Spectrum
Ref Level 20.00 dBm   Offset 13.49 dB   RBW 1 MHz
Att   30 dB   SWT   1 ms   VBW 3 MHz   Mode Auto Sweep
Count 100/100
1Pk View
M1[1]   8.28 dBm
M1   2.442674 0 GHz
Occ Bw   36.523476523 MHz
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
CF 2.437 GHz   1001 pts   Span 80.0 MHz

Marker
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.442674 GHz	8.28 dBm		
T1		1	2.4186184 GHz	1.77 dBm	Occ Bw	36.523476523 MHz
T2		1	2.4551419 GHz	1.14 dBm		

Date: 29.MAR.2022 12:04:57

11N40MIMO_Ant2_2437

Spectrum
Ref Level 20.00 dBm   Offset 13.49 dB   RBW 1 MHz
Att   30 dB   SWT   1 ms   VBW 3 MHz   Mode Auto Sweep
Count 100/100
1Pk View
M1[1]   8.29 dBm
M1   2.4501620 GHz
Occ Bw   36.443556444 MHz
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
CF 2.452 GHz   1001 pts   Span 80.0 MHz

Marker
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.450162 GHz	8.29 dBm		
T1		1	2.4336184 GHz	1.89 dBm	Occ Bw	36.443556444 MHz
T2		1	2.4700619 GHz	1.99 dBm		

Date: 29.MAR.2022 12:10:32

11N40MIMO_Ant1_2452

Spectrum
Ref Level 20.00 dBm   Offset 13.49 dB   RBW 1 MHz
Att   30 dB   SWT   1 ms   VBW 3 MHz   Mode Auto Sweep
Count 100/100
1Pk View
M1[1]   8.11 dBm
M1   2.4577540 GHz
Occ Bw   36.443556444 MHz
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
CF 2.452 GHz   1001 pts   Span 80.0 MHz

Marker
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.457754 GHz	8.11 dBm		
T1		1	2.4336184 GHz	1.78 dBm	Occ Bw	36.443556444 MHz
T2		1	2.4700619 GHz	1.57 dBm		

Date: 29.MAR.2022 12:12:35

11N40MIMO_Ant2_2452

REPORT NO.: 4790335886-3

Page 104 of 138

11.3. Appendix C: Maximum conducted output power
11.3.1. Test Result

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	16.65	≤30.00	PASS
	Ant2	2412	16.54	≤30.00	PASS
	Ant1	2437	16.44	≤30.00	PASS
	Ant2	2437	16.28	≤30.00	PASS
	Ant1	2462	16.13	≤30.00	PASS
	Ant2	2462	15.96	≤30.00	PASS
11G	Ant1	2412	14.21	≤30.00	PASS
	Ant2	2412	14.21	≤30.00	PASS
	Ant1	2437	14.03	≤30.00	PASS
	Ant2	2437	13.85	≤30.00	PASS
	Ant1	2462	13.86	≤30.00	PASS
	Ant2	2462	13.59	≤30.00	PASS
11N20MIMO	Ant1	2412	13.67	≤30.00	PASS
	Ant2	2412	13.56	≤30.00	PASS
	total	2412	16.63	≤30.00	PASS
	Ant1	2437	13.38	≤30.00	PASS
	Ant2	2437	13.03	≤30.00	PASS
	total	2437	16.22	≤30.00	PASS
	Ant1	2462	13.05	≤30.00	PASS
	Ant2	2462	13.18	≤30.00	PASS
	total	2462	16.13	≤30.00	PASS
11N40MIMO	Ant1	2422	13.97	≤30.00	PASS
	Ant2	2422	13.78	≤30.00	PASS
	total	2422	16.89	≤30.00	PASS
	Ant1	2437	13.69	≤30.00	PASS
	Ant2	2437	13.40	≤30.00	PASS
	total	2437	16.56	≤30.00	PASS
	Ant1	2452	13.60	≤30.00	PASS
	Ant2	2452	13.31	≤30.00	PASS
	total	2452	16.47	≤30.00	PASS

Note: 1. Conducted Power=Meas. Level+ Correction Factor
2. The Duty Cycle Factor (refer to section 7.1) had already compensated to the test data.

11.4. Appendix D: Maximum power spectral density
11.4.1. Test Result

Test Mode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-14.47	≤8.00	PASS
		2437	-14.87	≤8.00	PASS
		2462	-15.23	≤8.00	PASS
11G	Ant1	2412	-16.21	≤8.00	PASS
		2437	-15.99	≤8.00	PASS
		2462	-16.29	≤8.00	PASS
11N20MIMO	Ant1	2412	-16.11	≤8.00	PASS
	Ant2	2412	-16.52	≤8.00	PASS
	total	2412	-13.30	≤8.00	PASS
	Ant1	2437	-16.7	≤8.00	PASS
	Ant2	2437	-17.19	≤8.00	PASS
	total	2437	-13.93	≤8.00	PASS
	Ant1	2462	-16.88	≤8.00	PASS
	Ant2	2462	-16.54	≤8.00	PASS
	total	2462	-13.70	≤8.00	PASS
11N40MIMO	Ant1	2422	-16.97	≤8.00	PASS
	Ant2	2422	-17.52	≤8.00	PASS
	total	2422	-14.23	≤8.00	PASS
	Ant1	2437	-17.7	≤8.00	PASS
	Ant2	2437	-17.66	≤8.00	PASS
	total	2437	-14.67	≤8.00	PASS
	Ant1	2452	-17.25	≤8.00	PASS
	Ant2	2452	-17.38	≤8.00	PASS
	total	2452	-14.30	≤8.00	PASS

11.4.2. Test Graphs

11B_Ant1_2412

11B_Ant1_2437
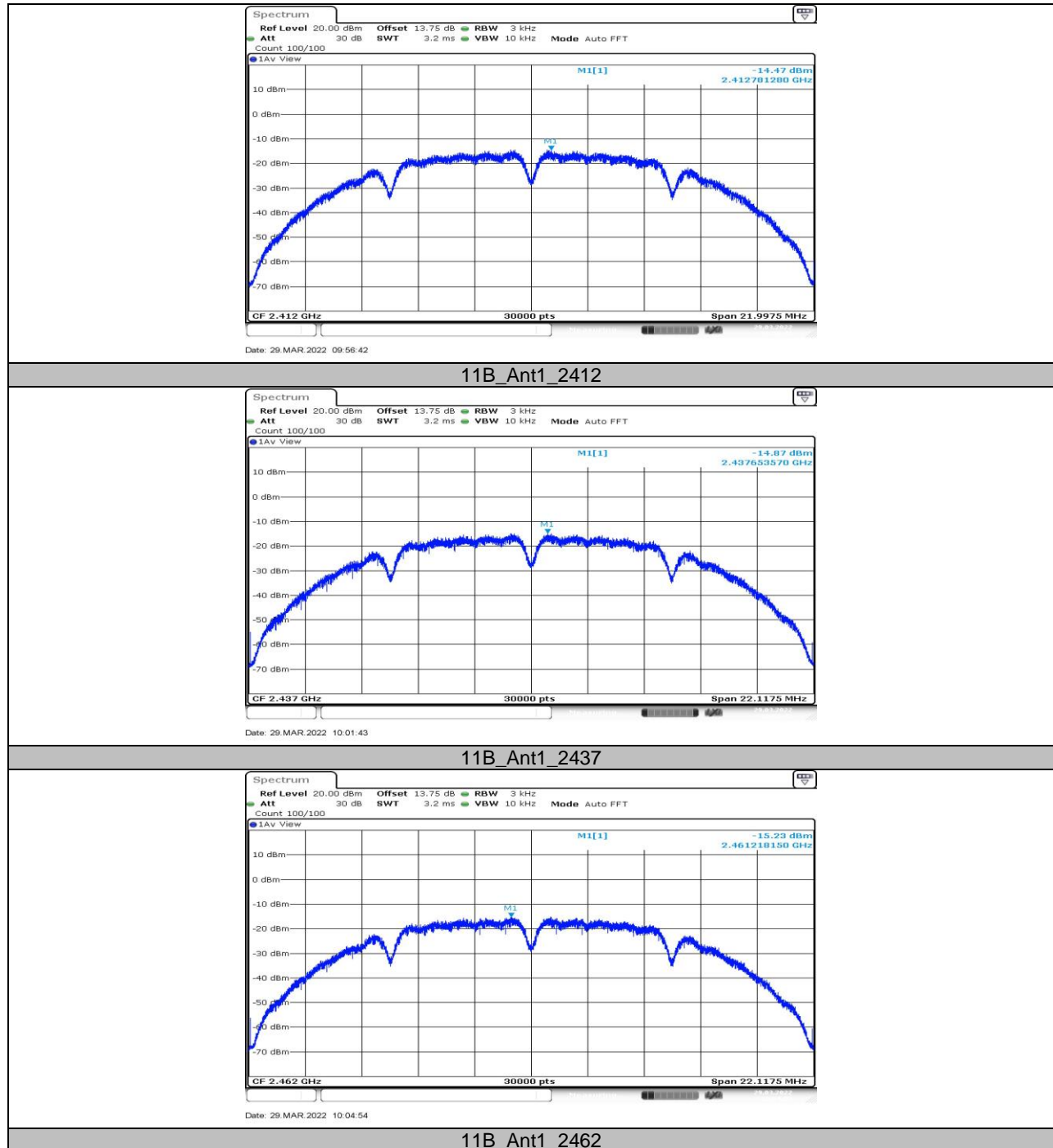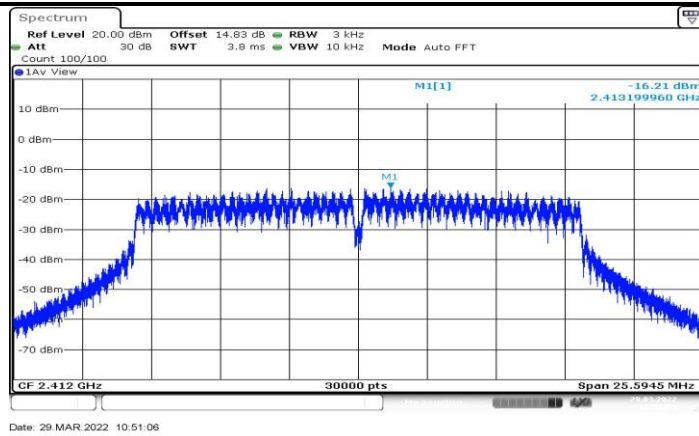
11B_Ant1_2462
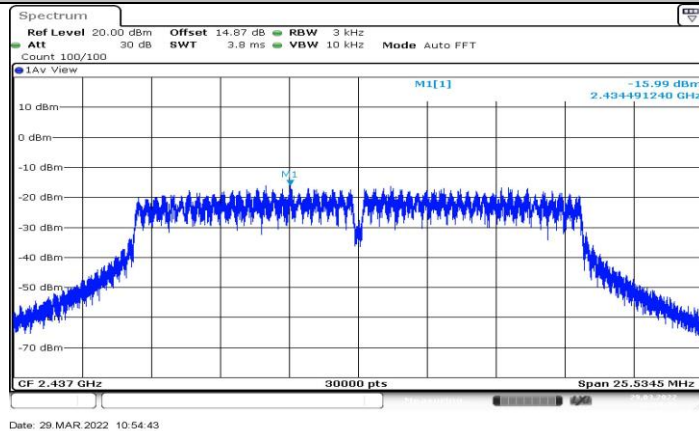
11G_Ant1_2412

11G_Ant1_2437

11G_Ant1_2462

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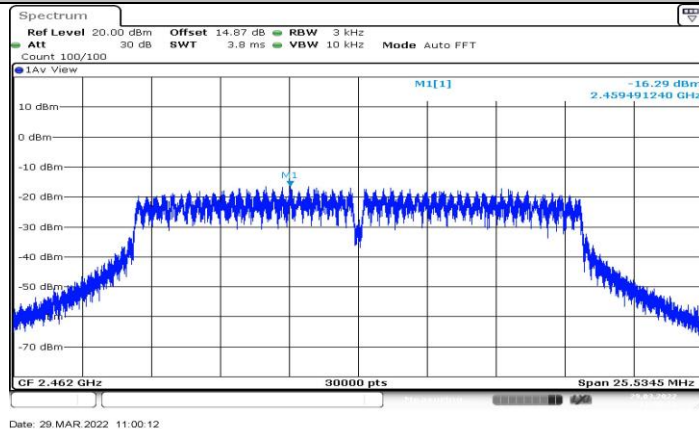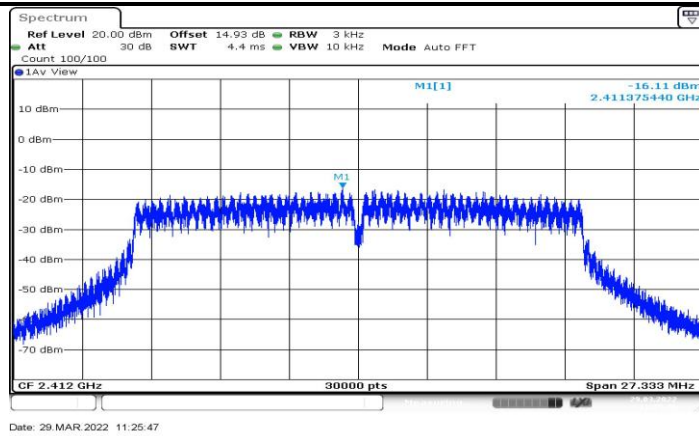
11N20MIMO_Ant1_2412
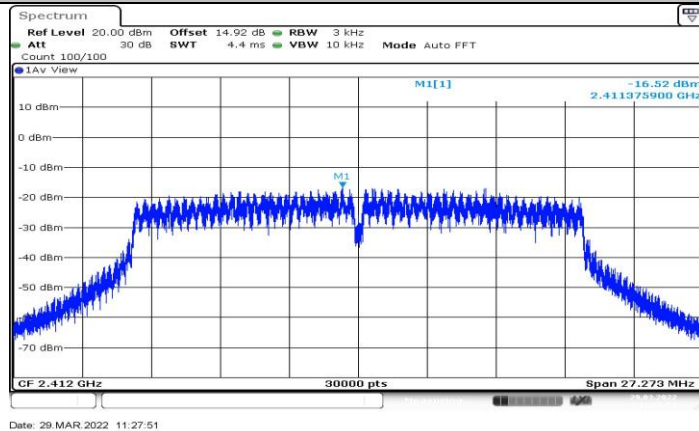
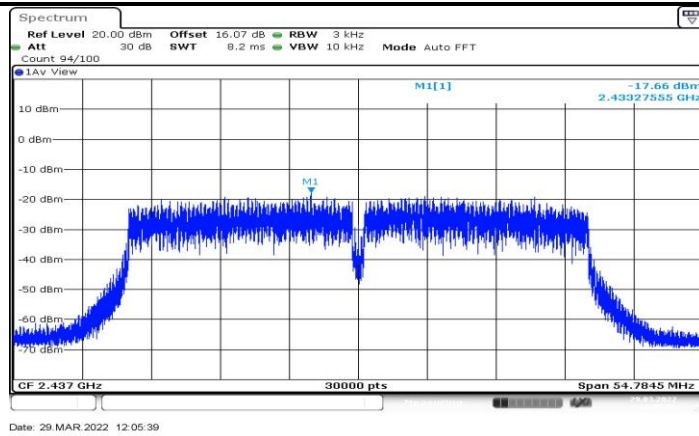11N20MIMO_Ant2_2412
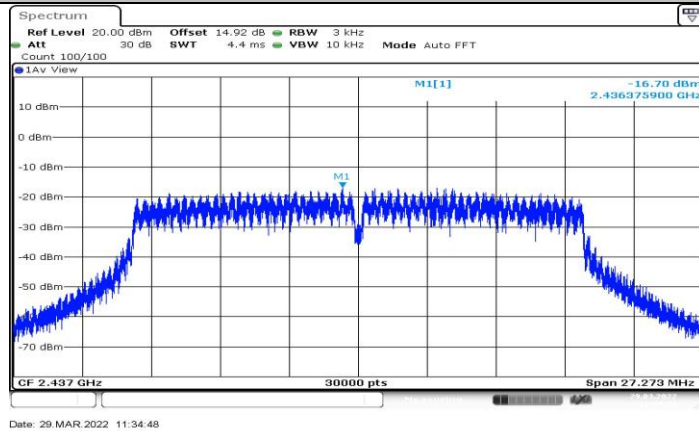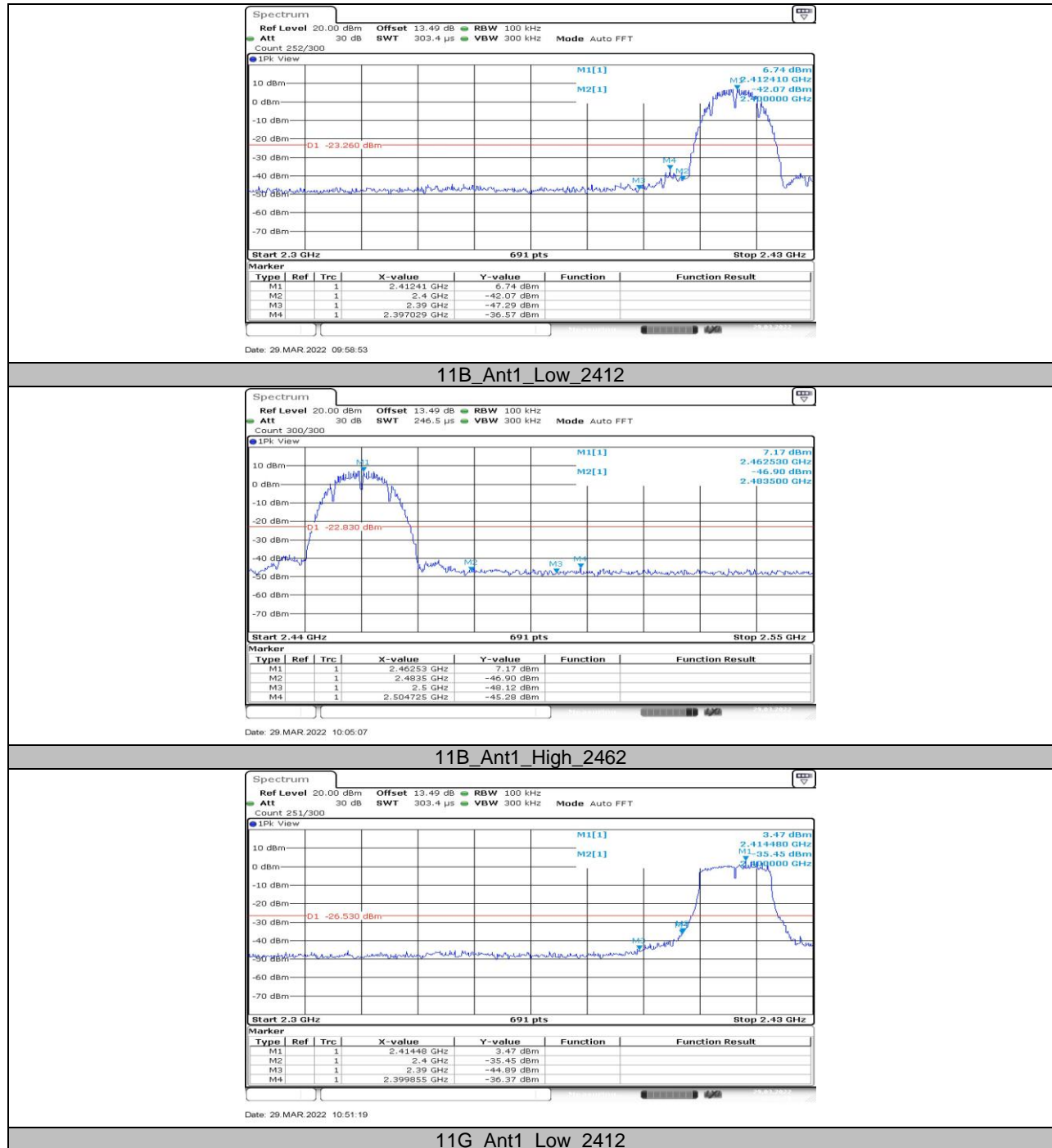

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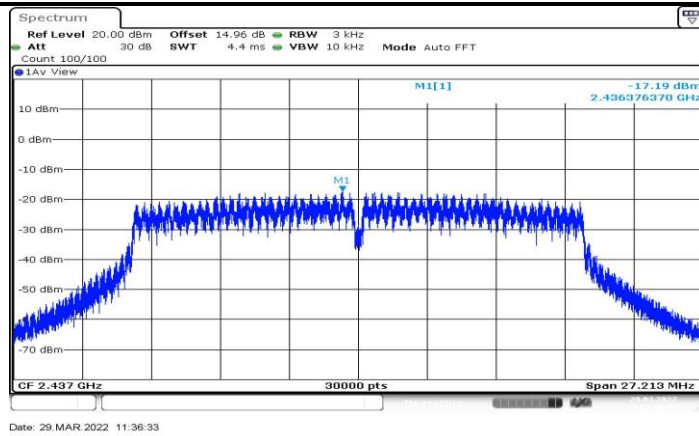
11N20MIMO_Ant2_2437
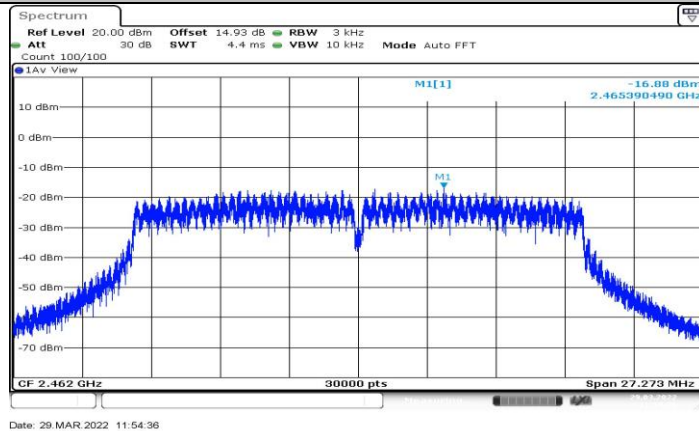
11N20MIMO_Ant1_2462
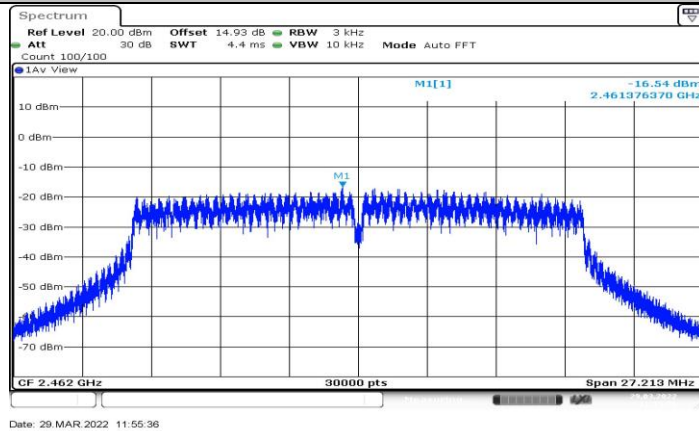
11N20MIMO_Ant2_2462
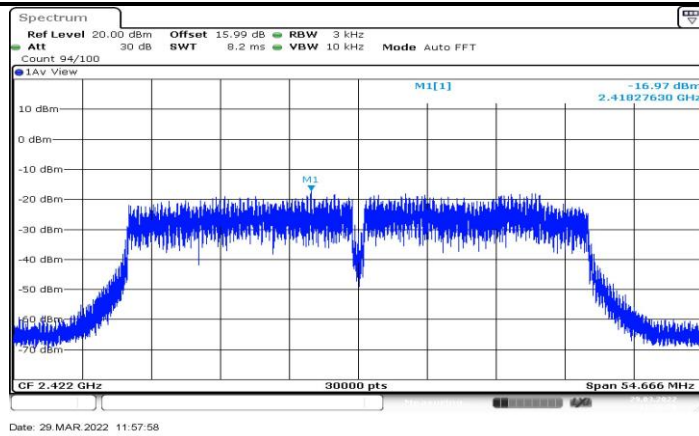
11N40MIMO_Ant1_2422
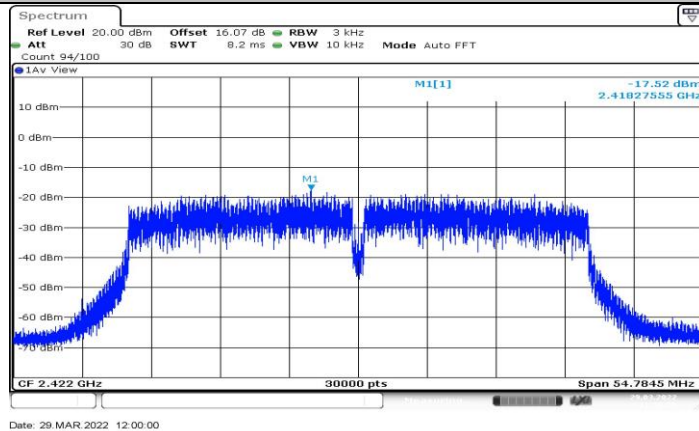
11N40MIMO_Ant2_2422
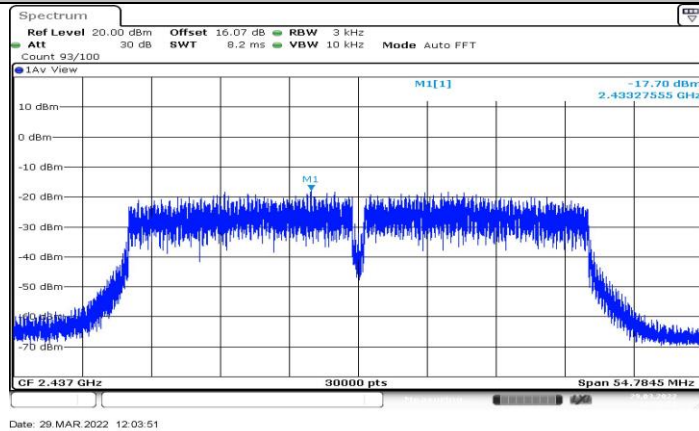
11N40MIMO_Ant1_2437

11N40MIMO_Ant2_2437
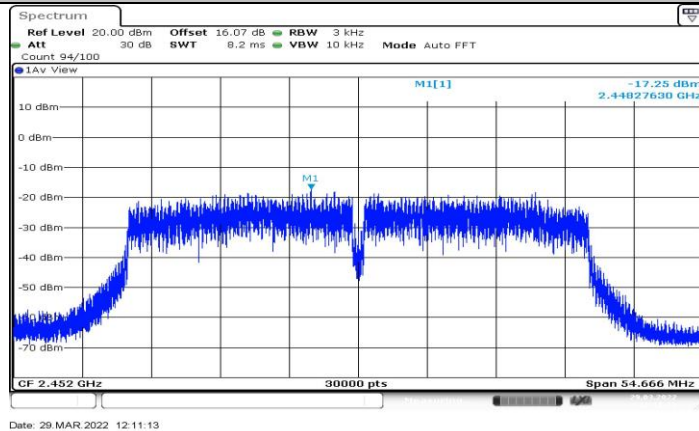
11N40MIMO_Ant1_2452
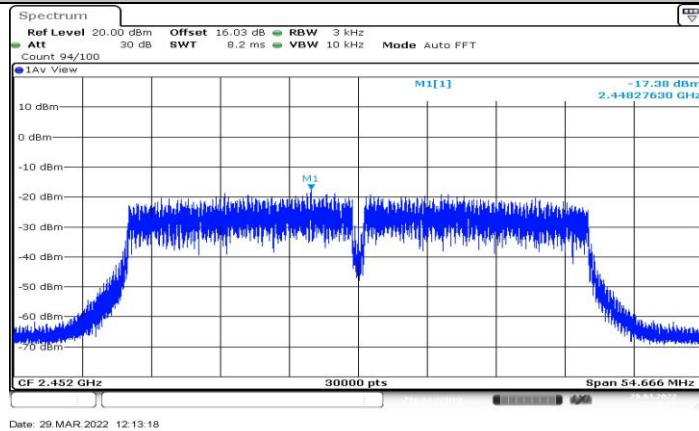
11N40MIMO_Ant2_2452

11.5. Appendix E: Band edge measurements
11.5.1. Test Result

Test Mode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	6.74	-36.57	≤-23.26	PASS
		High	2462	7.17	-45.28	≤-22.83	PASS
11G	Ant1	Low	2412	3.47	-36.37	≤-26.53	PASS
		High	2462	2.67	-45.35	≤-27.33	PASS
11N20MIMO	Ant1	Low	2412	3.14	-36.29	≤-26.86	PASS
	Ant2	Low	2412	2.19	-34.9	≤-27.81	PASS
	Ant1	High	2462	2.01	-44.29	≤-27.99	PASS
	Ant2	High	2462	2.36	-45.21	≤-27.64	PASS
11N40MIMO	Ant1	Low	2422	1.21	-37.39	≤-28.79	PASS
	Ant2	Low	2422	-0.38	-38.89	≤-30.38	PASS
	Ant1	High	2452	0.43	-41.99	≤-29.57	PASS
	Ant2	High	2452	0.52	-43.22	≤-29.48	PASS

11.5.2. Test Graphs

11B_Ant1_Low_2412

11B_Ant1_High_2462

11G_Ant1_Low_2412

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.46698 GHz	2.67 dBm		
M2		1	2.4835 GHz	-47.75 dBm		
M3		1	2.5 GHz	-48.02 dBm		
M4		1	2.510942 GHz	-45.35 dBm		

Date: 29.MAR.2022 11:00:25

11G_Ant1_High_2462

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.41448 GHz	3.14 dBm		
M2		1	2.4 GHz	-33.72 dBm		
M3		1	2.39 GHz	-46.69 dBm		
M4		1	2.399855 GHz	-36.29 dBm		

Date: 29.MAR.2022 11:26:00

11N20MIMO_Ant1_Low_2412

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.41692 GHz	2.19 dBm		
M2		1	2.4 GHz	-34.86 dBm		
M3		1	2.39 GHz	-46.47 dBm		
M4		1	2.399855 GHz	-34.90 dBm		

Date: 29.MAR.2022 11:28:07

11N20MIMO_Ant2_Low_2412
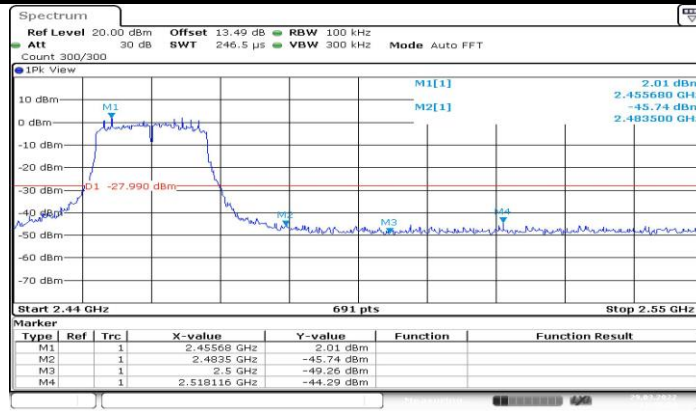
11N20MIMO_Ant1_High_2462
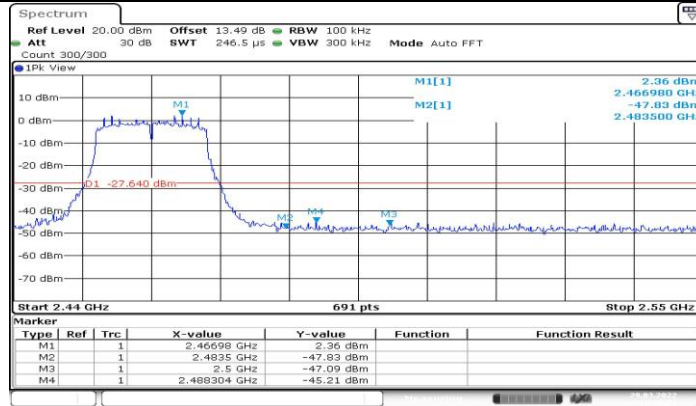
11N20MIMO_Ant2_High_2462

11N40MIMO_Ant1_Low_2422

Spectrum

Ref Level 20.00 dBm Offset 13.49 dB ● RBW 100 kHz
● Att 30 dB SWT 322.4 µs ● VBW 300 kHz Mode Auto FFT
Count 238/300

● 1Pk View

M1[1] -0.38 dBm 2.430840 GHz
M2[1] -38.70 dBm 2.400000 GHz

D1 -30.380 dBm

Start 2.3 GHz   691 pts   Stop 2.445 GHz

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.43084 GHz	-0.38 dBm		
M2		1	2.4 GHz	-38.70 dBm		
M3		1	2.39 GHz	-46.74 dBm		
M4		1	2.399609 GHz	-38.89 dBm		

Date: 29.MAR.2022 12:00:15

11N40MIMO_Ant2_Low_2422

Spectrum

Ref Level 20.00 dBm Offset 13.49 dB ● RBW 100 kHz
● Att 30 dB SWT 284.4 µs ● VBW 300 kHz Mode Auto FFT
Count 267/300

● 1Pk View

M1[1] 0.43 dBm 2.456930 GHz
M2[1] -47.16 dBm 2.483500 GHz

D1 -29.570 dBm

Start 2.425 GHz   691 pts   Stop 2.55 GHz

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.45693 GHz	0.43 dBm		
M2		1	2.4835 GHz	-47.16 dBm		
M3		1	2.5 GHz	-49.37 dBm		
M4		1	2.48442 GHz	-41.99 dBm		

Date: 29.MAR.2022 12:11:27

11N40MIMO_Ant1_High_2452

Spectrum

Ref Level 20.00 dBm Offset 13.49 dB ● RBW 100 kHz
● Att 30 dB SWT 284.4 µs ● VBW 300 kHz Mode Auto FFT
Count 269/300

● 1Pk View

M1[1] 0.52 dBm 2.449510 GHz
M2[1] -46.01 dBm 2.483500 GHz

D1 -29.480 dBm

Start 2.425 GHz   691 pts   Stop 2.55 GHz

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.44951 GHz	0.52 dBm		
M2		1	2.4835 GHz	-46.01 dBm		
M3		1	2.5 GHz	-48.69 dBm		
M4		1	2.485688 GHz	-43.22 dBm		

Date: 29.MAR.2022 12:13:33

11N40MIMO_Ant2_High_2452

11.6. Appendix F: Conducted Spurious Emission
11.6.1.　　　Test Result

Test Mode	Antenna	Channel	FreqRange [Mhz]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	7.59	---	PASS
			30~1000	-54.43	≤-22.41	PASS
			1000~26500	-49.29	≤-22.41	PASS
		2437	Reference	7.54	---	PASS
			30~1000	-54.41	≤-22.46	PASS
			1000~26500	-48.94	≤-22.46	PASS
		2462	Reference	7.29	---	PASS
			30~1000	-54.76	≤-22.71	PASS
			1000~26500	-48.83	≤-22.71	PASS
11G	Ant1	2412	Reference	0.80	---	PASS
			30~1000	-54.78	≤-29.2	PASS
			1000~26500	-49.32	≤-29.2	PASS
		2437	Reference	3.38	---	PASS
			30~1000	-54.58	≤-26.62	PASS
			1000~26500	-49.15	≤-26.62	PASS
		2462	Reference	3.55	---	PASS
			30~1000	-53.61	≤-26.45	PASS
			1000~26500	-49.08	≤-26.45	PASS
11N20MIMO	Ant1	2412	Reference	1.95	---	PASS
			30~1000	-54.72	≤-28.05	PASS
			1000~26500	-49.48	≤-28.05	PASS
	Ant2	2412	Reference	2.80	---	PASS
			30~1000	-53.95	≤-27.2	PASS
			1000~26500	-48.76	≤-27.2	PASS
	Ant1	2437	Reference	2.86	---	PASS
			30~1000	-53.7	≤-27.14	PASS
			1000~26500	-49.68	≤-27.14	PASS
	Ant2	2437	Reference	2.63	---	PASS
			30~1000	-54.39	≤-27.37	PASS
			1000~26500	-48.98	≤-27.37	PASS
	Ant1	2462	Reference	3.15	---	PASS
			30~1000	-54.41	≤-26.85	PASS
			1000~26500	-49.77	≤-26.85	PASS
	Ant2	2462	Reference	2.24	---	PASS
			30~1000	-54.27	≤-27.76	PASS
			1000~26500	-49.66	≤-27.76	PASS
11N40MIMO	Ant1	2422	Reference	0.99	---	PASS
			30~1000	-54.24	≤-29.01	PASS
			1000~26500	-49.2	≤-29.01	PASS
	Ant2	2422	Reference	0.24	---	PASS
			30~1000	-54.78	≤-29.76	PASS
			1000~26500	-49.25	≤-29.76	PASS
	Ant1	2437	Reference	0.62	---	PASS
			30~1000	-54.84	≤-29.38	PASS
			1000~26500	-49.68	≤-29.38	PASS
	Ant2	2437	Reference	0.43	---	PASS
			30~1000	-53.44	≤-29.57	PASS
			1000~26500	-49.04	≤-29.57	PASS
	Ant1	2452	Reference	0.44	---	PASS
			30~1000	-54.38	≤-29.56	PASS
			1000~26500	-49.41	≤-29.56	PASS
	Ant2	2452	Reference	0.10	---	PASS
			30~1000	-54.77	≤-29.9	PASS
			1000~26500	-49.76	≤-29.9	PASS

11.6.2. Test Graphs

11B_Ant1_2412_0~Reference

11B_Ant1_2412_30~1000

11B_Ant1_2412_1000~26500
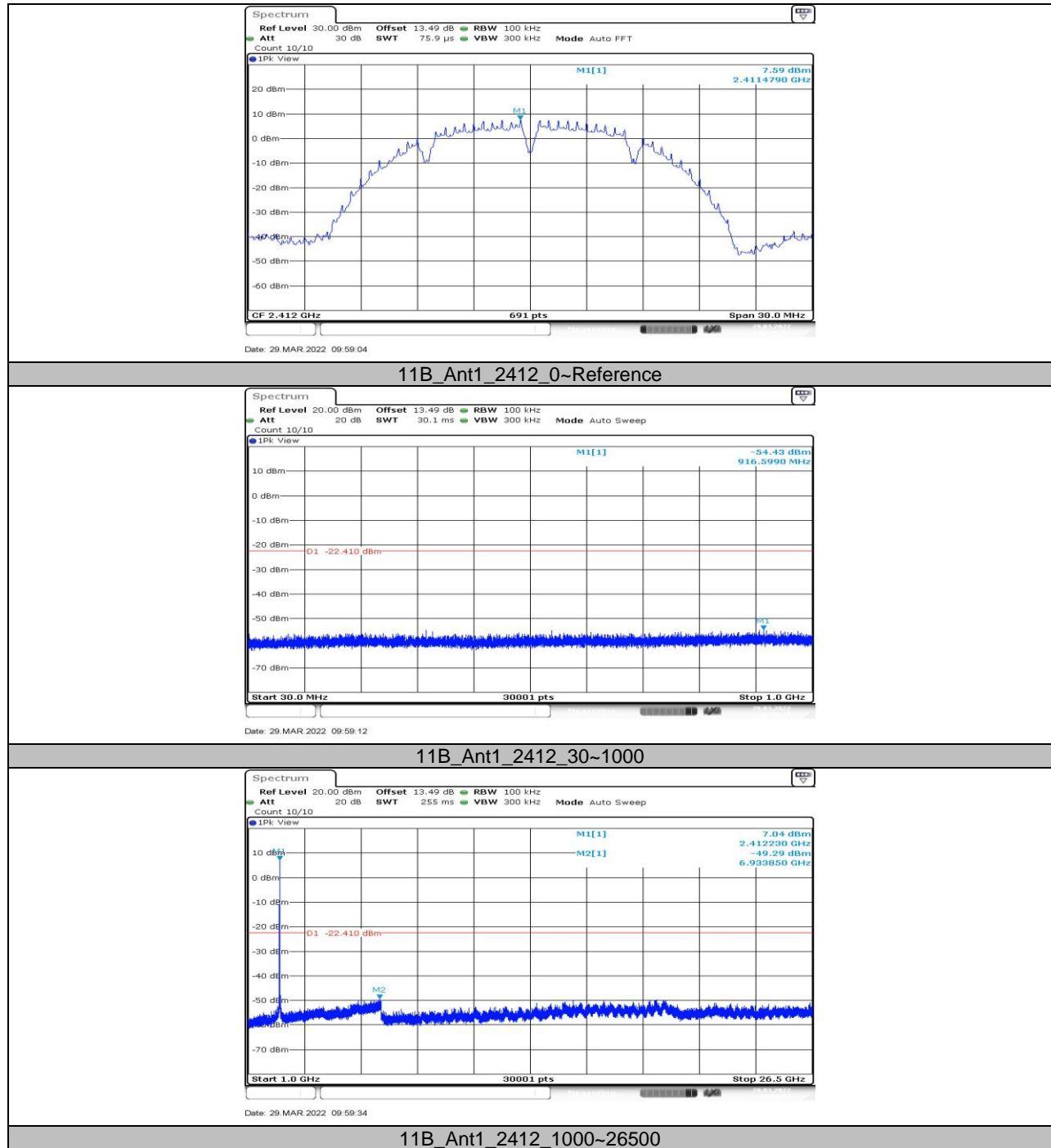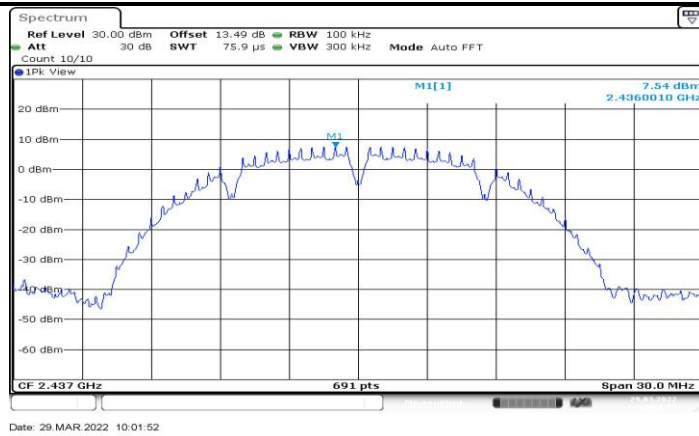
11B_Ant1_2437_0~Reference
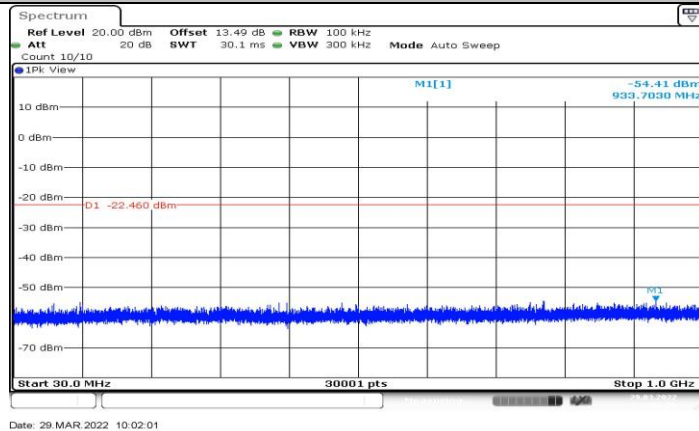
11B_Ant1_2437_30~1000
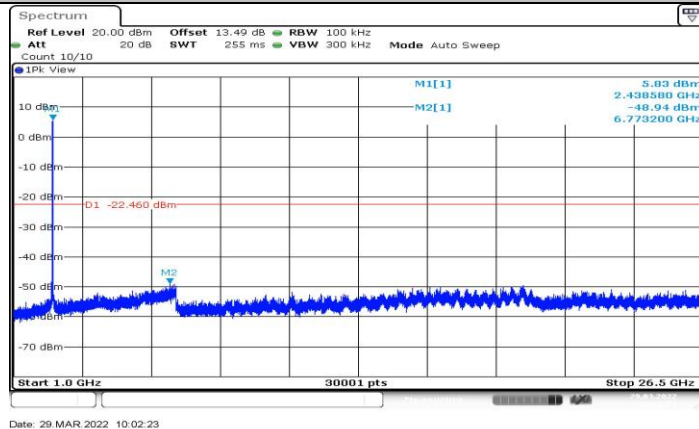
11B_Ant1_2437_1000~26500
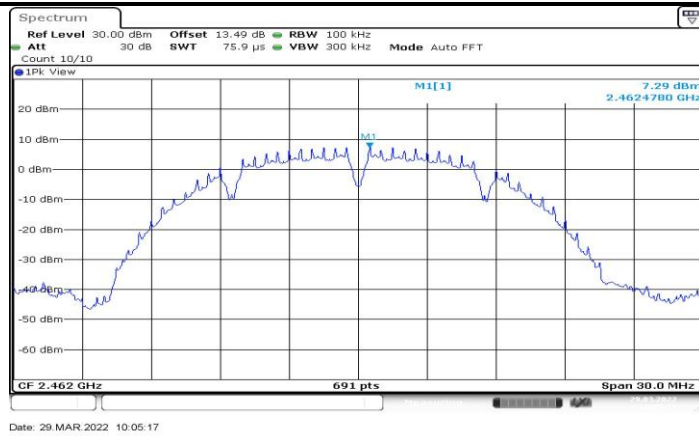
11B_Ant1_2462_0~Reference
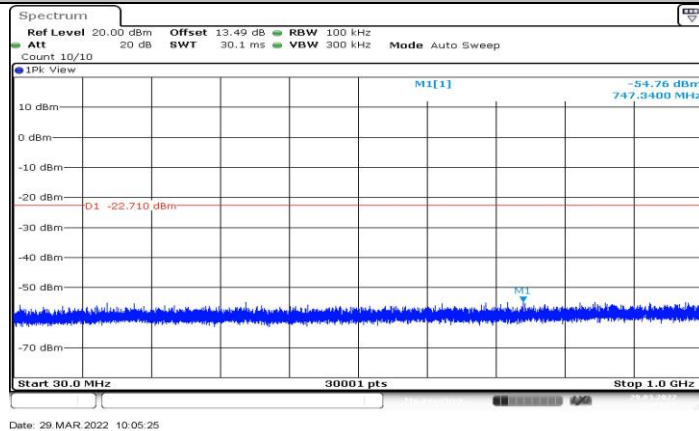
11B_Ant1_2462_30~1000
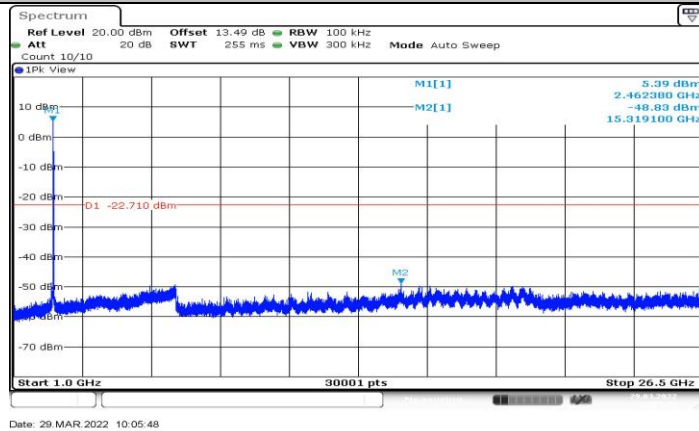
11B_Ant1_2462_1000~26500

11G_Ant1_2412_0~Reference
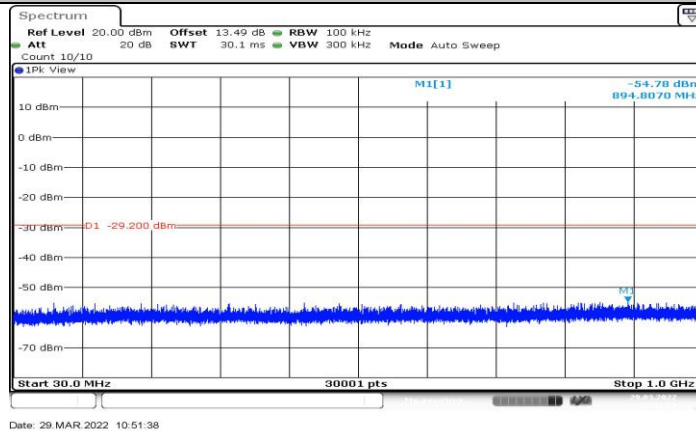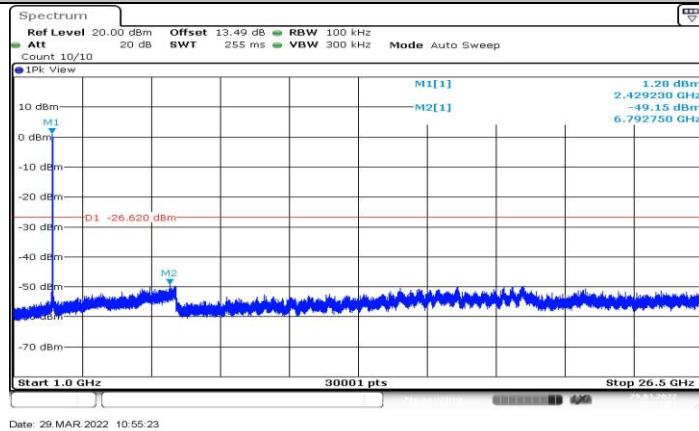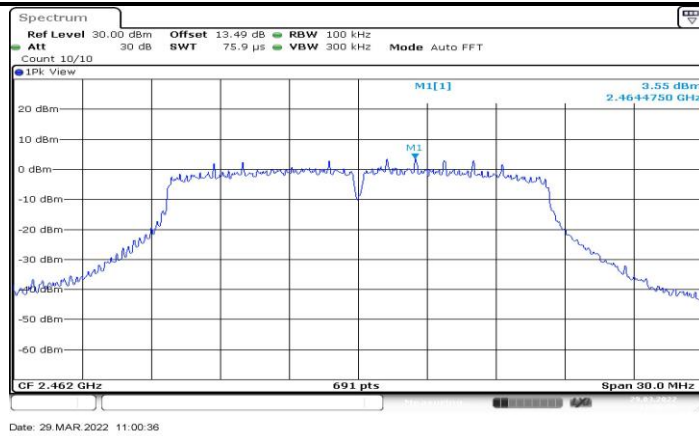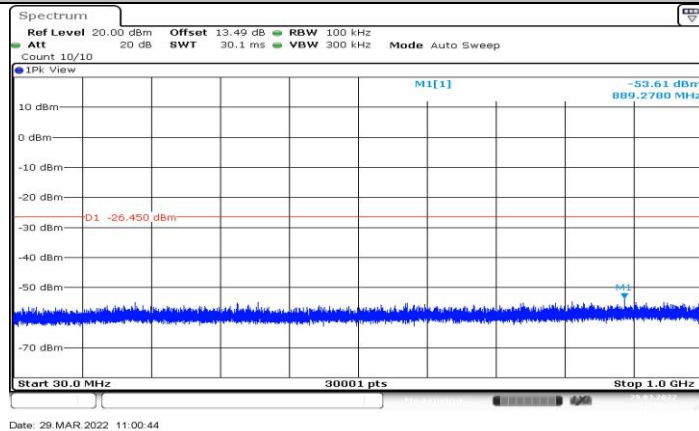

11G_Ant1_2412_30~1000
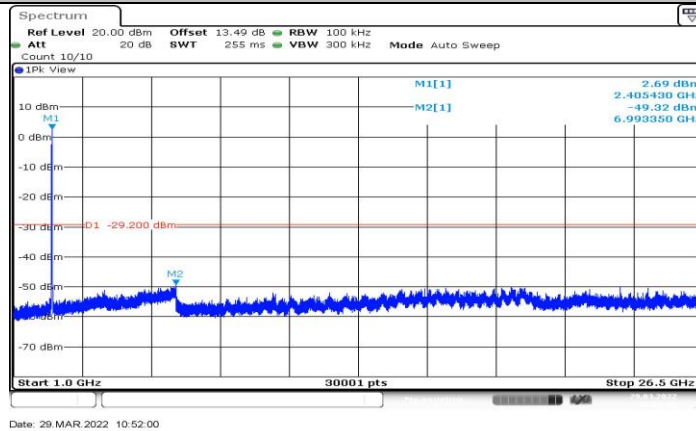
11G_Ant1_2412_1000~26500
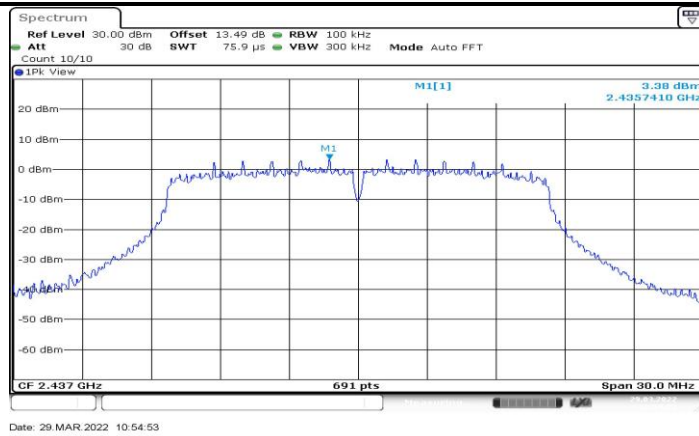
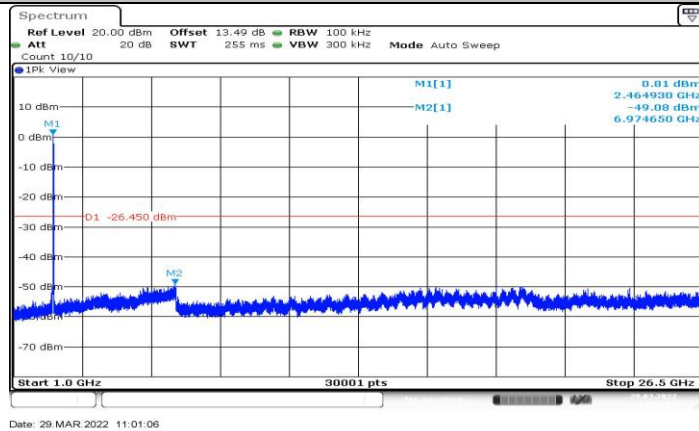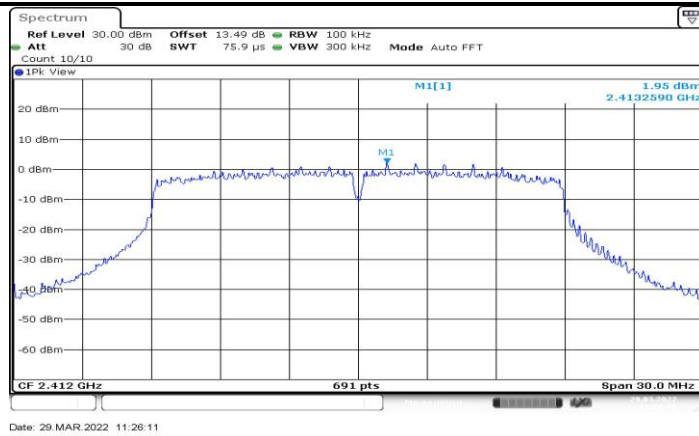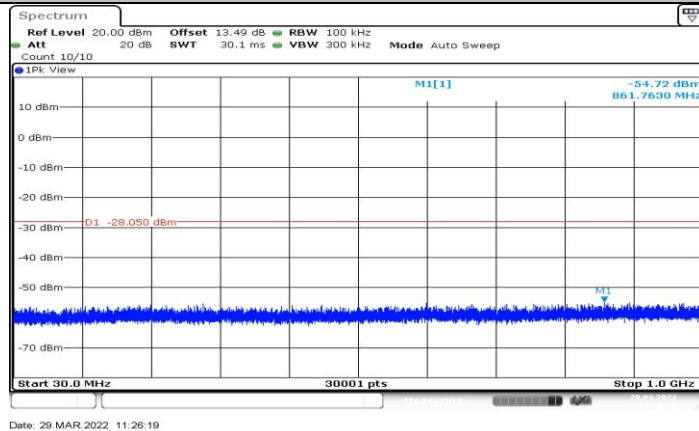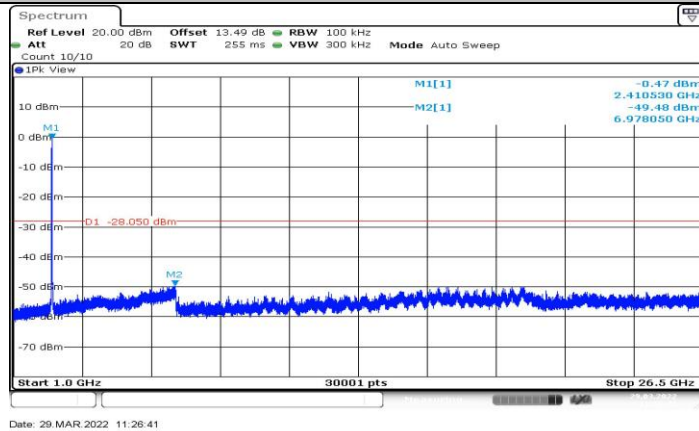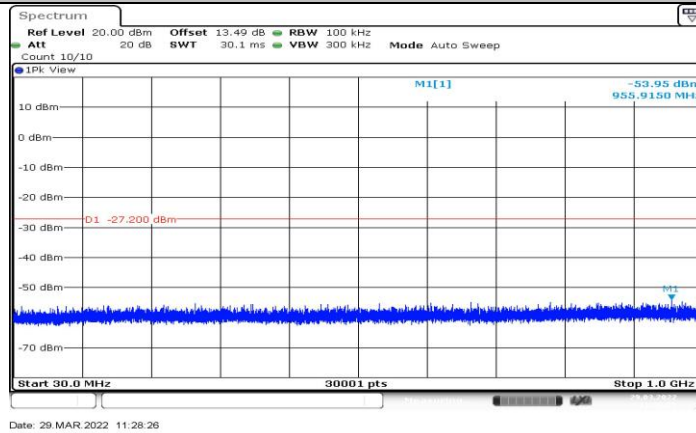11G_Ant1_2437_0~Reference
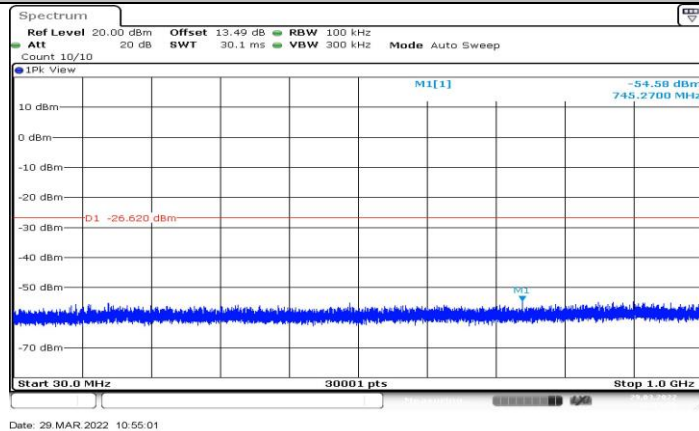
11G_Ant1_2437_30~1000

11G_Ant1_2437_1000~26500

11G_Ant1_2462_0~Reference

11G_Ant1_2462_30~1000

11G_Ant1_2462_1000~26500

Spectrum
Ref Level 30.00 dBm   Offset 13.49 dB   RBW 100 kHz
Att   30 dB   SWT   75.9 µs   VBW 300 kHz   Mode Auto FFT
Count 10/10
1Pk View

M1[1]   1.95 dBm
                     2.4132590 GHz

20 dBm
10 dBm
M1
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm

CF 2.412 GHz   691 pts   Span 30.0 MHz

Date: 29.MAR.2022 11:26:11

11N20MIMO_Ant1_2412_0~Reference

Spectrum
Ref Level 20.00 dBm   Offset 13.49 dB   RBW 100 kHz
Att   20 dB   SWT   30.1 ms   VBW 300 kHz   Mode Auto Sweep
Count 10/10
1Pk View

M1[1]   -54.72 dBm
                     861.7630 MHz

10 dBm
0 dBm
-10 dBm
-20 dBm
D1 -28.050 dBm
-30 dBm
-40 dBm
-50 dBm   M1
-70 dBm

Start 30.0 MHz   30001 pts   Stop 1.0 GHz

Date: 29.MAR.2022 11:26:19

11N20MIMO_Ant1_2412_30~1000

Spectrum
Ref Level 20.00 dBm   Offset 13.49 dB   RBW 100 kHz
Att   20 dB   SWT   255 ms   VBW 300 kHz   Mode Auto Sweep
Count 10/10
1Pk View

M1[1]   -0.47 dBm
                     2.410530 GHz
M2[1]   -49.48 dBm
                     6.978050 GHz

10 dBm
M1
0 dBm
-10 dBm
-20 dBm
D1 -28.050 dBm
-30 dBm
-40 dBm
-50 dBm   M2
-70 dBm

Start 1.0 GHz   30001 pts   Stop 26.5 GHz

Date: 29.MAR.2022 11:26:41
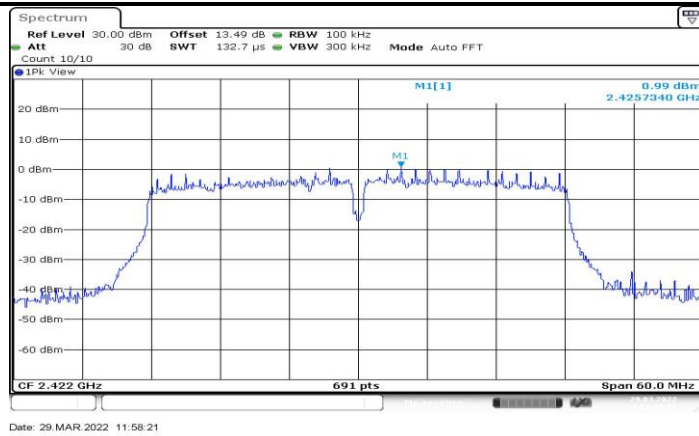
11N20MIMO_Ant1_2412_1000~26500

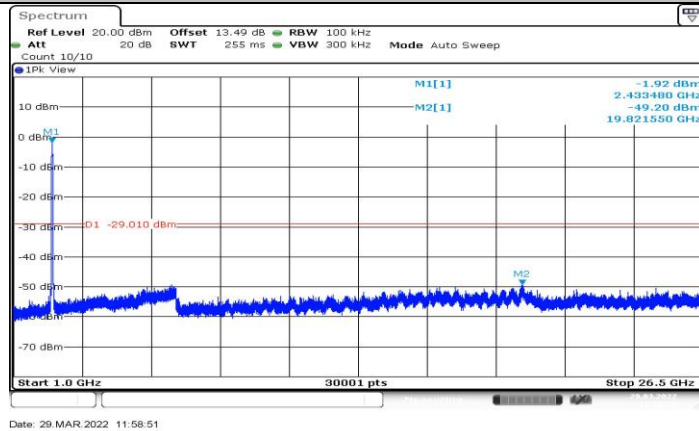11N20MIMO_Ant2_2412_0~Reference

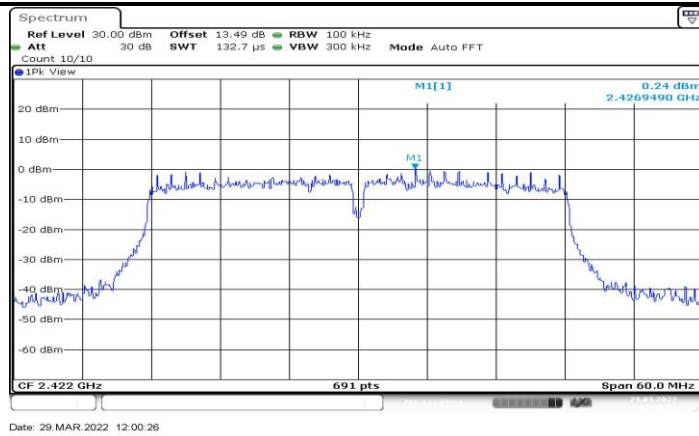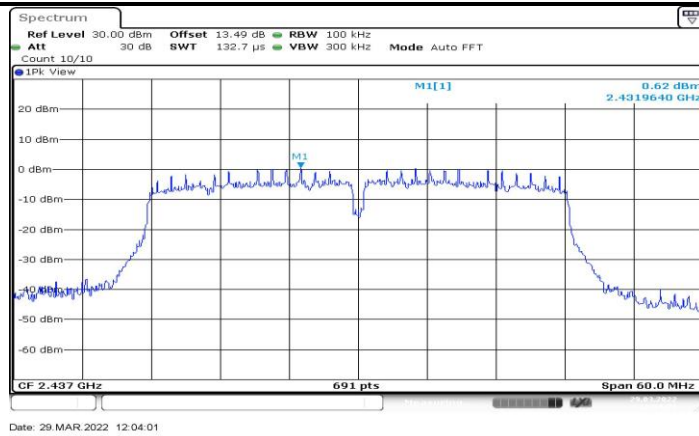11N20MIMO_Ant2_2412_30~1000
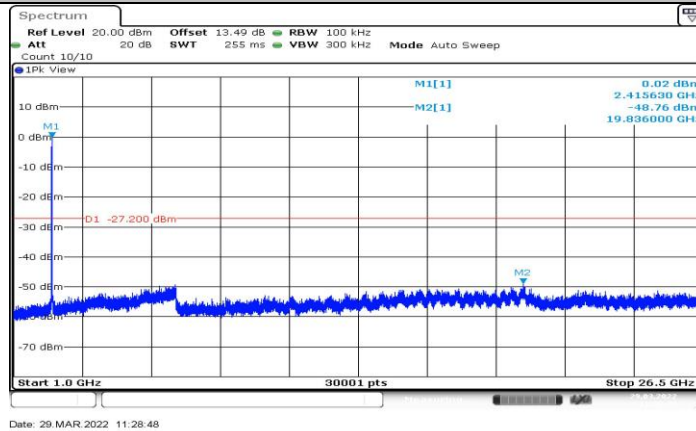
11N20MIMO_Ant2_2412_1000~26500

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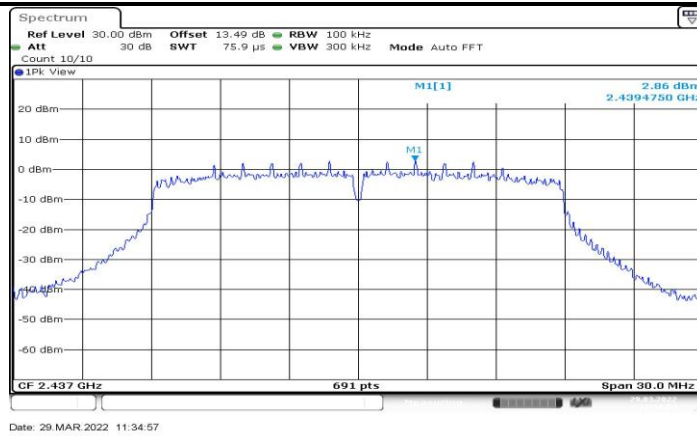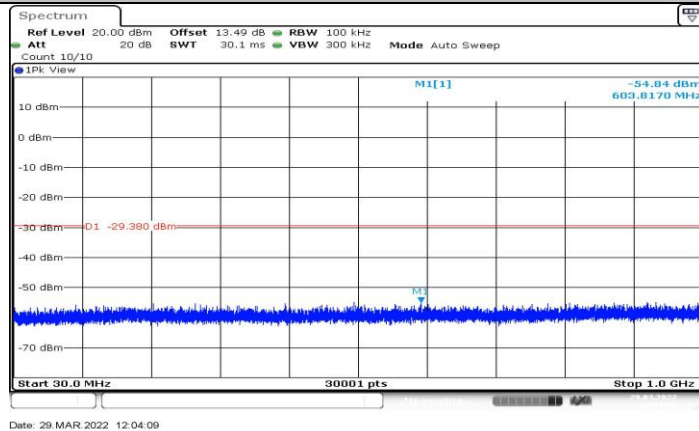
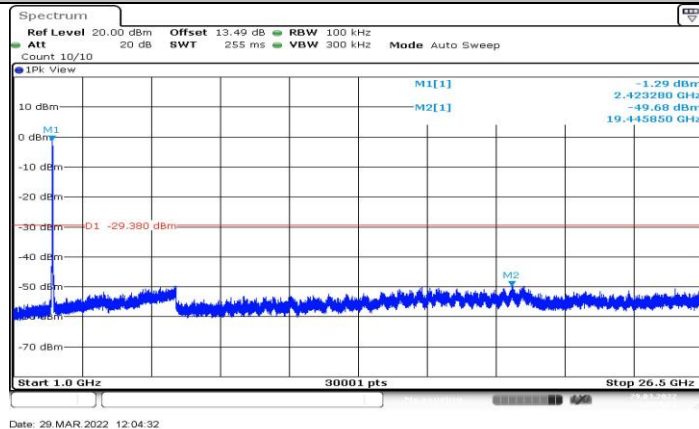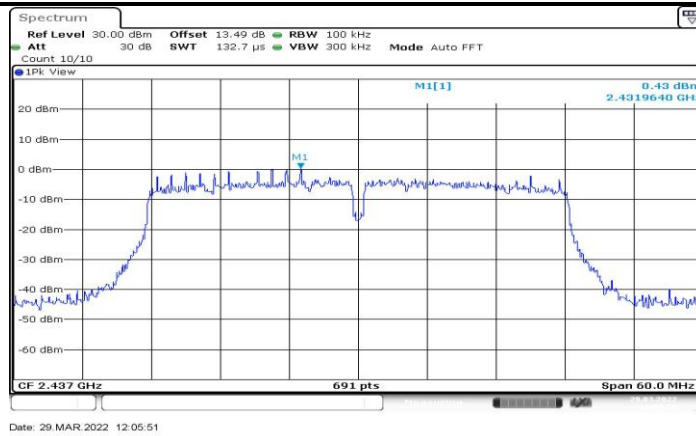11N20MIMO_Ant1_2437_0~Reference
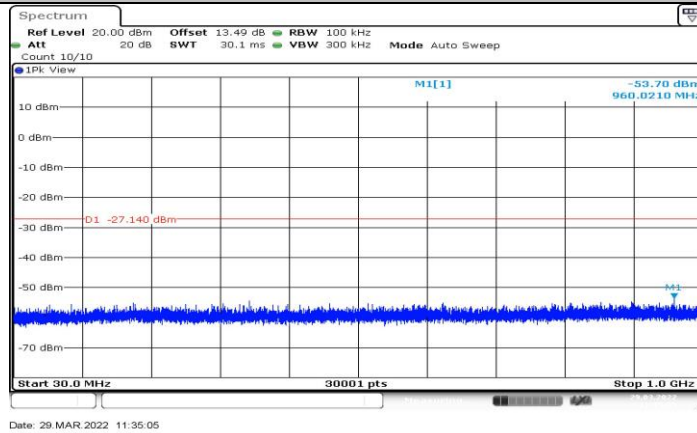
11N20MIMO_Ant1_2437_30~1000
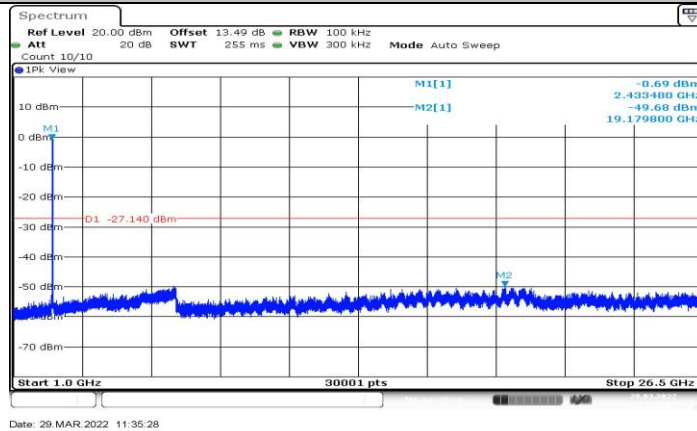
11N20MIMO_Ant1_2437_1000~26500

11N20MIMO_Ant2_2437_0~Reference

11N20MIMO_Ant2_2437_30~1000

11N20MIMO_Ant2_2437_1000~26500

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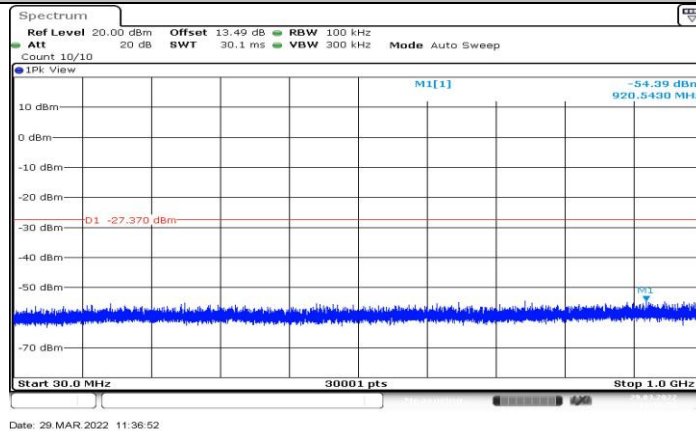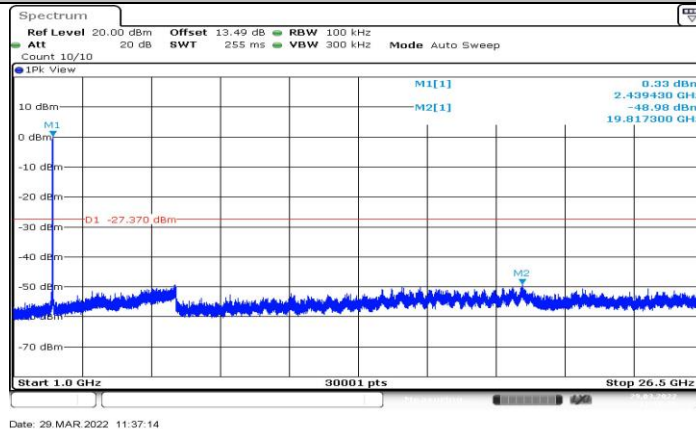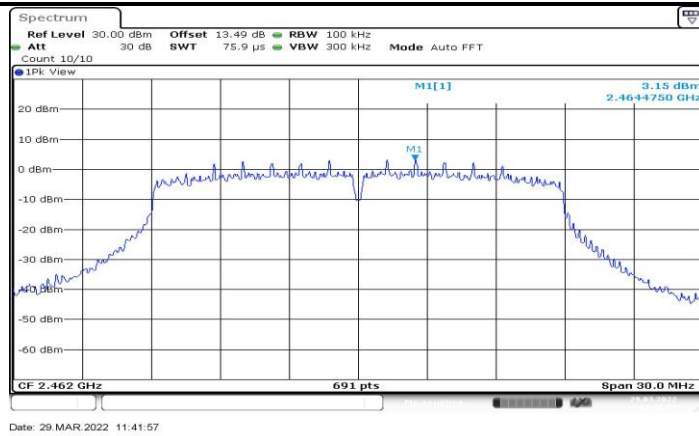
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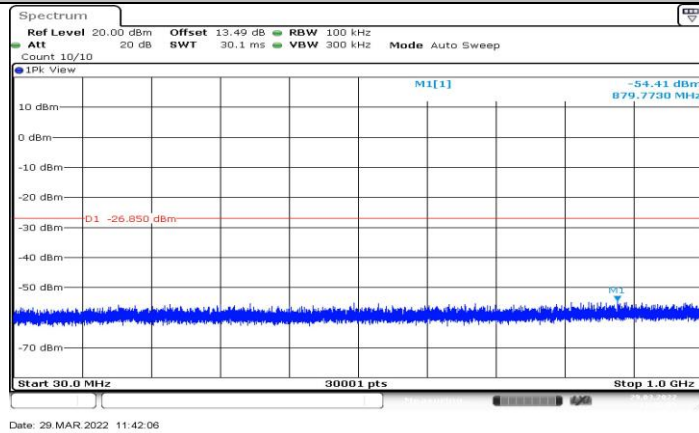
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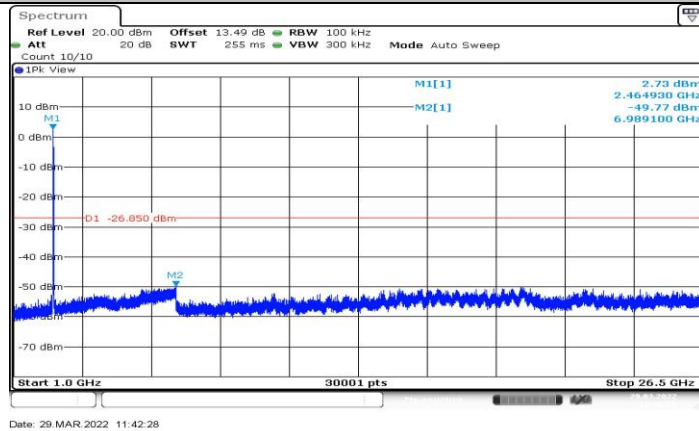
11N20MIMO_Ant1_2462_1000~26500
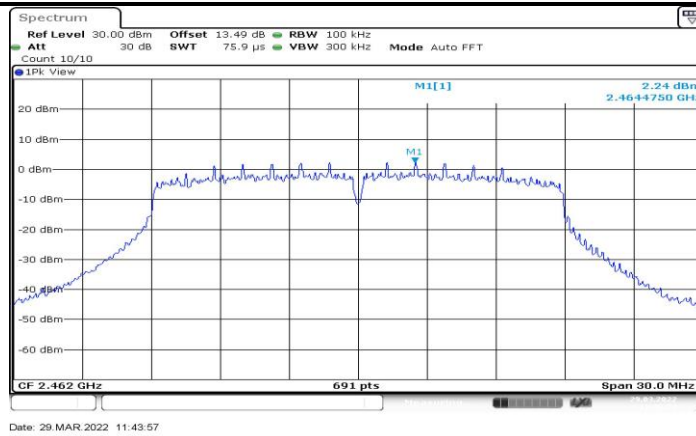
11N20MIMO_Ant2_2462_0~Reference
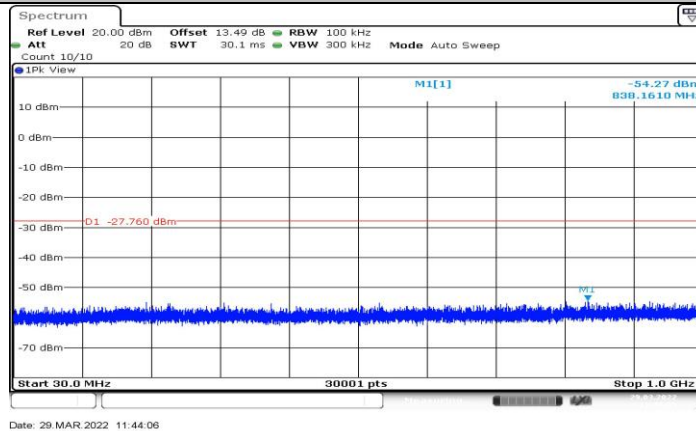
11N20MIMO_Ant2_2462_30~1000
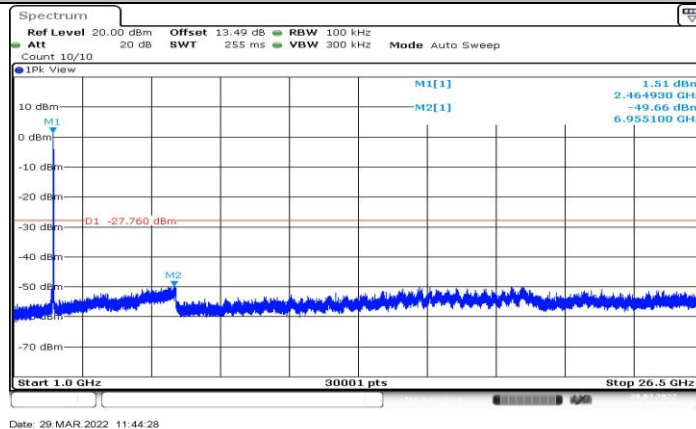
11N20MIMO_Ant2_2462_1000~26500

11N40MIMO_Ant1_2422_0~Reference
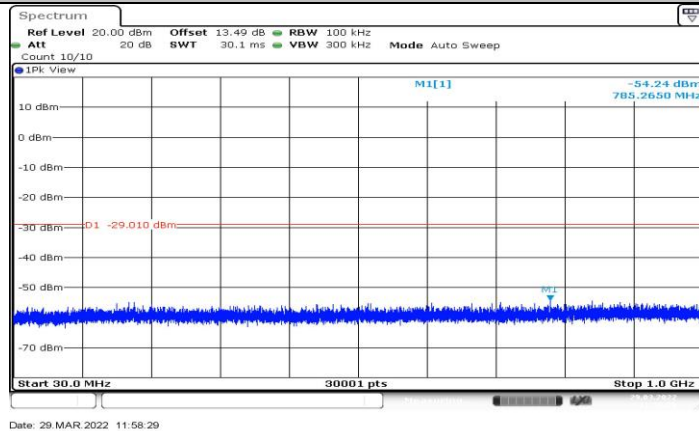
11N40MIMO_Ant1_2422_30~1000

11N40MIMO_Ant1_2422_1000~26500

11N40MIMO_Ant2_2422_0~Reference
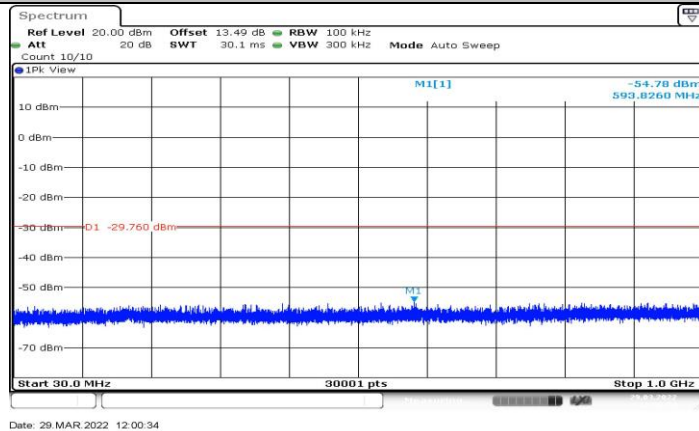
11N40MIMO_Ant2_2422_30~1000
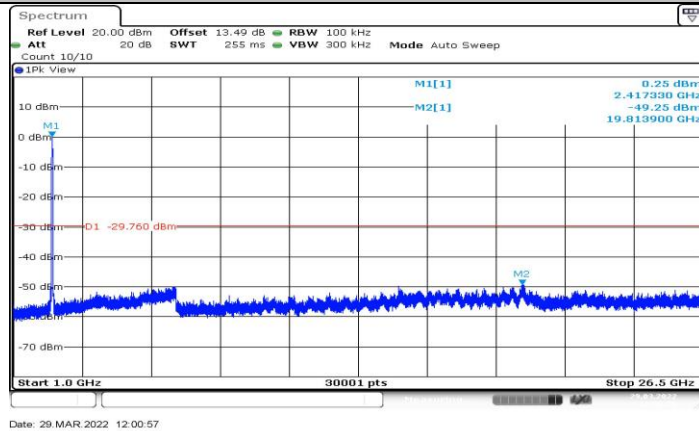
11N40MIMO_Ant2_2422_1000~26500

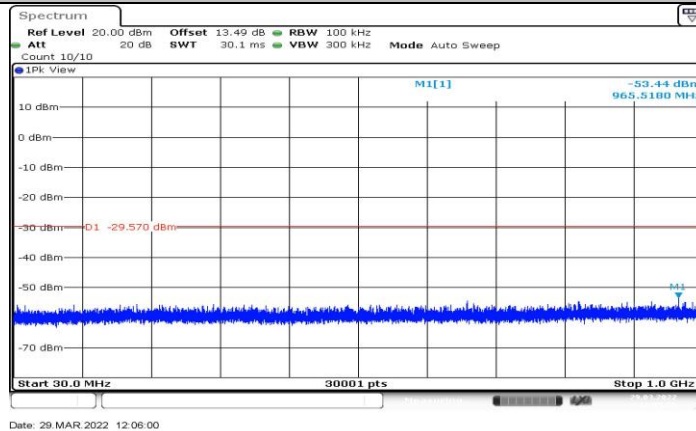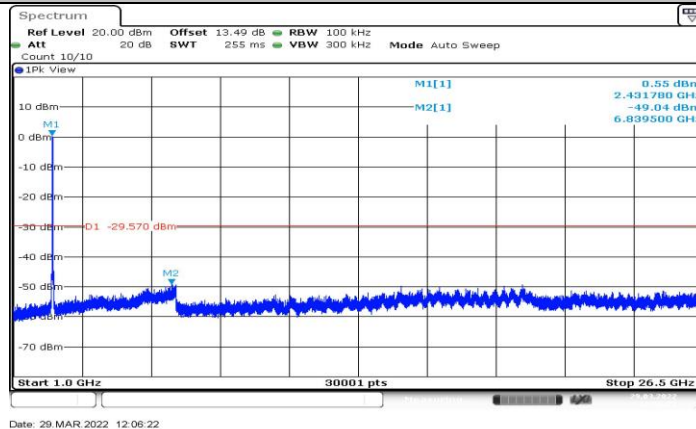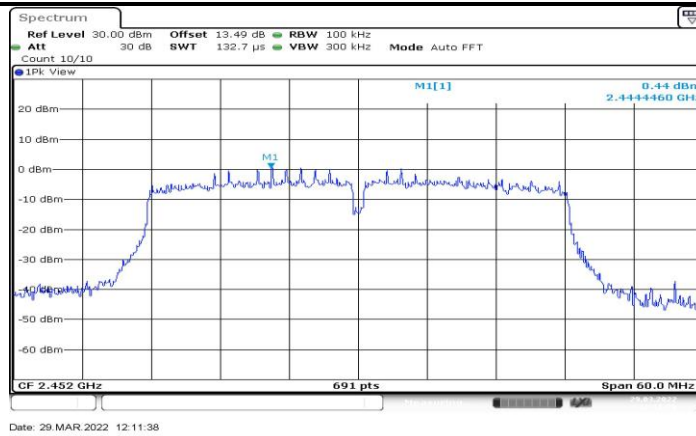11N40MIMO_Ant1_2437_0~Reference

11N40MIMO_Ant1_2437_30~1000

11N40MIMO_Ant1_2437_1000~26500
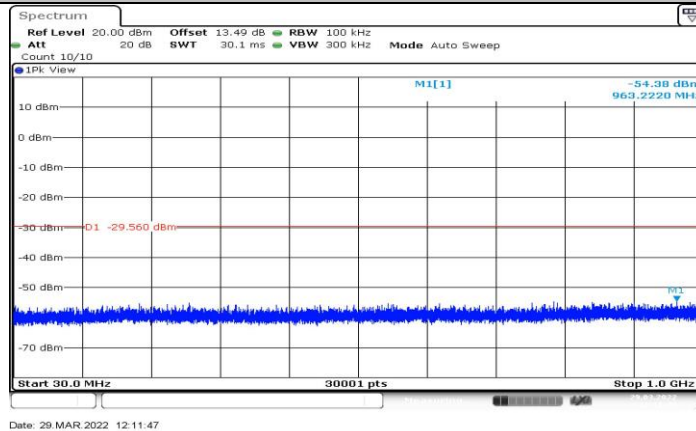
11N40MIMO_Ant2_2437_0~Reference

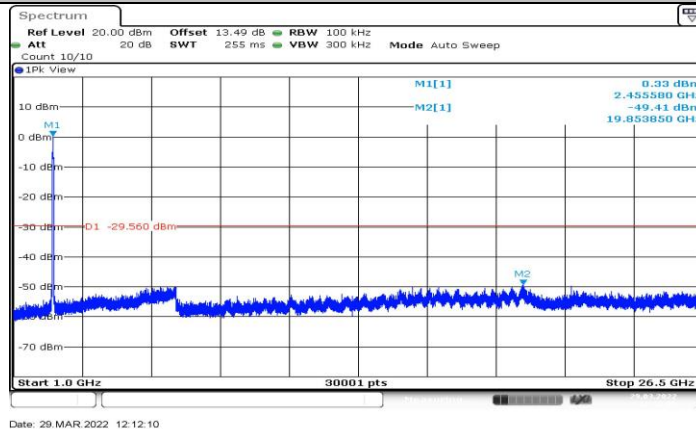11N40MIMO_Ant2_2437_30~1000

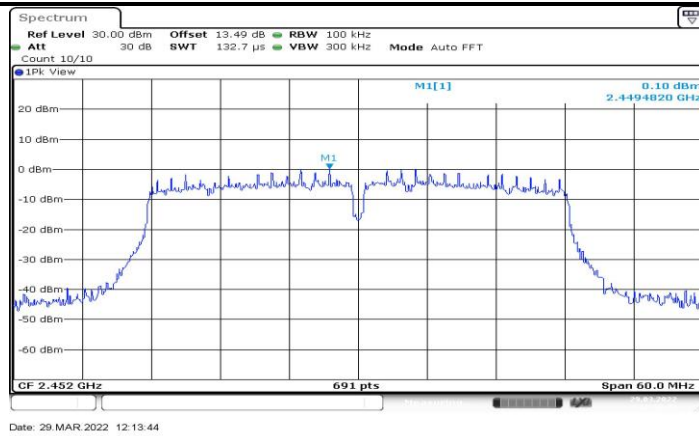11N40MIMO_Ant2_2437_1000~26500
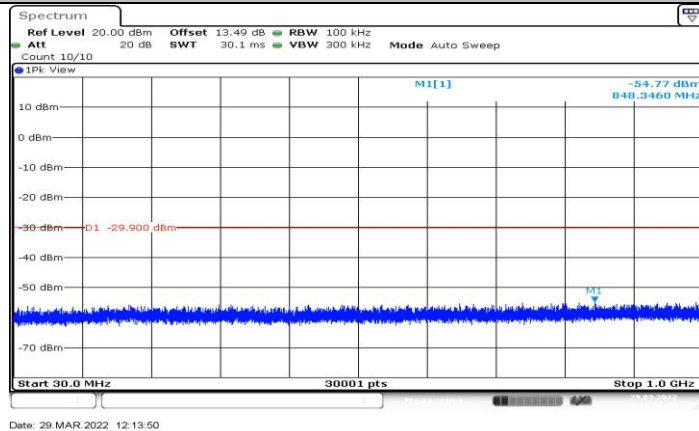
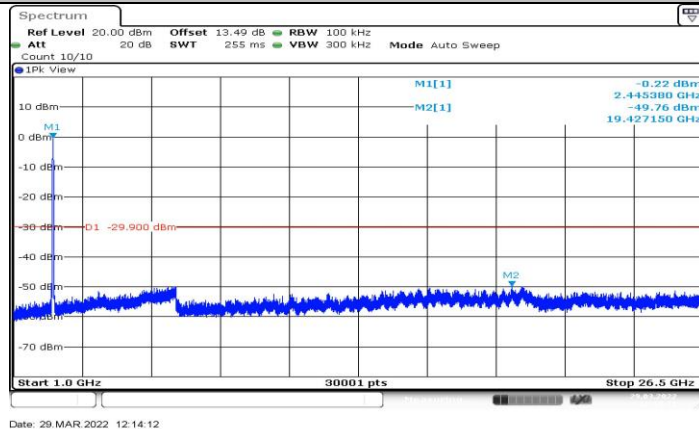11N40MIMO_Ant1_2452_0~Reference

11N40MIMO_Ant1_2452_30~1000

11N40MIMO_Ant1_2452_1000~26500

11N40MIMO_Ant2_2452_0~Reference

11N40MIMO_Ant2_2452_30~1000

11N40MIMO_Ant2_2452_1000~26500

11.7. Appendix G: Duty Cycle
11.7.1. Test Result

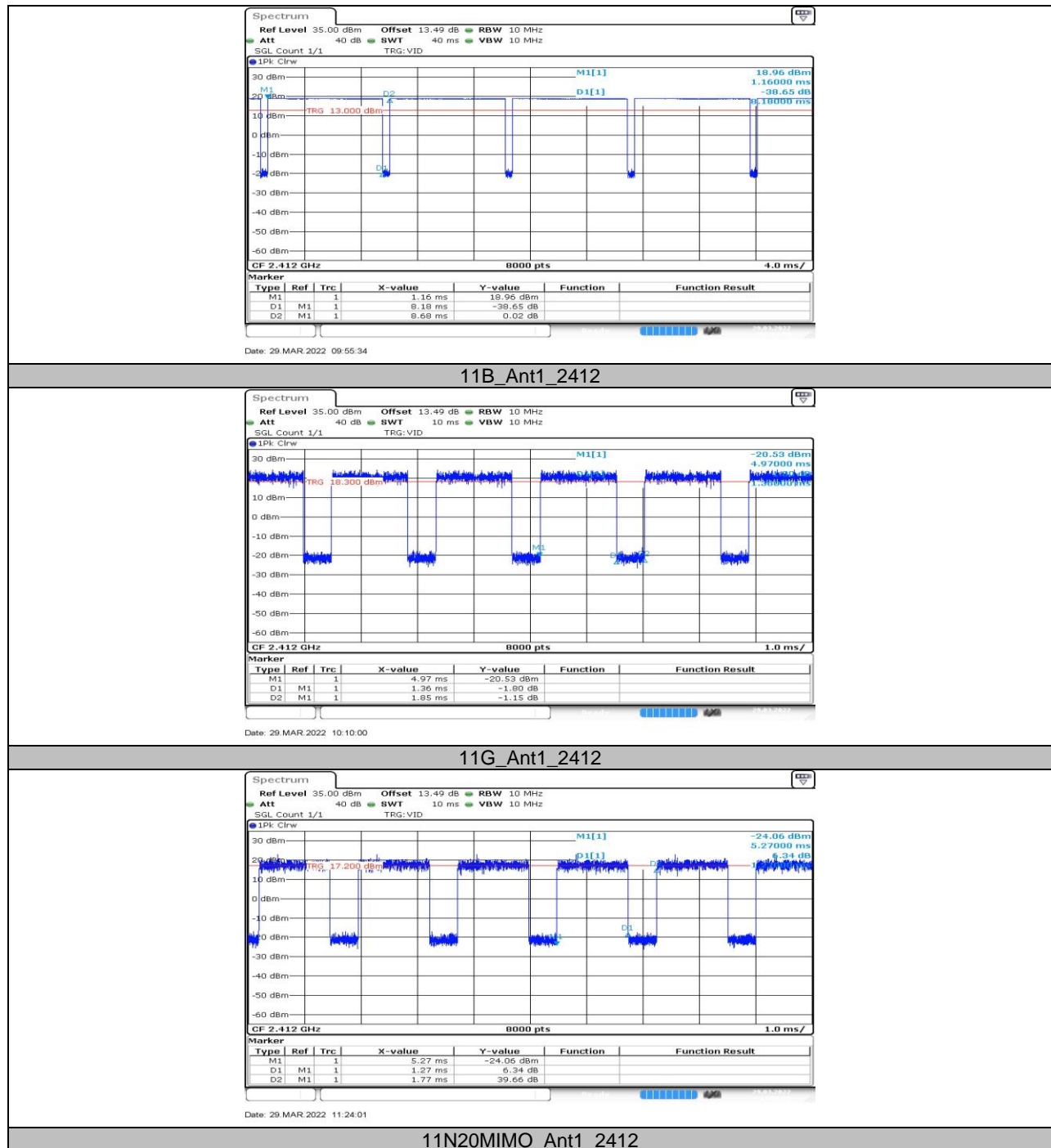| Test Mode	On Time (msec)	Period (msec)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (kHz)	Final setting For VBW (kHz)
11B	8.18	8.68	0.9424	94.24	0.26	0.12	0.5
11G	1.36	1.85	0.7351	73.51	1.34	0.74	1
11N20MIMO	1.27	1.77	0.7175	71.75	1.44	0.79	1
11N40MIMO	0.63	1.12	0.5625	56.25	2.50	1.59	2

Note:
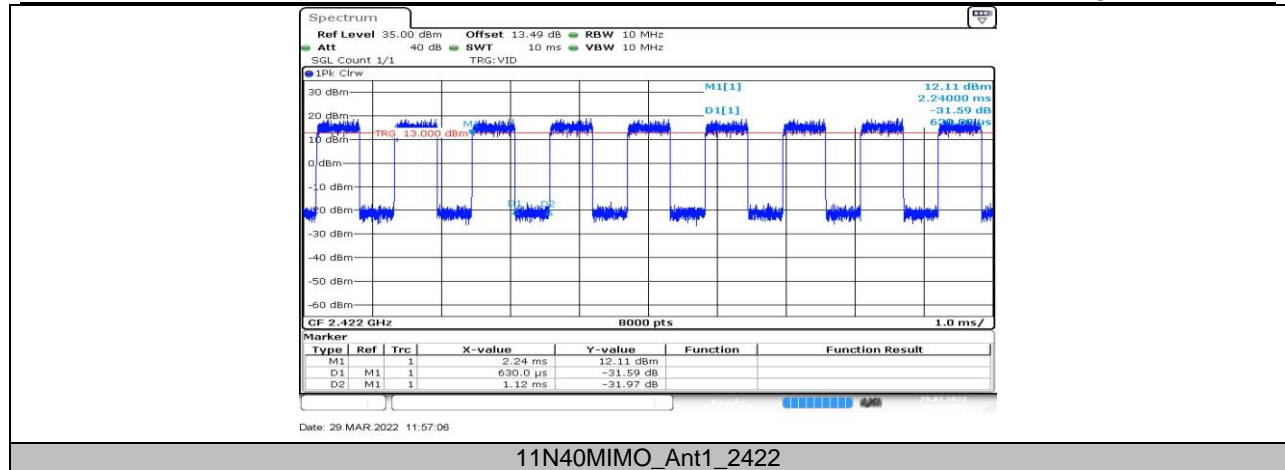Duty Cycle Correction Factor=10log (1/x).
Where: x is Duty Cycle (Linear)
Where: T is On Time
If that calculated VBW is not available on the analyzer then the next higher value should be used.

11.7.2. Test Graphs

11B_Ant1_2412

11G_Ant1_2412

11N20MIMO_Ant1_2412

11N40MIMO_Ant1_2422

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