



Test Report Number: BTF230817R00403

8 EUT Constructional Details (EUT Photos)

Please refer to the report No. BTF230817R00401

Appendix

1. Bandwidth

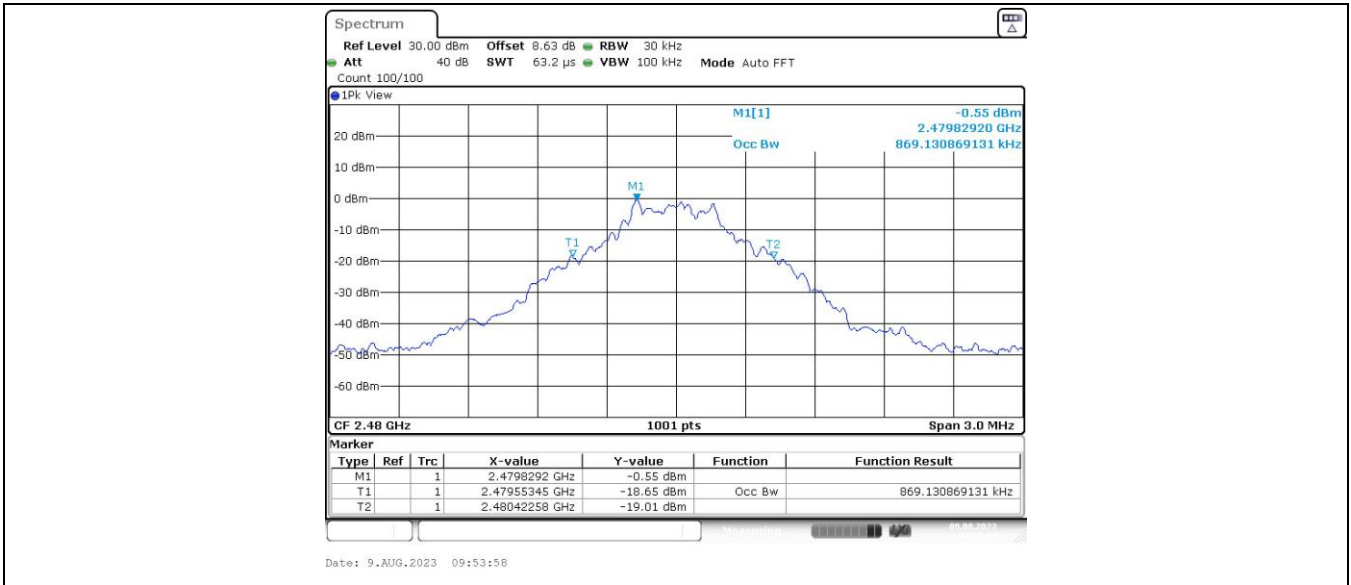
1.1 OBW

1.1.1 Test Result

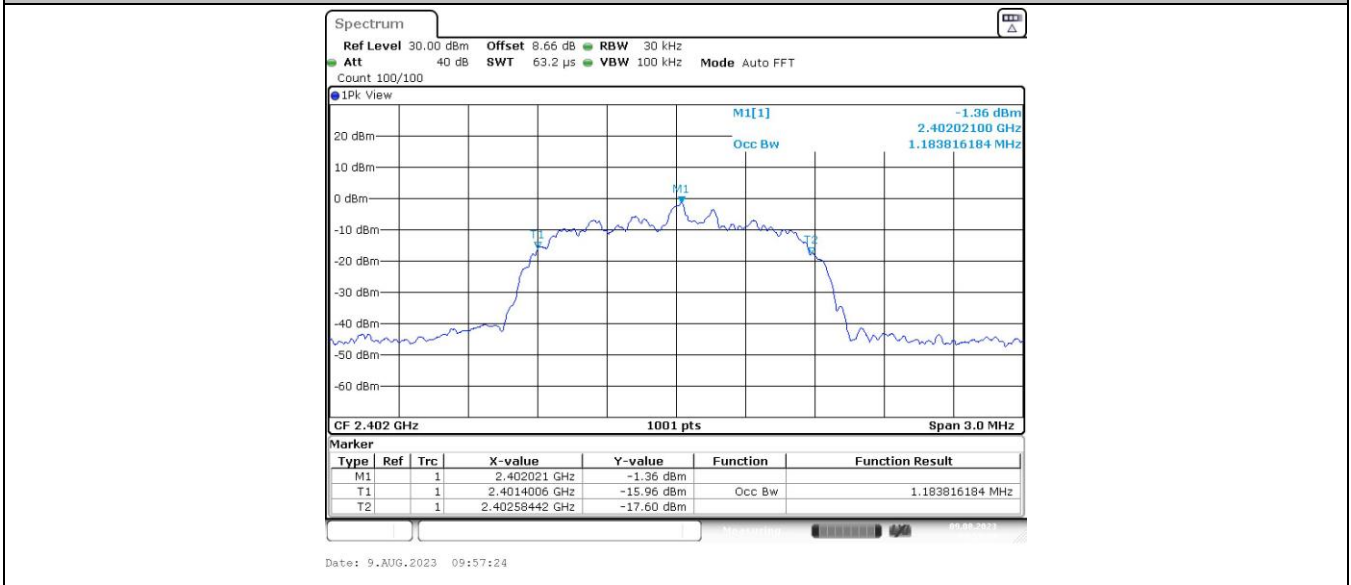
TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.875	2401.5534	2402.4286	---	---
		2441	0.875	2440.5534	2441.4286	---	---
		2480	0.869	2479.5534	2480.4226	---	---
2DH5	Ant1	2402	1.184	2401.4006	2402.5844	---	---
		2441	1.184	2440.4006	2441.5844	---	---
		2480	1.181	2479.4006	2480.5814	---	---
3DH5	Ant1	2402	1.184	2401.4006	2402.5844	---	---
		2441	1.184	2440.4006	2441.5844	---	---
		2480	1.181	2479.4006	2480.5814	---	---

1.1.2 Test Graph

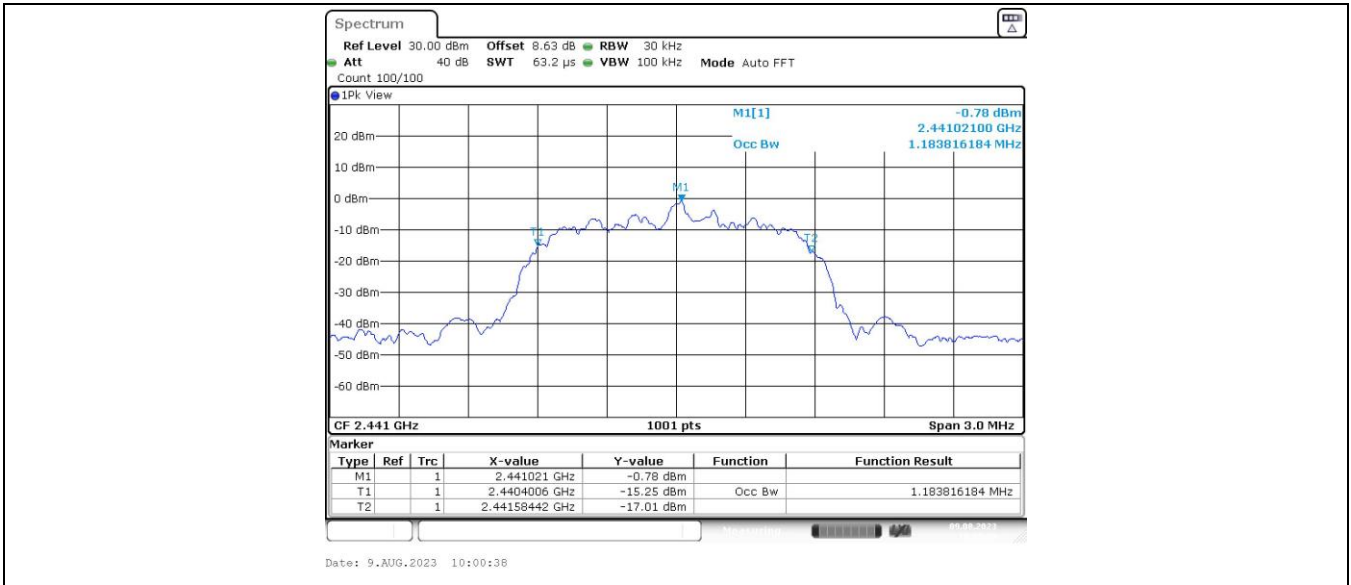




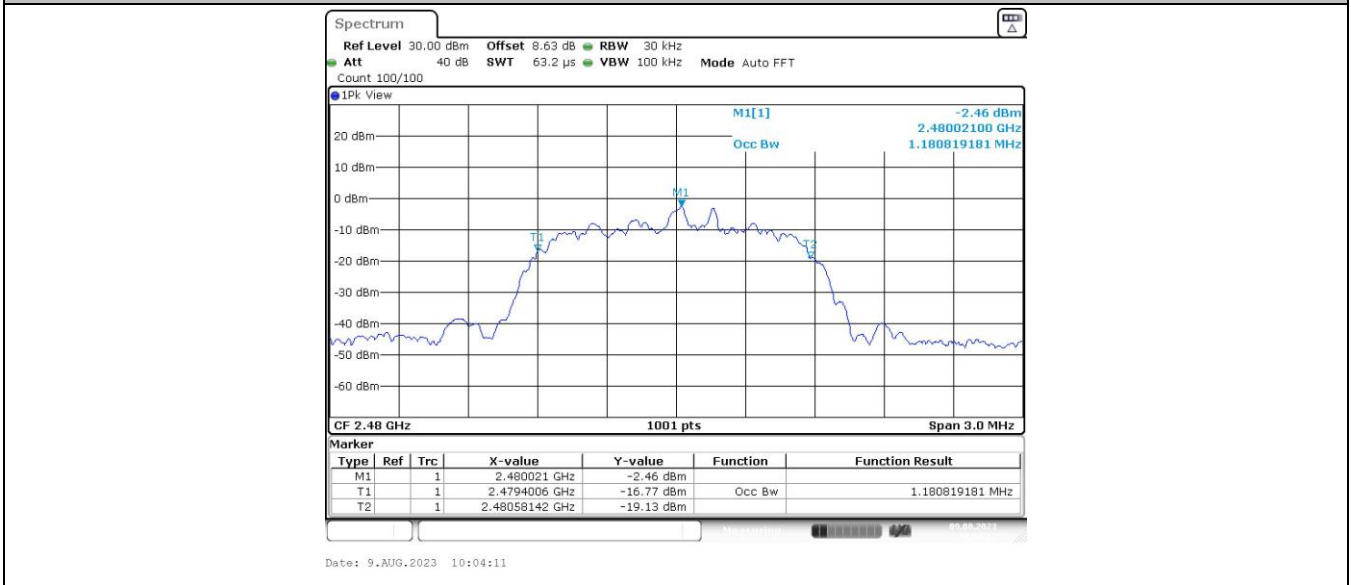
2DH5_Ant1_2402



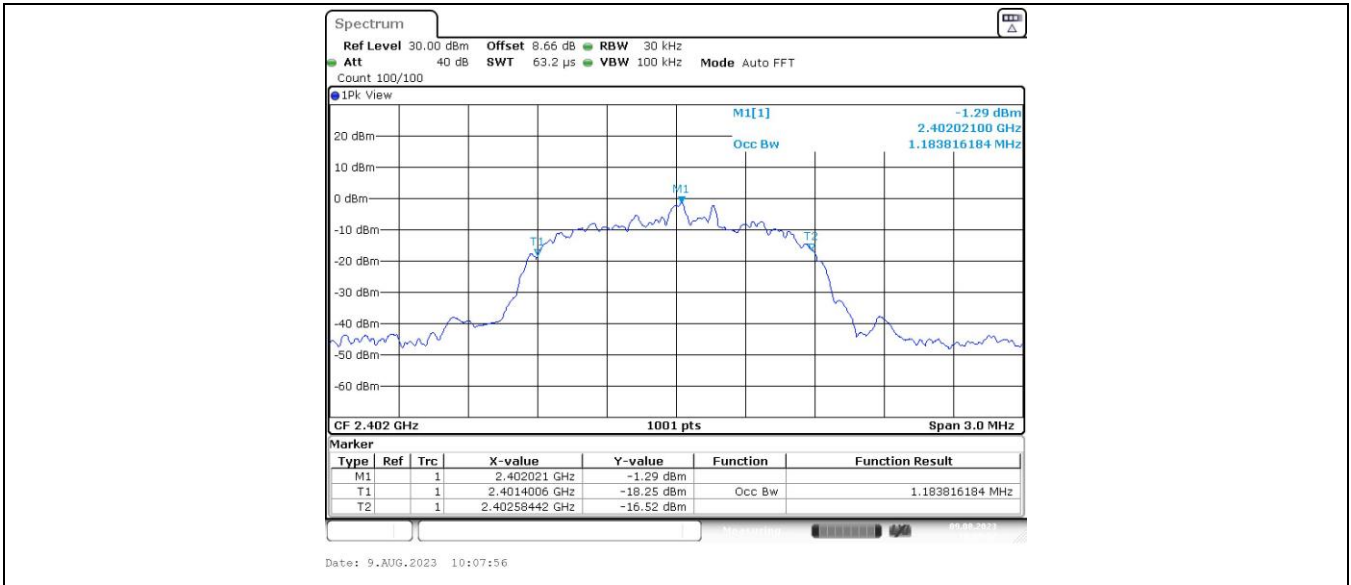
2DH5_Ant1_2441



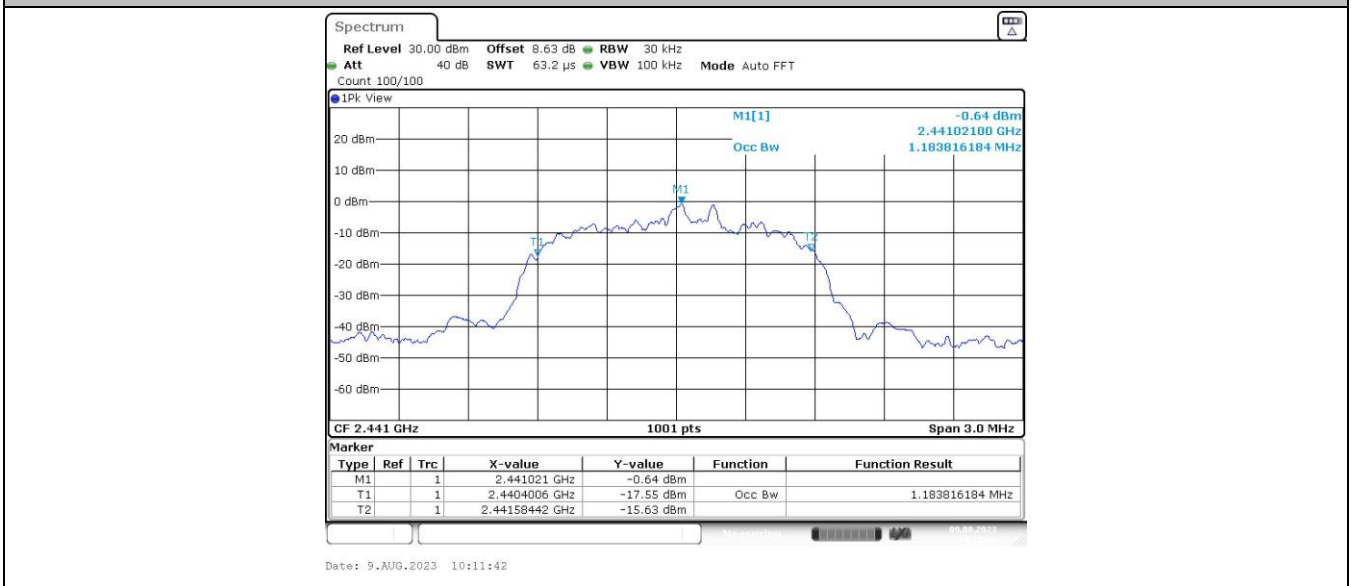
2DH5_Ant1_2480



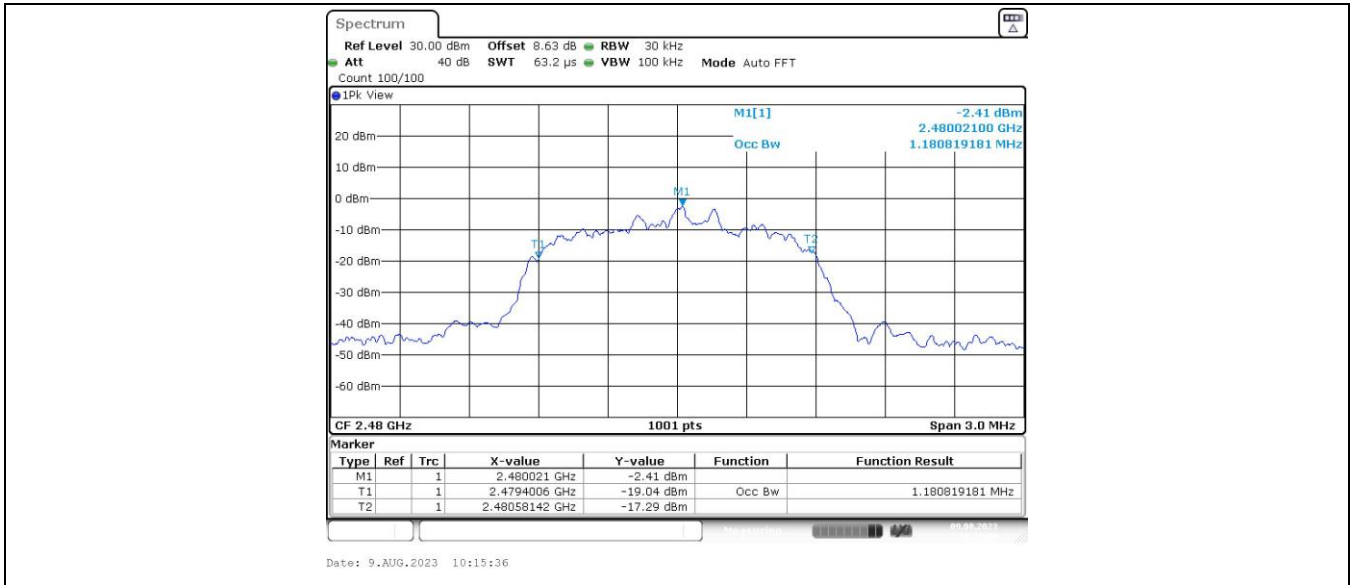
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

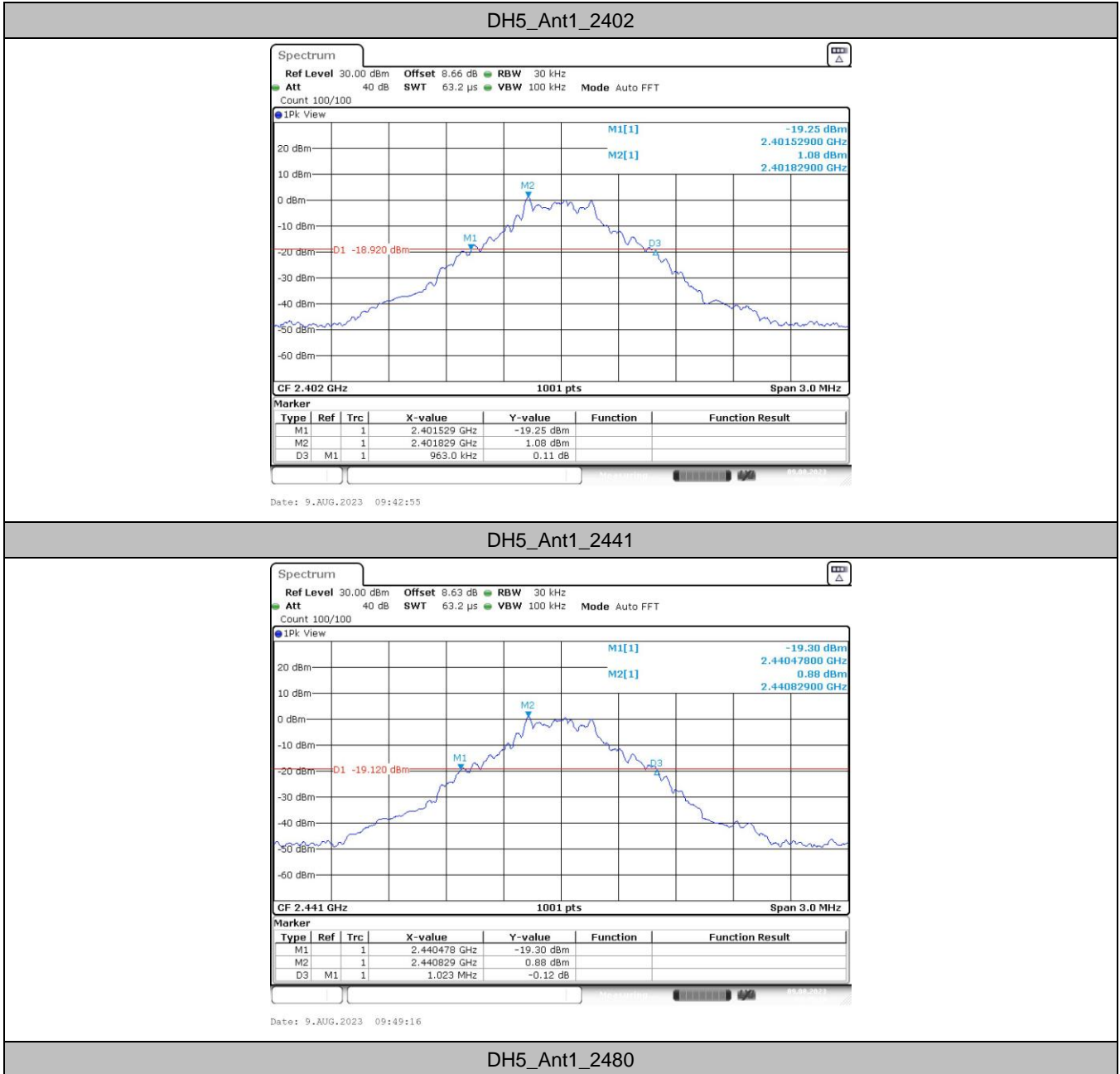


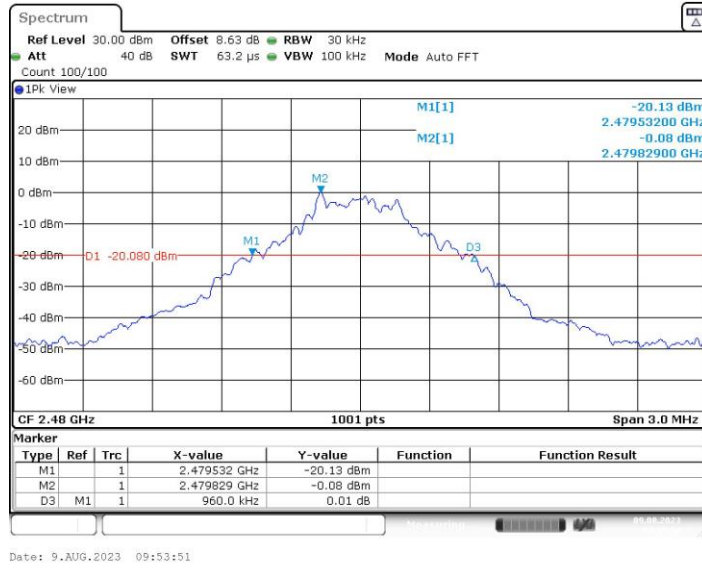
1.2 20dB BW

1.2.1 Test Result

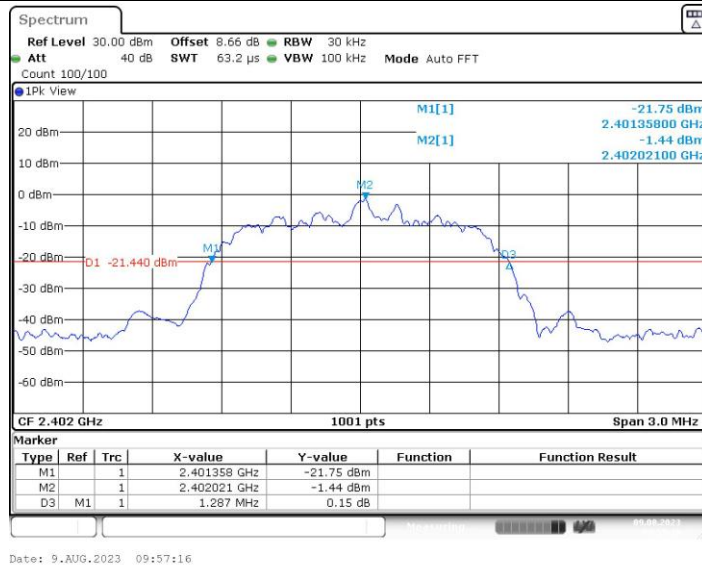
TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.96	2401.53	2402.49	---	---
		2441	1.02	2440.48	2441.50	---	---
		2480	0.96	2479.53	2480.49	---	---
2DH5	Ant1	2402	1.29	2401.36	2402.65	---	---
		2441	1.29	2440.36	2441.65	---	---
		2480	1.29	2479.36	2480.65	---	---
3DH5	Ant1	2402	1.29	2401.35	2402.64	---	---
		2441	1.28	2440.35	2441.62	---	---
		2480	1.29	2479.35	2480.64	---	---

1.2.2 Test Graph

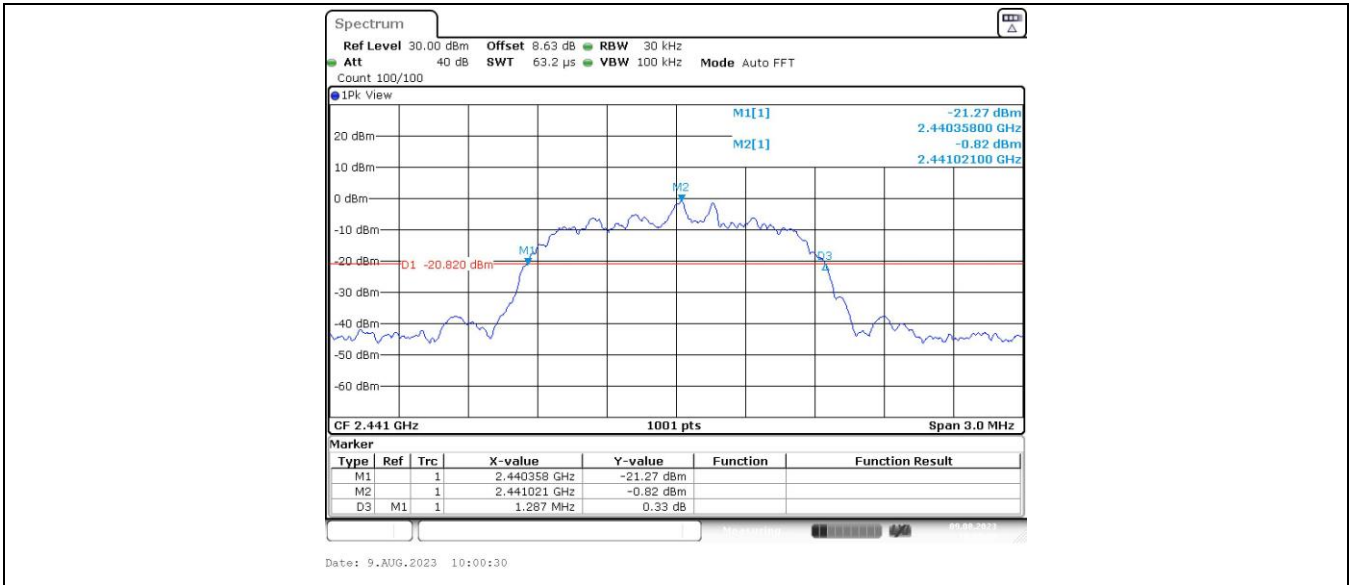




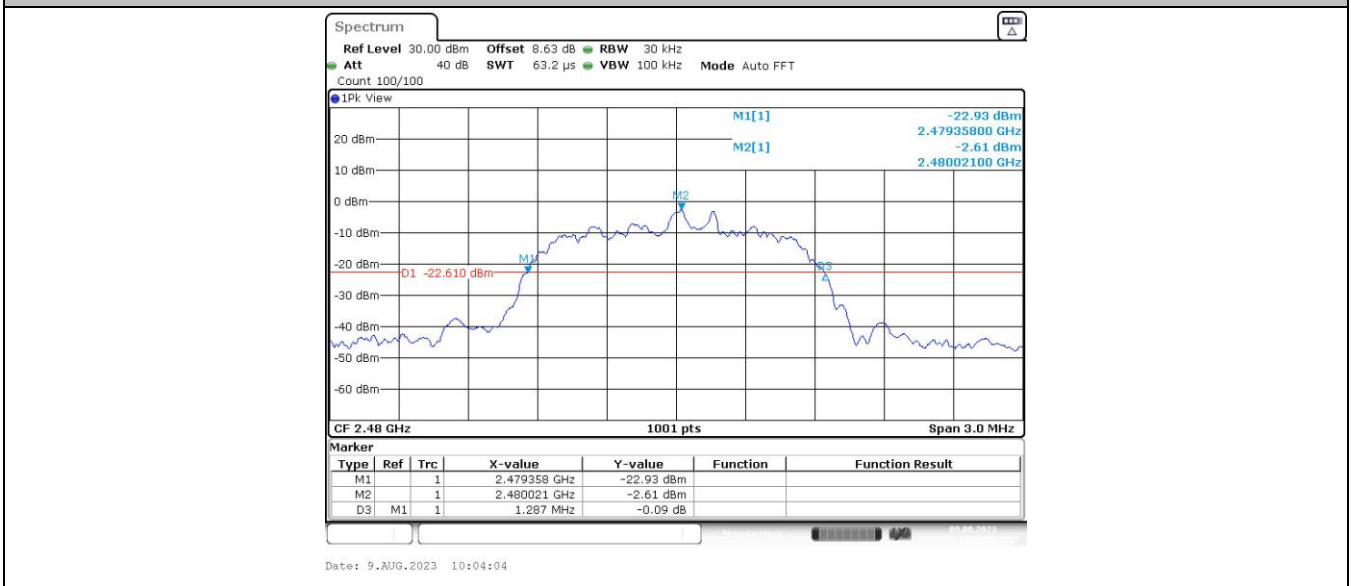
2DH5_Ant1_2402



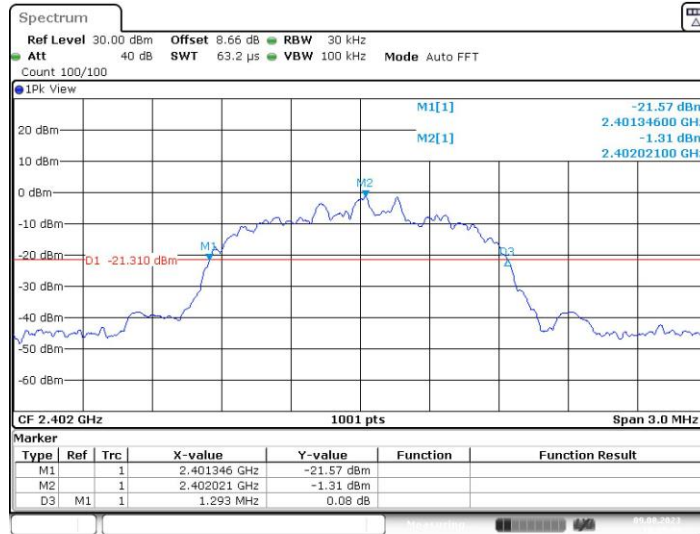
2DH5_Ant1_2441



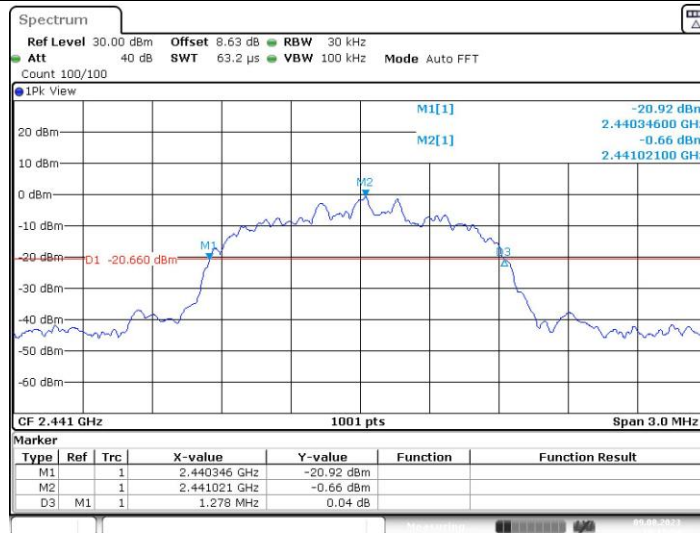
2DH5_Ant1_2480



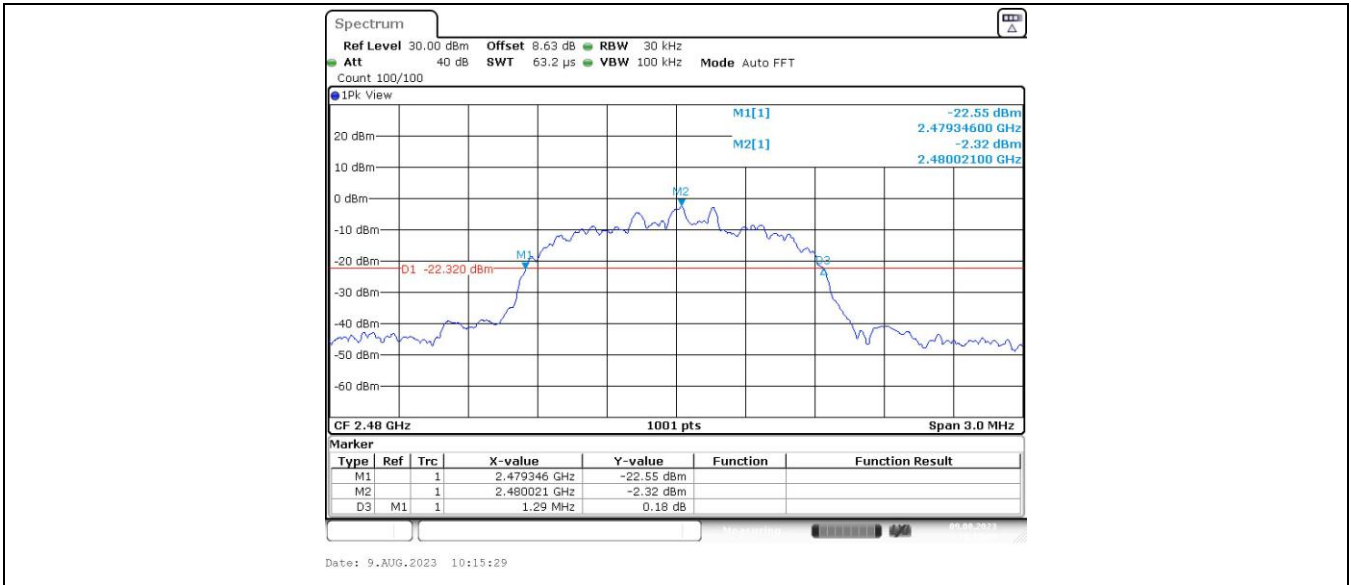
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



2. Maximum Conducted Output Power

2.1 Power

2.1.1 Test Result

Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	3.94	≤30	PASS
		2441	3.49	≤30	PASS
		2480	3.62	≤30	PASS
2DH5	Ant1	2402	3.69	≤20.97	PASS
		2441	3.97	≤20.97	PASS
		2480	3.73	≤20.97	PASS
3DH5	Ant1	2402	3.66	≤20.97	PASS
		2441	3.39	≤20.97	PASS
		2480	3.51	≤20.97	PASS

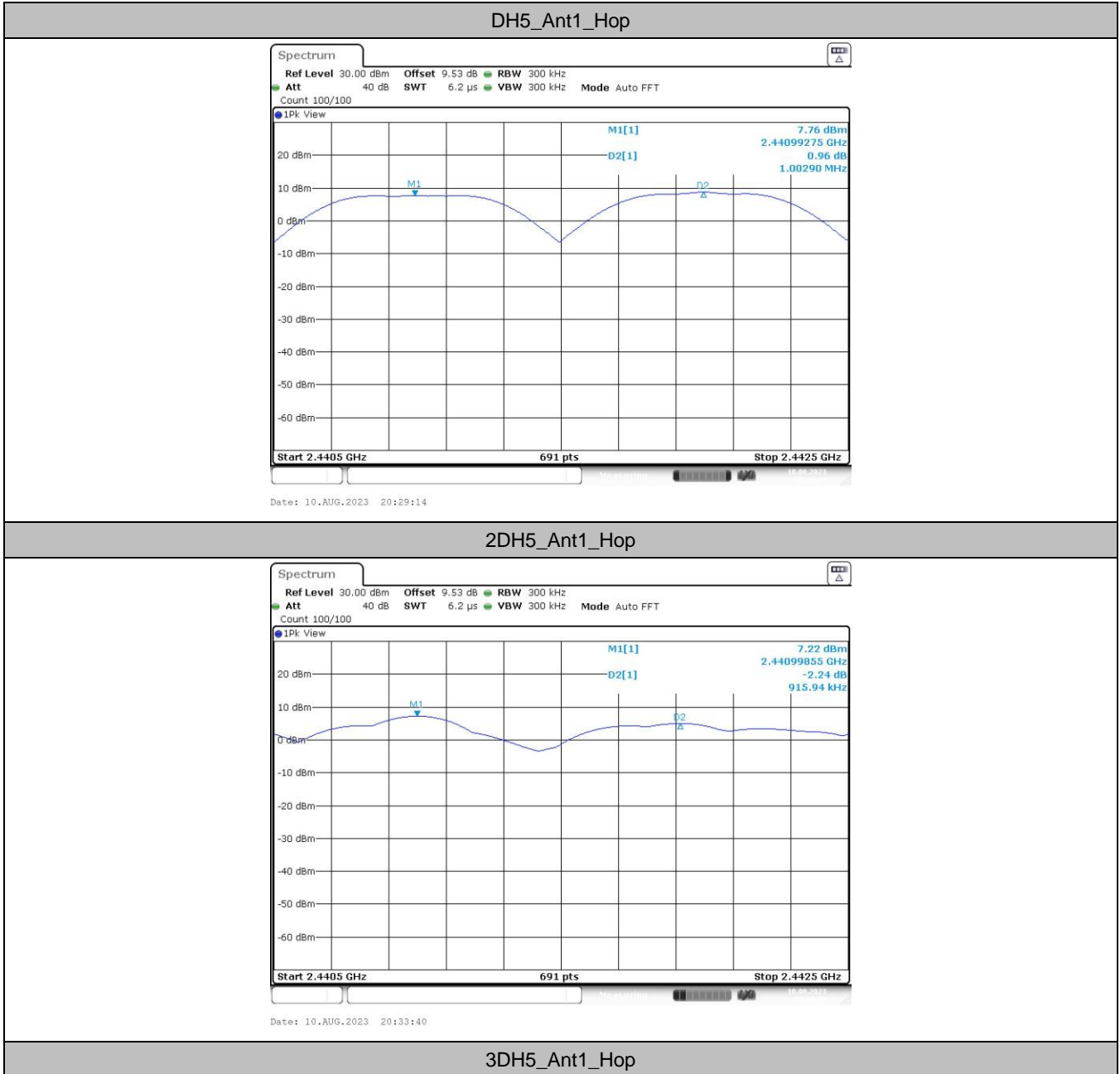
3. Carrier Frequency Separation

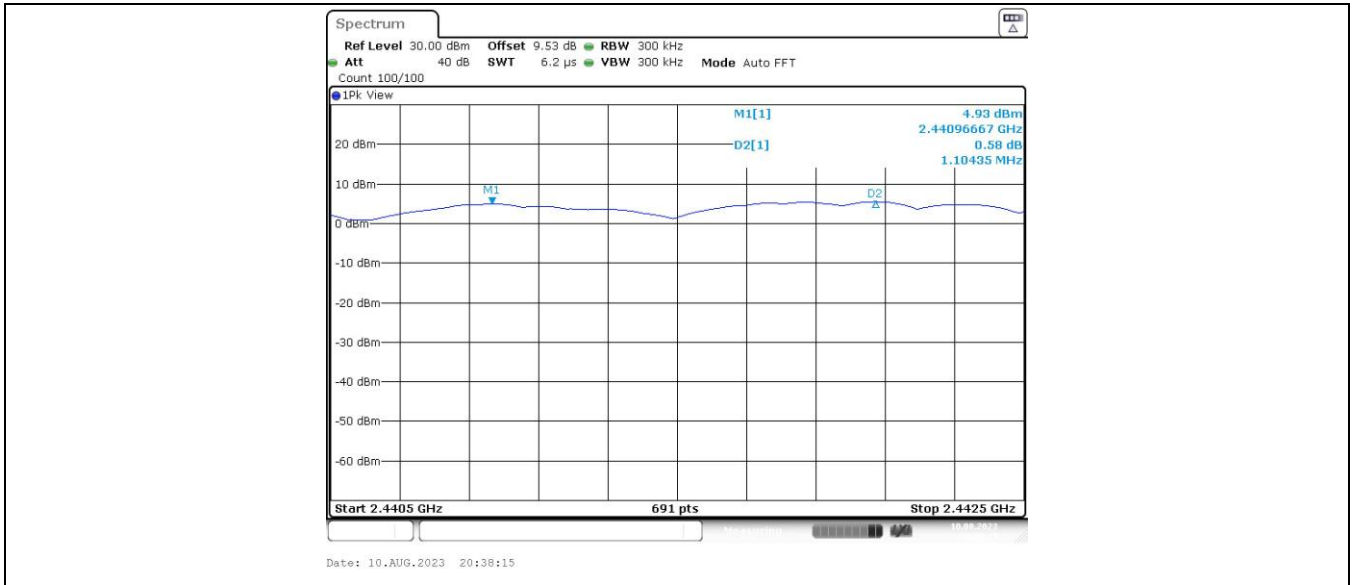
3.1 Ant1

3.1.1 Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.003	≥ 0.680	PASS
2DH5	Ant1	Hop	0.916	≥ 0.860	PASS
3DH5	Ant1	Hop	1.104	≥ 0.860	PASS

3.1.2 Test Graph





4. Number of Hopping Frequencies

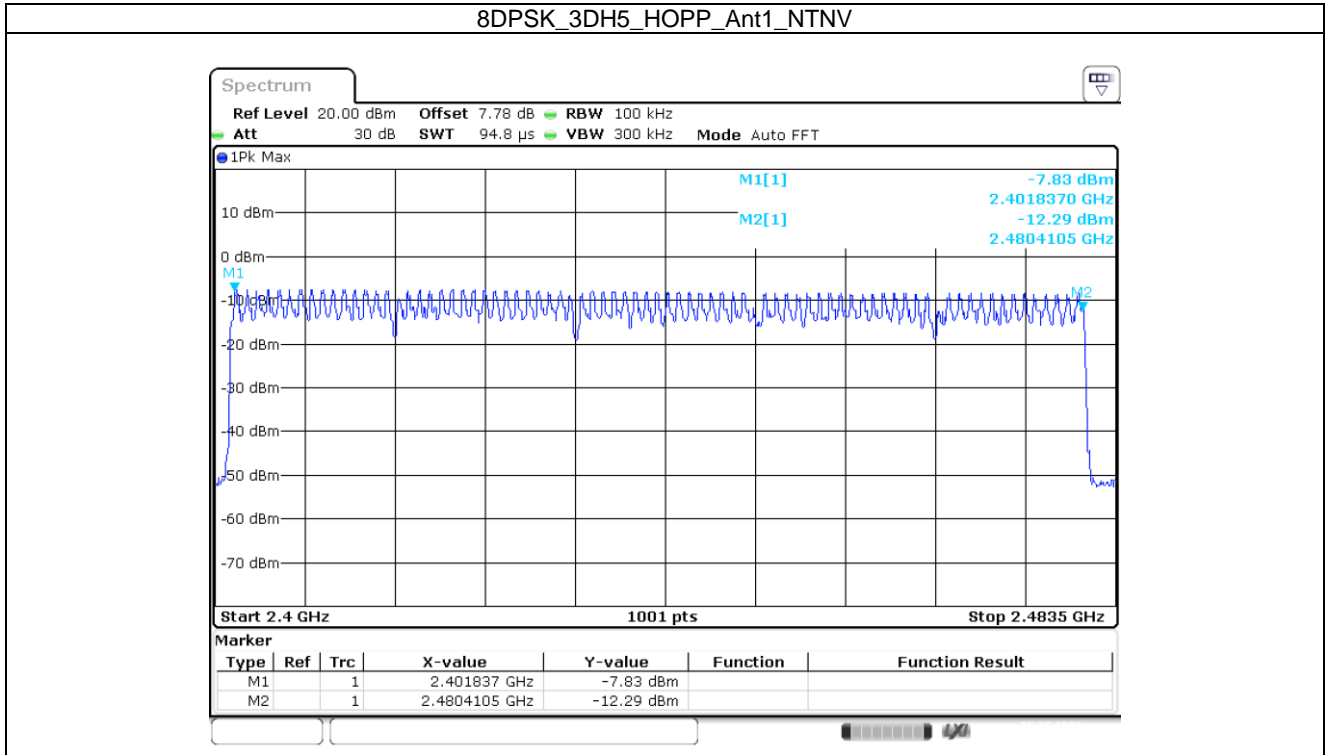
4.1 HoppNum

4.1.1 Test Result

Mode	Frequency (MHz)	Packet Type	Num of Hopping Frequencies		Verdict
			ANT1	Limit	
GFSK	HOPP	DH5	79	≥ 15	Pass
Pi/4DQPSK	HOPP	2DH5	79	≥ 15	Pass
8DPSK	HOPP	3DH5	79	≥ 15	Pass

4.1.2 Test Graph





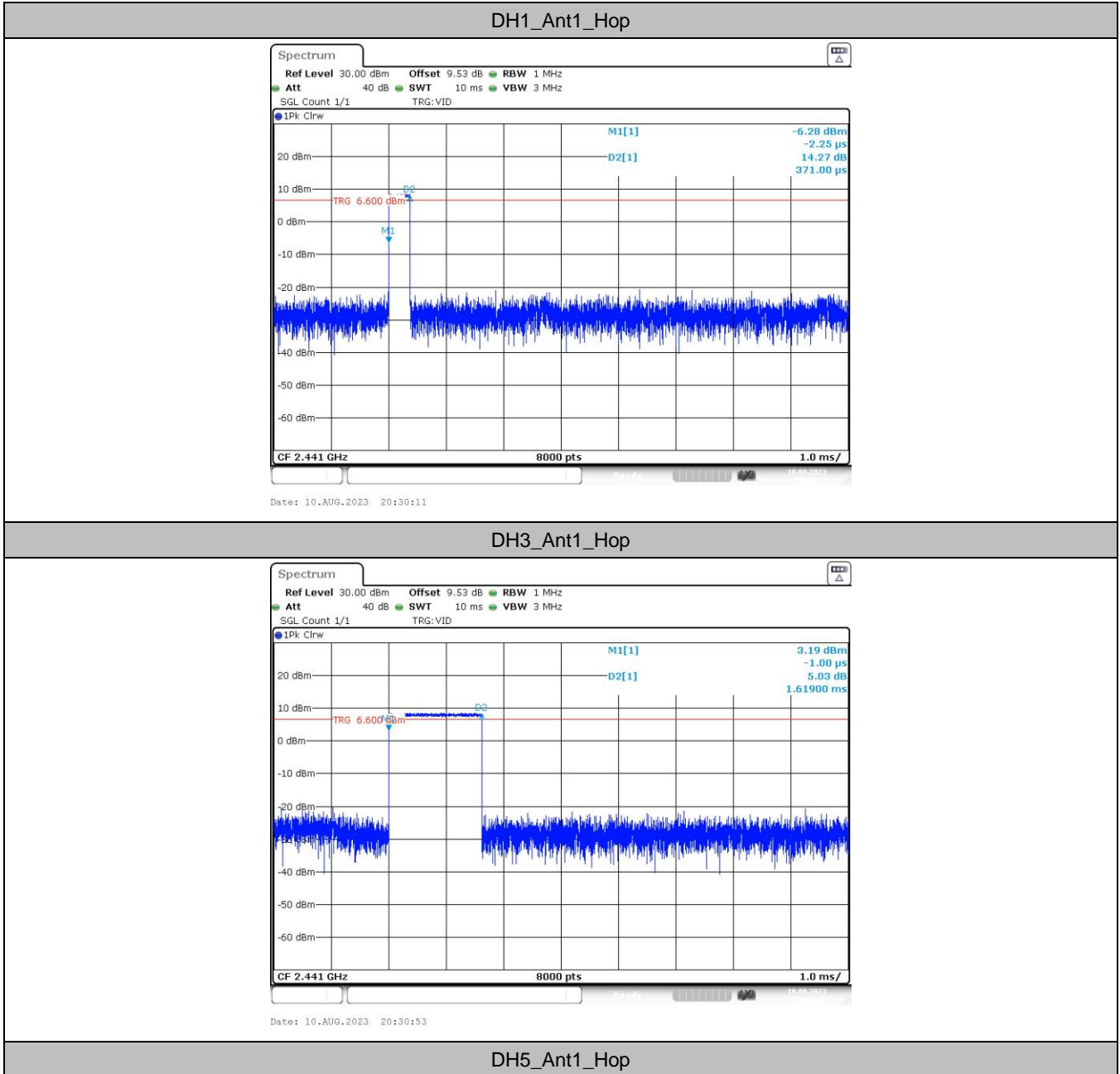
5. Time of Occupancy (Dwell Time)

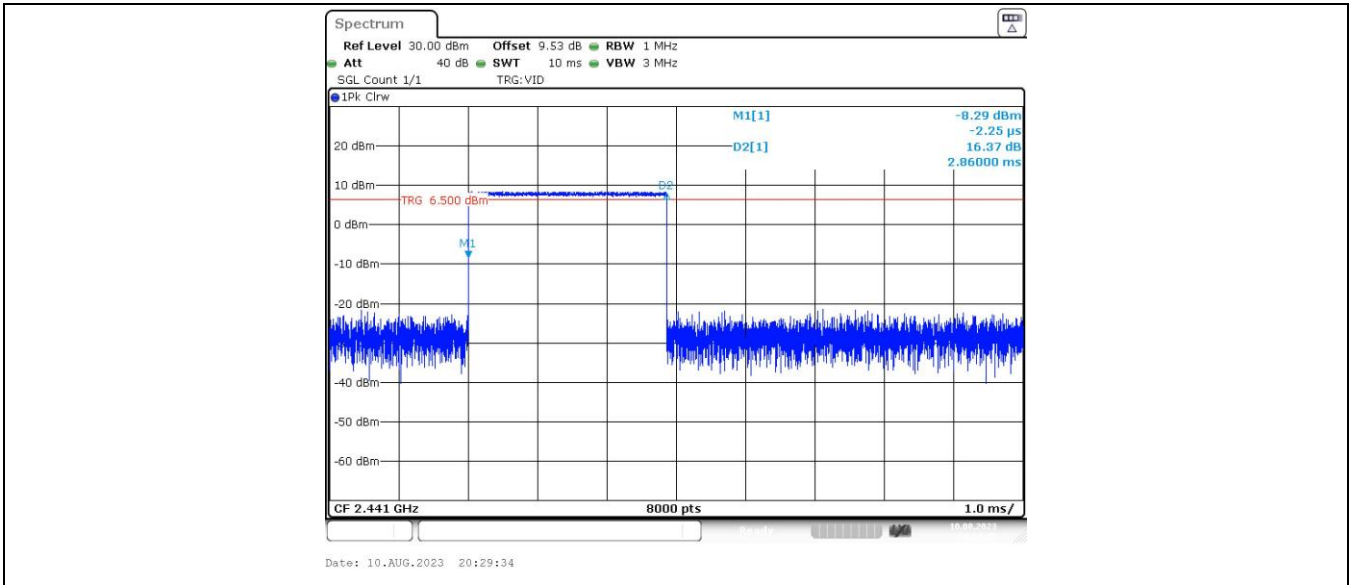
5.1 Ant1

5.1.1 Test Result

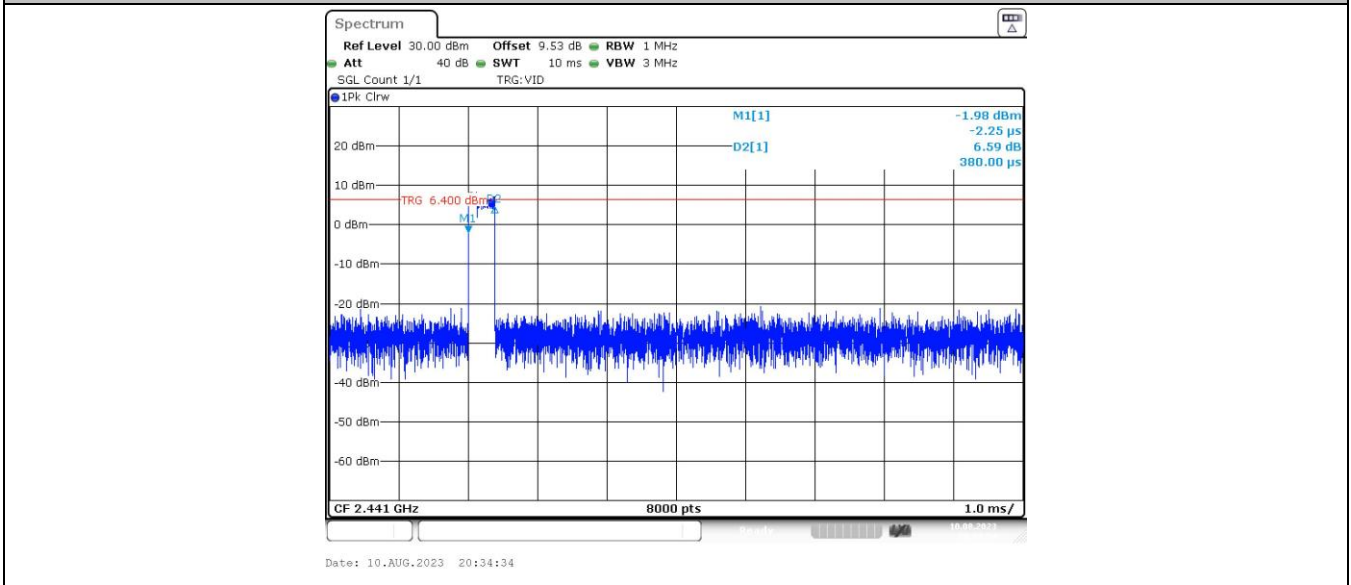
TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.371	320	0.119	≤0.4	PASS
DH3	Ant1	Hop	1.619	160	0.259	≤0.4	PASS
DH5	Ant1	Hop	2.860	106.67	0.305	≤0.4	PASS
2DH1	Ant1	Hop	0.380	320	0.122	≤0.4	PASS
2DH3	Ant1	Hop	1.624	160	0.26	≤0.4	PASS
2DH5	Ant1	Hop	2.865	106.67	0.306	≤0.4	PASS
3DH1	Ant1	Hop	0.379	320	0.121	≤0.4	PASS
3DH3	Ant1	Hop	1.623	160	0.26	≤0.4	PASS
3DH5	Ant1	Hop	2.867	106.67	0.306	≤0.4	PASS

5.1.2 Test Graph

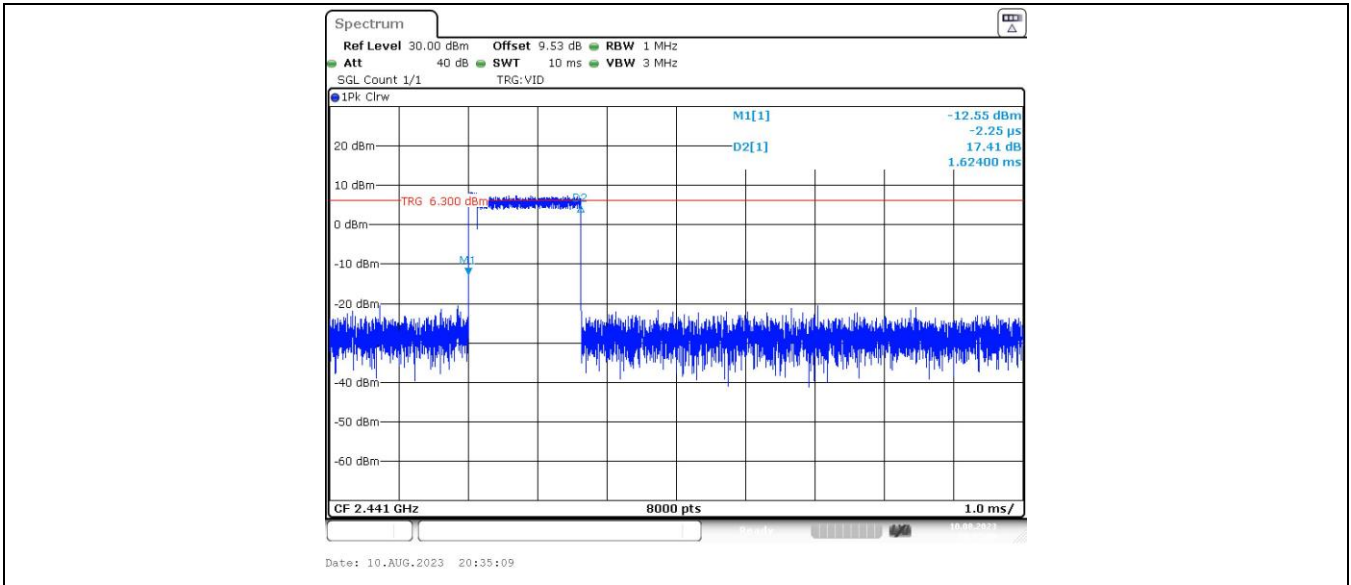




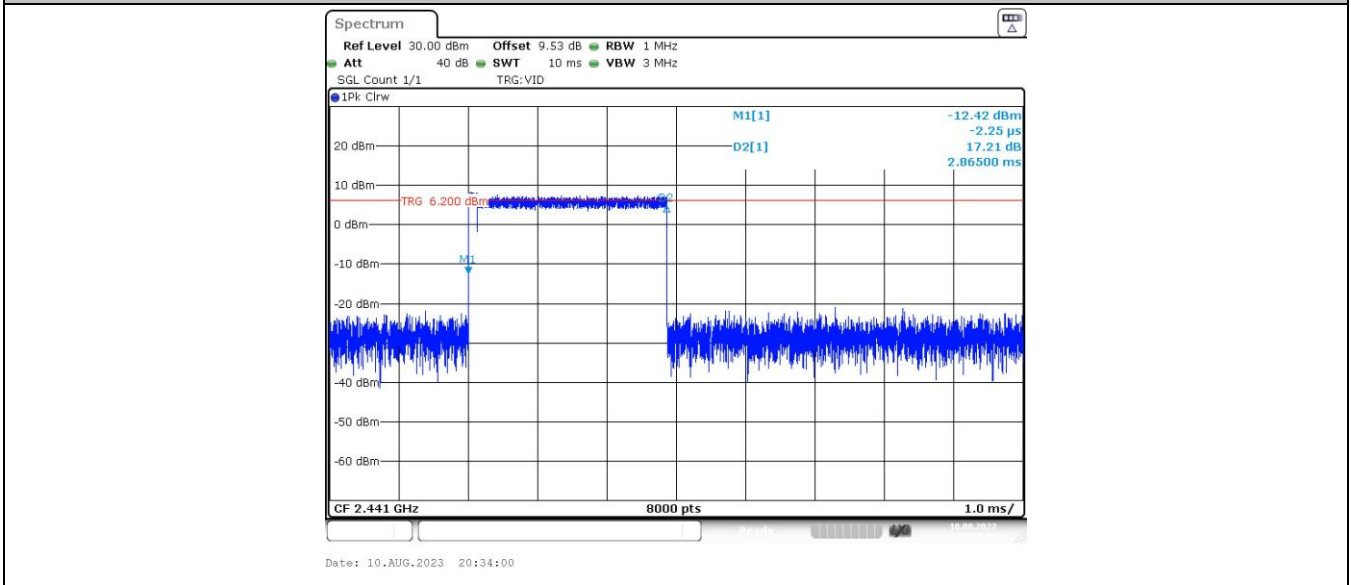
2DH1_Ant1_Hop



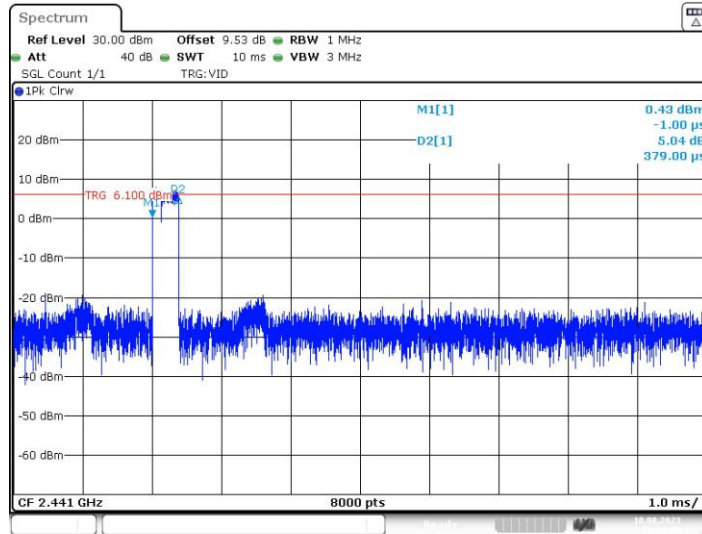
2DH3_Ant1_Hop



2DH5_Ant1_Hop

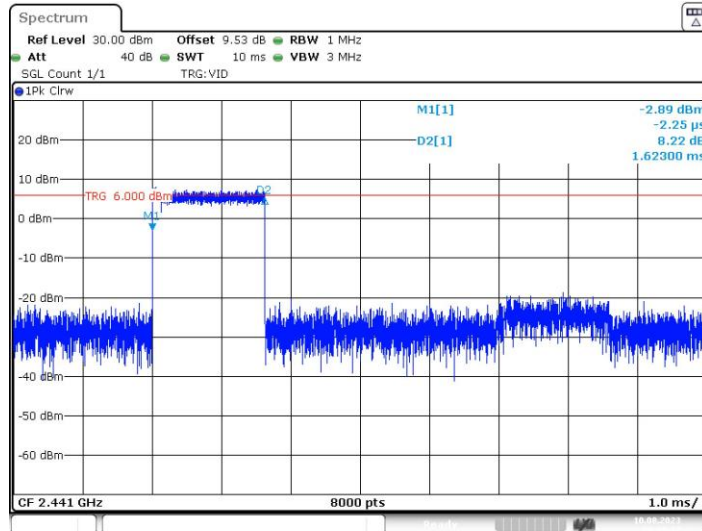


3DH1_Ant1_Hop



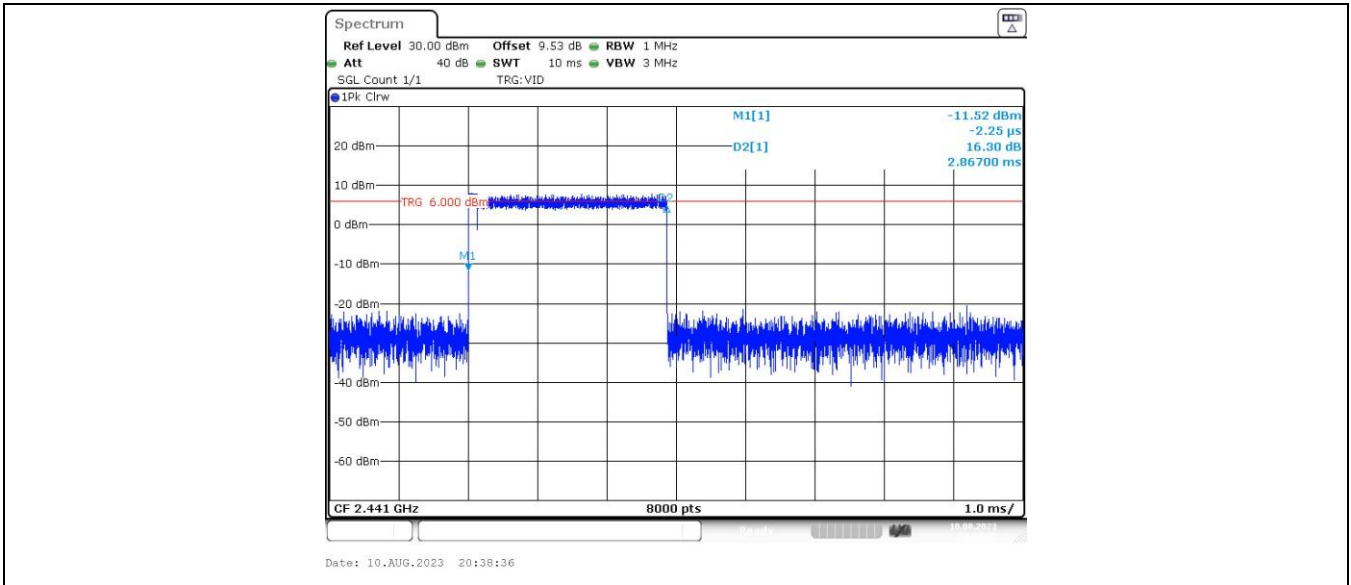
Date: 10.AUG.2023 20:39:07

3DH3_Ant1_Hop



Date: 10.AUG.2023 20:39:36

3DH5_Ant1_Hop



6. Unwanted Emissions In Non-restricted Frequency Bands

6.1 Ref

6.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Packet Type	ANT	Level of Reference (dBm)
GFSK	SISO	2402	DH5	1	5.12
		2441	DH5	1	6.00
		2480	DH5	1	6.15
Pi/4DQPSK	SISO	2402	2DH5	1	4.53
		2441	2DH5	1	5.09
		2480	2DH5	1	4.53
8DPSK	SISO	2402	3DH5	1	5.38
		2441	3DH5	1	4.58
		2480	3DH5	1	5.29

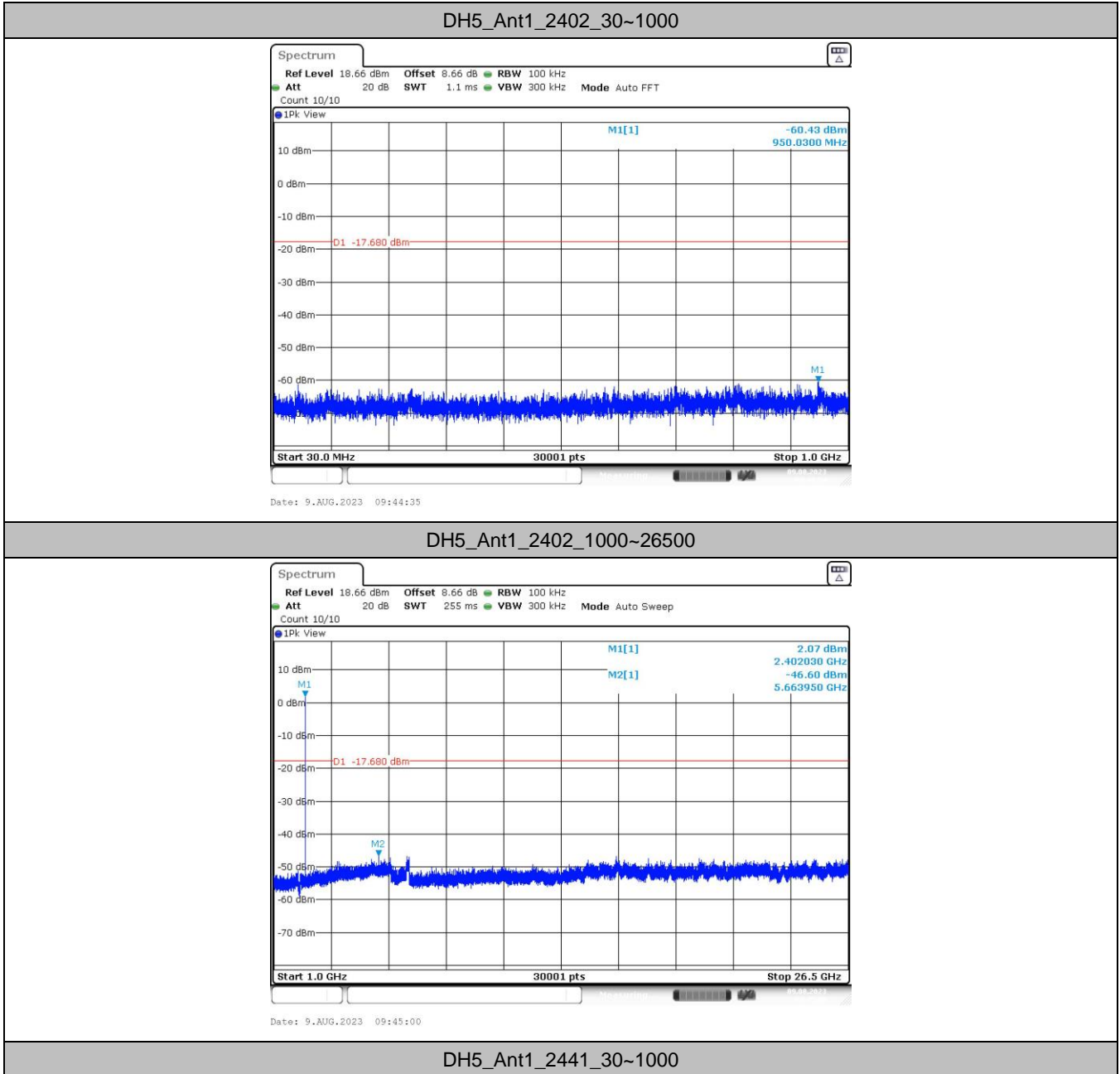
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

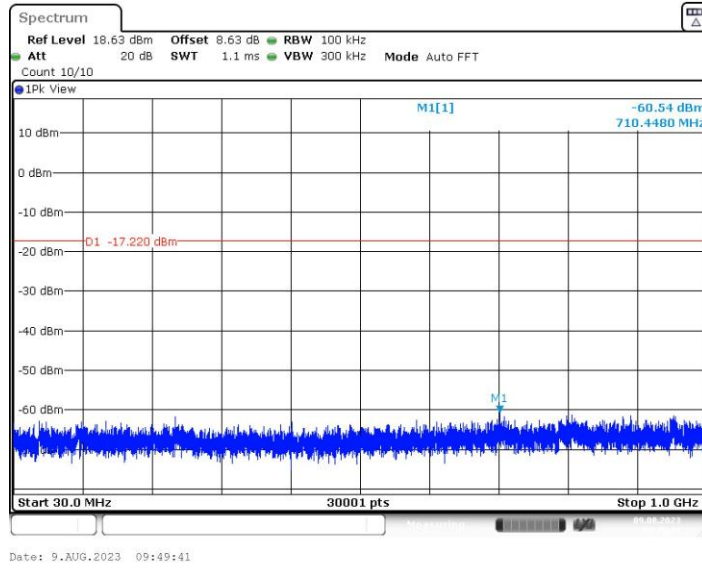
6.2 CSE

6.2.1 Test Result

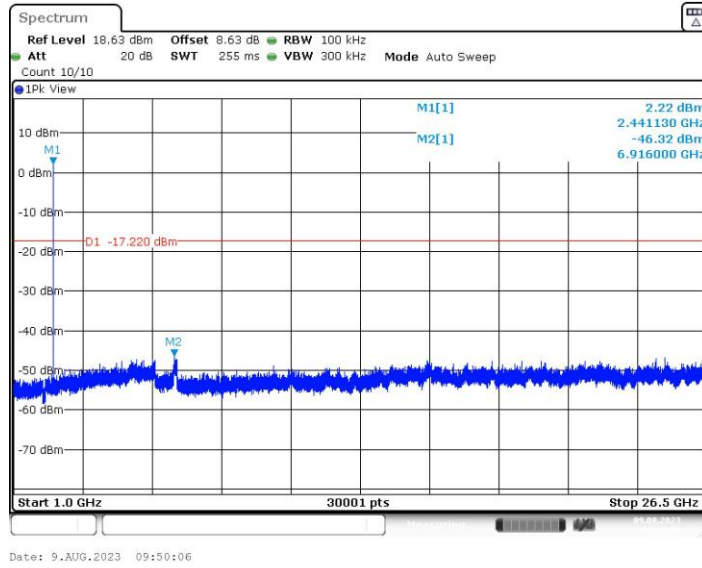
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	30~1000	2.32	-60.43	≤-17.68	PASS
			1000~26500	2.32	-46.6	≤-17.68	PASS
		2441	30~1000	2.78	-60.54	≤-17.22	PASS
			1000~26500	2.78	-46.32	≤-17.22	PASS
		2480	30~1000	1.03	-60.63	≤-18.97	PASS
			1000~26500	1.03	-46.66	≤-18.97	PASS
2DH5	Ant1	2402	30~1000	0.79	-60.75	≤-19.21	PASS
			1000~26500	0.79	-46.89	≤-19.21	PASS
		2441	30~1000	1.21	-60.01	≤-18.79	PASS
			1000~26500	1.21	-46.66	≤-18.79	PASS
		2480	30~1000	-0.43	-60.46	≤-20.43	PASS
			1000~26500	-0.43	-47.54	≤-20.43	PASS
3DH5	Ant1	2402	30~1000	0.91	-60.11	≤-19.09	PASS
			1000~26500	0.91	-47.06	≤-19.09	PASS
		2441	30~1000	1.48	-61.1	≤-18.52	PASS
			1000~26500	1.48	-46.65	≤-18.52	PASS
		2480	30~1000	-0.25	-60.2	≤-20.25	PASS
			1000~26500	-0.25	-46.84	≤-20.25	PASS

6.2.2 Test Graph

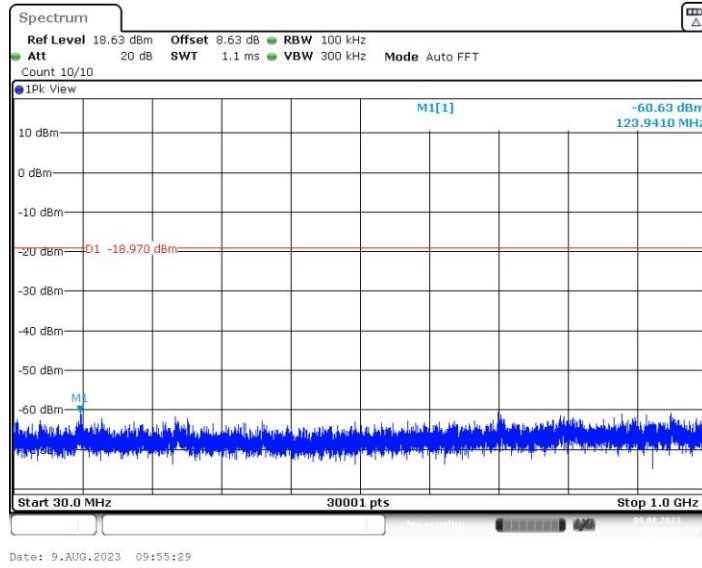




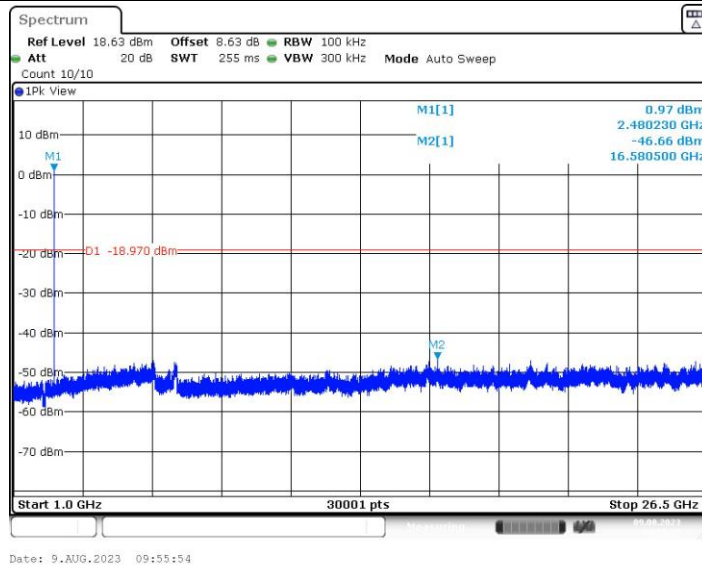
DH5_Ant1_2441_1000~26500



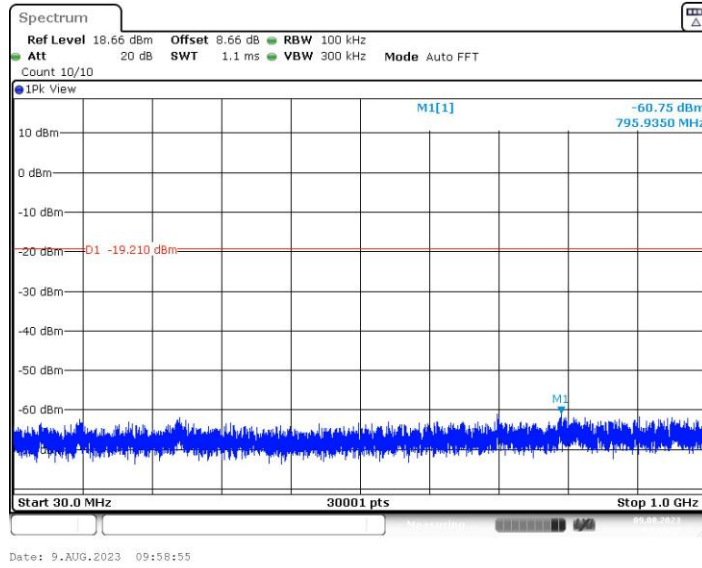
DH5_Ant1_2480_30~1000



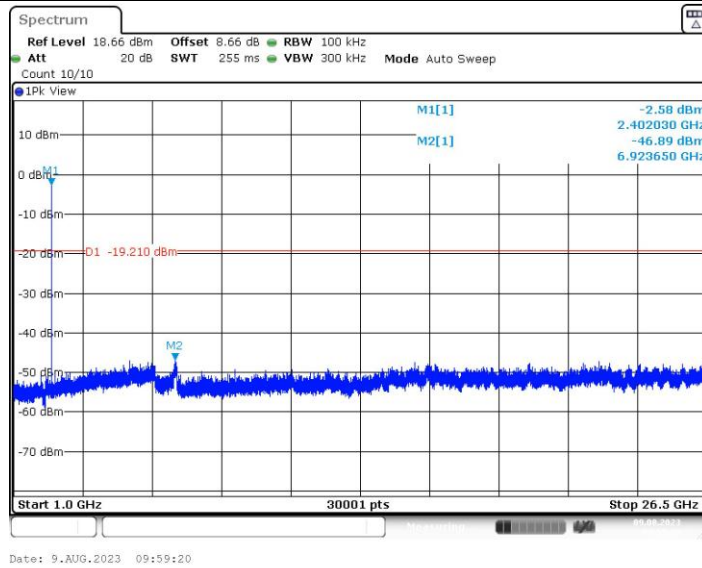
DH5_Ant1_2480_1000~26500



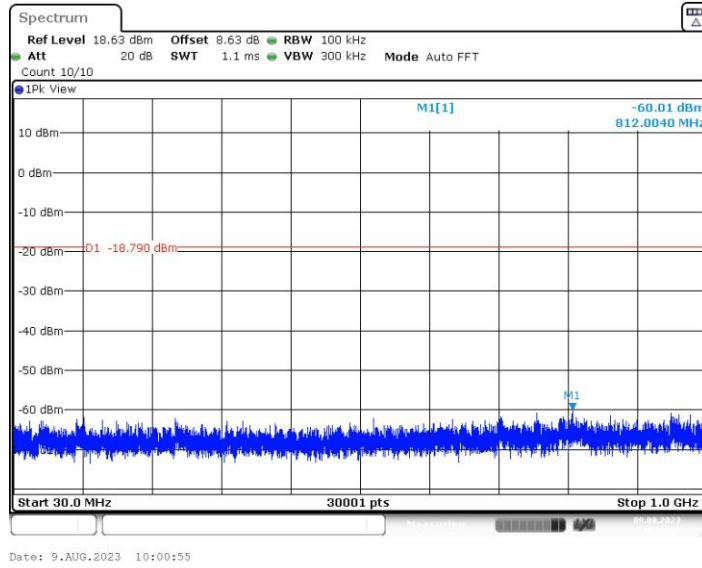
2DH5_Ant1_2402_30~1000



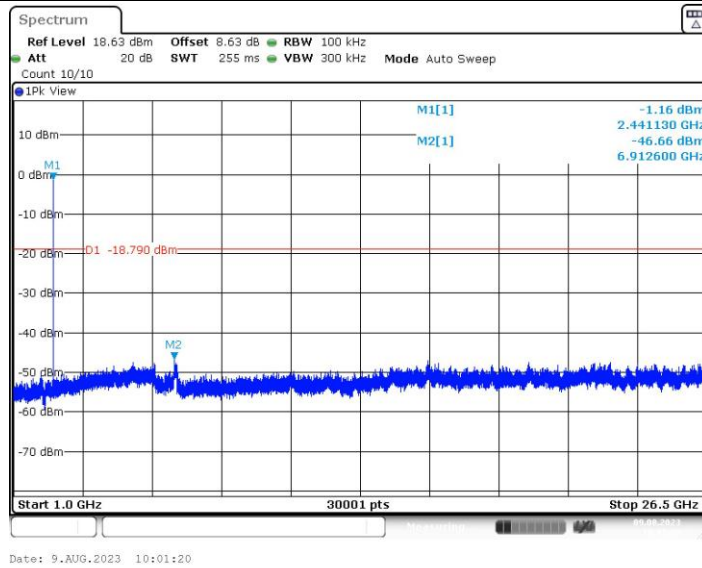
2DH5_Ant1_2402_1000~26500



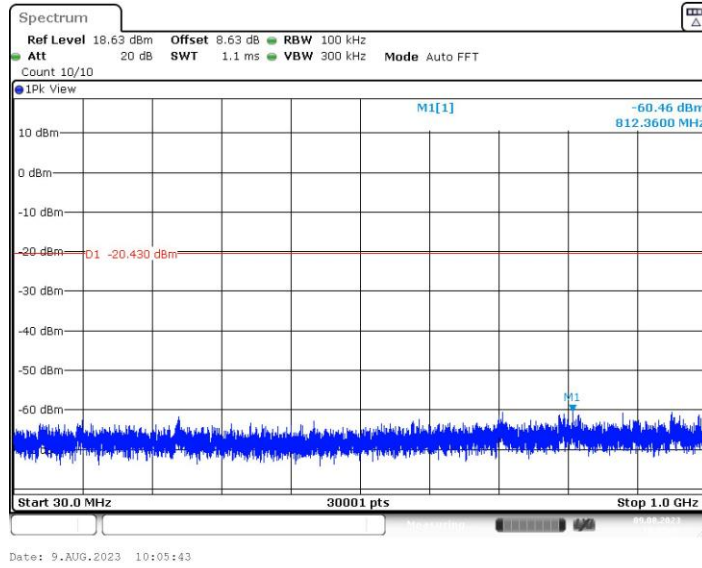
2DH5_Ant1_2441_30~1000



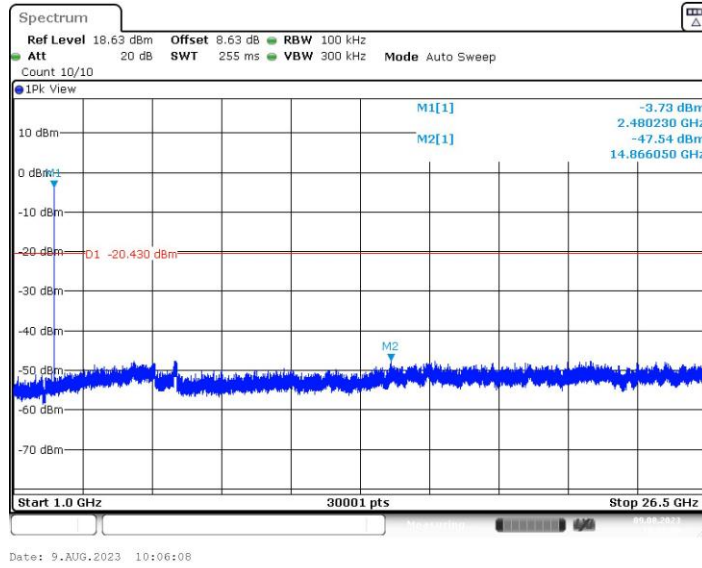
2DH5_Ant1_2441_1000~26500



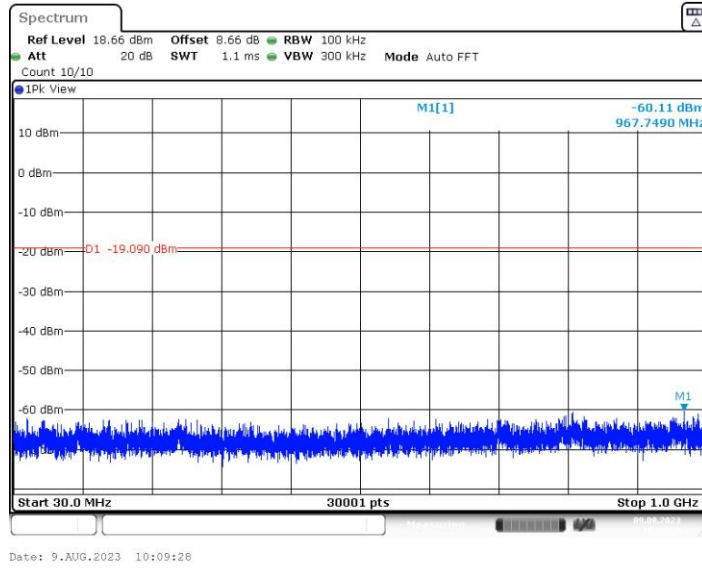
2DH5_Ant1_2480_30~1000



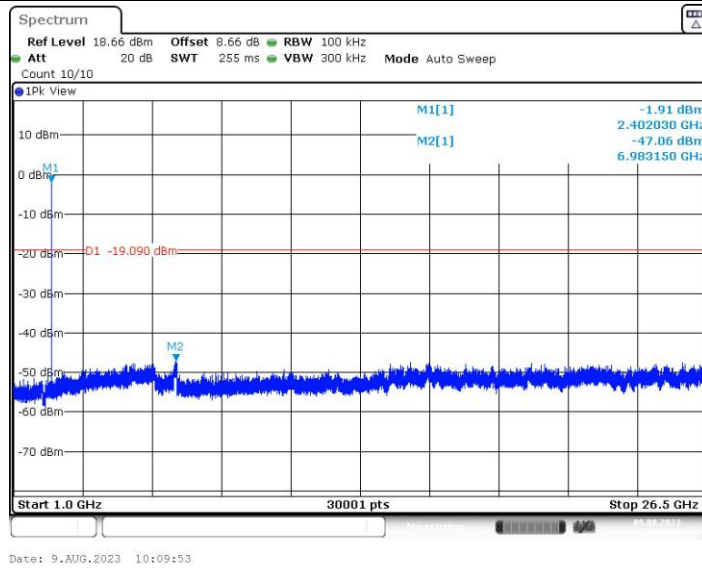
2DH5_Ant1_2480_1000~26500



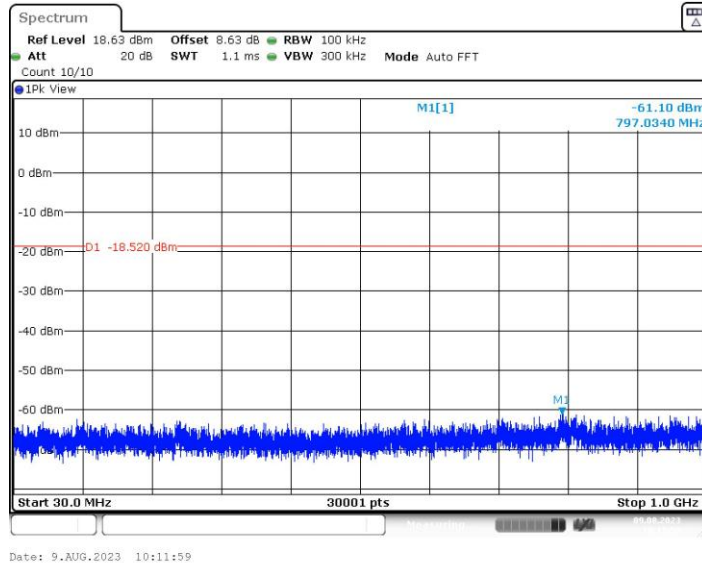
3DH5_Ant1_2402_30~1000



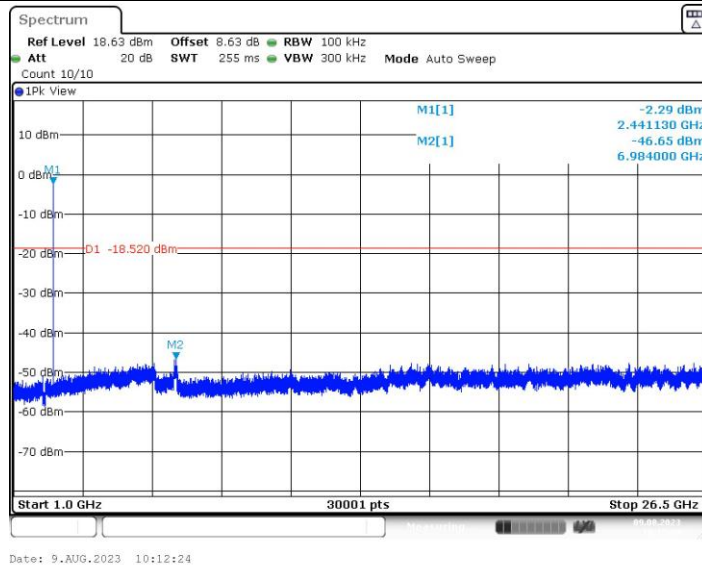
3DH5_Ant1_2402_1000~26500



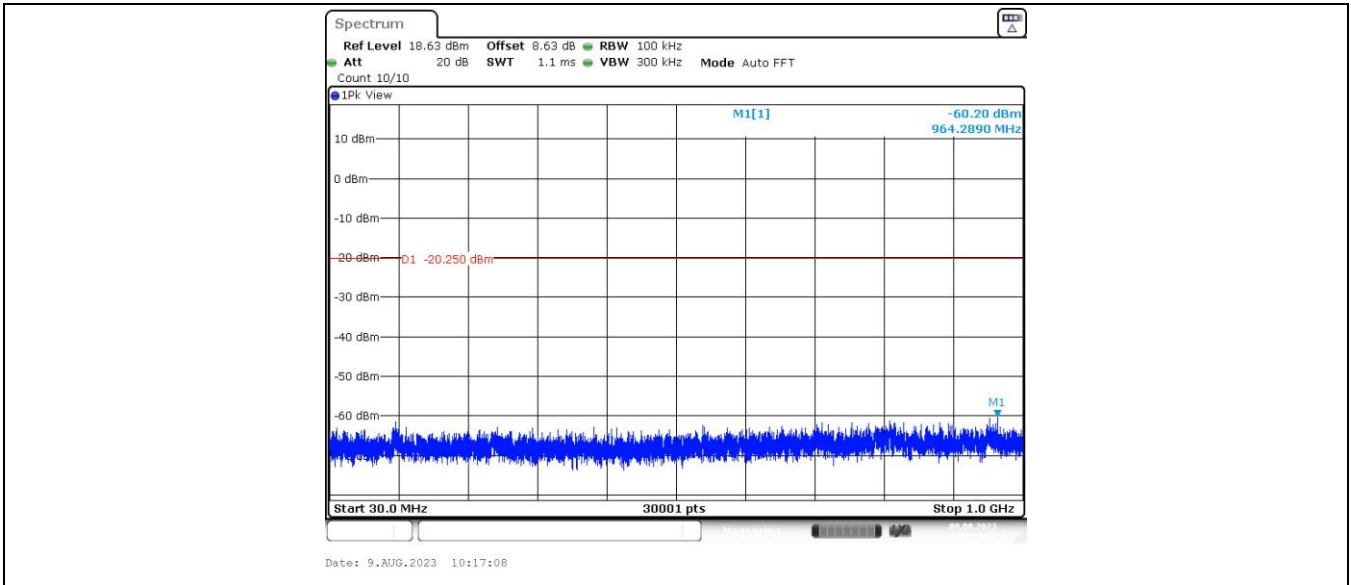
3DH5_Ant1_2441_30~1000



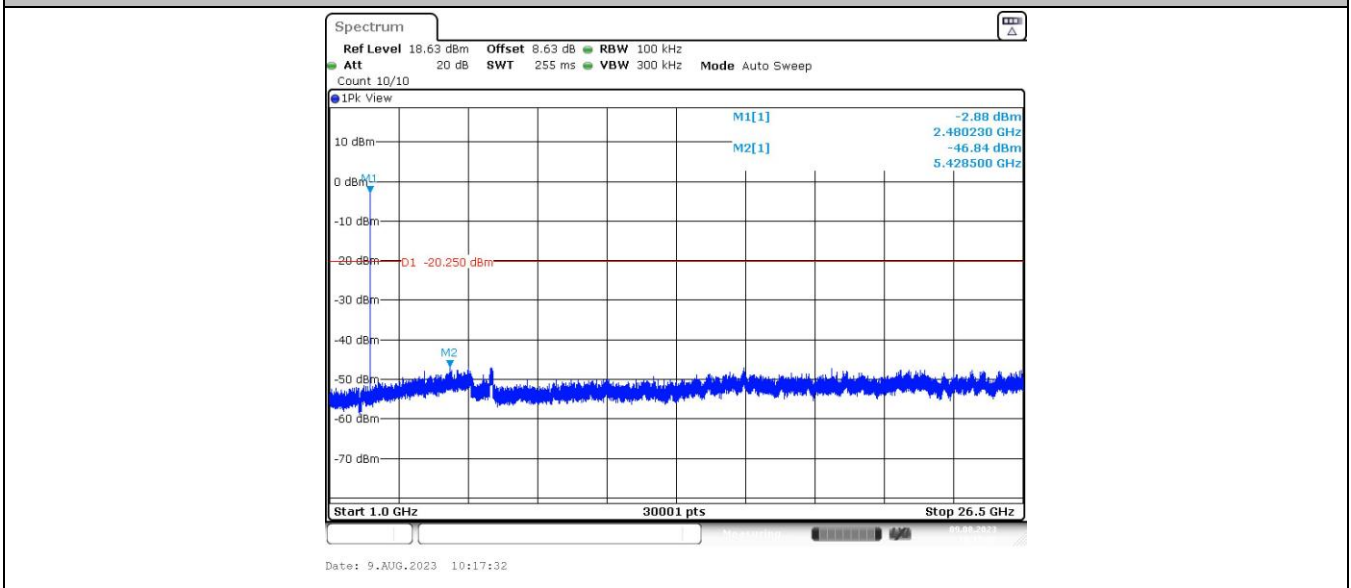
3DH5_Ant1_2441_1000~26500



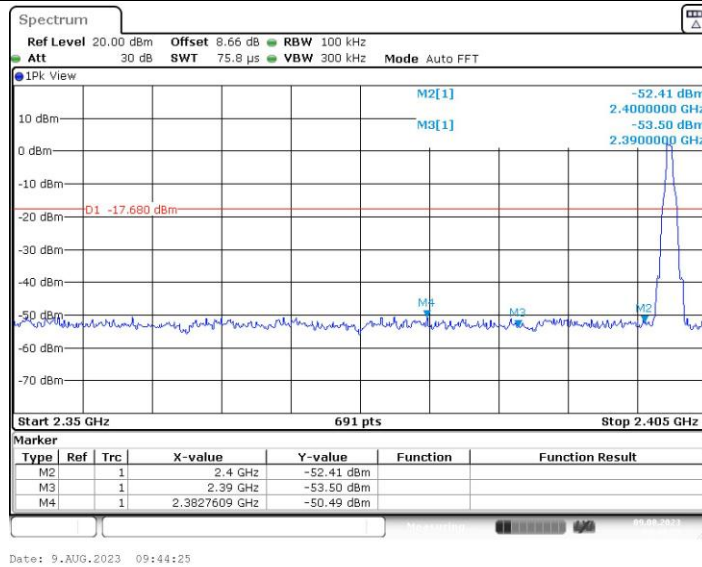
3DH5_Ant1_2480_30~1000



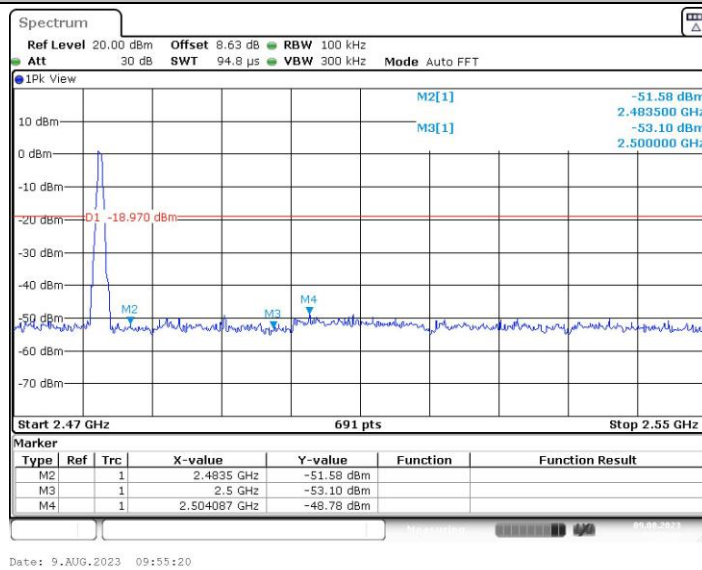
3DH5_Ant1_2480_1000~26500



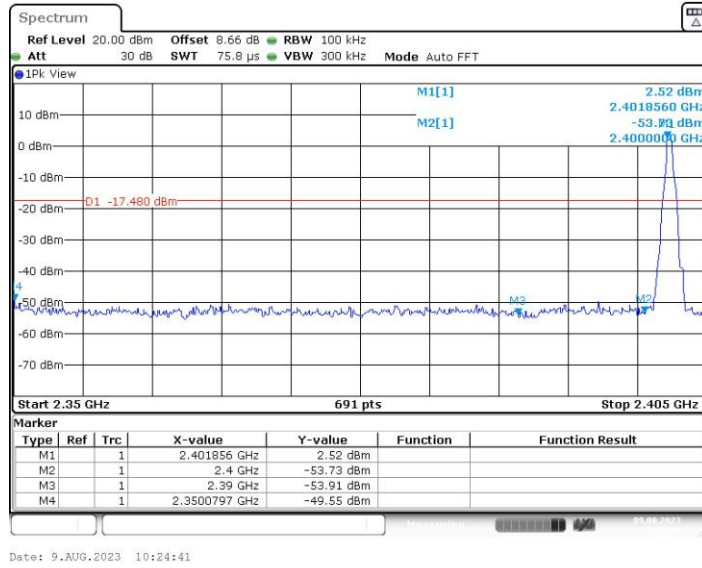
DH5_Ant1_Low_2402



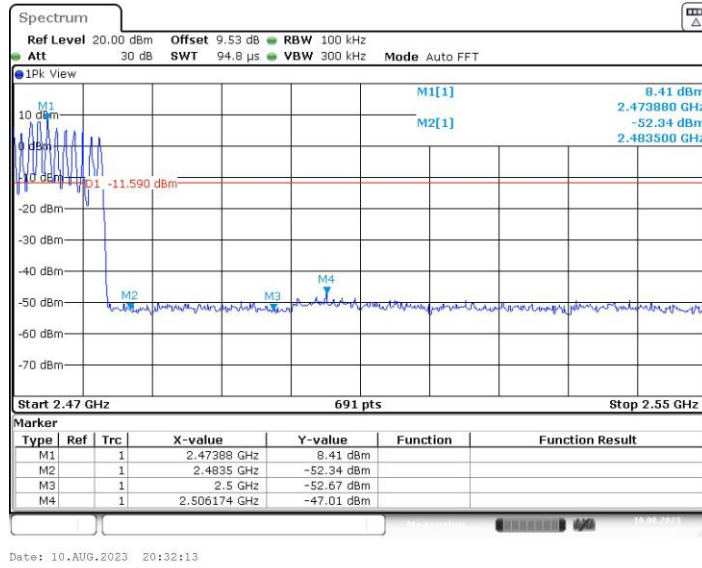
DH5_Ant1_High_2480



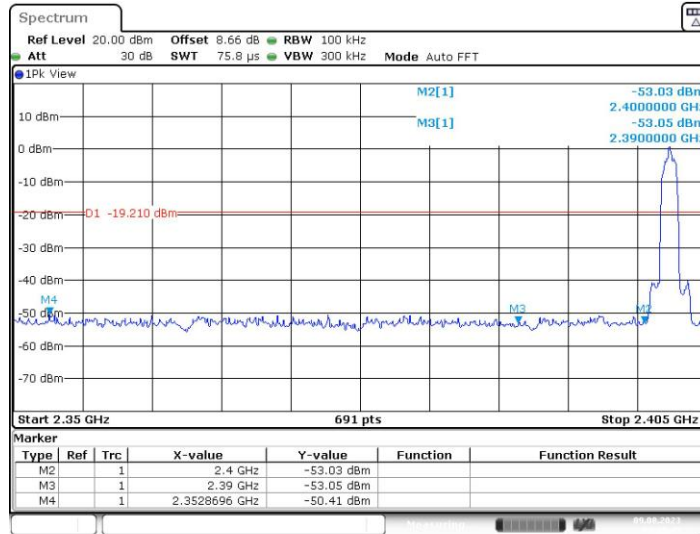
DH5_Ant1_Low_Hop_2402



DH5_Ant1_High_Hop_2480

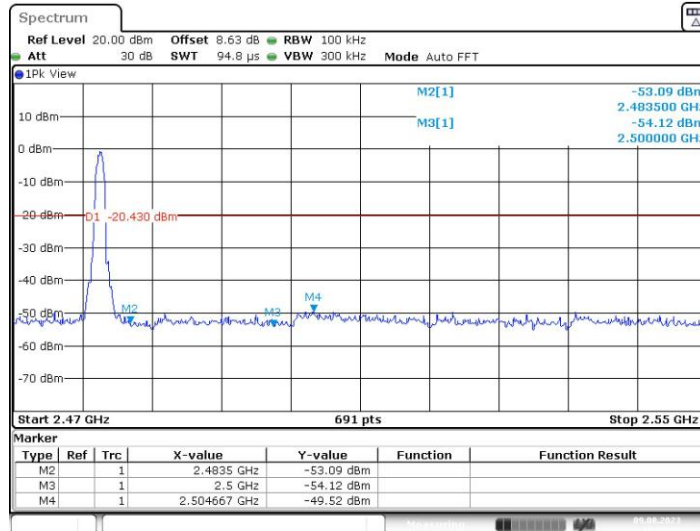


2DH5_Ant1_Low_2402



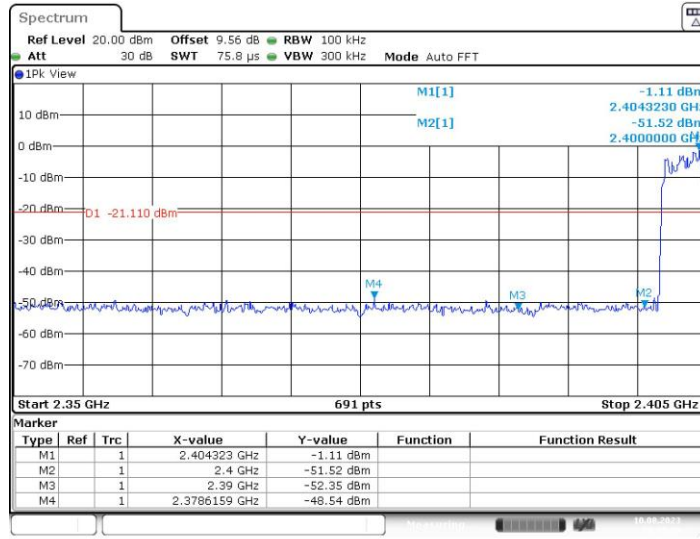
Date: 9.AUG.2023 09:58:45

2DH5_Ant1_High_2480

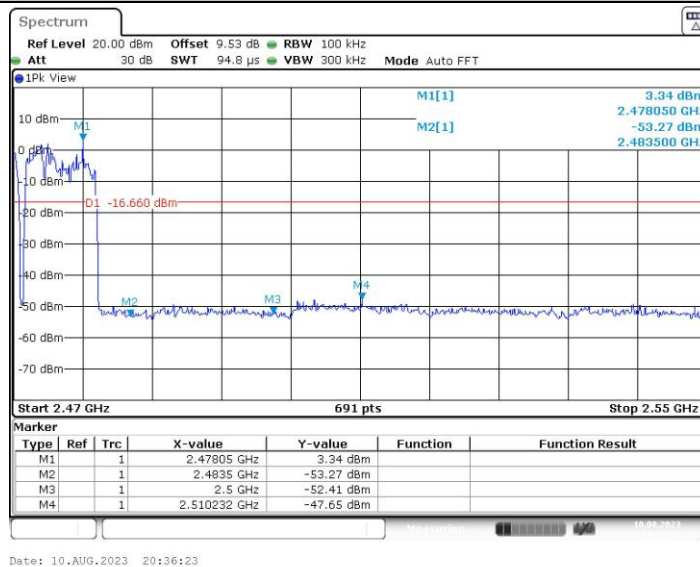


Date: 9.AUG.2023 10:05:33

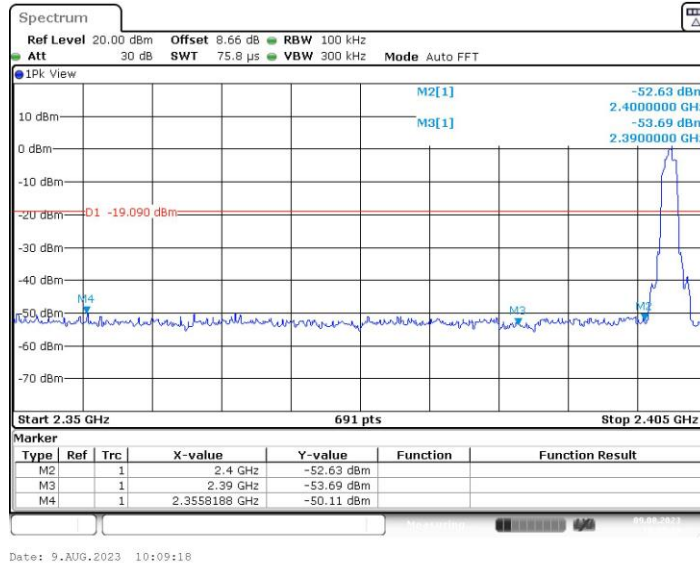
2DH5_Ant1_Low_Hop_2402



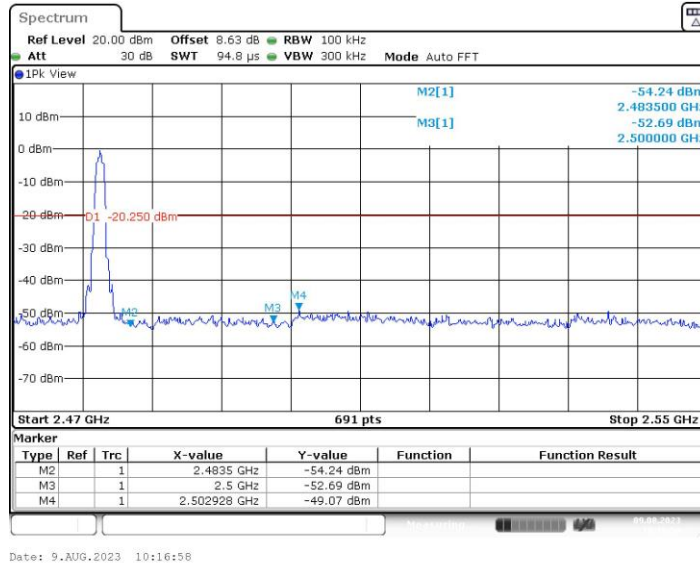
2DH5_Ant1_High_Hop_2480



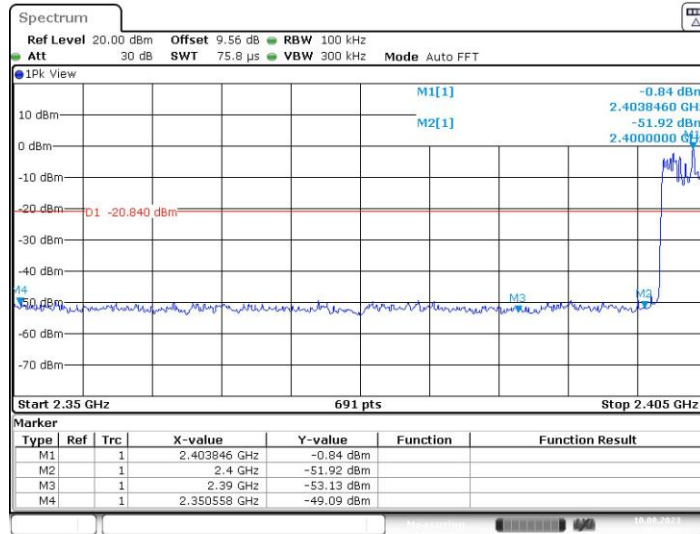
3DH5_Ant1_Low_2402



3DH5_Ant1_High_2480

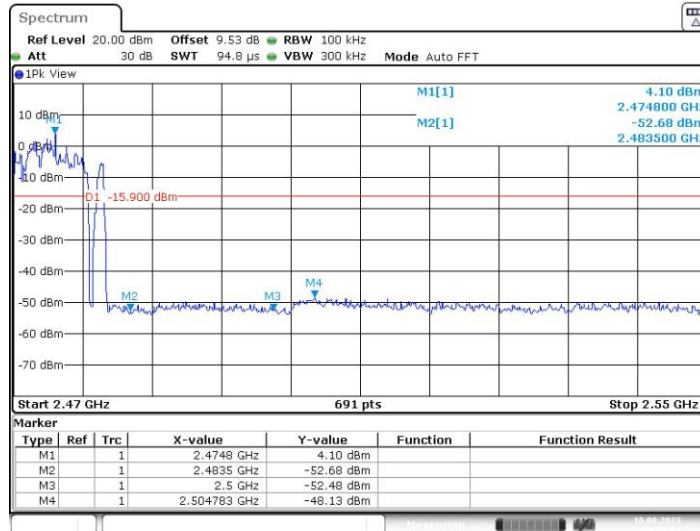


3DH5_Ant1_Low_Hop_2402



Date: 10.AUG.2023 20:37:39

3DH5_Ant1_High_Hop_2480



Date: 10.AUG.2023 20:40:52



7. Form731

7.1 Form731

7.1.1 Test Result

Lower Freq (MHz)	High Freq (MHz)	MAX Power (W)	MAX Power (dBm)
2402	2480	0.00249	3.97



Test Report Number: BTF230817R00403



BTF Testing Lab (Shenzhen) Co., Ltd.

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-- END OF REPORT --