

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

General Description of EUT	
EUT Name:	HCB2
Model:	73355046
Sample ID:	HC-C-202506-0272-01-01
Test Standard:	FCC Part 15.247
Environmental Conditions	
Ambient Temperature:	25°C
Ambient Humidity:	45%RH
Test Power Supply:	DC 5V
Test Engineer:	Gold zhang
Note: For a more detailed features description, please refer to the report TBR-C-202506-0272-81	

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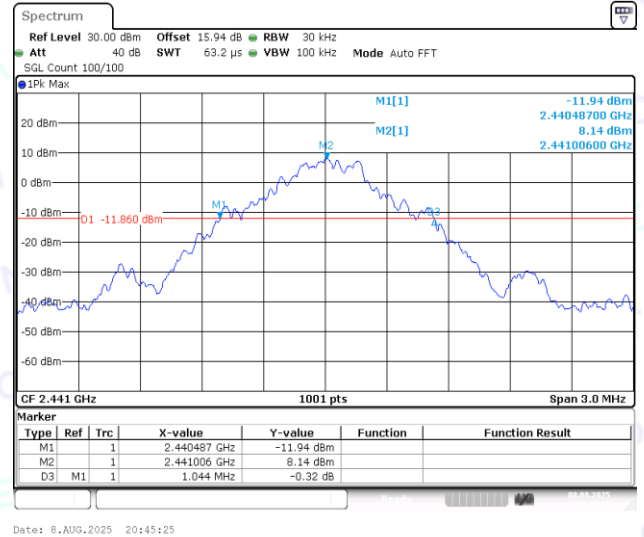
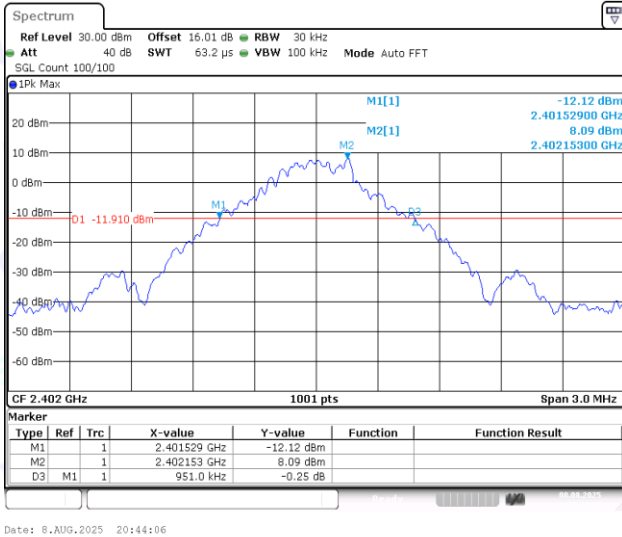
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1: 20dB Emission Bandwidth

1.1 Test Result

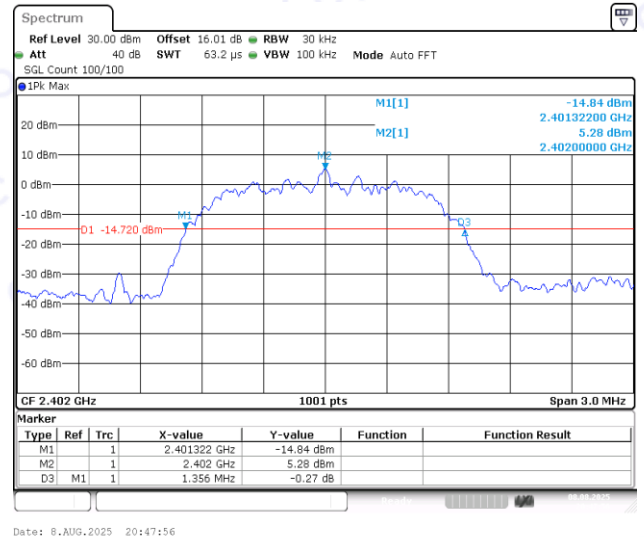
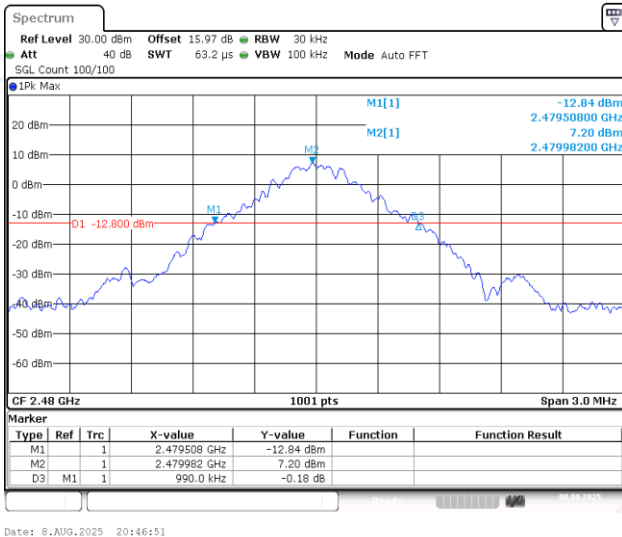
Test Mode	Antenna	Frequency[MHz]	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant2	2402	0.95	2401.53	2402.48	---	---
DH5	Ant2	2441	1.04	2440.49	2441.53	---	---
DH5	Ant2	2480	0.99	2479.51	2480.50	---	---
2DH5	Ant2	2402	1.36	2401.32	2402.68	---	---
2DH5	Ant2	2441	1.36	2440.32	2441.68	---	---
2DH5	Ant2	2480	1.37	2479.33	2480.69	---	---
3DH5	Ant2	2402	1.35	2401.32	2402.67	---	---
3DH5	Ant2	2441	1.31	2440.35	2441.66	---	---
3DH5	Ant2	2480	1.33	2479.34	2480.67	---	---

1.2 Test Graphs



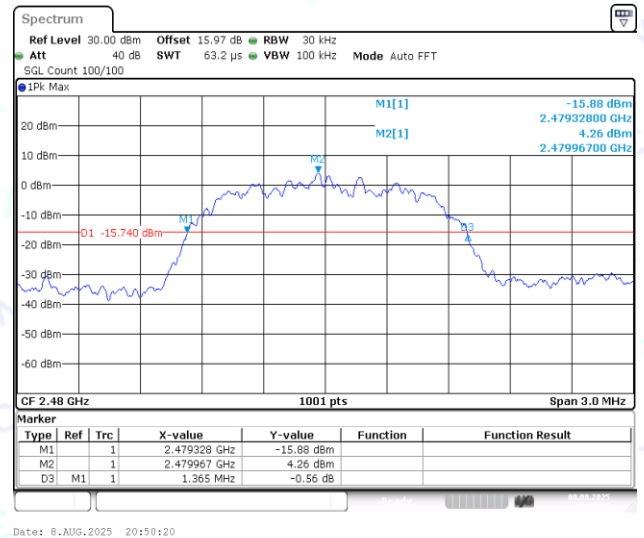
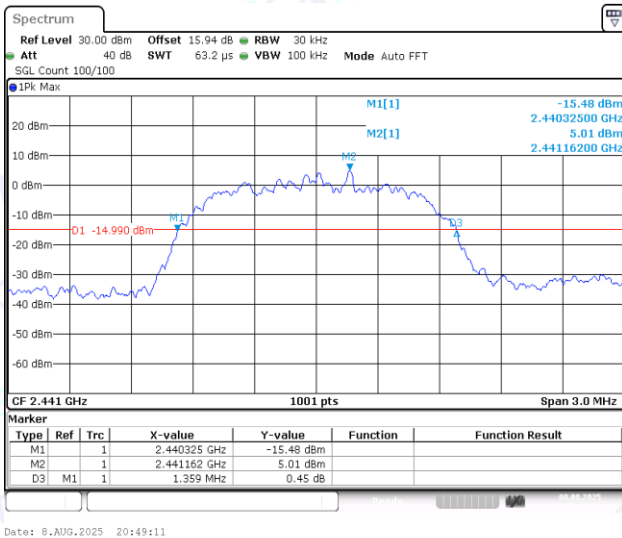
DH5-Ant2-2402

DH5-Ant2-2441



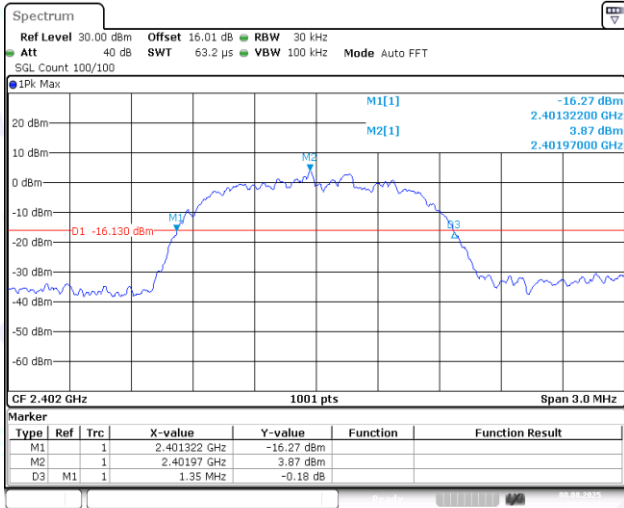
DH5-Ant2-2480

2DH5-Ant2-2402

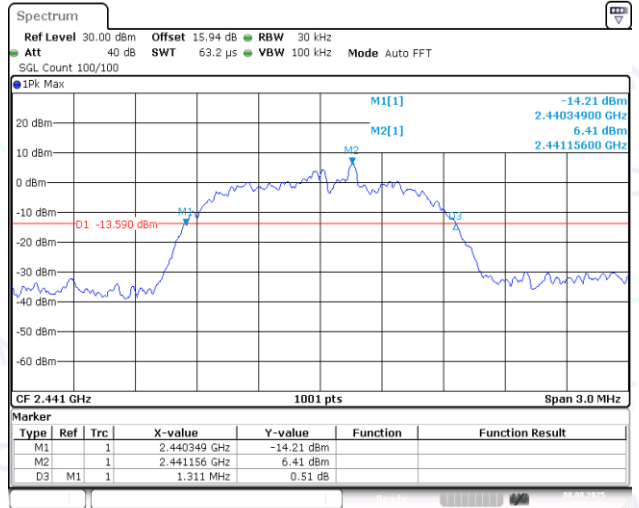


2DH5-Ant2-2441

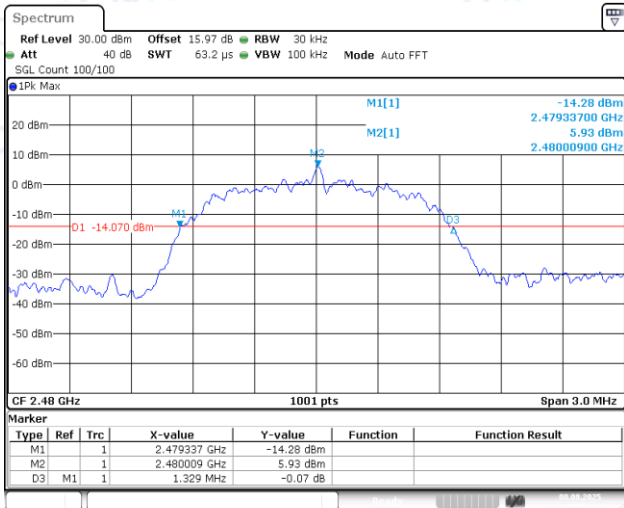
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3DH5-Ant2-2402



3DH5-Ant2-2441



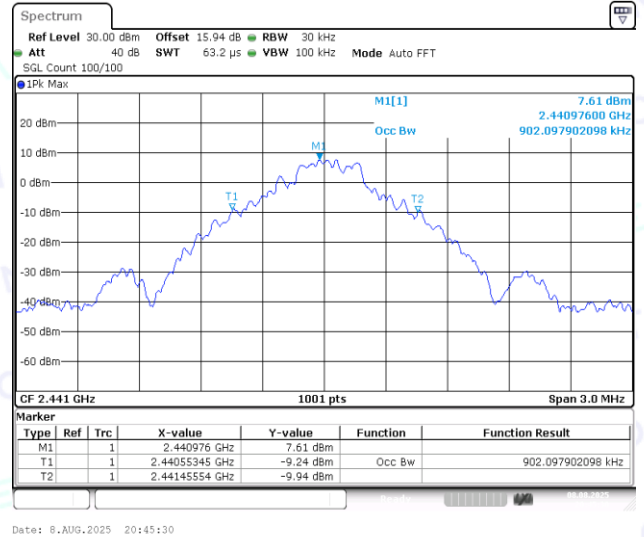
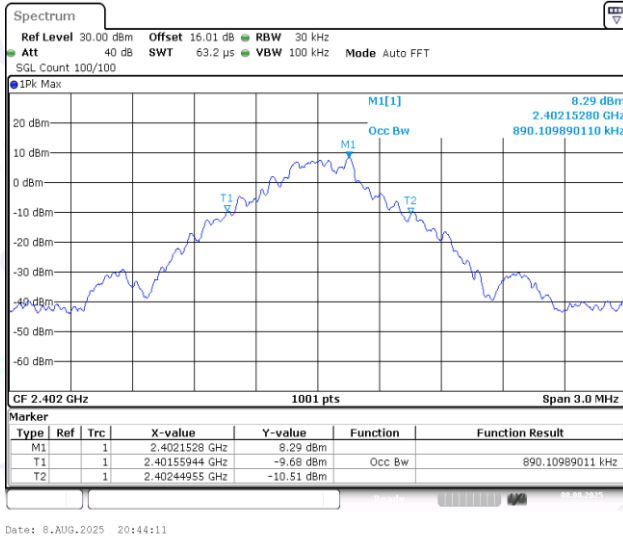
3DH5-Ant2-2480

2: Occupied Channel Bandwidth

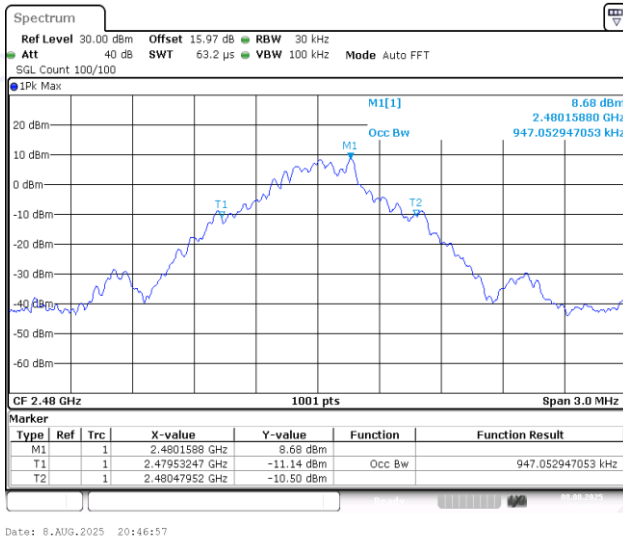
2.1 Test Result

Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant2	2402	0.89011	2401.5594	2402.4496	---	---
DH5	Ant2	2441	0.90210	2440.5534	2441.4555	---	---
DH5	Ant2	2480	0.94705	2479.5325	2480.4795	---	---
2DH5	Ant2	2402	1.2258	2401.3886	2402.6144	---	---
2DH5	Ant2	2441	1.2228	2440.3976	2441.6204	---	---
2DH5	Ant2	2480	1.2378	2479.3946	2480.6324	---	---
3DH5	Ant2	2402	1.2228	2401.3826	2402.6054	---	---
3DH5	Ant2	2441	1.1988	2440.4066	2441.6054	---	---
3DH5	Ant2	2480	1.2258	2479.3916	2480.6174	---	---

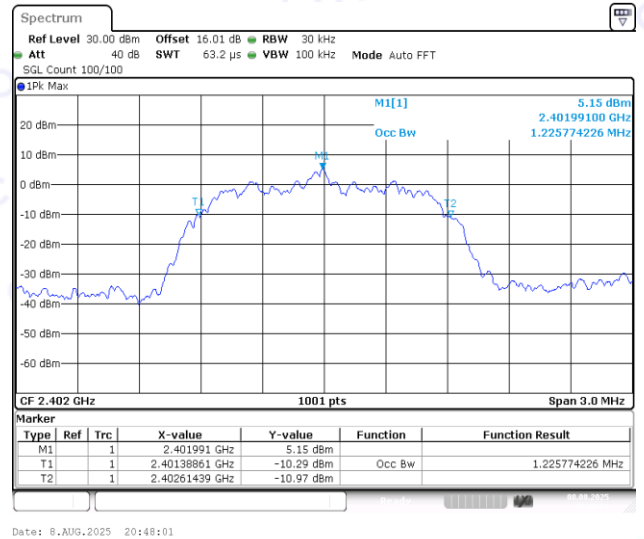
2.2 Test Graphs



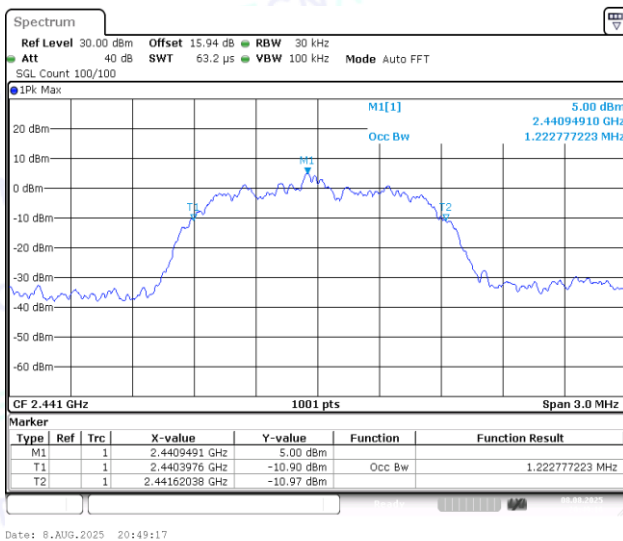
DH5-Ant2-2402



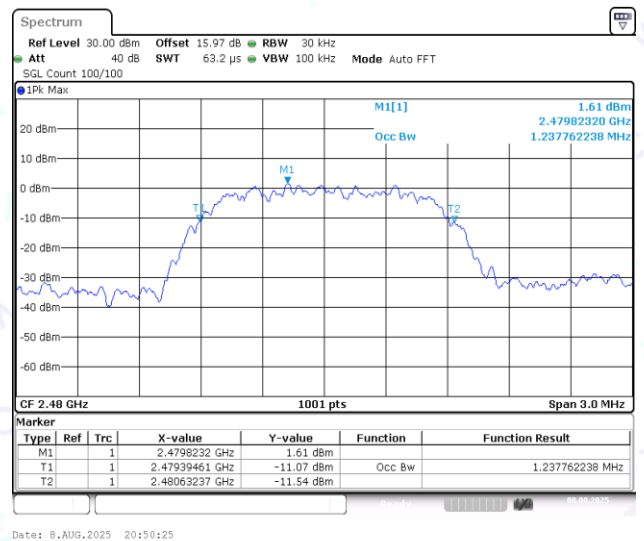
DH5-Ant2-2441



DH5-Ant2-2480

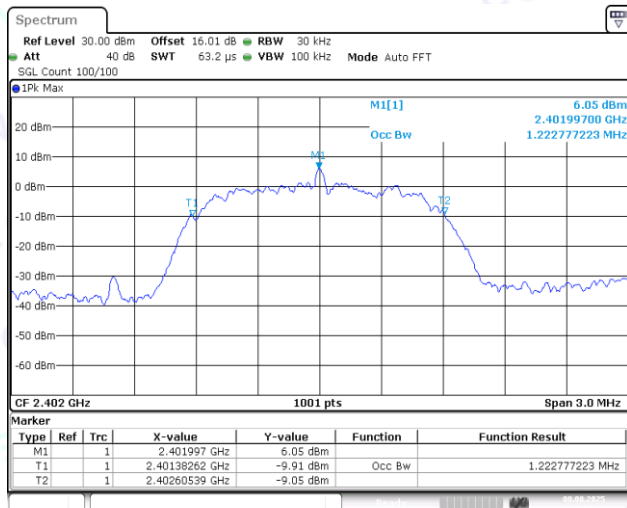


2DH5-Ant2-2402

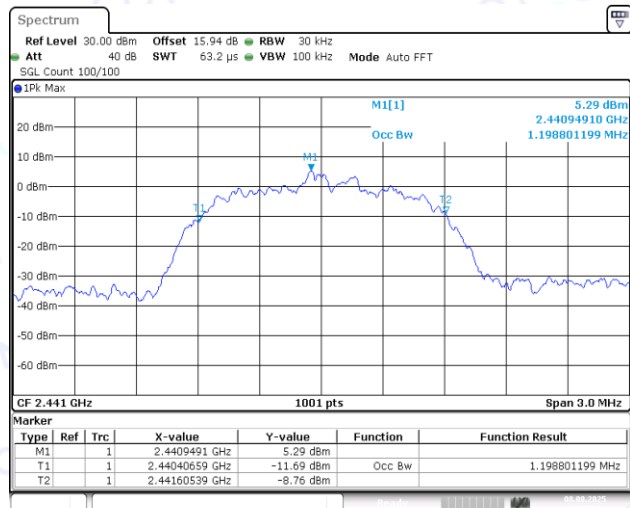


2DH5-Ant2-2441

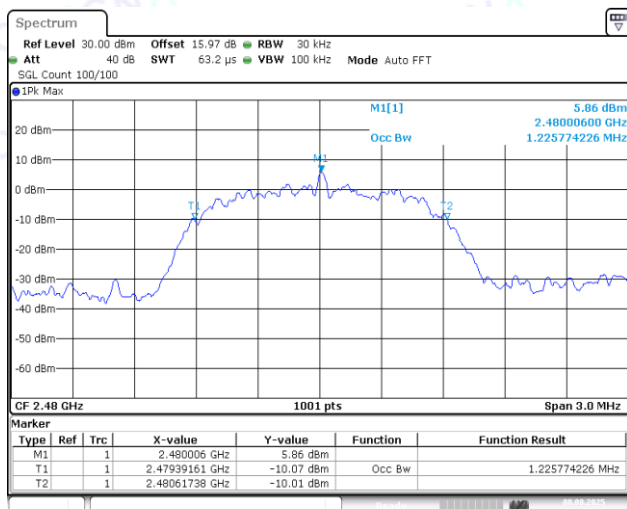
2DH5-Ant2-2480



3DH5-Ant2-2402



3DH5-Ant2-2441



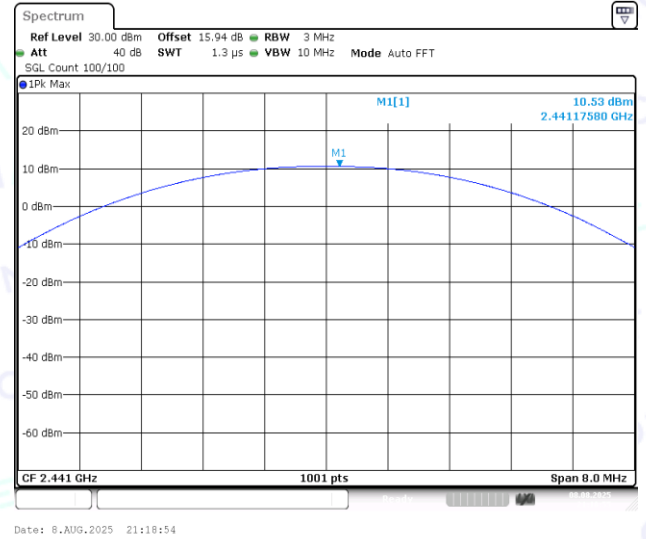
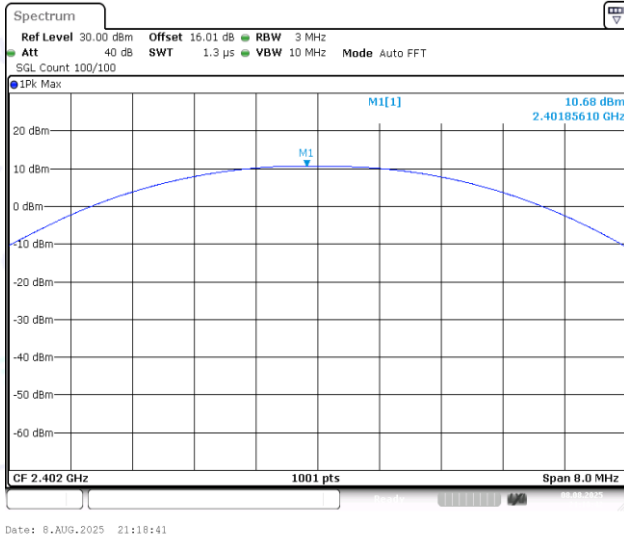
3DH5-Ant2-2480

3: Maximum conducted output power

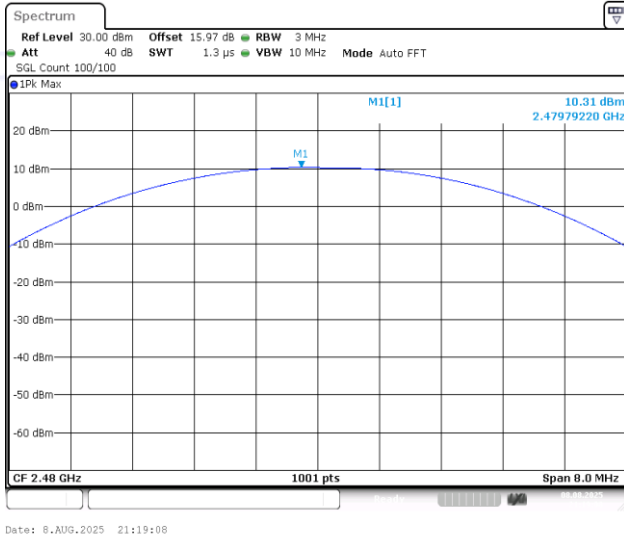
3.1 Test Result Peak

Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant2	2402	10.68	≤21	PASS
DH5	Ant2	2441	10.53	≤21	PASS
DH5	Ant2	2480	10.31	≤21	PASS
2DH5	Ant2	2402	10.02	≤21	PASS
2DH5	Ant2	2441	9.81	≤21	PASS
2DH5	Ant2	2480	9.60	≤21	PASS
3DH5	Ant2	2402	9.94	≤21	PASS
3DH5	Ant2	2441	10.34	≤21	PASS
3DH5	Ant2	2480	9.66	≤21	PASS

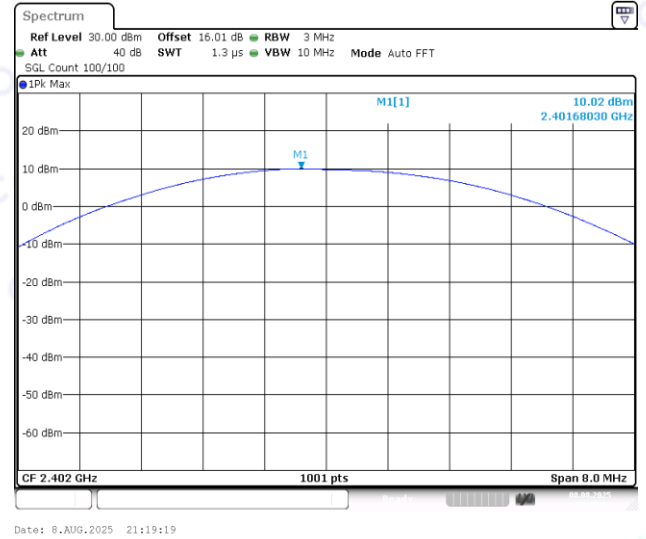
3.2 Test Graphs



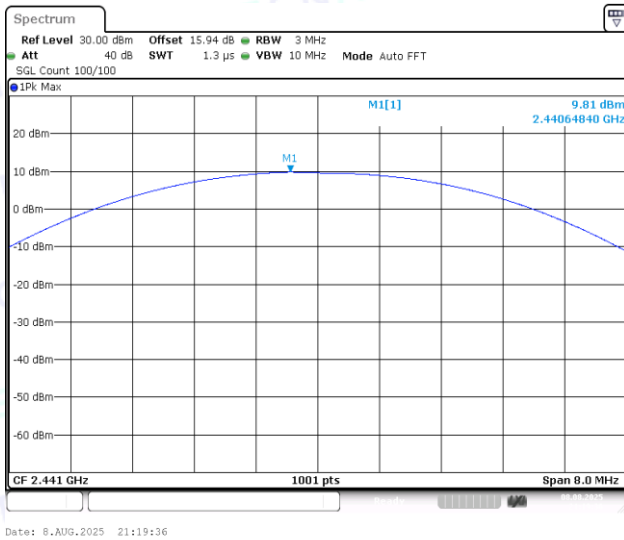
DH5-Ant2-2402-PASS



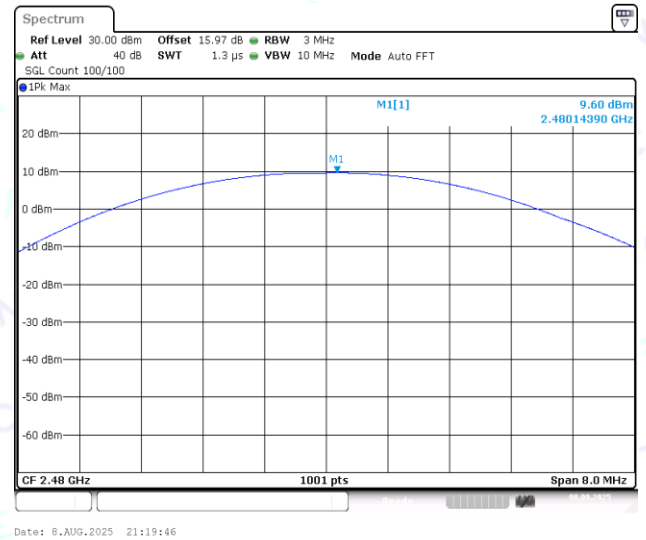
DH5-Ant2-2480-PASS



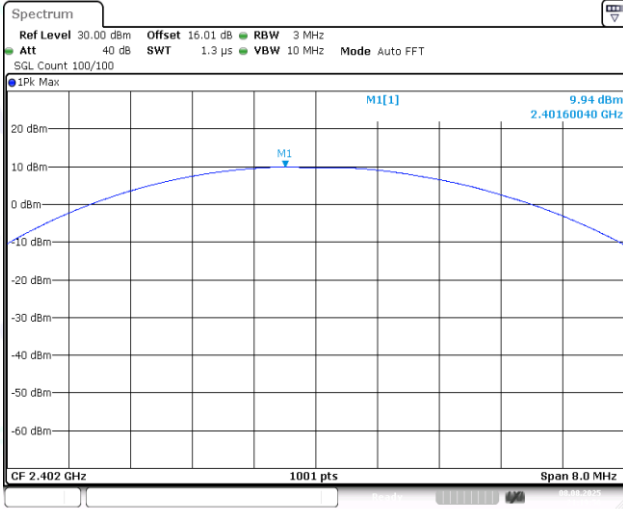
2DH5-Ant2-2402-PASS



2DH5-Ant2-2441-PASS

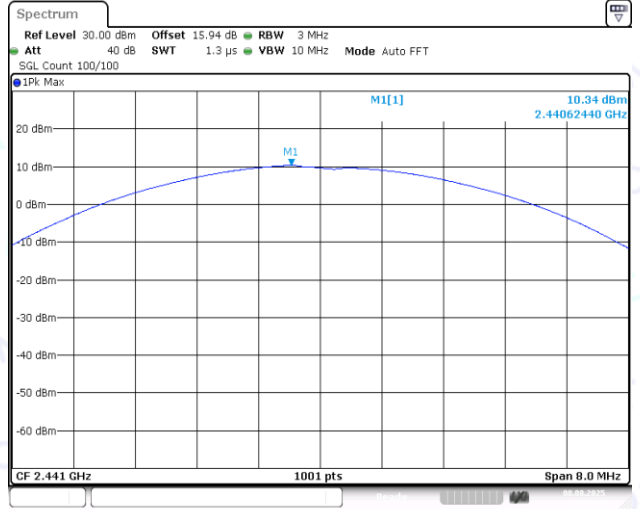


2DH5-Ant2-2480-PASS



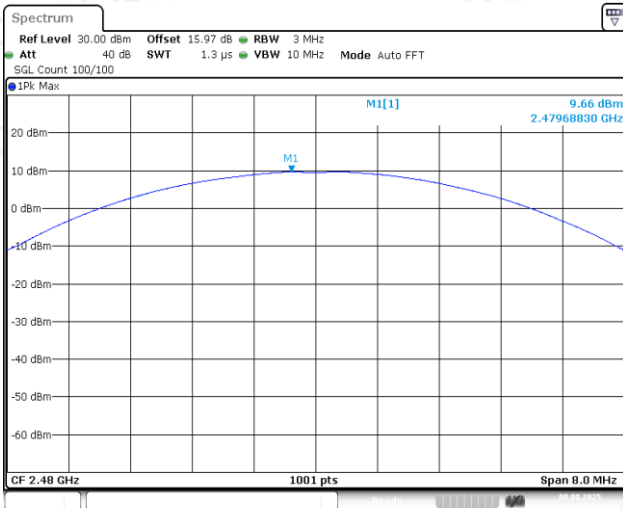
Date: 8.AUG.2025 21:19:56

3DH5-Ant2-2402-PASS



Date: 8.AUG.2025 21:20:09

3DH5-Ant2-2441-PASS



Date: 8.AUG.2025 21:20:22

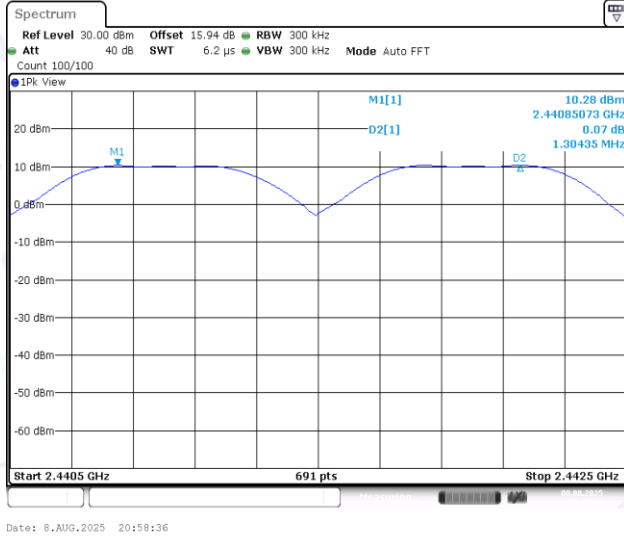
3DH5-Ant2-2480-PASS

4: Carrier frequency separation

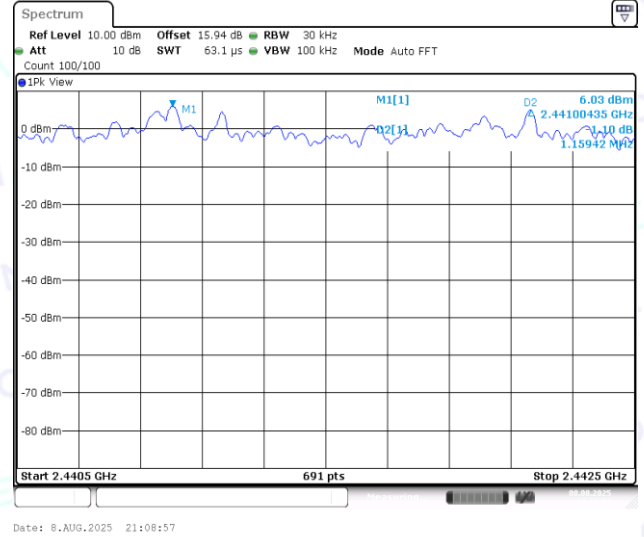
4.1 Test Result

TestMode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant2	Hop	1.304	≥ 0.6968	PASS
2DH5	Ant2	Hop	1.159	≥ 0.9179	PASS
3DH5	Ant2	Hop	1.067	≥ 0.9045	PASS

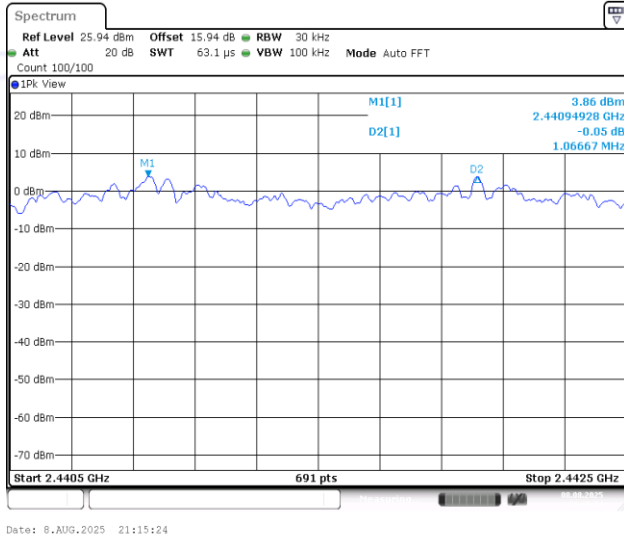
4.2 Test Graphs



DH5-Ant2-Hop-PASS



2DH5-Ant2-Hop-PASS



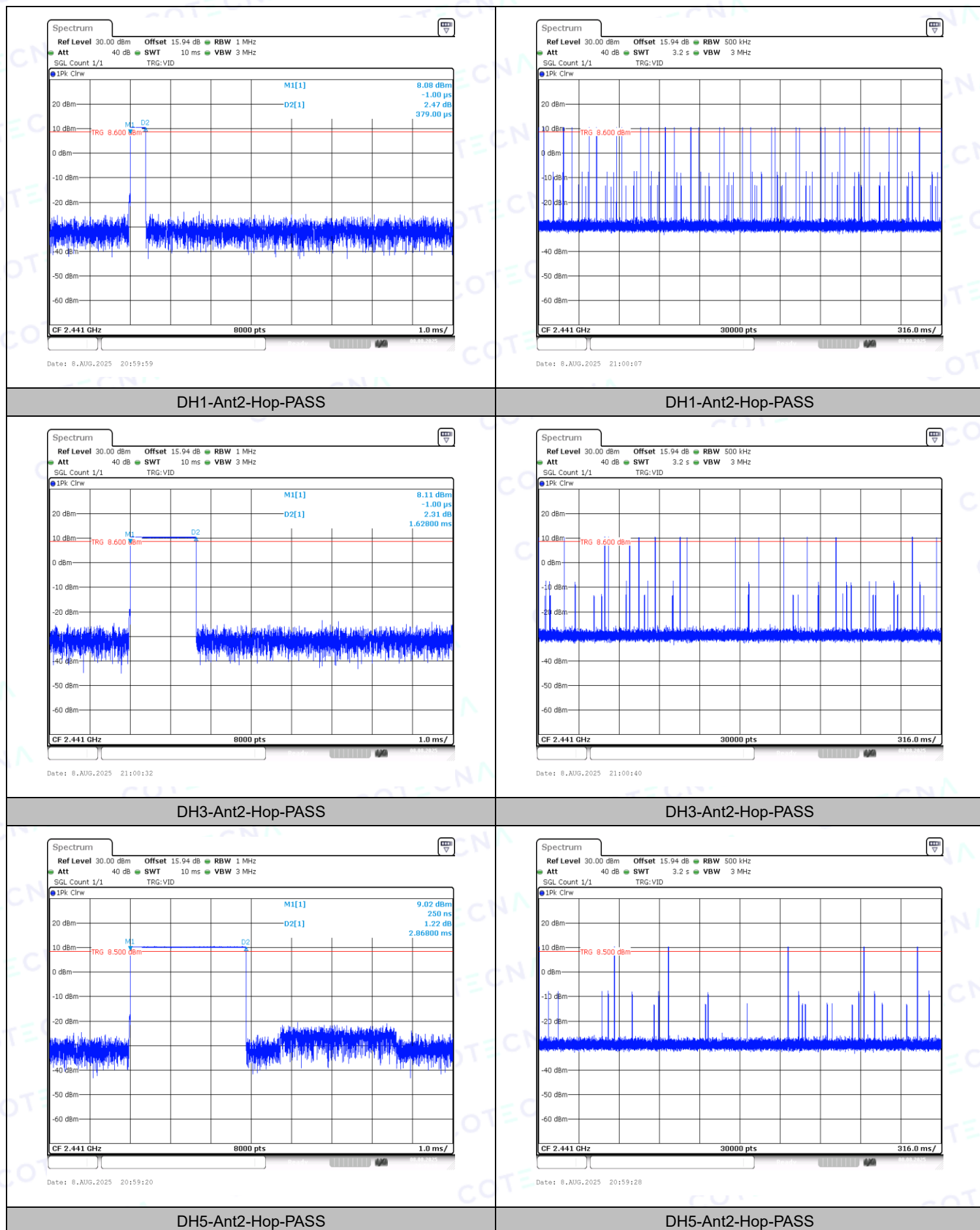
3DH5-Ant2-Hop-PASS

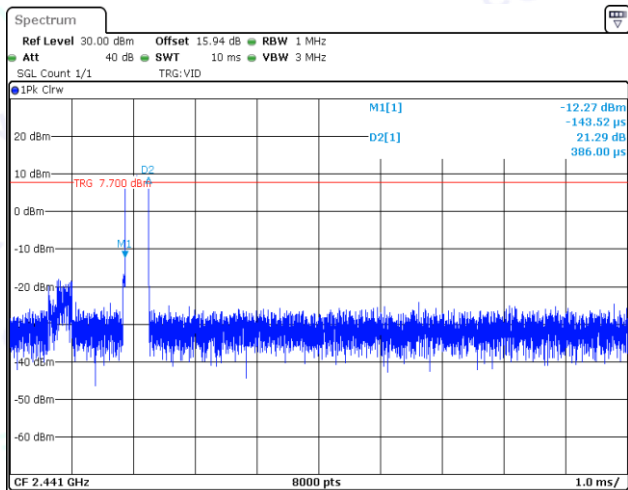
5: Time of occupancy

5.1 Test Result

TestMode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant2	Hop	0.379	320	0.121	≤0.4	PASS
DH3	Ant2	Hop	1.628	160	0.26	≤0.4	PASS
DH5	Ant2	Hop	2.868	60	0.172	≤0.4	PASS
2DH1	Ant2	Hop	0.386	320	0.124	≤0.4	PASS
2DH3	Ant2	Hop	1.630	200	0.326	≤0.4	PASS
2DH5	Ant2	Hop	2.870	70	0.201	≤0.4	PASS
3DH1	Ant2	Hop	0.385	330	0.127	≤0.4	PASS
3DH3	Ant2	Hop	1.629	150	0.244	≤0.4	PASS
3DH5	Ant2	Hop	2.873	130	0.373	≤0.4	PASS

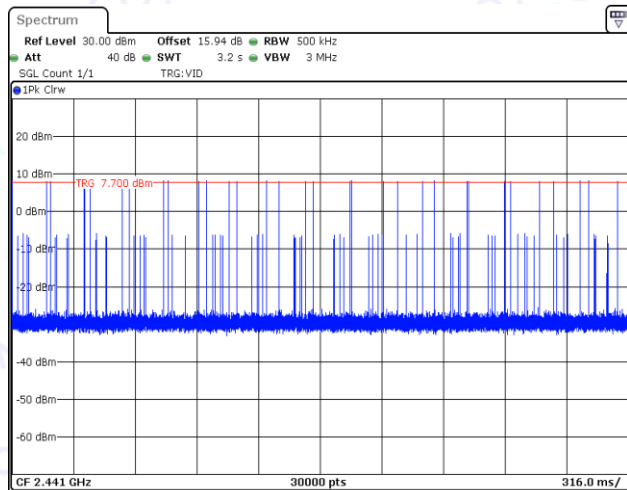
5.2 Test Graphs





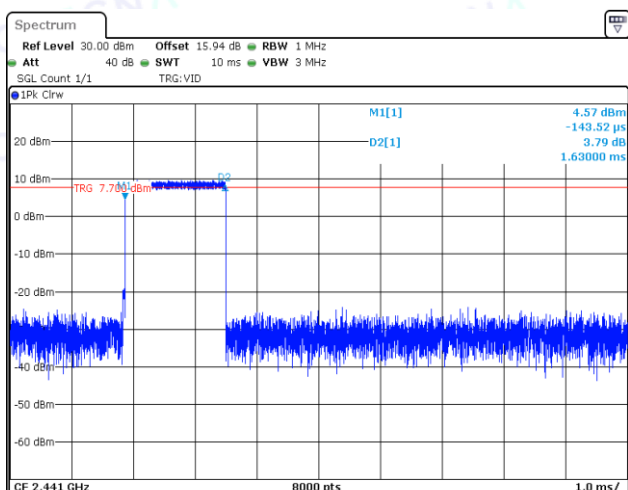
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2DH1-Ant2-Hop-PASS



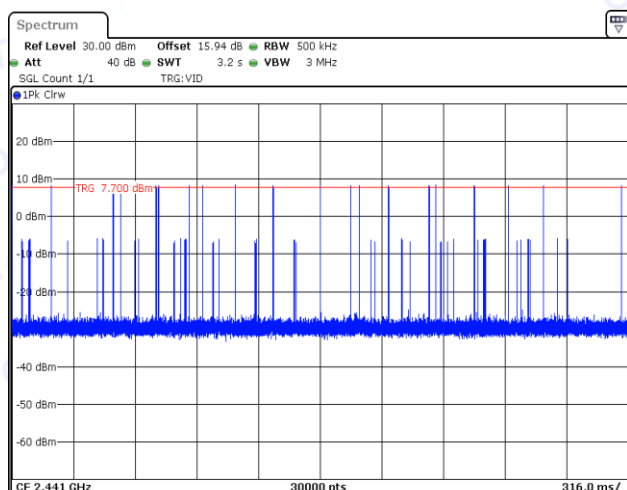
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2DH1-Ant2-Hop-PASS



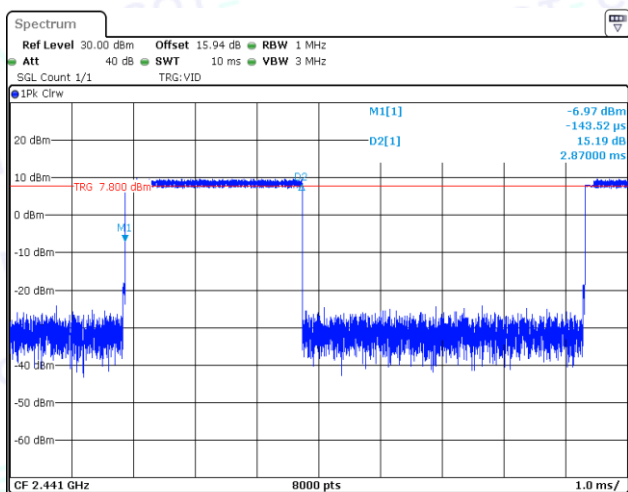
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2DH3-Ant2-Hop-PASS



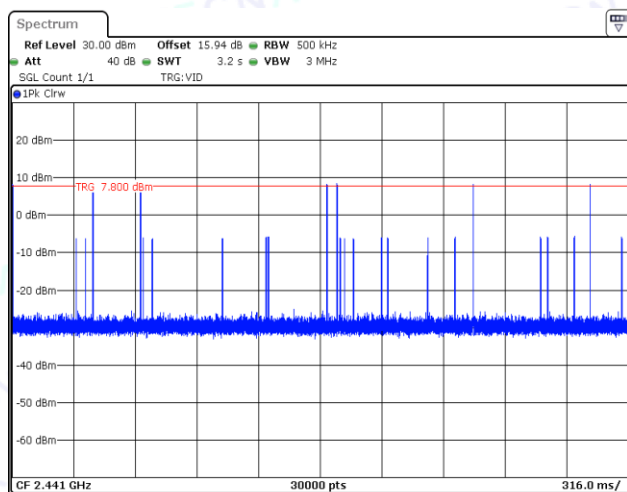
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2DH3-Ant2-Hop-PASS



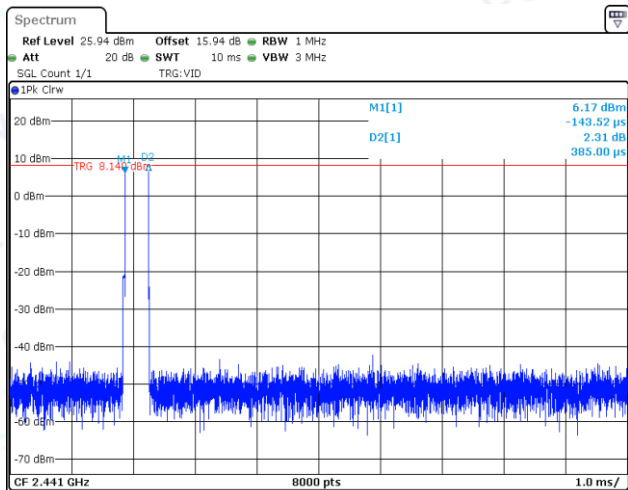
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2DH5-Ant2-Hop-PASS



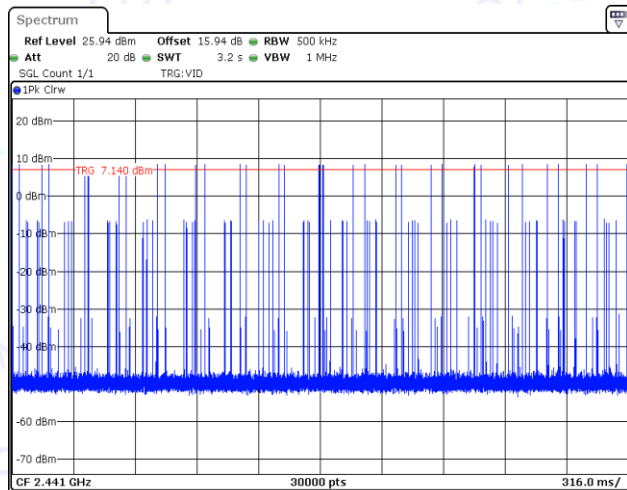
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2DH5-Ant2-Hop-PASS



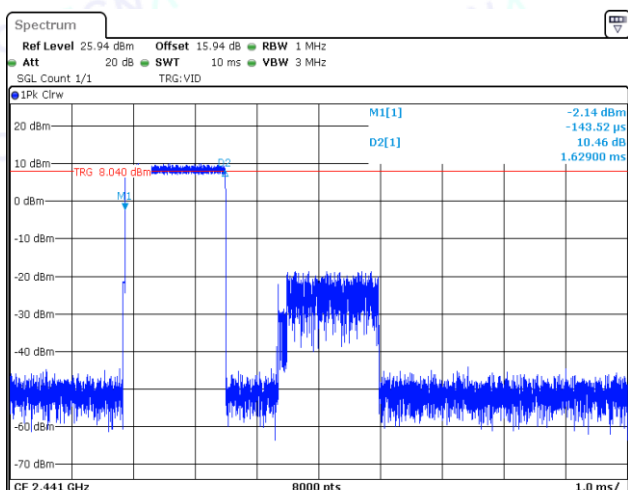
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3DH1-Ant2-Hop-PASS



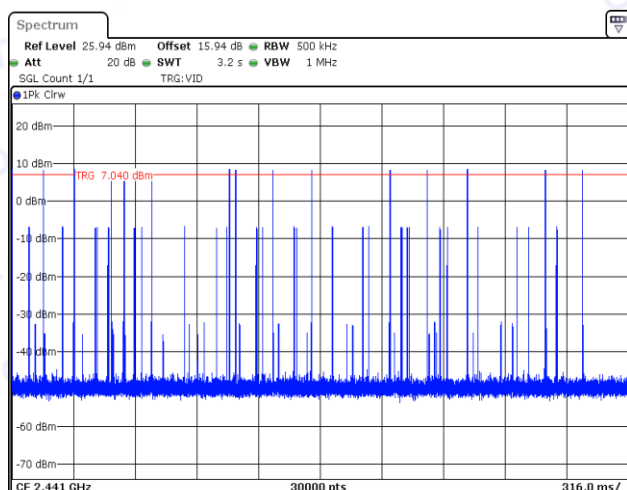
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3DH1-Ant2-Hop-PASS



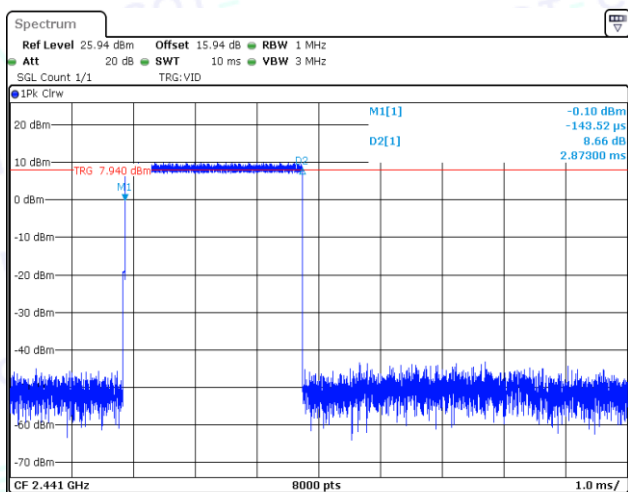
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3DH3-Ant2-Hop-PASS



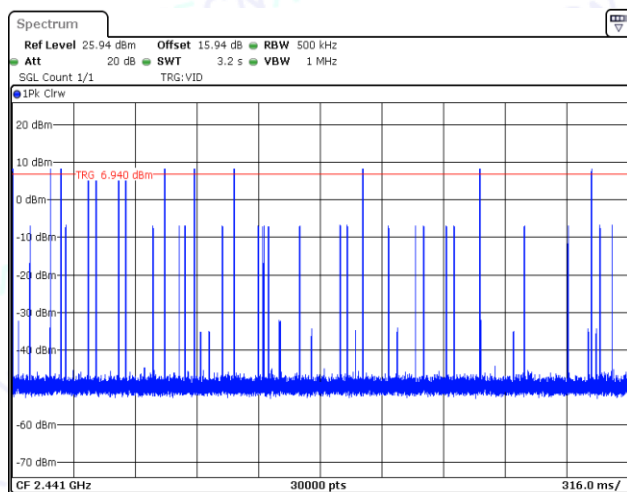
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3DH3-Ant2-Hop-PASS



Date: 8.AUG.2025 21:17:54

3DH5-Ant2-Hop-PASS



Date: 8.AUG.2025 21:18:09

3DH5-Ant2-Hop-PASS

6: Number of hopping channels

6.1 Test Result

TestMode	Antenna	Frequency[MHz]	Result[Num]	Limit[Num]	Verdict
DH5	Ant2	Hop	79	≥15	PASS
2DH5	Ant2	Hop	79	≥15	PASS
3DH5	Ant2	Hop	79	≥15	PASS

6.2 Test Graphs

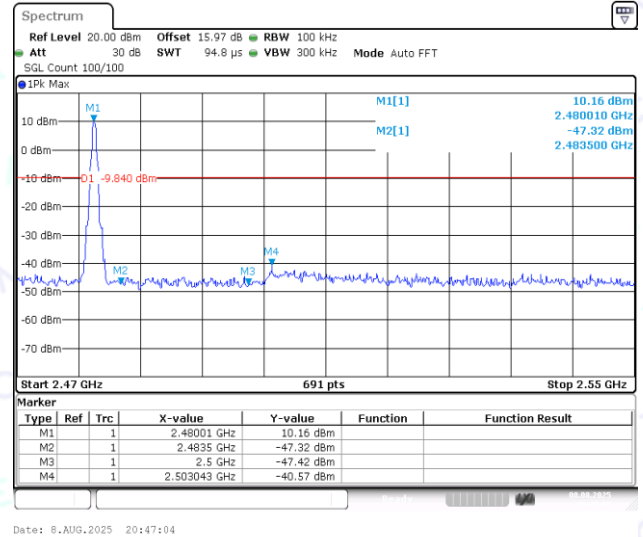
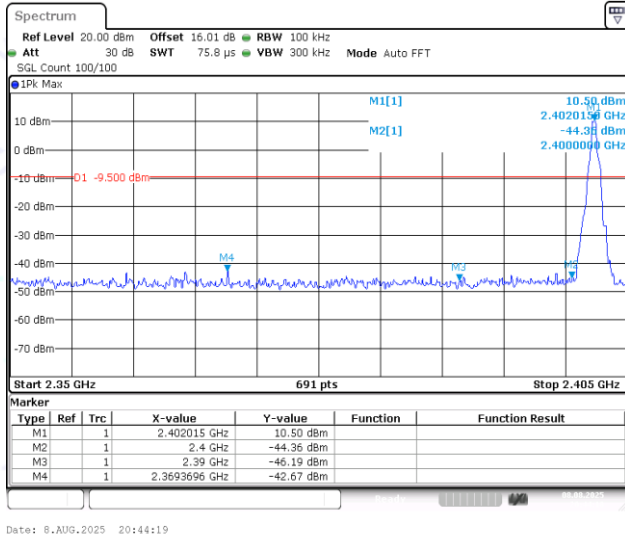


7: Band edge measurements

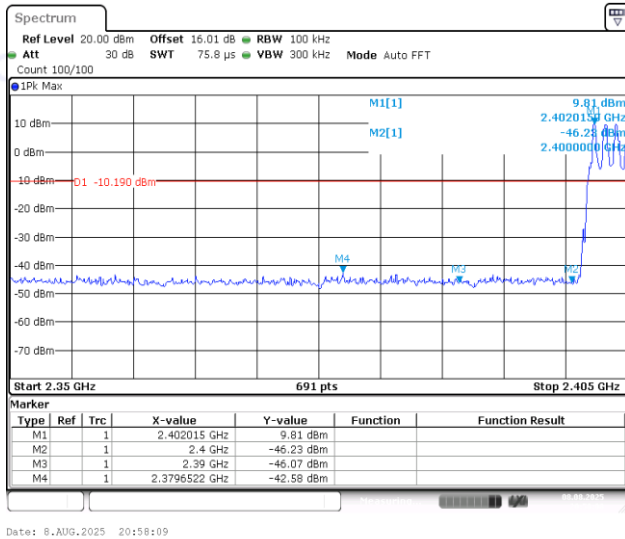
7.1 Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant2	Low	2402	10.50	-42.67	≤-9.5	PASS
DH5	Ant2	High	2480	10.16	-40.57	≤-9.84	PASS
DH5	Ant2	Low	Hop_2402	9.81	-42.58	≤-10.19	PASS
DH5	Ant2	High	Hop_2480	10.10	-40.13	≤-9.9	PASS
2DH5	Ant2	Low	2402	7.67	-43.77	≤-12.33	PASS
2DH5	Ant2	High	2480	7.57	-42.53	≤-12.43	PASS
2DH5	Ant2	Low	Hop_2402	7.22	-42.29	≤-12.78	PASS
2DH5	Ant2	High	Hop_2480	7.08	-40.29	≤-12.92	PASS
3DH5	Ant2	Low	2402	5.85	-44.22	≤-14.15	PASS
3DH5	Ant2	High	2480	6.91	-42.5	≤-13.09	PASS
3DH5	Ant2	Low	Hop_2402	6.72	-42.43	≤-13.28	PASS
3DH5	Ant2	High	Hop_2480	6.82	-40.43	≤-13.18	PASS

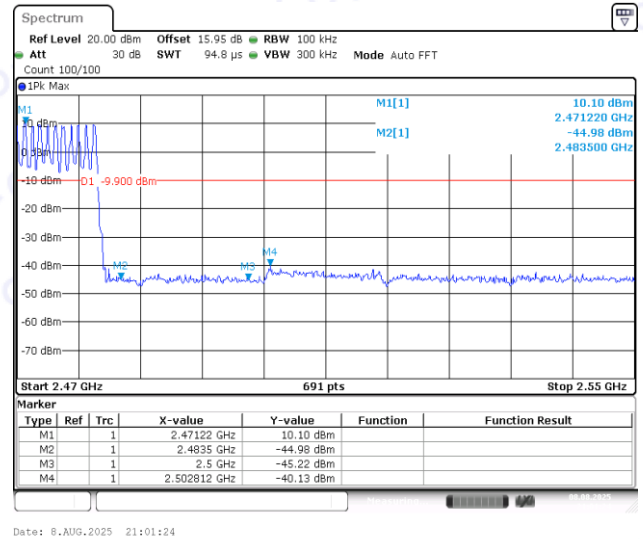
7.2 Test Graphs



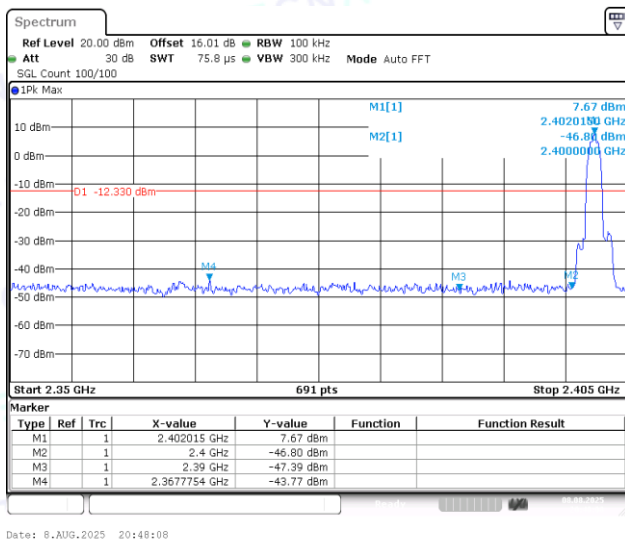
DH5-Ant2-2402-PASS



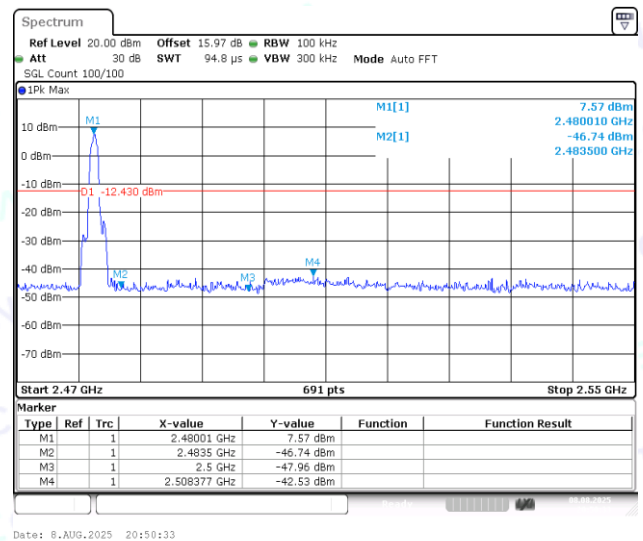
DH5-Ant2-2480-PASS



DH5-Ant2-Hop_2402-PASS

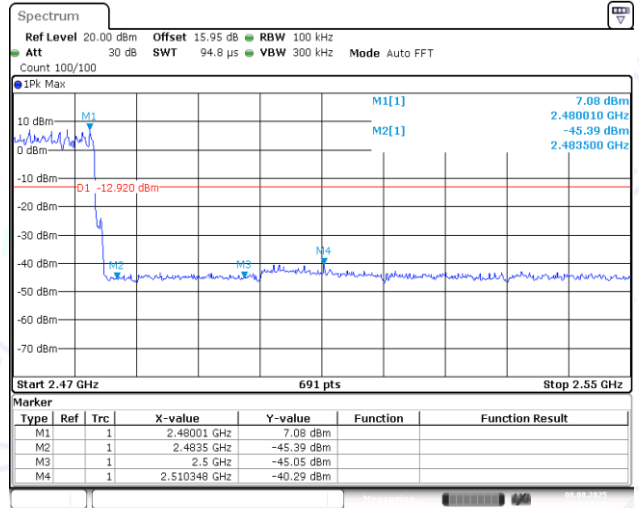
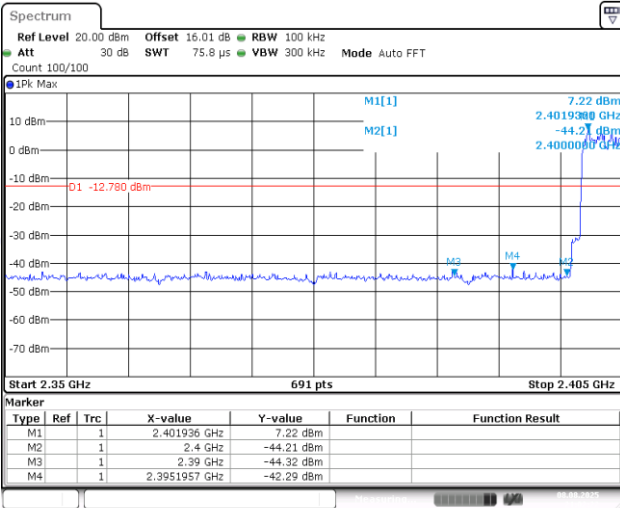


DH5-Ant2-Hop_2480-PASS



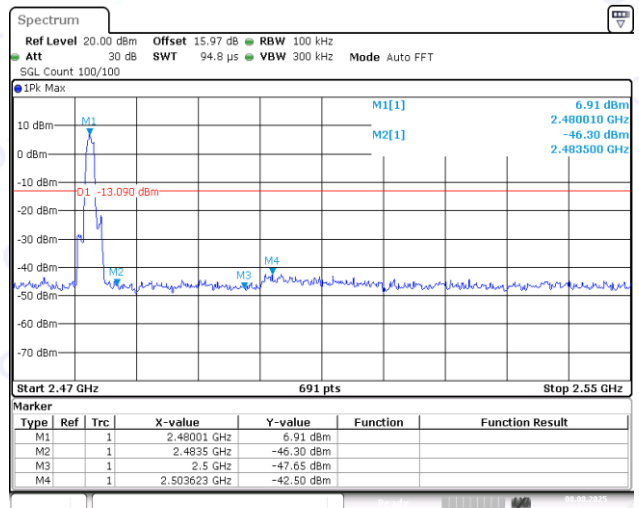
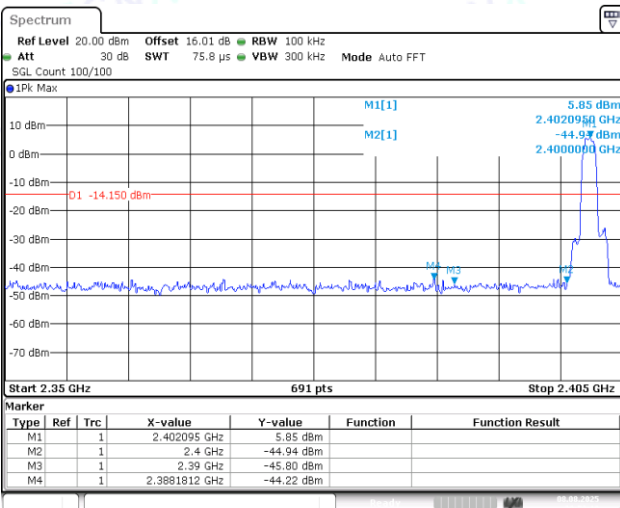
2DH5-Ant2-2402-PASS

2DH5-Ant2-2480-PASS



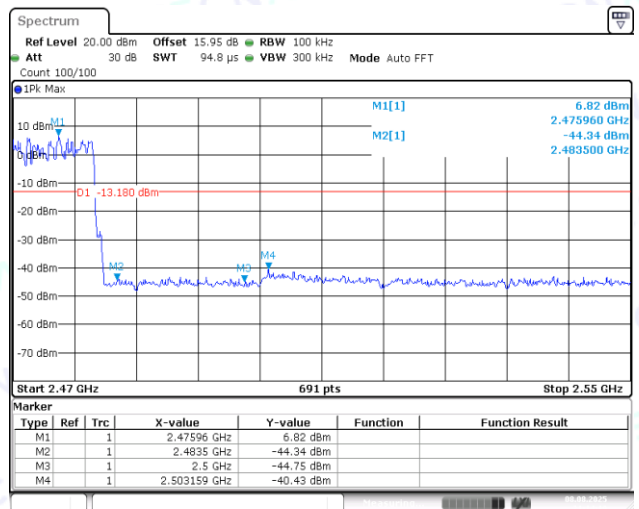
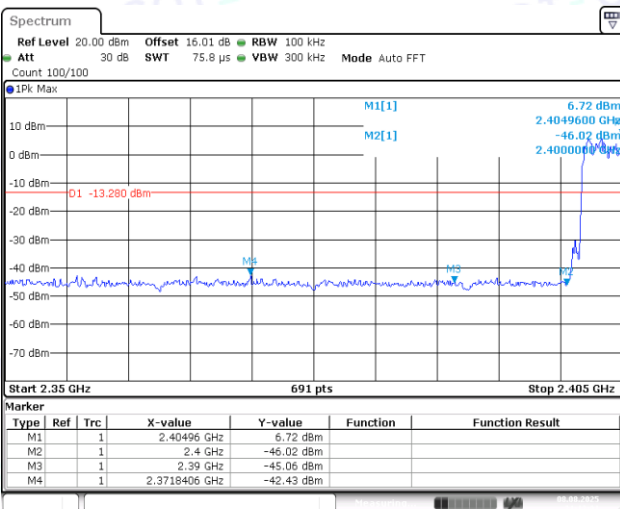
2DH5-Ant2-Hop_2402-PASS

2DH5-Ant2-Hop_2480-PASS



3DH5-Ant2-2402-PASS

3DH5-Ant2-2480-PASS



3DH5-Ant2-Hop_2402-PASS

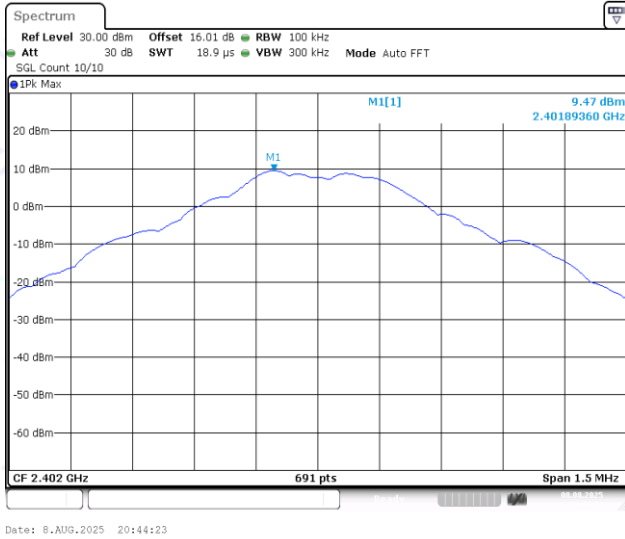
3DH5-Ant2-Hop_2480-PASS

8: Conducted Spurious Emission

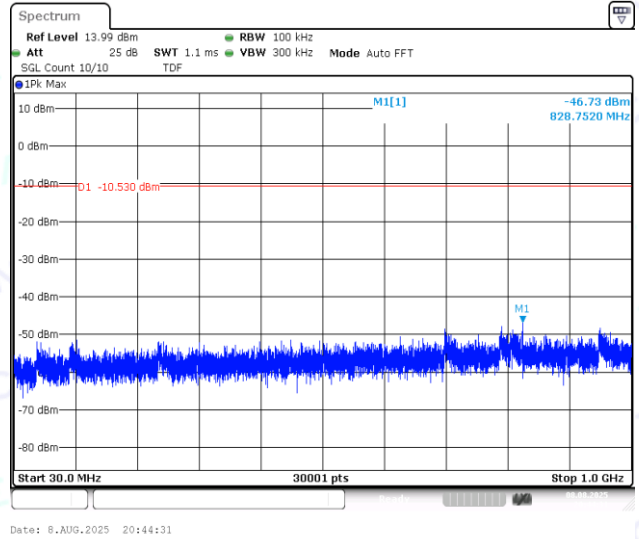
8.1 Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant2	2402	0~Reference	9.47	9.47	---	PASS
DH5	Ant2	2402	30~1000	9.47	-46.73	≤-10.53	PASS
DH5	Ant2	2402	1000~26500	9.47	-15.94	≤-10.53	PASS
DH5	Ant2	2441	0~Reference	9.24	9.24	---	PASS
DH5	Ant2	2441	30~1000	9.24	-47.14	≤-10.76	PASS
DH5	Ant2	2441	1000~26500	9.24	-14.52	≤-10.76	PASS
DH5	Ant2	2480	0~Reference	9.66	9.66	---	PASS
DH5	Ant2	2480	30~1000	9.66	-48.1	≤-10.34	PASS
DH5	Ant2	2480	1000~26500	9.66	-16.38	≤-10.34	PASS
2DH5	Ant2	2402	0~Reference	4.67	4.67	---	PASS
2DH5	Ant2	2402	30~1000	4.67	-46.2	≤-15.33	PASS
2DH5	Ant2	2402	1000~26500	4.67	-16.27	≤-15.33	PASS
2DH5	Ant2	2441	0~Reference	6.56	6.56	---	PASS
2DH5	Ant2	2441	30~1000	6.56	-47.75	≤-13.44	PASS
2DH5	Ant2	2441	1000~26500	6.56	-15.81	≤-13.44	PASS
2DH5	Ant2	2480	0~Reference	6.15	6.15	---	PASS
2DH5	Ant2	2480	30~1000	6.15	-47.46	≤-13.85	PASS
2DH5	Ant2	2480	1000~26500	6.15	-16.31	≤-13.85	PASS
3DH5	Ant2	2402	0~Reference	5.19	5.19	---	PASS
3DH5	Ant2	2402	30~1000	5.19	-46.62	≤-14.81	PASS
3DH5	Ant2	2402	1000~26500	5.19	-26.99	≤-14.81	PASS
3DH5	Ant2	2441	0~Reference	4.86	4.86	---	PASS
3DH5	Ant2	2441	30~1000	4.86	-47.27	≤-15.14	PASS
3DH5	Ant2	2441	1000~26500	4.86	-27.12	≤-15.14	PASS
3DH5	Ant2	2480	0~Reference	7.74	7.74	---	PASS
3DH5	Ant2	2480	30~1000	7.74	-47.62	≤-12.26	PASS
3DH5	Ant2	2480	1000~26500	7.74	-26.46	≤-12.26	PASS

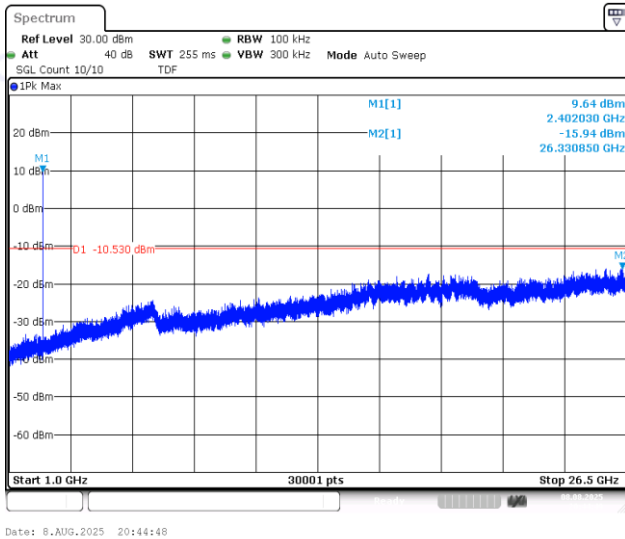
8.2 Test Graphs



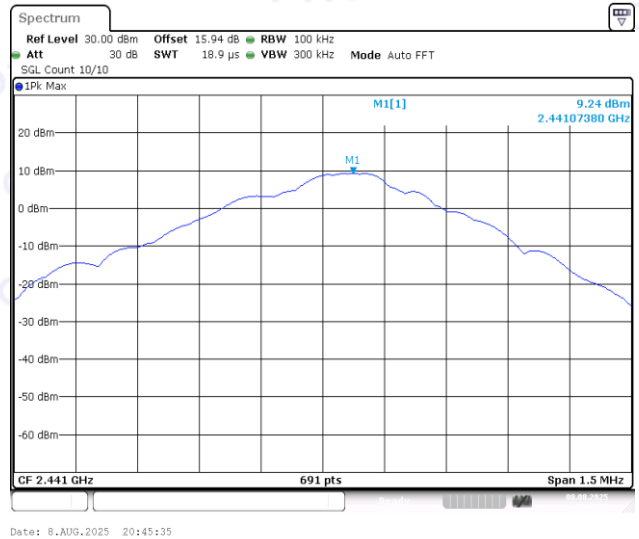
DH5-Ant2-2402-0~Reference-PASS



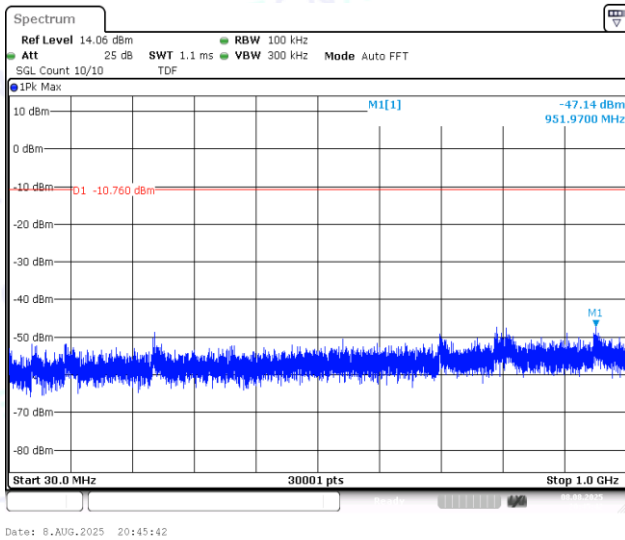
DH5-Ant2-2402-30~1000-PASS



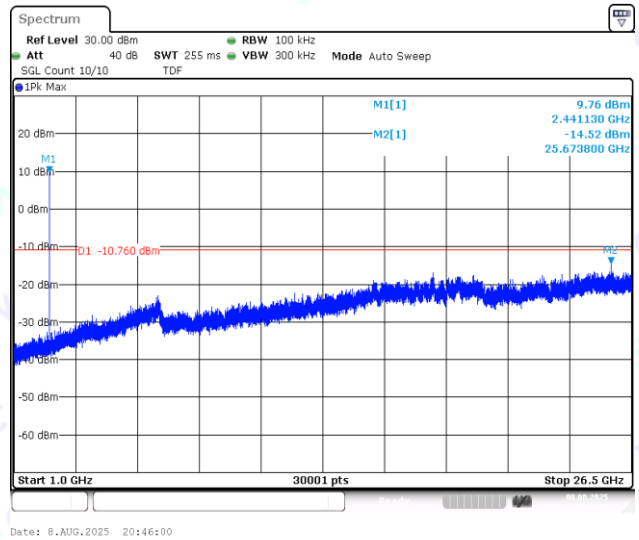
DH5-Ant2-2402-1000~26500-PASS



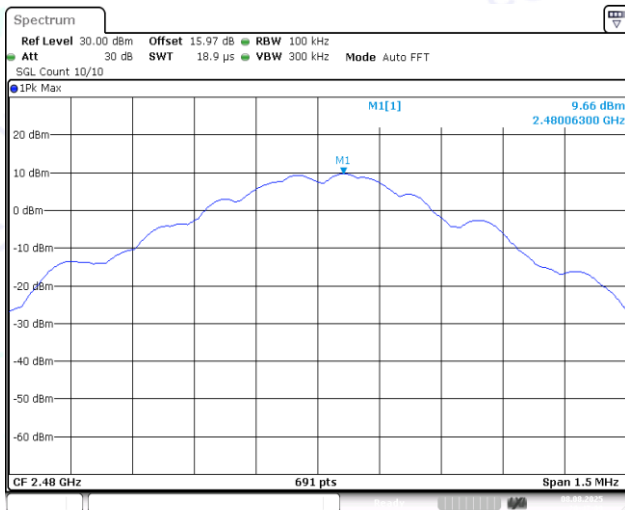
DH5-Ant2-2441-0~Reference-PASS



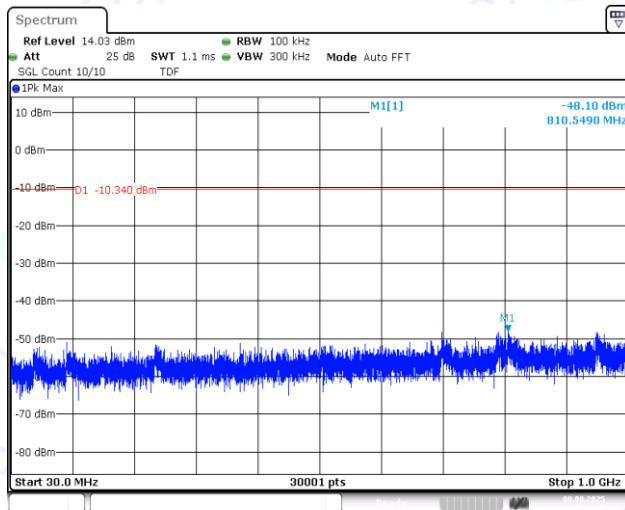
DH5-Ant2-2441-30~1000-PASS



DH5-Ant2-2441-1000~26500-PASS



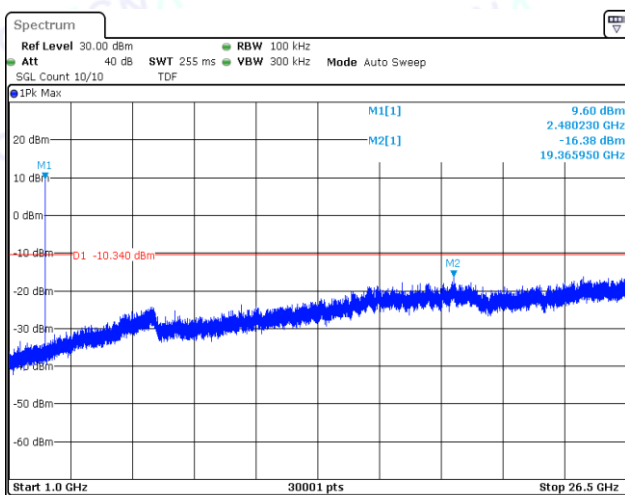
Date: 8.AUG.2025 20:47:09



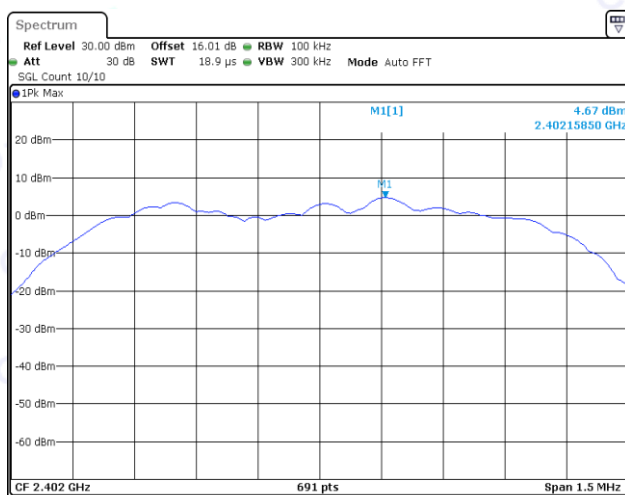
Date: 8.AUG.2025 20:47:17

DH5-Ant2-2480-0~Reference-PASS

DH5-Ant2-2480-30~1000-PASS



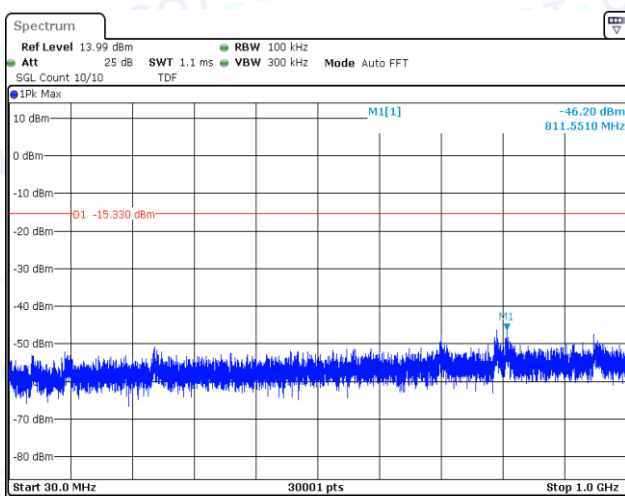
Date: 8.AUG.2025 20:47:34



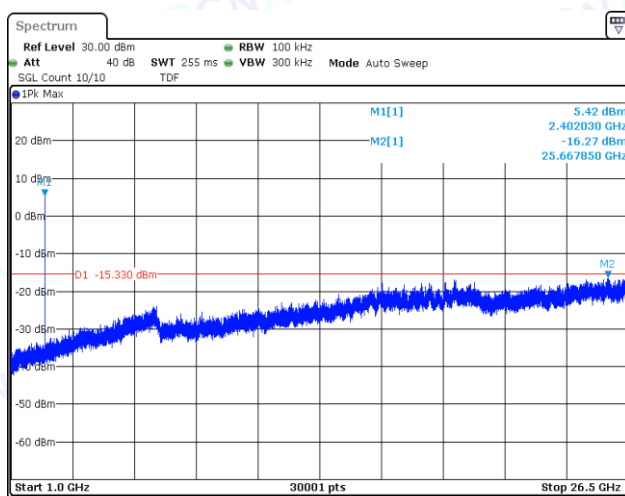
Date: 8.AUG.2025 20:48:13

DH5-Ant2-2480-1000~26500-PASS

2DH5-Ant2-2402-0~Reference-PASS



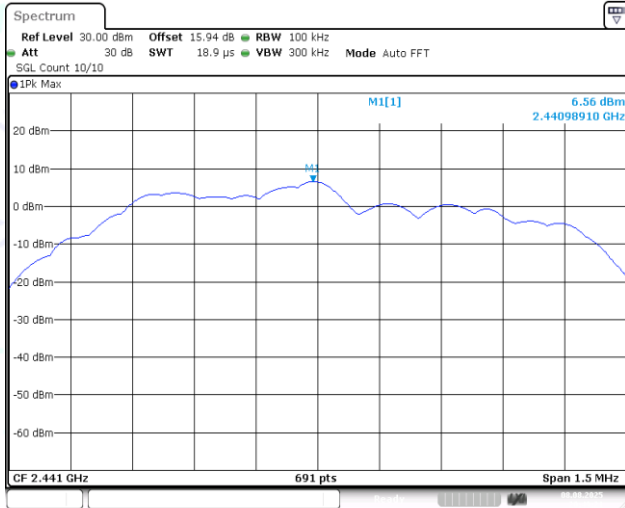
Date: 8.AUG.2025 20:48:20



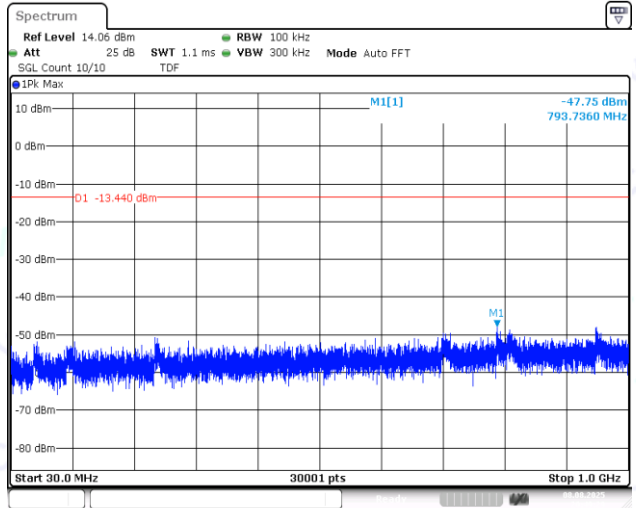
Date: 8.AUG.2025 20:48:38

2DH5-Ant2-2402-30~1000-PASS

2DH5-Ant2-2402-1000~26500-PASS



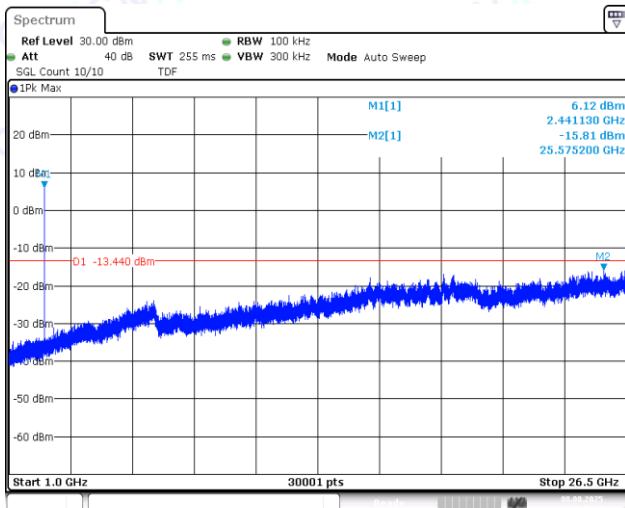
Date: 8.AUG.2025 20:49:21



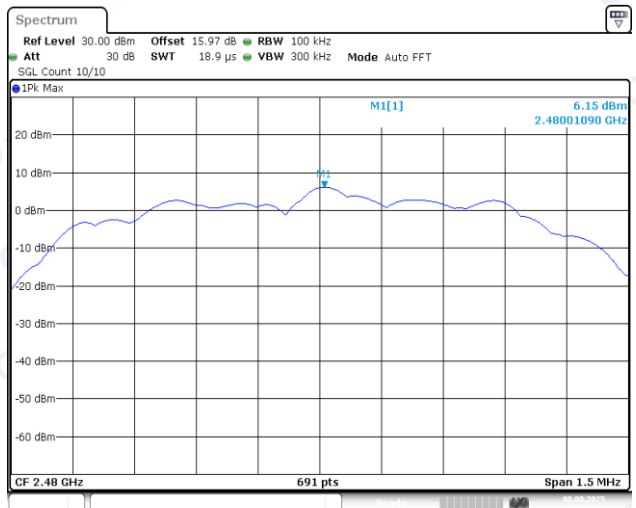
Date: 8.AUG.2025 20:49:29

2DH5-Ant2-2441-0~Reference-PASS

2DH5-Ant2-2441-30~1000-PASS



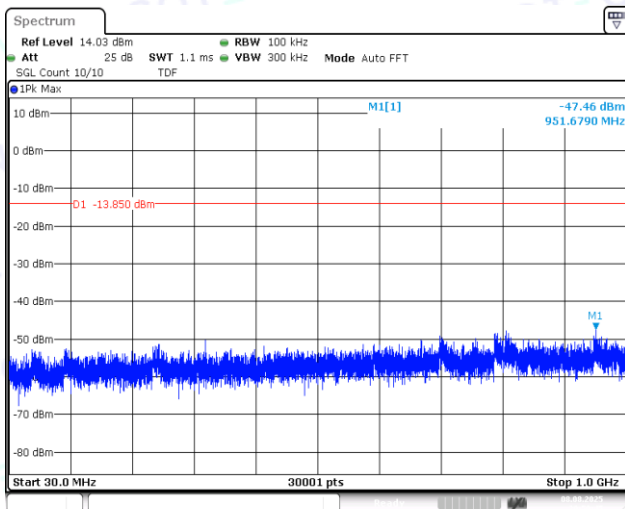
Date: 8.AUG.2025 20:49:46



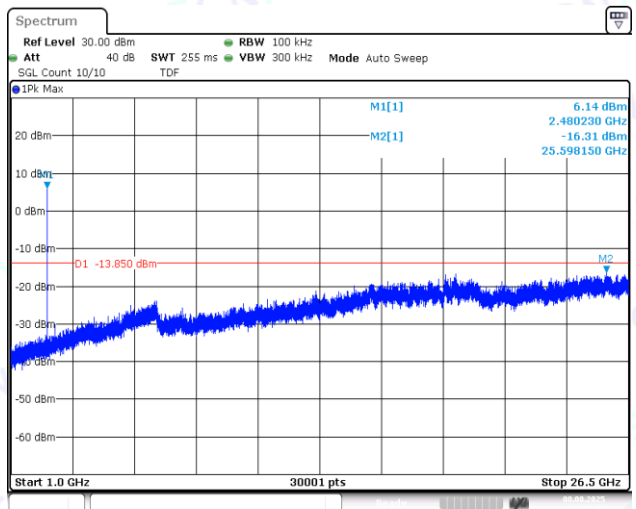
Date: 8.AUG.2025 20:50:37

2DH5-Ant2-2441-1000~26500-PASS

2DH5-Ant2-2480-0~Reference-PASS



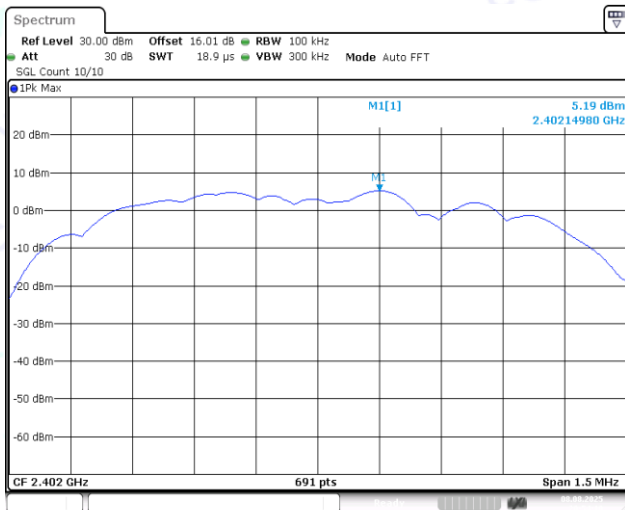
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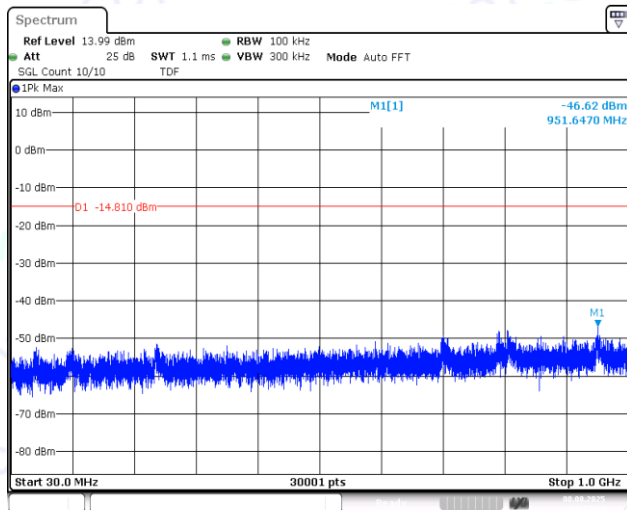
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2DH5-Ant2-2480-30~1000-PASS

2DH5-Ant2-2480-1000~26500-PASS



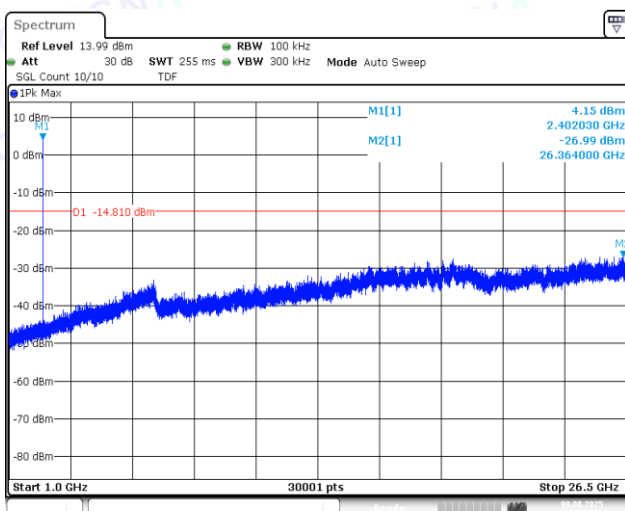
Date: 8.AUG.2025 20:54:09



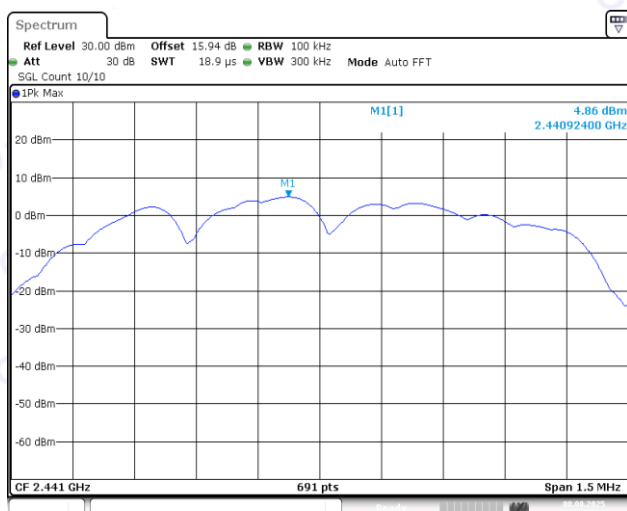
Date: 8.AUG.2025 20:54:18

3DH5-Ant2-2402-0~Reference-PASS

3DH5-Ant2-2402-30~1000-PASS



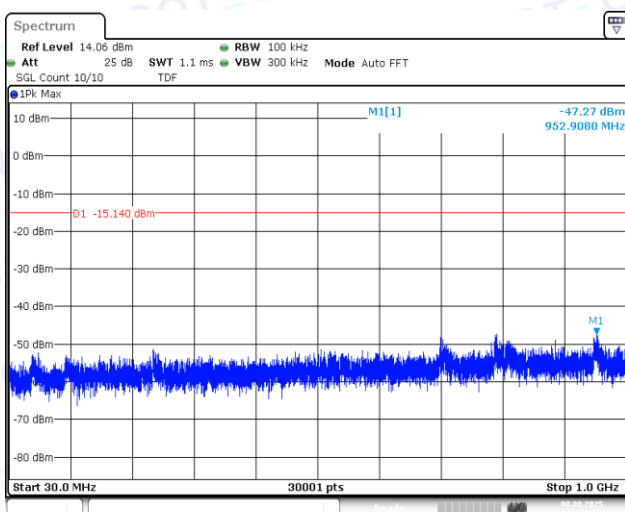
Date: 8.AUG.2025 20:54:35



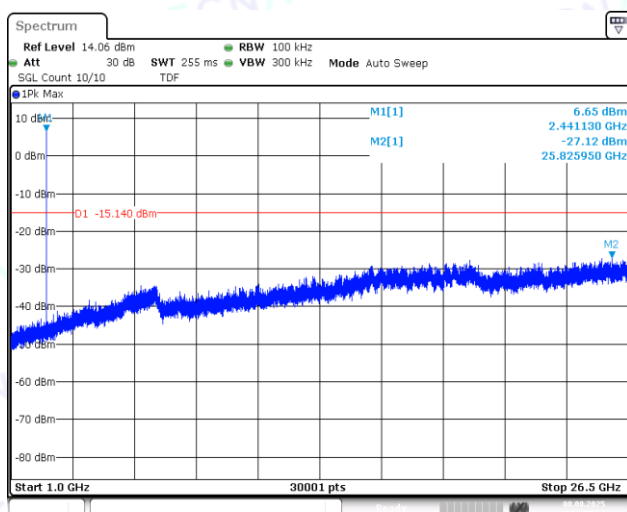
Date: 8.AUG.2025 20:55:07

3DH5-Ant2-2402-1000~26500-PASS

3DH5-Ant2-2441-0~Reference-PASS



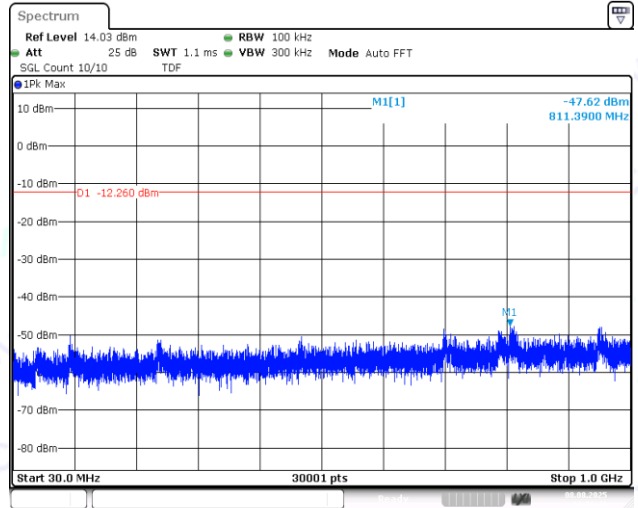
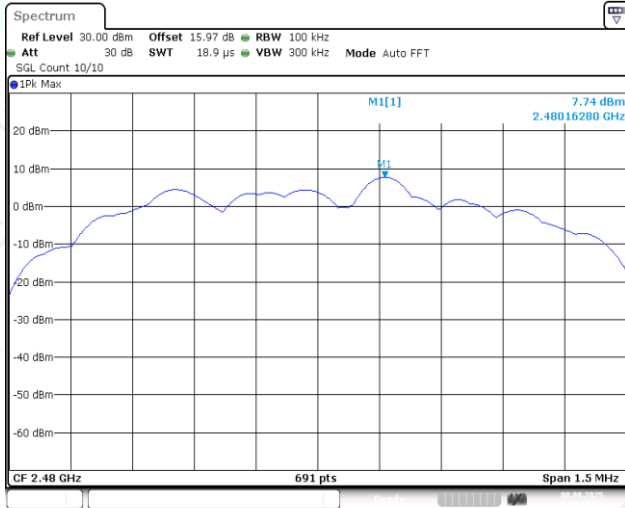
Date: 8.AUG.2025 20:55:15



Date: 8.AUG.2025 20:55:33

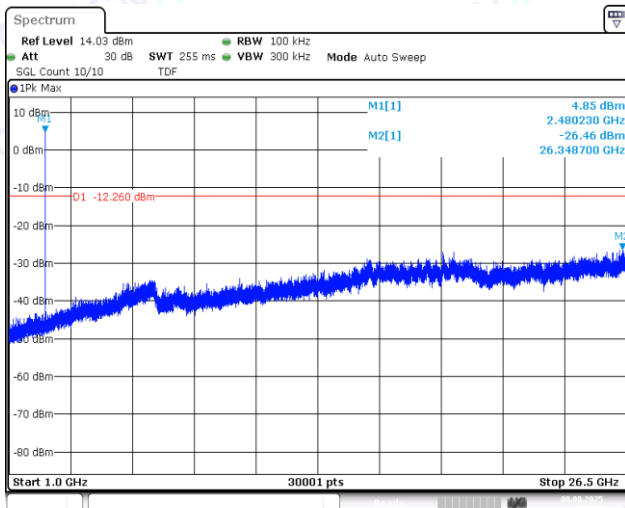
3DH5-Ant2-2441-30~1000-PASS

3DH5-Ant2-2441-1000~26500-PASS



3DH5-Ant2-2480-0~Reference-PASS

3DH5-Ant2-2480-30~1000-PASS



3DH5-Ant2-2480-1000~26500-PASS

9: Duty Cycle

9.1 Test Result

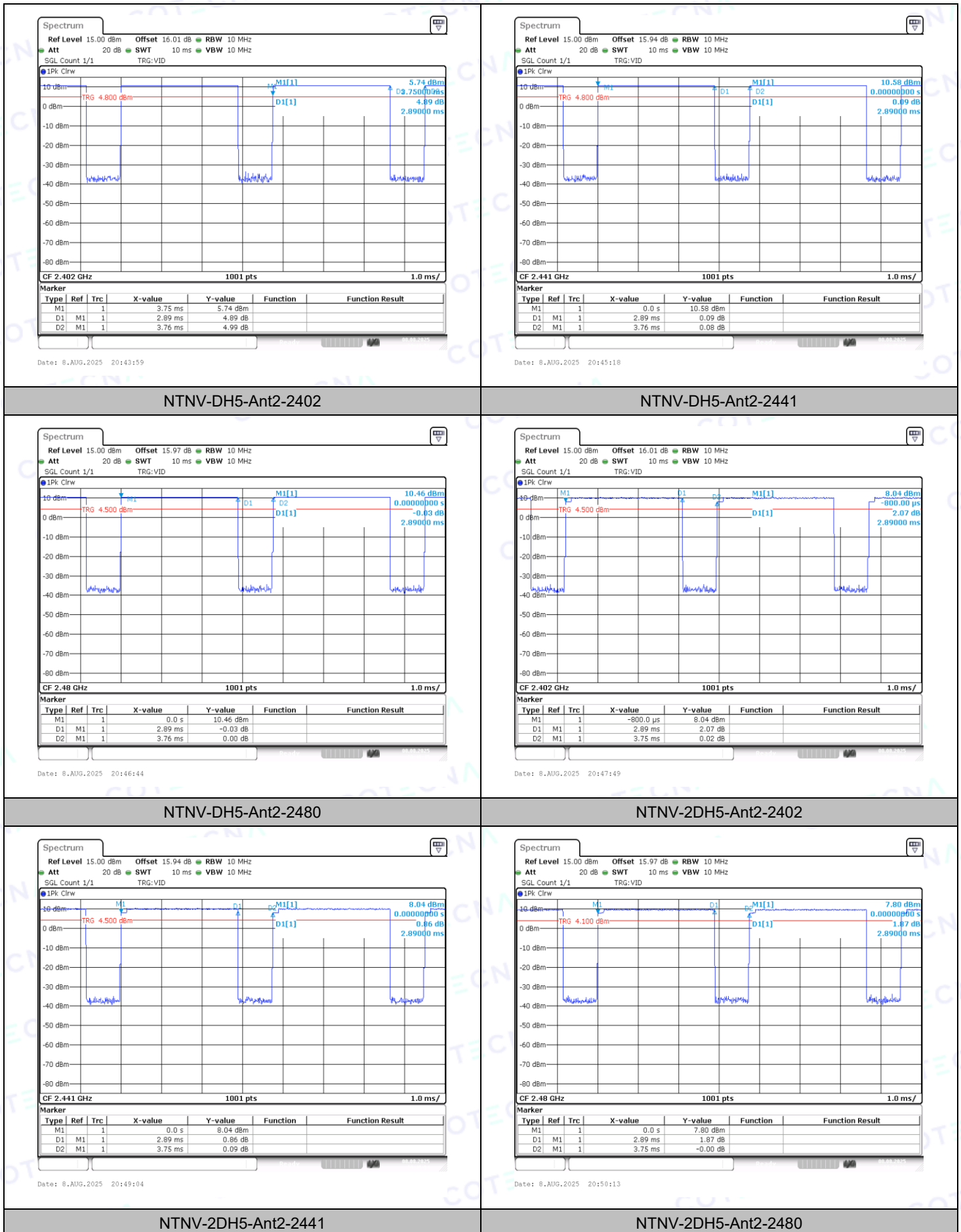
TestMode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	DC Factor	1/T [kHz]
DH5	Ant2	2402	2.89	3.76	76.86	1.14	0.35
DH5	Ant2	2441	2.89	3.76	76.86	1.14	0.35
DH5	Ant2	2480	2.89	3.76	76.86	1.14	0.35
2DH5	Ant2	2402	2.89	3.75	77.07	1.13	0.35
2DH5	Ant2	2441	2.89	3.75	77.07	1.13	0.35
2DH5	Ant2	2480	2.89	3.75	77.07	1.13	0.35
3DH5	Ant2	2402	2.89	3.75	77.07	1.13	0.35
3DH5	Ant2	2441	2.89	3.75	77.07	1.13	0.35
3DH5	Ant2	2480	2.89	3.75	77.07	1.13	0.35

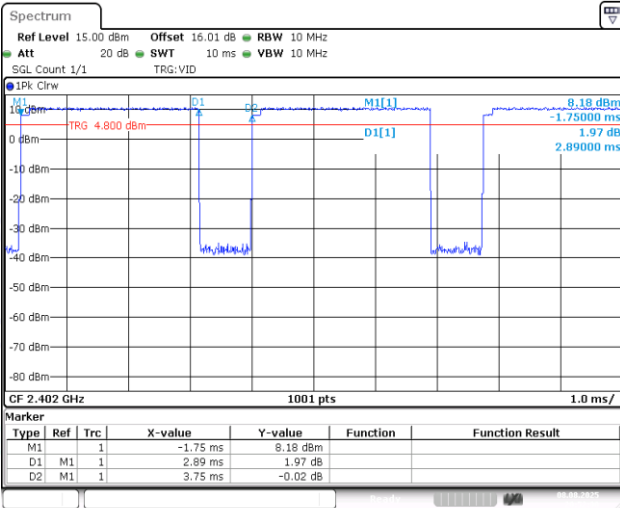
Note: 1, Duty Cycle= Transmission Duration/ Transmission Period

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

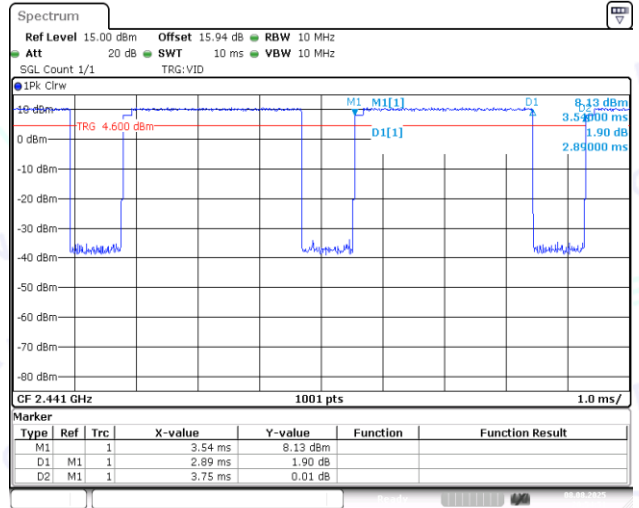
3, $1/T = 1/\text{Transmission Duration}$

9.2 Test Graphs

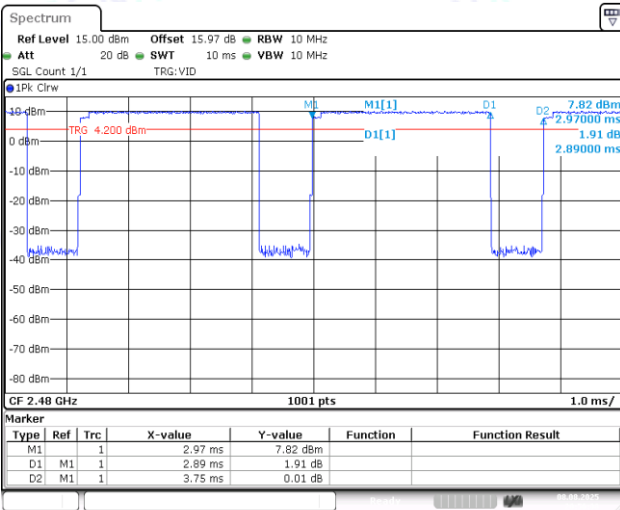




NTNV-3DH5-Ant2-2402



NTNV-3DH5-Ant2-2441



NTNV-3DH5-Ant2-2480

--- END OF REPORT ---