

RF Test Data for ZigBee (Conducted Measurements)

General Description of EUT	
Product Name:	Devicebook Hub
Test Model:	DH100
Sample ID:	TBBJ-20210818-13-2#
Environmental Conditions	
Temperature:	23.8°C
Relative Humidity:	48%
Test Voltage:	AC 120V/60Hz
Test Engineer:	Huang jian ping
Note: For a more detailed features description, please refer to the report TB-FCC186388	

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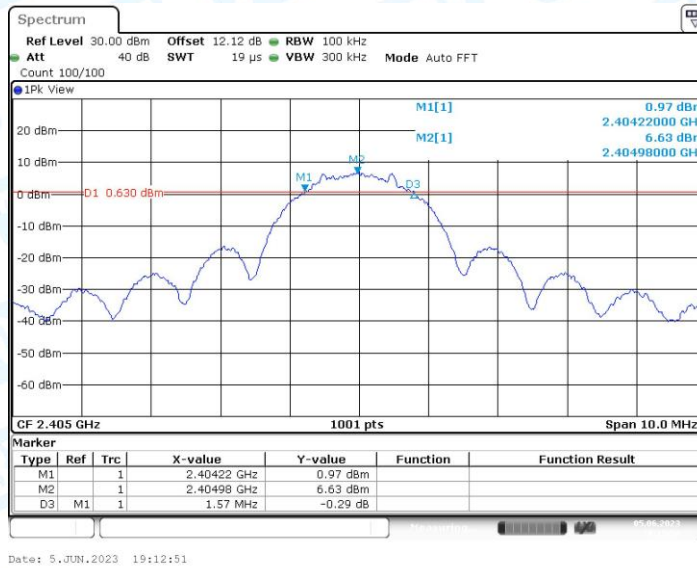
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1: DTS Bandwidth

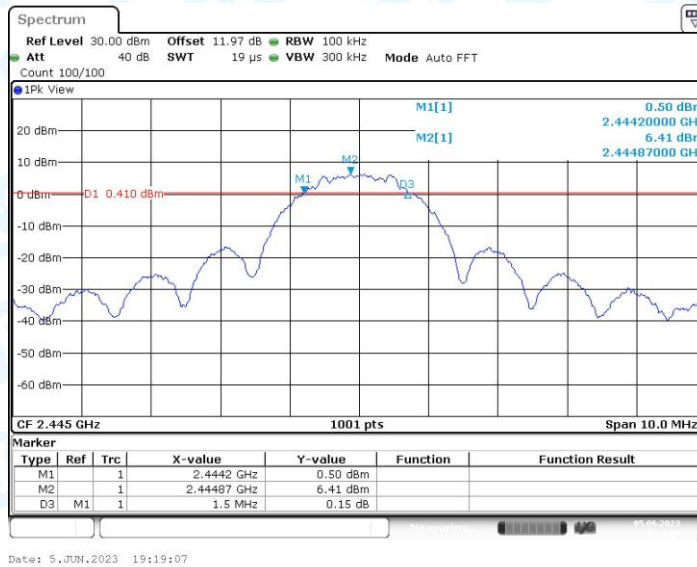
1.1 Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
ZigBee	Ant1	2405	1.57	2404.22	2405.79	0.5	PASS
		2445	1.50	2444.20	2445.70	0.5	PASS
		2480	1.51	2479.23	2480.74	0.5	PASS

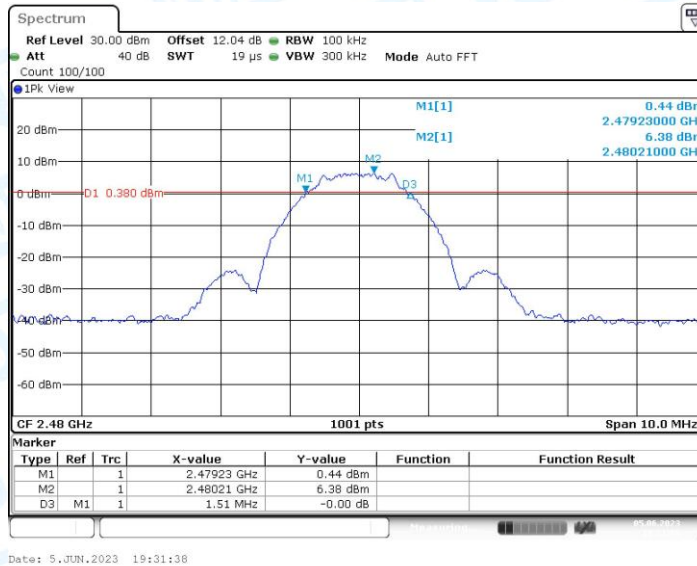
1.2 Test Graphs



ZigBee_Ant1_2405



ZigBee_Ant1_2445



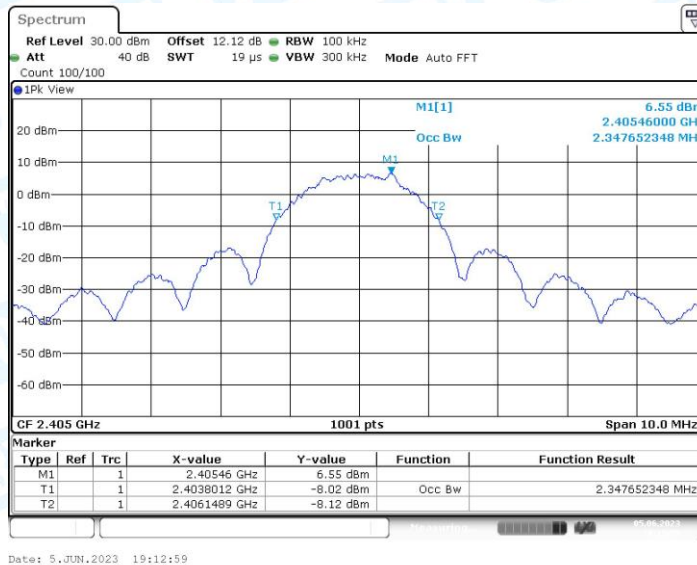
ZigBee_Ant1_2480

2: Occupied Channel Bandwidth

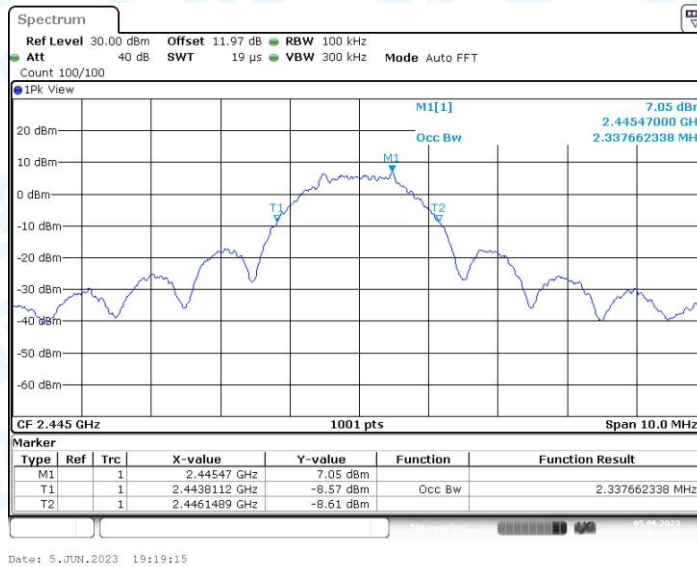
2.1 Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
ZigBee	Ant1	2405	2.348	2403.8012	2406.1489	---	---
		2445	2.338	2443.8112	2446.1489	---	---
		2480	2.068	2478.9311	2480.9990	---	---

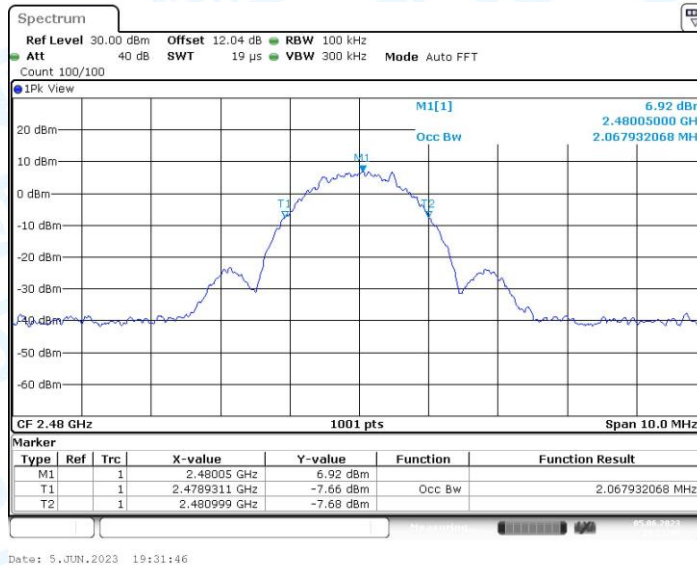
2.2 Test Graphs



ZigBee_Ant1_2405



ZigBee_Ant1_2445



ZigBee_Ant1_2480

3: Maximum conducted output power

3.1 Test Result

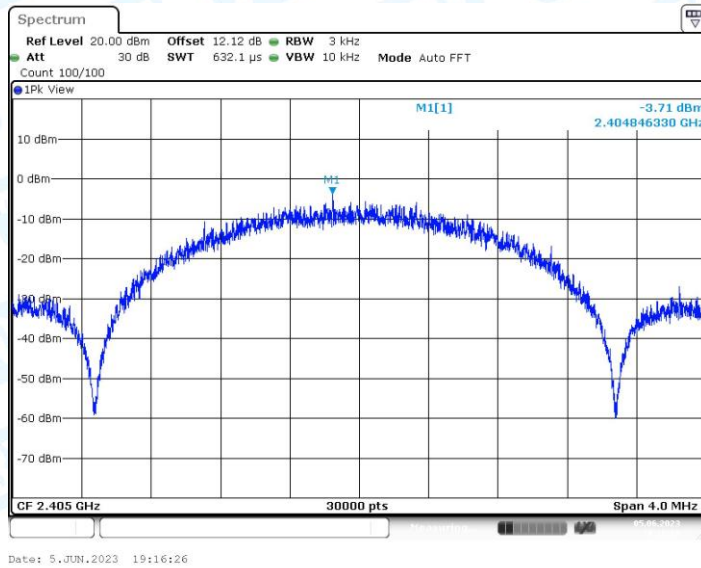
TestMode	Antenna	Frequency[MHz]	Result[dBm]	Limit[dBm]	Verdict
ZigBee	Ant1	2405	7.17	≤30	PASS
		2445	7.76	≤30	PASS
		2480	7.32	≤30	PASS

4: Maximum power spectral density

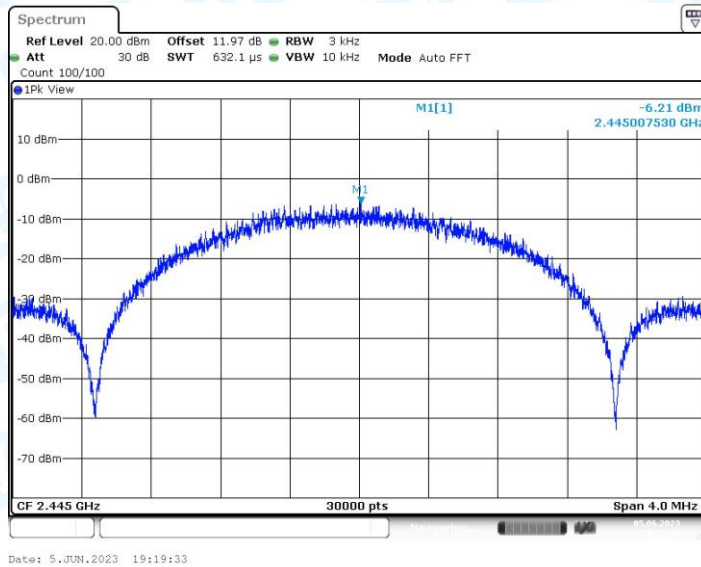
4.1 Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
ZigBee	Ant1	2405	-3.71	≤8.00	PASS
		2445	-6.21	≤8.00	PASS
		2480	-2.82	≤8.00	PASS

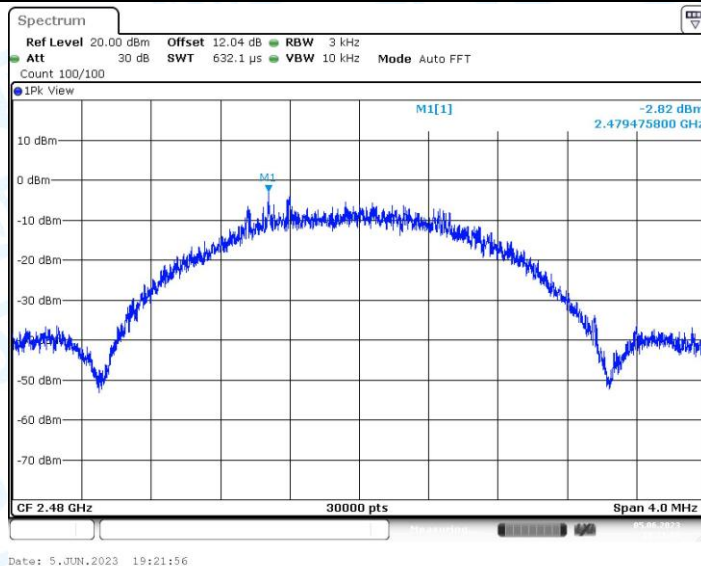
4.2 Test Graphs



ZigBee_Ant1_2405



ZigBee_Ant1_2445



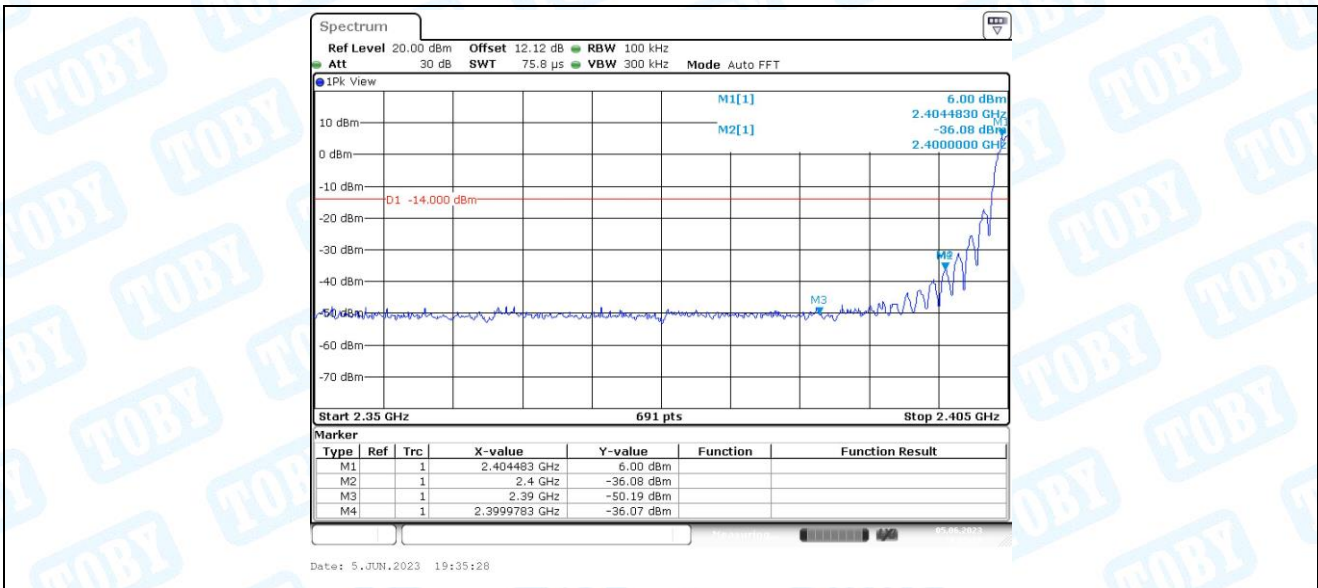
ZigBee_Ant1_2480

5: Band edge measurements

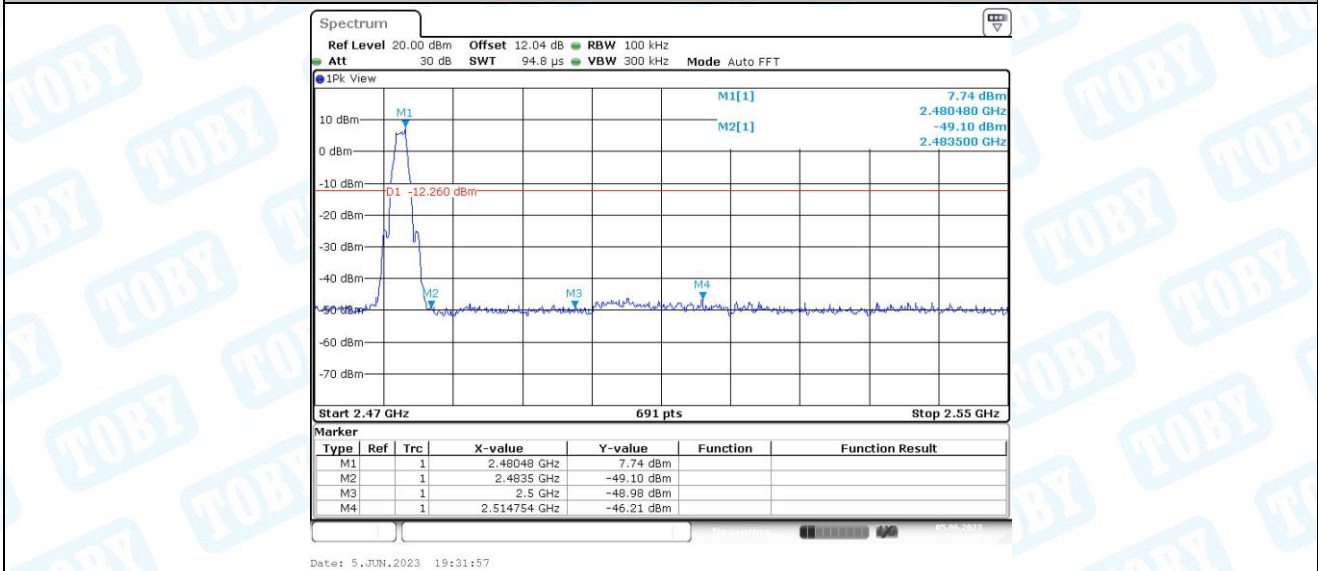
5.1 Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
ZigBee	Ant1	Low	2405	6.00	-36.07	≤-14	PASS
		High	2480	7.74	-46.21	≤-12.26	PASS

5.2 Test Graphs



ZigBee_Ant1_Low_2405



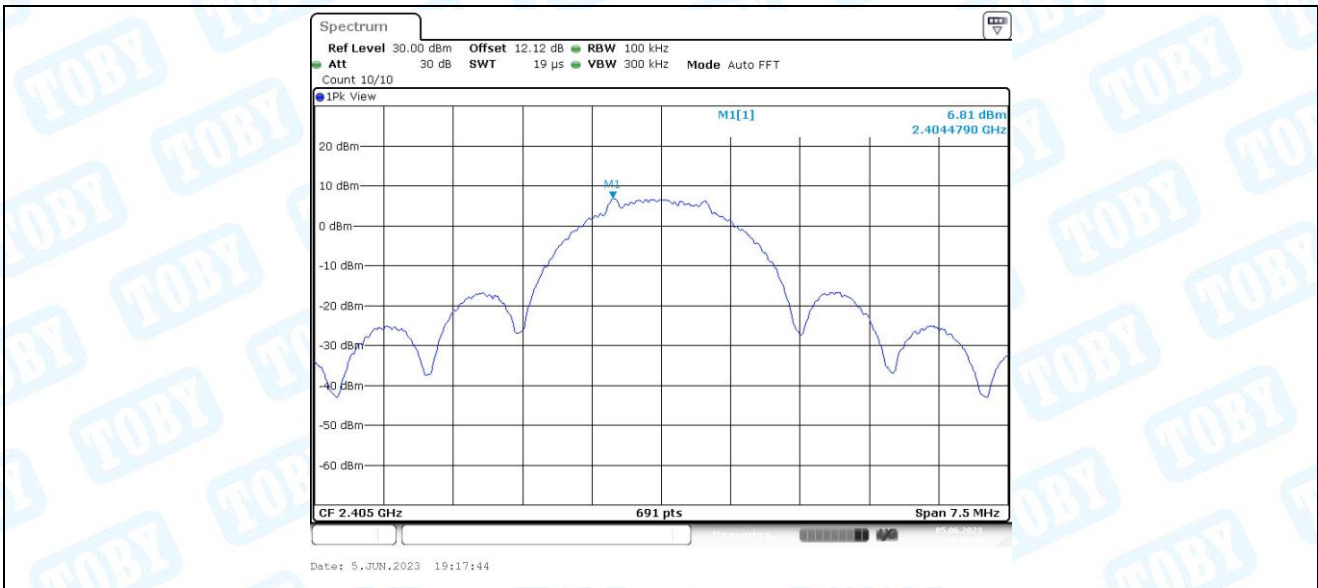
ZigBee_Ant1_High_2480

6: Conducted Spurious Emission

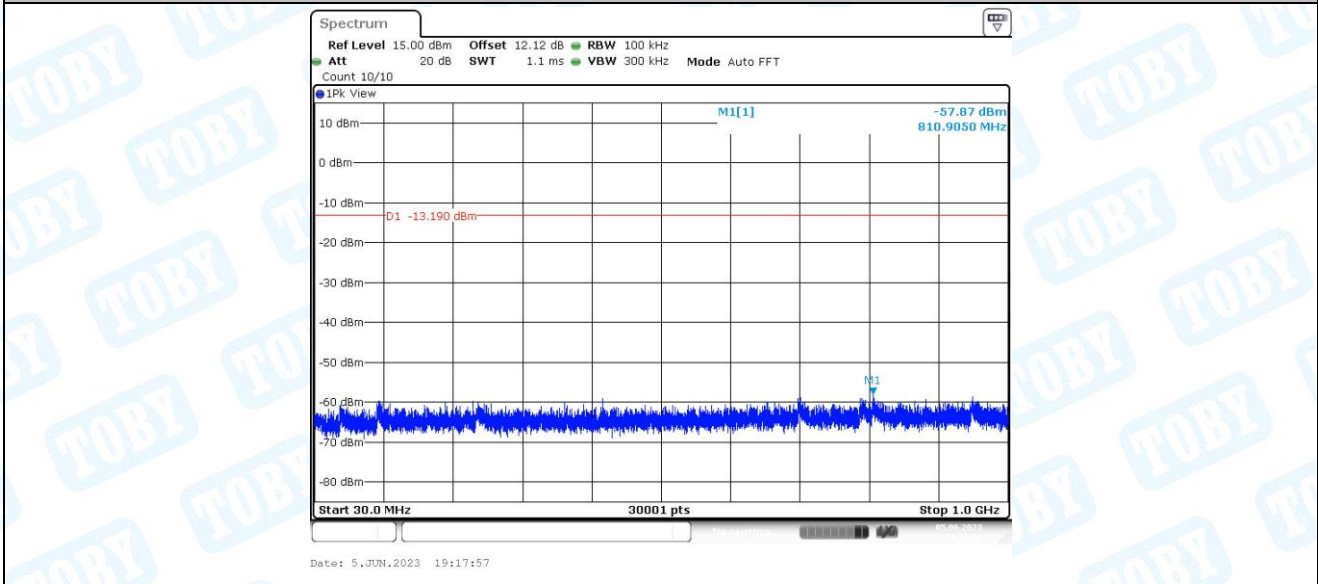
6.1 Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
ZigBee	Ant1	2405	Reference	6.81	6.81	---	PASS
			30~1000	6.81	-57.87	≤-13.19	PASS
			1000~26500	6.81	-39.31	≤-13.19	PASS
		2445	Reference	7.18	7.18	---	PASS
			30~1000	7.18	-58.65	≤-12.82	PASS
			1000~26500	7.18	-40.02	≤-12.82	PASS
		2480	Reference	7.36	7.36	---	PASS
			30~1000	7.36	-58.56	≤-12.64	PASS
			1000~26500	7.36	-41.03	≤-12.64	PASS

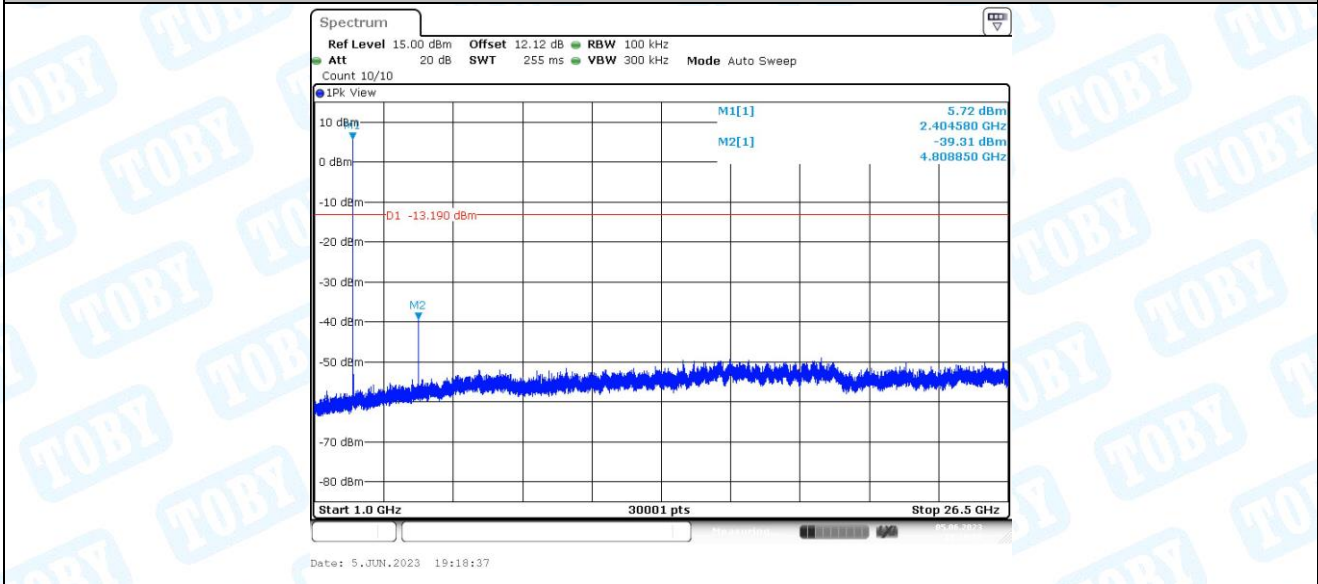
6.2 Test Graphs



ZigBee_Ant1_2405_0~Reference



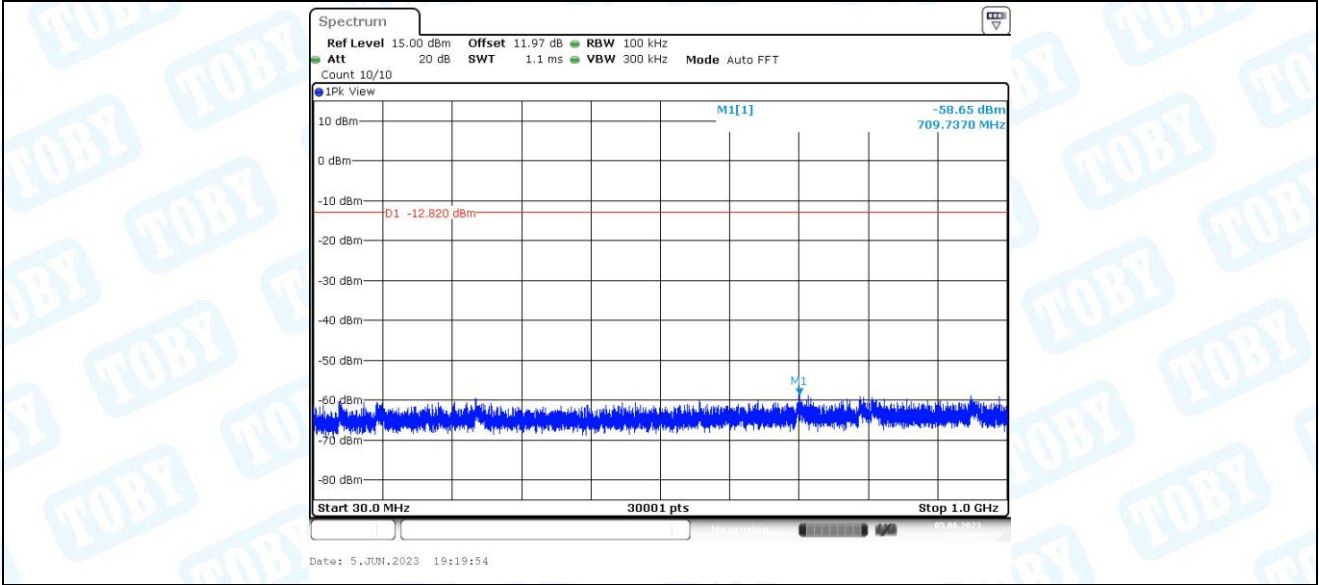
ZigBee_Ant1_2405_30~1000



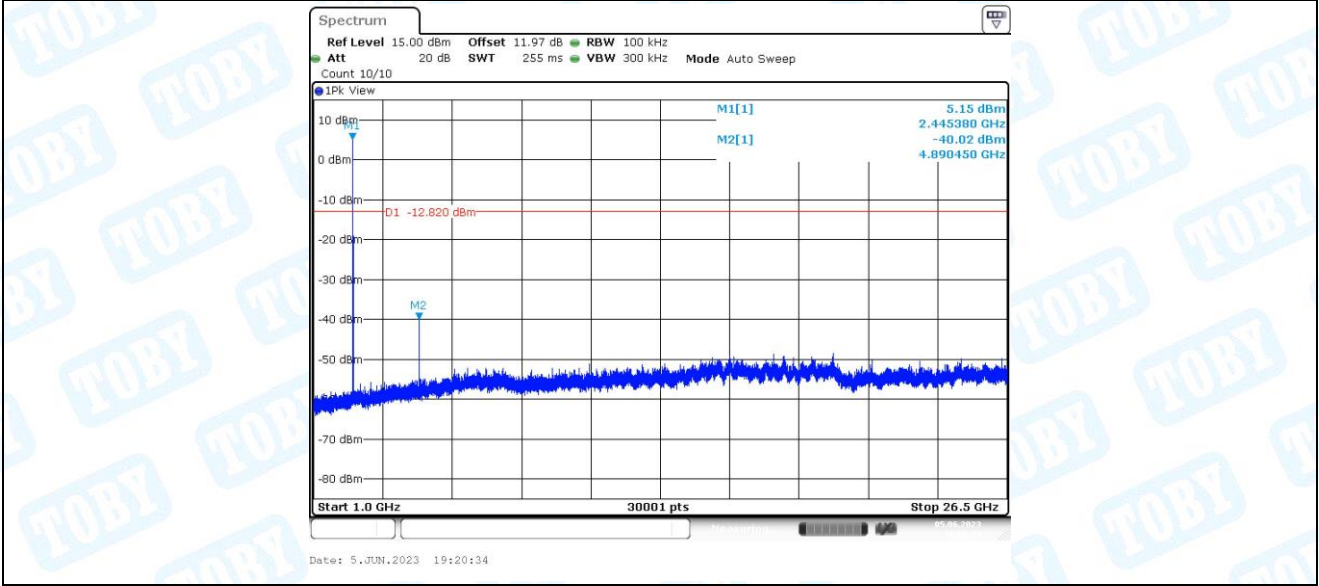
ZigBee_Ant1_2405_1000~26500



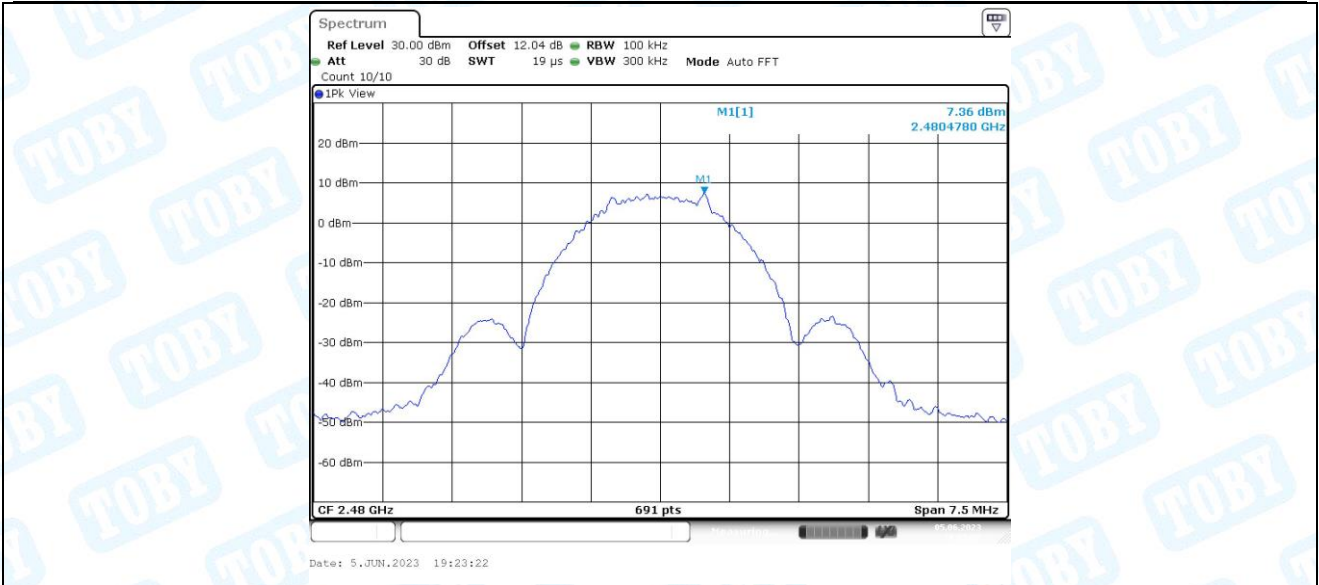
ZigBee_Ant1_2445_0~Reference



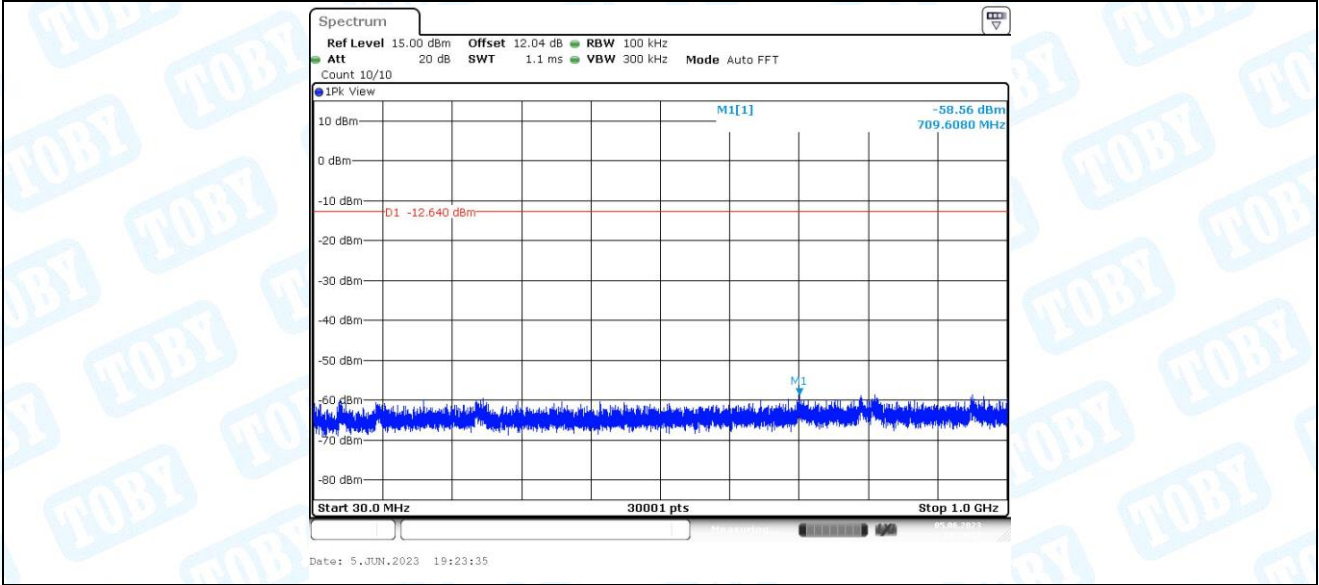
ZigBee_Ant1_2445_30~1000



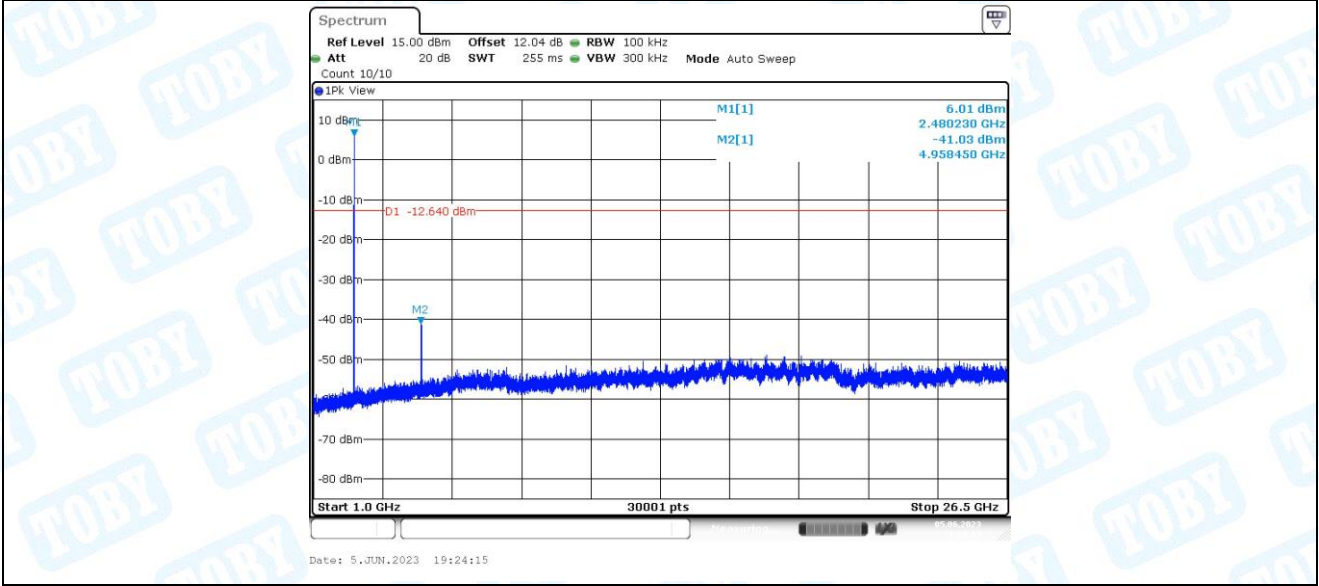
ZigBee_Ant1_2445_1000~26500



ZigBee_Ant1_2480_0~Reference



ZigBee_Ant1_2480_30~1000



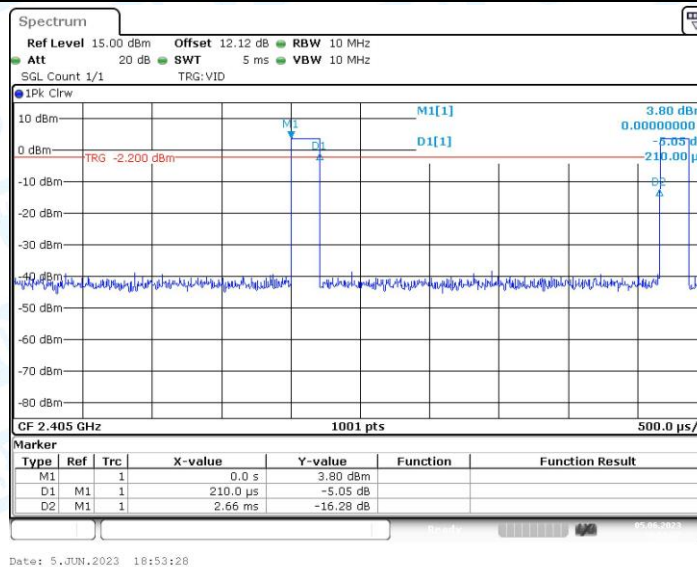
ZigBee_Ant1_2480_1000~26500

7: Duty Cycle

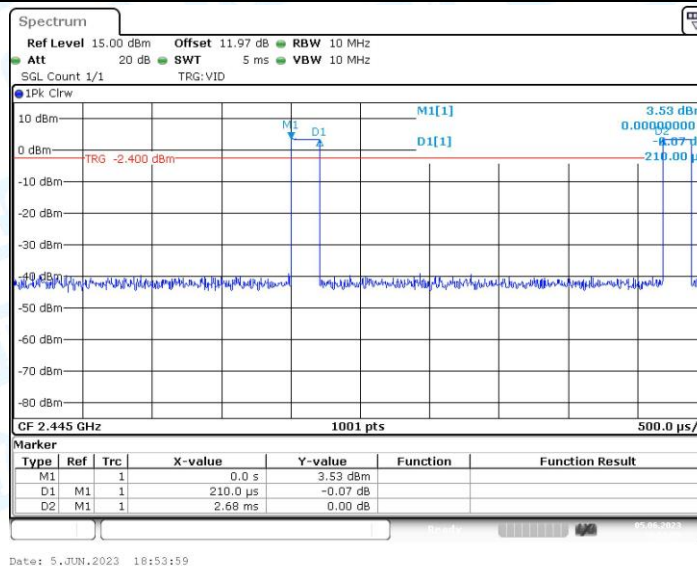
7.1 Test Result

TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T [KHz]	Limit	Verdict
ZigBee	Ant1	2405	0.21	2.66	7.89	4.762	---	---
		2445	0.21	2.68	7.84	4.762	---	---
		2480	0.21	2.67	7.87	4.762	---	---

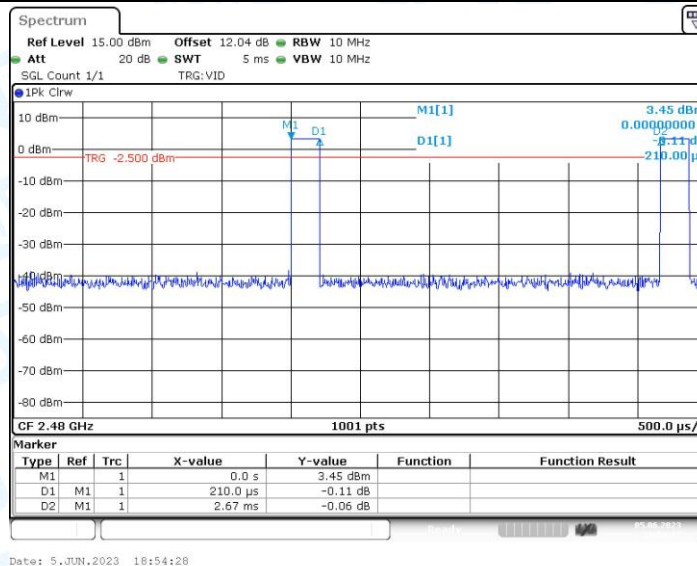
7.2 Test Graphs



ZigBee_Ant1_2405



ZigBee_Ant1_2445



ZigBee_Ant1_2480

8: Emissions in Restricted Bands

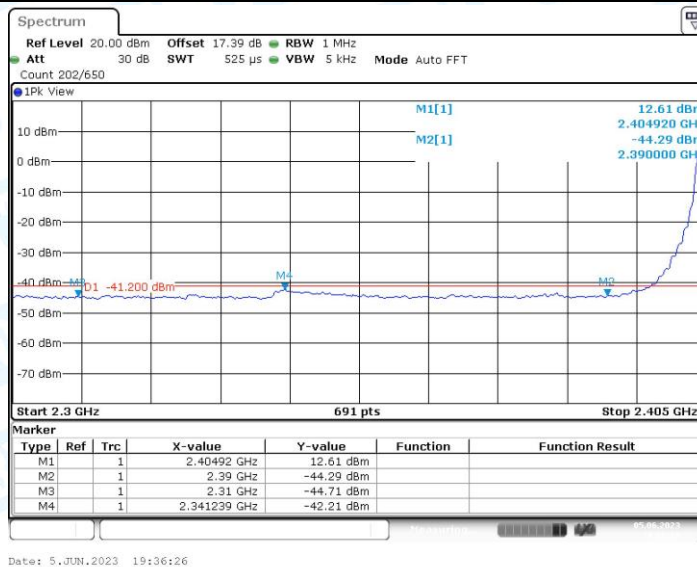
8.1 Test Result

TestMode	Antenna	ChName	Frequency [MHz]	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
ZigBee	Ant1	Low	2405	AV	2310.000	-44.71	≤-41.20	PASS
				AV	2341.239	-42.21	≤-41.20	PASS
				AV	2390.000	-44.29	≤-41.20	PASS
				Peak	2310.000	-35.89	≤-21.20	PASS
				Peak	2348.087	-32.21	≤-21.20	PASS
				Peak	2390.000	-35.06	≤-21.20	PASS
		High	2480	AV	2483.500	-42.97	≤-41.20	PASS
				AV	2483.565	-43.33	≤-41.20	PASS
				AV	2500.000	-44.17	≤-41.20	PASS
				Peak	2483.500	-33.47	≤-21.20	PASS
				Peak	2483.681	-32.67	≤-21.20	PASS
				Peak	2500.000	-33.34	≤-21.20	PASS

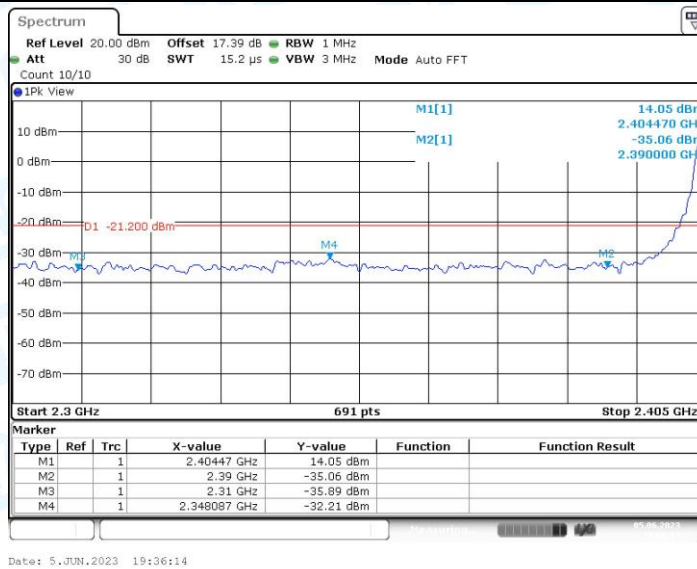
Note:

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.

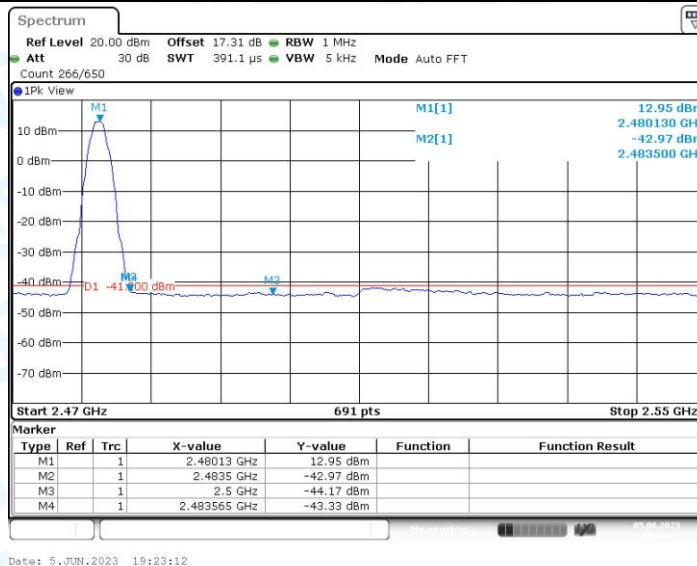
8.2 Test Graphs



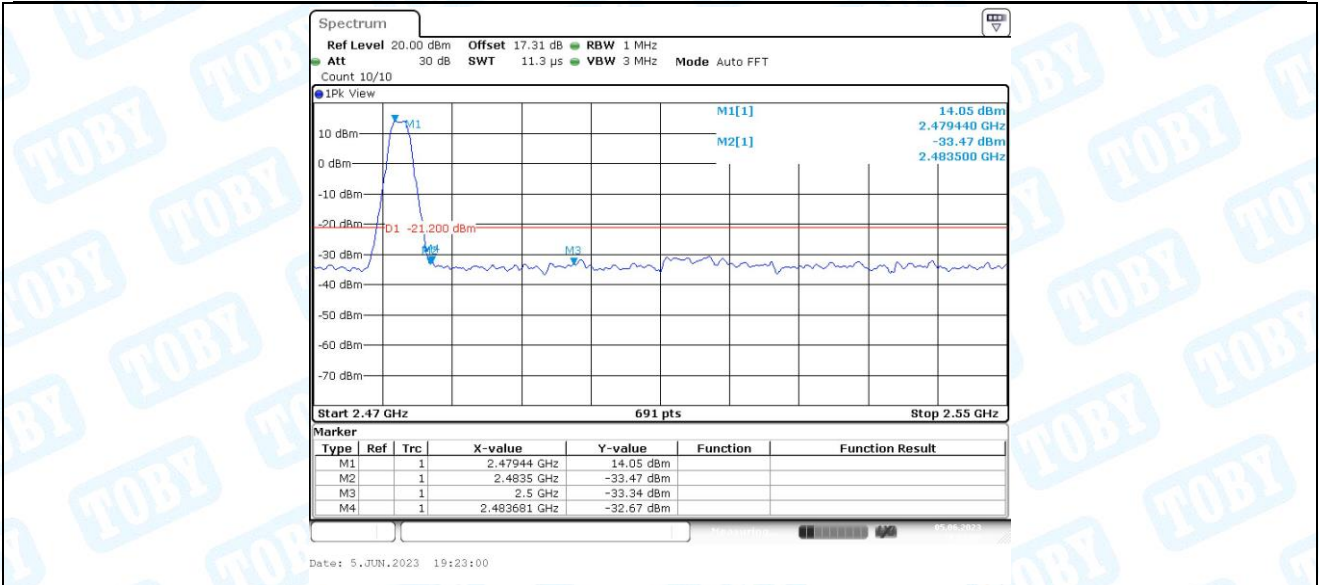
ZigBee_Ant1_Low_2405_AV



ZigBee_Ant1_Low_2405_Peak



ZigBee_Ant1_High_2480_AV



ZigBee_Ant1_High_2480_Peak

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