

RF Test Data for Bluetooth LE (Conducted Measurements)

General Description of EUT	
Product Name:	K3
Test Model:	DV8919
Sample ID:	HC-C-202311-0309-01-01
Environmental Conditions	
Temperature:	23.4℃
Relative Humidity:	46%
Test Voltage:	DC 5V
Test Engineer:	Zhen Zhou
Note: For a more detailed features description, please refer to the report TBR-C-202311-0309-4.	

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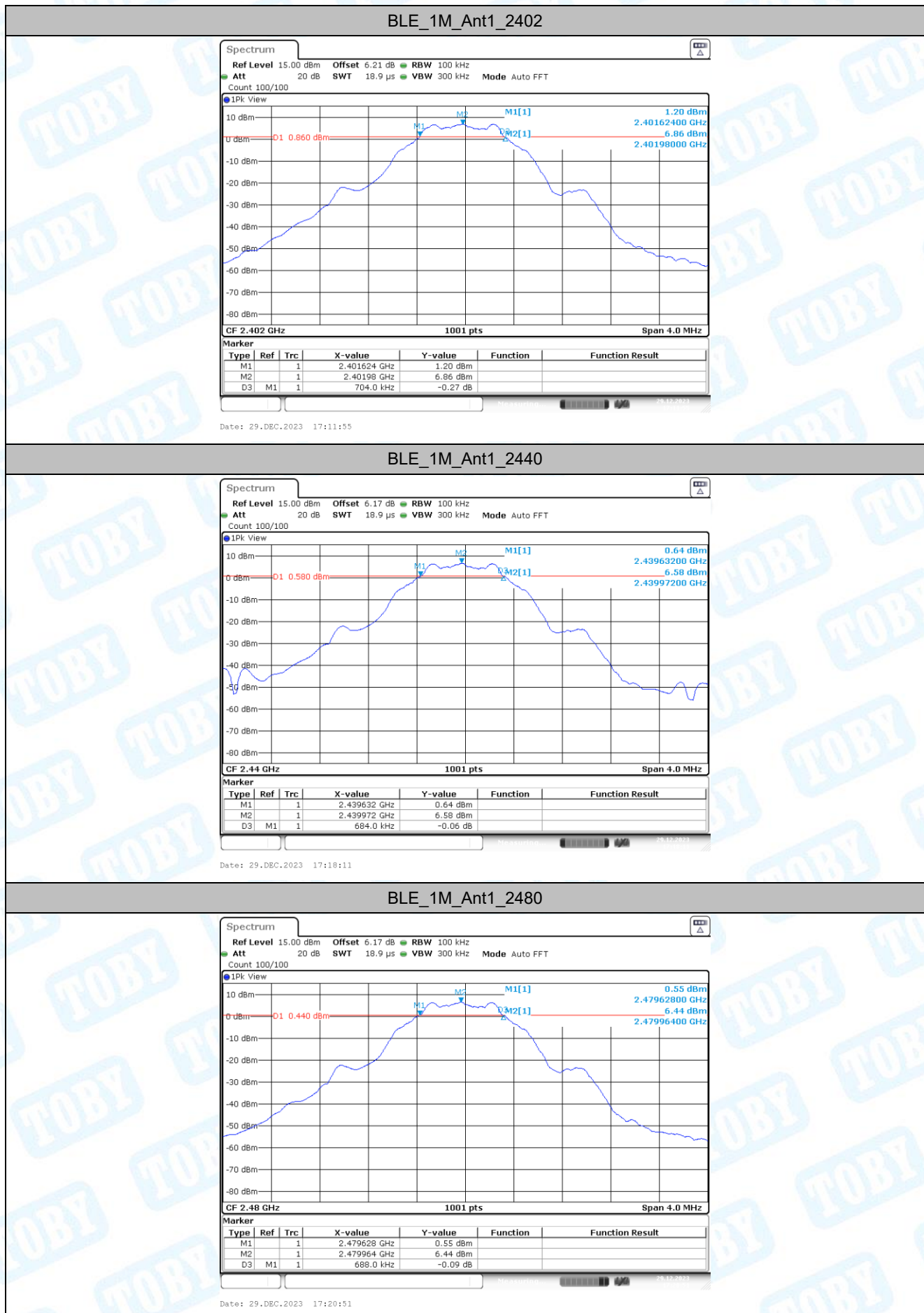
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1. DTS Bandwidth

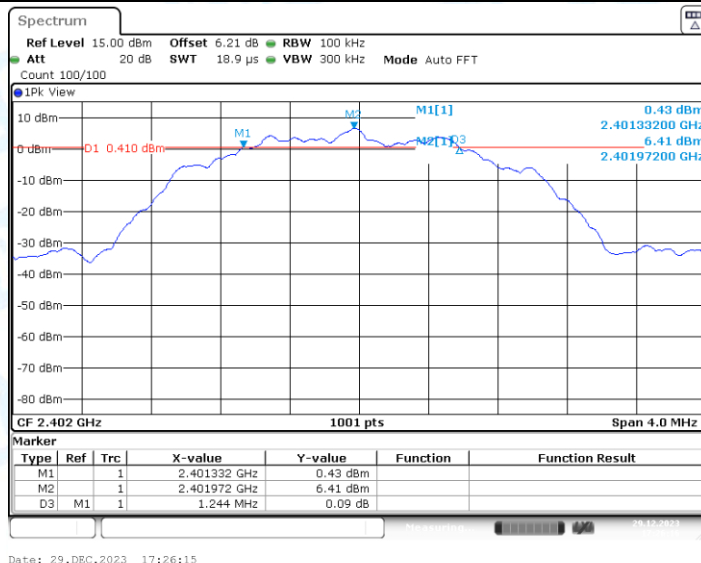
1.1. Test Result

Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.70	2401.62	2402.33	0.5	PASS
		2440	0.68	2439.63	2440.32	0.5	PASS
		2480	0.69	2479.63	2480.32	0.5	PASS
BLE_2M	Ant1	2402	1.24	2401.33	2402.58	0.5	PASS
		2440	1.18	2439.38	2440.57	0.5	PASS
		2480	1.24	2479.32	2480.56	0.5	PASS

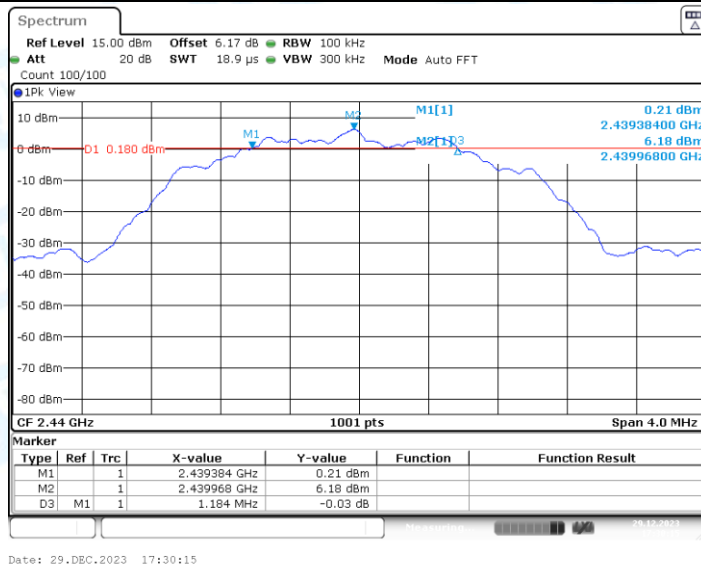
1.2. Test Graphs



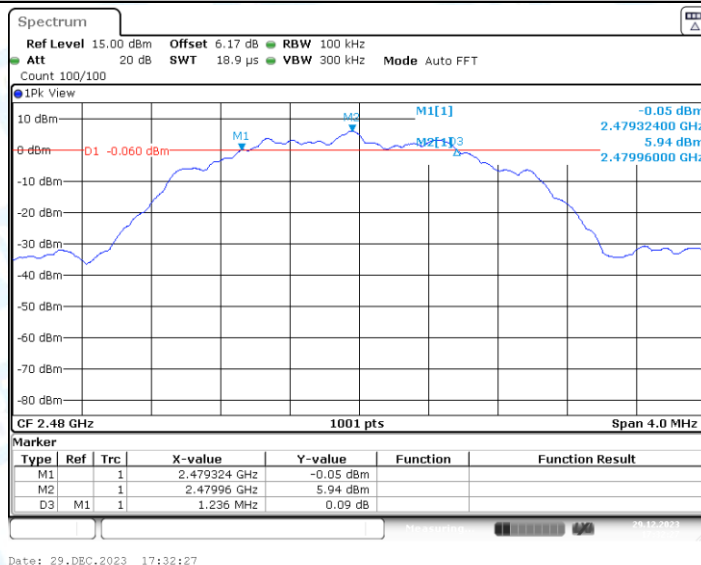
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

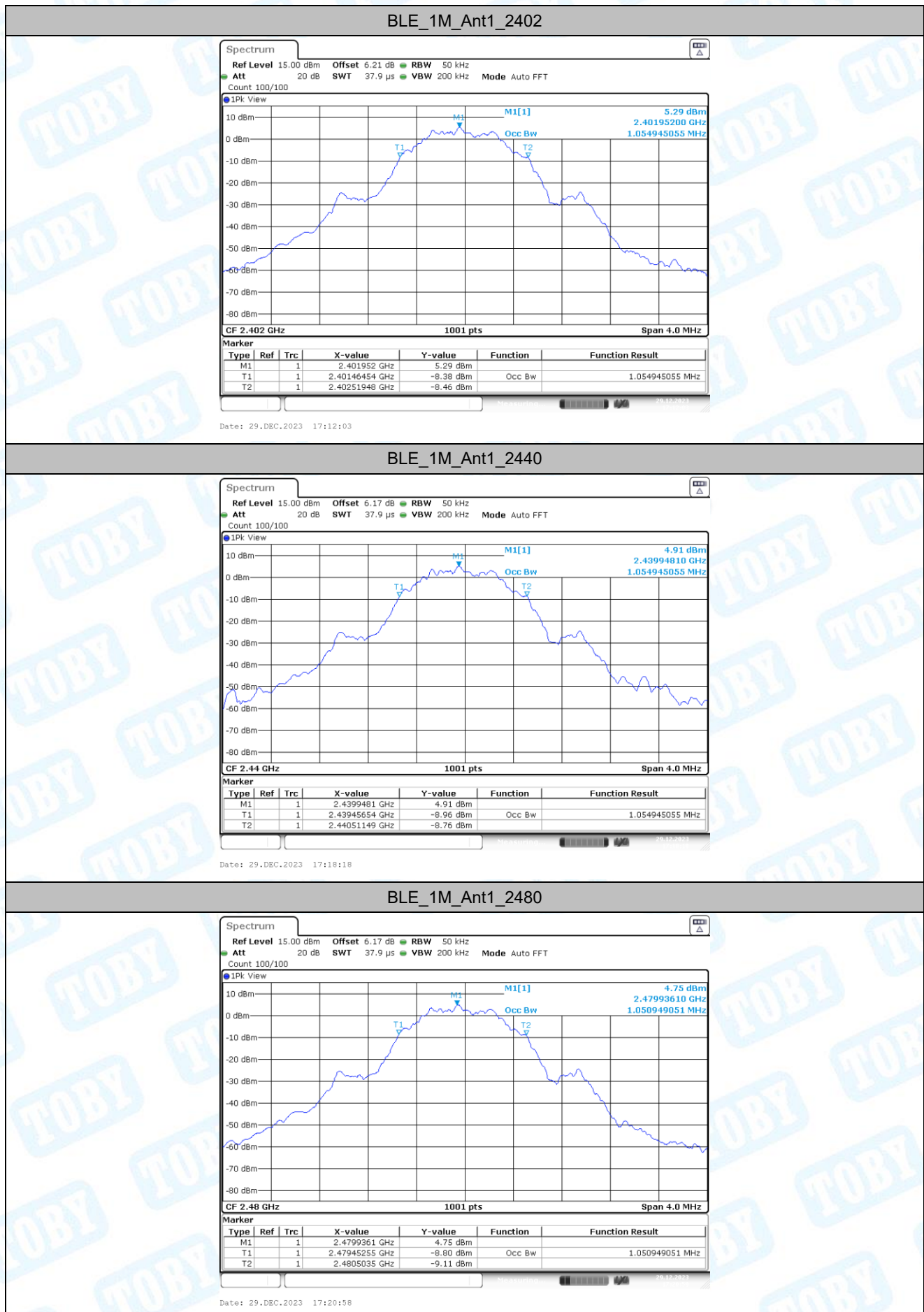


2. Occupied Channel Bandwidth

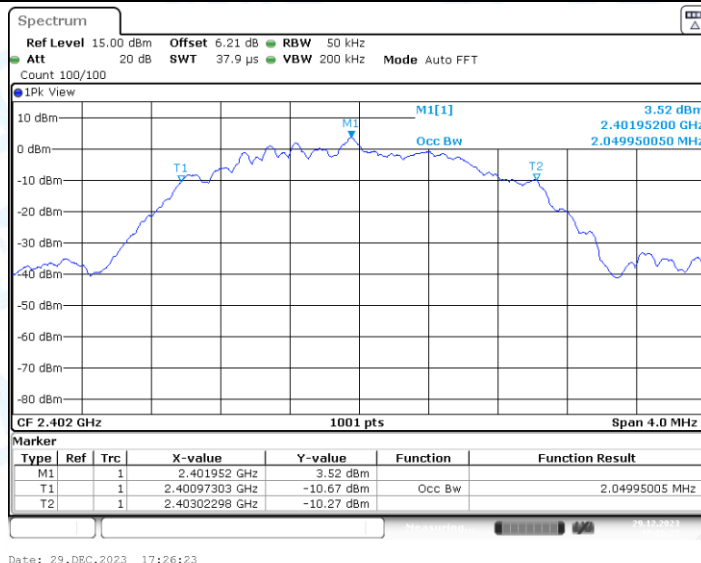
2.1. Test Result

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.055	2401.4645	2402.5195	---	---
		2440	1.055	2439.4565	2440.5115	---	---
		2480	1.051	2479.4525	2480.5035	---	---
BLE_2M	Ant1	2402	2.05	2400.9730	2403.0230	---	---
		2440	2.05	2438.9650	2441.0150	---	---
		2480	2.05	2478.9610	2481.0110	---	---

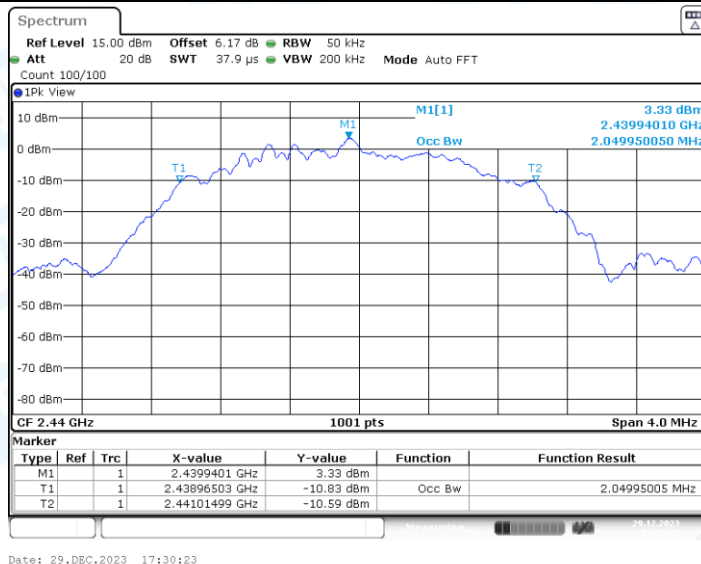
2.2. Test Graphs



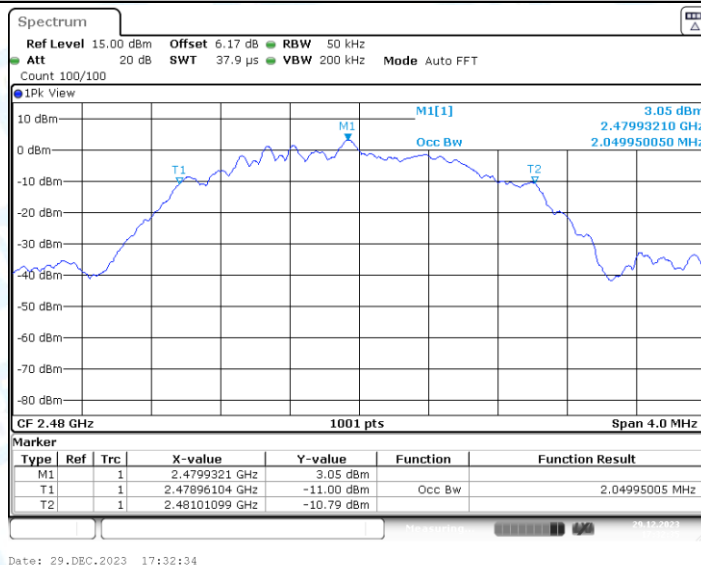
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

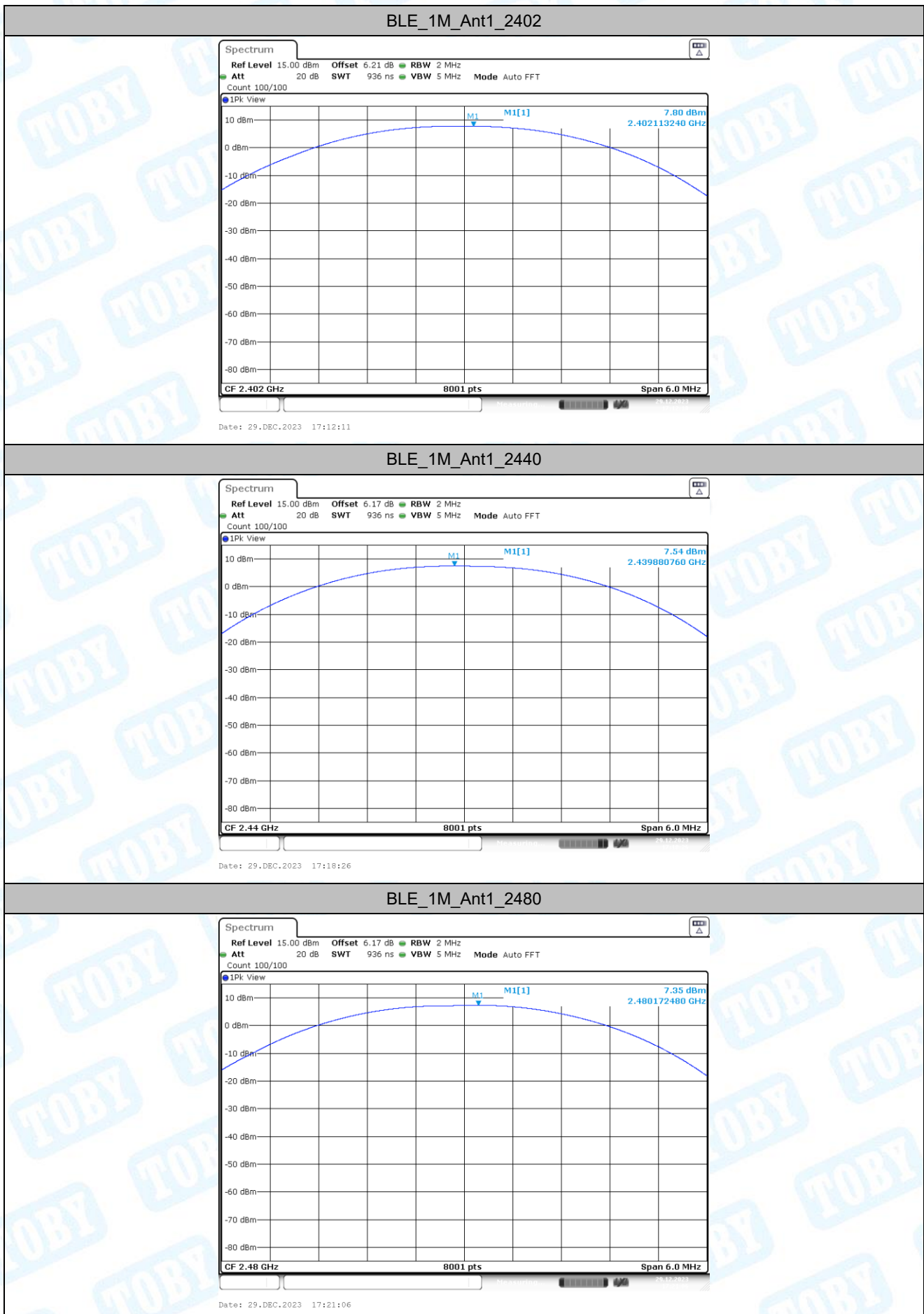


3. Maximum conducted output power

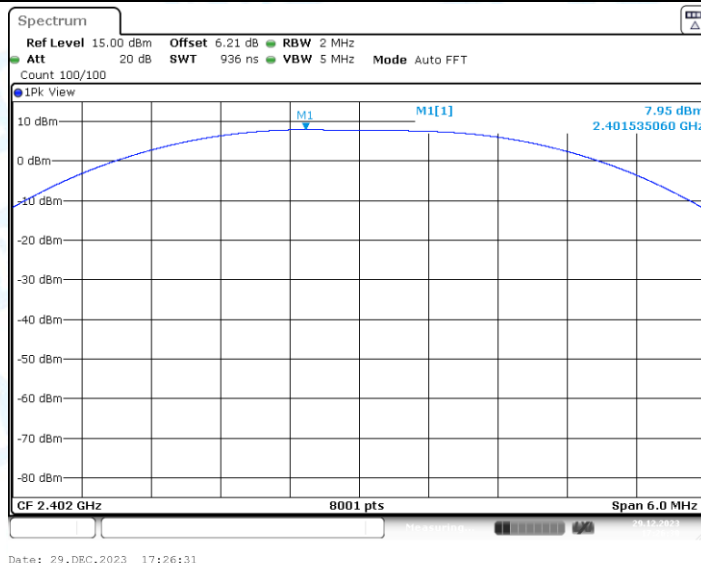
3.1. Test Result

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	7.80	≤30	PASS
		2440	7.54	≤30	PASS
		2480	7.35	≤30	PASS
BLE_2M	Ant1	2402	7.95	≤30	PASS
		2440	7.65	≤30	PASS
		2480	7.43	≤30	PASS

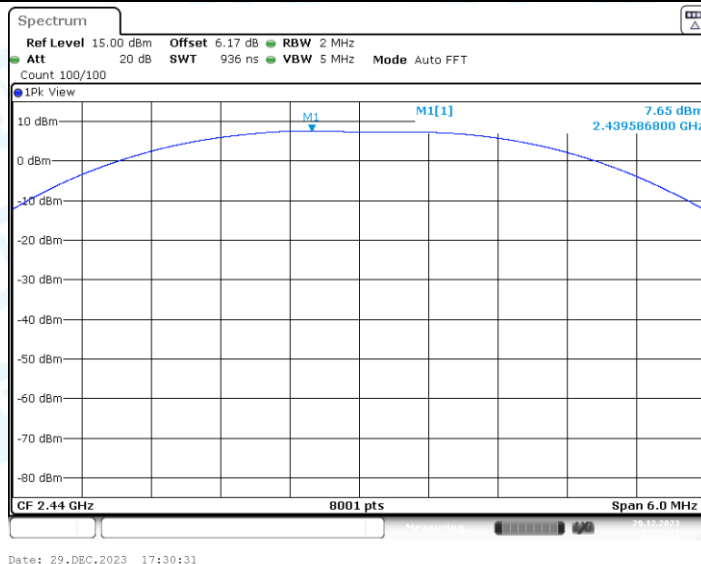
3.2. Test Graphs



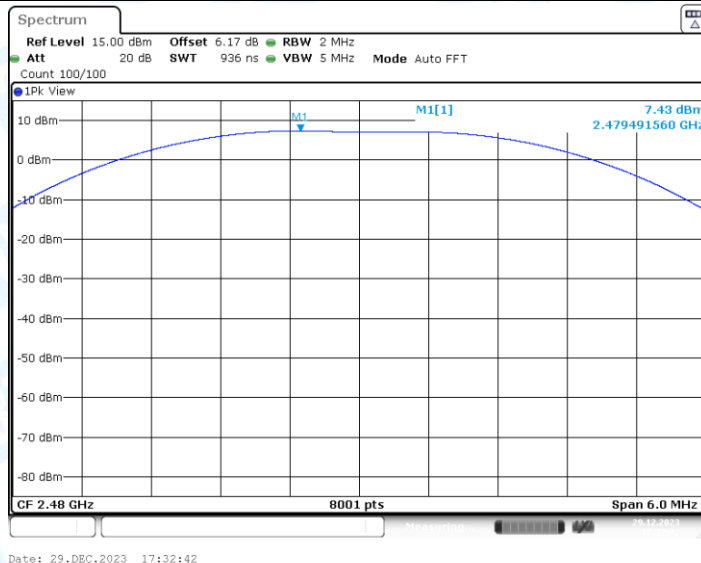
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

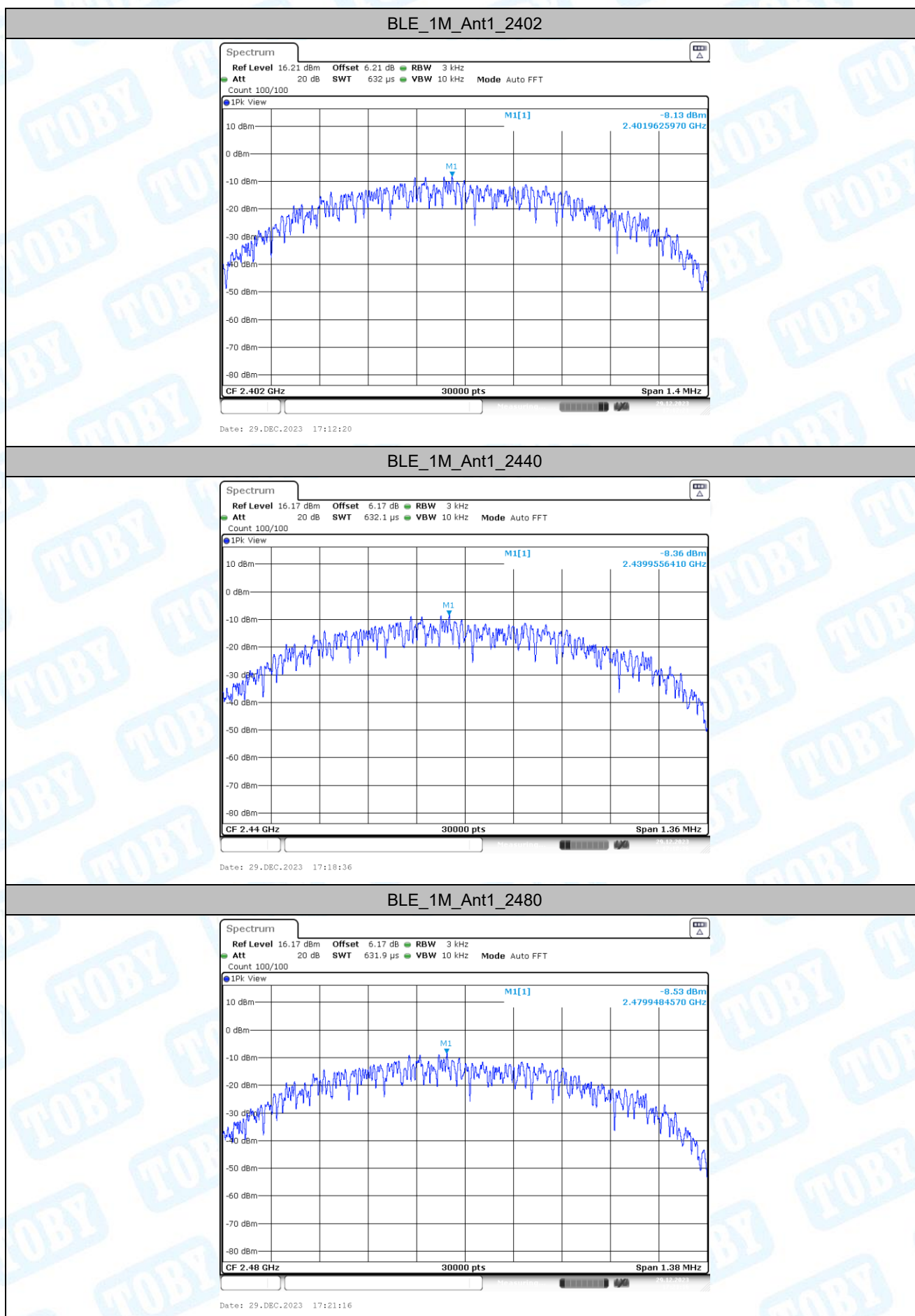


4. Maximum power spectral density

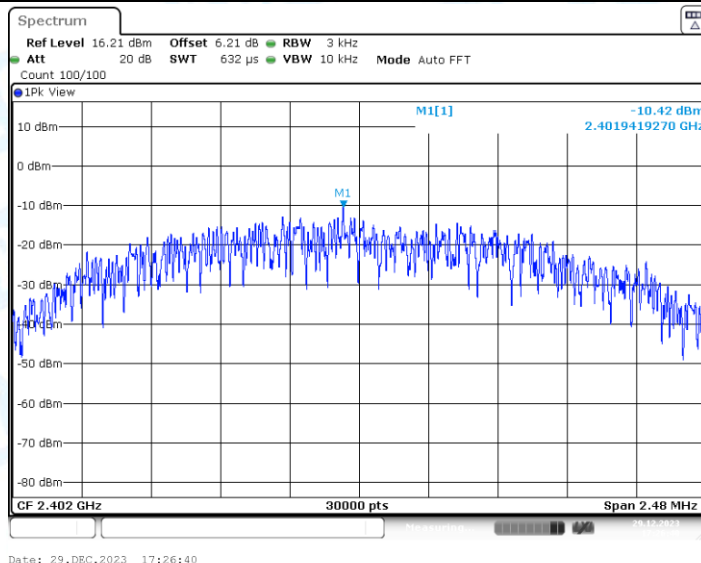
4.1. Test Result

Test Mode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-8.13	≤8.00	PASS
		2440	-8.36	≤8.00	PASS
		2480	-8.53	≤8.00	PASS
BLE_2M	Ant1	2402	-10.42	≤8.00	PASS
		2440	-10.84	≤8.00	PASS
		2480	-10.92	≤8.00	PASS

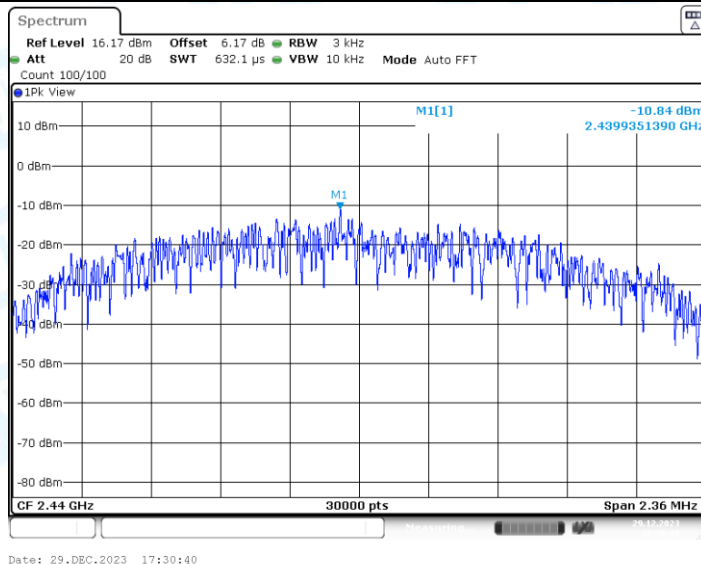
4.2. Test Graphs



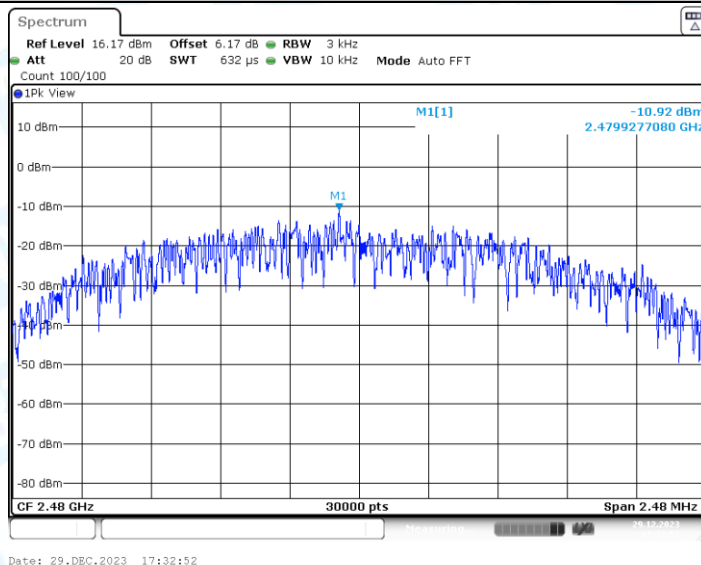
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

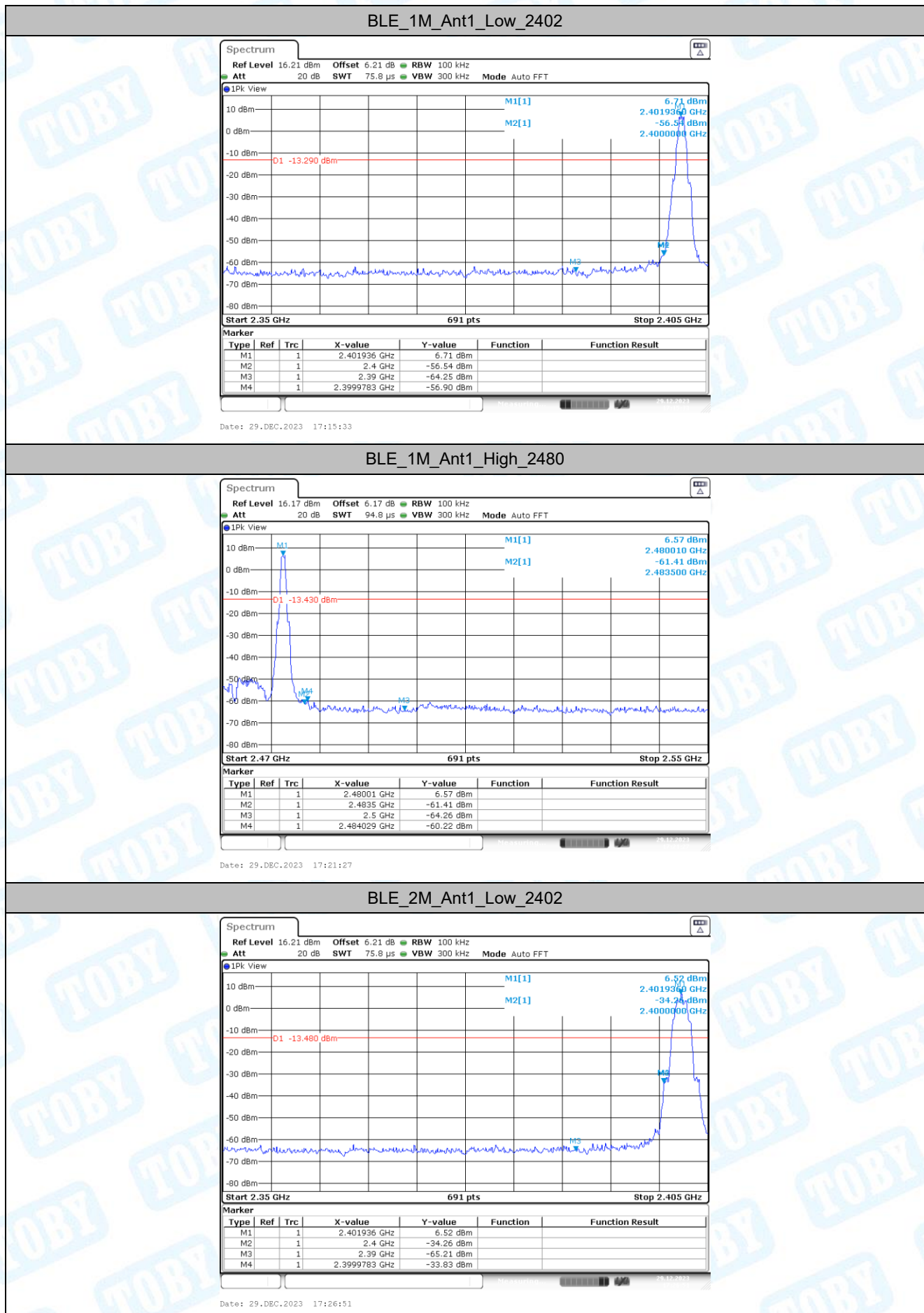


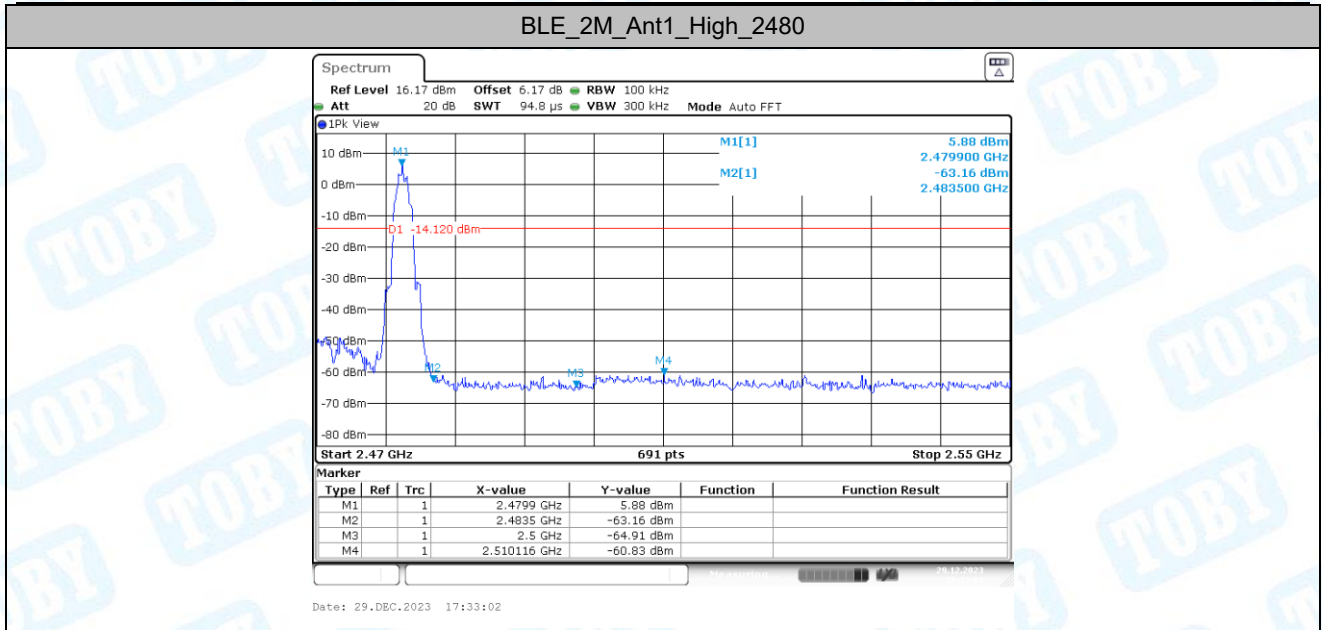
5. Band edge measurements

5.1. Test Result

Test Mode	Antenna	ChName	Channel	Ref.Level[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	6.71	-56.9	≤ -13.29	PASS
		High	2480	6.57	-60.22	≤ -13.43	PASS
BLE_2M	Ant1	Low	2402	6.52	-33.83	≤ -13.48	PASS
		High	2480	5.88	-60.83	≤ -14.12	PASS

5.2. Test Graphs





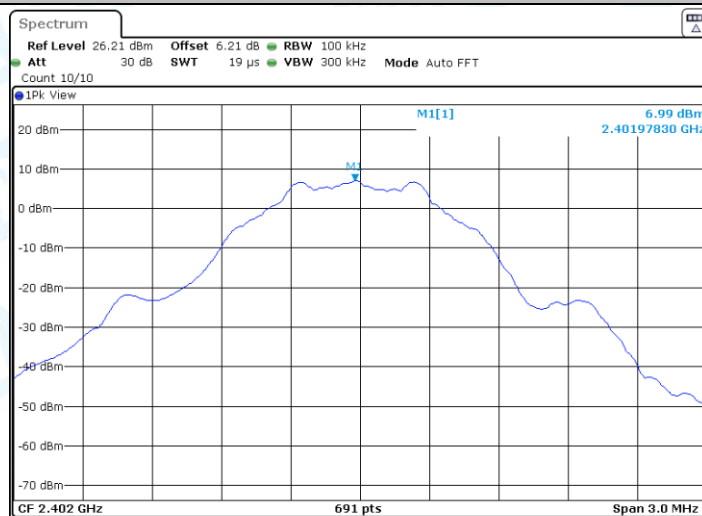
6. Conducted Spurious Emission

6.1. Test Result

Test Mode	Antenna	Channel	Freq. Range [MHz]	Ref. Level [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	6.99	6.99	---	PASS
			30~1000	6.99	-62.7	≤-13.01	PASS
			1000~26500	6.99	-41.43	≤-13.01	PASS
		2440	Reference	6.57	6.57	---	PASS
			30~1000	6.57	-60.98	≤-13.43	PASS
			1000~26500	6.57	-44.05	≤-13.43	PASS
		2480	Reference	6.44	6.44	---	PASS
			30~1000	6.44	-62.73	≤-13.56	PASS
			1000~26500	6.44	-46.69	≤-13.56	PASS
BLE_2M	Ant1	2402	Reference	6.39	6.39	---	PASS
			30~1000	6.39	-61.79	≤-13.61	PASS
			1000~26500	6.39	-41.58	≤-13.61	PASS
		2440	Reference	6.18	6.18	---	PASS
			30~1000	6.18	-62.59	≤-13.82	PASS
			1000~26500	6.18	-43.85	≤-13.82	PASS
		2480	Reference	6.00	6.00	---	PASS
			30~1000	6.00	-62.22	≤-14	PASS
			1000~26500	6.00	-46.68	≤-14	PASS

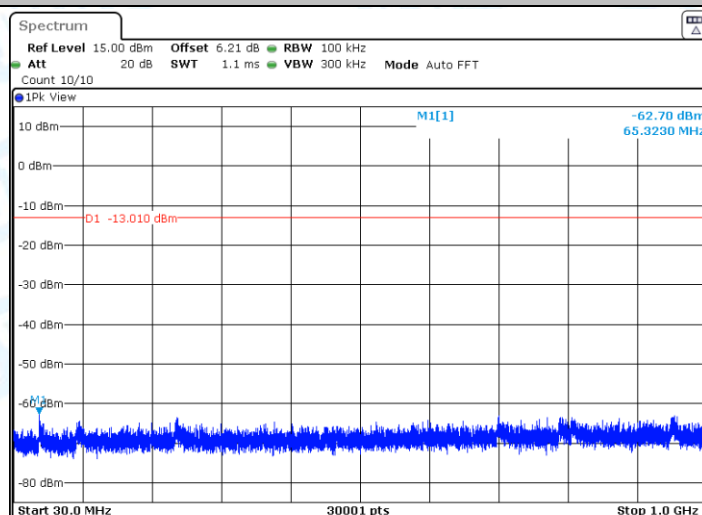
6.2. Test Graphs

BLE_1M_Ant1_2402_0~Reference



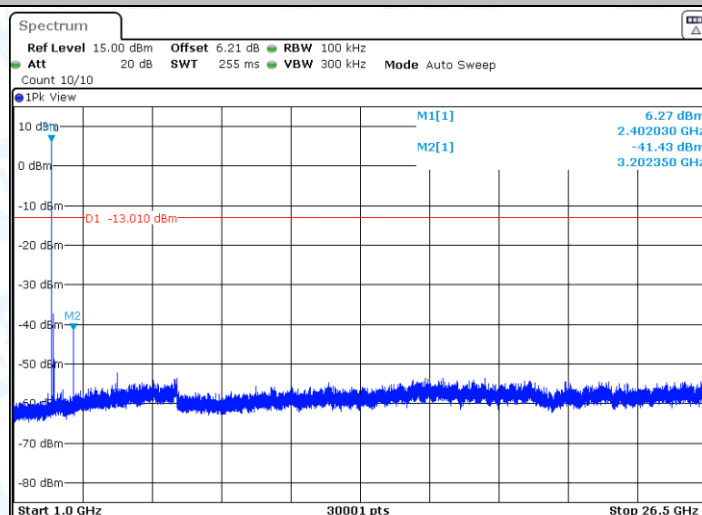
Date: 29.DEC.2023 17:16:41

BLE_1M_Ant1_2402_30~1000



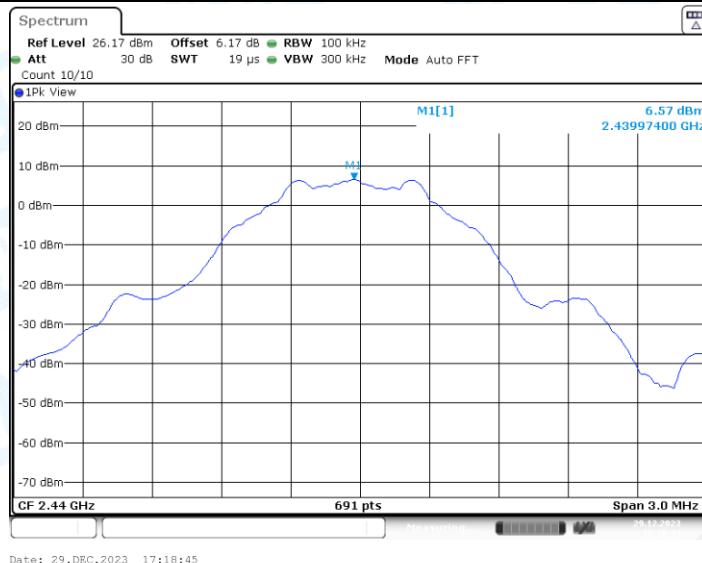
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BLE_1M_Ant1_2402_1000~26500

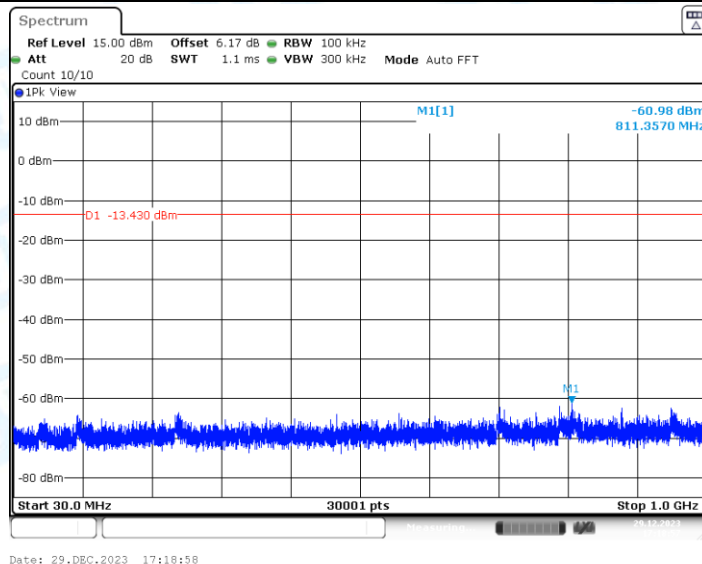


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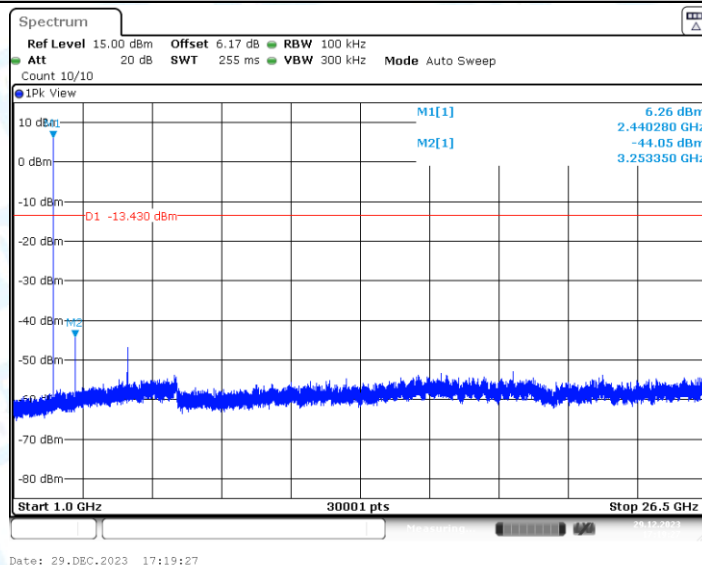
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



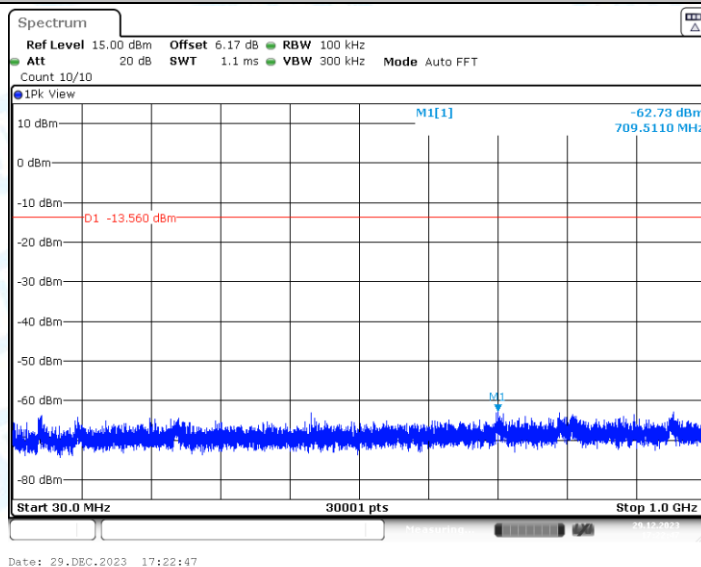
BLE_1M_Ant1_2440_1000~26500



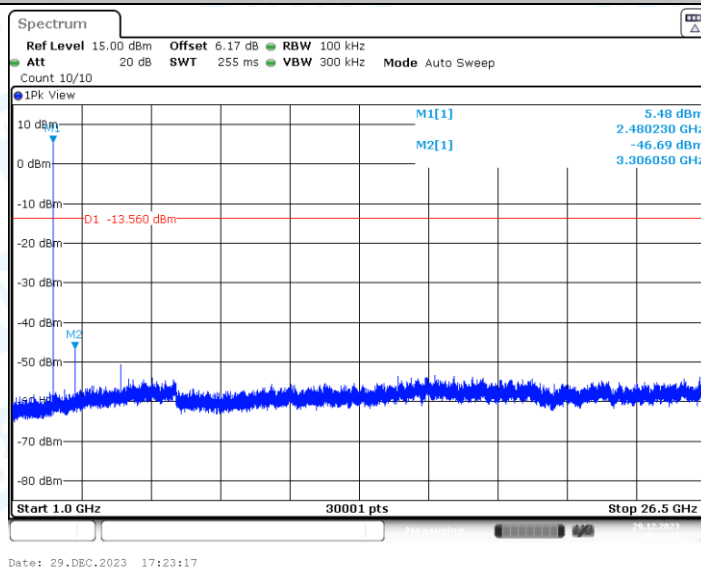
BLE_1M_Ant1_2480_0~Reference



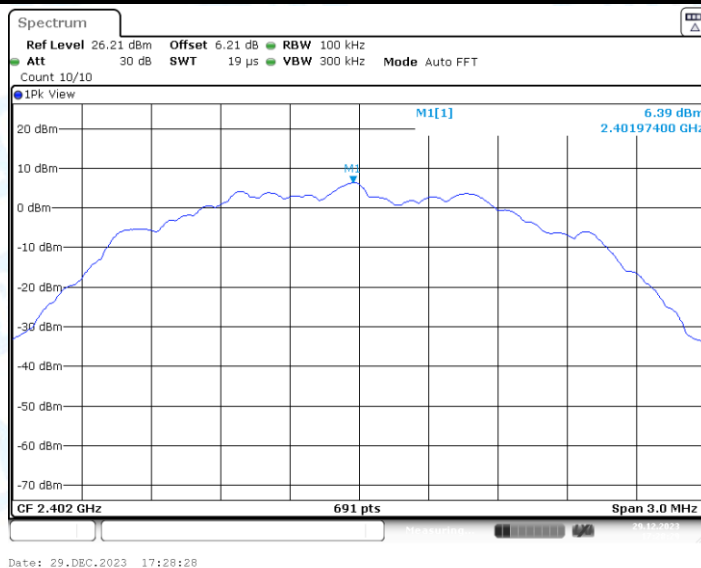
BLE_1M_Ant1_2480_30~1000



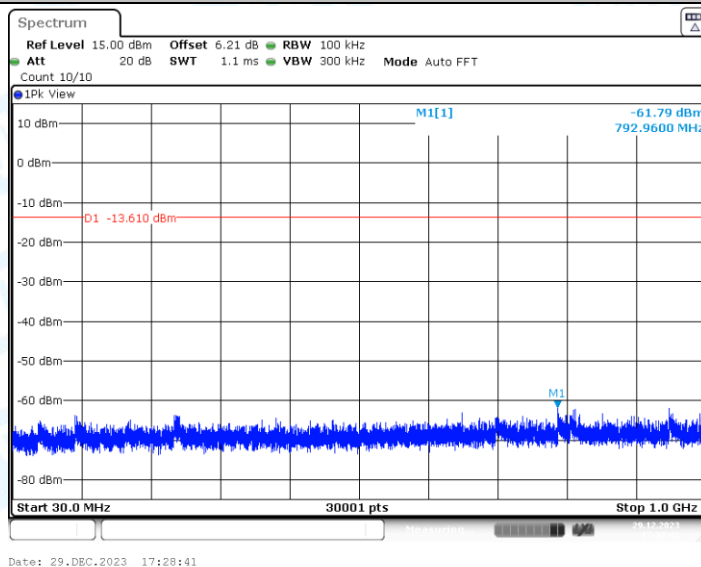
BLE_1M_Ant1_2480_1000~26500



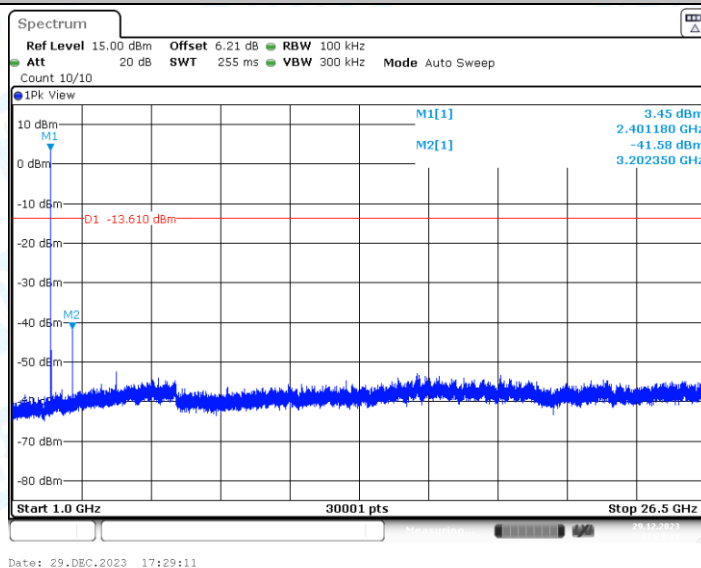
BLE_2M_Ant1_2402_0~Reference



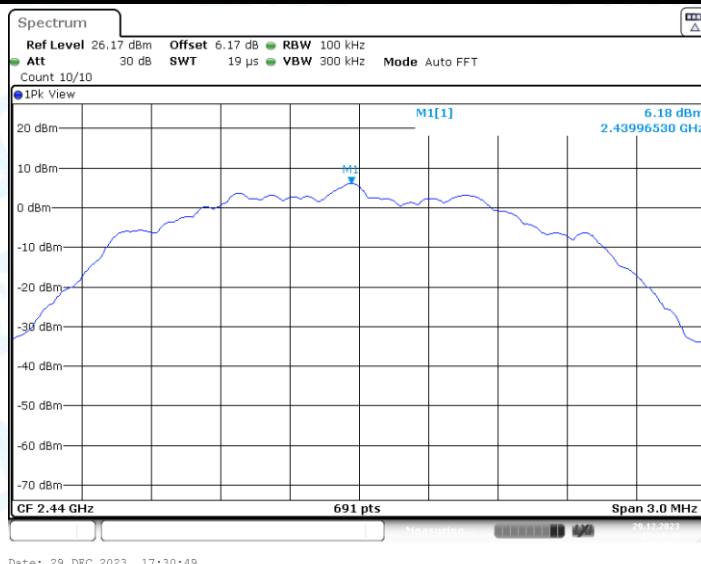
BLE_2M_Ant1_2402_30~1000



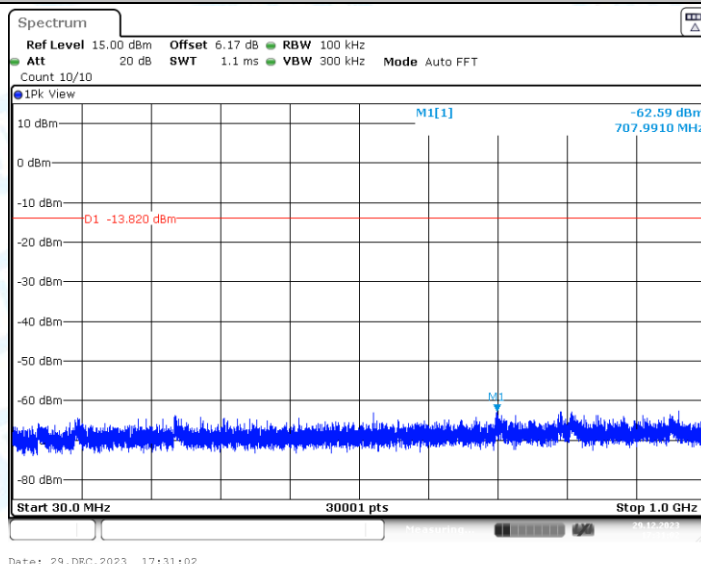
BLE_2M_Ant1_2402_1000~26500



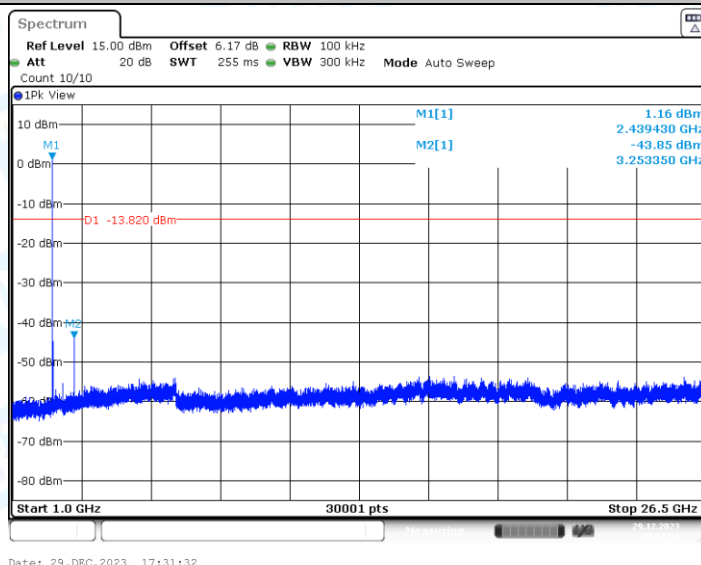
BLE_2M_Ant1_2440_0~Reference



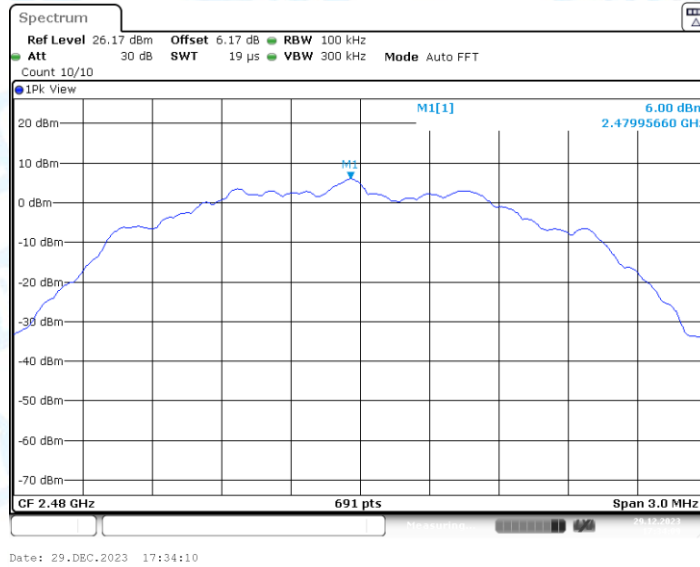
BLE_2M_Ant1_2440_30~1000



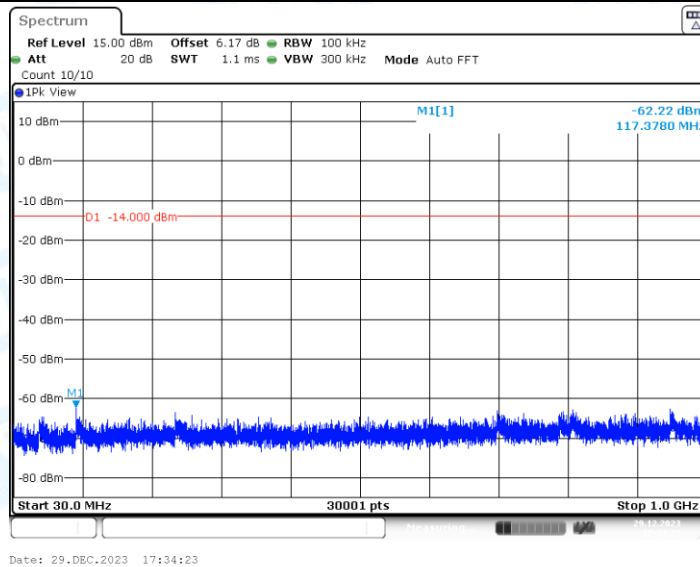
BLE_2M_Ant1_2440_1000~26500



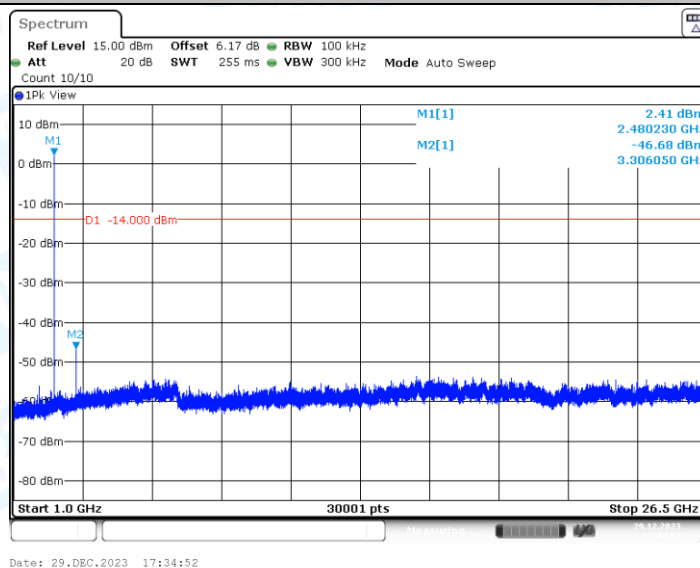
BLE_2M_Ant1_2480_0~Reference



BLE_2M_Ant1_2480_30~1000



BLE_2M_Ant1_2480_1000~26500



7. Duty Cycle

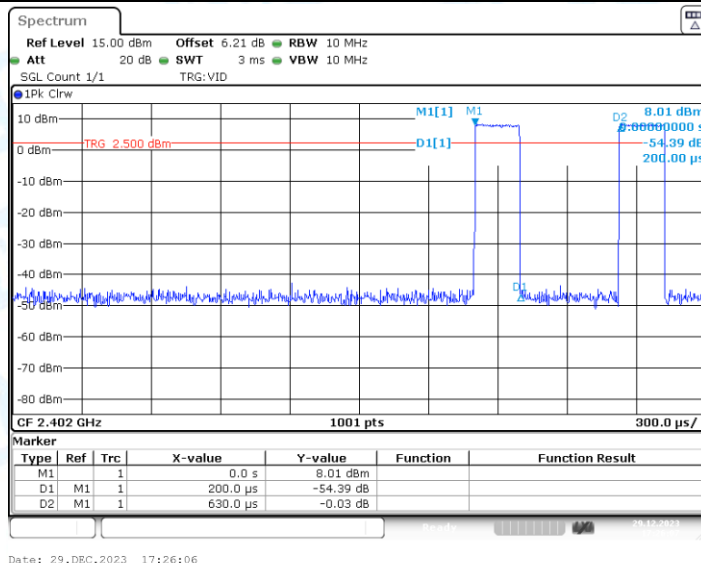
7.1. Test Result

Test Mode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T [KHz]	Verdict
BLE_1M	Ant1	2402	0.38	0.63	60.32	2.63	---
		2440	0.38	0.63	60.32	2.63	---
		2480	0.38	0.63	60.32	2.63	---
BLE_2M	Ant1	2402	0.20	0.63	31.75	5.00	---
		2440	0.20	0.63	31.75	5.00	---
		2480	0.20	0.63	31.75	5.00	---

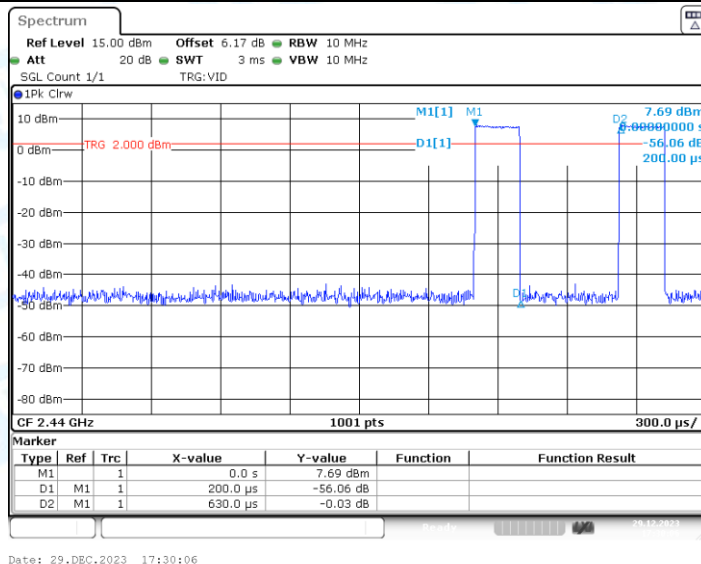
7.2. Test Graphs



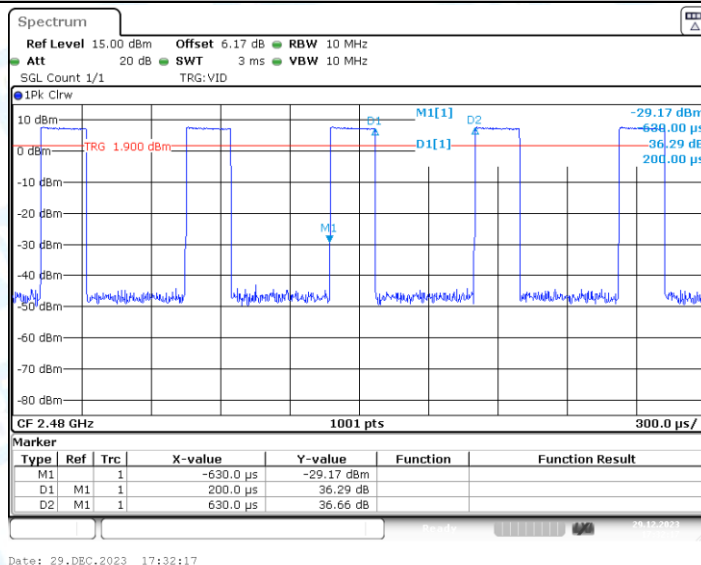
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



-----End of the report-----