RF Test Data for 5G Wi-Fi (Conducted Measurements)

General Description of EUT	
Product Name:	Orbit
Test Model:	Orbit/KR2126
Sample ID:	202302-0333-3-2#
Environmental Conditions	
Temperature:	25℃
Relative Humidity:	55%
Test Voltage:	DC 3.8V
Test Engineer:	Huang jian ping
Note: For a more detailed features description, please refer to the report TBR-C-202302-0333-33 The report only show the worst case data.	

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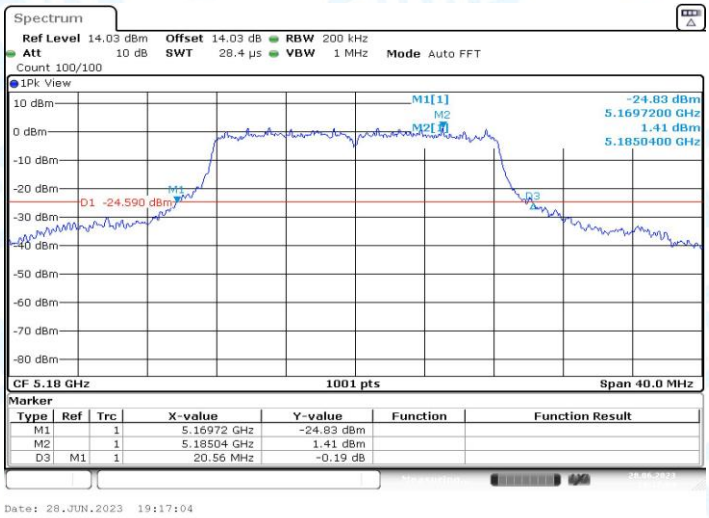
1. Emission Bandwidth

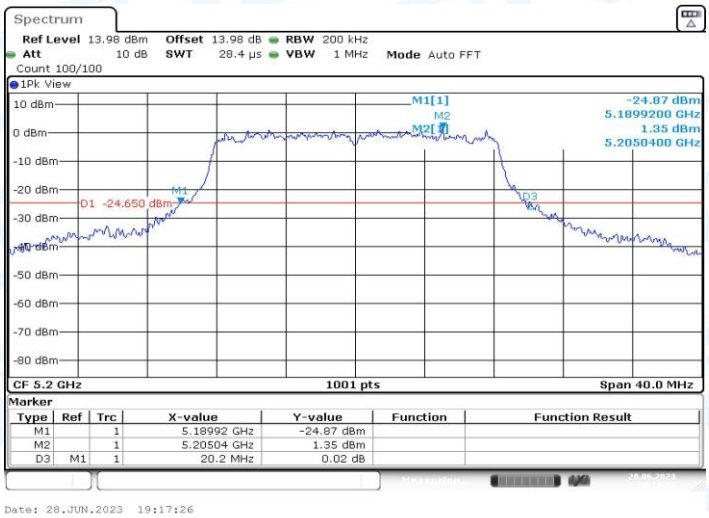
1.1.Test Result

TestMode	Antenna	Channel	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	20.56	5169.72	5190.28	---	---
		5200	20.20	5189.92	5210.12	---	---
		5240	19.32	5230.52	5249.84	---	---
11N20SISO	Ant1	5180	20.52	5169.72	5190.24	---	---
		5200	20.44	5189.84	5210.28	---	---
		5240	20.24	5229.96	5250.20	---	---
11N40SISO	Ant1	5190	40.72	5169.60	5210.32	---	---
		5230	39.68	5210.32	5250.00	---	---
11AC20SISO	Ant1	5180	21.44	5169.32	5190.76	---	---
		5200	20.56	5189.76	5210.32	---	---
		5240	20.32	5229.92	5250.24	---	---
11AC40SISO	Ant1	5190	47.04	5163.20	5210.24	---	---
		5230	40.40	5209.92	5250.32	---	---
11AC80SISO	Ant1	5210	84.80	5168.24	5253.04	---	---

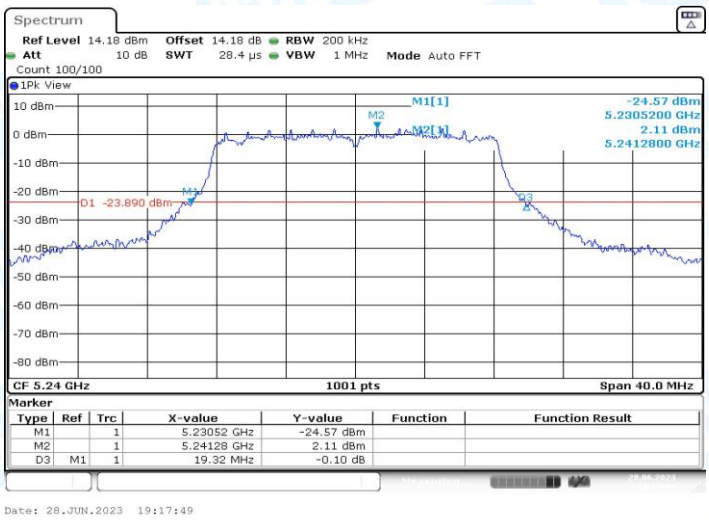
2.1.Test Graphs



11A_Ant1_5180



11A_Ant1_5200



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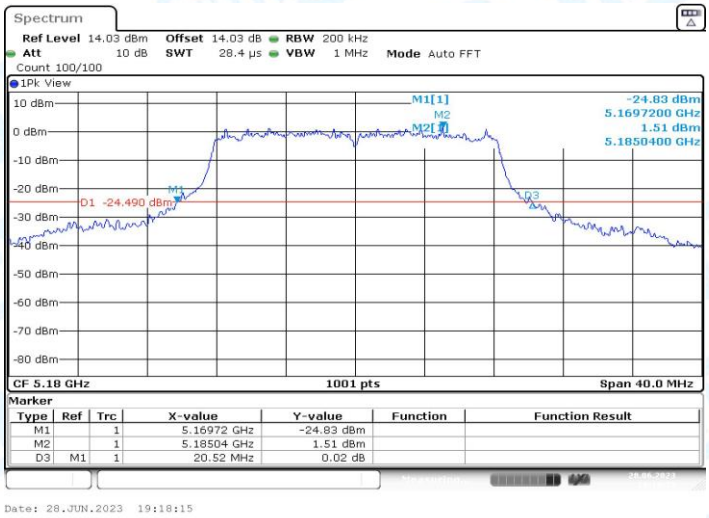

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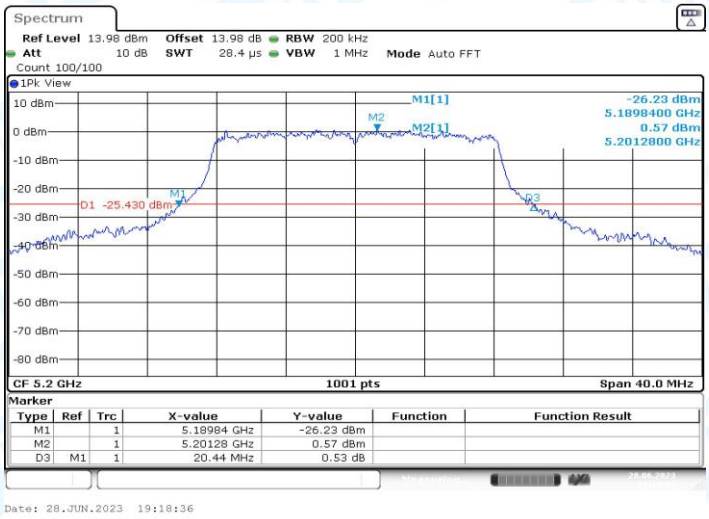

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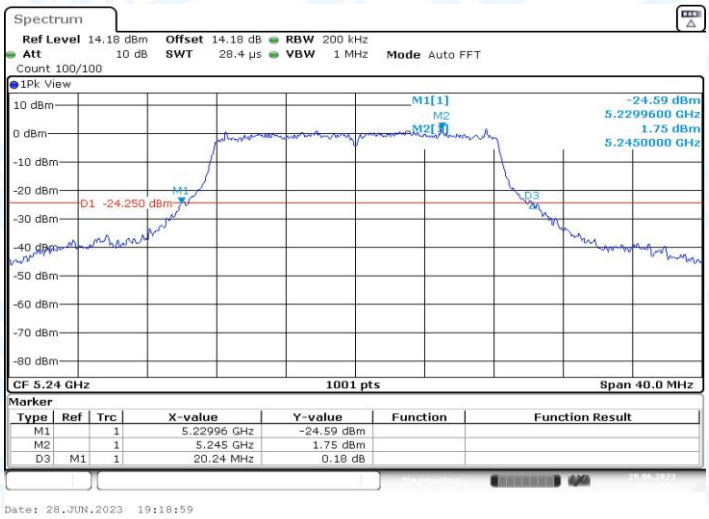

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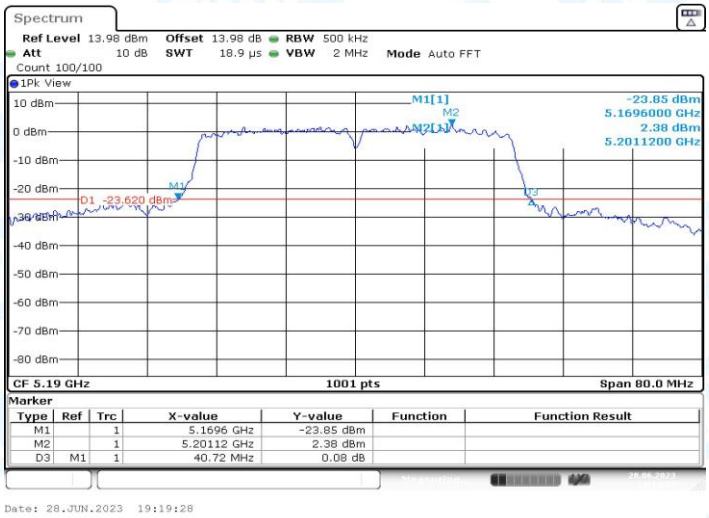

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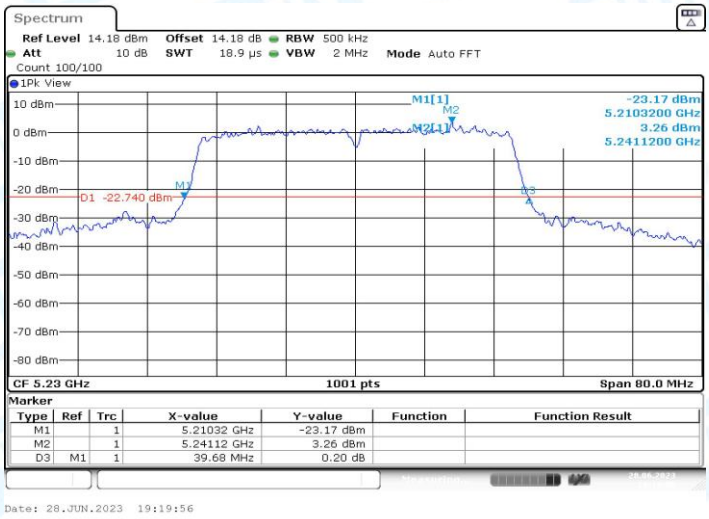

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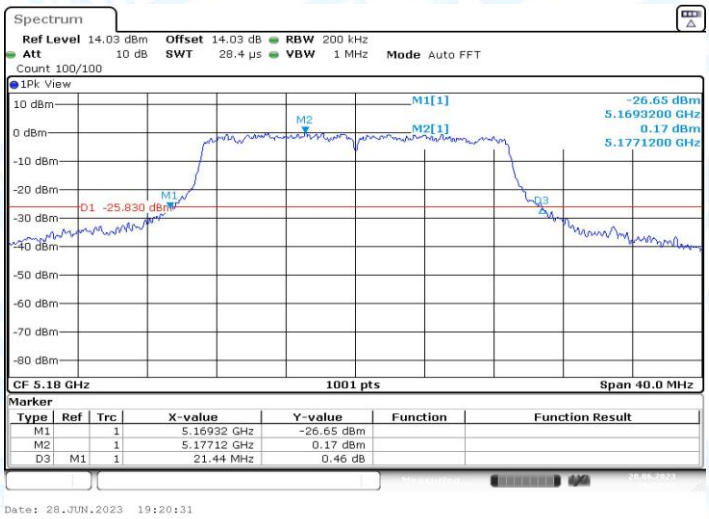

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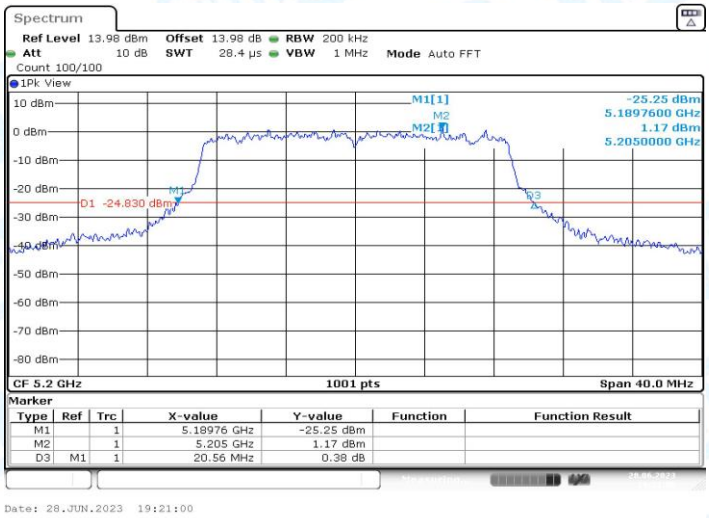

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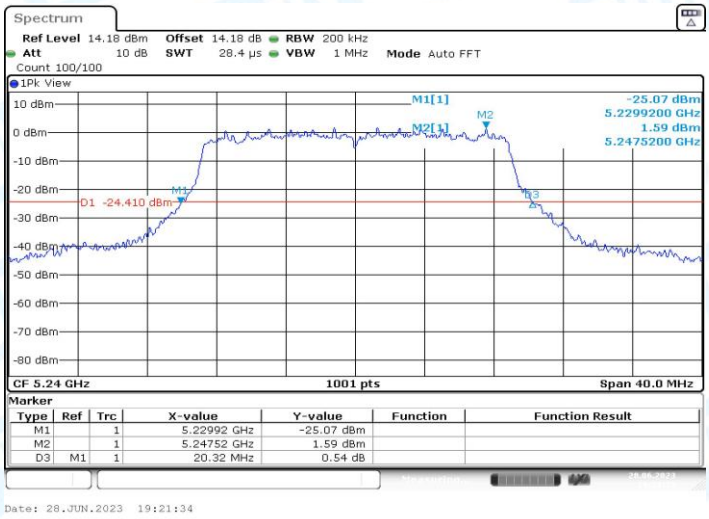

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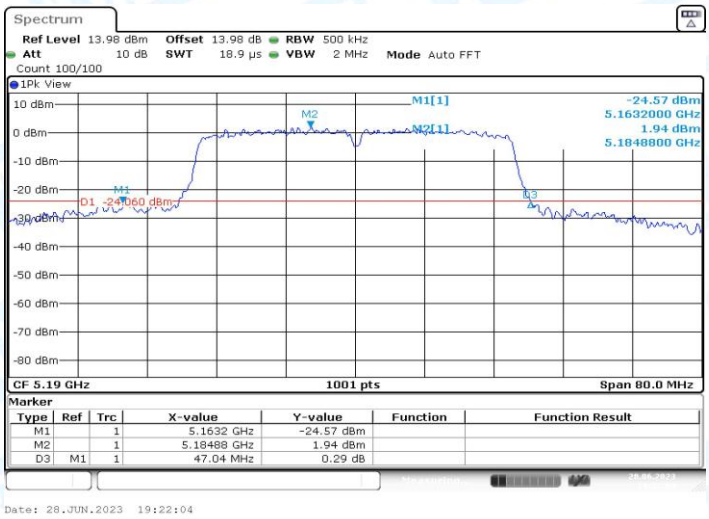

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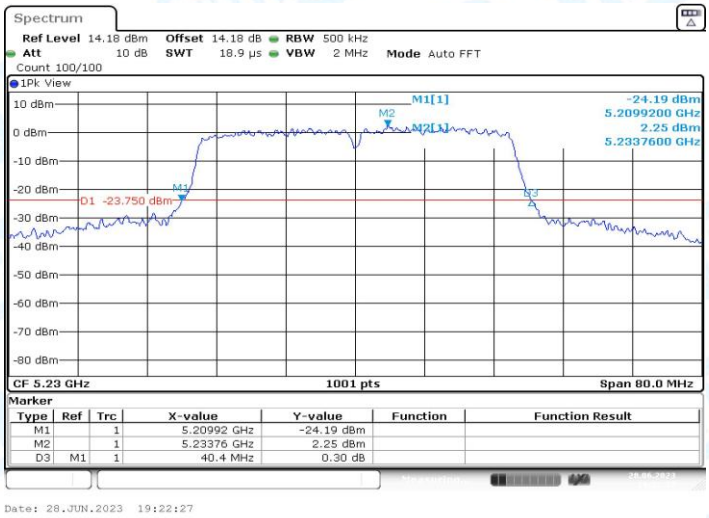

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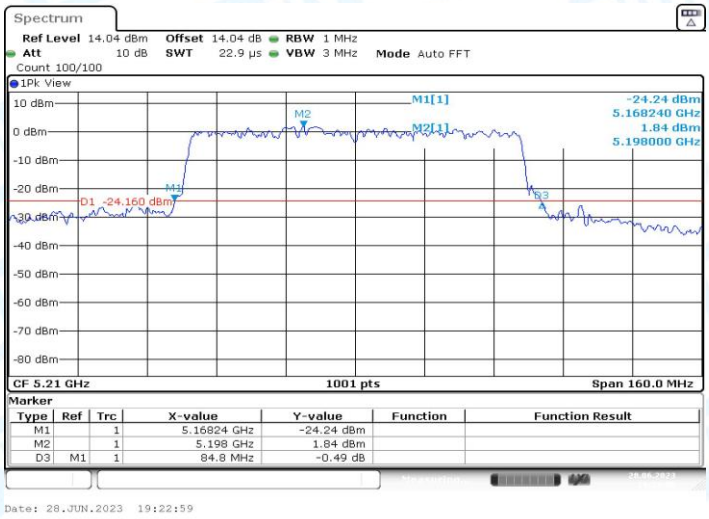


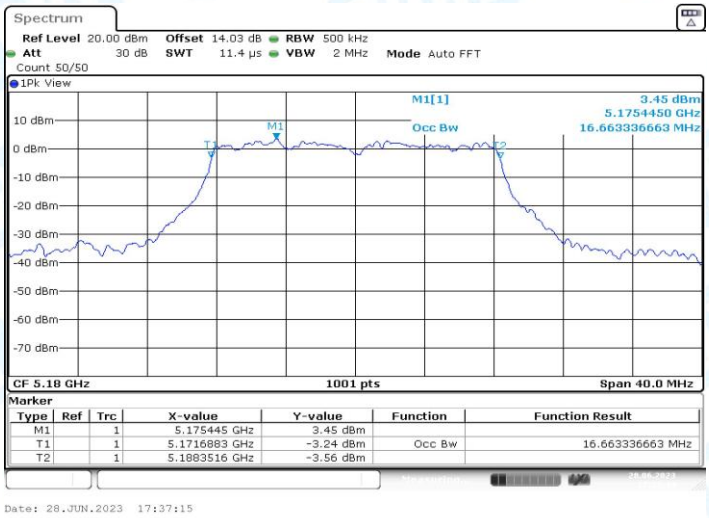
11AC80SISO_Ant1_5210

2. Occupied channel bandwidth

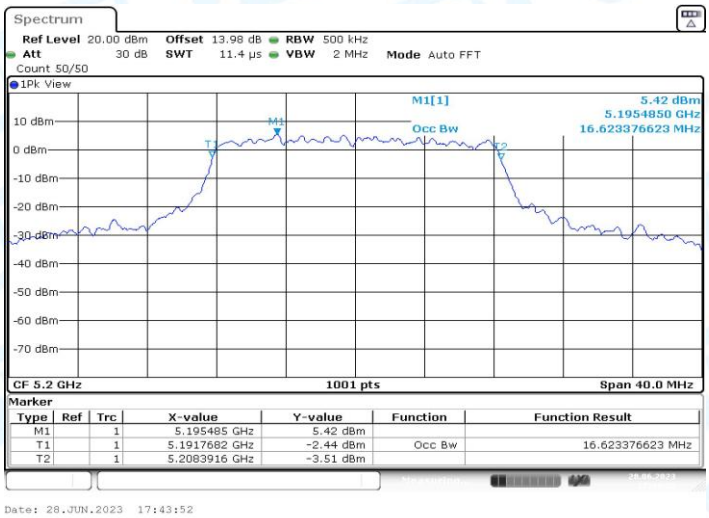
2.1.Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	16.663	5171.6883	5188.3516	---	---
		5200	16.623	5191.7682	5208.3916	---	---
		5240	17.662	5231.3287	5248.9910	---	---
11N20SISO	Ant1	5180	24.256	5167.5325	5191.7882	---	---
		5200	22.737	5188.5315	5211.2687	---	---
		5240	18.342	5230.8891	5249.2308	---	---
11N40SISO	Ant1	5190	43.317	5165.8641	5209.1808	---	---
		5230	37.802	5211.4585	5249.2607	---	---
11AC20SISO	Ant1	5180	24.496	5167.3327	5191.8282	---	---
		5200	23.576	5187.8921	5211.4685	---	---
		5240	18.382	5230.9291	5249.3107	---	---
11AC40SISO	Ant1	5190	46.593	5164.9051	5211.4985	---	---
		5230	37.323	5211.4585	5248.7812	---	---
11AC80SISO	Ant1	5210	78.641	5170.1998	5248.8412	---	---

2.2.Test Graphs



11A_Ant1_5180



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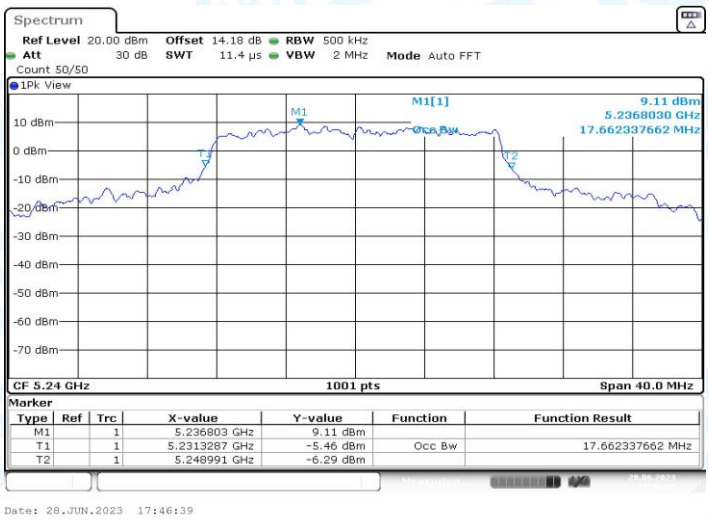
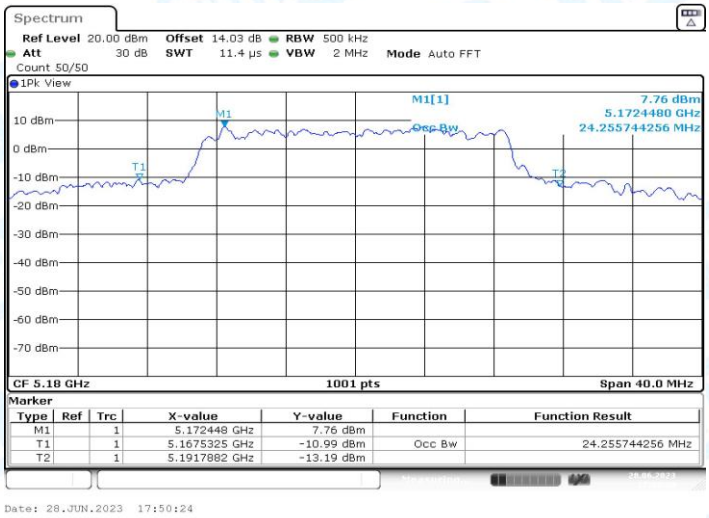
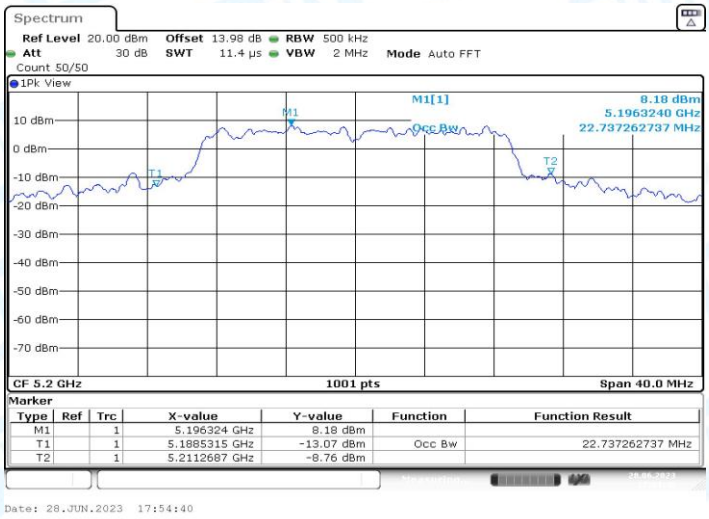


11A_Ant1_5240



11N20SISO_Ant1_5180



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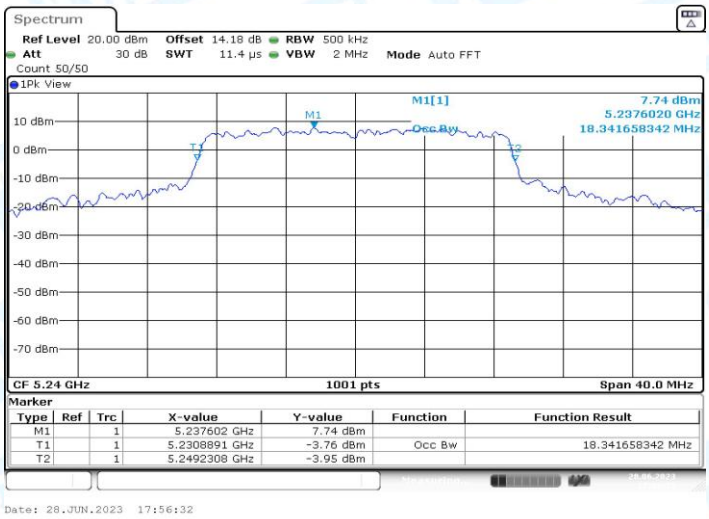

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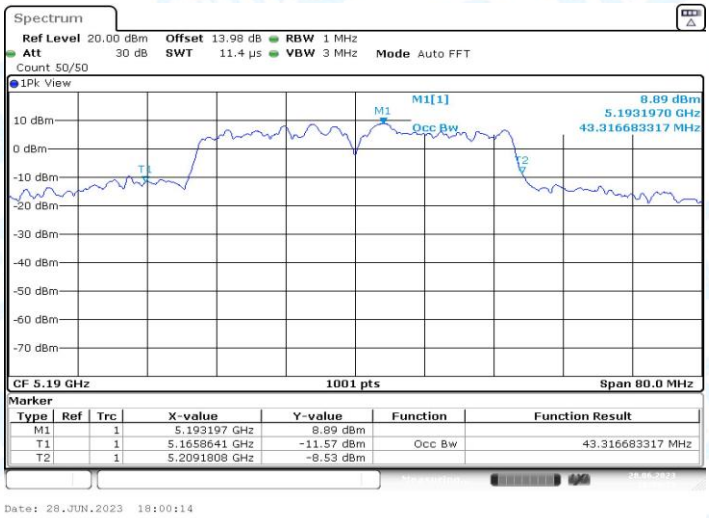
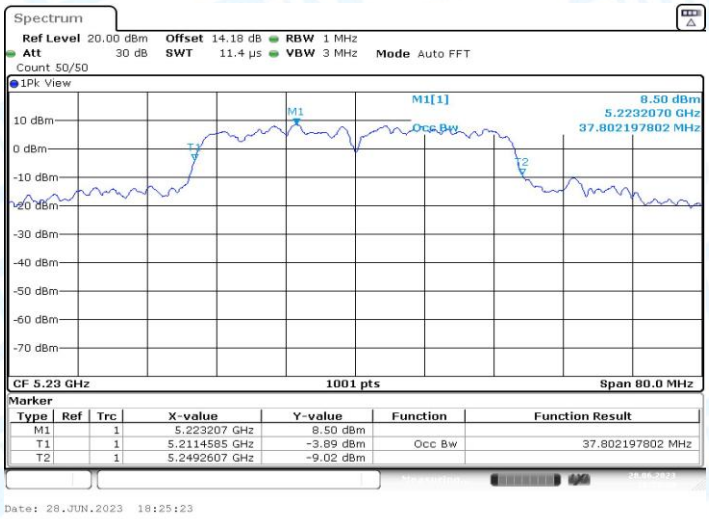
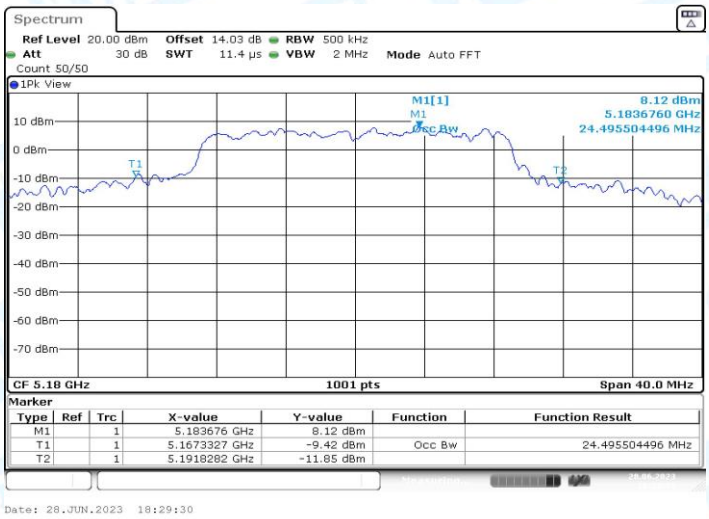


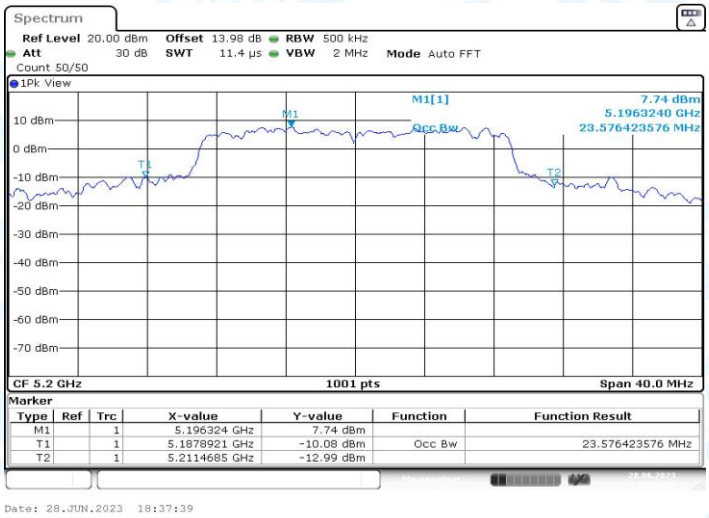
11N40SISO_Ant1_5190



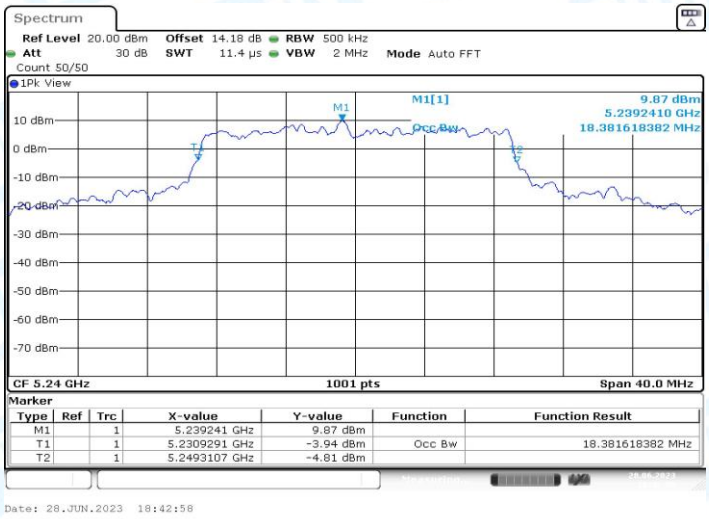
11N40SISO_Ant1_5230



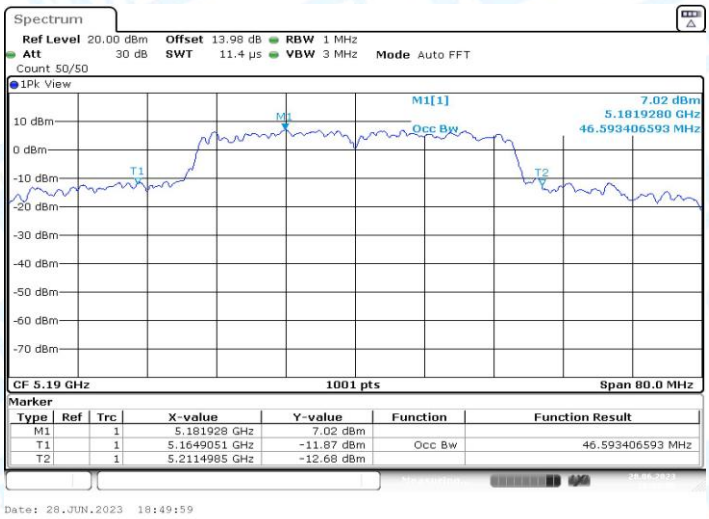
11AC20SISO_Ant1_5180



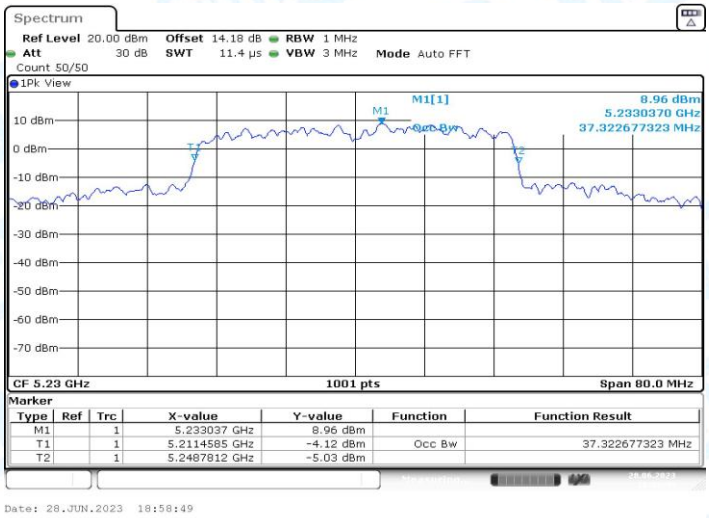
11AC20SISO_Ant1_5200



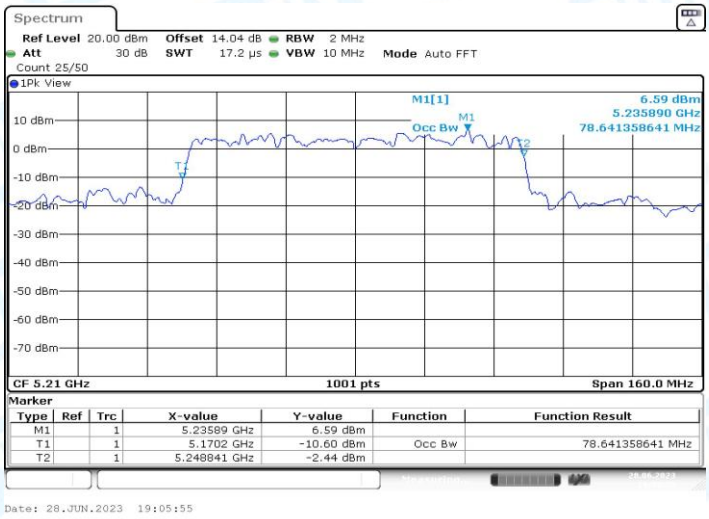
11AC20SISO_Ant1_5240



11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230



11AC80SISO_Ant1_5210

3. Maximum conducted output power

3.1.Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	5180	15.67	≤23.98	PASS
		5200	15.02	≤23.98	PASS
		5240	14.74	≤23.98	PASS
11N20SISO	Ant1	5180	15.17	≤23.98	PASS
		5200	15.38	≤23.98	PASS
		5240	14.64	≤23.98	PASS
11N40SISO	Ant1	5190	15.24	≤23.98	PASS
		5230	15.09	≤23.98	PASS
11AC20SISO	Ant1	5180	15.15	≤23.98	PASS
		5200	15.41	≤23.98	PASS
		5240	14.63	≤23.98	PASS
11AC40SISO	Ant1	5190	15.24	≤23.98	PASS
		5230	15.13	≤23.98	PASS
11AC80SISO	Ant1	5210	13.98	≤23.98	PASS

Note: The Duty Cycle Factor is compensated in the graph.

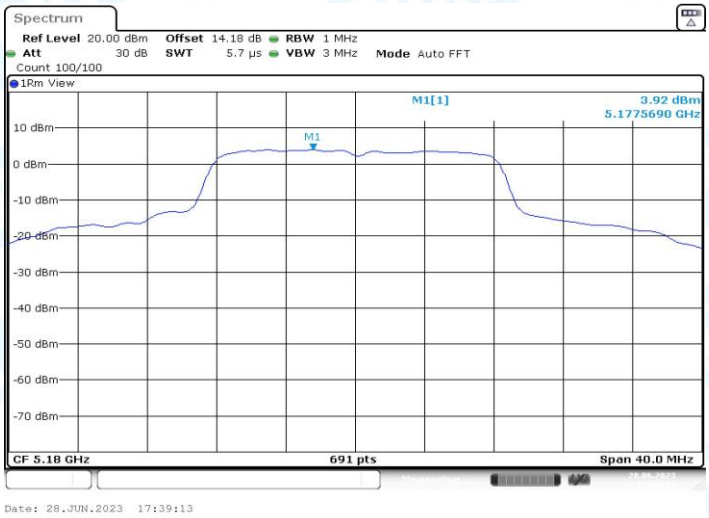
4. Maximum power spectral density

4.1.Test Result

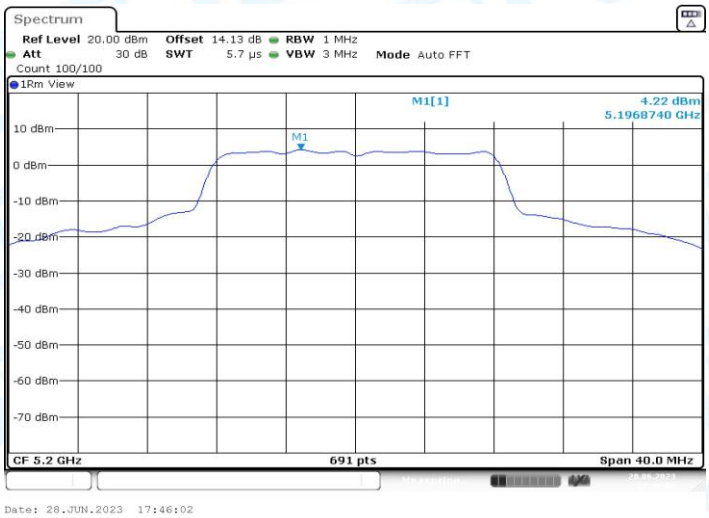
TestMode	Antenna	Channel	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	3.92	≤11.00	PASS
		5200	4.22	≤11.00	PASS
		5240	4.24	≤11.00	PASS
11N20SISO	Ant1	5180	3.53	≤11.00	PASS
		5200	3.82	≤11.00	PASS
		5240	4.32	≤11.00	PASS
11N40SISO	Ant1	5190	0.65	≤11.00	PASS
		5230	1.37	≤11.00	PASS
11AC20SISO	Ant1	5180	3.48	≤11.00	PASS
		5200	3.55	≤11.00	PASS
		5240	4.48	≤11.00	PASS
11AC40SISO	Ant1	5190	0.99	≤11.00	PASS
		5230	1.44	≤11.00	PASS
11AC80SISO	Ant1	5210	-3.08	≤11.00	PASS

Note：1.The Duty Cycle Factor and RBW Factor is compensated in the graph.

4.2.Test Graphs

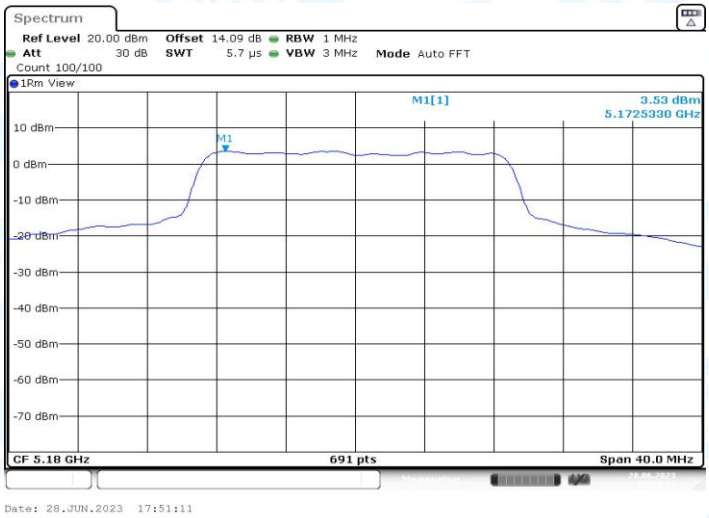


11A_Ant1_5180



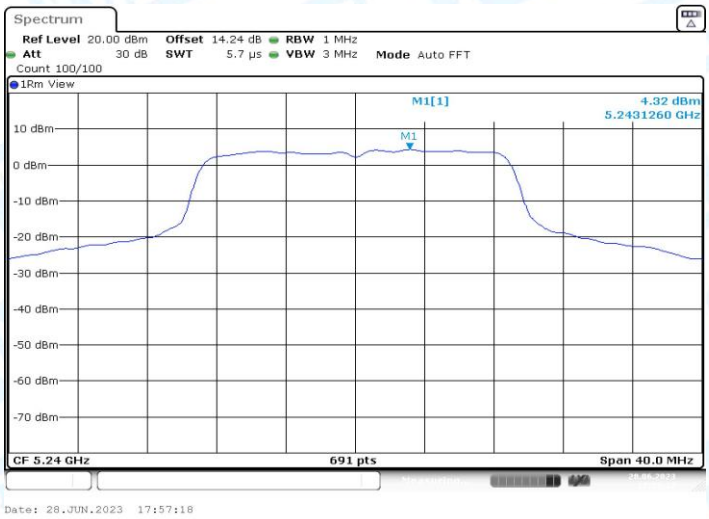
11A_Ant1_5200

11A_Ant1_5240

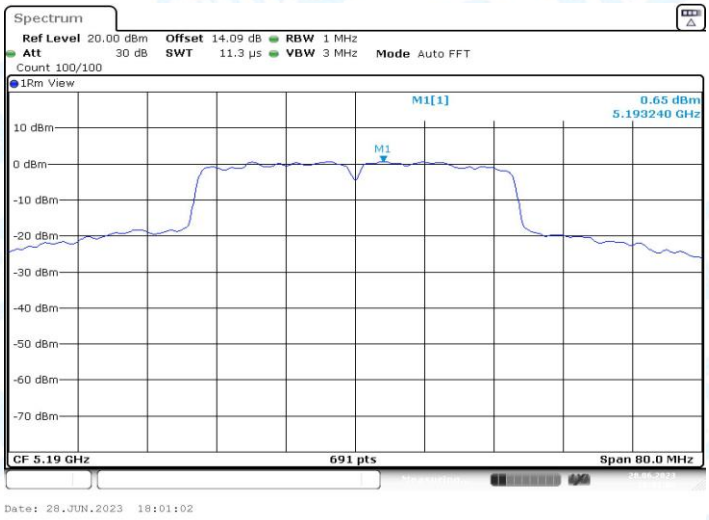


11N20SISO_Ant1_5180

11N20SISO_Ant1_5200



11N20SISO_Ant1_5240



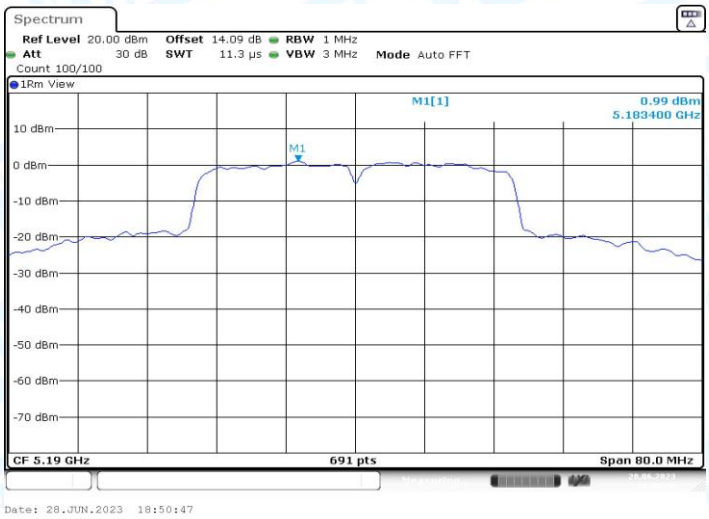
11N40SISO_Ant1_5190

11N40SISO_Ant1_5230

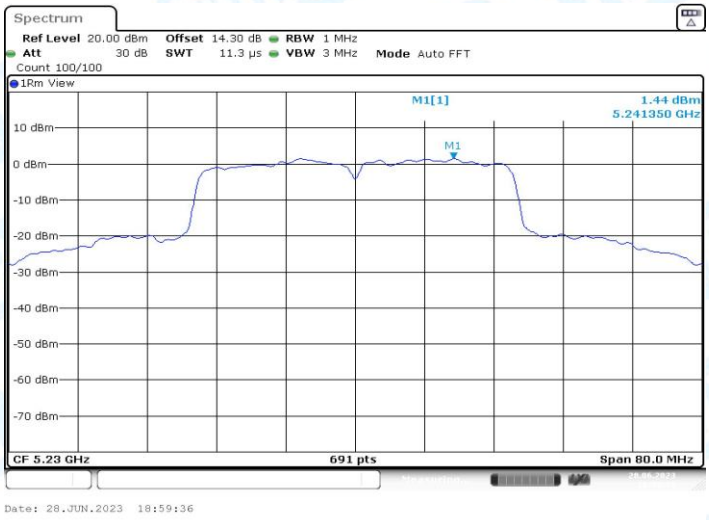
11AC20SISO_Ant1_5180

11AC20SISO_Ant1_5200

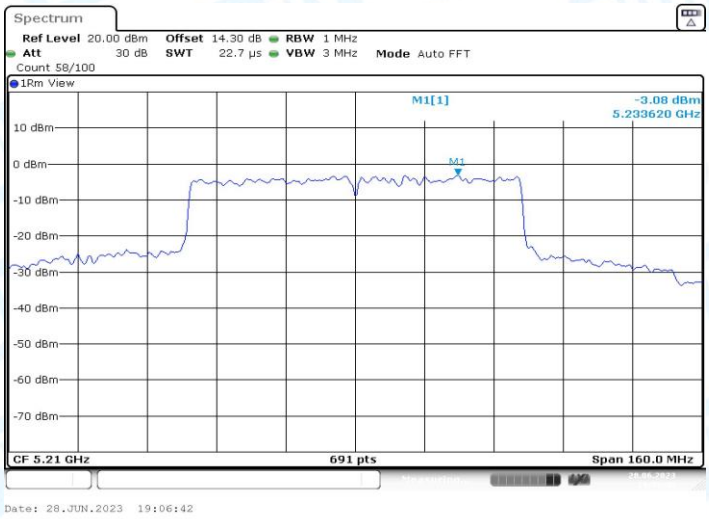
11AC20SISO_Ant1_5240



11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230



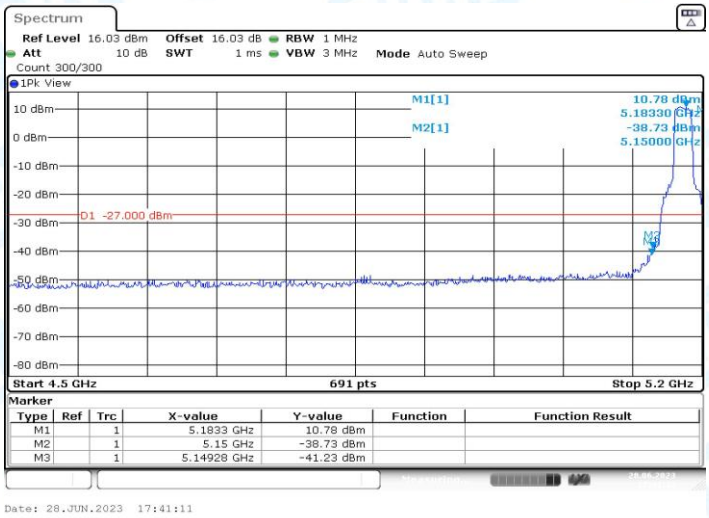
11AC80SISO_Ant1_5210

5. Band edge measurements

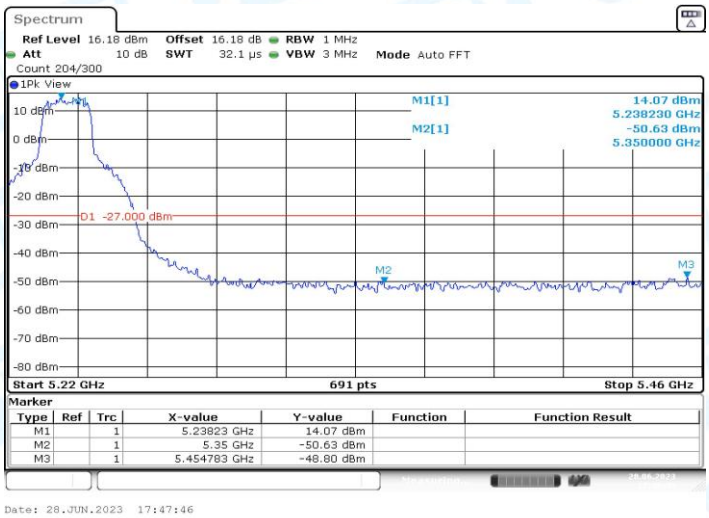
5.1.Test Result

TestMode	Antenna	ChName	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	Low	5180	-41.23	≤-27	PASS
		High	5240	-48.80	≤-27	PASS
11N20SISO	Ant1	Low	5180	-39.75	≤-27	PASS
		High	5240	-48.53	≤-27	PASS
11N40SISO	Ant1	Low	5190	-36.94	≤-27	PASS
		High	5230	-49.07	≤-27	PASS
11AC20SISO	Ant1	Low	5180	-38.55	≤-27	PASS
		High	5240	-49.31	≤-27	PASS
11AC40SISO	Ant1	Low	5190	-27.27	≤-27	PASS
		High	5230	-48.62	≤-27	PASS
11AC80SISO	Ant1	Low	5210	-34.23	≤-27	PASS
		High	5210	-47.80	≤-27	PASS

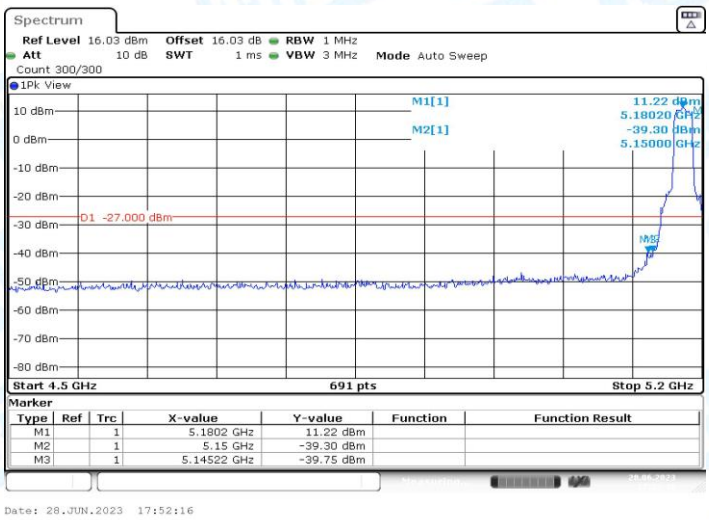
5.2.Test Graphs



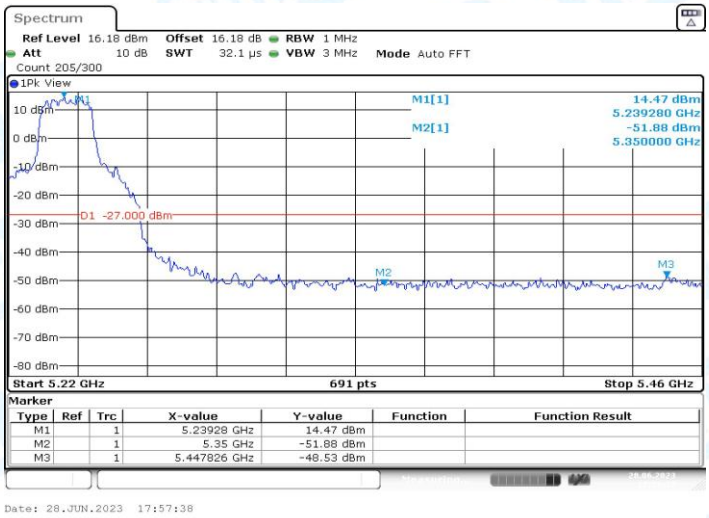
11A_Ant1_Low_5180



11A_Ant1_High_5240



11N20SISO_Ant1_Low_5180



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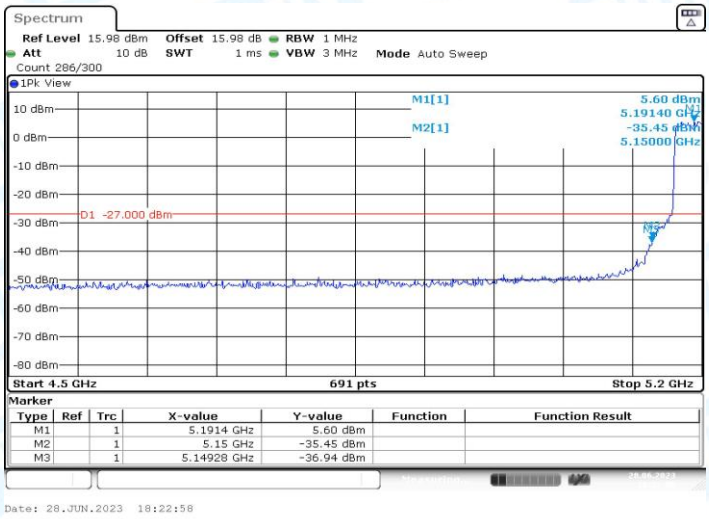

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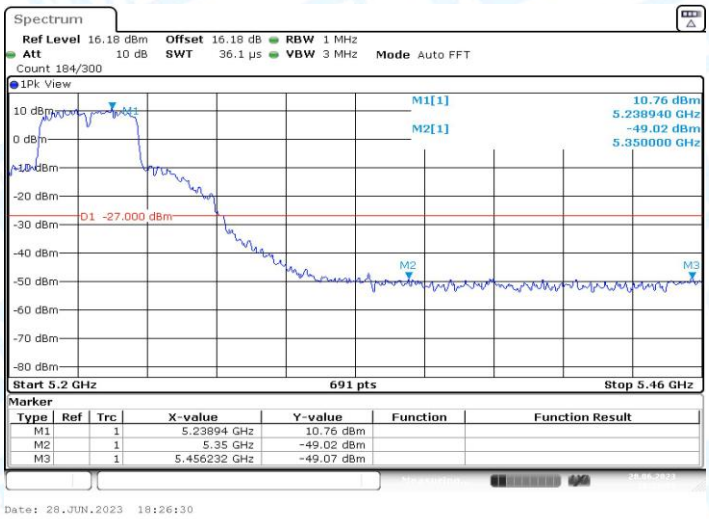

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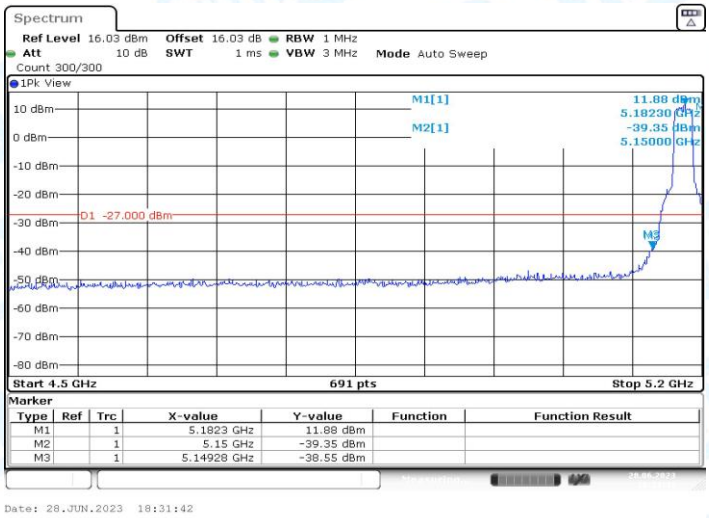

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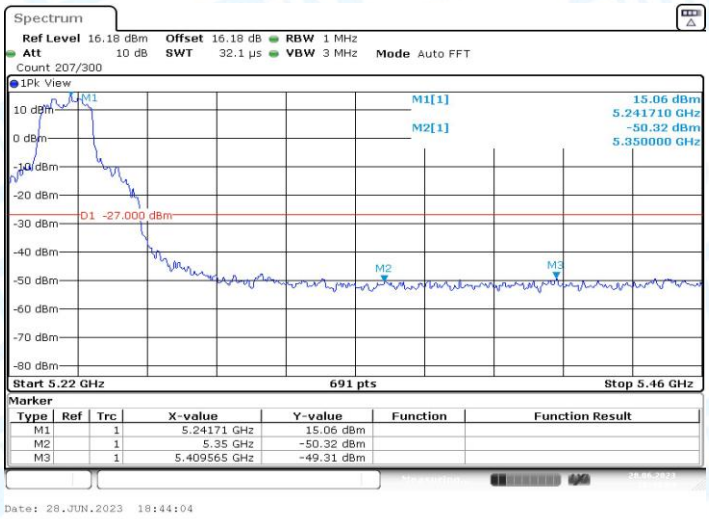

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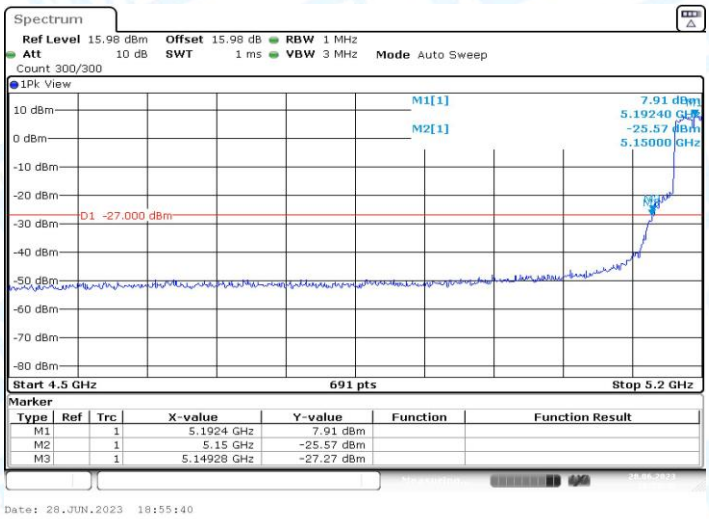

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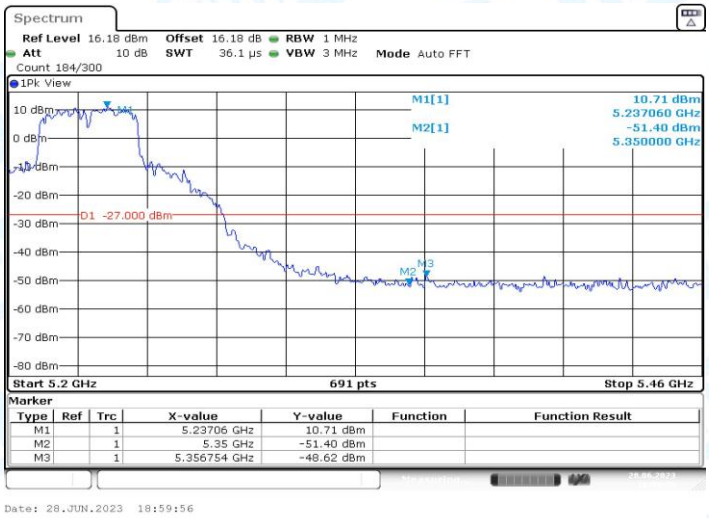

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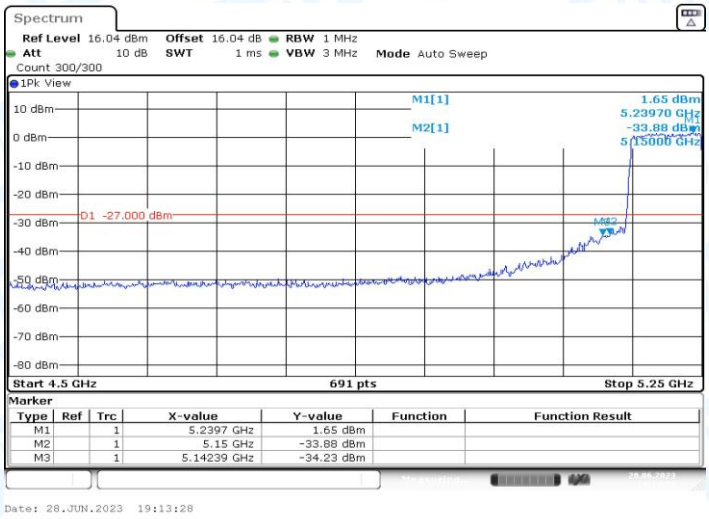
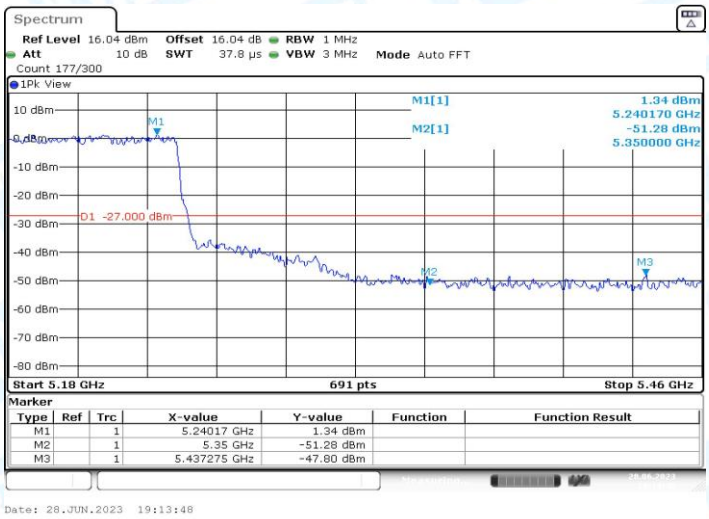


11AC80SISO_Ant1_Low_5210



11AC80SISO_Ant1_High_5210

6. Emissions in Restricted Bands

6.1.Test Result

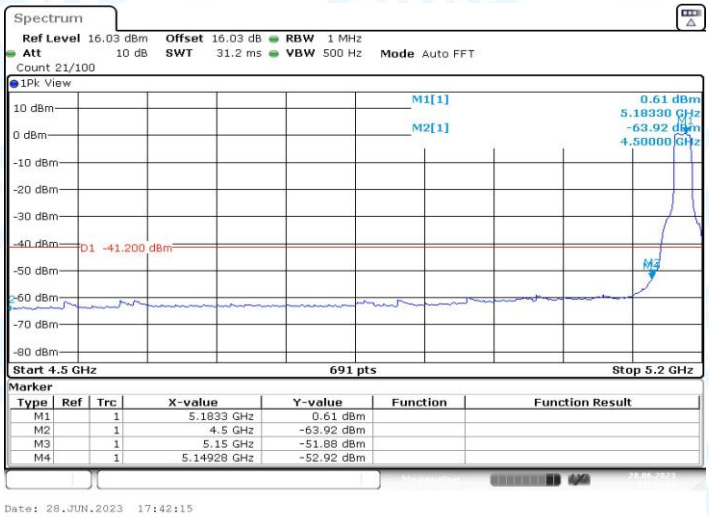
TestMode	Antenna	ChName	Channel	Detector	Freq [MHz]	EIRP [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5180	AV	4500.000	-63.92	≤-41.20	PASS
				AV	5149.275	-52.92	≤-41.20	PASS
				AV	5150.000	-51.88	≤-41.20	PASS
				Peak	4500.000	-51.92	≤-21.20	PASS
				Peak	5148.261	-39.32	≤-21.20	PASS
				Peak	5150.000	-39.78	≤-21.20	PASS
		High	5240	AV	5350.000	-61.19	≤-41.20	PASS
				AV	5446.783	-59.57	≤-41.20	PASS
				AV	5460.000	-61.07	≤-41.20	PASS
				Peak	5350.000	-50.09	≤-21.20	PASS
				Peak	5447.130	-48.4	≤-21.20	PASS
				Peak	5460.000	-50.84	≤-21.20	PASS
11N20SISO	Ant1	Low	5180	AV	4500.000	-64.32	≤-41.20	PASS
				AV	5149.275	-52.96	≤-41.20	PASS
				AV	5150.000	-52.48	≤-41.20	PASS
				Peak	4500.000	-52.23	≤-21.20	PASS
				Peak	5149.275	-38.41	≤-21.20	PASS
				Peak	5150.000	-38.95	≤-21.20	PASS
		High	5240	AV	5350.000	-61.76	≤-41.20	PASS
				AV	5446.783	-60.06	≤-41.20	PASS
				AV	5460.000	-61.54	≤-41.20	PASS
				Peak	5350.000	-51.66	≤-21.20	PASS
				Peak	5448.174	-48.15	≤-21.20	PASS
				Peak	5460.000	-51.64	≤-21.20	PASS
11N40SISO	Ant1	Low	5190	AV	4500.000	-64.03	≤-41.20	PASS
				AV	5149.275	-48.48	≤-41.20	PASS
				AV	5150.000	-47.76	≤-41.20	PASS
				Peak	4500.000	-51.4	≤-21.20	PASS
				Peak	5149.275	-36.16	≤-21.20	PASS
				Peak	5150.000	-33.83	≤-21.20	PASS
		High	5230	AV	5350.000	-60.97	≤-41.20	PASS
				AV	5447.188	-59.5	≤-41.20	PASS
				AV	5460.000	-61.01	≤-41.20	PASS
				Peak	5350.000	-51.16	≤-21.20	PASS
				Peak	5456.232	-47.36	≤-21.20	PASS
				Peak	5460.000	-50.59	≤-21.20	PASS
11AC20SISO	Ant1	Low	5180	AV	4500.000	-64.31	≤-41.20	PASS
				AV	5149.275	-52.94	≤-41.20	PASS
				AV	5150.000	-52.45	≤-41.20	PASS

				Peak	4500.000	-51.55	≤-21.20	PASS
				Peak	5149.275	-38.9	≤-21.20	PASS
				Peak	5150.000	-38.45	≤-21.20	PASS
		High	5240	AV	5350.000	-61.73	≤-41.20	PASS
				AV	5447.826	-60.08	≤-41.20	PASS
				AV	5460.000	-61.57	≤-41.20	PASS
				Peak	5350.000	-51.03	≤-21.20	PASS
				Peak	5360.174	-48.38	≤-21.20	PASS
				Peak	5460.000	-49.88	≤-21.20	PASS
11AC40SISO	Ant1	Low	5190	AV	4500.000	-63.96	≤-41.20	PASS
				AV	5149.275	-48.43	≤-41.20	PASS
				AV	5150.000	-47.79	≤-41.20	PASS
				Peak	4500.000	-51.52	≤-21.20	PASS
				Peak	5149.275	-35.64	≤-21.20	PASS
				Peak	5150.000	-34.88	≤-21.20	PASS
		High	5230	AV	5350.000	-61.09	≤-41.20	PASS
				AV	5447.942	-59.11	≤-41.20	PASS
				AV	5460.000	-61.08	≤-41.20	PASS
				Peak	5350.000	-51.76	≤-21.20	PASS
				Peak	5373.710	-48.37	≤-21.20	PASS
				Peak	5460.000	-49.79	≤-21.20	PASS
11AC80SISO	Ant1	Low	5210	AV	4500.000	-63.67	≤-41.20	PASS
				AV	5148.913	-45.74	≤-41.20	PASS
				AV	5150.000	-45.75	≤-41.20	PASS
				Peak	4500.000	-51.05	≤-21.20	PASS
				Peak	5146.739	-33.58	≤-21.20	PASS
				Peak	5150.000	-34.35	≤-21.20	PASS
		High	5210	AV	5350.000	-59.9	≤-41.20	PASS
				AV	5447.826	-58.99	≤-41.20	PASS
				AV	5460.000	-60.46	≤-41.20	PASS
				Peak	5350.000	-49.29	≤-21.20	PASS
				Peak	5447.826	-46.95	≤-21.20	PASS
				Peak	5460.000	-51.01	≤-21.20	PASS

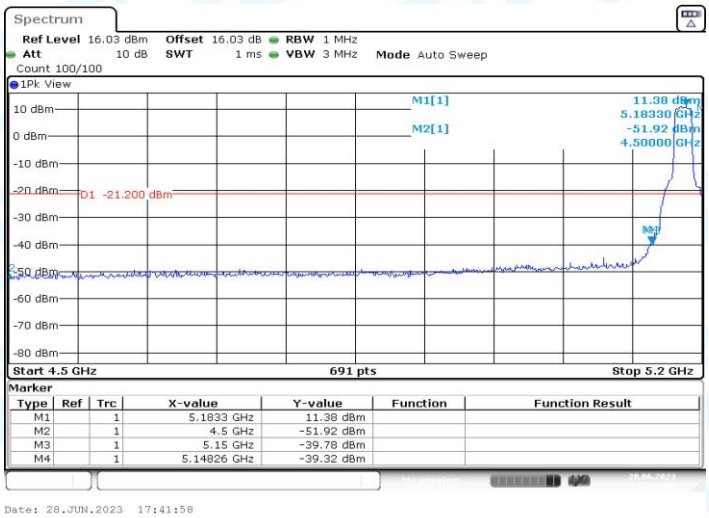
Note:

1. The Antenna Gain is compensated in the graph.
2. For transmitters operating in 5150-5350 GHz band and 5470-5725 GHz band: The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

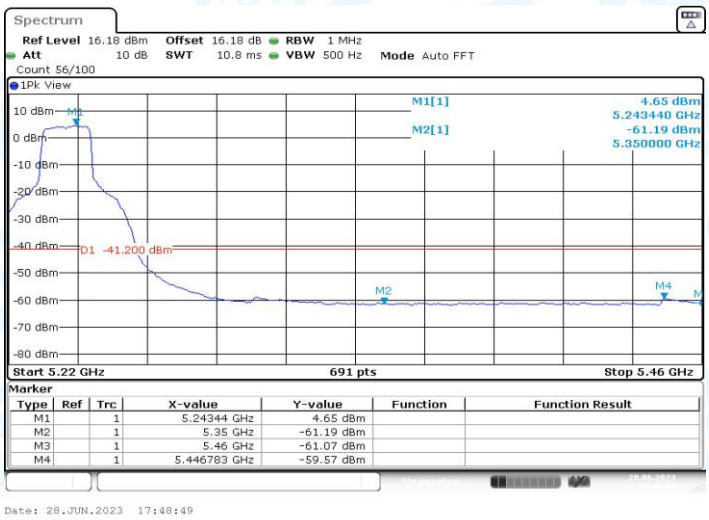
6.2.Test Graphs



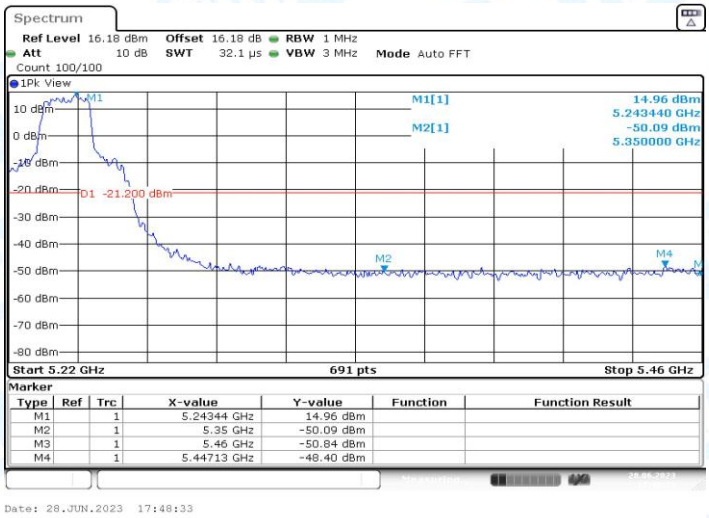
11A_Ant1_Low_5180_AV



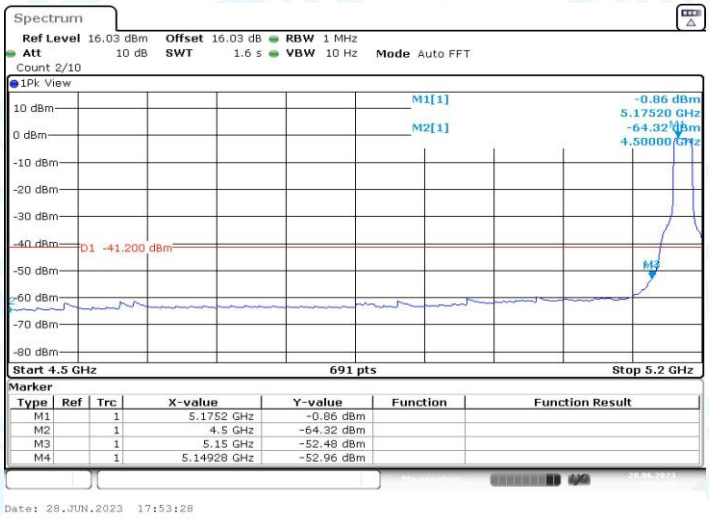
11A_Ant1_Low_5180_Peak



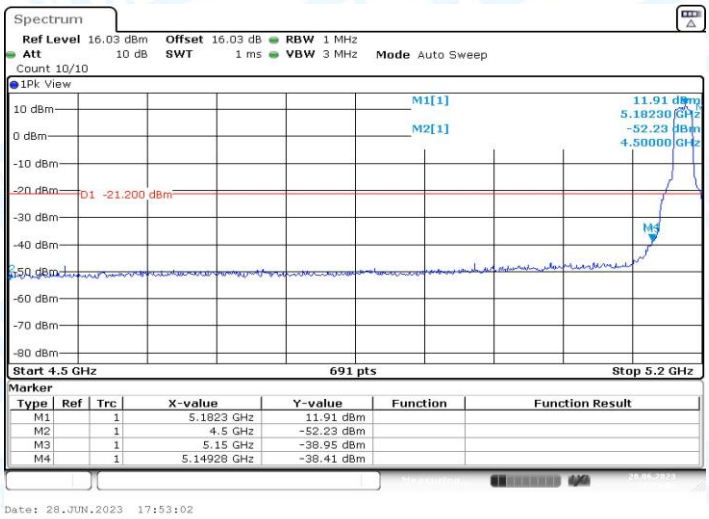
11A_Ant1_High_5240_AV



11A_Ant1_High_5240_Peak



11N20SISO_Ant1_Low_5180_AV



11N20SISO_Ant1_Low_5180_Peak