

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

General Description of EUT	
EUT Name:	ETOE Starfish 2 Projector
Model:	R2T
Sample ID:	HC-C-202512-0415-01-01
Test Standard:	FCC Part 15.247
Environmental Conditions	
Ambient Temperature:	25.2℃
Ambient Humidity:	45.8%RH
Test Power Supply:	DC 20V
Test Engineer:	Lily zhang
Note: For a more detailed features description, please refer to the report TBR-C-202512-0415-6	

Contents

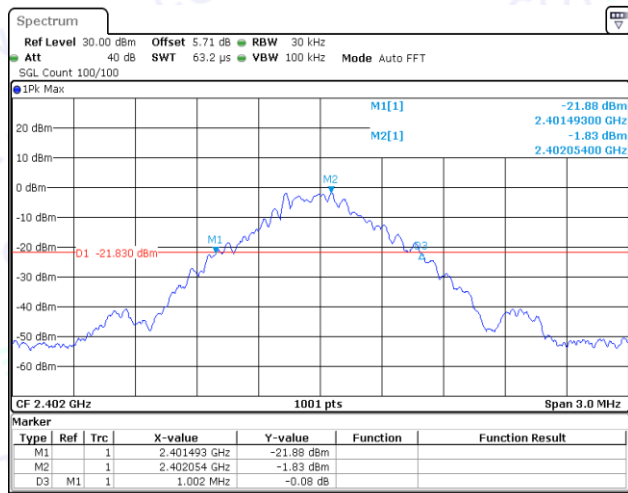
1: 20dB Emission Bandwidth	3
1.1 Test Result	3
1.2 Test Graphs	4
2: Occupied Channel Bandwidth	6
2.1 Test Result	6
2.2 Test Graphs	7
3: Maximum conducted output power	9
3.1 Test Result Peak	9
3.2 Test Graphs	10
4: Carrier frequency separation	12
4.1 Test Result	12
4.2 Test Graphs	13
5: Time of occupancy	14
5.1 Test Result	14
5.2 Test Graphs	15
6: Number of hopping channels	18
6.1 Test Result	18
6.2 Test Graphs	19
7: Band edge measurements	20
7.1 Test Result	20
7.2 Test Graphs	21
8: Conducted Spurious Emission	23
8.1 Test Result	23
8.2 Test Graphs	24
9: Duty Cycle	29
9.1 Test Result	29
9.2 Test Graphs	30
10: Emissions in Restricted Bands	32
10.1 Test Result	32
10.2 Test Graphs	33

1: 20dB Emission Bandwidth

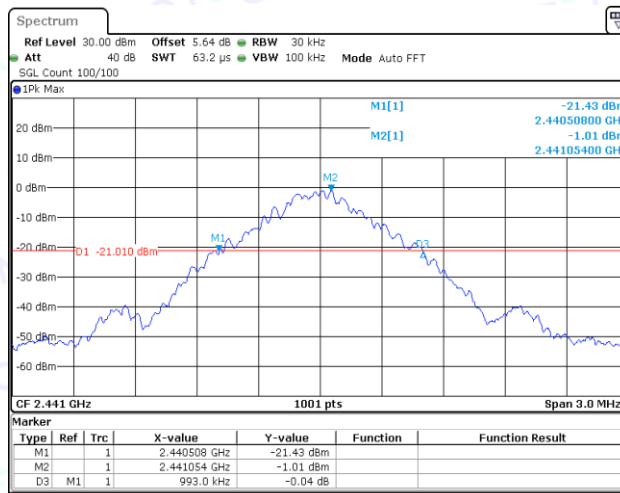
1.1 Test Result

Test Mode	Antenna	Frequency[MHz]	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.00	2401.49	2402.50	---	---
DH5	Ant1	2441	0.99	2440.51	2441.50	---	---
DH5	Ant1	2480	1.02	2479.48	2480.50	---	---
2DH5	Ant1	2402	1.32	2401.33	2402.65	---	---
2DH5	Ant1	2441	1.28	2440.36	2441.65	---	---
2DH5	Ant1	2480	1.32	2479.33	2480.65	---	---
3DH5	Ant1	2402	1.30	2401.35	2402.65	---	---
3DH5	Ant1	2441	1.27	2440.35	2441.63	---	---
3DH5	Ant1	2480	1.30	2479.35	2480.65	---	---

1.2 Test Graphs

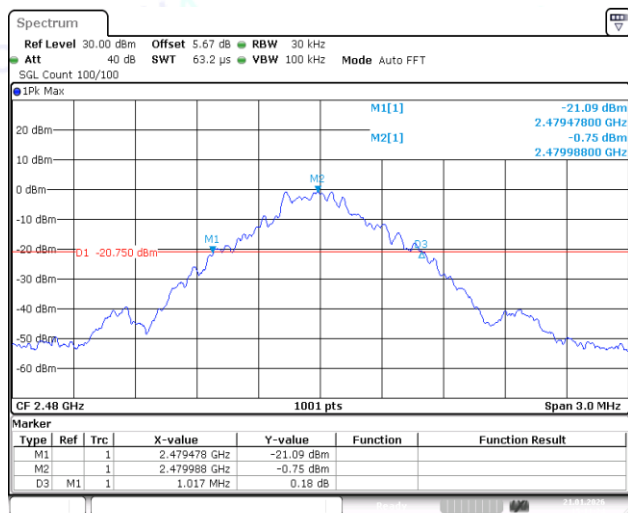


Date: 21.JAN.2026 15:05:49



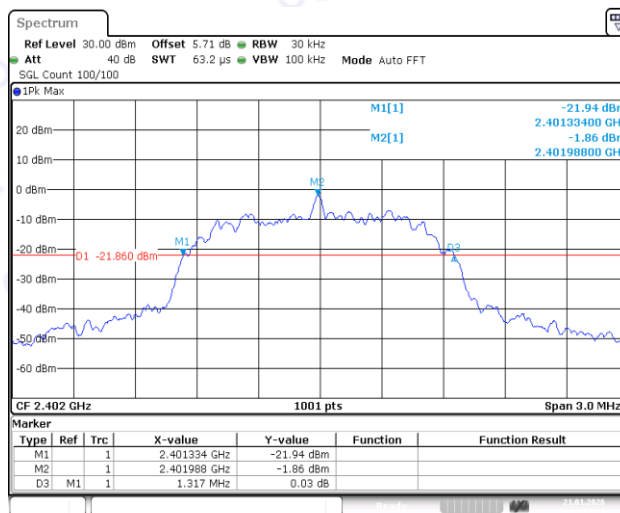
Date: 21.JAN.2026 15:09:23

DH5-Ant1-2402



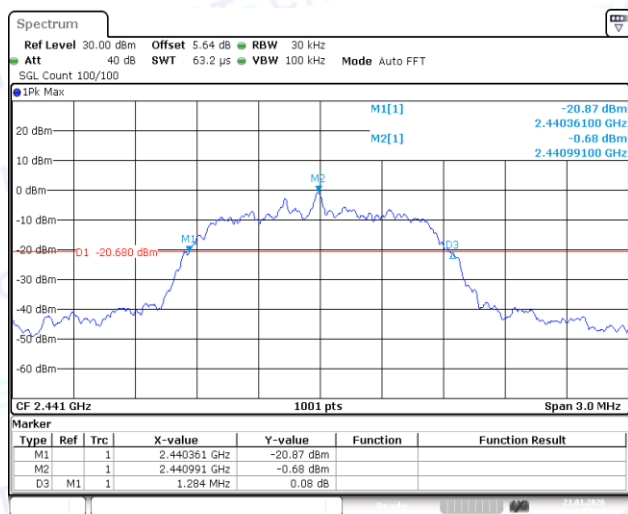
Date: 21.JAN.2026 15:11:24

DH5-Ant1-2441



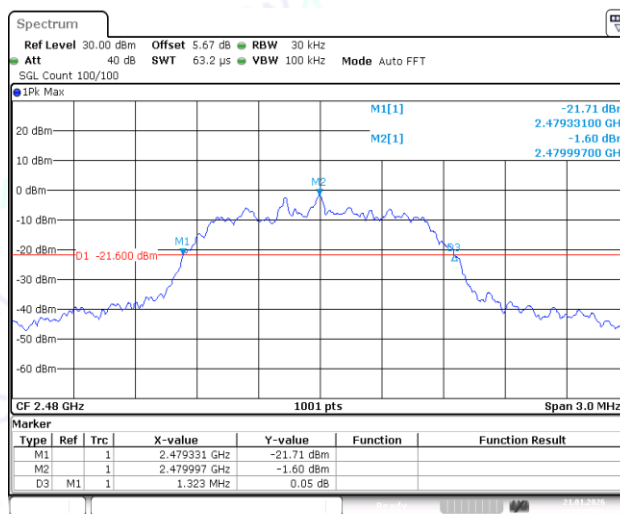
Date: 21.JAN.2026 16:03:19

DH5-Ant1-2480



Date: 21.JAN.2026 16:08:29

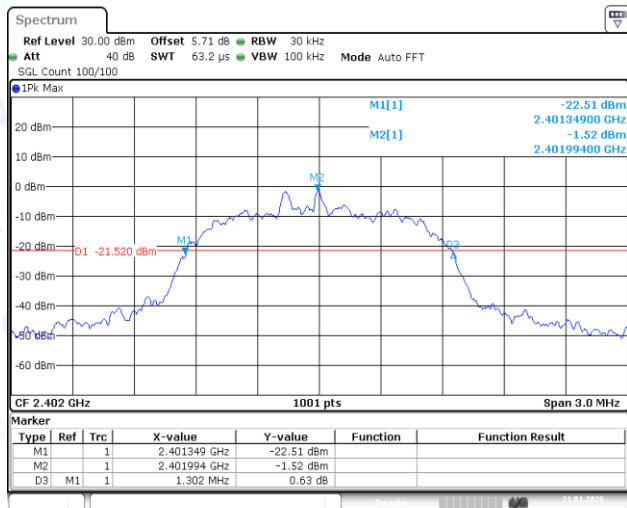
2DH5-Ant1-2402



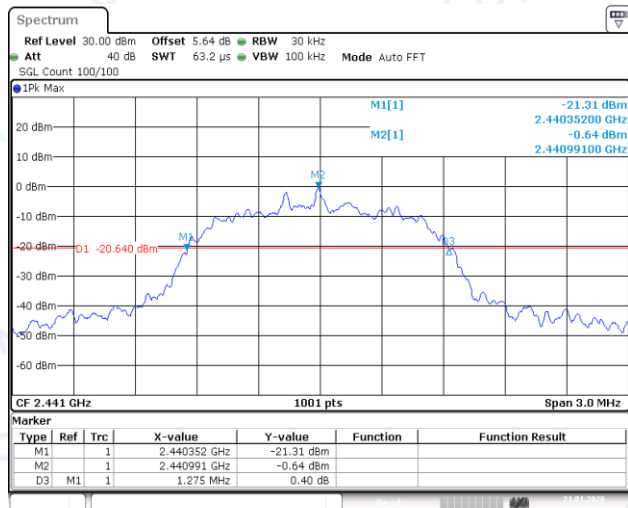
Date: 21.JAN.2026 16:25:00

2DH5-Ant1-2441

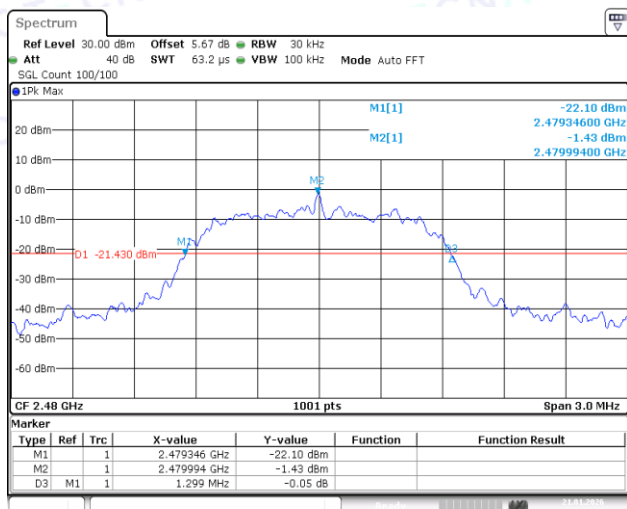
2DH5-Ant1-2480



3DH5-Ant1-2402



3DH5-Ant1-2441



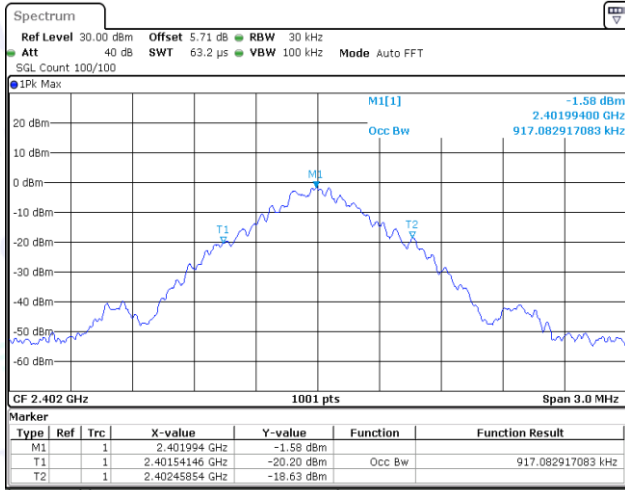
3DH5-Ant1-2480

2: Occupied Channel Bandwidth

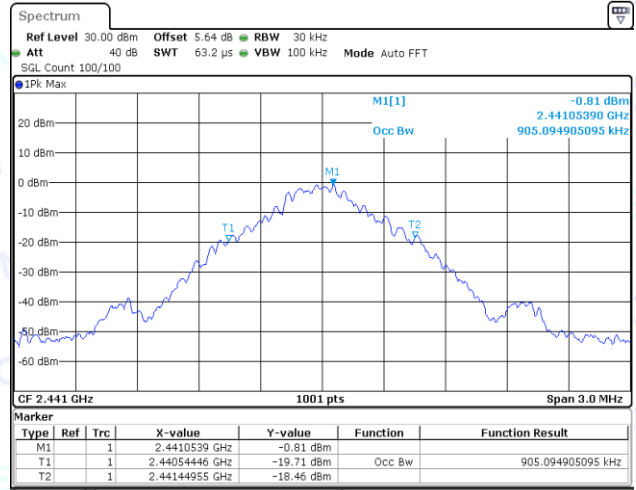
2.1 Test Result

Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.91708	2401.5415	2402.4585	---	---
DH5	Ant1	2441	0.90509	2440.5445	2441.4496	---	---
DH5	Ant1	2480	0.92008	2479.5385	2480.4585	---	---
2DH5	Ant1	2402	1.1988	2401.3946	2402.5934	---	---
2DH5	Ant1	2441	1.2078	2440.3946	2441.6024	---	---
2DH5	Ant1	2480	1.1928	2479.4006	2480.5934	---	---
3DH5	Ant1	2402	1.2108	2401.3856	2402.5964	---	---
3DH5	Ant1	2441	1.2168	2440.3826	2441.5994	---	---
3DH5	Ant1	2480	1.2288	2479.3796	2480.6084	---	---

2.2 Test Graphs

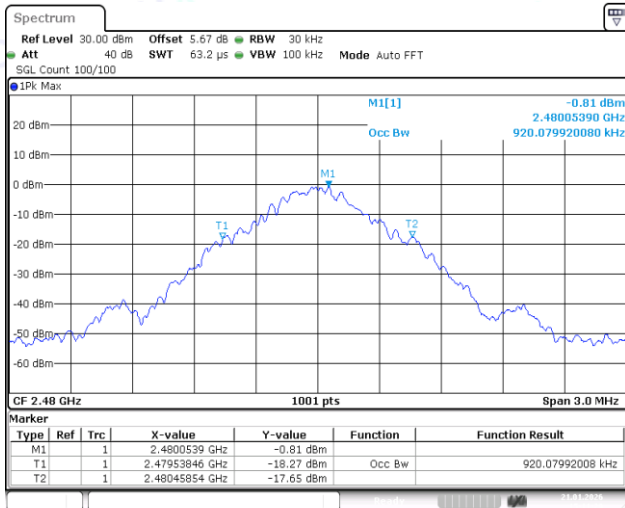


Date: 21.JAN.2026 15:05:54

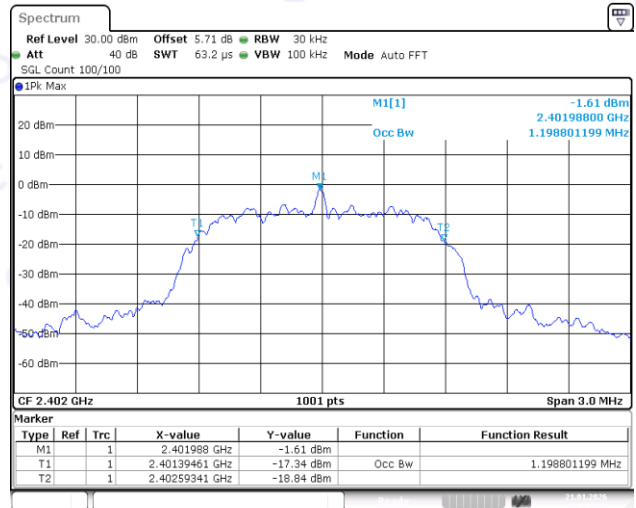


Date: 21.JAN.2026 15:09:28

DH5-Ant1-2402



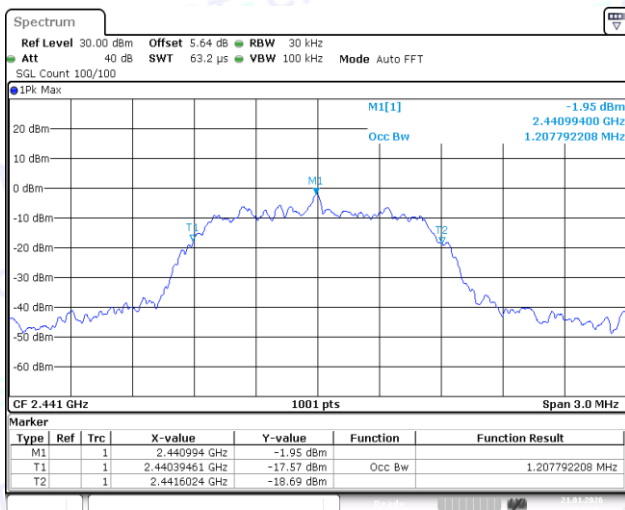
Date: 21.JAN.2026 15:11:29



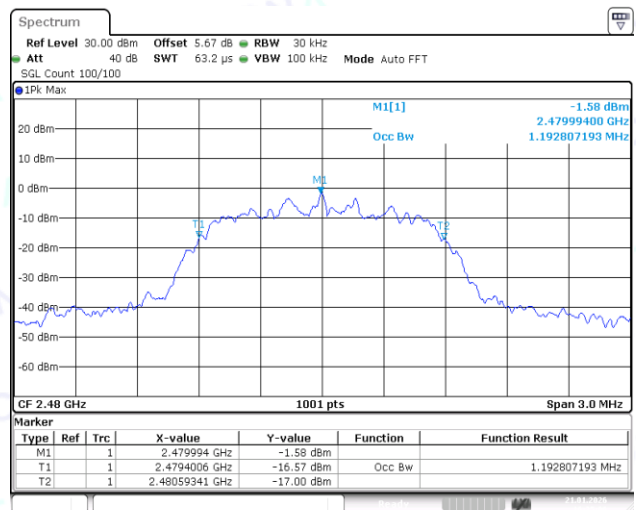
Date: 21.JAN.2026 16:03:24

DH5-Ant1-2480

2DH5-Ant1-2402



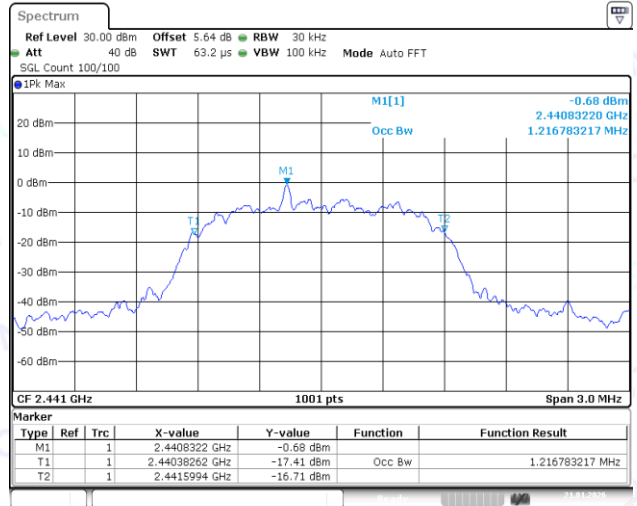
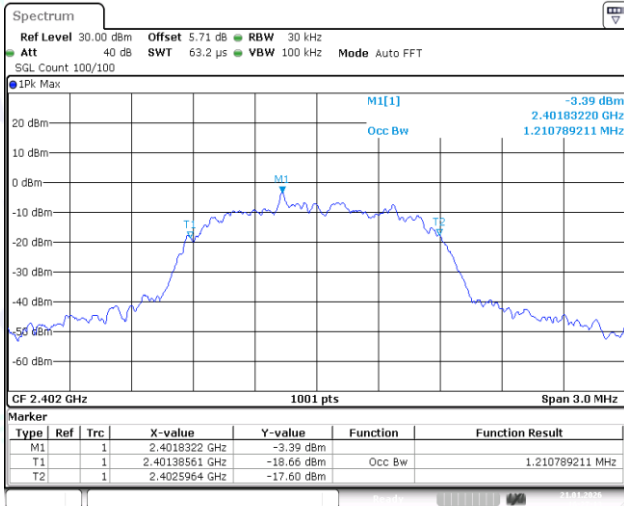
Date: 21.JAN.2026 16:08:34



Date: 21.JAN.2026 16:25:05

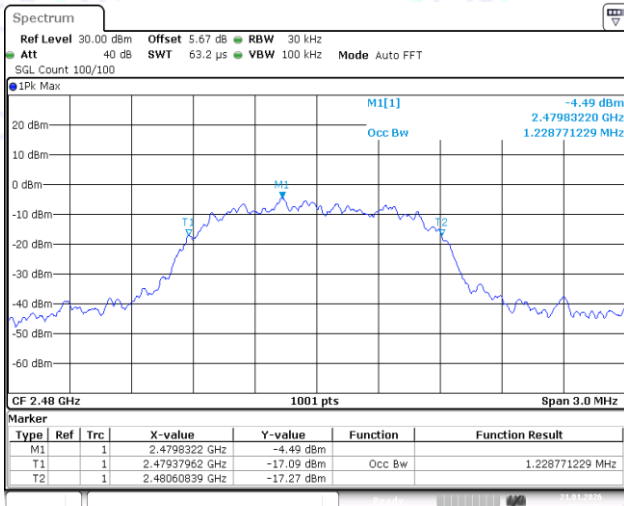
2DH5-Ant1-2441

2DH5-Ant1-2480



3DH5-Ant1-2402

3DH5-Ant1-2441



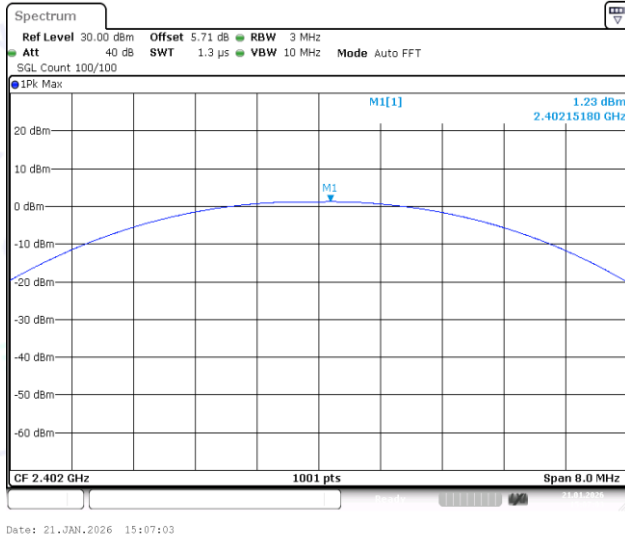
3DH5-Ant1-2480

3: Maximum conducted output power

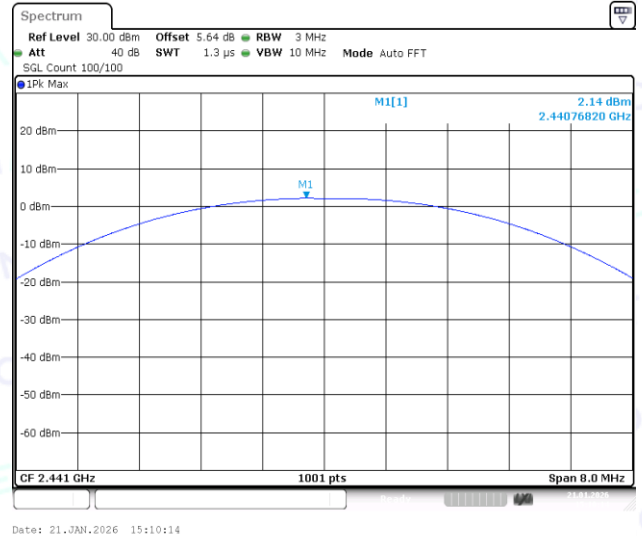
3.1 Test Result Peak

Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	1.23	≤30	PASS
DH5	Ant1	2441	2.14	≤30	PASS
DH5	Ant1	2480	2.28	≤30	PASS
2DH5	Ant1	2402	1.78	≤30	PASS
2DH5	Ant1	2441	2.53	≤30	PASS
2DH5	Ant1	2480	2.66	≤30	PASS
3DH5	Ant1	2402	1.98	≤30	PASS
3DH5	Ant1	2441	2.67	≤30	PASS
3DH5	Ant1	2480	2.89	≤30	PASS

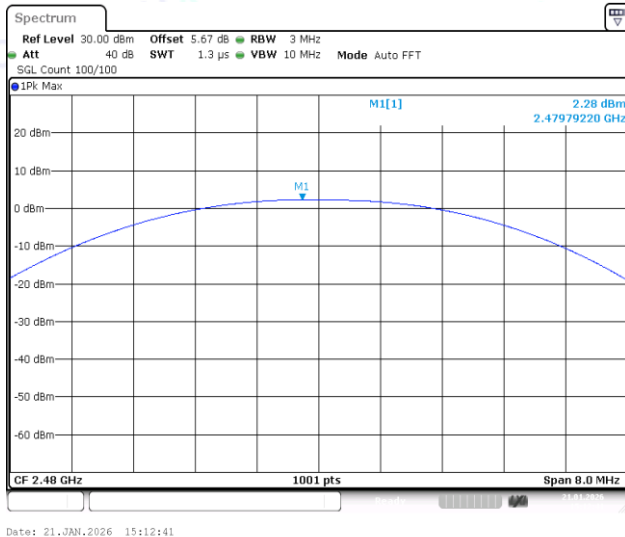
3.2 Test Graphs



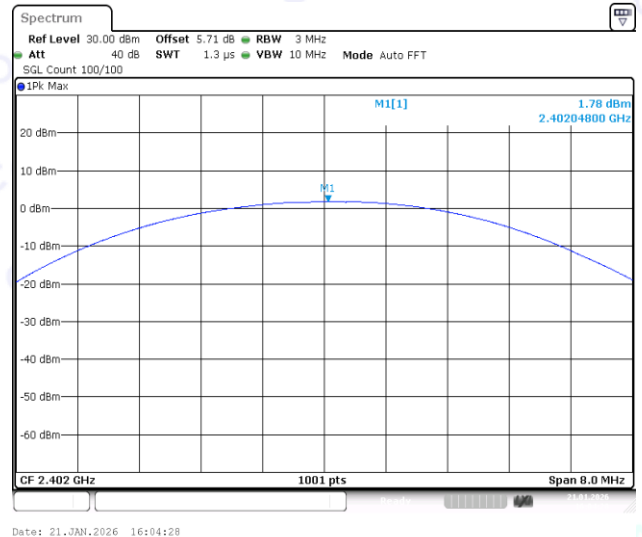
DH5-Ant1-2402-PASS



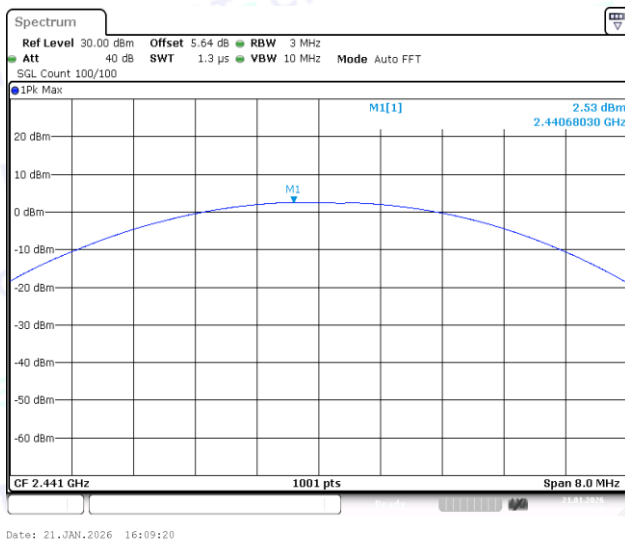
DH5-Ant1-2441-PASS



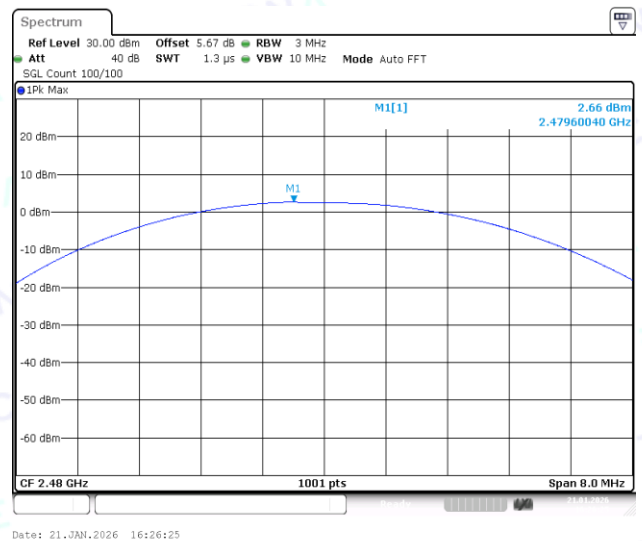
DH5-Ant1-2480-PASS



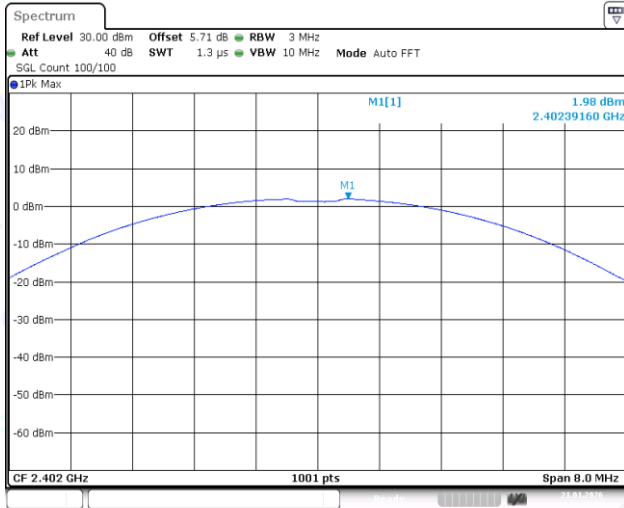
2DH5-Ant1-2402-PASS



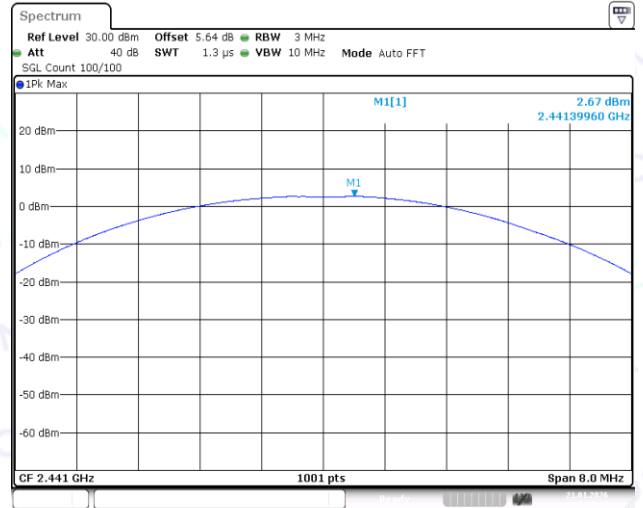
2DH5-Ant1-2441-PASS



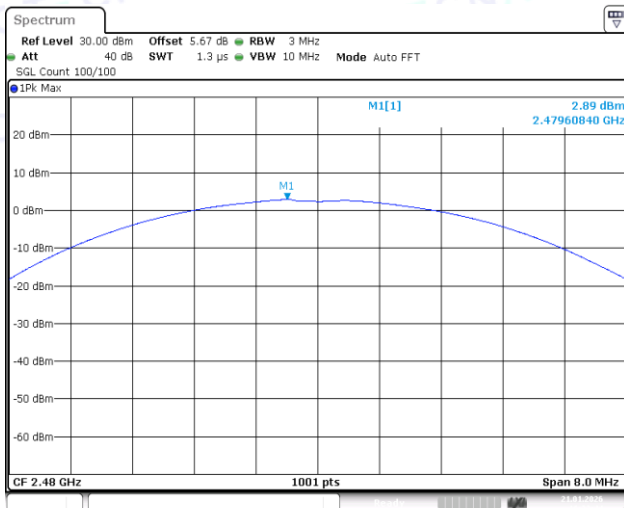
2DH5-Ant1-2480-PASS



3DH5-Ant1-2402-PASS



3DH5-Ant1-2441-PASS



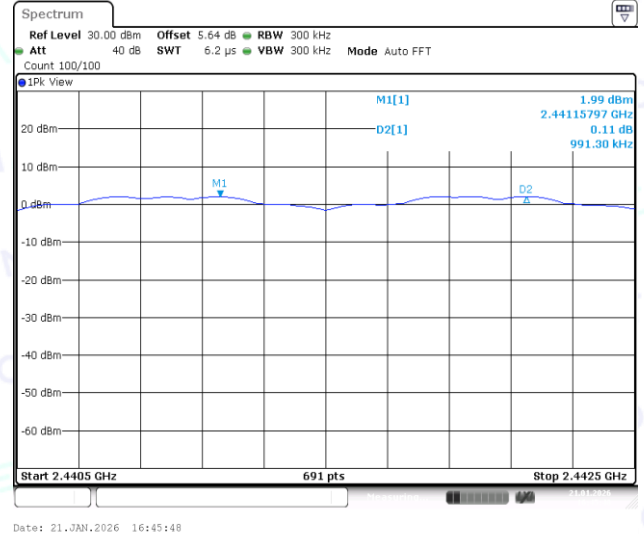
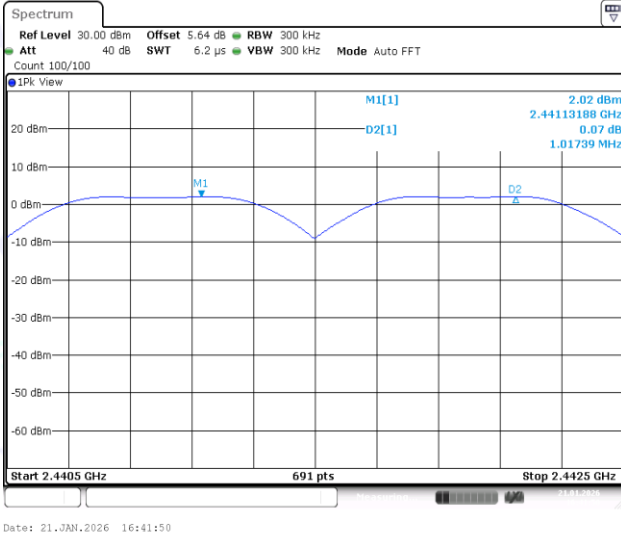
3DH5-Ant1-2480-PASS

4: Carrier frequency separation

4.1 Test Result

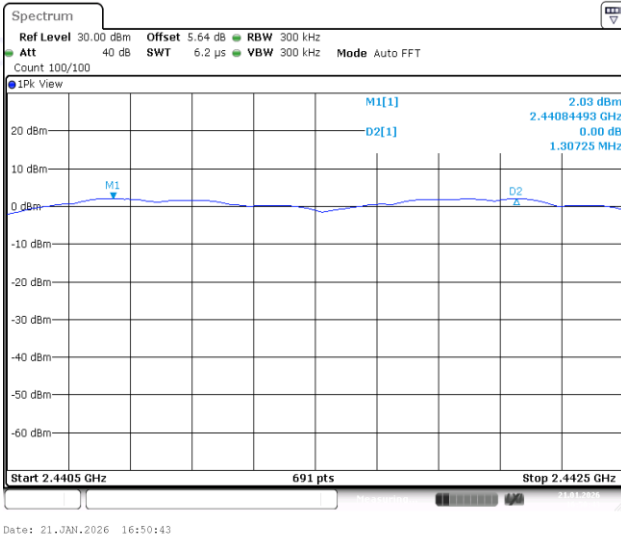
TestMode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.017	≥ 0.680	PASS
2DH5	Ant1	Hop	0.991	≥ 0.880	PASS
3DH5	Ant1	Hop	1.307	≥ 1.300	PASS

4.2 Test Graphs



DH5-Ant1-Hop-PASS

2DH5-Ant1-Hop-PASS



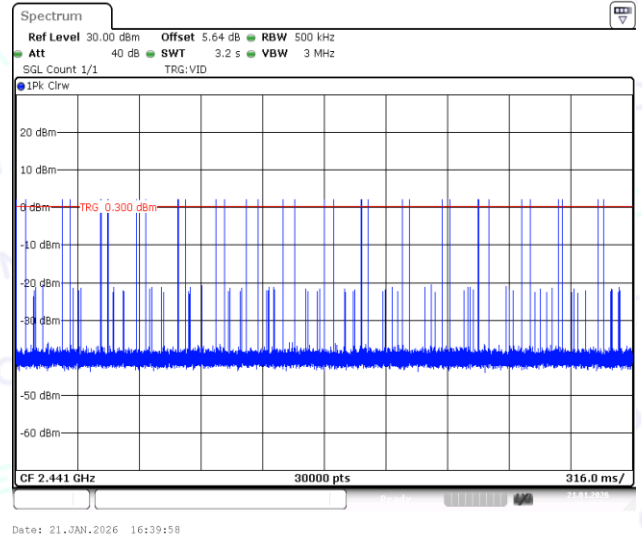
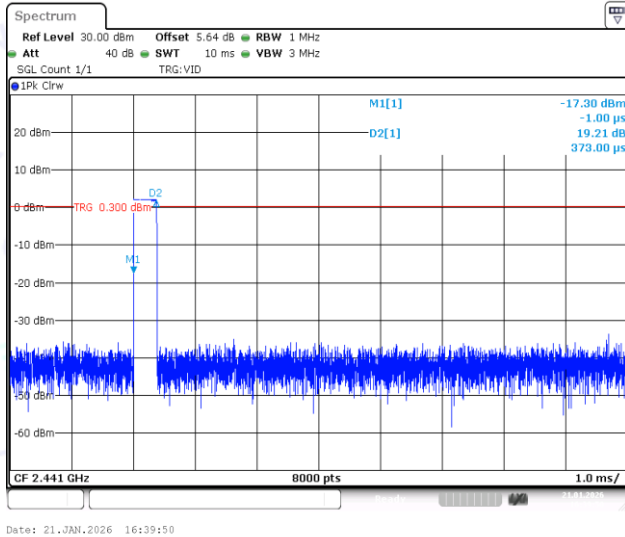
3DH5-Ant1-Hop-PASS

5: Time of occupancy

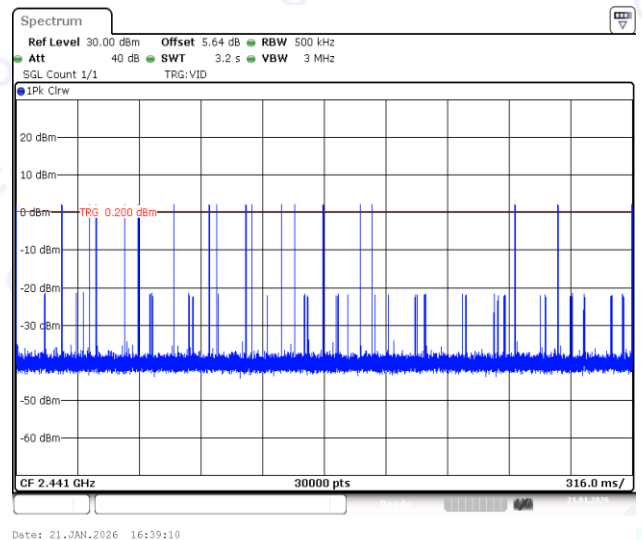
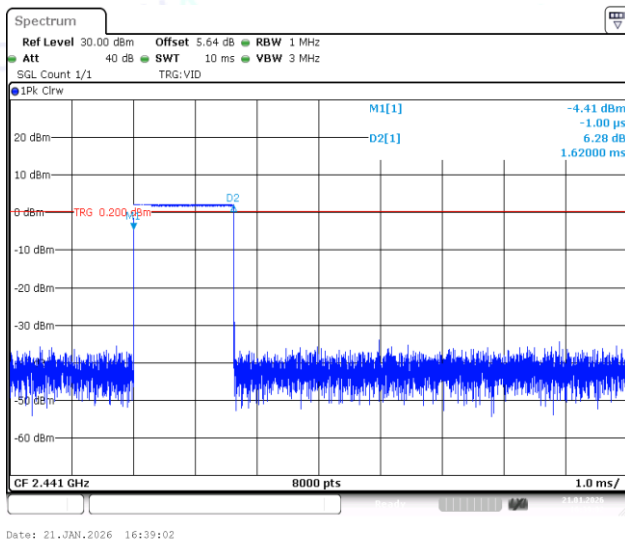
5.1 Test Result

TestMode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.373	320	0.119	≤0.4	PASS
DH3	Ant1	Hop	1.620	190	0.308	≤0.4	PASS
DH5	Ant1	Hop	2.860	140	0.4	≤0.4	PASS
2DH1	Ant1	Hop	0.383	330	0.126	≤0.4	PASS
2DH3	Ant1	Hop	1.626	170	0.276	≤0.4	PASS
2DH5	Ant1	Hop	2.868	130	0.373	≤0.4	PASS
3DH1	Ant1	Hop	0.384	320	0.123	≤0.4	PASS
3DH3	Ant1	Hop	1.625	170	0.276	≤0.4	PASS
3DH5	Ant1	Hop	2.869	60	0.172	≤0.4	PASS

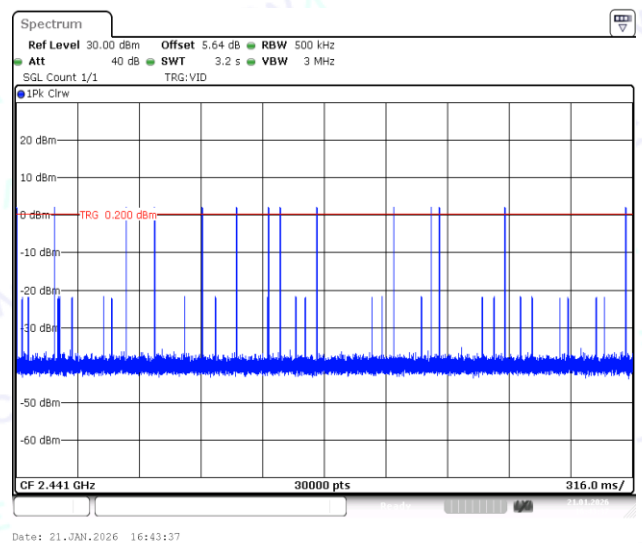
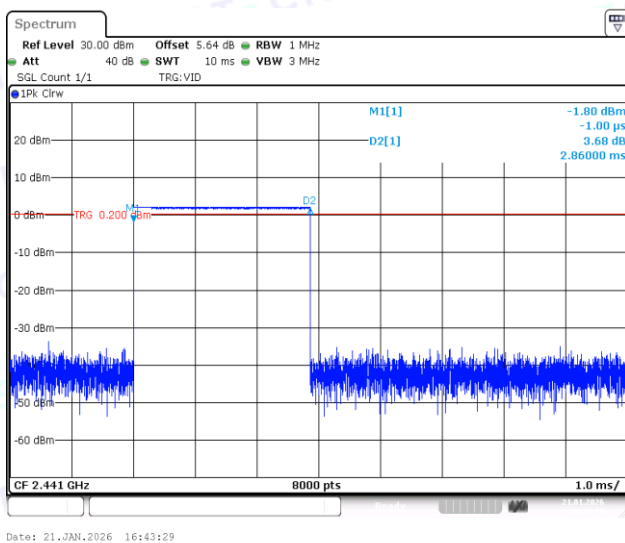
5.2 Test Graphs



DH1-Ant1-Hop-PASS

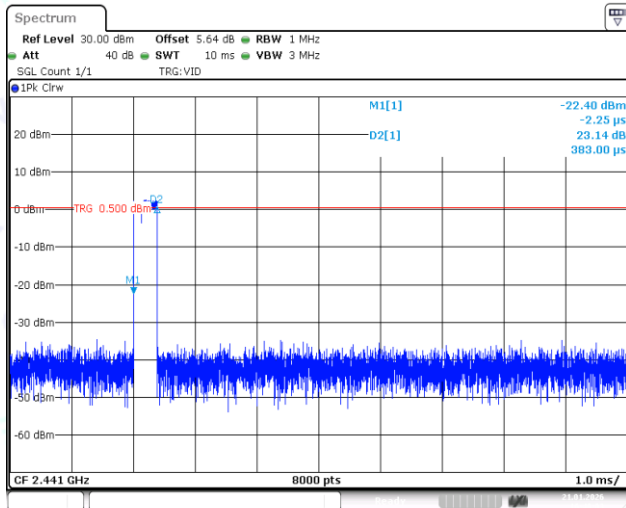


DH3-Ant1-Hop-PASS



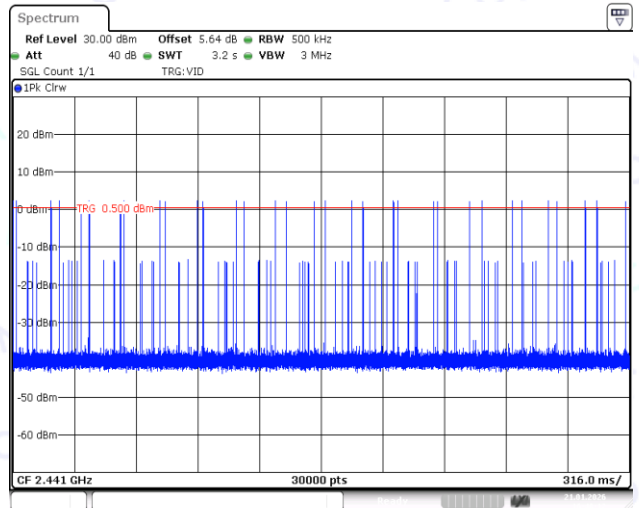
DH5-Ant1-Hop-PASS

DH5-Ant1-Hop-PASS



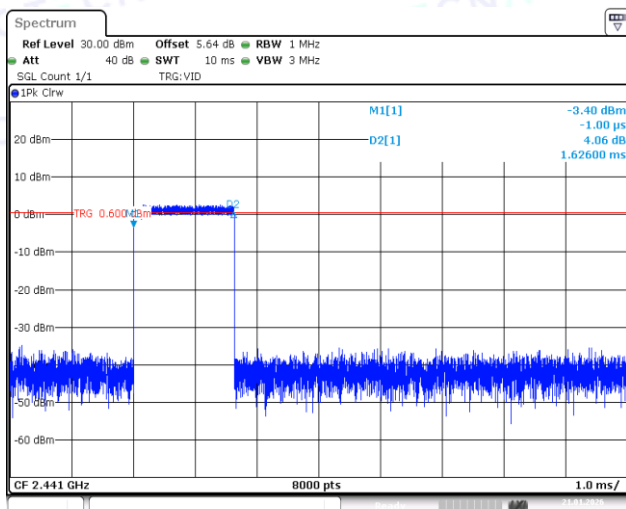
Date: 21.JAN.2026 16:48:04

2DH1-Ant1-Hop-PASS



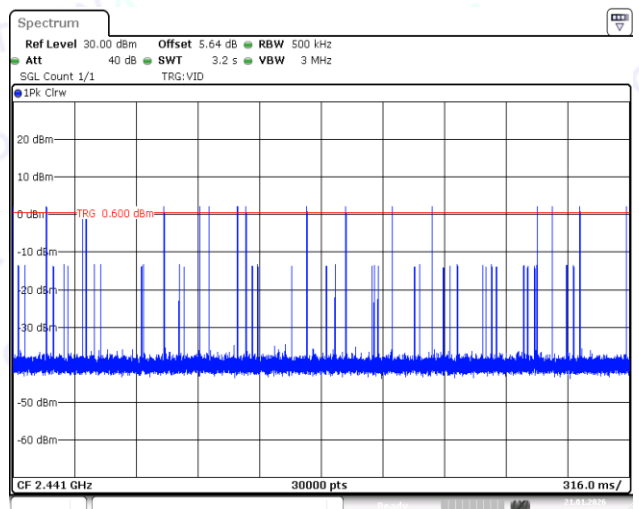
Date: 21.JAN.2026 16:48:12

2DH1-Ant1-Hop-PASS



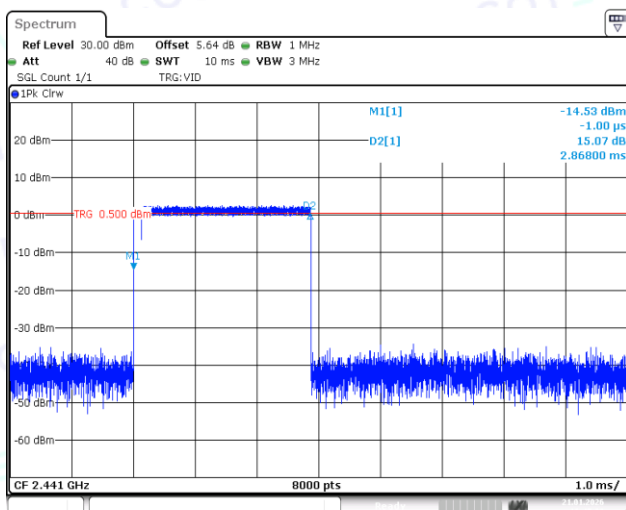
Date: 21.JAN.2026 16:48:44

2DH3-Ant1-Hop-PASS



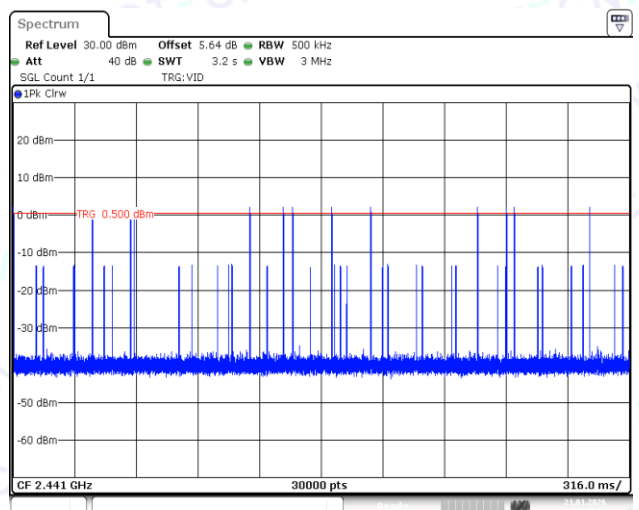
Date: 21.JAN.2026 16:48:52

2DH3-Ant1-Hop-PASS



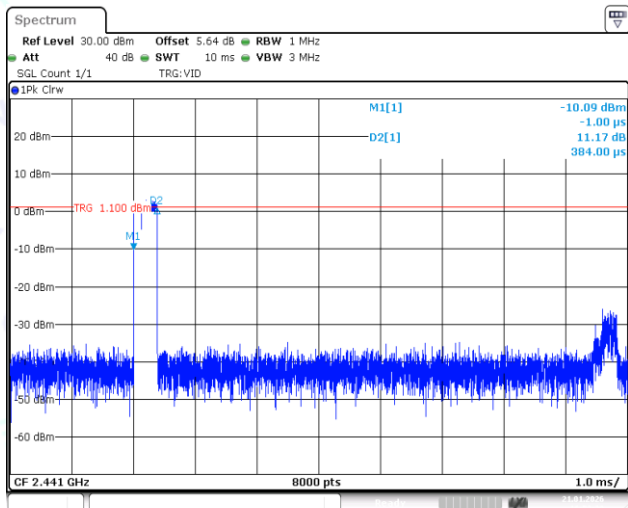
Date: 21.JAN.2026 16:47:09

2DH5-Ant1-Hop-PASS



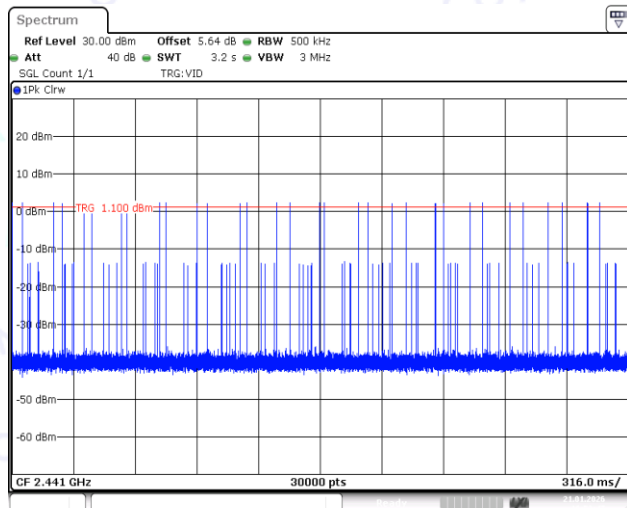
Date: 21.JAN.2026 16:47:17

2DH5-Ant1-Hop-PASS



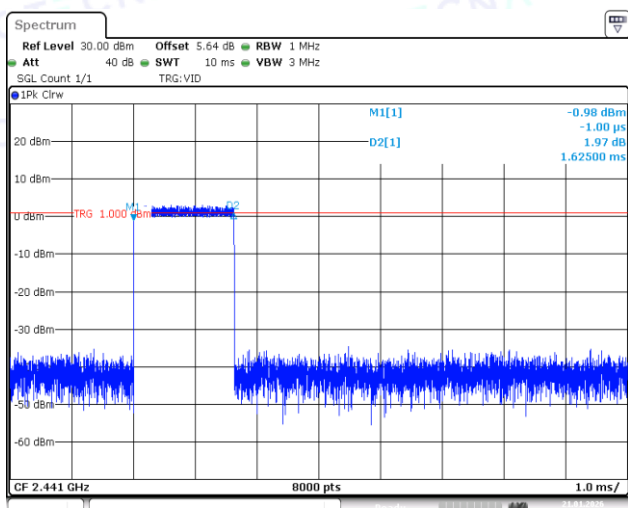
Date: 21.JAN.2026 16:53:39

3DH1-Ant1-Hop-PASS



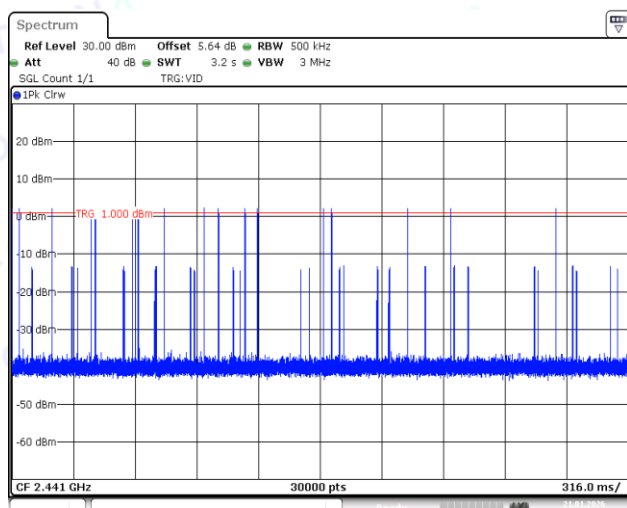
Date: 21.JAN.2026 16:53:47

3DH1-Ant1-Hop-PASS



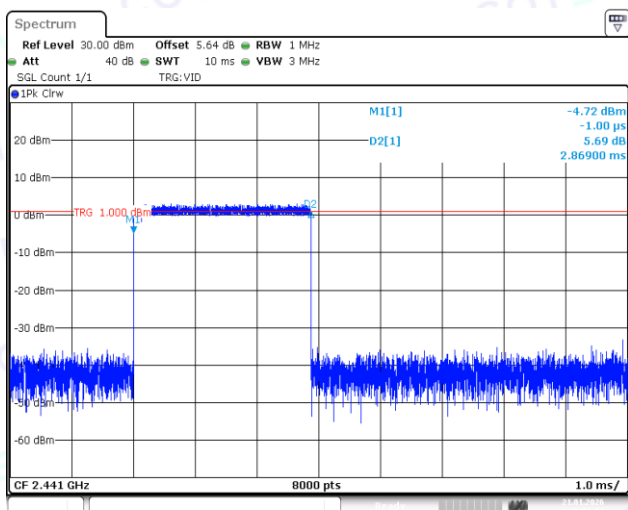
Date: 21.JAN.2026 16:54:23

3DH3-Ant1-Hop-PASS



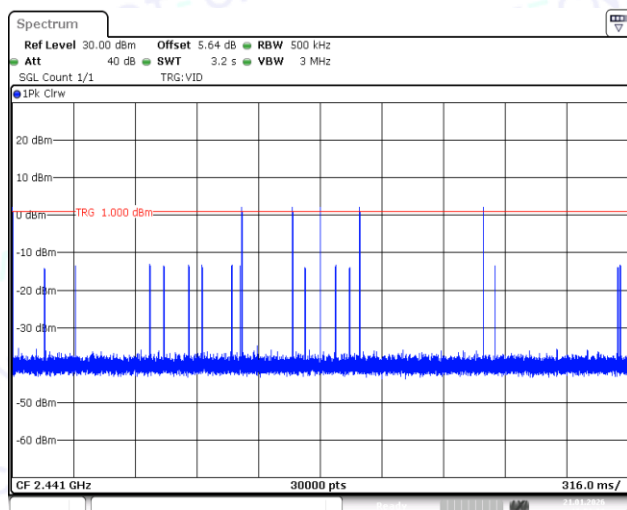
Date: 21.JAN.2026 16:54:32

3DH3-Ant1-Hop-PASS



Date: 21.JAN.2026 16:52:52

3DH5-Ant1-Hop-PASS



Date: 21.JAN.2026 16:53:00

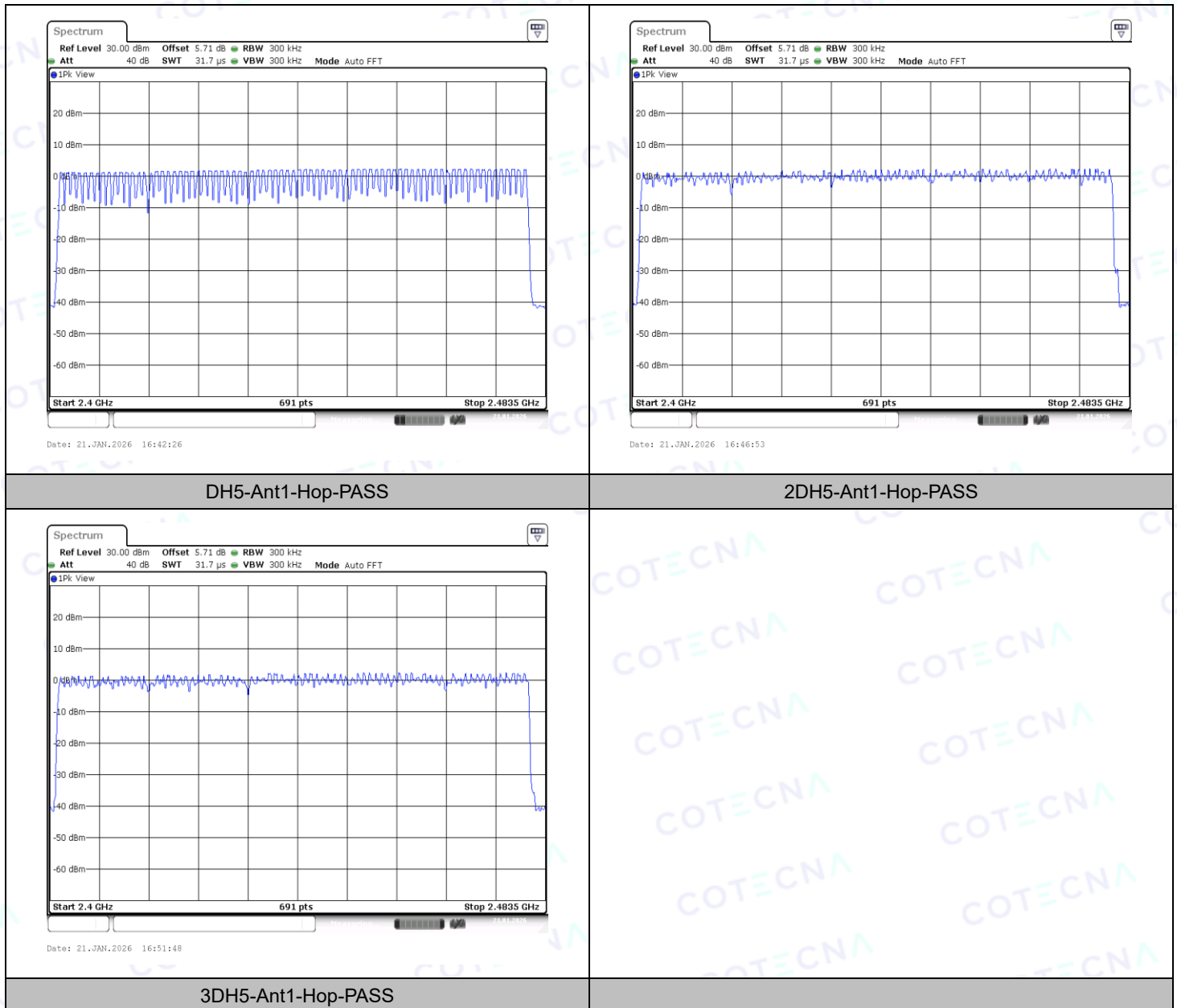
3DH5-Ant1-Hop-PASS

6: Number of hopping channels

6.1 Test Result

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

6.2 Test Graphs

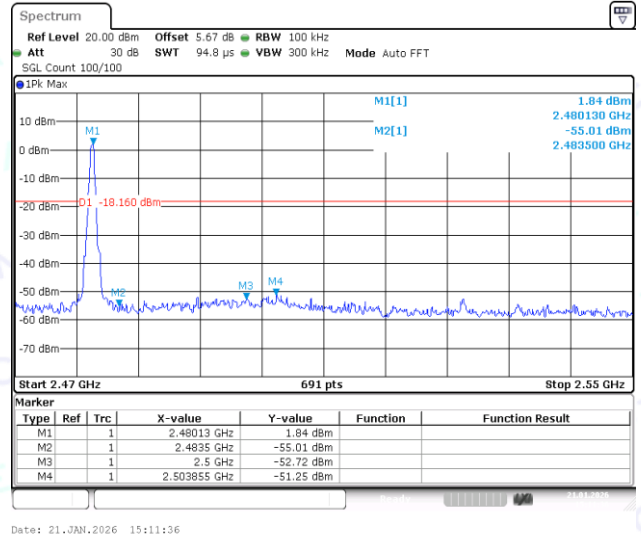
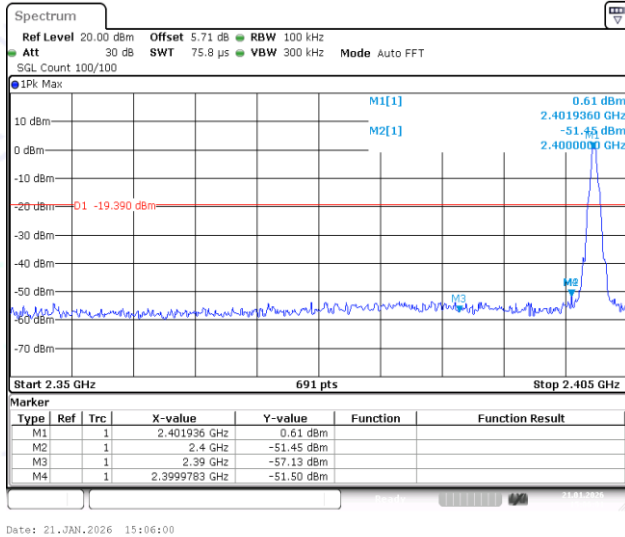


7: Band edge measurements

7.1 Test Result

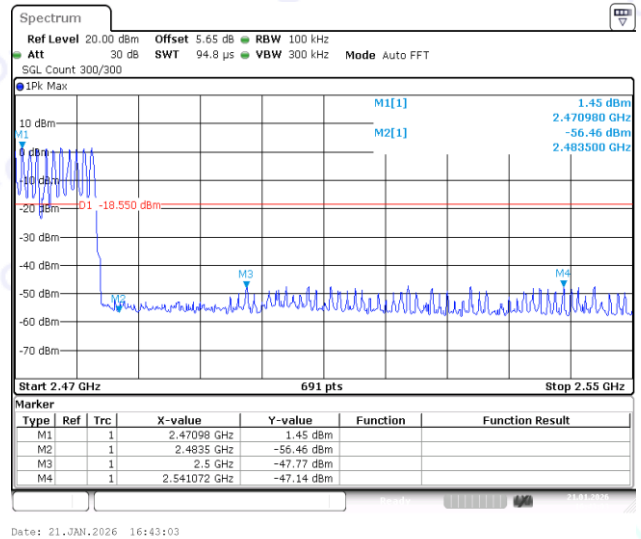
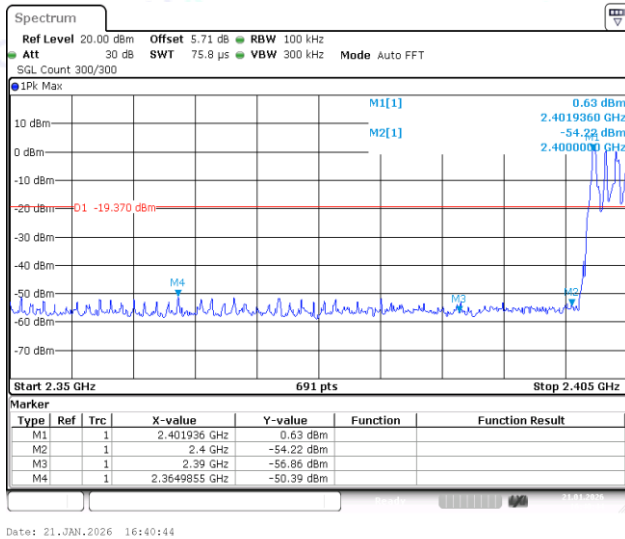
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	Low	2402	0.61	-51.5	≤-19.39	PASS
DH5	Ant1	High	2480	1.84	-51.25	≤-18.16	PASS
DH5	Ant1	Low	Hop_2402	0.63	-50.39	≤-19.37	PASS
DH5	Ant1	High	Hop_2480	1.45	-47.14	≤-18.55	PASS
2DH5	Ant1	Low	2402	1.18	-49.59	≤-18.82	PASS
2DH5	Ant1	High	2480	0.73	-51.34	≤-19.27	PASS
2DH5	Ant1	Low	Hop_2402	-1.10	-50.91	≤-21.1	PASS
2DH5	Ant1	High	Hop_2480	-0.83	-48.3	≤-20.83	PASS
3DH5	Ant1	Low	2402	0.81	-51.12	≤-19.19	PASS
3DH5	Ant1	High	2480	0.00	-51.58	≤-20	PASS
3DH5	Ant1	Low	Hop_2402	-2.19	-51.12	≤-22.19	PASS
3DH5	Ant1	High	Hop_2480	0.10	-47.8	≤-19.9	PASS

7.2 Test Graphs



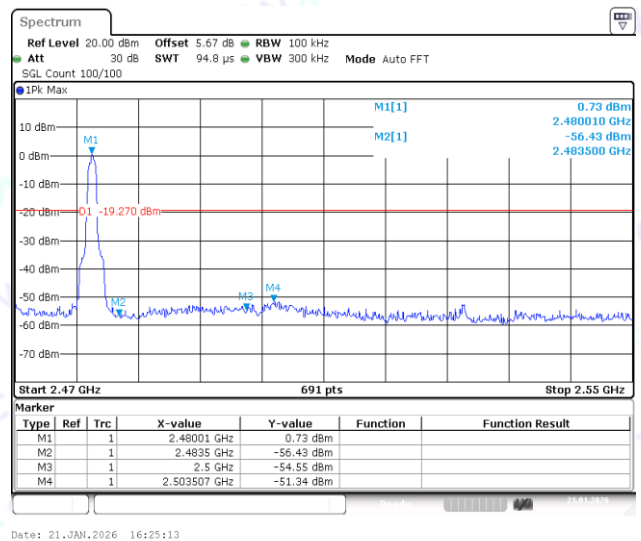
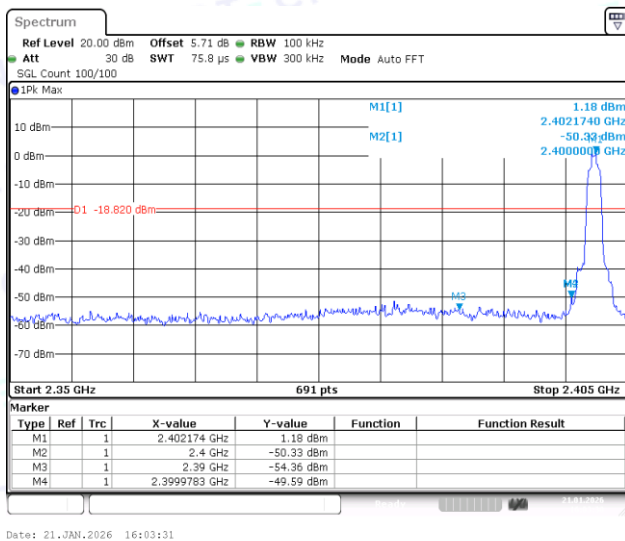
DH5-Ant1-2402-PASS

DH5-Ant1-2480-PASS



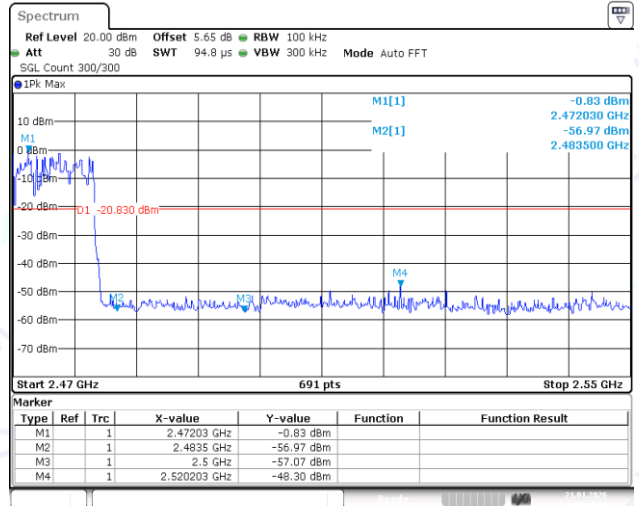
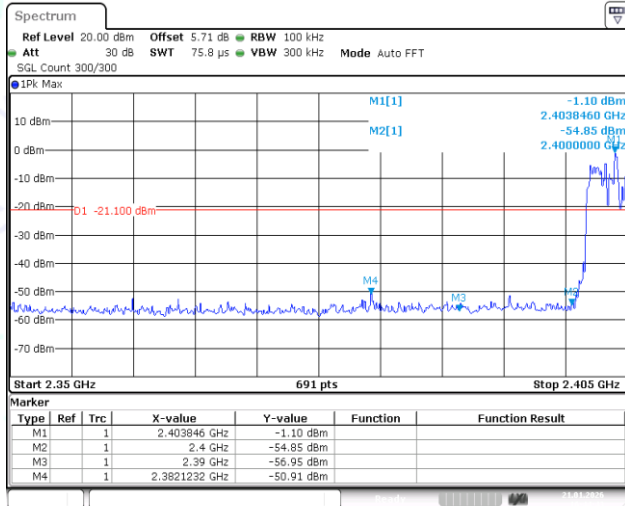
DH5-Ant1-Hop_2402-PASS

DH5-Ant1-Hop_2480-PASS

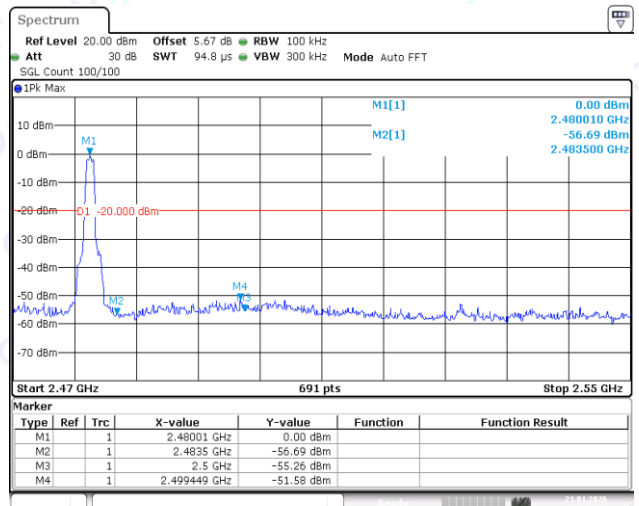
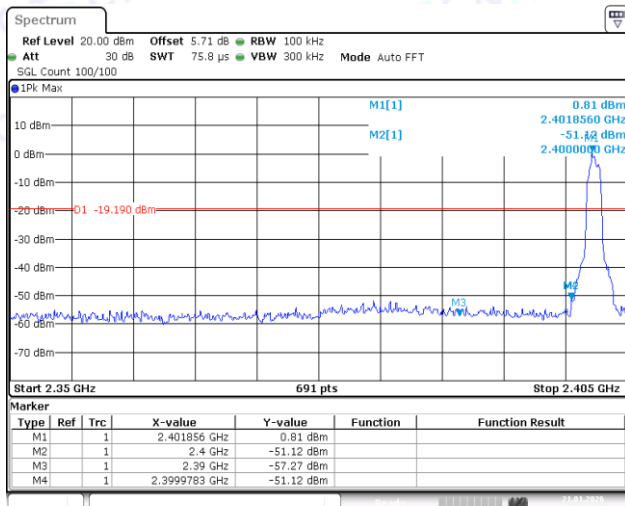


2DH5-Ant1-2402-PASS

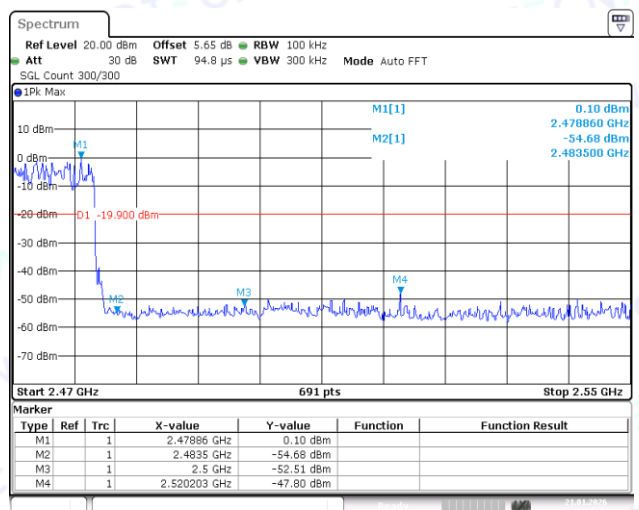
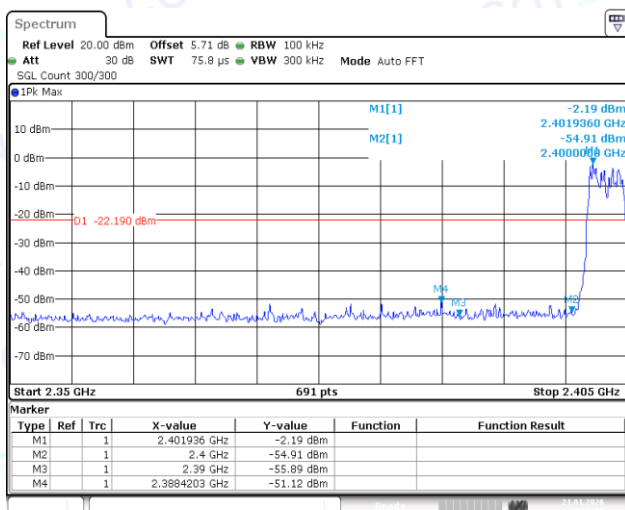
2DH5-Ant1-2480-PASS



2DH5-Ant1-Hop_2402-PASS



3DH5-Ant1-2402-PASS



3DH5-Ant1-Hop_2402-PASS

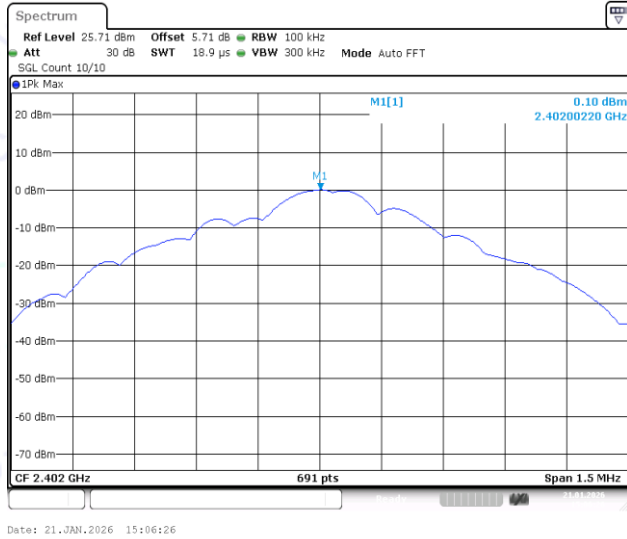
3DH5-Ant1-Hop_2480-PASS

8: Conducted Spurious Emission

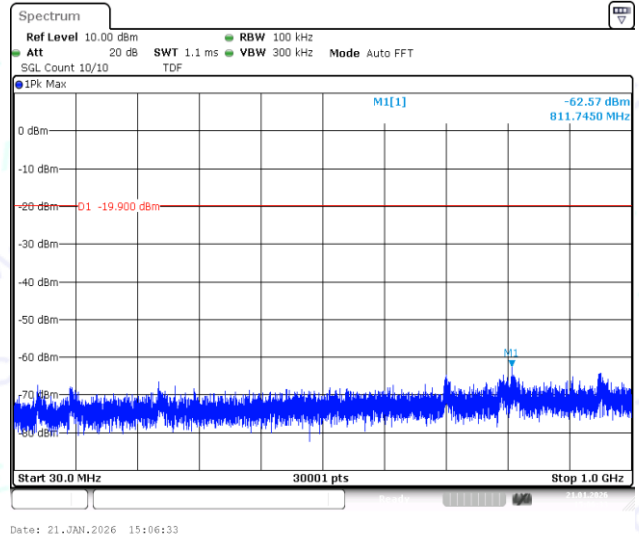
8.1 Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	0~Reference	0.10	0.10	---	PASS
DH5	Ant1	2402	30~1000	0.10	-62.57	≤-19.9	PASS
DH5	Ant1	2402	1000~26500	0.10	-37.27	≤-19.9	PASS
DH5	Ant1	2441	0~Reference	1.28	1.28	---	PASS
DH5	Ant1	2441	30~1000	1.28	-63.6	≤-18.72	PASS
DH5	Ant1	2441	1000~26500	1.28	-37.46	≤-18.72	PASS
DH5	Ant1	2480	0~Reference	1.63	1.63	---	PASS
DH5	Ant1	2480	30~1000	1.63	-64.07	≤-18.37	PASS
DH5	Ant1	2480	1000~26500	1.63	-37.91	≤-18.37	PASS
2DH5	Ant1	2402	0~Reference	-3.81	-3.81	---	PASS
2DH5	Ant1	2402	30~1000	-3.81	-63.49	≤-23.81	PASS
2DH5	Ant1	2402	1000~26500	-3.81	-37.83	≤-23.81	PASS
2DH5	Ant1	2441	0~Reference	-4.06	-4.06	---	PASS
2DH5	Ant1	2441	30~1000	-4.06	-63.27	≤-24.06	PASS
2DH5	Ant1	2441	1000~26500	-4.06	-37.44	≤-24.06	PASS
2DH5	Ant1	2480	0~Reference	0.90	0.90	---	PASS
2DH5	Ant1	2480	30~1000	0.90	-63.78	≤-19.1	PASS
2DH5	Ant1	2480	1000~26500	0.90	-37.35	≤-19.1	PASS
3DH5	Ant1	2402	0~Reference	-3.05	-3.05	---	PASS
3DH5	Ant1	2402	30~1000	-3.05	-63.81	≤-23.05	PASS
3DH5	Ant1	2402	1000~26500	-3.05	-37.68	≤-23.05	PASS
3DH5	Ant1	2441	0~Reference	-1.49	-1.49	---	PASS
3DH5	Ant1	2441	30~1000	-1.49	-63.93	≤-21.49	PASS
3DH5	Ant1	2441	1000~26500	-1.49	-36.67	≤-21.49	PASS
3DH5	Ant1	2480	0~Reference	-1.98	-1.98	---	PASS
3DH5	Ant1	2480	30~1000	-1.98	-63.76	≤-21.98	PASS
3DH5	Ant1	2480	1000~26500	-1.98	-37.96	≤-21.98	PASS

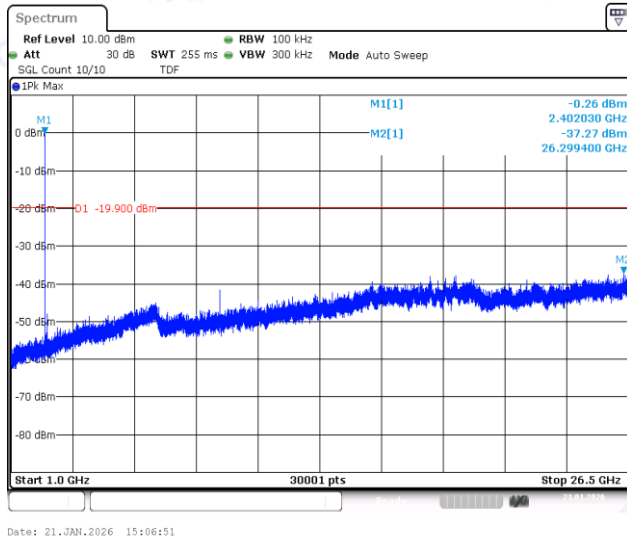
8.2 Test Graphs



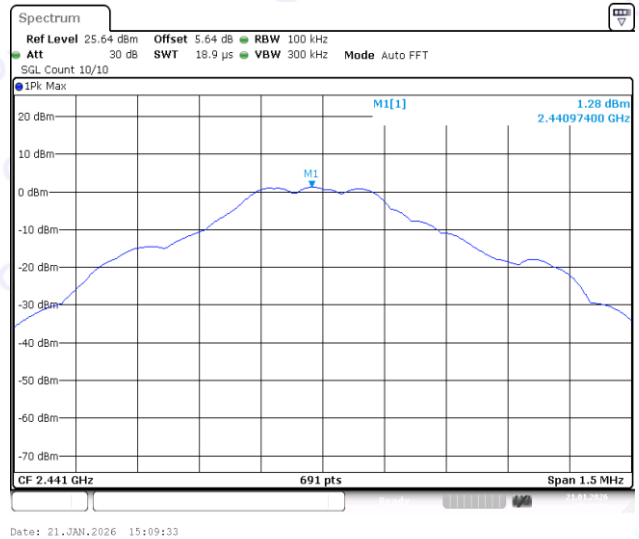
DH5-Ant1-2402-0~Reference-PASS



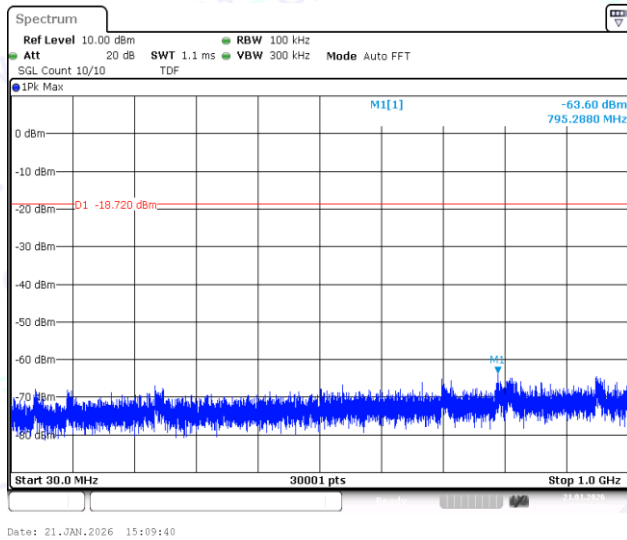
DH5-Ant1-2402-30~1000-PASS



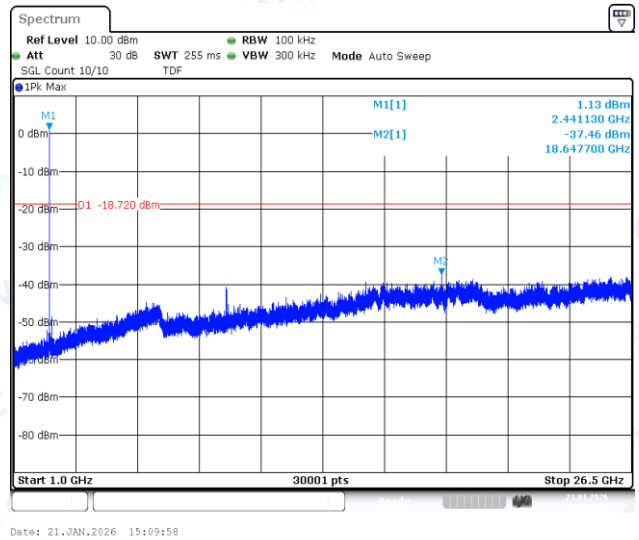
DH5-Ant1-2402-1000~26500-PASS



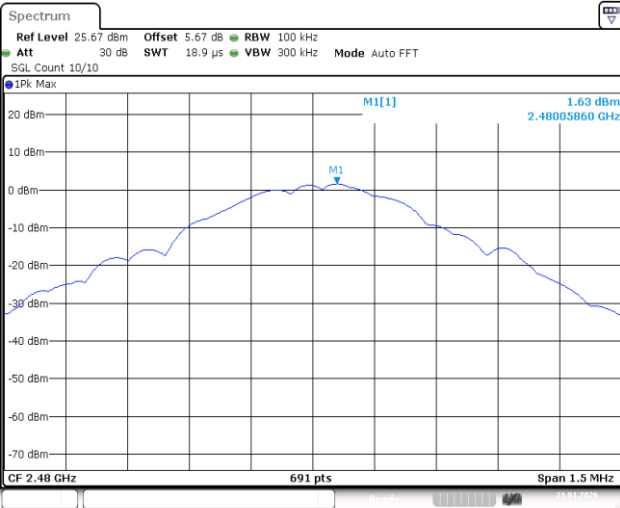
DH5-Ant1-2441-0~Reference-PASS



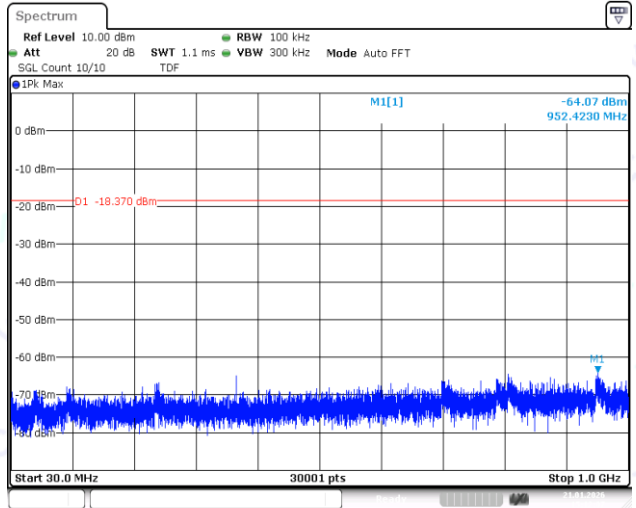
DH5-Ant1-2441-30~1000-PASS



DH5-Ant1-2441-1000~26500-PASS



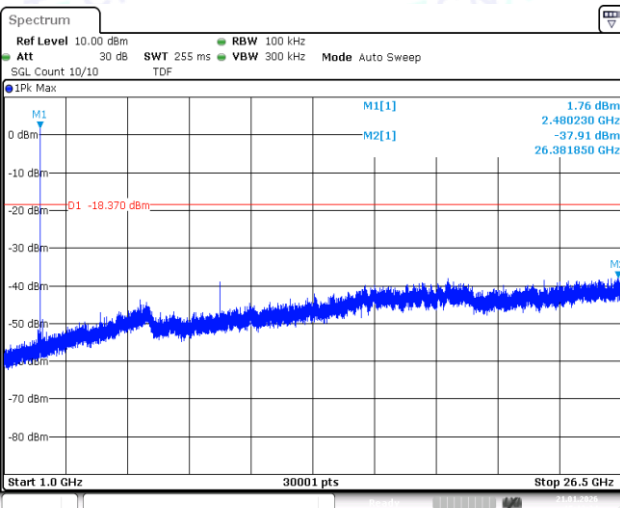
Date: 21.JAN.2026 15:12:00



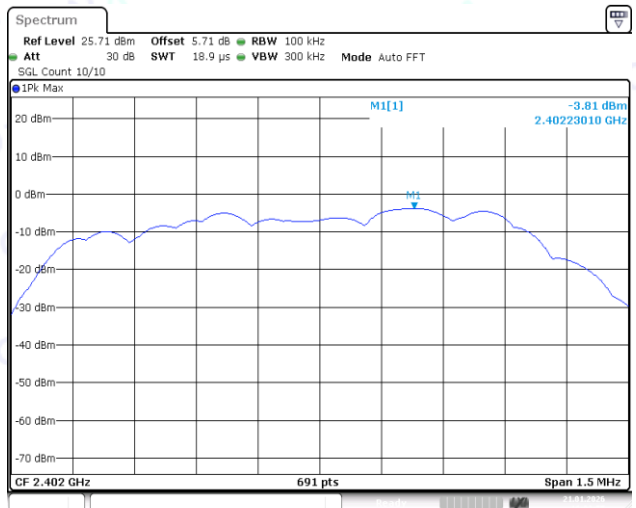
Date: 21.JAN.2026 15:12:07

DH5-Ant1-2480-0~Reference-PASS

DH5-Ant1-2480-30~1000-PASS



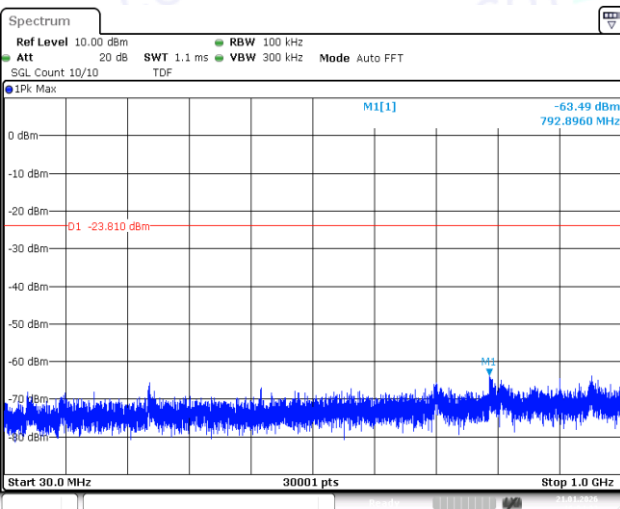
Date: 21.JAN.2026 15:12:25



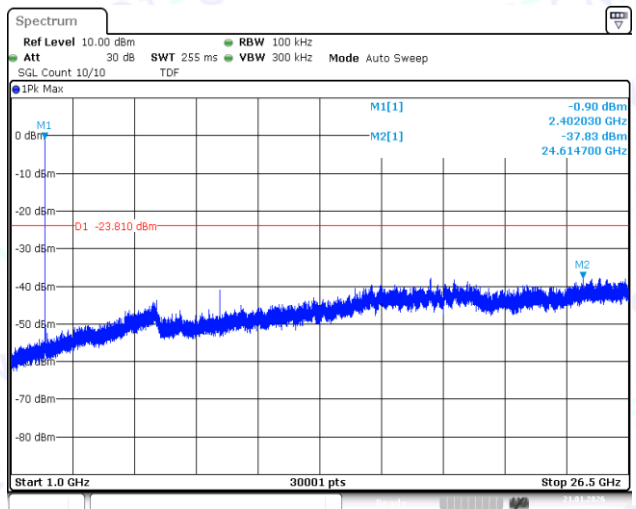
Date: 21.JAN.2026 16:03:56

DH5-Ant1-2480-1000~26500-PASS

2DH5-Ant1-2402-0~Reference-PASS



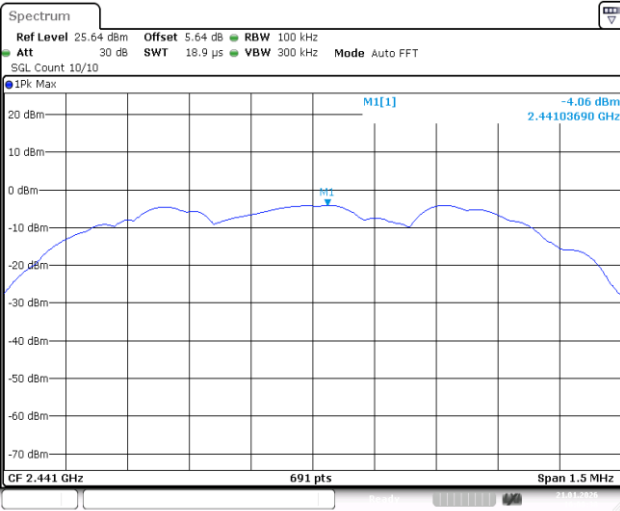
Date: 21.JAN.2026 16:04:04



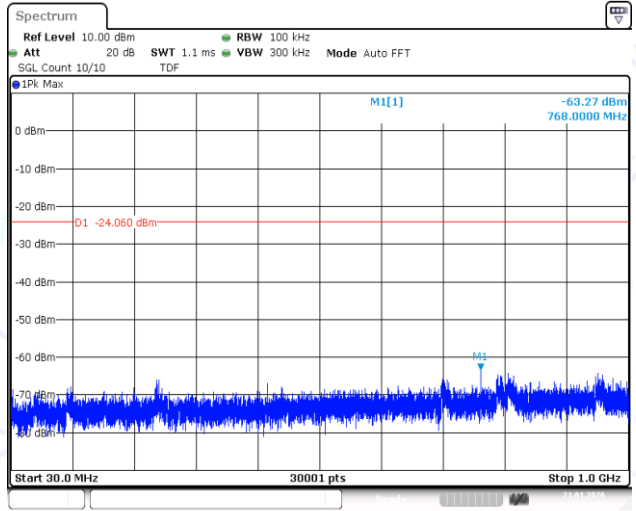
Date: 21.JAN.2026 16:04:21

2DH5-Ant1-2402-30~1000-PASS

2DH5-Ant1-2402-1000~26500-PASS



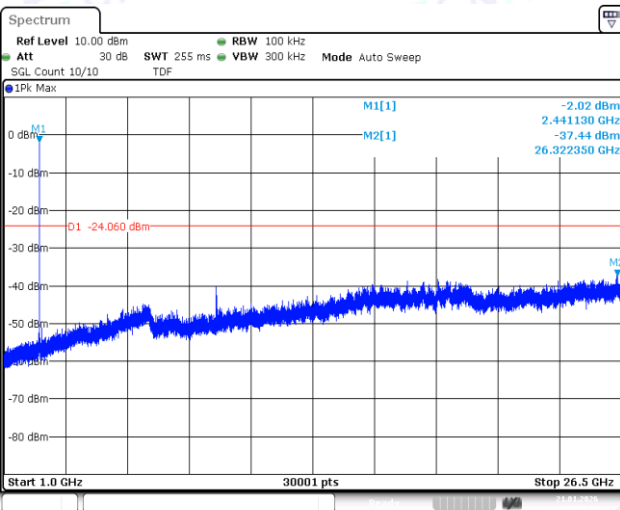
Date: 21.JAN.2026 16:08:38



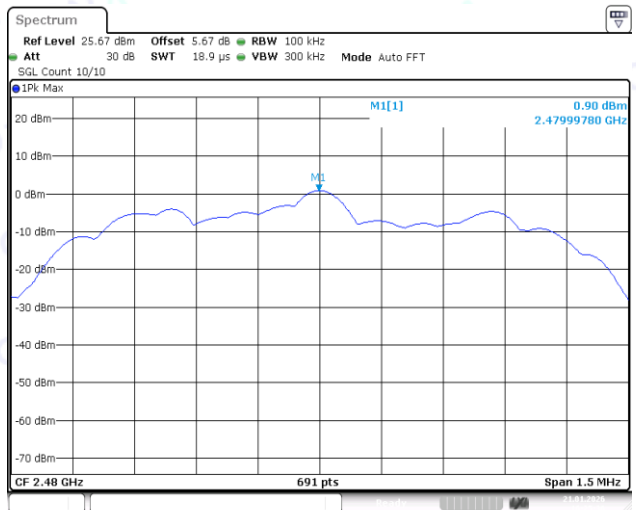
Date: 21.JAN.2026 16:08:46

2DH5-Ant1-2441-0~Reference-PASS

2DH5-Ant1-2441-30~1000-PASS



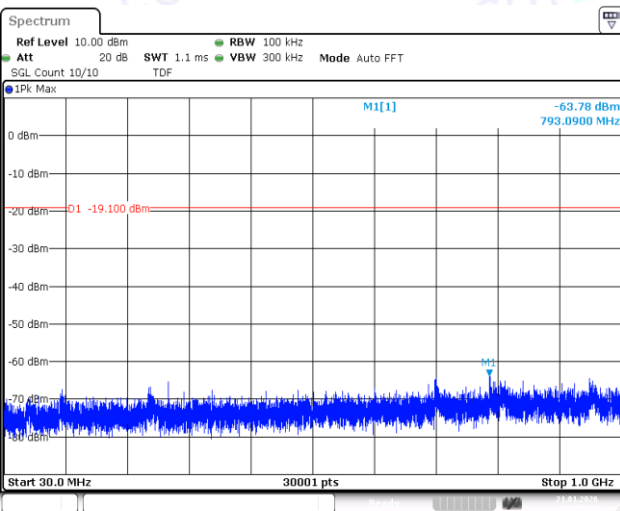
Date: 21.JAN.2026 16:09:03



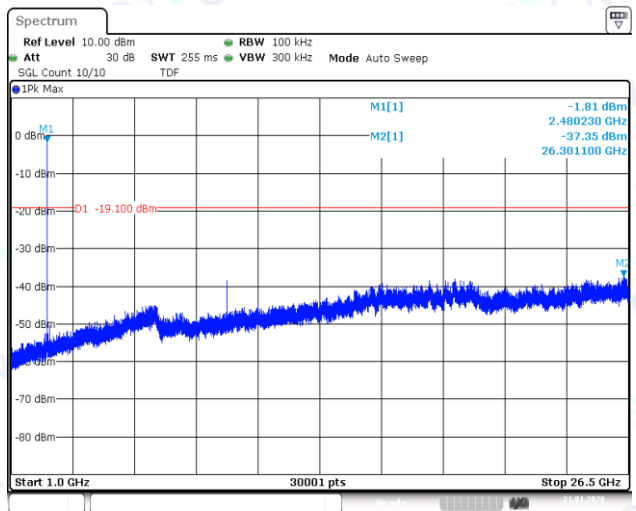
Date: 21.JAN.2026 16:25:36

2DH5-Ant1-2441-1000~26500-PASS

2DH5-Ant1-2480-0~Reference-PASS



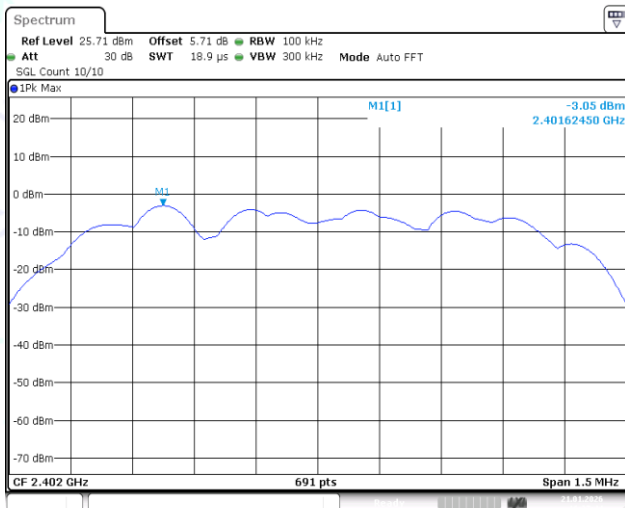
Date: 21.JAN.2026 16:25:44



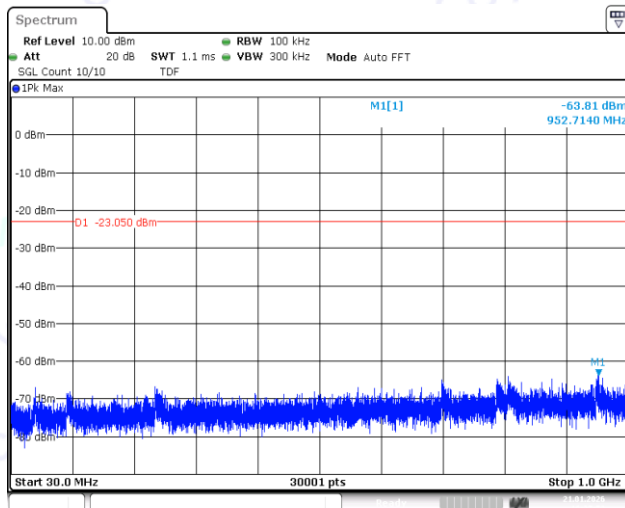
Date: 21.JAN.2026 16:26:01

2DH5-Ant1-2480-30~1000-PASS

2DH5-Ant1-2480-1000~26500-PASS



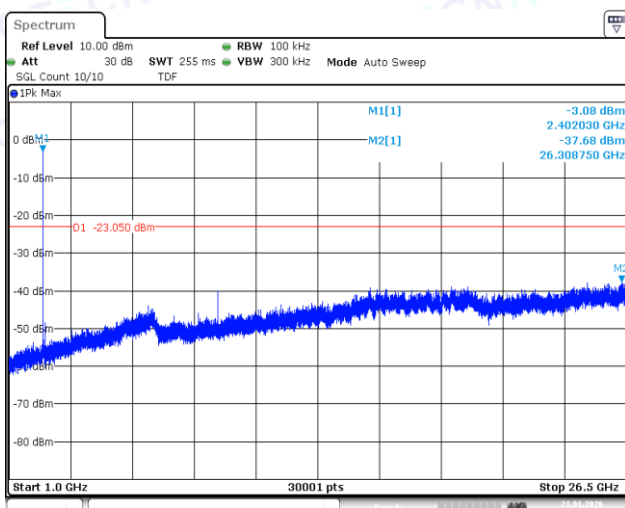
Date: 21.JAN.2026 16:27:45



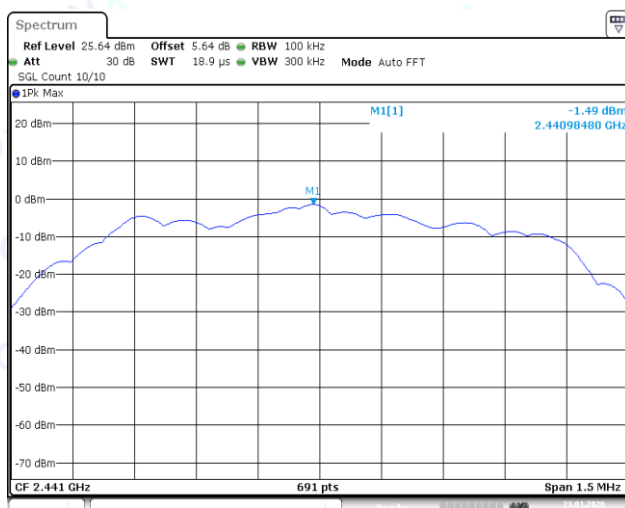
Date: 21.JAN.2026 16:27:53

3DH5-Ant1-2402-0~Reference-PASS

3DH5-Ant1-2402-30~1000-PASS



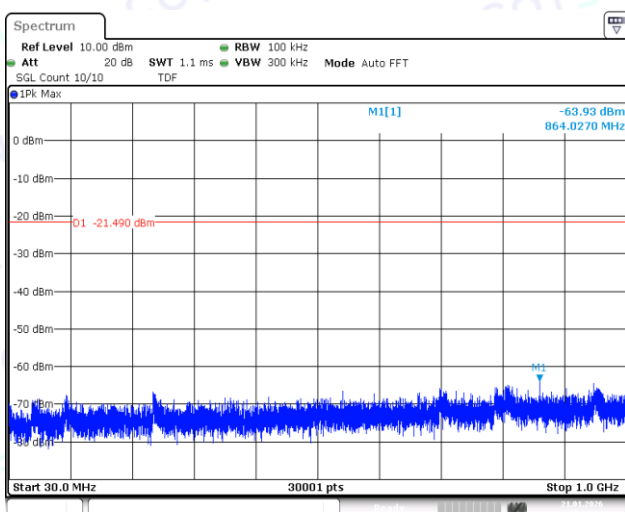
Date: 21.JAN.2026 16:28:10



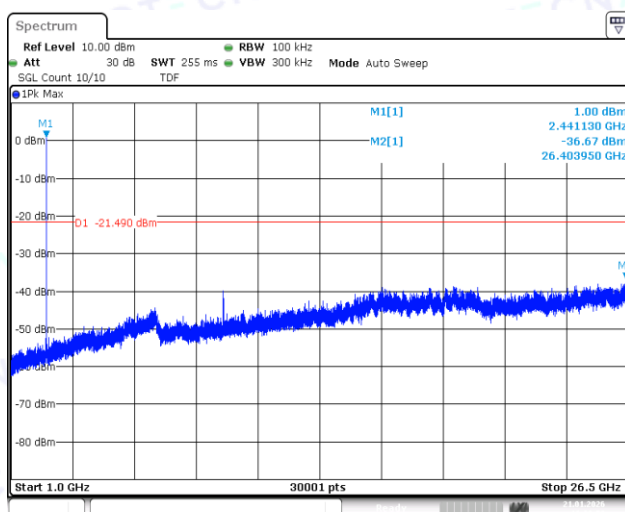
Date: 21.JAN.2026 16:29:33

3DH5-Ant1-2402-1000~26500-PASS

3DH5-Ant1-2441-0~Reference-PASS



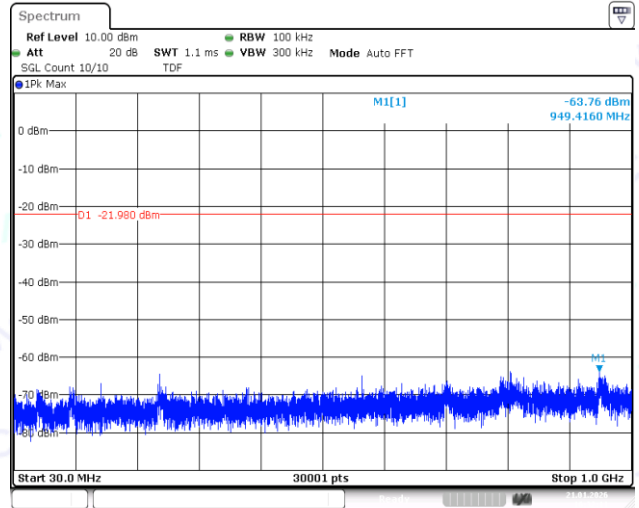
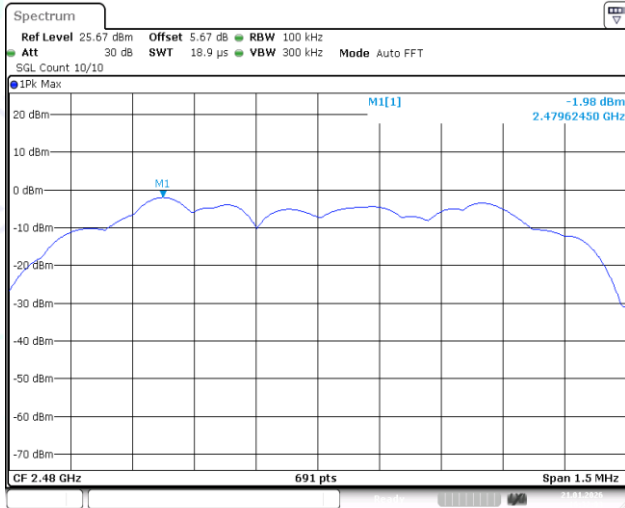
Date: 21.JAN.2026 16:29:41



Date: 21.JAN.2026 16:29:58

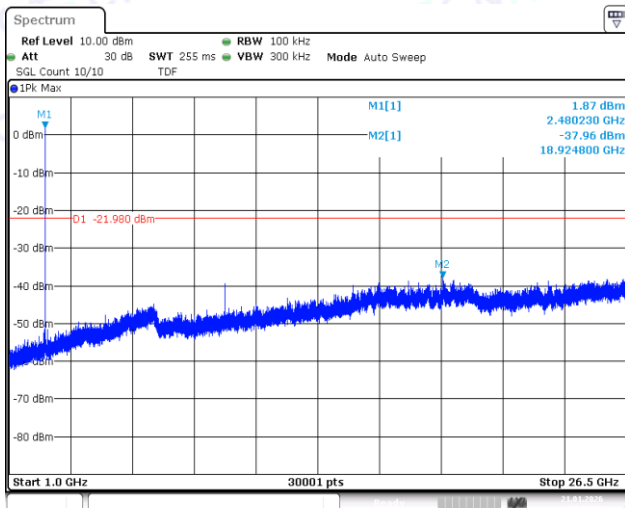
3DH5-Ant1-2441-30~1000-PASS

3DH5-Ant1-2441-1000~26500-PASS



3DH5-Ant1-2480-0~Reference-PASS

3DH5-Ant1-2480-30~1000-PASS



3DH5-Ant1-2480-1000~26500-PASS

9: Duty Cycle

9.1 Test Result

TestMode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	DC Factor	1/T [kHz]
DH5	Ant1	2402	2.89	3.76	76.86	1.14	0.35
DH5	Ant1	2441	2.88	3.75	76.80	1.15	0.35
DH5	Ant1	2480	2.89	3.76	76.86	1.14	0.35
2DH5	Ant1	2402	2.89	3.75	77.07	1.13	0.35
2DH5	Ant1	2441	2.89	3.76	76.86	1.14	0.35
2DH5	Ant1	2480	2.88	3.75	76.80	1.15	0.35
3DH5	Ant1	2402	2.89	3.76	76.86	1.14	0.35
3DH5	Ant1	2441	2.89	3.75	77.07	1.13	0.35
3DH5	Ant1	2480	2.89	3.75	77.07	1.13	0.35

Note: 1, Duty Cycle= Transmission Duration/ Transmission Period

2, DC Factor= $10 \cdot \log_{10}(1/\text{Duty Cycle})$

3, $1/T = 1/\text{Transmission Duration}$