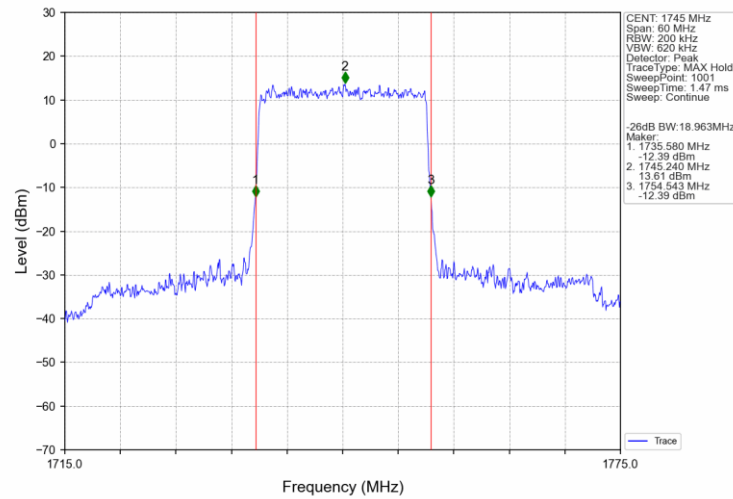
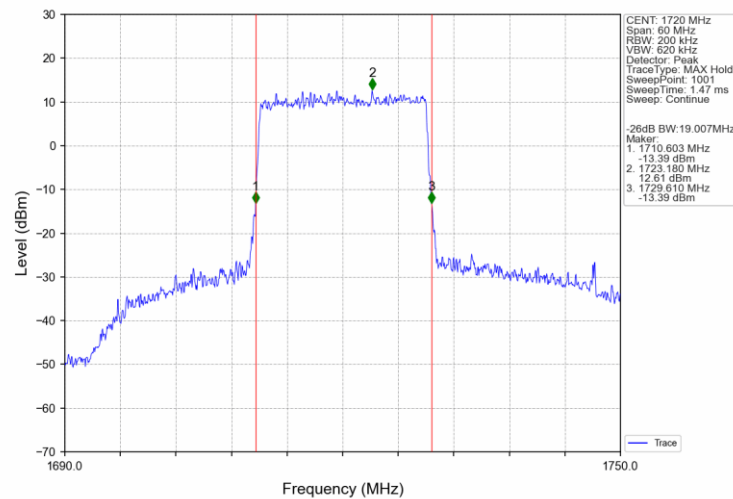


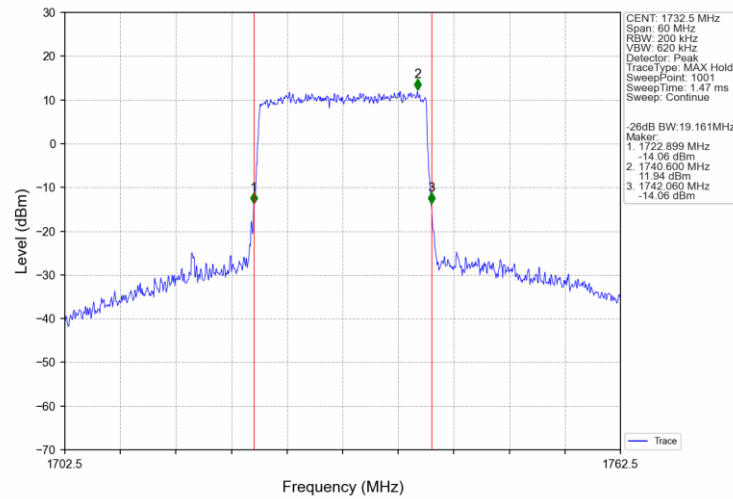
Band4 20MHz QPSK HCH 1745MHz RB 100 0 NTV



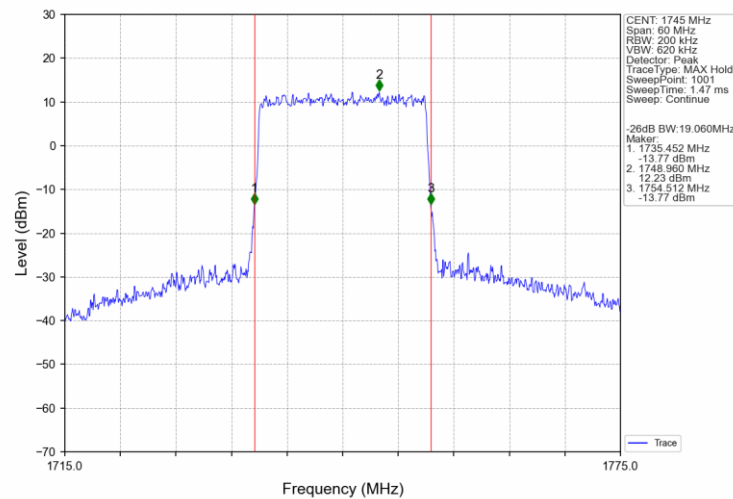
Band4 20MHz 16QAM LCH 1720MHz RB 100 0 NTV



Band4 20MHz 16QAM MCH 1732.5MHz RB 100 0 NTN



Band4 20MHz 16QAM HCH 1745MHz RB 100 0 NTN



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	5.16	<=13	Pass
	1732.5	6	0	5.37	<=13	Pass
	1754.3	6	0	5.30	<=13	Pass
16QAM	1710.7	6	0	5.90	<=13	Pass
	1732.5	6	0	6.19	<=13	Pass
	1754.3	6	0	6.04	<=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	5.25	<=13	Pass
	1732.5	15	0	5.49	<=13	Pass
	1753.5	15	0	5.46	<=13	Pass
16QAM	1711.5	15	0	6.03	<=13	Pass
	1732.5	15	0	6.33	<=13	Pass
	1753.5	15	0	6.24	<=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	5.38	<=13	Pass
	1732.5	25	0	5.61	<=13	Pass
	1752.5	25	0	5.56	<=13	Pass
16QAM	1712.5	25	0	6.10	<=13	Pass
	1732.5	25	0	6.33	<=13	Pass
	1752.5	25	0	6.24	<=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	5.36	<=13	Pass
	1732.5	50	0	5.55	<=13	Pass
	1750	50	0	5.51	<=13	Pass
16QAM	1715	50	0	6.15	<=13	Pass
	1732.5	50	0	6.33	<=13	Pass
	1750	50	0	6.25	<=13	Pass

5.1.5 B4_15MHz

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

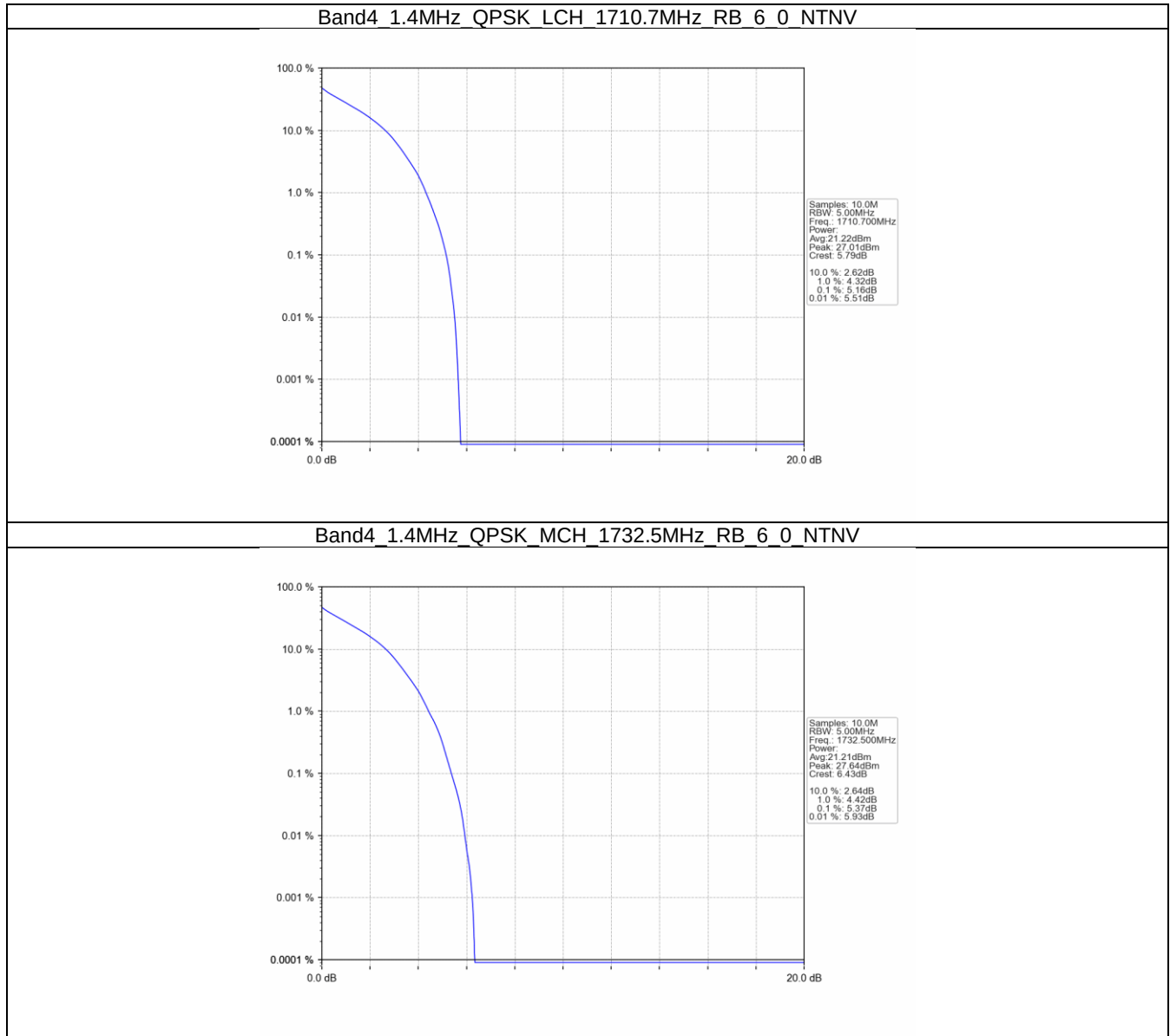
	(MHz)	Size	Offset	Result	Limit	
QPSK	1717.5	75	0	5.52	<=13	Pass
	1732.5	75	0	5.74	<=13	Pass
	1747.5	75	0	5.73	<=13	Pass
16QAM	1717.5	75	0	6.12	<=13	Pass
	1732.5	75	0	6.33	<=13	Pass
	1747.5	75	0	6.32	<=13	Pass

5.1.6 B4_20MHz

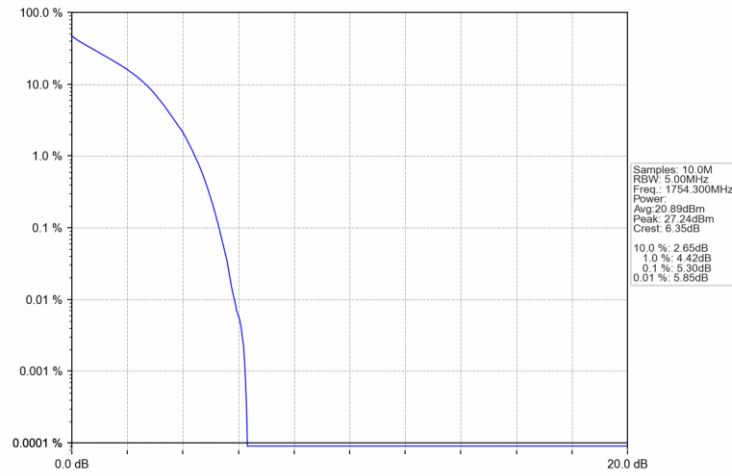
Band: 4 / Bandwidth: 20MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	1720	100	0	5.40	<=13	Pass
	1732.5	100	0	5.47	<=13	Pass
	1745	100	0	5.43	<=13	Pass
16QAM	1720	100	0	6.14	<=13	Pass
	1732.5	100	0	6.26	<=13	Pass
	1745	100	0	6.23	<=13	Pass

5.2 Test Graph

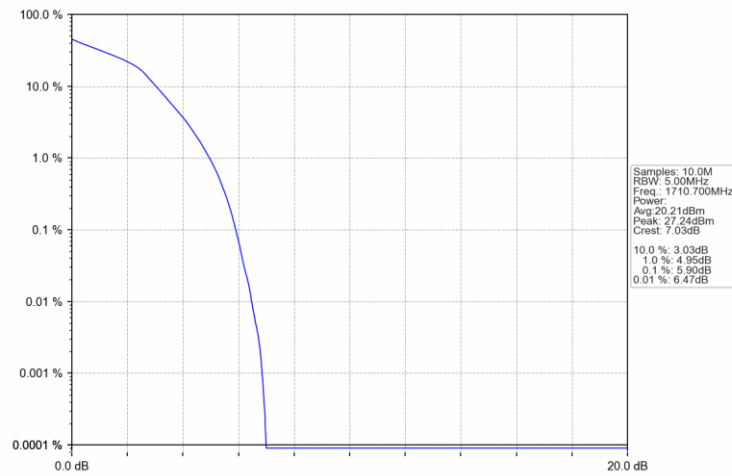
5.2.1 B4_1.4MHz



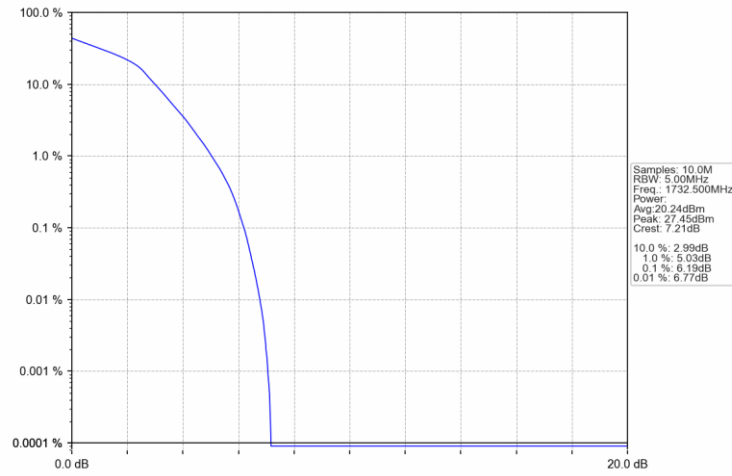
Band4 1.4MHz QPSK HCH 1754.3MHz RB 6 0 NTNV



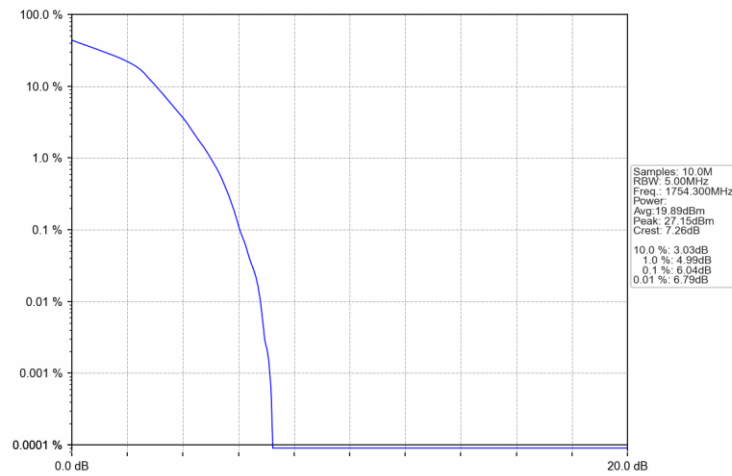
Band4 1.4MHz 16QAM LCH 1710.7MHz RB 6 0 NTNV



Band4 1.4MHz 16QAM MCH 1732.5MHz RB 6 0 NTN

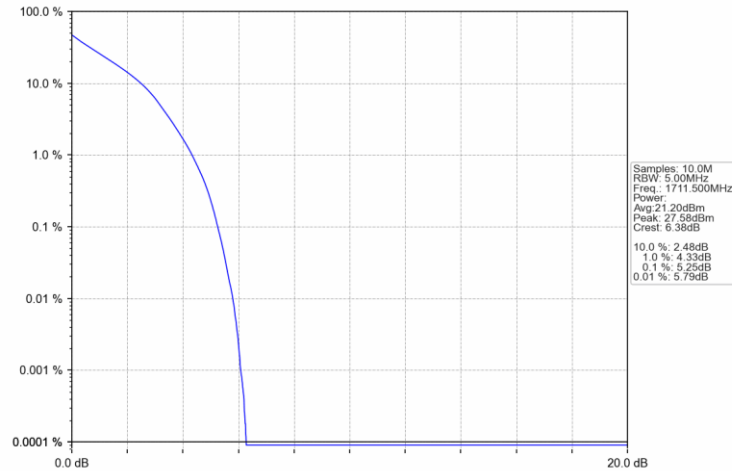


Band4 1.4MHz 16QAM HCH 1754.3MHz RB 6 0 NTN

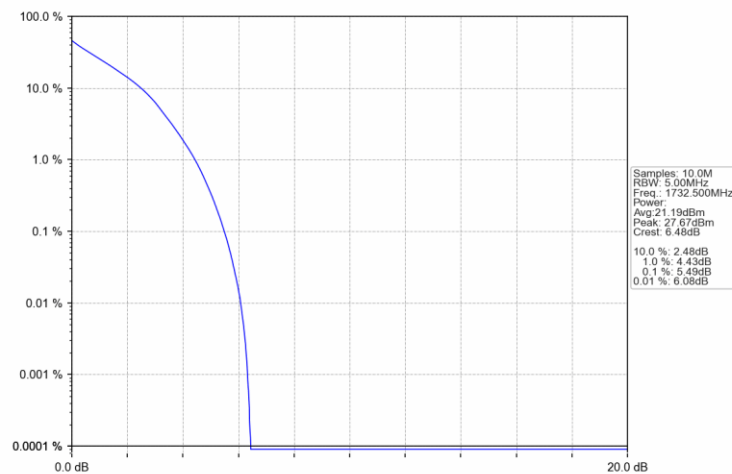


5.2.2 B4_3MHz

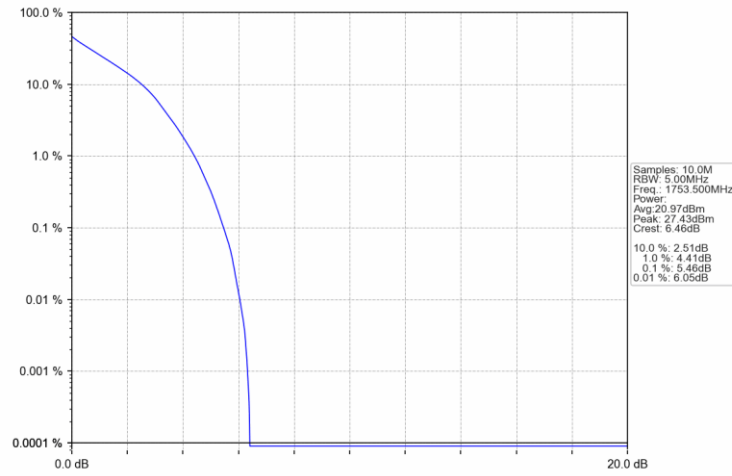
Band4 3MHz QPSK LCH 1711.5MHz RB 15 0 NTV



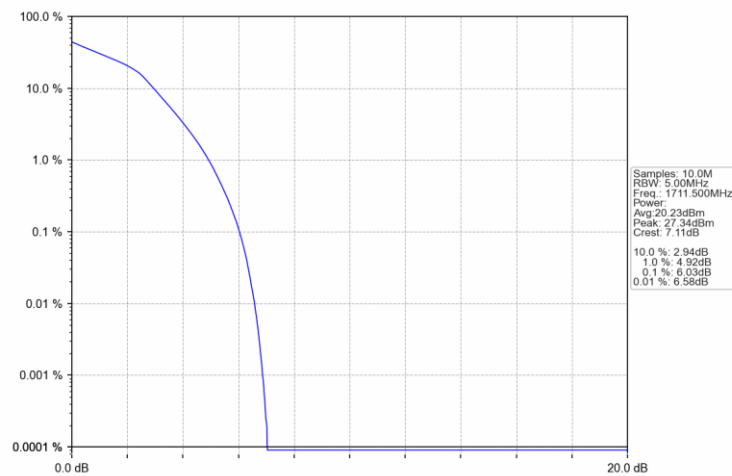
Band4 3MHz QPSK MCH 1732.5MHz RB 15 0 NTV



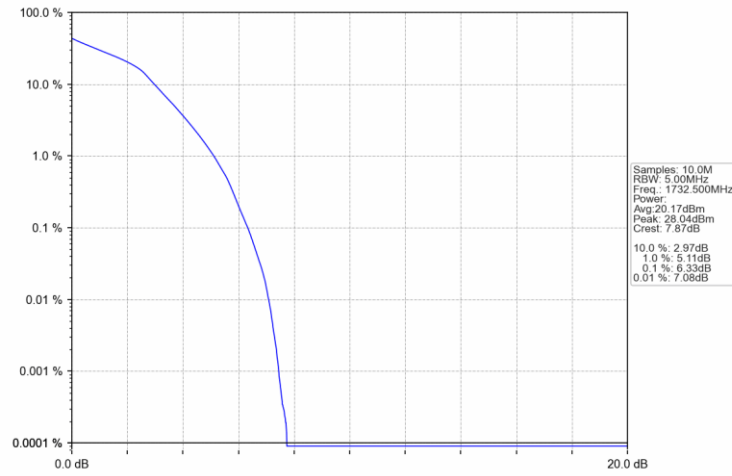
Band4 3MHz QPSK HCH 1753.5MHz RB 15 0 NTNV



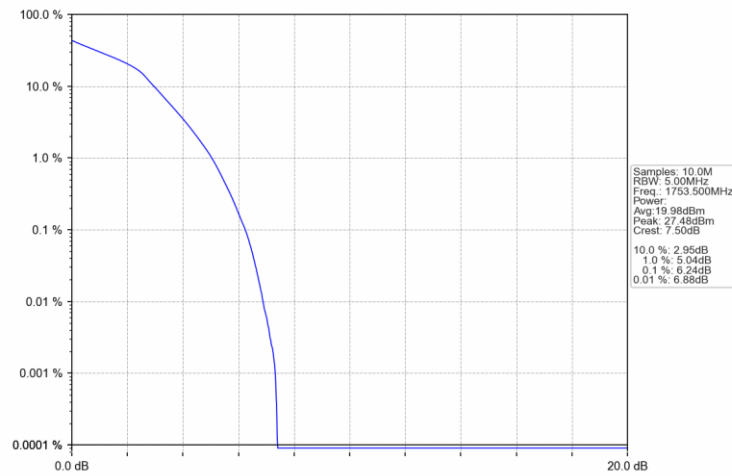
Band4 3MHz 16QAM LCH 1711.5MHz RB 15 0 NTNV



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

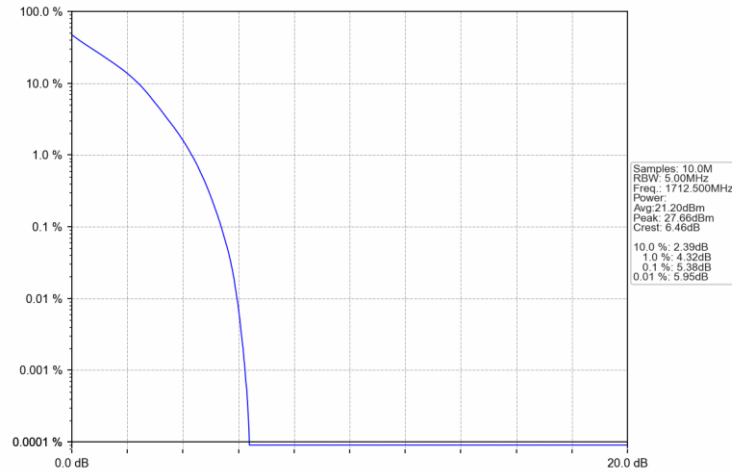


Band4 3MHz 16QAM HCH 1753.5MHz RB 15 0 NTV

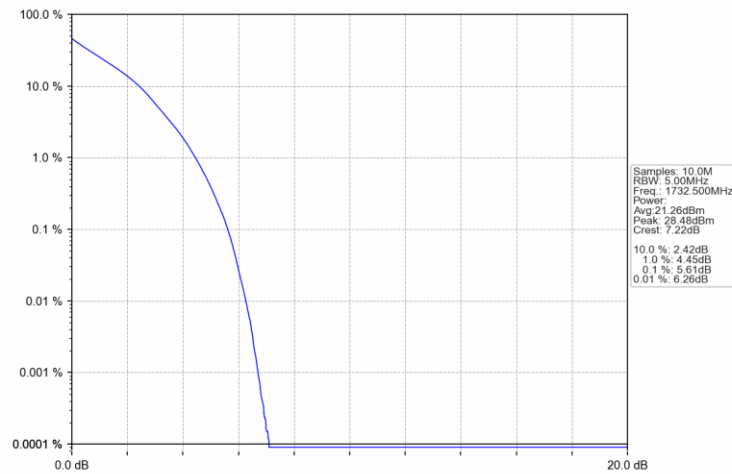


5.2.3 B4_5MHz

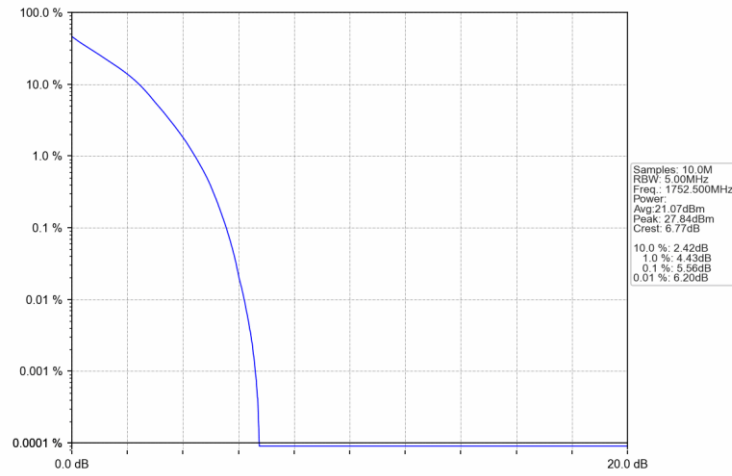
Band4_5MHz_QPSK_LCH_1712.5MHz_RB_25_0_NTNV



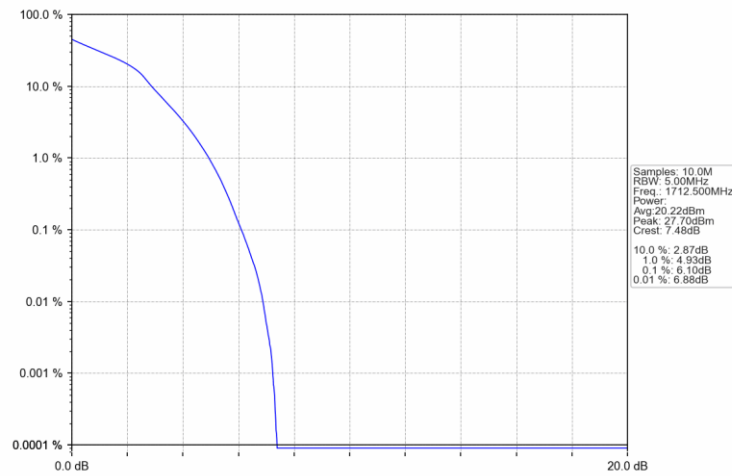
Band4_5MHz_QPSK_MCH_1732.5MHz_RB_25_0_NTNV



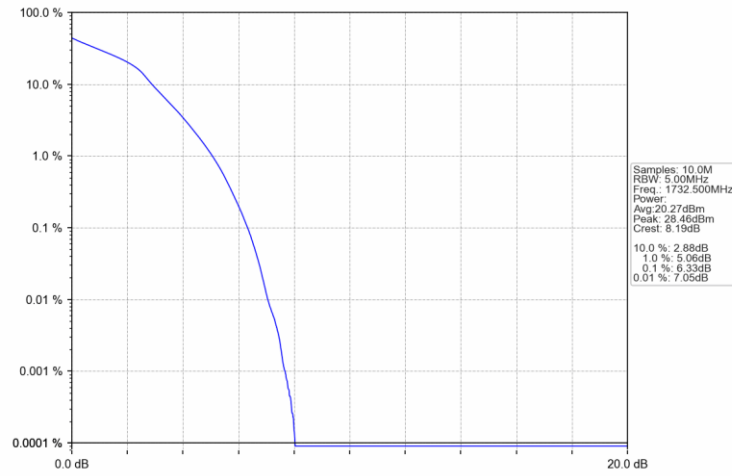
Band4 5MHz QPSK HCH 1752.5MHz RB 25 0 NTV



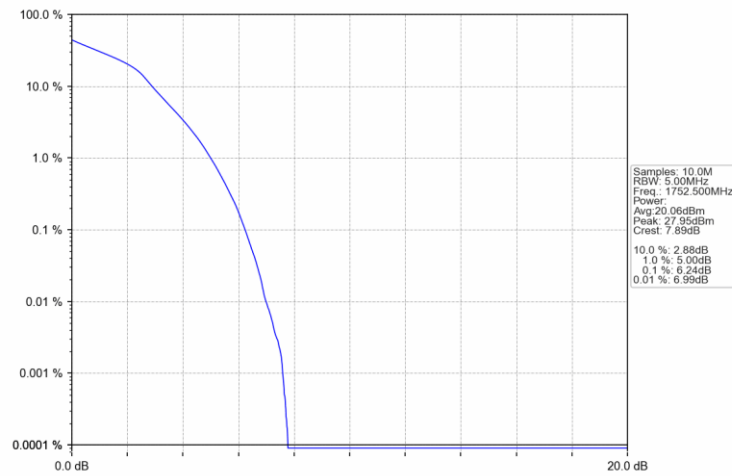
Band4 5MHz 16QAM LCH 1712.5MHz RB 25 0 NTV



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

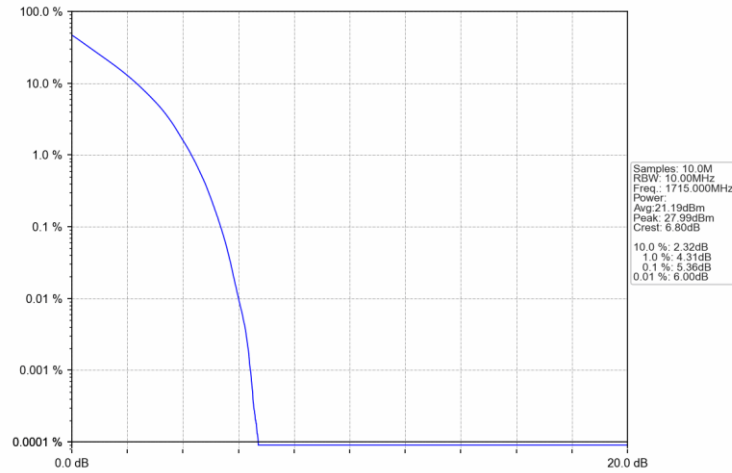


Band4 5MHz 16QAM HCH 1752.5MHz RB 25 0 NTV

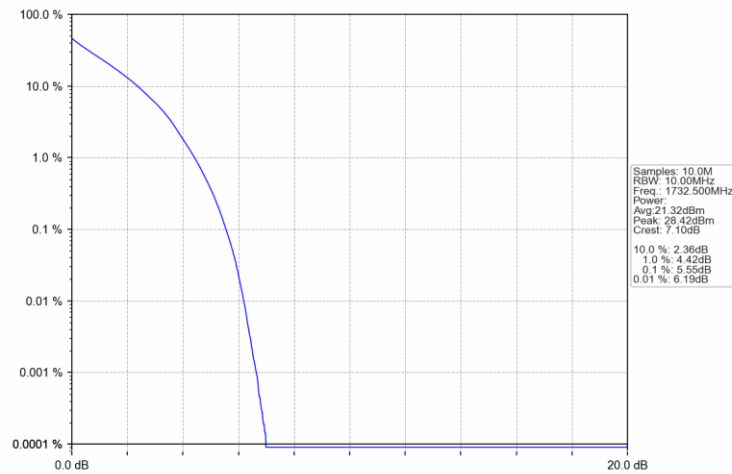


5.2.4 B4_10MHz

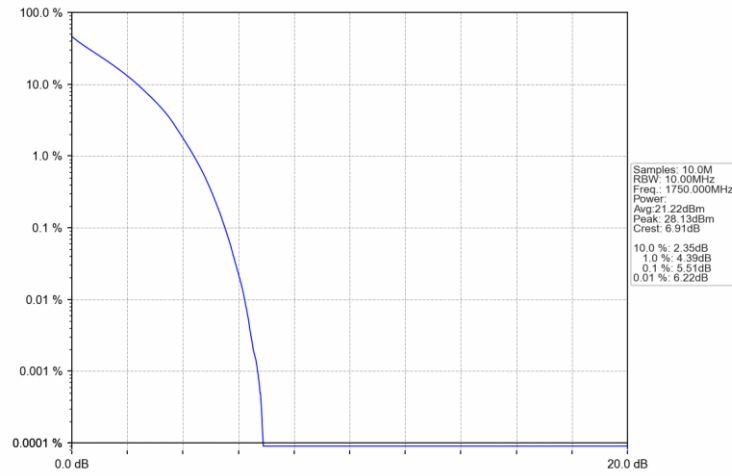
Band4 10MHz QPSK LCH 1715MHz RB 50 0 NTNV



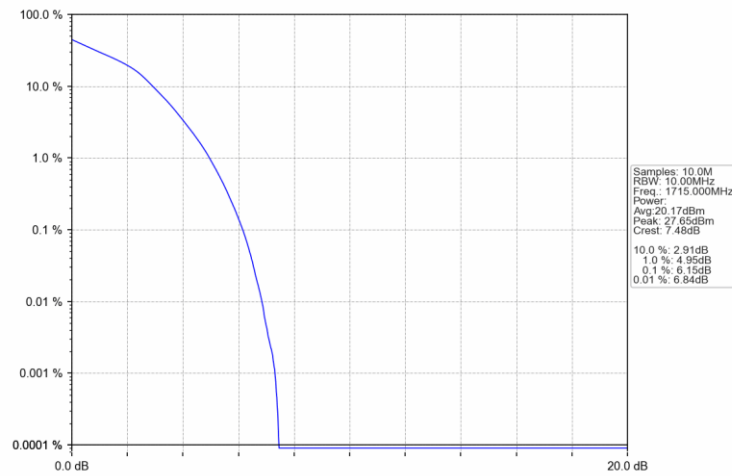
Band4 10MHz QPSK MCH 1732.5MHz RB 50 0 NTNV



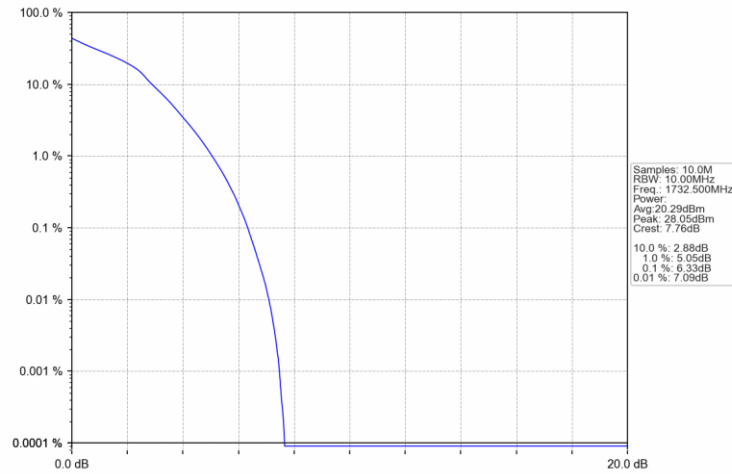
Band4_10MHz_QPSK_HCH_1750MHz_RB_50_0_NTNV



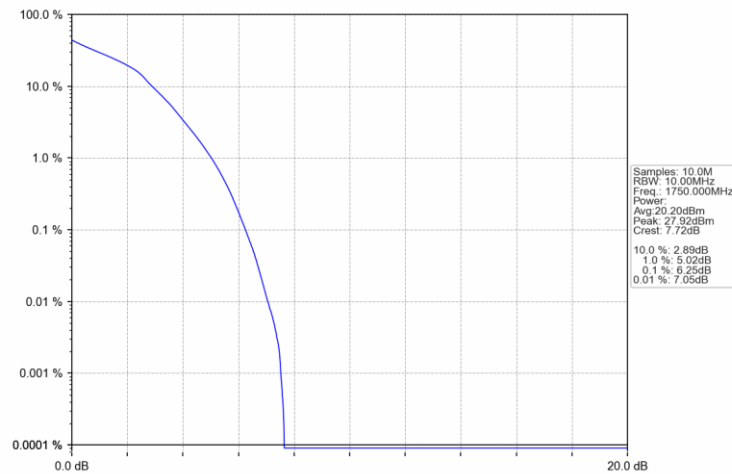
Band4_10MHz_16QAM_LCH_1715MHz_RB_50_0_NTNV



Band4 10MHz 16QAM MCH 1732.5MHz RB 50 0 NTN

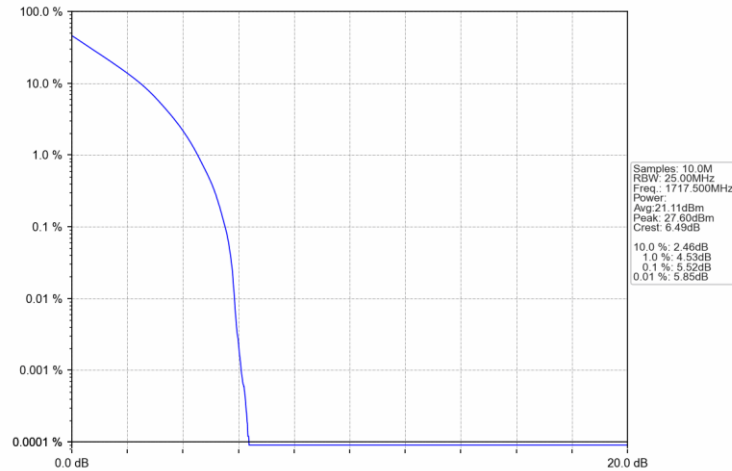


Band4 10MHz 16QAM HCH 1750MHz RB 50 0 NTN

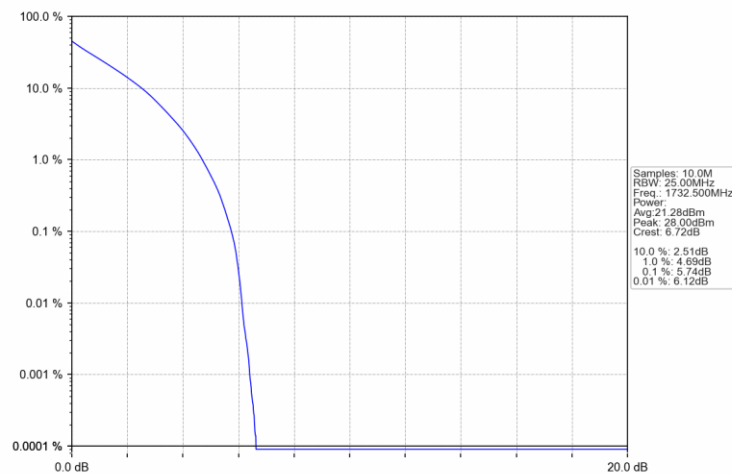


5.2.5 B4_15MHz

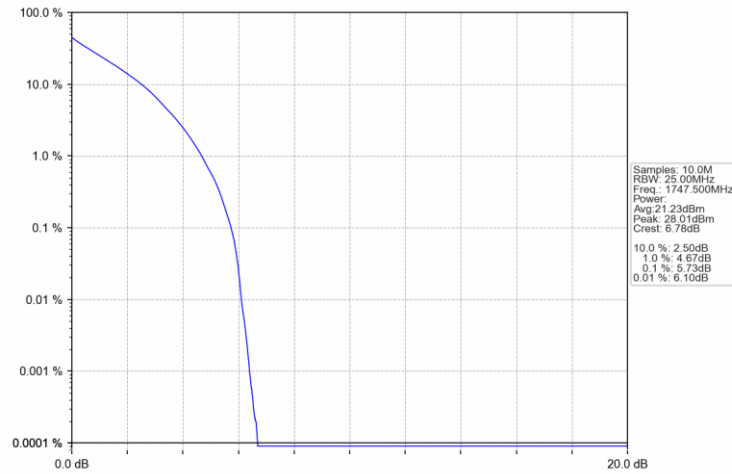
Band4_15MHz_QPSK_LCH_1717.5MHz_RB_75_0_NTNV



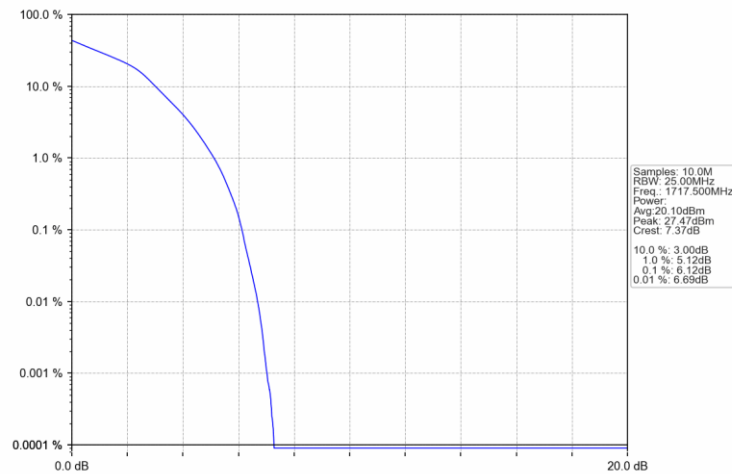
Band4_15MHz_QPSK_MCH_1732.5MHz_RB_75_0_NTNV



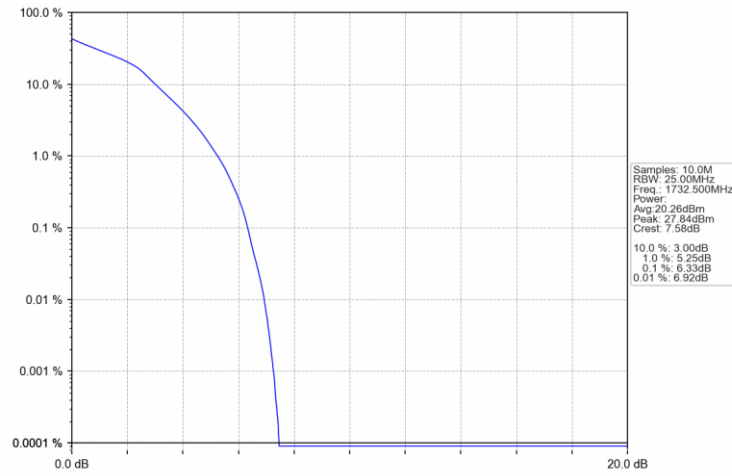
Band4 15MHz QPSK HCH 1747.5MHz RB 75 0 NTN



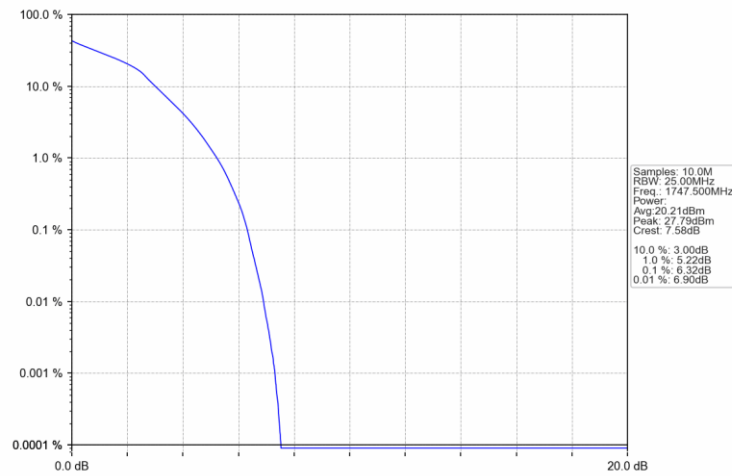
Band4 15MHz 16QAM LCH 1717.5MHz RB 75 0 NTN



Band4 15MHz 16QAM MCH 1732.5MHz RB 75 0 NTNV

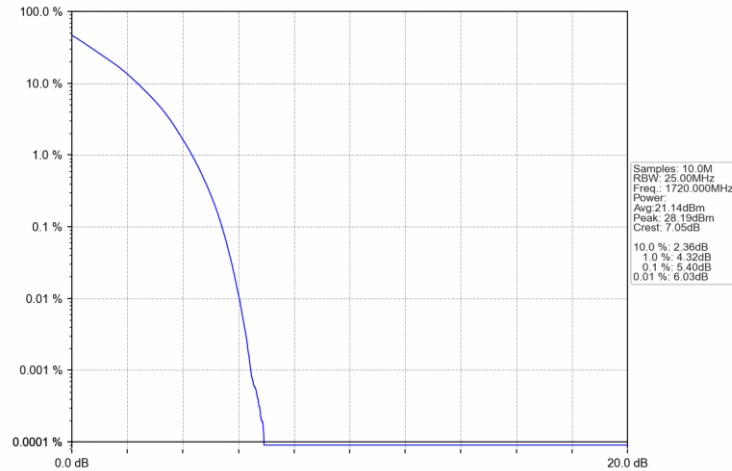


Band4 15MHz 16QAM HCH 1747.5MHz RB 75 0 NTNV

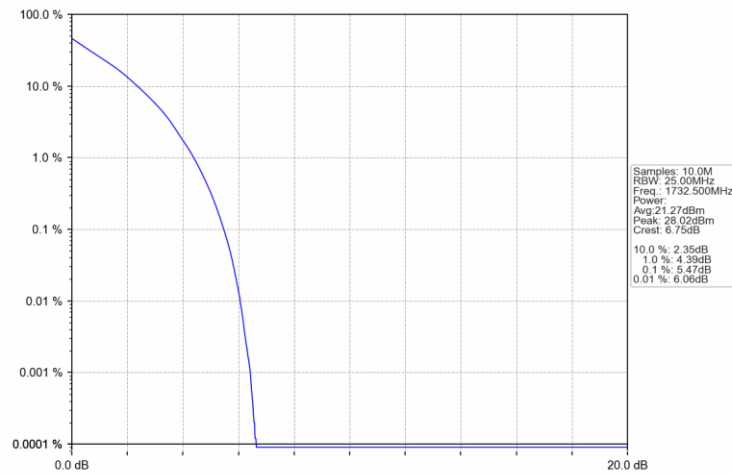


5.2.6 B4_20MHz

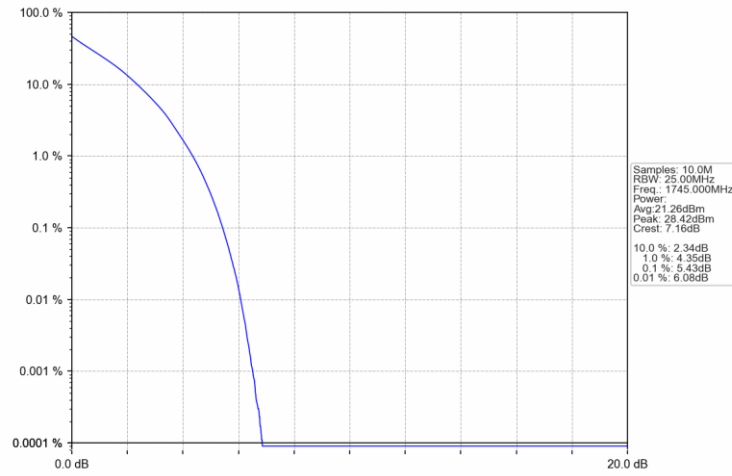
Band4 20MHz QPSK LCH 1720MHz RB 100 0 NTNV



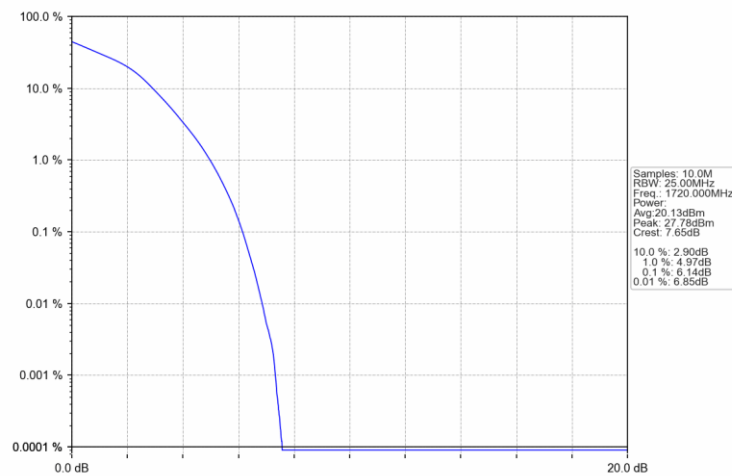
Band4 20MHz QPSK MCH 1732.5MHz RB 100 0 NTNV



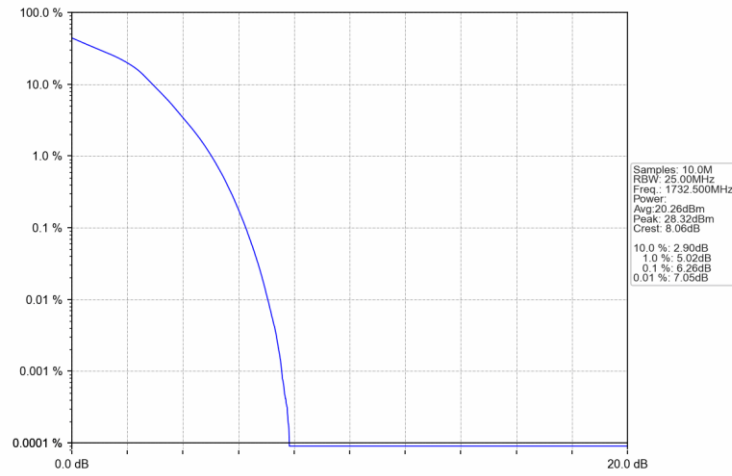
Band4 20MHz QPSK HCH 1745MHz RB 100 0 NTNV



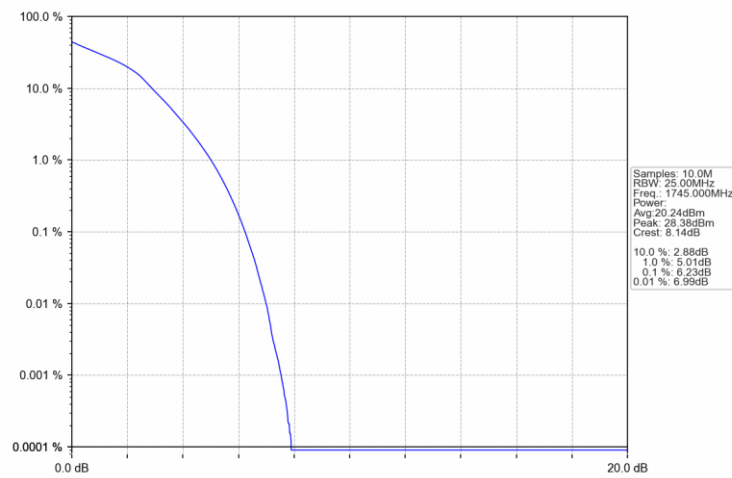
Band4 20MHz 16QAM LCH 1720MHz RB 100 0 NTNV



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 / NTVN						
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 / NTVN						
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	
	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	
	49			Refer To Test Graph		Pass
	50		0	Refer To Test Graph		Pass

6.1.5 B4_15MHz

Band: 4 / Bandwidth: 15MHz / NTVN						
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

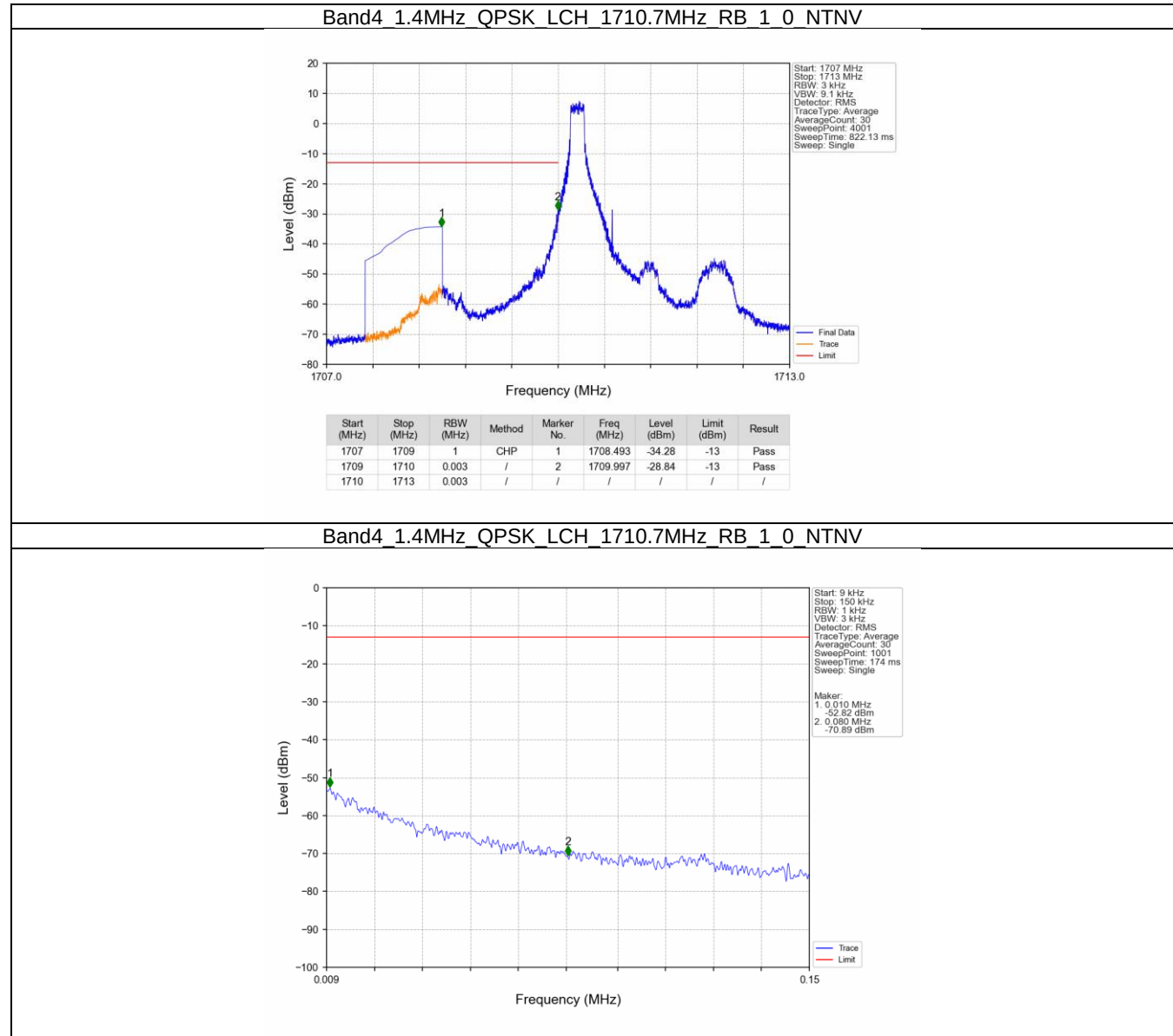
6.1.6 B4_20MHz

Band: 4 / Bandwidth: 20MHz / NTVN						
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

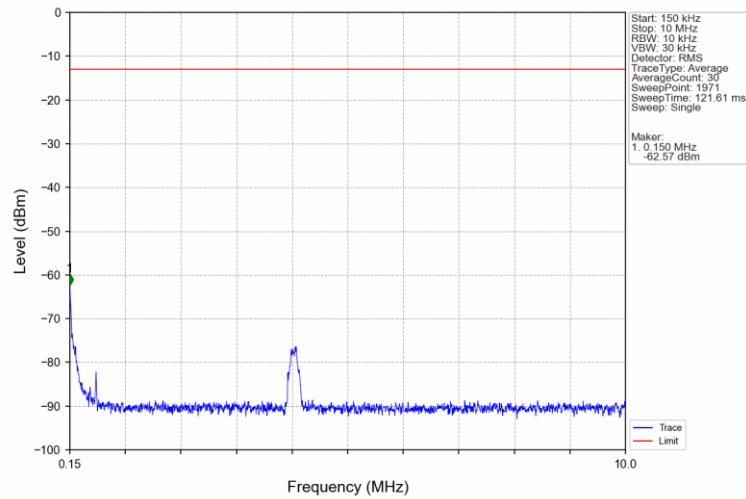


6.2 Test Graph

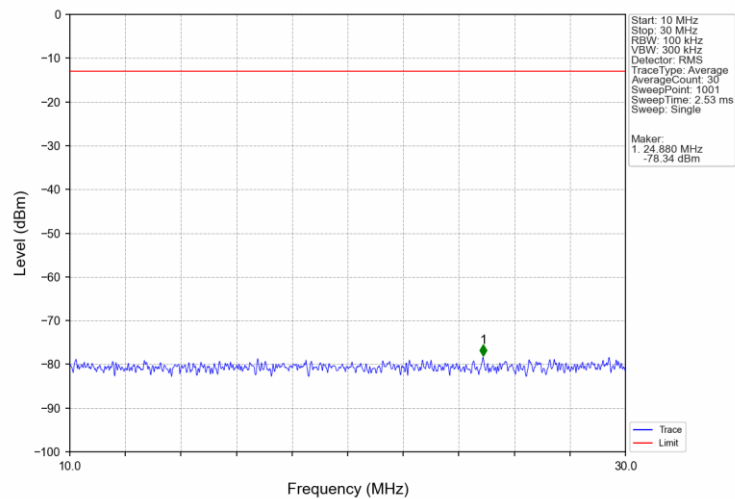
6.2.1 B4_1.4MHz



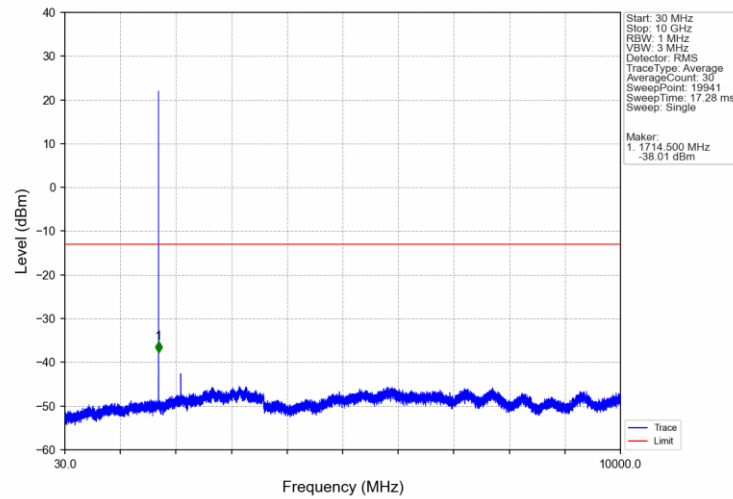
Band4 1.4MHz QPSK LCH 1710.7MHz RB 1 0 NTNV



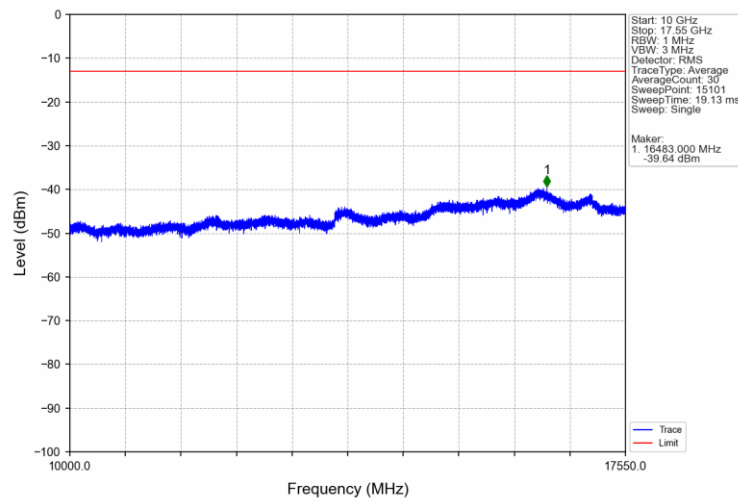
Band4 1.4MHz QPSK LCH 1710.7MHz RB 1 0 NTNV



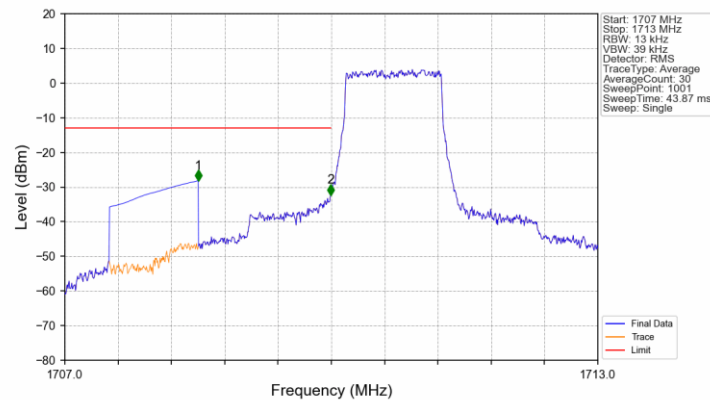
Band4 1.4MHz QPSK LCH 1710.7MHz RB 1 0 NTNV



Band4 1.4MHz QPSK LCH 1710.7MHz RB 1 0 NTNV

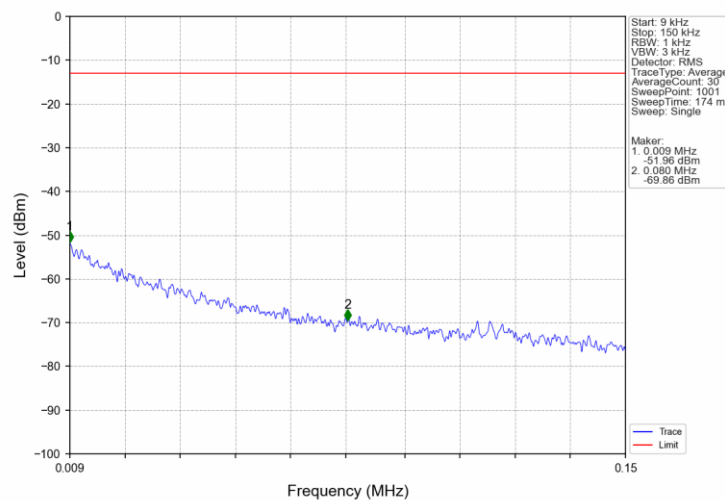


Band4 1.4MHz QPSK LCH 1710.7MHz RB 6 0 NTV

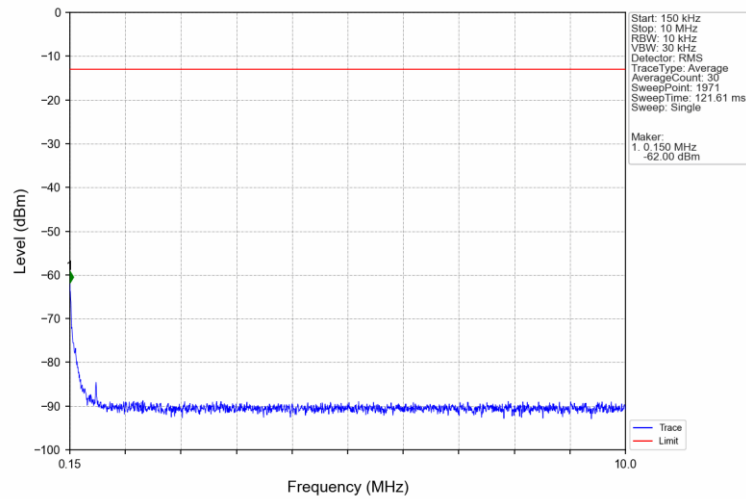


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1707	1709	1	CHP	1	1708.500	-28.18	-13	Pass
1709	1710	0.013	/	2	1709.994	-32.31	-13	Pass
1710	1713	0.013	/	/	/	/	/	/

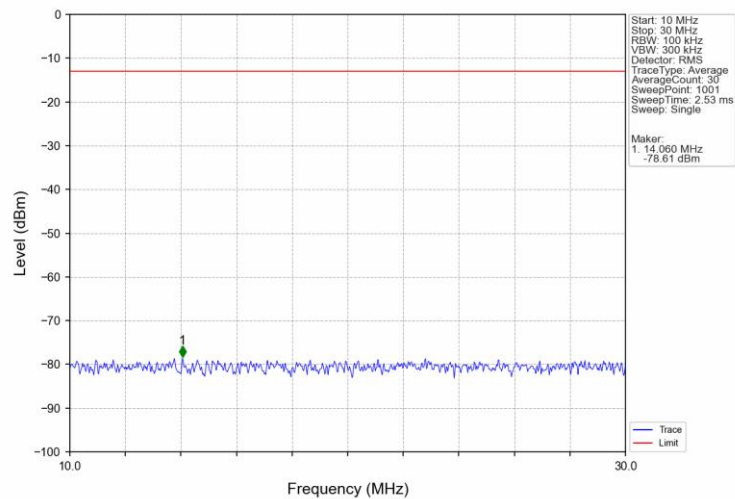
Band4 1.4MHz QPSK MCH 1732.5MHz RB 1 0 NTV



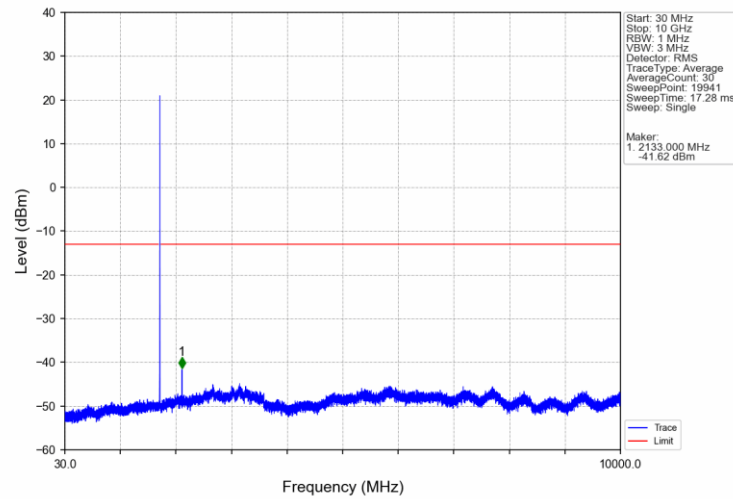
Band4 1.4MHz QPSK MCH 1732.5MHz RB 1 0 NTNV



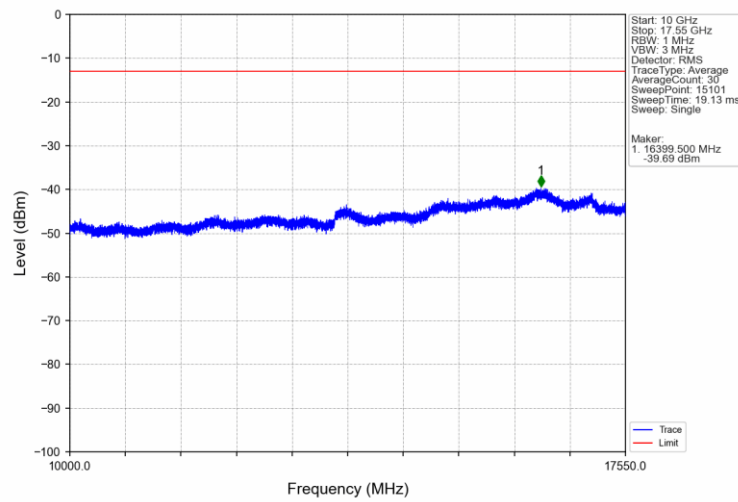
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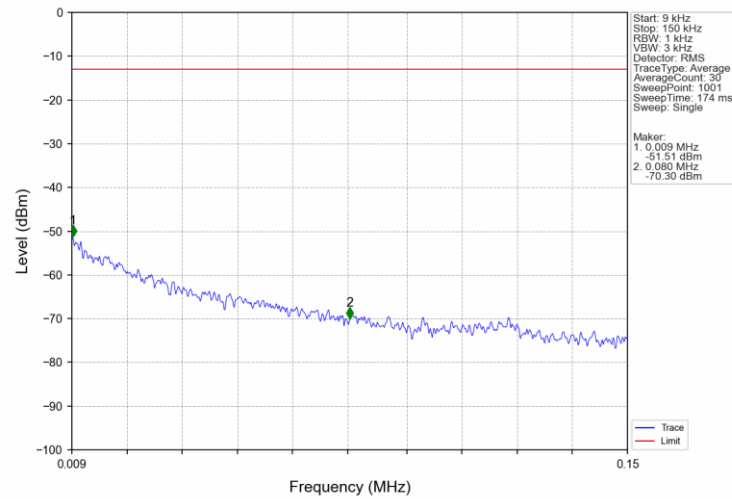
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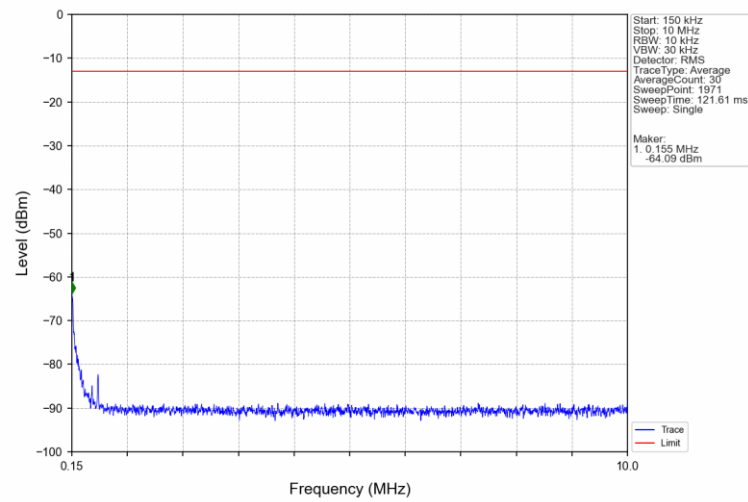
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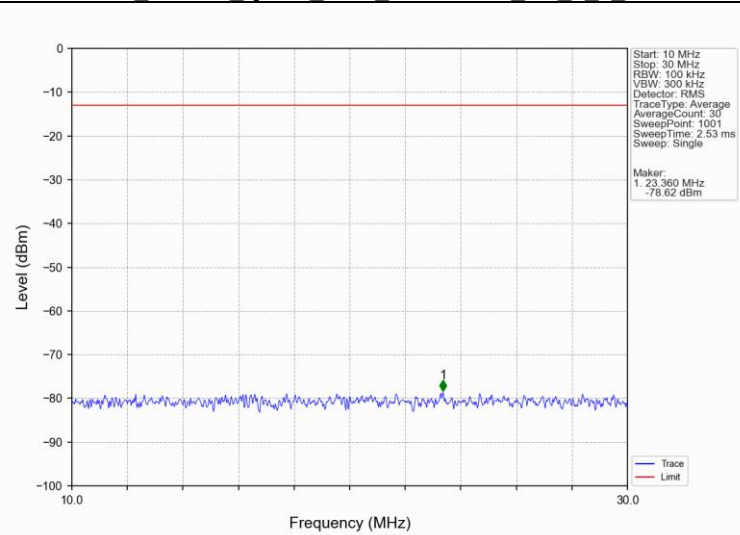
Band4 1.4MHz QPSK HCH 1754.3MHz RB 1 0 NTV



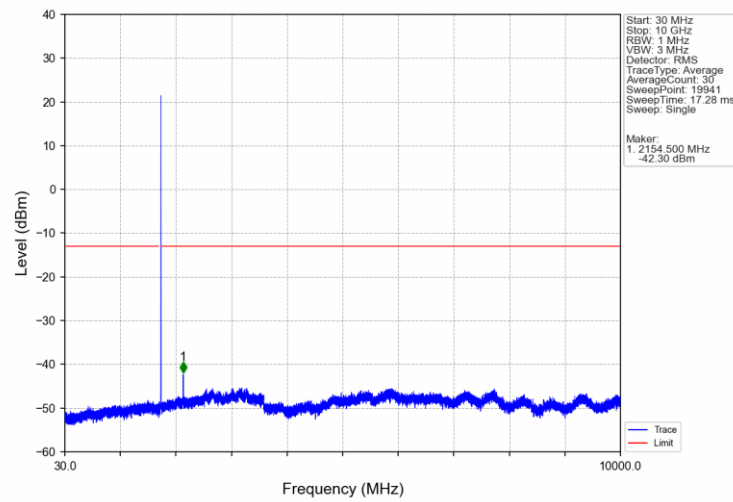
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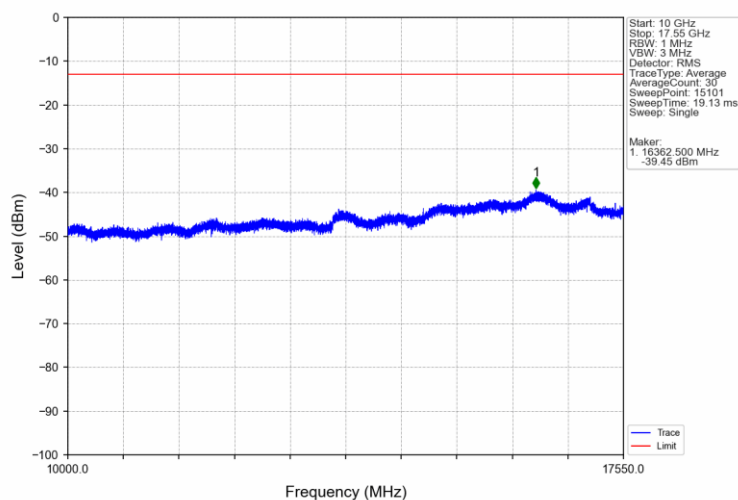
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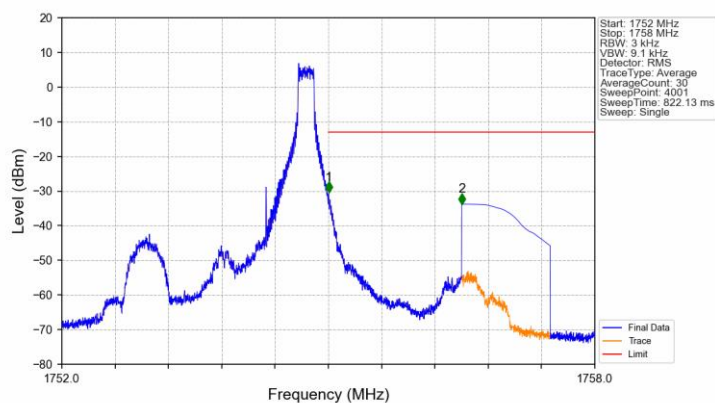
Band4 1.4MHz QPSK HCH 1754.3MHz RB 1 0 NTNV



Band4 1.4MHz QPSK HCH 1754.3MHz RB 1 0 NTV

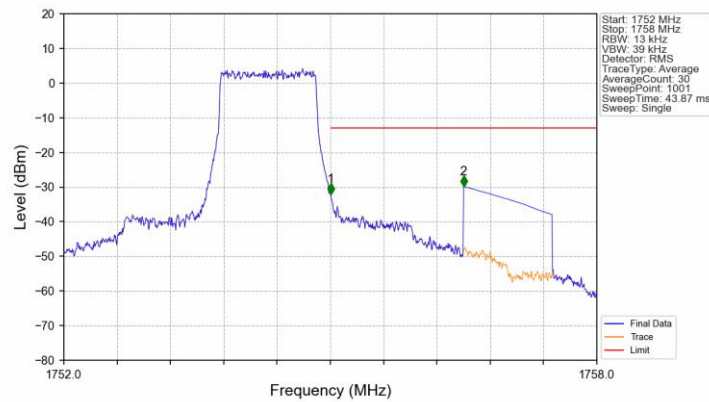


Band4 1.4MHz QPSK HCH 1754.3MHz RB 1 5 NTV



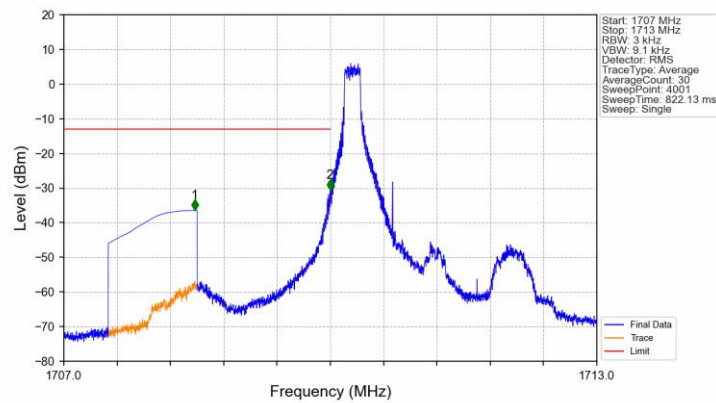
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1752	1755	0.003	/	/	/	/	/	/
1755	1756	0.003	/	1	1755.005	-30.45	-13	Pass
1756	1758	1	CHP	2	1756.506	-33.77	-13	Pass

Band4 1.4MHz QPSK HCH 1754.3MHz RB 6 0 NTV



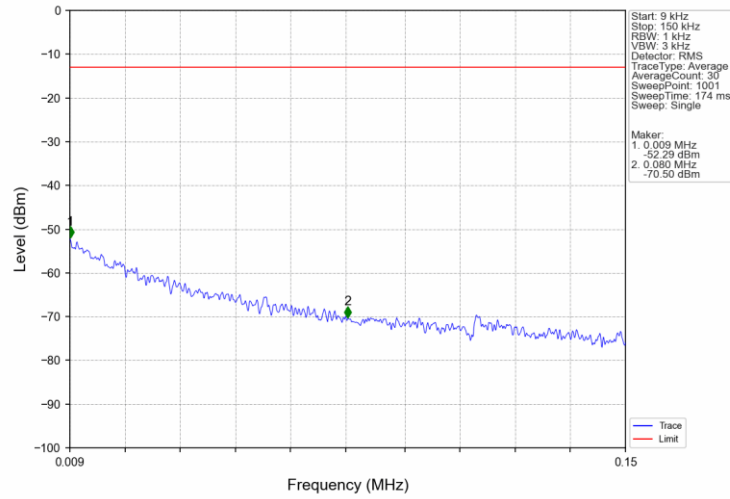
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1752	1755	0.013	/	/	/	/	/	/
1755	1756	0.013	/	1	1755.006	-32.01	-13	Pass
1756	1758	1	CHP	2	1756.500	-29.79	-13	Pass

Band4 1.4MHz 16QAM LCH 1710.7MHz RB 1 0 NTV

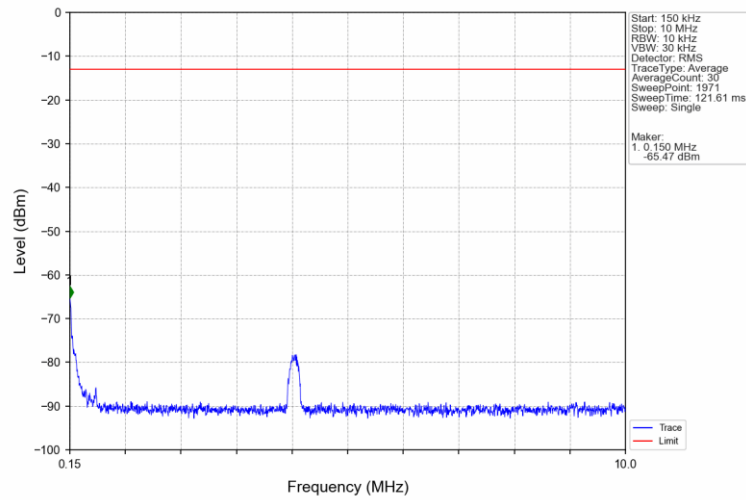


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1707	1709	1	CHP	1	1708.475	-36.43	-13	Pass
1709	1710	0.003	/	2	1709.997	-30.64	-13	Pass
1710	1713	0.003	/	/	/	/	/	/

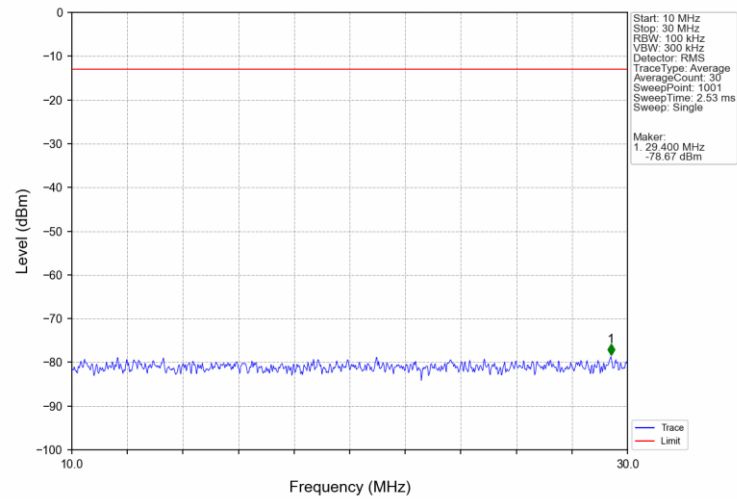
Band4 1.4MHz 16QAM LCH 1710.7MHz RB 1 0 NTNV



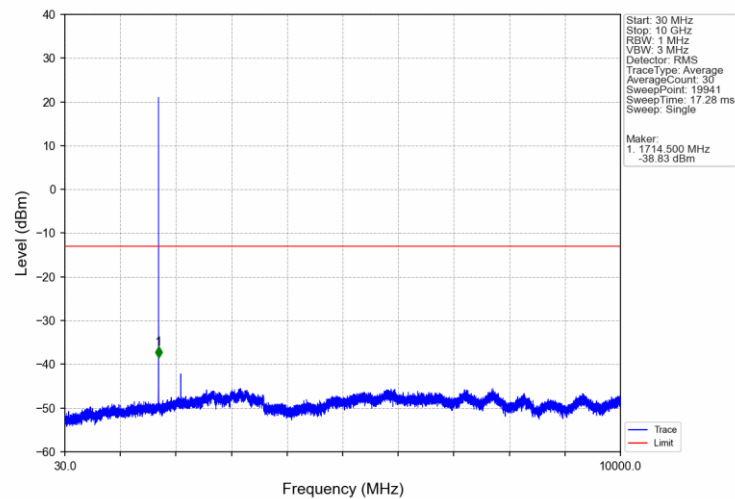
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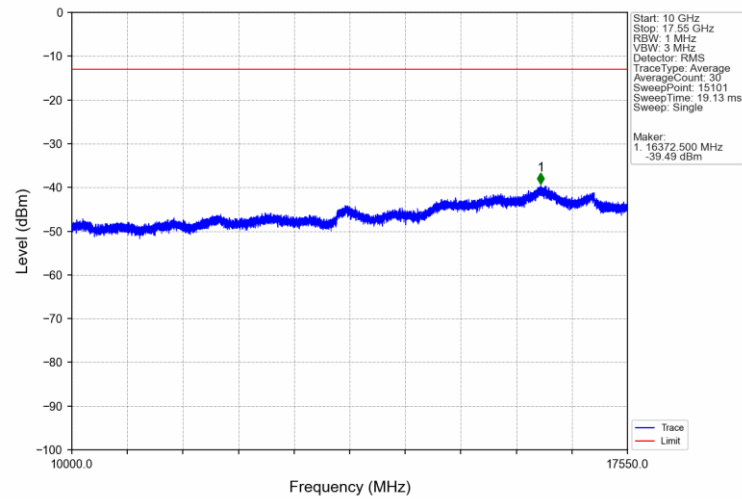
Band4 1.4MHz 16QAM LCH 1710.7MHz RB 1 0 NTNV



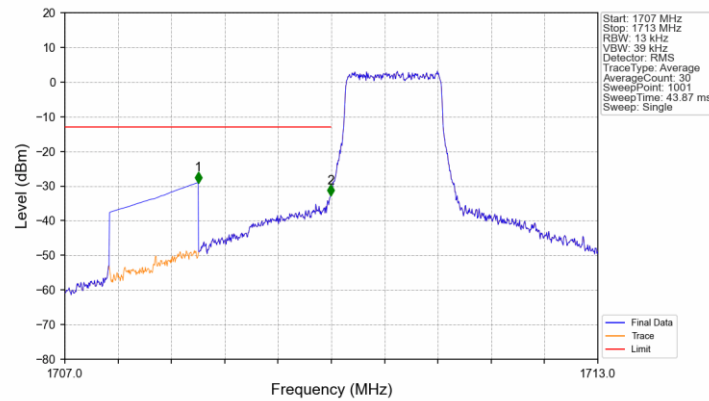
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Band4 1.4MHz 16QAM LCH 1710.7MHz RB 1 0 NTNV

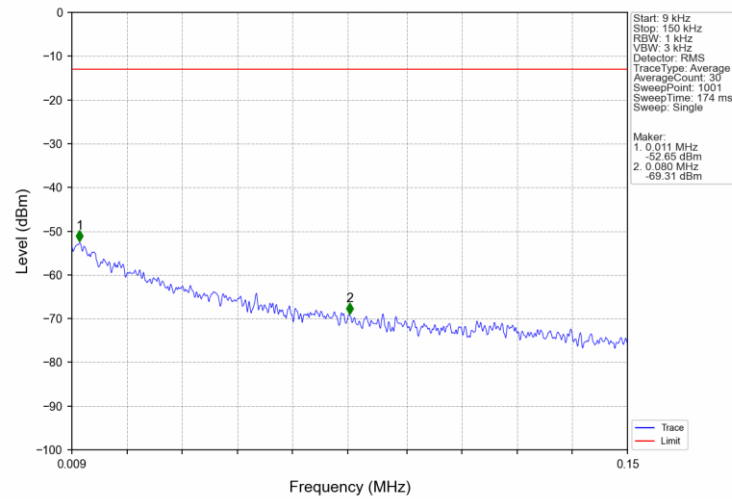


Band4 1.4MHz 16QAM LCH 1710.7MHz RB 6 0 NTNV

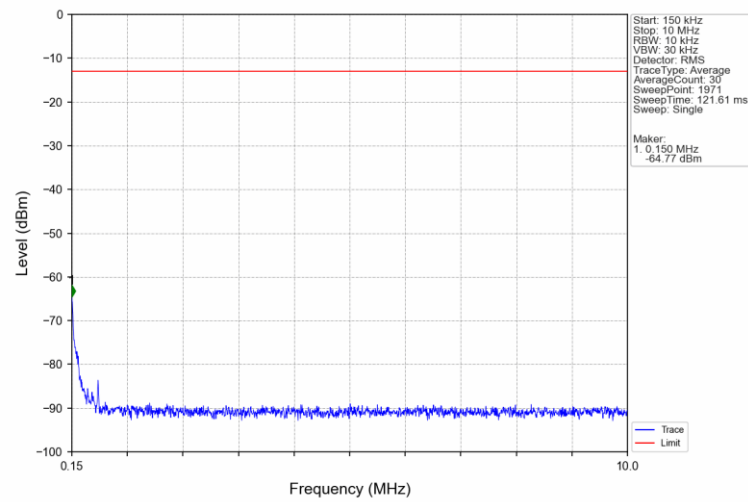


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1707	1709	1	CHP	1	1708.500	-29.03	-13	Pass
1709	1710	0.013	/	2	1709.994	-32.77	-13	Pass
1710	1713	0.013	/	/	/	/	/	/

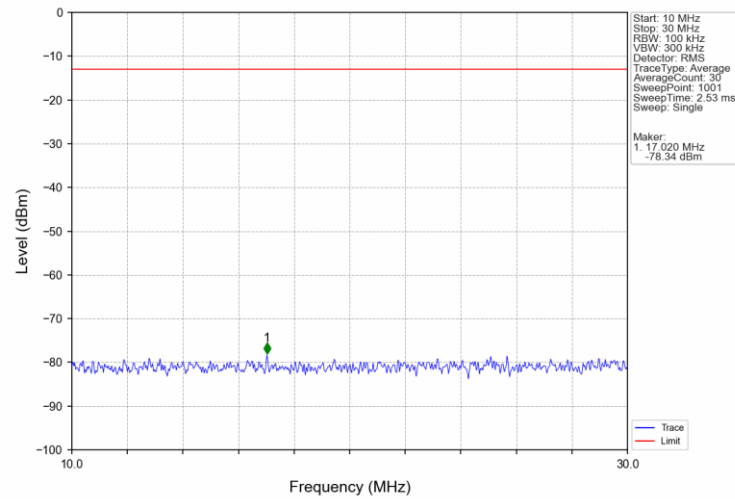
Band4 1.4MHz 16QAM MCH 1732.5MHz RB 1 0 NTN



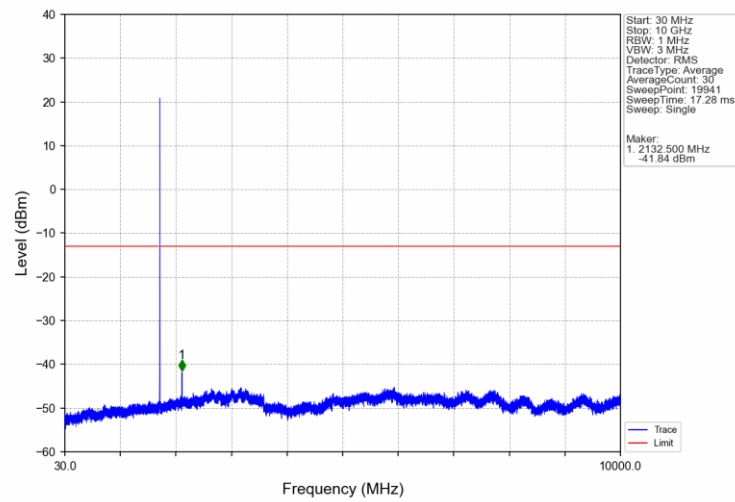
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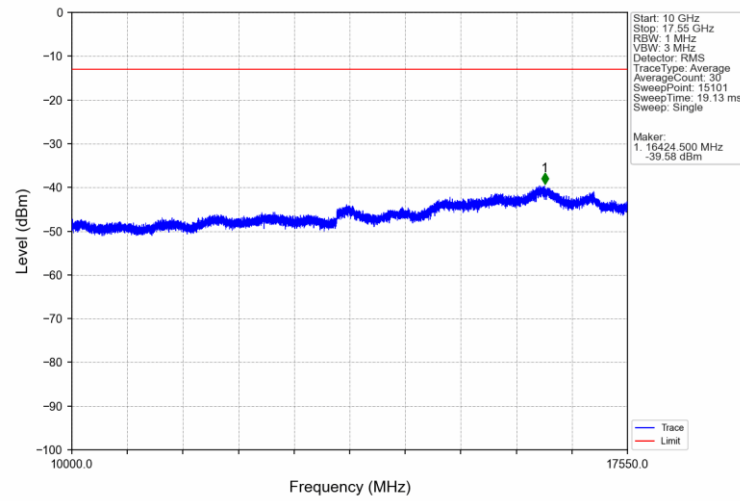
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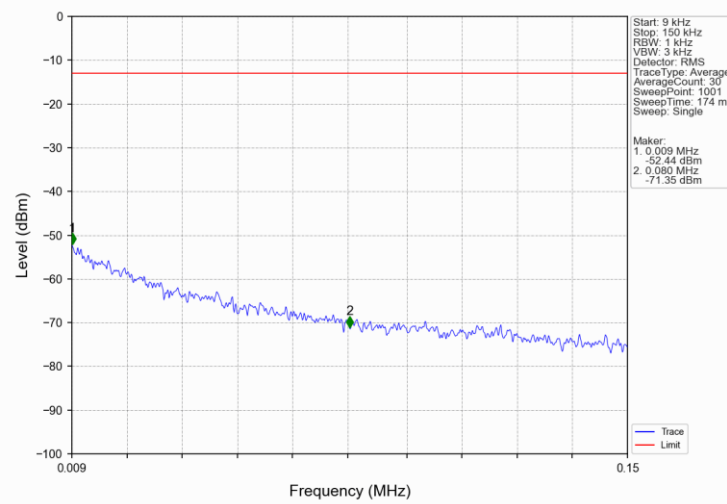
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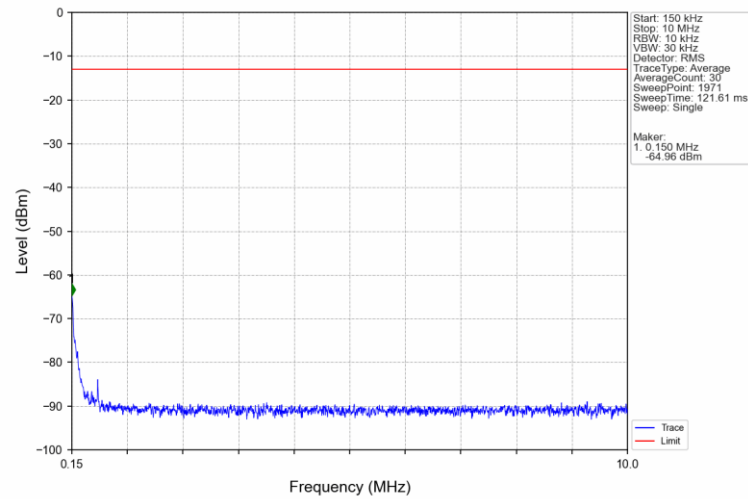
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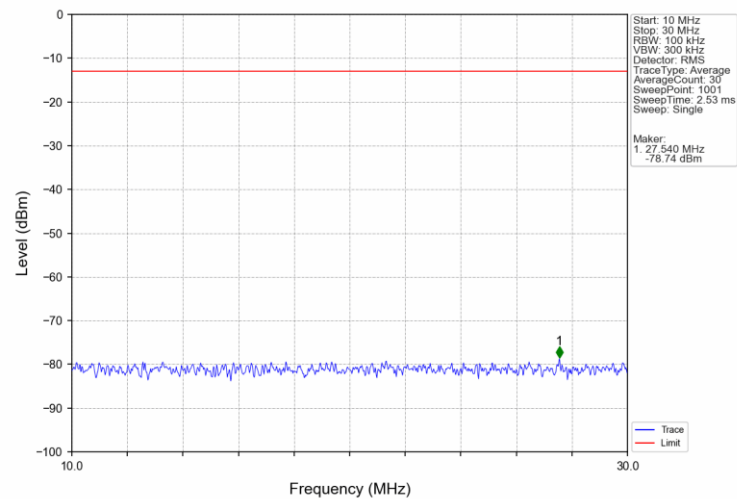
Band4 1.4MHz 16QAM HCH 1754.3MHz RB 1 0 NTNV



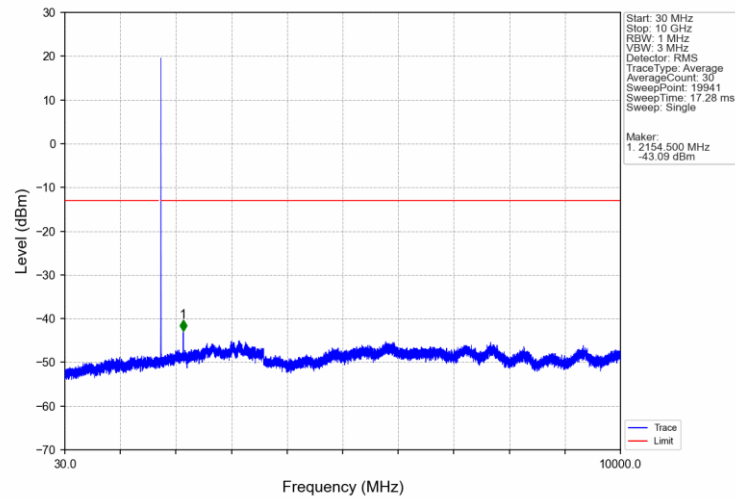
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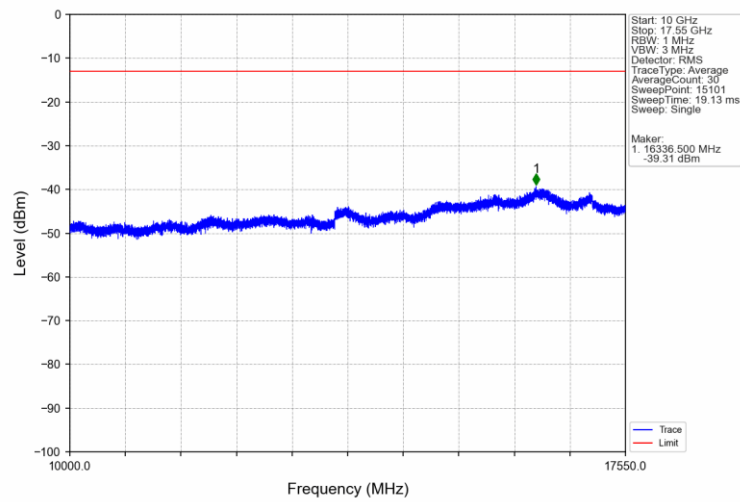
Band4 1.4MHz 16QAM HCH 1754.3MHz RB 1 0 NTN



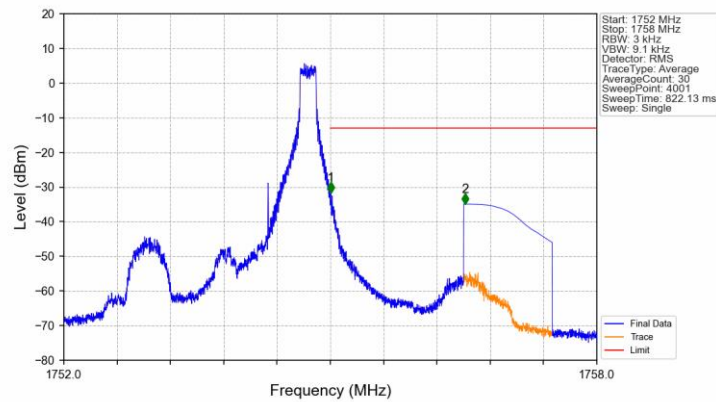
Band4 1.4MHz 16QAM HCH 1754.3MHz RB 1 0 NTN



Band4 1.4MHz 16QAM HCH 1754.3MHz RB 1 0 NTN

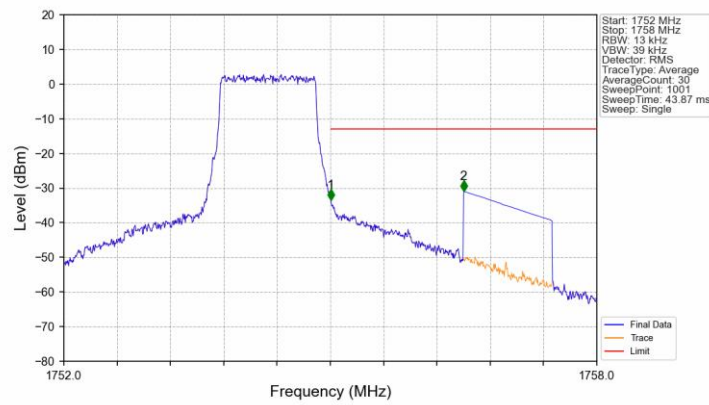


Band4 1.4MHz 16QAM HCH 1754.3MHz RB 1 5 NTNV



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	1755.006	-31.59	-13	Pass
1756	1758	1	CHP	2	1756.520	-34.94	-13	Pass

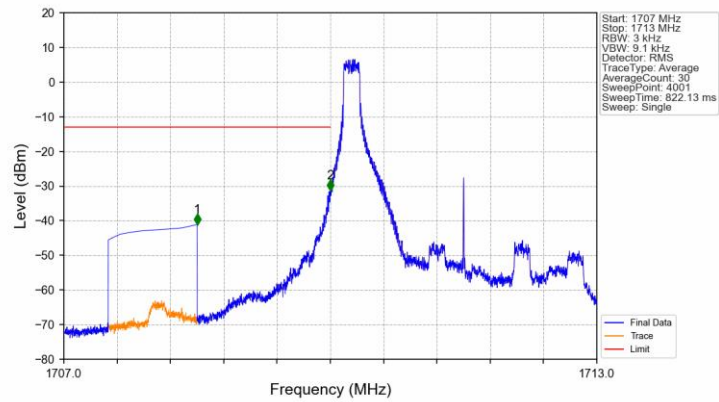
Band4 1.4MHz 16QAM HCH 1754.3MHz RB 6 0 NTNV



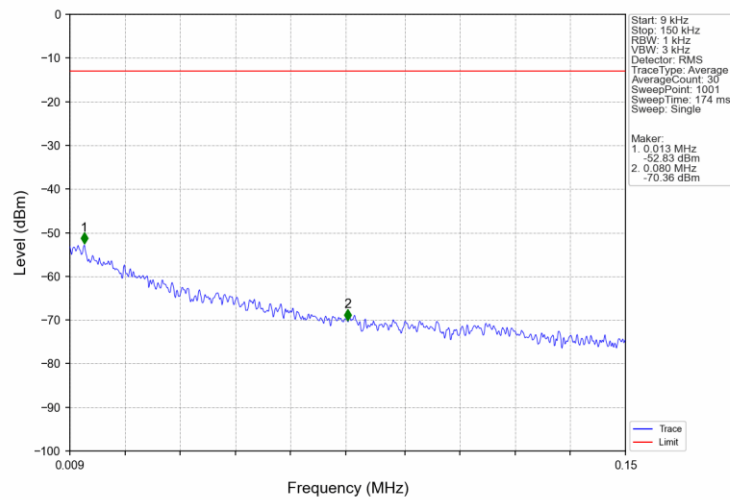
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1752	1755	0.013	/	/	/	/	/	/
1755	1756	0.013	/	1	1755.006	-33.54	-13	Pass
1756	1758	1	CHP	2	1756.500	-30.97	-13	Pass

6.2.2 B4_3MHz

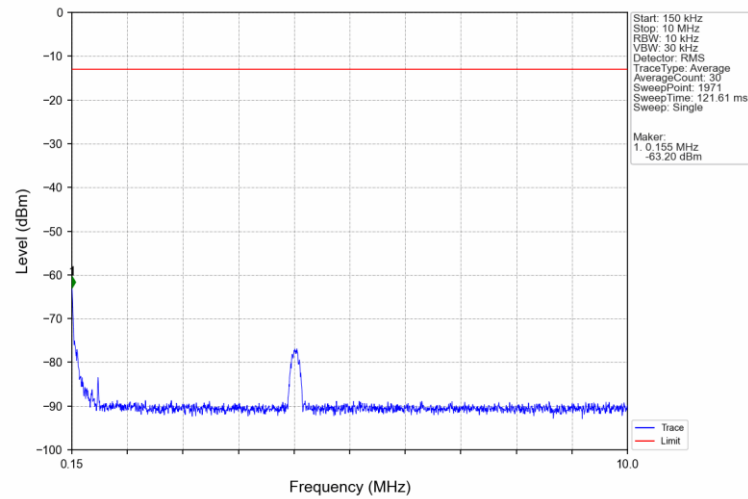
Band4 3MHz QPSK LCH 1711.5MHz RB 1 0 NTN



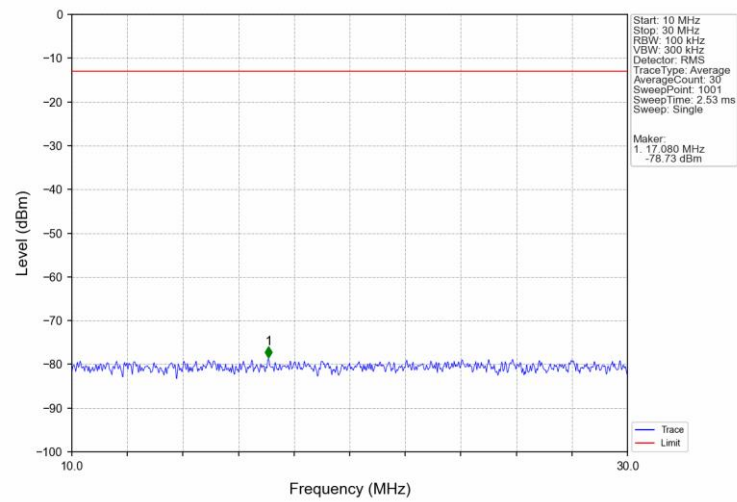
Band4 3MHz QPSK LCH 1711.5MHz RB 1 0 NTN



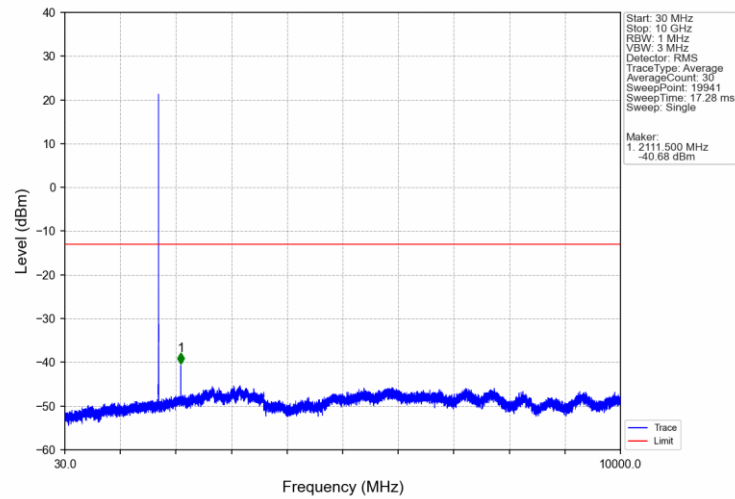
Band4_3MHz_QPSK_LCH_1711.5MHz_RB_1_0_NTNV



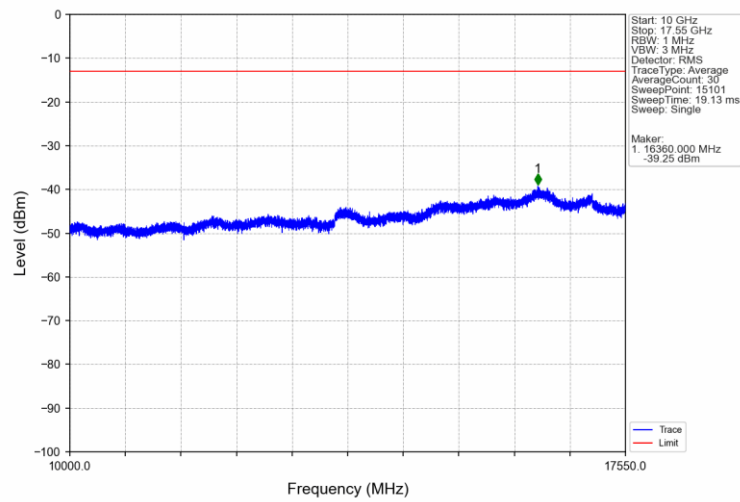
Band4_3MHz_QPSK_LCH_1711.5MHz_RB_1_0_NTNV



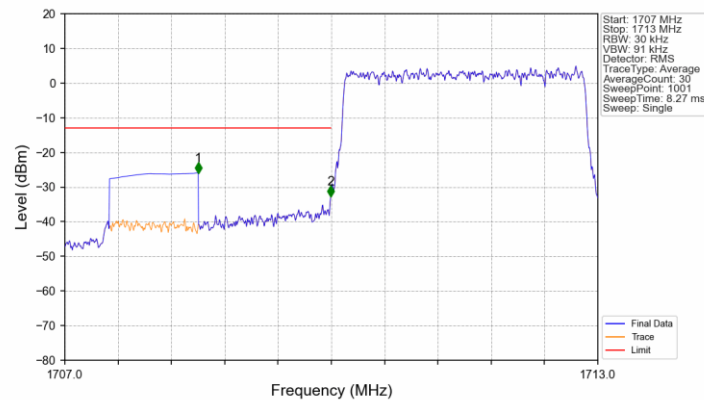
Band4 3MHz QPSK LCH 1711.5MHz RB 1 0 NTN



Band4 3MHz QPSK LCH 1711.5MHz RB 1 0 NTN

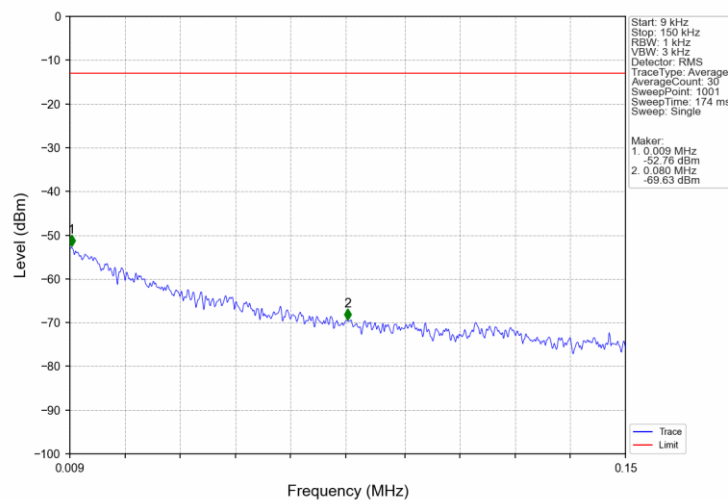


Band4 3MHz QPSK LCH 1711.5MHz RB 15 0 NTV

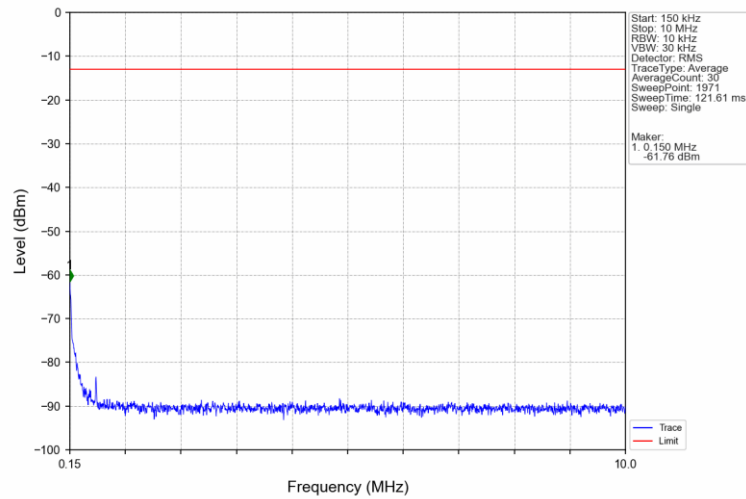


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1707	1709	1	CHP	1	1708.500	-25.96	-13	Pass
1709	1710	0.03	/	2	1709.994	-32.74	-13	Pass
1710	1713	0.03	/	/	/	/	/	/

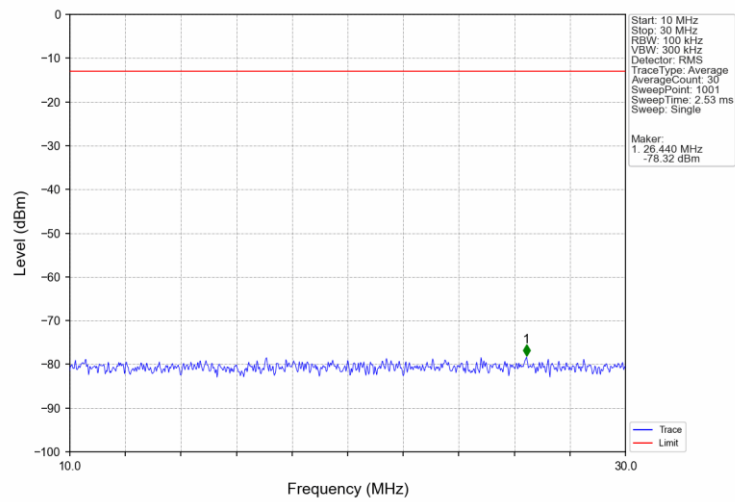
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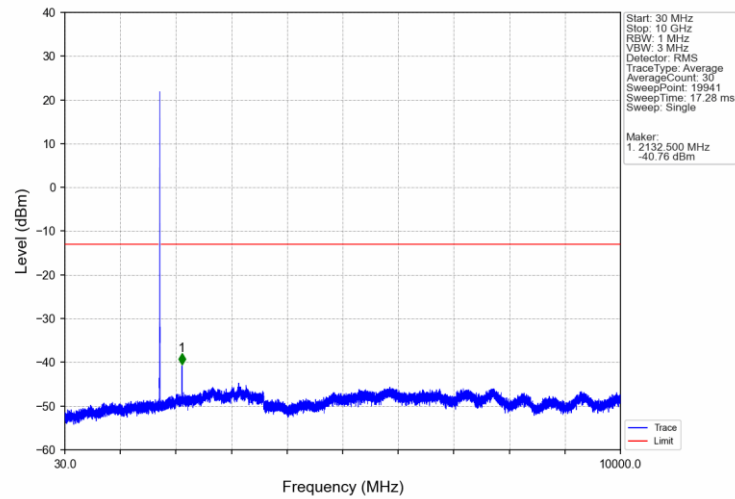
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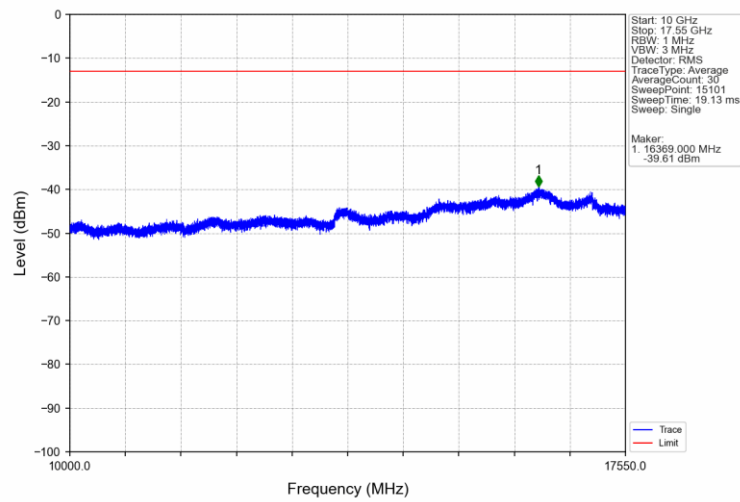
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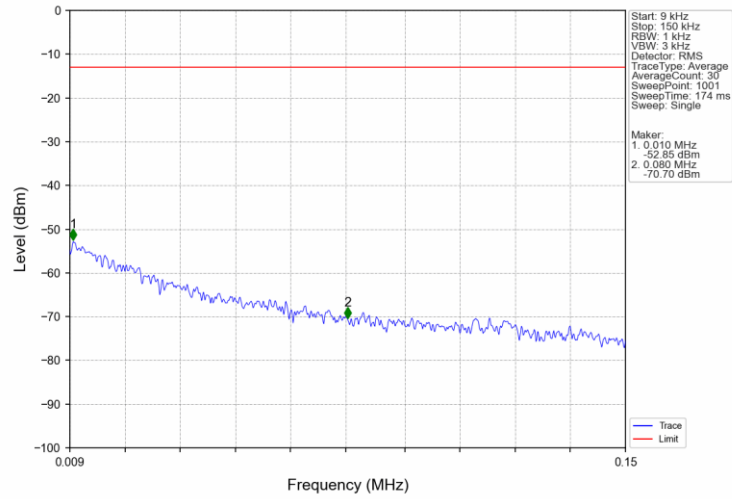
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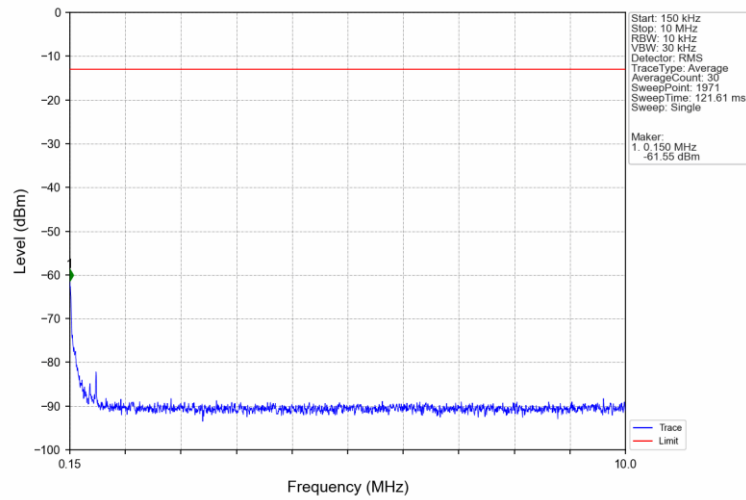
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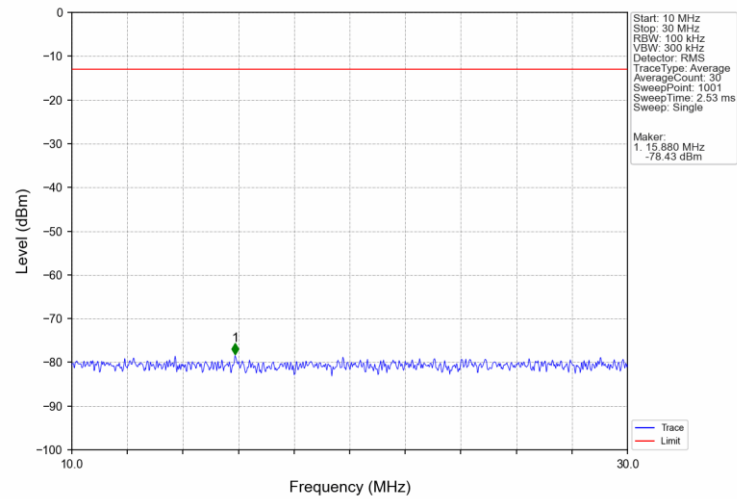
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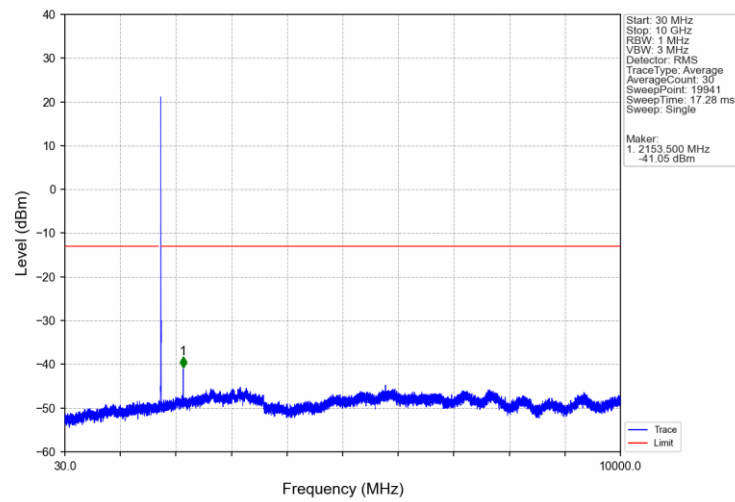
Band4 3MHz QPSK HCH 1753.5MHz RB 1 0 NTN



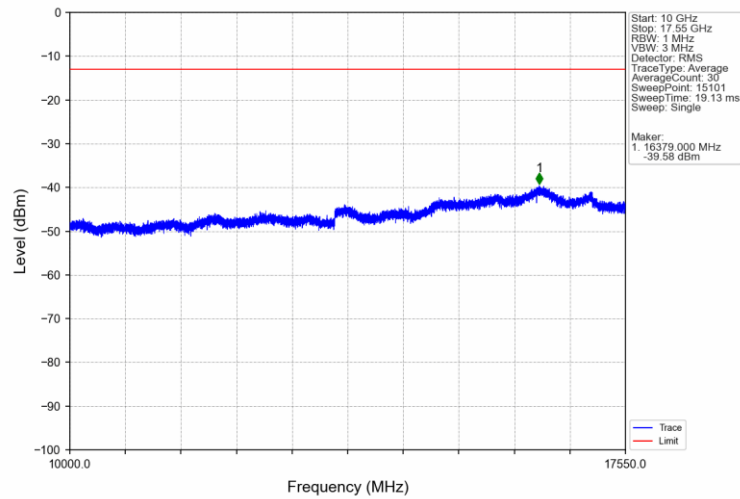
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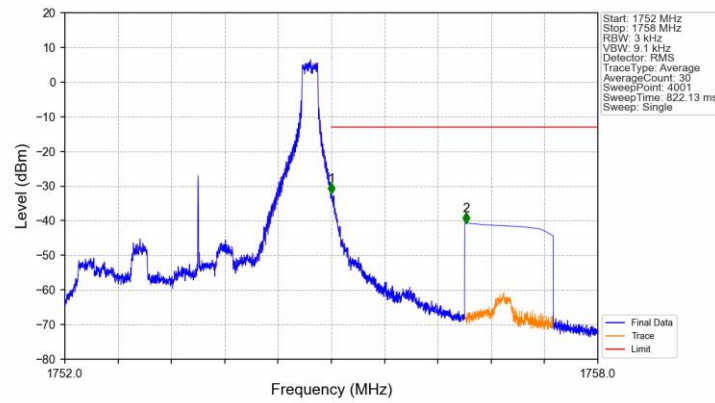
Band4 3MHz QPSK HCH 1753.5MHz RB 1 0 NTN



Band4 3MHz QPSK HCH 1753.5MHz RB 1 0 NTN



Band4 3MHz QPSK HCH 1753.5MHz RB 1 14 NTN



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	-32.17	-13	Pass
1756	1758	1	CHP	2	1756.516	-40.74	-13	Pass