



Annex for BT

Test Report No.: CTL2403293041-WF01

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FCCID: 2AOM3-S53

1. Bandwidth

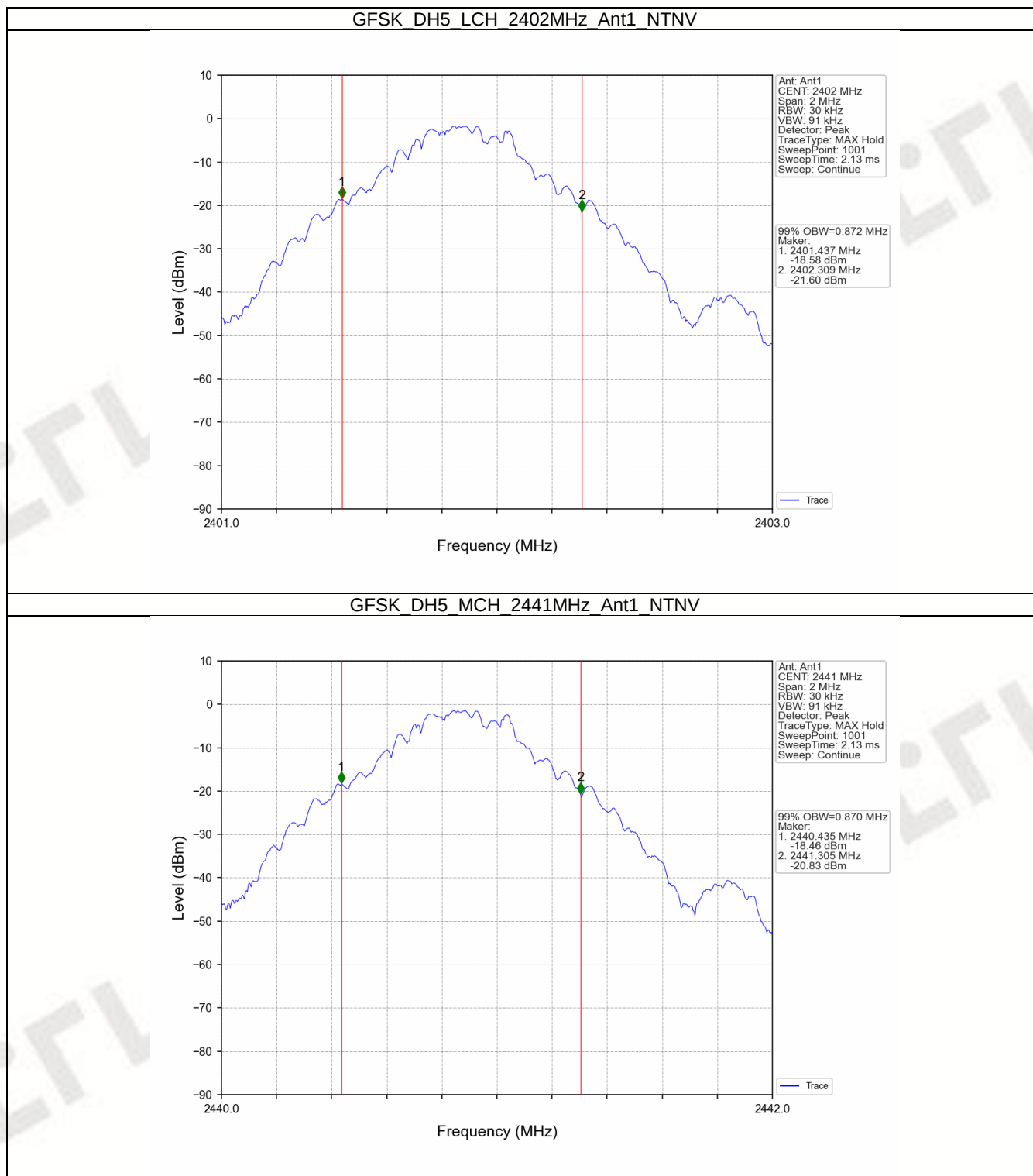
1.1 OBW

1.1.1 Test Result

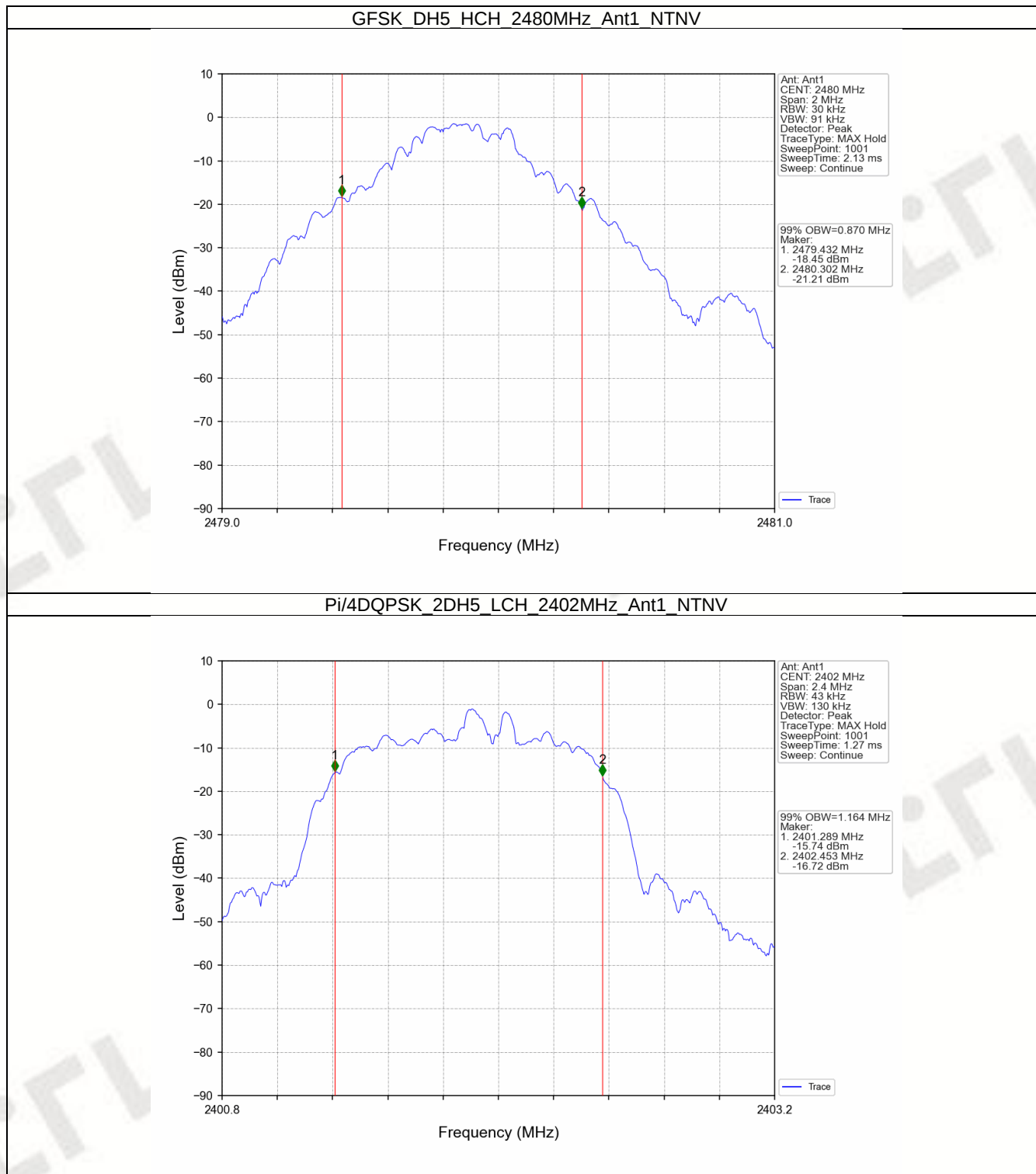
Mode	TX Type	Frequency (MHz)	Packet Type	ANT	99% Occupied Bandwidth (MHz)		Verdict
					Result	Limit	
GFSK	SISO	2402	DH5	1	0.872	/	Pass
		2441	DH5	1	0.870	/	Pass
		2480	DH5	1	0.870	/	Pass
Pi/4DQPSK	SISO	2402	2DH5	1	1.164	/	Pass
		2441	2DH5	1	1.162	/	Pass
		2480	2DH5	1	1.163	/	Pass
8DPSK	SISO	2402	3DH5	1	1.171	/	Pass
		2441	3DH5	1	1.167	/	Pass
		2480	3DH5	1	1.168	/	Pass

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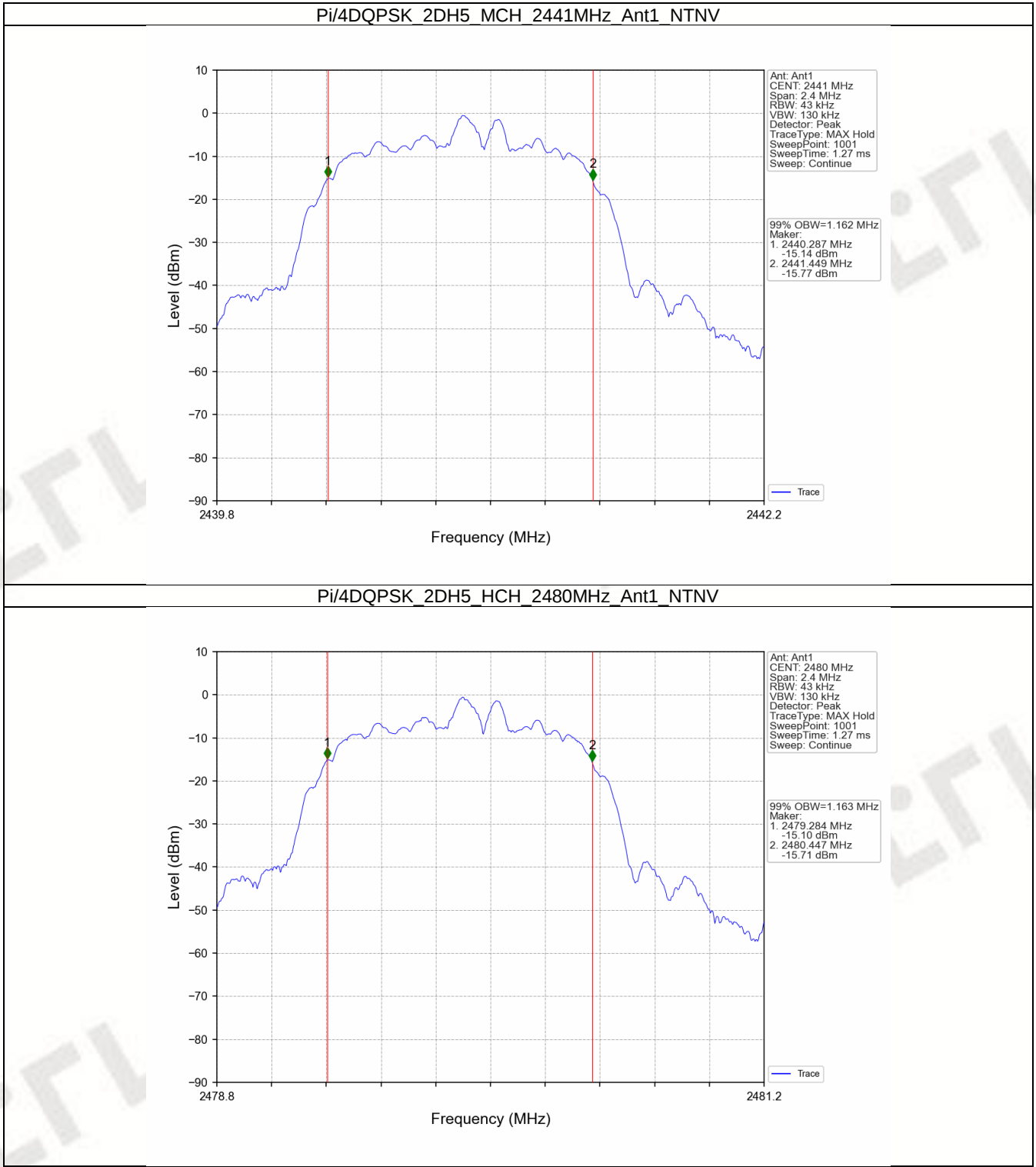
1.1.2 Test Graph



FCCID: 2AOM3-S53

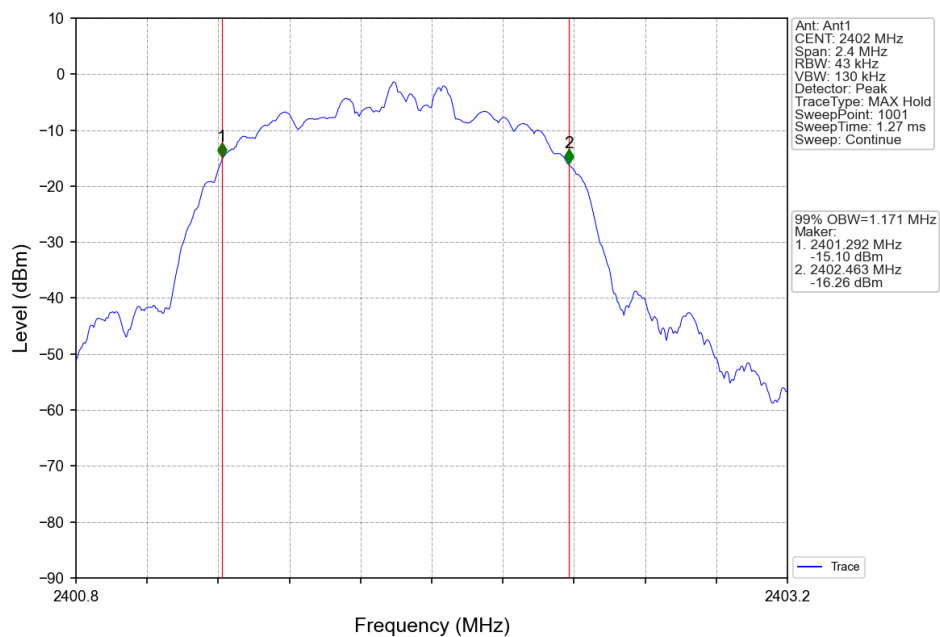


FCCID: 2AOM3-S53

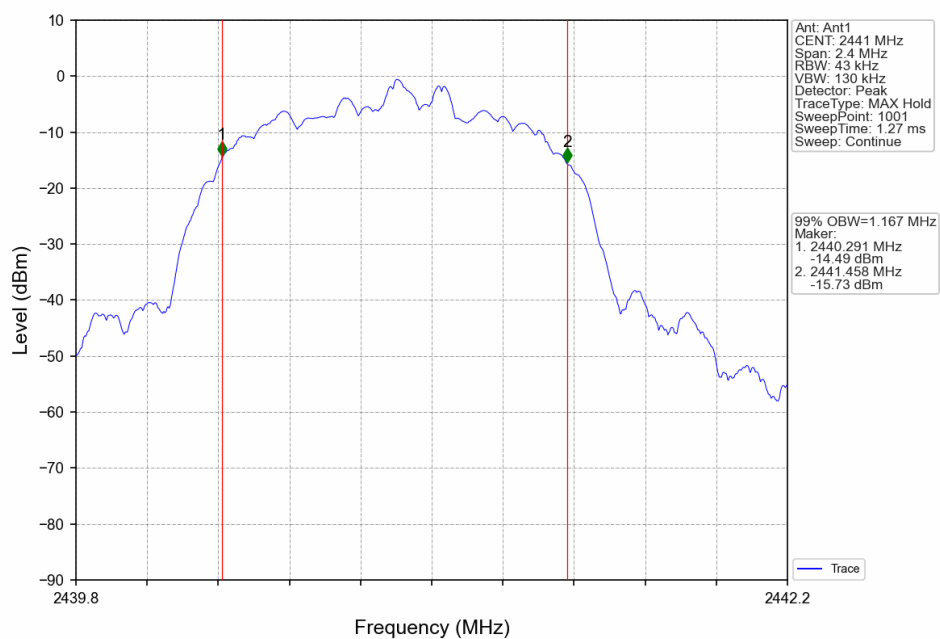


FCCID: 2AOM3-S53

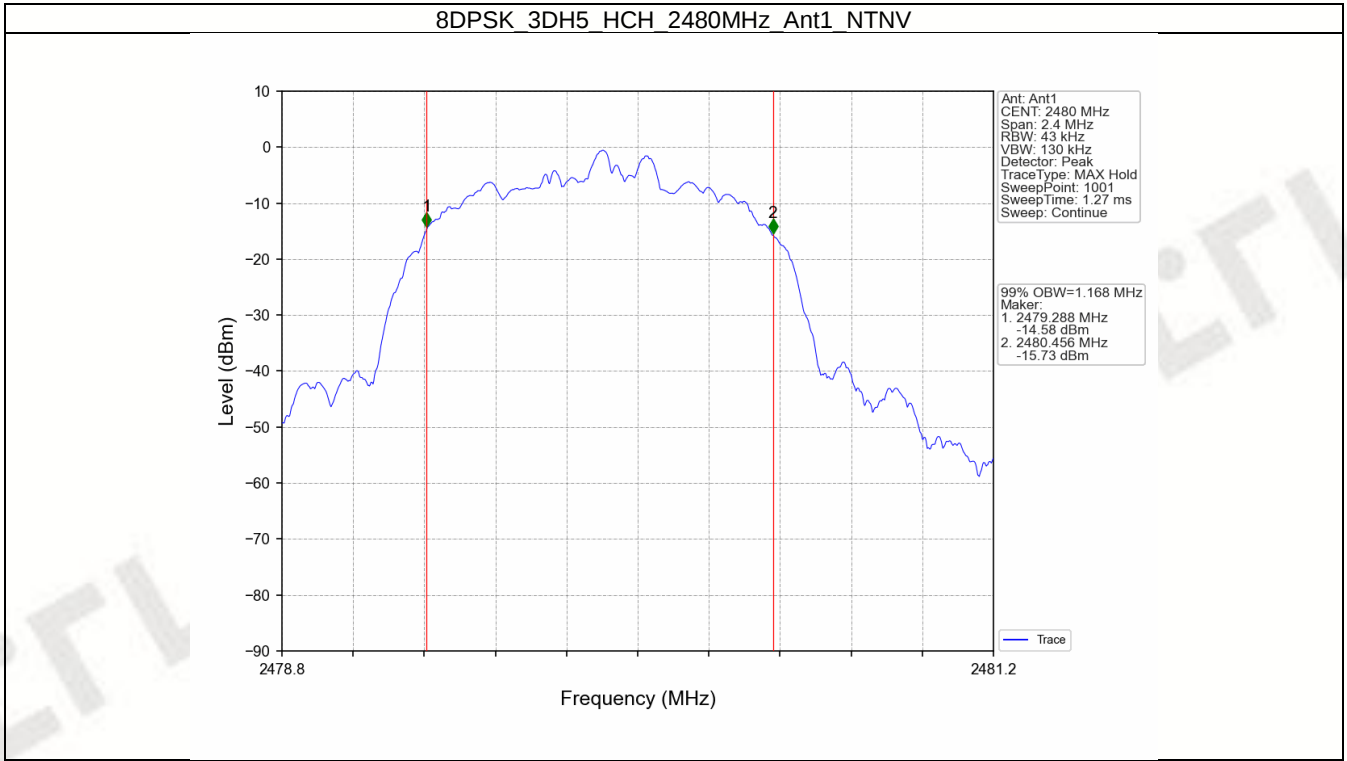
8DPSK 3DH5 LCH 2402MHz Ant1 NTN



8DPSK 3DH5 MCH 2441MHz Ant1 NTN



FCCID: 2AOM3-S53



FCCID: 2AOM3-S53

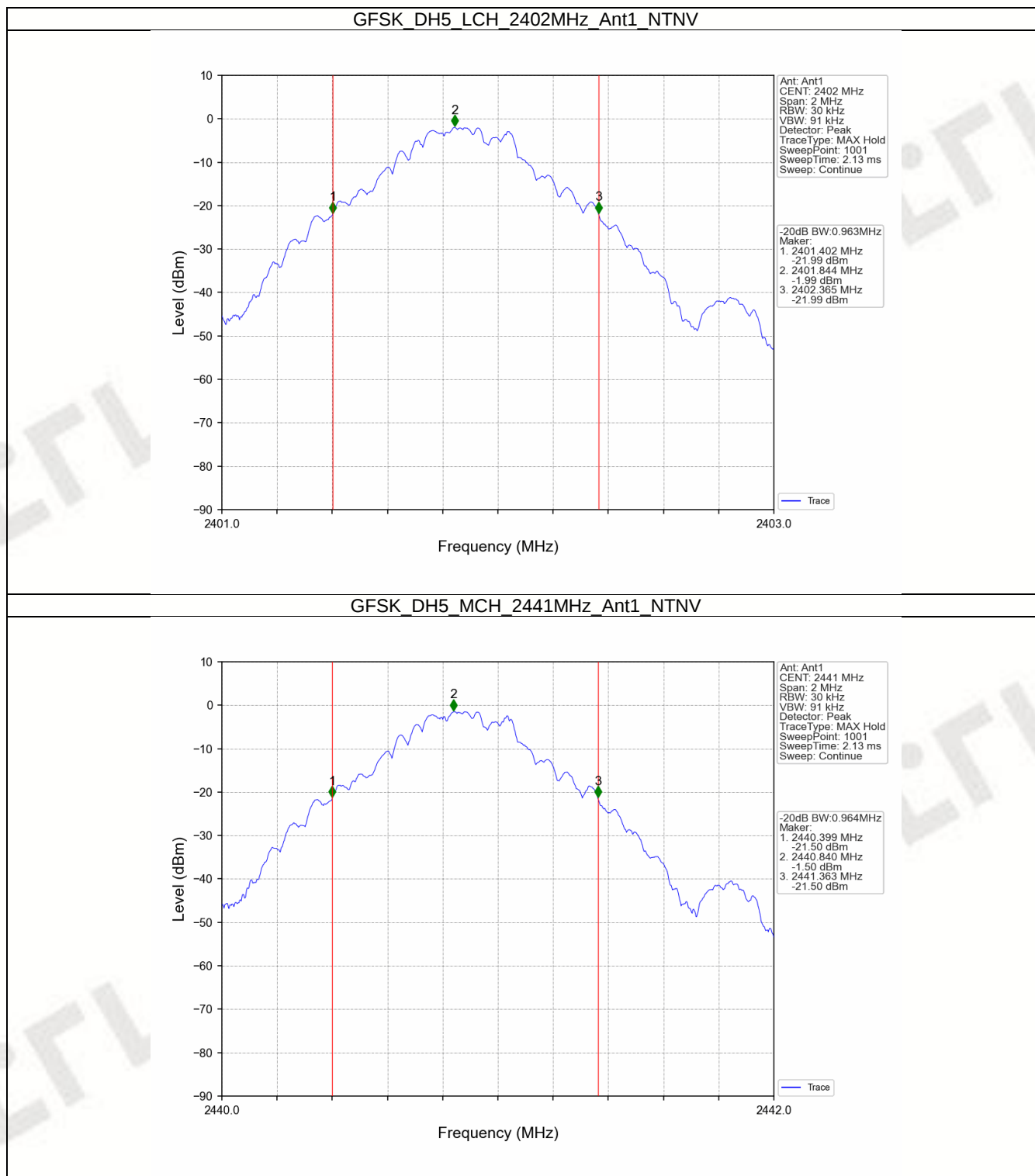
1.2 20dB BW

1.2.1 Test Result

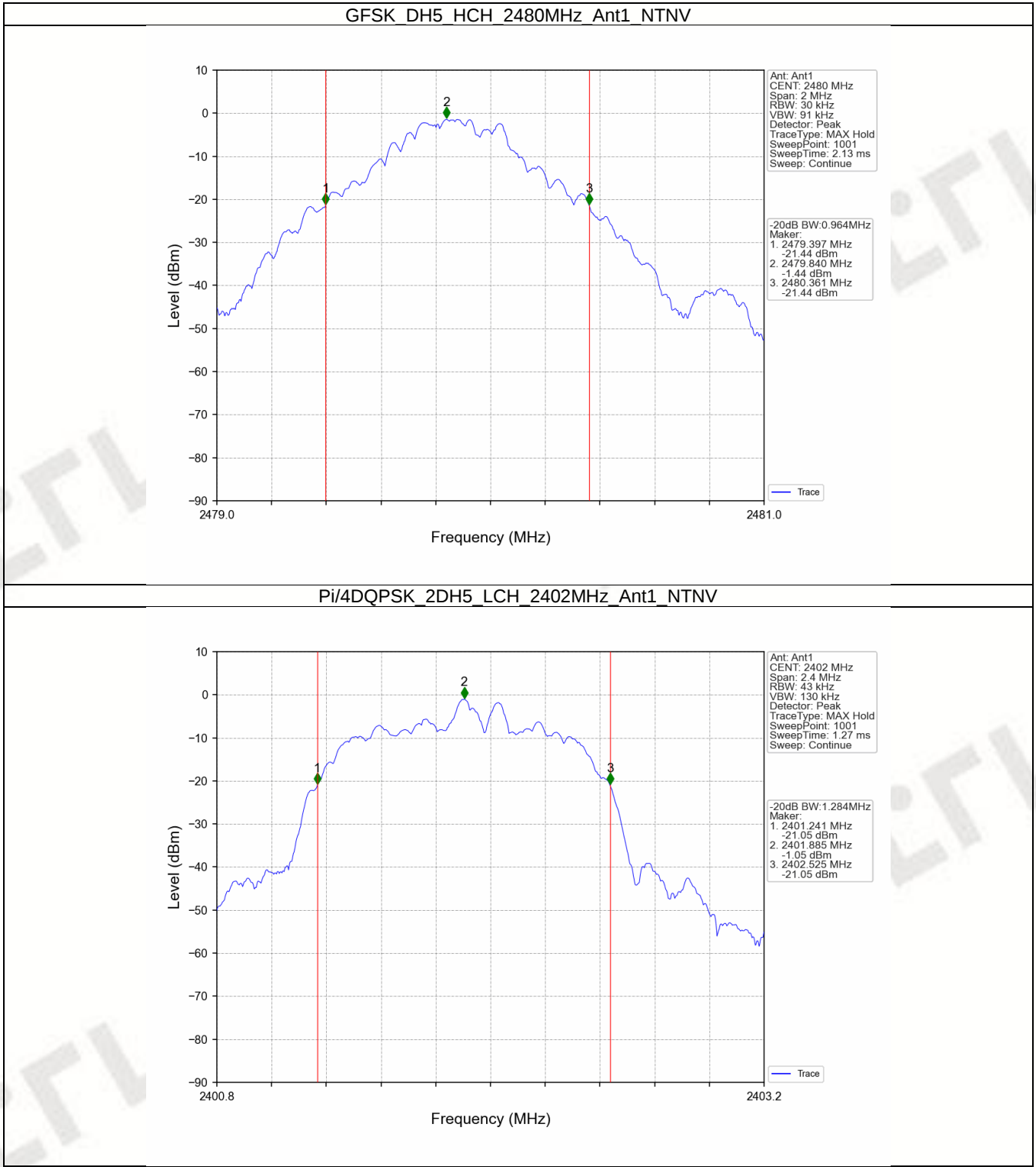
Mode	TX Type	Frequency (MHz)	Packet Type	ANT	20dB Bandwidth (MHz)		Verdict
					Result	Limit	
GFSK	SISO	2402	DH5	1	0.963	/	Pass
		2441	DH5	1	0.964	/	Pass
		2480	DH5	1	0.964	/	Pass
Pi/4DQPSK	SISO	2402	2DH5	1	1.284	/	Pass
		2441	2DH5	1	1.284	/	Pass
		2480	2DH5	1	1.282	/	Pass
8DPSK	SISO	2402	3DH5	1	1.300	/	Pass
		2441	3DH5	1	1.302	/	Pass
		2480	3DH5	1	1.302	/	Pass

FCCID: 2AOM3-S53

1.2.2 Test Graph



FCCID: 2AOM3-S53

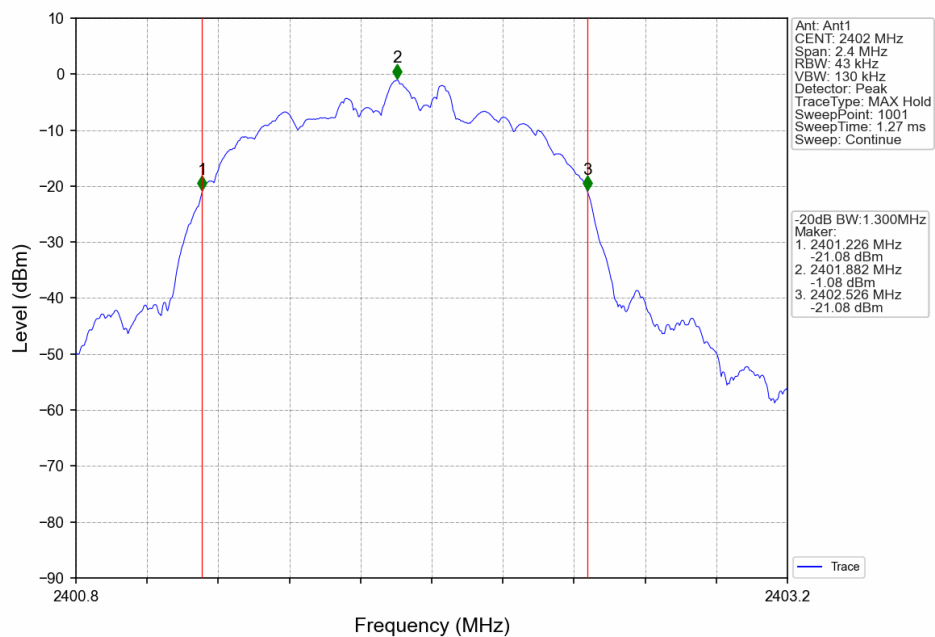


FCCID: 2AOM3-S53

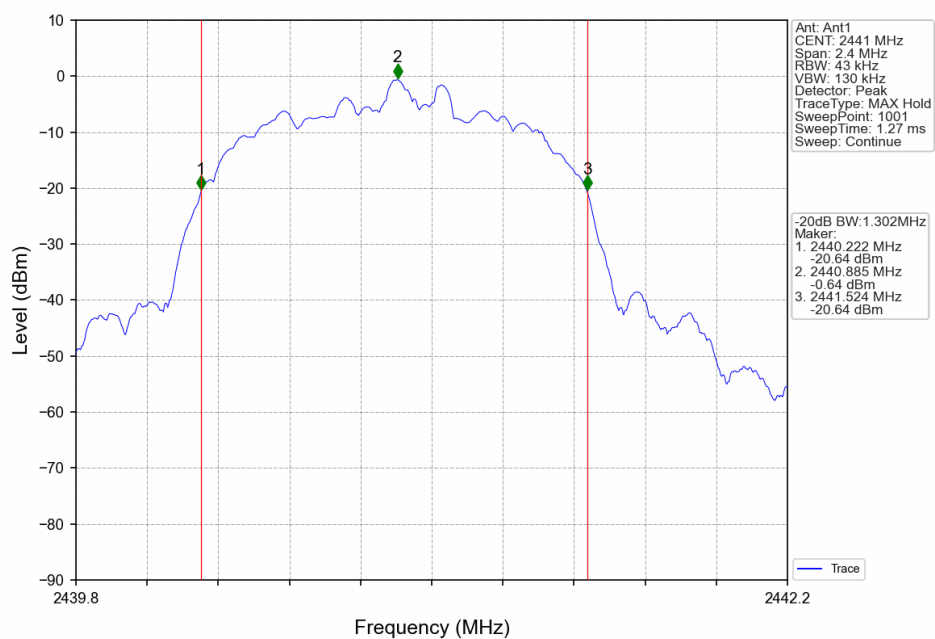


FCCID: 2AOM3-S53

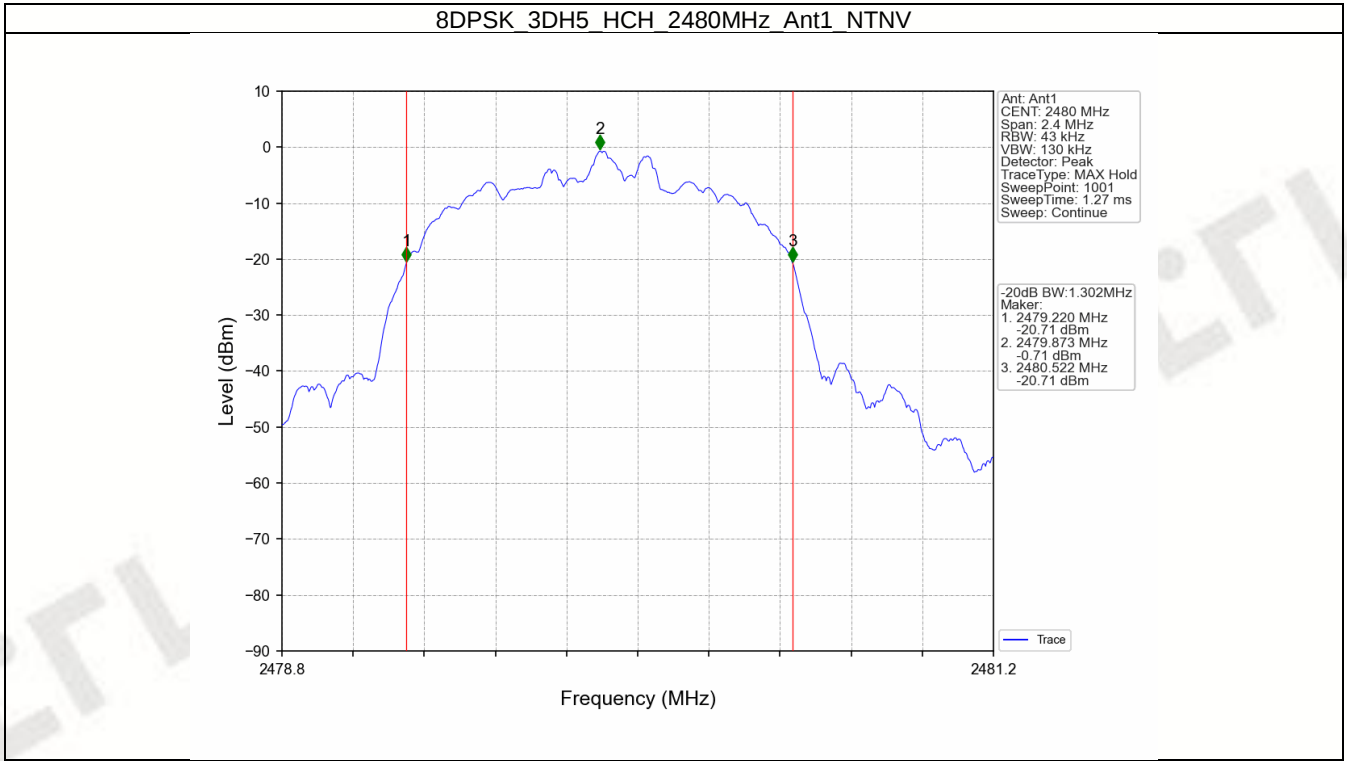
8DPSK 3DH5 LCH 2402MHz Ant1 NTN



8DPSK 3DH5_MCH 2441MHz Ant1 NTN



FCCID: 2AOM3-S53



2. Maximum Conducted Output Power

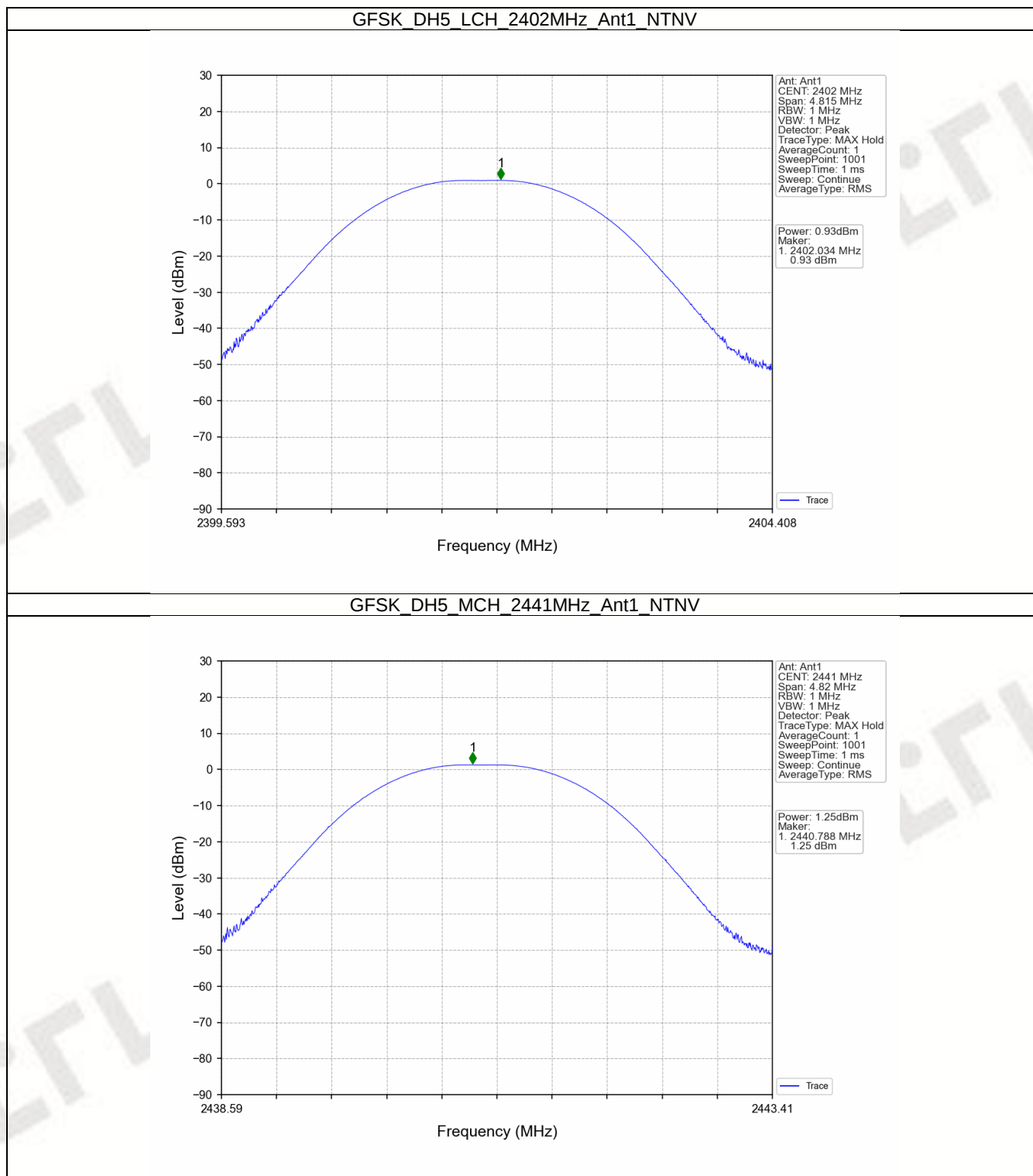
2.1 Power

2.1.1 Test Result

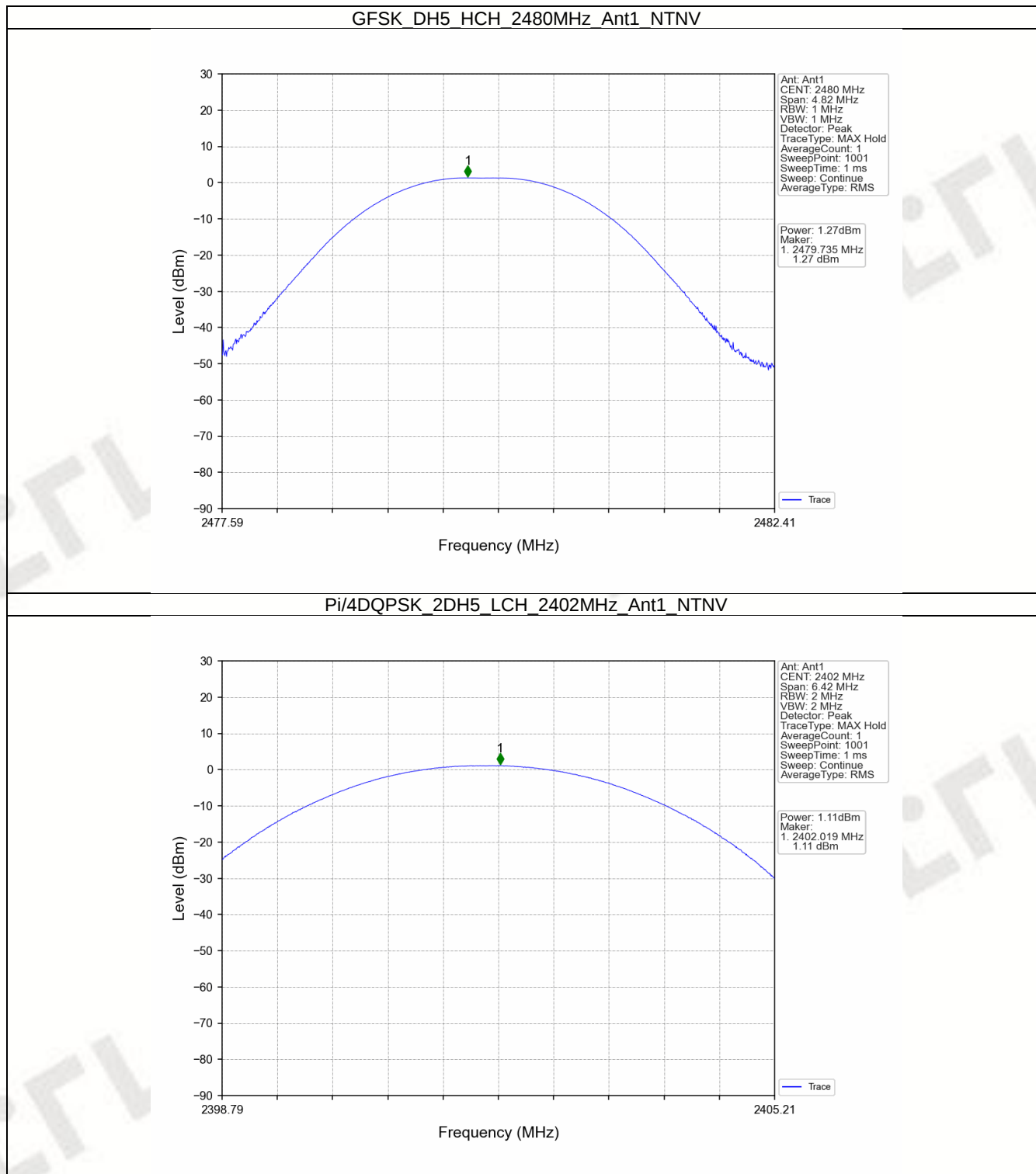
Mode	TX Type	Frequency (MHz)	Packet Type	Maximum Peak Conducted Output Power (dBm)		Verdict
				ANT1	Limit	
GFSK	SISO	2402	DH5	0.93	<=30	Pass
		2441	DH5	1.25	<=30	Pass
		2480	DH5	1.27	<=30	Pass
Pi/4DQPSK	SISO	2402	2DH5	1.11	<=20.97	Pass
		2441	2DH5	1.60	<=20.97	Pass
		2480	2DH5	1.61	<=20.97	Pass
8DPSK	SISO	2402	3DH5	1.70	<=20.97	Pass
		2441	3DH5	2.37	<=20.97	Pass
		2480	3DH5	2.25	<=20.97	Pass
Note1: Antenna Gain: Ant1: 0.50dBi;						

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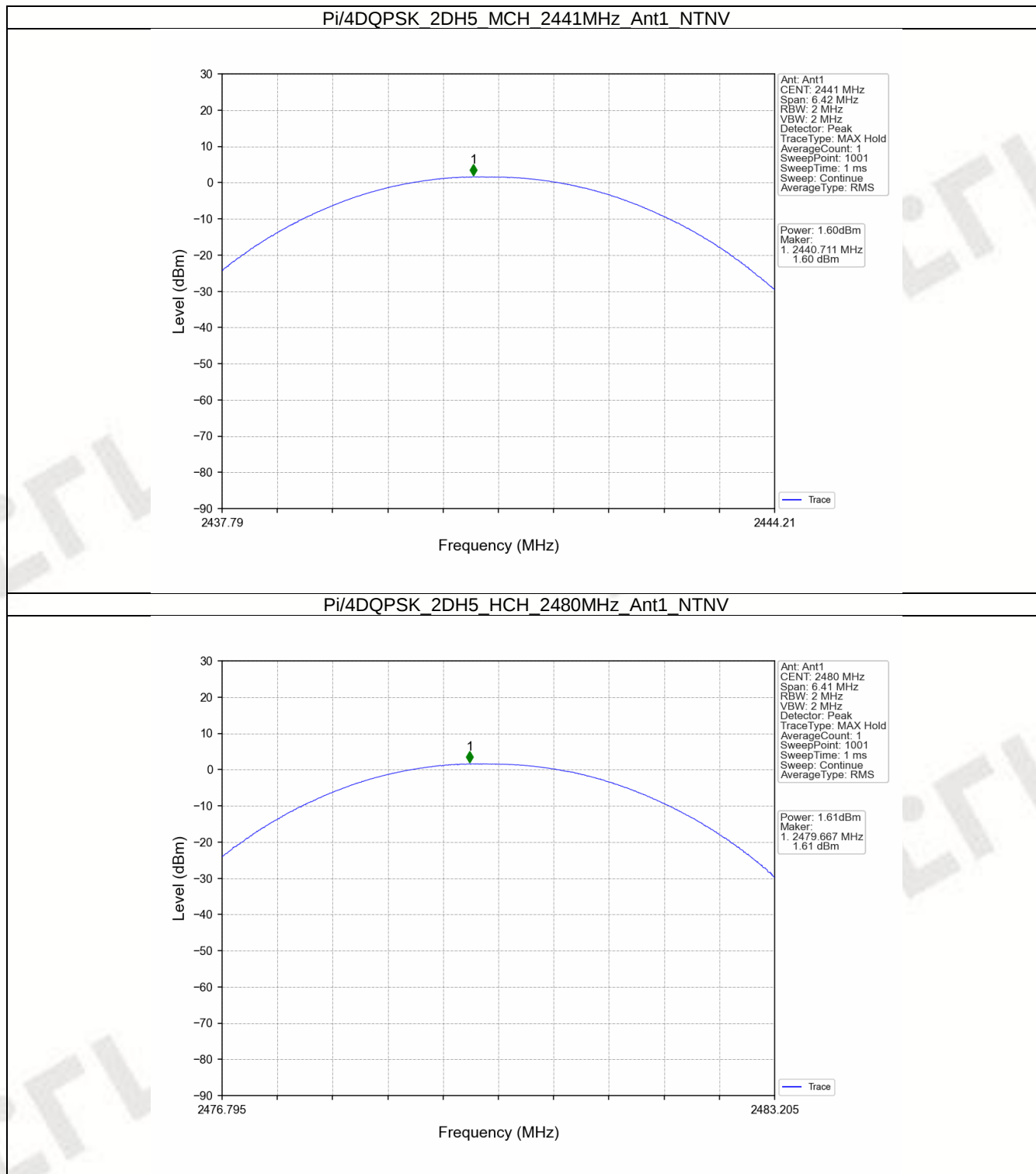
2.1.2 Test Graph



FCCID: 2AOM3-S53

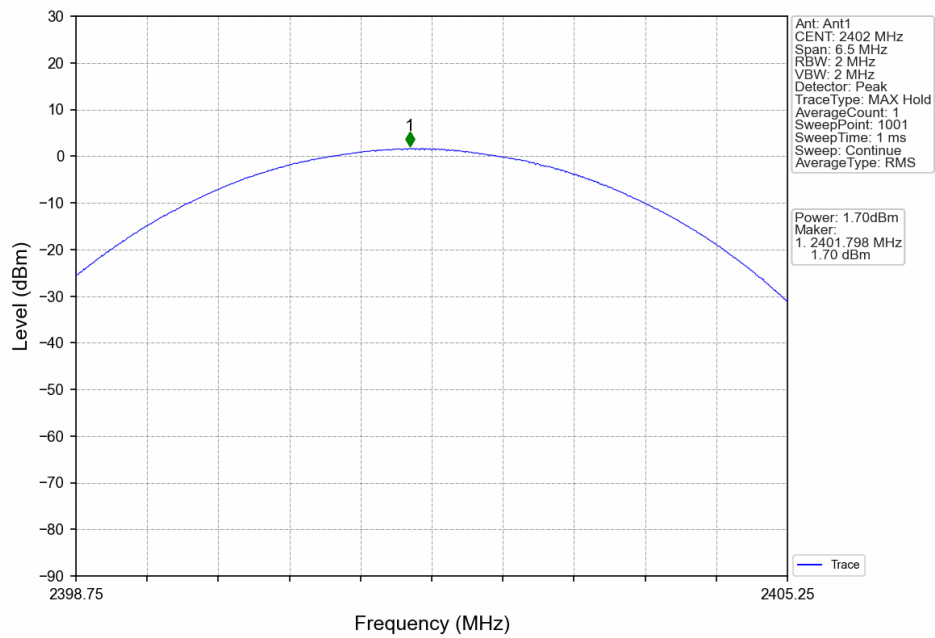


FCCID: 2AOM3-S53

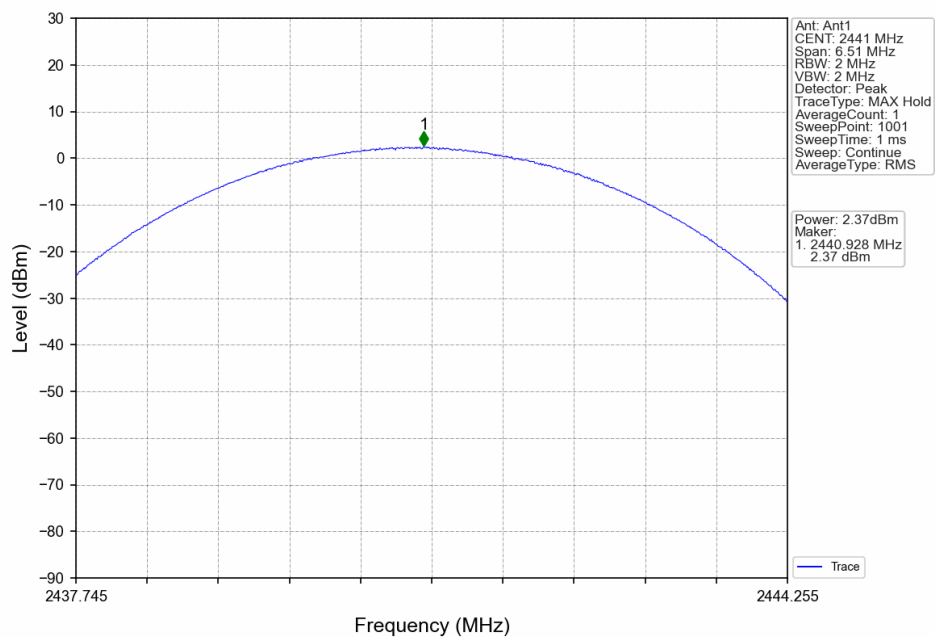


FCCID: 2AOM3-S53

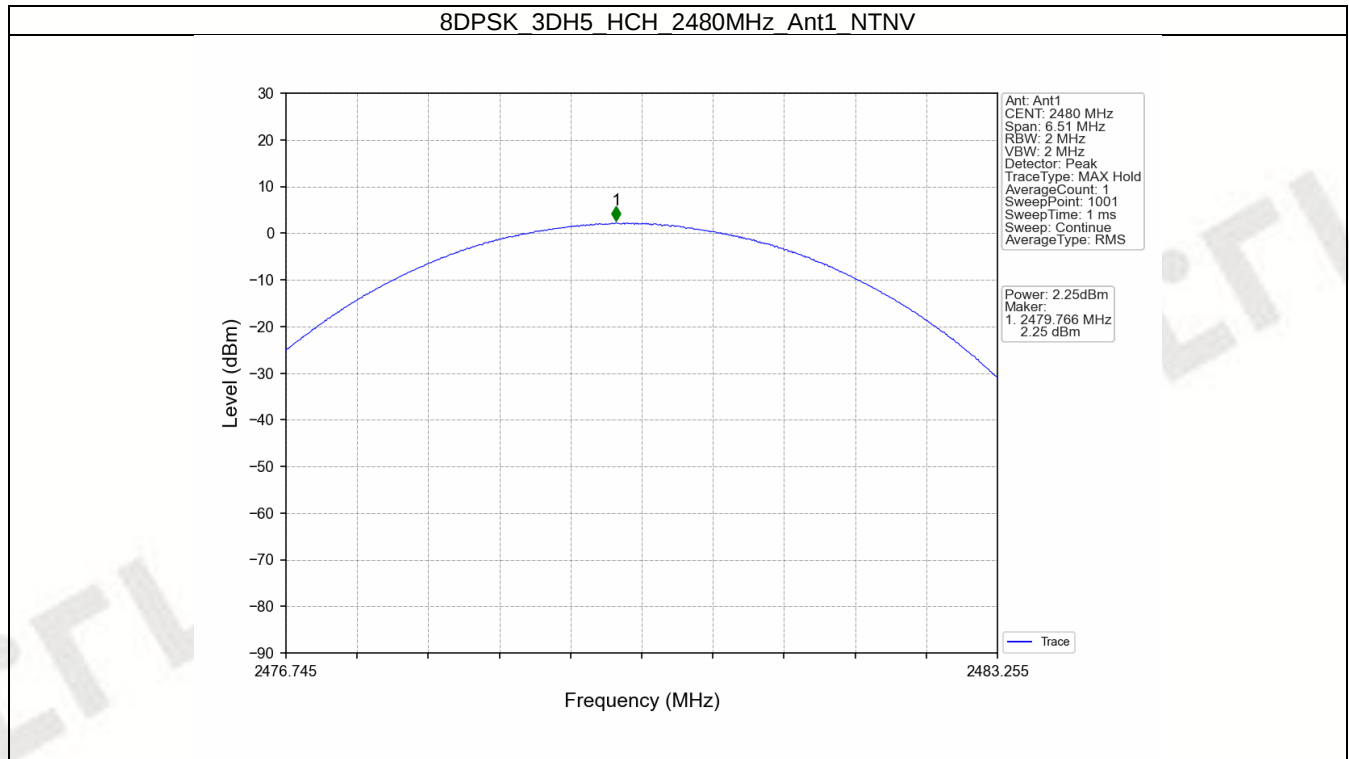
8DPSK 3DH5 LCH 2402MHz Ant1 NTN



8DPSK 3DH5 MCH 2441MHz Ant1 NTN



FCCID: 2AOM3-S53



3. Carrier Frequency Separation

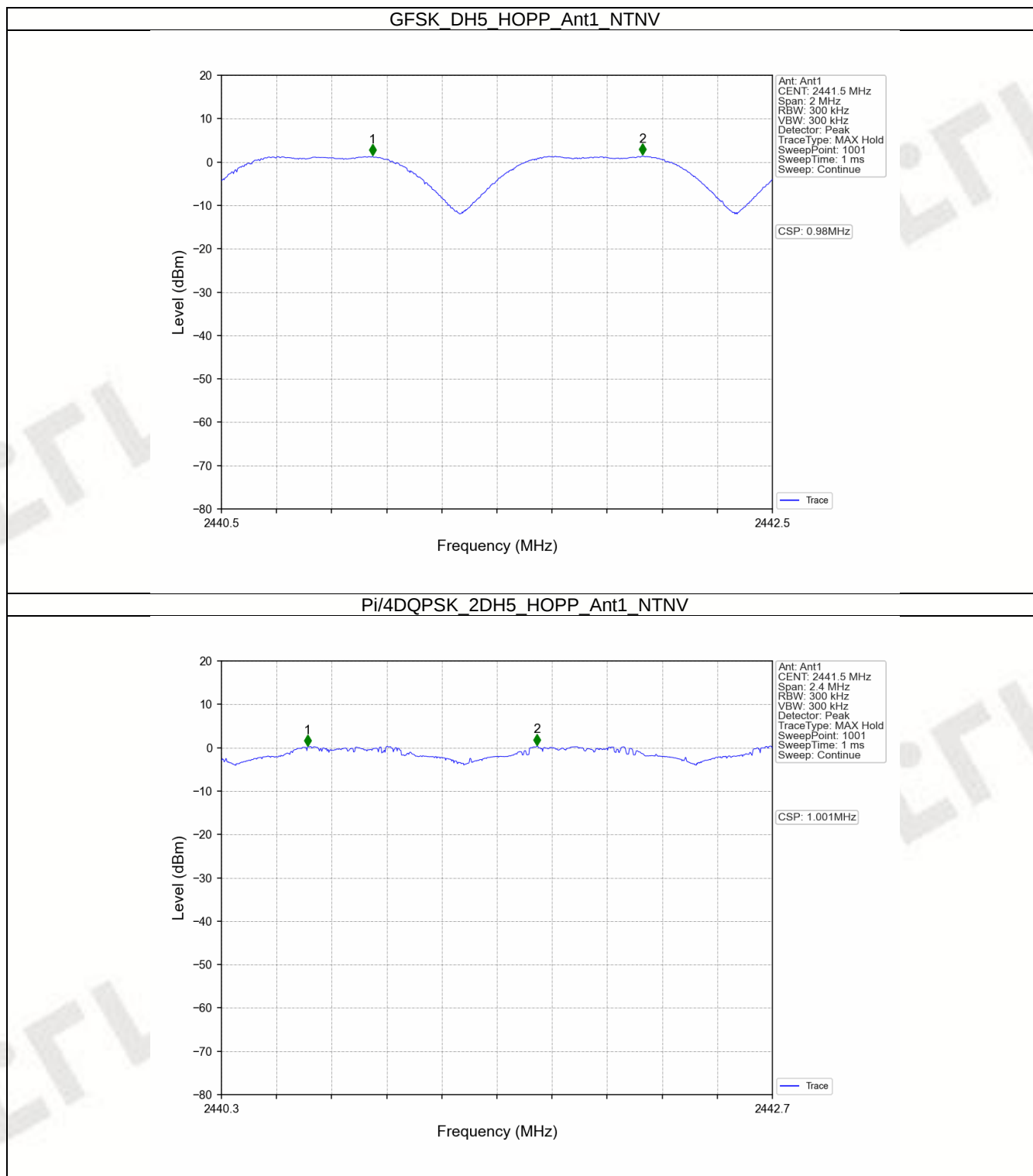
3.1 Ant1

3.1.1 Test Result

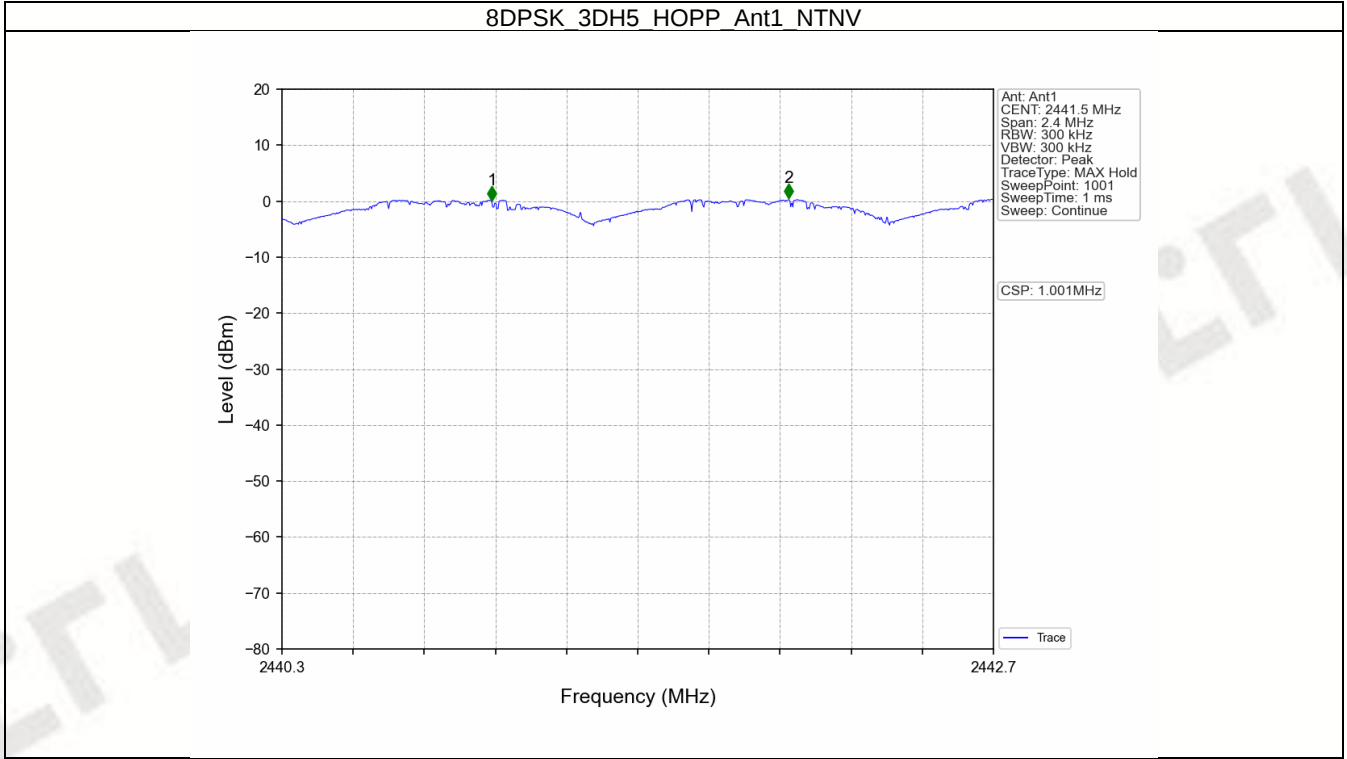
Ant1							
Mode	TX Type	Frequency (MHz)	Packet Type	Channel Separation (MHz)	20dB Bandwidth (MHz)	Limit (MHz)	Verdict
GFSK	SISO	HOPP	DH5	0.980	0.964	≥ 0.964	Pass
Pi/4DQPSK	SISO	HOPP	2DH5	1.001	1.284	≥ 0.856	Pass
8DPSK	SISO	HOPP	3DH5	1.001	1.302	≥ 0.868	Pass

FCCID: 2AOM3-S53

3.1.2 Test Graph



FCCID: 2AOM3-S53



4. Number of Hopping Frequencies

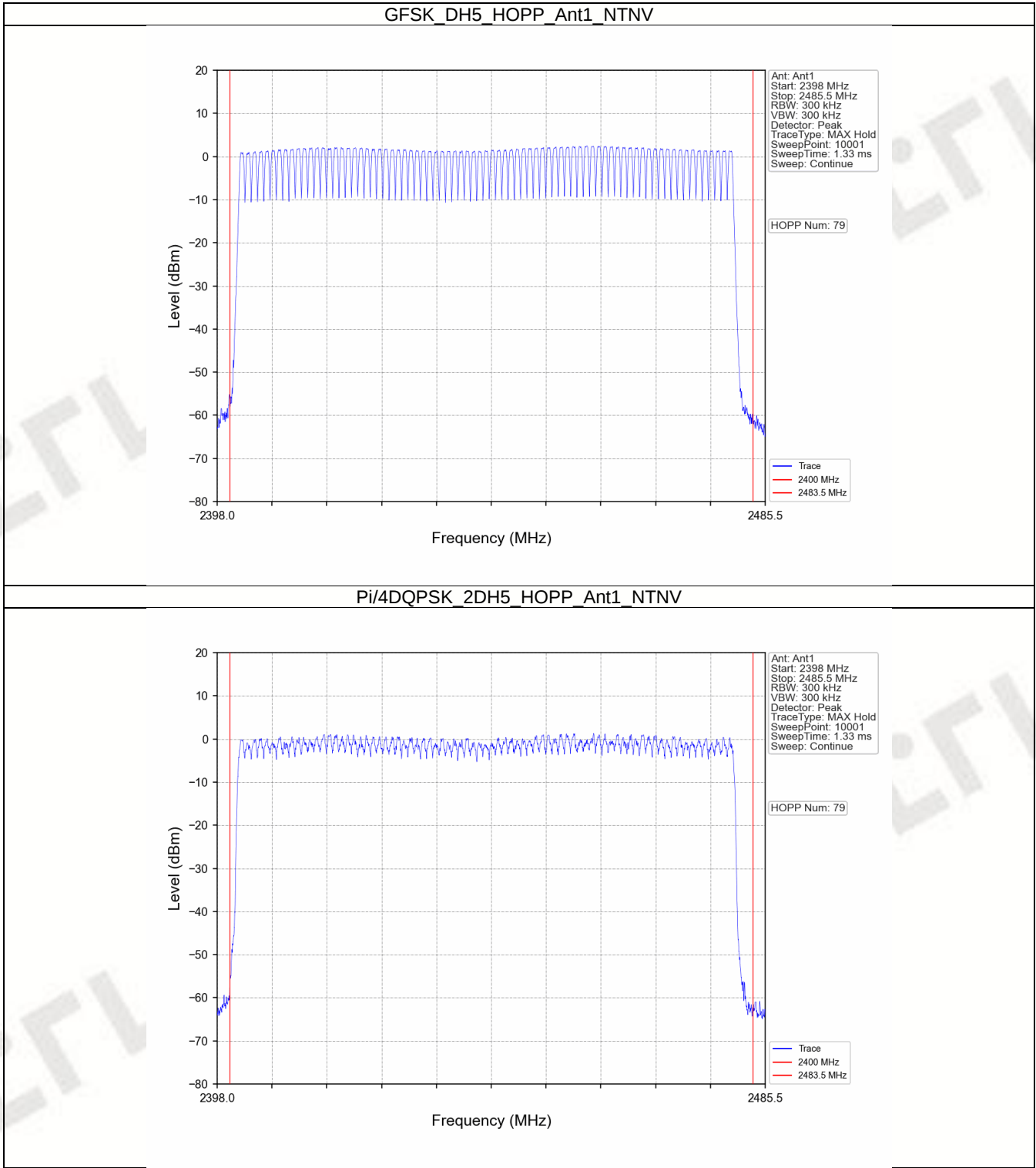
4.1 HoppNum

4.1.1 Test Result

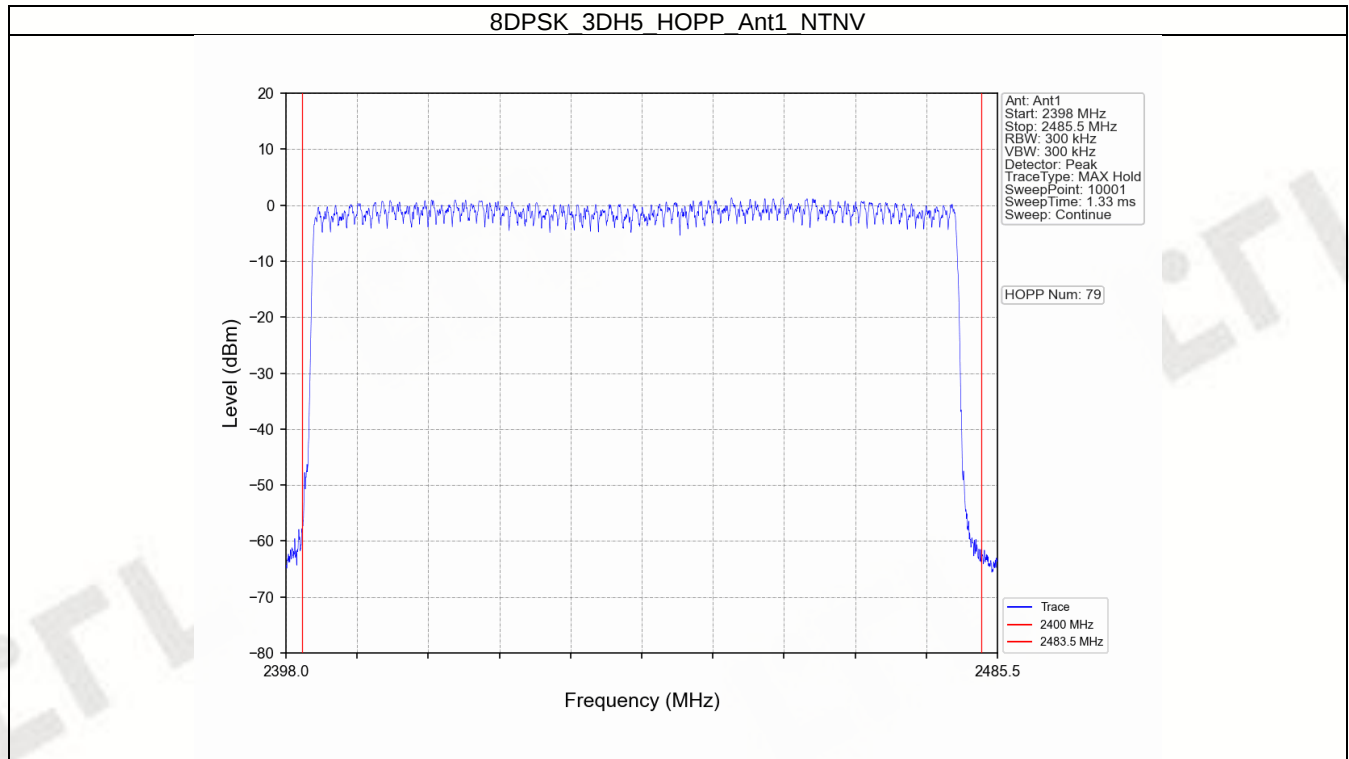
Mode	TX Type	Frequency (MHz)	Packet Type	Num of Hopping Frequencies		Verdict
				ANT1	Limit	
GFSK	SISO	HOPP	DH5	79	>=15	Pass
PI/4DQPSK	SISO	HOPP	2DH5	79	>=15	Pass
8DPSK	SISO	HOPP	3DH5	79	>=15	Pass

FCCID: 2AOM3-S53

4.1.2 Test Graph



FCCID: 2AOM3-S53



FCCID: 2AOM3-S53

5. Time of Occupancy (Dwell Time)

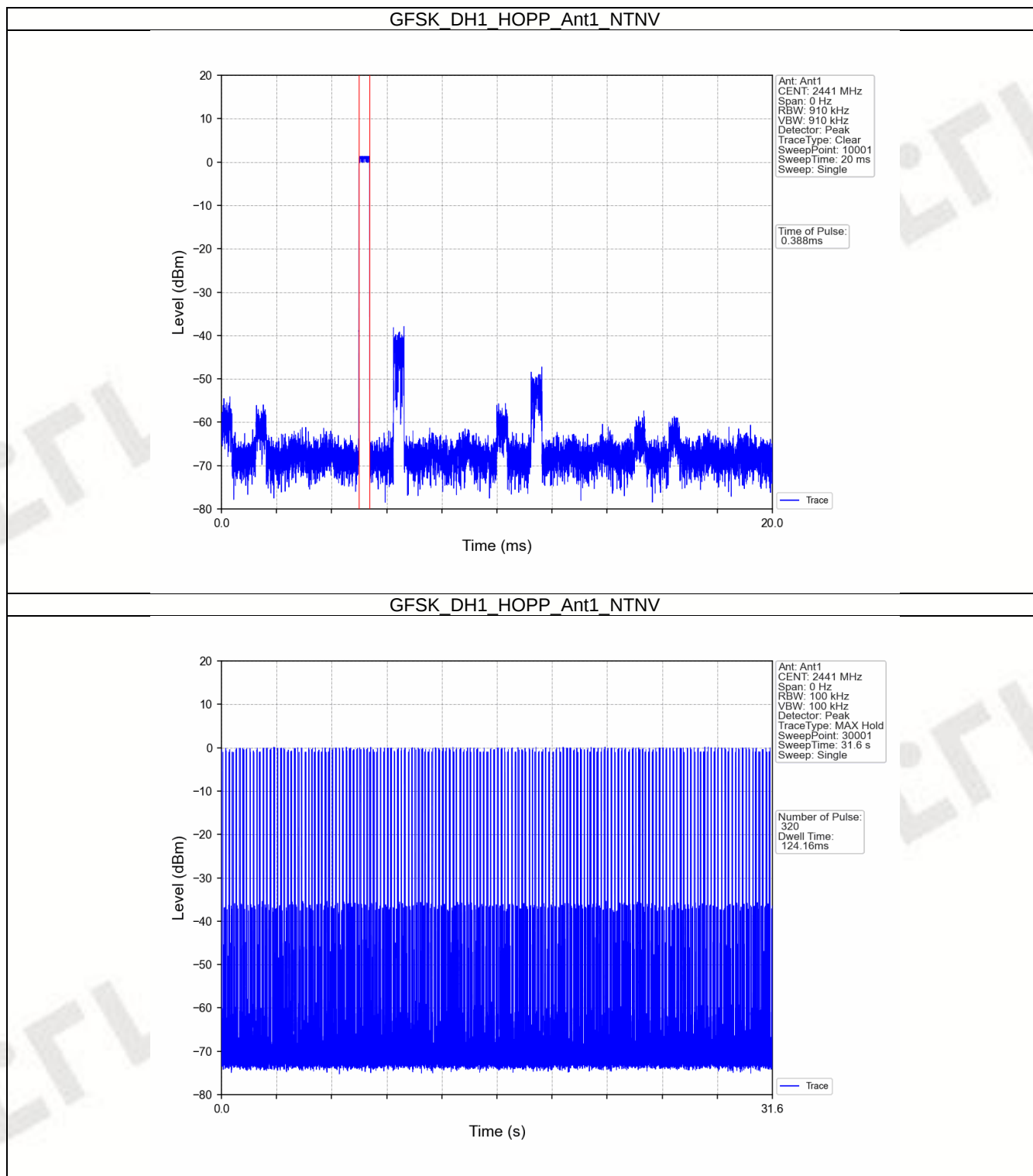
5.1 Ant1

5.1.1 Test Result

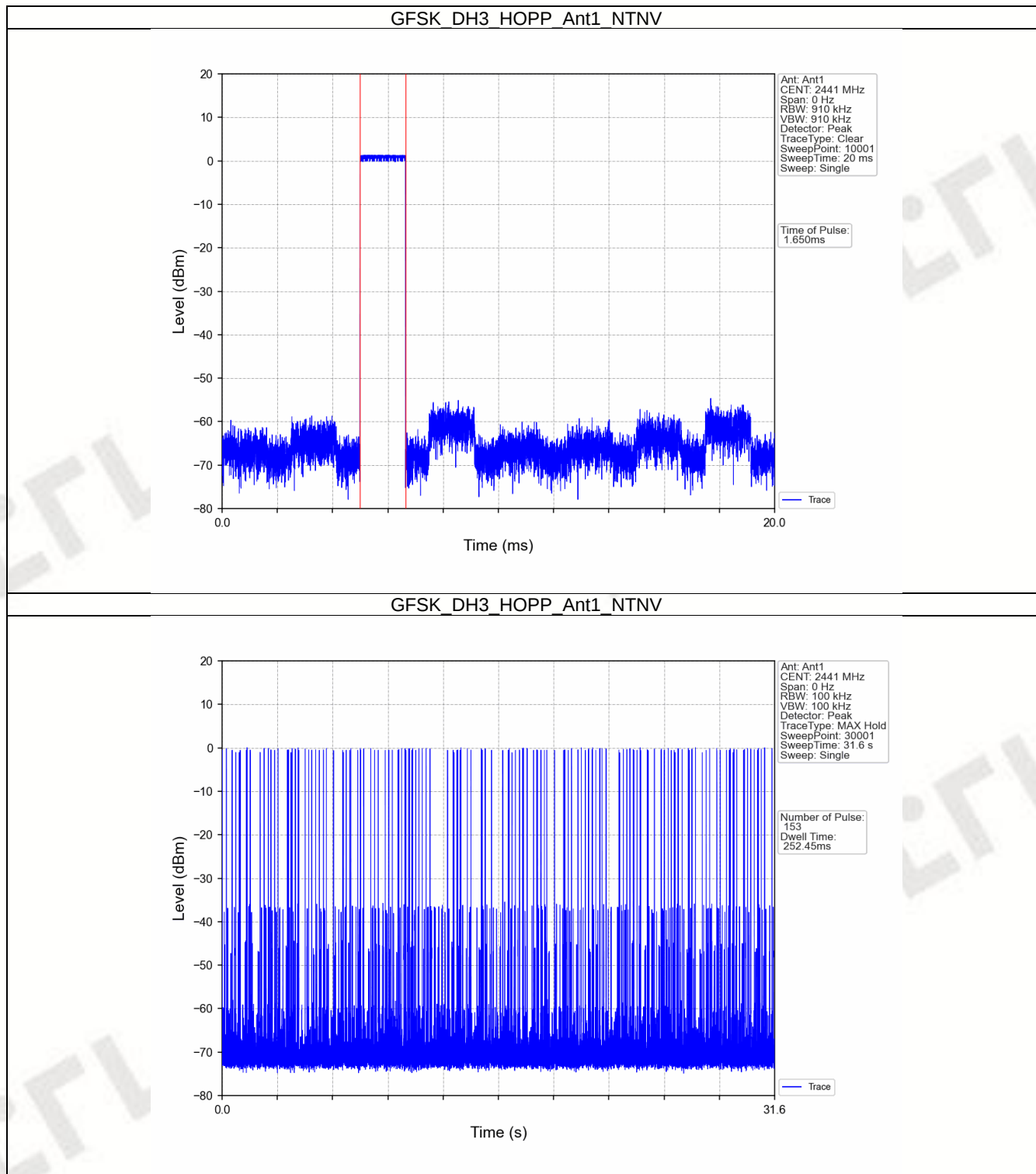
Ant1									
Mode	TX Type	Frequency (MHz)	Packet Type	Duration of Single Pulse (ms)	Observation Period (s)	Num of Pulse in Observation Period	Dwell Time (ms)	Limit (ms)	Verdict
GFSK	SISO	HOPP	DH1	0.388	31.600	320	124.160	<=400	Pass
			DH3	1.650	31.600	153	252.450	<=400	Pass
			DH5	2.898	31.600	102	295.596	<=400	Pass
Pi/4DQPSK	SISO	HOPP	2DH1	0.396	31.600	209	82.764	<=400	Pass
			2DH3	1.648	31.600	138	227.424	<=400	Pass
			2DH5	2.904	31.600	87	252.648	<=400	Pass
8DPSK	SISO	HOPP	3DH1	0.394	31.600	223	87.862	<=400	Pass
			3DH3	1.656	31.600	141	233.496	<=400	Pass
			3DH5	2.906	31.600	69	200.514	<=400	Pass

FCCID: 2AOM3-S53

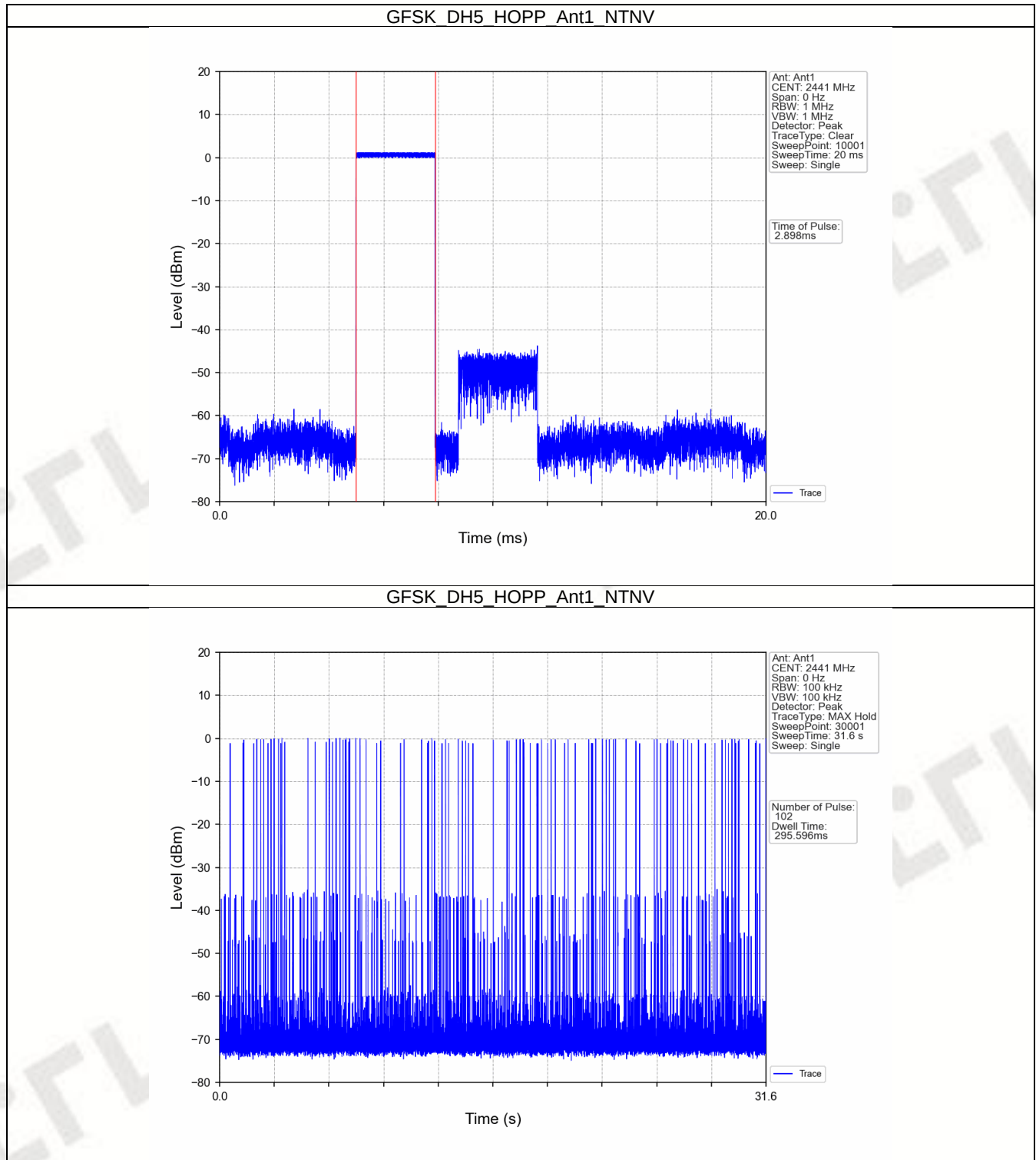
5.1.2 Test Graph



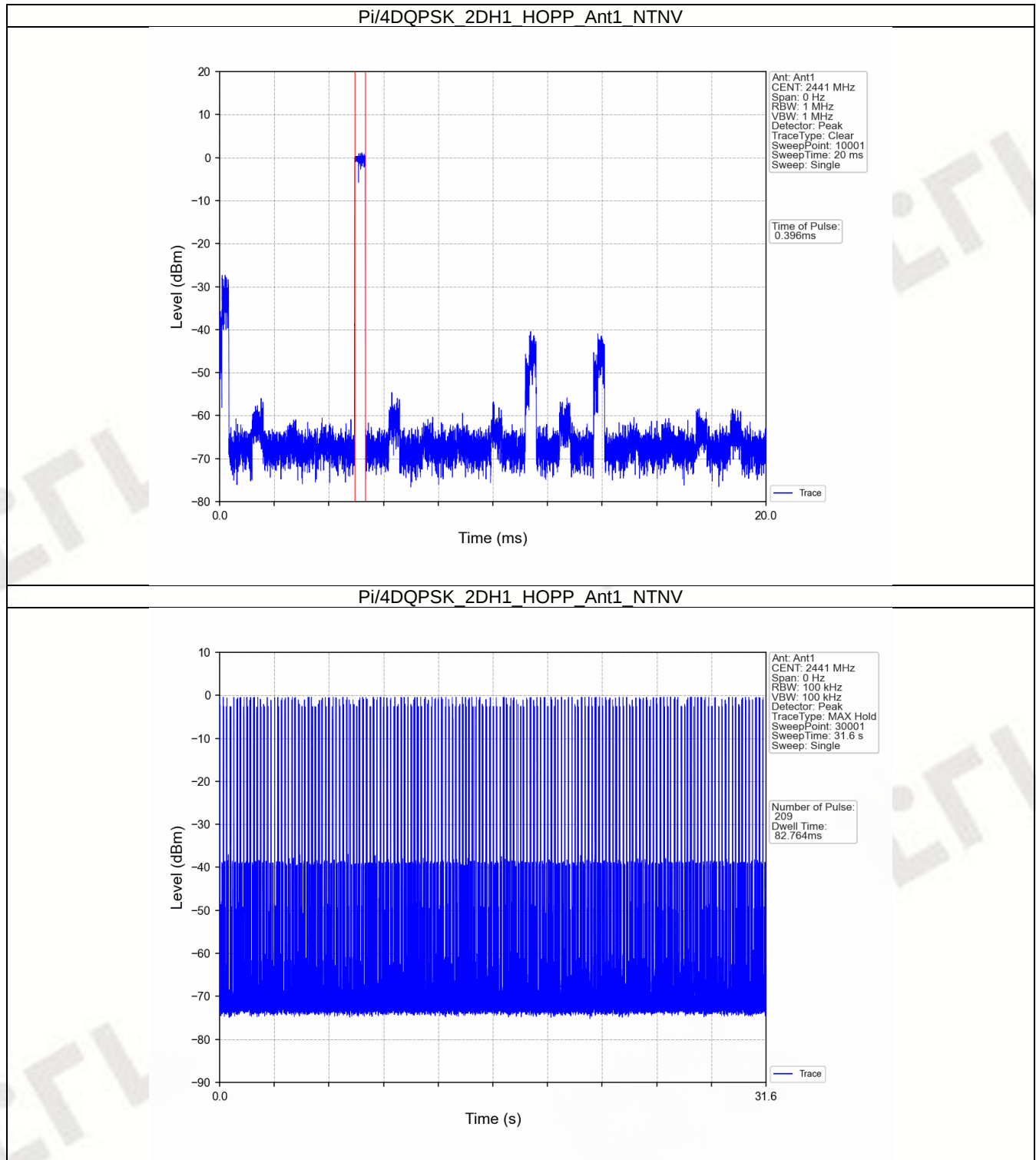
FCCID: 2AOM3-S53



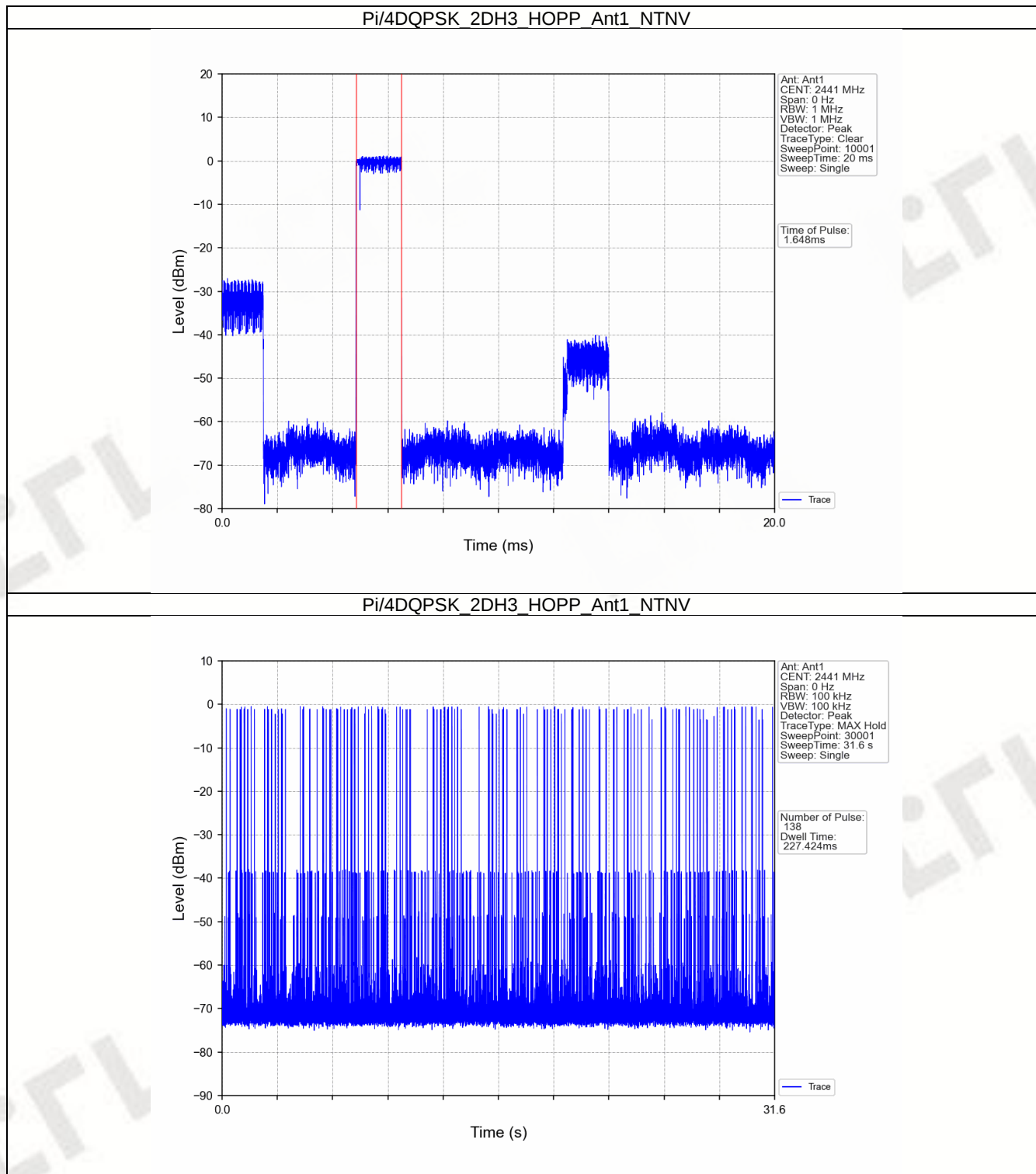
FCCID: 2AOM3-S53



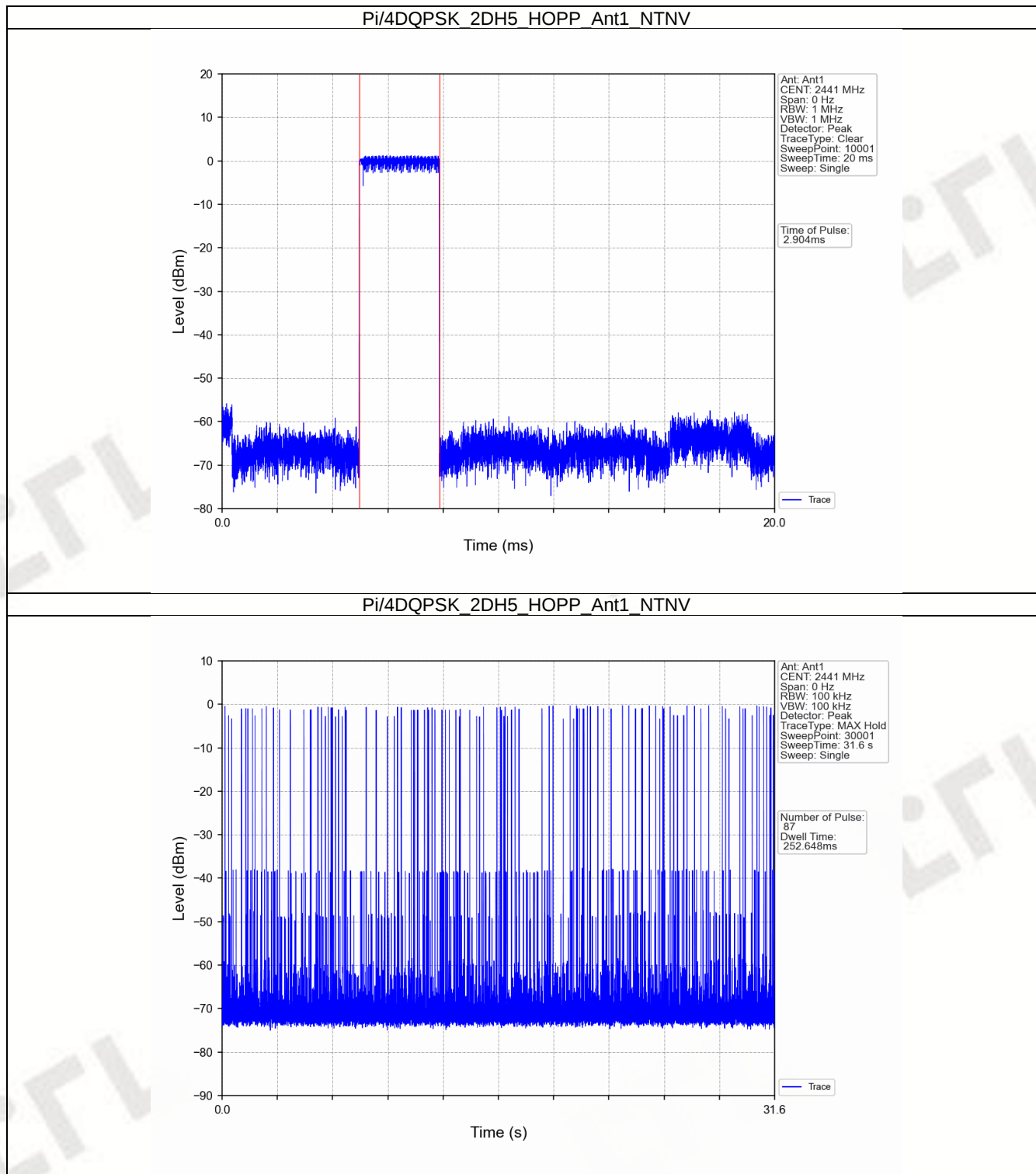
FCCID: 2AOM3-S53



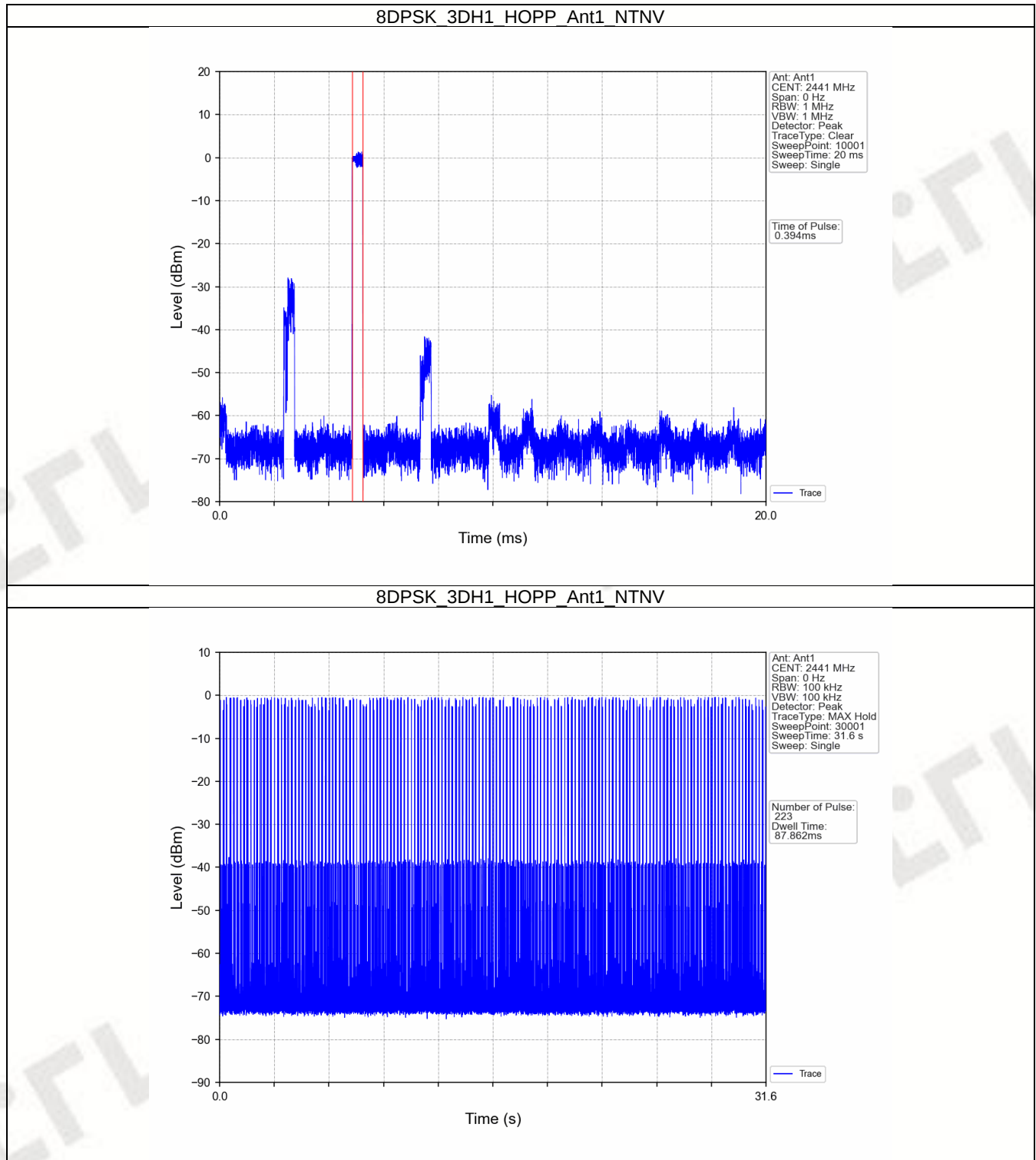
FCCID: 2AOM3-S53



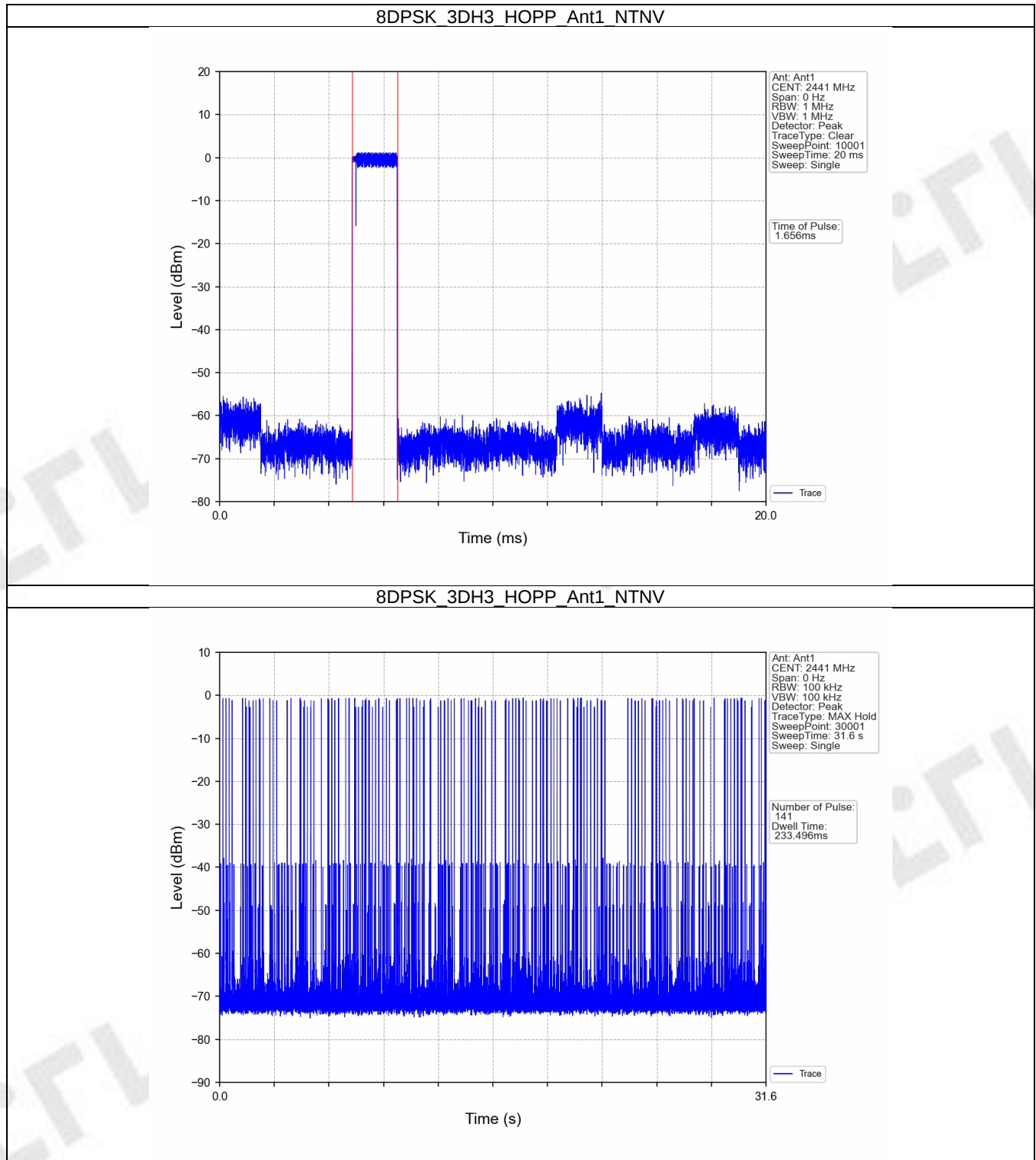
FCCID: 2AOM3-S53



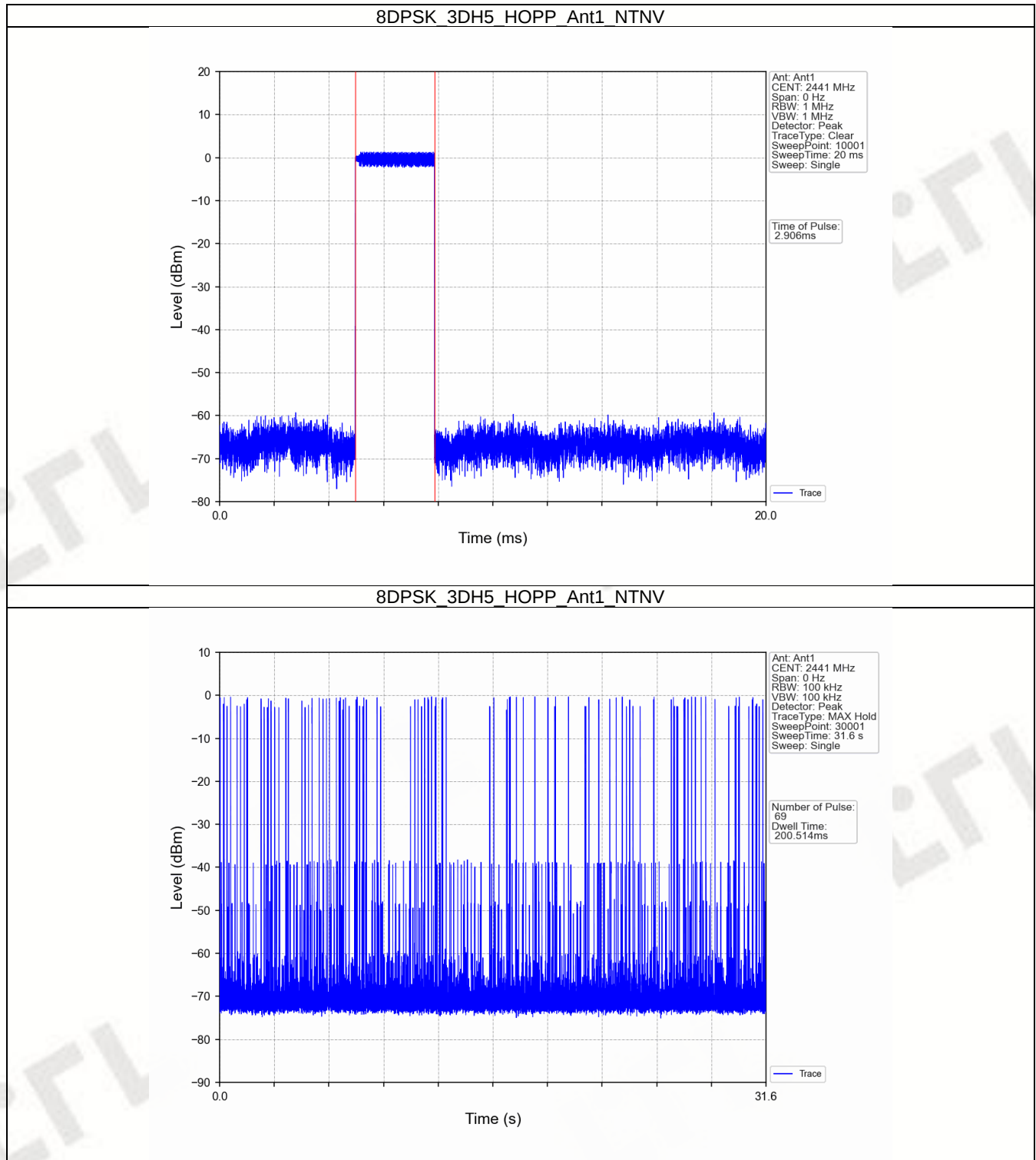
FCCID: 2AOM3-S53



FCCID: 2AOM3-S53



FCCID: 2AOM3-S53



6. Unwanted Emissions In Non-restricted Frequency Bands

6.1 Ref

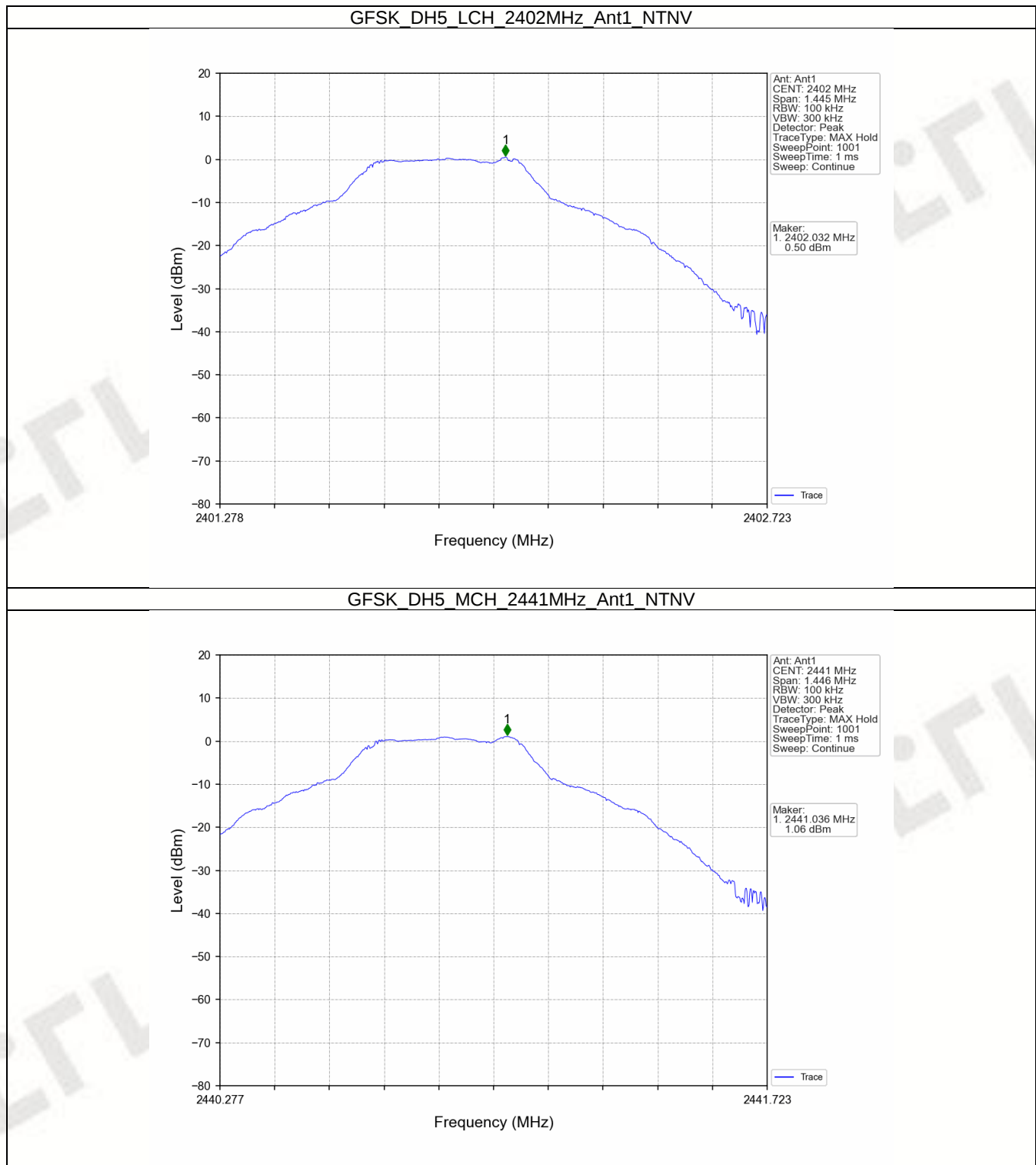
6.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Packet Type	ANT	Level of Reference (dBm)
GFSK	SISO	2402	DH5	1	0.50
		2441	DH5	1	1.06
		2480	DH5	1	1.04
Pi/4DQPSK	SISO	2402	2DH5	1	-0.65
		2441	2DH5	1	-0.52
		2480	2DH5	1	0.01
8DPSK	SISO	2402	3DH5	1	-0.49
		2441	3DH5	1	0.22
		2480	3DH5	1	-0.02

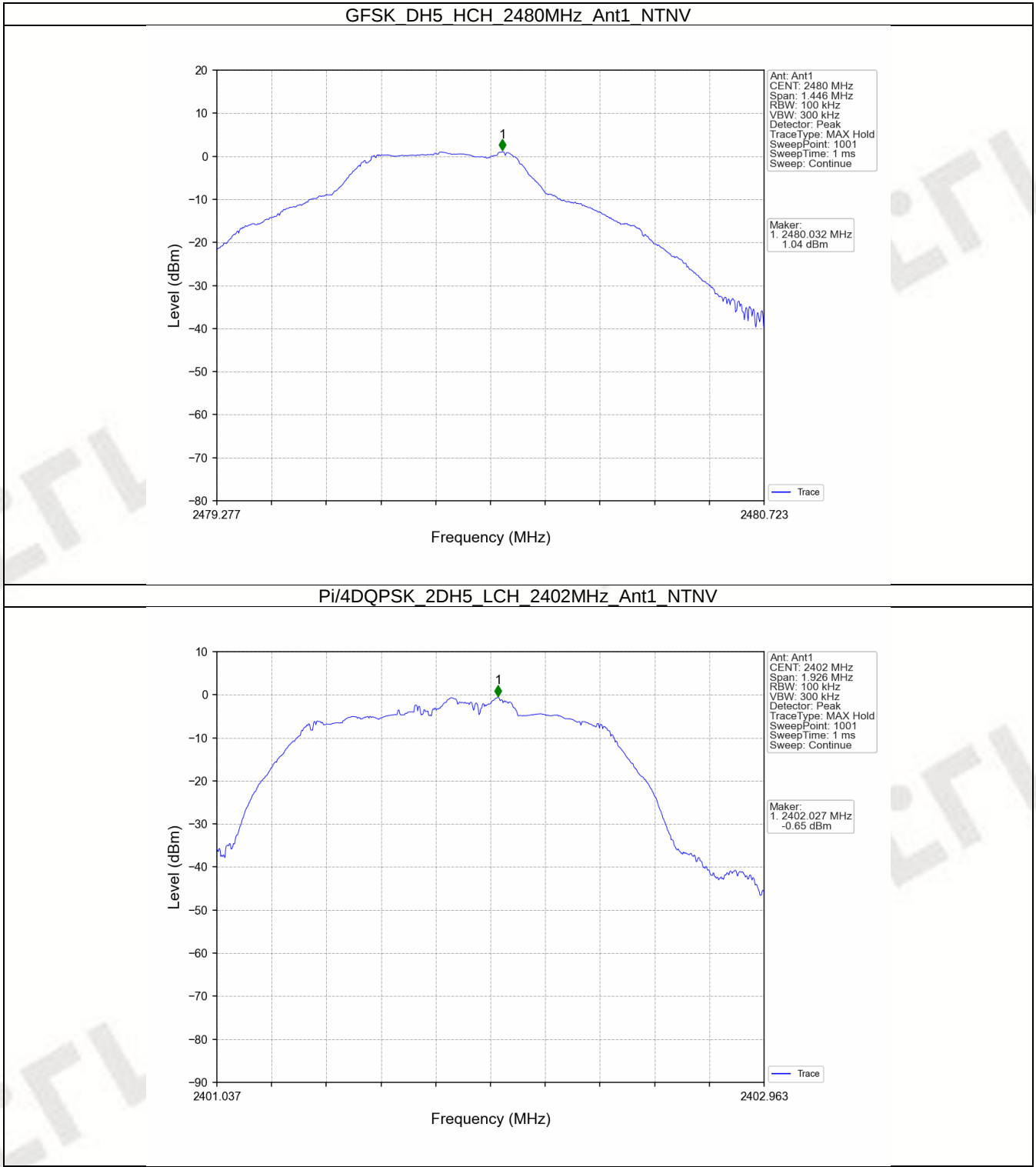
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

FCCID: 2AOM3-S53

6.1.2 Test Graph

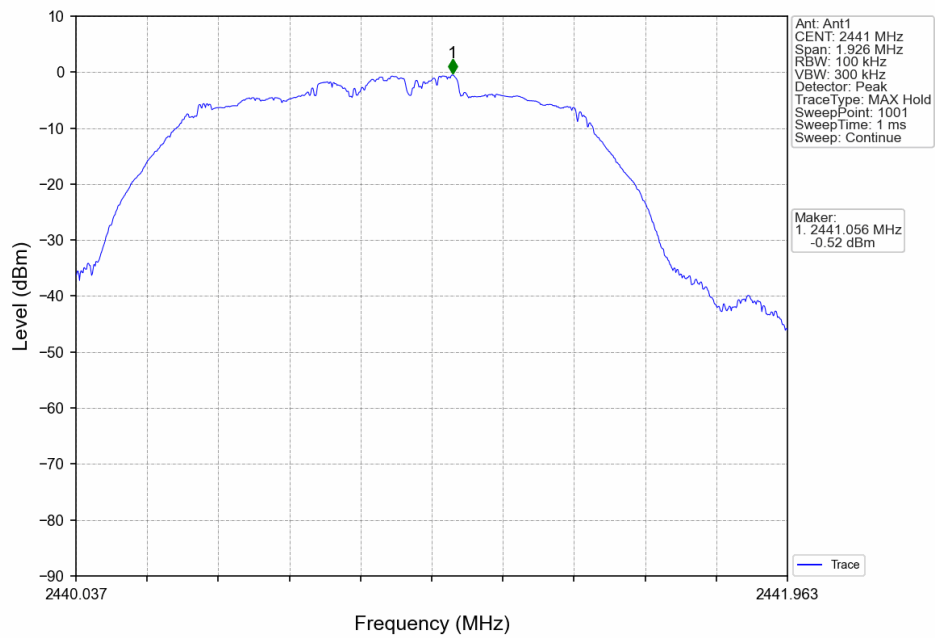


FCCID: 2AOM3-S53

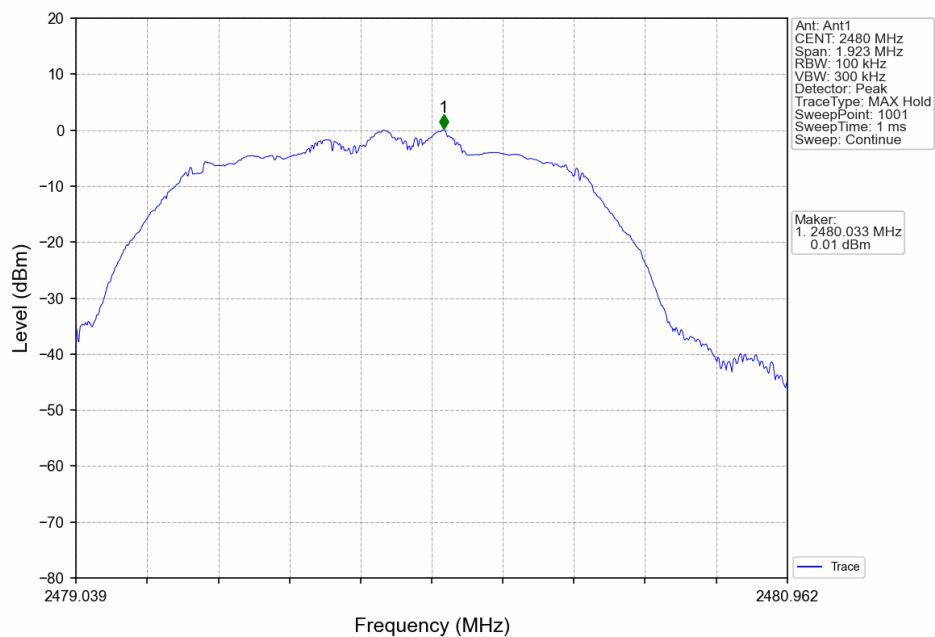


FCCID: 2AOM3-S53

Pi/4DQPSK 2DH5 MCH 2441MHz Ant1 NTN

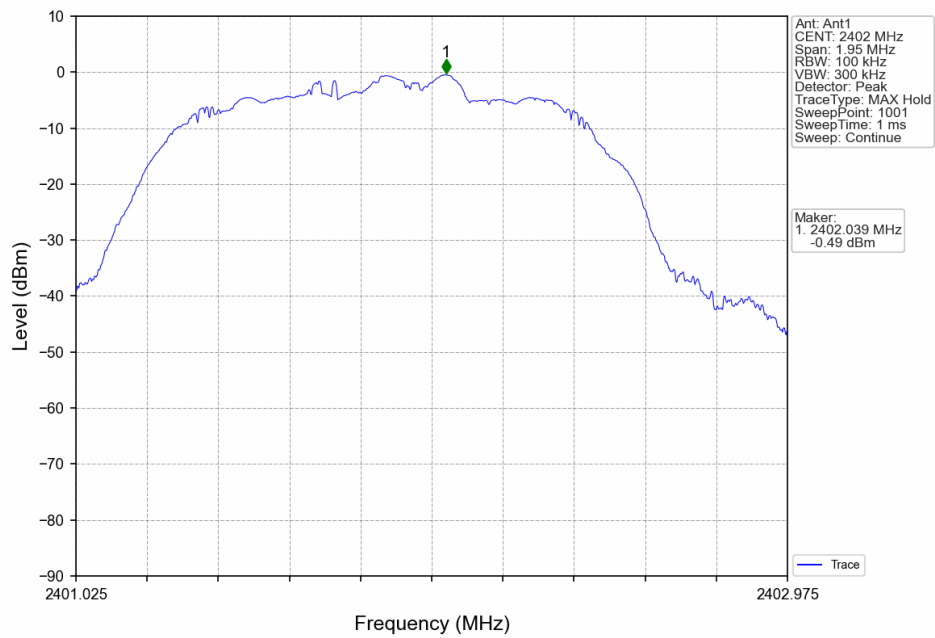


Pi/4DQPSK 2DH5 HCH 2480MHz Ant1 NTN

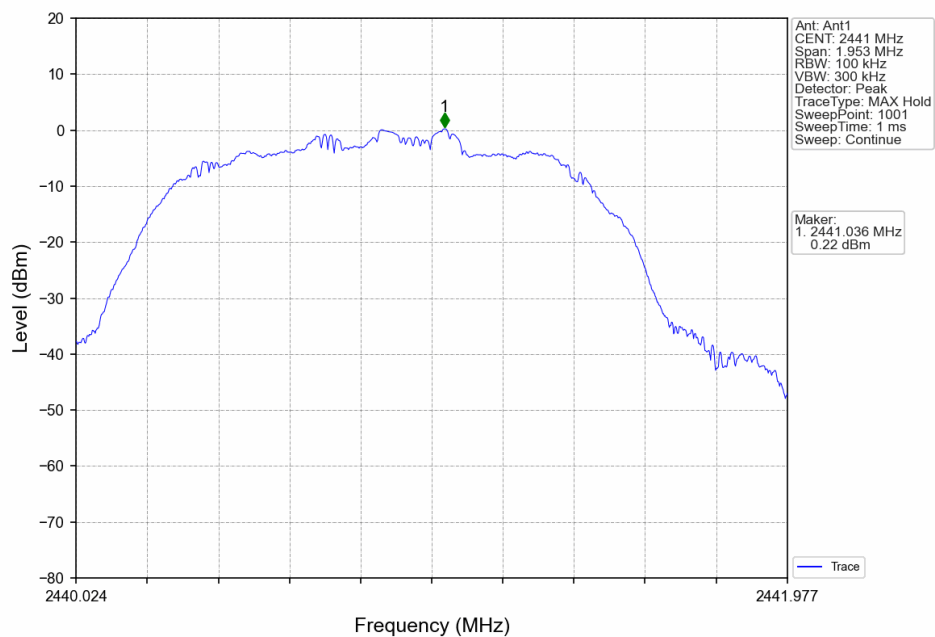


FCCID: 2AOM3-S53

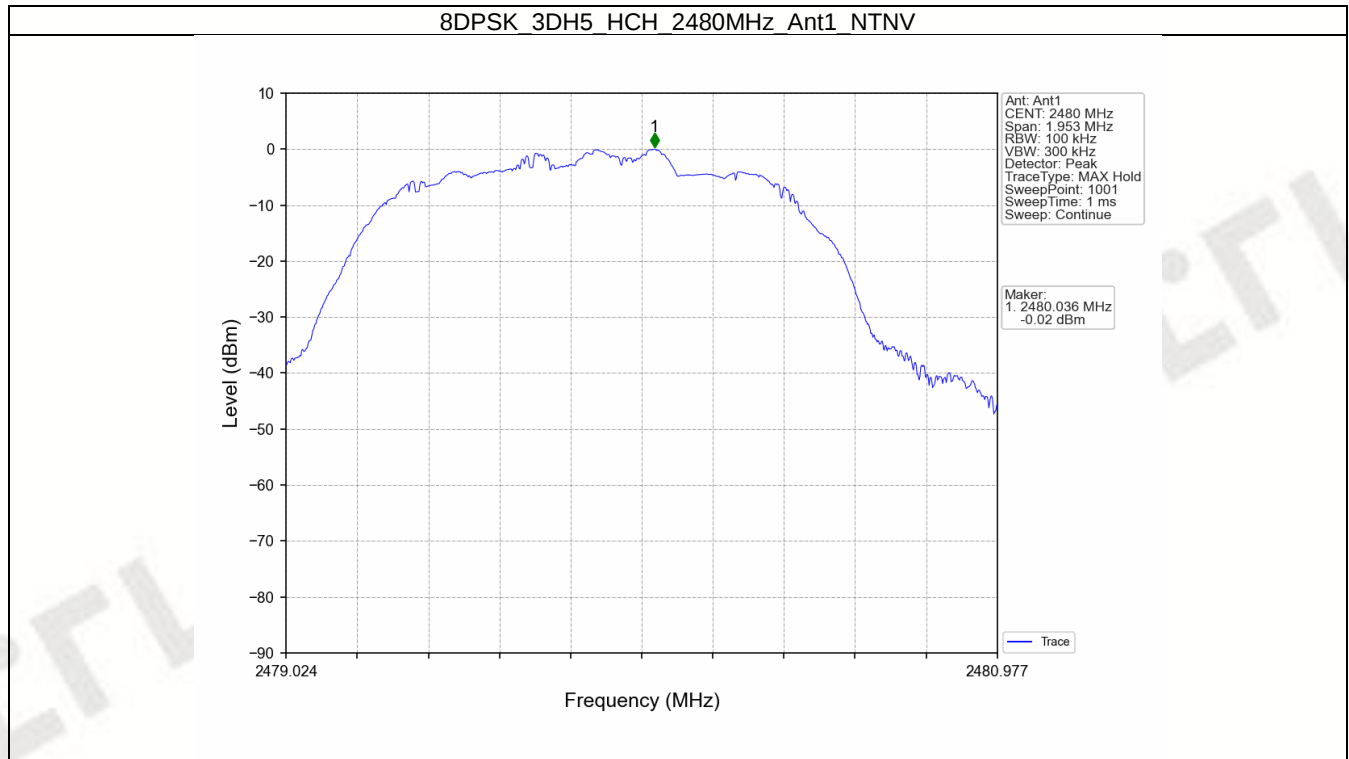
8DPSK 3DH5 LCH 2402MHz Ant1 NTN



8DPSK 3DH5_MCH_2441MHz_Ant1_NTN



FCCID: 2AOM3-S53



FCCID: 2AOM3-S53

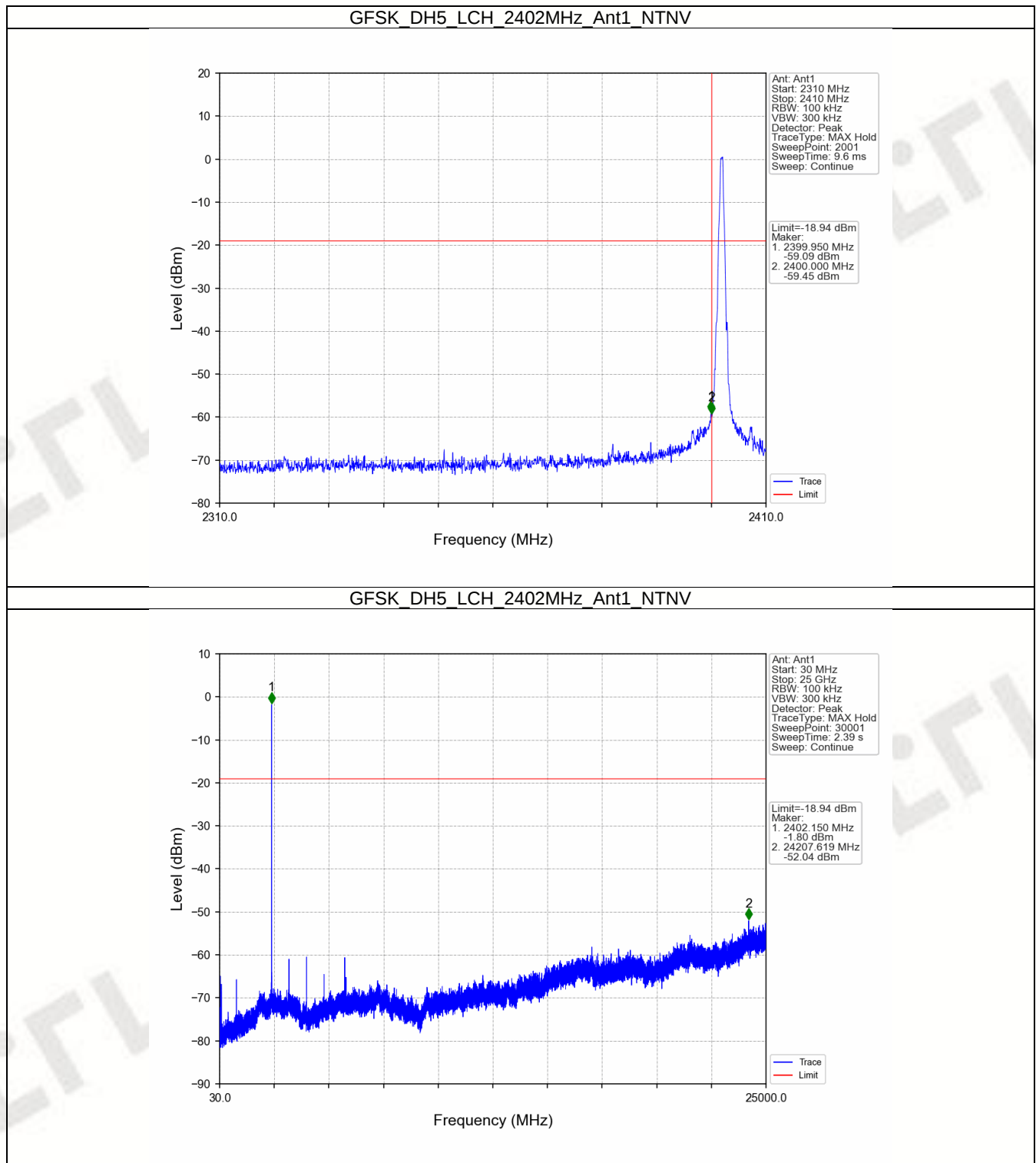
6.2 CSE

6.2.1 Test Result

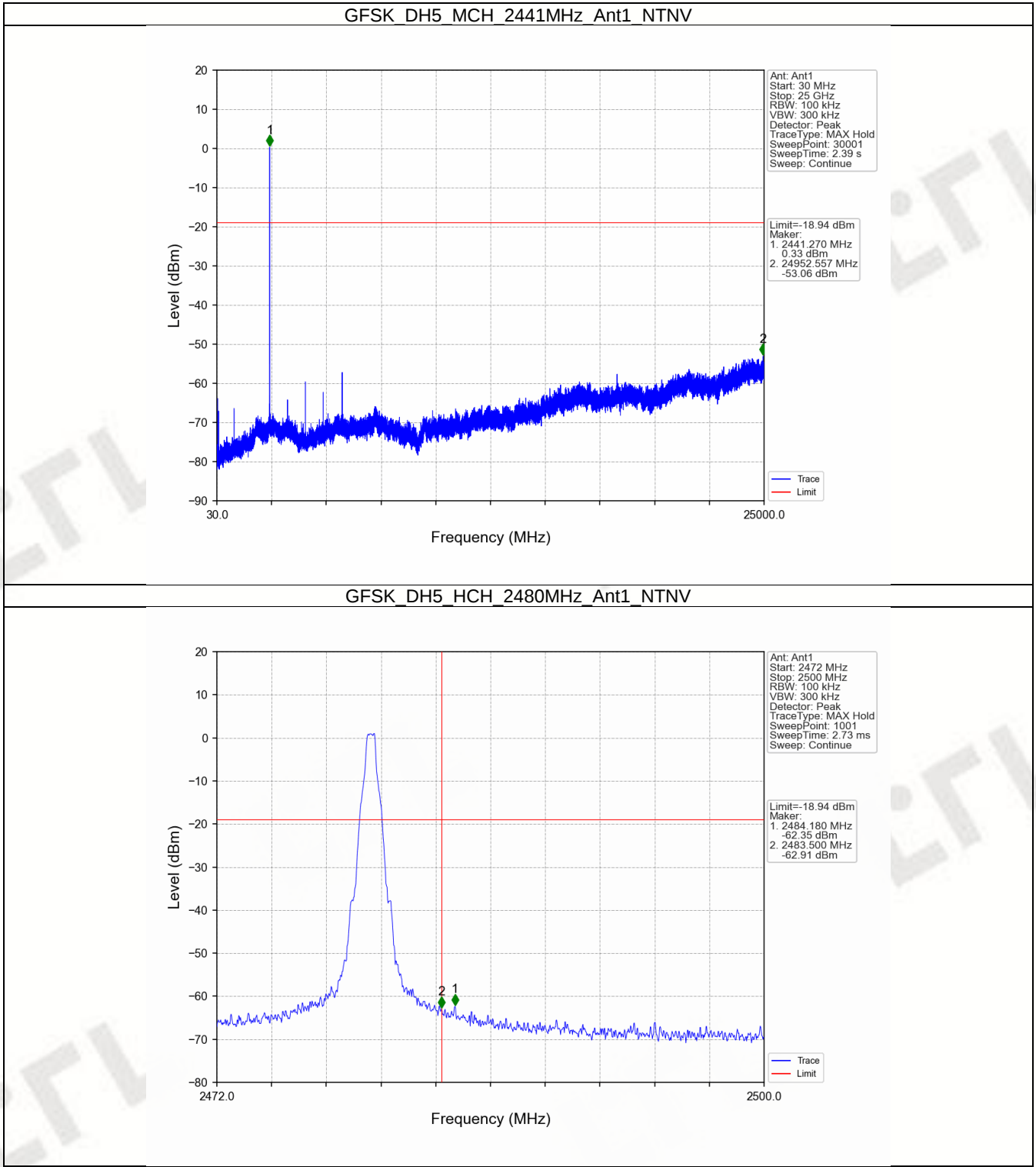
Mode	TX Type	Frequency (MHz)	Packet Type	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
GFSK	SISO	2402	DH5	1	1.06	-18.94	Pass
		2441	DH5	1	1.06	-18.94	Pass
		2480	DH5	1	1.06	-18.94	Pass
		HOPP	DH5	1	1.06	-18.94	Pass
					1.06	-18.94	Pass
Pi/4DQPSK	SISO	2402	2DH5	1	0.01	-19.99	Pass
		2441	2DH5	1	0.01	-19.99	Pass
		2480	2DH5	1	0.01	-19.99	Pass
		HOPP	2DH5	1	0.01	-19.99	Pass
					0.01	-19.99	Pass
8DPSK	SISO	2402	3DH5	1	0.22	-19.78	Pass
		2441	3DH5	1	0.22	-19.78	Pass
		2480	3DH5	1	0.22	-19.78	Pass
		HOPP	3DH5	1	0.22	-19.78	Pass
					0.22	-19.78	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.							

FCCID: 2AOM3-S53

6.2.2 Test Graph

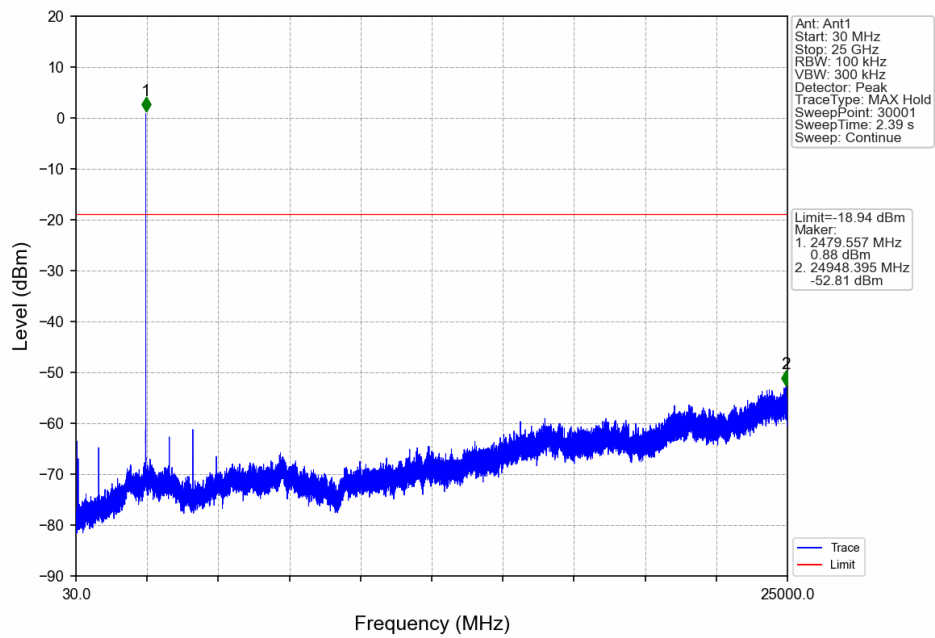


FCCID: 2AOM3-S53

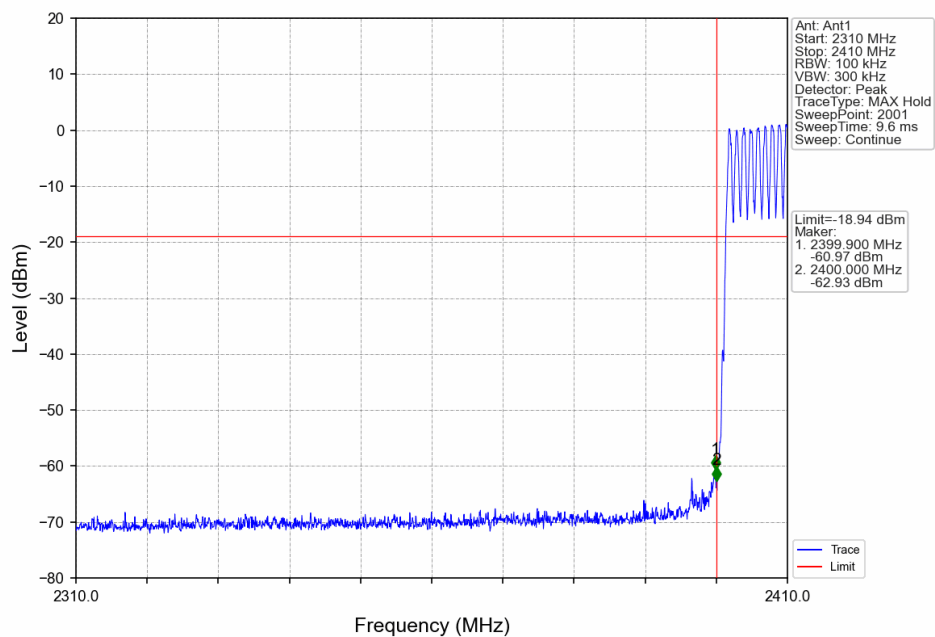


FCCID: 2AOM3-S53

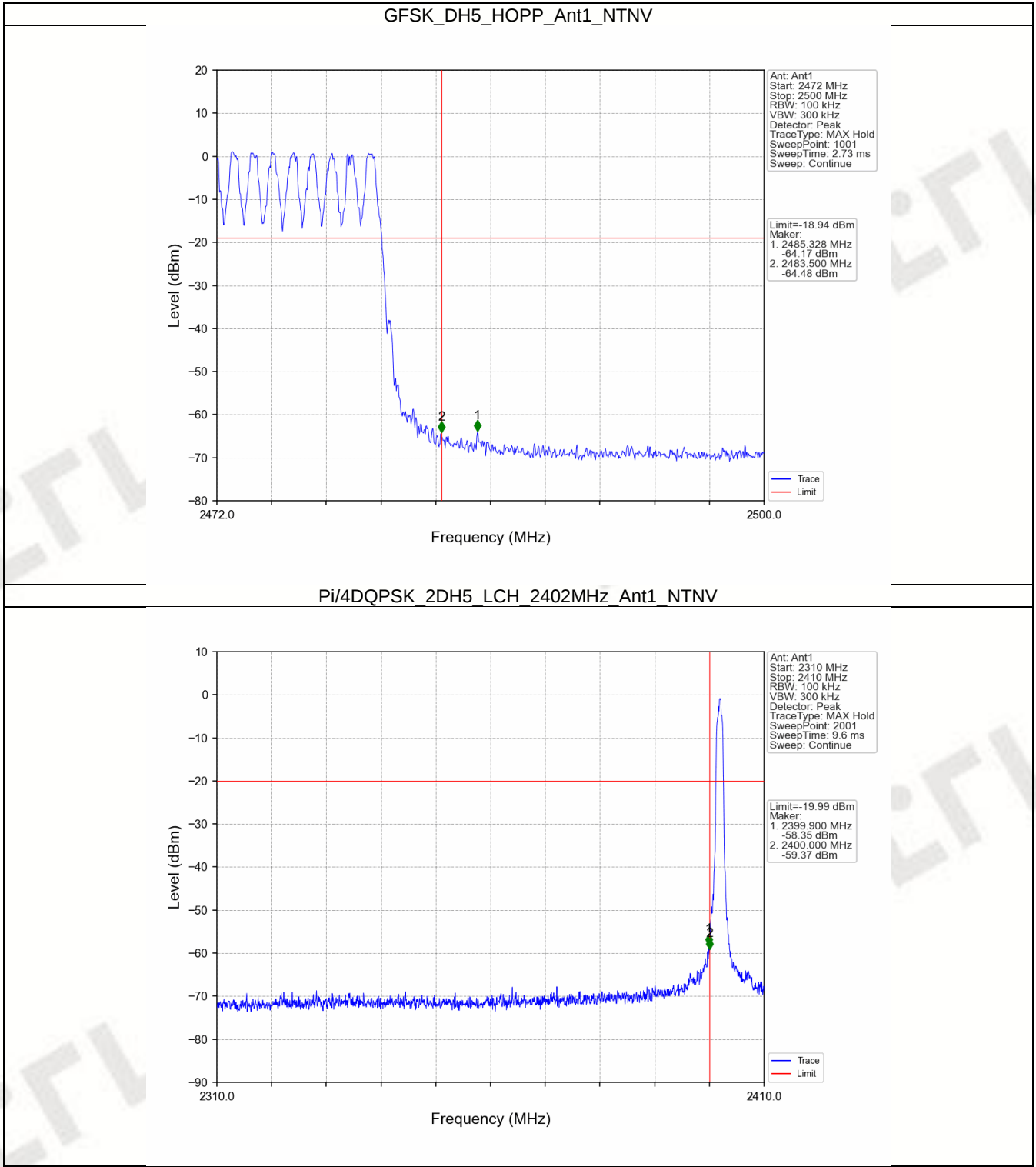
GFSK DH5 HCH 2480MHz Ant1 NTN



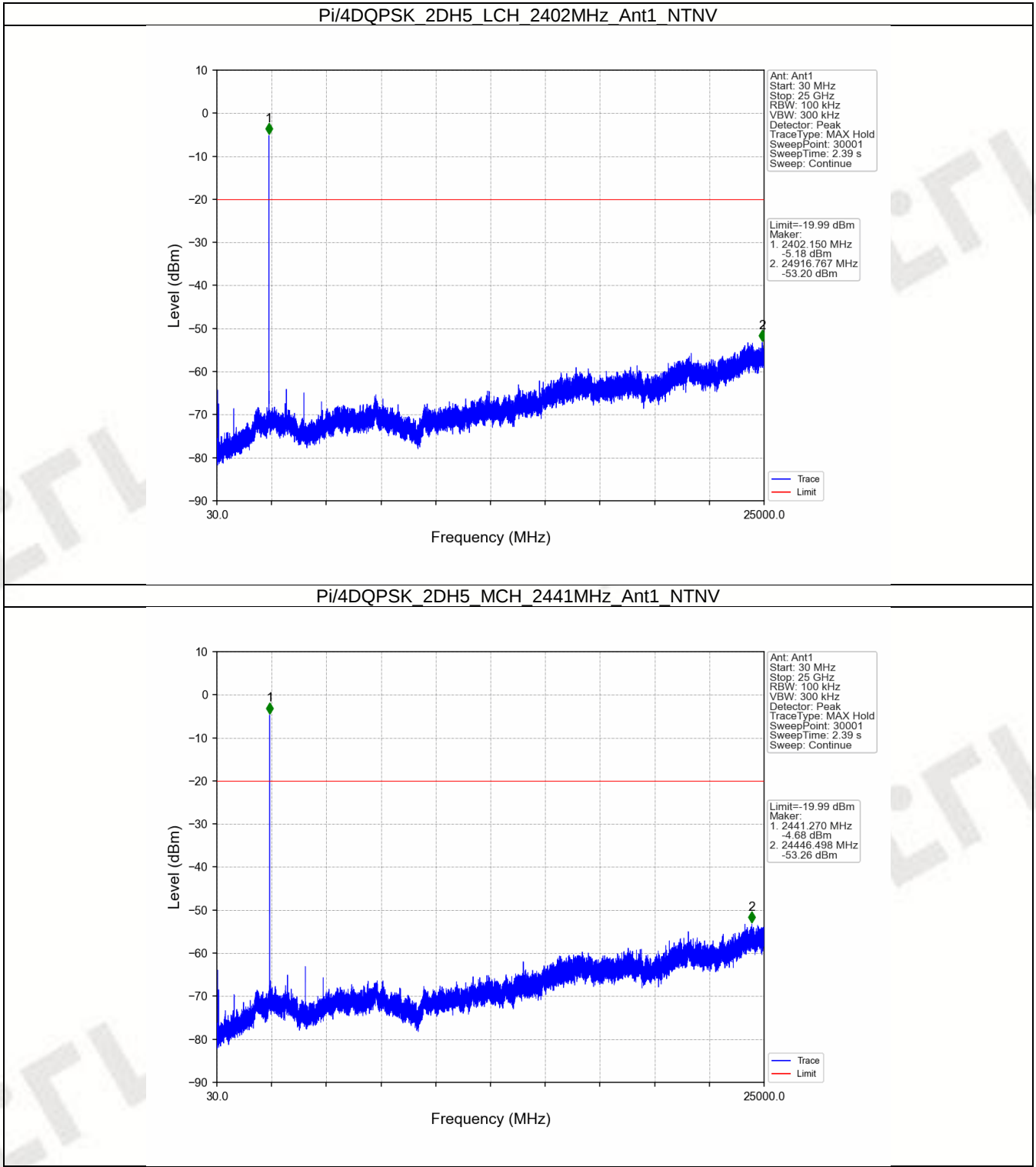
GFSK_DH5_HOPP_Ant1_NTN



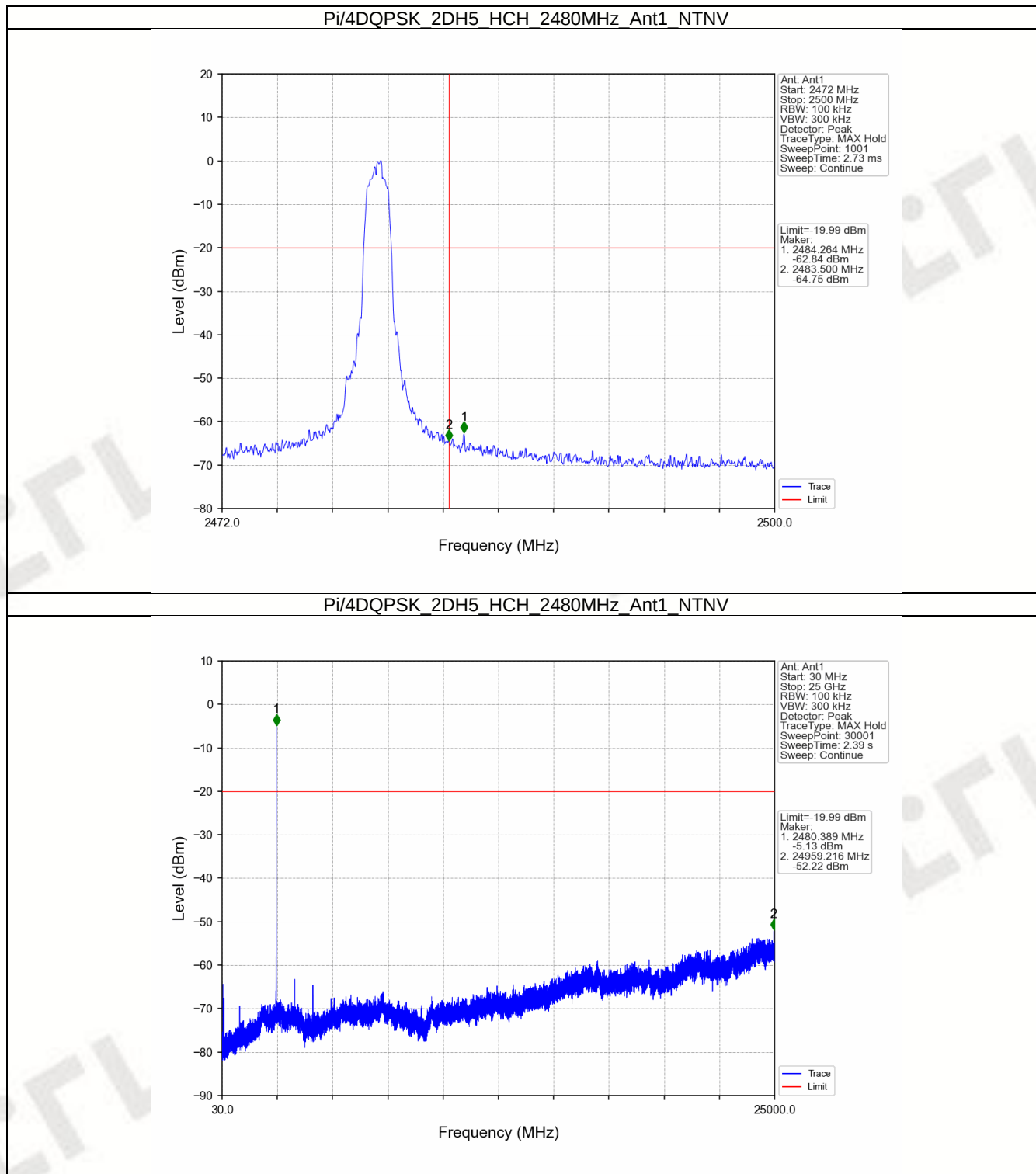
FCCID: 2AOM3-S53



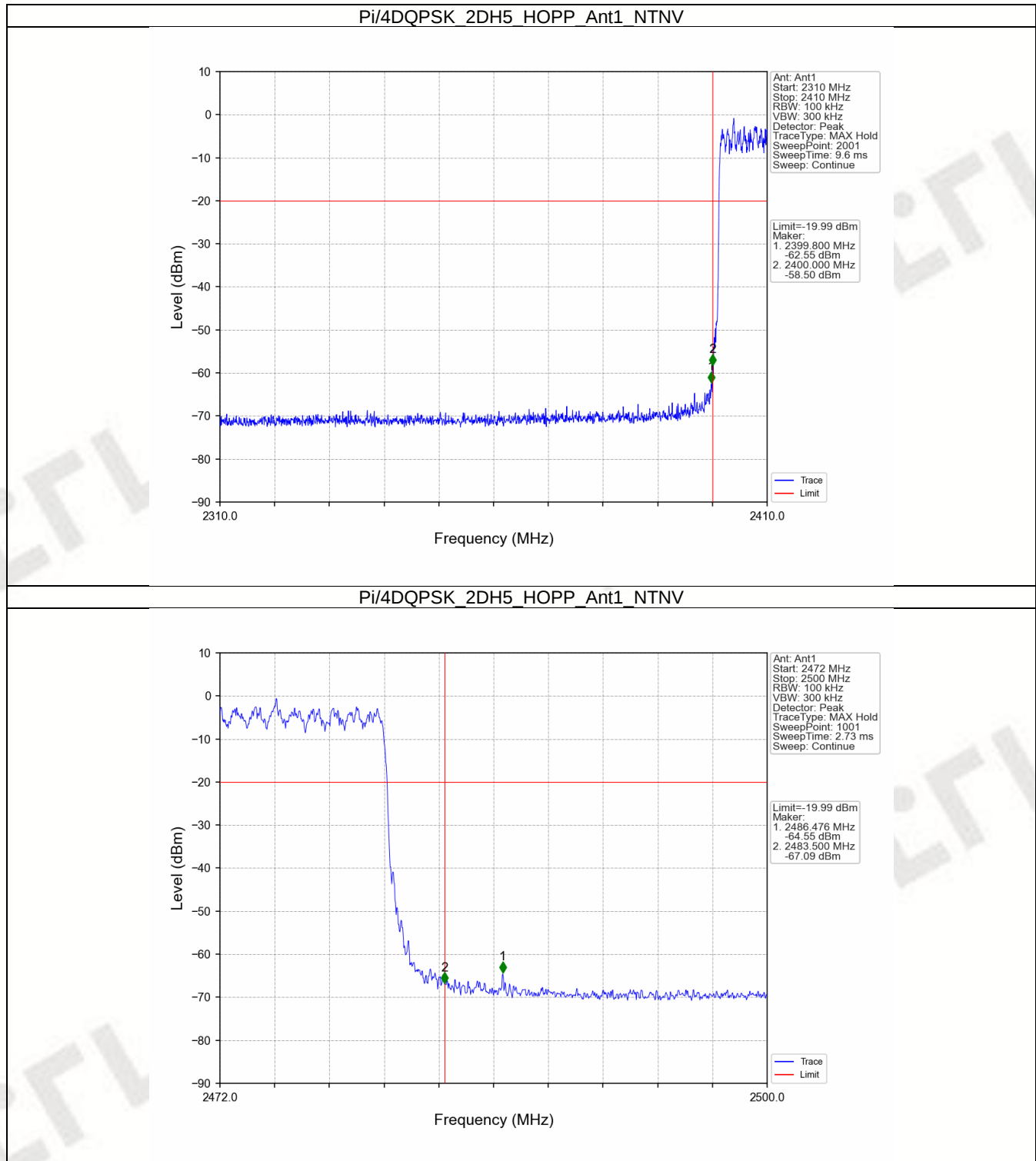
FCCID: 2AOM3-S53



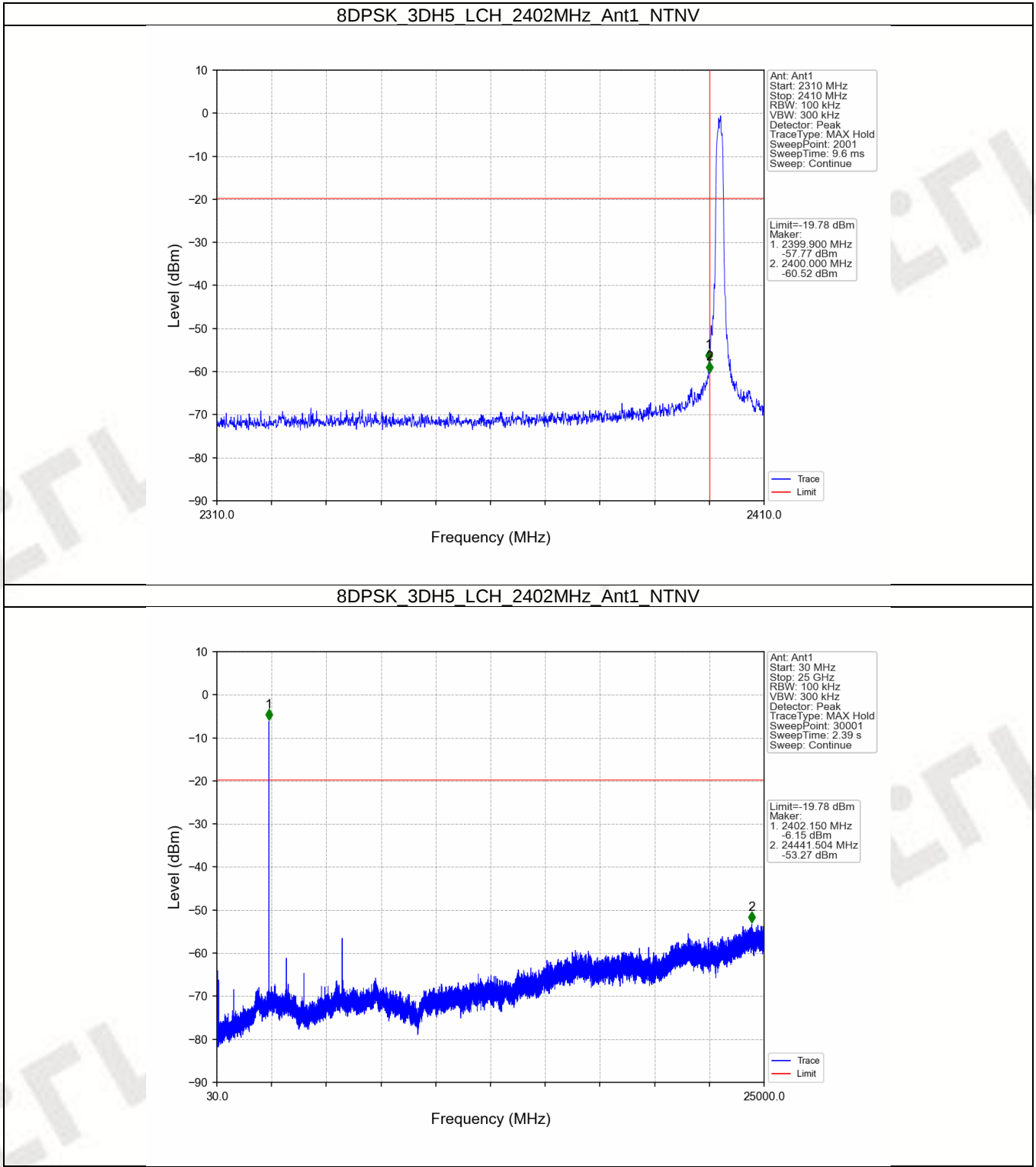
FCCID: 2AOM3-S53



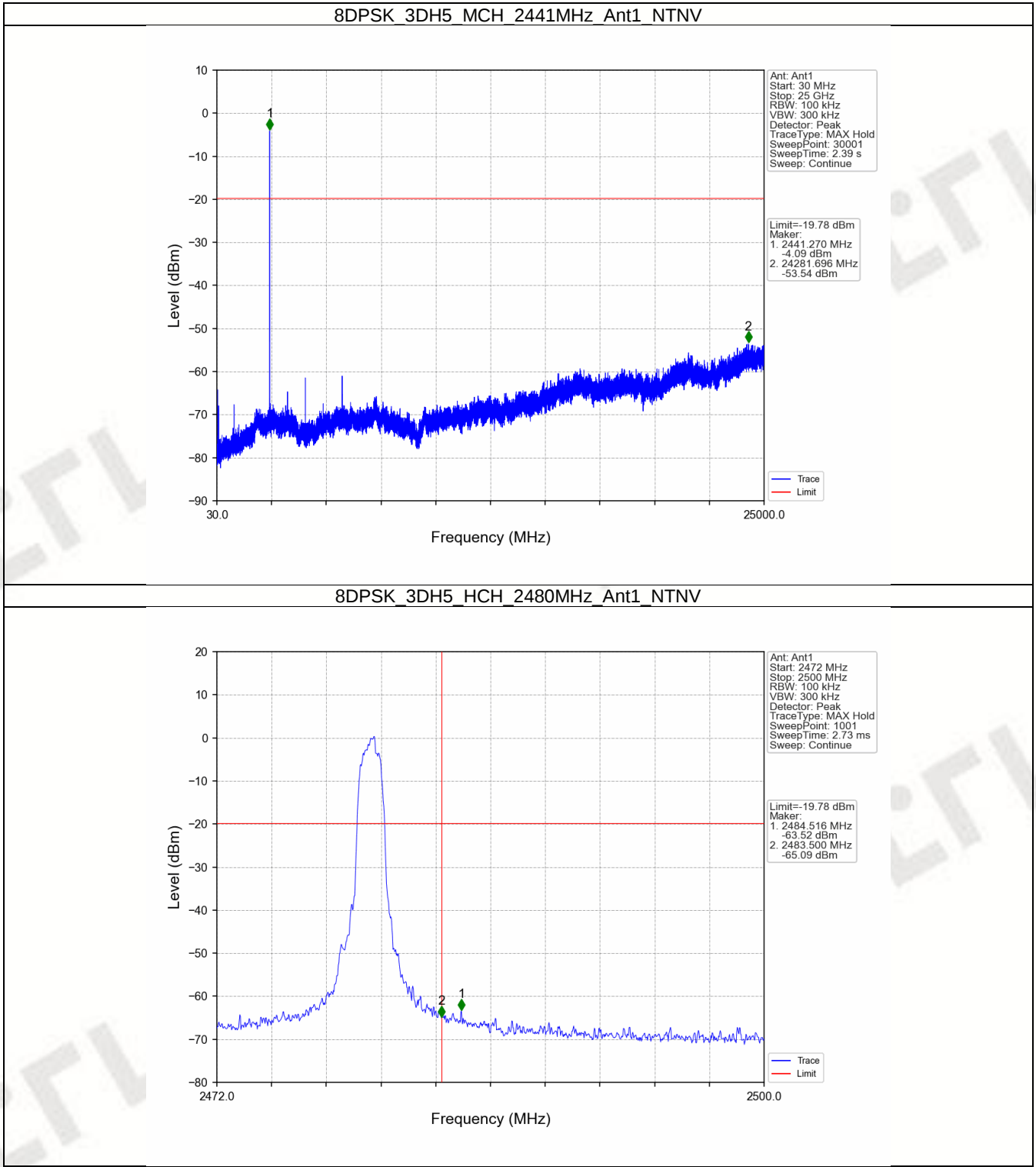
FCCID: 2AOM3-S53



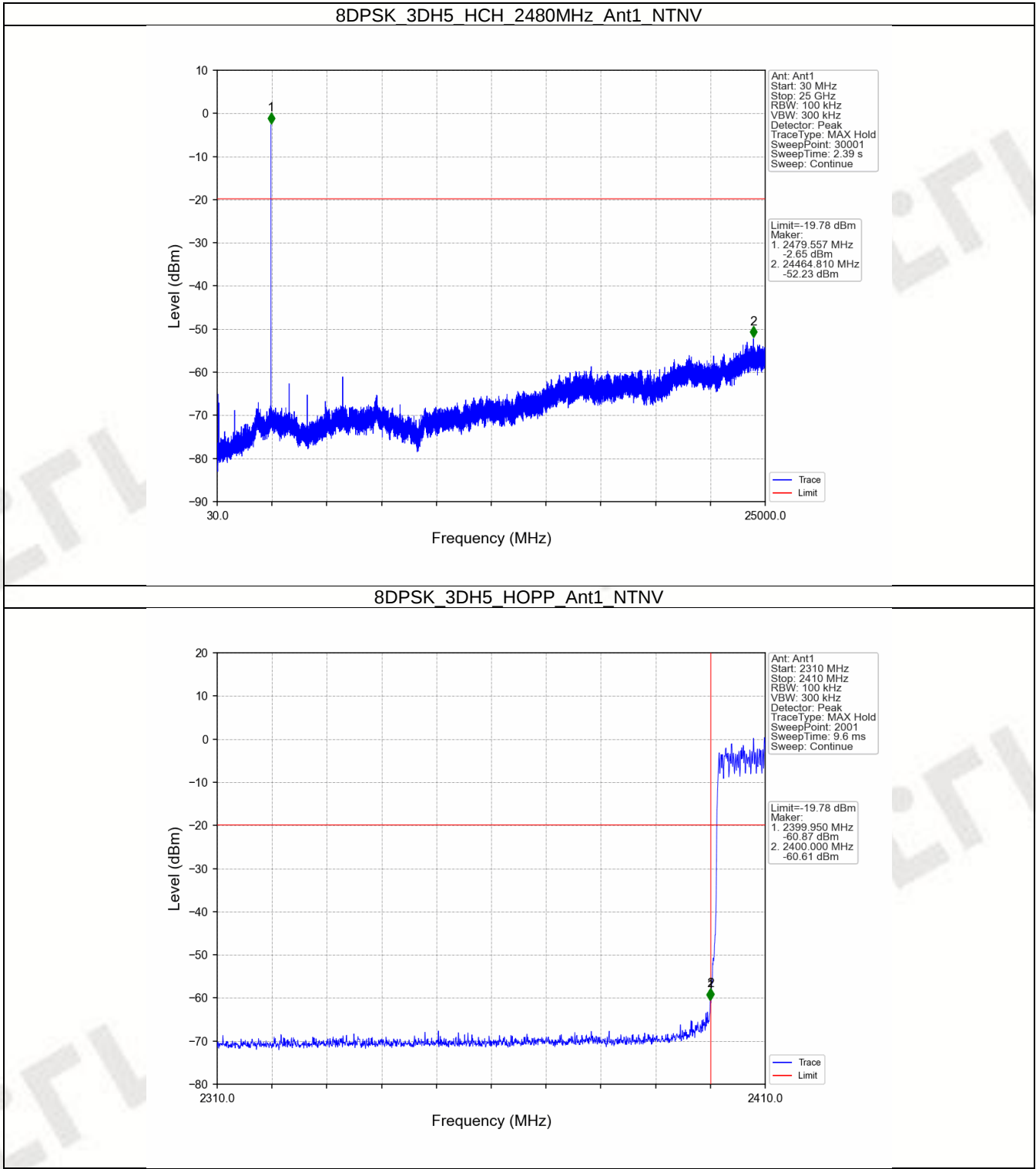
FCCID: 2AOM3-S53



FCCID: 2AOM3-S53



FCCID: 2AOM3-S53



FCCID: 2AOM3-S53

