

## 4. Peak-Average Ratio

### 4.1 Test Result

#### 4.1.1 B5\_1.4MHz

Band: 5 / Bandwidth: 1.4MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	824.7	6	0	5.90	<=13	Pass
	836.5	6	0	5.48	<=13	Pass
	848.3	6	0	7.03	<=13	Pass
16QAM	824.7	6	0	6.70	<=13	Pass
	836.5	6	0	6.44	<=13	Pass
	848.3	6	0	6.70	<=13	Pass

#### 4.1.2 B5\_3MHz

Band: 5 / Bandwidth: 3MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	825.5	15	0	5.97	<=13	Pass
	836.5	15	0	5.53	<=13	Pass
	847.5	15	0	5.87	<=13	Pass
16QAM	825.5	15	0	6.68	<=13	Pass
	836.5	15	0	6.31	<=13	Pass
	847.5	15	0	6.58	<=13	Pass

#### 4.1.3 B5\_5MHz

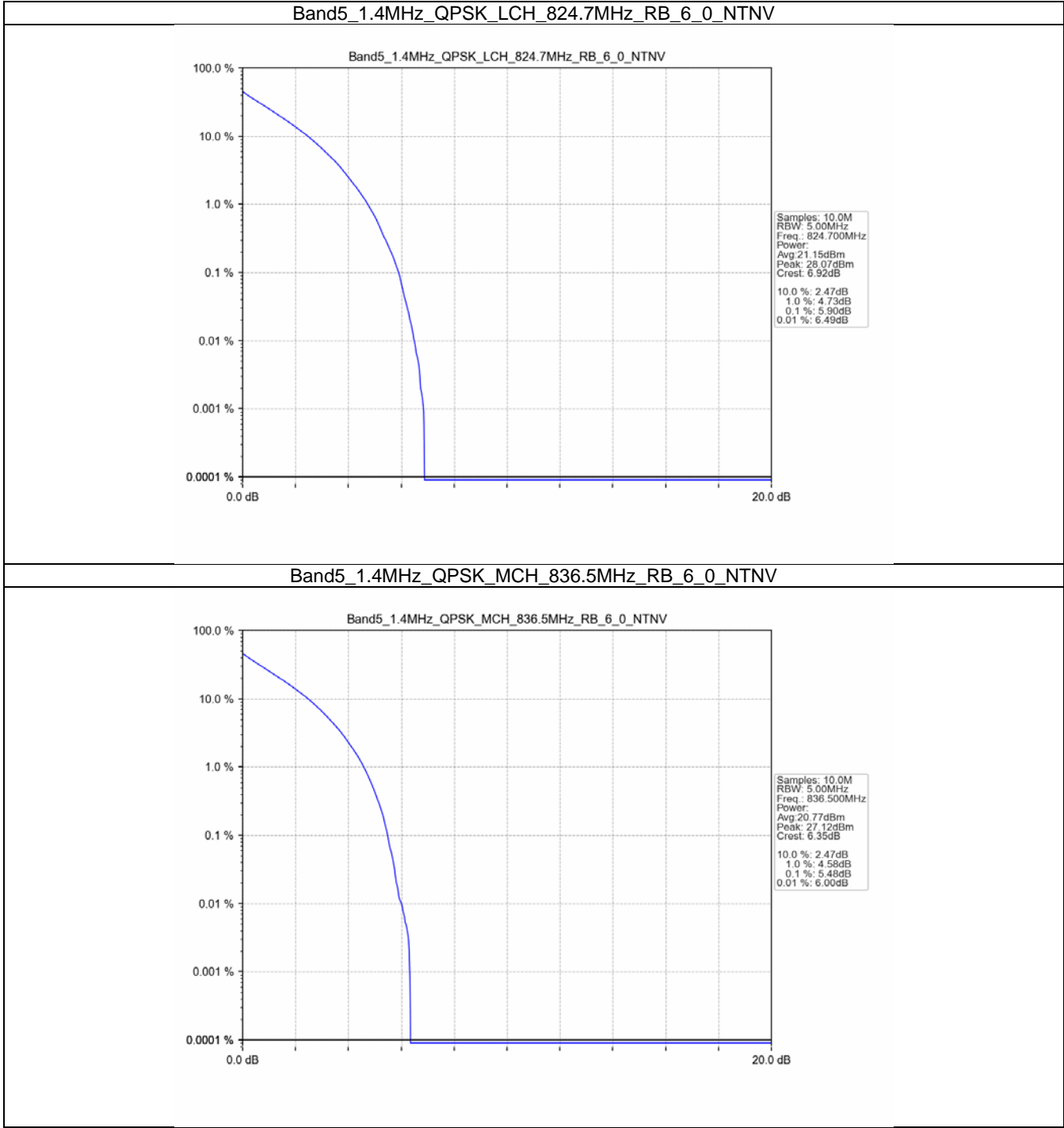
Band: 5 / Bandwidth: 5MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	826.5	25	0	5.69	<=13	Pass
	836.5	25	0	5.54	<=13	Pass
	846.5	25	0	6.82	<=13	Pass
16QAM	826.5	25	0	6.51	<=13	Pass
	836.5	25	0	6.23	<=13	Pass
	846.5	25	0	6.38	<=13	Pass

#### 4.1.4 B5\_10MHz

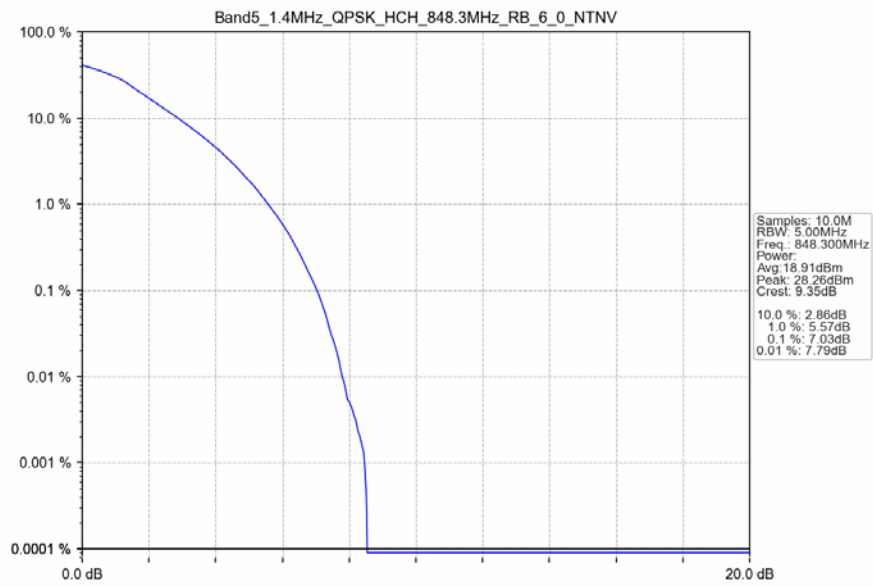
Band: 5 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	829	50	0	5.77	<=13	Pass
	836.5	50	0	5.54	<=13	Pass
	844	50	0	5.56	<=13	Pass
16QAM	829	50	0	6.44	<=13	Pass
	836.5	50	0	6.25	<=13	Pass
	844	50	0	6.26	<=13	Pass

4.2 Test Graph

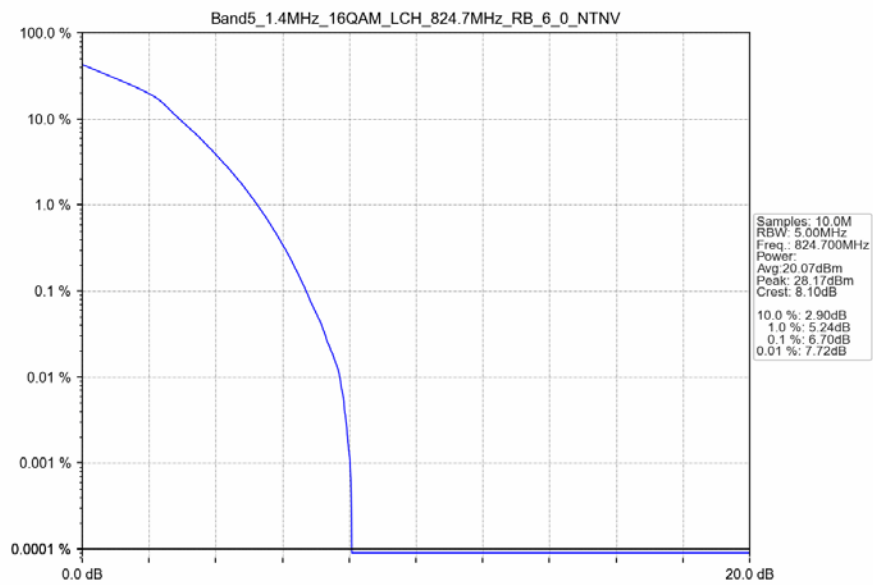
4.2.1 B5\_1.4MHz



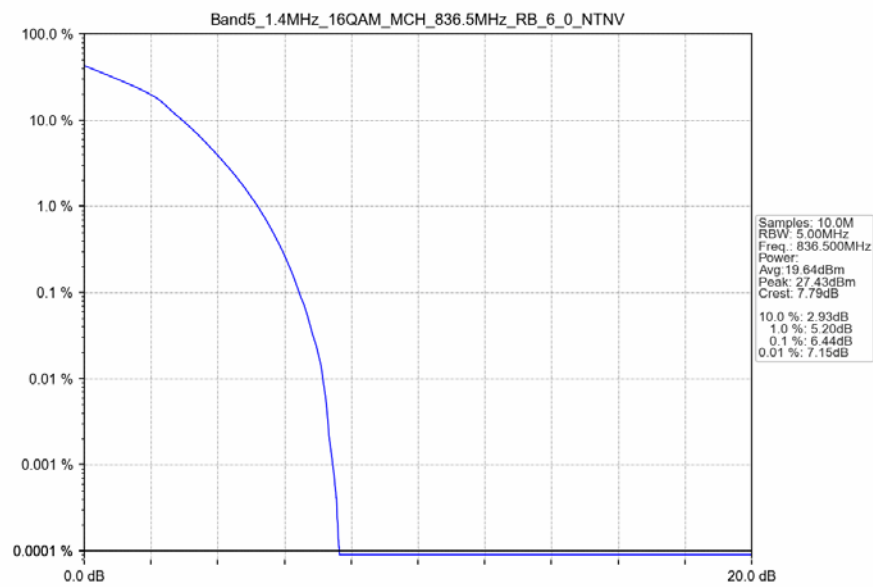
# Band5\_1.4MHz\_QPSK\_HCH\_848.3MHz\_RB\_6\_0\_NTNV



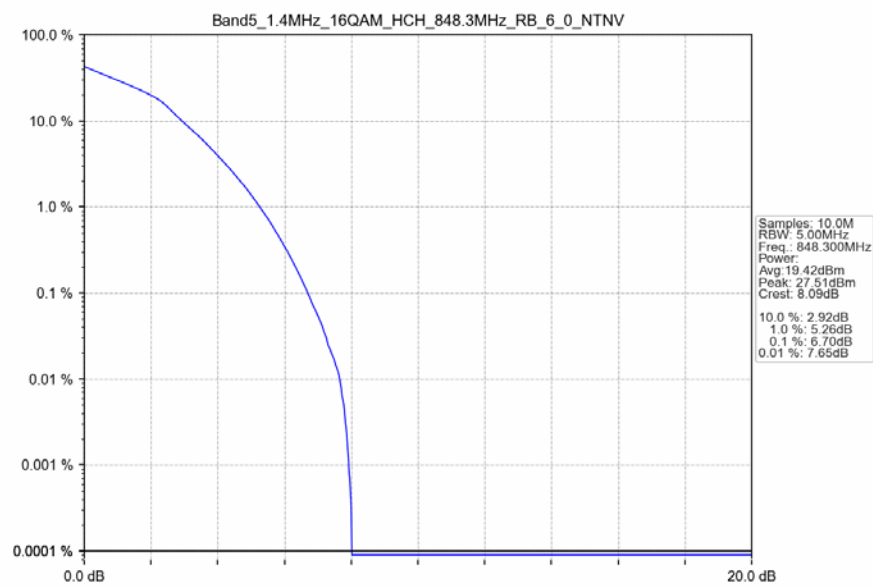
# Band5\_1.4MHz\_16QAM\_LCH\_824.7MHz\_RB\_6\_0\_NTNV



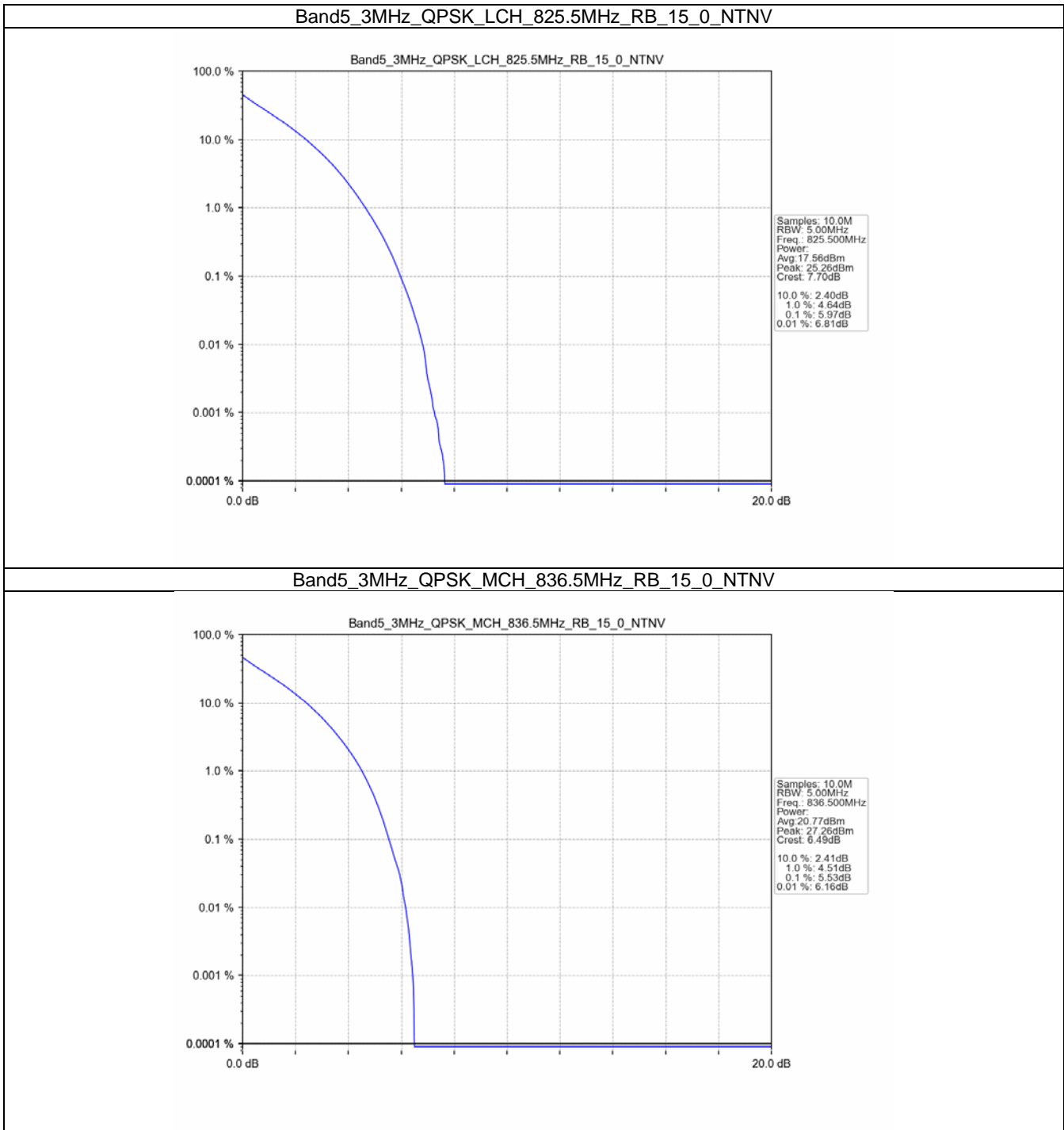
Band5\_1.4MHz\_16QAM\_MCH\_836.5MHz\_RB\_6\_0\_NTNV



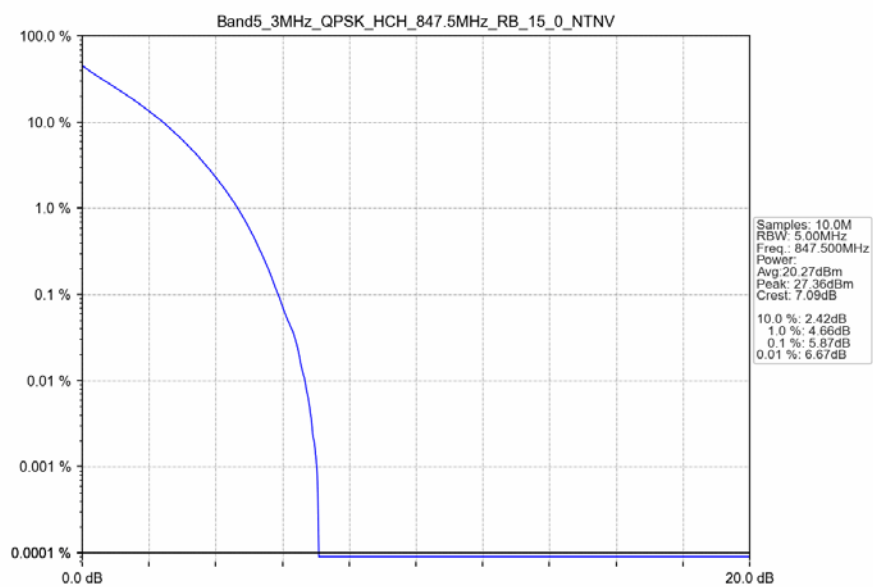
Band5\_1.4MHz\_16QAM\_HCH\_848.3MHz\_RB\_6\_0\_NTNV



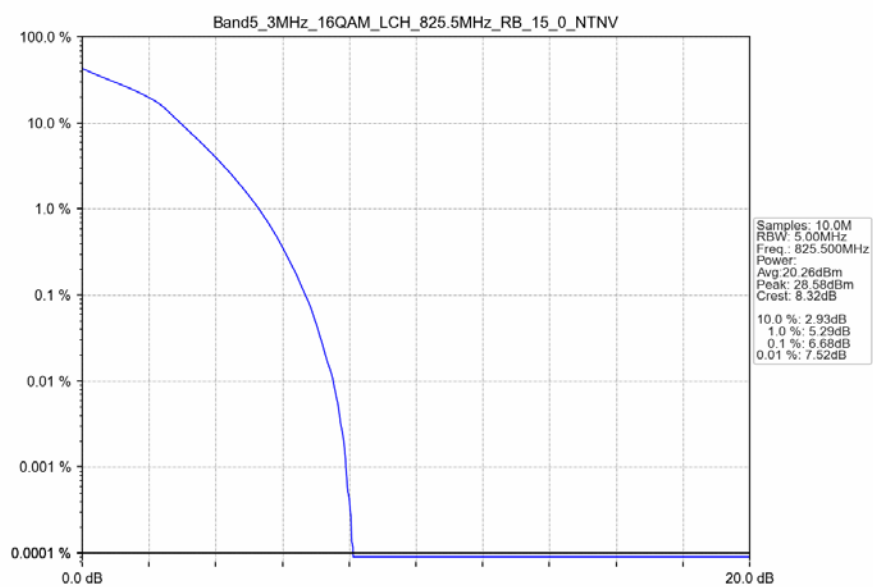
4.2.2 B5\_3MHz



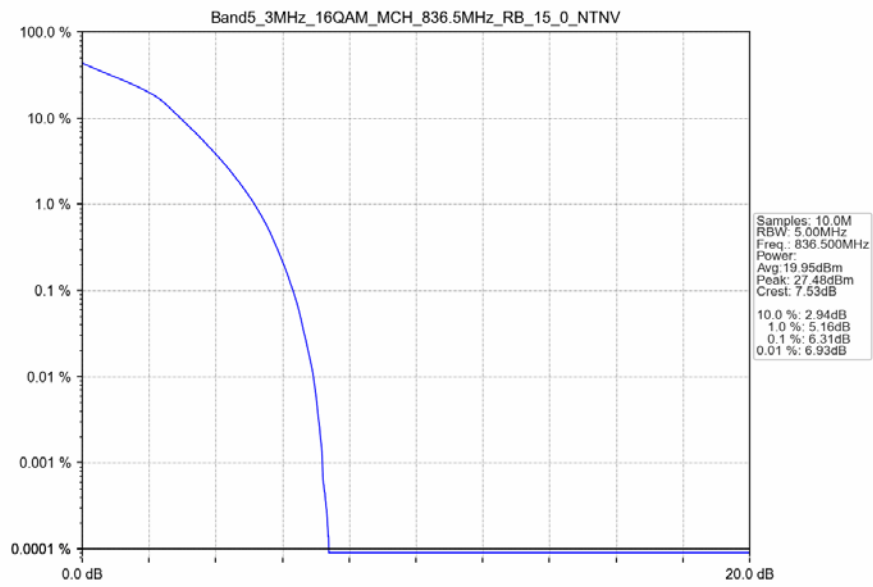
# Band5\_3MHz\_QPSK\_HCH\_847.5MHz\_RB\_15\_0\_NTNV



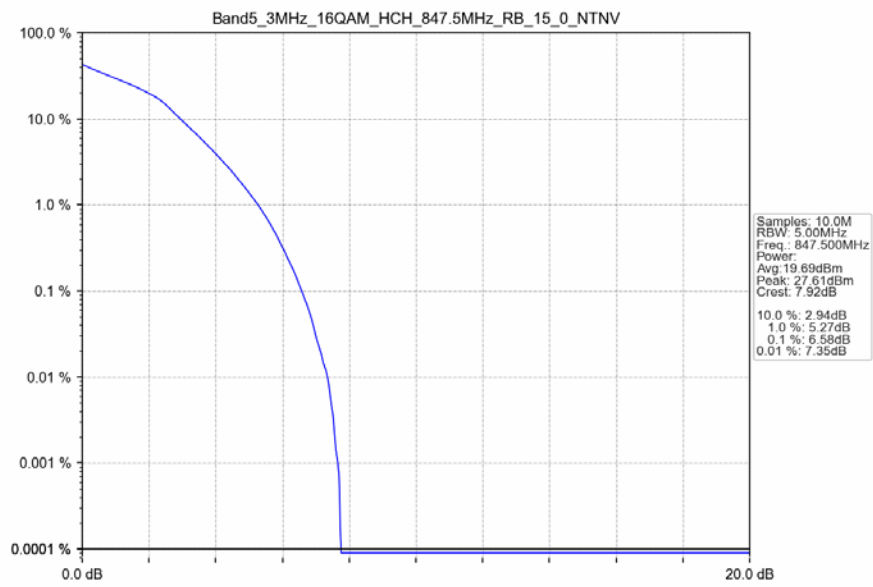
# Band5\_3MHz\_16QAM\_LCH\_825.5MHz\_RB\_15\_0\_NTNV



Band5\_3MHz\_16QAM\_MCH\_836.5MHz\_RB\_15\_0\_NTNV

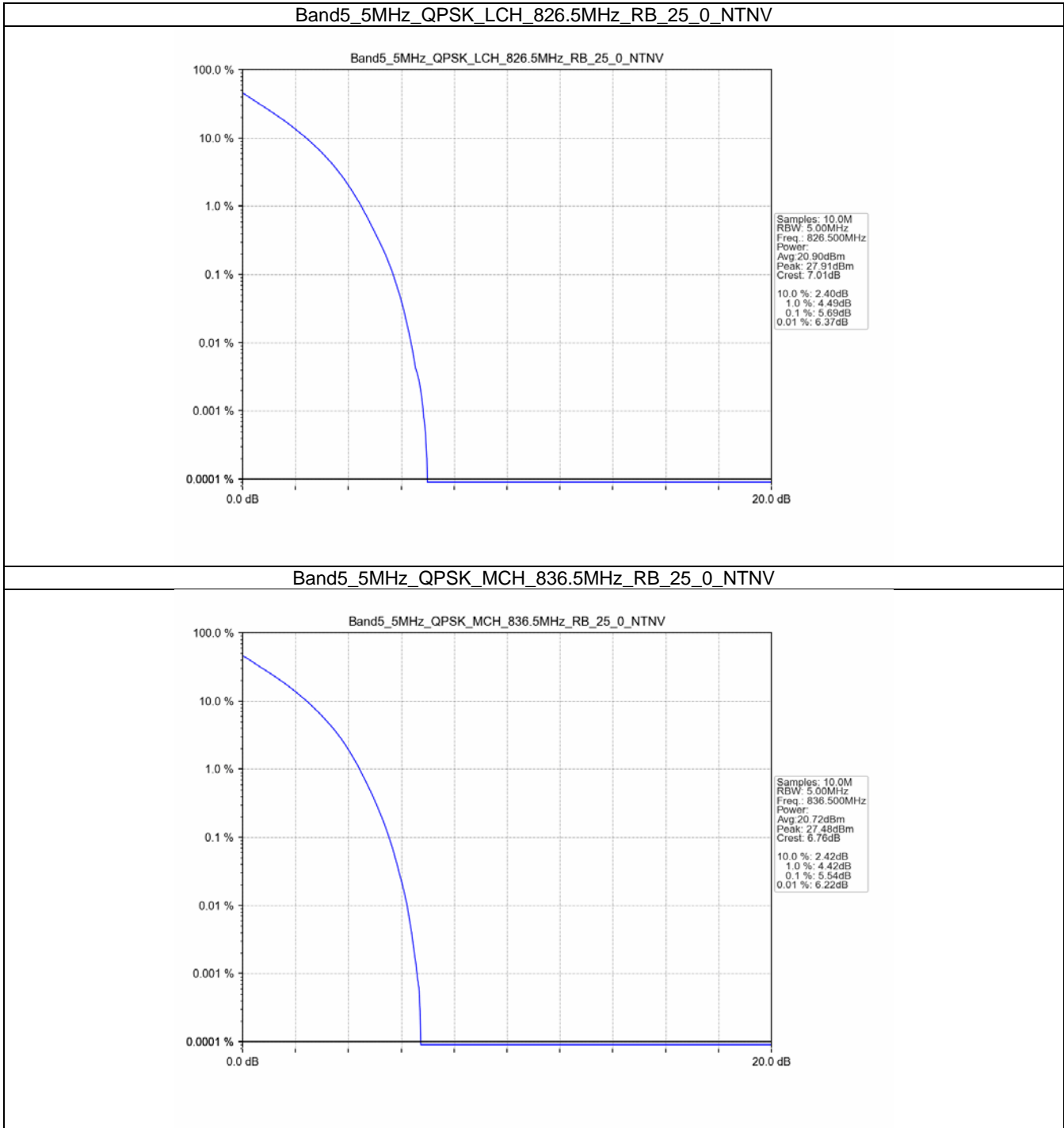


Band5\_3MHz\_16QAM\_HCH\_847.5MHz\_RB\_15\_0\_NTNV

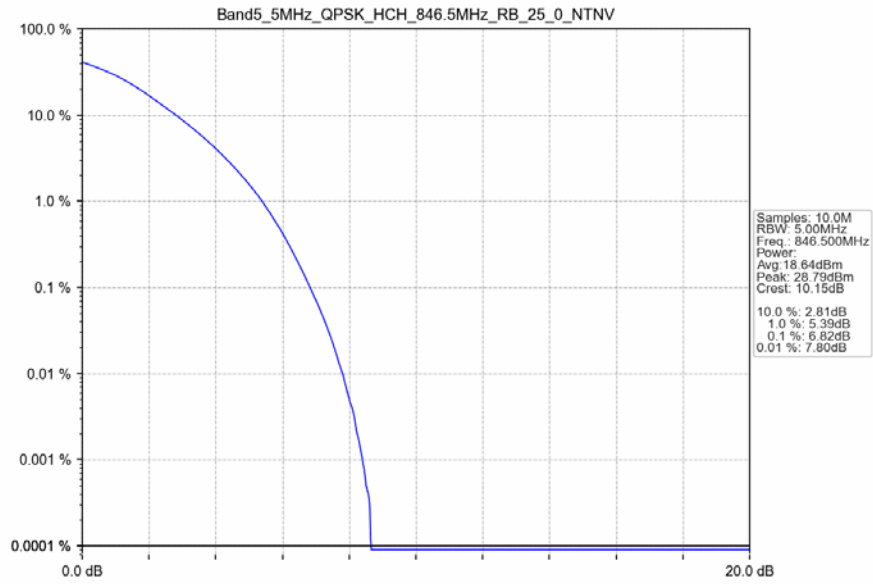




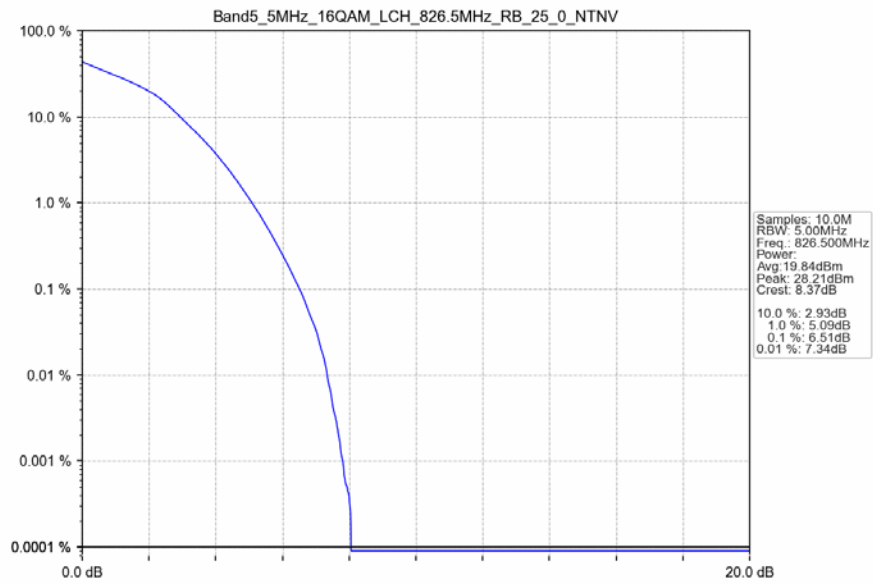
4.2.3 B5\_5MHz



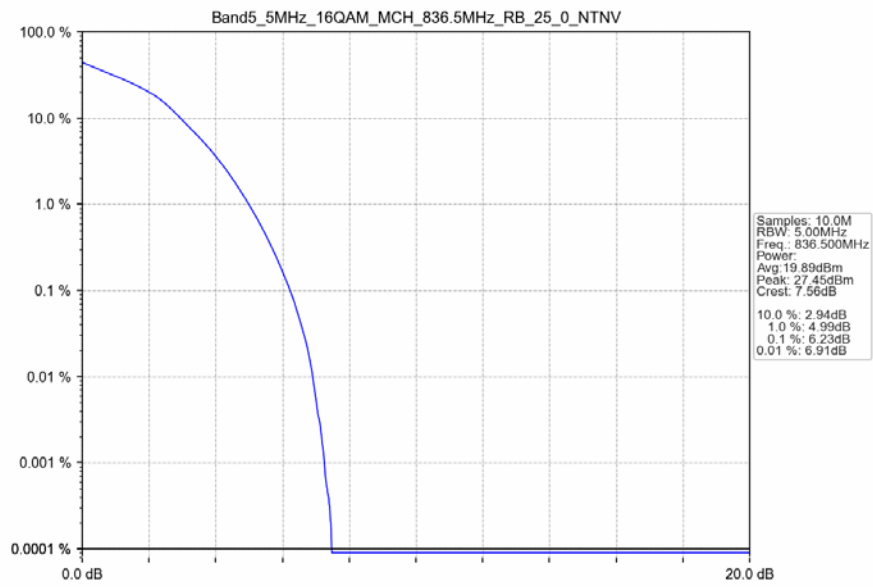
# Band5\_5MHz\_QPSK\_HCH\_846.5MHz\_RB\_25\_0\_NTNV



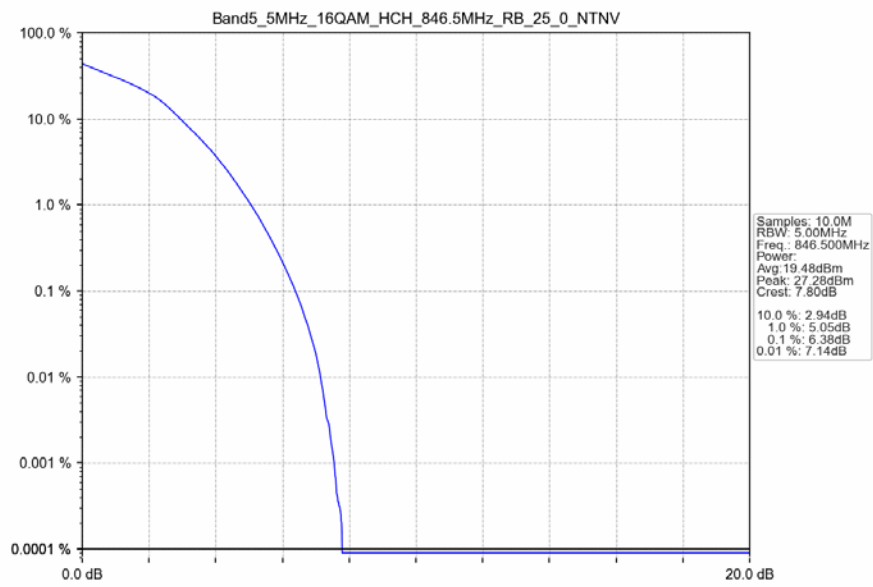
# Band5\_5MHz\_16QAM\_LCH\_826.5MHz\_RB\_25\_0\_NTNV



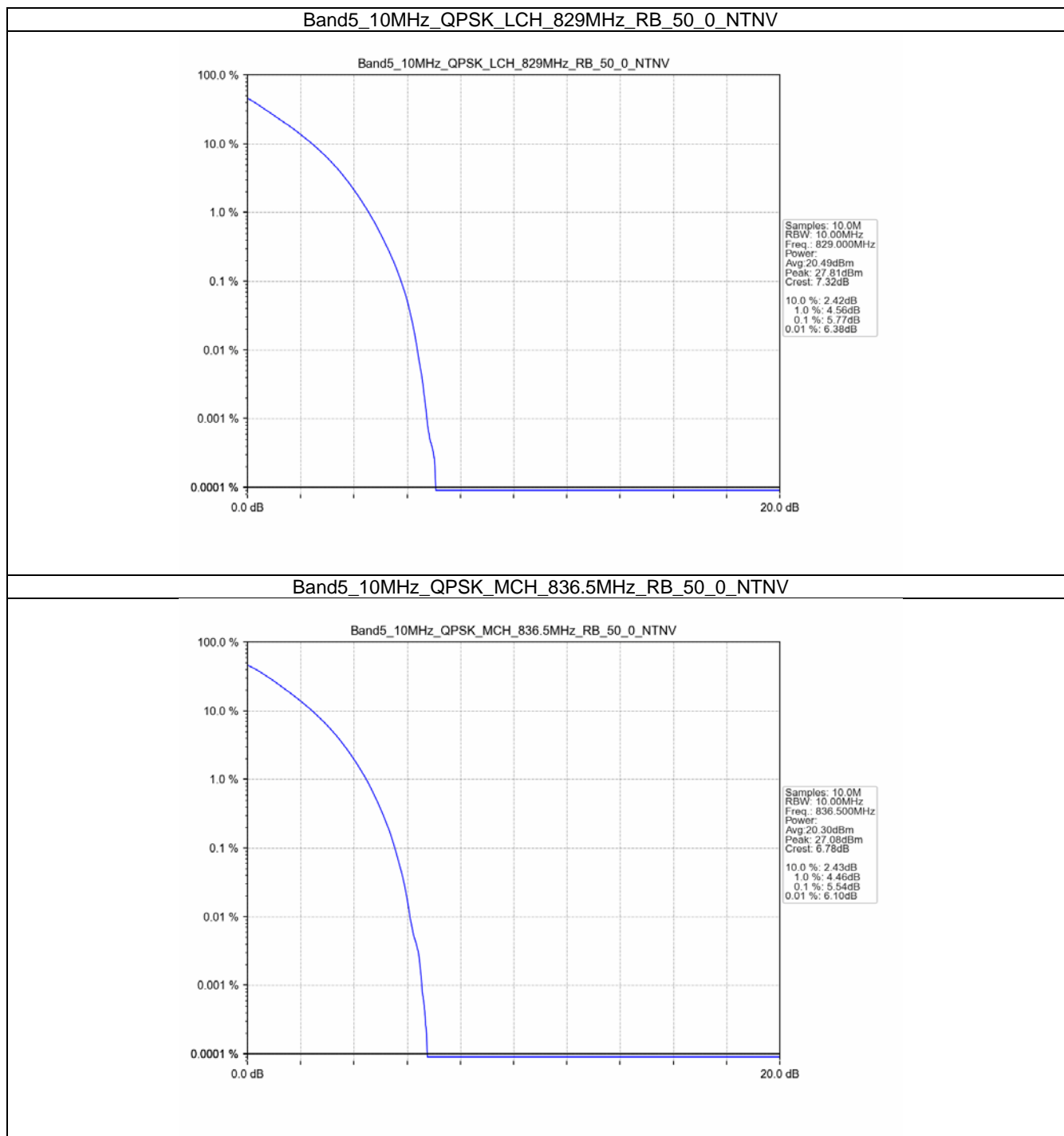
# Band5\_5MHz\_16QAM\_MCH\_836.5MHz\_RB\_25\_0\_NTNV



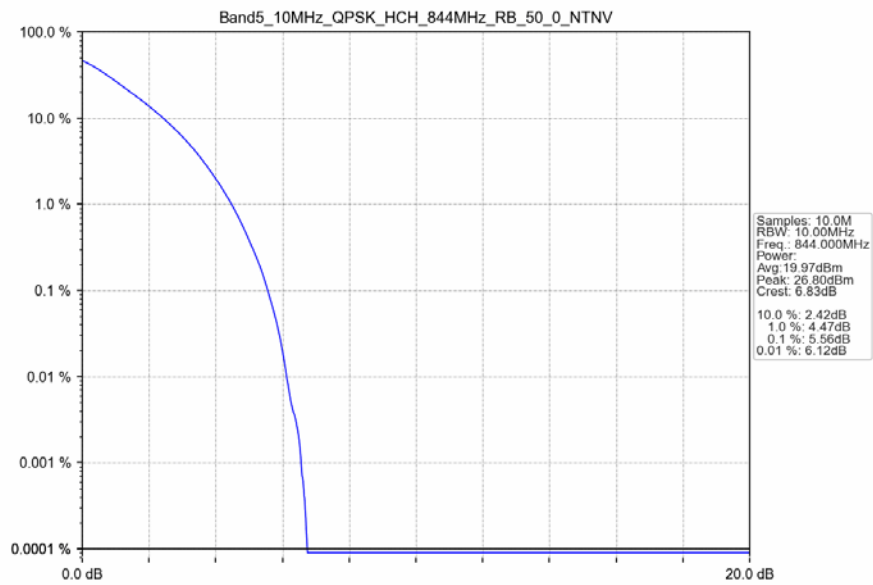
# Band5\_5MHz\_16QAM\_HCH\_846.5MHz\_RB\_25\_0\_NTNV



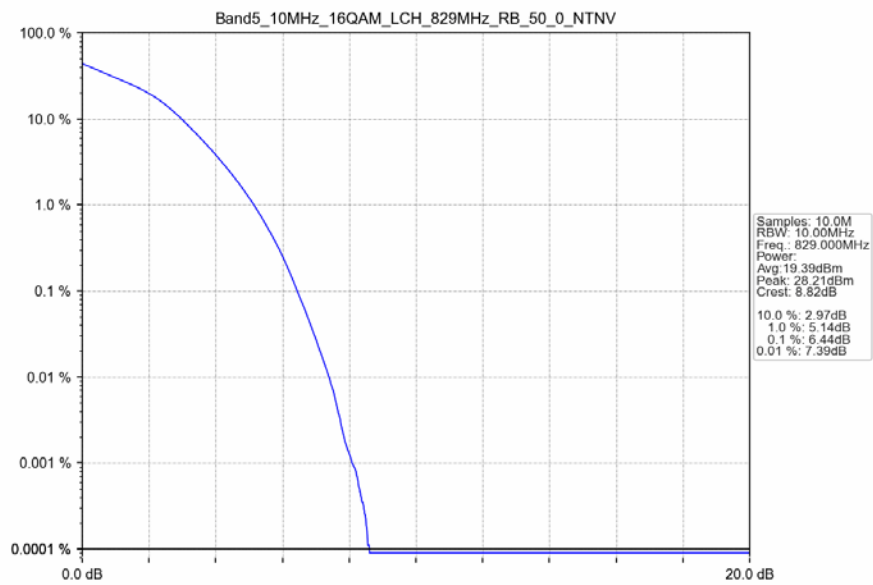
#### 4.2.4 B5\_10MHz



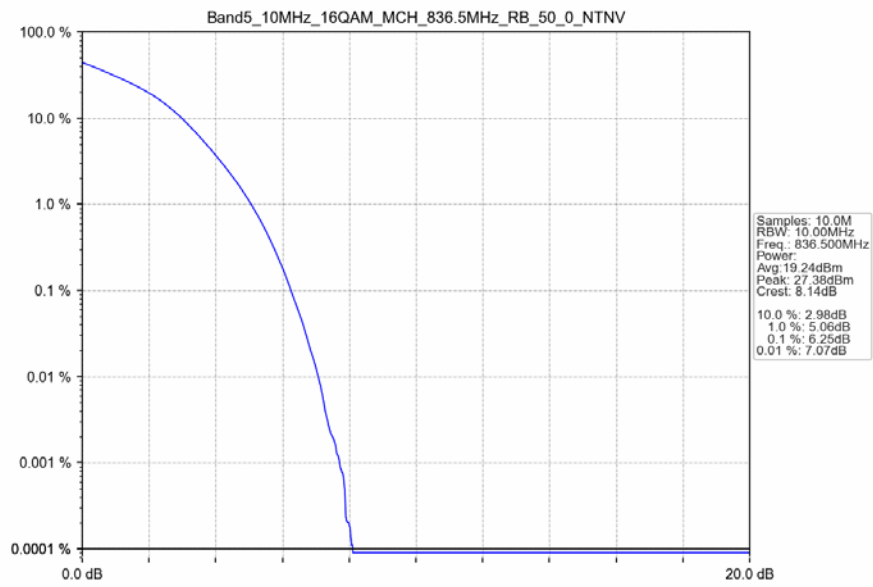
# Band5\_10MHz\_QPSK\_HCH\_844MHz\_RB\_50\_0\_NTNV



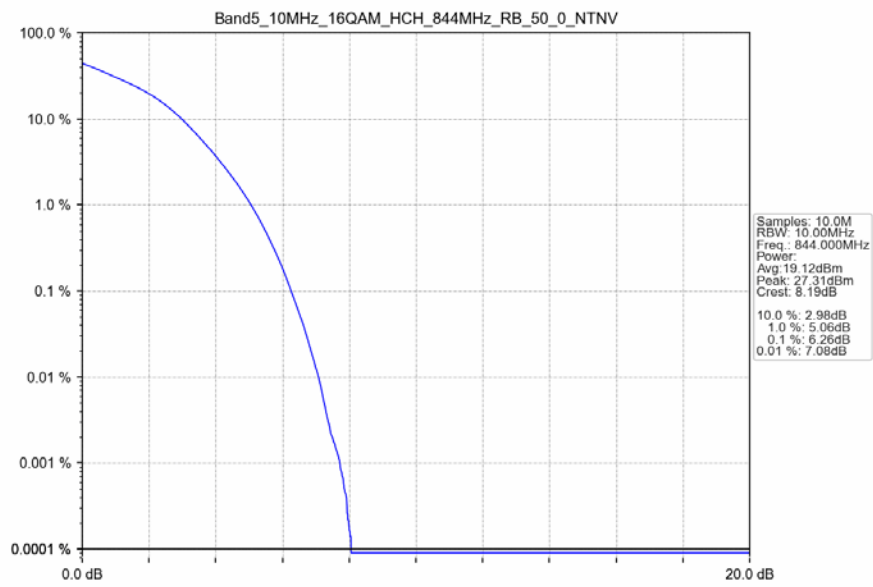
# Band5\_10MHz\_16QAM\_LCH\_829MHz\_RB\_50\_0\_NTNV



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



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



## 5. Spurious Emission

### 5.1 Test Result

#### 5.1.1 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
		848.3	1	0	Refer To Test Graph	
	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
		848.3	1	0	Refer To Test Graph	
	5			Refer To Test Graph		Pass
	6		0	Refer To Test Graph		Pass

#### 5.1.2 B5\_3MHz

Band: 5 / Bandwidth: 3MHz / NTNV						
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
	847.5	1	0	Refer To Test Graph		Pass
			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
	847.5	1	0	Refer To Test Graph		Pass
			14	Refer To Test Graph		Pass
		15	0	Refer To Test Graph		Pass

#### 5.1.3 B5\_5MHz

Band: 5 / Bandwidth: 5MHz / NTNV						
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
	846.5	1	0	Refer To Test Graph		Pass
			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
			24	Refer To Test Graph	Pass
		25	0	Refer To Test Graph	Pass

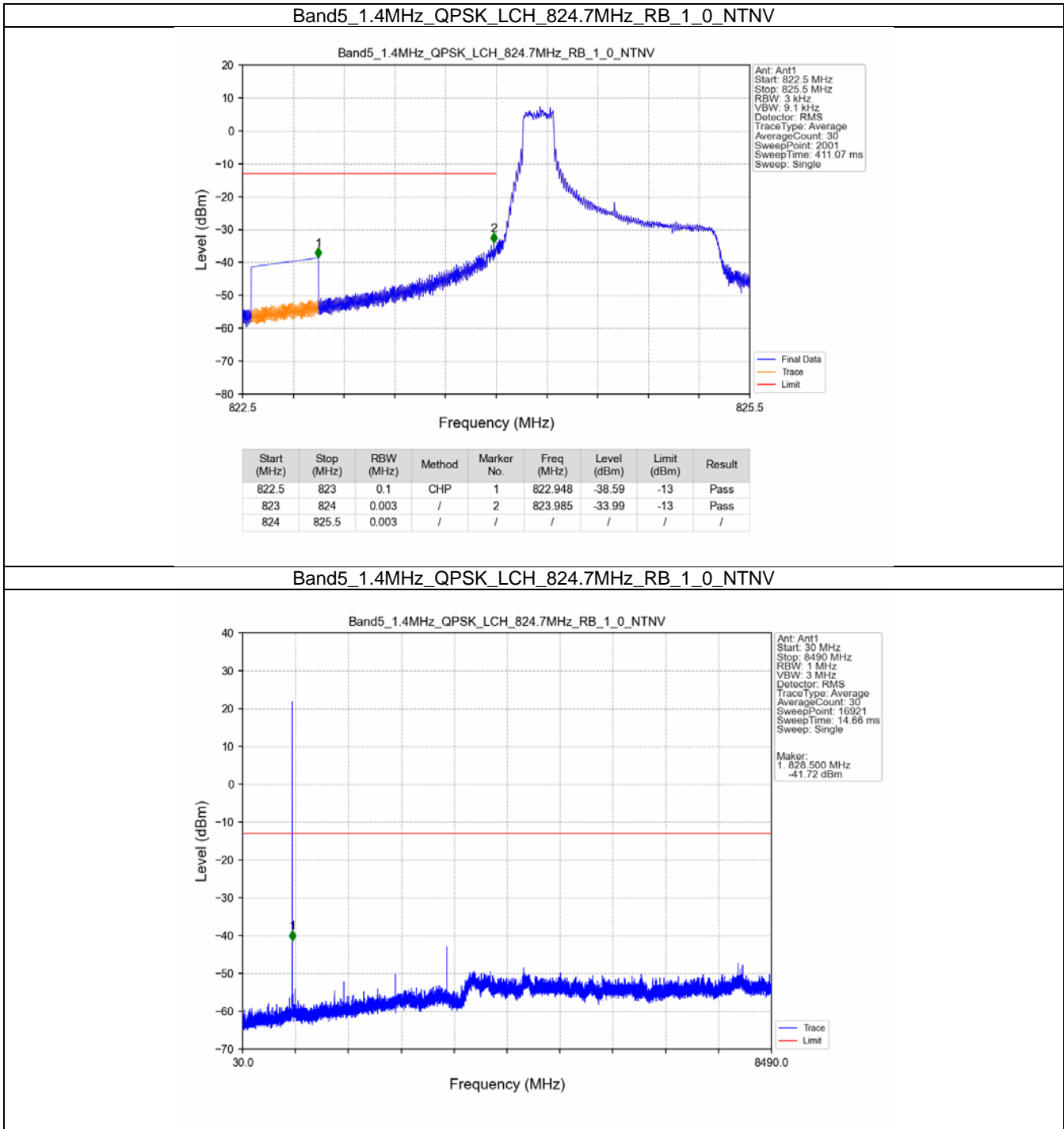
#### 5.1.4 B5\_10MHz

Band: 5 / Bandwidth: 10MHz / NTNV						
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	1	0	Refer To Test Graph		Pass
			49	Refer To Test Graph		Pass
		50	0	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	1	0	Refer To Test Graph		Pass
			49	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass

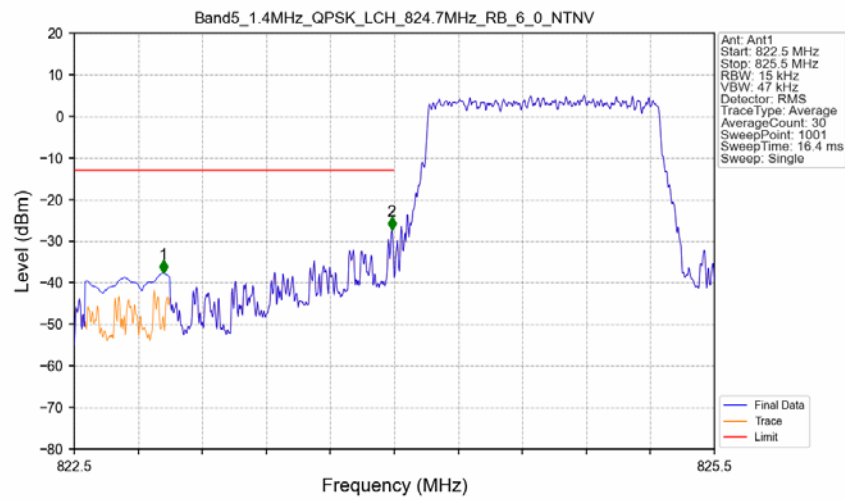


5.2 Test Graph

5.2.1 B5\_1.4MHz

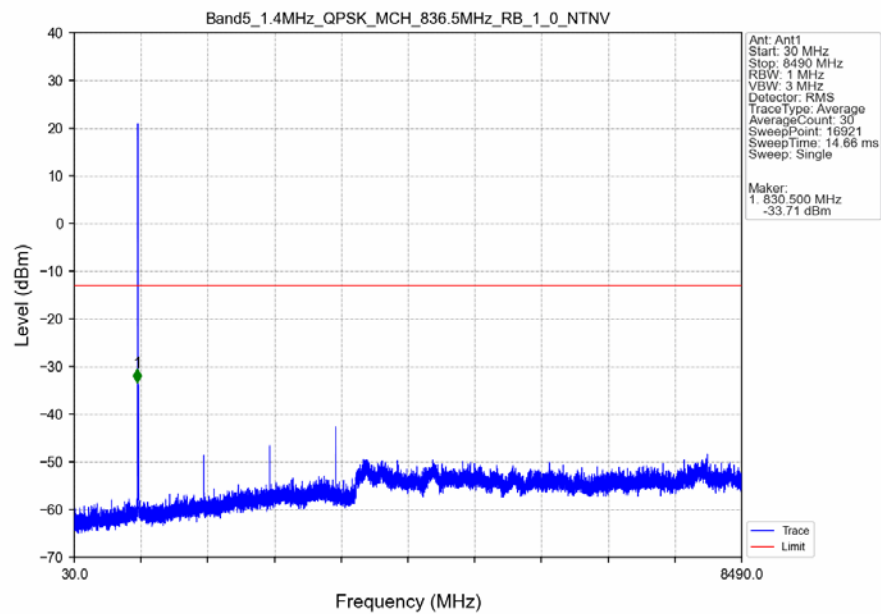


### Band5\_1.4MHz\_QPSK\_LCH\_824.7MHz\_RB\_6\_0\_NTNV

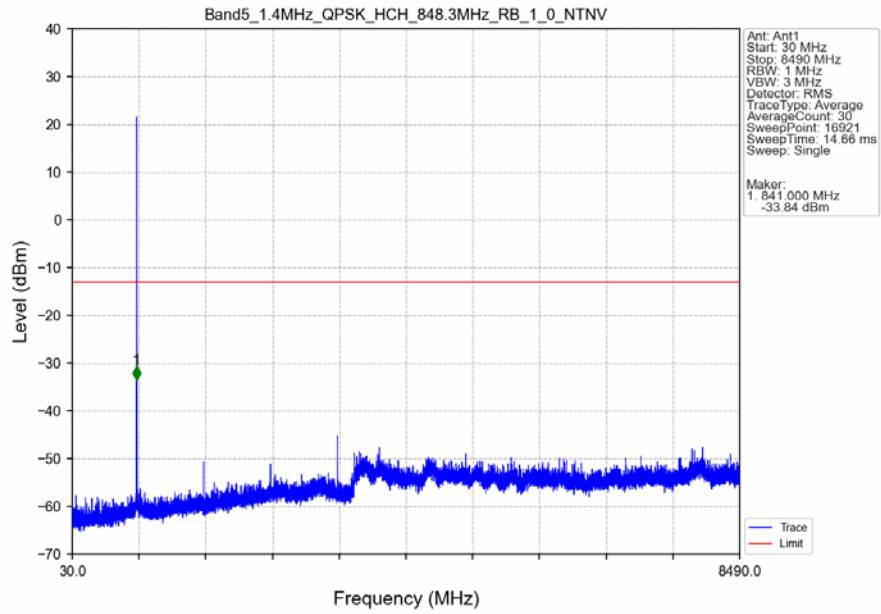


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
822.5	823	0.1	CHP	1	822.917	-37.71	-13	Pass
823	824	0.015	/	2	823.988	-27.32	-13	Pass
824	825.5	0.015	/	/	/	/	/	/

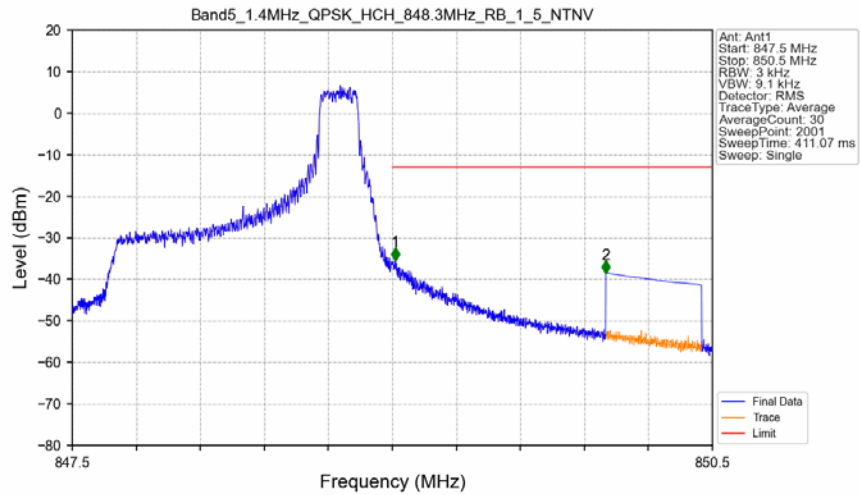
### Band5\_1.4MHz\_QPSK\_MCH\_836.5MHz\_RB\_1\_0\_NTNV



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

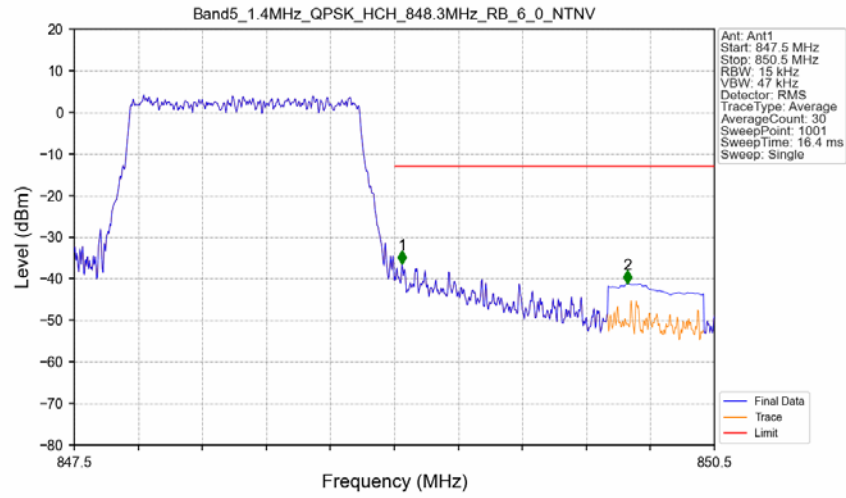


# Band5\_1.4MHz\_QPSK\_HCH\_848.3MHz\_RB\_1\_5\_NTNV



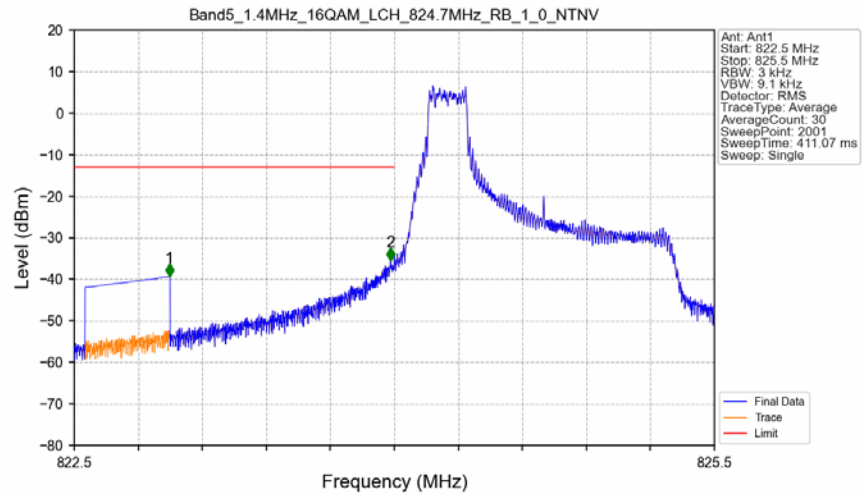
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
847.5	849	0.003	/	/	/	/	/	/
849	850	0.003	/	1	849.014	-35.50	-13	Pass
850	850.5	0.1	CHP	2	850.000	-38.56	-13	Pass

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



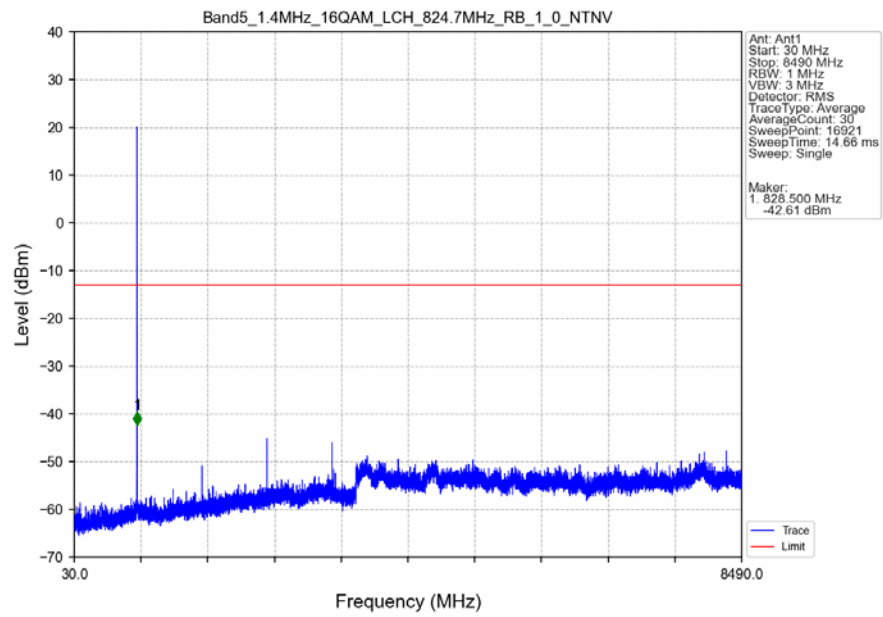
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
847.5	849	0.015	/	/	/	/	/	/
849	850	0.015	/	1	849.036	-36.42	-13	Pass
850	850.5	0.1	CHP	2	850.092	-41.15	-13	Pass

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

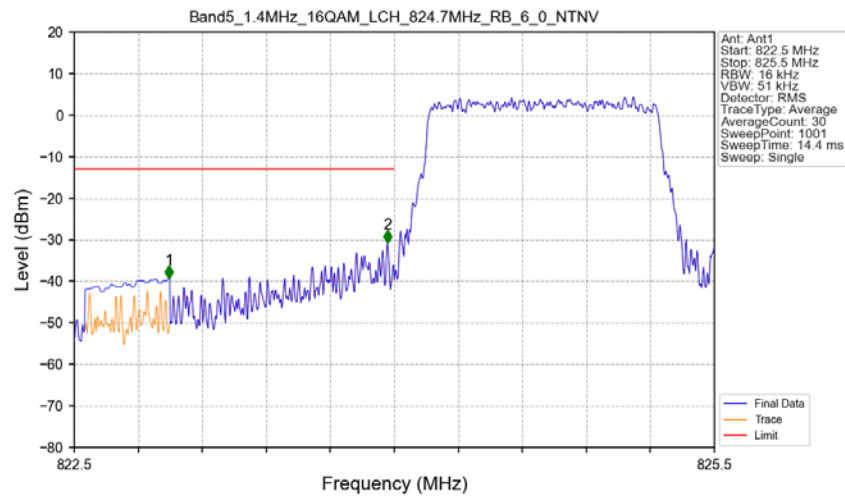


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
822.5	823	0.1	CHP	1	822.946	-39.27	-13	Pass
823	824	0.003	/	2	823.982	-35.53	-13	Pass
824	825.5	0.003	/	/	/	/	/	/

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

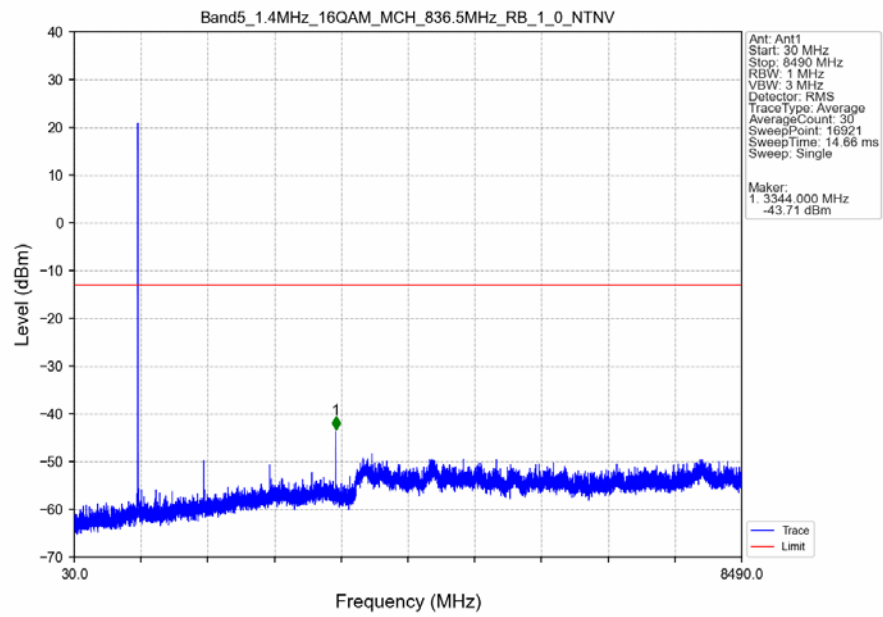


# Band5\_1.4MHz\_16QAM\_LCH\_824.7MHz\_RB\_6\_0\_NTNV

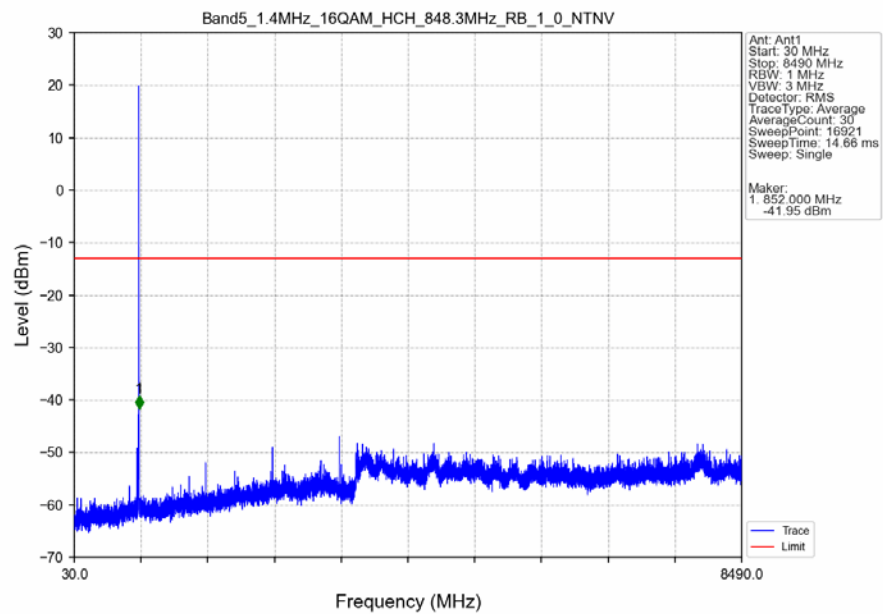


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
822.5	823	0.1	CHP	1	822.944	-39.38	-13	Pass
823	824	0.016	/	2	823.967	-30.82	-13	Pass
824	825.5	0.016	/	/	/	/	/	/

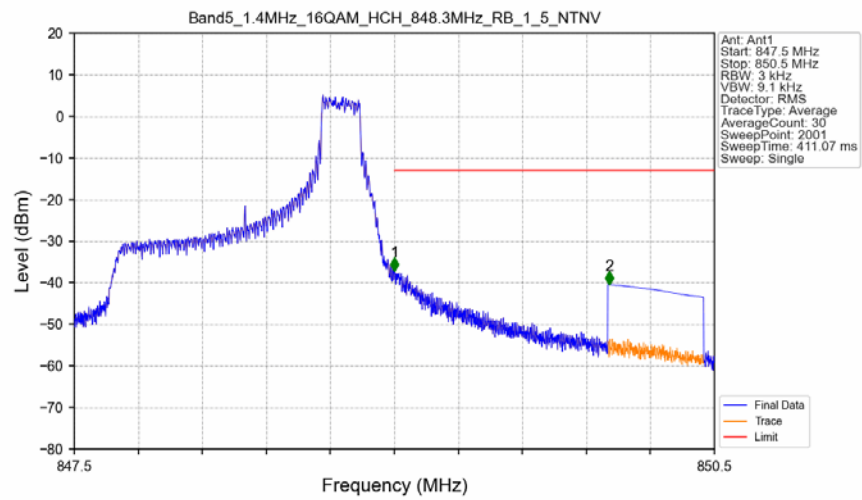
# Band5\_1.4MHz\_16QAM\_MCH\_836.5MHz\_RB\_1\_0\_NTNV



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

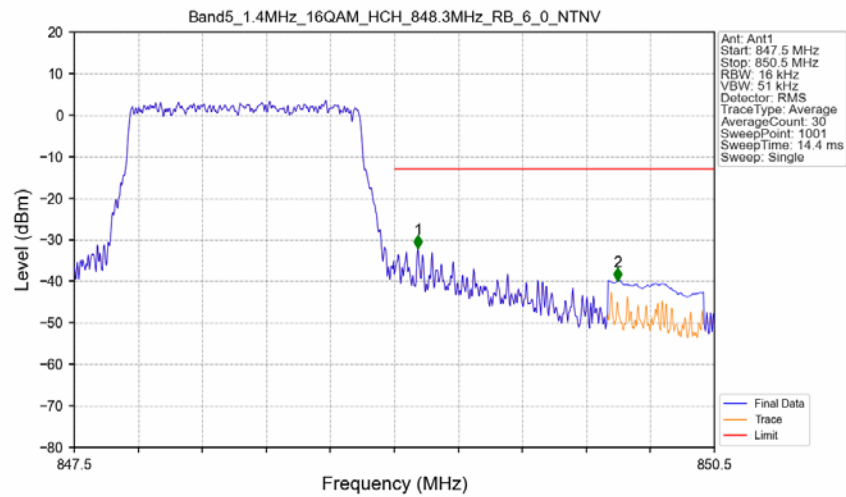


### Band5\_1.4MHz\_16QAM\_HCH\_848.3MHz\_RB\_1\_5\_NTNV



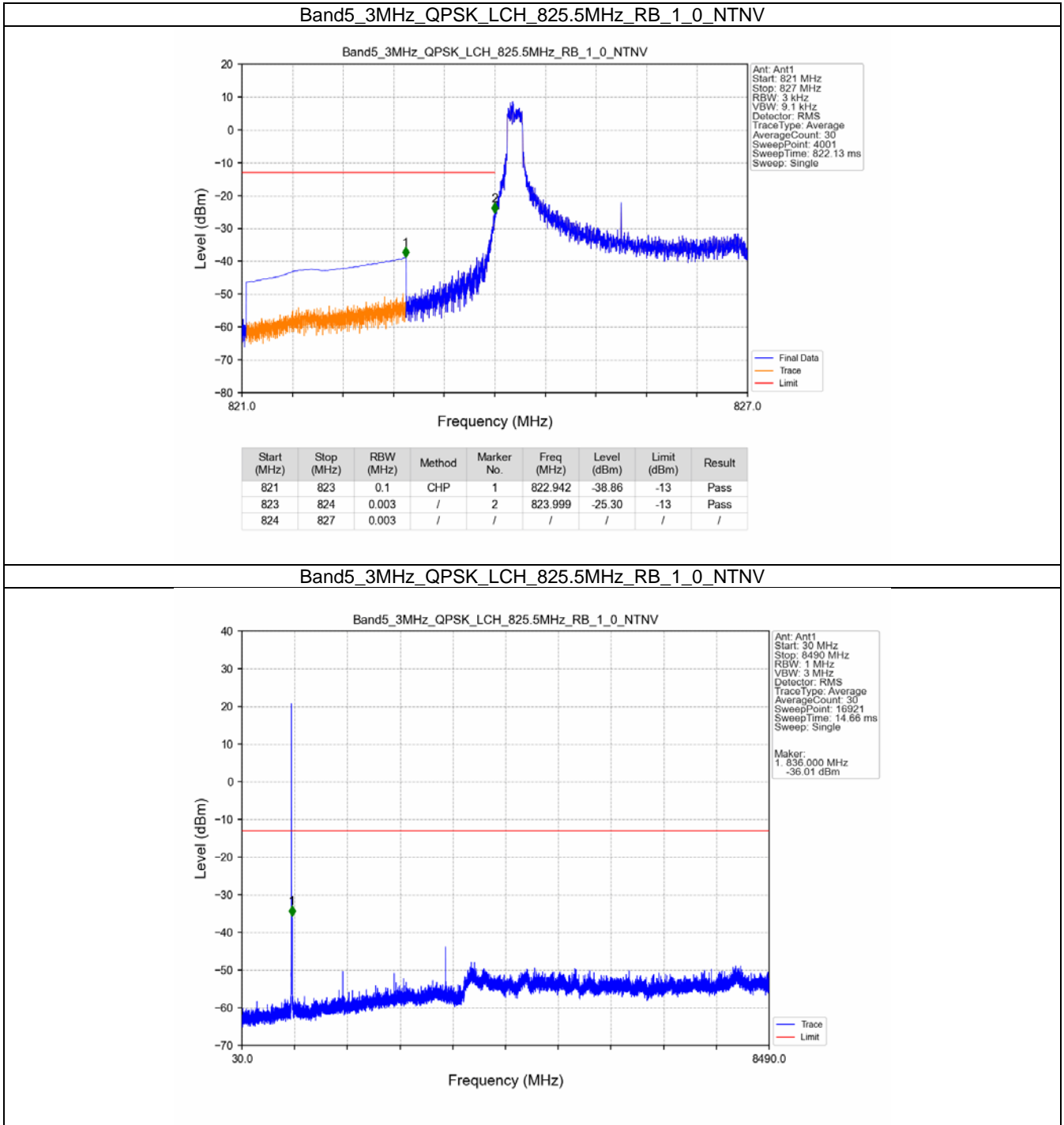
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
847.5	849	0.003	/	/	/	/	/	/
849	850	0.003	/	1	849.001	-37.19	-13	Pass
850	850.5	0.1	CHP	2	850.008	-40.38	-13	Pass

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



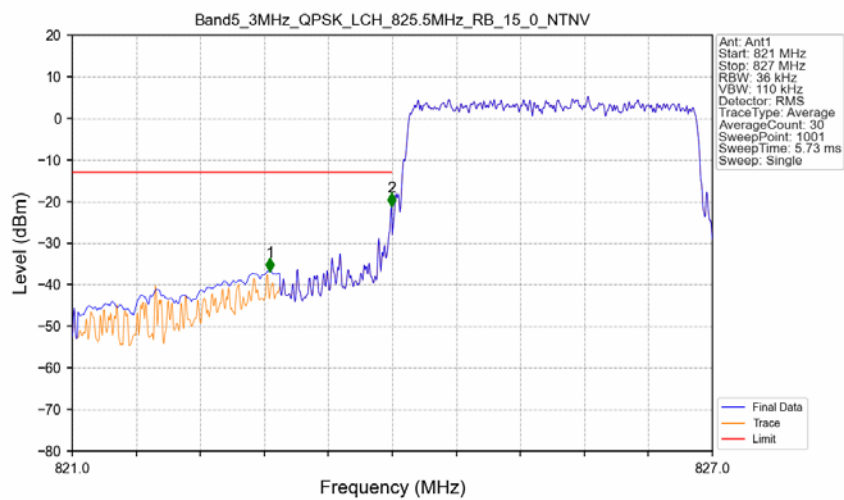
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
847.5	849	0.016	/	/	/	/	/	/
849	850	0.016	/	1	849.111	-32.09	-13	Pass
850	850.5	0.1	CHP	2	850.047	-39.83	-13	Pass

5.2.2 B5\_3MHz



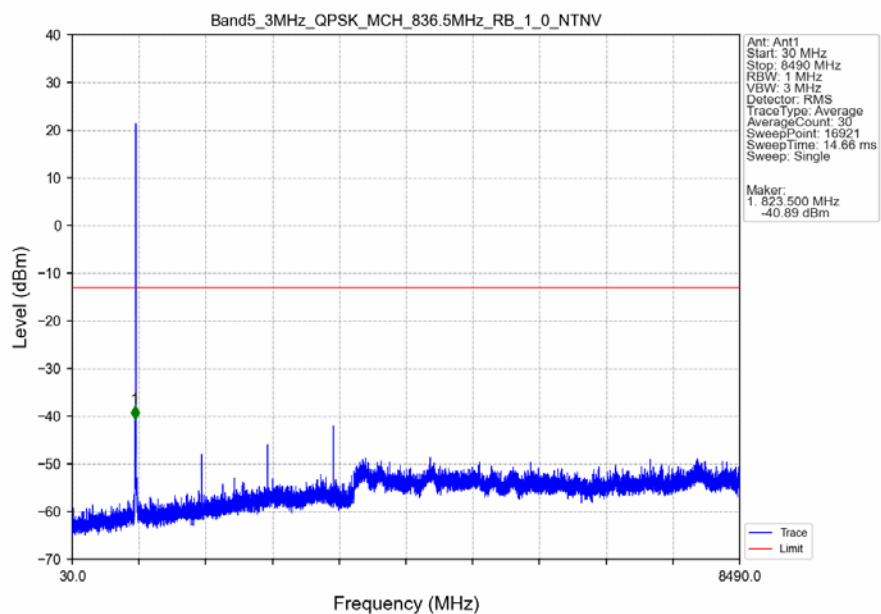


### Band5\_3MHz\_QPSK\_LCH\_825.5MHz\_RB\_15\_0\_NTNV

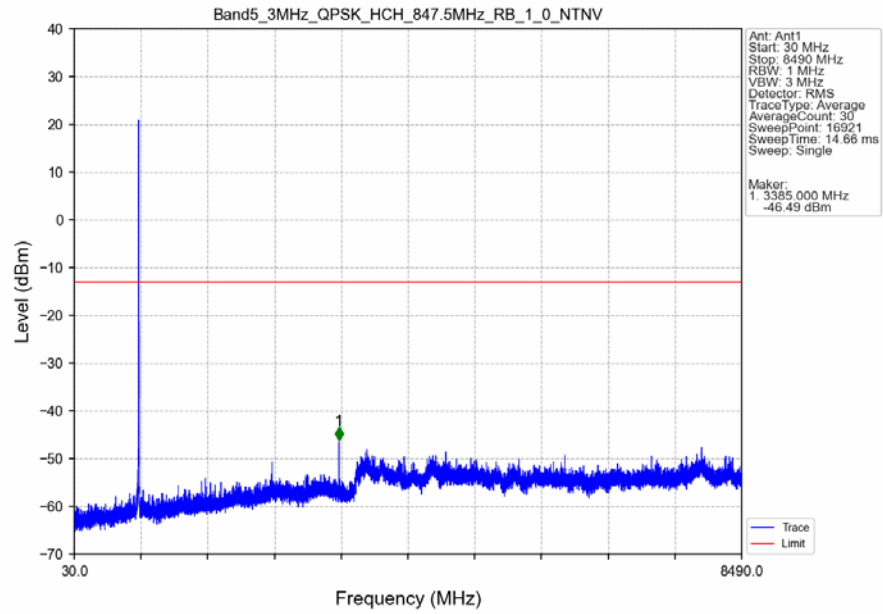


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
821	823	0.1	CHP	1	822.854	-36.71	-13	Pass
823	824	0.036	/	2	823.994	-21.09	-13	Pass
824	827	0.036	/	/	/	/	/	/

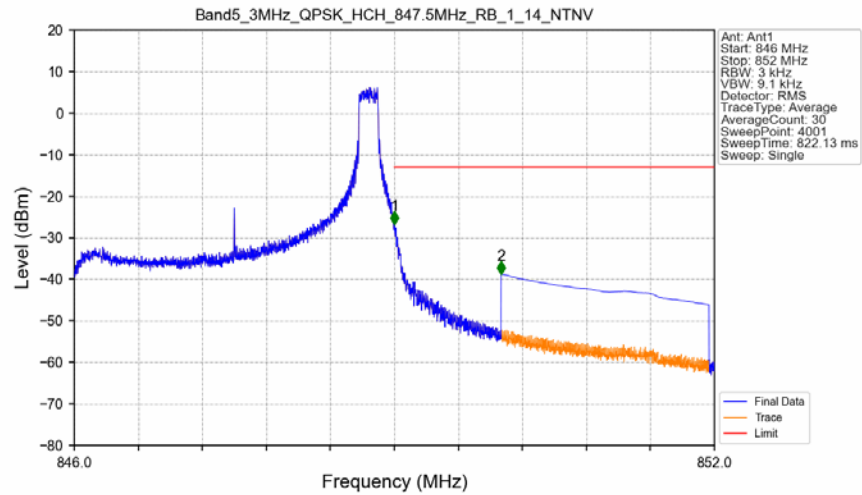
### Band5\_3MHz\_QPSK\_MCH\_836.5MHz\_RB\_1\_0\_NTNV



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

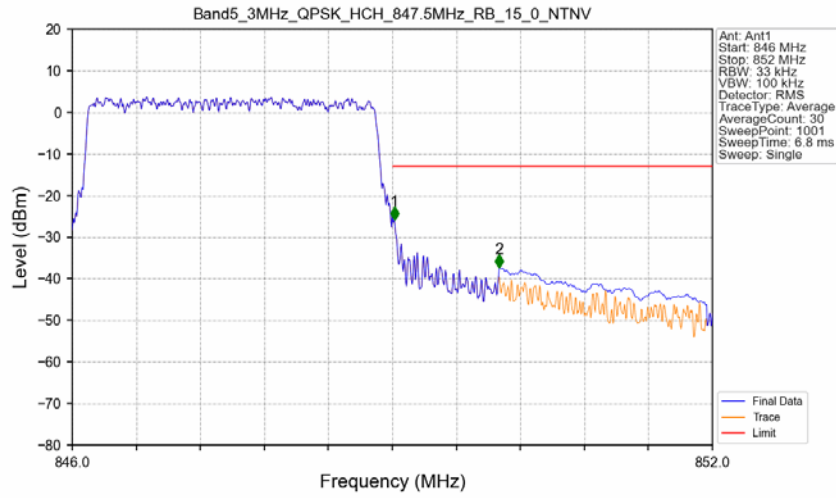


# Band5\_3MHz\_QPSK\_HCH\_847.5MHz\_RB\_1\_14\_NTNV



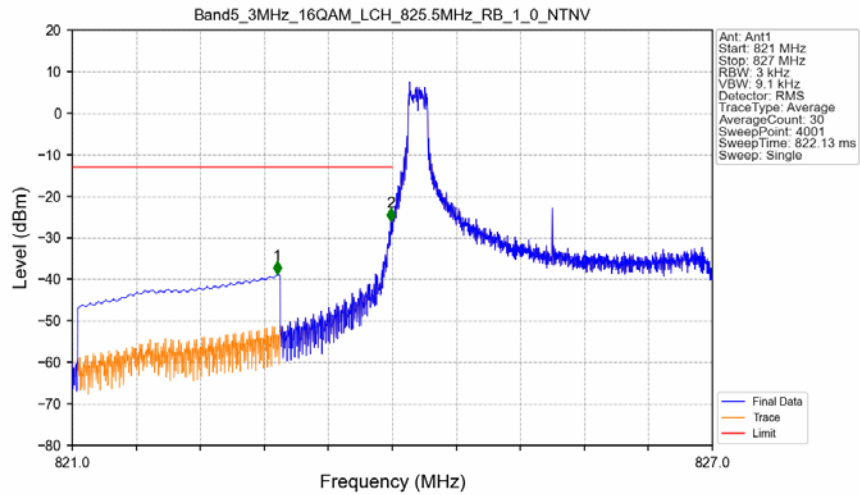
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
846	849	0.003	/	/	/	/	/	/
849	850	0.003	/	1	849.001	-26.83	-13	Pass
850	852	0.1	CHP	2	850.000	-38.78	-13	Pass

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



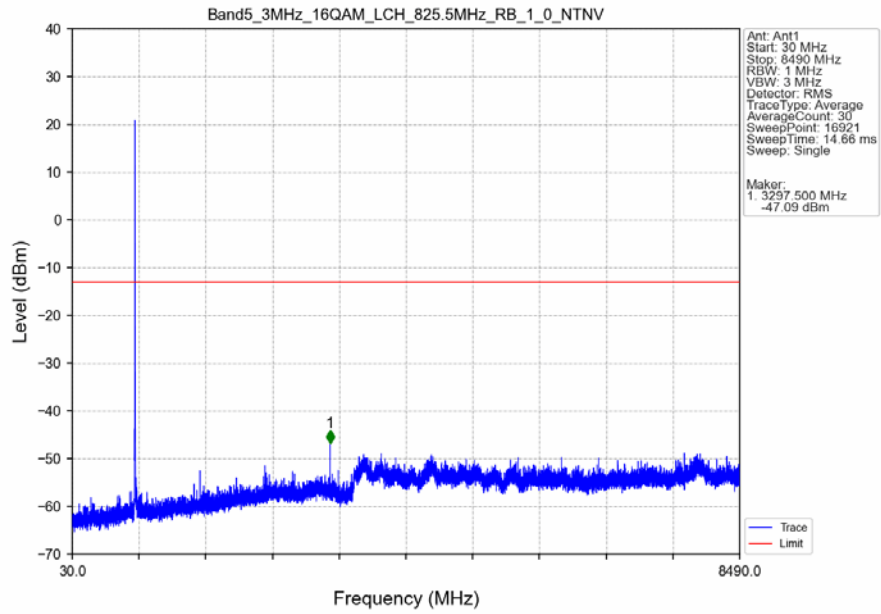
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
846	849	0.033	/	/	/	/	/	/
849	850	0.033	/	1	849.018	-25.88	-13	Pass
850	852	0.1	CHP	2	850.002	-37.34	-13	Pass

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

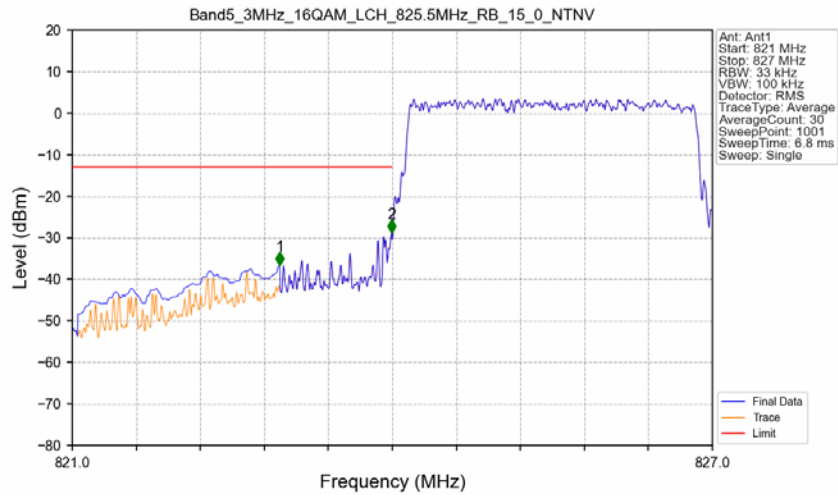


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
821	823	0.1	CHP	1	822.922	-38.75	-13	Pass
823	824	0.003	/	2	823.986	-26.04	-13	Pass
824	827	0.003	/	/	/	/	/	/

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

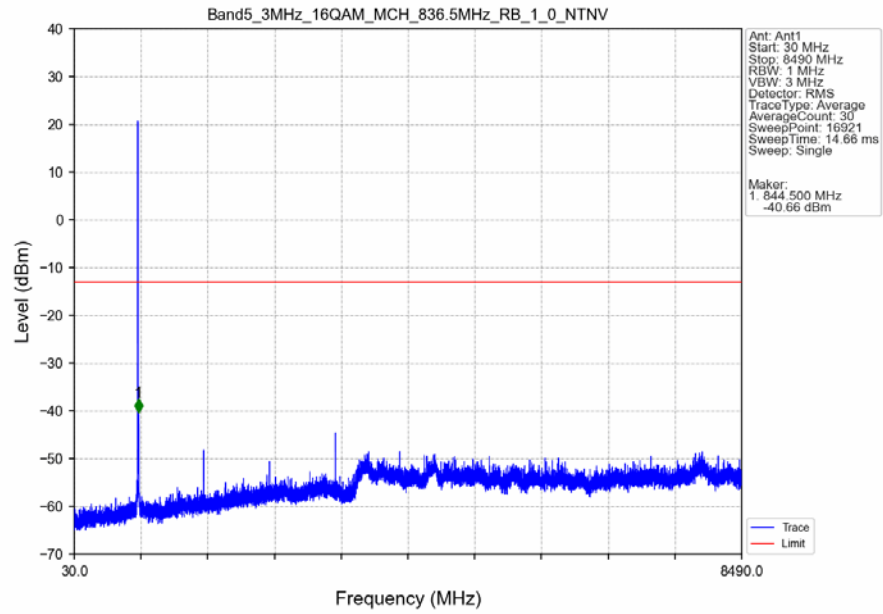


### Band5\_3MHz\_16QAM\_LCH\_825.5MHz\_RB\_15\_0\_NTNV

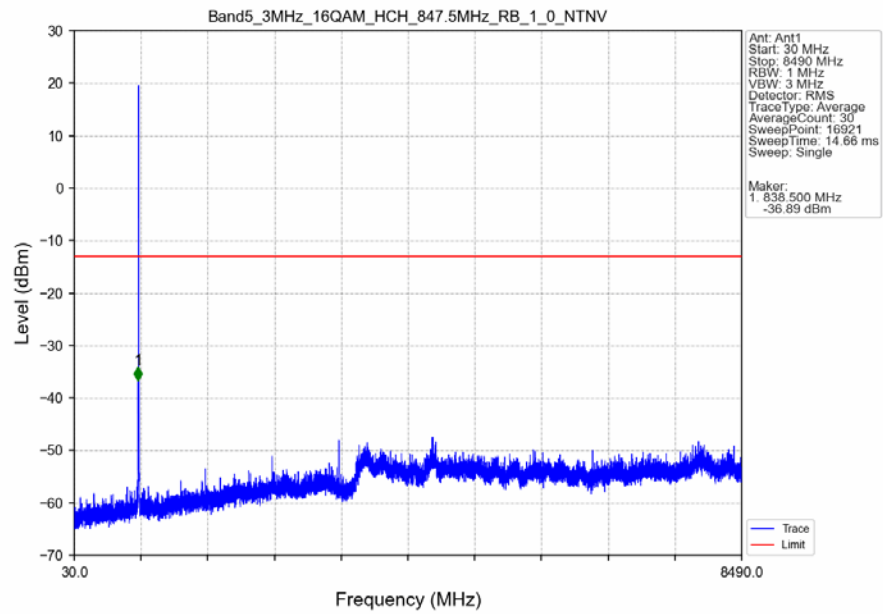


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
821	823	0.1	CHP	1	822.944	-36.63	-13	Pass
823	824	0.033	/	2	823.994	-28.68	-13	Pass
824	827	0.033	/	/	/	/	/	/

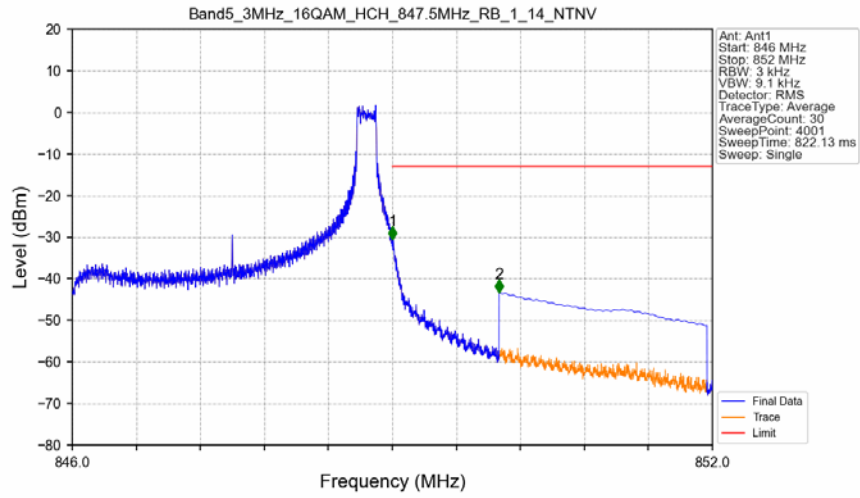
# Band5\_3MHz\_16QAM\_MCH\_836.5MHz\_RB\_1\_0\_NTNV



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

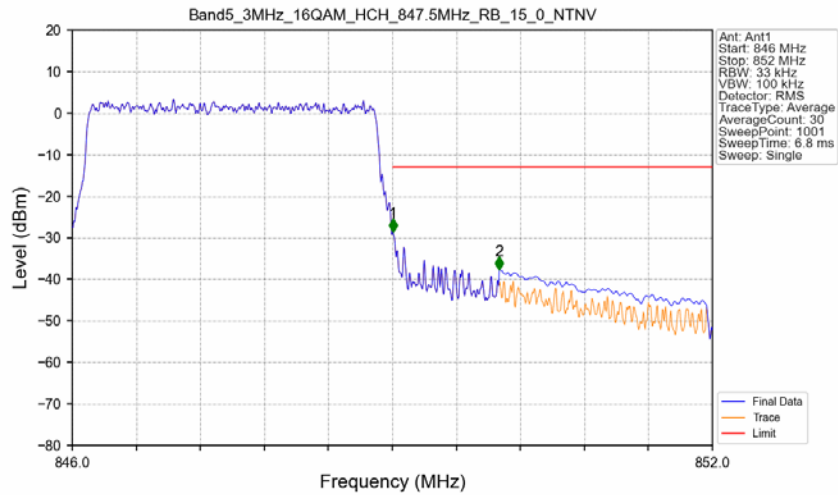


# Band5\_3MHz\_16QAM\_HCH\_847.5MHz\_RB\_1\_14\_NTNV



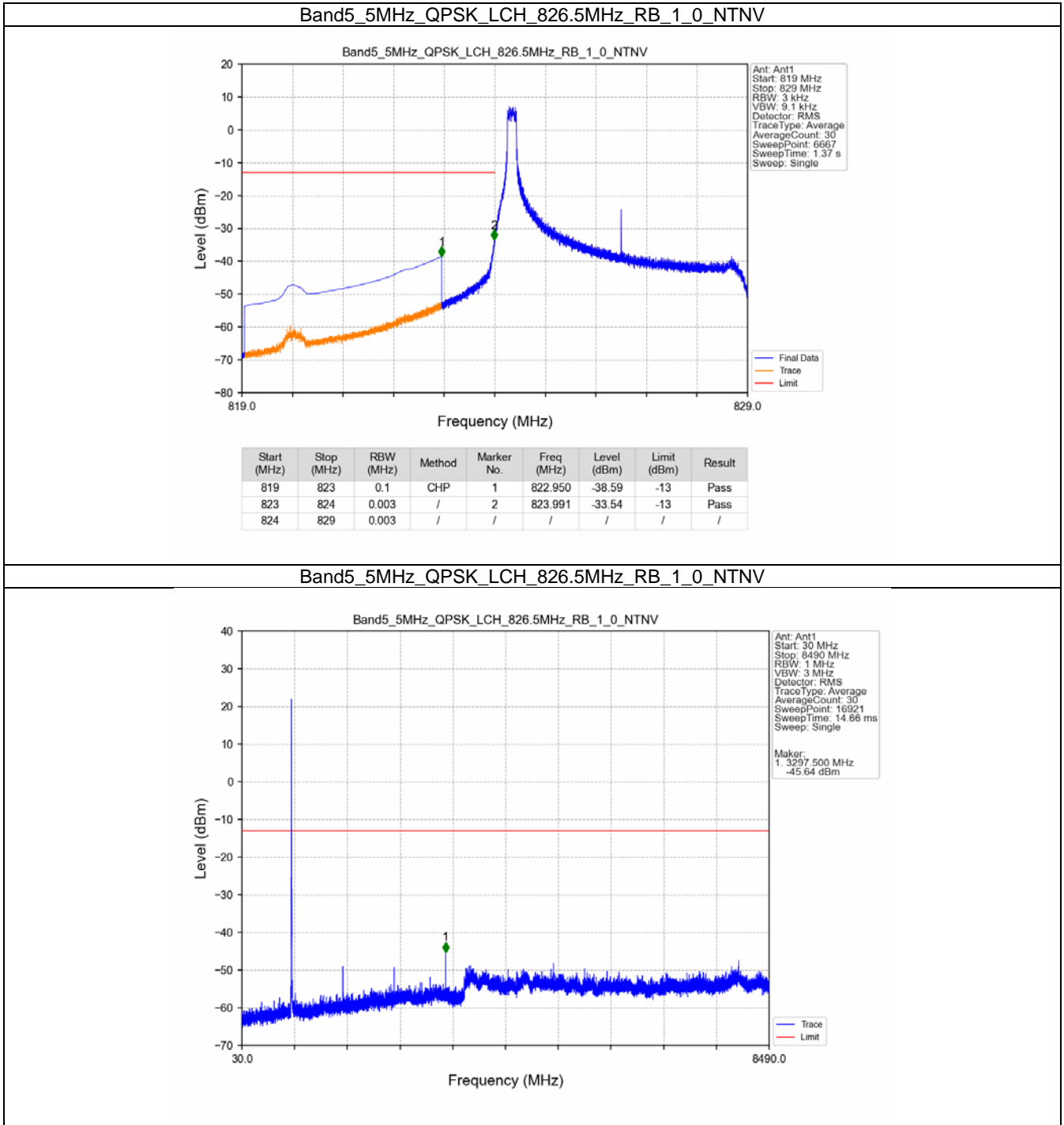
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
846	849	0.003	/	/	/	/	/	/
849	850	0.003	/	1	849.003	-30.56	-13	Pass
850	852	0.1	CHP	2	850.000	-43.32	-13	Pass

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

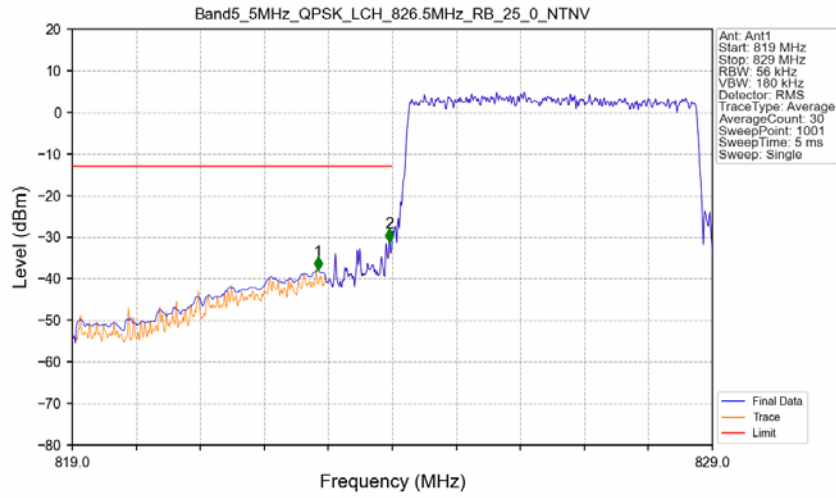


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
846	849	0.033	/	/	/	/	/	/
849	850	0.033	/	1	849.006	-28.58	-13	Pass
850	852	0.1	CHP	2	850.002	-37.77	-13	Pass

5.2.3 B5\_5MHz

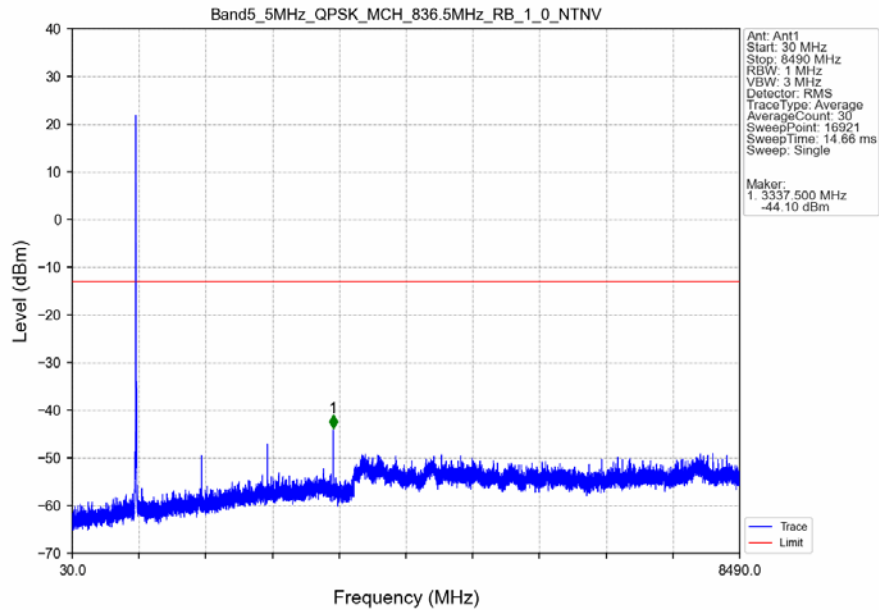


### Band5\_5MHz\_QPSK\_LCH\_826.5MHz\_RB\_25\_0\_NTNV



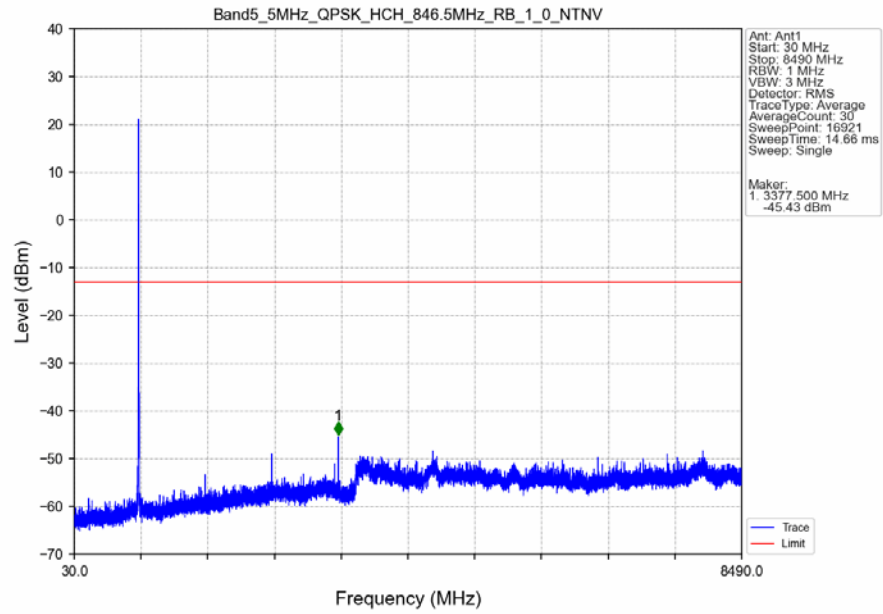
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
819	823	0.1	CHP	1	822.840	-37.88	-13	Pass
823	824	0.056	/	2	823.950	-31.14	-13	Pass
824	829	0.056	/	/	/	/	/	/

### Band5\_5MHz\_QPSK\_MCH\_836.5MHz\_RB\_1\_0\_NTNV

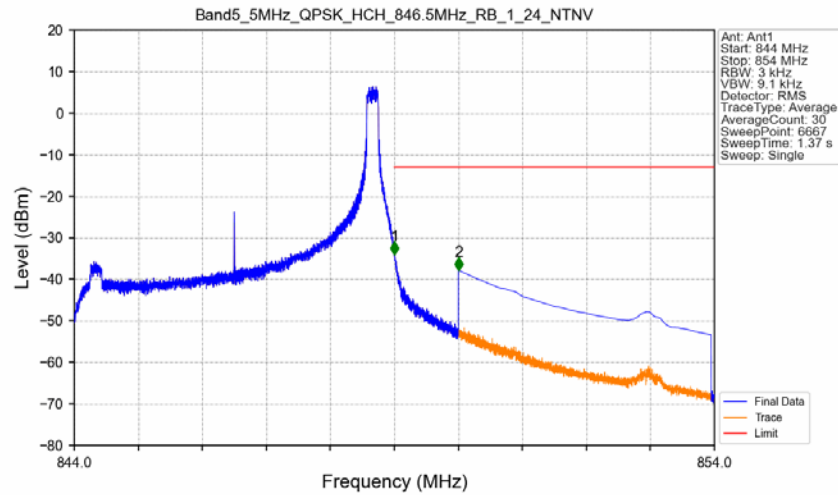




# Band5\_5MHz\_QPSK\_HCH\_846.5MHz\_RB\_1\_0\_NTNV

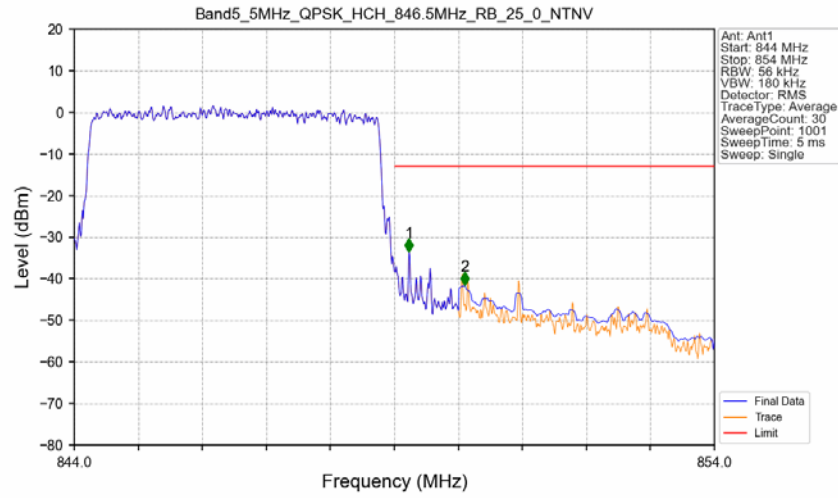


# Band5\_5MHz\_QPSK\_HCH\_846.5MHz\_RB\_1\_24\_NTNV



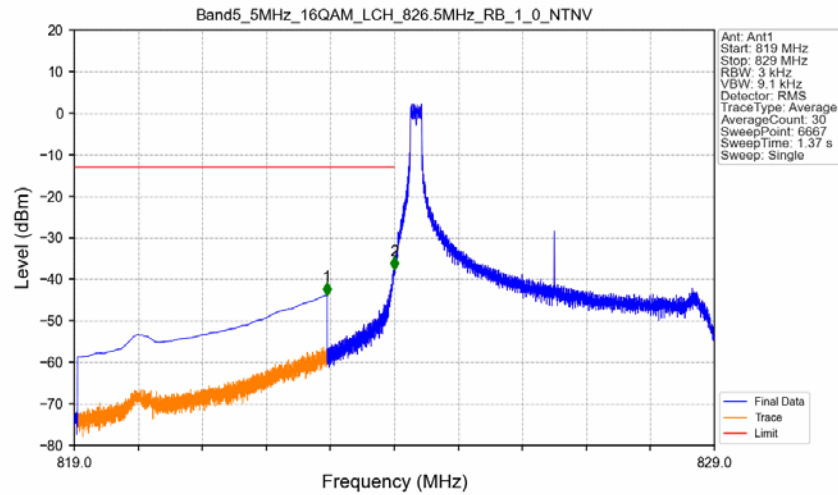
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
844	849	0.003	/	/	/	/	/	/
849	850	0.003	/	1	849.001	-34.08	-13	Pass
850	854	0.1	CHP	2	850.002	-37.86	-13	Pass

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



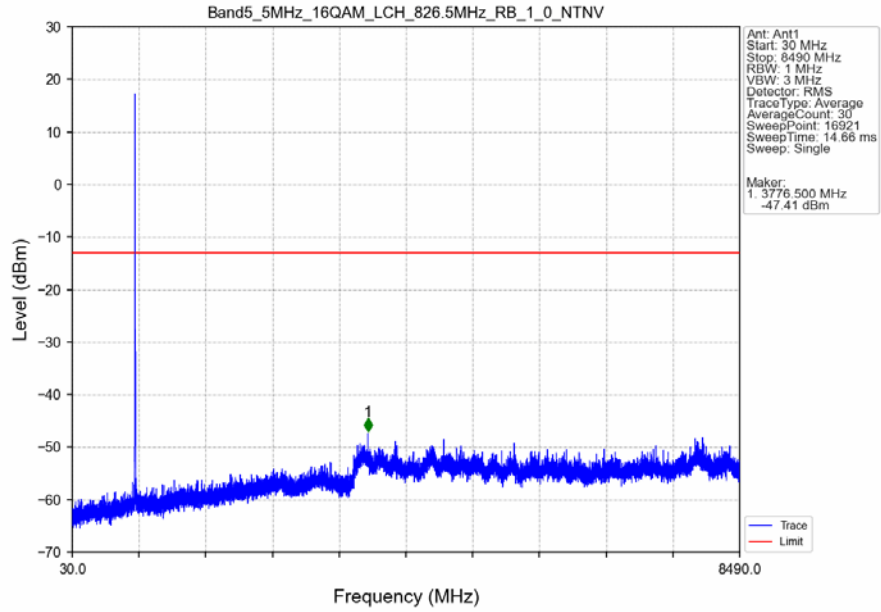
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
844	849	0.056	/	/	/	/	/	/
849	850	0.056	/	1	849.230	-33.46	-13	Pass
850	854	0.1	CHP	2	850.100	-41.47	-13	Pass

# Band5\_5MHz\_16QAM\_LCH\_826.5MHz\_RB\_1\_0\_NTNV

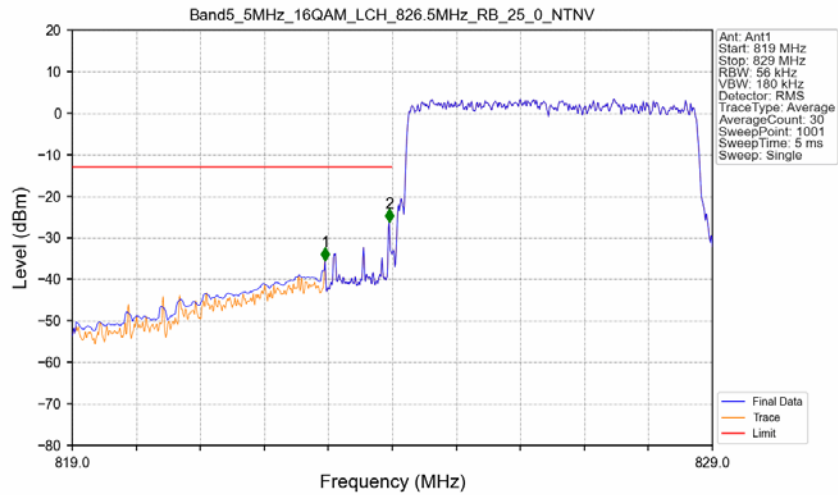


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
819	823	0.1	CHP	1	822.948	-43.83	-13	Pass
823	824	0.003	/	2	823.997	-37.76	-13	Pass
824	829	0.003	/	/	/	/	/	/

### Band5\_5MHz\_16QAM\_LCH\_826.5MHz\_RB\_1\_0\_NTNV



### Band5\_5MHz\_16QAM\_LCH\_826.5MHz\_RB\_25\_0\_NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
819	823	0.1	CHP	1	822.950	-35.52	-13	Pass
823	824	0.056	/	2	823.950	-26.15	-13	Pass
824	829	0.056	/	/	/	/	/	/