RF Test Data for Bluetooth LE (Conducted Measurements)

General Description of EUT	
Product Name:	7" Tablet
Test Model:	100071481
Sample ID:	20211116-07-1#
Environmental Conditions	
Temperature:	24.6℃
Relative Humidity:	49%
Test Voltage:	DC 3.85V
Test Engineer:	JianPing Huang
Note: For a more detailed features description, please refer to the report TB-FCC185298.	

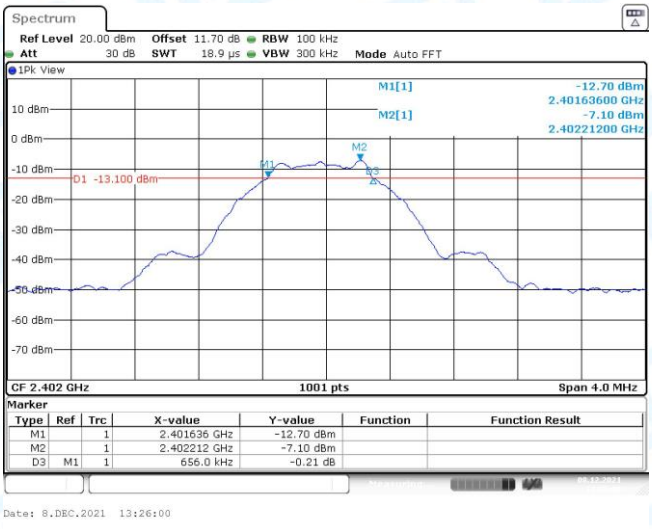
Contents

1. DTS Bandwidth

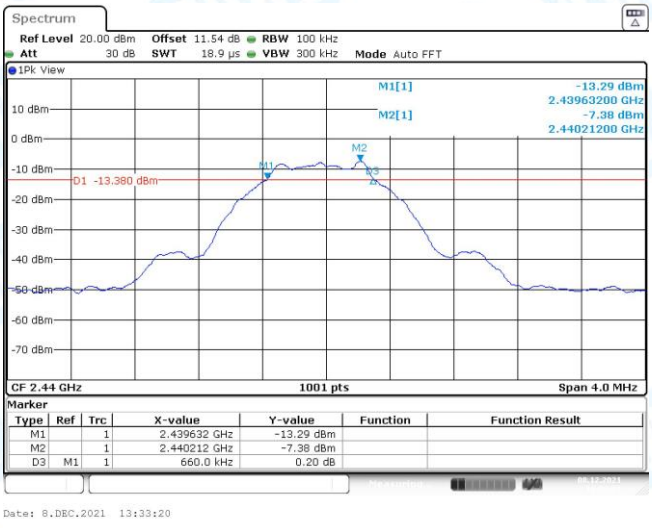
1.1.Test Result

Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.66	2401.64	2402.29	0.5	PASS
		2440	0.66	2439.63	2440.29	0.5	PASS
		2480	0.66	2479.63	2480.29	0.5	PASS
BLE_2M	Ant1	2402	1.16	2401.38	2402.54	0.5	PASS
		2440	1.16	2439.38	2440.54	0.5	PASS
		2480	1.16	2479.38	2480.54	0.5	PASS

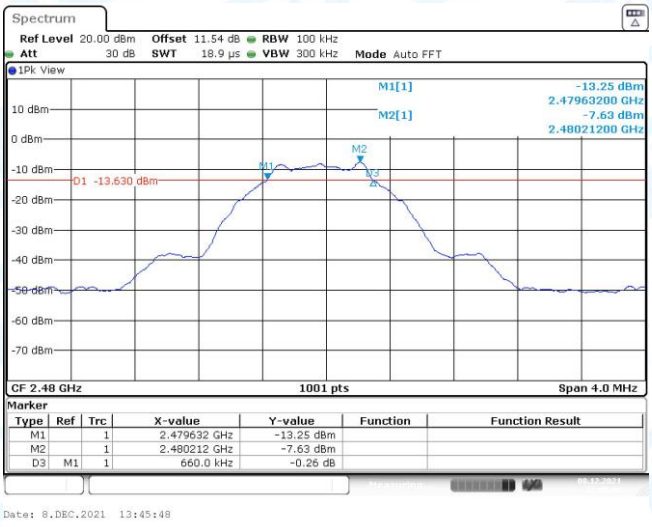
1.2.Test Graphs



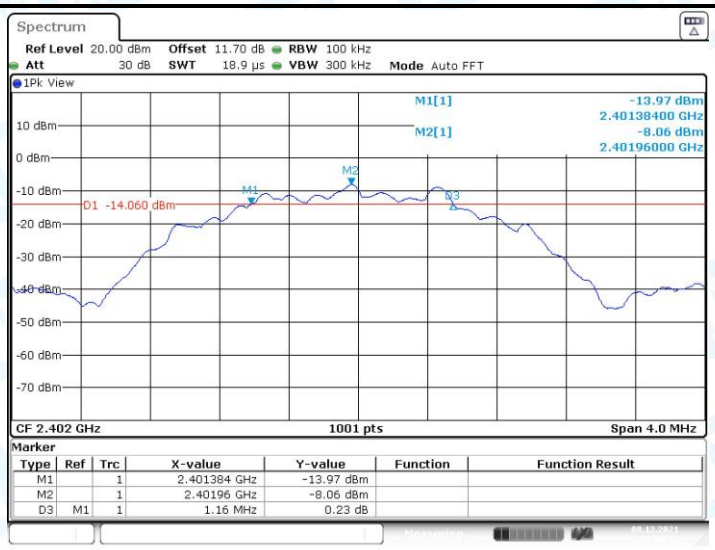
BLE_1M_Ant1_2402



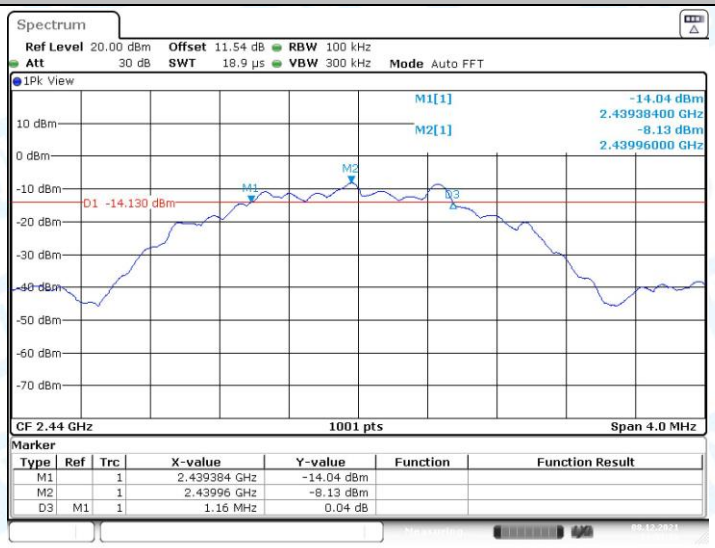
BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



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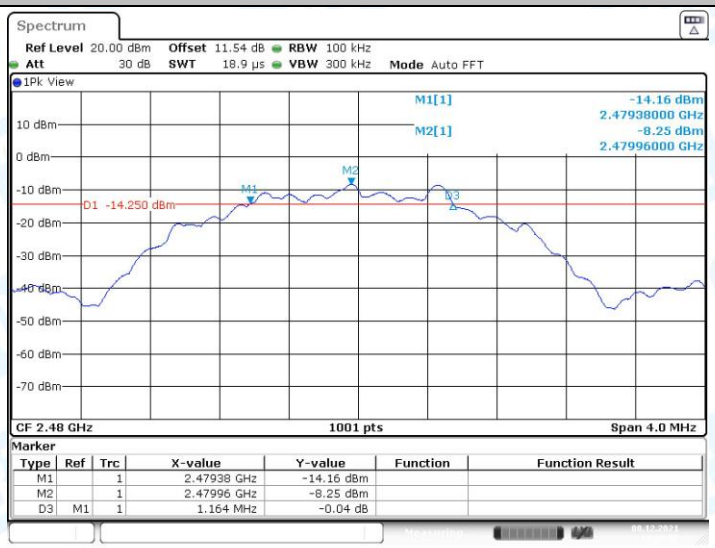


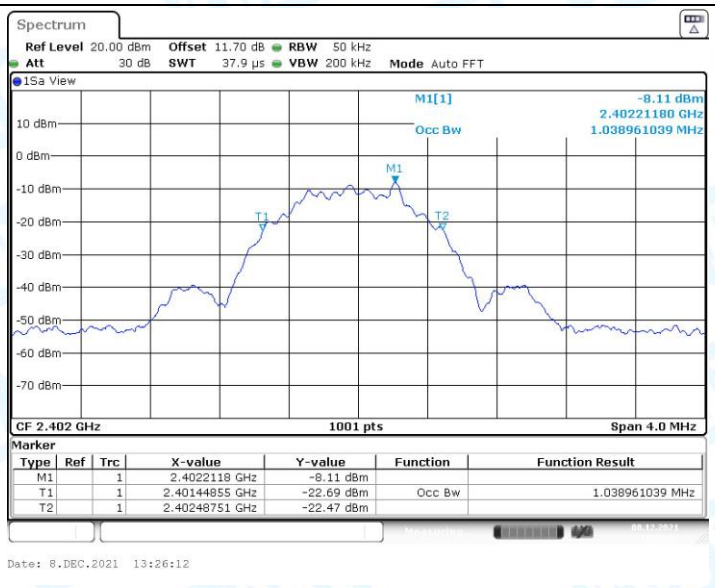
BLE_2M_Ant1_2480

2. Occupied Channel Bandwidth

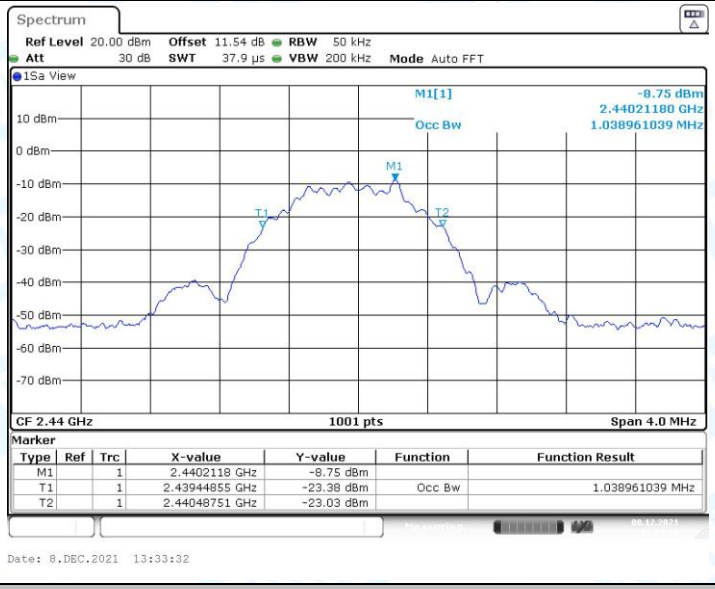
2.1.Test Result

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.039	2401.449	2402.488	---	PASS
		2440	1.039	2439.449	2440.488	---	PASS
		2480	1.039	2479.445	2480.484	---	PASS
BLE_2M	Ant1	2402	2.07	2400.941	2403.011	---	PASS
		2440	2.074	2438.937	2441.011	---	PASS
		2480	2.074	2478.937	2481.011	---	PASS

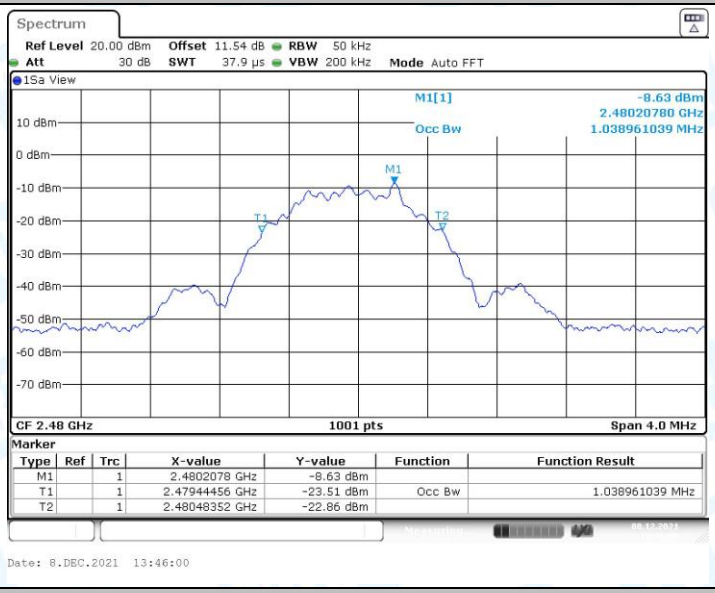
2.2.Test Graphs



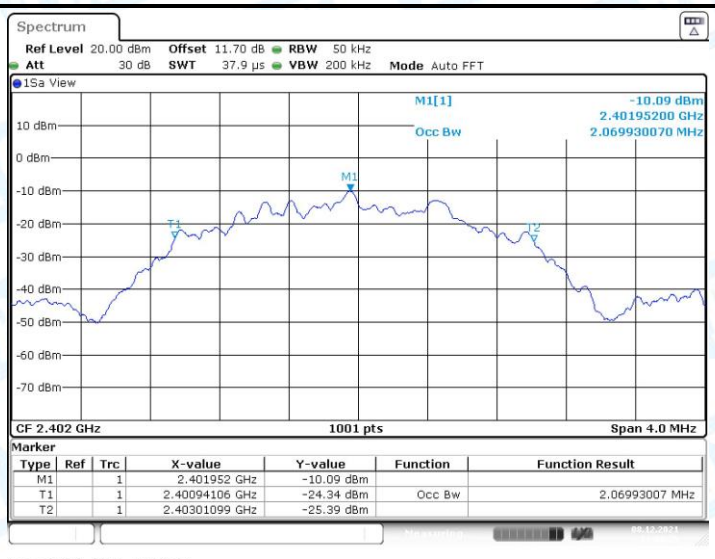
BLE_1M_Ant1_2402



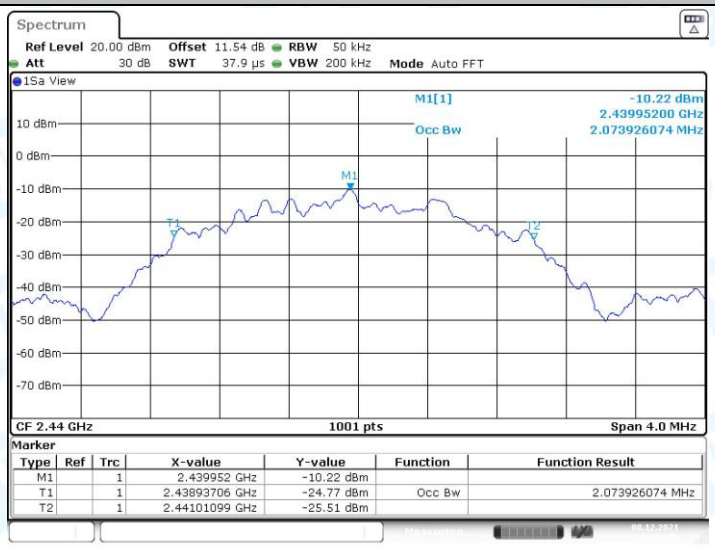
BLE_1M_Ant1_2440



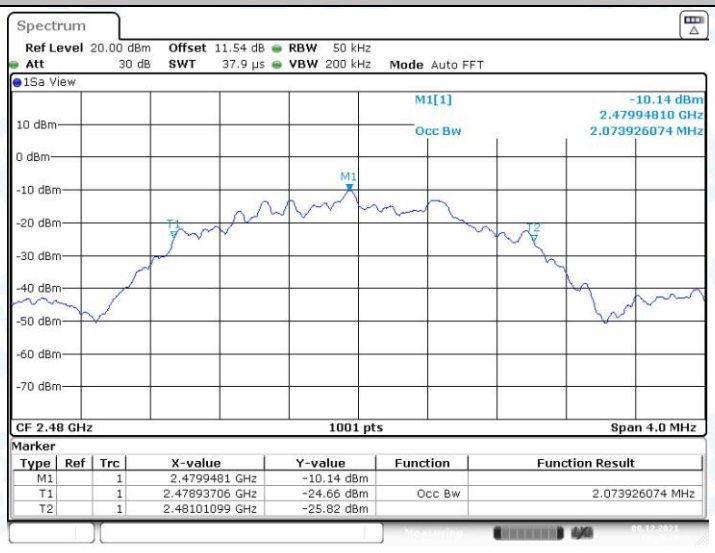
BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



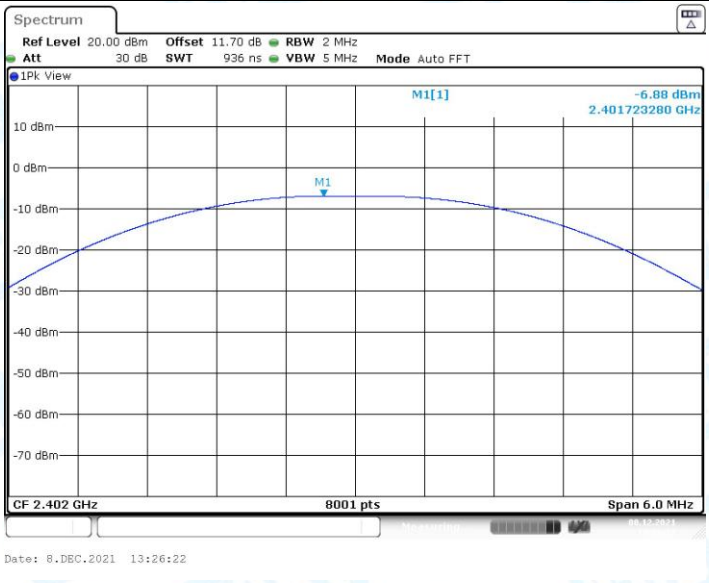
BLE_2M_Ant1_2480

3. Maximum conducted output power

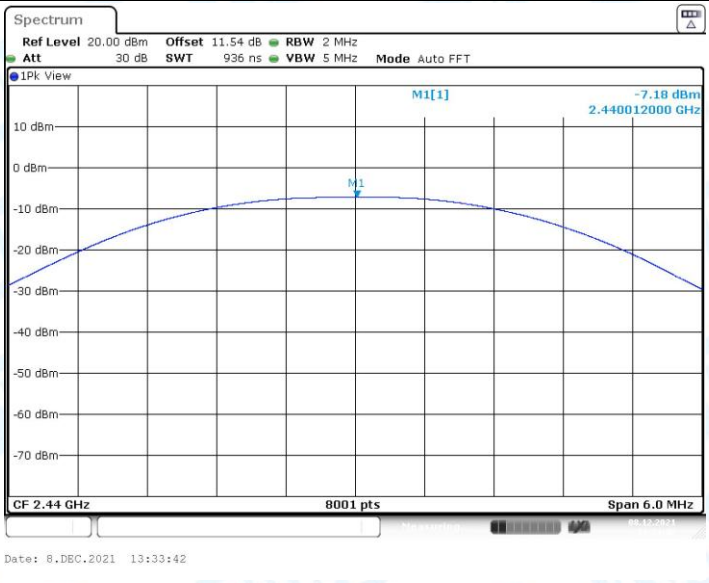
3.1.Test Result

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-6.88	≤30	PASS
		2440	-7.18	≤30	PASS
		2480	-7.35	≤30	PASS
BLE_2M	Ant1	2402	-7.29	≤30	PASS
		2440	-7.41	≤30	PASS
		2480	-7.44	≤30	PASS

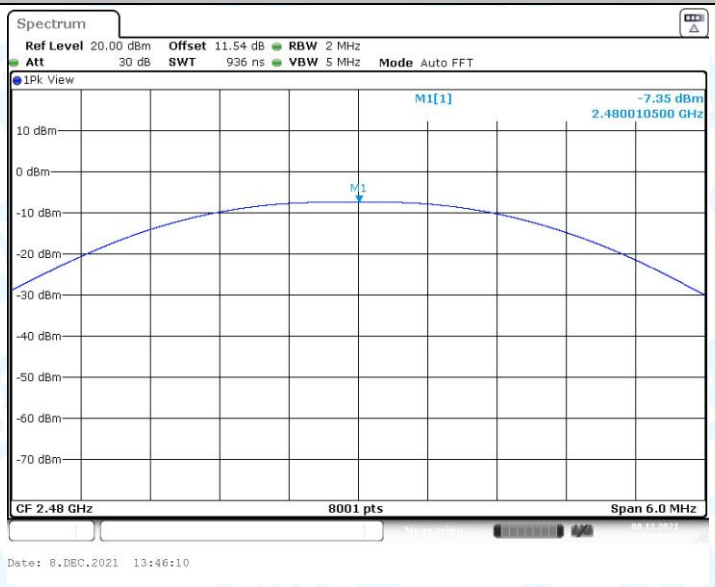
3.2.Test Graphs



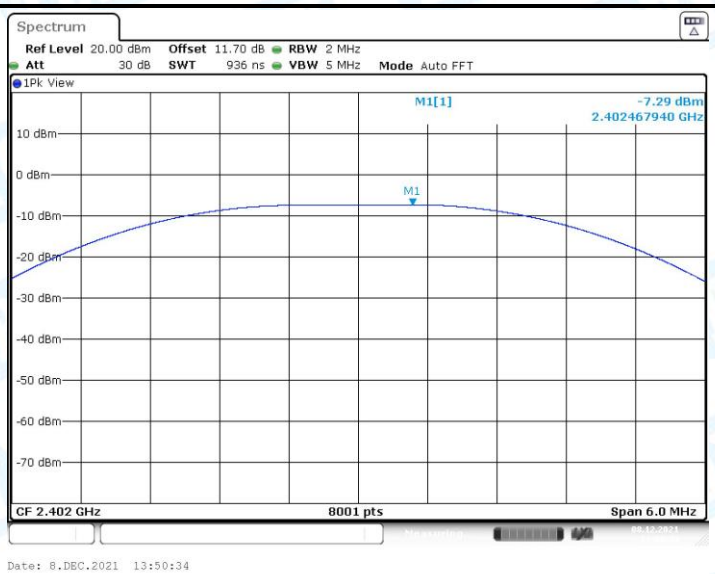
BLE_1M_Ant1_2402



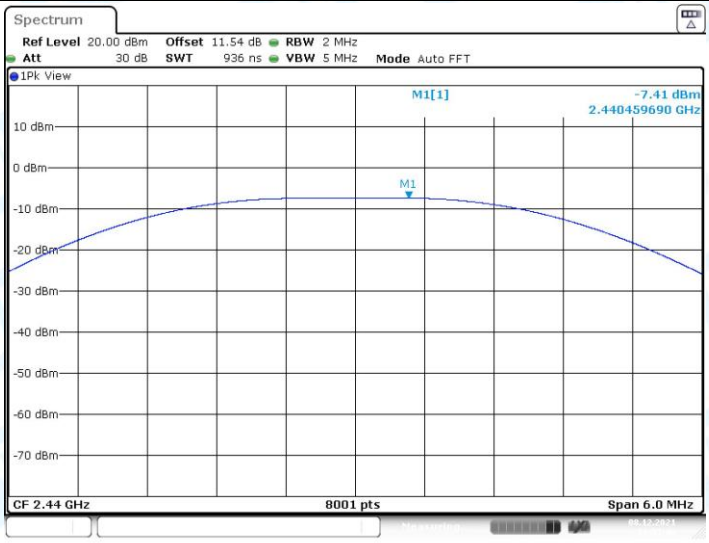
BLE_1M_Ant1_2440



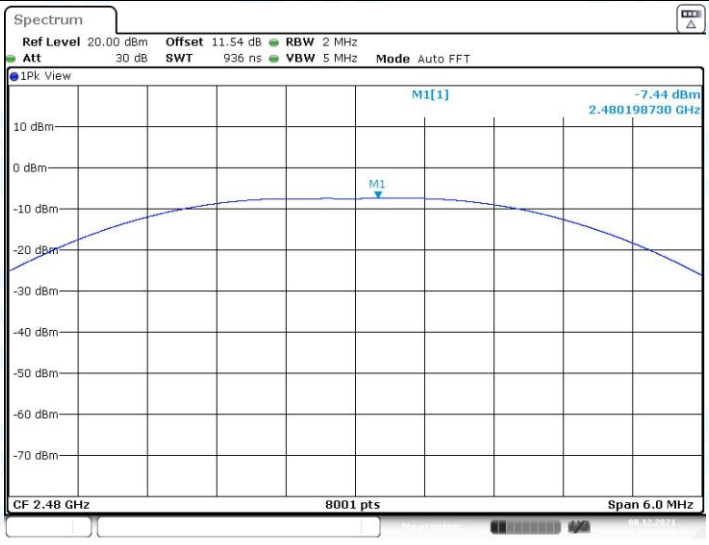
BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



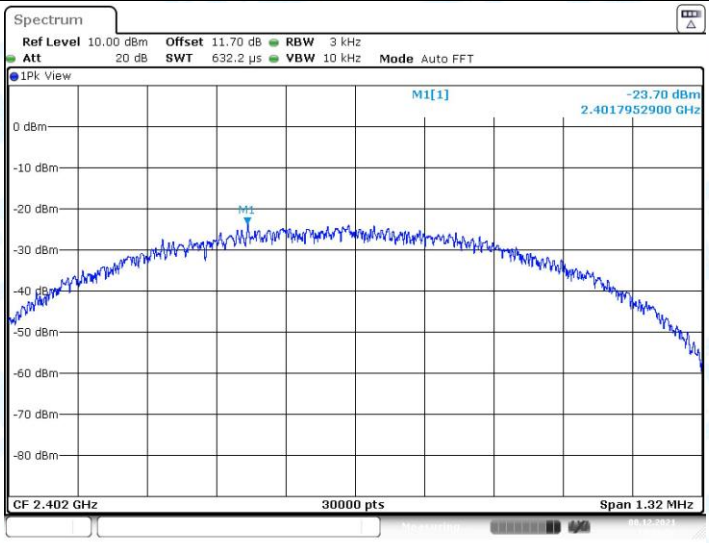
BLE_2M_Ant1_2480

4. Maximum power spectral density

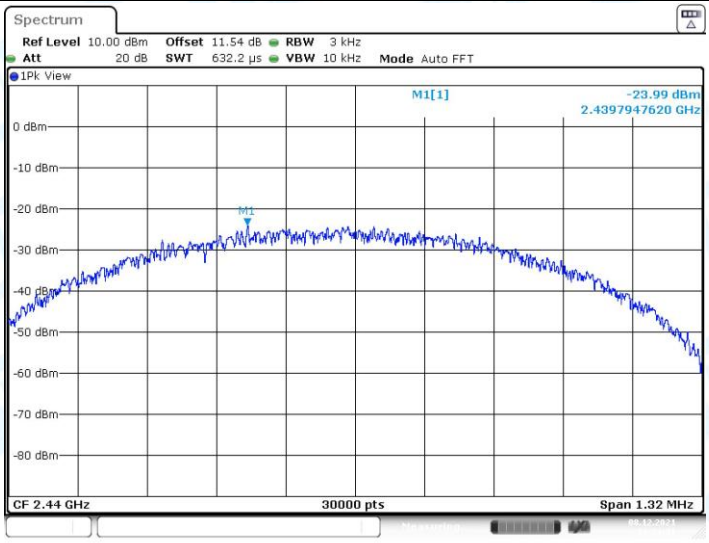
4.1.Test Result

Test Mode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-23.7	≤8	PASS
		2440	-23.99	≤8	PASS
		2480	-24.22	≤8	PASS
BLE_2M	Ant1	2402	-26.36	≤8	PASS
		2440	-26.42	≤8	PASS
		2480	-26.39	≤8	PASS

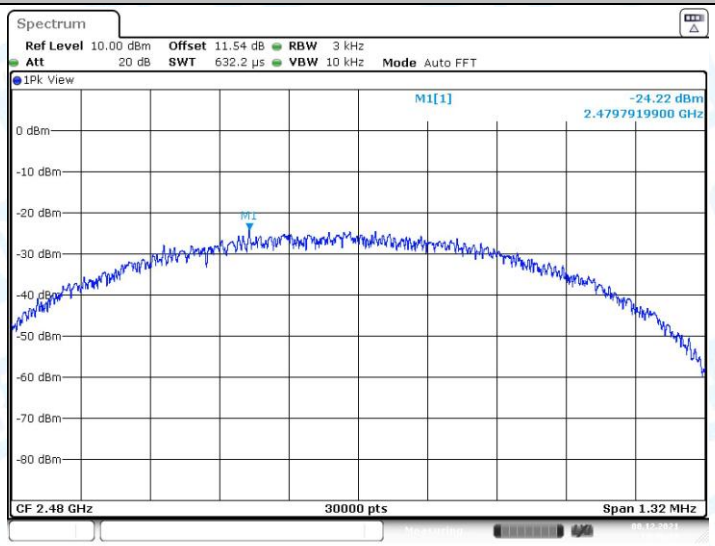
4.2.Test Graphs



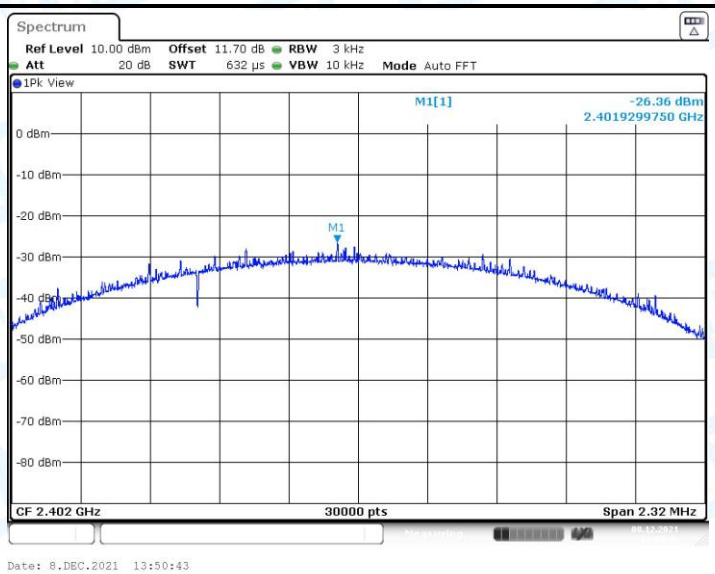
BLE_1M_Ant1_2402



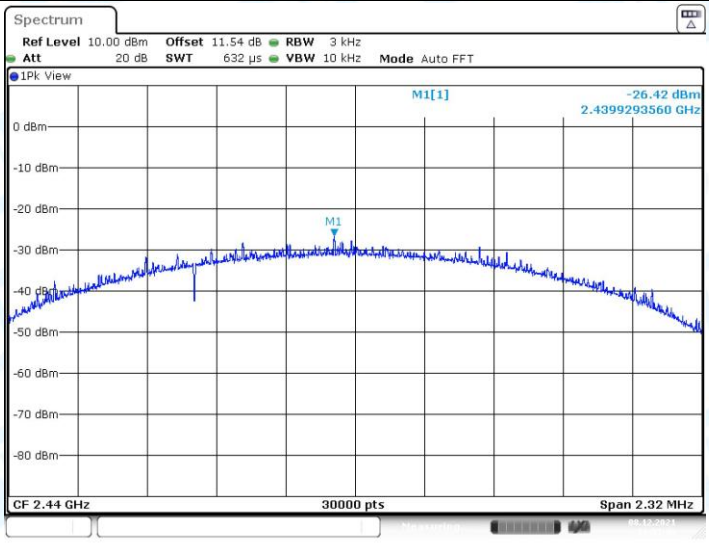
BLE_1M_Ant1_2440



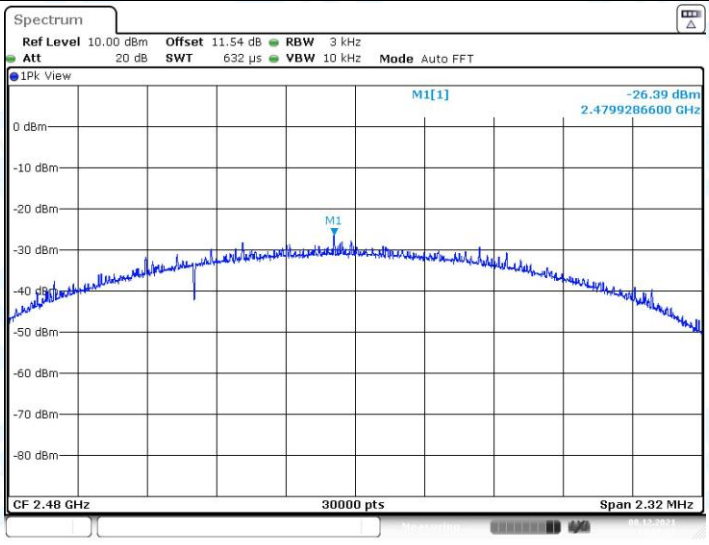
BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



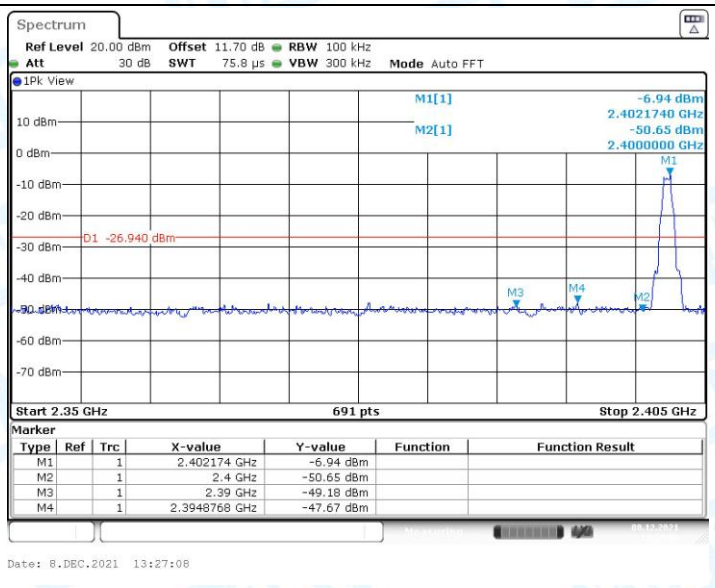
BLE_2M_Ant1_2480

5. Band edge measurements

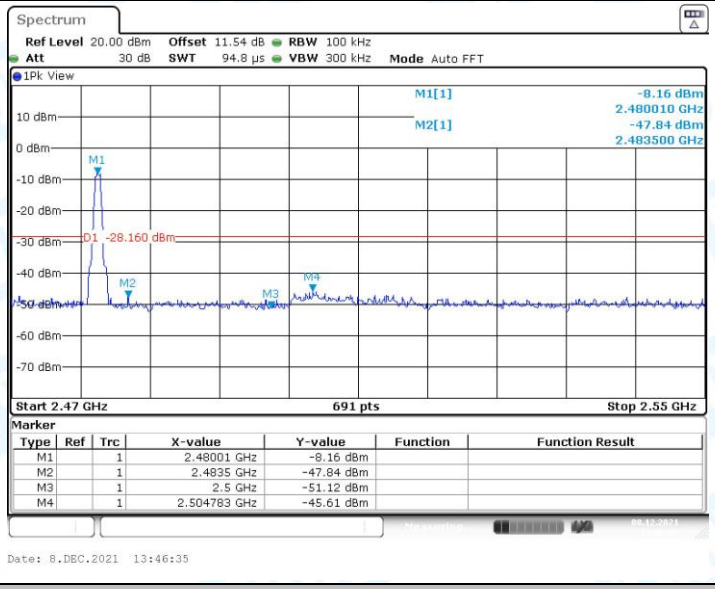
5.1.Test Result

Test Mode	Antenna	ChName	Channel	Ref.Level[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-6.94	-47.67	≤-26.94	PASS
		High	2480	-8.16	-45.61	≤-28.16	PASS
BLE_2M	Ant1	Low	2402	-8.39	-38.91	≤-28.39	PASS
		High	2480	-8.34	-45.5	≤-28.34	PASS

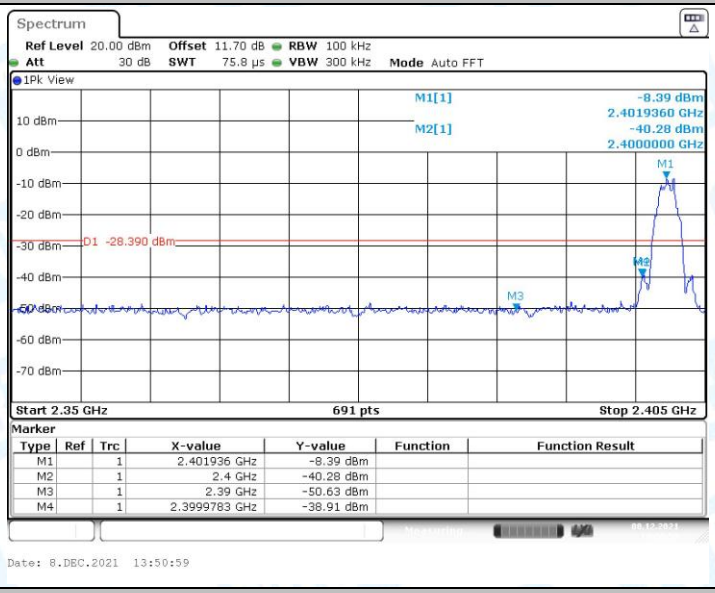
5.2.Test Graphs



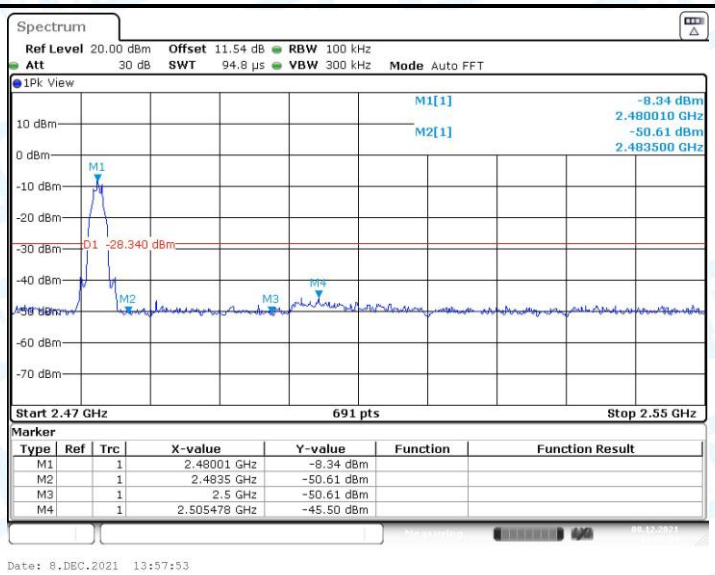
BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480



BLE_2M_Ant1_Low_2402



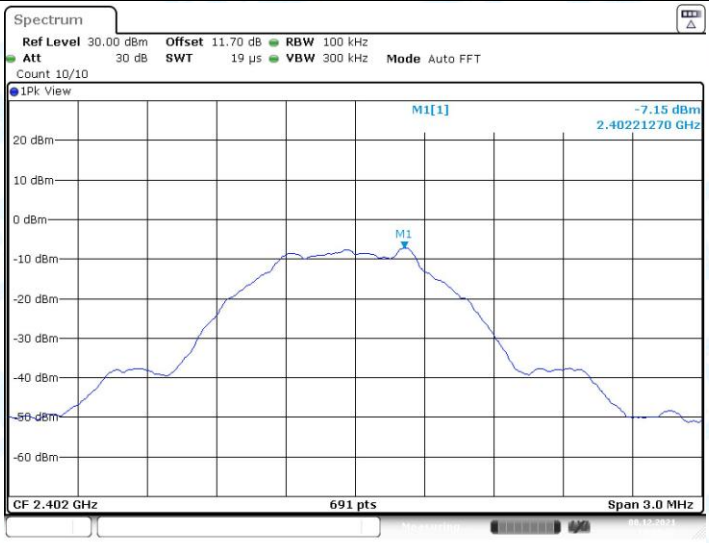
BLE_2M_Ant1_High_2480

6. Conducted Spurious Emission

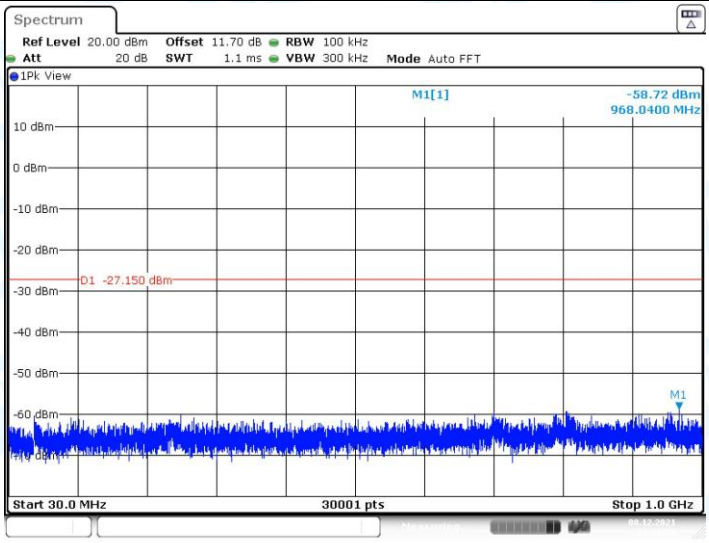
6.1.Test Result

Test Mode	Antenna	Channel	Freq. Range [MHz]	Ref. Level [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-7.15	-7.15	---	PASS
			30~1000	-7.15	-58.72	≤-27.15	PASS
			1000~26500	-7.15	-49	≤-27.15	PASS
		2440	Reference	-7.61	-7.61	---	PASS
			30~1000	-7.61	-58.32	≤-27.61	PASS
			1000~26500	-7.61	-49.36	≤-27.61	PASS
		2480	Reference	-7.61	-7.61	---	PASS
			30~1000	-7.61	-59.47	≤-27.61	PASS
			1000~26500	-7.61	-49.22	≤-27.61	PASS
BLE_2M	Ant1	2402	Reference	-8.12	-8.12	---	PASS
			30~1000	-8.12	-58.21	≤-28.12	PASS
			1000~26500	-8.12	-48.75	≤-28.12	PASS
		2440	Reference	-8.47	-8.47	---	PASS
			30~1000	-8.47	-58.66	≤-28.47	PASS
			1000~26500	-8.47	-49.79	≤-28.47	PASS
		2480	Reference	-8.42	-8.42	---	PASS
			30~1000	-8.42	-58.97	≤-28.42	PASS
			1000~26500	-8.42	-49.57	≤-28.42	PASS

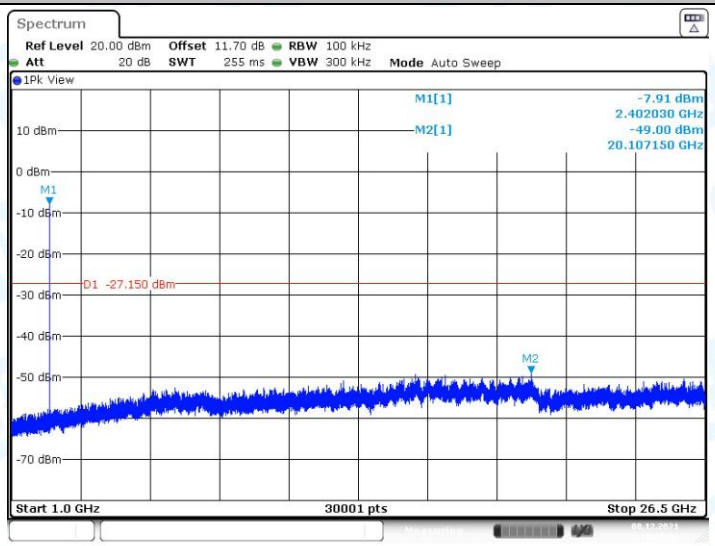
6.2.Test Graphs



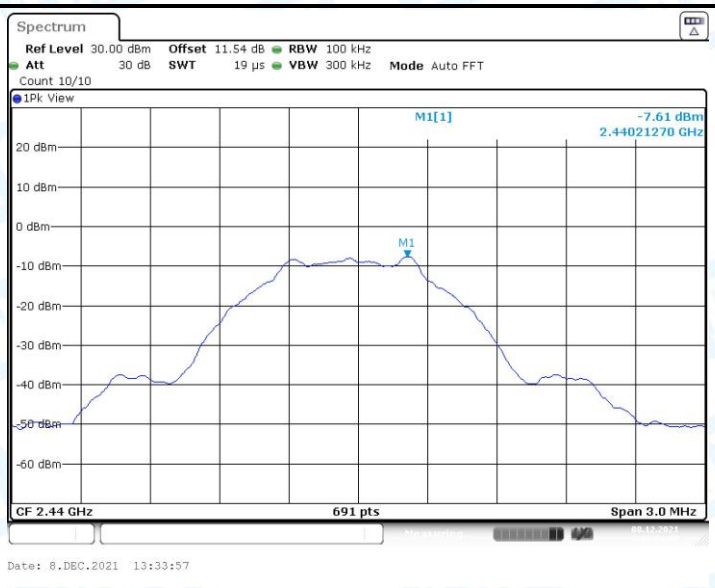
BLE_1M_Ant1_2402_0~Reference



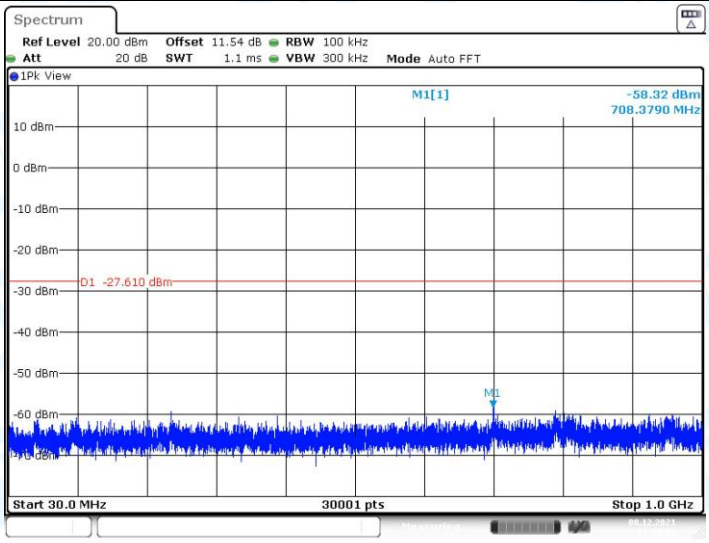
BLE_1M_Ant1_2402_30~1000



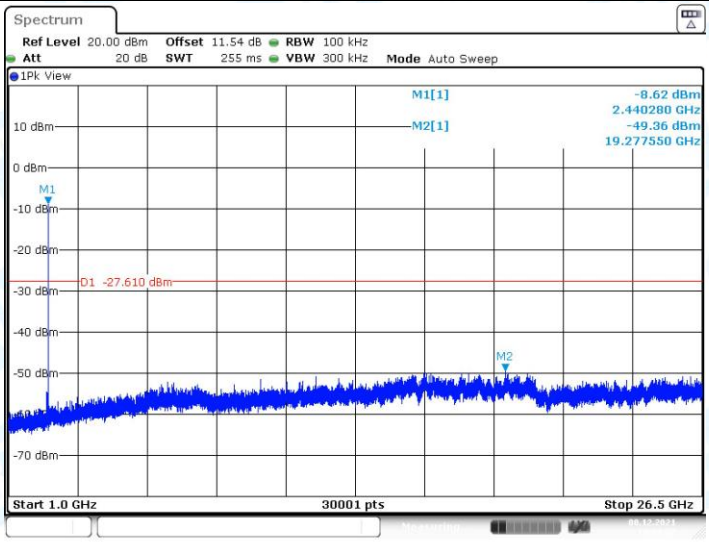
BLE_1M_Ant1_2402_1000~26500



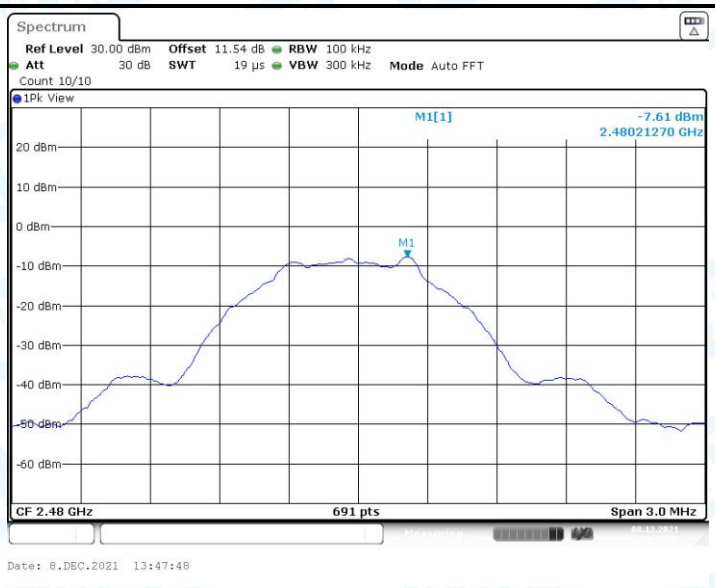
BLE_1M_Ant1_2440_0~Reference



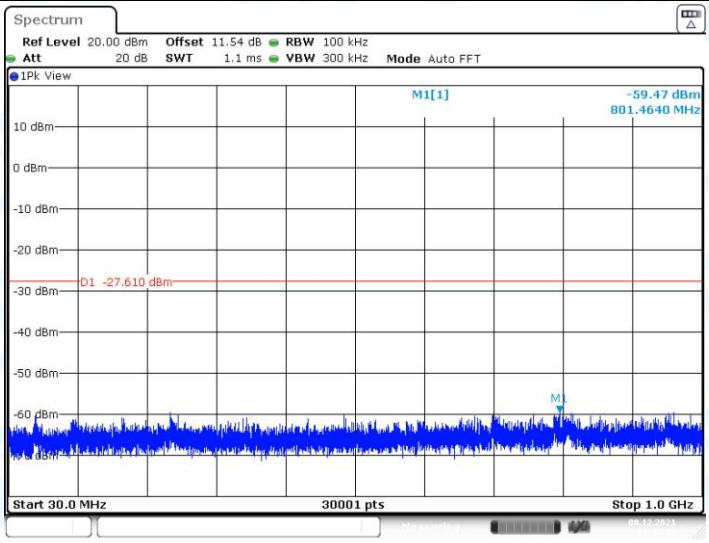
BLE_1M_Ant1_2440_30~1000



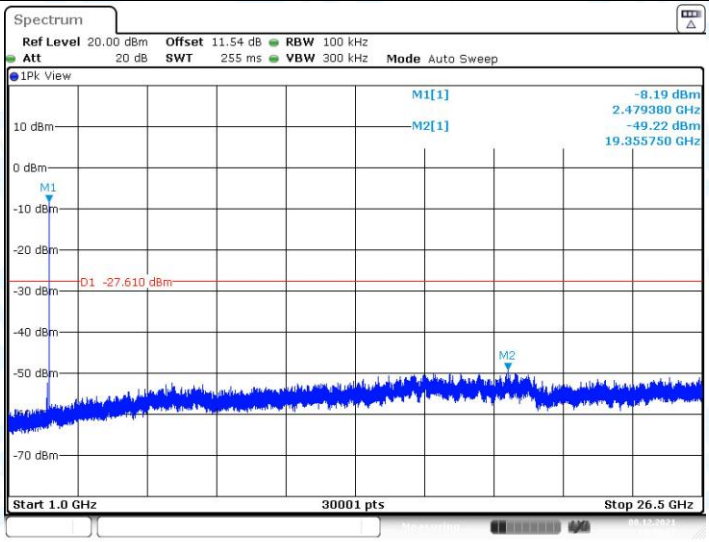
BLE_1M_Ant1_2440_1000~26500



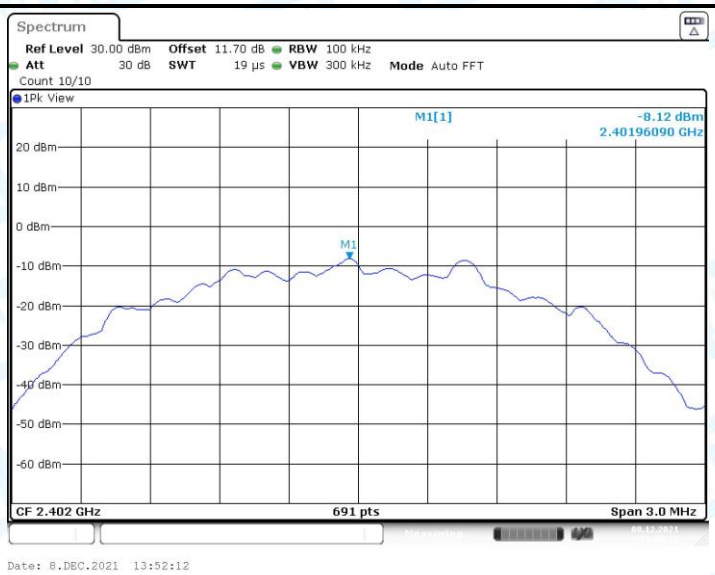
BLE_1M_Ant1_2480_0~Reference



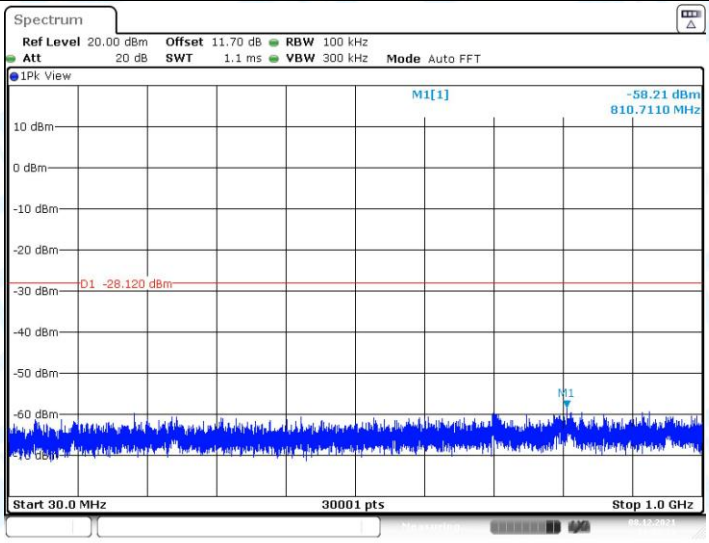
BLE_1M_Ant1_2480_30~1000



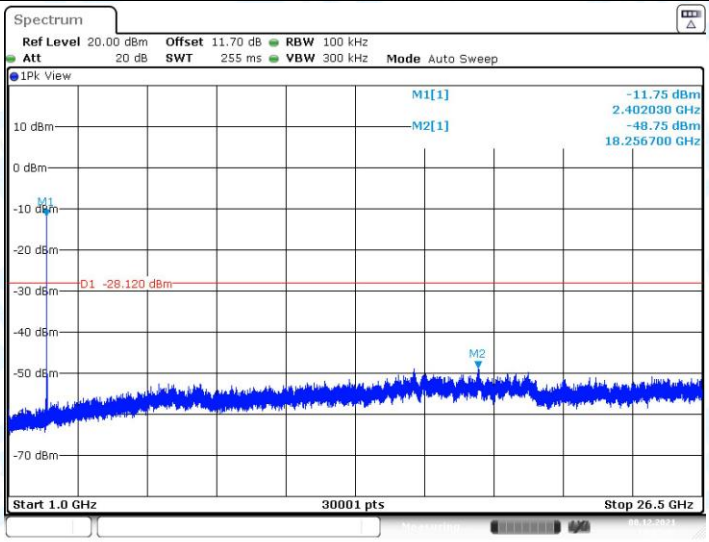
BLE_1M_Ant1_2480_1000~26500



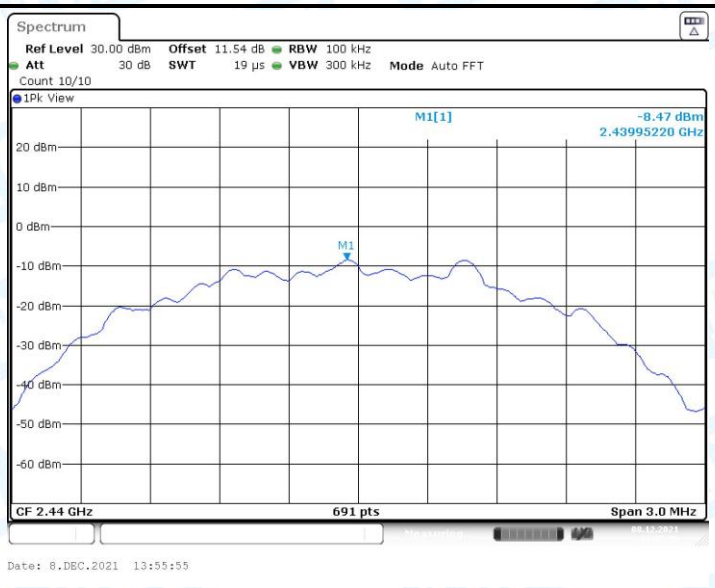
BLE_2M_Ant1_2402_0~Reference



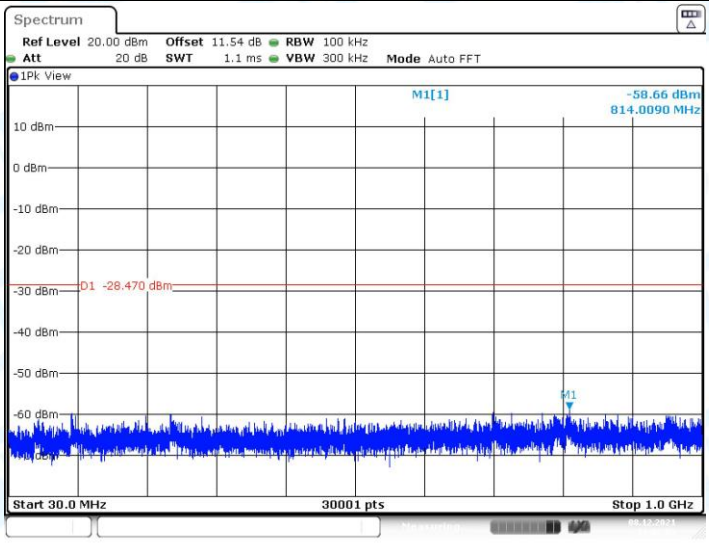
BLE_2M_Ant1_2402_30~1000



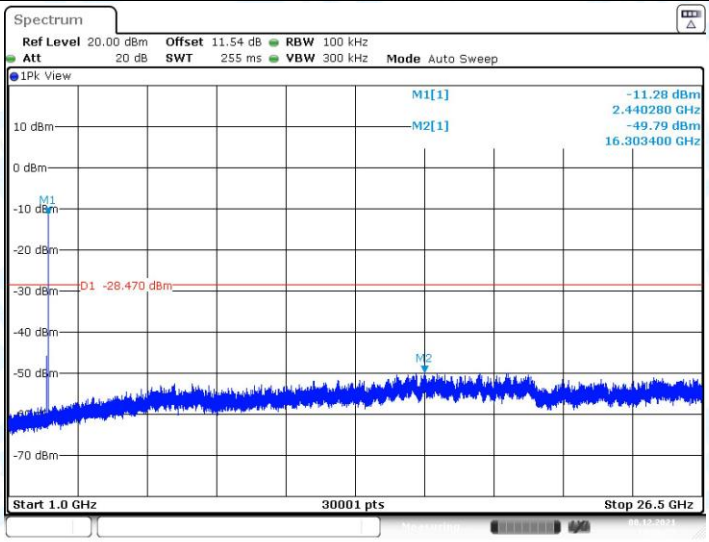
BLE_2M_Ant1_2402_1000~26500



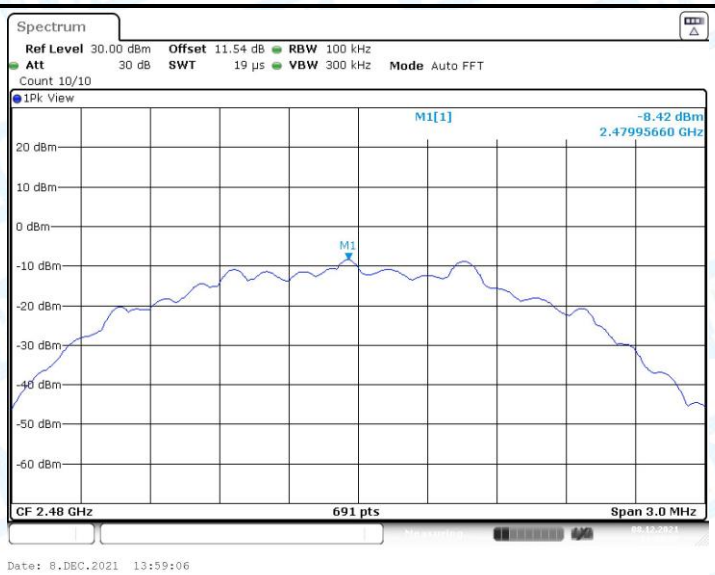
BLE_2M_Ant1_2440_0~Reference



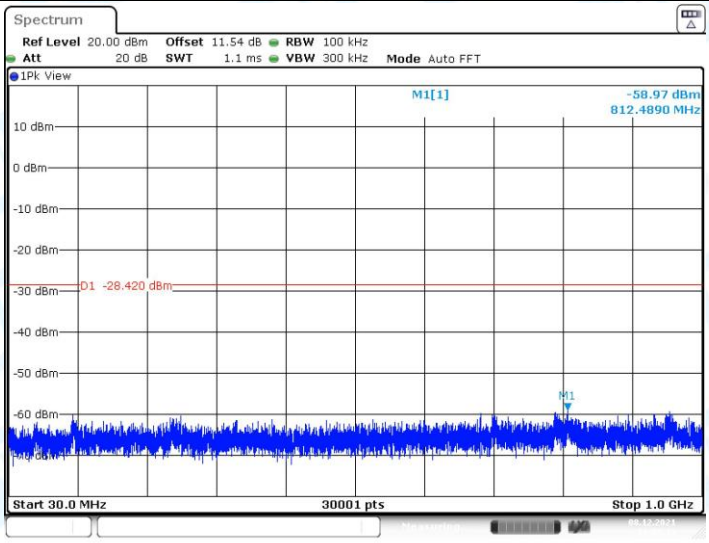
BLE_2M_Ant1_2440_30~1000



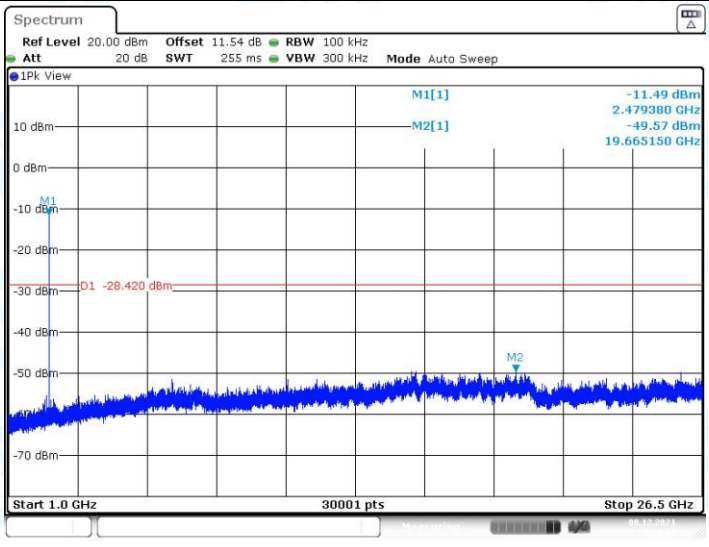
BLE_2M_Ant1_2440_1000~26500



BLE_2M_Ant1_2480_0~Reference



BLE_2M_Ant1_2480_30~1000



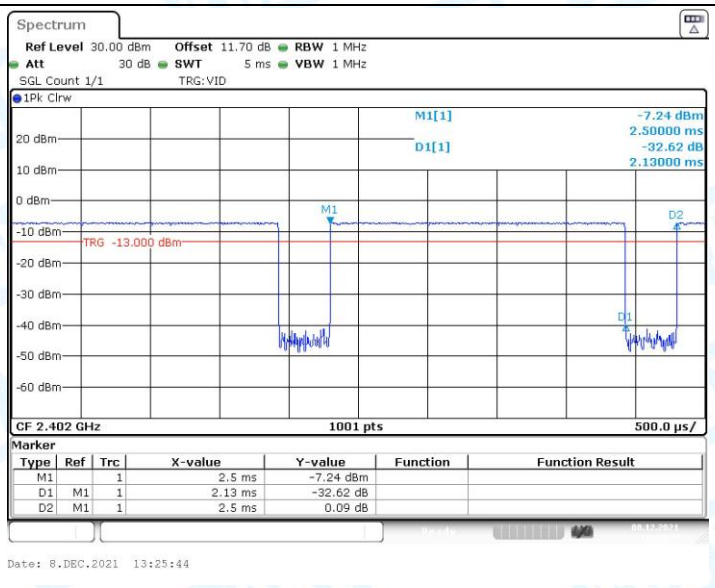
BLE_2M_Ant1_2480_1000~26500

7. Duty Cycle

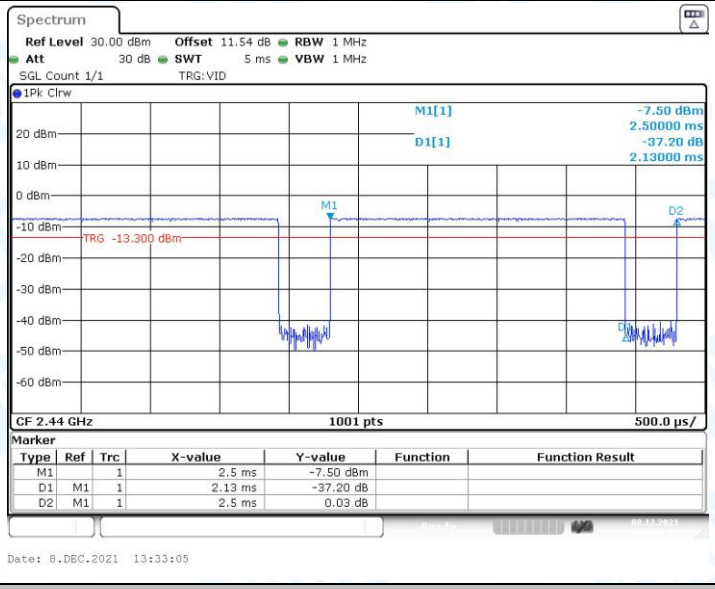
7.1.Test Result

Test Mode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T [KHz]	Limit	Verdict
BLE_1M	Ant1	2402	2.13	2.50	85.20	0.469	---	PASS
		2440	2.13	2.50	85.20	0.469	---	PASS
		2480	2.13	2.50	85.20	0.469	---	PASS
BLE_2M	Ant1	2402	1.08	1.88	57.45	0.926	---	PASS
		2440	1.08	1.88	57.45	0.926	---	PASS
		2480	1.08	1.88	57.45	0.926	---	PASS
Note: 1/T=1/Transmission Duration								

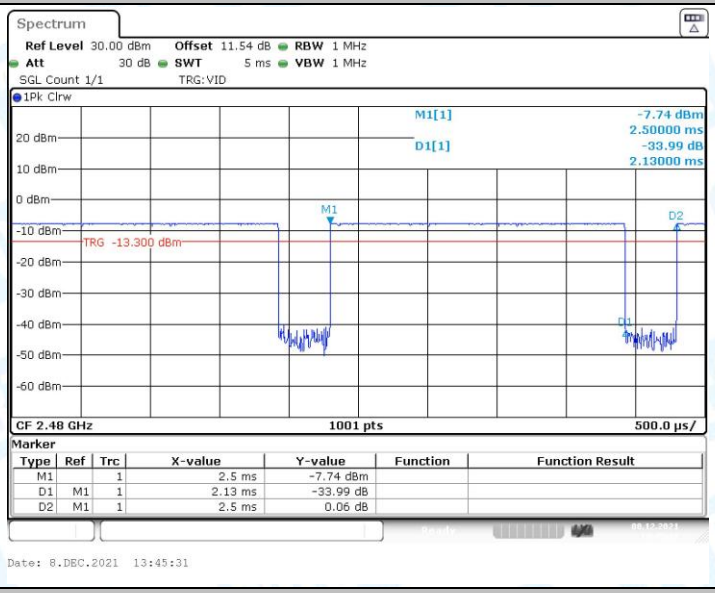
7.2.Test Graphs



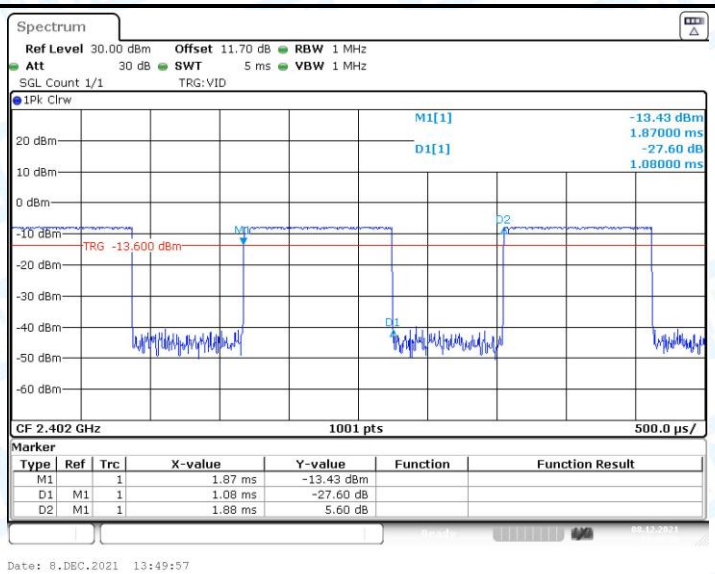
BLE_1M_Ant1_2402



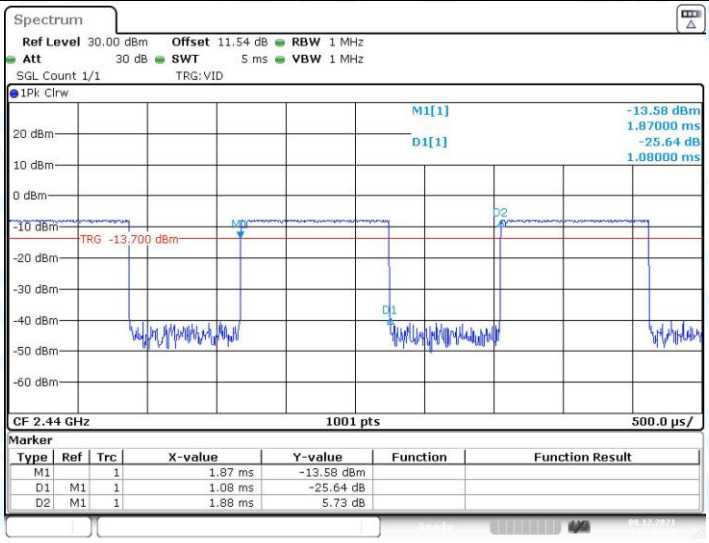
BLE_1M_Ant1_2440



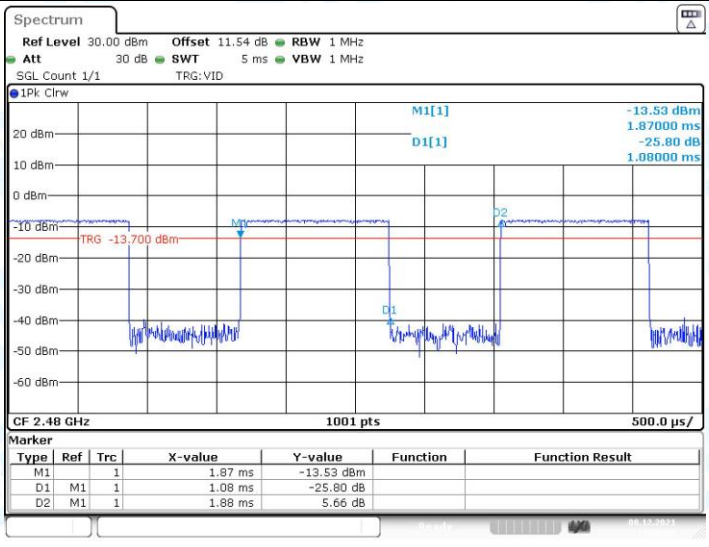
BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

8. Emissions in Restricted Bands

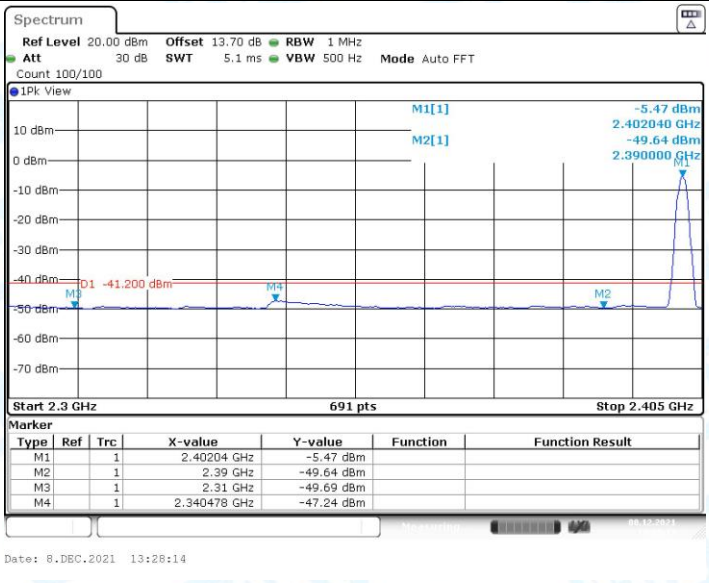
8.1.Test Result

Test Mode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-49.69	≤-41.20	PASS
				AV	2340.478	-47.24	≤-41.20	PASS
				AV	2390.000	-49.64	≤-41.20	PASS
				Peak	2310.000	-38.91	≤-21.20	PASS
				Peak	2351.891	-36.14	≤-21.20	PASS
				Peak	2390.000	-38.18	≤-21.20	PASS
		High	2480	AV	2483.500	-48.87	≤-41.20	PASS
				AV	2497.710	-48.5	≤-41.20	PASS
				AV	2500.000	-48.89	≤-41.20	PASS
				Peak	2483.500	-40.02	≤-21.20	PASS
				Peak	2487.043	-36.74	≤-21.20	PASS
				Peak	2500.000	-38.16	≤-21.20	PASS
BLE_2M	Ant1	Low	2402	AV	2310.000	-49.33	≤-41.20	PASS
				AV	2346.717	-46.99	≤-41.20	PASS
				AV	2390.000	-49.42	≤-41.20	PASS
				Peak	2310.000	-39.23	≤-21.20	PASS
				Peak	2354.326	-34.81	≤-21.20	PASS
				Peak	2390.000	-39.61	≤-21.20	PASS
		High	2480	AV	2483.500	-48.59	≤-41.20	PASS
				AV	2484.493	-48.09	≤-41.20	PASS
				AV	2500.000	-48.64	≤-41.20	PASS
				Peak	2483.500	-39.87	≤-21.20	PASS
				Peak	2484.029	-36.48	≤-21.20	PASS
				Peak	2500.000	-38.61	≤-21.20	PASS

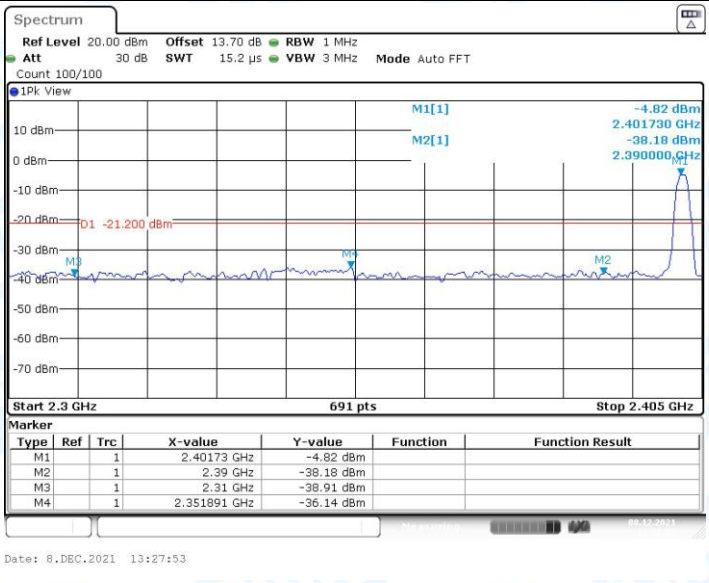
Note：

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.

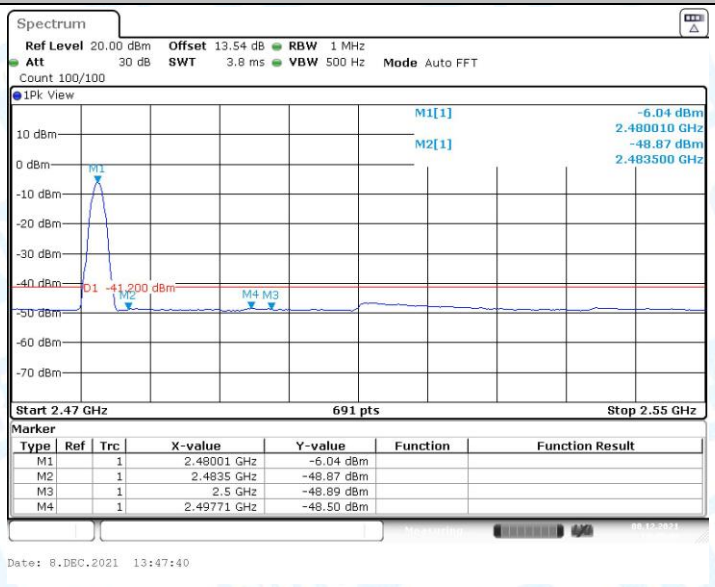
8.2.Test Graphs



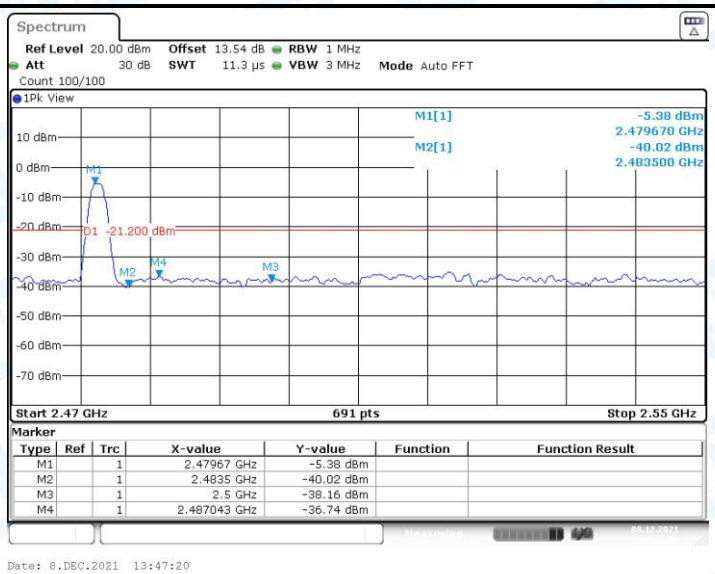
BLE_1M_Ant1_Low_2402_AV



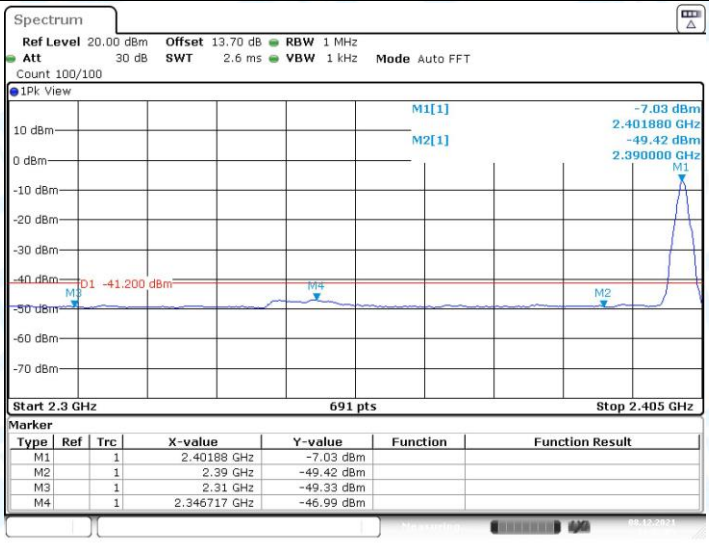
BLE_1M_Ant1_Low_2402_Peak



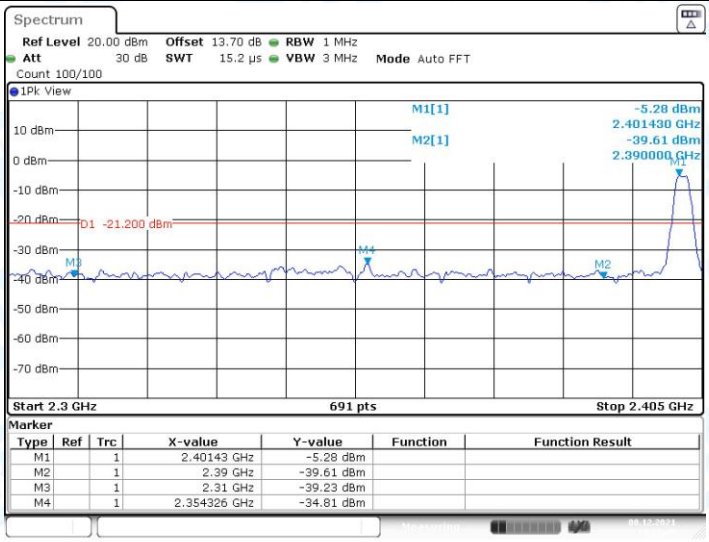
BLE_1M_Ant1_High_2480_AV



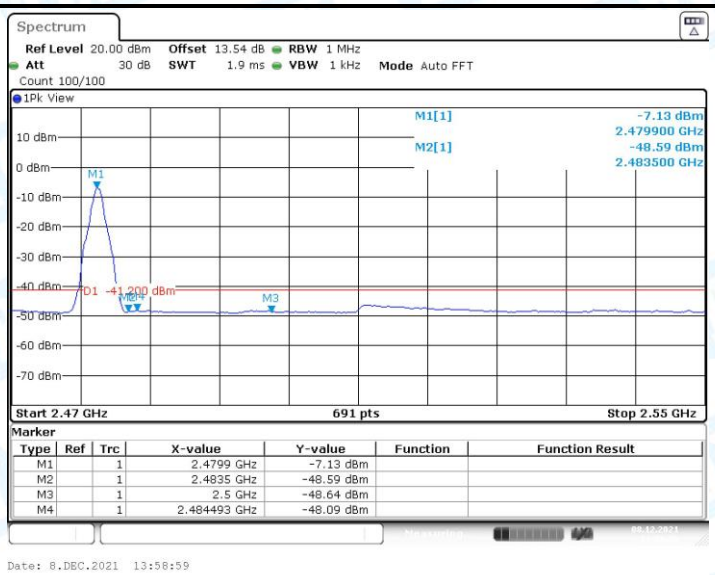
BLE_1M_Ant1_High_2480_Peak



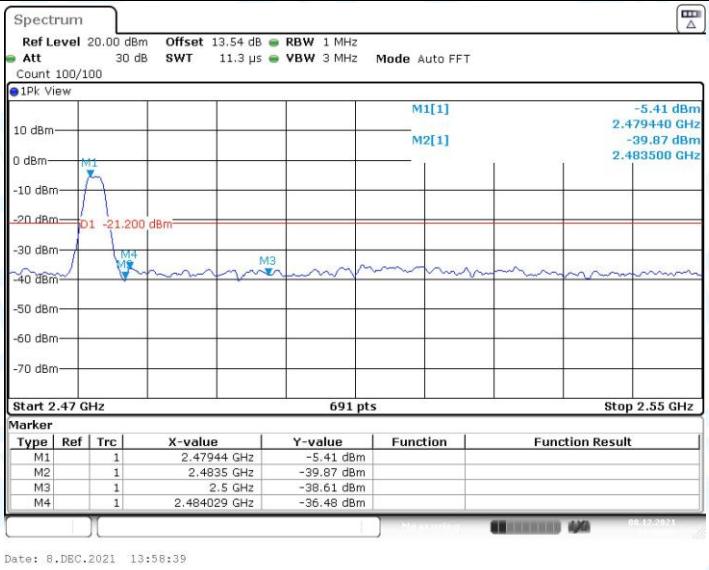
BLE_2M_Ant1_Low_2402_AV



BLE_2M_Ant1_Low_2402_Peak



BLE_2M_Ant1_High_2480_AV



BLE_2M_Ant1_High_2480_Peak

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