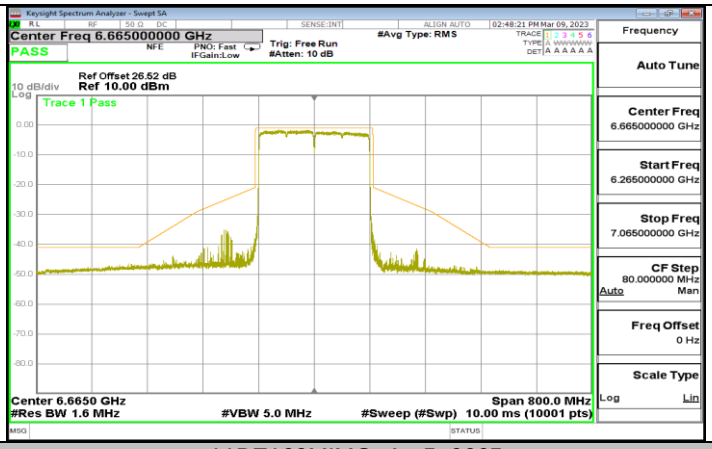
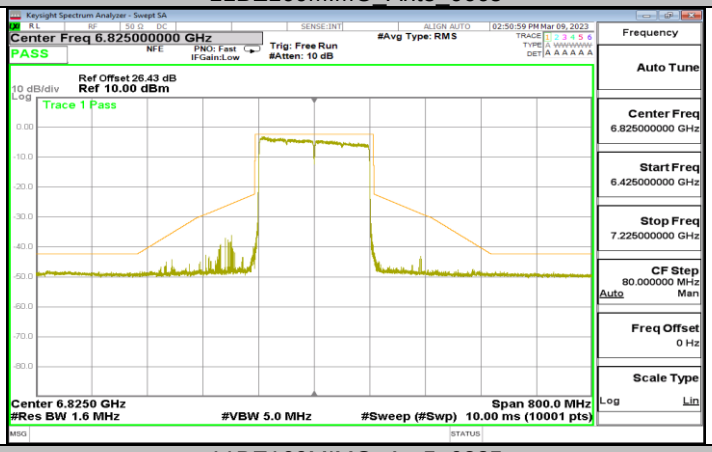
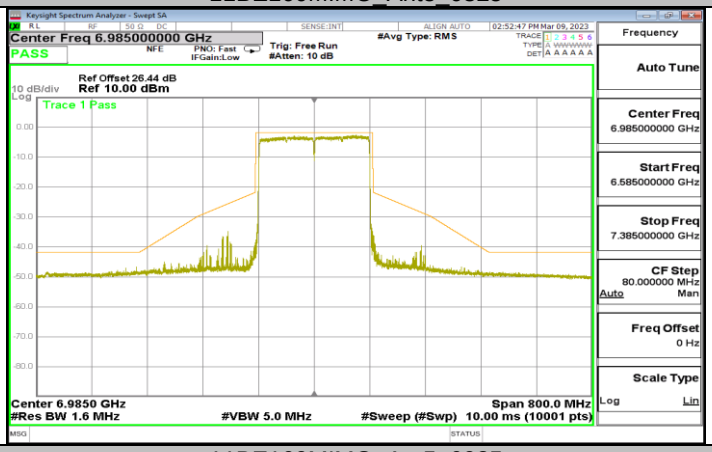


11BE160MIMO_Ant5_6665



11BE160MIMO_Ant5_6825



11BE160MIMO_Ant5_6985

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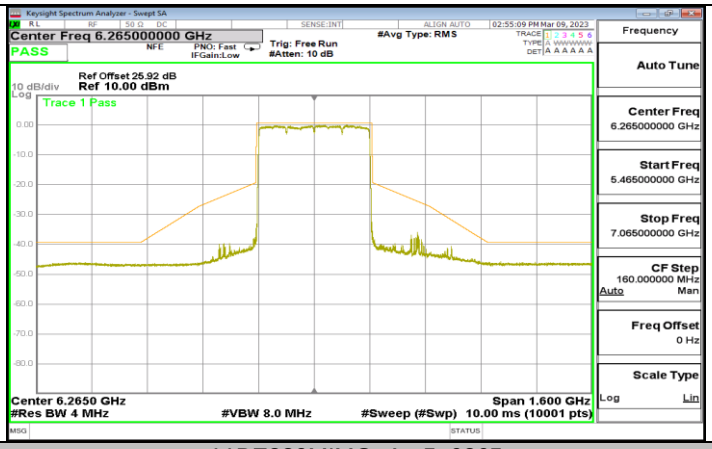
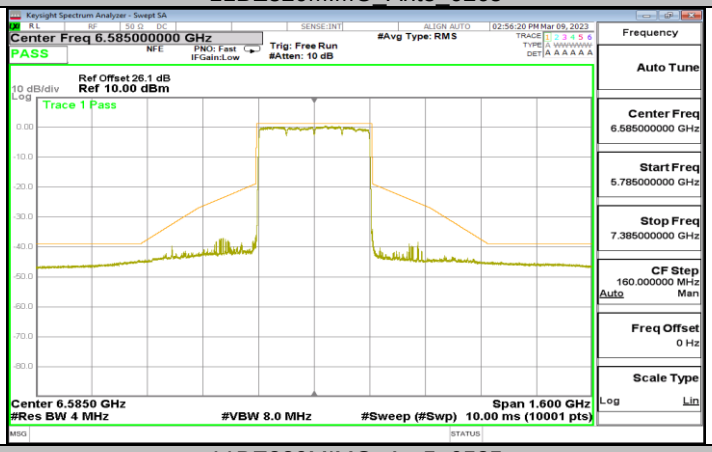
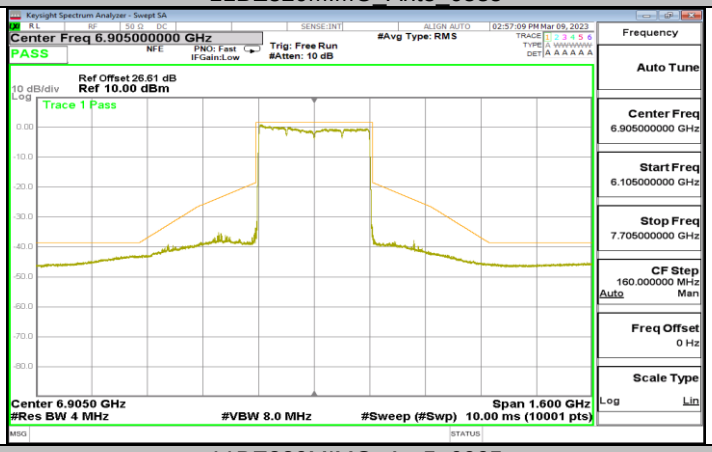


11BE320MIMO_Ant5_6265



11BE320MIMO_Ant5_6585



11BE320MIMO_Ant5_6905

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11.7. APPENDIX H: CONTENTION BASED PROTOCOL

11.7.1. Test Result

Test Mode	Antenna	EUT Frequency	AWGN Frequency	Injected AWGN Power	Minimum Antenna Gain	Path Loss	Adjusted Power Result	Limit	UT Tx Status
		[MHz]	[MHz]	[dBm]	[dBi]	[dB]	[dBm]	[dBm]	(Note1)
11BE20	Ant5	6115	6115	-72.14	-0.14	2	-70.0	-62	ON
				-66.94	-0.14	2	-64.8	-62	Minimal
				-64.58	-0.14	2	-62.4	-62	OFF
		6435	6435	-72.14	-0.14	2	-70.0	-62	ON
				-66.34	-0.14	2	-64.2	-62	Minimal
				-64.60	-0.14	2	-62.5	-62	OFF
		6535	6535	-72.14	-0.14	2	-70.0	-62	ON
				-66.64	-0.14	2	-64.5	-62	Minimal
				-64.51	-0.14	2	-62.4	-62	OFF
		6895	6895	-72.14	-0.14	2	-70.0	-62	ON
				-67.34	-0.14	2	-65.2	-62	Minimal
				-64.48	-0.14	2	-62.3	-62	OFF
11BE320	Ant5	6265	6110	-72.14	-0.14	2	-70.0	-62	ON
				-66.29	-0.14	2	-64.2	-62	Minimal
				-64.89	-0.14	2	-62.8	-62	OFF
			6265	-72.14	-0.14	2	-70.0	-62	ON
				-67.94	-0.14	2	-65.8	-62	Minimal
				-64.72	-0.14	2	-62.6	-62	OFF
			6420	-72.14	-0.14	2	-70.0	-62	ON
				-66.94	-0.14	2	-64.8	-62	Minimal
				-64.43	-0.14	2	-62.3	-62	OFF
		6905	6750	-72.14	-0.14	2	-70.0	-62	ON
				-67.64	-0.14	2	-65.5	-62	Minimal
				-65.01	-0.14	2	-62.9	-62	OFF
			6905	-72.14	-0.14	2	-70.0	-62	ON
				-67.37	-0.14	2	-65.2	-62	Minimal
				-65.02	-0.14	2	-62.9	-62	OFF
			7060	-72.14	-0.14	2	-70.0	-62	ON
				-68.57	-0.14	2	-66.4	-62	Minimal
				-64.46	-0.14	2	-62.3	-62	OFF

Note 1: The AWGN level is reported for the following conditions:
- OFF = AWGN level at which no transmission is detected, consistently for a minimum period of 10 seconds
- Minimal: AWGN level at which the system begins to trigger the transmission switch-off, albeit not being kept off consistently
- ON = AWGN level at which no impact on the transmission is detected, consistently for a minimum period of 10 seconds

Note 2: Detection Level = Injected AWGN Power (dBm) – Antenna Gain (dBi) + Path Loss (dB)

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Test Mode	Antenna	EUT Frequency [MHz]	AWGN Interference Frequency [MHz]		Test Number [n]	Number Detected [n]	Result [%]	Limit [%]	Verdict
11BE20MIMO	Ant5	6115	Center	6115	10	10	100	90	PASS
		6435	Center	6435	10	10	100	90	PASS
		6535	Center	6535	10	10	100	90	PASS
		6895	Center	6895	10	10	100	90	PASS
11BE320MIMO	Ant5	6265	Low	6110	10	10	100	90	PASS
			Center	6265	10	10	100	90	PASS
			High	6420	10	10	100	90	PASS
		6905	Low	6750	10	10	100	90	PASS
			Center	6905	10	10	100	90	PASS
			High	7060	10	10	100	90	PASS

Test Mode	Antenna	EUT Frequency [MHz]	AWGN Interference Frequency [MHz]		Test Time	Is Detected	Verdict
11BE20MIMO	Ant5	6115	Center	6115	1	Yes	PASS
			Center	6115	2	Yes	PASS
			Center	6115	3	Yes	PASS
			Center	6115	4	Yes	PASS
			Center	6115	5	Yes	PASS
			Center	6115	6	Yes	PASS
			Center	6115	7	Yes	PASS
			Center	6115	8	Yes	PASS
			Center	6115	9	Yes	PASS
			Center	6115	10	Yes	PASS
		6435	Center	6435	1	Yes	PASS
			Center	6435	2	Yes	PASS
			Center	6435	3	Yes	PASS
			Center	6435	4	Yes	PASS
			Center	6435	5	Yes	PASS
			Center	6435	6	Yes	PASS
			Center	6435	7	Yes	PASS
			Center	6435	8	Yes	PASS
			Center	6435	9	Yes	PASS
			Center	6435	10	Yes	PASS
		6535	Center	6535	1	Yes	PASS
			Center	6535	2	Yes	PASS
			Center	6535	3	Yes	PASS
			Center	6535	4	Yes	PASS
			Center	6535	5	Yes	PASS
			Center	6535	6	Yes	PASS
			Center	6535	7	Yes	PASS
			Center	6535	8	Yes	PASS
			Center	6535	9	Yes	PASS
			Center	6535	10	Yes	PASS
		6895	Center	6895	1	Yes	PASS
			Center	6895	2	Yes	PASS
			Center	6895	3	Yes	PASS
			Center	6895	4	Yes	PASS
			Center	6895	5	Yes	PASS
			Center	6895	6	Yes	PASS
			Center	6895	7	Yes	PASS
			Center	6895	8	Yes	PASS
			Center	6895	9	Yes	PASS
			Center	6895	10	Yes	PASS
11BE320MIMO	Ant5	6265	Low	6110	1	Yes	PASS
			Low	6110	2	Yes	PASS
			Low	6110	3	Yes	PASS
			Low	6110	4	Yes	PASS
			Low	6110	5	Yes	PASS
			Low	6110	6	Yes	PASS

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			Low	6110	7	Yes	PASS
			Low	6110	8	Yes	PASS
			Low	6110	9	Yes	PASS
			Low	6110	10	Yes	PASS
			Center	6265	1	Yes	PASS
			Center	6265	2	Yes	PASS
			Center	6265	3	Yes	PASS
			Center	6265	4	Yes	PASS
			Center	6265	5	Yes	PASS
			Center	6265	6	Yes	PASS
			Center	6265	7	Yes	PASS
			Center	6265	8	Yes	PASS
			Center	6265	9	Yes	PASS
			Center	6265	10	Yes	PASS
			High	6420	1	Yes	PASS
			High	6420	2	Yes	PASS
			High	6420	3	Yes	PASS
			High	6420	4	Yes	PASS
			High	6420	5	Yes	PASS
			High	6420	6	Yes	PASS
			High	6420	7	Yes	PASS
			High	6420	8	Yes	PASS
			High	6420	9	Yes	PASS
			High	6420	10	Yes	PASS
		6905	Low	6750	1	Yes	PASS
			Low	6750	2	Yes	PASS
			Low	6750	3	Yes	PASS
			Low	6750	4	Yes	PASS
			Low	6750	5	Yes	PASS
			Low	6750	6	Yes	PASS
			Low	6750	7	Yes	PASS
			Low	6750	8	Yes	PASS
			Low	6750	9	Yes	PASS
			Low	6750	10	Yes	PASS
			Center	6905	1	Yes	PASS
			Center	6905	2	Yes	PASS
			Center	6905	3	Yes	PASS
			Center	6905	4	Yes	PASS
			Center	6905	5	Yes	PASS
			Center	6905	6	Yes	PASS
			Center	6905	7	Yes	PASS
			Center	6905	8	Yes	PASS
			Center	6905	9	Yes	PASS
			Center	6905	10	Yes	PASS
			High	7060	1	Yes	PASS
			High	7060	2	Yes	PASS
			High	7060	3	Yes	PASS
			High	7060	4	Yes	PASS
			High	7060	5	Yes	PASS
			High	7060	6	Yes	PASS
			High	7060	7	Yes	PASS
			High	7060	8	Yes	PASS
			High	7060	9	Yes	PASS
			High	7060	10	Yes	PASS

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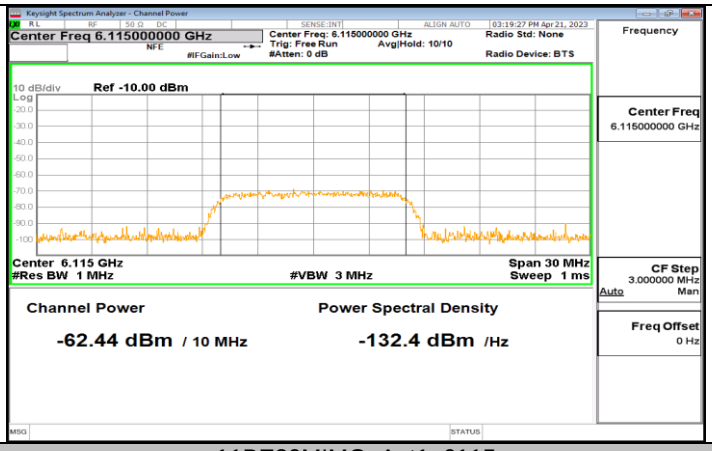
11.7.1. Test Graphs (Worst Case)



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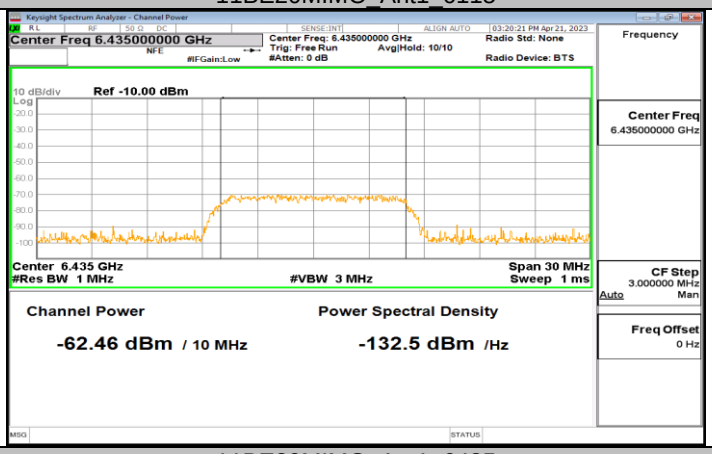

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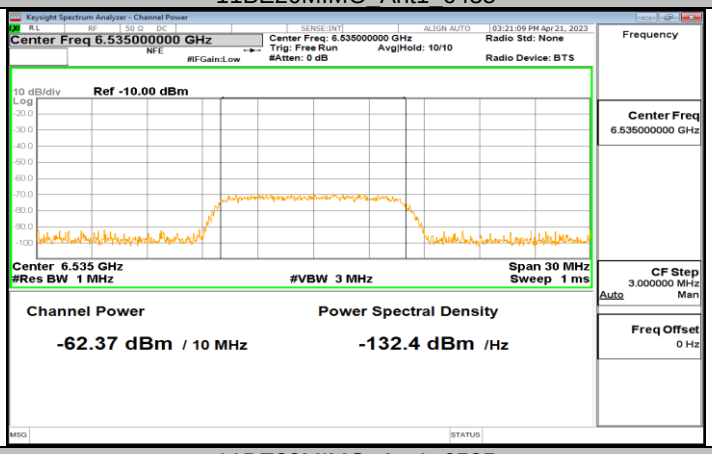

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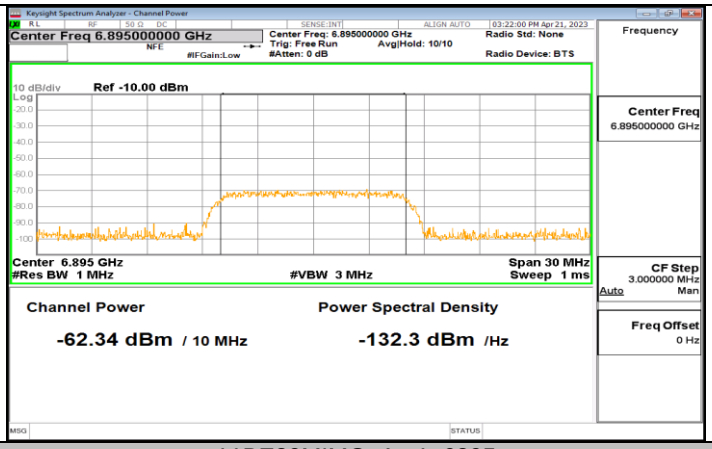

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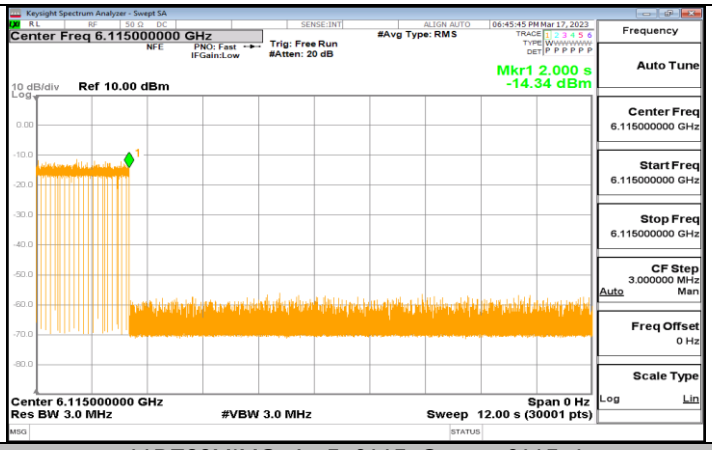

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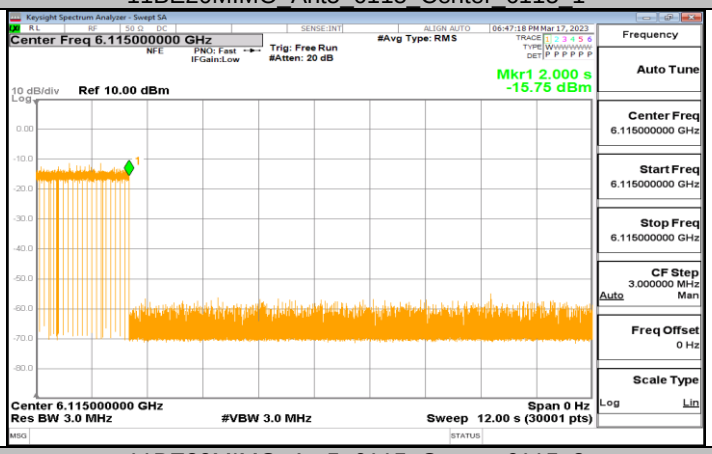

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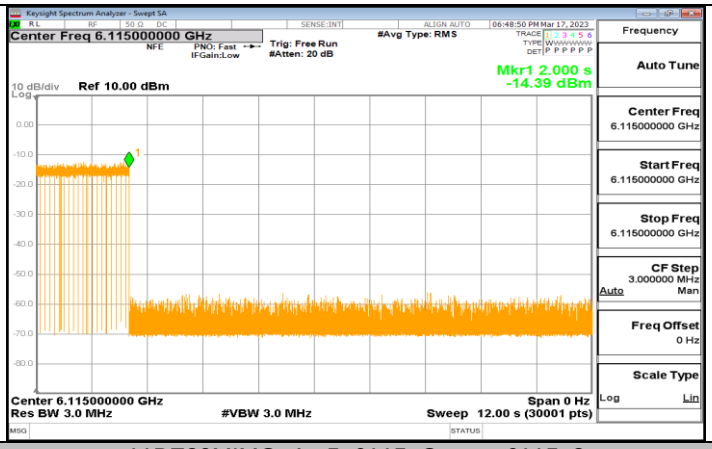

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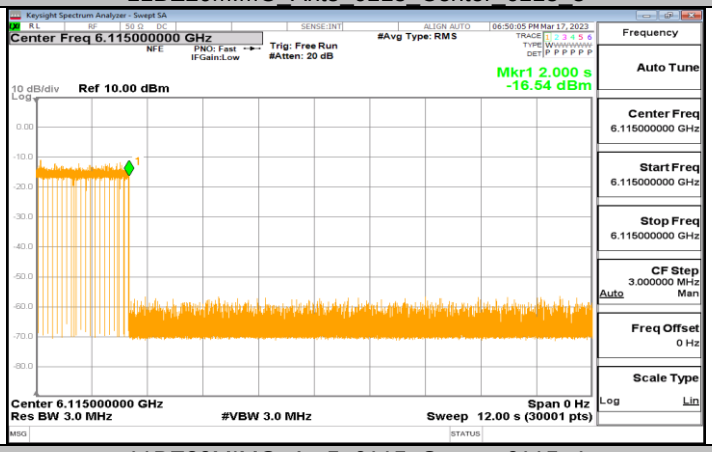

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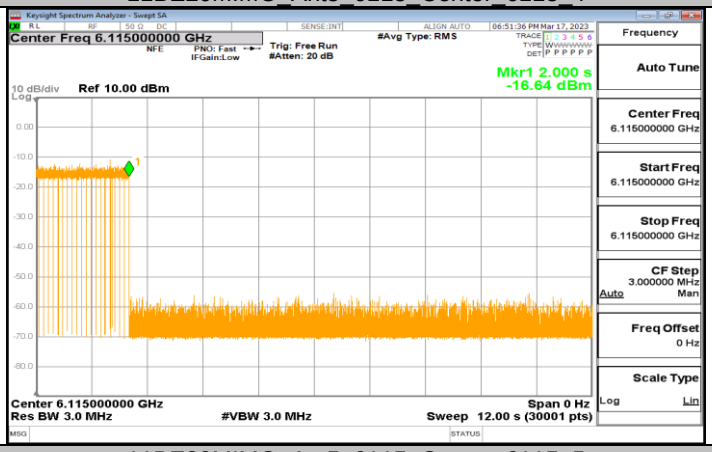

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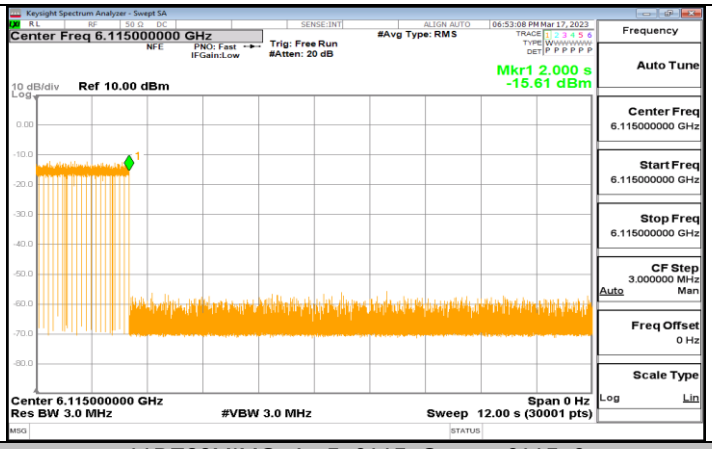

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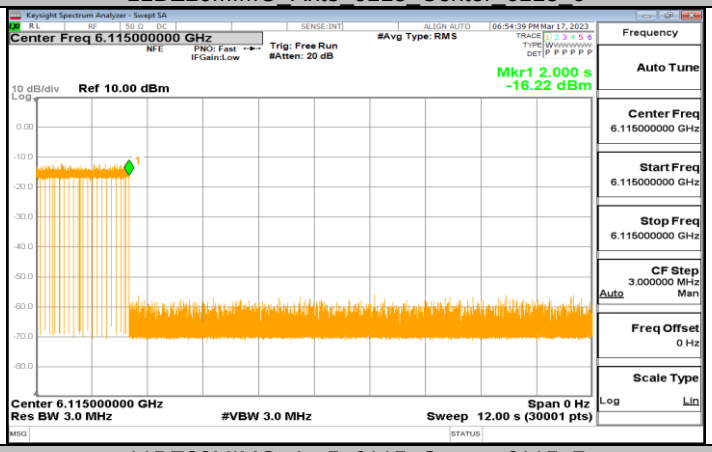

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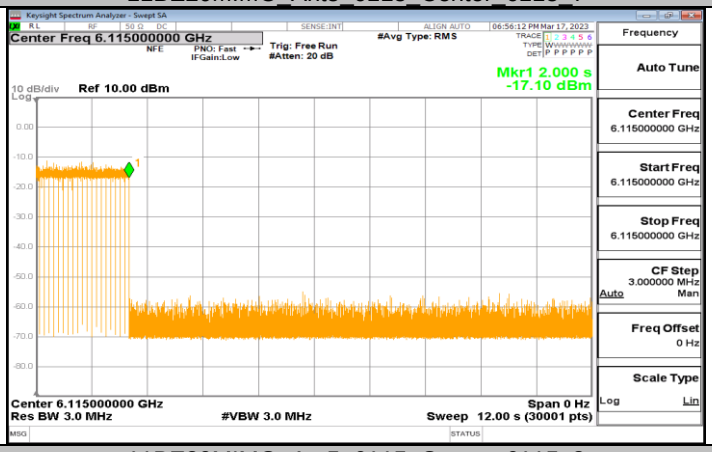

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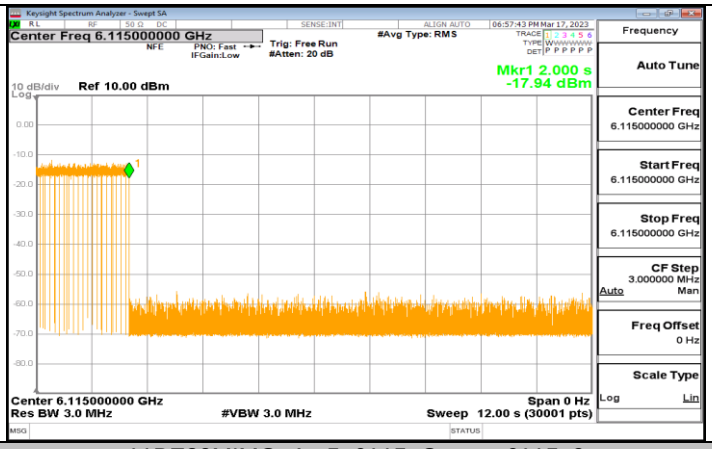

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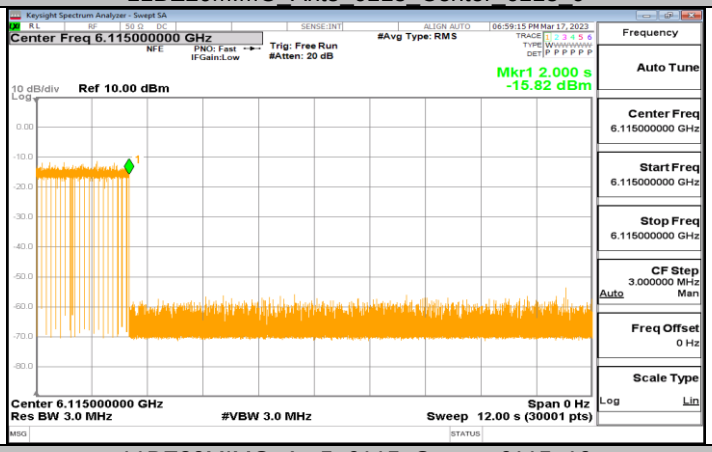
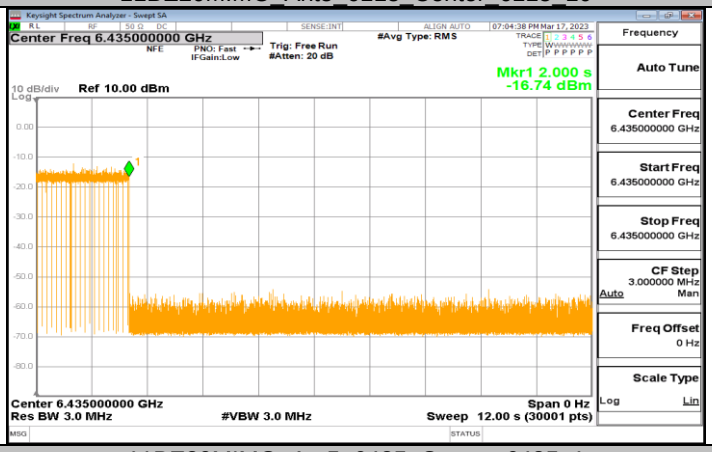


11BE20MIMO_Ant5_6115_Center_6115_10



11BE20MIMO_Ant5_6435_Center_6435_1

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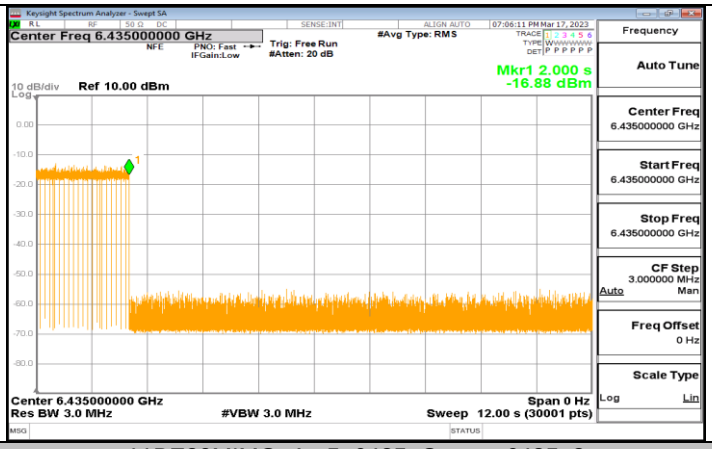
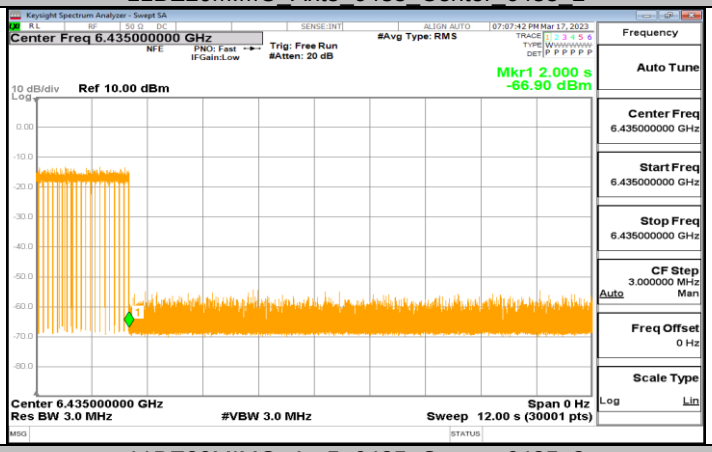
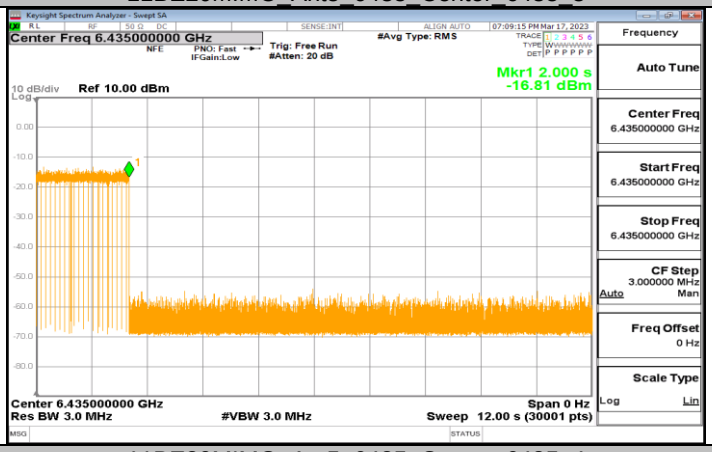


11BE20MIMO_Ant5_6435_Center_6435_2



11BE20MIMO_Ant5_6435_Center_6435_3



11BE20MIMO_Ant5_6435_Center_6435_4

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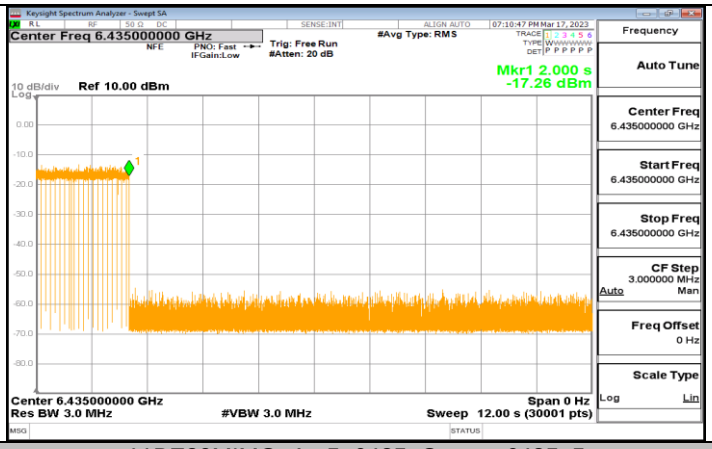
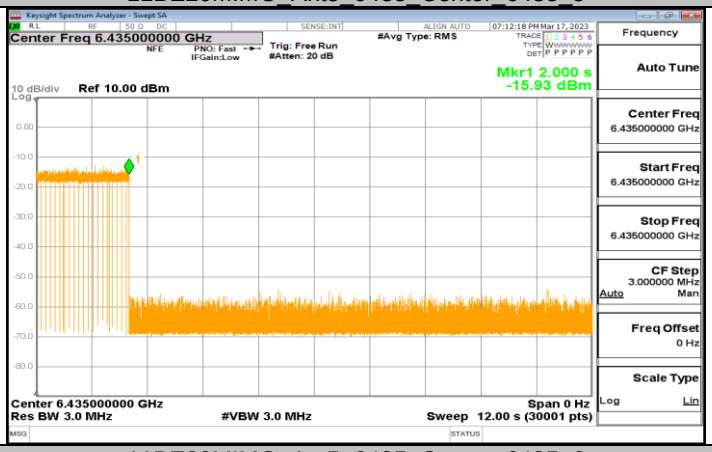
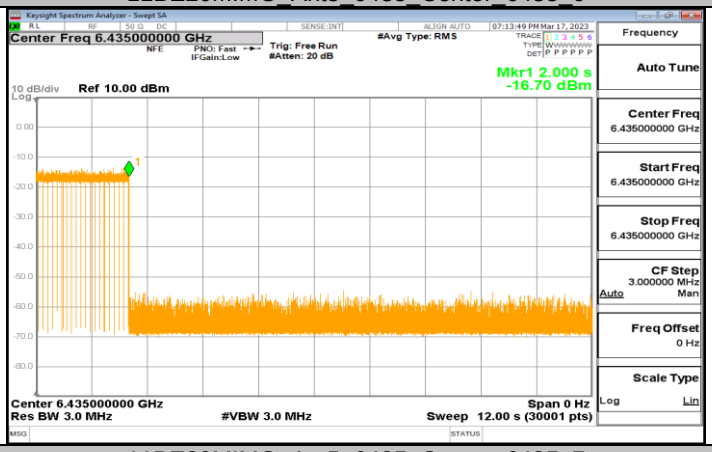


11BE20MIMO_Ant5_6435_Center_6435_5



11BE20MIMO_Ant5_6435_Center_6435_6



11BE20MIMO_Ant5_6435_Center_6435_7

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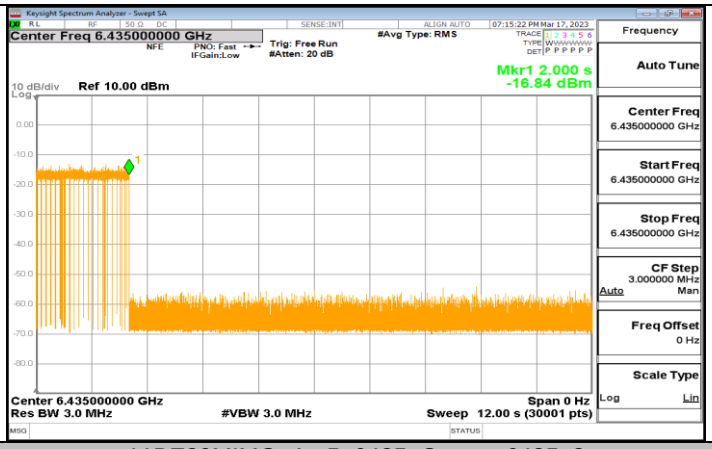
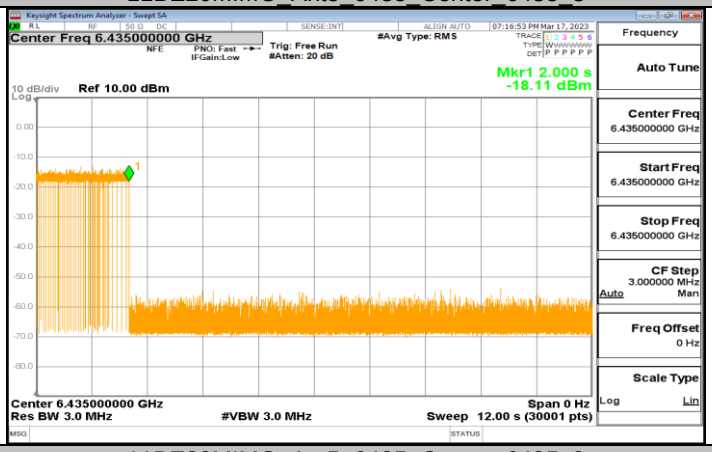
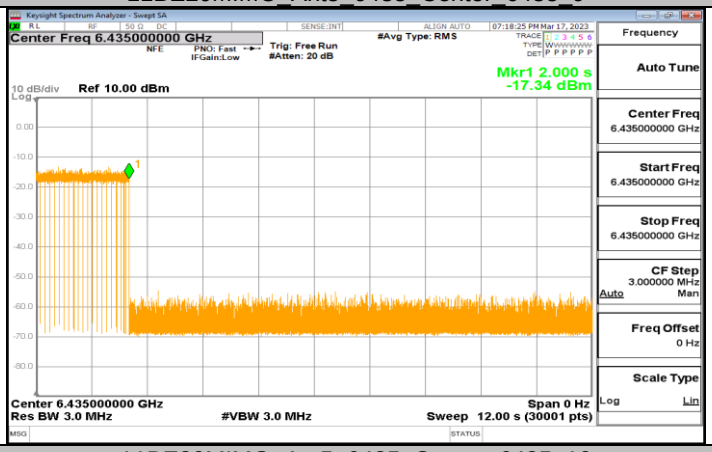


11BE20MIMO_Ant5_6435_Center_6435_8



11BE20MIMO_Ant5_6435_Center_6435_9



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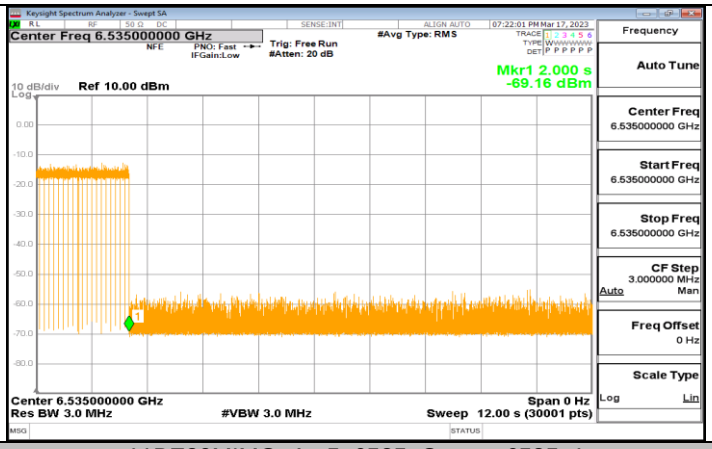
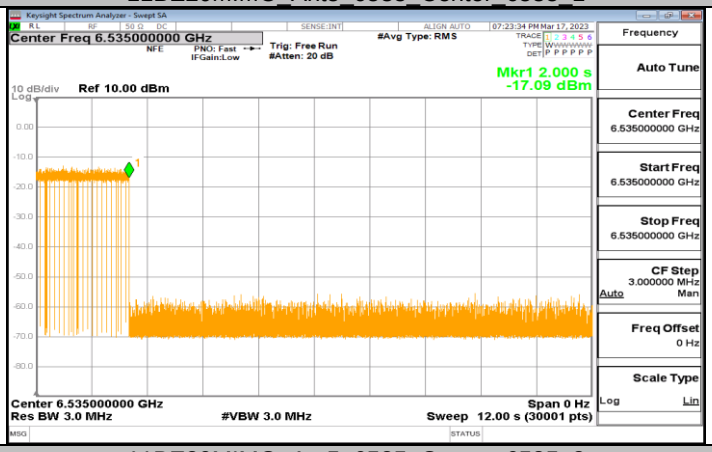


11BE20MIMO_Ant5_6535_Center_6535_1



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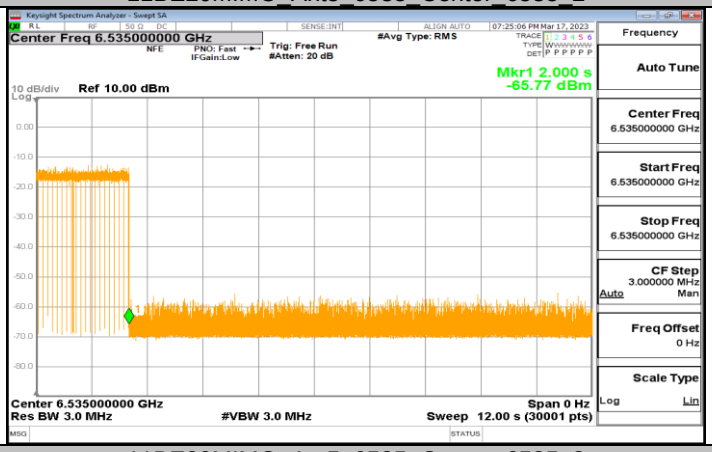

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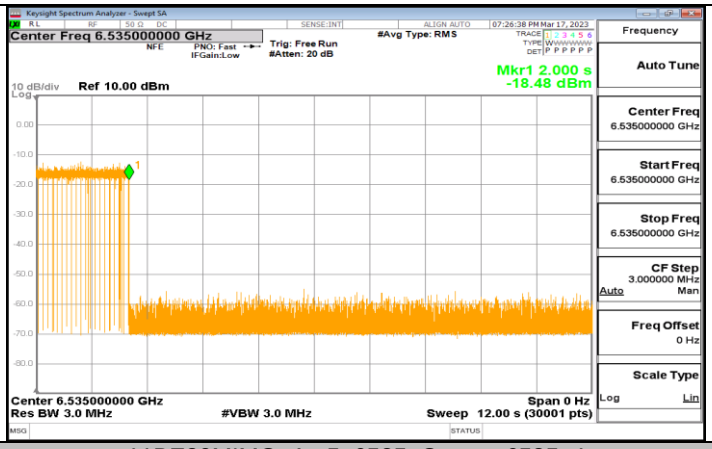

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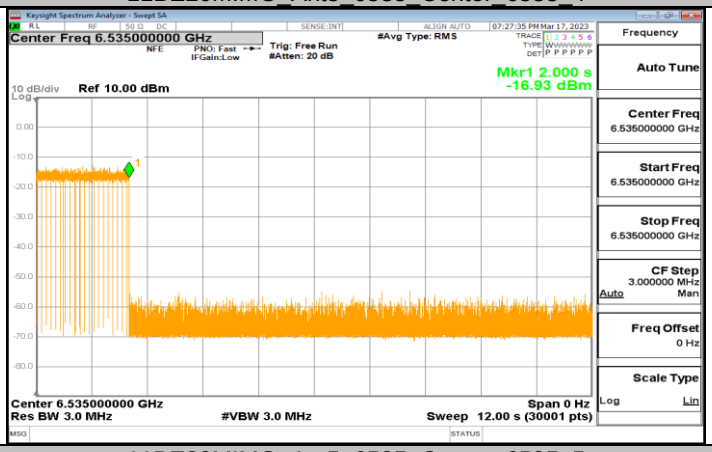

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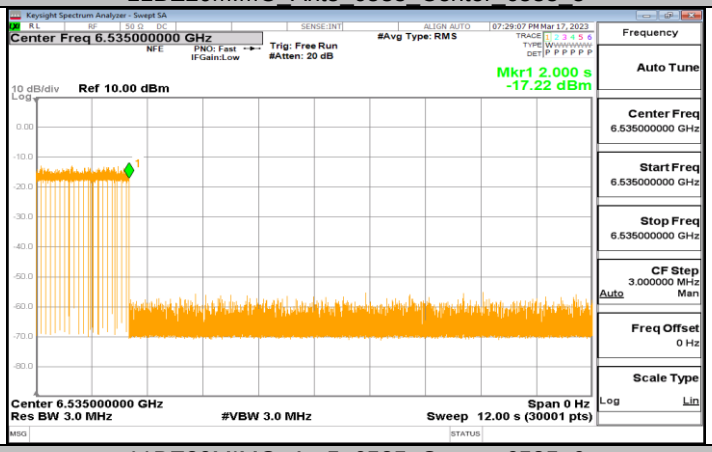

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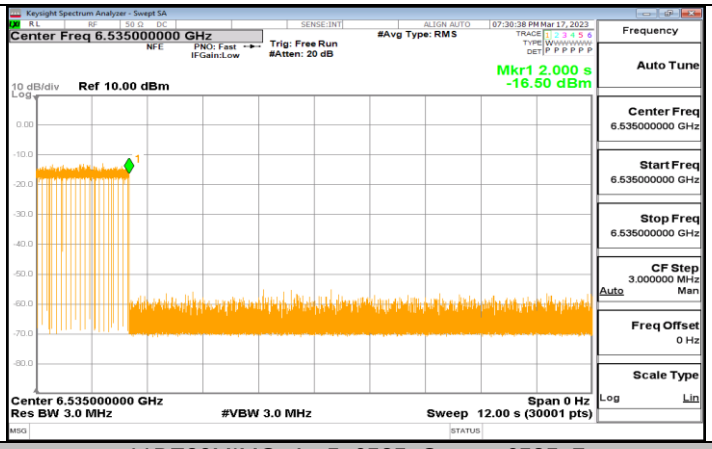

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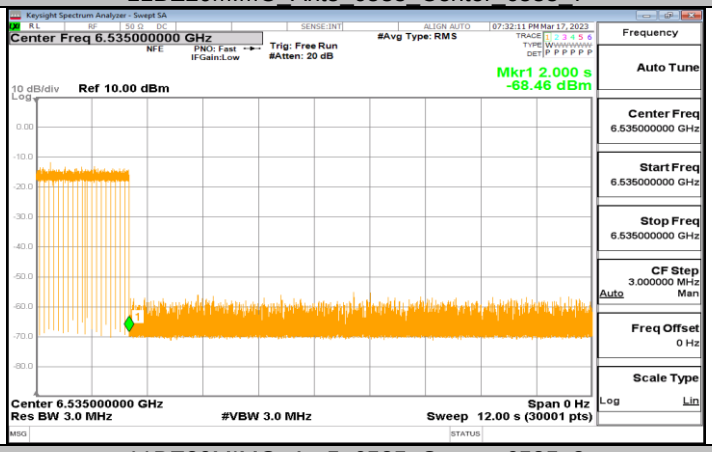

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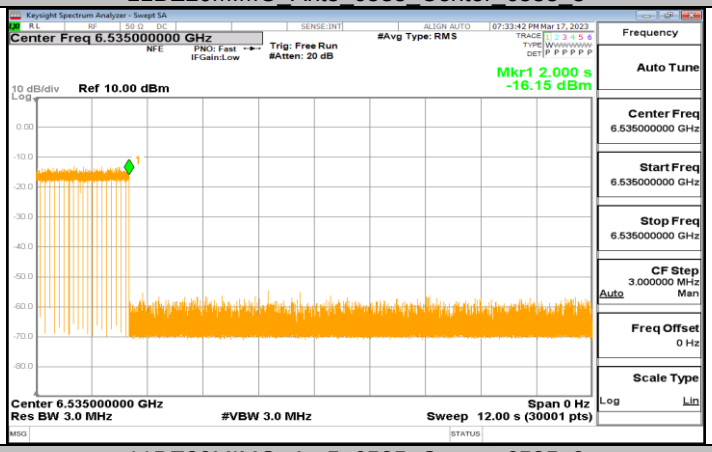

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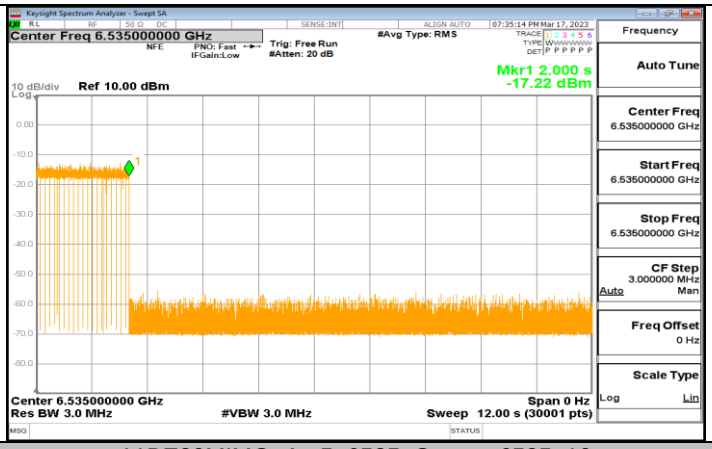

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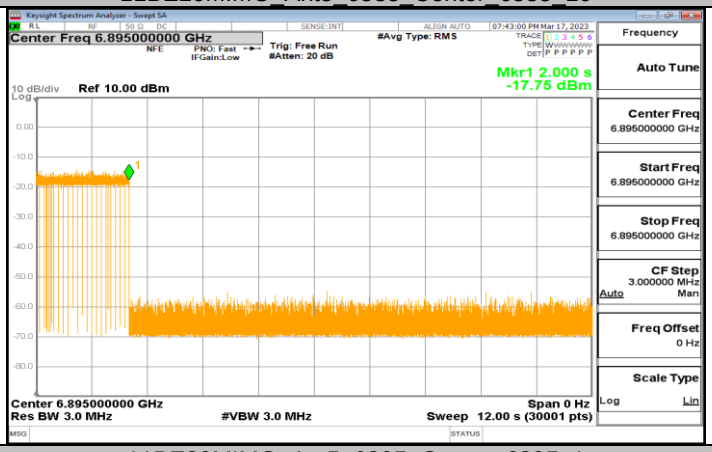

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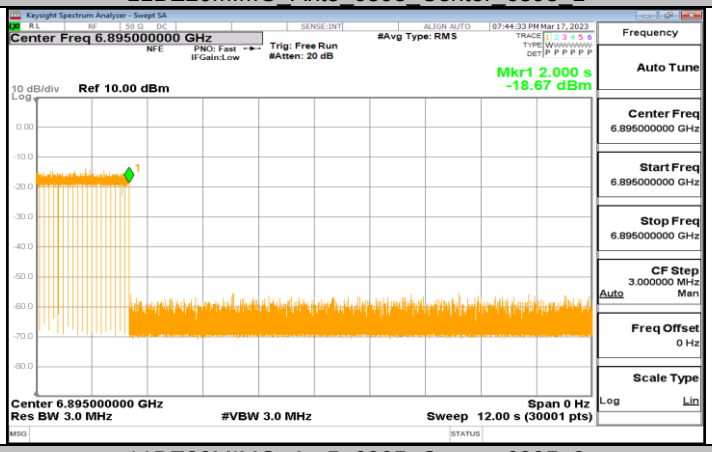

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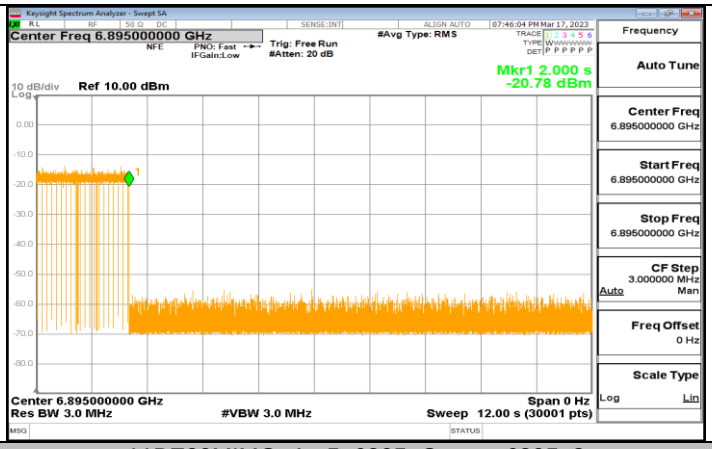

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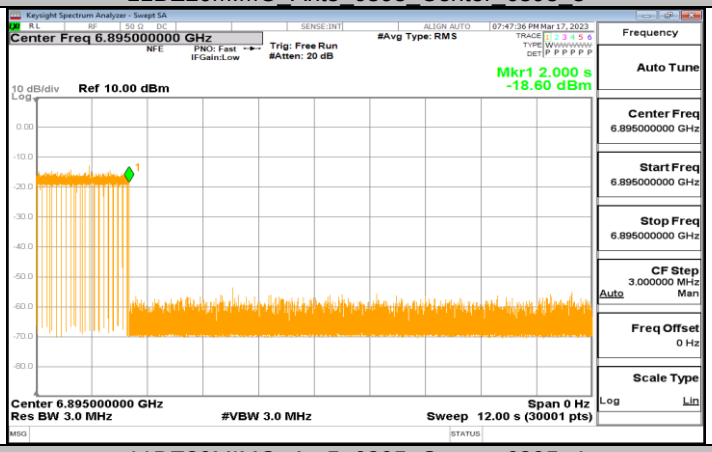

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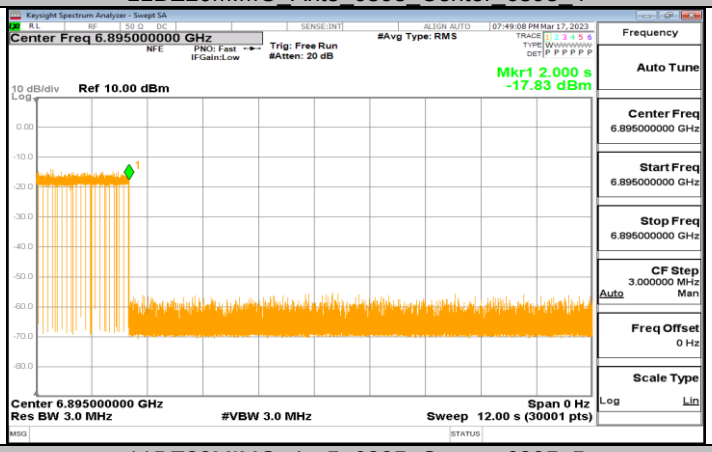

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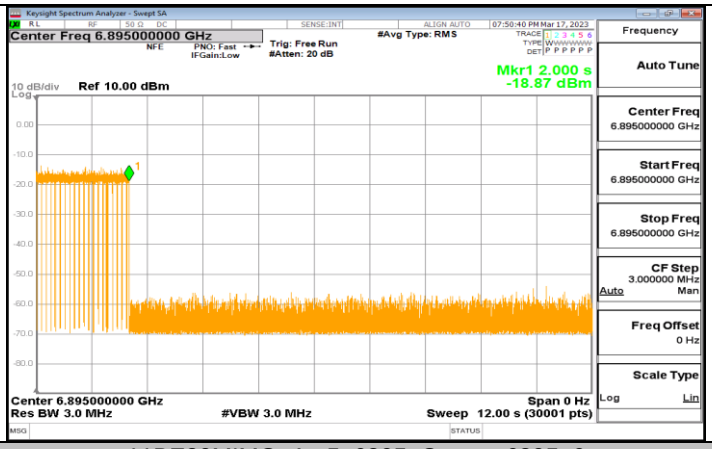
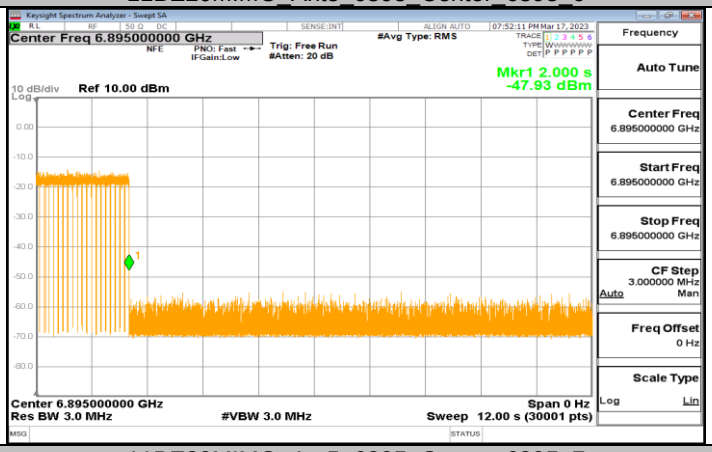


11BE20MIMO_Ant5_6895_Center_6895_6



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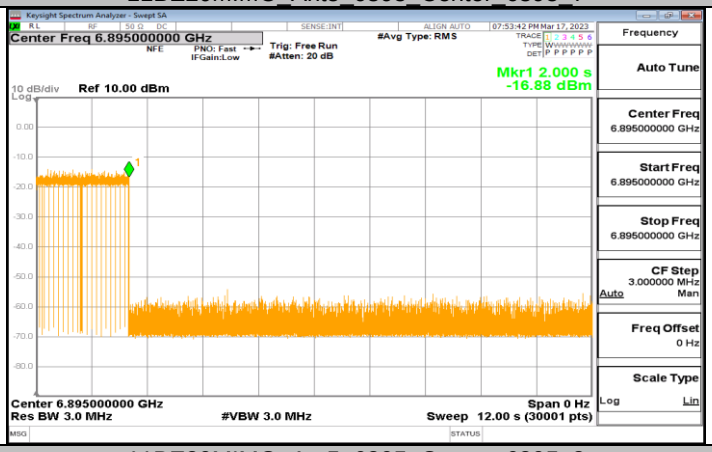

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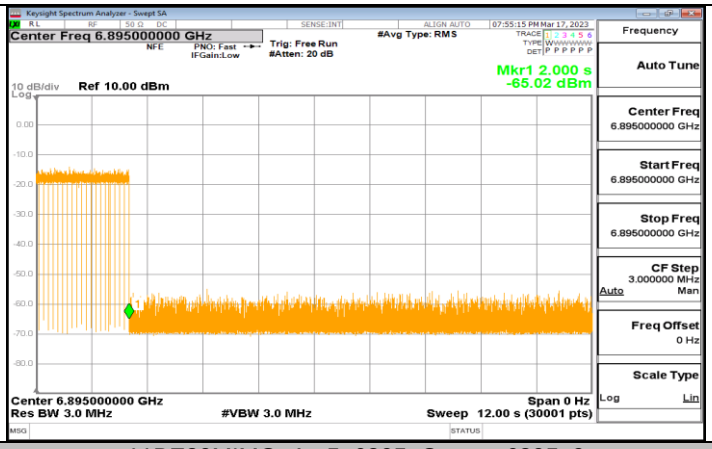
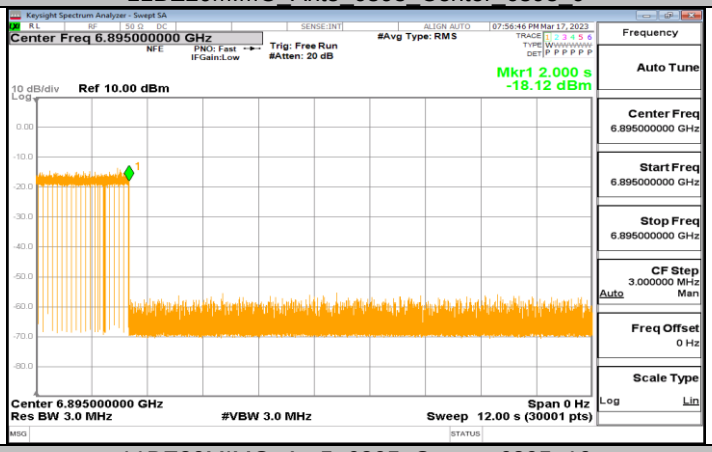


11BE20MIMO_Ant5_6895_Center_6895_9



11BE20MIMO_Ant5_6895_Center_6895_10

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11.8. APPENDIX I: FREQUENCY STABILITY

11.8.1. Test Result

Frequency Error vs. Voltage									
802.11ax HE20: 6115 MHz									
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	6115.0052	0.85	6115.0000	0.00	6114.9835	-2.69	6114.9843	-2.57
TN	VN	6115.0020	0.32	6115.0124	2.03	6114.9989	-0.18	6114.9936	-1.05
TN	VH	6115.0162	2.65	6115.0122	1.99	6115.0121	1.98	6115.0049	0.80

Frequency Error vs. Temperature									
802.11ax HE20: 6115 MHz									
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	6114.9910	-1.47	6115.0055	0.90	6114.9854	-2.39	6114.9786	-3.50
30	VN	6115.0152	2.48	6114.9786	-3.50	6114.9957	-0.70	6114.9936	-1.05
20	VN	6114.9816	-3.01	6115.0054	0.88	6115.0058	0.95	6115.0100	1.63
10	VN	6115.0249	4.07	6115.0065	1.07	6115.0195	3.19	6114.9964	-0.59
0	VN	6114.9960	-0.65	6115.0152	2.49	6114.9964	-0.59	6114.9909	-1.48

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Frequency Error vs. Voltage									
802.11ax HE20: 7035 MHz									
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	7034.9791	-2.97	7034.9975	-0.36	7034.9850	-2.13	7034.9969	-0.44
TN	VN	7034.9963	-0.52	7034.9975	-0.36	7035.0010	0.15	7034.9938	-0.89
TN	VH	7034.9901	-1.40	7035.0039	0.56	7034.9844	-2.22	7035.0071	1.02

Frequency Error vs. Temperature									
802.11ax HE20: 7035 MHz									
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	7034.9919	-1.15	7034.9886	-1.62	7034.9767	-3.31	7034.9759	-3.42
30	VN	7034.9878	-1.73	7034.9986	-0.20	7035.0187	2.66	7035.0191	2.72
20	VN	7035.0038	0.53	7034.9777	-3.17	7035.0249	3.54	7035.0045	0.64
10	VN	7035.0122	1.73	7035.0034	0.48	7034.9791	-2.97	7034.9838	-2.30
0	VN	7035.0102	1.45	7035.0210	2.98	7034.9927	-1.04	7035.0039	0.56

Note: All the mode had been tested, but only the worst data was recorded in the repot.

END OF REPORT

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