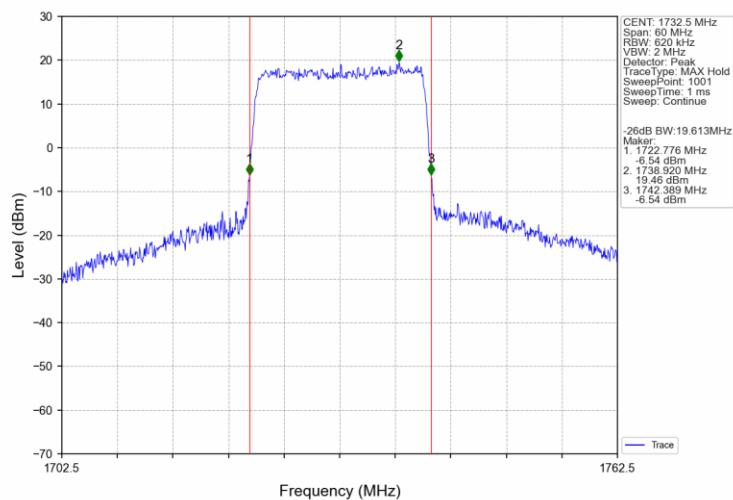
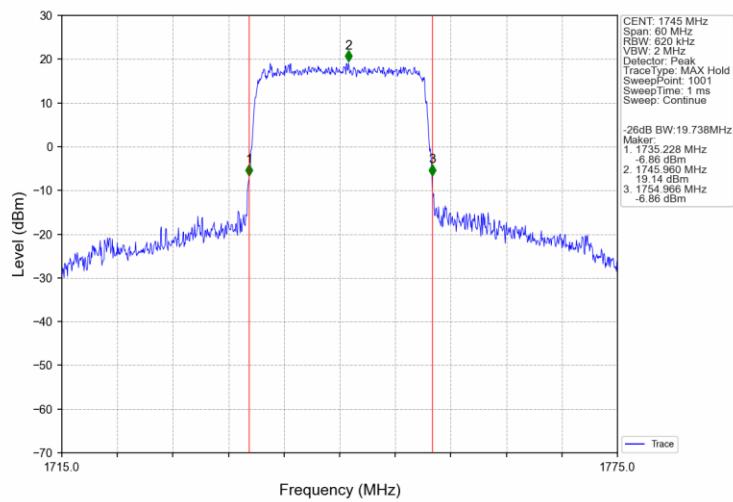


## Band4 20MHz\_16QAM\_MCH\_1732.5MHz\_RB\_100\_0\_NTNV



## Band4 20MHz\_16QAM\_HCH\_1745MHz\_RB\_100\_0\_NTNV



## 5. Peak-Average Ratio

### 5.1 Test Result

#### 5.1.1 B4\_1.4MHz

Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	1710.7	6	0	5.24	<=13	Pass
	1732.5	6	0	5.39	<=13	Pass
	1754.3	6	0	5.39	<=13	Pass
16QAM	1710.7	6	0	6.20	<=13	Pass
	1732.5	6	0	6.17	<=13	Pass
	1754.3	6	0	6.20	<=13	Pass

#### 5.1.2 B4\_3MHz

Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	1711.5	15	0	5.59	<=13	Pass
	1732.5	15	0	5.59	<=13	Pass
	1753.5	15	0	5.59	<=13	Pass
16QAM	1711.5	15	0	6.40	<=13	Pass
	1732.5	15	0	6.48	<=13	Pass
	1753.5	15	0	6.39	<=13	Pass

#### 5.1.3 B4\_5MHz

Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	1712.5	25	0	5.59	<=13	Pass
	1732.5	25	0	5.72	<=13	Pass
	1752.5	25	0	5.65	<=13	Pass
16QAM	1712.5	25	0	6.38	<=13	Pass
	1732.5	25	0	6.40	<=13	Pass
	1752.5	25	0	6.38	<=13	Pass

#### 5.1.4 B4\_10MHz

Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	1715	50	0	5.58	<=13	Pass
	1732.5	50	0	5.66	<=13	Pass
	1750	50	0	5.58	<=13	Pass
16QAM	1715	50	0	6.40	<=13	Pass
	1732.5	50	0	6.46	<=13	Pass
	1750	50	0	6.38	<=13	Pass

#### 5.1.5 B4\_15MHz

Band: 4 / Bandwidth: 15MHz / NTVN				
Modulation	Frequency	RB Allocation	Peak-Average Ratio (dB)	Verdict

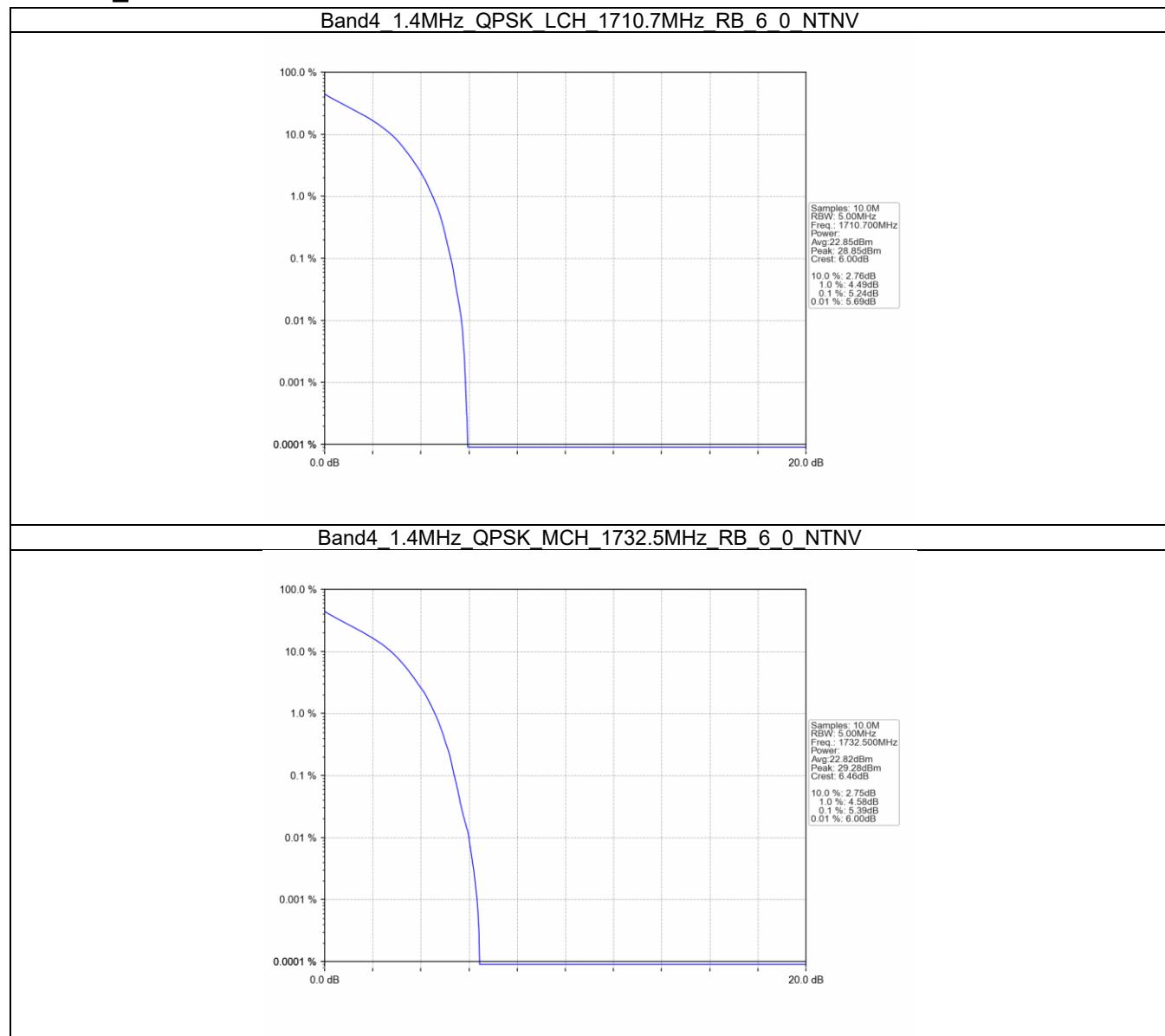
	(MHz)	Size	Offset	Result	Limit	
QPSK	1717.5	75	0	5.16	<=13	Pass
	1732.5	75	0	5.26	<=13	Pass
	1747.5	75	0	5.25	<=13	Pass
16QAM	1717.5	75	0	6.25	<=13	Pass
	1732.5	75	0	6.30	<=13	Pass
	1747.5	75	0	6.26	<=13	Pass

### 5.1.6 B4\_20MHz

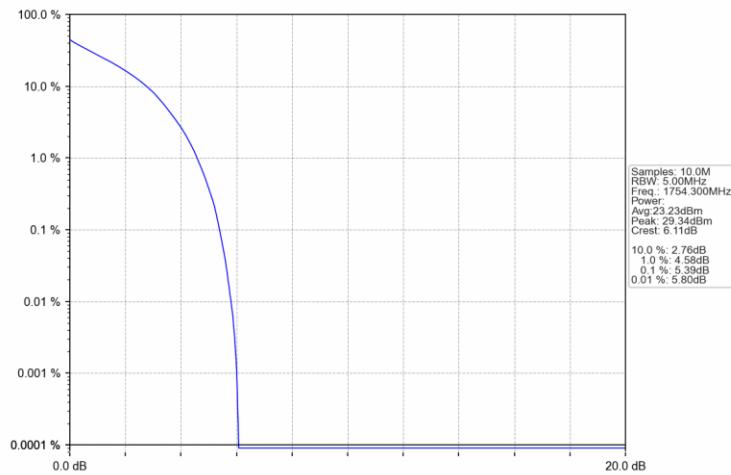
Band: 4 / Bandwidth: 20MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	1720	100	0	5.64	<=13	Pass
	1732.5	100	0	5.69	<=13	Pass
	1745	100	0	5.61	<=13	Pass
16QAM	1720	100	0	6.64	<=13	Pass
	1732.5	100	0	6.71	<=13	Pass
	1745	100	0	6.69	<=13	Pass

## 5.2 Test Graph

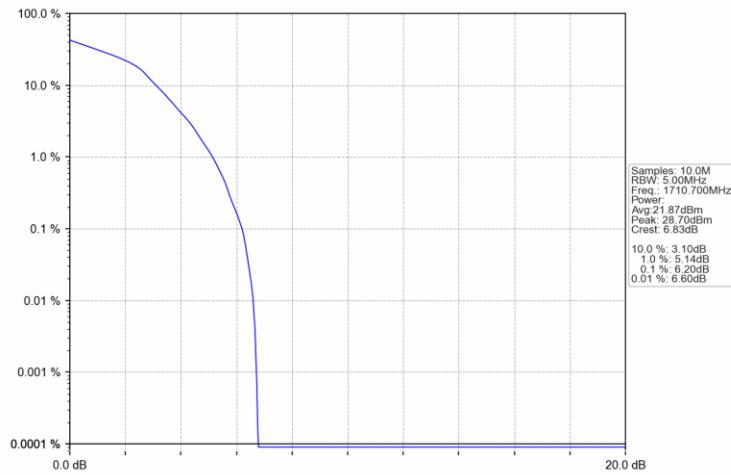
### 5.2.1 B4\_1.4MHz



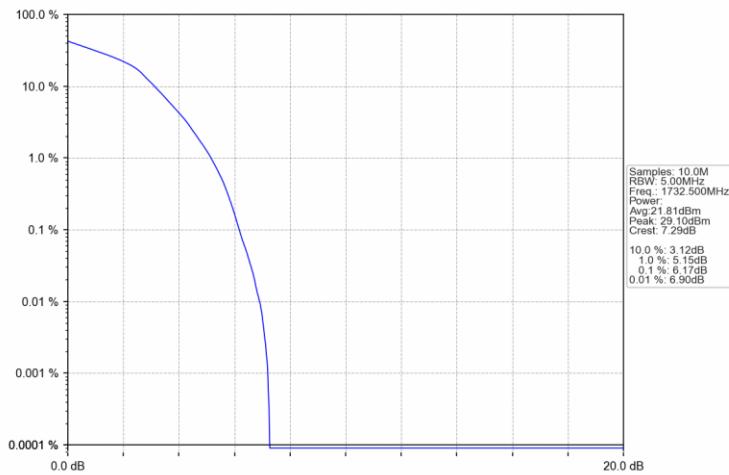
## Band4\_1.4MHz\_QPSK\_HCH\_1754.3MHz\_RB\_6\_0\_NTNV



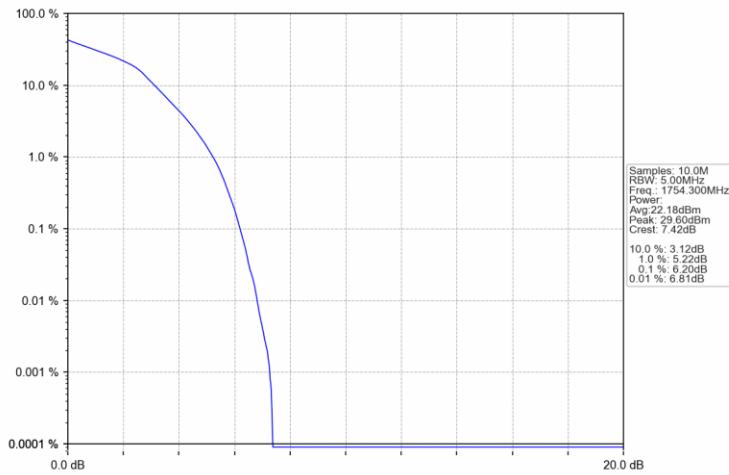
## Band4\_1.4MHz\_16QAM\_LCH\_1710.7MHz\_RB\_6\_0\_NTNV



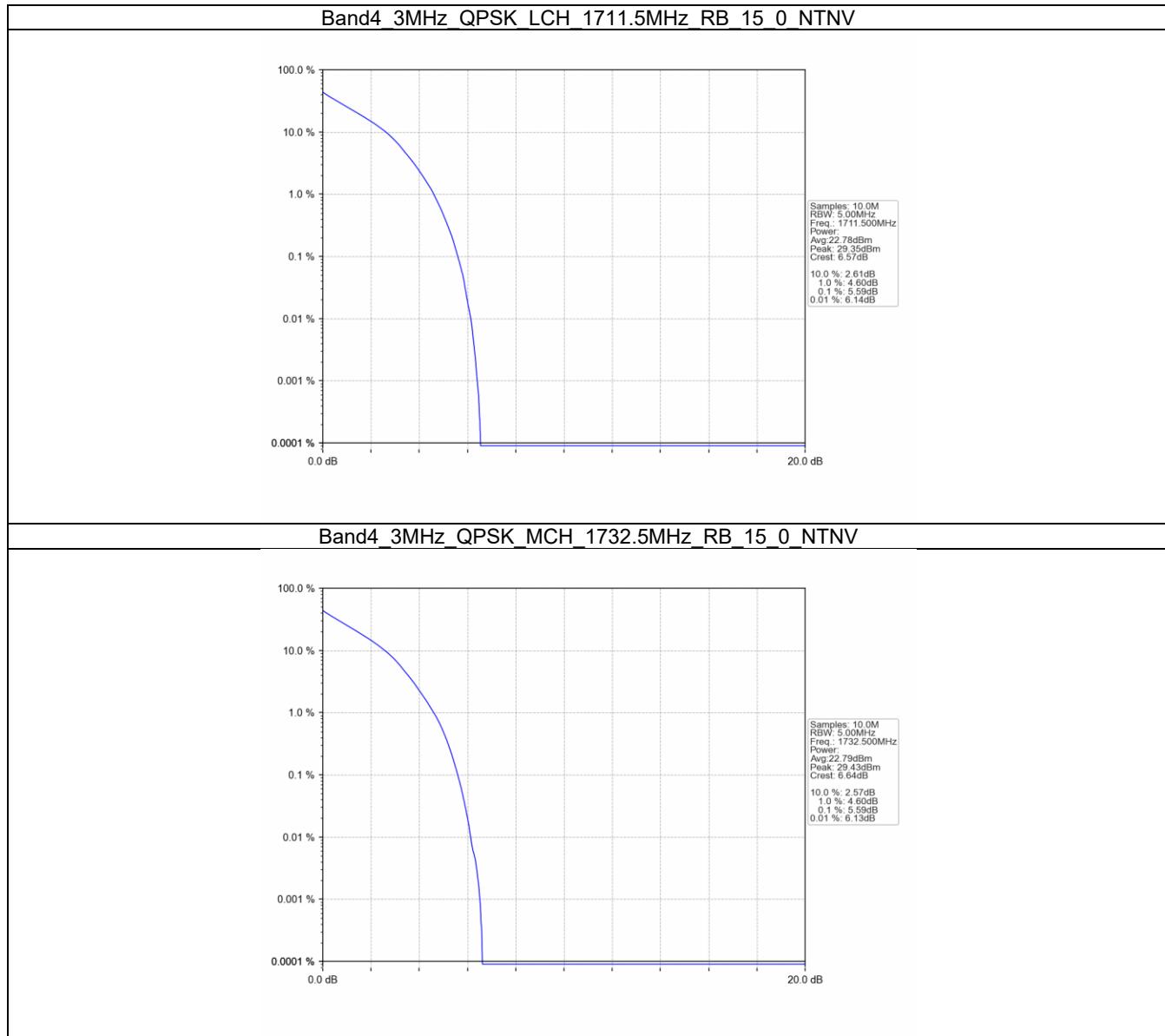
## Band4 1.4MHz 16QAM MCH 1732.5MHz RB 6 0 NTV



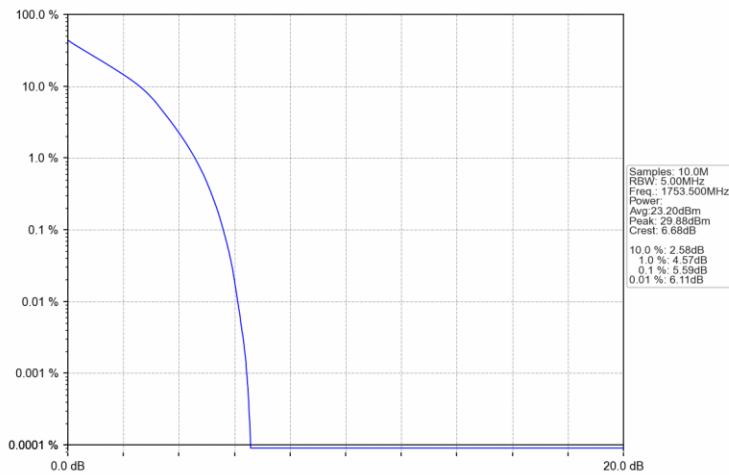
## Band4 1.4MHz 16QAM HCH 1754.3MHz RB 6 0 NTV



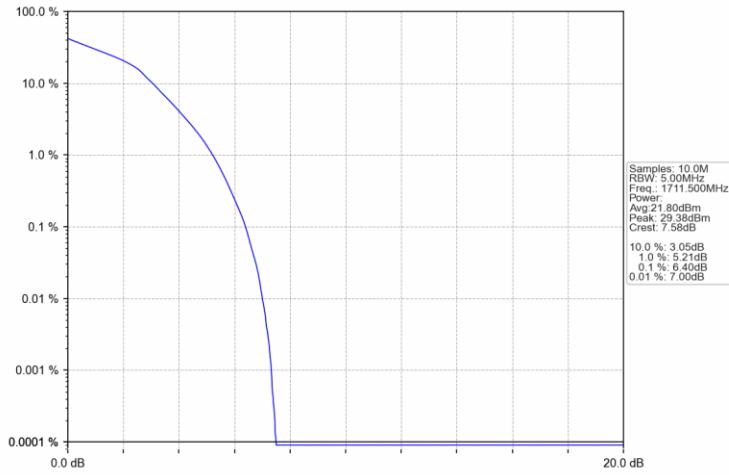
### 5.2.2 B4\_3MHz



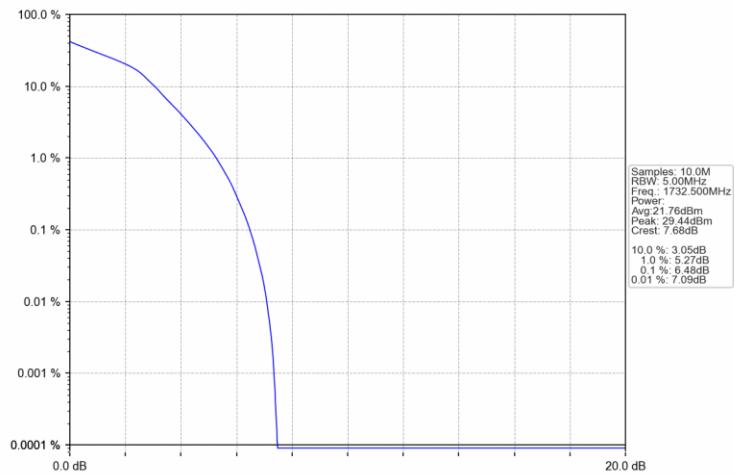
## Band4\_3MHz\_QPSK\_HCH\_1753.5MHz\_RB\_15\_0\_NTNV



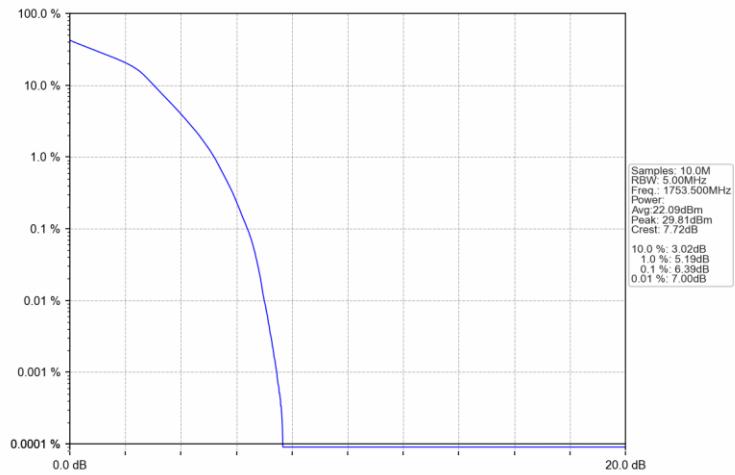
## Band4\_3MHz\_16QAM\_LCH\_1711.5MHz\_RB\_15\_0\_NTNV



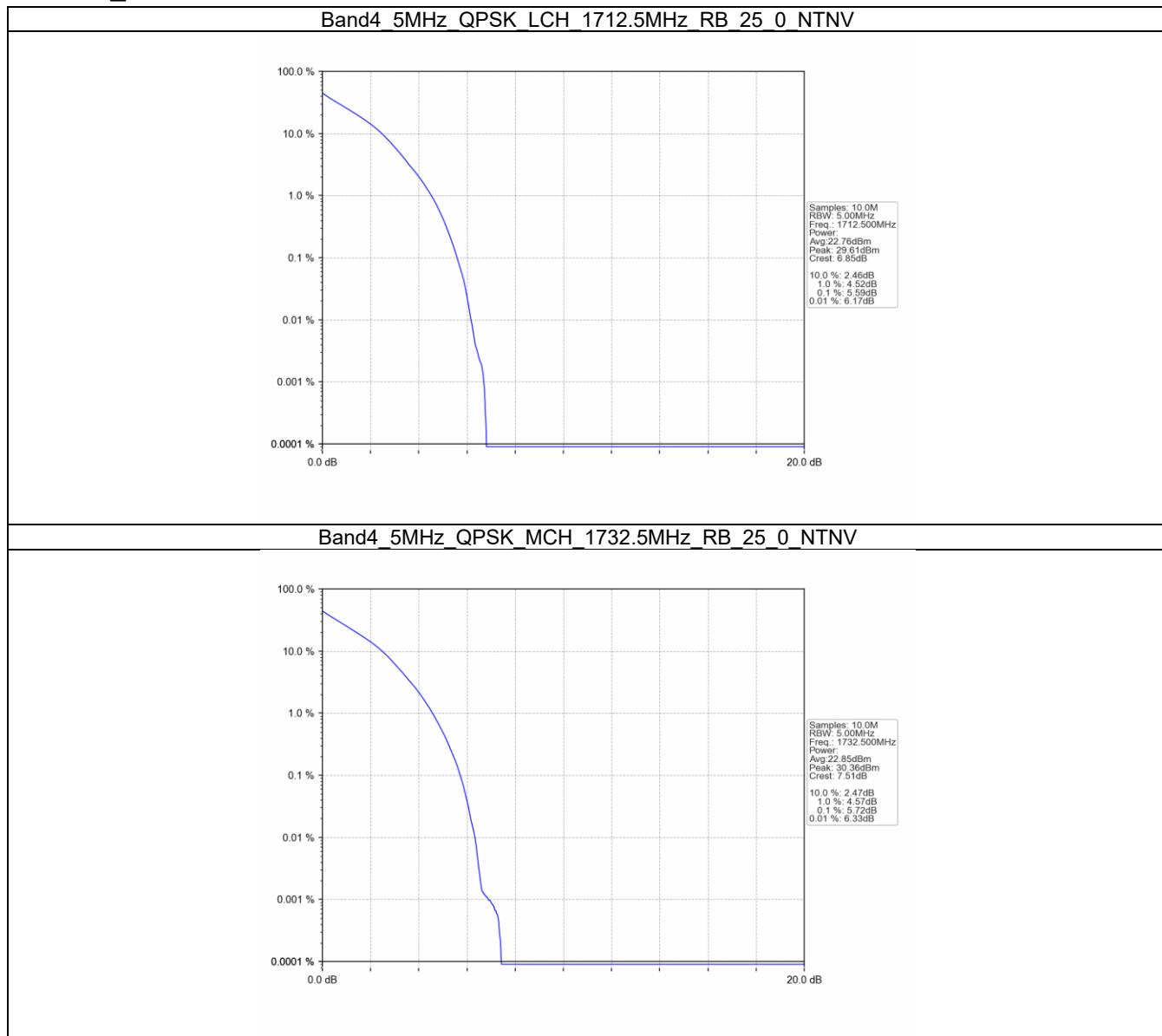
## Band4 3MHz 16QAM MCH 1732.5MHz RB 15 0 NTV



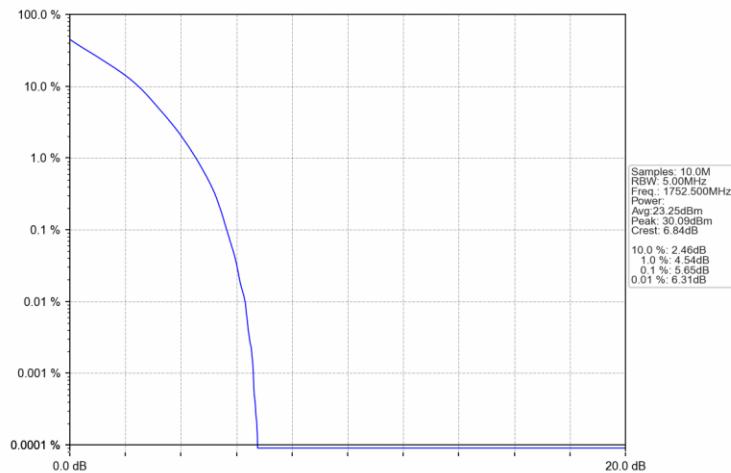
## Band4 3MHz 16QAM HCH 1753.5MHz RB 15 0 NTV



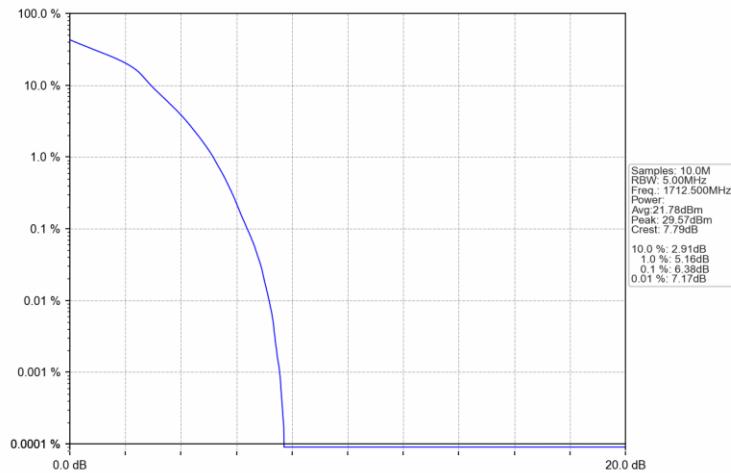
### 5.2.3 B4\_5MHz



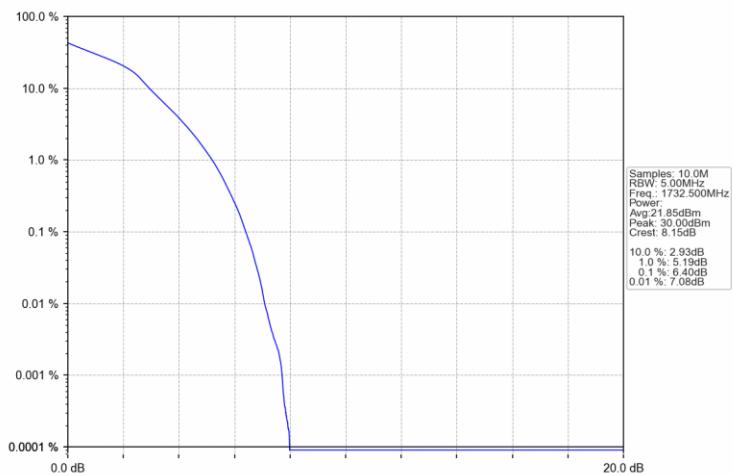
## Band4 5MHz QPSK HCH 1752.5MHz RB 25\_0 NTV



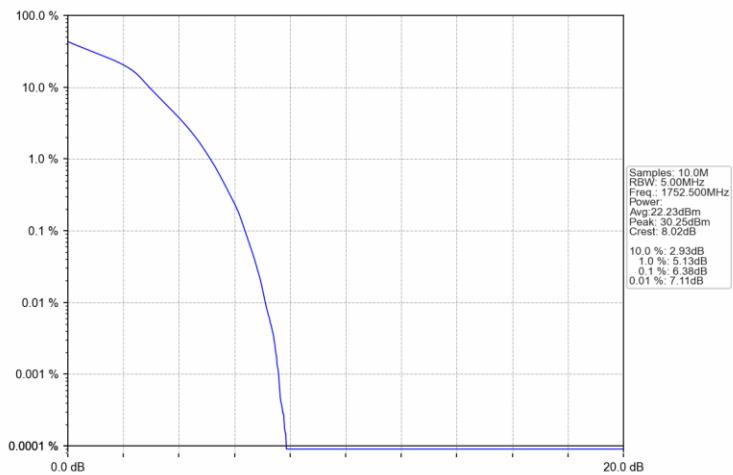
## Band4 5MHz 16QAM LCH 1712.5MHz RB 25\_0 NTV



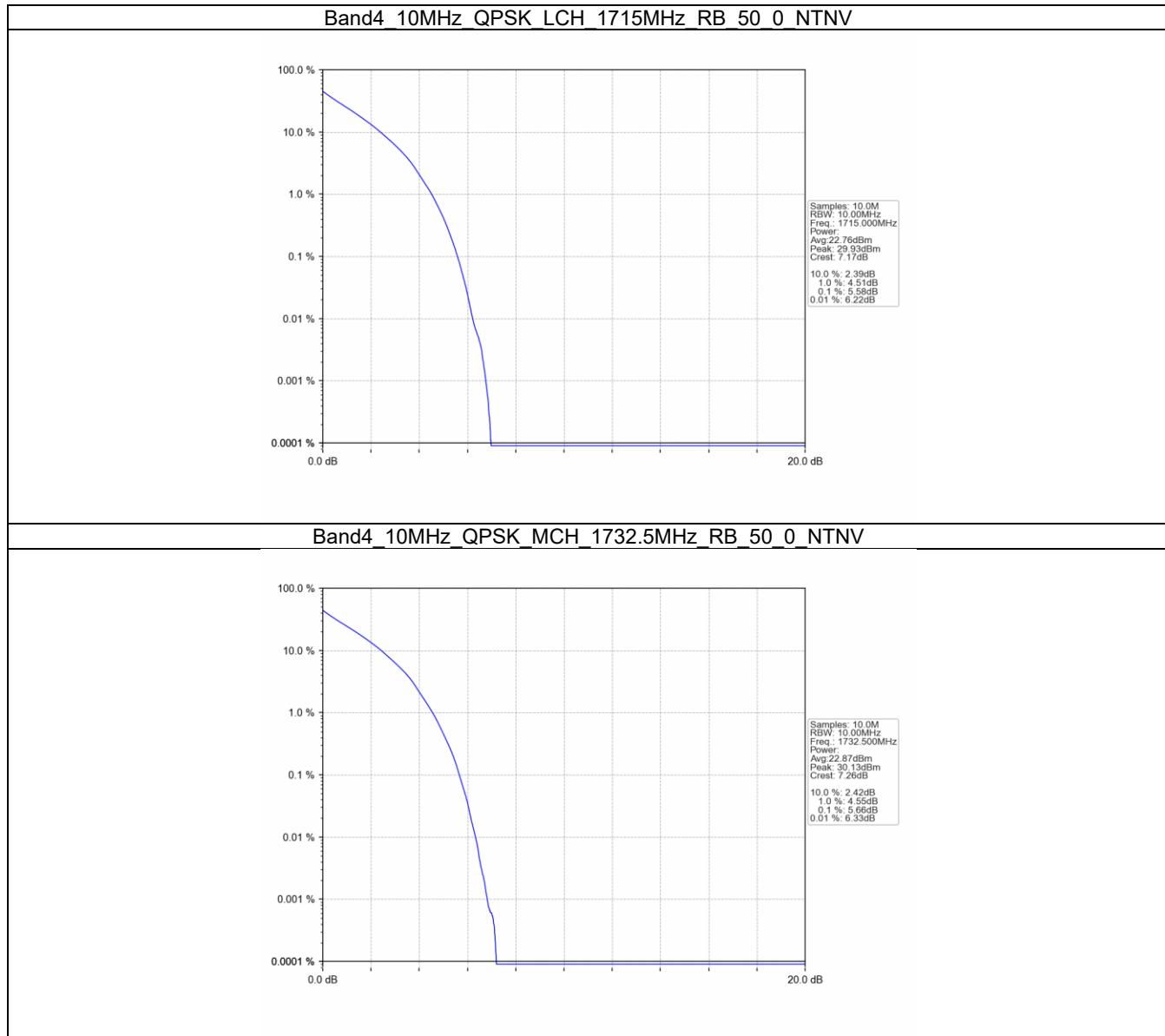
## Band4 5MHz 16QAM MCH 1732.5MHz RB 25 0 NTV



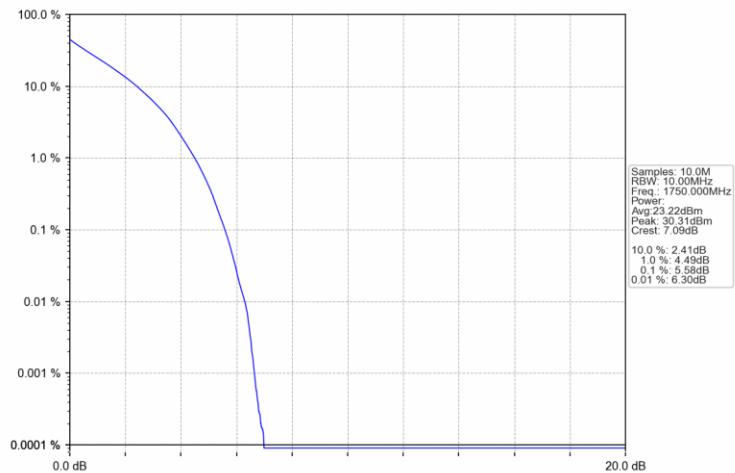
## Band4 5MHz 16QAM HCH 1752.5MHz RB 25 0 NTV



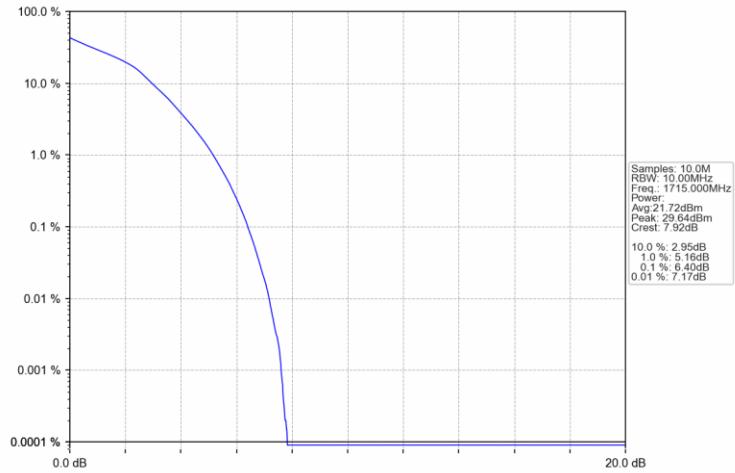
### 5.2.4 B4\_10MHz



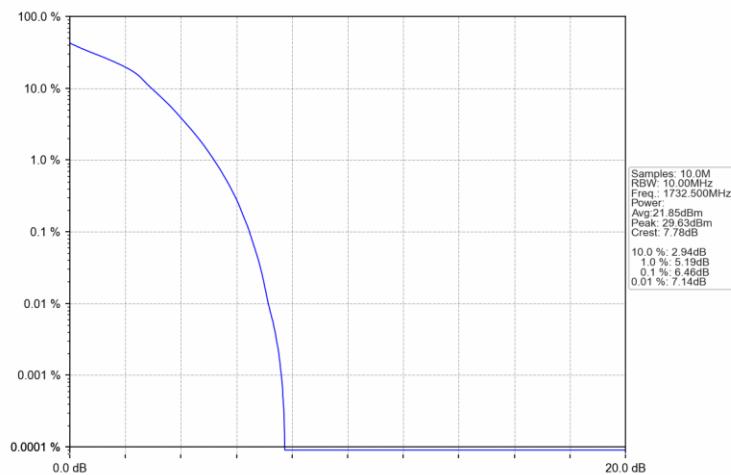
## Band4 10MHz QPSK HCH 1750MHz RB 50 0 NTV



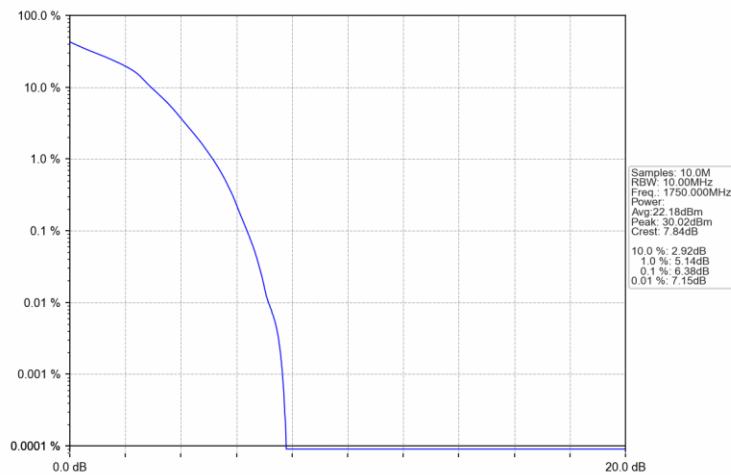
## Band4 10MHz 16QAM LCH 1715MHz RB 50 0 NTV



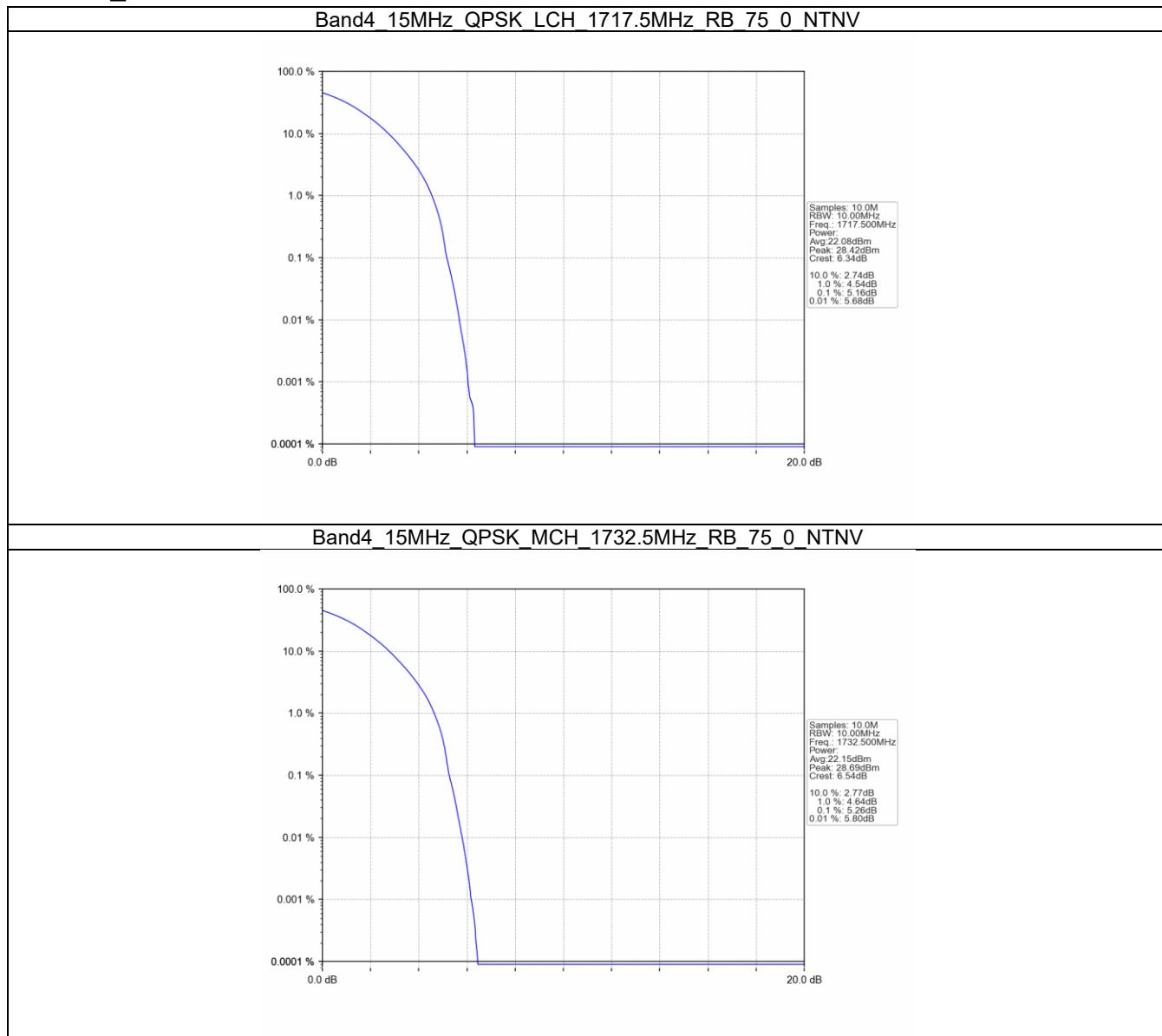
## Band4\_10MHz\_16QAM\_MCH\_1732.5MHz\_RB\_50\_0\_NTNV



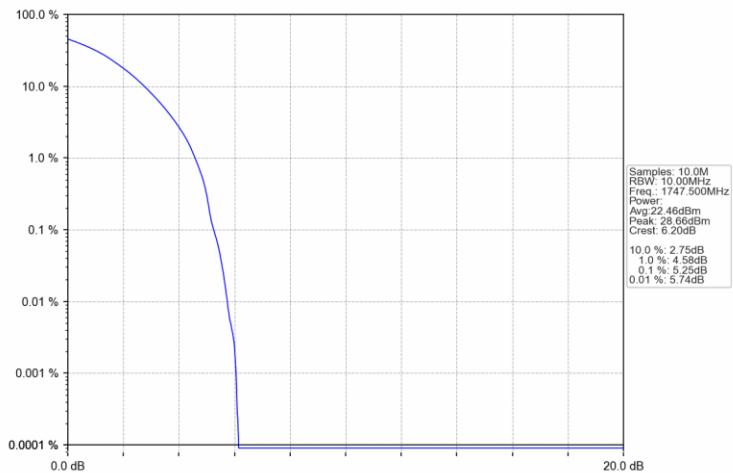
## Band4\_10MHz\_16QAM\_HCH\_1750MHz\_RB\_50\_0\_NTNV



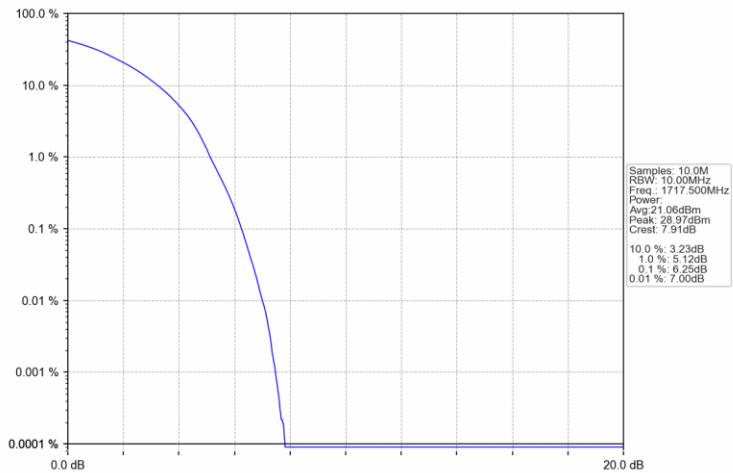
### 5.2.5 B4\_15MHz



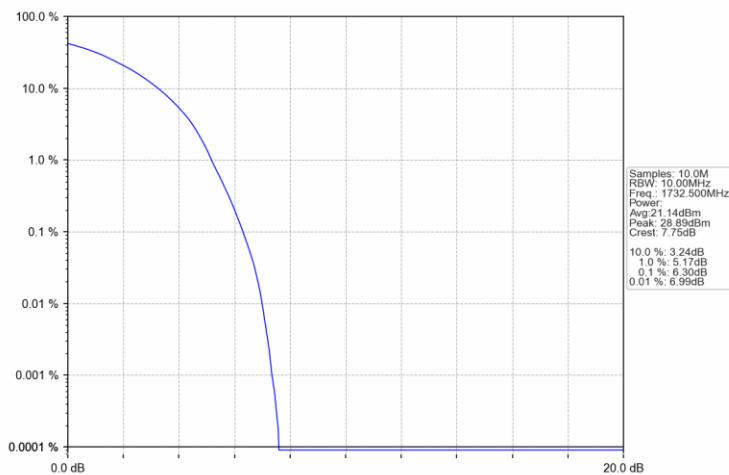
## Band4\_15MHz\_QPSK\_HCH\_1747.5MHz\_RB\_75\_0\_NTNV



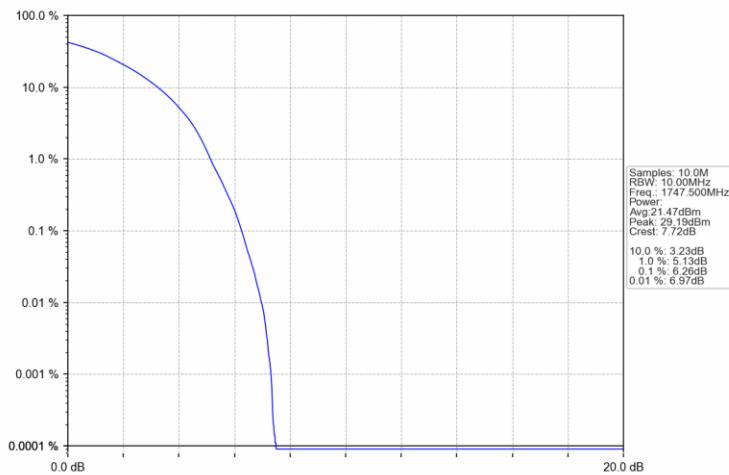
## Band4\_15MHz\_16QAM\_LCH\_1717.5MHz\_RB\_75\_0\_NTNV



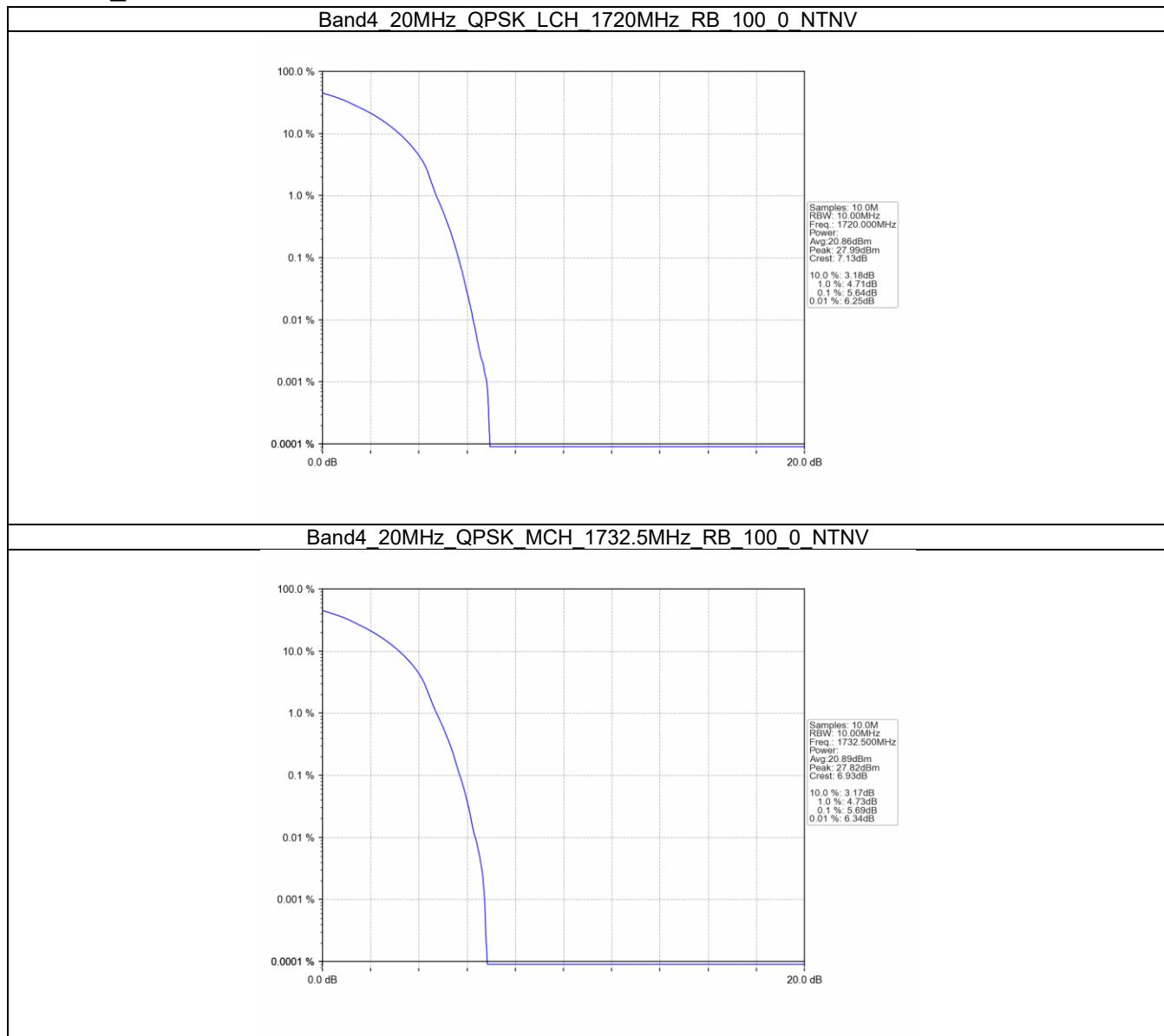
## Band4\_15MHz\_16QAM\_MCH\_1732.5MHz\_RB\_75\_0\_NTNV

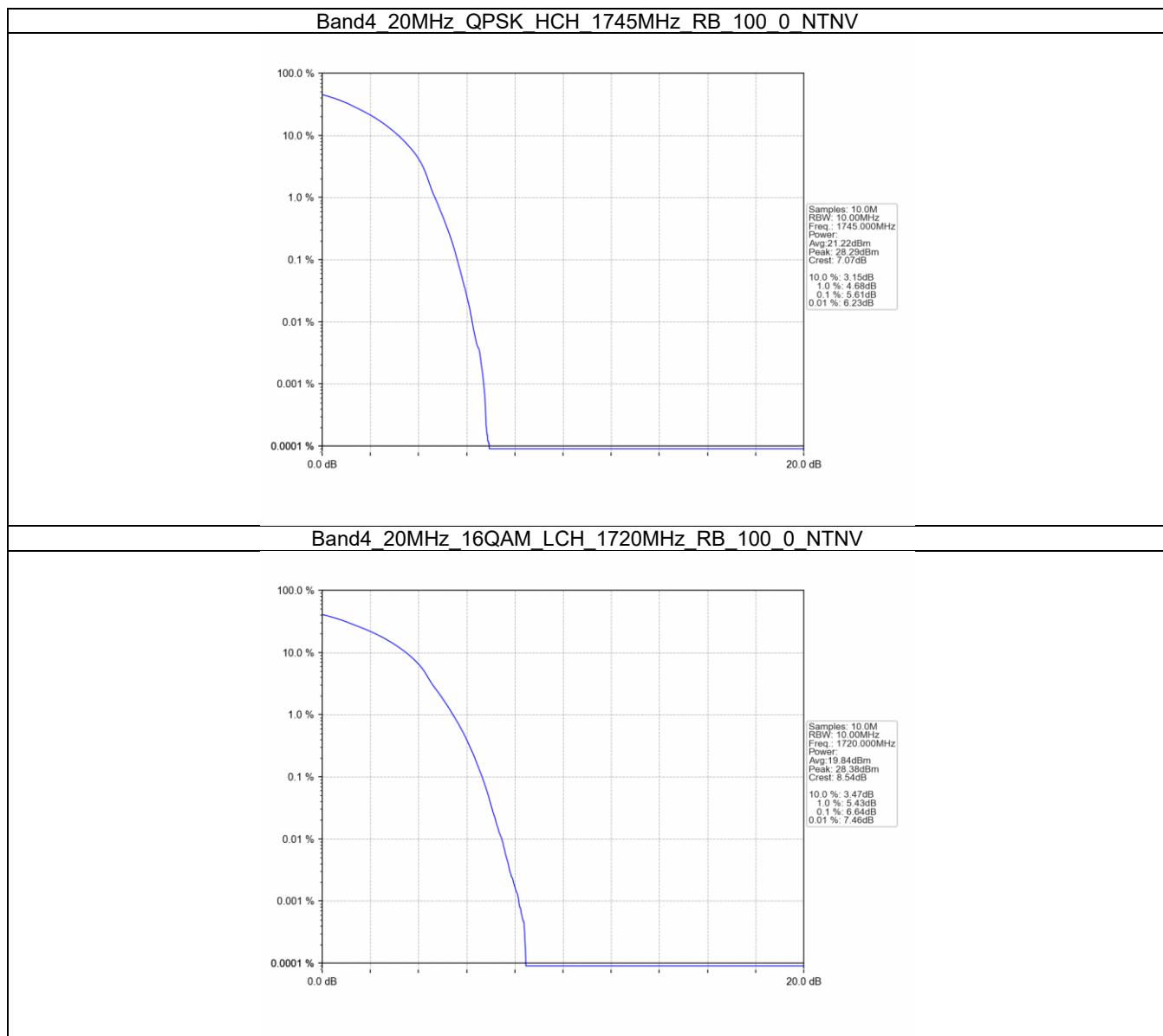


## Band4\_15MHz\_16QAM\_HCH\_1747.5MHz\_RB\_75\_0\_NTNV

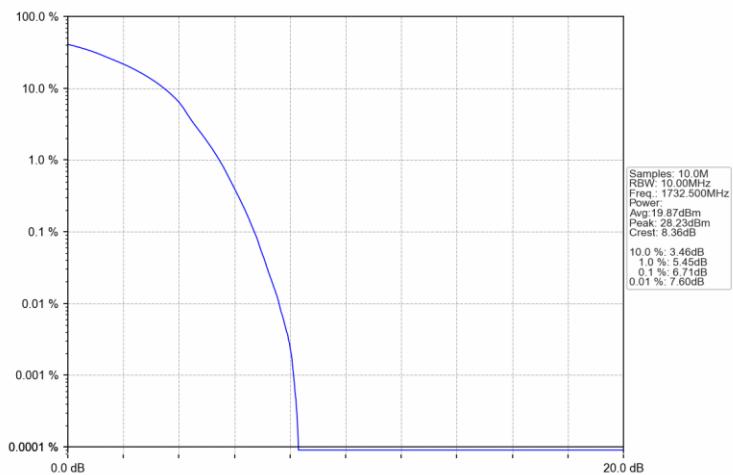


### 5.2.6 B4\_20MHz

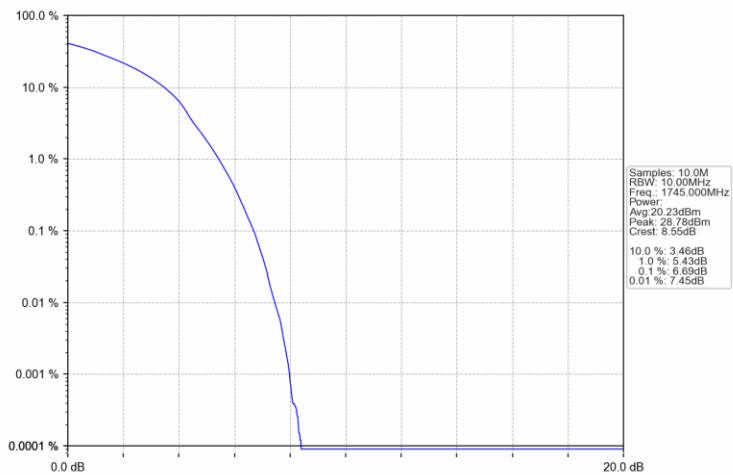




## Band4\_20MHz\_16QAM\_MCH\_1732.5MHz\_RB\_100\_0\_NTNV



## Band4\_20MHz\_16QAM\_HCH\_1745MHz\_RB\_100\_0\_NTNV



## 6. Spurious Emission

### 6.1 Test Result

#### 6.1.1 B4\_1.4MHz

Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	1710.7	1	0	Refer To Test Graph		Pass
		6	0	Refer To Test Graph		Pass
	1732.5	1	0	Refer To Test Graph		Pass
		1754.3	0	Refer To Test Graph		Pass
	1710.7	1	5	Refer To Test Graph		Pass
			6	Refer To Test Graph		Pass
16QAM	1710.7	1	0	Refer To Test Graph		Pass
		6	0	Refer To Test Graph		Pass
	1732.5	1	0	Refer To Test Graph		Pass
	1754.3	1	0	Refer To Test Graph		Pass
			5	Refer To Test Graph		Pass
		6	0	Refer To Test Graph		Pass

#### 6.1.2 B4\_3MHz

Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	1711.5	1	0	Refer To Test Graph		Pass
		15	0	Refer To Test Graph		Pass
	1732.5	1	0	Refer To Test Graph		Pass
	1753.5	1	0	Refer To Test Graph		Pass
			14	Refer To Test Graph		Pass
		15	0	Refer To Test Graph		Pass
16QAM	1711.5	1	0	Refer To Test Graph		Pass
		15	0	Refer To Test Graph		Pass
	1732.5	1	0	Refer To Test Graph		Pass
	1753.5	1	0	Refer To Test Graph		Pass
			14	Refer To Test Graph		Pass
		15	0	Refer To Test Graph		Pass

#### 6.1.3 B4\_5MHz

Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	1712.5	1	0	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
	1732.5	1	0	Refer To Test Graph		Pass
	1752.5	1	0	Refer To Test Graph		Pass
			24	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
16QAM	1712.5	1	0	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
	1732.5	1	0	Refer To Test Graph		Pass
	1752.5	1	0	Refer To Test Graph		Pass
			24	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass

### 6.1.4 B4\_10MHz

Band: 4 / Bandwidth: 10MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	1715	1	0	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass
	1732.5	1	0	Refer To Test Graph		Pass
		1750	0	Refer To Test Graph		Pass
	1715	1	49	Refer To Test Graph		Pass
			50	Refer To Test Graph		Pass
16QAM	1715	1	0	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass
	1732.5	1	0	Refer To Test Graph		Pass
		1750	0	Refer To Test Graph		Pass
	1715	1	49	Refer To Test Graph		Pass
			50	Refer To Test Graph		Pass

### 6.1.5 B4\_15MHz

Band: 4 / Bandwidth: 15MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	1717.5	1	0	Refer To Test Graph		Pass
		75	0	Refer To Test Graph		Pass
	1732.5	1	0	Refer To Test Graph		Pass
		1747.5	0	Refer To Test Graph		Pass
	1717.5	1	74	Refer To Test Graph		Pass
			75	Refer To Test Graph		Pass
16QAM	1717.5	1	0	Refer To Test Graph		Pass
		75	0	Refer To Test Graph		Pass
	1732.5	1	0	Refer To Test Graph		Pass
		1747.5	0	Refer To Test Graph		Pass
	1717.5	1	74	Refer To Test Graph		Pass
			75	Refer To Test Graph		Pass

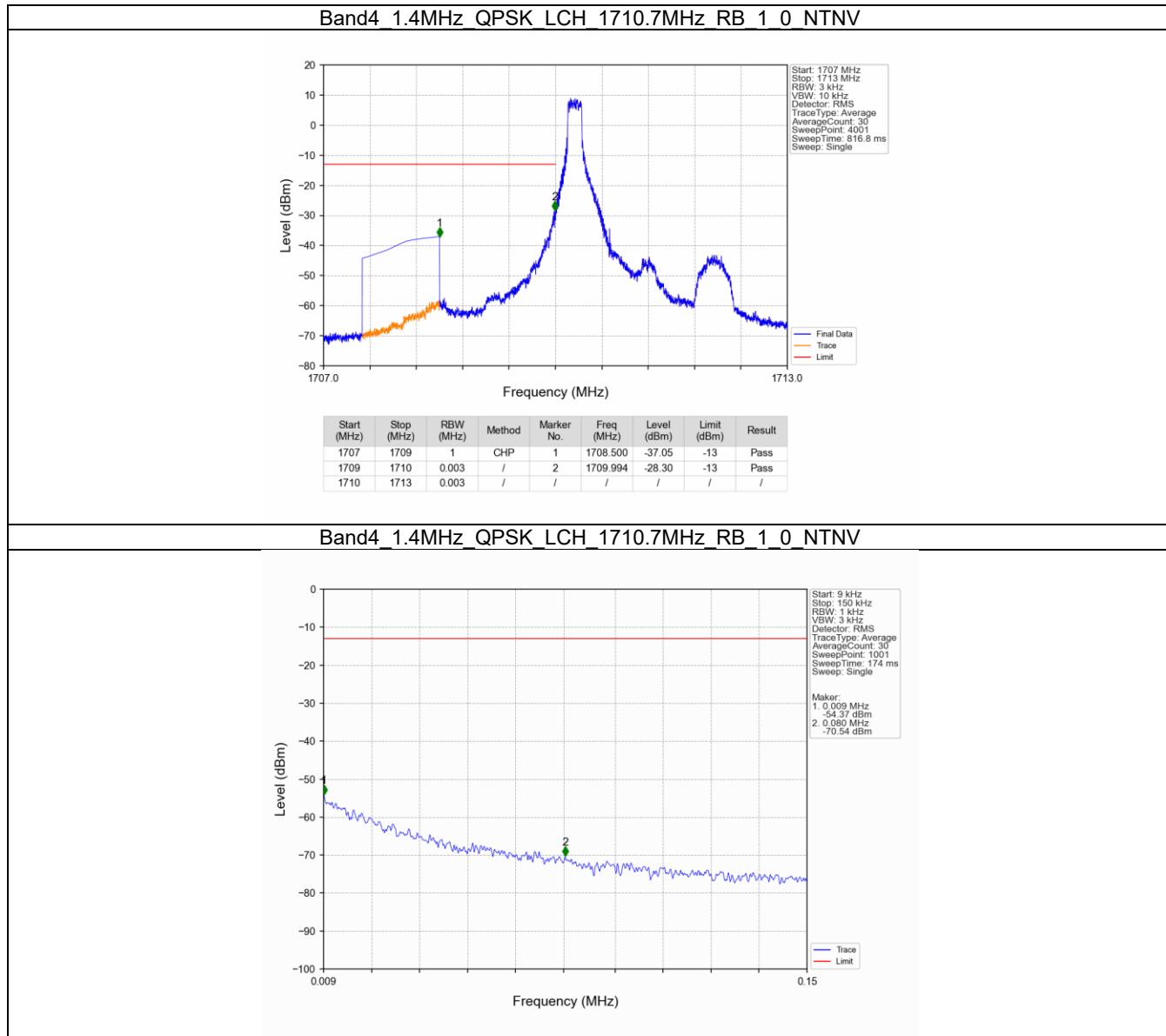
### 6.1.6 B4\_20MHz

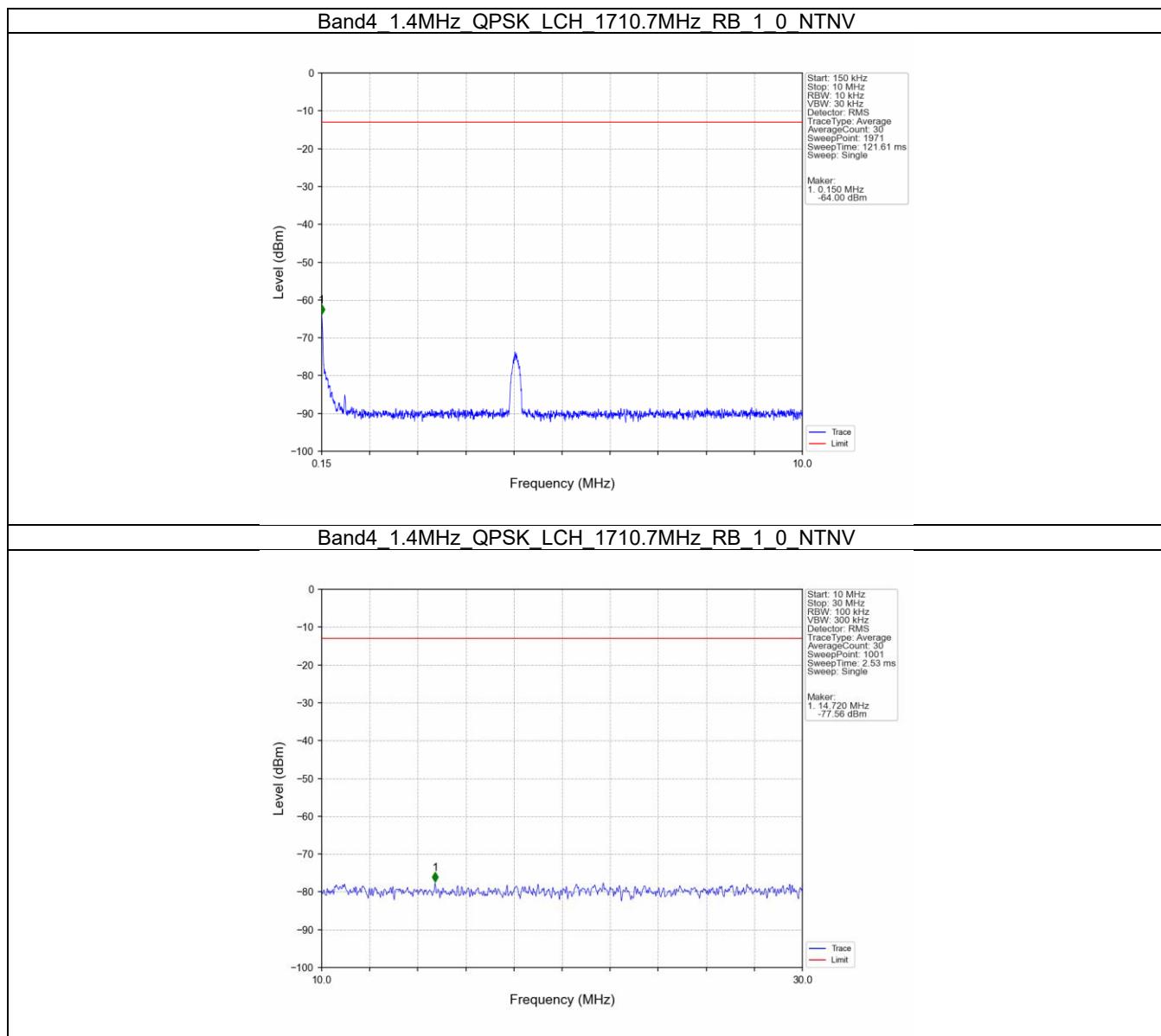
Band: 4 / Bandwidth: 20MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	1720	1	0	Refer To Test Graph		Pass
		100	0	Refer To Test Graph		Pass
	1732.5	1	0	Refer To Test Graph		Pass
		1745	0	Refer To Test Graph		Pass
	1720	1	99	Refer To Test Graph		Pass
			100	Refer To Test Graph		Pass
16QAM	1720	1	0	Refer To Test Graph		Pass
		100	0	Refer To Test Graph		Pass
	1732.5	1	0	Refer To Test Graph		Pass
		1745	0	Refer To Test Graph		Pass
	1720	1	99	Refer To Test Graph		Pass
			100	Refer To Test Graph		Pass

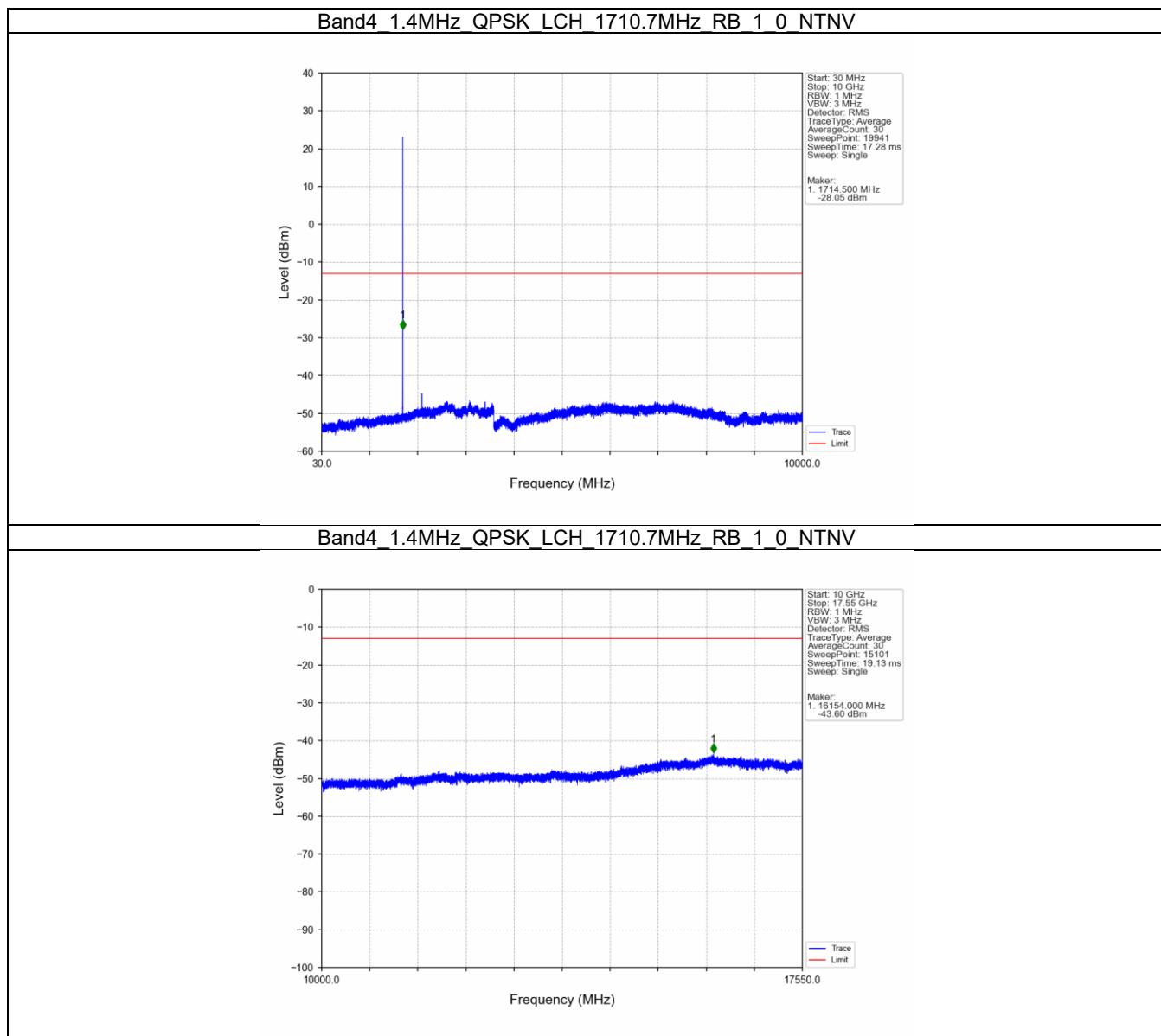


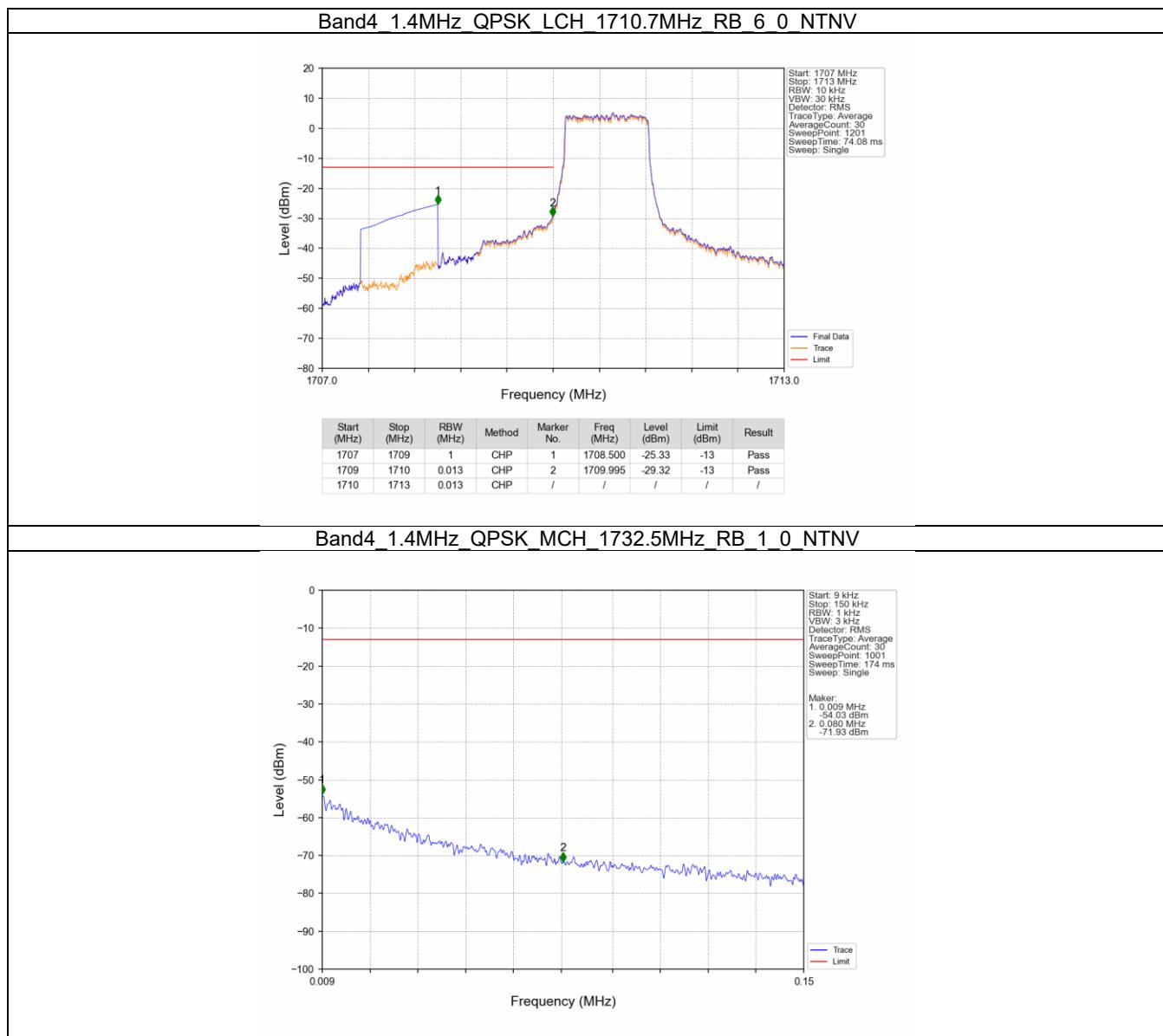
## 6.2 Test Graph

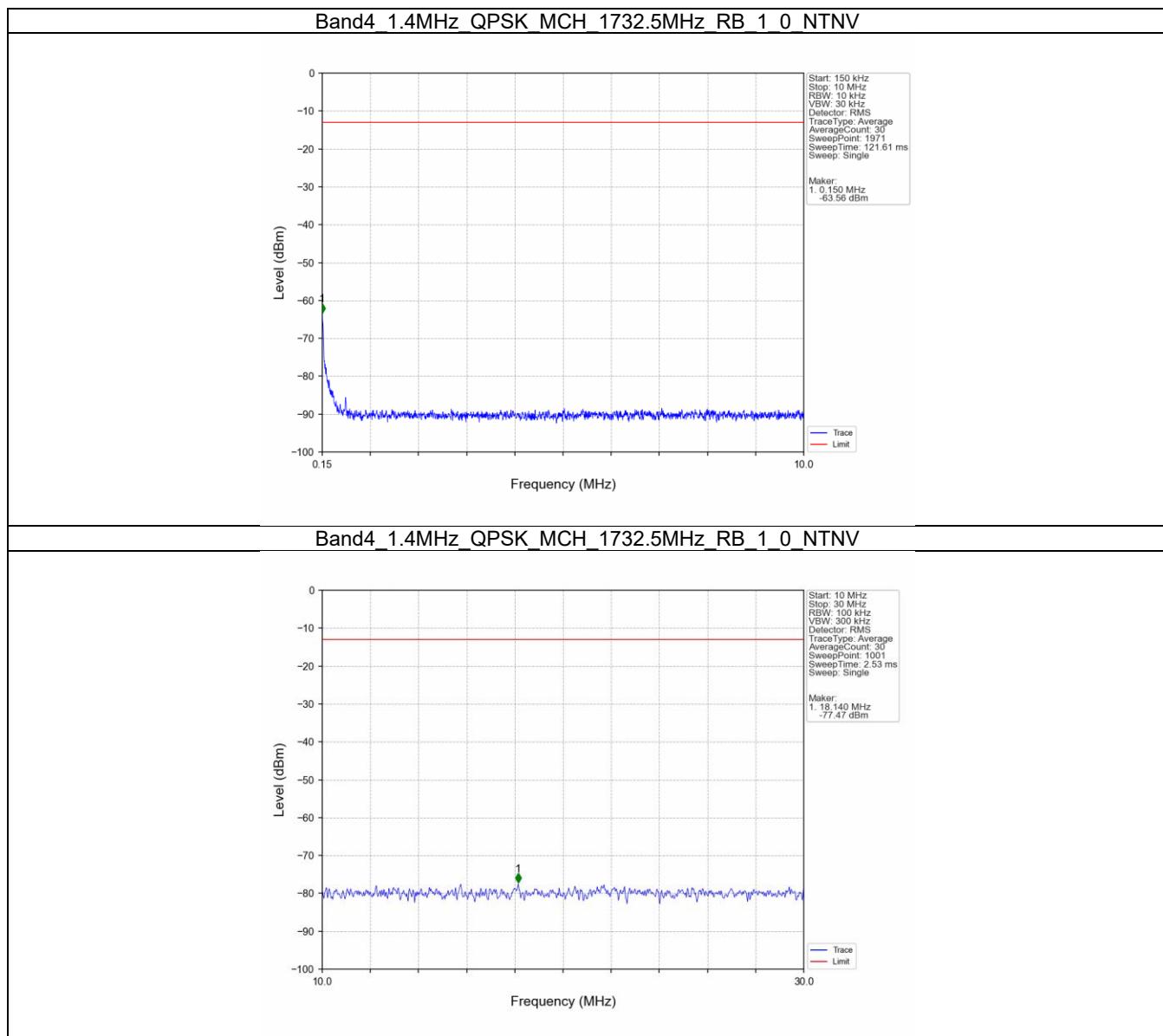
### 6.2.1 B4\_1.4MHz

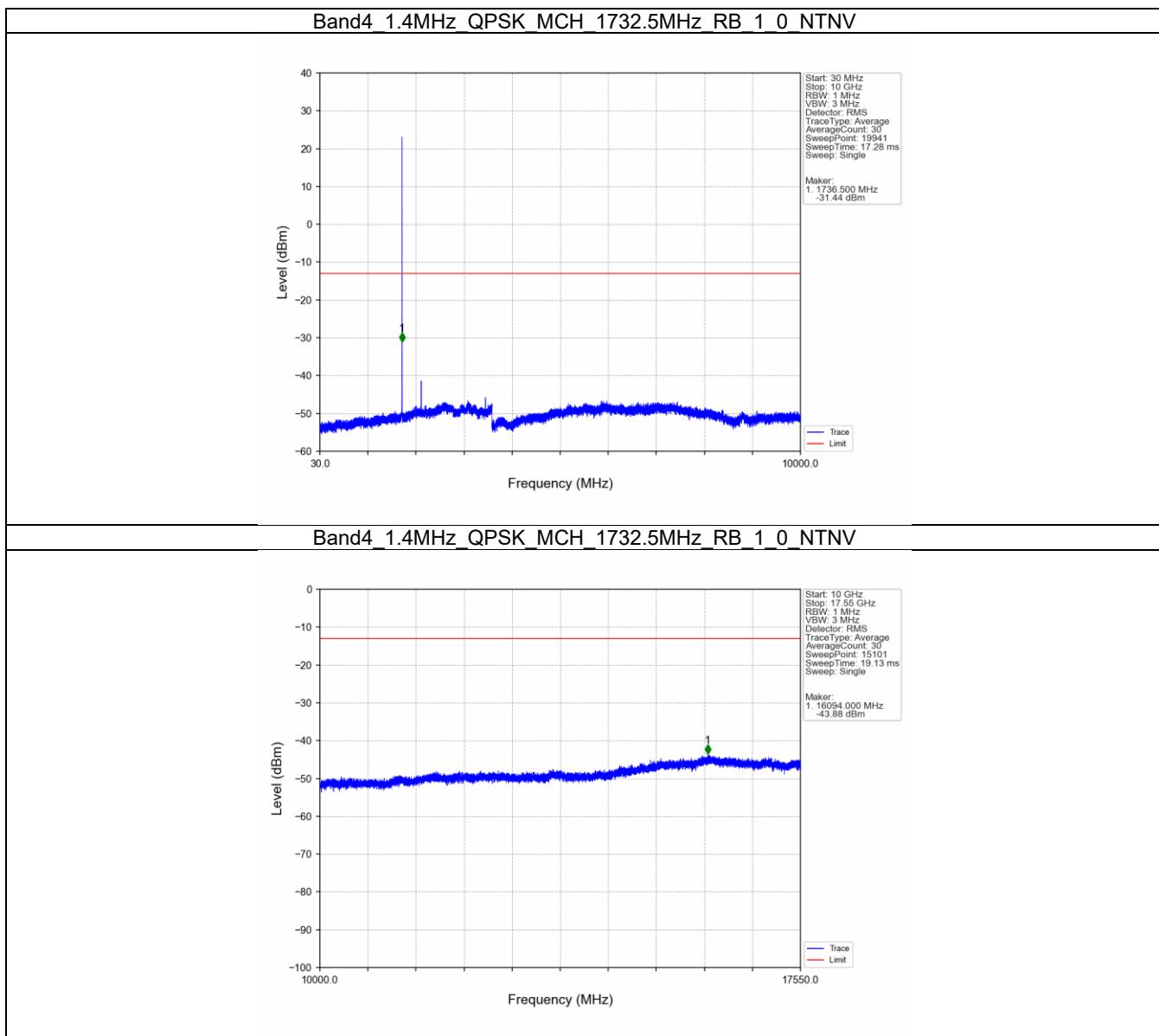


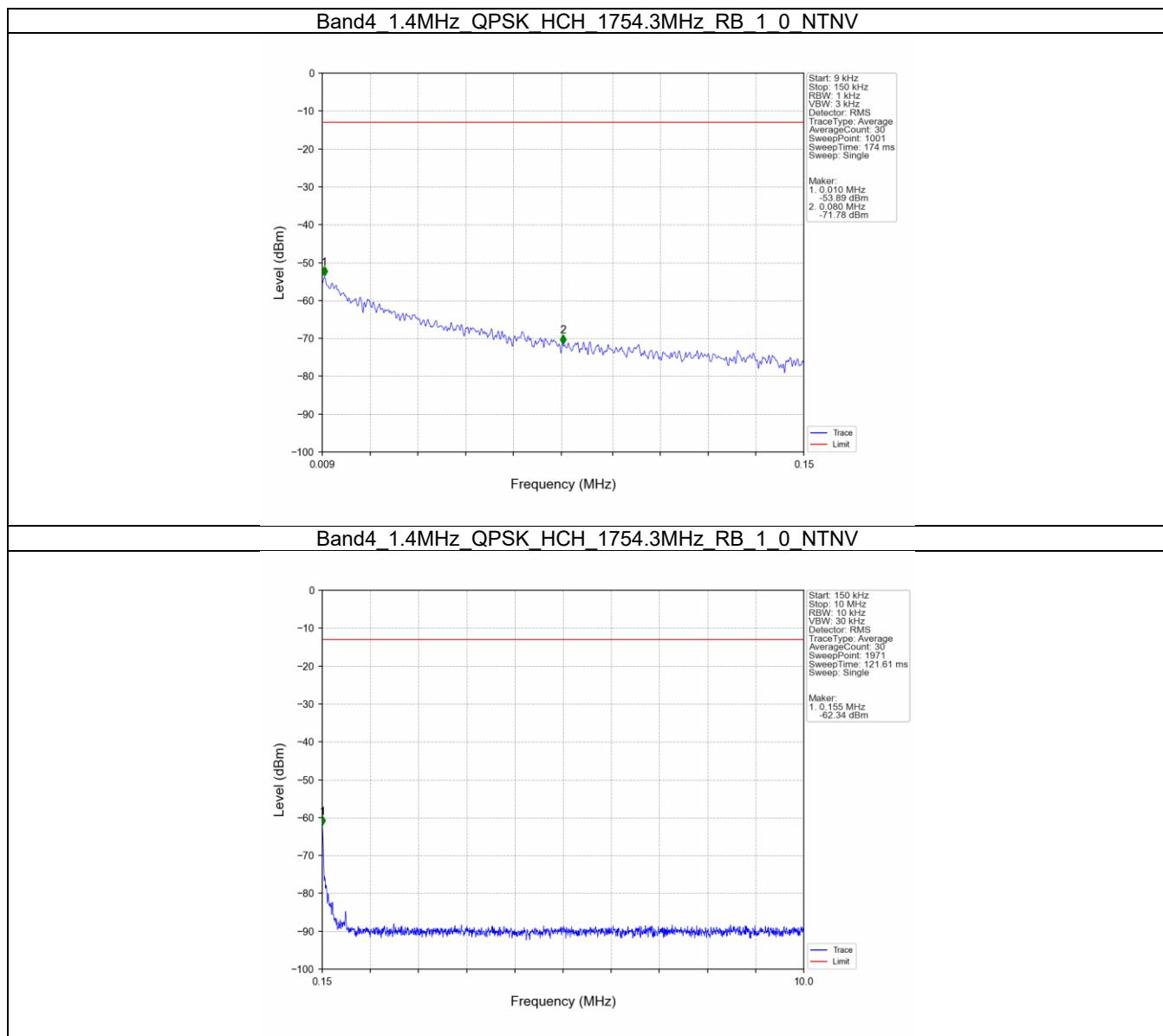


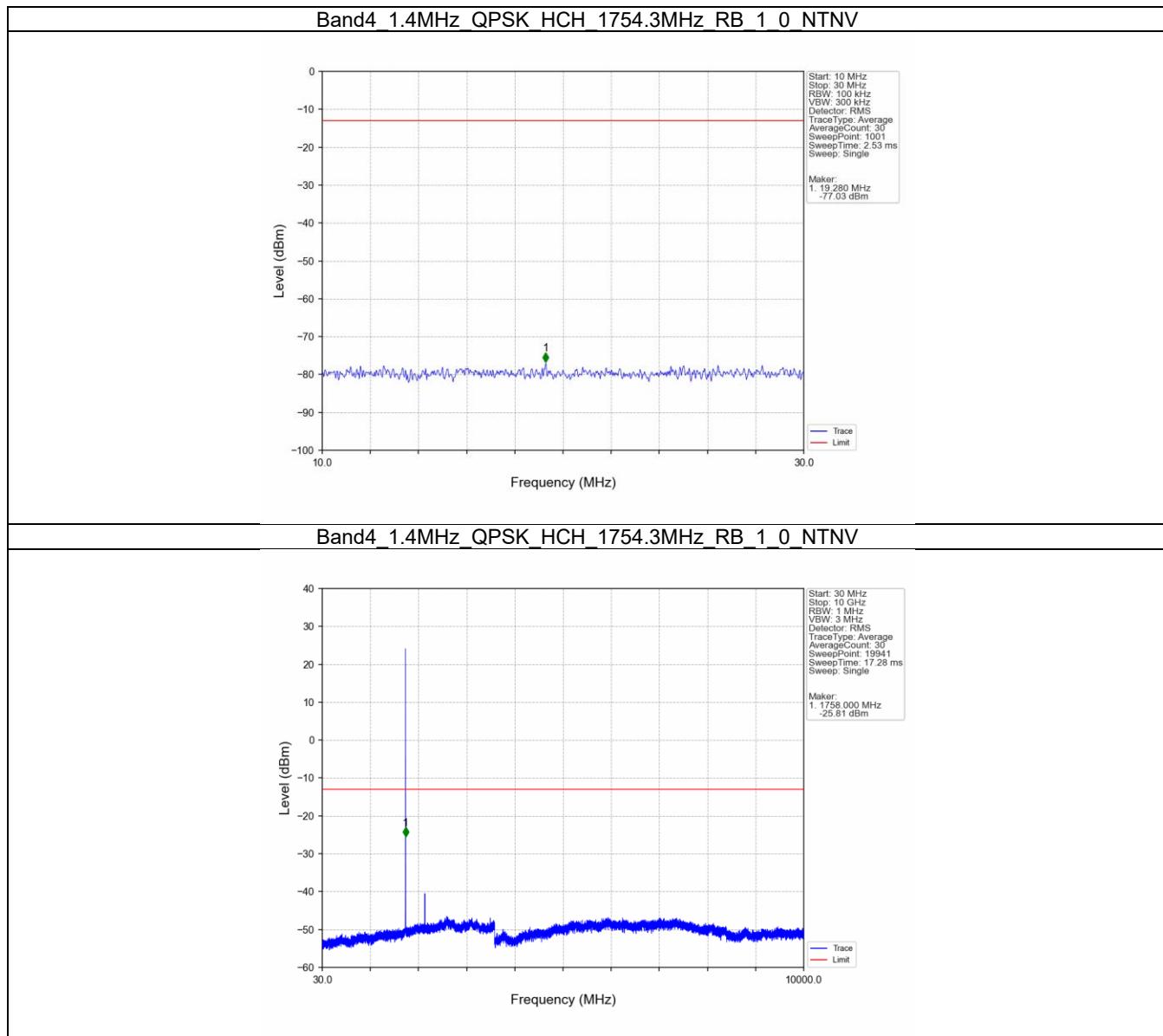


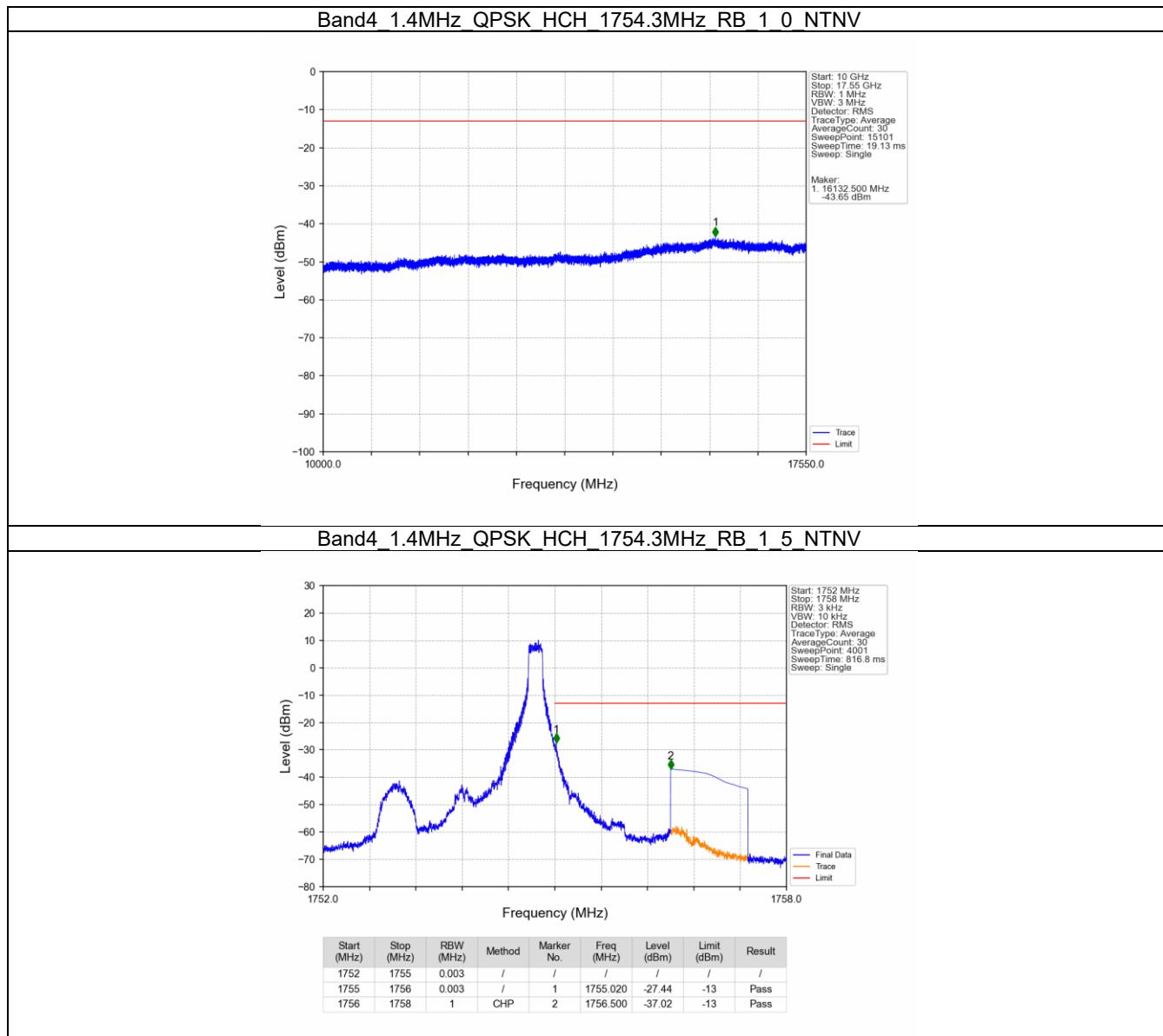


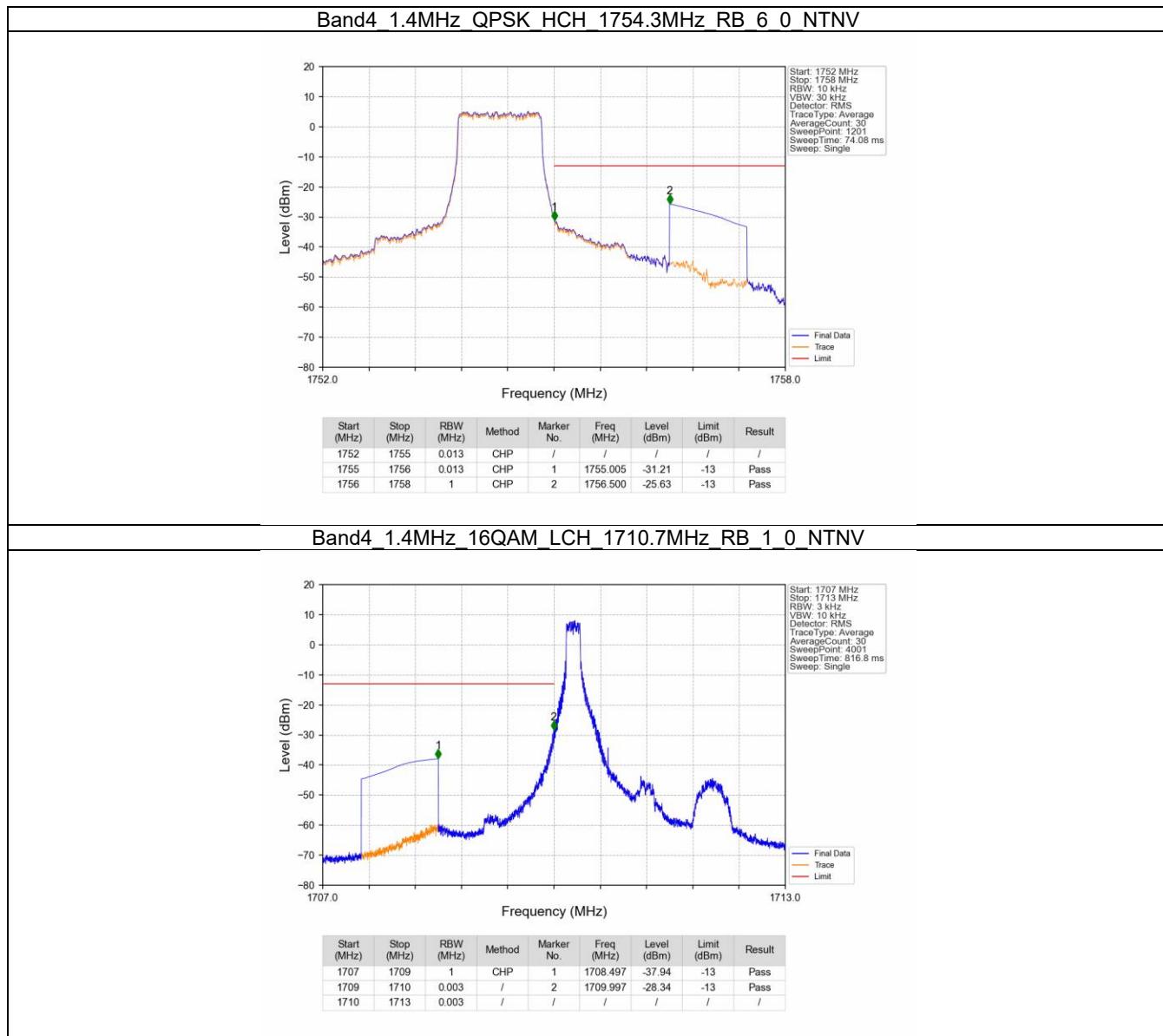


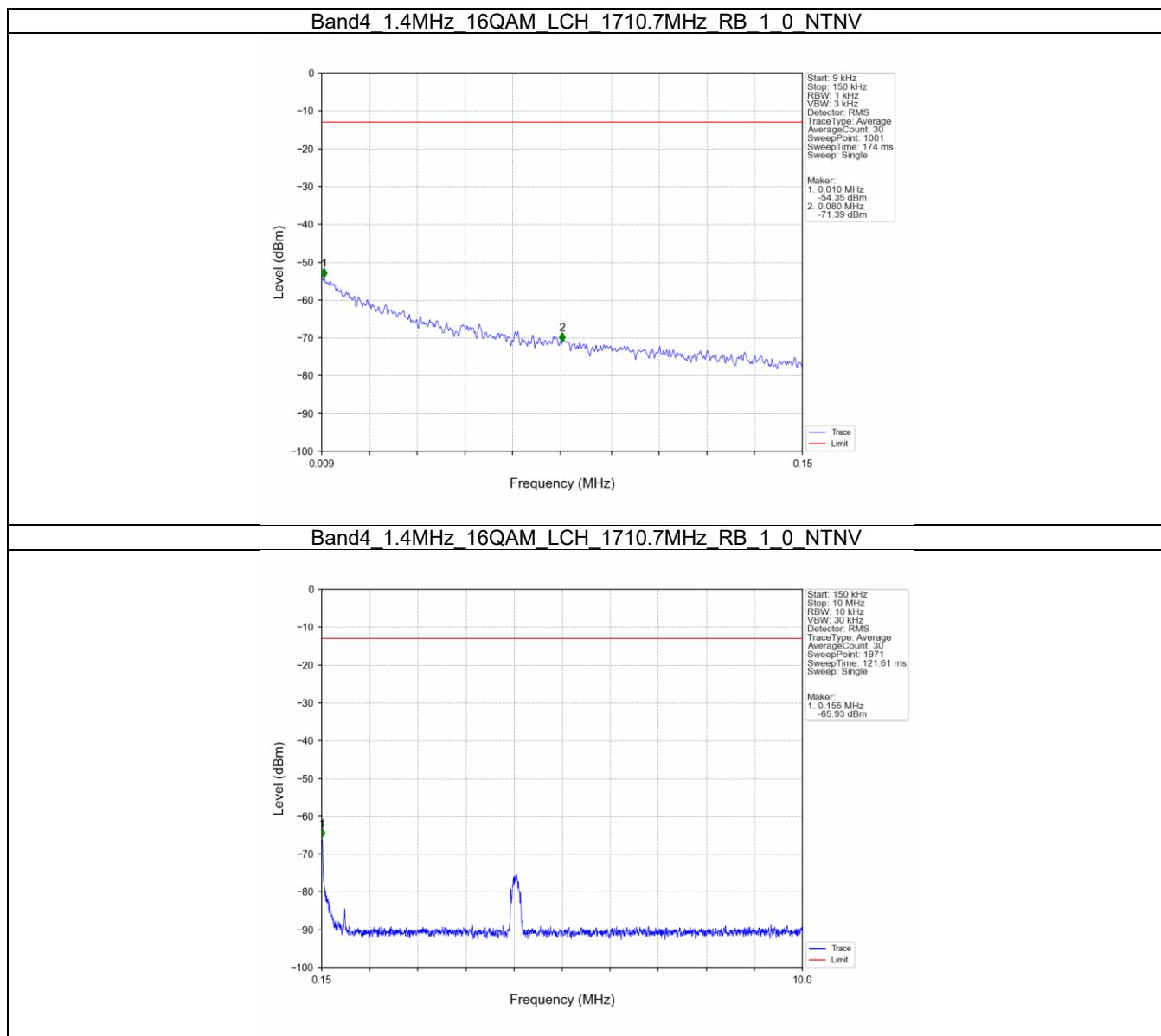


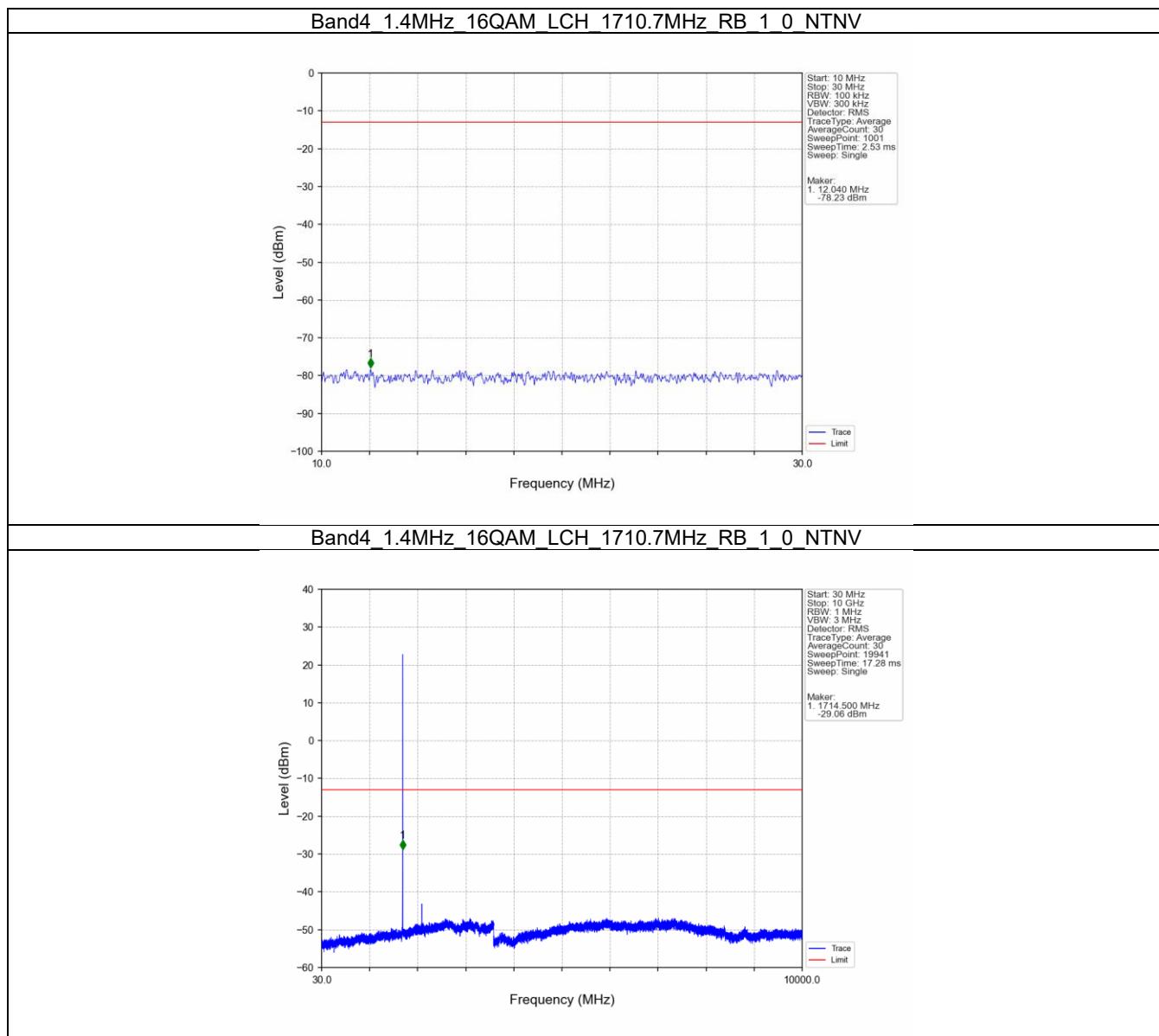


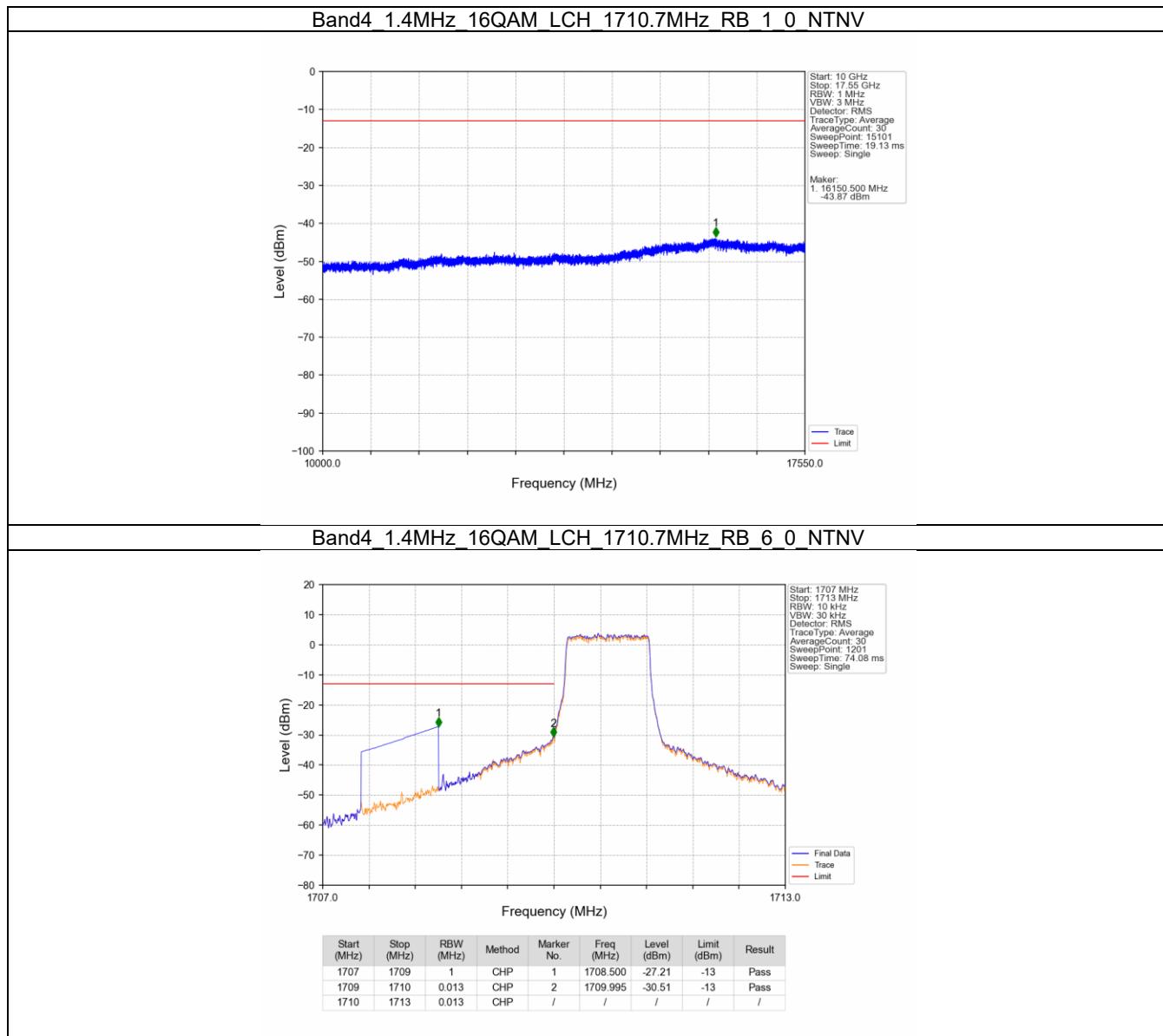


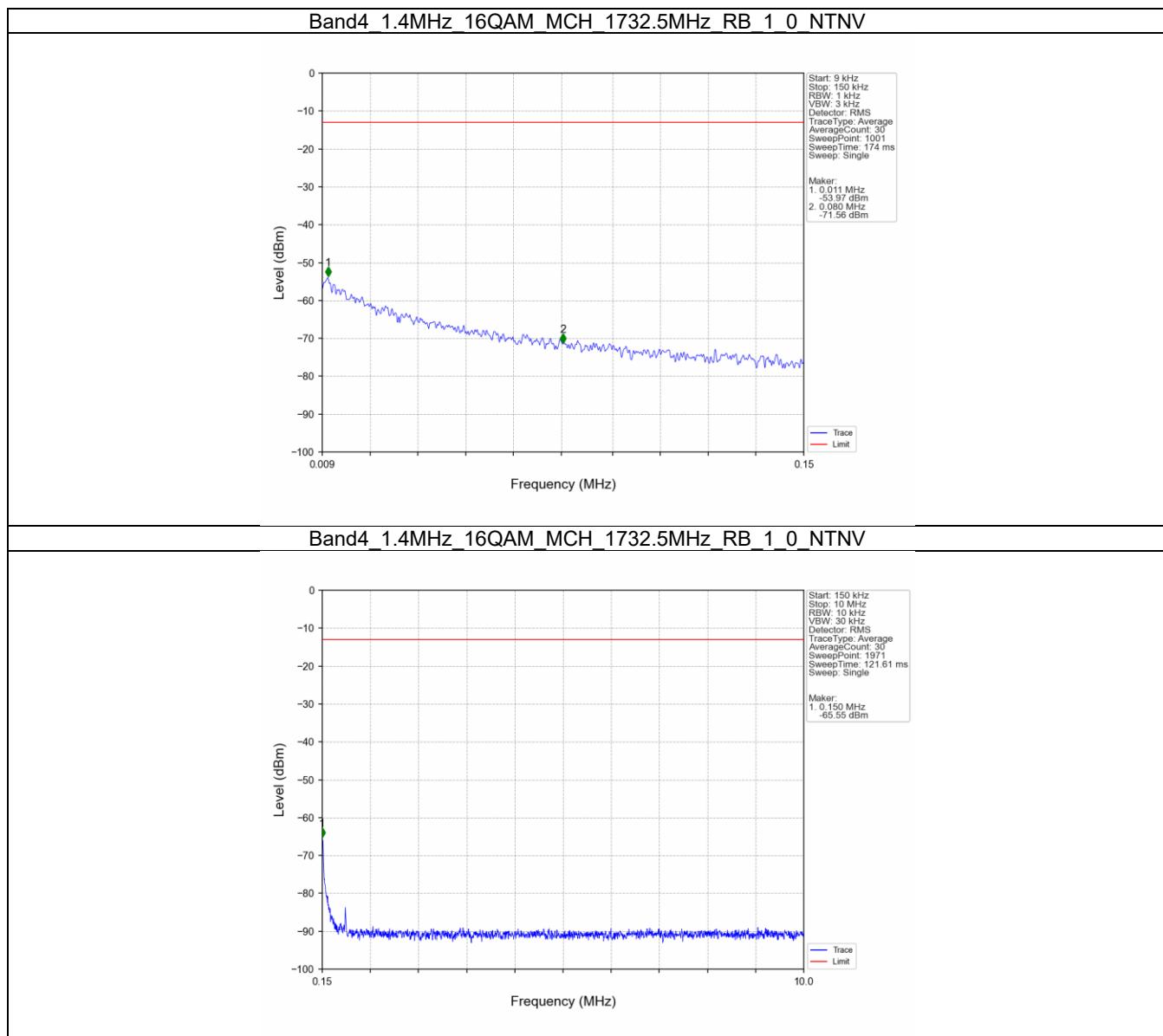


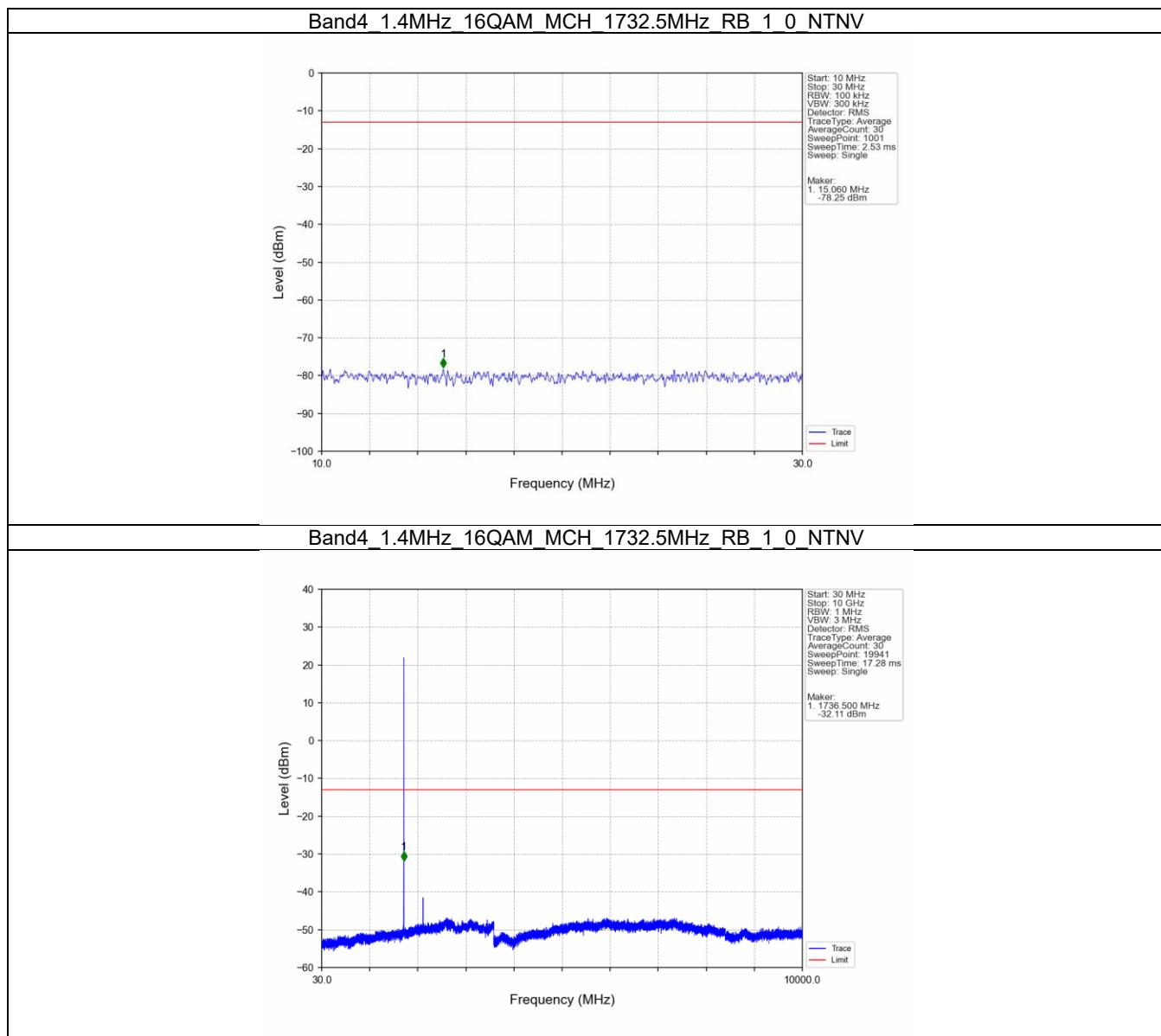


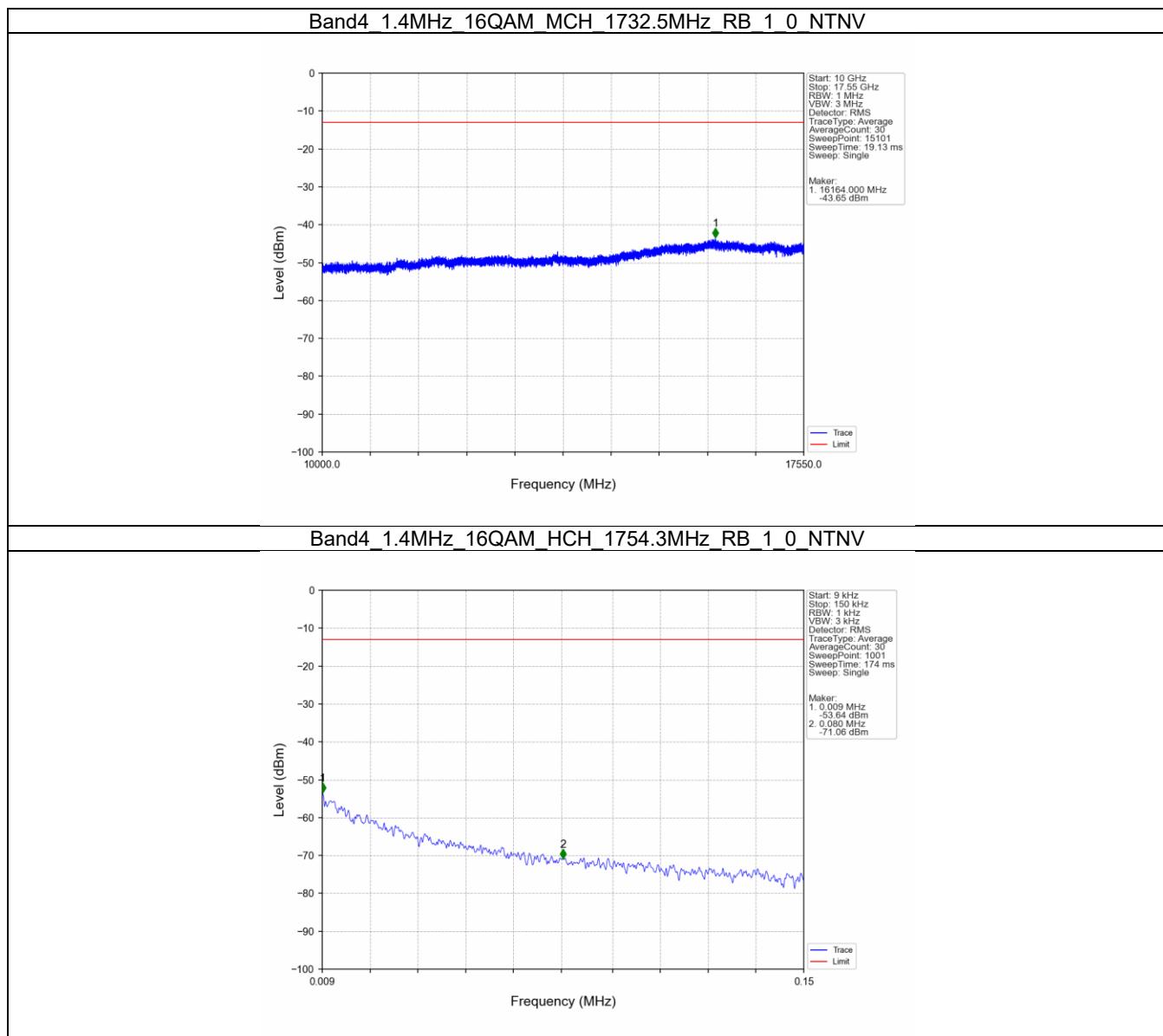




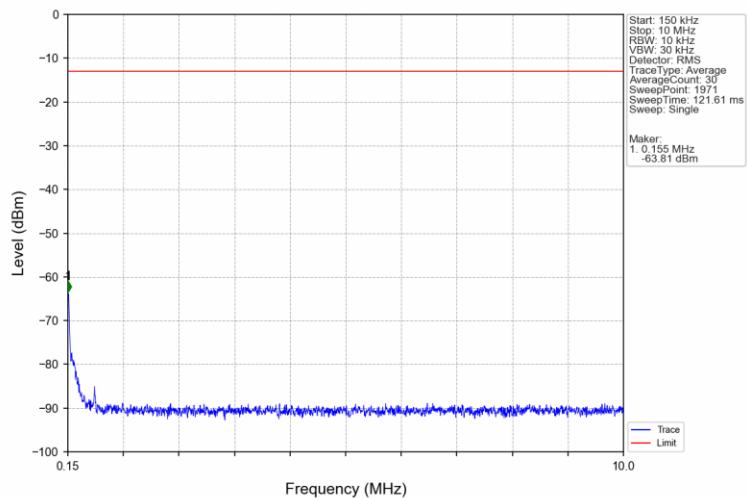




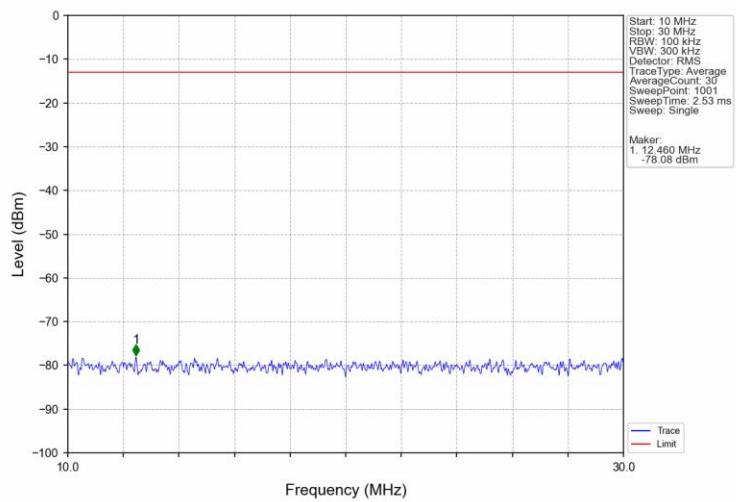




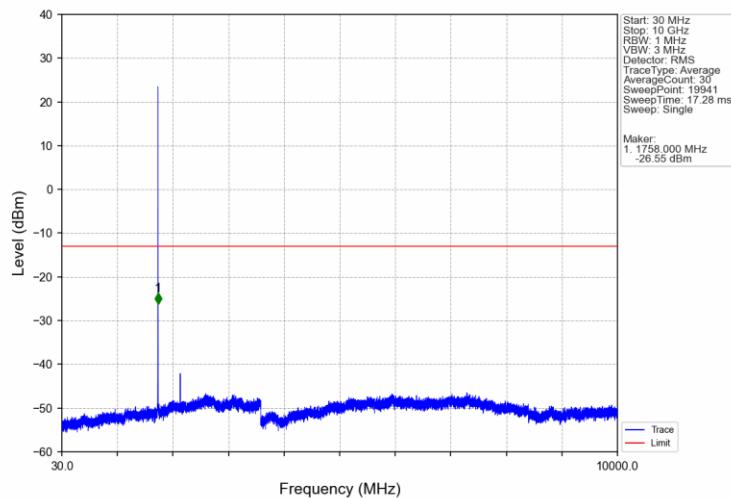
## Band4 1.4MHz 16QAM HCH 1754.3MHz RB 1 0 NTVN



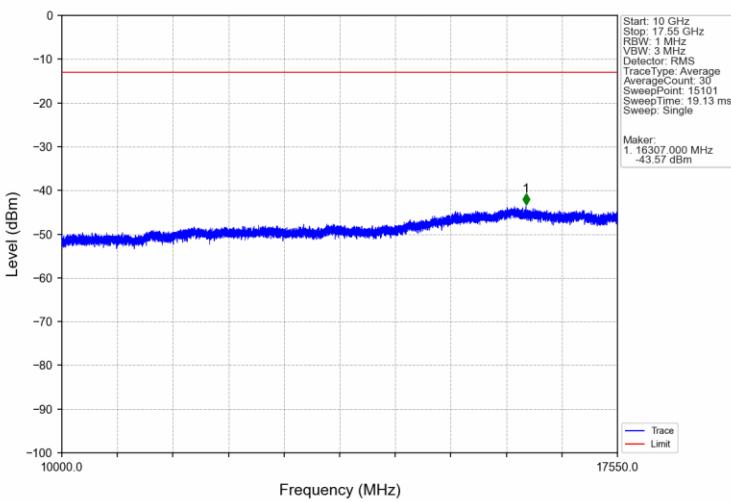
## Band4 1.4MHz 16QAM HCH 1754.3MHz RB 1 0 NTVN



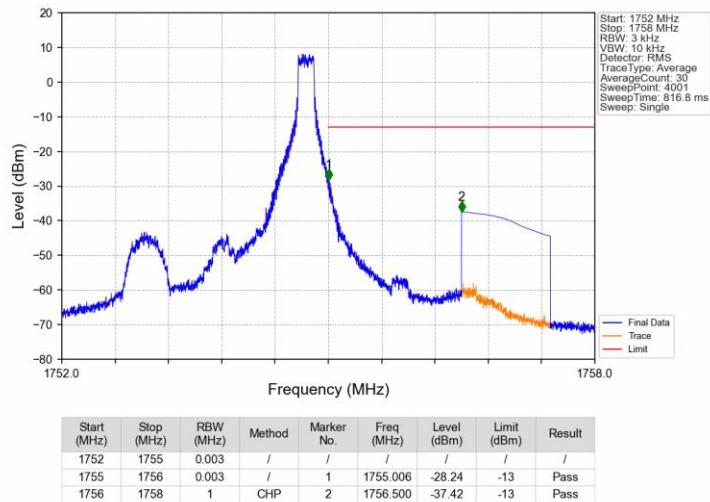
## Band4 1.4MHz 16QAM HCH 1754.3MHz RB 1 0 NTV



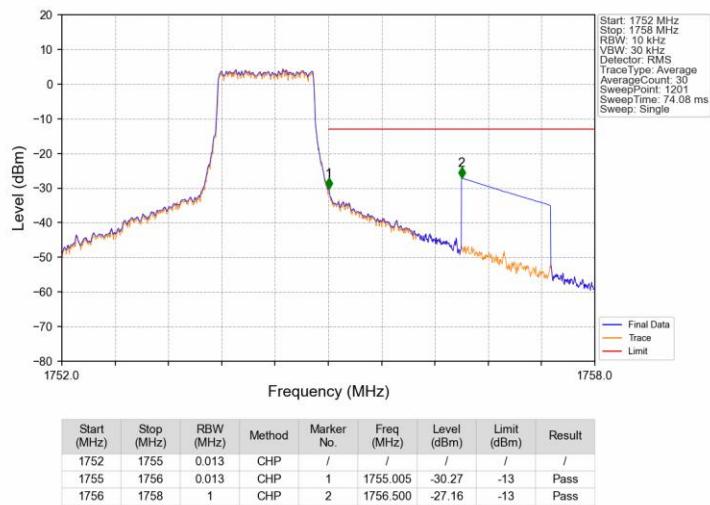
## Band4 1.4MHz 16QAM HCH 1754.3MHz RB 1 0 NTV



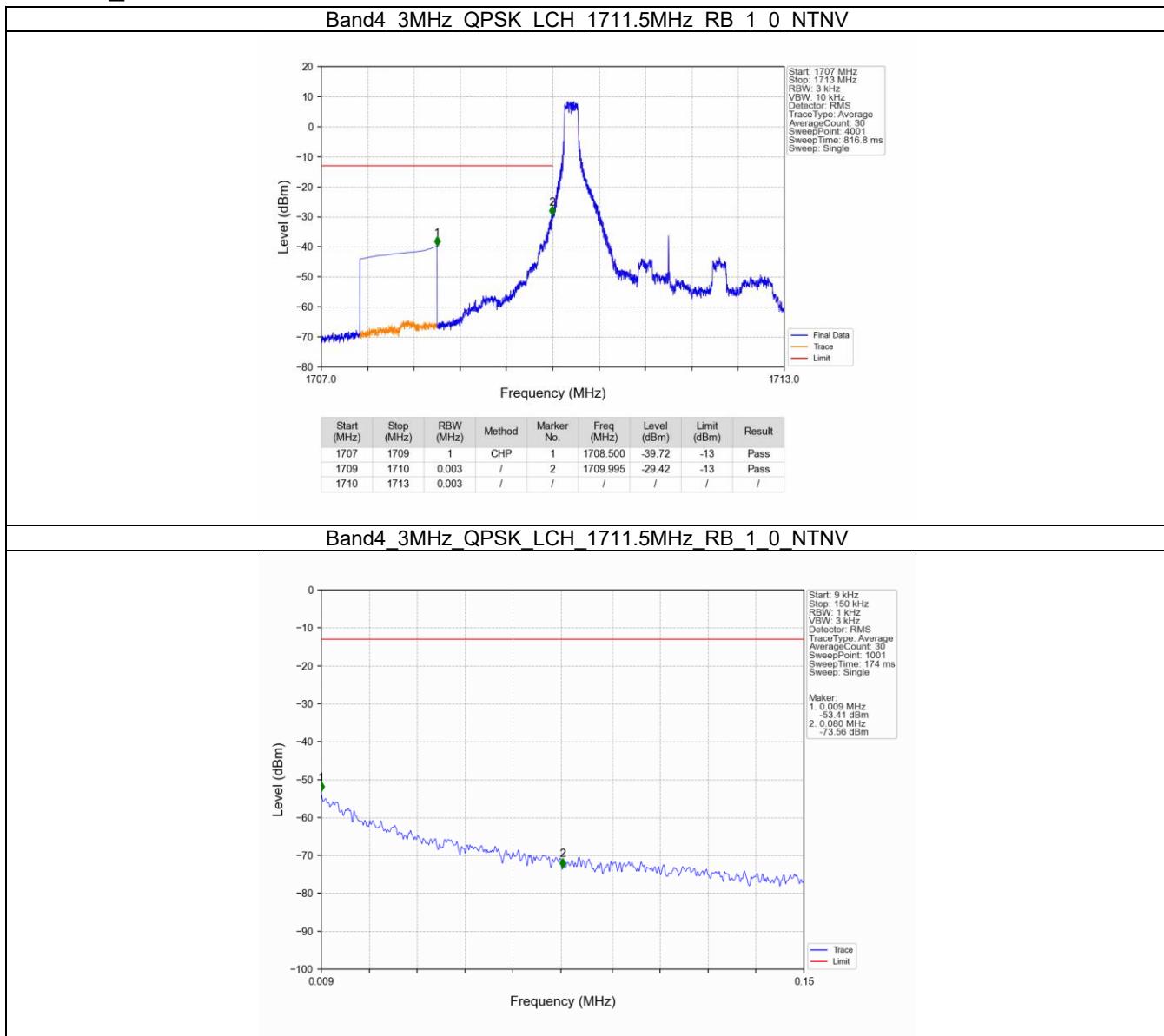
## Band4 1.4MHz 16QAM HCH 1754.3MHz RB 1 5 NTV



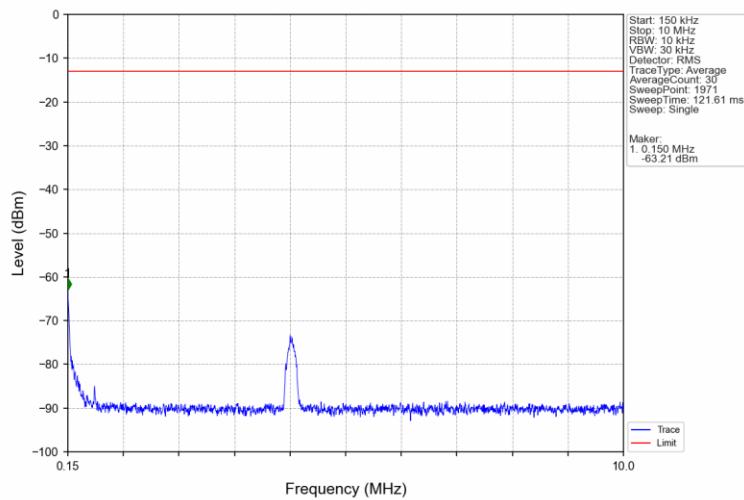
## Band4 1.4MHz 16QAM HCH 1754.3MHz RB 6 0 NTV



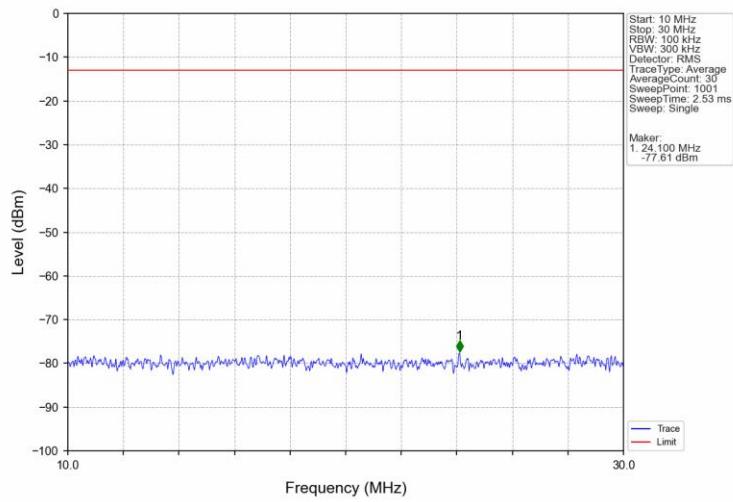
### 6.2.2 B4\_3MHz



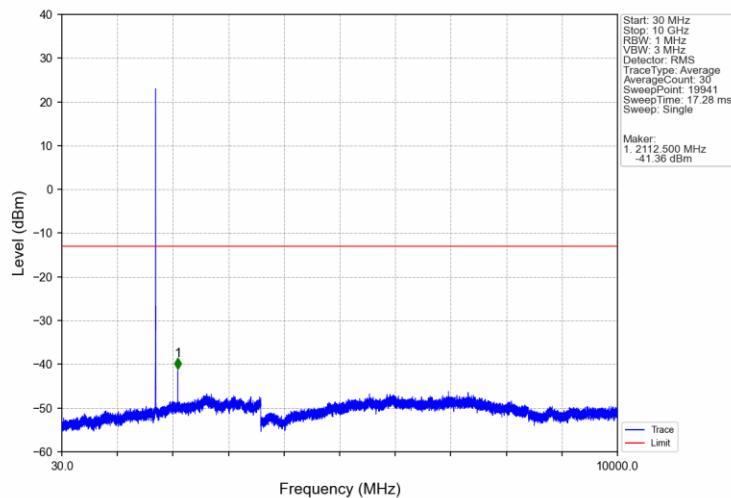
## Band4\_3MHz\_QPSK\_LCH\_1711.5MHz\_RB\_1\_0\_NTNV



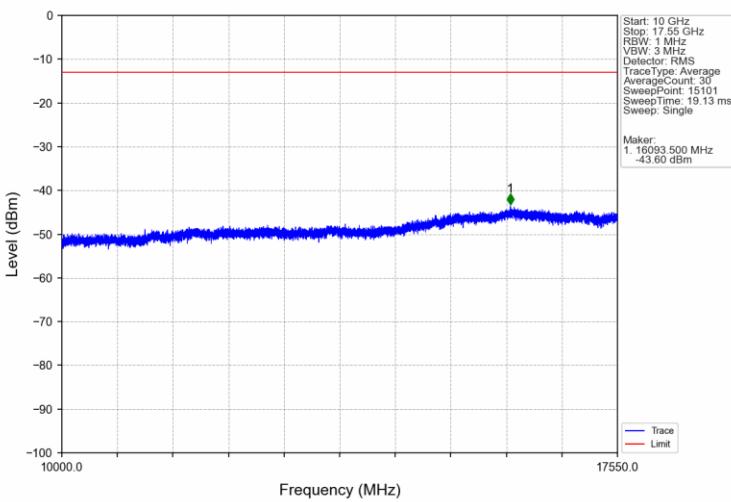
## Band4\_3MHz\_QPSK\_LCH\_1711.5MHz\_RB\_1\_0\_NTNV



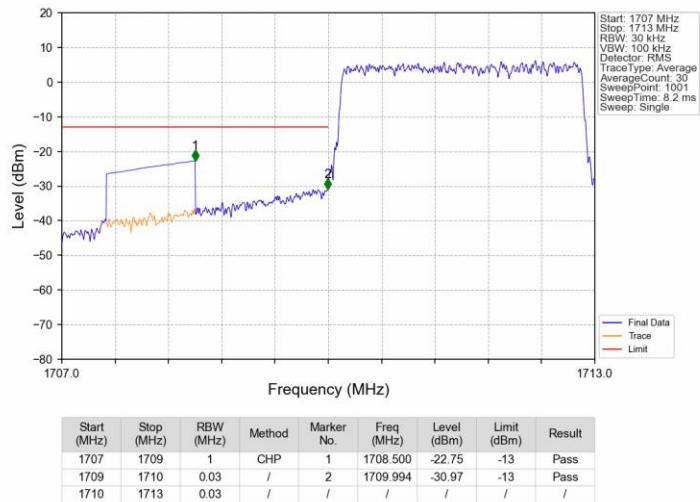
## Band4 3MHz QPSK LCH 1711.5MHz RB 1 0 NTNV



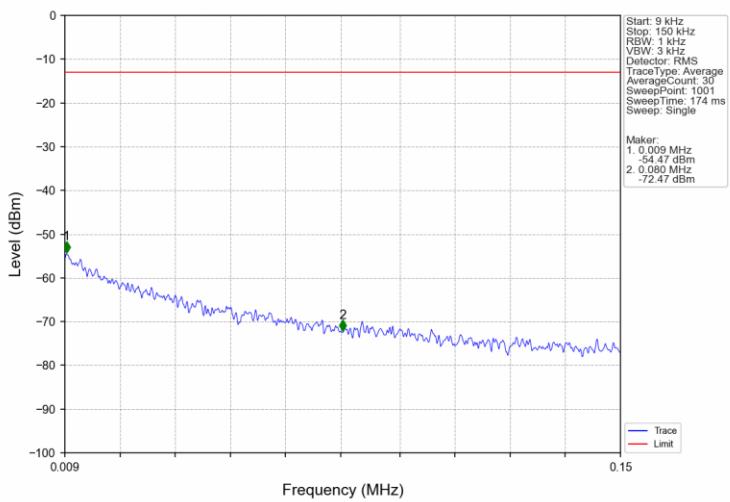
## Band4 3MHz QPSK LCH 1711.5MHz RB 1 0 NTNV



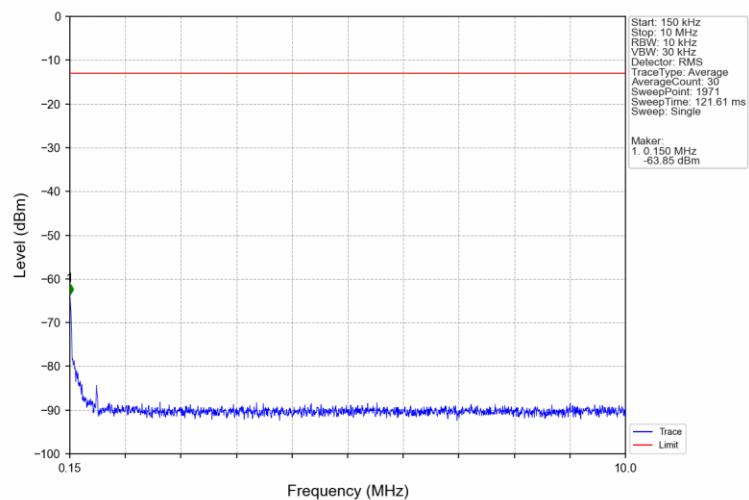
## Band4 3MHz QPSK LCH 1711.5MHz RB 15 0 NTVN



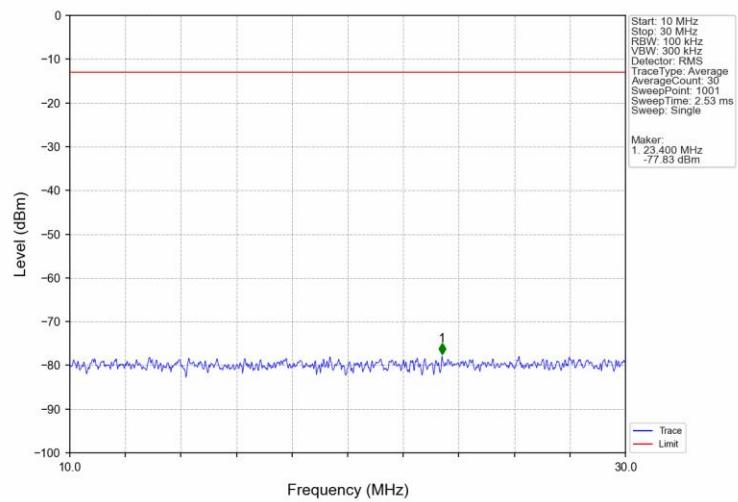
## Band4 3MHz QPSK MCH 1732.5MHz RB 1 0 NTVN



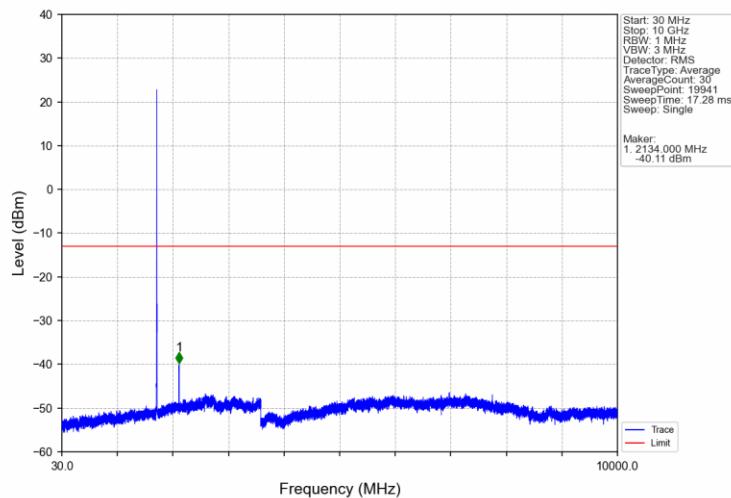
## Band4 3MHz QPSK MCH 1732.5MHz RB 1 0 NTVN



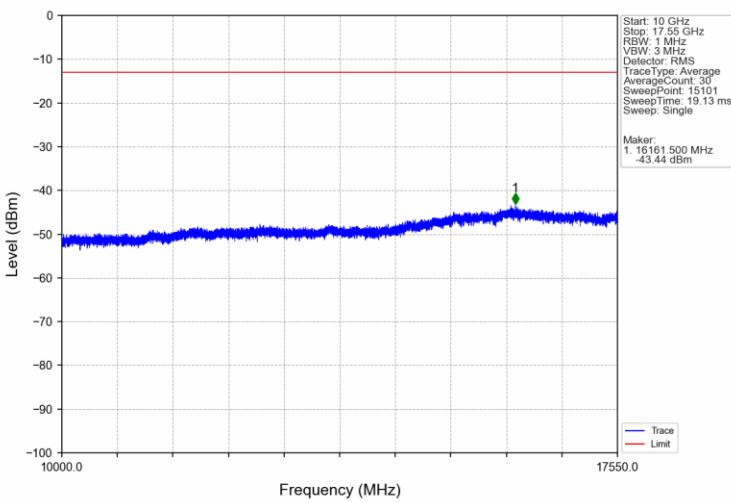
## Band4 3MHz QPSK MCH 1732.5MHz RB 1 0 NTVN



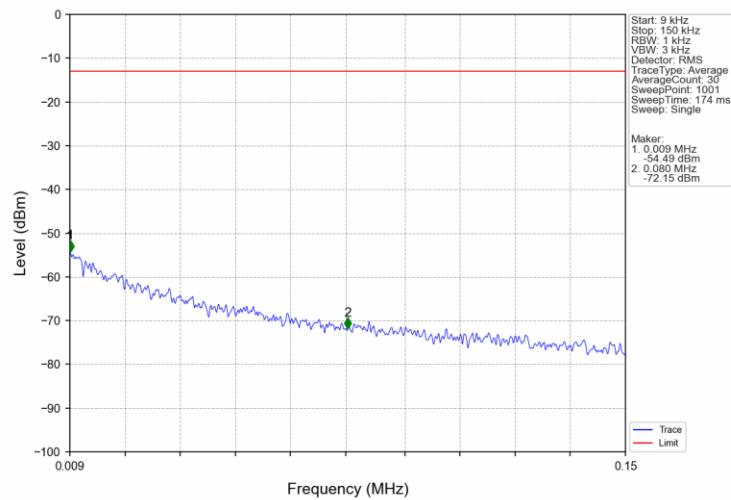
## Band4 3MHz QPSK MCH 1732.5MHz RB 1 0 NTVN



## Band4 3MHz QPSK MCH 1732.5MHz RB 1 0 NTVN



## Band4 3MHz QPSK HCH 1753.5MHz RB 1 0 NTNV



## Band4 3MHz QPSK HCH 1753.5MHz RB 1 0 NTNV

