

RF Test Data

For

Project No.:	RF251027002-01-002
Client:	Autel Robotics Co., Ltd.
Manufacturer:	Autel Robotics Co., Ltd.
Product Description:	OmniLink
Model No.:	Nest RF-6
Test Engineer:	Jason Huang
Test Date:	2025-10-28

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

1. Duty Cycle

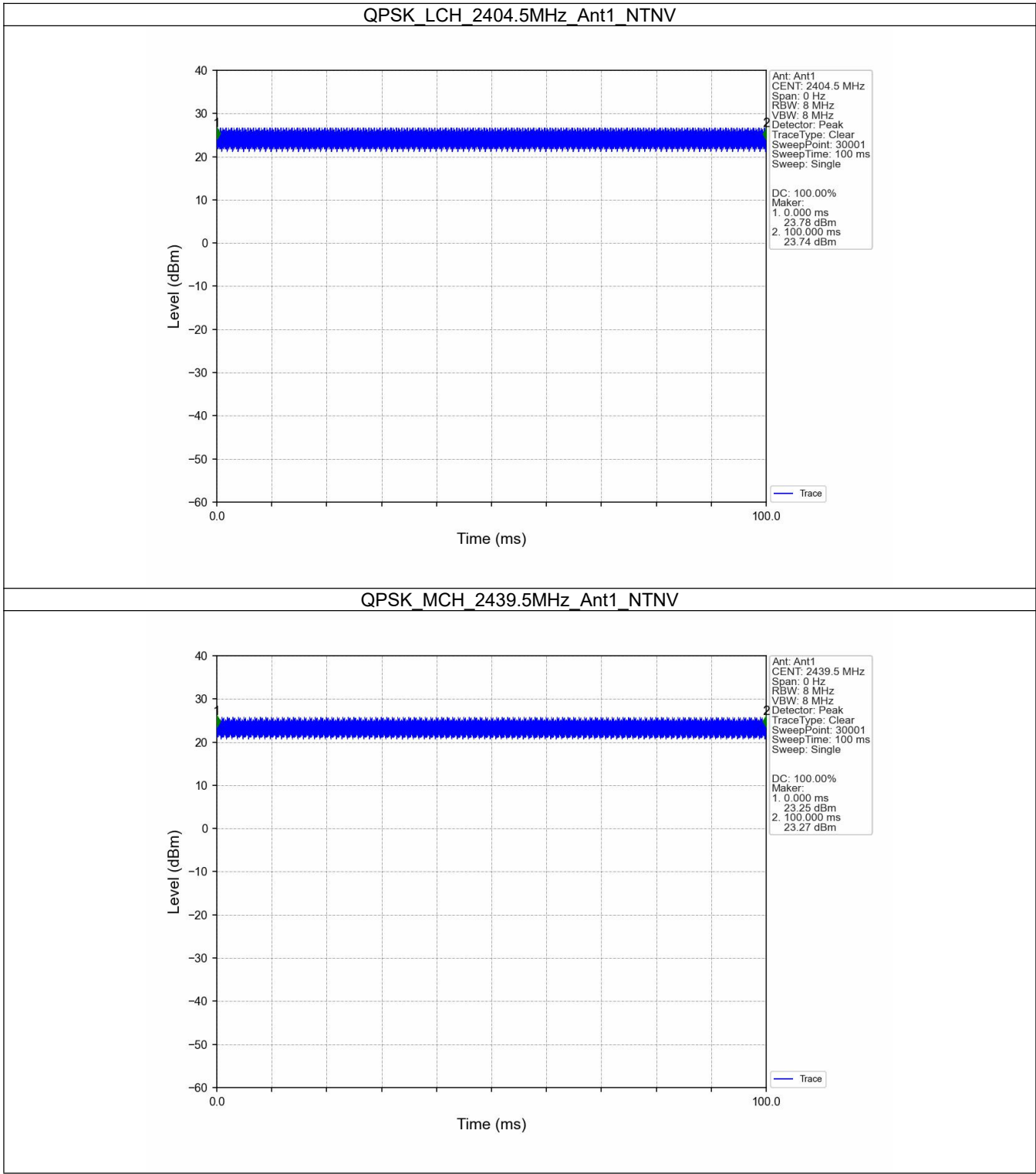
1.1 Test Result

1.1.1 Ant1

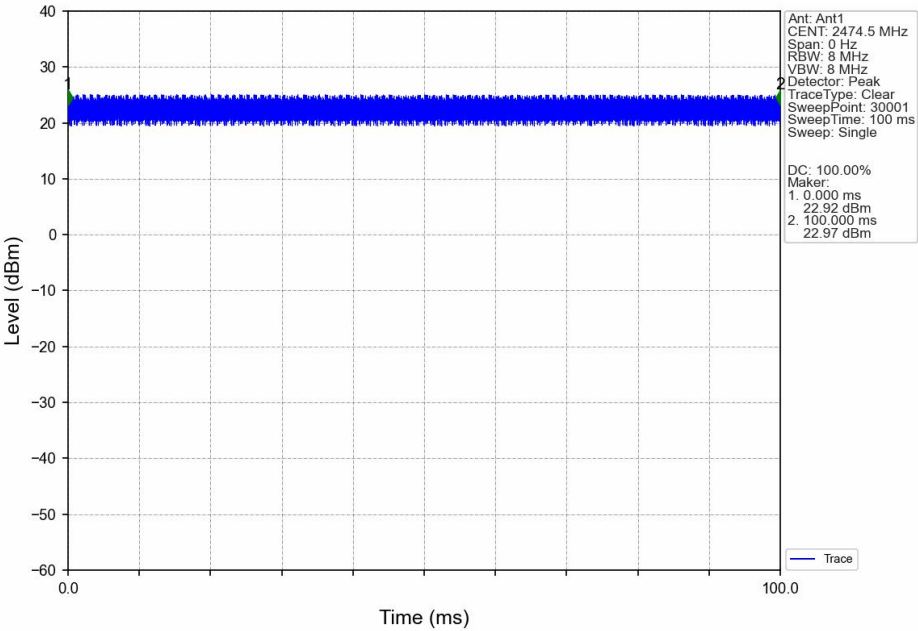
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
QPSK	MIMO	2404.5	100.000	100.000	100.00	0.00	0.00
		2439.5	100.000	100.000	100.00	0.00	0.00
		2474.5	100.000	100.000	100.00	0.00	0.00
16QAM	MIMO	2404.5	100.000	100.000	100.00	0.00	0.00
		2439.5	100.000	100.000	100.00	0.00	0.00
		2474.5	100.000	100.000	100.00	0.00	0.00

1.2 Test Graph

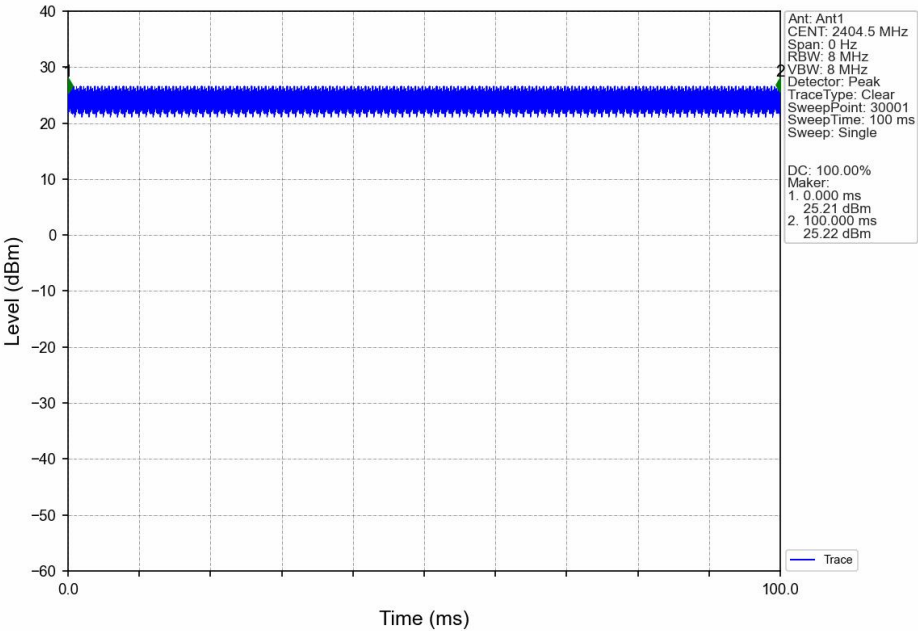
1.2.1 Ant1



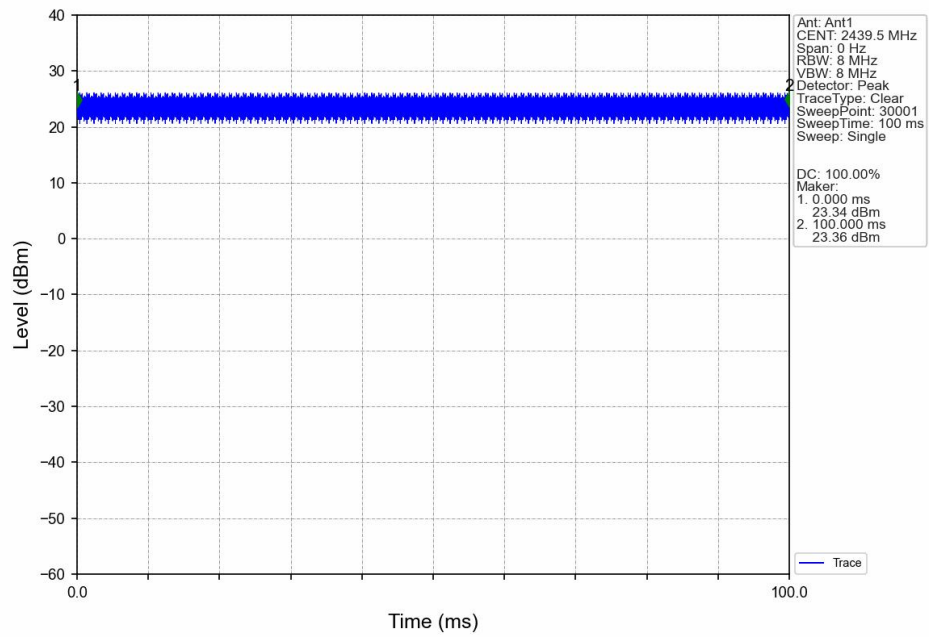
QPSK_HCH_2474.5MHz_Ant1_NTNV



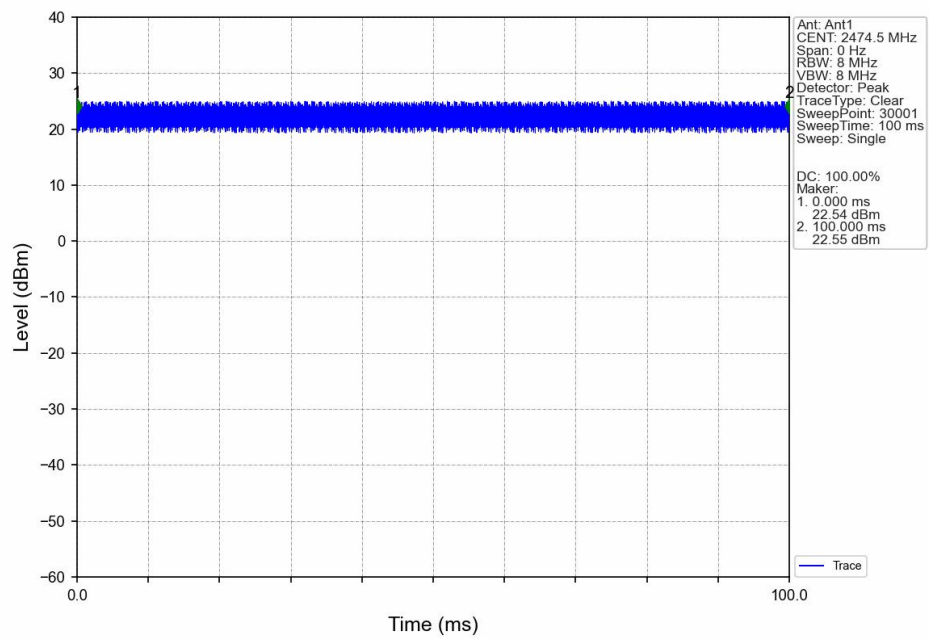
16QAM_LCH_2404.5MHz_Ant1_NTNV



16QAM_MCH_2439.5MHz_Ant1_NTNV



16QAM_HCH_2474.5MHz_Ant1_NTNV



2. Bandwidth

2.1 Test Result

2.1.1 OBW

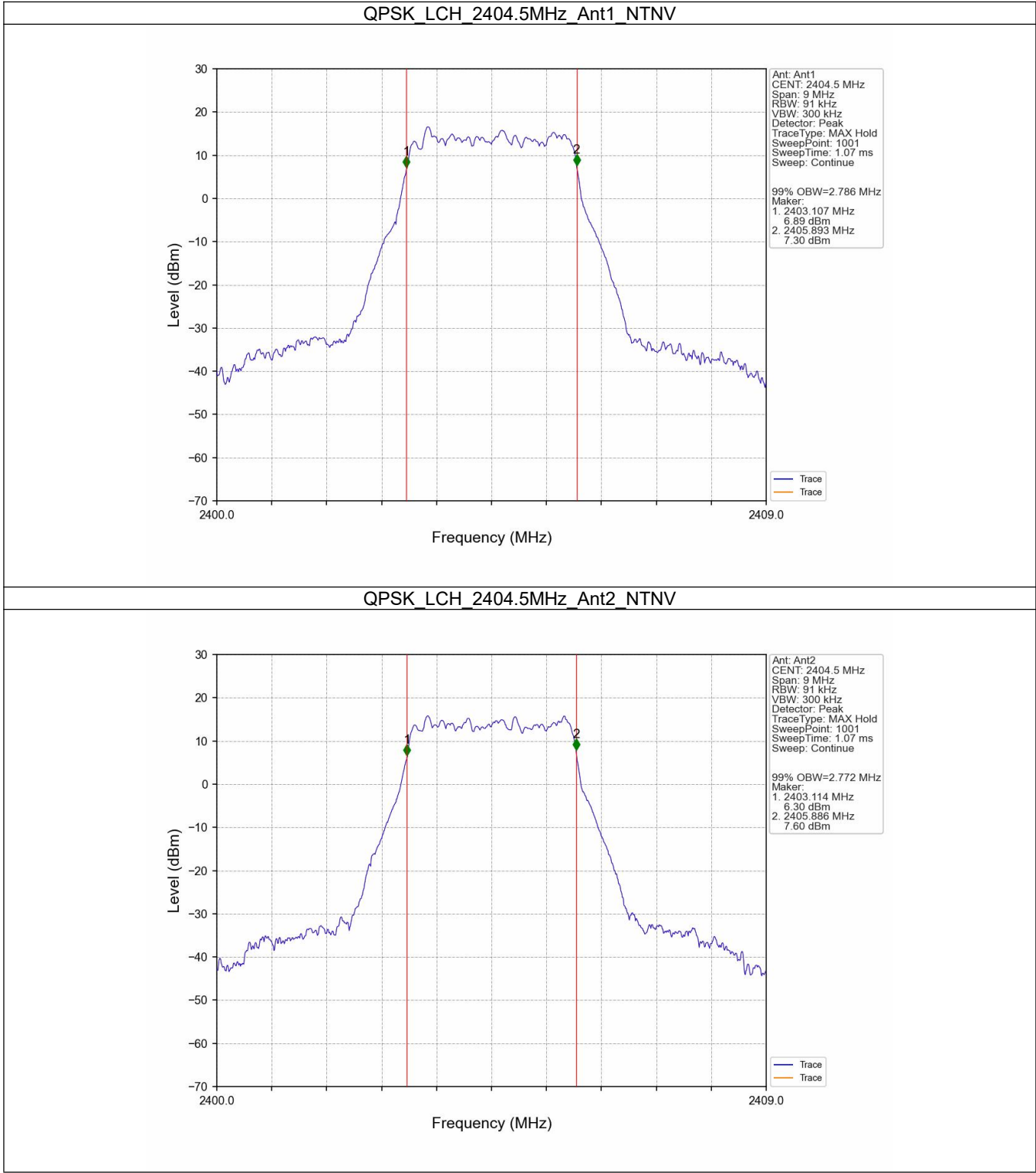
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
QPSK	MIMO	2404.5	1	2.786	/	Pass
			2	2.772	/	Pass
		2439.5	1	2.770	/	Pass
			2	2.785	/	Pass
		2474.5	1	2.838	/	Pass
			2	2.786	/	Pass
16QAM	MIMO	2404.5	1	2.789	/	Pass
			2	2.770	/	Pass
		2439.5	1	2.770	/	Pass
			2	2.785	/	Pass
		2474.5	1	2.832	/	Pass
			2	2.783	/	Pass

2.1.2 6dB BW

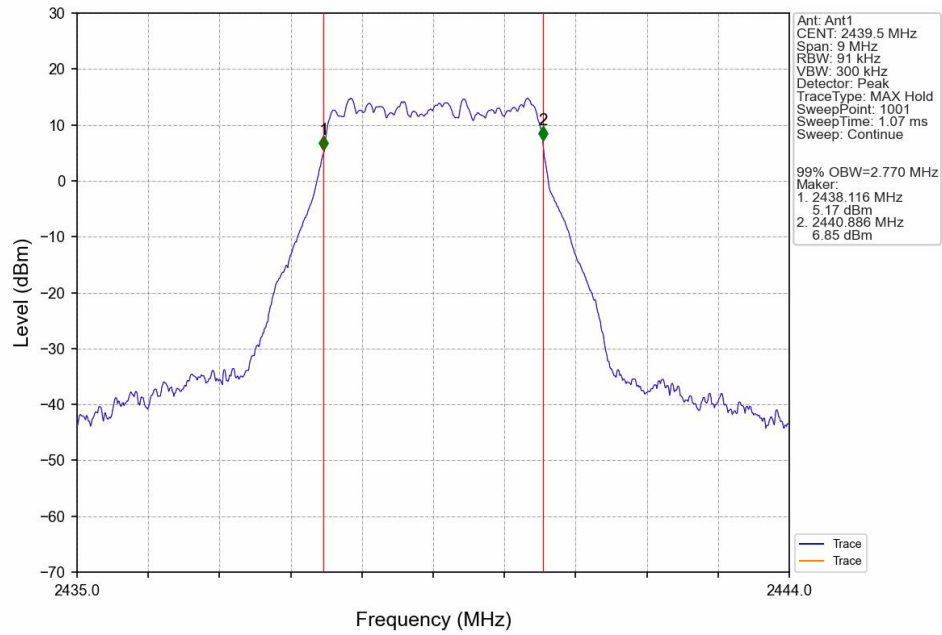
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
QPSK	MIMO	2404.5	1	2.705	≥ 0.5	Pass
			2	2.712	≥ 0.5	Pass
		2439.5	1	2.713	≥ 0.5	Pass
			2	2.704	≥ 0.5	Pass
		2474.5	1	2.758	≥ 0.5	Pass
			2	2.711	≥ 0.5	Pass
16QAM	MIMO	2404.5	1	2.704	≥ 0.5	Pass
			2	2.712	≥ 0.5	Pass
		2439.5	1	2.713	≥ 0.5	Pass
			2	2.708	≥ 0.5	Pass
		2474.5	1	2.764	≥ 0.5	Pass
			2	2.707	≥ 0.5	Pass

2.2 Test Graph

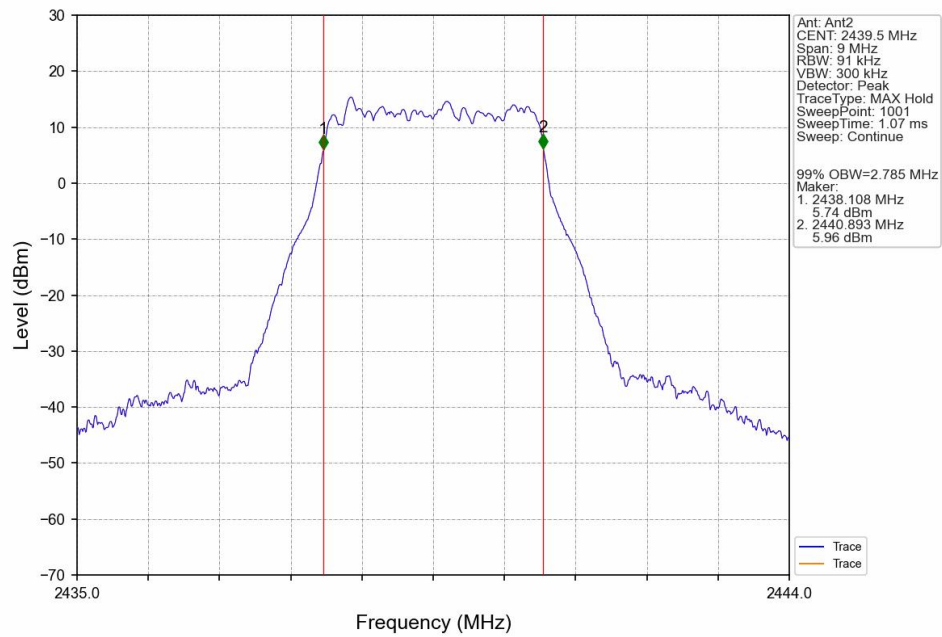
2.2.1 OBW



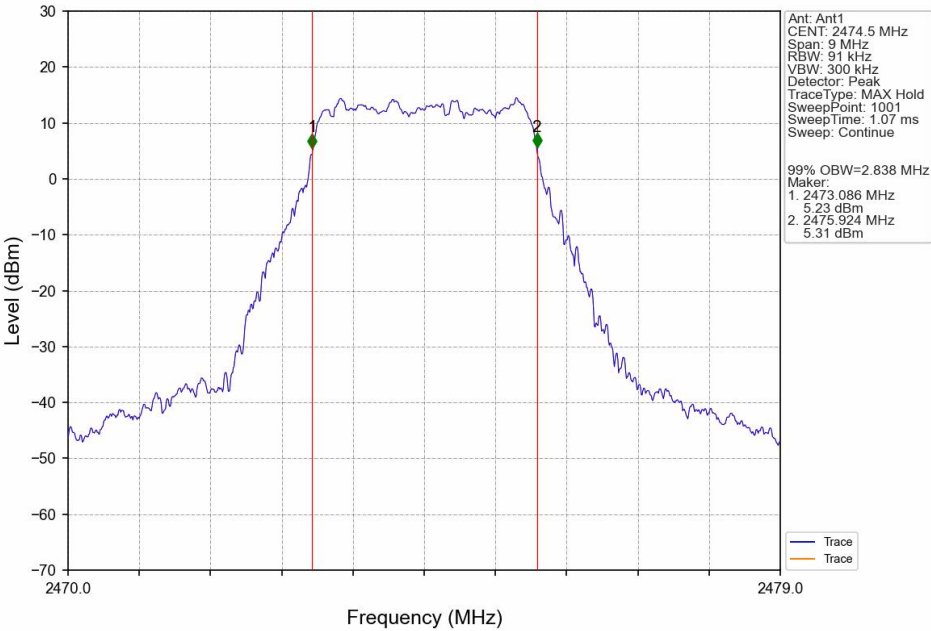
QPSK_MCH_2439.5MHz_Ant1_NTNV



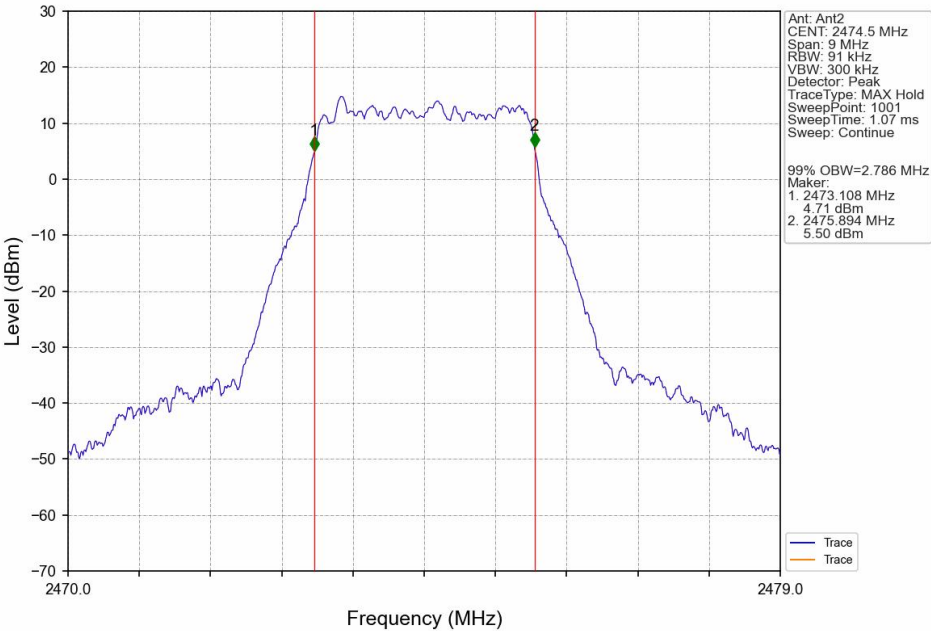
QPSK_MCH_2439.5MHz_Ant2_NTNV



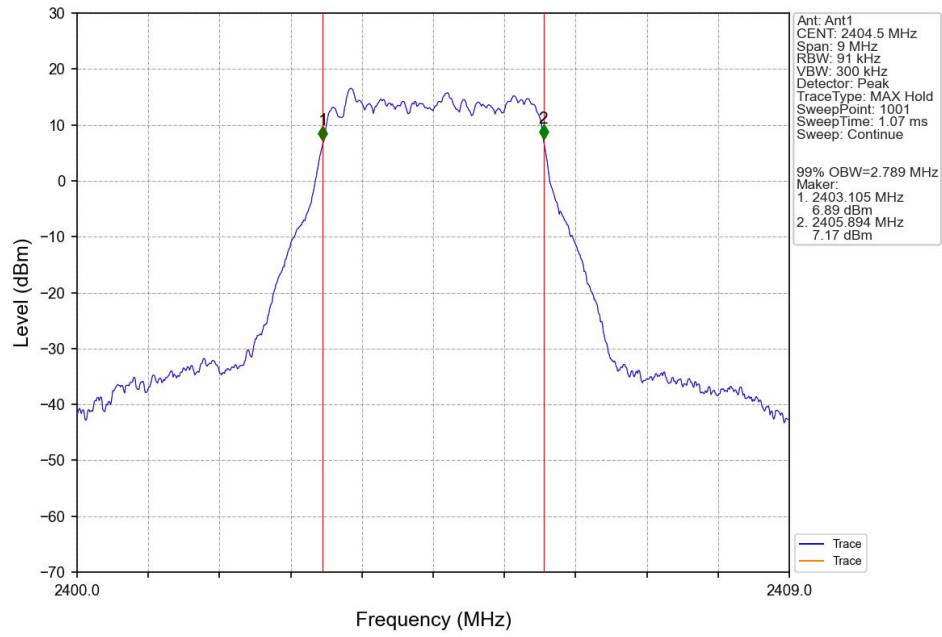
QPSK_HCH_2474.5MHz_Ant1_NTNV



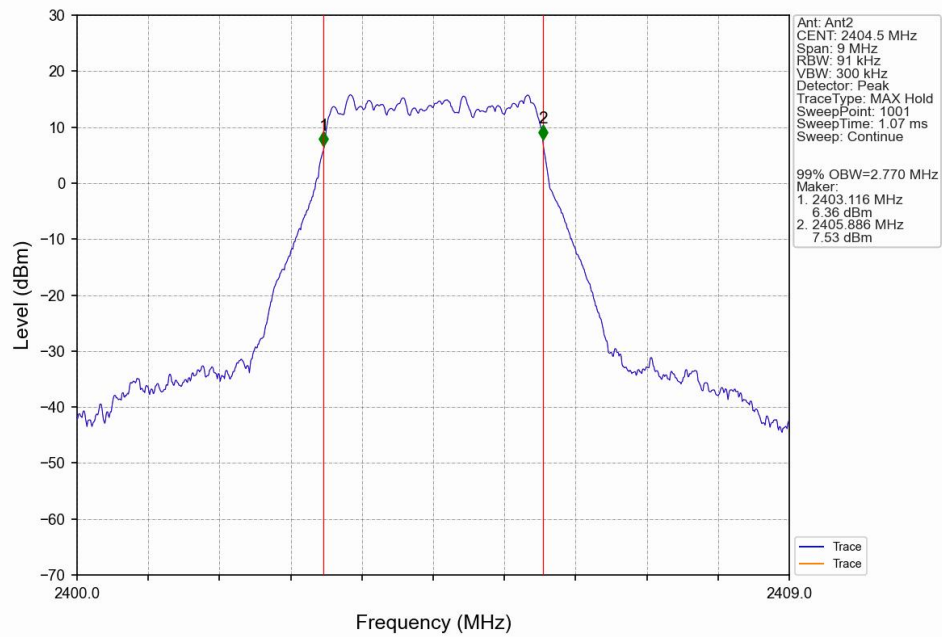
QPSK_HCH_2474.5MHz_Ant2_NTNV



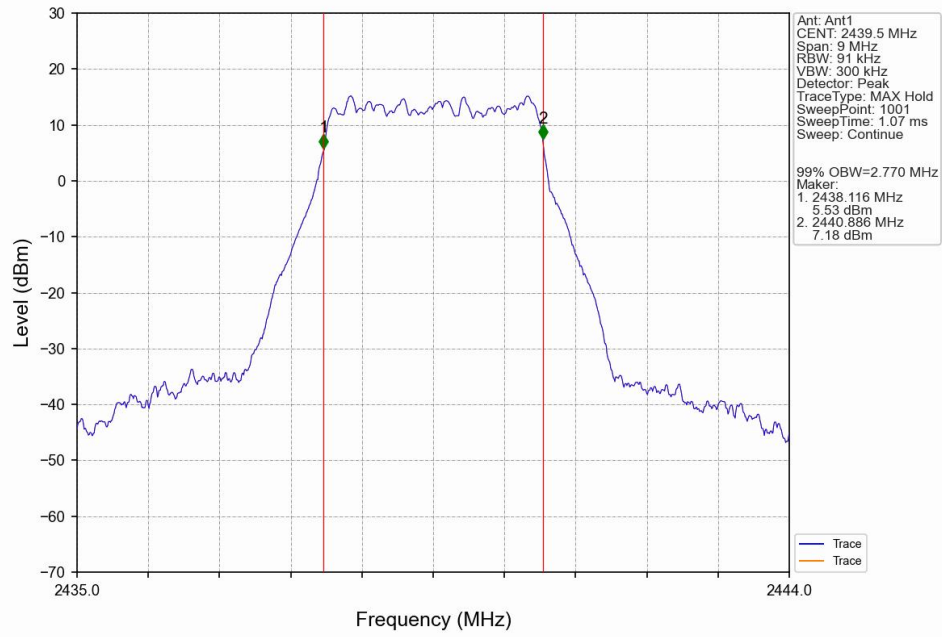
16QAM_LCH_2404.5MHz_Ant1_NTNV



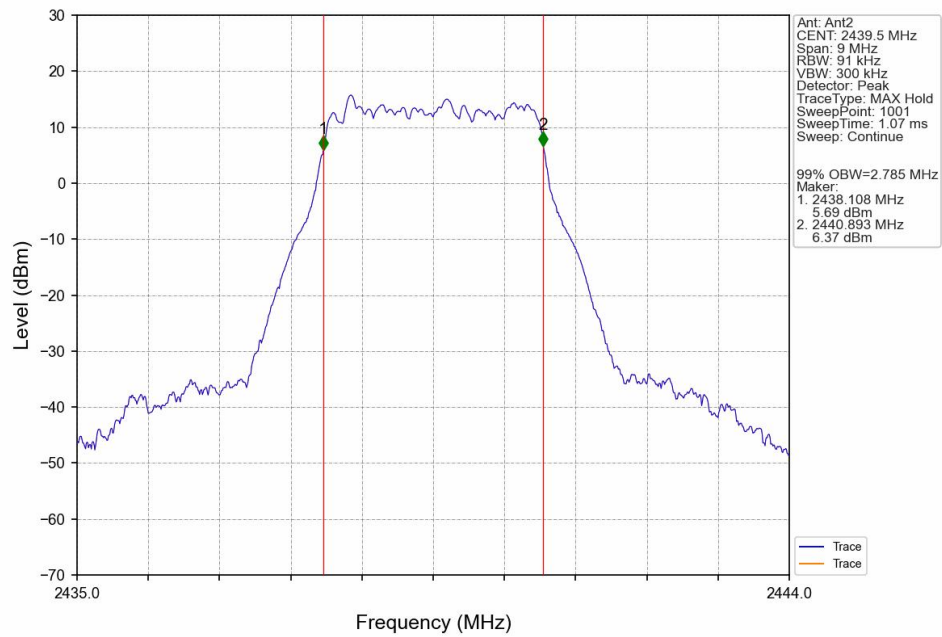
16QAM_LCH_2404.5MHz_Ant2_NTNV



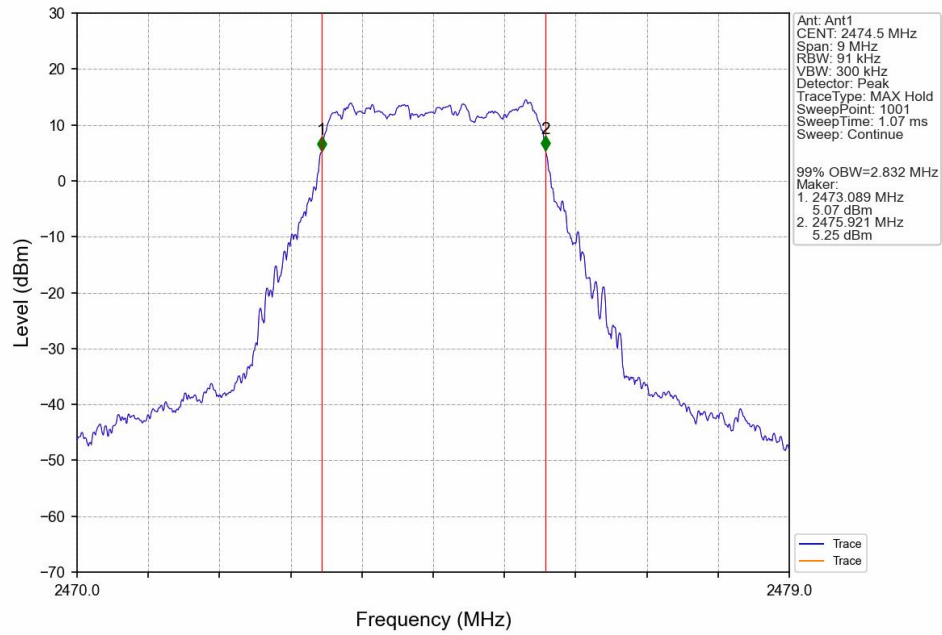
16QAM_MCH_2439.5MHz_Ant1_NTNV



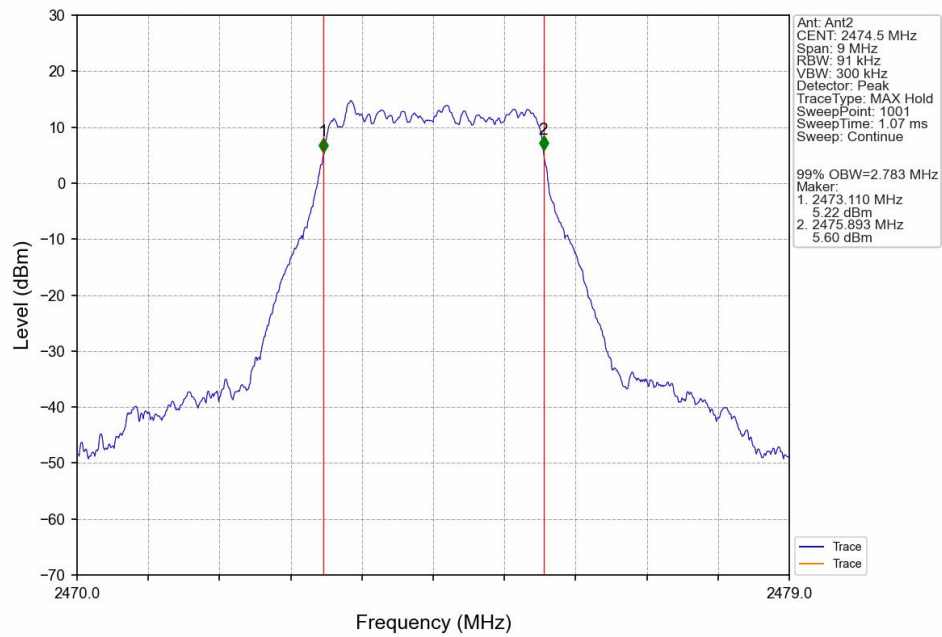
16QAM_MCH_2439.5MHz_Ant2_NTNV



16QAM_HCH_2474.5MHz_Ant1_NTNV

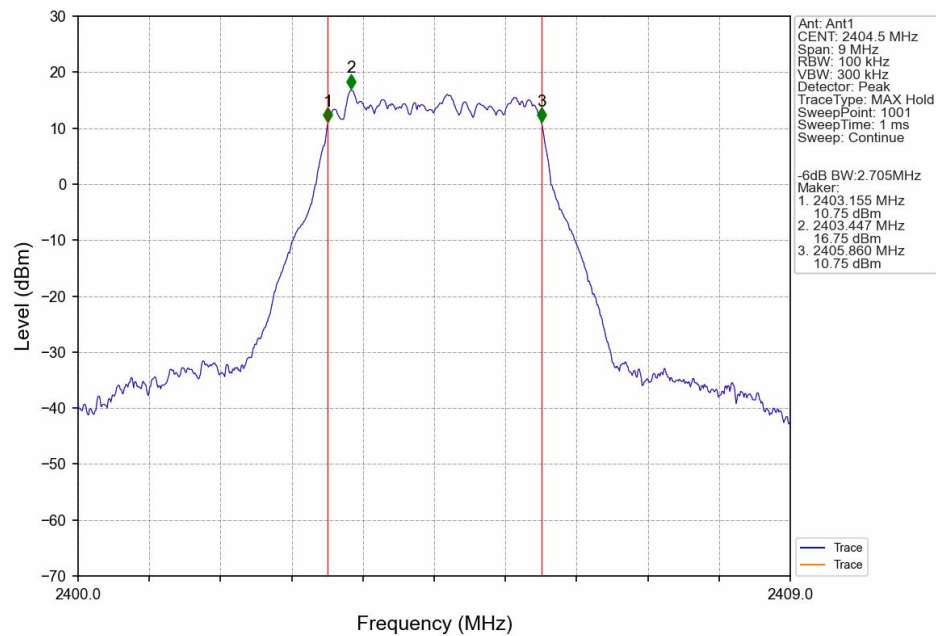


16QAM_HCH_2474.5MHz_Ant2_NTNV

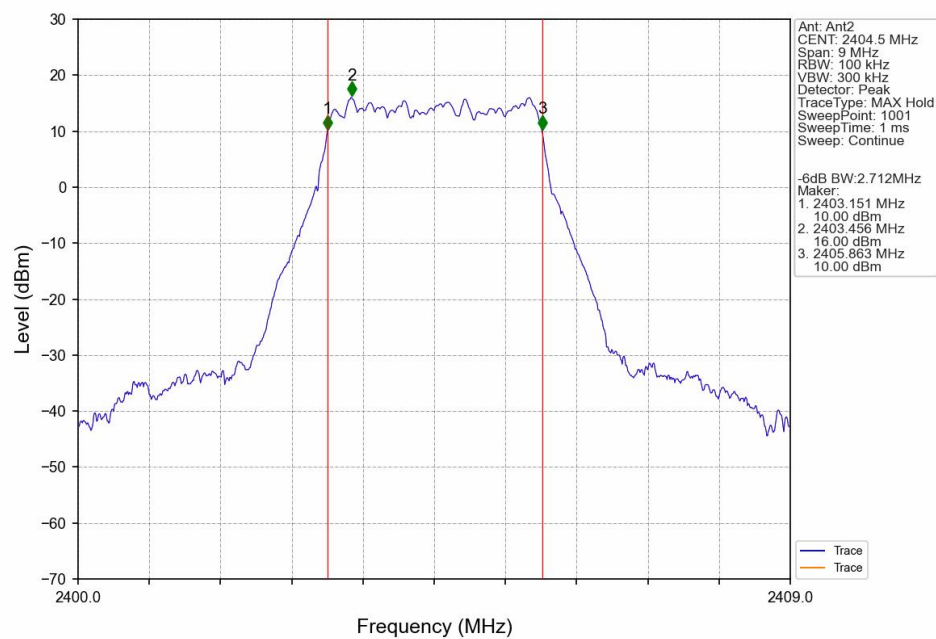


2.2.2 6dB BW

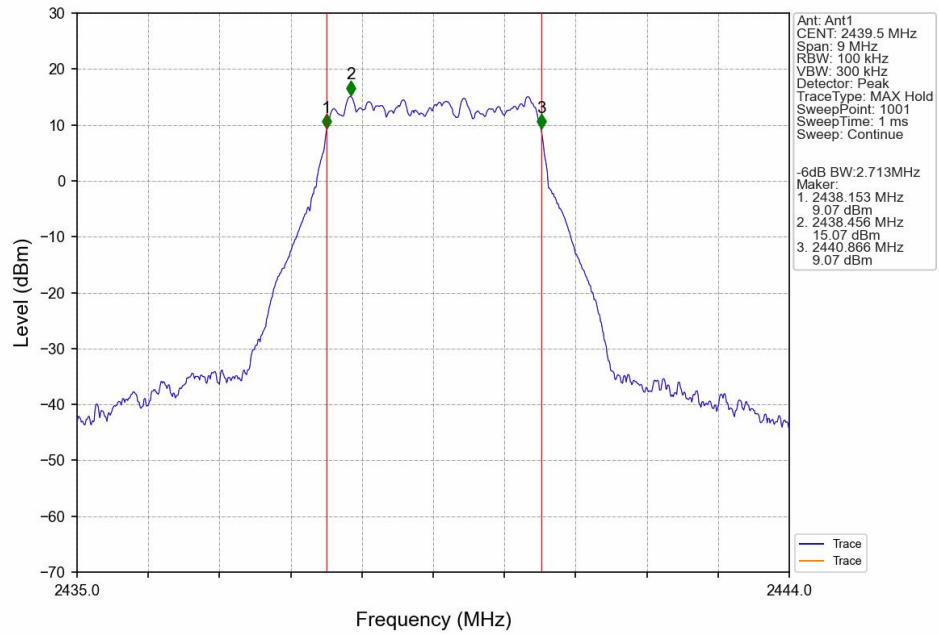
QPSK_LCH_2404.5MHz_Ant1_NTNV



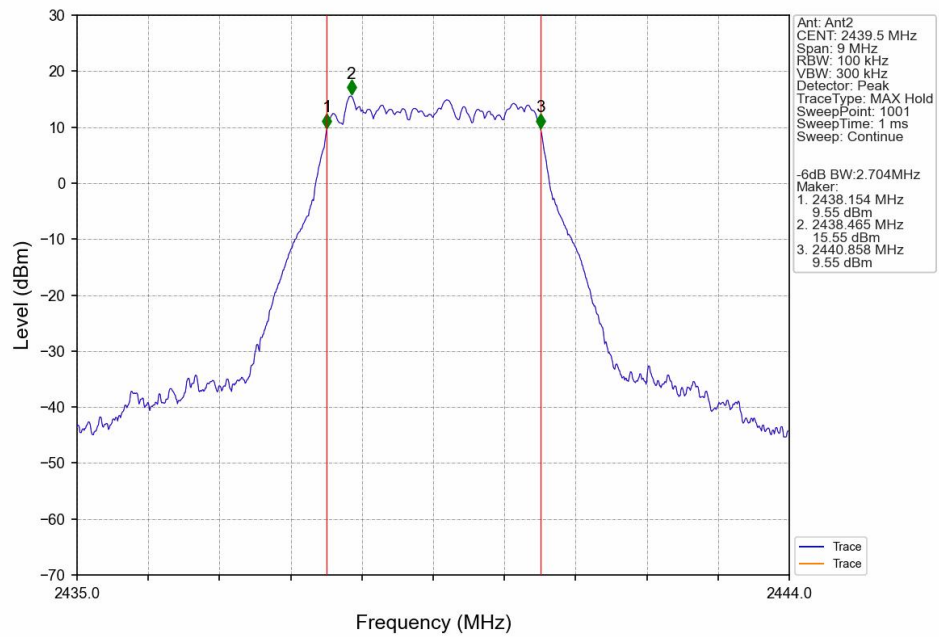
QPSK_LCH_2404.5MHz_Ant2_NTNV



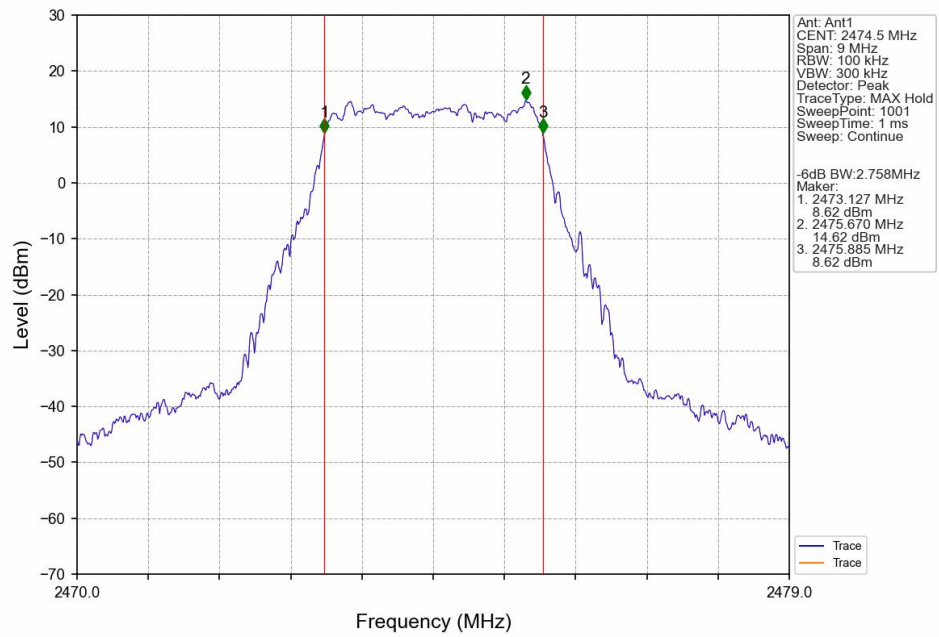
QPSK_MCH_2439.5MHz_Ant1_NTNV



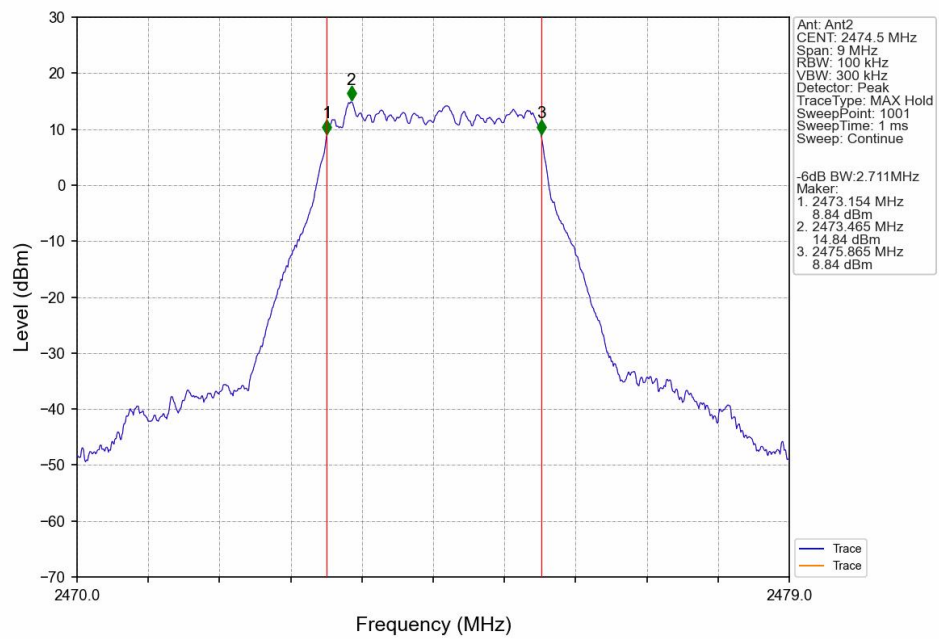
QPSK_MCH_2439.5MHz_Ant2_NTNV



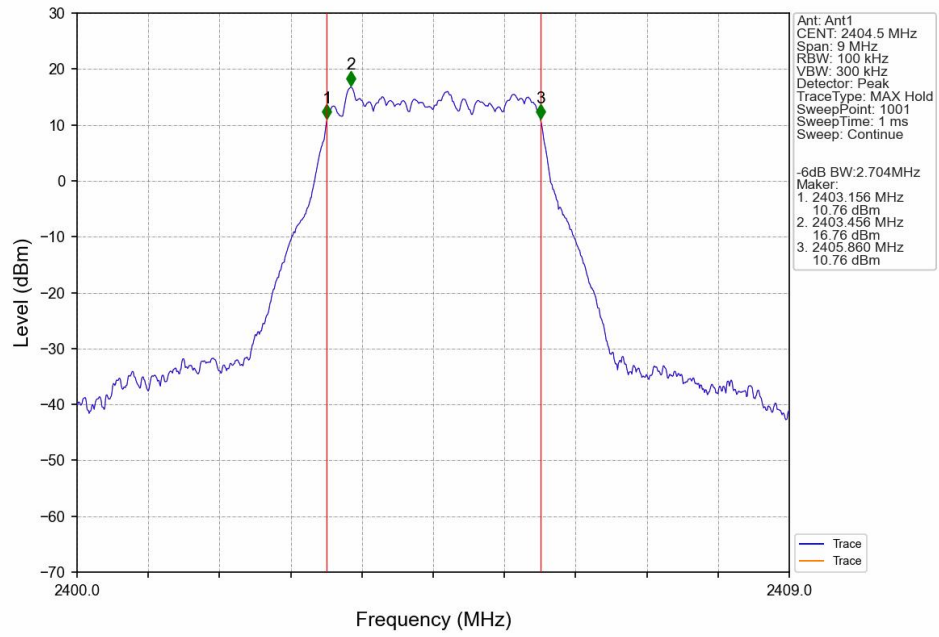
QPSK_HCH_2474.5MHz_Ant1_NTNV



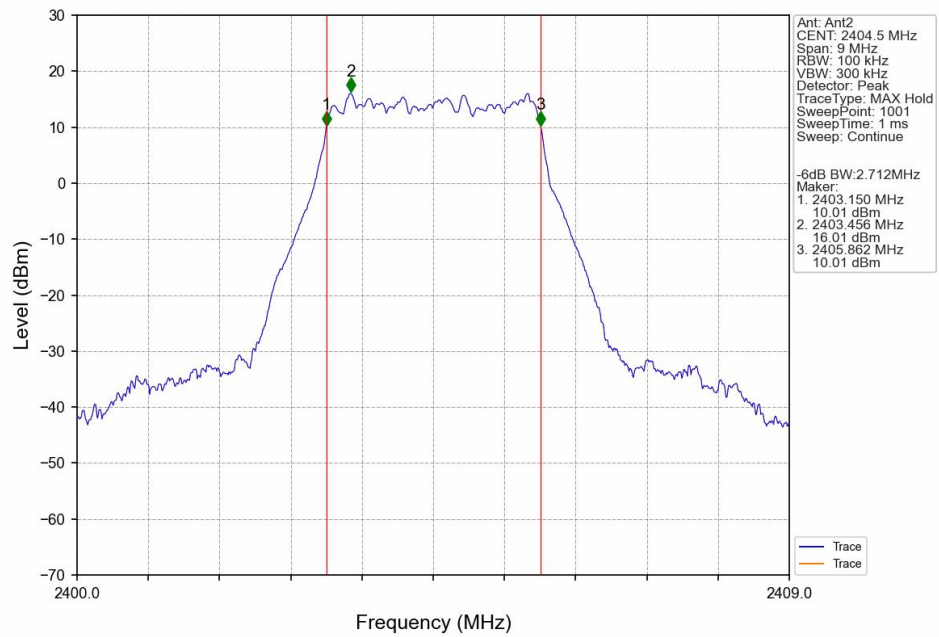
QPSK_HCH_2474.5MHz_Ant2_NTNV



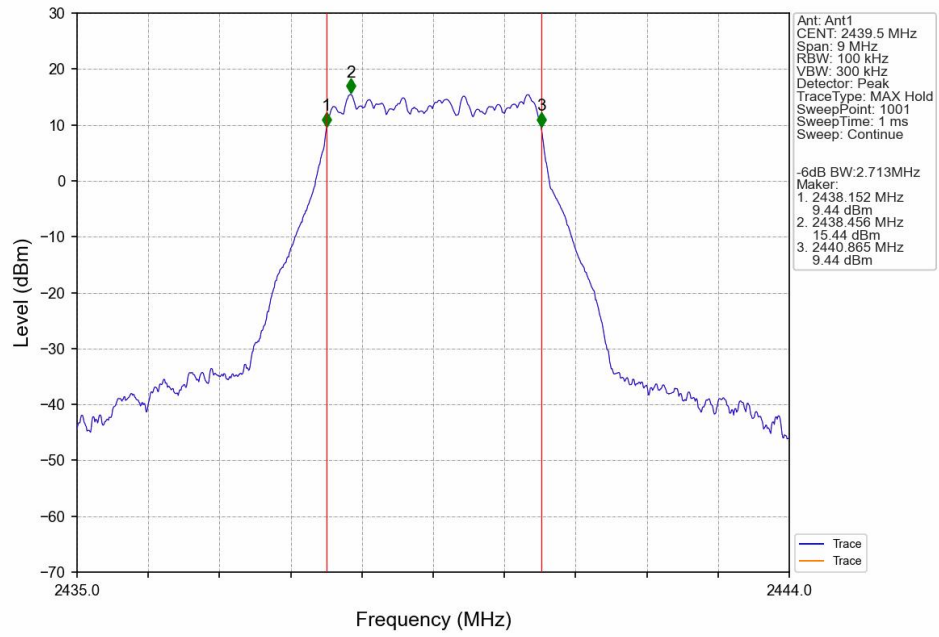
16QAM_LCH_2404.5MHz_Ant1_NTNV



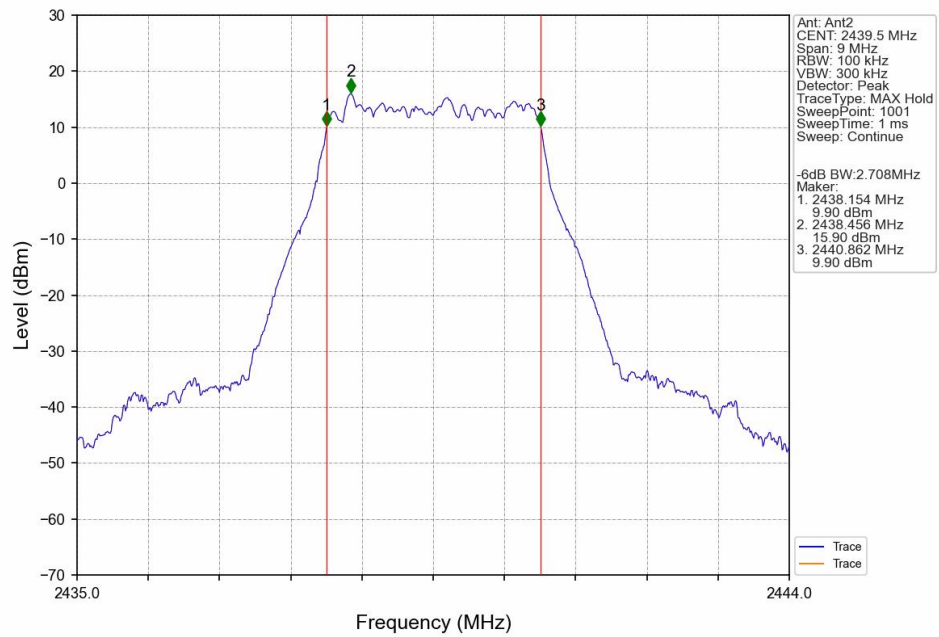
16QAM_LCH_2404.5MHz_Ant2_NTNV



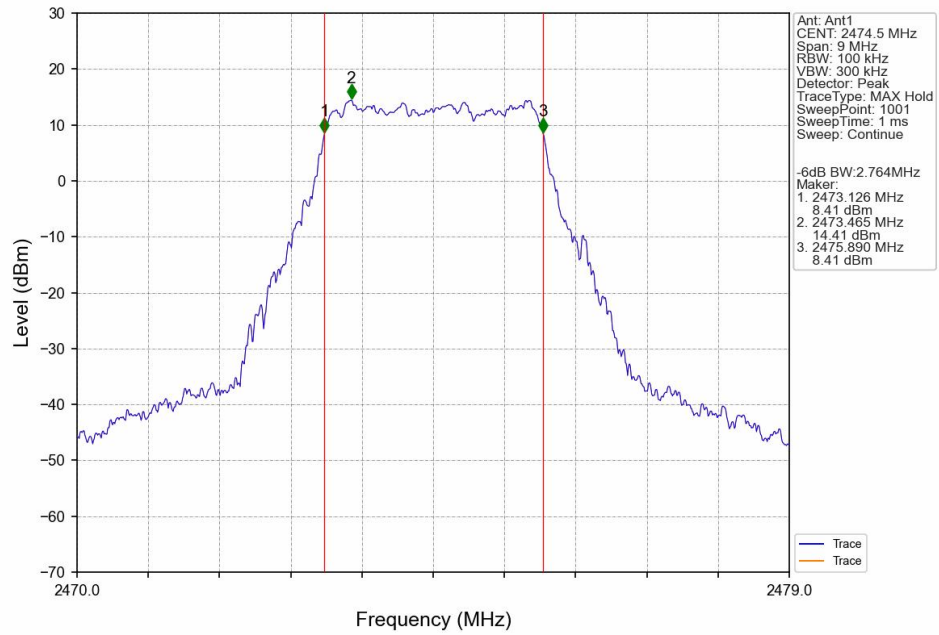
16QAM_MCH_2439.5MHz_Ant1_NTNV



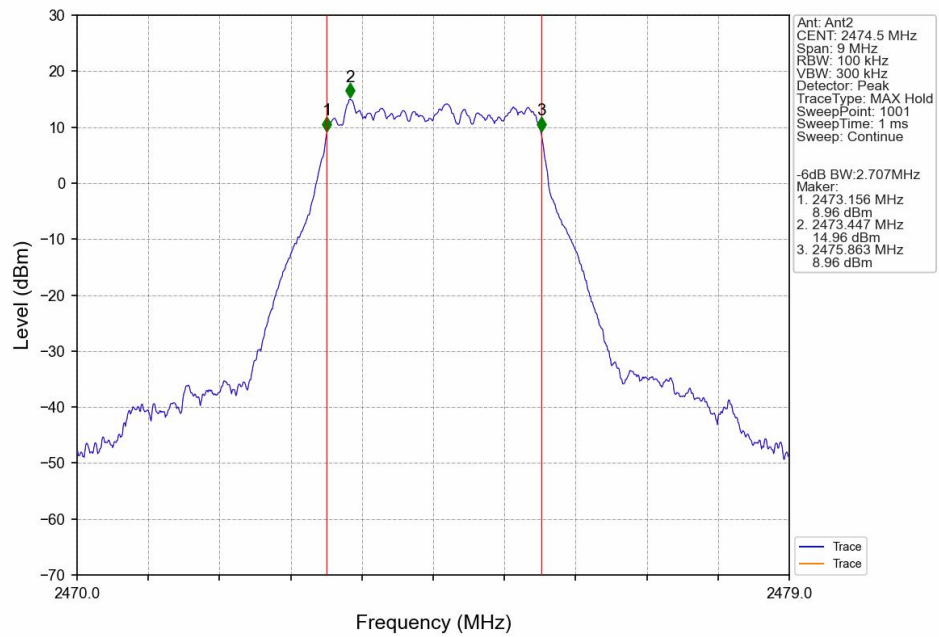
16QAM_MCH_2439.5MHz_Ant2_NTNV



16QAM_HCH_2474.5MHz_Ant1_NTNV



16QAM_HCH_2474.5MHz_Ant2_NTNV



3. Maximum Conducted Output Power

3.1 Test Result

3.1.1 Power

Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)				Verdict
			ANT1	ANT2	MIMO	Limit	
QPSK	MIMO	2404.5	25.09	25.62	28.37	<=28.79	Pass
		2439.5	24.38	24.72	27.56	<=28.79	Pass
		2474.5	20.97	21.09	24.04	<=28.79	Pass
16QAM	MIMO	2404.5	25.26	25.75	28.52	<=28.79	Pass
		2439.5	24.27	24.72	27.51	<=28.79	Pass
		2474.5	20.95	21.10	24.04	<=28.79	Pass
Note1: Antenna Gain: Ant1: 4.20dBi; Ant2: 4.20dBi; Note2: Directional Gain: Band1: 7.21dBi							

4. Maximum Power Spectral Density

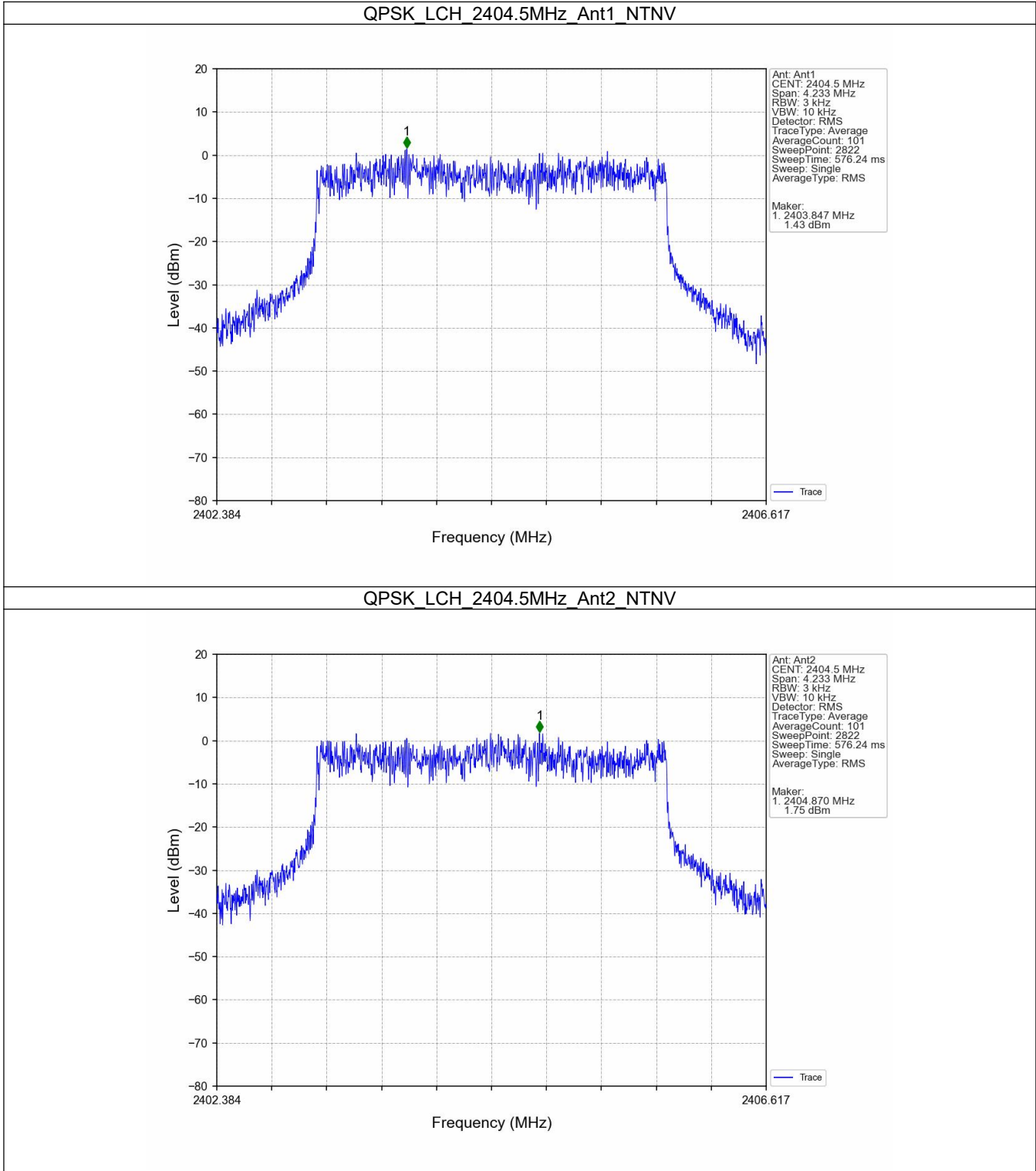
4.1 Test Result

4.1.1 PSD

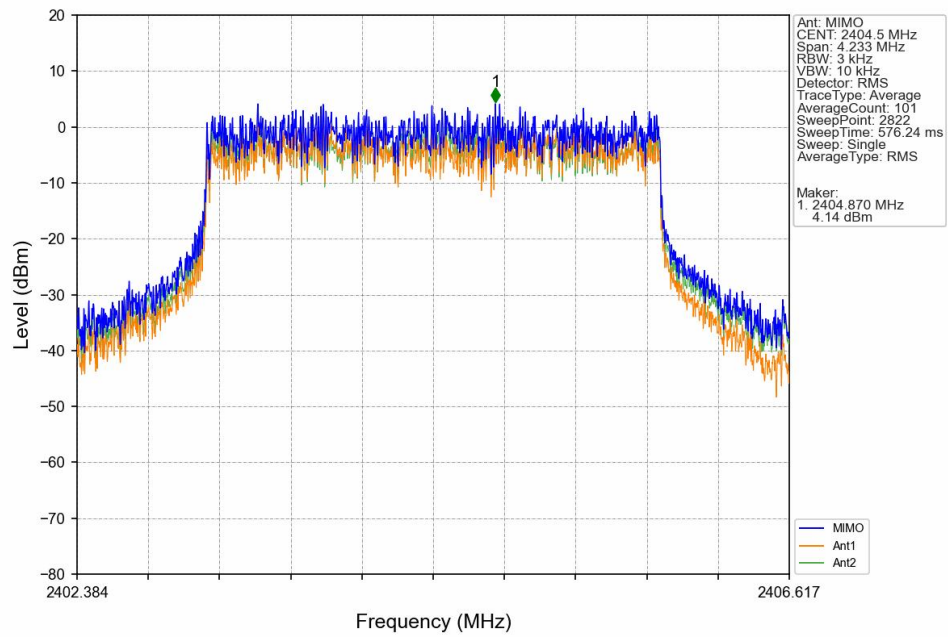
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)				Verdict
			ANT1	ANT2	MIMO	Limit	
QPSK	MIMO	2404.5	1.43	1.75	4.14	<=6.79	Pass
		2439.5	0.45	0.56	2.99	<=6.79	Pass
		2474.5	-3.15	-2.67	-0.52	<=6.79	Pass
16QAM	MIMO	2404.5	1.82	1.79	4.38	<=6.79	Pass
		2439.5	0.29	0.61	3.14	<=6.79	Pass
		2474.5	-3.75	-2.64	-0.56	<=6.79	Pass
Note1: Antenna Gain: Ant1: 4.20dBi; Ant2: 4.20dBi; Note2: Directional Gain: Band1: 7.21dBi							

4.2 Test Graph

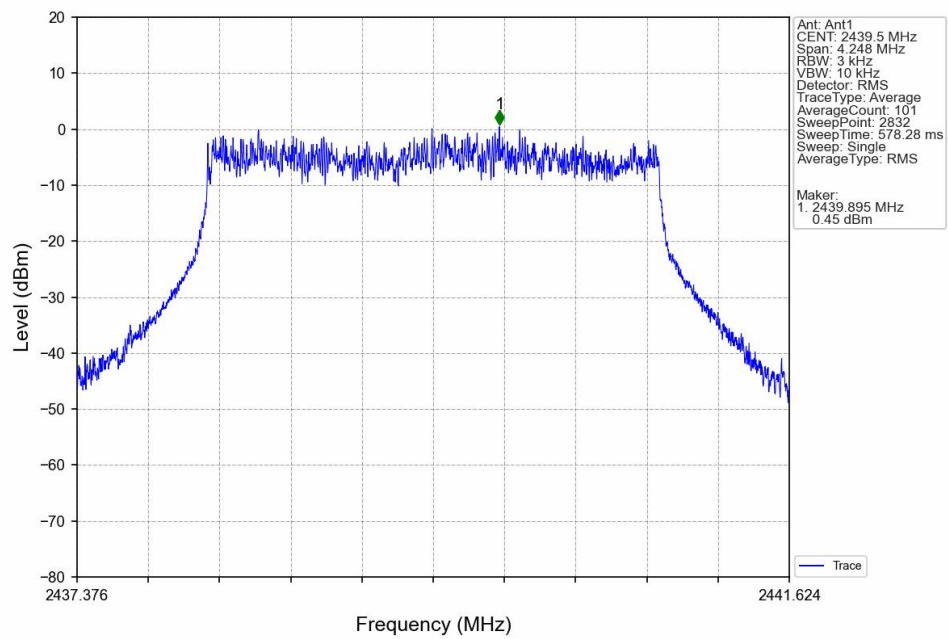
4.2.1 PSD



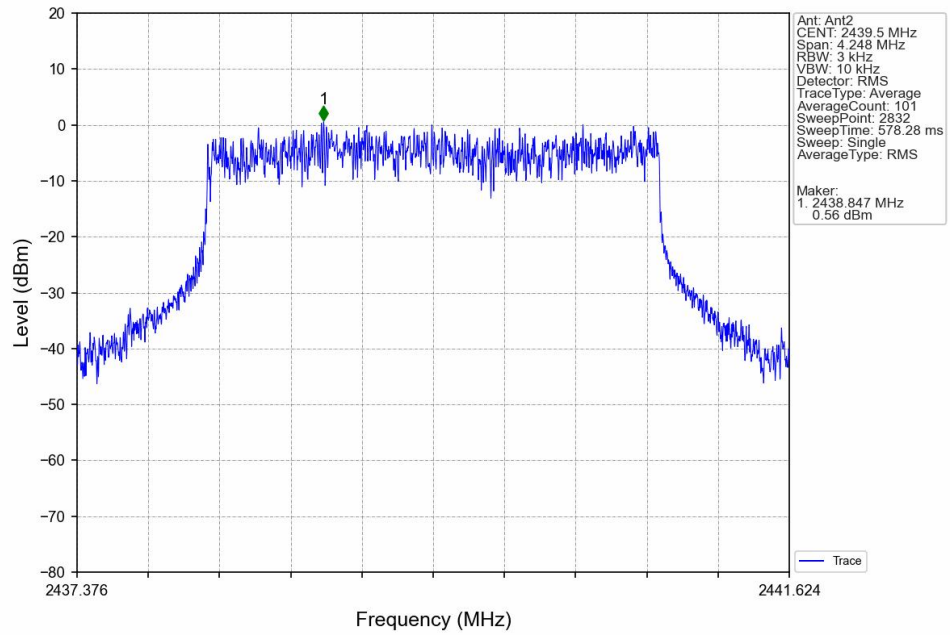
QPSK_LCH_2404.5MHz_MIMO_NTNV



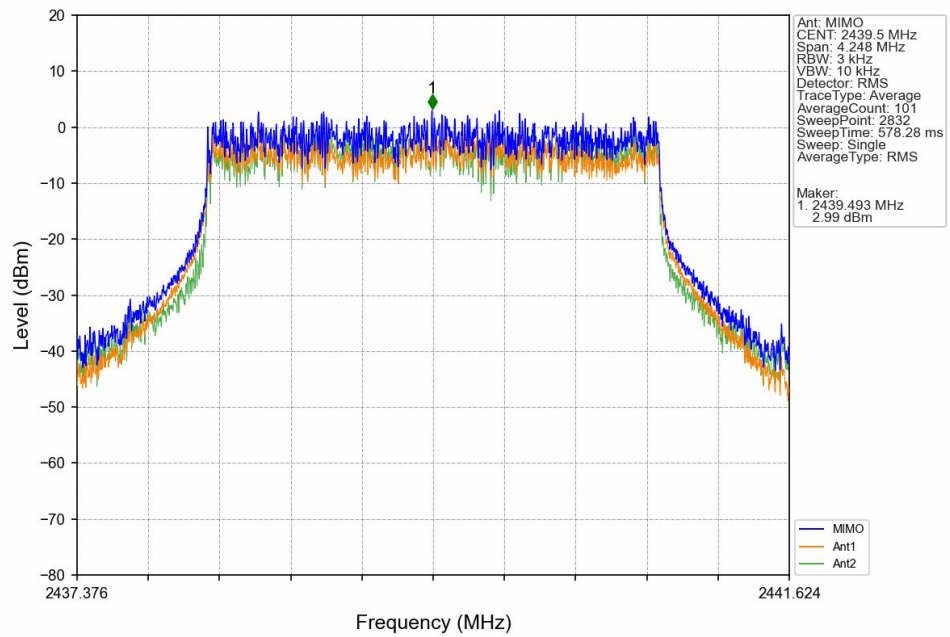
QPSK_MCH_2439.5MHz_Ant1_NTNV



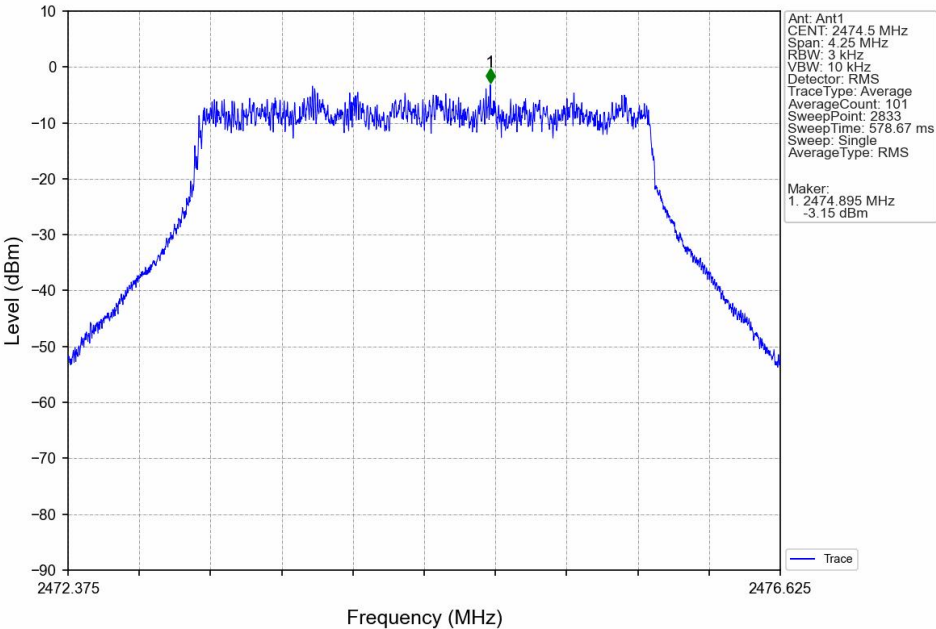
QPSK_MCH_2439.5MHz_Ant2_NTNV



QPSK_MCH_2439.5MHz_MIMO_NTNV



QPSK_HCH_2474.5MHz_Ant1_NTNV



QPSK_HCH_2474.5MHz_Ant2_NTNV

