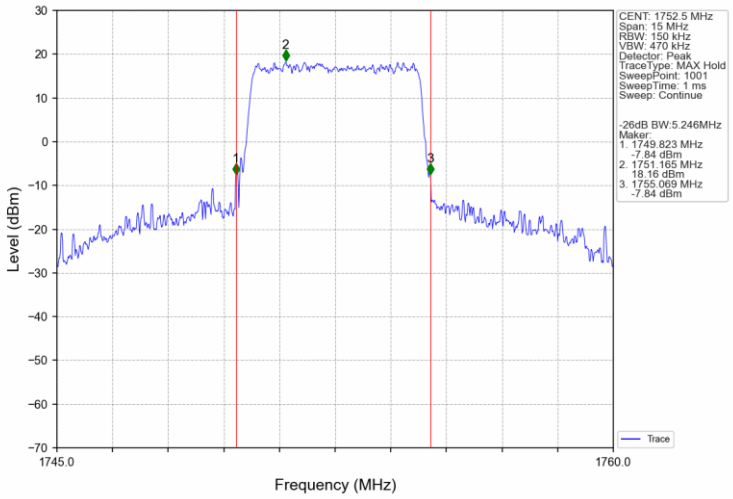
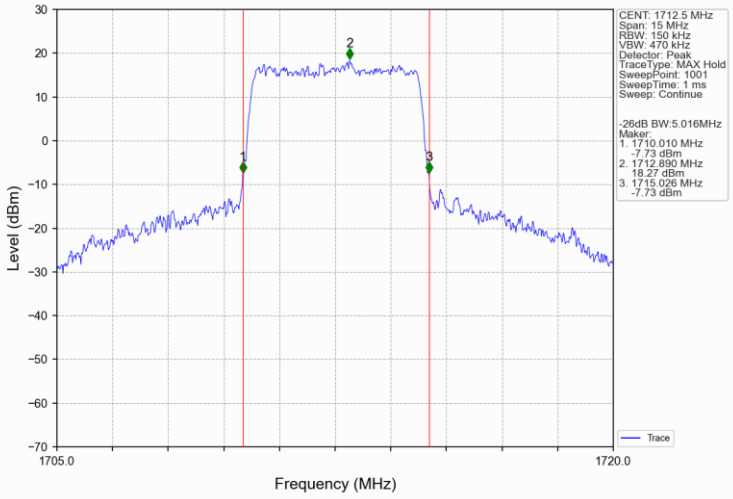
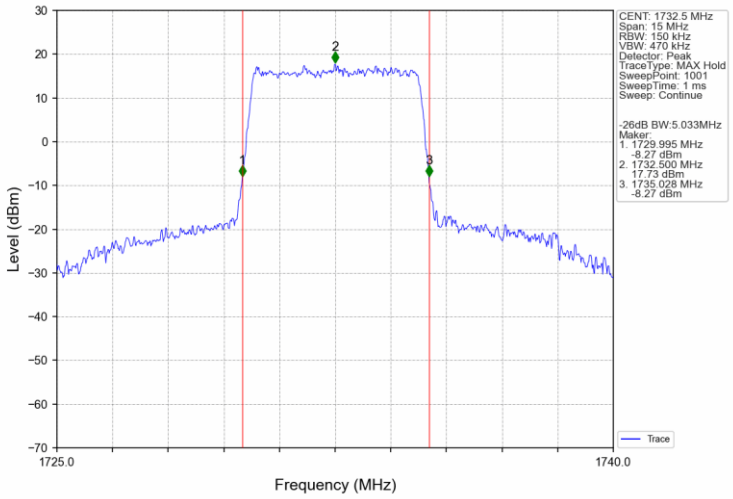
Band4_5MHz_QPSK_HCH_1752.5MHz_RB_25_0_NTNV



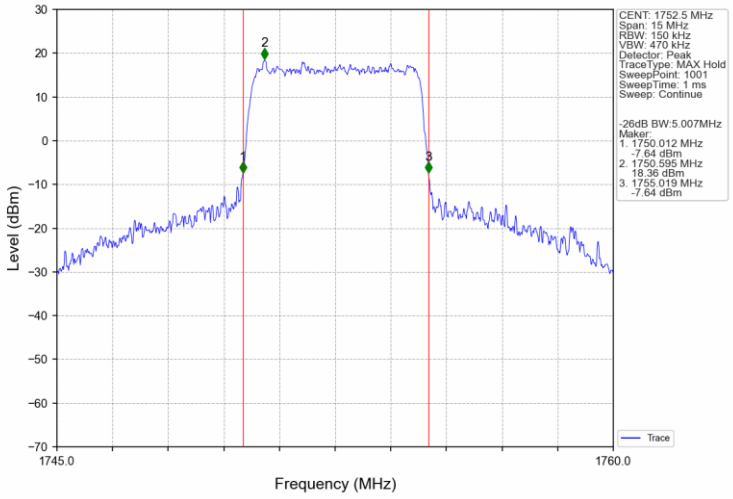
Band4_5MHz_16QAM_LCH_1712.5MHz_RB_25_0_NTNV



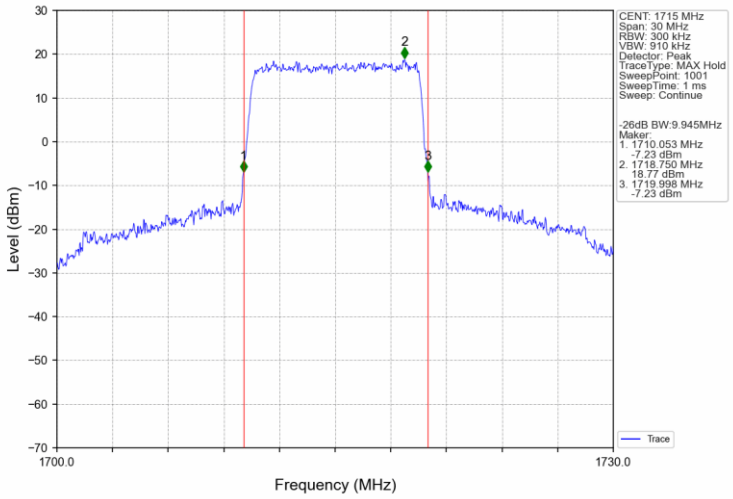
Band4_5MHz_16QAM_MCH_1732.5MHz_RB_25_0_NTNV



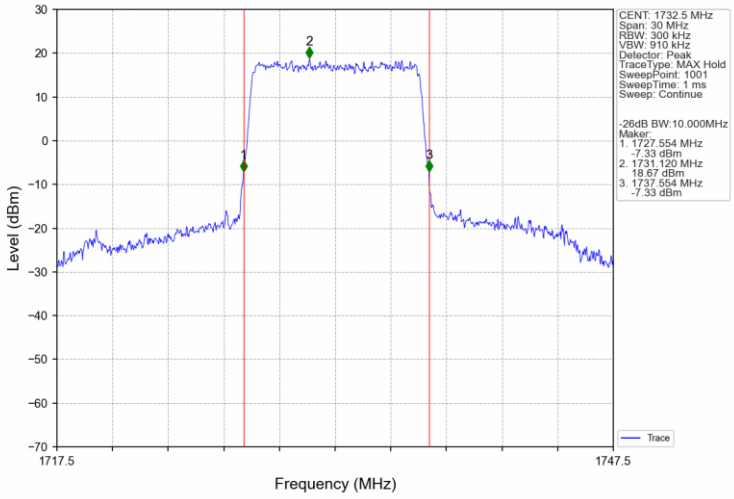
Band4_5MHz_16QAM_HCH_1752.5MHz_RB_25_0_NTNV



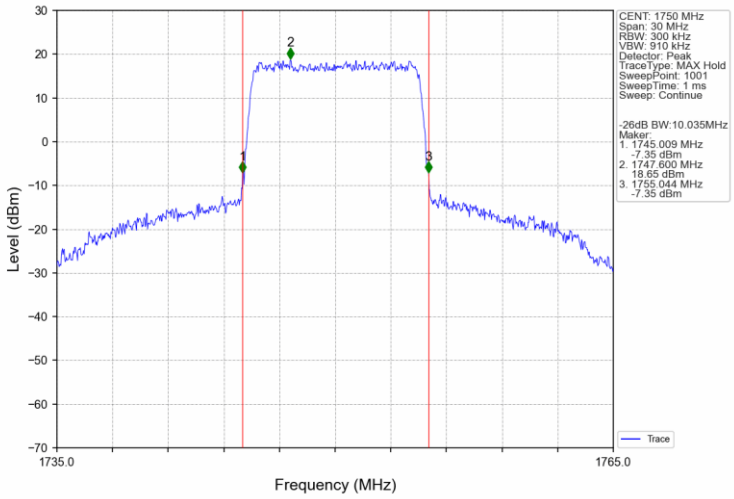
Band4_10MHz_QPSK_LCH_1715MHz_RB_50_0_NTNV



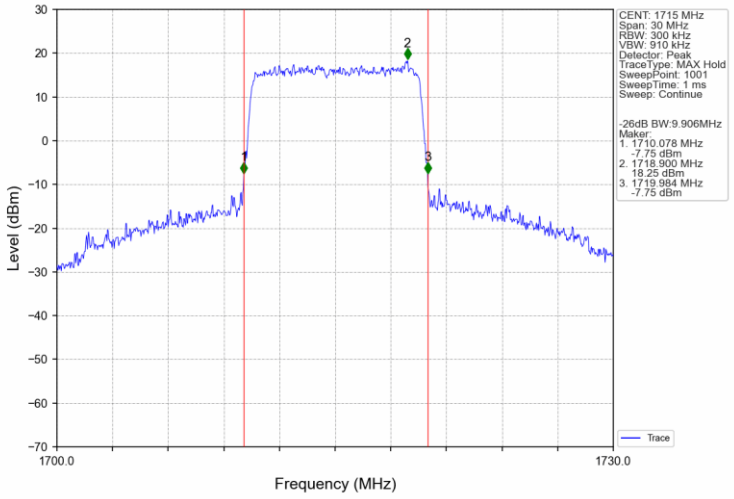
Band4_10MHz_QPSK_MCH_1732.5MHz_RB_50_0_NTNV



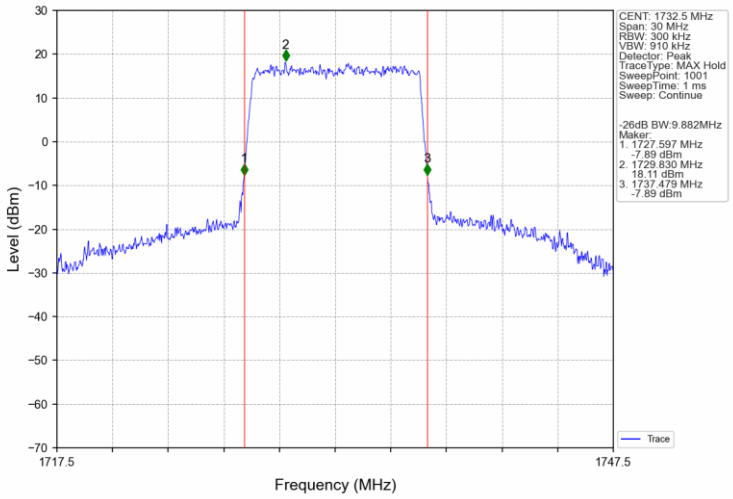
Band4_10MHz_QPSK_HCH_1750MHz_RB_50_0_NTNV



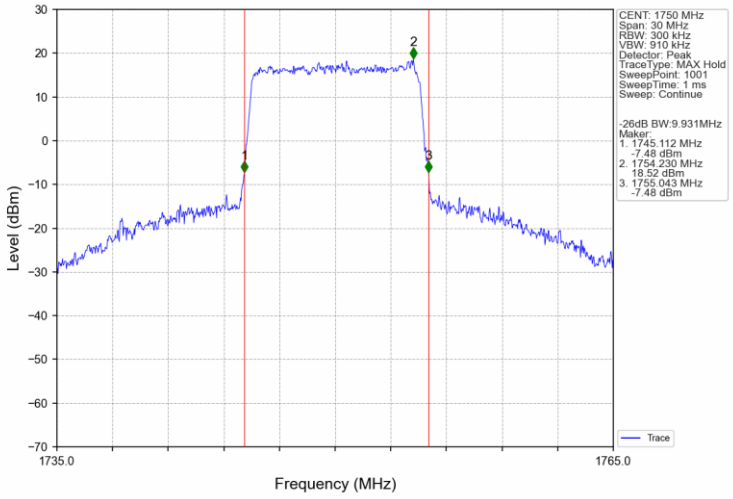
Band4_10MHz_16QAM_LCH_1715MHz_RB_50_0_NTNV



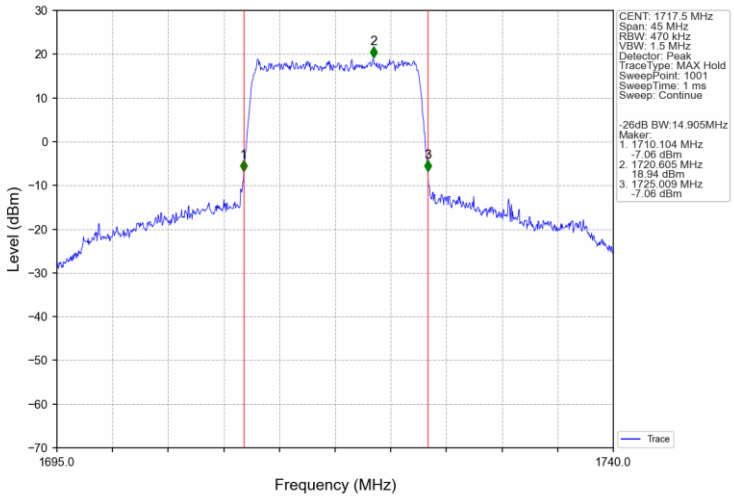
Band4_10MHz_16QAM_MCH_1732.5MHz_RB_50_0_NTNV



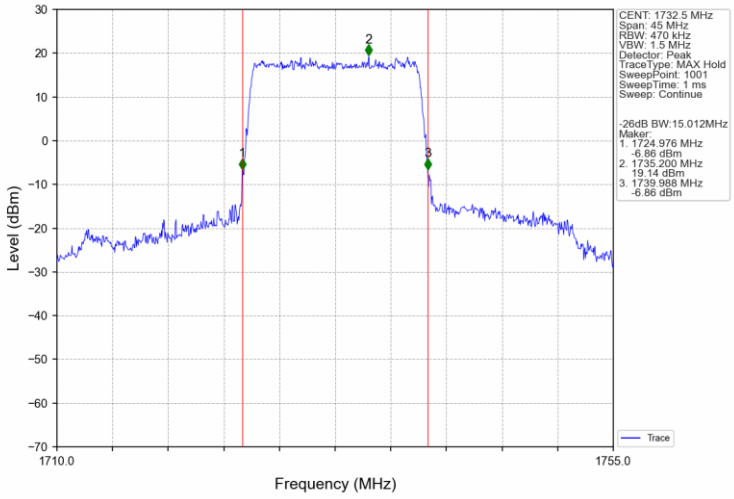
Band4_10MHz_16QAM_HCH_1750MHz_RB_50_0_NTNV



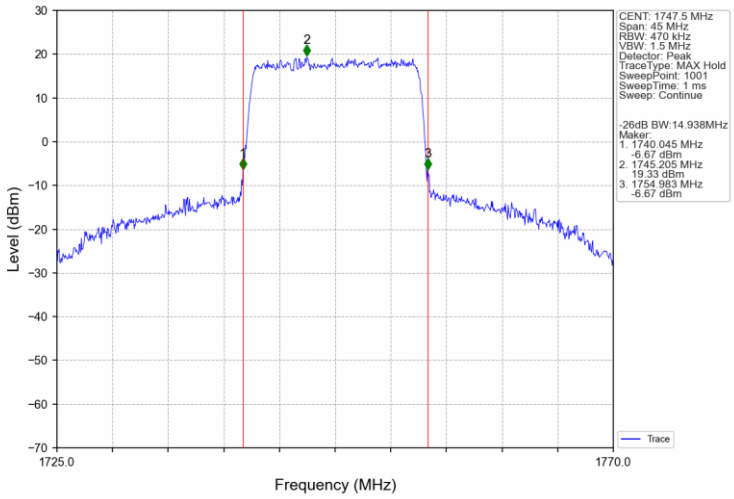
Band4_15MHz_QPSK_LCH_1717.5MHz_RB_75_0_NTNV



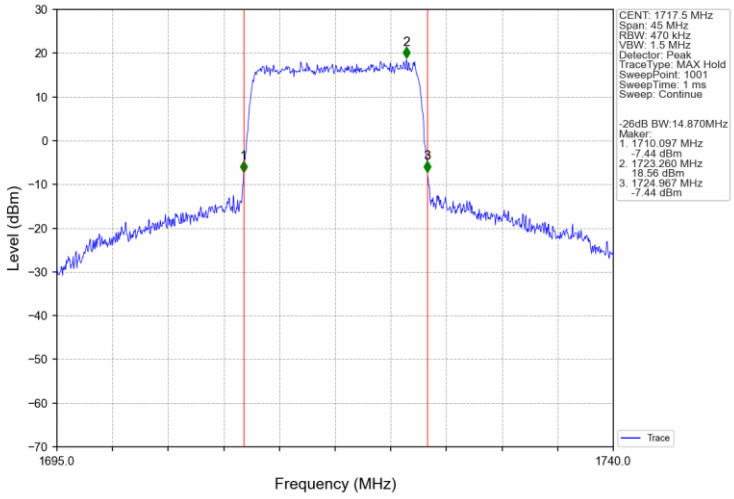
Band4_15MHz_QPSK_MCH_1732.5MHz_RB_75_0_NTNV



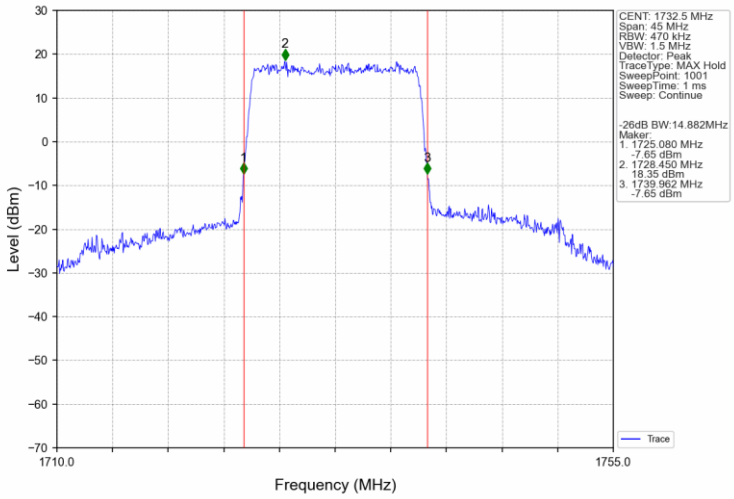
Band4_15MHz_QPSK_HCH_1747.5MHz_RB_75_0_NTNV



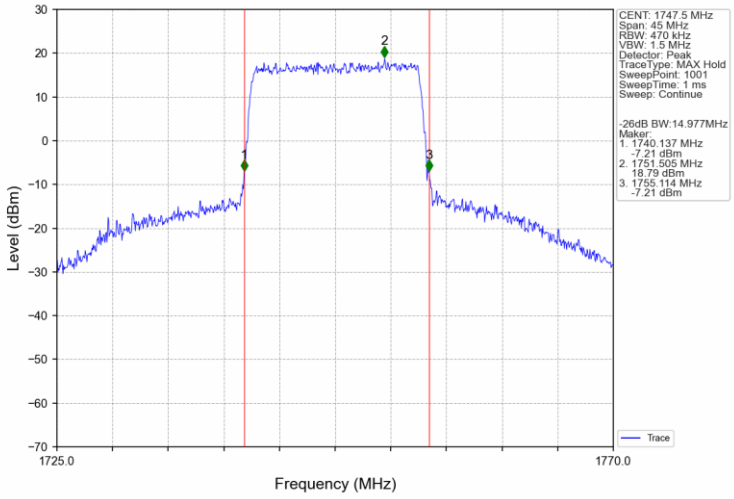
Band4_15MHz_16QAM_LCH_1717.5MHz_RB_75_0_NTNV



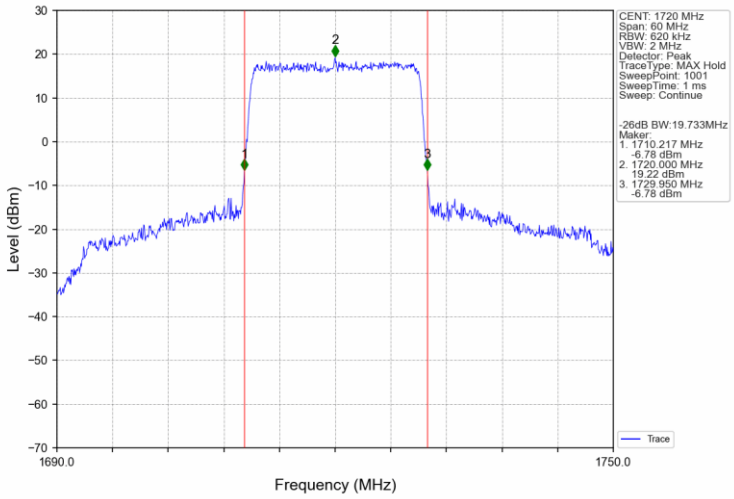
Band4_15MHz_16QAM_MCH_1732.5MHz_RB_75_0_NTNV



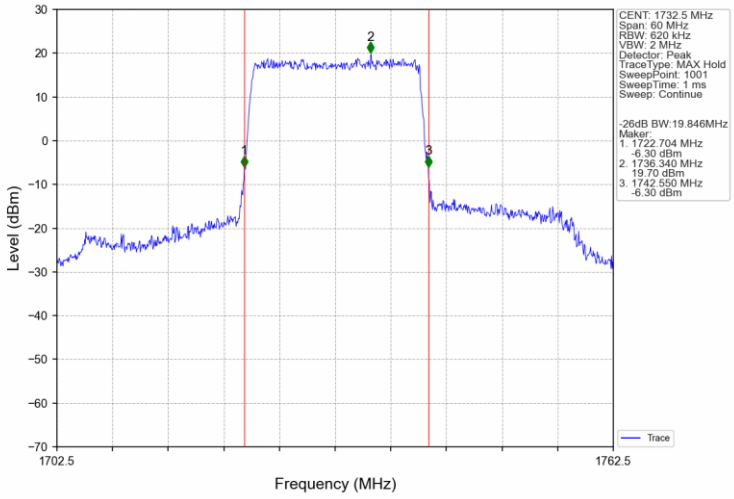
Band4_15MHz_16QAM_HCH_1747.5MHz_RB_75_0_NTNV



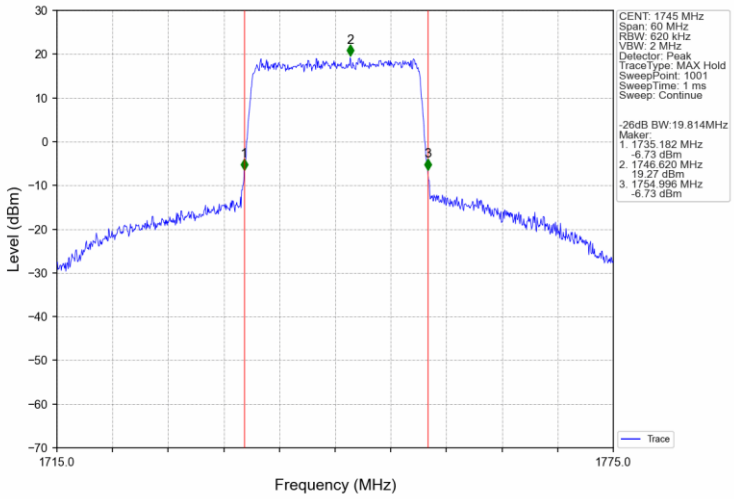
Band4_20MHz_QPSK_LCH_1720MHz_RB_100_0_NTNV



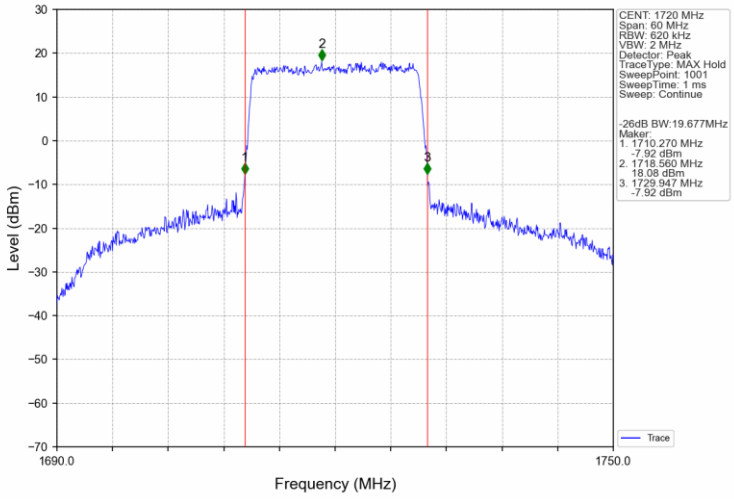
Band4_20MHz_QPSK_MCH_1732.5MHz_RB_100_0_NTNV



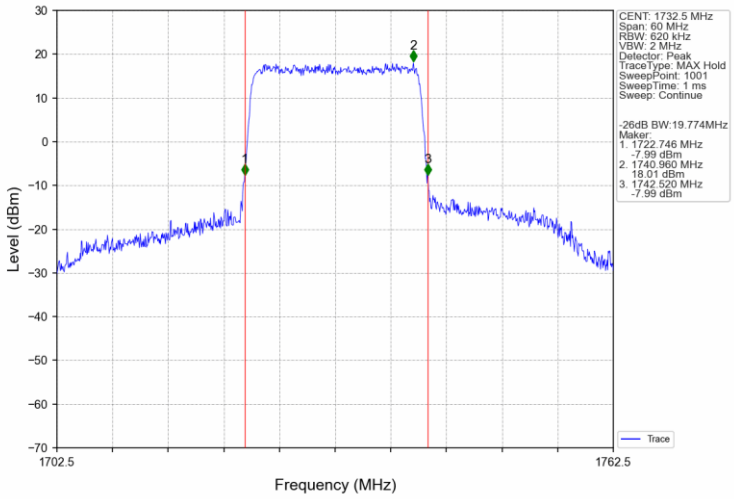
Band4_20MHz_QPSK_HCH_1745MHz_RB_100_0_NTNV



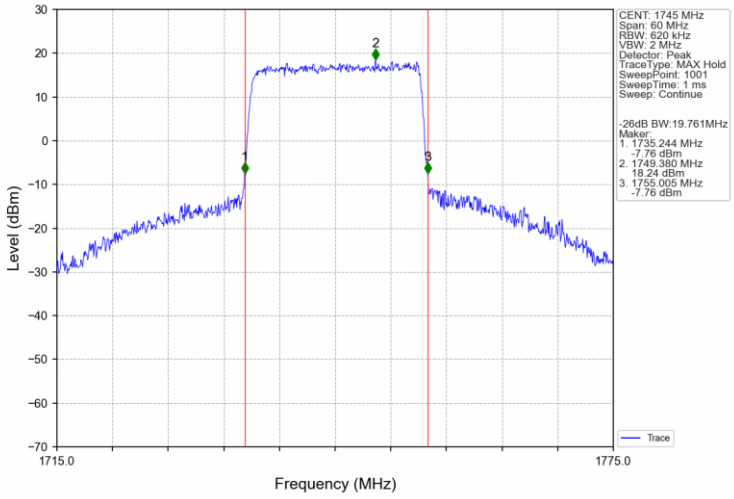
Band4_20MHz_16QAM_LCH_1720MHz_RB_100_0_NTNV



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

Band: 4 / Bandwidth: 1.4MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	1710.7	6	0	4.60	<=13	Pass
	1732.5	6	0	5.39	<=13	Pass
	1754.3	6	0	4.51	<=13	Pass
16QAM	1710.7	6	0	5.48	<=13	Pass
	1732.5	6	0	6.26	<=13	Pass
	1754.3	6	0	5.38	<=13	Pass

5.1.2 B4_3MHz

Band: 4 / Bandwidth: 3MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	1711.5	15	0	4.88	<=13	Pass
	1732.5	15	0	5.57	<=13	Pass
	1753.5	15	0	4.70	<=13	Pass
16QAM	1711.5	15	0	5.71	<=13	Pass
	1732.5	15	0	6.40	<=13	Pass
	1753.5	15	0	5.57	<=13	Pass

5.1.3 B4_5MHz

Band: 4 / Bandwidth: 5MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	1712.5	25	0	5.17	<=13	Pass
	1732.5	25	0	5.67	<=13	Pass
	1752.5	25	0	5.09	<=13	Pass
16QAM	1712.5	25	0	5.87	<=13	Pass
	1732.5	25	0	6.41	<=13	Pass
	1752.5	25	0	5.81	<=13	Pass

5.1.4 B4_10MHz

Band: 4 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	1715	50	0	5.11	<=13	Pass
	1732.5	50	0	5.60	<=13	Pass
	1750	50	0	5.04	<=13	Pass
16QAM	1715	50	0	5.86	<=13	Pass
	1732.5	50	0	6.39	<=13	Pass
	1750	50	0	5.81	<=13	Pass

5.1.5 B4_15MHz

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

	(MHz)	Size	Offset	Result	Limit	
QPSK	1717.5	75	0	5.06	<=13	Pass
	1732.5	75	0	5.24	<=13	Pass
	1747.5	75	0	5.06	<=13	Pass
16QAM	1717.5	75	0	6.05	<=13	Pass
	1732.5	75	0	6.28	<=13	Pass
	1747.5	75	0	5.98	<=13	Pass

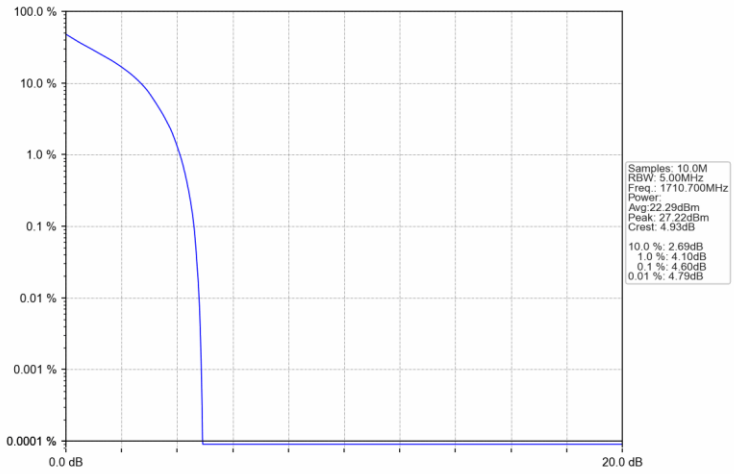
5.1.6 B4_20MHz

Band: 4 / Bandwidth: 20MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	1720	100	0	5.68	<=13	Pass
	1732.5	100	0	5.63	<=13	Pass
	1745	100	0	5.66	<=13	Pass
16QAM	1720	100	0	6.62	<=13	Pass
	1732.5	100	0	6.68	<=13	Pass
	1745	100	0	6.55	<=13	Pass

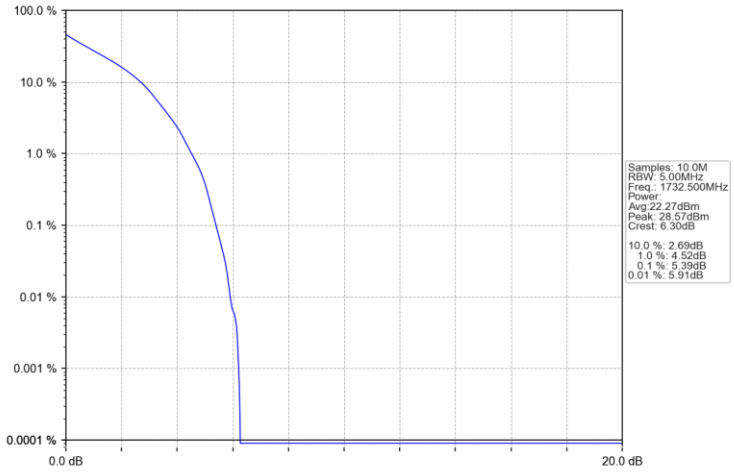
5.2 Test Graph

5.2.1 B4_1.4MHz

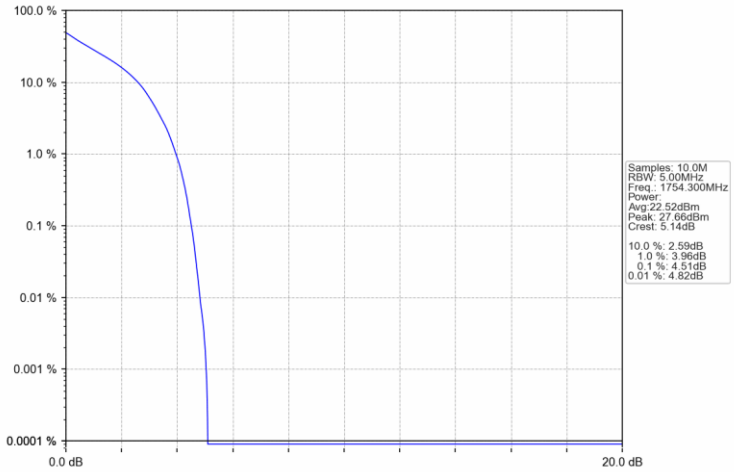
Band4_1.4MHz_QPSK_LCH_1710.7MHz_RB_6_0_NTNV



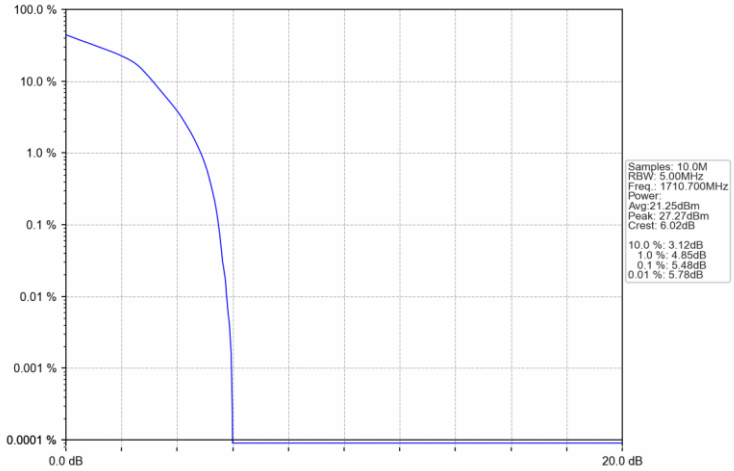
Band4_1.4MHz_QPSK_MCH_1732.5MHz_RB_6_0_NTNV



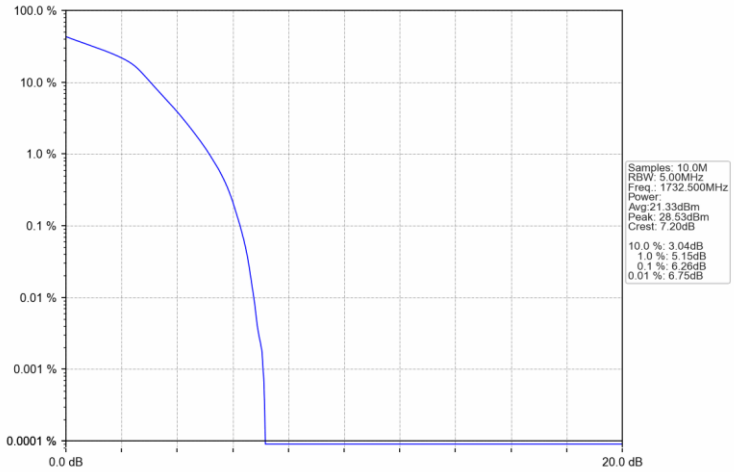
Band4_1.4MHz_QPSK_HCH_1754.3MHz_RB_6_0_NTNV



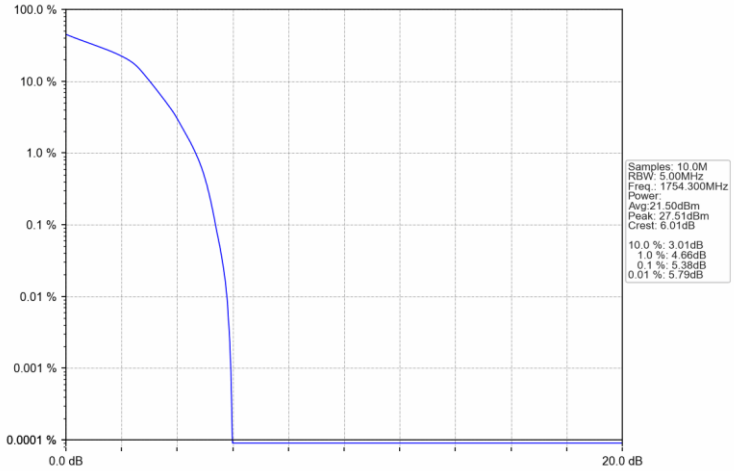
Band4_1.4MHz_16QAM_LCH_1710.7MHz_RB_6_0_NTNV



Band4_1.4MHz_16QAM_MCH_1732.5MHz_RB_6_0_NTNV

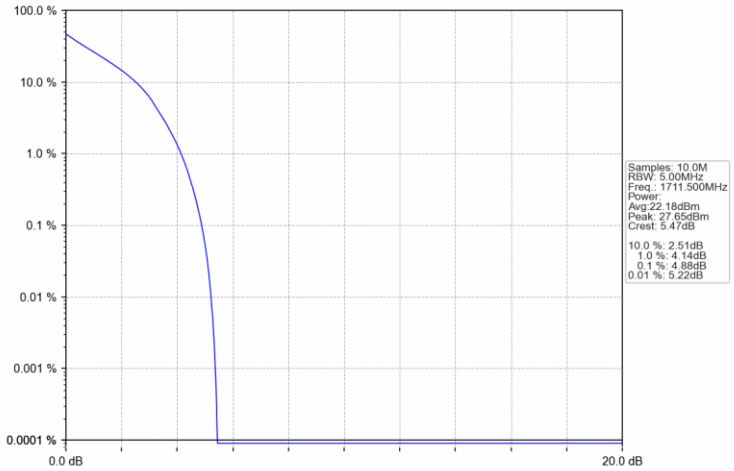


Band4_1.4MHz_16QAM_HCH_1754.3MHz_RB_6_0_NTNV

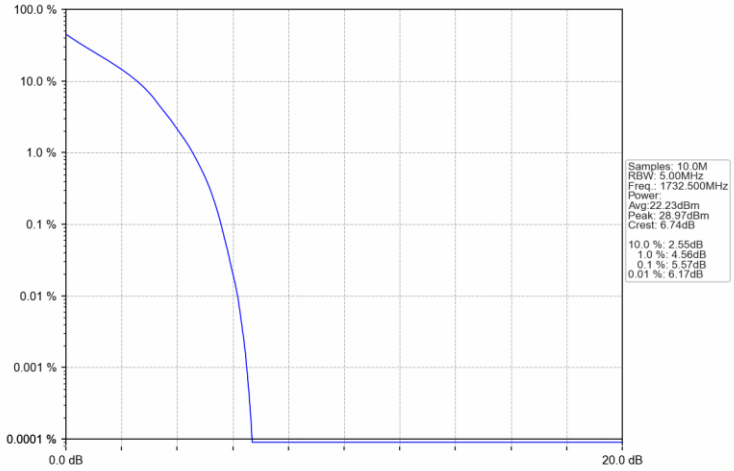


5.2.2 B4_3MHz

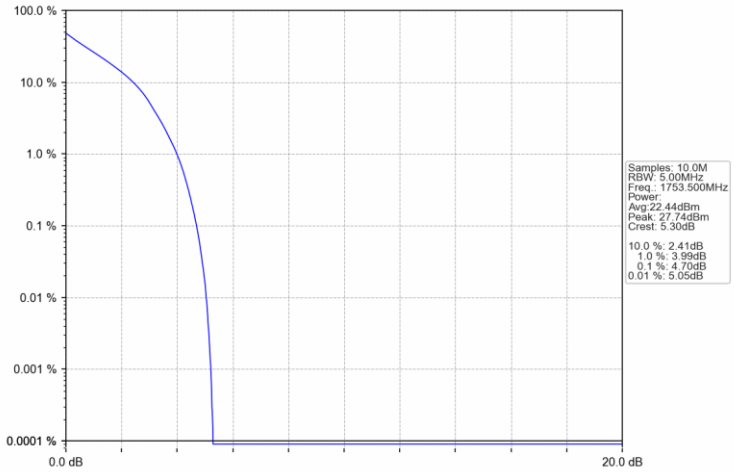
Band4_3MHz_QPSK_LCH_1711.5MHz_RB_15_0_NTNV



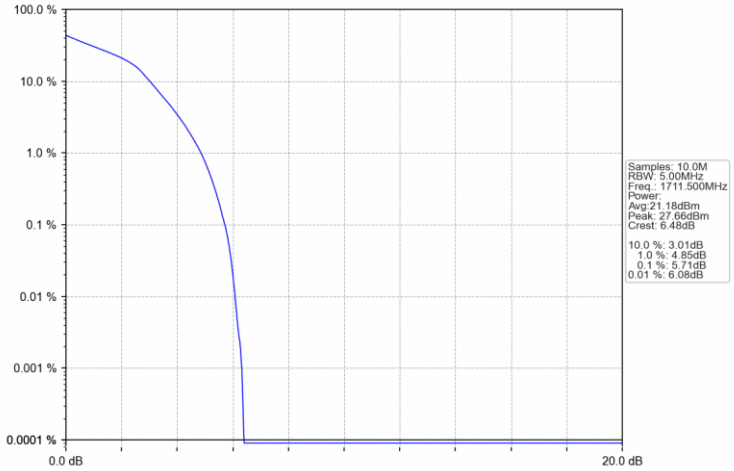
Band4_3MHz_QPSK_MCH_1732.5MHz_RB_15_0_NTNV



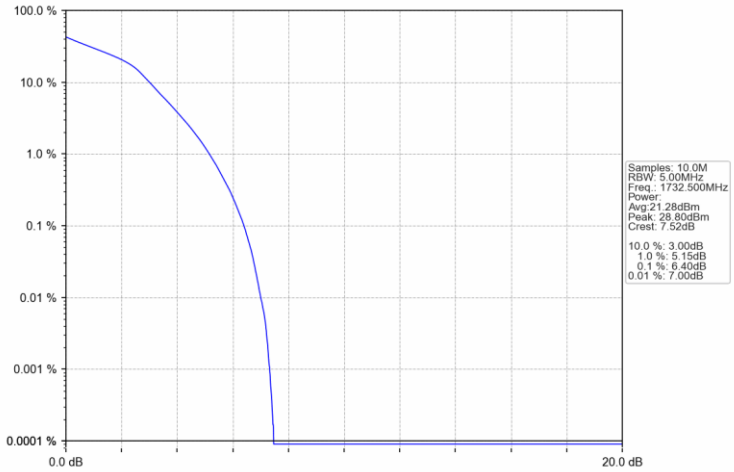
Band4_3MHz_QPSK_HCH_1753.5MHz_RB_15_0_NTNV



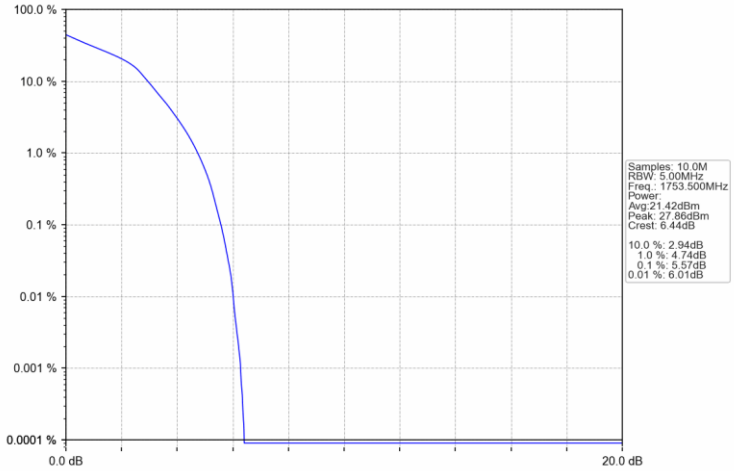
Band4_3MHz_16QAM_LCH_1711.5MHz_RB_15_0_NTNV



Band4_3MHz_16QAM_MCH_1732.5MHz_RB_15_0_NTNV

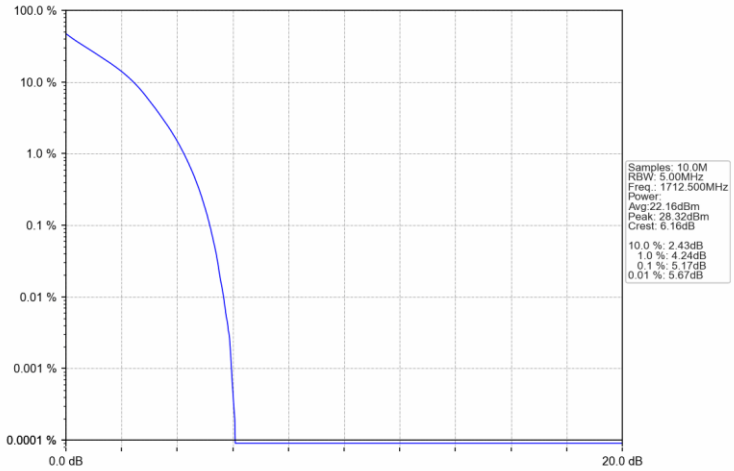


Band4_3MHz_16QAM_HCH_1753.5MHz_RB_15_0_NTNV

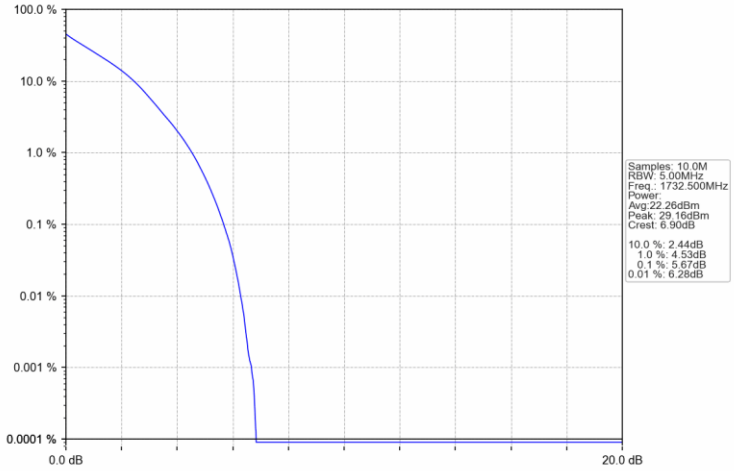


5.2.3 B4_5MHz

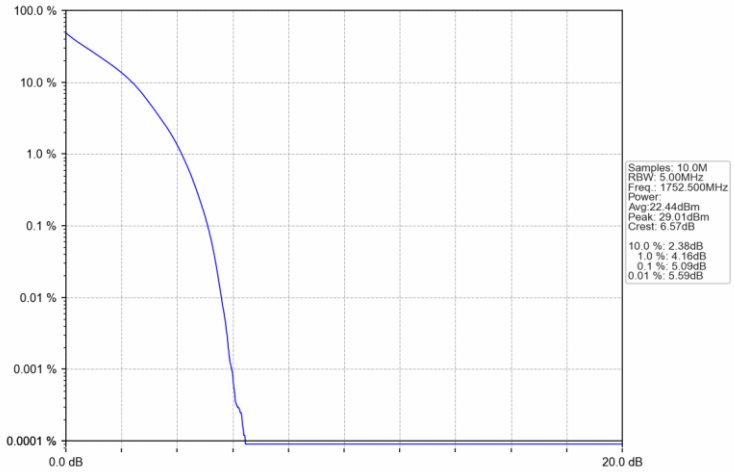
Band4_5MHz_QPSK_LCH_1712.5MHz_RB_25_0_NTNV



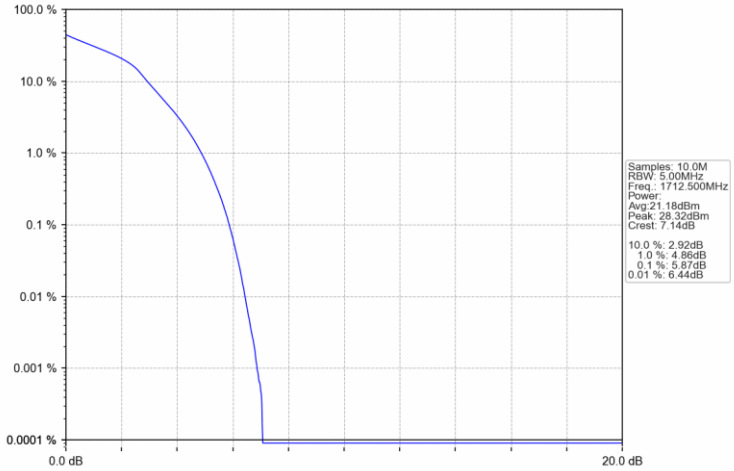
Band4_5MHz_QPSK_MCH_1732.5MHz_RB_25_0_NTNV



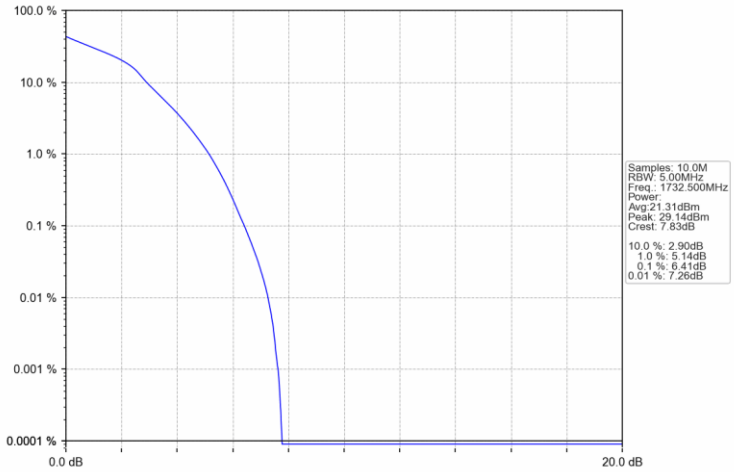
Band4_5MHz_QPSK_HCH_1752.5MHz_RB_25_0_NTNV



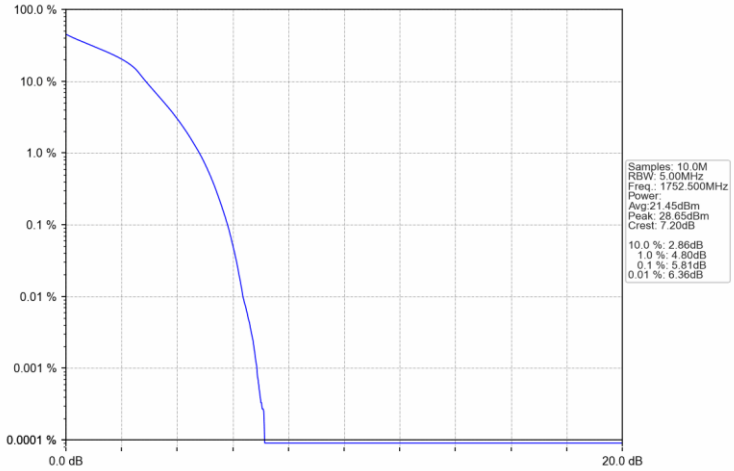
Band4_5MHz_16QAM_LCH_1712.5MHz_RB_25_0_NTNV



Band4_5MHz_16QAM_MCH_1732.5MHz_RB_25_0_NTNV

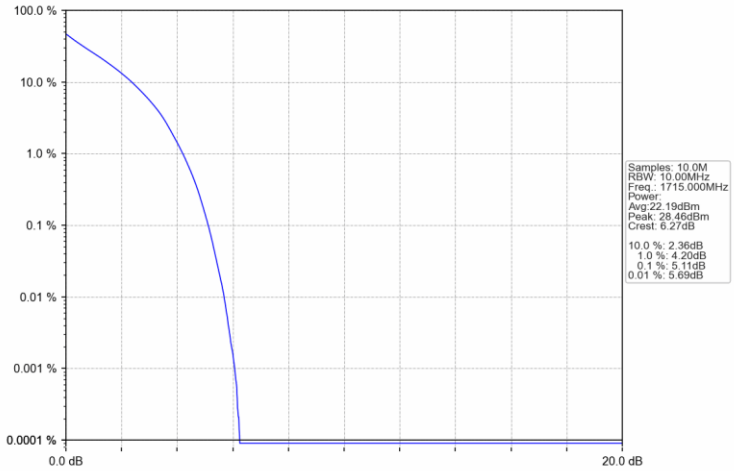


Band4_5MHz_16QAM_HCH_1752.5MHz_RB_25_0_NTNV

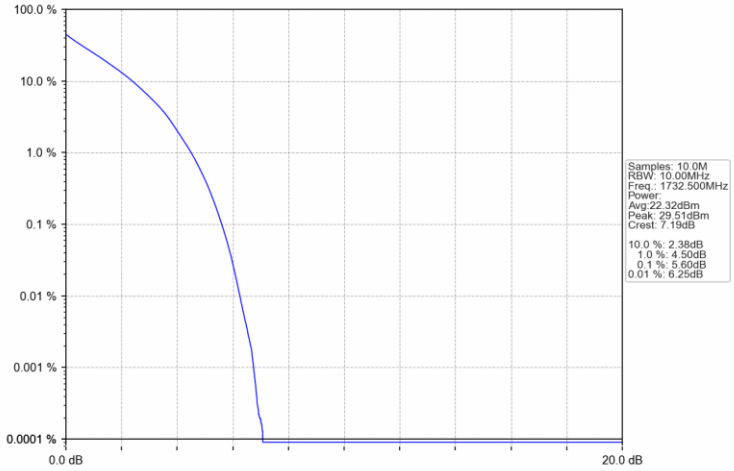


5.2.4 B4_10MHz

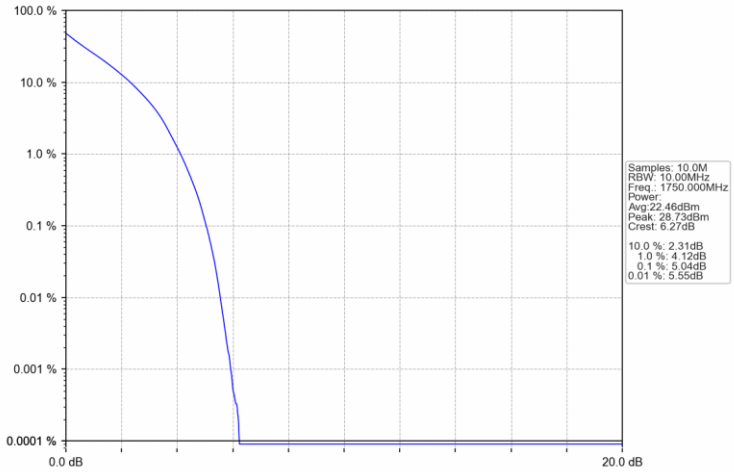
Band4_10MHz_QPSK_LCH_1715MHz_RB_50_0_NTNV



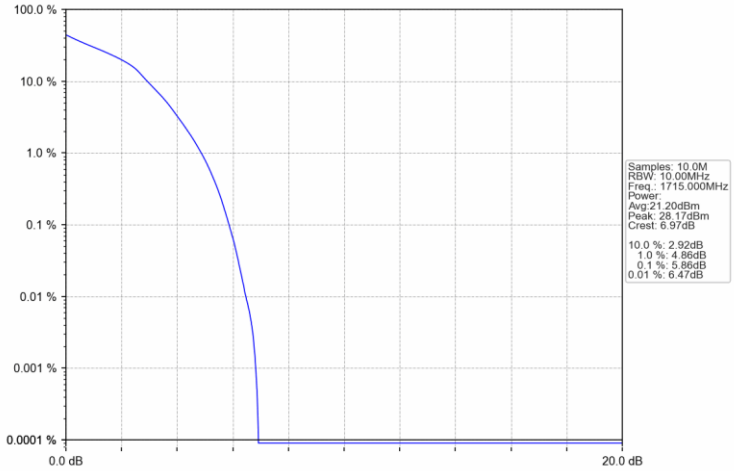
Band4_10MHz_QPSK_MCH_1732.5MHz_RB_50_0_NTNV



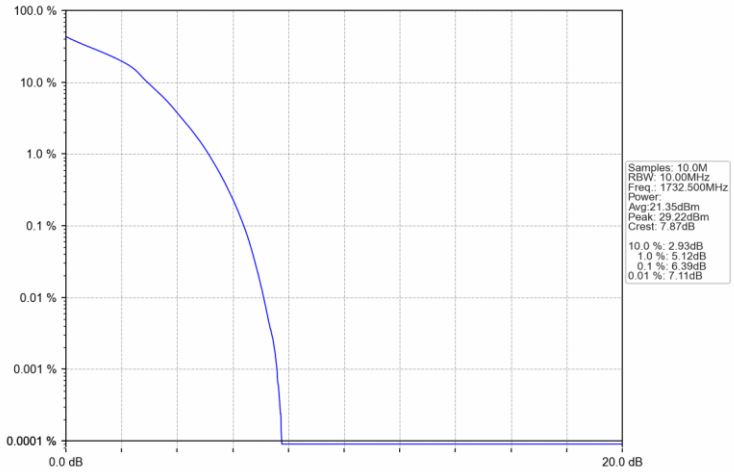
Band4_10MHz_QPSK_HCH_1750MHz_RB_50_0_NTNV



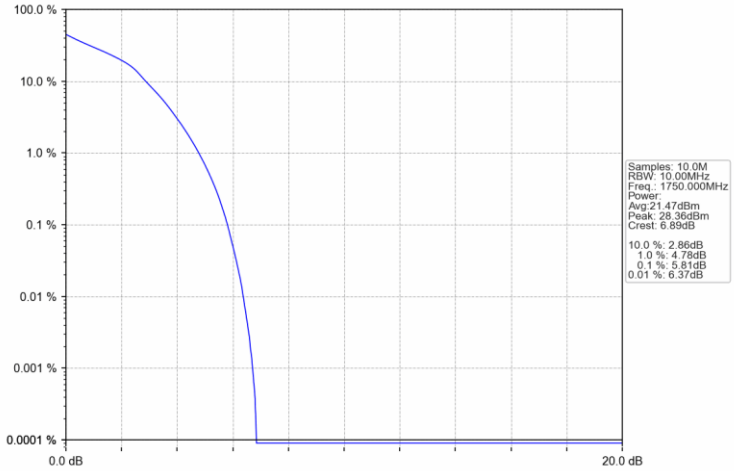
Band4_10MHz_16QAM_LCH_1715MHz_RB_50_0_NTNV



Band4_10MHz_16QAM_MCH_1732.5MHz_RB_50_0_NTNV

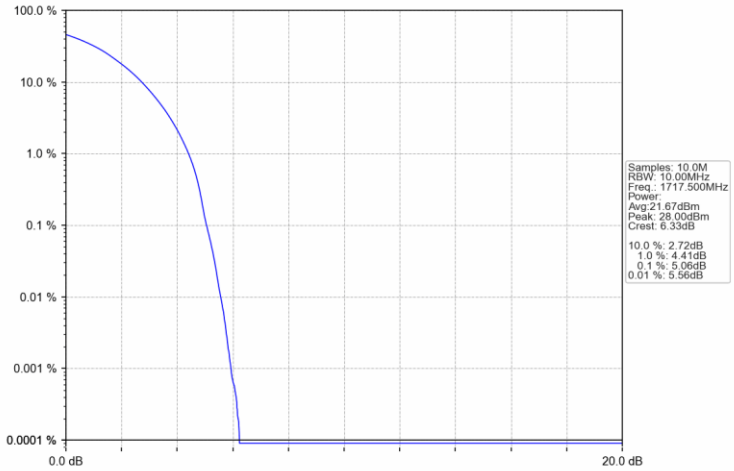


Band4_10MHz_16QAM_HCH_1750MHz_RB_50_0_NTNV

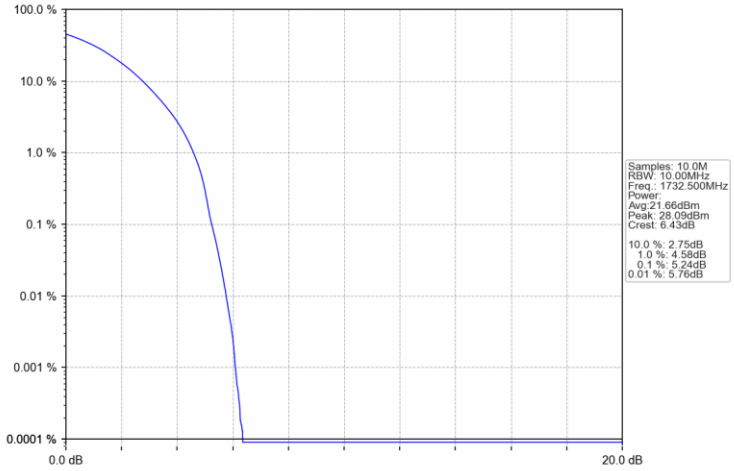


5.2.5 B4_15MHz

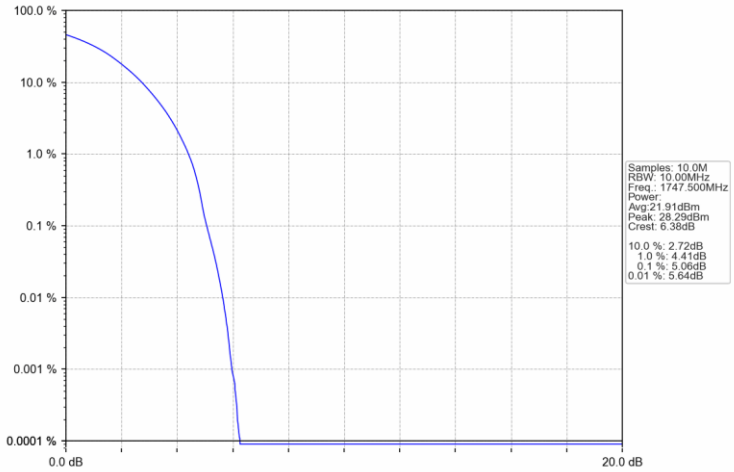
Band4_15MHz_QPSK_LCH_1717.5MHz_RB_75_0_NTNV



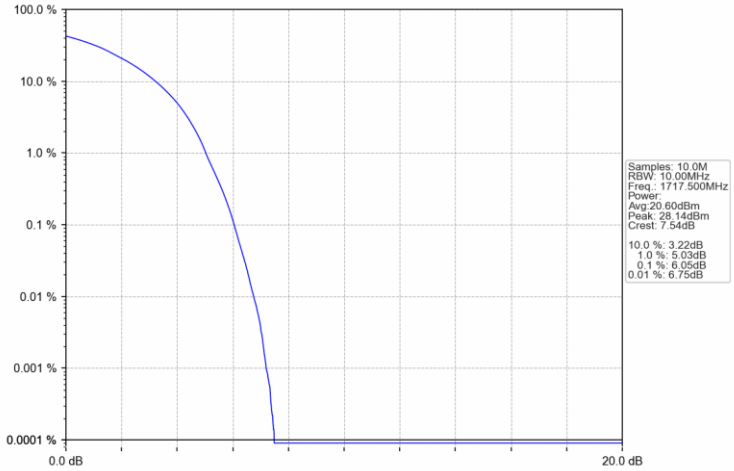
Band4_15MHz_QPSK_MCH_1732.5MHz_RB_75_0_NTNV



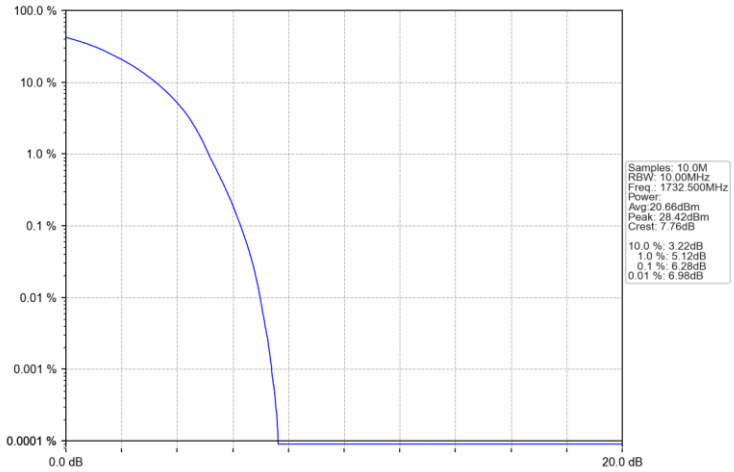
Band4_15MHz_QPSK_HCH_1747.5MHz_RB_75_0_NTNV



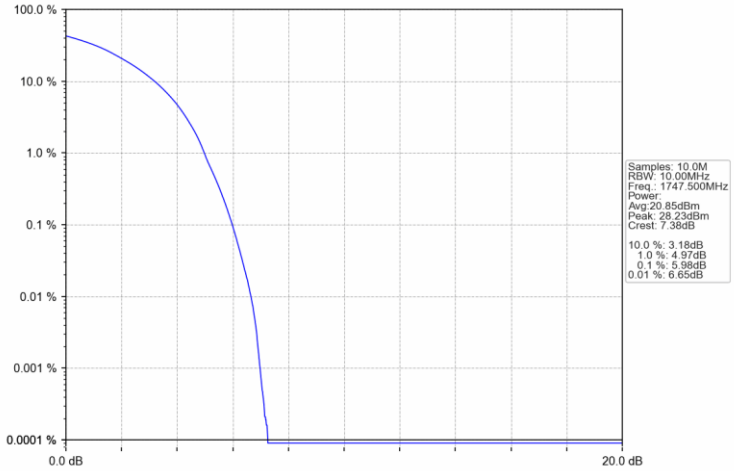
Band4_15MHz_16QAM_LCH_1717.5MHz_RB_75_0_NTNV



Band4_15MHz_16QAM_MCH_1732.5MHz_RB_75_0_NTNV

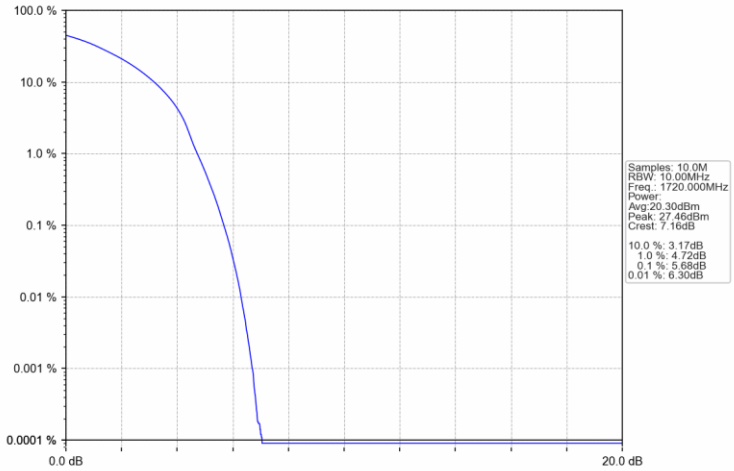


Band4_15MHz_16QAM_HCH_1747.5MHz_RB_75_0_NTNV

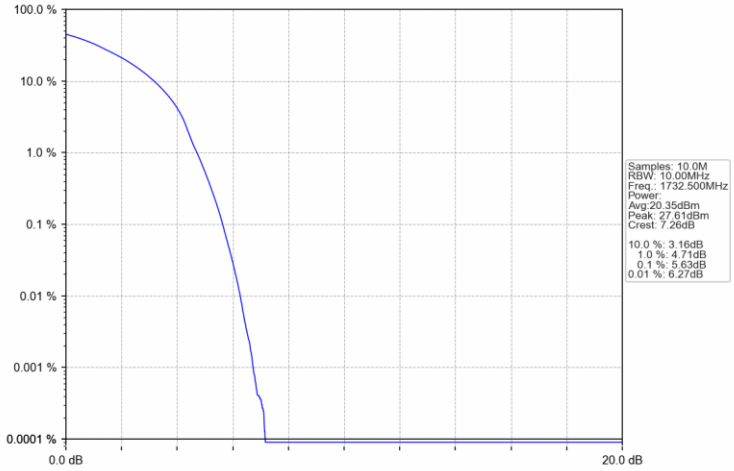


5.2.6 B4_20MHz

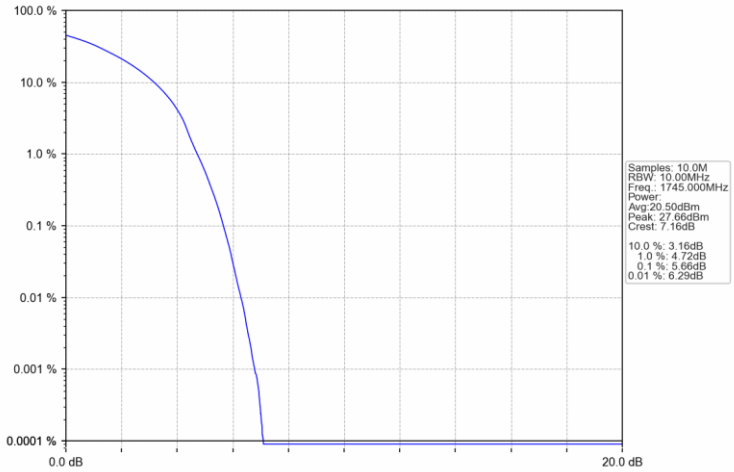
Band4_20MHz_QPSK_LCH_1720MHz_RB_100_0_NTNV



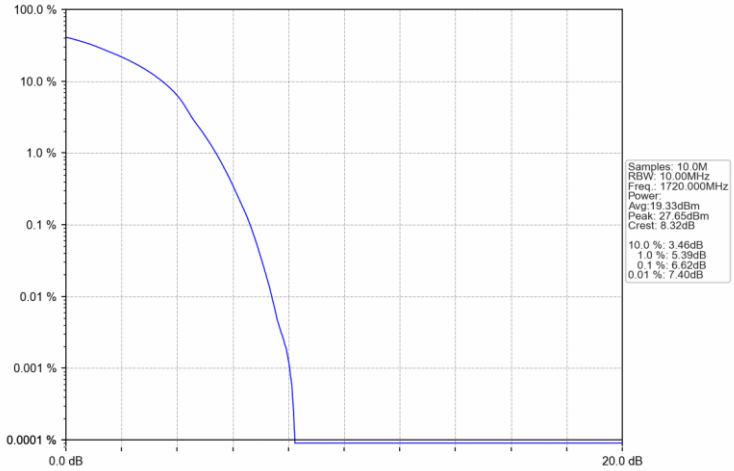
Band4_20MHz_QPSK_MCH_1732.5MHz_RB_100_0_NTNV



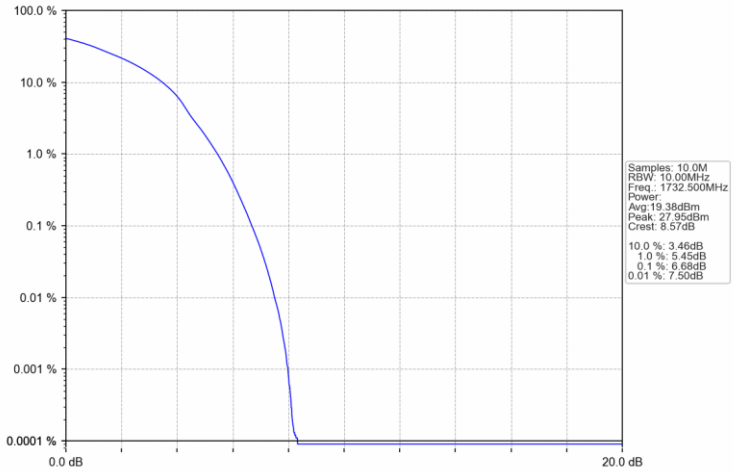
Band4_20MHz_QPSK_HCH_1745MHz_RB_100_0_NTNV



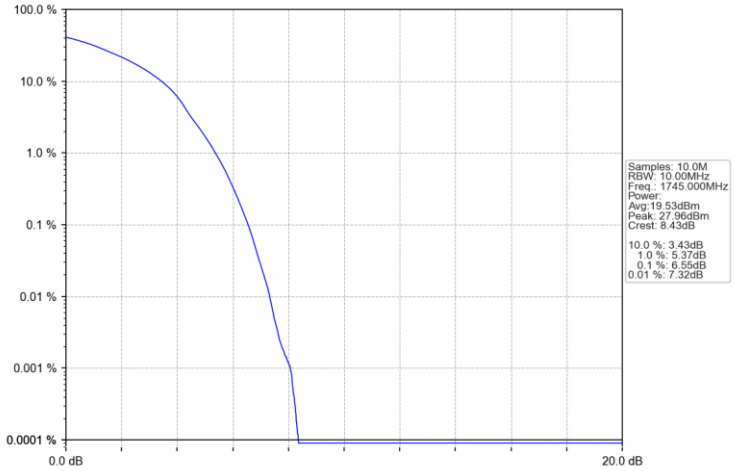
Band4_20MHz_16QAM_LCH_1720MHz_RB_100_0_NTNV



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

Band: 4 / Bandwidth: 1.4MHz / NTNV						
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	1	0	Refer To Test Graph		Pass
			5	Refer To Test Graph		Pass
		6	0	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

Band: 4 / Bandwidth: 3MHz / NTNV						
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

Band: 4 / Bandwidth: 5MHz / NTNV						
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 / NTNV						
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	1	0	Refer To Test Graph		Pass
			49	Refer To Test Graph		Pass
		50	0	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	1	0	Refer To Test Graph		Pass
			49	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass

6.1.5 B4_15MHz

Band: 4 / Bandwidth: 15MHz / NTNV						
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	1	0	Refer To Test Graph		Pass
			74	Refer To Test Graph		Pass
		75	0	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	1	0	Refer To Test Graph		Pass
			74	Refer To Test Graph		Pass
		75	0	Refer To Test Graph		Pass

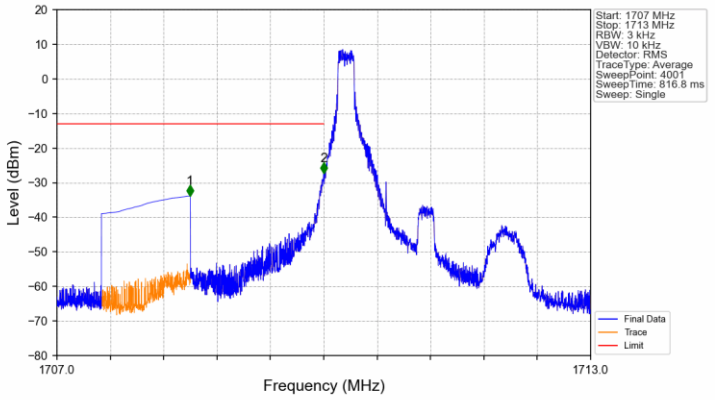
6.1.6 B4_20MHz

Band: 4 / Bandwidth: 20MHz / NTNV						
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	1	0	Refer To Test Graph		Pass
			99	Refer To Test Graph		Pass
		100	0	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	1	0	Refer To Test Graph		Pass
			99	Refer To Test Graph		Pass
		100	0	Refer To Test Graph		Pass

6.2 Test Graph

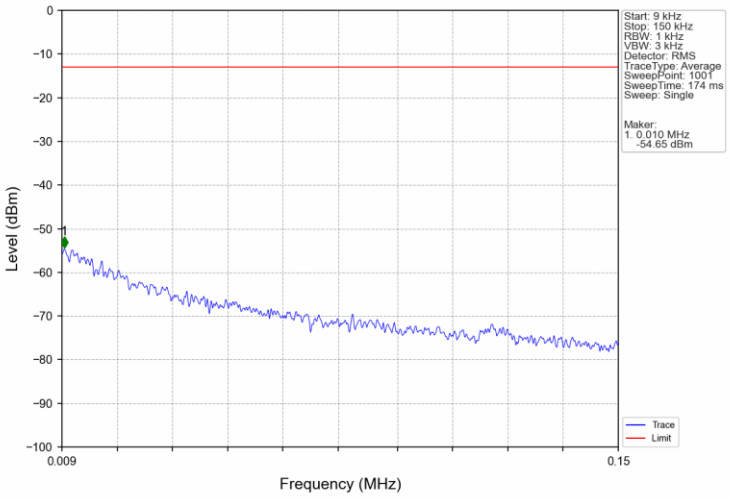
6.2.1 B4_1.4MHz

Band4_1.4MHz_QPSK_LCH_1710.7MHz_RB_1_0_NTNV

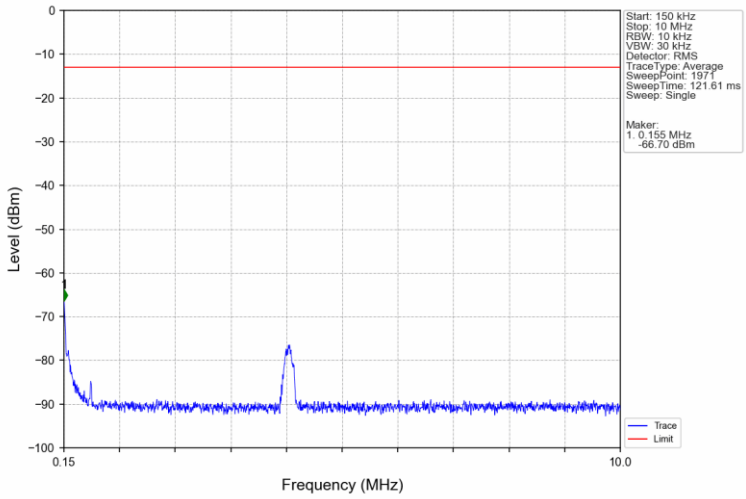


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1707	1709	1	CHP	1	1708.495	-33.87	-13	Pass
1709	1710	0.003	/	2	1709.998	-27.30	-13	Pass
1710	1713	0.003	/	/	/	/	/	/

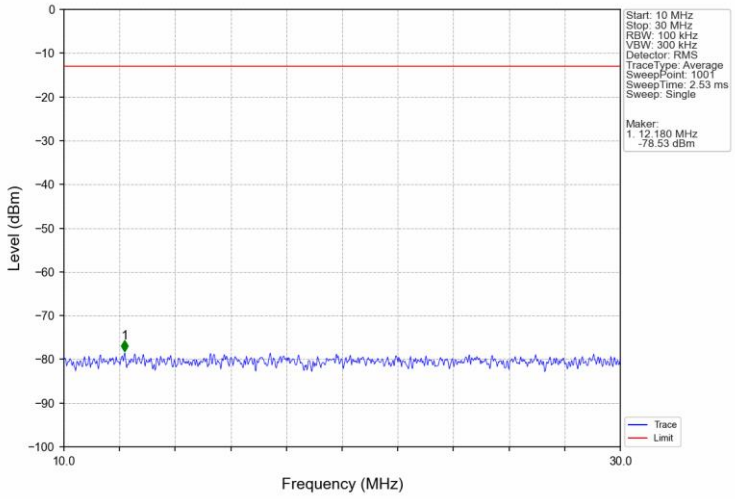
Band4_1.4MHz_QPSK_LCH_1710.7MHz_RB_1_0_NTNV



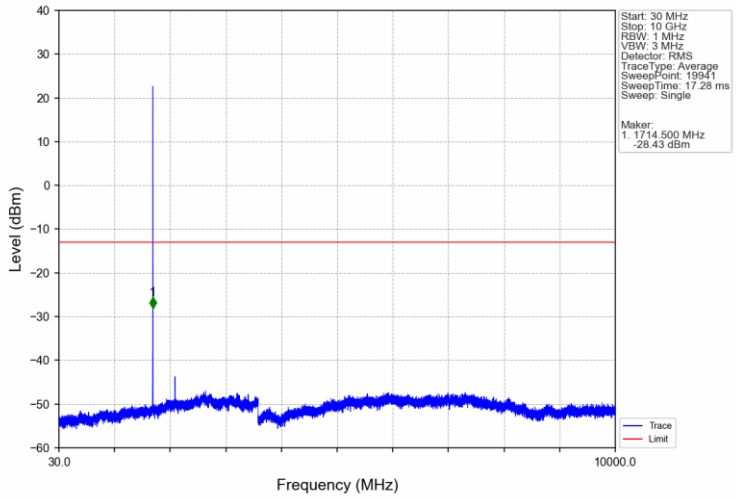
Band4_1.4MHz_QPSK_LCH_1710.7MHz_RB_1_0_NTNV



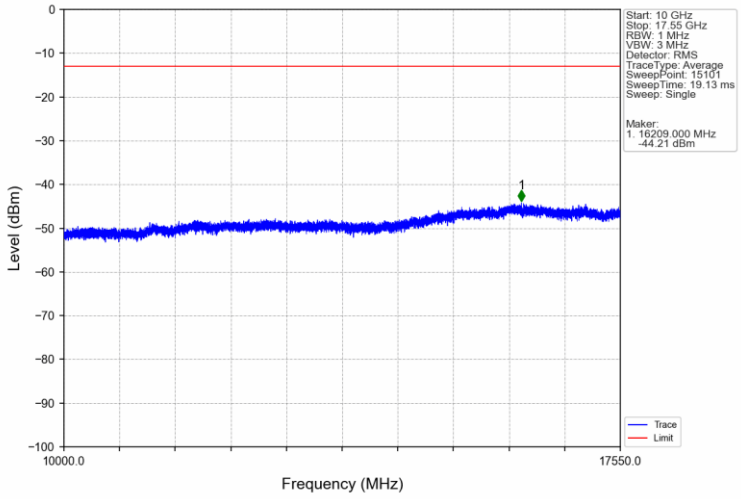
Band4_1.4MHz_QPSK_LCH_1710.7MHz_RB_1_0_NTNV



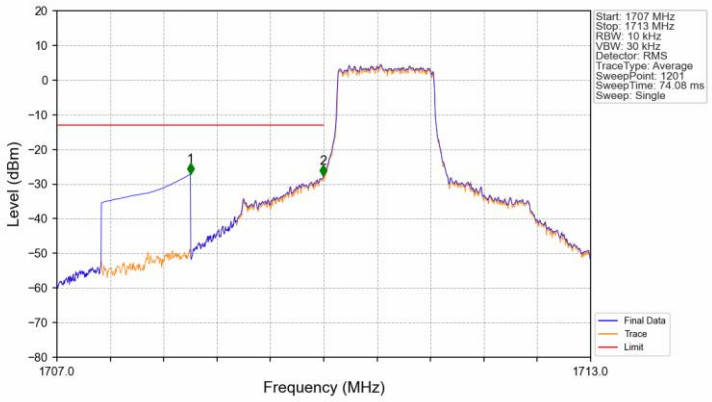
Band4_1.4MHz_QPSK_LCH_1710.7MHz_RB_1_0_NTNV



Band4_1.4MHz_QPSK_LCH_1710.7MHz_RB_1_0_NTNV

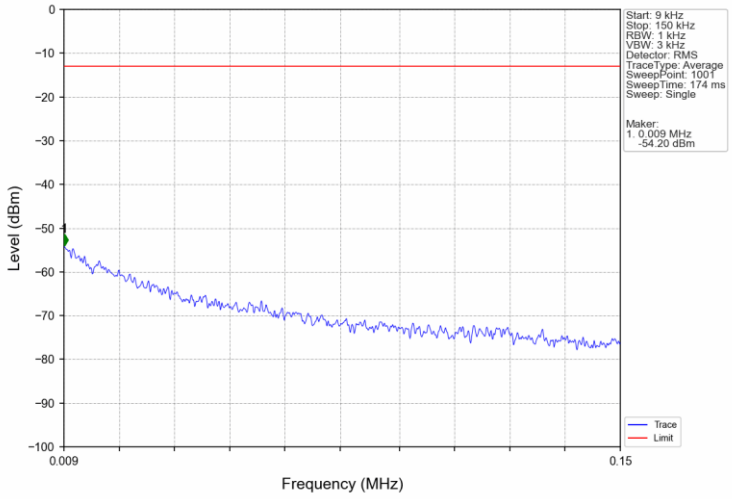


Band4_1.4MHz_QPSK_LCH_1710.7MHz_RB_6_0_NTNV

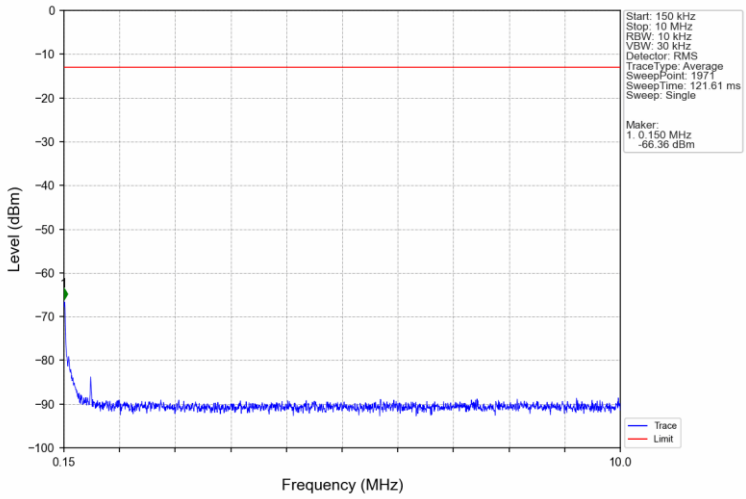


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1707	1709	1	CHP	1	1708.500	-27.12	-13	Pass
1709	1710	0.013	CHP	2	1709.995	-27.59	-13	Pass
1710	1713	0.013	CHP	/	/	/	/	/

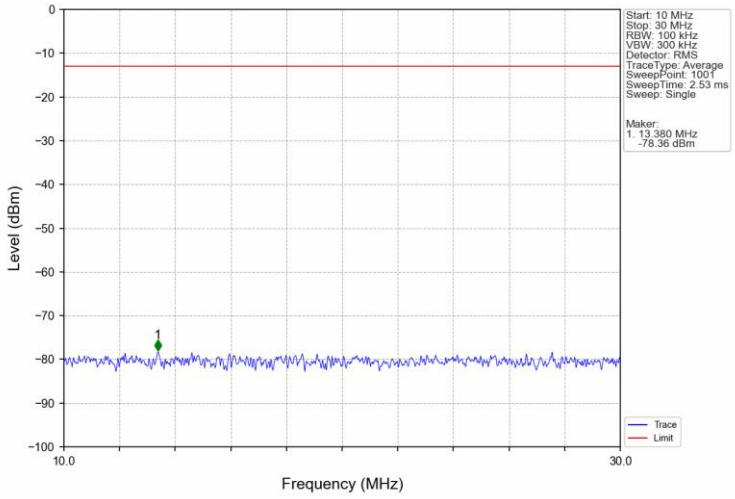
Band4_1.4MHz_QPSK_MCH_1732.5MHz_RB_1_0_NTNV



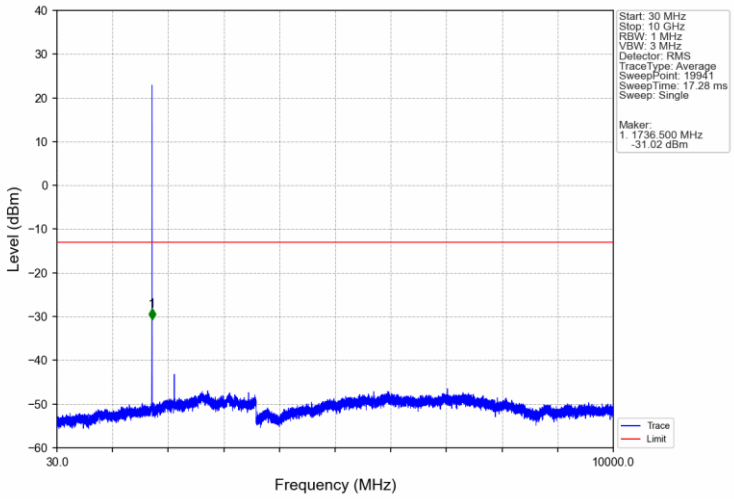
Band4_1.4MHz_QPSK_MCH_1732.5MHz_RB_1_0_NTNV



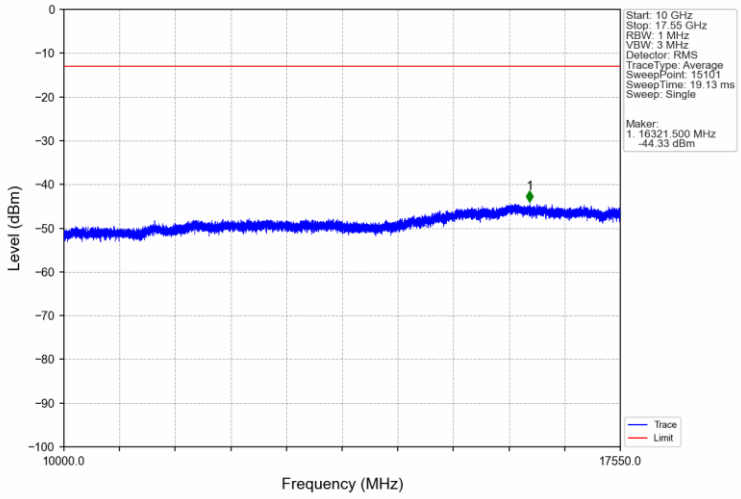
Band4_1.4MHz_QPSK_MCH_1732.5MHz_RB_1_0_NTNV



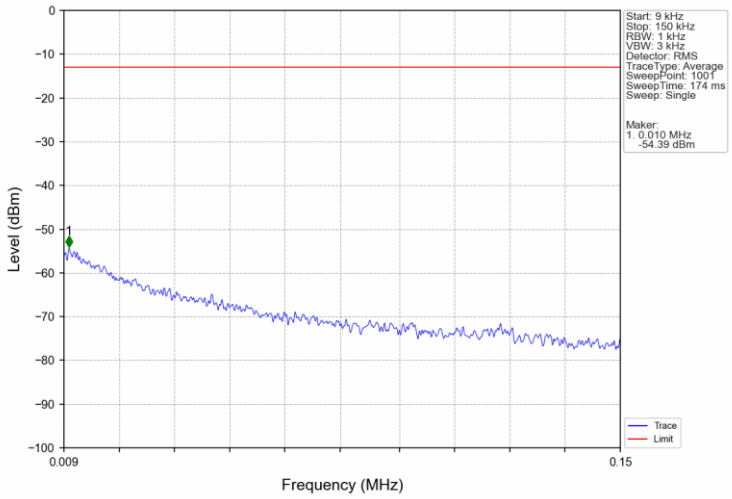
Band4_1.4MHz_QPSK_MCH_1732.5MHz_RB_1_0_NTNV



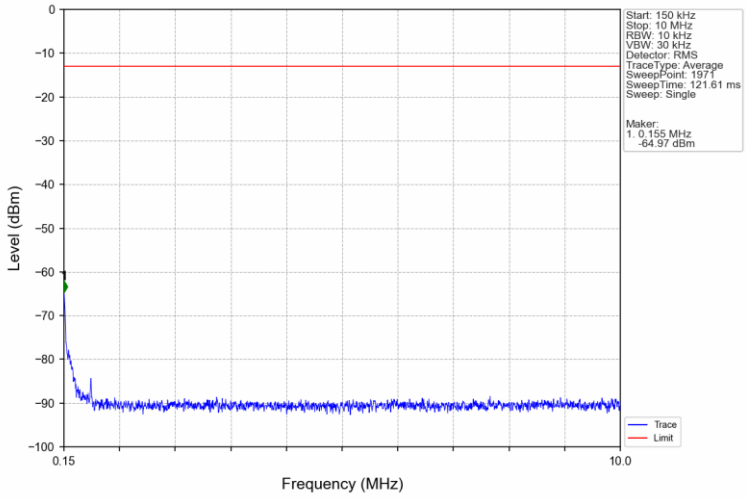
Band4_1.4MHz_QPSK_MCH_1732.5MHz_RB_1_0_NTNV



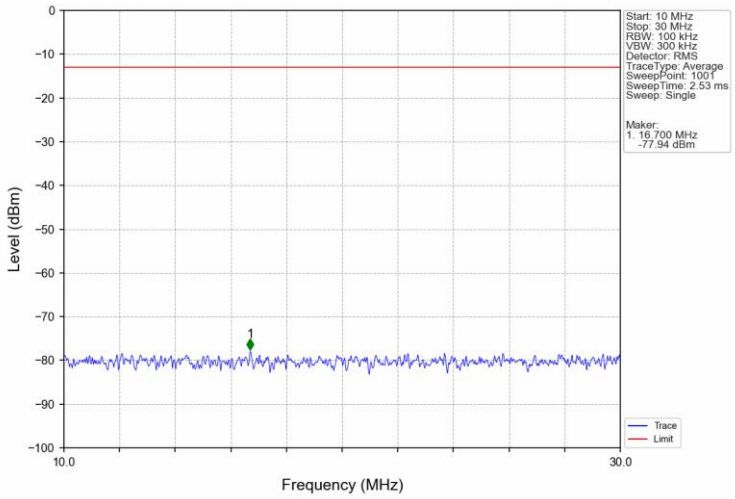
Band4_1.4MHz_QPSK_HCH_1754.3MHz_RB_1_0_NTNV



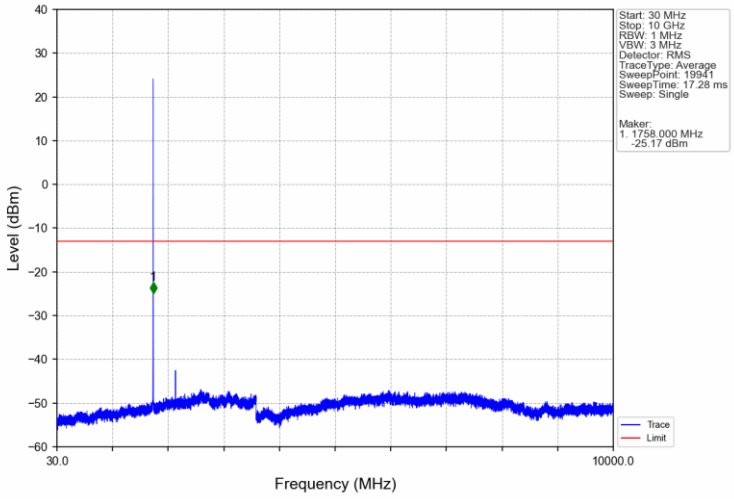
Band4_1.4MHz_QPSK_HCH_1754.3MHz_RB_1_0_NTNV



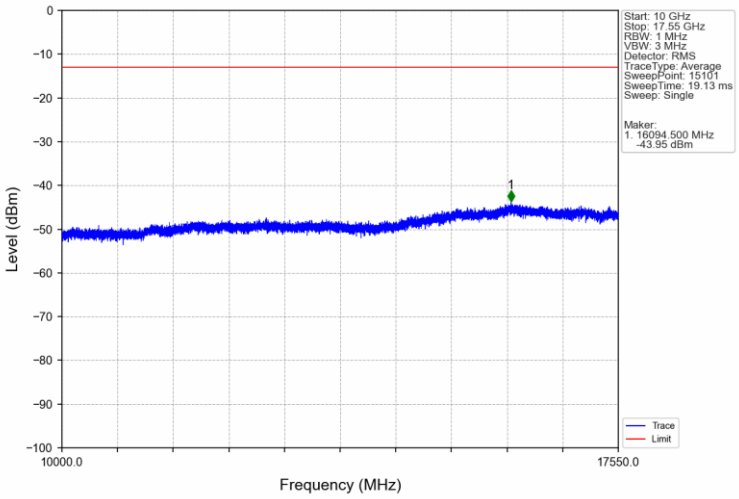
Band4_1.4MHz_QPSK_HCH_1754.3MHz_RB_1_0_NTNV



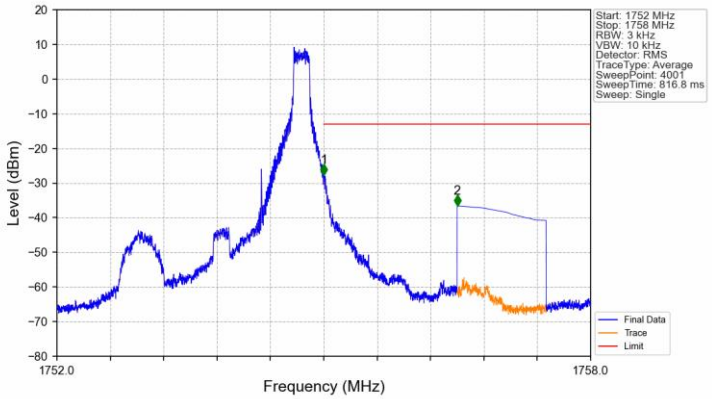
Band4_1.4MHz_QPSK_HCH_1754.3MHz_RB_1_0_NTNV



Band4_1.4MHz_QPSK_HCH_1754.3MHz_RB_1_0_NTNV

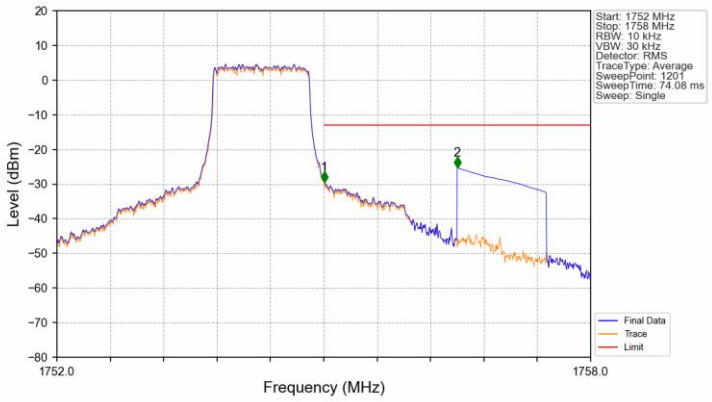


Band4_1.4MHz_QPSK_HCH_1754.3MHz_RB_1_5_NTNV



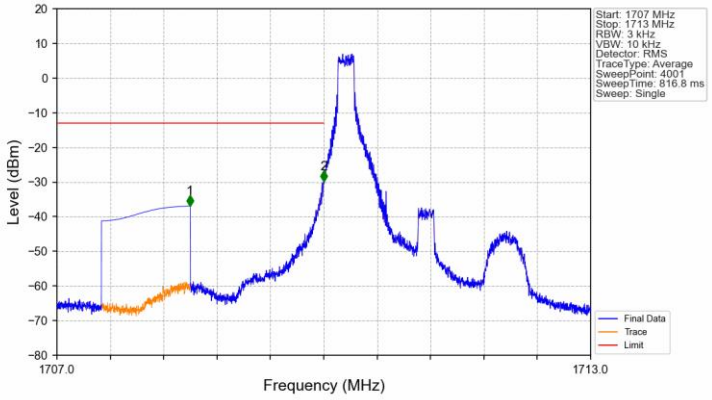
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1752	1755	0.003	/	/	/	/	/	/
1755	1756	0.003	/	1	1755.002	-27.59	-13	Pass
1756	1758	1	CHP	2	1756.500	-36.62	-13	Pass

Band4_1.4MHz_QPSK_HCH_1754.3MHz_RB_6_0_NTNV



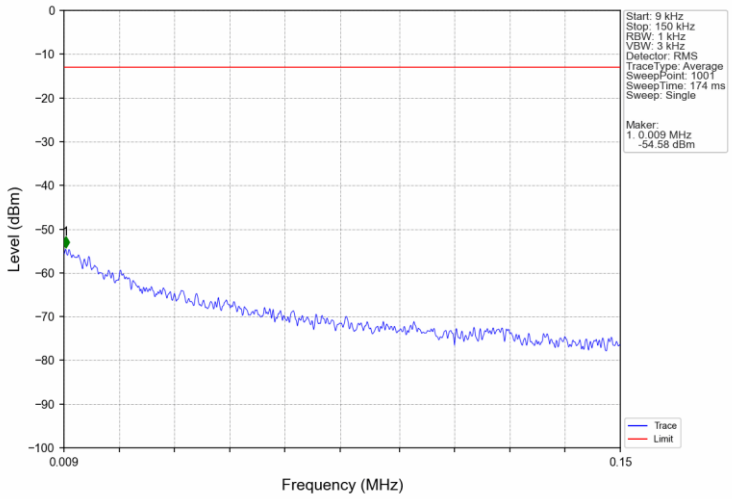
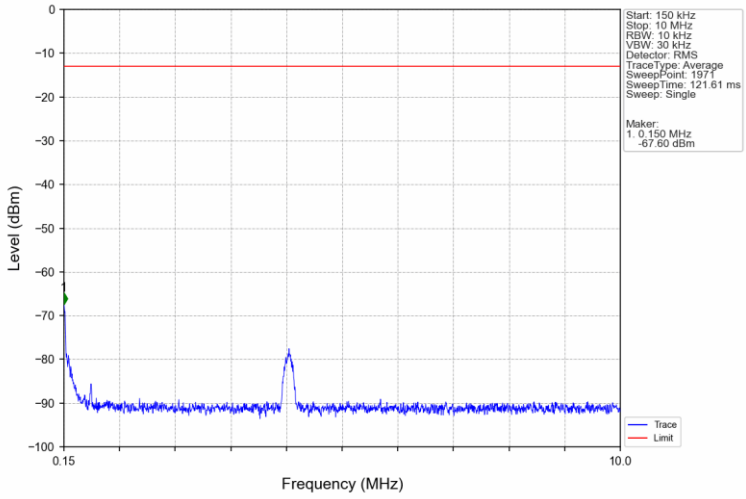
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1752	1755	0.013	CHP	/	/	/	/	/
1755	1756	0.013	CHP	1	1755.005	-29.44	-13	Pass
1756	1758	1	CHP	2	1756.500	-25.31	-13	Pass

Band4_1.4MHz_16QAM_LCH_1710.7MHz_RB_1_0_NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1707	1709	1	CHP	1	1708.494	-36.90	-13	Pass
1709	1710	0.003	/	2	1709.998	-29.91	-13	Pass
1710	1713	0.003	/	/	/	/	/	/

Band4_1.4MHz_16QAM_LCH_1710.7MHz_RB_1_0_NTNV



Band4_1.4MHz_16QAM_LCH_1710.7MHz_RB_1_0_NTNV