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

General Description of EUT	
Product Name:	Bluetooth Audio Transmitter &Receiver
Test Model:	BT17
Sample ID:	20211126-04-02
Environmental Conditions	
Temperature:	23.8℃
Relative Humidity:	48%
Test Voltage:	DC 5V
Test Engineer:	Huang jian ping
Note: For a more detailed features description, please refer to the report TB-FCC185722	

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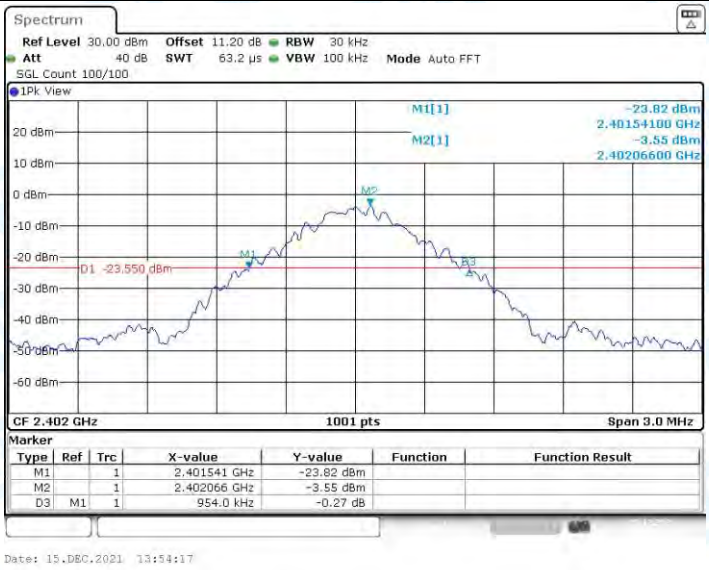
1. 20dB Emission Bandwidth

1.1.Test Result

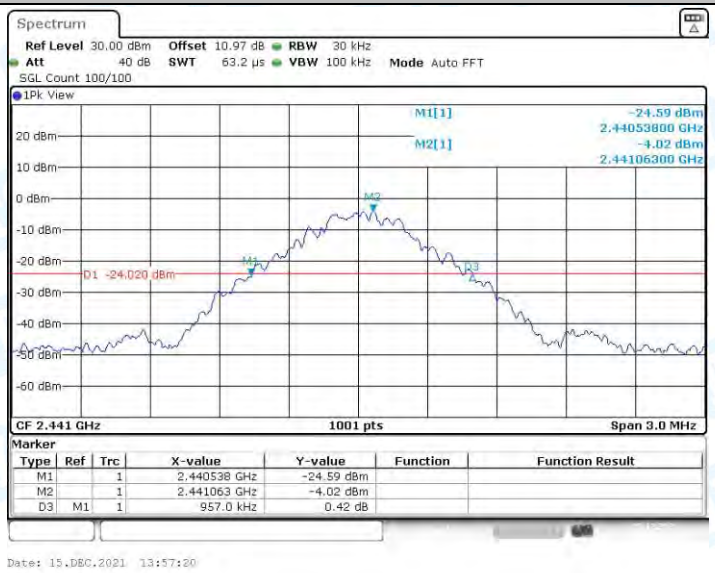
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.95	2401.54	2402.50	---	PASS
		2441	0.96	2440.54	2441.50	---	PASS
		2480	0.95	2479.54	2480.49	---	PASS
2DH5	Ant1	2402	1.27	2401.38	2402.65	---	PASS
		2441	1.35	2440.33	2441.68	---	PASS
		2480	1.36	2479.33	2480.69	---	PASS
3DH5	Ant1	2402	1.29	2401.36	2402.64	---	PASS
		2441	1.35	2440.33	2441.68	---	PASS
		2480	1.28	2479.36	2480.64	---	PASS

1.2.Test Graphs

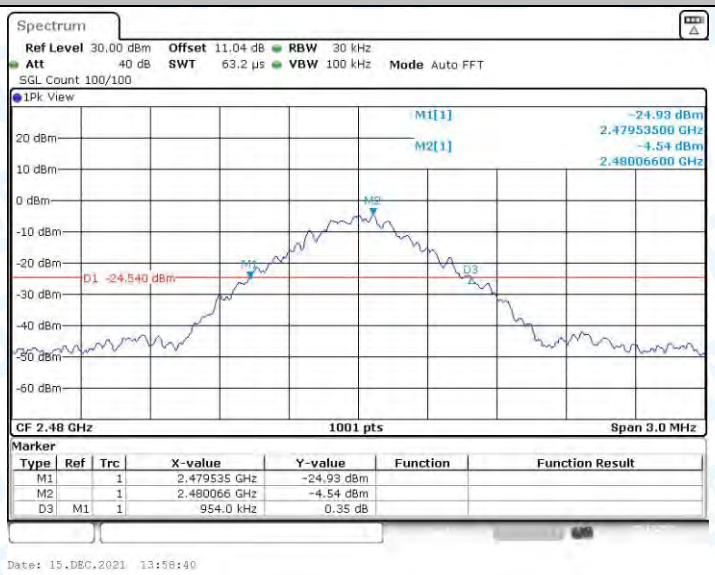
DH5_Ant1_2402



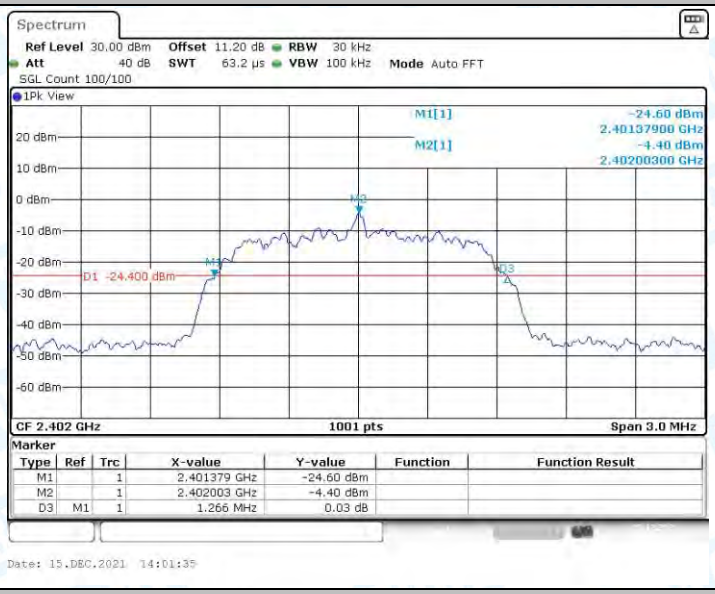
DH5_Ant1_2441



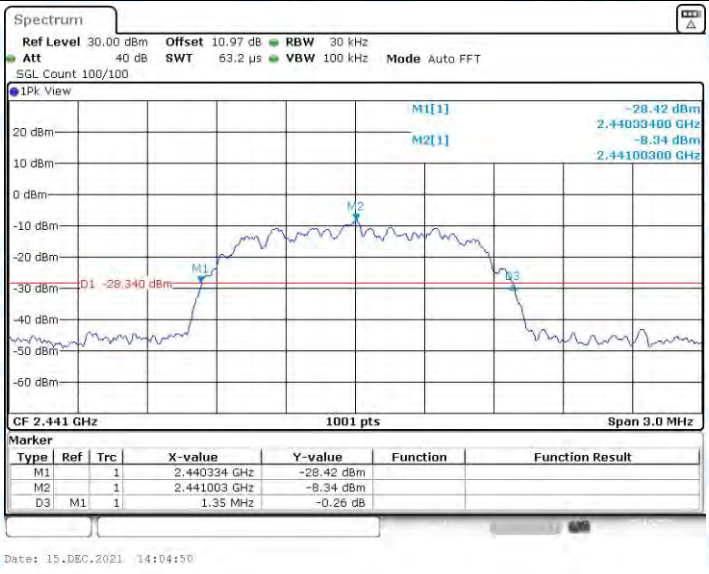
DH5_Ant1_2480



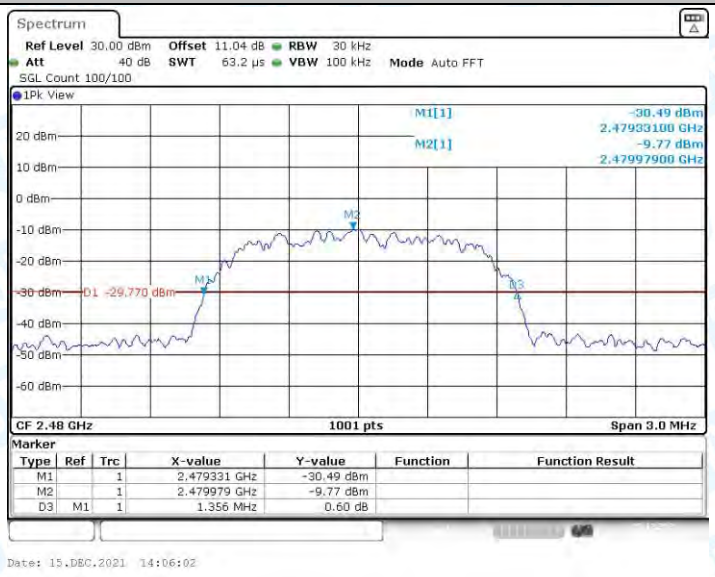
2DH5_Ant1_2402



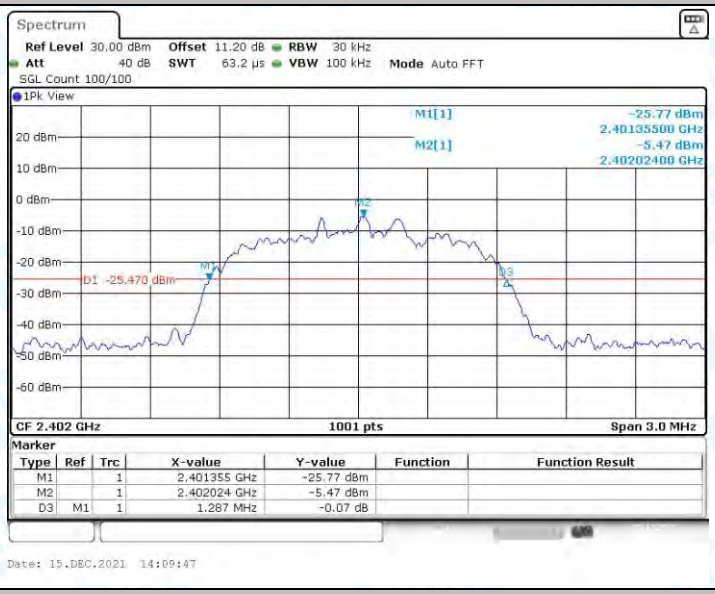
2DH5_Ant1_2441



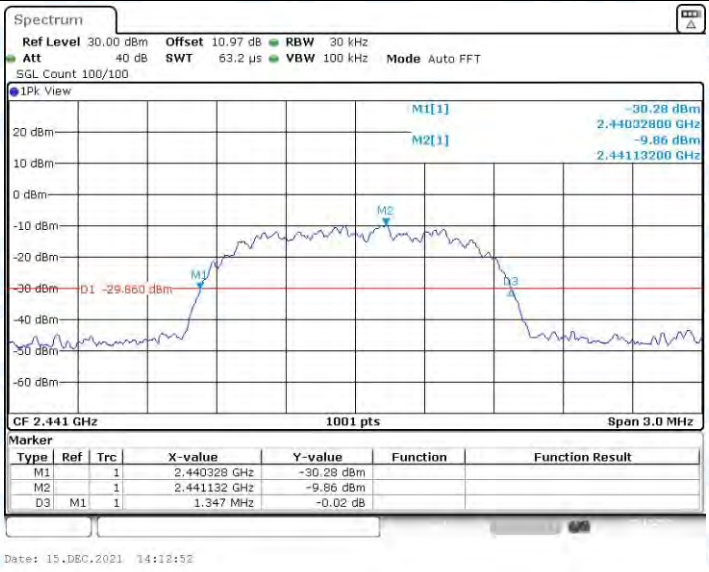
2DH5_Ant1_2480



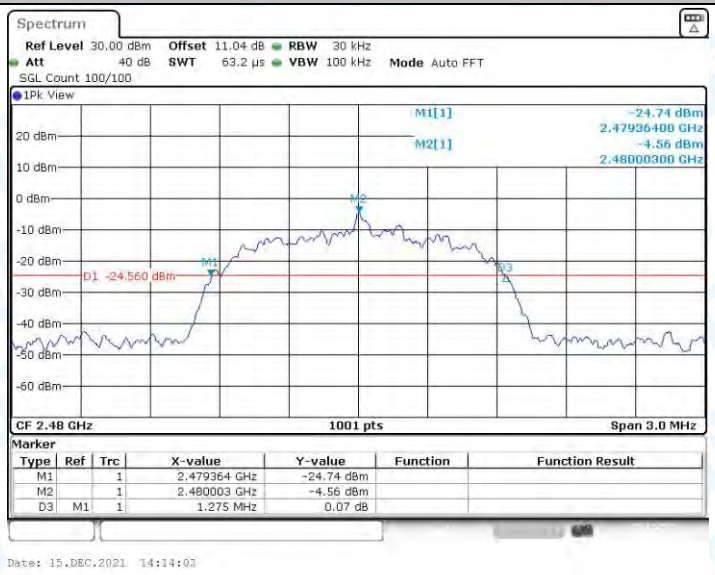
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



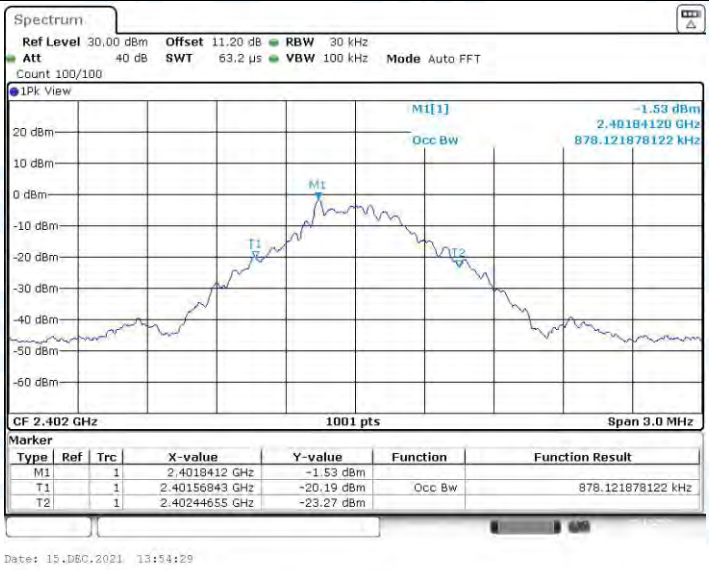
2. Occupied Channel Bandwidth

2.1.Test Result

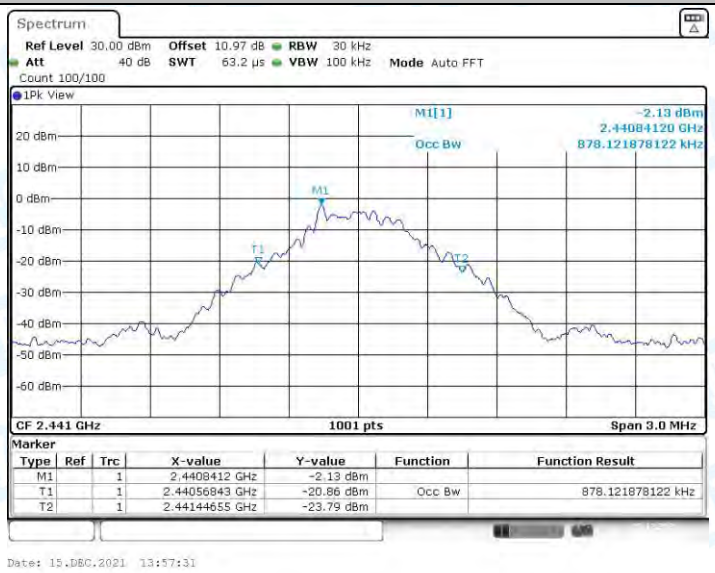
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.878	2401.568	2402.447	---	PASS
		2441	0.878	2440.568	2441.447	---	PASS
		2480	0.878	2479.568	2480.447	---	PASS
2DH5	Ant1	2402	1.172	2401.419	2402.590	---	PASS
		2441	1.175	2440.419	2441.593	---	PASS
		2480	1.175	2479.419	2480.593	---	PASS
3DH5	Ant1	2402	1.16	2401.428	2402.587	---	PASS
		2441	1.157	2440.431	2441.587	---	PASS
		2480	1.16	2479.428	2480.587	---	PASS

2.2.Test Graphs

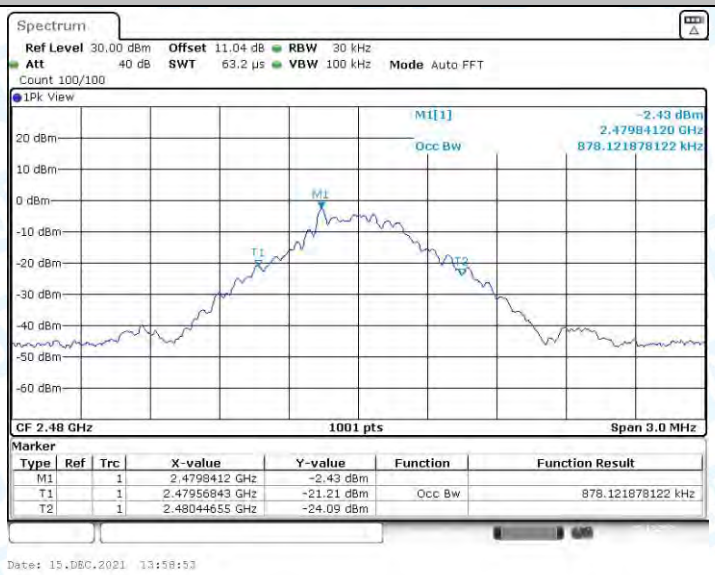
DH5_Ant1_2402



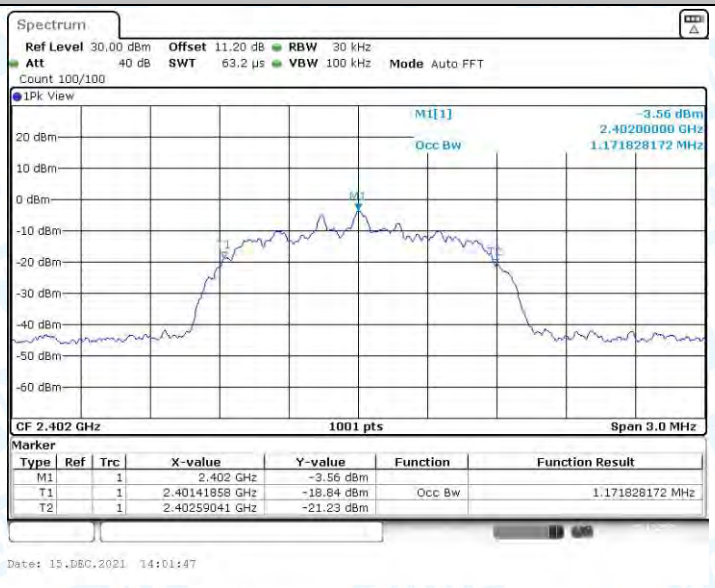
DH5_Ant1_2441



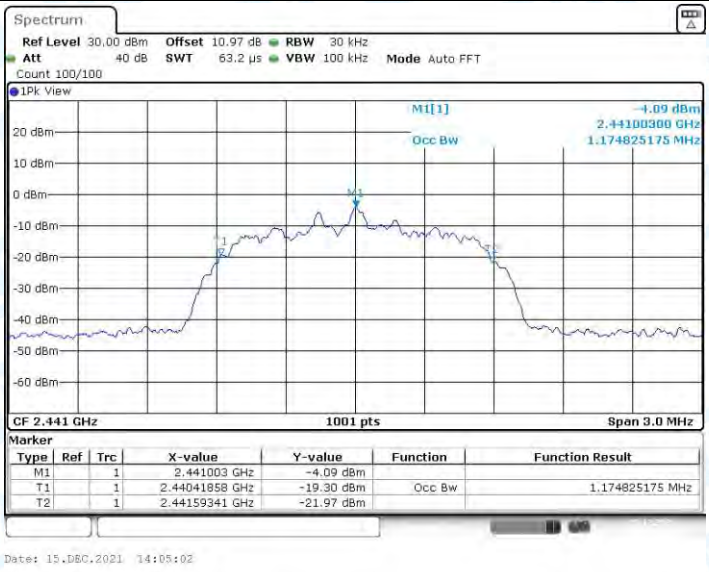
DH5_Ant1_2480



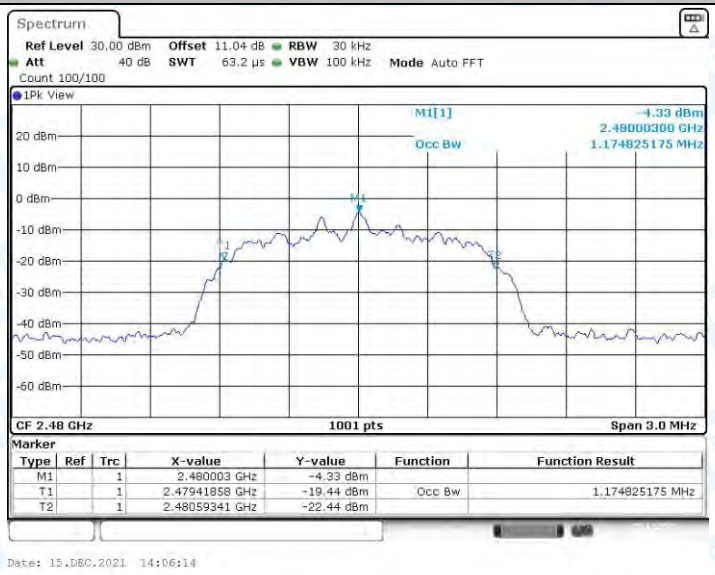
2DH5_Ant1_2402



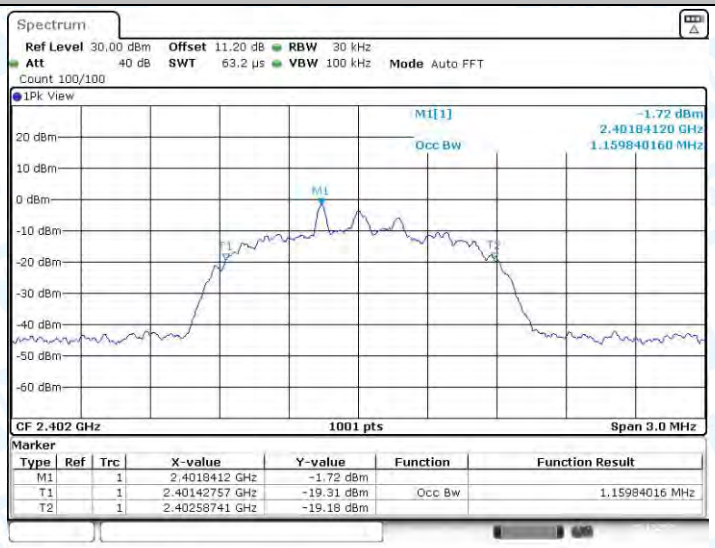
2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441

3DH5_Ant1_2480

3. Maximum conducted output power

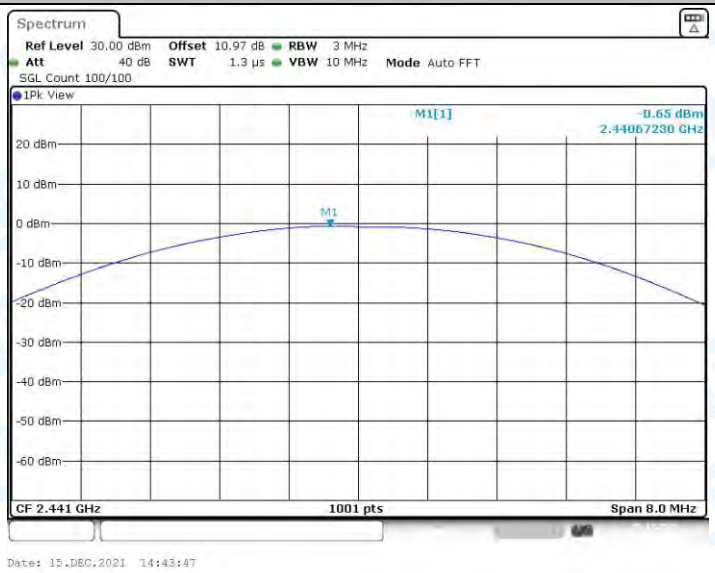
3.1.Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-0.28	≤21	PASS
		2441	-0.65	≤21	PASS
		2480	-1.12	≤21	PASS
2DH5	Ant1	2402	-0.72	≤21	PASS
		2441	-0.91	≤21	PASS
		2480	-1.48	≤21	PASS
3DH5	Ant1	2402	-0.45	≤21	PASS
		2441	-0.9	≤21	PASS
		2480	-1.5	≤21	PASS

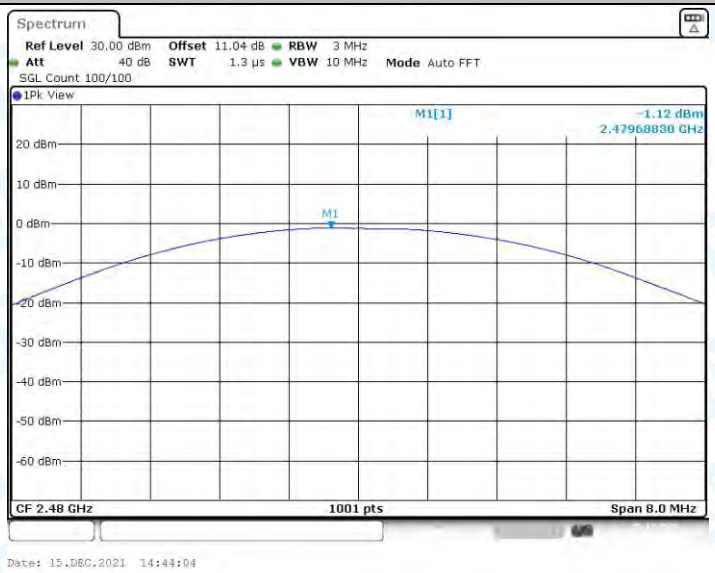
3.2.Test Graphs

DH5_Ant1_2402

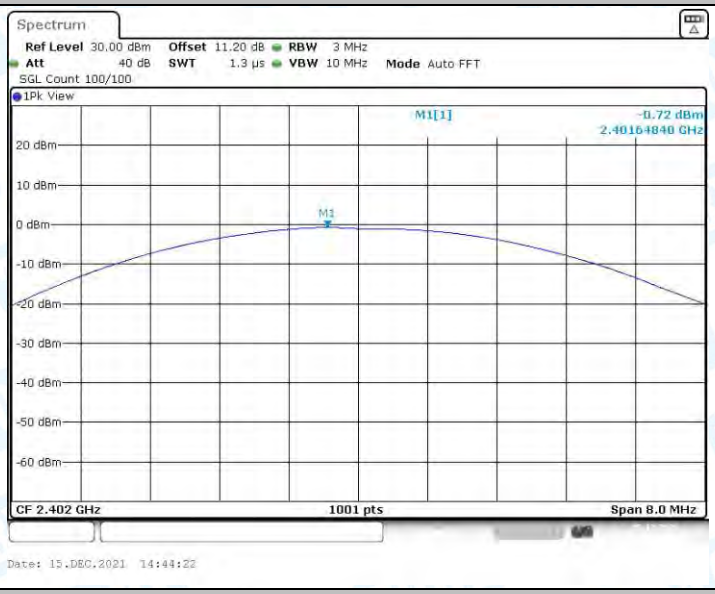
DH5_Ant1_2441



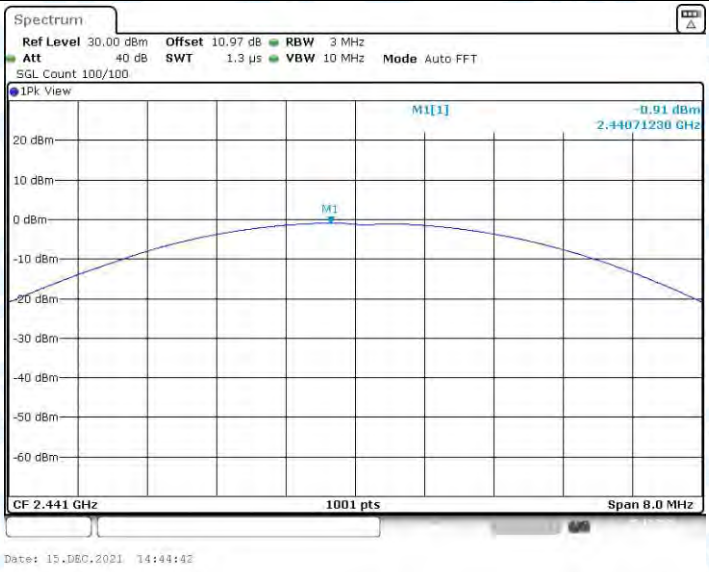
DH5_Ant1_2480



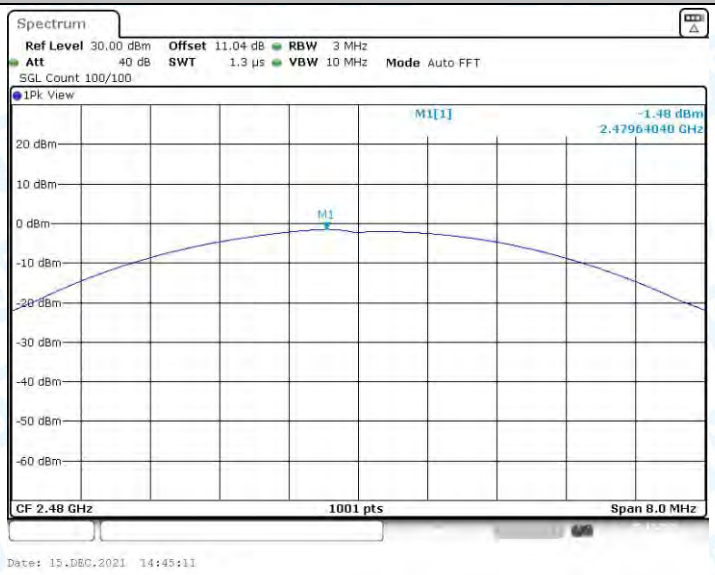
2DH5_Ant1_2402



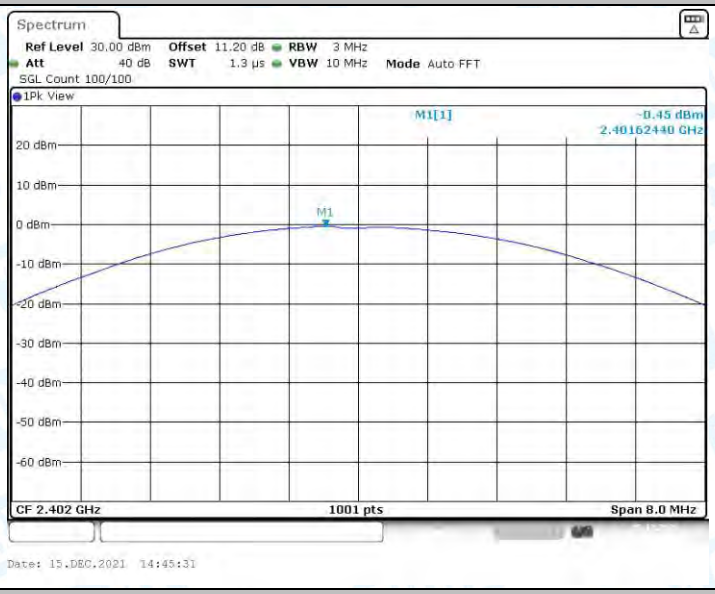
2DH5_Ant1_2441



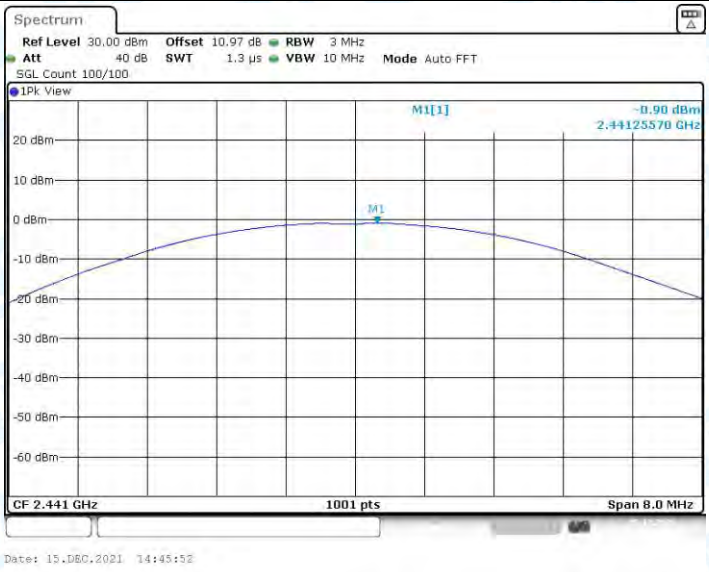
2DH5_Ant1_2480



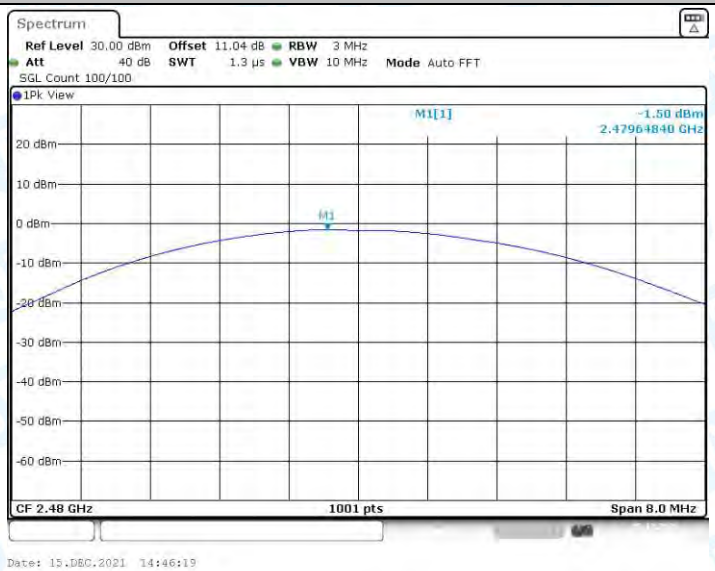
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



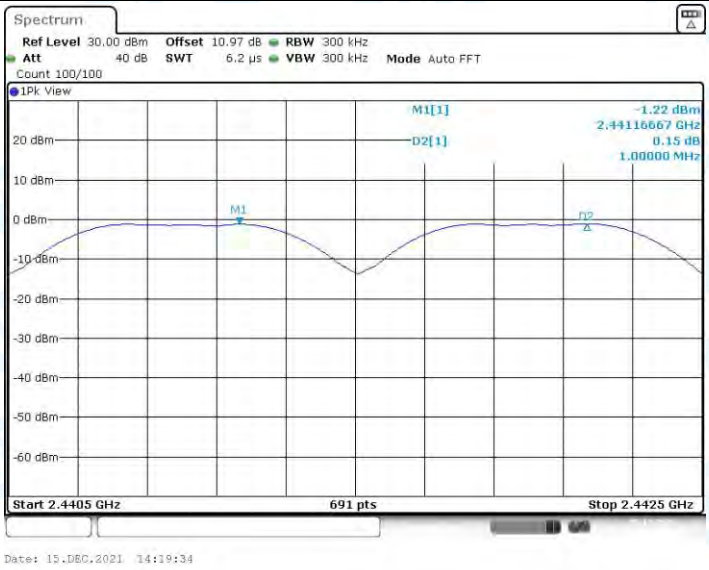
4. Carrier frequency separation

4.1.Test Result

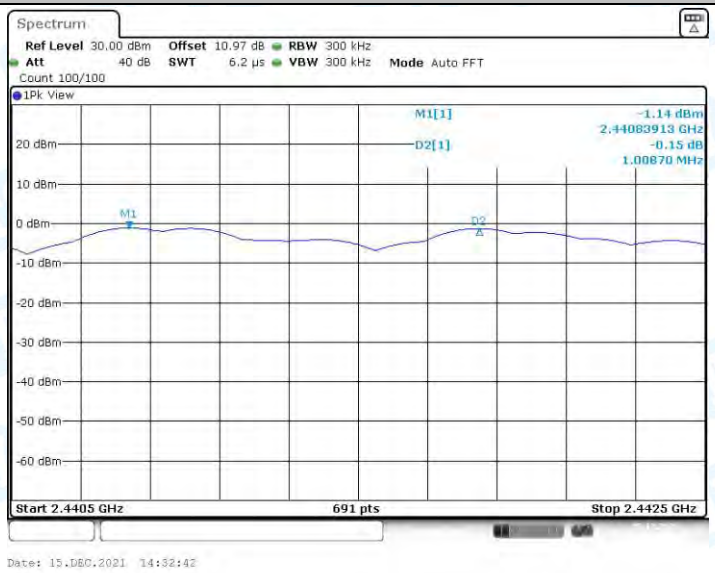
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1	≥0.960	PASS
2DH5	Ant1	Hop	1.009	≥0.907	PASS
3DH5	Ant1	Hop	1.33	≥0.900	PASS

4.2.Test Graphs

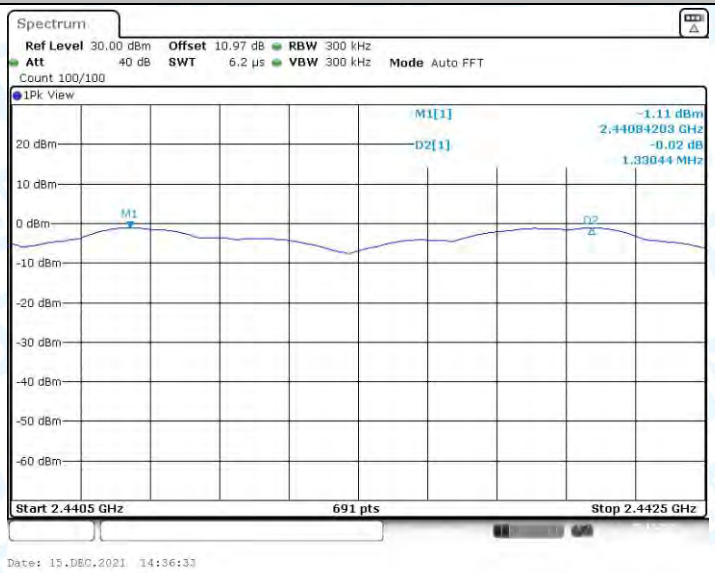
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop



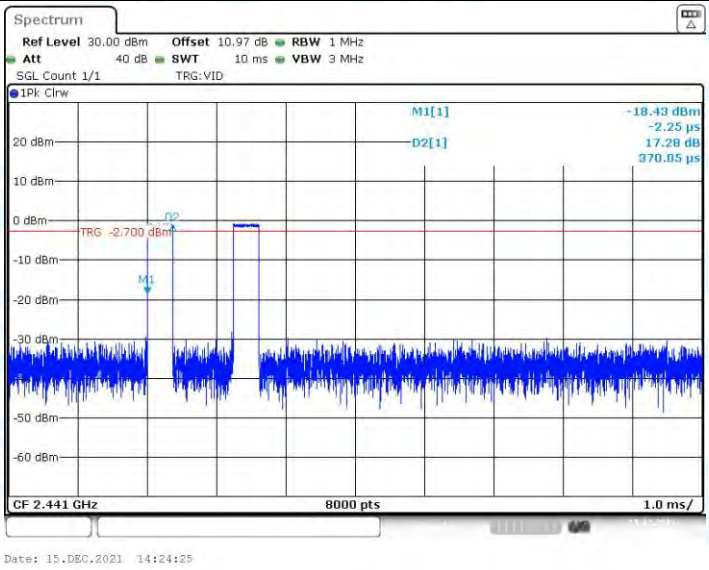
5. Time of occupancy

5.1.Test Result

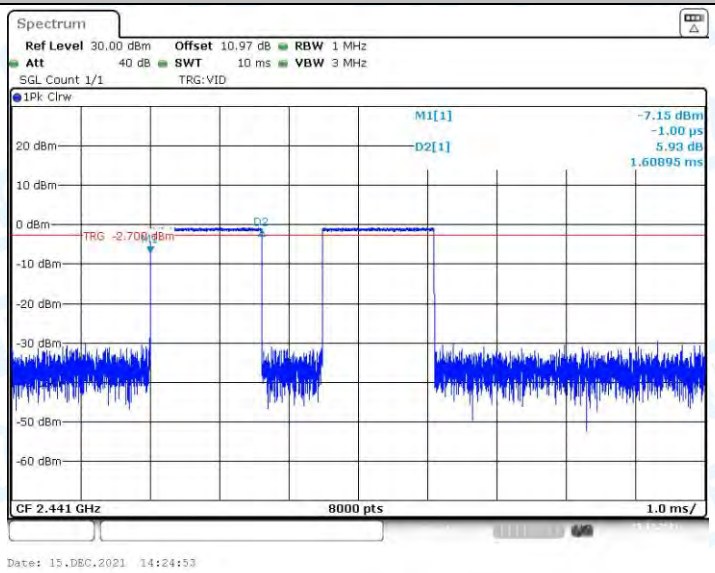
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.37	320	0.118	≤0.4	PASS
DH3	Ant1	Hop	1.61	160	0.257	≤0.4	PASS
DH5	Ant1	Hop	2.85	106.67	0.304	≤0.4	PASS
2DH1	Ant1	Hop	0.38	320	0.12	≤0.4	PASS
2DH3	Ant1	Hop	1.62	160	0.259	≤0.4	PASS
2DH5	Ant1	Hop	2.86	106.67	0.305	≤0.4	PASS
3DH1	Ant1	Hop	0.38	320	0.12	≤0.4	PASS
3DH3	Ant1	Hop	1.62	160	0.259	≤0.4	PASS
3DH5	Ant1	Hop	2.86	106.67	0.305	≤0.4	PASS

5.2.Test Graphs

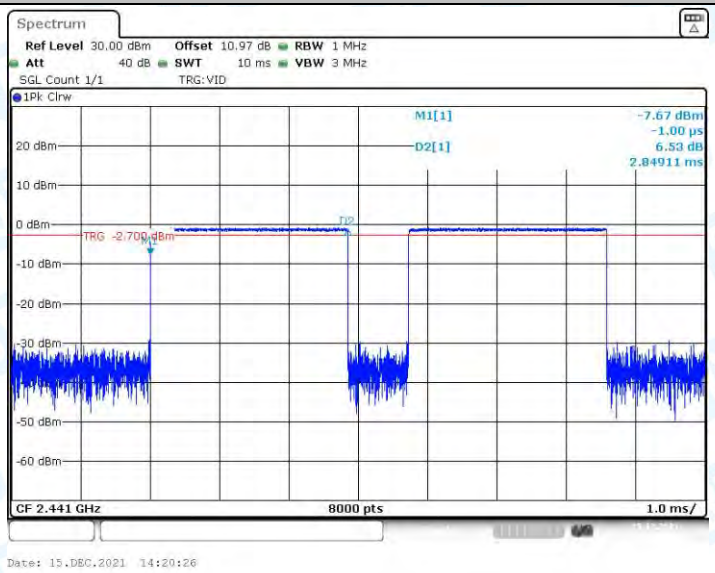
DH1_Ant1_Hop



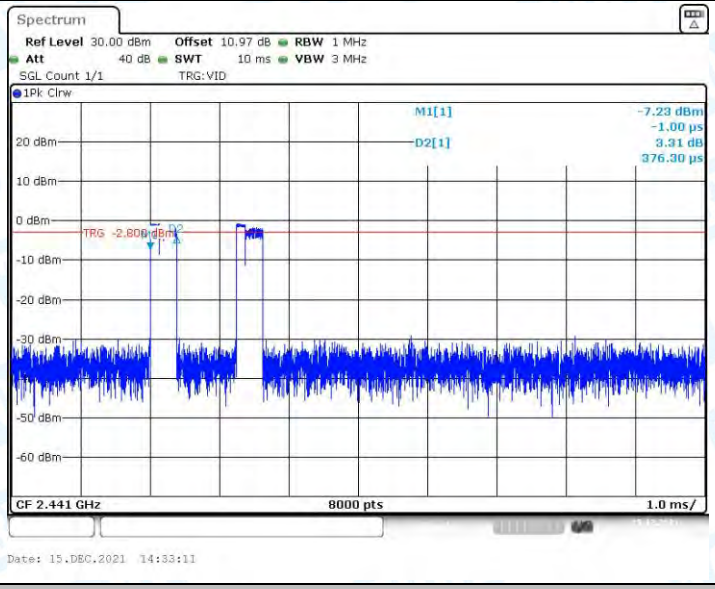
DH3_Ant1_Hop



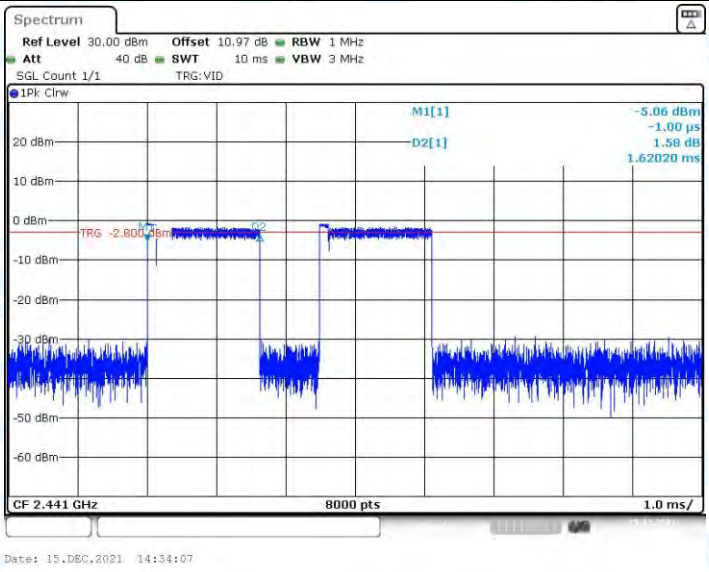
DH5_Ant1_Hop



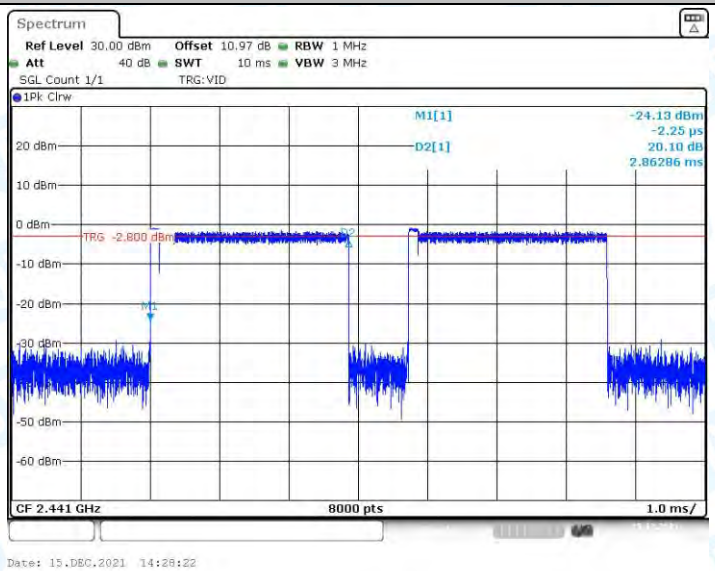
2DH1_Ant1_Hop



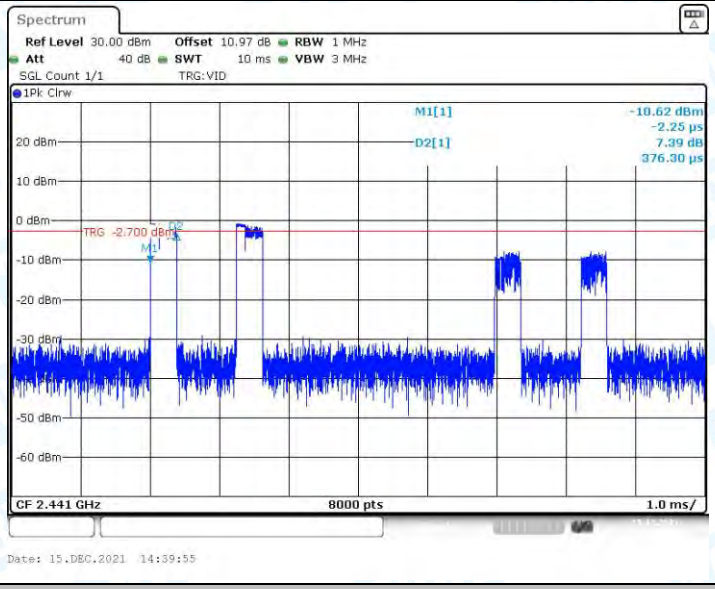
2DH3_Ant1_Hop



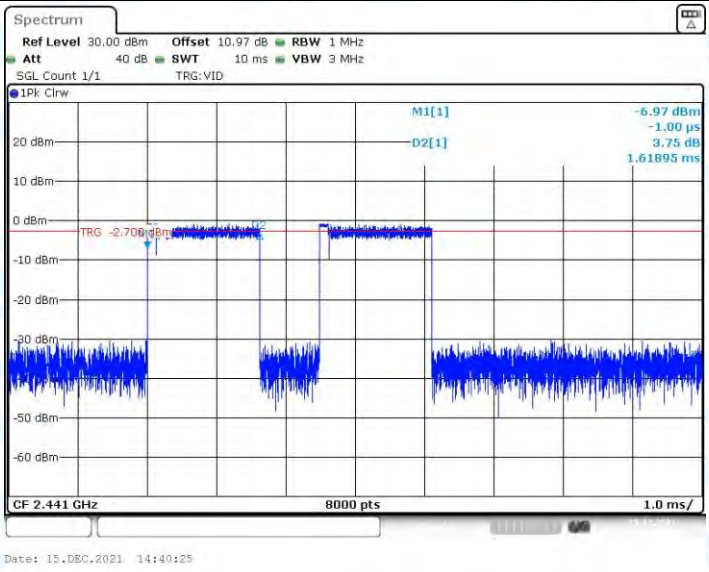
2DH5_Ant1_Hop



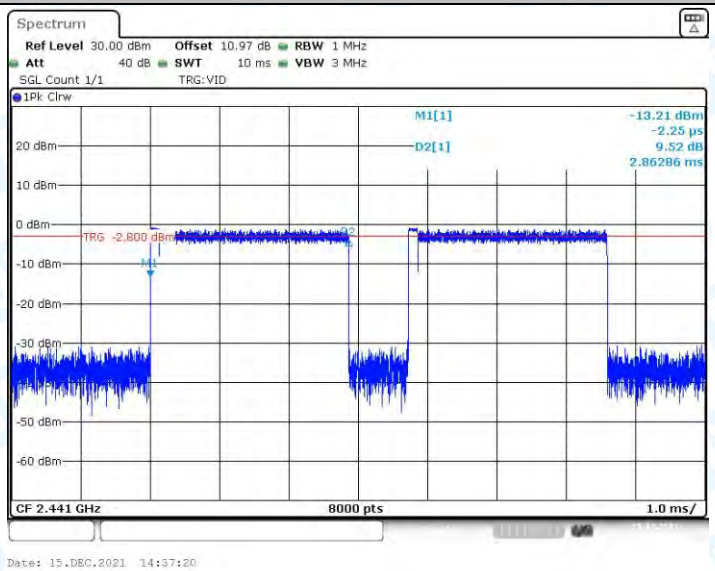
3DH1_Ant1_Hop



3DH3_Ant1_Hop



3DH5_Ant1_Hop



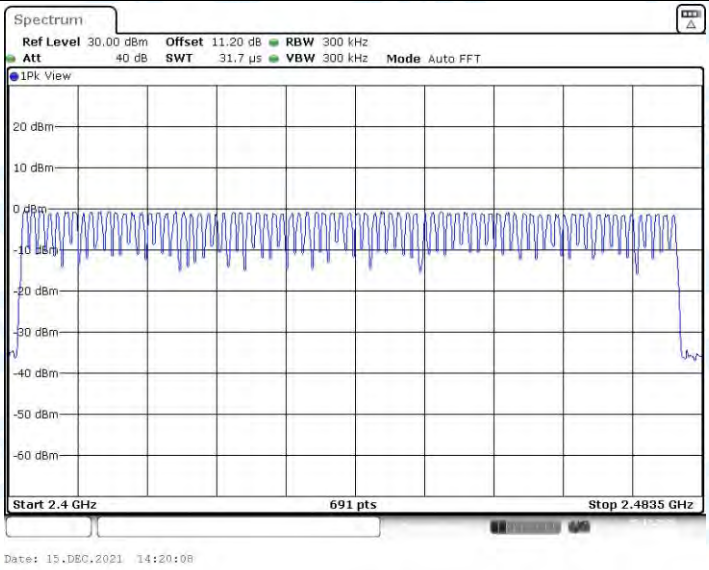
6. Number of hopping channels

6.1.Test Result

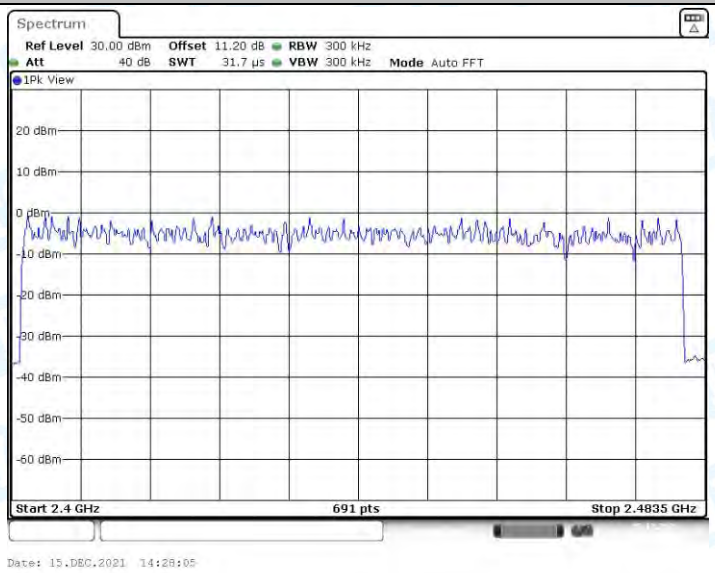
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

6.2.Test Graphs

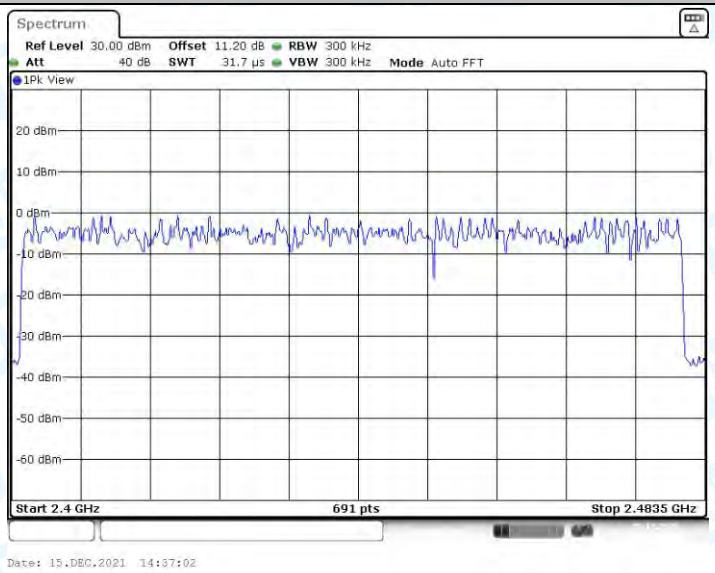
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop



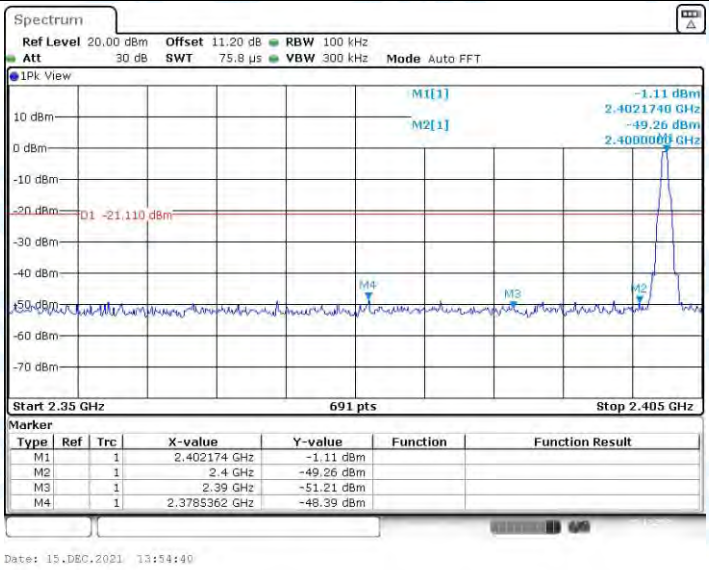
7.Band edge measurements

7.1.Test Result

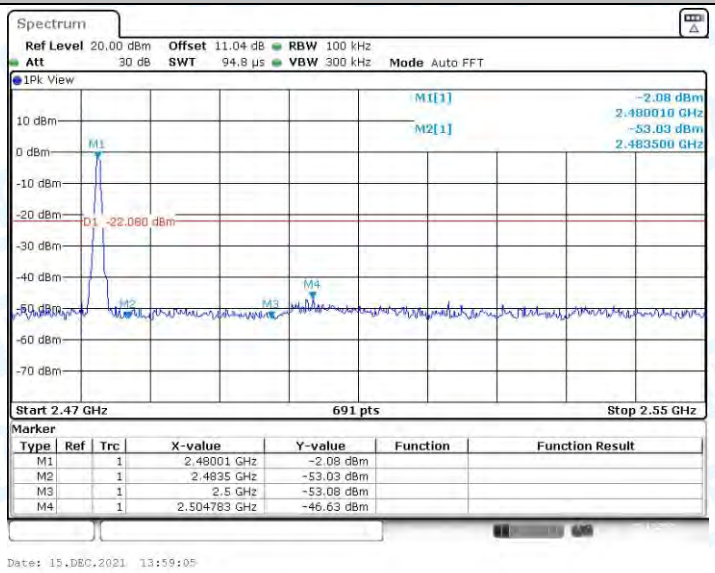
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-1.11	-48.39	≤-21.11	PASS
		High	2480	-2.08	-46.63	≤-22.08	PASS
		Low	Hop_2402	-1.64	-47.68	≤-21.64	PASS
		High	Hop_2480	-2.16	-47.09	≤-22.16	PASS
2DH5	Ant1	Low	2402	-2.41	-49.31	≤-22.41	PASS
		High	2480	-3.20	-46.4	≤-23.2	PASS
		Low	Hop_2402	-4.18	-48.32	≤-24.18	PASS
		High	Hop_2480	-5.99	-46.98	≤-25.99	PASS
3DH5	Ant1	Low	2402	-1.39	-48.91	≤-21.39	PASS
		High	2480	-1.47	-47.73	≤-21.47	PASS
		Low	Hop_2402	-2.84	-48.45	≤-22.84	PASS
		High	Hop_2480	-6.58	-46.87	≤-26.58	PASS

7.2.Test Graphs

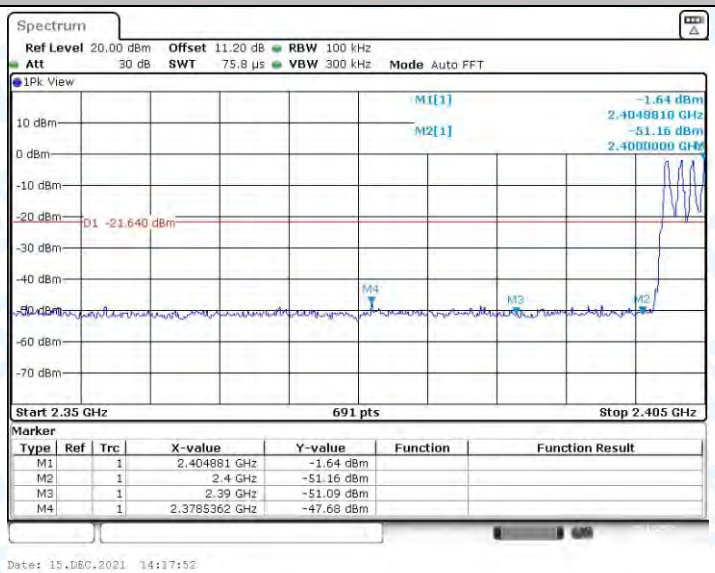
DH5_Ant1_Low_2402



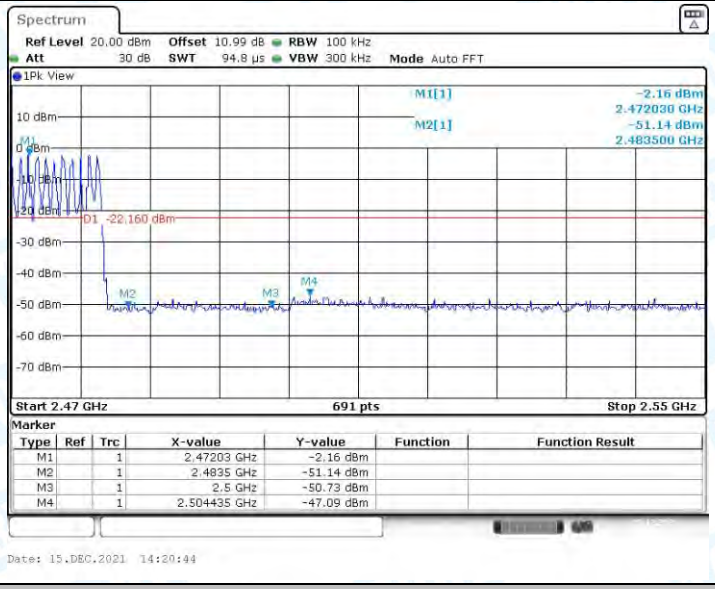
DH5_Ant1_High_2480



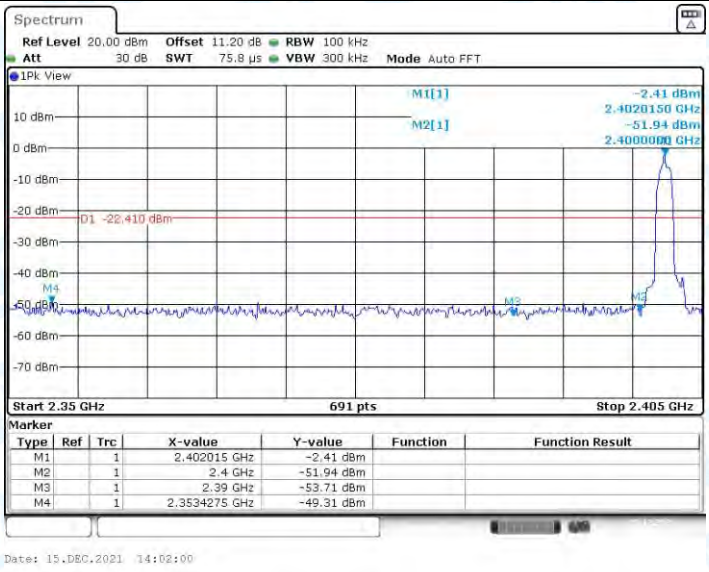
DH5_Ant1_Low_Hop_2402



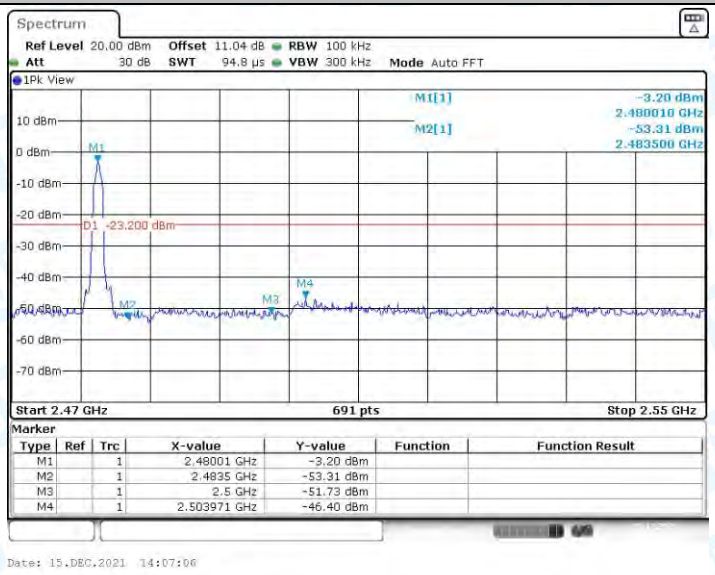
DH5_Ant1_High_Hop_2480



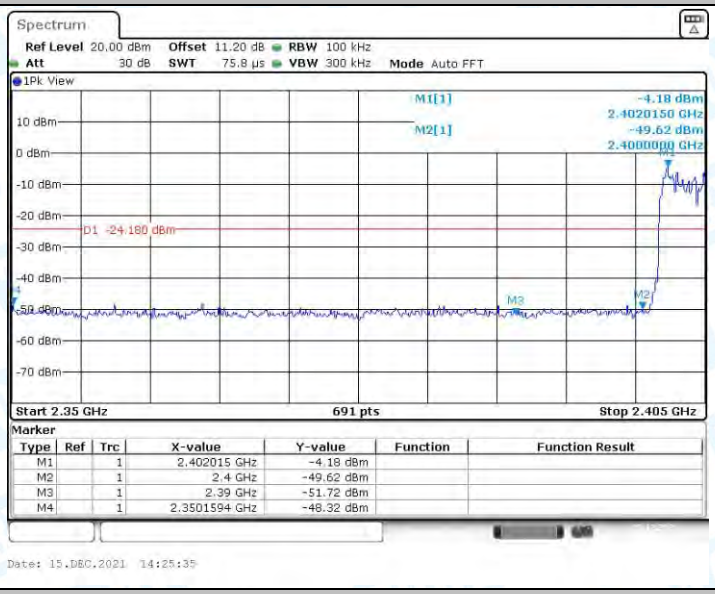
2DH5_Ant1_Low_2402



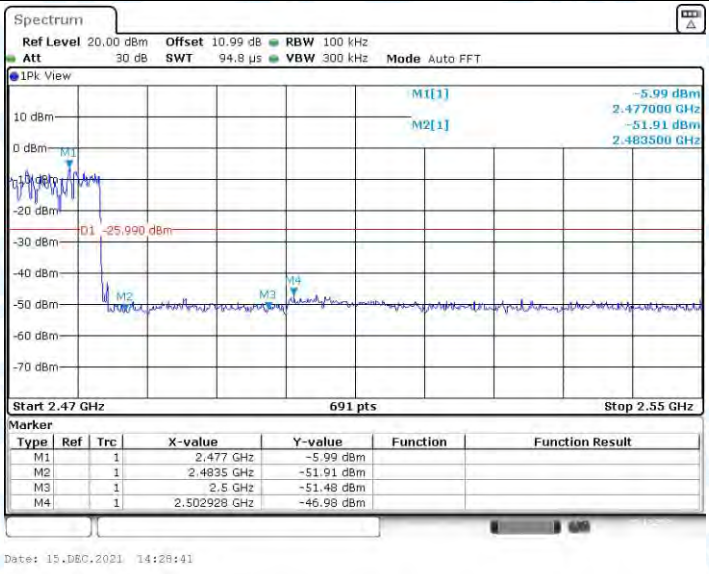
2DH5_Ant1_High_2480



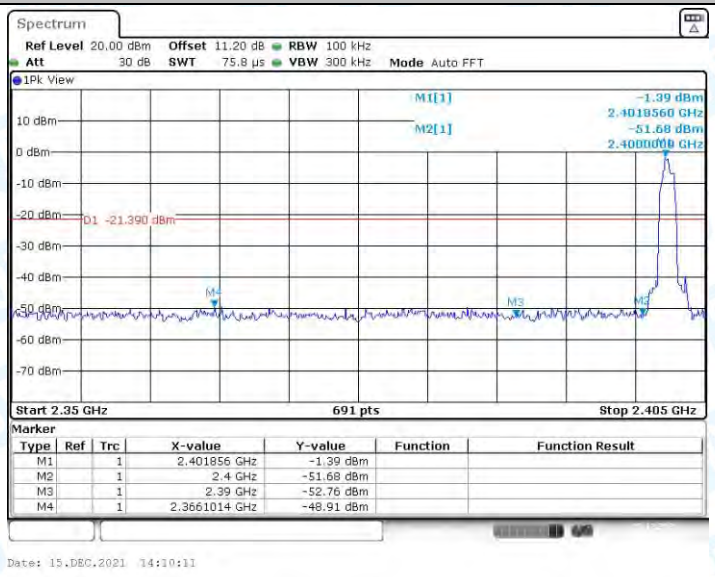
2DH5_Ant1_Low_Hop_2402



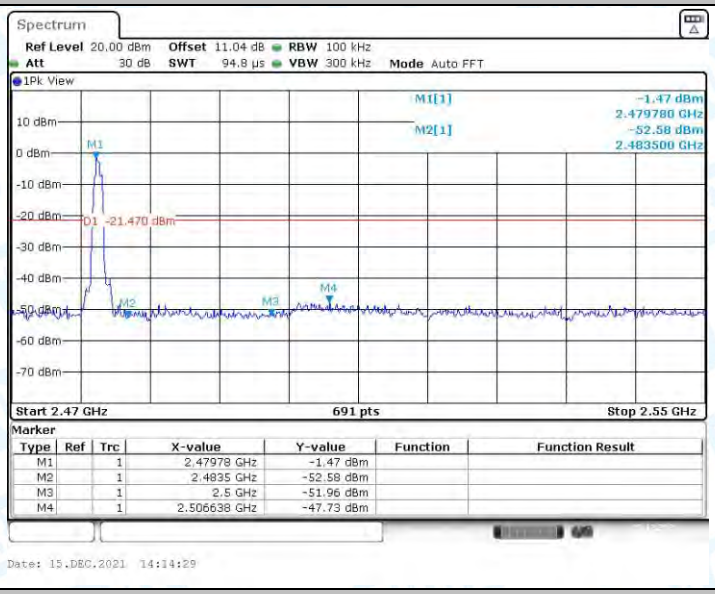
2DH5_Ant1_High_Hop_2480



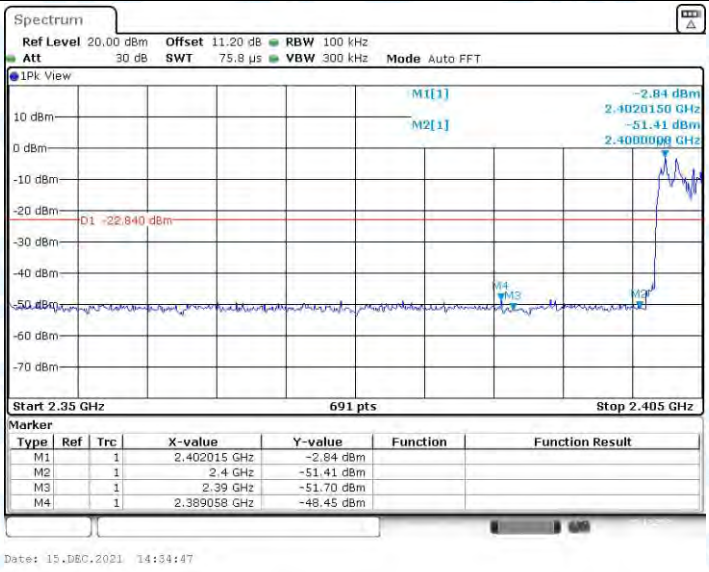
3DH5_Ant1_Low_2402



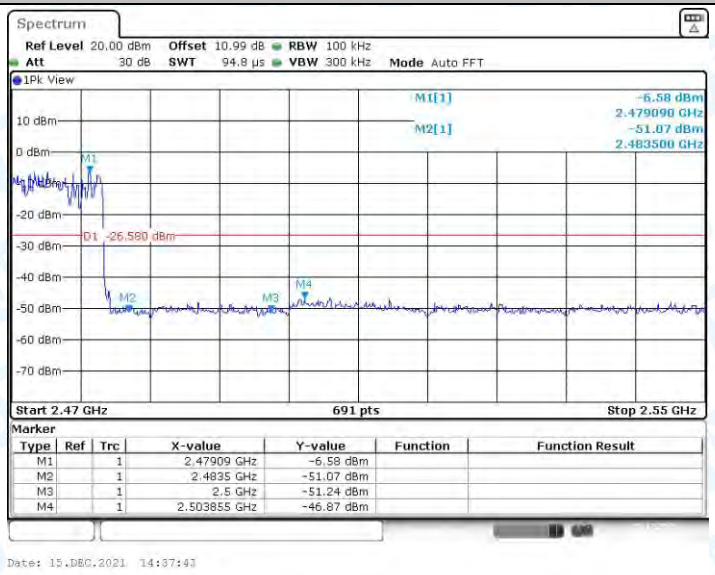
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480



8. Conducted Spurious Emission

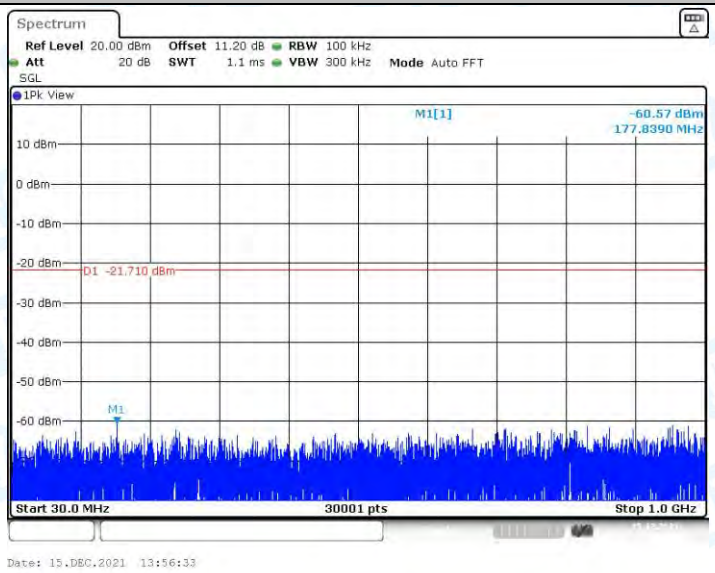
8.1.Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-1.71	-1.71	---	PASS
			30~1000	-1.71	-60.57	≤-21.71	PASS
			1000~26500	-1.71	-51.48	≤-21.71	PASS
		2441	Reference	-2.23	-2.23	---	PASS
			30~1000	-2.23	-61.44	≤-22.23	PASS
			1000~26500	-2.23	-51	≤-22.23	PASS
		2480	Reference	-2.41	-2.41	---	PASS
			30~1000	-2.41	-61.25	≤-22.41	PASS
			1000~26500	-2.41	-50.77	≤-22.41	PASS
2DH5	Ant1	2402	Reference	-6.46	-6.46	---	PASS
			30~1000	-6.46	-58.96	≤-26.46	PASS
			1000~26500	-6.46	-51.55	≤-26.46	PASS
		2441	Reference	-6.96	-6.96	---	PASS
			30~1000	-6.96	-58.95	≤-26.96	PASS
			1000~26500	-6.96	-50.86	≤-26.96	PASS
		2480	Reference	-7.24	-7.24	---	PASS
			30~1000	-7.24	-61.26	≤-27.24	PASS
			1000~26500	-7.24	-50.91	≤-27.24	PASS
3DH5	Ant1	2402	Reference	-6.67	-6.67	---	PASS
			30~1000	-6.67	-59.15	≤-26.67	PASS
			1000~26500	-6.67	-50.94	≤-26.67	PASS
		2441	Reference	-4.05	-4.05	---	PASS
			30~1000	-4.05	-61.14	≤-24.05	PASS
			1000~26500	-4.05	-50.26	≤-24.05	PASS
		2480	Reference	-8.20	-8.20	---	PASS
			30~1000	-8.20	-60.92	≤-28.2	PASS
			1000~26500	-8.20	-50.92	≤-28.2	PASS

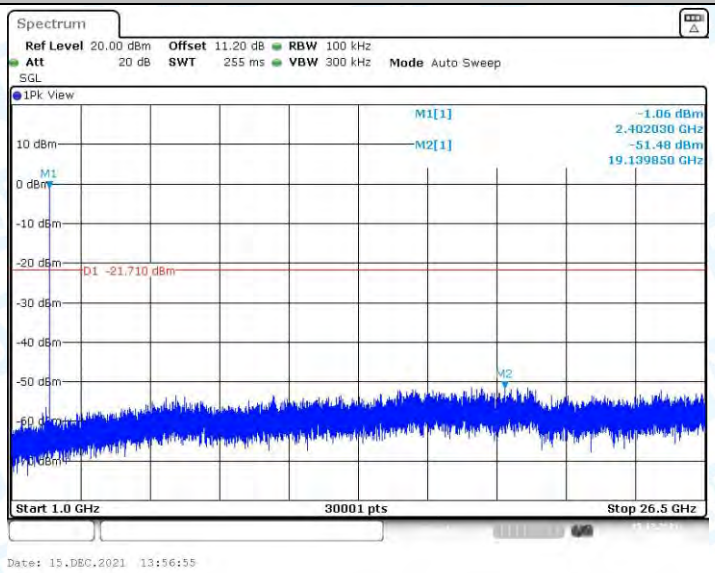
8.2.Test Graphs

DH5_Ant1_2402_0~Reference

DH5_Ant1_2402_30~1000

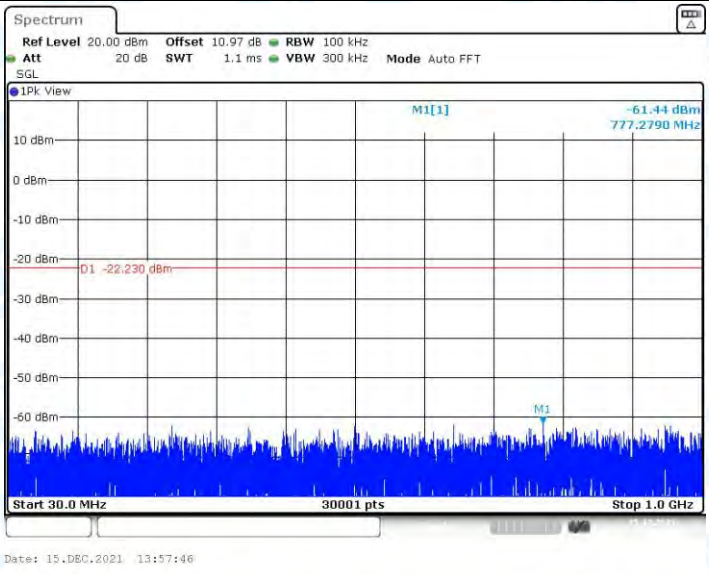


DH5_Ant1_2402_1000~26500

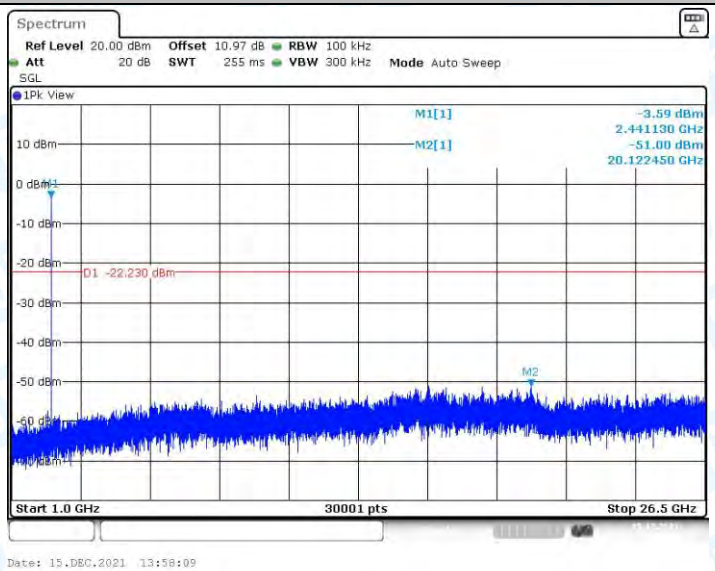


DH5_Ant1_2441_0~Reference

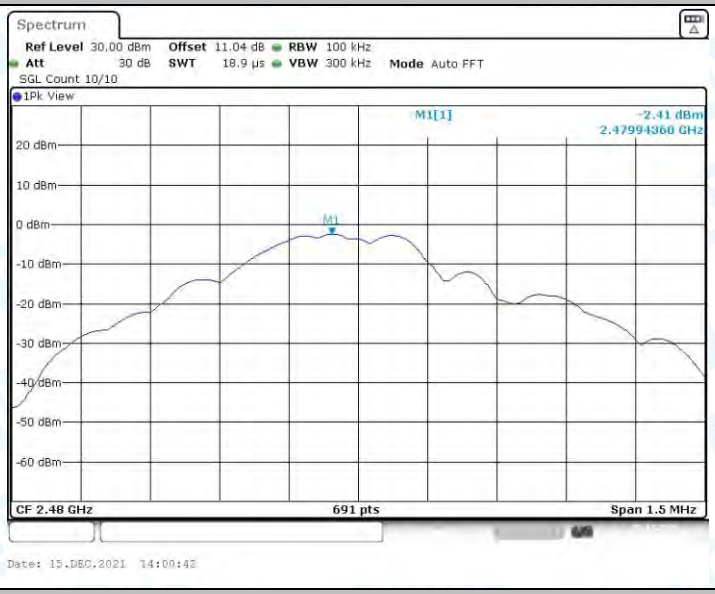
DH5_Ant1_2441_30~1000



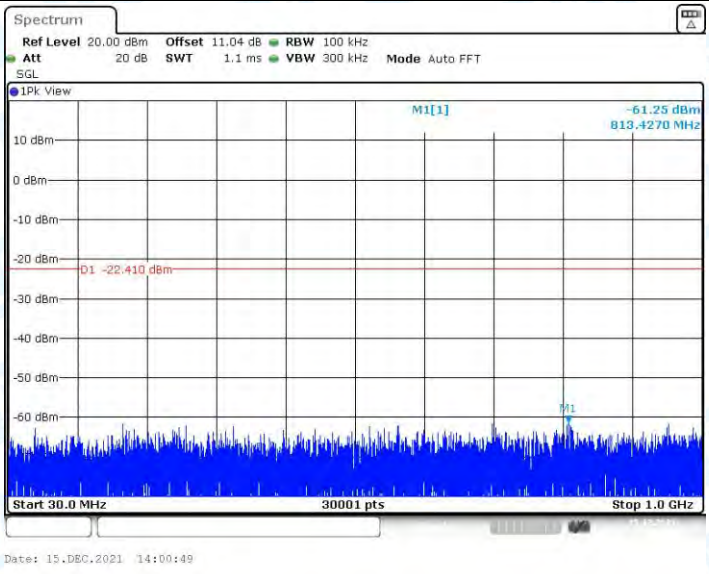
DH5_Ant1_2441_1000~26500



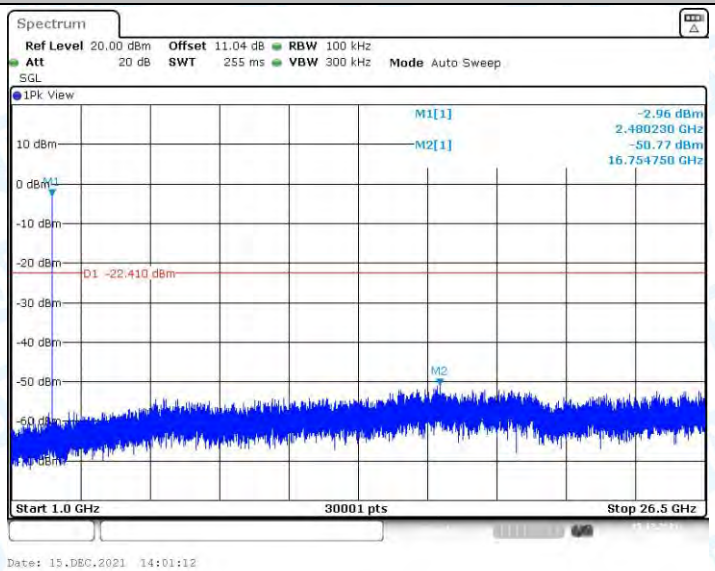
DH5_Ant1_2480_0~Reference



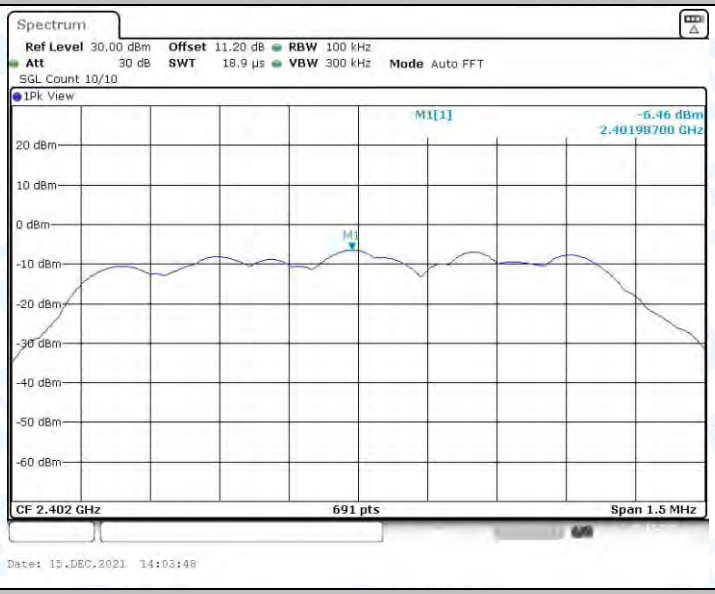
DH5_Ant1_2480_30~1000



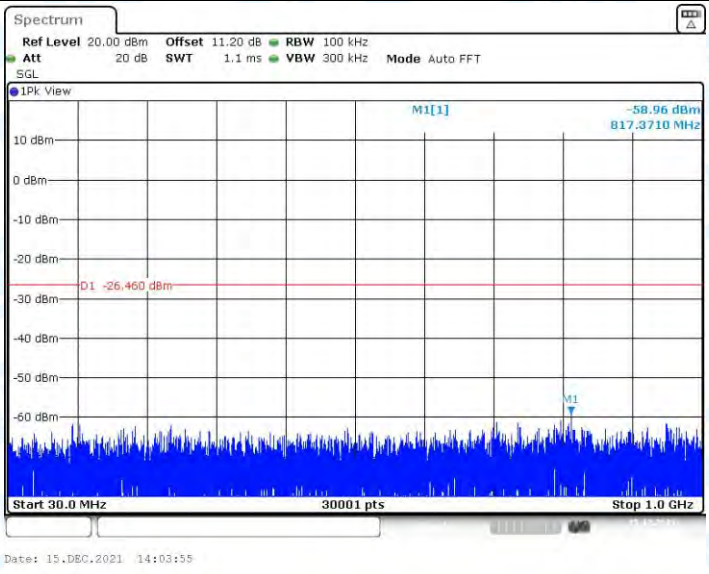
DH5_Ant1_2480_1000~26500



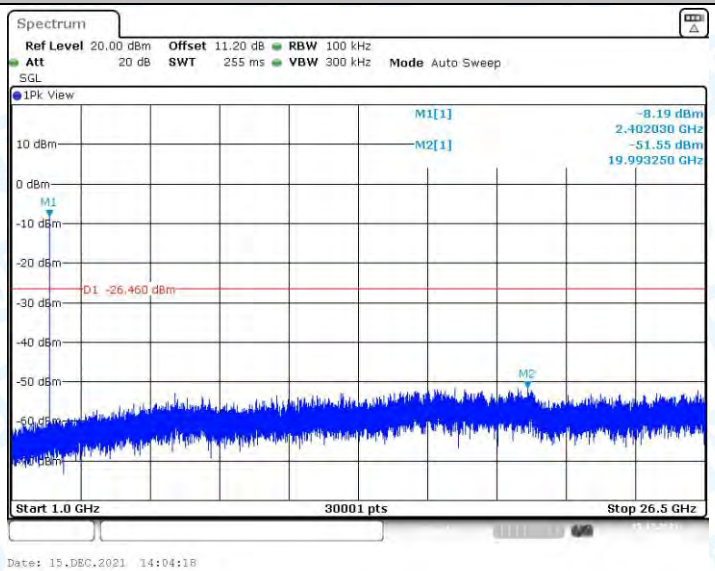
2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000

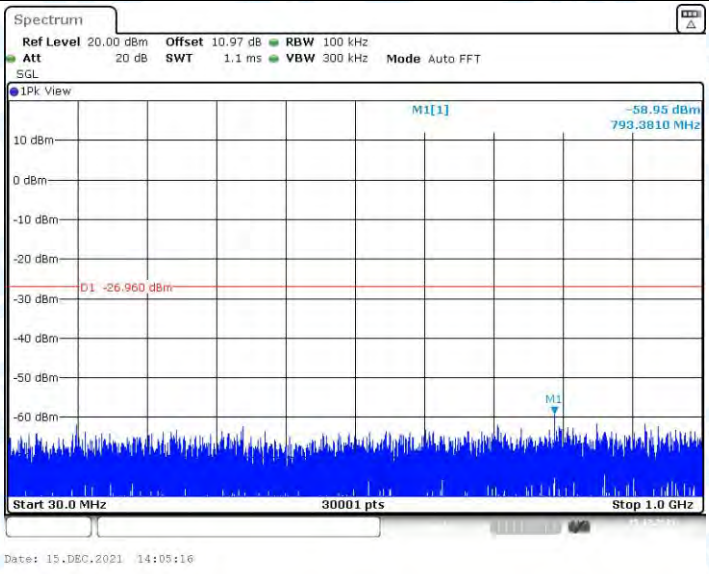


2DH5_Ant1_2402_1000~26500

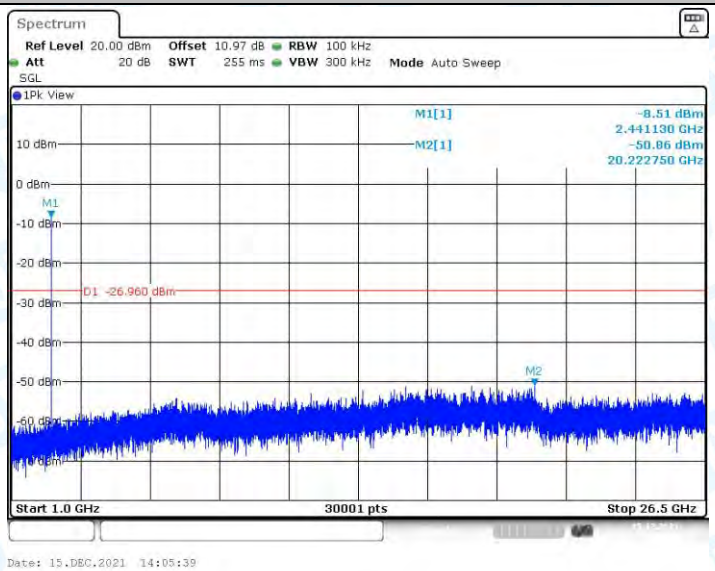


2DH5_Ant1_2441_0~Reference

2DH5_Ant1_2441_30~1000

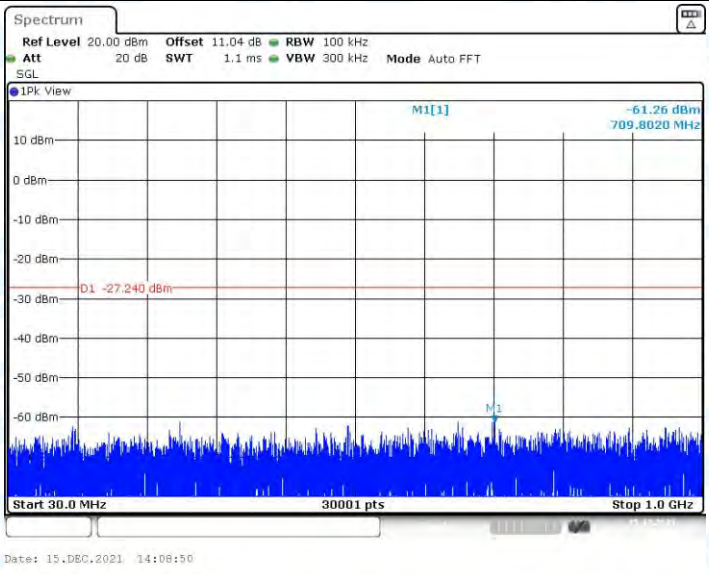


2DH5_Ant1_2441_1000~26500

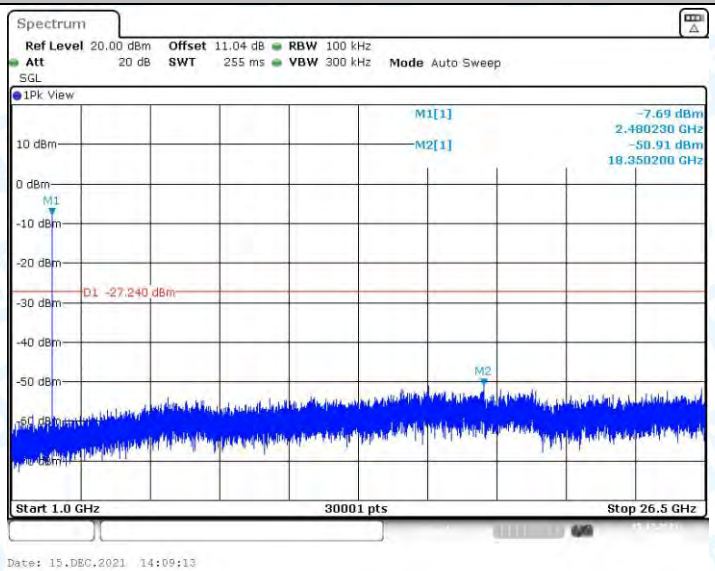


2DH5_Ant1_2480_0~Reference

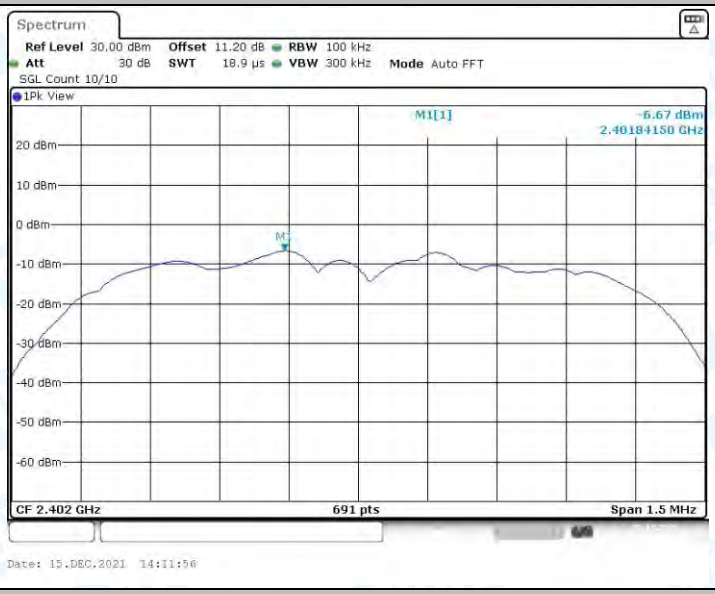
2DH5_Ant1_2480_30~1000



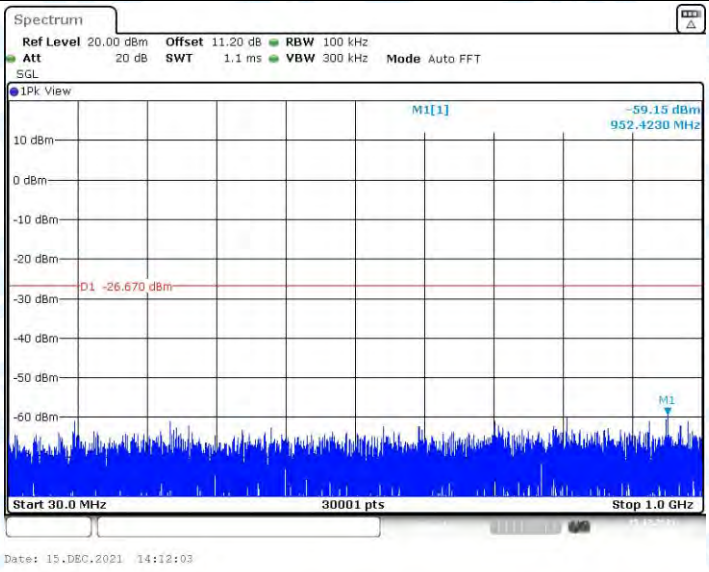
2DH5_Ant1_2480_1000~26500



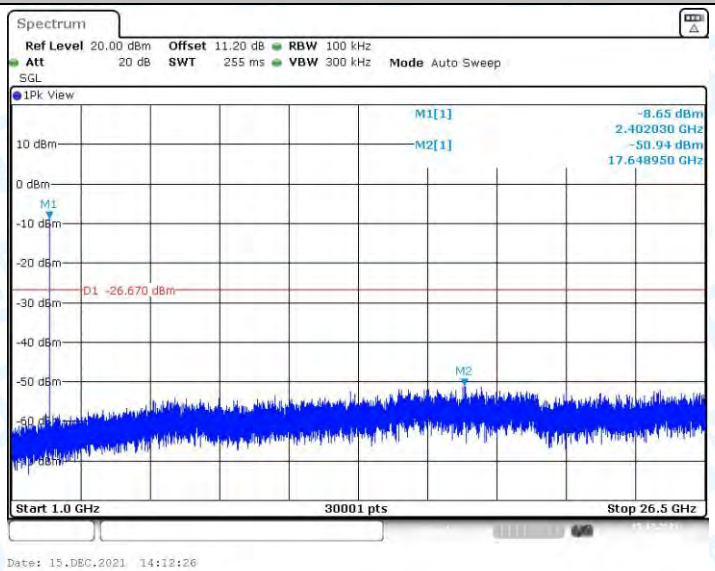
3DH5_Ant1_2402_0~Reference



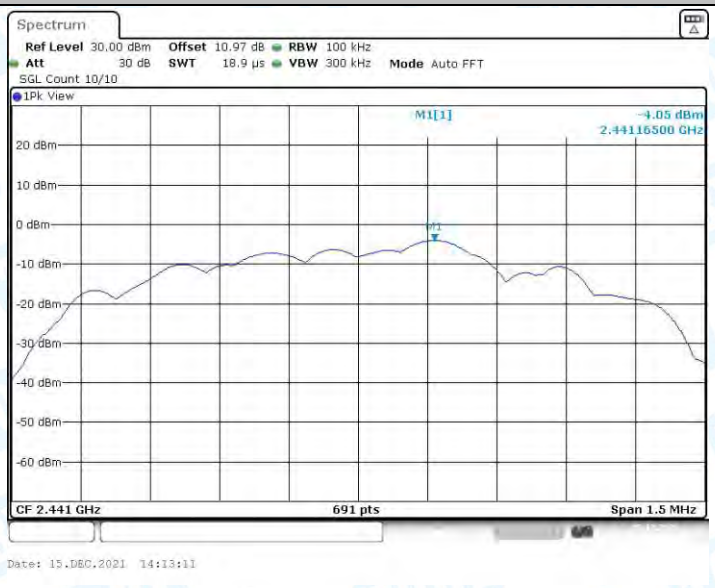
3DH5_Ant1_2402_30~1000



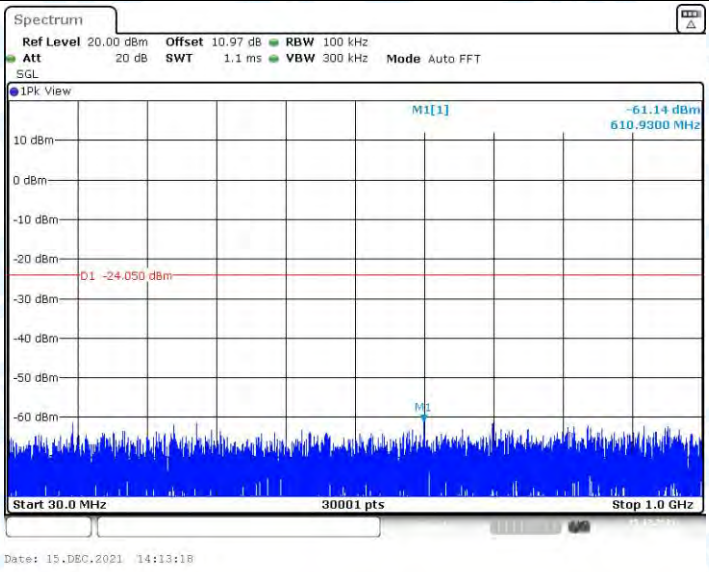
3DH5_Ant1_2402_1000~26500



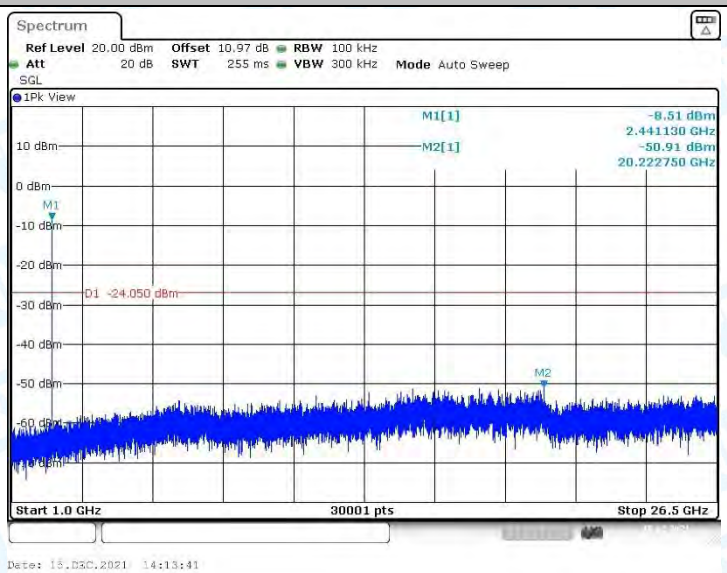
3DH5_Ant1_2441_0~Reference



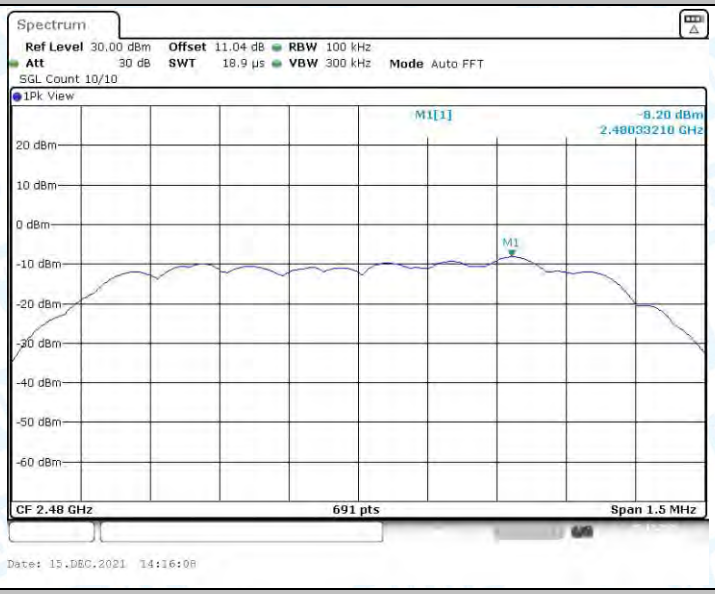
3DH5_Ant1_2441_30~1000



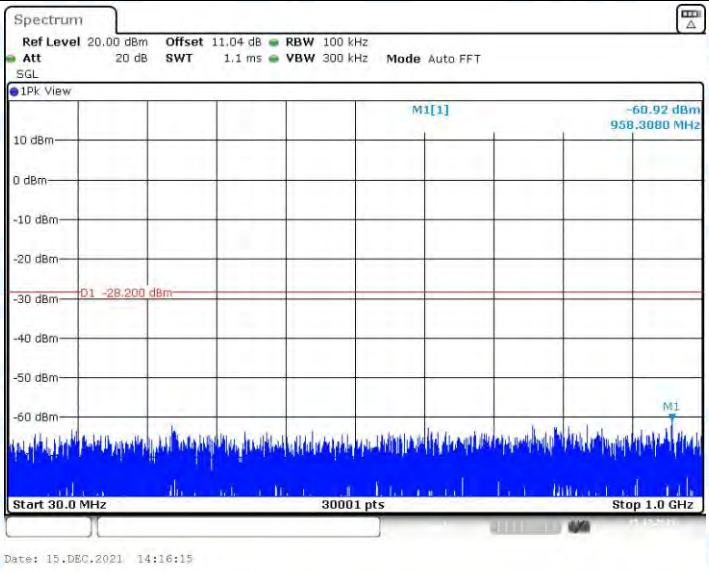
3DH5_Ant1_2441_1000~26500



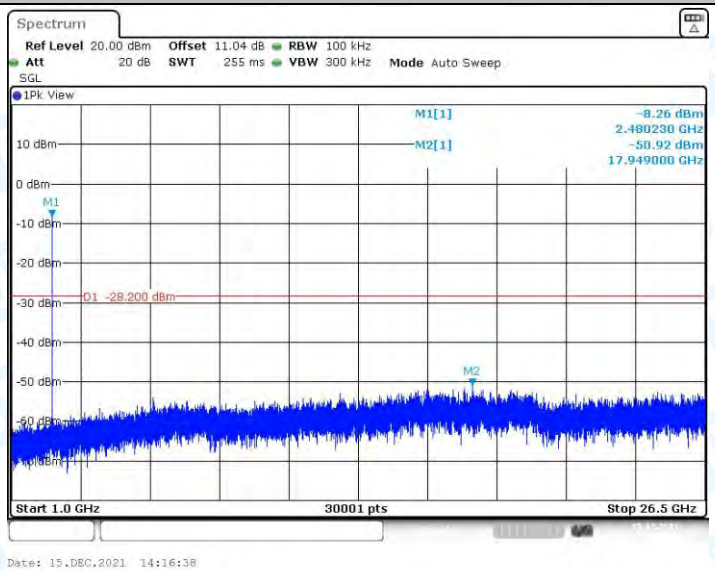
3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500



9. Emissions in Restricted Bands

9.1.Test Result

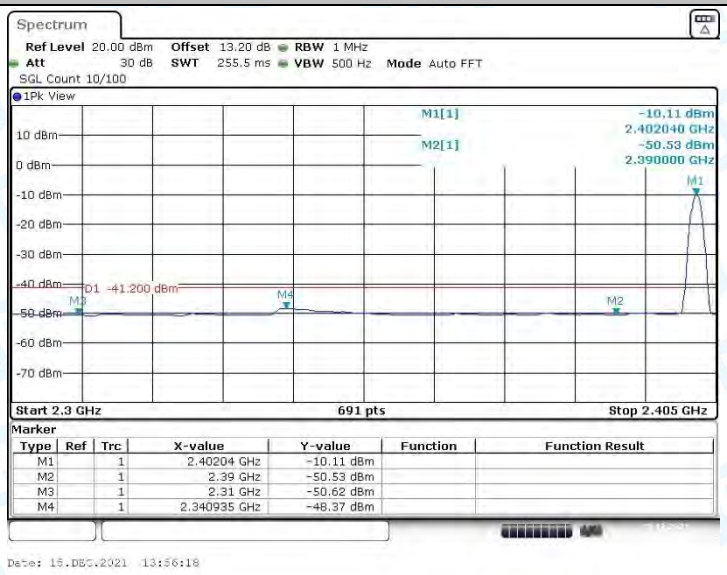
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-50.62	≤-41.20	PASS
				AV	2340.935	-48.37	≤-41.20	PASS
				AV	2390.000	-50.53	≤-41.20	PASS
				Peak	2310.000	-41.1	≤-21.20	PASS
				Peak	2350.217	-36.93	≤-21.20	PASS
				Peak	2390.000	-39.71	≤-21.20	PASS
		High	2480	AV	2483.500	-49.8	≤-41.20	PASS
				AV	2484.145	-49.6	≤-41.20	PASS
				AV	2500.000	-49.89	≤-41.20	PASS
				Peak	2483.500	-40.44	≤-21.20	PASS
				Peak	2484.261	-38.17	≤-21.20	PASS
				Peak	2500.000	-39.66	≤-21.20	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-50.62	≤-41.20	PASS
				AV	2340.630	-48.38	≤-41.20	PASS
				AV	2390.000	-50.59	≤-41.20	PASS
				Peak	2310.000	-41.77	≤-21.20	PASS
				Peak	2341.391	-37.7	≤-21.20	PASS
				Peak	2390.000	-38.68	≤-21.20	PASS
		High	2480	AV	2483.500	-49.79	≤-41.20	PASS
				AV	2483.913	-49.62	≤-41.20	PASS
				AV	2500.000	-49.93	≤-41.20	PASS
				Peak	2483.500	-42.73	≤-21.20	PASS
				Peak	2499.217	-38.87	≤-21.20	PASS
				Peak	2500.000	-39.79	≤-21.20	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-50.65	≤-41.20	PASS
				AV	2341.087	-48.38	≤-41.20	PASS
				AV	2390.000	-50.6	≤-41.20	PASS
				Peak	2310.000	-41.37	≤-21.20	PASS
				Peak	2342.609	-37.37	≤-21.20	PASS
				Peak	2390.000	-41.98	≤-21.20	PASS
		High	2480	AV	2483.500	-49.77	≤-41.20	PASS
				AV	2483.913	-49.56	≤-41.20	PASS
				AV	2500.000	-49.93	≤-41.20	PASS
				Peak	2483.500	-41.48	≤-21.20	PASS
				Peak	2488.087	-37.77	≤-21.20	PASS
				Peak	2500.000	-38.69	≤-21.20	PASS

Note：

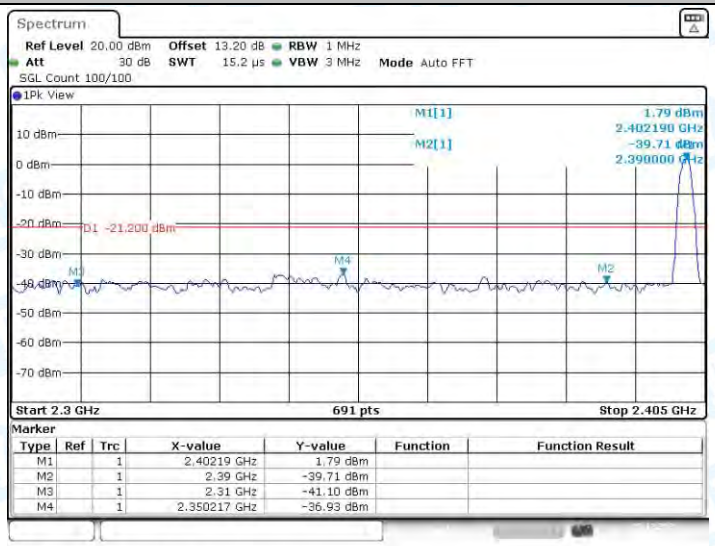
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

9.2.Test Graphs

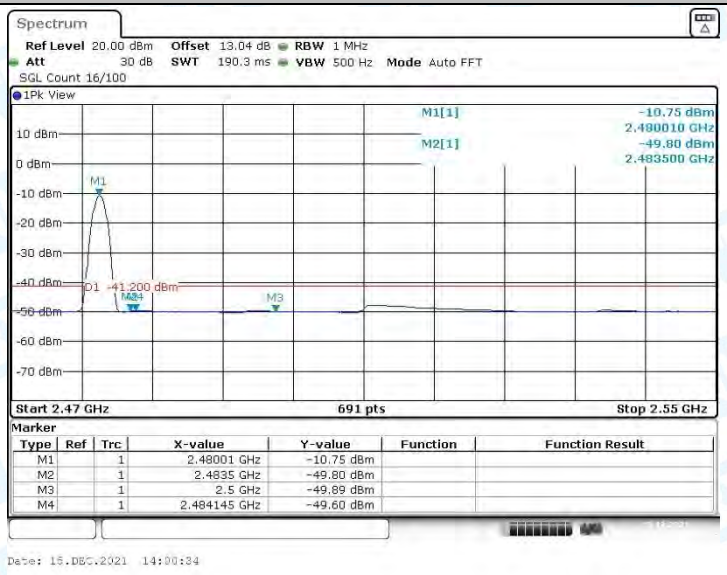
DH5_Ant1_Low_2402_AV



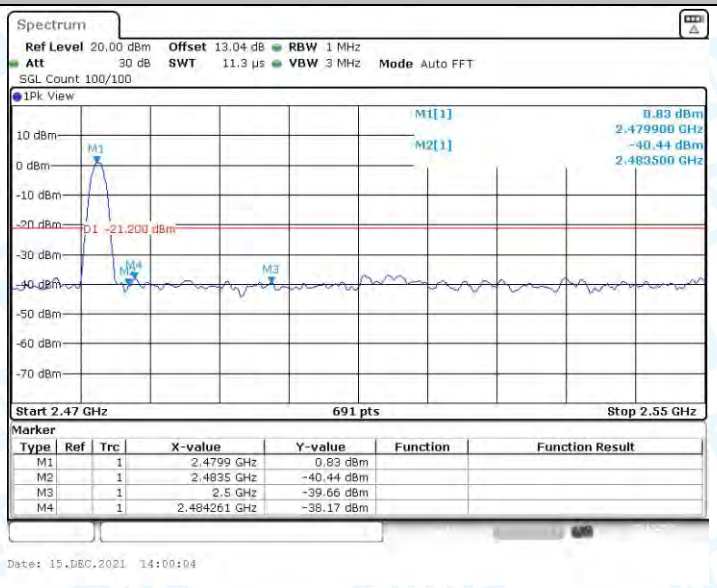
DH5_Ant1_Low_2402_Peak



DH5_Ant1_High_2480_AV



DH5_Ant1_High_2480_Peak



Marker

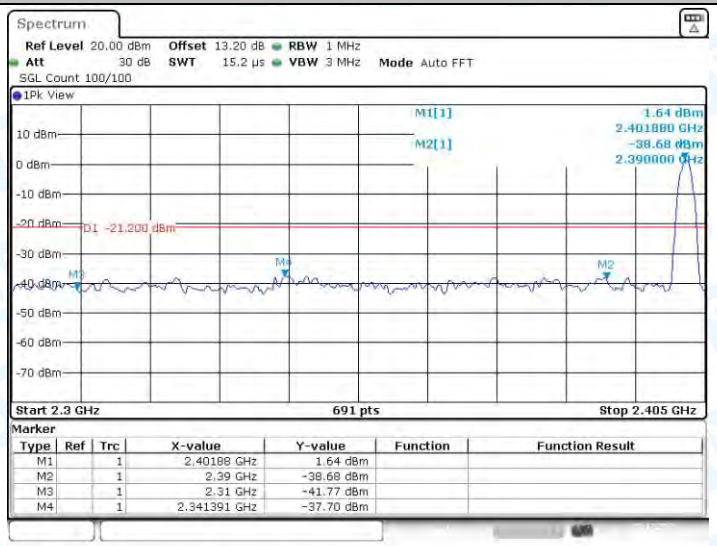
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.4799 GHz	0.83 dBm		
M2		1	2.4835 GHz	-40.44 dBm		
M3		1	2.5 GHz	-39.66 dBm		
M4		1	2.484261 GHz	-38.17 dBm		

2DH5_Ant1_Low_2402_AV

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40204 GHz	-12.62 dBm		
M2		1	2.39 GHz	-50.59 dBm		
M3		1	2.31 GHz	-50.62 dBm		
M4		1	2.34063 GHz	-48.38 dBm		

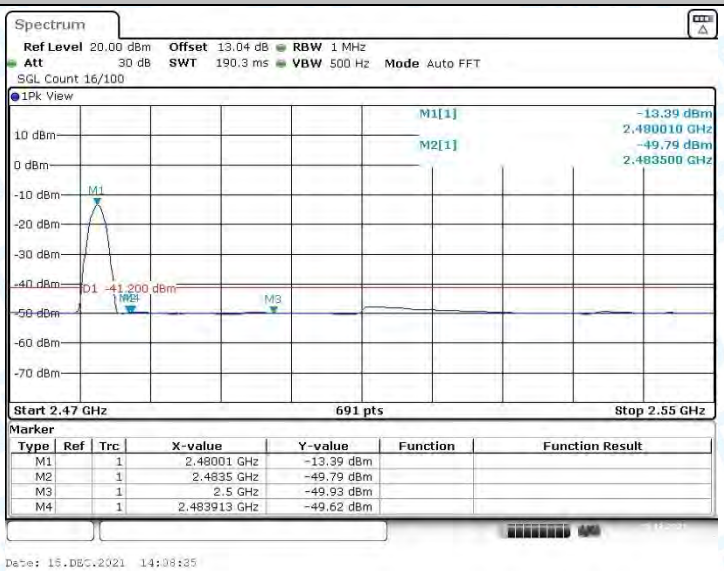
2DH5_Ant1_Low_2402_Peak



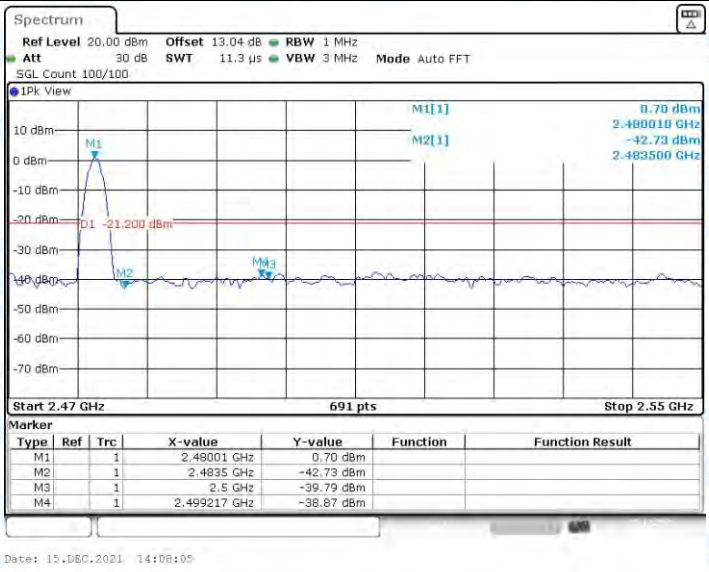
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40188 GHz	1.64 dBm		
M2		1	2.39 GHz	-38.68 dBm		
M3		1	2.31 GHz	-41.77 dBm		
M4		1	2.341391 GHz	-37.70 dBm		

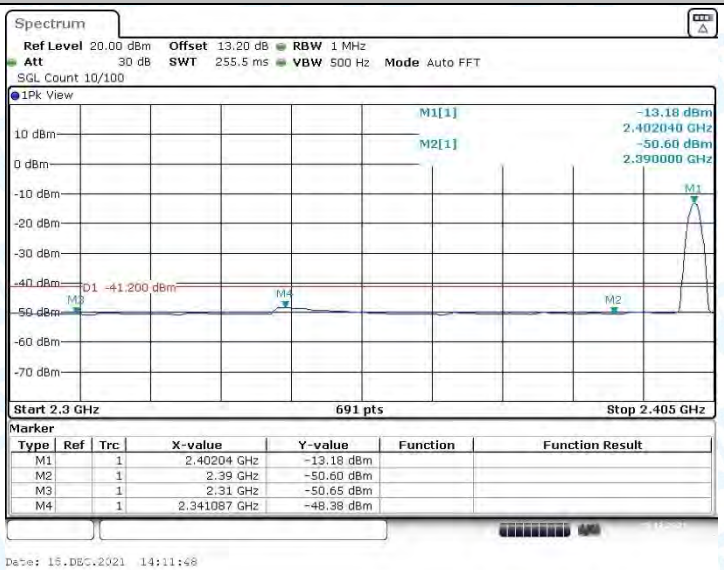
2DH5_Ant1_High_2480_AV



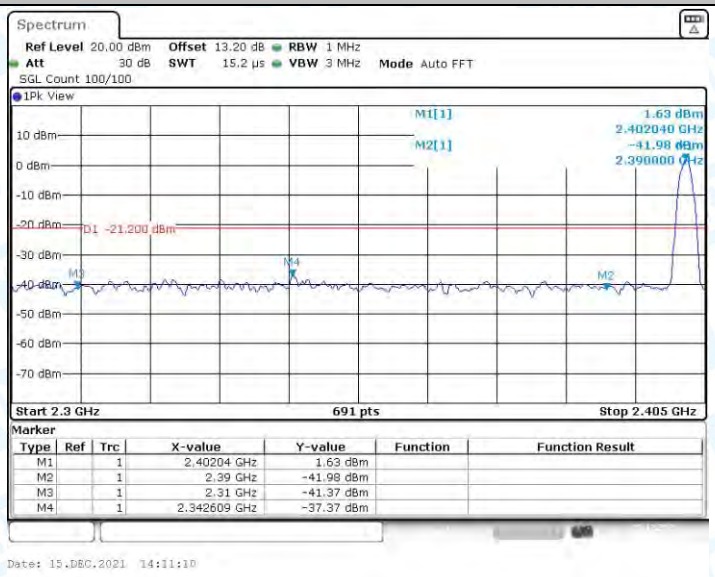
2DH5_Ant1_High_2480_Peak



3DH5_Ant1_Low_2402_AV



3DH5_Ant1_Low_2402_Peak

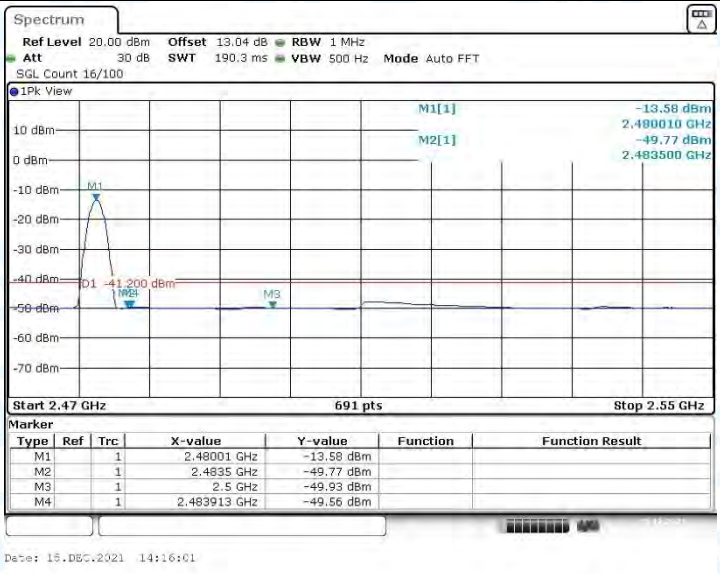


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40204 GHz	1.63 dBm		
M2		1	2.39 GHz	-41.98 dBm		
M3		1	2.31 GHz	-41.37 dBm		
M4		1	2.342609 GHz	-37.37 dBm		

Date: 15.DEC.2021 14:11:10

3DH5_Ant1_High_2480_AV

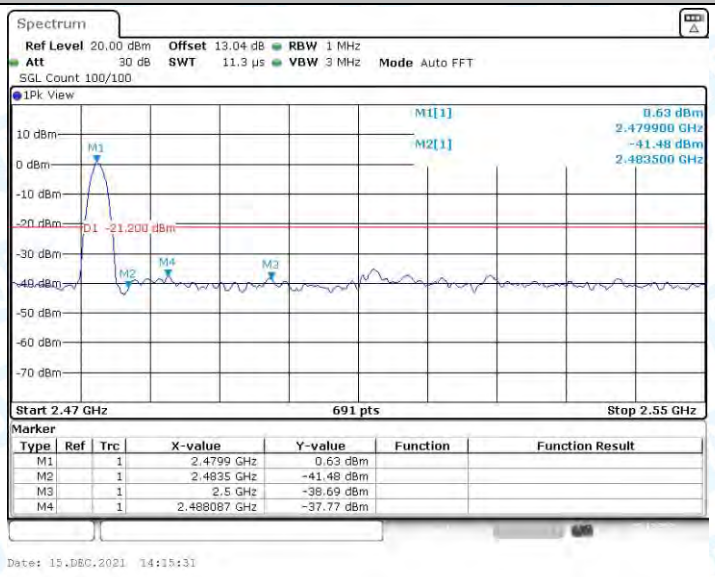


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.48001 GHz	-13.58 dBm		
M2		1	2.4835 GHz	-49.77 dBm		
M3		1	2.5 GHz	-49.93 dBm		
M4		1	2.483913 GHz	-49.56 dBm		

Date: 15.DEC.2021 14:16:01

3DH5_Ant1_High_2480_Peak



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.4799 GHz	0.63 dBm		
M2		1	2.4835 GHz	-41.48 dBm		
M3		1	2.5 GHz	-38.69 dBm		
M4		1	2.488087 GHz	-37.77 dBm		

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