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Annex for BT

Test Report No.: CTL2406047072-WF

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FCCID: 2A6R4-MT-CR430

1. Bandwidth

1.1 OBW

1.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Packet Type	ANT	99% Occupied Bandwidth (MHz)		Verdict
					Result	Limit	
GFSK	SISO	2402	DH5	1	0.829	/	Pass
		2441	DH5	1	0.831	/	Pass
		2480	DH5	1	0.828	/	Pass
Pi/4DQPSK	SISO	2402	2DH5	1	1.174	/	Pass
		2441	2DH5	1	1.175	/	Pass
		2480	2DH5	1	1.173	/	Pass
8DPSK	SISO	2402	3DH5	1	1.184	/	Pass
		2441	3DH5	1	1.184	/	Pass
		2480	3DH5	1	1.182	/	Pass

1.2 20dB BW

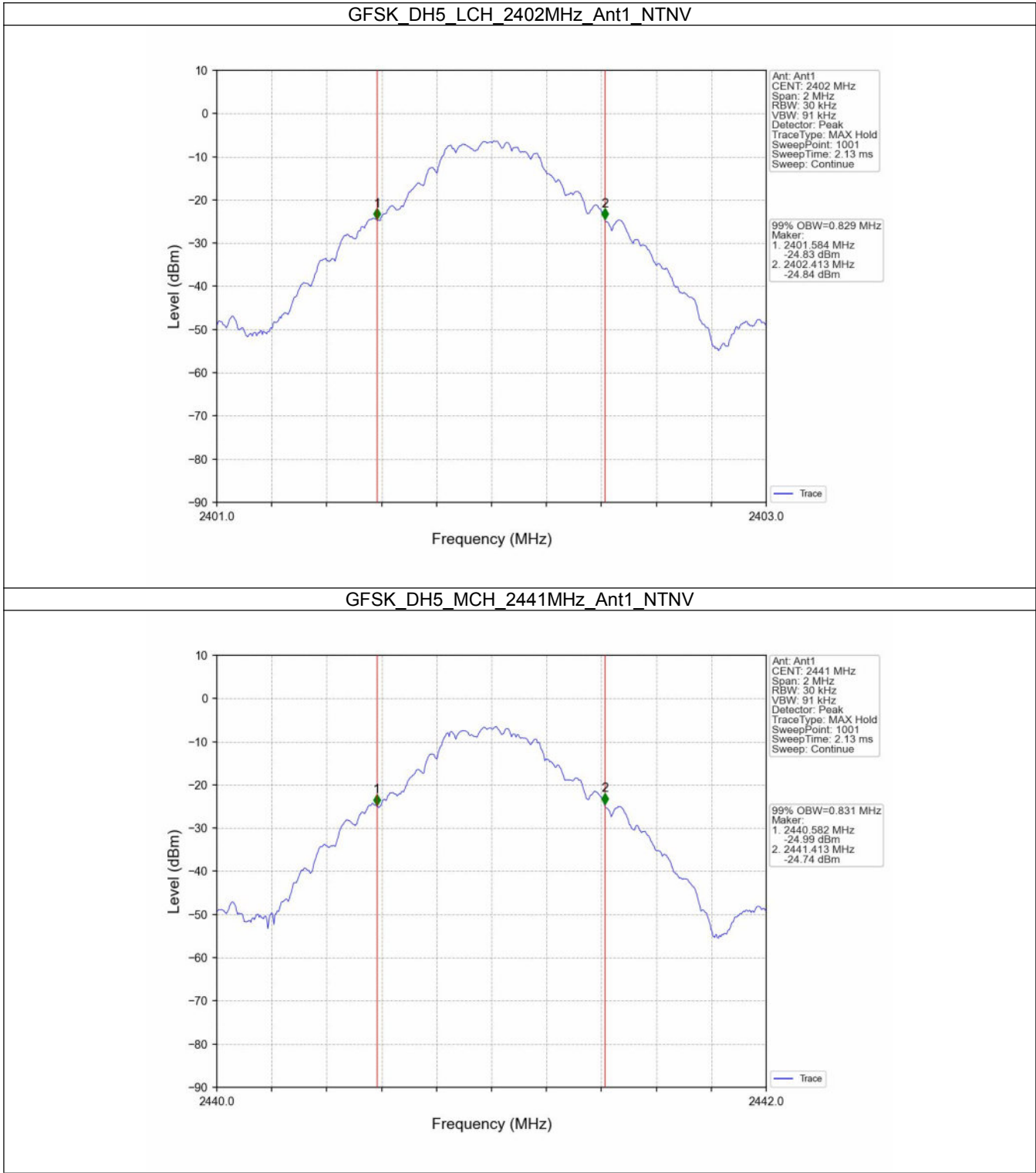
1.2.1 Test Result

Mode	TX Type	Frequency (MHz)	Packet Type	ANT	20dB Bandwidth (MHz)		Verdict
					Result	Limit	
GFSK	SISO	2402	DH5	1	0.965	/	Pass
		2441	DH5	1	0.963	/	Pass
		2480	DH5	1	0.960	/	Pass
Pi/4DQPSK	SISO	2402	2DH5	1	1.300	/	Pass
		2441	2DH5	1	1.303	/	Pass
		2480	2DH5	1	1.300	/	Pass
8DPSK	SISO	2402	3DH5	1	1.313	/	Pass
		2441	3DH5	1	1.315	/	Pass
		2480	3DH5	1	1.313	/	Pass

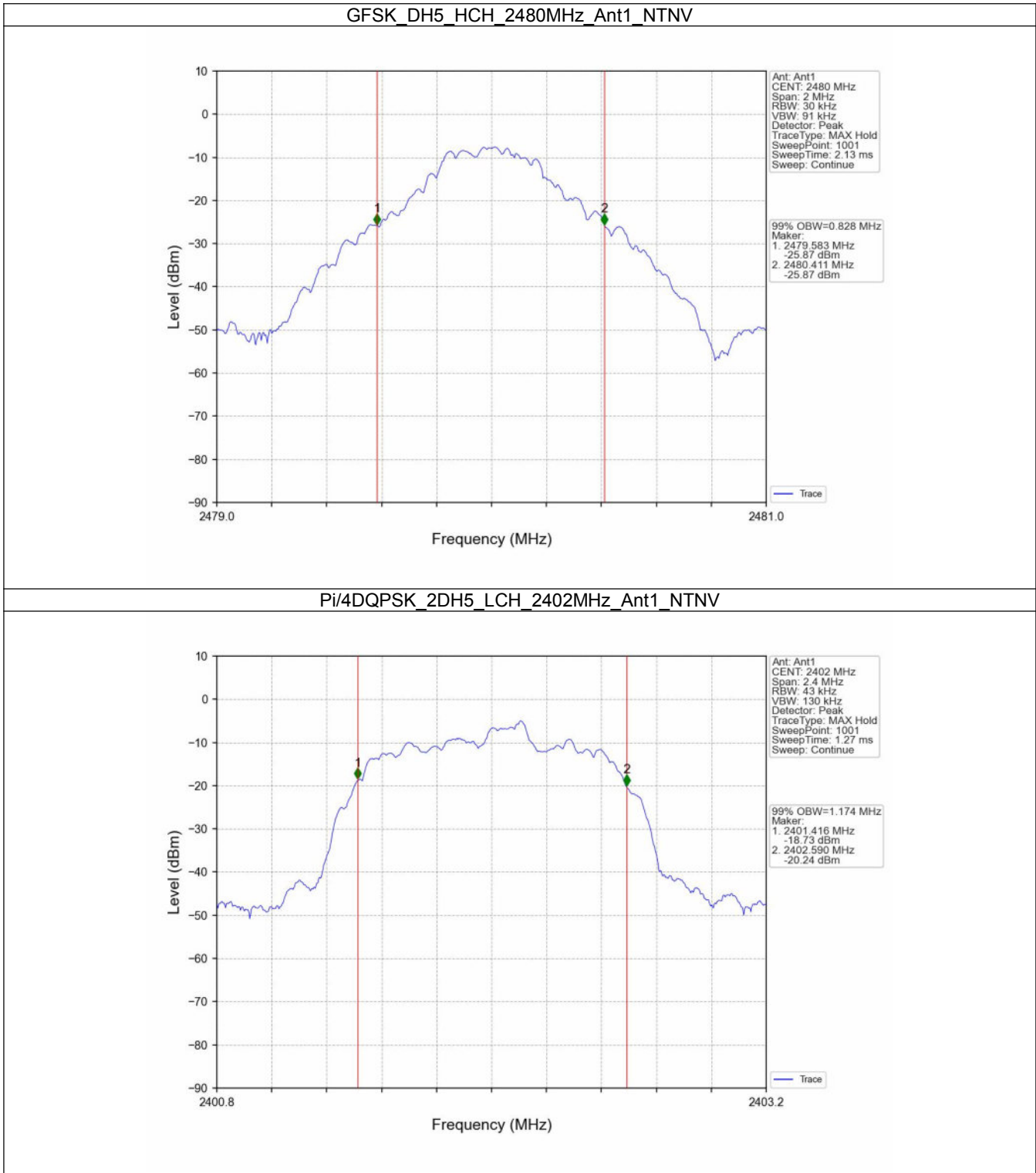
1.1 OBW

FCCID: 2A6R4-MT-CR430

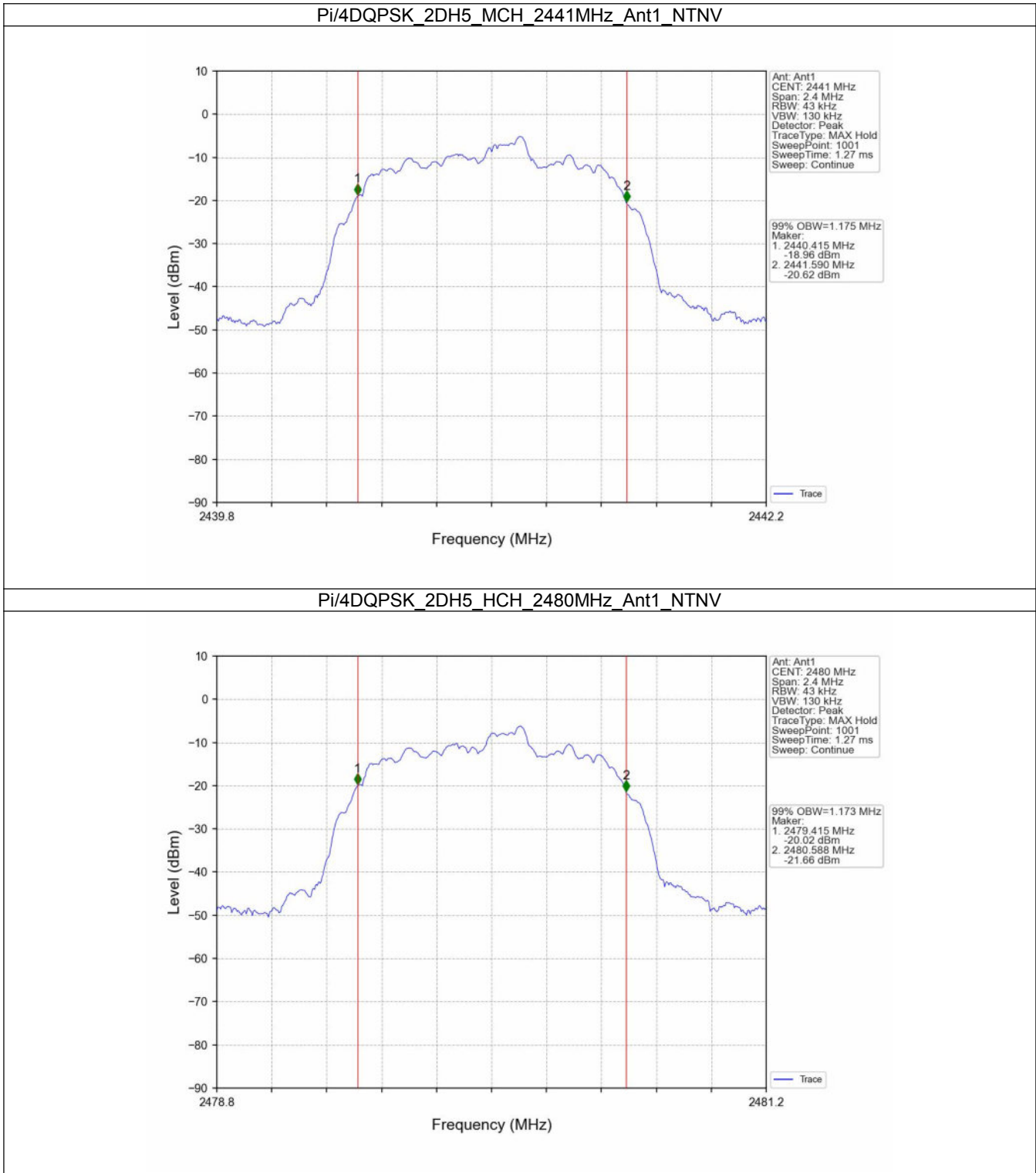
1.1.2 Test Graph



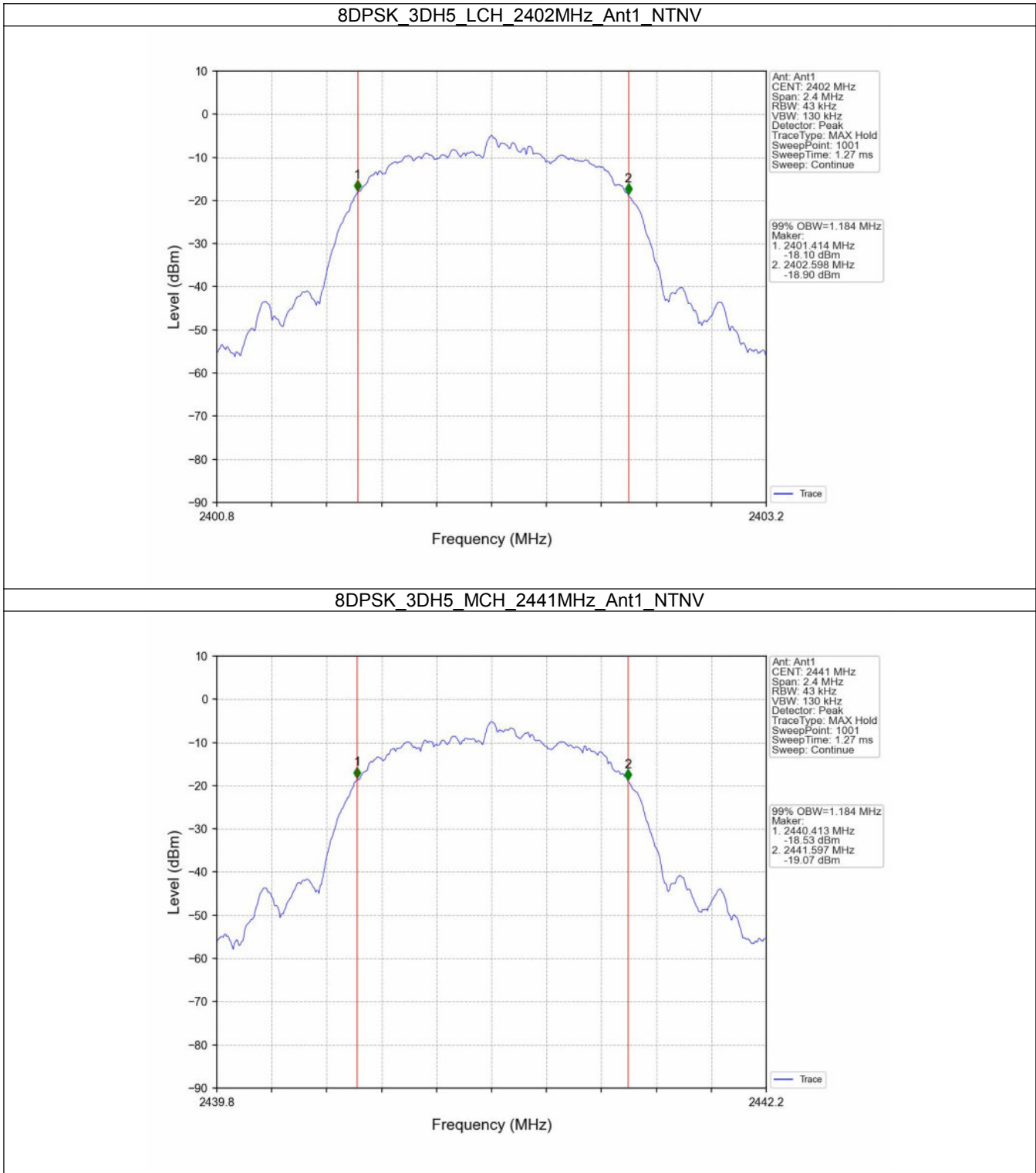
FCCID: 2A6R4-MT-CR430



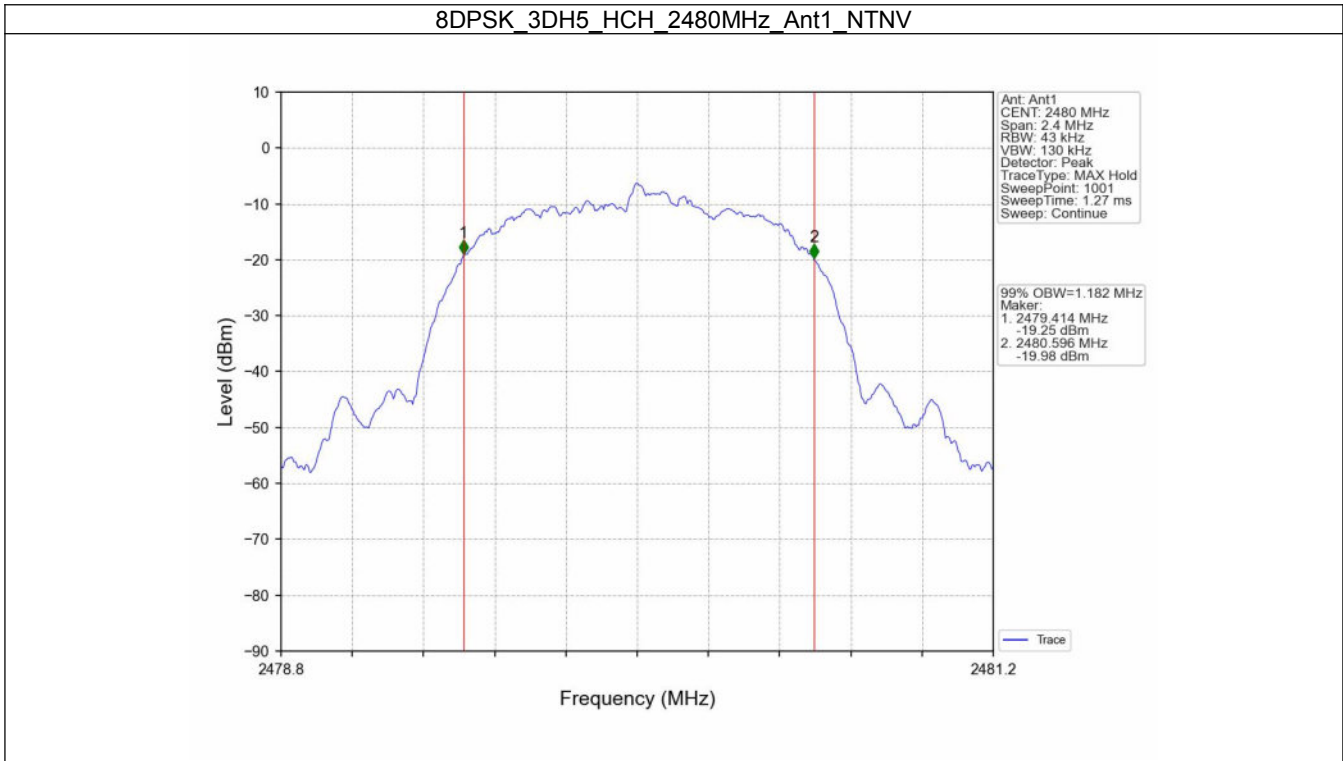
FCCID: 2A6R4-MT-CR430



FCCID: 2A6R4-MT-CR430



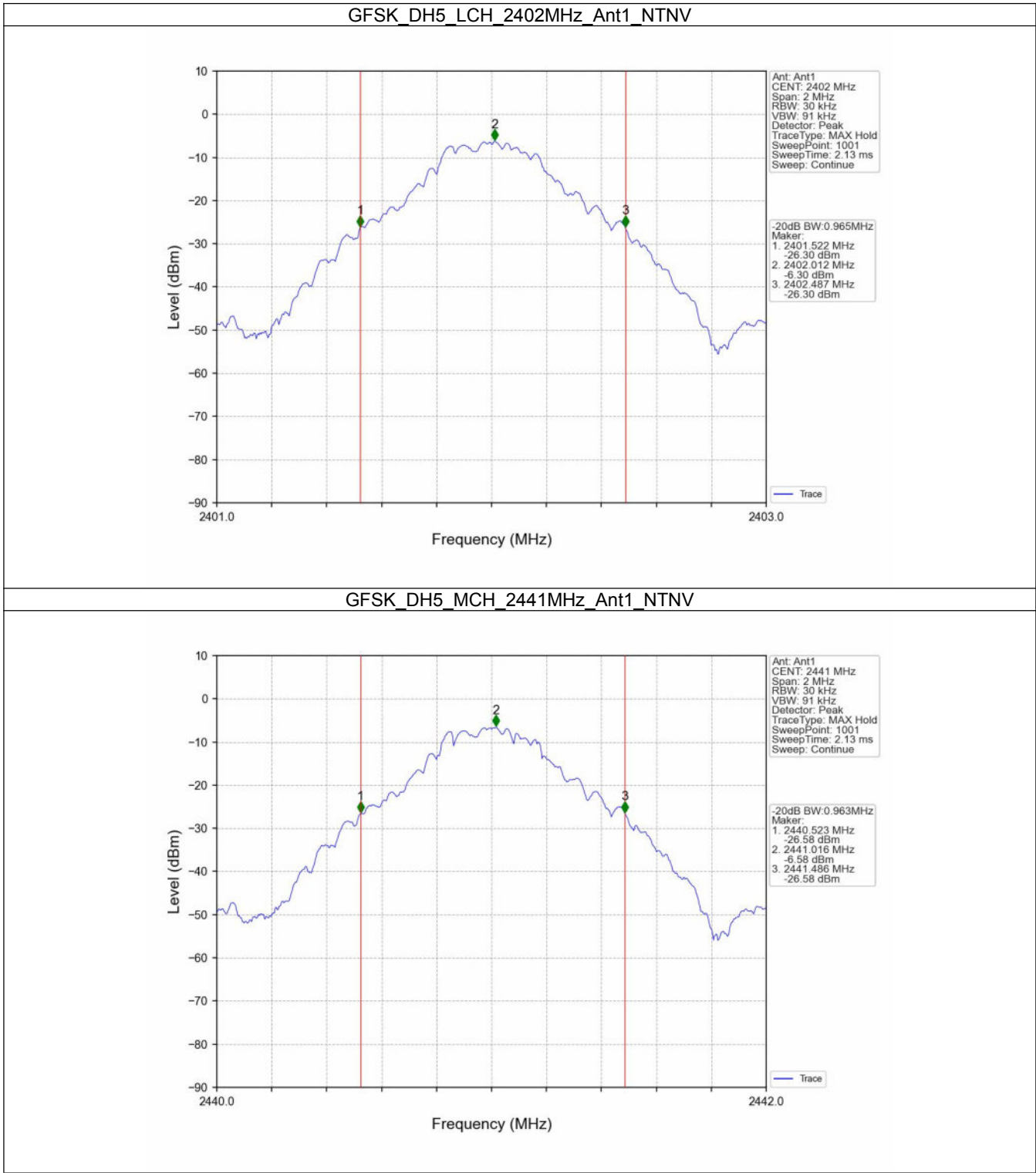
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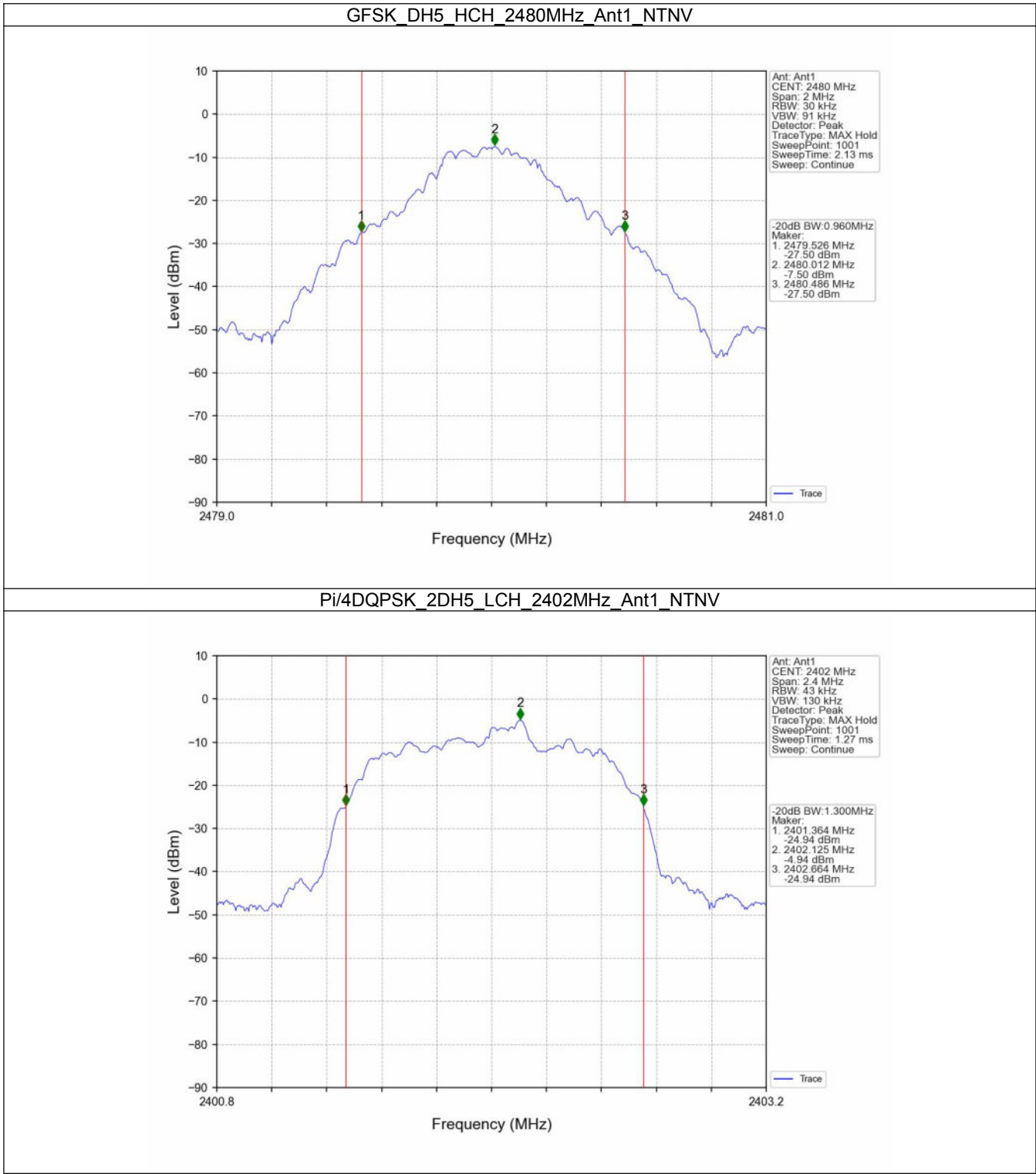
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1.2 20dB BW

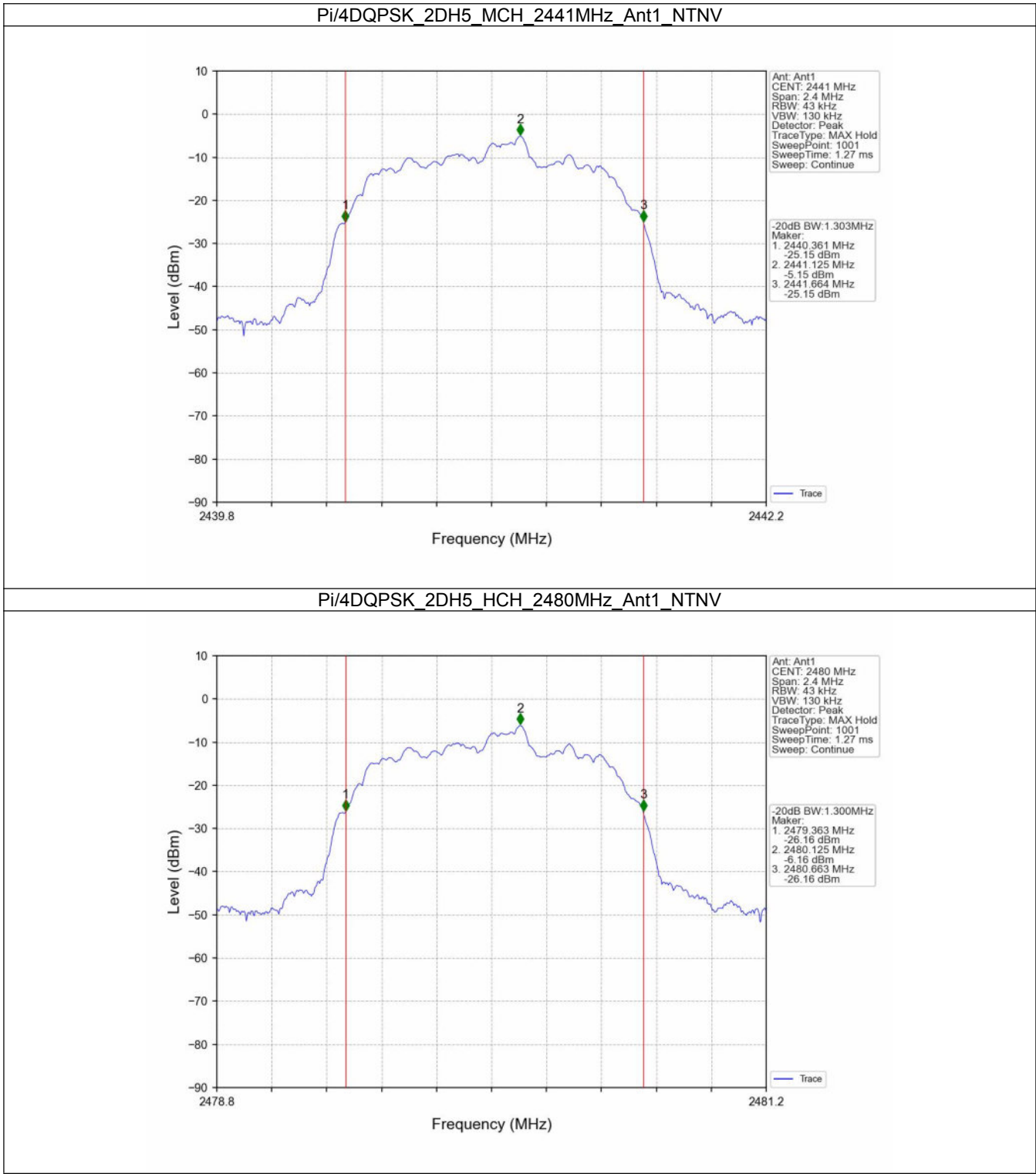
1.2.2 Test Graph



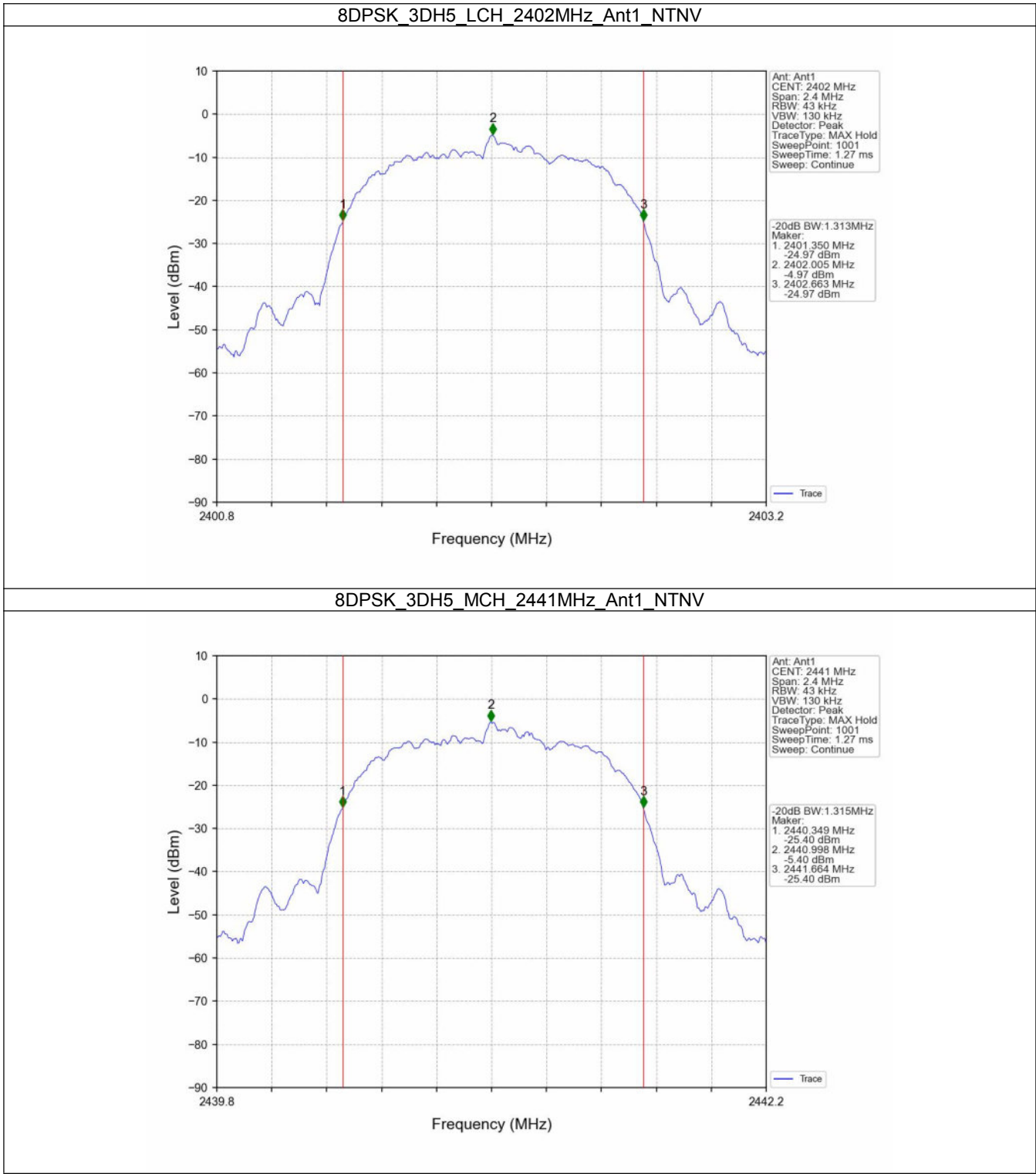
FCCID: 2A6R4-MT-CR430



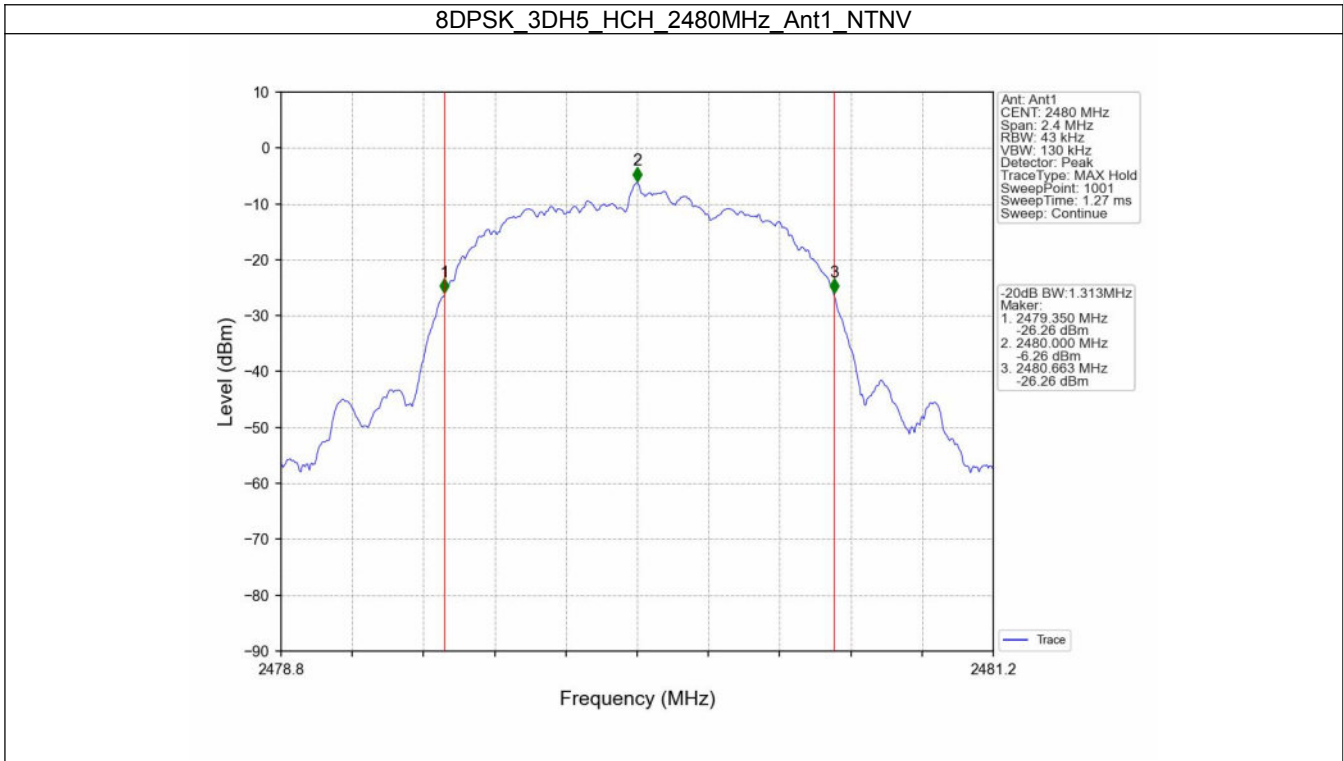
FCCID: 2A6R4-MT-CR430



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2. Maximum Conducted Output Power

2.1 Power

2.1.1 Test Result

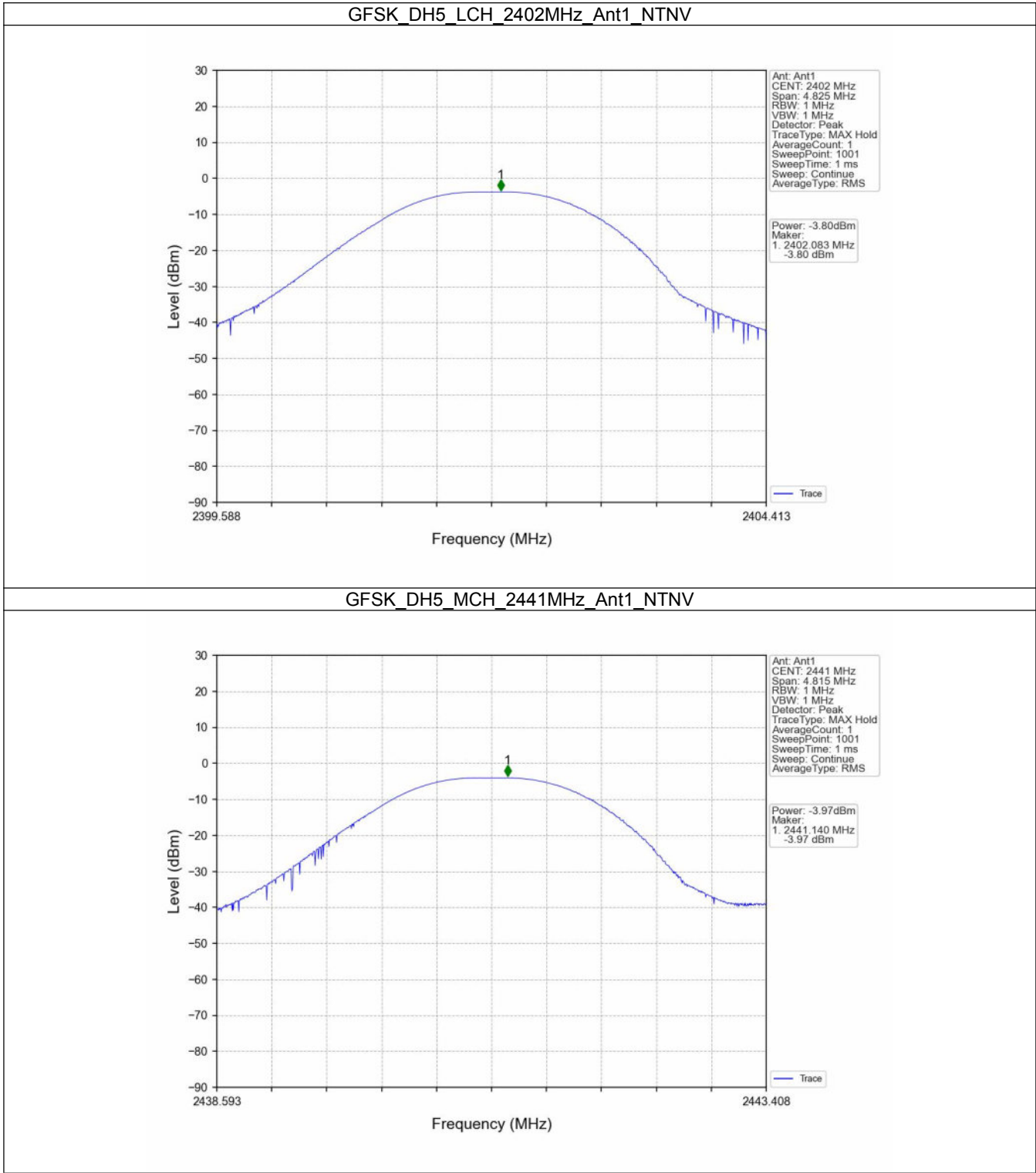
Mode	TX Type	Frequency (MHz)	Packet Type	Maximum Peak Conducted Output Power (dBm)		Verdict
				ANT1	Limit	
GFSK	SISO	2402	DH5	-3.80	<=30	Pass
		2441	DH5	-3.97	<=30	Pass
		2480	DH5	-5.07	<=30	Pass
Pi/4DQPSK	SISO	2402	2DH5	-1.53	<=20.97	Pass
		2441	2DH5	-1.73	<=20.97	Pass
		2480	2DH5	-2.79	<=20.97	Pass
8DPSK	SISO	2402	3DH5	-1.02	<=20.97	Pass
		2441	3DH5	-1.30	<=20.97	Pass
		2480	3DH5	-2.34	<=20.97	Pass

Note1: Antenna Gain: Ant1: -0.58dBi;

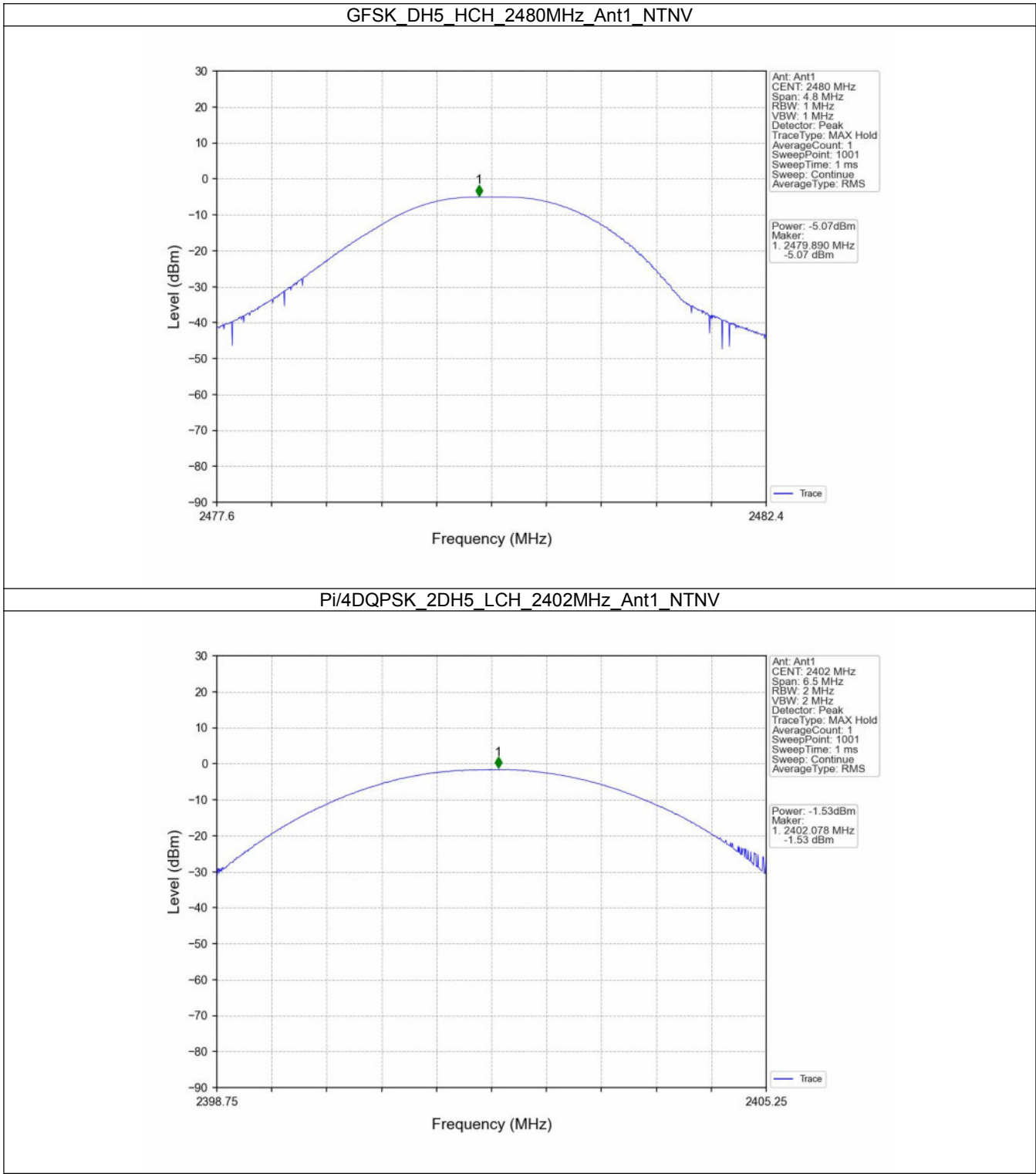
2.1 Power

FCCID: 2A6R4-MT-CR430

2.1.2 Test Graph

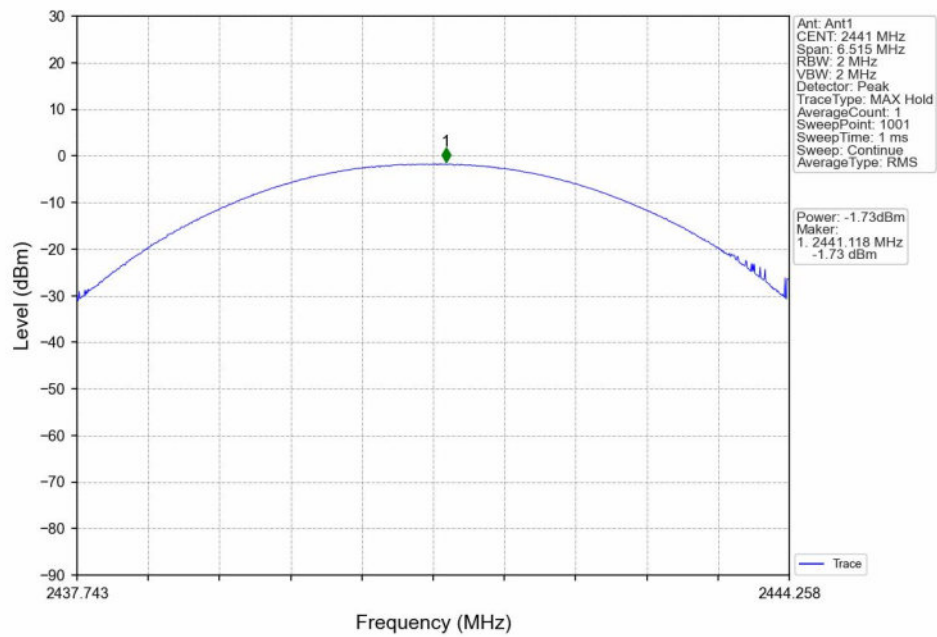


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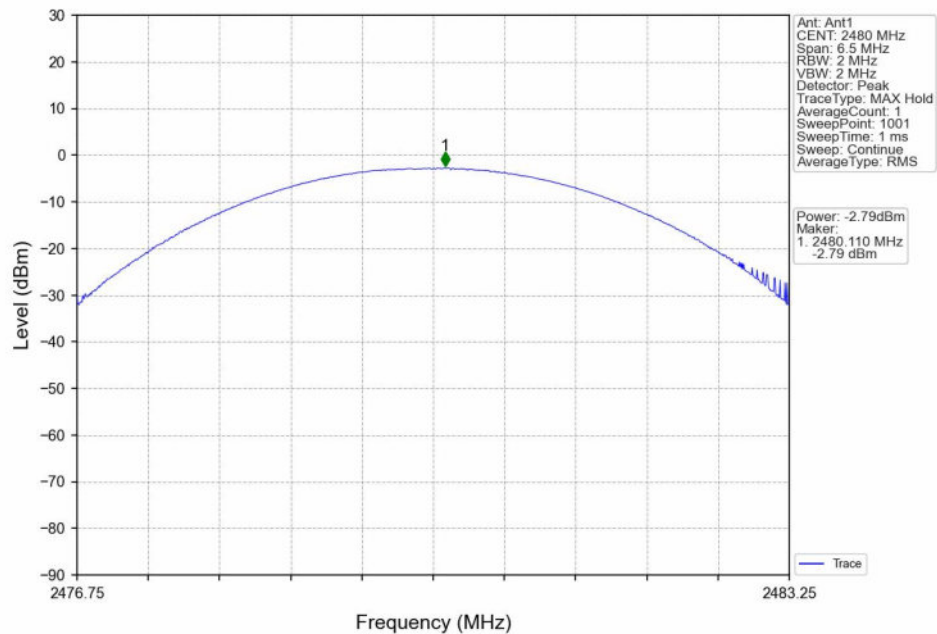


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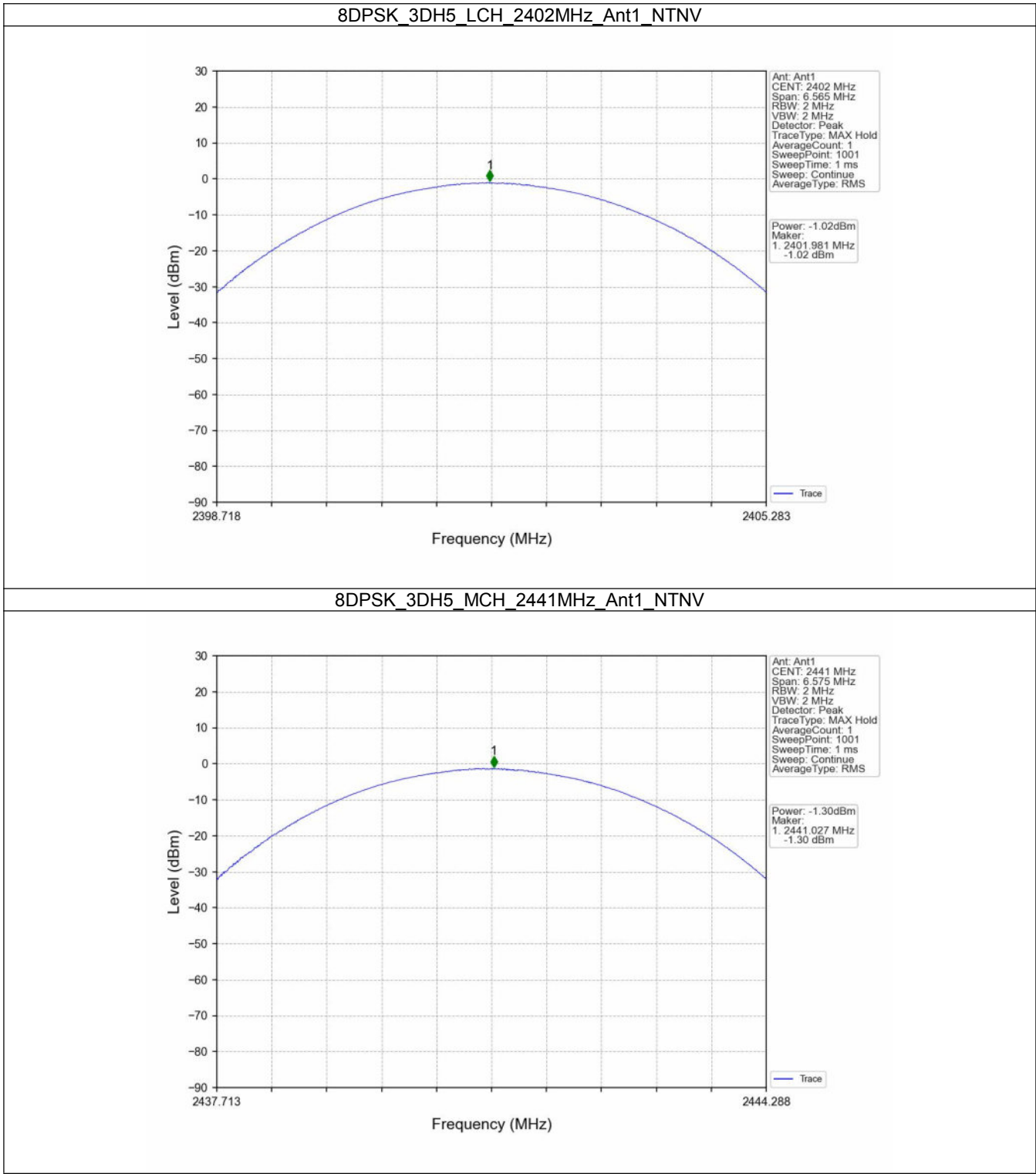
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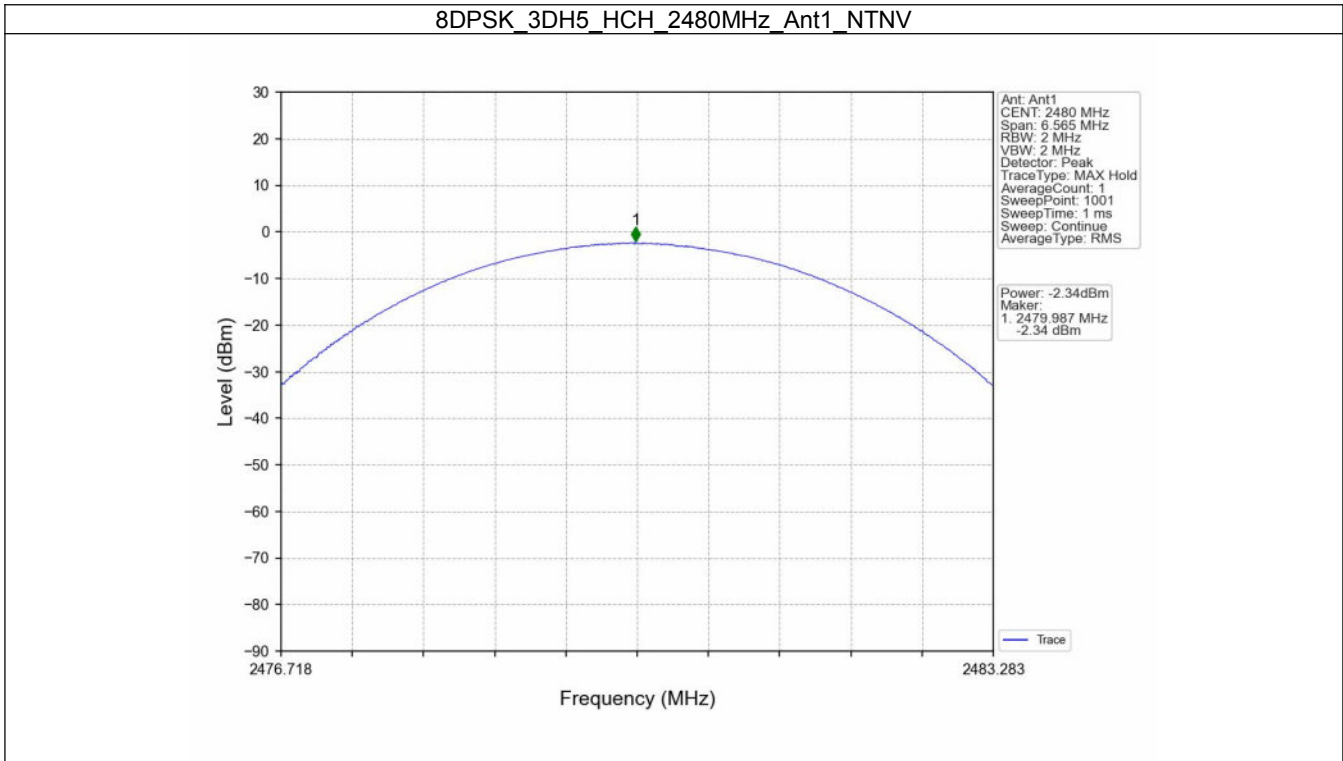
Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV



FCCID: 2A6R4-MT-CR430



FCCID: 2A6R4-MT-CR430



FCCID: 2A6R4-MT-CR430

3. Carrier Frequency Separation

3.1 Ant1

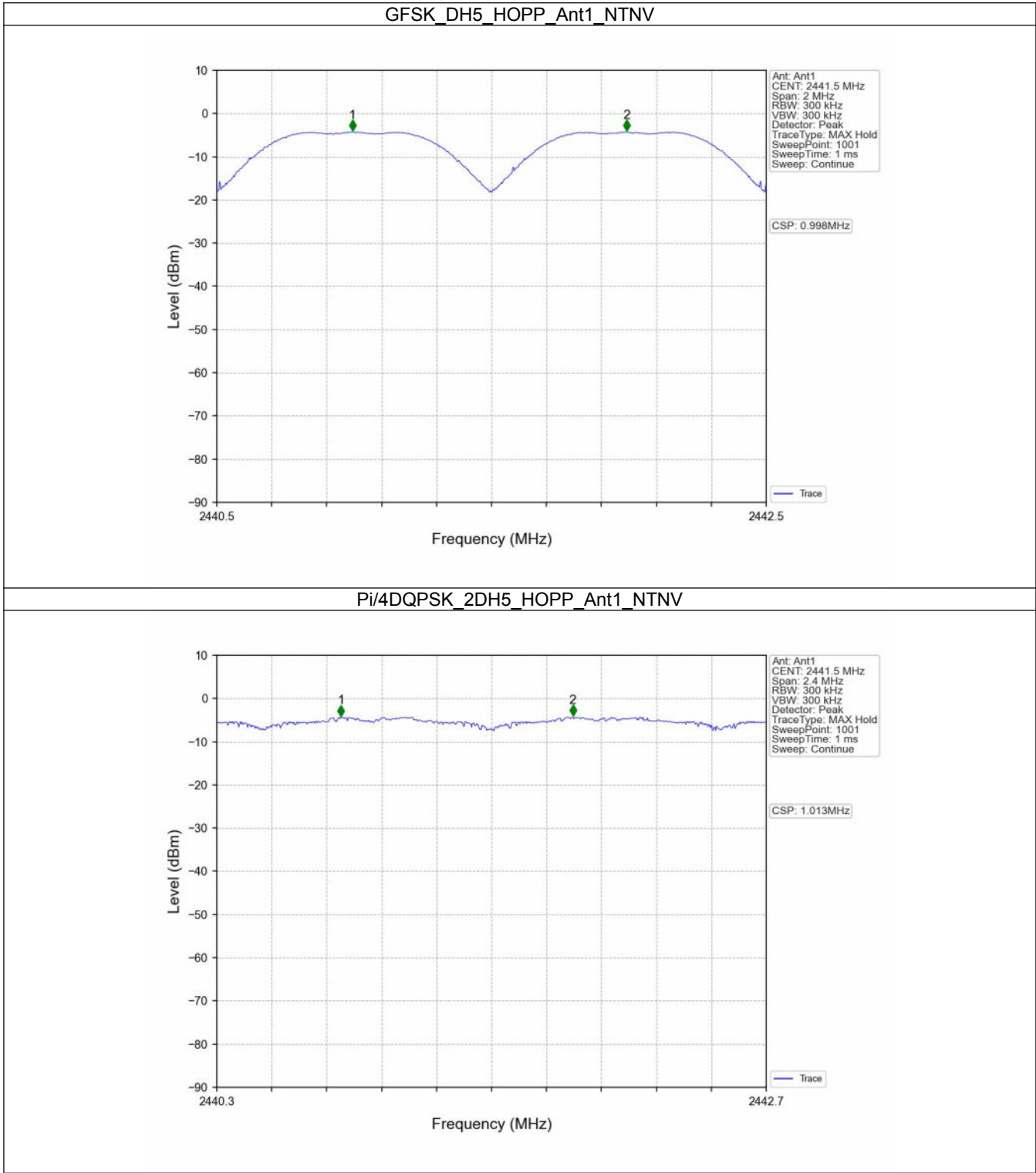
3.1.1 Test Result

Ant1							
Mode	TX Type	Frequency (MHz)	Packet Type	Channel Separation (MHz)	20dB Bandwidth (MHz)	Limit (MHz)	Verdict
GFSK	SISO	HOPP	DH5	0.998	0.965	≥ 0.965	Pass
Pi/4DQPSK	SISO	HOPP	2DH5	1.013	1.303	≥ 0.869	Pass
8DPSK	SISO	HOPP	3DH5	1.032	1.315	≥ 0.877	Pass

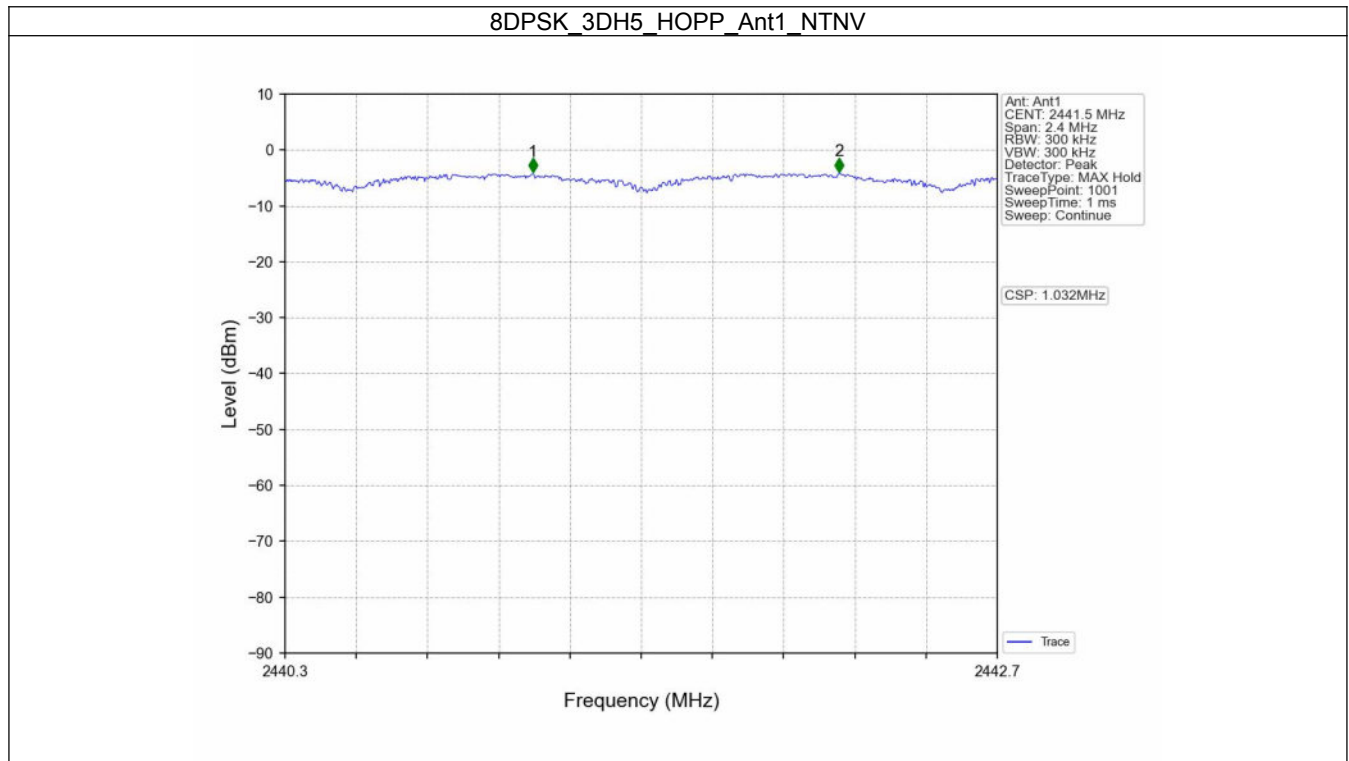
3.1 Ant1

FCCID: 2A6R4-MT-CR430

3.1.2 Test Graph



FCCID: 2A6R4-MT-CR430



FCCID: 2A6R4-MT-CR430

4. Number of Hopping Frequencies

4.1 HoppNum

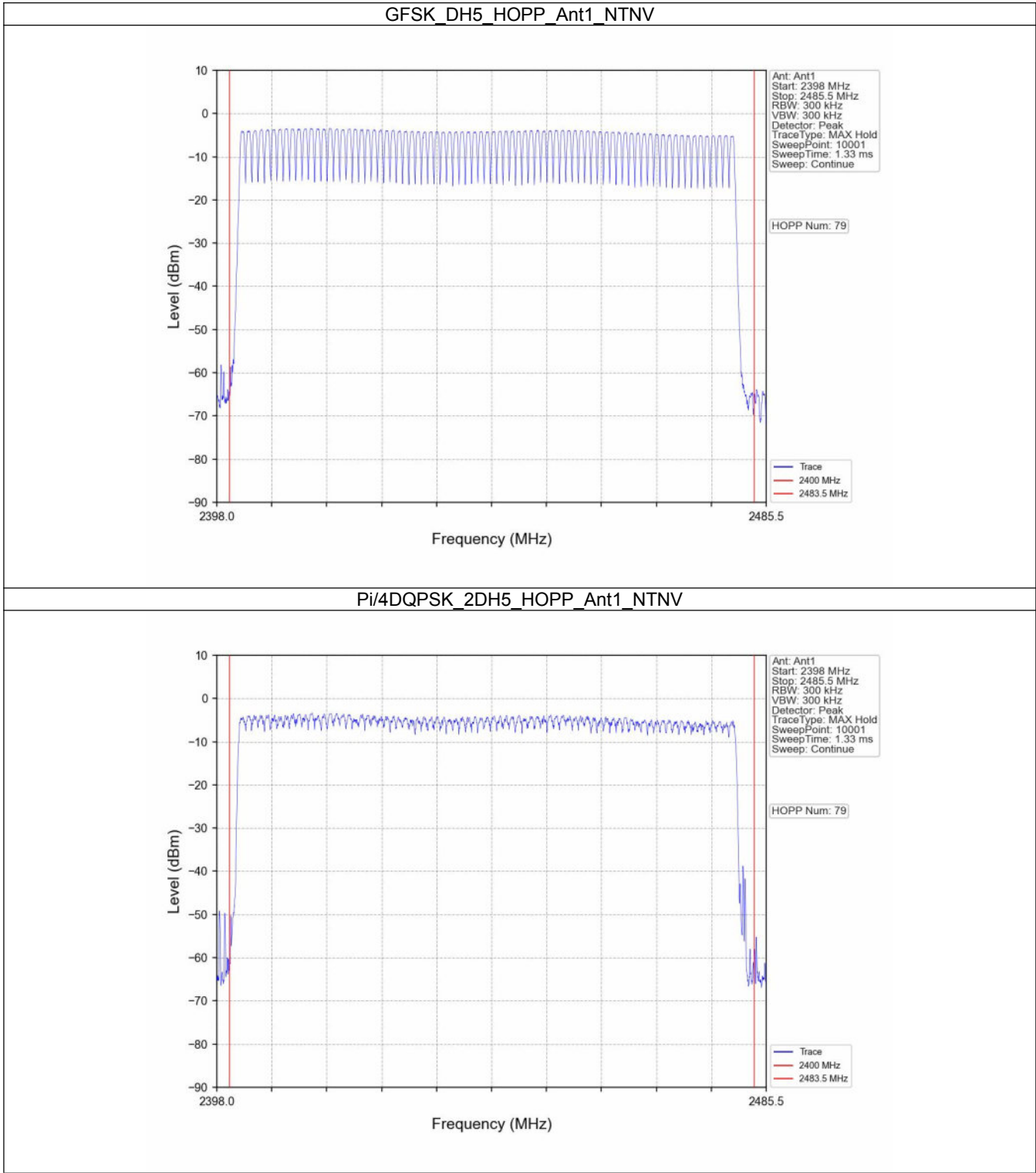
4.1.1 Test Result

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

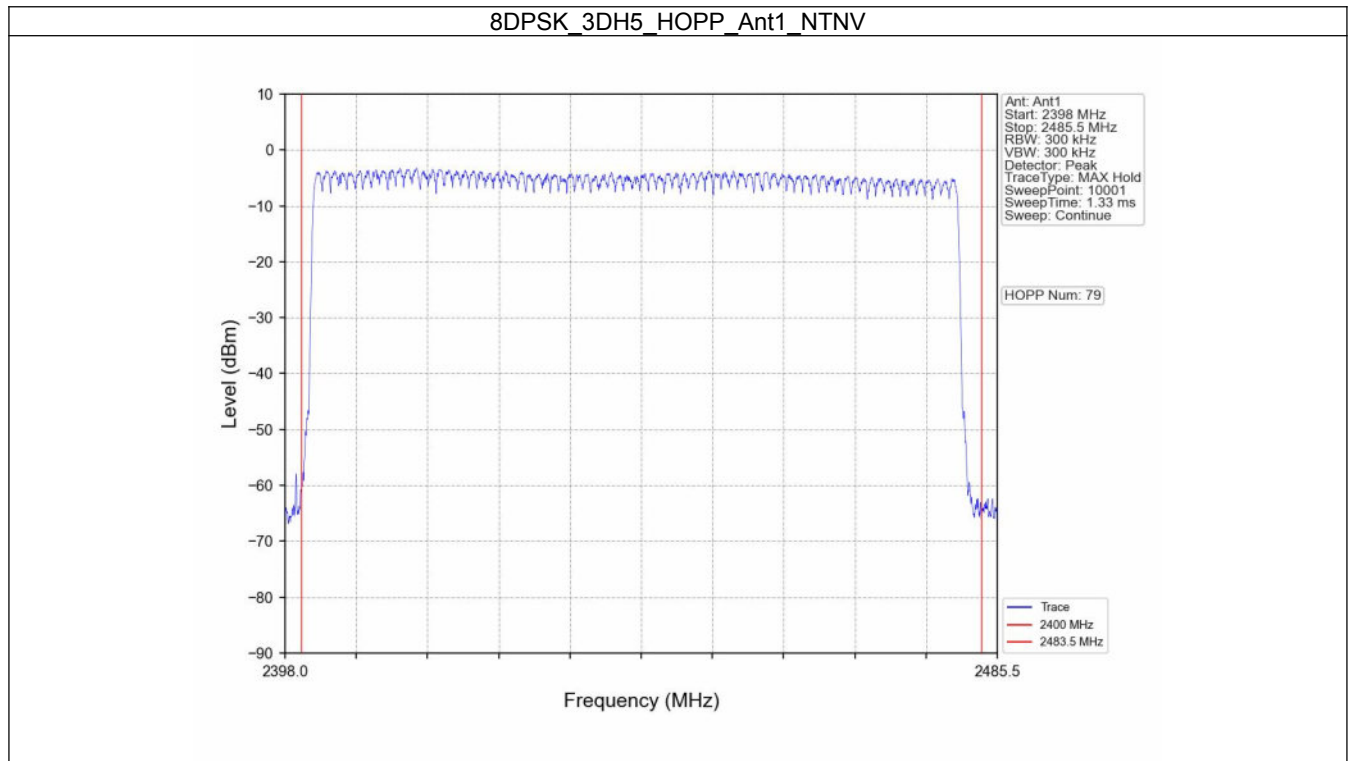
4.1 HoppNum

FCCID: 2A6R4-MT-CR430

4.1.2 Test Graph



FCCID: 2A6R4-MT-CR430



FCCID: 2A6R4-MT-CR430

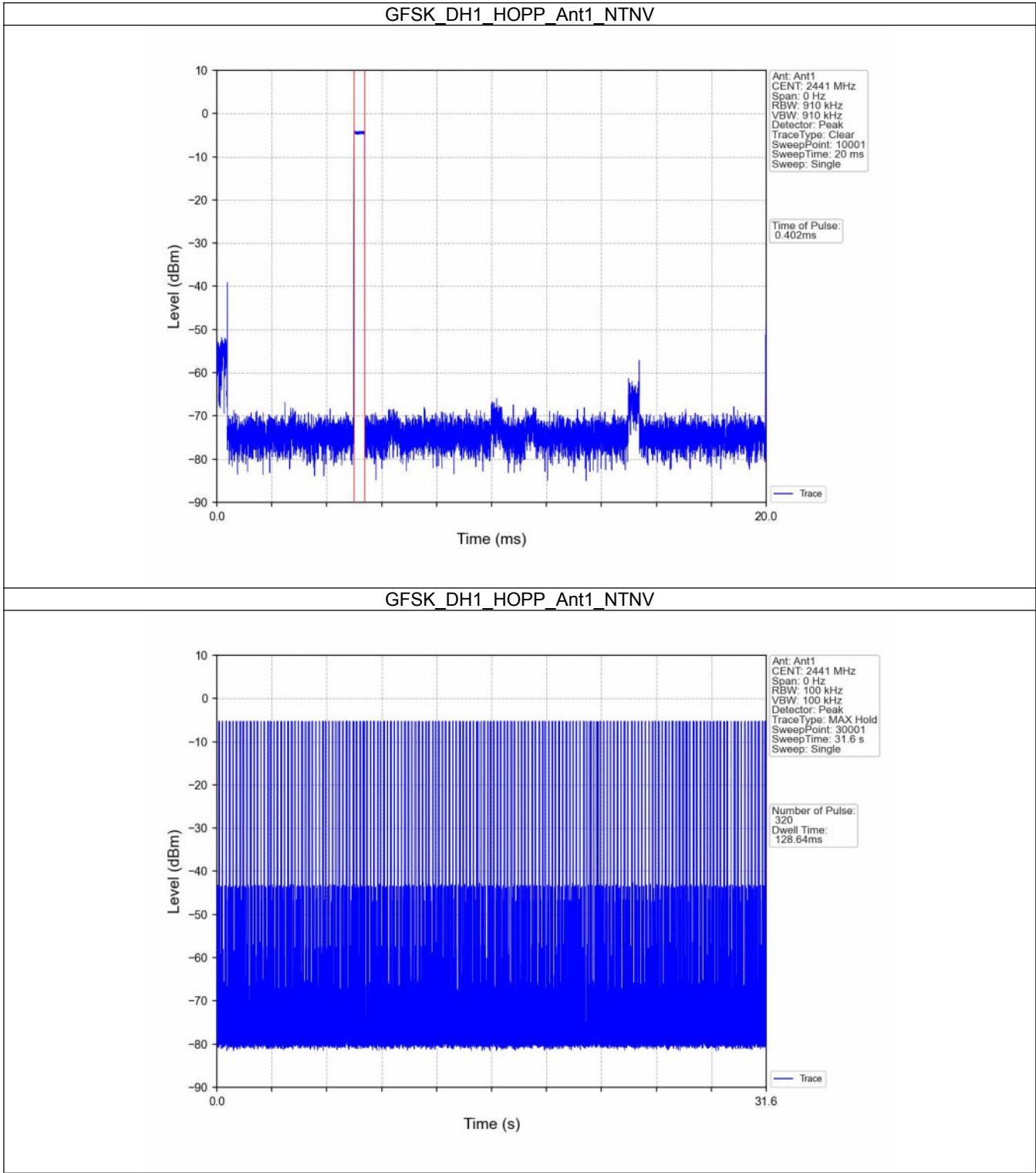
5. Time of Occupancy (Dwell Time)**5.1 Ant1****5.1.1 Test Result**

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	0.402	31.600	320	128.640	<=400	Pass
			DH3	1.660	31.600	155	257.300	<=400	Pass
			DH5	2.910	31.600	118	343.380	<=400	Pass
Pi/4DQPSK	SISO	HOPP	2DH1	0.410	31.600	320	131.200	<=400	Pass
			2DH3	1.666	31.600	158	263.228	<=400	Pass
			2DH5	2.898	31.600	105	304.290	<=400	Pass
8DPSK	SISO	HOPP	3DH1	0.414	31.600	320	132.480	<=400	Pass
			3DH3	1.666	31.600	172	286.552	<=400	Pass
			3DH5	2.918	31.600	93	271.374	<=400	Pass

5.1 Ant1

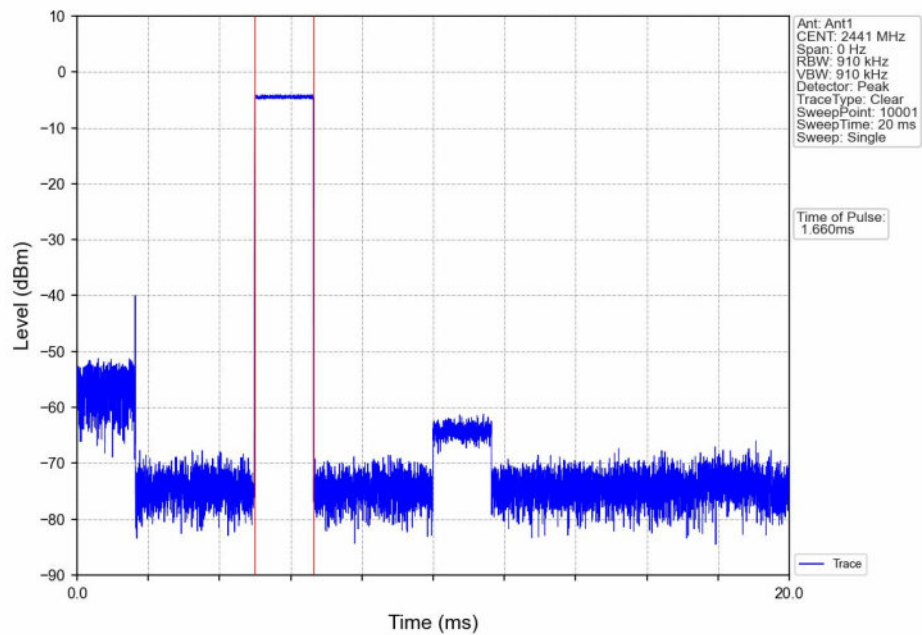
FCCID: 2A6R4-MT-CR430

5.1.2 Test Graph

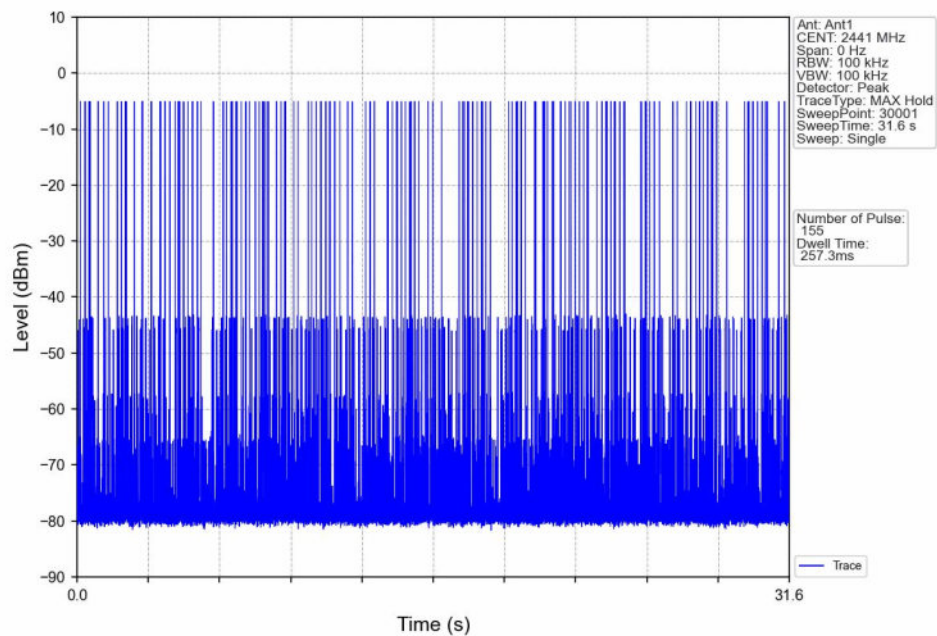


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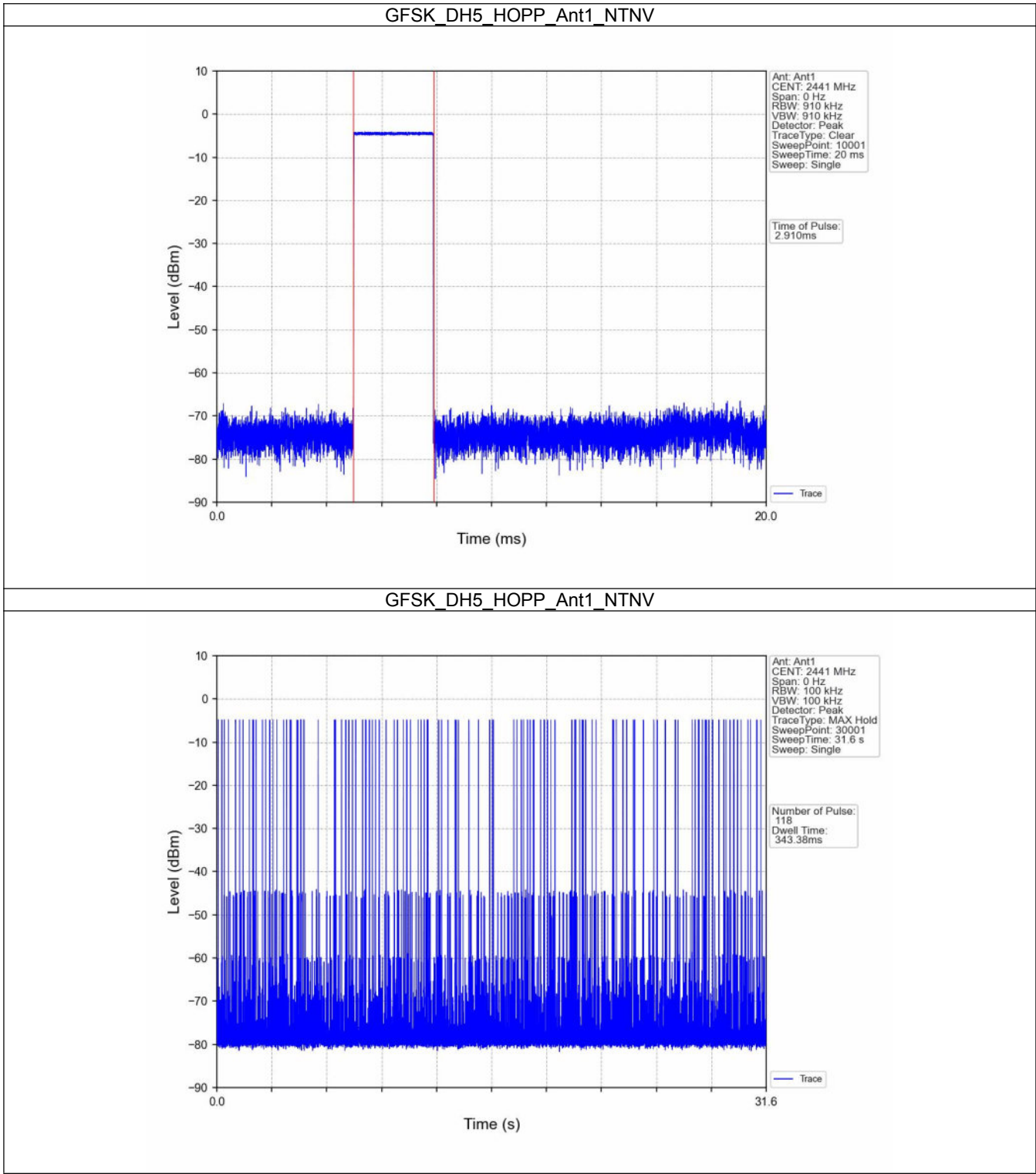
GFSK_DH3_HOPP_Ant1_NTNV



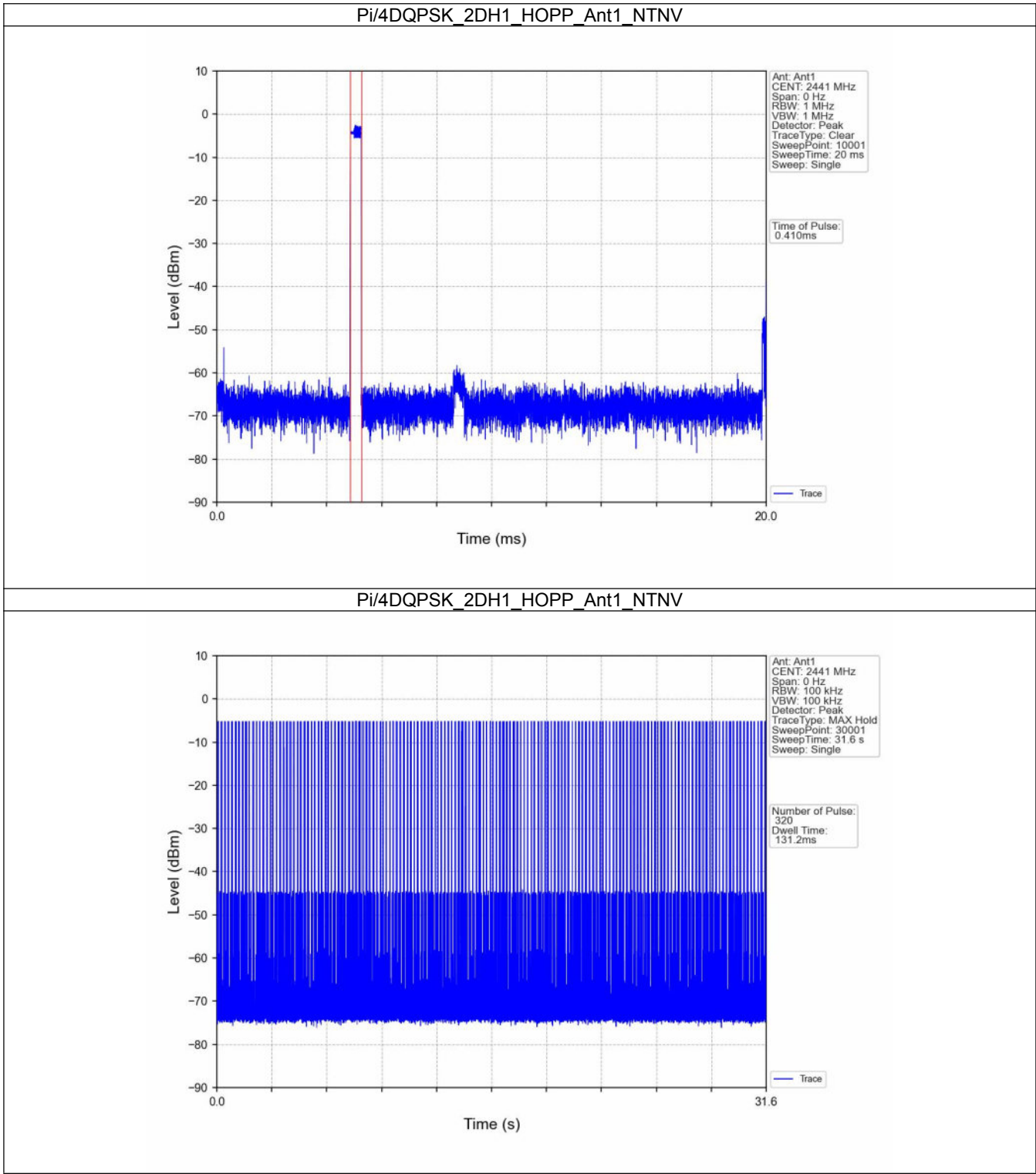
GFSK_DH3_HOPP_Ant1_NTNV



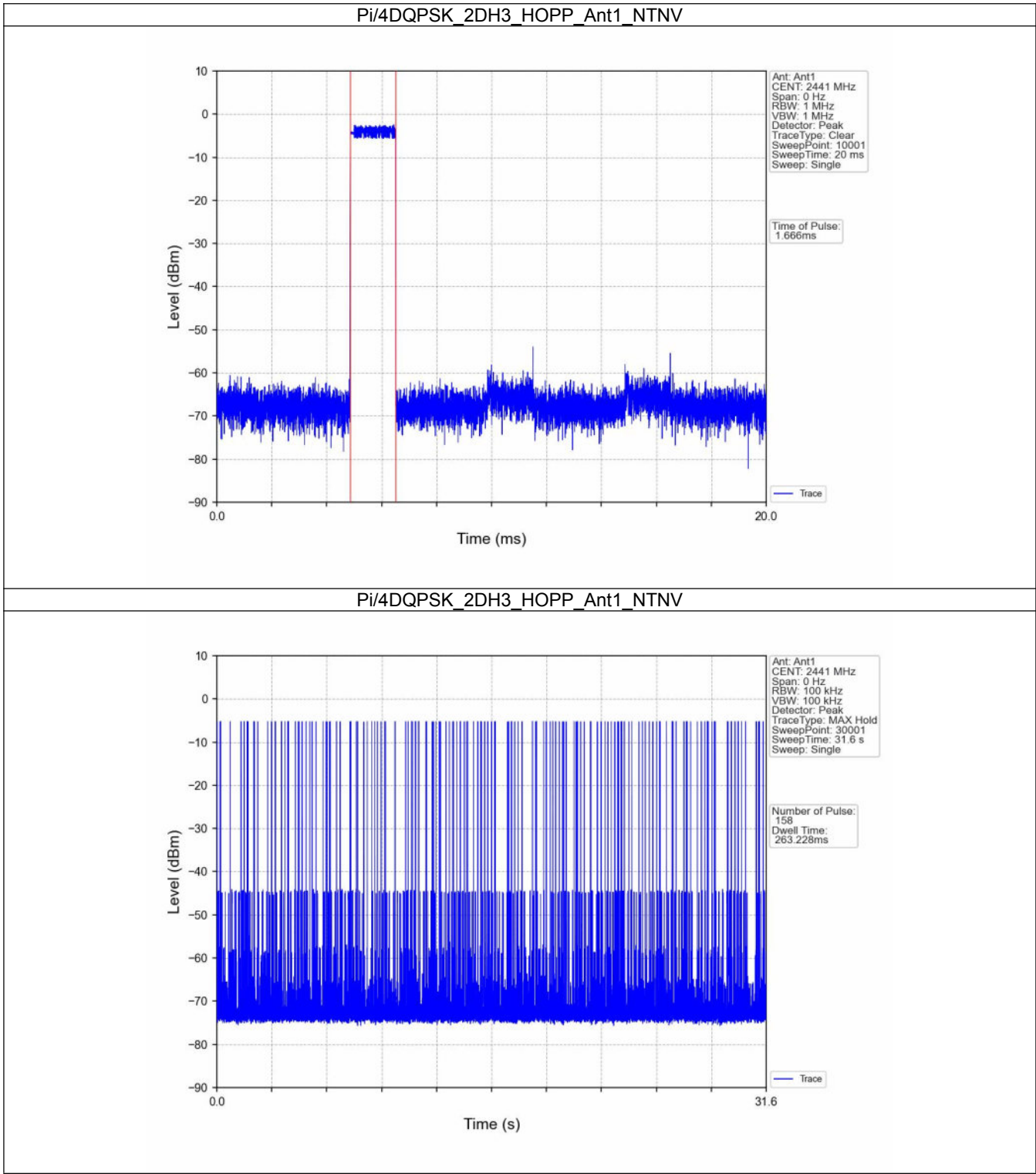
FCCID: 2A6R4-MT-CR430



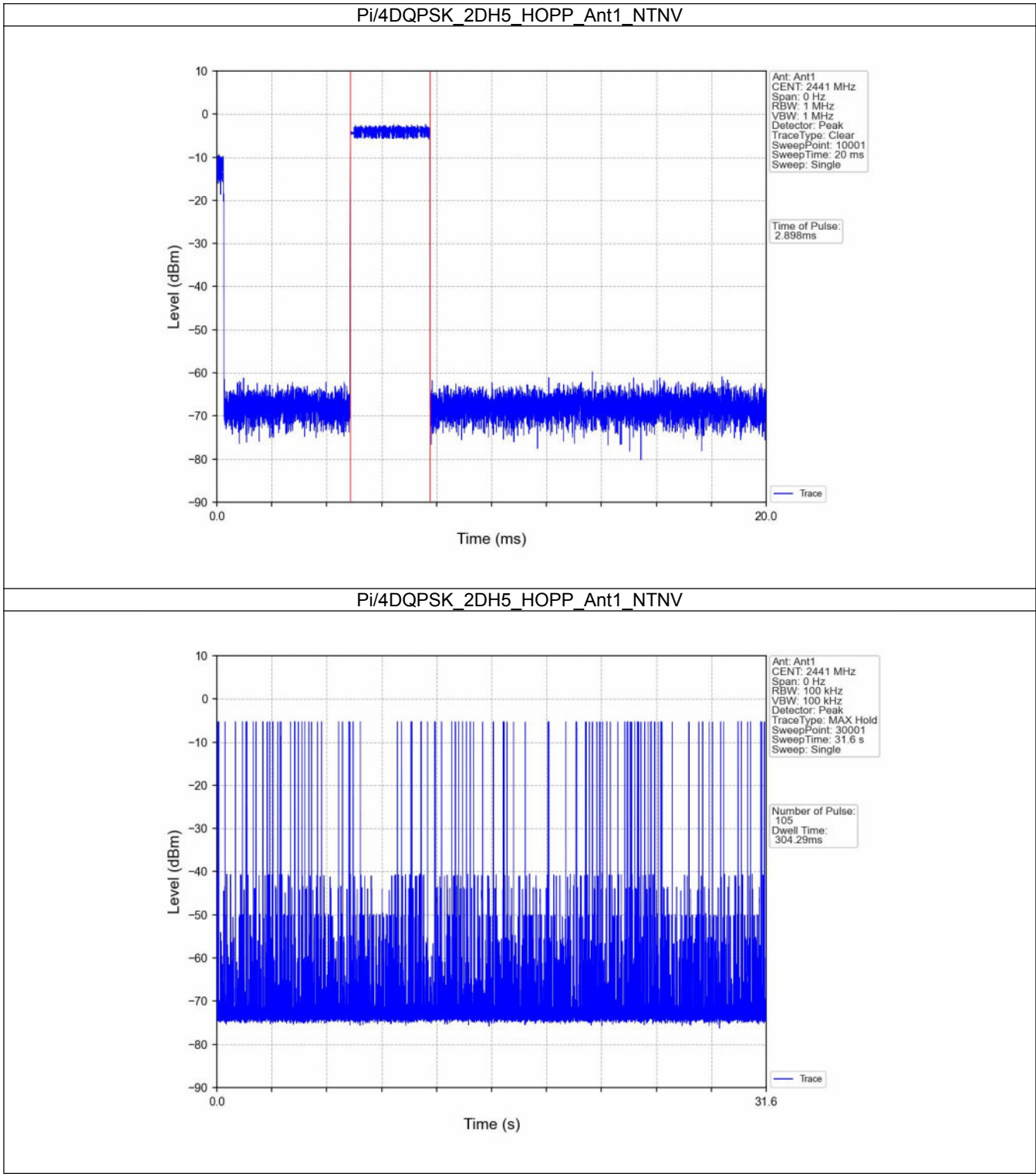
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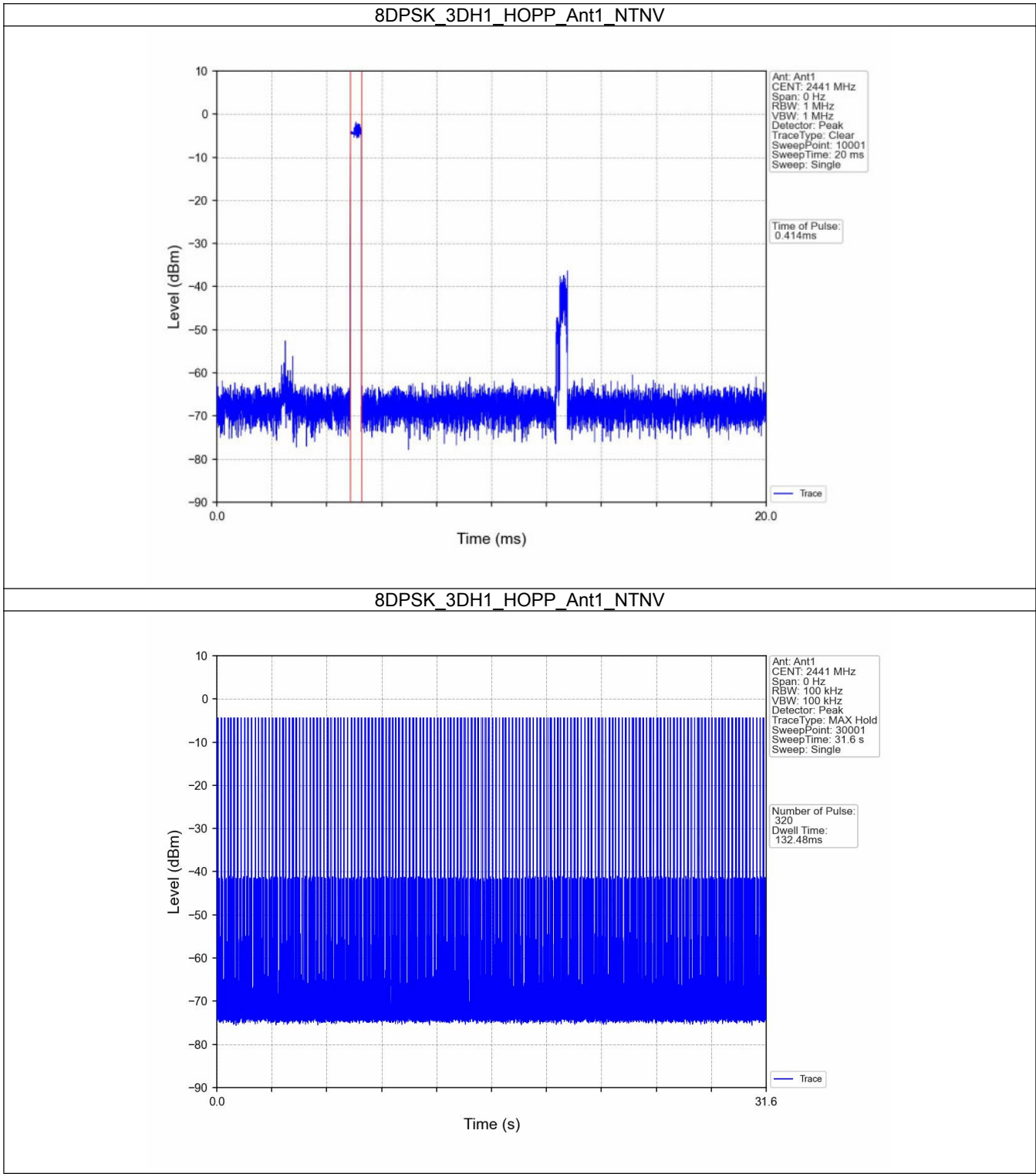
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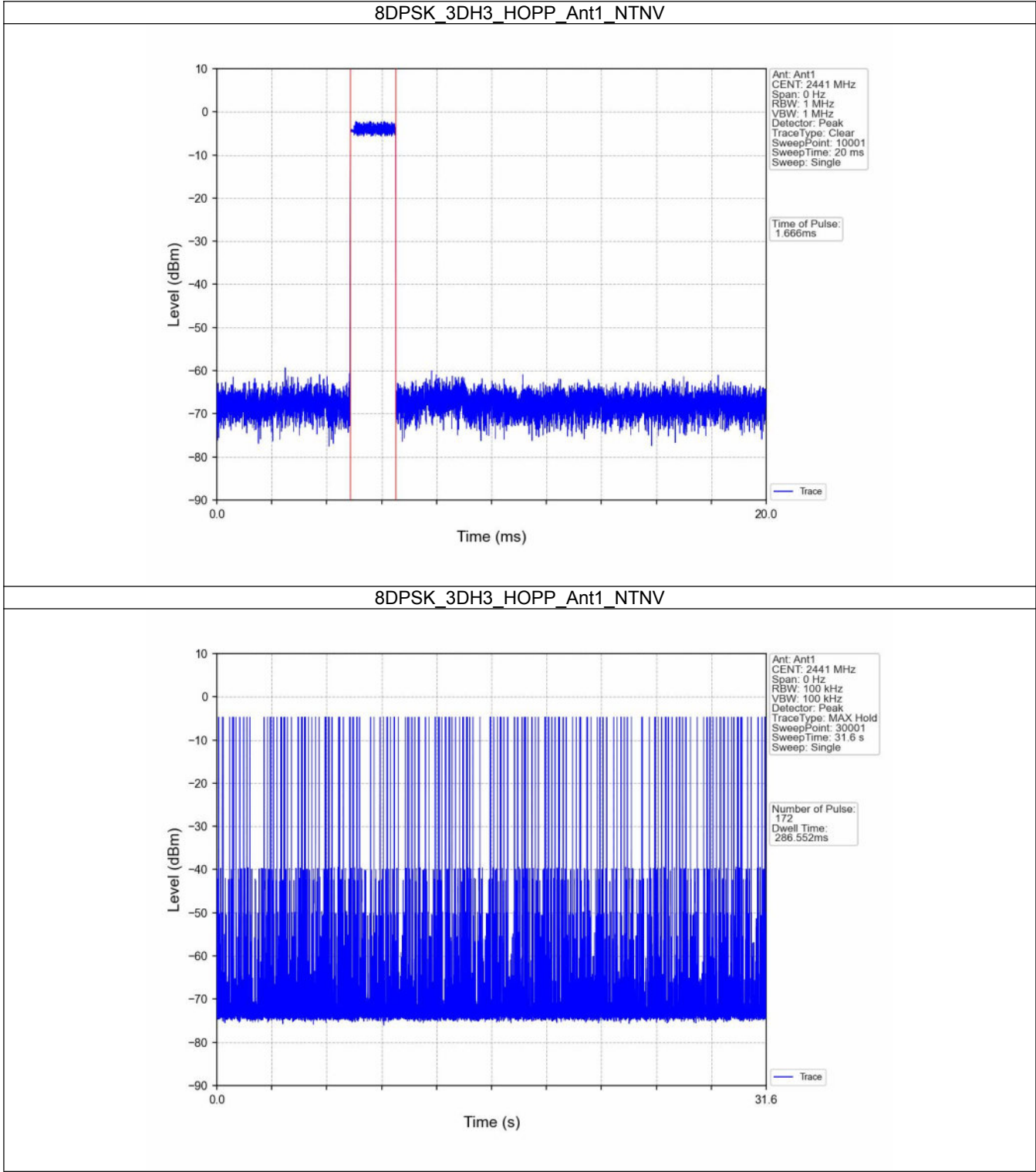
FCCID: 2A6R4-MT-CR430



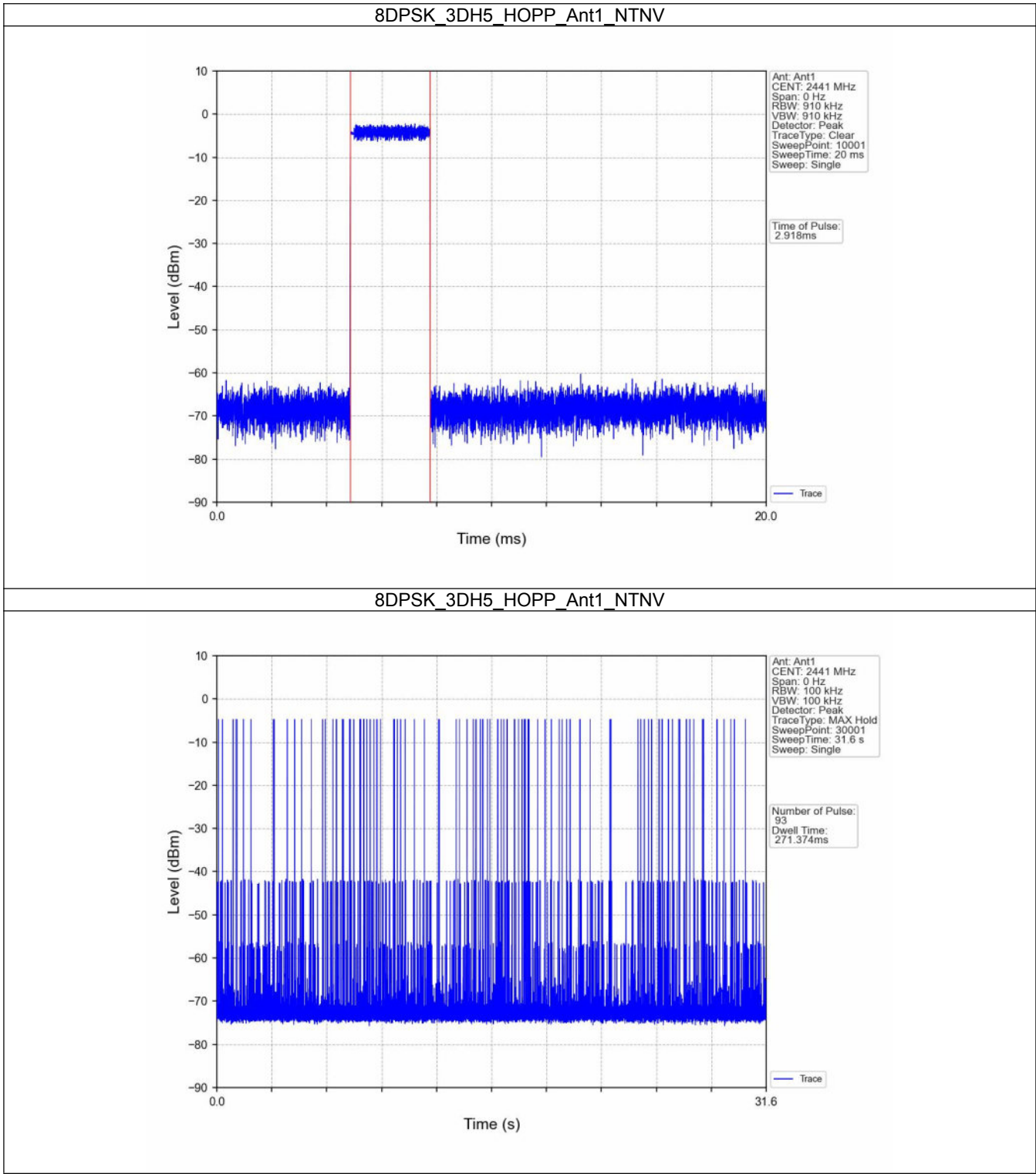
FCCID: 2A6R4-MT-CR430



FCCID: 2A6R4-MT-CR430



FCCID: 2A6R4-MT-CR430



FCCID: 2A6R4-MT-CR430

6. Unwanted Emissions In Non-restricted Frequency Bands

6.1 Ref

6.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Packet Type	ANT	Level of Reference (dBm)
GFSK	SISO	2402	DH5	1	-4.15
		2441	DH5	1	-4.40
		2480	DH5	1	-5.40
Pi/4DQPSK	SISO	2402	2DH5	1	-4.33
		2441	2DH5	1	-4.50
		2480	2DH5	1	-5.58
8DPSK	SISO	2402	3DH5	1	-4.26
		2441	3DH5	1	-4.63
		2480	3DH5	1	-5.59

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 CSE

6.2.1 Test Result

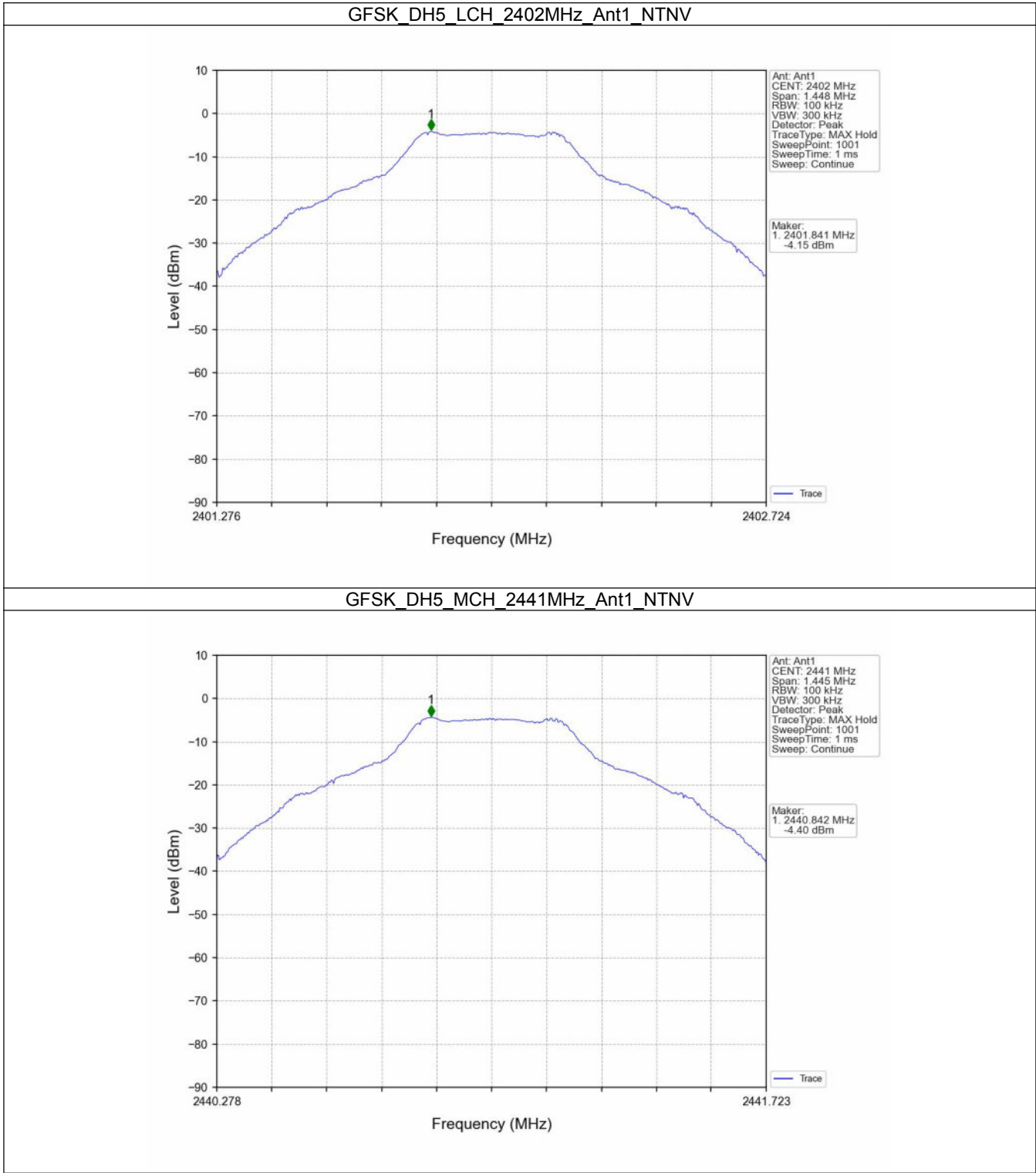
Mode	TX Type	Frequency (MHz)	Packet Type	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
GFSK	SISO	2402	DH5	1	-4.15	-24.15	Pass
		2441	DH5	1	-4.15	-24.15	Pass
		2480	DH5	1	-4.15	-24.15	Pass
		HOPP	DH5	1	-4.15	-24.15	Pass
					-4.15	-24.15	Pass
Pi/4DQPSK	SISO	2402	2DH5	1	-4.33	-24.33	Pass
		2441	2DH5	1	-4.33	-24.33	Pass
		2480	2DH5	1	-4.33	-24.33	Pass
		HOPP	2DH5	1	-4.33	-24.33	Pass
					-4.33	-24.33	Pass
8DPSK	SISO	2402	3DH5	1	-4.26	-24.26	Pass
		2441	3DH5	1	-4.26	-24.26	Pass
		2480	3DH5	1	-4.26	-24.26	Pass
		HOPP	3DH5	1	-4.26	-24.26	Pass
					-4.26	-24.26	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.

6.1 Ref

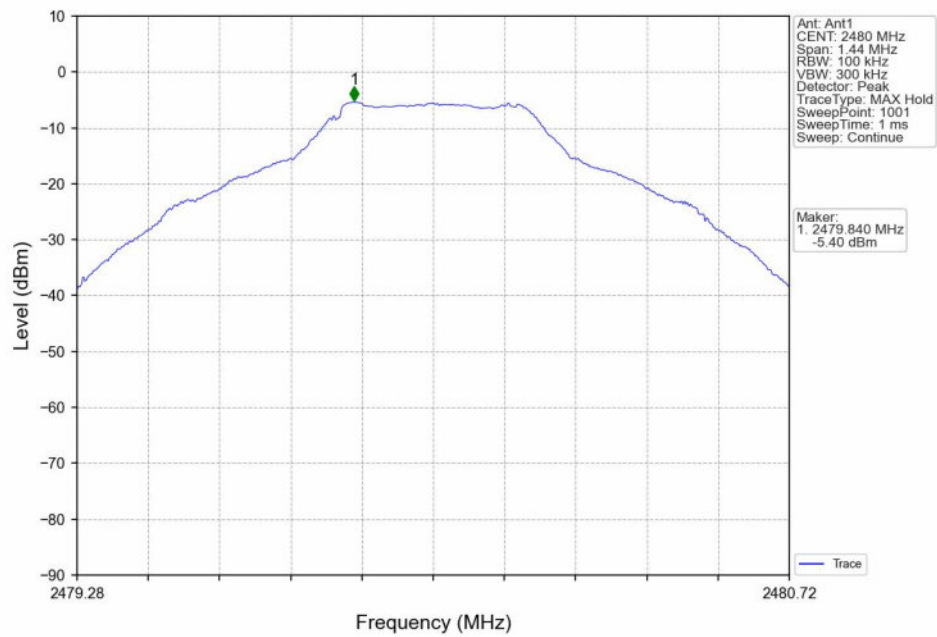
FCCID: 2A6R4-MT-CR430

6.1.2 Test Graph

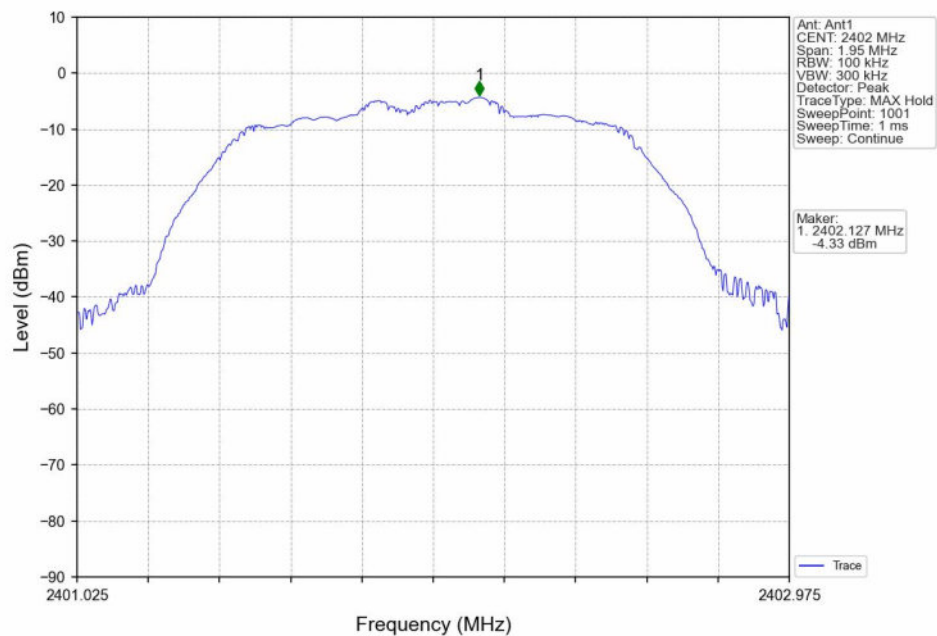


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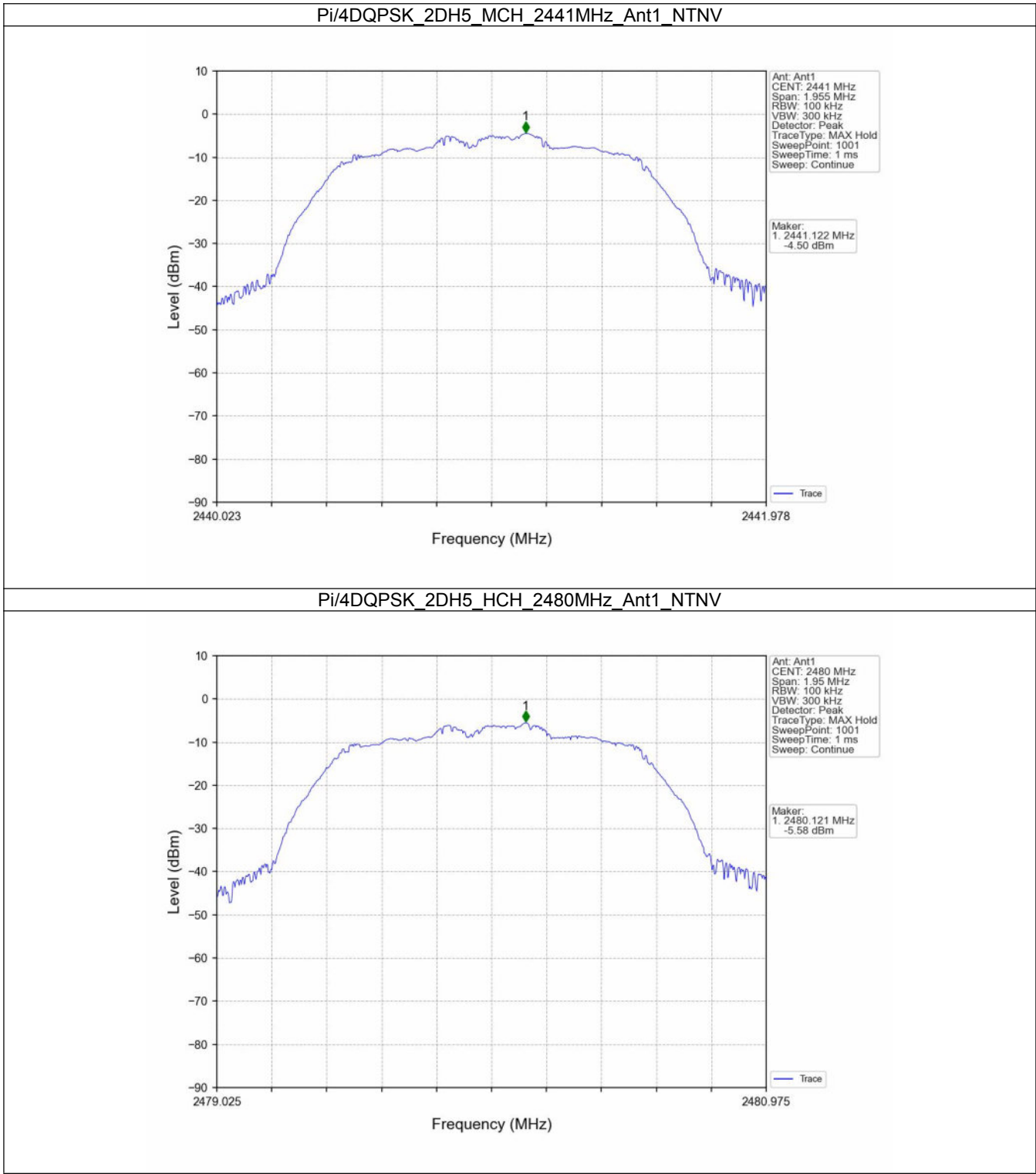
GFSK_DH5_HCH_2480MHz_Ant1_NTNV



Pi/4DQPSK_2DH5_LCH_2402MHz_Ant1_NTNV

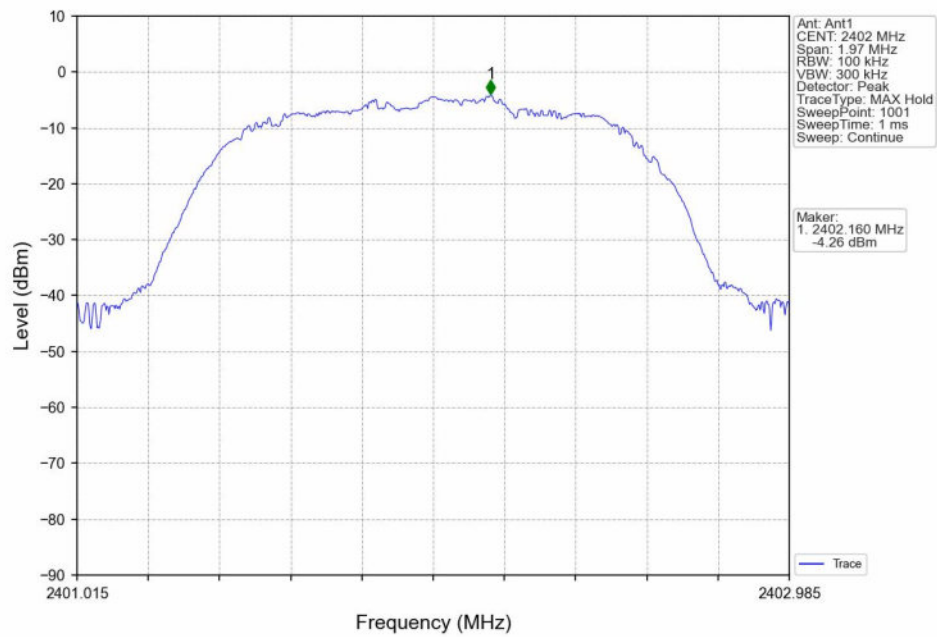


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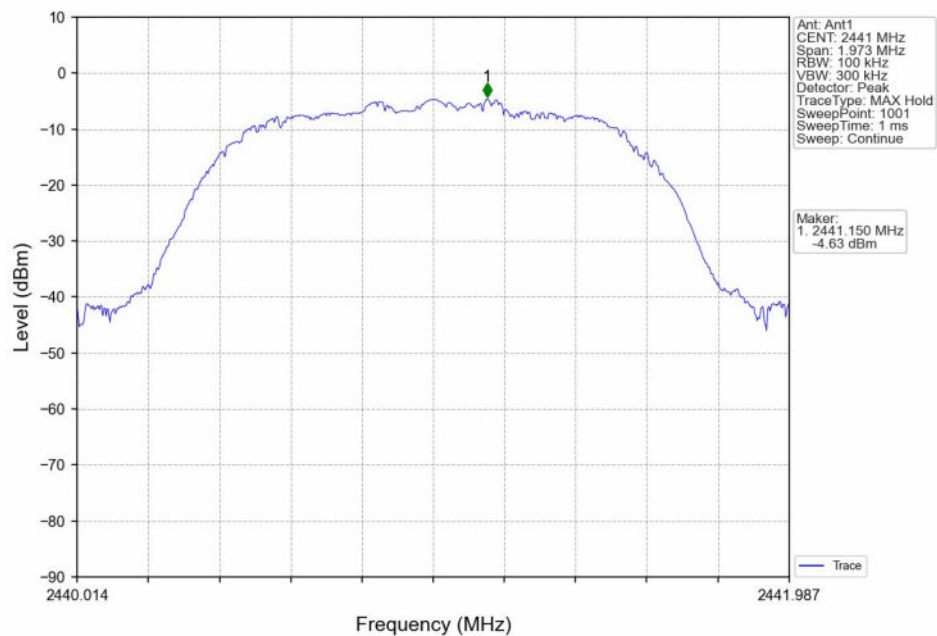


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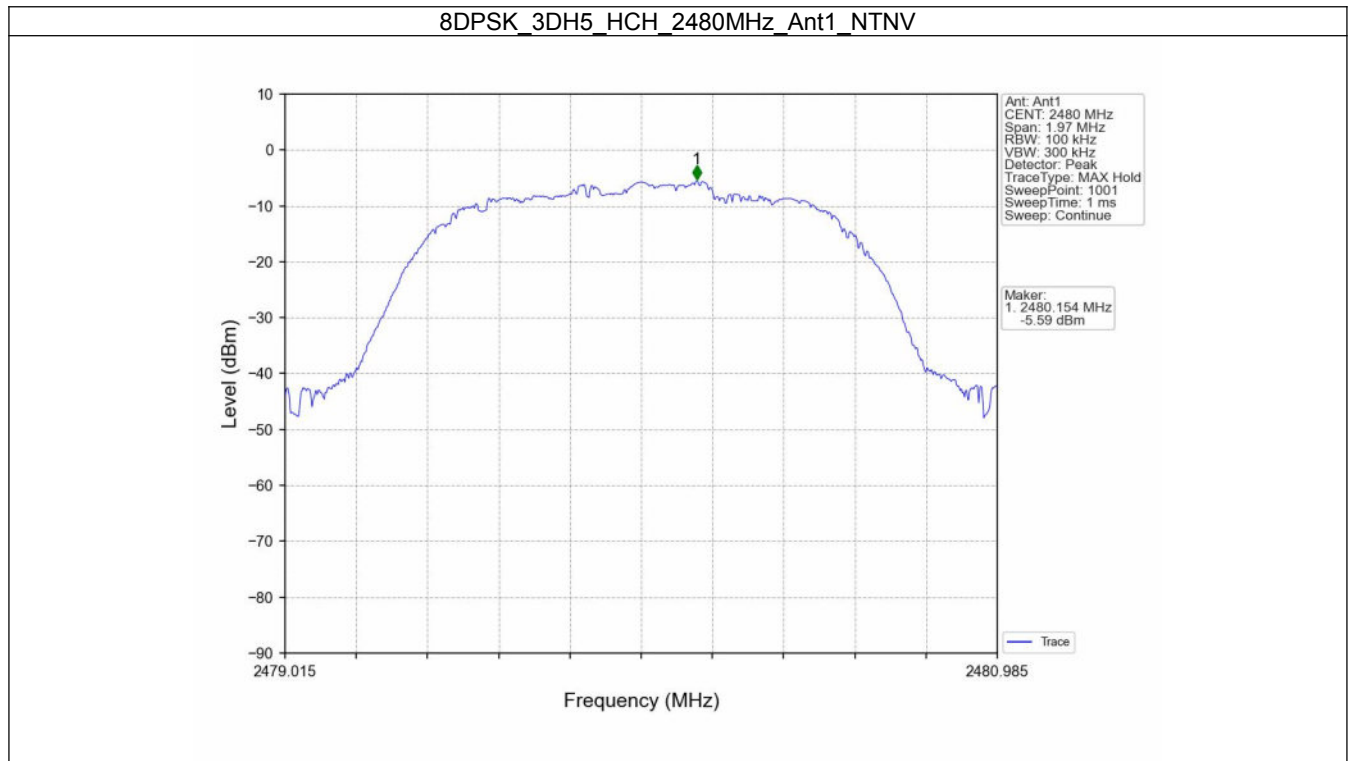
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8DPSK_3DH5_MCH_2441MHz_Ant1_NTNV



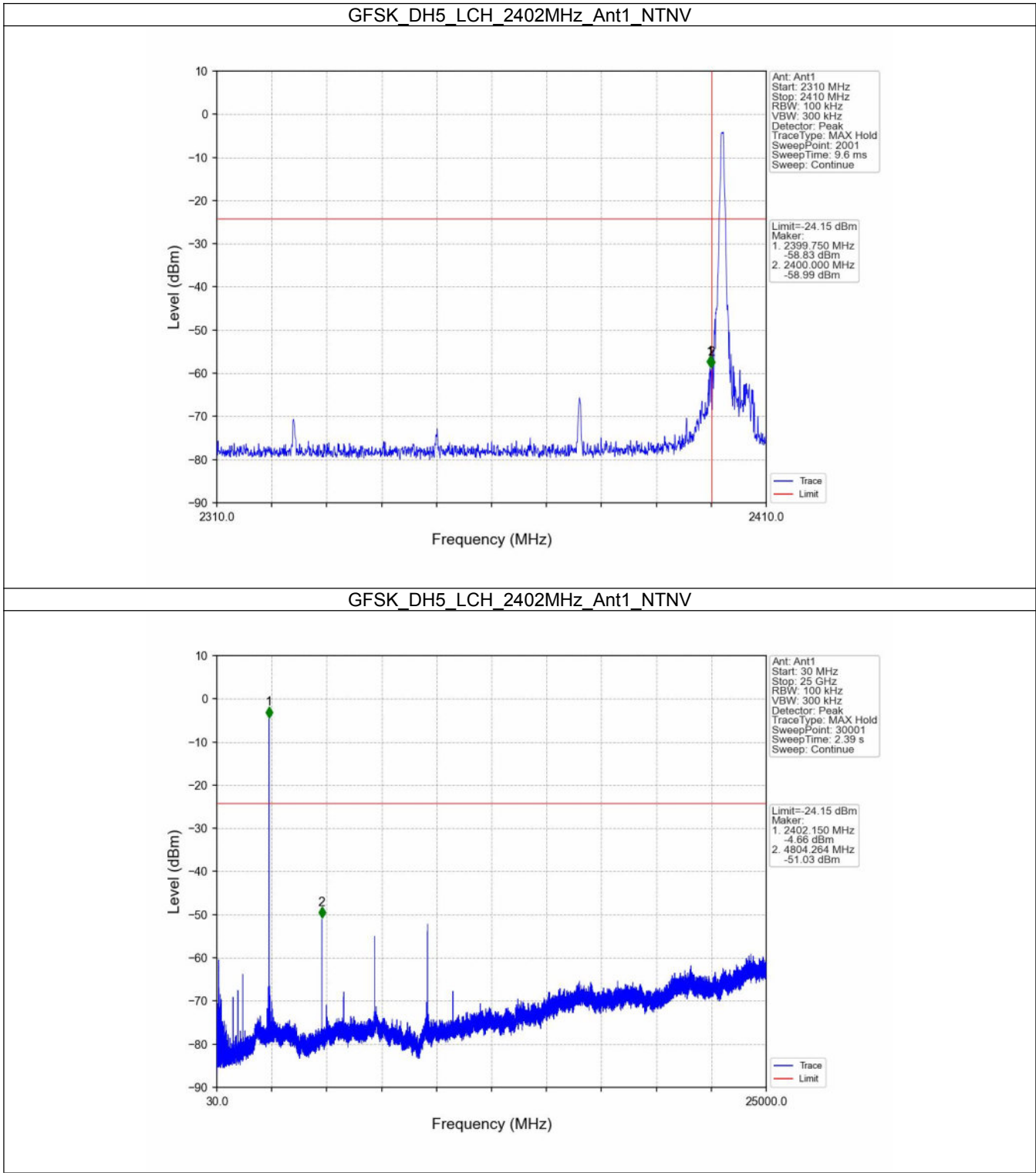
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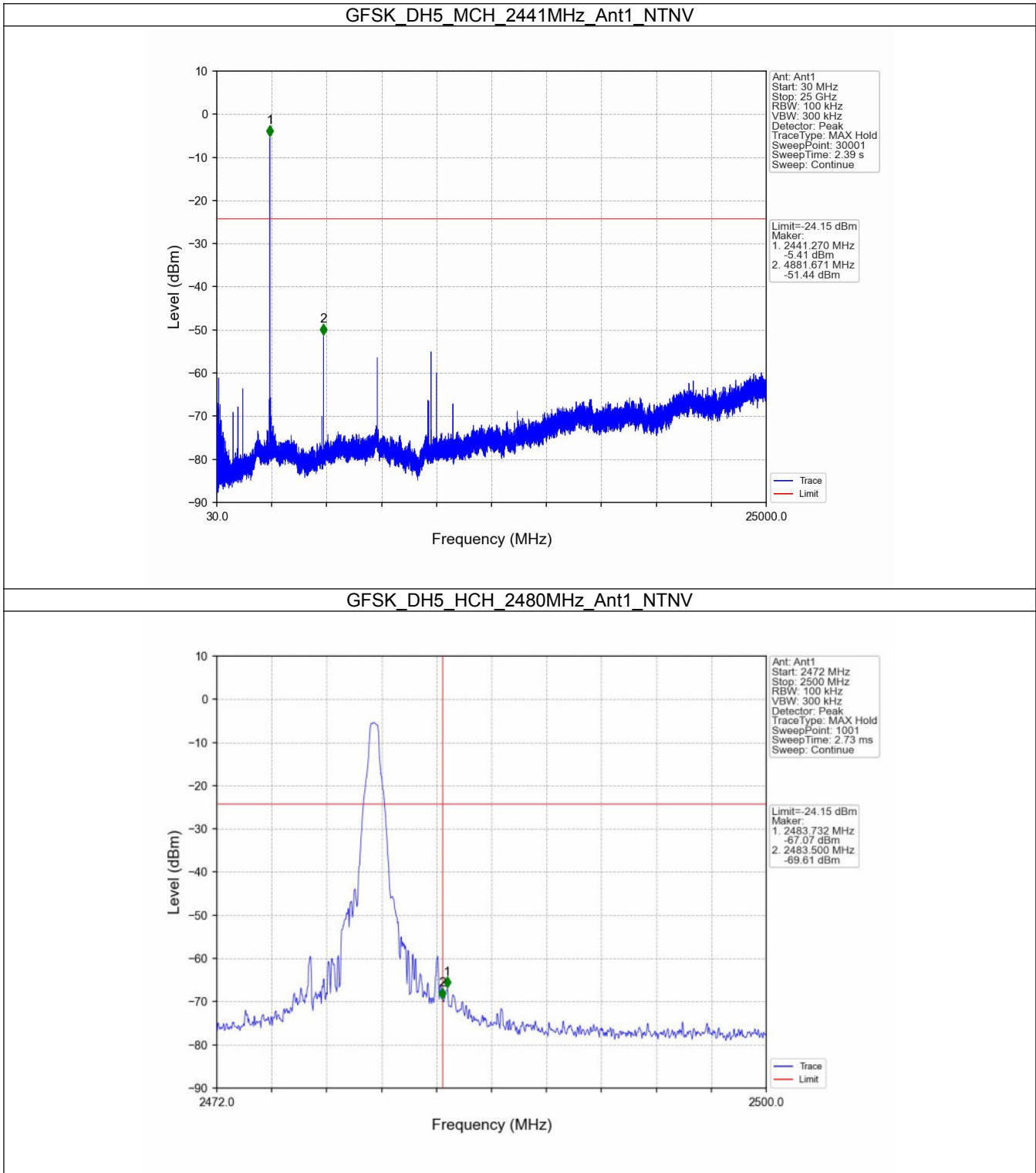
FCCID: 2A6R4-MT-CR430

6.2 CSE

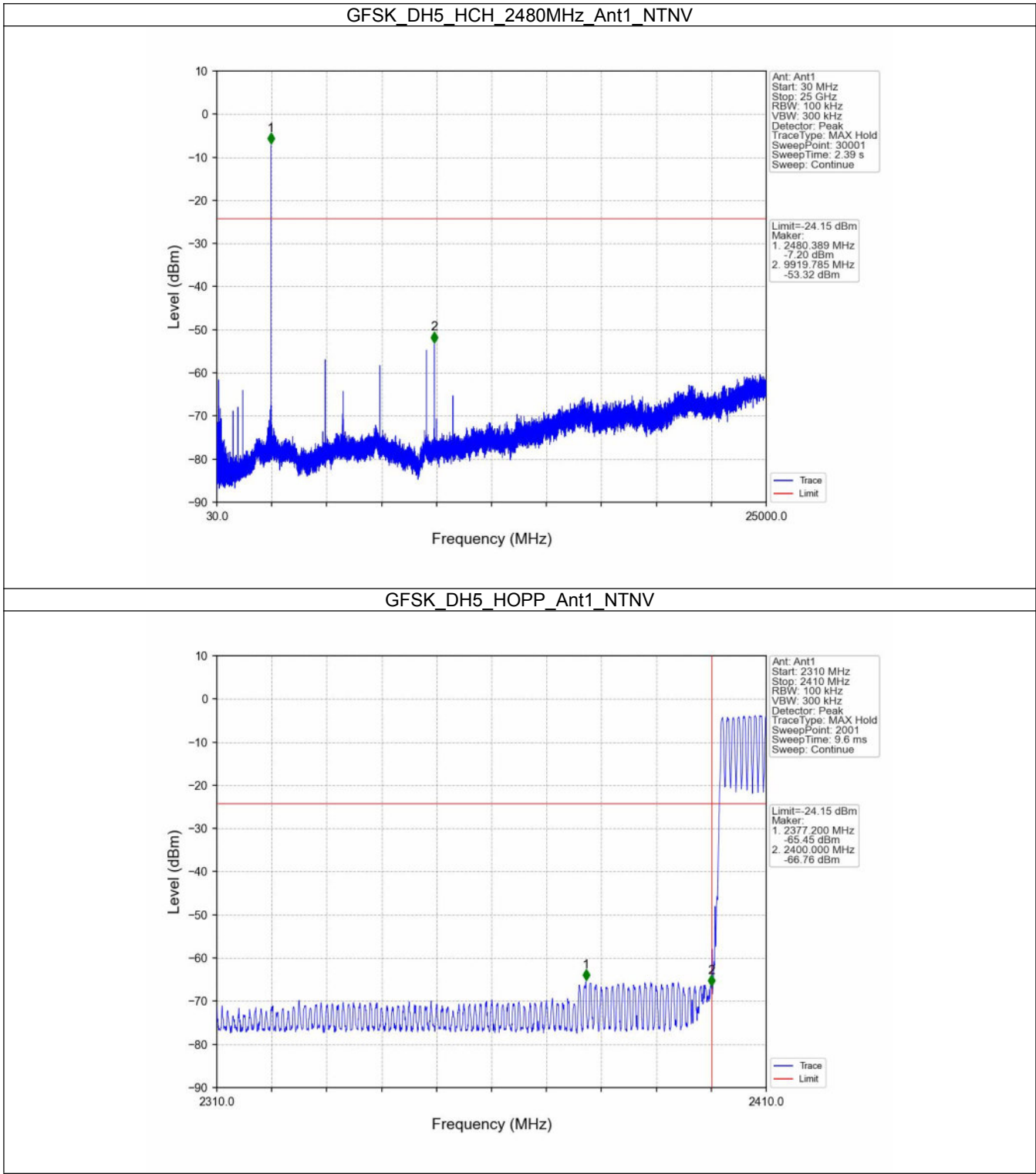
6.2.2 Test Graph



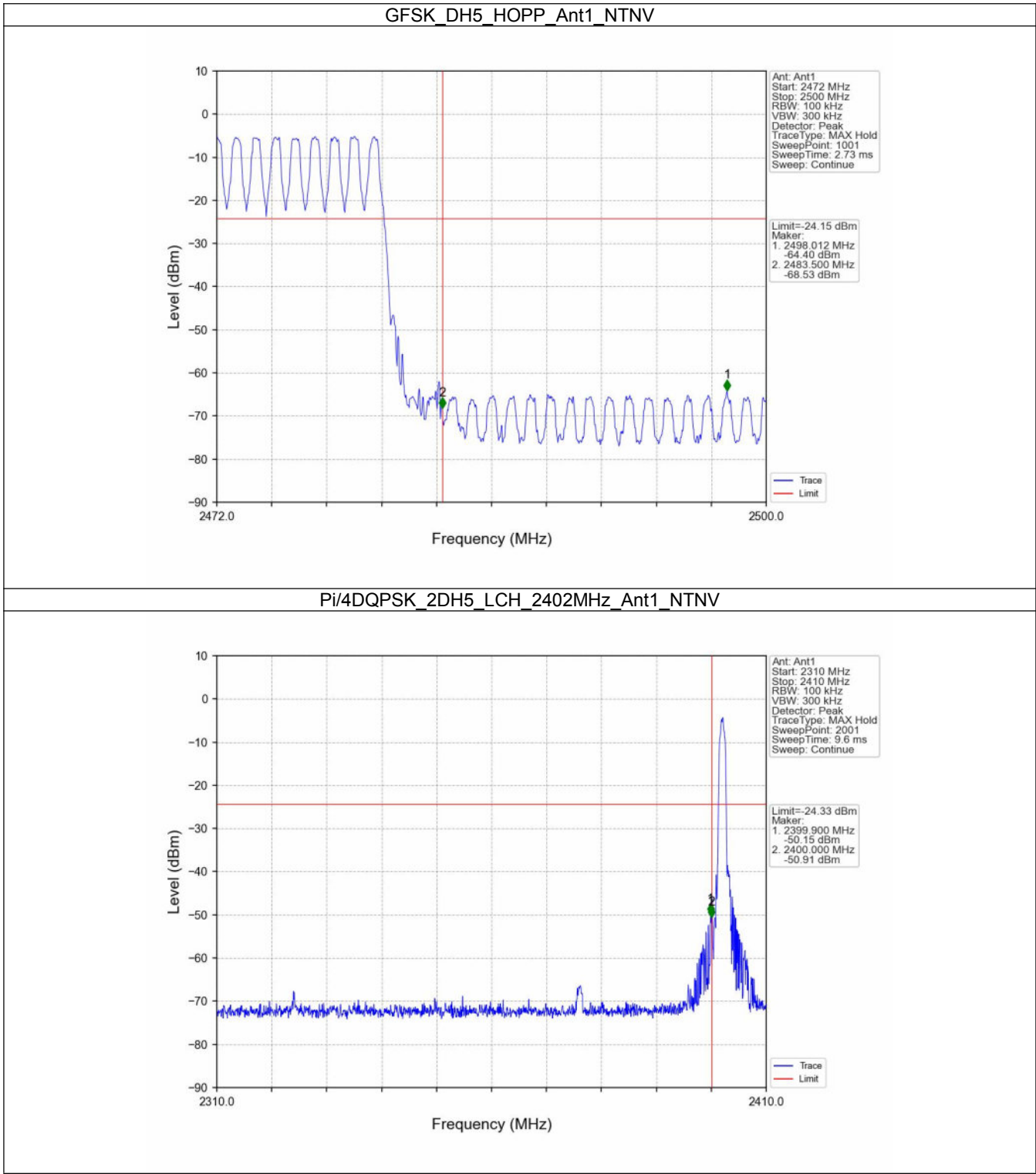
FCCID: 2A6R4-MT-CR430



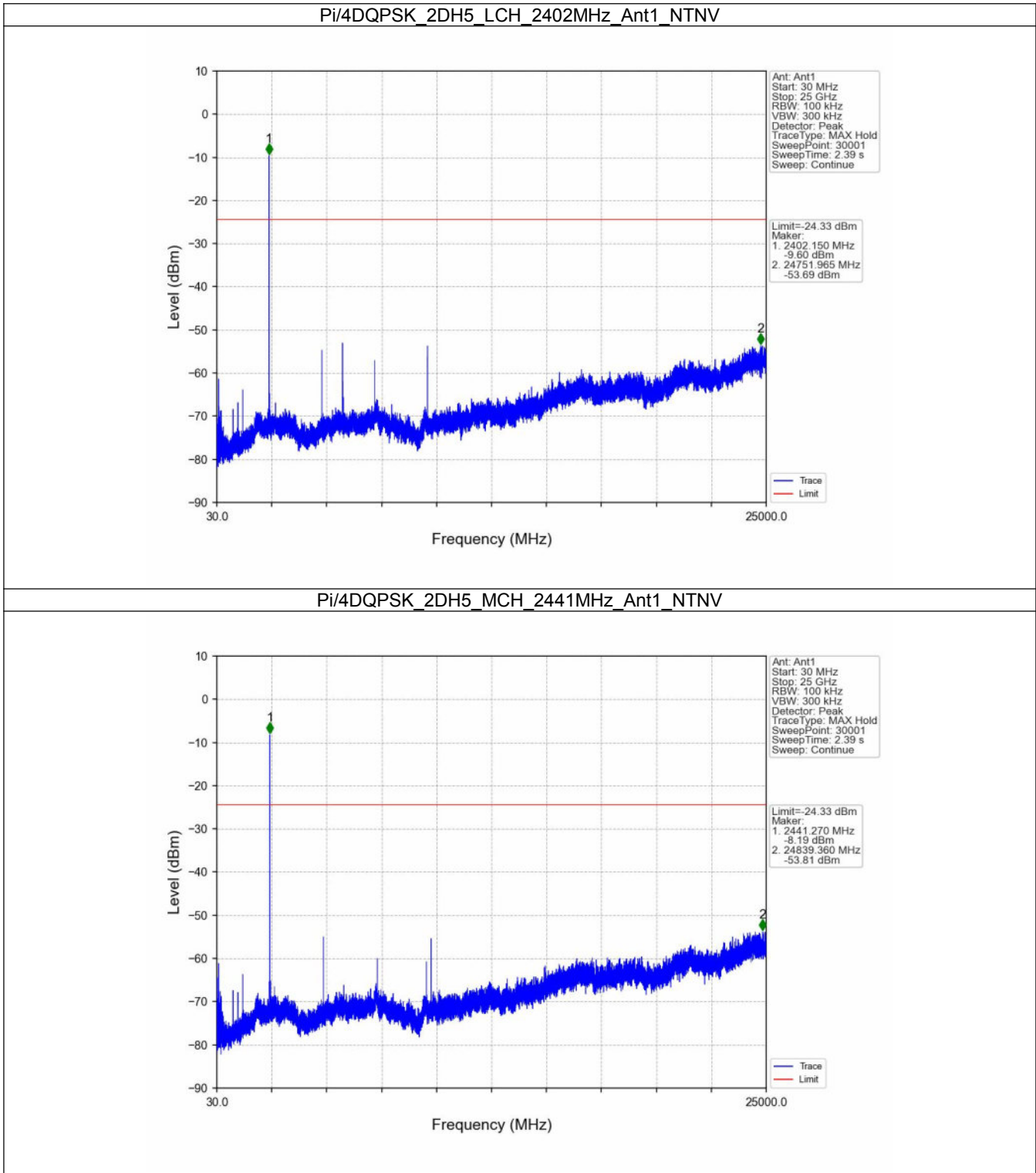
FCCID: 2A6R4-MT-CR430



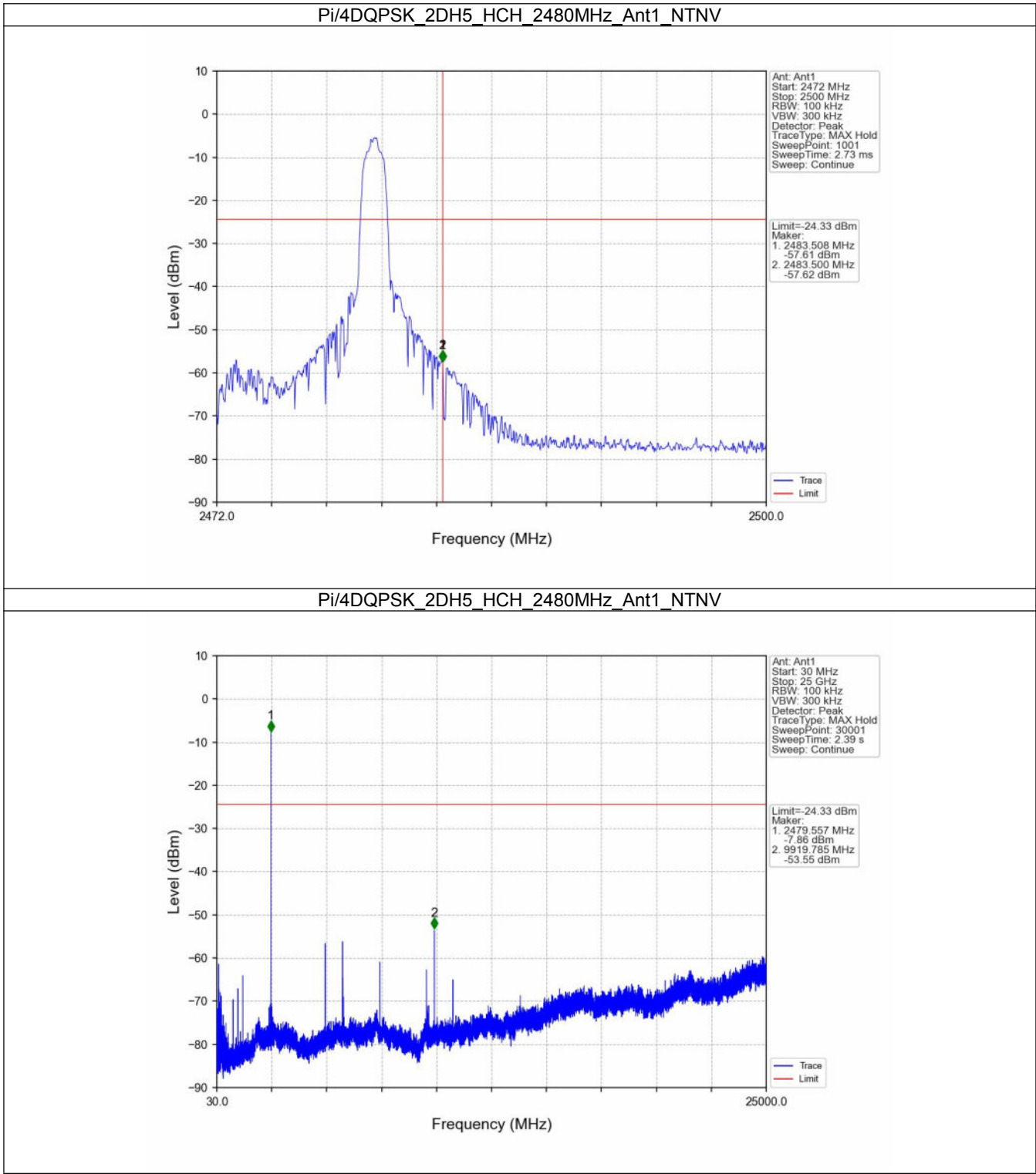
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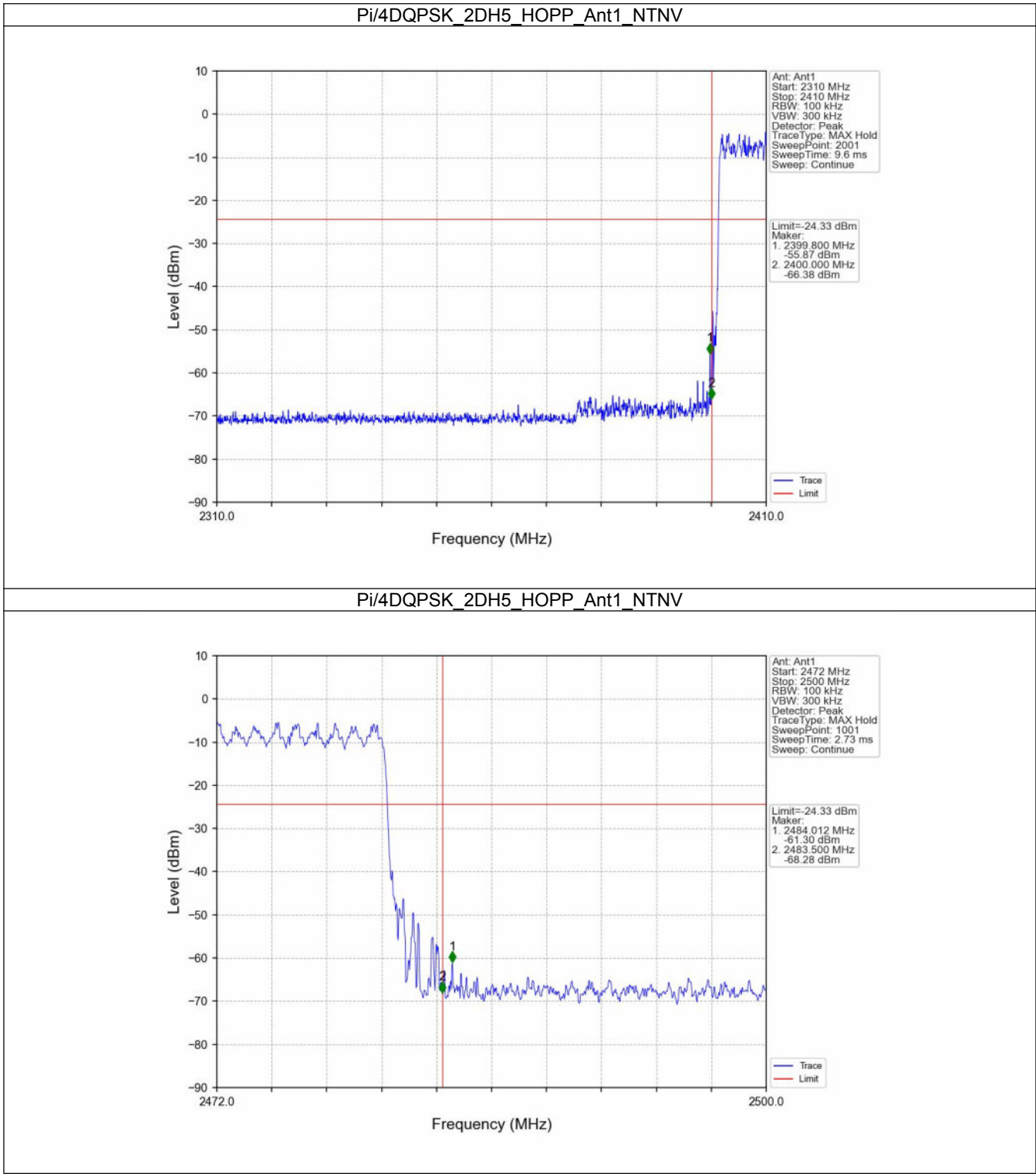
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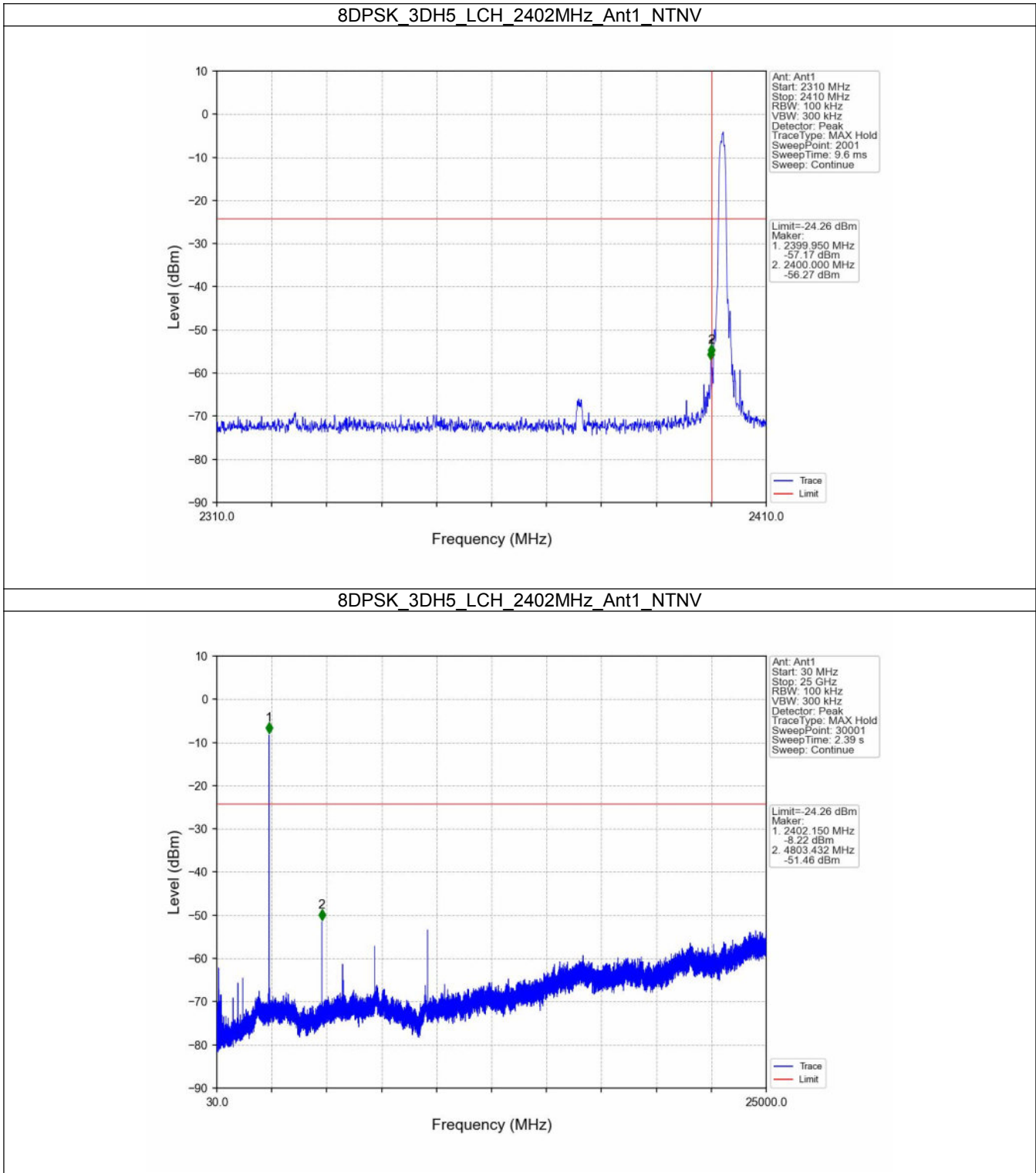
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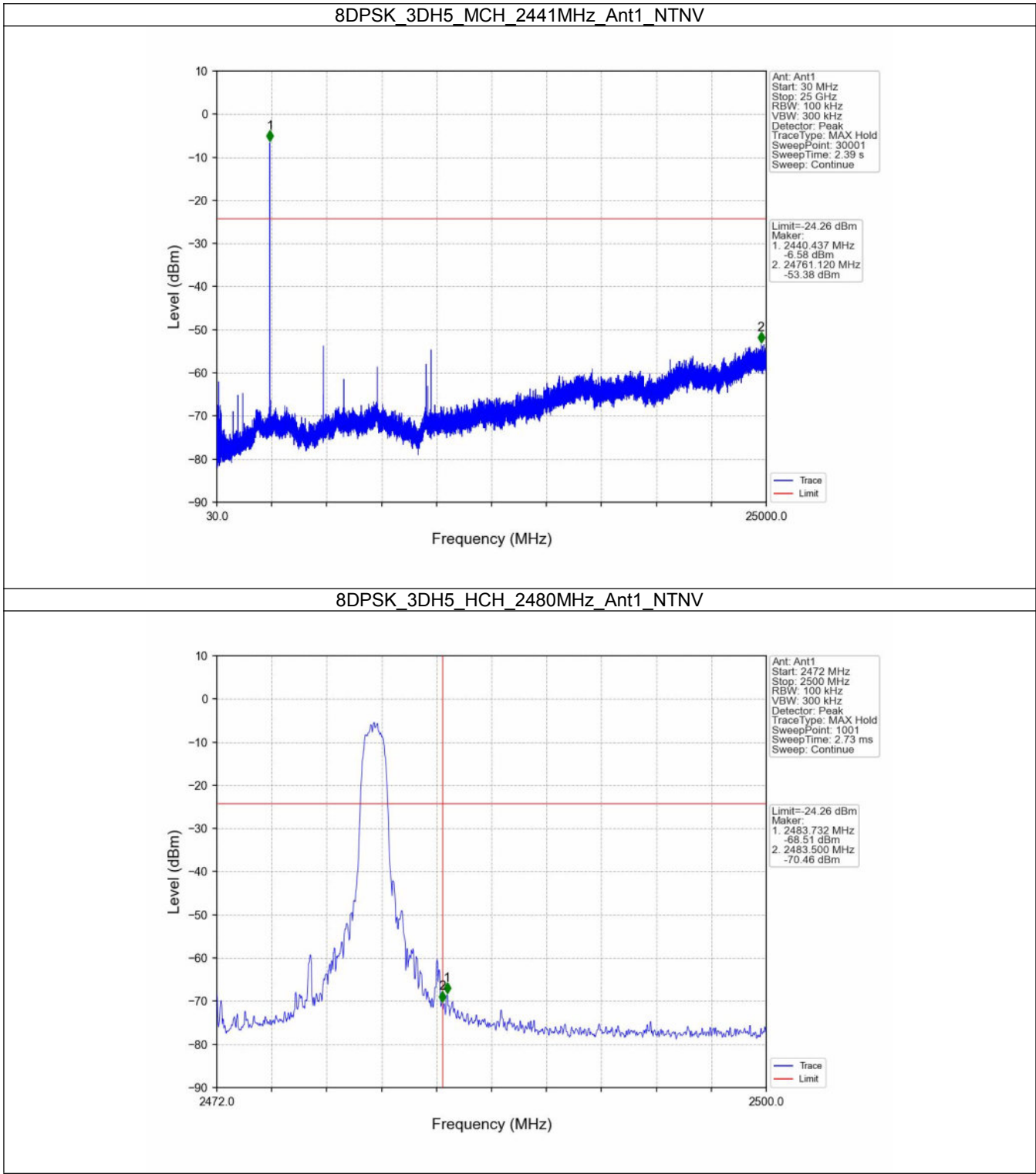
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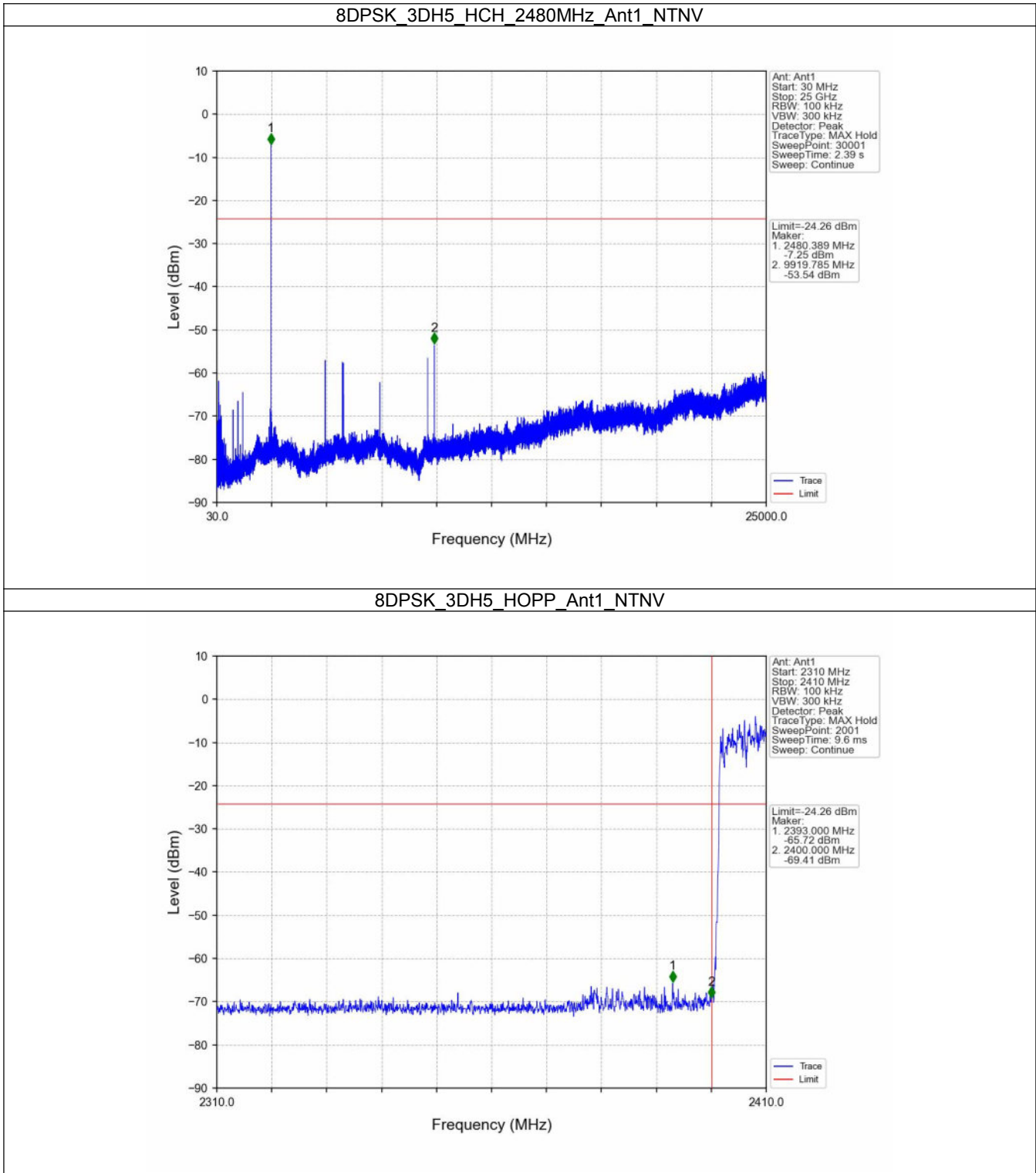
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