



RF Test Report

For

Project No.:	ZKT-240918L11740E-1
Client:	Rockcell Technology (ShenZhen) CO., LTD
Manufacturer:	Rockcell Technology (ShenZhen) CO., LTD
Product Description:	Wireless Transmitter
Model No.	PixelBOX-LAN-3port
Test Engineer:	Franco chen
Test Date:	2024-09-17

Test Summary

Item	Result
Duty Cycle	Pass
Bandwidth	Pass
Maximum Conducted Output Power	Pass
Maximum Power Spectral Density	Pass
Unwanted Emissions In Non-restricted Frequency Bands	Pass
Frequency Error	Pass
Form731	Pass



1. Duty Cycle

1.1 Test Result

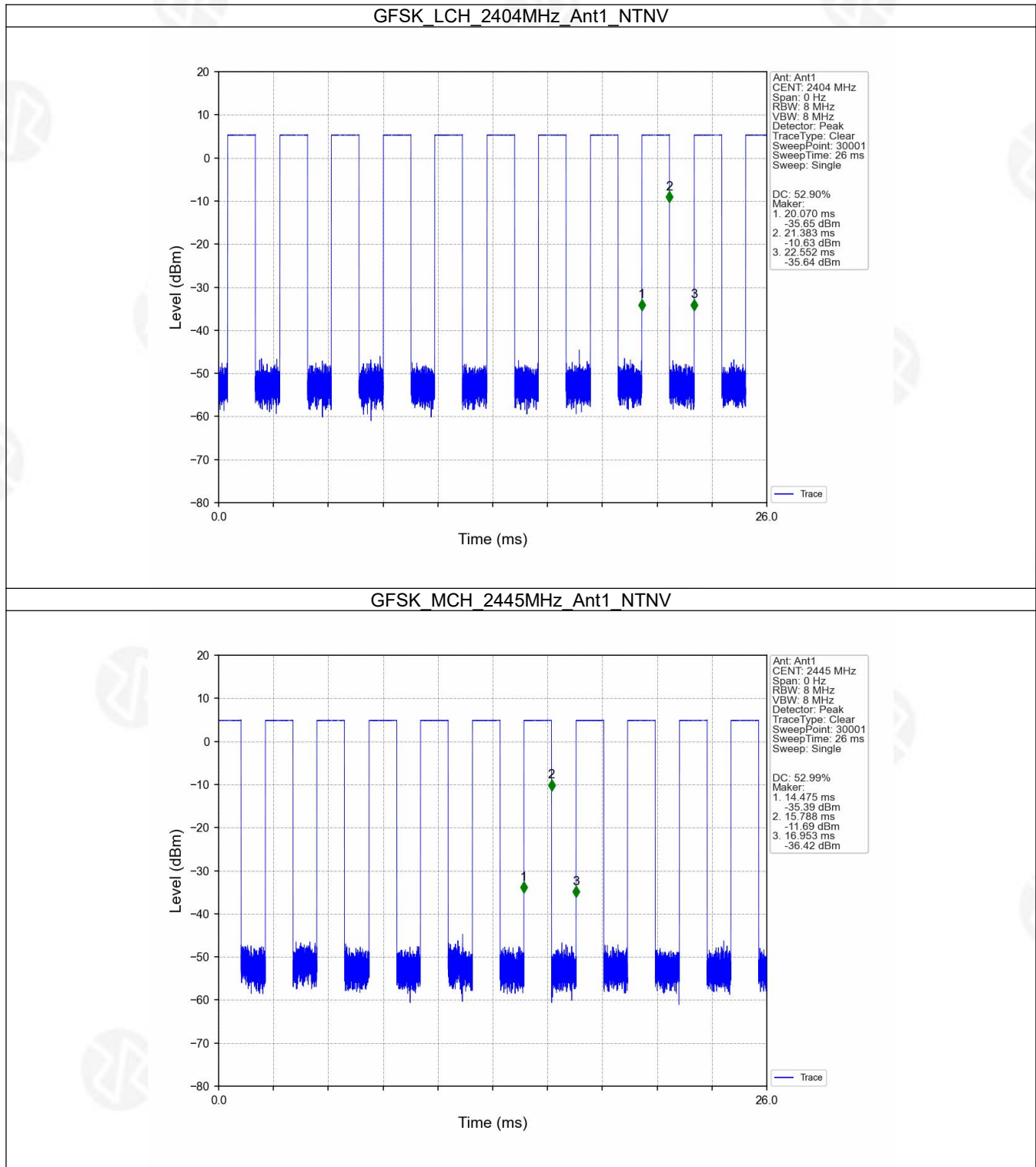
1.1.1 Ant1

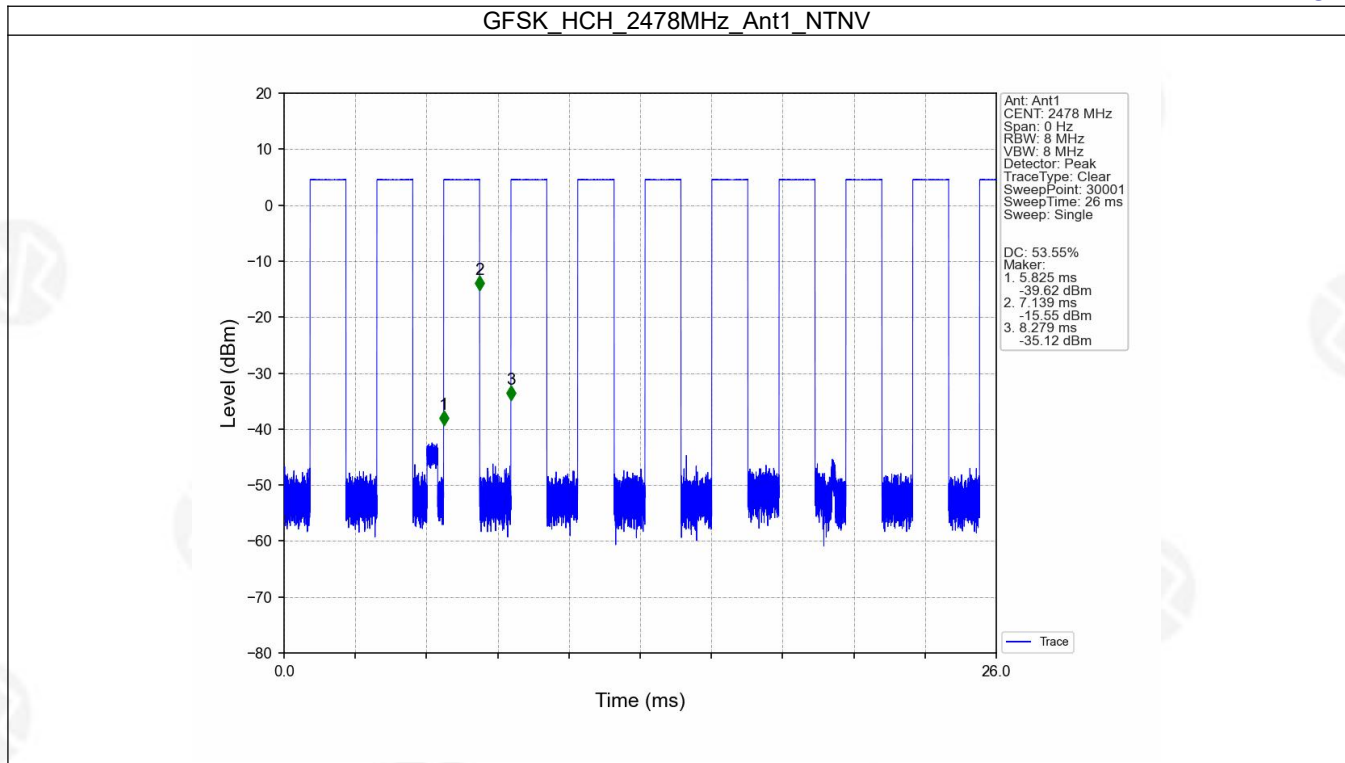
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
GFSK	SISO	2404	1.313	2.482	52.90	2.77	0.96
		2445	1.313	2.478	52.99	2.76	0.86
		2478	1.314	2.454	53.55	2.71	0.63



1.2 Test Graph

1.2.1 Ant1







2. Bandwidth

2.1 Test Result

2.1.1 OBW

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
GFSK	SISO	2404	1	1.141	/	Pass
		2445	1	1.141	/	Pass
		2478	1	1.140	/	Pass

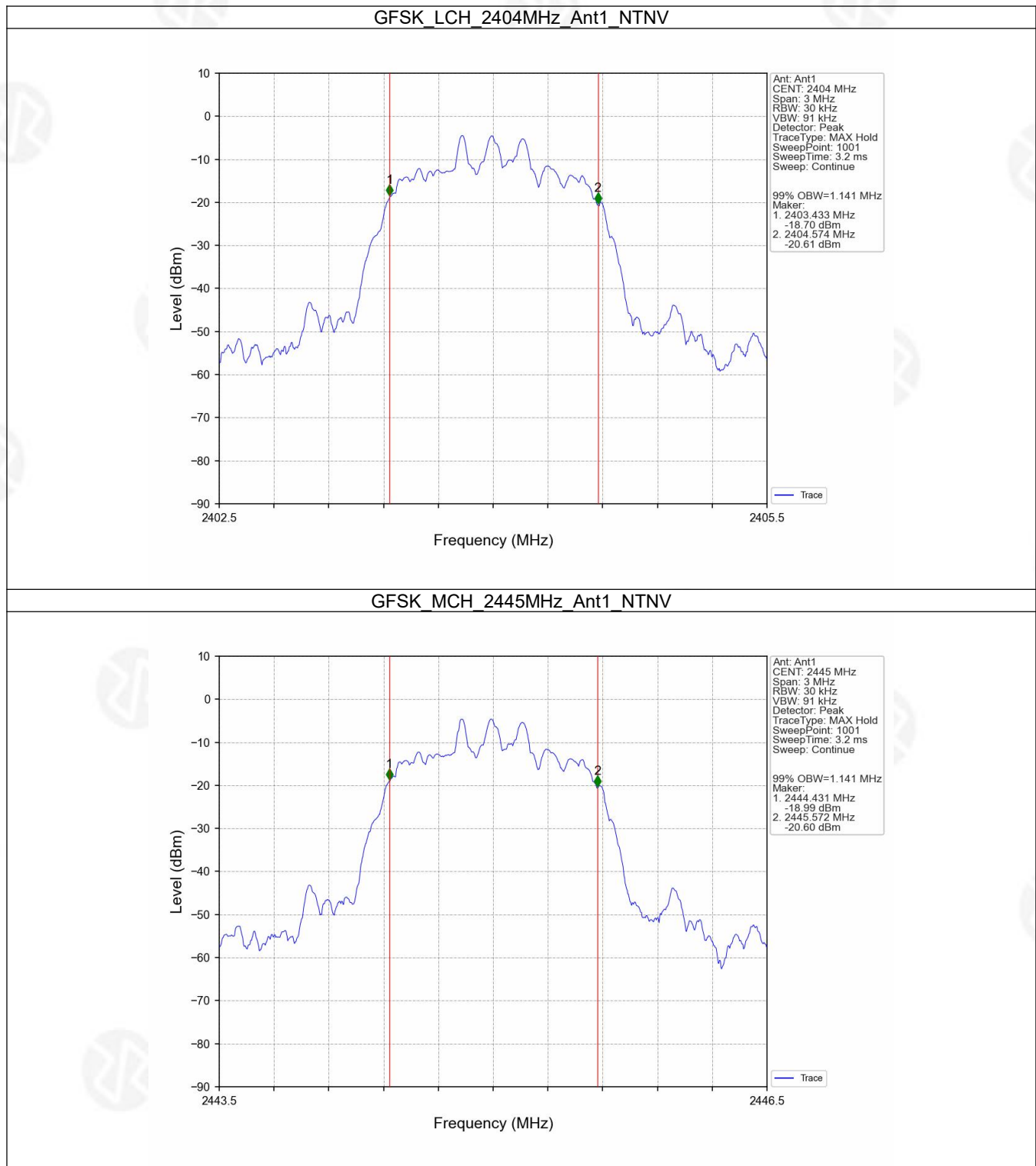
2.1.2 6dB BW

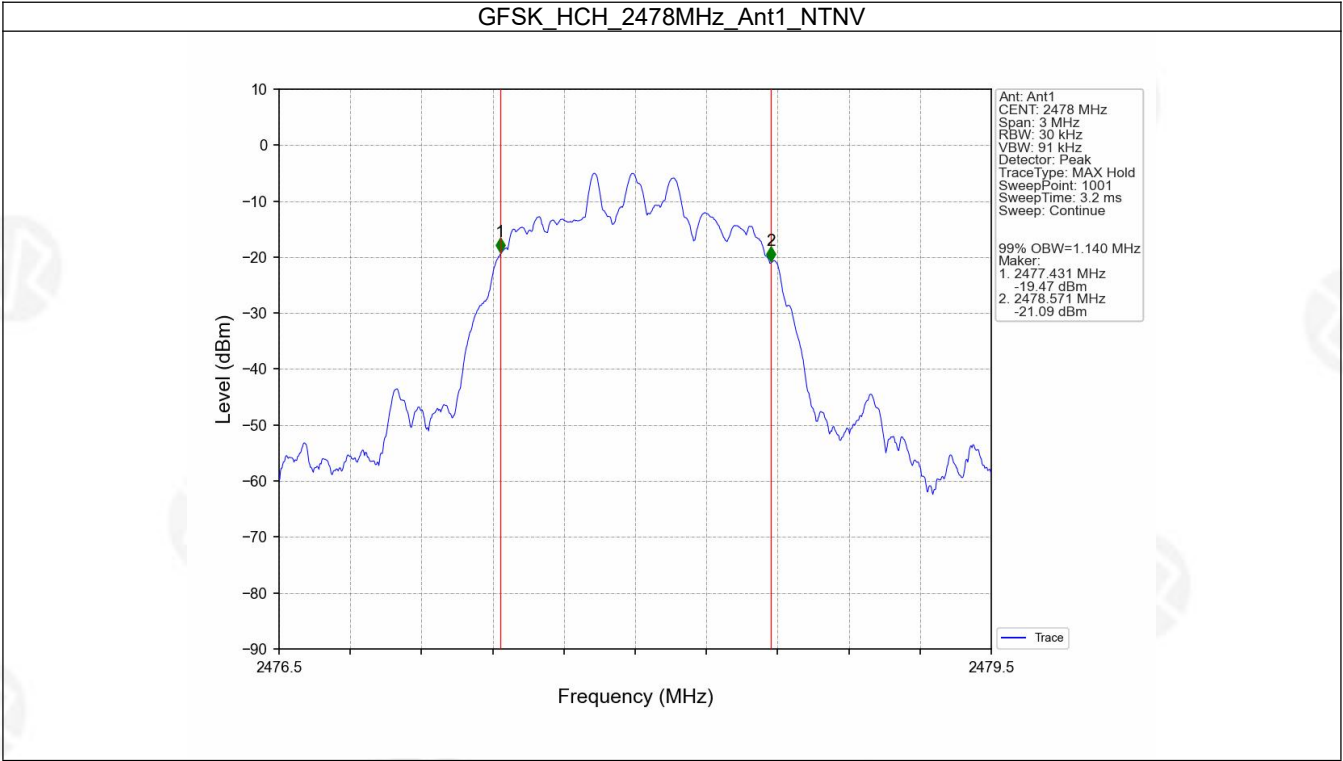
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
GFSK	SISO	2404	1	0.817	≥ 0.5	Pass
		2445	1	0.818	≥ 0.5	Pass
		2478	1	0.818	≥ 0.5	Pass



2.2 Test Graph

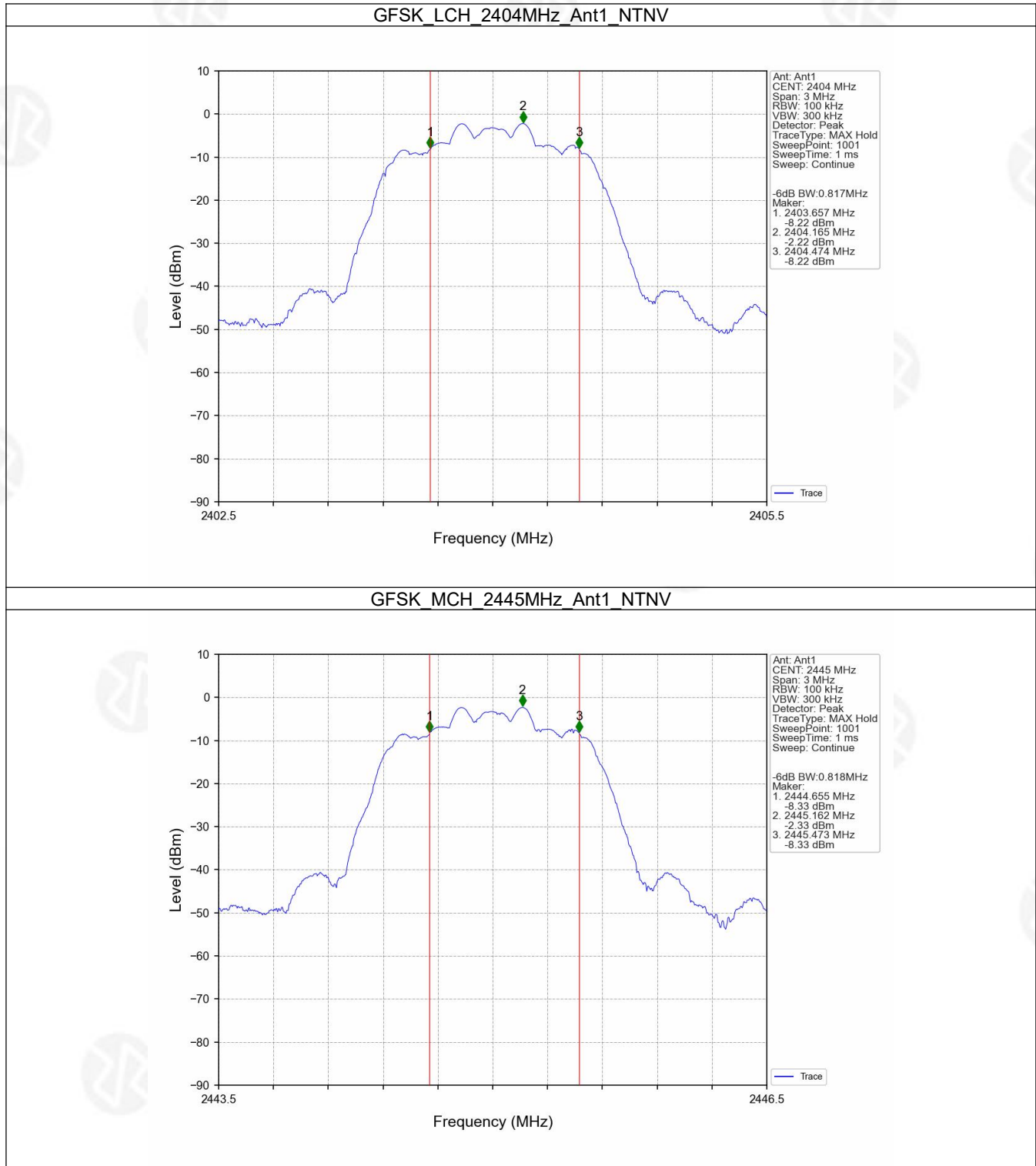
2.2.1 OBW

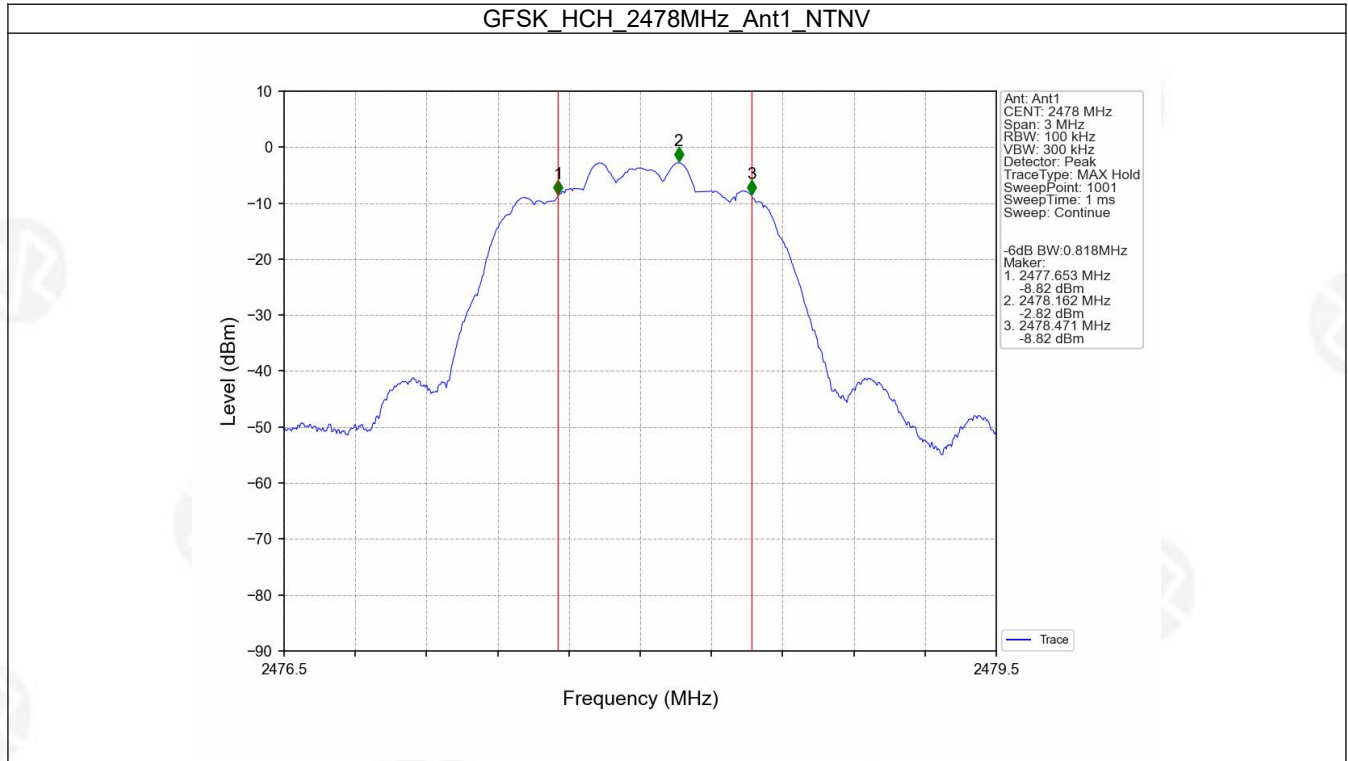






2.2.2 6dB BW







3. Maximum Conducted Output Power

3.1 Test Result

3.1.1 Power

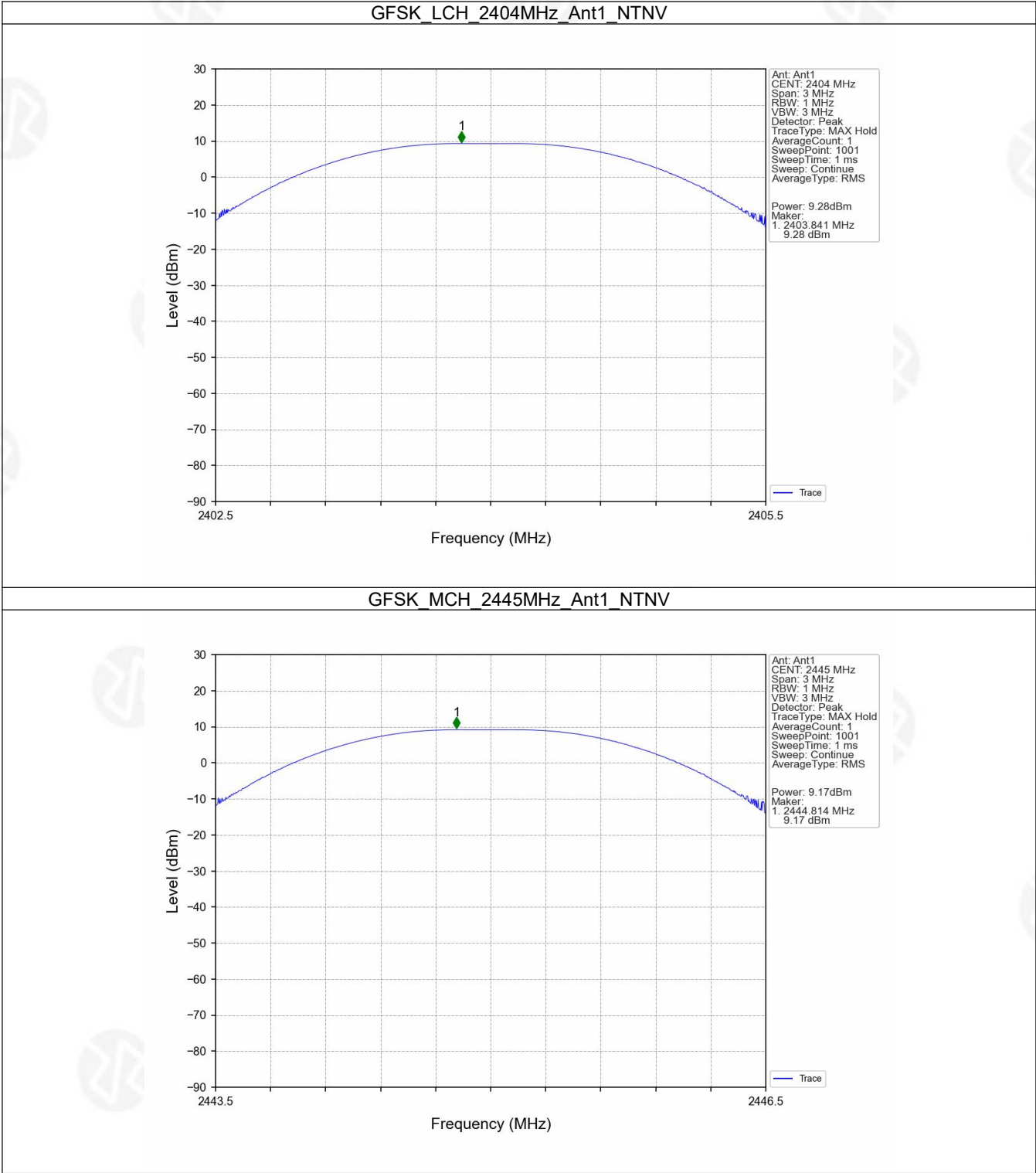
Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
GFSK	SISO	2404	9.28	<=30	Pass
		2445	9.17	<=30	Pass
		2478	8.49	<=30	Pass

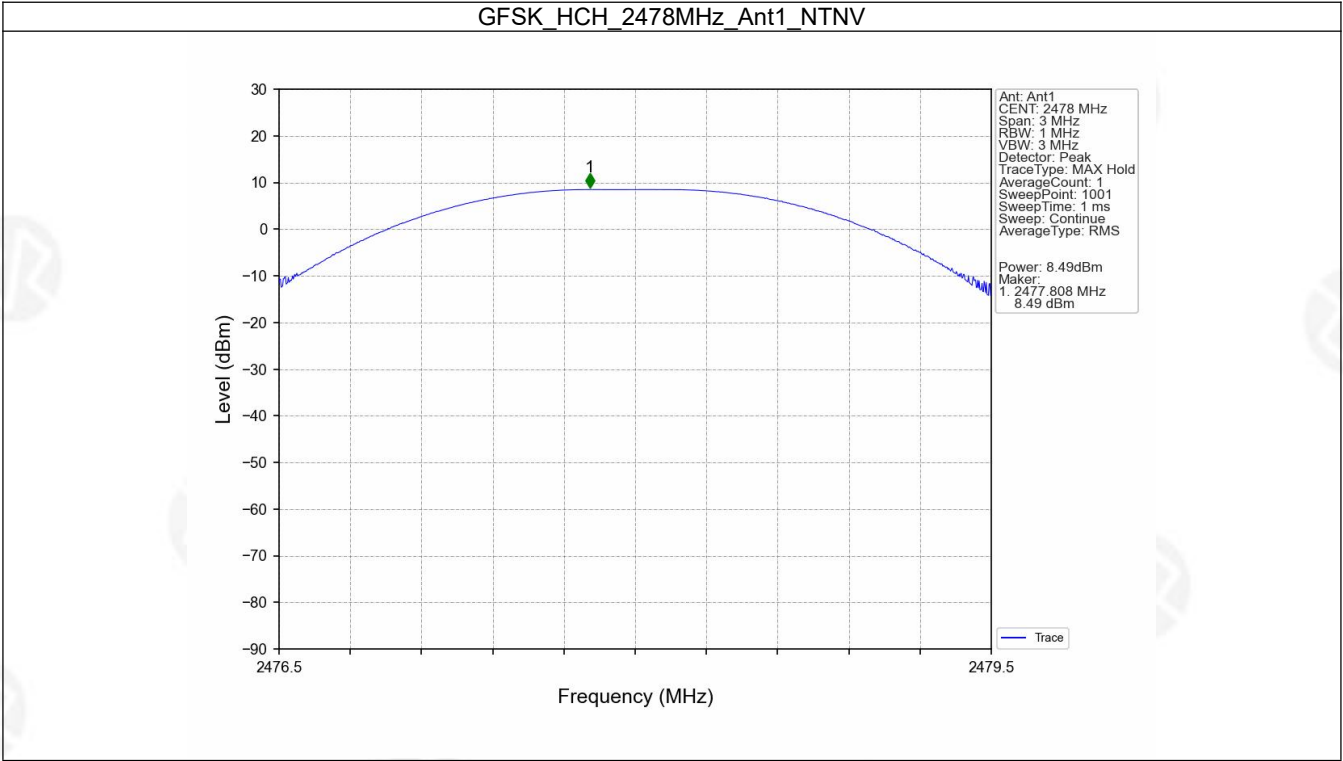
Note1: Antenna Gain: Ant1: 6.00dBi;



3.2 Test Graph

3.2.1 Power







4. Maximum Power Spectral Density

4.1 Test Result

4.1.1 PSD

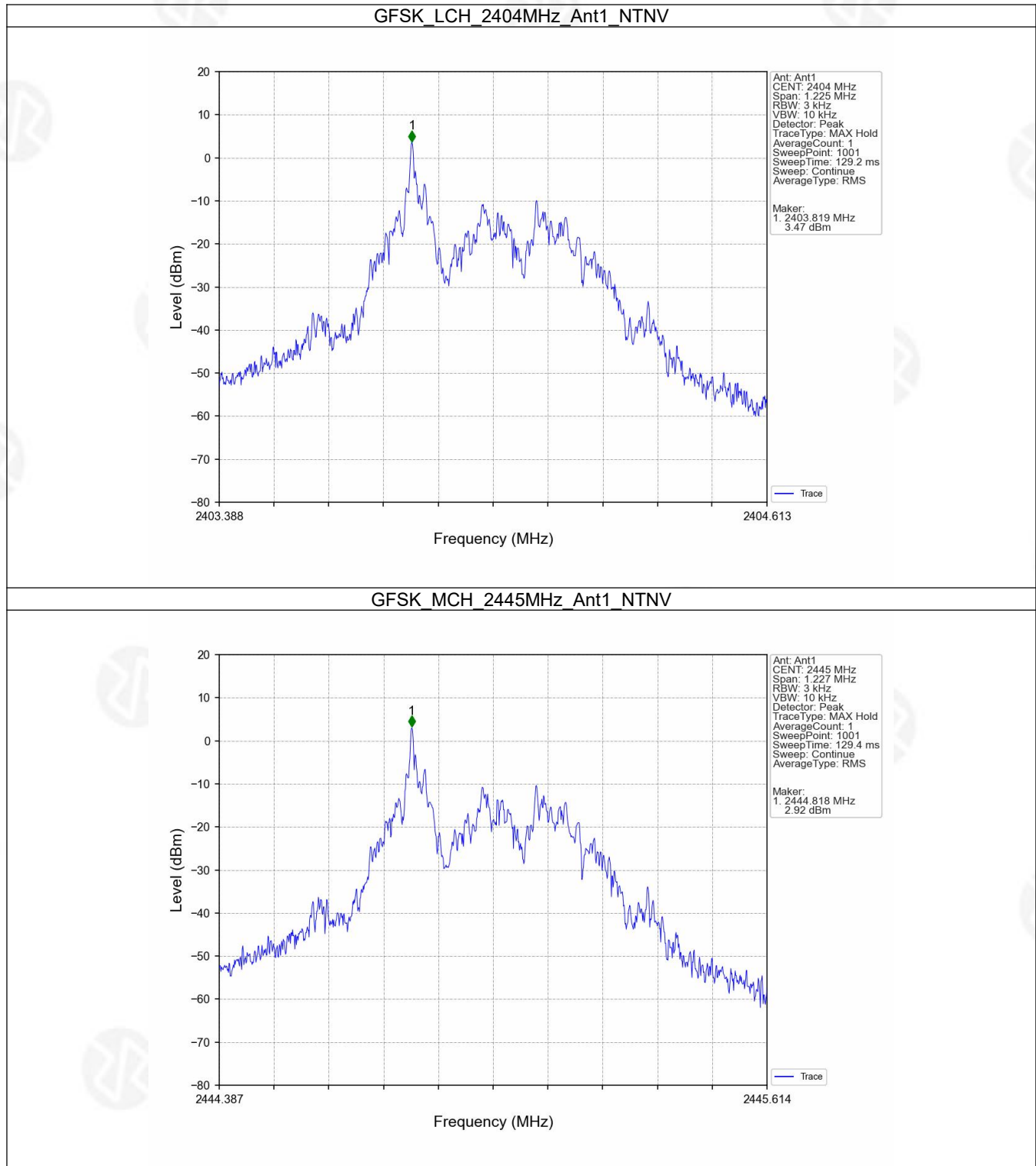
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			ANT1	Limit	
GFSK	SISO	2404	3.47	<=8	Pass
		2445	2.92	<=8	Pass
		2478	2.52	<=8	Pass

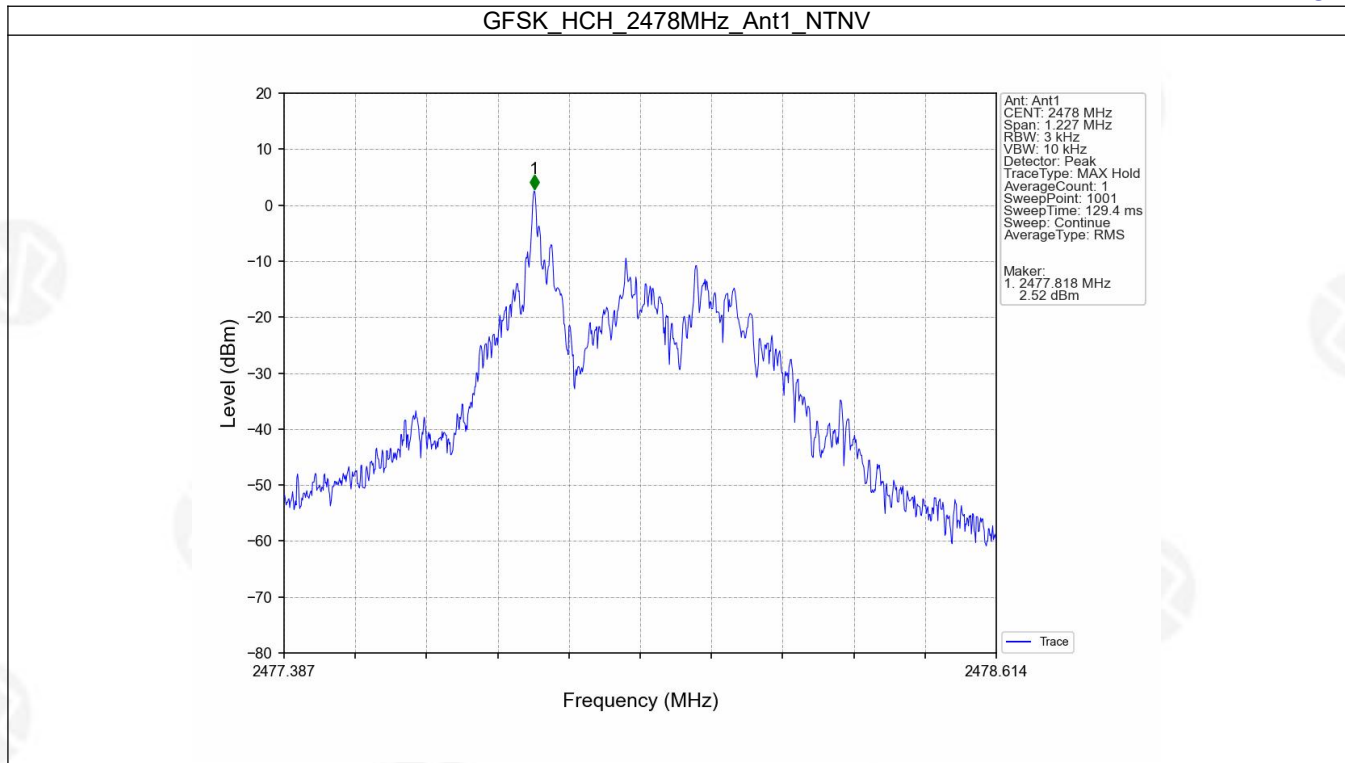
Note1: Antenna Gain: Ant1: 6.00dBi;



4.2 Test Graph

4.2.1 PSD







5. Unwanted Emissions In Non-restricted Frequency Bands

5.1 Test Result

5.1.1 Ref

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
GFSK	SISO	2404	1	9.07
		2445	1	9.16
		2478	1	8.50
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.				

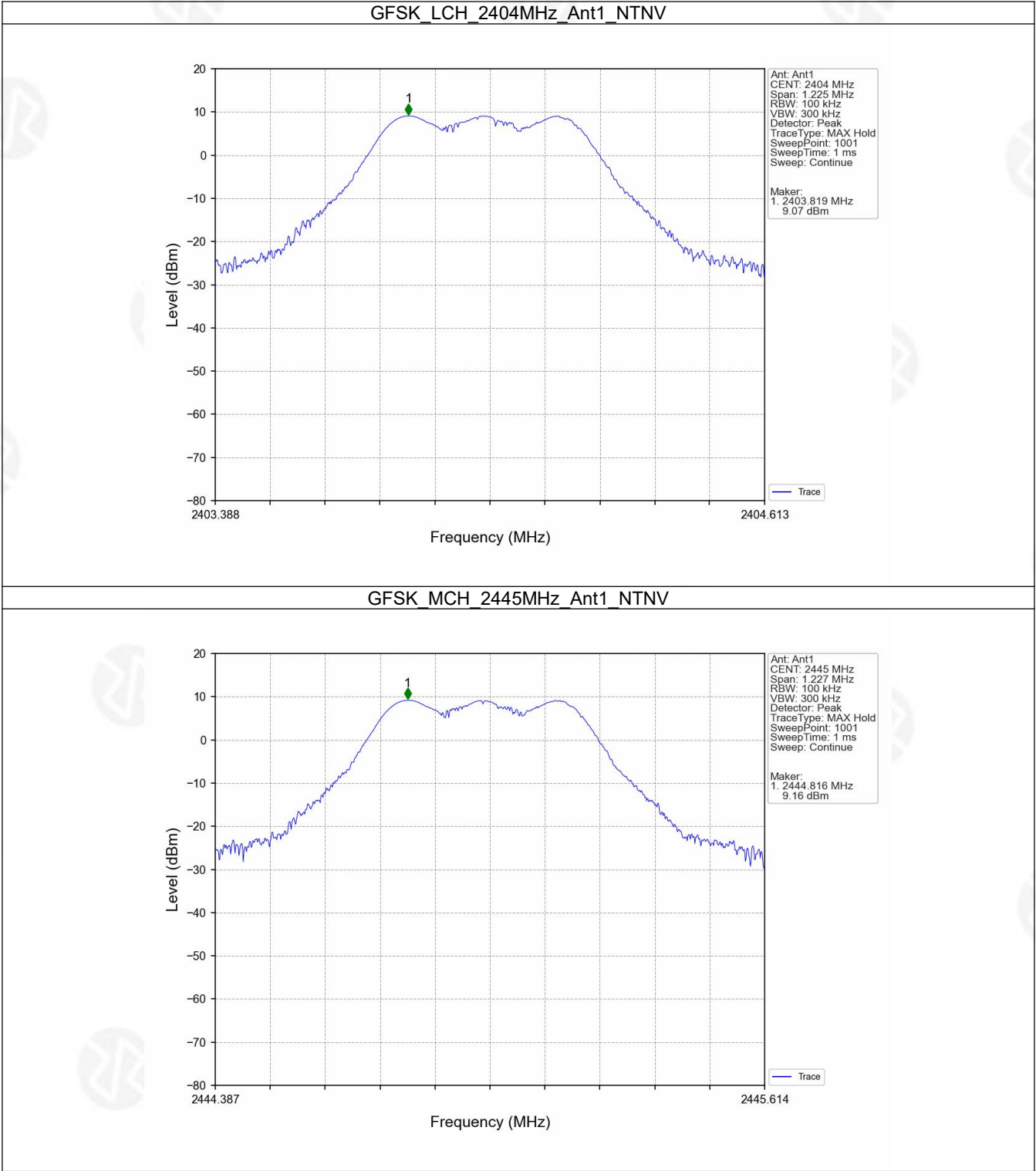
5.1.2 CSE

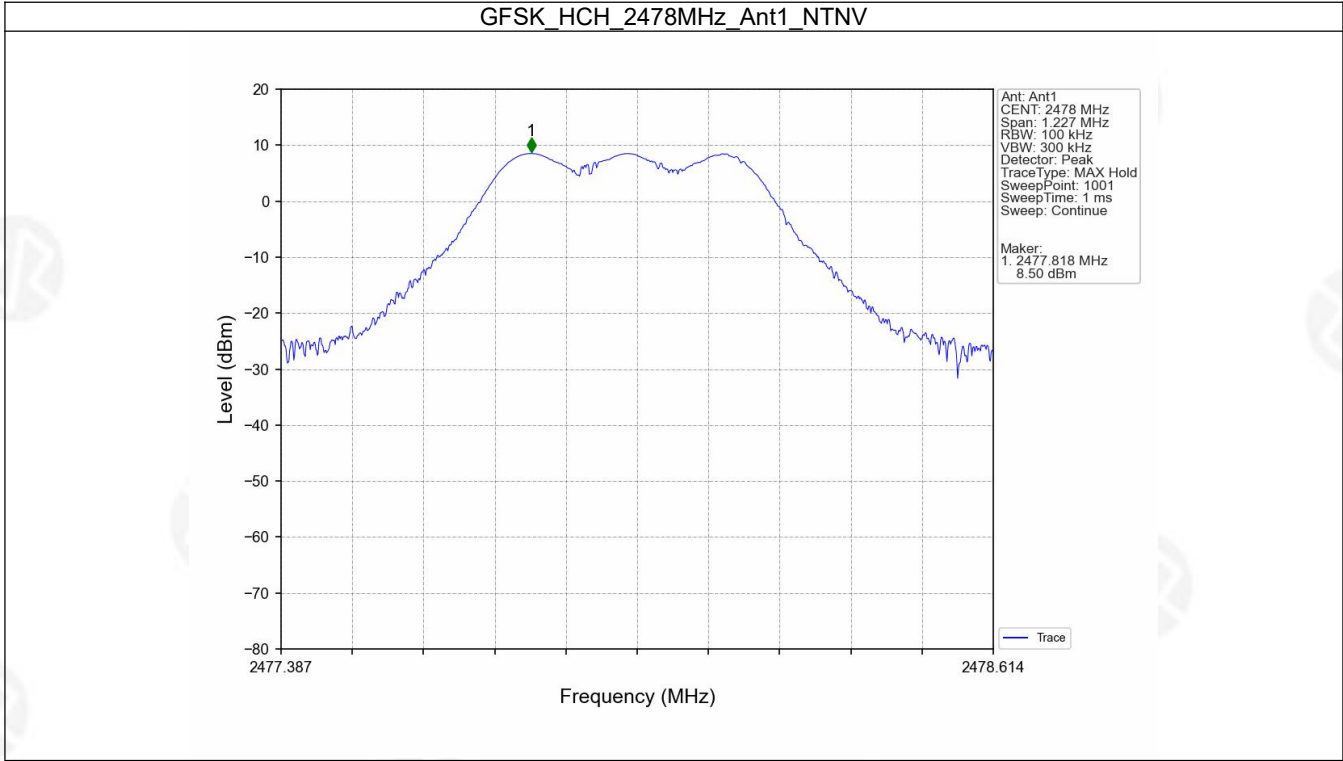
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
GFSK	SISO	2404	1	9.07	-10.93	Pass
		2445	1	9.16	-10.84	Pass
		2478	1	8.50	-11.50	Pass
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.						



5.2 Test Graph

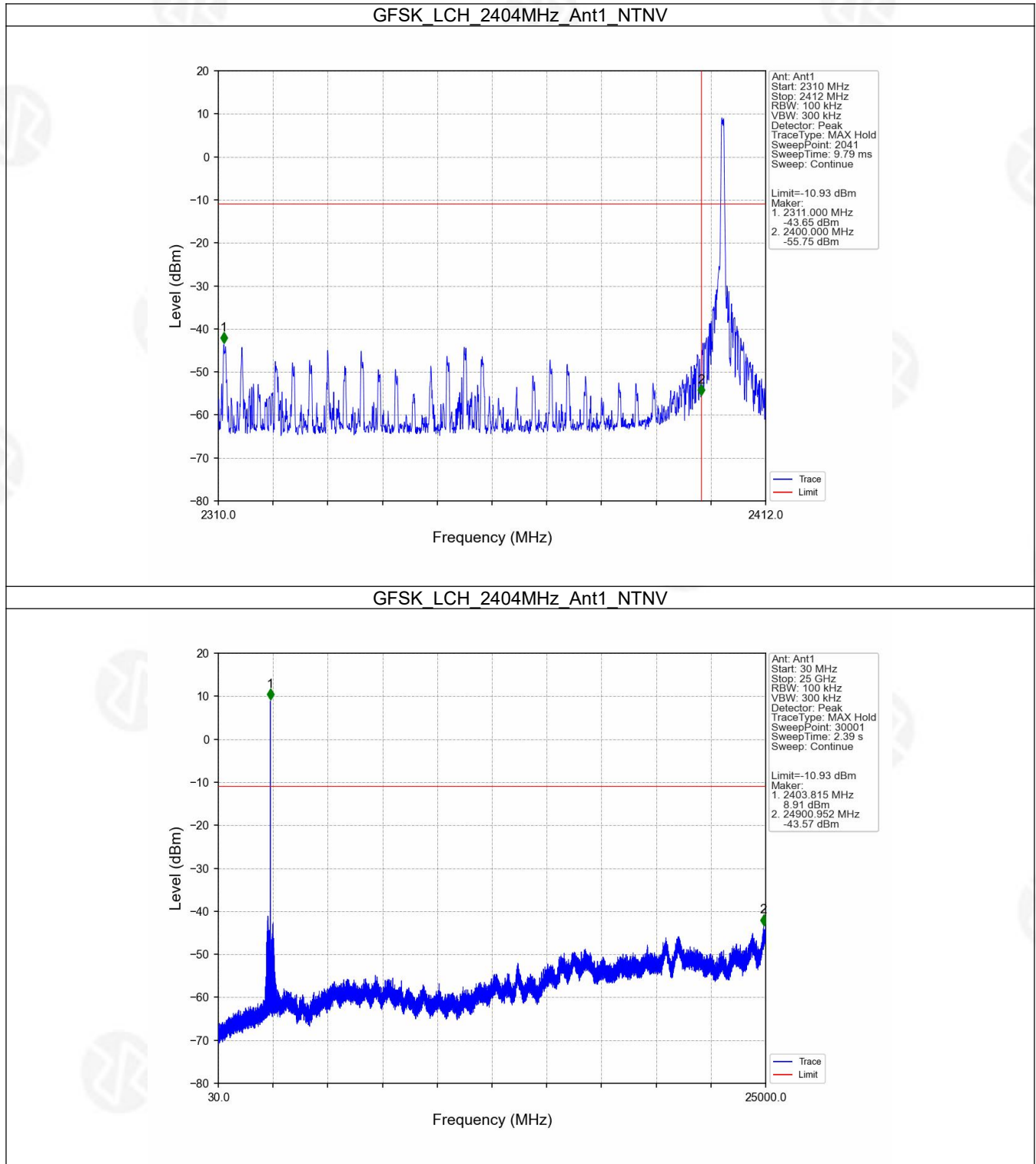
5.2.1 Ref





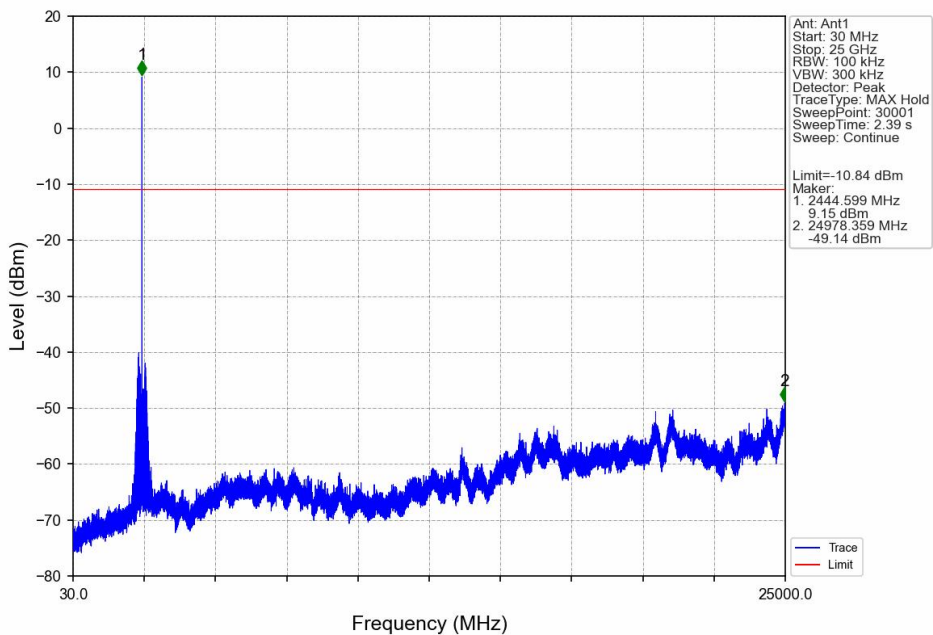


5.2.2 CSE

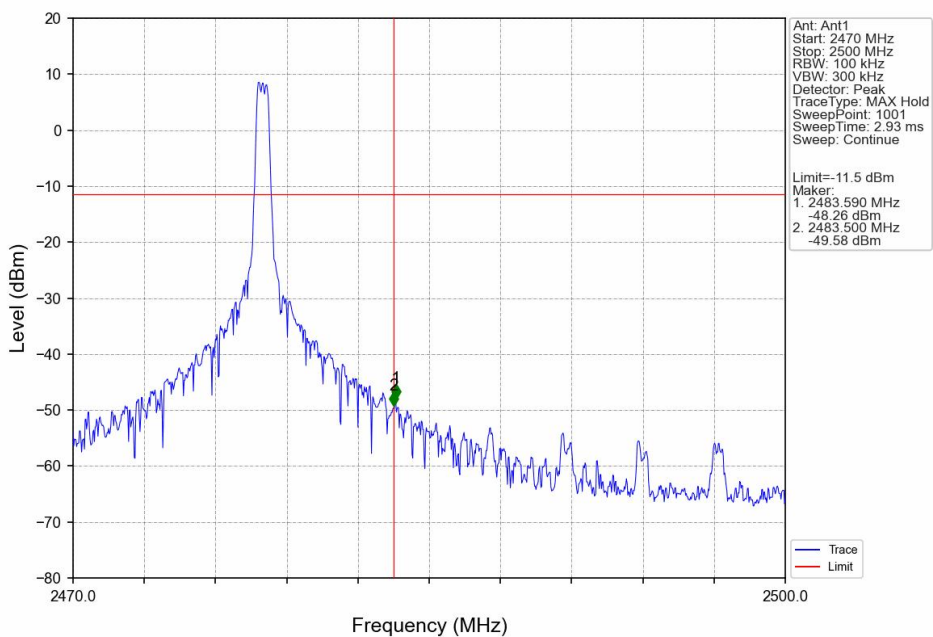


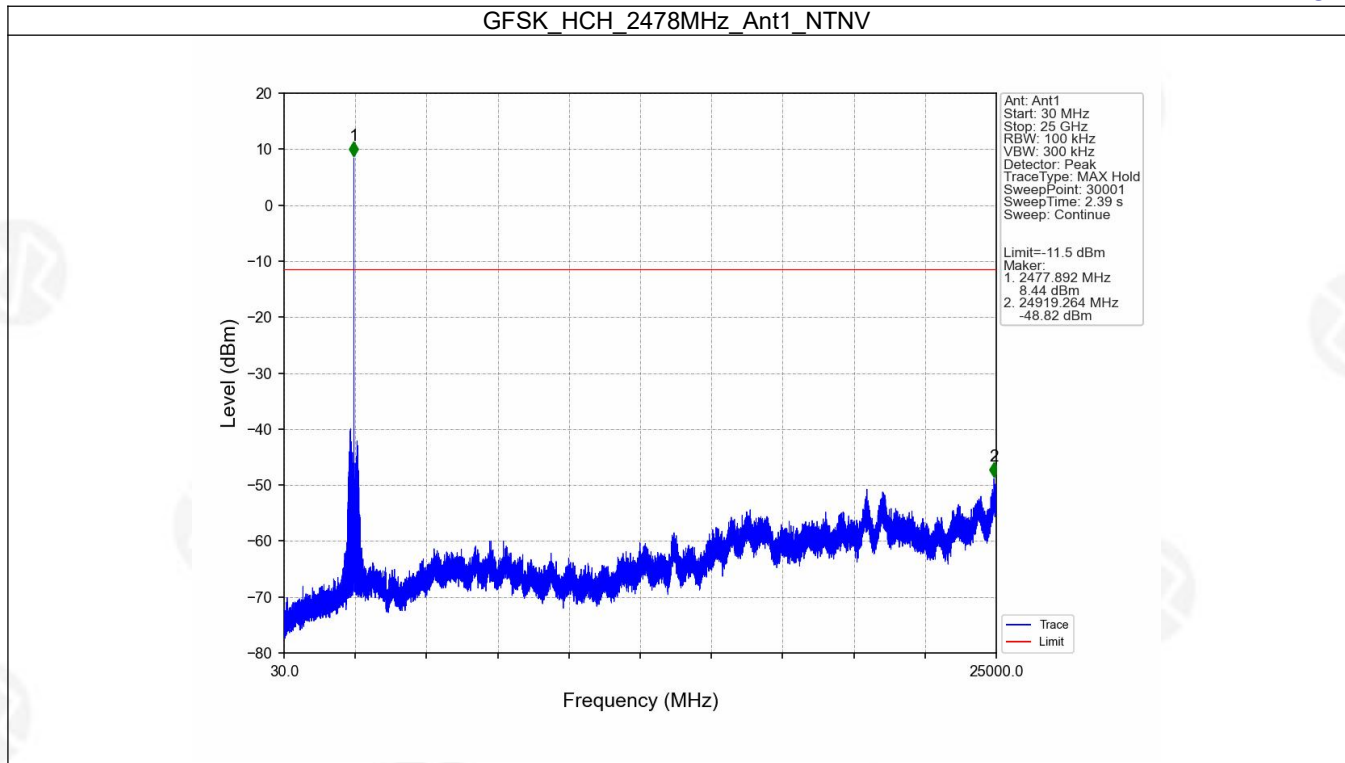


GFSK_MCH_2445MHz_Ant1_NTNV



GFSK_HCH_2478MHz_Ant1_NTNV







6. Form731

6.1 Test Result

6.1.1 Form731

Lower Freq (MHz)	High Freq (MHz)	MAX Power (W)	MAX Power (dBm)
2404	2478	0.0085	9.28