

## 5. Peak-Average Ratio

### 5.1 Test Result

#### 5.1.1 B5\_1.4MHz

Band: 5 / Bandwidth: 1.4MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	824.7	6	0	4.87	<=13	Pass
	836.5	6	0	4.66	<=13	Pass
	848.3	6	0	4.78	<=13	Pass
16QAM	824.7	6	0	5.54	<=13	Pass
	836.5	6	0	5.22	<=13	Pass
	848.3	6	0	5.51	<=13	Pass

#### 5.1.2 B5\_3MHz

Band: 5 / Bandwidth: 3MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	825.5	15	0	5.15	<=13	Pass
	836.5	15	0	4.91	<=13	Pass
	847.5	15	0	4.97	<=13	Pass
16QAM	825.5	15	0	5.77	<=13	Pass
	836.5	15	0	5.48	<=13	Pass
	847.5	15	0	5.67	<=13	Pass

#### 5.1.3 B5\_5MHz

Band: 5 / Bandwidth: 5MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	826.5	25	0	5.29	<=13	Pass
	836.5	25	0	5.19	<=13	Pass
	846.5	25	0	5.23	<=13	Pass
16QAM	826.5	25	0	5.90	<=13	Pass
	836.5	25	0	5.69	<=13	Pass
	846.5	25	0	5.80	<=13	Pass

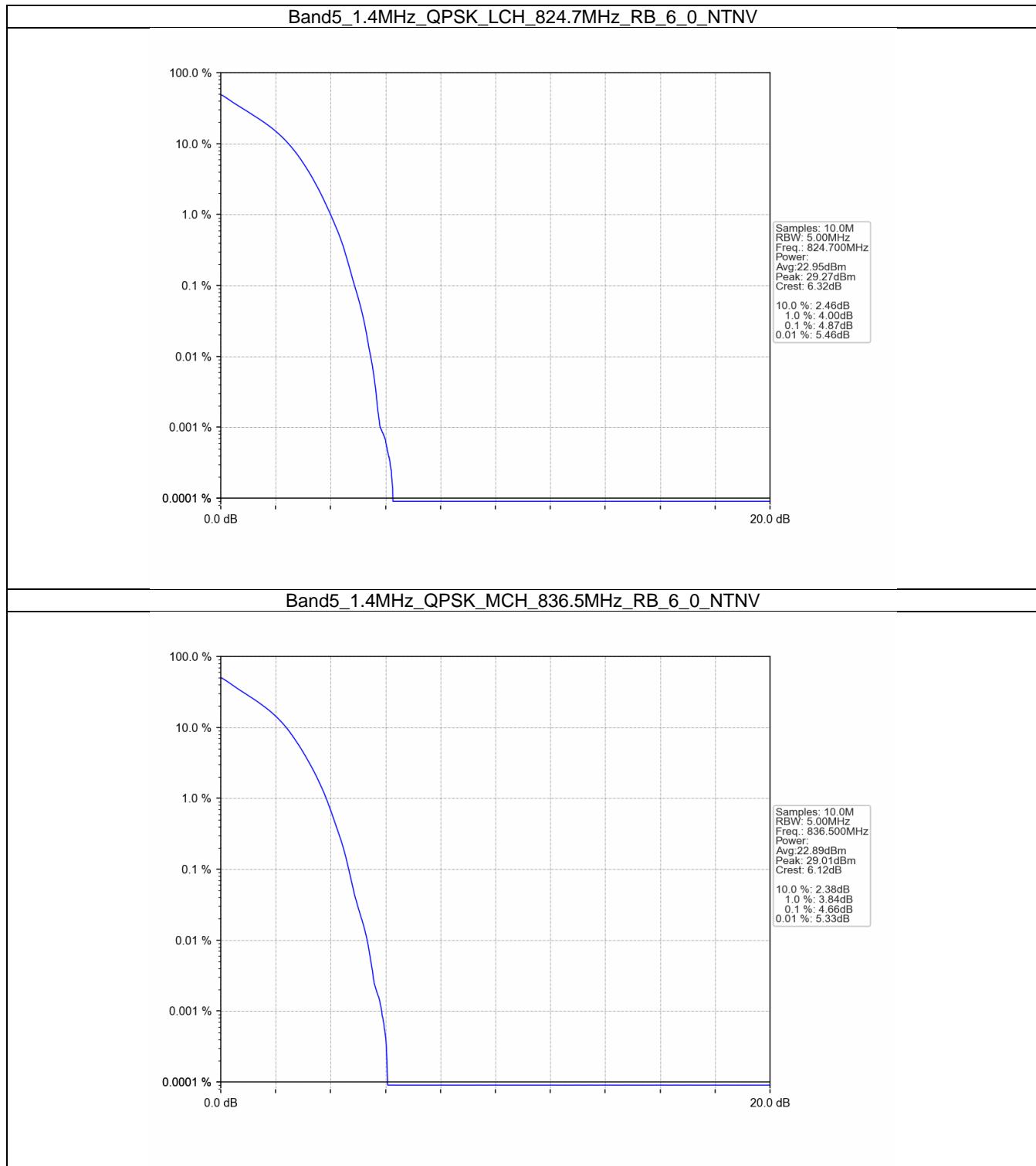
#### 5.1.4 B5\_10MHz

Band: 5 / Bandwidth: 10MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	829	50	0	5.25	<=13	Pass
	836.5	50	0	5.24	<=13	Pass
	844	50	0	5.27	<=13	Pass
16QAM	829	50	0	5.91	<=13	Pass
	836.5	50	0	5.85	<=13	Pass

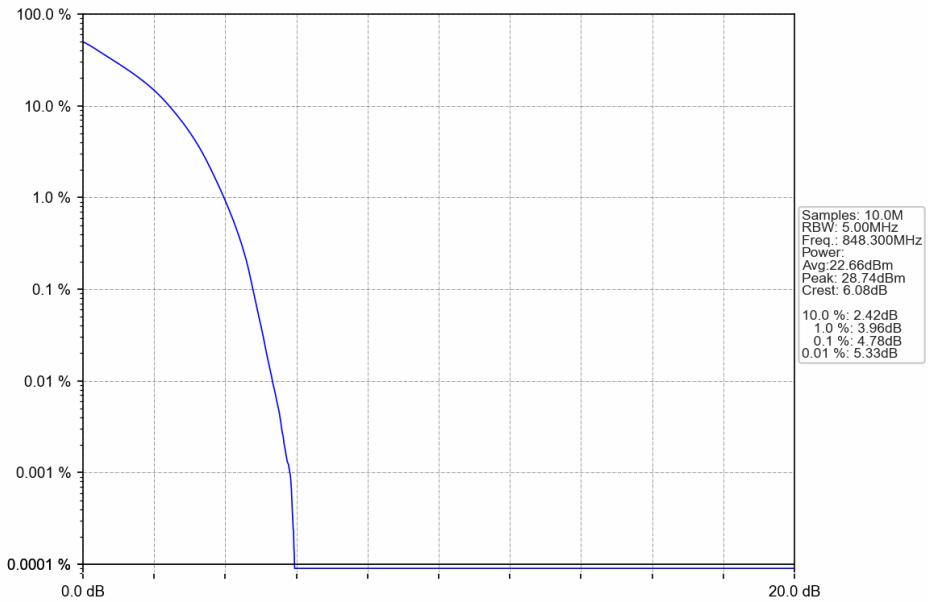
	844	50	0	5.95	<=13	Pass
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## 5.2 Test Graph

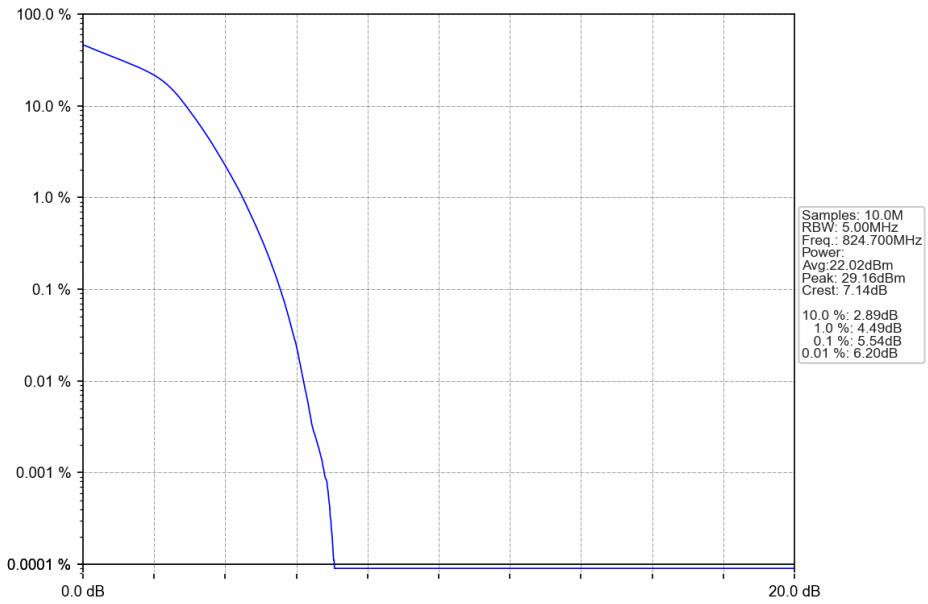
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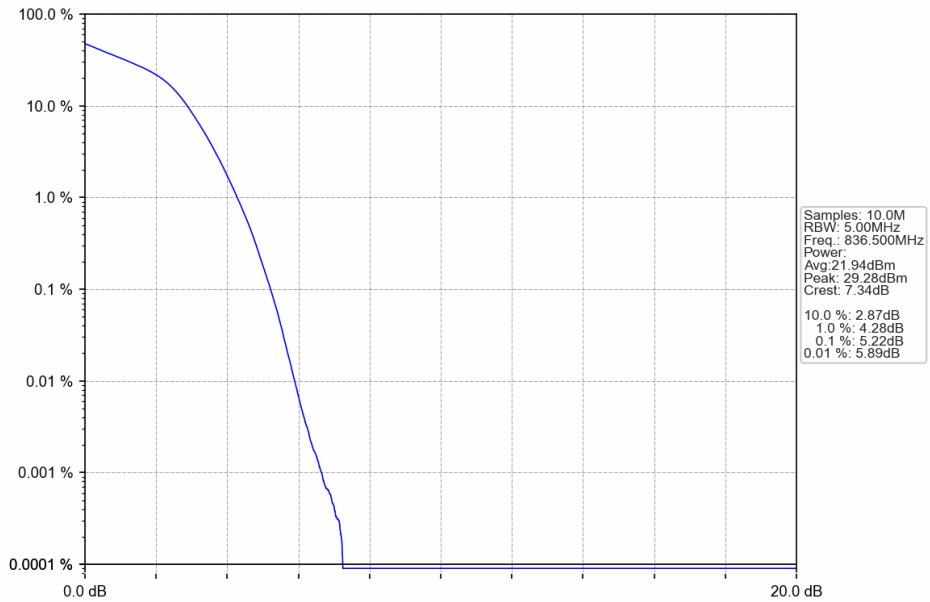
Band5\_1.4MHz\_QPSK\_HCH\_848.3MHz\_RB\_6\_0\_NTNV



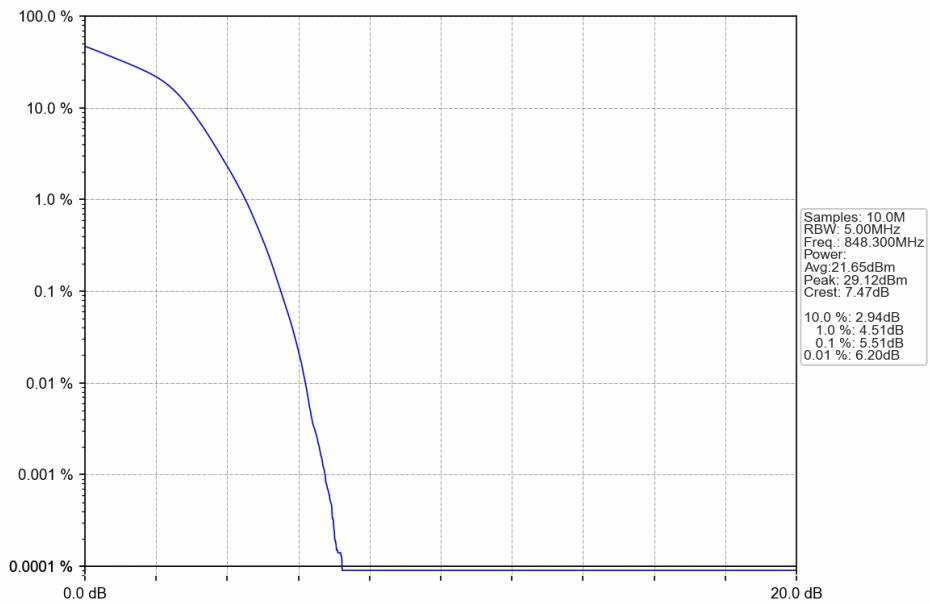
Band5\_1.4MHz\_16QAM\_LCH\_824.7MHz\_RB\_6\_0\_NTNV



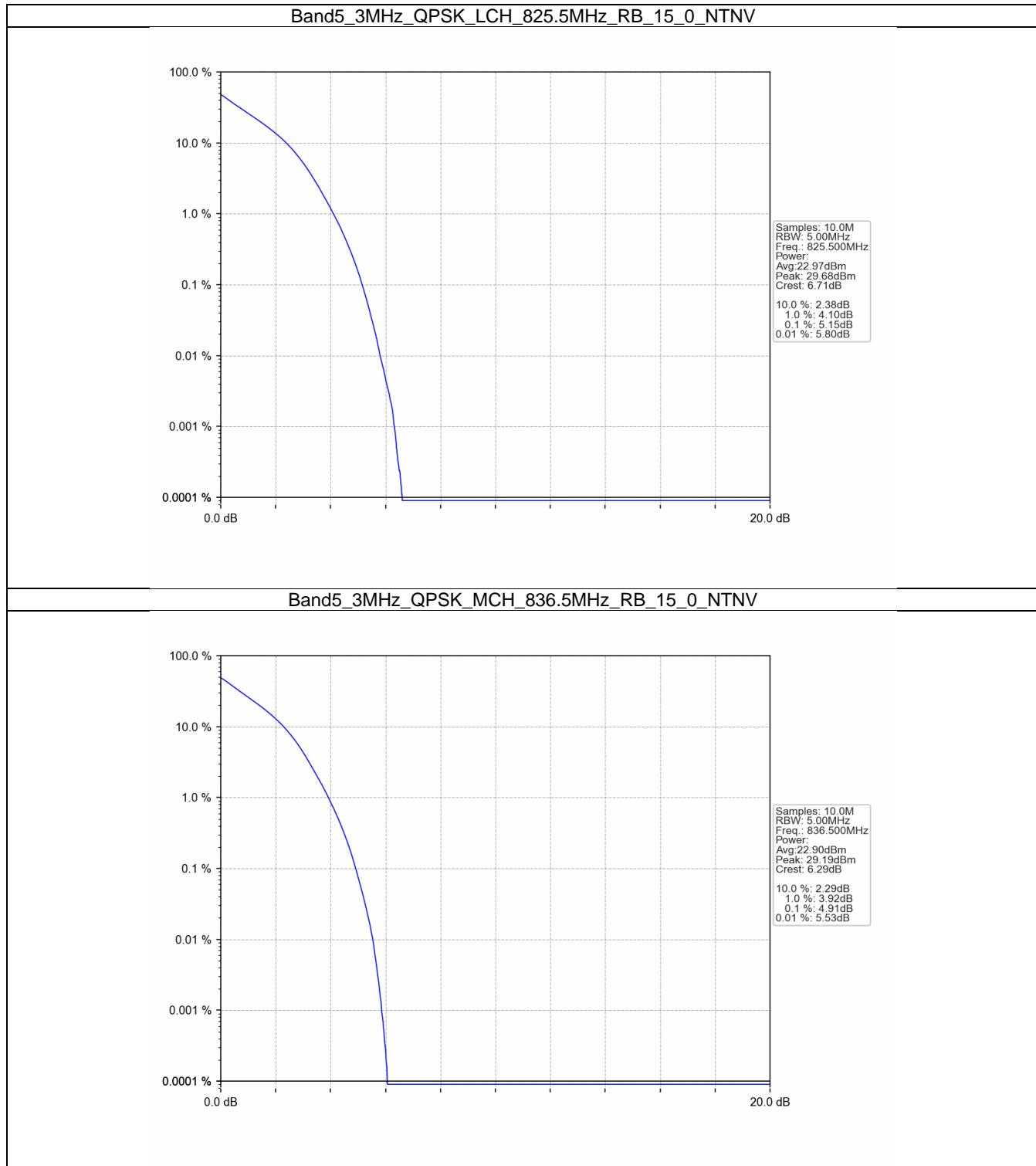
Band5\_1.4MHz\_16QAM\_MCH\_836.5MHz\_RB\_6\_0\_NTNV



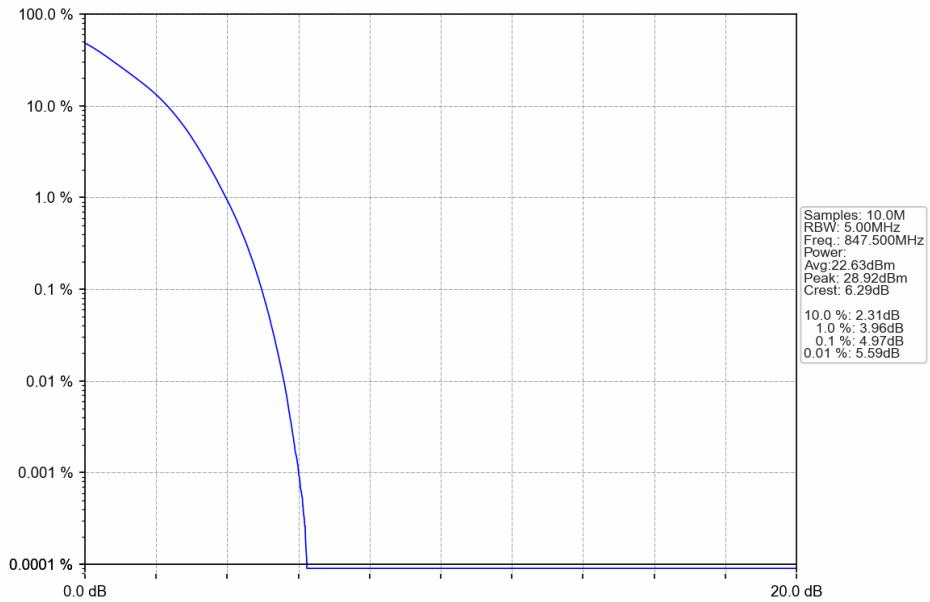
Band5\_1.4MHz\_16QAM\_HCH\_848.3MHz\_RB\_6\_0\_NTNV



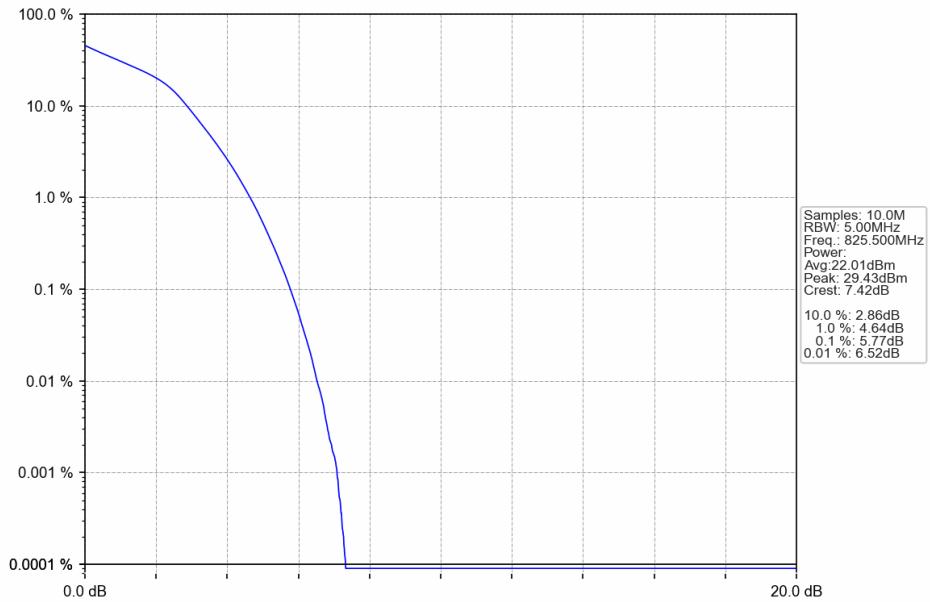
### 5.2.2 B5\_3MHz



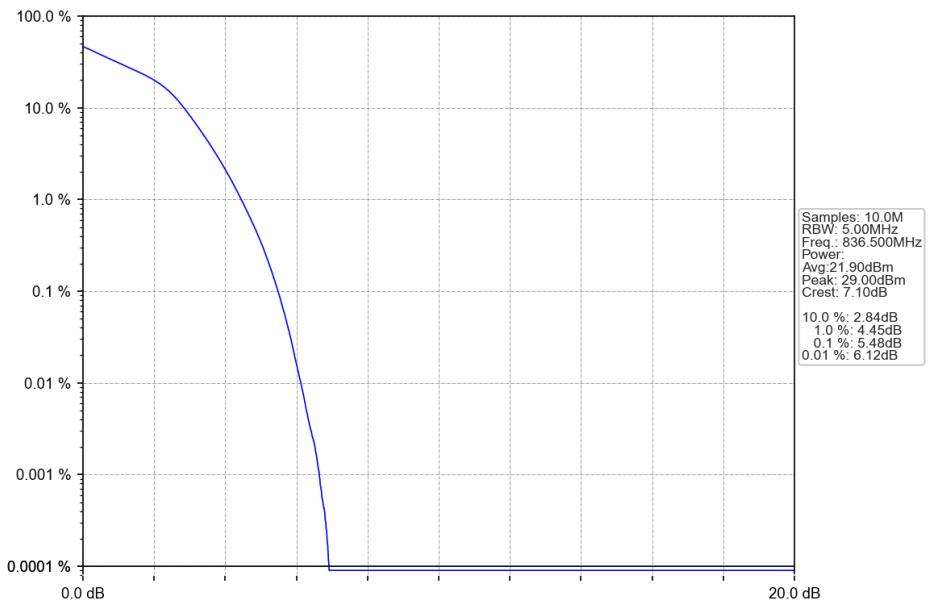
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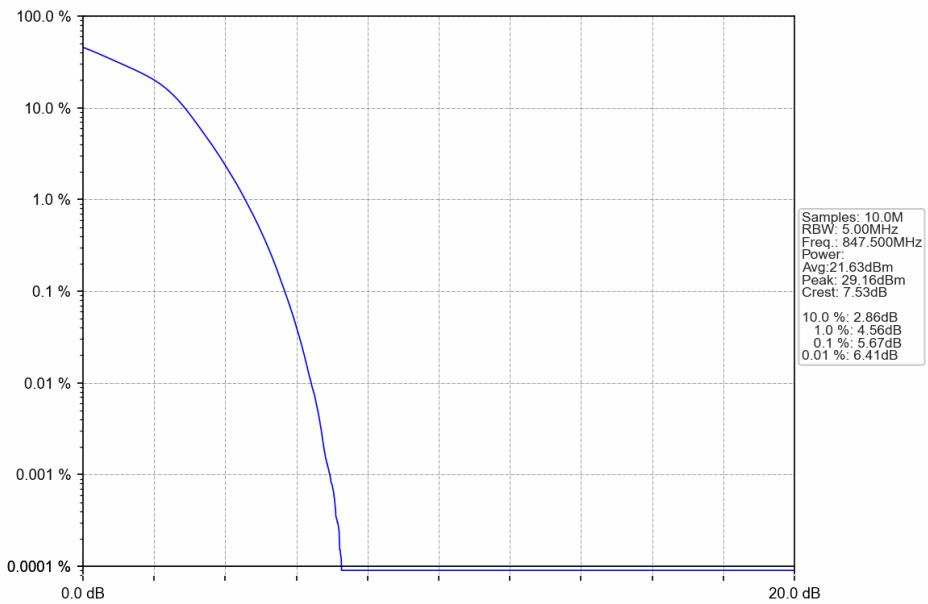
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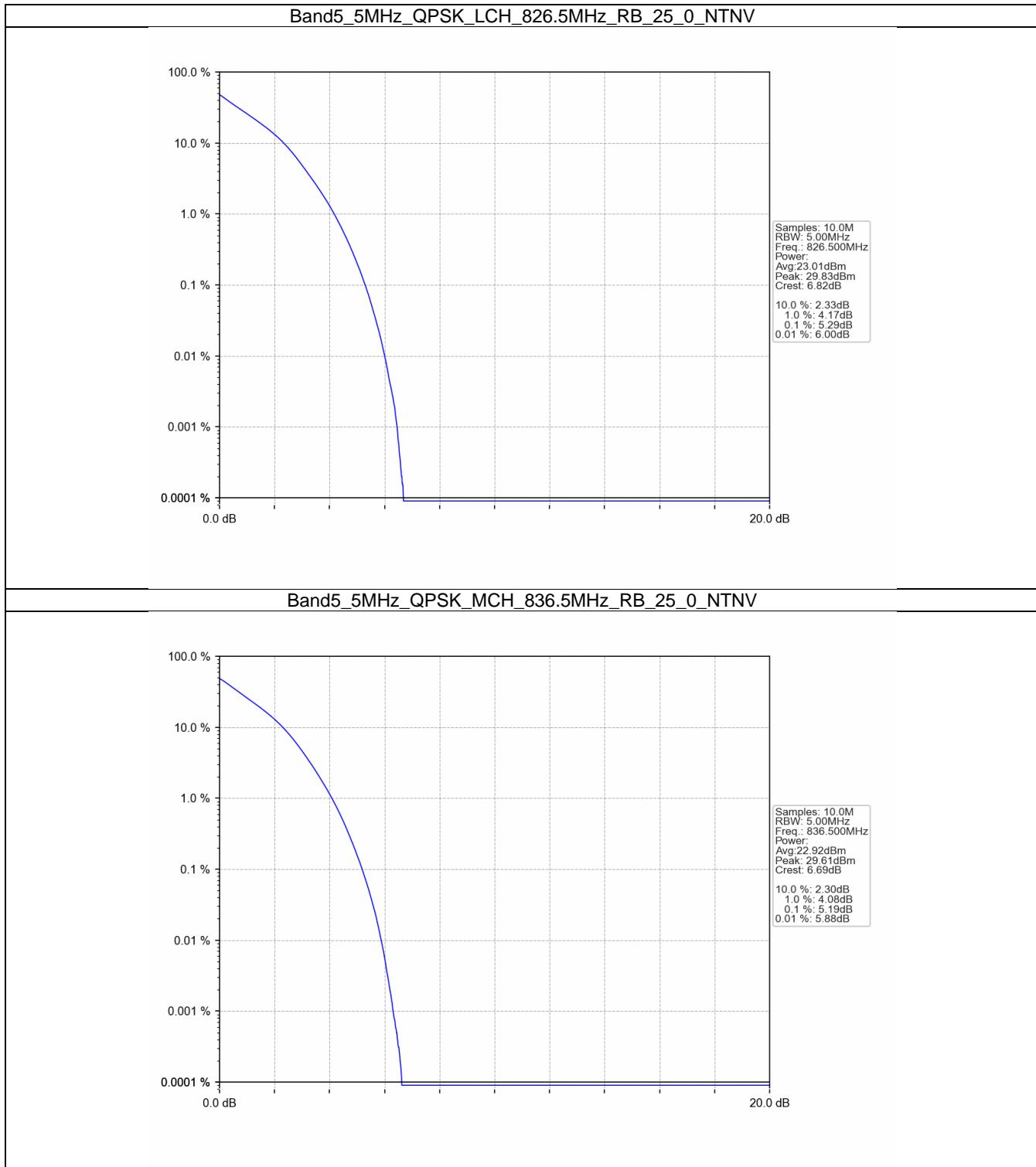
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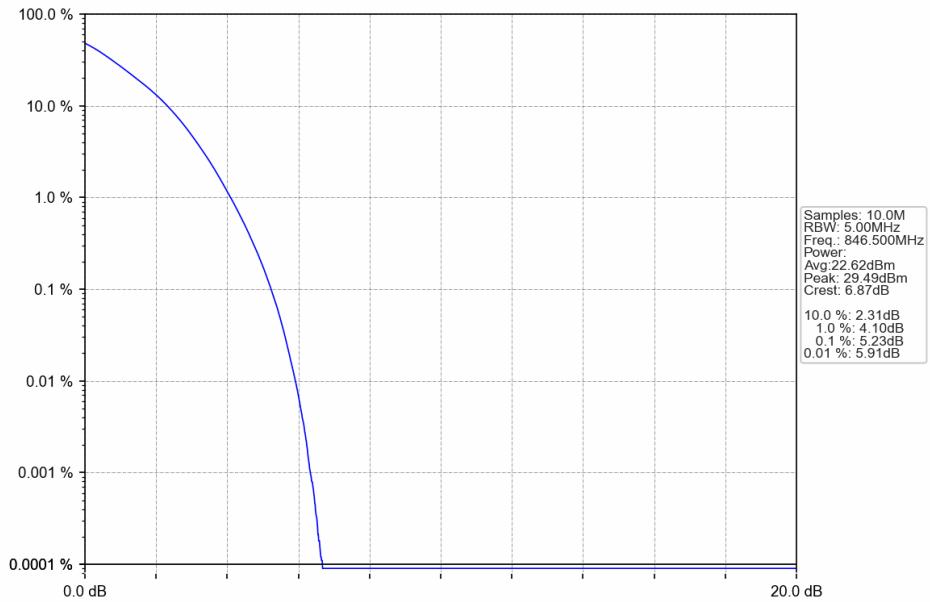
Band5\_3MHz\_16QAM\_HCH\_847.5MHz\_RB\_15\_0\_NTNV



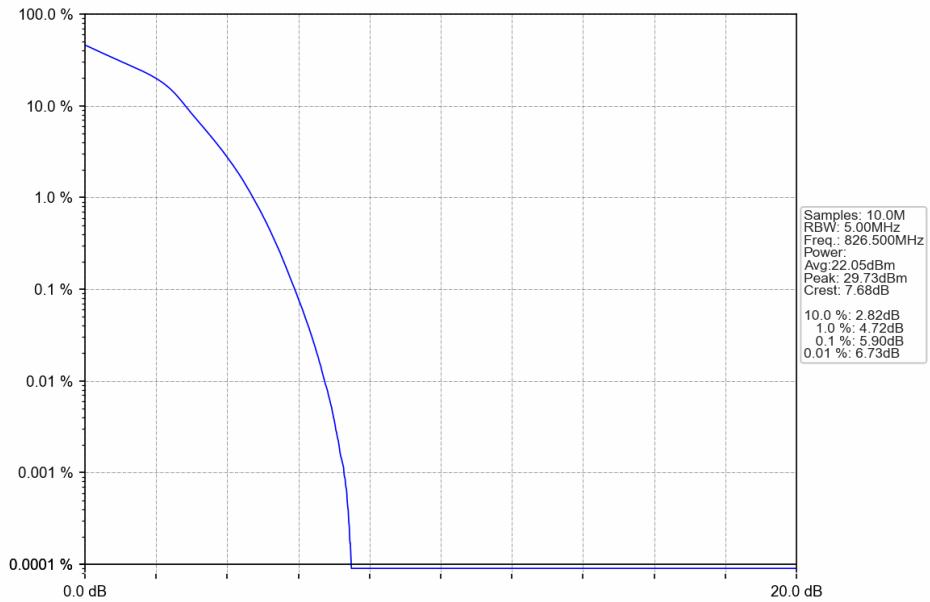
### 5.2.3 B5\_5MHz



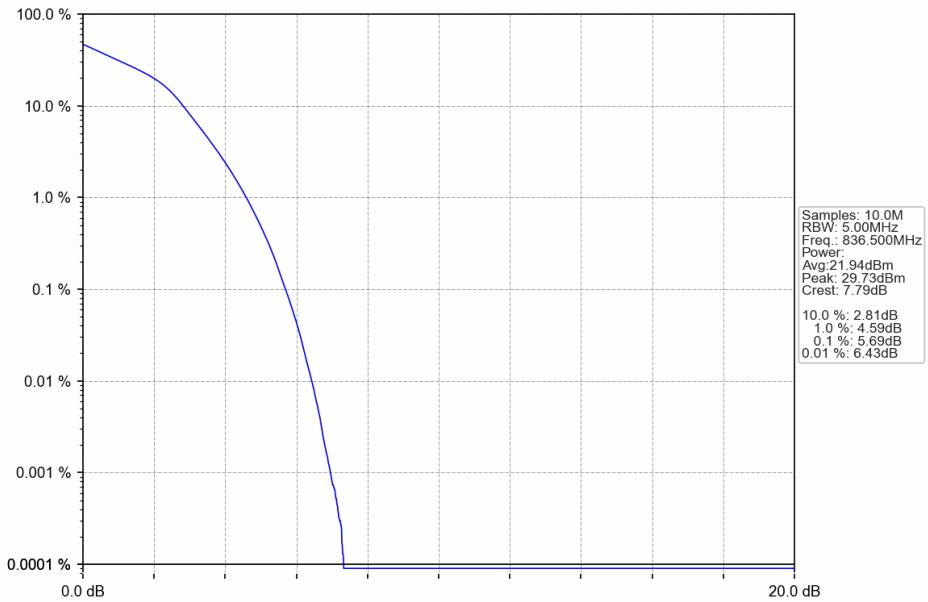
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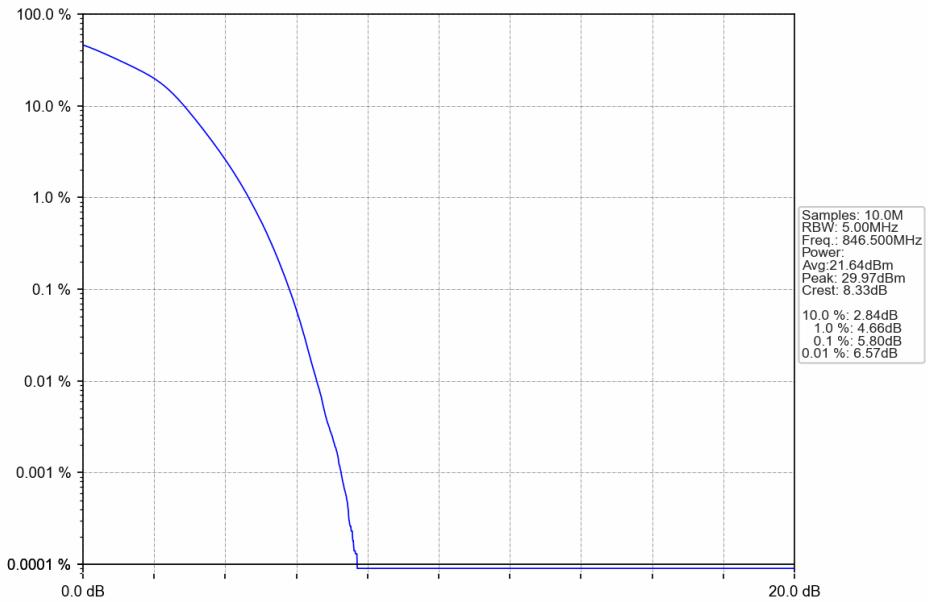
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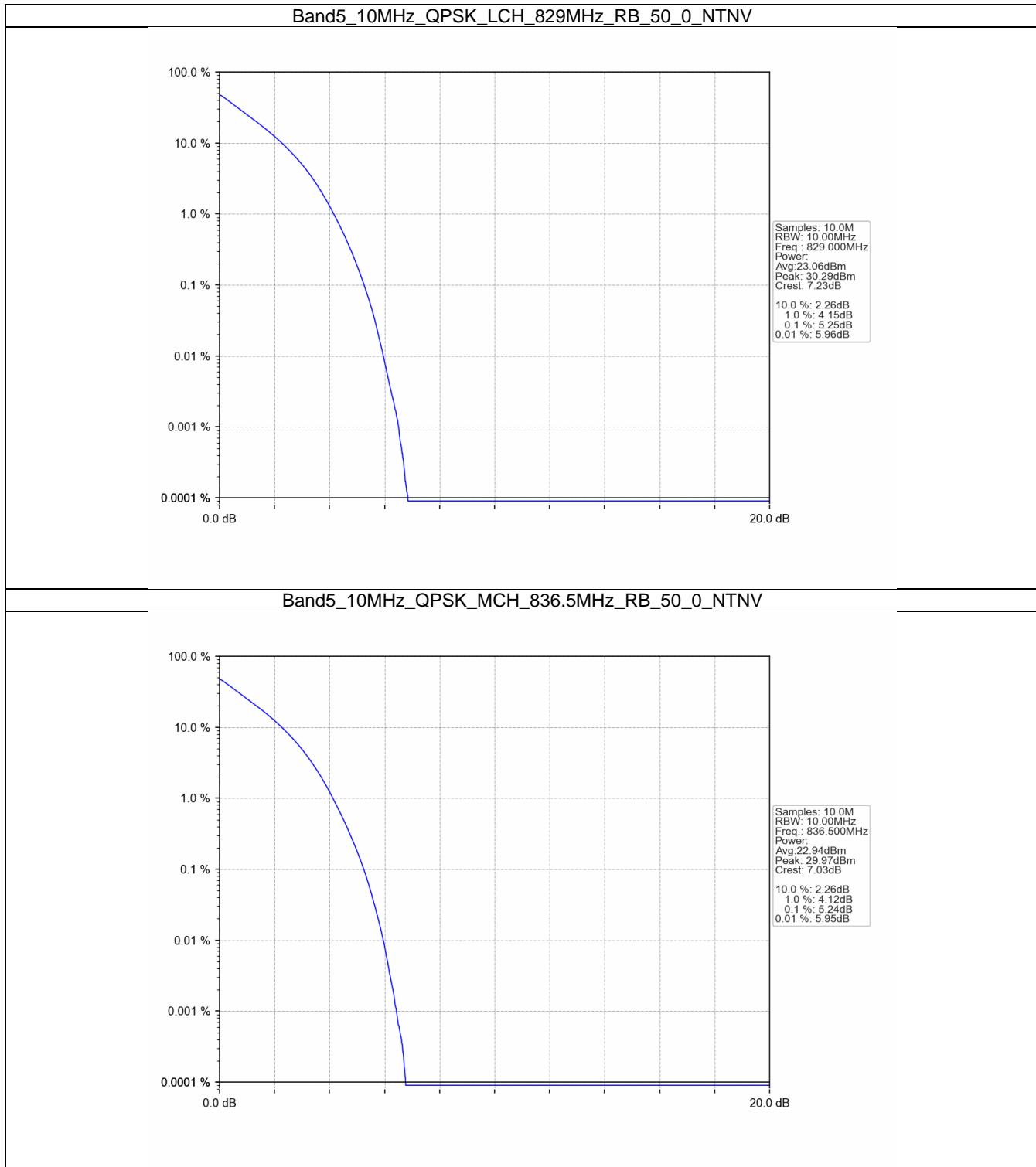
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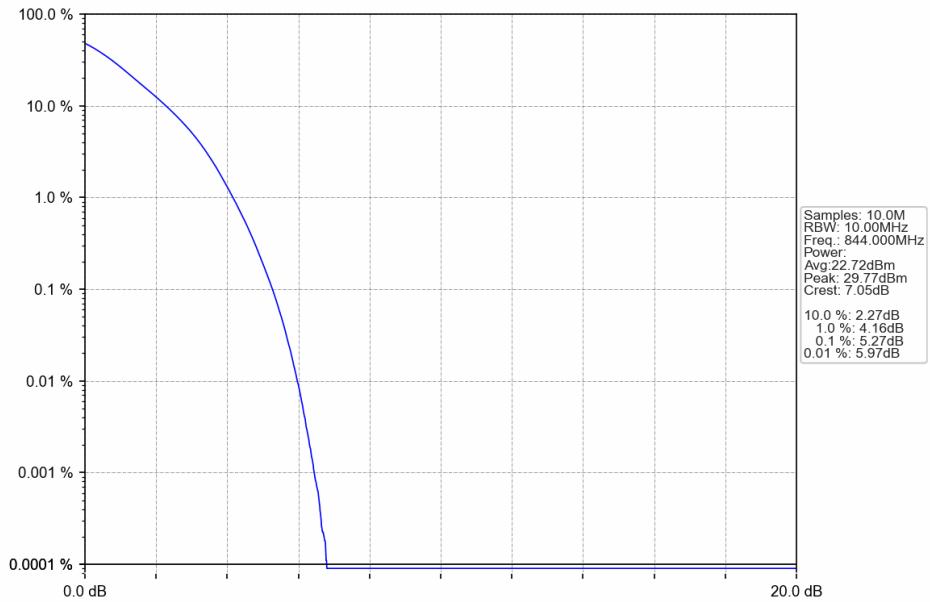
Band5\_5MHz\_16QAM\_HCH\_846.5MHz\_RB\_25\_0\_NTNV



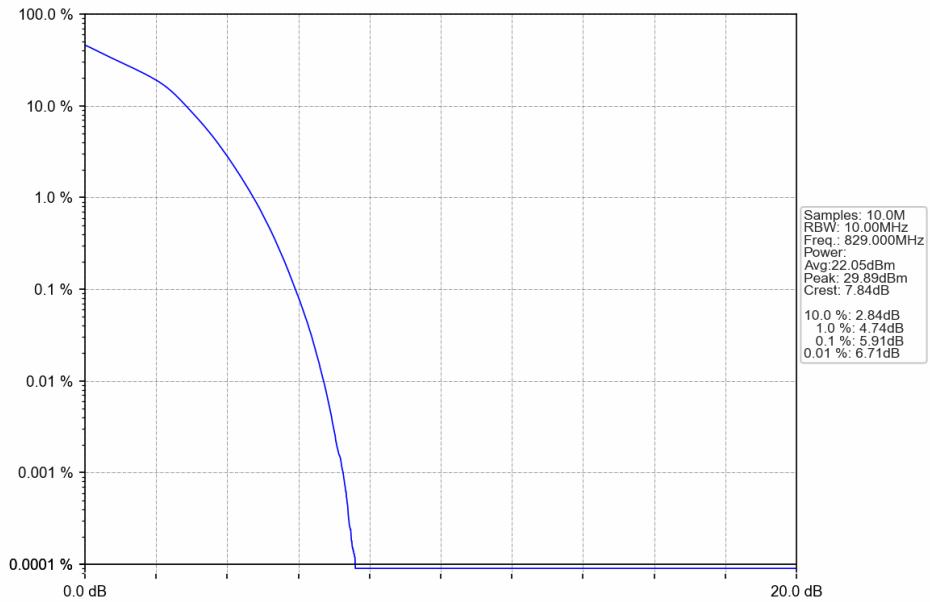
#### 5.2.4 B5\_10MHz



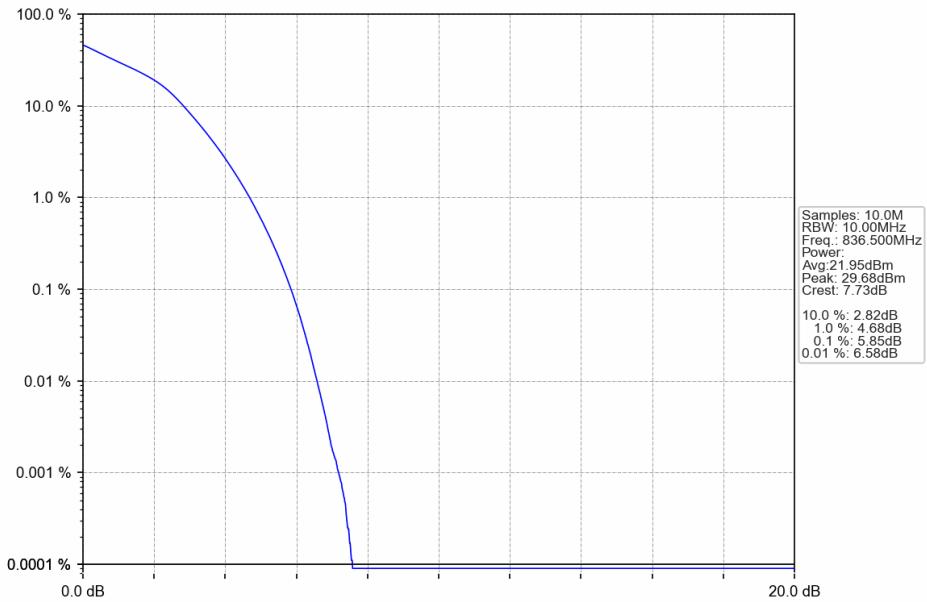
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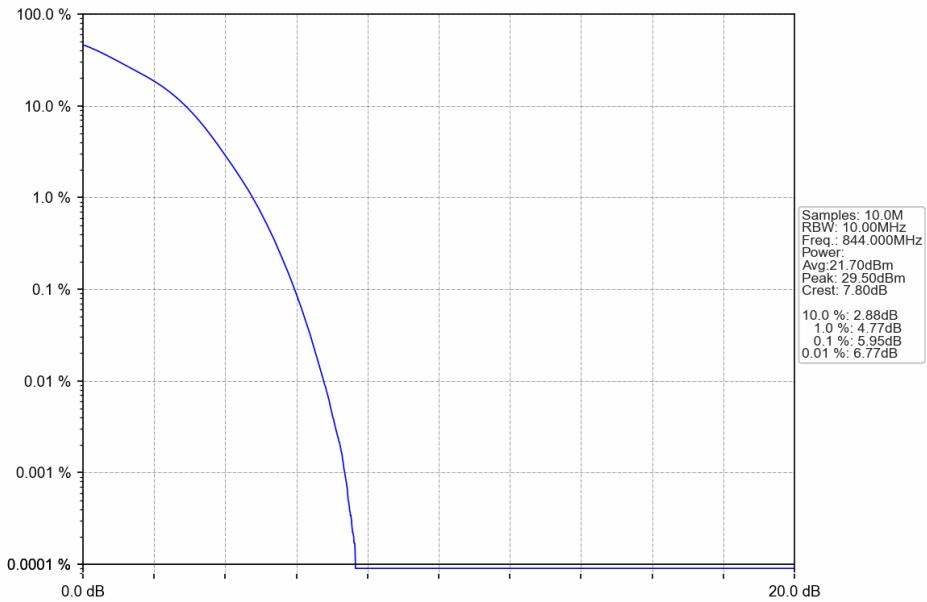
Band5\_10MHz\_16QAM\_LCH\_829MHz\_RB\_50\_0\_NTNV



Band5\_10MHz\_16QAM\_MCH\_836.5MHz\_RB\_50\_0\_NTNV



Band5\_10MHz\_16QAM\_HCH\_844MHz\_RB\_50\_0\_NTNV



## 6. Spurious Emission

### 6.1 Test Result

#### 6.1.1 B5\_1.4MHz

Band: 5 / Bandwidth: 1.4MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	824.7	1	0	Refer To Test Graph		Pass
		6	0	Refer To Test Graph		Pass
	836.5	1	0	Refer To Test Graph		Pass
			0	Refer To Test Graph		Pass
	848.3	1	5	Refer To Test Graph		Pass
		6	0	Refer To Test Graph		Pass
16QAM	824.7	1	0	Refer To Test Graph		Pass
		6	0	Refer To Test Graph		Pass
	836.5	1	0	Refer To Test Graph		Pass
			0	Refer To Test Graph		Pass
	848.3	1	5	Refer To Test Graph		Pass
		6	0	Refer To Test Graph		Pass

#### 6.1.2 B5\_3MHz

Band: 5 / Bandwidth: 3MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	825.5	1	0	Refer To Test Graph		Pass
		15	0	Refer To Test Graph		Pass
	836.5	1	0	Refer To Test Graph		Pass
			0	Refer To Test Graph		Pass
	847.5	1	14	Refer To Test Graph		Pass
		15	0	Refer To Test Graph		Pass
16QAM	825.5	1	0	Refer To Test Graph		Pass
		15	0	Refer To Test Graph		Pass
	836.5	1	0	Refer To Test Graph		Pass
			0	Refer To Test Graph		Pass
	847.5	1	14	Refer To Test Graph		Pass
		15	0	Refer To Test Graph		Pass

#### 6.1.3 B5\_5MHz

Band: 5 / Bandwidth: 5MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	826.5	1	0	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
	836.5	1	0	Refer To Test Graph		Pass
			0	Refer To Test Graph		Pass
	846.5	1	24	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
16QAM	826.5	1	0	Refer To Test Graph		Pass

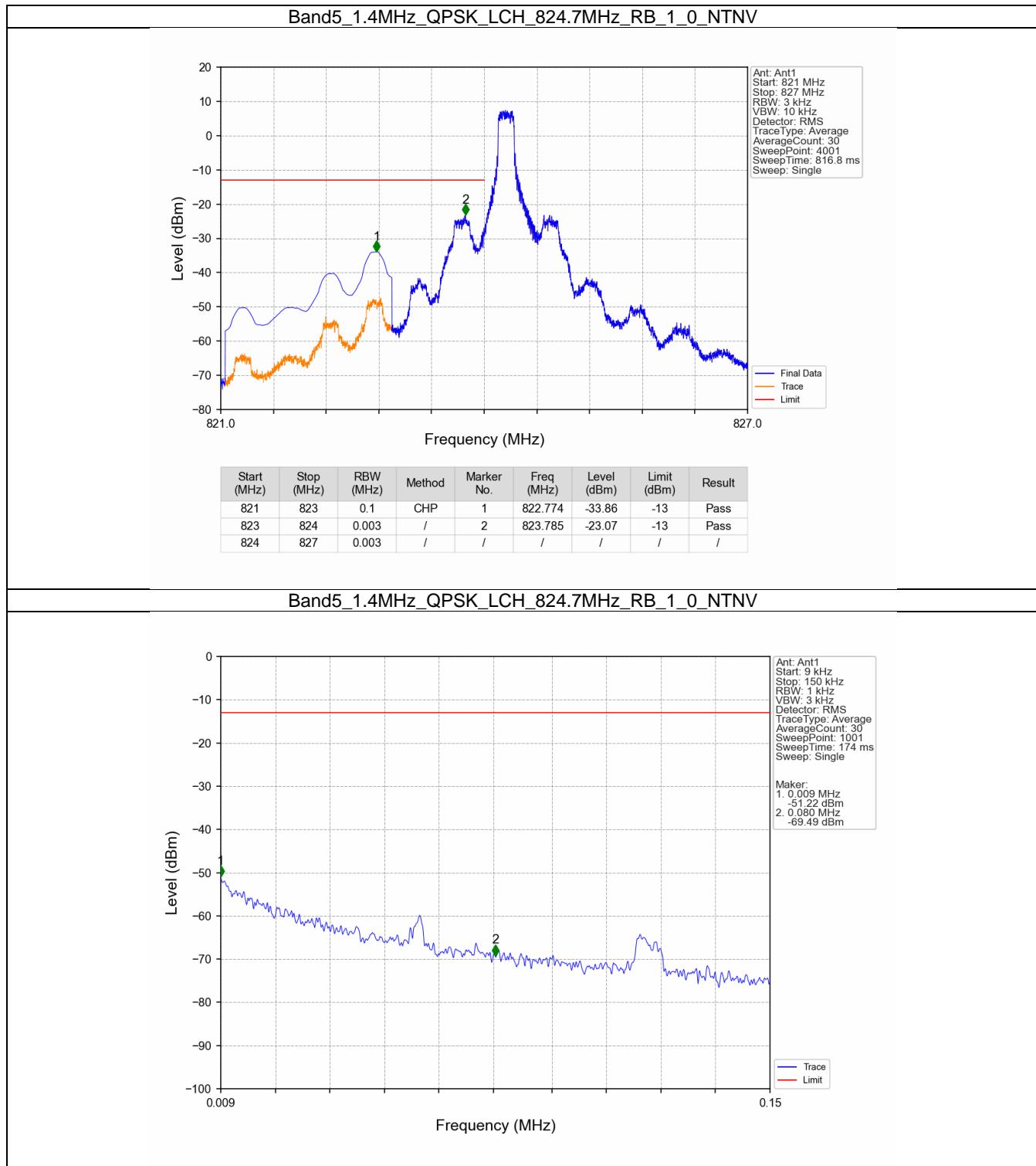
		25	0	Refer To Test Graph	Pass
	836.5	1	0	Refer To Test Graph	Pass
846.5	1	0	Refer To Test Graph	Pass	
			Refer To Test Graph	Pass	
	25	0	Refer To Test Graph	Pass	

#### 6.1.4 B5\_10MHz

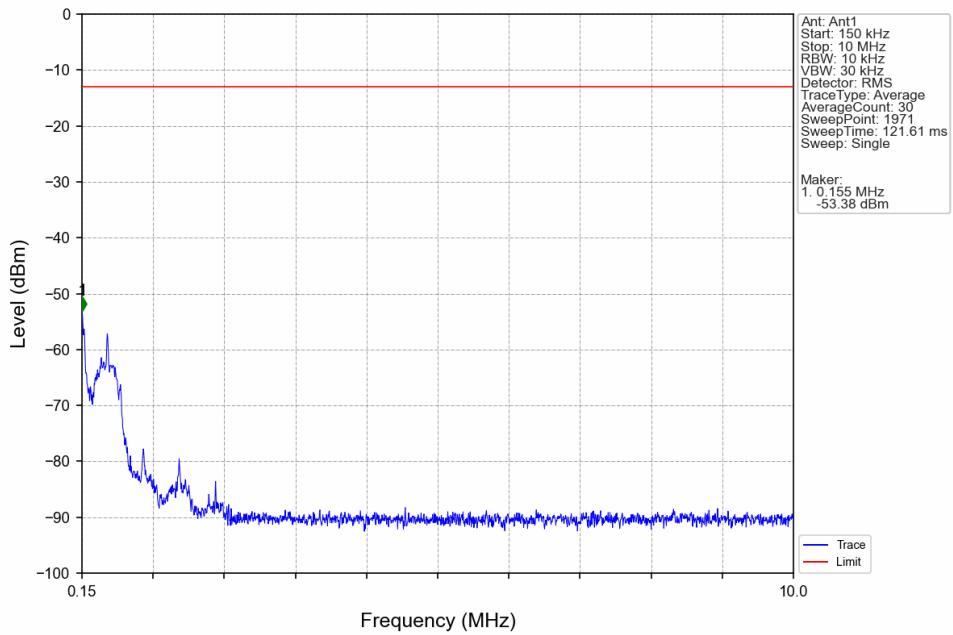
Band: 5 / Bandwidth: 10MHz / NTV							
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict	
		Size	Offset	Result	Limit		
QPSK	829	1	0	Refer To Test Graph	Pass		
		50	0	Refer To Test Graph	Pass		
	836.5	1	0	Refer To Test Graph	Pass		
		844	0	Refer To Test Graph	Pass		
	844		49	Refer To Test Graph	Pass		
			50	Refer To Test Graph	Pass		
	829	1	0	Refer To Test Graph	Pass		
		50	0	Refer To Test Graph	Pass		
	836.5	1	0	Refer To Test Graph	Pass		
		844	0	Refer To Test Graph	Pass		
	844		49	Refer To Test Graph	Pass		
			50	Refer To Test Graph	Pass		
16QAM	829	1	0	Refer To Test Graph	Pass		
		50	0	Refer To Test Graph	Pass		
	836.5	1	0	Refer To Test Graph	Pass		
		844	0	Refer To Test Graph	Pass		
	844		49	Refer To Test Graph	Pass		
			50	Refer To Test Graph	Pass		

## 6.2 Test Graph

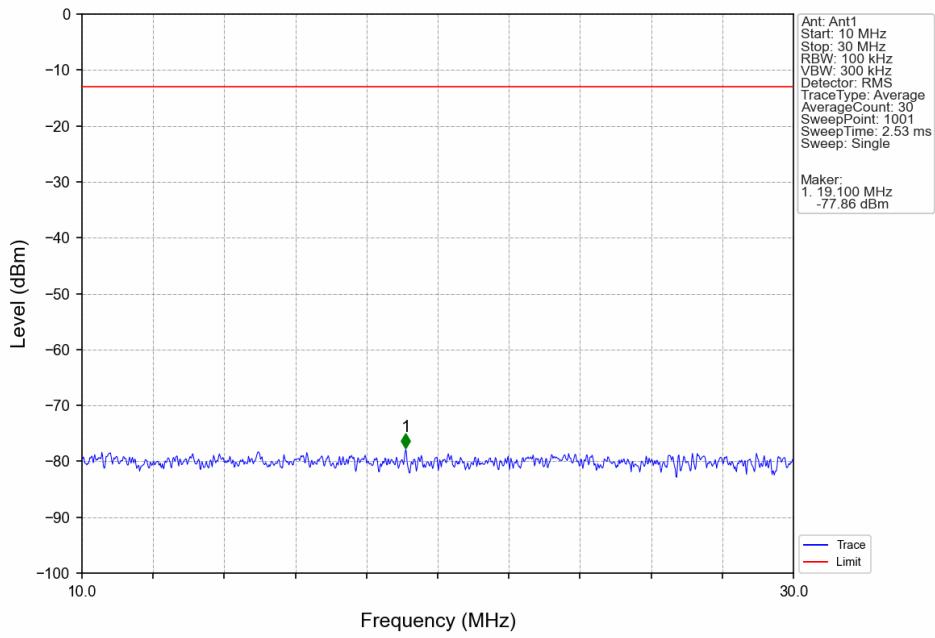
### 6.2.1 B5\_1.4MHz



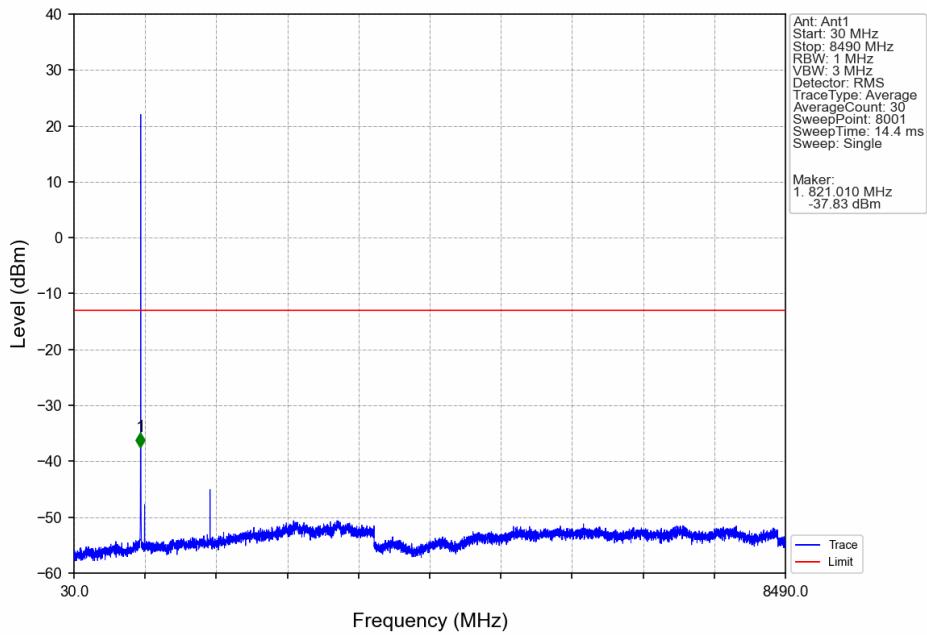
Band5\_1.4MHz\_QPSK\_LCH\_824.7MHz\_RB\_1\_0\_NTNV



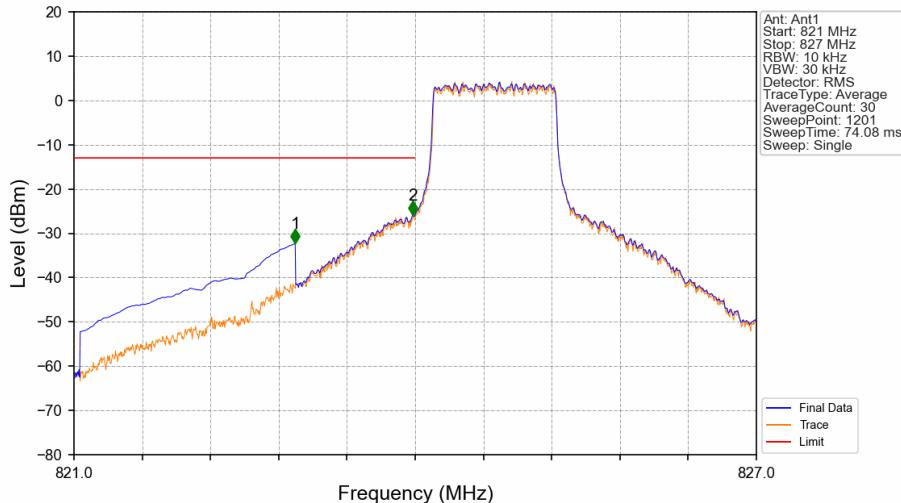
Band5\_1.4MHz\_QPSK\_LCH\_824.7MHz\_RB\_1\_0\_NTNV



### Band5\_1.4MHz\_QPSK\_LCH\_824.7MHz\_RB\_1\_0\_NTNV

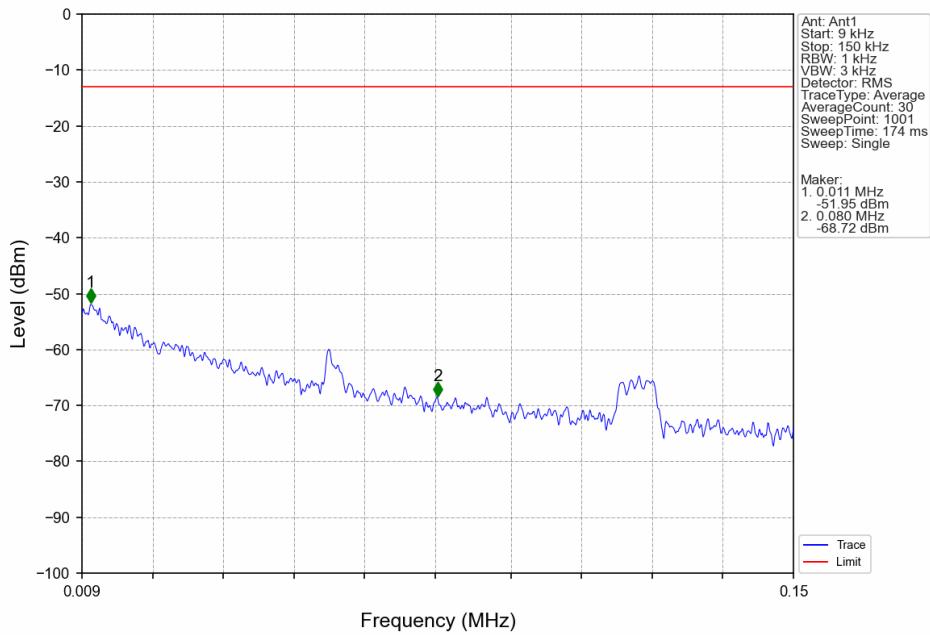


### Band5\_1.4MHz\_QPSK\_LCH\_824.7MHz\_RB\_6\_0\_NTNV

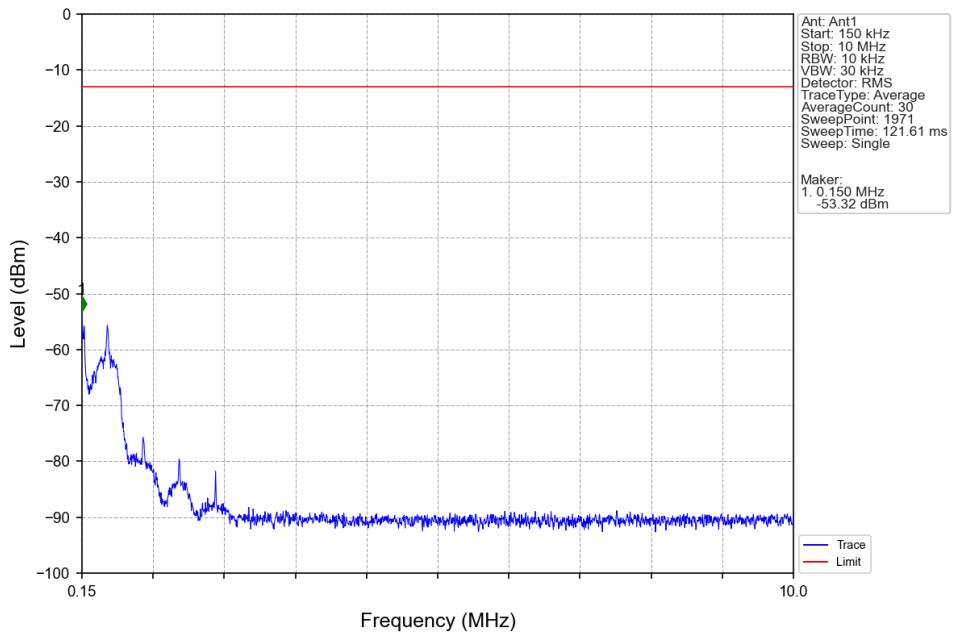


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
821	823	0.1	CHP	1	822.945	-32.27	-13	Pass
823	824	0.013	CHP	2	823.980	-25.89	-13	Pass
824	827	0.013	CHP	/	/	/	/	/

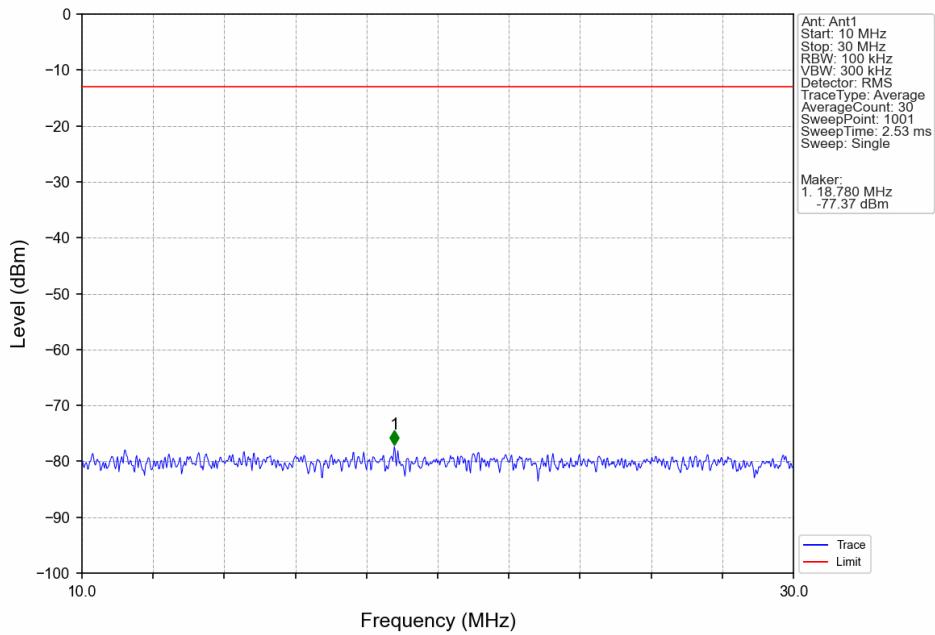
Band5\_1.4MHz\_QPSK\_MCH\_836.5MHz\_RB\_1\_0\_NTNV



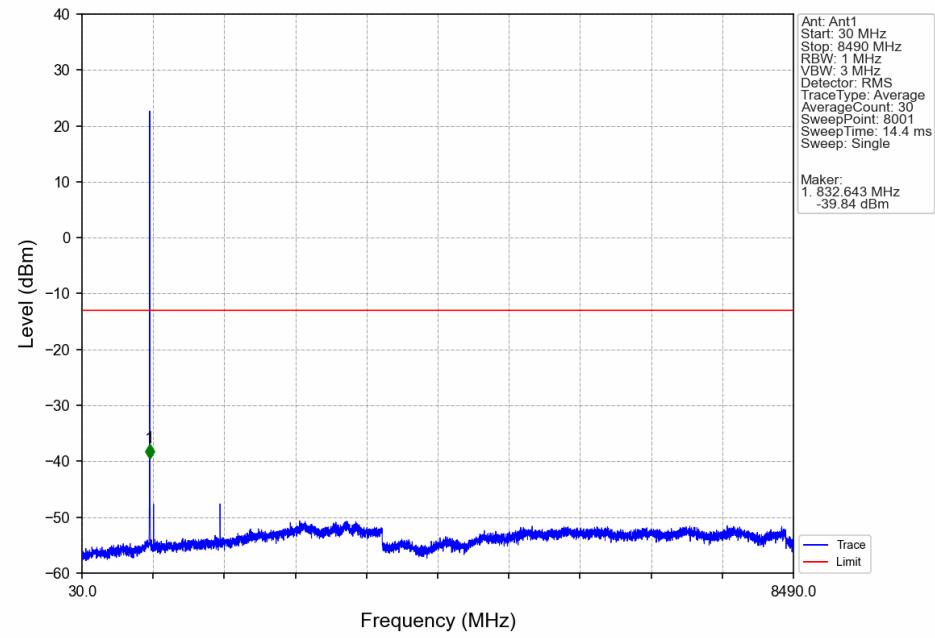
Band5\_1.4MHz\_QPSK\_MCH\_836.5MHz\_RB\_1\_0\_NTNV



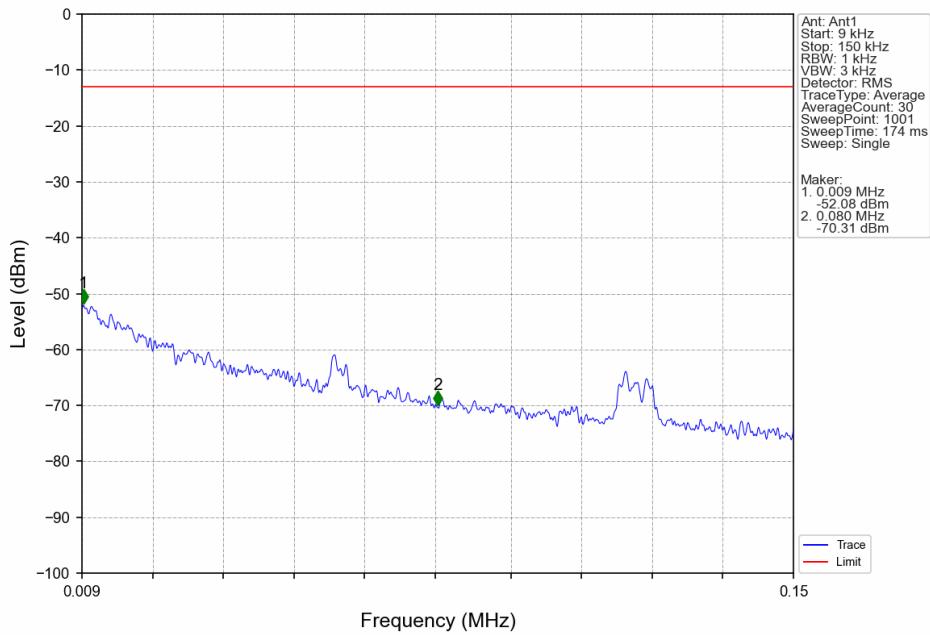
Band5\_1.4MHz\_QPSK\_MCH\_836.5MHz\_RB\_1\_0\_NTNV



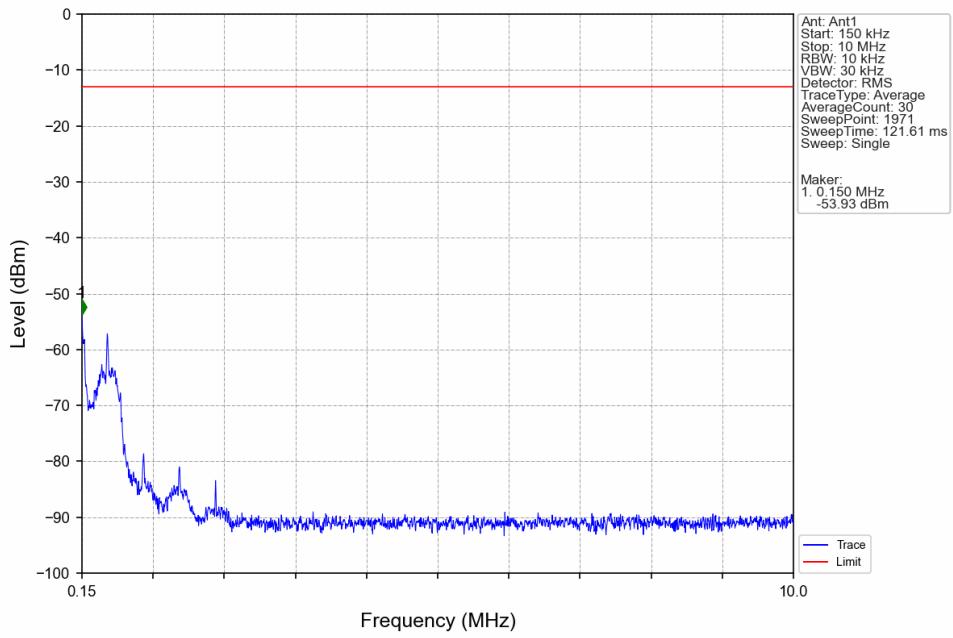
Band5\_1.4MHz\_QPSK\_MCH\_836.5MHz\_RB\_1\_0\_NTNV



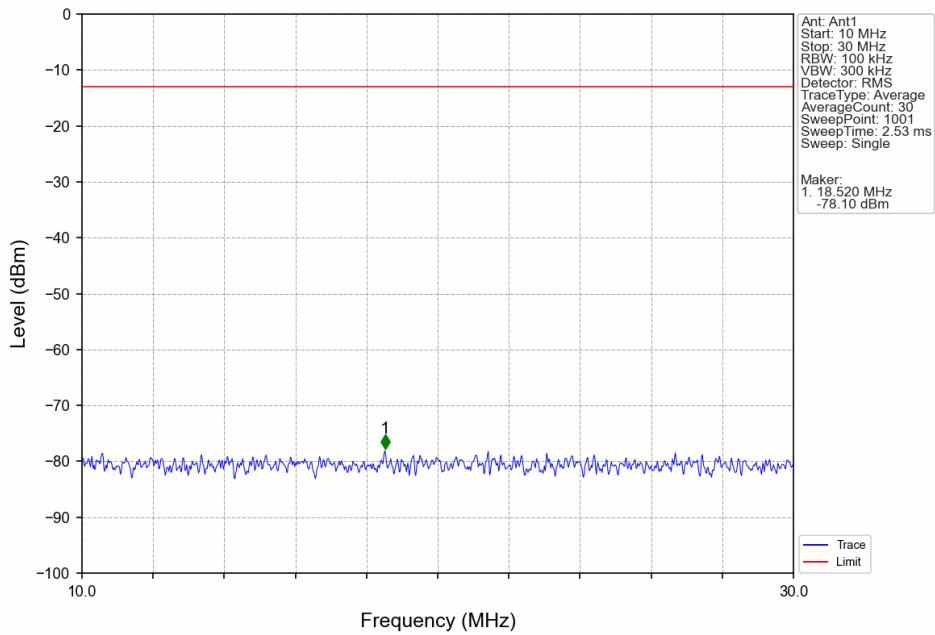
Band5\_1.4MHz\_QPSK\_HCH\_848.3MHz\_RB\_1\_0\_NTNV



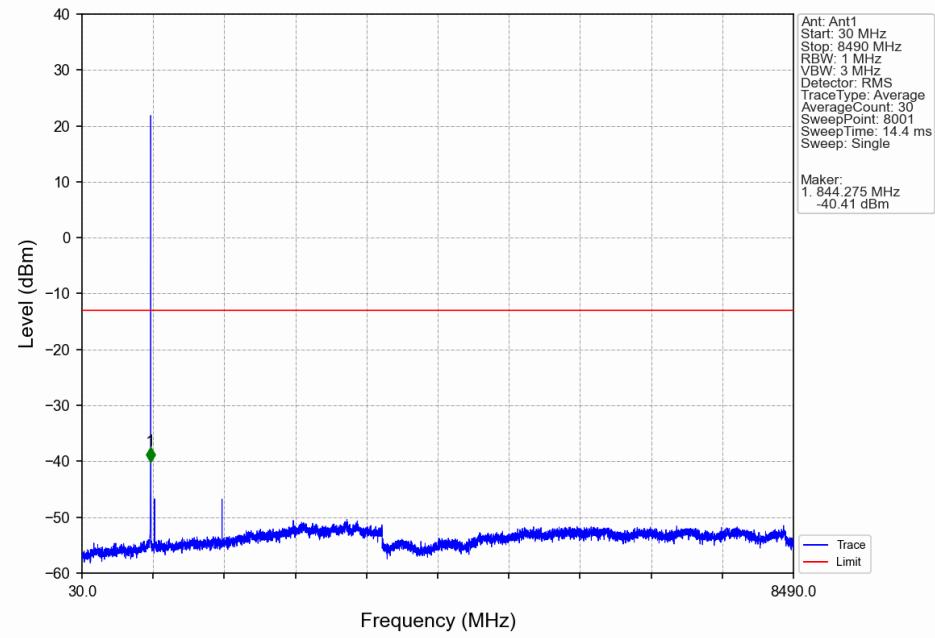
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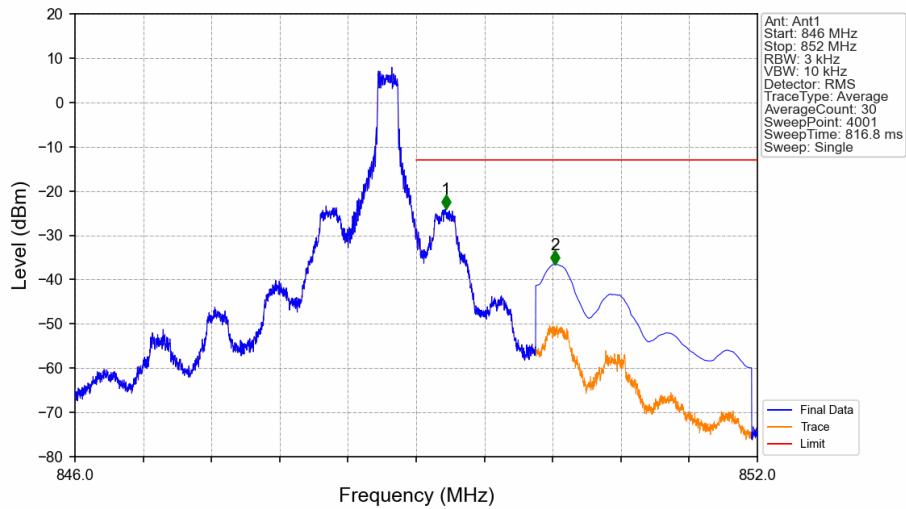
Band5\_1.4MHz\_QPSK\_HCH\_848.3MHz\_RB\_1\_0\_NTNV



Band5\_1.4MHz\_QPSK\_HCH\_848.3MHz\_RB\_1\_0\_NTNV

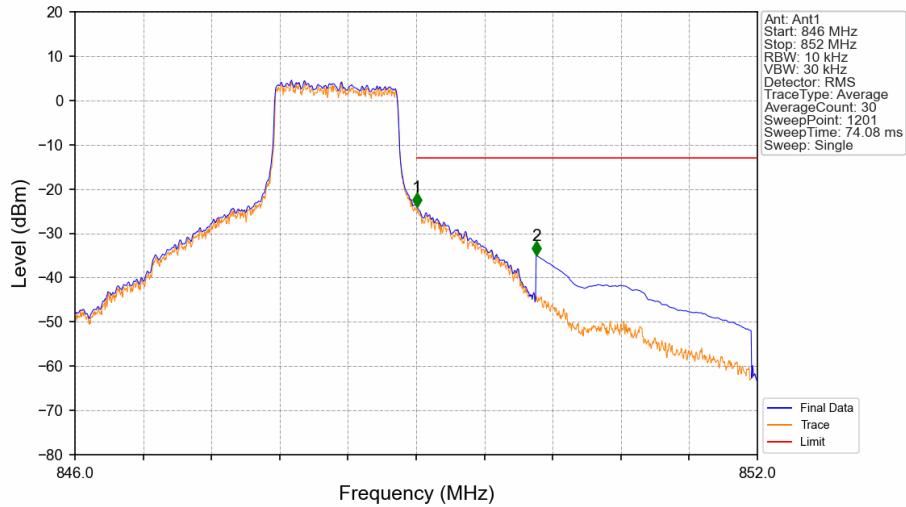


### Band5\_1.4MHz\_QPSK\_HCH\_848.3MHz\_RB\_1\_5\_NTNV



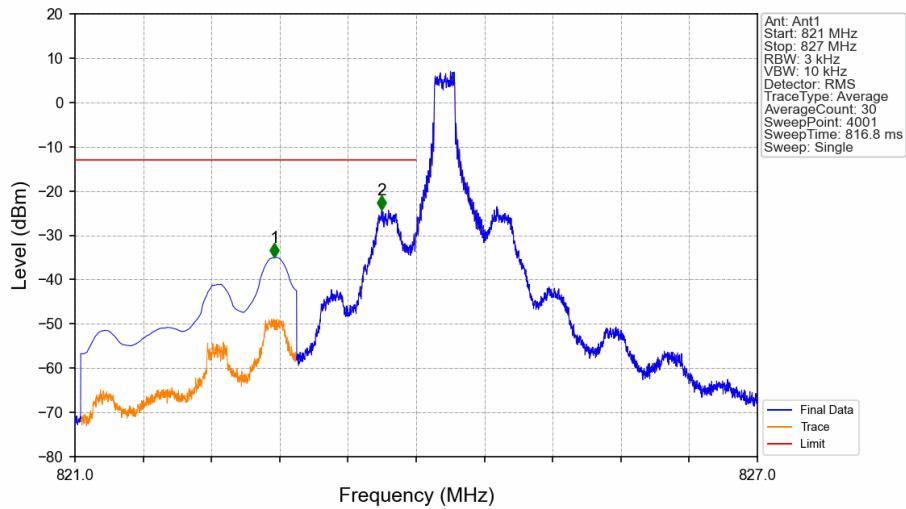
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
846	849	0.003	/	/	/	/	/	/
849	850	0.003	/	1	849.260	-24.08	-13	Pass
850	852	0.1	CHP	2	850.222	-36.56	-13	Pass

### Band5\_1.4MHz\_QPSK\_HCH\_848.3MHz\_RB\_6\_0\_NTNV

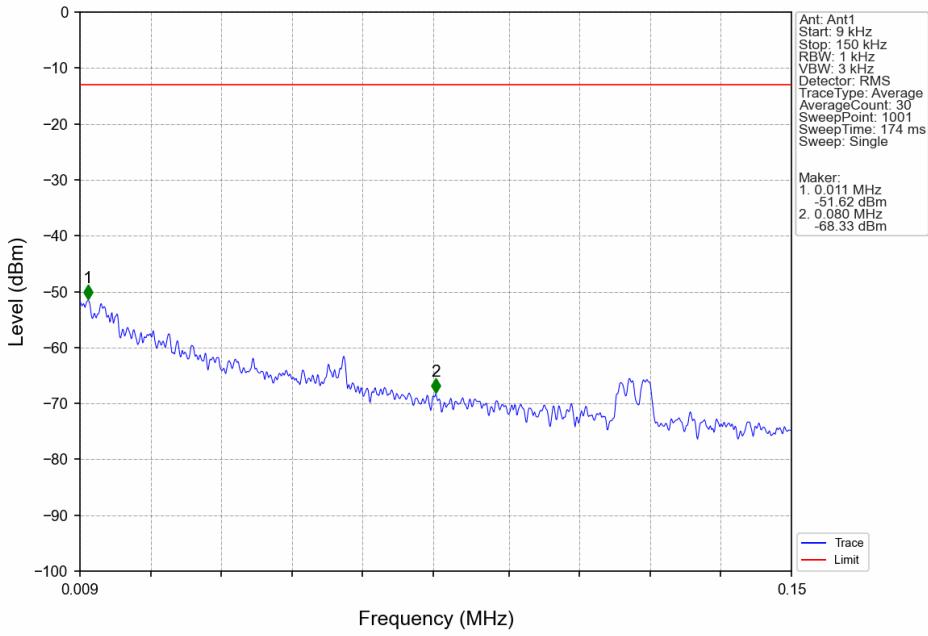


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
846	849	0.014	CHP	/	/	/	/	/
849	850	0.014	CHP	1	849.005	-23.96	-13	Pass
850	852	0.1	CHP	2	850.055	-34.93	-13	Pass

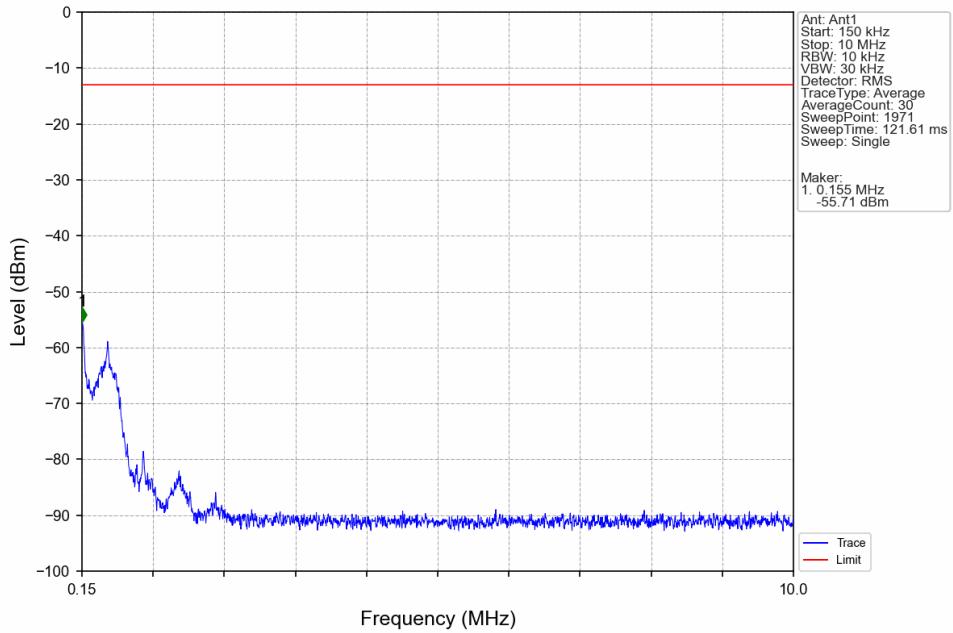
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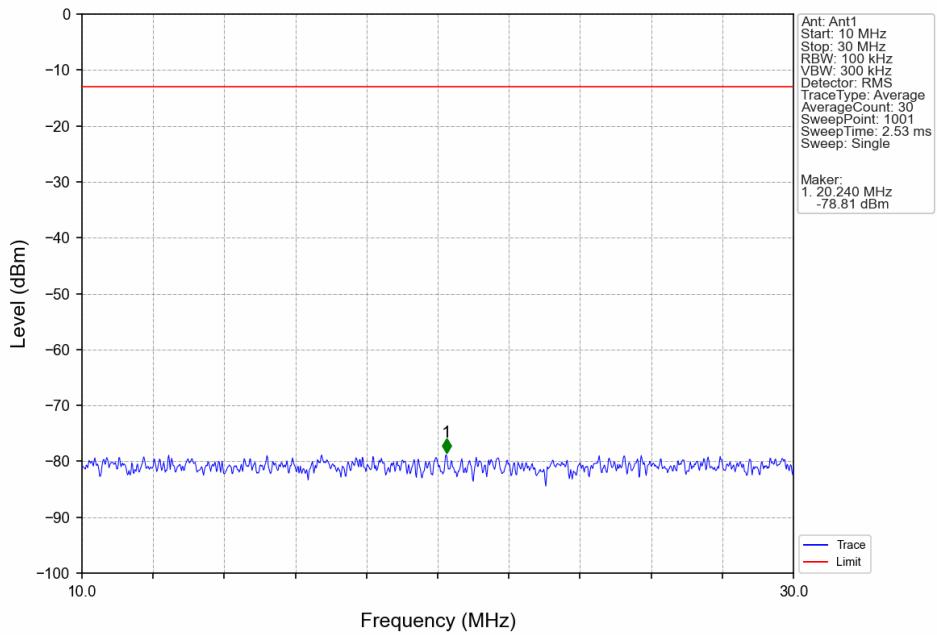
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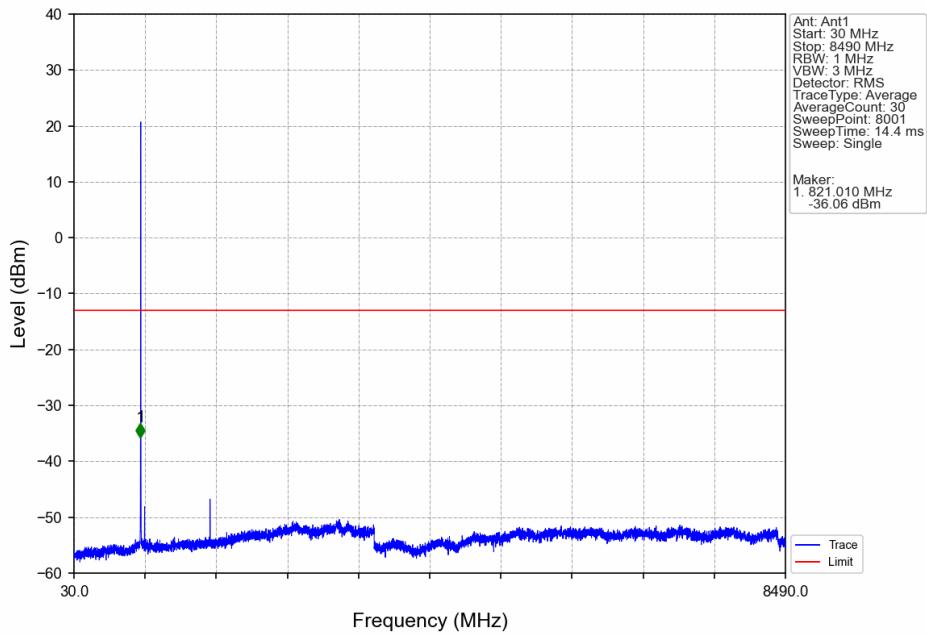
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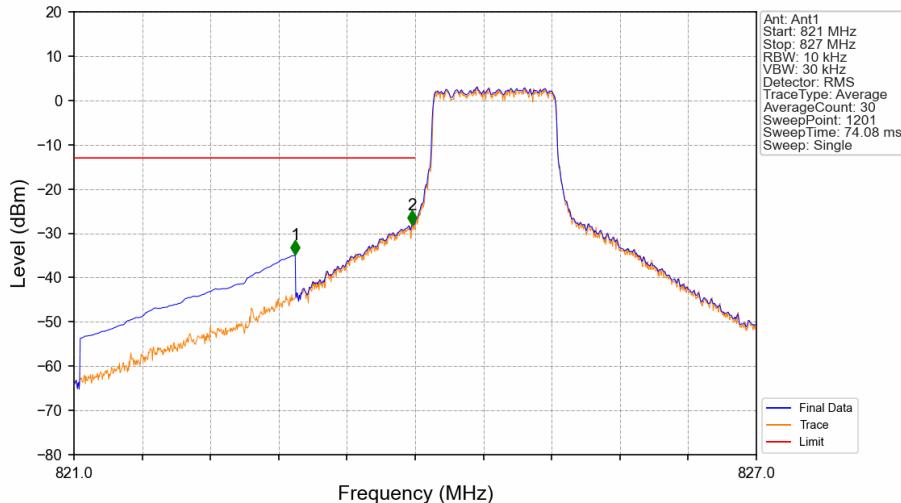
Band5\_1.4MHz\_16QAM\_LCH\_824.7MHz\_RB\_1\_0\_NTNV



### Band5\_1.4MHz\_16QAM\_LCH\_824.7MHz\_RB\_1\_0\_NTNV

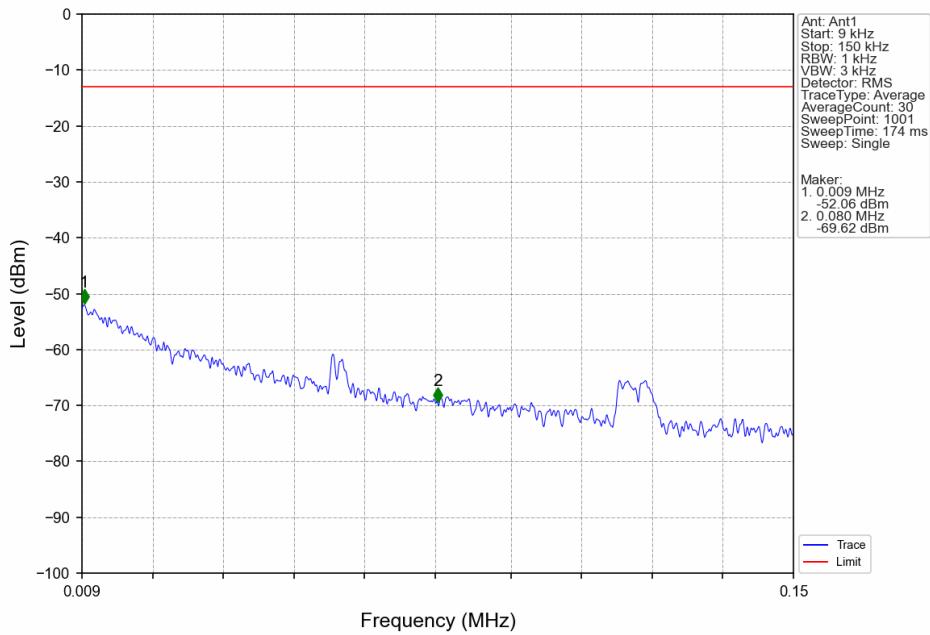


### Band5\_1.4MHz\_16QAM\_LCH\_824.7MHz\_RB\_6\_0\_NTNV

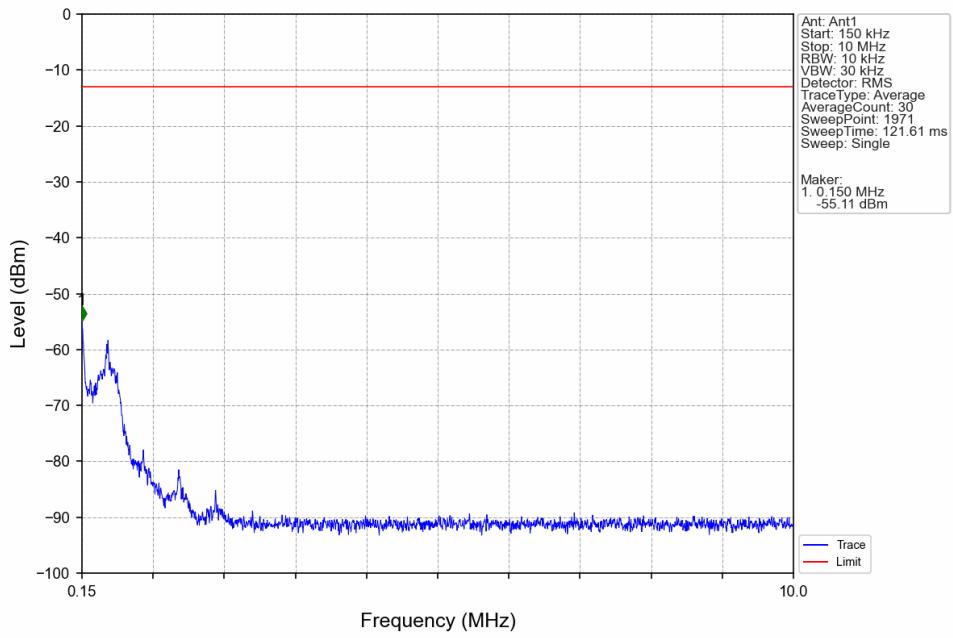


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
821	823	0.1	CHP	1	822.945	-34.85	-13	Pass
823	824	0.013	CHP	2	823.975	-27.95	-13	Pass
824	827	0.013	CHP	/	/	/	/	/

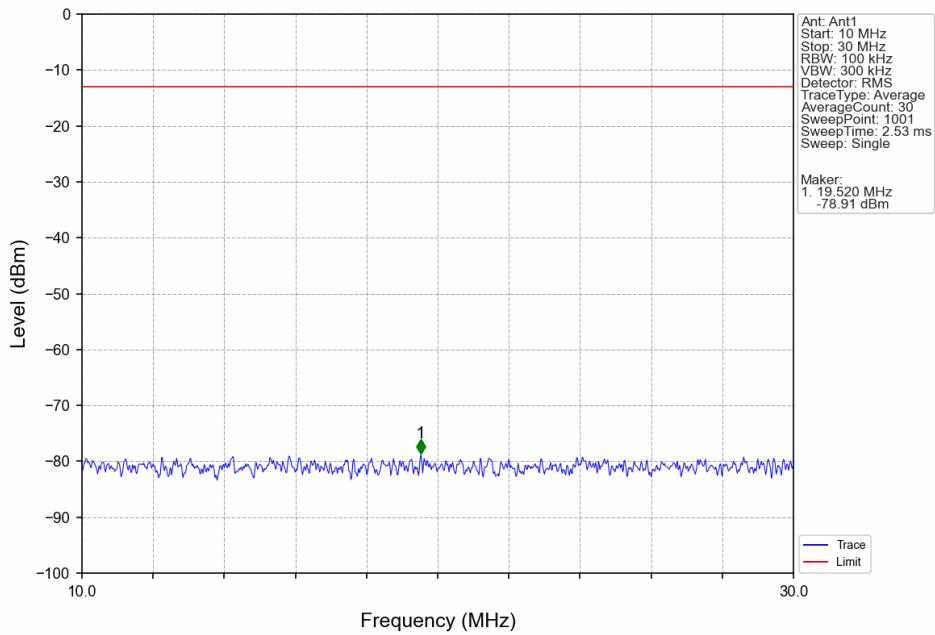
Band5\_1.4MHz\_16QAM\_MCH\_836.5MHz\_RB\_1\_0\_NTNV



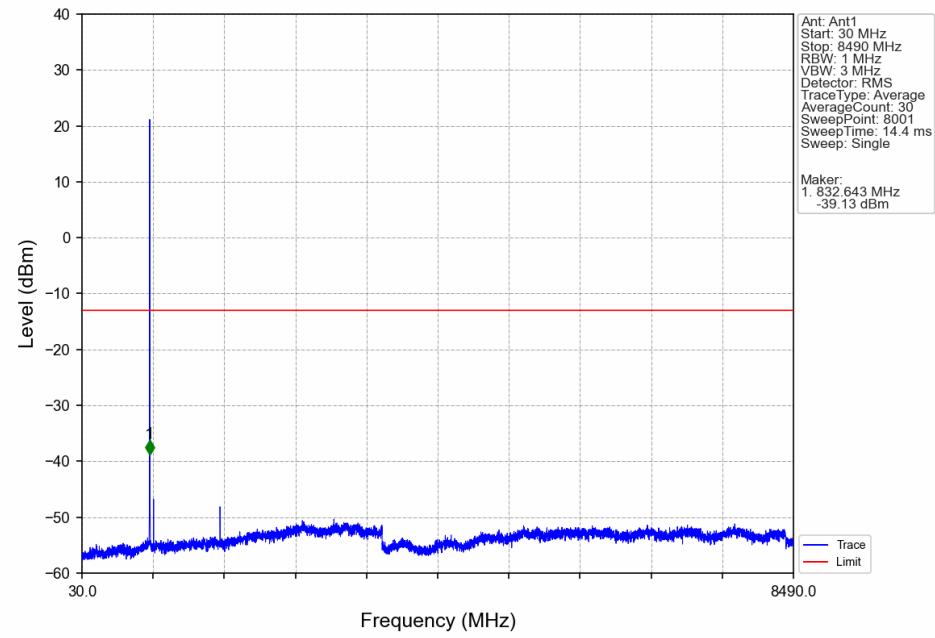
Band5\_1.4MHz\_16QAM\_MCH\_836.5MHz\_RB\_1\_0\_NTNV



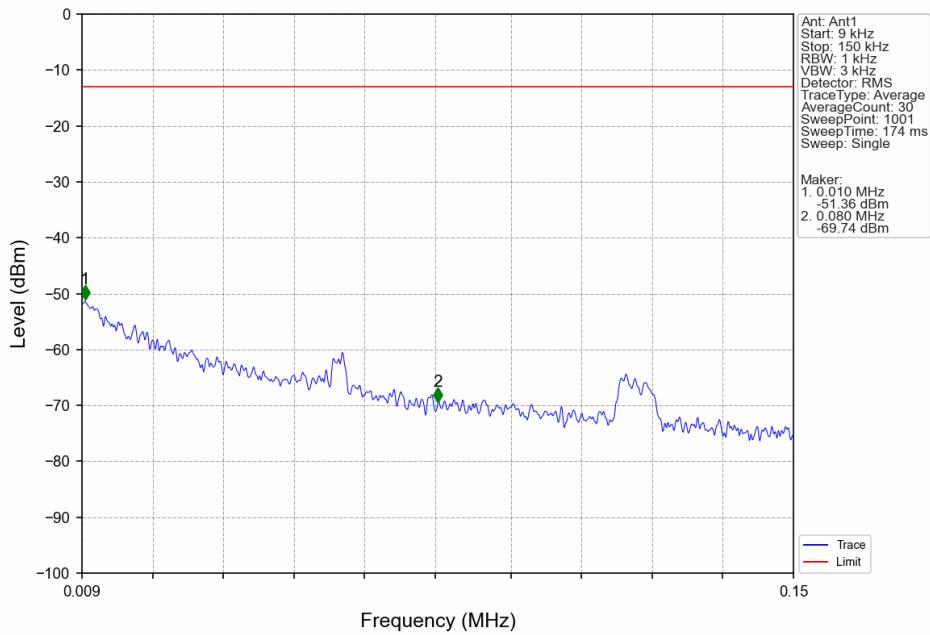
Band5\_1.4MHz\_16QAM\_MCH\_836.5MHz\_RB\_1\_0\_NTNV



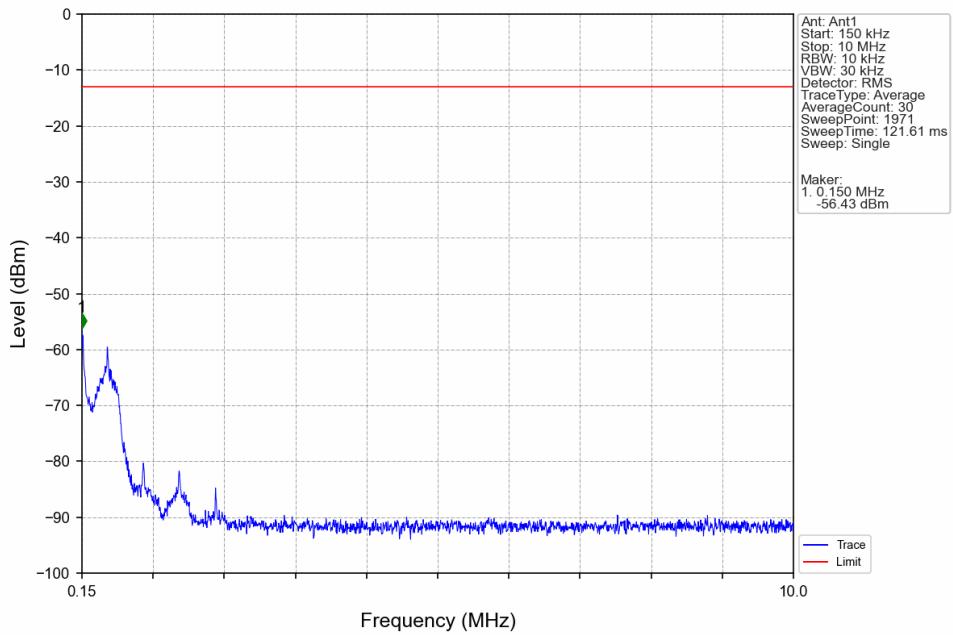
Band5\_1.4MHz\_16QAM\_MCH\_836.5MHz\_RB\_1\_0\_NTNV



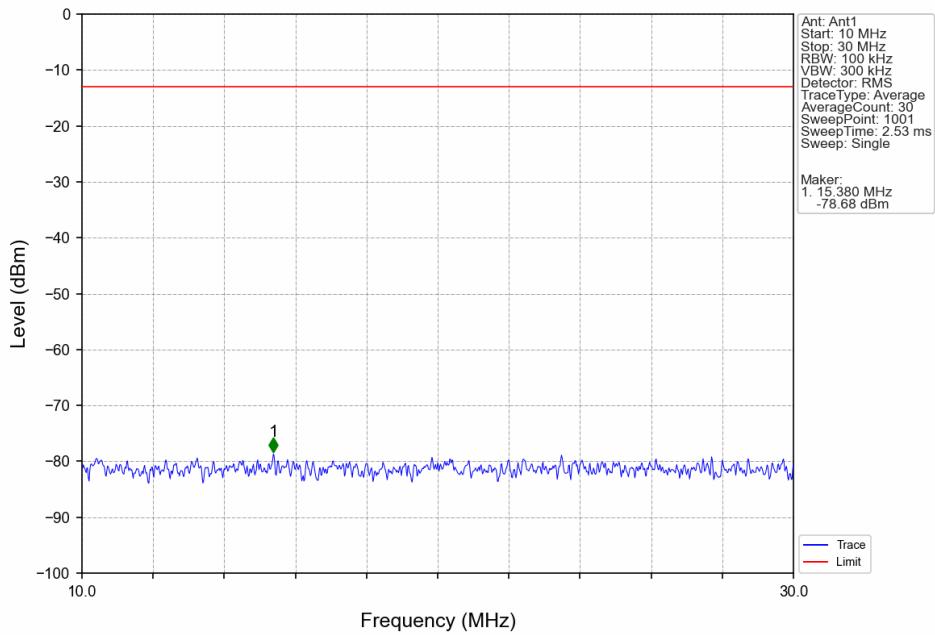
Band5\_1.4MHz\_16QAM\_HCH\_848.3MHz\_RB\_1\_0\_NTNV



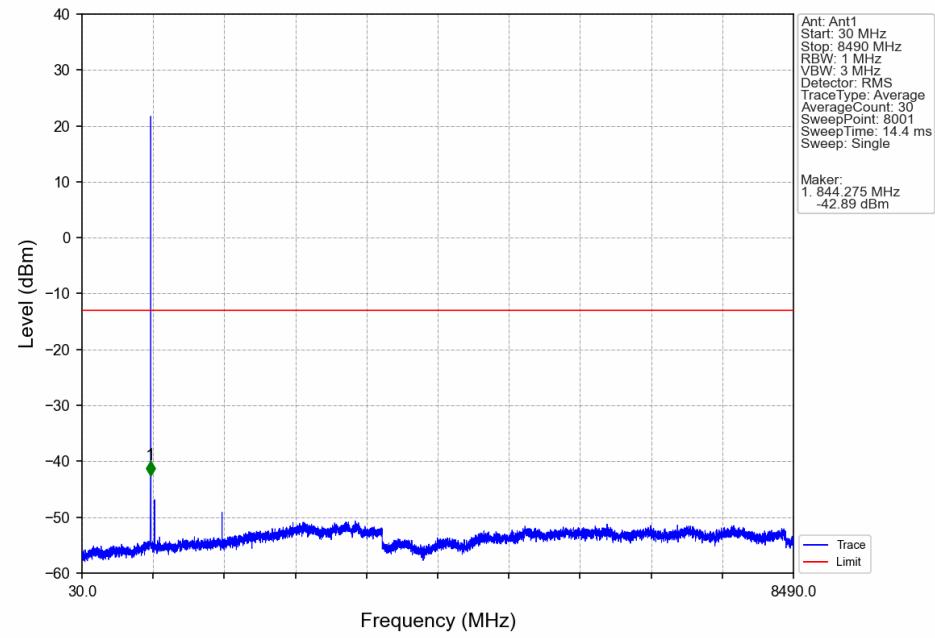
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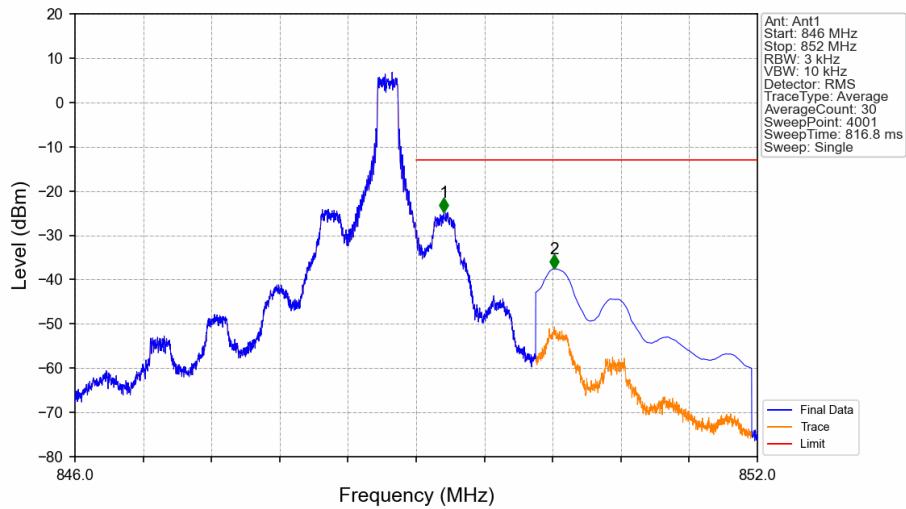
Band5\_1.4MHz\_16QAM\_HCH\_848.3MHz\_RB\_1\_0\_NTNV



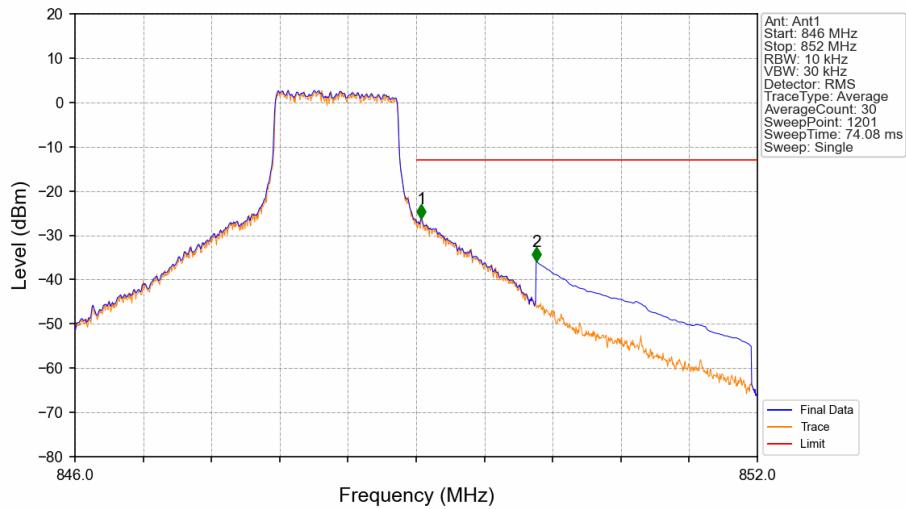
Band5\_1.4MHz\_16QAM\_HCH\_848.3MHz\_RB\_1\_0\_NTNV



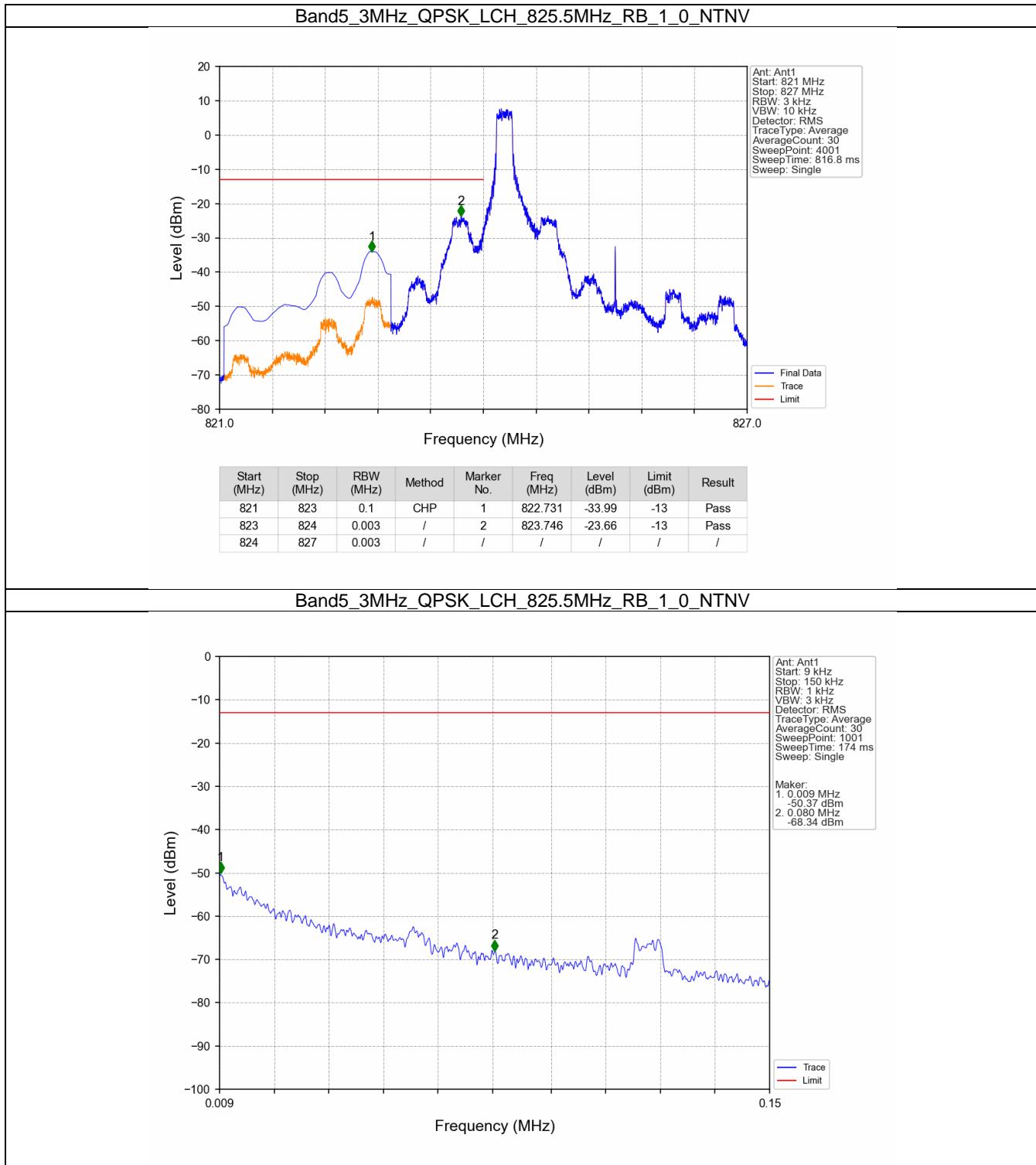
### Band5\_1.4MHz\_16QAM\_HCH\_848.3MHz\_RB\_1\_5\_NTNV



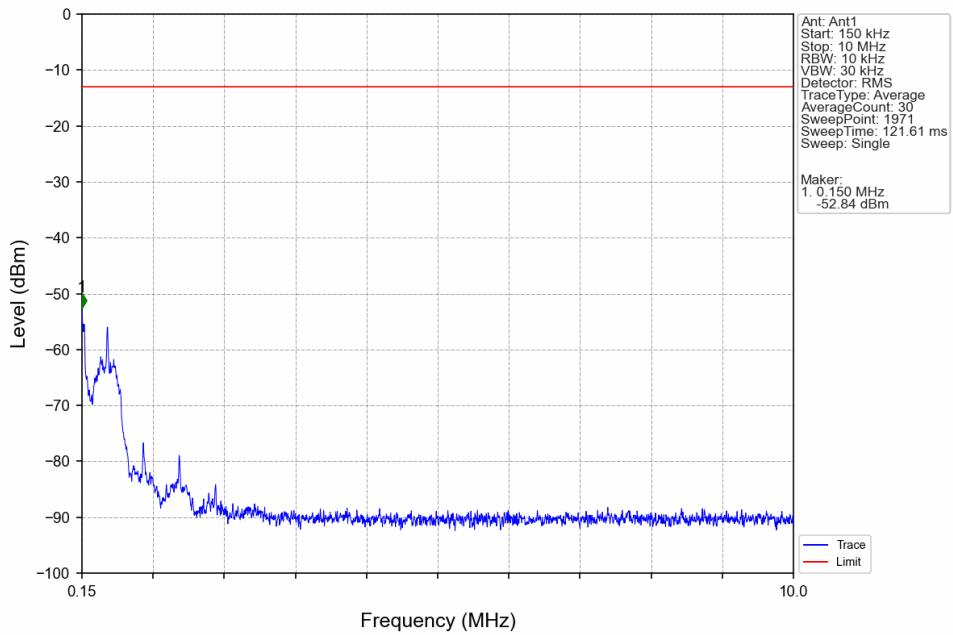
### Band5\_1.4MHz\_16QAM\_HCH\_848.3MHz\_RB\_6\_0\_NTNV



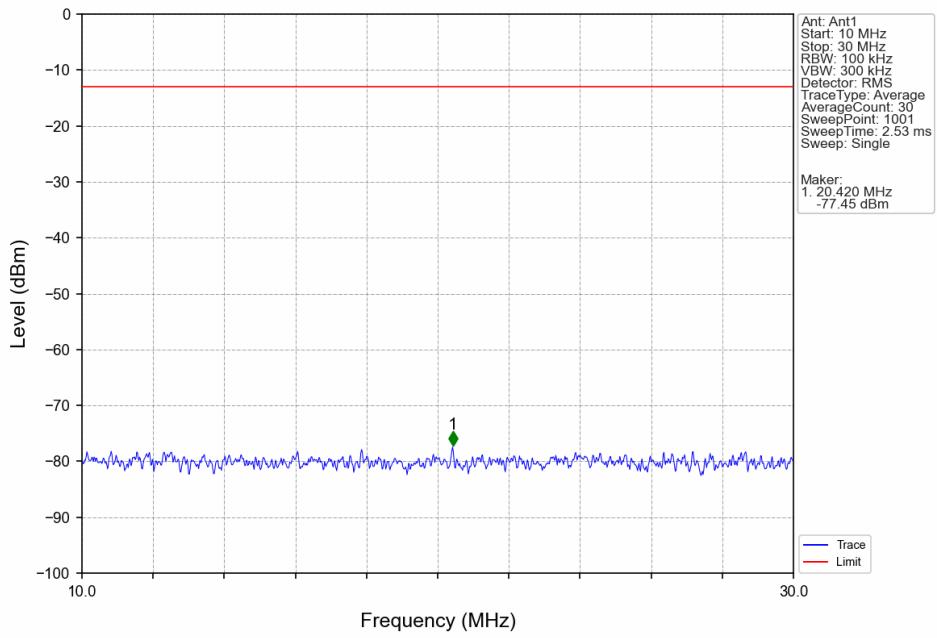
### 6.2.2 B5\_3MHz



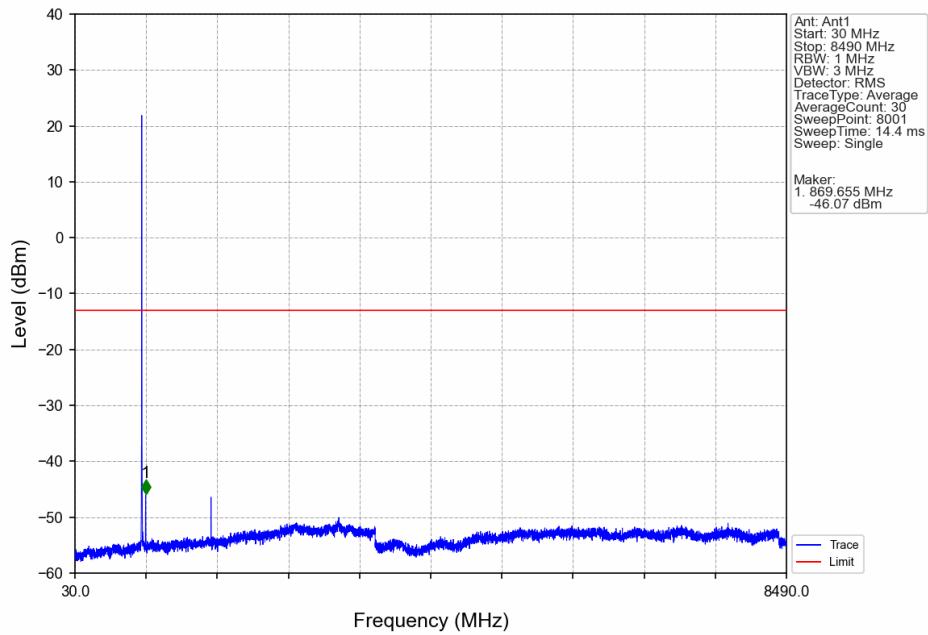
Band5\_3MHz\_QPSK\_LCH\_825.5MHz\_RB\_1\_0\_NTNV



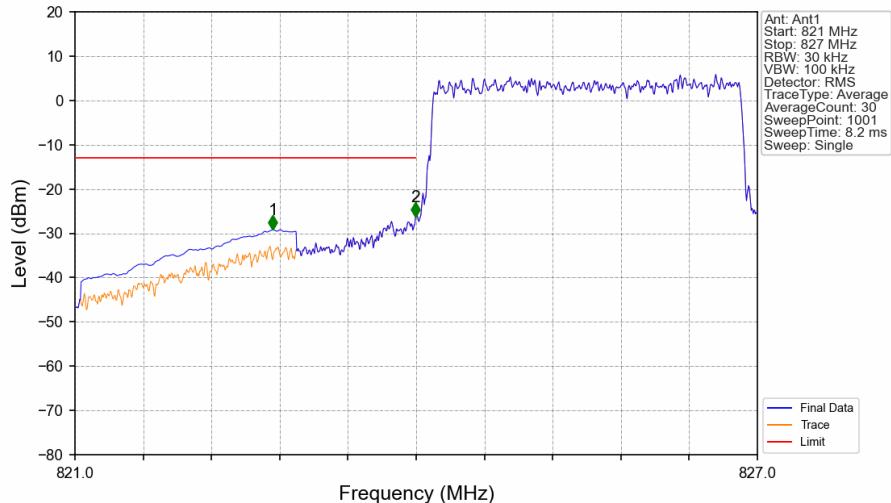
Band5\_3MHz\_QPSK\_LCH\_825.5MHz\_RB\_1\_0\_NTNV



### Band5\_3MHz\_QPSK\_LCH\_825.5MHz\_RB\_1\_0\_NTNV

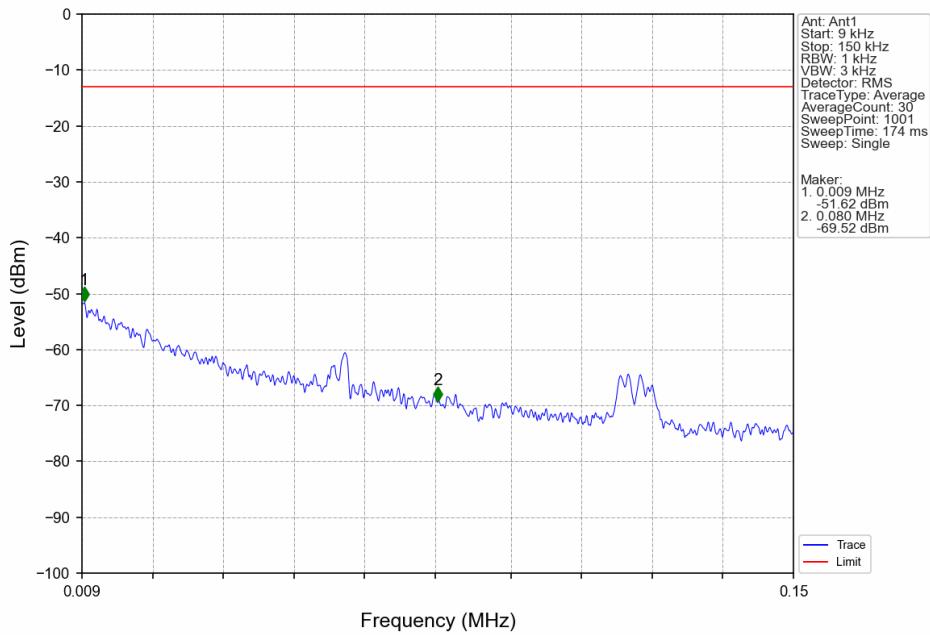


### Band5\_3MHz\_QPSK\_LCH\_825.5MHz\_RB\_15\_0\_NTNV

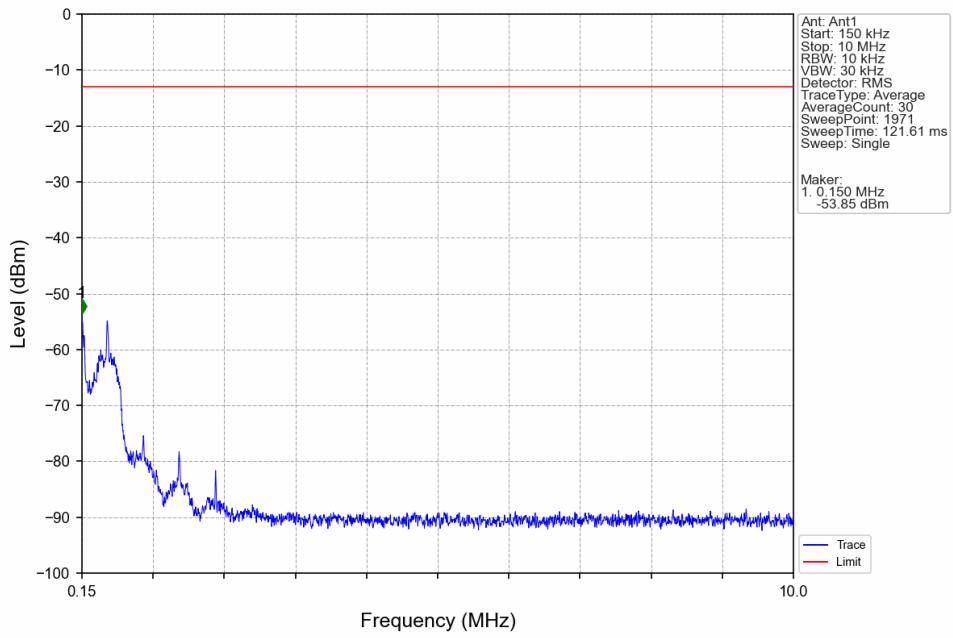


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
821	823	0.1	CHP	1	822.740	-29.14	-13	Pass
823	824	0.03	/	2	823.994	-26.21	-13	Pass
824	827	0.03	/	/	/	/	/	/

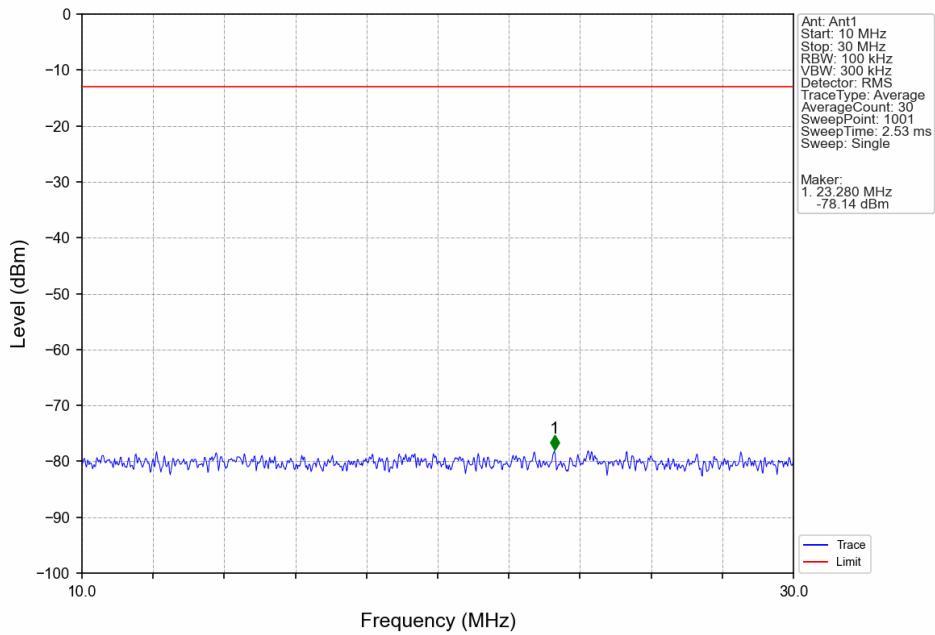
Band5\_3MHz\_QPSK\_MCH\_836.5MHz\_RB\_1\_0\_NTNV



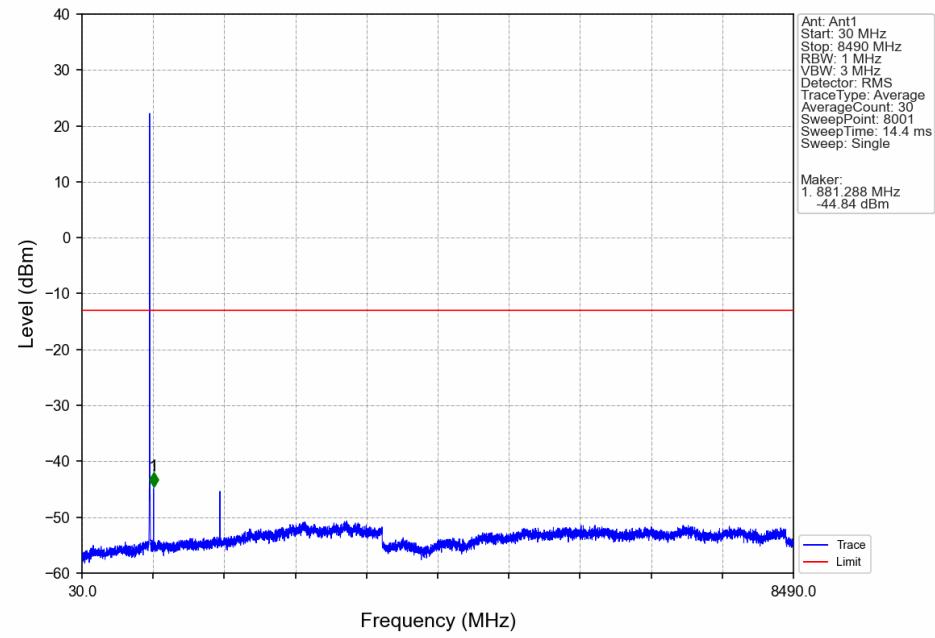
Band5\_3MHz\_QPSK\_MCH\_836.5MHz\_RB\_1\_0\_NTNV



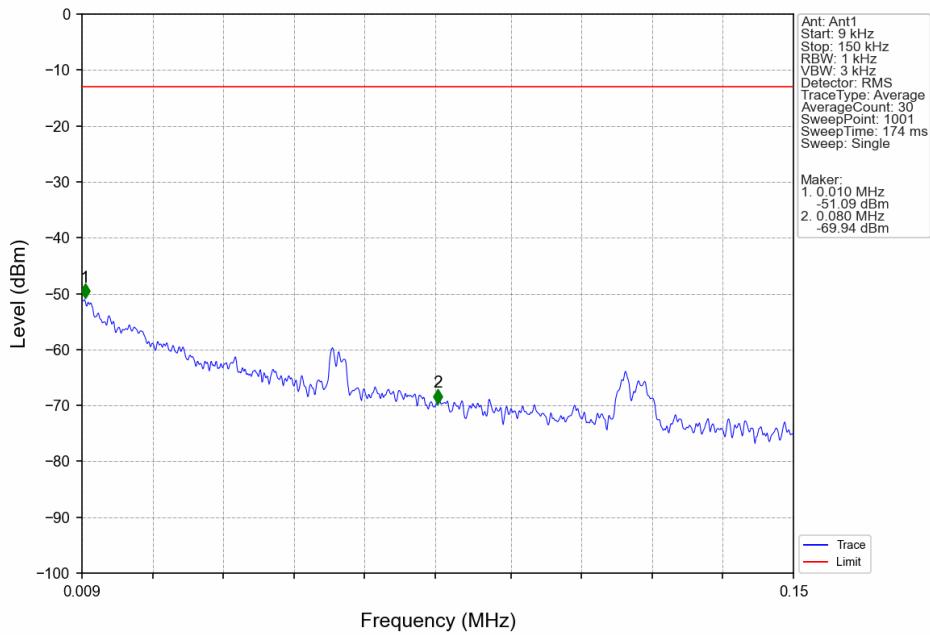
Band5\_3MHz\_QPSK\_MCH\_836.5MHz\_RB\_1\_0\_NTNV



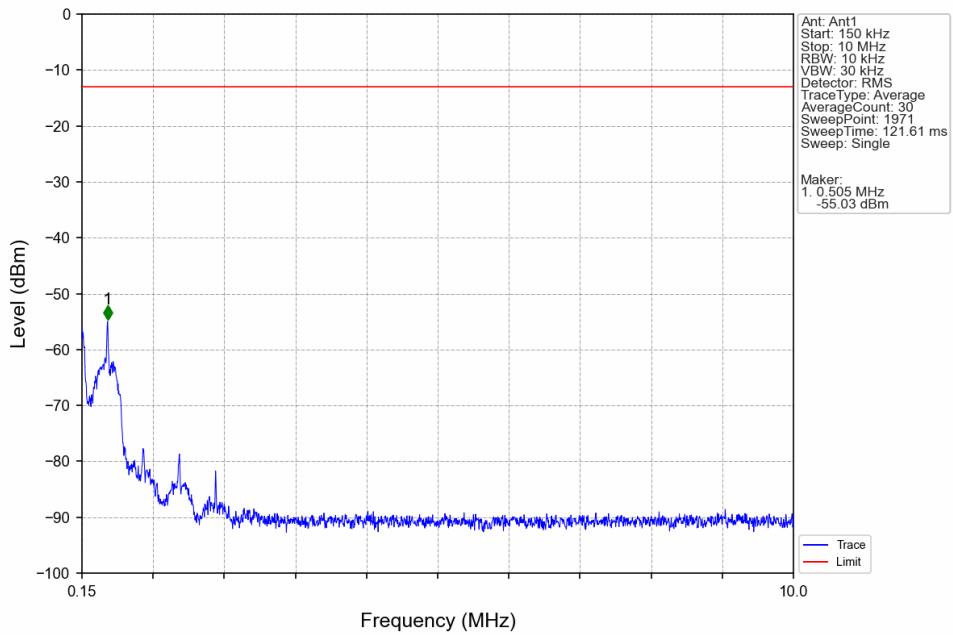
Band5\_3MHz\_QPSK\_MCH\_836.5MHz\_RB\_1\_0\_NTNV



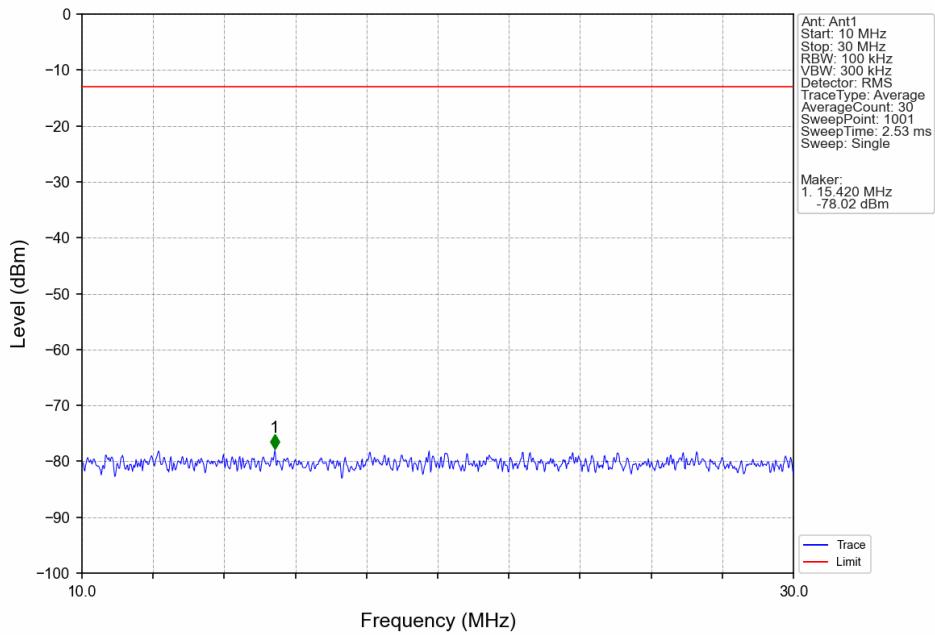
Band5\_3MHz\_QPSK\_HCH\_847.5MHz\_RB\_1\_0\_NTNV



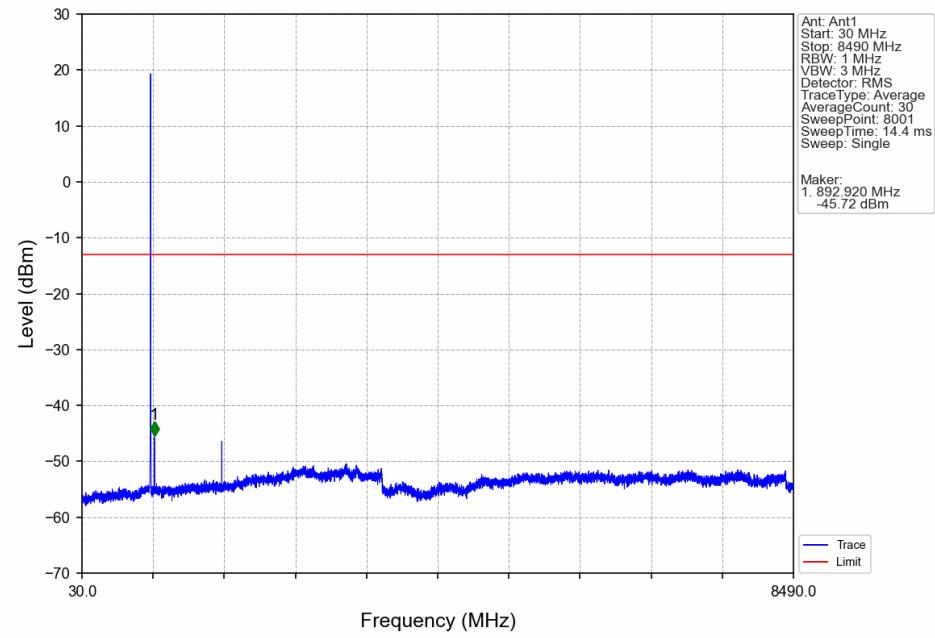
Band5\_3MHz\_QPSK\_HCH\_847.5MHz\_RB\_1\_0\_NTNV



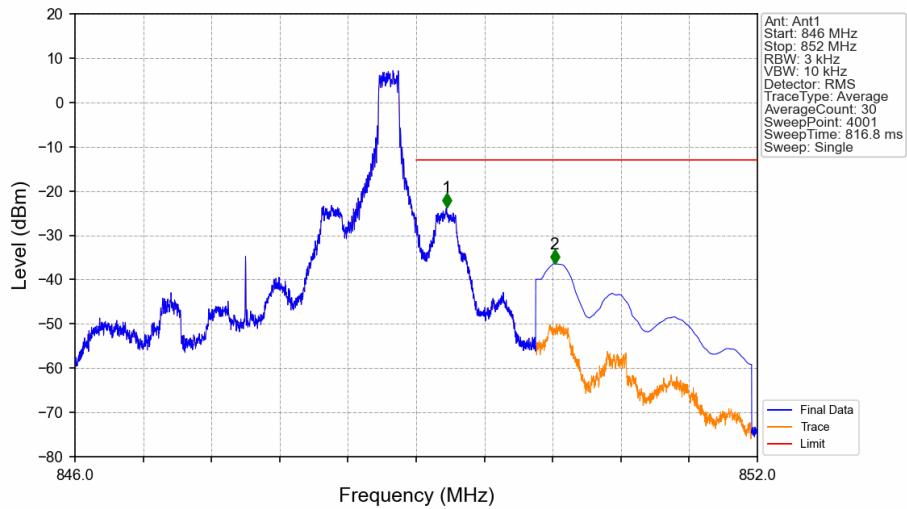
Band5\_3MHz\_QPSK\_HCH\_847.5MHz\_RB\_1\_0\_NTNV



Band5\_3MHz\_QPSK\_HCH\_847.5MHz\_RB\_1\_0\_NTNV

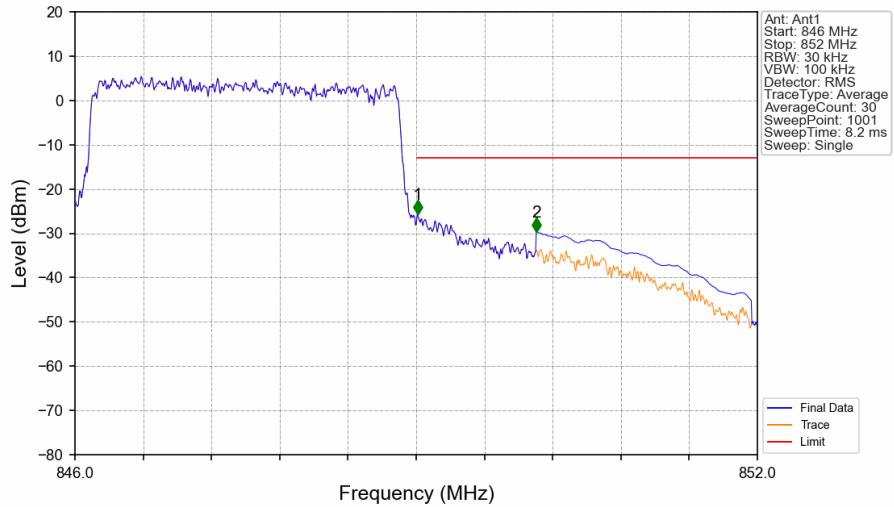


### Band5\_3MHz\_QPSK\_HCH\_847.5MHz\_RB\_1\_14\_NTNV



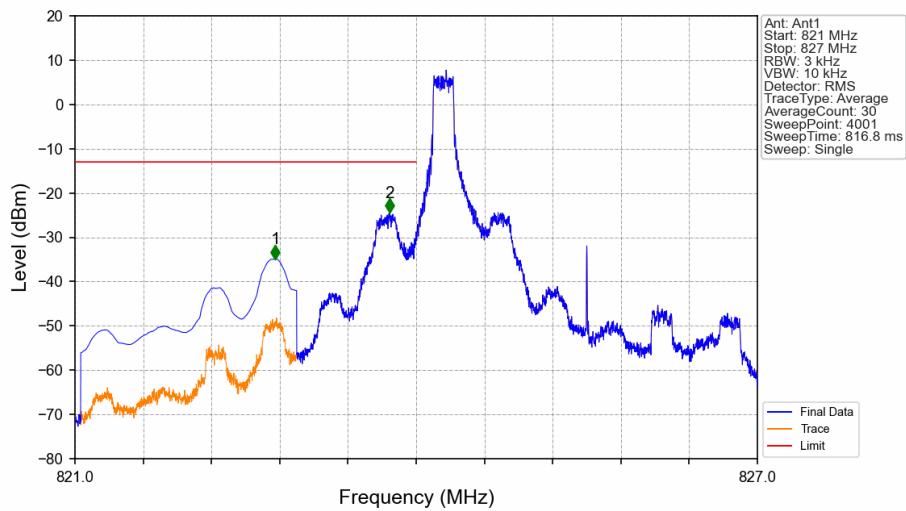
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
846	849	0.003	/	/	/	/	/	/
849	850	0.003	/	1	849.267	-23.63	-13	Pass
850	852	0.1	CHP	2	850.216	-36.37	-13	Pass

### Band5\_3MHz\_QPSK\_HCH\_847.5MHz\_RB\_15\_0\_NTNV

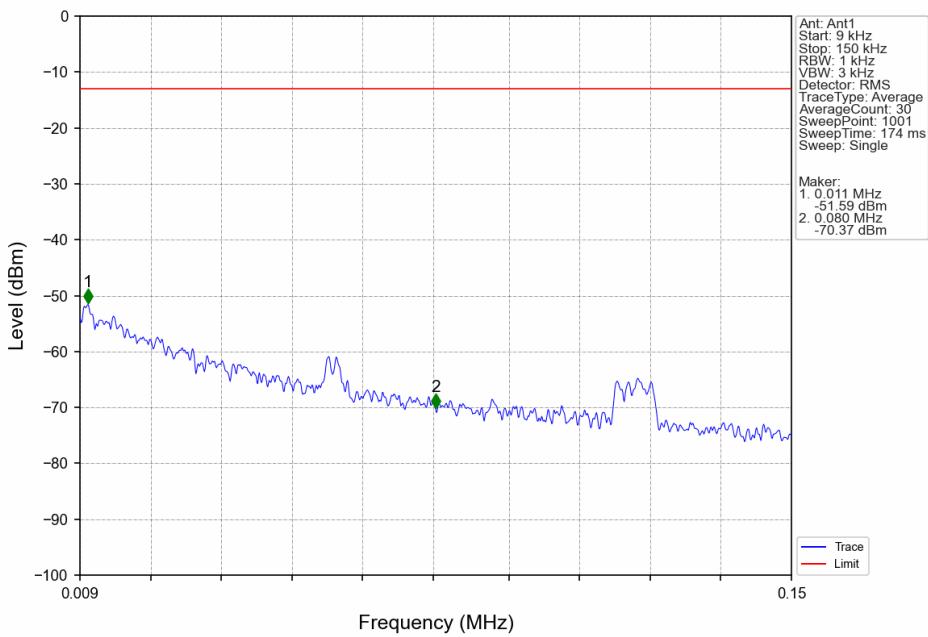


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
846	849	0.03	/	/	/	/	/	/
849	850	0.03	/	1	849.012	-25.66	-13	Pass
850	852	0.1	CHP	2	850.056	-29.69	-13	Pass

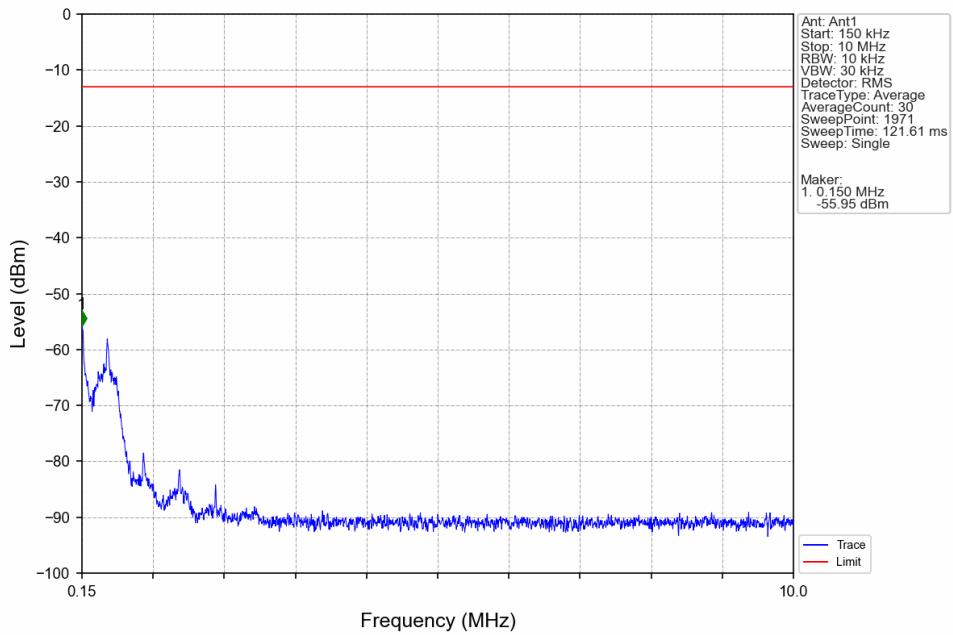
### Band5\_3MHz\_16QAM\_LCH\_825.5MHz\_RB\_1\_0\_NTNV



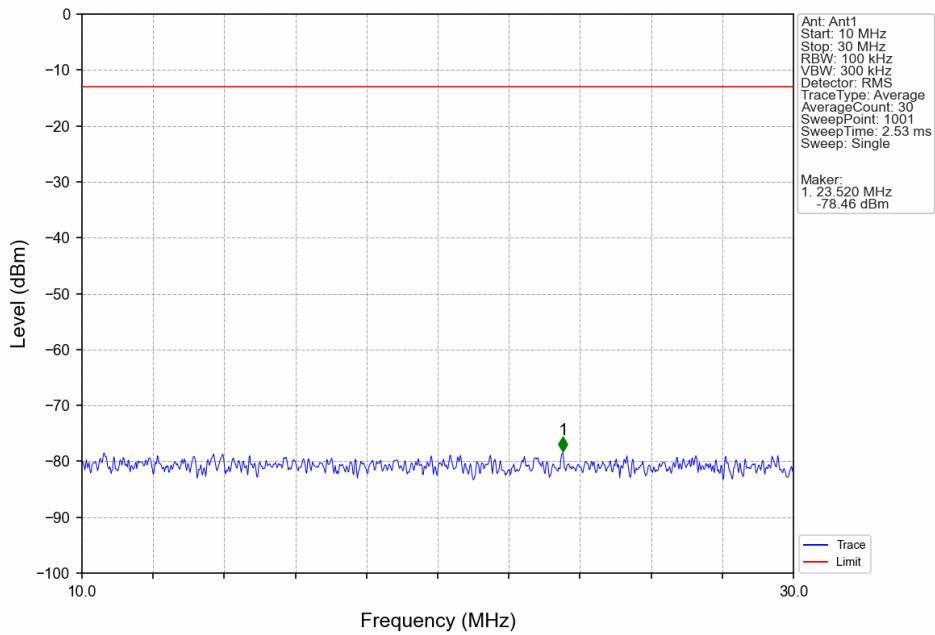
### Band5\_3MHz\_16QAM\_LCH\_825.5MHz\_RB\_1\_0\_NTNV



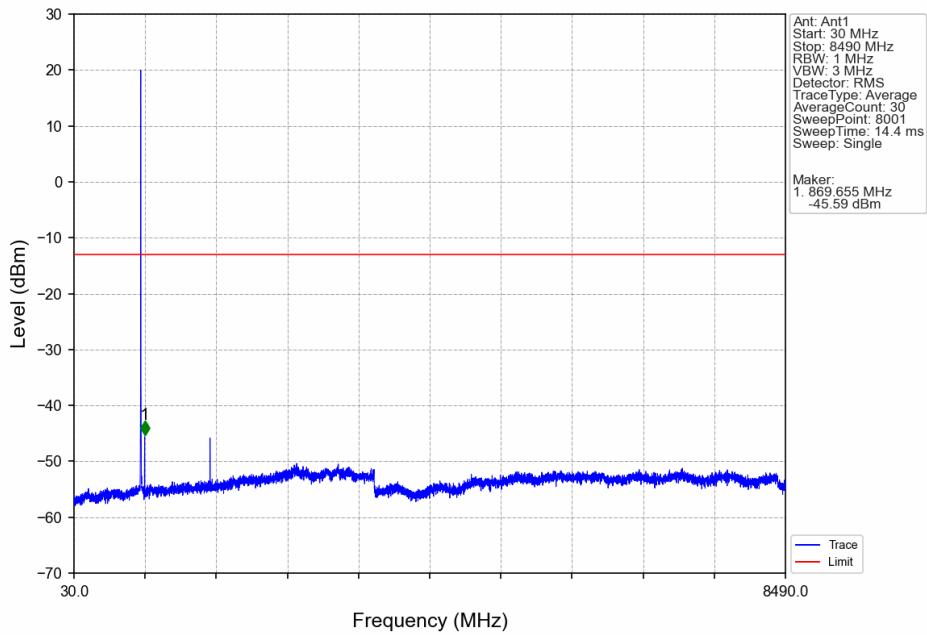
Band5\_3MHz\_16QAM\_LCH\_825.5MHz\_RB\_1\_0\_NTNV



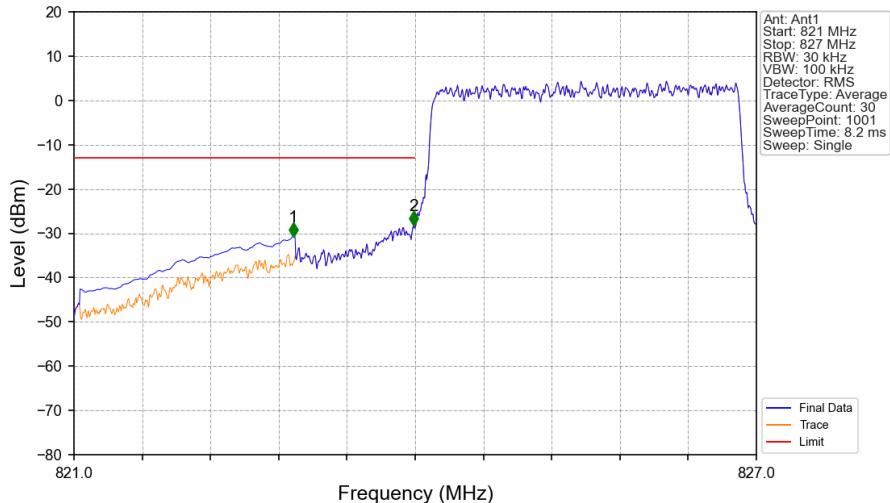
Band5\_3MHz\_16QAM\_LCH\_825.5MHz\_RB\_1\_0\_NTNV



### Band5\_3MHz\_16QAM\_LCH\_825.5MHz\_RB\_1\_0\_NTNV

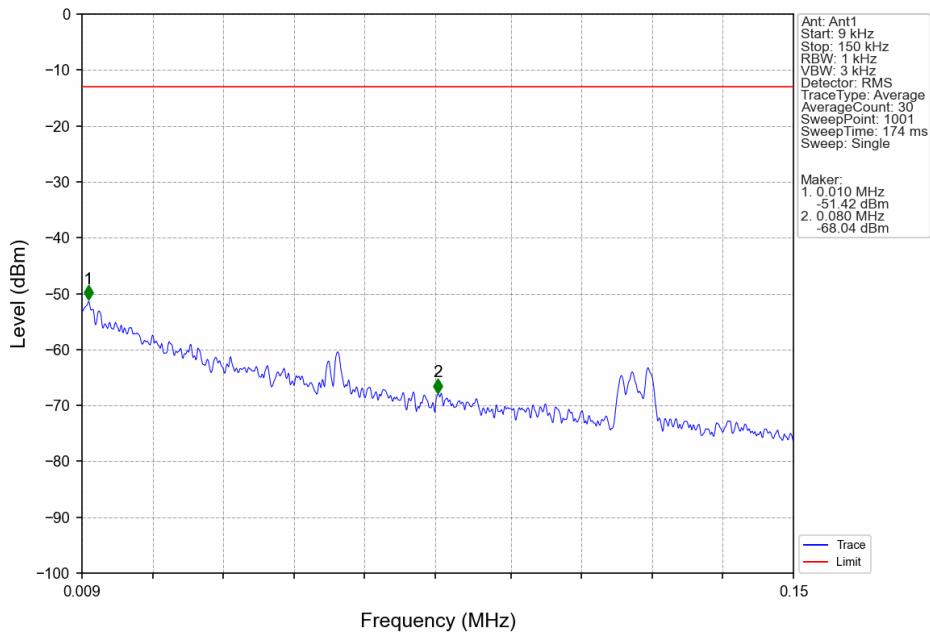


### Band5\_3MHz\_16QAM\_LCH\_825.5MHz\_RB\_15\_0\_NTNV

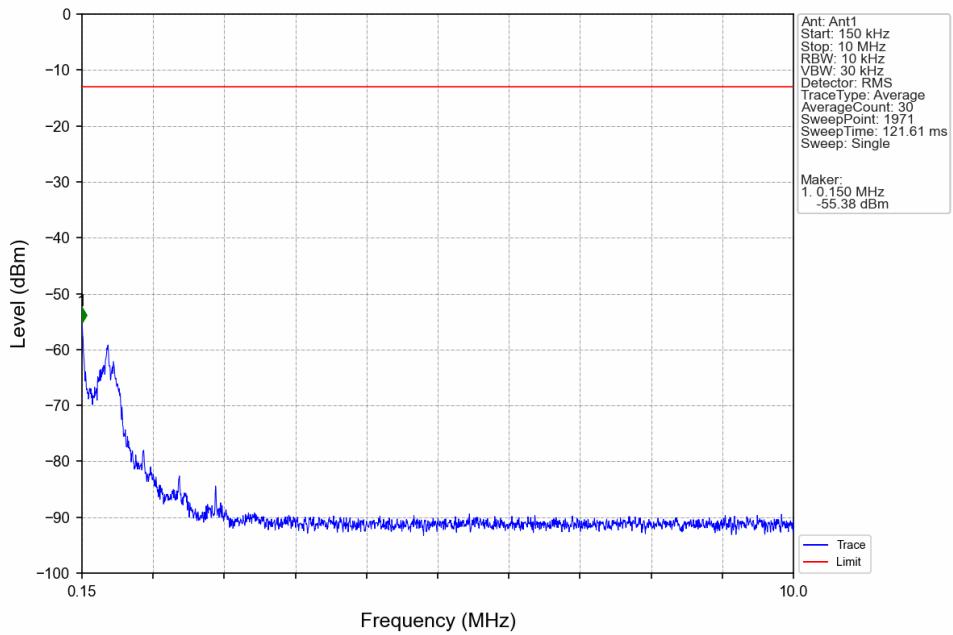


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
821	823	0.1	CHP	1	822.926	-30.70	-13	Pass
823	824	0.03	/	2	823.988	-28.15	-13	Pass
824	827	0.03	/	/	/	/	/	/

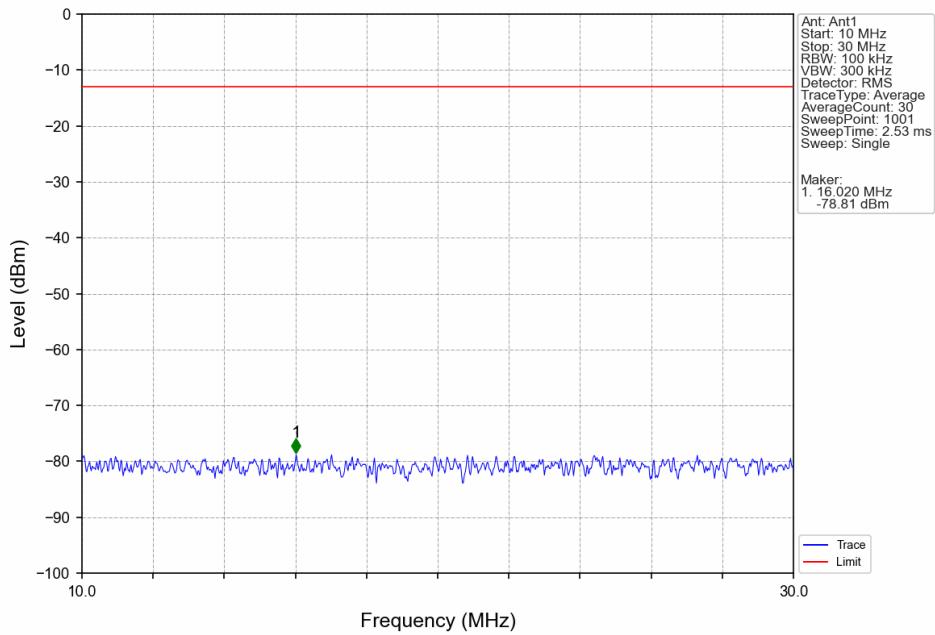
### Band5\_3MHz\_16QAM\_MCH\_836.5MHz\_RB\_1\_0\_NTNV



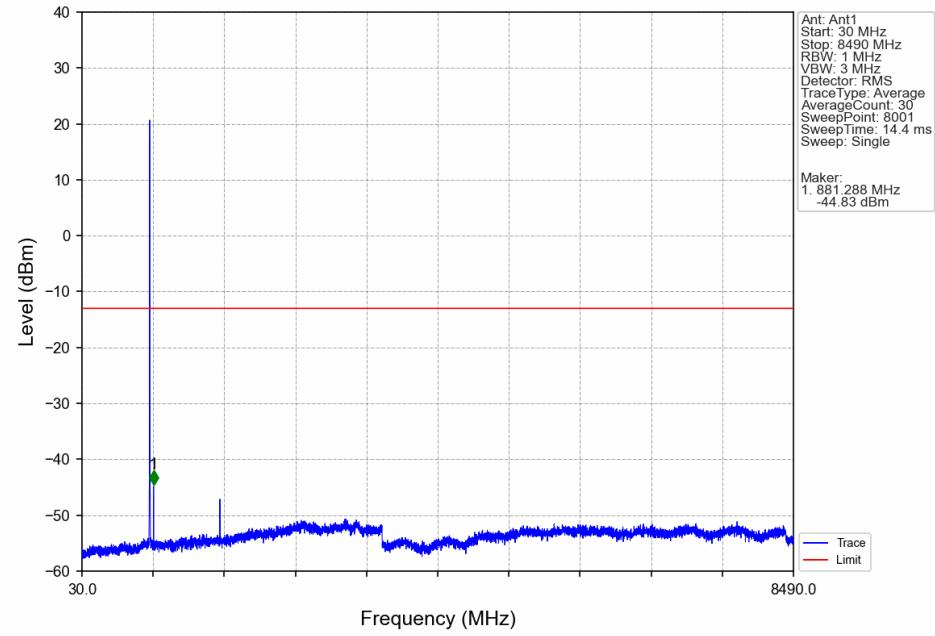
### Band5\_3MHz\_16QAM\_MCH\_836.5MHz\_RB\_1\_0\_NTNV



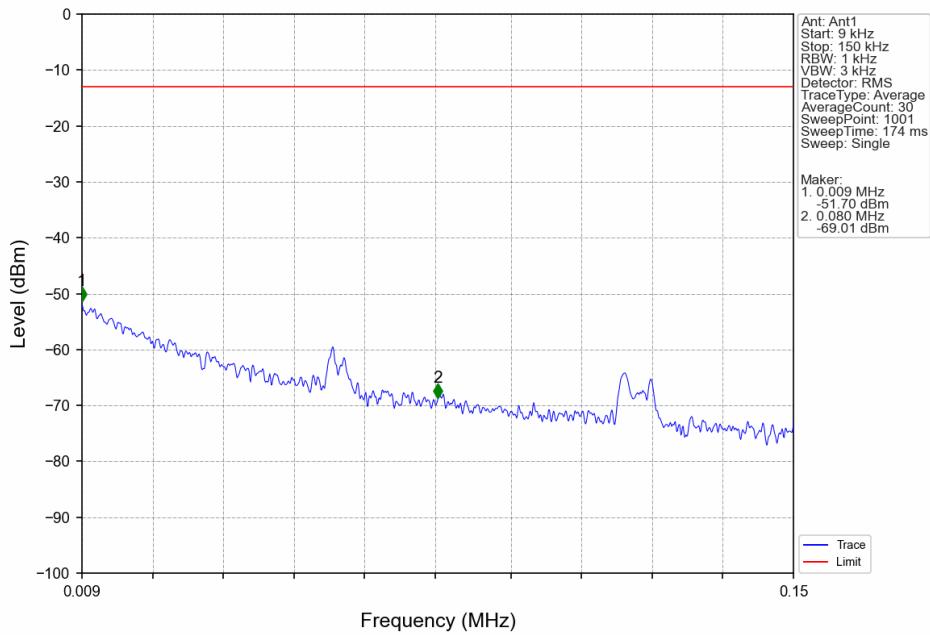
Band5\_3MHz\_16QAM\_MCH\_836.5MHz\_RB\_1\_0\_NTNV



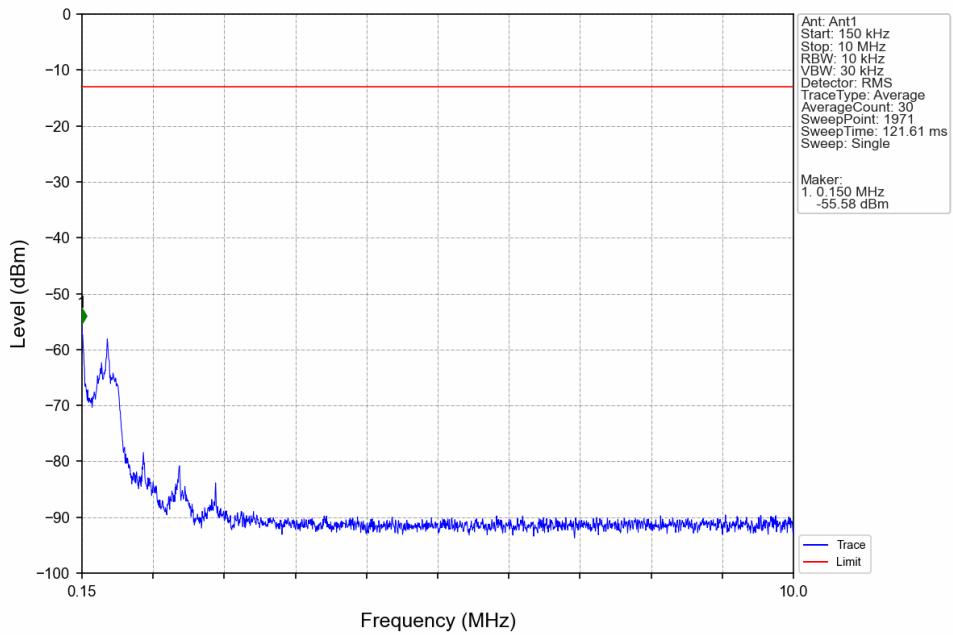
Band5\_3MHz\_16QAM\_MCH\_836.5MHz\_RB\_1\_0\_NTNV



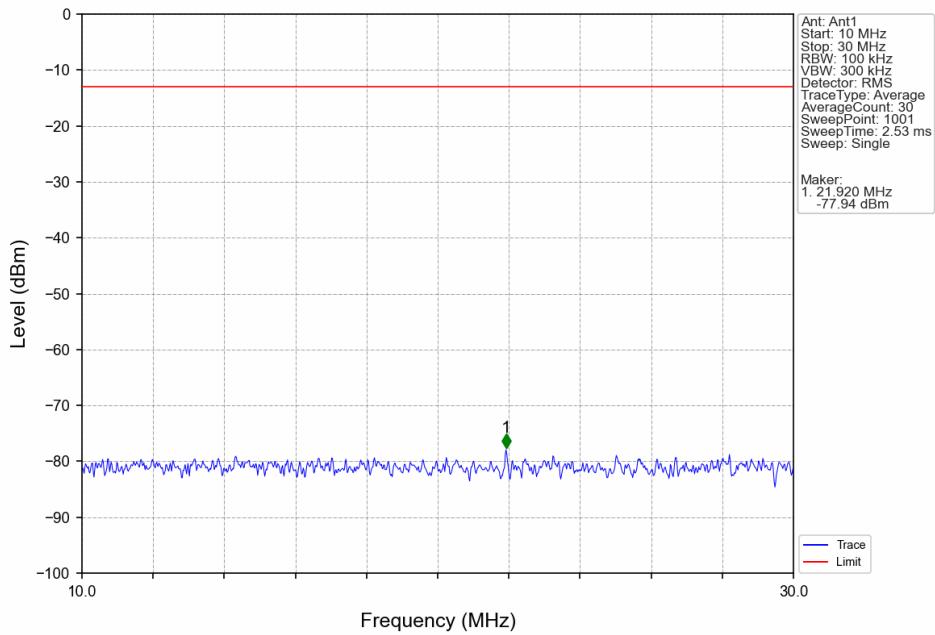
### Band5\_3MHz\_16QAM\_HCH\_847.5MHz\_RB\_1\_0\_NTNV



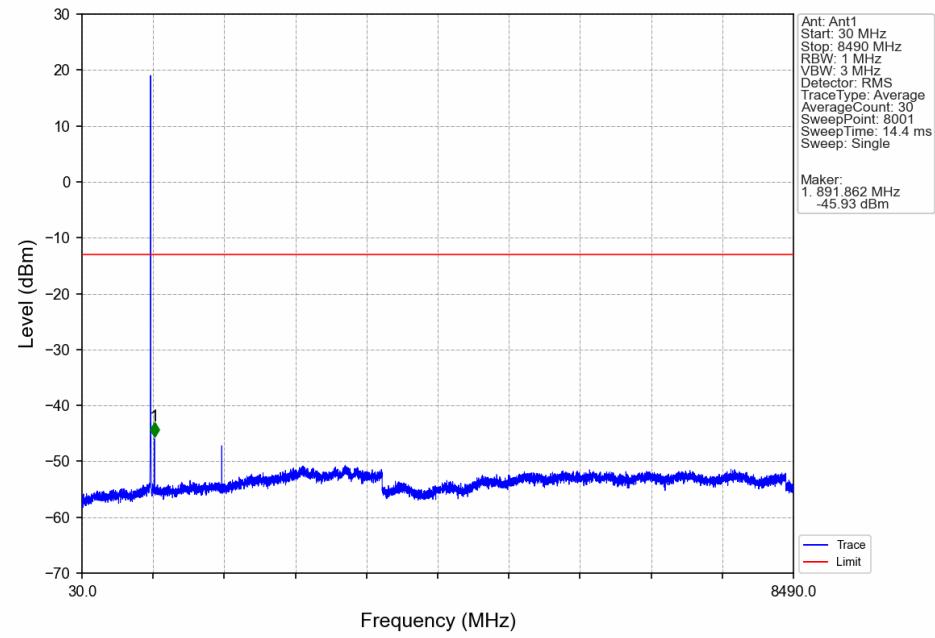
### Band5\_3MHz\_16QAM\_HCH\_847.5MHz\_RB\_1\_0\_NTNV



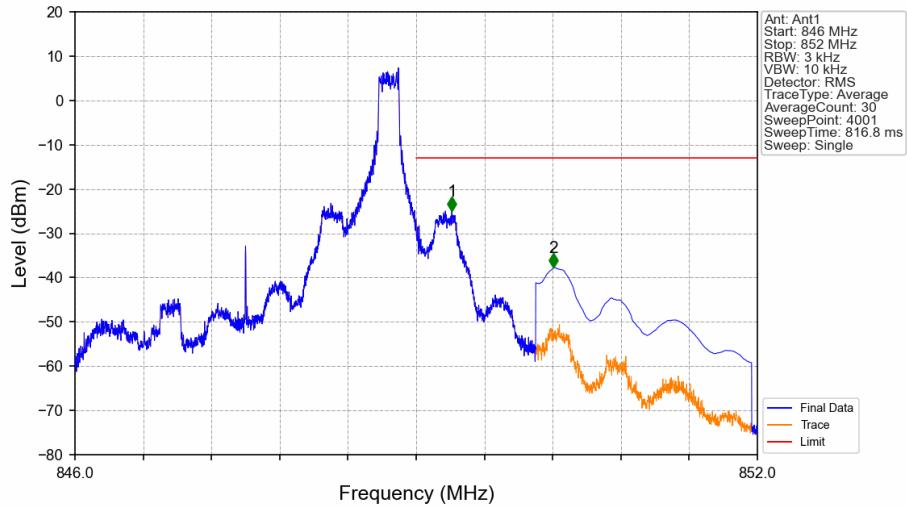
### Band5\_3MHz\_16QAM\_HCH\_847.5MHz\_RB\_1\_0\_NTNV



### Band5\_3MHz\_16QAM\_HCH\_847.5MHz\_RB\_1\_0\_NTNV

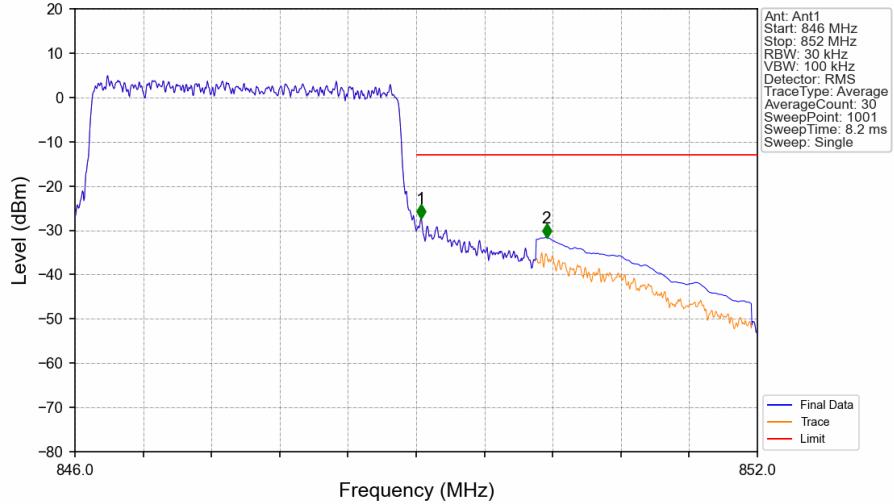


### Band5\_3MHz\_16QAM\_HCH\_847.5MHz\_RB\_1\_14\_NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
846	849	0.003	/	/	/	/	/	/
849	850	0.003	/	1	849.313	-24.97	-13	Pass
850	852	0.1	CHP	2	850.209	-37.77	-13	Pass

### Band5\_3MHz\_16QAM\_HCH\_847.5MHz\_RB\_15\_0\_NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
846	849	0.03	/	/	/	/	/	/
849	850	0.03	/	1	849.042	-27.26	-13	Pass
850	852	0.1	CHP	2	850.146	-31.59	-13	Pass

### 6.2.3 B5\_5MHz

