11A-CDD_Ant4_5180

11A-CDD_Ant1_5200

11A-CDD_Ant2_5200

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11A-CDD_Ant3_5200

11A-CDD_Ant4_5200

11A-CDD_Ant1_5240

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11A-CDD_Ant2_5240

11A-CDD_Ant3_5240

11A-CDD_Ant4_5240

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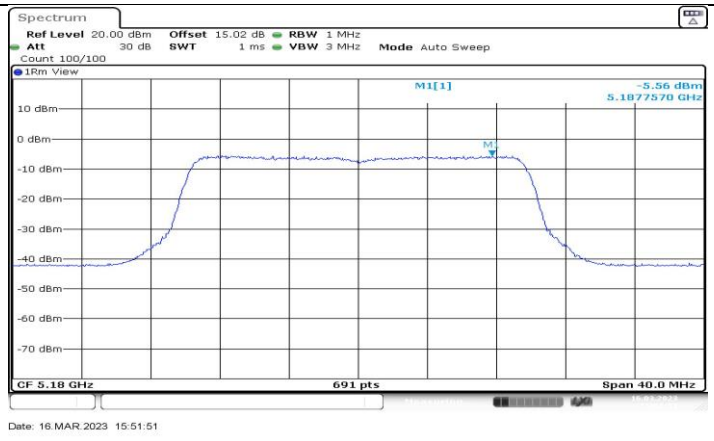
11AX20MIMO_Ant1_5180

11AX20MIMO_Ant2_5180

11AX20MIMO_Ant3_5180

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



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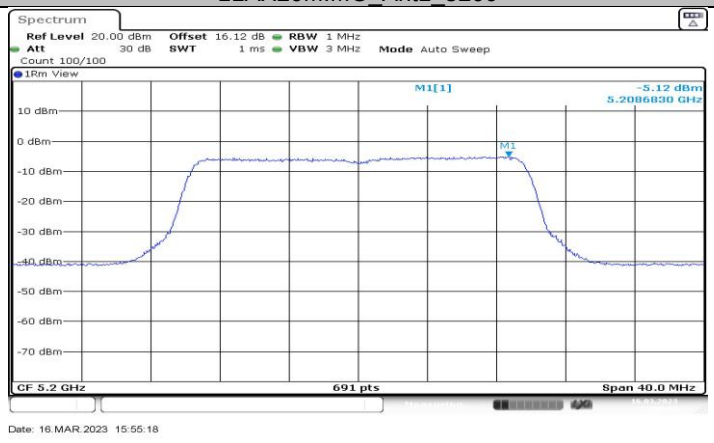
11AX20MIMO_Ant1_5200



11AX20MIMO_Ant2_5200

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11AX20MIMO_Ant3_5200

11AX20MIMO_Ant4_5200

11AX20MIMO_Ant1_5240

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11AX20MIMO_Ant2_5240

11AX20MIMO_Ant3_5240

11AX20MIMO_Ant4_5240

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11AX40MIMO_Ant1_5190

11AX40MIMO_Ant2_5190

11AX40MIMO_Ant3_5190

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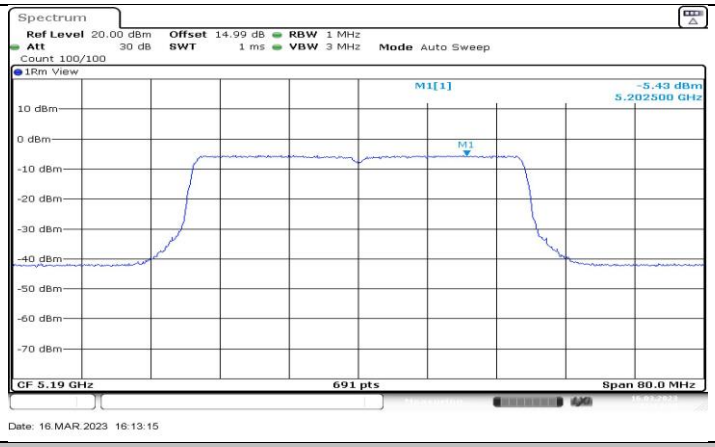

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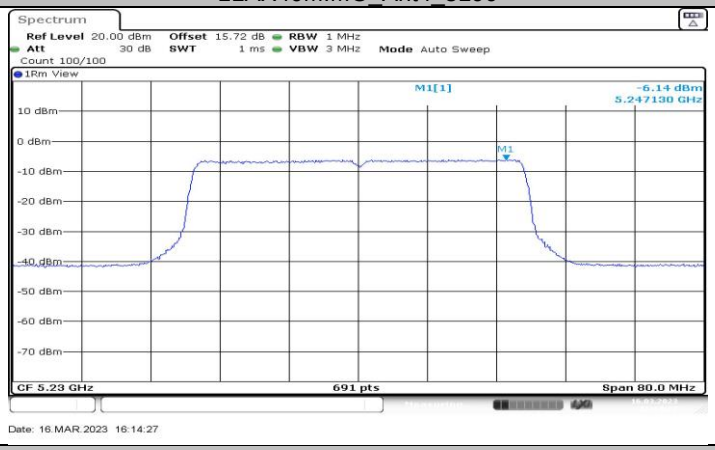
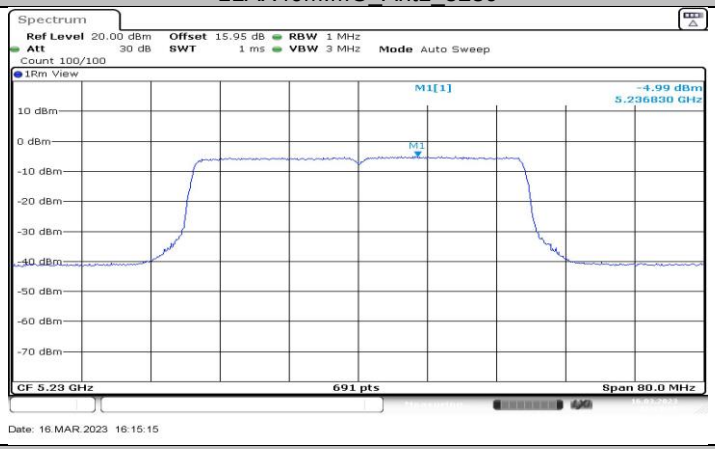


11AX40MIMO_Ant1_5230



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11AX40MIMO_Ant3_5230

11AX40MIMO_Ant4_5230

11AX80MIMO_Ant1_5210

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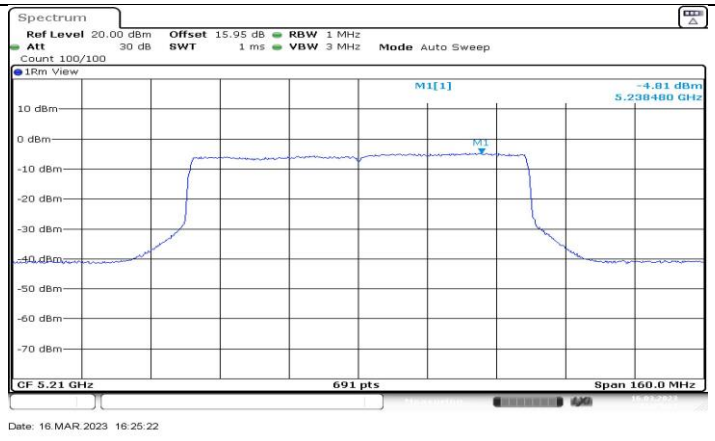

11AX80MIMO_Ant2_5210

11AX80MIMO_Ant3_5210

11AX80MIMO_Ant4_5210

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11AX160MIMO_Ant1_5250_UNII-1

11AX160MIMO_Ant2_5250_UNII-1

11AX160MIMO_Ant3_5250_UNII-1

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11AX160MIMO_Ant4_5250_UNII-1

11BE20MIMO_Ant1_5180

11BE20MIMO_Ant2_5180

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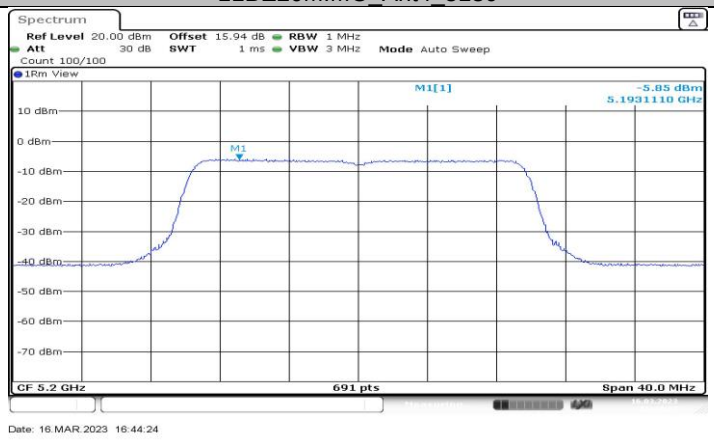
11BE20MIMO_Ant4_5180



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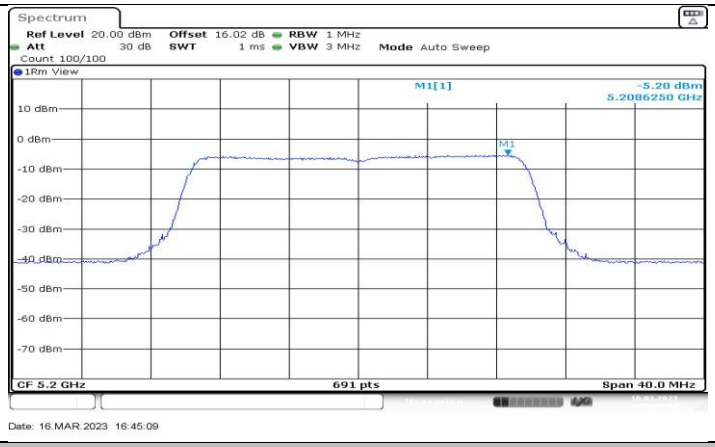

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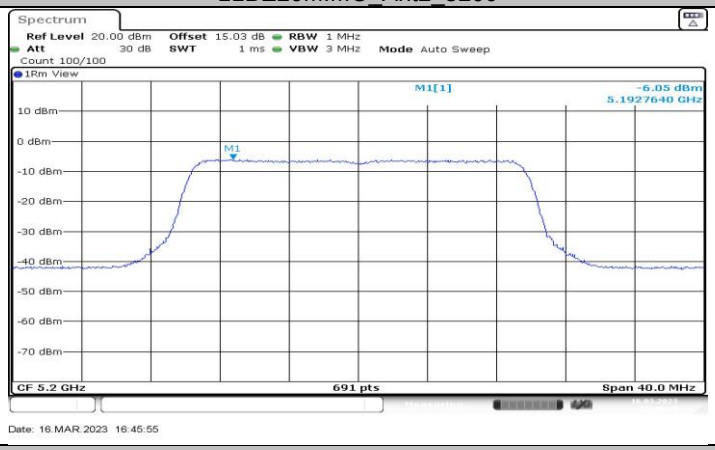

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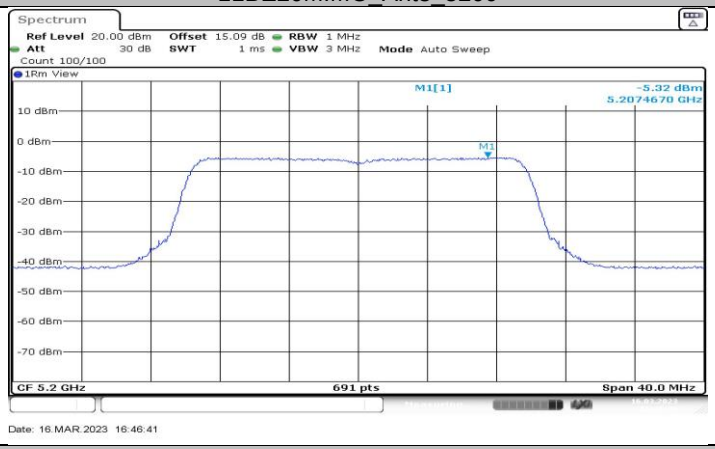

11BE20MIMO_Ant4_5200

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11BE20MIMO_Ant1_5240

11BE20MIMO_Ant2_5240

11BE20MIMO_Ant3_5240

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11BE20MIMO_Ant4_5240

11BE40MIMO_Ant1_5190

11BE40MIMO_Ant2_5190

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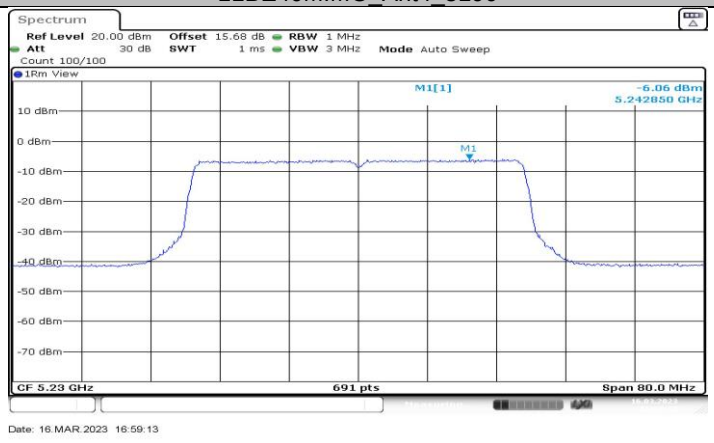
11BE40MIMO_Ant3_5190

11BE40MIMO_Ant4_5190



11BE40MIMO_Ant1_5230

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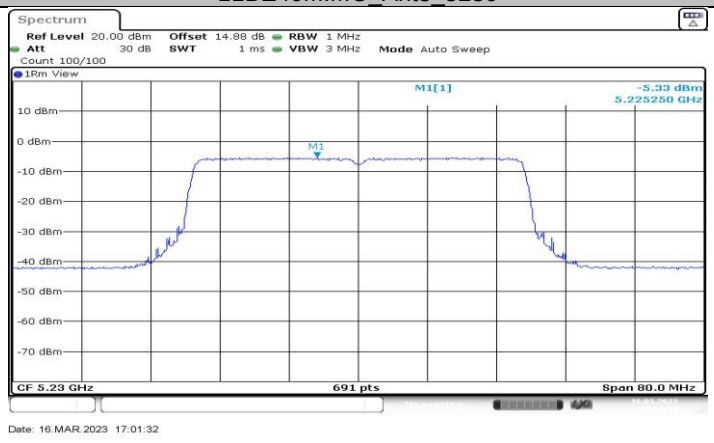
11BE40MIMO_Ant2_5230

11BE40MIMO_Ant3_5230



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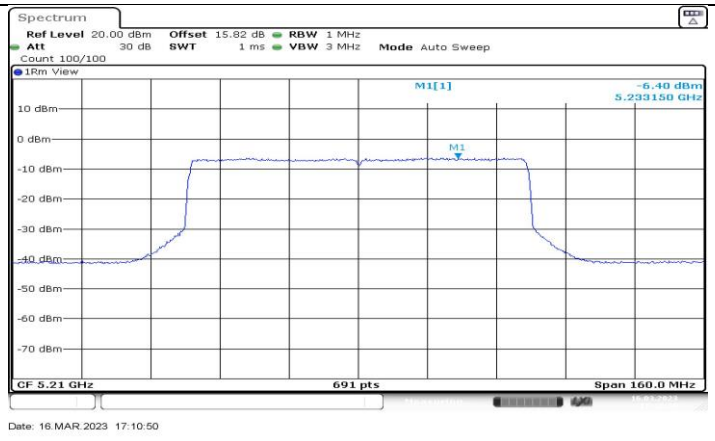
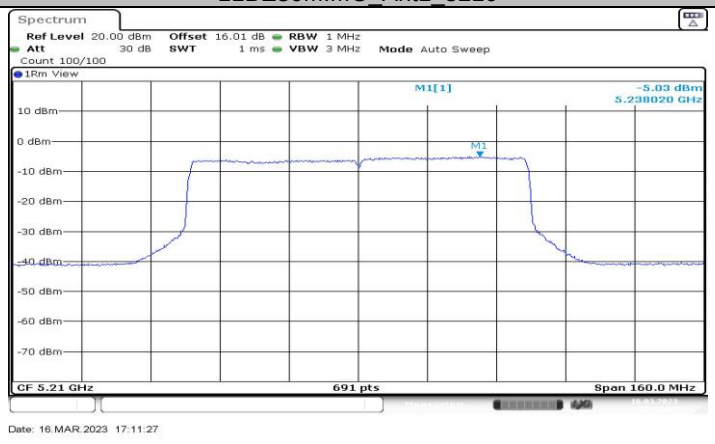
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



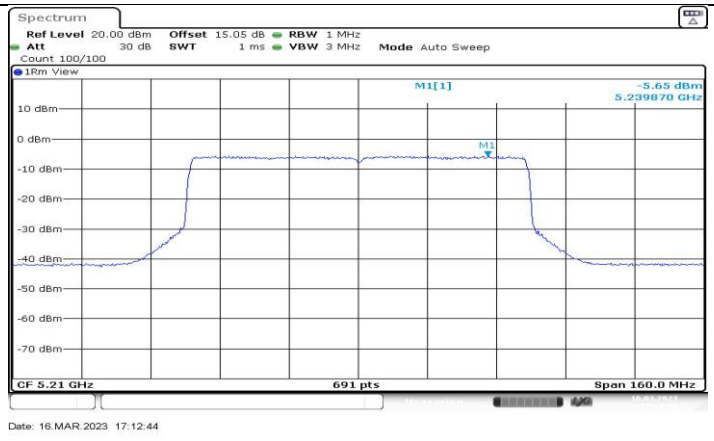
11BE80MIMO_Ant1_5210



11BE80MIMO_Ant2_5210

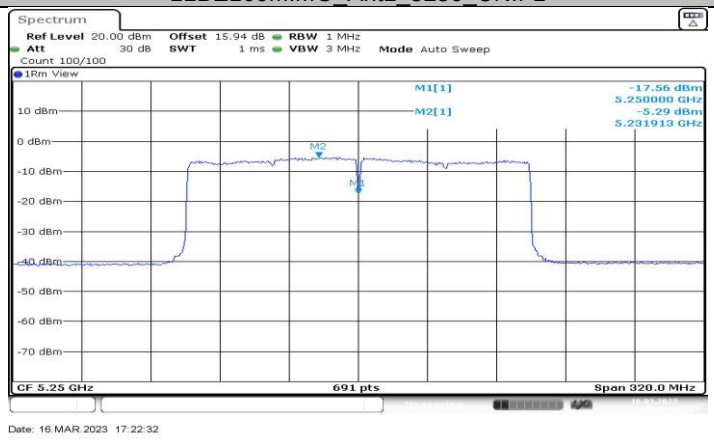
11BE80MIMO_Ant3_5210

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



11BE80MIMO_Ant4_5210

11BE160MIMO_Ant1_5250_UNII-1



11BE160MIMO_Ant2_5250_UNII-1

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11BE160MIMO_Ant3_5250_UNII-1

11BE160MIMO_Ant4_5250_UNII-1

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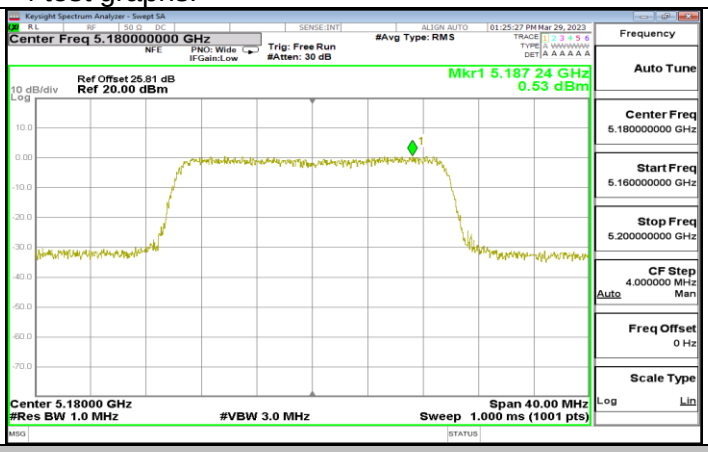
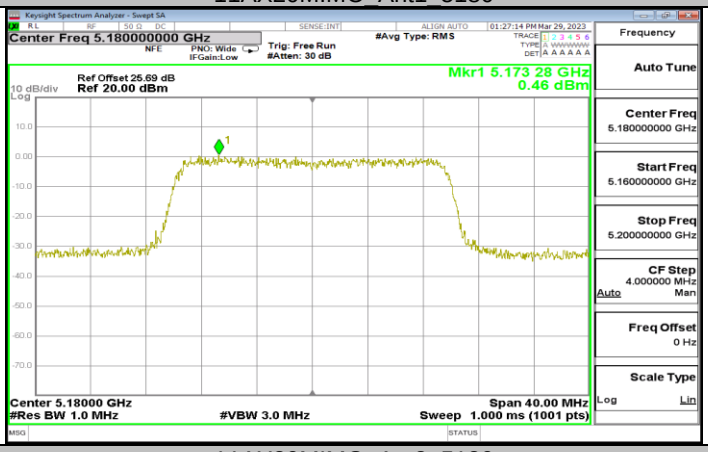
11.5.8. Test Graphs

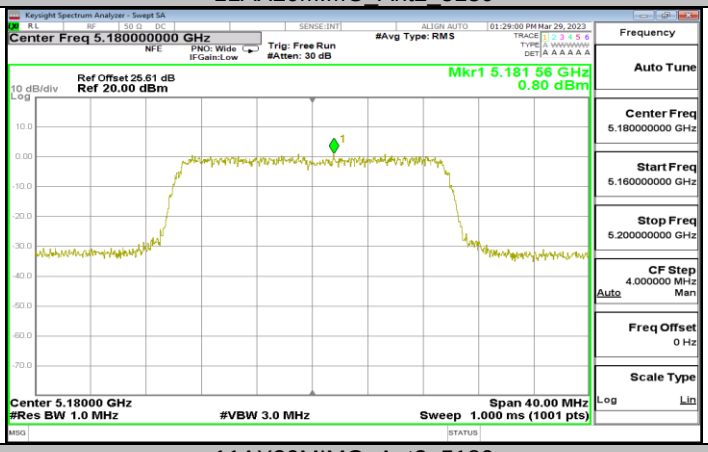
For ISED UNII-1 NSS=4 test graphs:



11AX20MIMO_Ant1_5180



11AX20MIMO_Ant2_5180



11AX20MIMO_Ant3_5180

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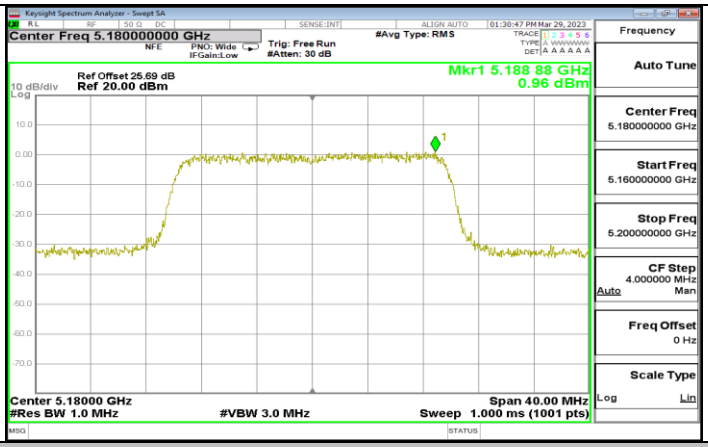

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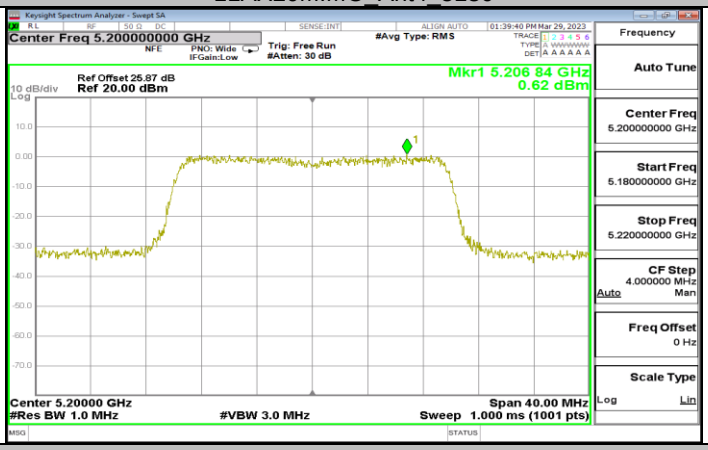

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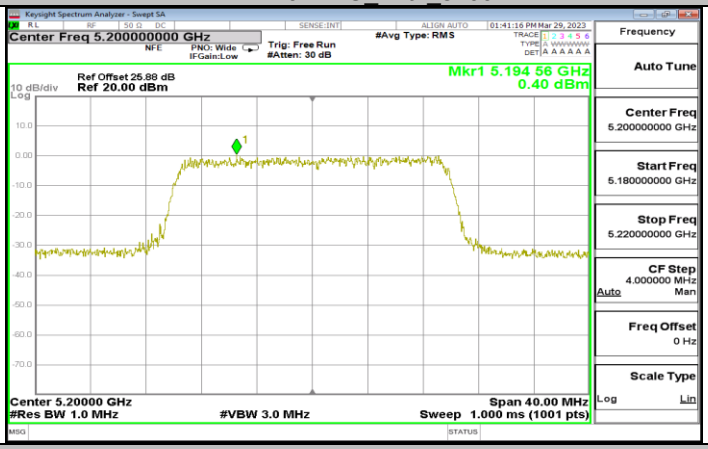

11AX20MIMO_Ant2_5200

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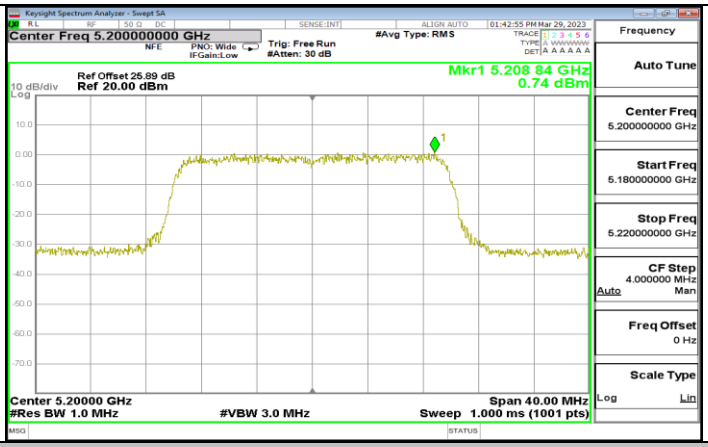

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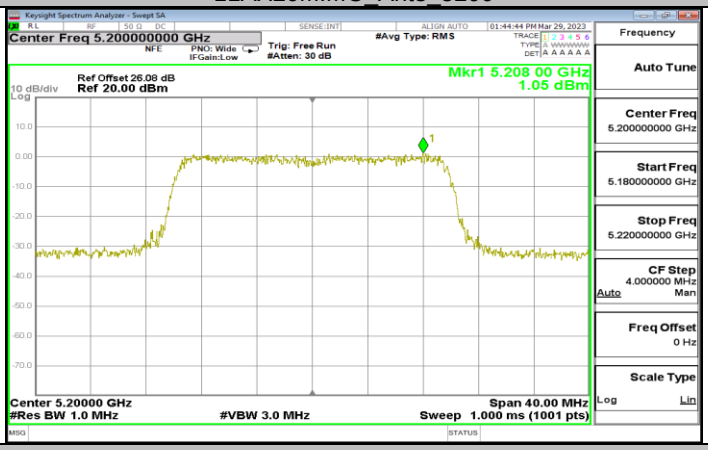

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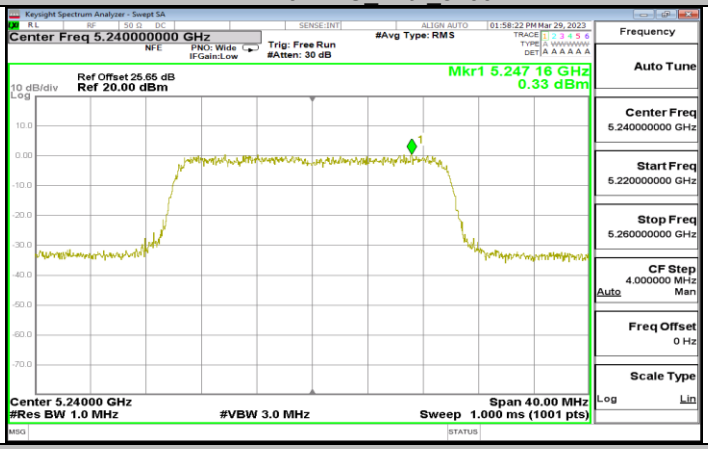

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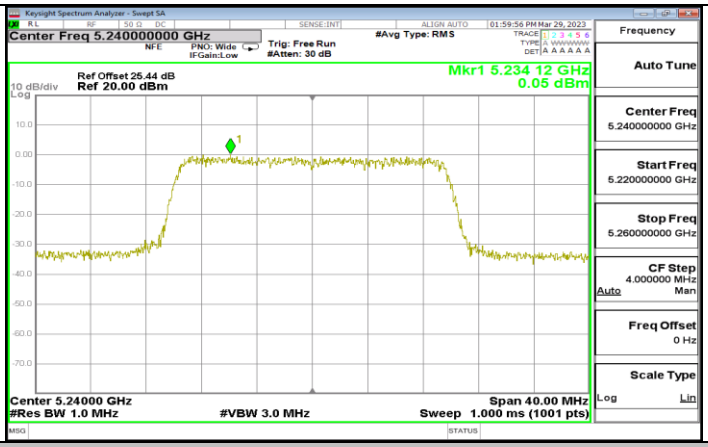

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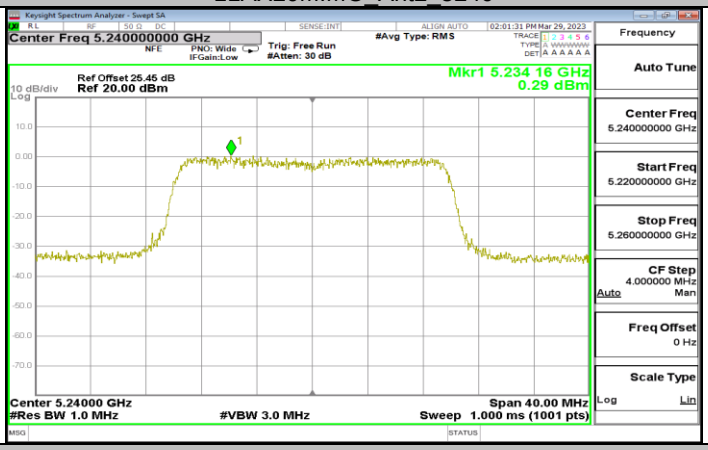

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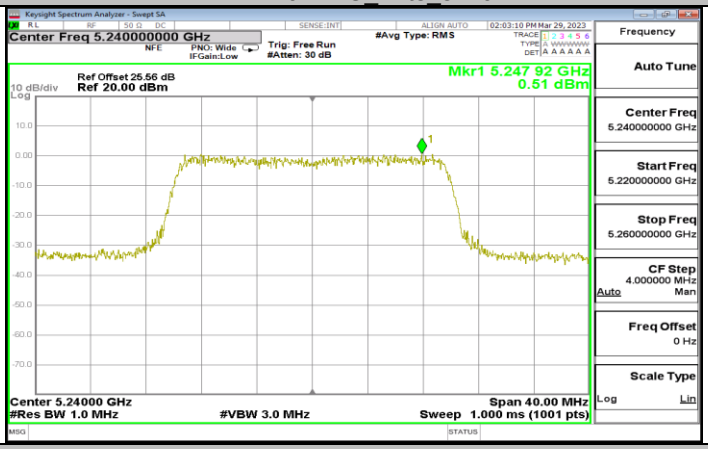

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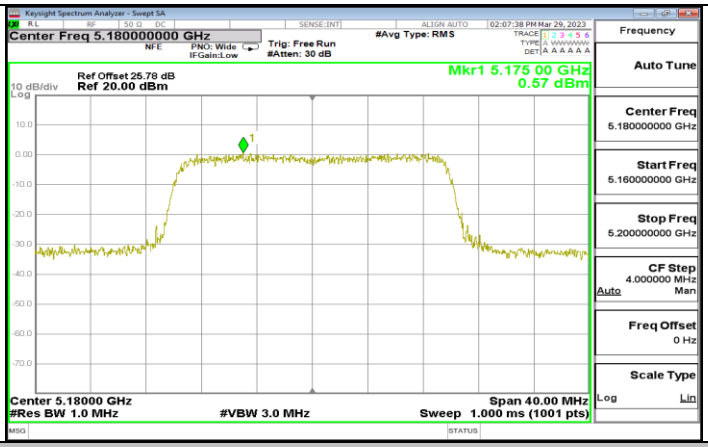

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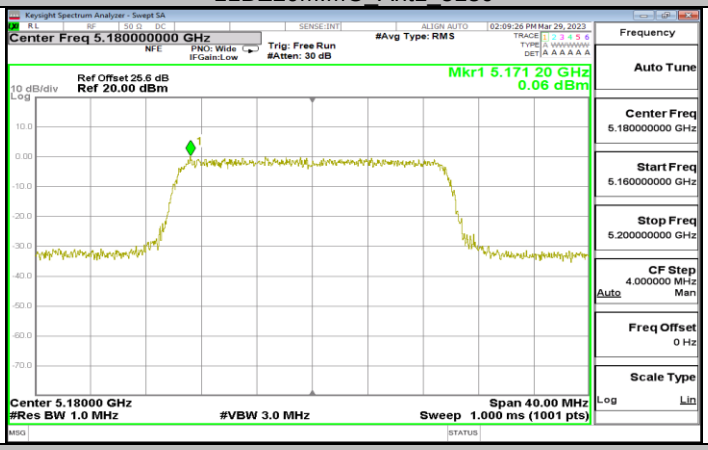

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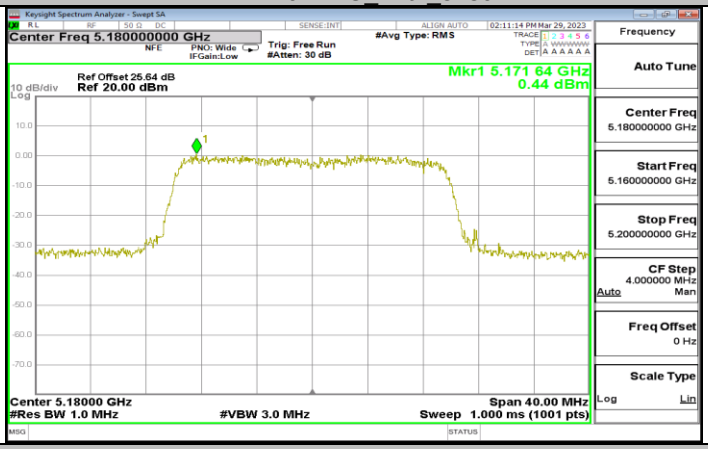

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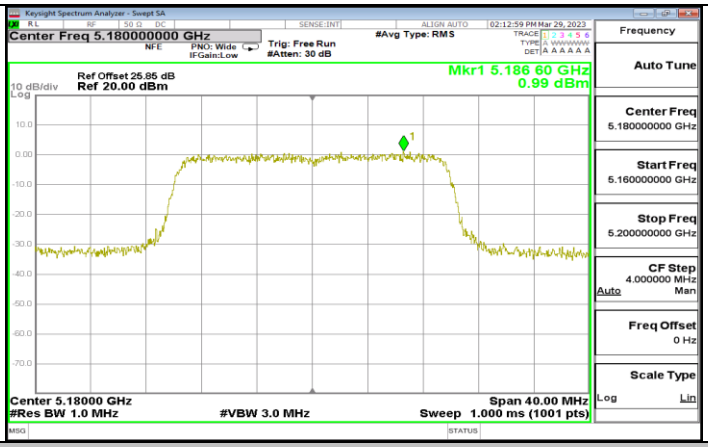

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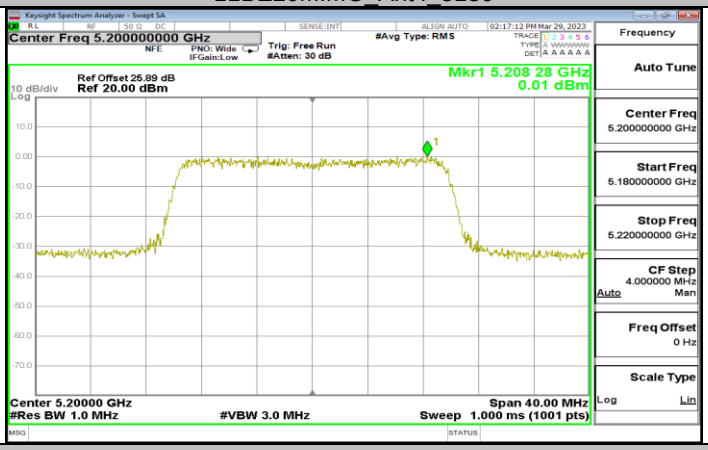

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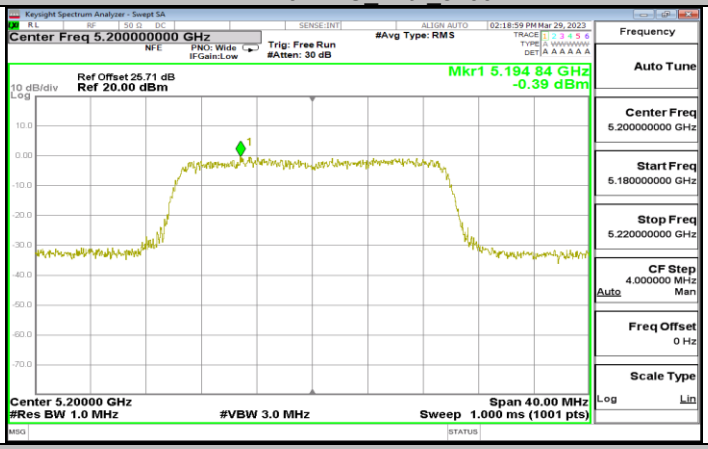

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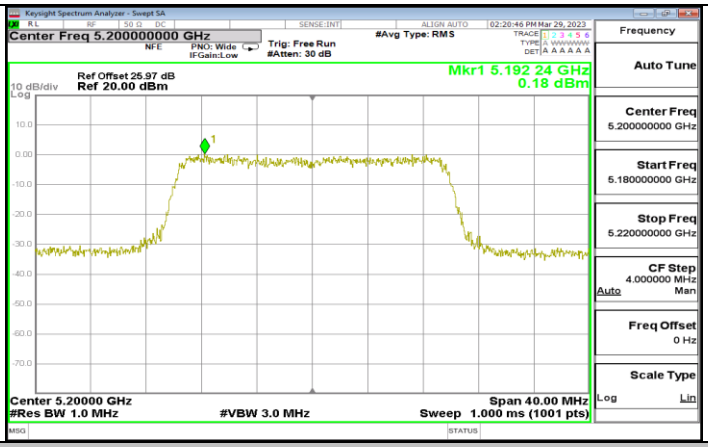

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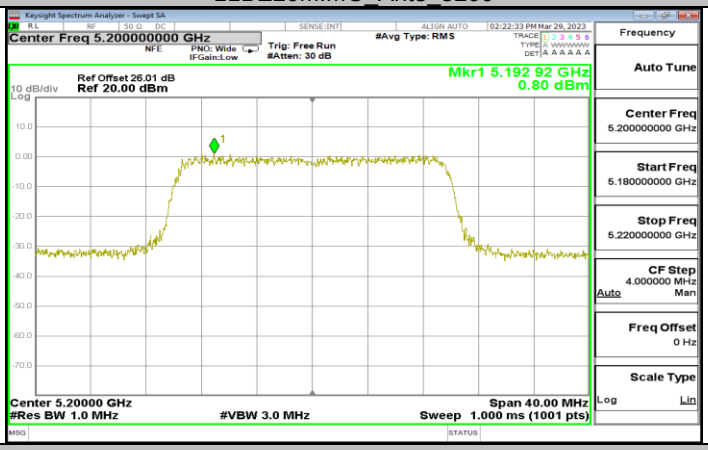

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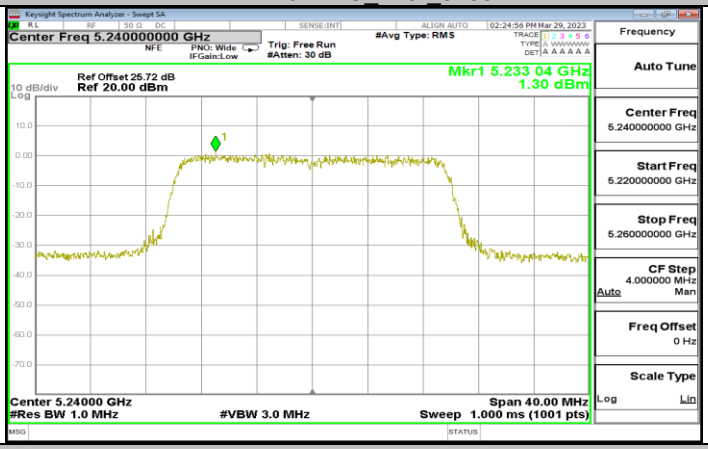

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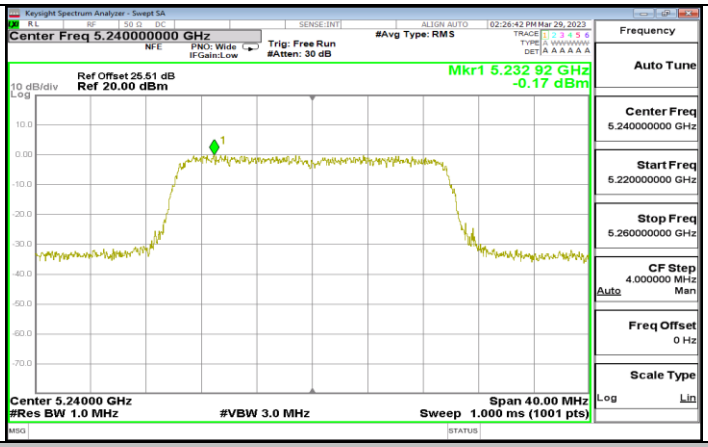

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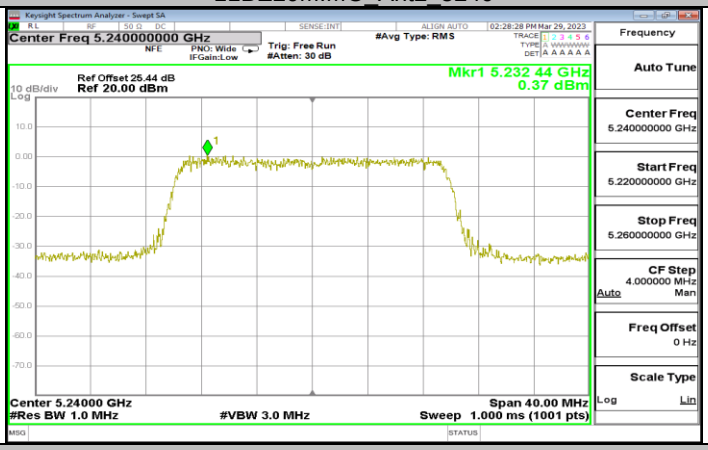

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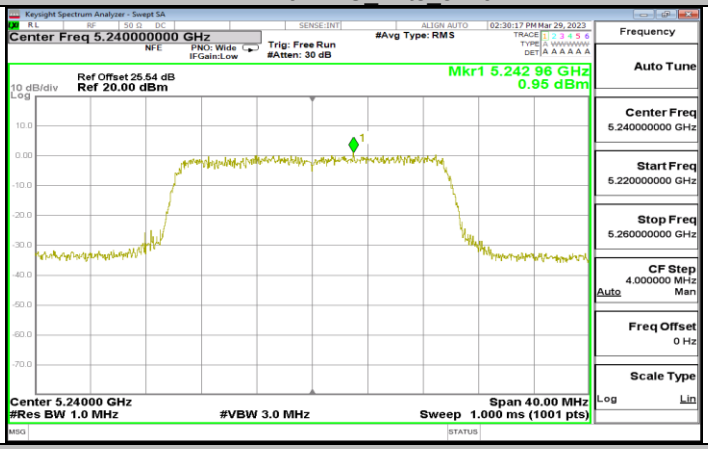

11BE20MIMO_Ant4_5240

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11.6. APPENDIX F: FREQUENCY STABILITY

11.6.1. Test Result

Frequency Error vs. Voltage									
802.11a:5200MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
TN	VL	5200.0131	2.52	5200.0003	0.05	5200.0163	3.13	5200.0091	1.76
TN	VN	5199.9826	-3.35	5199.9860	-2.69	5199.9847	-2.94	5200.0126	2.42
TN	VH	5200.0109	2.10	5199.9778	-4.27	5200.0114	2.19	5200.0250	4.80
Frequency Error vs. Temperature									
802.11a:5200MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
40	VN	5199.9813	-3.59	5199.9971	-0.55	5200.0138	2.65	5200.0040	0.76
30	VN	5200.0062	1.20	5200.0221	4.25	5200.0148	2.85	5200.0134	2.58
20	VN	5200.0113	2.18	5199.9852	-2.84	5200.0248	4.77	5200.0002	0.04
10	VN	5199.9783	-4.18	5200.0089	1.72	5199.9911	-1.71	5199.9992	-0.16
0	VN	5199.9825	-3.36	5200.0023	0.45	5200.0237	4.57	5200.0118	2.27

Note:
1. All antennas, test modes and test channels have been tested, only the worst data record in the report.
2. For the detail Test Conditions, please refer to section 7.5 TEST ENVIRONMENT.

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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)
11A-CDD	3.01	3.13	0.9617	96.17	0.17	0.33	0.5
11AX20MIMO	2.53	2.68	0.9440	94.40	0.25	0.40	0.5
11AX40MIMO	3.75	3.90	0.9615	96.15	0.17	0.27	0.5
11AX80MIMO	3.58	3.90	0.9179	91.79	0.37	0.28	0.5
11AX160MIMO	3.88	4.03	0.9628	96.28	0.16	0.26	0.5
11BE20MIMO	2.53	2.71	0.9336	93.36	0.30	0.40	0.5
11BE40MIMO	3.76	3.93	0.9567	95.67	0.19	0.27	0.5
11BE80MIMO	3.58	3.73	0.9598	95.98	0.18	0.28	0.5
11BE160MIMO	3.88	4.04	0.9604	96.04	0.18	0.26	0.5
11BE240MIMO	3.99	4.14	0.9638	96.38	0.16	0.25	0.5

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.

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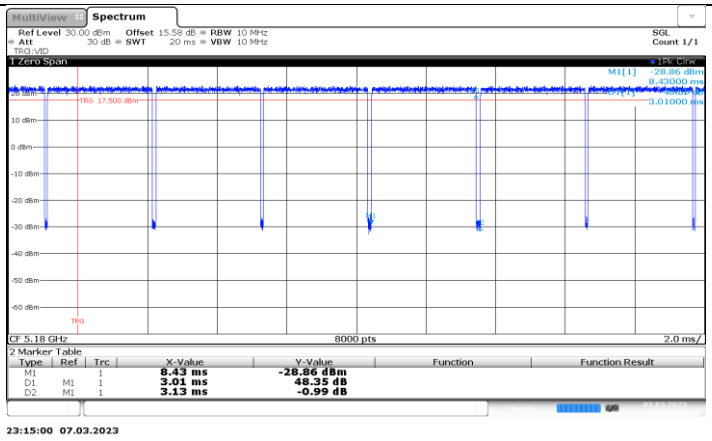
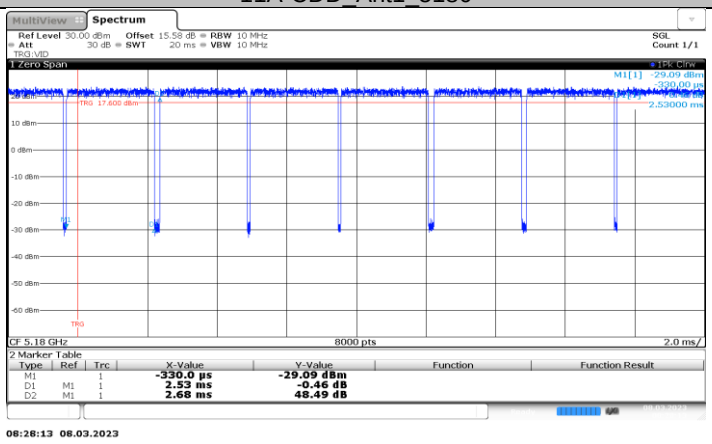
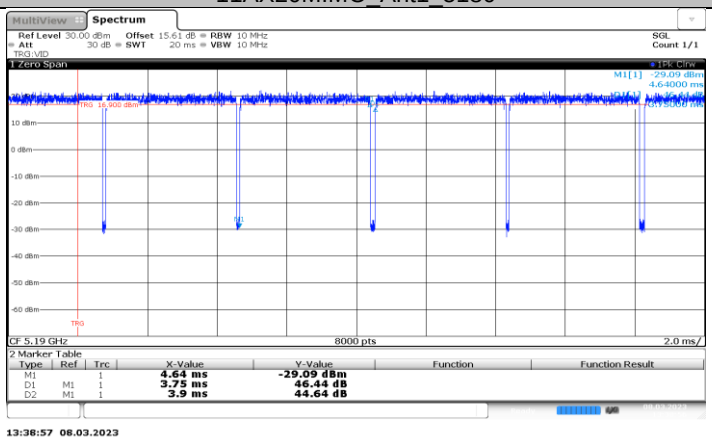
11.7.2. Test Graphs



11A-CDD_Ant1_5180



11AX20MIMO_Ant1_5180



11AX40MIMO_Ant1_5190

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