

RF Test Data for BLE (Conducted Measurements)

General Description of EUT	
EUT Name:	AI Digital Frame
Model:	ADF1001
Sample ID:	HC-C-202607-0310-01-01
Test Standard:	FCC Part 15.247
Environmental Conditions	
Ambient Temperature:	25.2℃
Ambient Humidity:	45.7%RH
Test Power Supply:	DC 12V
Test Engineer:	Lily zhang
Note: For a more detailed features description, please refer to the report TBR-C-202607-0310-1	

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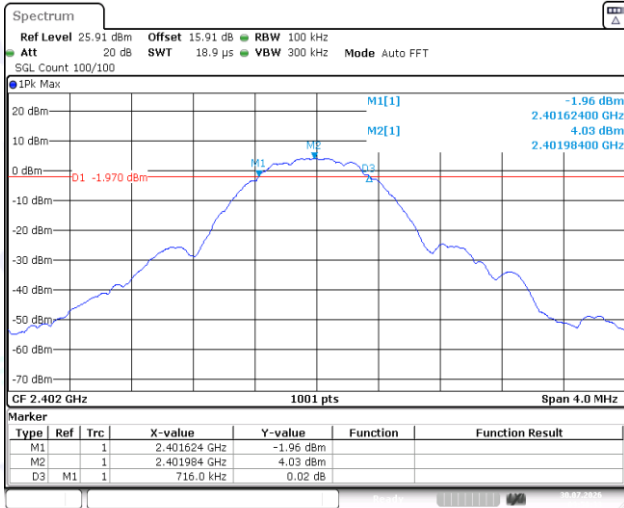
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1: DTS Bandwidth

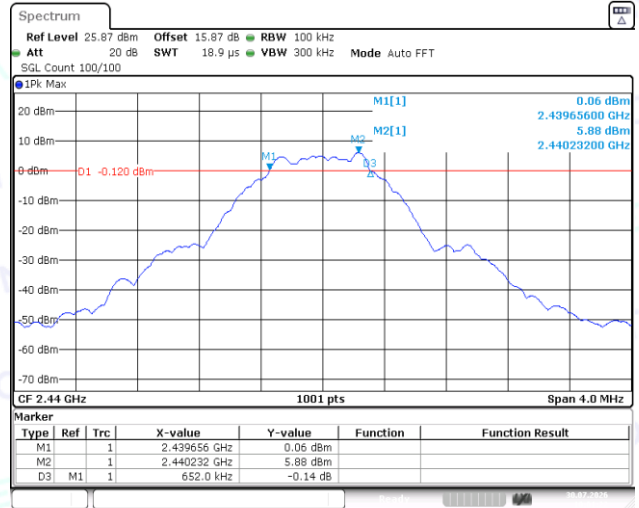
1.1 Test Result

Test Mode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.72	2401.62	2402.34	0.5	PASS
BLE_1M	Ant1	2440	0.65	2439.66	2440.31	0.5	PASS
BLE_1M	Ant1	2480	0.69	2479.63	2480.32	0.5	PASS
BLE_2M	Ant1	2402	1.36	2401.30	2402.66	0.5	PASS
BLE_2M	Ant1	2440	1.24	2439.32	2440.56	0.5	PASS
BLE_2M	Ant1	2480	1.40	2479.28	2480.68	0.5	PASS

1.2 Test Graphs



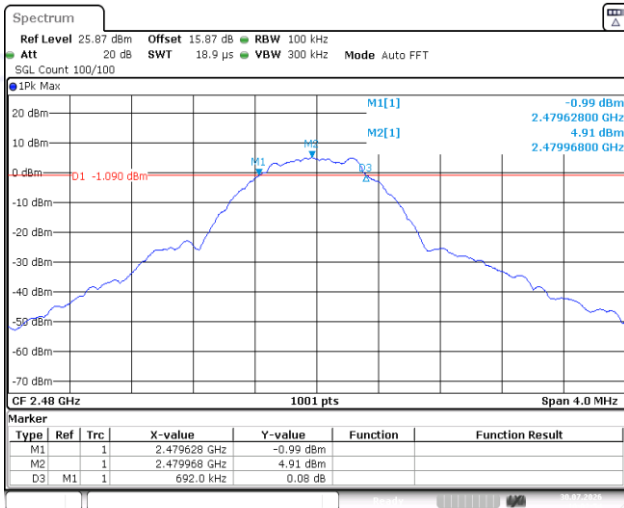
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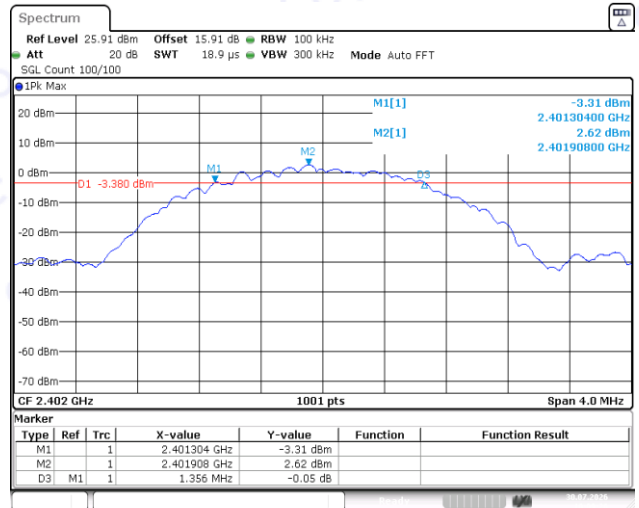
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BLE_1M-Ant1-2402-PASS

BLE_1M-Ant1-2440-PASS



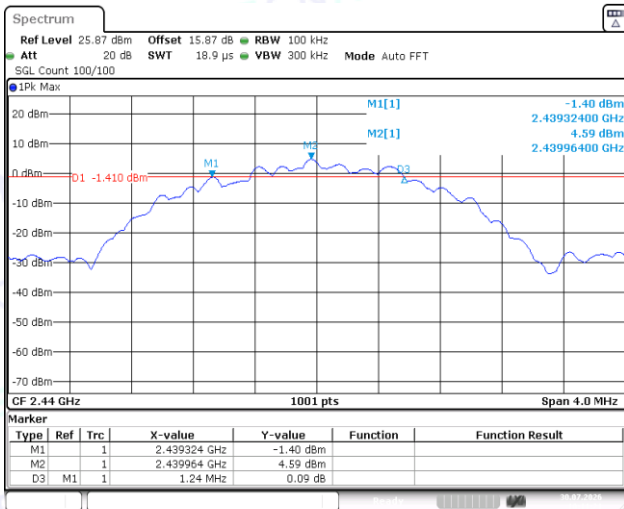
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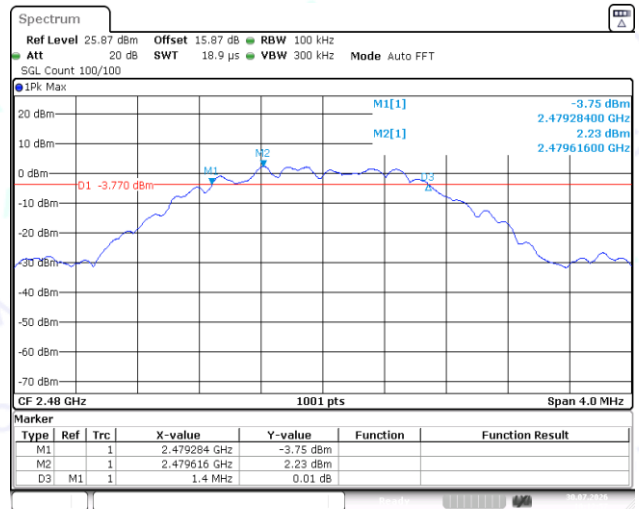
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BLE_1M-Ant1-2480-PASS

BLE_2M-Ant1-2402-PASS



Date: 30.JUL.2026 10:11:21



Date: 30.JUL.2026 10:12:56

BLE_2M-Ant1-2440-PASS

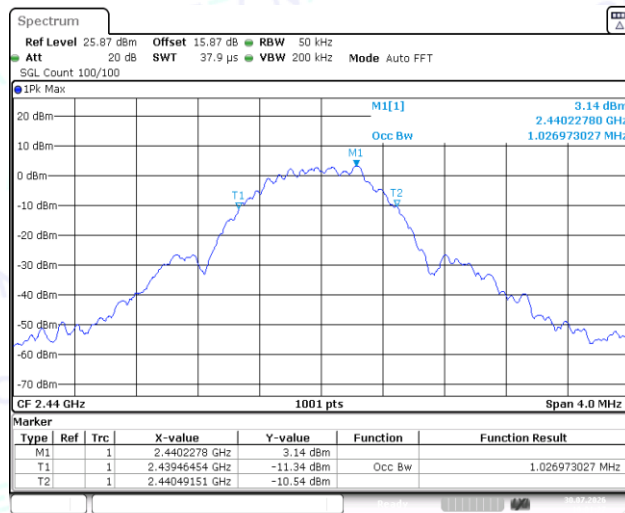
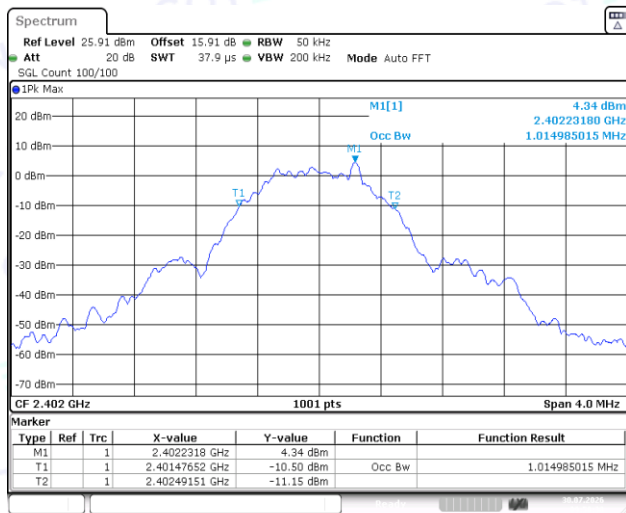
BLE_2M-Ant1-2480-PASS

2: Occupied Channel Bandwidth

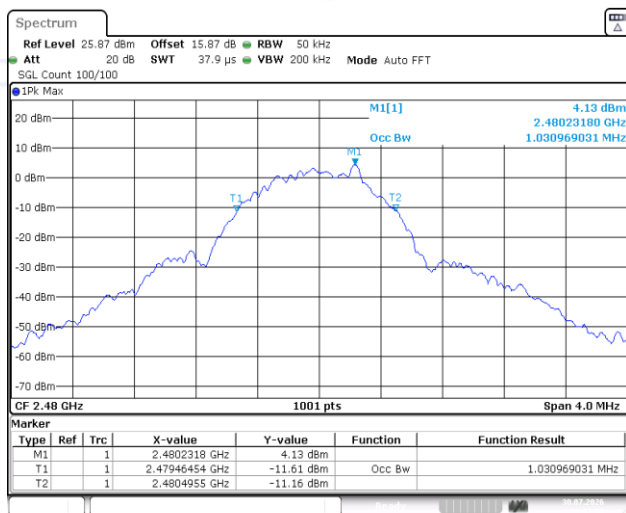
2.1 Test Result

Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0150	2401.4765	2402.4915	---	---
BLE_1M	Ant1	2440	1.0270	2439.4645	2440.4915	---	---
BLE_1M	Ant1	2480	1.0310	2479.4645	2480.4955	---	---
BLE_2M	Ant1	2402	2.0340	2400.9770	2403.0110	---	---
BLE_2M	Ant1	2440	2.0619	2438.9650	2441.0270	---	---
BLE_2M	Ant1	2480	2.0420	2478.9770	2481.0190	---	---

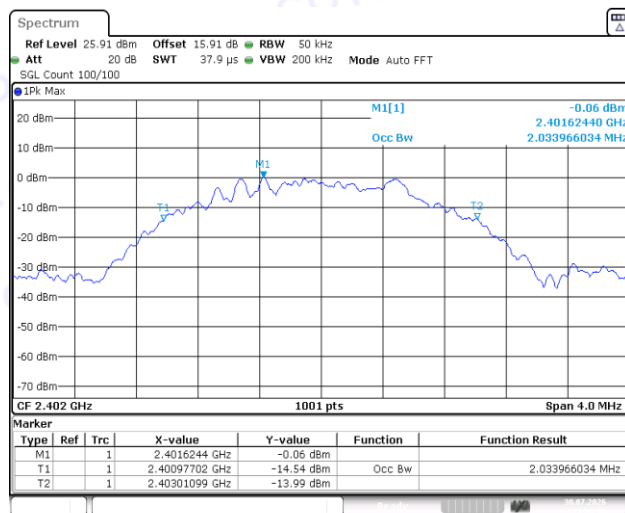
2.2 Test Graphs



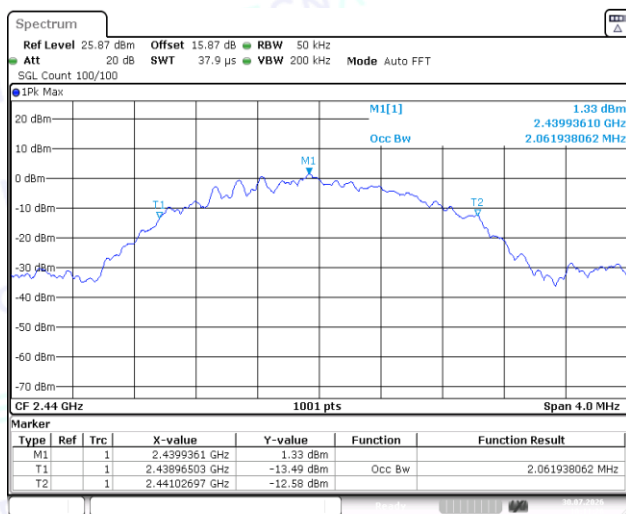
BLE_1M-Ant1-2402



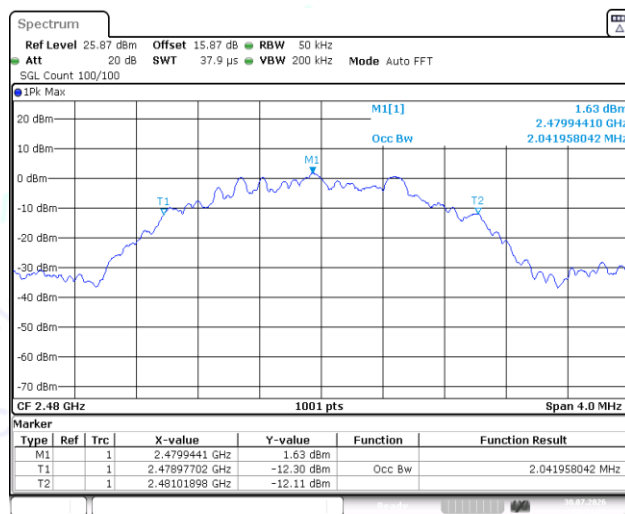
BLE_1M-Ant1-2440



BLE_1M-Ant1-2480



BLE_2M-Ant1-2402



BLE_2M-Ant1-2440

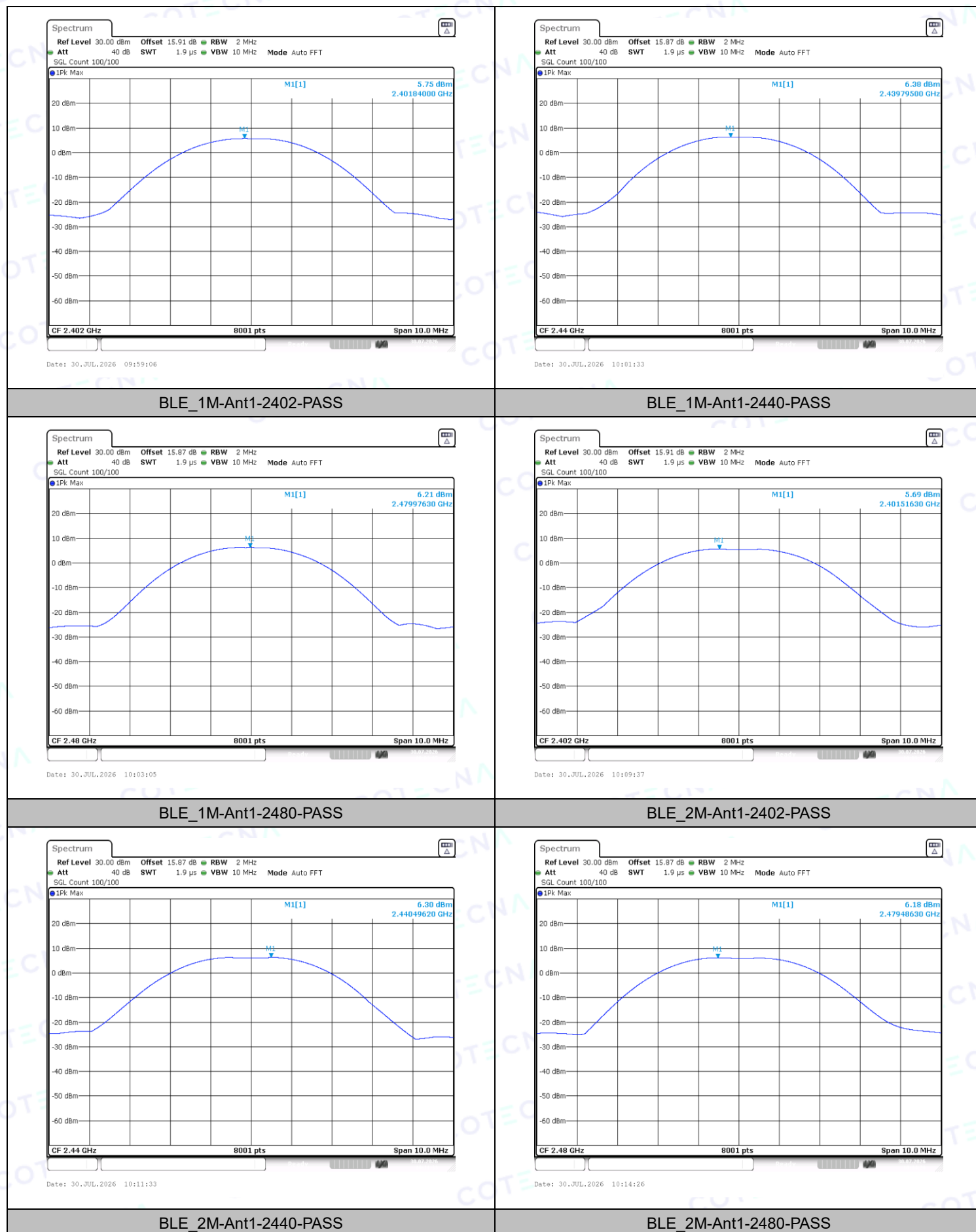
BLE_2M-Ant1-2480

3: Maximum conducted output power

3.1 Test Result Peak

Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	5.75	≤30	PASS
BLE_1M	Ant1	2440	6.38	≤30	PASS
BLE_1M	Ant1	2480	6.21	≤30	PASS
BLE_2M	Ant1	2402	5.69	≤30	PASS
BLE_2M	Ant1	2440	6.30	≤30	PASS
BLE_2M	Ant1	2480	6.18	≤30	PASS

3.2 Test Graphs Peak

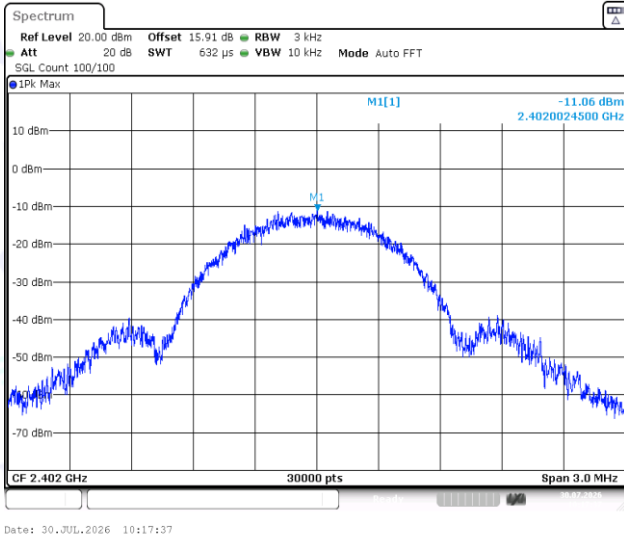


4: Maximum power spectral density

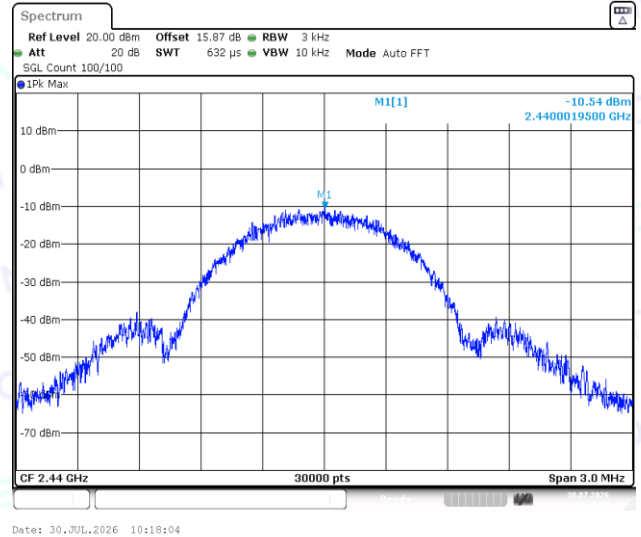
4.1 Test Result

Test Mode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-11.06	≤8.00	PASS
BLE_1M	Ant1	2440	-10.54	≤8.00	PASS
BLE_1M	Ant1	2480	-10.60	≤8.00	PASS
BLE_2M	Ant1	2402	-15.51	≤8.00	PASS
BLE_2M	Ant1	2440	-14.39	≤8.00	PASS
BLE_2M	Ant1	2480	-14.97	≤8.00	PASS

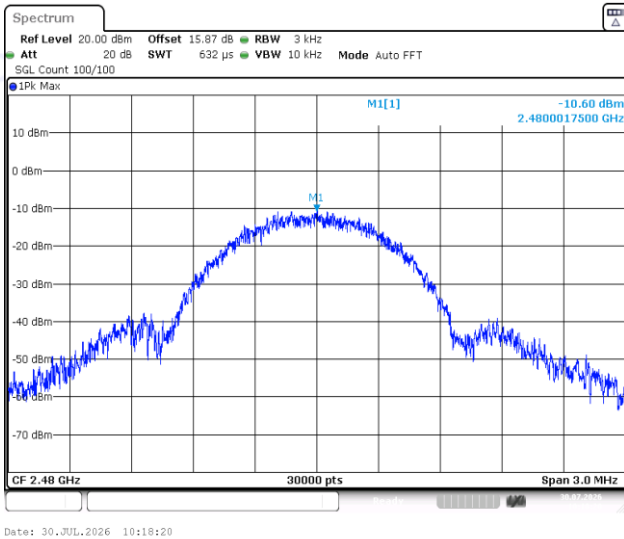
4.2 Test Graphs



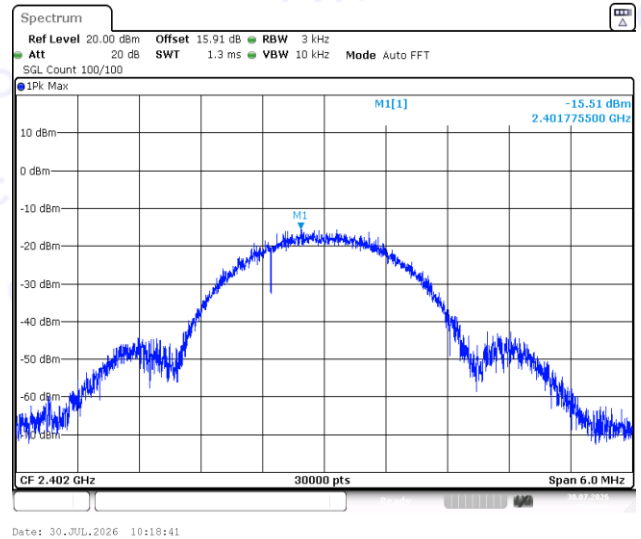
BLE_1M-Ant1-2402-PASS



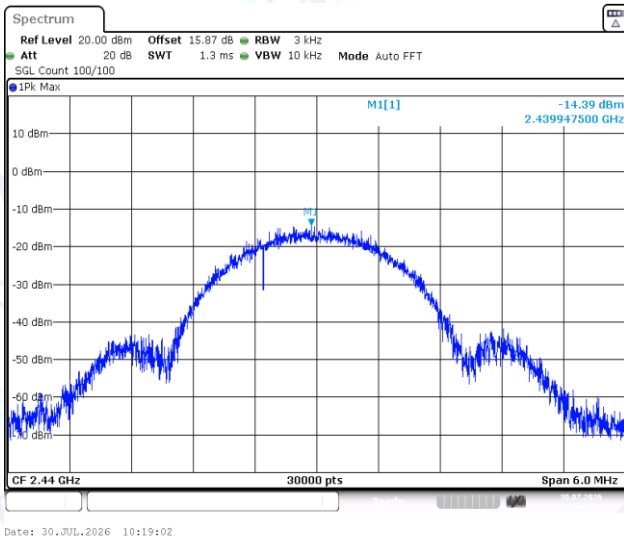
BLE_1M-Ant1-2440-PASS



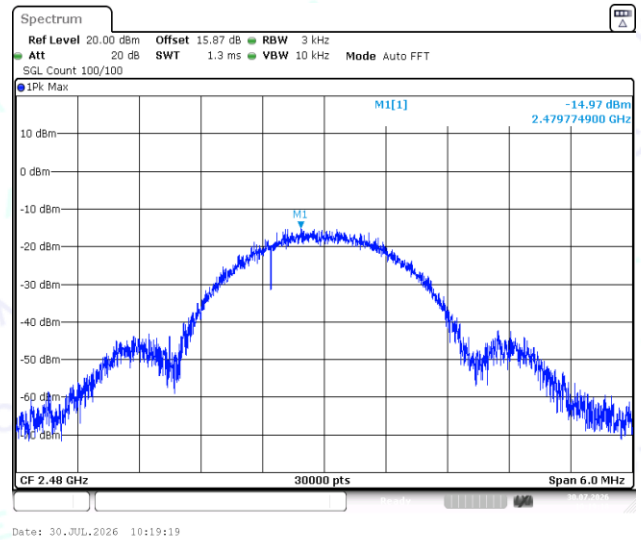
BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2440-PASS



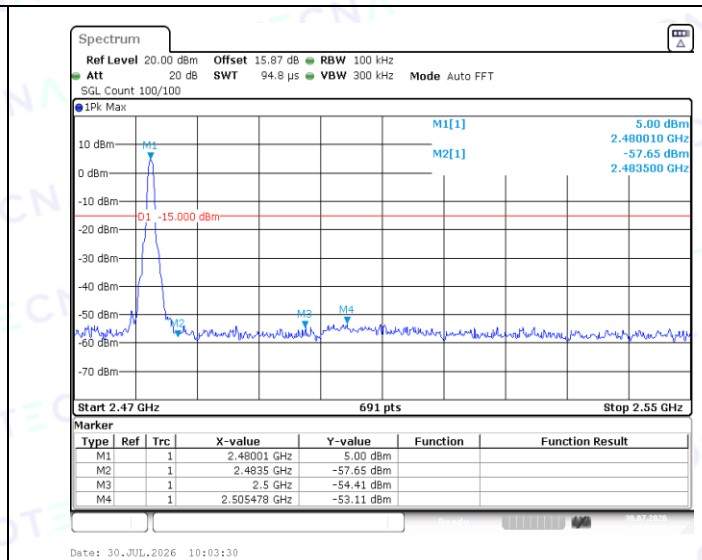
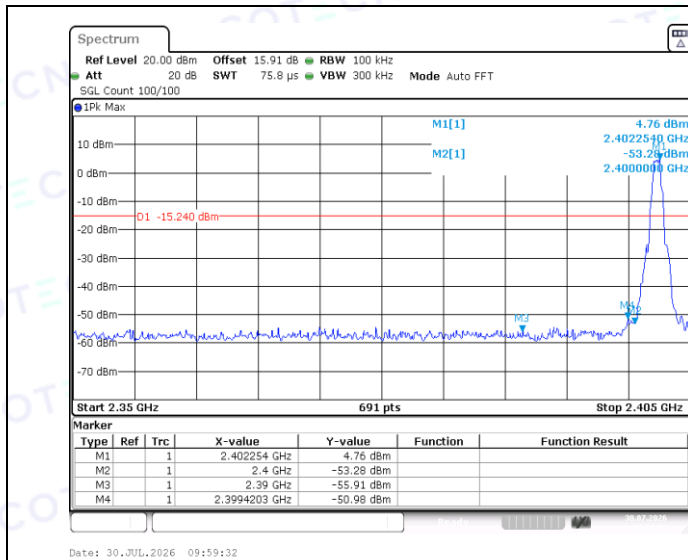
BLE_2M-Ant1-2480-PASS

5: Band edge measurements

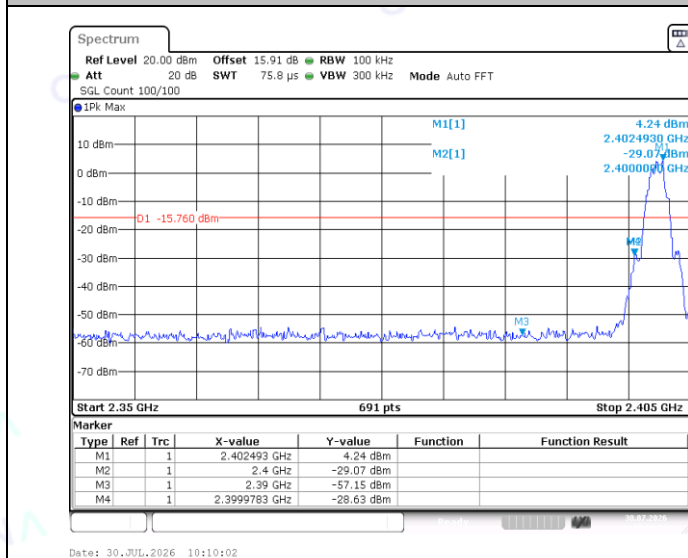
5.1 Test Result

Test Mode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	4.76	-50.98	≤ -15.24	PASS
BLE_1M	Ant1	High	2480	5.00	-53.11	≤ -15	PASS
BLE_2M	Ant1	Low	2402	4.24	-28.63	≤ -15.76	PASS
BLE_2M	Ant1	High	2480	4.57	-51.96	≤ -15.43	PASS

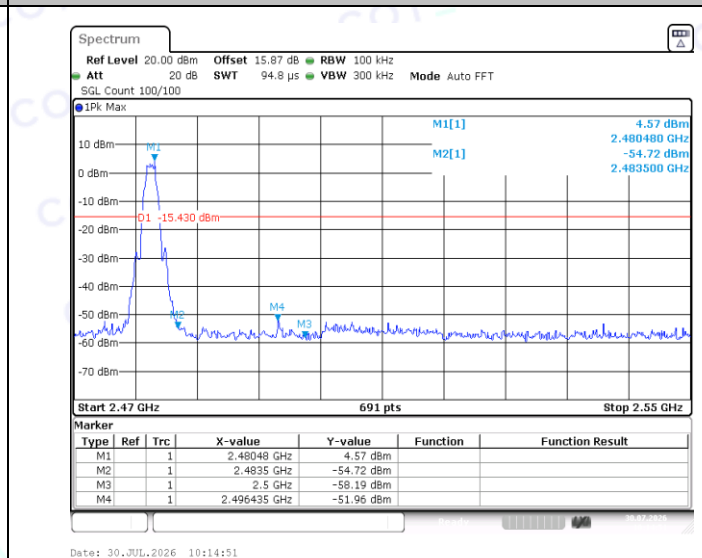
5.2 Test Graphs



BLE_1M-Ant1-2402-PASS



BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2480-PASS

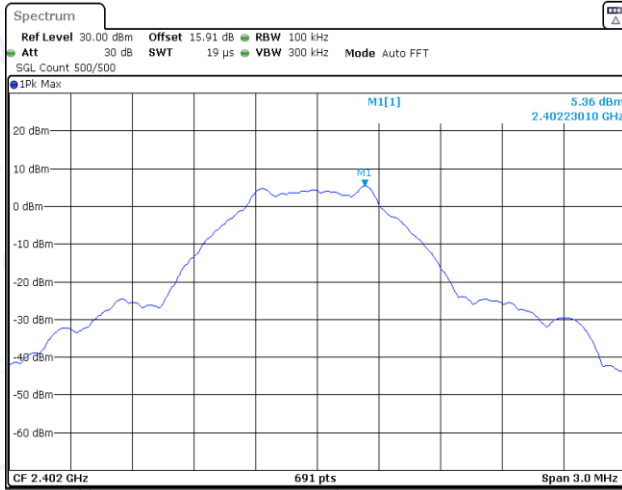


6: Conducted Spurious Emission

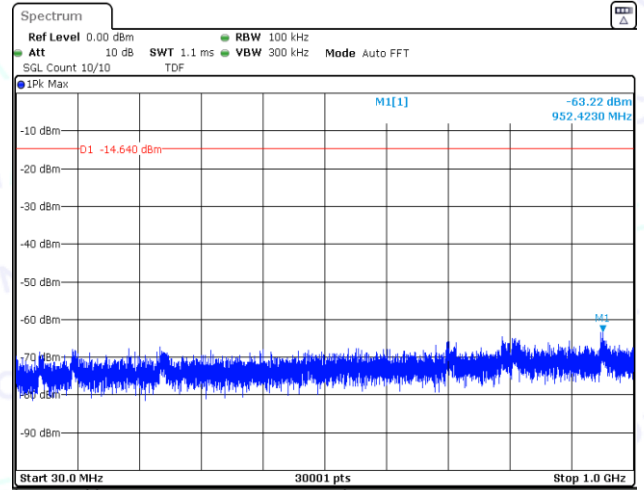
6.1 Test Result

Test Mode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	5.36	5.36	---	PASS
BLE_1M	Ant1	2402	30~1000	5.36	-63.22	≤-14.64	PASS
BLE_1M	Ant1	2402	1000~26500	5.36	-37.13	≤-14.64	PASS
BLE_1M	Ant1	2440	0~Reference	6.02	6.02	---	PASS
BLE_1M	Ant1	2440	30~1000	6.02	-63.74	≤-13.98	PASS
BLE_1M	Ant1	2440	1000~26500	6.02	-37.24	≤-13.98	PASS
BLE_1M	Ant1	2480	0~Reference	5.93	5.93	---	PASS
BLE_1M	Ant1	2480	30~1000	5.93	-62.74	≤-14.07	PASS
BLE_1M	Ant1	2480	1000~26500	5.93	-36.74	≤-14.07	PASS
BLE_2M	Ant1	2402	0~Reference	4.15	4.15	---	PASS
BLE_2M	Ant1	2402	30~1000	4.15	-63.98	≤-15.85	PASS
BLE_2M	Ant1	2402	1000~26500	4.15	-37.47	≤-15.85	PASS
BLE_2M	Ant1	2440	0~Reference	3.44	3.44	---	PASS
BLE_2M	Ant1	2440	30~1000	3.44	-64.5	≤-16.56	PASS
BLE_2M	Ant1	2440	1000~26500	3.44	-37.14	≤-16.56	PASS
BLE_2M	Ant1	2480	0~Reference	4.91	4.91	---	PASS
BLE_2M	Ant1	2480	30~1000	4.91	-62.72	≤-15.09	PASS
BLE_2M	Ant1	2480	1000~26500	4.91	-36.95	≤-15.09	PASS

6.2 Test Graphs



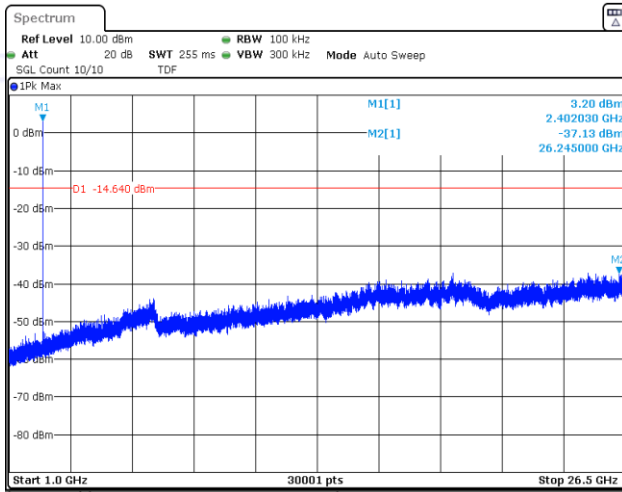
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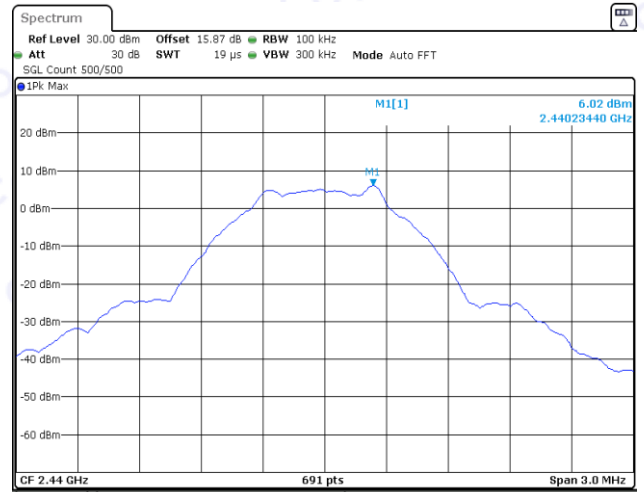
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BLE_1M-Ant1-2402-0~Reference-PASS

BLE_1M-Ant1-2402-30~1000-PASS



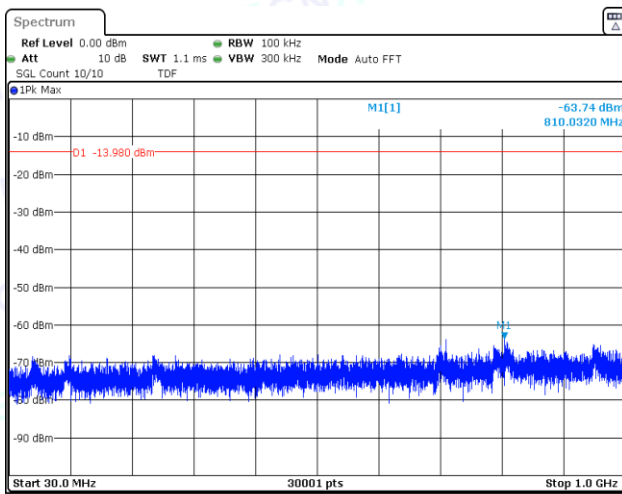
Date: 30.JUL.2026 10:00:24



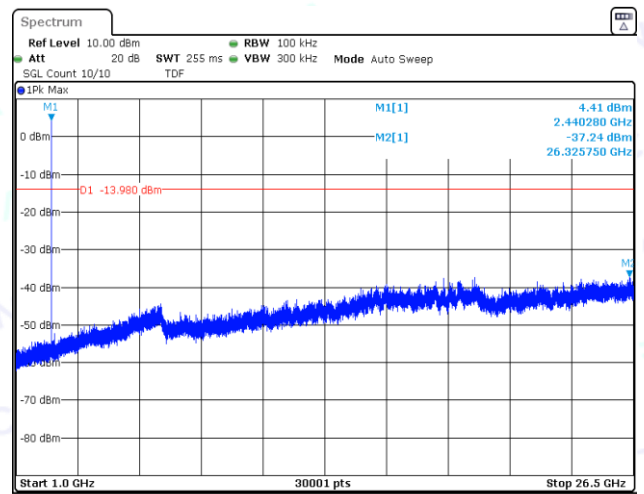
Date: 30.JUL.2026 10:01:57

BLE_1M-Ant1-2402-1000~26500-PASS

BLE_1M-Ant1-2440-0~Reference-PASS



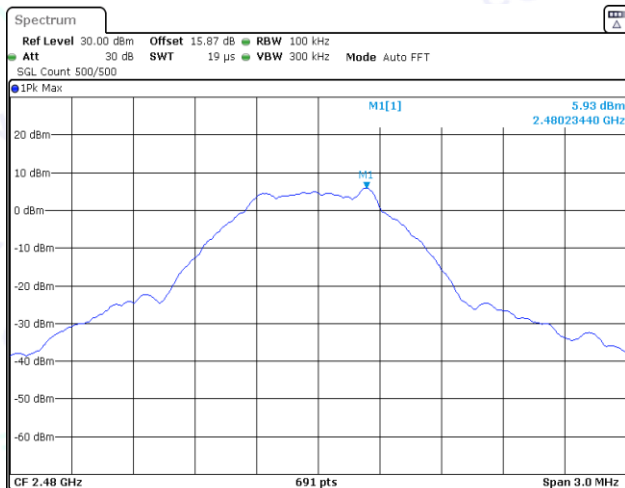
Date: 30.JUL.2026 10:02:05



Date: 30.JUL.2026 10:02:23

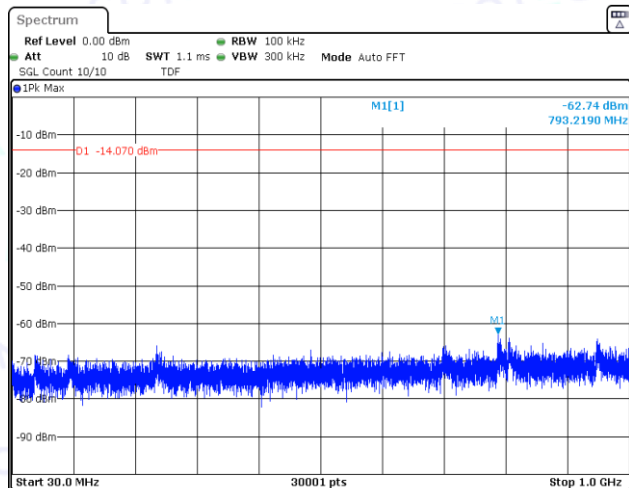
BLE_1M-Ant1-2440-30~1000-PASS

BLE_1M-Ant1-2440-1000~26500-PASS



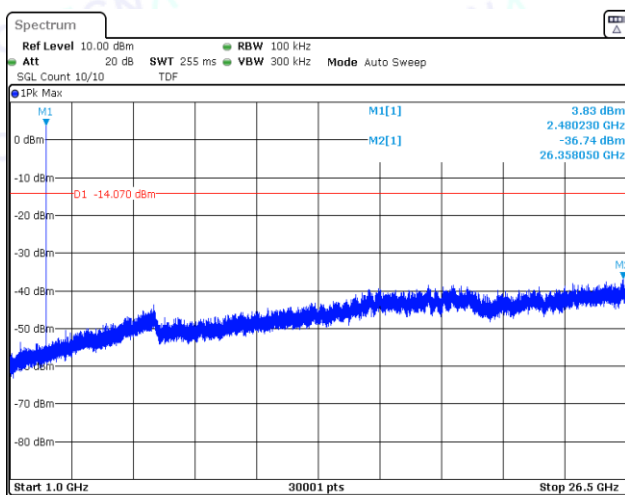
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BLE_1M-Ant1-2480-0~Reference-PASS



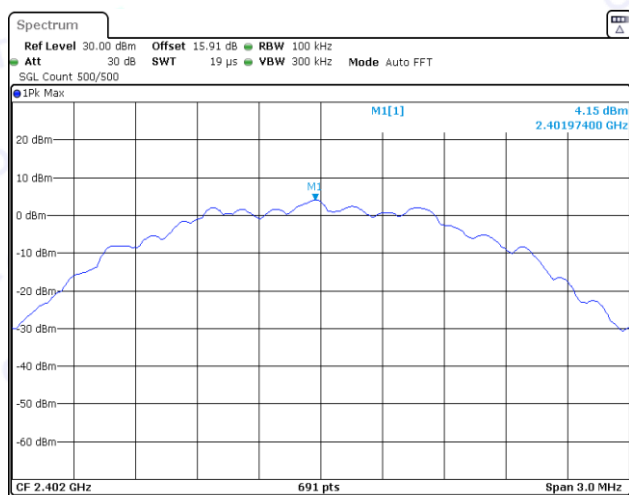
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BLE_1M-Ant1-2480-30~1000-PASS



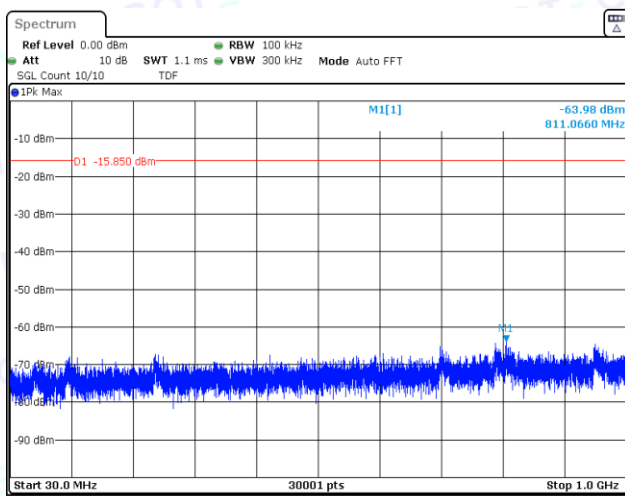
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BLE_1M-Ant1-2480-1000~26500-PASS



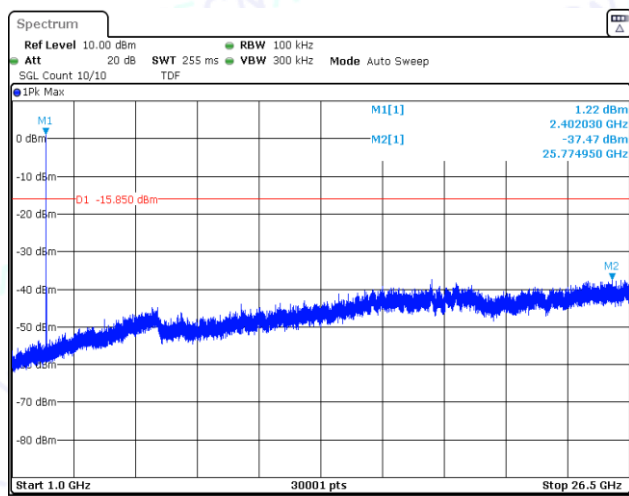
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BLE_2M-Ant1-2402-0~Reference-PASS



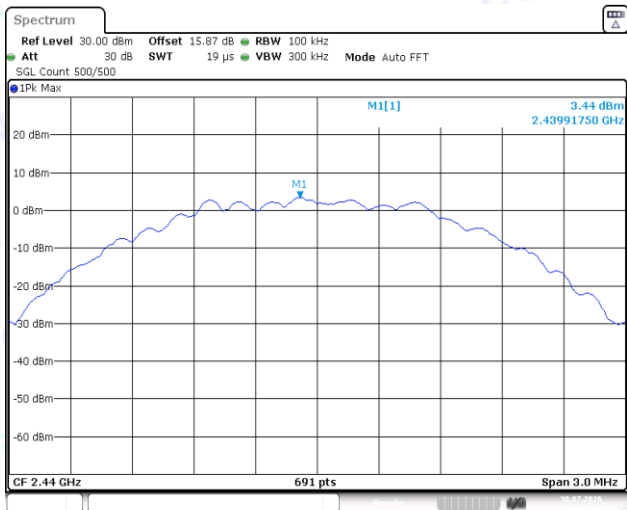
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BLE_2M-Ant1-2402-30~1000-PASS

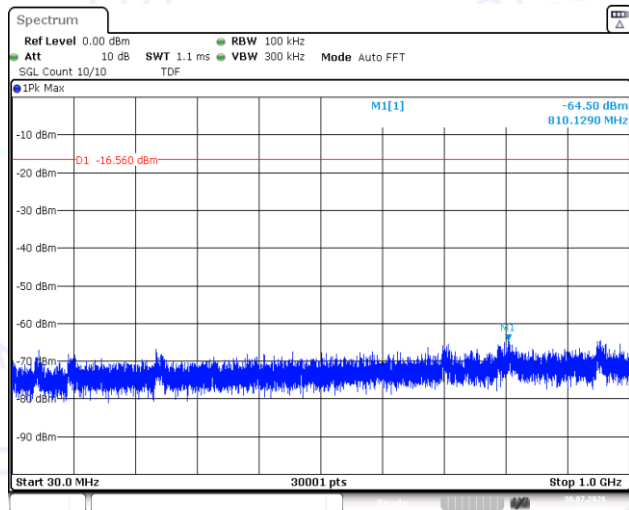


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BLE_2M-Ant1-2402-1000~26500-PASS



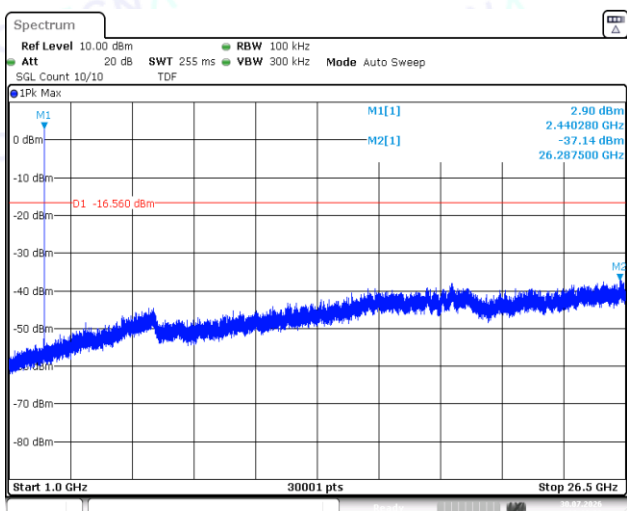
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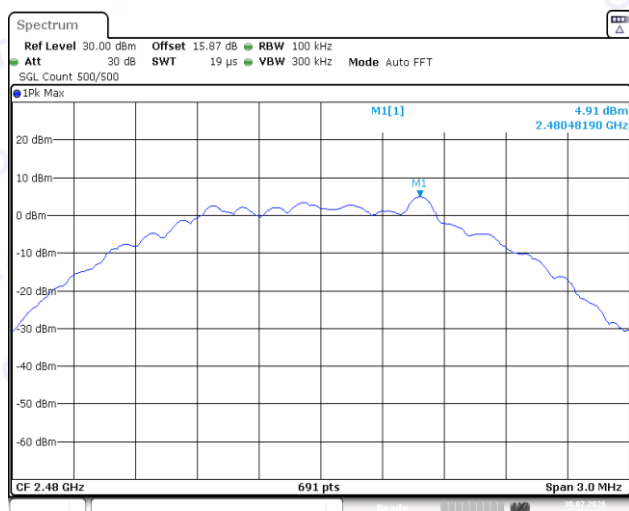
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BLE_2M-Ant1-2440-0~Reference-PASS

BLE_2M-Ant1-2440-30~1000-PASS



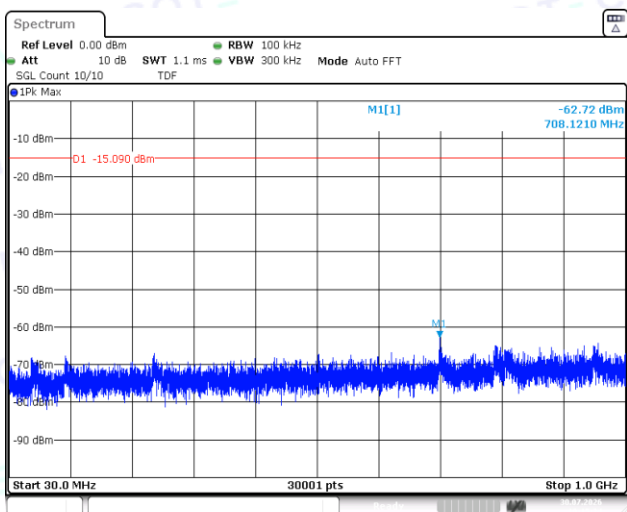
Date: 30.JUL.2026 10:12:22



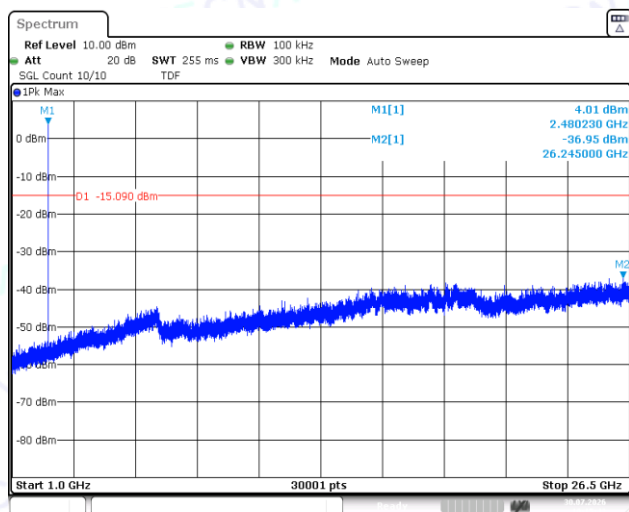
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BLE_2M-Ant1-2440-1000~26500-PASS

BLE_2M-Ant1-2480-0~Reference-PASS



Date: 30.JUL.2026 10:15:24



Date: 30.JUL.2026 10:15:42

BLE_2M-Ant1-2480-30~1000-PASS

BLE_2M-Ant1-2480-1000~26500-PASS

7: Duty Cycle

7.1 Test Result

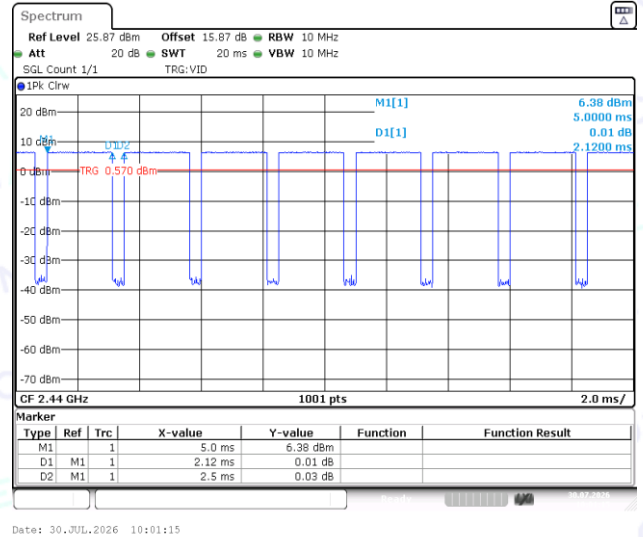
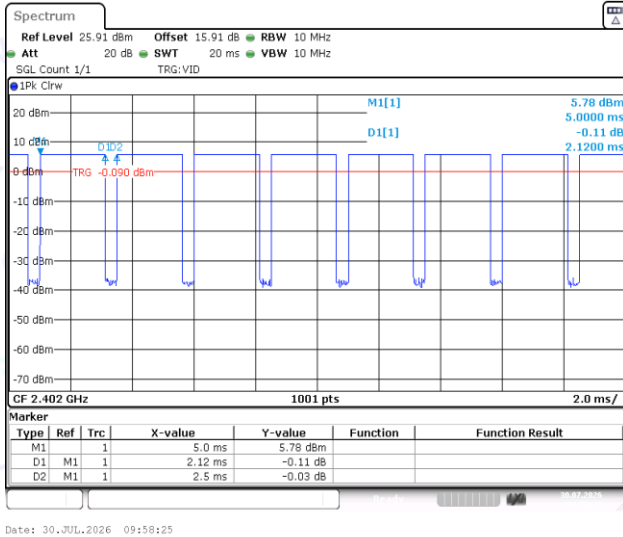
TestMode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	DC Factor	1/T [kHz]
BLE_1M	Ant1	2402	2.12	2.50	84.80	0.72	0.47
BLE_1M	Ant1	2440	2.12	2.50	84.80	0.72	0.47
BLE_1M	Ant1	2480	2.12	2.50	84.80	0.72	0.47
BLE_2M	Ant1	2402	1.06	1.88	56.38	2.49	0.94
BLE_2M	Ant1	2440	1.06	1.88	56.38	2.49	0.94
BLE_2M	Ant1	2480	1.06	1.88	56.38	2.49	0.94

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

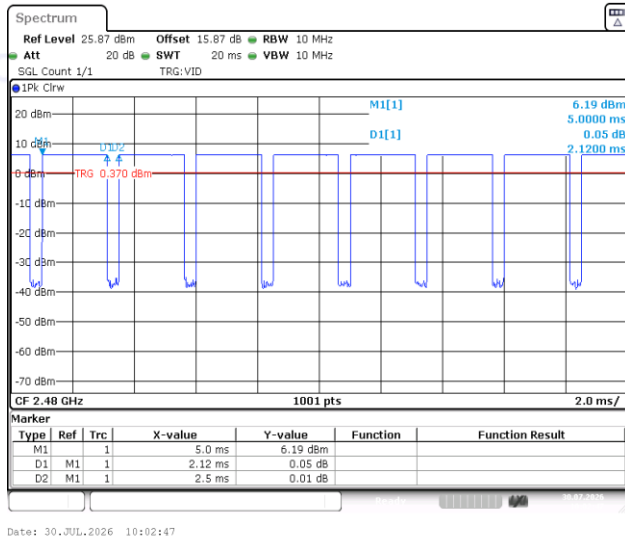
2, DC Factor= $10 \cdot \log_{10}(1/\text{Duty Cycle})$

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

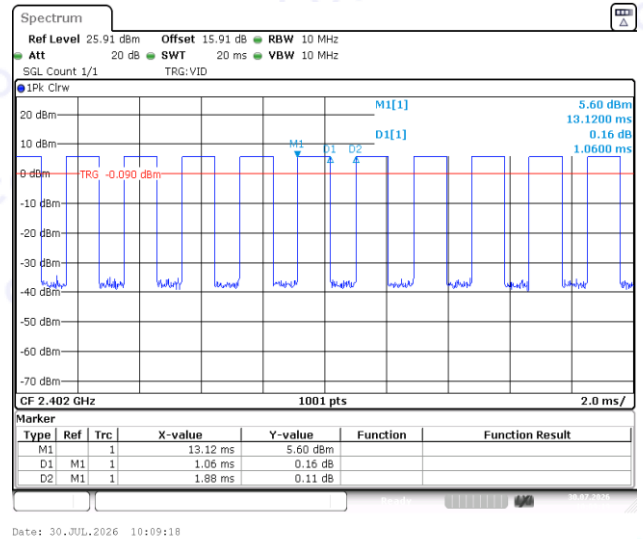
7.2 Test Graphs



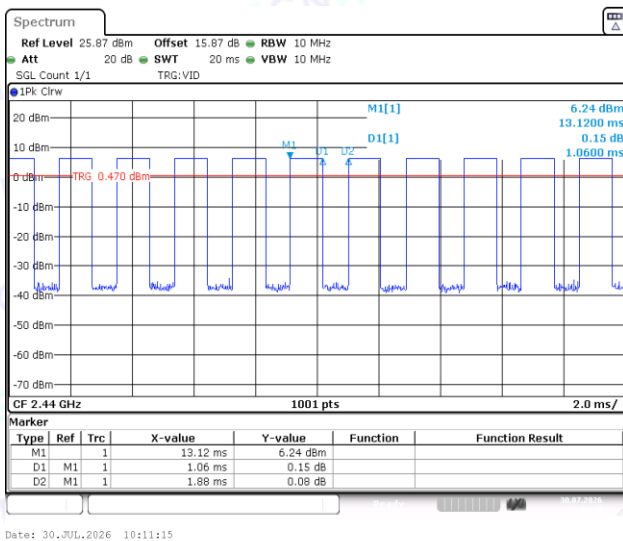
NTNV-BLE_1M-Ant1-2402



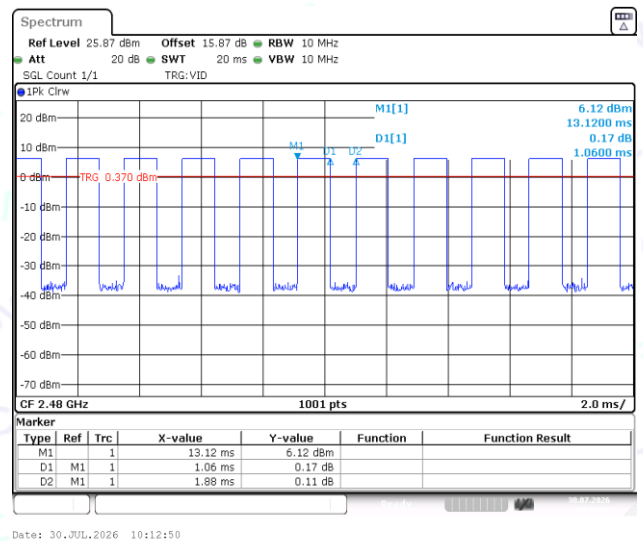
NTNV-BLE_1M-Ant1-2440



NTNV-BLE_1M-Ant1-2480



NTNV-BLE_2M-Ant1-2402



NTNV-BLE_2M-Ant1-2440

NTNV-BLE_2M-Ant1-2480

8: Emissions in Restricted Bands

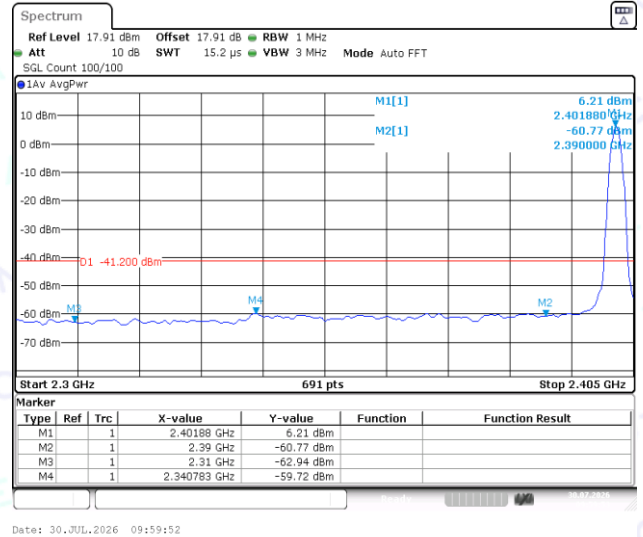
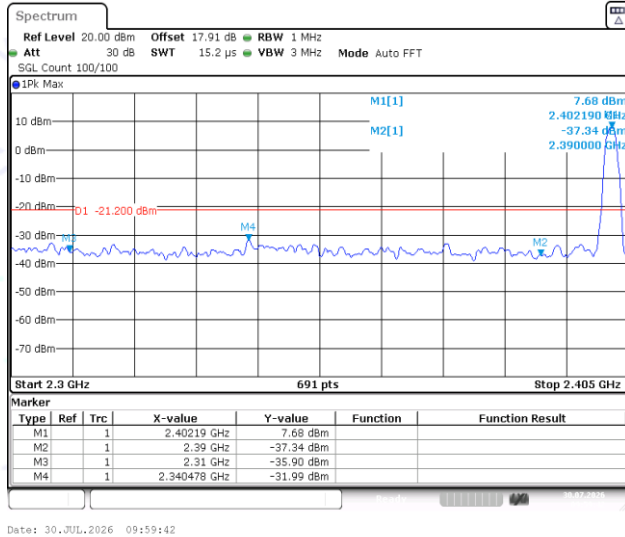
8.1 Test Result

Test Mode	Antenna	ChName	Frequency [MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	Peak	2390.000	-37.34	≤-21.20	57.86	≤74	PASS
BLE_1M	Ant1	Low	2402	Peak	2310.000	-35.9	≤-21.20	59.30	≤74	PASS
BLE_1M	Ant1	Low	2402	Peak	2340.478	-31.99	≤-21.20	63.21	≤74	PASS
BLE_1M	Ant1	Low	2402	AV	2390.000	-60.77	≤-41.20	34.43	≤54	PASS
BLE_1M	Ant1	Low	2402	AV	2310.000	-62.94	≤-41.20	32.26	≤54	PASS
BLE_1M	Ant1	Low	2402	AV	2340.783	-59.72	≤-41.20	35.48	≤54	PASS
BLE_1M	Ant1	High	2480	Peak	2483.500	-35.27	≤-21.20	59.93	≤74	PASS
BLE_1M	Ant1	High	2480	Peak	2500.000	-37.52	≤-21.20	57.68	≤74	PASS
BLE_1M	Ant1	High	2480	Peak	2489.246	-34.2	≤-21.20	61.00	≤74	PASS
BLE_1M	Ant1	High	2480	AV	2483.500	-57.11	≤-41.20	38.09	≤54	PASS
BLE_1M	Ant1	High	2480	AV	2500.000	-60.86	≤-41.20	34.34	≤54	PASS
BLE_1M	Ant1	High	2480	AV	2483.565	-57.58	≤-41.20	37.62	≤54	PASS
BLE_2M	Ant1	Low	2402	Peak	2390.000	-34.63	≤-21.20	60.57	≤74	PASS
BLE_2M	Ant1	Low	2402	Peak	2310.000	-37.33	≤-21.20	57.87	≤74	PASS
BLE_2M	Ant1	Low	2402	Peak	2371.826	-32.04	≤-21.20	63.16	≤74	PASS
BLE_2M	Ant1	Low	2402	AV	2390.000	-61.17	≤-41.20	34.03	≤54	PASS
BLE_2M	Ant1	Low	2402	AV	2310.000	-62.56	≤-41.20	32.64	≤54	PASS
BLE_2M	Ant1	Low	2402	AV	2385.674	-58.41	≤-41.20	36.79	≤54	PASS
BLE_2M	Ant1	High	2480	Peak	2483.500	-38.27	≤-21.20	56.93	≤74	PASS
BLE_2M	Ant1	High	2480	Peak	2500.000	-32.28	≤-21.20	62.92	≤74	PASS
BLE_2M	Ant1	High	2480	Peak	2499.913	-32.45	≤-21.20	62.75	≤74	PASS
BLE_2M	Ant1	High	2480	AV	2483.500	-51.36	≤-41.20	43.84	≤54	PASS
BLE_2M	Ant1	High	2480	AV	2500.000	-62.48	≤-41.20	32.72	≤54	PASS
BLE_2M	Ant1	High	2480	AV	2483.565	-52.74	≤-41.20	42.46	≤54	PASS

Note:

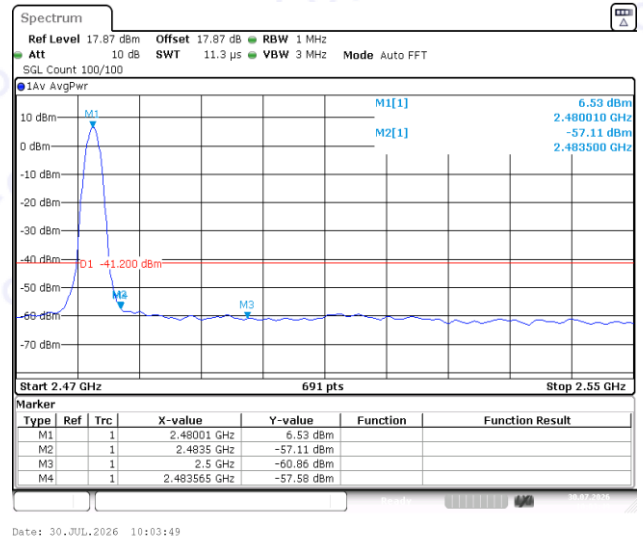
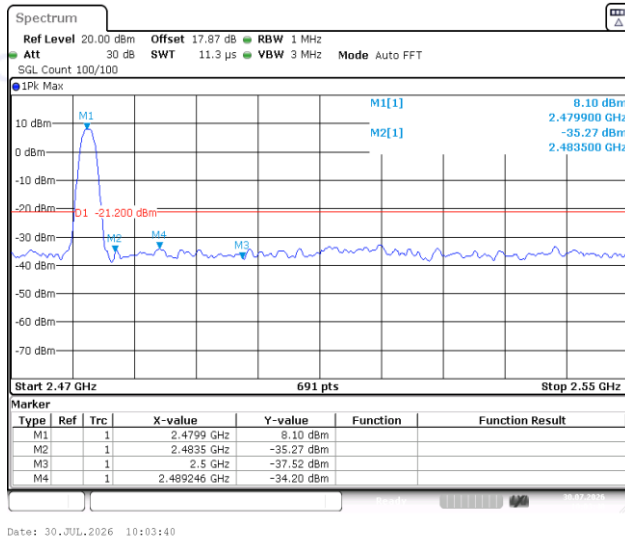
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

8.2 Test Graphs



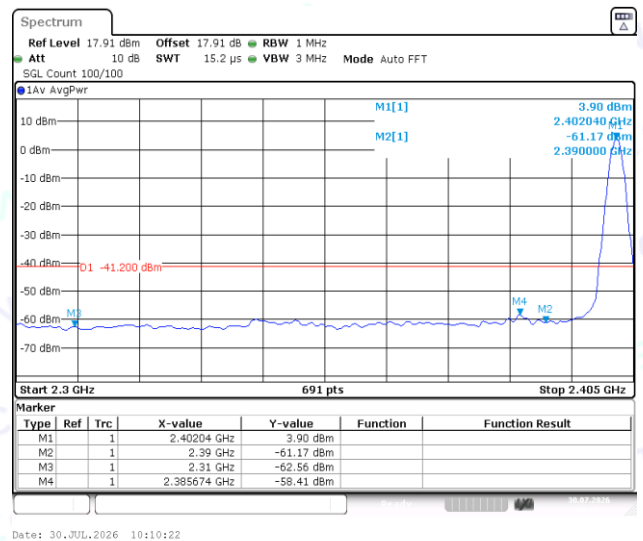
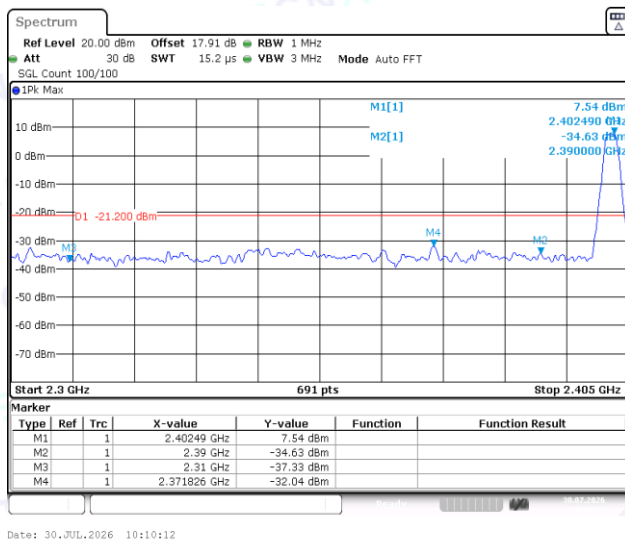
BLE_1M-Ant1-2402-PASS

BLE_1M-Ant1-2402-PASS



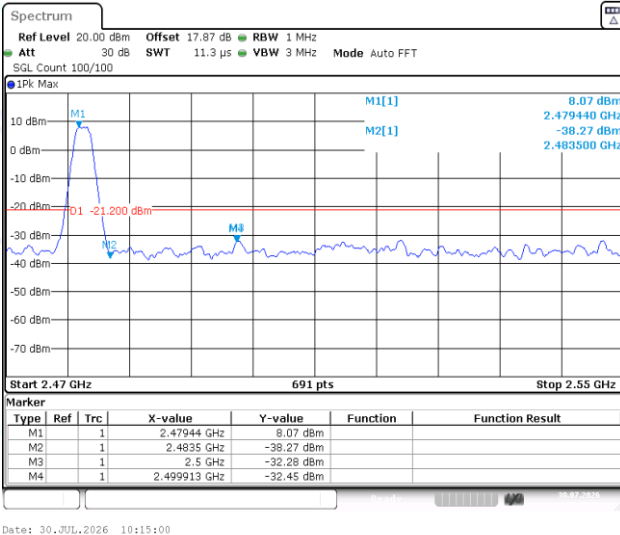
BLE_1M-Ant1-2480-PASS

BLE_1M-Ant1-2480-PASS

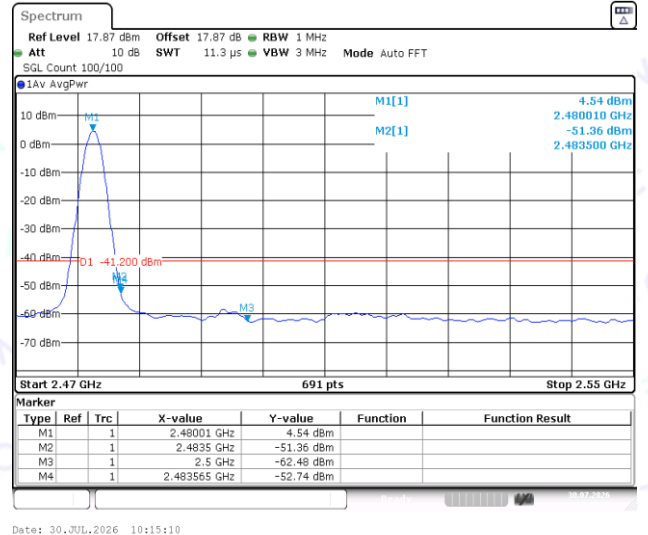


BLE_2M-Ant1-2402-PASS

BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2480-PASS



BLE_2M-Ant1-2480-PASS

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