

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

General Description of EUT	
EUT Name:	IEEE 802.11ax/ac/a/b/g/n 2x2 WiFi 6E with Bluetooth5.3 Combo Module
Model:	WNFS-267AXI(BT)
Sample ID:	HC-C-202503-0098-01-01-2#
Test Standard:	FCC Part 15.247
Environmental Conditions	
Ambient Temperature:	25°C
Ambient Humidity:	45%RH
Test Power Supply:	DC 3.3V
Test Engineer:	Rick.chen
Note: For a more detailed features description, please refer to the report TBR-C-202503-0098-13	

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

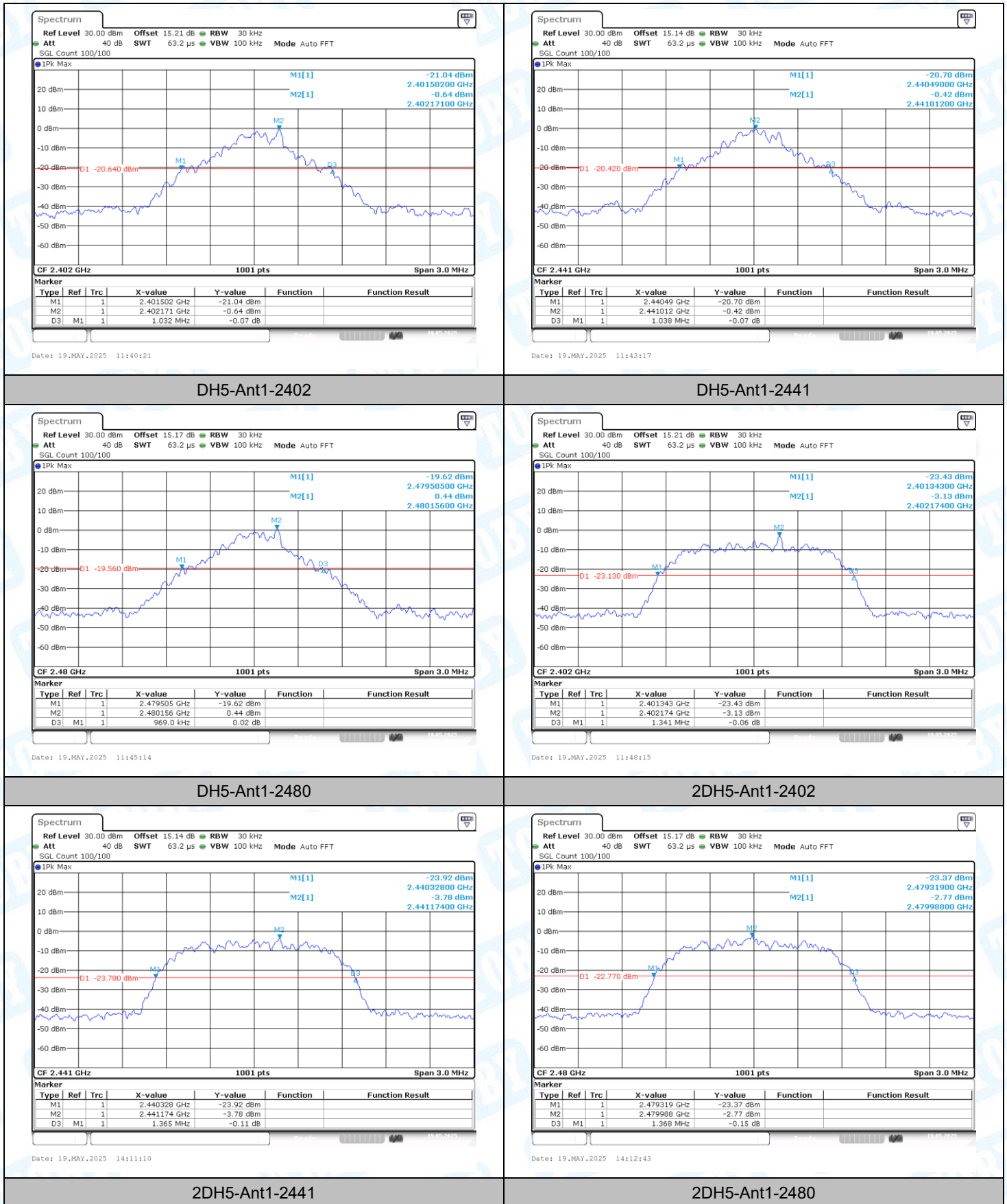
1: 20dB Emission Bandwidth

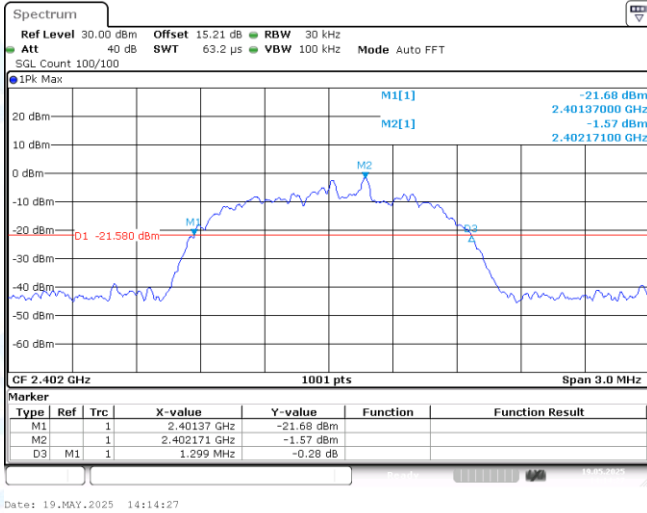
1.1 Test Result

Test Mode	Antenna	Frequency[MHz]	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.03	2401.50	2402.53	---	---
DH5	Ant1	2441	1.04	2440.49	2441.53	---	---
DH5	Ant1	2480	0.97	2479.51	2480.47	---	---
2DH5	Ant1	2402	1.34	2401.34	2402.68	---	---
2DH5	Ant1	2441	1.37	2440.33	2441.69	---	---
2DH5	Ant1	2480	1.37	2479.32	2480.69	---	---
3DH5	Ant1	2402	1.30	2401.37	2402.67	---	---
3DH5	Ant1	2441	1.31	2440.36	2441.67	---	---
3DH5	Ant1	2480	1.27	2479.36	2480.63	---	---

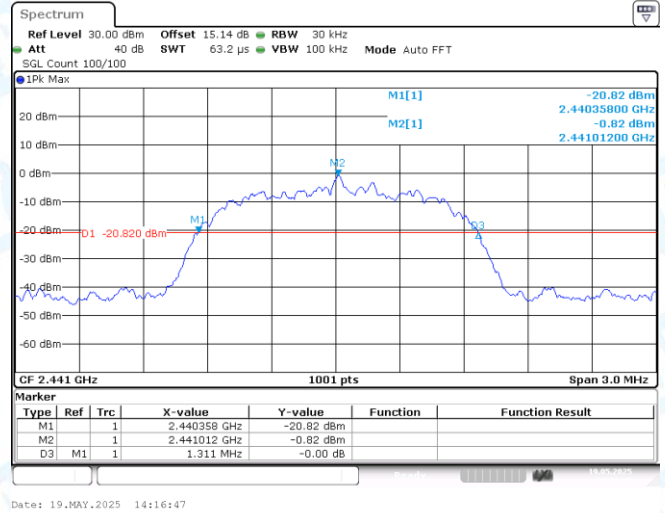
Note: RF Conducted test Offset= cable loss+ Attenuator(10dB).

1.2 Test Graphs

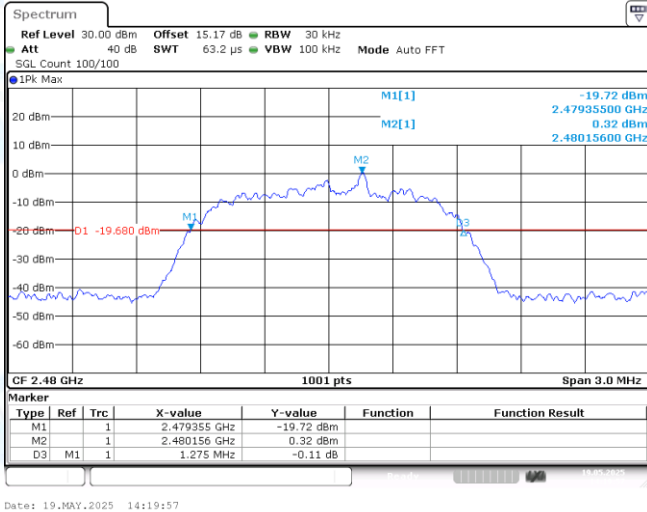




3DH5-Ant1-2402



3DH5-Ant1-2441



3DH5-Ant1-2480

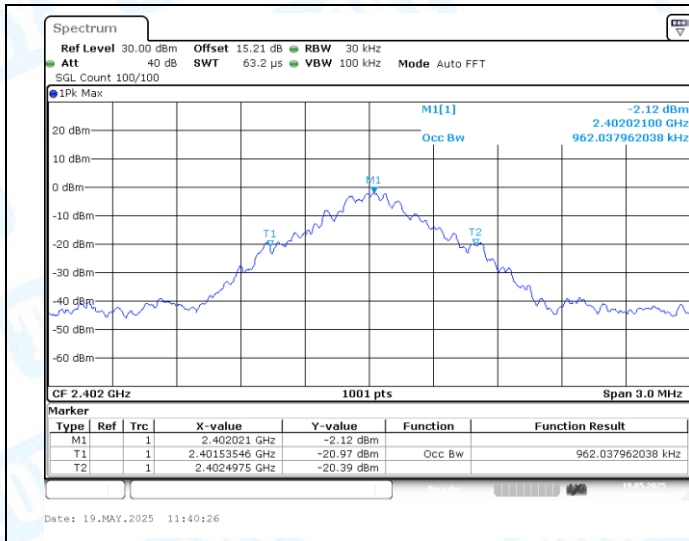
2: Occupied Channel Bandwidth

2.1 Test Result

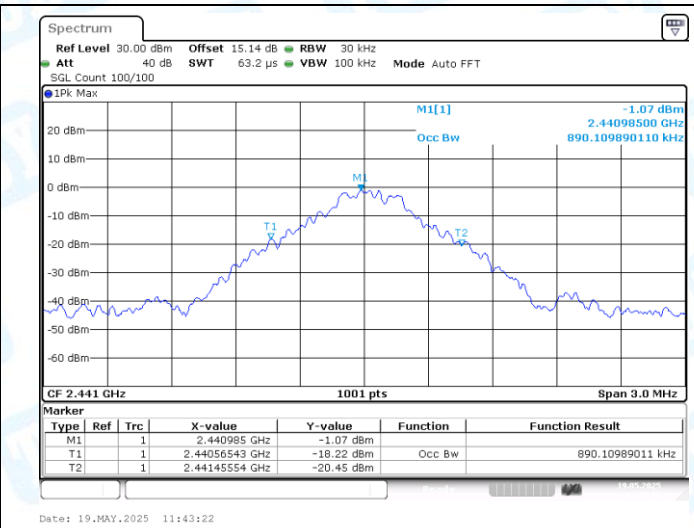
Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.96204	2401.5355	2402.4975	---	---
DH5	Ant1	2441	0.89011	2440.5654	2441.4555	---	---
DH5	Ant1	2480	0.88112	2479.5624	2480.4436	---	---
2DH5	Ant1	2402	1.2078	2401.4126	2402.6204	---	---
2DH5	Ant1	2441	1.2078	2440.4036	2441.6114	---	---
2DH5	Ant1	2480	1.2108	2479.3976	2480.6084	---	---
3DH5	Ant1	2402	1.2048	2401.4126	2402.6174	---	---
3DH5	Ant1	2441	1.2048	2440.4006	2441.6054	---	---
3DH5	Ant1	2480	1.1928	2479.4096	2480.6024	---	---

Note: RF Conducted test Offset= cable loss+ Attenuator(10dB).

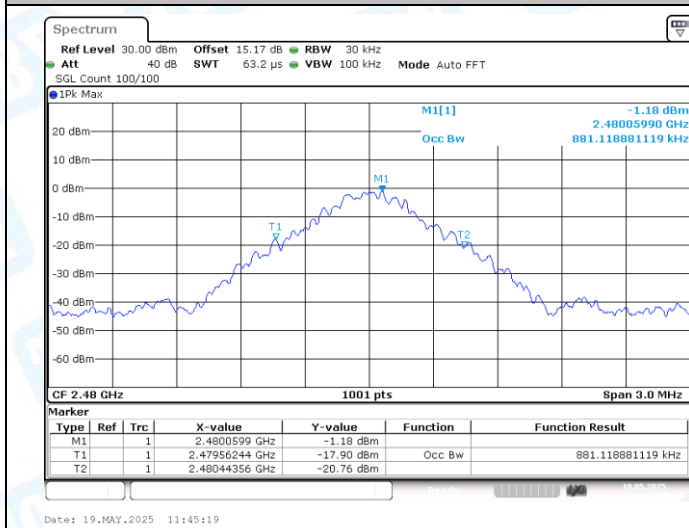
2.2 Test Graphs



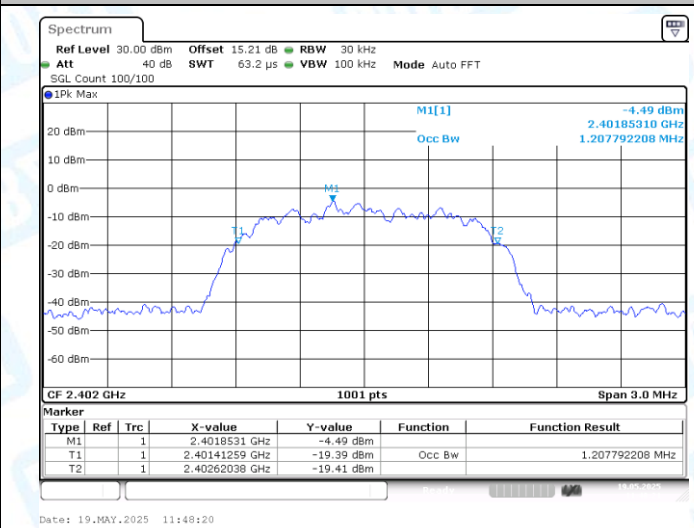
DH5-Ant1-2402



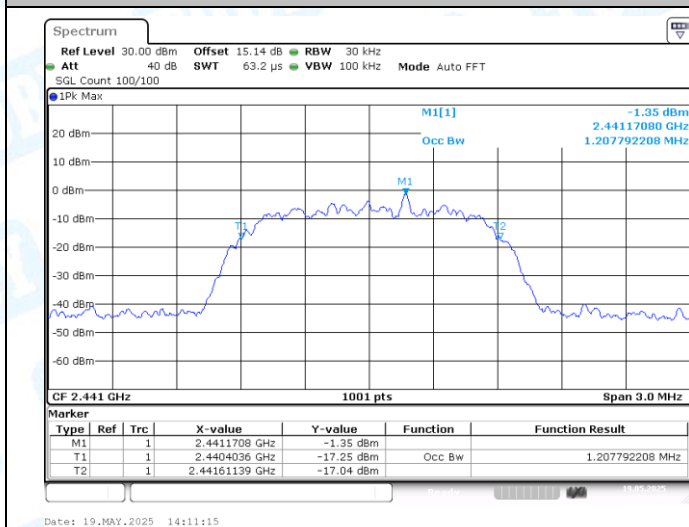
DH5-Ant1-2441



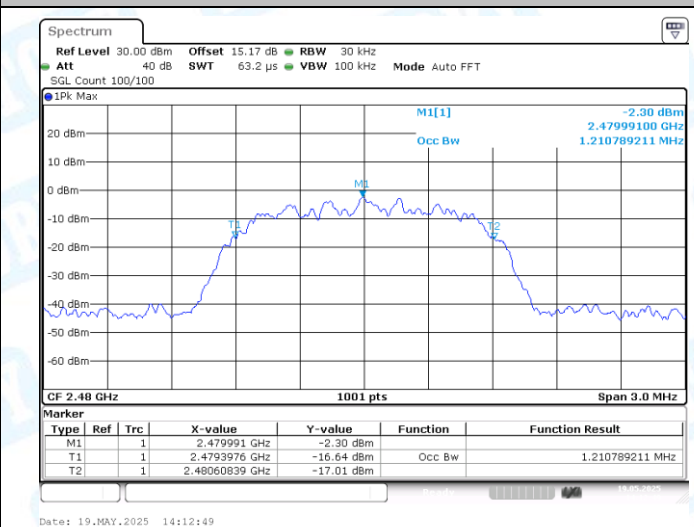
DH5-Ant1-2480



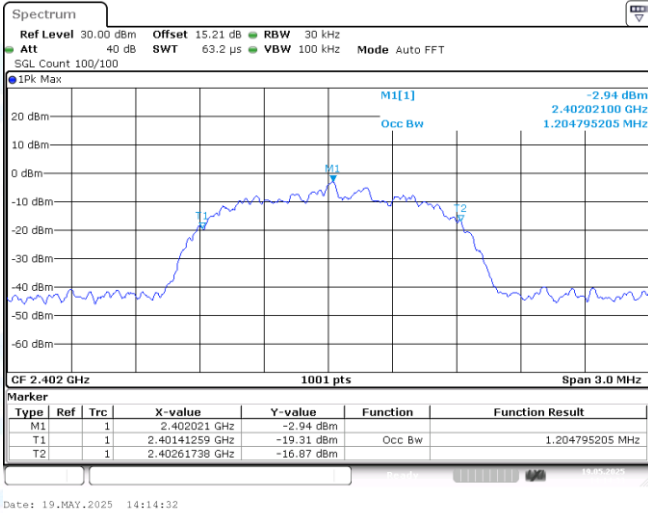
2DH5-Ant1-2402



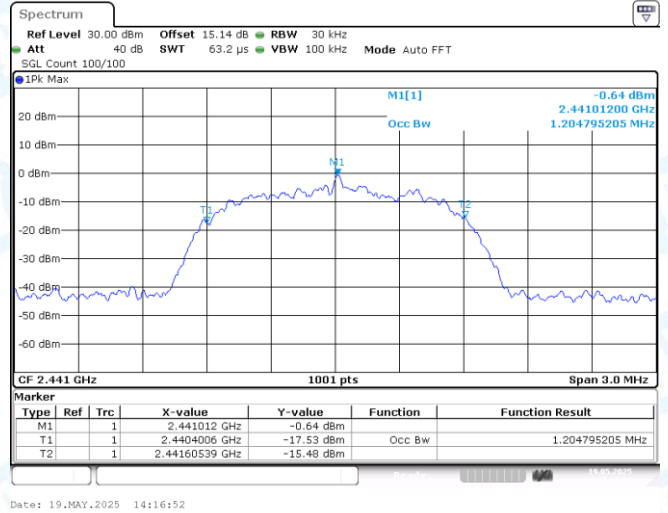
2DH5-Ant1-2441



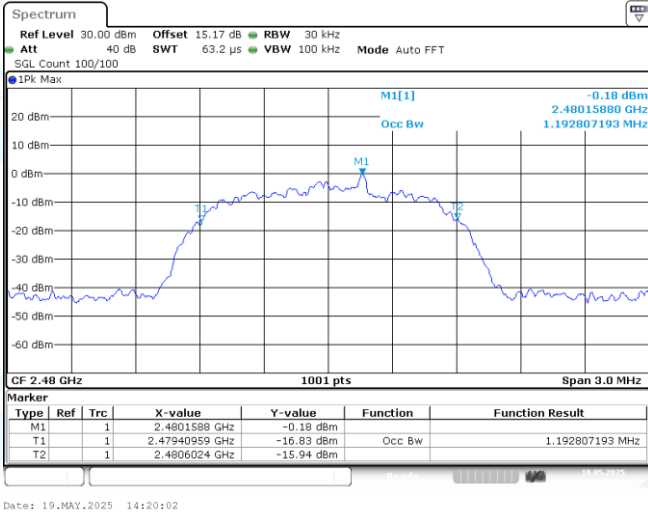
2DH5-Ant1-2480



3DH5-Ant1-2402



3DH5-Ant1-2441



3DH5-Ant1-2480

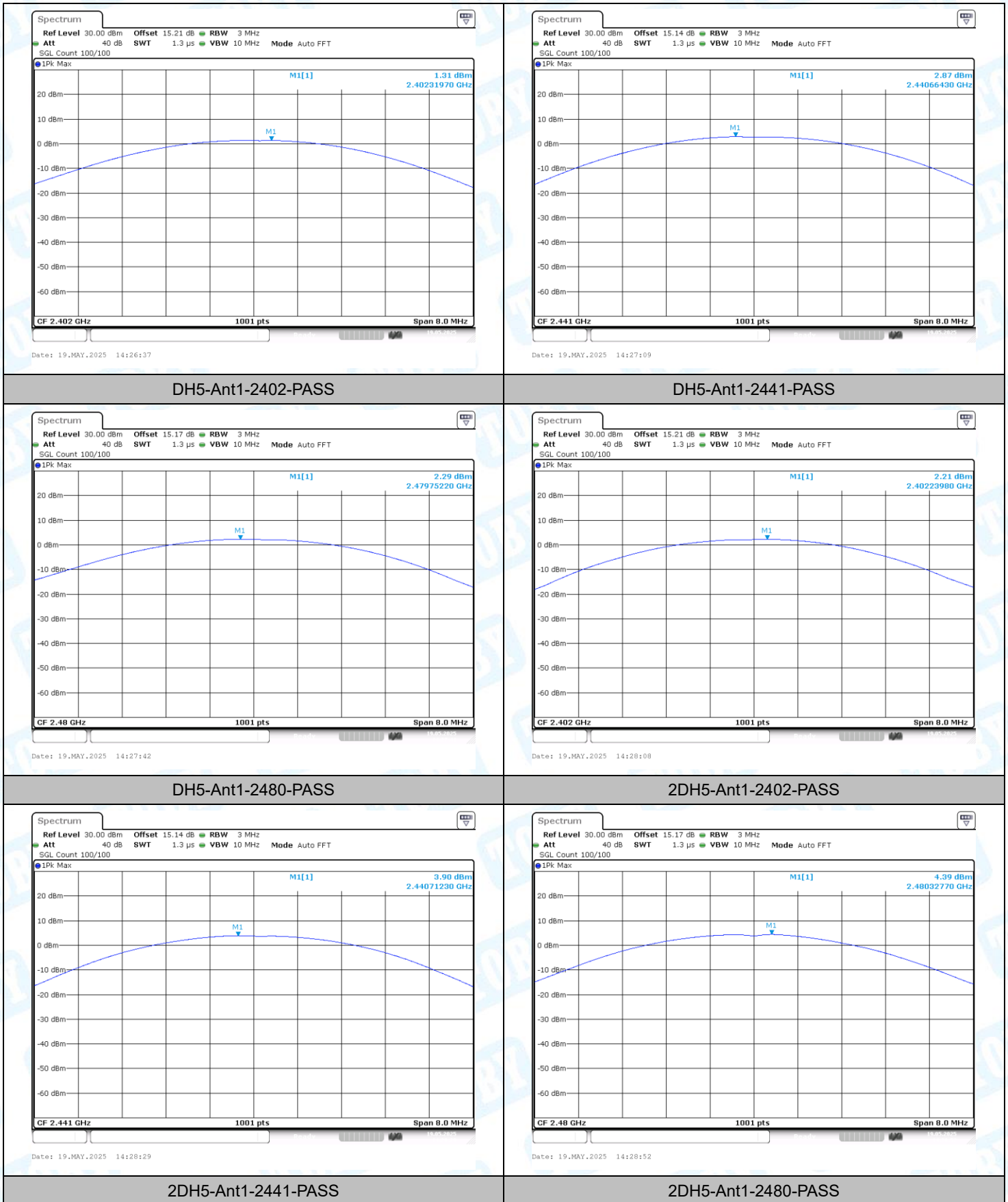
3: Maximum conducted output power

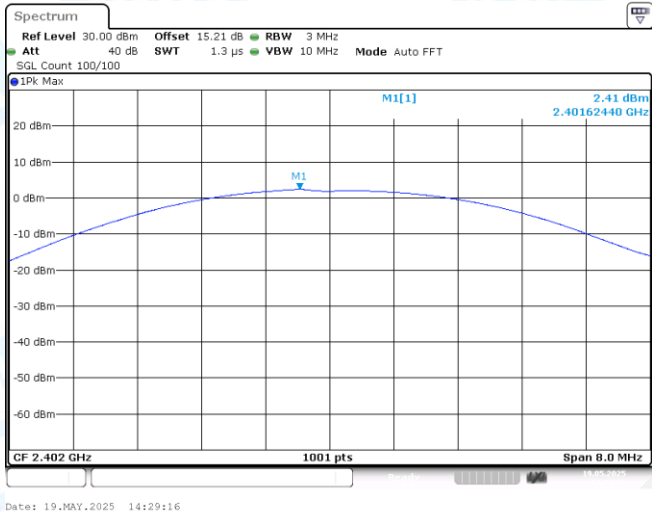
3.1 Test Result Peak

Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	1.31	≤21	PASS
DH5	Ant1	2441	2.87	≤21	PASS
DH5	Ant1	2480	2.29	≤21	PASS
2DH5	Ant1	2402	2.21	≤21	PASS
2DH5	Ant1	2441	3.90	≤21	PASS
2DH5	Ant1	2480	4.39	≤21	PASS
3DH5	Ant1	2402	2.41	≤21	PASS
3DH5	Ant1	2441	4.34	≤21	PASS
3DH5	Ant1	2480	4.65	≤21	PASS

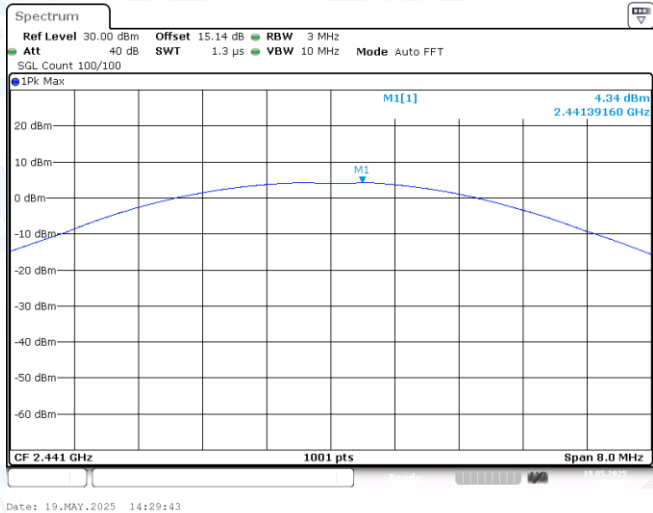
Note: RF Conducted test Offset= cable loss+ Attenuator(10dB).

3.2 Test Graphs

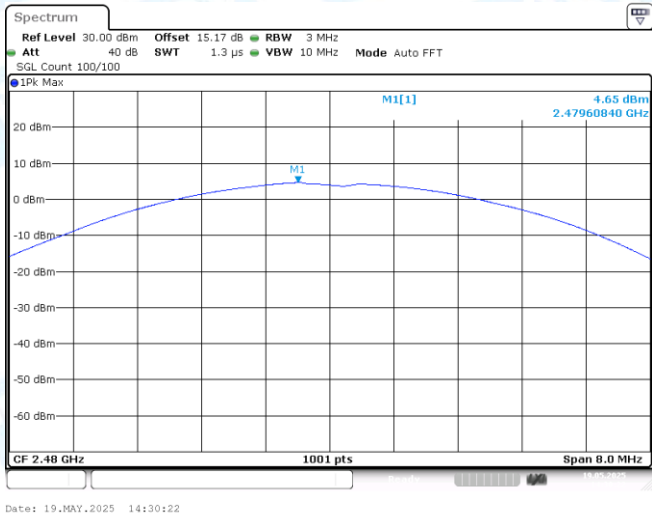




3DH5-Ant1-2402-PASS



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	0.997	≥0.693	PASS
2DH5	Ant1	Hop	1.128	≥0.913	PASS
3DH5	Ant1	Hop	0.945	≥0.873	PASS

Note: RF Conducted test Offset= cable loss+ Attenuator(10dB).

4.2 Test Graphs

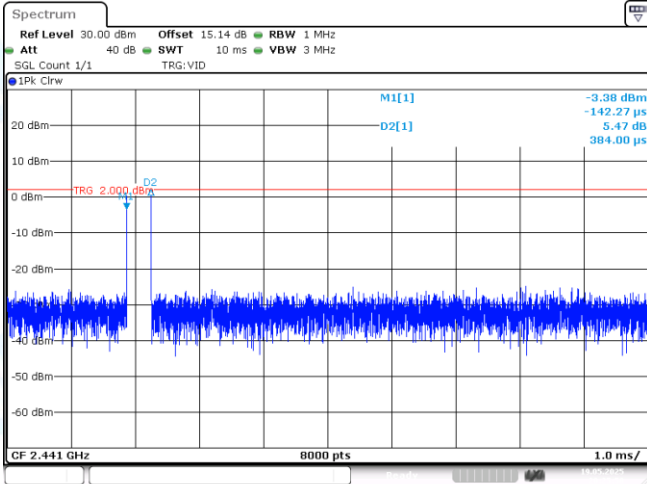


5: Time of occupancy

5.1 Test Result

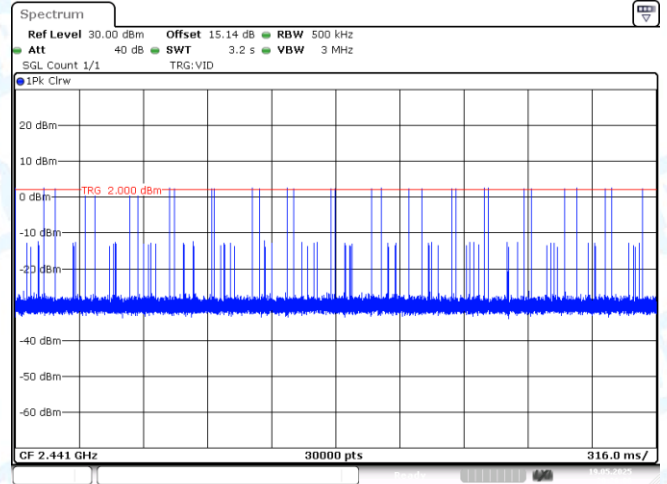
TestMode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.378	320	0.121	≤0.4	PASS
DH3	Ant1	Hop	1.626	160	0.26	≤0.4	PASS
DH5	Ant1	Hop	2.867	110	0.315	≤0.4	PASS
2DH1	Ant1	Hop	0.384	320	0.123	≤0.4	PASS
2DH3	Ant1	Hop	1.629	150	0.244	≤0.4	PASS
2DH5	Ant1	Hop	2.869	90	0.258	≤0.4	PASS
3DH1	Ant1	Hop	0.385	330	0.127	≤0.4	PASS
3DH3	Ant1	Hop	1.628	190	0.309	≤0.4	PASS
3DH5	Ant1	Hop	2.872	110	0.316	≤0.4	PASS

Note: RF Conducted test Offset= cable loss+ Attenuator(10dB).



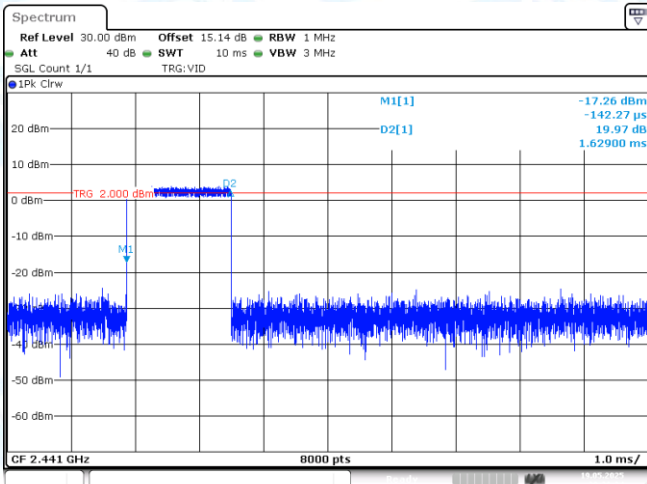
Date: 19.MAY.2025 20:25:58

2DH1-Ant1-Hop-PASS



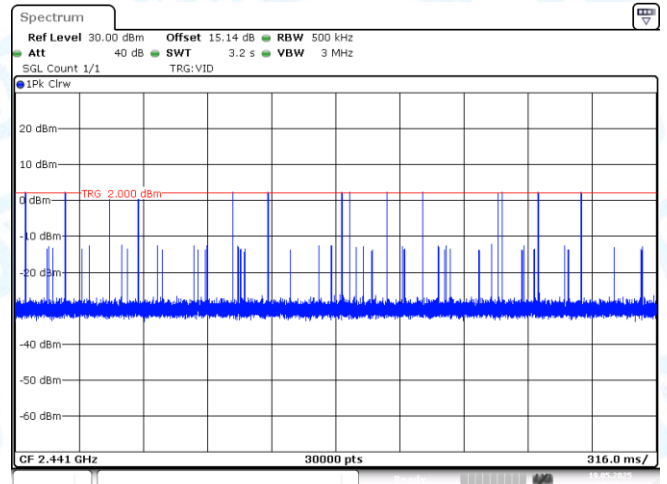
Date: 19.MAY.2025 20:26:06

2DH1-Ant1-Hop-PASS



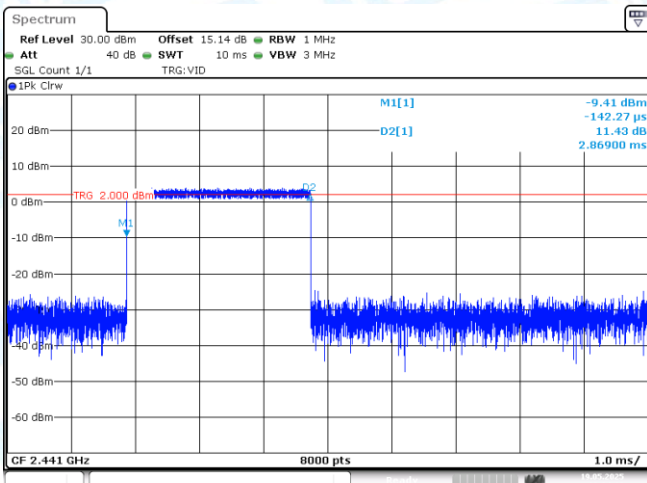
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2DH3-Ant1-Hop-PASS



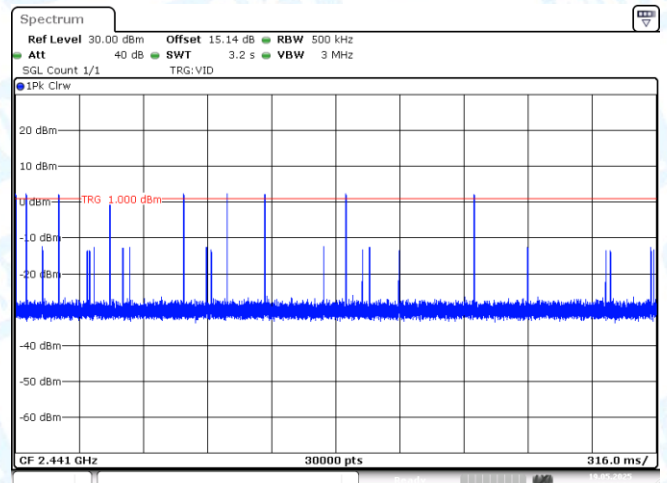
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2DH3-Ant1-Hop-PASS



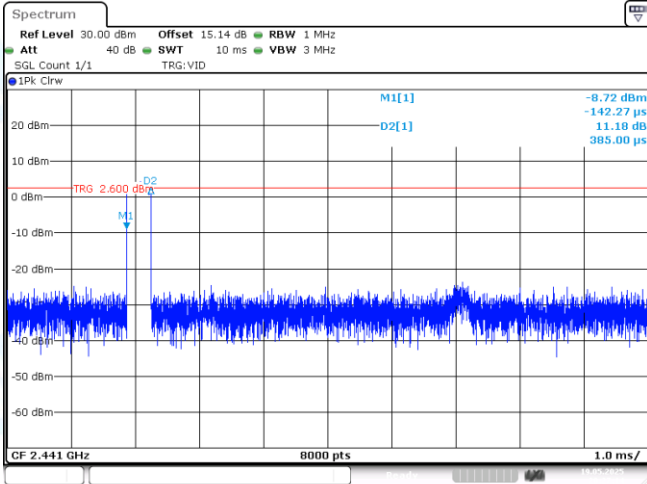
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2DH5-Ant1-Hop-PASS

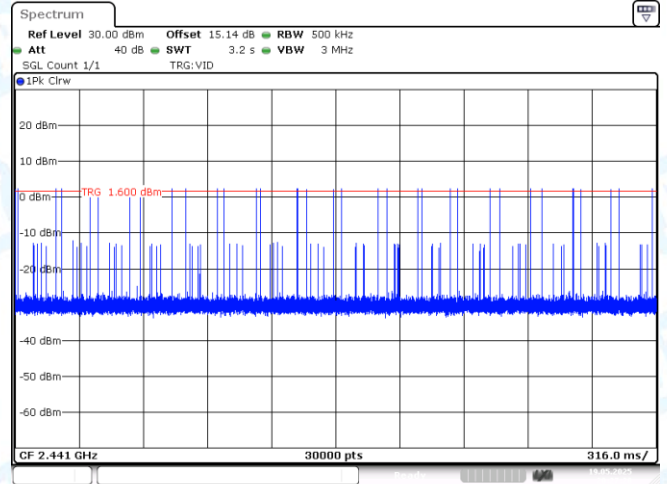


Date: 19.MAY.2025 20:24:30

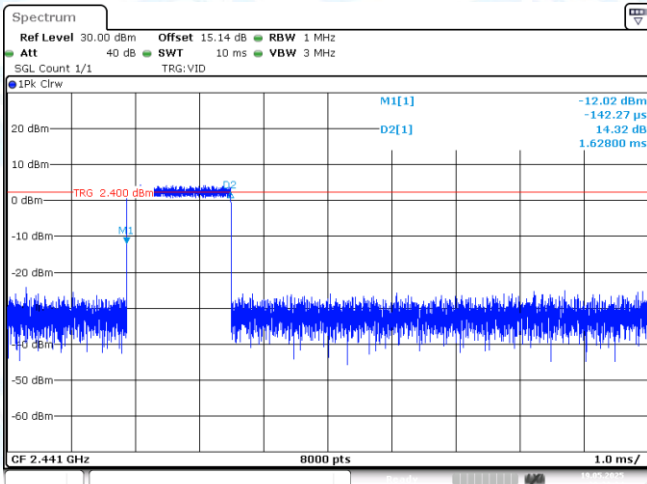
2DH5-Ant1-Hop-PASS



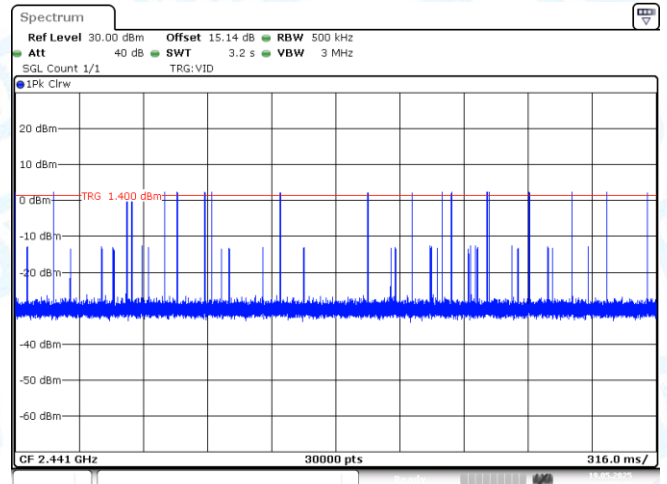
3DH1-Ant1-Hop-PASS



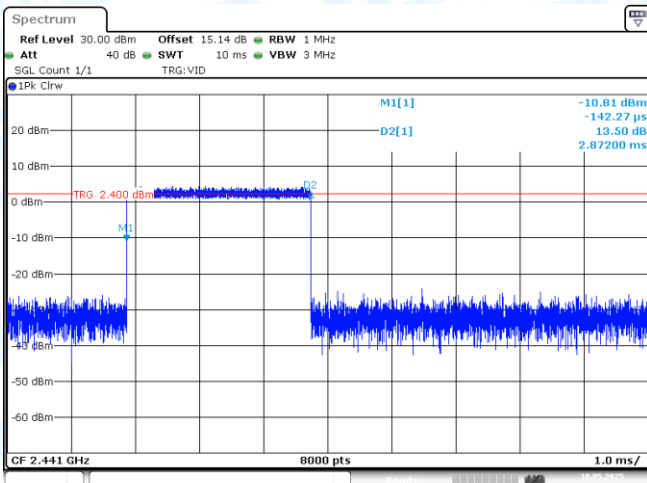
3DH1-Ant1-Hop-PASS



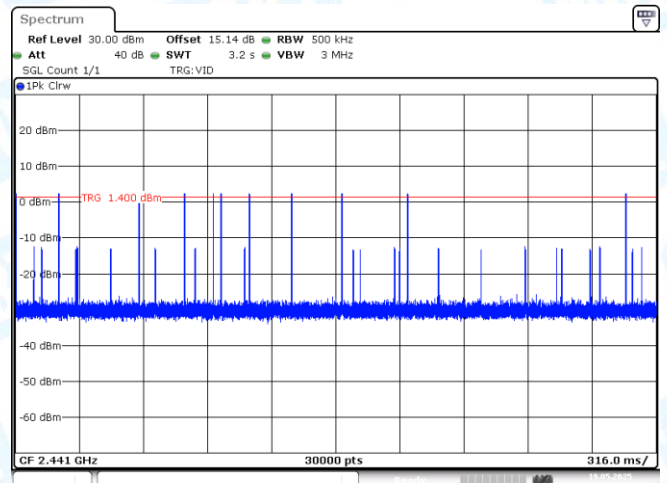
3DH3-Ant1-Hop-PASS



3DH3-Ant1-Hop-PASS



3DH5-Ant1-Hop-PASS



3DH5-Ant1-Hop-PASS

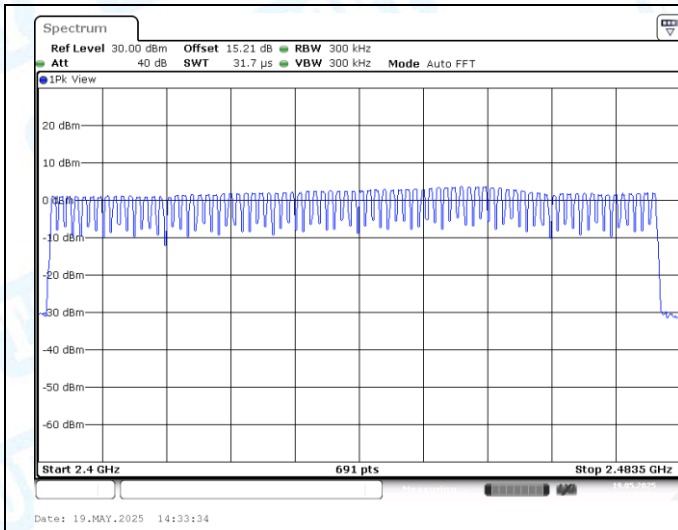
6: Number of hopping channels

6.1 Test Result

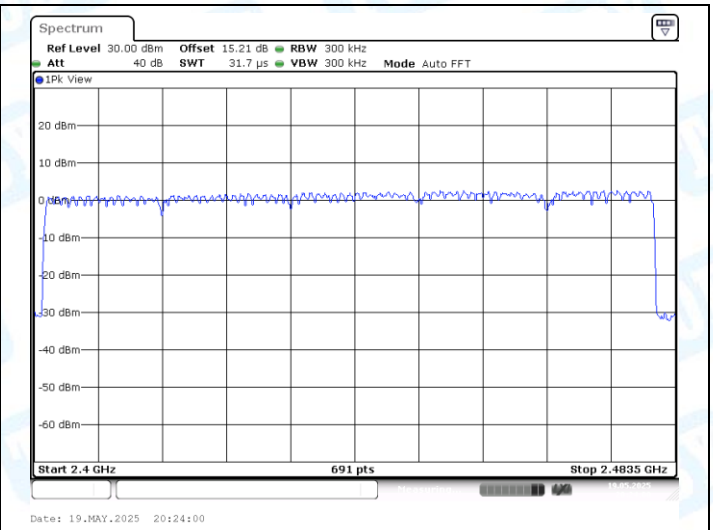
TestMode	Antenna	Frequency[MHz]	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

Note: RF Conducted test Offset= cable loss+ Attenuator(10dB).

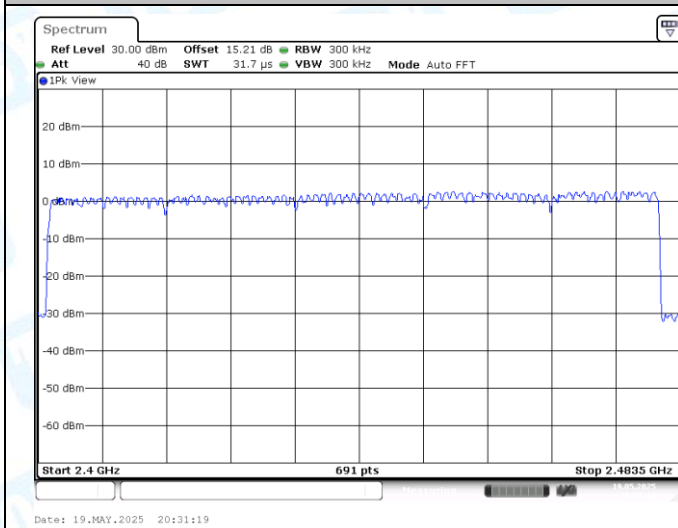
6.2 Test Graphs



DH5-Ant1-Hop-PASS



2DH5-Ant1-Hop-PASS



3DH5-Ant1-Hop-PASS

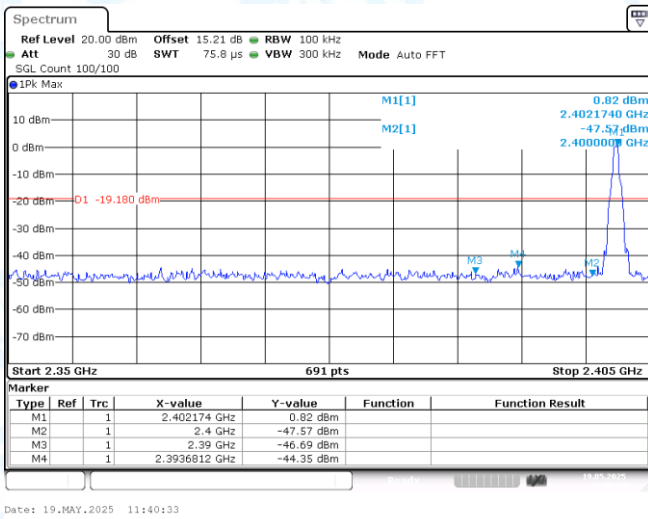
7: Band edge measurements

7.1 Test Result

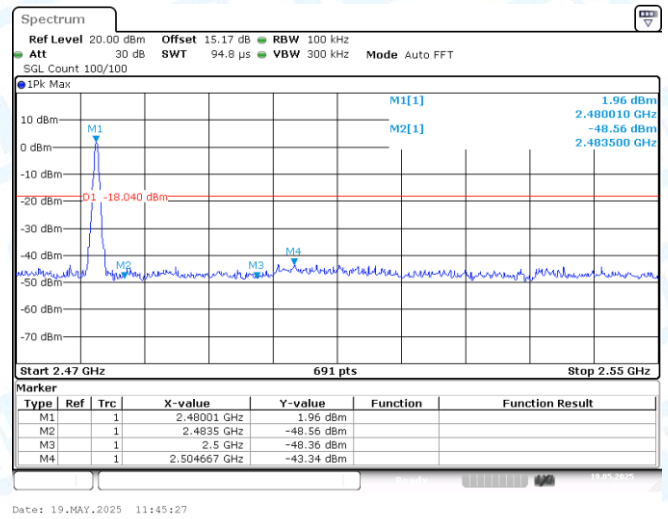
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.82	-44.35	≤-19.18	PASS
DH5	Ant1	High	2480	1.96	-43.34	≤-18.04	PASS
DH5	Ant1	Low	Hop_2402	10.61	-43.78	≤-9.39	PASS
DH5	Ant1	High	Hop_2480	11.21	-42.62	≤-8.79	PASS
2DH5	Ant1	Low	2402	-0.08	-43.55	≤-20.08	PASS
2DH5	Ant1	High	2480	-0.17	-42.6	≤-20.17	PASS
2DH5	Ant1	Low	Hop_2402	-1.59	-43.37	≤-21.59	PASS
2DH5	Ant1	High	Hop_2480	1.62	-42.5	≤-18.38	PASS
3DH5	Ant1	Low	2402	-0.67	-44.47	≤-20.67	PASS
3DH5	Ant1	High	2480	0.56	-42.7	≤-19.44	PASS
3DH5	Ant1	Low	Hop_2402	-0.72	-44.14	≤-20.72	PASS
3DH5	Ant1	High	Hop_2480	1.71	-41.78	≤-18.29	PASS

Note: RF Conducted test Offset= cable loss+ Attenuator(10dB).

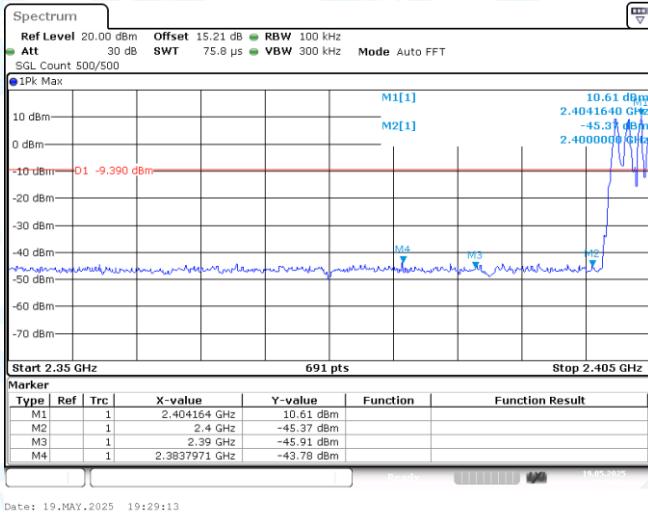
7.2 Test Graphs



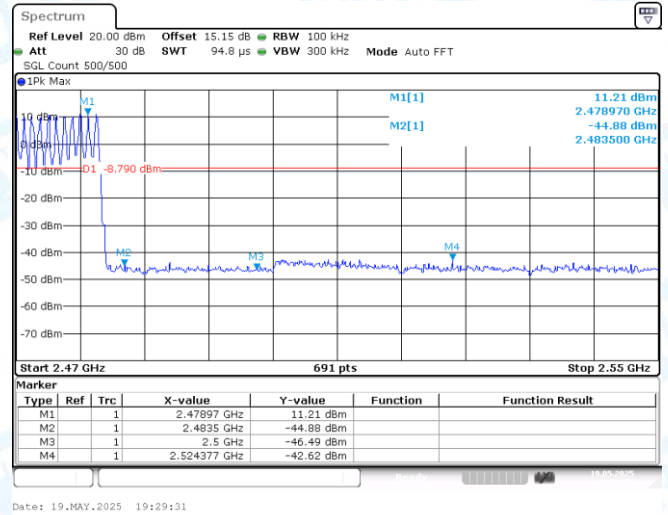
DH5-Ant1-2402-PASS



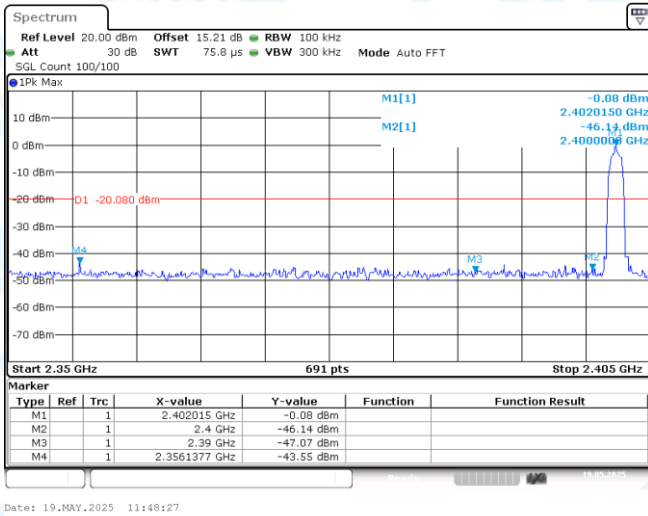
DH5-Ant1-2480-PASS



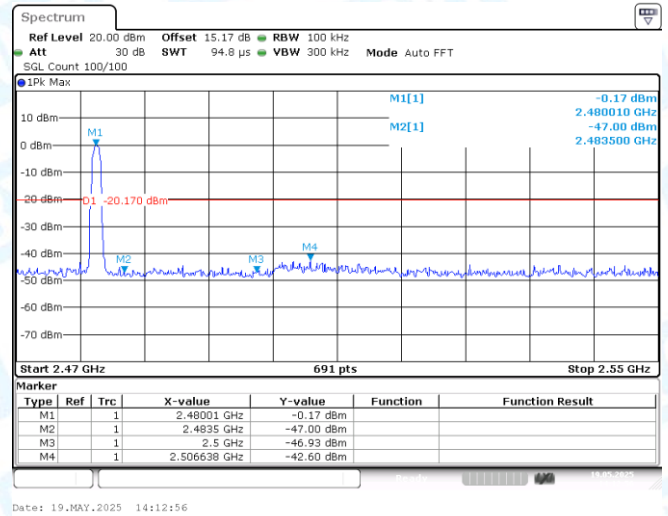
DH5-Ant1-Hop_2402-PASS



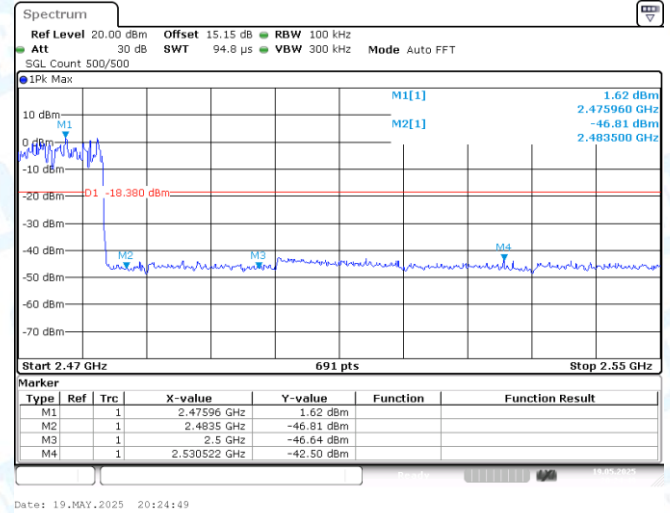
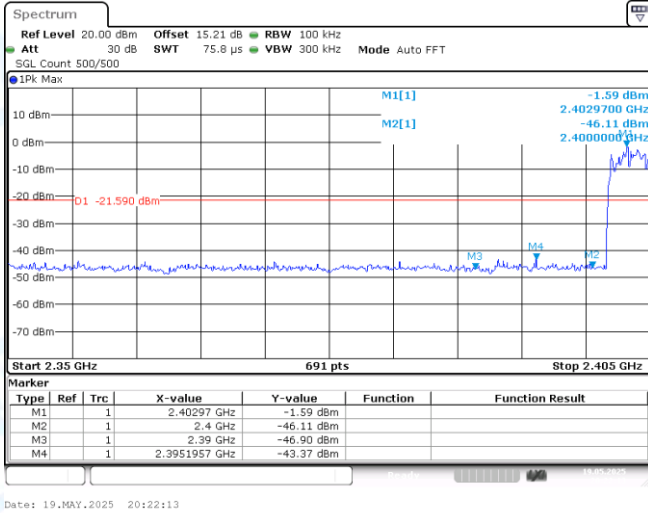
DH5-Ant1-Hop_2480-PASS



2DH5-Ant1-2402-PASS

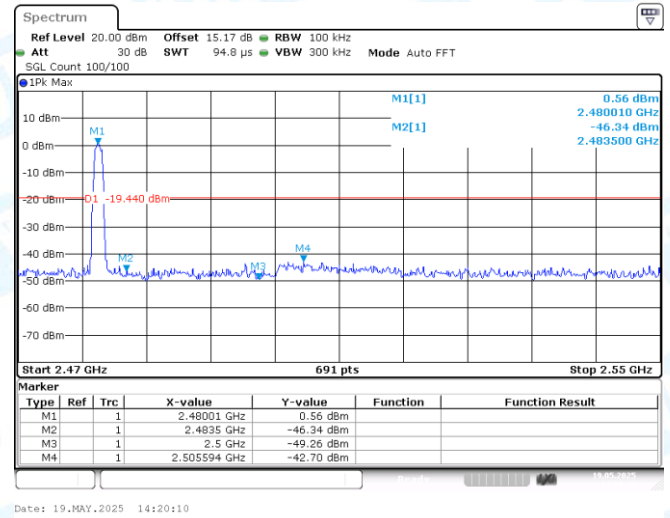
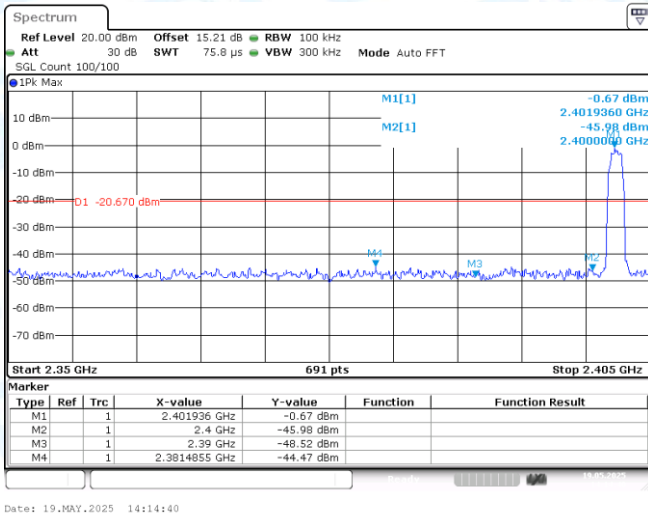


2DH5-Ant1-2480-PASS



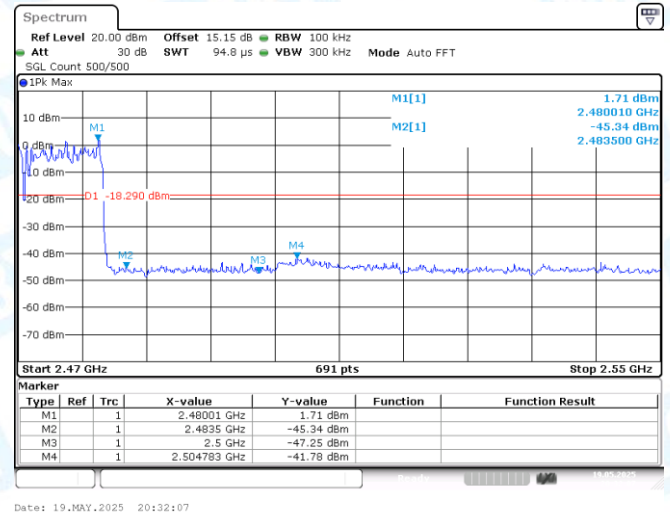
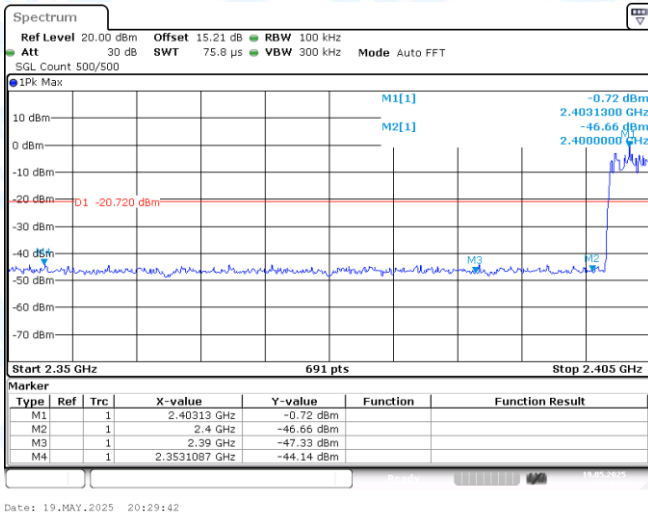
2DH5-Ant1-Hop_2402-PASS

2DH5-Ant1-Hop_2480-PASS



3DH5-Ant1-2402-PASS

3DH5-Ant1-2480-PASS



3DH5-Ant1-Hop_2402-PASS

3DH5-Ant1-Hop_2480-PASS

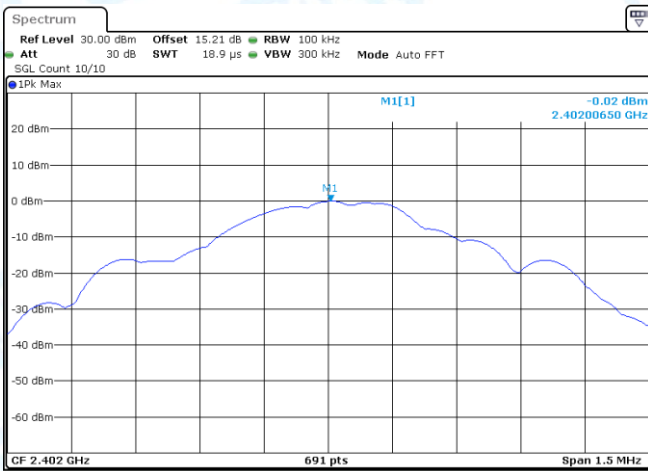
8: Conducted Spurious Emission

8.1 Test Result

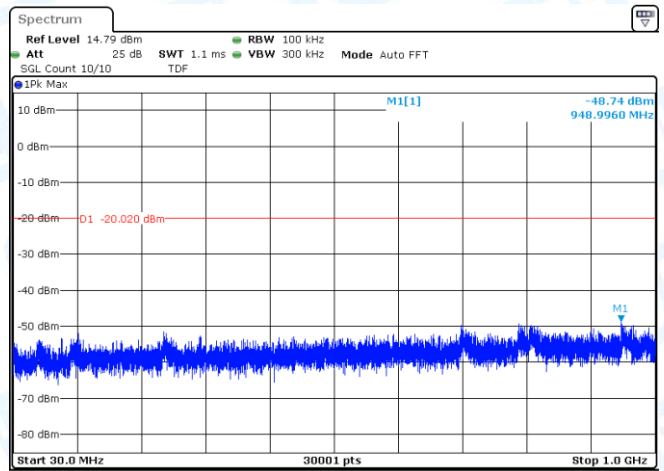
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	0~Reference	-0.02	-0.02	---	PASS
DH5	Ant1	2402	30~1000	-0.02	-48.74	≤-20.02	PASS
DH5	Ant1	2402	1000~26500	-0.02	-34.64	≤-20.02	PASS
DH5	Ant1	2441	0~Reference	1.29	1.29	---	PASS
DH5	Ant1	2441	30~1000	1.29	-47.54	≤-18.71	PASS
DH5	Ant1	2441	1000~26500	1.29	-35.46	≤-18.71	PASS
DH5	Ant1	2480	0~Reference	0.18	0.18	---	PASS
DH5	Ant1	2480	30~1000	0.18	-48.54	≤-19.82	PASS
DH5	Ant1	2480	1000~26500	0.18	-35.17	≤-19.82	PASS
2DH5	Ant1	2402	0~Reference	-3.45	-3.45	---	PASS
2DH5	Ant1	2402	30~1000	-3.45	-47.24	≤-23.45	PASS
2DH5	Ant1	2402	1000~26500	-3.45	-35.17	≤-23.45	PASS
2DH5	Ant1	2441	0~Reference	-1.96	-1.96	---	PASS
2DH5	Ant1	2441	30~1000	-1.96	-48.95	≤-21.96	PASS
2DH5	Ant1	2441	1000~26500	-1.96	-35.17	≤-21.96	PASS
2DH5	Ant1	2480	0~Reference	-1.00	-1.00	---	PASS
2DH5	Ant1	2480	30~1000	-1.00	-48.52	≤-21	PASS
2DH5	Ant1	2480	1000~26500	-1.00	-34.7	≤-21	PASS
3DH5	Ant1	2402	0~Reference	-0.01	-0.01	---	PASS
3DH5	Ant1	2402	30~1000	-0.01	-48.53	≤-20.01	PASS
3DH5	Ant1	2402	1000~26500	-0.01	-34.76	≤-20.01	PASS
3DH5	Ant1	2441	0~Reference	-1.71	-1.71	---	PASS
3DH5	Ant1	2441	30~1000	-1.71	-48.65	≤-21.71	PASS
3DH5	Ant1	2441	1000~26500	-1.71	-34.91	≤-21.71	PASS
3DH5	Ant1	2480	0~Reference	-0.40	-0.40	---	PASS
3DH5	Ant1	2480	30~1000	-0.40	-47.71	≤-20.4	PASS
3DH5	Ant1	2480	1000~26500	-0.40	-34.79	≤-20.4	PASS

Note: RF Conducted test Offset= cable loss+ Attenuator(10dB).

8.2 Test Graphs



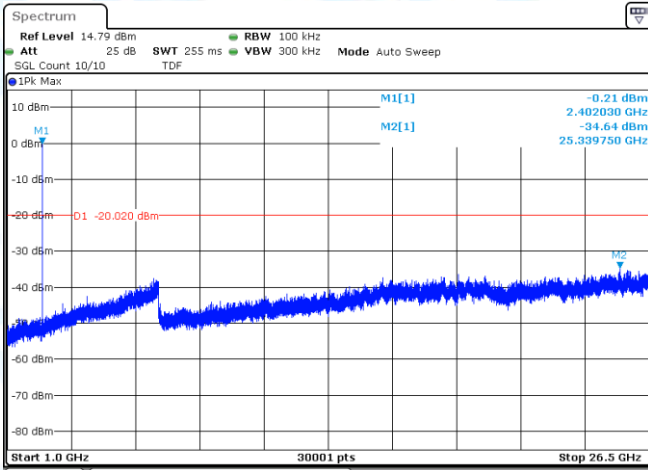
Date: 19.MAY.2025 11:40:59



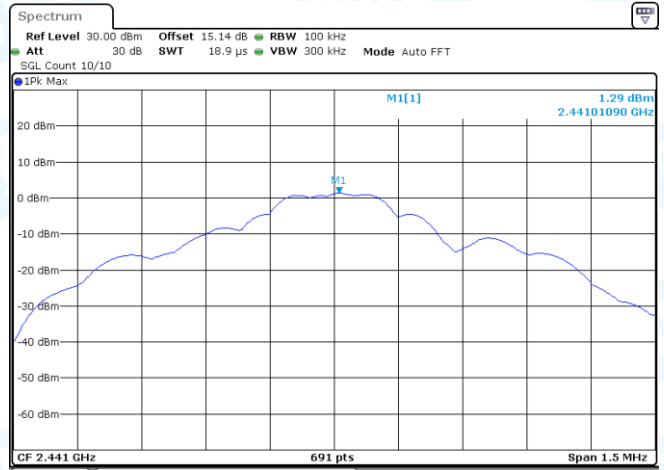
Date: 19.MAY.2025 11:41:07

DH5-Ant1-2402-0~Reference-PASS

DH5-Ant1-2402-30~1000-PASS



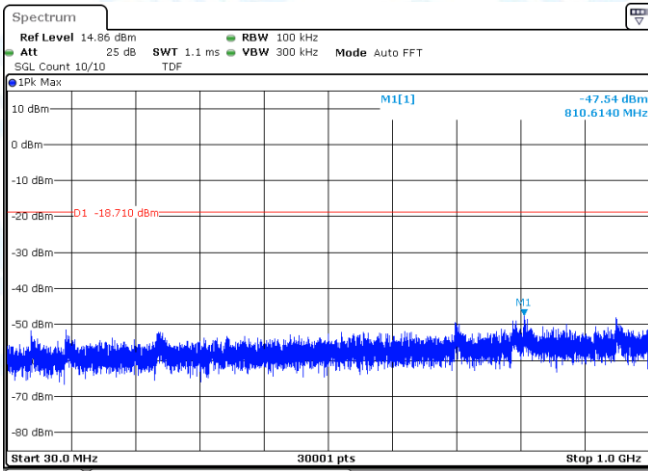
Date: 19.MAY.2025 11:41:24



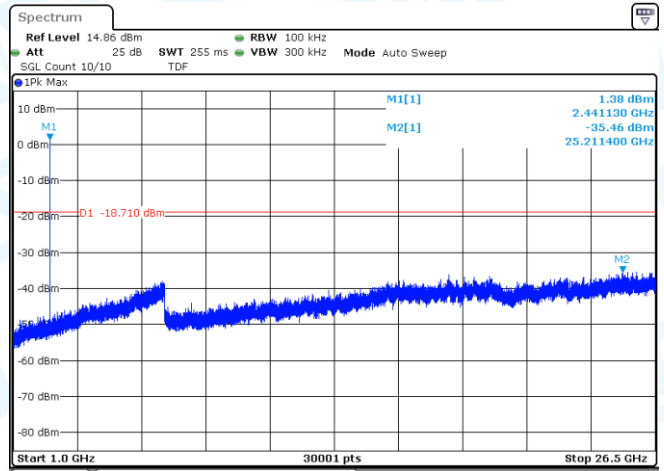
Date: 19.MAY.2025 11:43:27

DH5-Ant1-2402-1000~26500-PASS

DH5-Ant1-2441-0~Reference-PASS



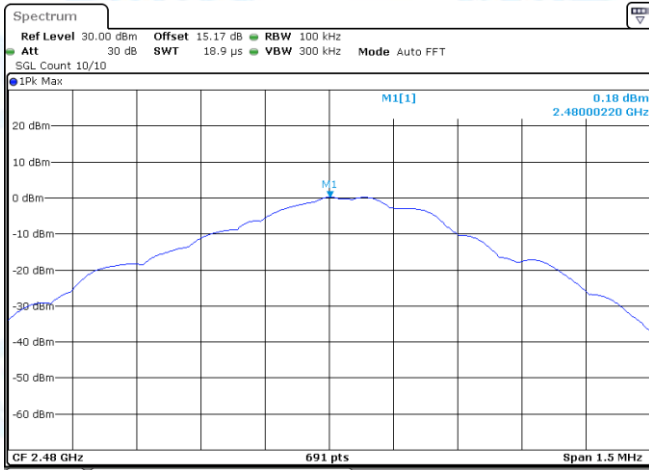
Date: 19.MAY.2025 11:43:34



Date: 19.MAY.2025 11:43:52

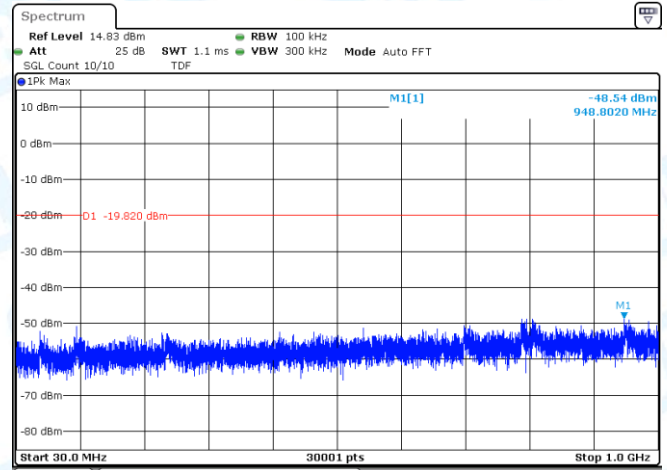
DH5-Ant1-2441-30~1000-PASS

DH5-Ant1-2441-1000~26500-PASS



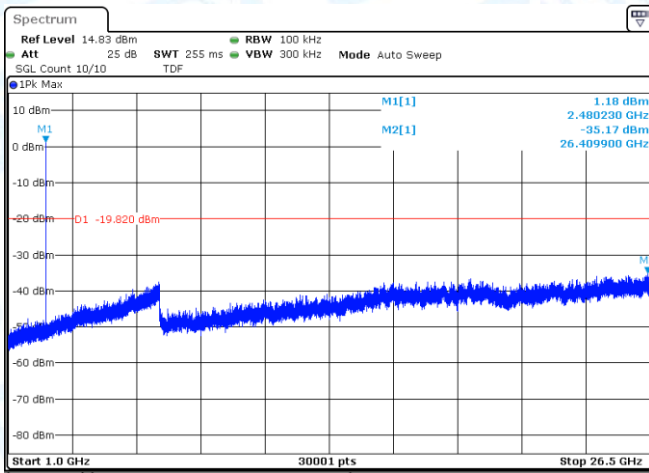
Date: 19.MAY.2025 11:45:51

DH5-Ant1-2480-0~Reference-PASS



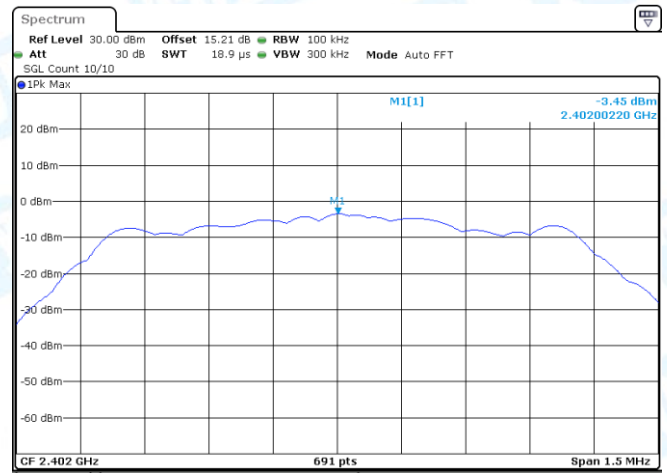
Date: 19.MAY.2025 11:45:59

DH5-Ant1-2480-30~1000-PASS



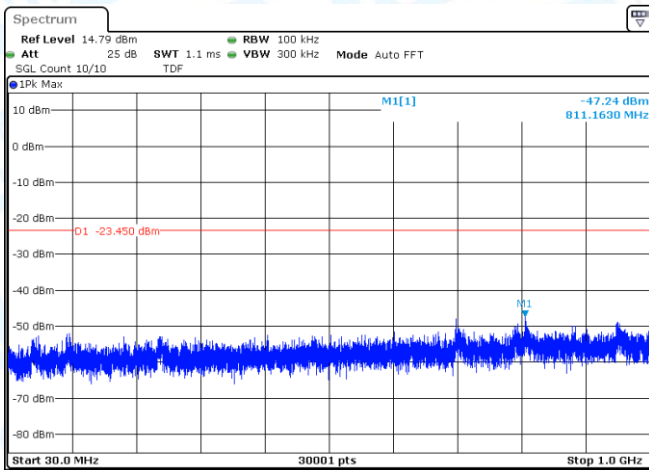
Date: 19.MAY.2025 11:46:16

DH5-Ant1-2480-1000~26500-PASS



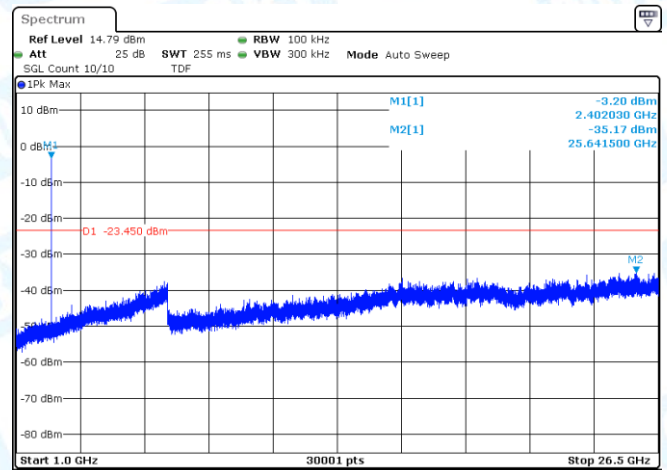
Date: 19.MAY.2025 11:48:53

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



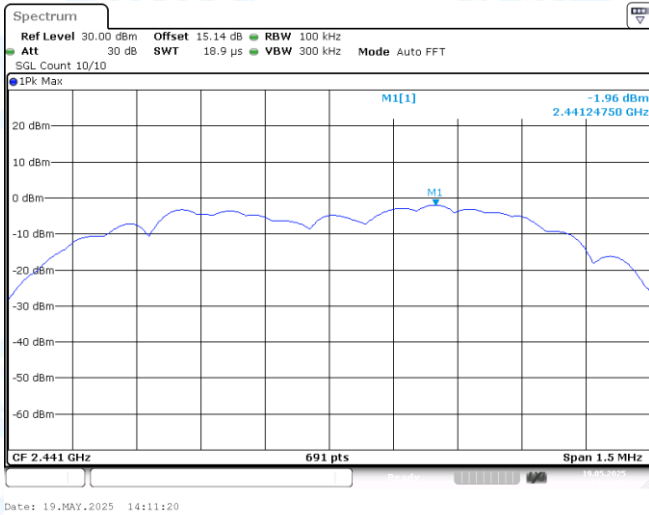
Date: 19.MAY.2025 11:49:01

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

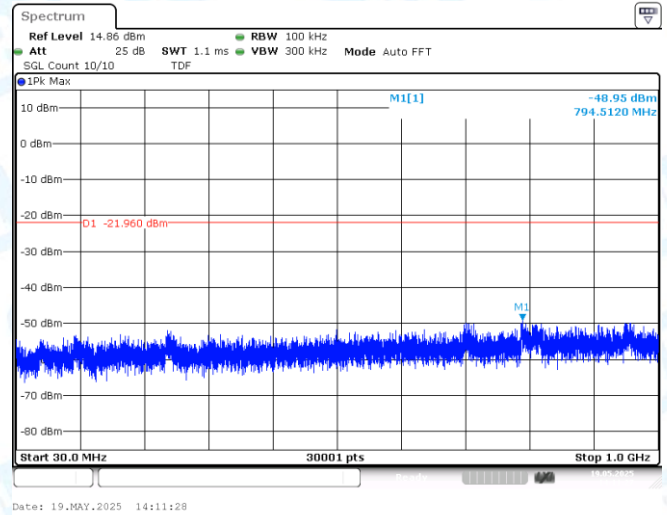


Date: 19.MAY.2025 11:49:19

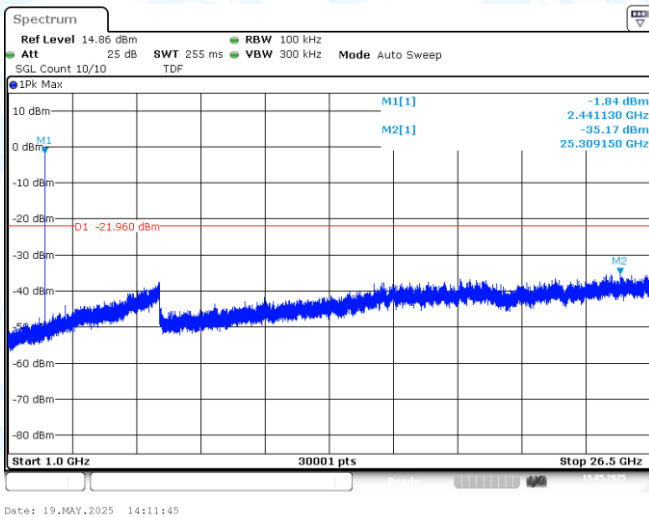
2DH5-Ant1-2402-1000~26500-PASS



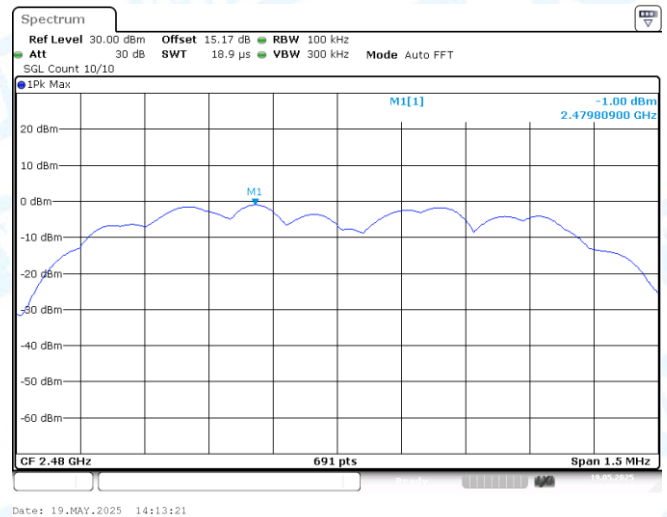
2DH5-Ant1-2441-0~Reference-PASS



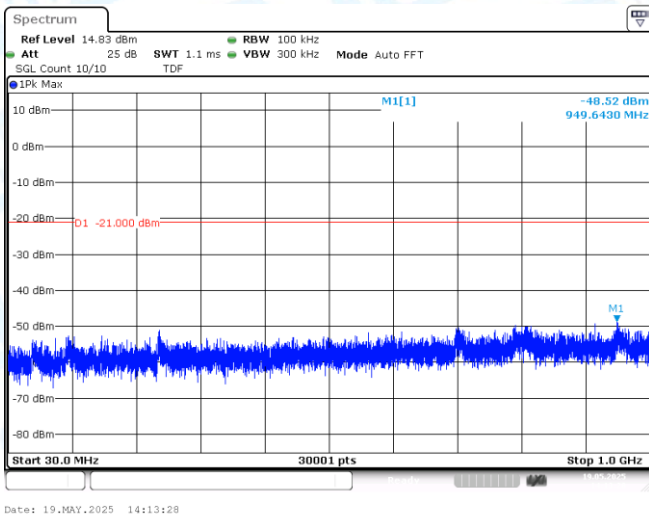
2DH5-Ant1-2441-30~1000-PASS



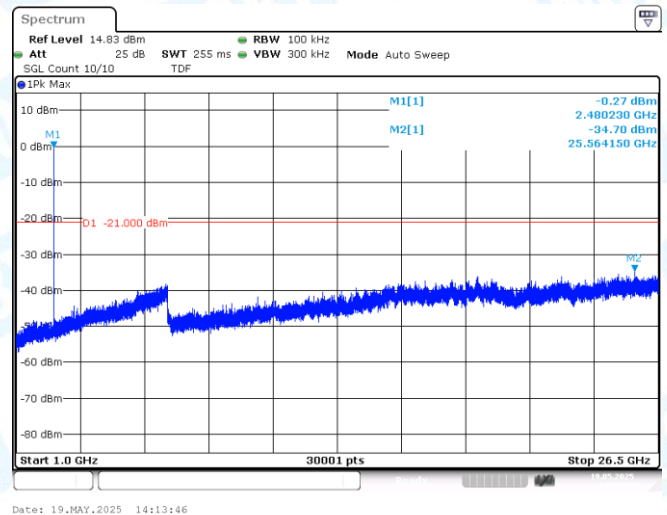
2DH5-Ant1-2441-1000~26500-PASS



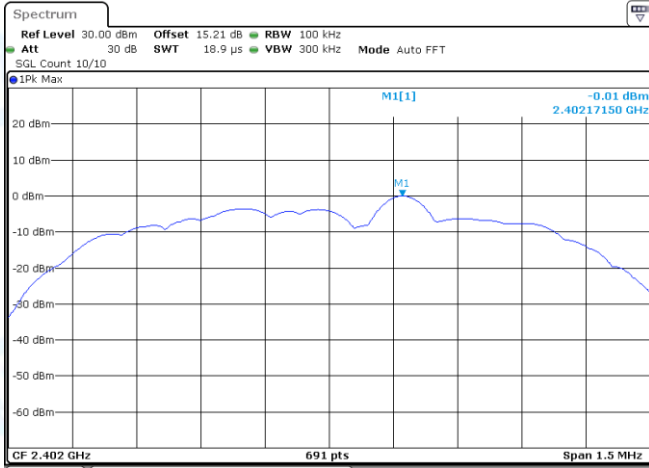
2DH5-Ant1-2480-0~Reference-PASS



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

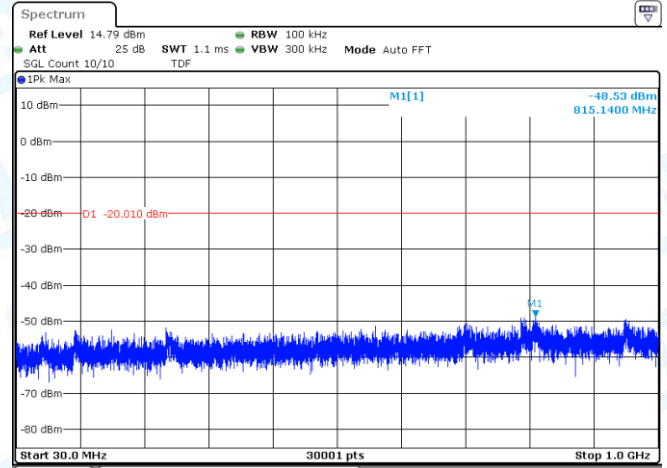


2DH5-Ant1-2480-1000~26500-PASS



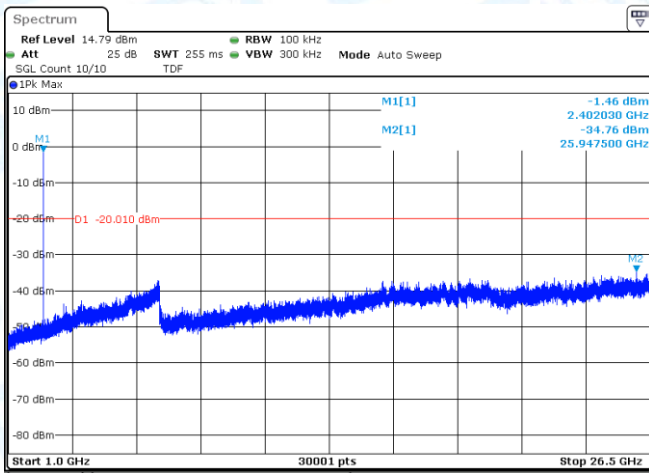
Date: 19.MAY.2025 14:15:06

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



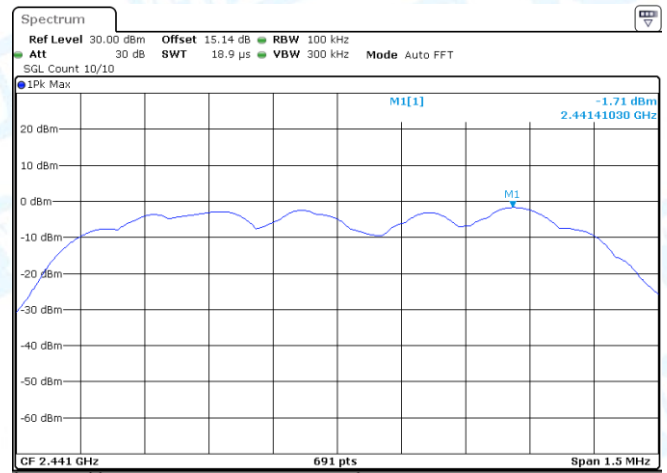
Date: 19.MAY.2025 14:15:14

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



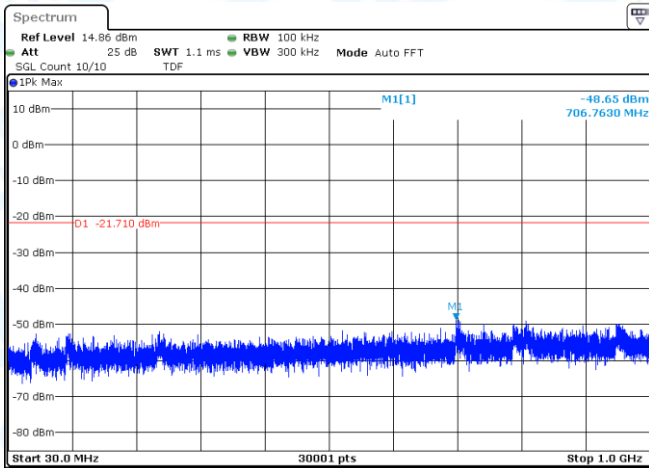
Date: 19.MAY.2025 14:15:31

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



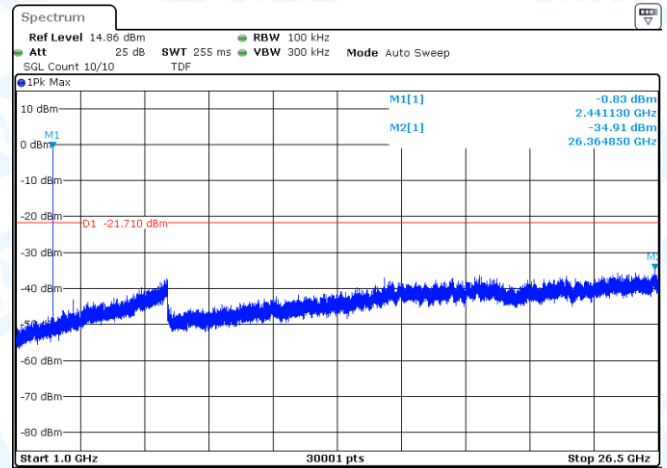
Date: 19.MAY.2025 14:16:57

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



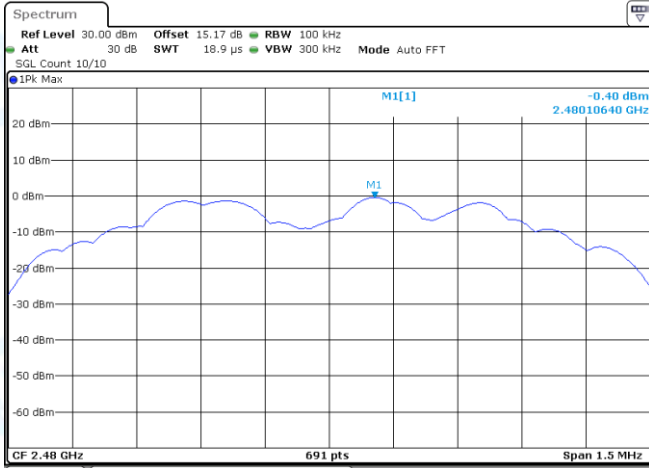
Date: 19.MAY.2025 14:17:05

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

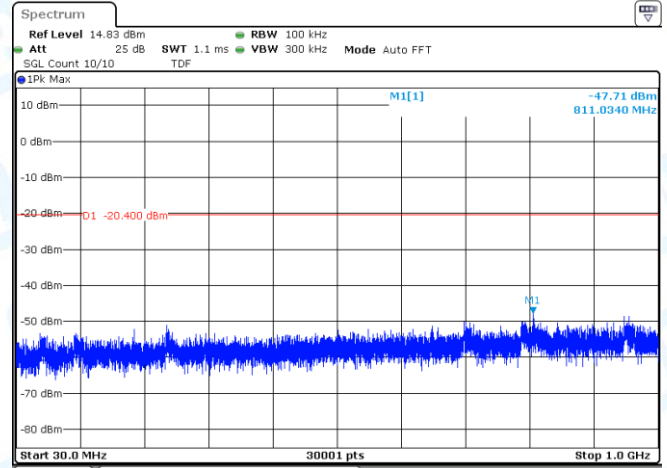


Date: 19.MAY.2025 14:17:22

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



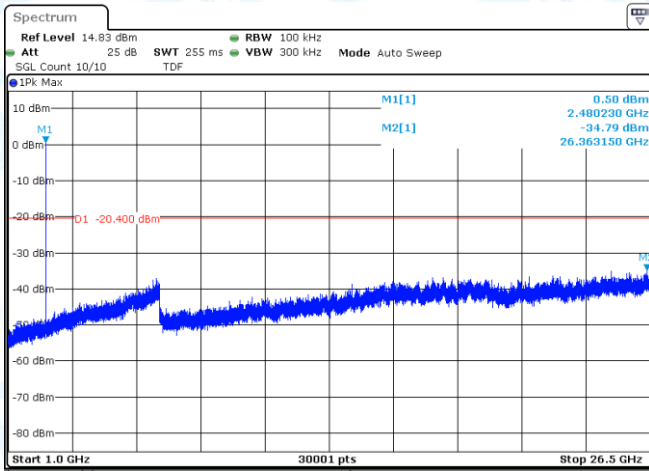
Date: 19.MAY.2025 14:20:34



Date: 19.MAY.2025 14:20:42

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

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



Date: 19.MAY.2025 14:20:59

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 Factory	1/T [kHz]
DH5	Ant1	2402	2.89	3.75	77.07	1.13	0.35
DH5	Ant1	2441	2.89	3.75	77.07	1.13	0.35
DH5	Ant1	2480	2.88	3.75	76.80	1.15	0.35
2DH5	Ant1	2402	2.89	3.75	77.07	1.13	0.35
2DH5	Ant1	2441	2.89	3.75	77.07	1.13	0.35
2DH5	Ant1	2480	2.89	3.75	77.07	1.13	0.35
3DH5	Ant1	2402	2.89	3.75	77.07	1.13	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

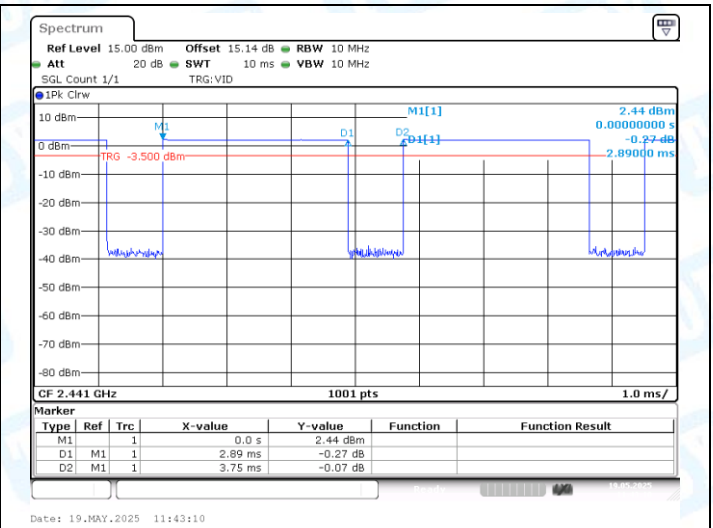
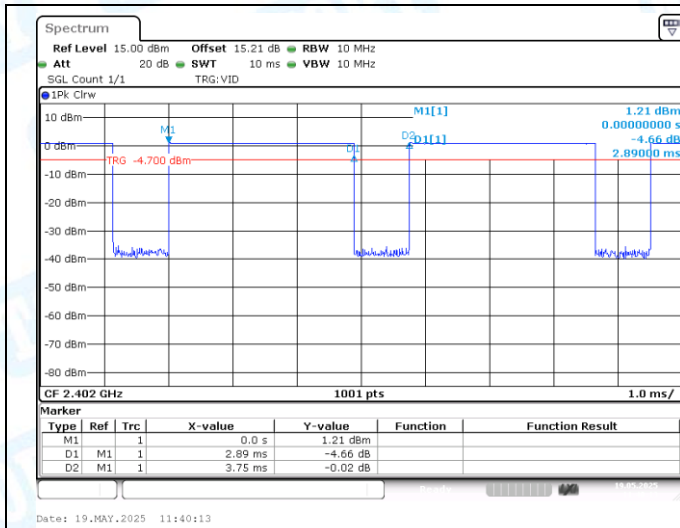
Note: 1, Duty Cycle= Transmission Duration/ Transmission Period

2, DC Factory=10*Log₁₀(1/Duty Cycle)

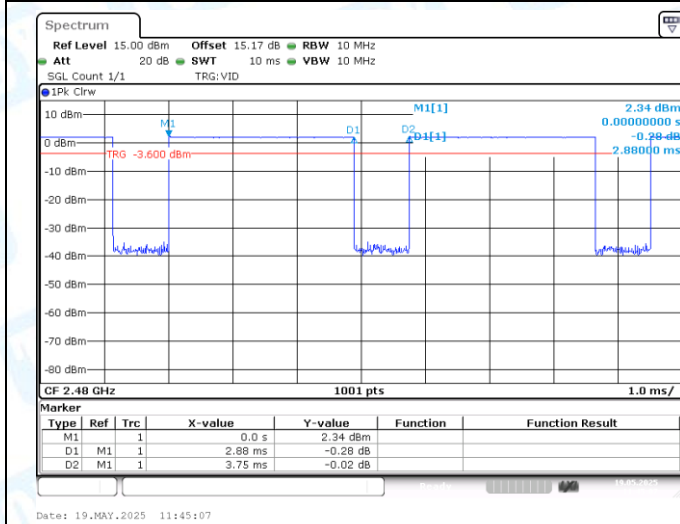
3, 1/T=1/ Transmission Duration

4, RF Conducted test Offset= cable loss+ Attenuator(10dB).

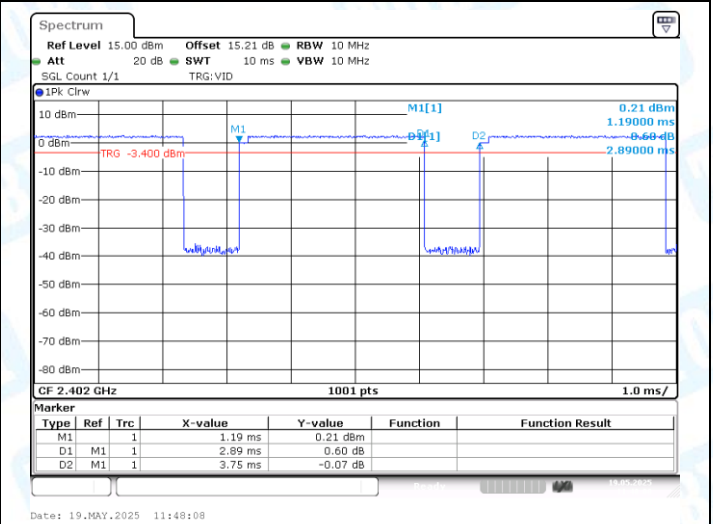
9.2 Test Graphs



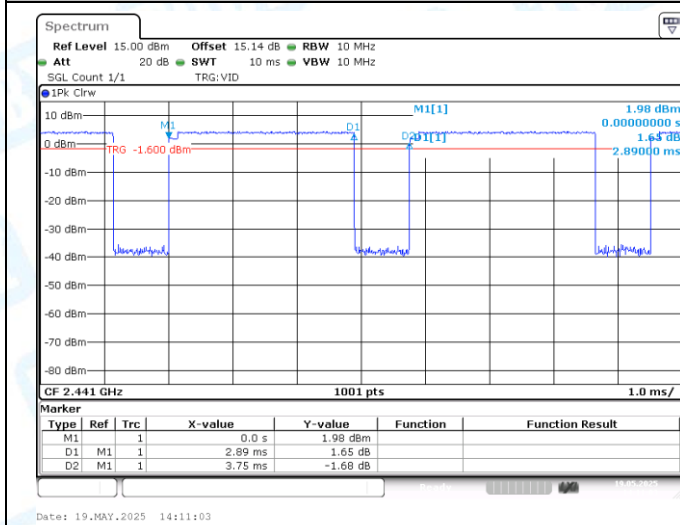
NTNV-DH5-Ant1-2402



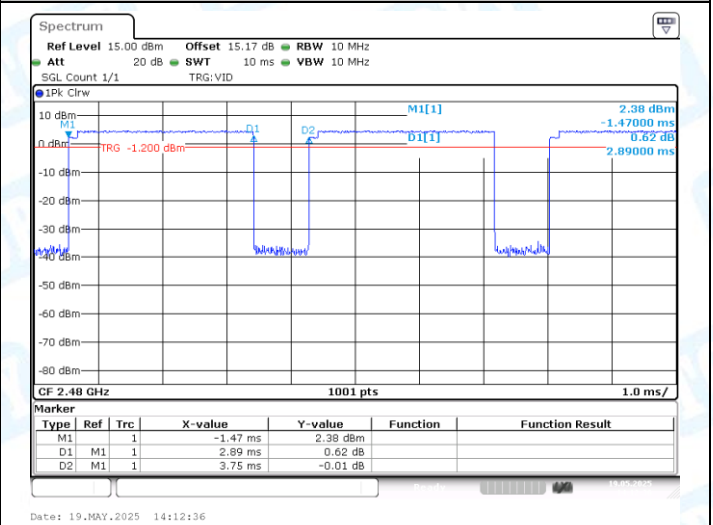
NTNV-DH5-Ant1-2441



NTNV-DH5-Ant1-2480

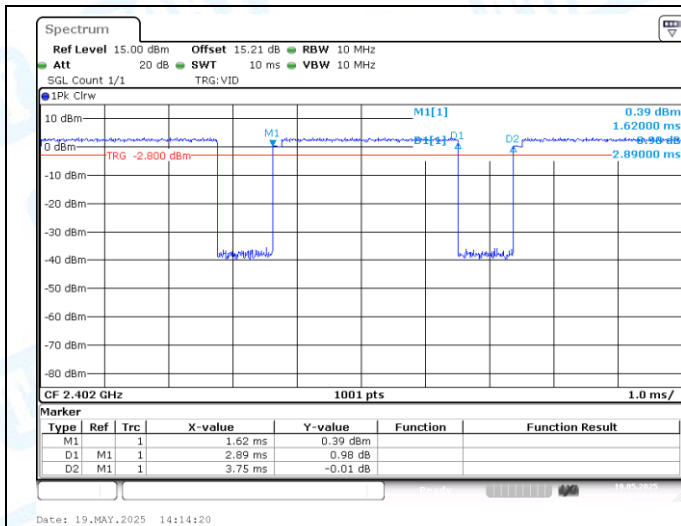


NTNV-2DH5-Ant1-2402

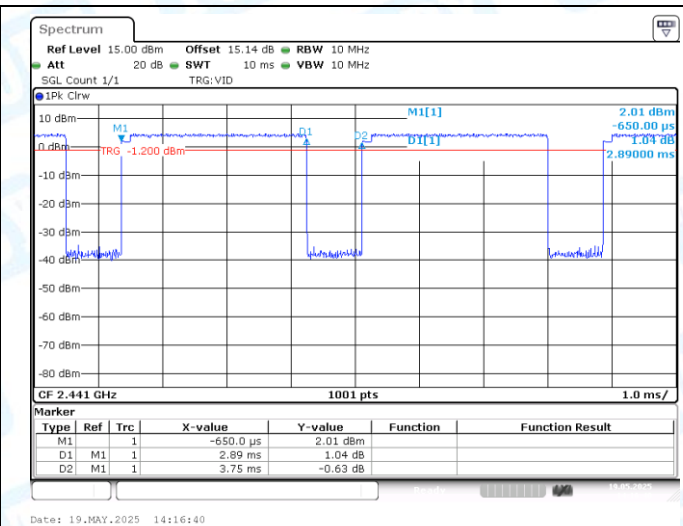


NTNV-2DH5-Ant1-2441

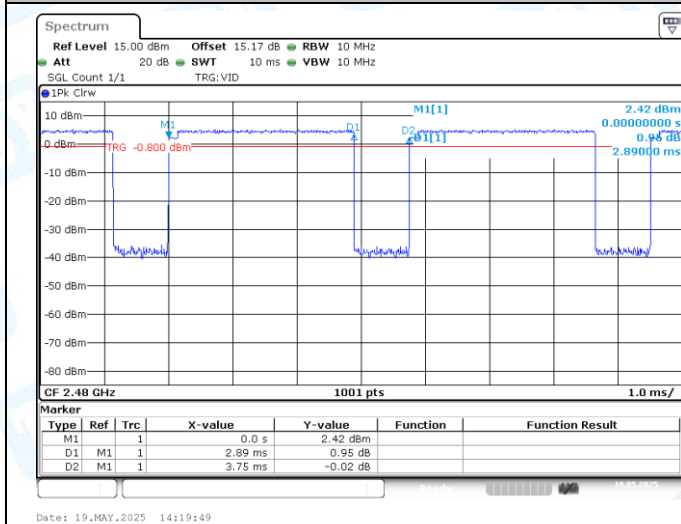
NTNV-2DH5-Ant1-2480



NTNV-3DH5-Ant1-2402



NTNV-3DH5-Ant1-2441



NTNV-3DH5-Ant1-2480

-----END OF THE REPORT-----