

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

General Description of EUT	
<b>Product Name:</b>	WiFi & BT combo module
<b>Test Model:</b>	EWN-8822CSE3AA
<b>Sample ID:</b>	HC-C-202308-0079-01-03-2#
Environmental Conditions	
<b>Temperature:</b>	25°C
<b>Relative Humidity:</b>	55%
<b>Test Voltage:</b>	DC 3.3V
<b>Test Engineer:</b>	Li Ying Jing
Note: For a more detailed features description, please refer to the report TBR-C-202308-0079-2 The report only show the worst case data.	



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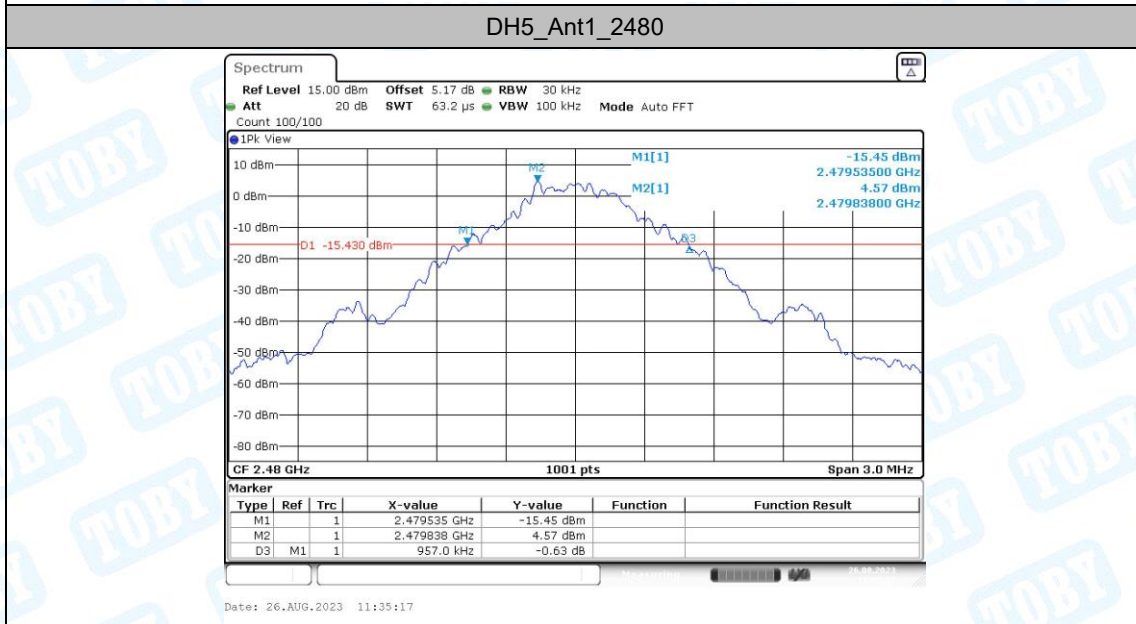
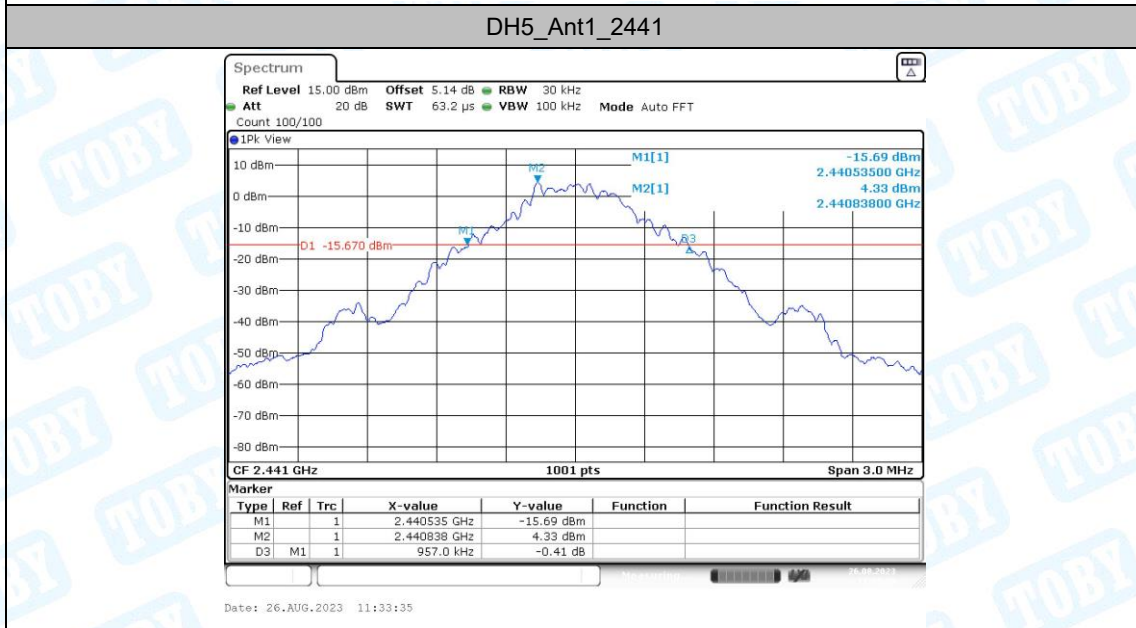
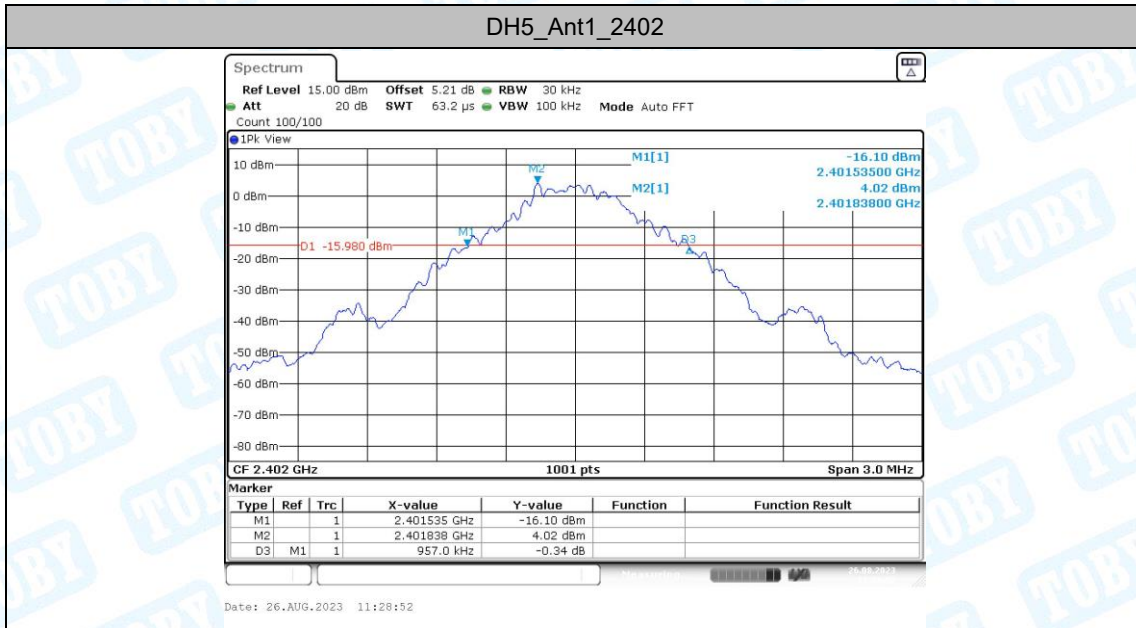
## 1. -20dB Emission Bandwidth

### 1.1. Test Result

TestMode	Antenna	Channel	-20db EBW[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.96	---	---
		2441	0.96	---	---
		2480	0.96	---	---
2DH5	Ant1	2402	1.28	---	---
		2441	1.28	---	---
		2480	1.28	---	---
3DH5	Ant1	2402	1.30	---	---
		2441	1.30	---	---
		2480	1.30	---	---

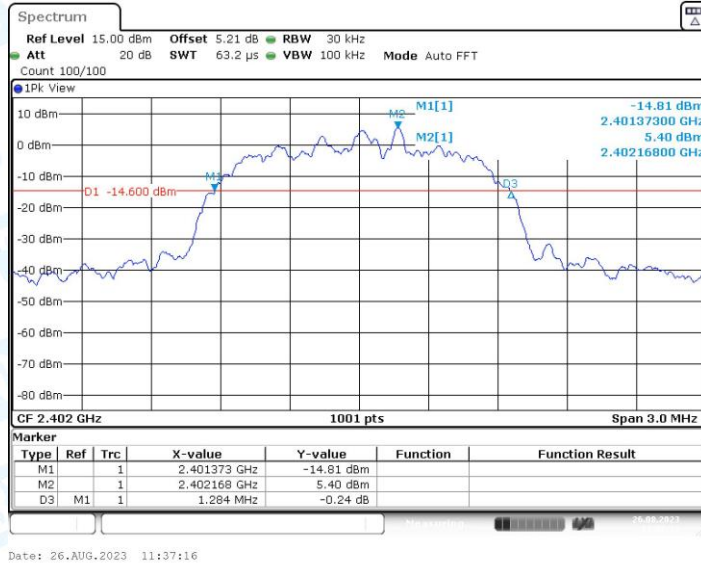
Note: Test data is kept to two decimal places only

### 1.2. Test Graphs

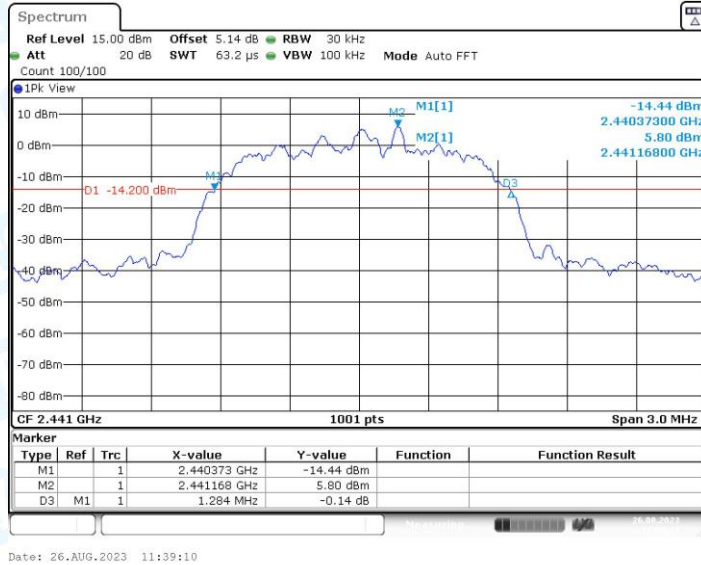




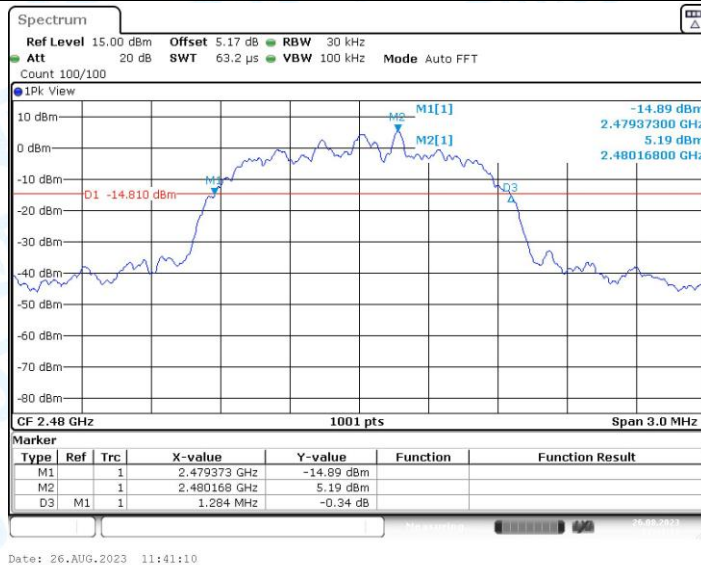
2DH5\_Ant1\_2402



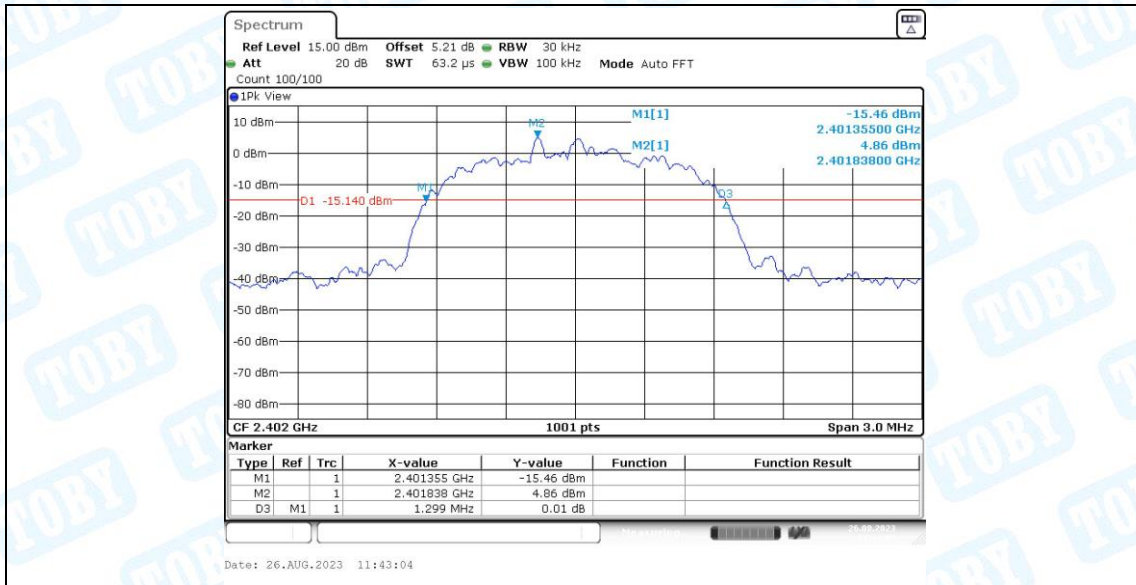
2DH5\_Ant1\_2441



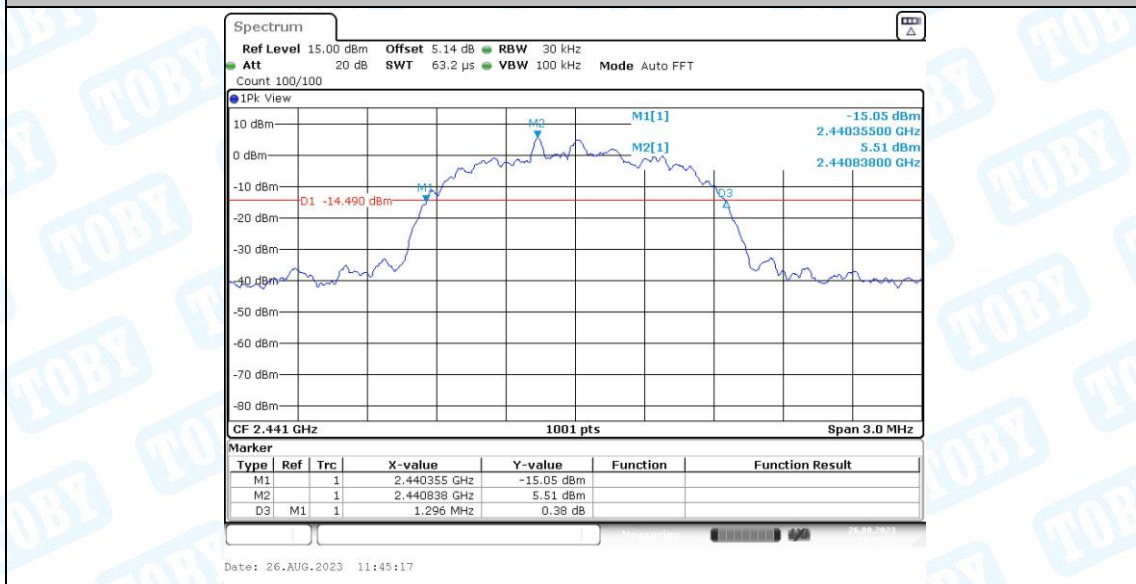
2DH5\_Ant1\_2480



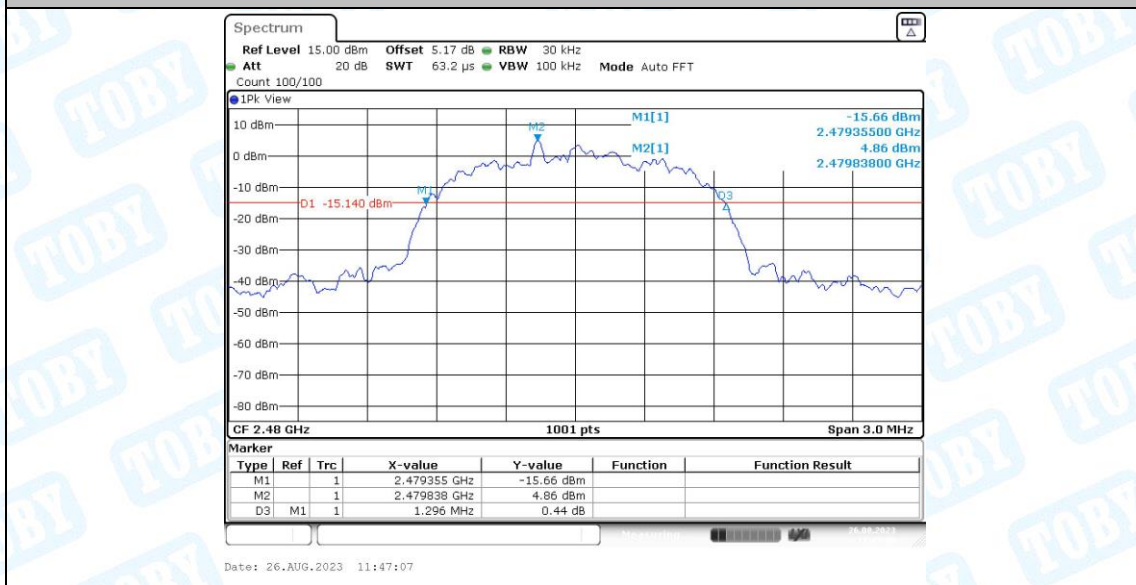
3DH5\_Ant1\_2402



3DH5\_Ant1\_2441



3DH5\_Ant1\_2480



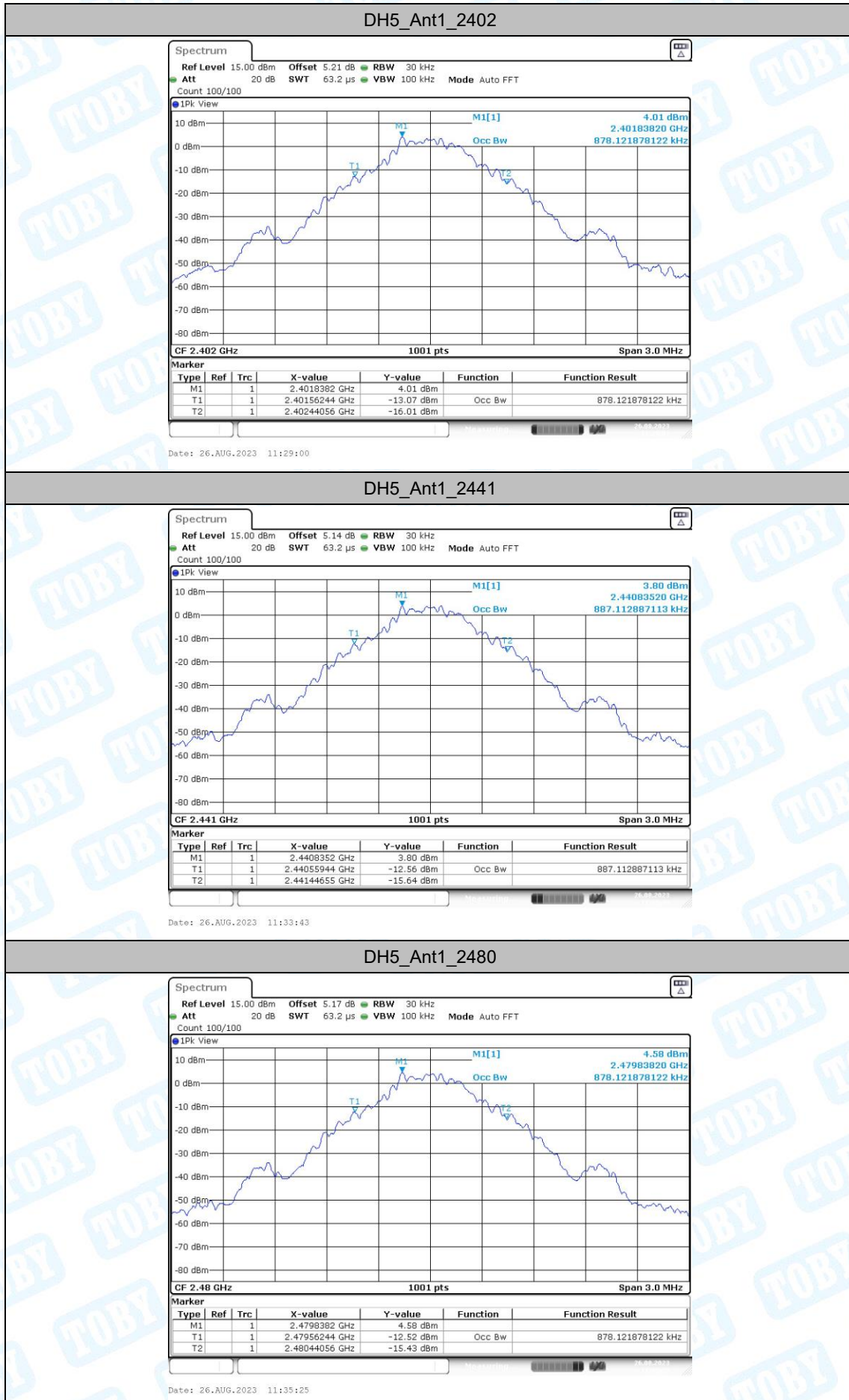


## 2. Occupied Channel Bandwidth

### 2.1. Test Result

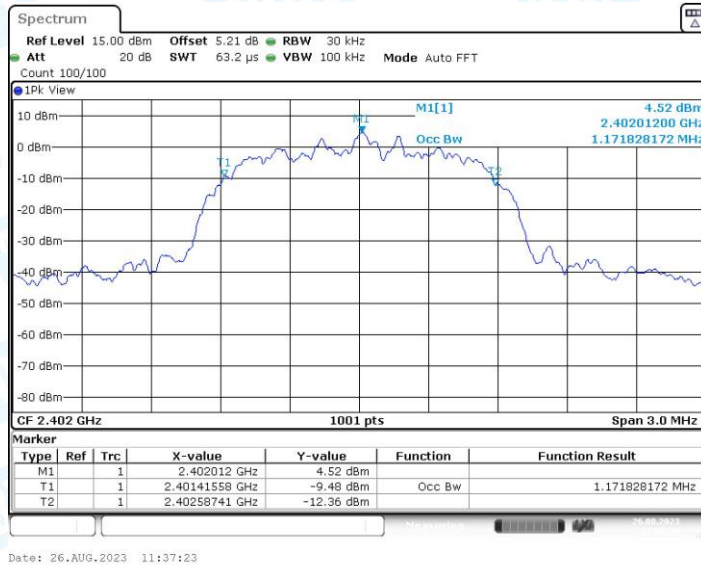
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.878	2401.5624	2402.4406	---	---
		2441	0.887	2440.5594	2441.4466	---	---
		2480	0.878	2479.5624	2480.4406	---	---
2DH5	Ant1	2402	1.172	2401.4156	2402.5874	---	---
		2441	1.169	2440.4156	2441.5844	---	---
		2480	1.166	2479.4186	2480.5844	---	---
3DH5	Ant1	2402	1.172	2401.4186	2402.5904	---	---
		2441	1.172	2440.4186	2441.5904	---	---
		2480	1.169	2479.4186	2480.5874	---	---

## 2.2. Test Graphs

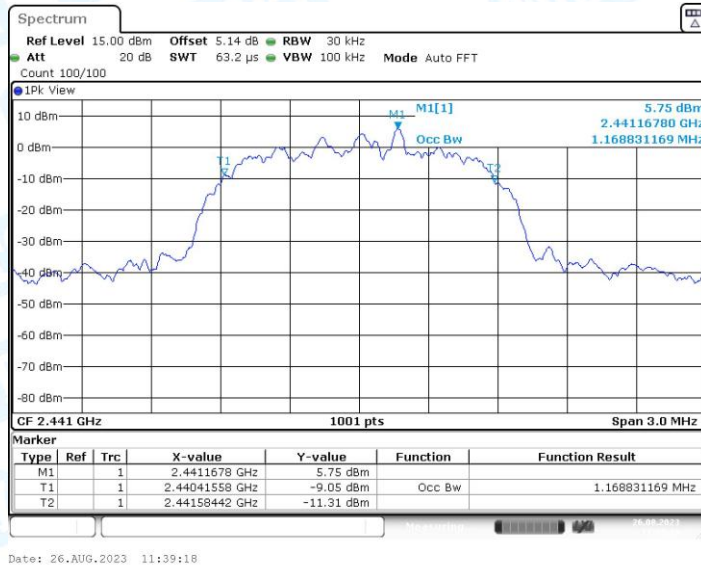




2DH5\_Ant1\_2402



2DH5\_Ant1\_2441

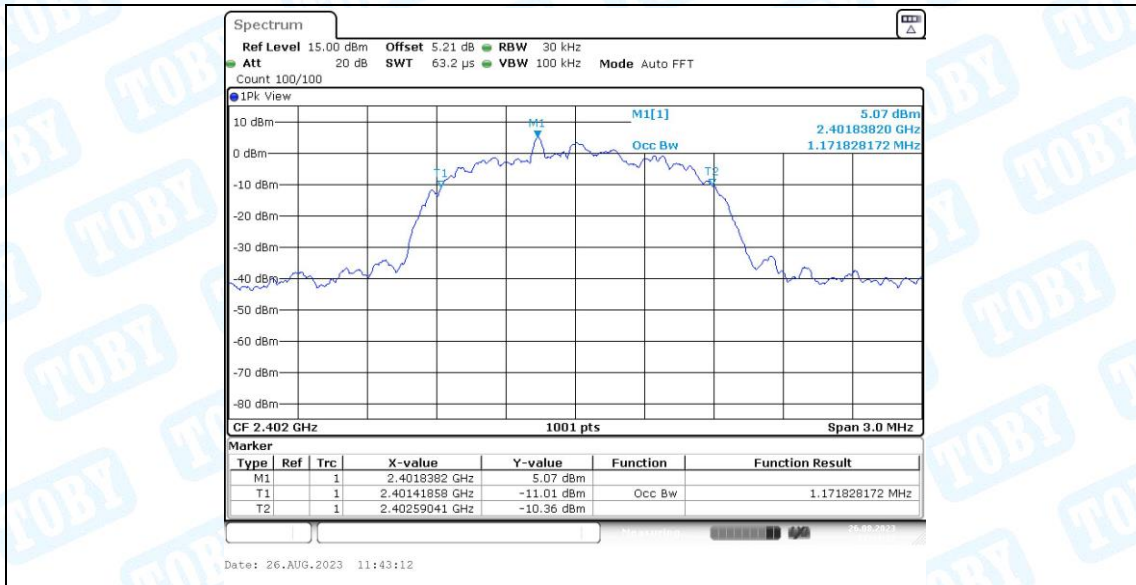


2DH5\_Ant1\_2480

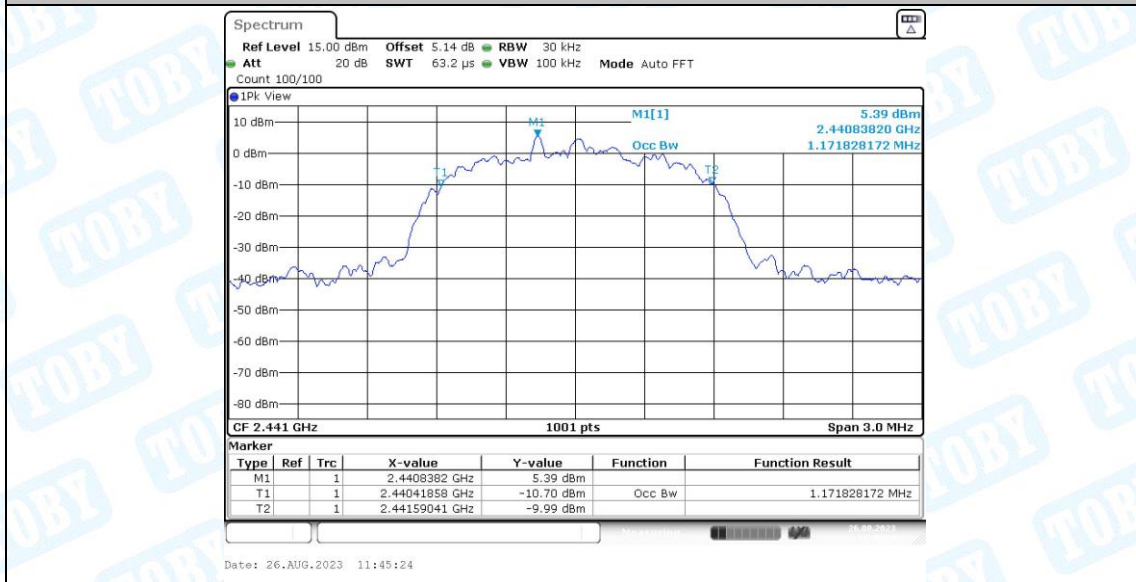


3DH5\_Ant1\_2402

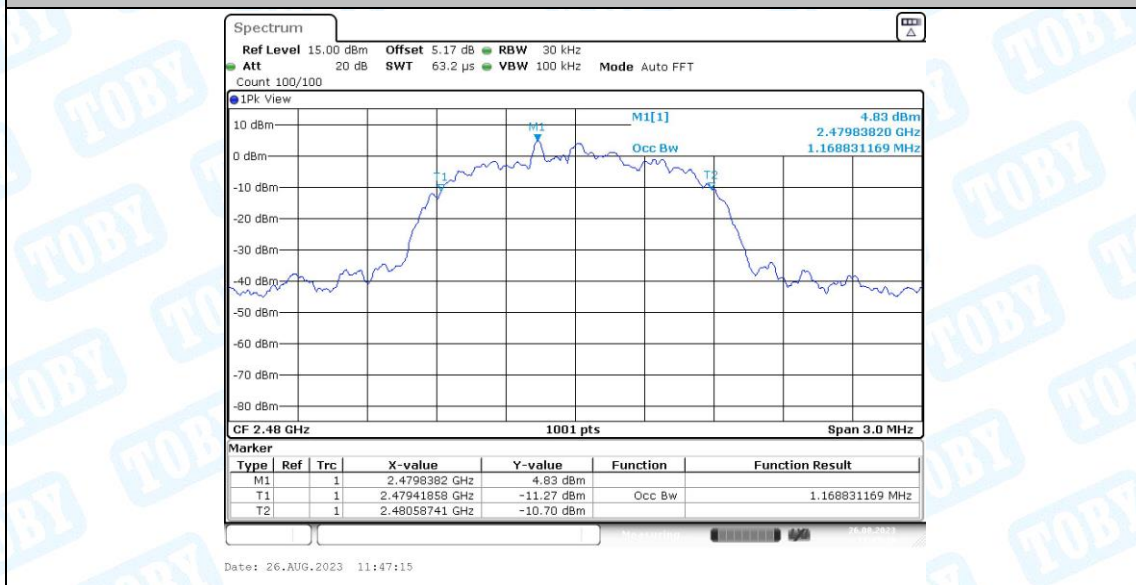




3DH5\_Ant1\_2441



3DH5\_Ant1\_2480





### 3. Maximum conducted output power

#### 3.1. Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	6.87	≤21	PASS
		2441	6.83	≤21	PASS
		2480	6.59	≤21	PASS
2DH5	Ant1	2402	8.85	≤21	PASS
		2441	8.94	≤21	PASS
		2480	8.57	≤21	PASS
3DH5	Ant1	2402	8.97	≤21	PASS
		2441	9.11	≤21	PASS
		2480	8.65	≤21	PASS

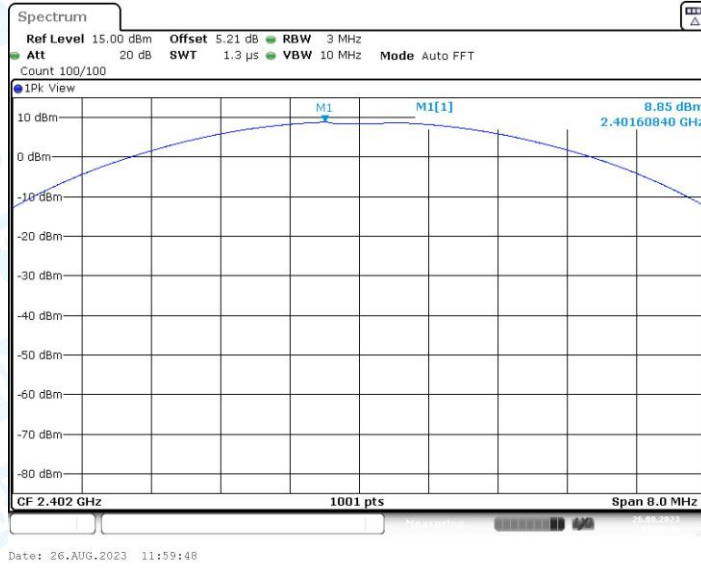


### 3.2. Test Graphs





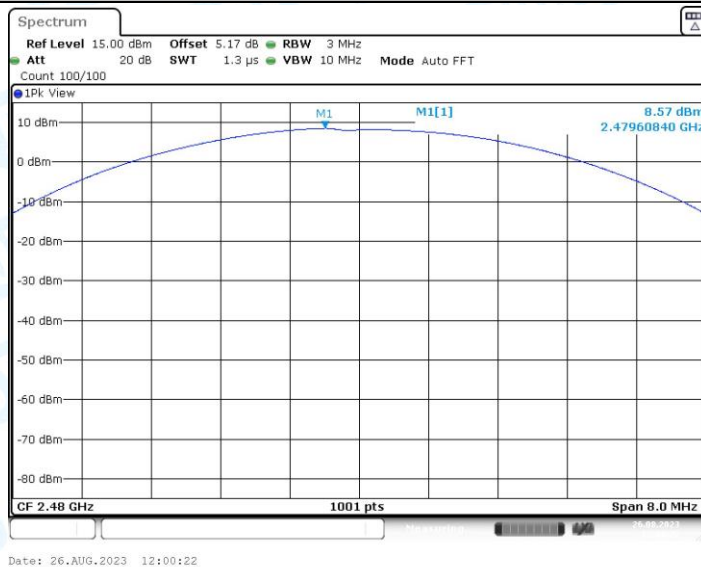
2DH5\_Ant1\_2402



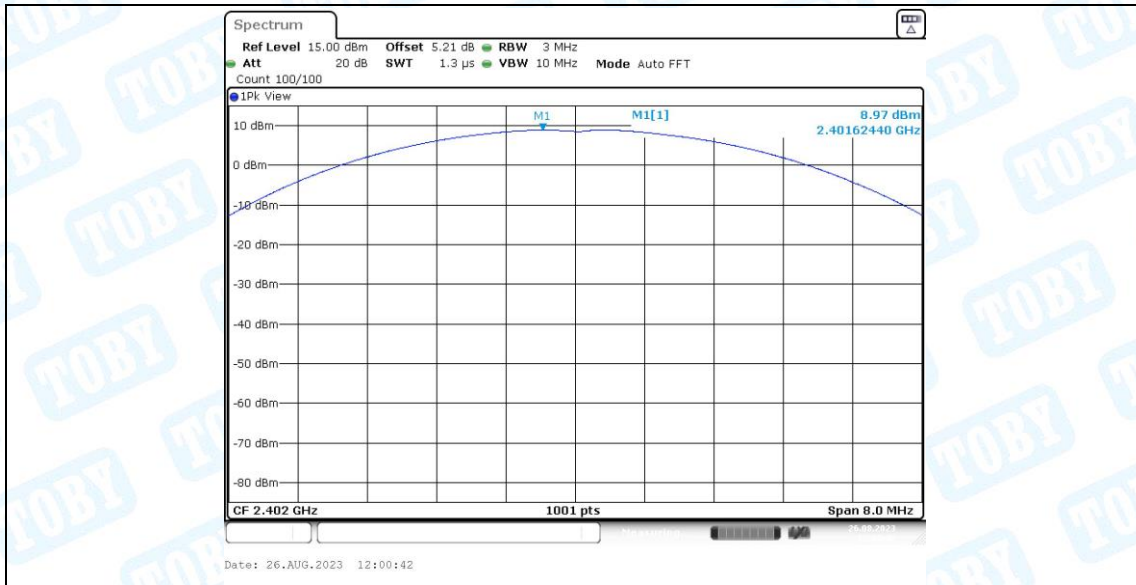
2DH5\_Ant1\_2441



2DH5\_Ant1\_2480



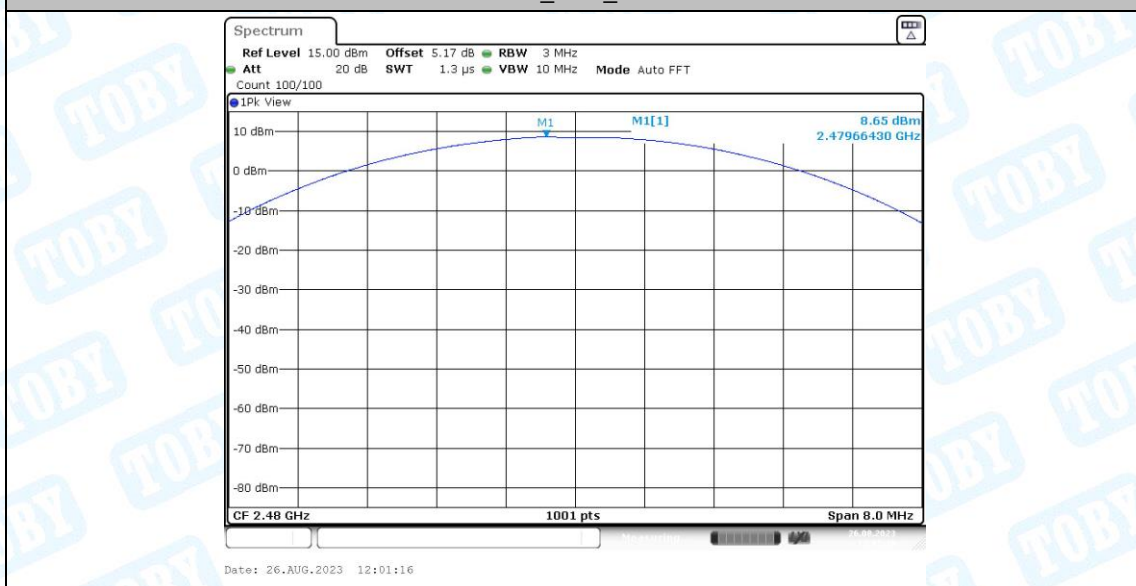
3DH5\_Ant1\_2402



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	$\geq 0.640$	PASS
2DH5	Ant1	Hop	1	$\geq 0.853$	PASS
3DH5	Ant1	Hop	1.136	$\geq 0.867$	PASS

### 4.2. Test Graphs



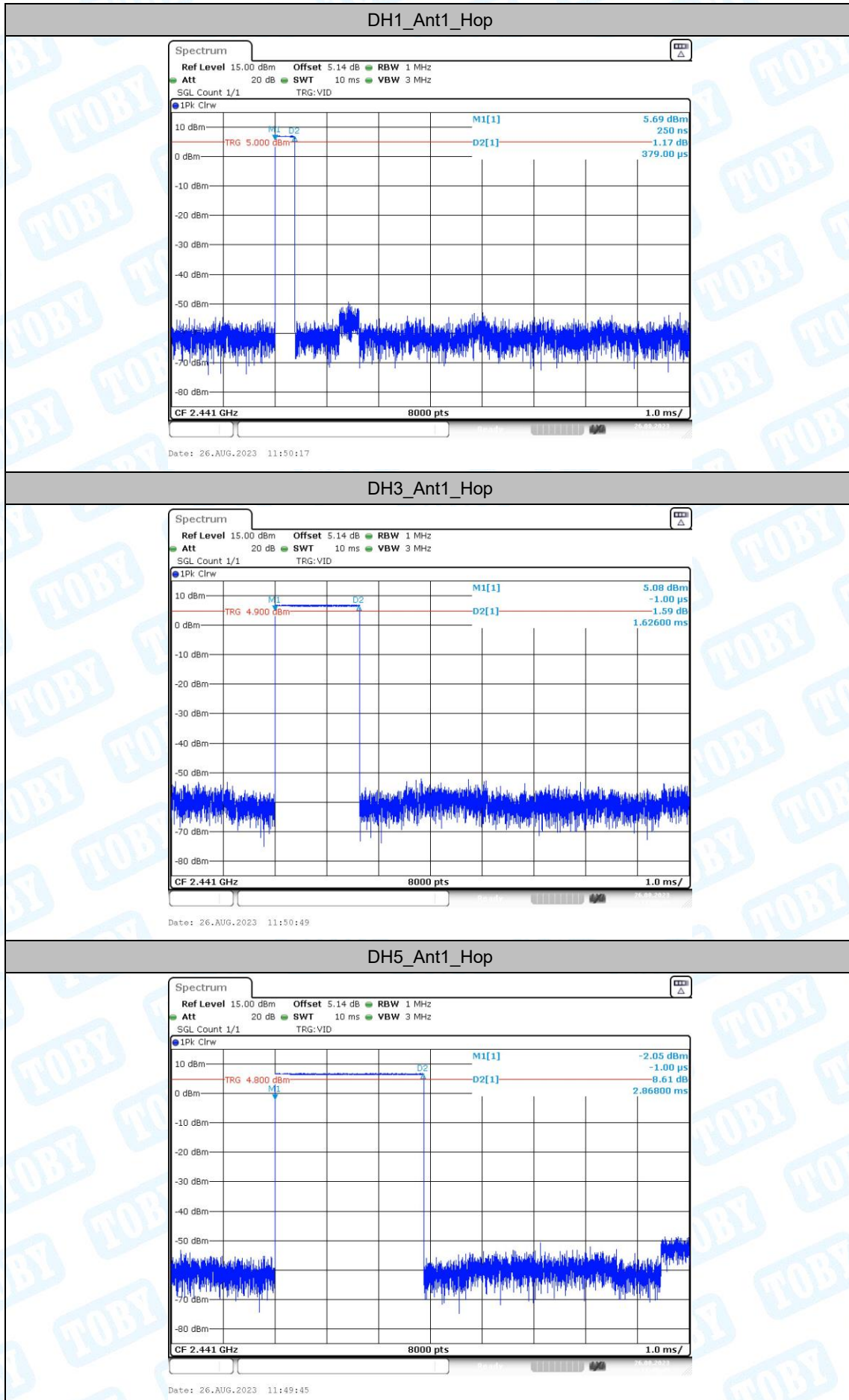


## 5. Time of occupancy

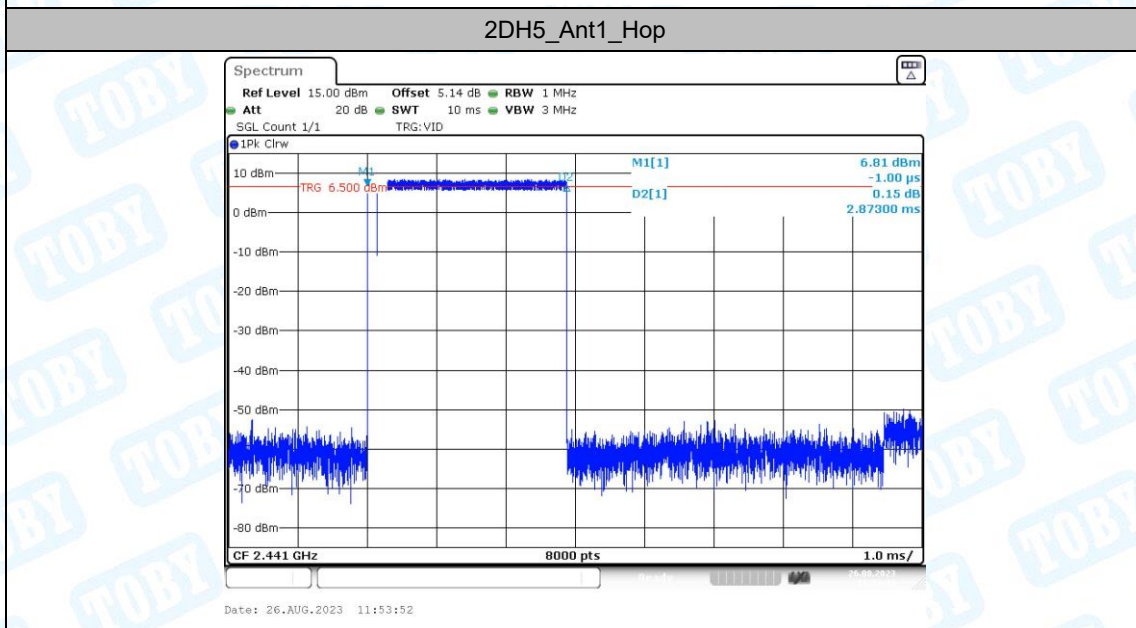
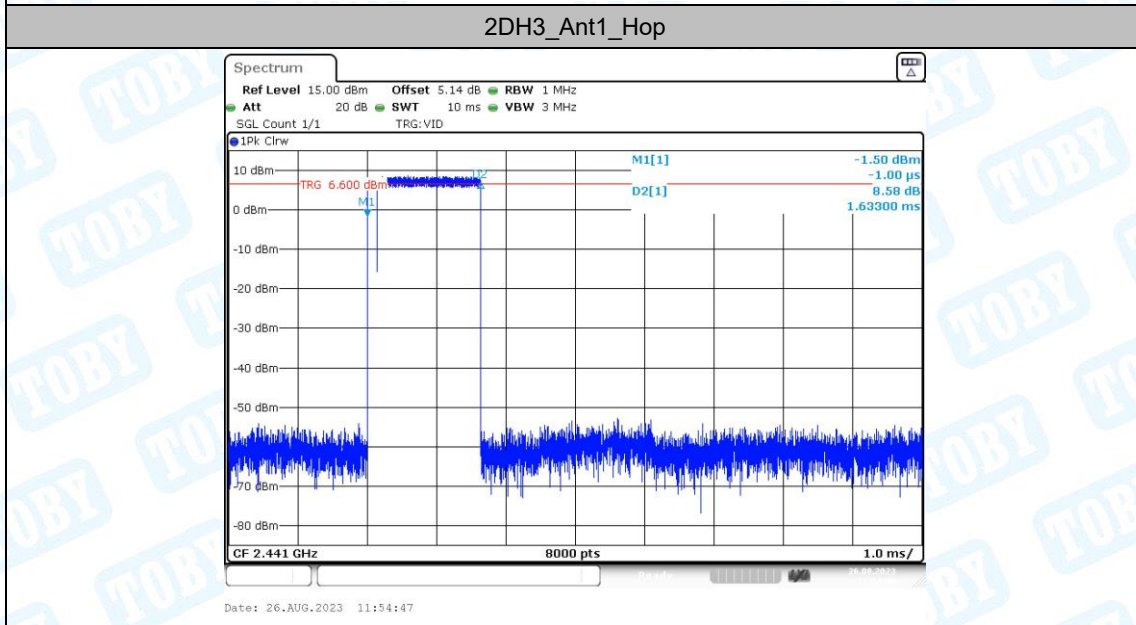
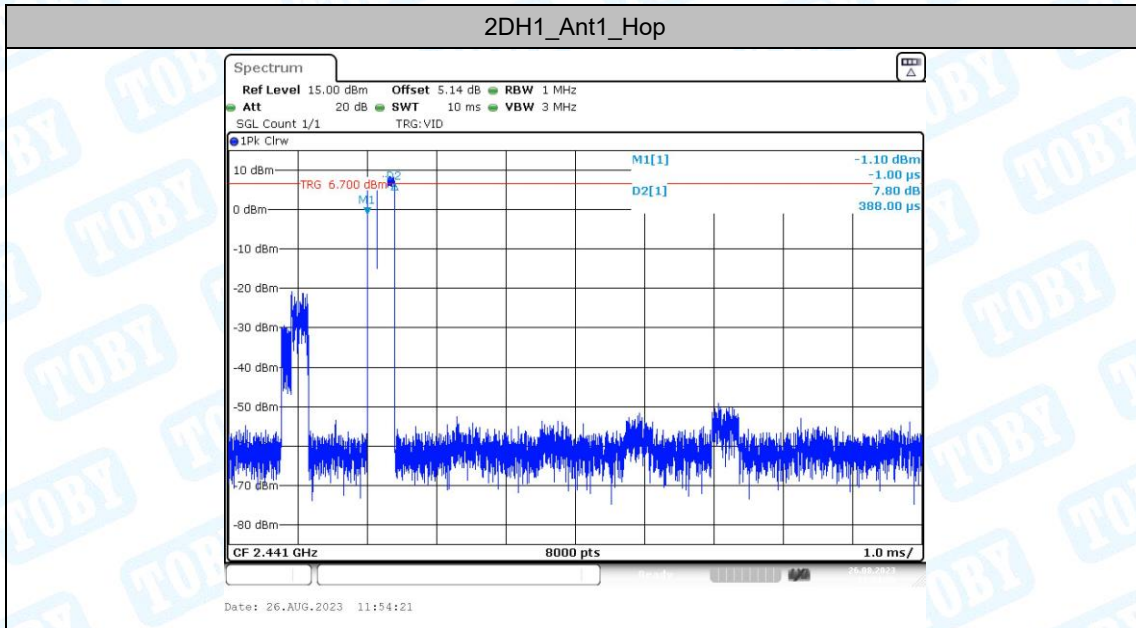
### 5.1. Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.379	320	0.121	≤0.4	PASS
DH3	Ant1	Hop	1.626	160	0.26	≤0.4	PASS
DH5	Ant1	Hop	2.868	106.67	0.306	≤0.4	PASS
2DH1	Ant1	Hop	0.388	320	0.124	≤0.4	PASS
2DH3	Ant1	Hop	1.633	160	0.261	≤0.4	PASS
2DH5	Ant1	Hop	2.873	106.67	0.306	≤0.4	PASS
3DH1	Ant1	Hop	0.389	320	0.124	≤0.4	PASS
3DH3	Ant1	Hop	1.631	160	0.261	≤0.4	PASS
3DH5	Ant1	Hop	2.874	106.67	0.307	≤0.4	PASS

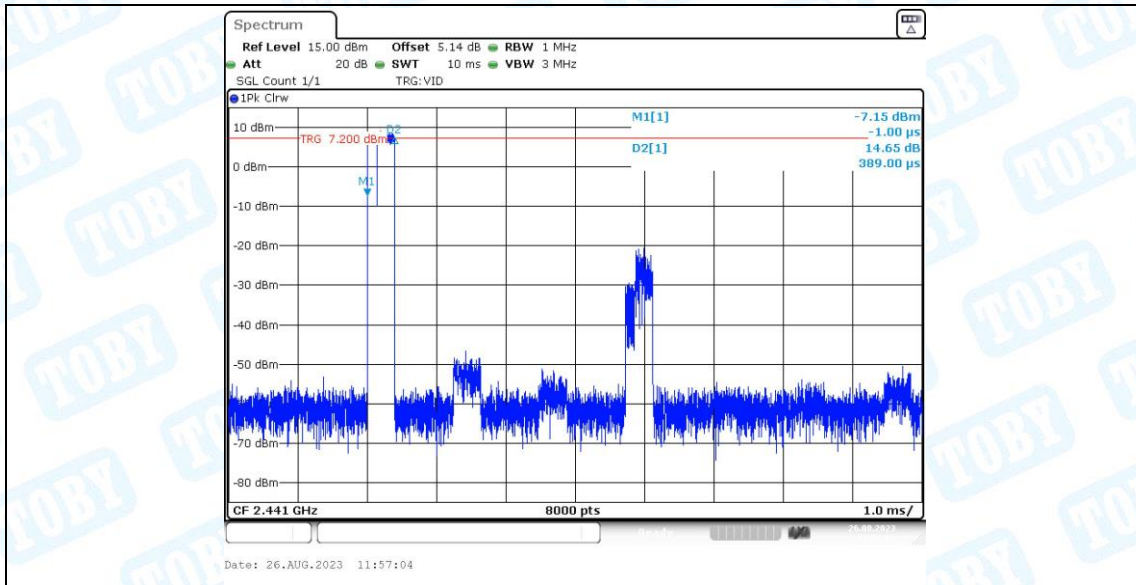
### 5.2. Test Graphs



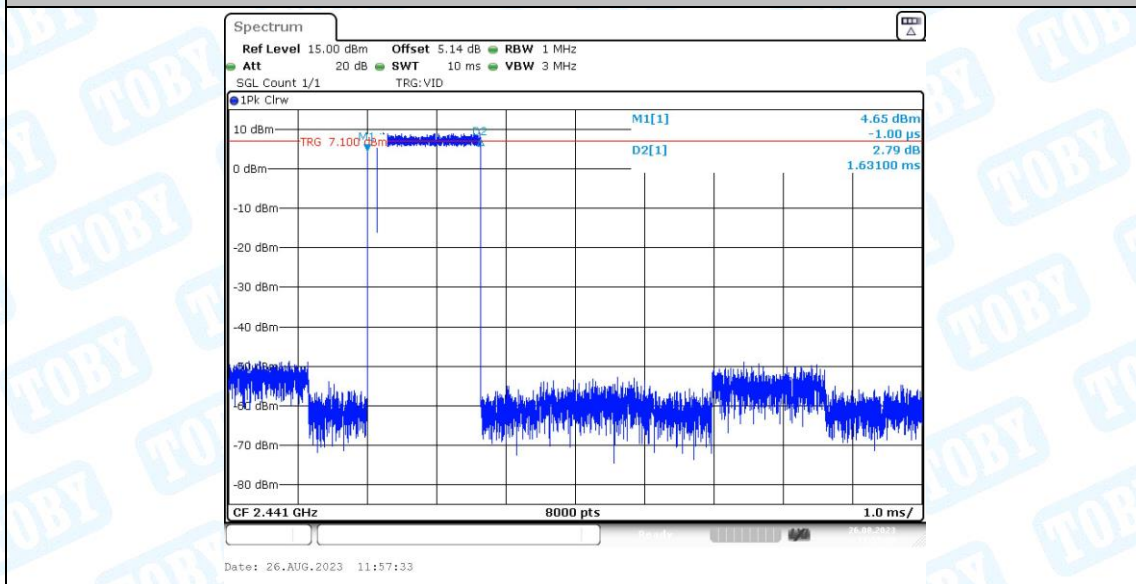




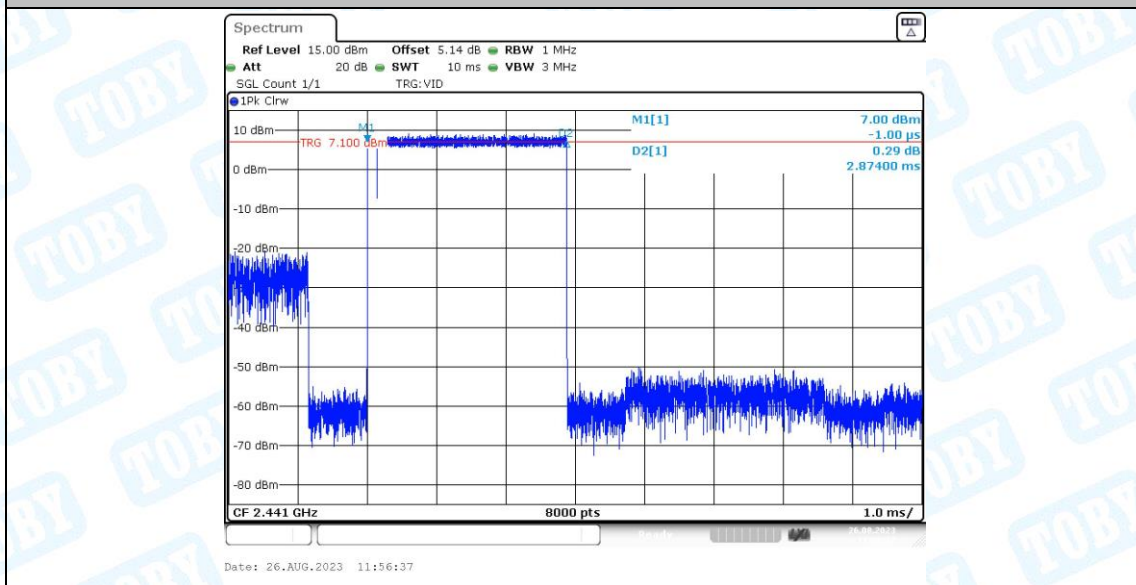
### 3DH1\_Ant1\_Hop



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





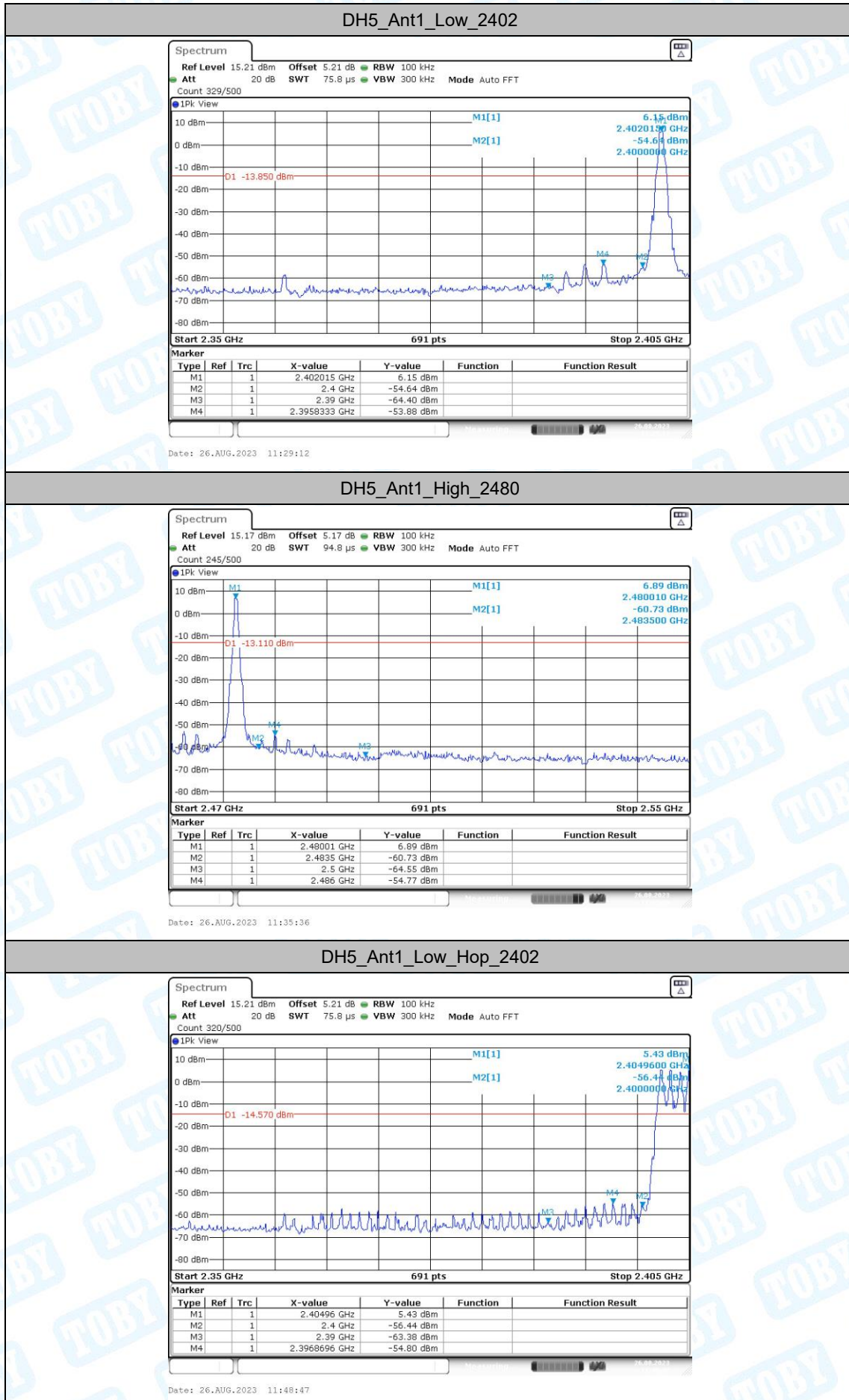
## 7. Band edge measurements

### 7.1. Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	6.15	-53.88	≤-13.85	PASS
		High	2480	6.89	-54.77	≤-13.11	PASS
		Low	Hop_2402	5.43	-54.8	≤-14.57	PASS
		High	Hop_2480	6.62	-54.71	≤-13.38	PASS
2DH5	Ant1	Low	2402	7.52	-52.23	≤-12.48	PASS
		High	2480	7.21	-54.68	≤-12.79	PASS
		Low	Hop_2402	3.71	-53.99	≤-16.29	PASS
		High	Hop_2480	6.33	-56.9	≤-13.67	PASS
3DH5	Ant1	Low	2402	7.55	-52.08	≤-12.45	PASS
		High	2480	7.13	-56.82	≤-12.87	PASS
		Low	Hop_2402	4.39	-53.95	≤-15.61	PASS
		High	Hop_2480	6.61	-58.91	≤-13.39	PASS

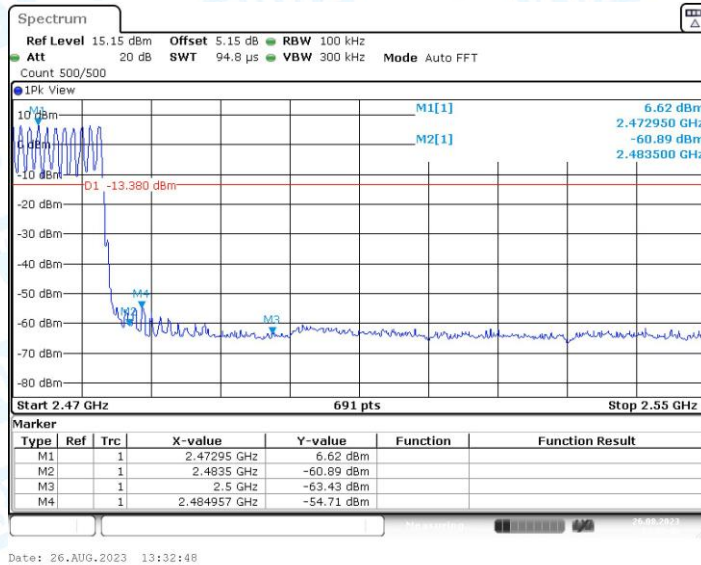


## 7.2. Test Graphs

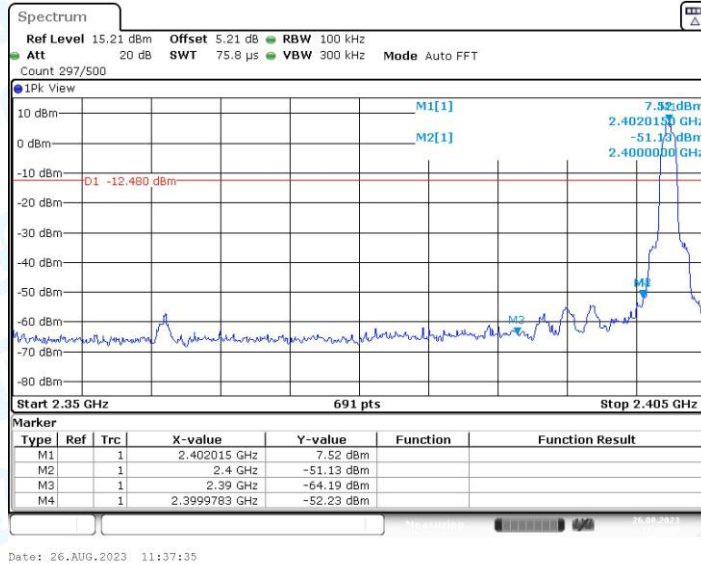




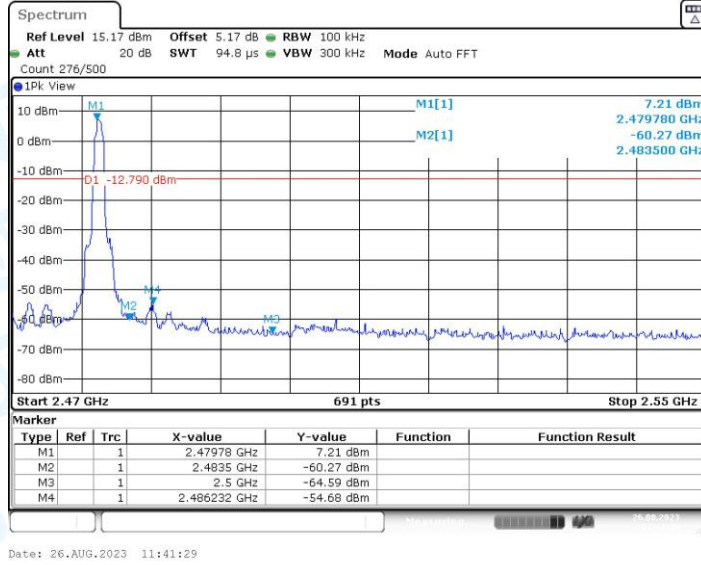
DH5\_Ant1\_High\_Hop\_2480



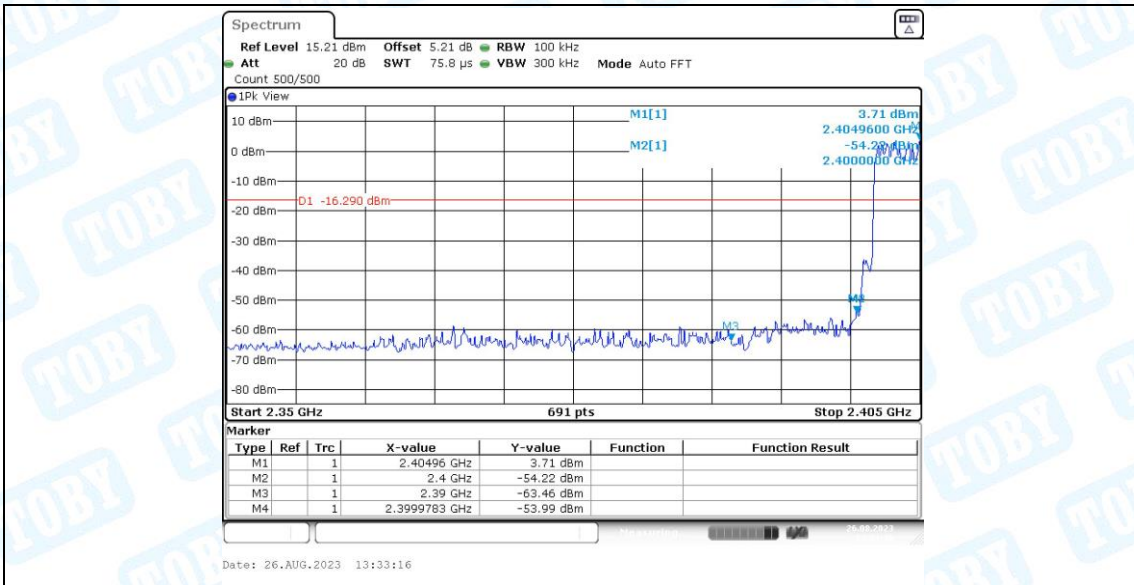
2DH5\_Ant1\_Low\_2402



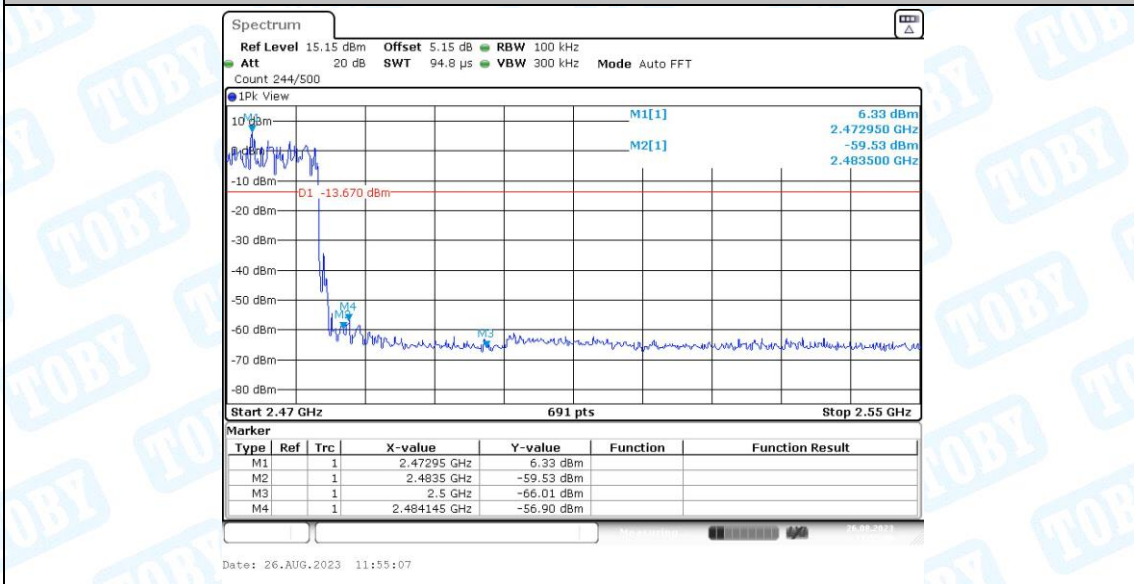
2DH5\_Ant1\_High\_2480



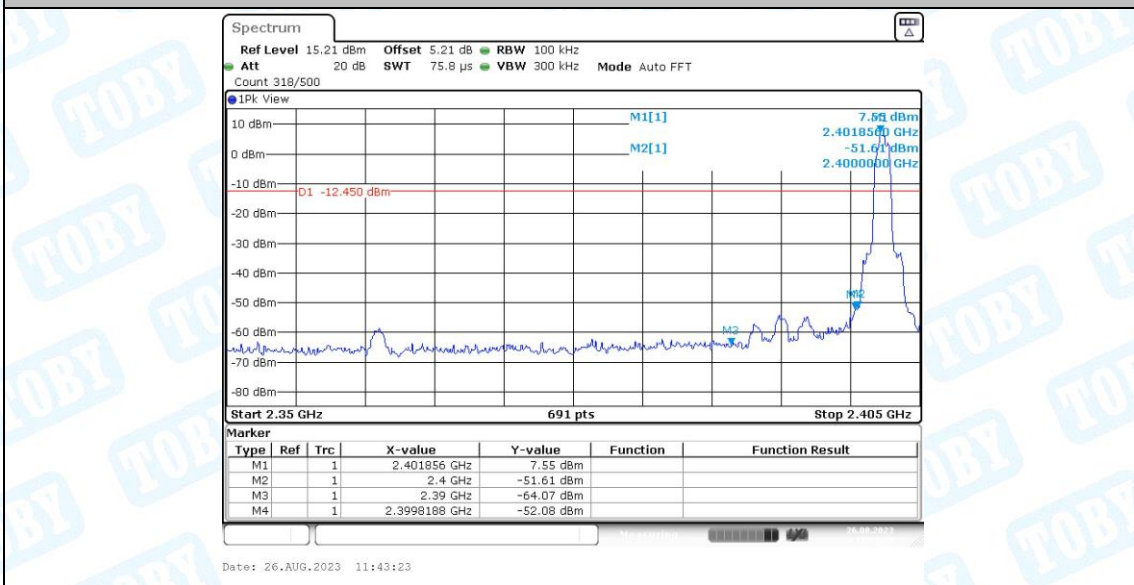
2DH5\_Ant1\_Low\_Hop\_2402



2DH5\_Ant1\_High\_Hop\_2480



3DH5\_Ant1\_Low\_2402



3DH5\_Ant1\_High\_2480