

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

General Description of EUT	
<b>Product Name:</b>	Wireless Headphone
<b>Test Model:</b>	UG-05
<b>Sample ID:</b>	20211129-02-02
Environmental Conditions	
<b>Temperature:</b>	23.8℃
<b>Relative Humidity:</b>	48%
<b>Test Voltage:</b>	DC 3.7V
<b>Test Engineer:</b>	Huang jian ping
Note: For a more detailed features description, please refer to the report TB-FCC185599	



## Contents

1. 20dB Emission Bandwidth.....	3
1.1. Test Result .....	3
1.2. Test Graphs .....	4
2. Occupied Channel Bandwidth.....	7
2.1. Test Result .....	7
2.2. Test Graphs .....	8
3. Maximum conducted output power.....	11
3.1. Test Result .....	11
3.2. Test Graphs .....	12
4. Carrier frequency separation .....	15
4.1. Test Result .....	15
4.2. Test Graphs .....	16
5. Time of occupancy .....	17
5.1. Test Result .....	17
5.2. Test Graphs .....	18
6. Number of hopping channels.....	21
6.1. Test Result .....	21
6.2. Test Graphs .....	22
7. Band edge measurements .....	23
7.1. Test Result .....	23
7.2. Test Graphs .....	24
8. Conducted Spurious Emission.....	28
8.1. Test Result .....	28
8.2. Test Graphs .....	29
9. Emissions in Restricted Bands.....	38
9.1. Test Result .....	38
9.2. Test Graphs .....	39



# 1. 20dB Emission Bandwidth

## 1.1. Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.94	2401.55	2402.49	---	PASS
		2441	0.94	2440.55	2441.49	---	PASS
		2480	0.94	2479.55	2480.49	---	PASS
2DH5	Ant1	2402	1.28	2401.38	2402.66	---	PASS
		2441	1.28	2440.38	2441.66	---	PASS
		2480	1.28	2479.38	2480.66	---	PASS
3DH5	Ant1	2402	1.25	2401.38	2402.63	---	PASS
		2441	1.25	2440.38	2441.63	---	PASS
		2480	1.25	2479.38	2480.63	---	PASS

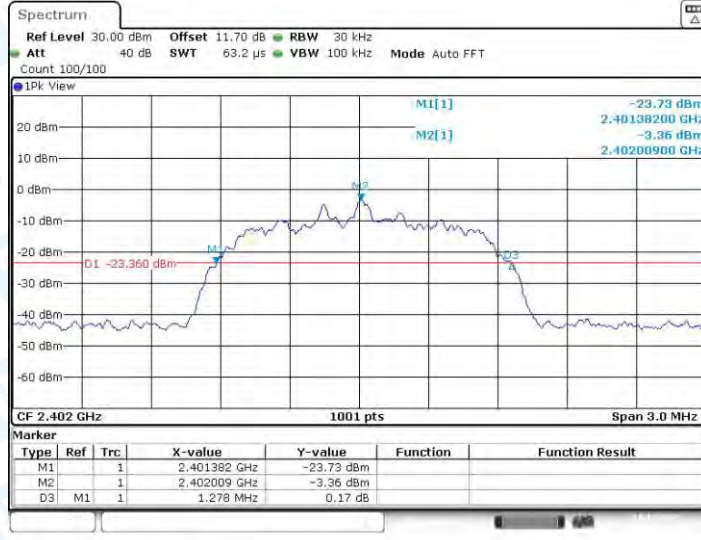


### 1.2. Test Graphs

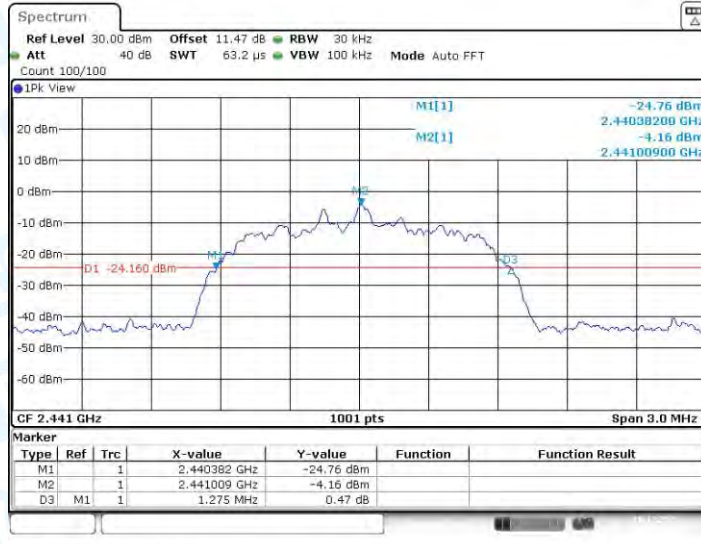




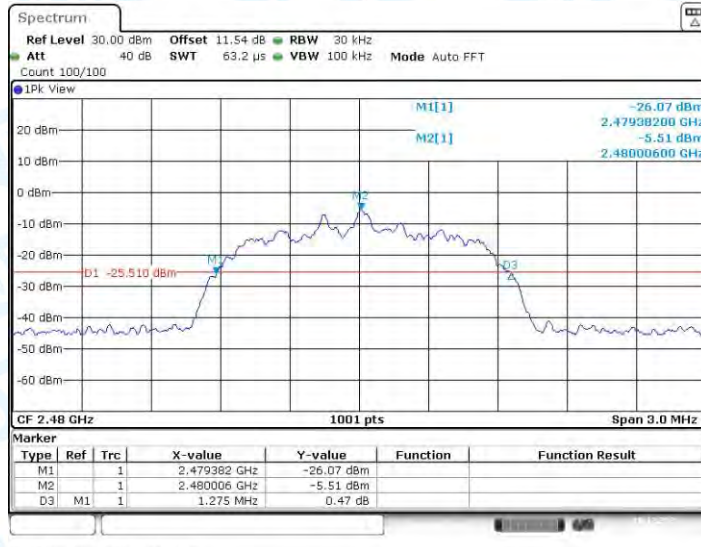
## 2DH5\_Ant1\_2402



## 2DH5\_Ant1\_2441

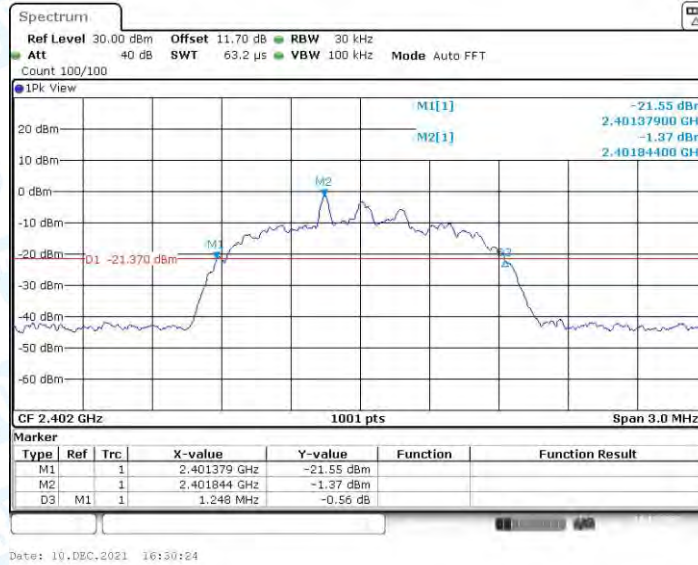


## 2DH5\_Ant1\_2480

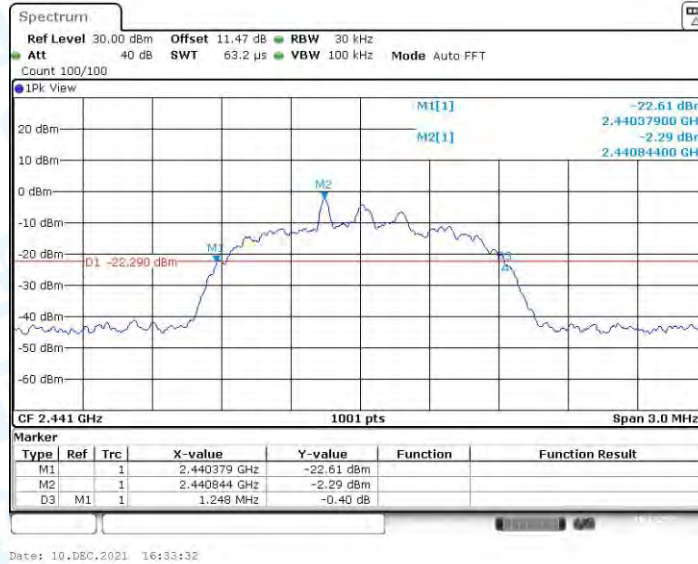




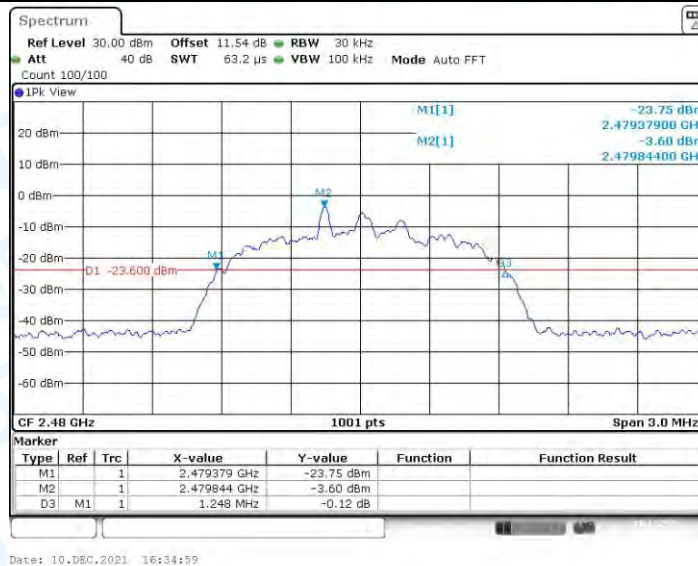
### 3DH5\_Ant1\_2402



### 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	0.872	2401.574	2402.447	---	PASS
		2441	0.878	2440.571	2441.450	---	PASS
		2480	0.881	2479.571	2480.453	---	PASS
2DH5	Ant1	2402	1.172	2401.425	2402.596	---	PASS
		2441	1.175	2440.425	2441.599	---	PASS
		2480	1.178	2479.422	2480.599	---	PASS
3DH5	Ant1	2402	1.16	2401.434	2402.593	---	PASS
		2441	1.16	2440.434	2441.593	---	PASS
		2480	1.16	2479.434	2480.593	---	PASS

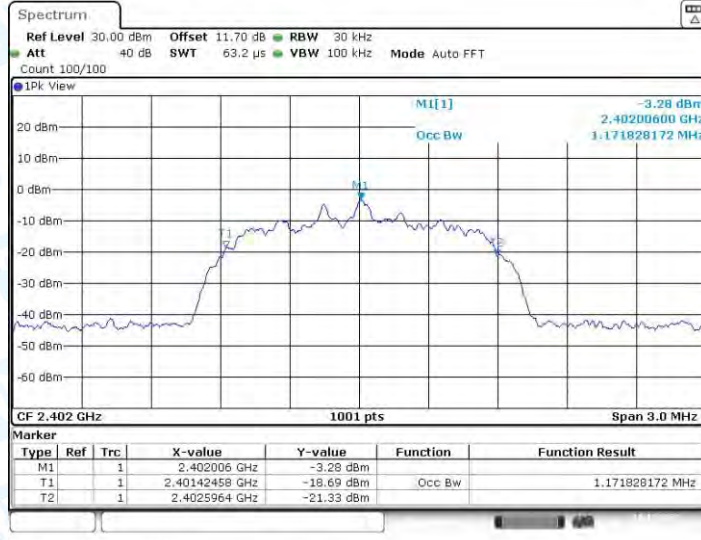


## 2.2. Test Graphs

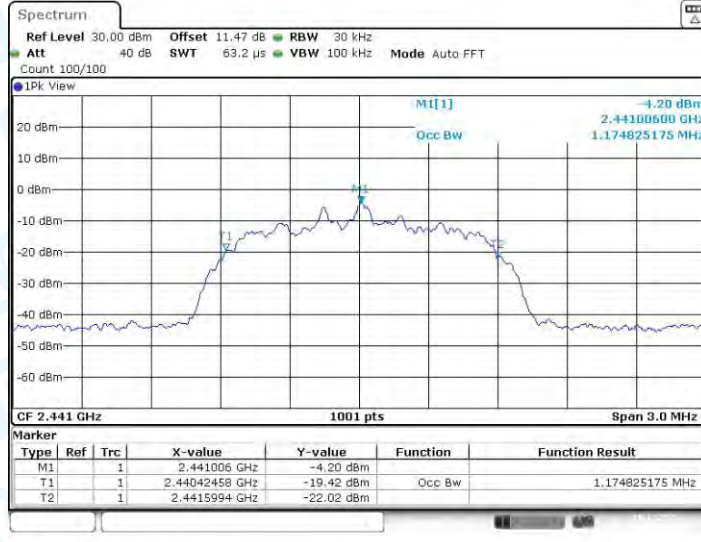




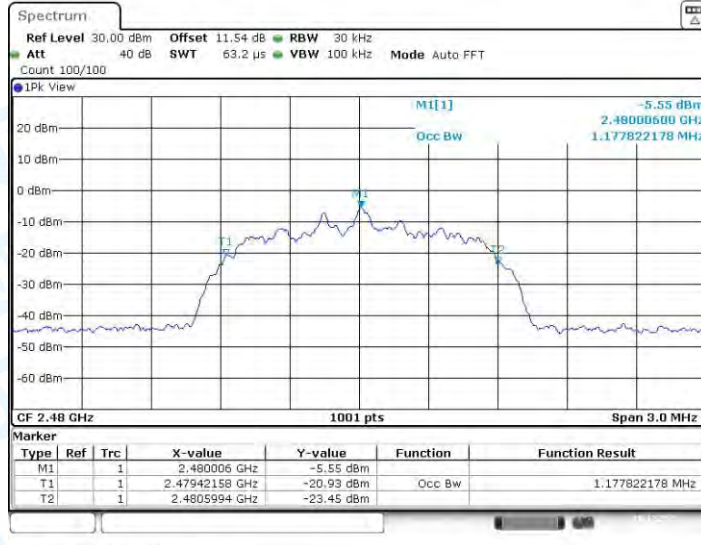
## 2DH5\_Ant1\_2402



## 2DH5\_Ant1\_2441

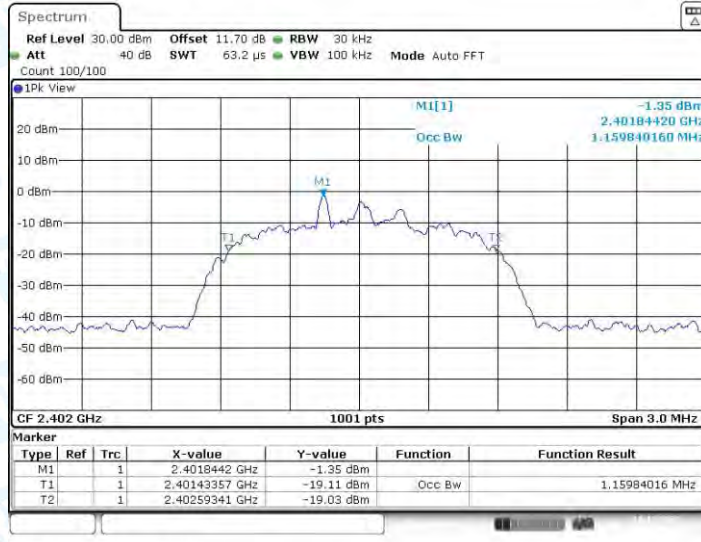


## 2DH5\_Ant1\_2480



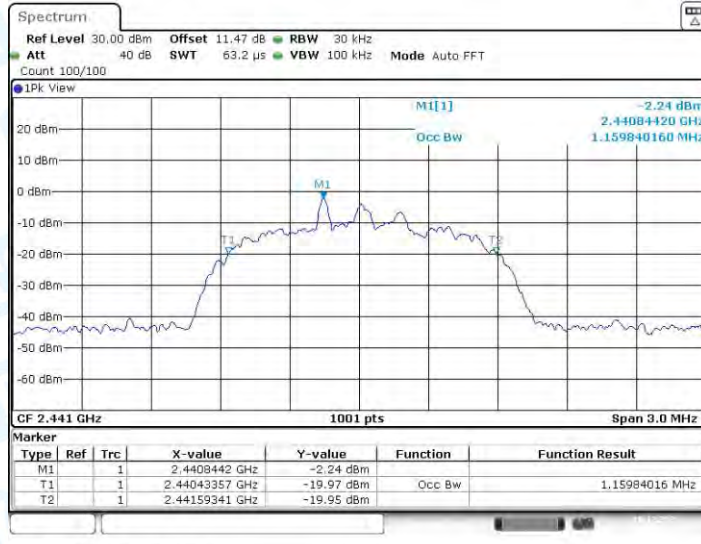


### 3DH5\_Ant1\_2402



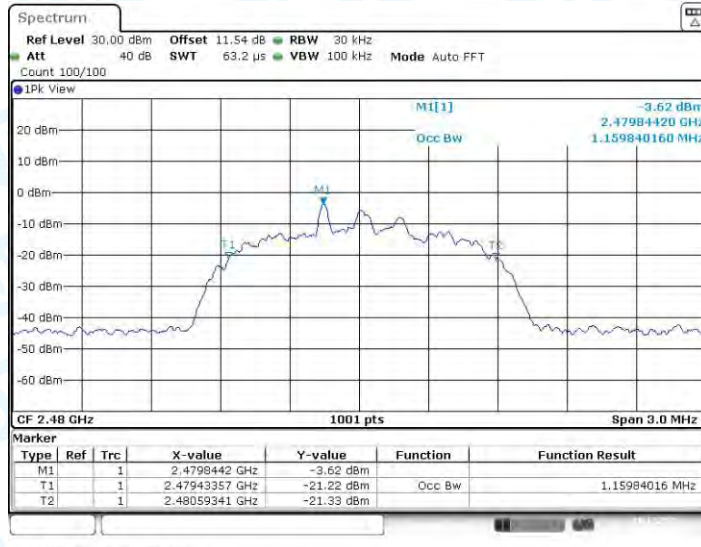
Date: 10, DEC, 2021 16:30:37

### 3DH5\_Ant1\_2441



Date: 10, DEC, 2021 16:33:44

### 3DH5\_Ant1\_2480



Date: 10, DEC, 2021 16:35:11



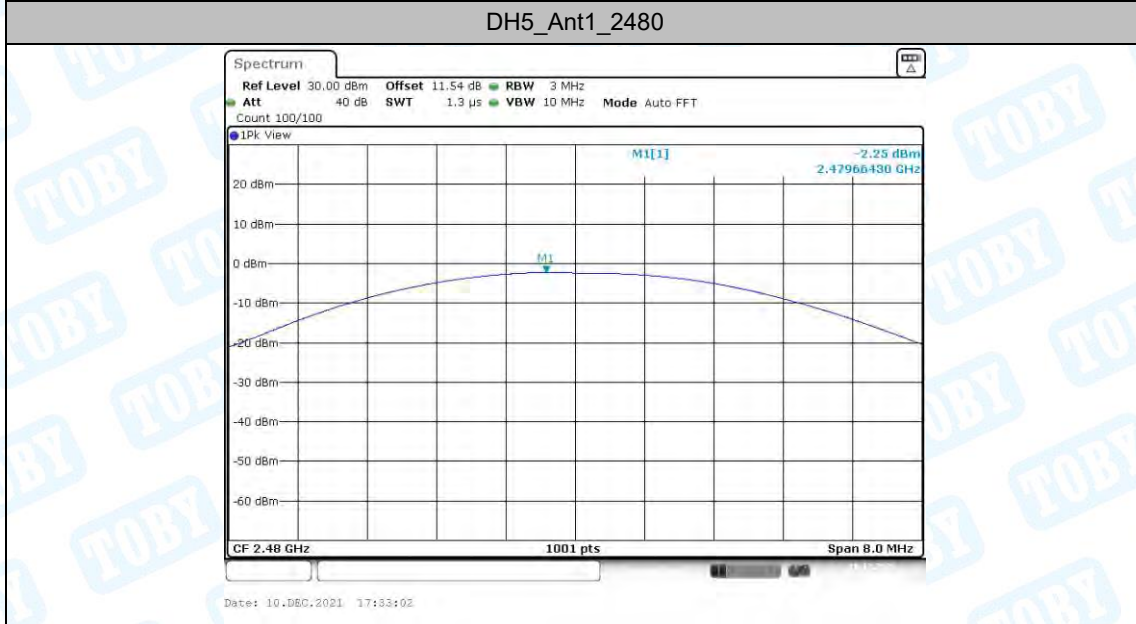
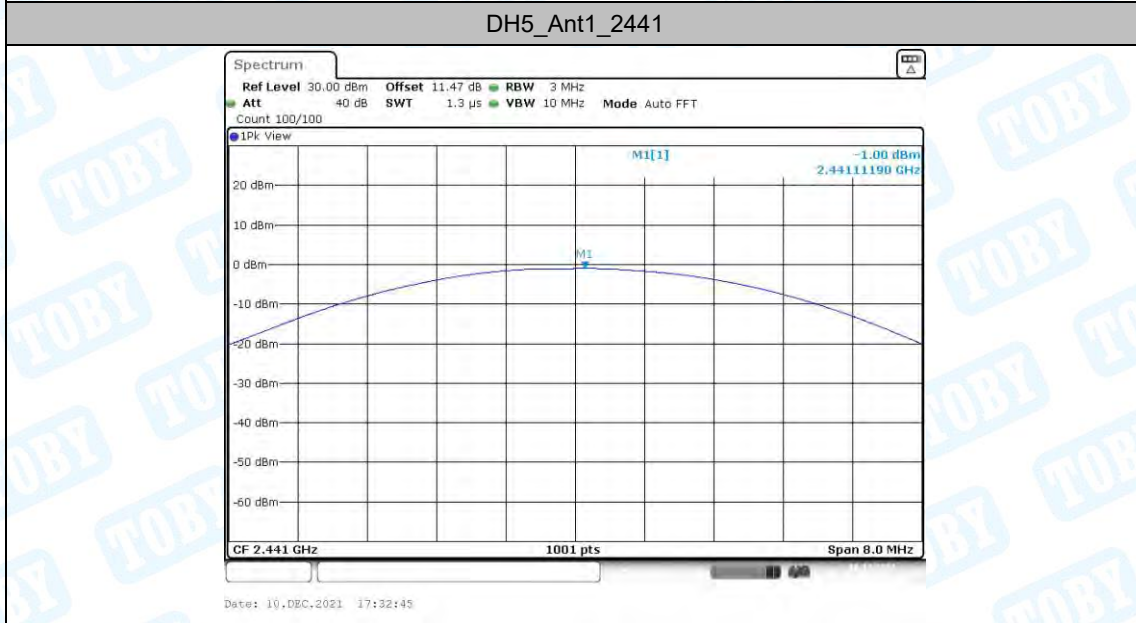
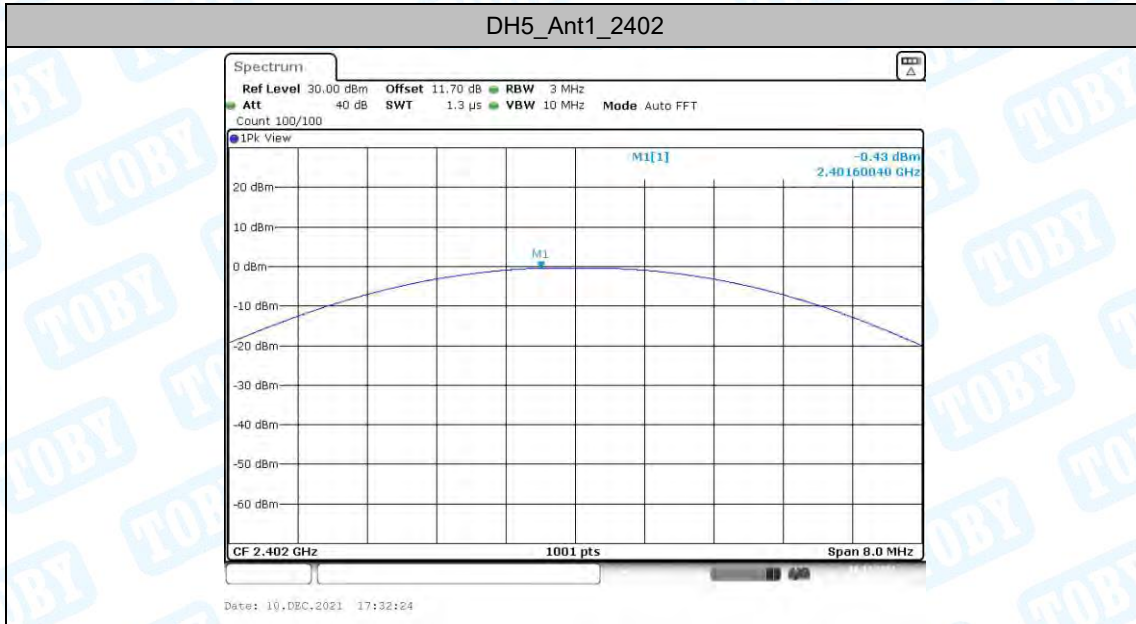
### 3. Maximum conducted output power

#### 3.1. Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-0.43	≤21	PASS
		2441	-1	≤21	PASS
		2480	-2.25	≤21	PASS
2DH5	Ant1	2402	-0.61	≤21	PASS
		2441	-1.48	≤21	PASS
		2480	-2.47	≤21	PASS
3DH5	Ant1	2402	-0.6	≤21	PASS
		2441	-1.13	≤21	PASS
		2480	-2.56	≤21	PASS

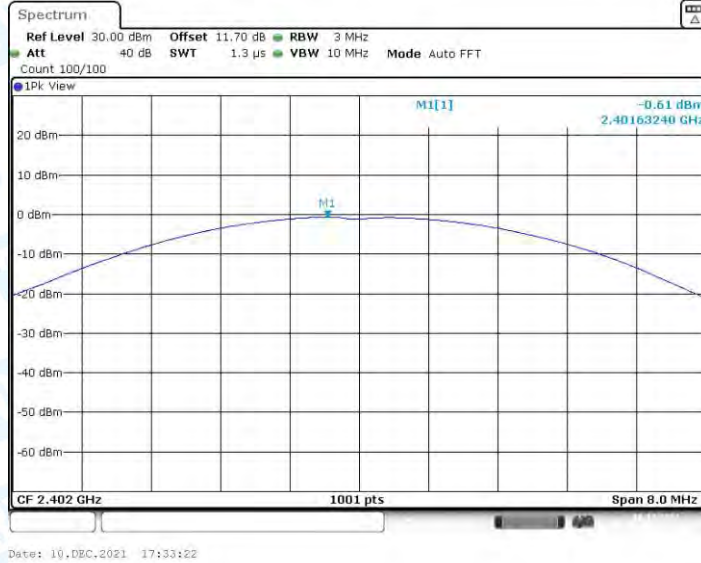


### 3.2. Test Graphs





2DH5\_Ant1\_2402



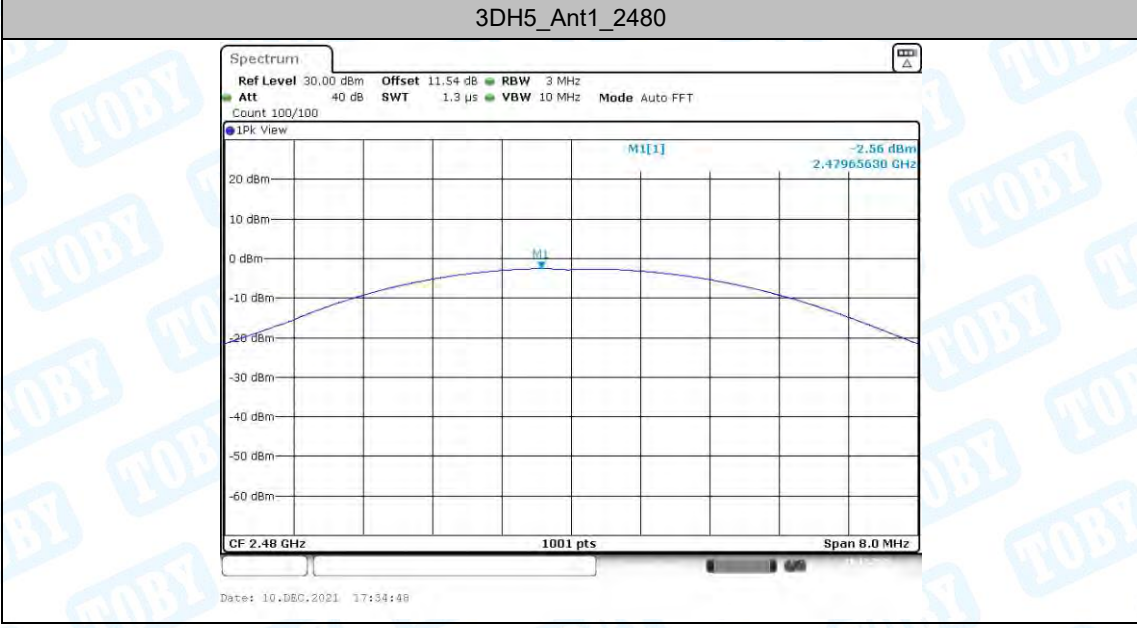
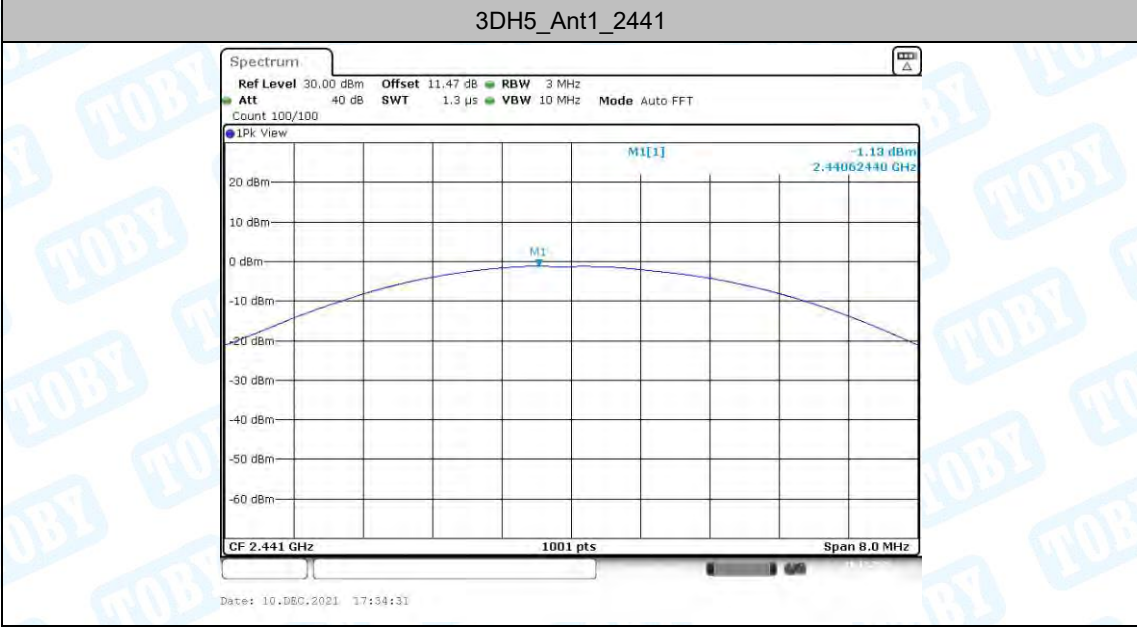
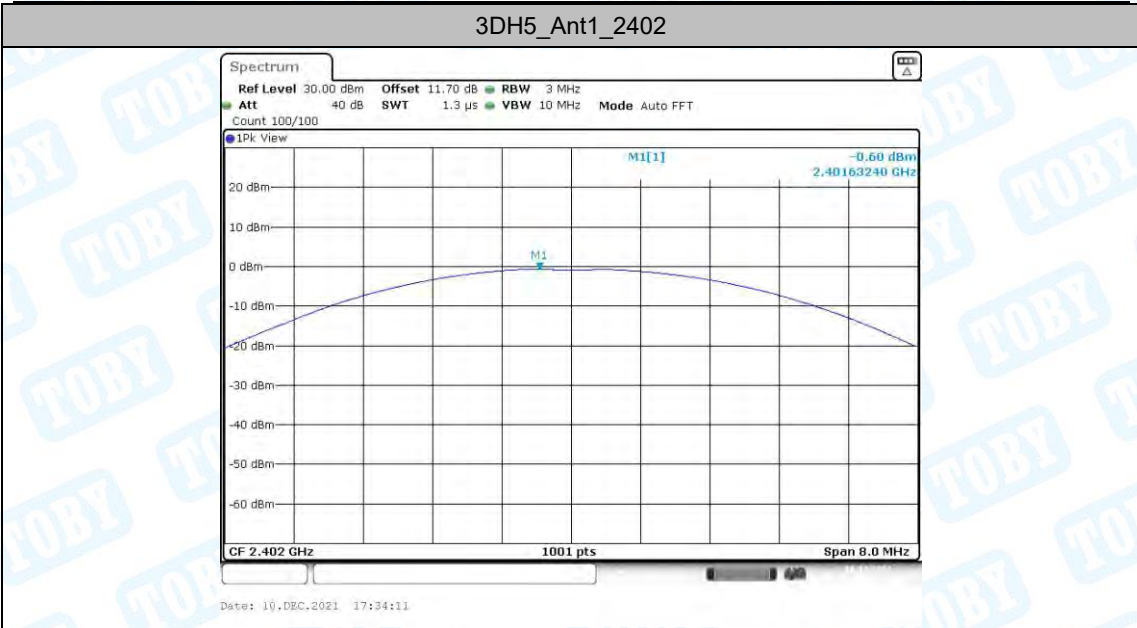
2DH5\_Ant1\_2441



2DH5\_Ant1\_2480









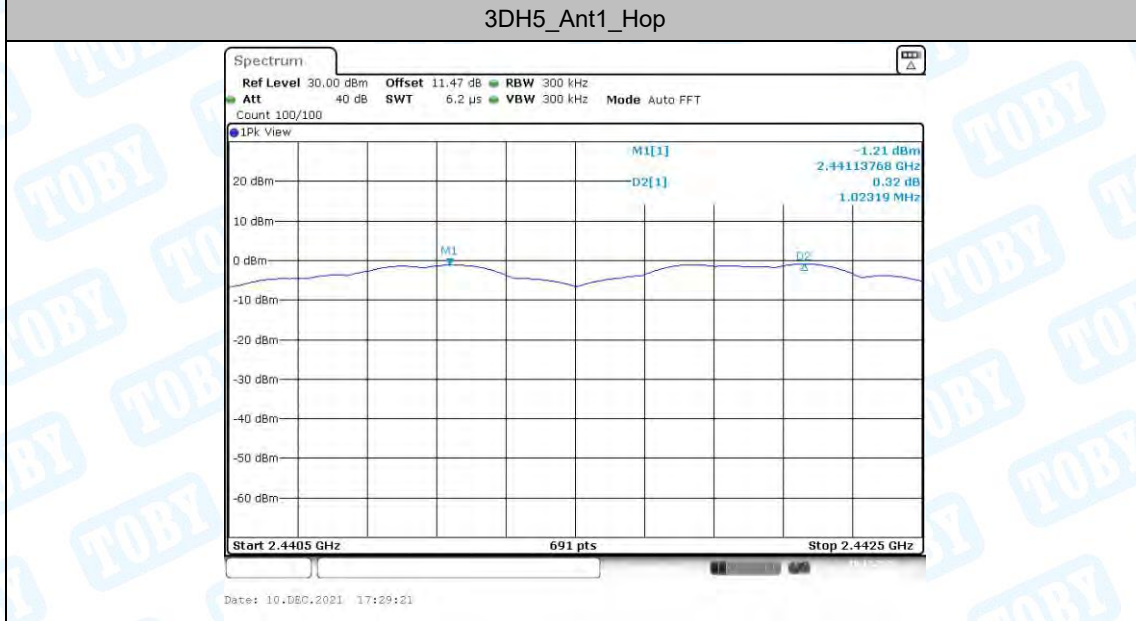
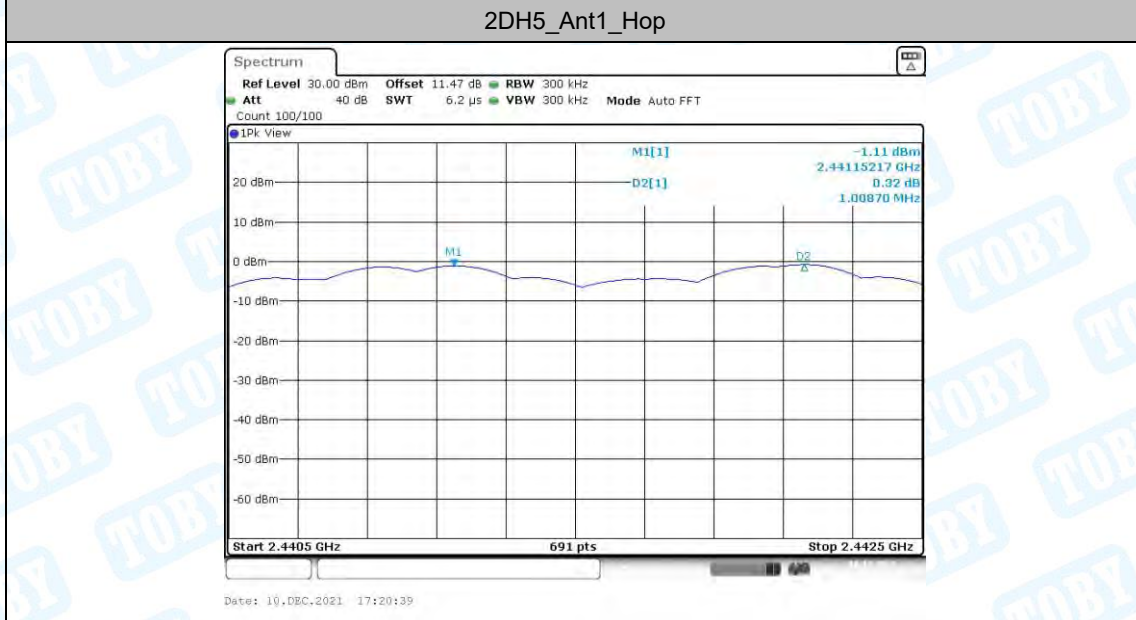
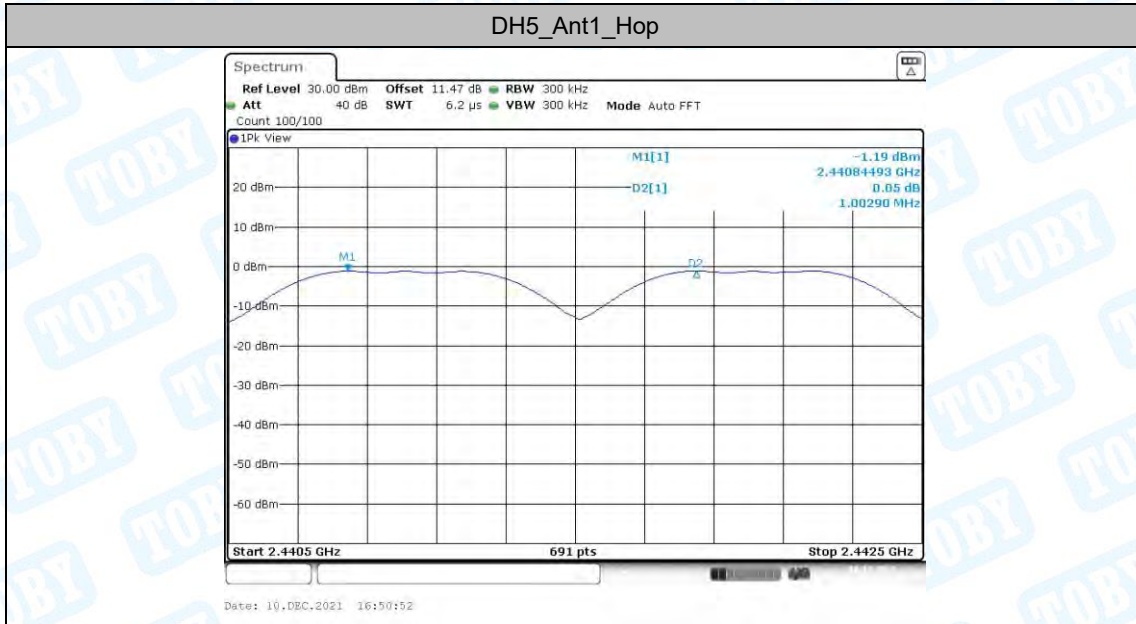
## 4. Carrier frequency separation

### 4.1. Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.003	≥0.940	PASS
2DH5	Ant1	Hop	1.009	≥0.853	PASS
3DH5	Ant1	Hop	1.023	≥0.833	PASS



### 4.2. Test Graphs





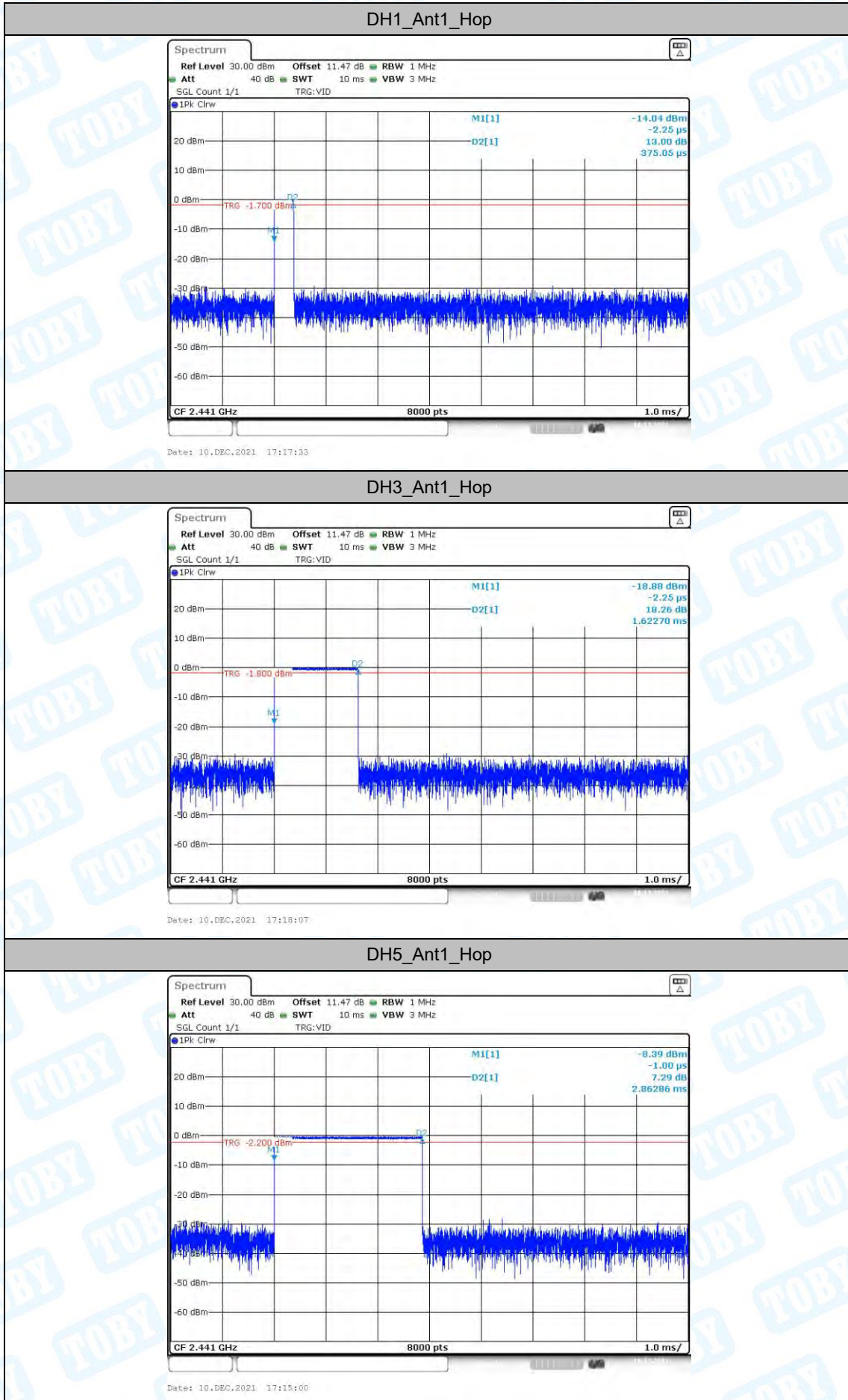
## 5. Time of occupancy

### 5.1. Test Result

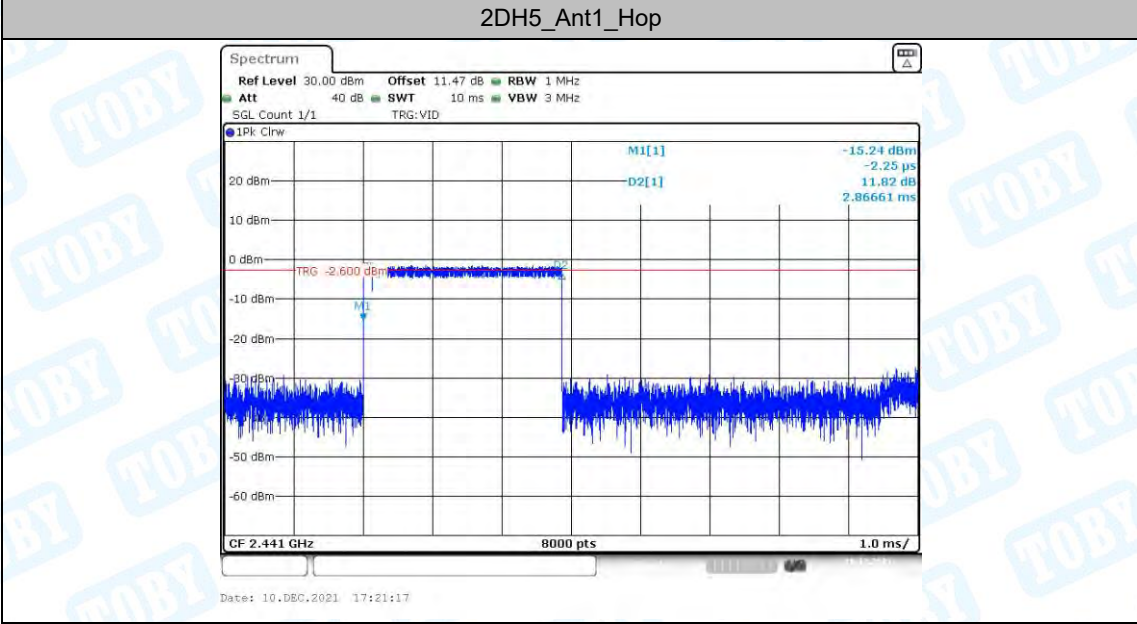
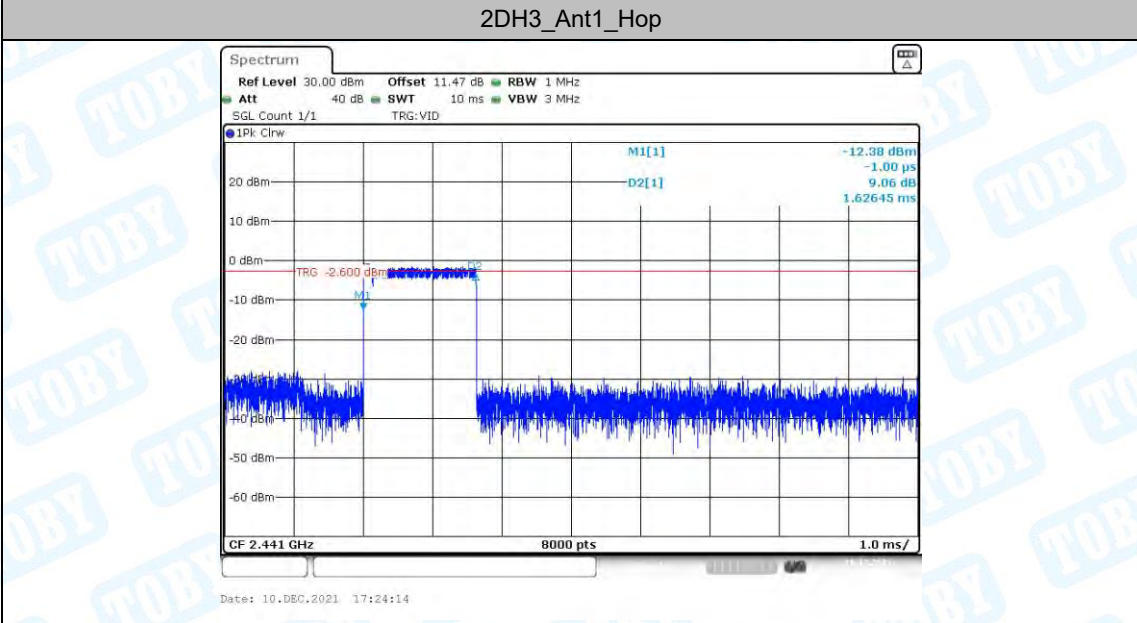
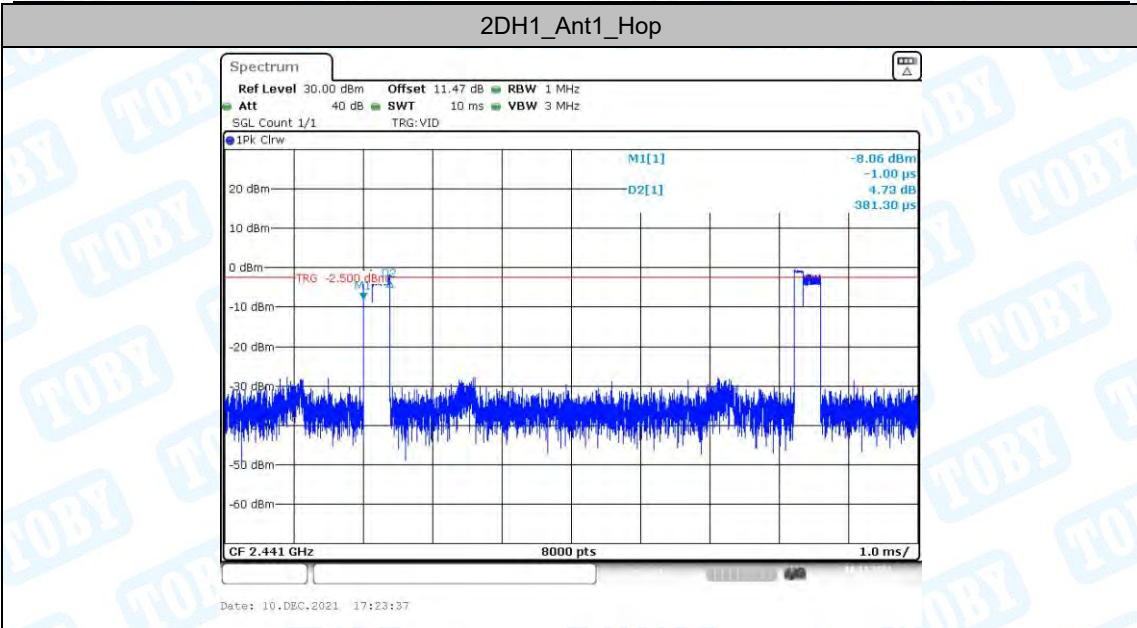
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.38	320	0.12	≤0.4	PASS
DH3	Ant1	Hop	1.62	160	0.26	≤0.4	PASS
DH5	Ant1	Hop	2.86	106.67	0.305	≤0.4	PASS
2DH1	Ant1	Hop	0.38	320	0.122	≤0.4	PASS
2DH3	Ant1	Hop	1.63	160	0.26	≤0.4	PASS
2DH5	Ant1	Hop	2.87	106.67	0.306	≤0.4	PASS
3DH1	Ant1	Hop	0.38	320	0.122	≤0.4	PASS
3DH3	Ant1	Hop	1.62	160	0.26	≤0.4	PASS
3DH5	Ant1	Hop	2.87	106.67	0.306	≤0.4	PASS



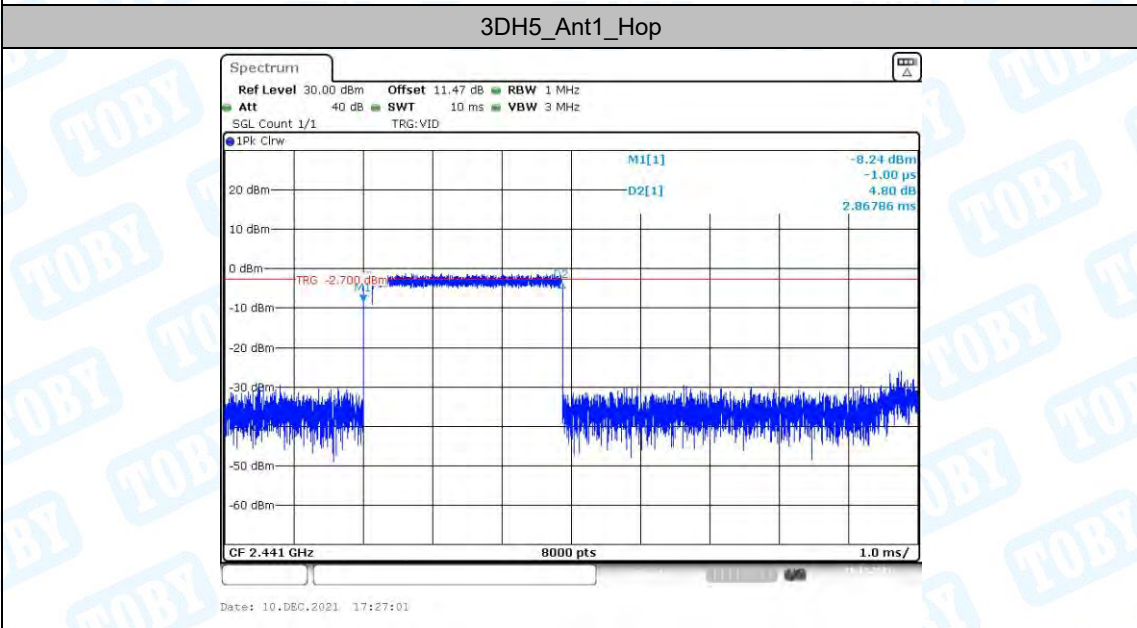
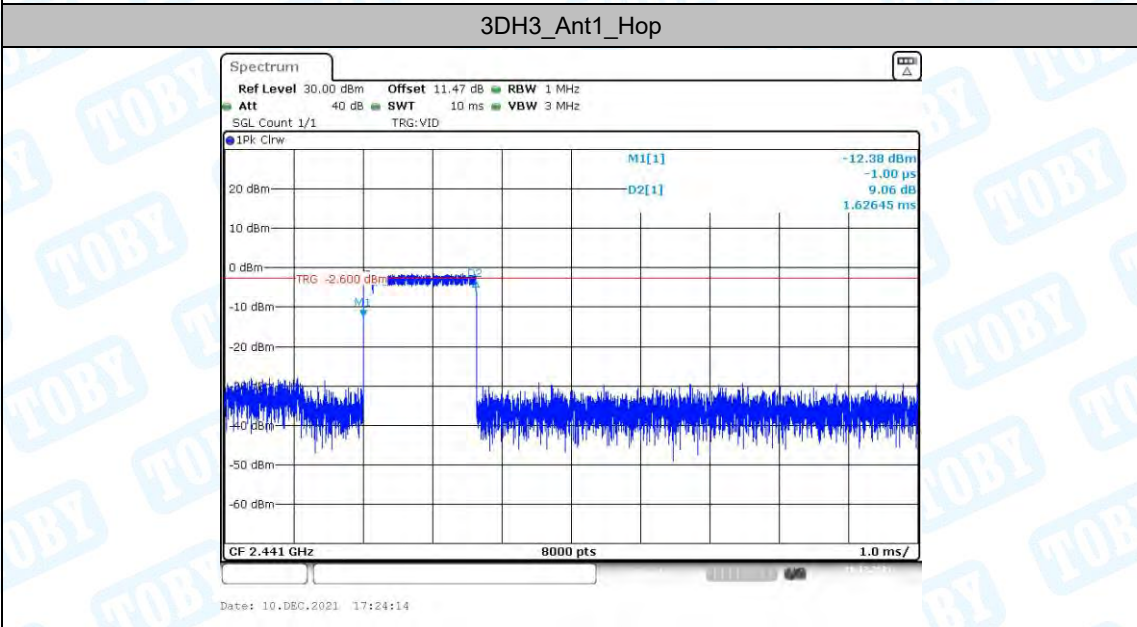
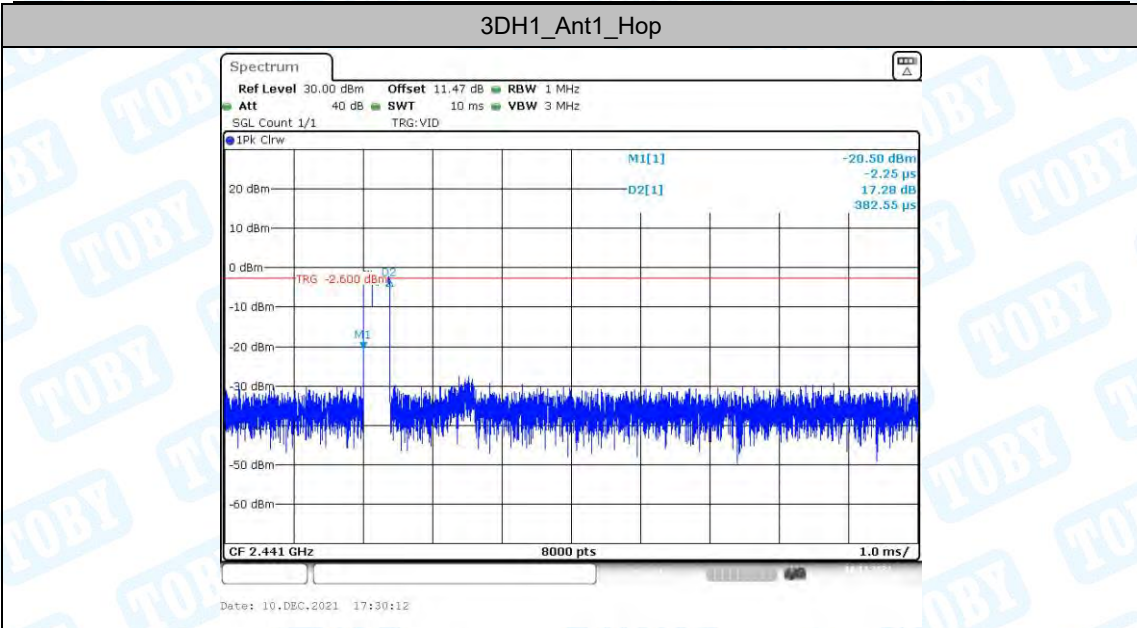
### 5.2. Test Graphs













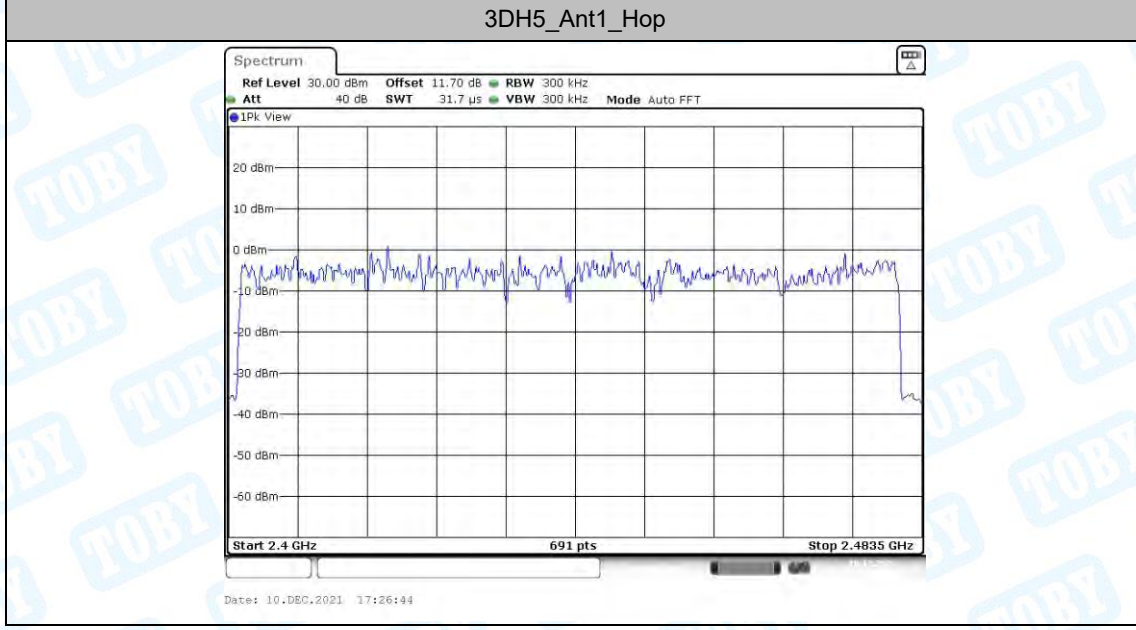
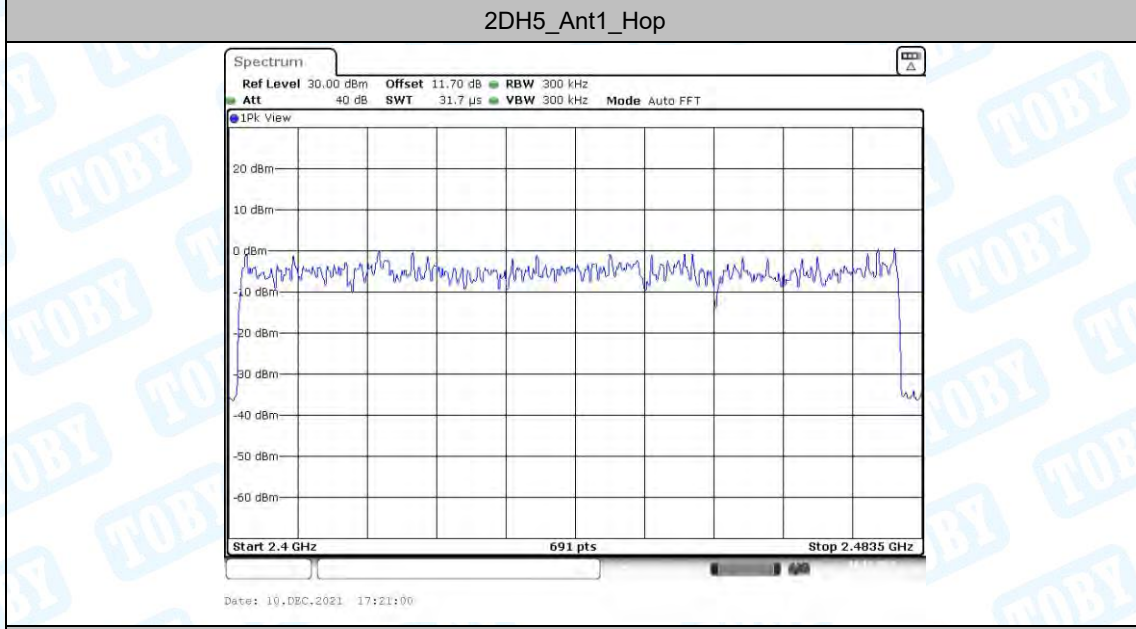
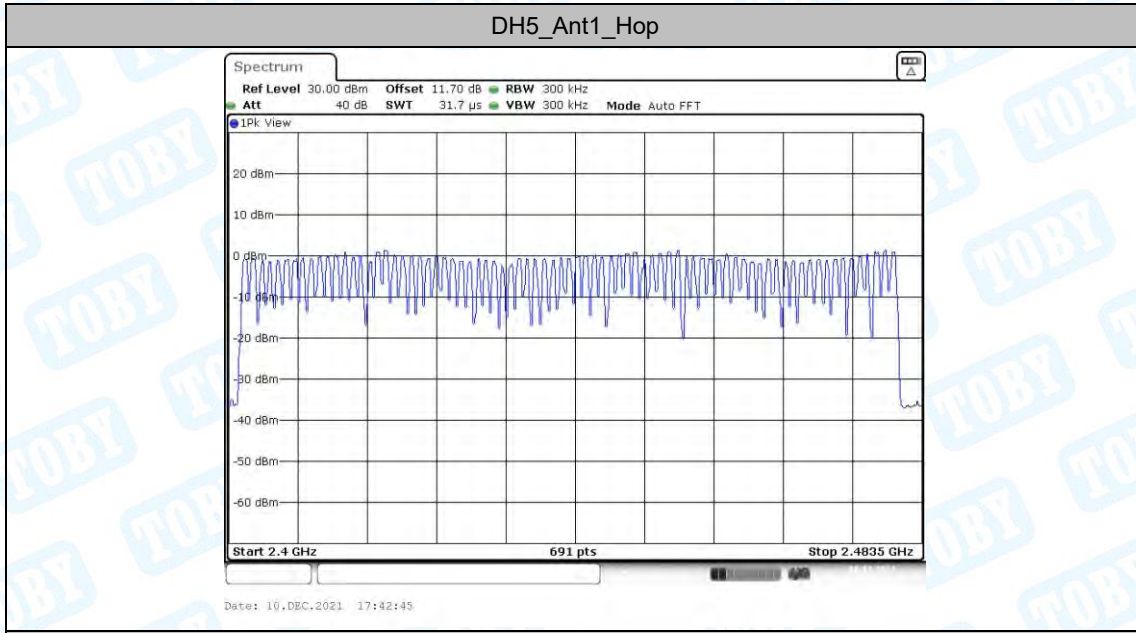
## 6. Number of hopping channels

### 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





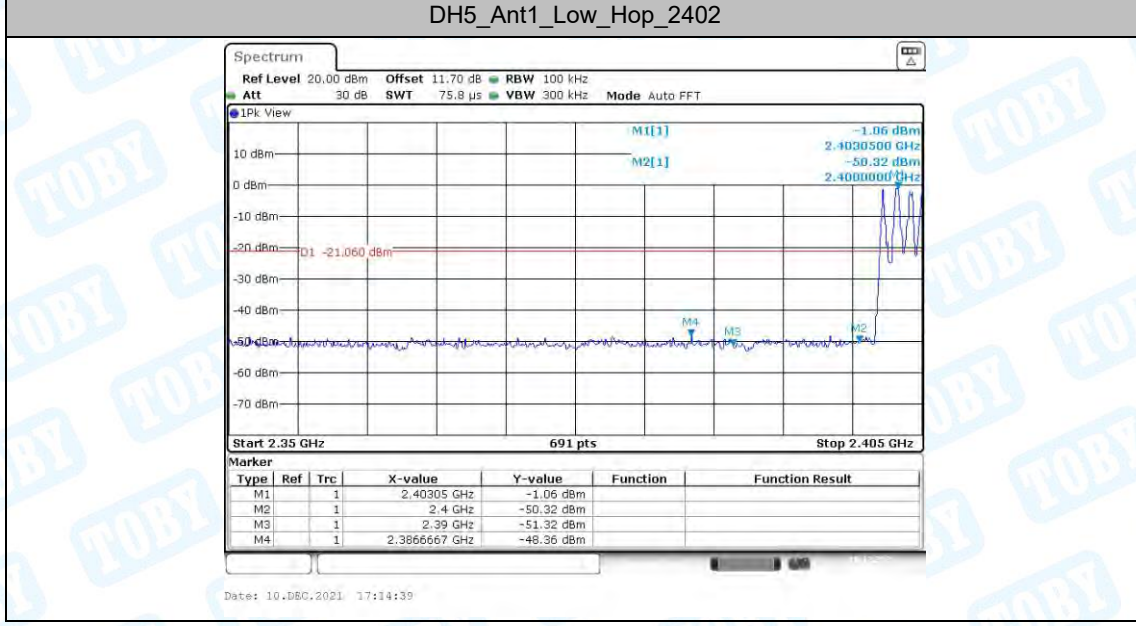
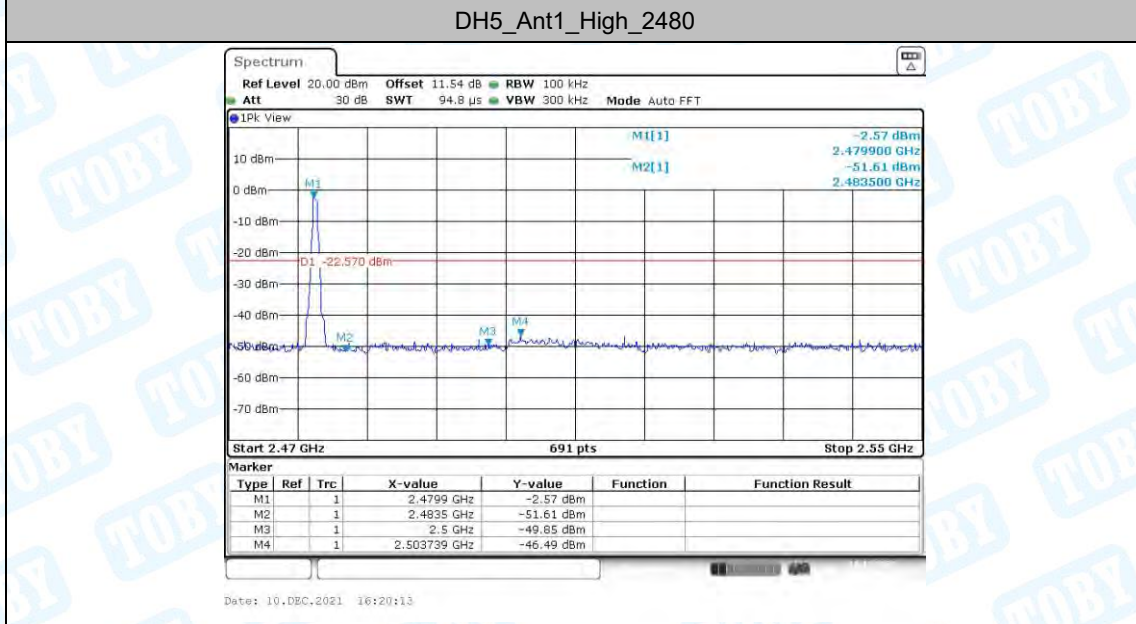
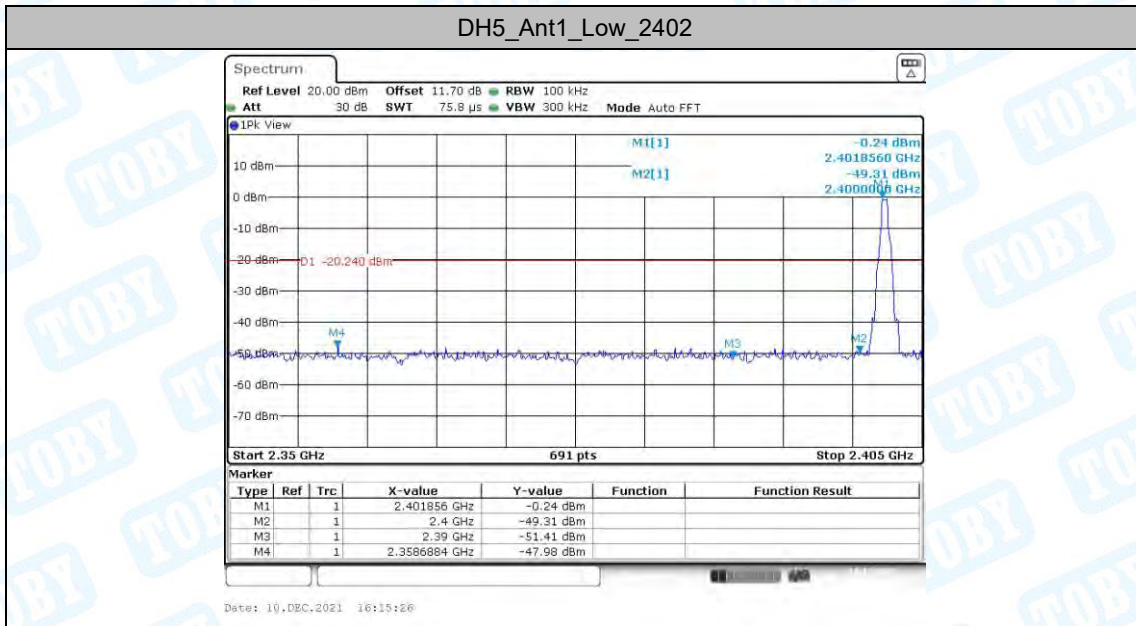
## 7. Band edge measurements

### 7.1. Test Result

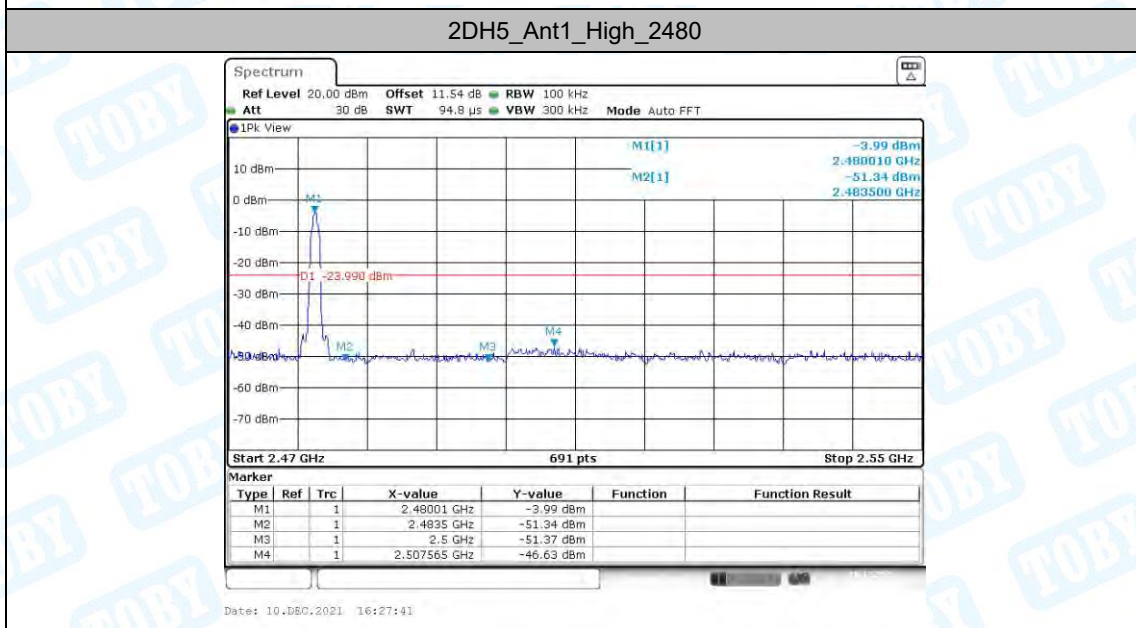
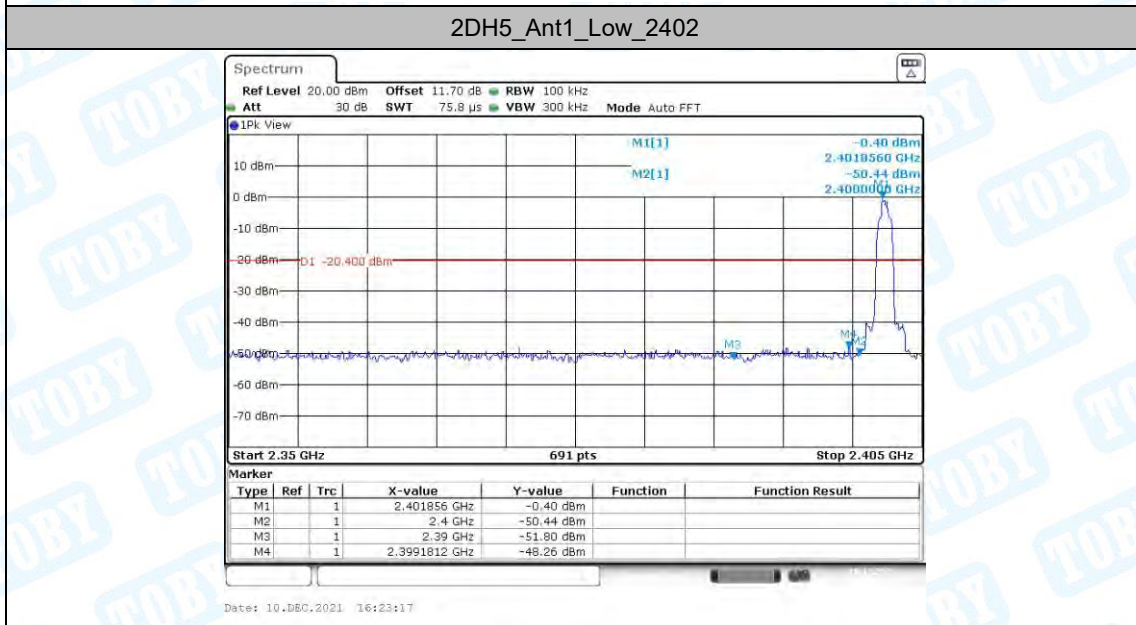
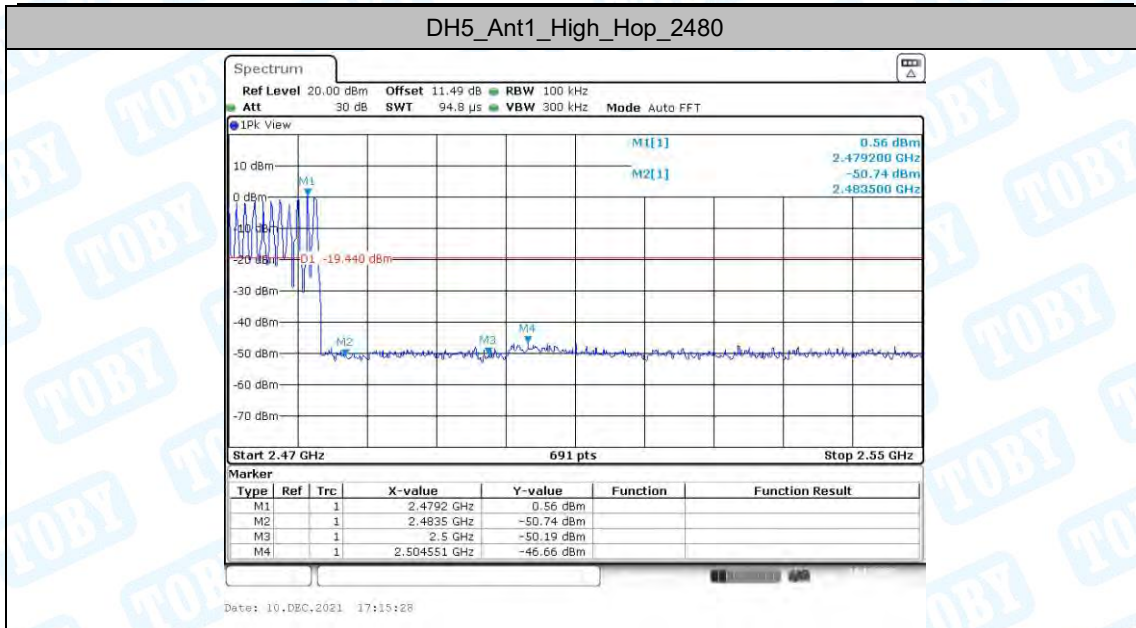
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.24	-47.98	≤-20.24	PASS
		High	2480	-2.57	-46.49	≤-22.57	PASS
		Low	Hop_2402	-1.06	-48.36	≤-21.06	PASS
		High	Hop_2480	0.56	-46.66	≤-19.44	PASS
2DH5	Ant1	Low	2402	-0.40	-48.26	≤-20.4	PASS
		High	2480	-3.99	-46.63	≤-23.99	PASS
		Low	Hop_2402	-0.90	-48.21	≤-20.9	PASS
		High	Hop_2480	-4.22	-46.17	≤-24.22	PASS
3DH5	Ant1	Low	2402	-0.19	-48.14	≤-20.19	PASS
		High	2480	-4.13	-46.81	≤-24.13	PASS
		Low	Hop_2402	-7.80	-47.9	≤-27.8	PASS
		High	Hop_2480	-4.36	-46.54	≤-24.36	PASS



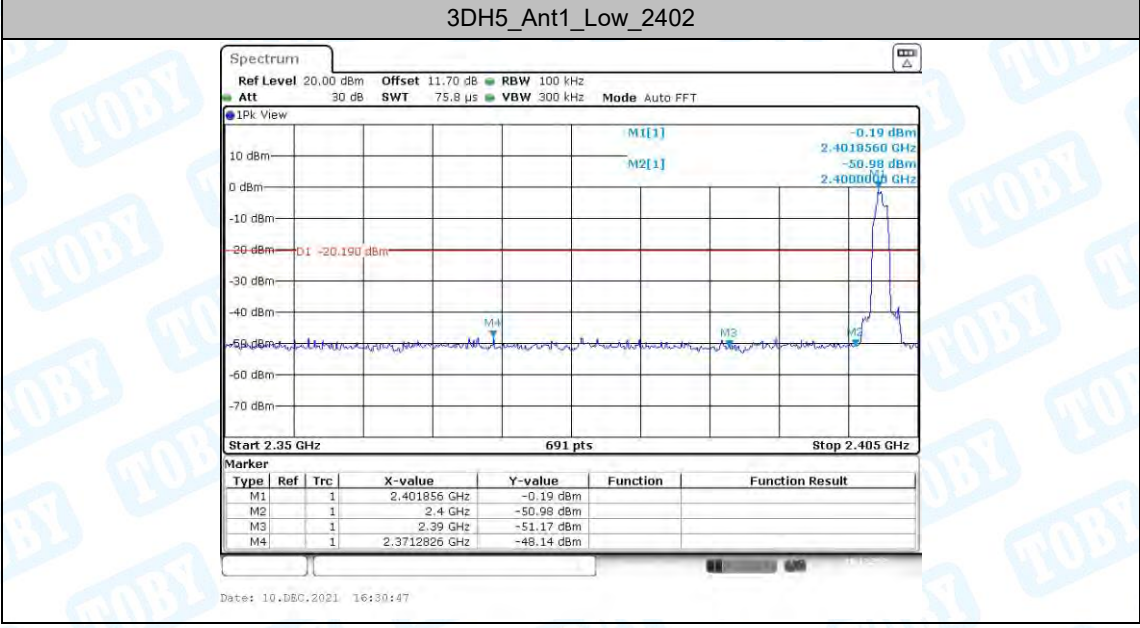
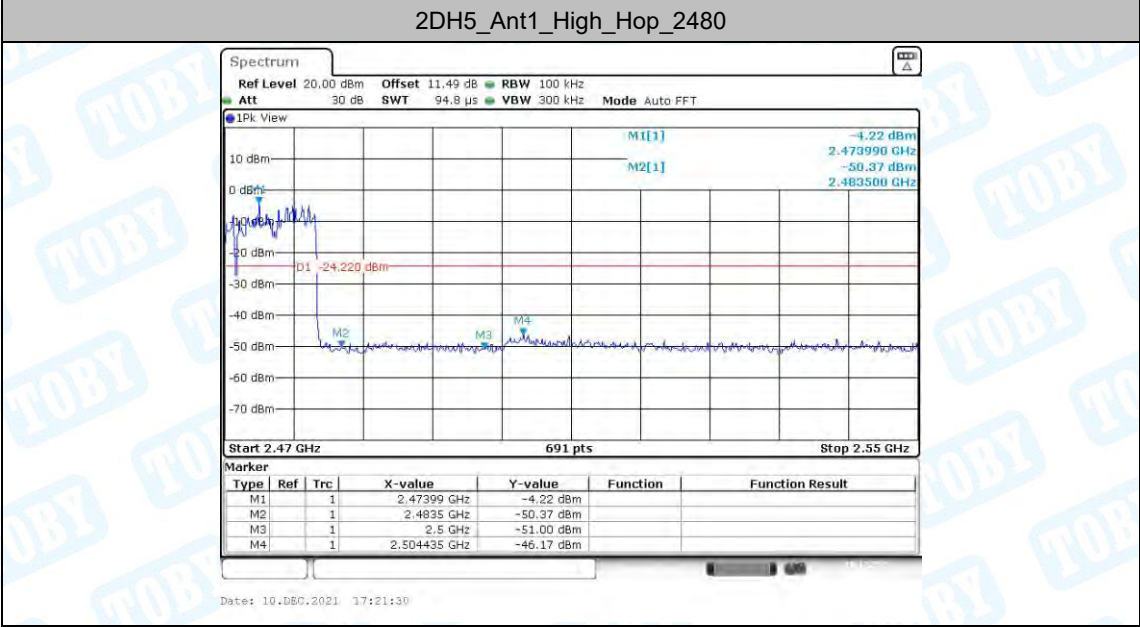
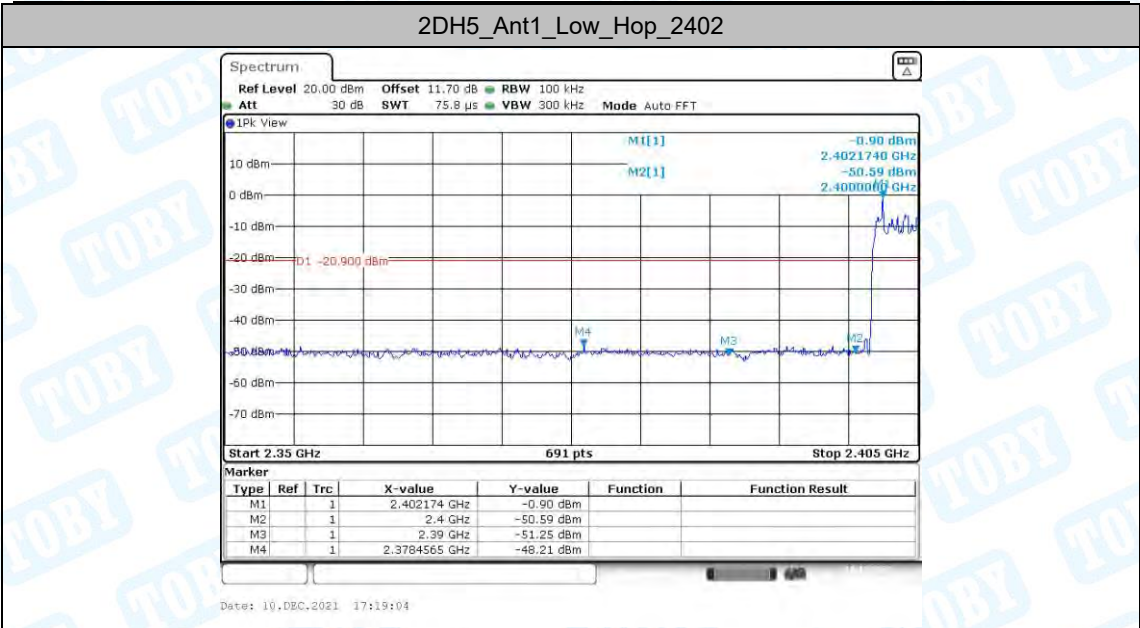
### 7.2. Test Graphs





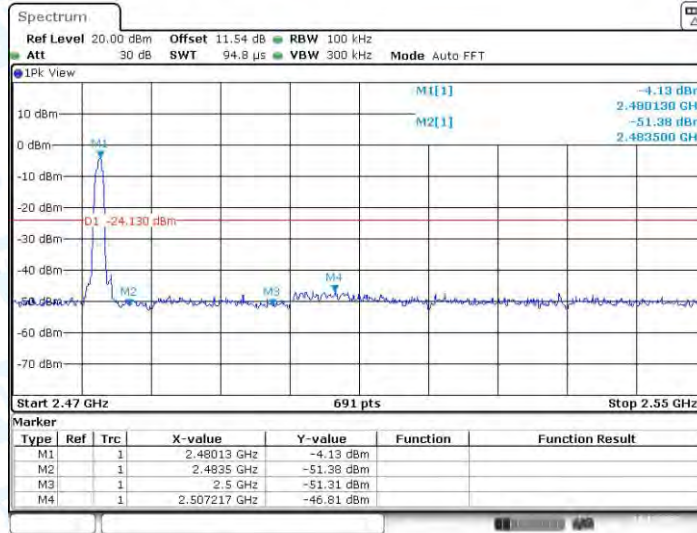




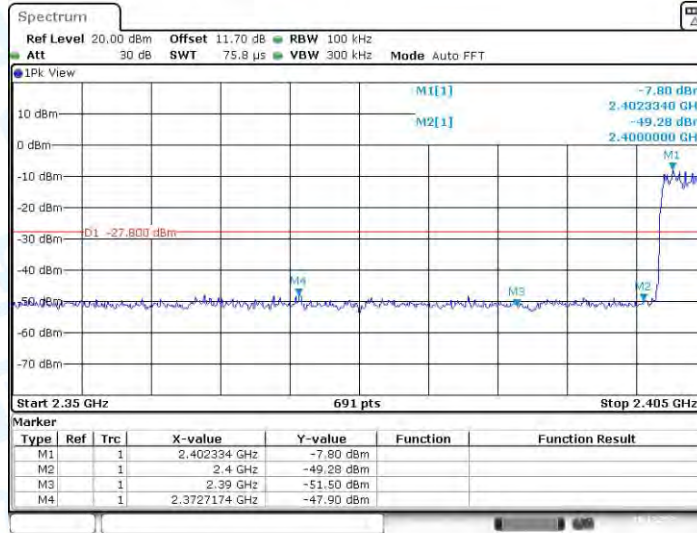




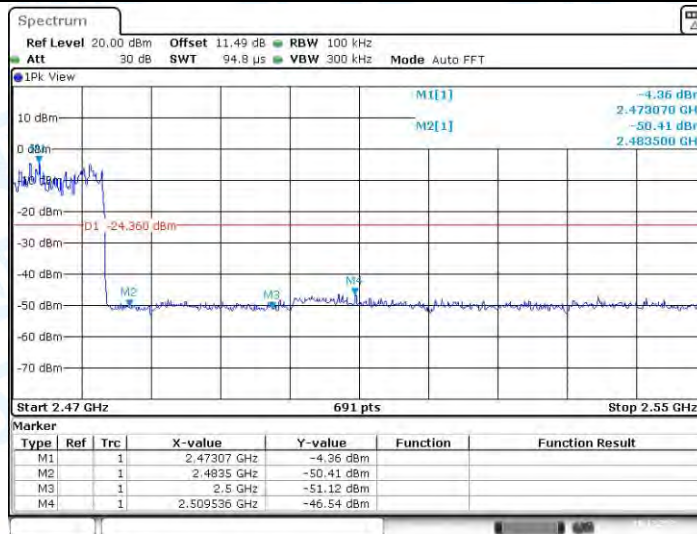
### 3DH5\_Ant1\_High\_2480



### 3DH5\_Ant1\_Low\_Hop\_2402



### 3DH5\_Ant1\_High\_Hop\_2480





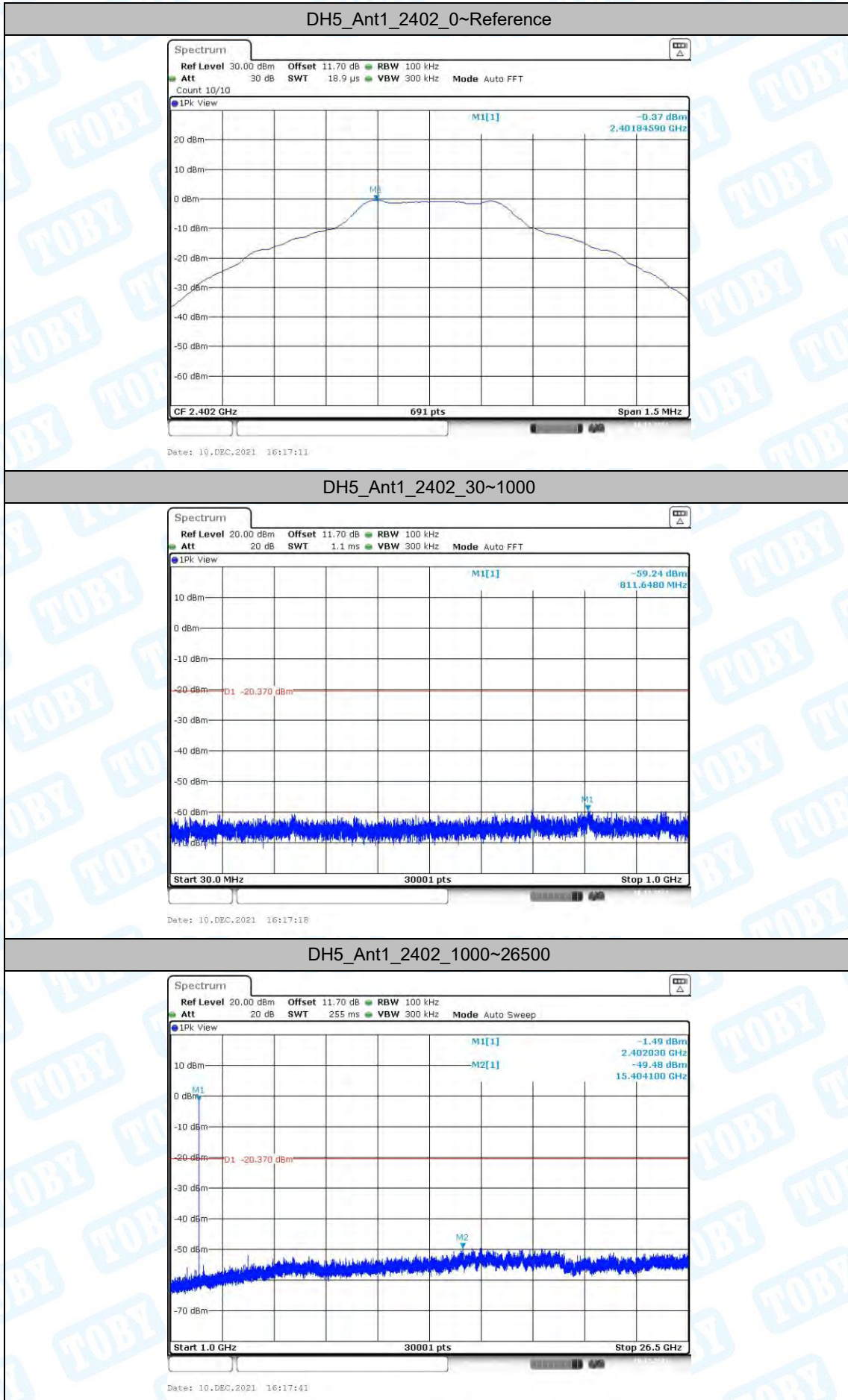
## 8. Conducted Spurious Emission

### 8.1. Test Result

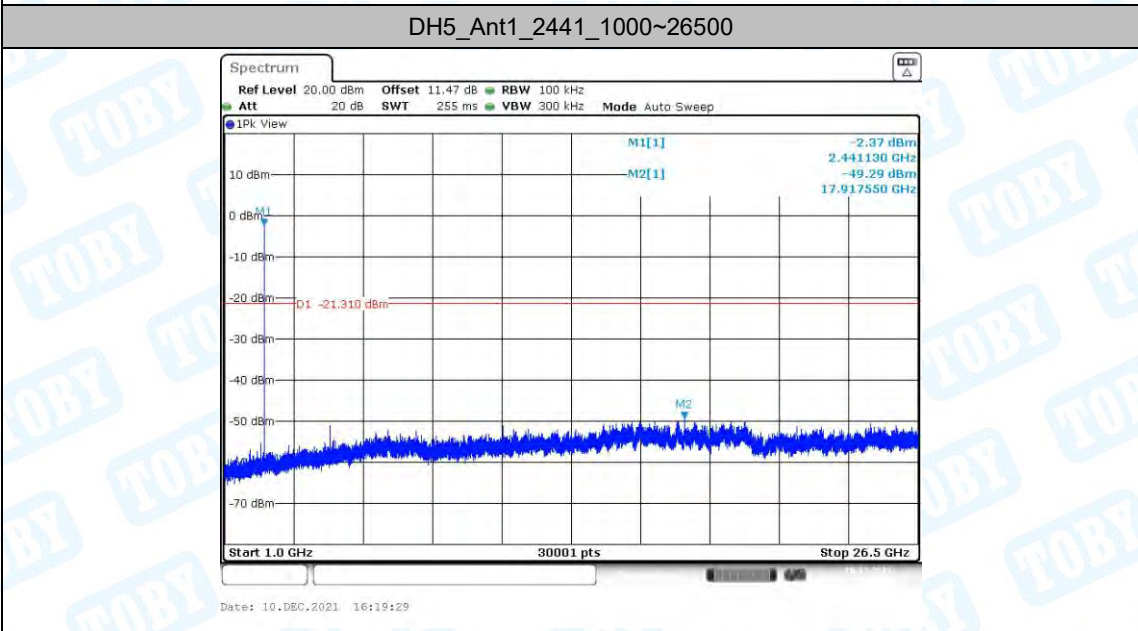
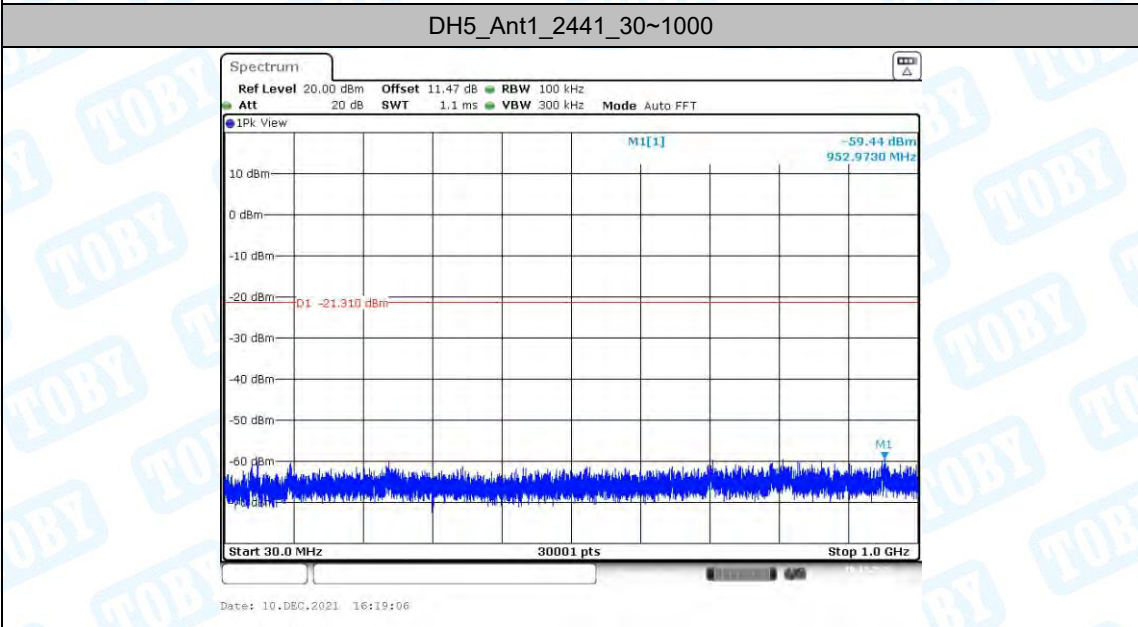
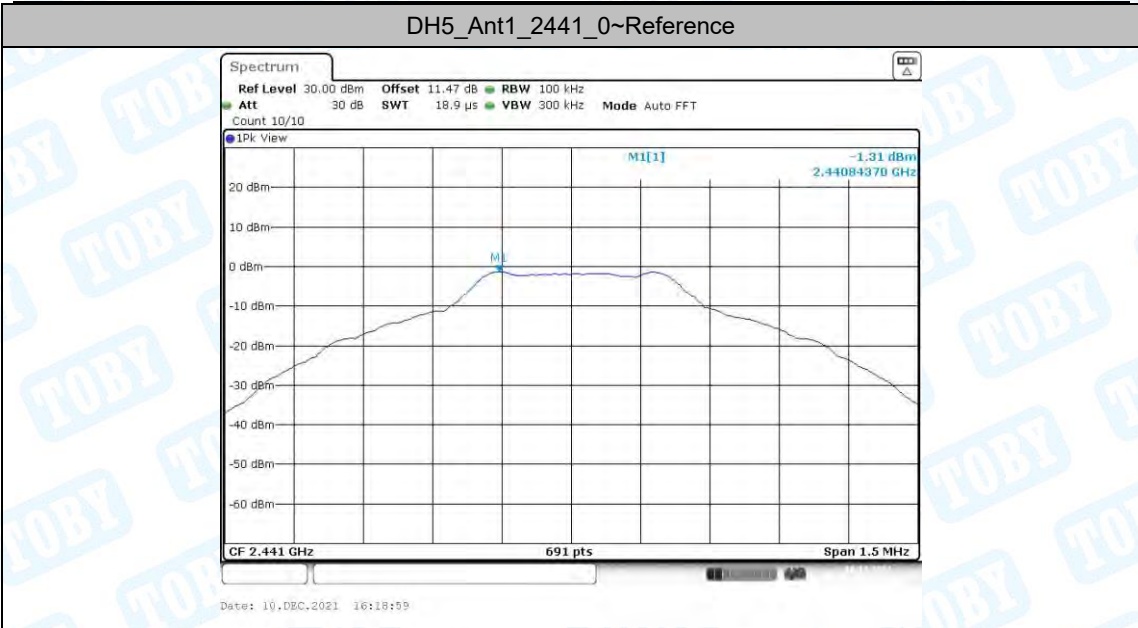
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-0.37	-0.37	---	PASS
			30~1000	-0.37	-59.24	≤-20.37	PASS
			1000~26500	-0.37	-49.48	≤-20.37	PASS
		2441	Reference	-1.31	-1.31	---	PASS
			30~1000	-1.31	-59.44	≤-21.31	PASS
			1000~26500	-1.31	-49.29	≤-21.31	PASS
		2480	Reference	-2.66	-2.66	---	PASS
			30~1000	-2.66	-58.95	≤-22.66	PASS
			1000~26500	-2.66	-49.08	≤-22.66	PASS
2DH5	Ant1	2402	Reference	-0.56	-0.56	---	PASS
			30~1000	-0.56	-58.29	≤-20.56	PASS
			1000~26500	-0.56	-49.24	≤-20.56	PASS
		2441	Reference	-1.69	-1.69	---	PASS
			30~1000	-1.69	-57.7	≤-21.69	PASS
			1000~26500	-1.69	-49.65	≤-21.69	PASS
		2480	Reference	-3.28	-3.28	---	PASS
			30~1000	-3.28	-57.65	≤-23.28	PASS
			1000~26500	-3.28	-49.9	≤-23.28	PASS
3DH5	Ant1	2402	Reference	-0.36	-0.36	---	PASS
			30~1000	-0.36	-58.53	≤-20.36	PASS
			1000~26500	-0.36	-49.33	≤-20.36	PASS
		2441	Reference	-1.30	-1.30	---	PASS
			30~1000	-1.30	-59.13	≤-21.3	PASS
			1000~26500	-1.30	-48.6	≤-21.3	PASS
		2480	Reference	0.73	0.73	---	PASS
			30~1000	0.73	-58.86	≤-19.27	PASS
			1000~26500	0.73	-49.67	≤-19.27	PASS



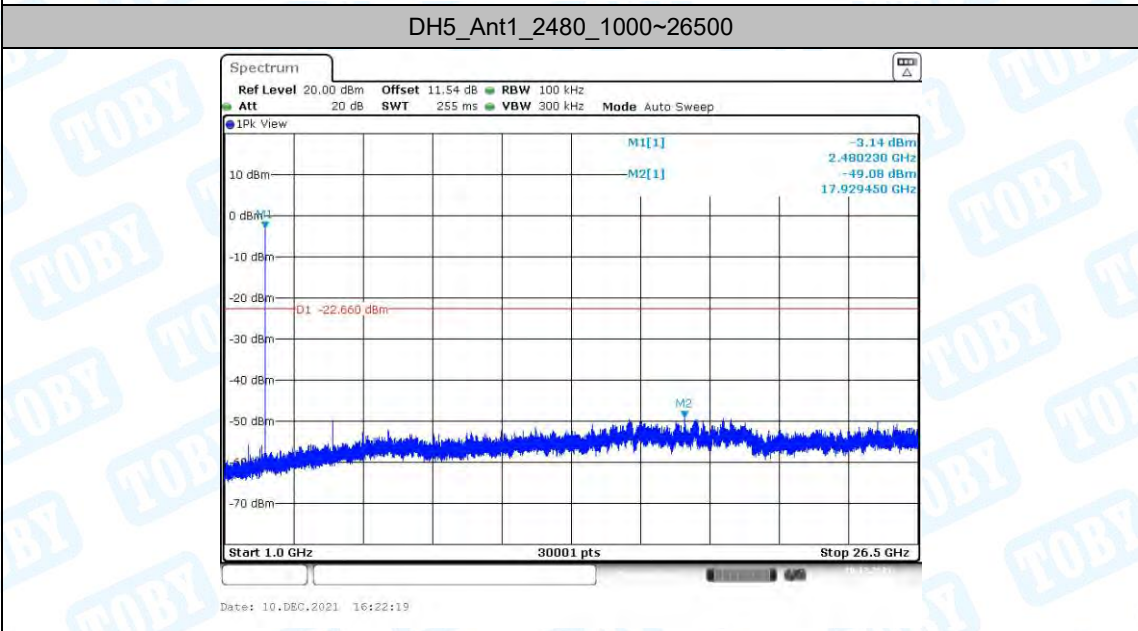
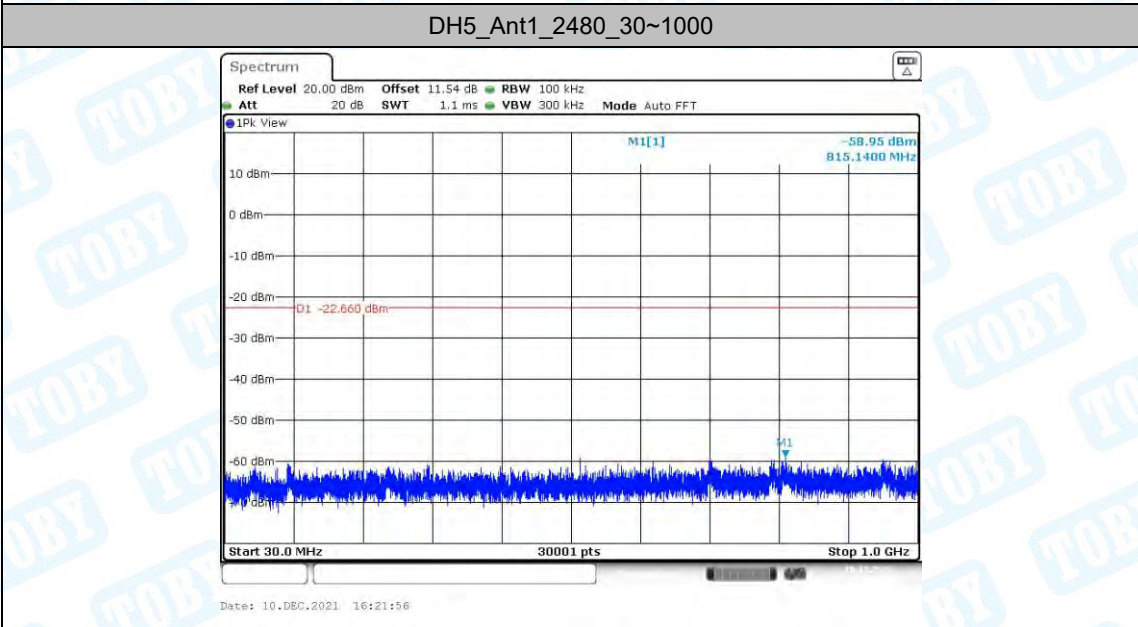
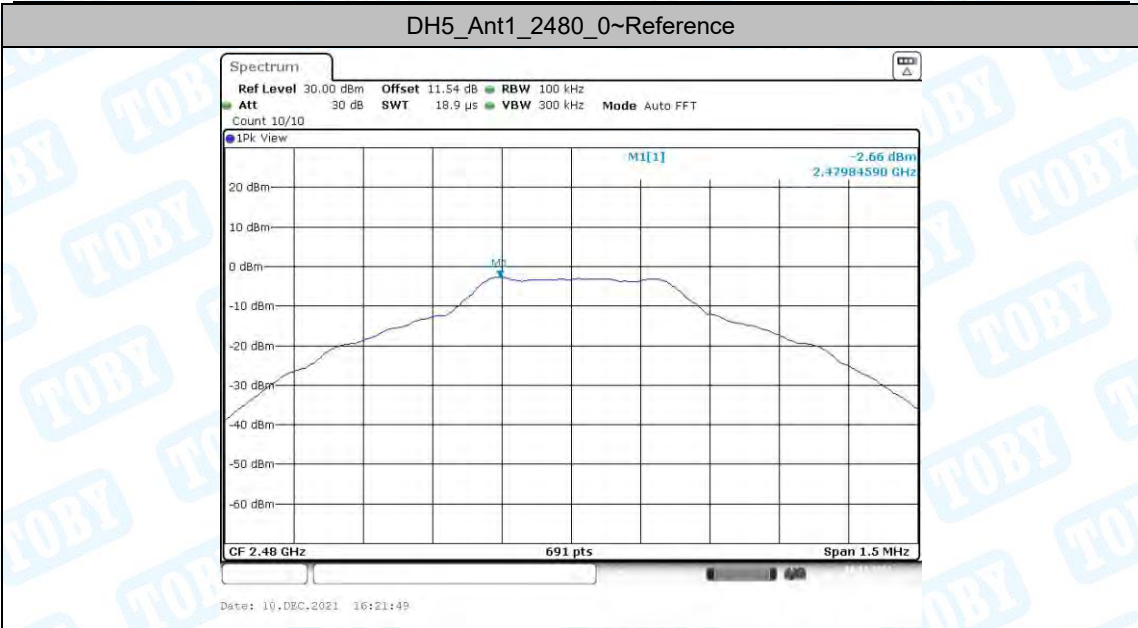
### 8.2. Test Graphs



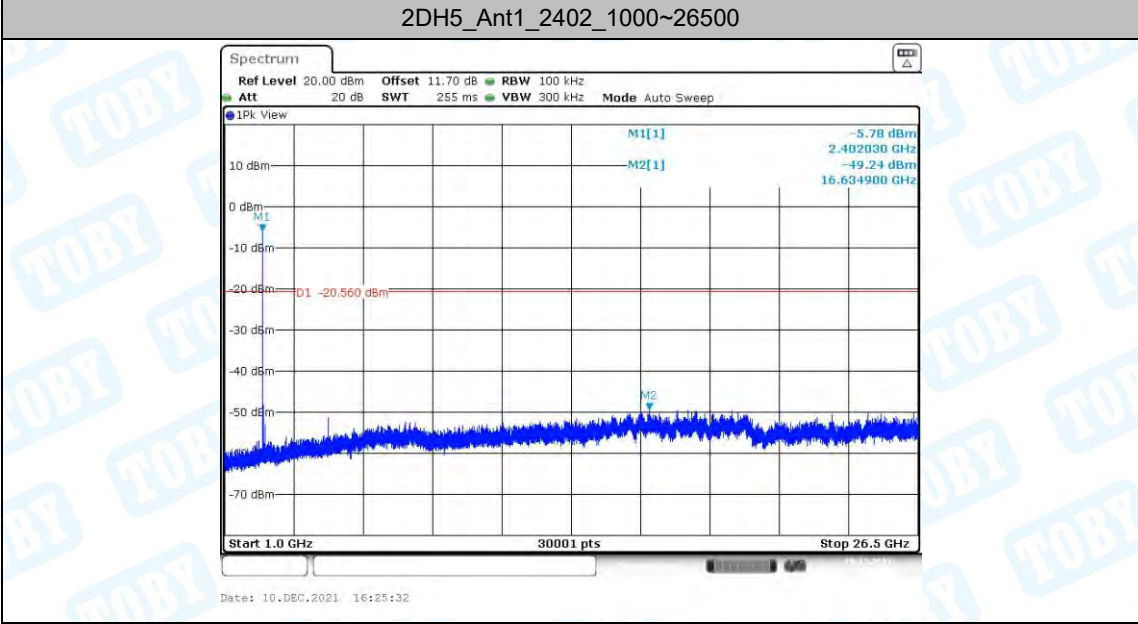
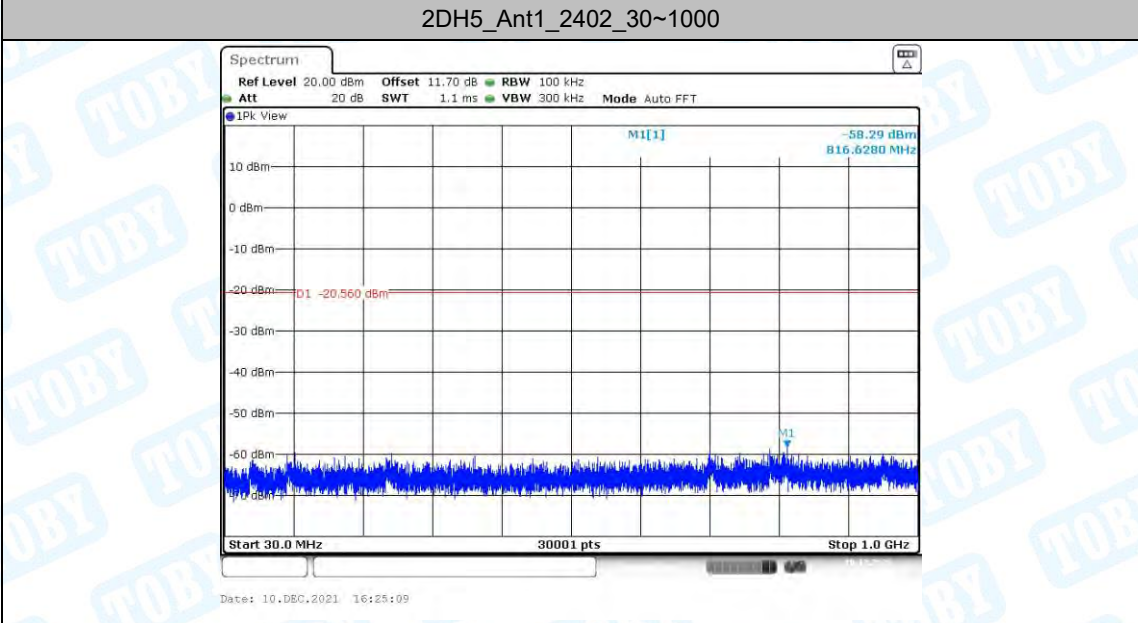
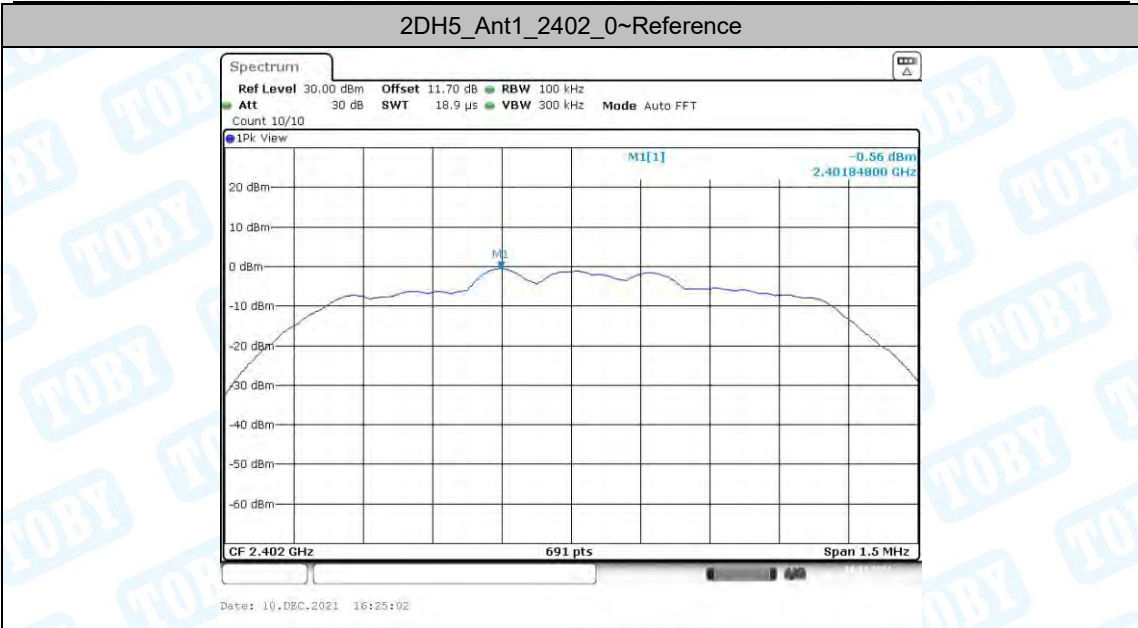




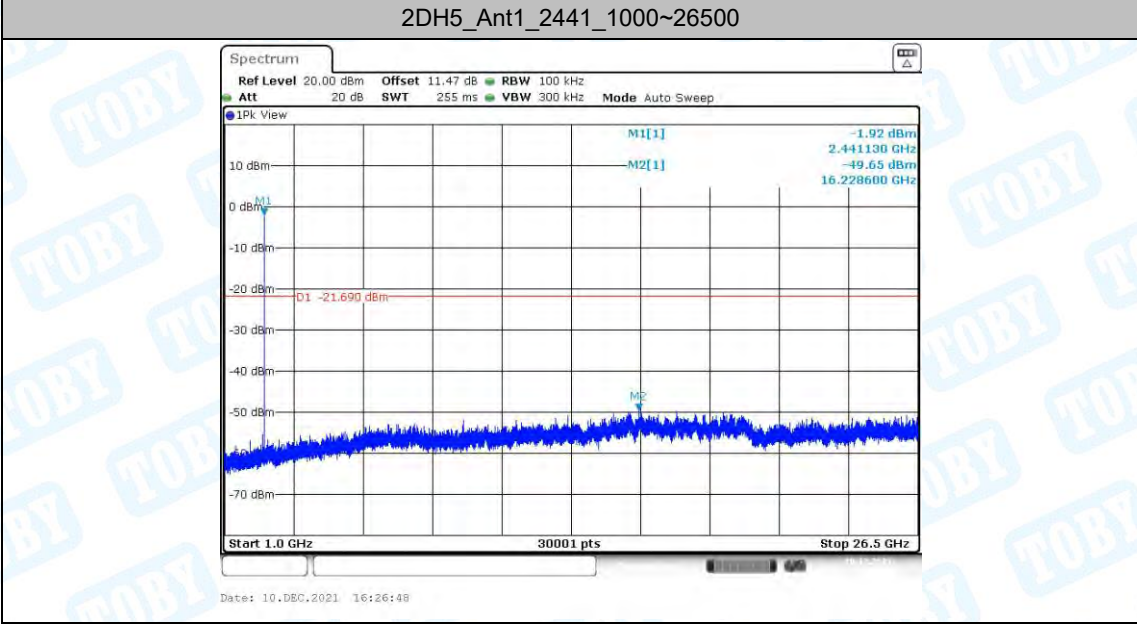
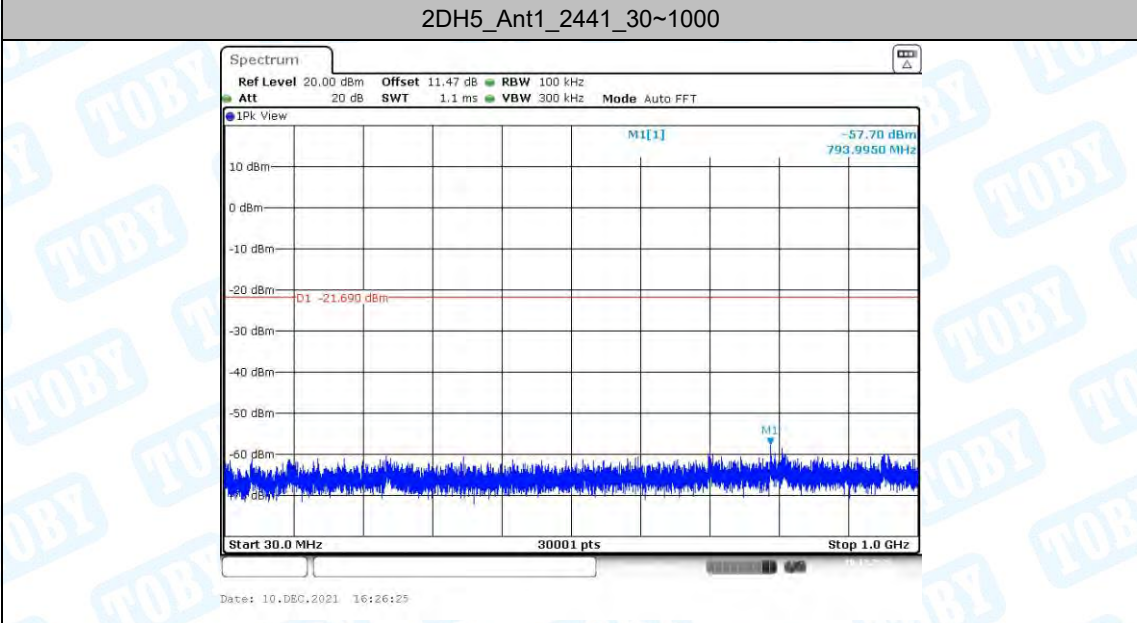
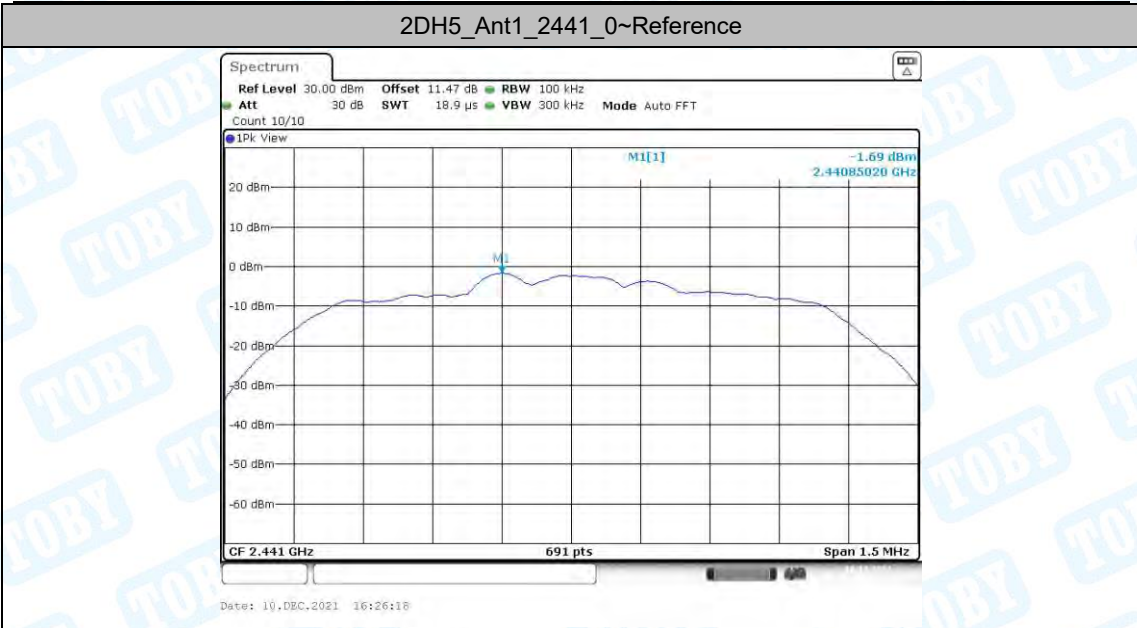




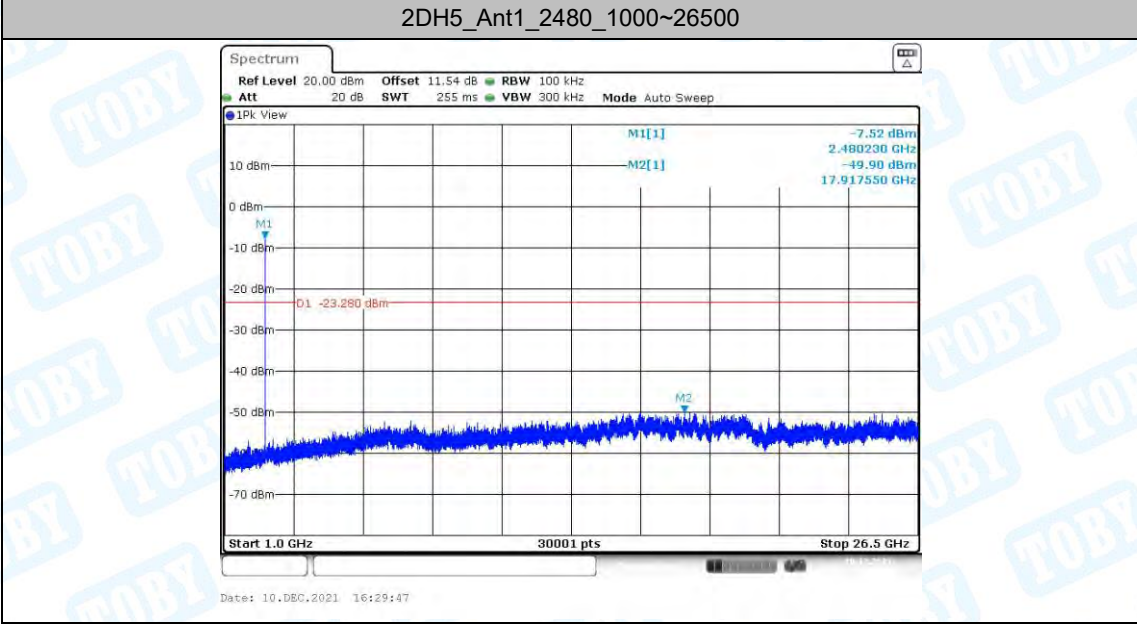
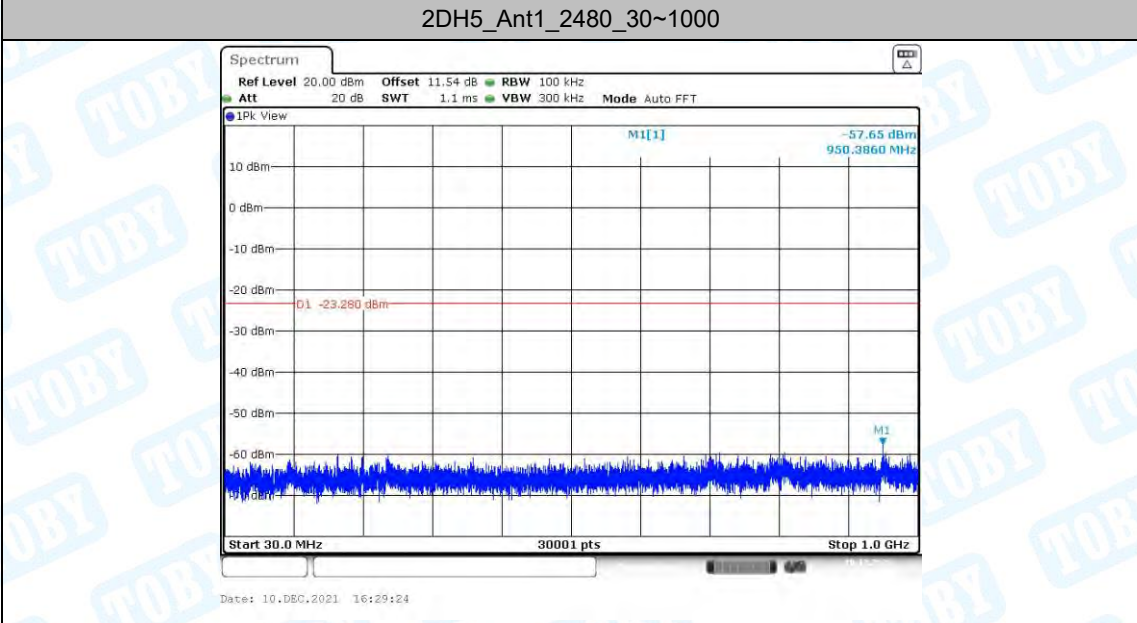
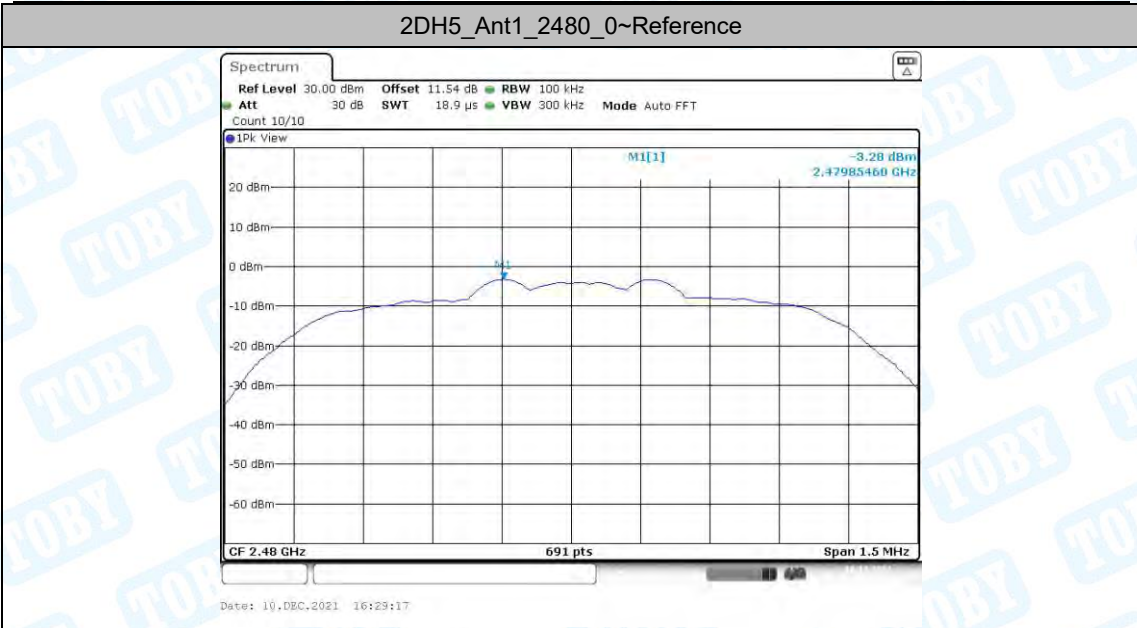




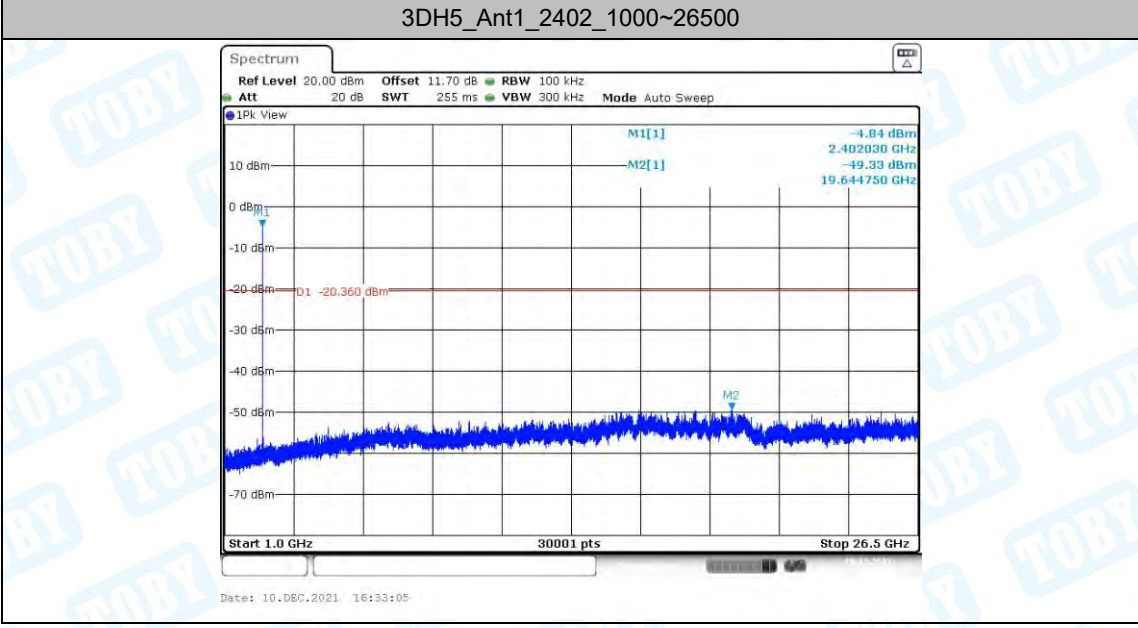
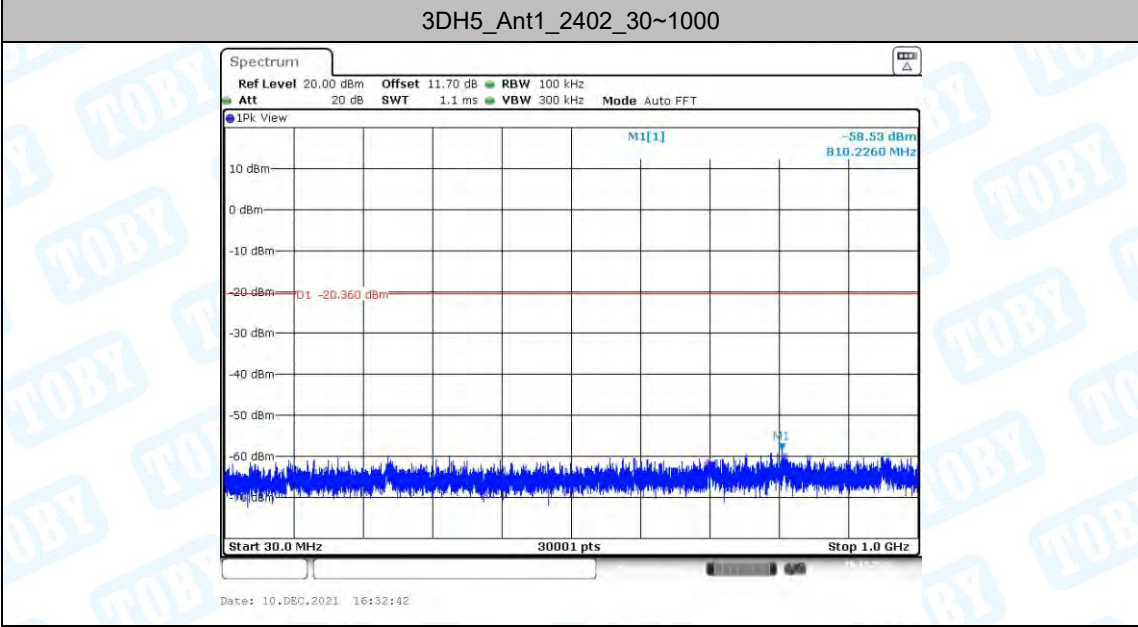
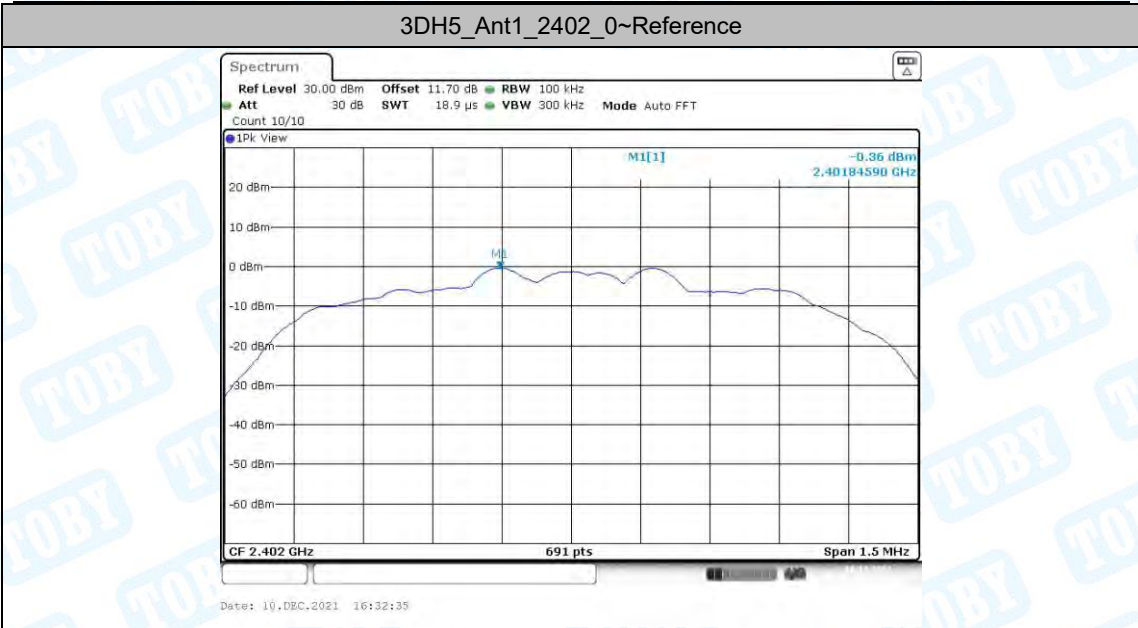




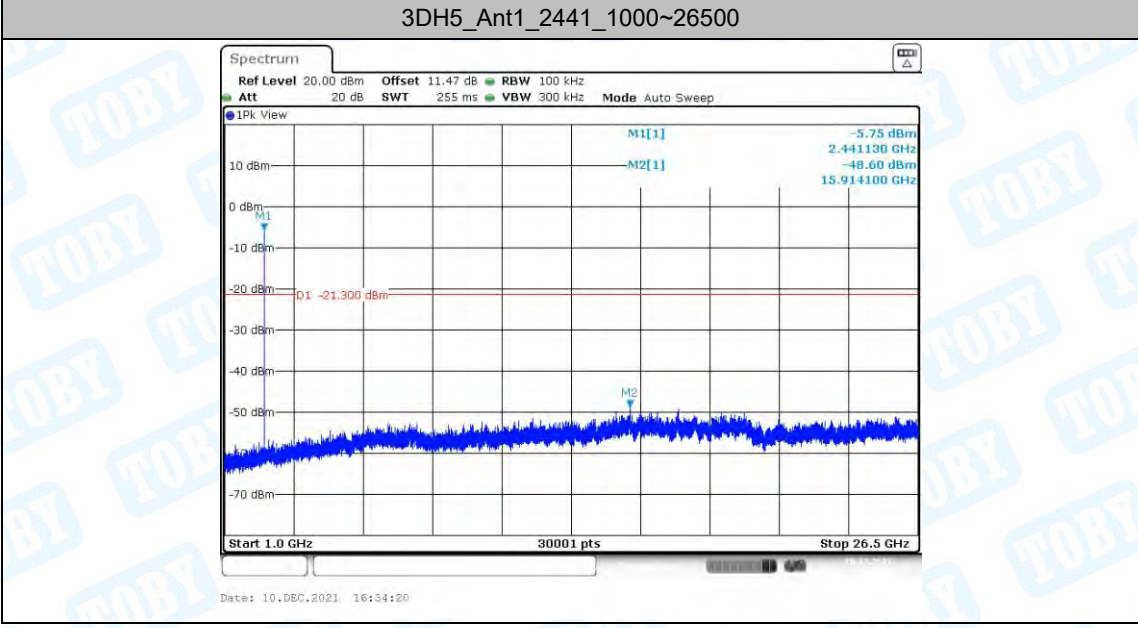
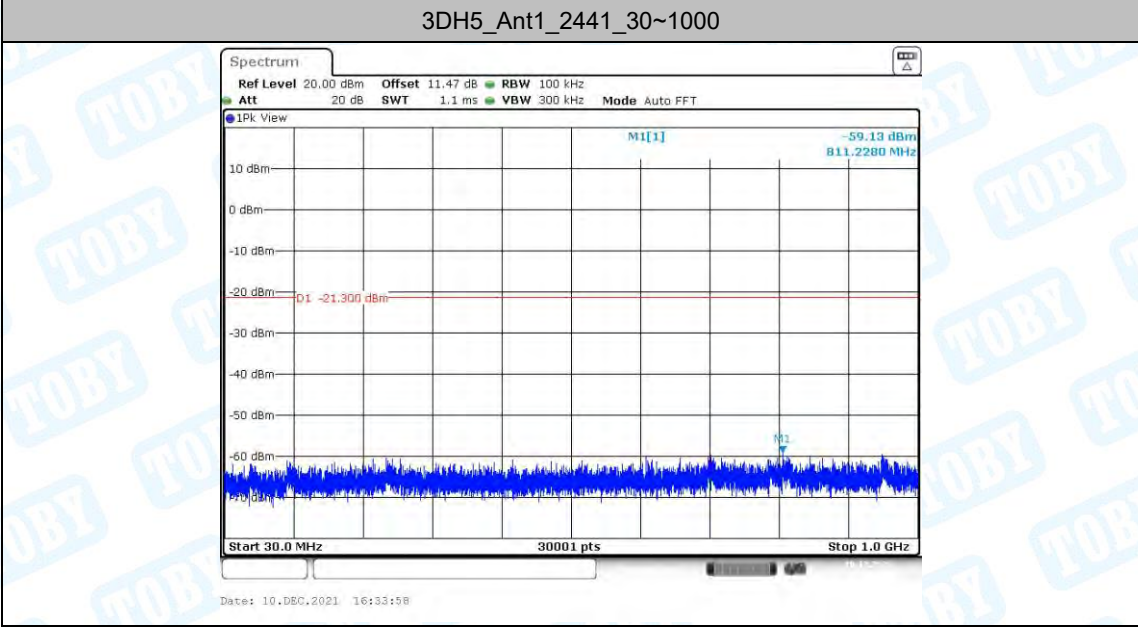
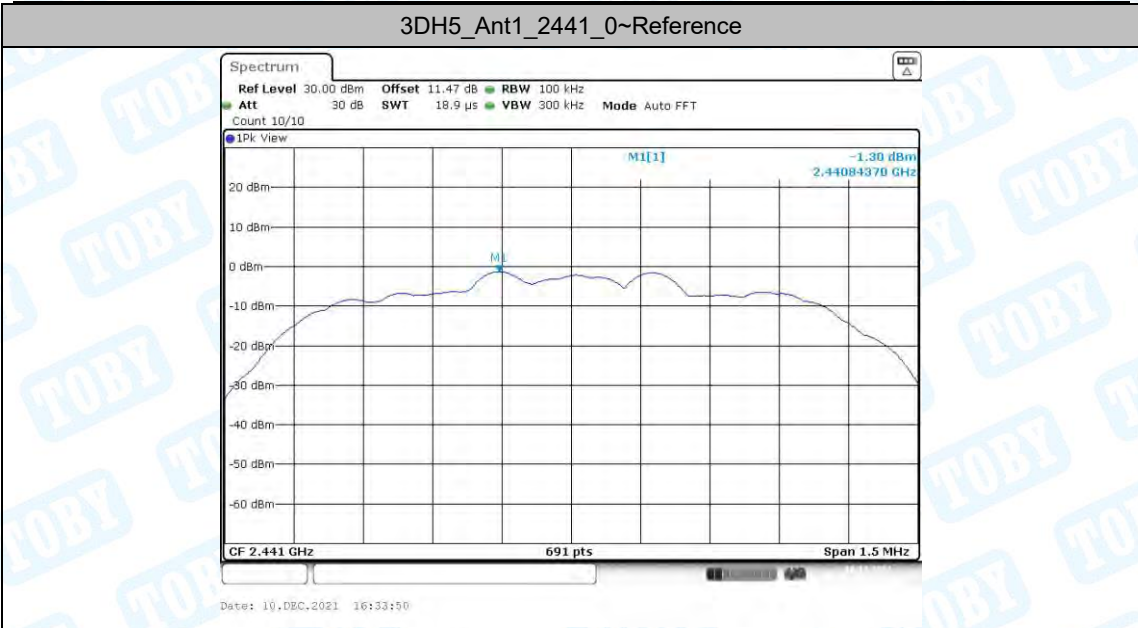




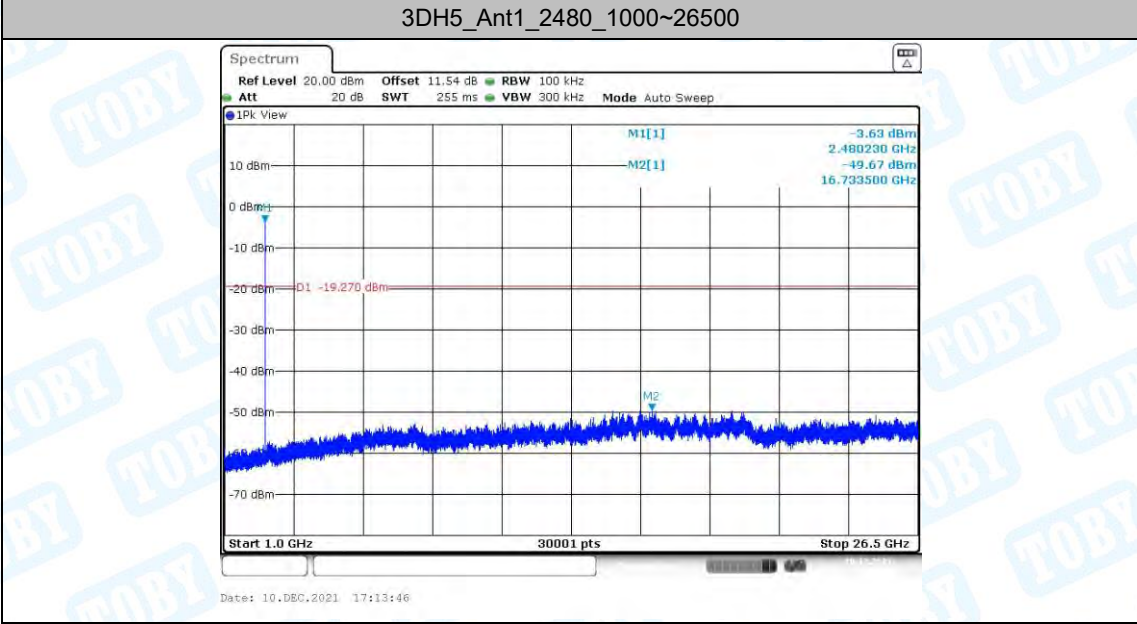
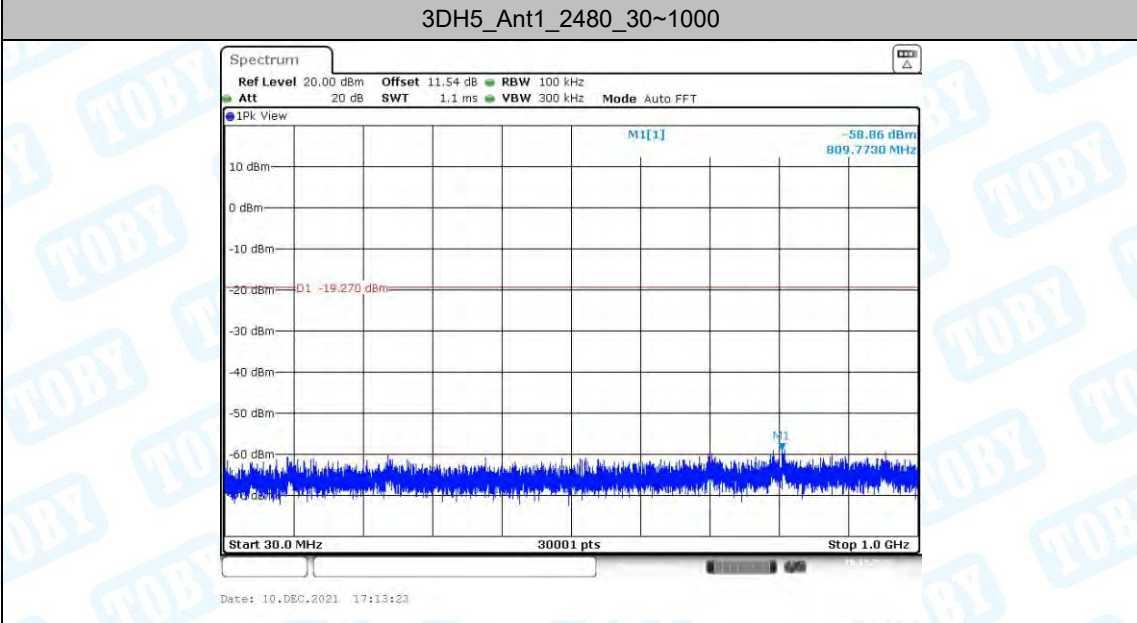
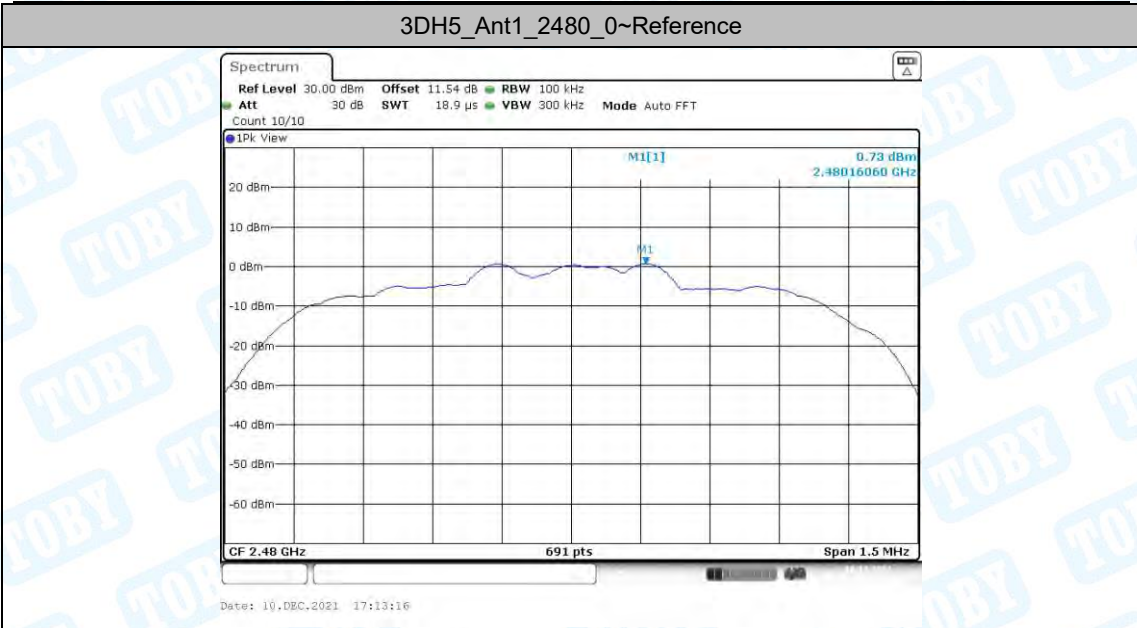














## 9. Emissions in Restricted Bands

### 9.1. Test Result

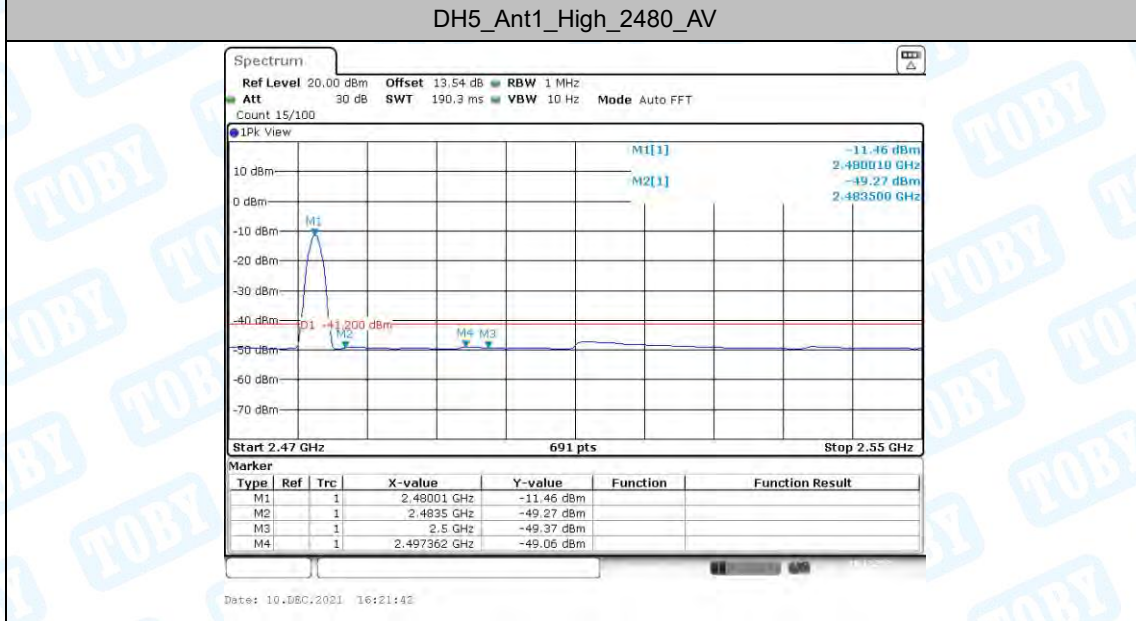
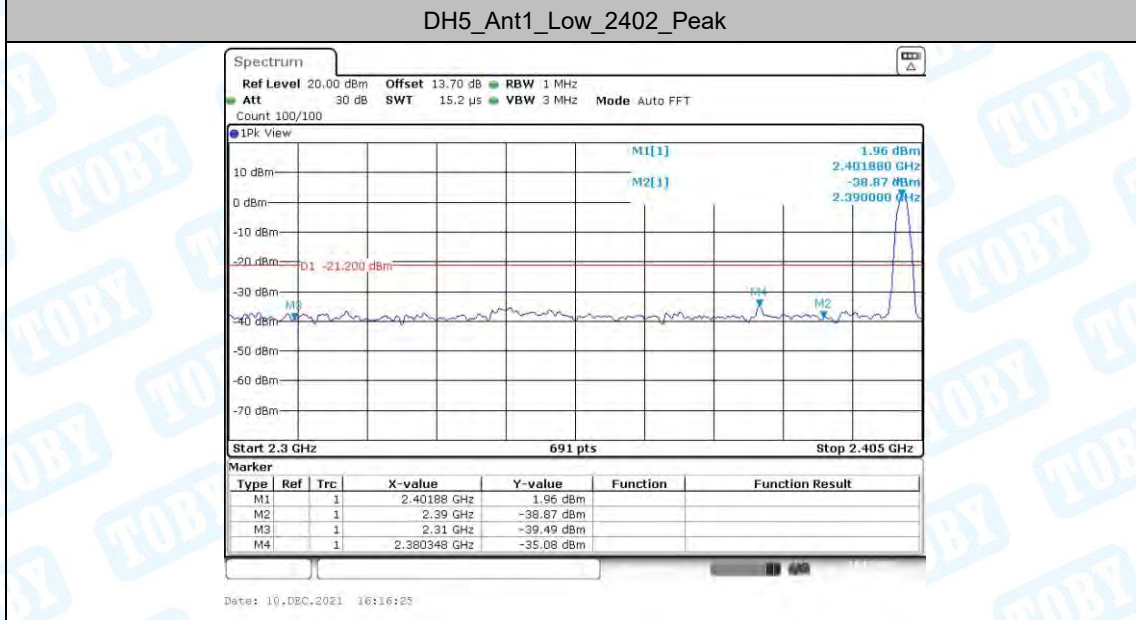
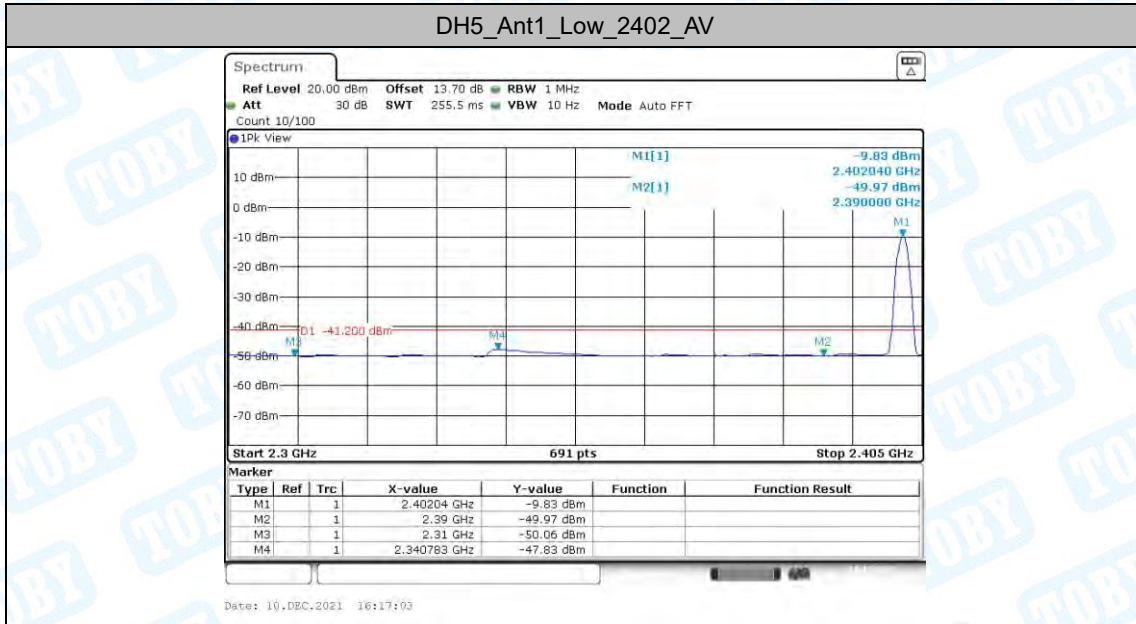
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-50.06	≤-41.20	PASS
				AV	2340.783	-47.83	≤-41.20	PASS
				AV	2390.000	-49.97	≤-41.20	PASS
				Peak	2310.000	-39.49	≤-21.20	PASS
				Peak	2380.348	-35.08	≤-21.20	PASS
				Peak	2390.000	-38.87	≤-21.20	PASS
		High	2480	AV	2483.500	-49.27	≤-41.20	PASS
				AV	2497.362	-49.06	≤-41.20	PASS
				AV	2500.000	-49.37	≤-41.20	PASS
				Peak	2483.500	-39.8	≤-21.20	PASS
				Peak	2484.029	-36.76	≤-21.20	PASS
				Peak	2500.000	-38.37	≤-21.20	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-50.08	≤-41.20	PASS
				AV	2341.087	-47.87	≤-41.20	PASS
				AV	2390.000	-49.98	≤-41.20	PASS
				Peak	2310.000	-38.27	≤-21.20	PASS
				Peak	2340.630	-35.5	≤-21.20	PASS
				Peak	2390.000	-38.82	≤-21.20	PASS
		High	2480	AV	2483.500	-49.28	≤-41.20	PASS
				AV	2497.246	-49.02	≤-41.20	PASS
				AV	2500.000	-49.34	≤-41.20	PASS
				Peak	2483.500	-39.32	≤-21.20	PASS
				Peak	2486.928	-36.63	≤-21.20	PASS
				Peak	2500.000	-37.8	≤-21.20	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-50.1	≤-41.20	PASS
				AV	2340.935	-47.81	≤-41.20	PASS
				AV	2390.000	-49.98	≤-41.20	PASS
				Peak	2310.000	-39.95	≤-21.20	PASS
				Peak	2340.174	-35.79	≤-21.20	PASS
				Peak	2390.000	-36.75	≤-21.20	PASS
		High	2480	AV	2483.500	-49.27	≤-41.20	PASS
				AV	2497.246	-49.06	≤-41.20	PASS
				AV	2500.000	-49.35	≤-41.20	PASS
				Peak	2483.500	-38.78	≤-21.20	PASS
				Peak	2485.304	-36.37	≤-21.20	PASS
				Peak	2500.000	-37.34	≤-21.20	PASS

Note:

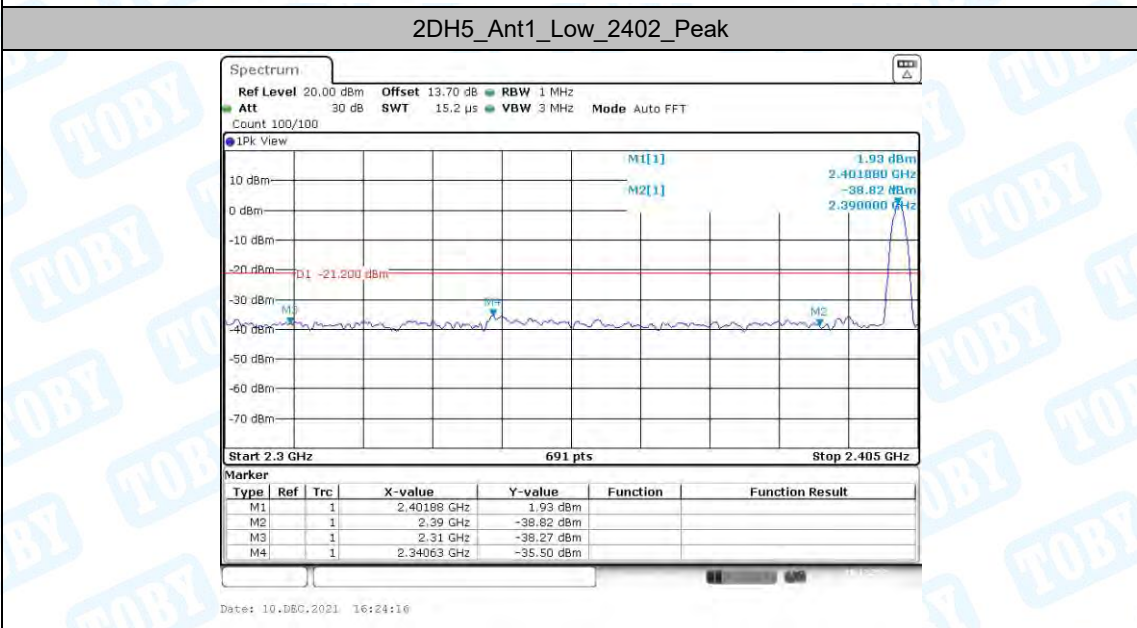
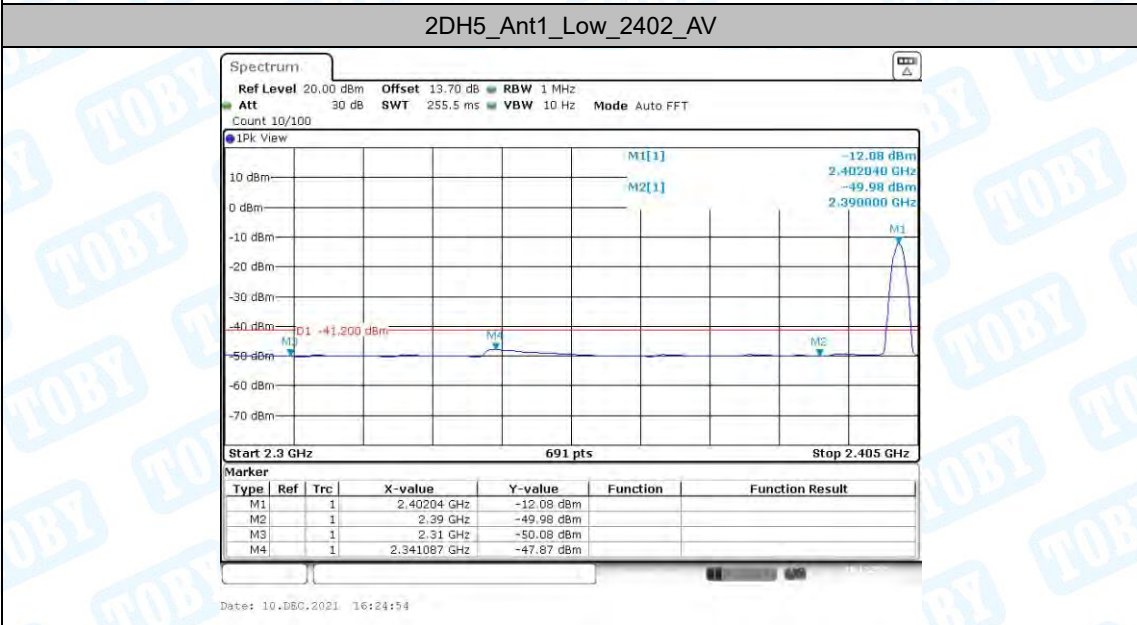
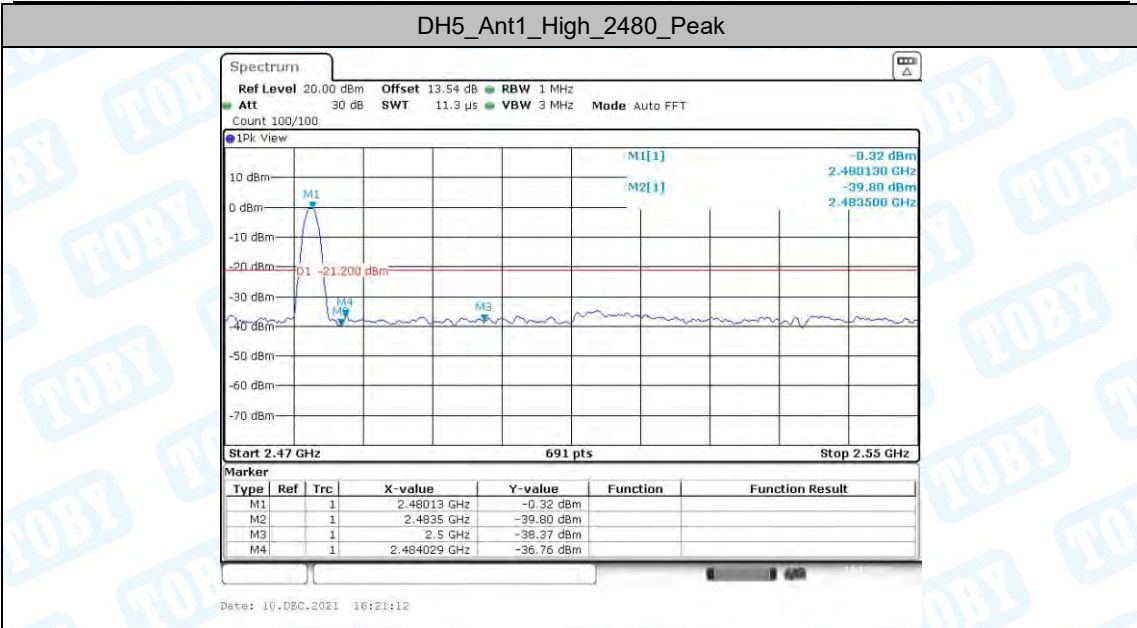
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



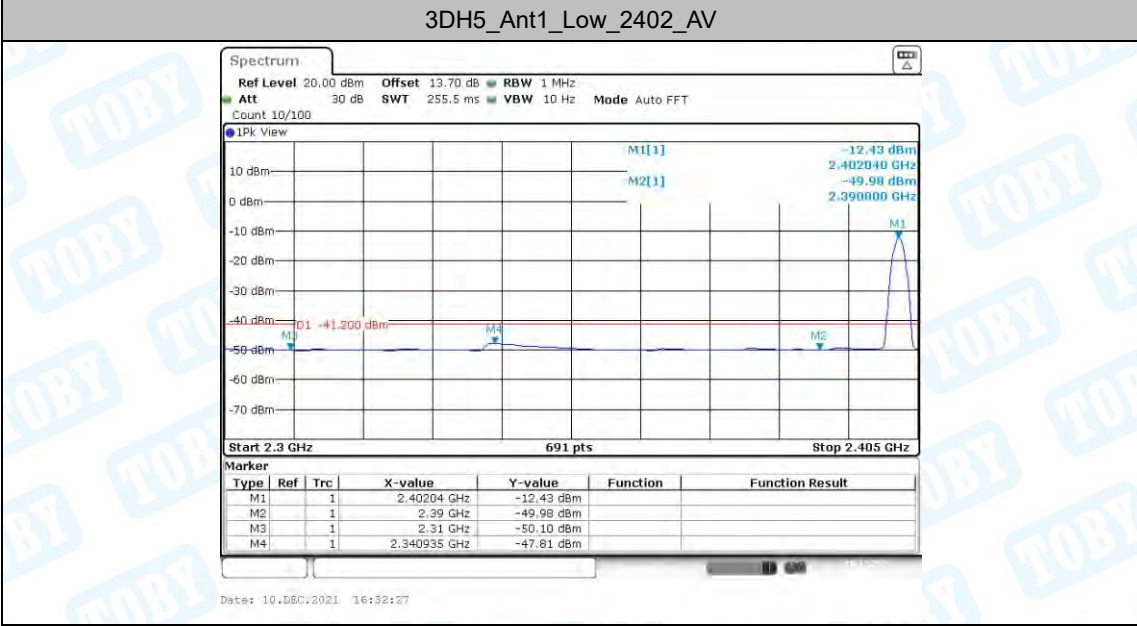
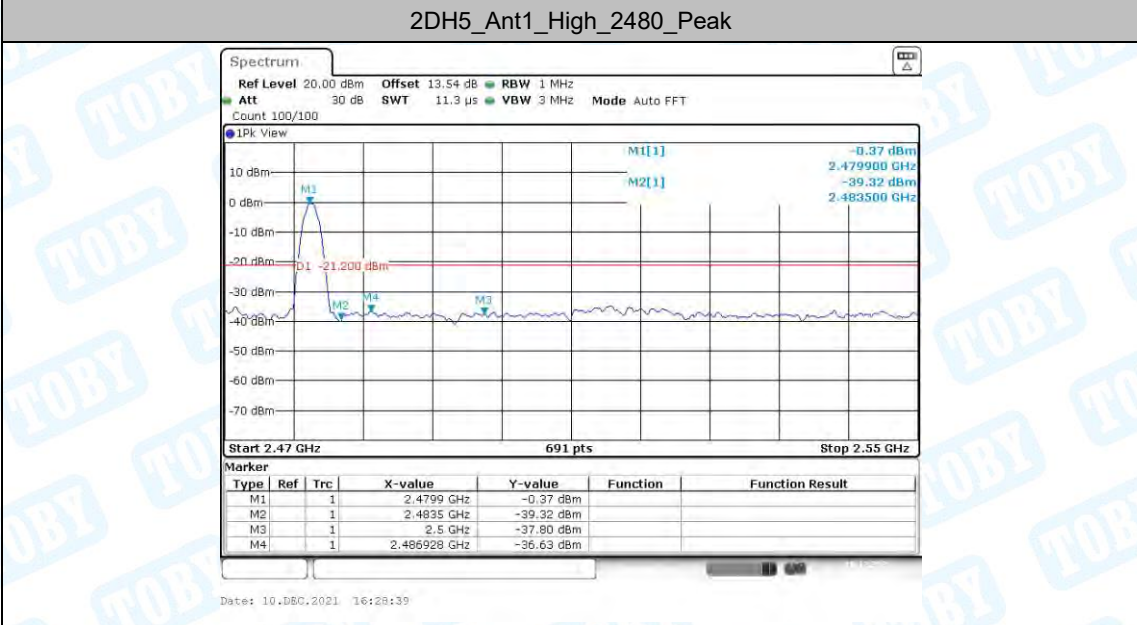
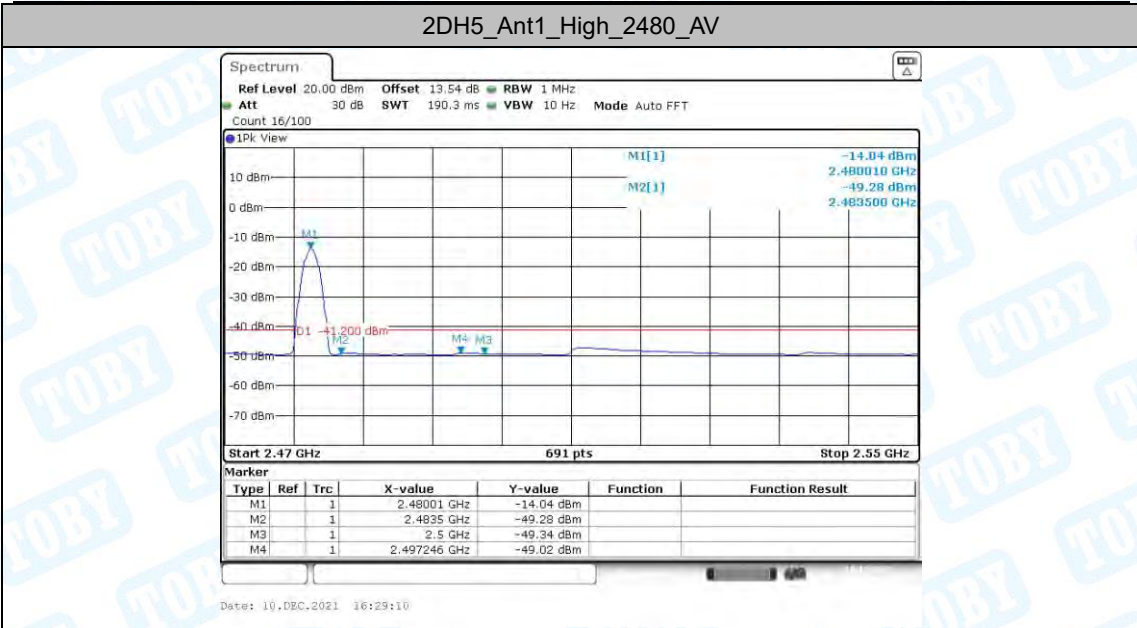
**9.2. Test Graphs**



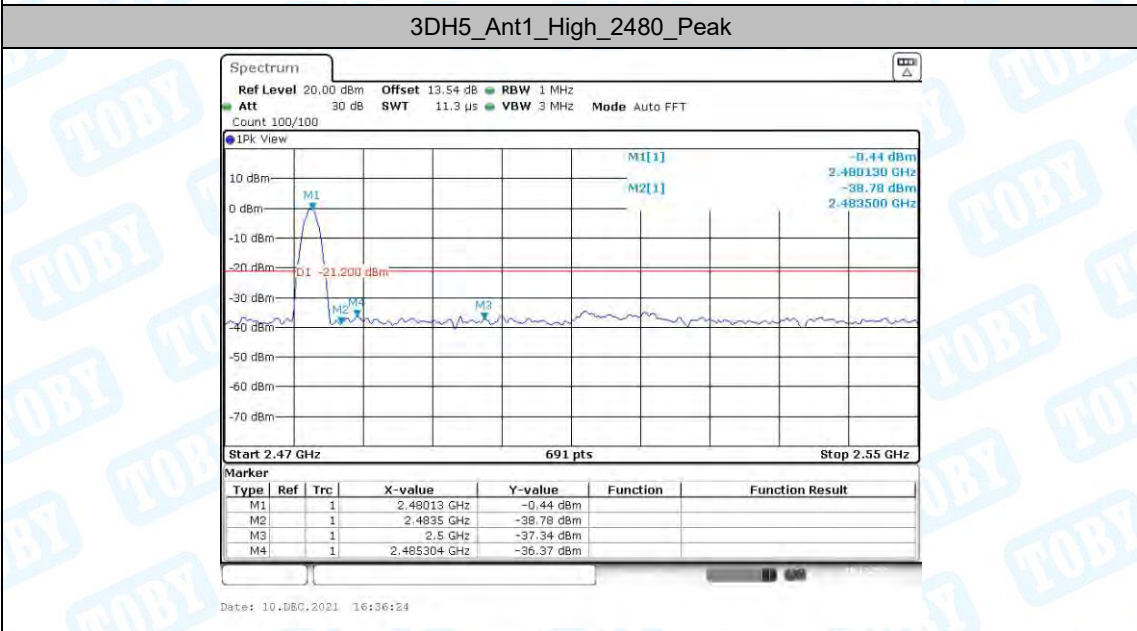
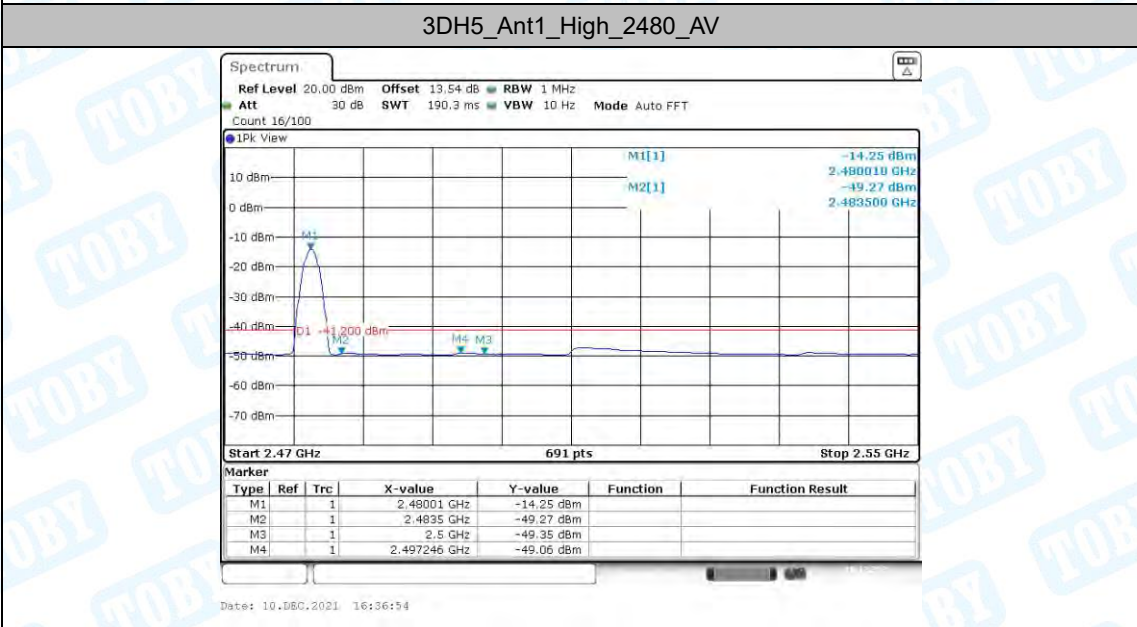
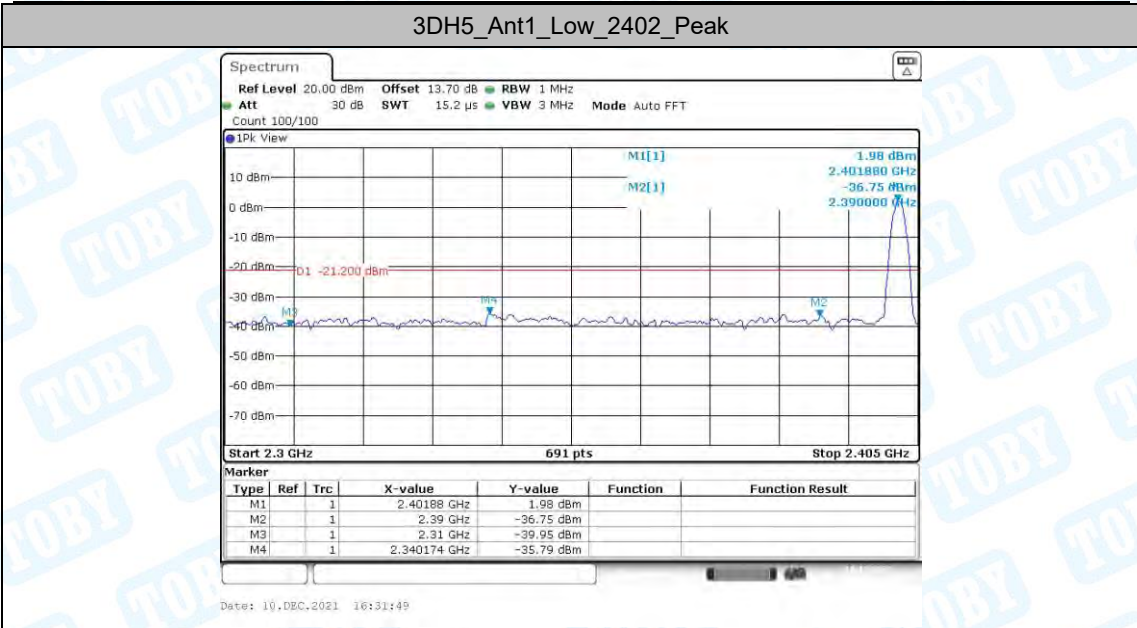












-----End of the report-----