

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

General Description of EUT	
Product Name:	WIRELESS SPEAKER
Test Model:	miniBOOM 2
Sample ID:	RW-C-202209-0110-3-2#
Environmental Conditions	
Temperature:	25°C
Relative Humidity:	55%
Test Voltage:	DC 3.7V
Test Engineer:	Huang jian ping
Note: For a more detailed features description, please refer to the report TBR-C-202209-0110-3	

Contents

1. 20dB Emission Bandwidth.....	3
1.1. Test Result	3
1.2. Test Graphs	4
2. Occupied Channel Bandwidth.....	7
2.1. Test Result	7
2.2. Test Graphs	8
3. Maximum conducted output power	11
3.1. Test Result	11
3.2. Test Graphs	12
4. Carrier frequency separation	15
4.1. Test Result	15
4.2. Test Graphs	16
5. Number of hopping channels.....	17
5.1. Test Result	17
5.2. Test Graphs	18
6. Band edge measurements	19
6.1. Test Result	19
6.2. Test Graphs	20
7. Conducted Spurious Emission	24
7.1. Test Result	24
7.2. Test Graphs	25
8. Duty Cycle.....	34
8.1. Test Result	34
8.2. Test Graphs	35
9. Emissions in Restricted Bands	38
9.1. Test Result	38
9.2. Test Graphs	39

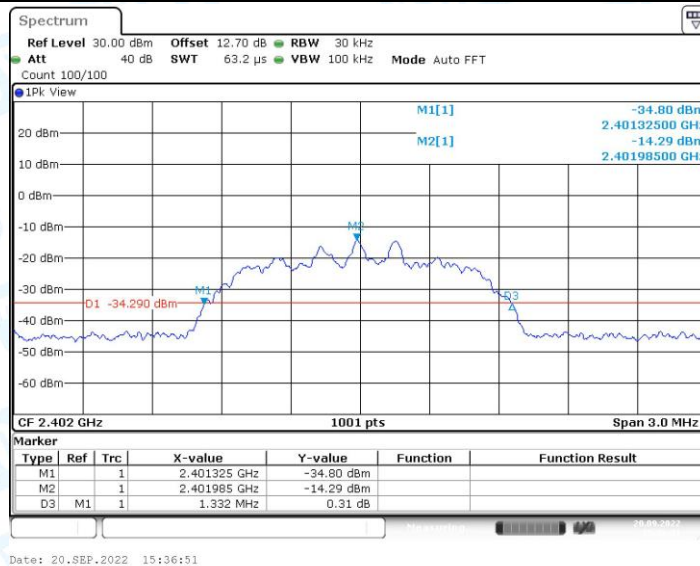
1. 20dB Emission Bandwidth

1.1. Test Result

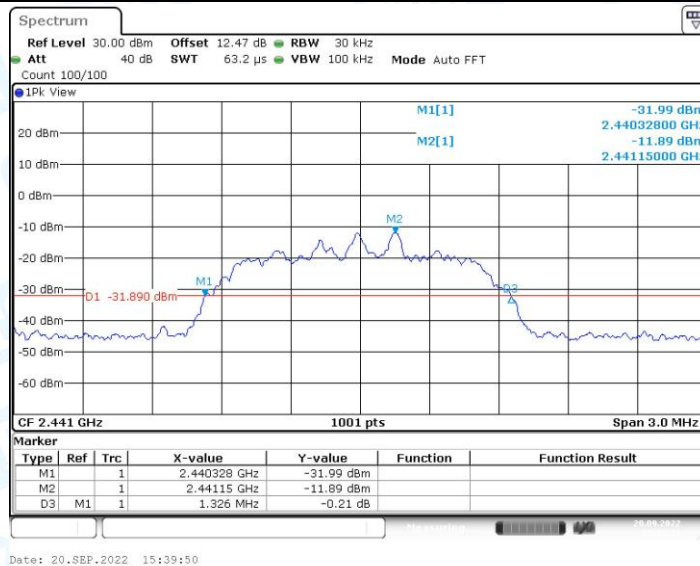
TestMode	Antenna	Channel	20db EBW[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.96	---	---
		2441	0.97	---	---
		2480	0.95	---	---
2DH5	Ant1	2402	1.33	---	---
		2441	1.33	---	---
		2480	1.30	---	---
3DH5	Ant1	2402	1.32	---	---
		2441	1.30	---	---
		2480	1.30	---	---

1.2. Test Graphs

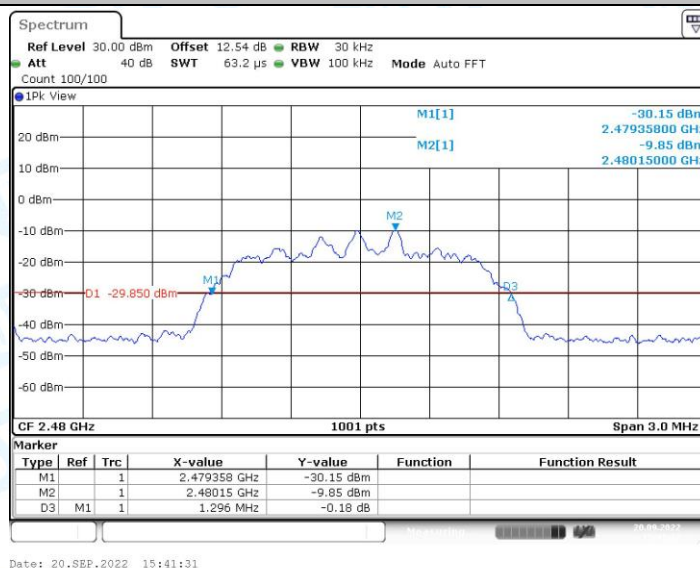




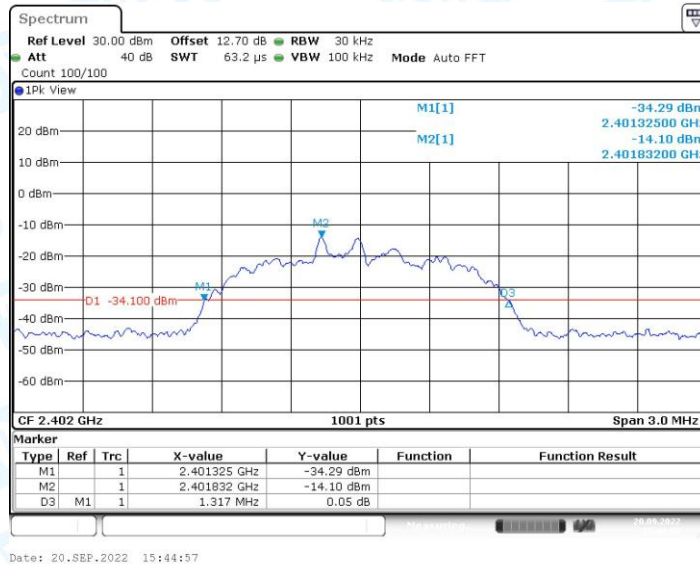
2DH5_Ant1_2441



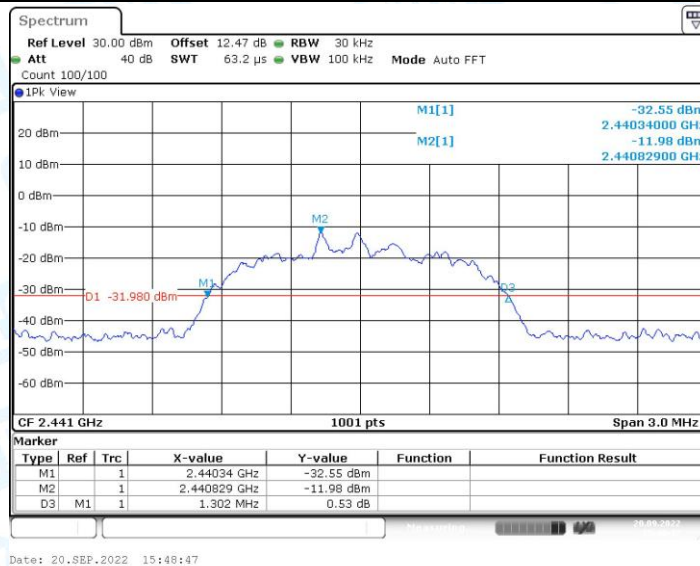
2DH5_Ant1_2480



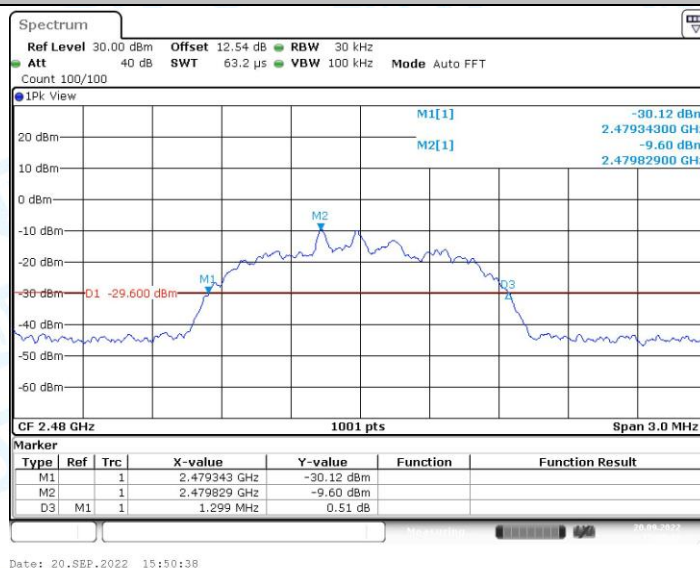
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

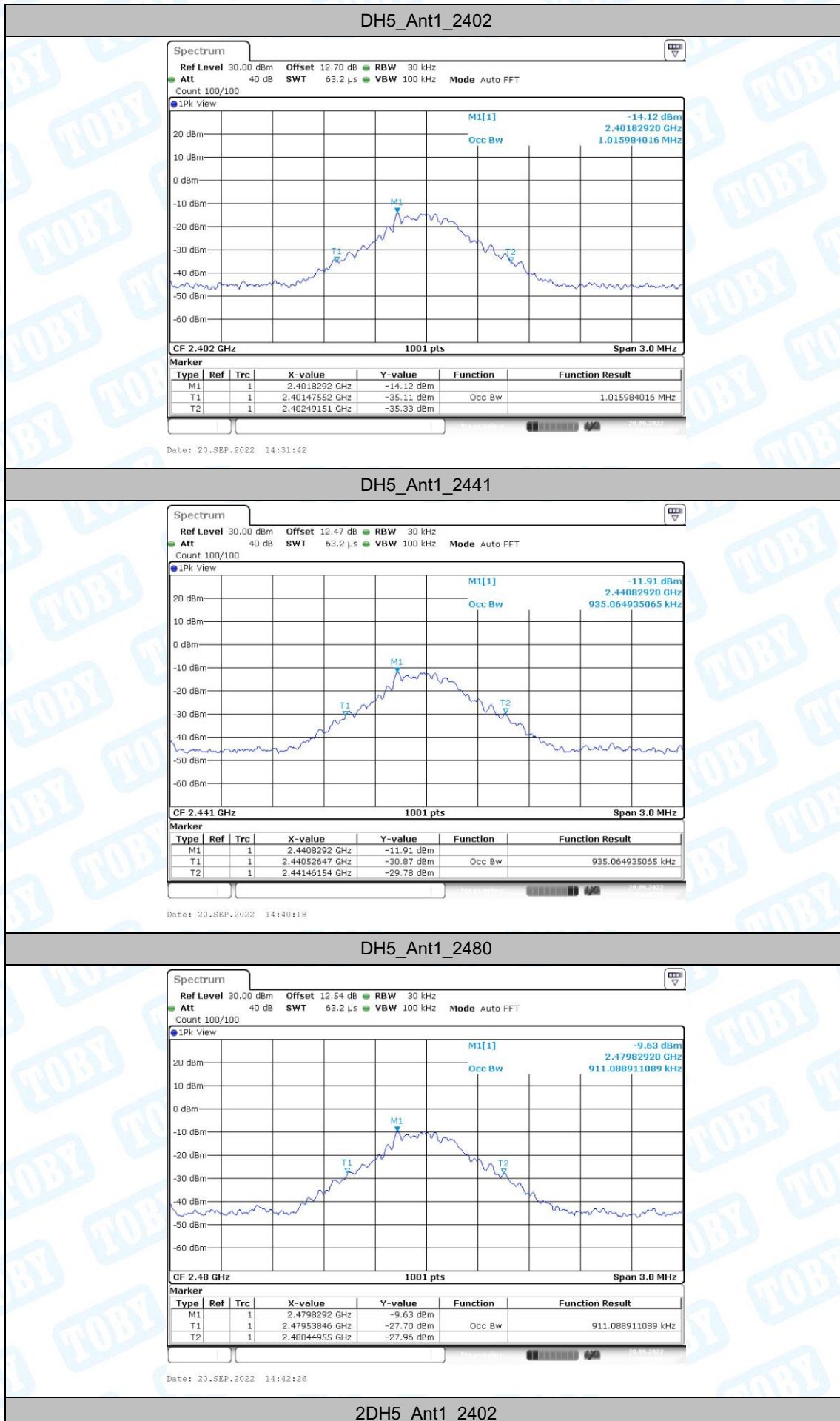


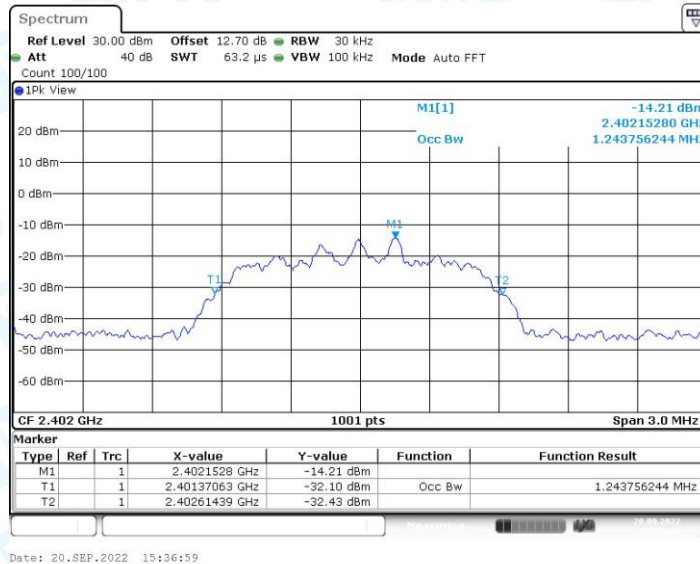
2. Occupied Channel Bandwidth

2.1. Test Result

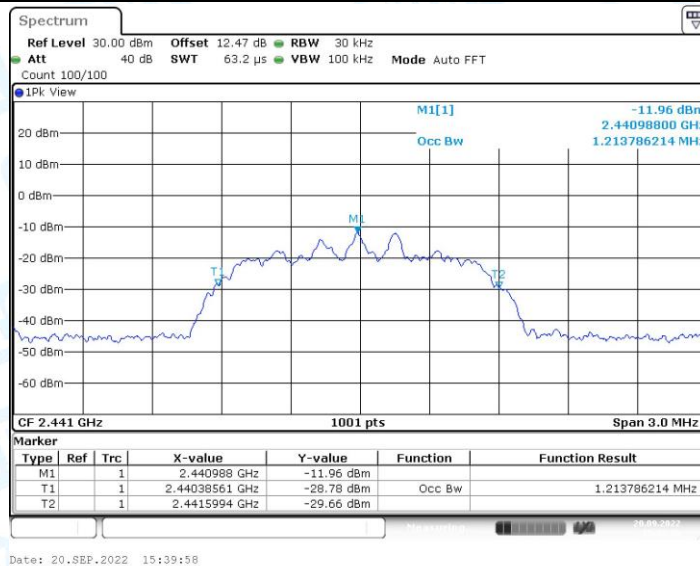
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.016	2401.4755	2402.4915	---	---
		2441	0.935	2440.5265	2441.4615	---	---
		2480	0.911	2479.5385	2480.4496	---	---
2DH5	Ant1	2402	1.244	2401.3706	2402.6144	---	---
		2441	1.214	2440.3856	2441.5994	---	---
		2480	1.199	2479.3946	2480.5934	---	---
3DH5	Ant1	2402	1.25	2401.3646	2402.6144	---	---
		2441	1.223	2440.3766	2441.5994	---	---
		2480	1.208	2479.3856	2480.5934	---	---

2.2. Test Graphs

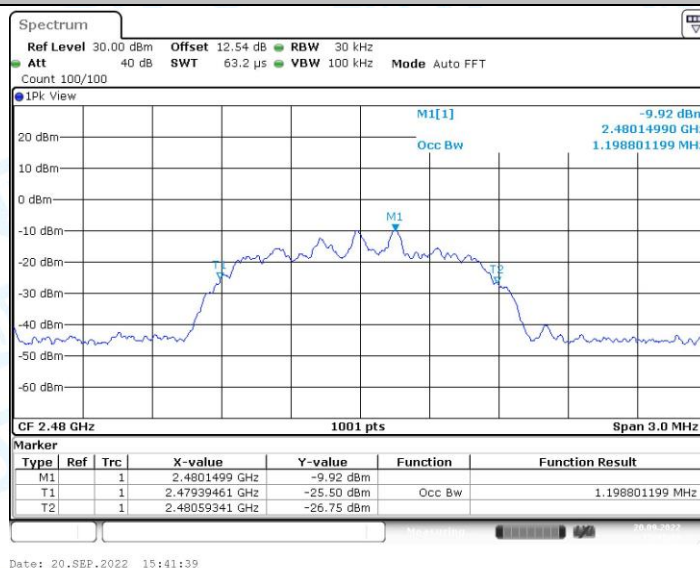




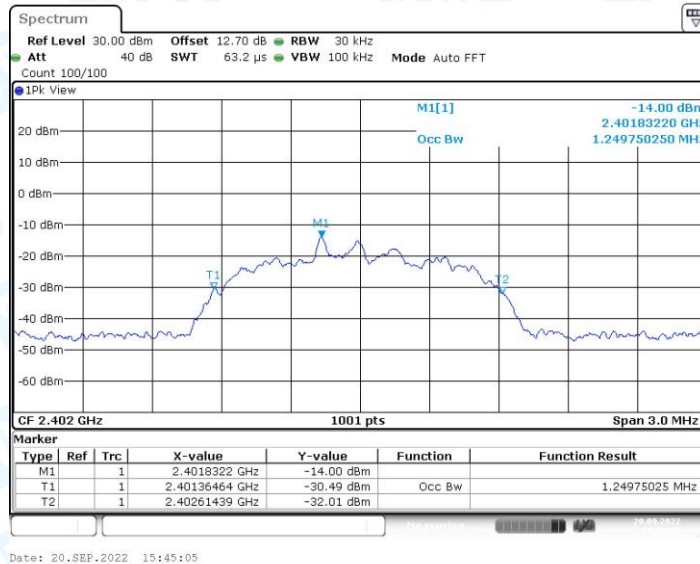
2DH5_Ant1_2441



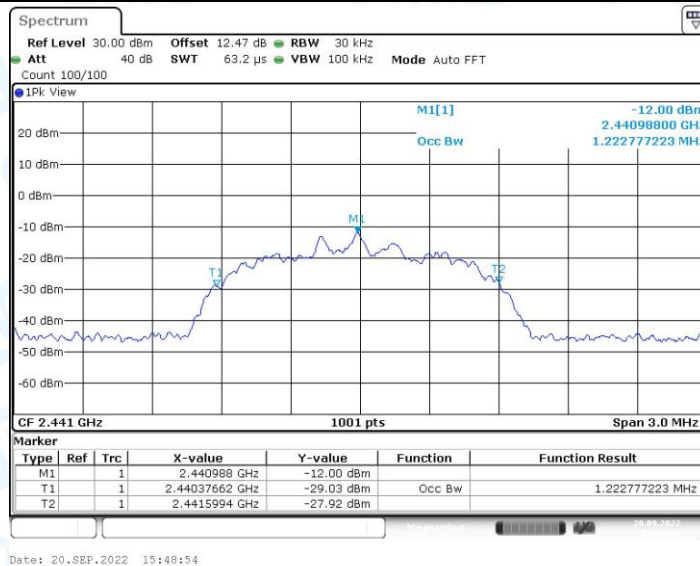
2DH5_Ant1_2480



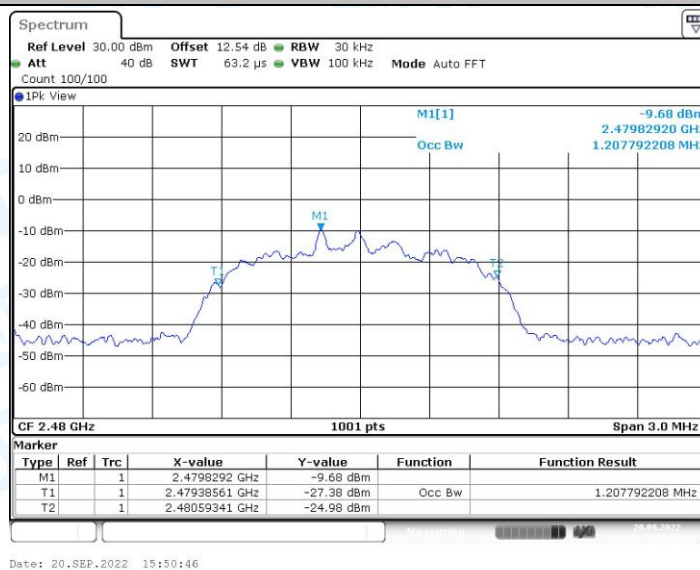
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



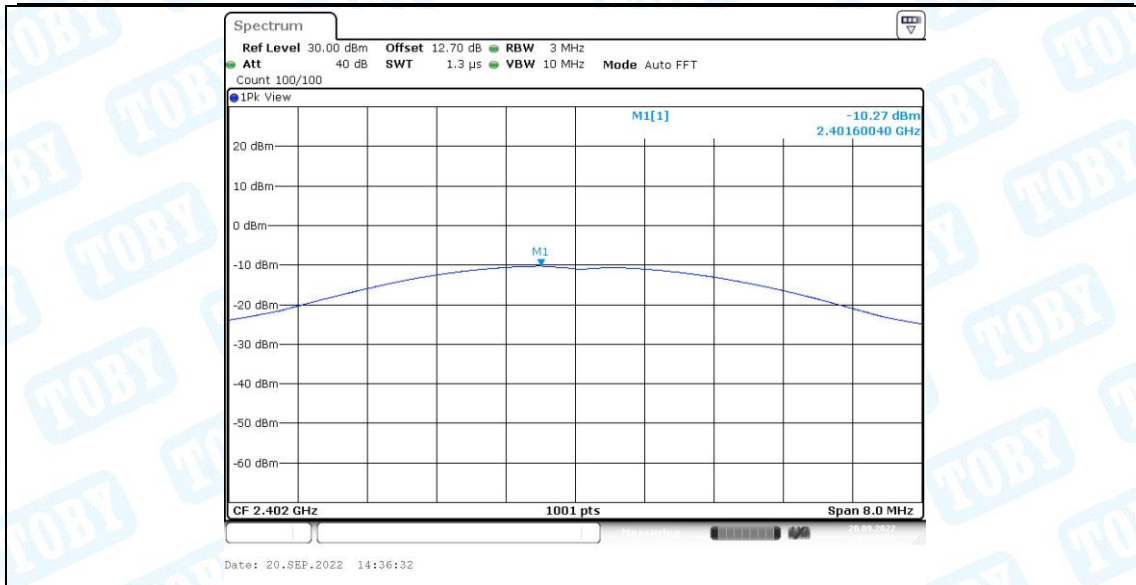
3. Maximum conducted output power

3.1. Test Result

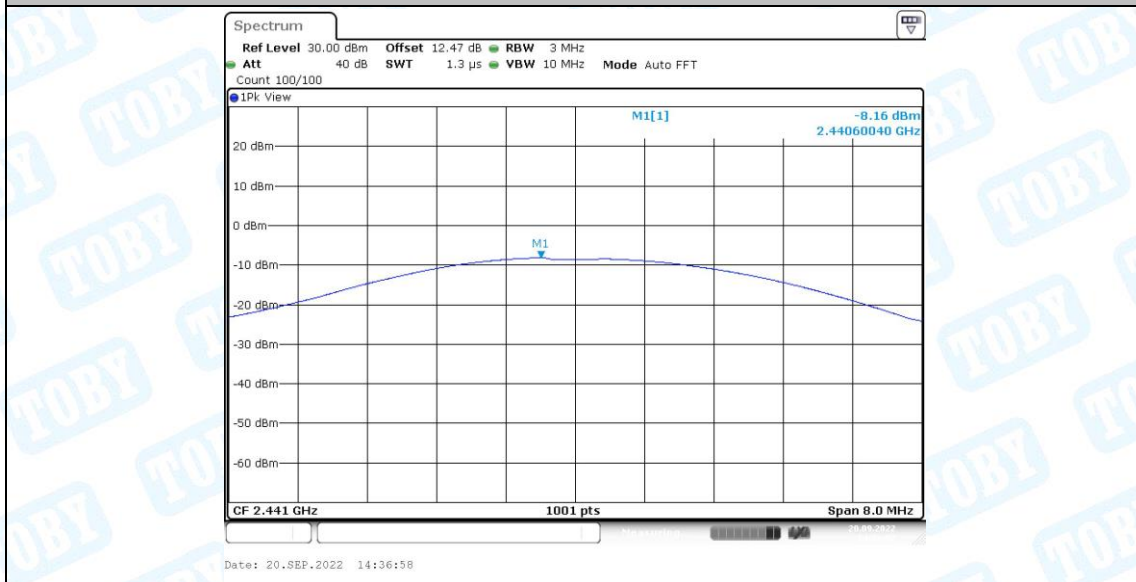
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-10.53	≤20.97	PASS
		2441	-8.27	≤20.97	PASS
		2480	-6.49	≤20.97	PASS
2DH5	Ant1	2402	-10.27	≤20.97	PASS
		2441	-8.16	≤20.97	PASS
		2480	-5.80	≤20.97	PASS
3DH5	Ant1	2402	-10.02	≤20.97	PASS
		2441	-8.08	≤20.97	PASS
		2480	-5.88	≤20.97	PASS

3.2.Test Graphs

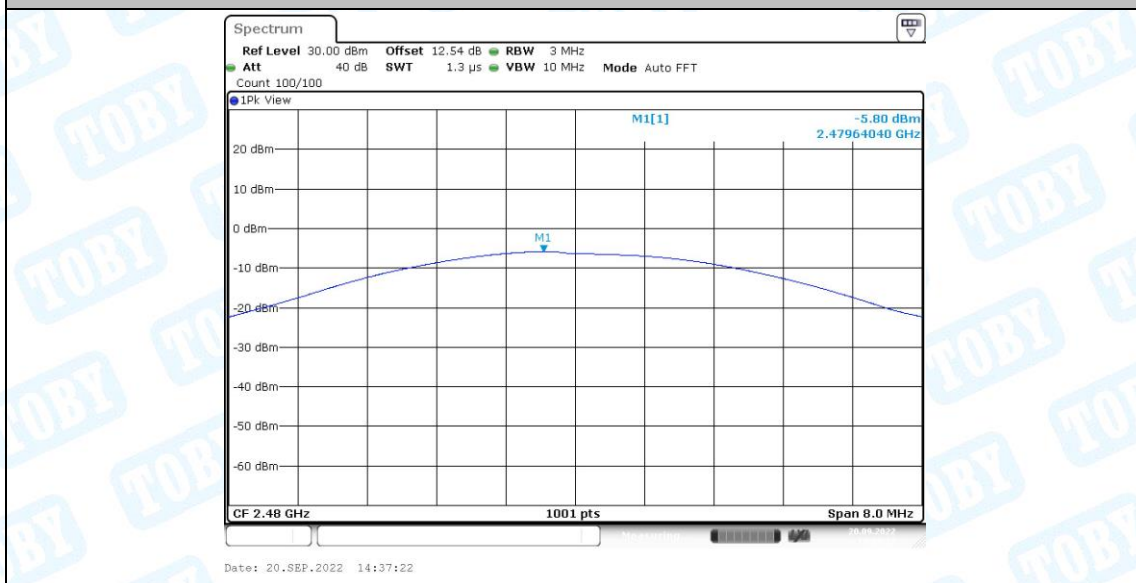




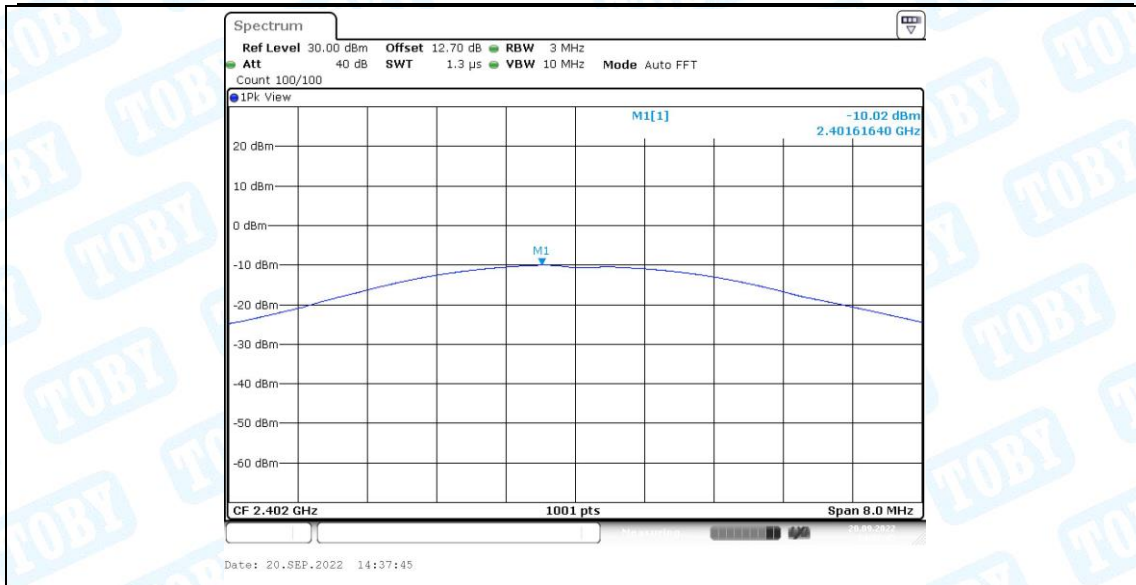
2DH5_Ant1_2441



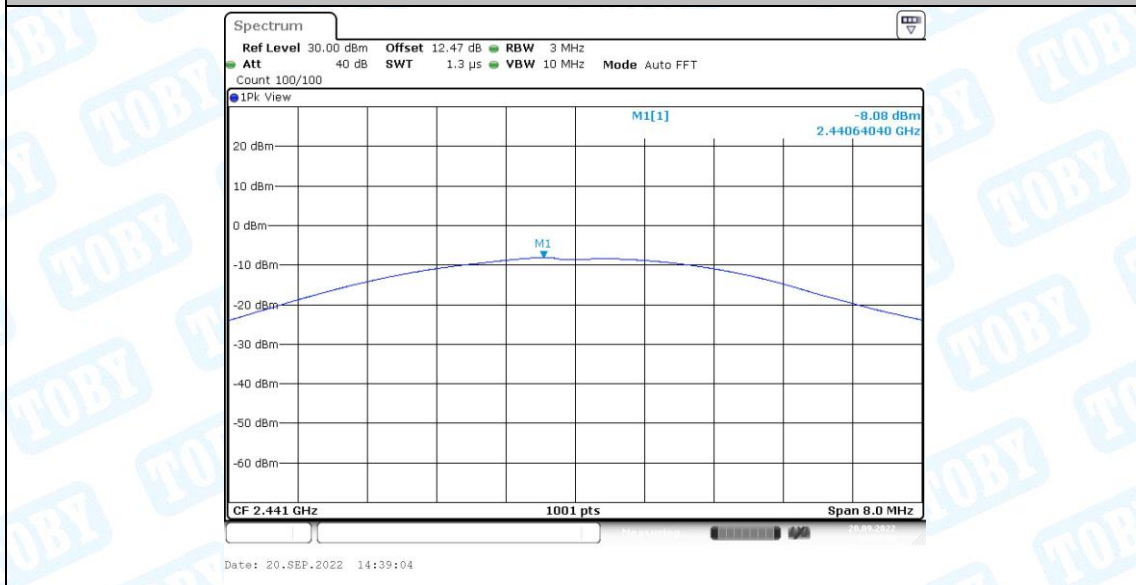
2DH5_Ant1_2480



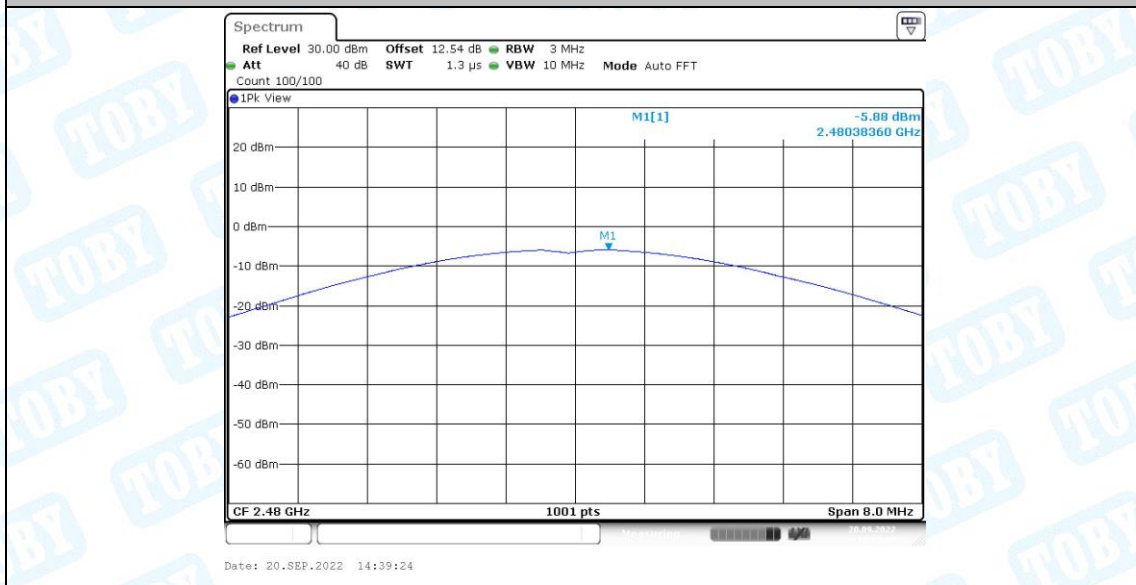
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



4. Carrier frequency separation

4.1. Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.003	≥ 0.970	PASS
2DH5	Ant1	Hop	1.203	≥ 0.887	PASS
3DH5	Ant1	Hop	0.997	≥ 0.880	PASS

4.2.Test Graphs



5. Number of hopping channels

5.1. Test Result

TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

5.2.Test Graphs

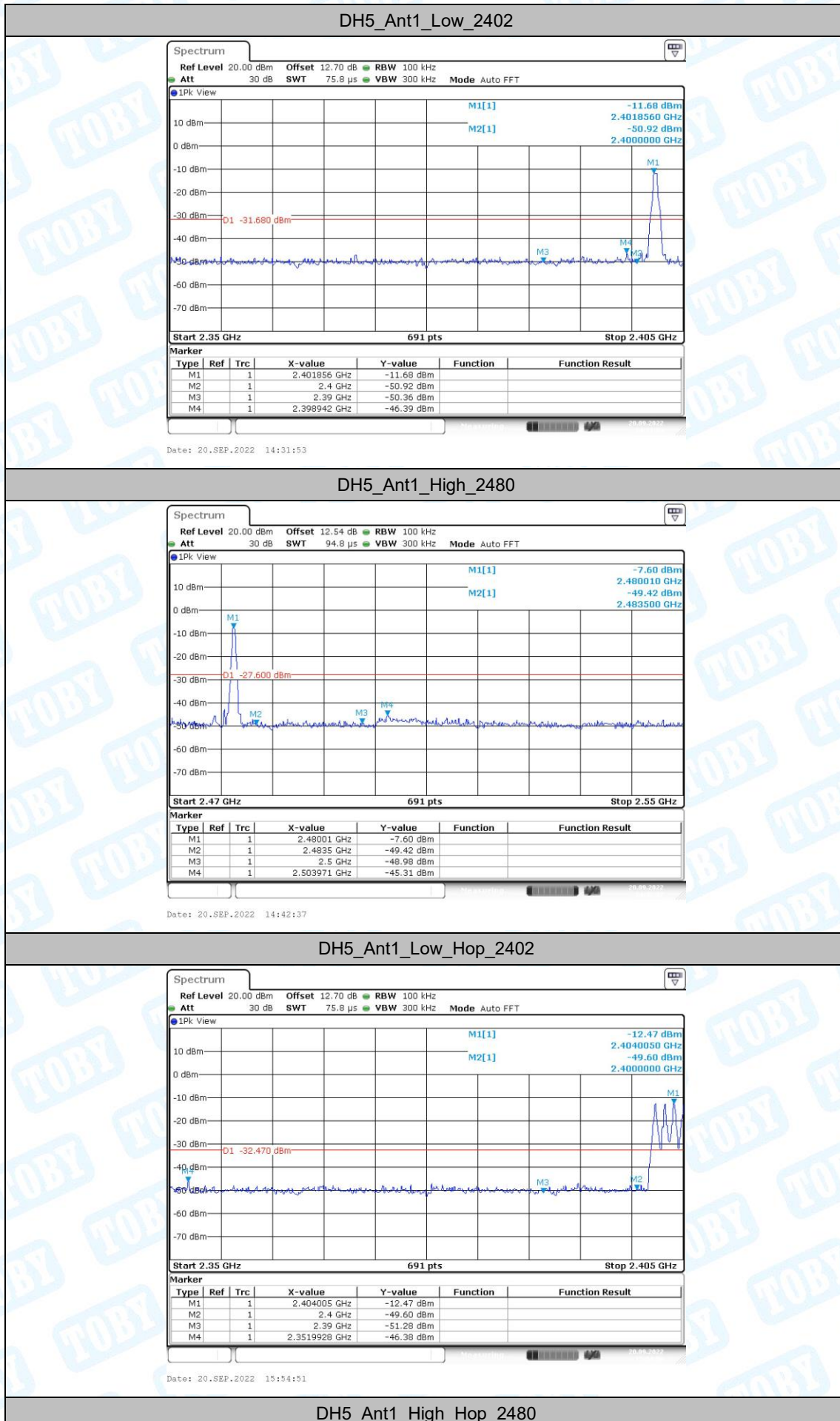


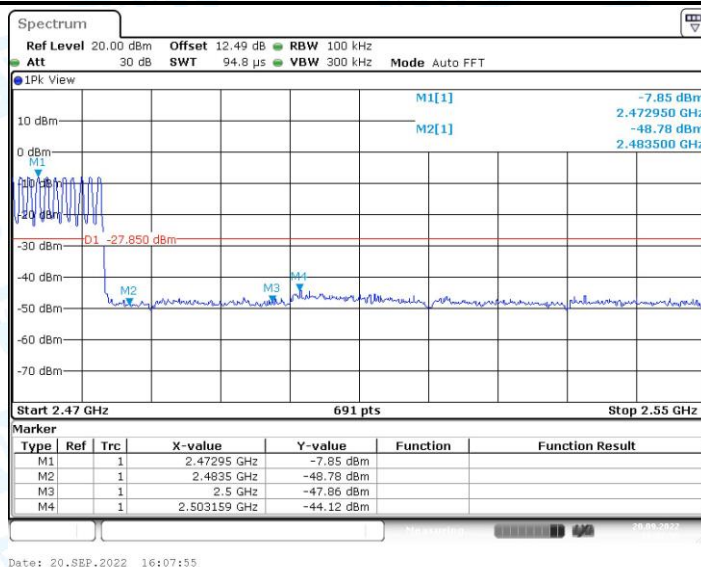
6. Band edge measurements

6.1. Test Result

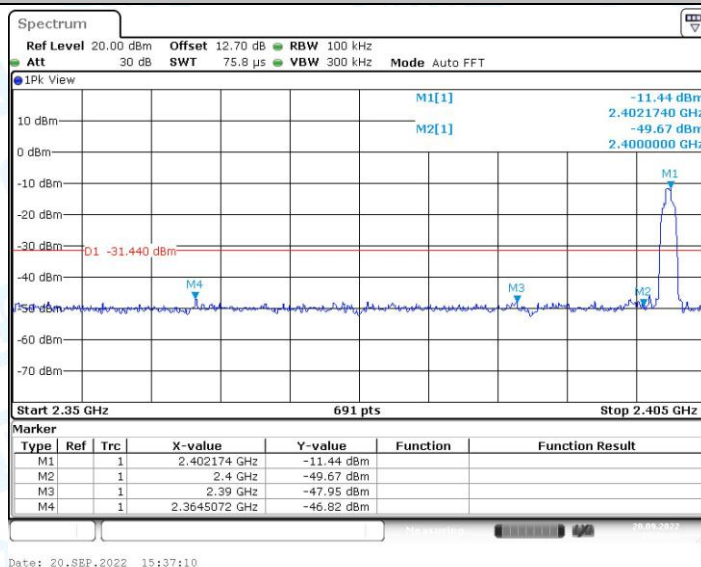
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-11.68	-46.39	≤ -31.68	PASS
		High	2480	-7.60	-45.31	≤ -27.6	PASS
		Low	Hop_2402	-12.47	-46.38	≤ -32.47	PASS
		High	Hop_2480	-7.85	-44.12	≤ -27.85	PASS
2DH5	Ant1	Low	2402	-11.44	-46.82	≤ -31.44	PASS
		High	2480	-7.18	-45.52	≤ -27.18	PASS
		Low	Hop_2402	-13.56	-47.9	≤ -33.56	PASS
		High	Hop_2480	-8.14	-45.37	≤ -28.14	PASS
3DH5	Ant1	Low	2402	-11.38	-46.73	≤ -31.38	PASS
		High	2480	-7.13	-45.24	≤ -27.13	PASS
		Low	Hop_2402	-12.62	-47.59	≤ -32.62	PASS
		High	Hop_2480	-9.48	-45.49	≤ -29.48	PASS

6.2.Test Graphs

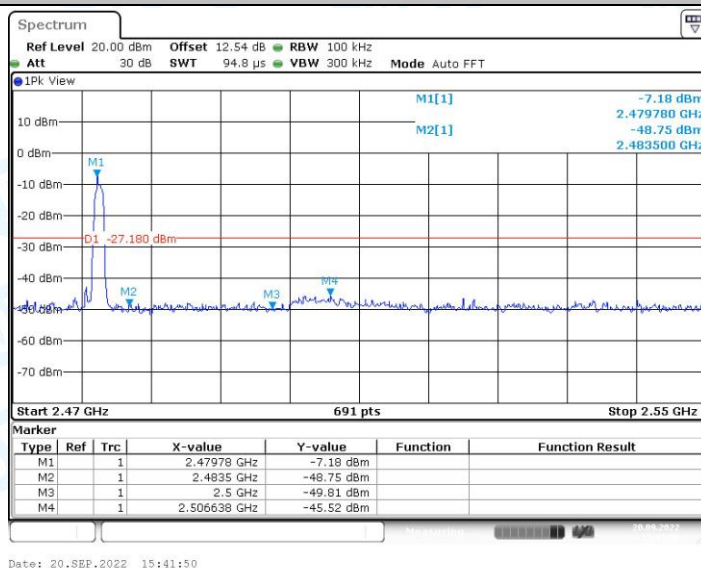




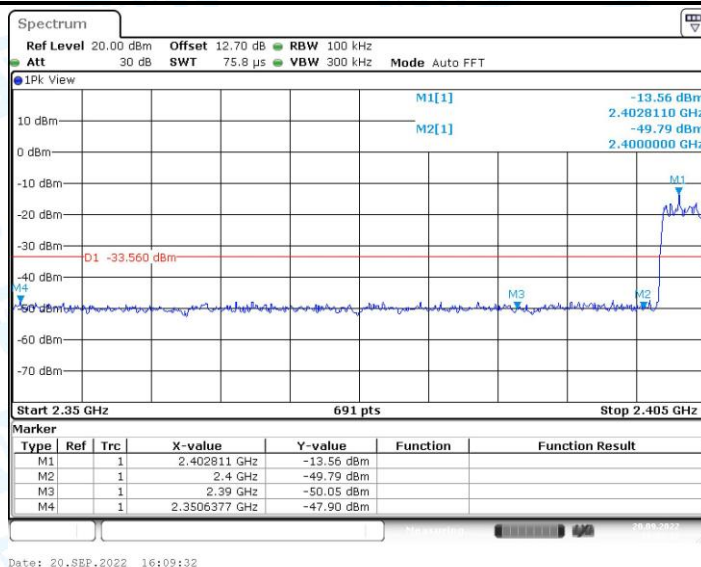
2DH5_Ant1_Low_2402



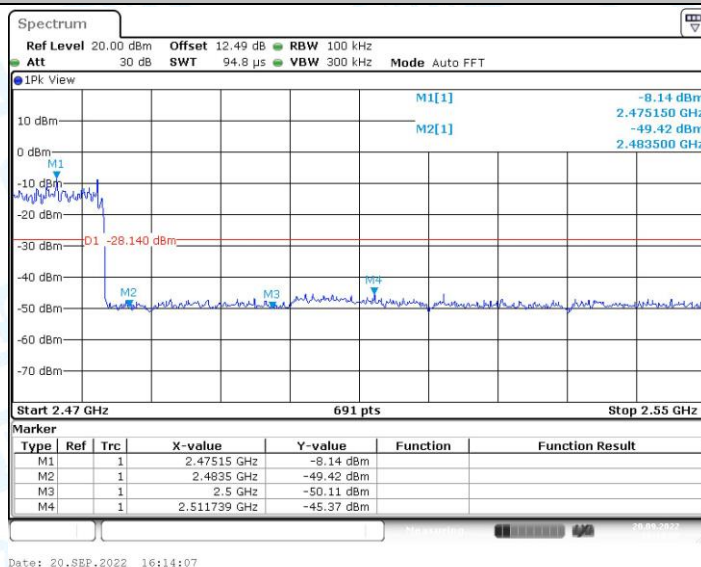
2DH5_Ant1_High_2480



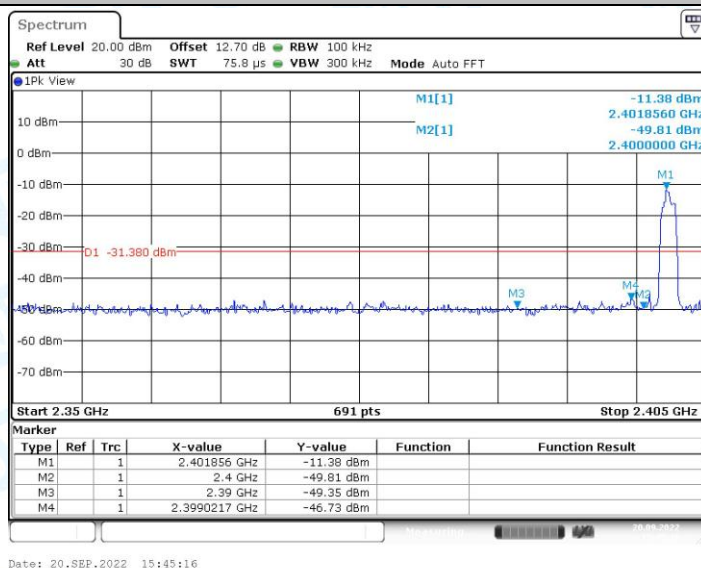
2DH5_Ant1_Low_Hop_2402



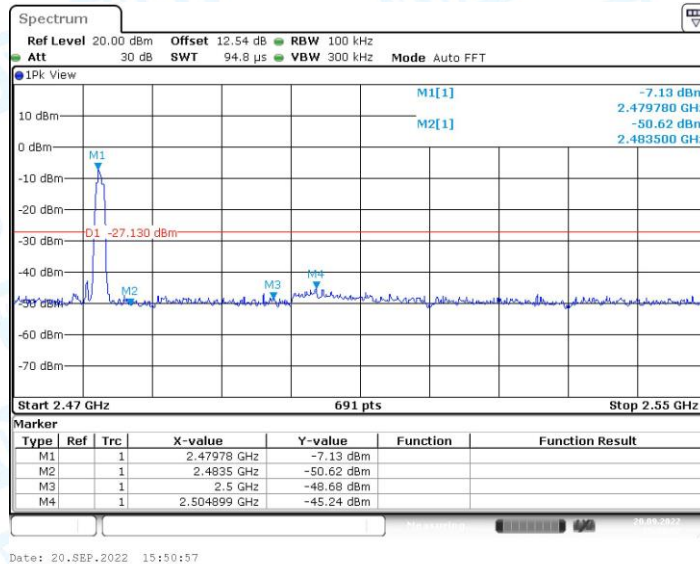
2DH5_Ant1_High_Hop_2480



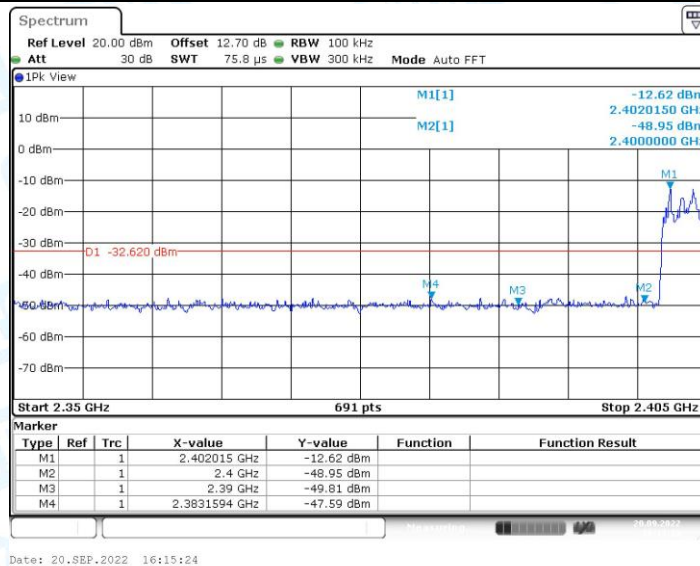
3DH5_Ant1_Low_2402



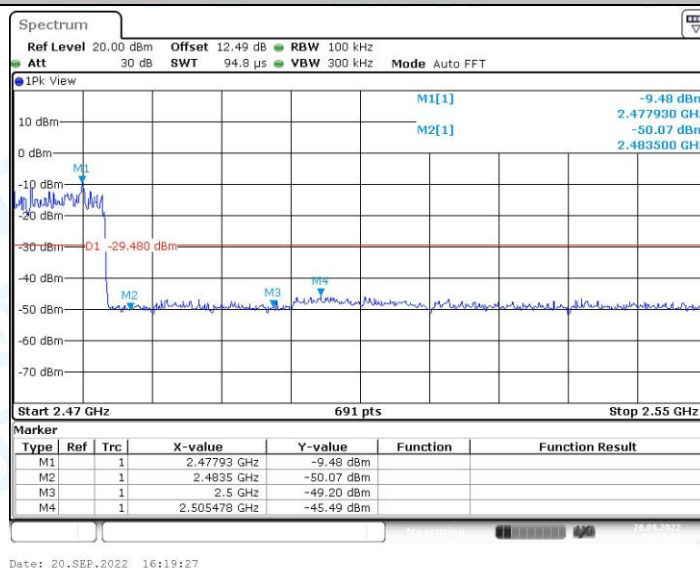
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480



7. Conducted Spurious Emission

7.1. Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-11.51	-11.51	---	PASS
			30~1000	-11.51	-56.09	≤-31.51	PASS
			1000~26500	-11.51	-47.98	≤-31.51	PASS
		2441	Reference	-9.34	-9.34	---	PASS
			30~1000	-9.34	-57.6	≤-29.34	PASS
			1000~26500	-9.34	-48.13	≤-29.34	PASS
		2480	Reference	-7.22	-7.22	---	PASS
			30~1000	-7.22	-55.56	≤-27.22	PASS
			1000~26500	-7.22	-48.61	≤-27.22	PASS
2DH5	Ant1	2402	Reference	-11.53	-11.53	---	PASS
			30~1000	-11.53	-55.57	≤-31.53	PASS
			1000~26500	-11.53	-47.63	≤-31.53	PASS
		2441	Reference	-9.29	-9.29	---	PASS
			30~1000	-9.29	-56.79	≤-29.29	PASS
			1000~26500	-9.29	-48.63	≤-29.29	PASS
		2480	Reference	-7.17	-7.17	---	PASS
			30~1000	-7.17	-56.68	≤-27.17	PASS
			1000~26500	-7.17	-48.09	≤-27.17	PASS
3DH5	Ant1	2402	Reference	-11.53	-11.53	---	PASS
			30~1000	-11.53	-56.75	≤-31.53	PASS
			1000~26500	-11.53	-48.19	≤-31.53	PASS
		2441	Reference	-9.28	-9.28	---	PASS
			30~1000	-9.28	-56.23	≤-29.28	PASS
			1000~26500	-9.28	-48.31	≤-29.28	PASS
		2480	Reference	-7.19	-7.19	---	PASS
			30~1000	-7.19	-57.51	≤-27.19	PASS
			1000~26500	-7.19	-48.24	≤-27.19	PASS