

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

General Description of EUT	
Product Name:	Multimedia projector
HVIN/Models No.	C1
Sample ID:	20210907-01-2#
Environmental Conditions	
Temperature:	23.8℃
Relative Humidity:	48%
Test Voltage:	Input: 100-240V~, 50/60Hz Output: DC 24V/1.8A, 13V/1.7A
Test Engineer:	Huang jian ping
Note: For a more detailed features description, please refer to the report TB-RF184538	

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1. 20dB Emission Bandwidth

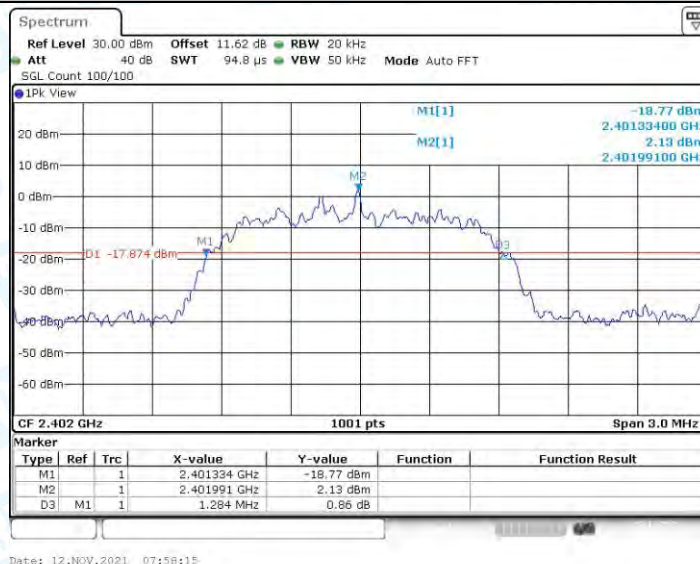
1.1. Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.942	2401.532	2402.474	---	PASS
		2441	0.891	2440.535	2441.426	---	PASS
		2480	0.933	2479.535	2480.468	---	PASS
2DH5	Ant1	2402	1.284	2401.334	2402.618	---	PASS
		2441	1.317	2440.334	2441.651	---	PASS
		2480	1.287	2479.334	2480.621	---	PASS
3DH5	Ant1	2402	1.350	2401.313	2402.663	---	PASS
		2441	1.353	2440.313	2441.666	---	PASS
		2480	1.275	2479.343	2480.618	---	PASS

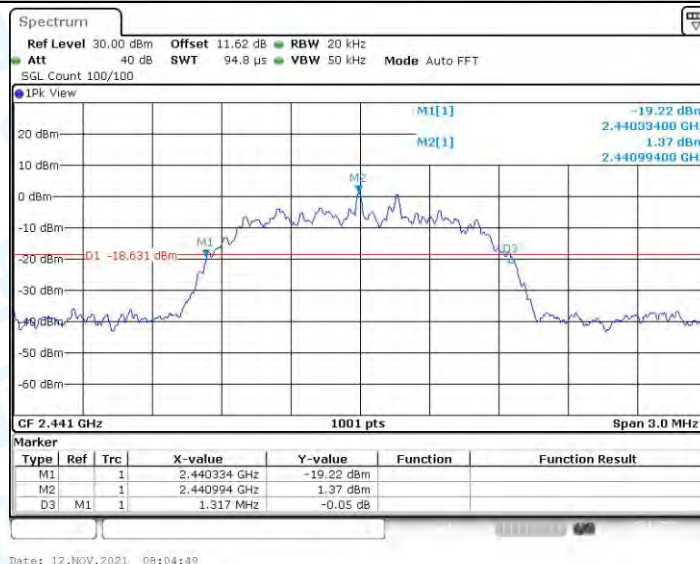
1.2. Test Graphs



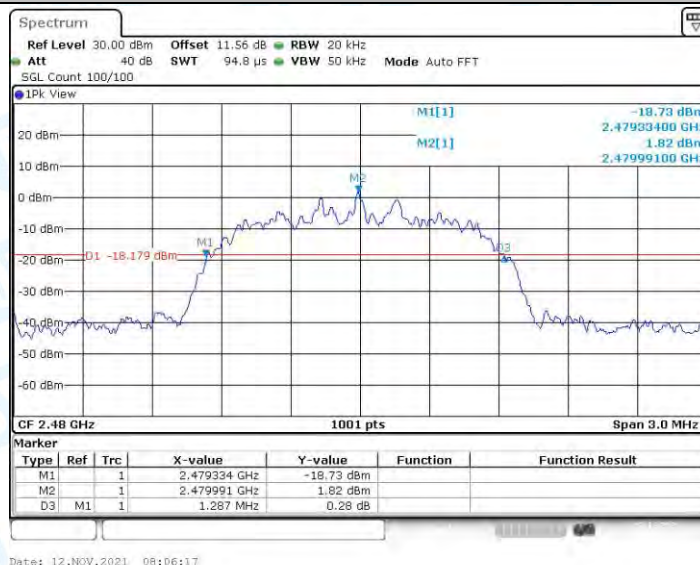
2DH5_Ant1_2402



2DH5_Ant1_2441



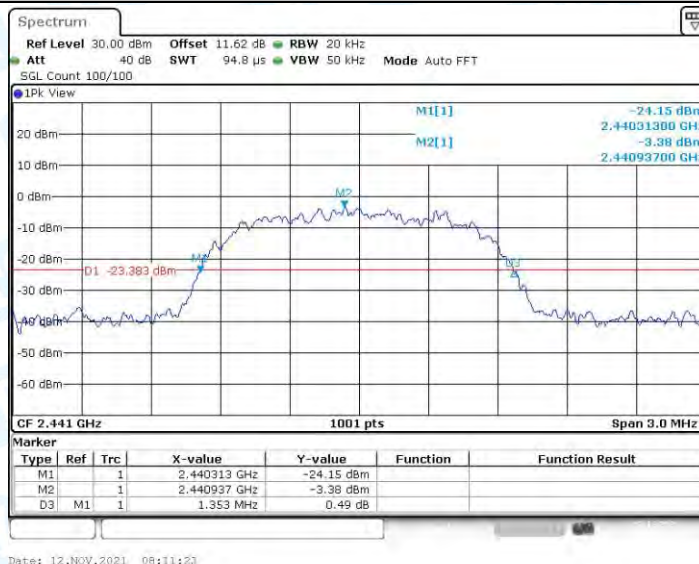
2DH5_Ant1_2480



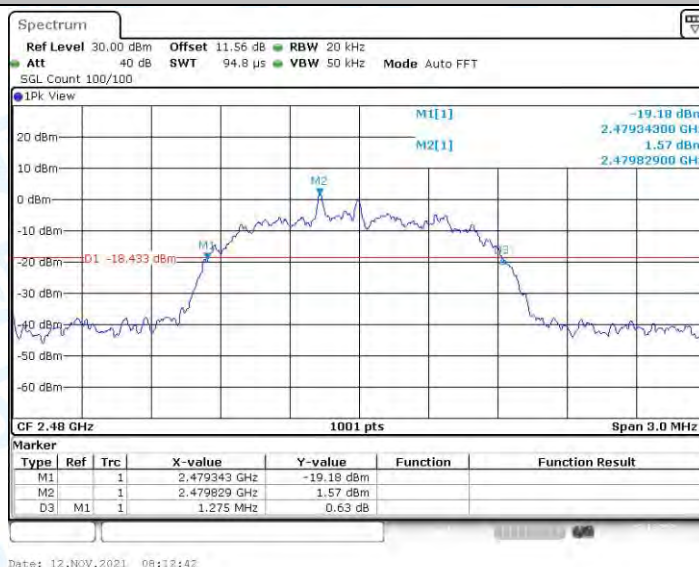
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

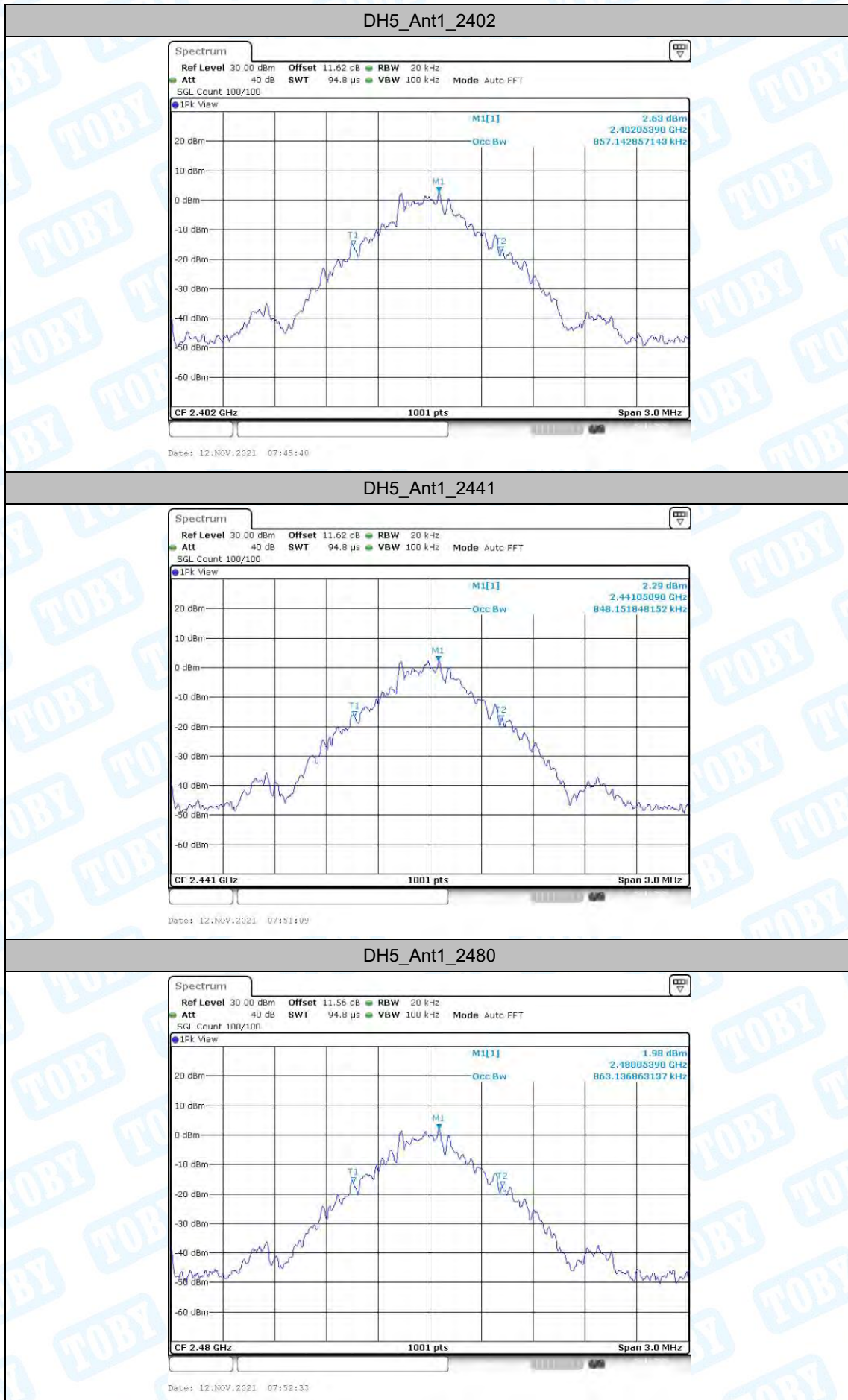


2. Occupied Channel Bandwidth

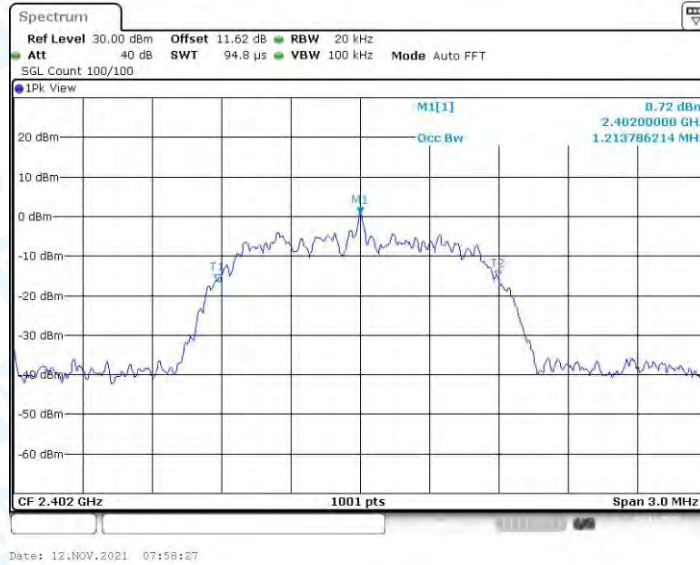
2.1. Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.857	2401.556	2402.414	---	PASS
		2441	0.848	2440.565	2441.414	---	PASS
		2480	0.863	2479.556	2480.420	---	PASS
2DH5	Ant1	2402	1.214	2401.383	2402.596	---	PASS
		2441	1.202	2440.389	2441.590	---	PASS
		2480	1.199	2479.389	2480.587	---	PASS
3DH5	Ant1	2402	1.202	2401.386	2402.587	---	PASS
		2441	1.211	2440.377	2441.587	---	PASS
		2480	1.202	2479.383	2480.584	---	PASS

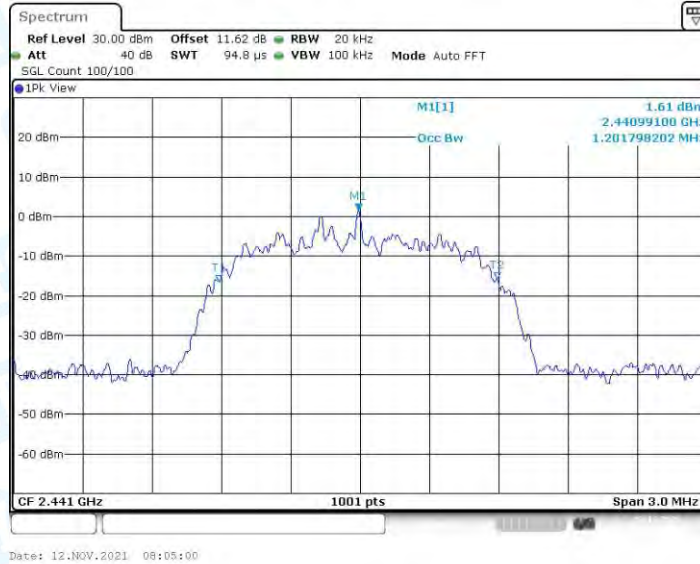
2.2.Test Graphs



2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



3. Maximum conducted output power

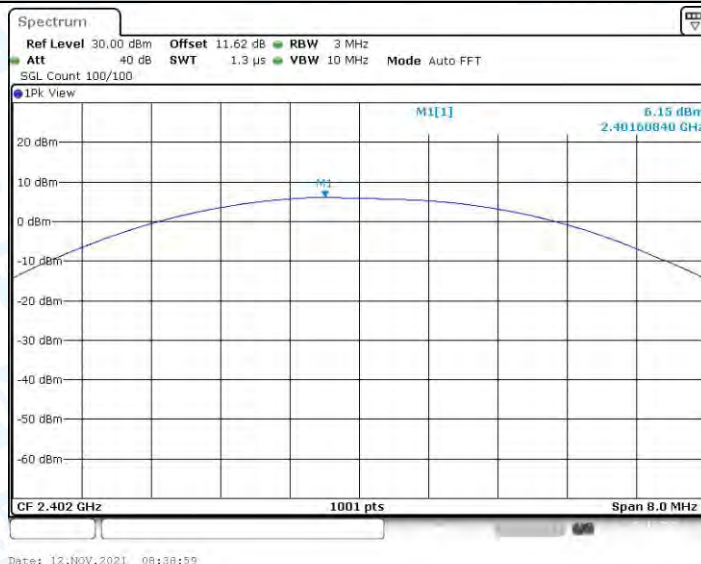
3.1. Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	5.77	≤21	PASS
		2441	5.64	≤21	PASS
		2480	5.54	≤21	PASS
2DH5	Ant1	2402	6.15	≤21	PASS
		2441	5.97	≤21	PASS
		2480	5.89	≤21	PASS
3DH5	Ant1	2402	6.07	≤21	PASS
		2441	5.99	≤21	PASS
		2480	5.92	≤21	PASS

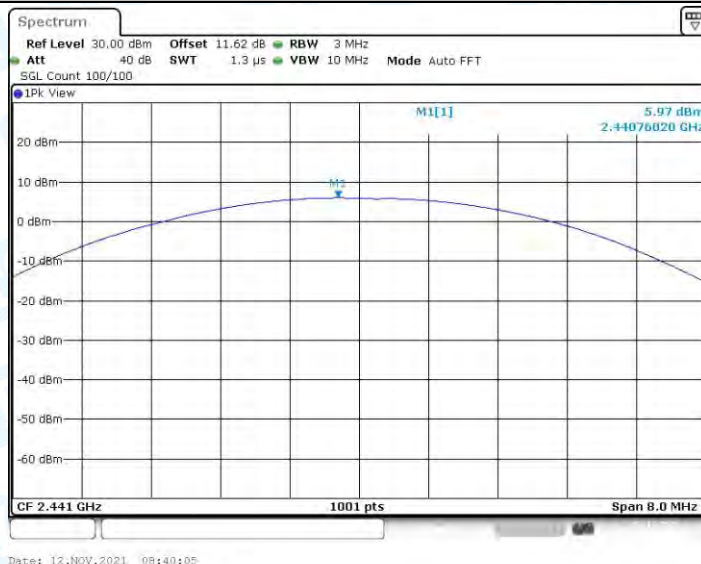
3.2.Test Graphs



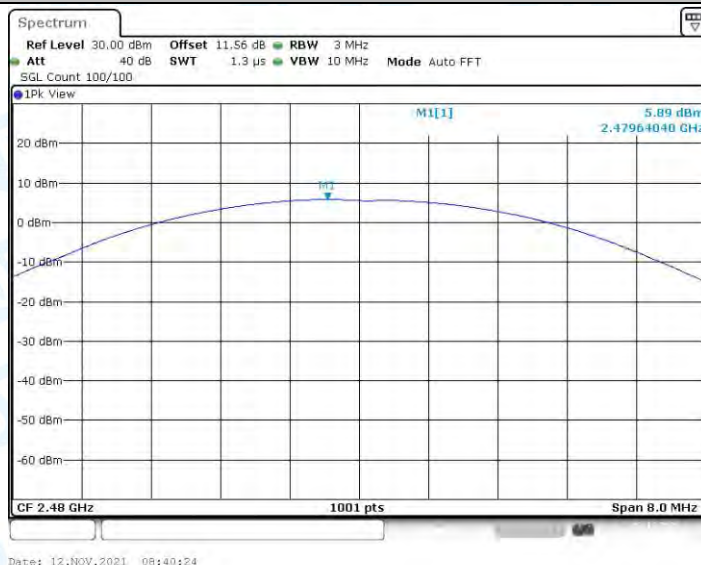
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



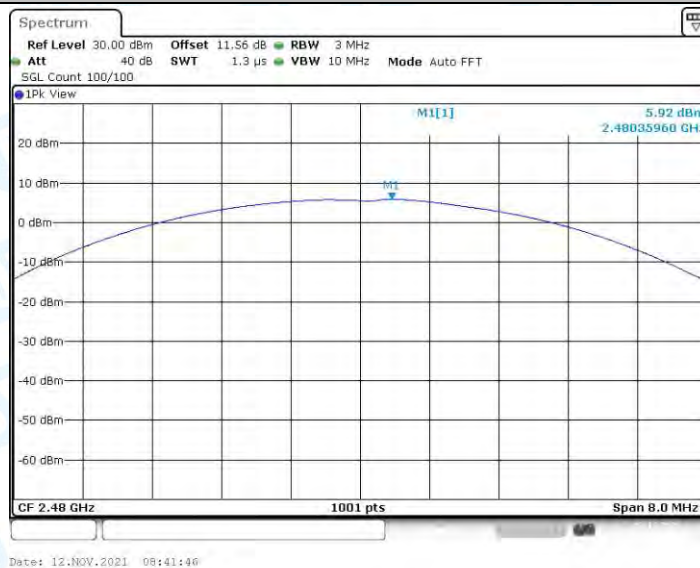
3DH5_Ant1_2402



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	1.014	≥ 0.942	PASS
2DH5	Ant1	Hop	1.006	≥ 0.878	PASS
3DH5	Ant1	Hop	1.319	≥ 0.902	PASS

4.2. Test Graphs

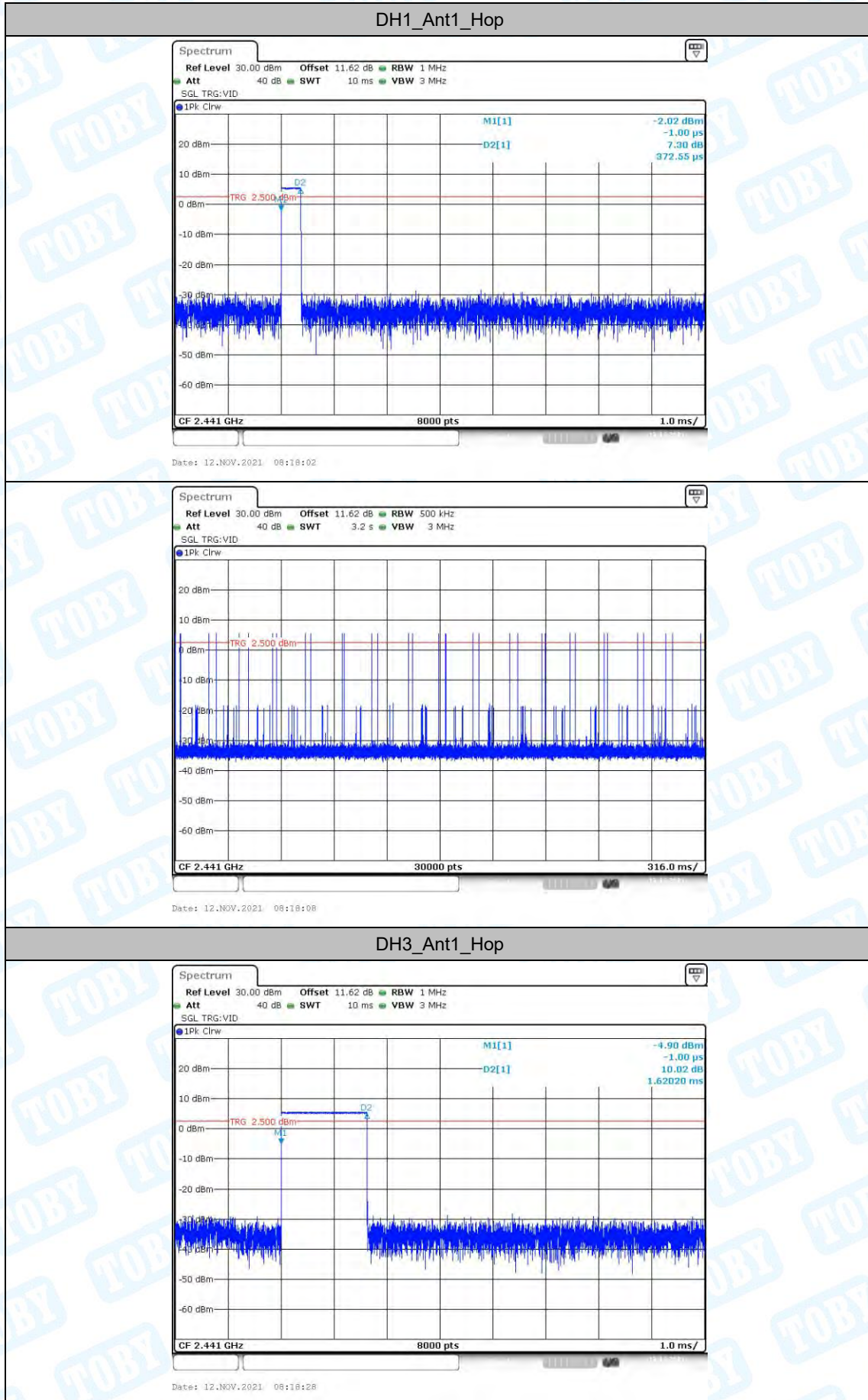


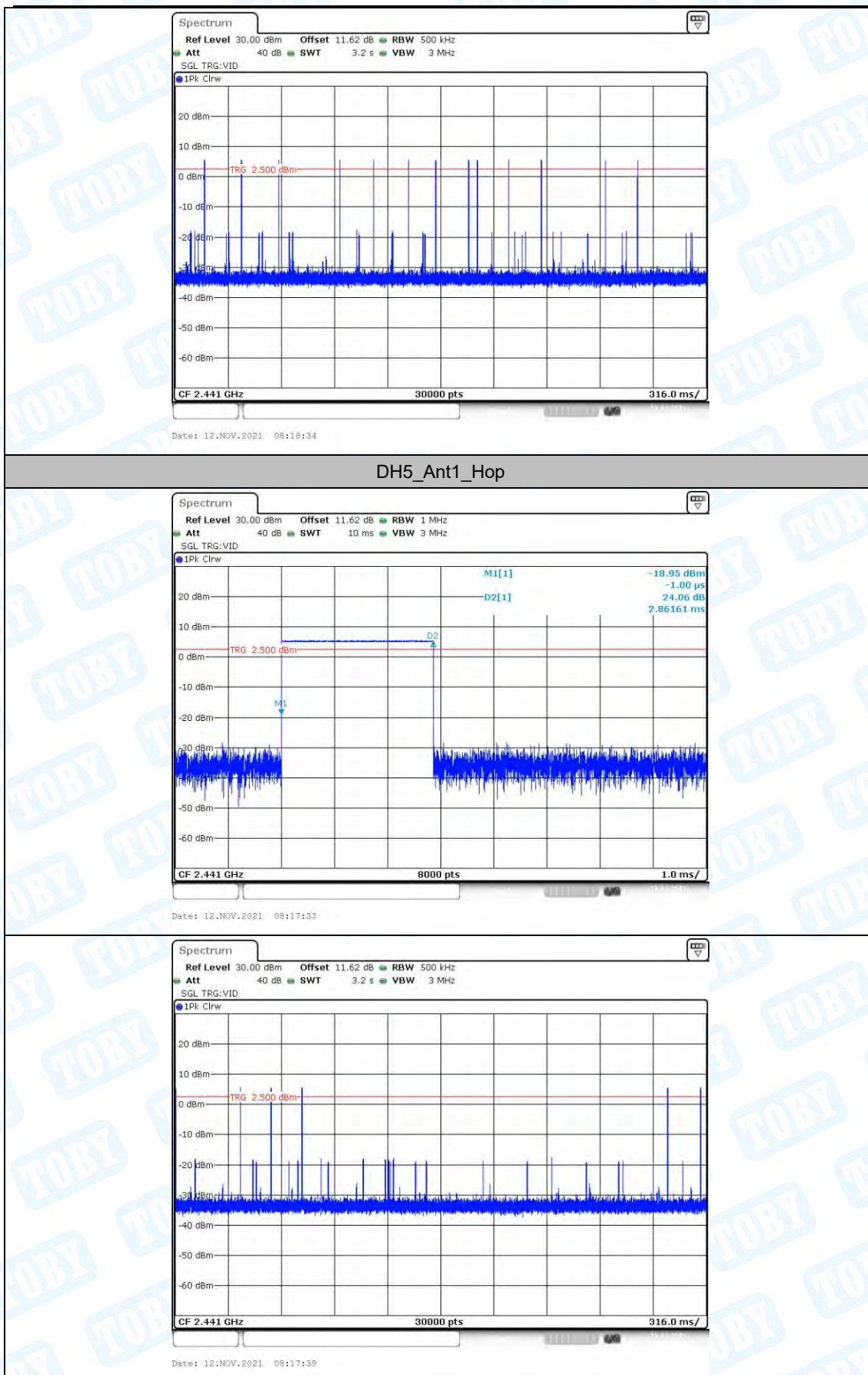
5. Time of occupancy

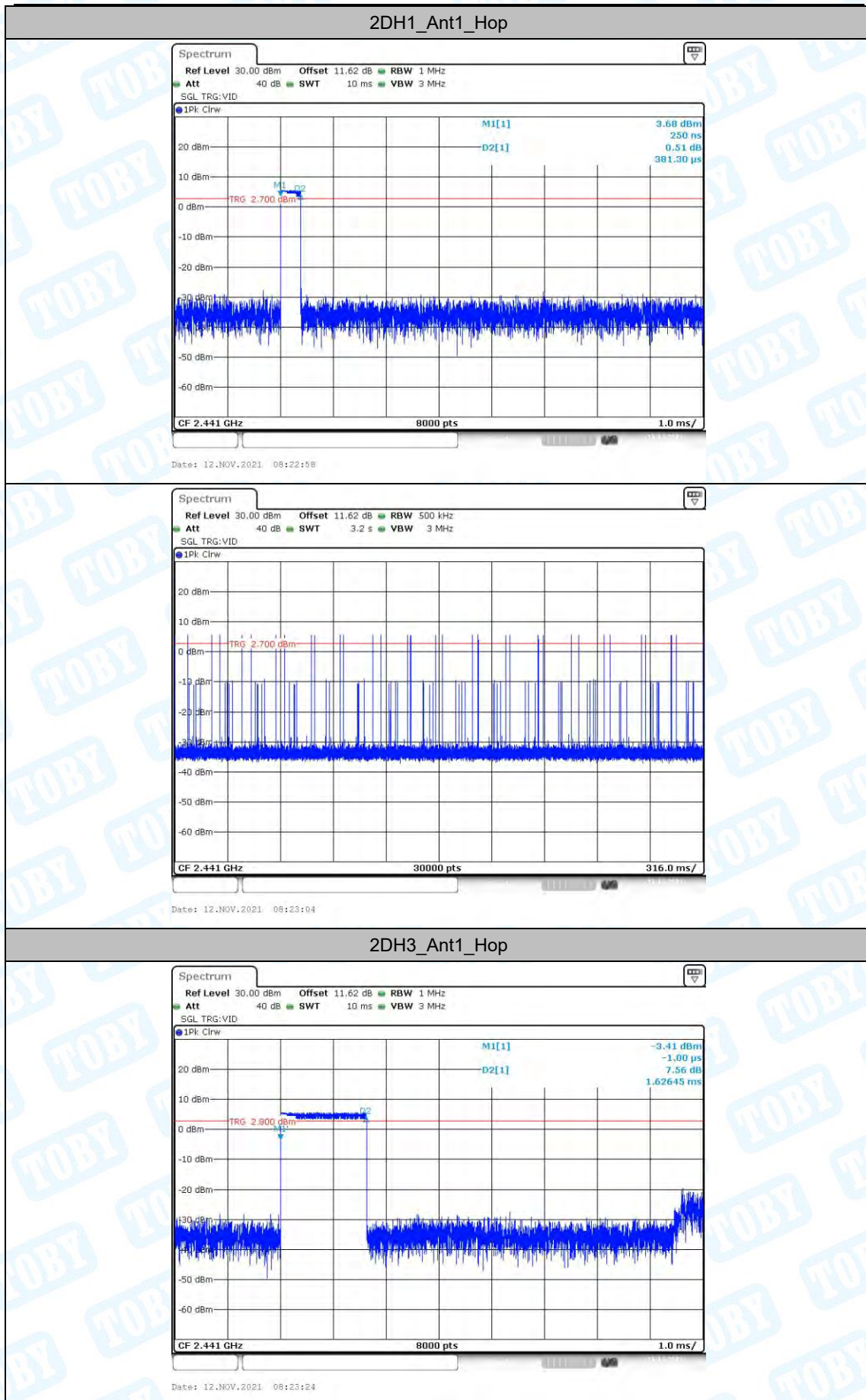
5.1. Test Result

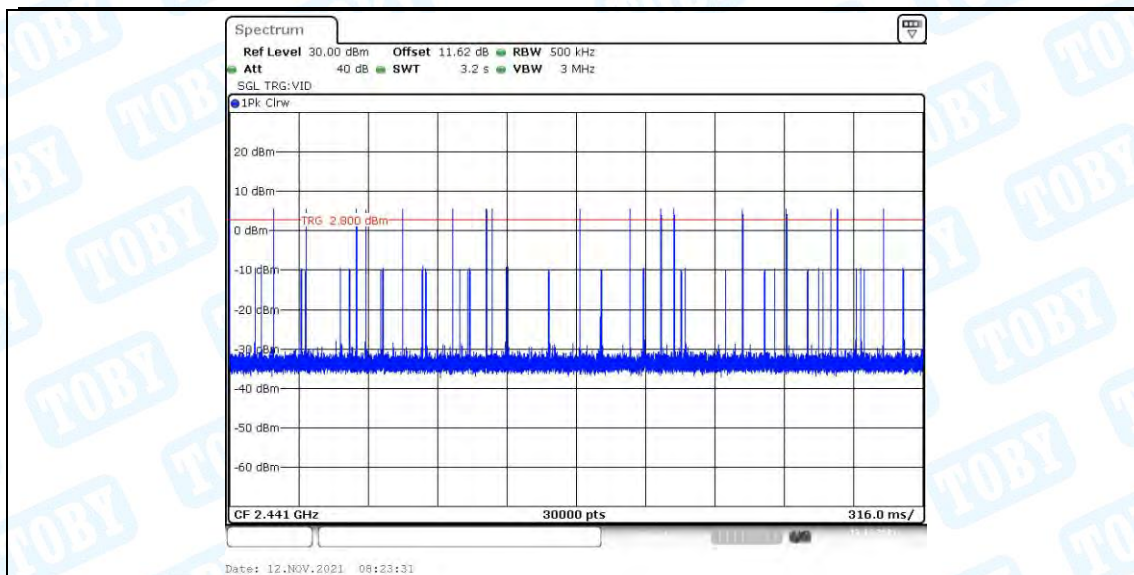
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.37	330	0.123	≤0.4	PASS
DH3	Ant1	Hop	1.62	160	0.259	≤0.4	PASS
DH5	Ant1	Hop	2.86	60	0.172	≤0.4	PASS
2DH1	Ant1	Hop	0.38	320	0.122	≤0.4	PASS
2DH3	Ant1	Hop	1.63	180	0.293	≤0.4	PASS
2DH5	Ant1	Hop	2.87	130	0.373	≤0.4	PASS
3DH1	Ant1	Hop	0.38	330	0.126	≤0.4	PASS
3DH3	Ant1	Hop	1.63	160	0.26	≤0.4	PASS
3DH5	Ant1	Hop	2.87	80	0.23	≤0.4	PASS

5.2.Test Graphs

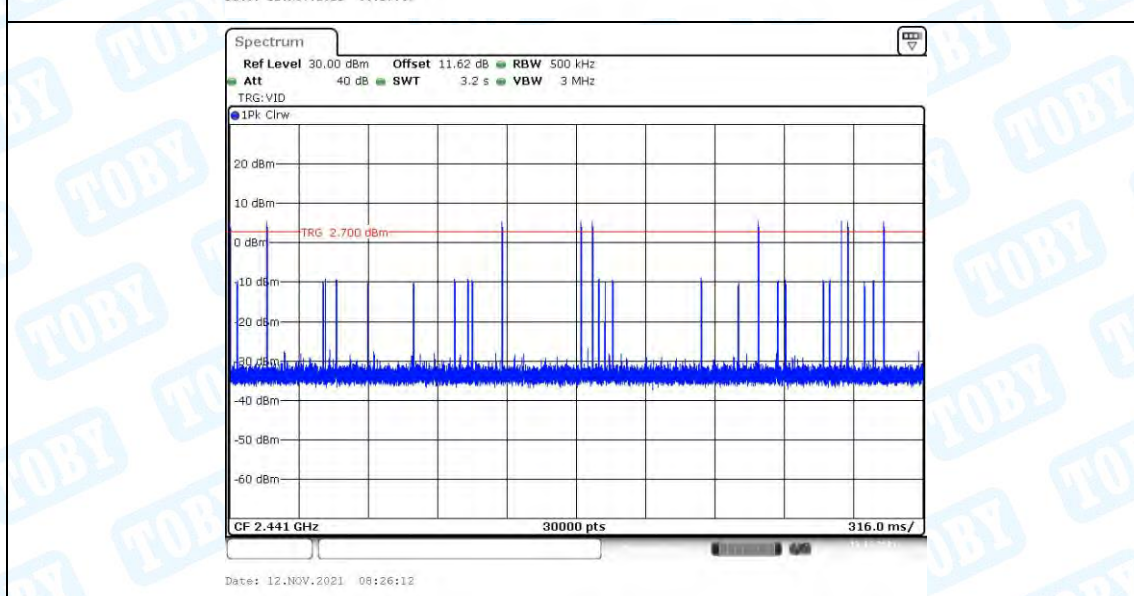
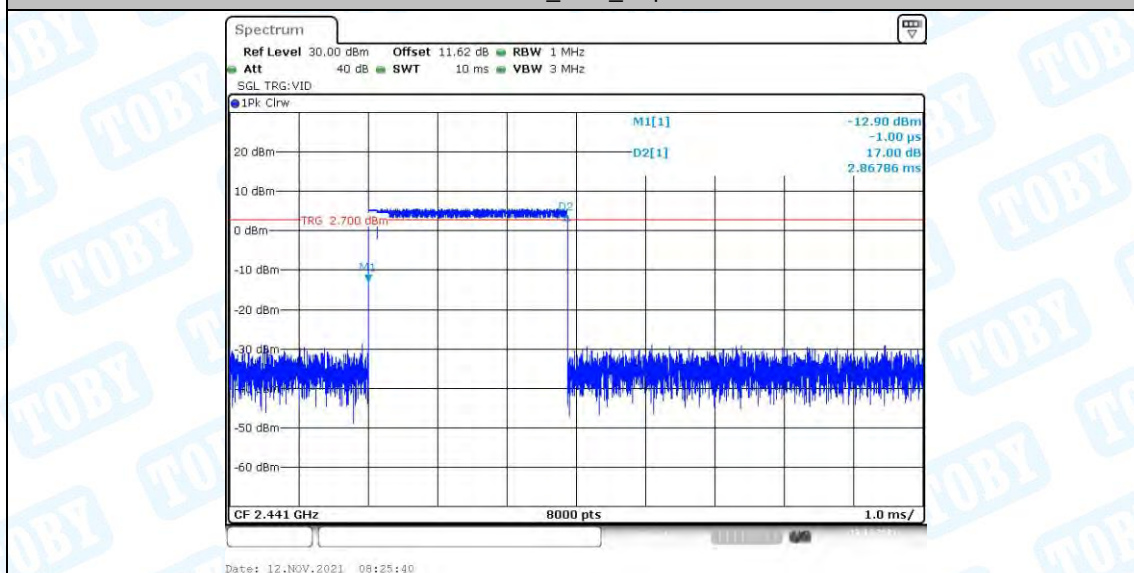


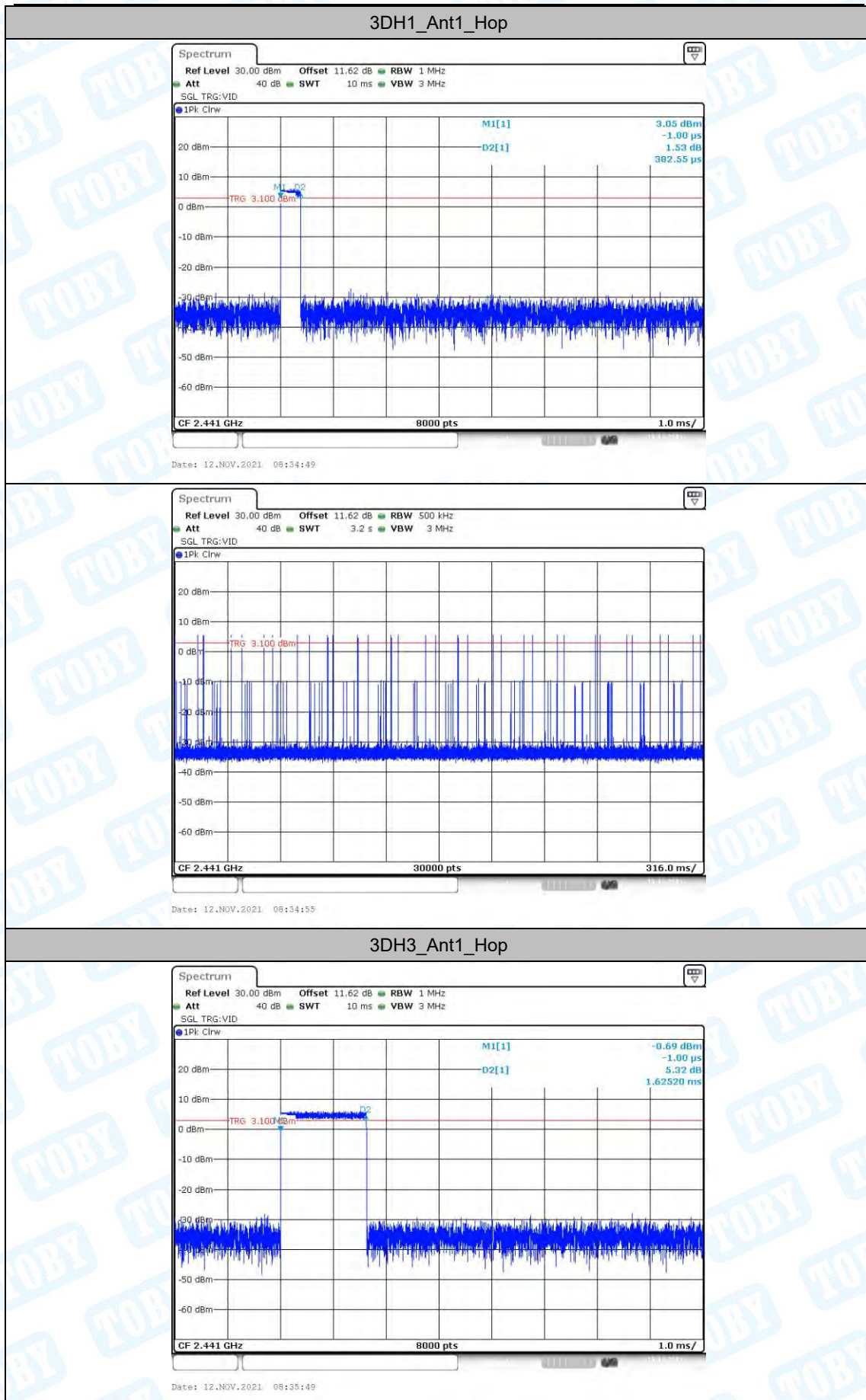


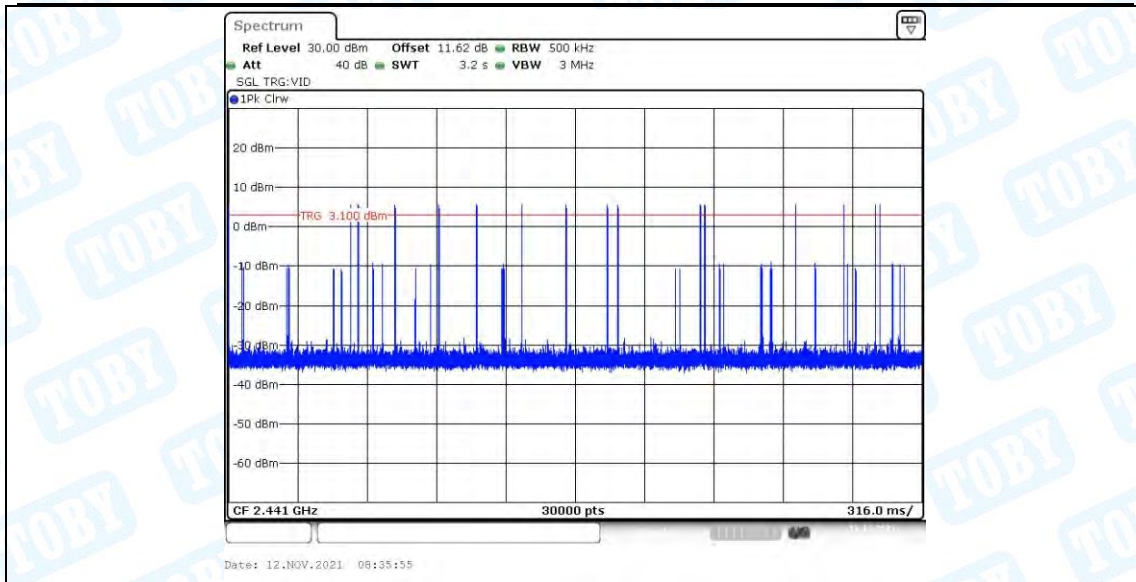




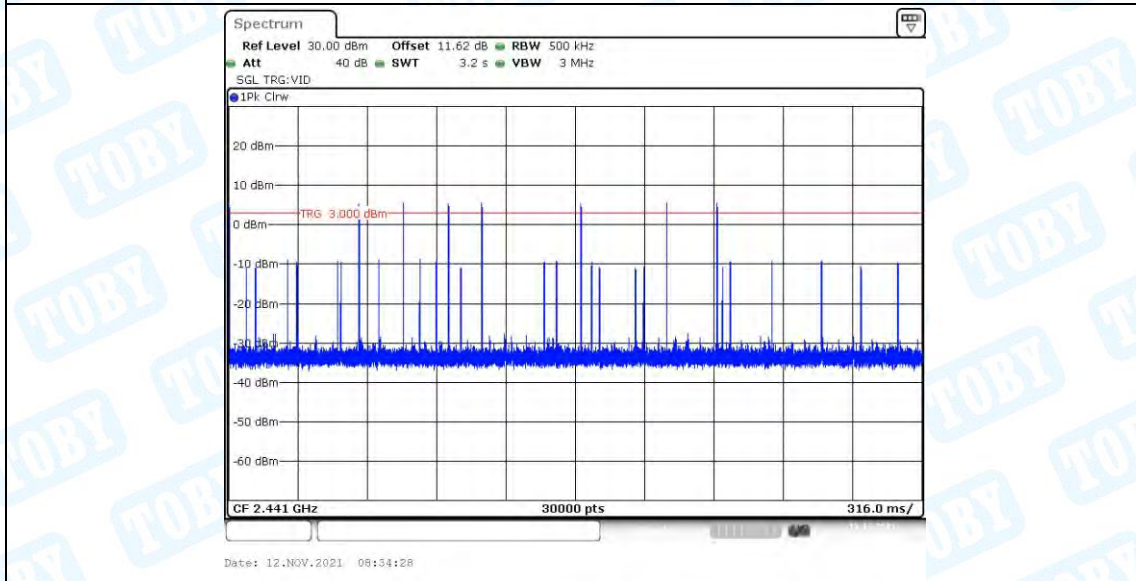
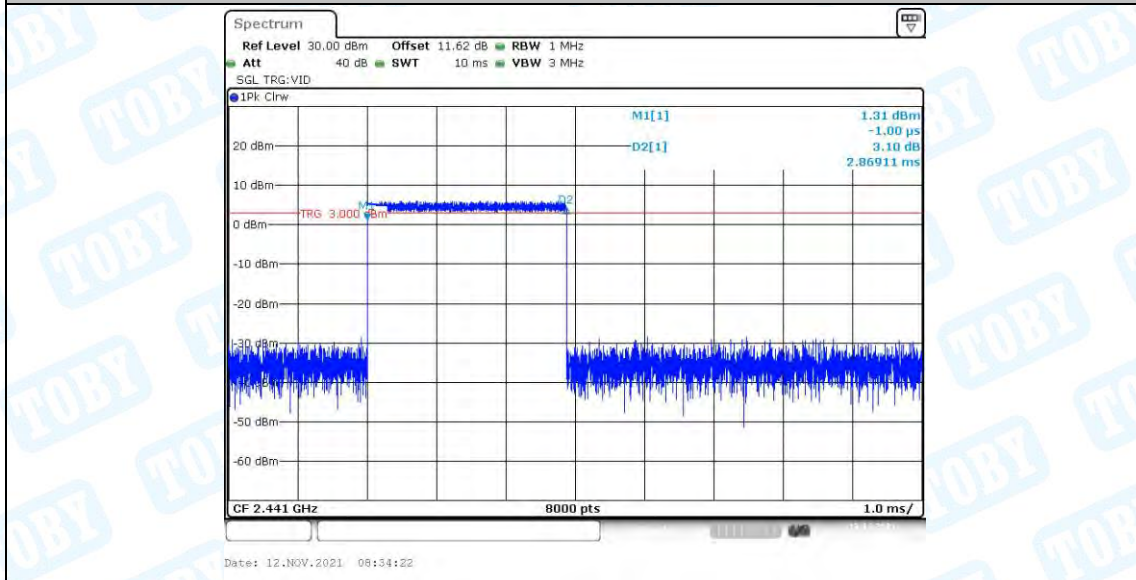
2DH5_Ant1_Hop







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

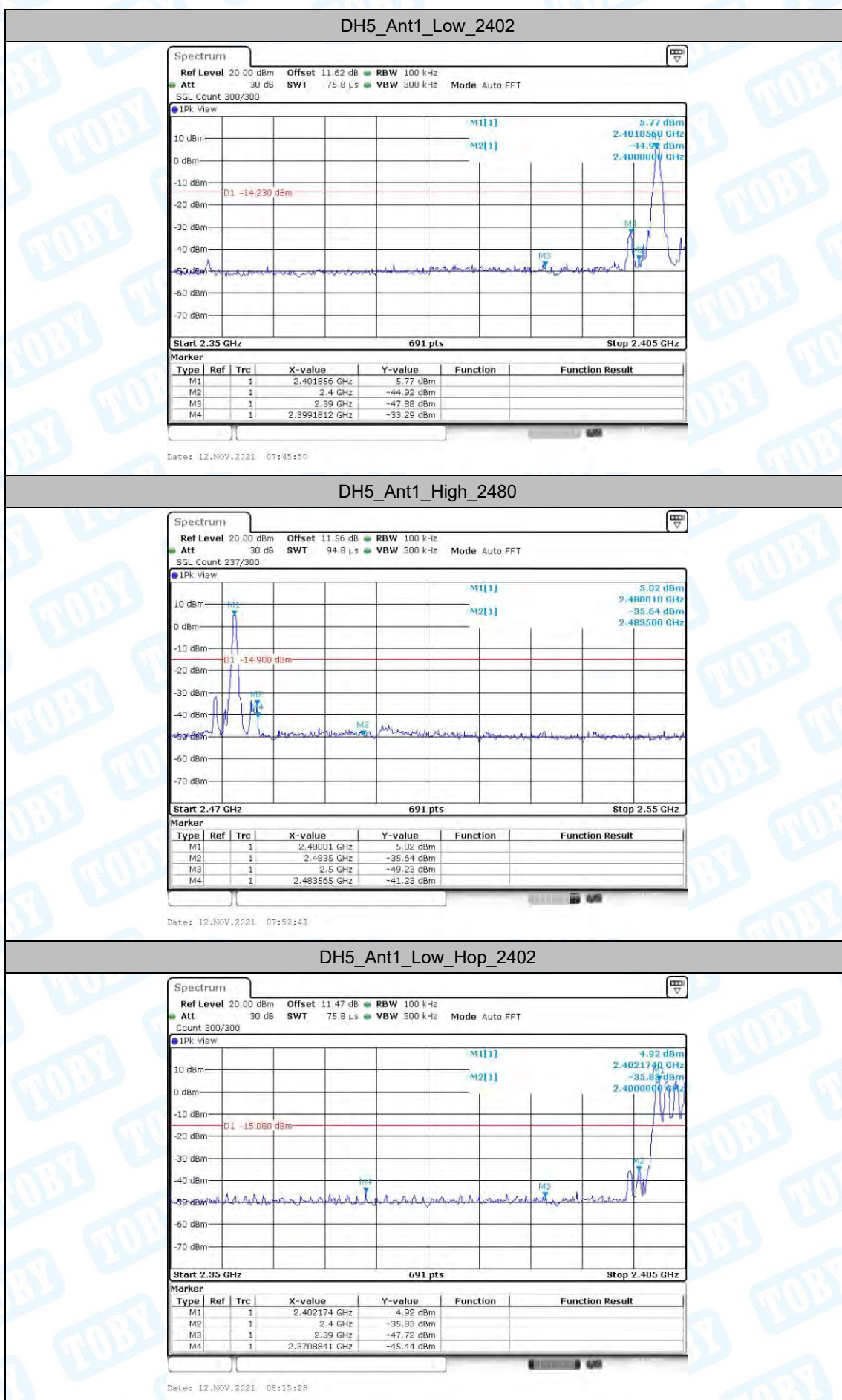


7. Band edge measurements

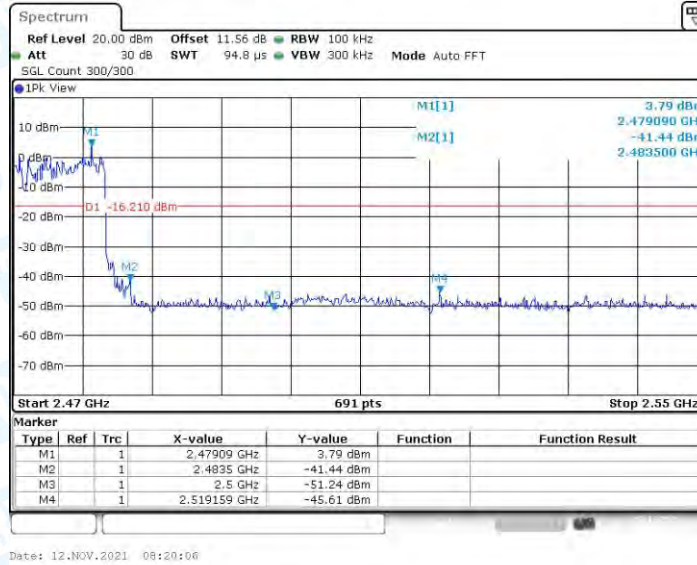
7.1. Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	5.77	-33.29	≤ -14.23	PASS
		High	2480	5.02	-41.23	≤ -14.98	PASS
		Low	Hop_2402	4.92	-45.44	≤ -15.08	PASS
		High	Hop_2480	3.79	-45.61	≤ -16.21	PASS
2DH5	Ant1	Low	2402	4.69	-35.31	≤ -15.31	PASS
		High	2480	5.31	-42.48	≤ -14.69	PASS
		Low	Hop_2402	4.36	-48.04	≤ -15.64	PASS
		High	Hop_2480	2.57	-44.23	≤ -17.43	PASS
3DH5	Ant1	Low	2402	5.66	-33.81	≤ -14.34	PASS
		High	2480	5.34	-42.09	≤ -14.66	PASS
		Low	Hop_2402	5.12	-46.24	≤ -14.88	PASS
		High	Hop_2480	2.22	-45.21	≤ -17.78	PASS

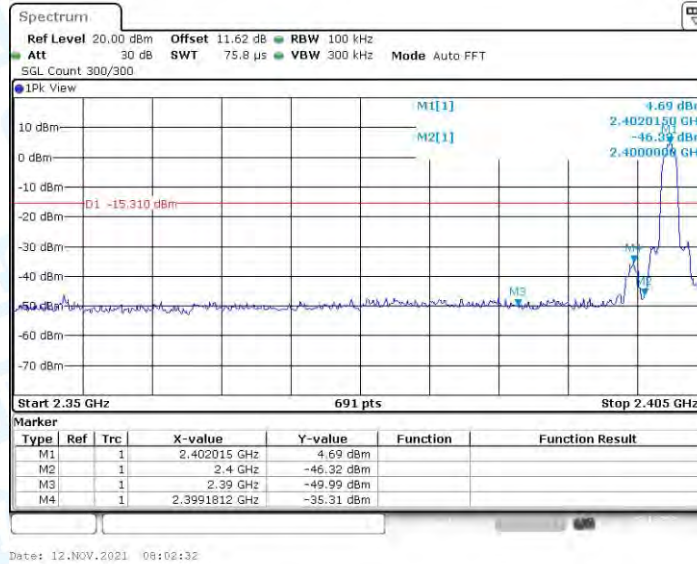
7.2. Test Graphs



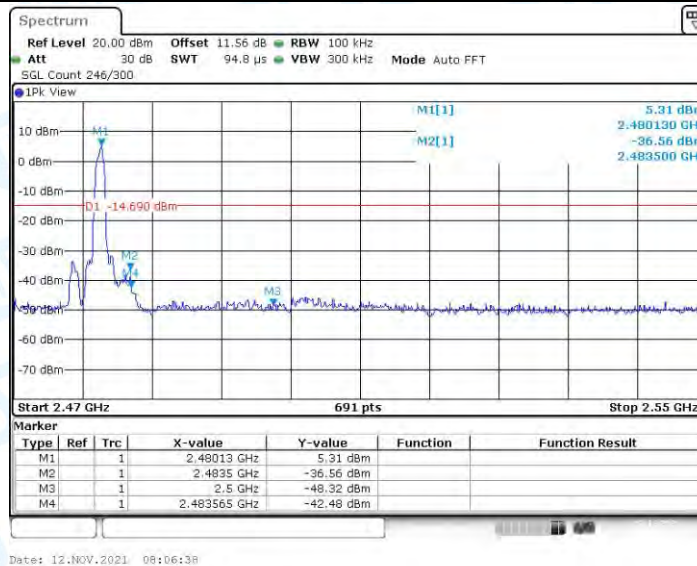
DH5_Ant1_High_Hop_2480



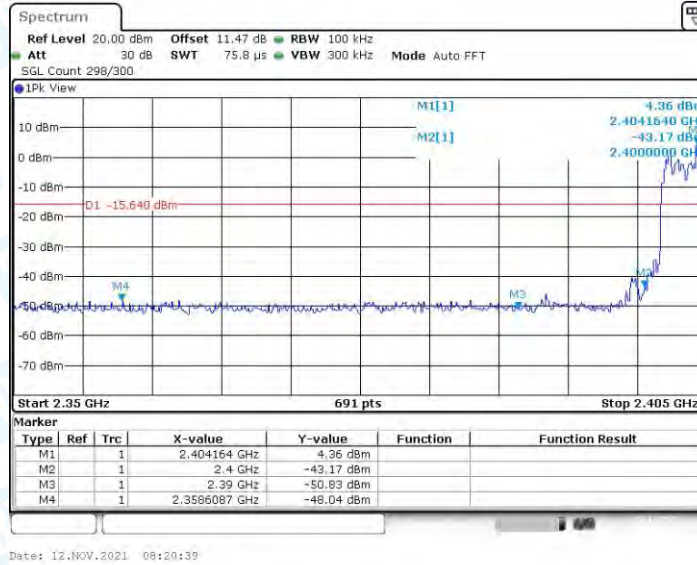
2DH5_Ant1_Low_2402



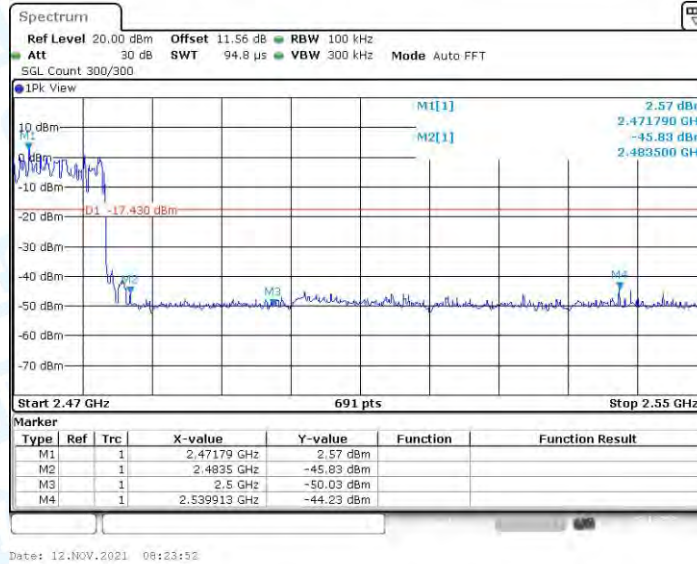
2DH5_Ant1_High_2480



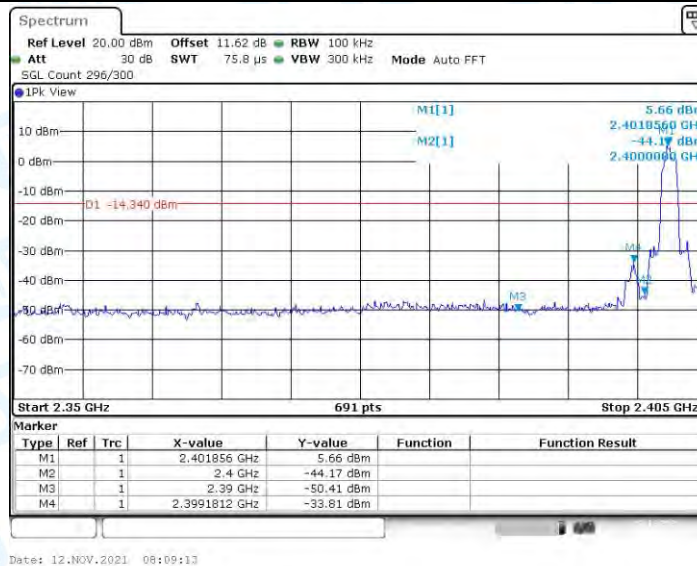
2DH5_Ant1_Low_Hop_2402



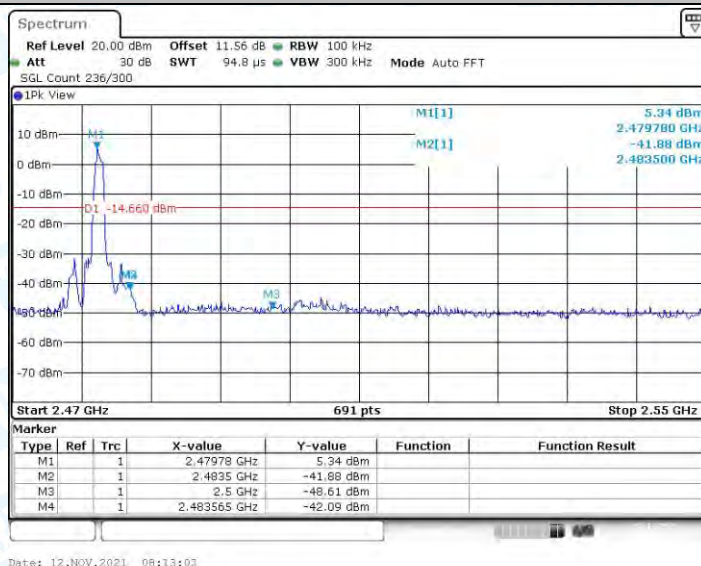
2DH5_Ant1_High_Hop_2480



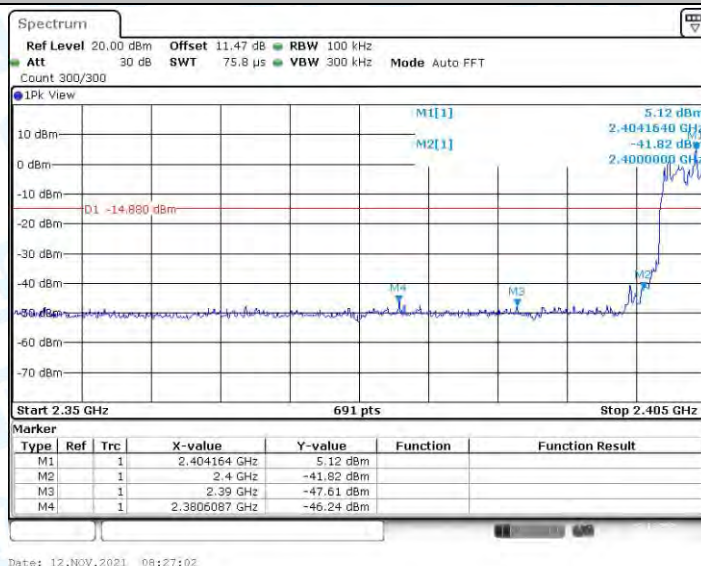
3DH5_Ant1_Low_2402



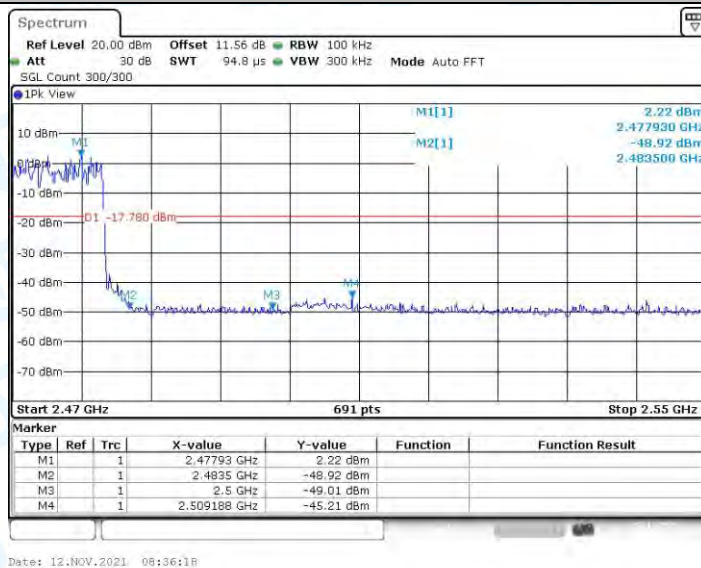
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480

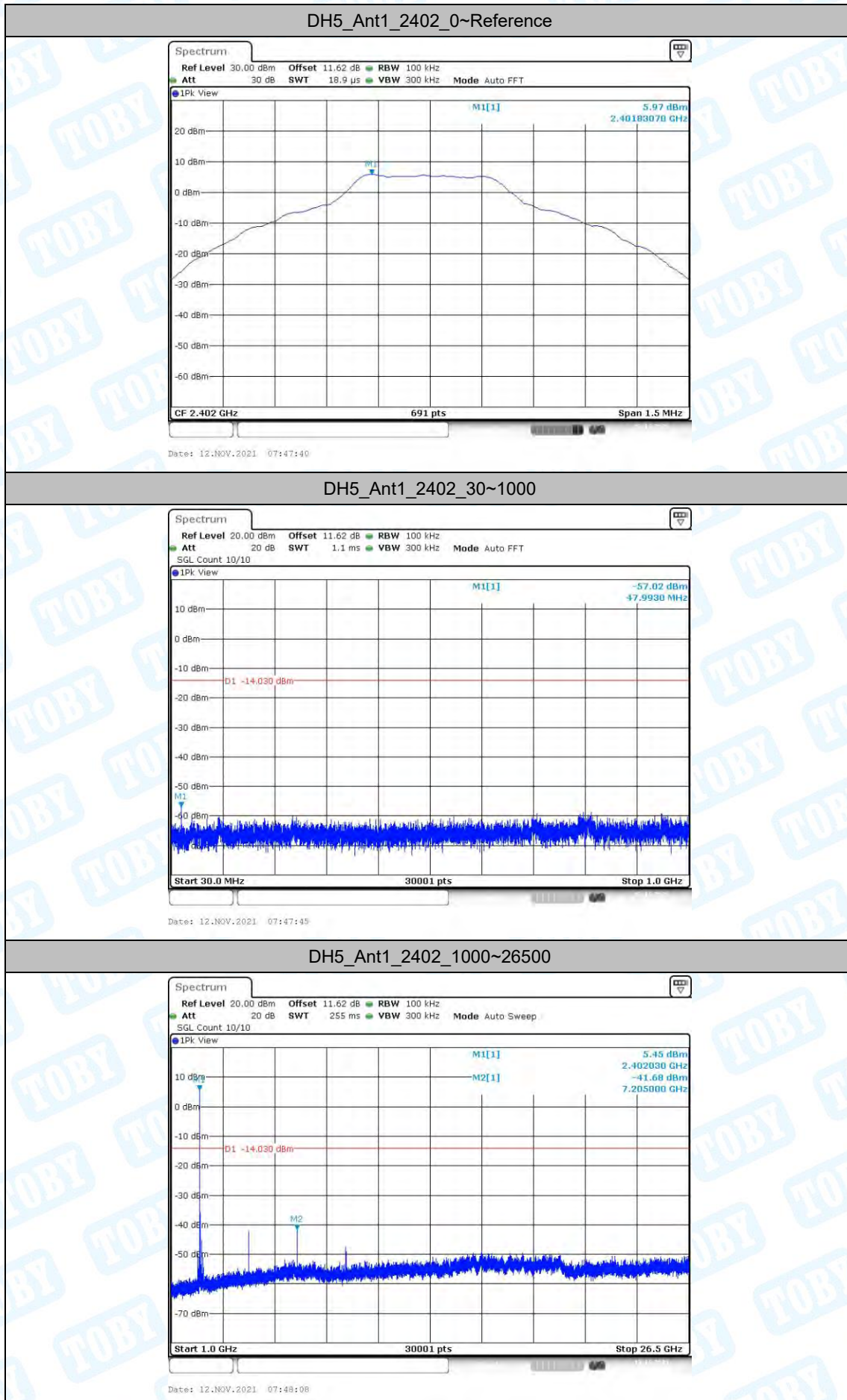


8. Conducted Spurious Emission

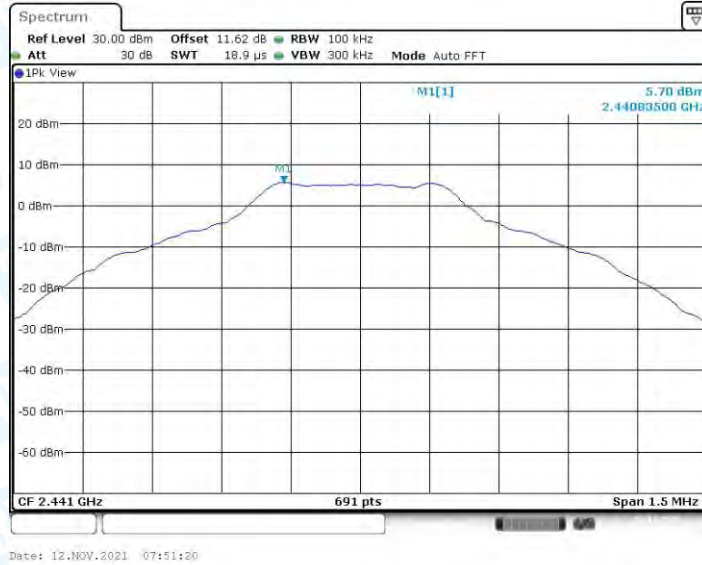
8.1. Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	5.97	5.97	---	PASS
			30~1000	5.97	-57.02	≤-14.03	PASS
			1000~26500	5.97	-41.68	≤-14.03	PASS
		2441	Reference	5.70	5.70	---	PASS
			30~1000	5.70	-52.59	≤-14.3	PASS
			1000~26500	5.70	-41.53	≤-14.3	PASS
		2480	Reference	5.51	5.51	---	PASS
			30~1000	5.51	-56.38	≤-14.49	PASS
			1000~26500	5.51	-43.05	≤-14.49	PASS
2DH5	Ant1	2402	Reference	5.67	5.67	---	PASS
			30~1000	5.67	-53.54	≤-14.33	PASS
			1000~26500	5.67	-39.6	≤-14.33	PASS
		2441	Reference	5.50	5.50	---	PASS
			30~1000	5.50	-57.65	≤-14.5	PASS
			1000~26500	5.50	-45.76	≤-14.5	PASS
		2480	Reference	-2.08	-2.08	---	PASS
			30~1000	-2.08	-56.33	≤-22.08	PASS
			1000~26500	-2.08	-43.88	≤-22.08	PASS
3DH5	Ant1	2402	Reference	5.43	5.43	---	PASS
			30~1000	5.43	-57.73	≤-14.57	PASS
			1000~26500	5.43	-46.23	≤-14.57	PASS
		2441	Reference	5.47	5.47	---	PASS
			30~1000	5.47	-56.84	≤-14.53	PASS
			1000~26500	5.47	-45.71	≤-14.53	PASS
		2480	Reference	5.28	5.28	---	PASS
			30~1000	5.28	-53.3	≤-14.72	PASS
			1000~26500	5.28	-42.57	≤-14.72	PASS

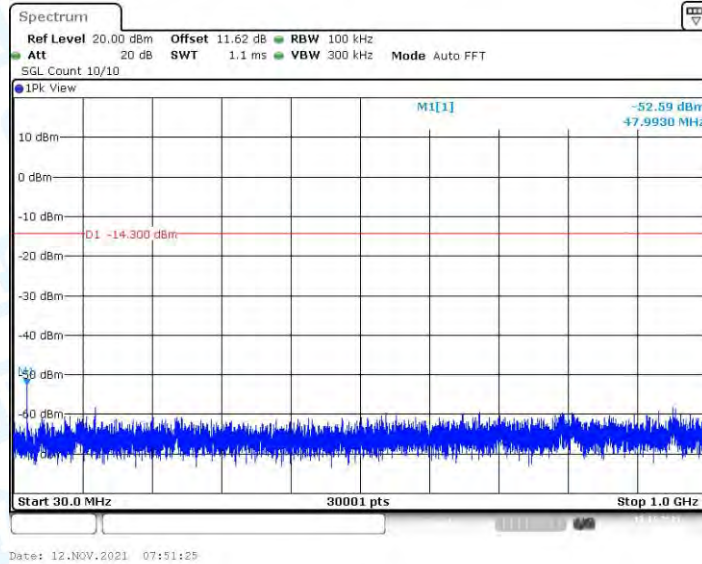
8.2.Test Graphs



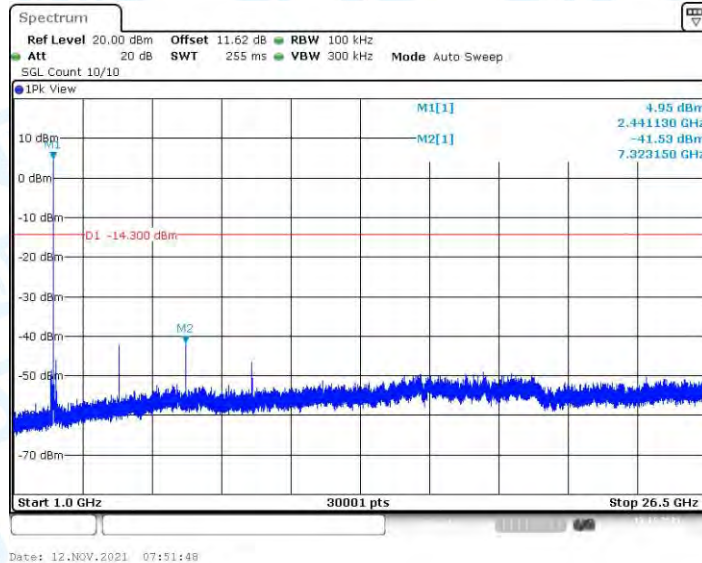
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



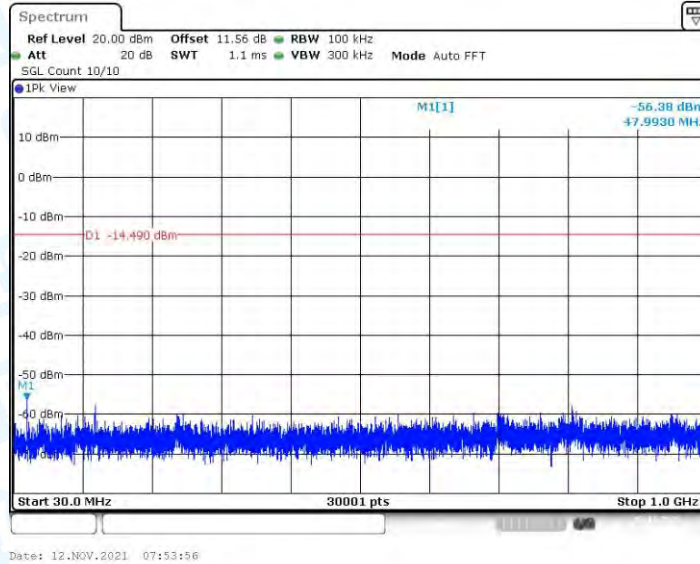
DH5_Ant1_2441_1000~26500



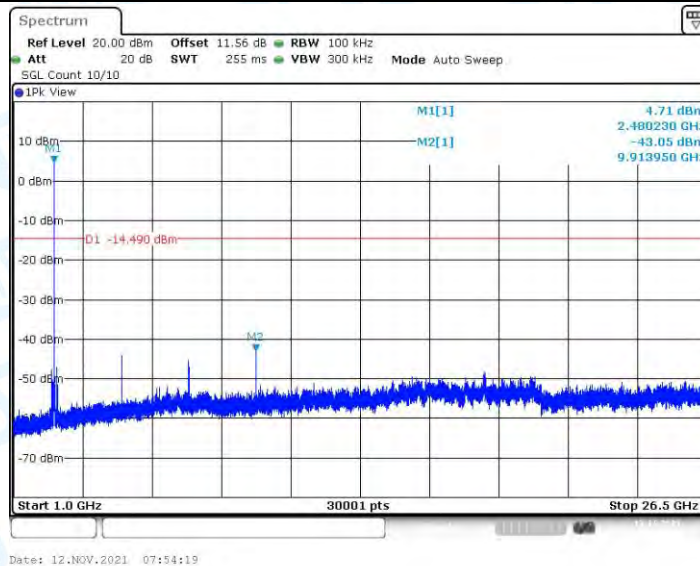
DH5_Ant1_2480_0~Reference



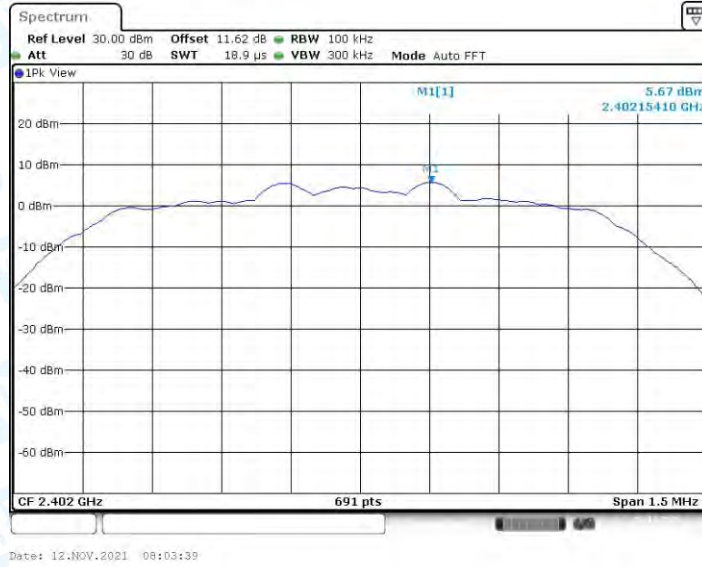
DH5_Ant1_2480_30~1000



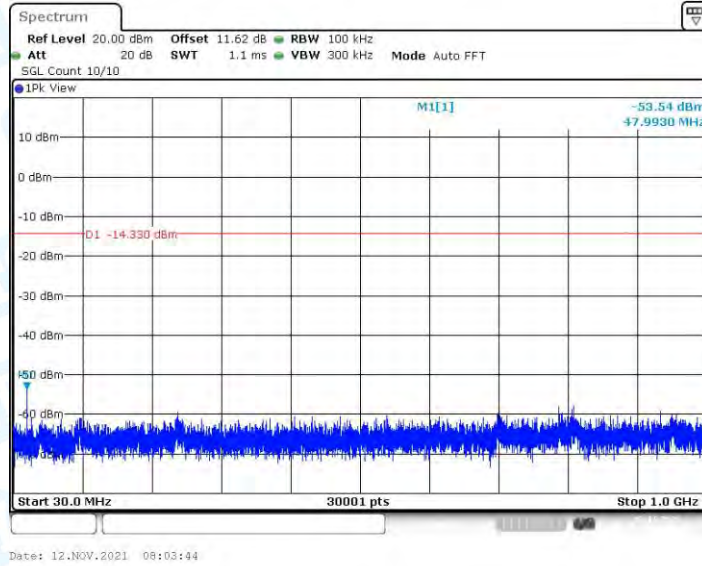
DH5_Ant1_2480_1000~26500



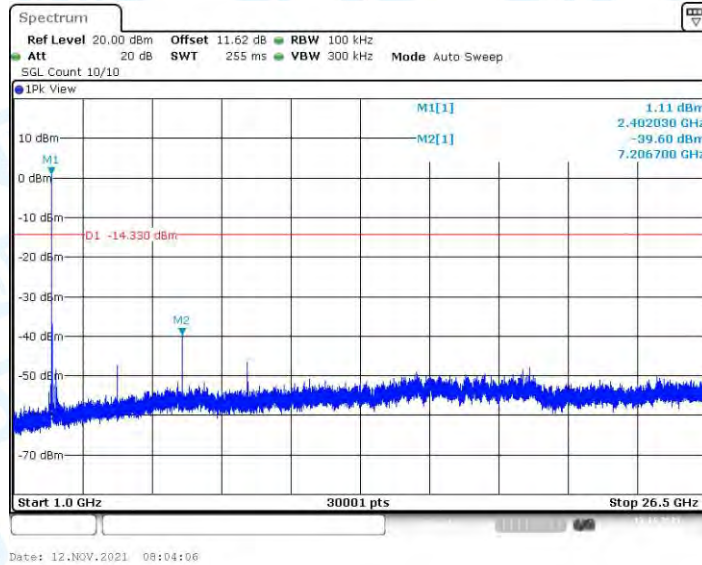
2DH5_Ant1_2402_0~Reference



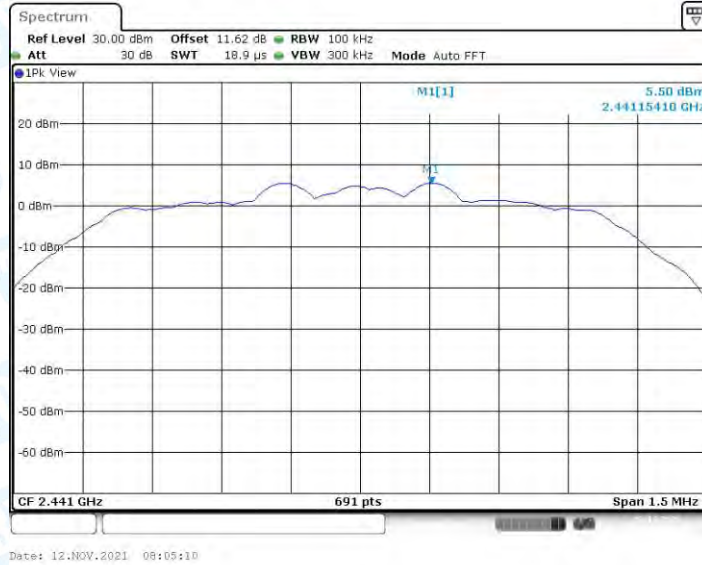
2DH5_Ant1_2402_30~1000



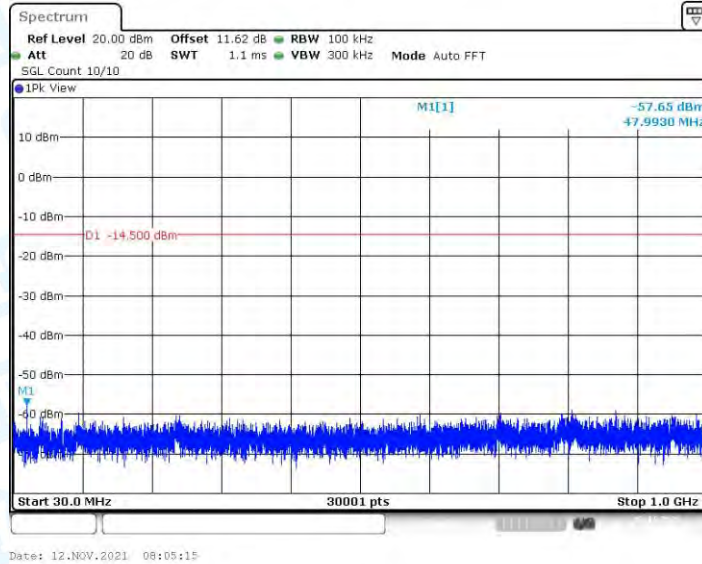
2DH5_Ant1_2402_1000~26500



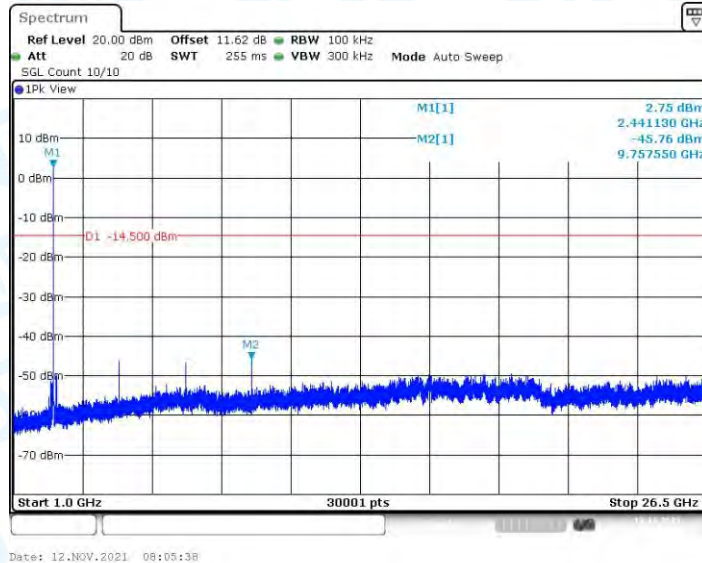
2DH5_Ant1_2441_0~Reference



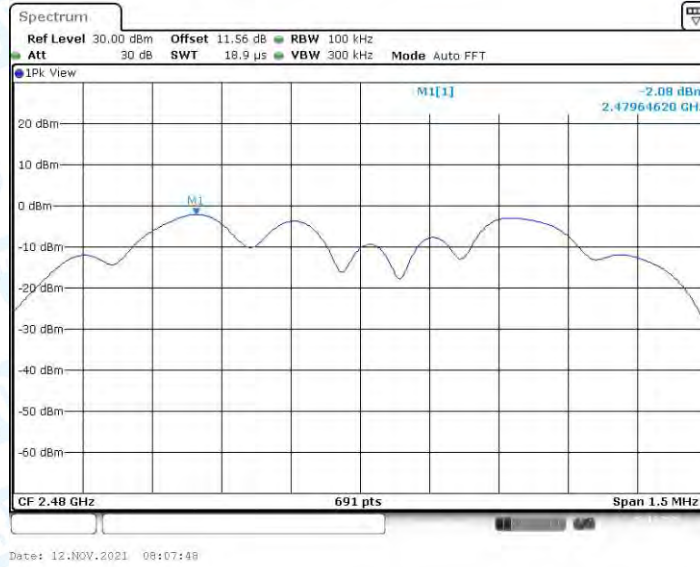
2DH5_Ant1_2441_30~1000



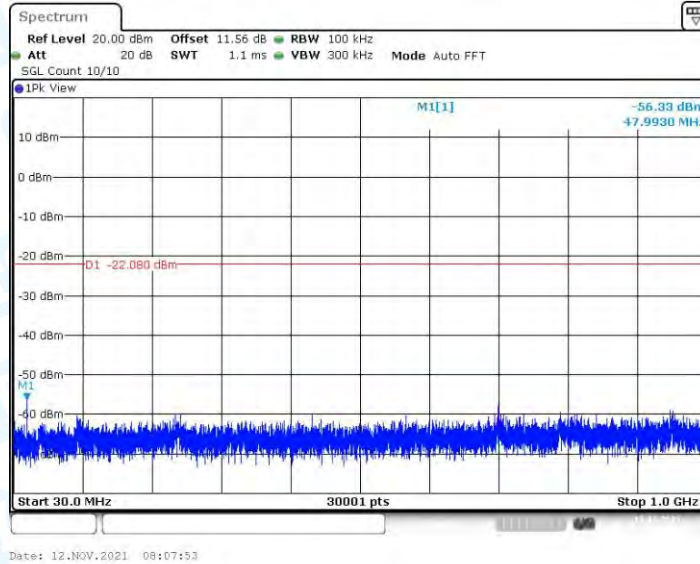
2DH5_Ant1_2441_1000~26500



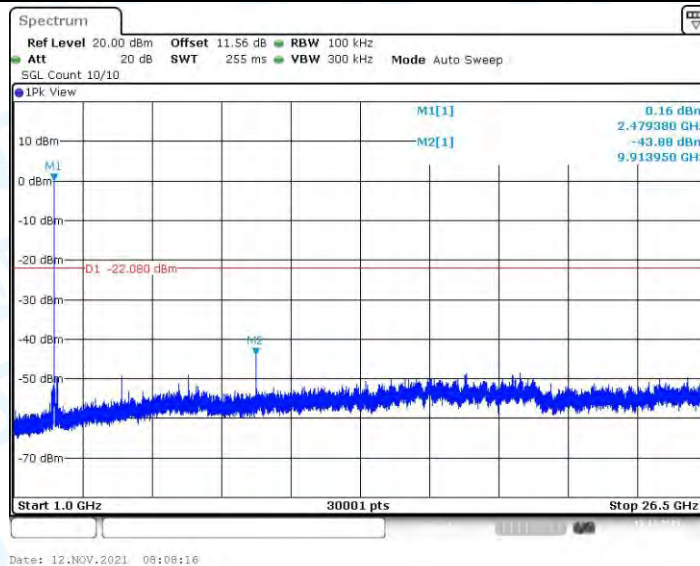
2DH5_Ant1_2480_0~Reference



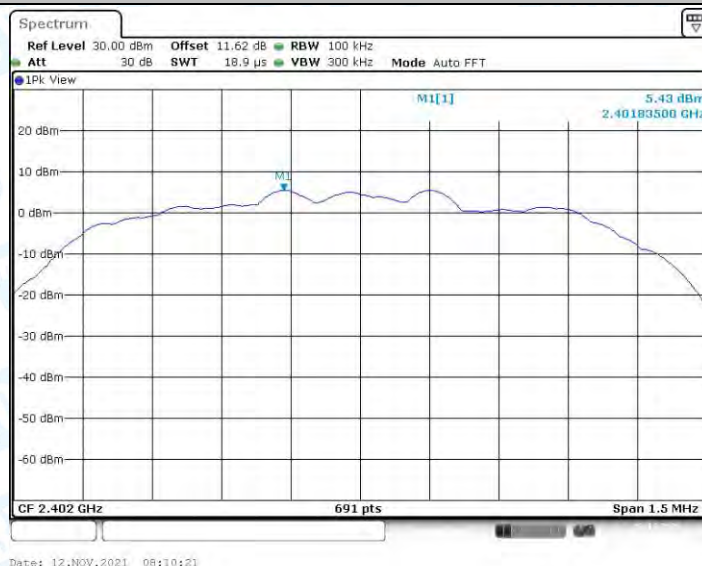
2DH5_Ant1_2480_30~1000



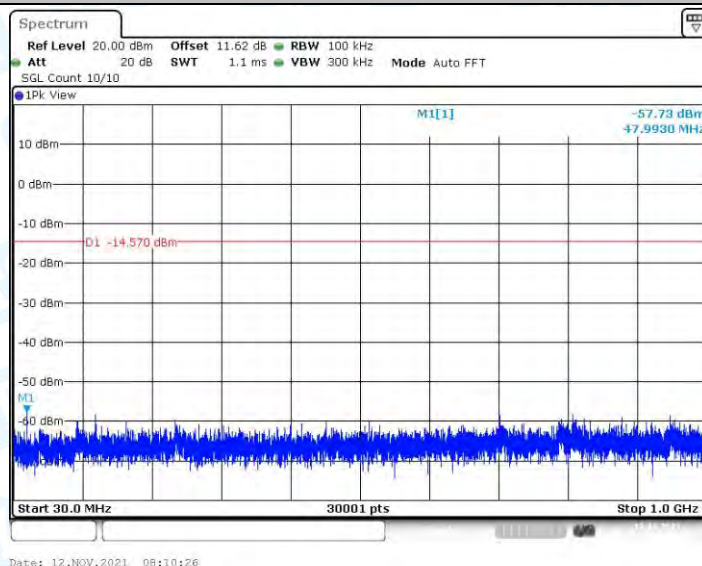
2DH5_Ant1_2480_1000~26500



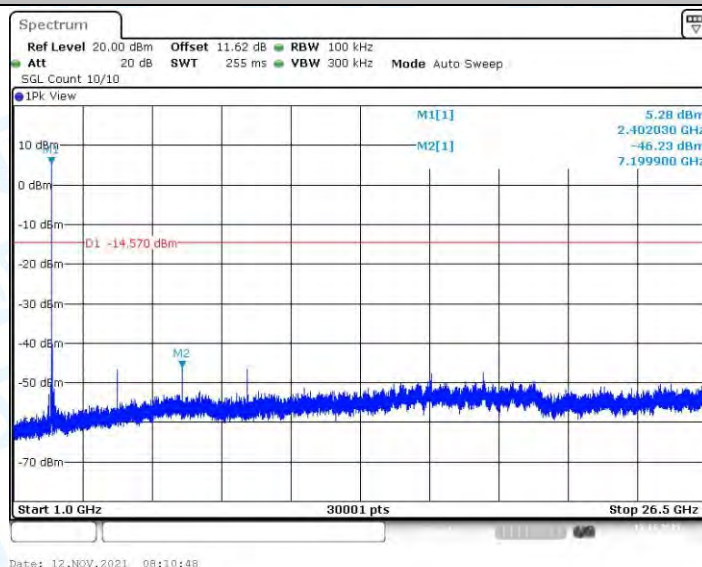
3DH5_Ant1_2402_0~Reference



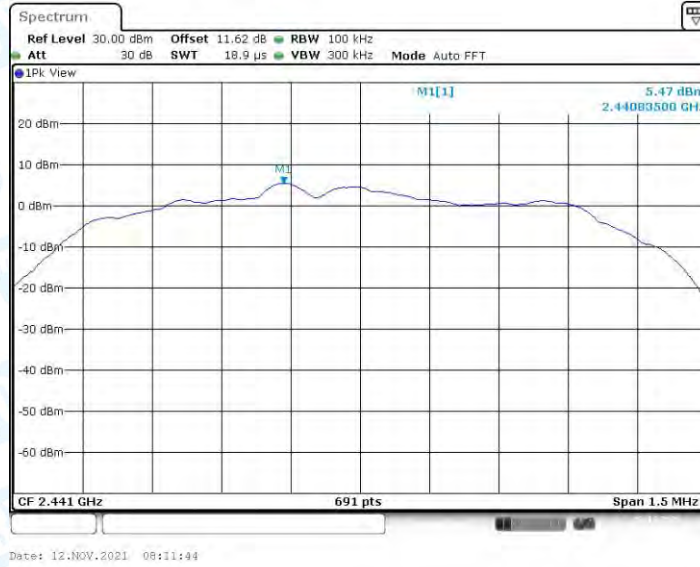
3DH5_Ant1_2402_30~1000



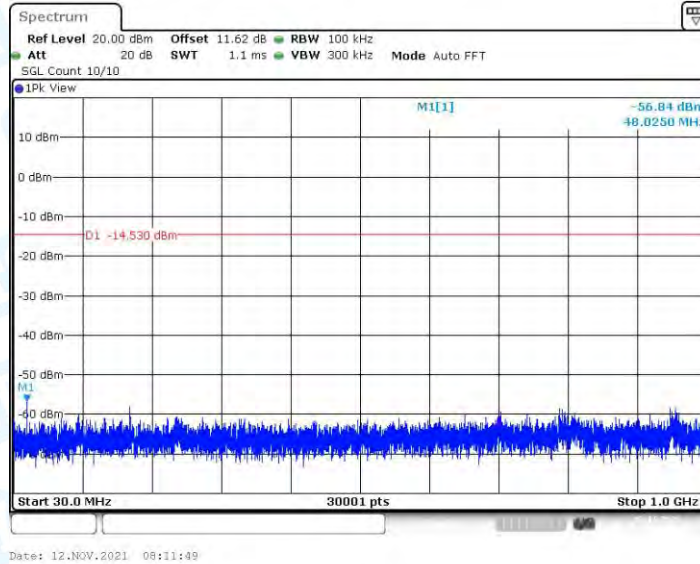
3DH5_Ant1_2402_1000~26500



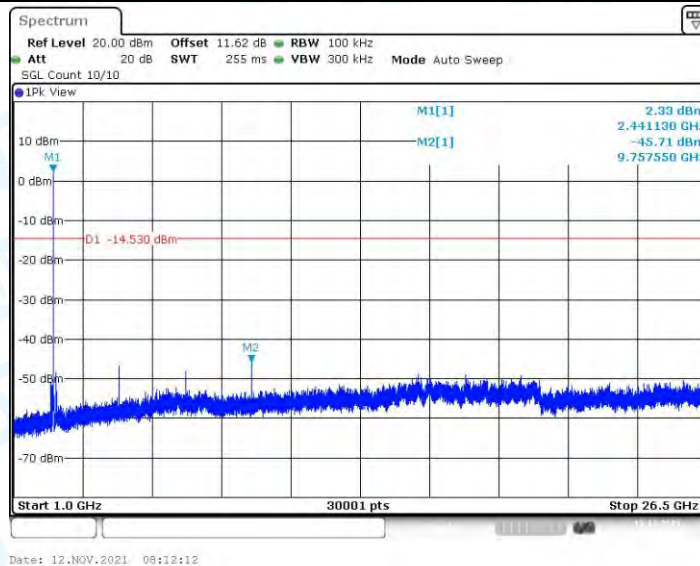
3DH5_Ant1_2441_0~Reference



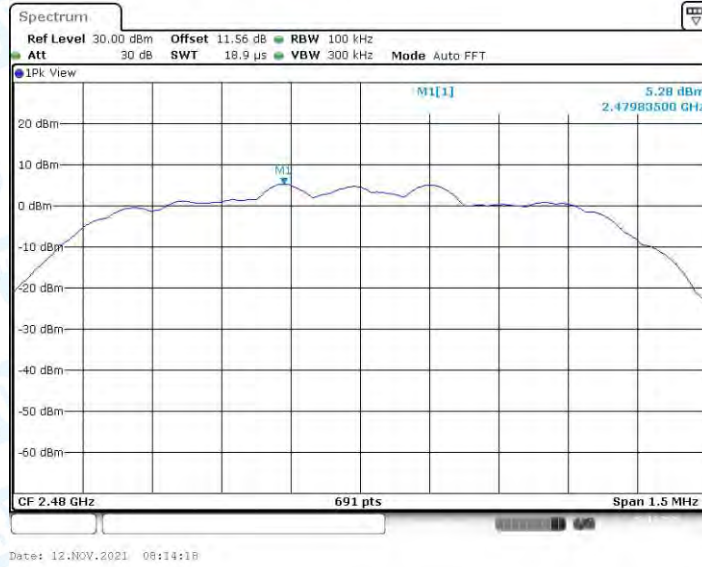
3DH5_Ant1_2441_30~1000



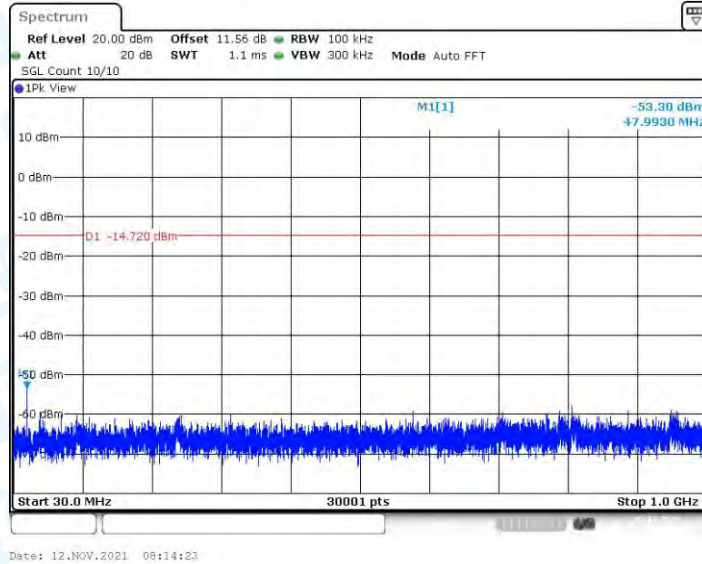
3DH5_Ant1_2441_1000~26500



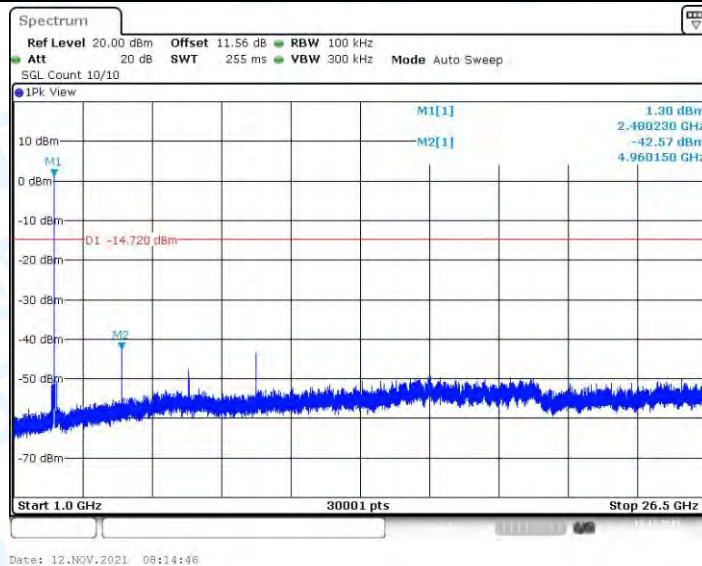
3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500



9. Emissions in Restricted Bands

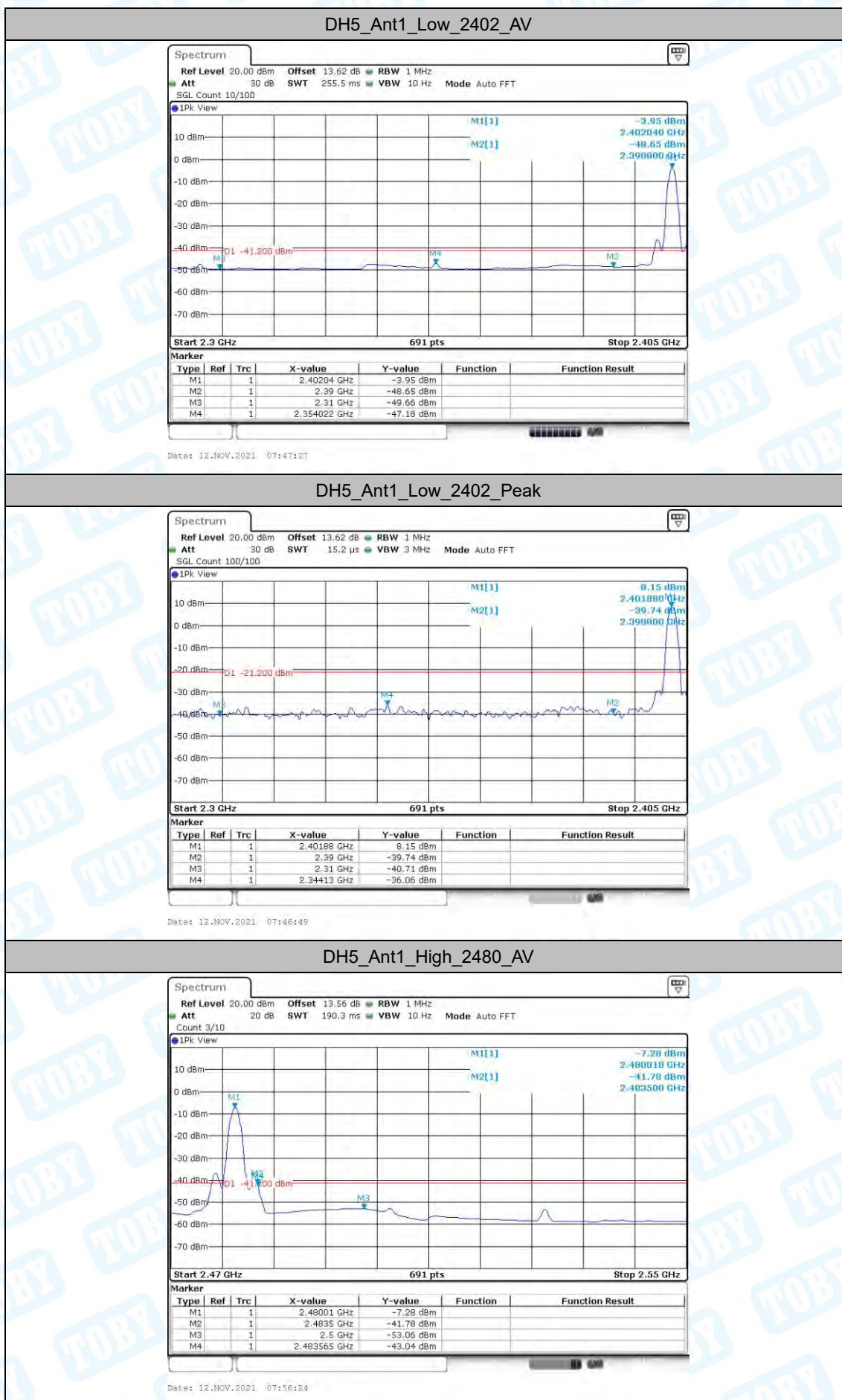
9.1. Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-49.66	≤-41.20	PASS
				AV	2354.022	-47.18	≤-41.20	PASS
				AV	2390.000	-48.65	≤-41.20	PASS
				Peak	2310.000	-40.71	≤-21.20	PASS
				Peak	2344.130	-36.06	≤-21.20	PASS
				Peak	2390.000	-39.74	≤-21.20	PASS
		High	2480	AV	2483.500	-41.78	≤-41.20	PASS
				AV	2483.565	-43.04	≤-41.20	PASS
				AV	2500.000	-53.06	≤-41.20	PASS
				Peak	2483.500	-33.56	≤-21.20	PASS
				Peak	2483.681	-33.03	≤-21.20	PASS
				Peak	2500.000	-40.48	≤-21.20	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-49.75	≤-41.20	PASS
				AV	2340.783	-47.47	≤-41.20	PASS
				AV	2390.000	-48.64	≤-41.20	PASS
				Peak	2310.000	-46.7	≤-21.20	PASS
				Peak	2349.000	-37.02	≤-21.20	PASS
				Peak	2390.000	-40.32	≤-21.20	PASS
		High	2480	AV	2483.500	-41.92	≤-41.20	PASS
				AV	2483.565	-42.6	≤-41.20	PASS
				AV	2500.000	-47.56	≤-41.20	PASS
				Peak	2483.500	-35.98	≤-21.20	PASS
				Peak	2483.797	-35.24	≤-21.20	PASS
				Peak	2500.000	-38.31	≤-21.20	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-49.76	≤-41.20	PASS
				AV	2340.935	-47.47	≤-41.20	PASS
				AV	2390.000	-48.63	≤-41.20	PASS
				Peak	2310.000	-41.93	≤-21.20	PASS
				Peak	2387.196	-36.5	≤-21.20	PASS
				Peak	2390.000	-40.25	≤-21.20	PASS
		High	2480	AV	2483.500	-42.03	≤-41.20	PASS
				AV	2483.565	-42.57	≤-41.20	PASS
				AV	2500.000	-47.54	≤-41.20	PASS
				Peak	2483.500	-36.44	≤-21.20	PASS
				Peak	2483.913	-36.24	≤-21.20	PASS
				Peak	2500.000	-42.26	≤-21.20	PASS

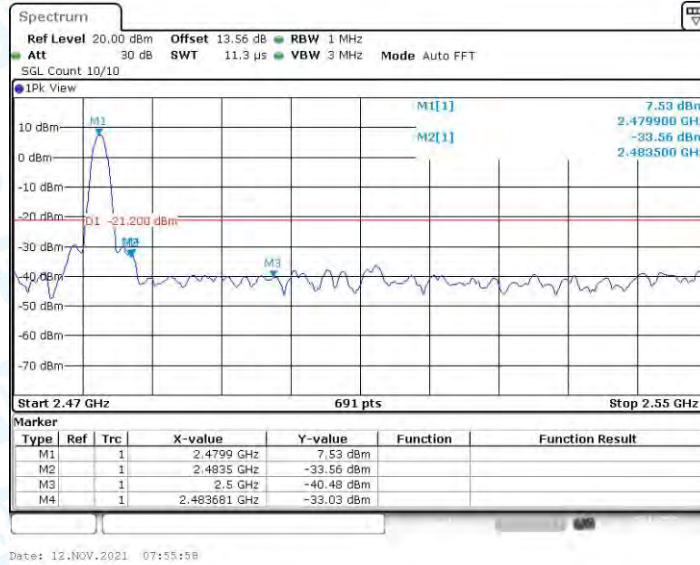
Note:

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.

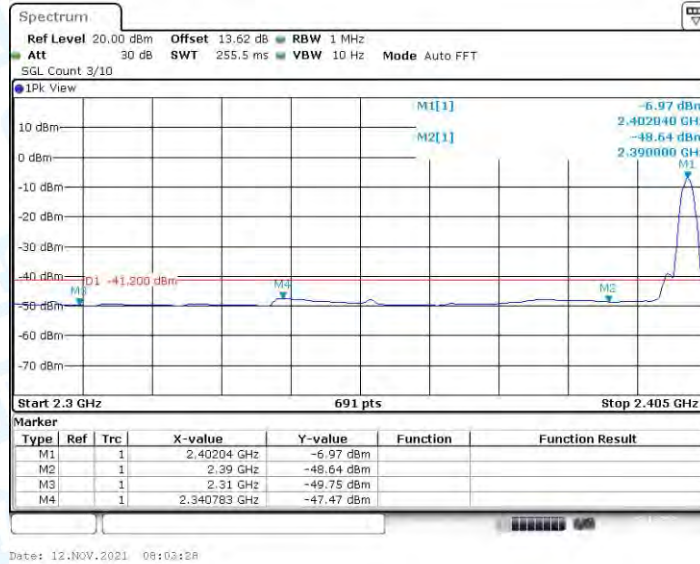
9.2. Test Graphs



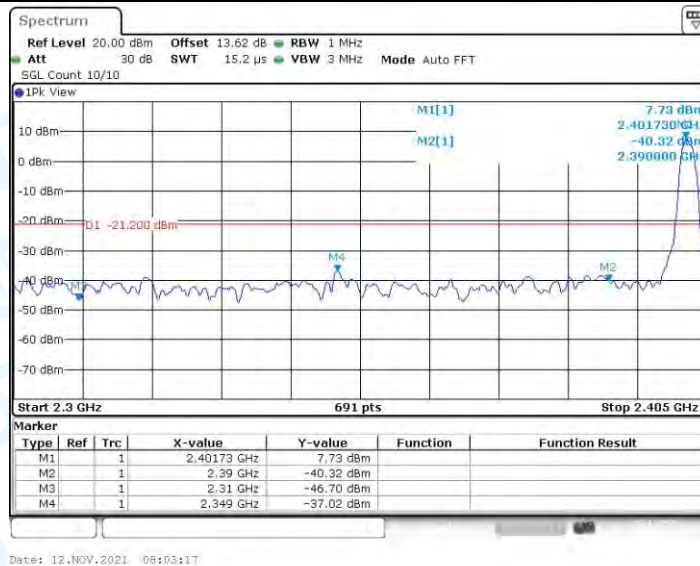
DH5_Ant1_High_2480_Peak

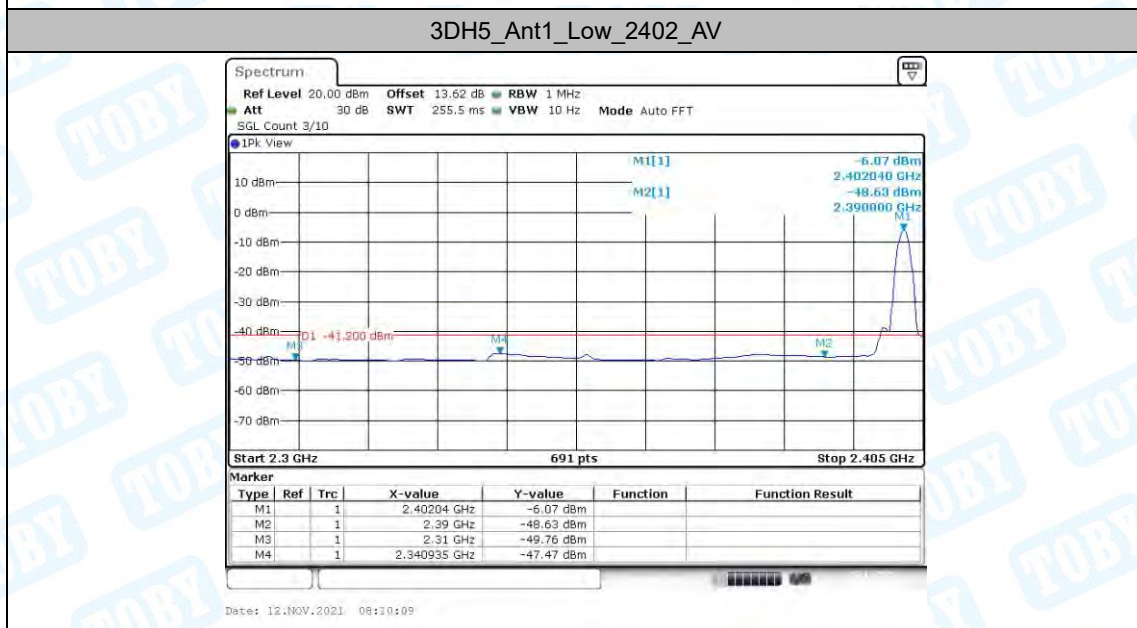
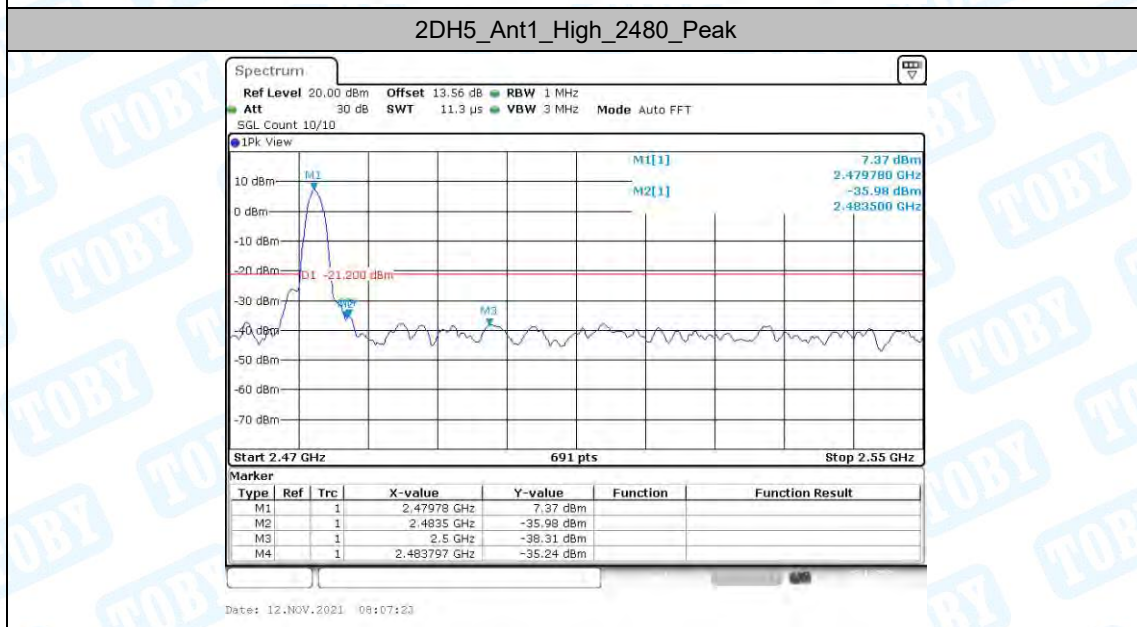
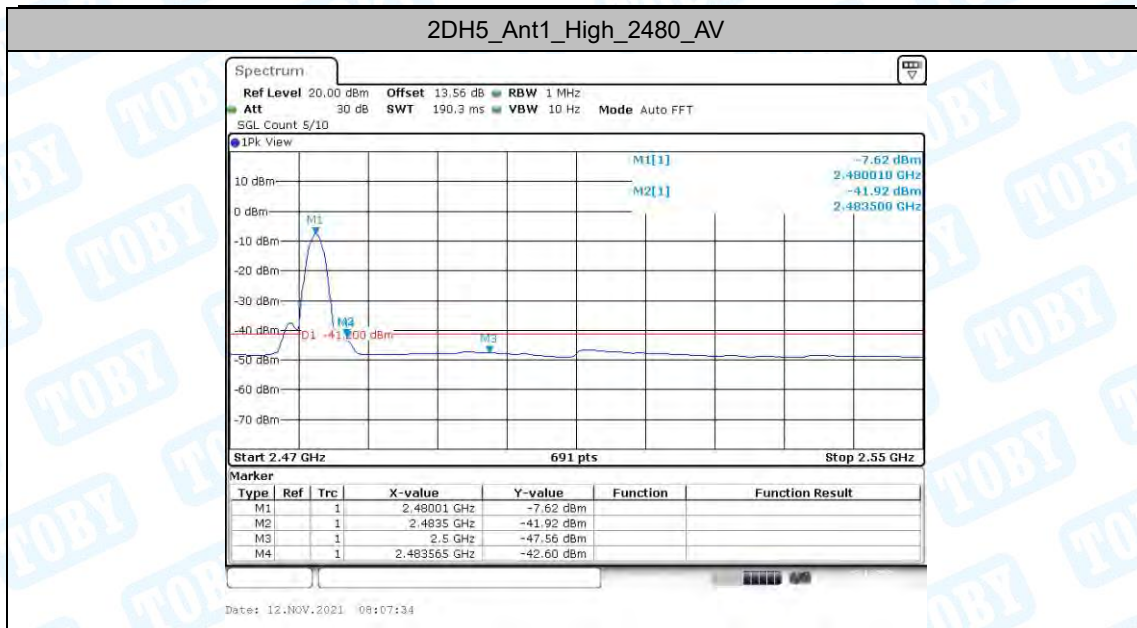


2DH5_Ant1_Low_2402_AV

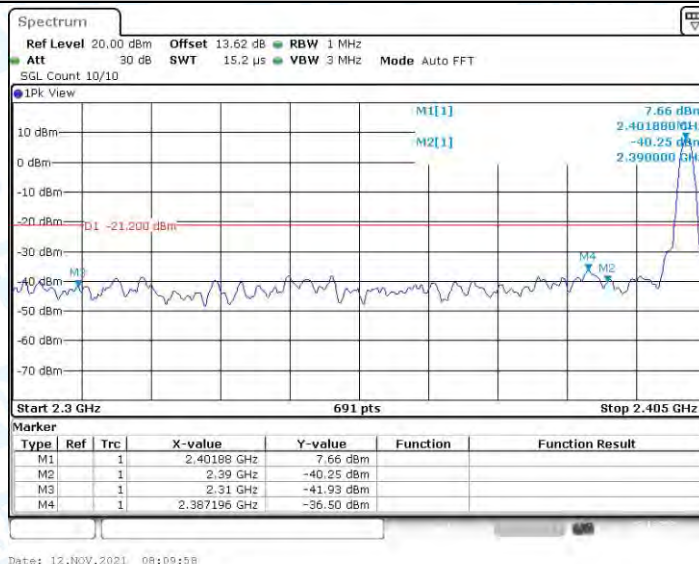


2DH5_Ant1_Low_2402_Peak

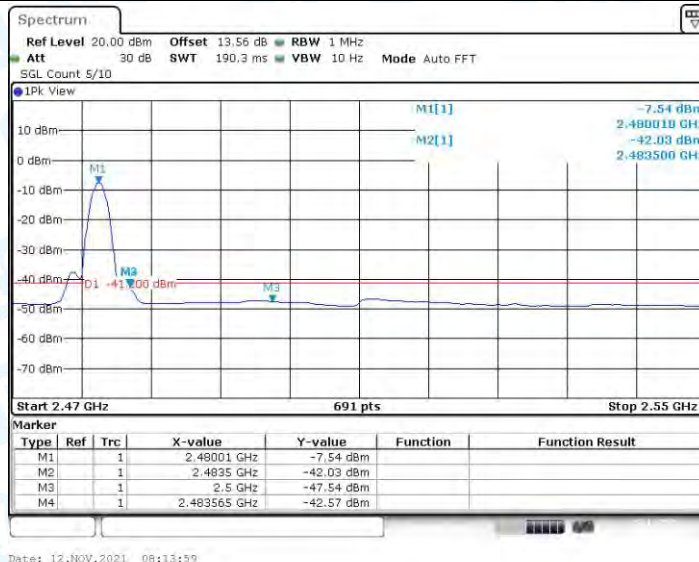




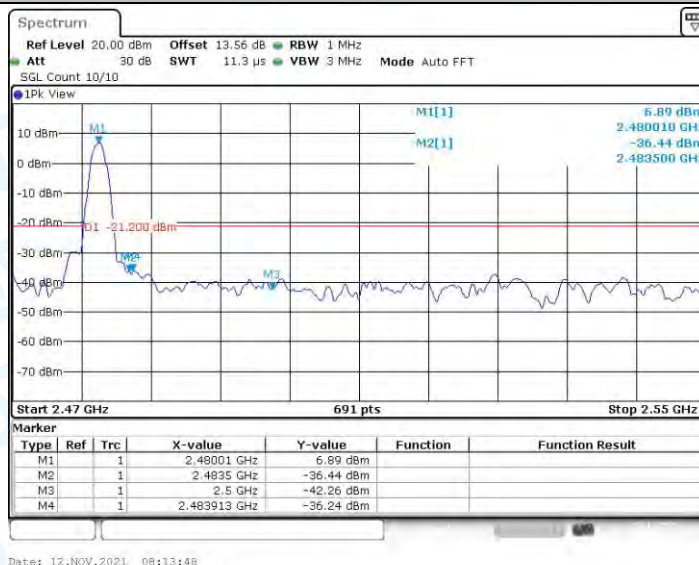
3DH5_Ant1_Low_2402_Peak



3DH5_Ant1_High_2480_AV



3DH5_Ant1_High_2480_Peak



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