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

General Description of EUT	
Product Name:	**StiX**
Test Model:	**5700**
Sample ID:	**20211022-08_1-01**
Environmental Conditions	
Temperature:	**25℃**
Relative Humidity:	**45%**
Test Voltage:	**AC 120V**
Test Engineer:	**HUANGJIANPING**
Note: For a more detailed features description, please refer to the report TB-FCC184369	

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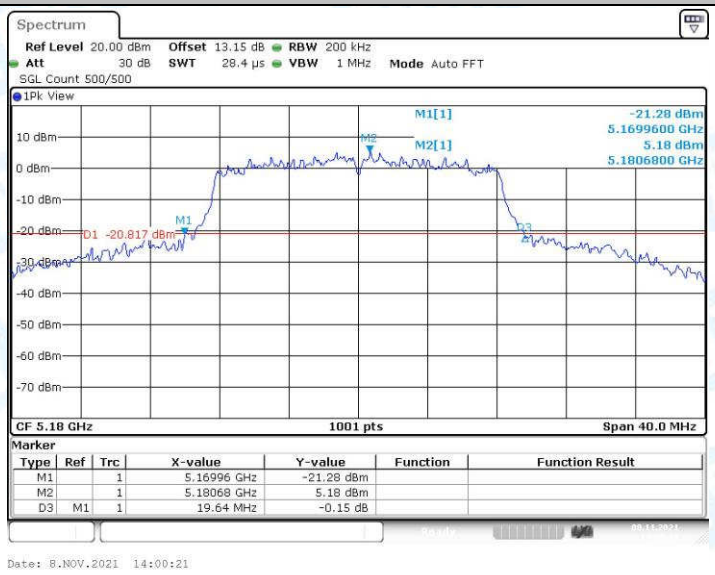
1. Emission Bandwidth

1.1.Test Result

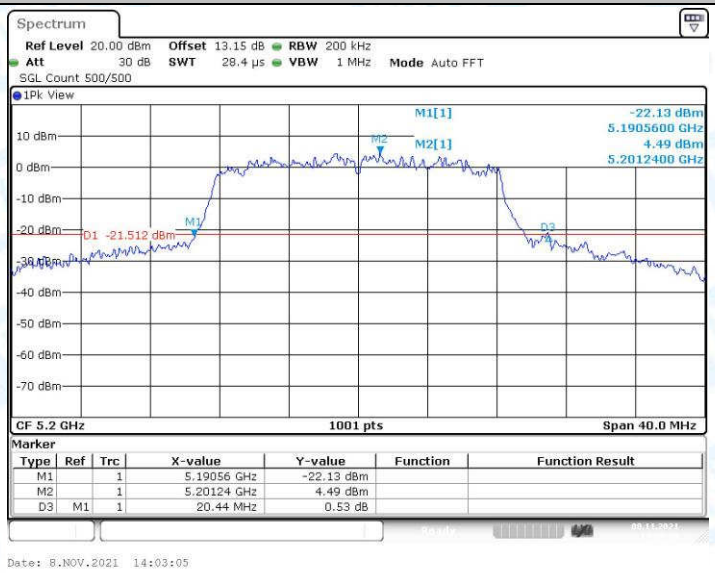
TestMode	Antenna	Channel	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	19.640	5169.960	5189.600	---	PASS
		5200	20.440	5190.560	5211.000	---	PASS
		5240	18.680	5230.760	5249.440	---	PASS
11N20SISO	Ant1	5180	18.960	5170.520	5189.480	---	PASS
		5200	19.800	5190.480	5210.280	---	PASS
		5240	19.040	5230.440	5249.480	---	PASS

1.2.Test Graphs

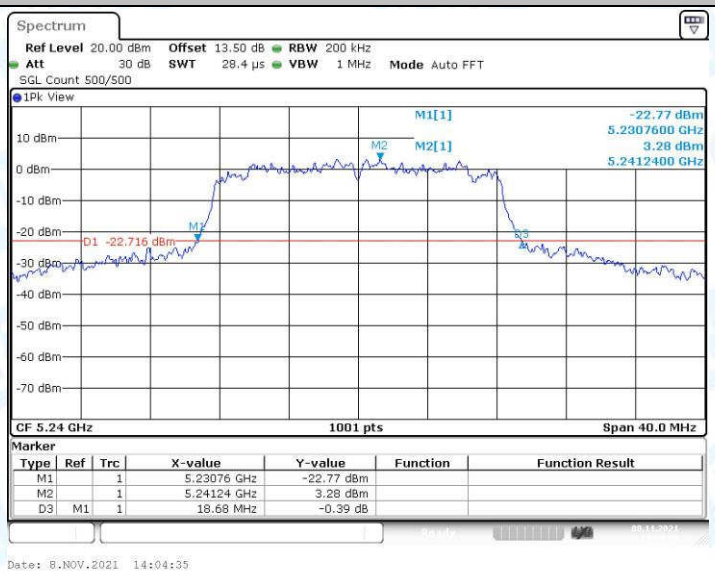
11A_Ant1_5180



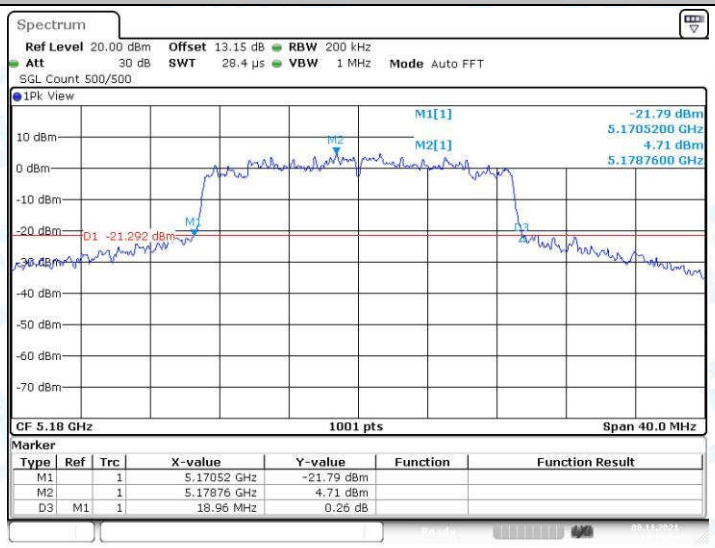
11A_Ant1_5200



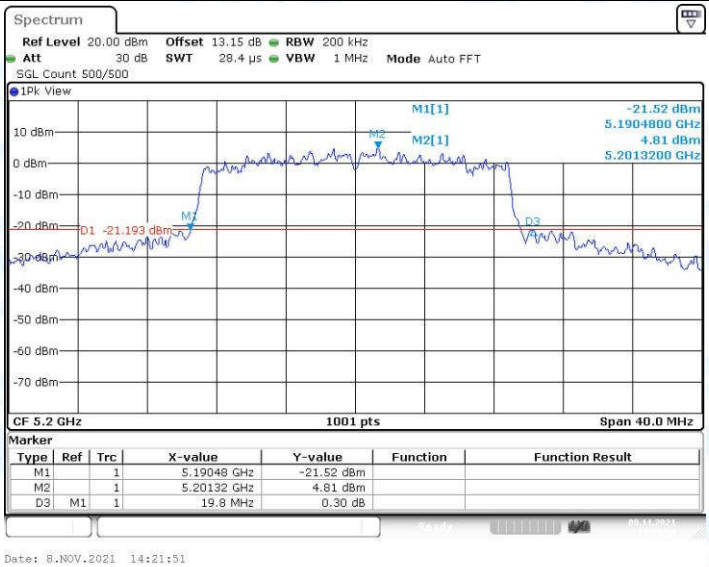
11A_Ant1_5240



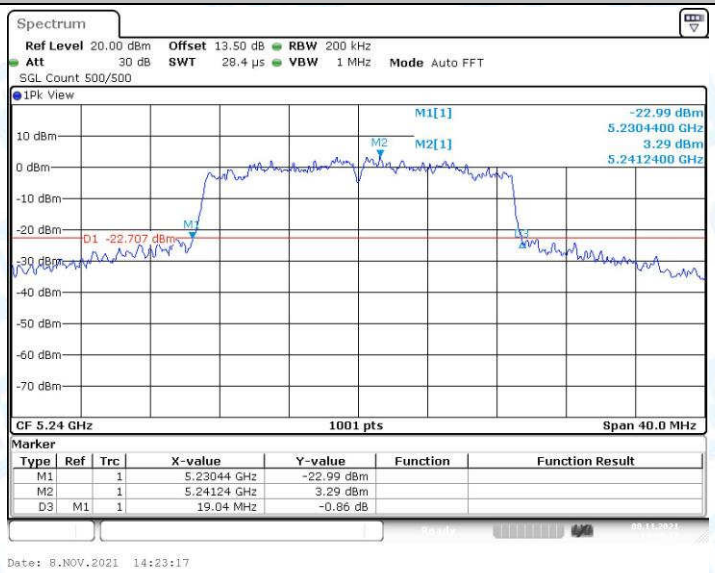
11N20SISO_Ant1_5180



11N20SISO_Ant1_5200



11N20SISO_Ant1_5240



2. Occupied channel bandwidth

2.1.Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	16.903	5171.568	5188.472	---	PASS
		5200	16.823	5191.568	5208.392	---	PASS
		5240	16.823	5231.528	5248.352	---	PASS
		5745	17.063	5736.528	5753.591	---	PASS
		5785	16.903	5776.568	5793.472	---	PASS
		5825	16.903	5816.568	5833.472	---	PASS
11N20SISO	Ant1	5180	17.742	5171.089	5188.831	---	PASS
		5200	17.902	5191.009	5208.911	---	PASS
		5240	17.742	5231.089	5248.831	---	PASS
		5745	17.822	5736.129	5753.951	---	PASS
		5785	17.862	5776.089	5793.951	---	PASS
		5825	17.822	5816.089	5833.911	---	PASS

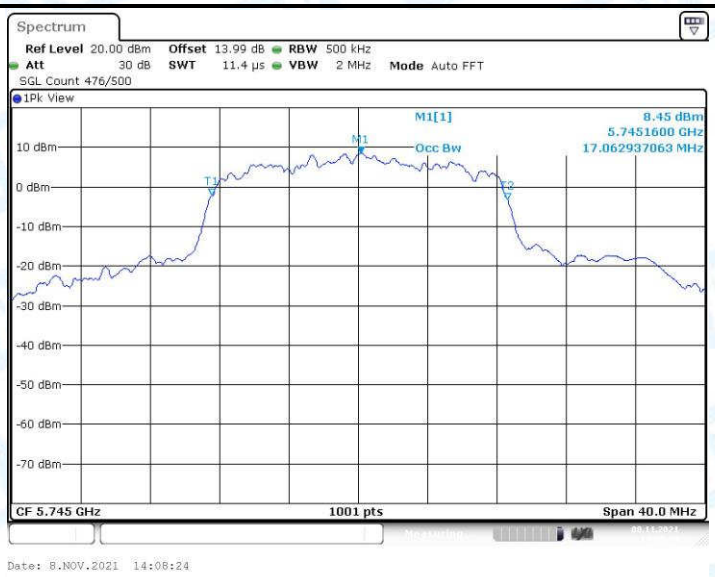
2.2.Test Graphs

11A_Ant1_5180

11A_Ant1_5200

11A_Ant1_5240

11A_Ant1_5745



11A_Ant1_5785

11A_Ant1_5825

11N20SISO_Ant1_5180

11N20SISO_Ant1_5200

11N20SISO_Ant1_5240

11N20SISO_Ant1_5745

11N20SISO_Ant1_5785

11N20SISO_Ant1_5825

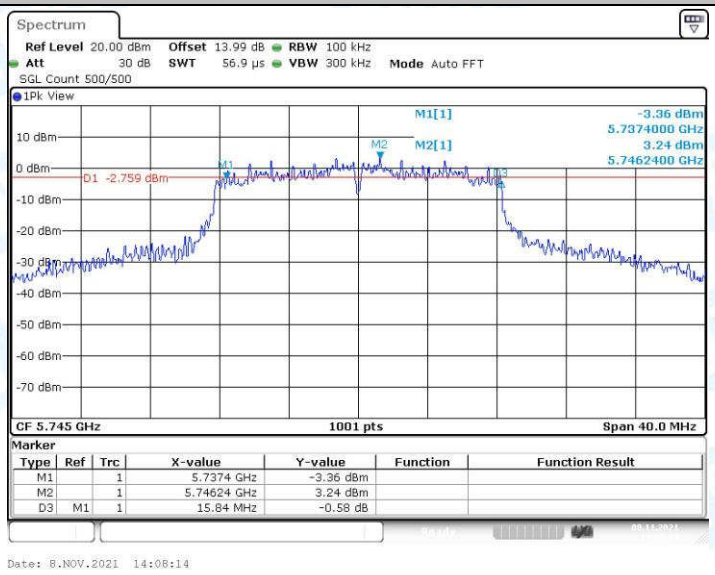
3. Min emission bandwidth

3.1.Test Result

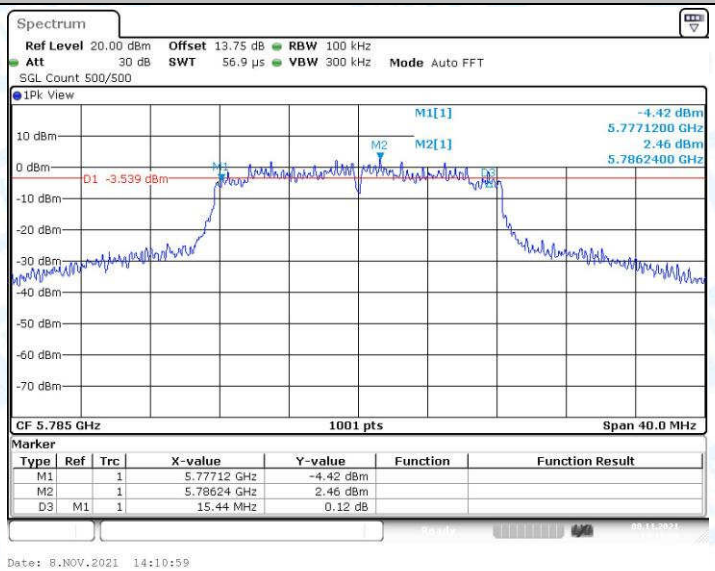
TestMode	Antenna	Channel	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	15.840	5737.400	5753.240	0.5	PASS
		5785	15.440	5777.120	5792.560	0.5	PASS
		5825	15.200	5817.400	5832.600	0.5	PASS
11N20SISO	Ant1	5745	16.080	5737.400	5753.480	0.5	PASS
		5785	16.080	5776.520	5792.600	0.5	PASS
		5825	16.440	5816.160	5832.600	0.5	PASS

3.2.Test Graphs

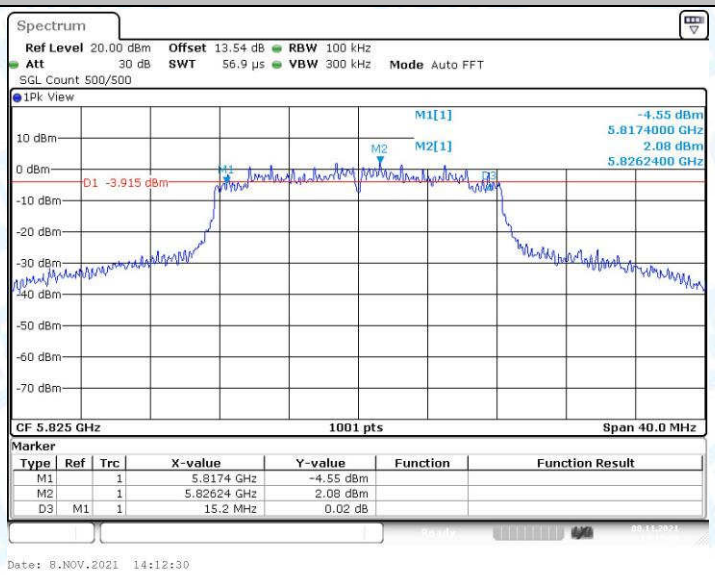
11A_Ant1_5745



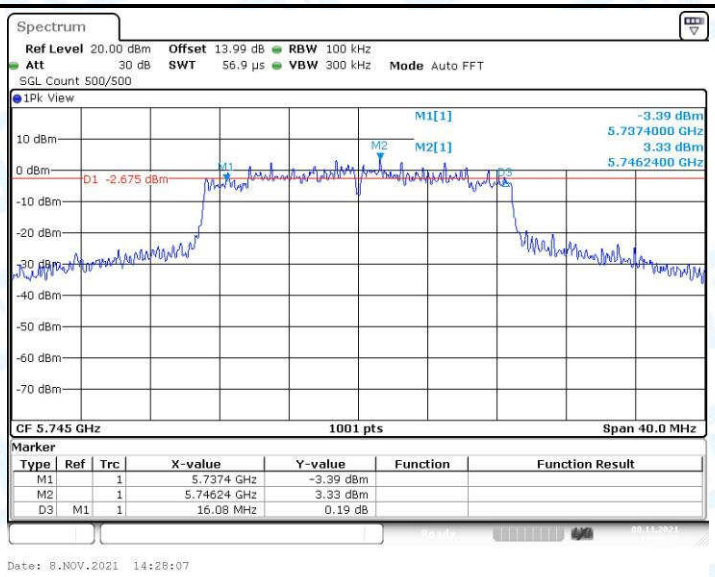
11A_Ant1_5785



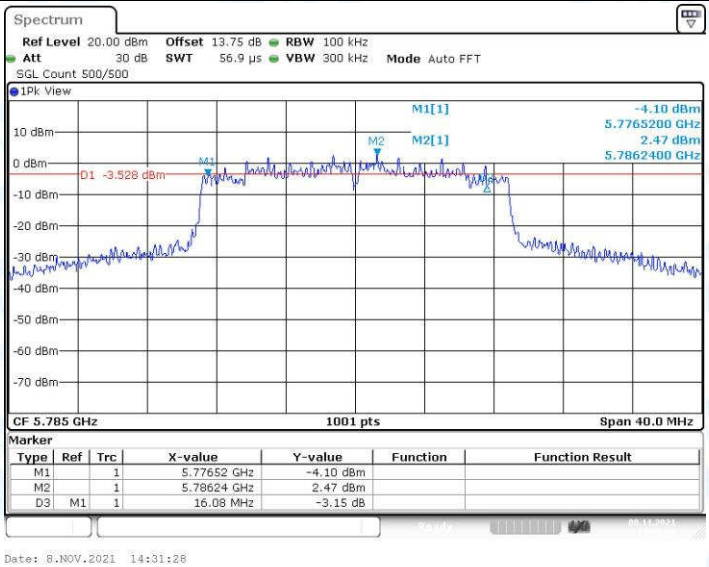
11A_Ant1_5825



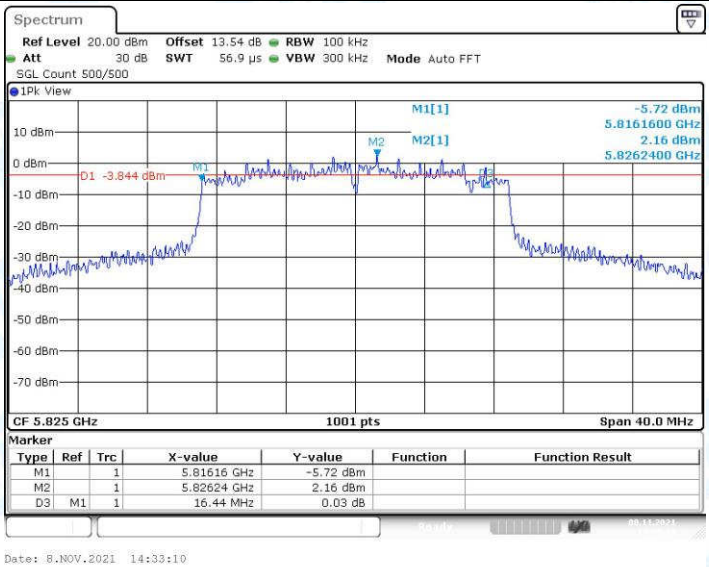
11N20SISO_Ant1_5745



11N20SISO_Ant1_5785



11N20SISO_Ant1_5825



4. Maximum conducted output power

4.1.Test Result

TestMode	Antenna	Channel	Conducted power [dBm]	Limit [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	14.06	≤23.98	16.06	≤22.28	PASS
		5200	13.74	≤23.98	15.74	≤22.26	PASS
		5240	12.59	≤23.98	14.59	≤22.26	PASS
		5745	13.90	≤30	15.90	---	PASS
		5785	13.17	≤30	15.17	---	PASS
		5825	12.58	≤30	14.58	---	PASS
11N20SISO	Ant1	5180	13.84	≤23.98	15.84	≤22.49	PASS
		5200	13.76	≤23.98	15.76	≤22.53	PASS
		5240	12.43	≤23.98	14.43	≤22.49	PASS
		5745	13.67	≤30	15.67	---	PASS
		5785	12.92	≤30	14.92	---	PASS
		5825	12.55	≤30	14.55	---	PASS

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

5. Maximum power spectral density

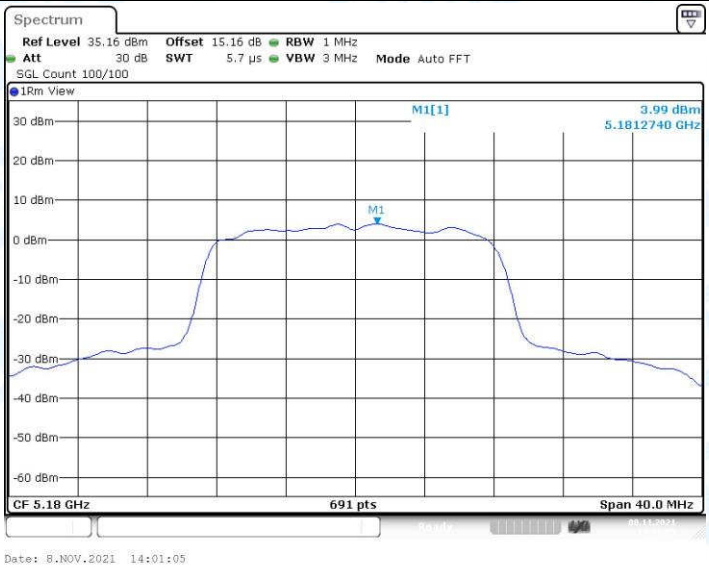
5.1.Test Result

TestMode	Antenna	Channel	Power [dBm/MHz]	Limit [dBm/MHz]	EIRP [dBm/MHz]	Limit [dBm/MHz]	Verdict
11A	Ant1	5180	3.99	≤11	5.99	≤10	PASS
		5200	3.23	≤11	5.23	≤10	PASS
		5240	2.34	≤11	4.34	≤10	PASS
		5745	1.51	≤30	---	---	PASS
		5785	0.69	≤30	---	---	PASS
		5825	0.46	≤30	---	---	PASS
11N20SISO	Ant1	5180	4.41	≤11	6.41	≤10	PASS
		5200	3.12	≤11	5.12	≤10	PASS
		5240	1.86	≤11	3.86	≤10	PASS
		5745	1.08	≤30	---	---	PASS
		5785	-0.22	≤30	---	---	PASS
		5825	-0.18	≤30	---	---	PASS

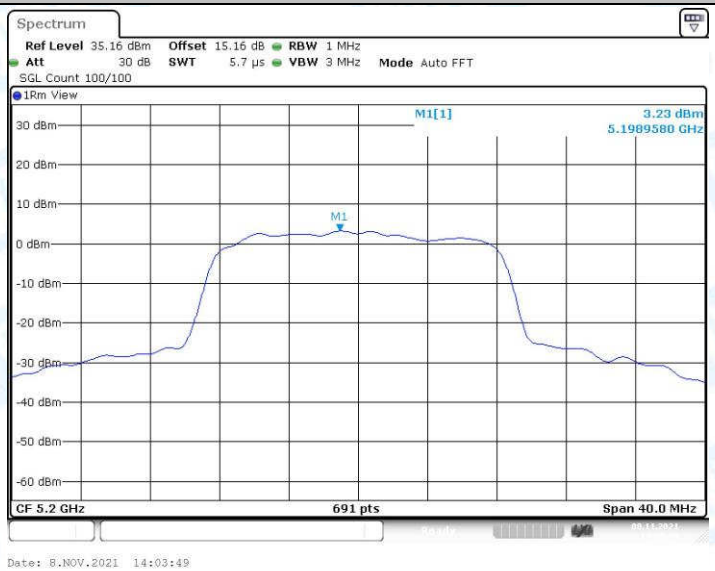
Note：1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.
2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

5.2.Test Graphs

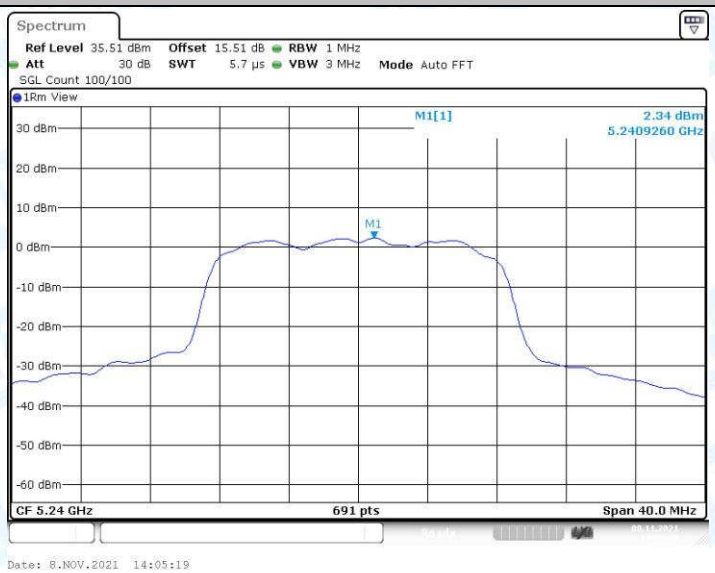
11A_Ant1_5180



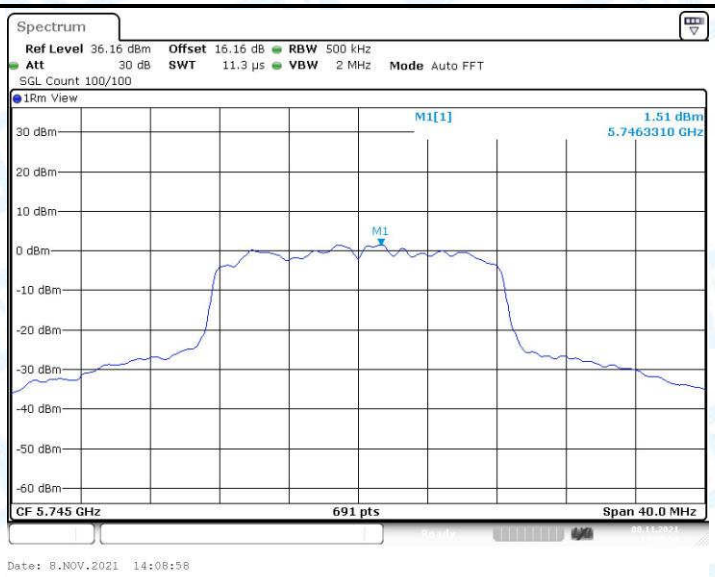
11A_Ant1_5200



11A_Ant1_5240

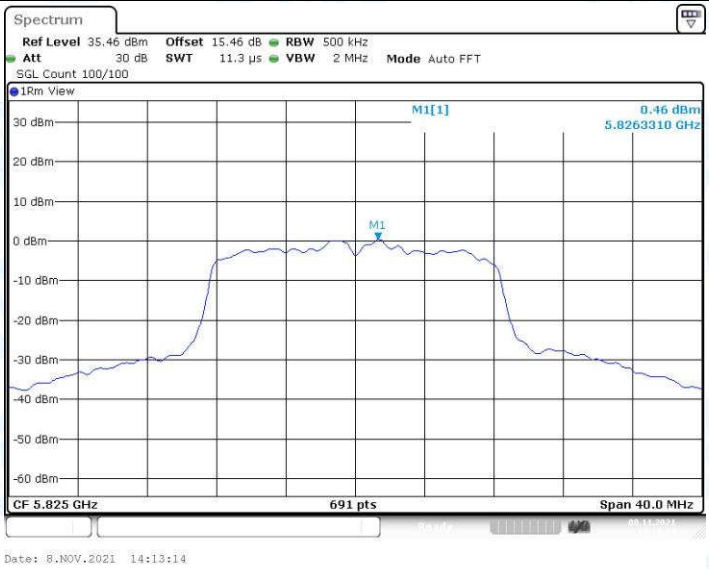


11A_Ant1_5745

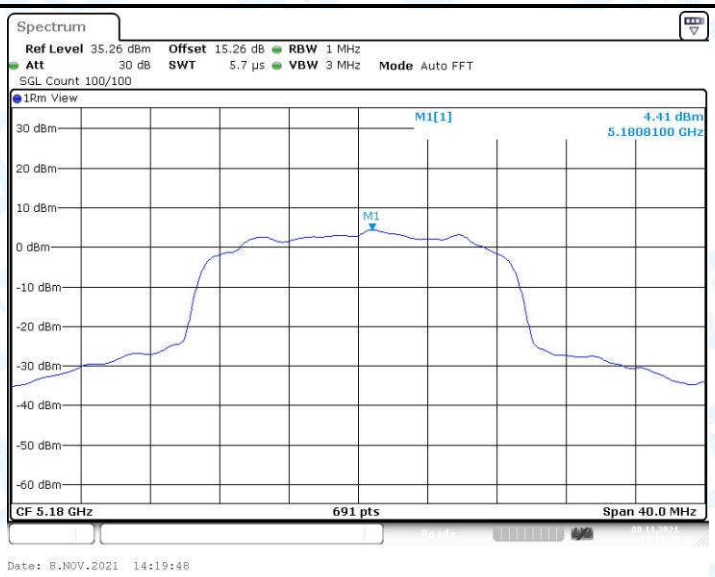


11A_Ant1_5785

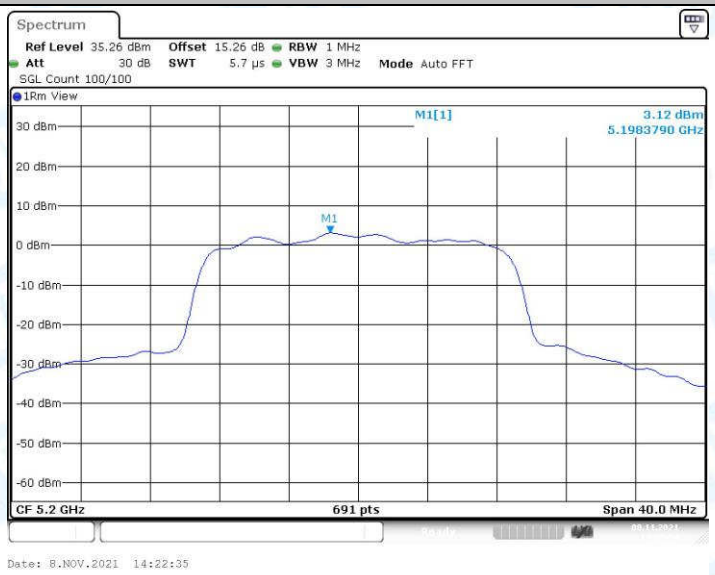
11A_Ant1_5825



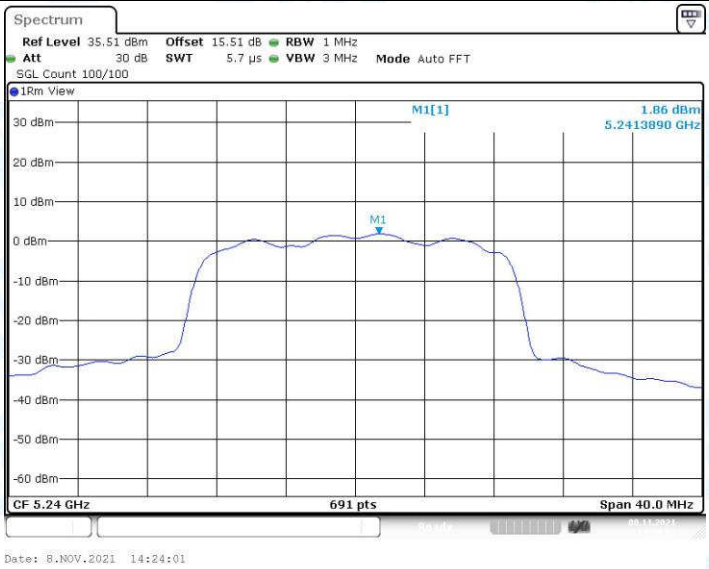
11N20SISO_Ant1_5180



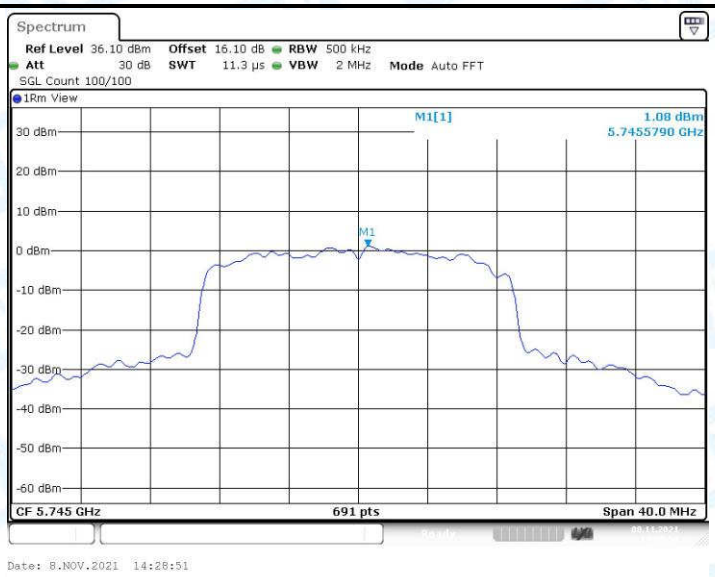
11N20SISO_Ant1_5200



11N20SISO_Ant1_5240



11N20SISO_Ant1_5745



11N20SISO_Ant1_5785

11N20SISO_Ant1_5825

6. Emissions in Restricted Bands

6.1.Test Result

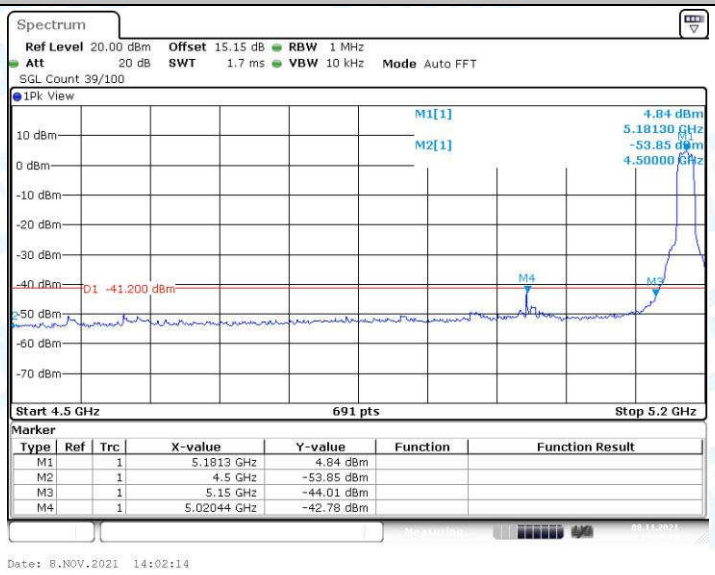
TestMode	Antenna	ChName	Channel	Detector	Freq [MHz]	EIRP [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5180	AV	4500.000	-53.85	≤-41.20	PASS
				AV	5020.435	-42.78	≤-41.20	PASS
				AV	5150.000	-44.01	≤-41.20	PASS
				Peak	4500.000	-45.09	≤-21.20	PASS
				Peak	5149.275	-32.83	≤-21.20	PASS
				Peak	5150.000	-33.67	≤-21.20	PASS
		High	5240	AV	5350.000	-50.45	≤-41.20	PASS
				AV	5400.174	-45.48	≤-41.20	PASS
				AV	5460.000	-50.61	≤-41.20	PASS
				Peak	5350.000	-43.22	≤-21.20	PASS
				Peak	5396.000	-37.23	≤-21.20	PASS
				Peak	5460.000	-43.06	≤-21.20	PASS
		Low	5745	Peak	5650.000	-44.05	≤-27.00	PASS
				Peak	5700.000	-40.77	≤10.00	PASS
				Peak	5720.000	-31.68	≤15.60	PASS
				Peak	5725.000	-23.66	≤27.00	PASS
		High	5825	Peak	5850.000	-31.45	≤15.60	PASS
				Peak	5855.000	-31.85	≤27.00	PASS
				Peak	5875.000	-34.04	≤15.60	PASS
				Peak	5925.000	-33.17	≤10.00	PASS
11N20SISO	Ant1	Low	5180	AV	4500.000	-52.64	≤-41.20	PASS
				AV	5149.275	-43.88	≤-41.20	PASS
				AV	5150.000	-44.13	≤-41.20	PASS
				Peak	4500.000	-42.94	≤-21.20	PASS
				Peak	5149.275	-32.59	≤-21.20	PASS
				Peak	5150.000	-32.25	≤-21.20	PASS
		High	5240	AV	5350.000	-50.47	≤-41.20	PASS
				AV	5400.174	-45.55	≤-41.20	PASS
				AV	5460.000	-50.91	≤-41.20	PASS
				Peak	5350.000	-42.79	≤-21.20	PASS
				Peak	5392.522	-38.16	≤-21.20	PASS
				Peak	5460.000	-44.4	≤-21.20	PASS
		Low	5745	Peak	5650.000	-43.94	≤-27.00	PASS
				Peak	5700.000	-42.35	≤10.00	PASS
				Peak	5720.000	-31.42	≤15.60	PASS
				Peak	5725.000	-20.74	≤27.00	PASS
		High	5825	Peak	5850.000	-34.66	≤15.60	PASS
				Peak	5855.000	-38.32	≤27.00	PASS
				Peak	5875.000	-40.77	≤15.60	PASS
				Peak	5925.000	-42.26	≤10.00	PASS

Note：

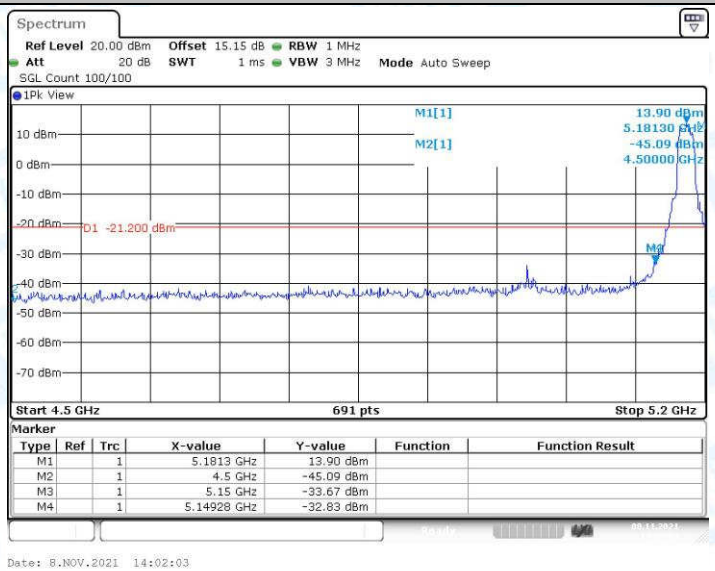
1. The Antenna Gain is compensated in the graph.
2. For transmitters operating in 5150-5350 GHz band and 5470-5725 GHz band: The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a) or RSS-Gen 8.10. The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

6.2.Test Graphs

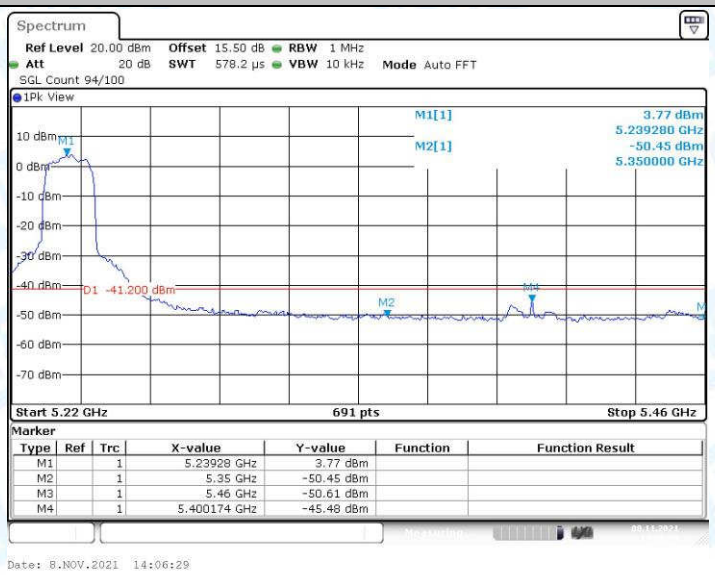
11A_Ant1_Low_5180_AV



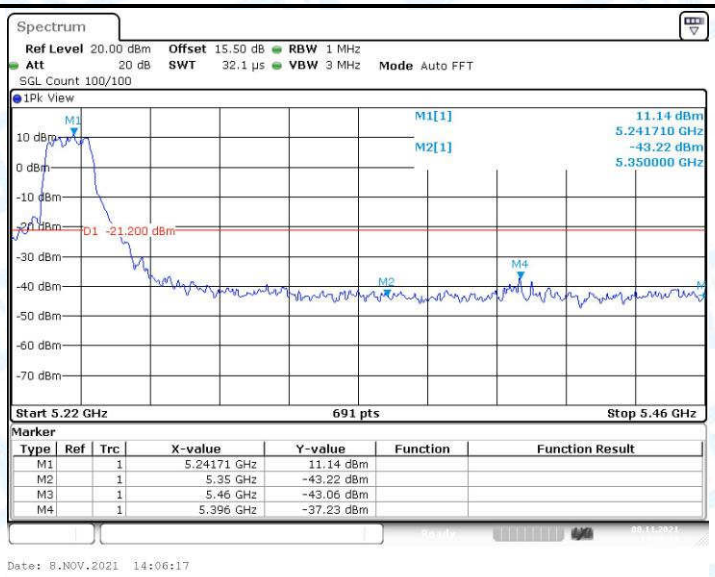
11A_Ant1_Low_5180_Peak



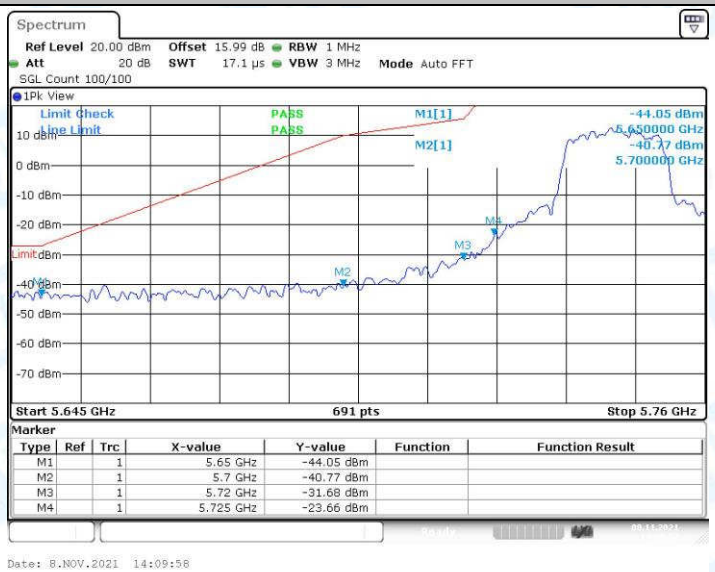
11A_Ant1_High_5240_AV



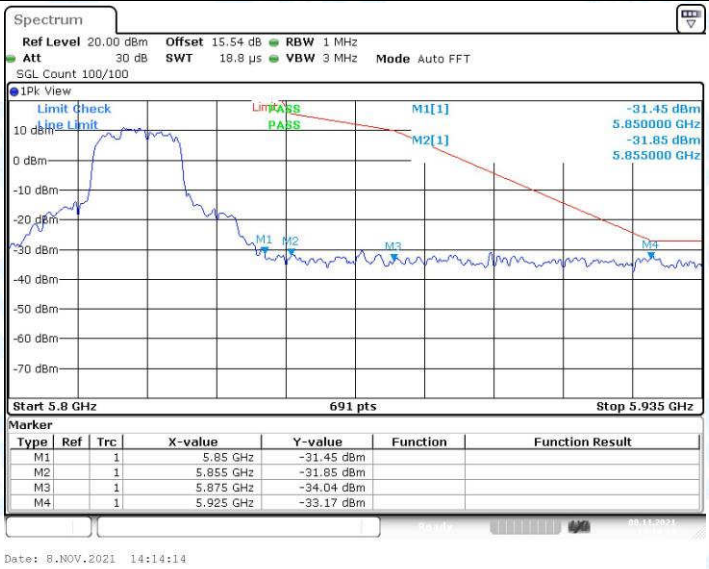
11A_Ant1_High_5240_Peak



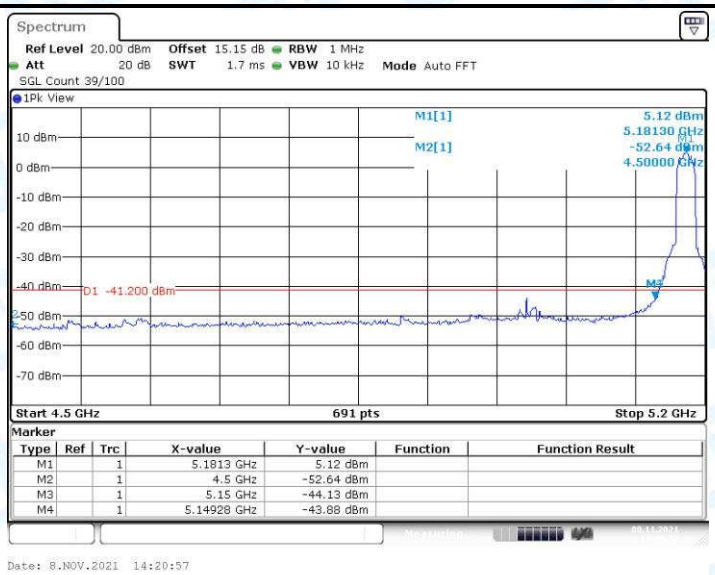
11A_Ant1_Low_5745_Peak



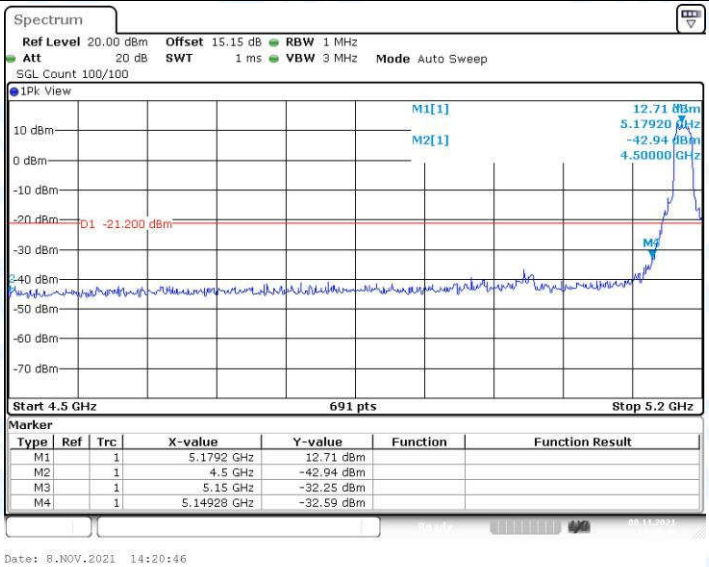
11A_Ant1_High_5825_Peak



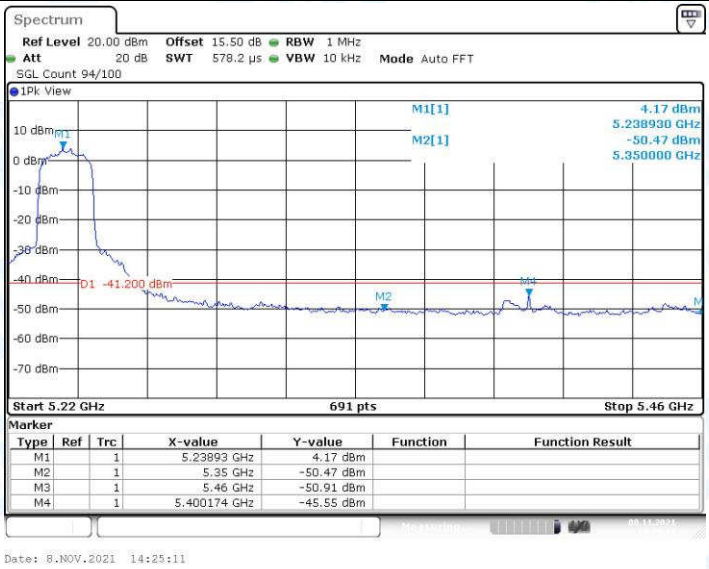
11N20SISO_Ant1_Low_5180_AV



11N20SISO_Ant1_Low_5180_Peak

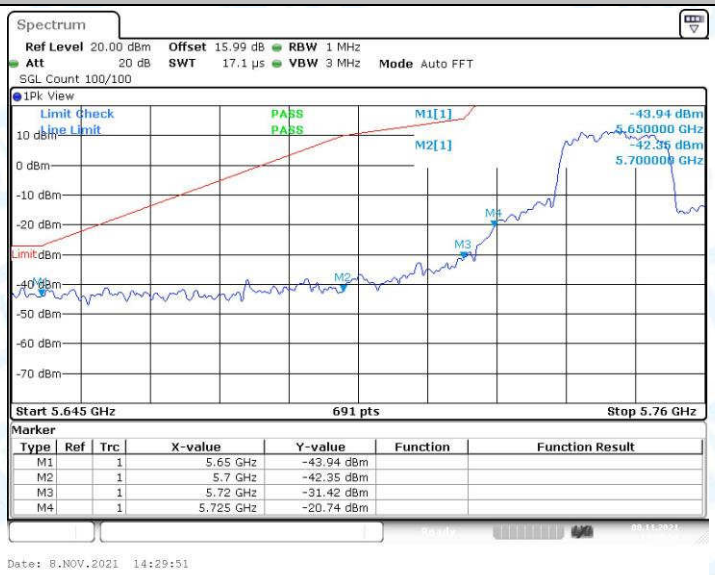


11N20SISO_Ant1_High_5240_AV



11N20SISO_Ant1_High_5240_Peak

11N20SISO_Ant1_Low_5745_Peak



11N20SISO_Ant1_High_5825_Peak

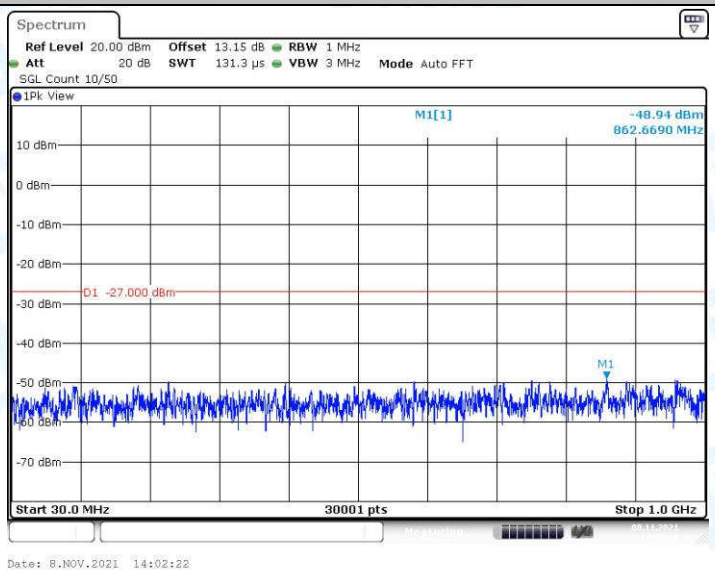
7. Conducted Spurious Emission

7.1.Test Result

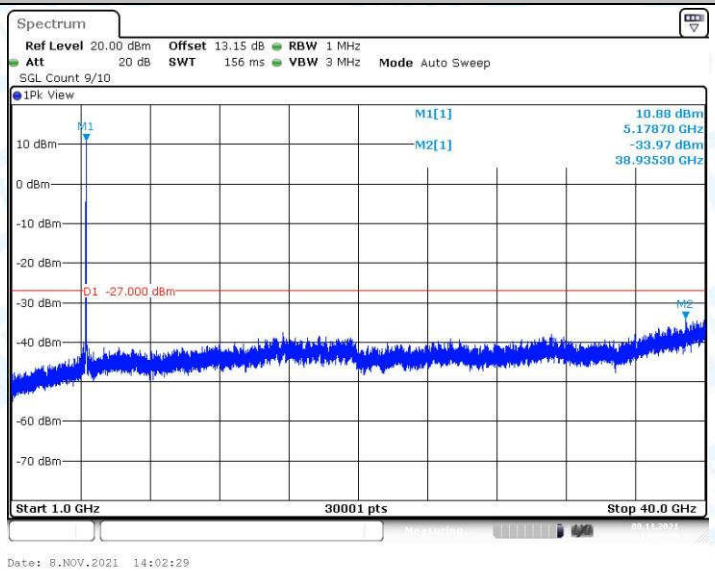
TestMode	Antenna	Channel	FreqRange [MHz]	Max. Fre [MHz]	Max. Level [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	30~1000	862.67	-48.94	≤-27	PASS
			1000~40000	38935.3	-33.97	≤-27	PASS
		5200	30~1000	977.51	-48.8	≤-27	PASS
			1000~40000	39940.2	-34.27	≤-27	PASS
		5240	30~1000	709.9	-47.31	≤-27	PASS
			1000~40000	39420.2	-33.45	≤-27	PASS
		5745	30~1000	951.36	-47.82	≤-27	PASS
			1000~40000	39988.3	-33.17	≤-27	PASS
		5785	30~1000	639.96	-46.68	≤-27	PASS
			1000~40000	39938.9	-33.09	≤-27	PASS
		5825	30~1000	870.85	-48.81	≤-27	PASS
			1000~40000	39922	-34.33	≤-27	PASS
11N20SISO	Ant1	5180	30~1000	720.34	-48.1	≤-27	PASS
			1000~40000	39442.3	-33.06	≤-27	PASS
		5200	30~1000	888.11	-49.28	≤-27	PASS
			1000~40000	39987	-33.94	≤-27	PASS
		5240	30~1000	861.05	-45.95	≤-27	PASS
			1000~40000	39997.4	-34.16	≤-27	PASS
		5745	30~1000	869.52	-47.46	≤-27	PASS
			1000~40000	39728.3	-33.38	≤-27	PASS
		5785	30~1000	891.28	-48.57	≤-27	PASS
			1000~40000	39877.8	-33.87	≤-27	PASS
		5825	30~1000	765.77	-48.17	≤-27	PASS
			1000~40000	39971.4	-34.2	≤-27	PASS

7.2.Test Graphs

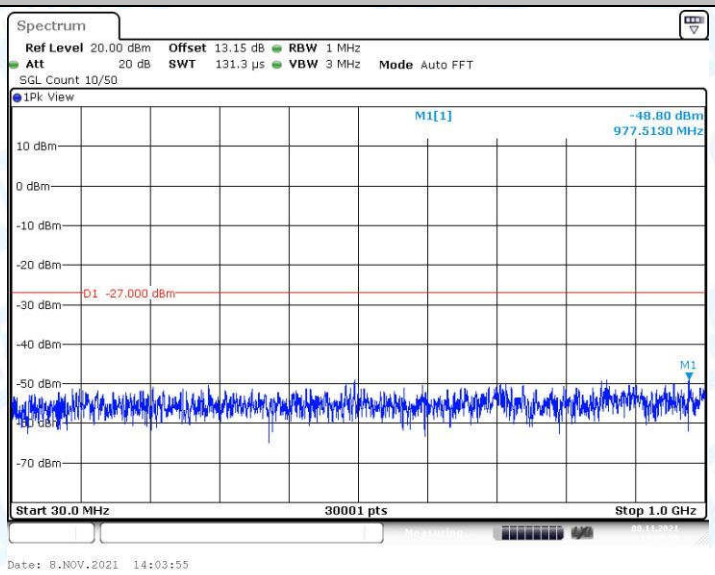
11A_Ant1_5180_30~1000



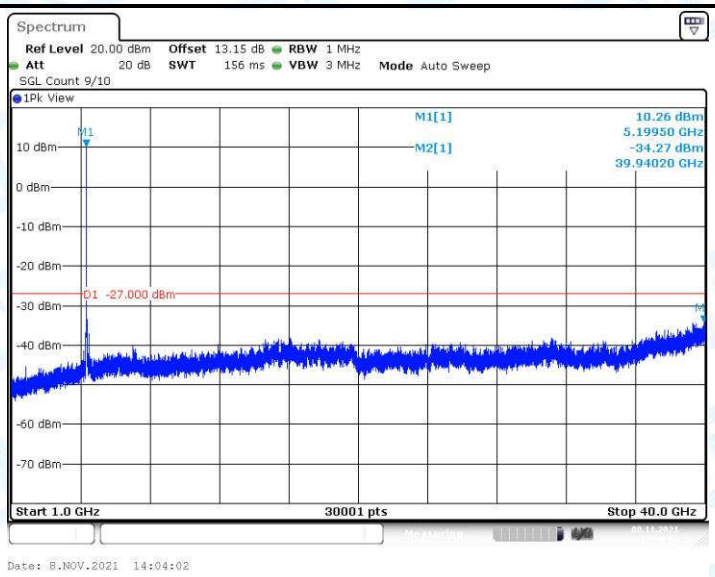
11A_Ant1_5180_1000~40000



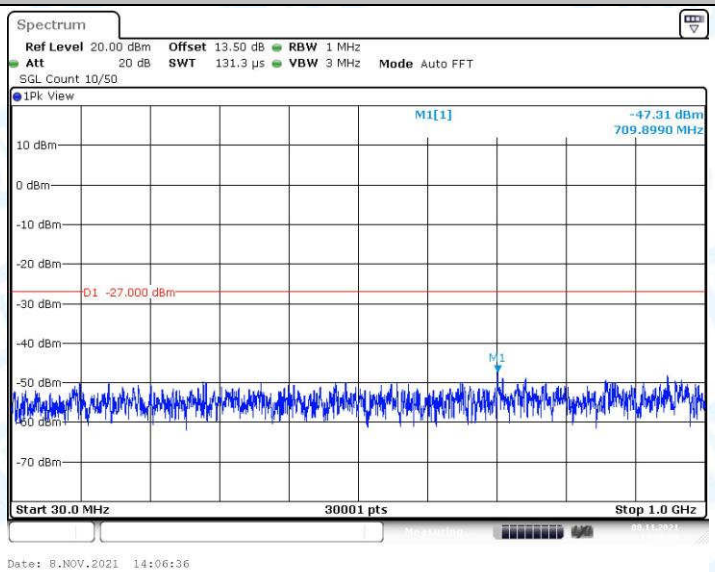
11A_Ant1_5200_30~1000



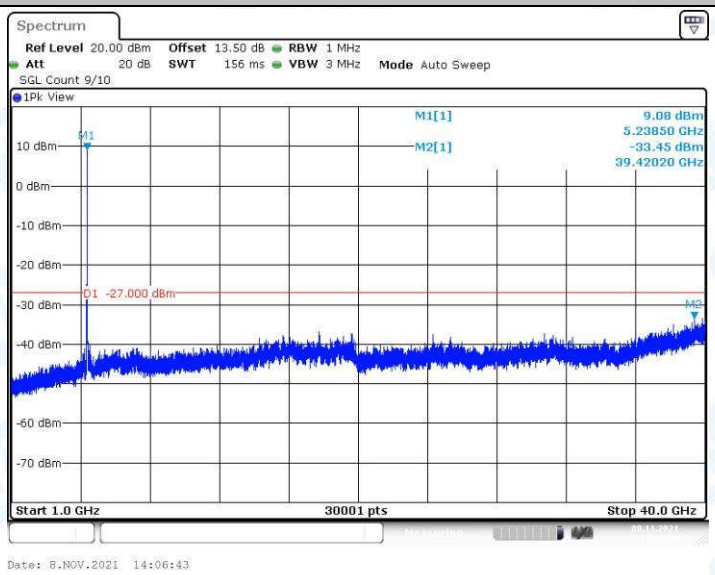
11A_Ant1_5200_1000~40000



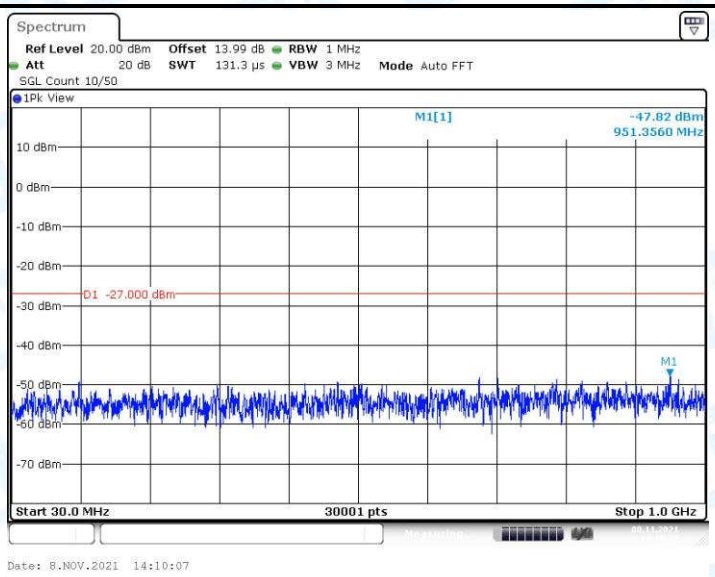
11A_Ant1_5240_30~1000



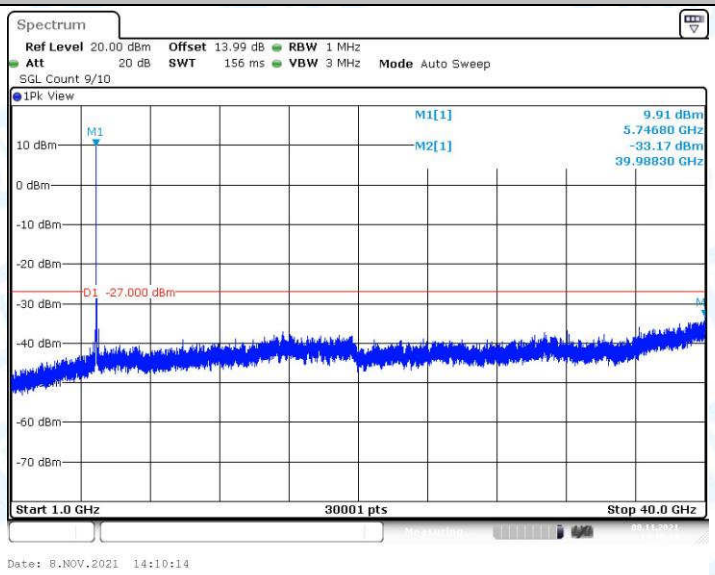
11A_Ant1_5240_1000~40000



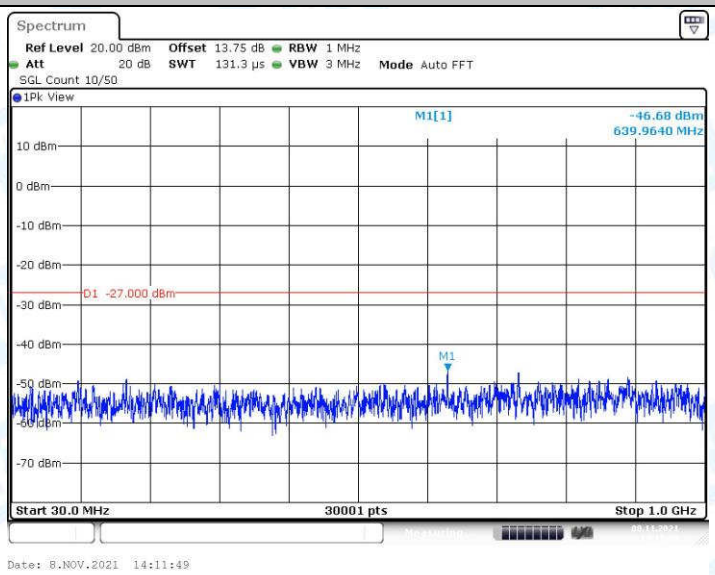
11A_Ant1_5745_30~1000



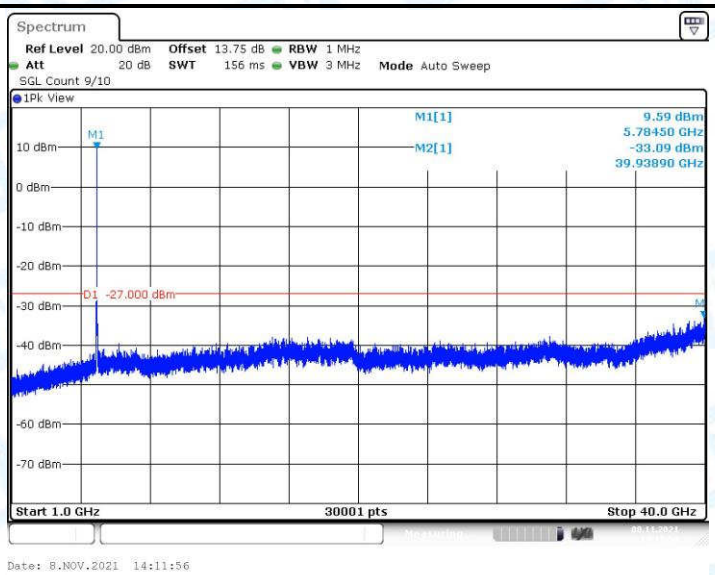
11A_Ant1_5745_1000~40000



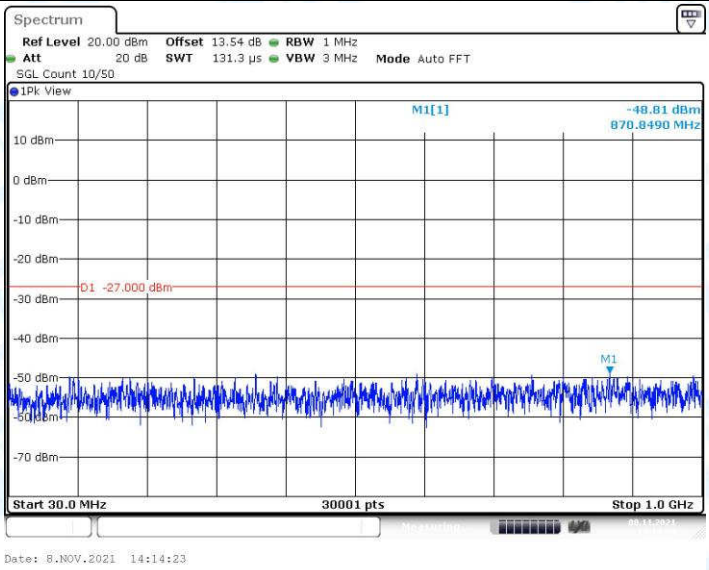
11A_Ant1_5785_30~1000



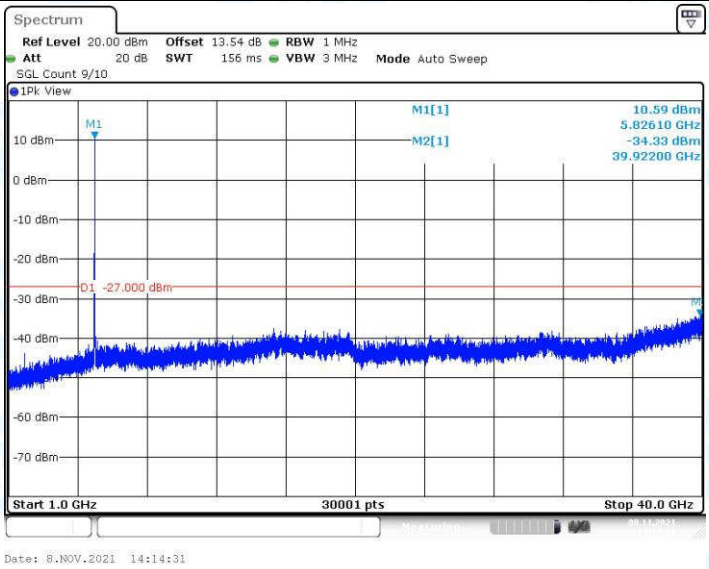
11A_Ant1_5785_1000~40000



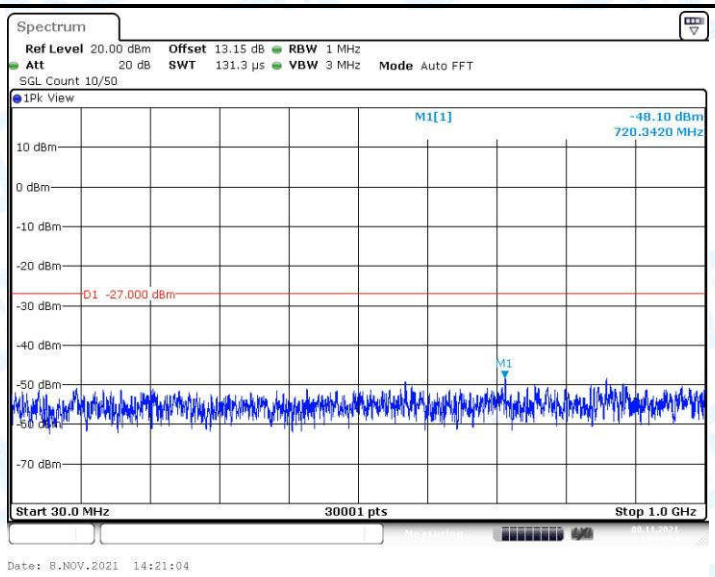
11A_Ant1_5825_30~1000



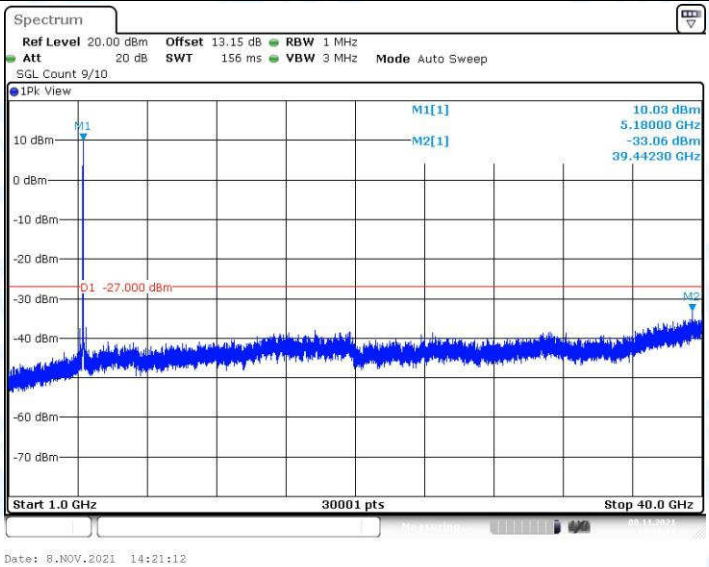
11A_Ant1_5825_1000~40000



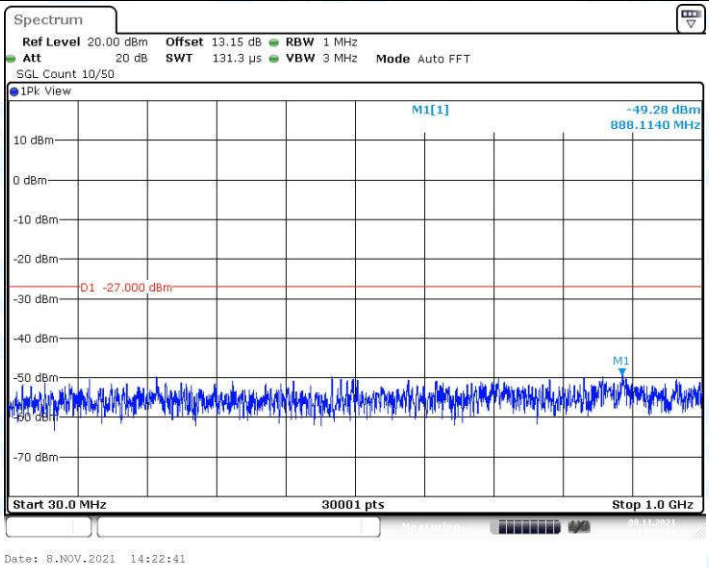
11N20SISO_Ant1_5180_30~1000



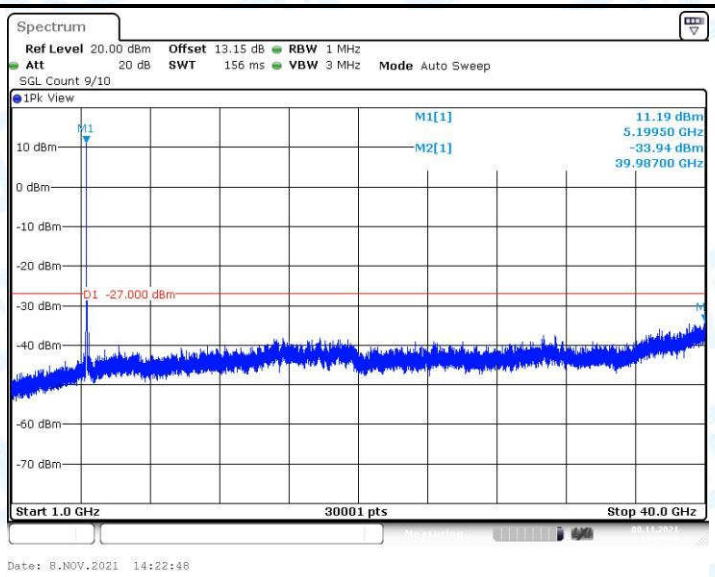
11N20SISO_Ant1_5180_1000~40000



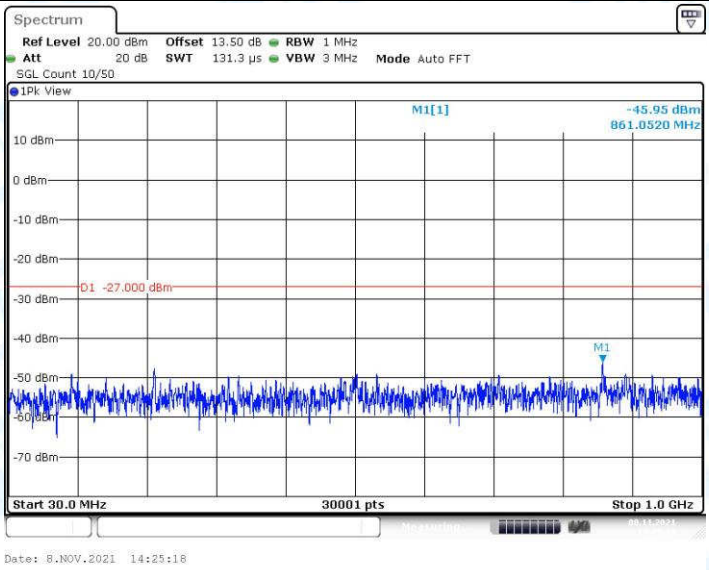
11N20SISO_Ant1_5200_30~1000



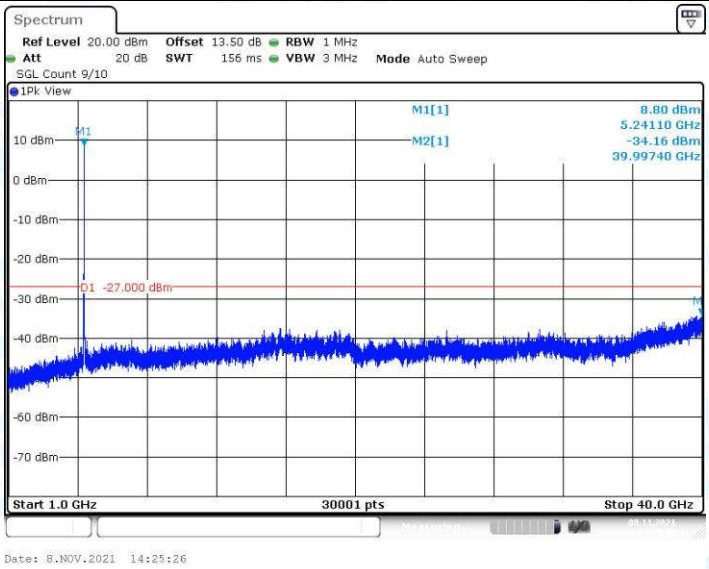
11N20SISO_Ant1_5200_1000~40000



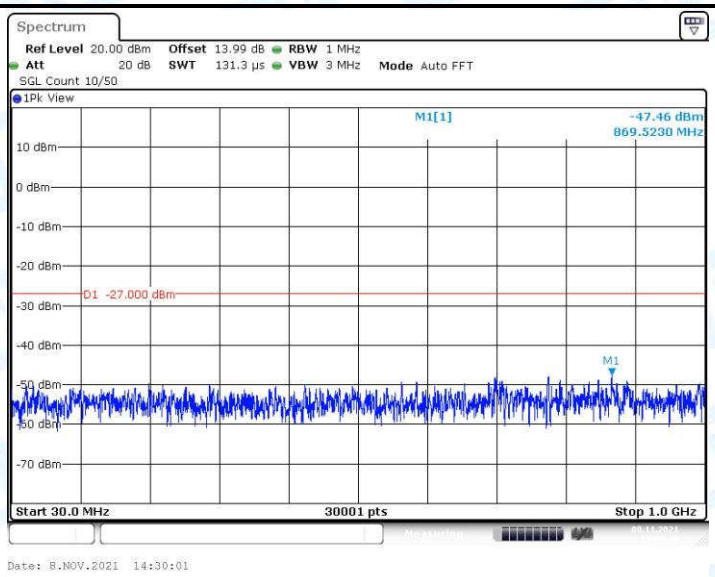
11N20SISO_Ant1_5240_30~1000



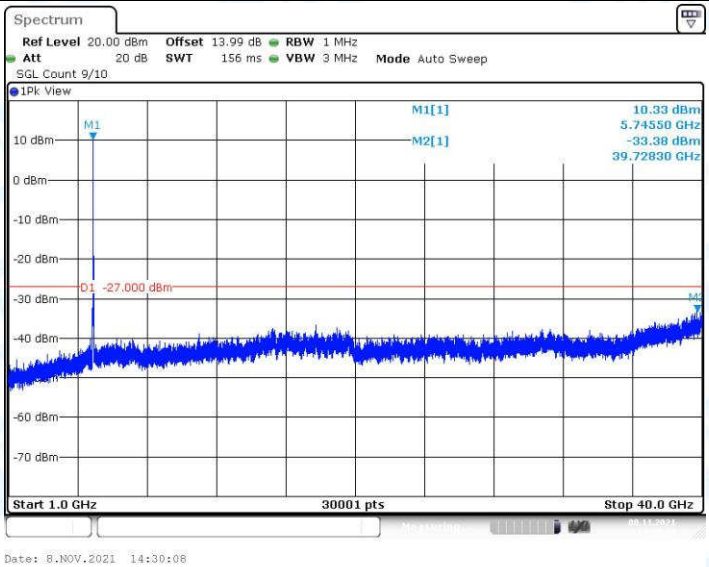
11N20SISO_Ant1_5240_1000~40000



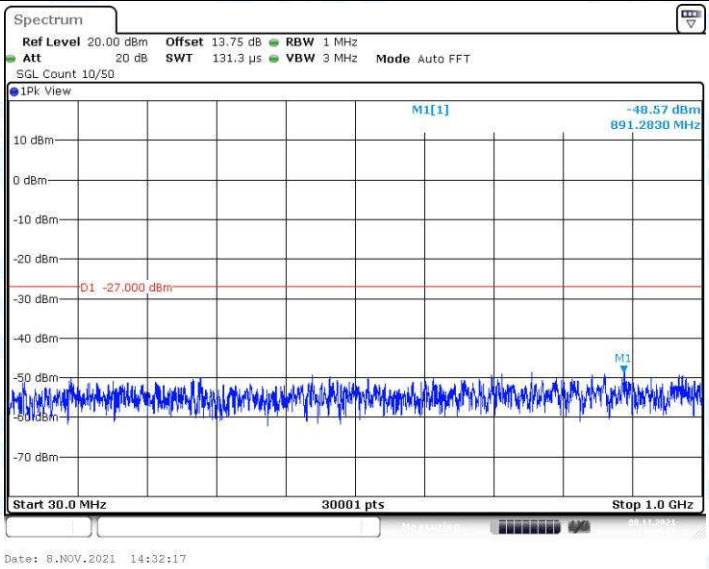
11N20SISO_Ant1_5745_30~1000



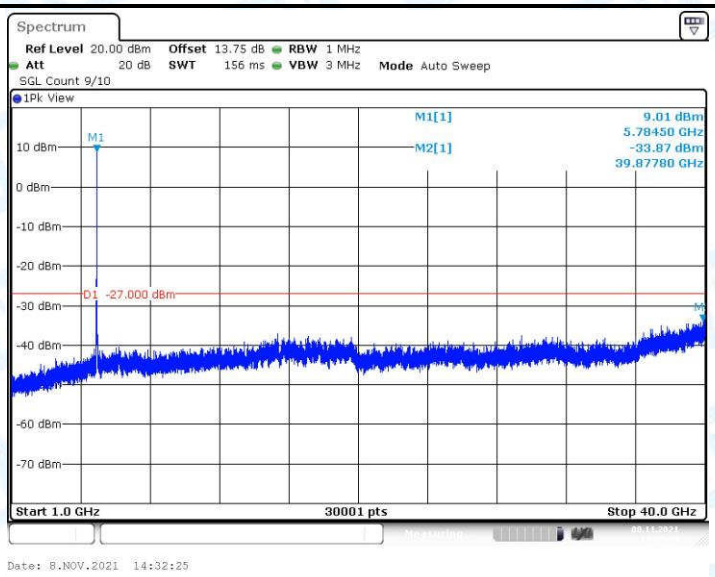
11N20SISO_Ant1_5745_1000~40000



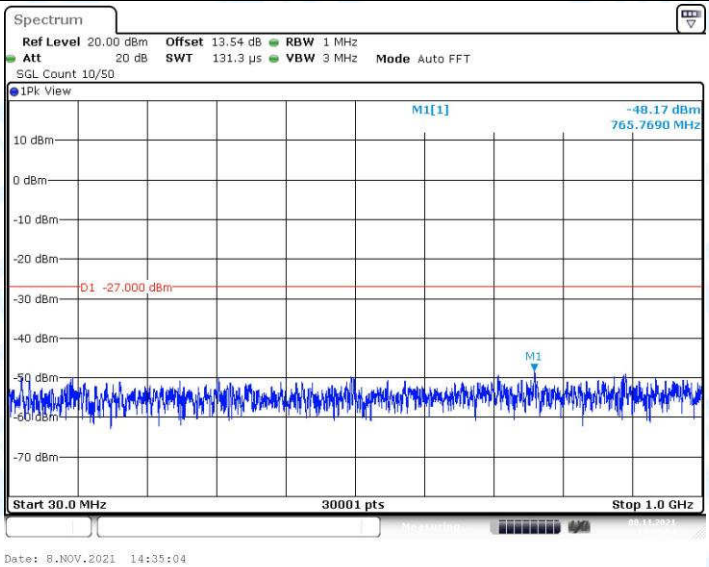
11N20SISO_Ant1_5785_30~1000



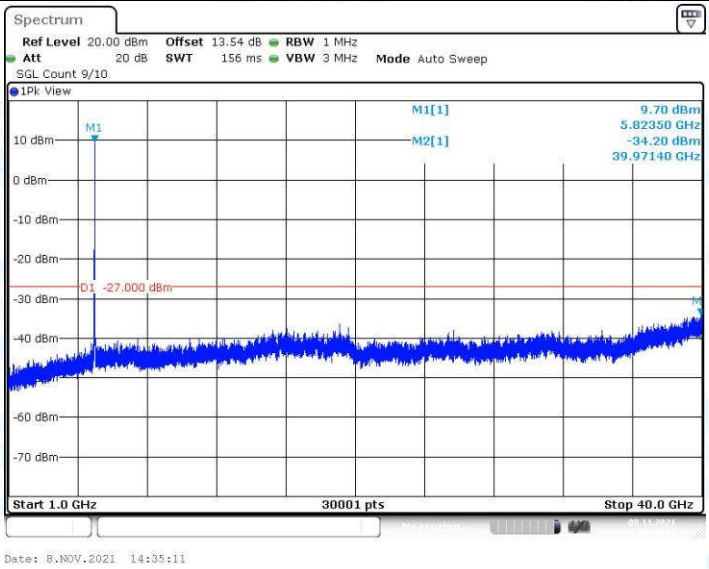
11N20SISO_Ant1_5785_1000~40000



11N20SISO_Ant1_5825_30~1000



11N20SISO_Ant1_5825_1000~40000



8. Frequency Stability

8.1.Test Result

Voltage								
TestMode	Antenna	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	NT	-3000	-0.579151	20	PASS
			LV	NT	-6000	-1.158301	20	PASS
			HV	NT	-6000	-1.158301	20	PASS
		5200	NV	NT	-11000	-2.115385	20	PASS
			LV	NT	-11000	-2.115385	20	PASS
			HV	NT	-11000	-2.115385	20	PASS
		5240	NV	NT	-11000	-2.099237	20	PASS
			LV	NT	-11000	-2.099237	20	PASS
			HV	NT	-11000	-2.099237	20	PASS
		5745	NV	NT	-10000	-1.740644	20	PASS
			LV	NT	-11000	-1.914708	20	PASS
			HV	NT	-10000	-1.740644	20	PASS
		5785	NV	NT	-10000	-1.728608	20	PASS
			LV	NT	-10000	-1.728608	20	PASS
			HV	NT	-10000	-1.728608	20	PASS
		5825	NV	NT	-10000	-1.716738	20	PASS
			LV	NT	-10000	-1.716738	20	PASS
			HV	NT	-10000	-1.716738	20	PASS
11N20SISO	Ant1	5180	NV	NT	-8000	-1.544402	20	PASS
			LV	NT	-8000	-1.544402	20	PASS
			HV	NT	-8000	-1.544402	20	PASS
		5200	NV	NT	-8000	-1.538462	20	PASS
			LV	NT	-8000	-1.538462	20	PASS
			HV	NT	-8000	-1.538462	20	PASS
		5240	NV	NT	-7000	-1.335878	20	PASS
			LV	NT	-7000	-1.335878	20	PASS
			HV	NT	-8000	-1.526718	20	PASS
		5745	NV	NT	-8000	-1.392515	20	PASS
			LV	NT	-8000	-1.392515	20	PASS
			HV	NT	-8000	-1.392515	20	PASS
		5785	NV	NT	-8000	-1.382887	20	PASS
			LV	NT	-8000	-1.382887	20	PASS
			HV	NT	-8000	-1.382887	20	PASS
		5825	NV	NT	-8000	-1.373391	20	PASS
			LV	NT	-9000	-1.545064	20	PASS
			HV	NT	-9000	-1.545064	20	PASS

Temperature								
TestMode	Antenna	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	-30	-7000	-1.351351	20	PASS
			NV	-20	-8000	-1.544402	20	PASS
			NV	-10	-9000	-1.737452	20	PASS
			NV	0	-9000	-1.737452	20	PASS
			NV	10	-9000	-1.737452	20	PASS
			NV	20	-10000	-1.930502	20	PASS
			NV	30	-10000	-1.930502	20	PASS
			NV	40	-10000	-1.930502	20	PASS
			NV	50	-10000	-1.930502	20	PASS
		5200	NV	-30	-12000	-2.307692	20	PASS
			NV	-20	-11000	-2.115385	20	PASS
			NV	-10	-12000	-2.307692	20	PASS
			NV	0	-11000	-2.115385	20	PASS
			NV	10	-11000	-2.115385	20	PASS
			NV	20	-11000	-2.115385	20	PASS
			NV	30	-11000	-2.115385	20	PASS
			NV	40	-11000	-2.115385	20	PASS
			NV	50	-11000	-2.115385	20	PASS
		5240	NV	-30	-11000	-2.099237	20	PASS
			NV	-20	-10000	-1.908397	20	PASS
			NV	-10	-10000	-1.908397	20	PASS
			NV	0	-10000	-1.908397	20	PASS
			NV	10	-10000	-1.908397	20	PASS
			NV	20	-10000	-1.908397	20	PASS
			NV	30	-10000	-1.908397	20	PASS
			NV	40	-10000	-1.908397	20	PASS
			NV	50	-10000	-1.908397	20	PASS
		5745	NV	-30	-11000	-1.914708	20	PASS
			NV	-20	-10000	-1.740644	20	PASS
			NV	-10	-10000	-1.740644	20	PASS
			NV	0	-10000	-1.740644	20	PASS
			NV	10	-10000	-1.740644	20	PASS
			NV	20	-10000	-1.740644	20	PASS
			NV	30	-10000	-1.740644	20	PASS
			NV	40	-10000	-1.740644	20	PASS
			NV	50	-10000	-1.740644	20	PASS
		5785	NV	-30	-10000	-1.728608	20	PASS
			NV	-20	-10000	-1.728608	20	PASS
			NV	-10	-10000	-1.728608	20	PASS
			NV	0	-10000	-1.728608	20	PASS
			NV	10	-10000	-1.728608	20	PASS
			NV	20	-10000	-1.728608	20	PASS
			NV	30	-10000	-1.728608	20	PASS

			NV	40	-9000	-1.555748	20	PASS
			NV	50	-10000	-1.728608	20	PASS
		5825	NV	-30	-10000	-1.716738	20	PASS
			NV	-20	-10000	-1.716738	20	PASS
			NV	-10	-10000	-1.716738	20	PASS
			NV	0	-9000	-1.545064	20	PASS
			NV	10	-9000	-1.545064	20	PASS
			NV	20	-9000	-1.545064	20	PASS
			NV	30	-9000	-1.545064	20	PASS
			NV	40	-9000	-1.545064	20	PASS
			NV	50	-9000	-1.545064	20	PASS
11N20SISO	Ant1	5180	NV	-30	-8000	-1.544402	20	PASS
			NV	-20	-8000	-1.544402	20	PASS
			NV	-10	-8000	-1.544402	20	PASS
			NV	0	-8000	-1.544402	20	PASS
			NV	10	-8000	-1.544402	20	PASS
			NV	20	-8000	-1.544402	20	PASS
			NV	30	-8000	-1.544402	20	PASS
			NV	40	-8000	-1.544402	20	PASS
			NV	50	-7000	-1.351351	20	PASS
		5200	NV	-30	-7000	-1.346154	20	PASS
			NV	-20	-7000	-1.346154	20	PASS
			NV	-10	-7000	-1.346154	20	PASS
			NV	0	-8000	-1.538462	20	PASS
			NV	10	-7000	-1.346154	20	PASS
			NV	20	-7000	-1.346154	20	PASS
			NV	30	-7000	-1.346154	20	PASS
			NV	40	-7000	-1.346154	20	PASS
			NV	50	-8000	-1.538462	20	PASS
		5240	NV	-30	-7000	-1.335878	20	PASS
			NV	-20	-7000	-1.335878	20	PASS
			NV	-10	-8000	-1.526718	20	PASS
			NV	0	-7000	-1.335878	20	PASS
			NV	10	-8000	-1.526718	20	PASS
			NV	20	-8000	-1.526718	20	PASS
			NV	30	-7000	-1.335878	20	PASS
			NV	40	-8000	-1.526718	20	PASS
			NV	50	-7000	-1.335878	20	PASS
		5745	NV	-30	-8000	-1.392515	20	PASS
			NV	-20	-8000	-1.392515	20	PASS
			NV	-10	-8000	-1.392515	20	PASS
			NV	0	-8000	-1.392515	20	PASS
			NV	10	-8000	-1.392515	20	PASS
			NV	20	-8000	-1.392515	20	PASS
			NV	30	-8000	-1.392515	20	PASS
			NV	40	-8000	-1.392515	20	PASS

			NV	50	-8000	-1.392515	20	PASS
		5785	NV	-30	-8000	-1.382887	20	PASS
			NV	-20	-8000	-1.382887	20	PASS
			NV	-10	-8000	-1.382887	20	PASS
			NV	0	-9000	-1.555748	20	PASS
			NV	10	-8000	-1.382887	20	PASS
			NV	20	-8000	-1.382887	20	PASS
			NV	30	-8000	-1.382887	20	PASS
			NV	40	-9000	-1.555748	20	PASS
			NV	50	-9000	-1.555748	20	PASS
		5825	NV	-30	-9000	-1.545064	20	PASS
			NV	-20	-9000	-1.545064	20	PASS
			NV	-10	-9000	-1.545064	20	PASS
			NV	0	-9000	-1.545064	20	PASS
			NV	10	-9000	-1.545064	20	PASS
			NV	20	-9000	-1.545064	20	PASS
			NV	30	-9000	-1.545064	20	PASS
			NV	40	-9000	-1.545064	20	PASS
			NV	50	-9000	-1.545064	20	PASS

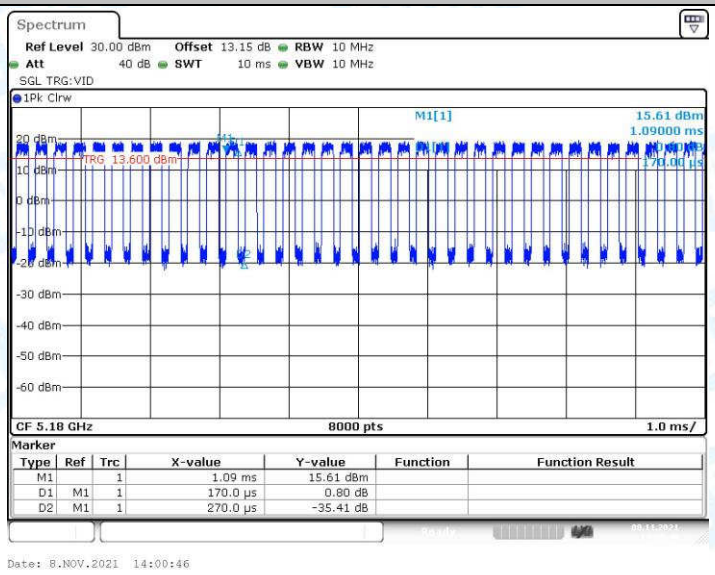
9. Duty Cycle

9.1.Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T(KHz)	Limit	Verdict
11A	Ant1	5180	0.17	0.27	62.96	5.88	---	PASS
		5200	0.17	0.27	62.96	5.88	---	PASS
		5240	0.17	0.27	62.96	5.88	---	PASS
		5745	0.17	0.28	60.71	5.88	---	PASS
		5785	0.17	0.28	60.71	5.88	---	PASS
		5825	0.18	0.28	64.29	5.56	---	PASS
11N20SISO	Ant1	5180	0.16	0.26	61.54	6.25	---	PASS
		5200	0.16	0.26	61.54	6.25	---	PASS
		5240	0.17	0.27	62.96	5.88	---	PASS
		5745	0.16	0.26	61.54	6.25	---	PASS
		5785	0.16	0.26	61.54	6.25	---	PASS
		5825	0.16	0.26	61.54	6.25	---	PASS

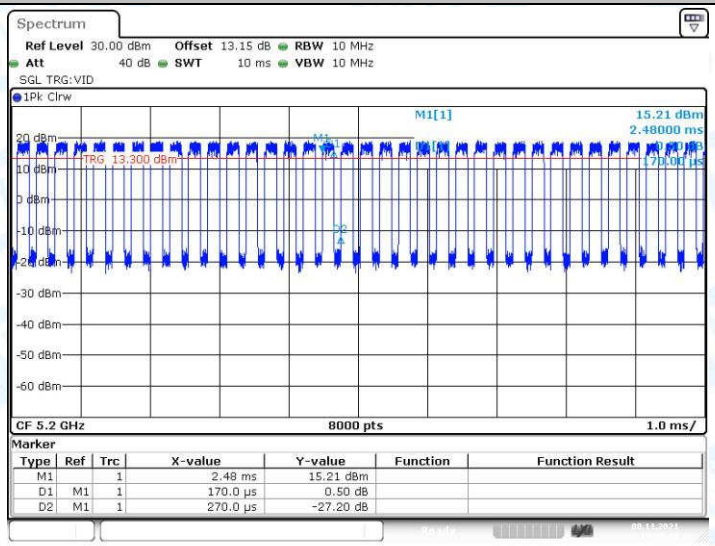
9.2.Test Graphs

11A_Ant1_5180



Date: 8.NOV.2021 14:00:46

11A_Ant1_5200



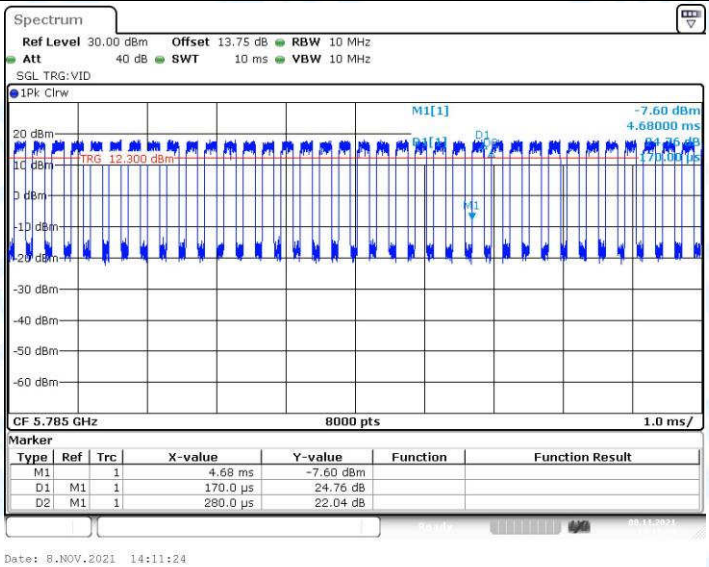
Date: 8.NOV.2021 14:03:30

11A_Ant1_5240

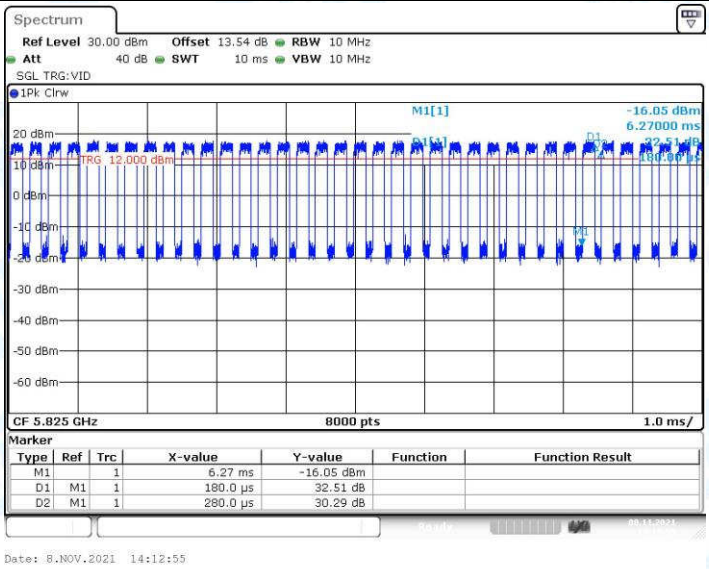
Date: 8.NOV.2021 14:05:00

11A_Ant1_5745

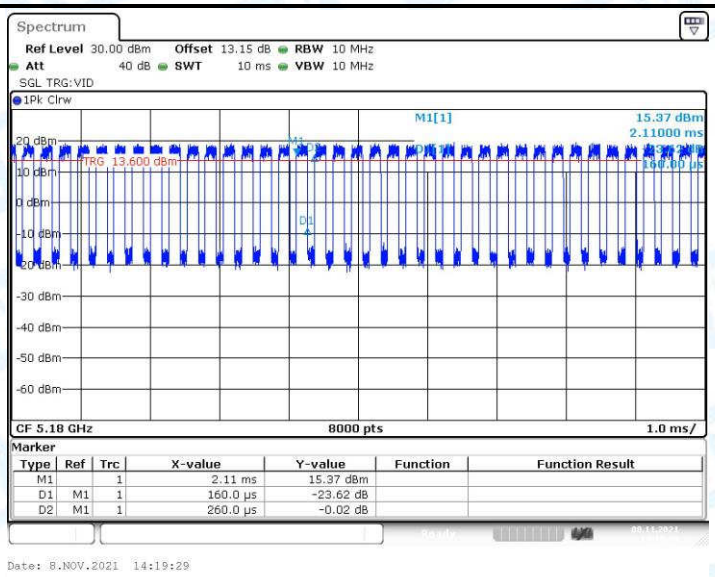
11A_Ant1_5785



11A_Ant1_5825



11N20SISO_Ant1_5180



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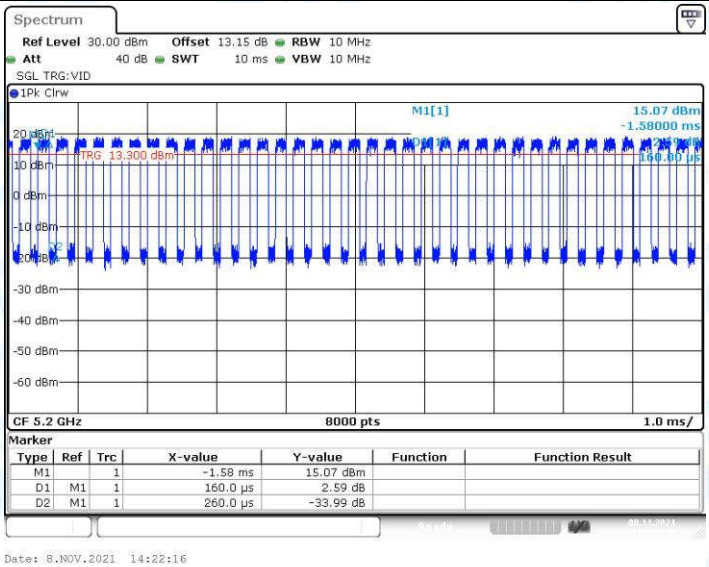
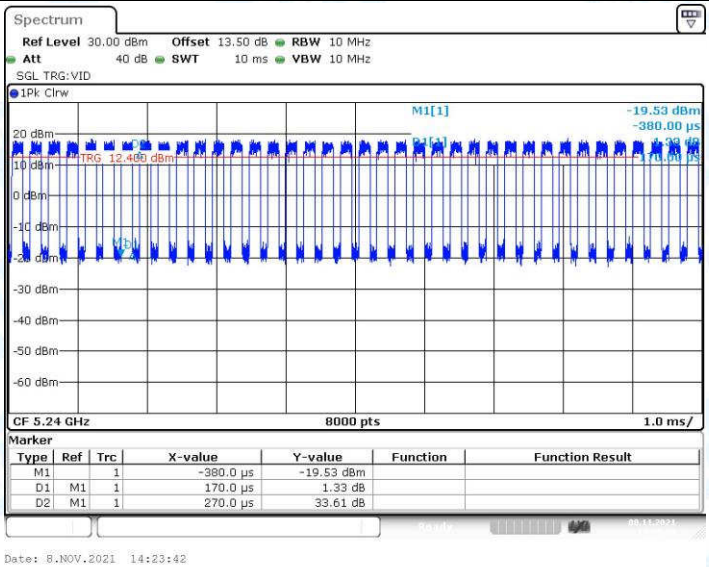


11N20SISO_Ant1_5240



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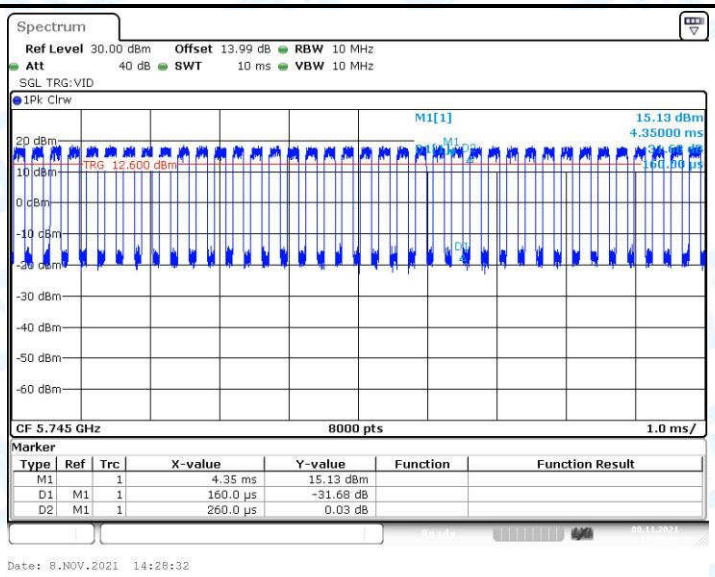
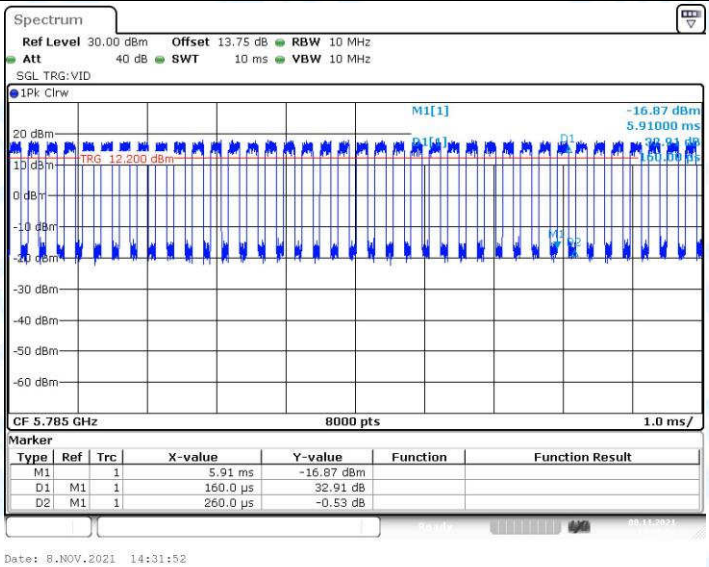


11N20SISO_Ant1_5785



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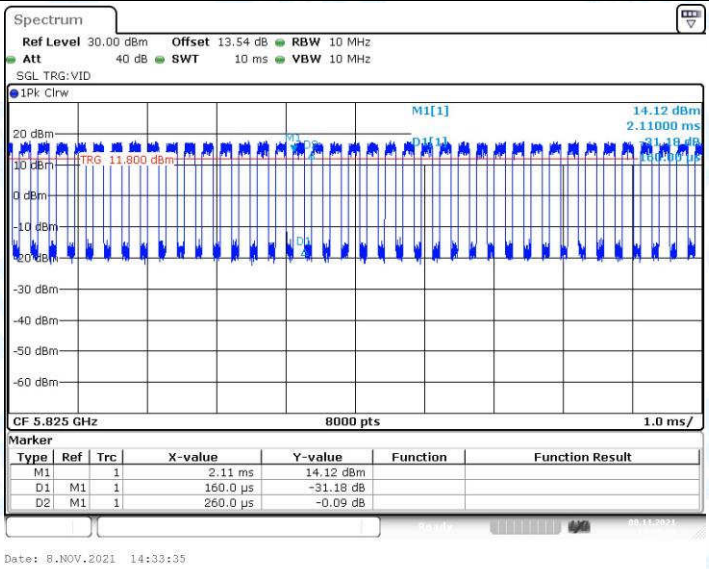

-----End of the report-----