

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

General Description of EUT	
Product Name:	IPTV Receiver
Test Model:	Amigo 7X V2
Sample ID:	20210821-21-2#
Environmental Conditions	
Temperature:	24°C
Relative Humidity:	52%
Test Voltage:	DC12V
Test Engineer:	Hejingchang
Note: For a more detailed features description, please refer to the report TB-FCC183404	

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1. 20dB Emission Bandwidth

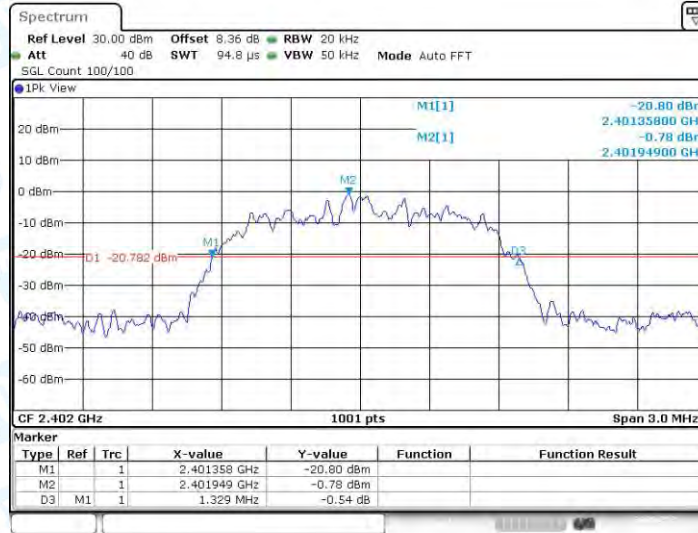
1.1. Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.981	2401.526	2402.507	---	PASS
		2441	0.978	2440.523	2441.501	---	PASS
		2480	0.969	2479.526	2480.495	---	PASS
2DH5	Ant1	2402	1.329	2401.358	2402.687	---	PASS
		2441	1.332	2440.352	2441.684	---	PASS
		2480	1.335	2479.340	2480.675	---	PASS
3DH5	Ant1	2402	1.284	2401.391	2402.675	---	PASS
		2441	1.227	2440.421	2441.648	---	PASS
		2480	1.245	2479.415	2480.660	---	PASS

1.2. Test Graphs

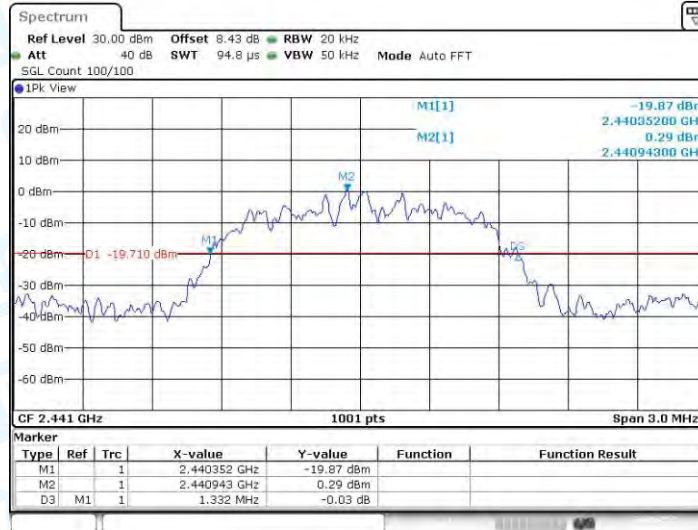


2DH5_Ant1_2402



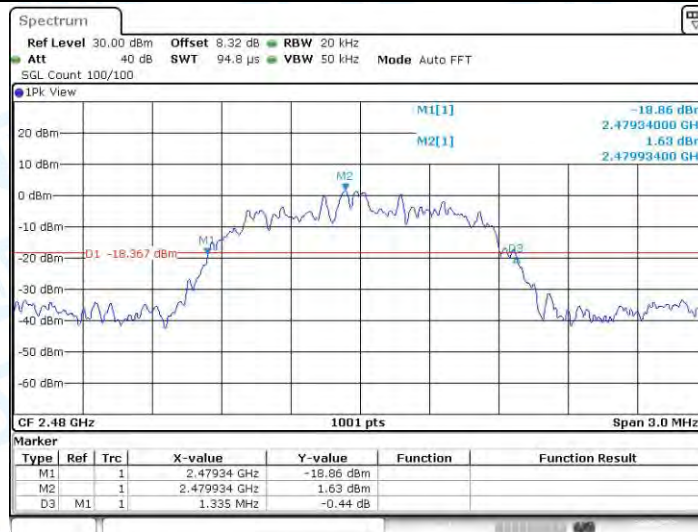
Date: 24.AUG.2021 10:38:35

2DH5_Ant1_2441



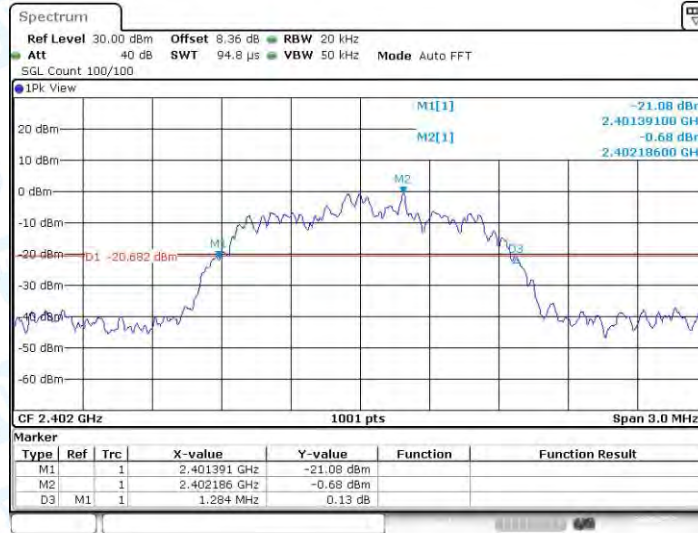
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2DH5_Ant1_2480

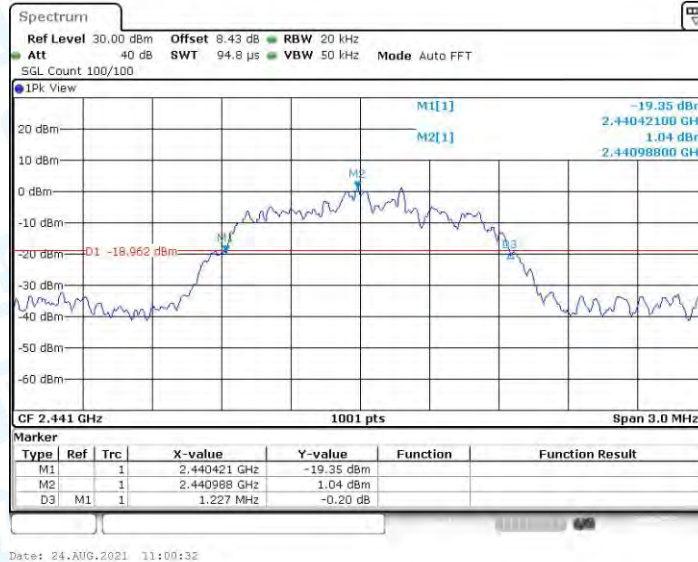


Date: 24.AUG.2021 10:54:21

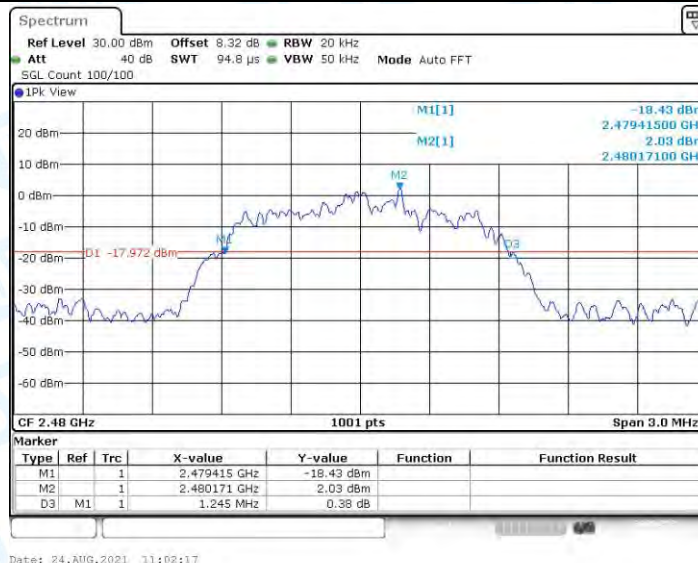
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

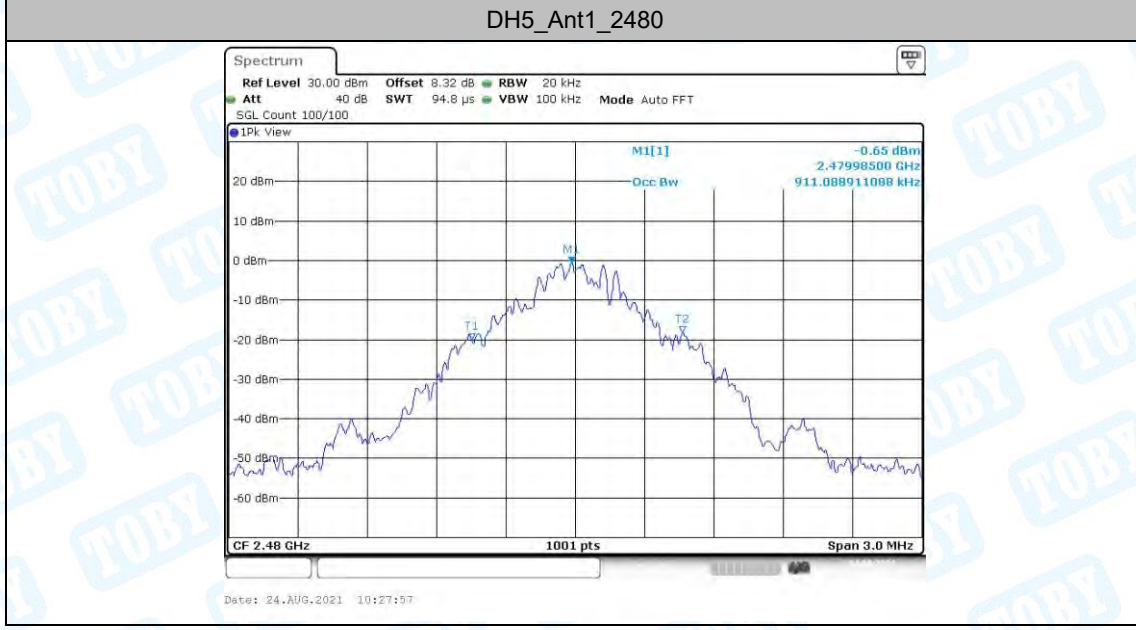
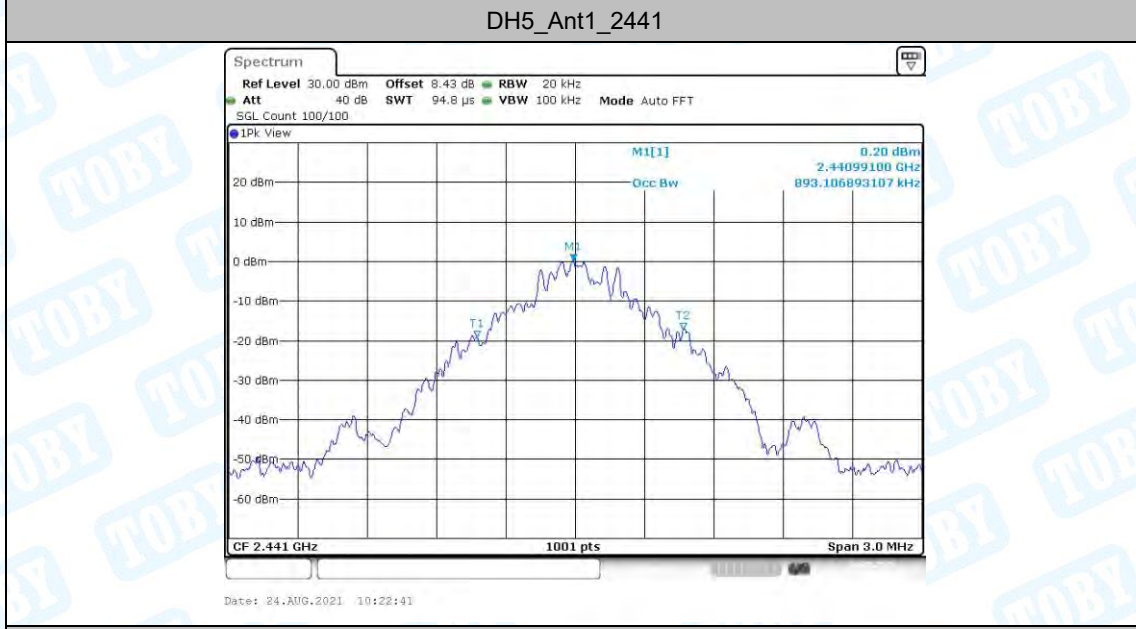
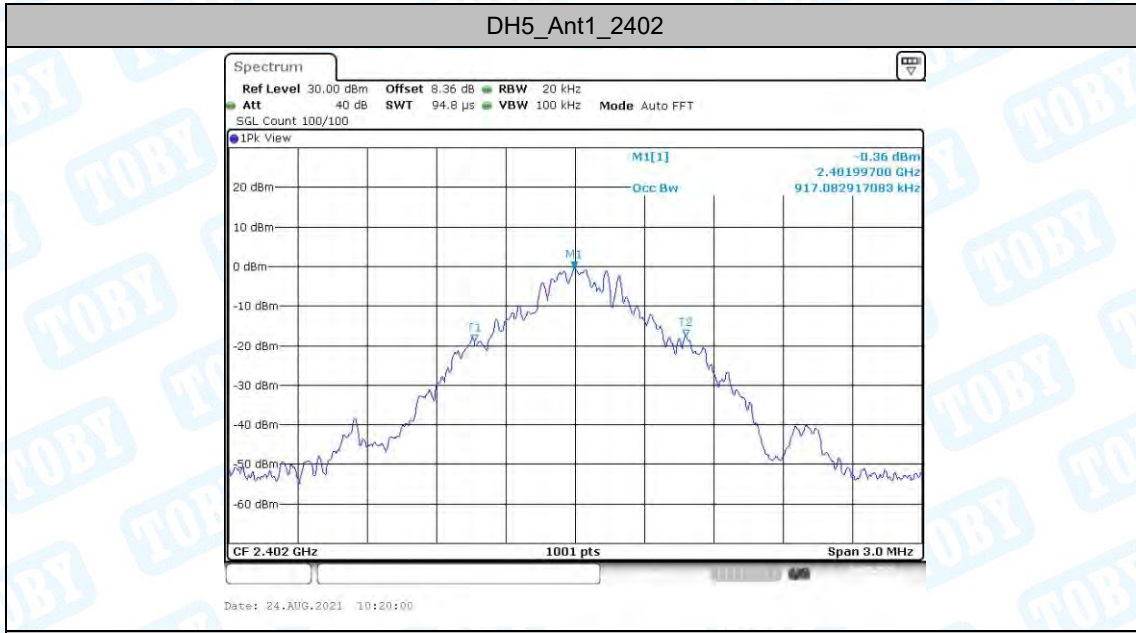


2. Occupied Channel Bandwidth

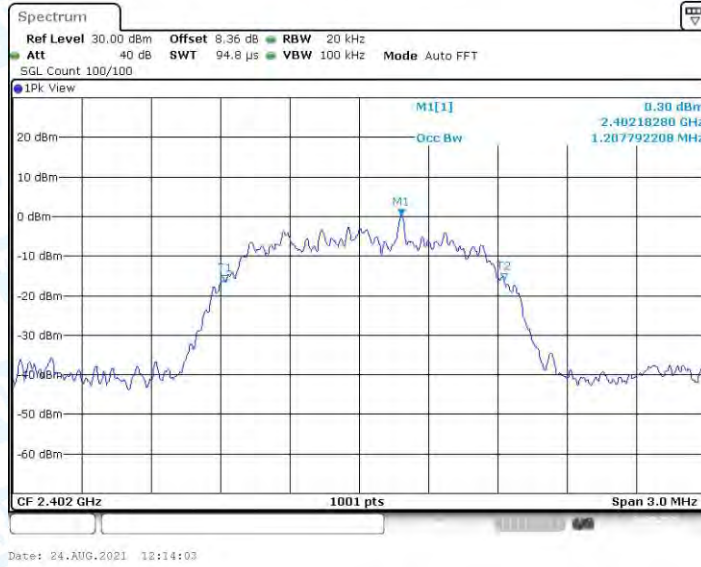
2.1. Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.917	2401.562	2402.480	---	PASS
		2441	0.893	2440.574	2441.468	---	PASS
		2480	0.911	2479.553	2480.465	---	PASS
2DH5	Ant1	2402	1.208	2401.419	2402.626	---	PASS
		2441	1.193	2440.404	2441.596	---	PASS
		2480	1.187	2479.401	2480.587	---	PASS
3DH5	Ant1	2402	1.169	2401.449	2402.617	---	PASS
		2441	1.181	2440.437	2441.617	---	PASS
		2480	1.175	2479.434	2480.608	---	PASS

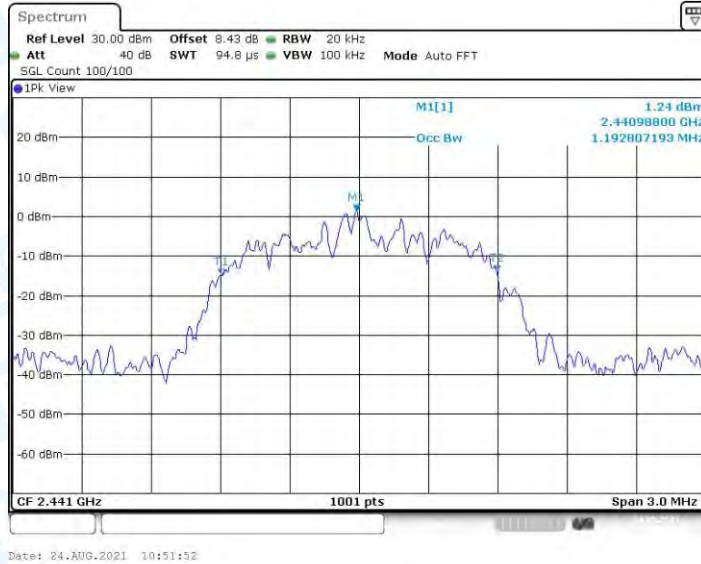
2.2. Test Graphs



2DH5_Ant1_2402



2DH5_Ant1_2441



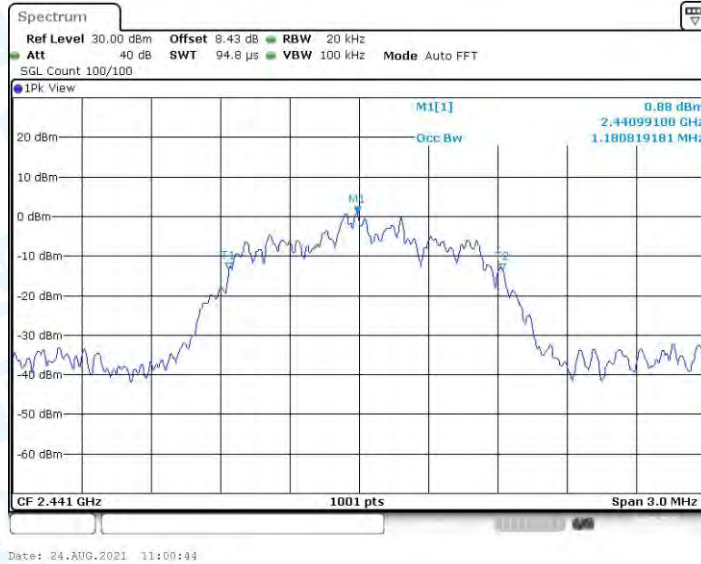
2DH5_Ant1_2480



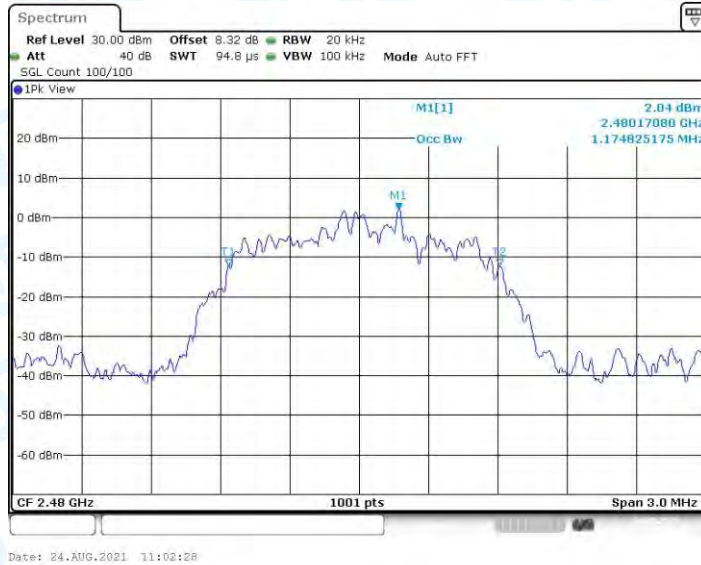
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

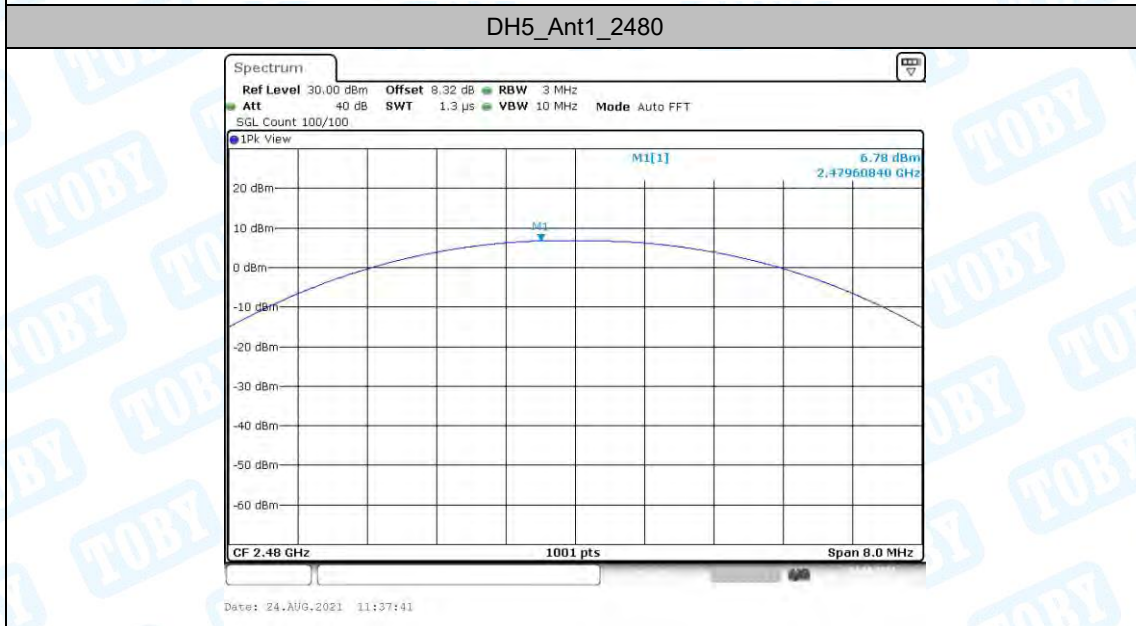
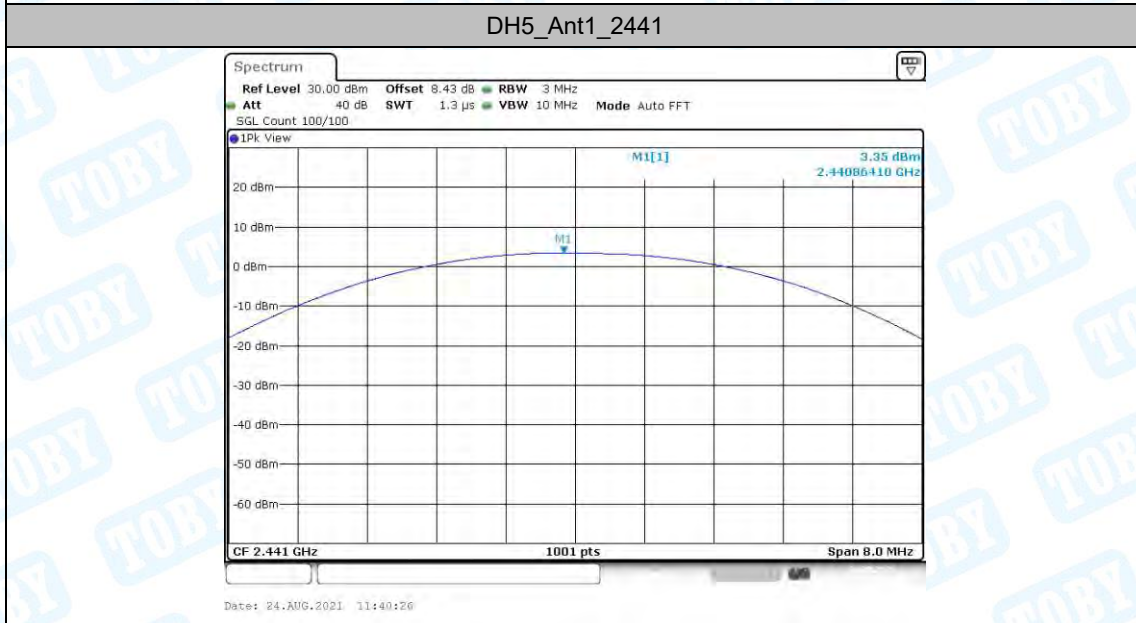
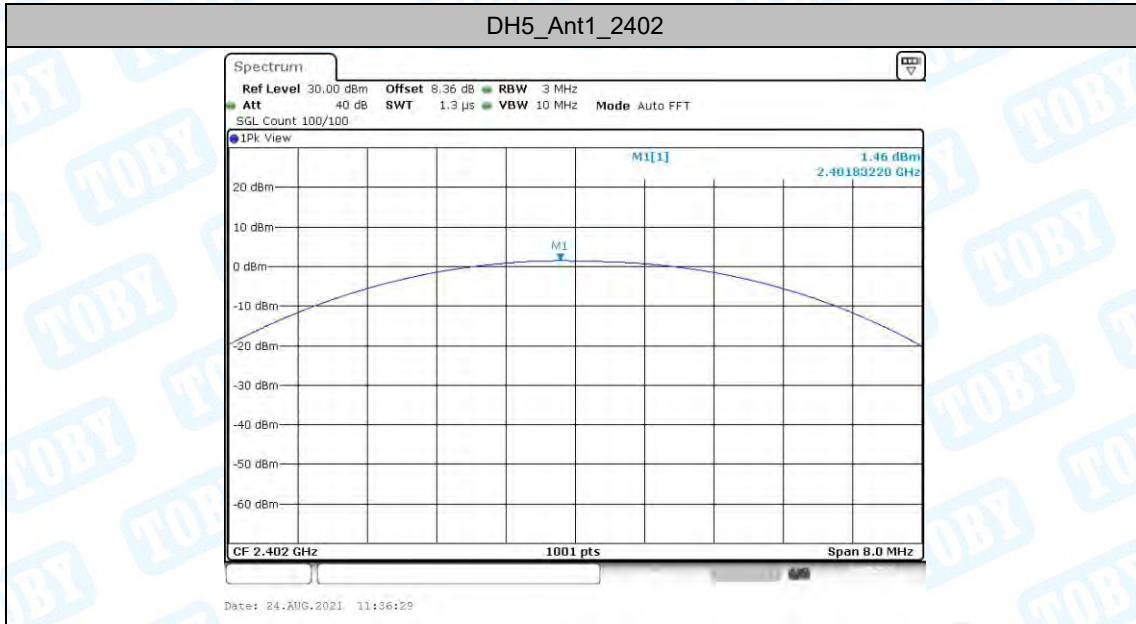


3. Maximum conducted output power

3.1. Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	1.46	≤20.97	PASS
		2441	3.35	≤20.97	PASS
		2480	6.78	≤20.97	PASS
2DH5	Ant1	2402	6.35	≤20.97	PASS
		2441	7.65	≤20.97	PASS
		2480	8.6	≤20.97	PASS
3DH5	Ant1	2402	7.08	≤20.97	PASS
		2441	7.68	≤20.97	PASS
		2480	8.74	≤20.97	PASS

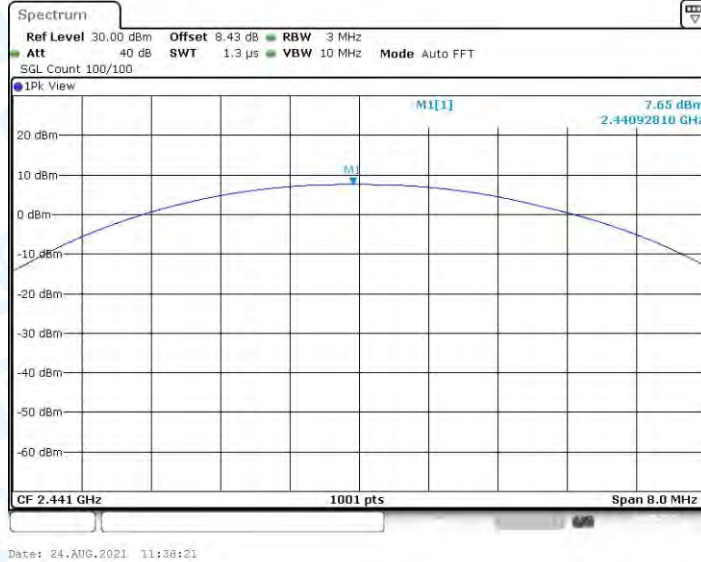
3.2. Test Graphs



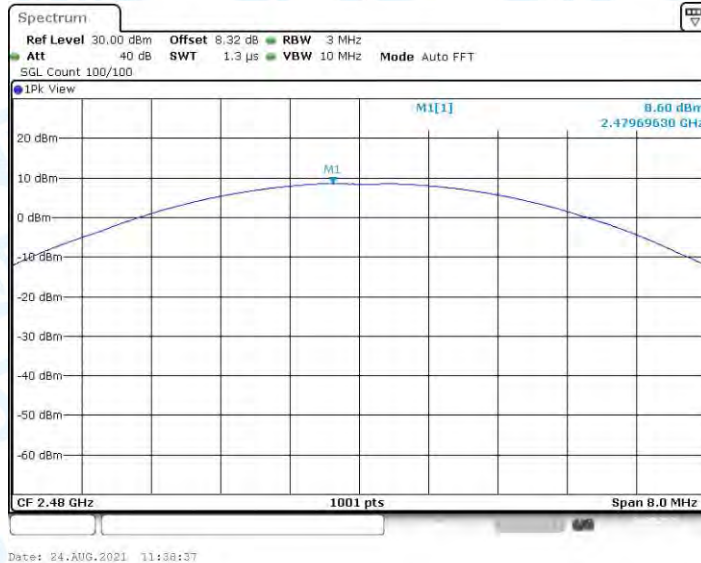
2DH5_Ant1_2402

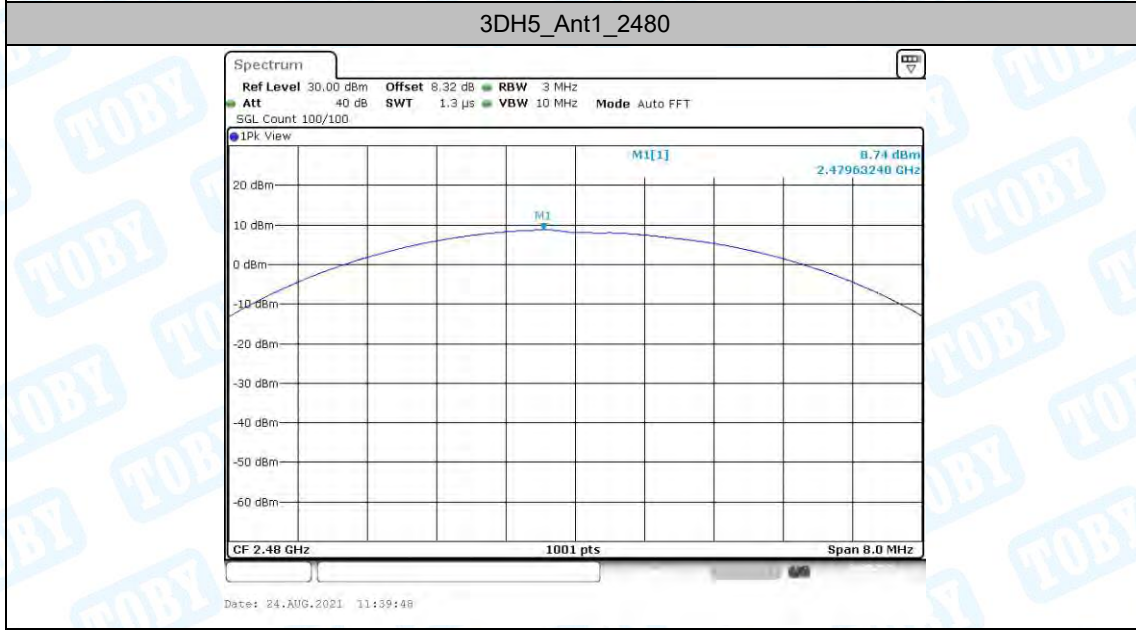
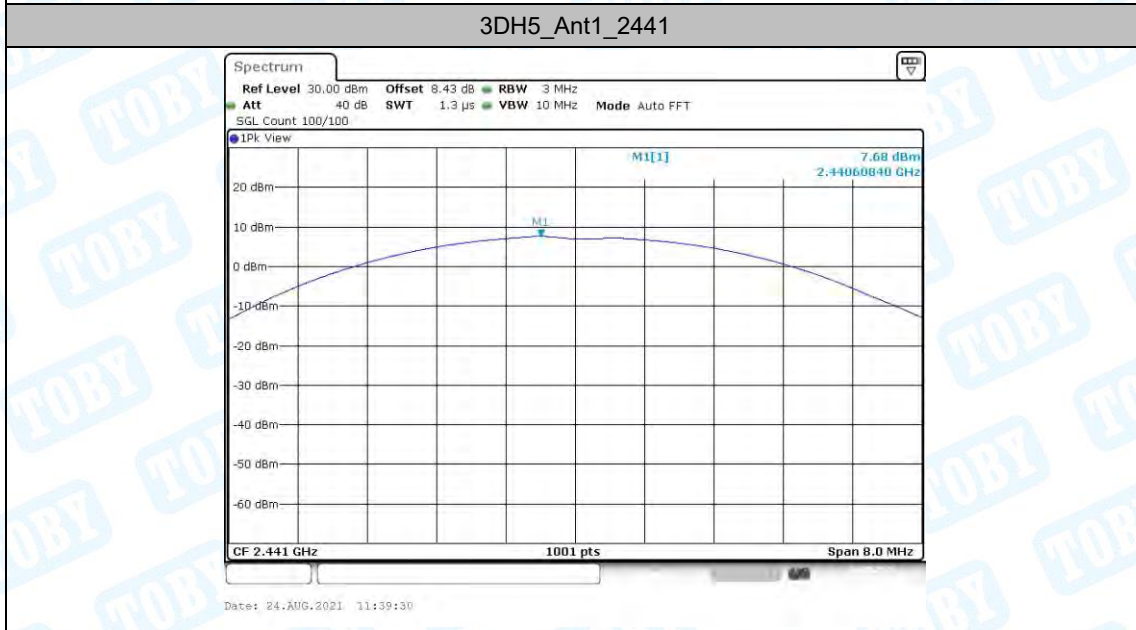
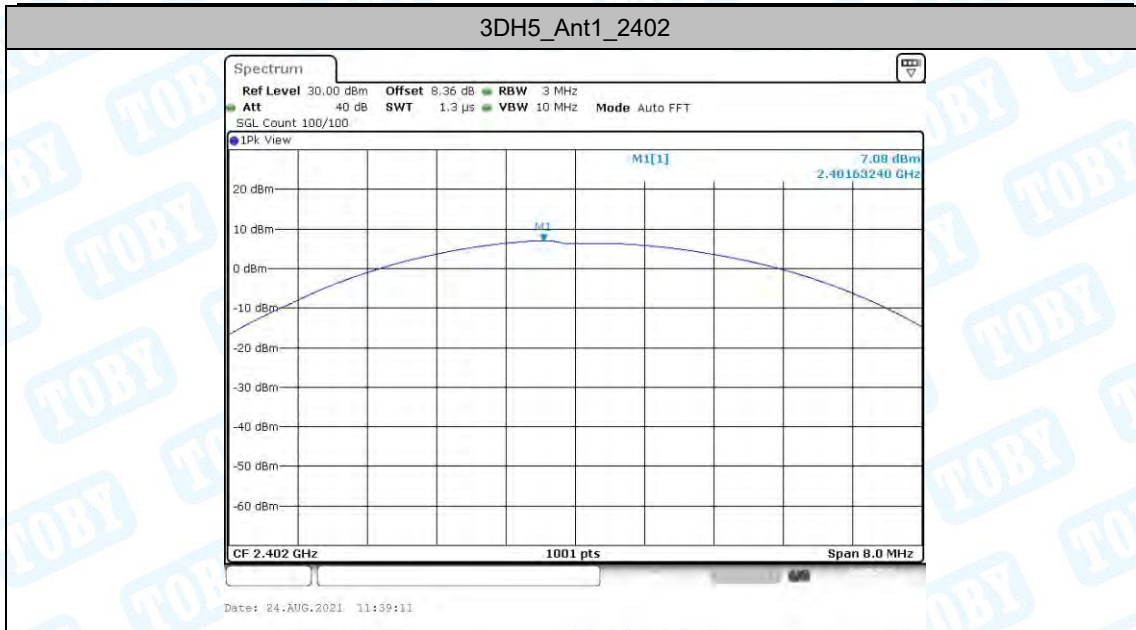


2DH5_Ant1_2441



2DH5_Ant1_2480



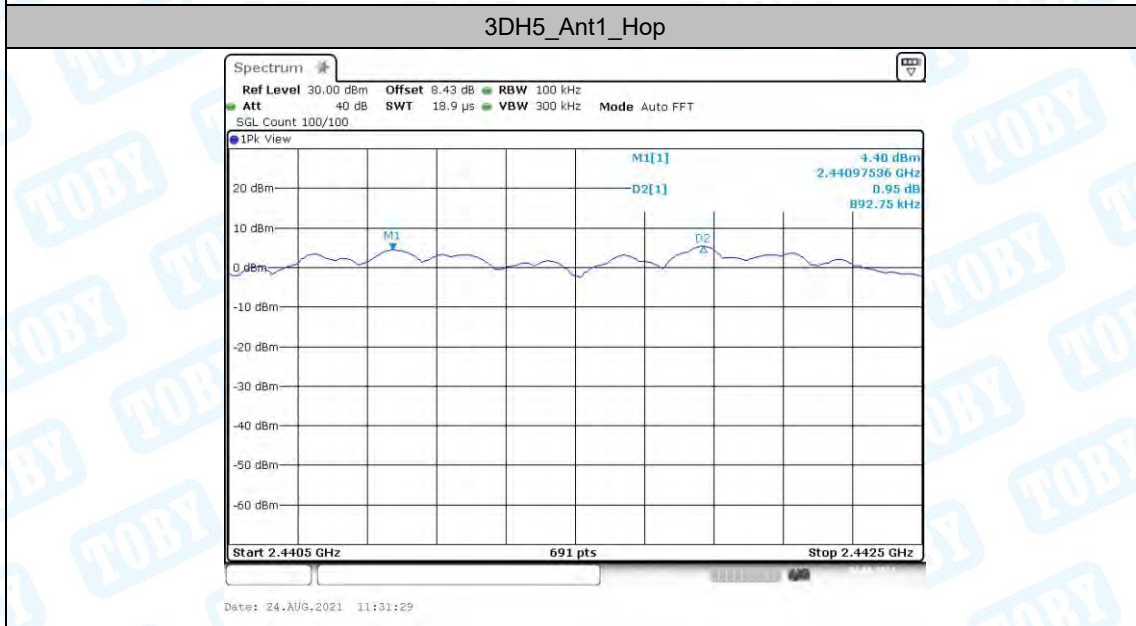
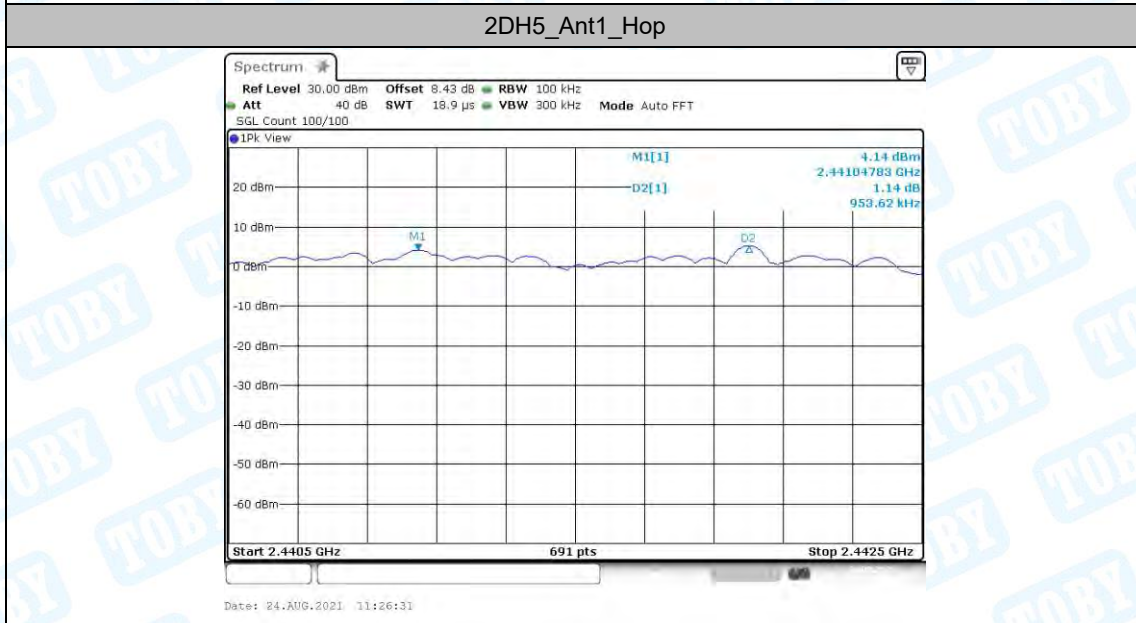
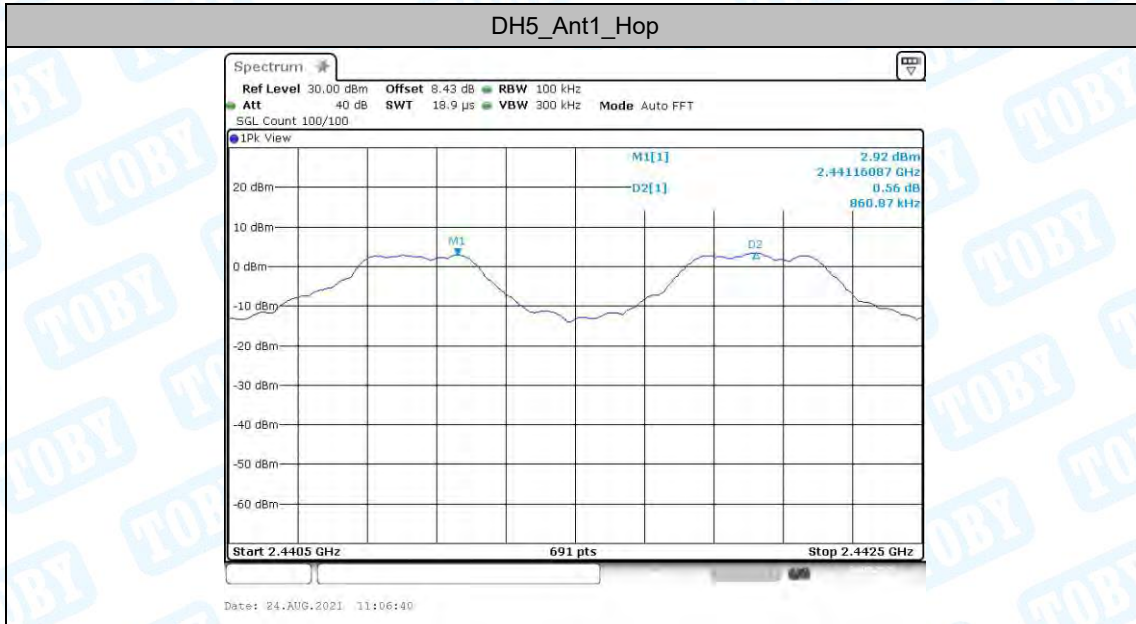


4. Carrier frequency separation

4.1. Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.861	≥0.654	PASS
2DH5	Ant1	Hop	0.954	≥0.890	PASS
3DH5	Ant1	Hop	0.893	≥0.856	PASS

4.2. Test Graphs

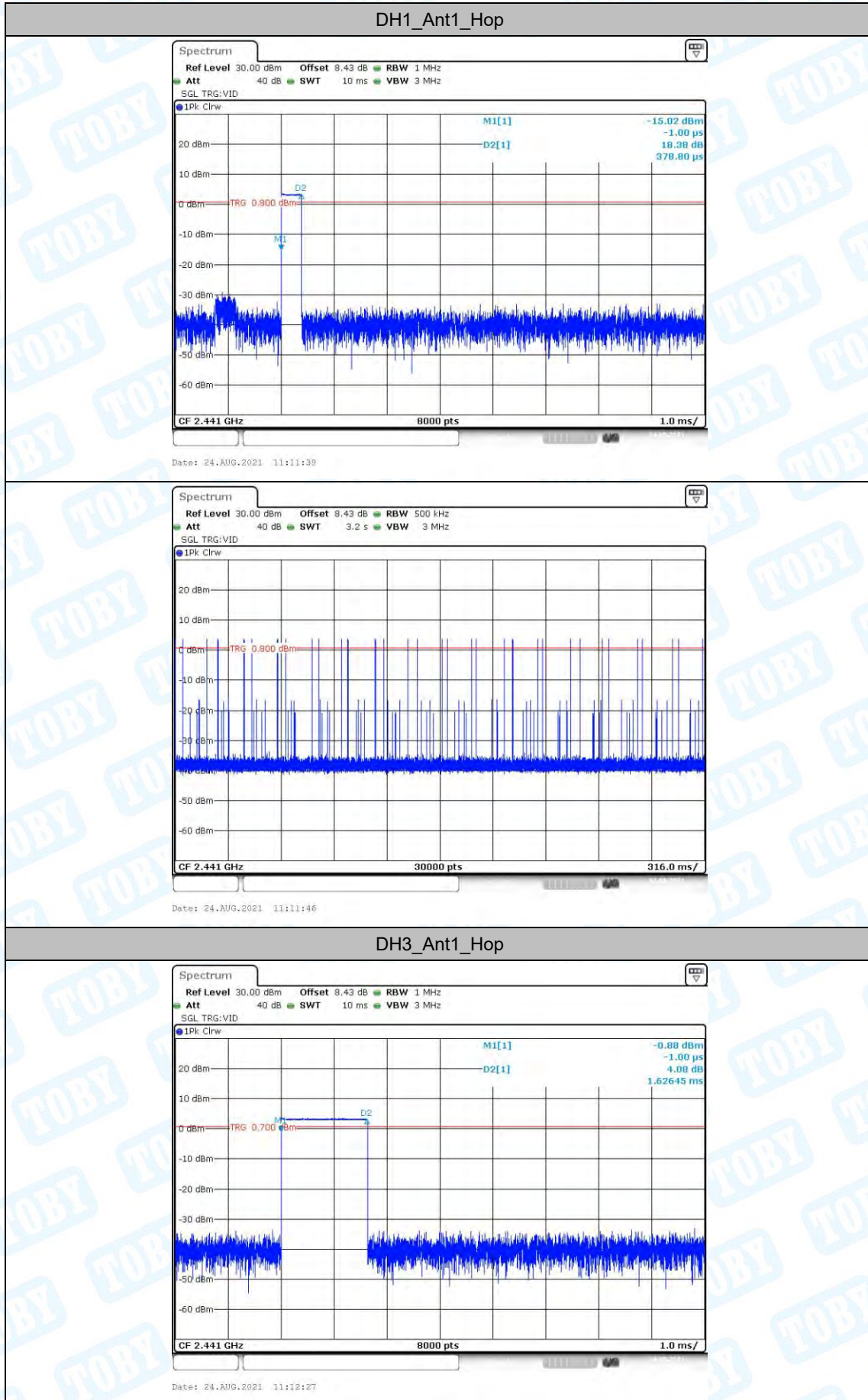


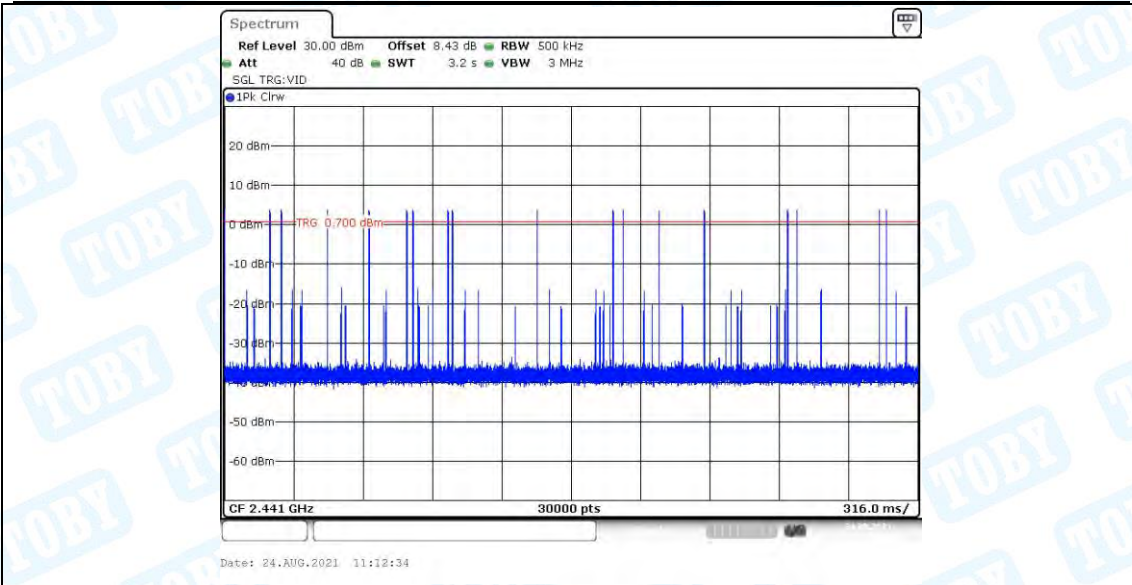
5. Time of occupancy

5.1. Test Result

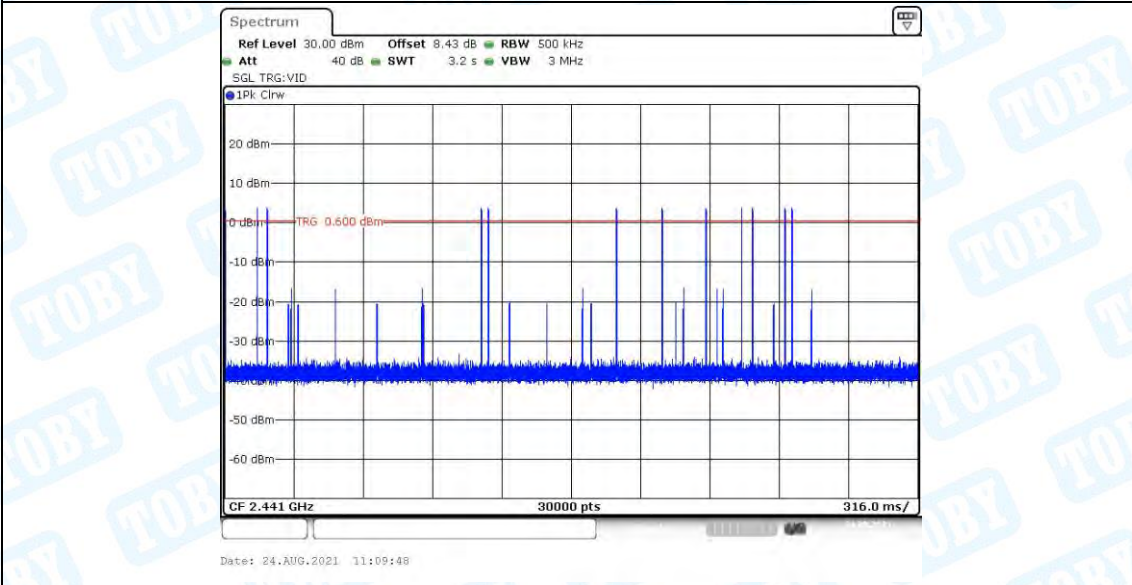
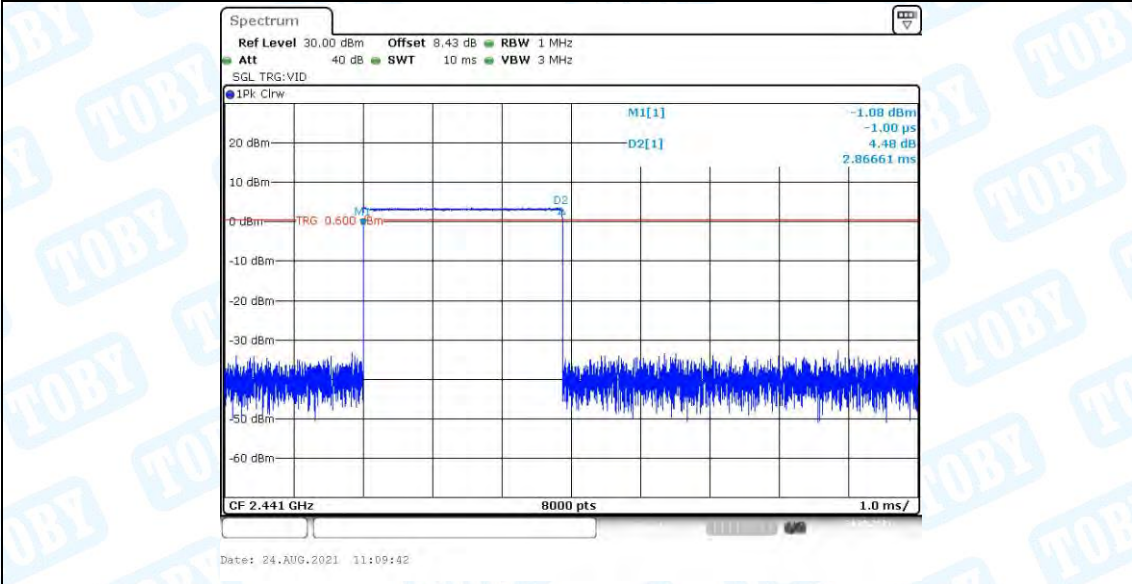
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.38	330	0.125	≤0.4	PASS
DH3	Ant1	Hop	1.63	180	0.293	≤0.4	PASS
DH5	Ant1	Hop	2.87	120	0.344	≤0.4	PASS
2DH1	Ant1	Hop	0.38	320	0.121	≤0.4	PASS
2DH3	Ant1	Hop	1.63	150	0.245	≤0.4	PASS
2DH5	Ant1	Hop	2.87	80	0.23	≤0.4	PASS
3DH1	Ant1	Hop	0.38	320	0.123	≤0.4	PASS
3DH3	Ant1	Hop	1.63	160	0.26	≤0.4	PASS
3DH5	Ant1	Hop	2.87	100	0.287	≤0.4	PASS

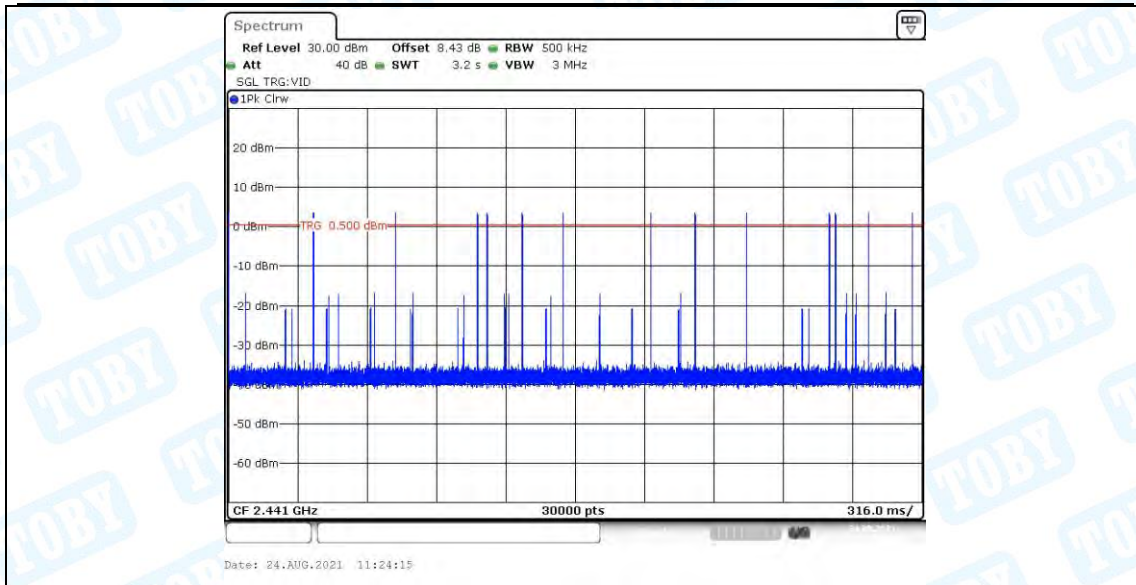
5.2. Test Graphs



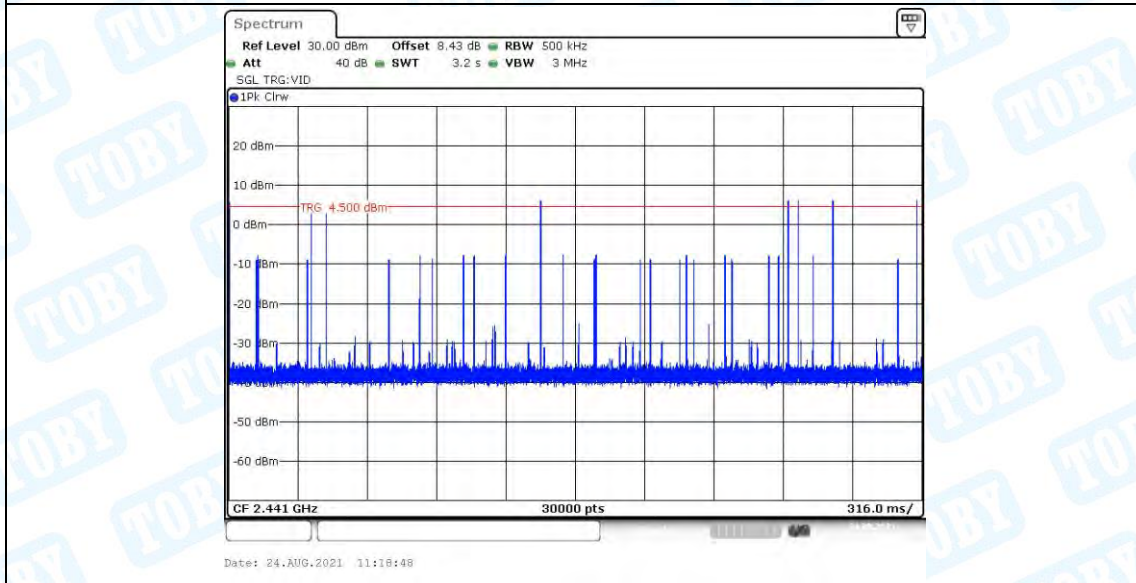
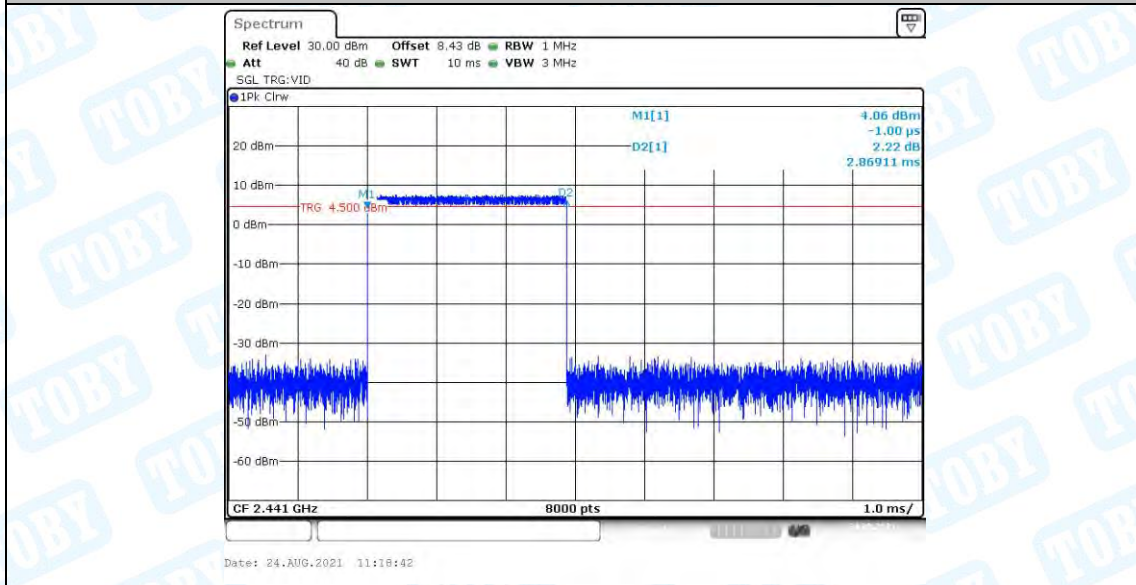


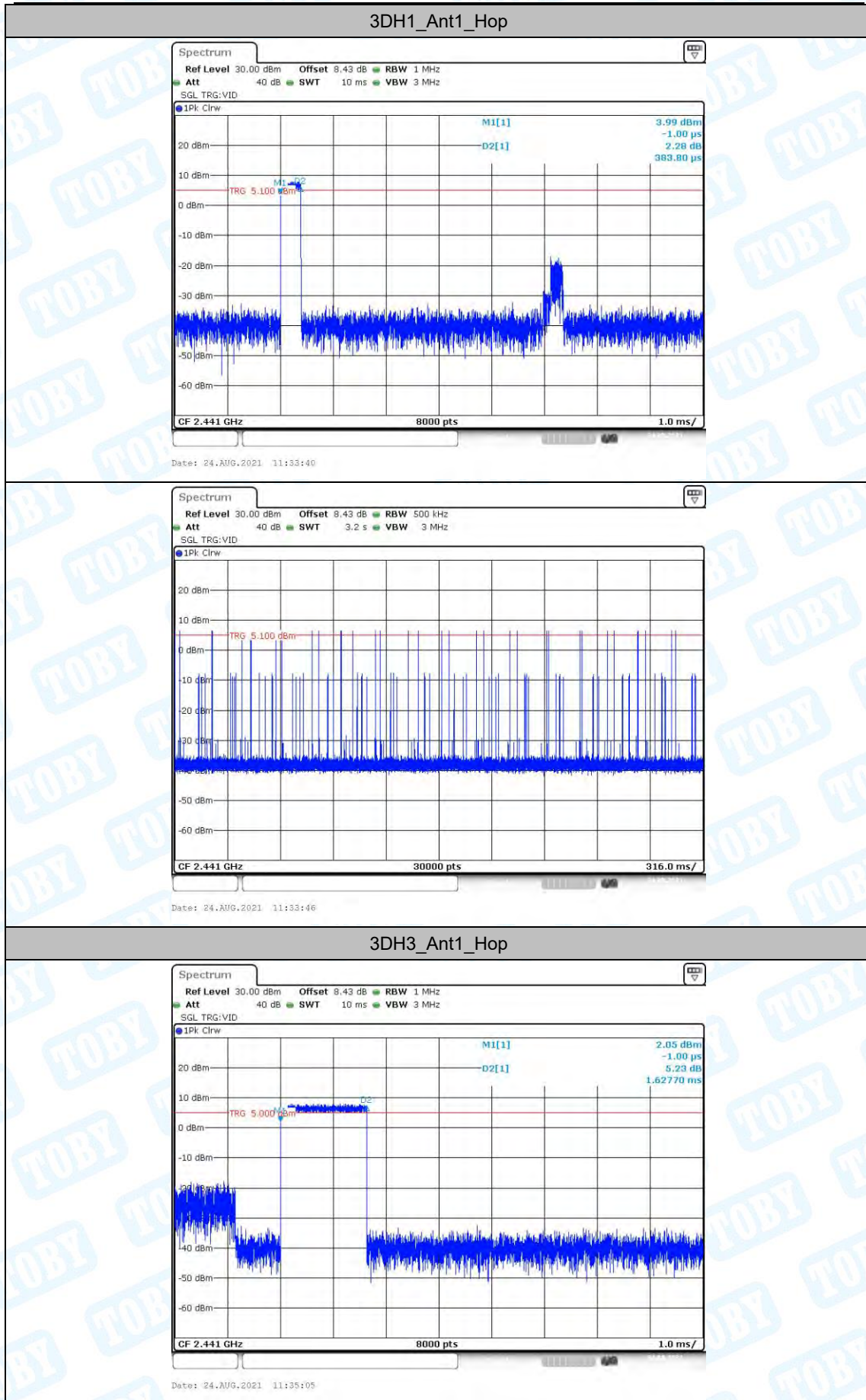
DH5_Ant1_Hop

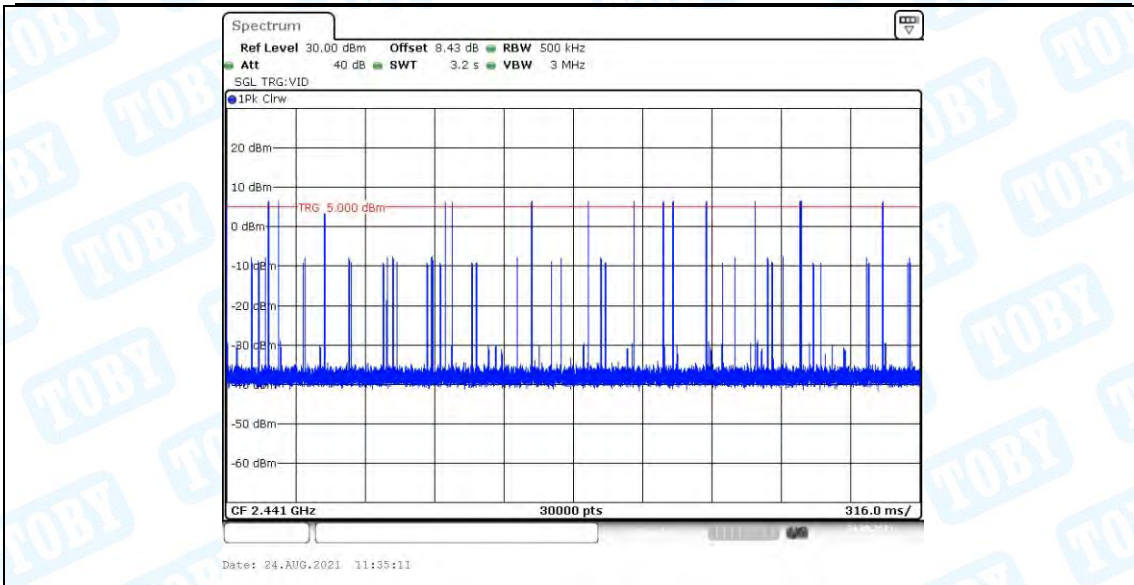




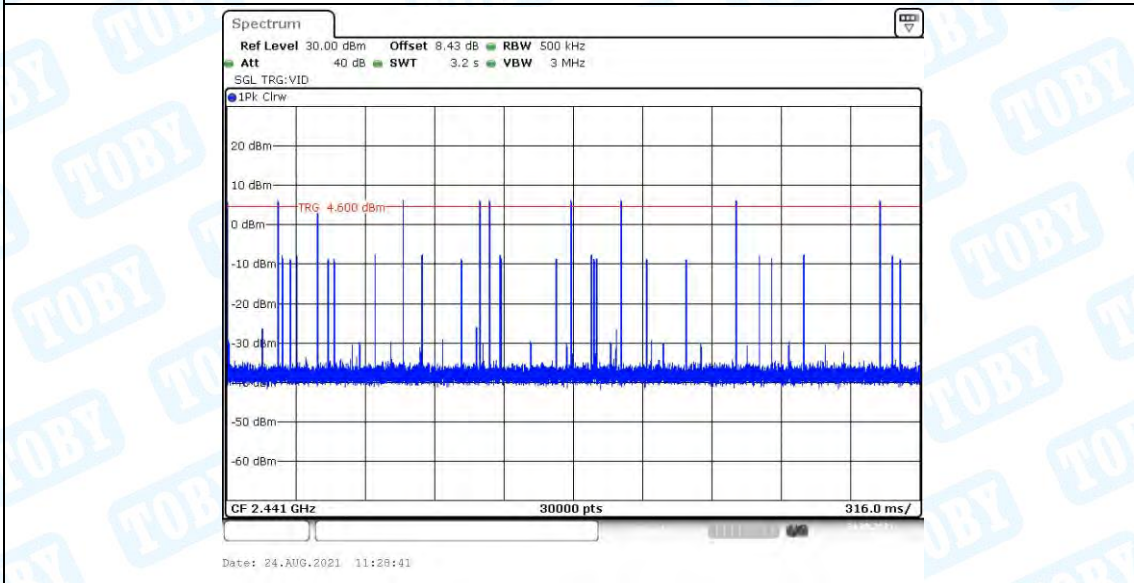
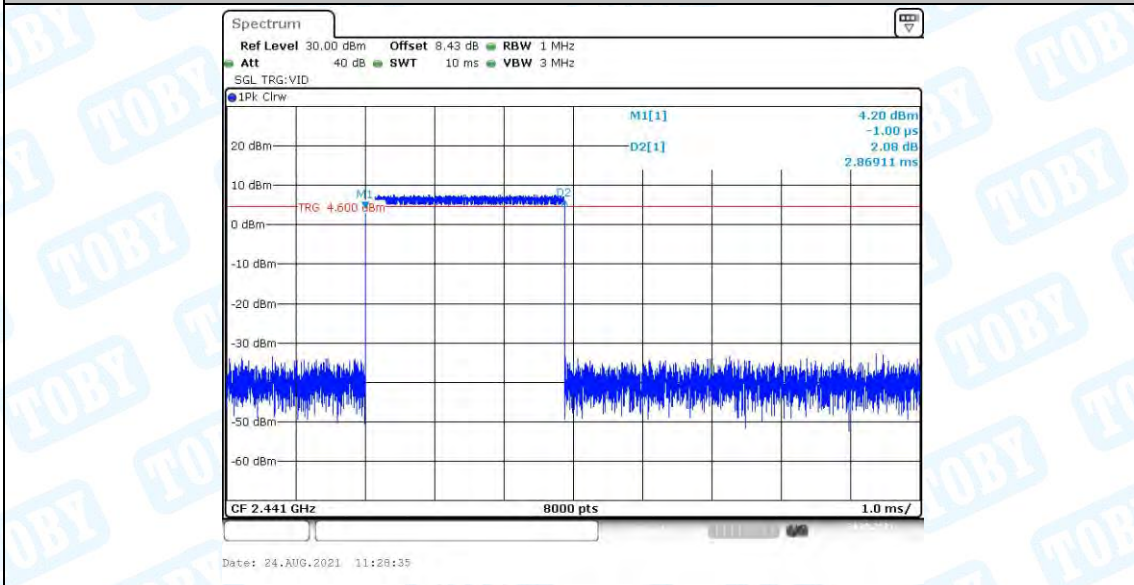
2DH5_Ant1_Hop







3DH5_Ant1_Hop

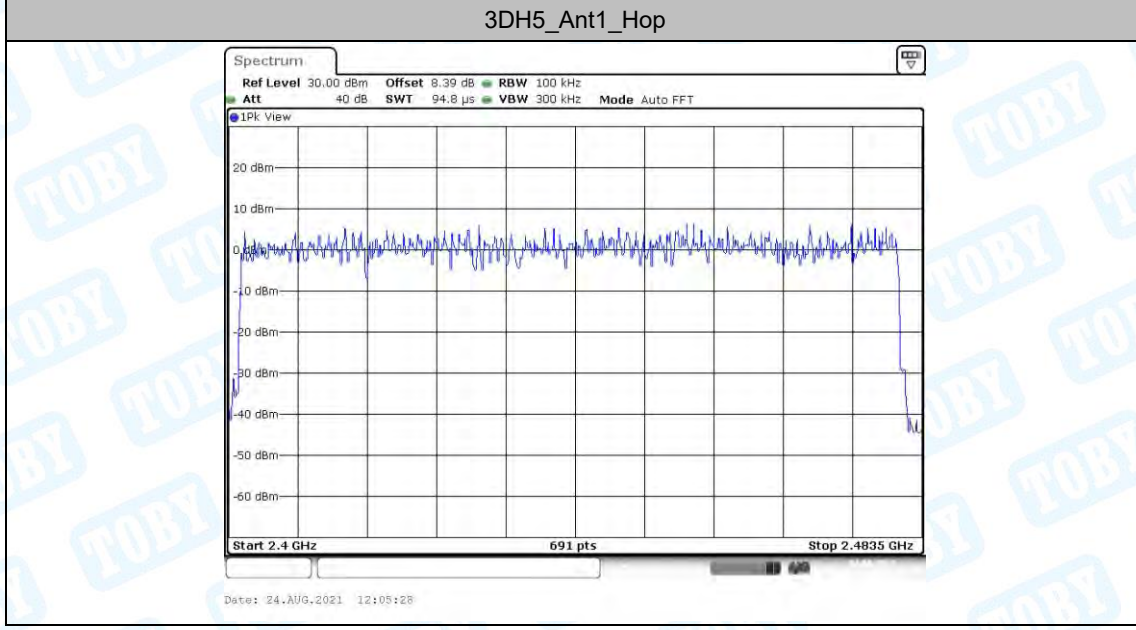
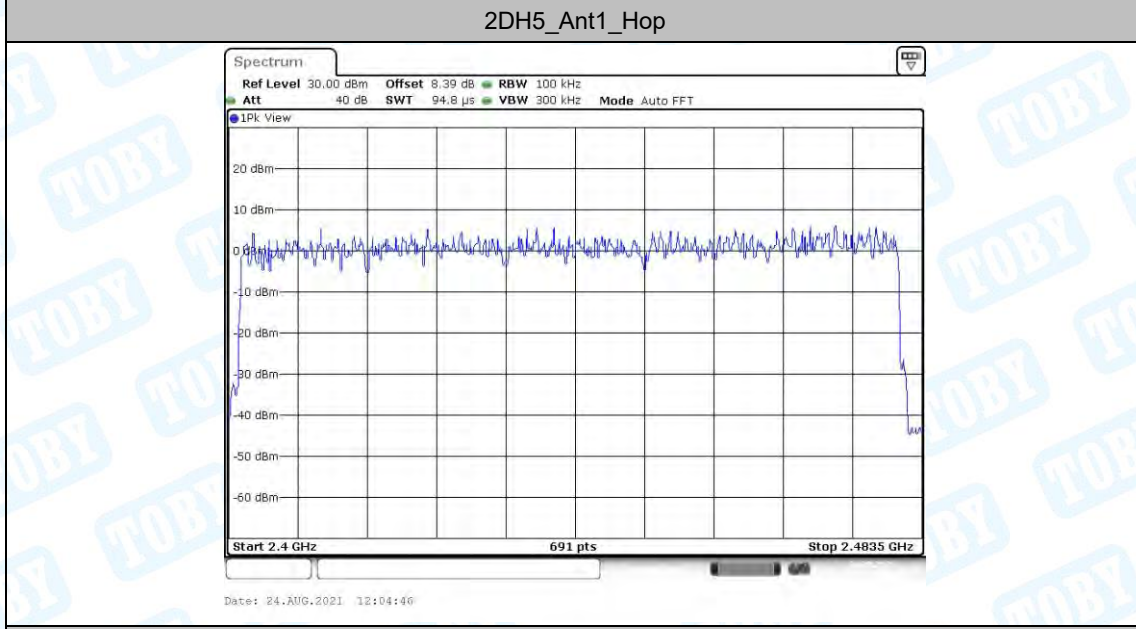
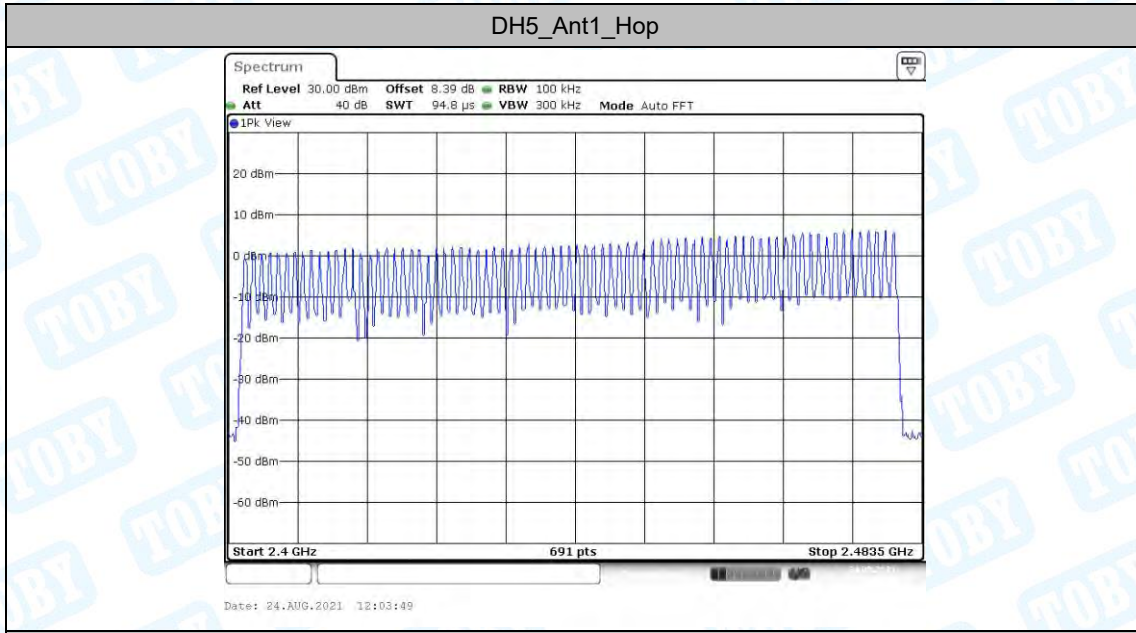


6. Number of hopping channels

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

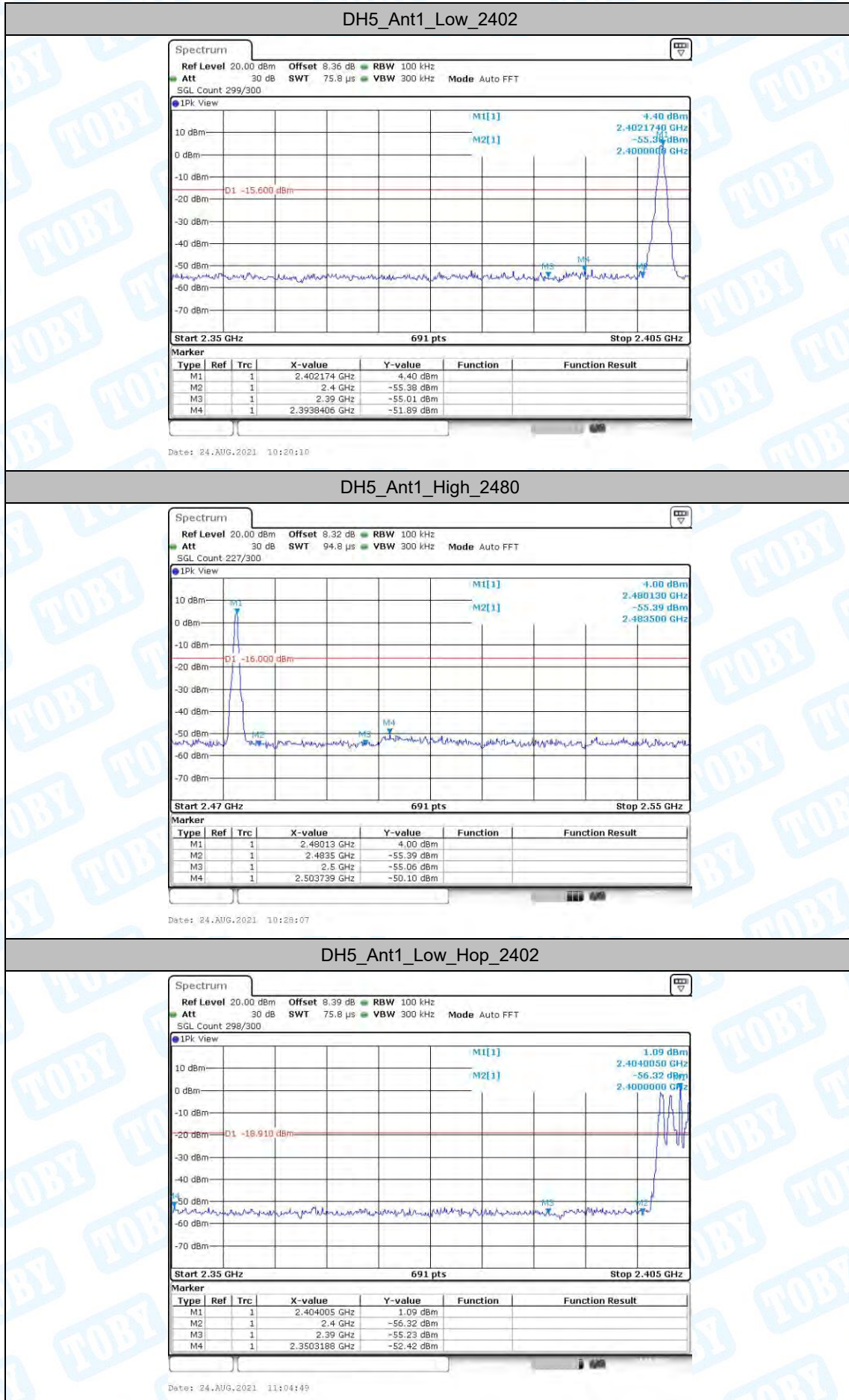


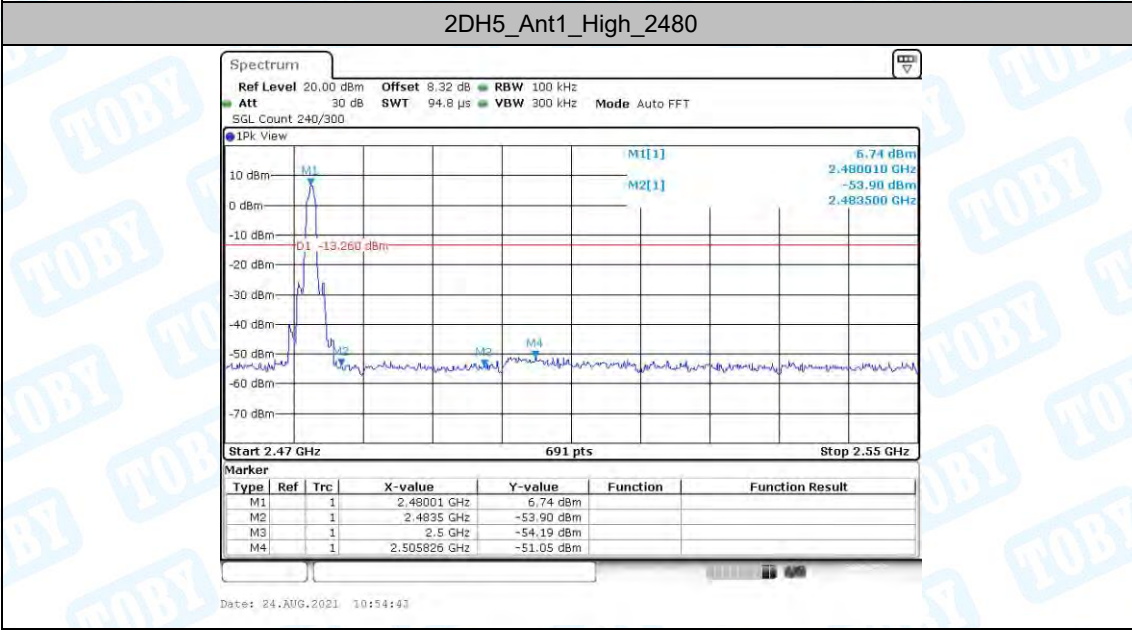
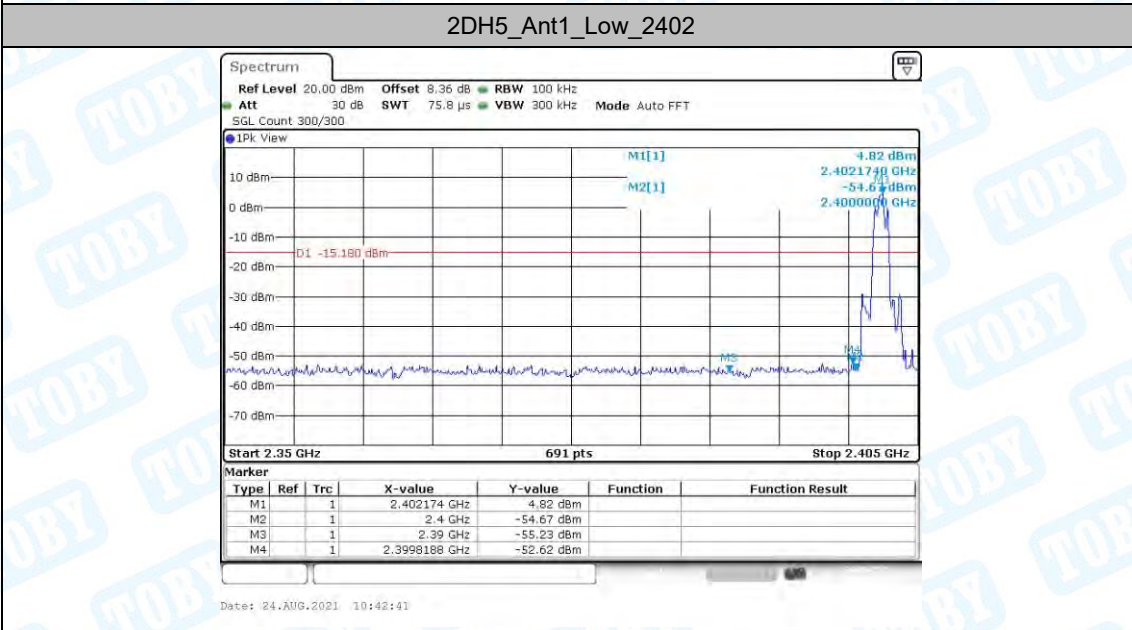
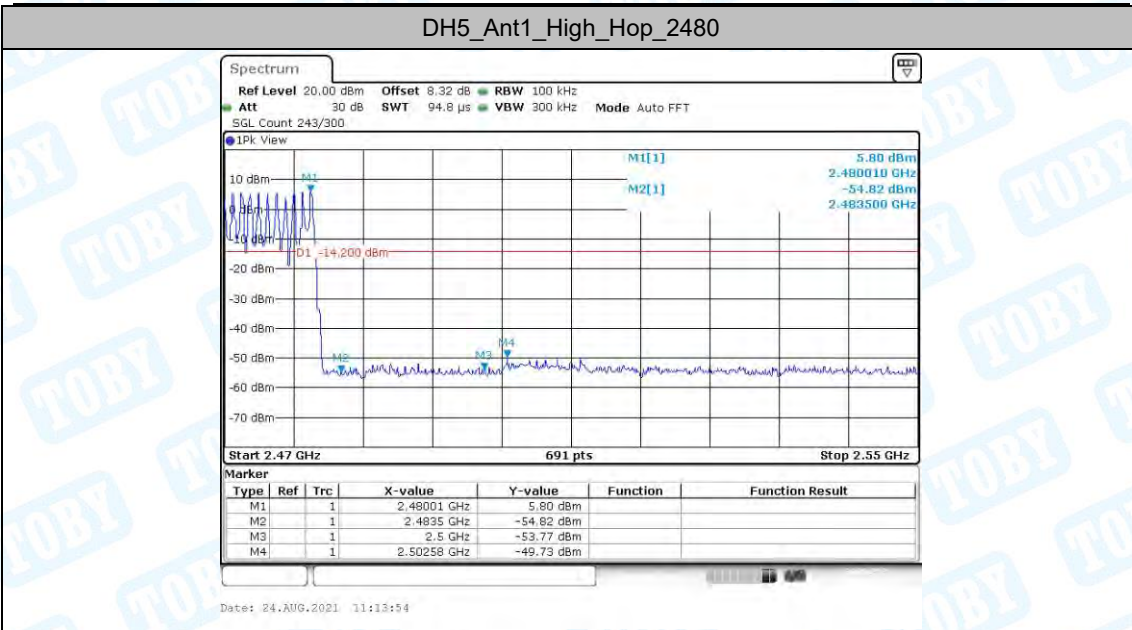
7. Band edge measurements

7.1. Test Result

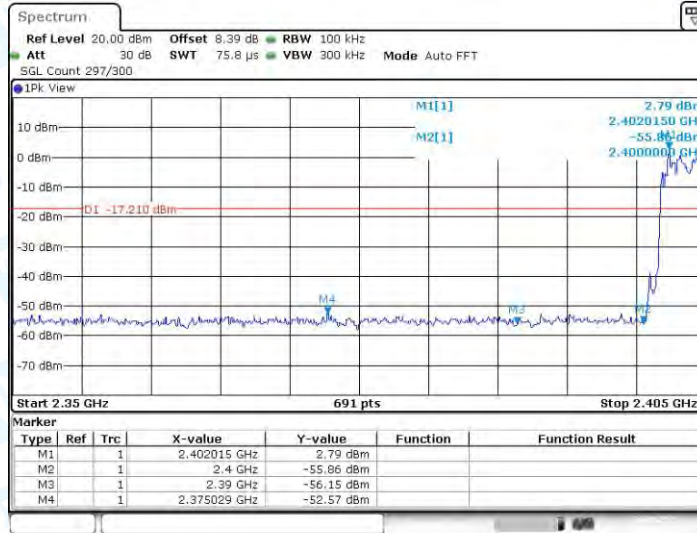
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	4.40	-51.89	≤-15.6	PASS
		High	2480	4.00	-50.1	≤-16	PASS
		Low	Hop_2402	1.09	-52.42	≤-18.91	PASS
		High	Hop_2480	5.80	-49.73	≤-14.2	PASS
2DH5	Ant1	Low	2402	4.82	-52.62	≤-15.18	PASS
		High	2480	6.74	-51.05	≤-13.26	PASS
		Low	Hop_2402	2.79	-52.57	≤-17.21	PASS
		High	Hop_2480	3.15	-49.89	≤-16.85	PASS
3DH5	Ant1	Low	2402	4.61	-51.69	≤-15.39	PASS
		High	2480	6.85	-50.27	≤-13.15	PASS
		Low	Hop_2402	0.73	-51.78	≤-19.27	PASS
		High	Hop_2480	3.32	-51.15	≤-16.68	PASS

7.2. Test Graphs

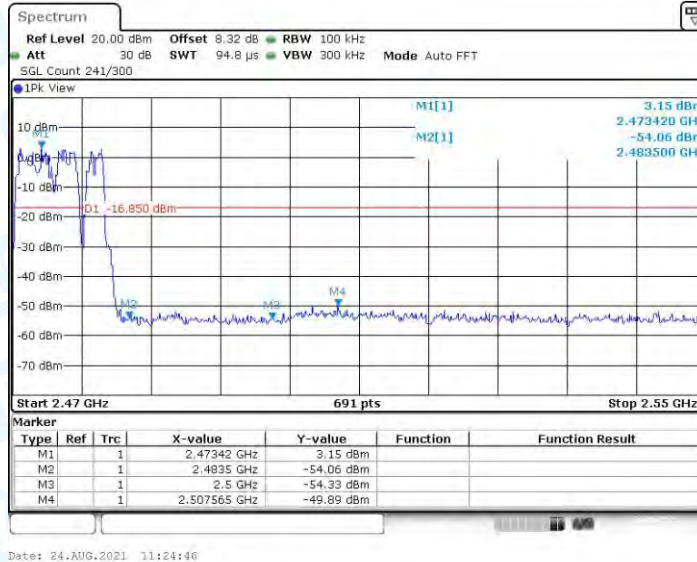




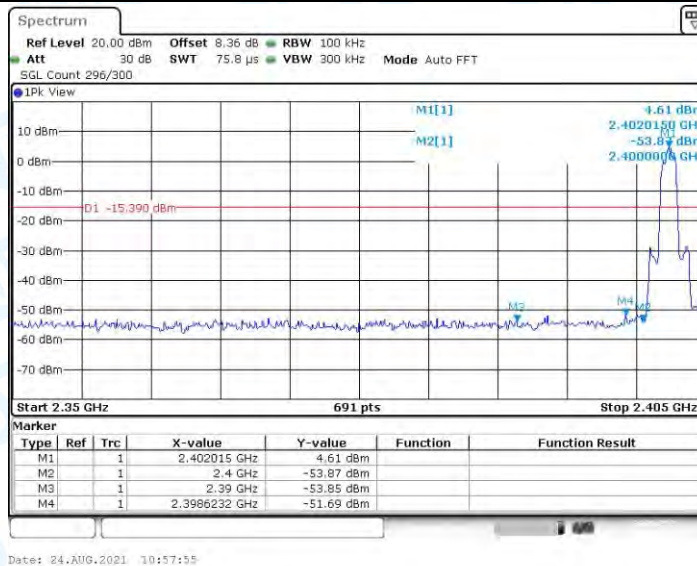
2DH5_Ant1_Low_Hop_2402



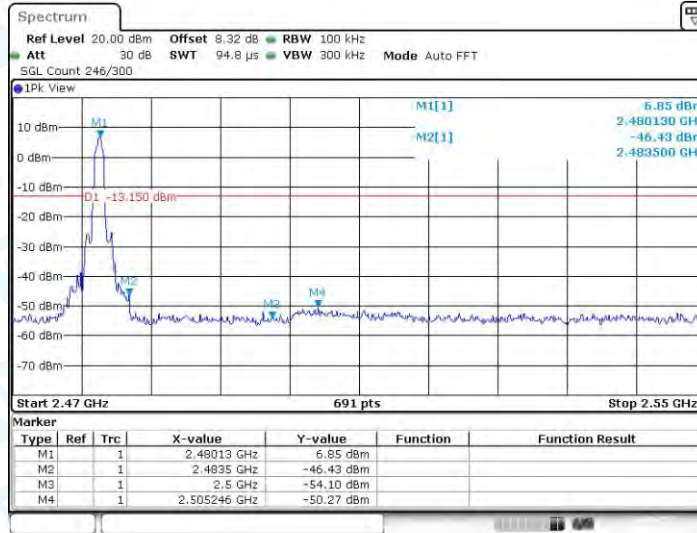
2DH5_Ant1_High_Hop_2480



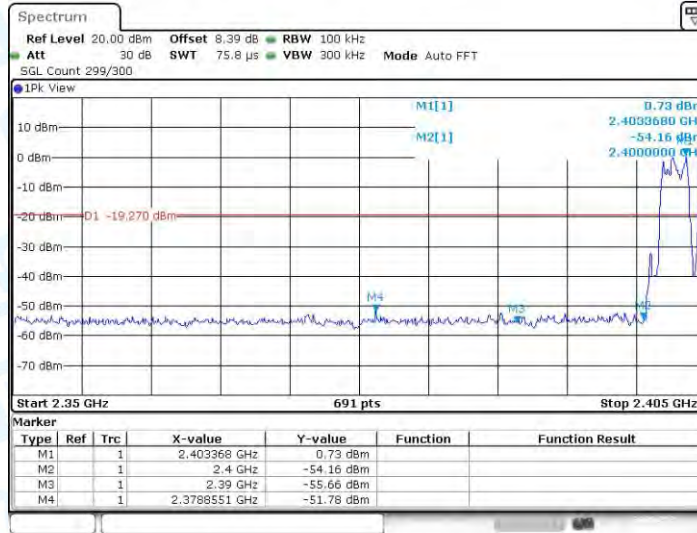
3DH5_Ant1_Low_2402



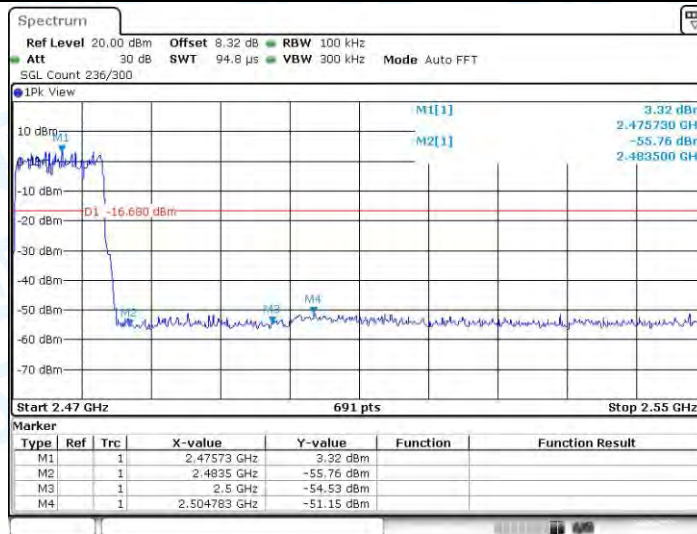
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480

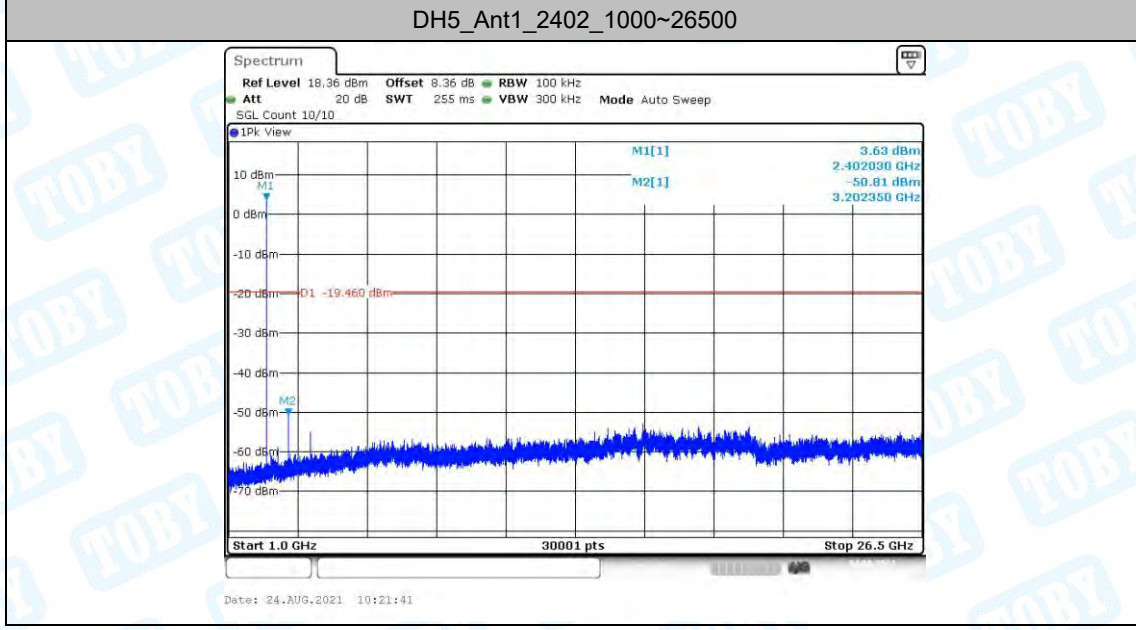
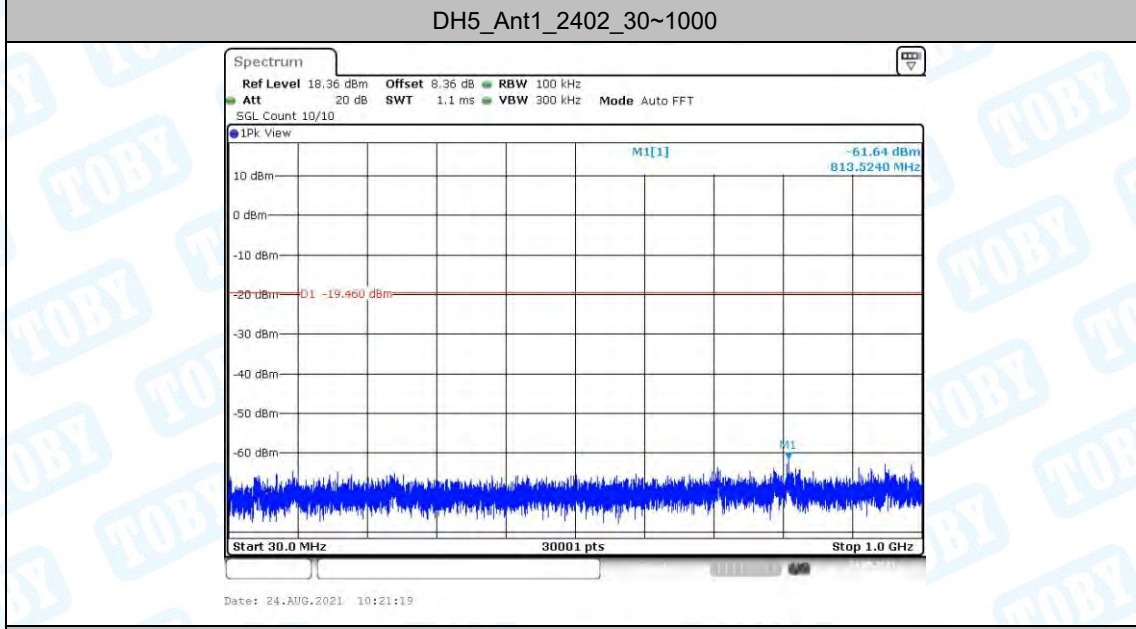
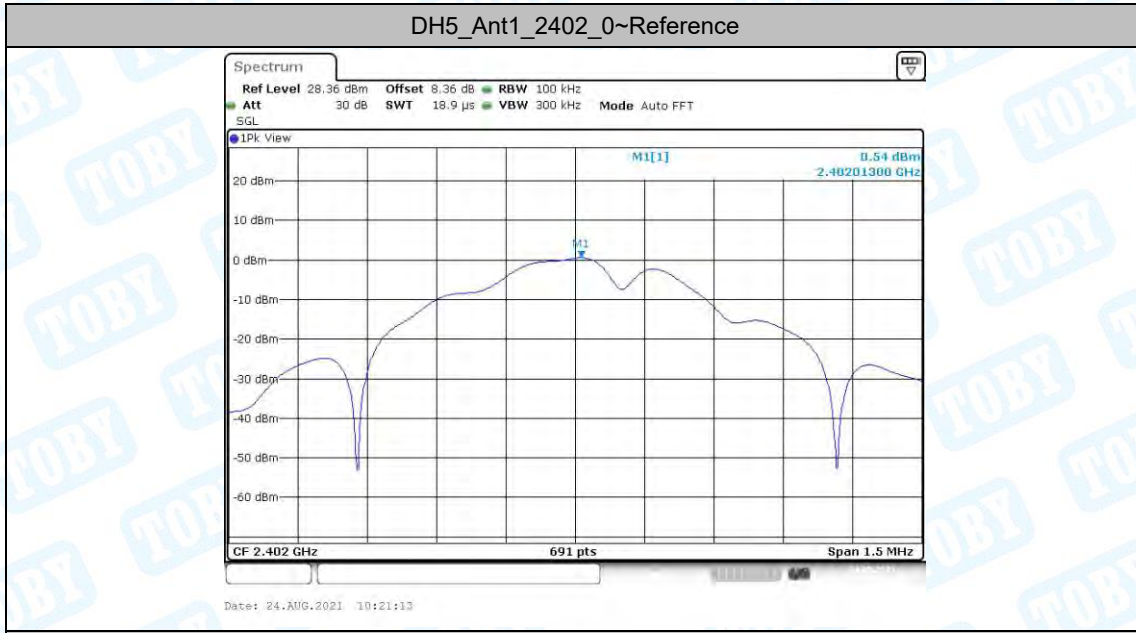


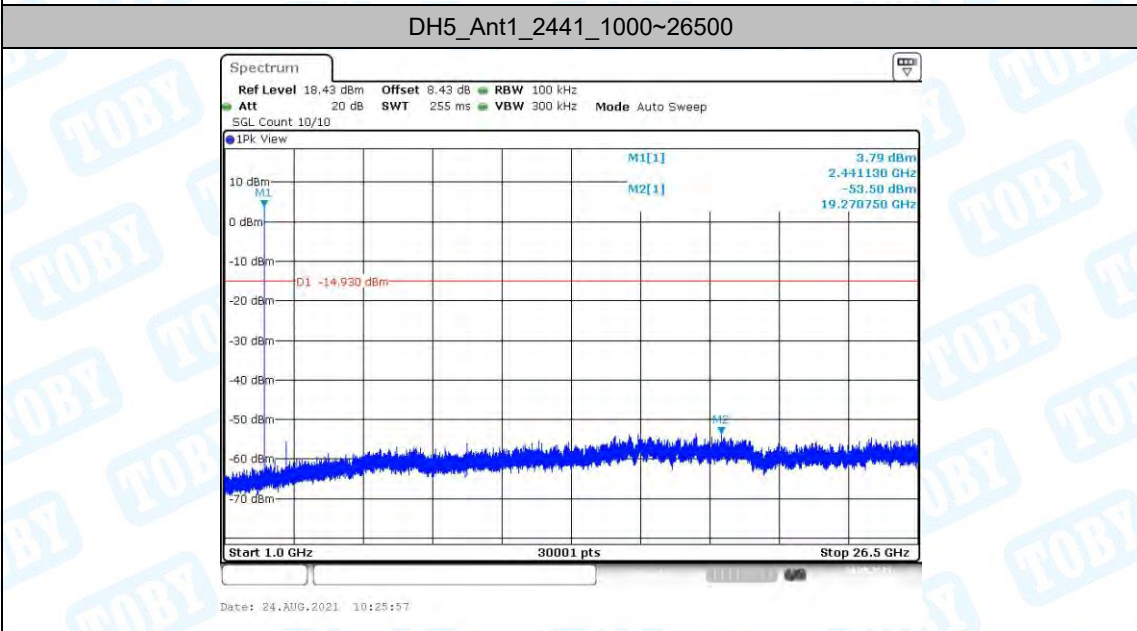
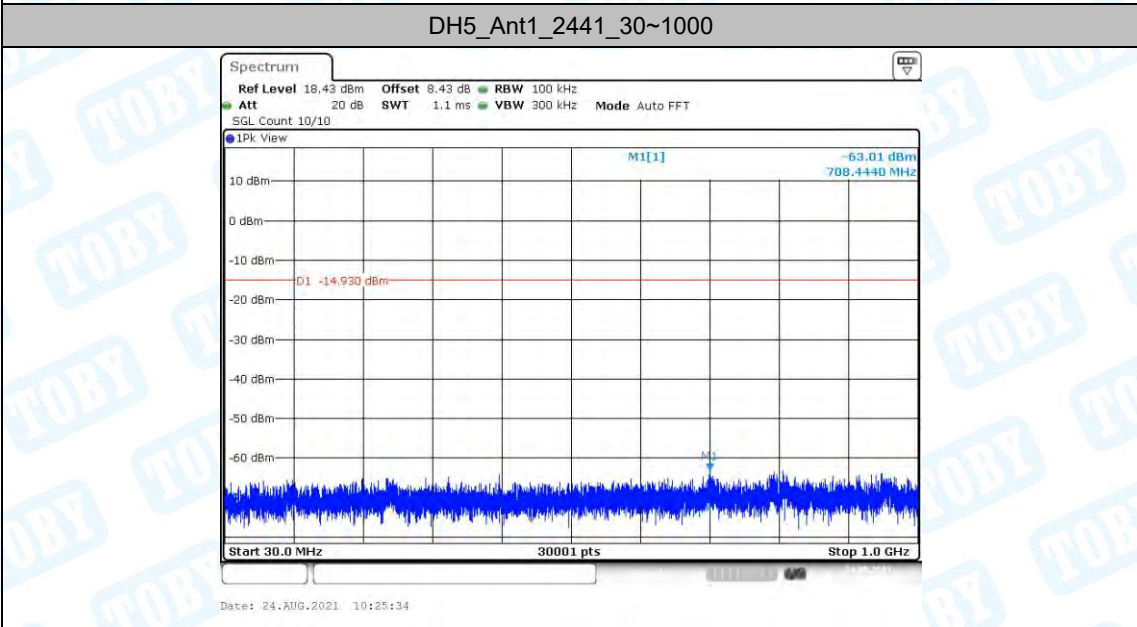
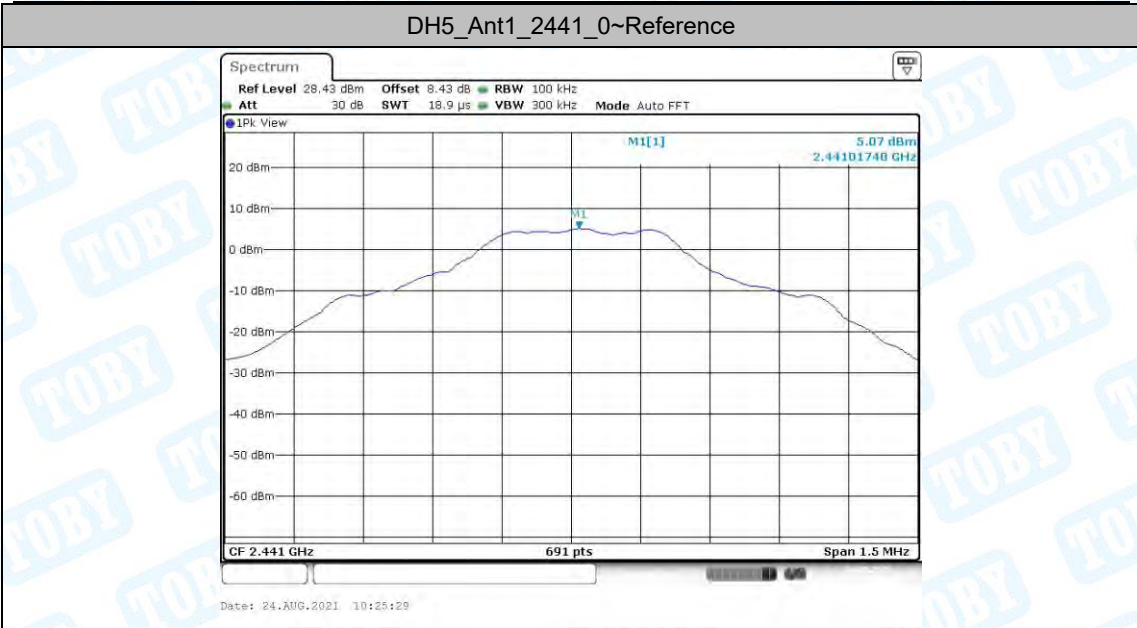
8. Conducted Spurious Emission

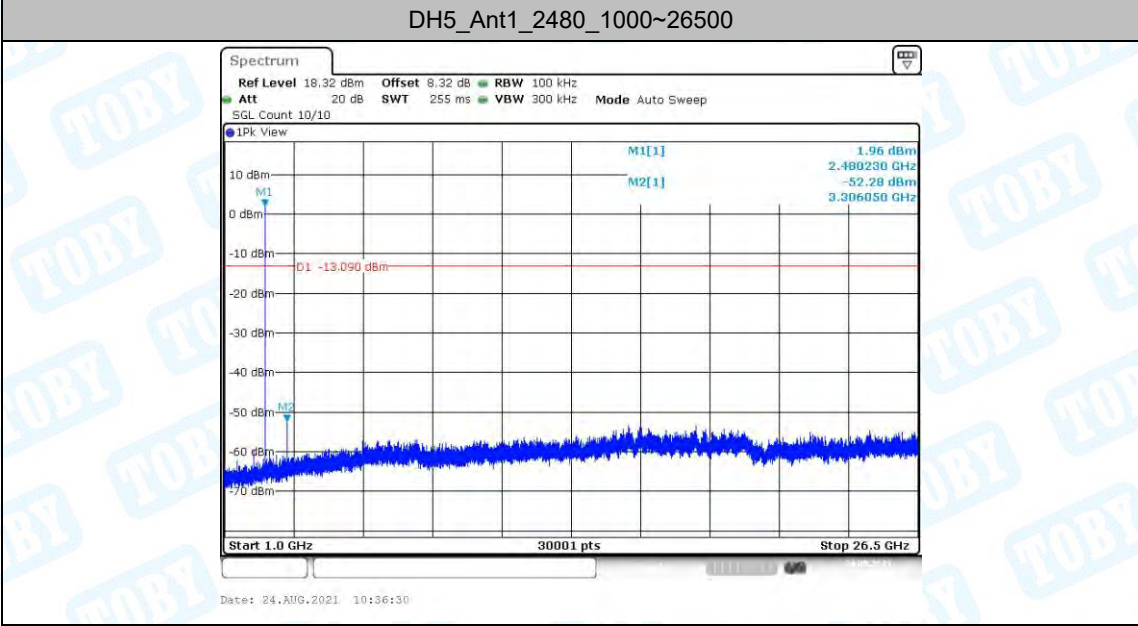
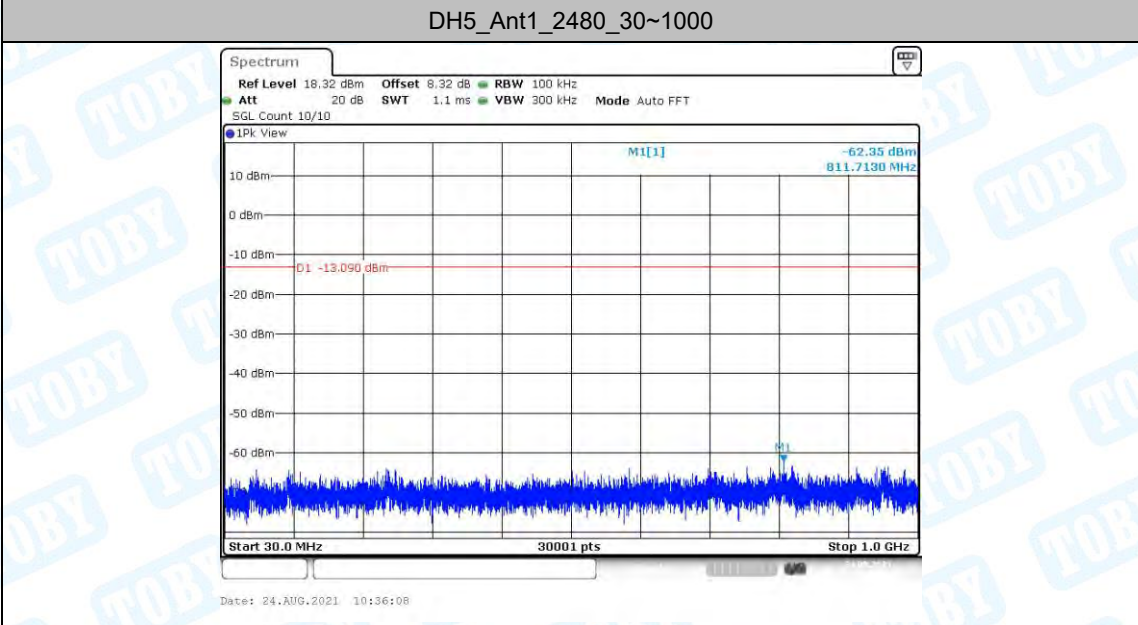
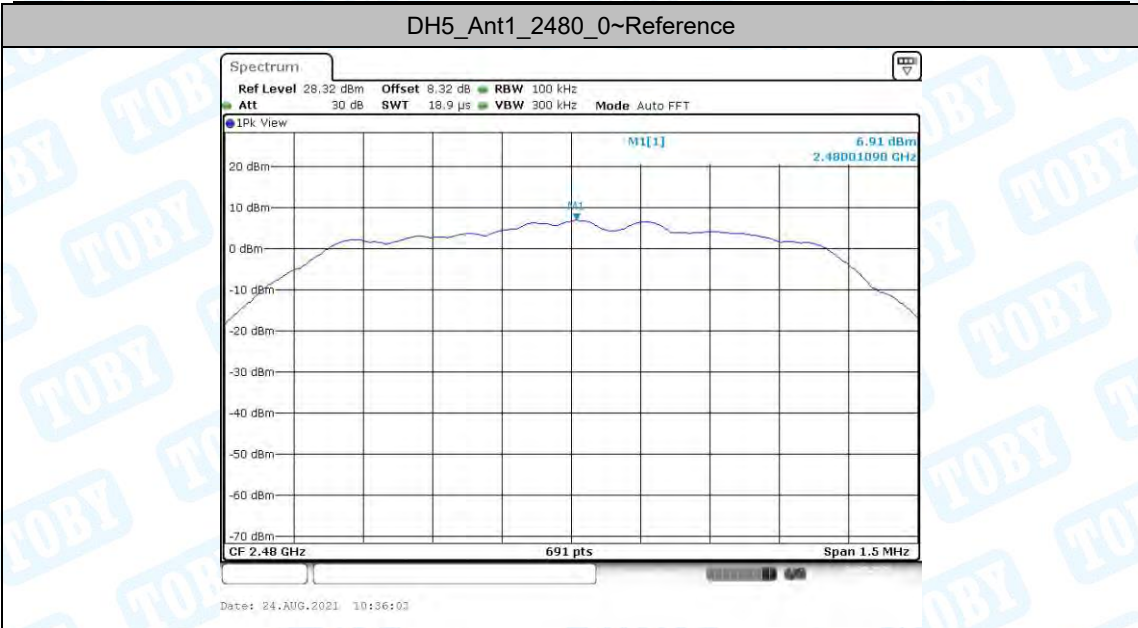
8.1. Test Result

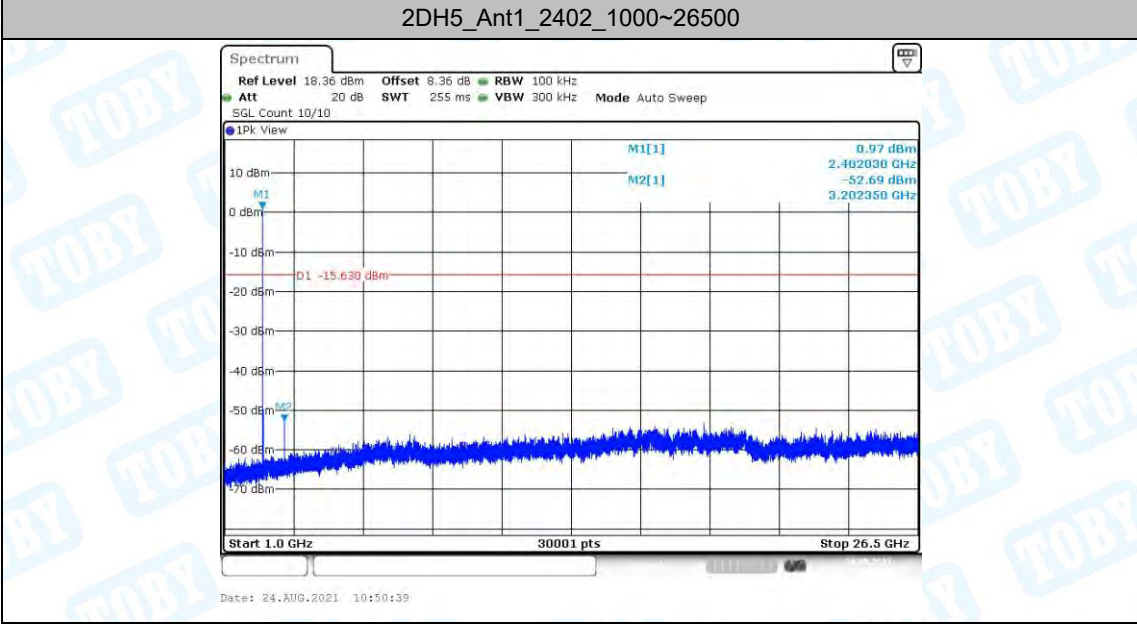
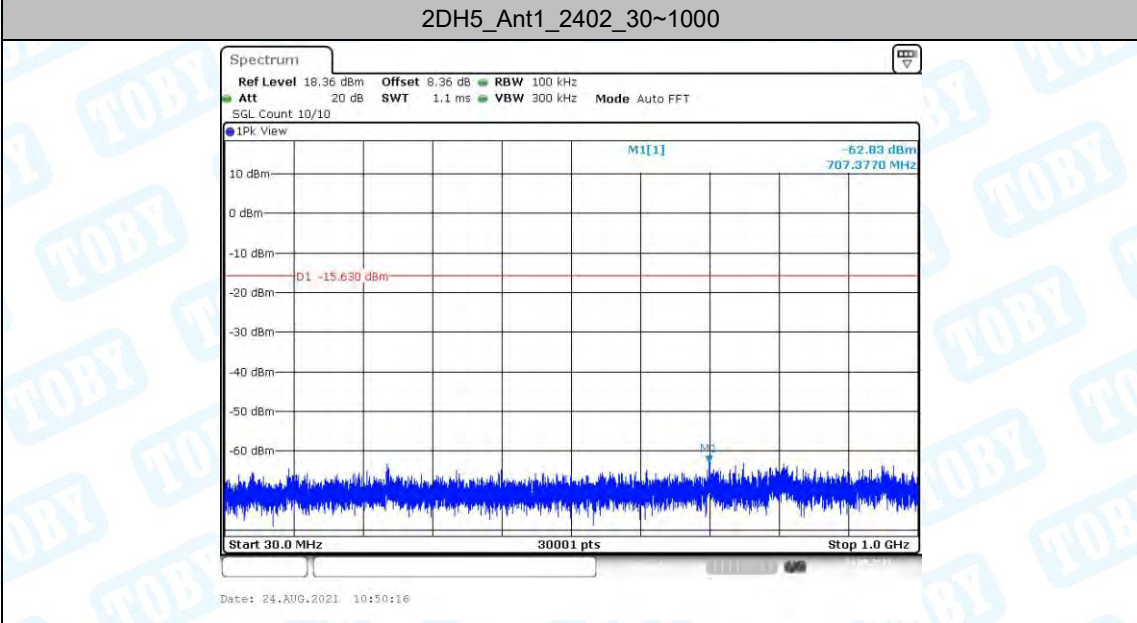
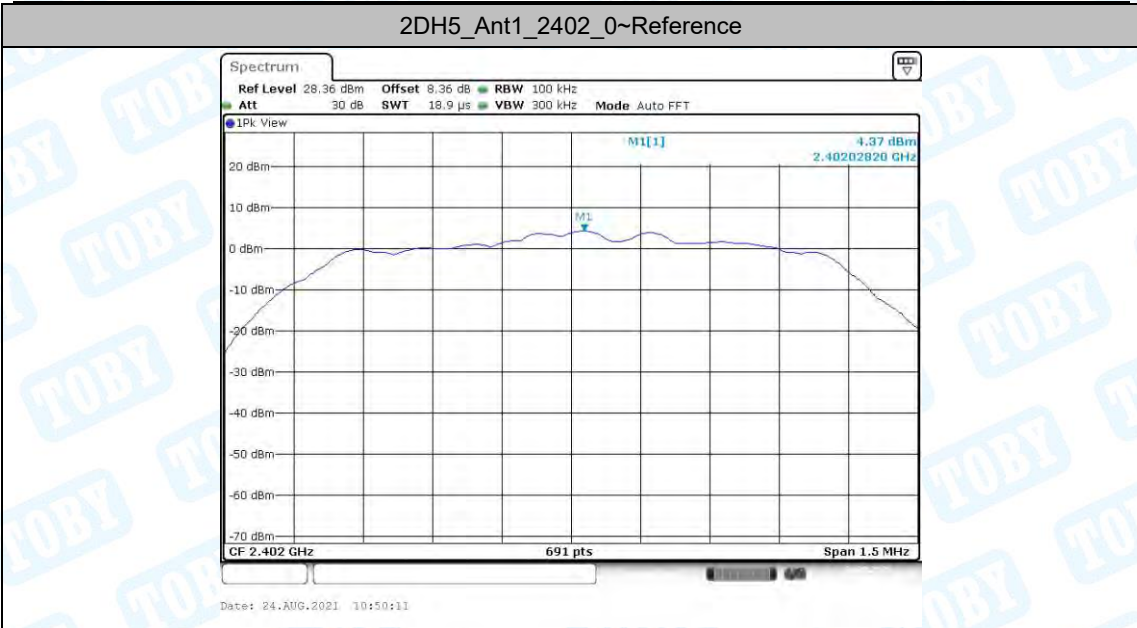
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	0.54	0.54	---	PASS
			30~1000	0.54	-61.64	≤-19.46	PASS
			1000~26500	0.54	-50.81	≤-19.46	PASS
		2441	Reference	5.07	5.07	---	PASS
			30~1000	5.07	-63.01	≤-14.93	PASS
			1000~26500	5.07	-53.5	≤-14.93	PASS
		2480	Reference	6.91	6.91	---	PASS
			30~1000	6.91	-62.35	≤-13.09	PASS
			1000~26500	6.91	-52.28	≤-13.09	PASS
2DH5	Ant1	2402	Reference	4.37	4.37	---	PASS
			30~1000	4.37	-62.83	≤-15.63	PASS
			1000~26500	4.37	-52.69	≤-15.63	PASS
		2441	Reference	5.95	5.95	---	PASS
			30~1000	5.95	-63.01	≤-14.05	PASS
			1000~26500	5.95	-53.41	≤-14.05	PASS
		2480	Reference	6.69	6.69	---	PASS
			30~1000	6.69	-61.84	≤-13.31	PASS
			1000~26500	6.69	-52.8	≤-13.31	PASS
3DH5	Ant1	2402	Reference	4.53	4.53	---	PASS
			30~1000	4.53	-63.22	≤-15.47	PASS
			1000~26500	4.53	-51.67	≤-15.47	PASS
		2441	Reference	1.42	1.42	---	PASS
			30~1000	1.42	-62.93	≤-18.58	PASS
			1000~26500	1.42	-53.41	≤-18.58	PASS
		2480	Reference	6.79	6.79	---	PASS
			30~1000	6.79	-62.79	≤-13.21	PASS
			1000~26500	6.79	-52.38	≤-13.21	PASS

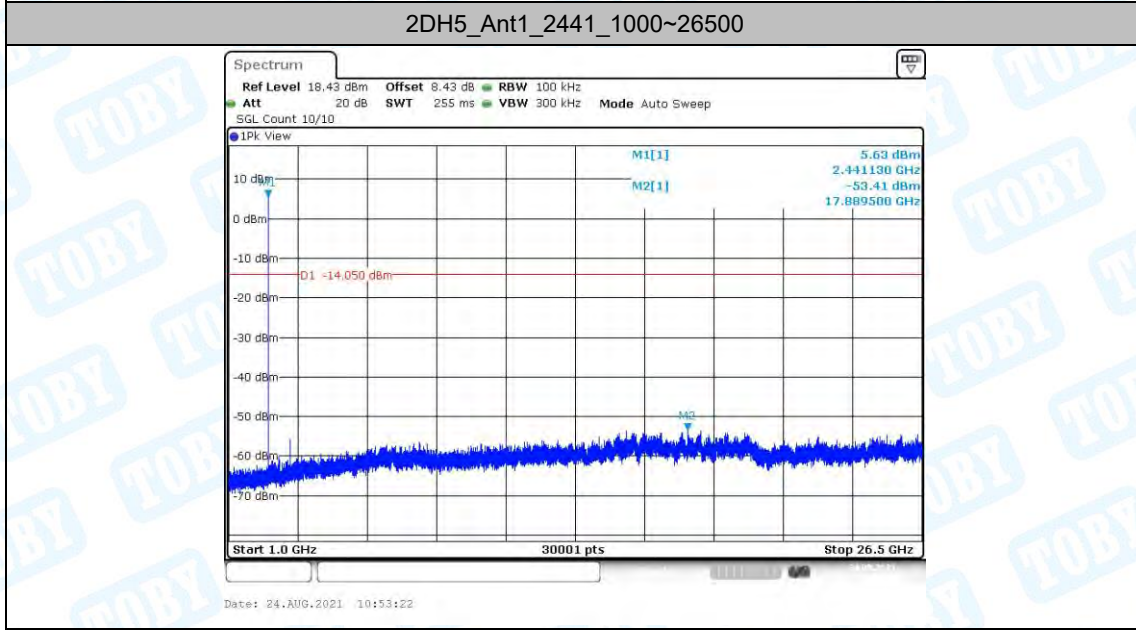
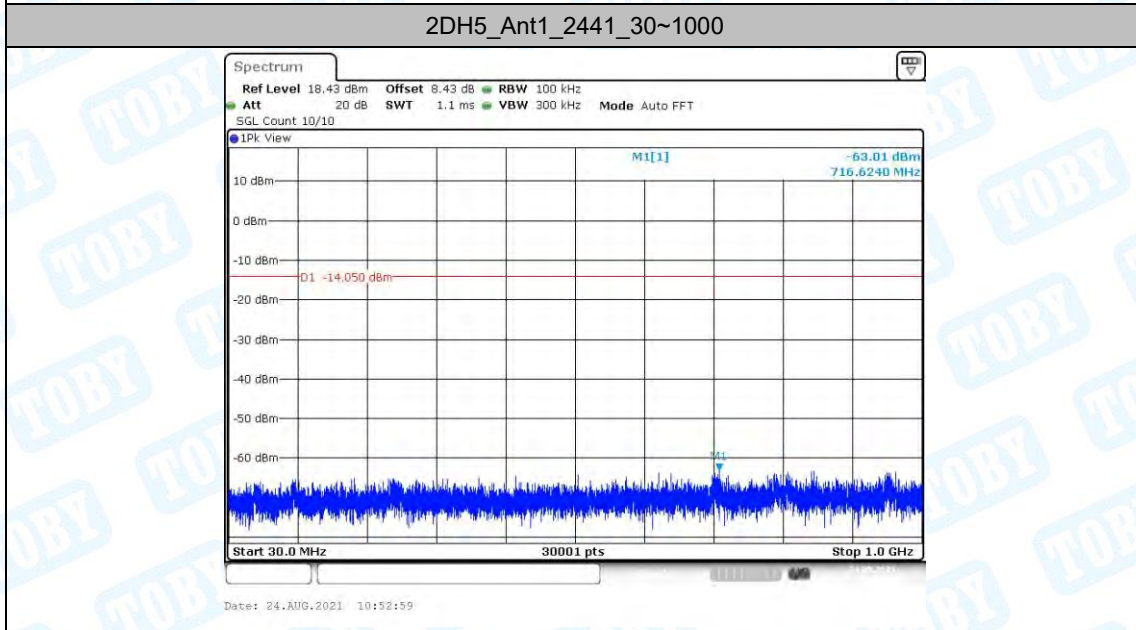
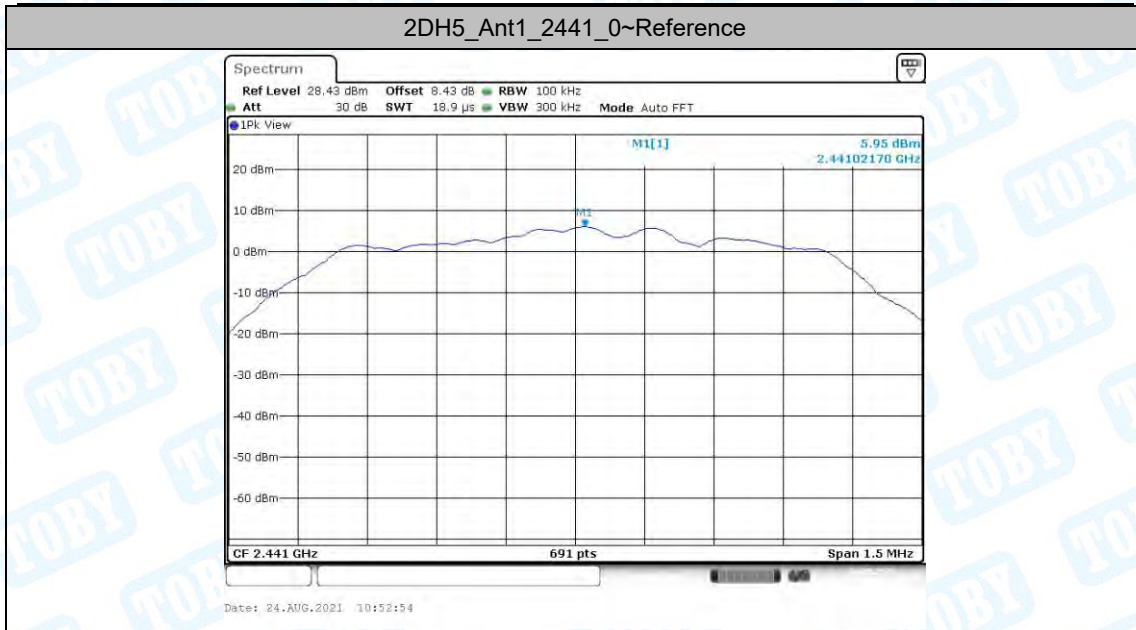
8.2. Test Graphs

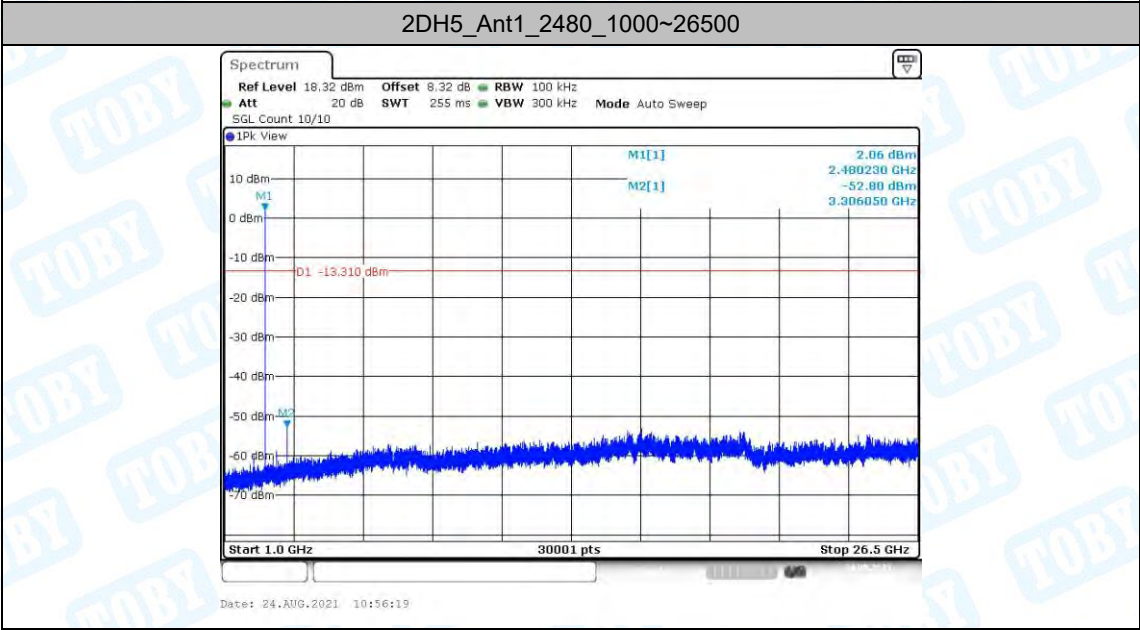
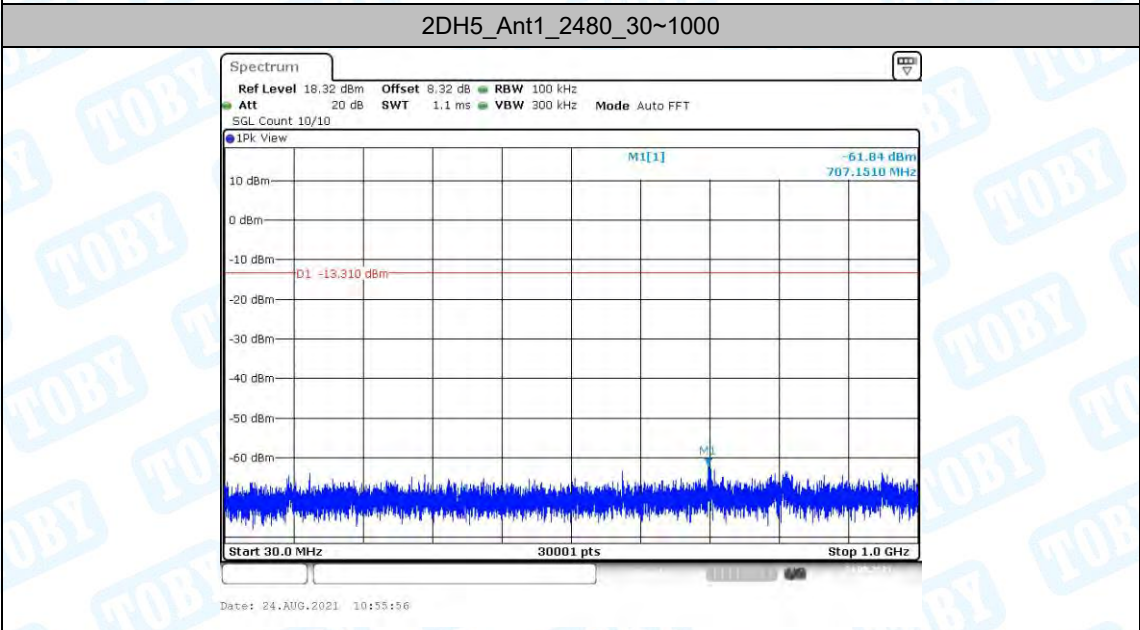
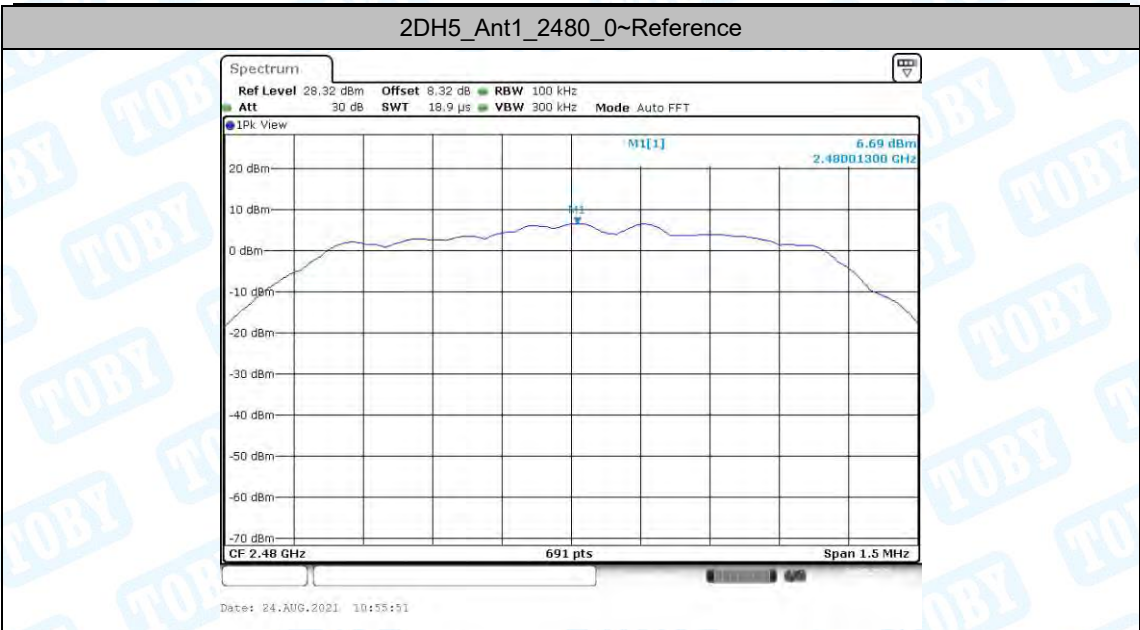


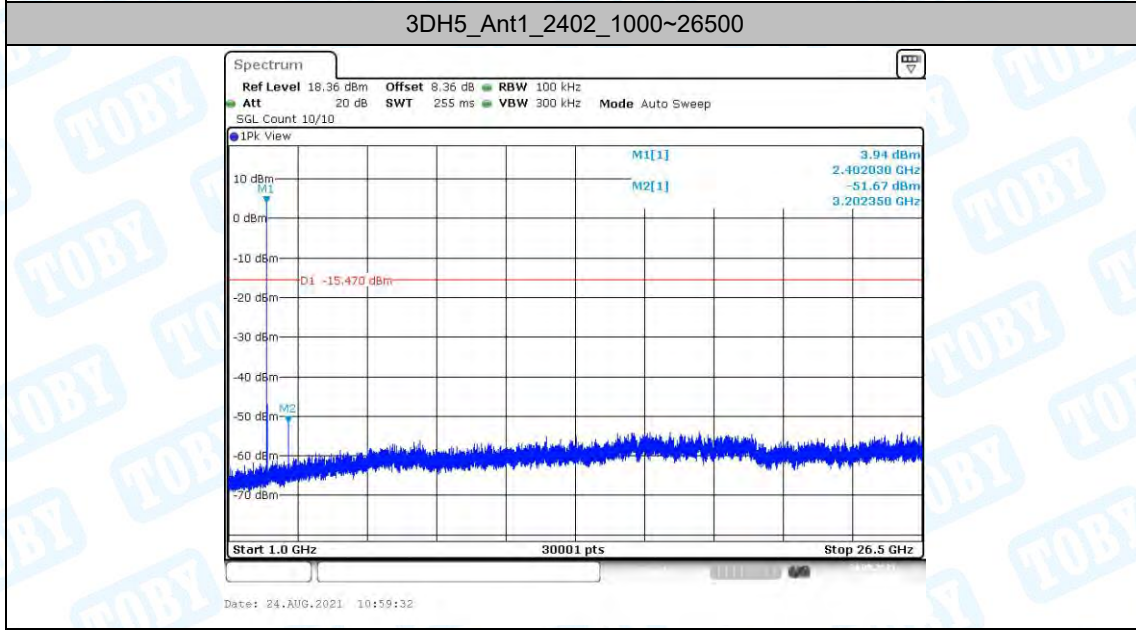
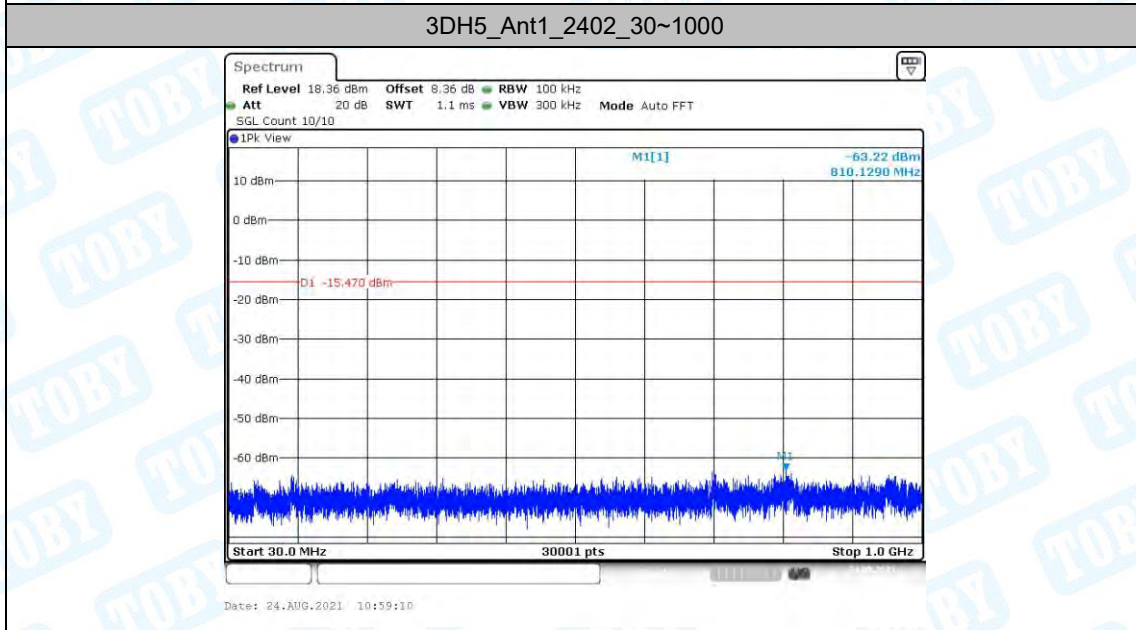
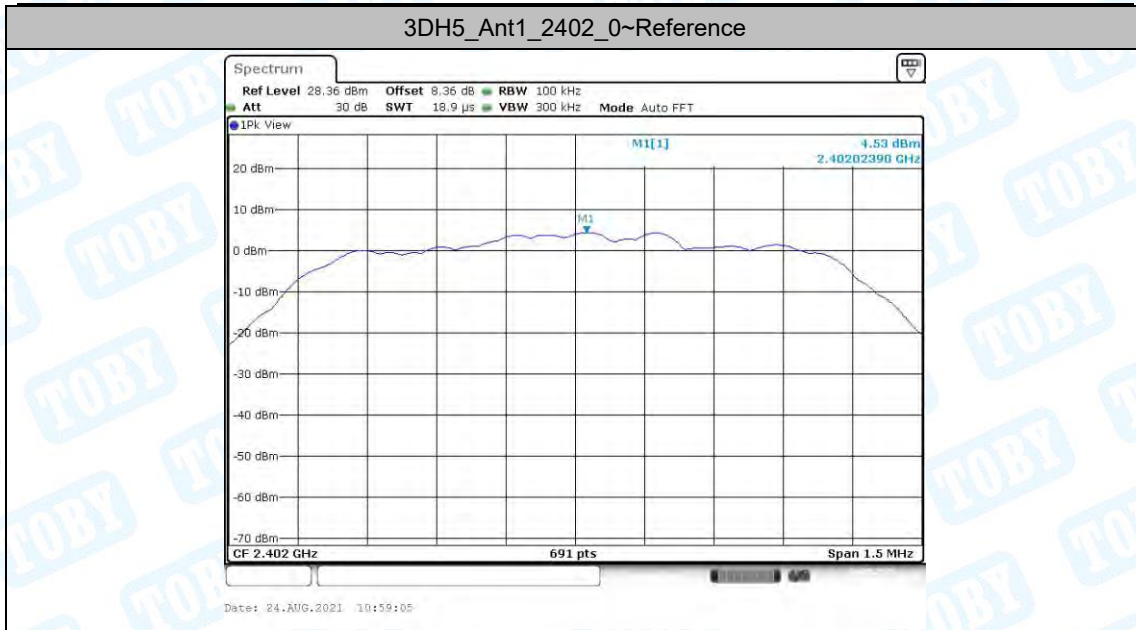


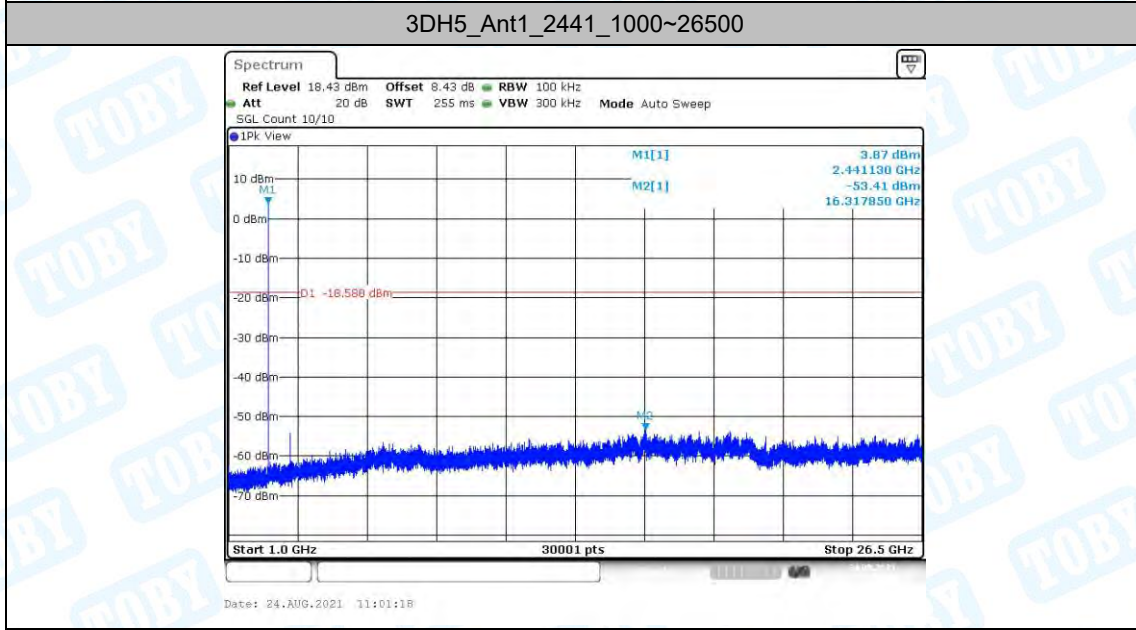
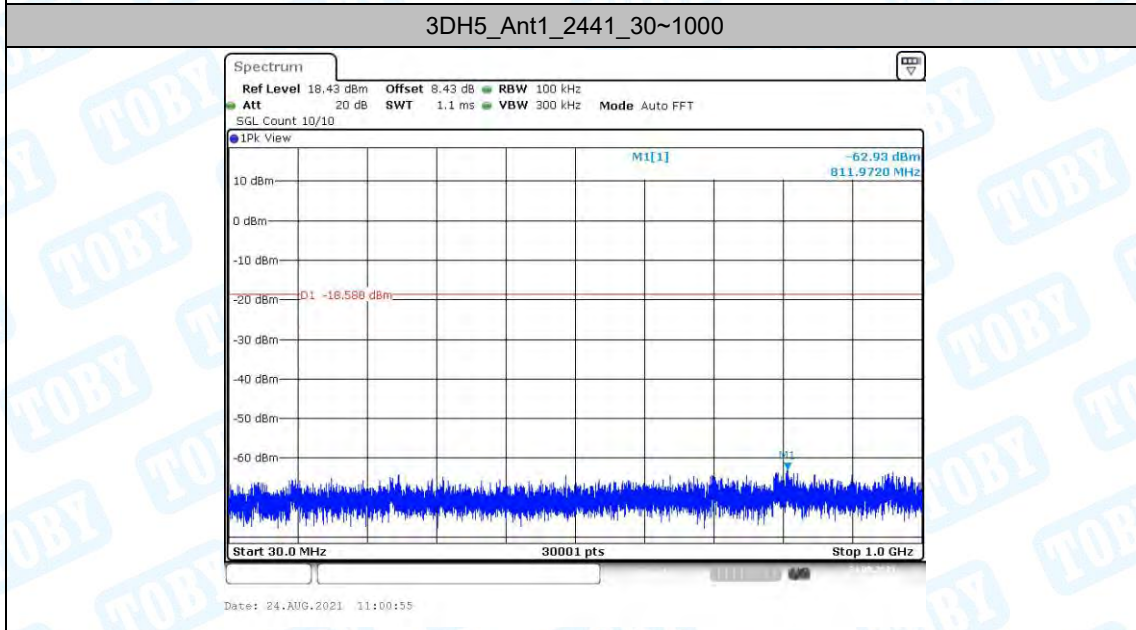
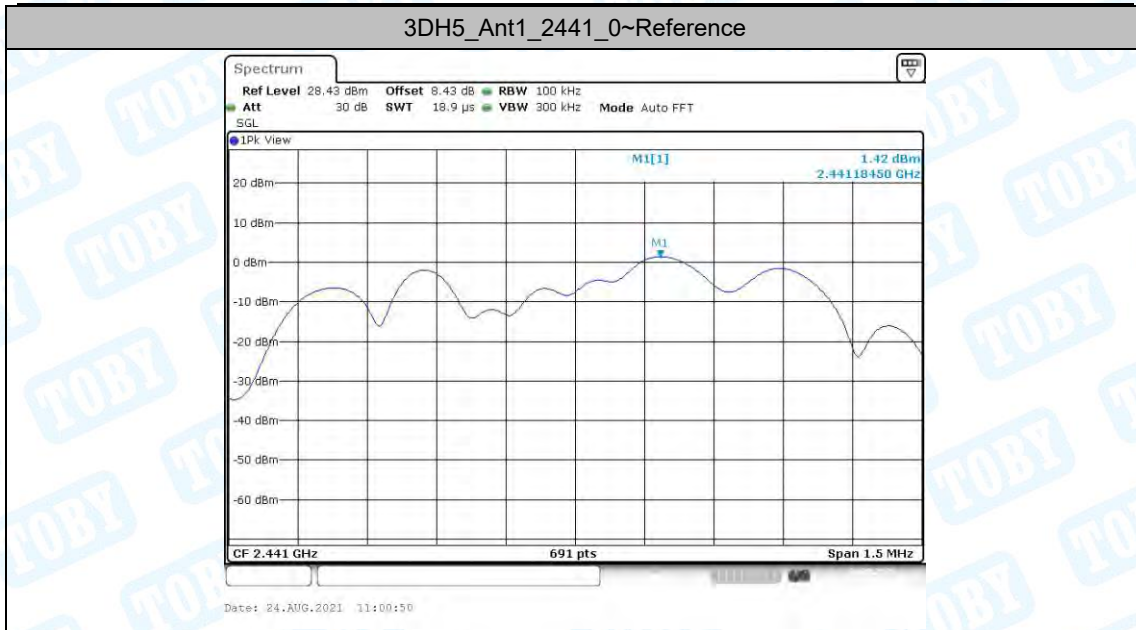


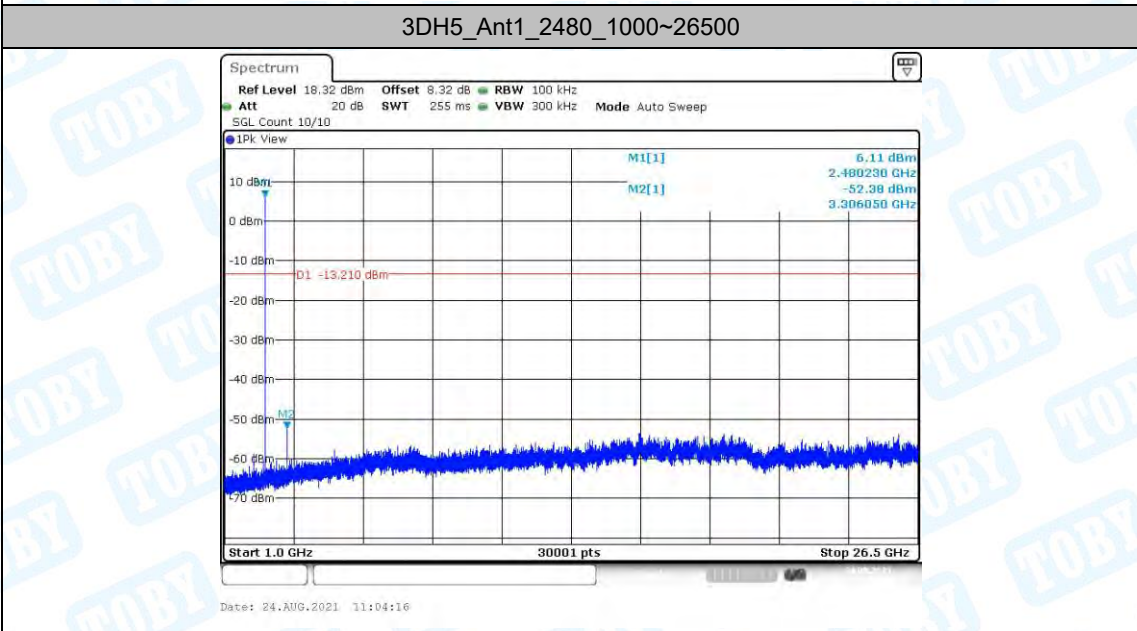
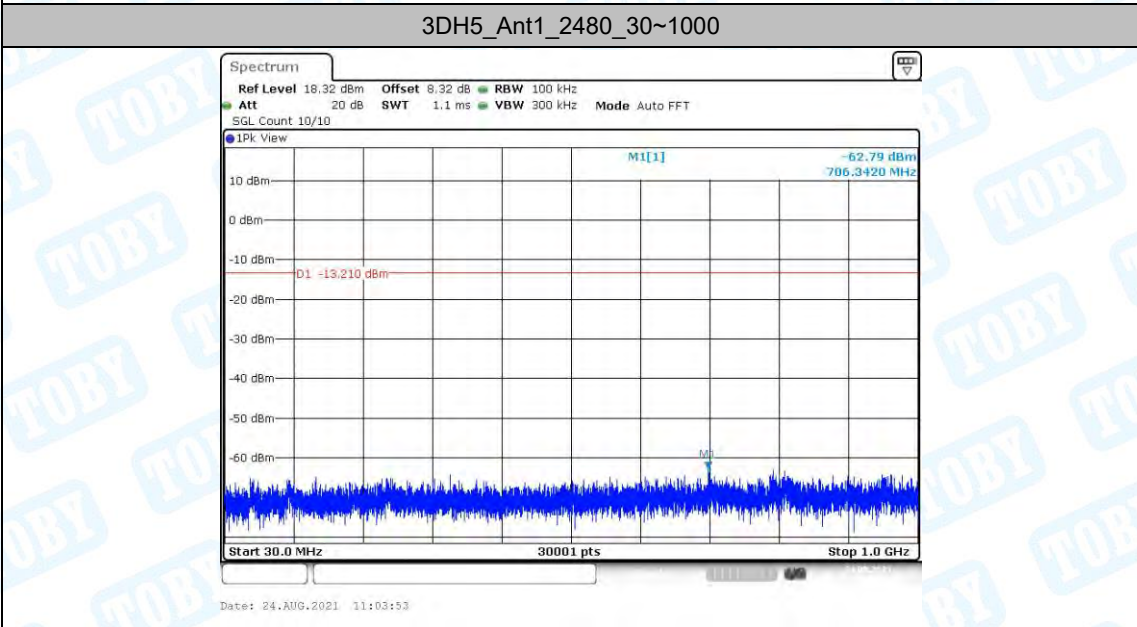
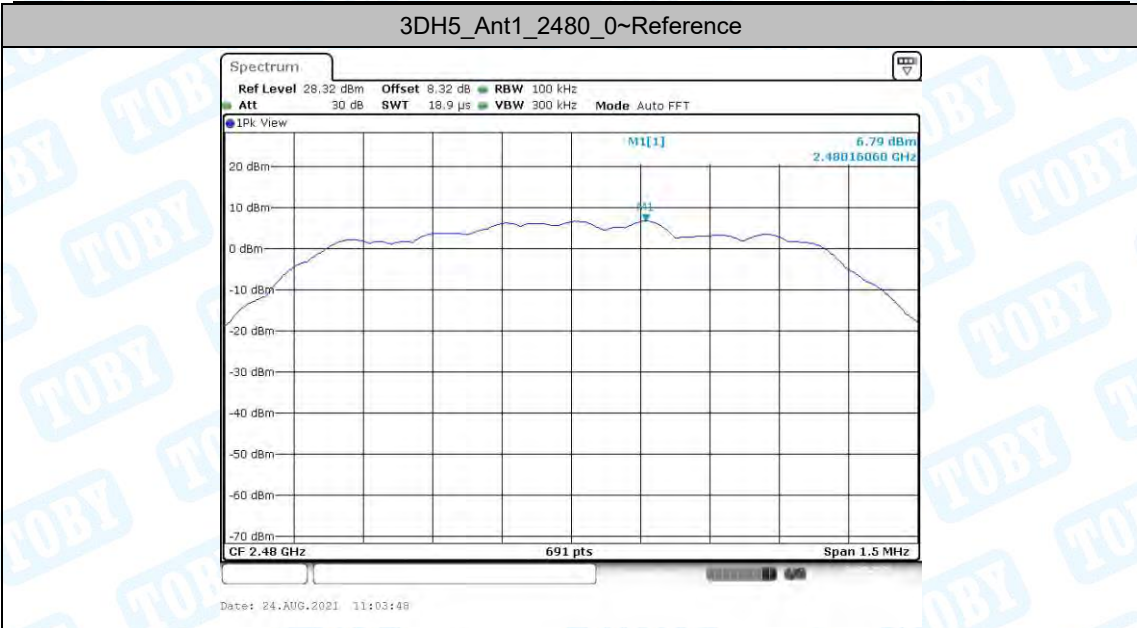










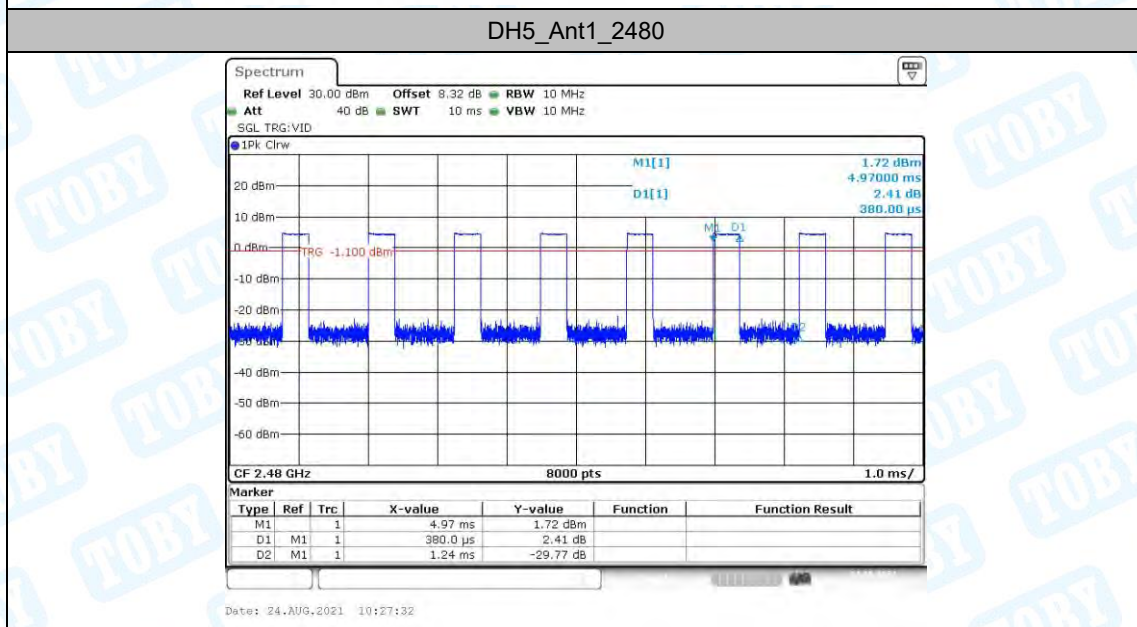
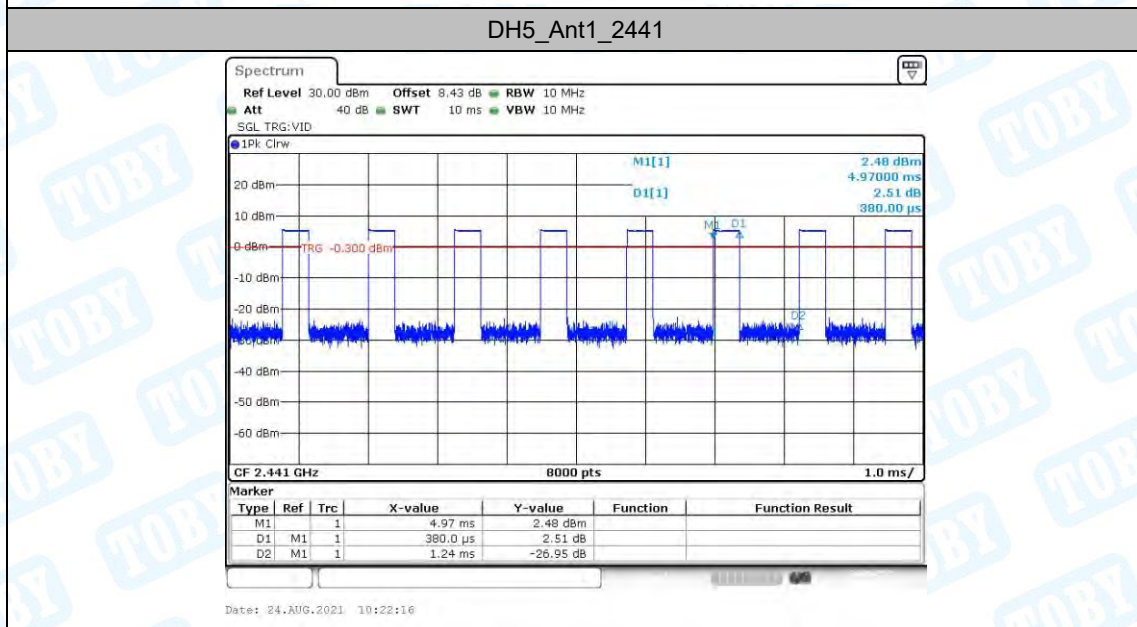
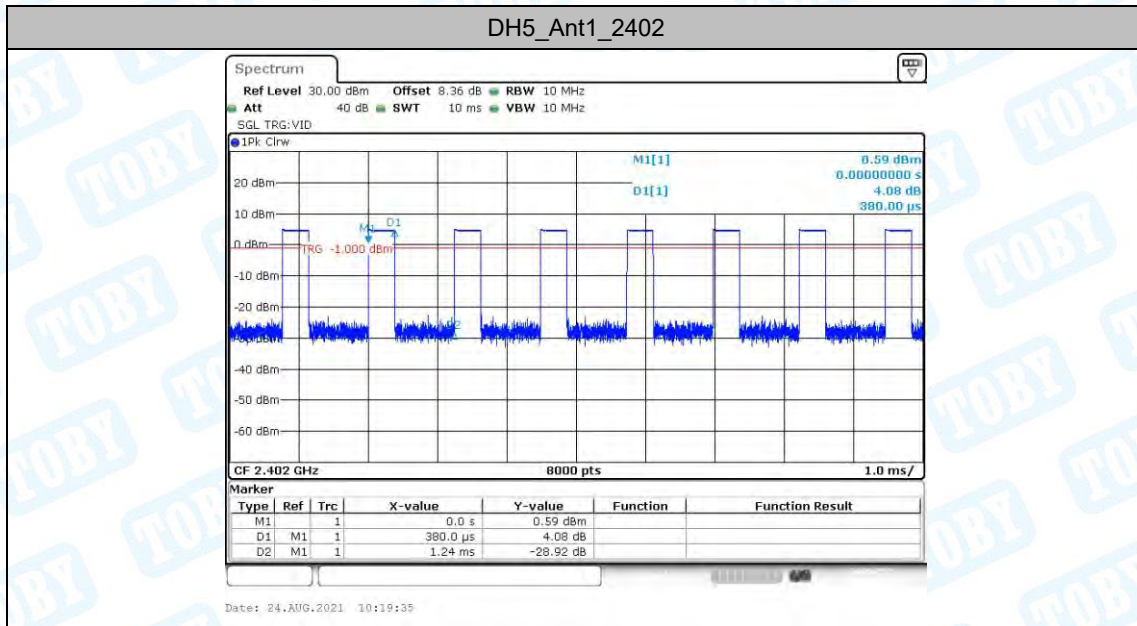


9. Duty Cycle

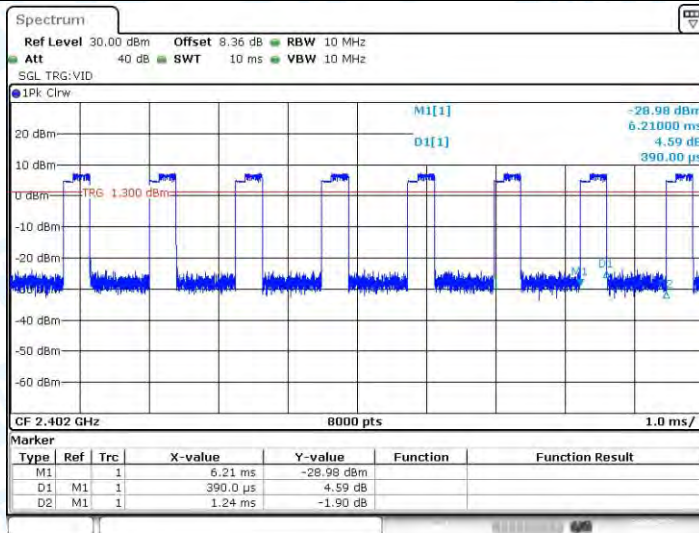
9.1. Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
DH5	Ant1	2402	0.38	1.24	30.65	---	PASS
		2441	0.38	1.24	30.65	---	PASS
		2480	0.38	1.24	30.65	---	PASS
2DH5	Ant1	2402	0.39	1.24	31.45	---	PASS
		2441	0.38	1.24	30.65	---	PASS
		2480	0.39	1.24	31.45	---	PASS
3DH5	Ant1	2402	0.39	1.24	31.45	---	PASS
		2441	0.39	1.24	31.45	---	PASS
		2480	0.38	1.24	30.65	---	PASS

9.2. Test Graphs

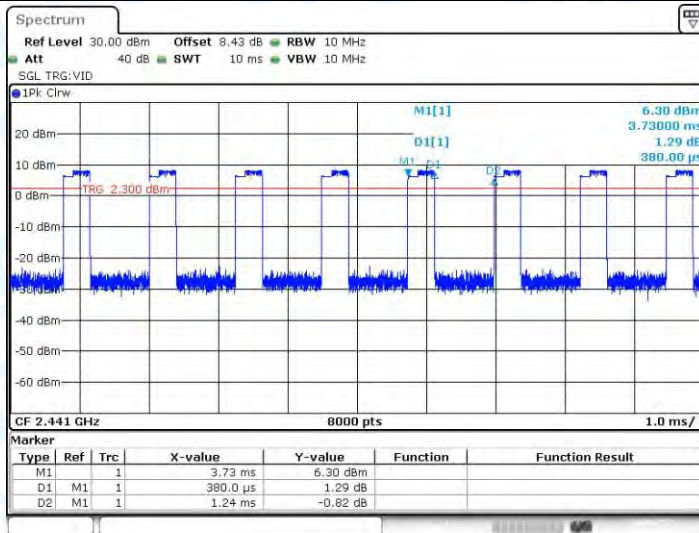


2DH5_Ant1_2402



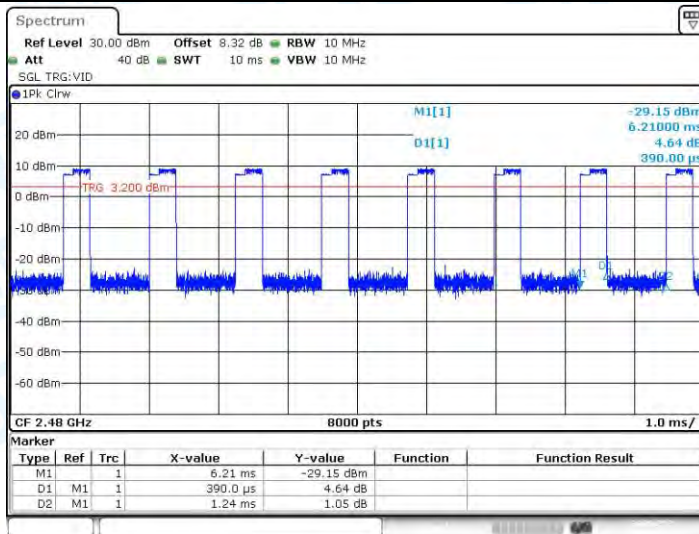
Date: 24.AUG.2021 10:38:22

2DH5_Ant1_2441



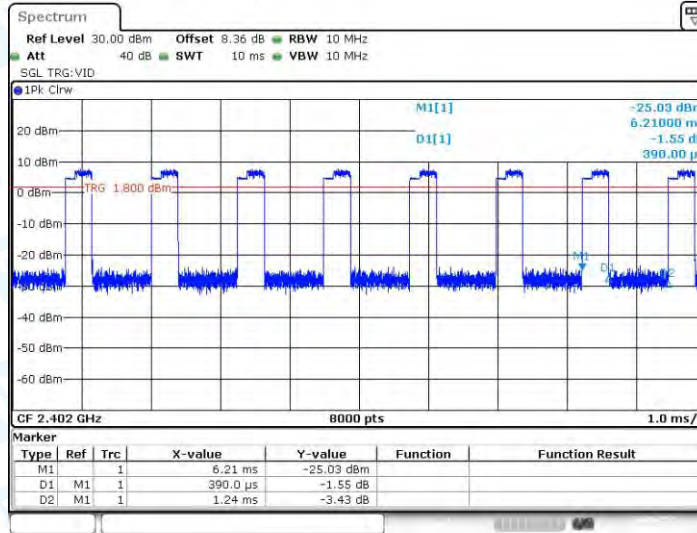
Date: 24.AUG.2021 10:51:28

2DH5_Ant1_2480

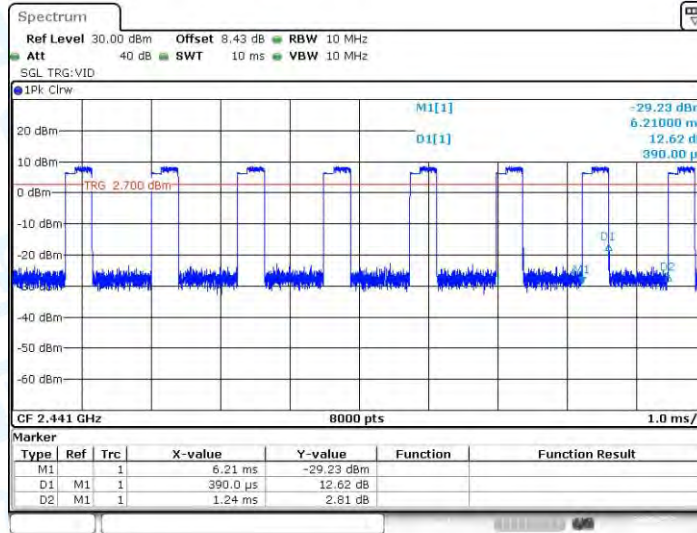


Date: 24.AUG.2021 10:54:08

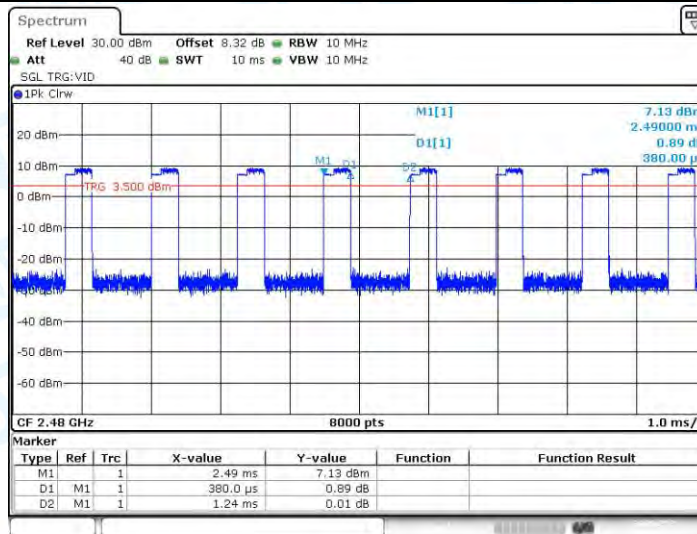
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



10. Emissions in Restricted Bands

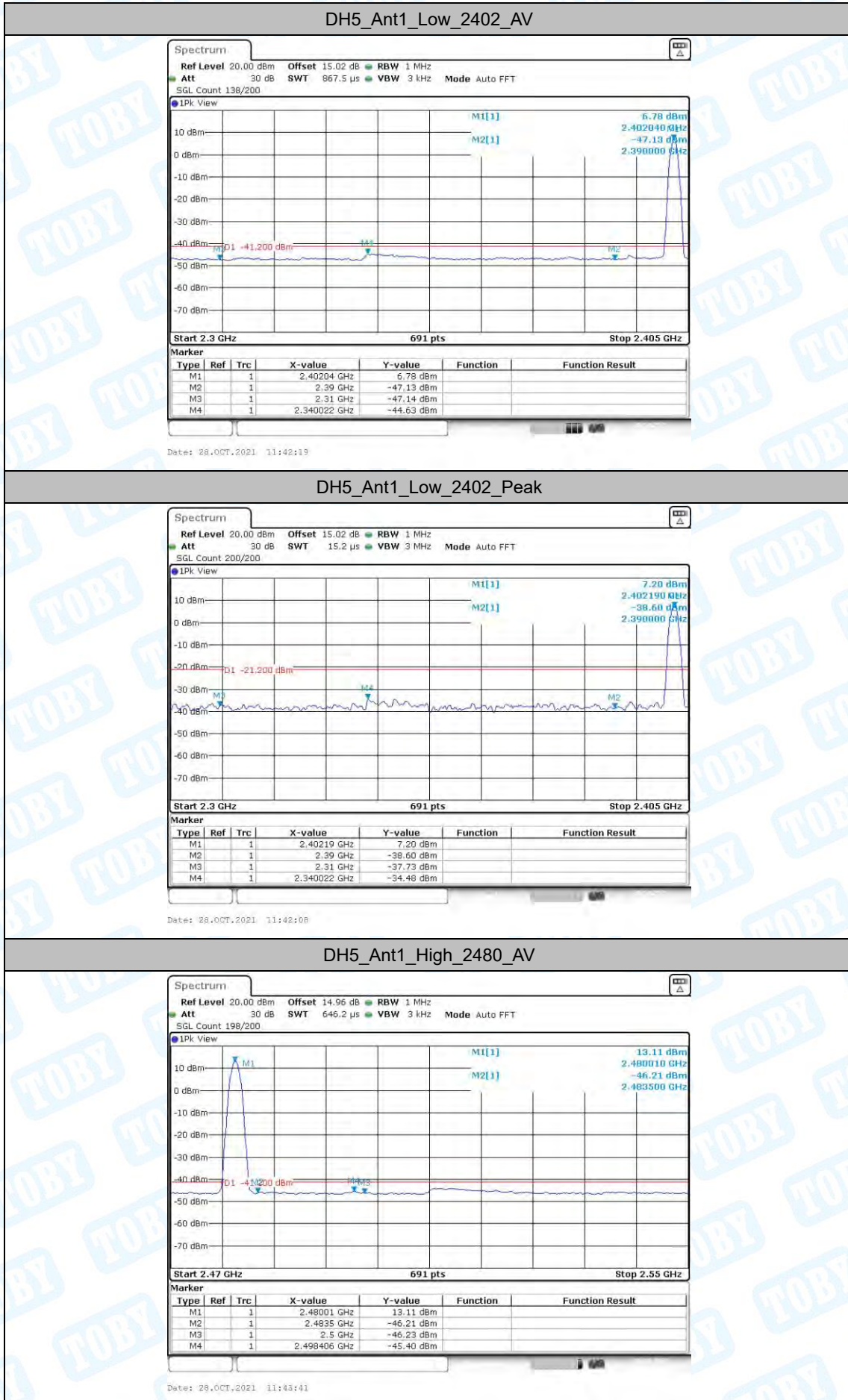
10.1. Test Result

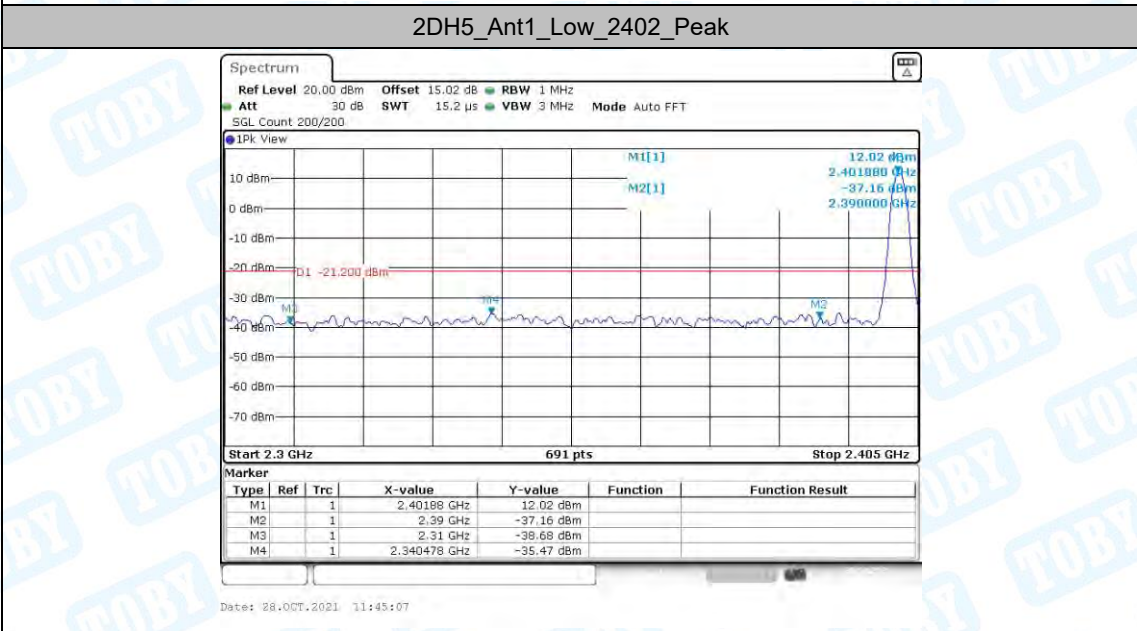
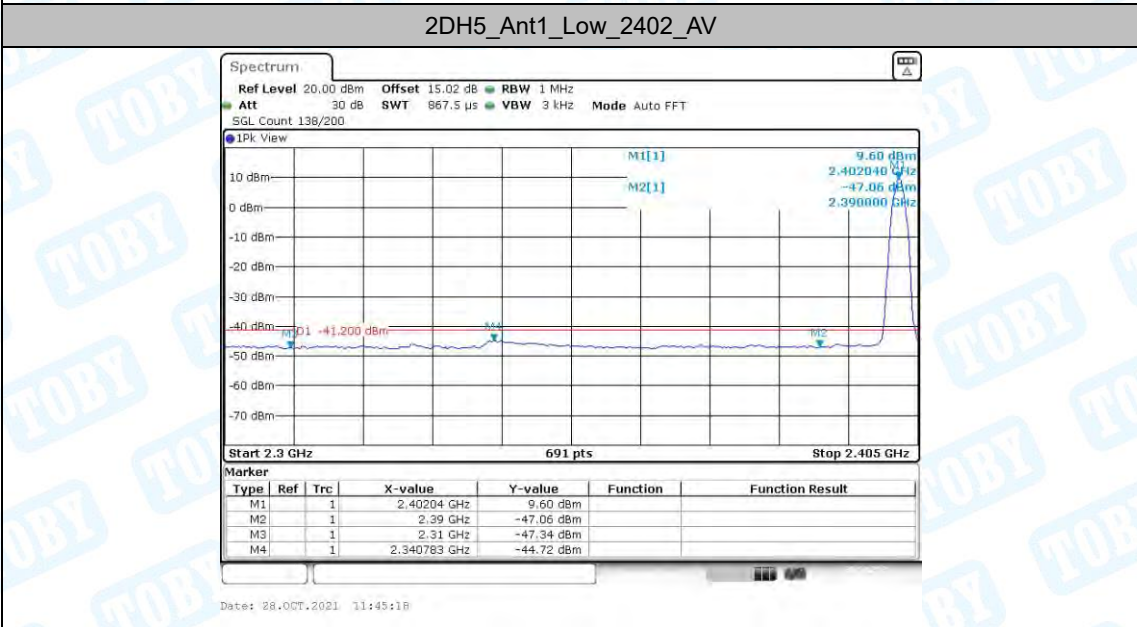
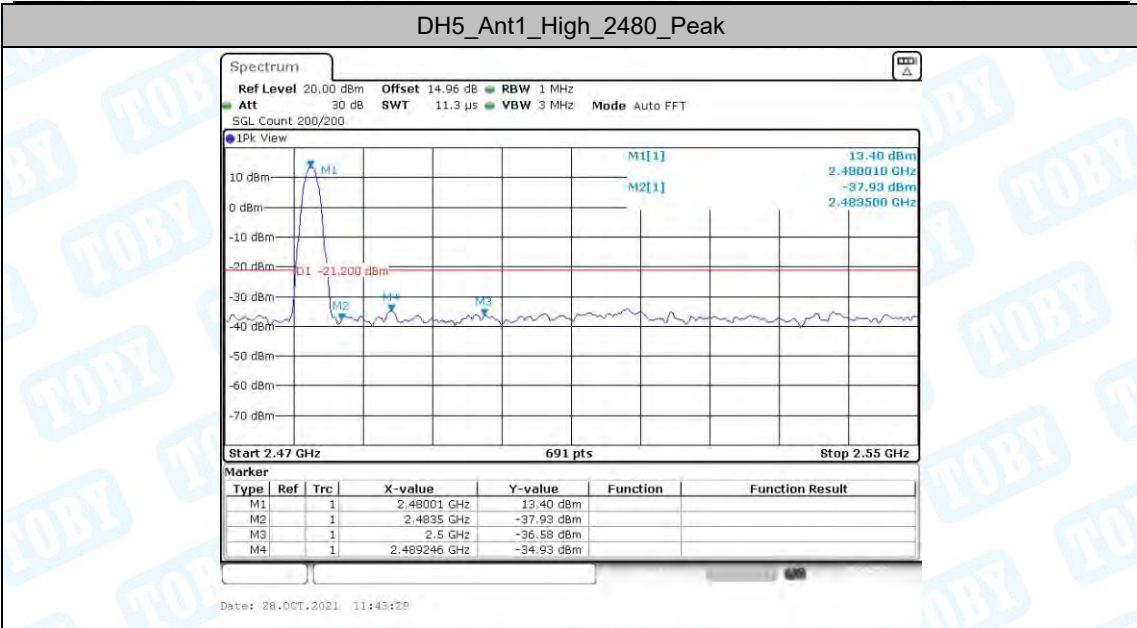
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-47.14	≤-41.20	PASS
				AV	2340.022	-44.63	≤-41.20	PASS
				AV	2390.000	-47.13	≤-41.20	PASS
				Peak	2310.000	-37.73	≤-21.20	PASS
				Peak	2340.022	-34.48	≤-21.20	PASS
				Peak	2390.000	-38.6	≤-21.20	PASS
		High	2480	AV	2483.500	-46.21	≤-41.20	PASS
				AV	2498.406	-45.4	≤-41.20	PASS
				AV	2500.000	-46.23	≤-41.20	PASS
				Peak	2483.500	-37.93	≤-21.20	PASS
				Peak	2489.246	-34.93	≤-21.20	PASS
				Peak	2500.000	-36.58	≤-21.20	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-47.34	≤-41.20	PASS
				AV	2340.783	-44.72	≤-41.20	PASS
				AV	2390.000	-47.06	≤-41.20	PASS
				Peak	2310.000	-38.68	≤-21.20	PASS
				Peak	2340.478	-35.47	≤-21.20	PASS
				Peak	2390.000	-37.16	≤-21.20	PASS
		High	2480	AV	2483.500	-42.5	≤-41.20	PASS
				AV	2483.681	-42.61	≤-41.20	PASS
				AV	2500.000	-46.44	≤-41.20	PASS
				Peak	2483.500	-30.65	≤-21.20	PASS
				Peak	2483.681	-30.09	≤-21.20	PASS
				Peak	2500.000	-37.69	≤-21.20	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-46.87	≤-41.20	PASS
				AV	2340.630	-44.78	≤-41.20	PASS
				AV	2390.000	-47.26	≤-41.20	PASS
				Peak	2310.000	-38.2	≤-21.20	PASS
				Peak	2340.935	-35.04	≤-21.20	PASS
				Peak	2390.000	-39.14	≤-21.20	PASS
		High	2480	AV	2483.500	-42.09	≤-41.20	PASS
				AV	2483.565	-42.15	≤-41.20	PASS
				AV	2500.000	-46.37	≤-41.20	PASS
				Peak	2483.500	-29.08	≤-21.20	PASS
				Peak	2483.681	-28.7	≤-21.20	PASS
				Peak	2500.000	-36.7	≤-21.20	PASS

Note:

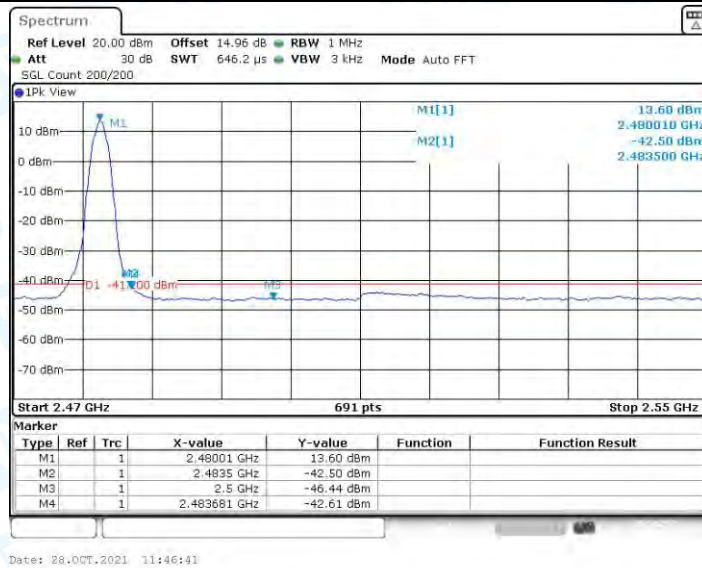
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

10.2. Test Graphs

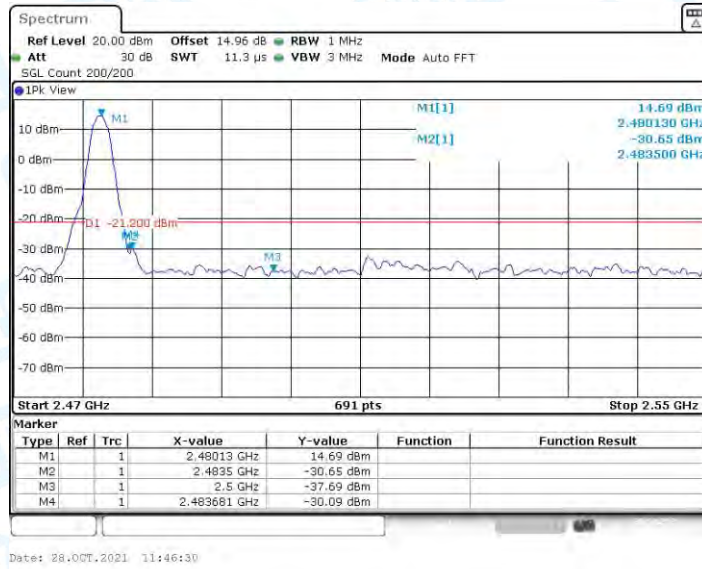




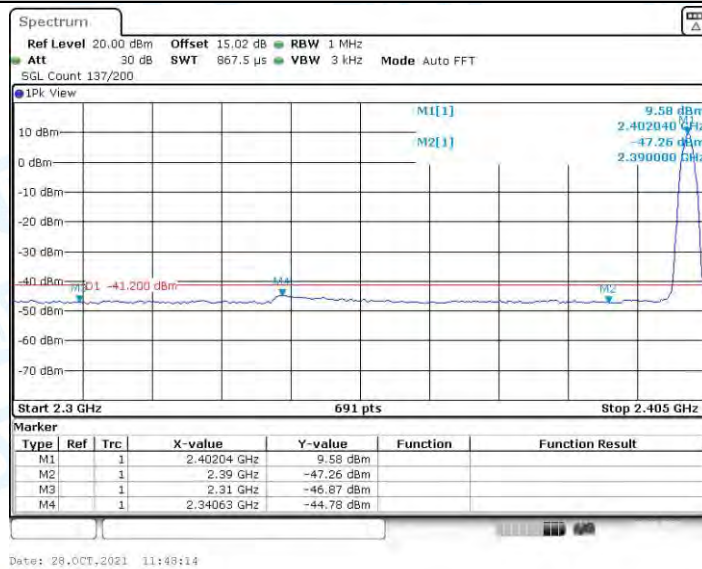
2DH5_Ant1_High_2480_AV



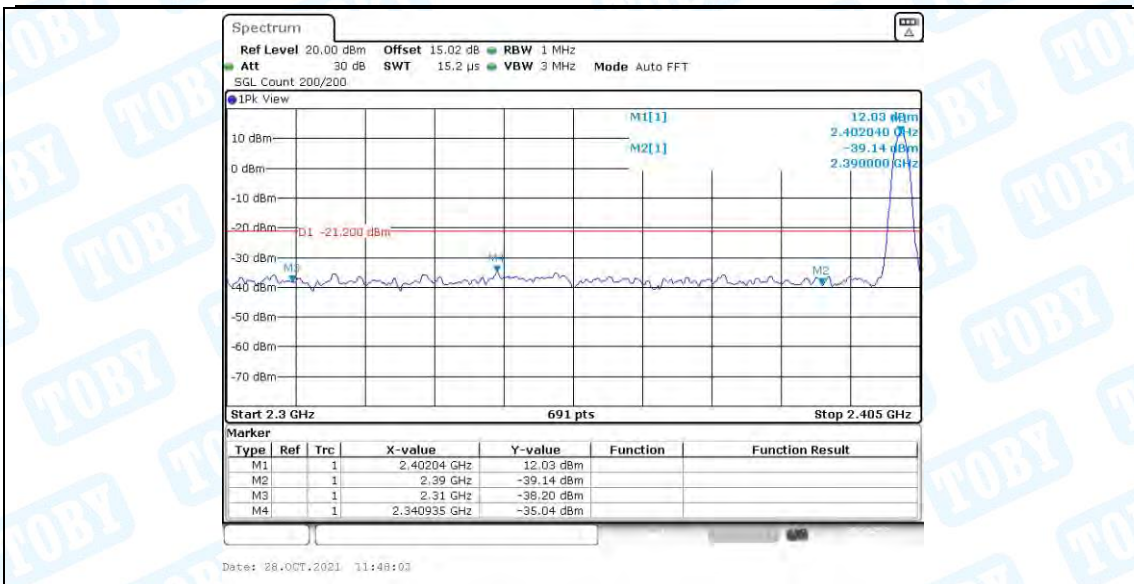
2DH5_Ant1_High_2480_Peak



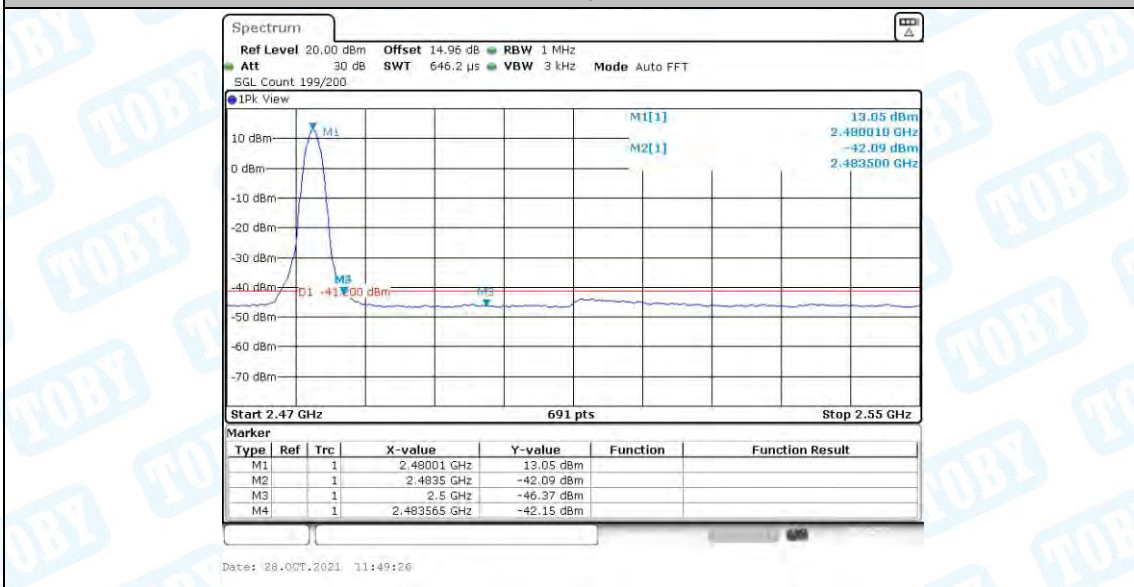
3DH5_Ant1_Low_2402_AV



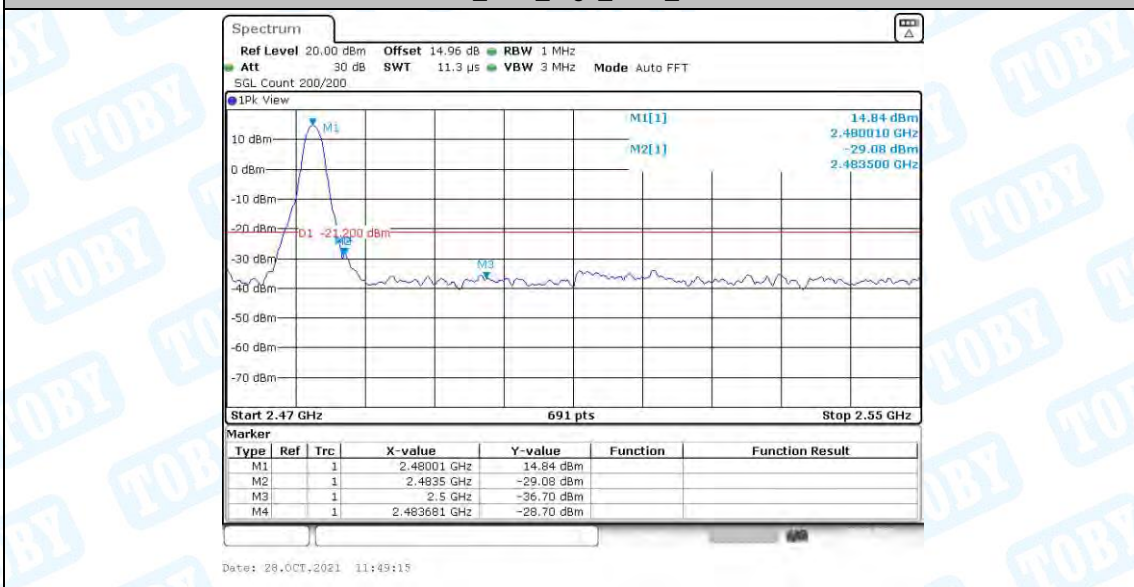
3DH5_Ant1_Low_2402_Peak



3DH5_Ant1_High_2480_AV



3DH5_Ant1_High_2480_Peak



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