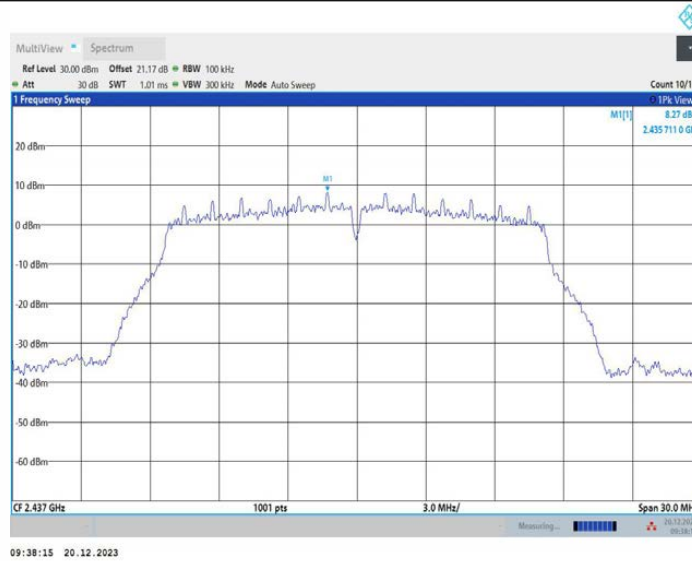
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11G_Ant3_2437_1000~26500

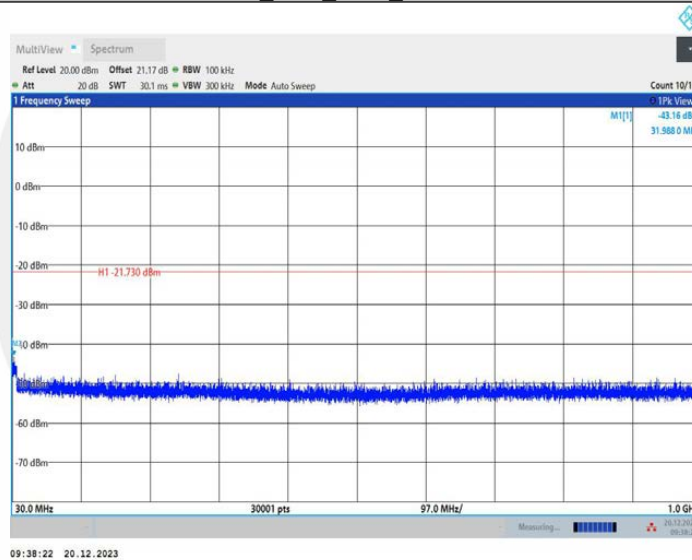


09:15:42 20.12.2023

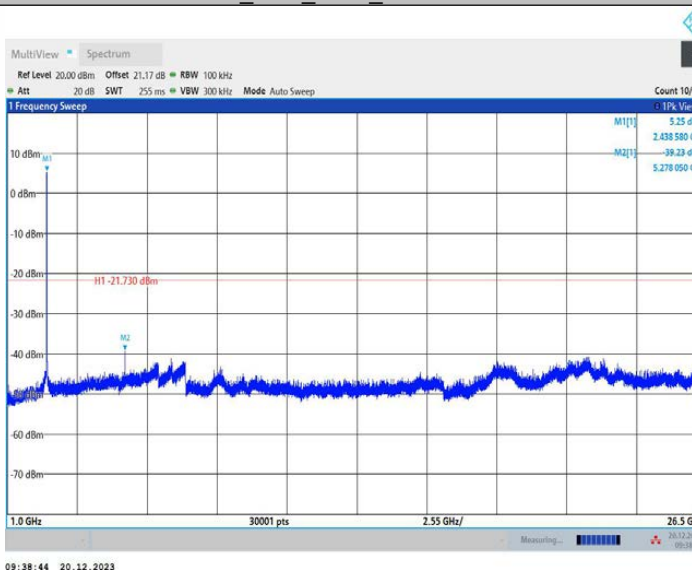
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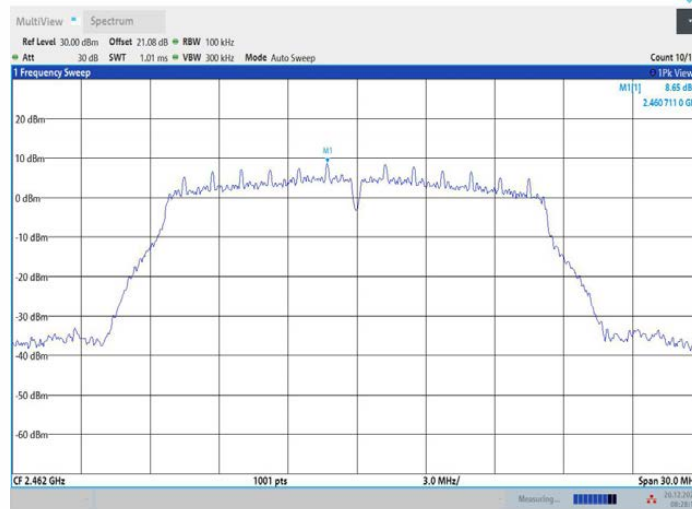
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11G_Ant4_2437_1000~26500

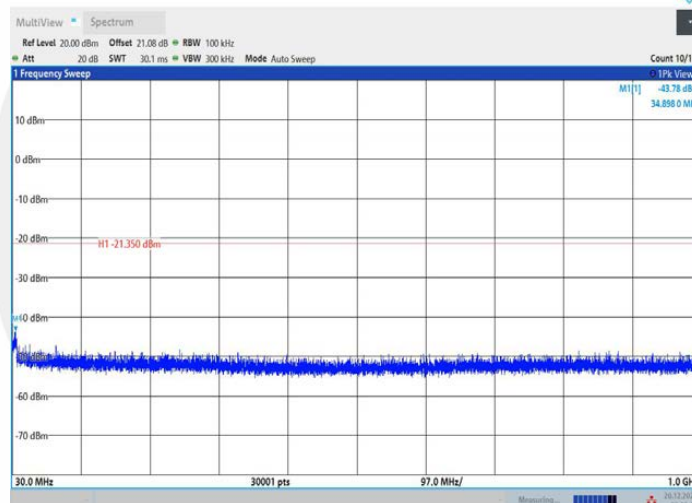


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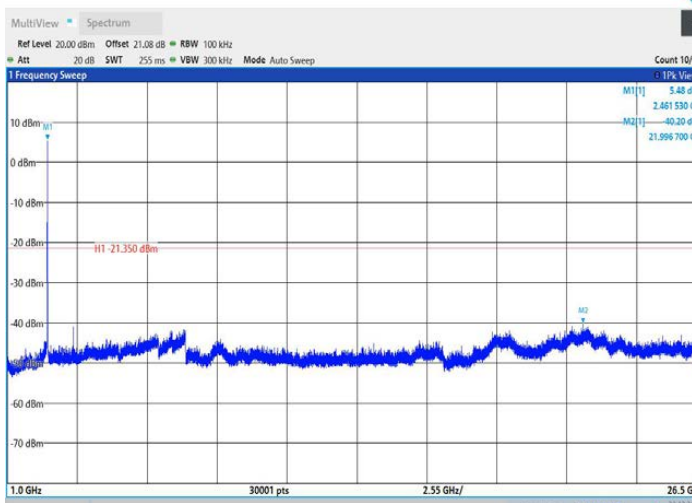
08:28:16 20.12.2023

11G_Ant1_2462_30~1000



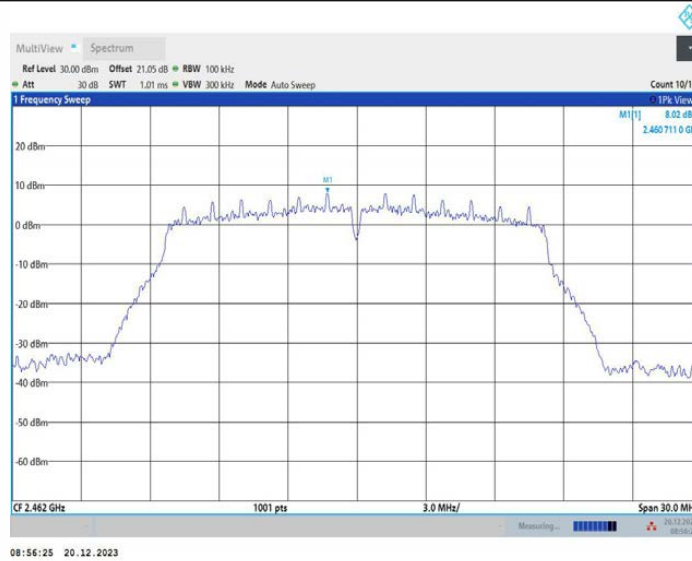
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11G_Ant1_2462_1000~26500

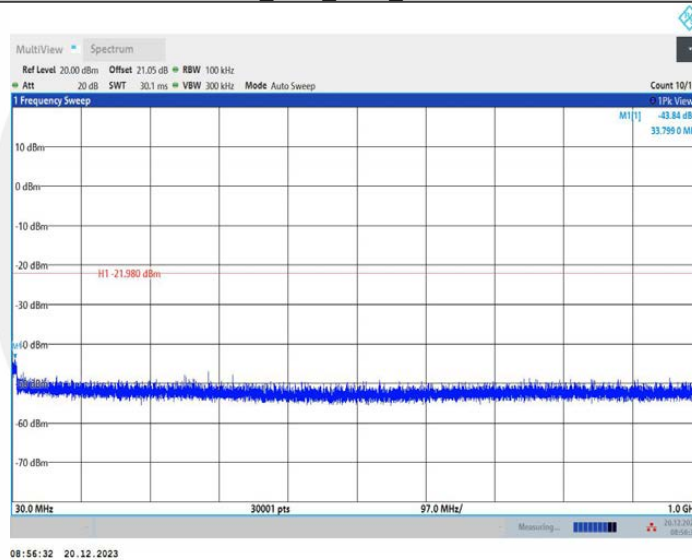


08:28:45 20.12.2023

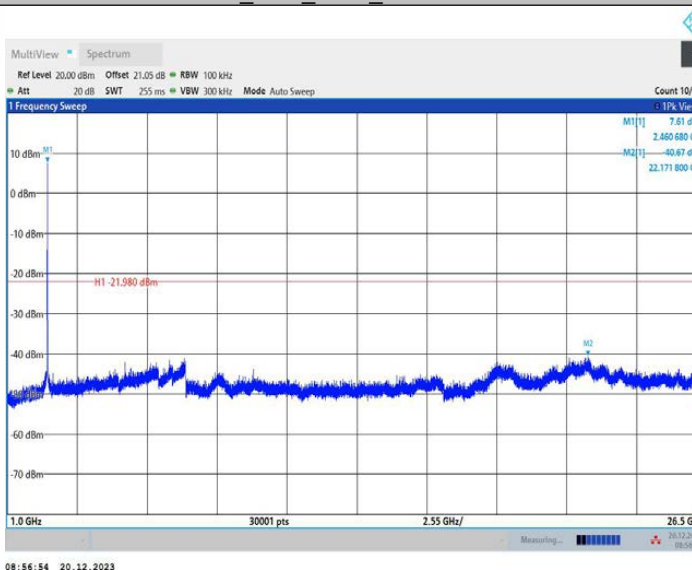
11G_Ant2_2462_0~Reference



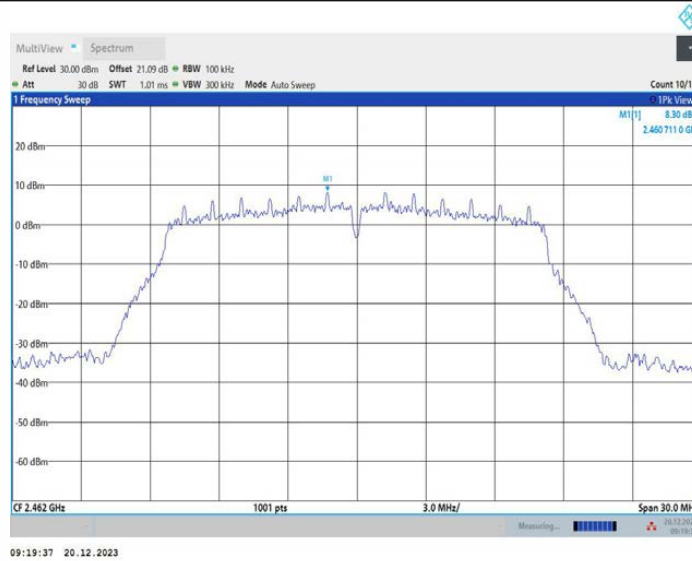
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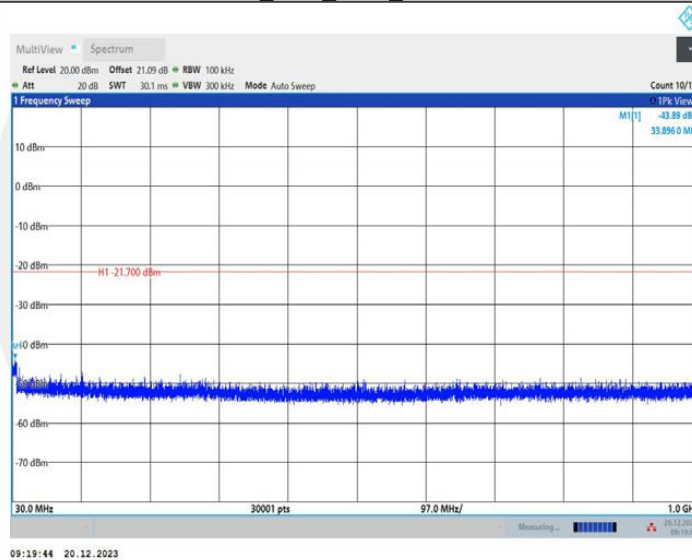
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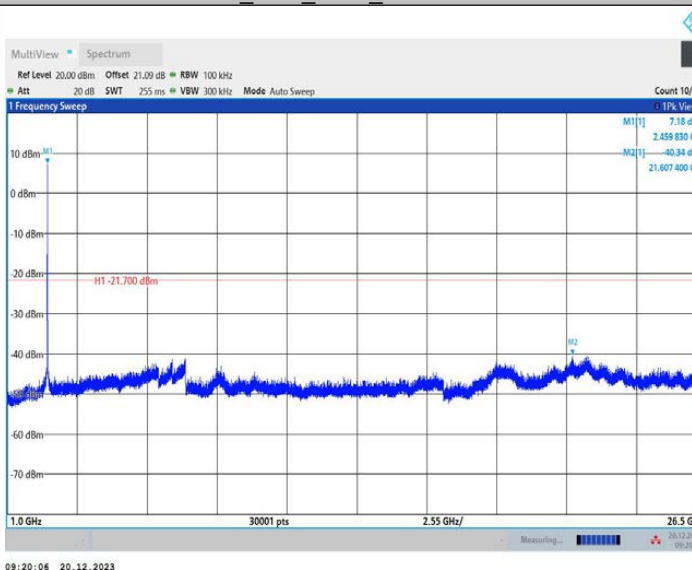
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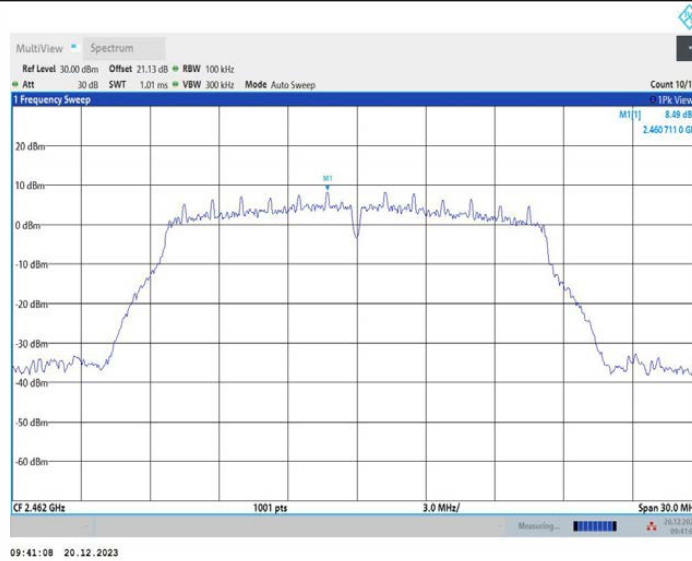
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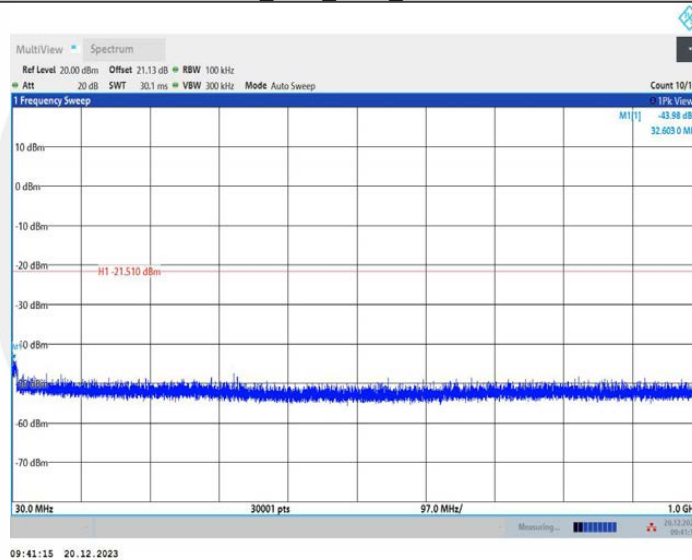
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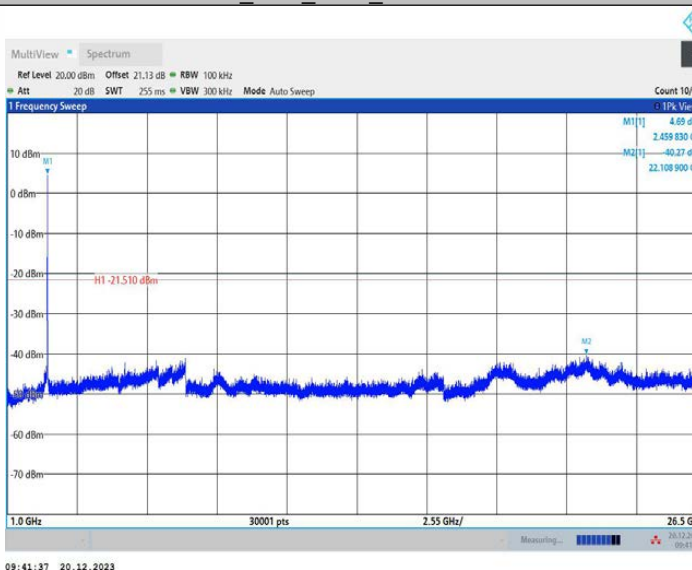
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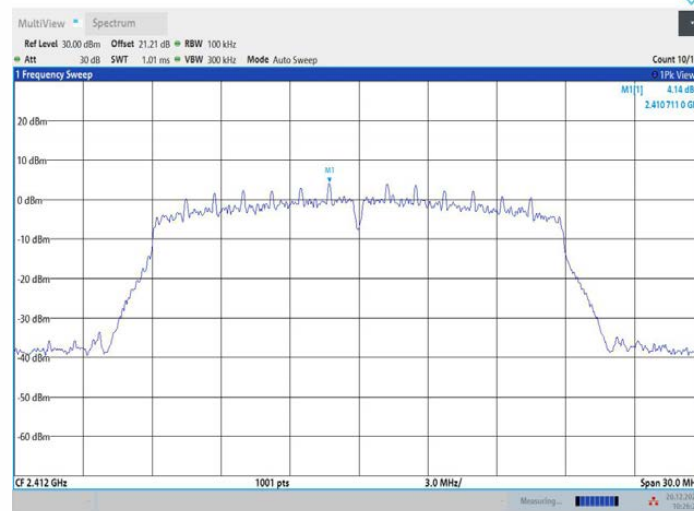
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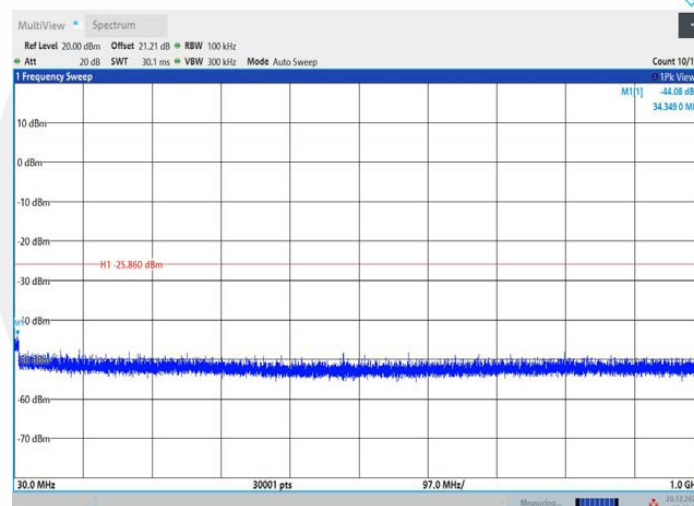


11N20MIMO_Ant1_2412_0~Reference



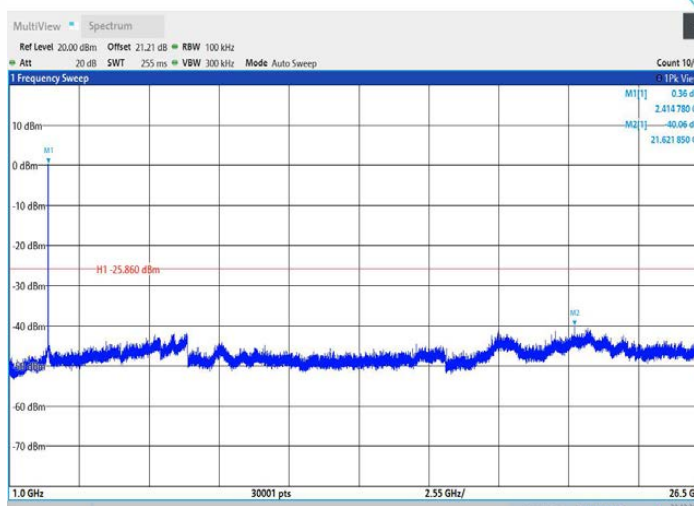
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11N20MIMO_Ant1_2412_30~1000



10:26:29 20.12.2023

11N20MIMO_Ant1_2412_1000~26500



10:26:51 20.12.2023