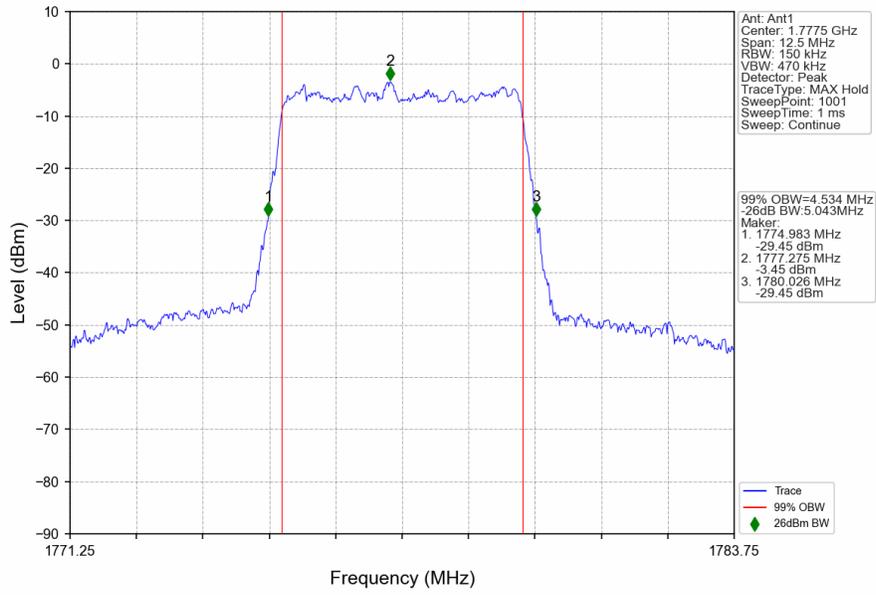
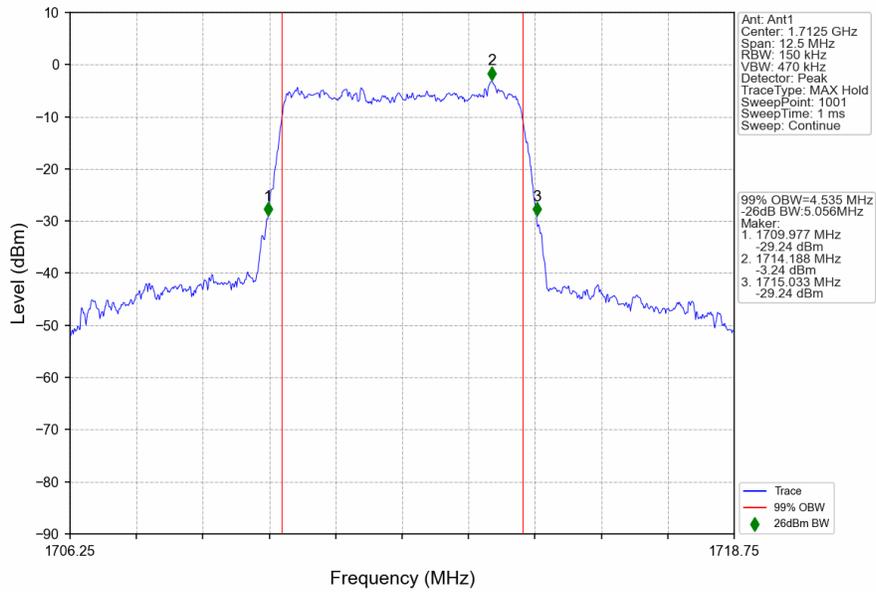


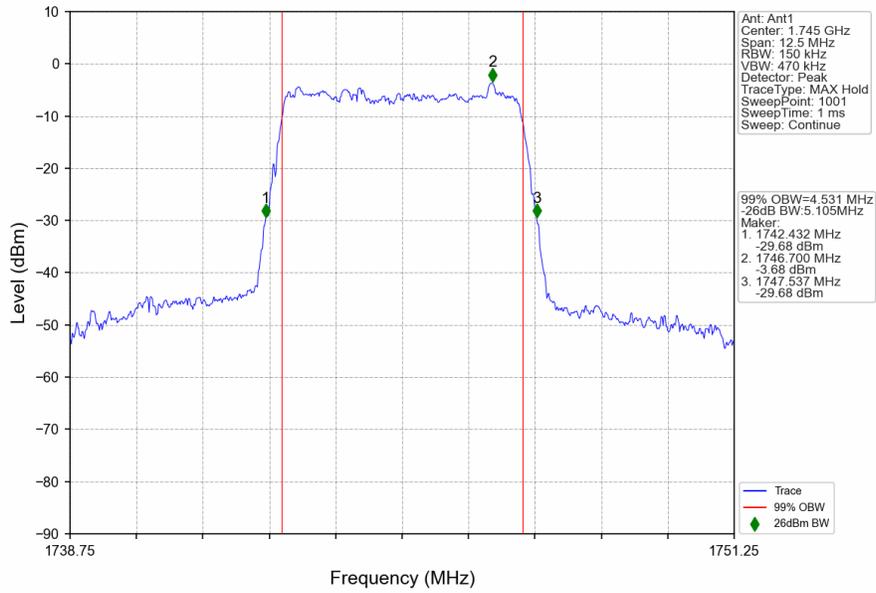
n66_15kHz_SISO_NTNV_5MHz_CP-OFDM 16 QAM_1777.5MHz_Outer_Full



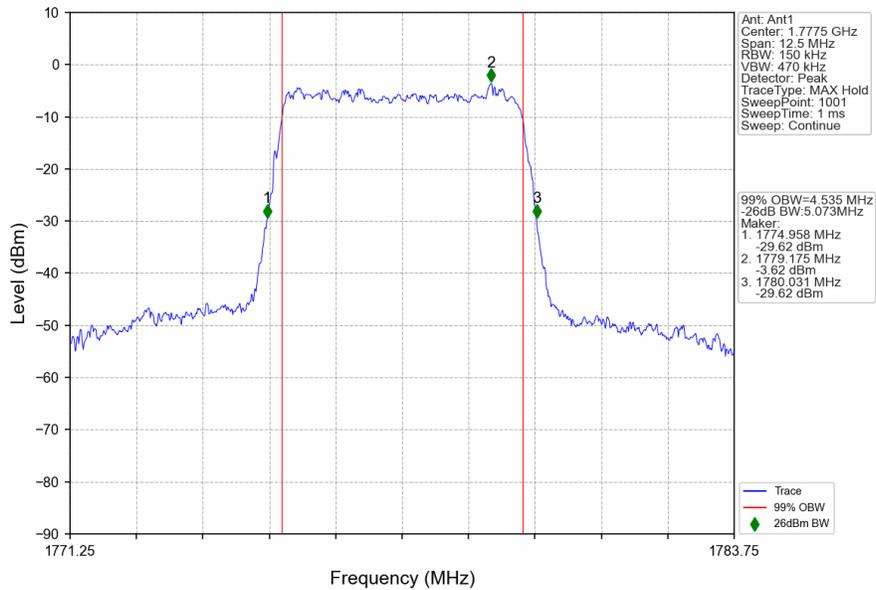
n66_15kHz_SISO_NTNV_5MHz_CP-OFDM 64 QAM_1712.5MHz_Outer_Full



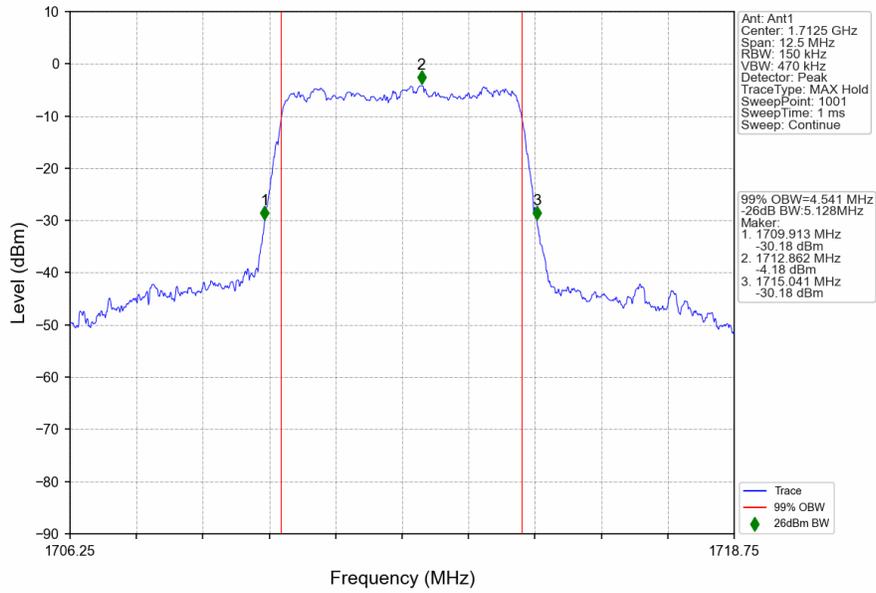
n66_15kHz_SISO_NTNV_5MHz_CP-OFDM 64 QAM_1745MHz_Outer_Full



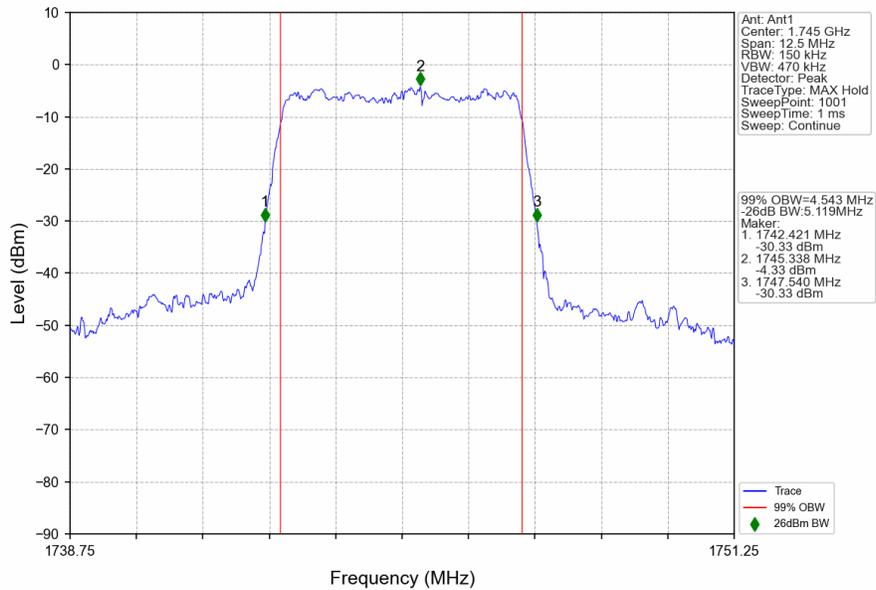
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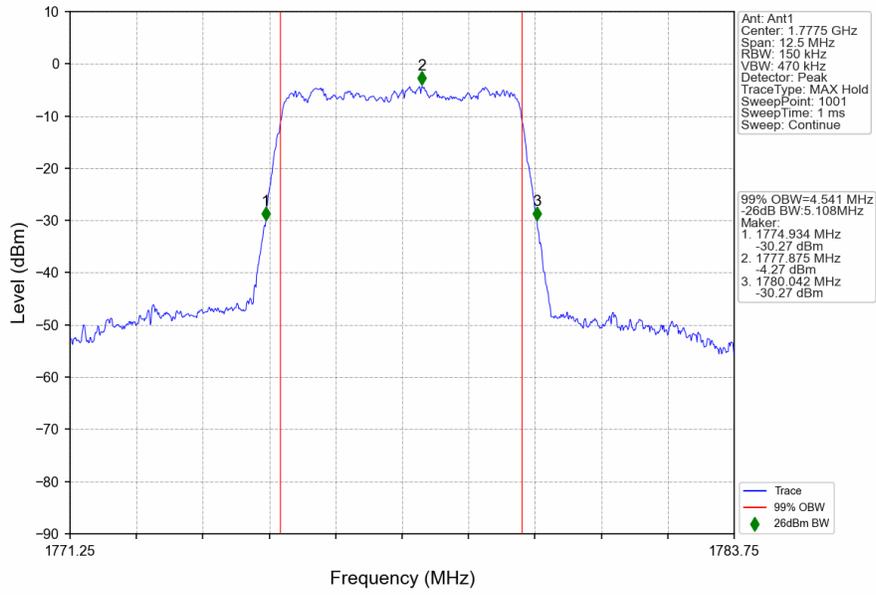
n66_15kHz_SISO_NTNV_5MHz_CP-OFDM 256 QAM_1712.5MHz_Outer_Full



n66_15kHz_SISO_NTNV_5MHz_CP-OFDM 256 QAM_1745MHz_Outer_Full



n66_15kHz_SISO_NTNV_5MHz_CP-OFDM 256 QAM 1777.5MHz_Outer_Full

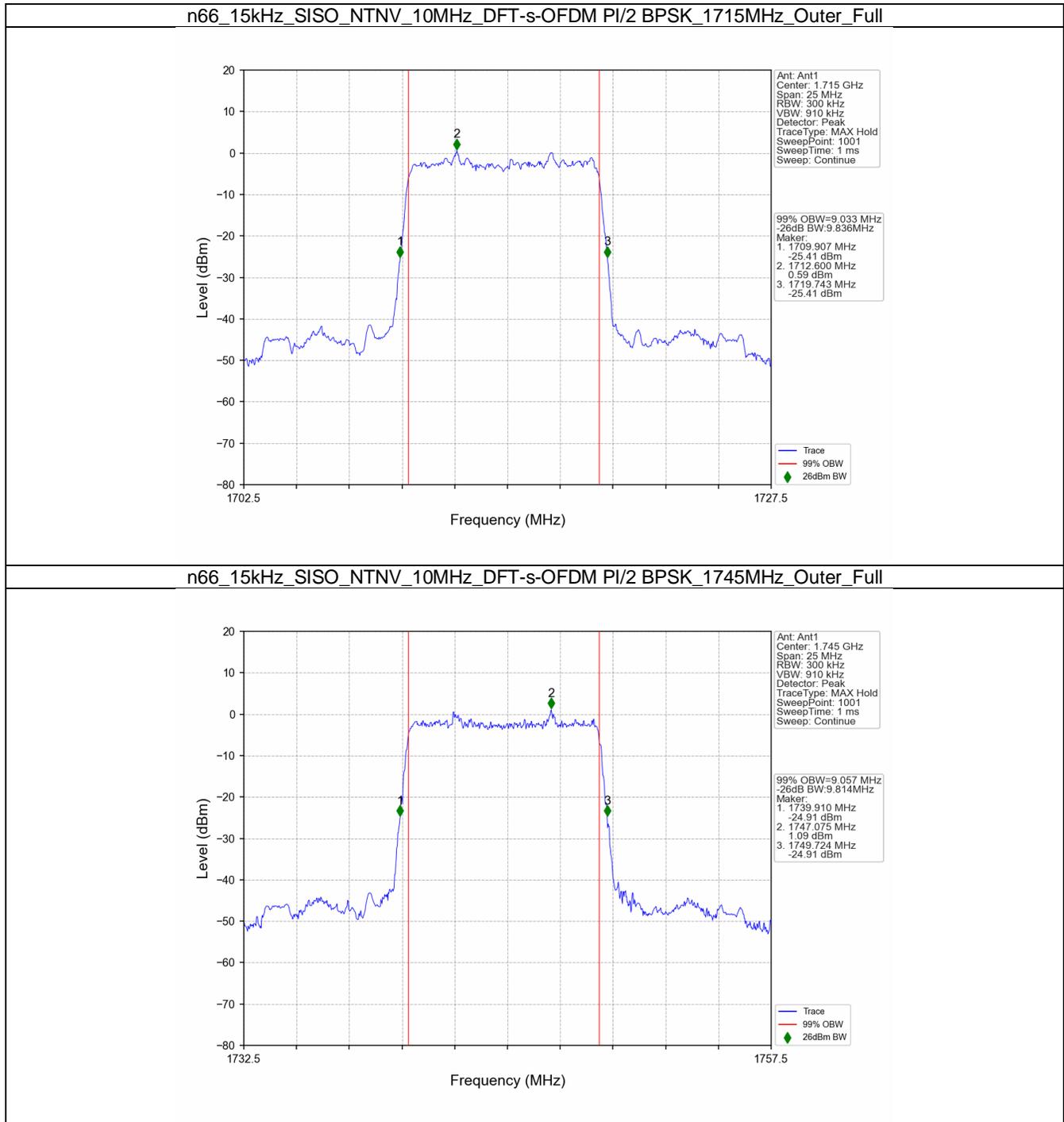


4.2 15k_SISO_10MHz_NTNV

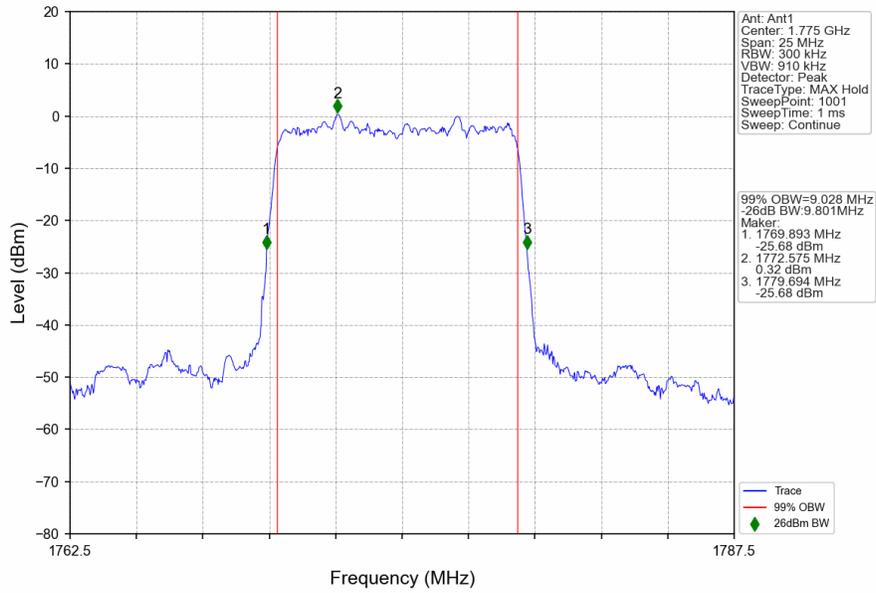
4.2.1 Test Result

5G NR n66 SCS=15kHz SISO 10MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	1715	Outer_Full	9.03	9.84	/	Pass
	1745	Outer_Full	9.06	9.81	/	Pass
	1775	Outer_Full	9.03	9.80	/	Pass
DFT-s-OFDM QPSK	1715	Outer_Full	9.07	9.87	/	Pass
	1745	Outer_Full	9.07	9.86	/	Pass
	1775	Outer_Full	9.07	9.88	/	Pass
DFT-s-OFDM 16 QAM	1715	Outer_Full	9.06	9.85	/	Pass
	1745	Outer_Full	9.07	9.84	/	Pass
	1775	Outer_Full	9.05	9.86	/	Pass
DFT-s-OFDM 64 QAM	1715	Outer_Full	9.05	9.81	/	Pass
	1745	Outer_Full	9.05	9.87	/	Pass
	1775	Outer_Full	9.04	9.87	/	Pass
DFT-s-OFDM 256 QAM	1715	Outer_Full	9.06	9.94	/	Pass
	1745	Outer_Full	9.06	9.86	/	Pass
	1775	Outer_Full	9.05	9.93	/	Pass
CP-OFDM QPSK	1715	Outer_Full	9.37	10.24	/	Pass
	1745	Outer_Full	9.37	10.28	/	Pass
	1775	Outer_Full	9.36	10.27	/	Pass
CP-OFDM 16 QAM	1715	Outer_Full	9.38	10.27	/	Pass
	1745	Outer_Full	9.38	10.25	/	Pass
	1775	Outer_Full	9.38	10.26	/	Pass
CP-OFDM 64 QAM	1715	Outer_Full	9.37	10.23	/	Pass
	1745	Outer_Full	9.36	10.19	/	Pass
	1775	Outer_Full	9.35	10.14	/	Pass
CP-OFDM 256 QAM	1715	Outer_Full	9.40	10.19	/	Pass
	1745	Outer_Full	9.41	10.26	/	Pass
	1775	Outer_Full	9.41	10.18	/	Pass

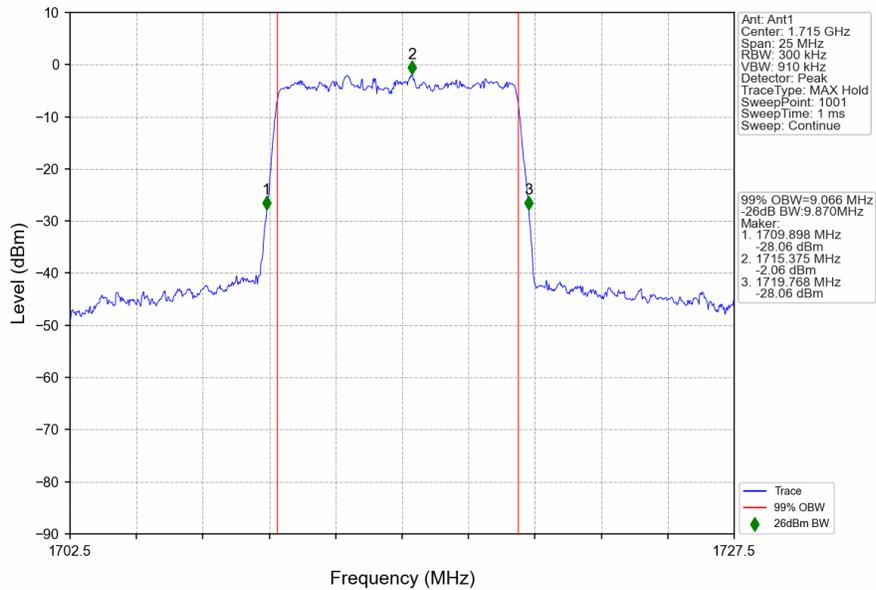
4.2.2 Test Graph



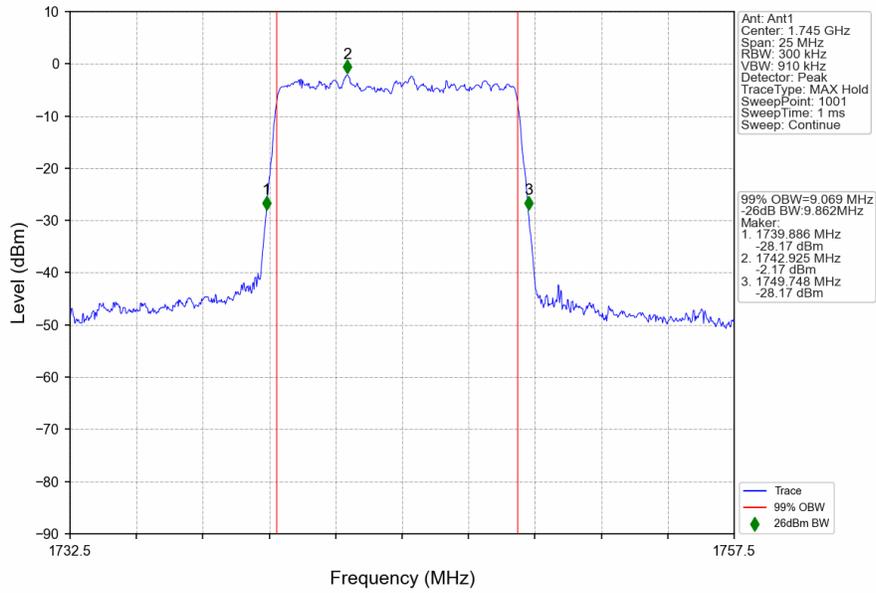
n66_15kHz_SISO_NTNV_10MHz_DFT-s-OFDM PI/2 BPSK_1775MHz_Outer_Full



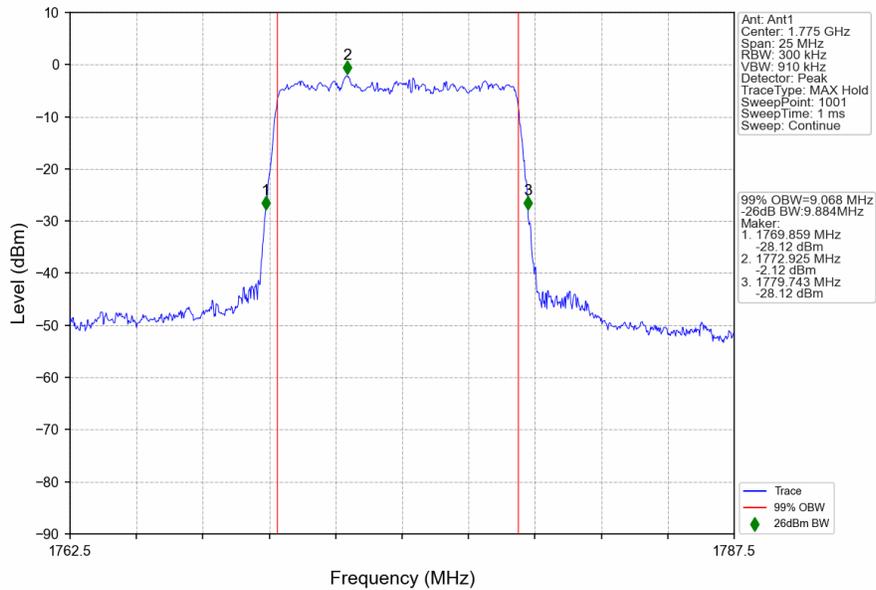
n66_15kHz_SISO_NTNV_10MHz_DFT-s-OFDM QPSK_1715MHz_Outer_Full



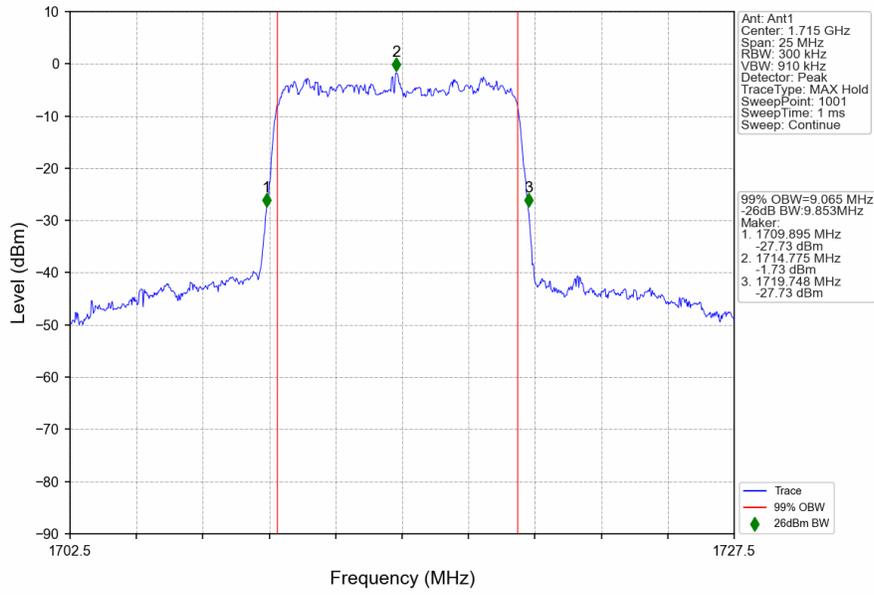
n66_15kHz_SISO_NTNV_10MHz_DFT-s-OFDM QPSK_1745MHz_Outer_Full



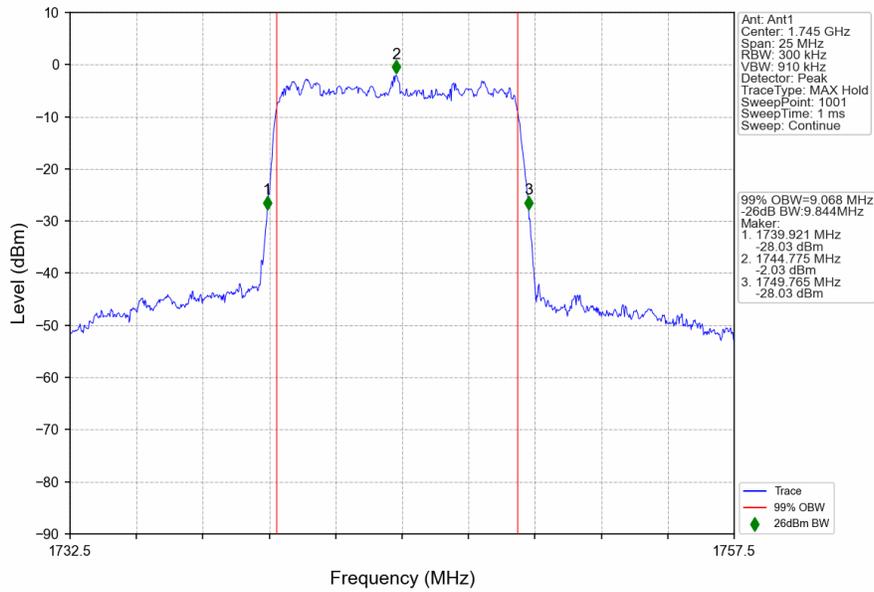
n66_15kHz_SISO_NTNV_10MHz_DFT-s-OFDM QPSK_1775MHz_Outer_Full



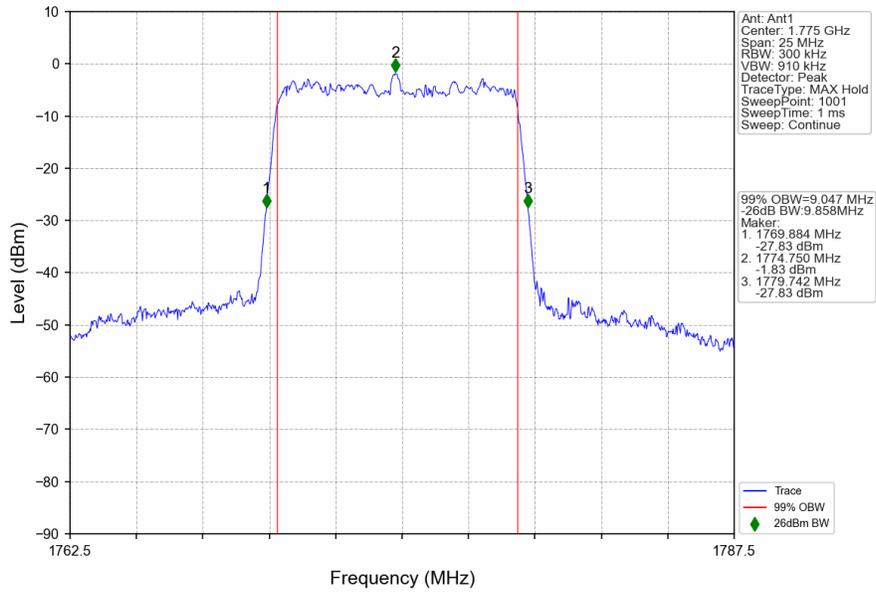
n66_15kHz_SISO_NTNV_10MHz_DFT-s-OFDM 16 QAM_1715MHz_Outer_Full



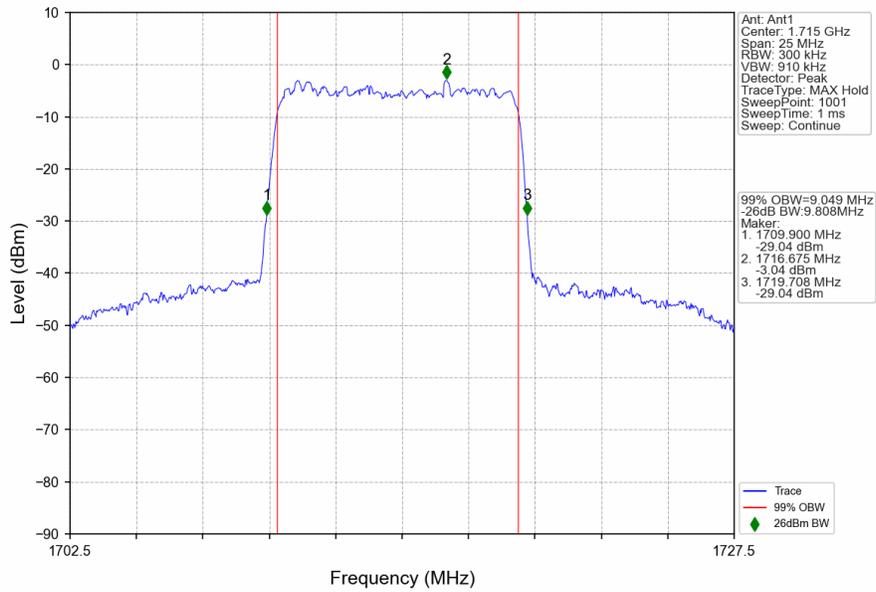
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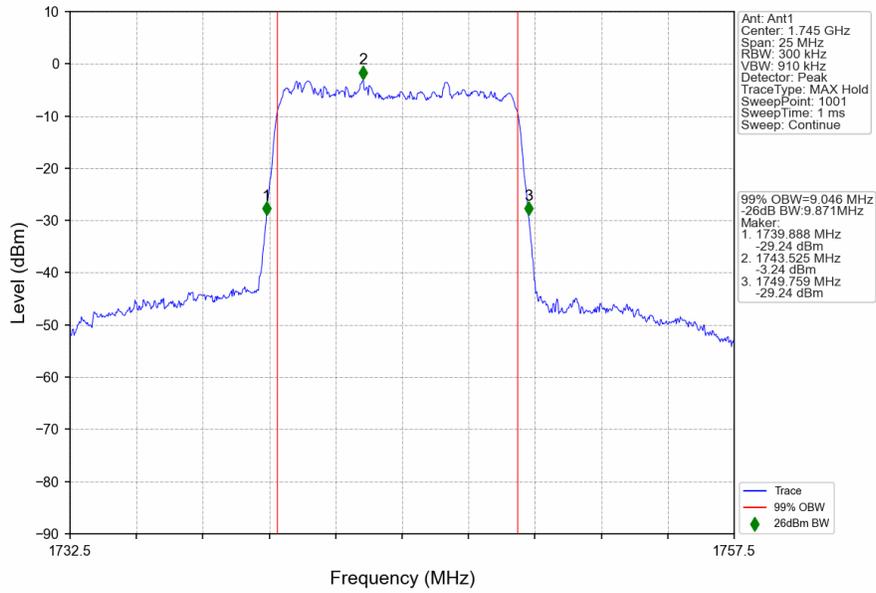
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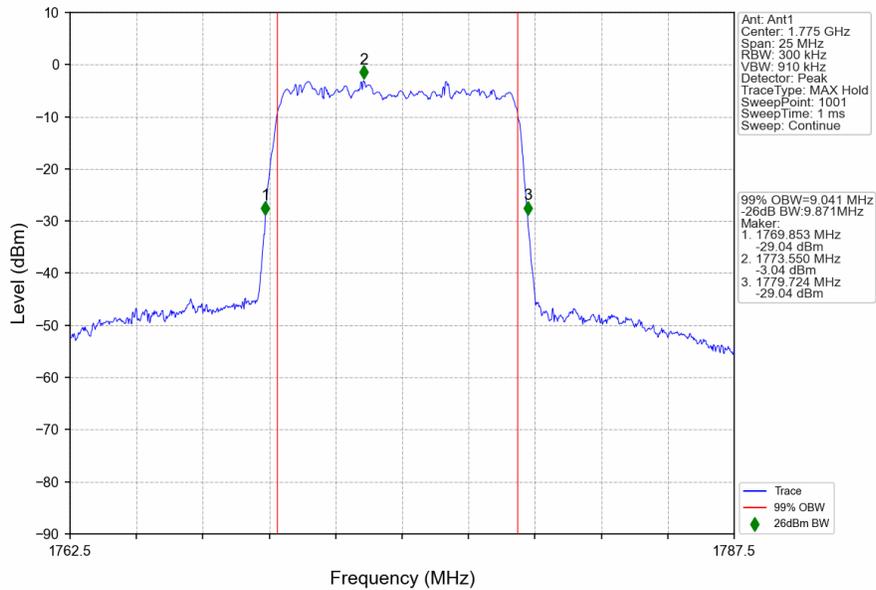
n66_15kHz_SISO_NTNV_10MHz_DFT-s-OFDM 64 QAM_1715MHz_Outer_Full



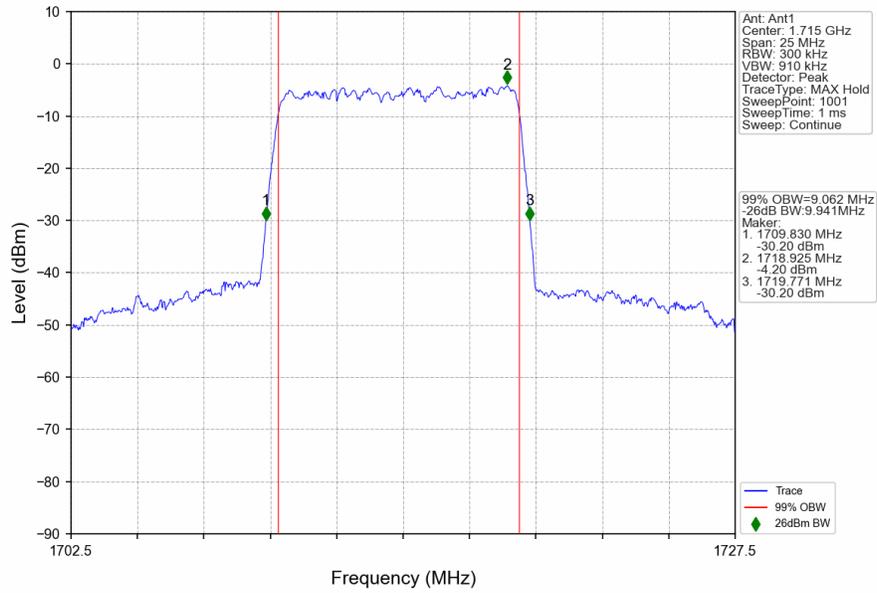
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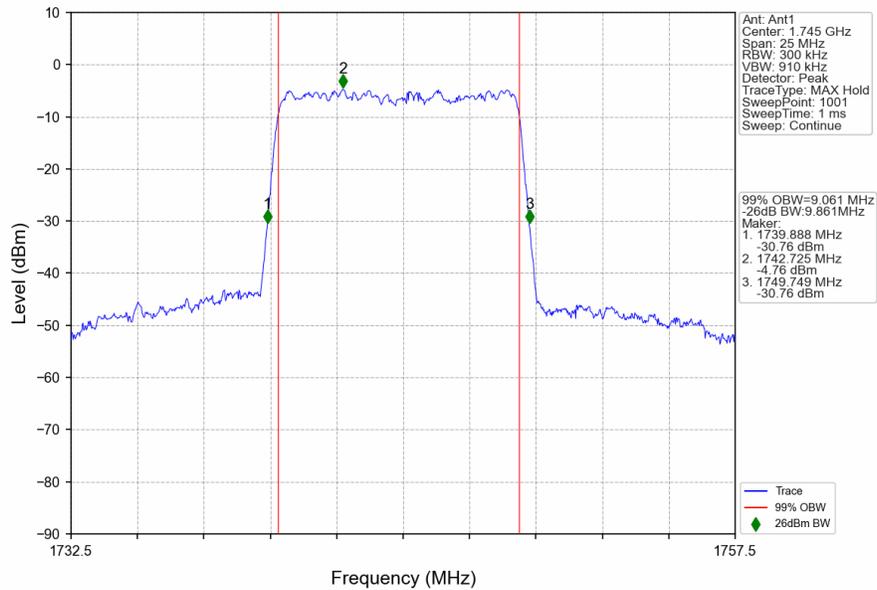
n66_15kHz_SISO_NTNV_10MHz_DFT-s-OFDM 64 QAM_1775MHz_Outer_Full



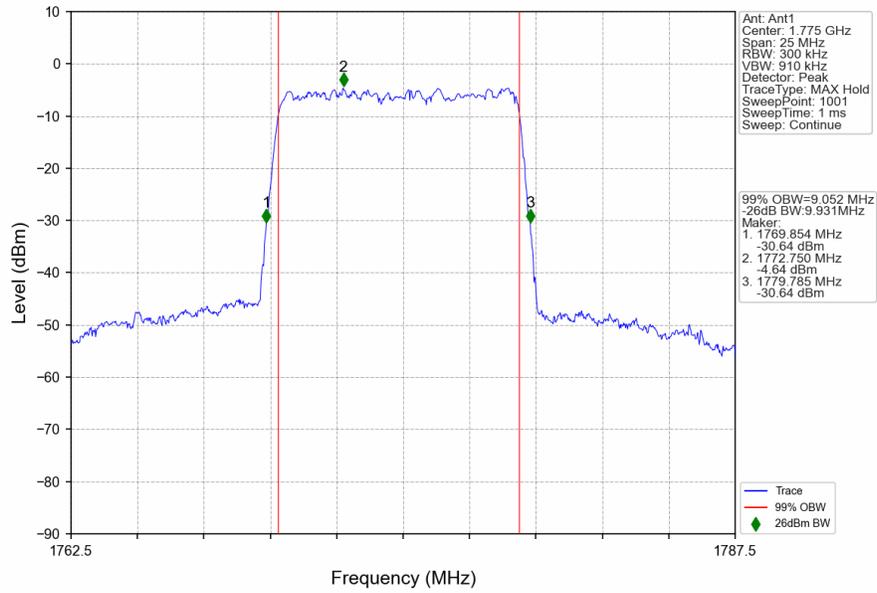
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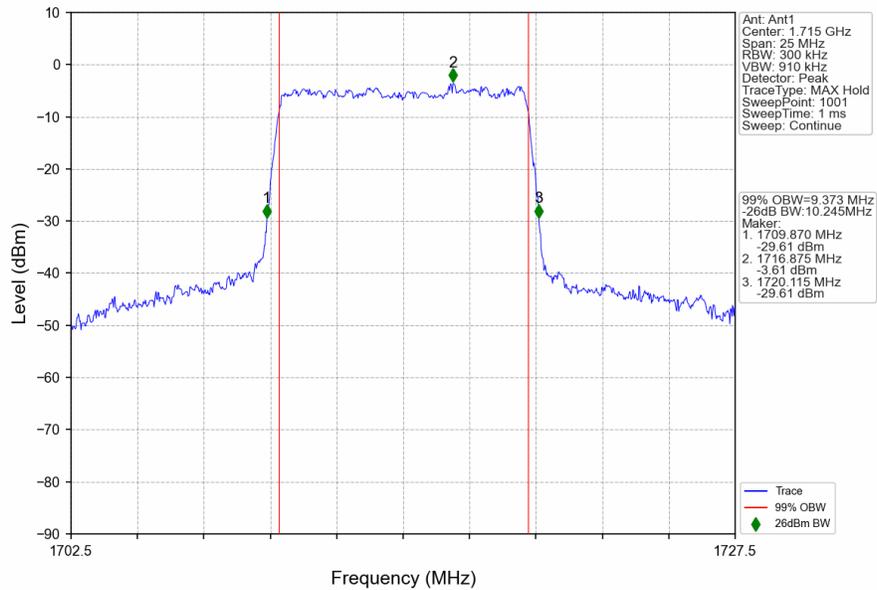
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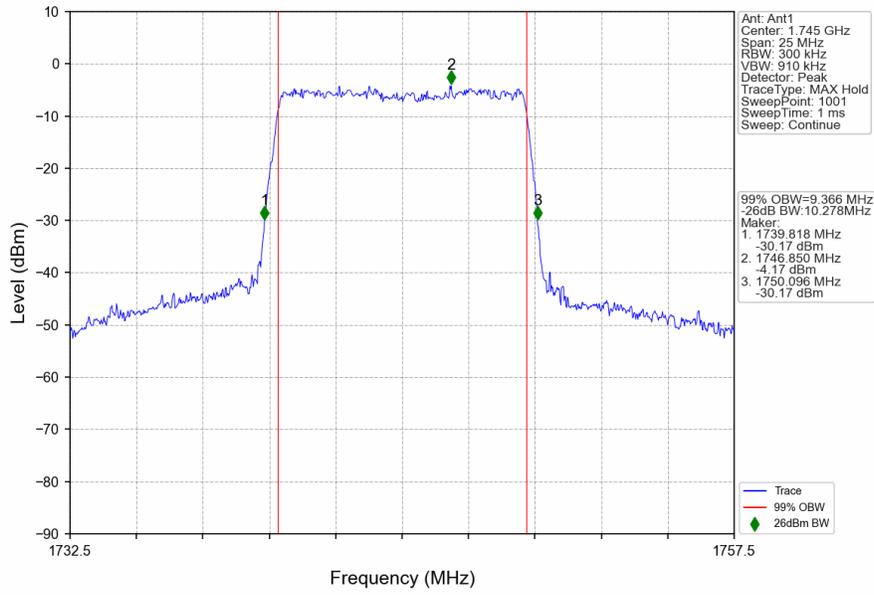
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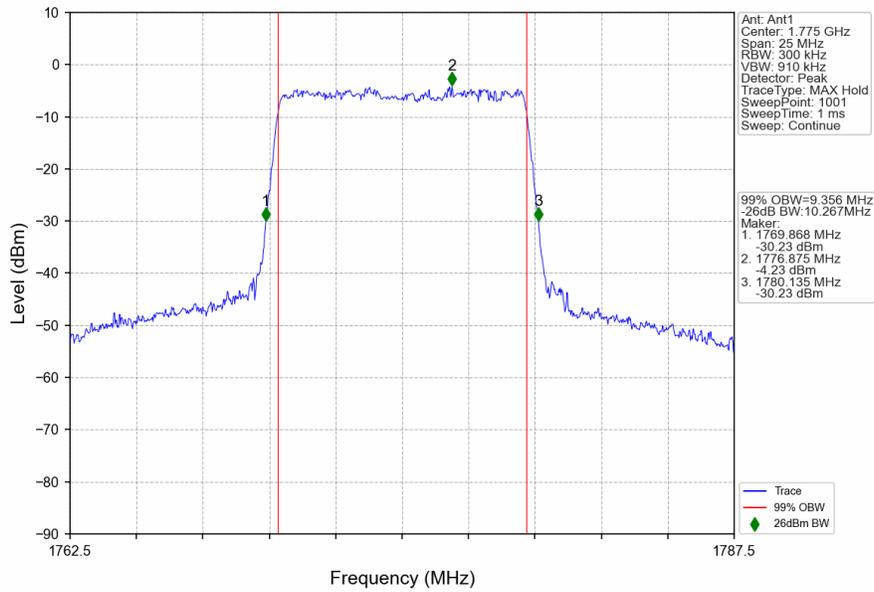
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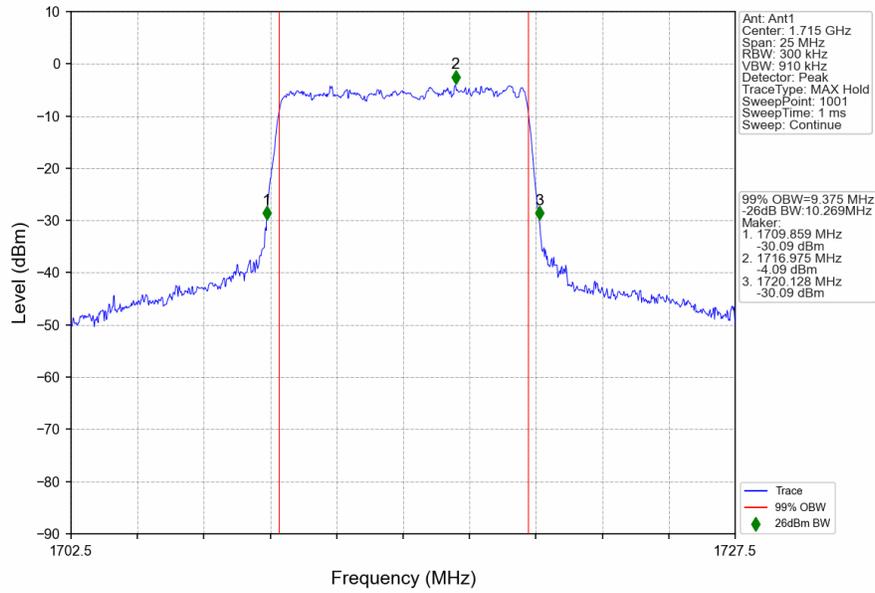
n66_15kHz_SISO_NTNV_10MHz_CP-OFDM QPSK_1745MHz_Outer_Full



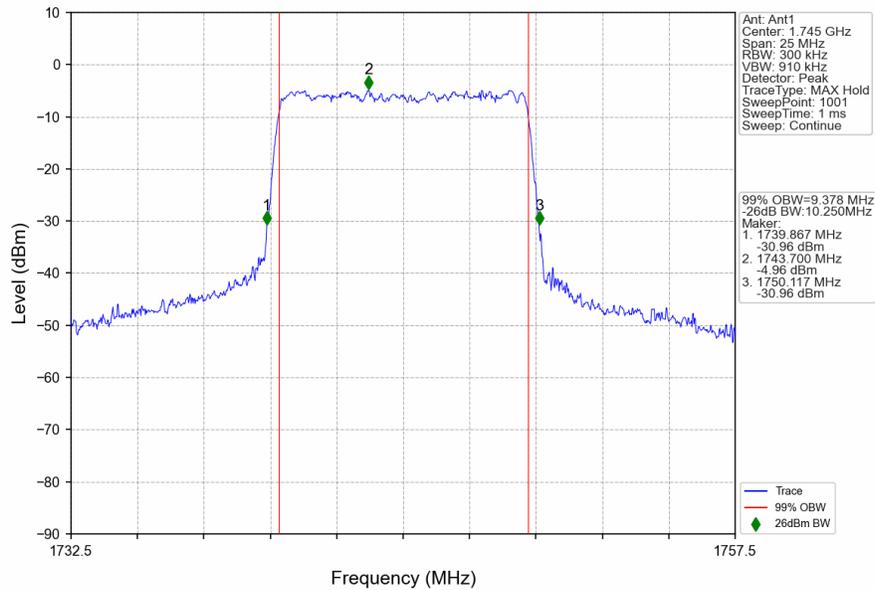
n66_15kHz_SISO_NTNV_10MHz_CP-OFDM QPSK_1775MHz_Outer_Full



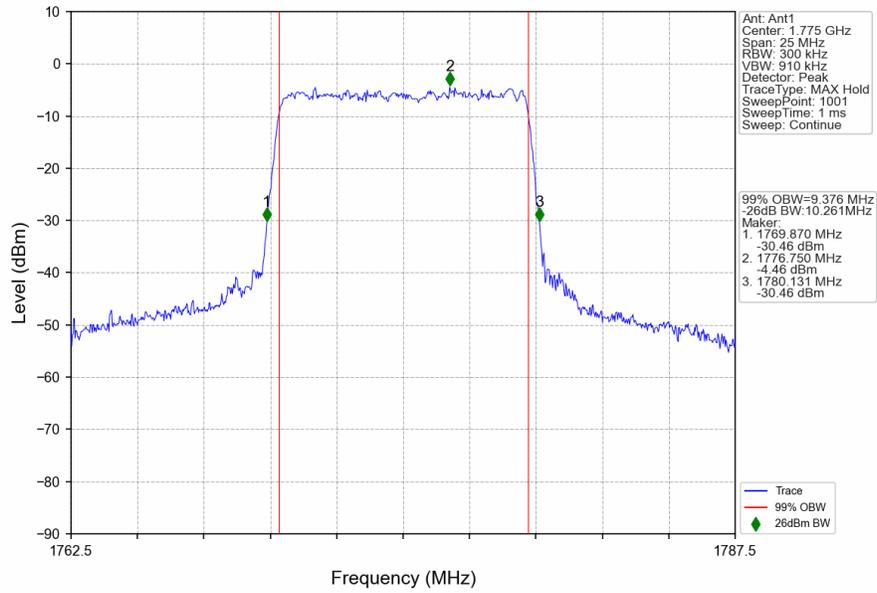
n66_15kHz_SISO_NTNV_10MHz_CP-OFDM 16 QAM_1715MHz_Outer_Full



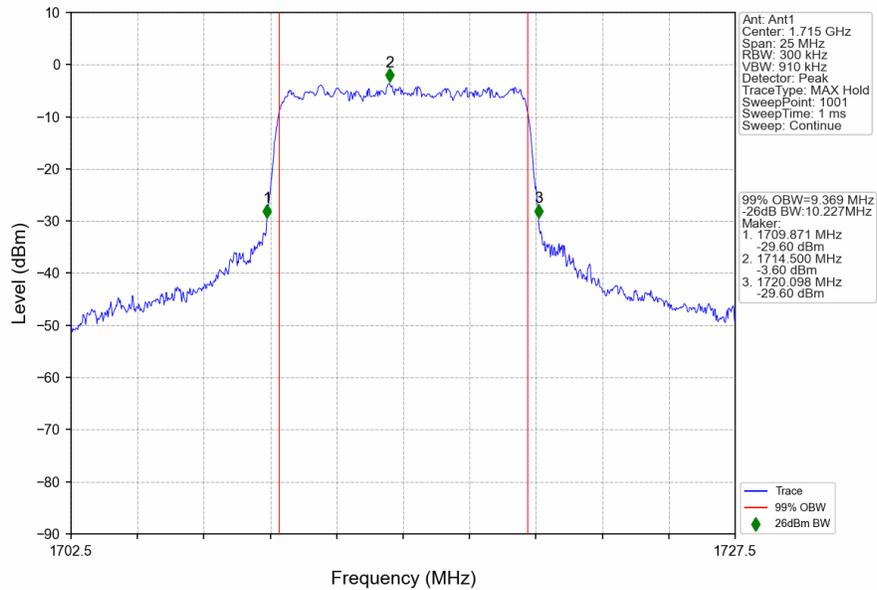
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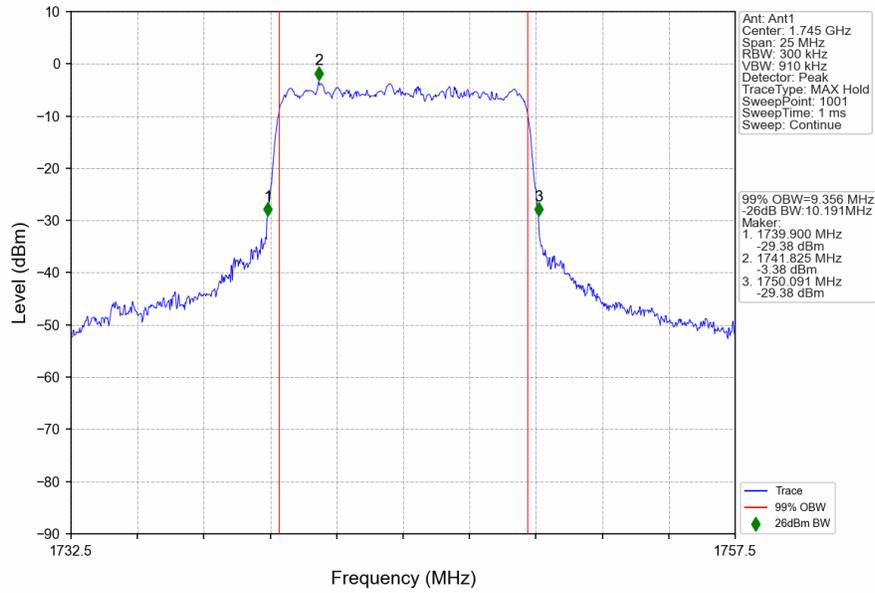
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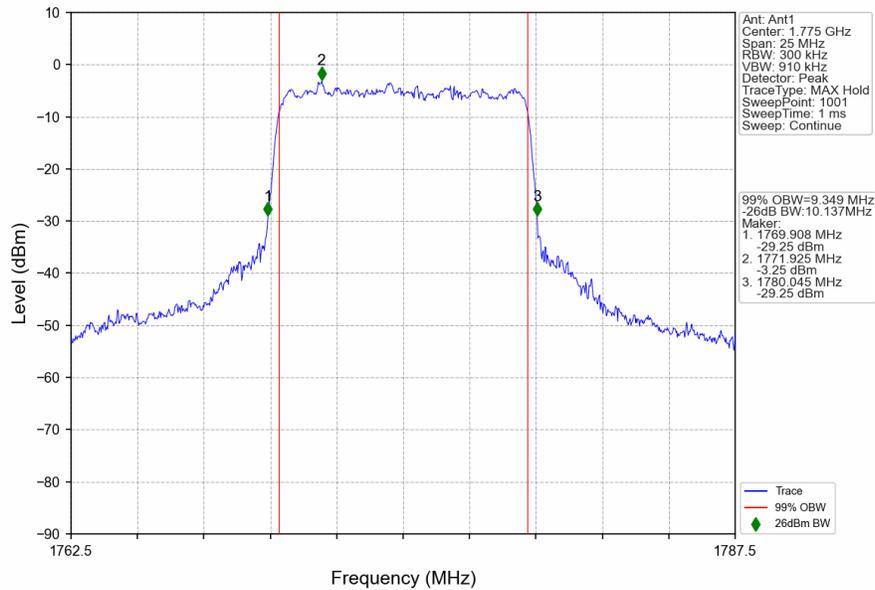
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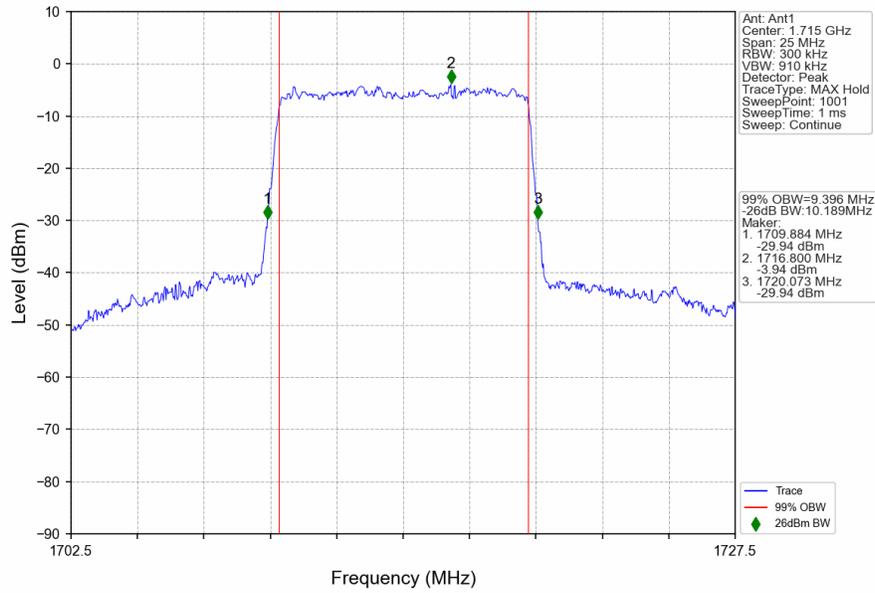
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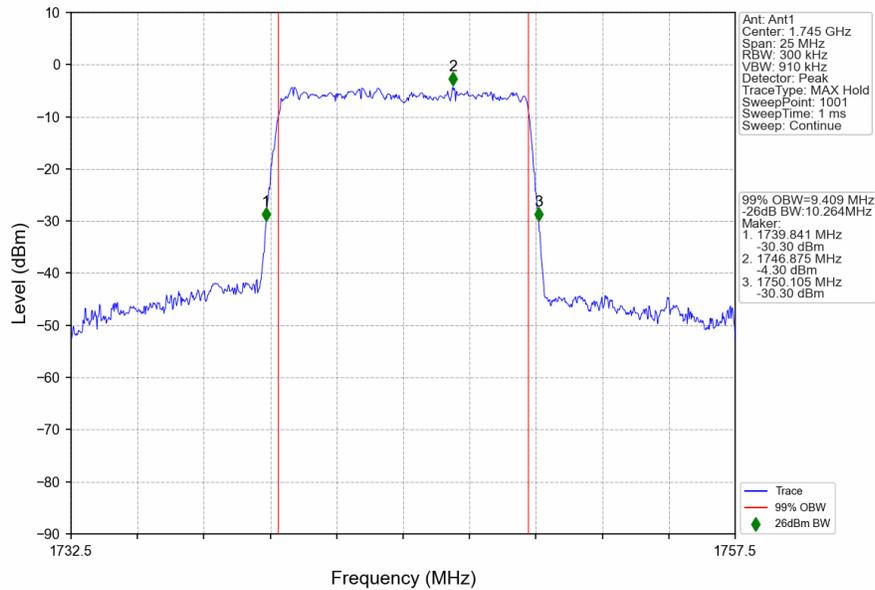
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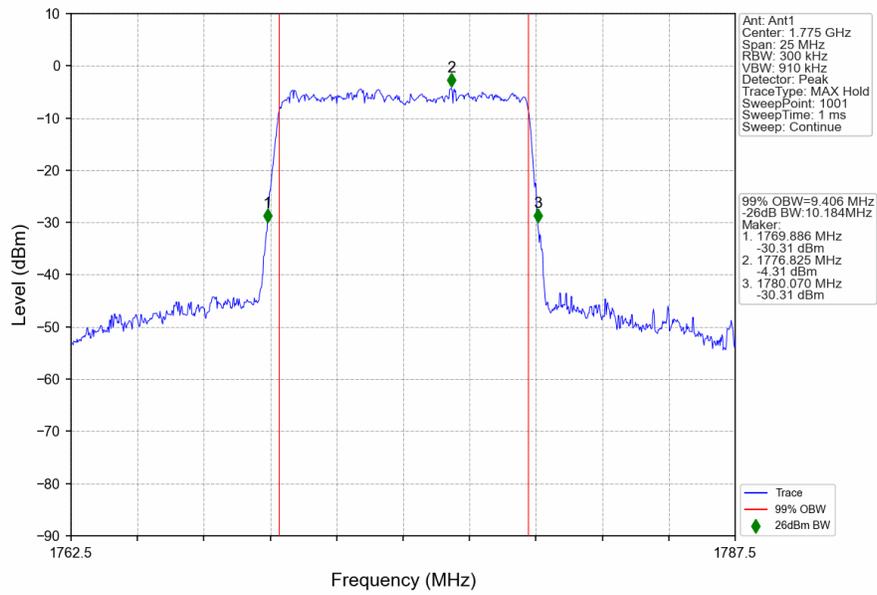
n66_15kHz_SISO_NTNV_10MHz_CP-OFDM 256 QAM_1715MHz_Outer_Full



n66_15kHz_SISO_NTNV_10MHz_CP-OFDM 256 QAM_1745MHz_Outer_Full



n66_15kHz_SISO_NTNV_10MHz_CP-OFDM 256 QAM_1775MHz_Outer_Full

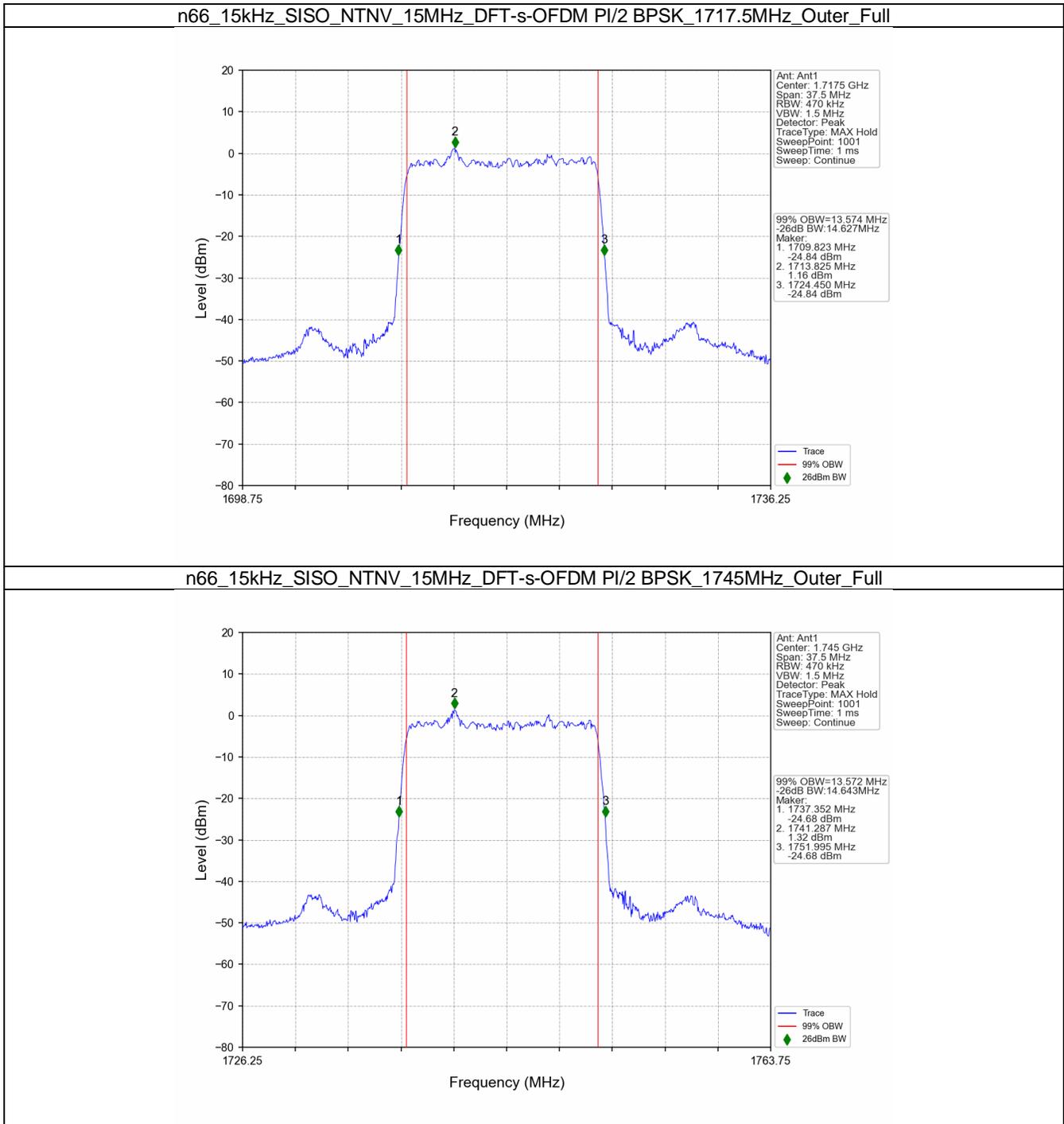


4.3 15k_SISO_15MHz_NTNV

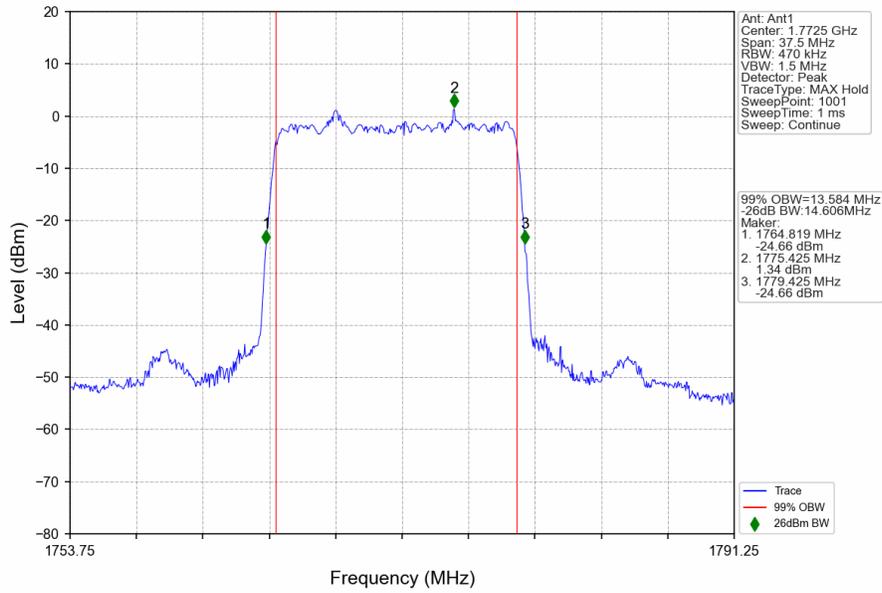
4.3.1 Test Result

5G NR n66 SCS=15kHz SISO 15MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	1717.5	Outer_Full	13.57	14.63	/	Pass
	1745	Outer_Full	13.57	14.64	/	Pass
	1772.5	Outer_Full	13.58	14.61	/	Pass
DFT-s-OFDM QPSK	1717.5	Outer_Full	13.62	14.63	/	Pass
	1745	Outer_Full	13.61	14.67	/	Pass
	1772.5	Outer_Full	13.60	14.70	/	Pass
DFT-s-OFDM 16 QAM	1717.5	Outer_Full	13.65	14.73	/	Pass
	1745	Outer_Full	13.64	14.72	/	Pass
	1772.5	Outer_Full	13.64	14.67	/	Pass
DFT-s-OFDM 64 QAM	1717.5	Outer_Full	13.55	14.63	/	Pass
	1745	Outer_Full	13.56	14.67	/	Pass
	1772.5	Outer_Full	13.54	14.65	/	Pass
DFT-s-OFDM 256 QAM	1717.5	Outer_Full	13.59	14.66	/	Pass
	1745	Outer_Full	13.59	14.62	/	Pass
	1772.5	Outer_Full	13.59	14.73	/	Pass
CP-OFDM QPSK	1717.5	Outer_Full	14.23	15.38	/	Pass
	1745	Outer_Full	14.24	15.33	/	Pass
	1772.5	Outer_Full	14.23	15.39	/	Pass
CP-OFDM 16 QAM	1717.5	Outer_Full	14.27	15.38	/	Pass
	1745	Outer_Full	14.26	15.36	/	Pass
	1772.5	Outer_Full	14.24	15.39	/	Pass
CP-OFDM 64 QAM	1717.5	Outer_Full	14.32	15.68	/	Pass
	1745	Outer_Full	14.30	15.71	/	Pass
	1772.5	Outer_Full	14.30	15.65	/	Pass
CP-OFDM 256 QAM	1717.5	Outer_Full	14.23	15.40	/	Pass
	1745	Outer_Full	14.23	15.37	/	Pass
	1772.5	Outer_Full	14.24	15.42	/	Pass

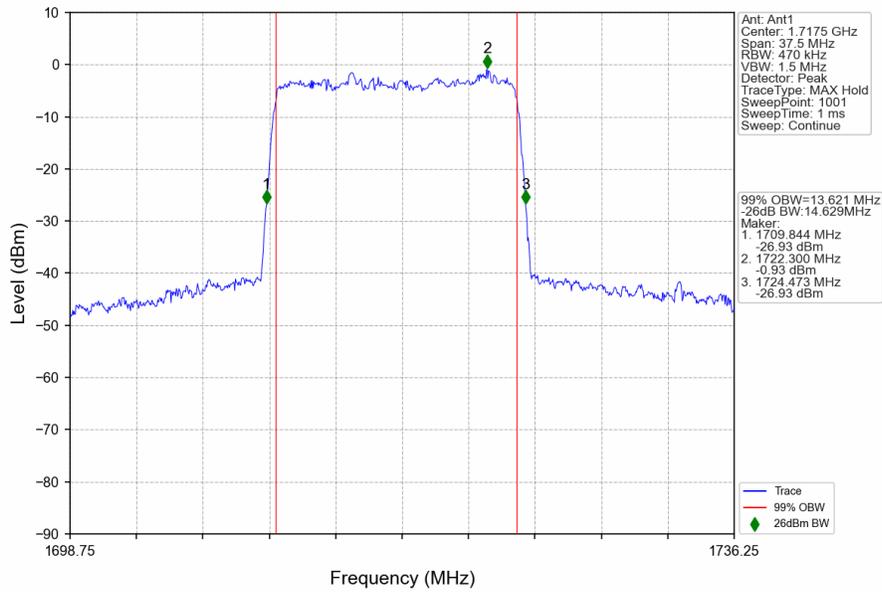
4.3.2 Test Graph



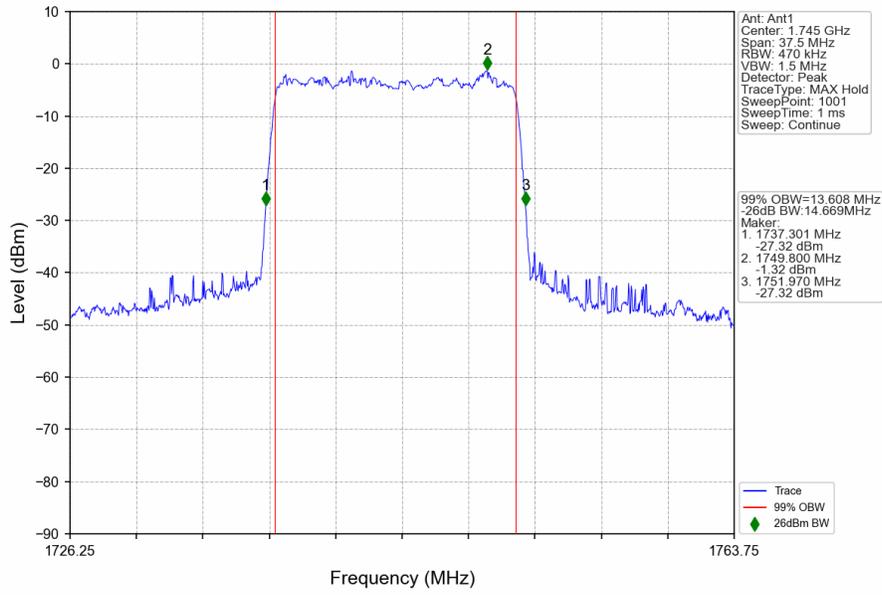
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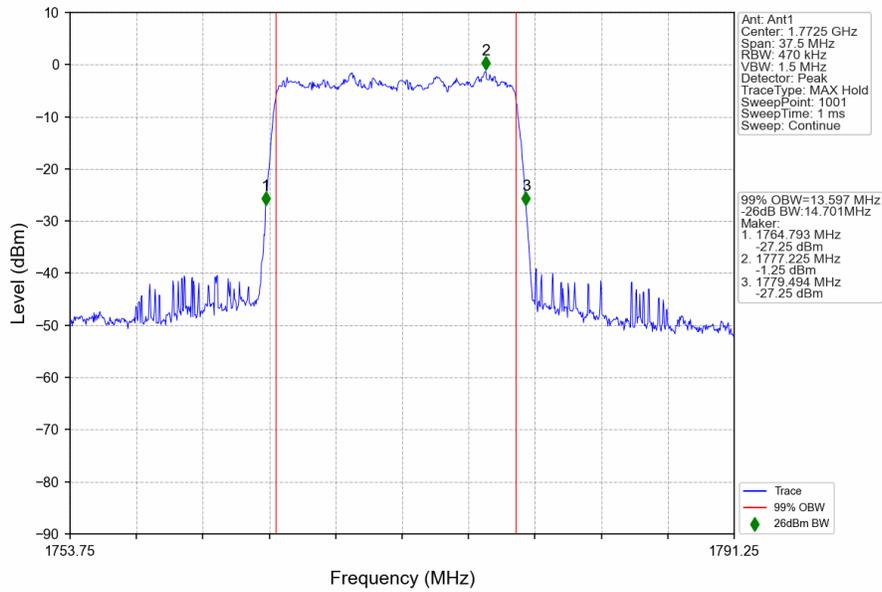
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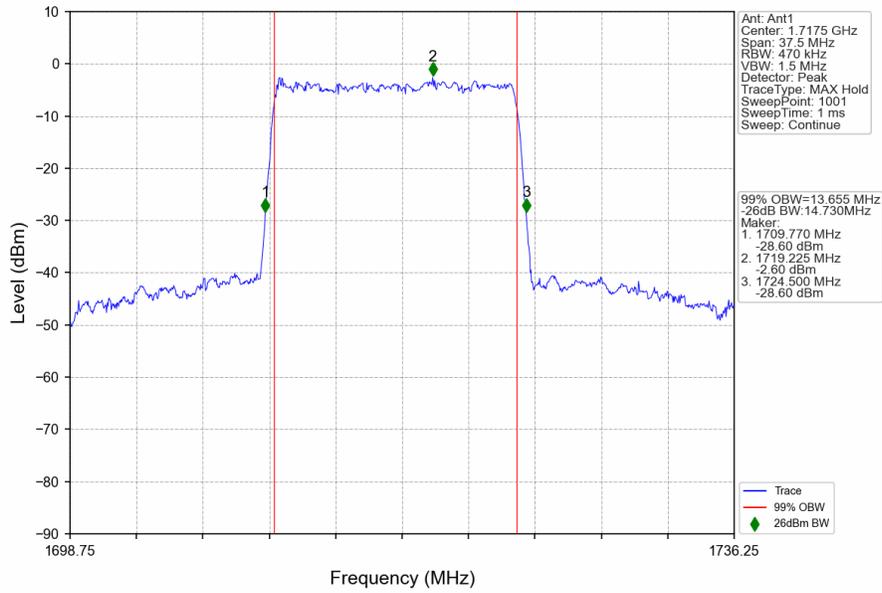
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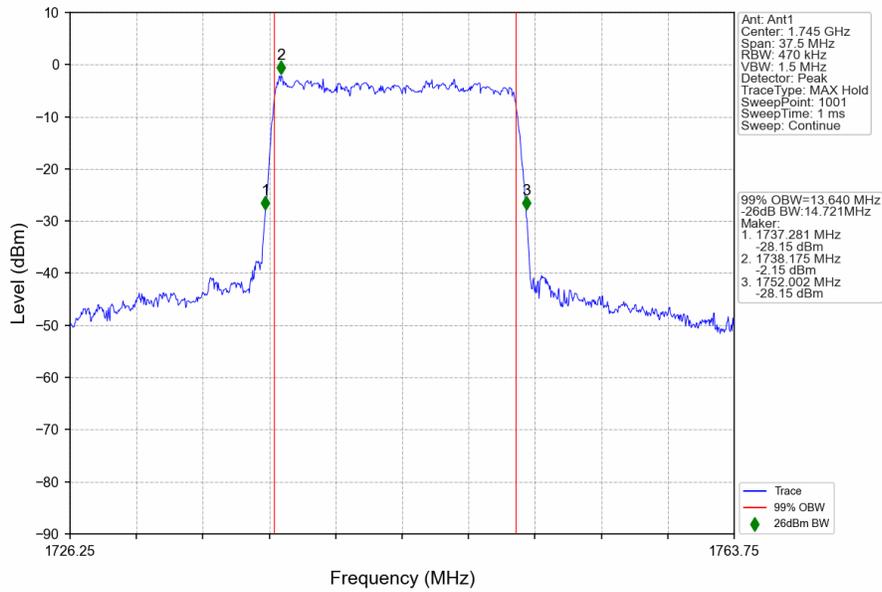
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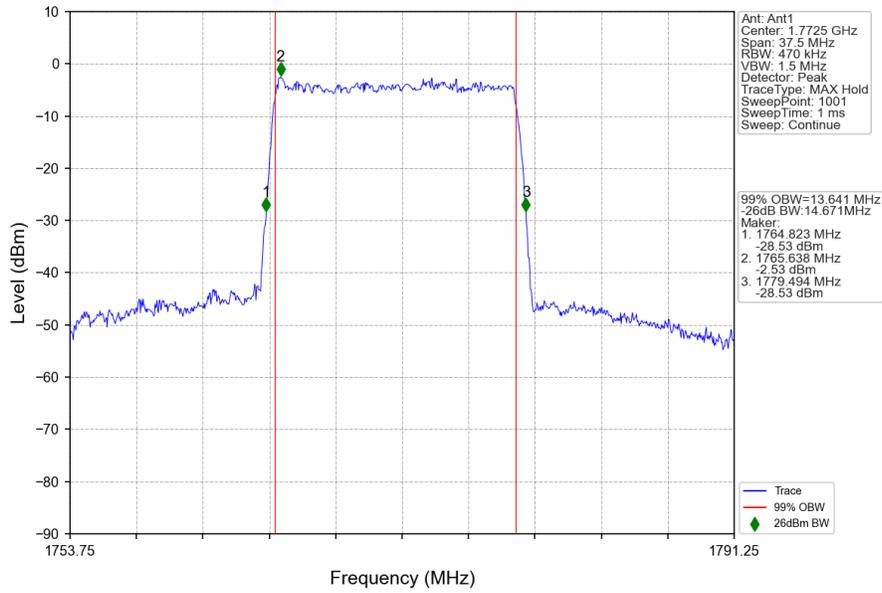
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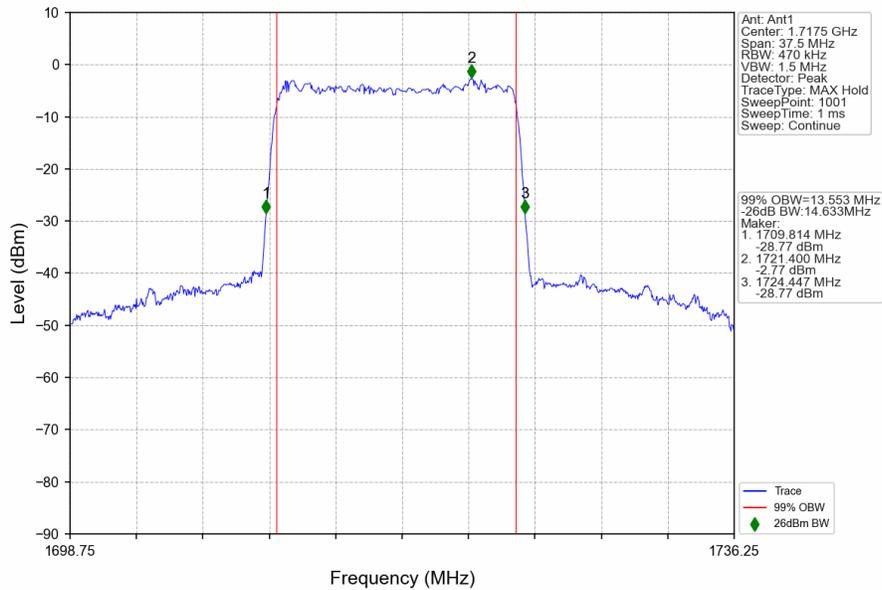
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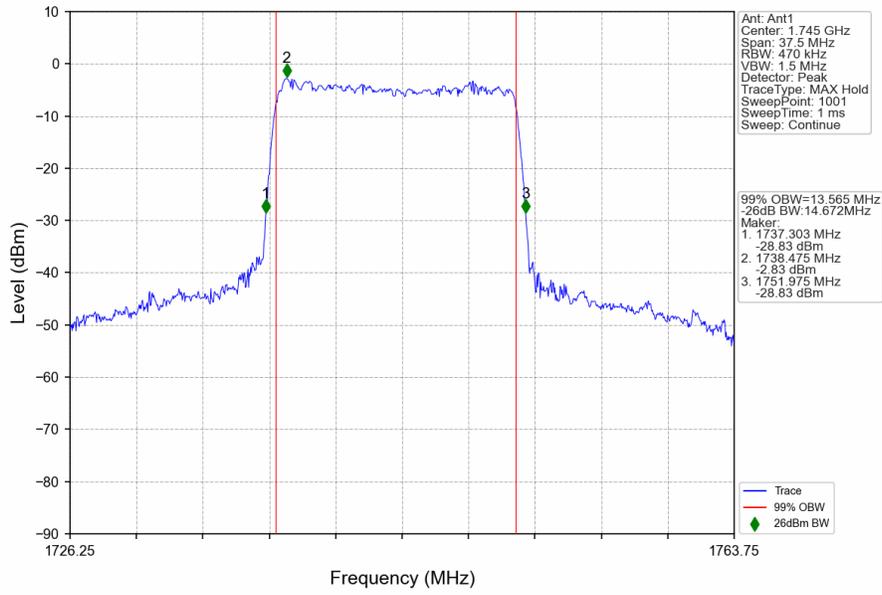
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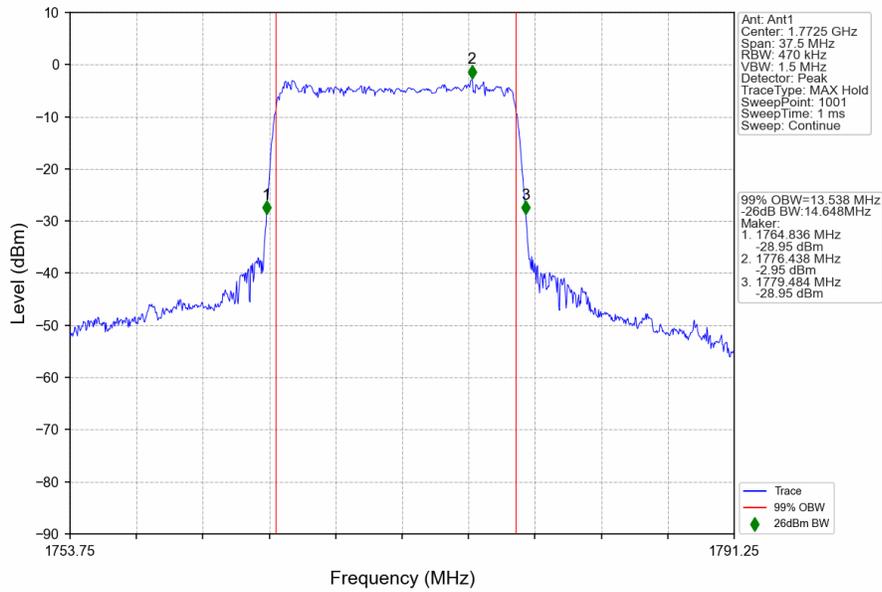
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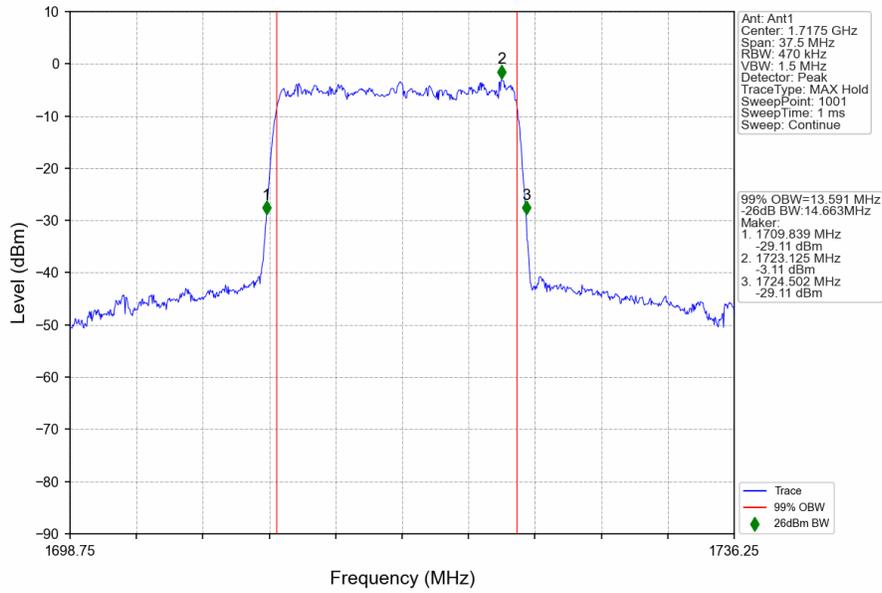
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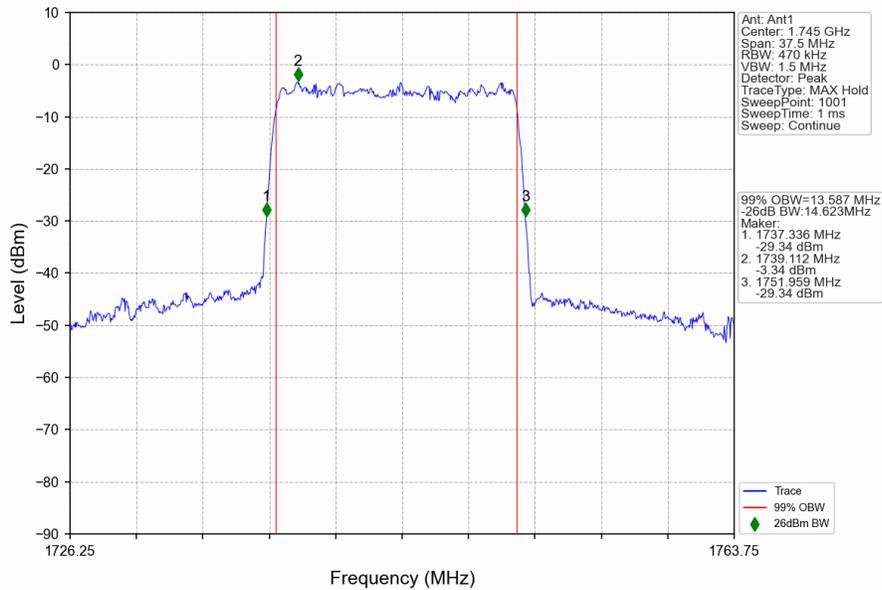
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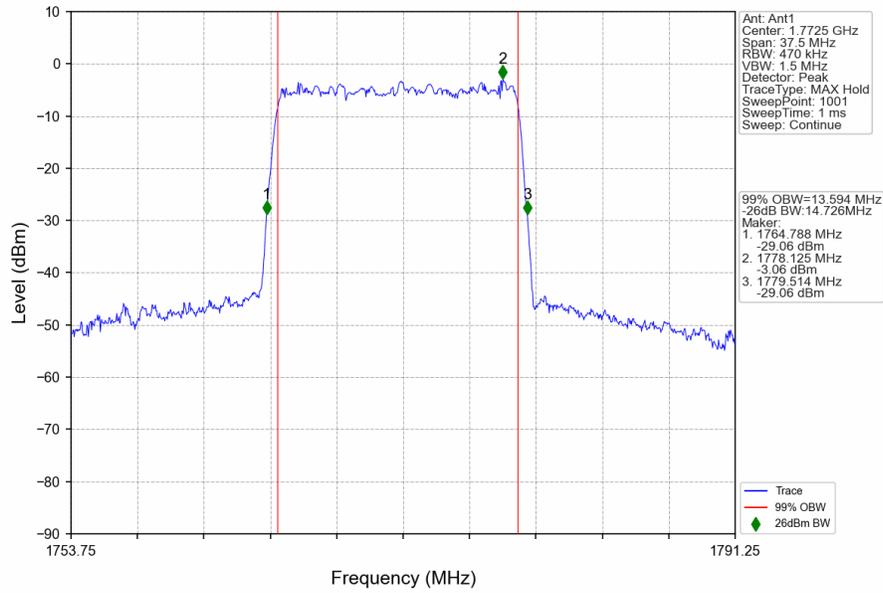
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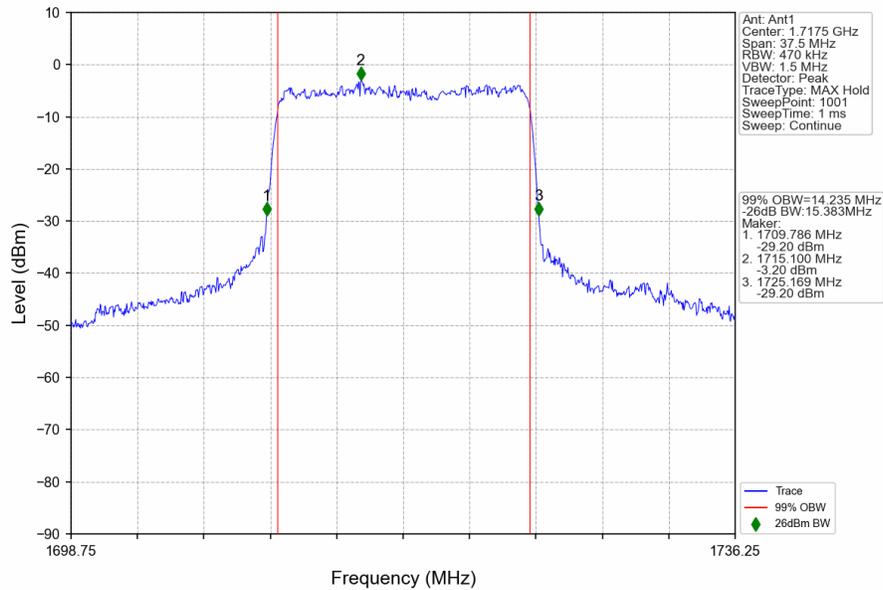
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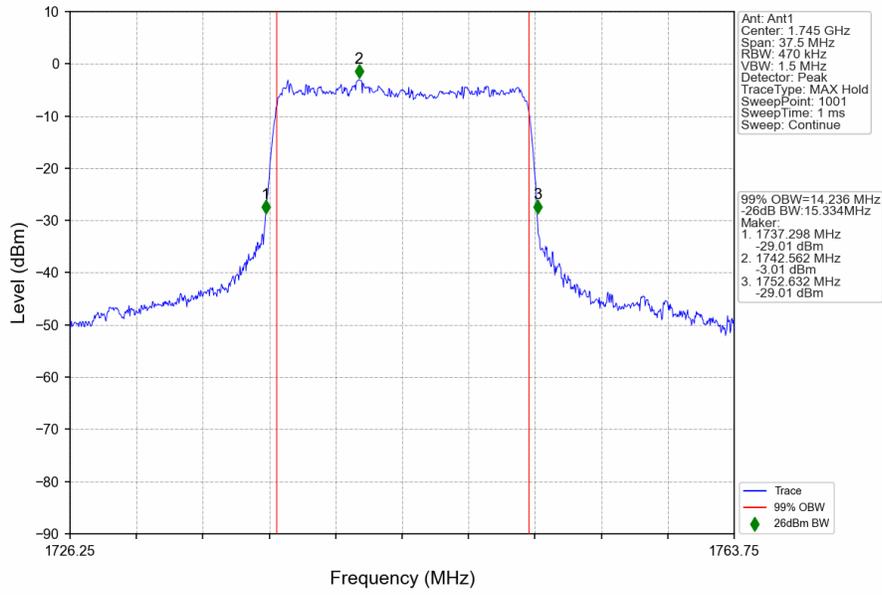
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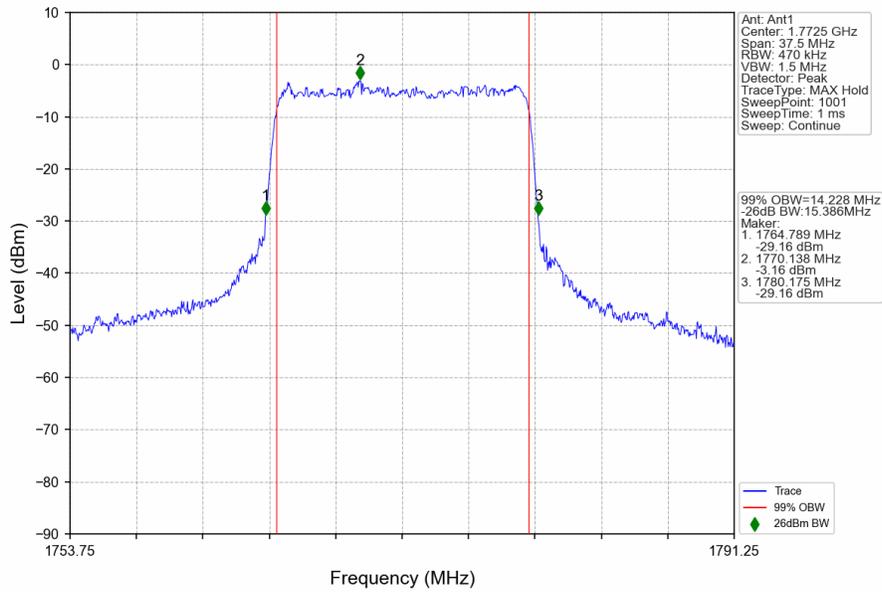
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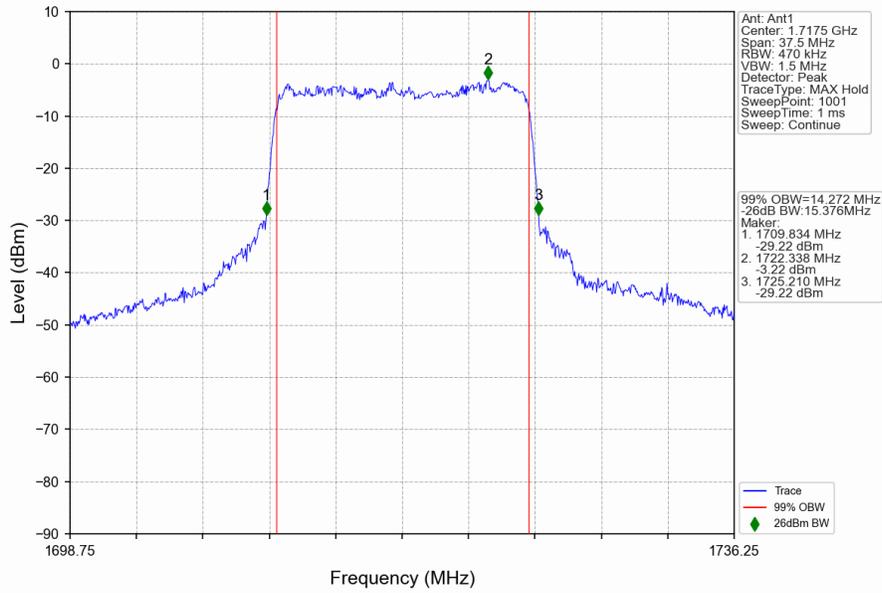
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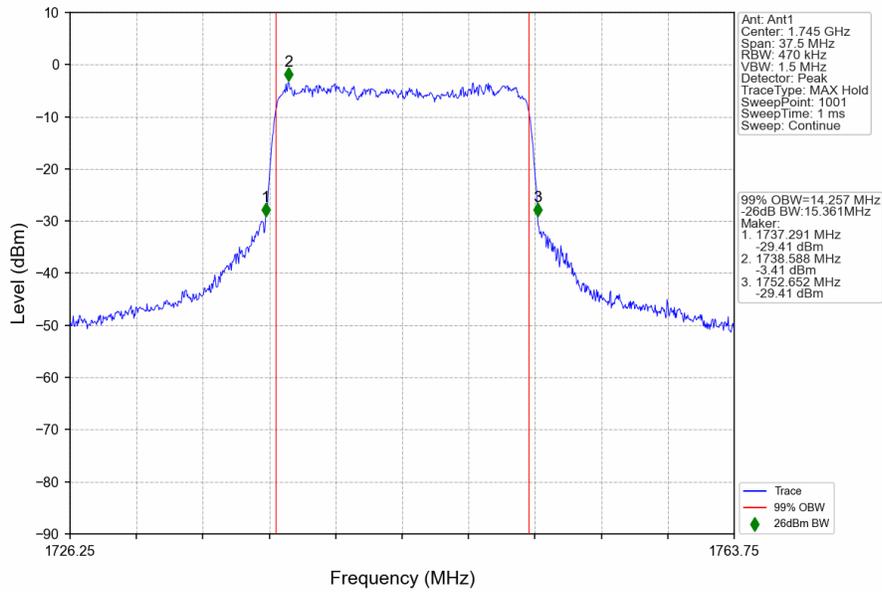
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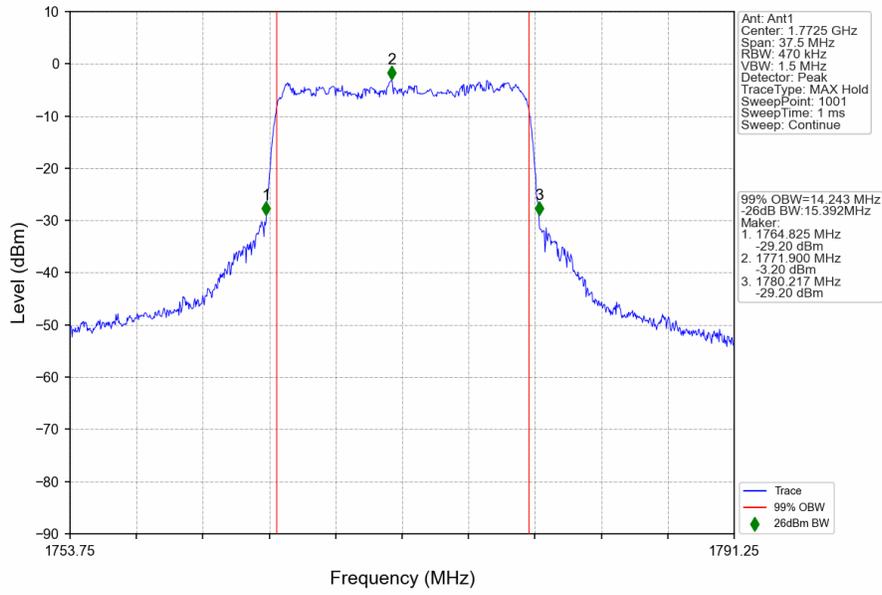
n66_15kHz_SISO_NTNV_15MHz_CP-OFDM 16 QAM 1717.5MHz_Outer_Full



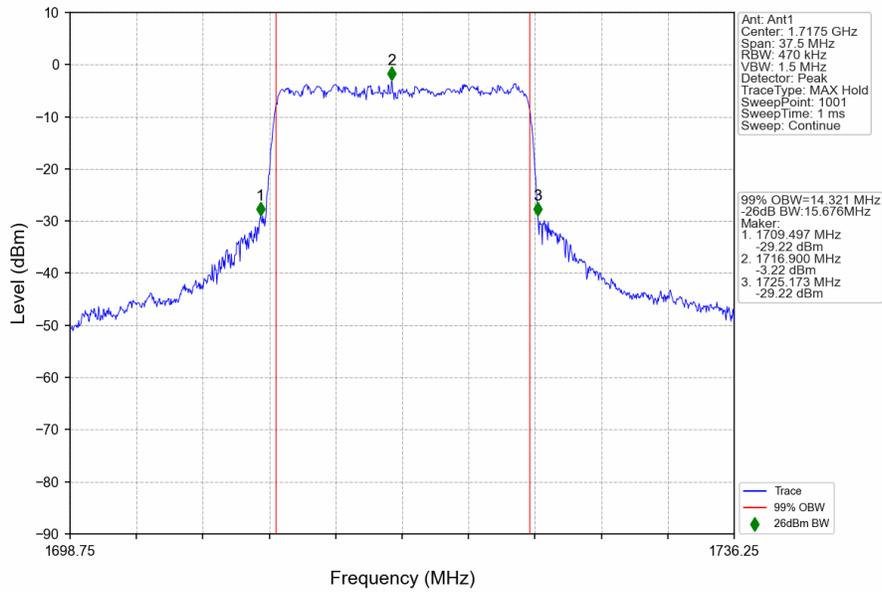
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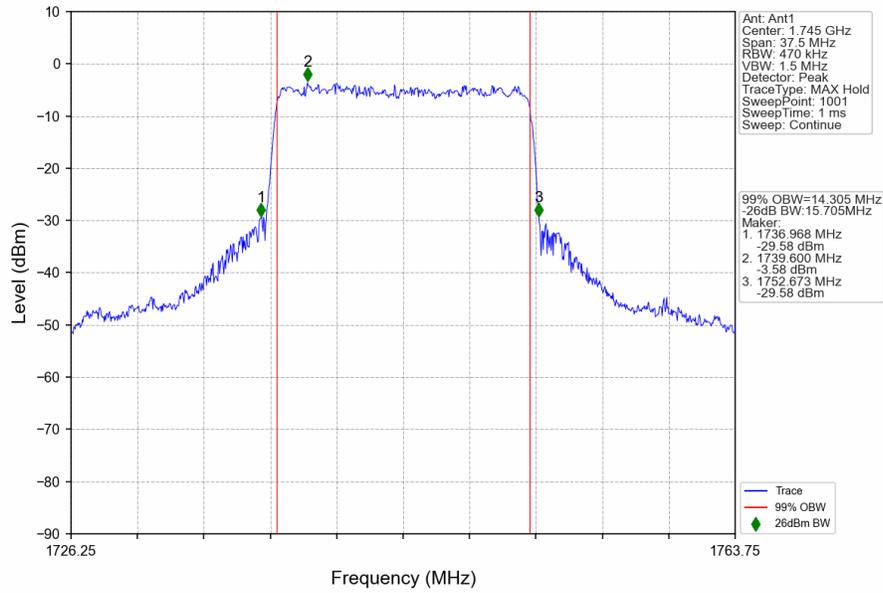
n66_15kHz_SISO_NTNV_15MHz_CP-OFDM 16 QAM 1772.5MHz_Outer_Full



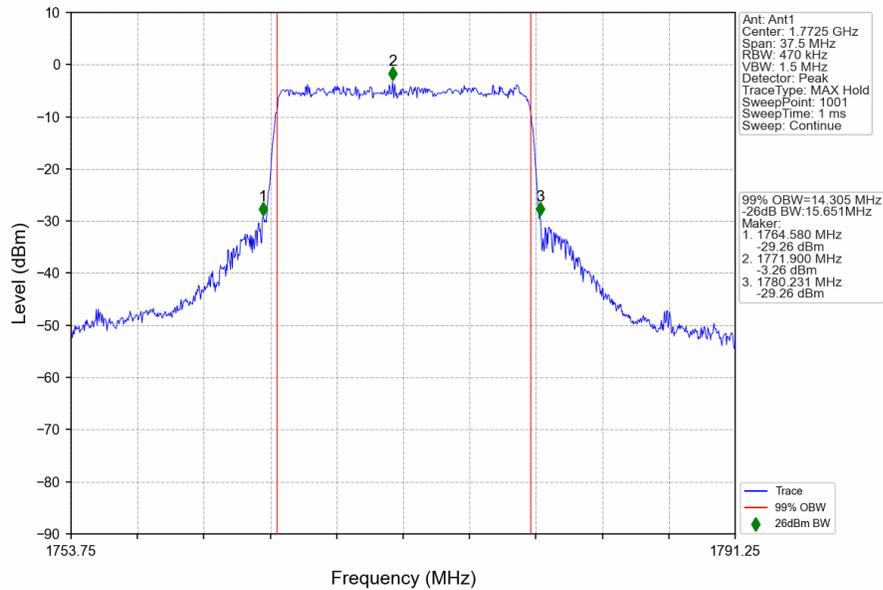
n66_15kHz_SISO_NTNV_15MHz_CP-OFDM 64 QAM 1717.5MHz_Outer_Full



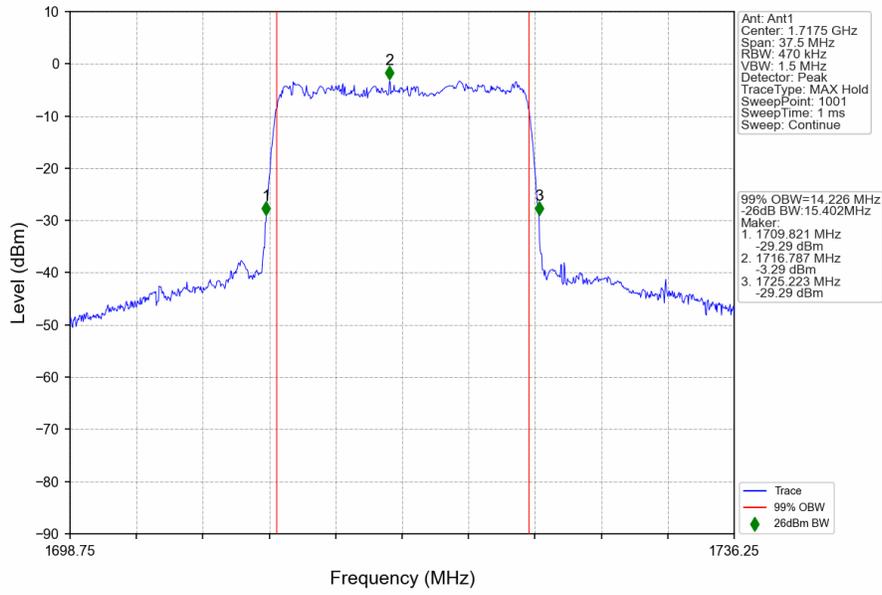
n66_15kHz_SISO_NTNV_15MHz_CP-OFDM 64 QAM_1745MHz_Outer_Full



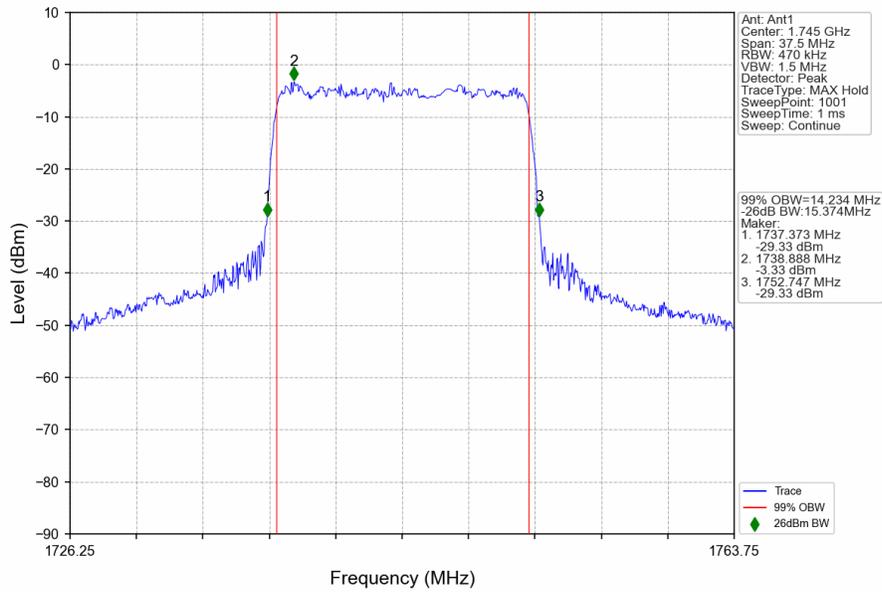
n66_15kHz_SISO_NTNV_15MHz_CP-OFDM 64 QAM_1772.5MHz_Outer_Full



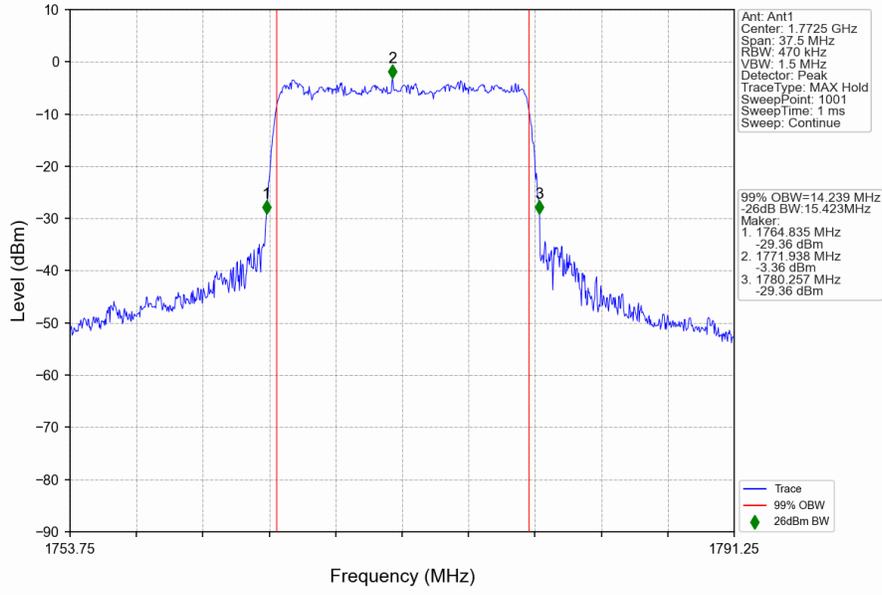
n66_15kHz_SISO_NTNV_15MHz_CP-OFDM 256 QAM_1717.5MHz_Outer_Full



n66_15kHz_SISO_NTNV_15MHz_CP-OFDM 256 QAM_1745MHz_Outer_Full



n66_15kHz_SISO_NTNV_15MHz_CP-OFDM 256 QAM_1772.5MHz_Outer_Full

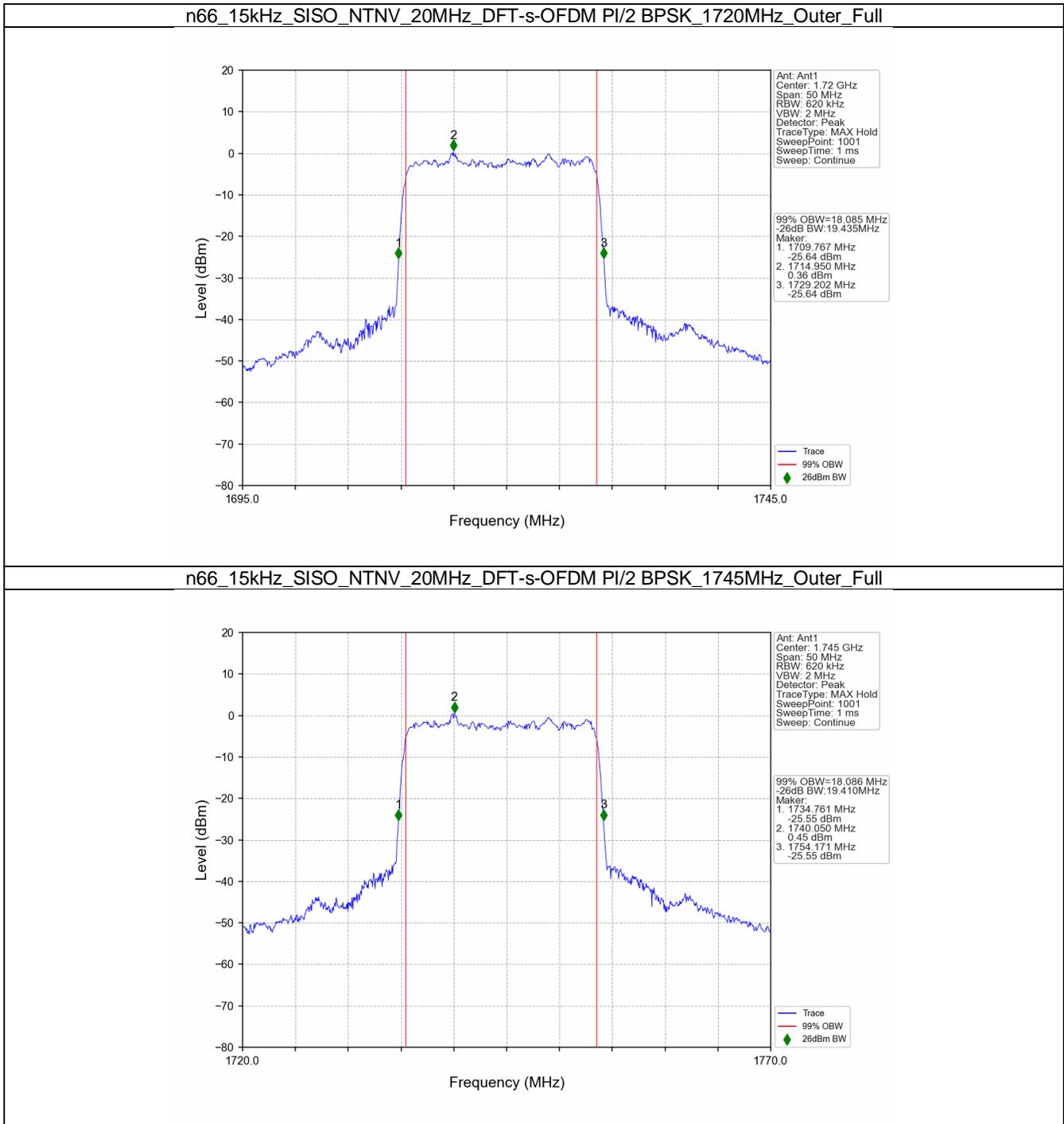


4.4 15k_SISO_20MHz_NTNV

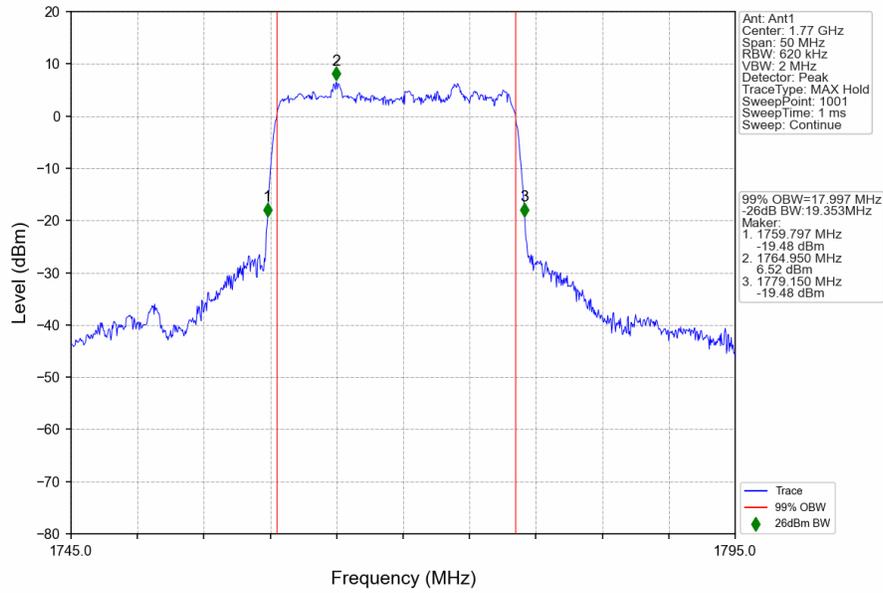
4.4.1 Test Result

5G NR n66 SCS=15kHz SISO 20MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	1720	Outer_Full	18.09	19.43	/	Pass
	1745	Outer_Full	18.09	19.41	/	Pass
	1770	Outer_Full	18.00	19.35	/	Pass
DFT-s-OFDM QPSK	1720	Outer_Full	18.05	19.47	/	Pass
	1745	Outer_Full	18.04	19.48	/	Pass
	1770	Outer_Full	18.04	19.43	/	Pass
DFT-s-OFDM 16 QAM	1720	Outer_Full	18.05	19.41	/	Pass
	1745	Outer_Full	18.04	19.39	/	Pass
	1770	Outer_Full	18.04	19.38	/	Pass
DFT-s-OFDM 64 QAM	1720	Outer_Full	18.07	19.44	/	Pass
	1745	Outer_Full	18.05	19.43	/	Pass
	1770	Outer_Full	18.05	19.43	/	Pass
DFT-s-OFDM 256 QAM	1720	Outer_Full	18.09	19.40	/	Pass
	1745	Outer_Full	18.05	19.38	/	Pass
	1770	Outer_Full	18.07	19.38	/	Pass
CP-OFDM QPSK	1720	Outer_Full	19.05	21.41	/	Pass
	1745	Outer_Full	19.08	22.38	/	Pass
	1770	Outer_Full	19.07	21.51	/	Pass
CP-OFDM 16 QAM	1720	Outer_Full	19.14	22.12	/	Pass
	1745	Outer_Full	19.15	22.78	/	Pass
	1770	Outer_Full	19.14	22.01	/	Pass
CP-OFDM 64 QAM	1720	Outer_Full	19.16	22.39	/	Pass
	1745	Outer_Full	19.18	23.98	/	Pass
	1770	Outer_Full	19.16	23.11	/	Pass
CP-OFDM 256 QAM	1720	Outer_Full	19.21	20.60	/	Pass
	1745	Outer_Full	19.18	20.60	/	Pass
	1770	Outer_Full	19.18	20.58	/	Pass

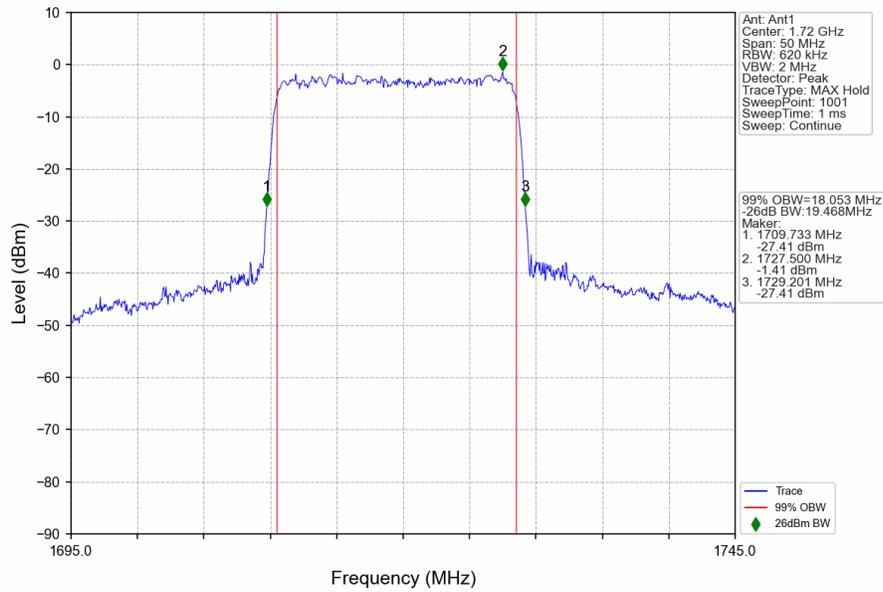
4.4.2 Test Graph



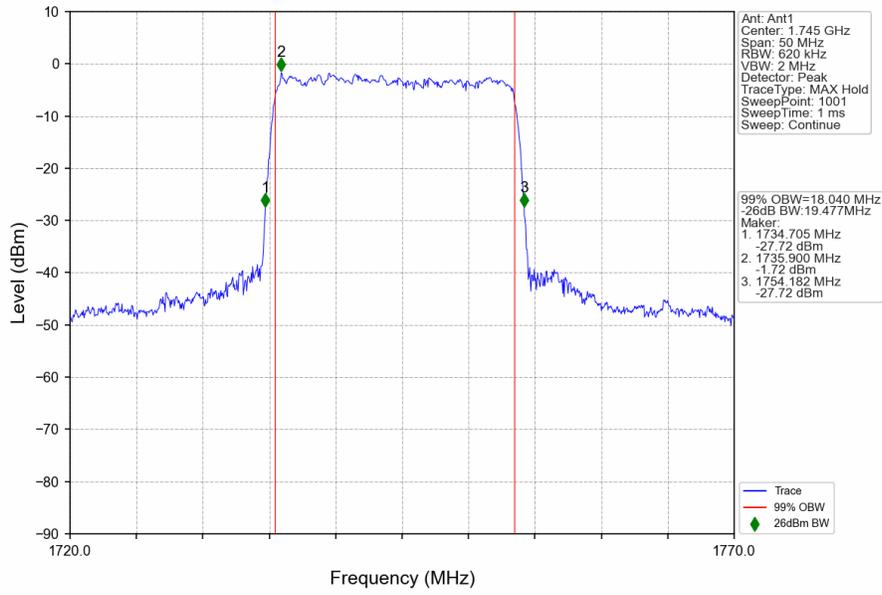
n66_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM PI/2 BPSK_1770MHz_Outer_Full



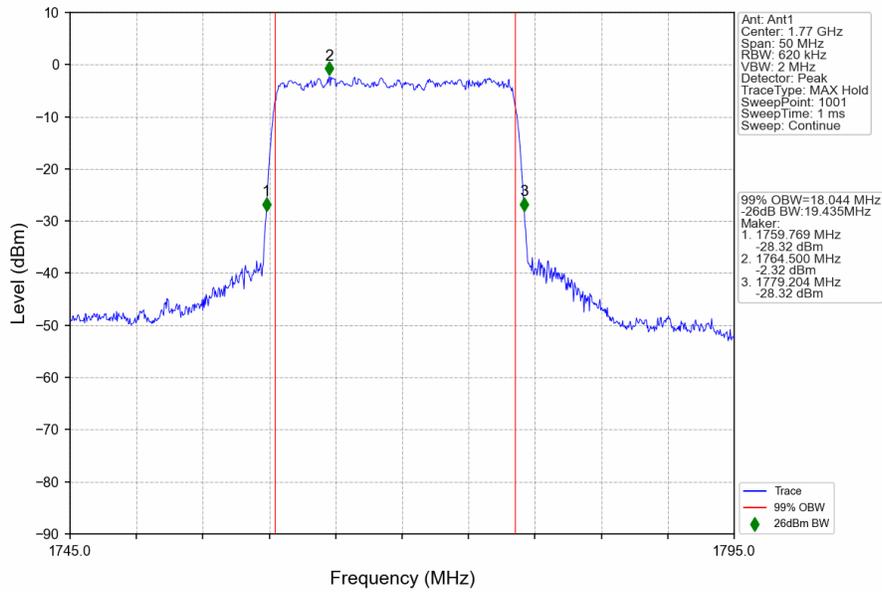
n66_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM QPSK_1720MHz_Outer_Full



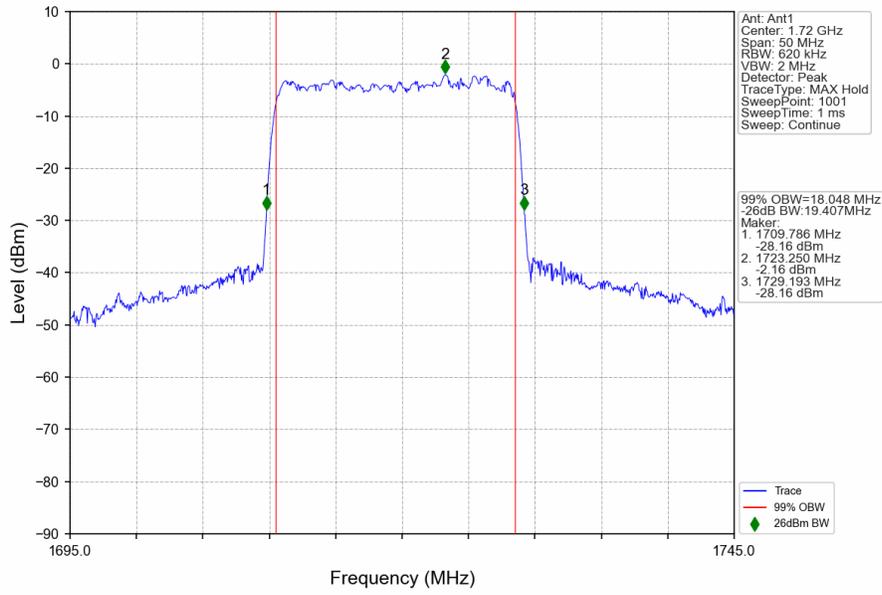
n66_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM QPSK_1745MHz_Outer_Full



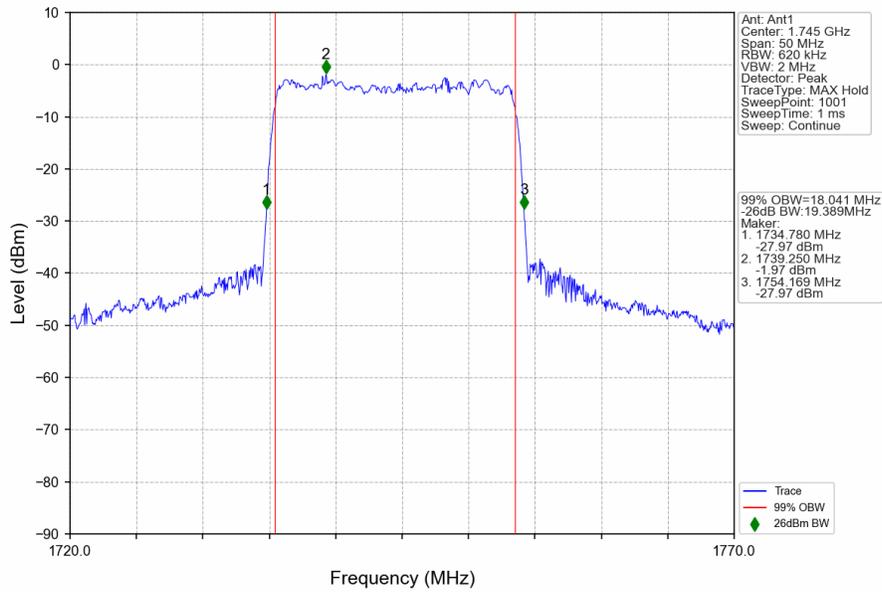
n66_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM QPSK_1770MHz_Outer_Full



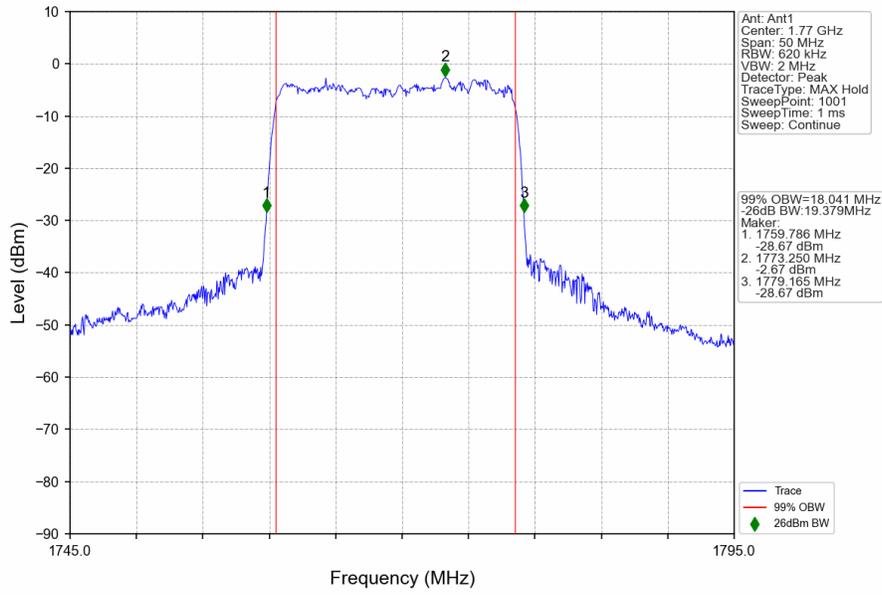
n66_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM 16 QAM_1720MHz_Outer_Full



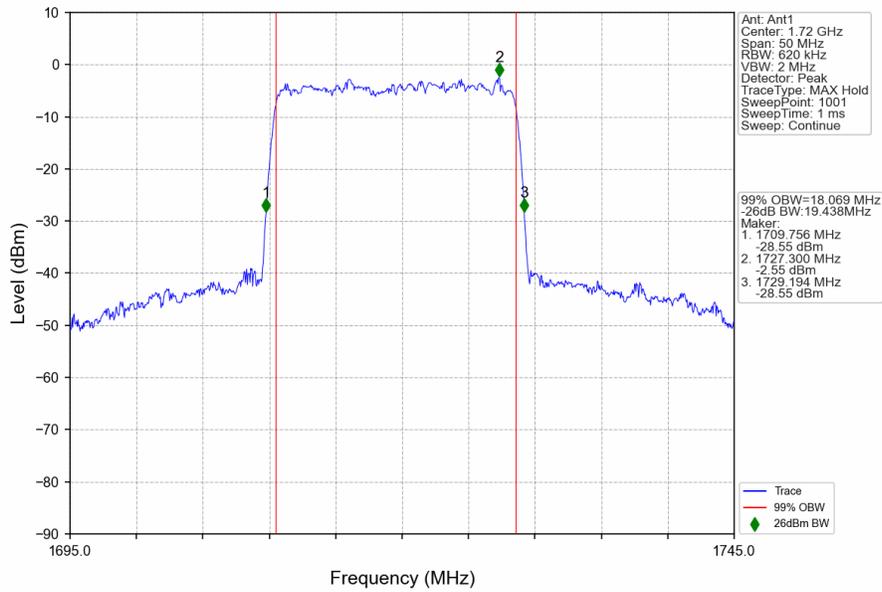
n66_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM 16 QAM_1745MHz_Outer_Full



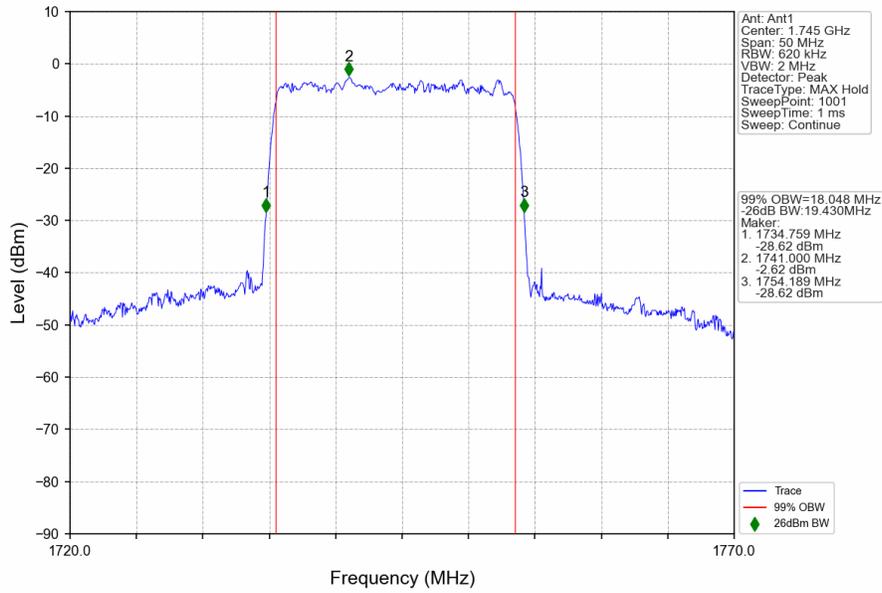
n66_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM 16 QAM_1770MHz_Outer_Full



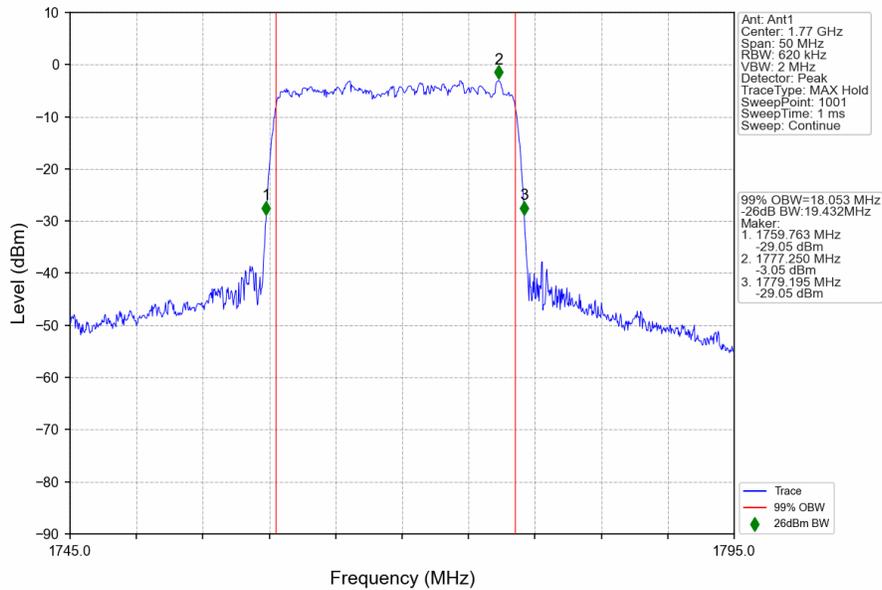
n66_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM 64 QAM_1720MHz_Outer_Full



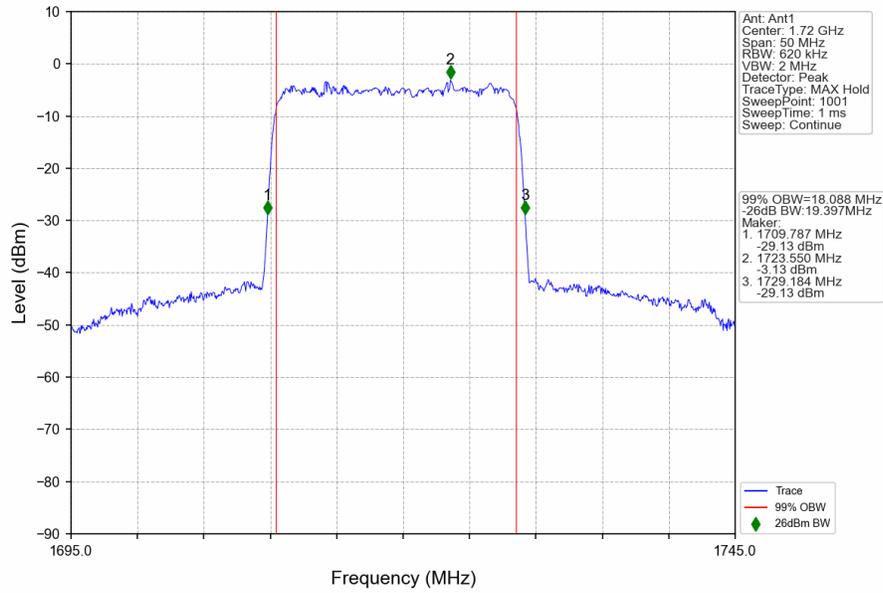
n66_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM 64 QAM_1745MHz_Outer_Full



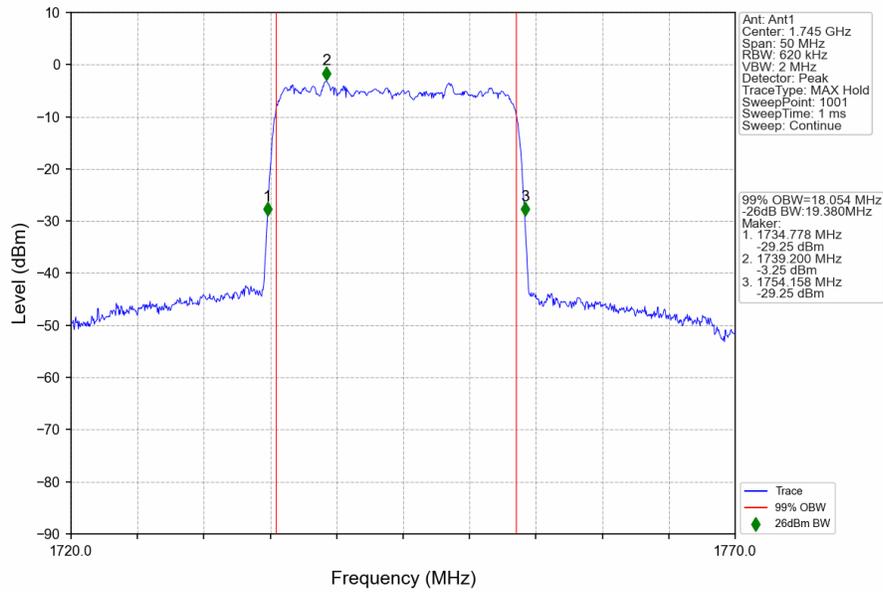
n66_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM 64 QAM_1770MHz_Outer_Full



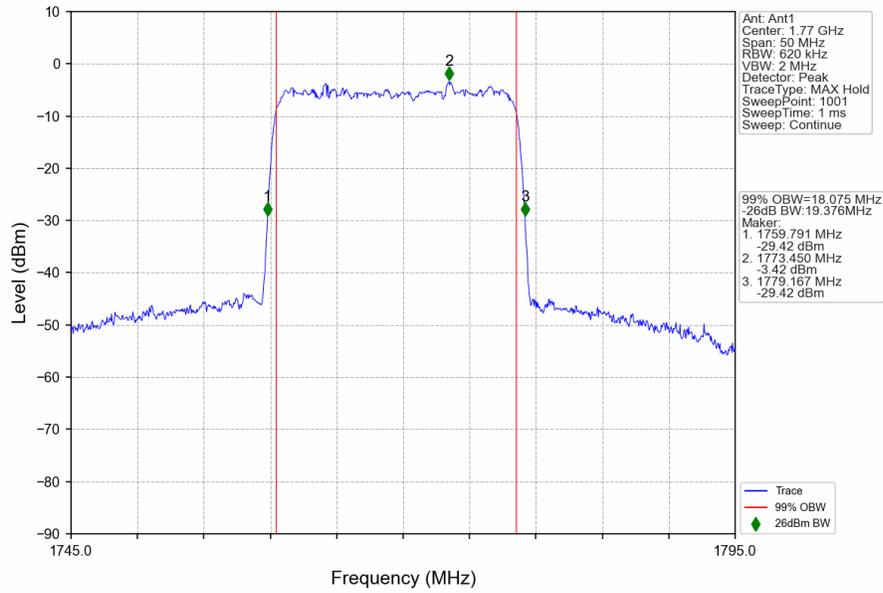
n66_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM 256 QAM_1720MHz_Outer_Full



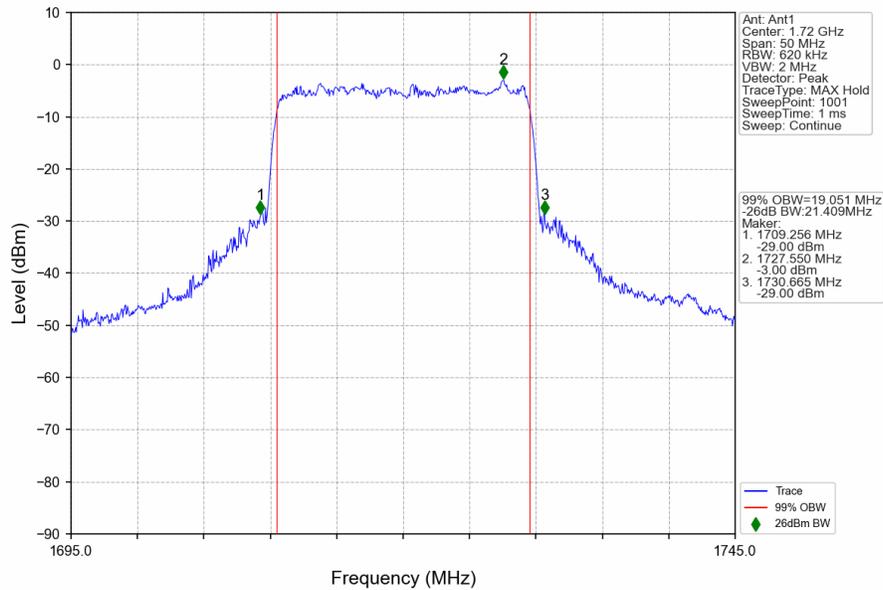
n66_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM 256 QAM_1745MHz_Outer_Full



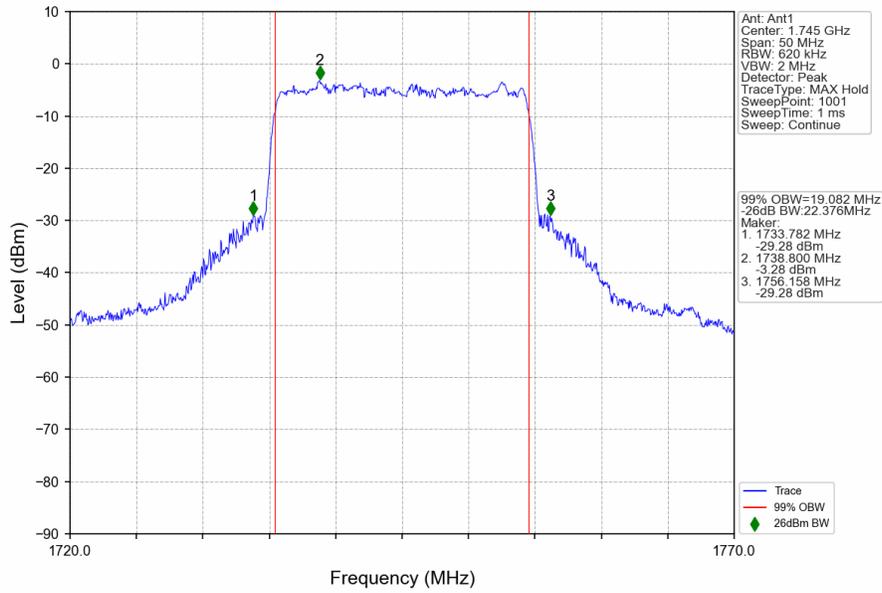
n66_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM 256 QAM_1770MHz_Outer_Full



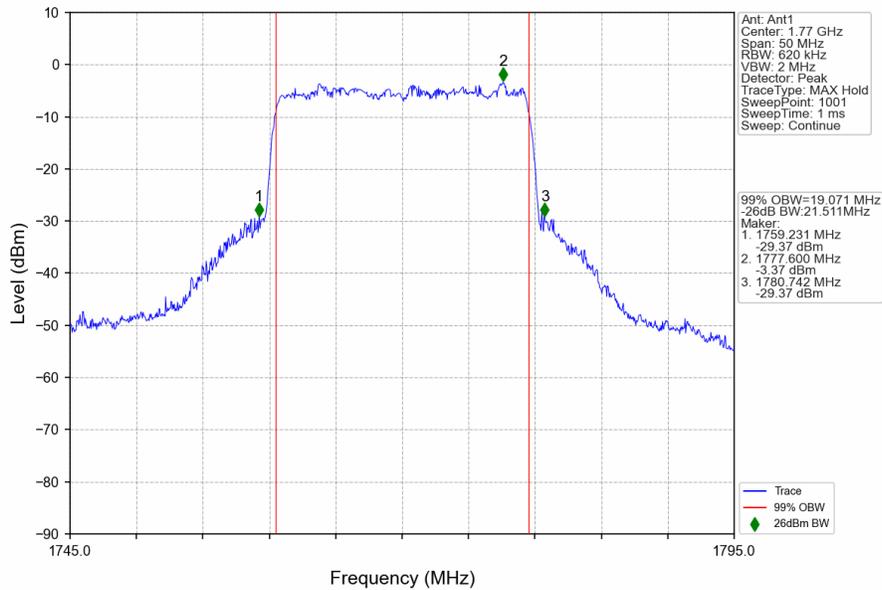
n66_15kHz_SISO_NTNV_20MHz_CP-OFDM QPSK_1720MHz_Outer_Full



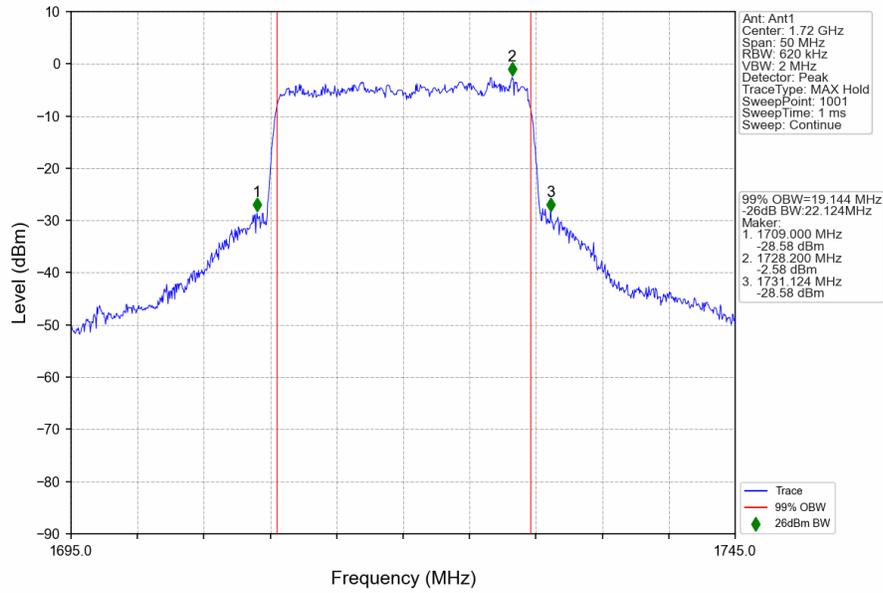
n66_15kHz_SISO_NTNV_20MHz_CP-OFDM QPSK_1745MHz_Outer_Full



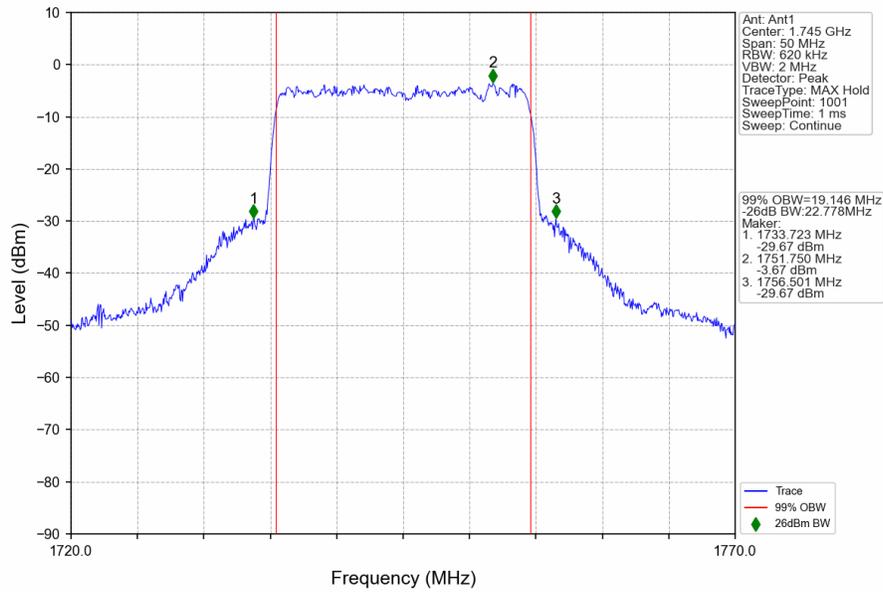
n66_15kHz_SISO_NTNV_20MHz_CP-OFDM QPSK_1770MHz_Outer_Full



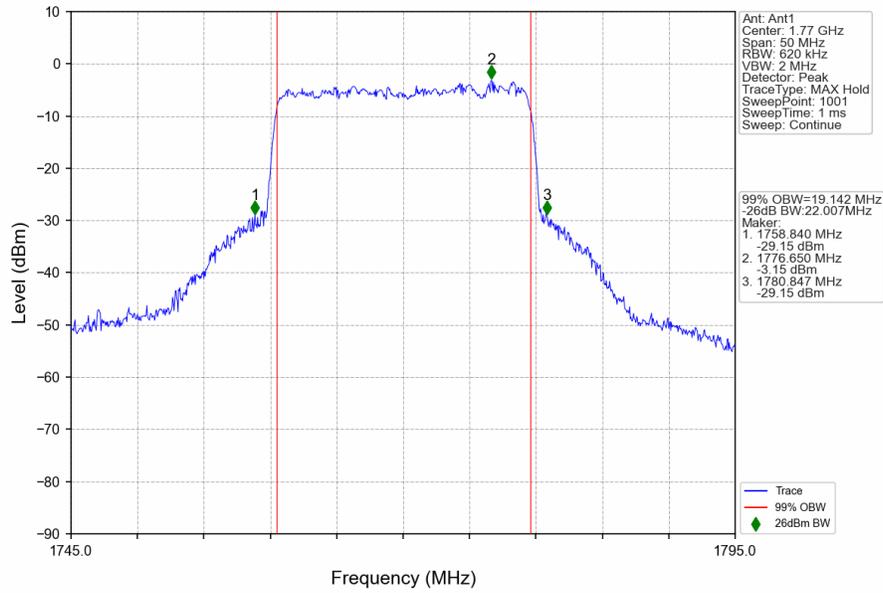
n66_15kHz_SISO_NTNV_20MHz_CP-OFDM 16 QAM_1720MHz_Outer_Full



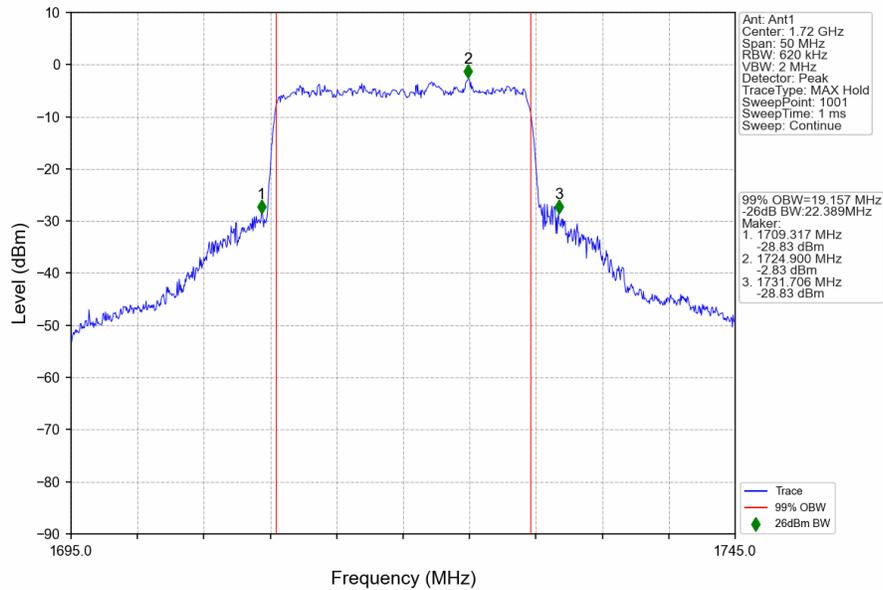
n66_15kHz_SISO_NTNV_20MHz_CP-OFDM 16 QAM_1745MHz_Outer_Full



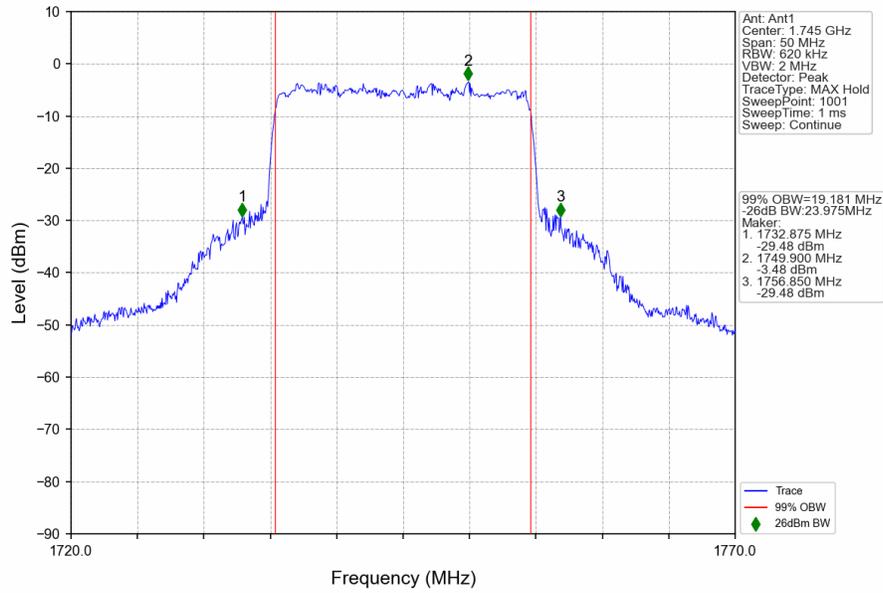
n66_15kHz_SISO_NTNV_20MHz_CP-OFDM 16 QAM_1770MHz_Outer_Full



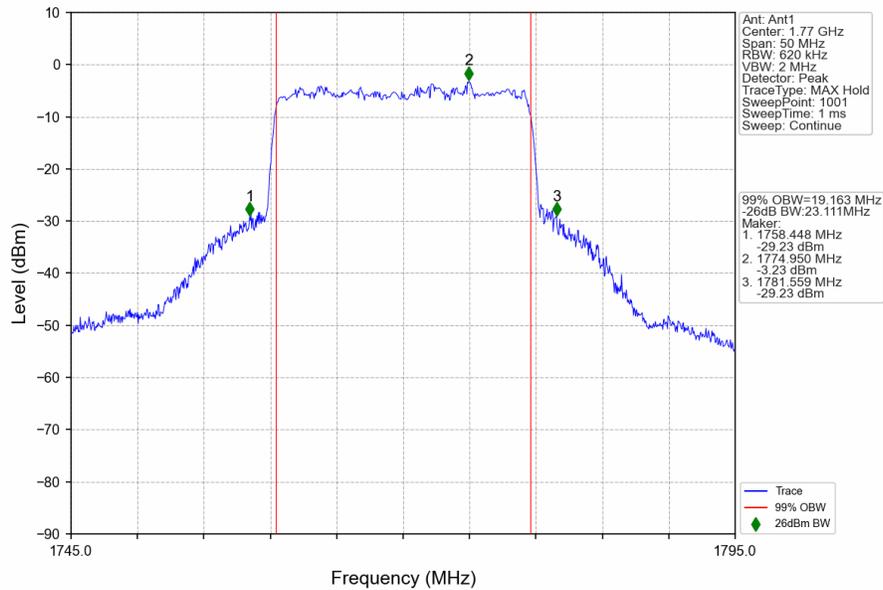
n66_15kHz_SISO_NTNV_20MHz_CP-OFDM 64 QAM_1720MHz_Outer_Full



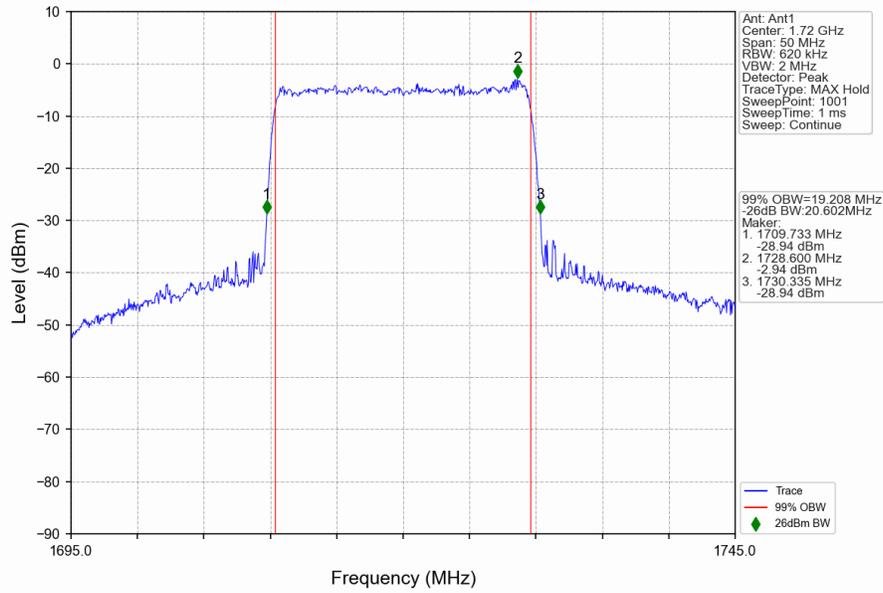
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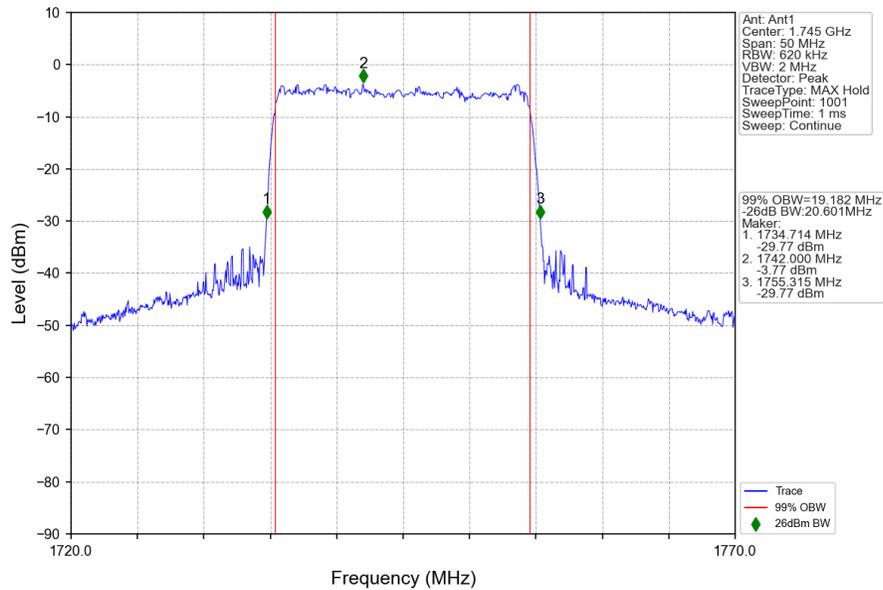
n66_15kHz_SISO_NTNV_20MHz_CP-OFDM 64 QAM_1770MHz_Outer_Full



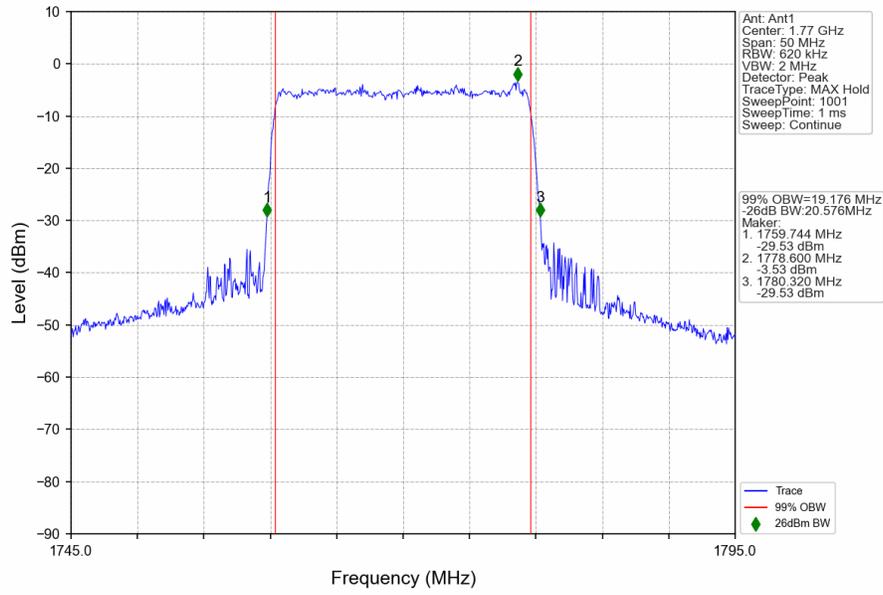
n66_15kHz_SISO_NTNV_20MHz_CP-OFDM 256 QAM_1720MHz_Outer_Full



n66_15kHz_SISO_NTNV_20MHz_CP-OFDM 256 QAM_1745MHz_Outer_Full



n66_15kHz_SISO_NTNV_20MHz_CP-OFDM 256 QAM_1770MHz_Outer_Full



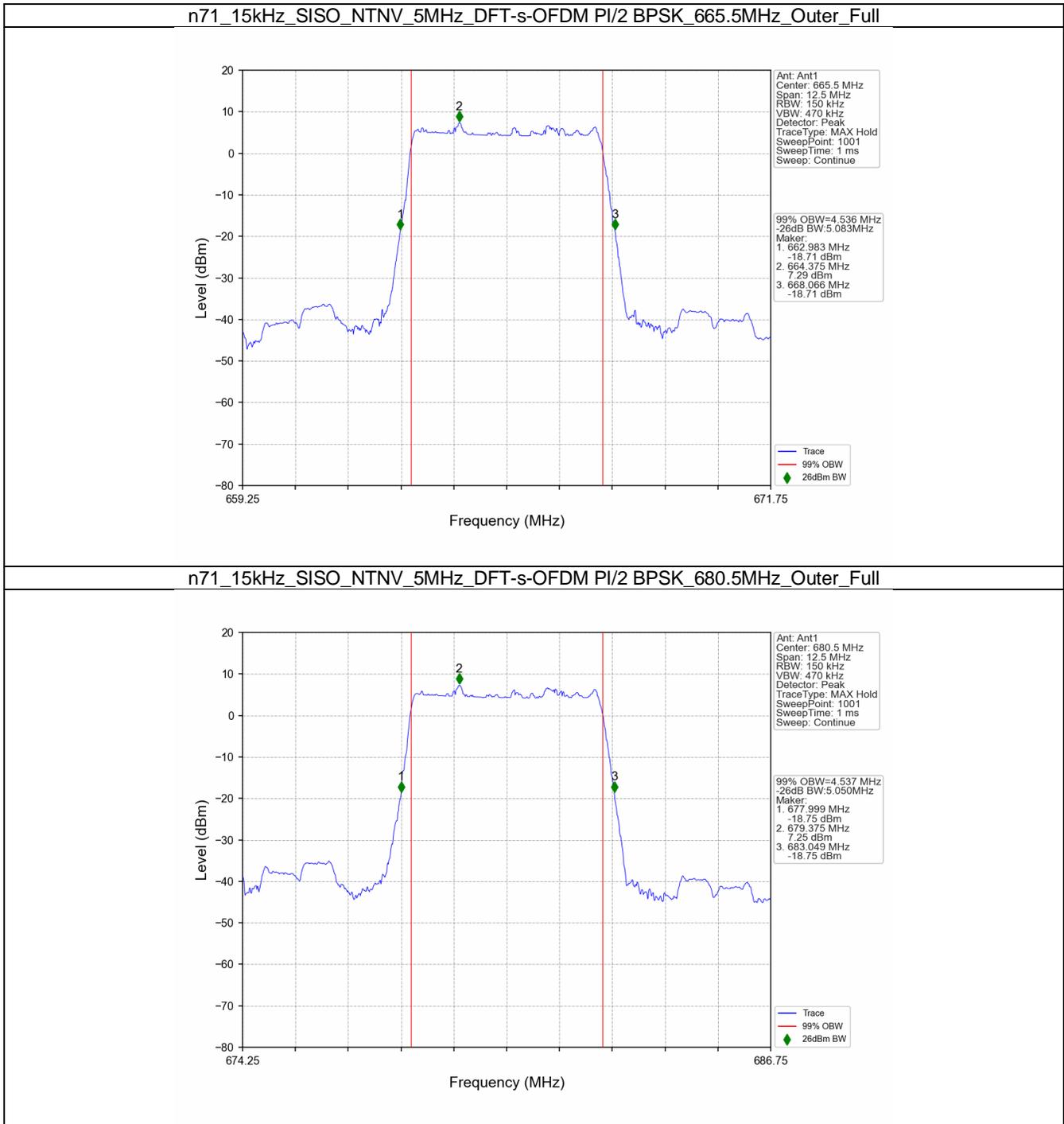
5. 99% & 26dB Bandwidth

5.1 15k_SISO_5MHz_NTNV

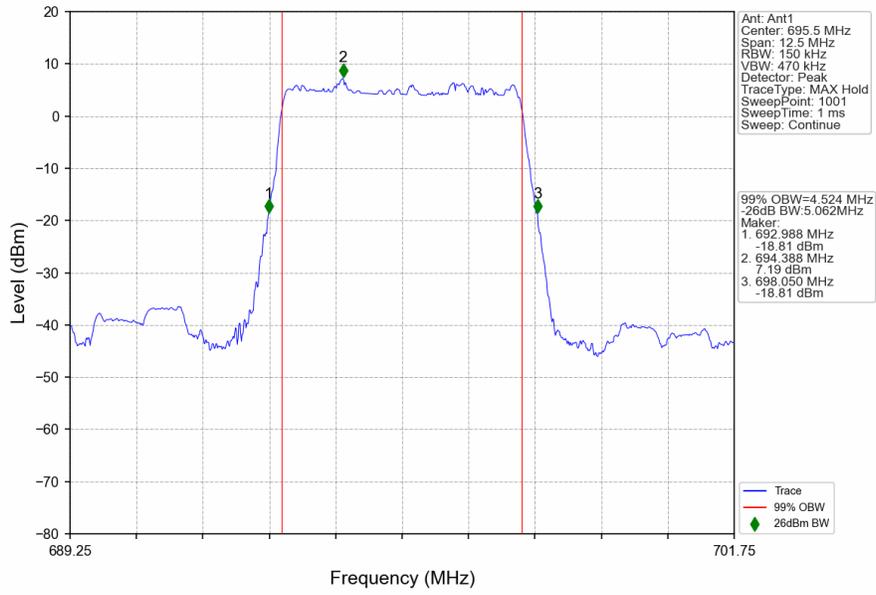
5.1.1 Test Result

5G NR n71 SCS=15kHz SISO 5MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	665.5	Outer_Full	4.54	5.08	/	Pass
	680.5	Outer_Full	4.54	5.05	/	Pass
	695.5	Outer_Full	4.52	5.06	/	Pass
DFT-s-OFDM QPSK	665.5	Outer_Full	4.52	5.03	/	Pass
	680.5	Outer_Full	4.53	5.06	/	Pass
	695.5	Outer_Full	4.53	5.06	/	Pass
DFT-s-OFDM 16 QAM	665.5	Outer_Full	4.55	5.08	/	Pass
	680.5	Outer_Full	4.55	5.06	/	Pass
	695.5	Outer_Full	4.54	5.03	/	Pass
DFT-s-OFDM 64 QAM	665.5	Outer_Full	4.55	5.06	/	Pass
	680.5	Outer_Full	4.54	5.04	/	Pass
	695.5	Outer_Full	4.53	5.02	/	Pass
DFT-s-OFDM 256 QAM	665.5	Outer_Full	4.51	5.05	/	Pass
	680.5	Outer_Full	4.53	5.08	/	Pass
	695.5	Outer_Full	4.54	5.09	/	Pass
CP-OFDM QPSK	665.5	Outer_Full	4.54	5.07	/	Pass
	680.5	Outer_Full	4.52	5.06	/	Pass
	695.5	Outer_Full	4.53	5.08	/	Pass
CP-OFDM 16 QAM	665.5	Outer_Full	4.54	5.08	/	Pass
	680.5	Outer_Full	4.56	5.13	/	Pass
	695.5	Outer_Full	4.58	5.10	/	Pass
CP-OFDM 64 QAM	665.5	Outer_Full	4.54	5.09	/	Pass
	680.5	Outer_Full	4.53	5.13	/	Pass
	695.5	Outer_Full	4.54	5.12	/	Pass
CP-OFDM 256 QAM	665.5	Outer_Full	4.53	5.11	/	Pass
	680.5	Outer_Full	4.53	5.09	/	Pass
	695.5	Outer_Full	4.54	5.05	/	Pass

5.1.2 Test Graph



n71_15kHz_SISO_NTNV_5MHz_DFT-s-OFDM PI/2 BPSK_695.5MHz_Outer_Full



n71_15kHz_SISO_NTNV_5MHz_DFT-s-OFDM QPSK_665.5MHz_Outer_Full

