RF Test Data for Bluetooth (BDR+EDR) (Conducted Measurements)

General Description of EUT	
Product Name:	**Bluetooth Adapter**
Test Model:	**K16**
Sample ID:	**202202-0190_02-06**
Environmental Conditions	
Temperature:	**25℃**
Relative Humidity:	**55%**
Test Voltage:	**AC 110V**
Test Engineer:	**Huangjianping**
Note: For a more detailed features description, please refer to the report TBR-C-202202-0190-3	

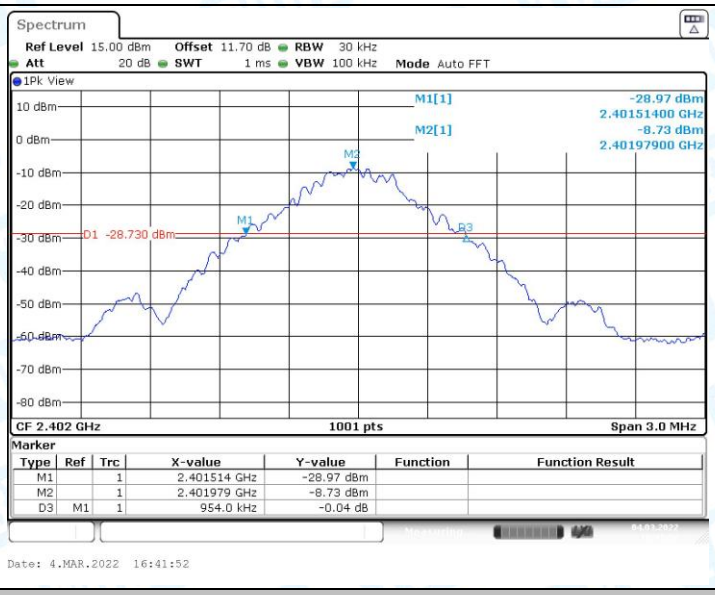
Contents

1. 20dB Emission Bandwidth

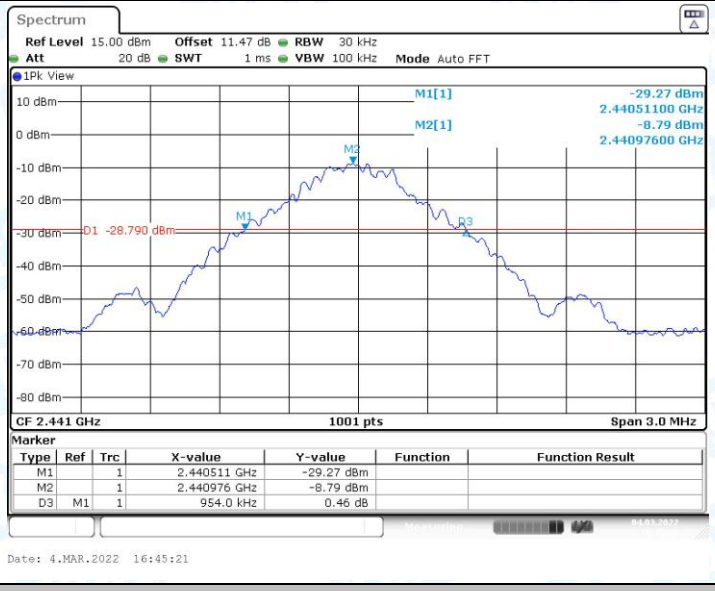
1.1.Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.95	---	---
		2441	0.95	---	---
		2480	0.95	---	---
2DH5	Ant1	2402	1.32	---	---
		2441	1.32	---	---
		2480	1.32	---	---

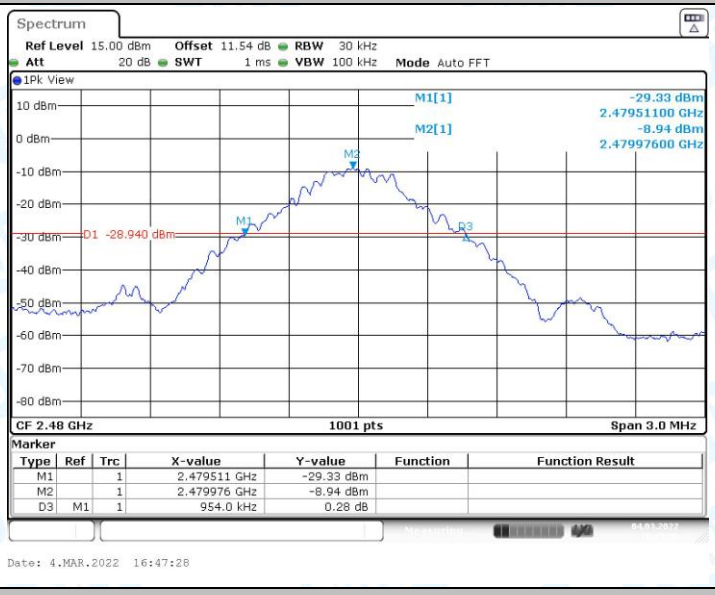
1.2.Test Graphs



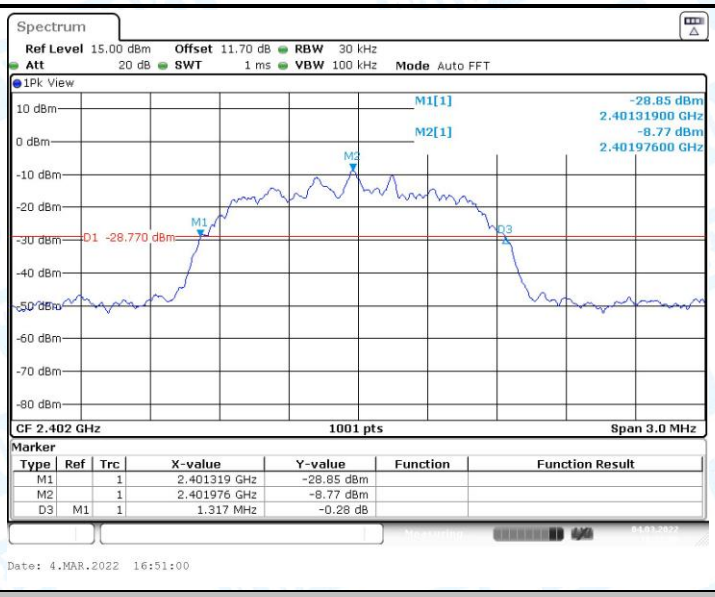
DH5_Ant1_2402



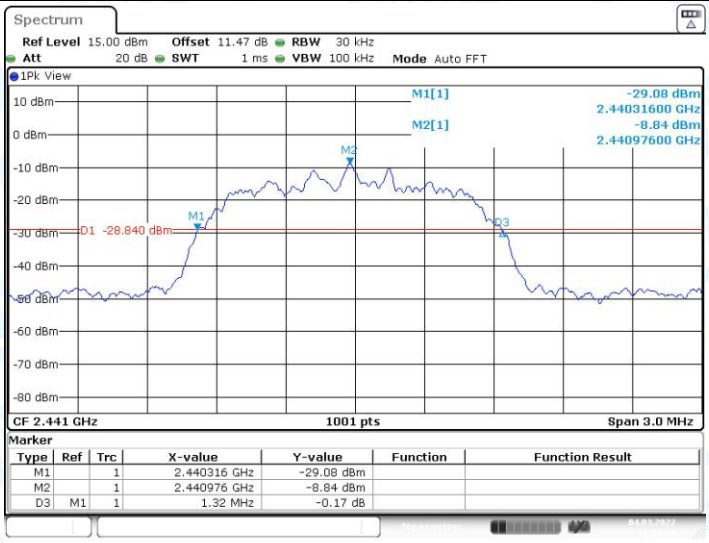
DH5_Ant1_2441



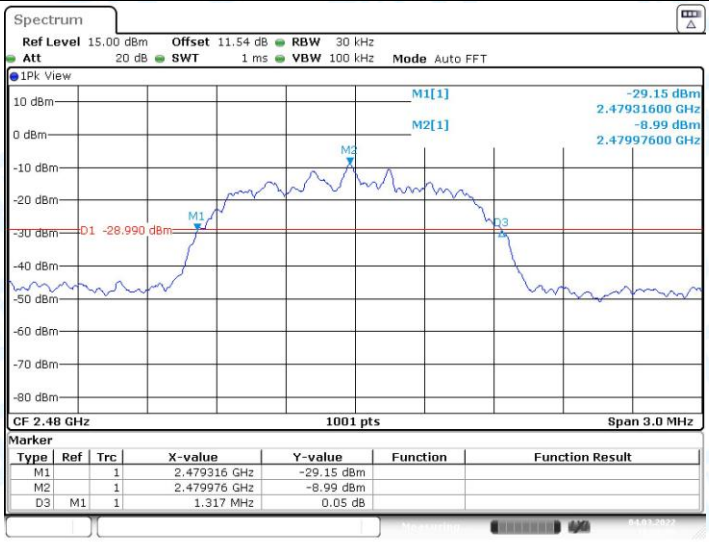
DH5_Ant1_2480



2DH5_Ant1_2402



2DH5_Ant1_2441



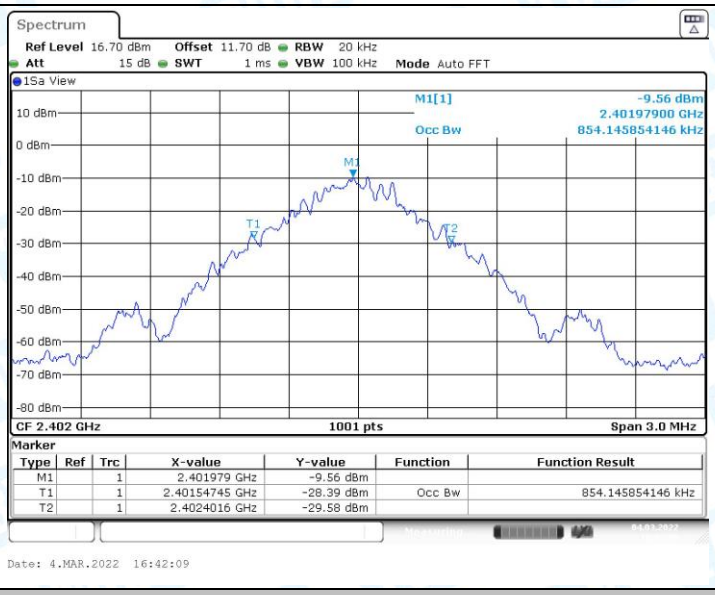
2DH5_Ant1_2480

2. Occupied Channel Bandwidth

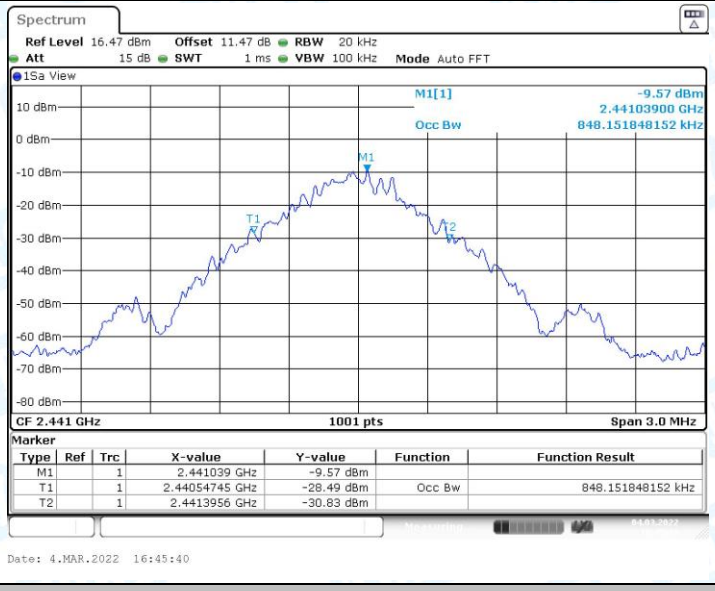
2.1.Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.854	2401.547	2402.402	---	---
		2441	0.848	2440.547	2441.396	---	---
		2480	0.854	2479.544	2480.399	---	---
2DH5	Ant1	2402	1.181	2401.386	2402.566	---	---
		2441	1.184	2440.386	2441.569	---	---
		2480	1.187	2479.383	2480.569	---	---

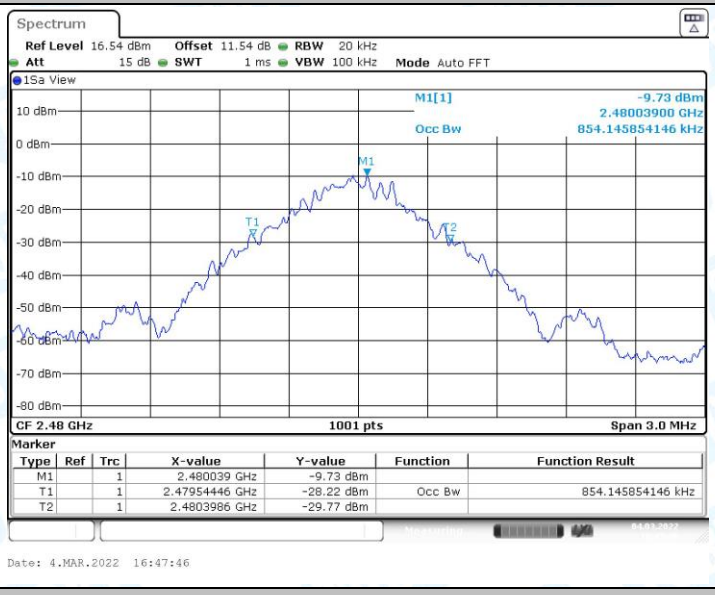
2.2.Test Graphs



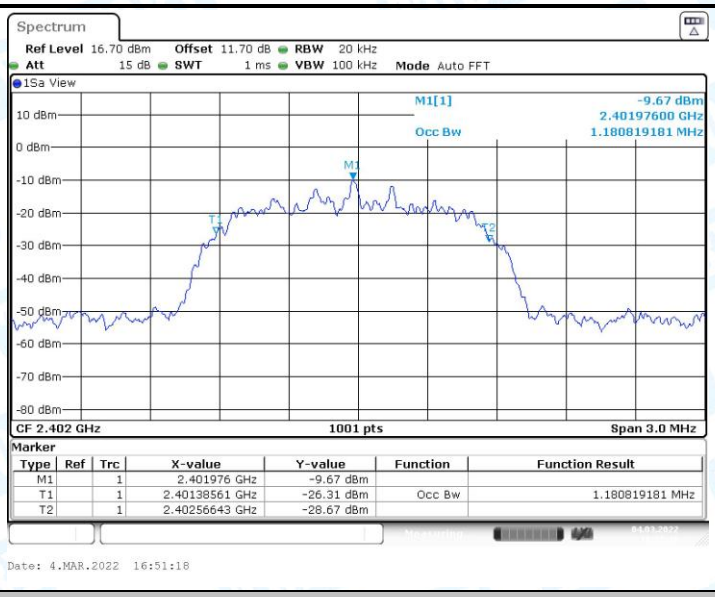
DH5_Ant1_2402



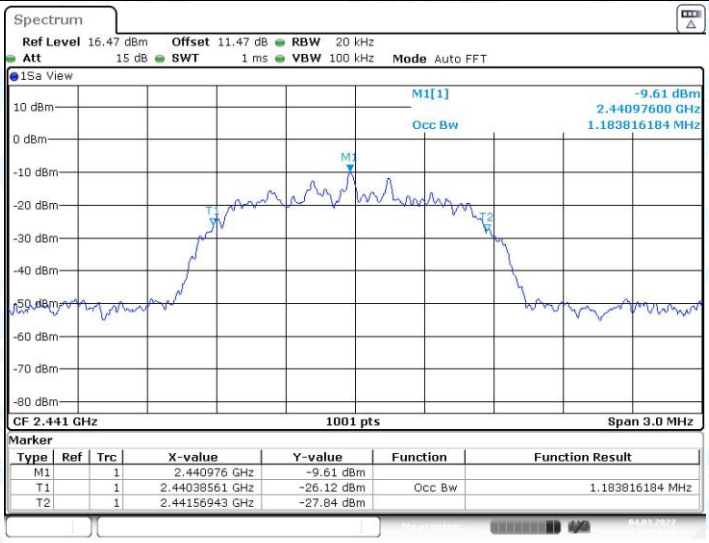
DH5_Ant1_2441



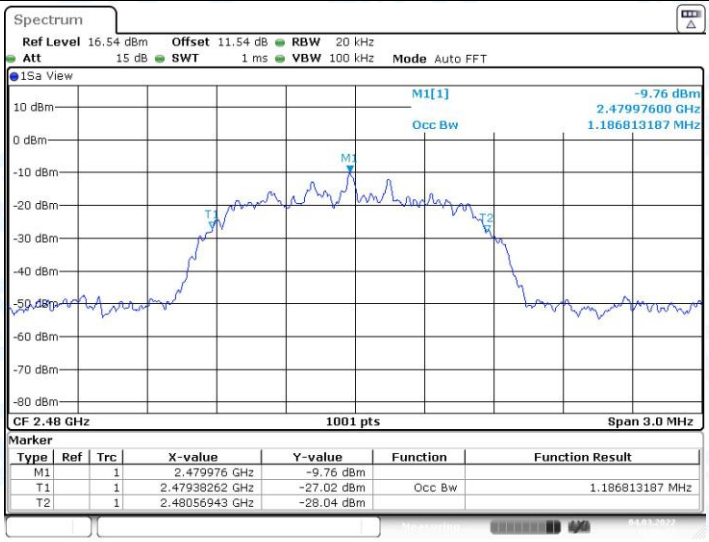
DH5_Ant1_2480



2DH5_Ant1_2402



2DH5_Ant1_2441



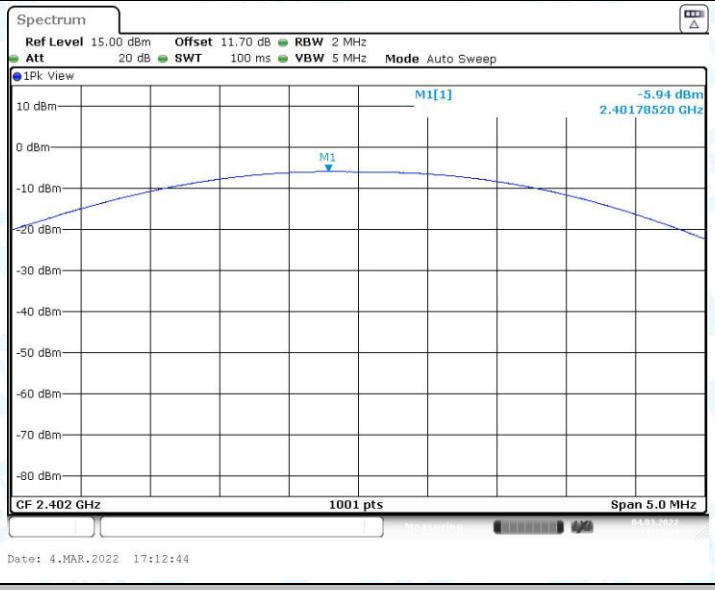
2DH5_Ant1_2480

3. Maximum conducted output power

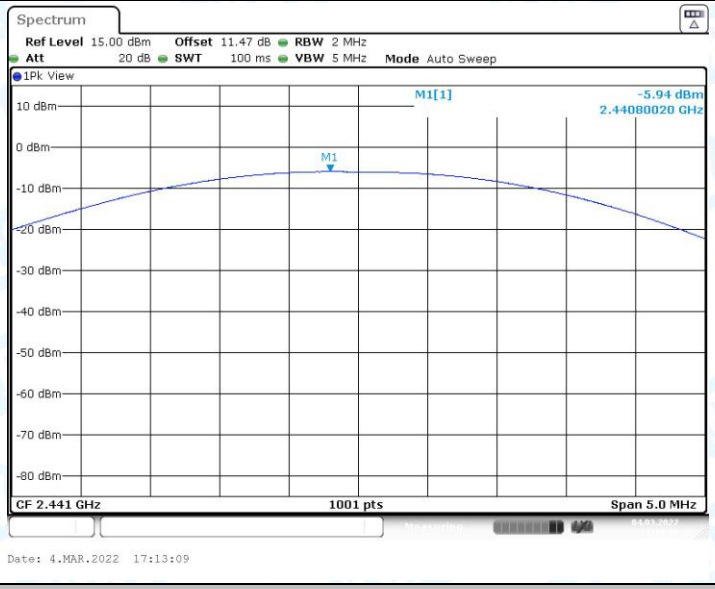
3.1.Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-5.94	≤20.97	PASS
		2441	-5.94	≤20.97	PASS
		2480	-6.04	≤20.97	PASS
2DH5	Ant1	2402	-5.2	≤20.97	PASS
		2441	-5.25	≤20.97	PASS
		2480	-5.35	≤20.97	PASS

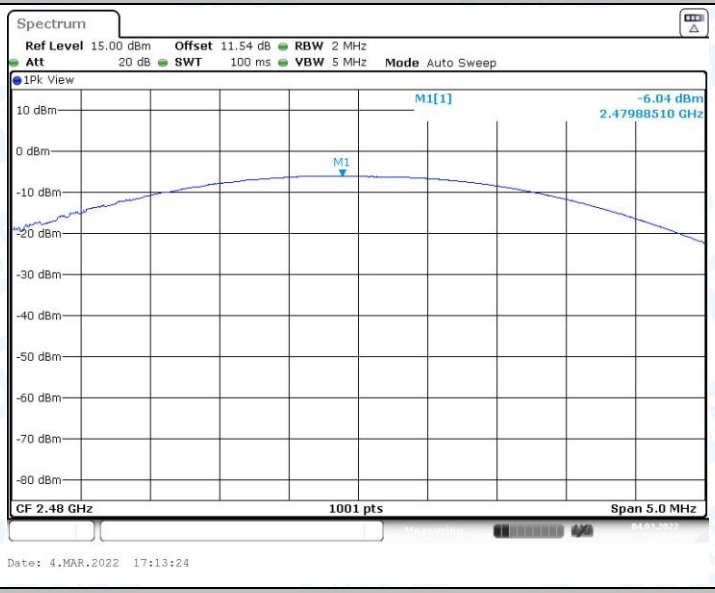
3.2.Test Graphs



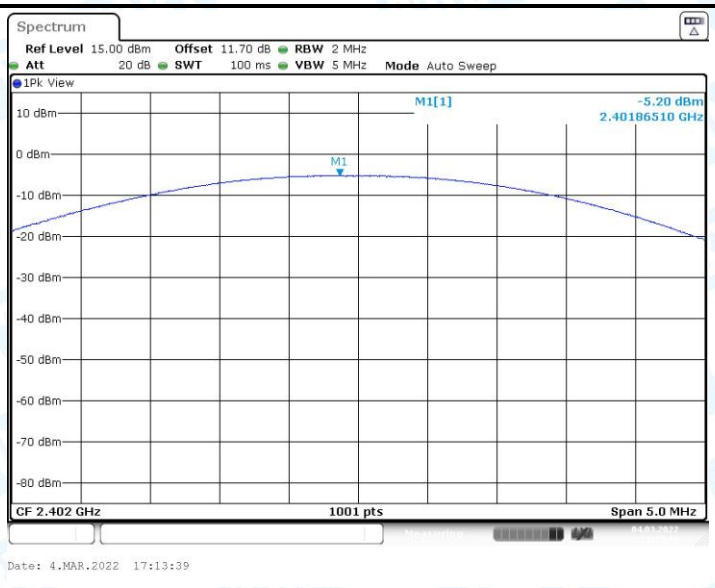
DH5_Ant1_2402



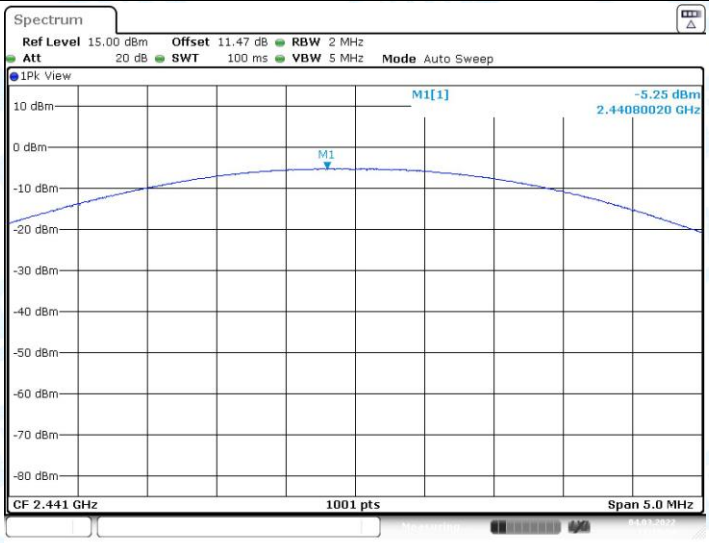
DH5_Ant1_2441



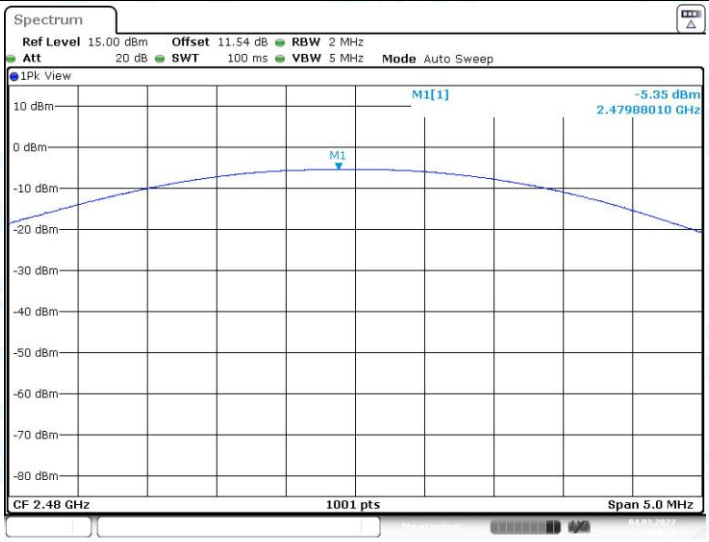
DH5_Ant1_2480



2DH5_Ant1_2402



2DH5_Ant1_2441



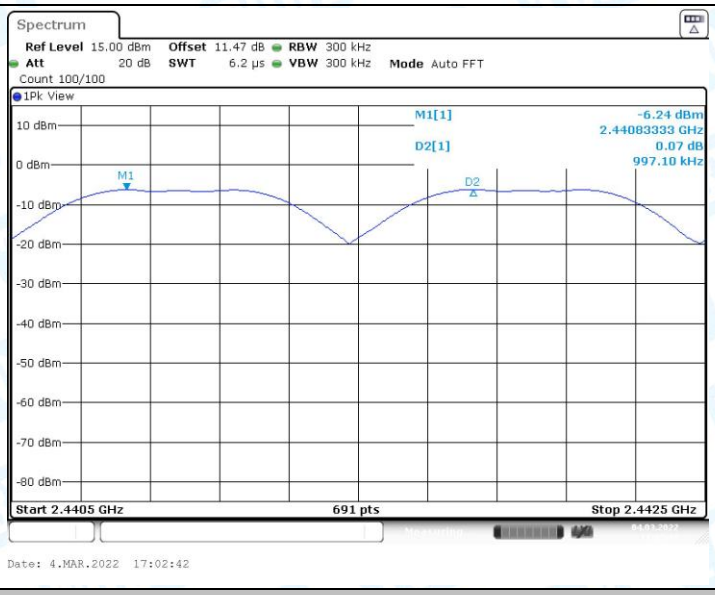
2DH5_Ant1_2480

4. Carrier frequency separation

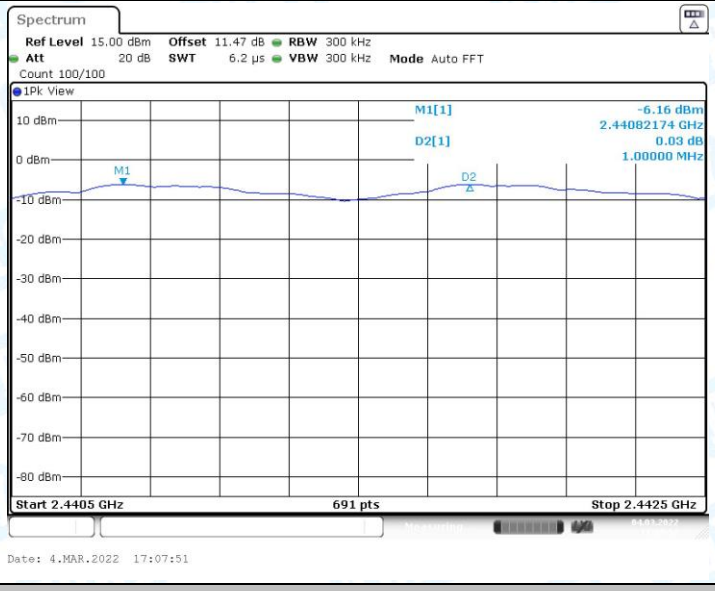
4.1.Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.997	≥0.950	PASS
2DH5	Ant1	Hop	1	≥0.880	PASS

4.2.Test Graphs



DH5_Ant1_Hop



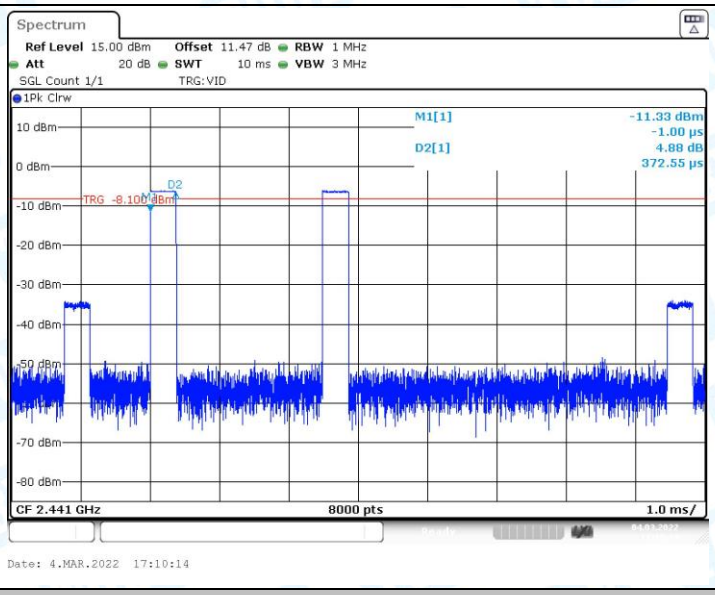
2DH5_Ant1_Hop

5. Time of occupancy

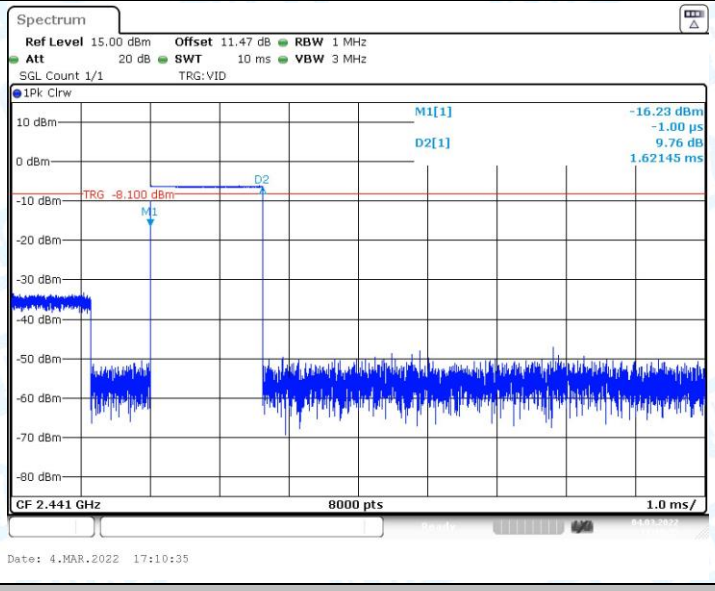
5.1.Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.37	320	0.119	≤0.4	PASS
DH3	Ant1	Hop	1.62	160	0.259	≤0.4	PASS
DH5	Ant1	Hop	2.86	106.67	0.305	≤0.4	PASS
2DH1	Ant1	Hop	0.38	320	0.123	≤0.4	PASS
2DH3	Ant1	Hop	1.63	160	0.26	≤0.4	PASS
2DH5	Ant1	Hop	2.87	106.67	0.306	≤0.4	PASS

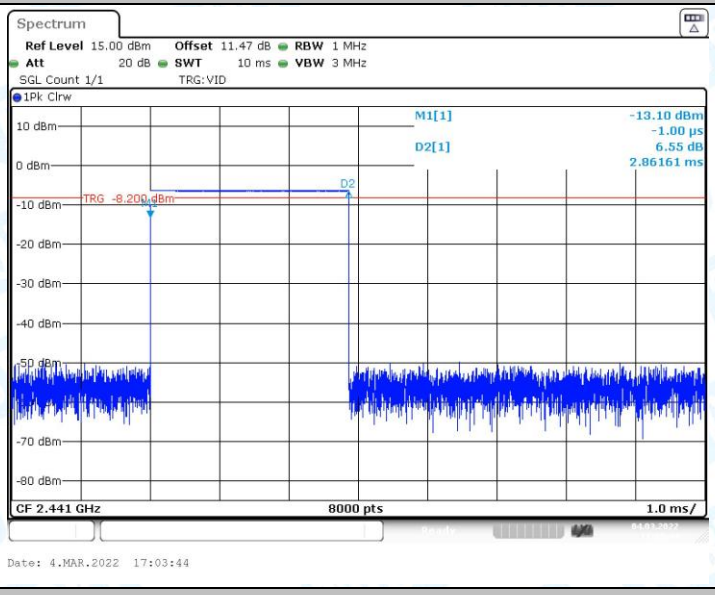
5.2.Test Graphs



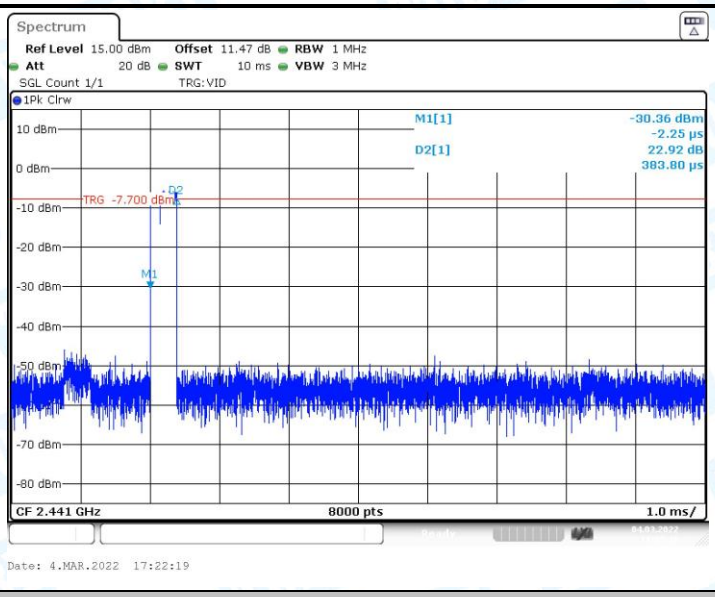
DH1_Ant1_Hop



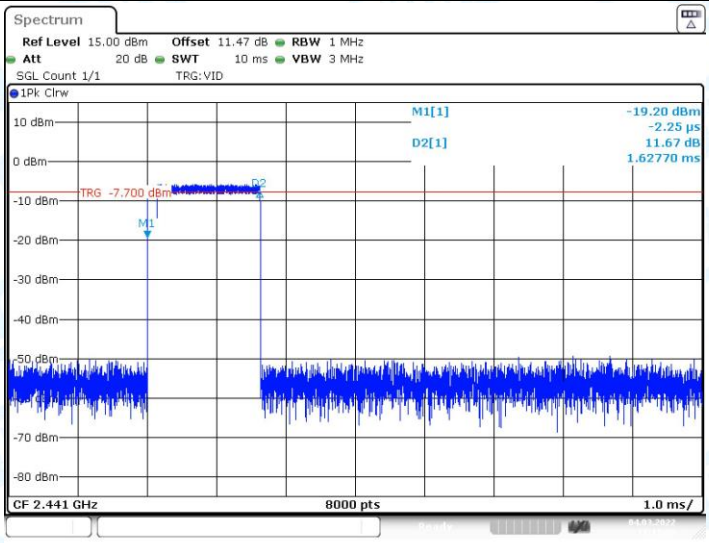
DH3_Ant1_Hop



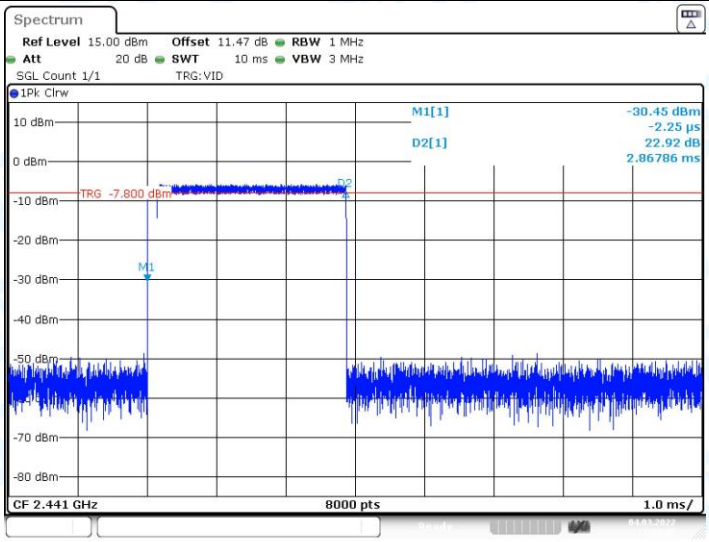
DH5_Ant1_Hop



2DH1_Ant1_Hop



2DH3_Ant1_Hop



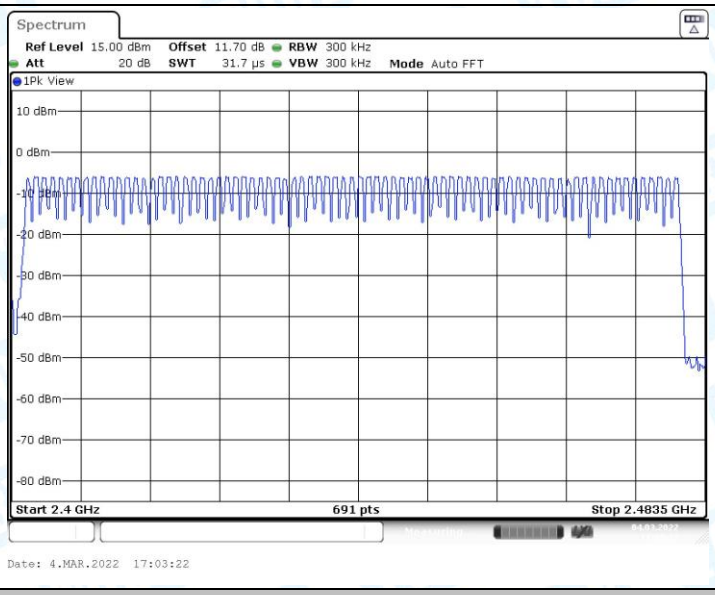
2DH5_Ant1_Hop

6. Number of hopping channels

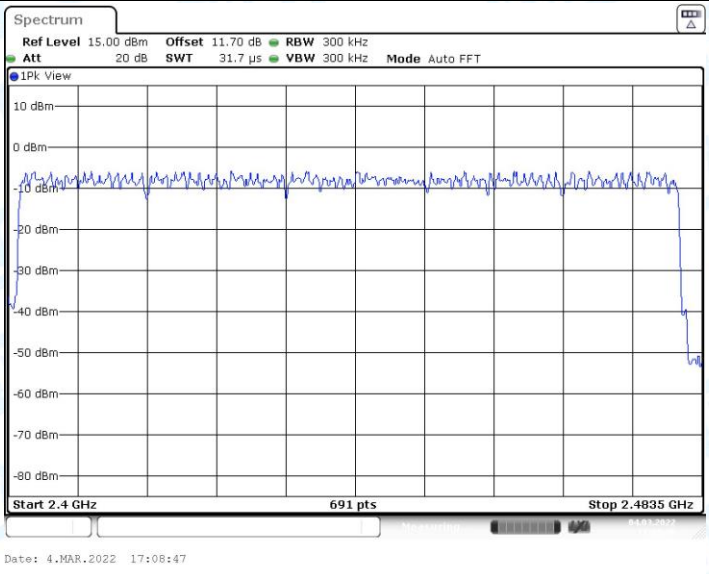
6.1.Test Result

TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS

6.2.Test Graphs



DH5_Ant1_Hop



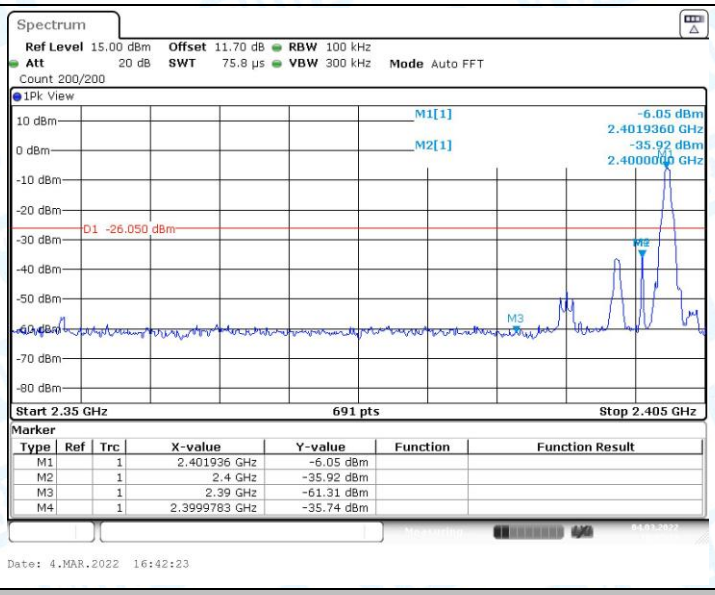
2DH5_Ant1_Hop

7.Band edge measurements

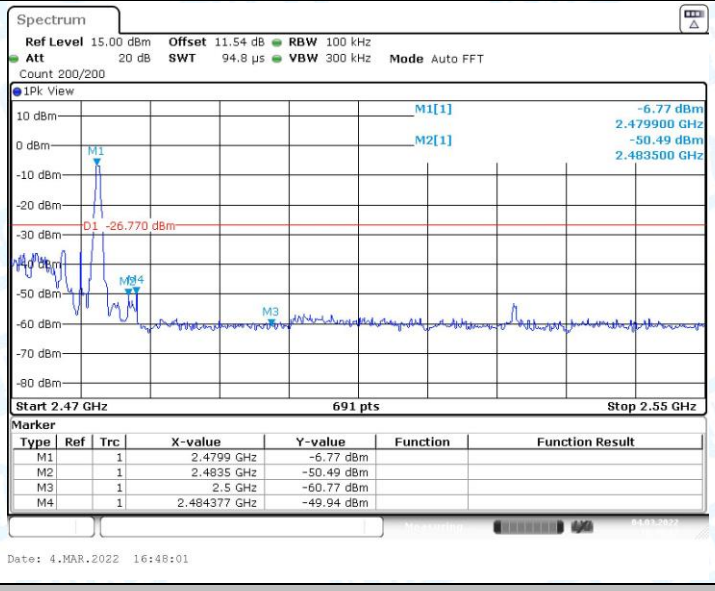
7.1.Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-6.05	-35.74	≤-26.05	PASS
		High	2480	-6.77	-49.94	≤-26.77	PASS
		Low	Hop_2402	-6.31	-56.08	≤-26.31	PASS
		High	Hop_2480	-6.73	-52.19	≤-26.73	PASS
2DH5	Ant1	Low	2402	-5.97	-36.03	≤-25.97	PASS
		High	2480	-6.31	-52.46	≤-26.31	PASS
		Low	Hop_2402	-9.15	-58.15	≤-29.15	PASS
		High	Hop_2480	-10.31	-53.27	≤-30.31	PASS

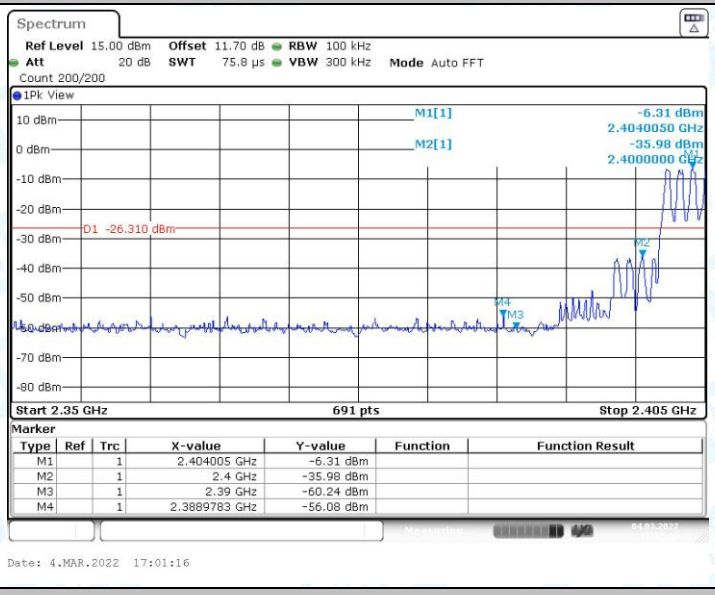
7.2.Test Graphs



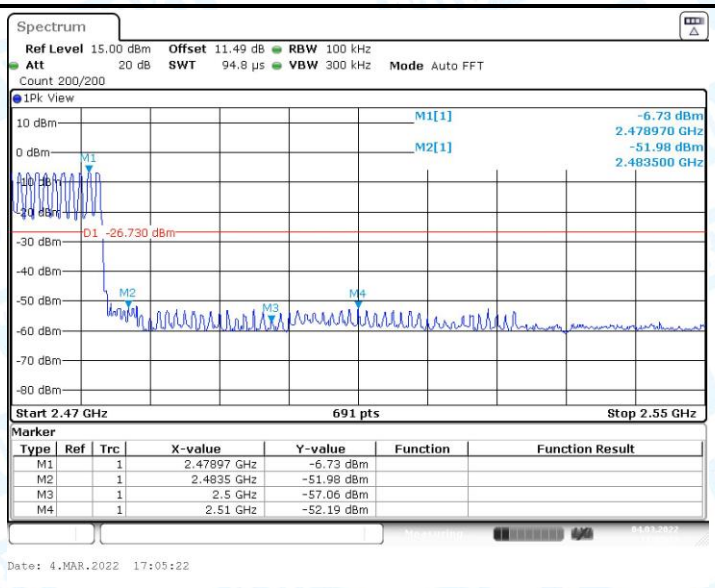
DH5_Ant1_Low_2402



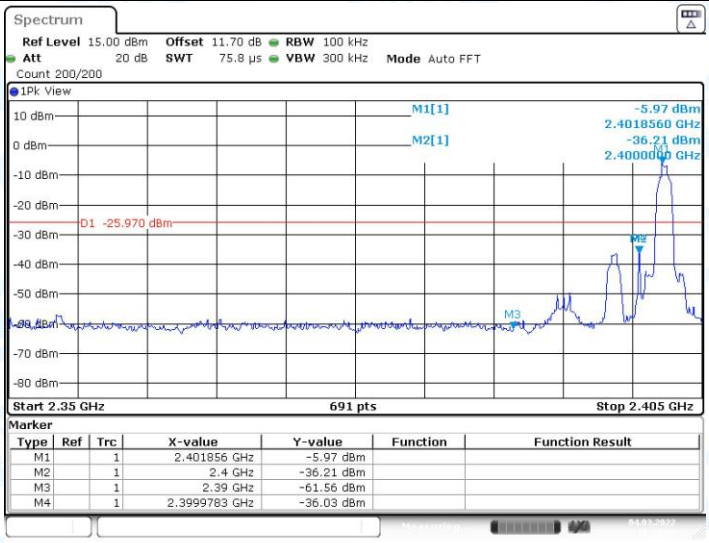
DH5_Ant1_High_2480



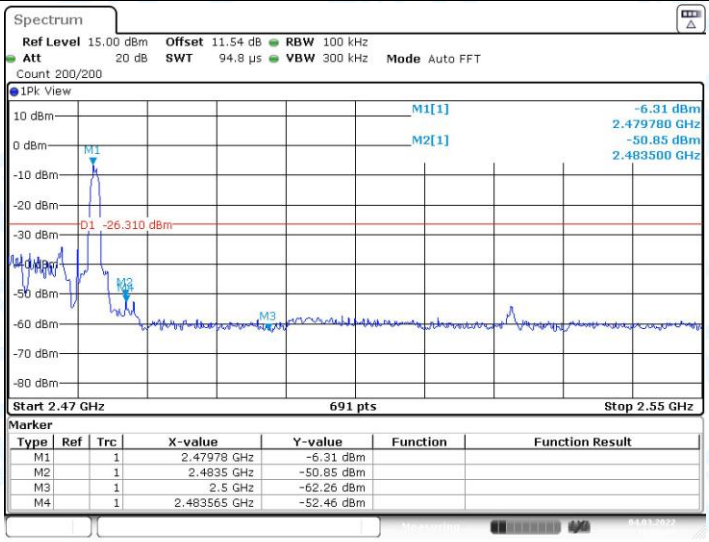
DH5_Ant1_Low_Hop_2402



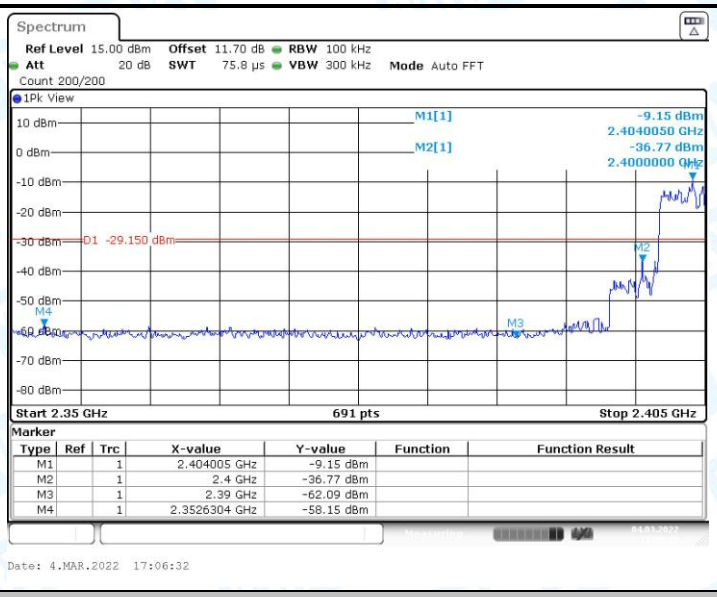
DH5_Ant1_High_Hop_2480



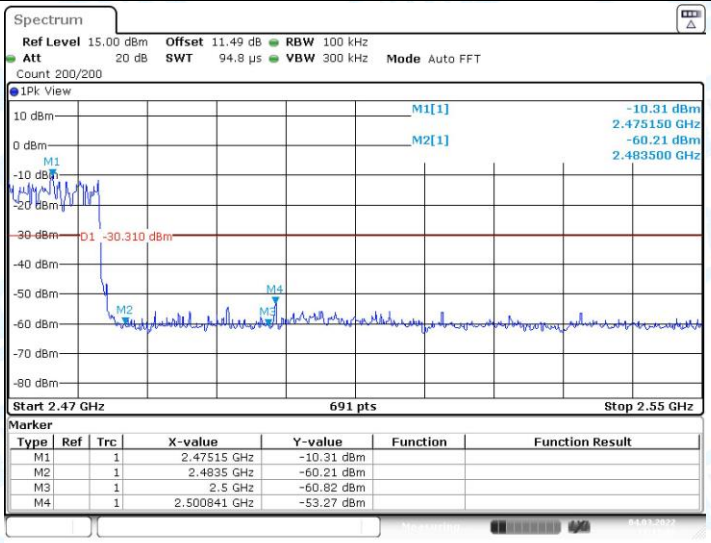
2DH5_Ant1_Low_2402



2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



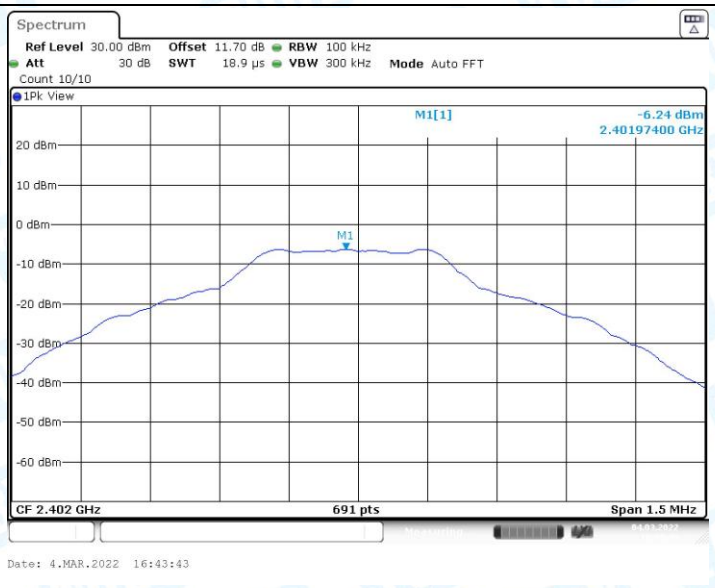
2DH5_Ant1_High_Hop_2480

8. Conducted Spurious Emission

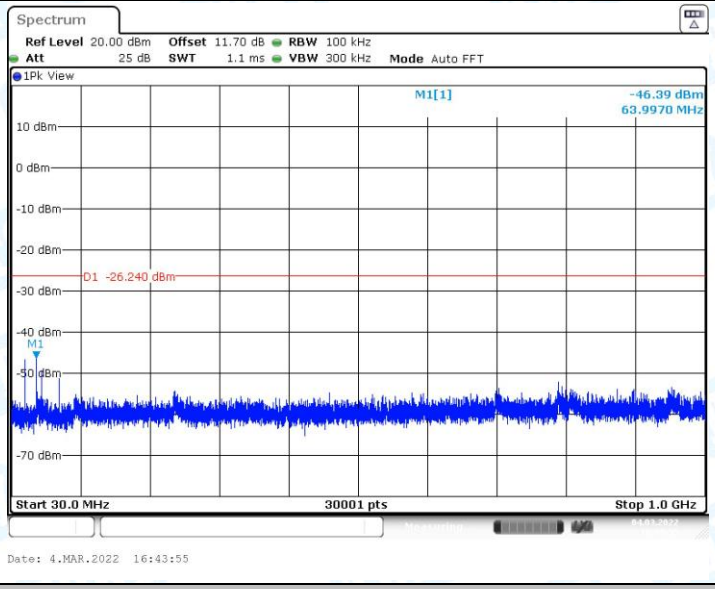
8.1.Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-6.24	-6.24	---	PASS
			30~1000	-6.24	-46.39	≤-26.24	PASS
			1000~26500	-6.24	-46.54	≤-26.24	PASS
		2441	Reference	-6.33	-6.33	---	PASS
			30~1000	-6.33	-46.17	≤-26.33	PASS
			1000~26500	-6.33	-46.51	≤-26.33	PASS
		2480	Reference	-6.51	-6.51	---	PASS
			30~1000	-6.51	-46.53	≤-26.51	PASS
			1000~26500	-6.51	-47.11	≤-26.51	PASS
2DH5	Ant1	2402	Reference	-6.11	-6.11	---	PASS
			30~1000	-6.11	-46.44	≤-26.11	PASS
			1000~26500	-6.11	-47.05	≤-26.11	PASS
		2441	Reference	-6.20	-6.20	---	PASS
			30~1000	-6.20	-46.65	≤-26.2	PASS
			1000~26500	-6.20	-47.02	≤-26.2	PASS
		2480	Reference	-6.51	-6.51	---	PASS
			30~1000	-6.51	-46.46	≤-26.51	PASS
			1000~26500	-6.51	-47.54	≤-26.51	PASS

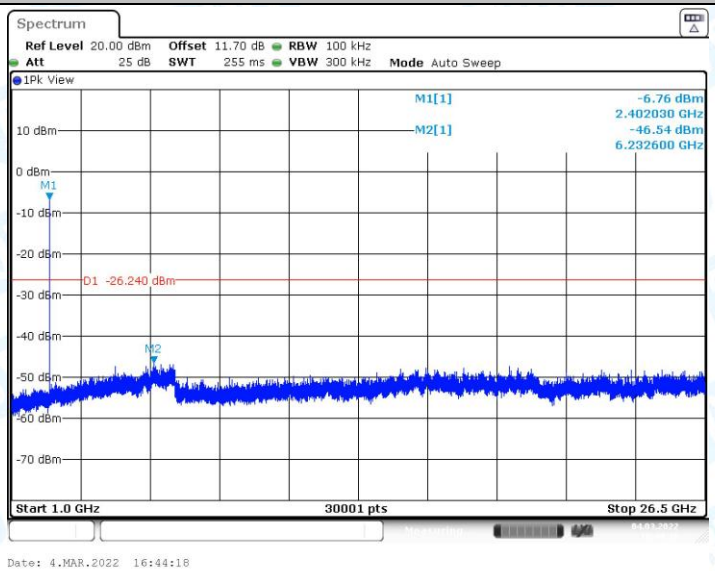
8.2.Test Graphs



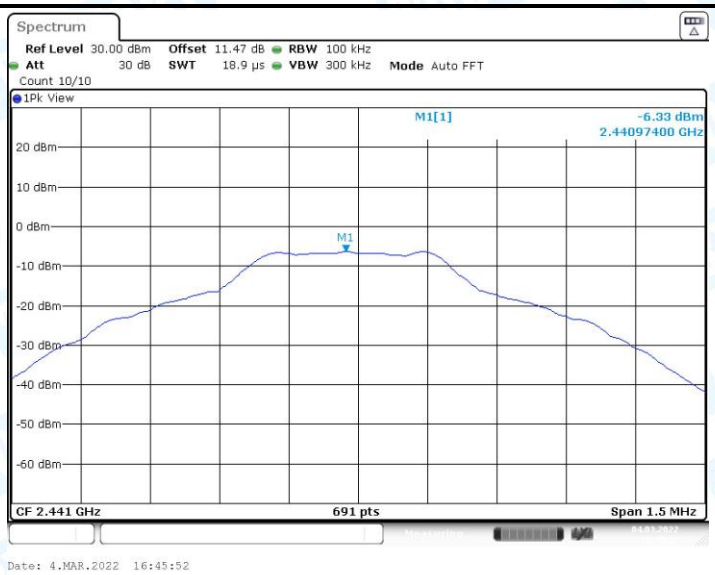
DH5_Ant1_2402_0~Reference



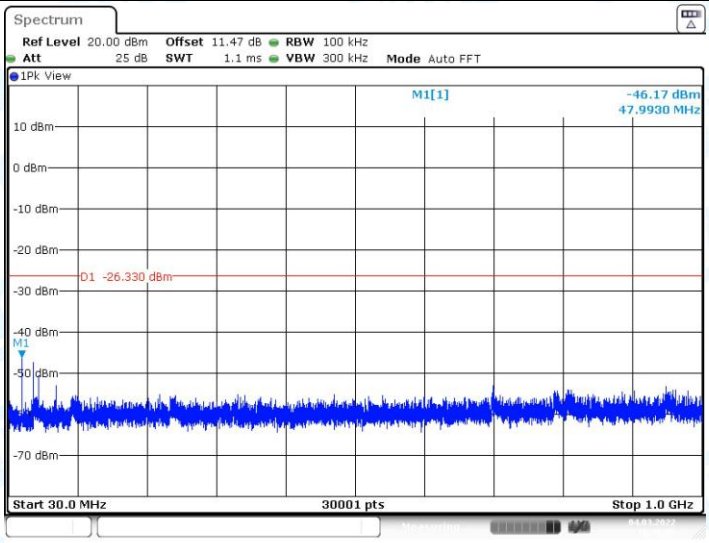
DH5_Ant1_2402_30~1000



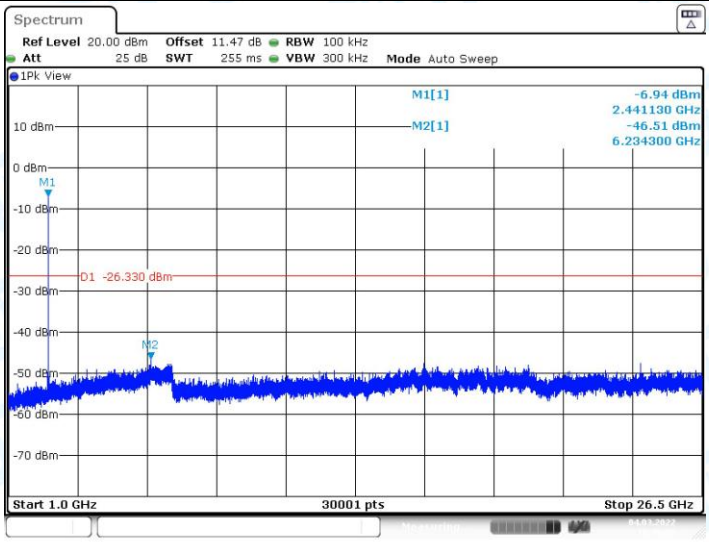
DH5_Ant1_2402_1000~26500



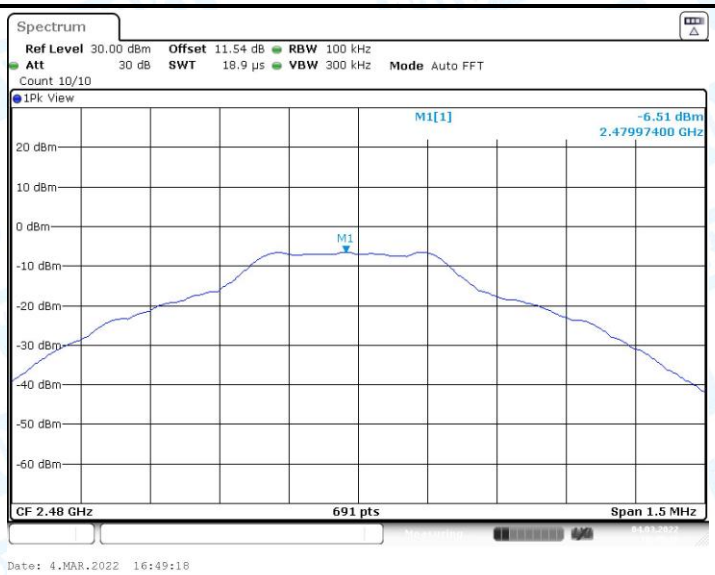
DH5_Ant1_2441_0~Reference



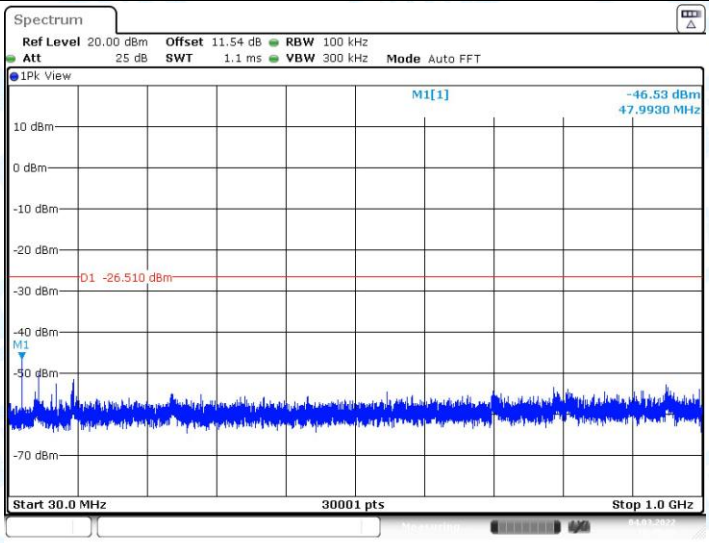
DH5_Ant1_2441_30~1000



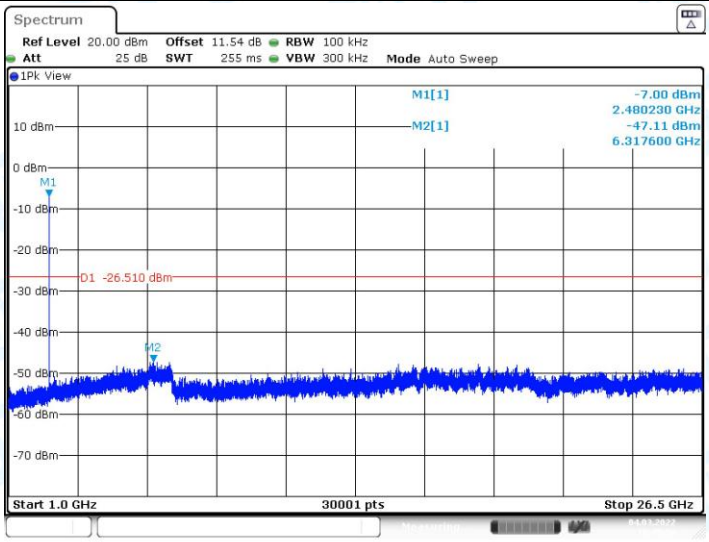
DH5_Ant1_2441_1000~26500



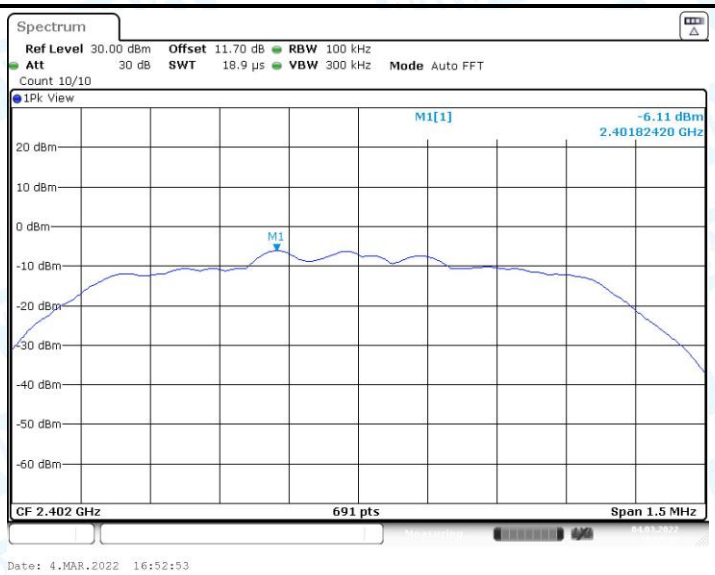
DH5_Ant1_2480_0~Reference



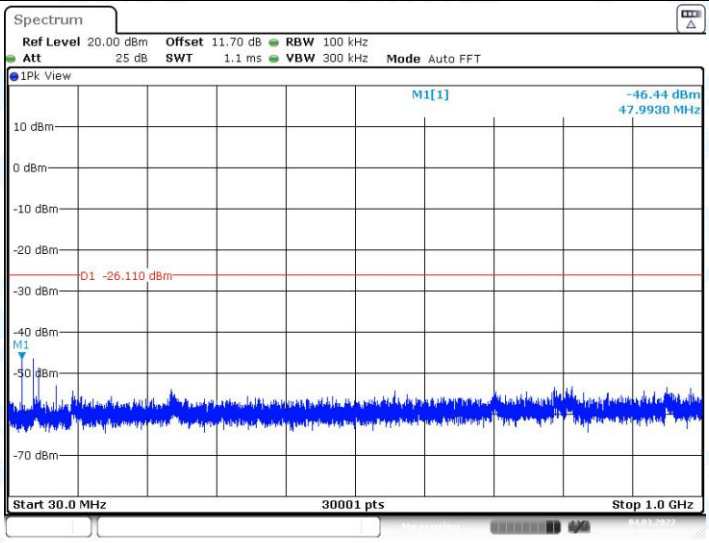
DH5_Ant1_2480_30~1000



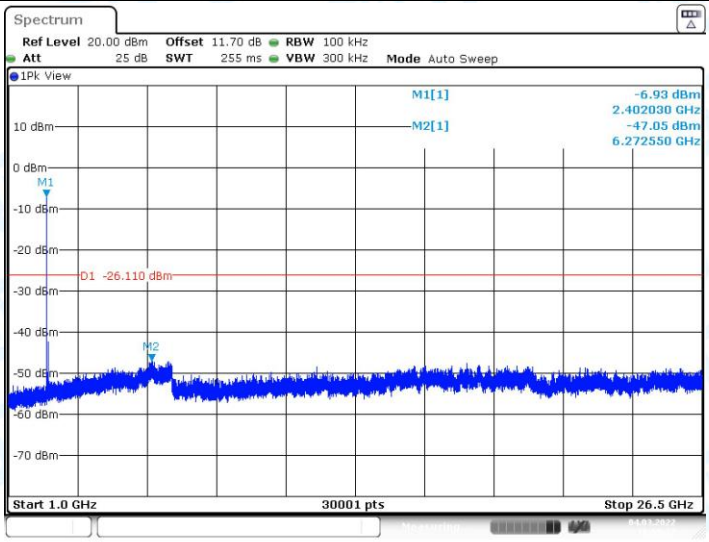
DH5_Ant1_2480_1000~26500



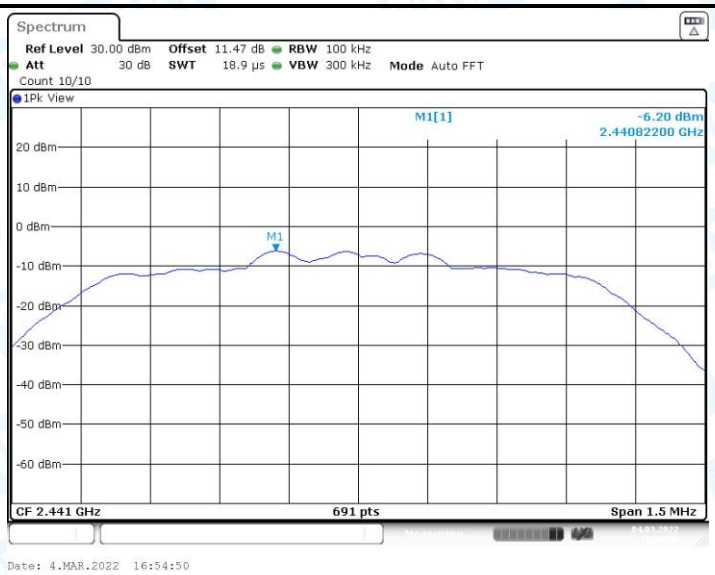
2DH5_Ant1_2402_0~Reference



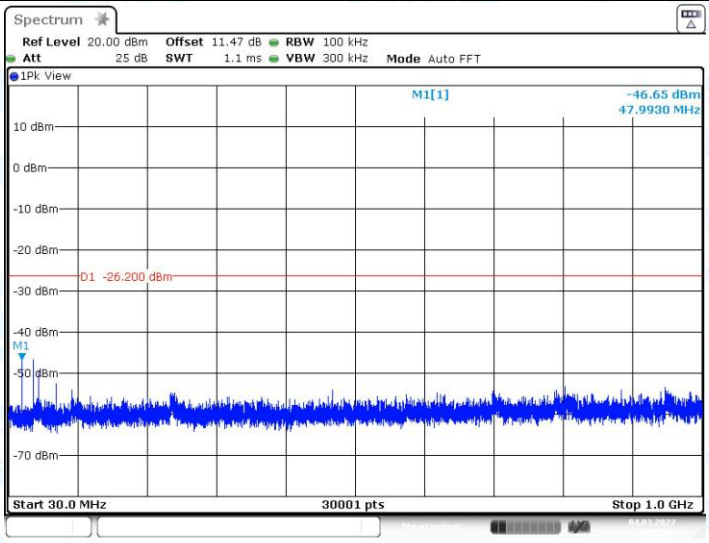
2DH5_Ant1_2402_30~1000



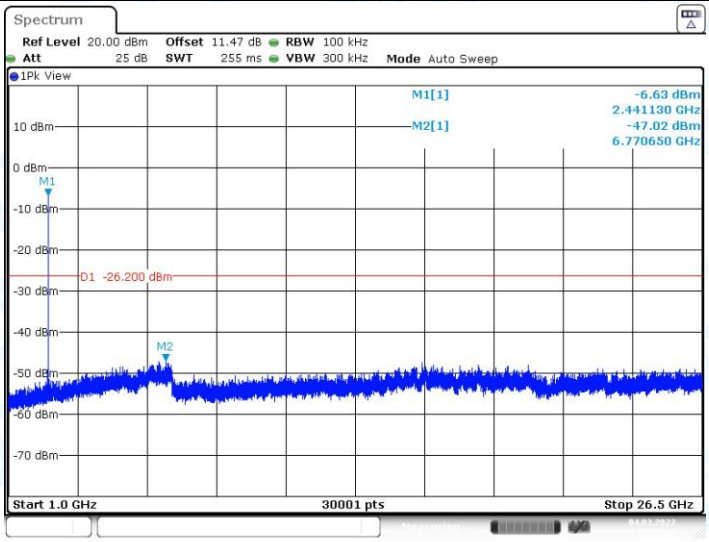
2DH5_Ant1_2402_1000~26500



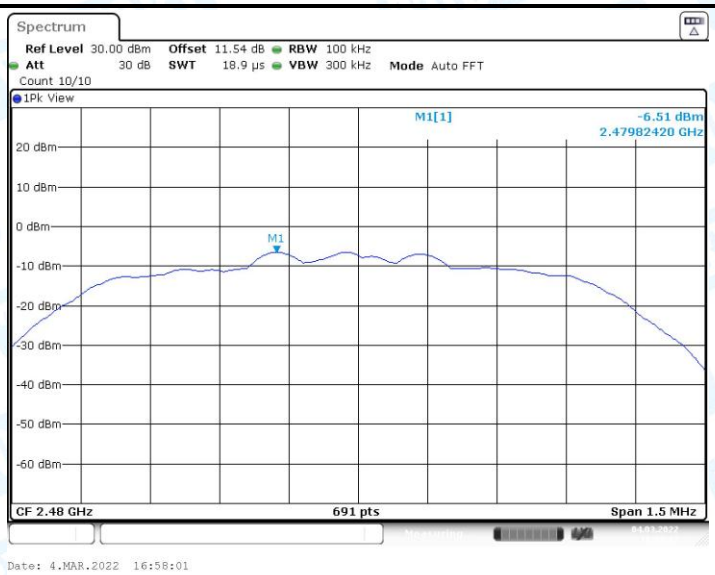
2DH5_Ant1_2441_0~Reference



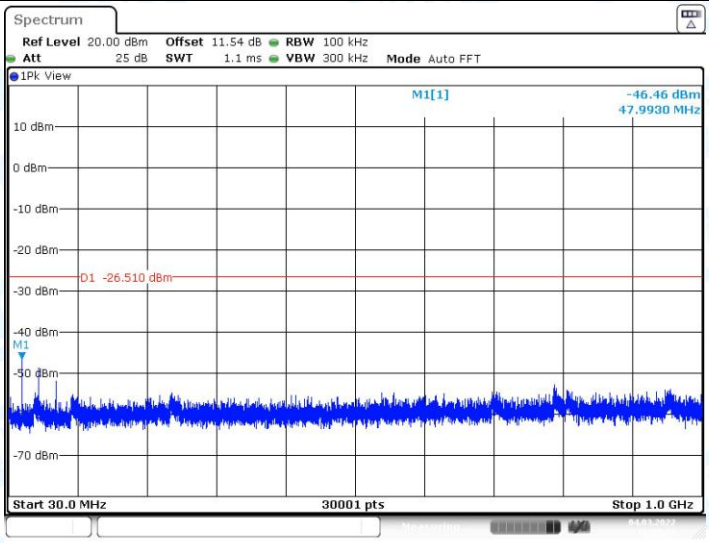
2DH5_Ant1_2441_30~1000



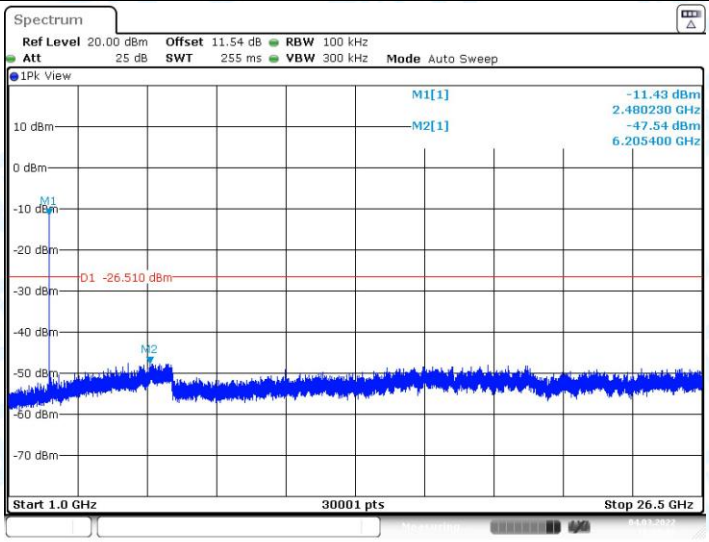
2DH5_Ant1_2441_1000~26500



2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000



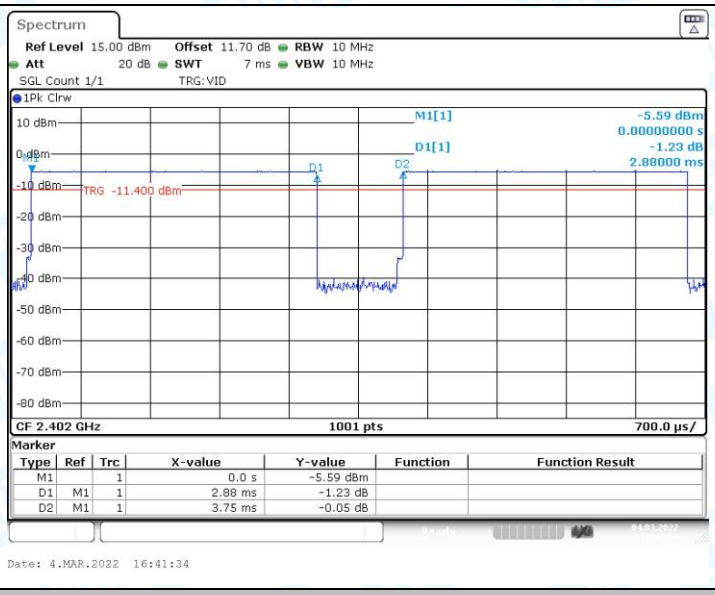
2DH5_Ant1_2480_1000~26500

9. Duty Cycle

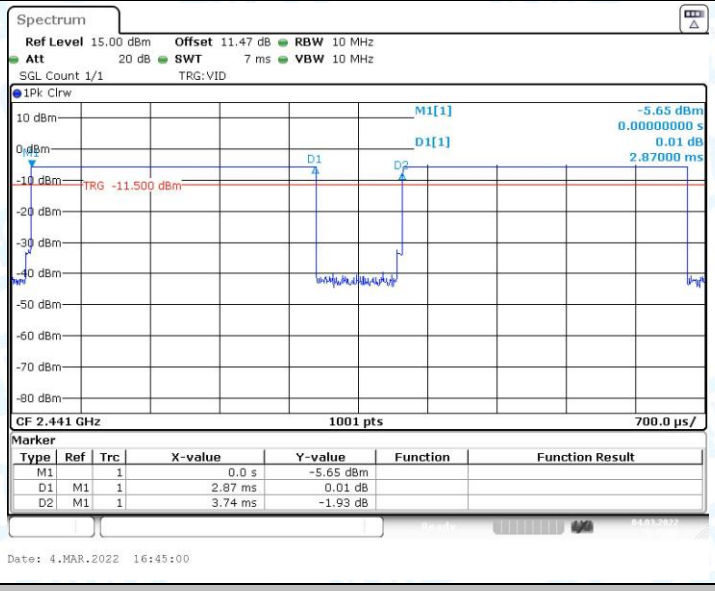
9.1.Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
DH5	Ant1	2402	2.88	3.75	76.80	---	---
		2441	2.87	3.74	76.74	---	---
		2480	2.88	3.75	76.80	---	---
2DH5	Ant1	2402	2.89	3.75	77.07	---	---
		2441	2.88	3.75	76.80	---	---
		2480	2.89	3.75	77.07	---	---

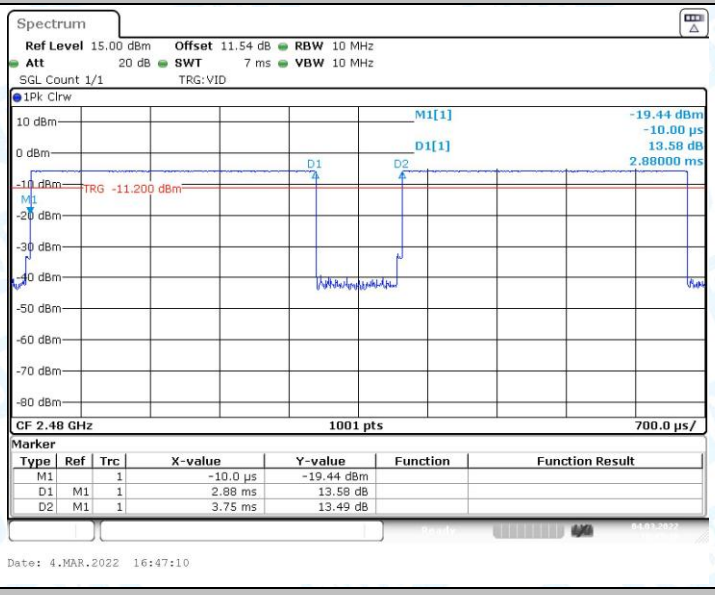
9.2.Test Graphs



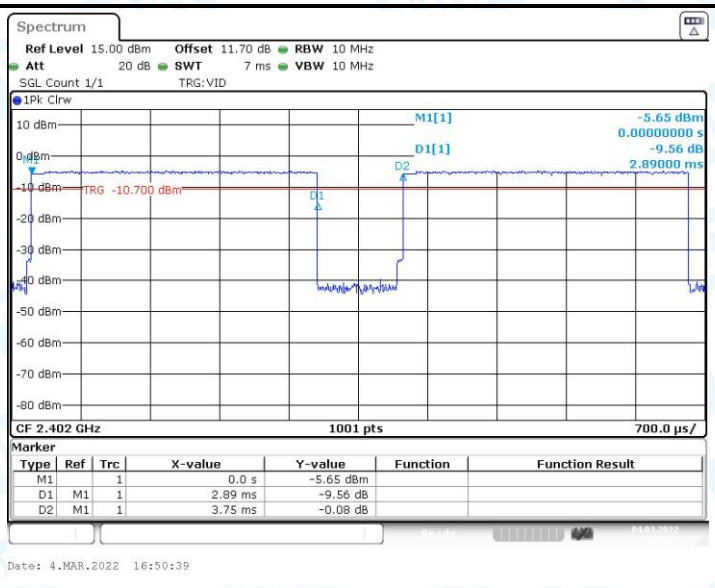
DH5_Ant1_2402



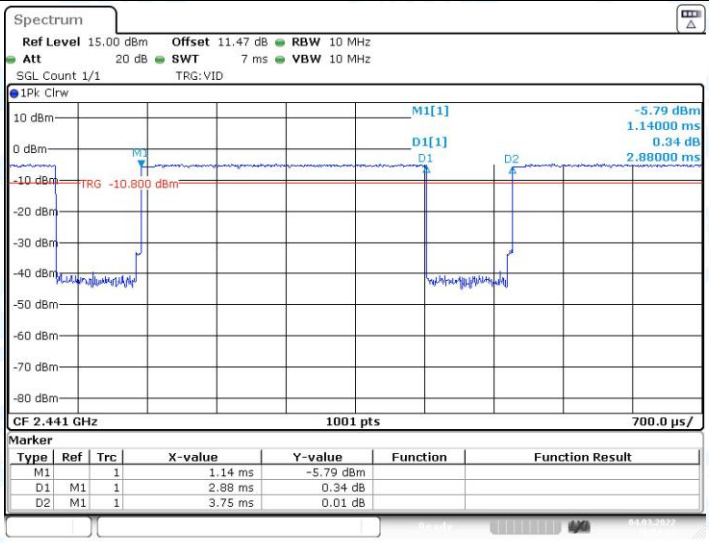
DH5_Ant1_2441



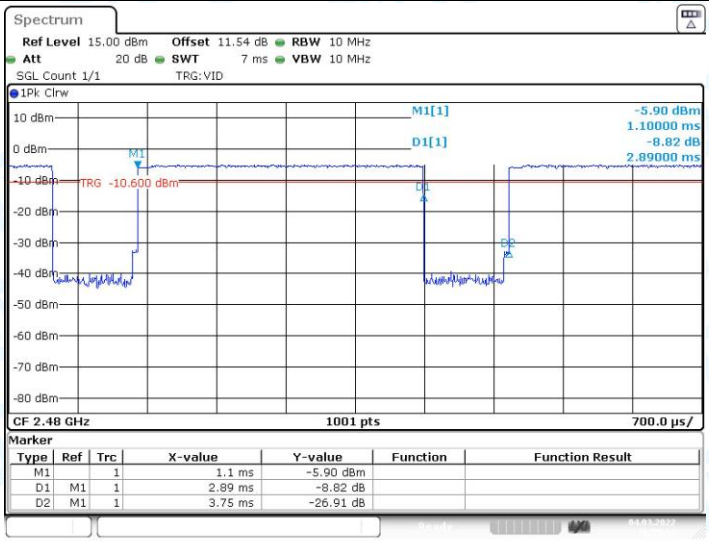
DH5_Ant1_2480



2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

10. Emissions in Restricted Bands

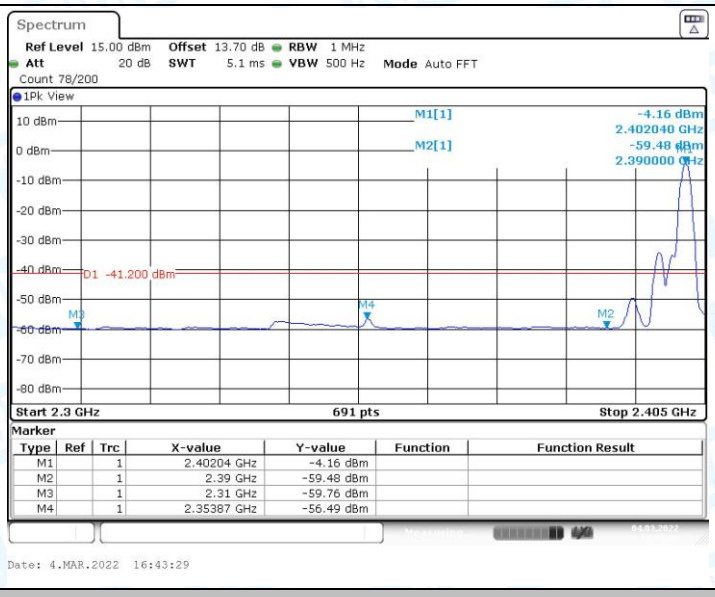
10.1.Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-59.76	≤-41.20	PASS
				AV	2353.870	-56.49	≤-41.20	PASS
				AV	2390.000	-59.48	≤-41.20	PASS
				Peak	2310.000	-48.66	≤-21.20	PASS
				Peak	2353.717	-45.68	≤-21.20	PASS
				Peak	2390.000	-49.26	≤-21.20	PASS
		High	2480	AV	2483.500	-52.15	≤-41.20	PASS
				AV	2483.913	-50.29	≤-41.20	PASS
				AV	2500.000	-58.9	≤-41.20	PASS
				Peak	2483.500	-44.36	≤-21.20	PASS
				Peak	2484.493	-41.59	≤-21.20	PASS
				Peak	2500.000	-47.54	≤-21.20	PASS
		Low	Hop_2402	Peak	2310.000	-49.87	≤-21.20	PASS
				Peak	2322.217	-46.06	≤-21.20	PASS
				Peak	2390.000	-46.94	≤-21.20	PASS
		High	Hop_2480	Peak	2483.500	-48.49	≤-21.20	PASS
				Peak	2484.145	-45.24	≤-21.20	PASS
				Peak	2500.000	-47.11	≤-21.20	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-59.75	≤-41.20	PASS
				AV	2341.087	-57.29	≤-41.20	PASS
				AV	2390.000	-59.71	≤-41.20	PASS
				Peak	2310.000	-48.1	≤-21.20	PASS
				Peak	2341.848	-46.16	≤-21.20	PASS
				Peak	2390.000	-47.75	≤-21.20	PASS
		High	2480	AV	2483.500	-54.15	≤-41.20	PASS
				AV	2483.913	-53.14	≤-41.20	PASS
				AV	2500.000	-59.05	≤-41.20	PASS
				Peak	2483.500	-44.99	≤-21.20	PASS
				Peak	2483.681	-44.11	≤-21.20	PASS
				Peak	2500.000	-47.79	≤-21.20	PASS
		Low	Hop_2402	Peak	2310.000	-49.8	≤-21.20	PASS
				Peak	2341.087	-46.04	≤-21.20	PASS
				Peak	2390.000	-48.61	≤-21.20	PASS
		High	Hop_2480	Peak	2483.500	-47.5	≤-21.20	PASS
				Peak	2497.362	-45.96	≤-21.20	PASS
				Peak	2500.000	-47.27	≤-21.20	PASS

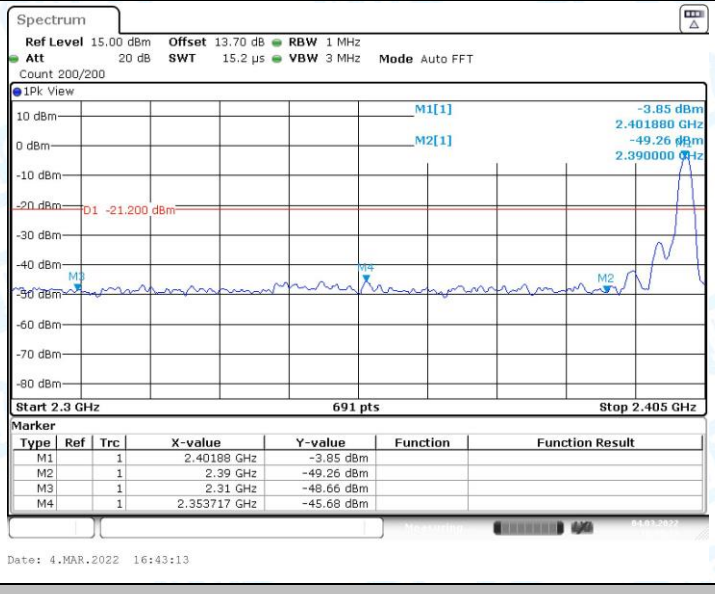
Note：

1. The Antenna Gain is compensated in the graph.
2. 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.

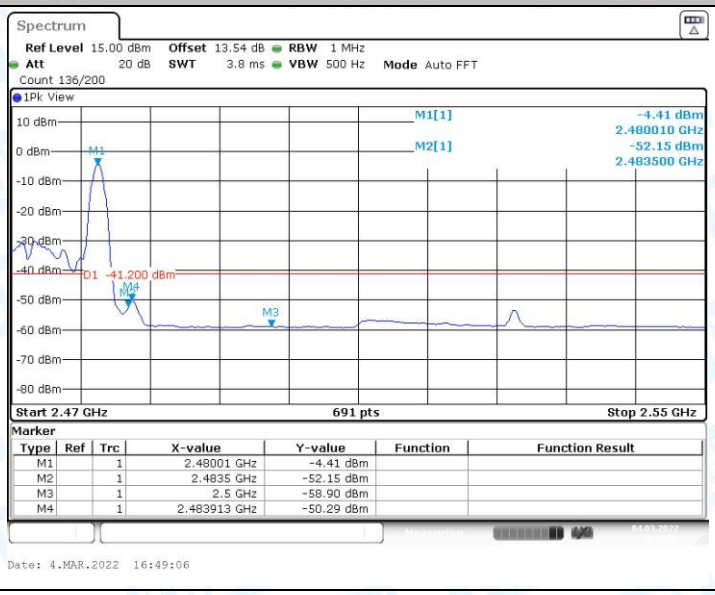
10.2.Test Graphs



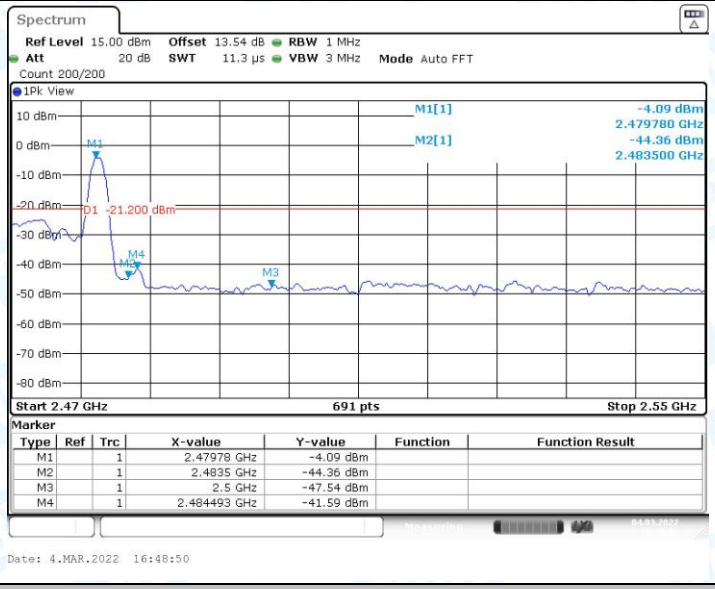
DH5_Ant1_Low_2402_AV



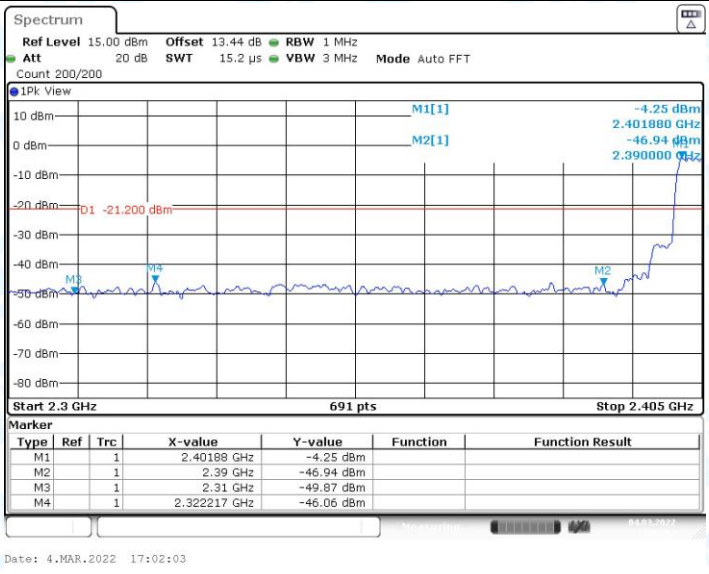
DH5_Ant1_Low_2402_Peak



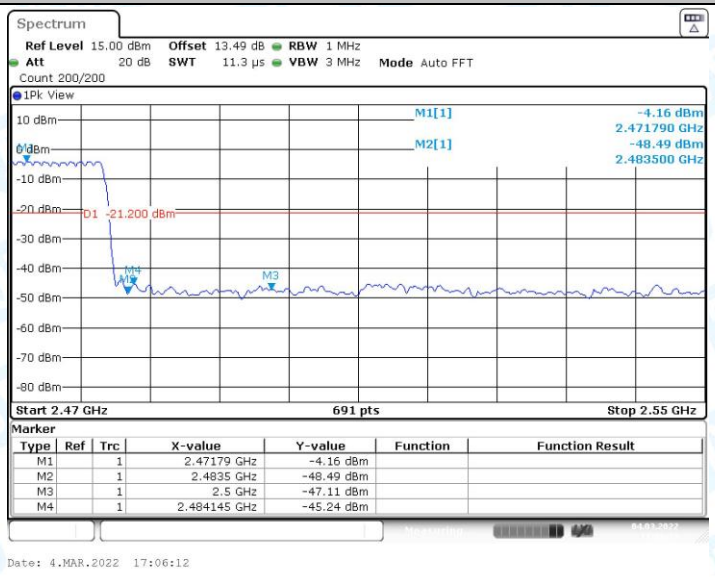
DH5_Ant1_High_2480_AV



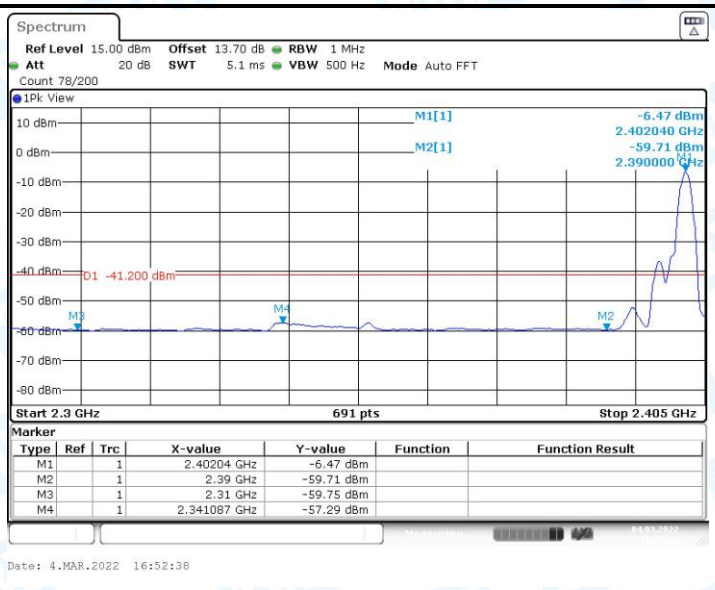
DH5_Ant1_High_2480_Peak



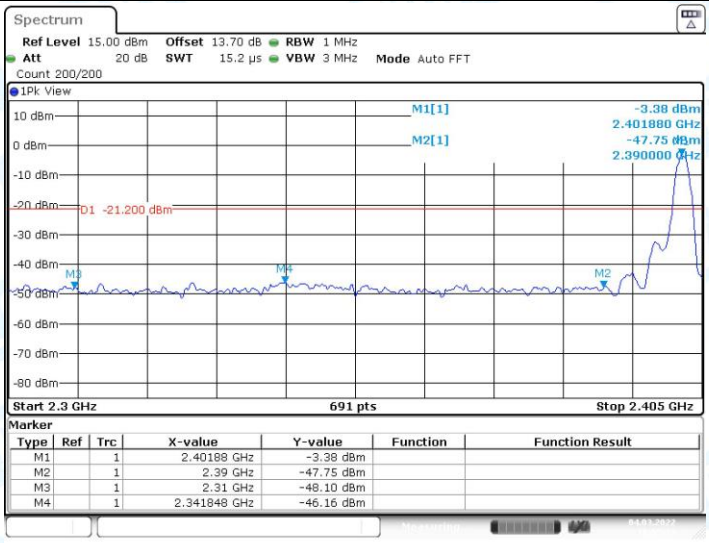
DH5_Ant1_Low_Hop_2402_Peak



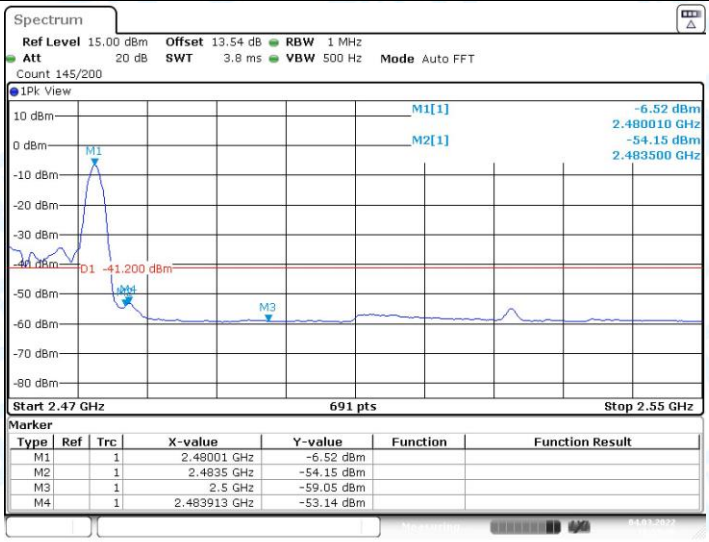
DH5_Ant1_High_Hop_2480_Peak



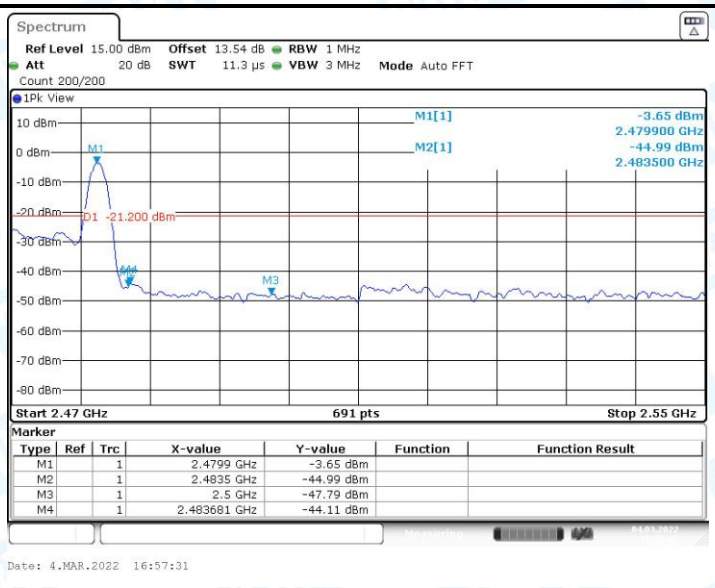
2DH5_Ant1_Low_2402_AV



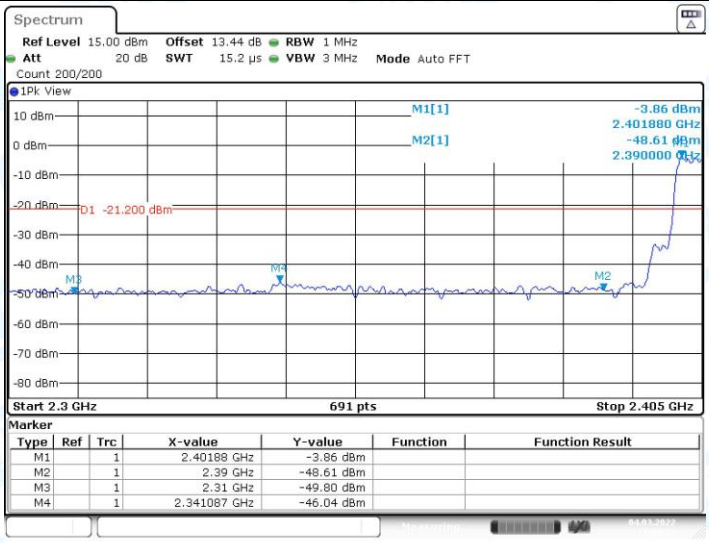
2DH5_Ant1_Low_2402_Peak



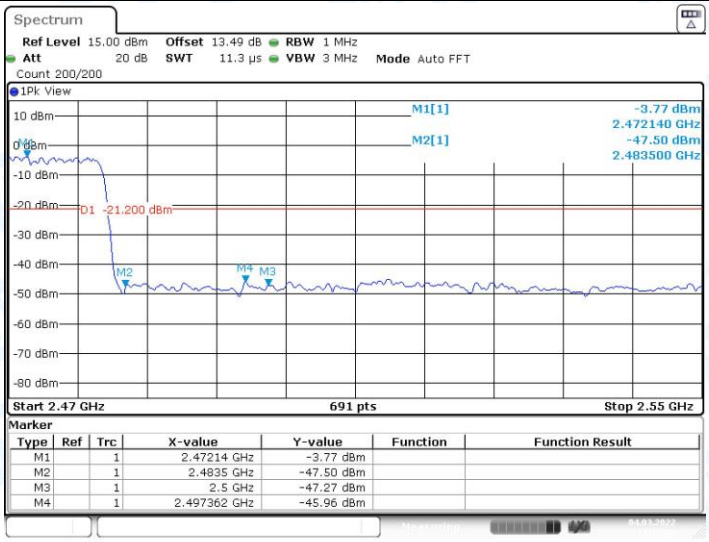
2DH5_Ant1_High_2480_AV



2DH5_Ant1_High_2480_Peak



2DH5_Ant1_Low_Hop_2402_Peak



2DH5_Ant1_High_Hop_2480_Peak

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