

ANNEX 1 TEST DATA

FCC ID: 2BROG-E-3583

Applicant: COMPONENTS HONGKONG LIMITED

Address: RM 706 HO KING COMM CTR NOS 2-16 FA YUEN ST MONGKOK KL HONGKONG
CHINA

Manufacturer: COMPONENTS HONGKONG LIMITED

Address: RM 706 HO KING COMM CTR NOS 2-16 FA YUEN ST MONGKOK KL HONGKONG
CHINA

Product Name: Desktop Speaker

Trade Mark: N/A

Model Number: E-3583

Date of Receipt: Jul. 26, 2025

Test Date: Jul. 26, 2025 - Aug. 08, 2025

Date of Report: Aug. 08, 2025

Prepared By: Shenzhen DL Testing Technology Co., Ltd.

Address: 101-201, Building C, Shuanghuan, No.8, Baoqing Road, Baolong Industrial Zone, Baolong
Street, Longgang District, Shenzhen, Guangdong, China

Applicable Standards: FCC PART 15 C 15.247
ANSI C63.10:2013

Test Result: Pass

1. Bandwidth

1.1 Test Result

1.1.1 OBW

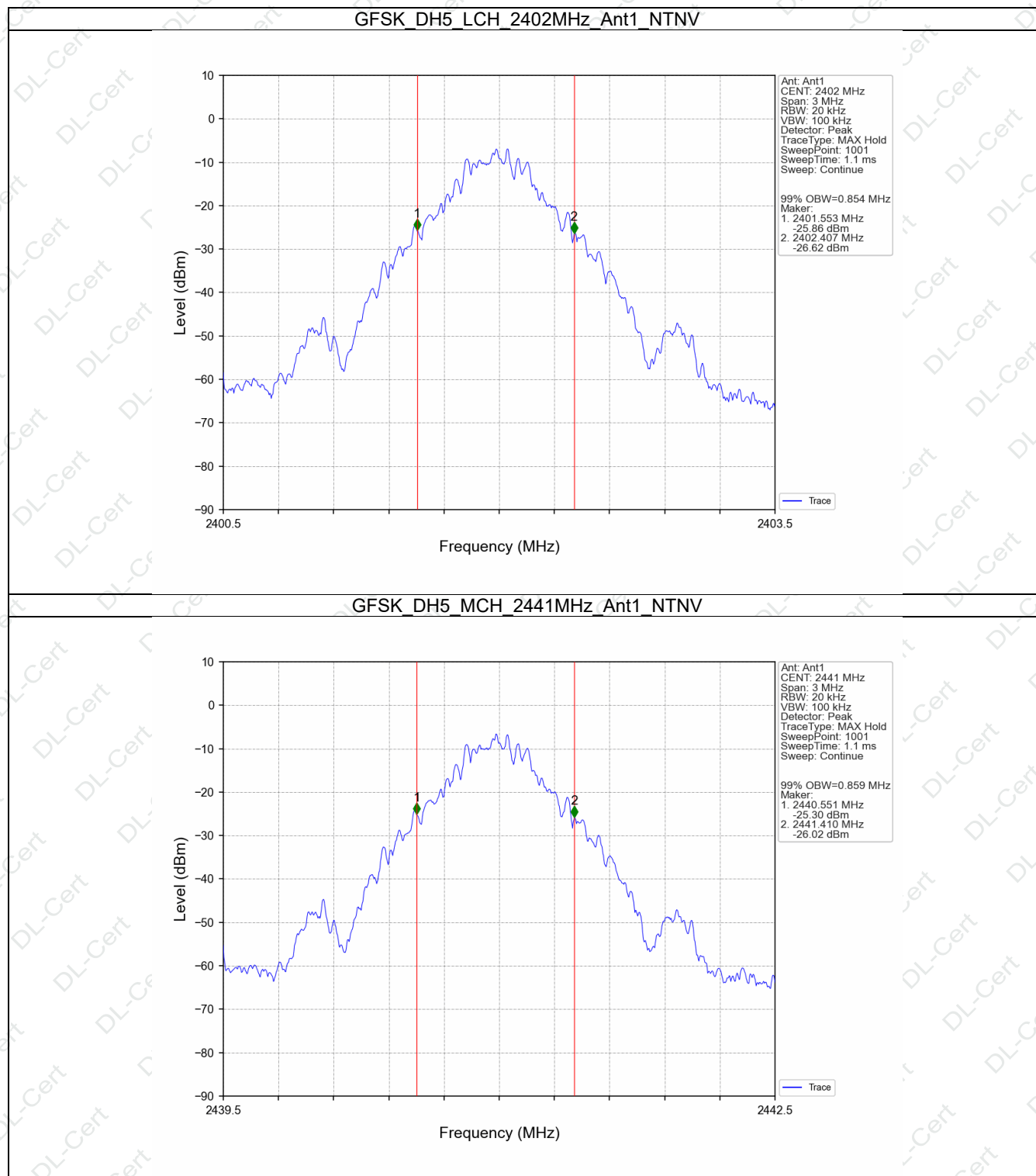
Mode	TX Type	Frequency (MHz)	Packet Type	ANT	99% Occupied Bandwidth (MHz)		Verdict
					Result	Limit	
GFSK	SISO	2402	DH5	1	0.854	/	Pass
		2441	DH5	1	0.859	/	Pass
		2480	DH5	1	0.856	/	Pass
Pi/4DQPSK	SISO	2402	2DH5	1	1.171	/	Pass
		2441	2DH5	1	1.173	/	Pass
		2480	2DH5	1	1.176	/	Pass
8DPSK	SISO	2402	3DH5	1	1.165	/	Pass
		2441	3DH5	1	1.169	/	Pass
		2480	3DH5	1	1.170	/	Pass

1.1.2 20dB BW

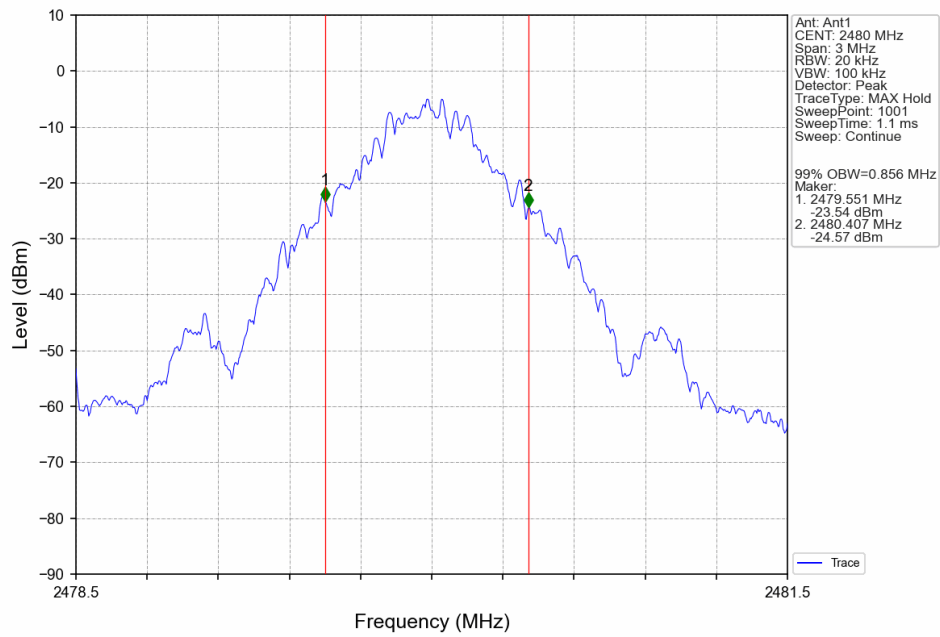
Mode	TX Type	Frequency (MHz)	Packet Type	ANT	20dB Bandwidth (MHz)		Verdict
					Result	Limit	
GFSK	SISO	2402	DH5	1	0.933	/	Pass
		2441	DH5	1	0.934	/	Pass
		2480	DH5	1	0.933	/	Pass
Pi/4DQPSK	SISO	2402	2DH5	1	1.289	/	Pass
		2441	2DH5	1	1.285	/	Pass
		2480	2DH5	1	1.277	/	Pass
8DPSK	SISO	2402	3DH5	1	1.286	/	Pass
		2441	3DH5	1	1.283	/	Pass
		2480	3DH5	1	1.284	/	Pass

1.2 Test Graph

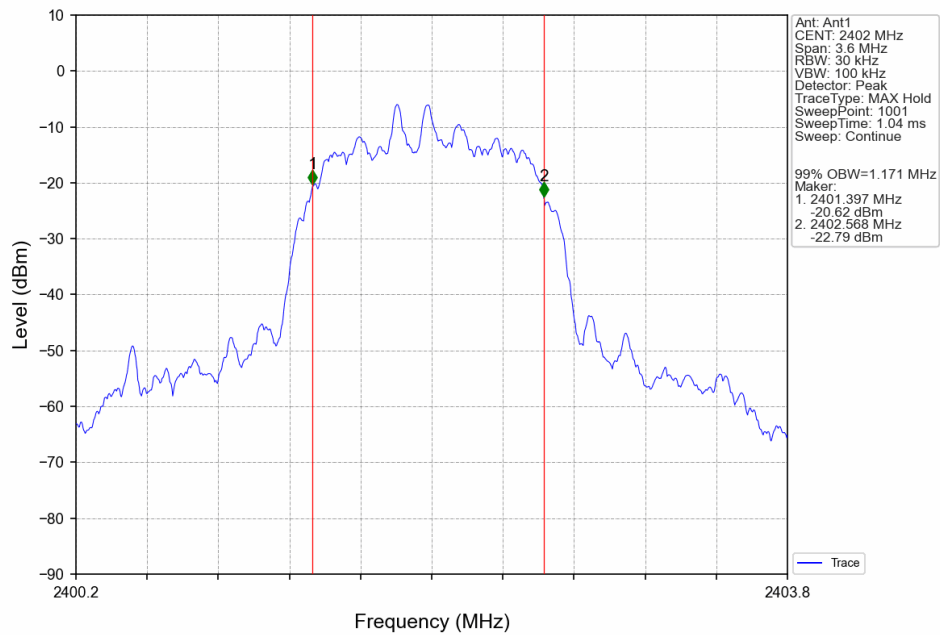
1.2.1 OBW



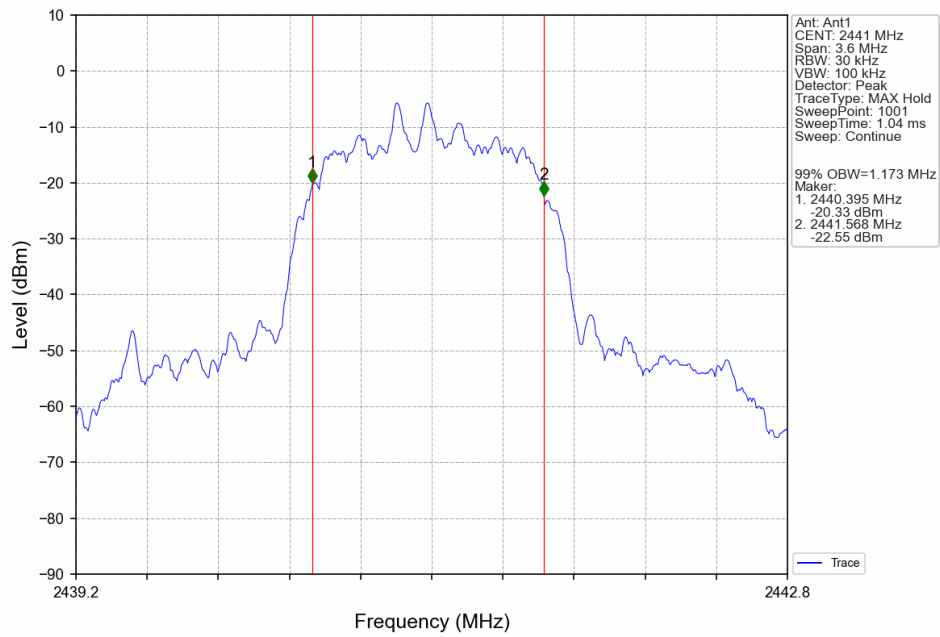
GFSK DH5 HCH 2480MHz Ant1 NTN



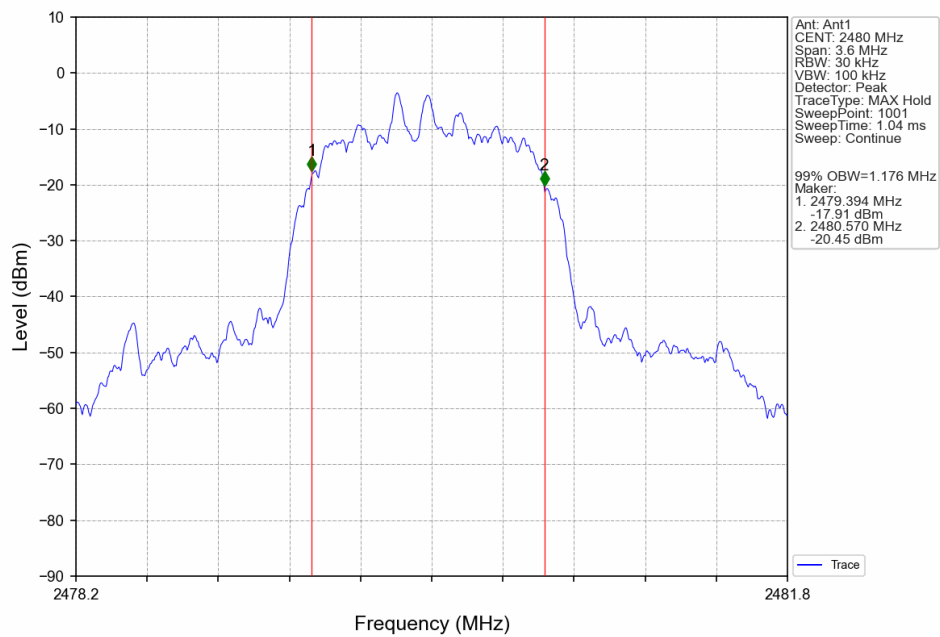
Pi/4DQPSK 2DH5 LCH 2402MHz Ant1 NTN



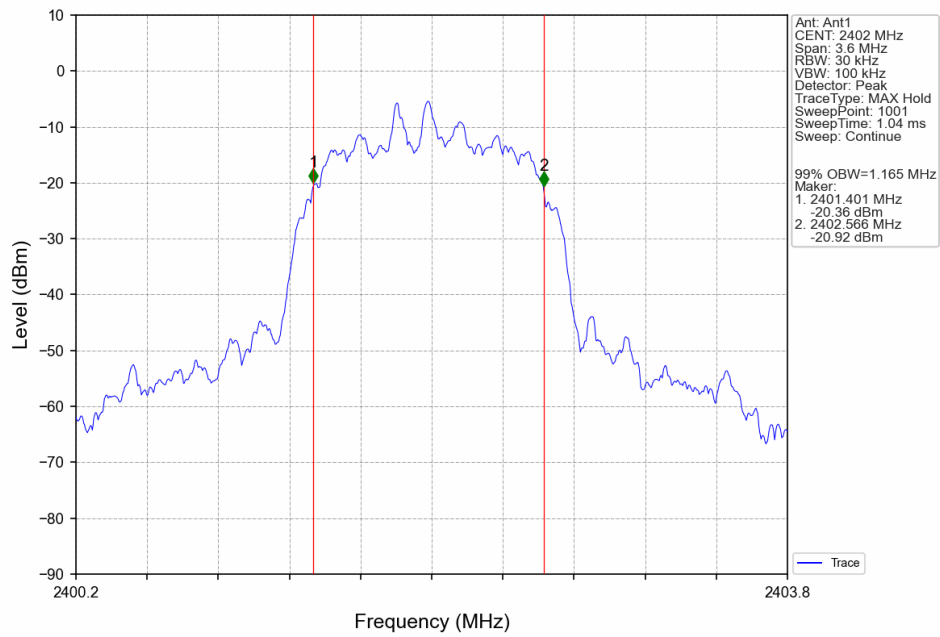
Pi/4DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



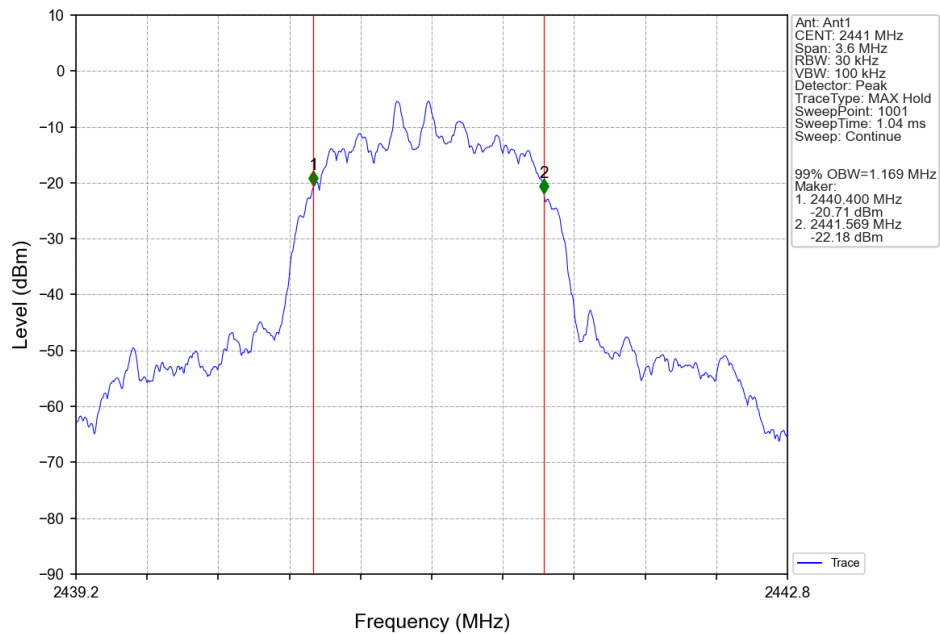
Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV



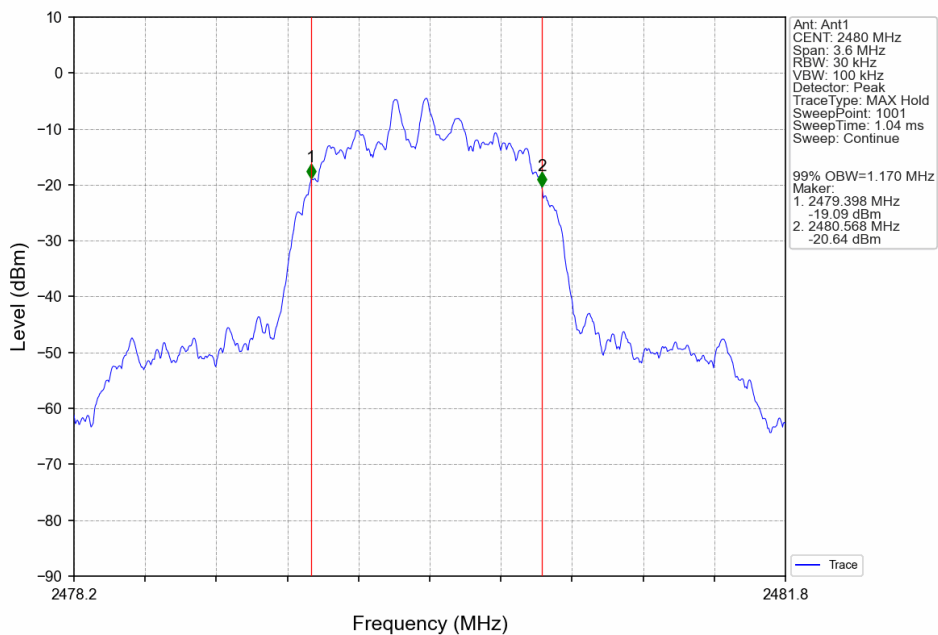
8DPSK 3DH5 LCH 2402MHz Ant1 NTN



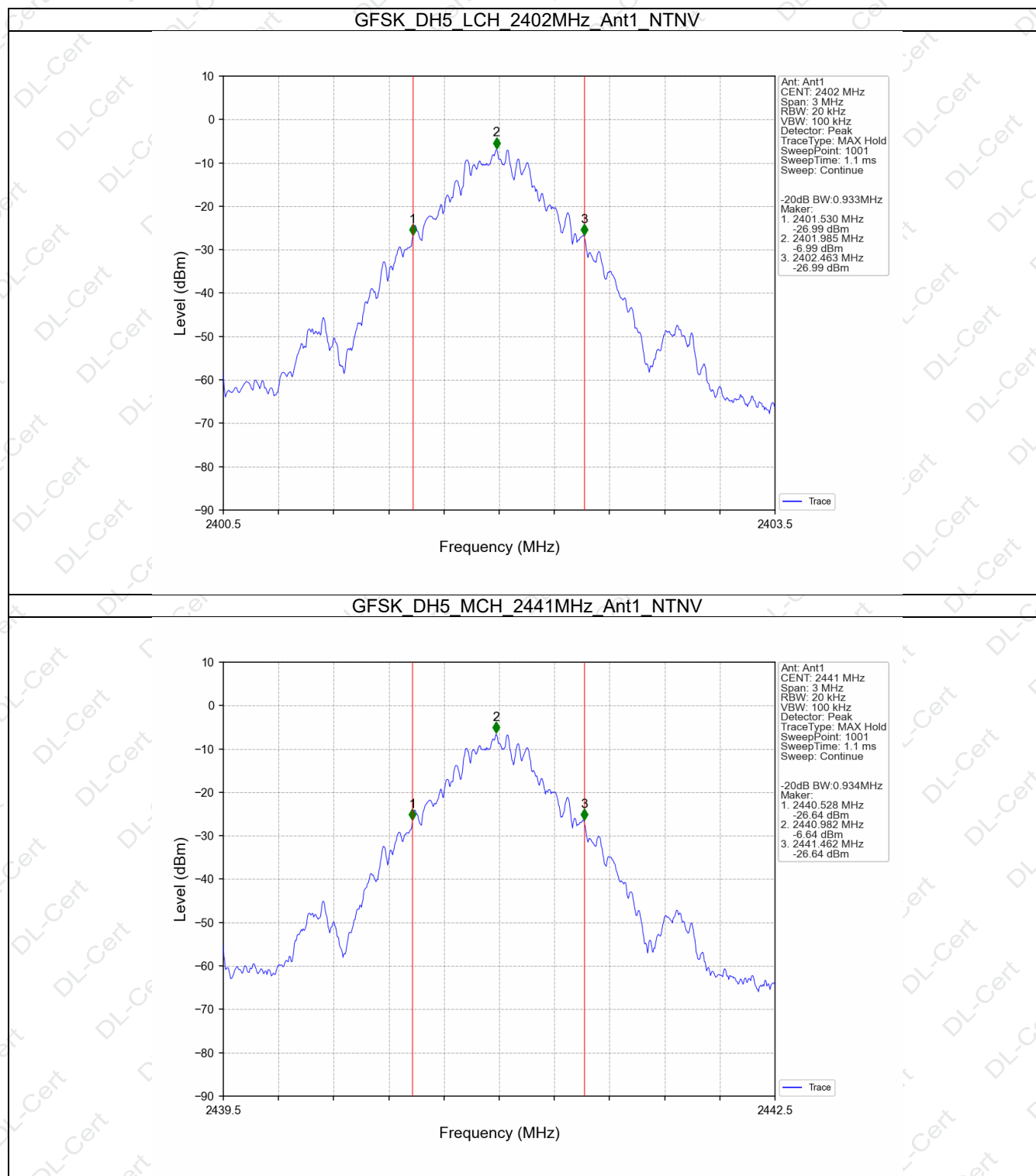
8DPSK 3DH5 MCH 2441MHz Ant1 NTN



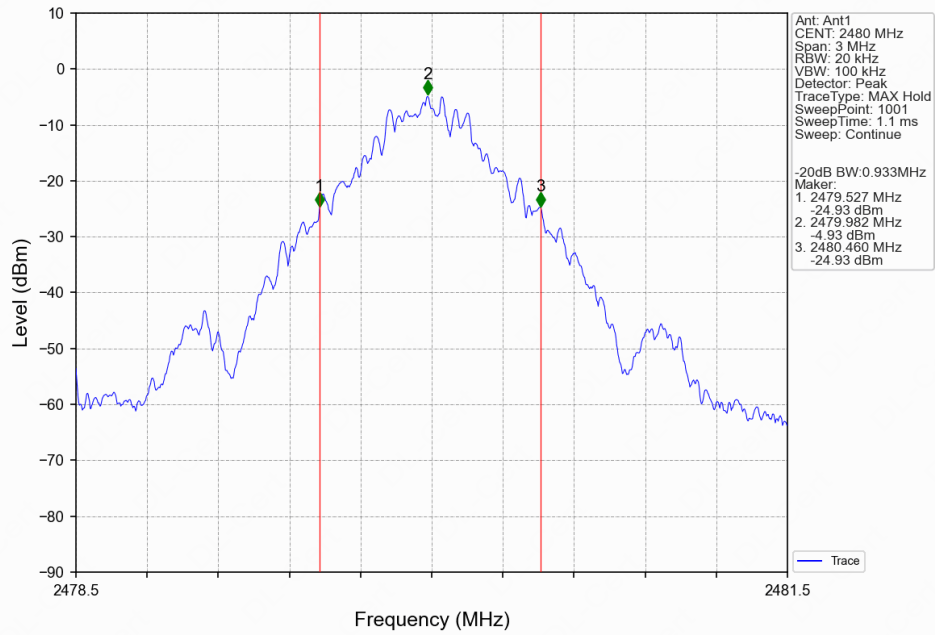
8DPSK 3DH5_HCH_2480MHz_Ant1_NTNV



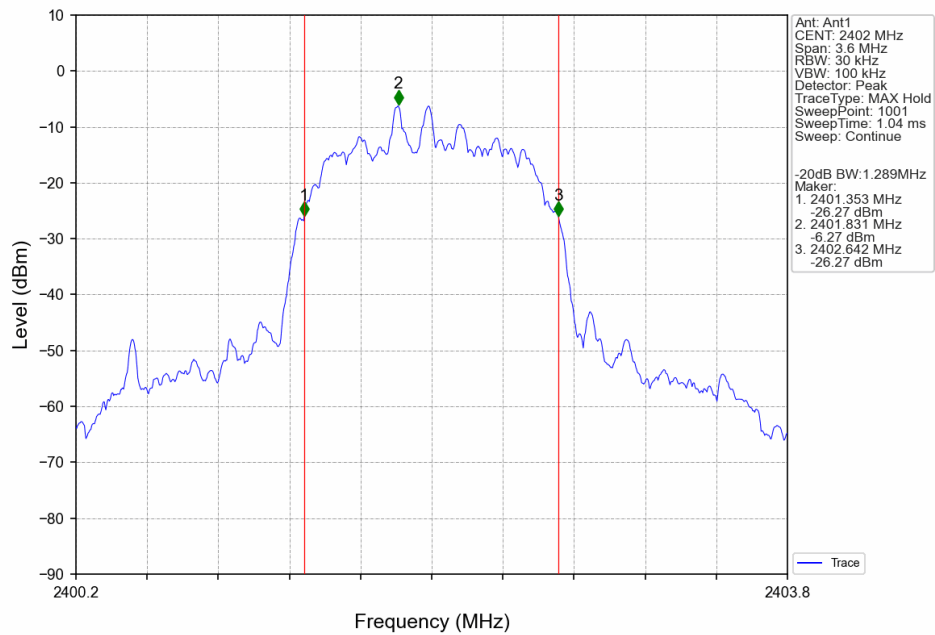
1.2.2 20dB BW

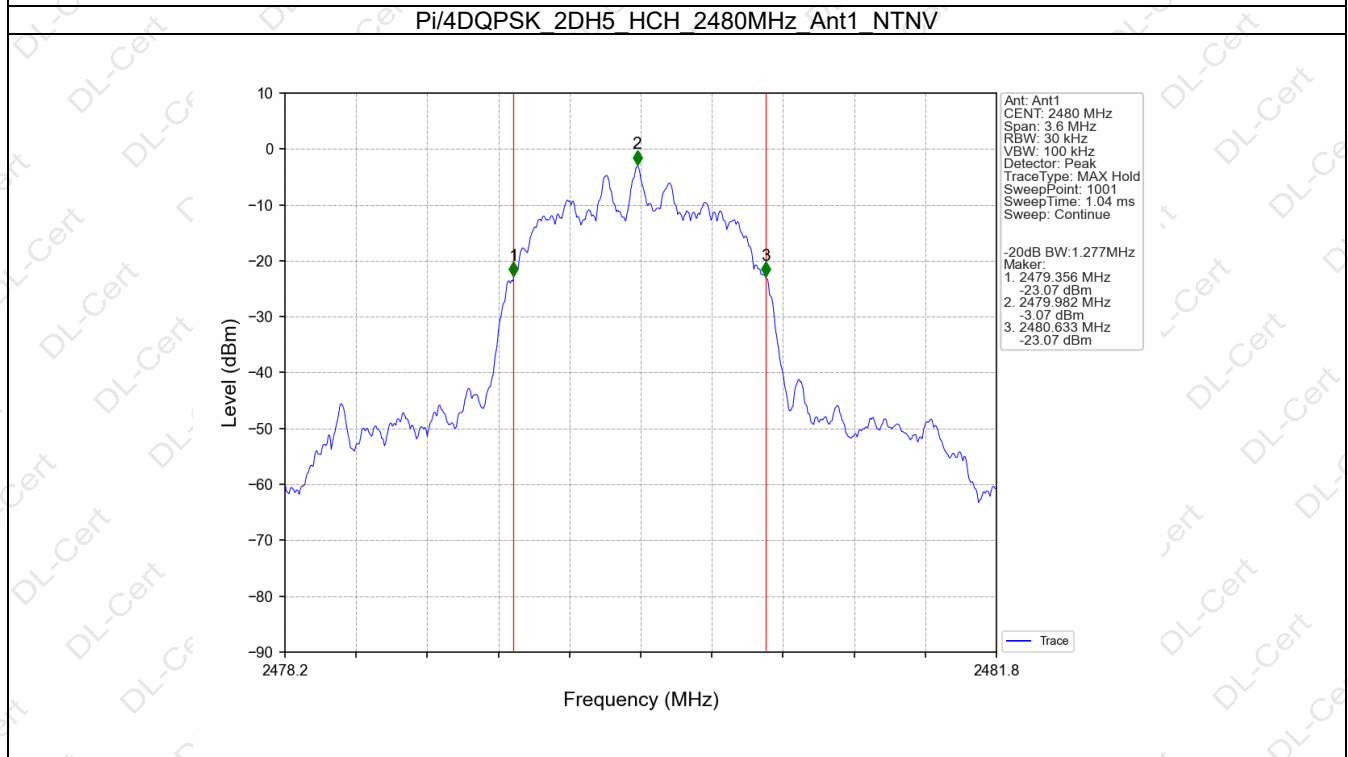
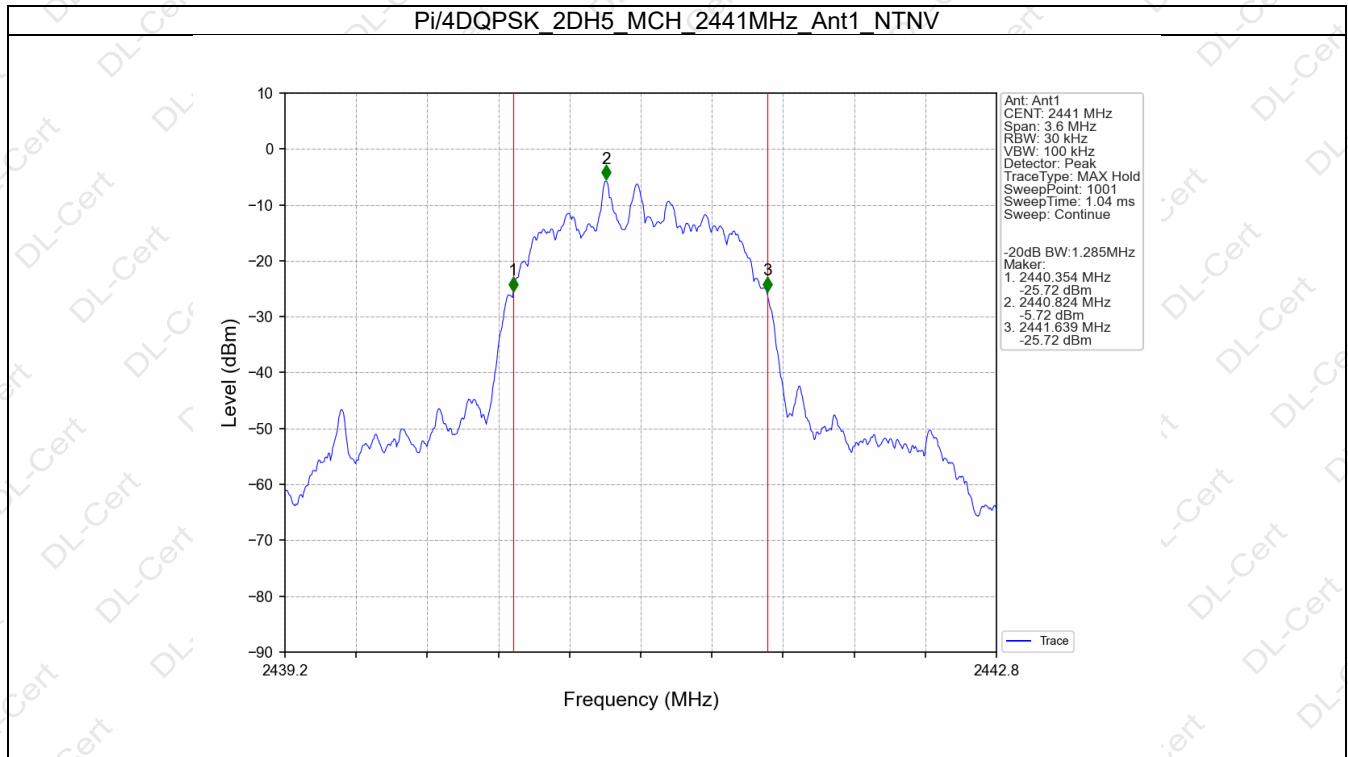


GFSK DH5 HCH 2480MHz Ant1 NTN

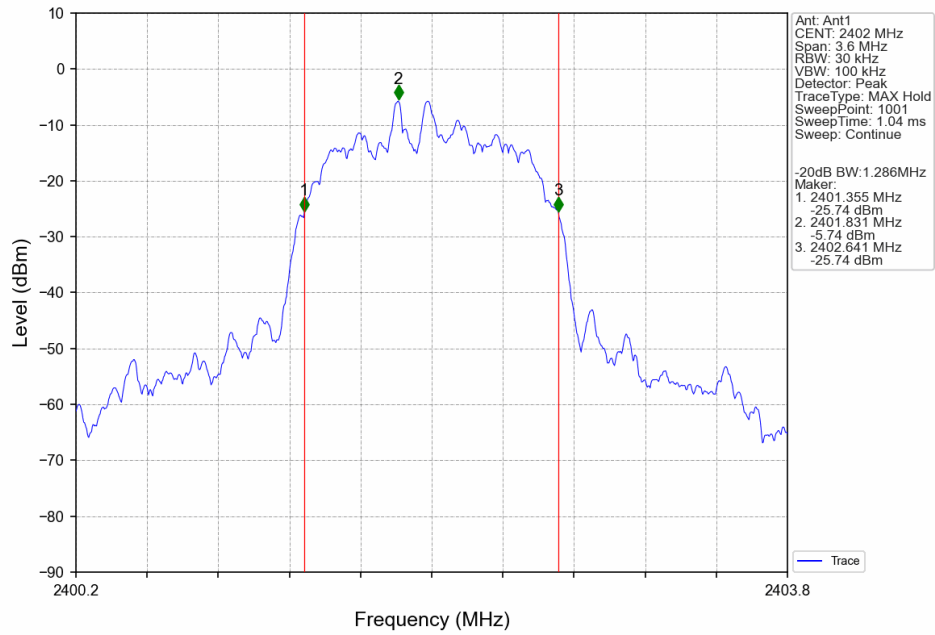


Pi/4DQPSK 2DH5 LCH 2402MHz Ant1 NTN

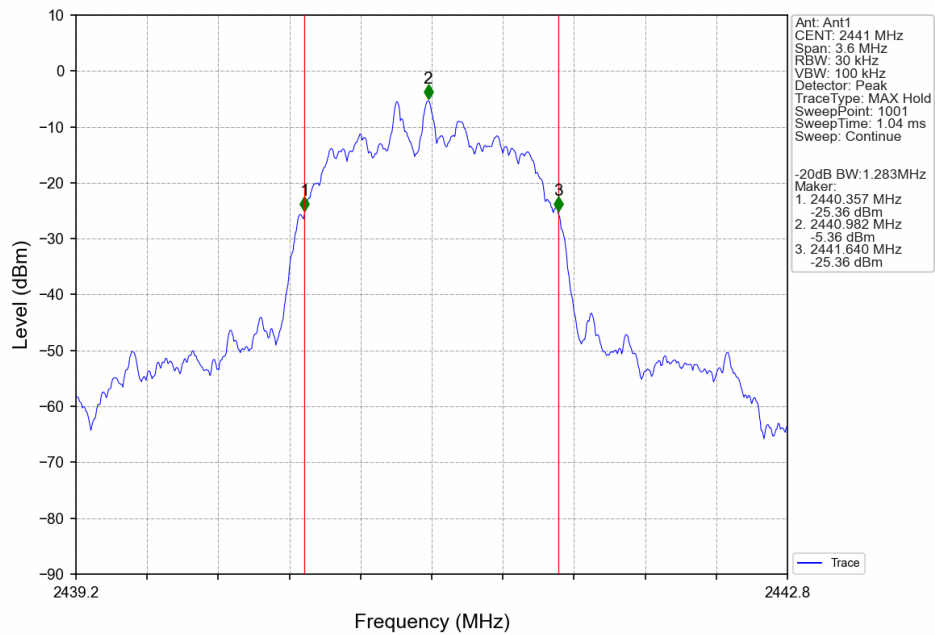




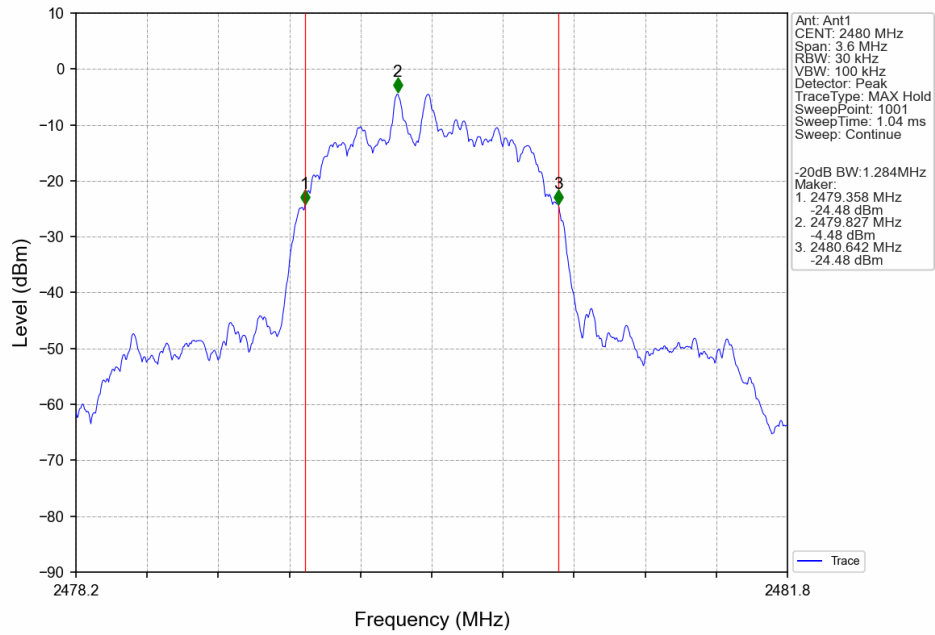
8DPSK 3DH5 LCH 2402MHz Ant1 NTN



8DPSK 3DH5 MCH 2441MHz Ant1 NTN



8DPSK 3DH5_HCH_2480MHz_Ant1_NTNV



2. Maximum Conducted Output Power

2.1 Test Result

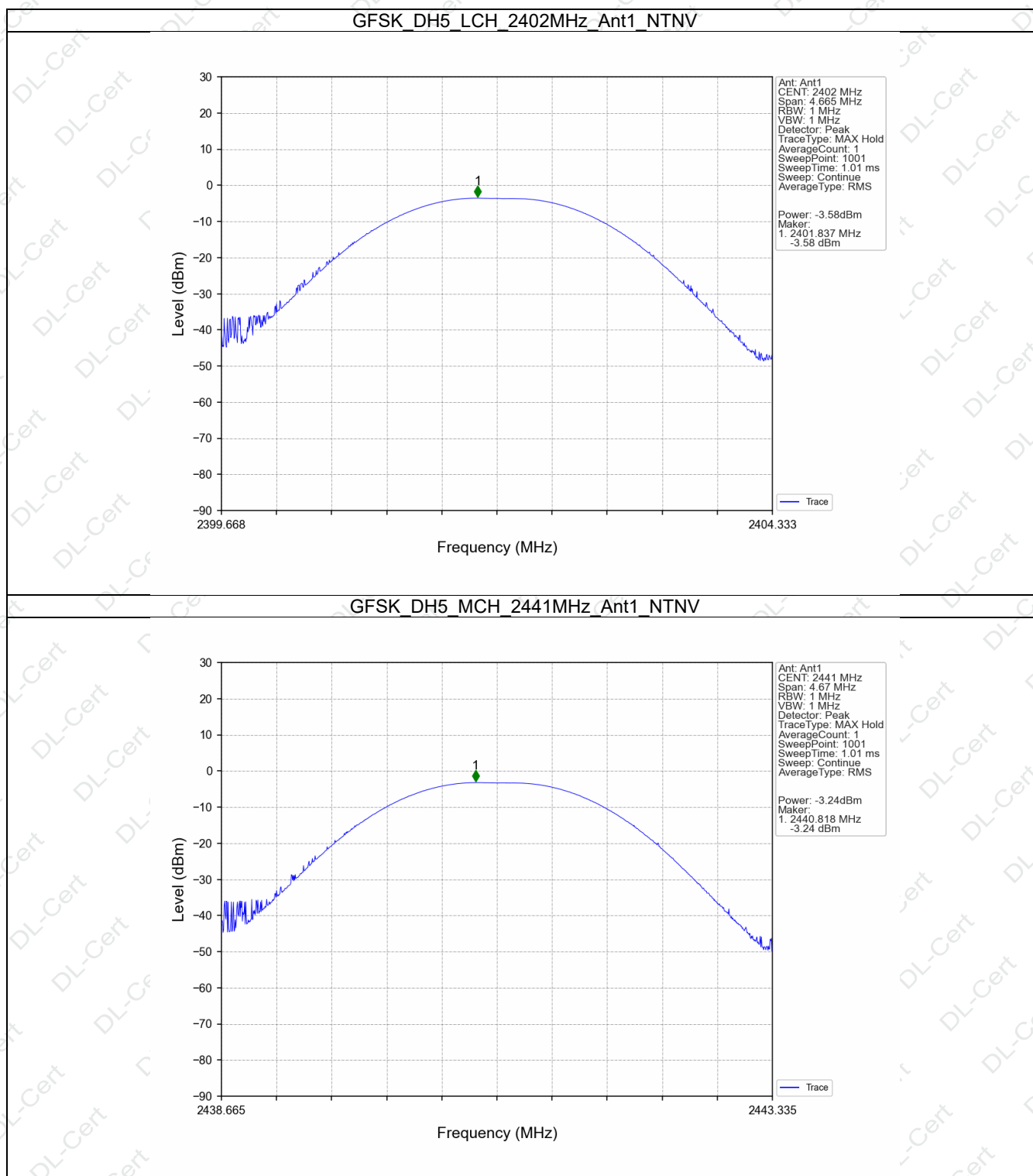
2.1.1 Power

Mode	TX Type	Frequency (MHz)	Packet Type	Maximum Peak Conducted Output Power (dBm)		Verdict
				ANT1	Limit	
GFSK	SISO	2402	DH5	-3.58	<=30	Pass
		2441	DH5	-3.24	<=30	Pass
		2480	DH5	-1.56	<=30	Pass
Pi/4DQPSK	SISO	2402	2DH5	-2.66	<=20.97	Pass
		2441	2DH5	-2.50	<=20.97	Pass
		2480	2DH5	0.93	<=20.97	Pass
8DPSK	SISO	2402	3DH5	-2.20	<=20.97	Pass
		2441	3DH5	-2.14	<=20.97	Pass
		2480	3DH5	-1.33	<=20.97	Pass

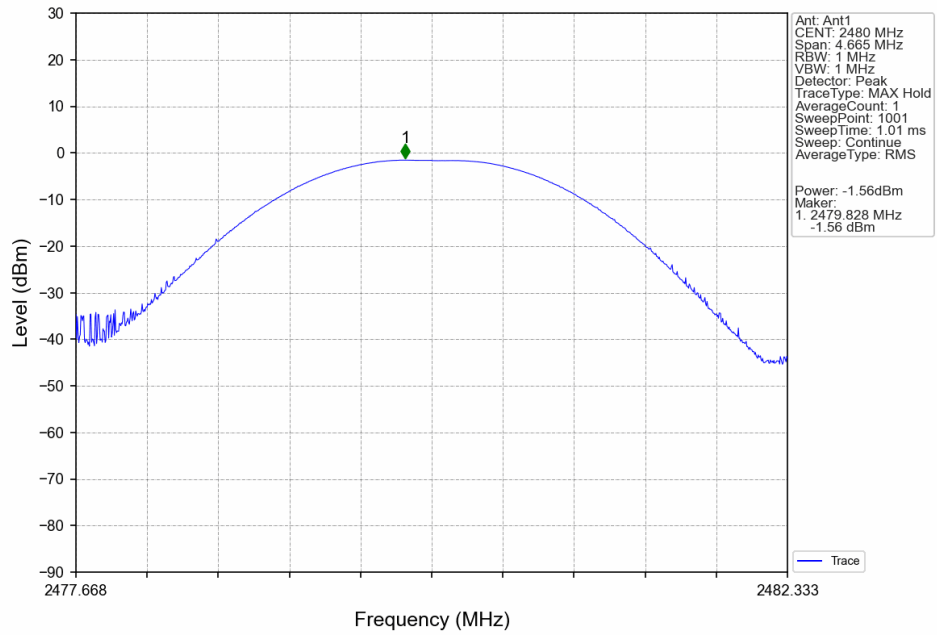
Note1: Antenna Gain: Ant1: 1.00dBi;

2.2 Test Graph

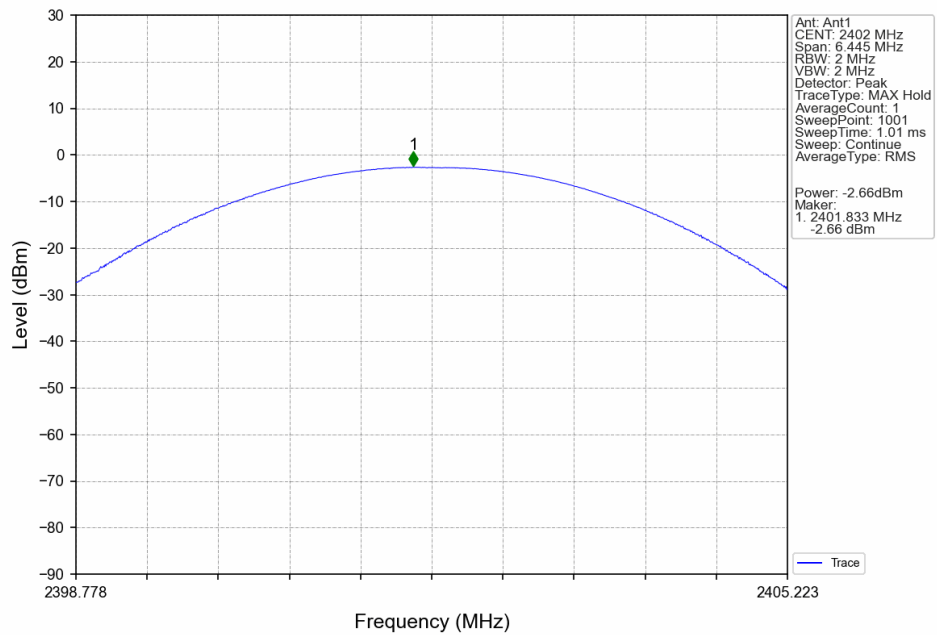
2.2.1 Power



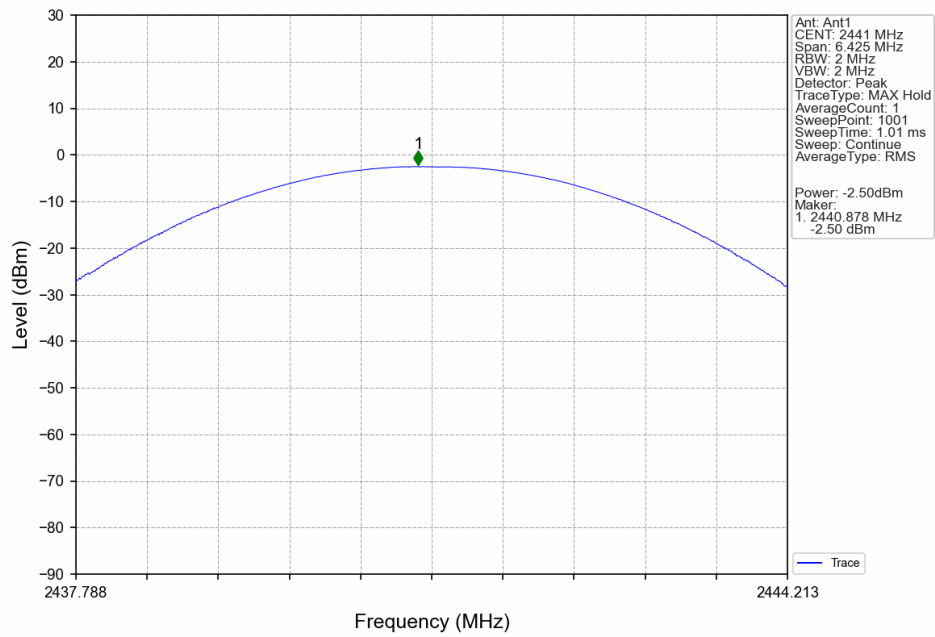
GFSK DH5 HCH 2480MHz Ant1 NTN



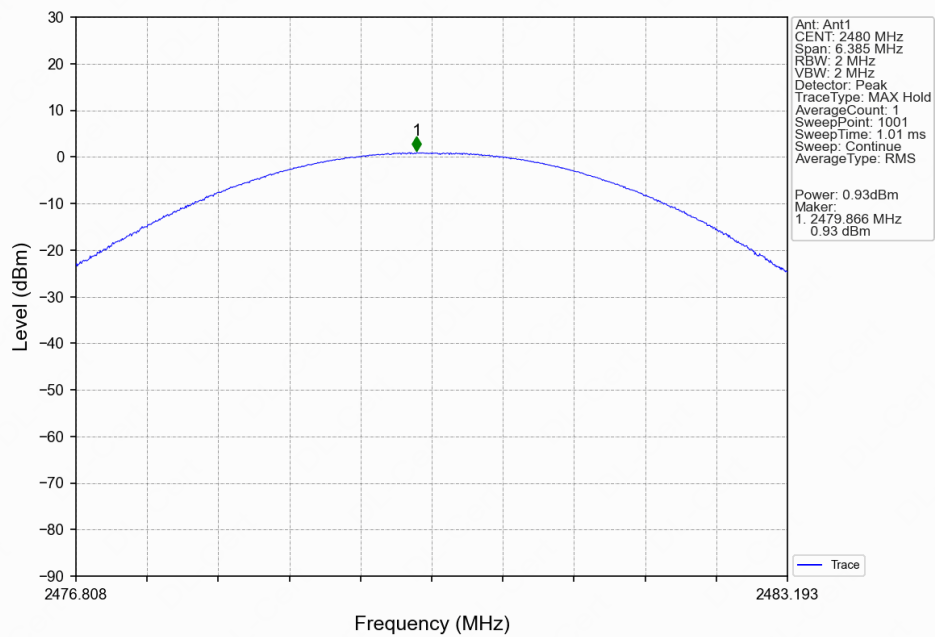
Pi/4DQPSK 2DH5 LCH 2402MHz Ant1 NTN



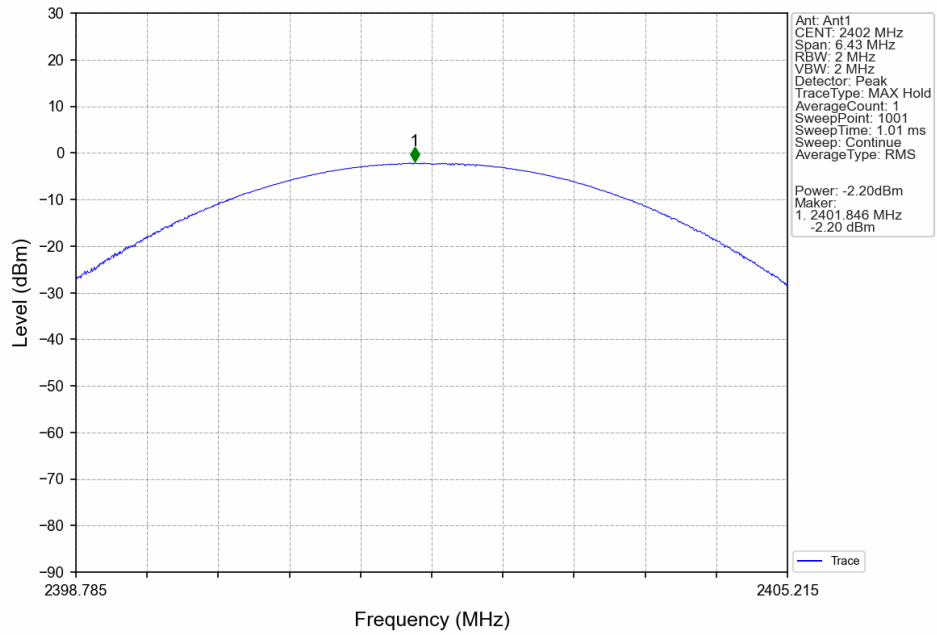
Pi/4DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



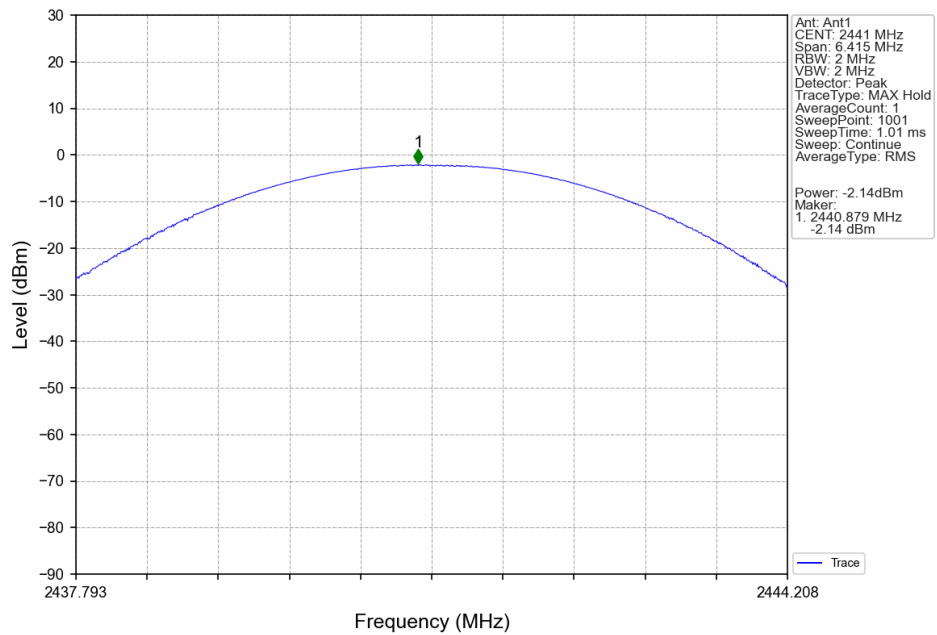
Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV



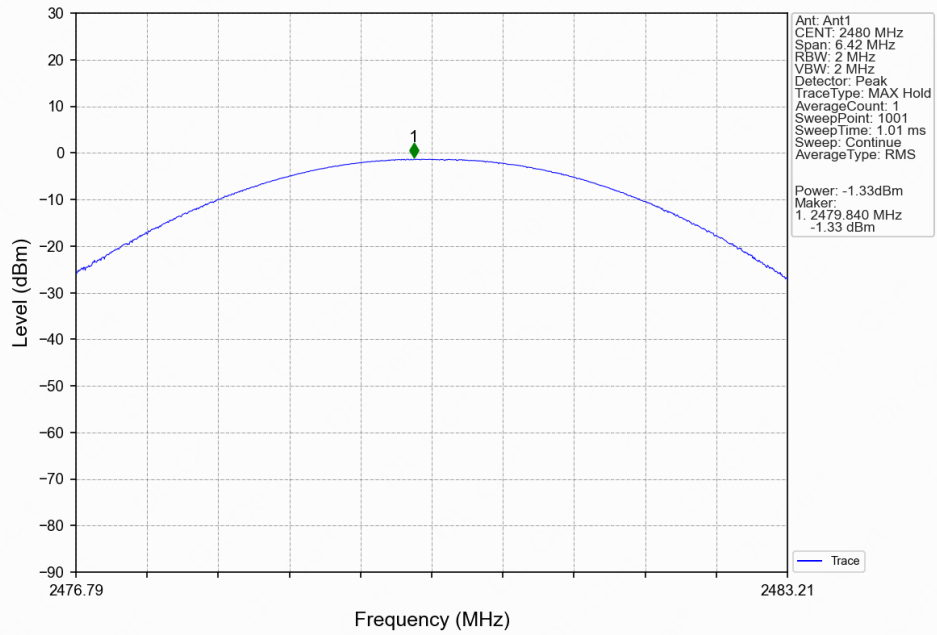
8DPSK_3DH5_LCH_2402MHz_Ant1_NTNV



8DPSK_3DH5_MCH_2441MHz_Ant1_NTNV



8DPSK_3DH5_HCH_2480MHz_Ant1_NTNV



3. Carrier Frequency Separation

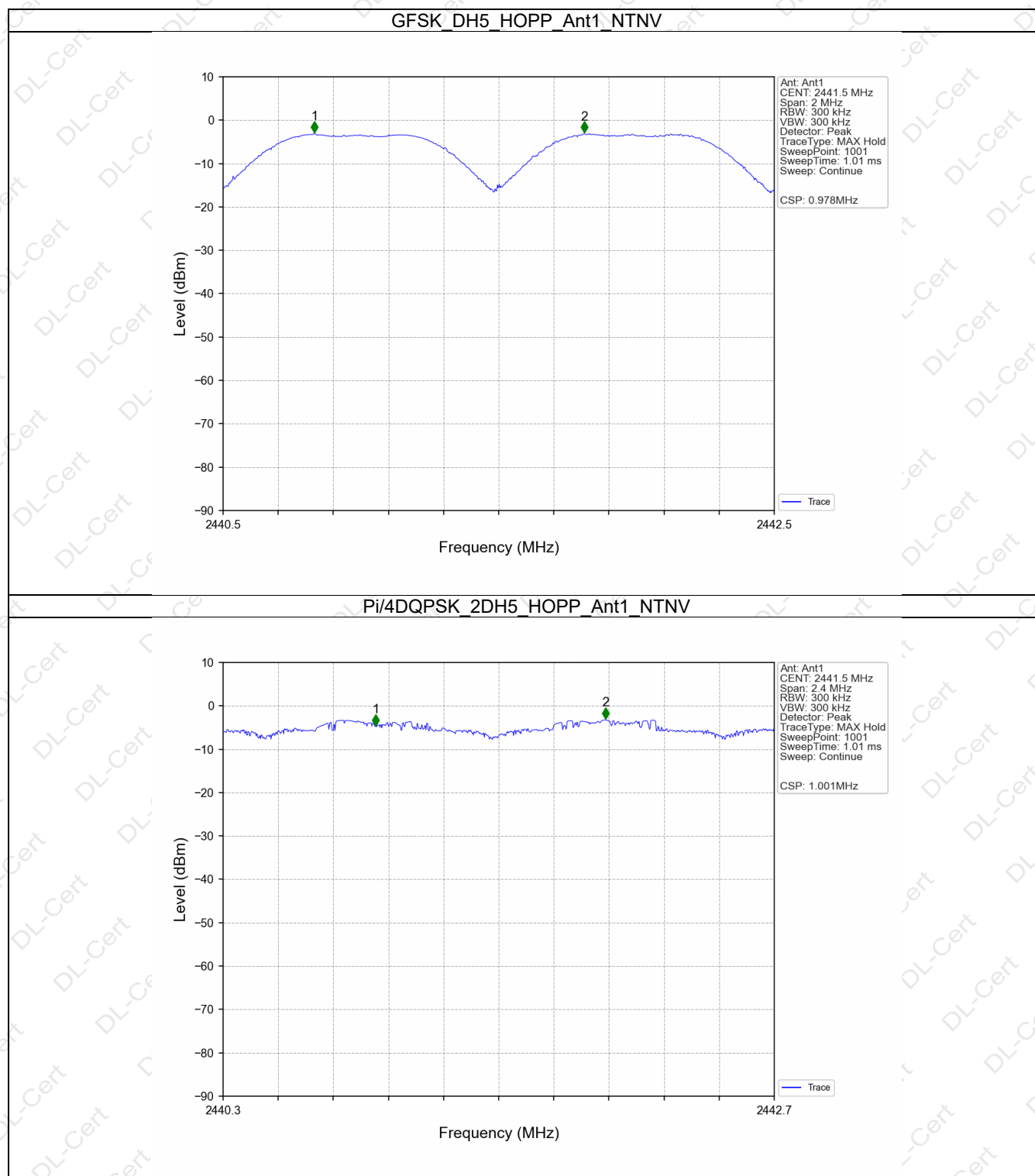
3.1 Test Result

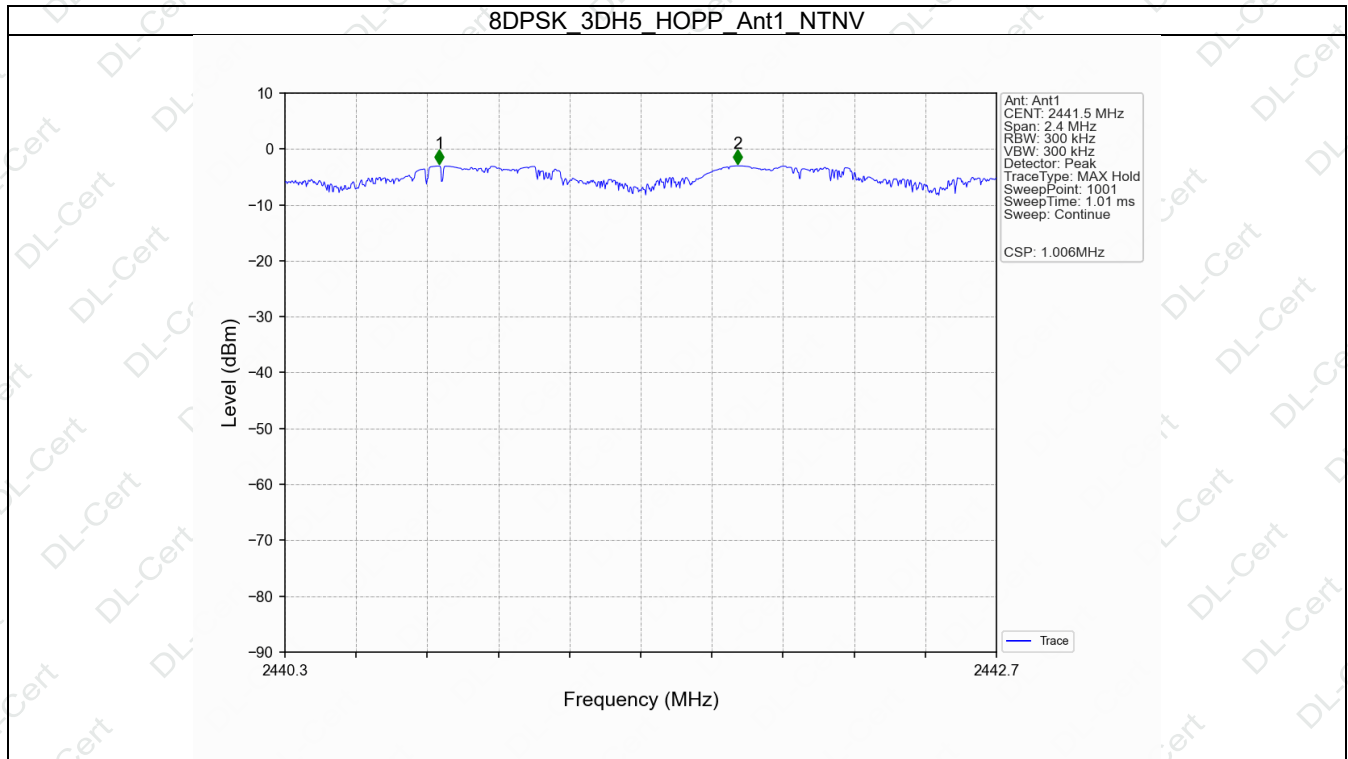
3.1.1 Ant1

Ant1							
Mode	TX Type	Frequency (MHz)	Packet Type	Channel Separation (MHz)	20dB Bandwidth (MHz)	Limit (MHz)	Verdict
GFSK	SISO	HOPP	DH5	0.978	0.934	≥ 0.934	Pass
Pi/4DQPSK	SISO	HOPP	2DH5	1.001	1.289	≥ 0.859	Pass
8DPSK	SISO	HOPP	3DH5	1.006	1.286	≥ 0.857	Pass

3.2 Test Graph

3.2.1 Ant1





4. Number of Hopping Frequencies

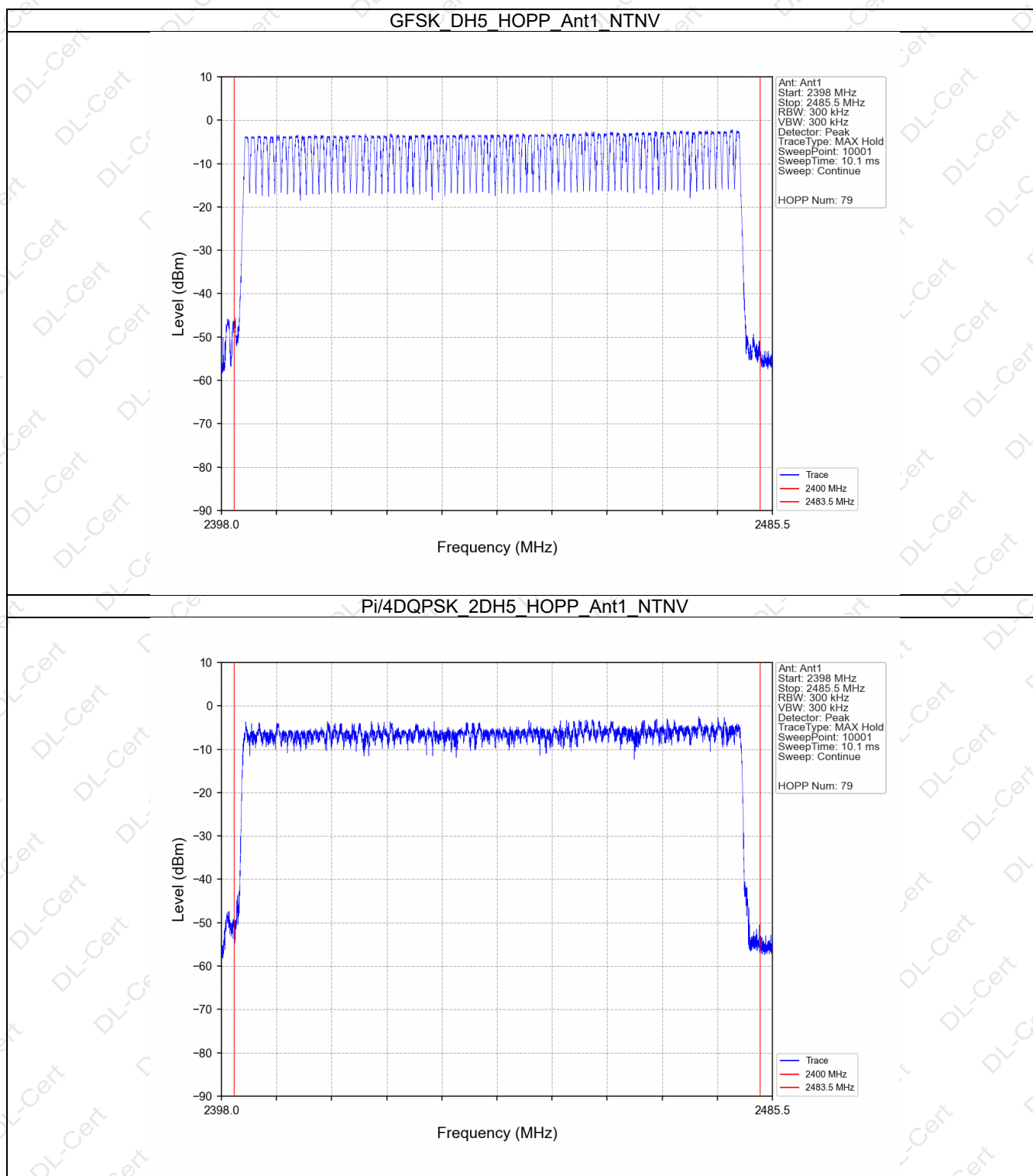
4.1 Test Result

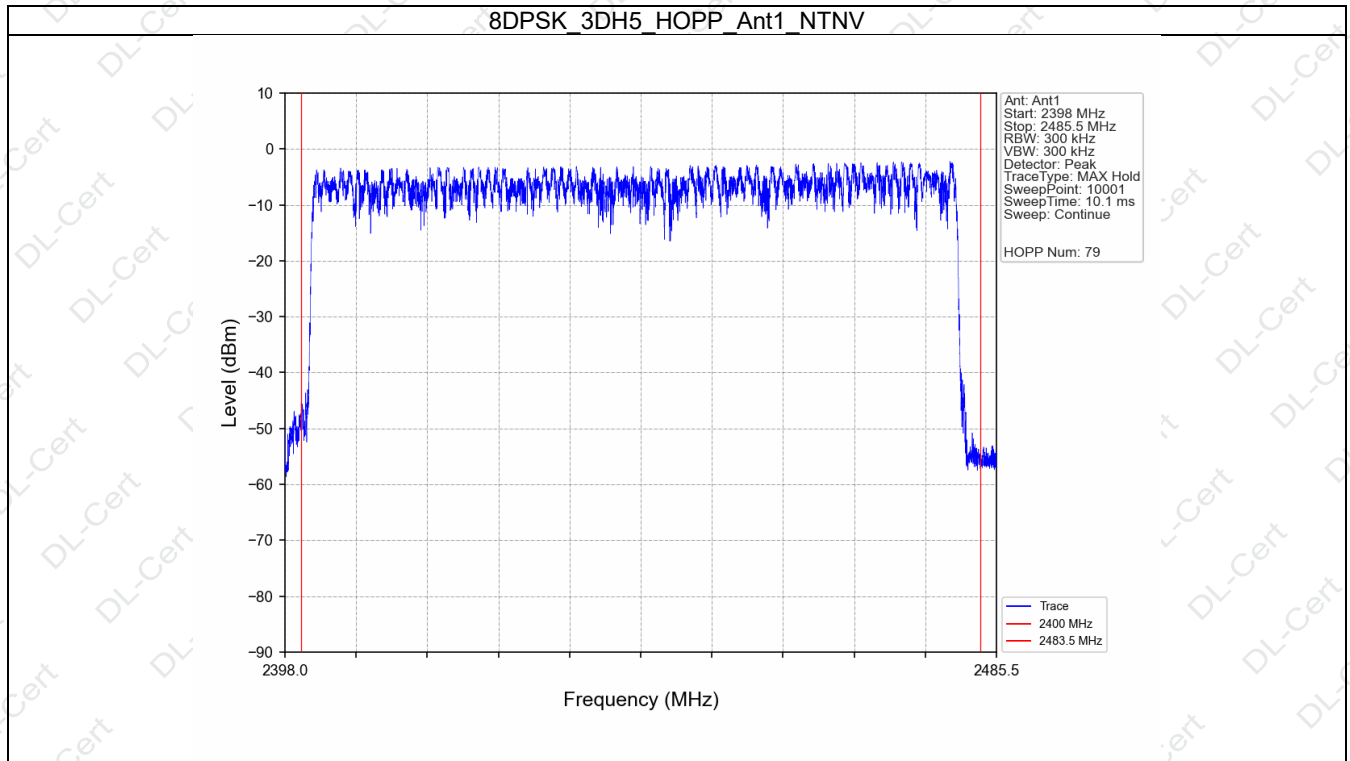
4.1.1 HoppNum

Mode	TX Type	Frequency (MHz)	Packet Type	Num of Hopping Frequencies		Verdict
				ANT1	Limit	
GFSK	SISO	HOPP	DH5	79	≥ 15	Pass
Pi/4DQPSK	SISO	HOPP	2DH5	79	≥ 15	Pass
8DPSK	SISO	HOPP	3DH5	79	≥ 15	Pass

4.2 Test Graph

4.2.1 HoppNum





5. Time of Occupancy (Dwell Time)

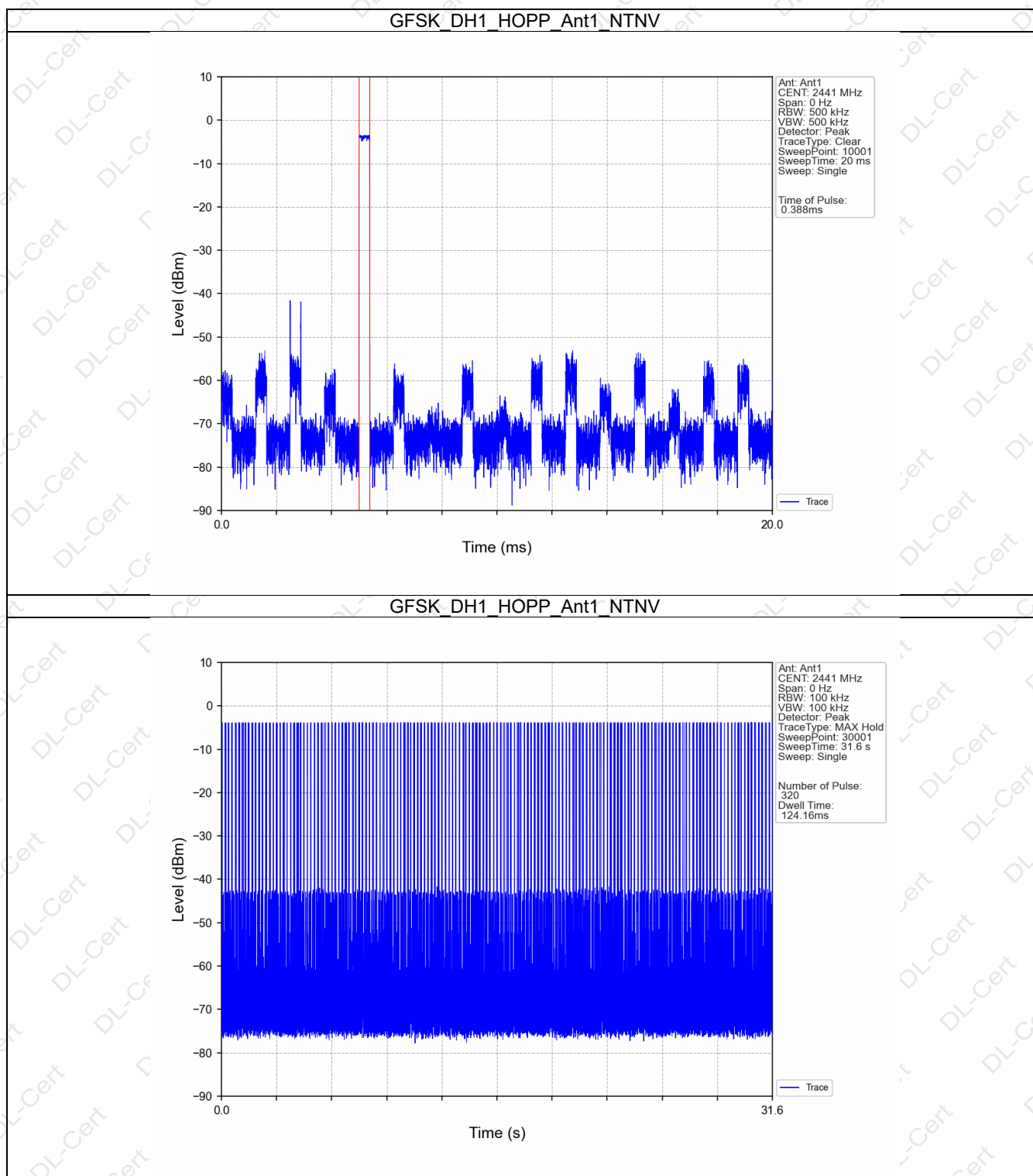
5.1 Test Result

5.1.1 Ant1

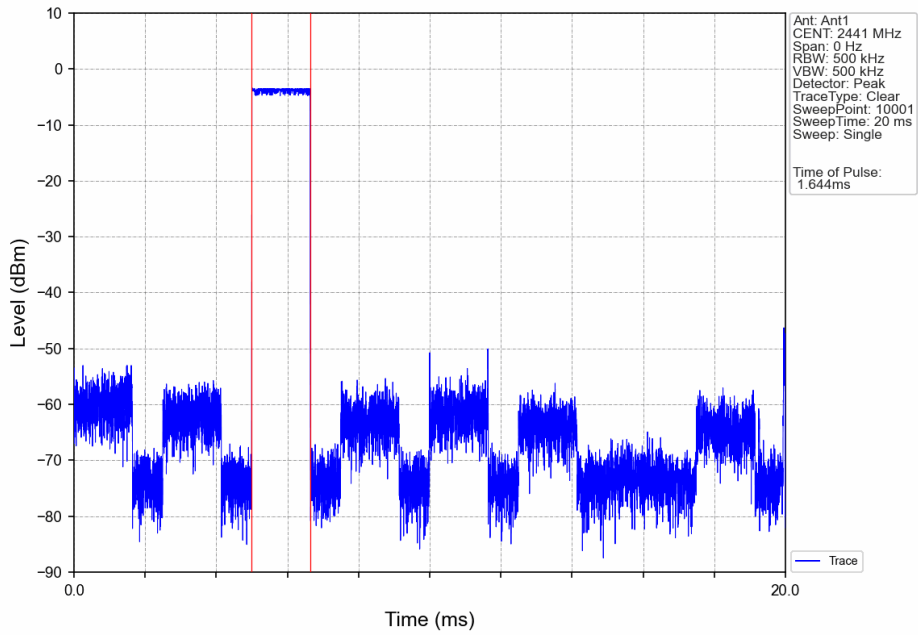
Ant1									
Mode	Tx Type	Frequency (MHz)	Packet Type	Duration of Single Pulse (ms)	Observation Period (s)	Num of Pulse in Observation Period	Dwell Time (ms)	Limit (ms)	Verdict
GFSK	SISO	HOPP	DH1	0.388	31.600	320	124.160	<=400	Pass
			DH3	1.644	31.600	163	267.972	<=400	Pass
			DH5	2.898	31.600	102	295.596	<=400	Pass
Pi/4DQPSK	SISO	HOPP	2DH1	0.396	31.600	320	126.720	<=400	Pass
			2DH3	0.396	31.600	319	126.324	<=400	Pass
			2DH5	2.898	31.600	116	336.168	<=400	Pass
8DPSK	SISO	HOPP	3DH1	6.670	31.600	52	346.840	<=400	Pass
			3DH3	0.654	31.600	157	102.678	<=400	Pass
			3DH5	0.902	31.600	94	84.788	<=400	Pass

5.2 Test Graph

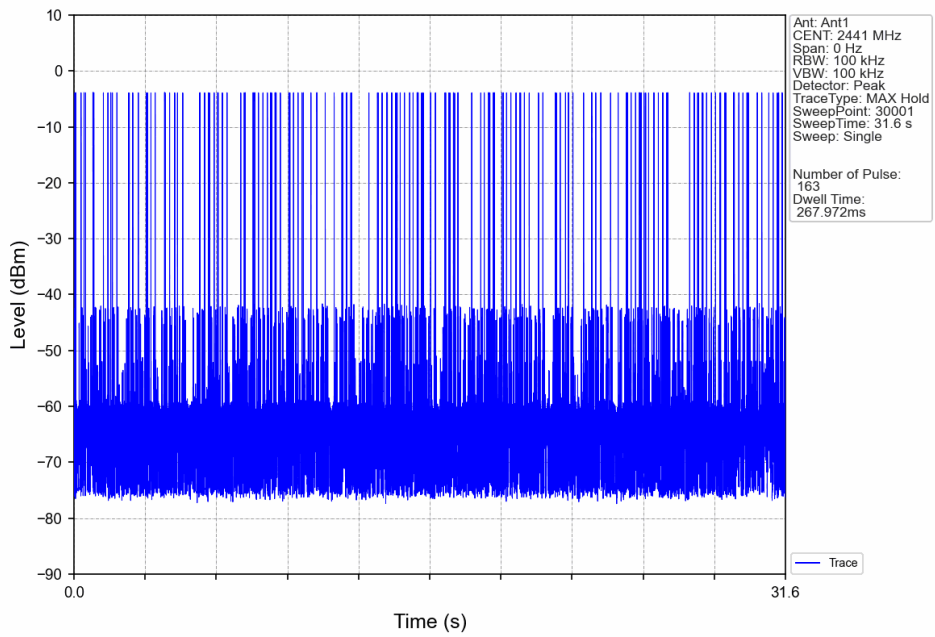
5.2.1 Ant1



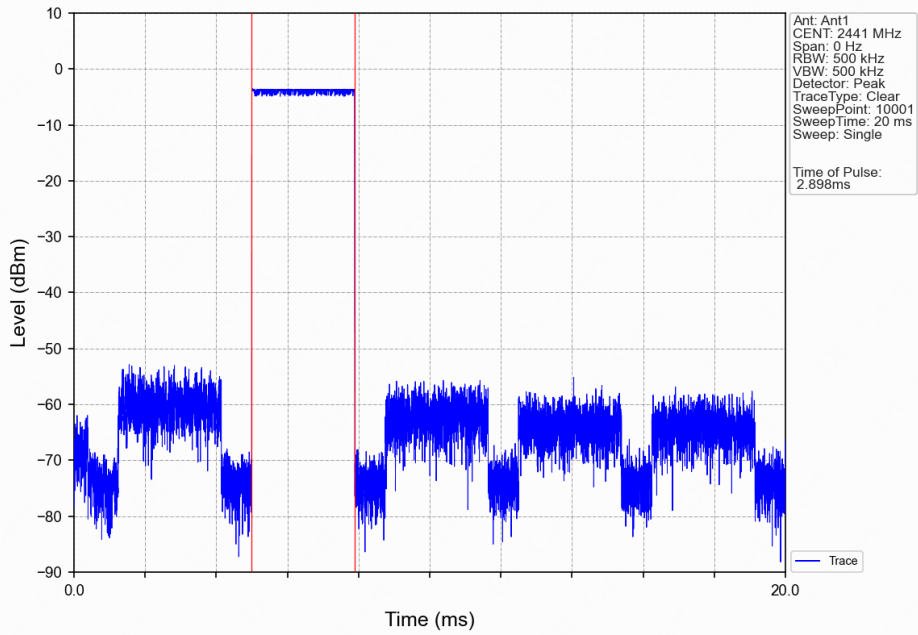
GFSK DH3 HOPP Ant1 NTN



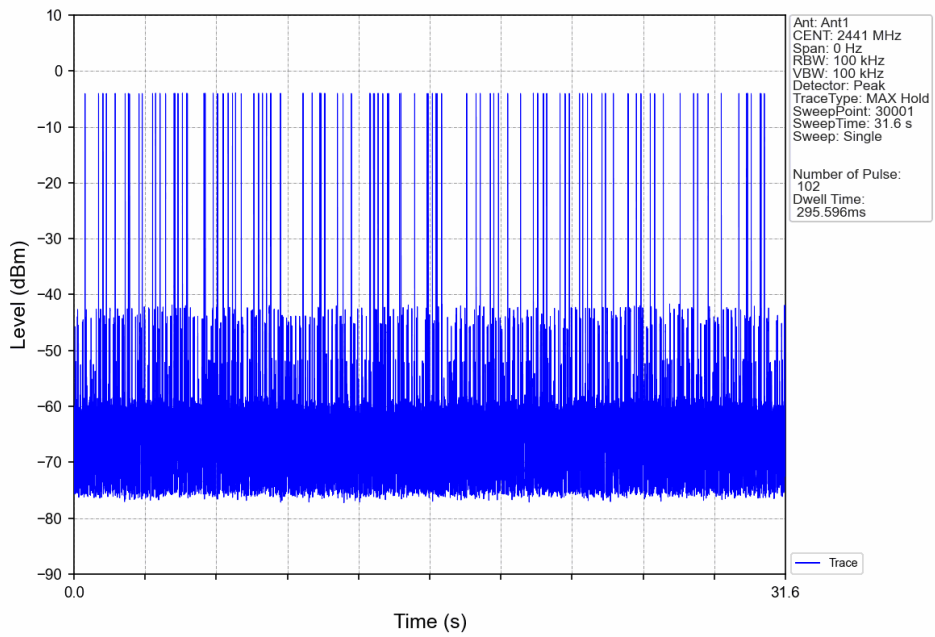
GFSK DH3 HOPP Ant1 NTN

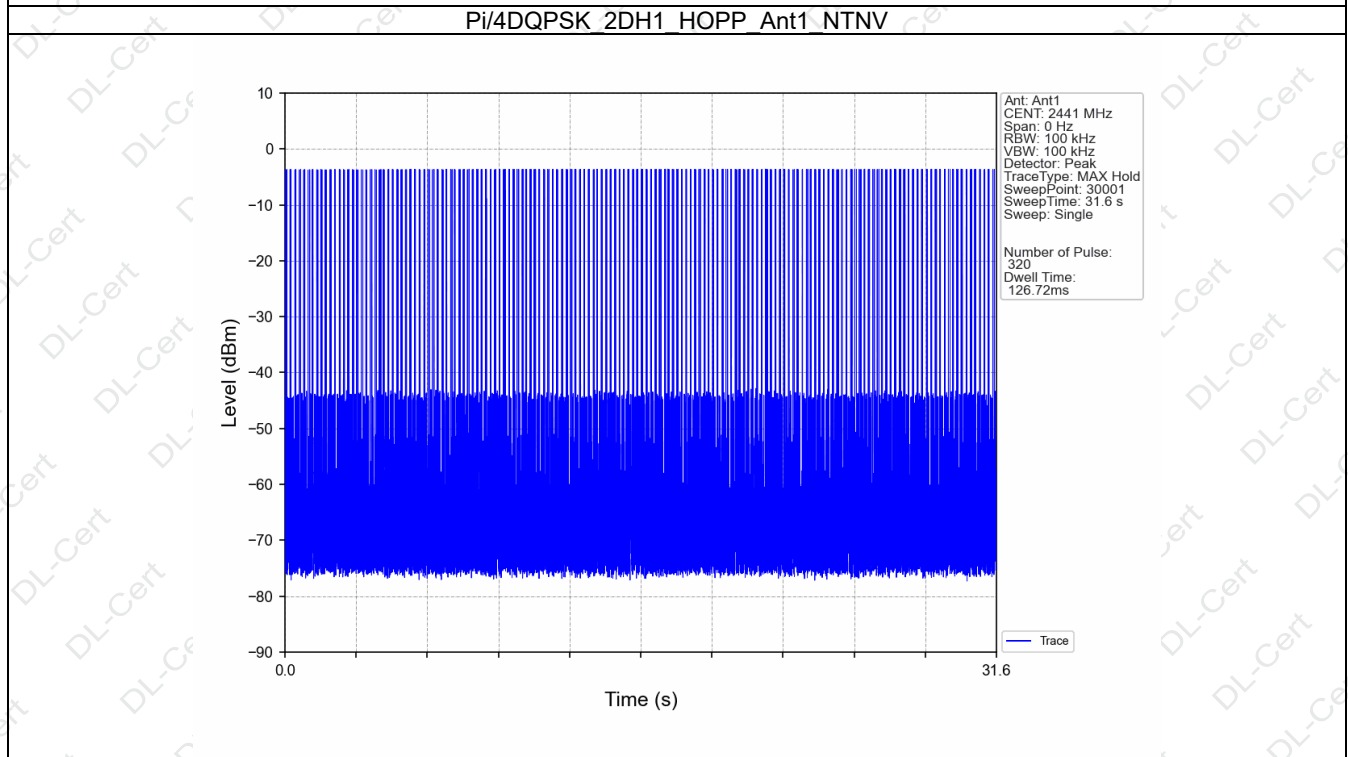
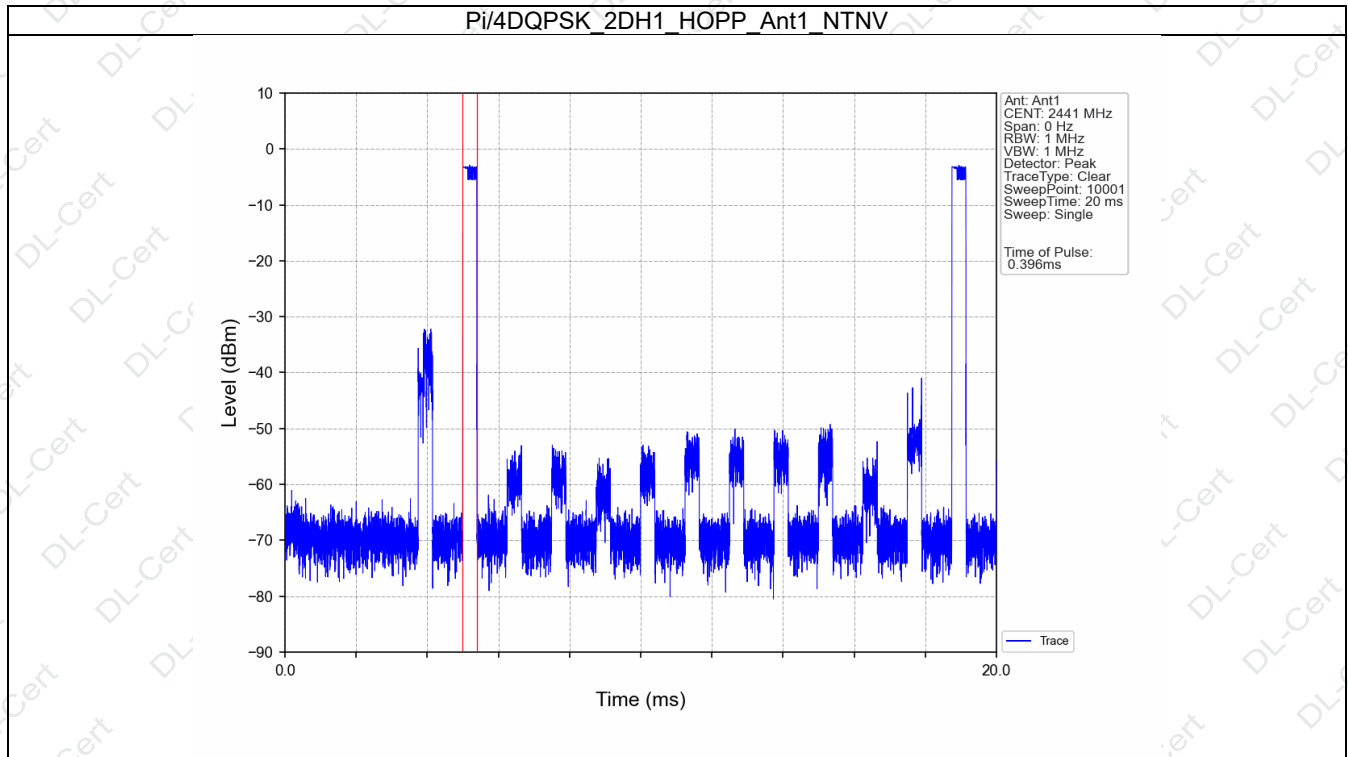


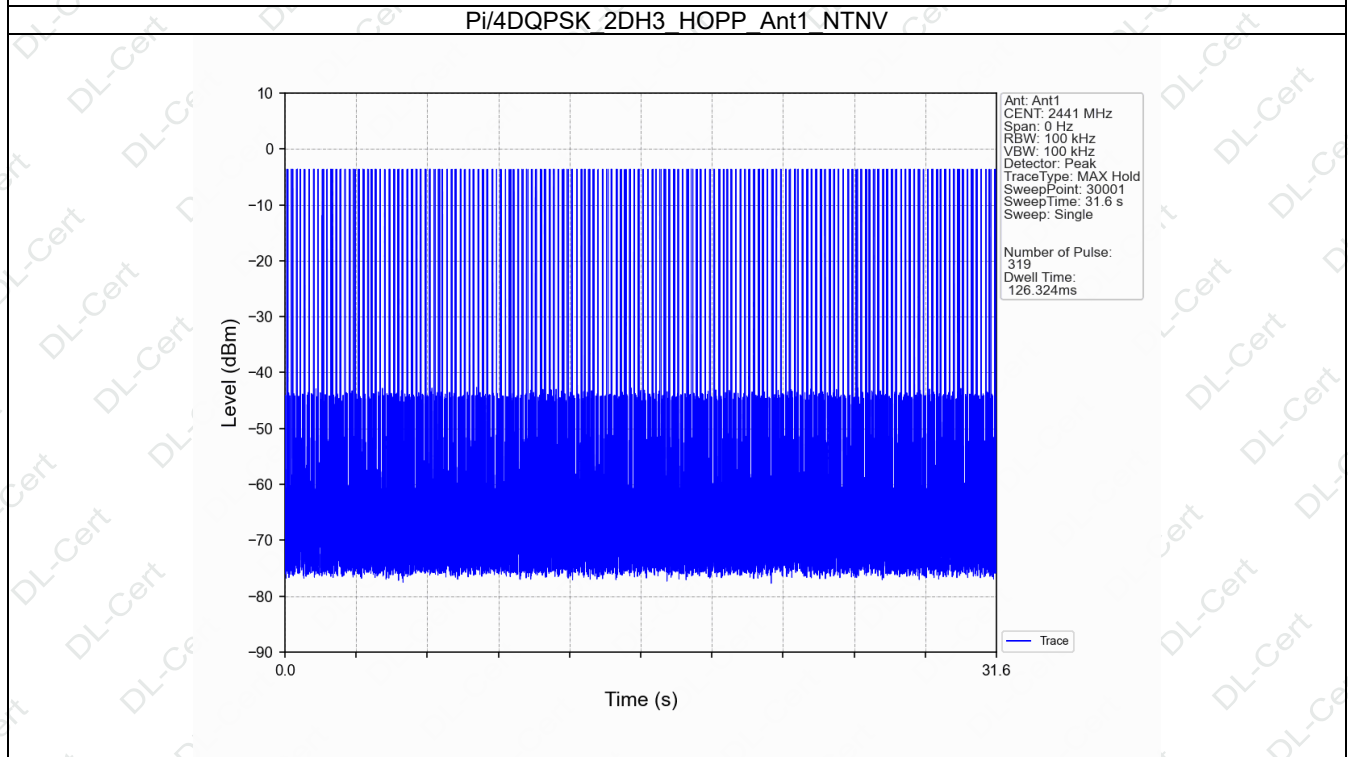
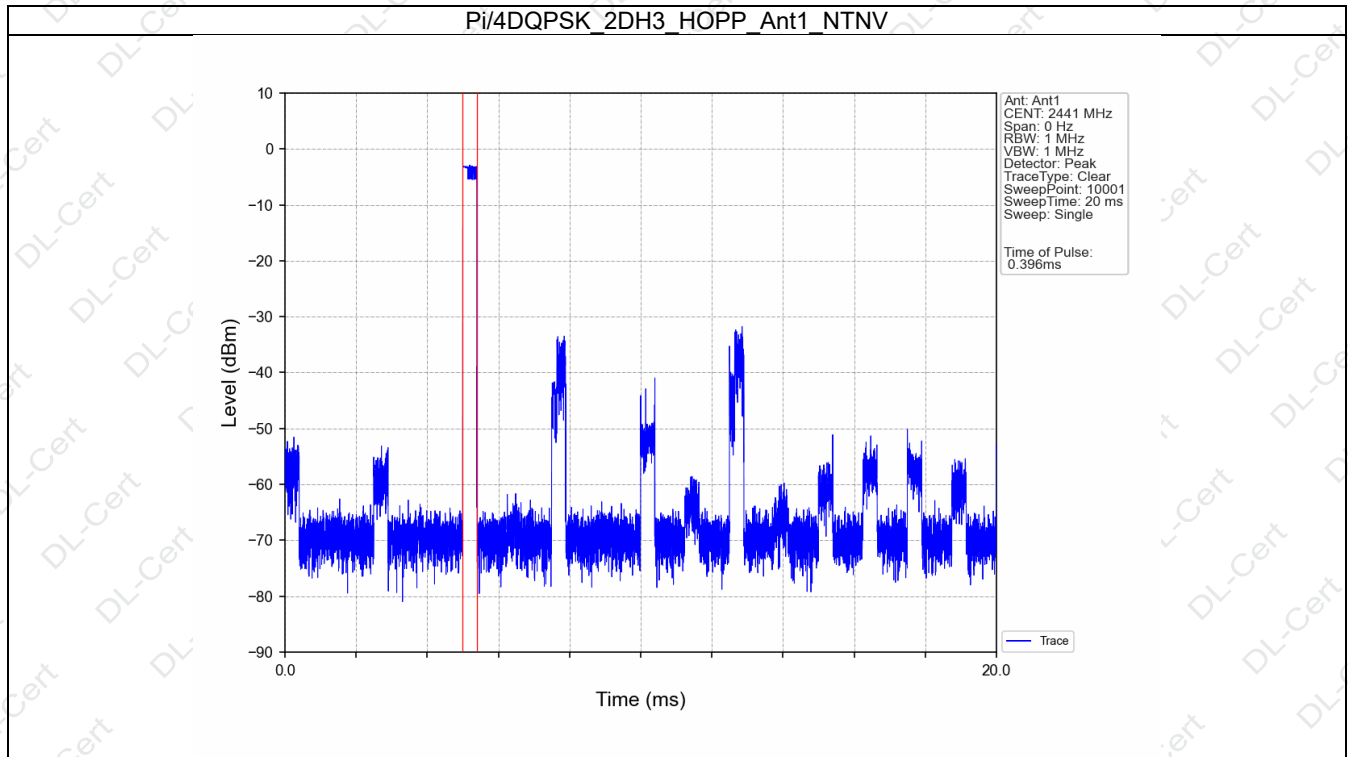
GFSK DH5 HOPP Ant1 NTN

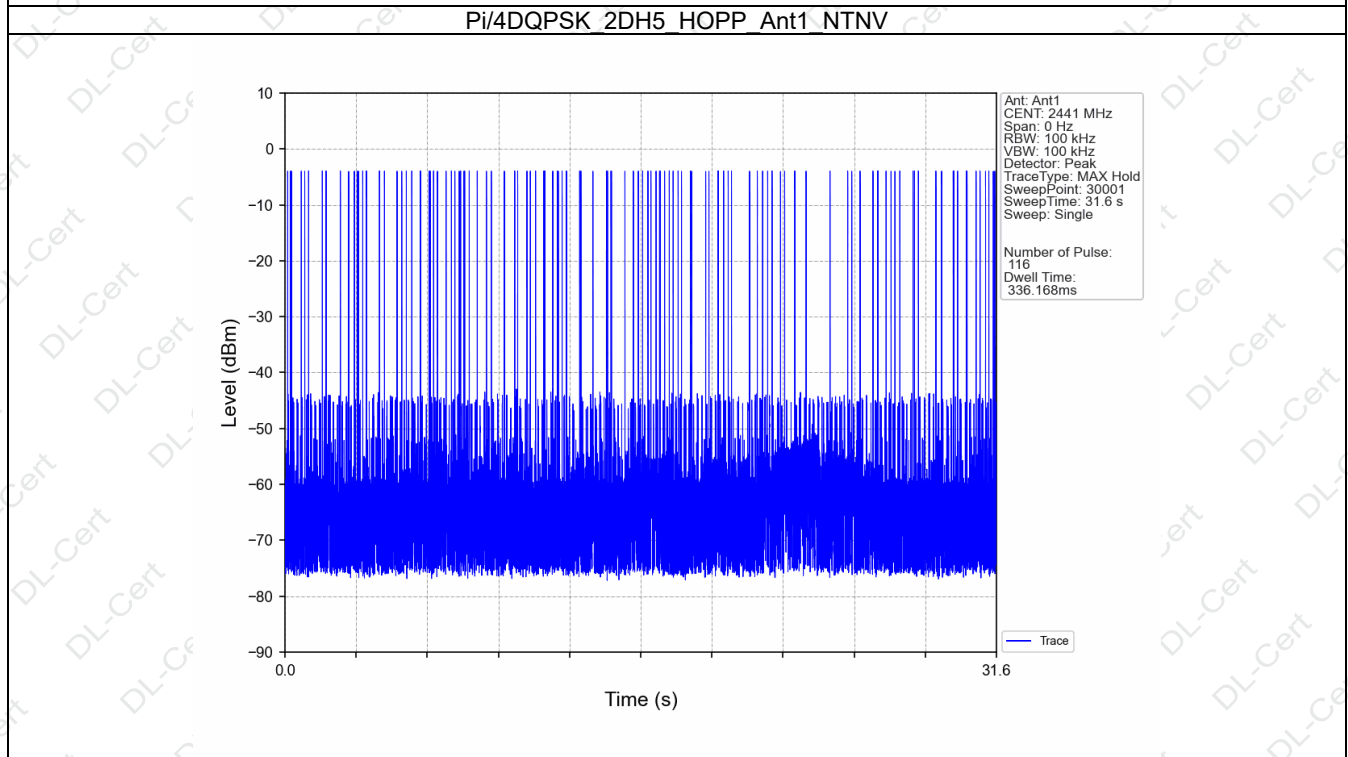
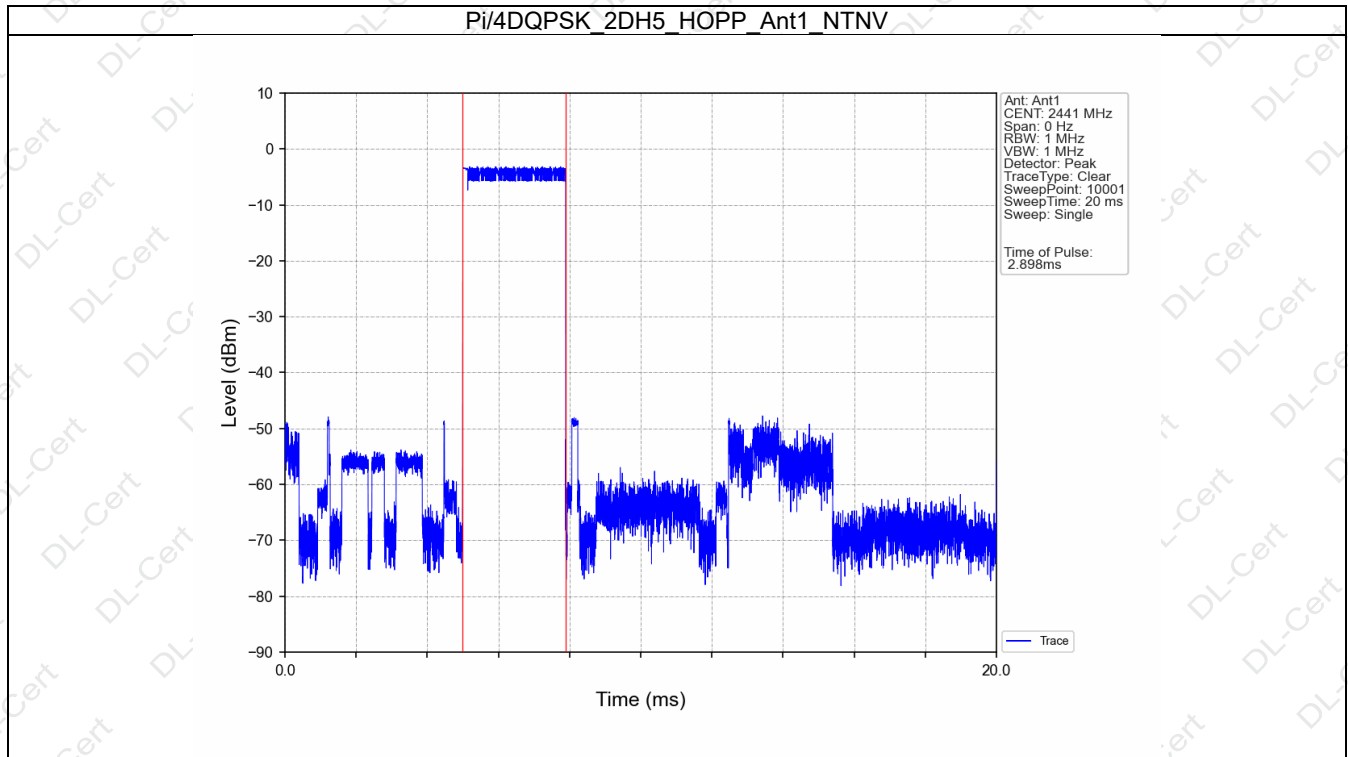


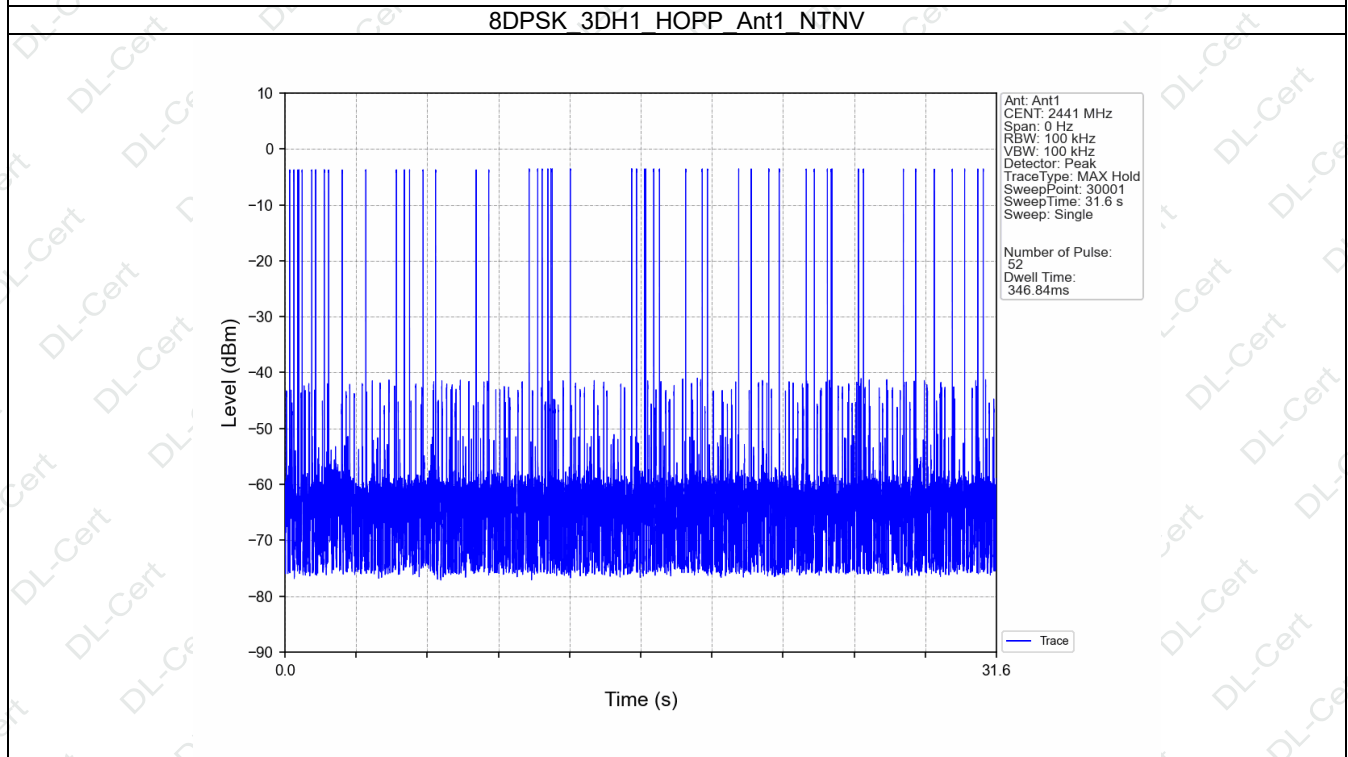
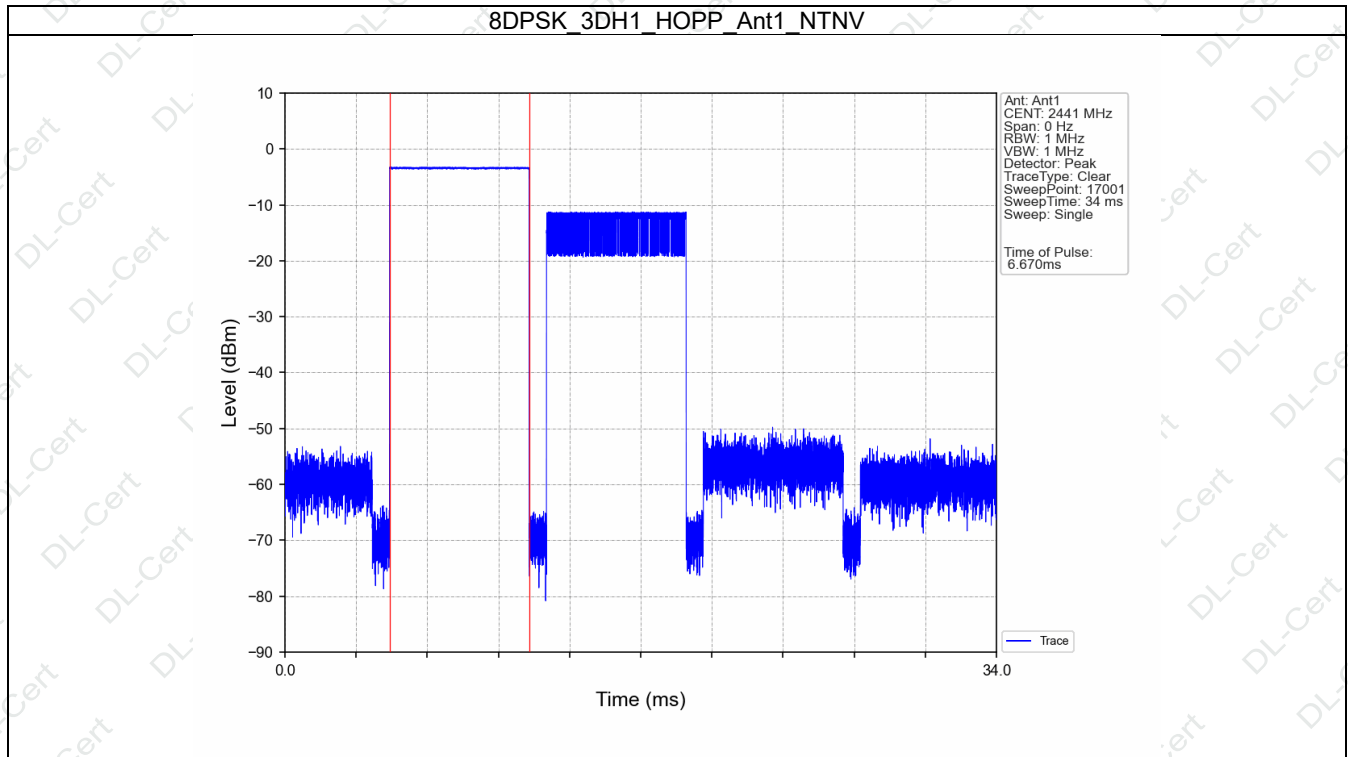
GFSK DH5 HOPP Ant1 NTN

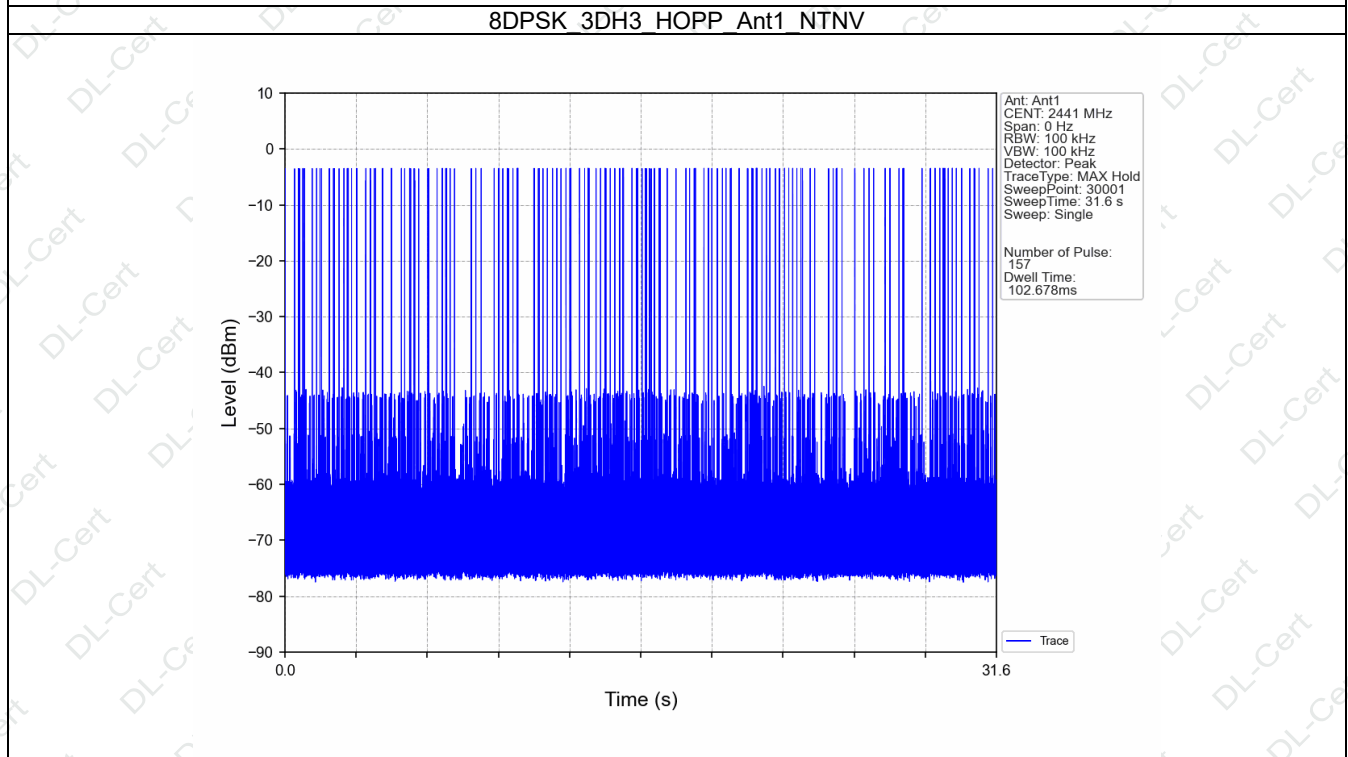
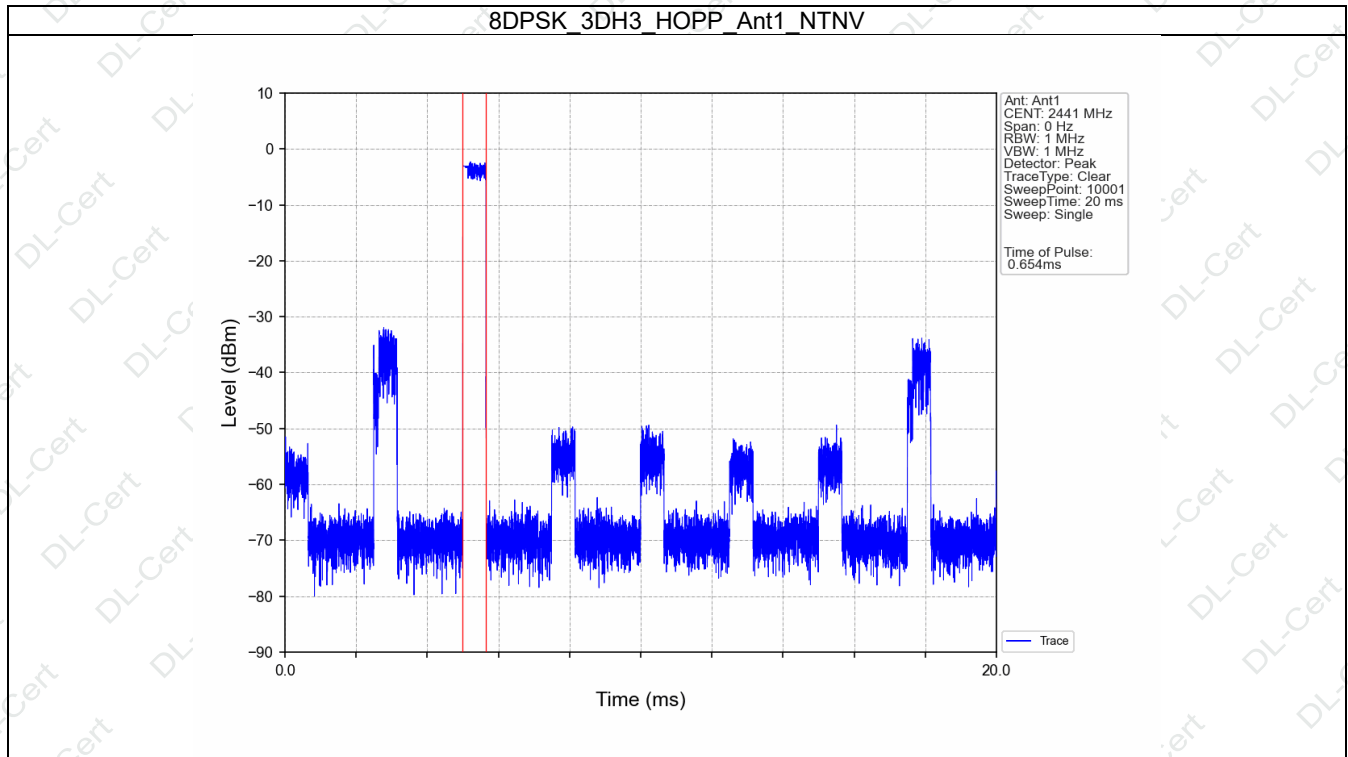


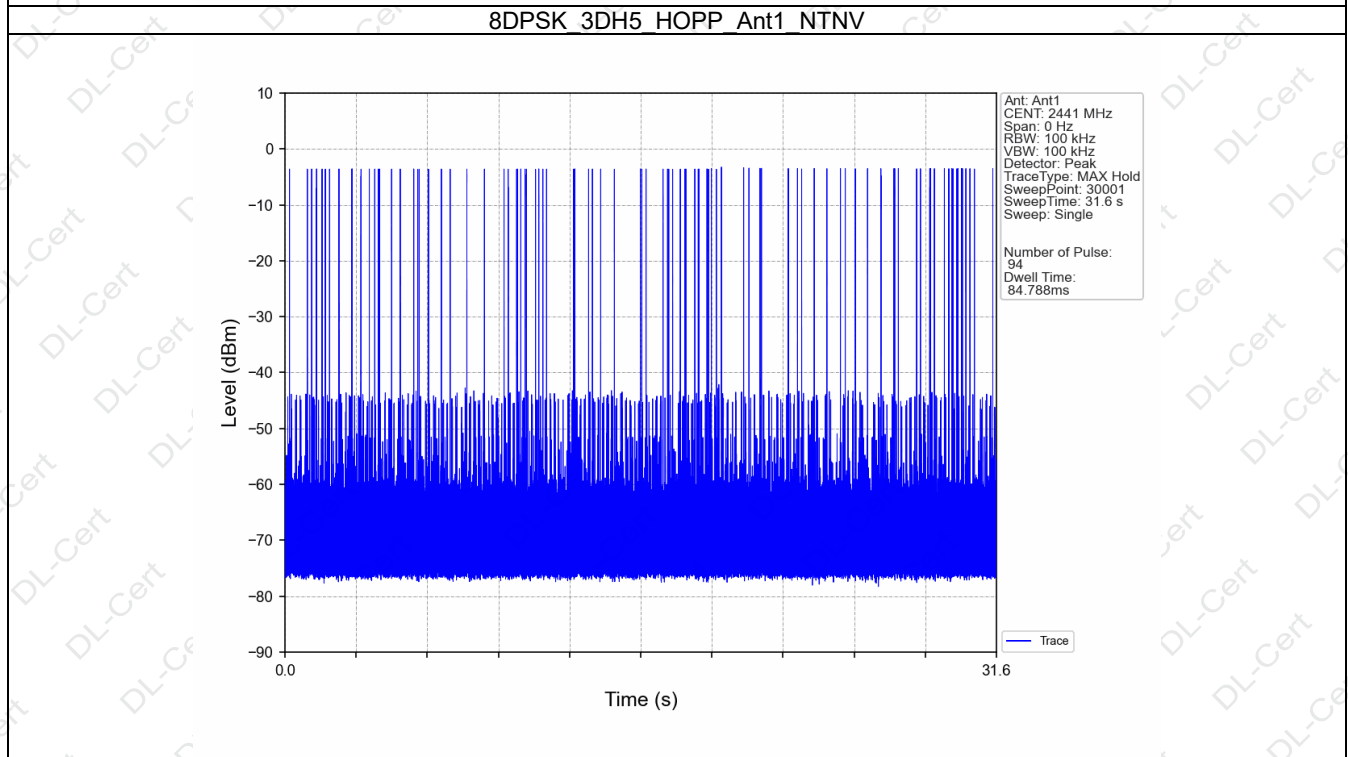
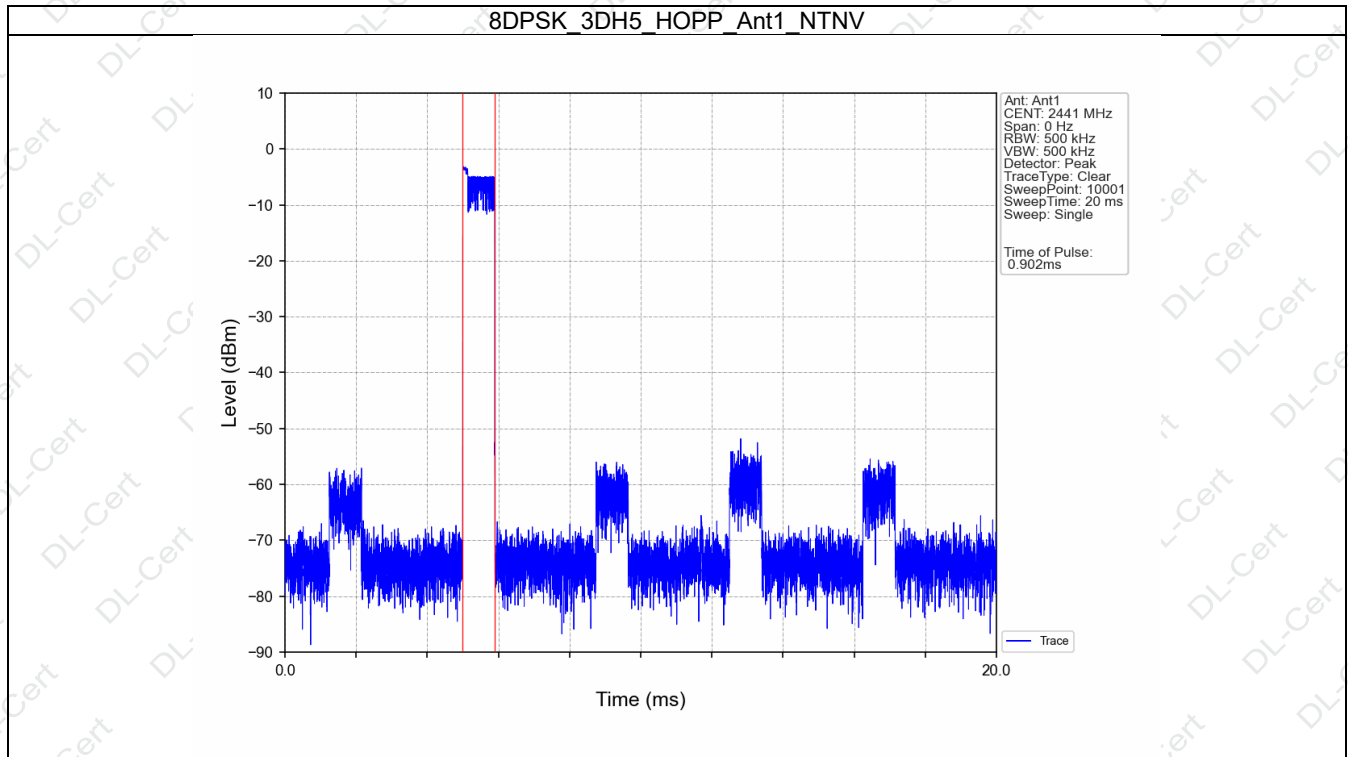












6. Unwanted Emissions In Non-restricted Frequency Bands

6.1 Test Result

6.1.1 Ref

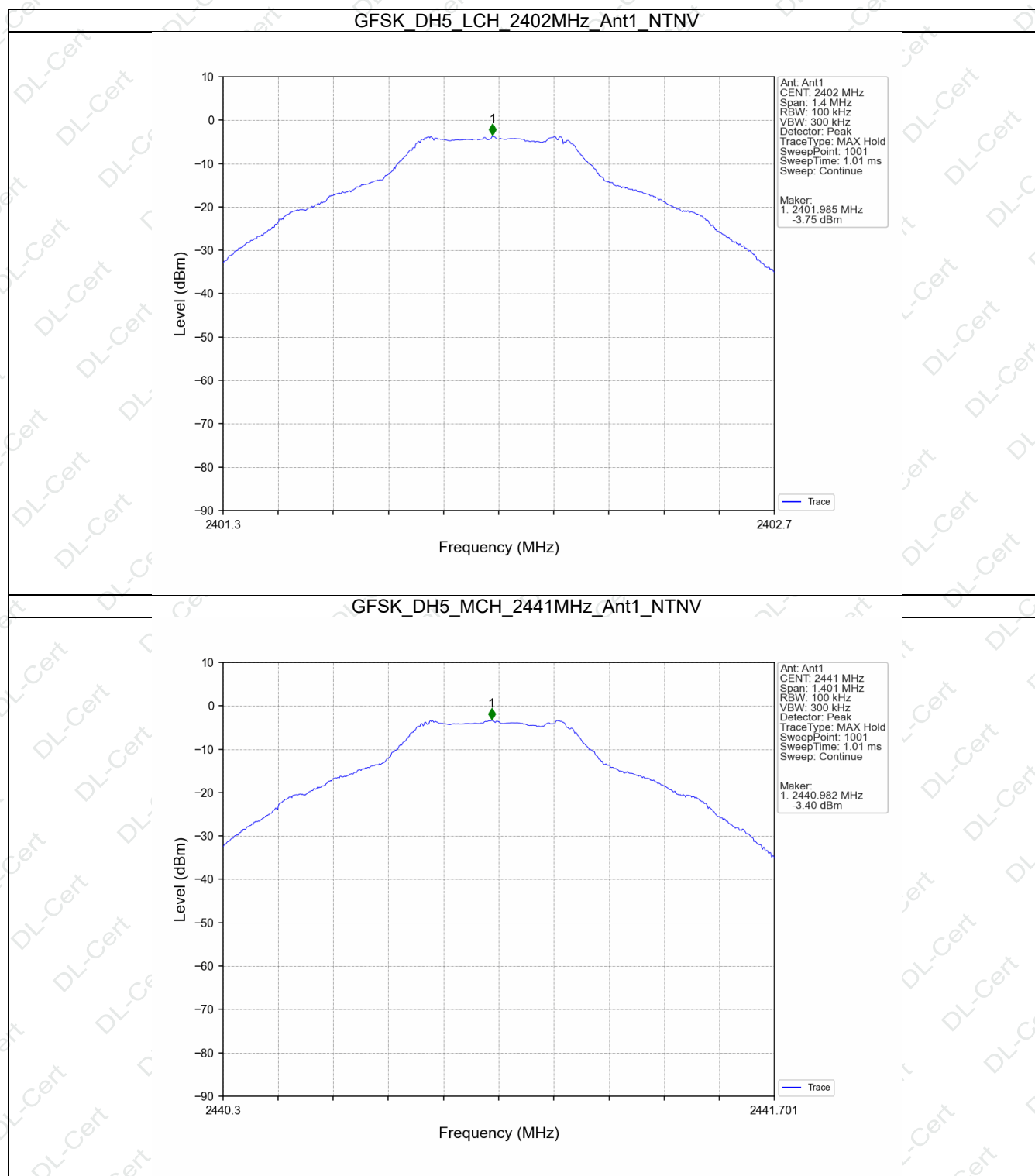
Mode	Tx Type	Frequency (MHz)	Packet Type	ANT	Level of Reference (dBm)
GFSK	SISO	2402	DH5	1	-3.75
		2441	DH5	1	-3.40
		2480	DH5	1	-2.34
		HOPP	DH5	1	-2.13
					-2.13
Pi/4DQPSK	SISO	2402	2DH5	1	-3.63
		2441	2DH5	1	-3.54
		2480	2DH5	1	-0.99
		HOPP	2DH5	1	-0.83
					-0.83
8DPSK	SISO	2402	3DH5	1	-3.17
		2441	3DH5	1	-3.04
		2480	3DH5	1	-2.19
		HOPP	3DH5	1	-2.18
					-2.18
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.					

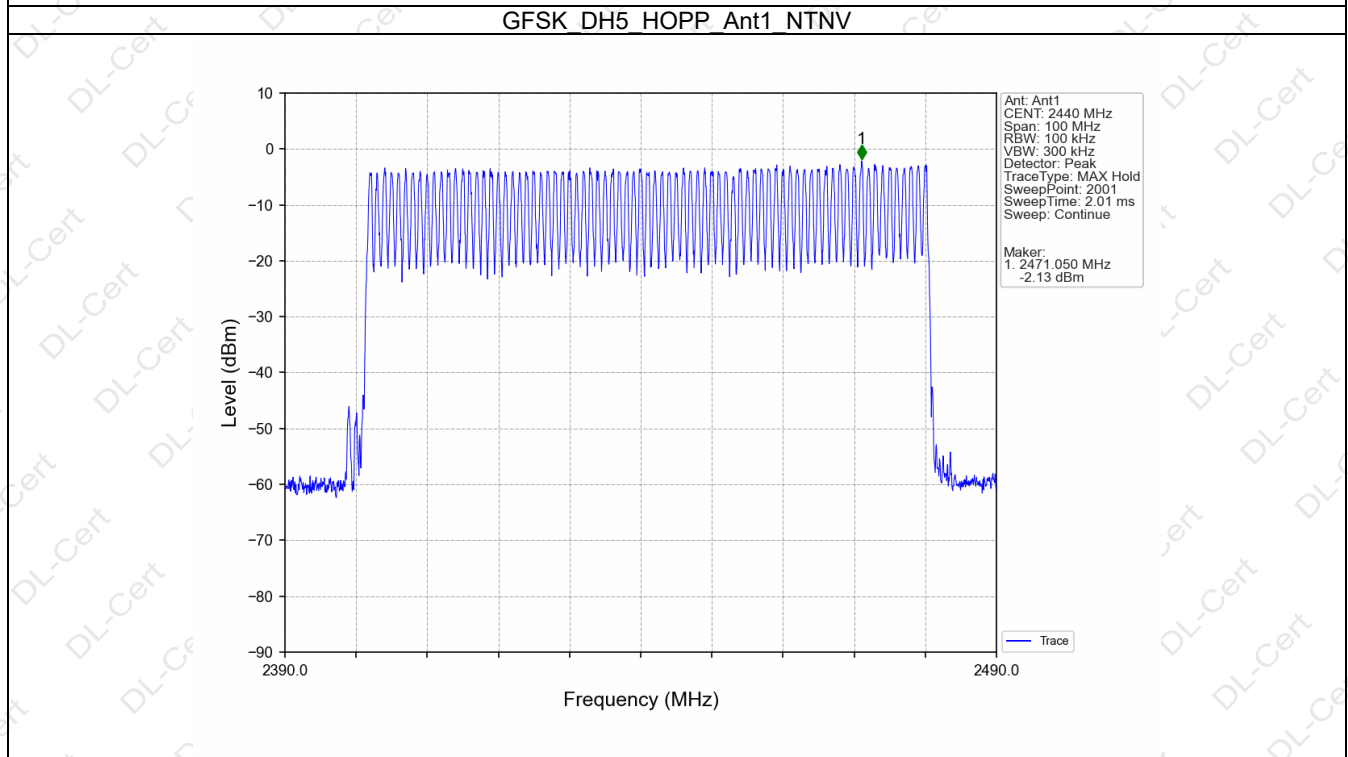
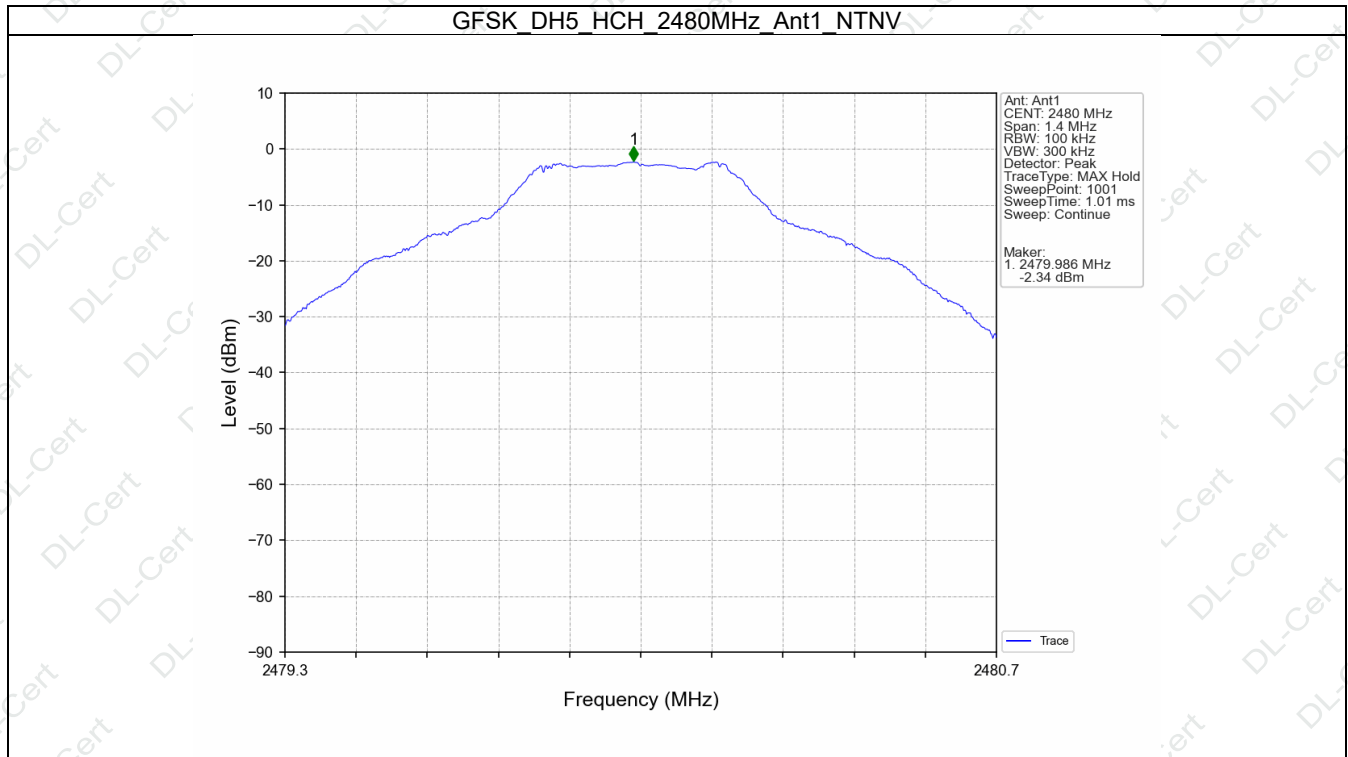
6.1.2 CSE

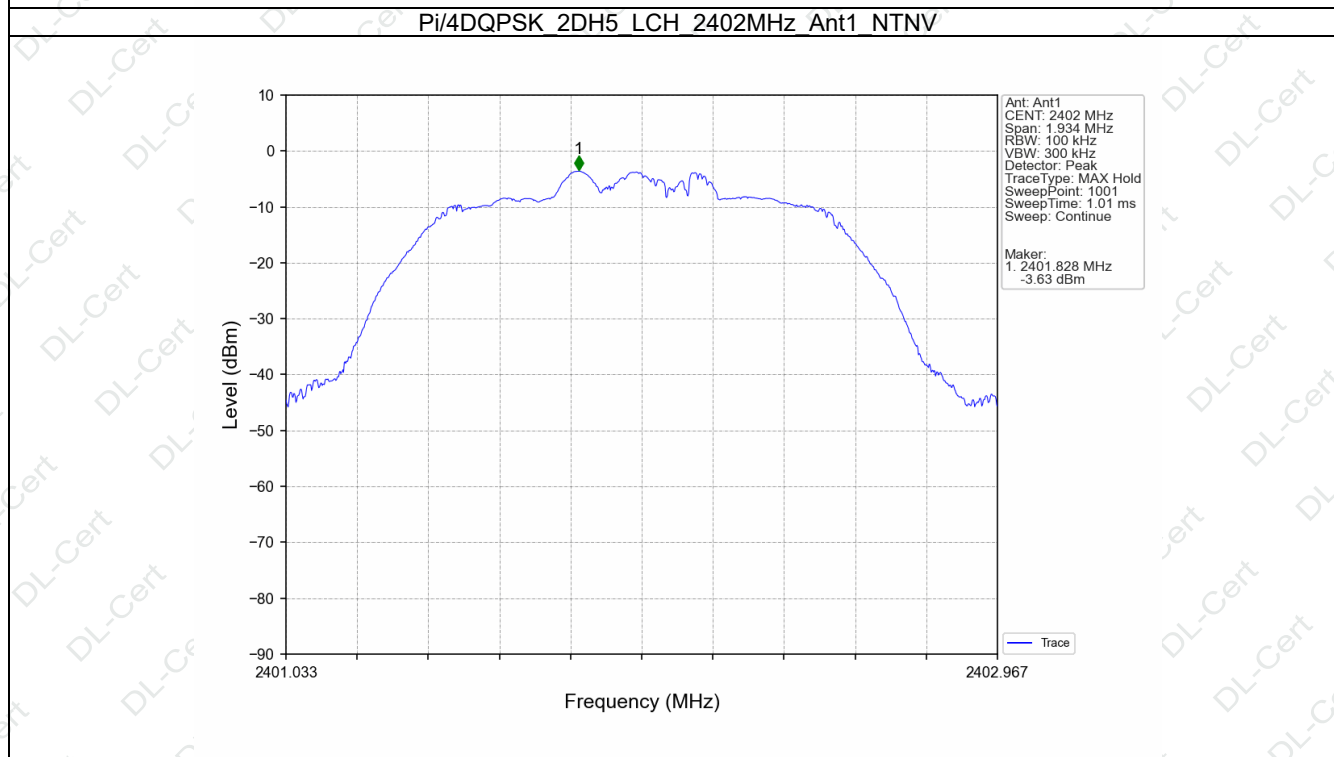
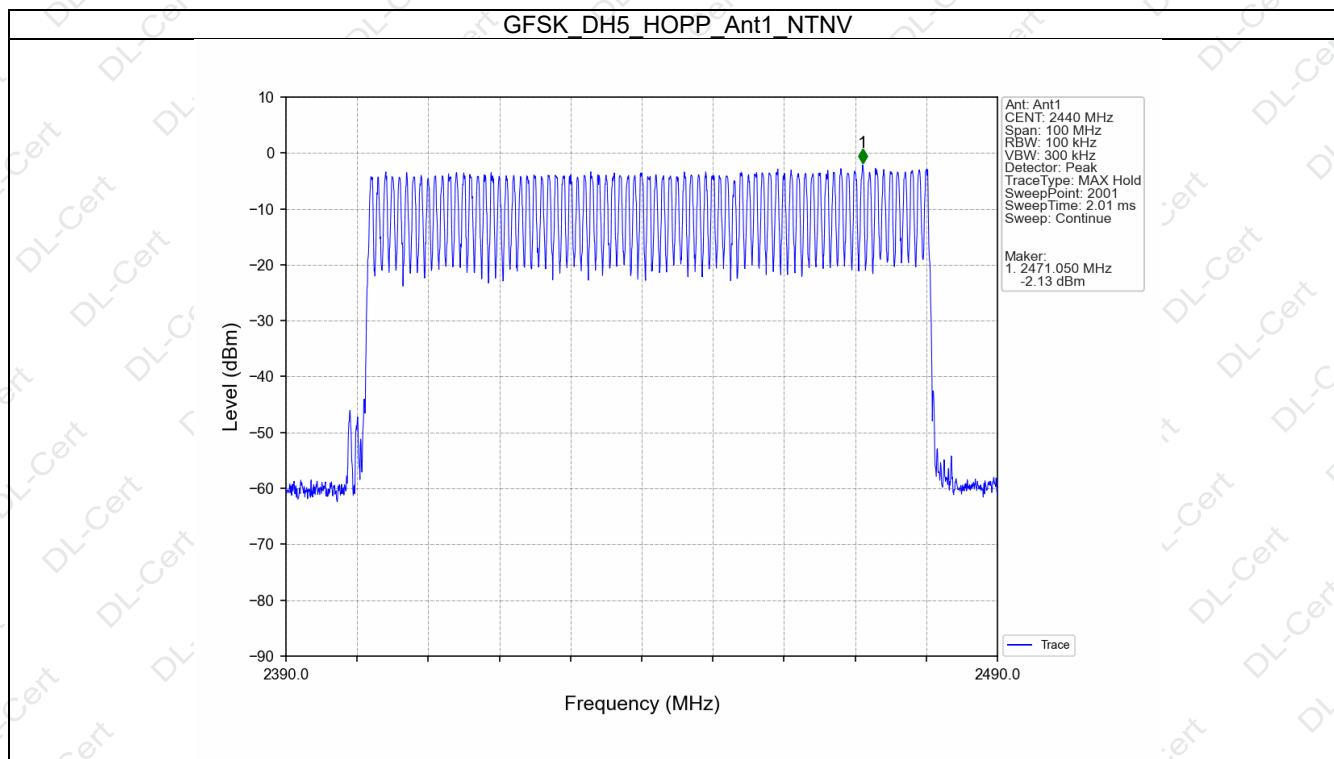
Mode	TX Type	Frequency (MHz)	Packet Type	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
GFSK	SISO	2402	DH5	1	-3.75	-23.75	Pass
		2441	DH5	1	-3.40	-23.40	Pass
		2480	DH5	1	-2.34	-22.34	Pass
		HOPP	DH5	1	-2.13	-22.13	Pass
					-2.13	-22.13	Pass
Pi/4DQPSK	SISO	2402	2DH5	1	-3.63	-23.63	Pass
		2441	2DH5	1	-3.54	-23.54	Pass
		2480	2DH5	1	-0.99	-20.99	Pass
		HOPP	2DH5	1	-0.83	-20.83	Pass
					-0.83	-20.83	Pass
8DPSK	SISO	2402	3DH5	1	-3.17	-23.17	Pass
		2441	3DH5	1	-3.04	-23.04	Pass
		2480	3DH5	1	-2.19	-22.19	Pass
		HOPP	3DH5	1	-2.18	-22.18	Pass
					-2.18	-22.18	Pass
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.							

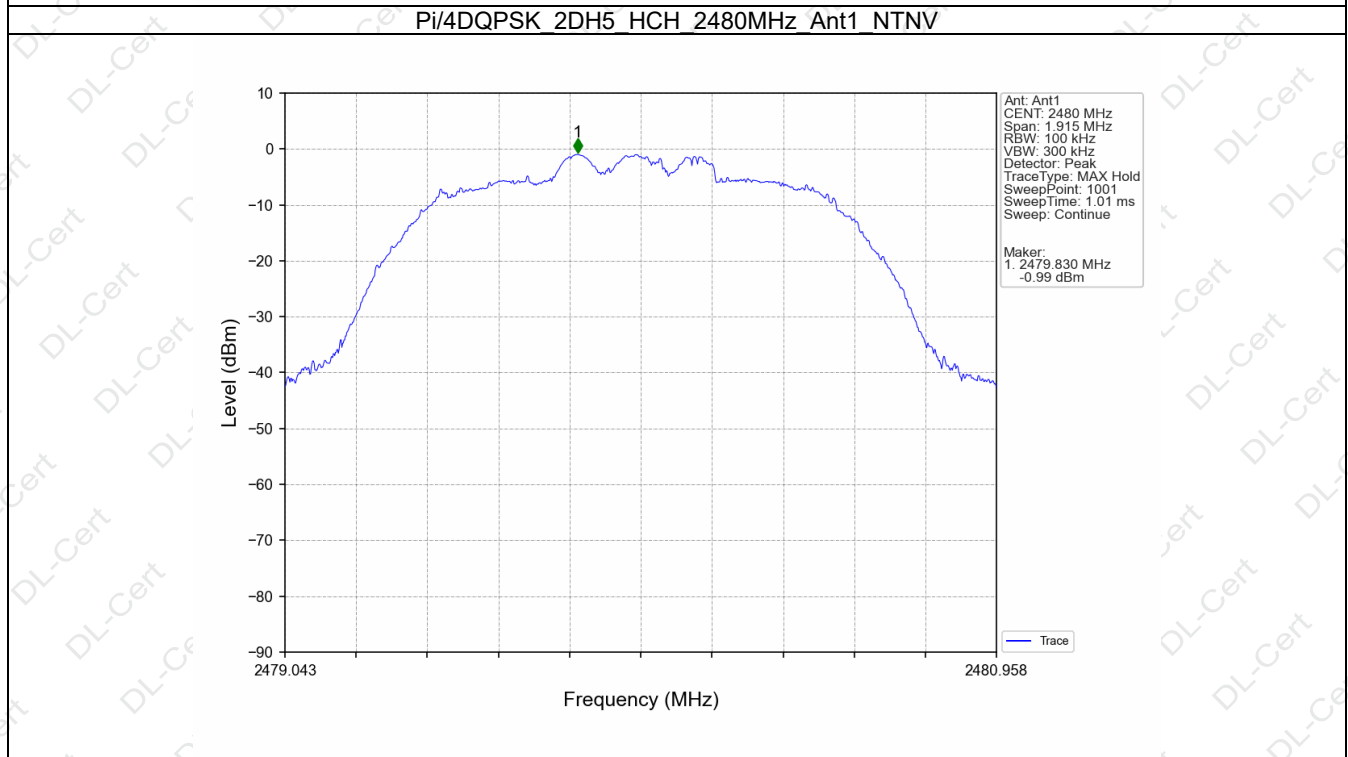
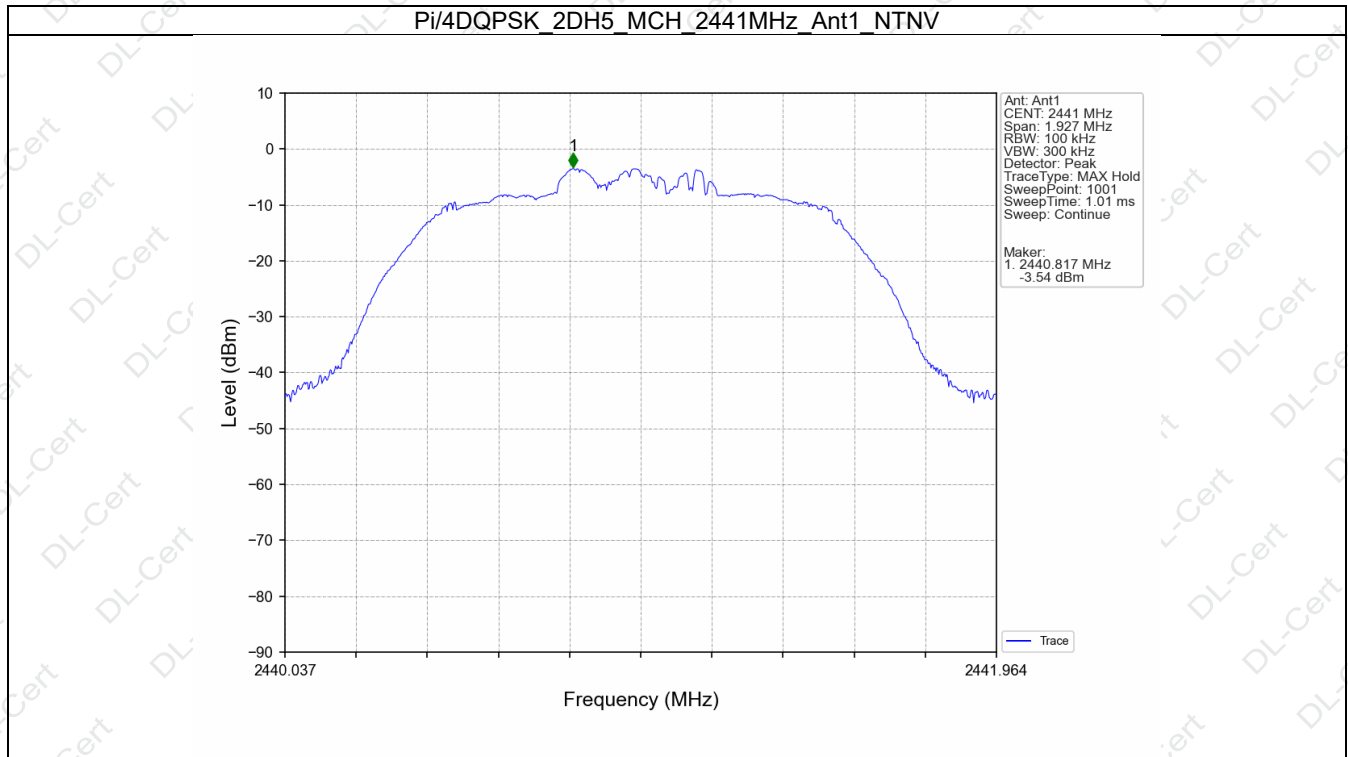
6.2 Test Graph

6.2.1 Ref

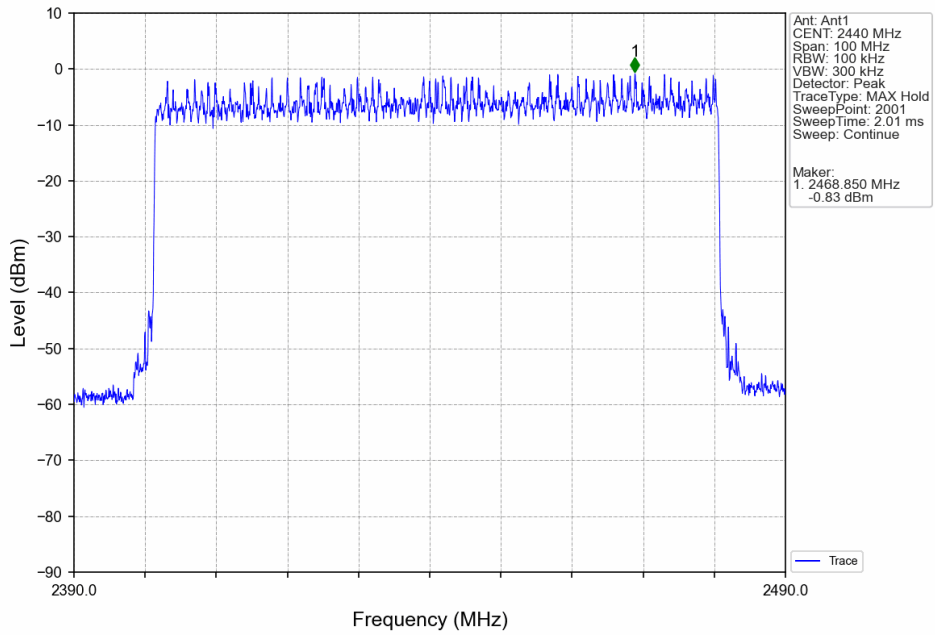




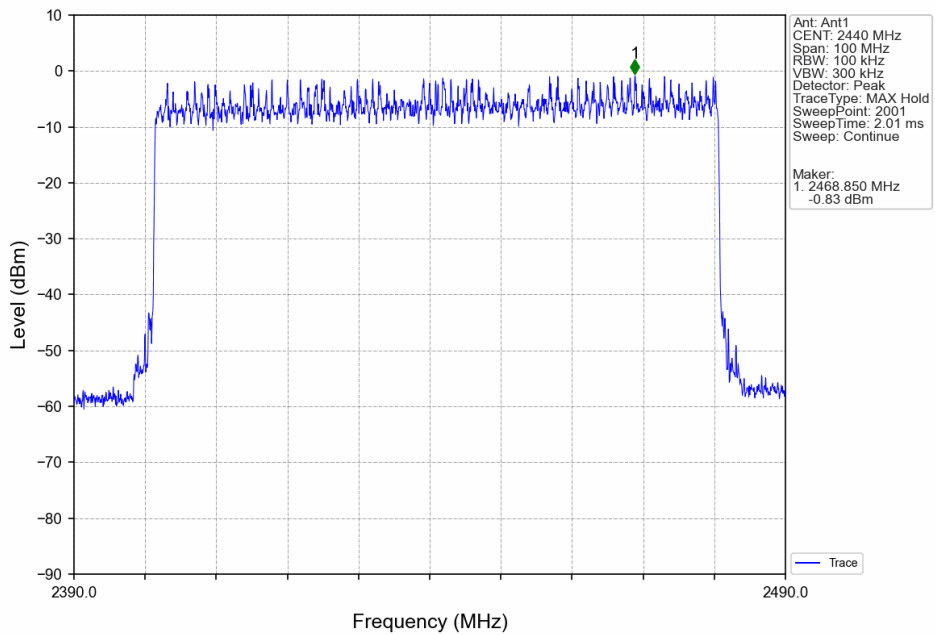




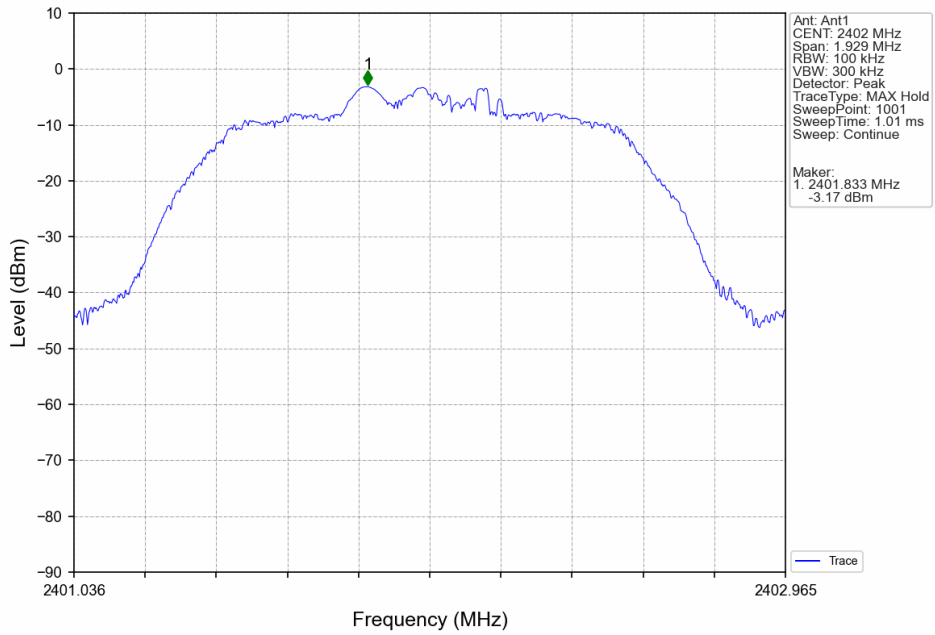
Pi/4DQPSK_2DH5_HOPP_Ant1_NTNV



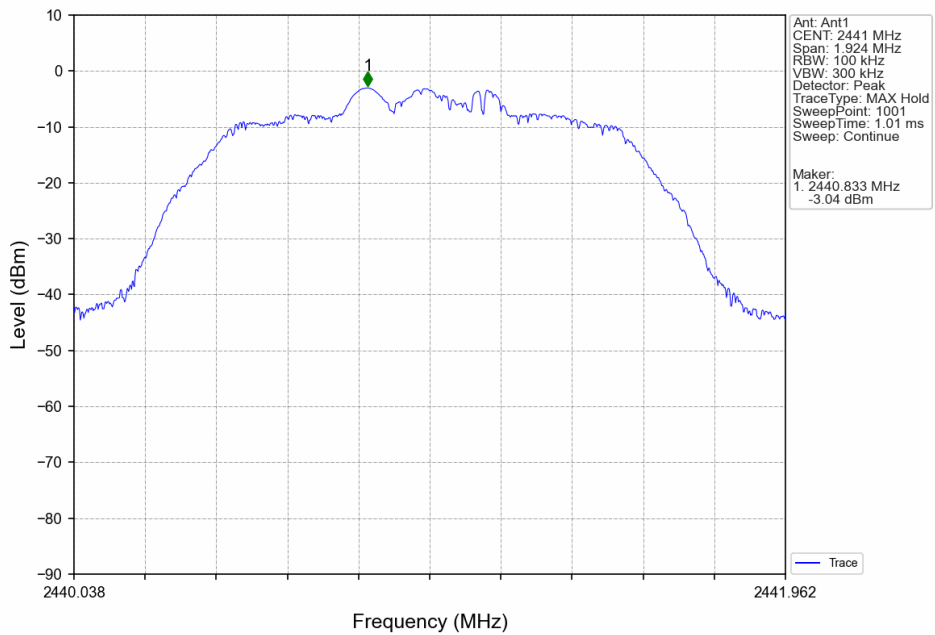
Pi/4DQPSK_2DH5_HOPP_Ant1_NTNV



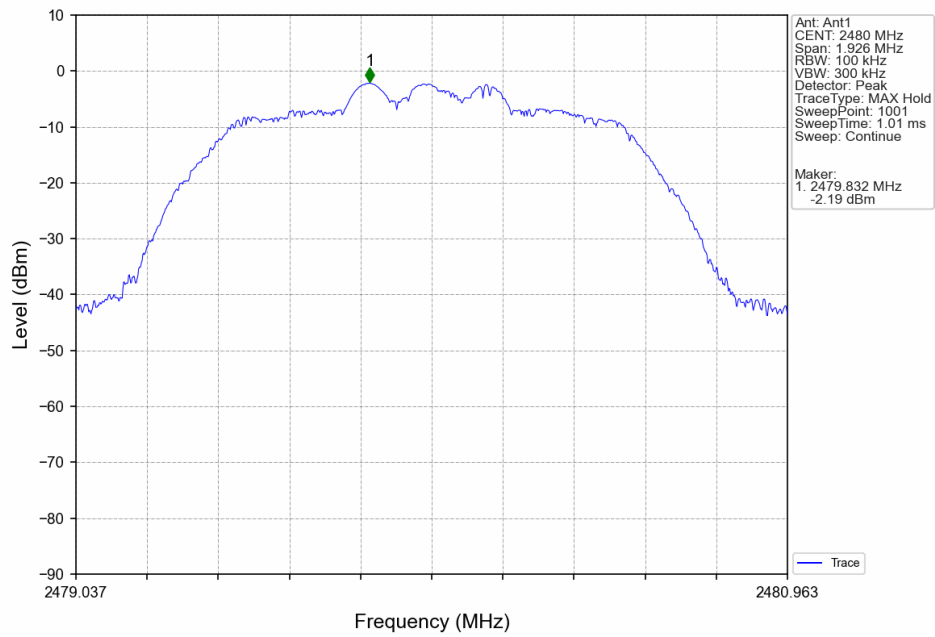
8DPSK_3DH5_LCH_2402MHz_Ant1_NTNV



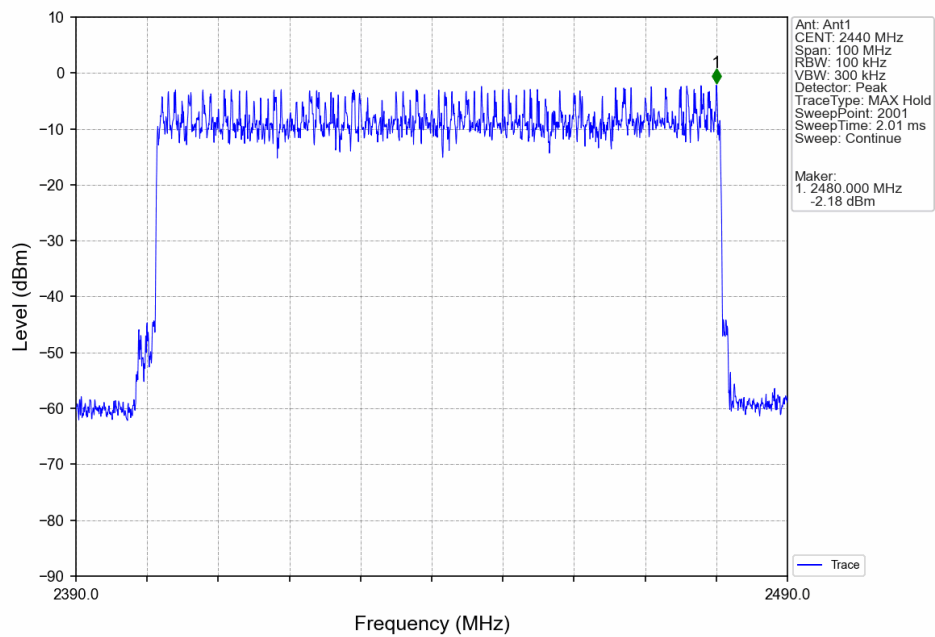
8DPSK_3DH5_MCH_2441MHz_Ant1_NTNV

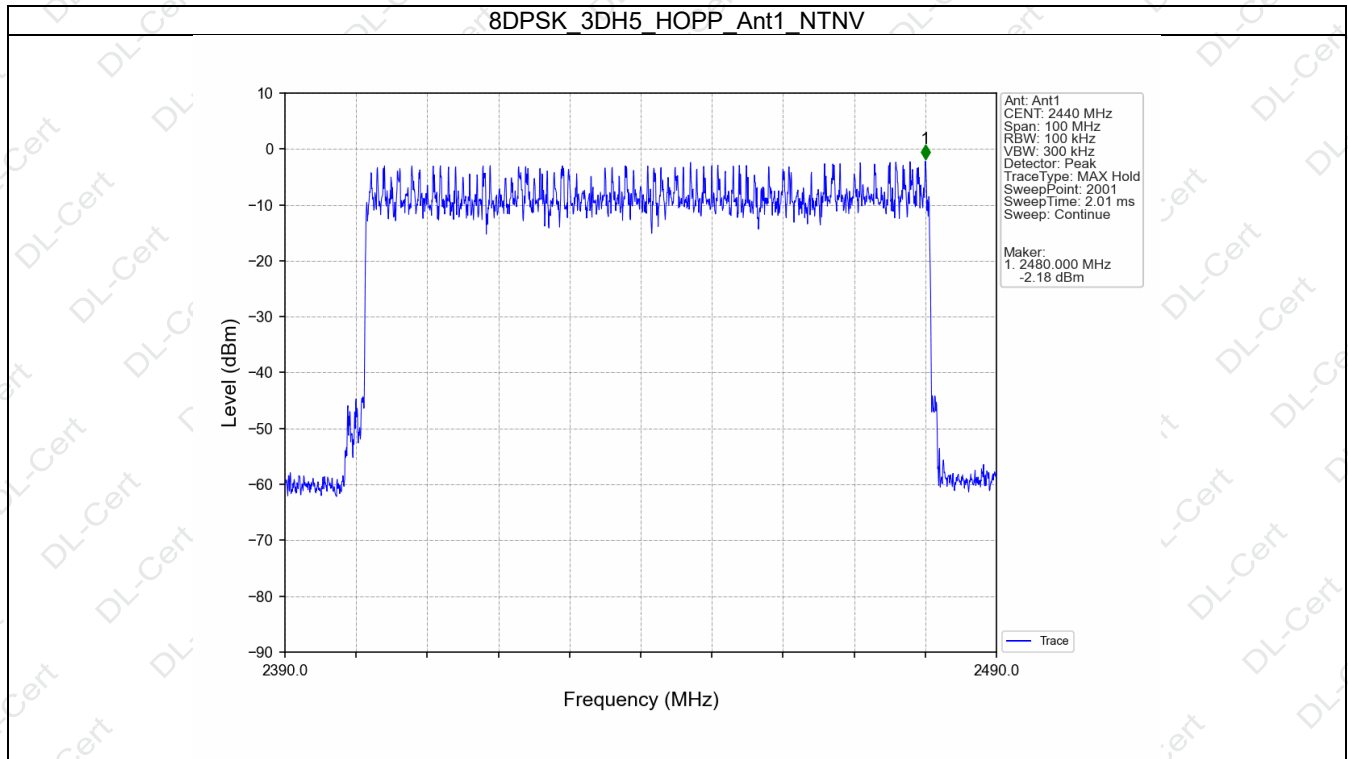


8DPSK 3DH5_HCH_2480MHz_Ant1_NTNV

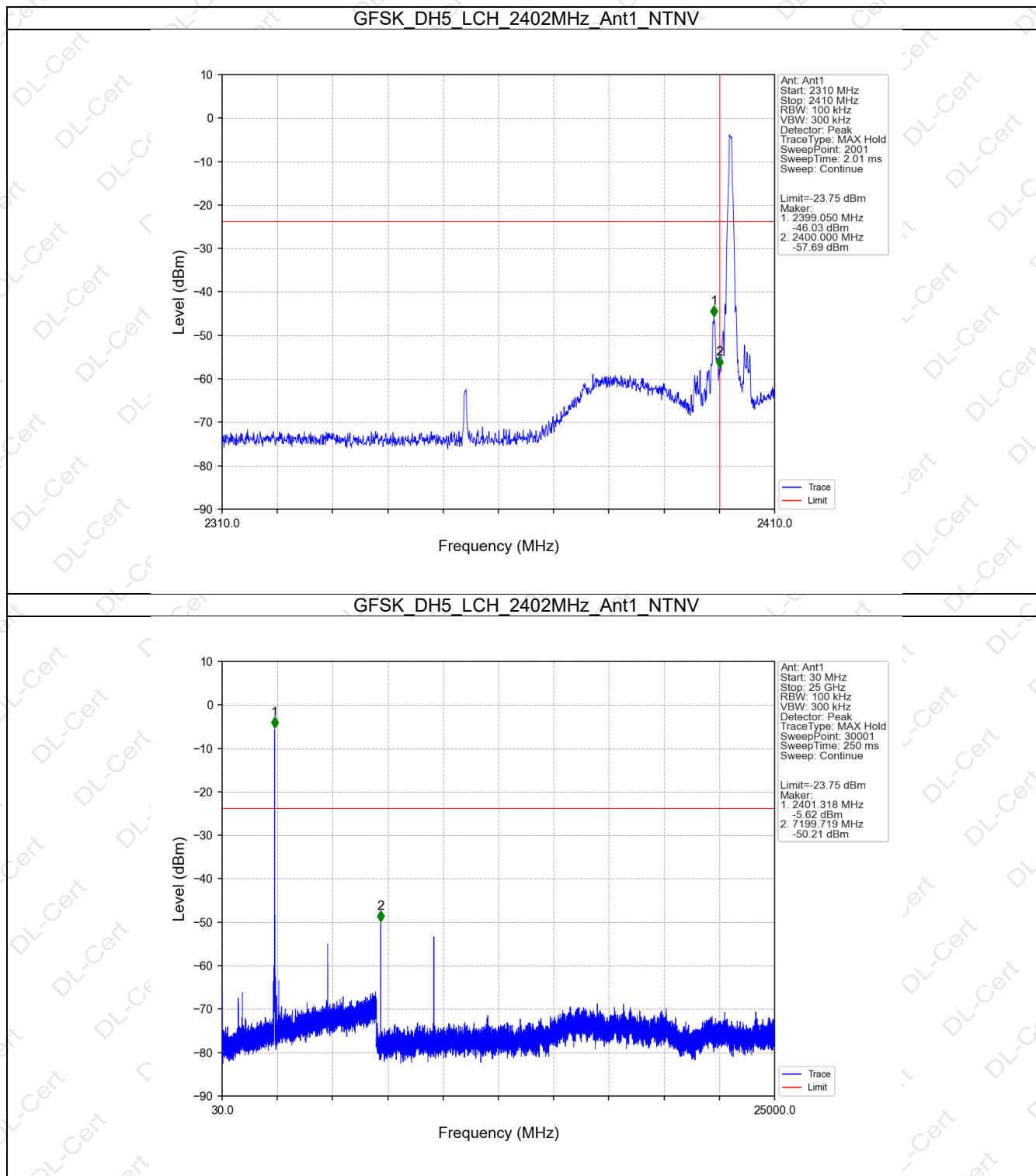


8DPSK 3DH5_HOPP_Ant1_NTNV

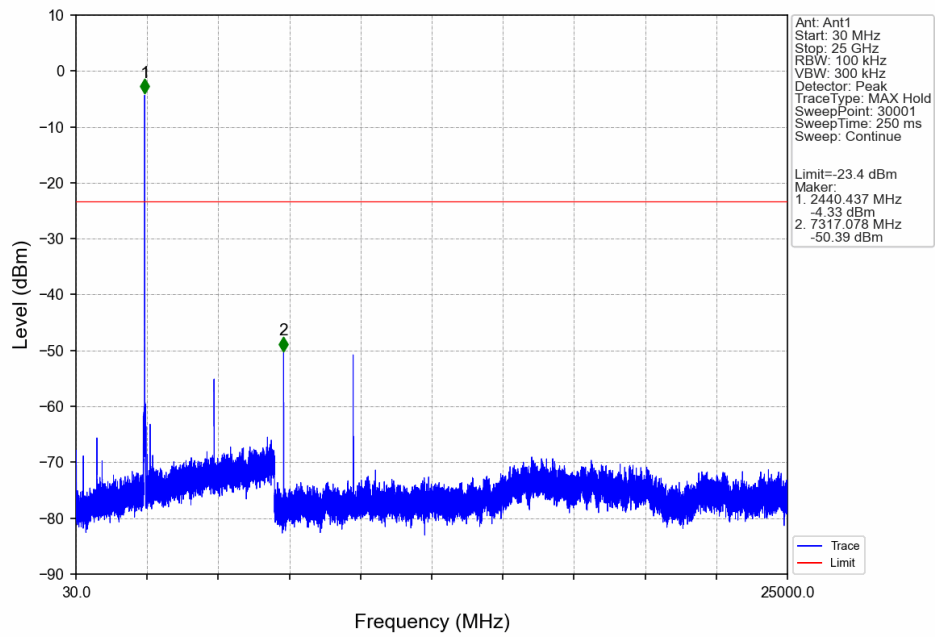




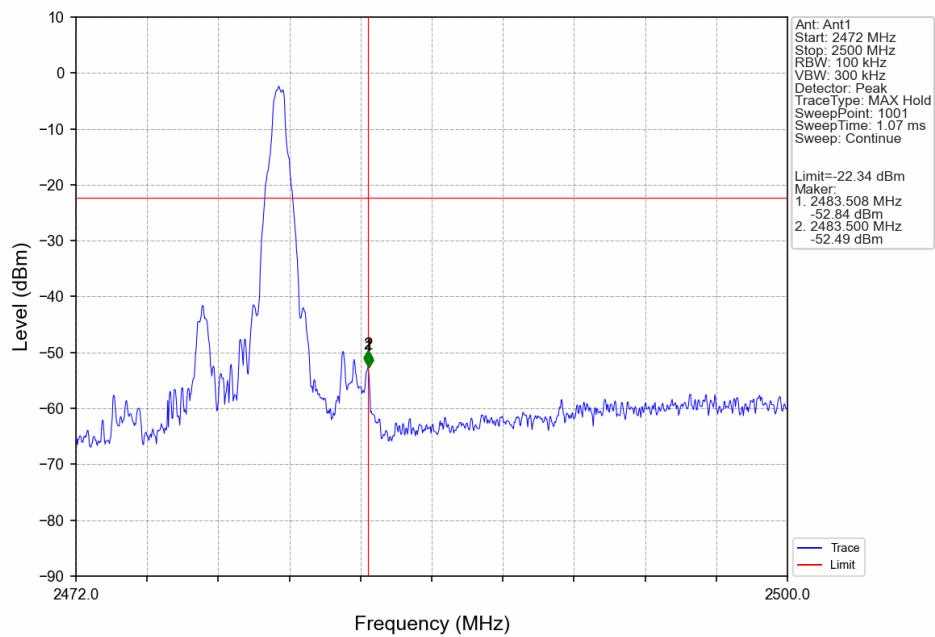
6.2.2 CSE



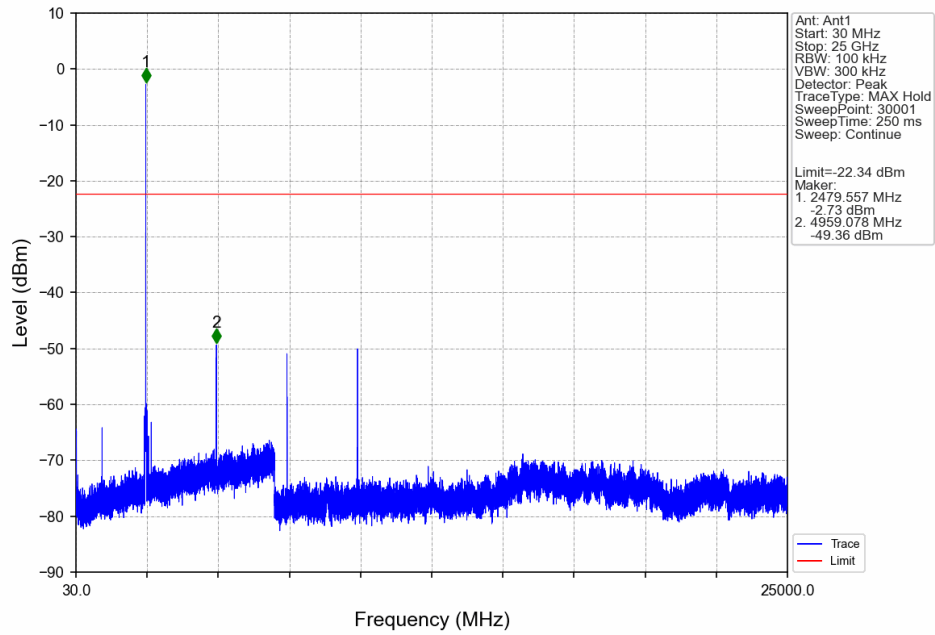
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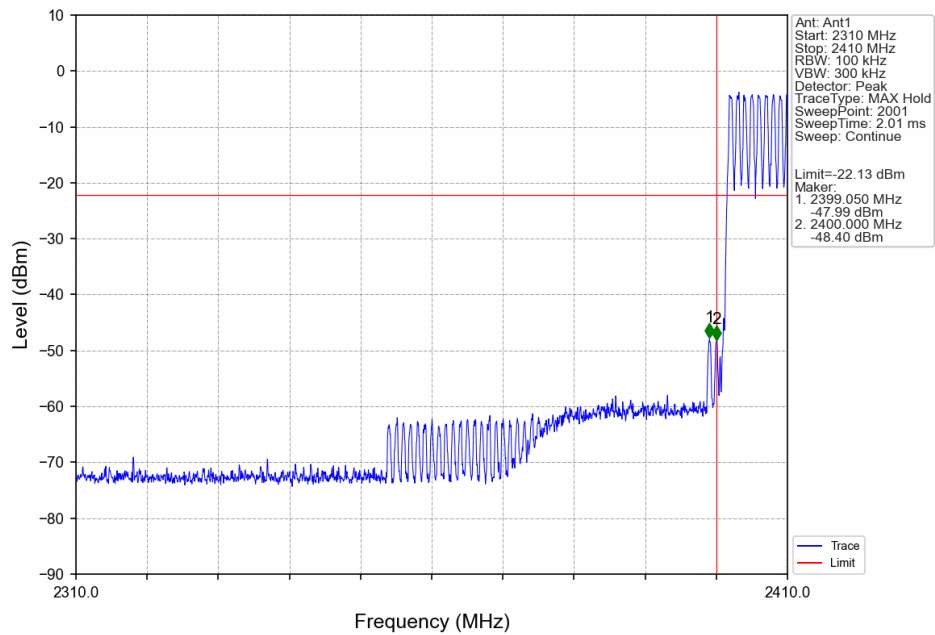
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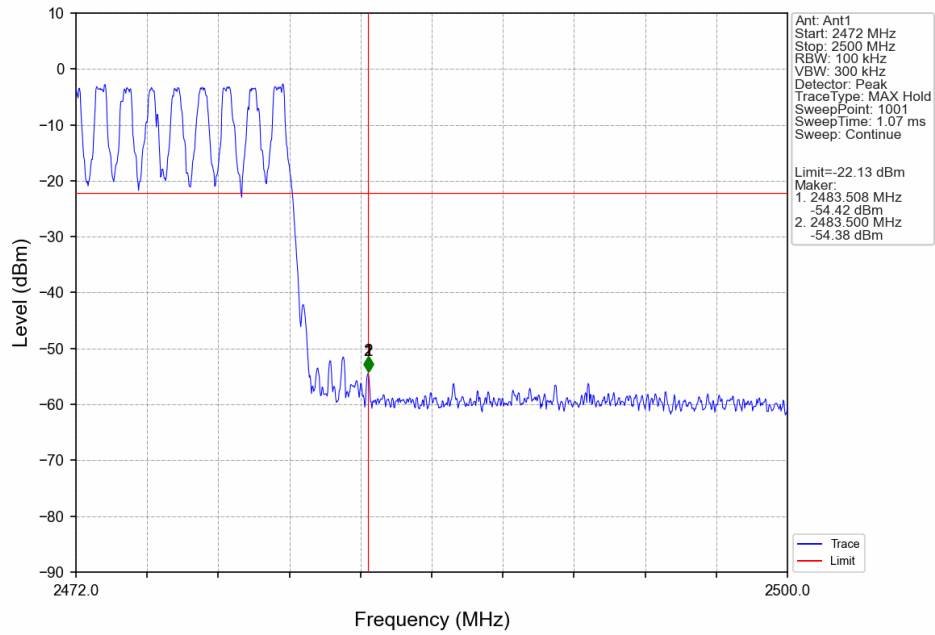
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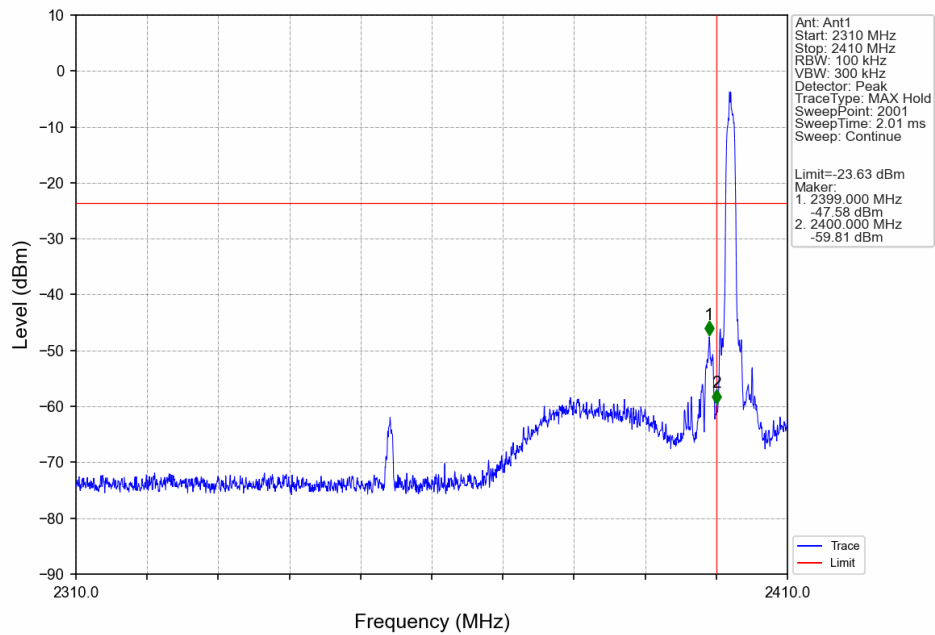
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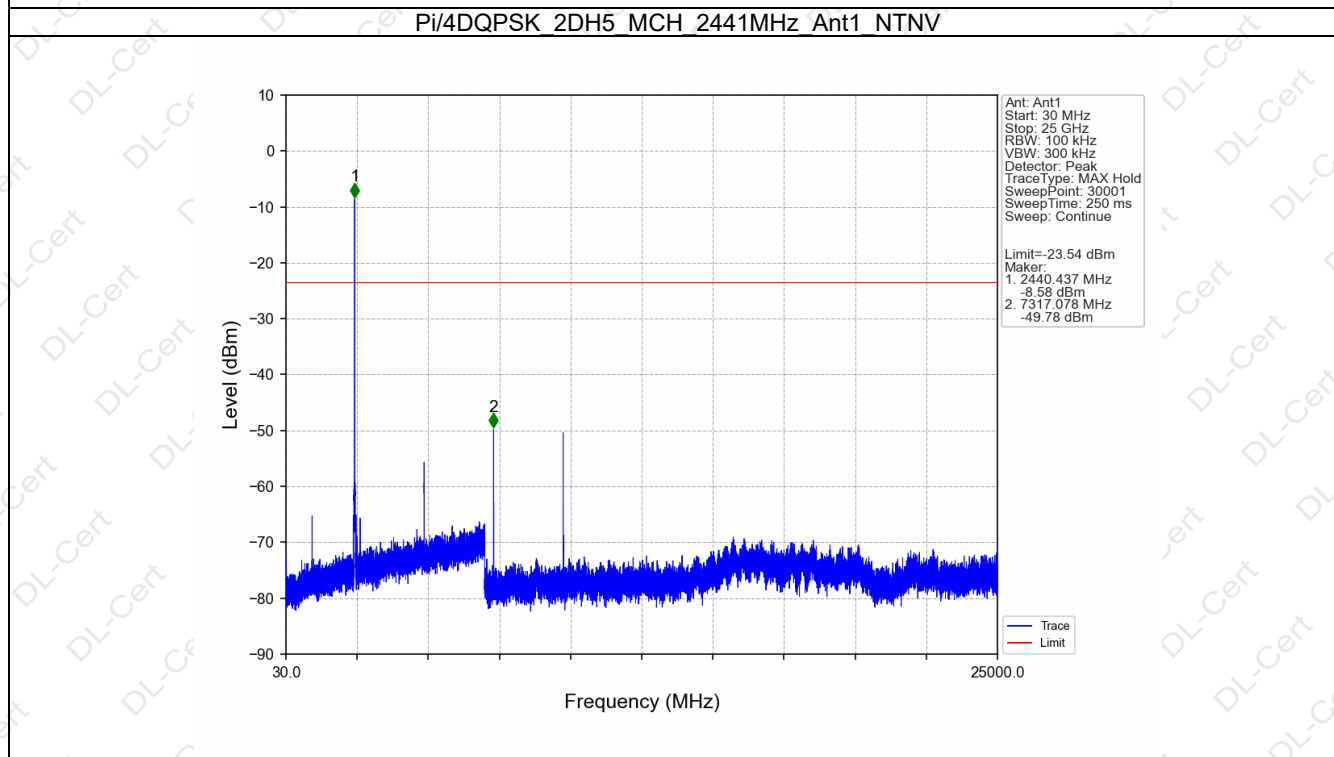
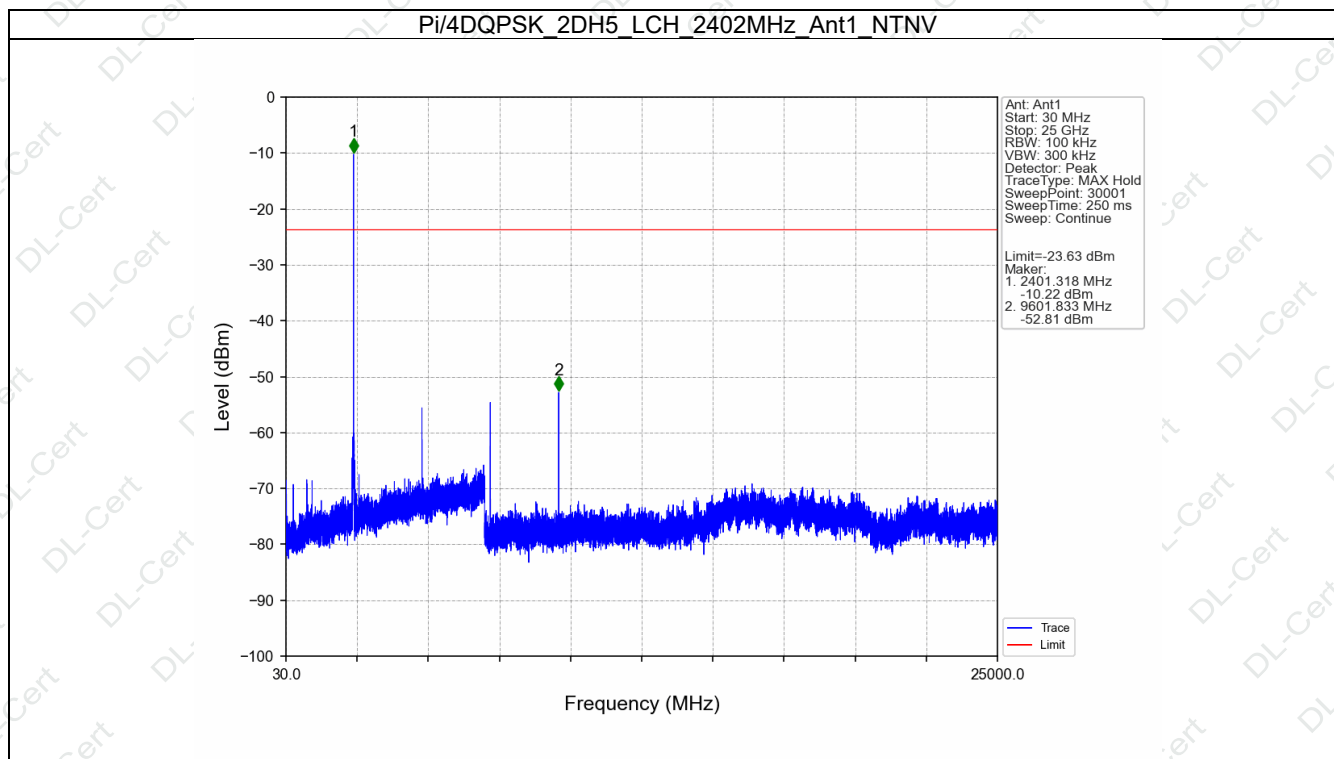


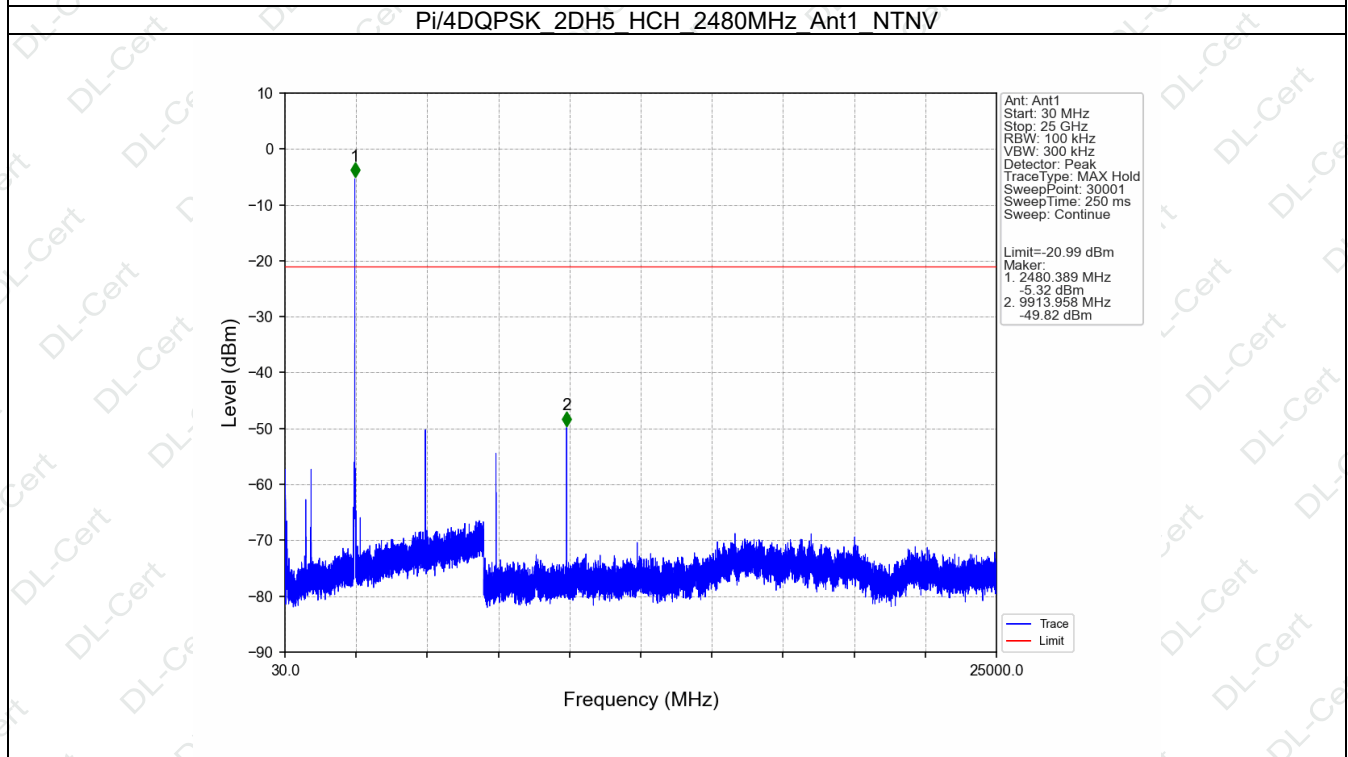
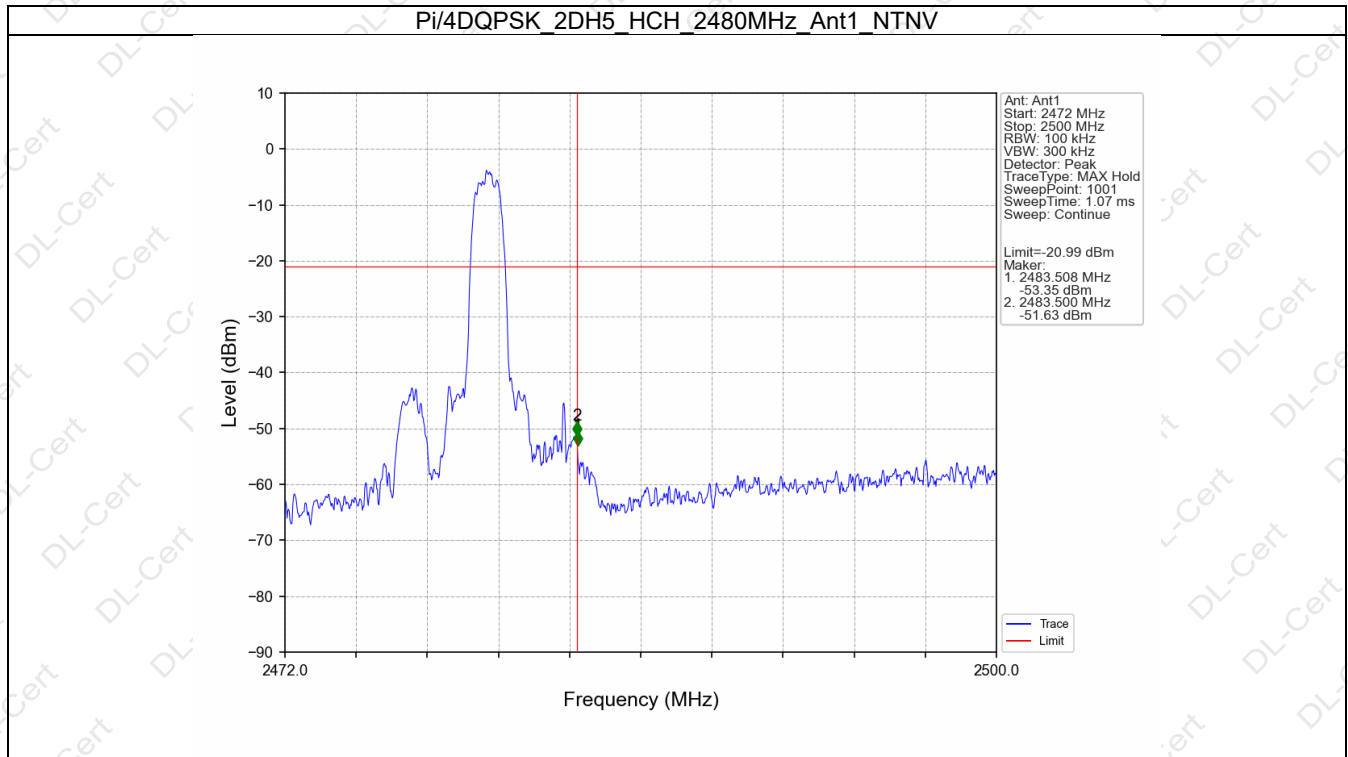
GFSK DH5_HOPP_Ant1_NTNV



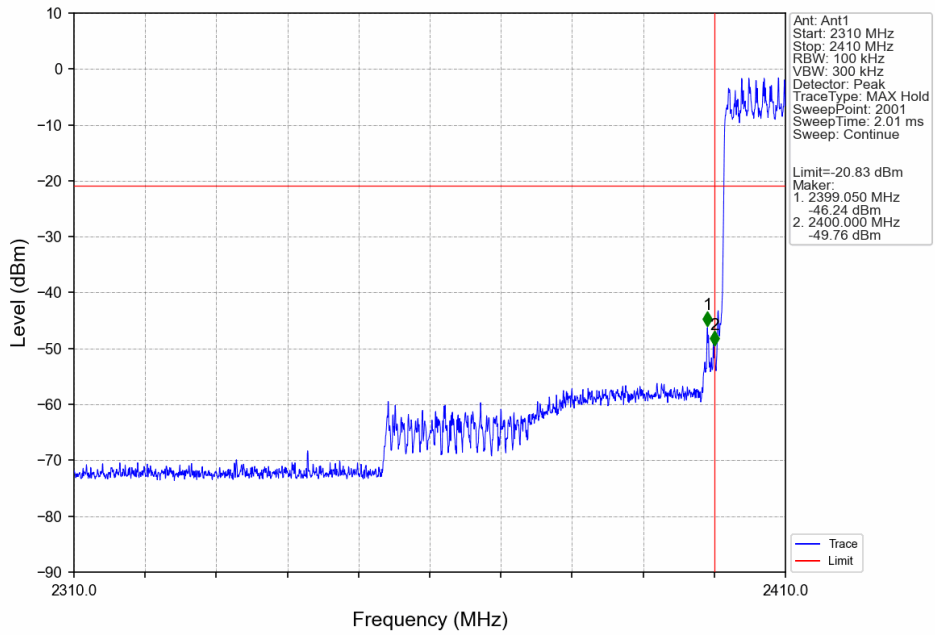
Pi/4DQPSK 2DH5_LCH_2402MHz_Ant1_NTNV



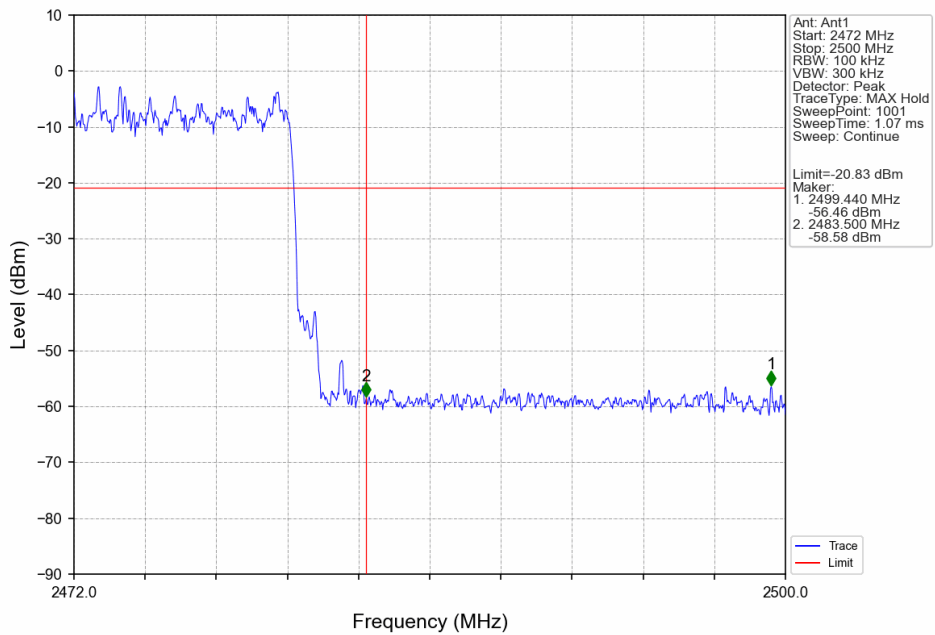


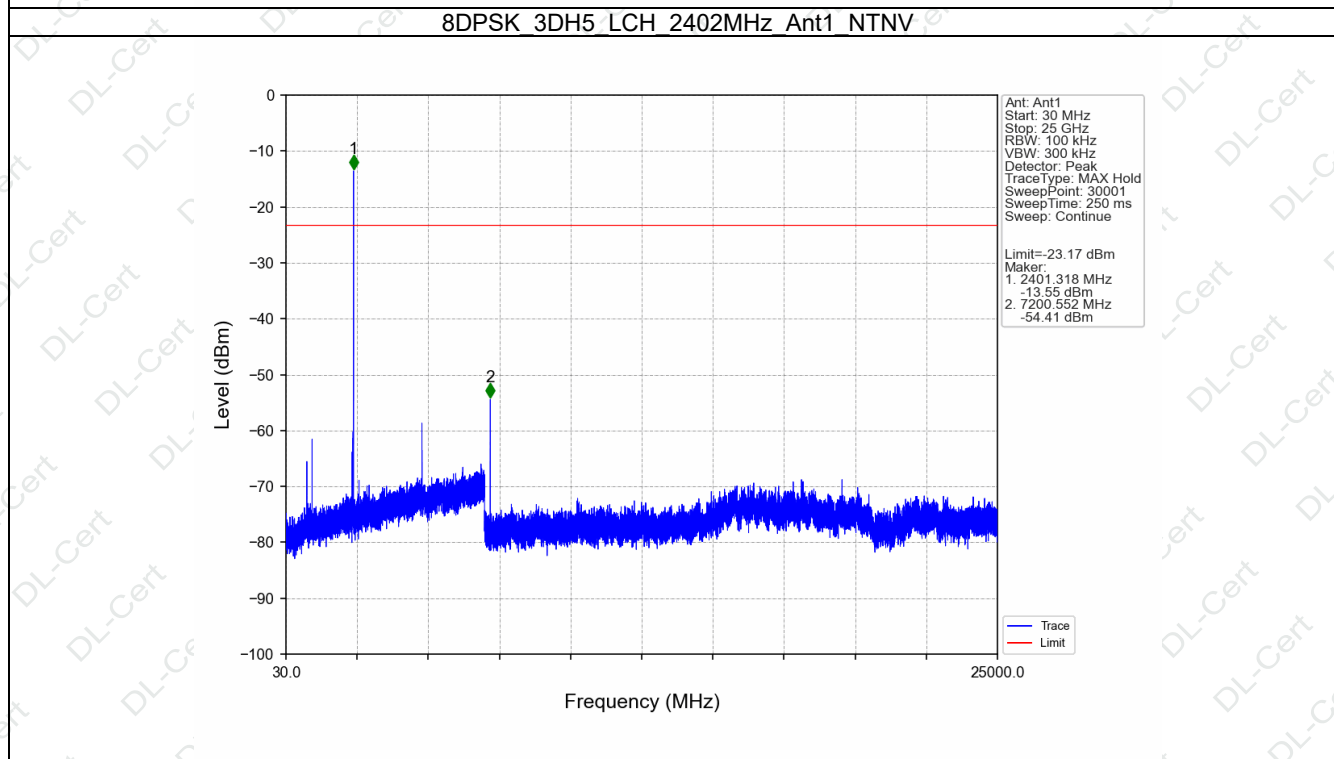
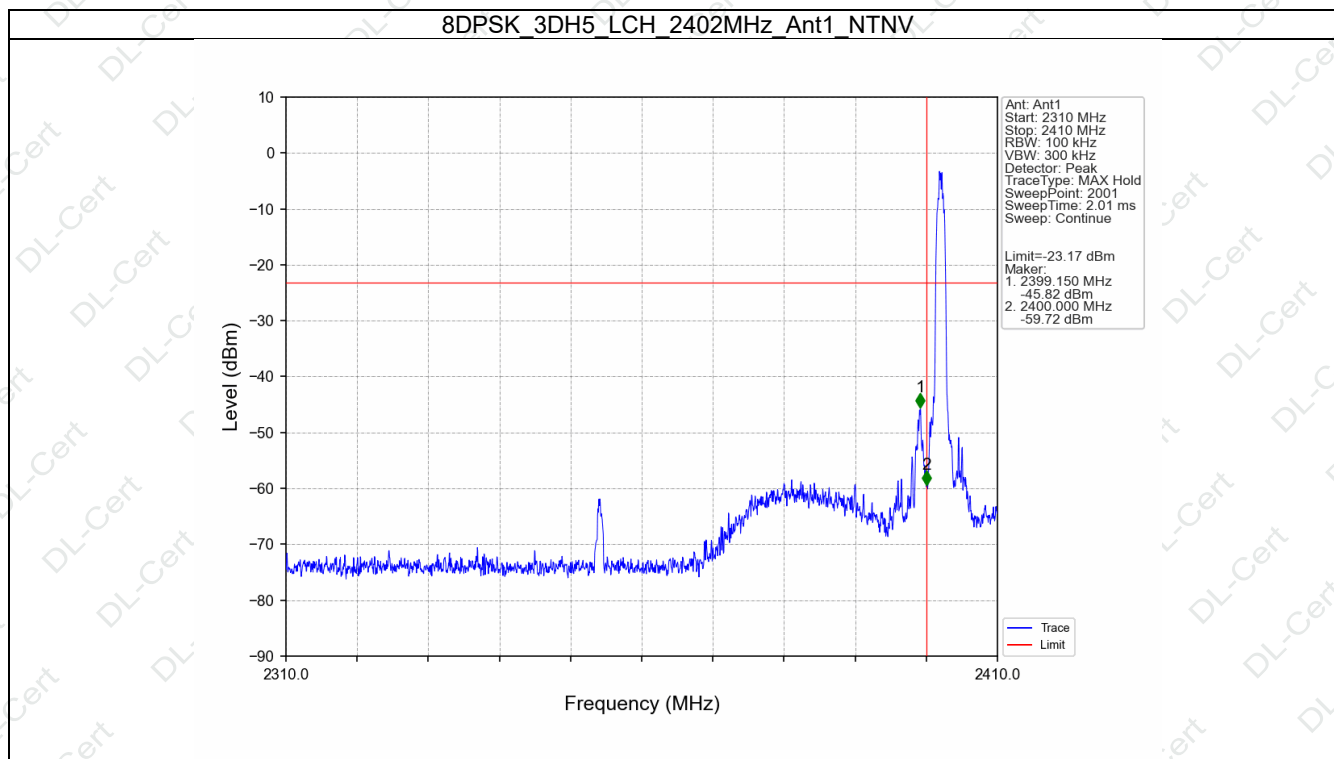


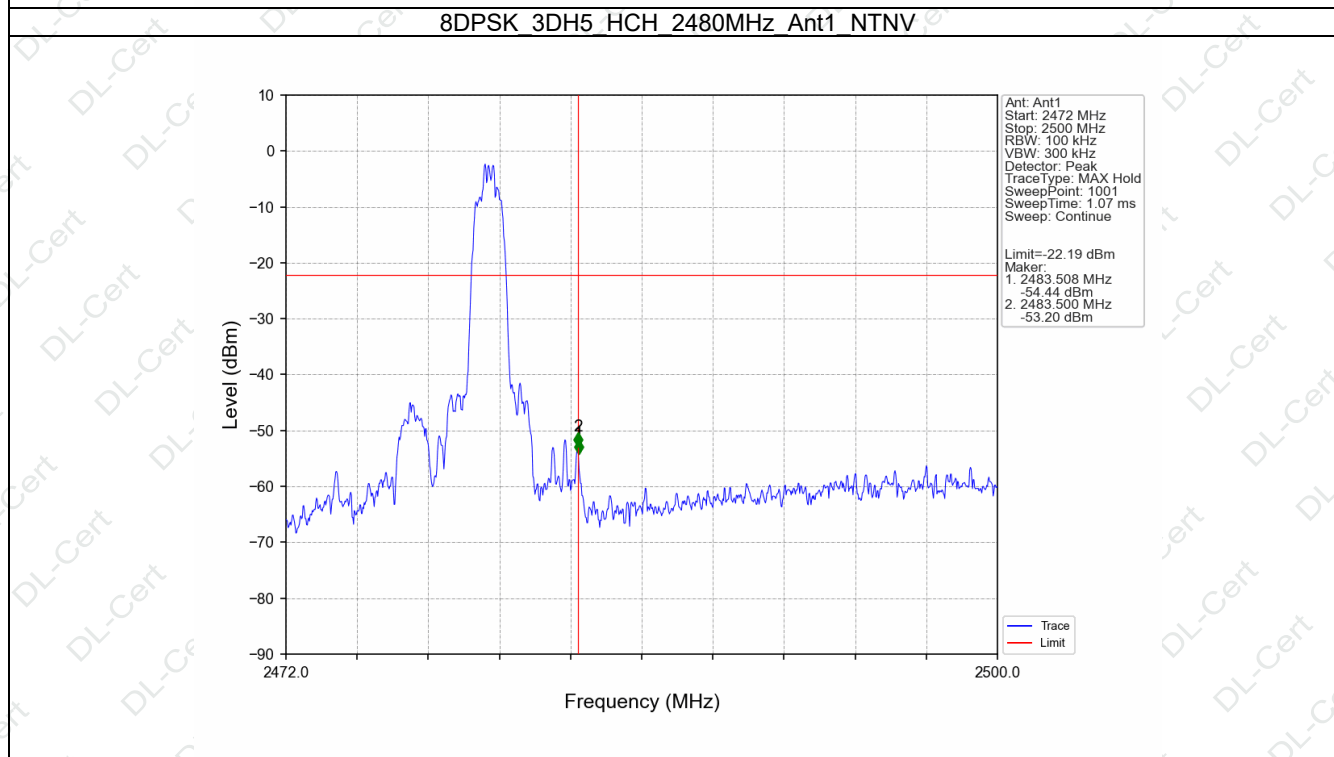
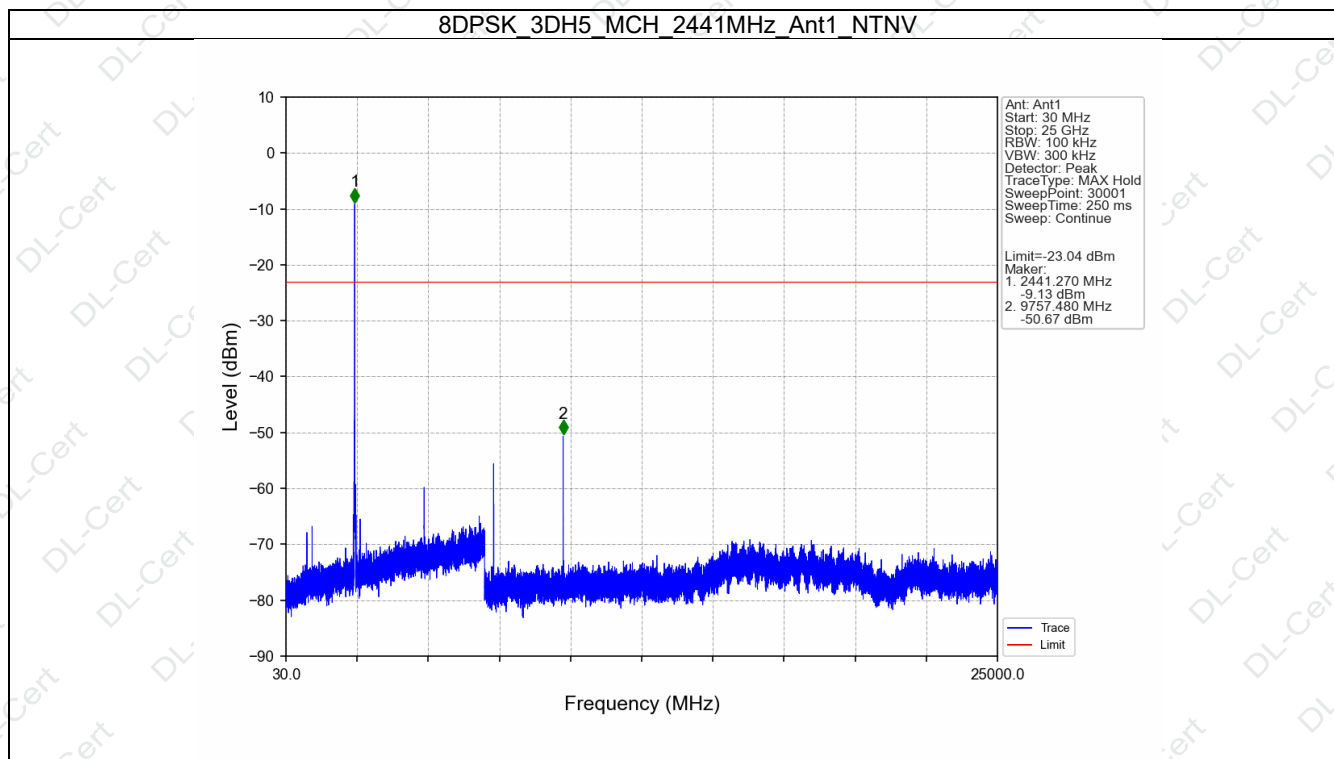
Pi/4DQPSK_2DH5_HOPP_Ant1_NTNV



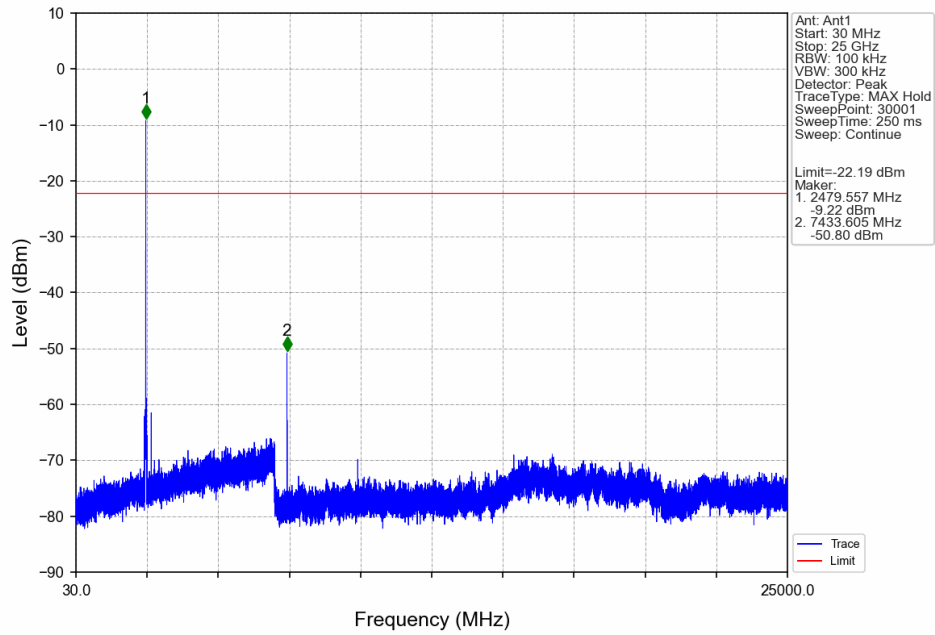
Pi/4DQPSK_2DH5_HOPP_Ant1_NTNV







8DPSK 3DH5_HCH_2480MHz_Ant1_NTNV



8DPSK 3DH5_HOPP_Ant1_NTNV

