

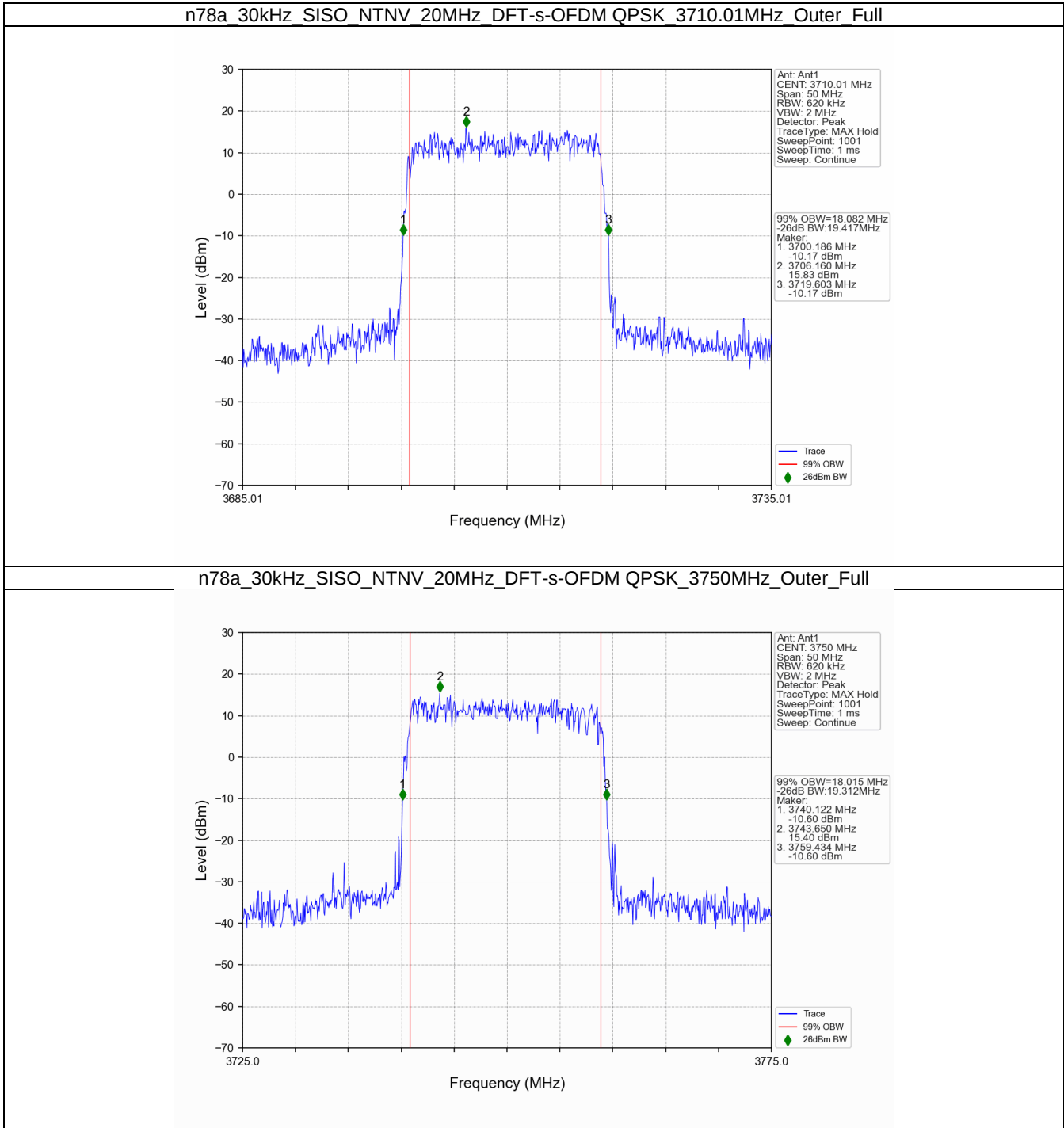
1. 99% & 26dB Bandwidth

1.1 30k_SISO_20MHz_NTNV

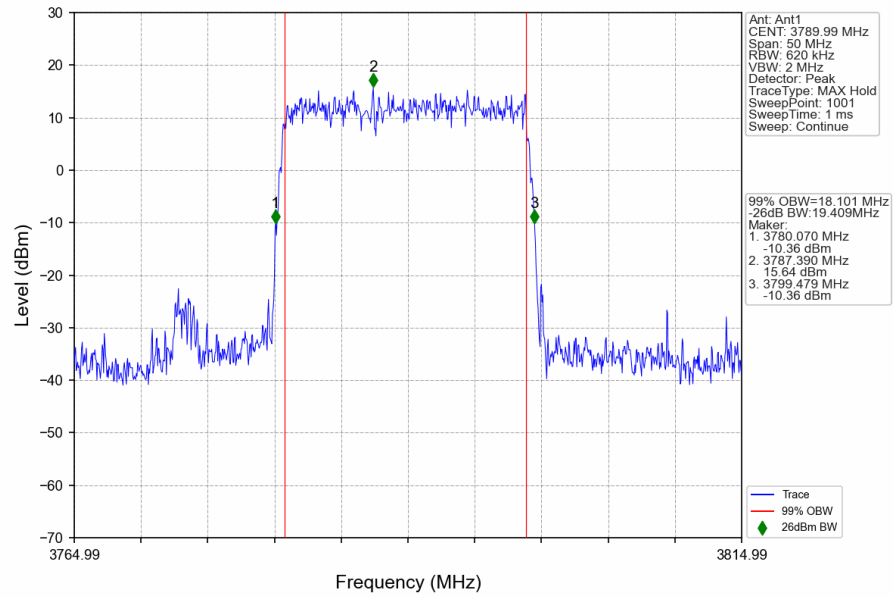
1.1.1 Test Result

5G NR n78a SCS=30kHz SISO 20MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM QPSK	3710.01	Outer_Full	18.08	19.42	/	Pass
	3750	Outer_Full	18.02	19.31	/	Pass
	3789.99	Outer_Full	18.10	19.41	/	Pass
DFT-s-OFDM 64 QAM	3710.01	Outer_Full	18.06	19.16	/	Pass
	3750	Outer_Full	18.17	19.51	/	Pass
	3789.99	Outer_Full	18.11	19.36	/	Pass
DFT-s-OFDM 256 QAM	3710.01	Outer_Full	18.07	19.26	/	Pass
	3750	Outer_Full	18.12	19.34	/	Pass
	3789.99	Outer_Full	18.23	19.20	/	Pass
CP-OFDM QPSK	3710.01	Outer_Full	18.37	19.61	/	Pass
	3750	Outer_Full	18.21	19.84	/	Pass
	3789.99	Outer_Full	18.36	19.64	/	Pass
CP-OFDM 64 QAM	3710.01	Outer_Full	18.37	19.60	/	Pass
	3750	Outer_Full	18.40	19.85	/	Pass
	3789.99	Outer_Full	18.29	19.77	/	Pass
CP-OFDM 256 QAM	3710.01	Outer_Full	18.34	19.64	/	Pass
	3750	Outer_Full	18.37	19.83	/	Pass
	3789.99	Outer_Full	18.43	19.55	/	Pass

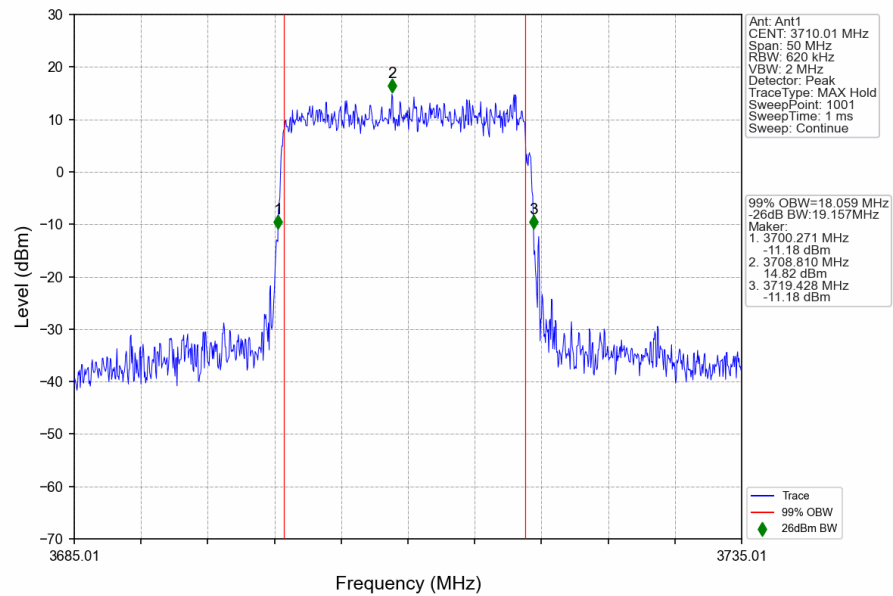
1.1.2 Test Graph



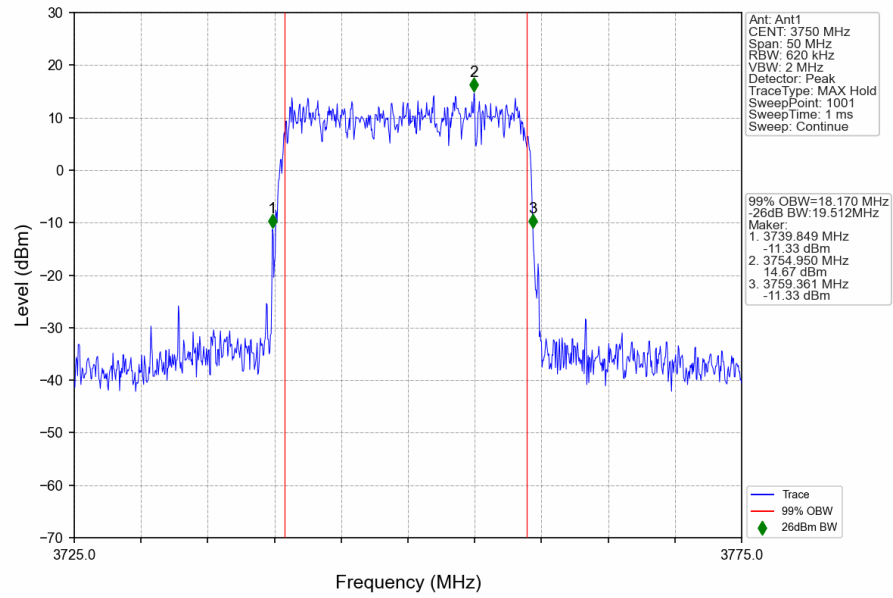
n78a_30kHz_SISO_NTNV_20MHz_DFT-s-OFDM_QPSK_3789.99MHz_Outer_Full



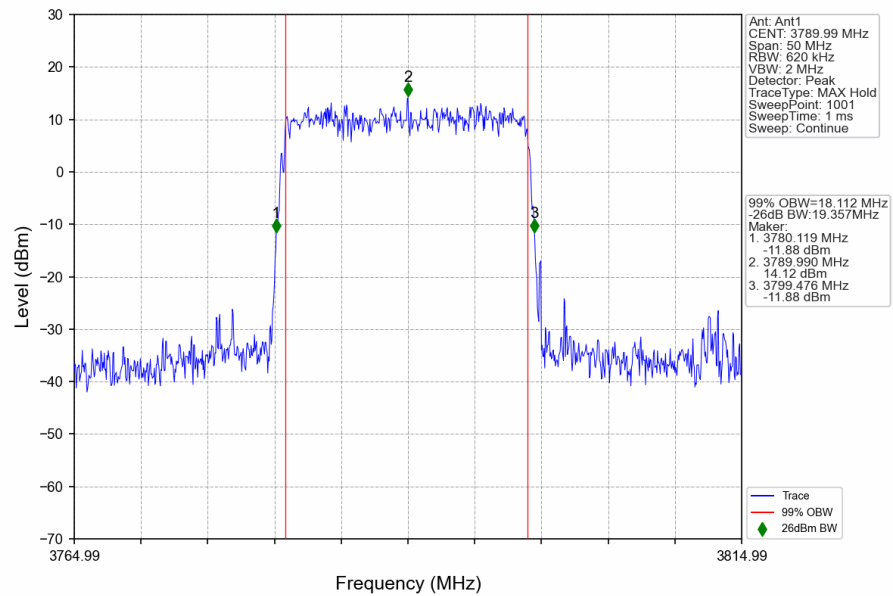
n78a_30kHz_SISO_NTNV_20MHz_DFT-s-OFDM_64_QAM_3710.01MHz_Outer_Full



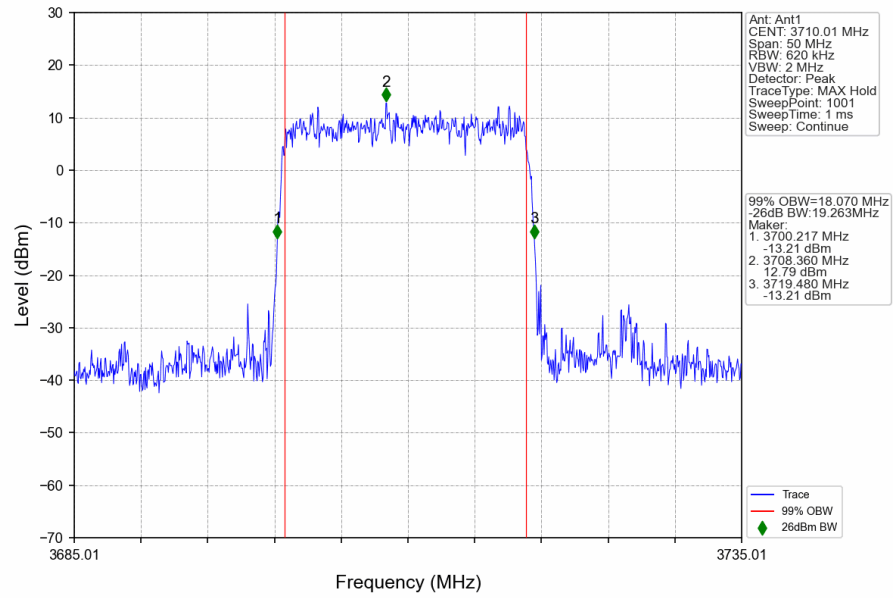
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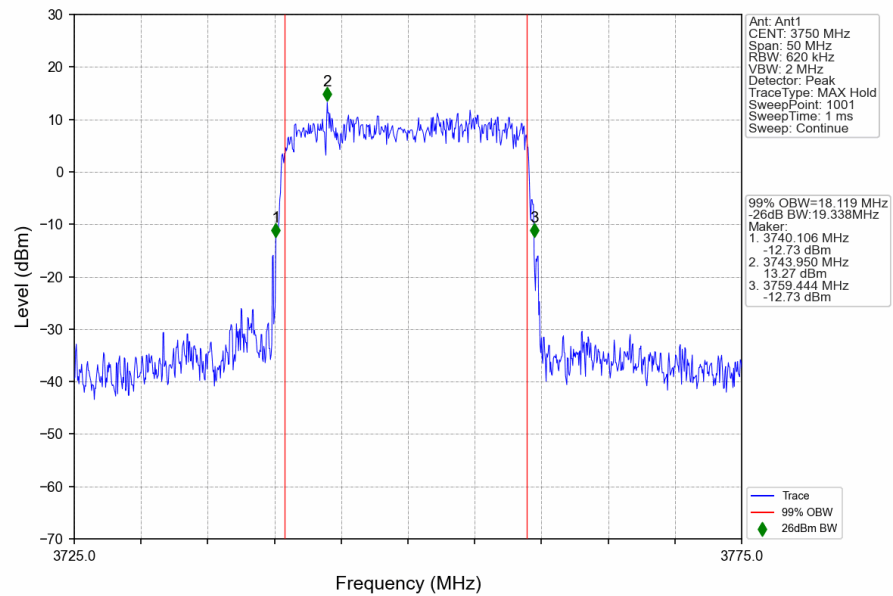
n78a_30kHz_SISO_NTNV_20MHz_DFT-s-OFDM_64_QAM_3789.99MHz_Outer_Full

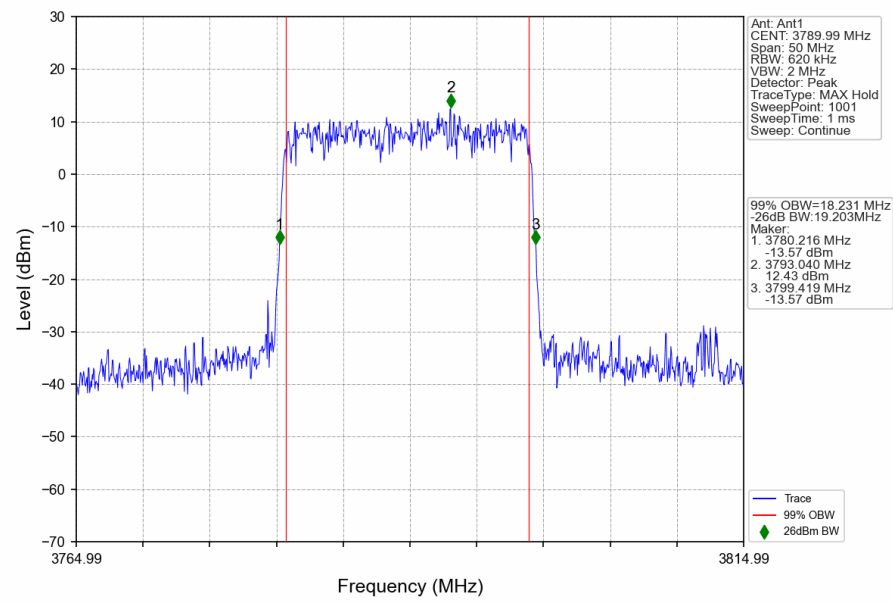


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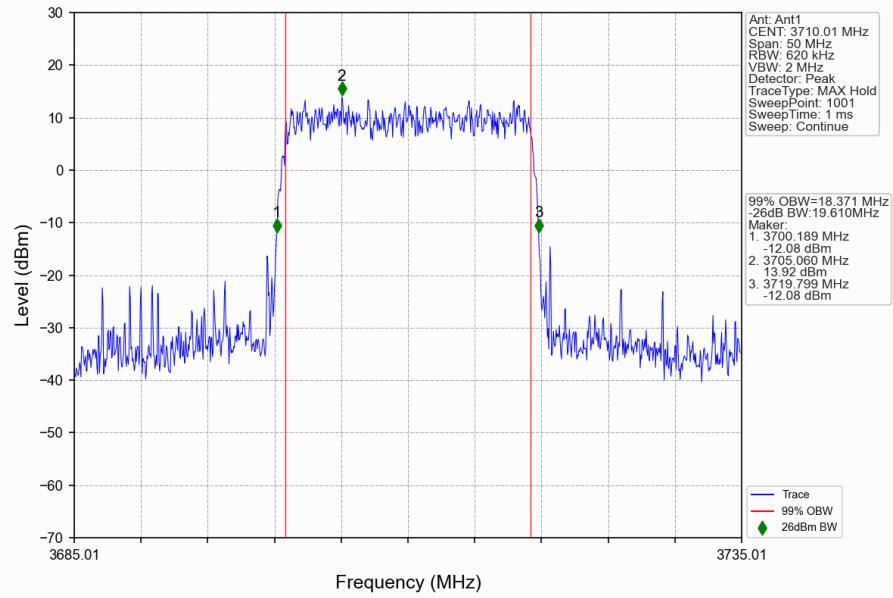


n78a_30kHz_SISO_NTNV_20MHz_DFT-s-OFDM_256_QAM_3750MHz_Outer_Full

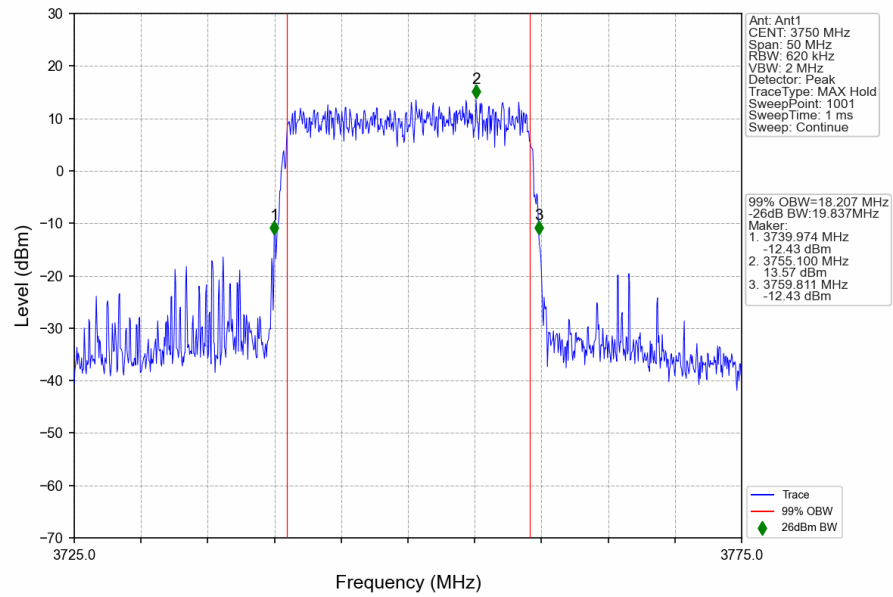




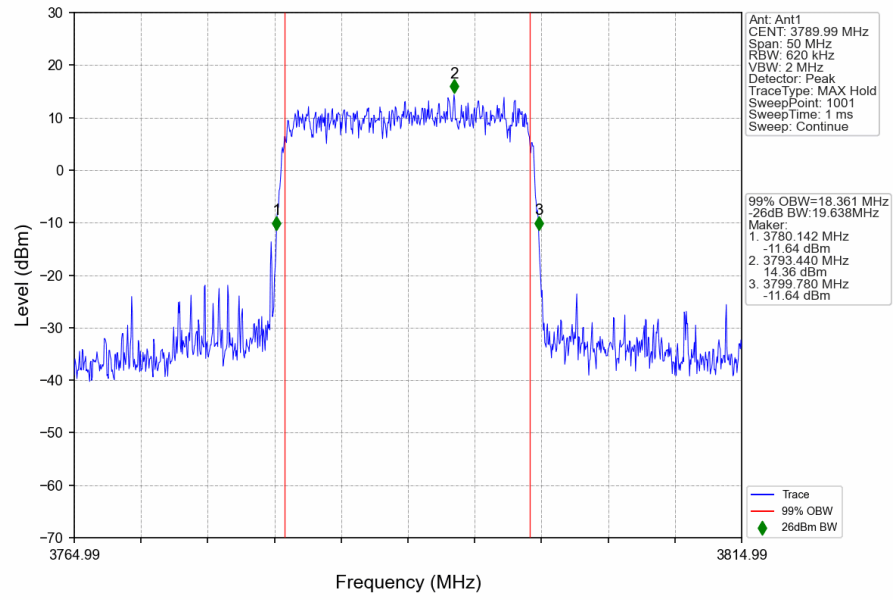
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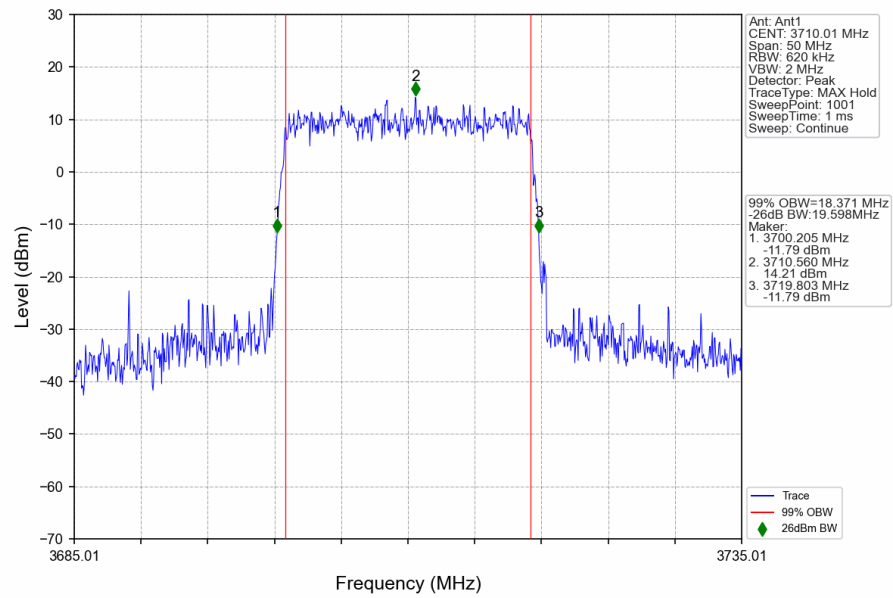
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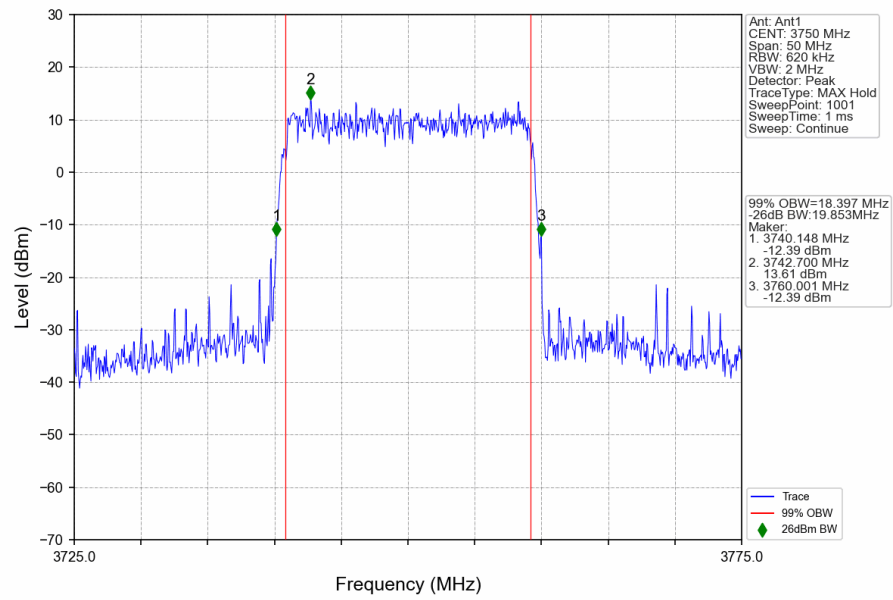
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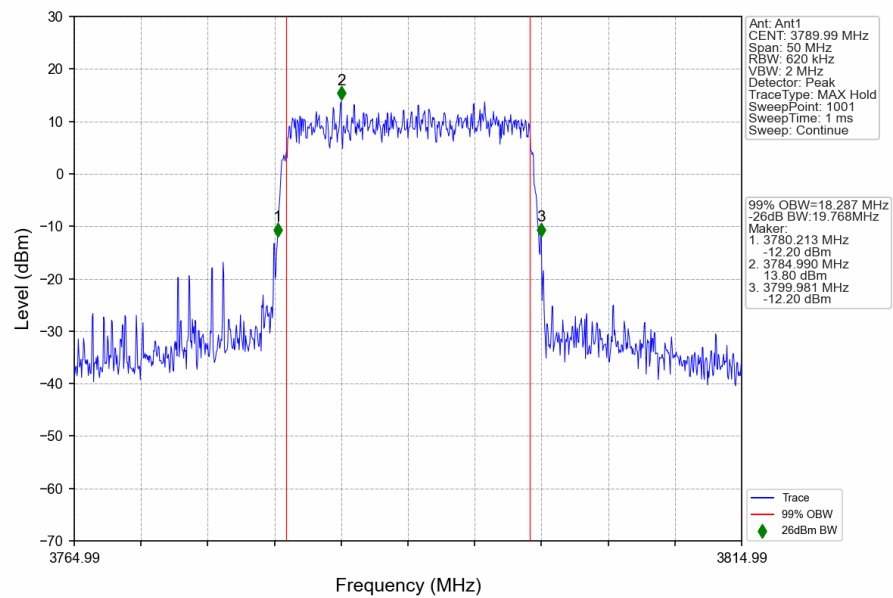
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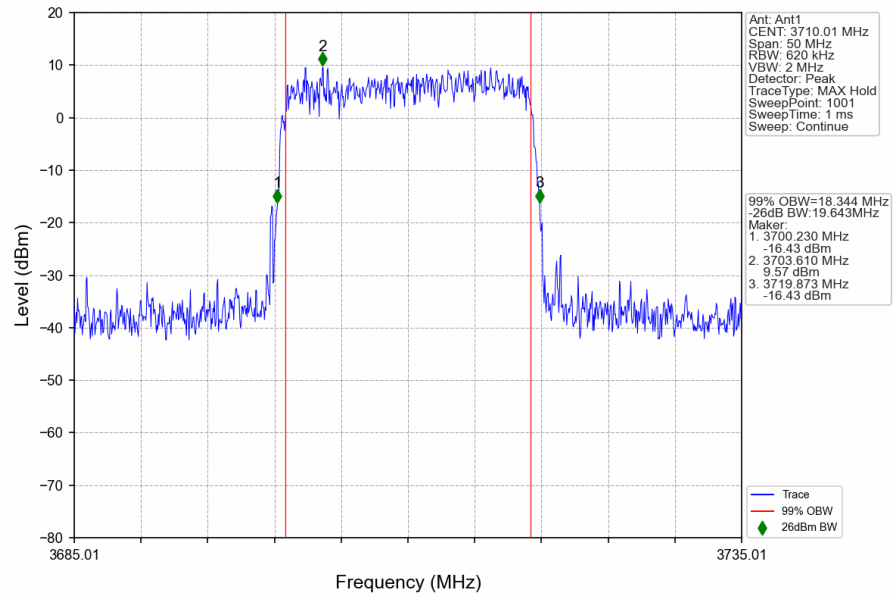
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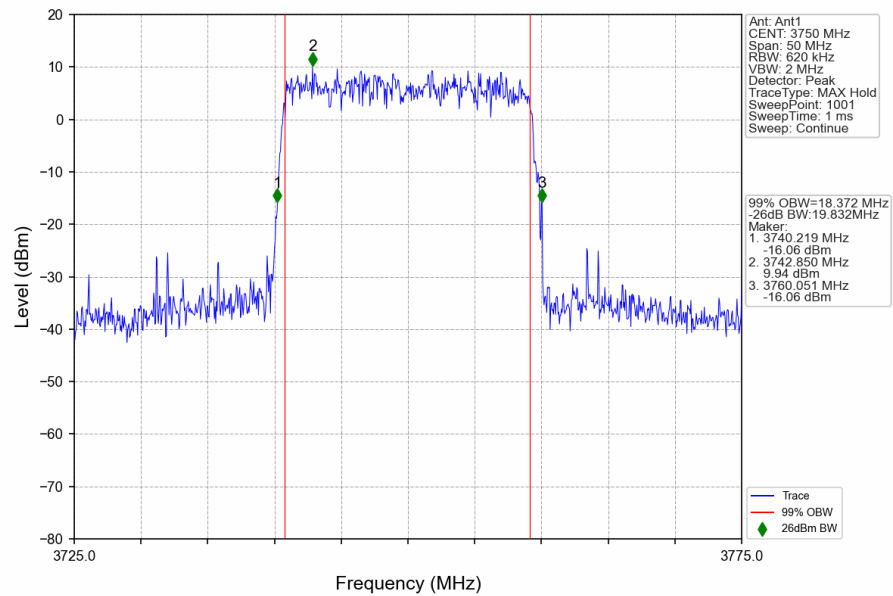
n78a_30kHz_SISO_NTNV_20MHz_CP-OFDM_64_QAM_3789.99MHz_Outer_Full

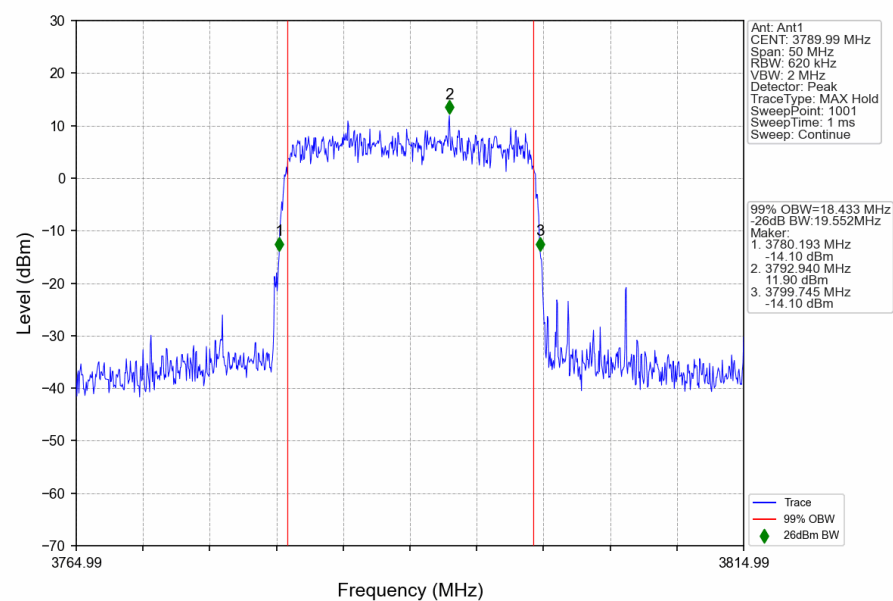


n78a_30kHz_SISO_NTNV_20MHz_CP-OFDM_256_QAM_3710.01MHz_Outer_Full



n78a_30kHz_SISO_NTNV_20MHz_CP-OFDM_256_QAM_3750MHz_Outer_Full



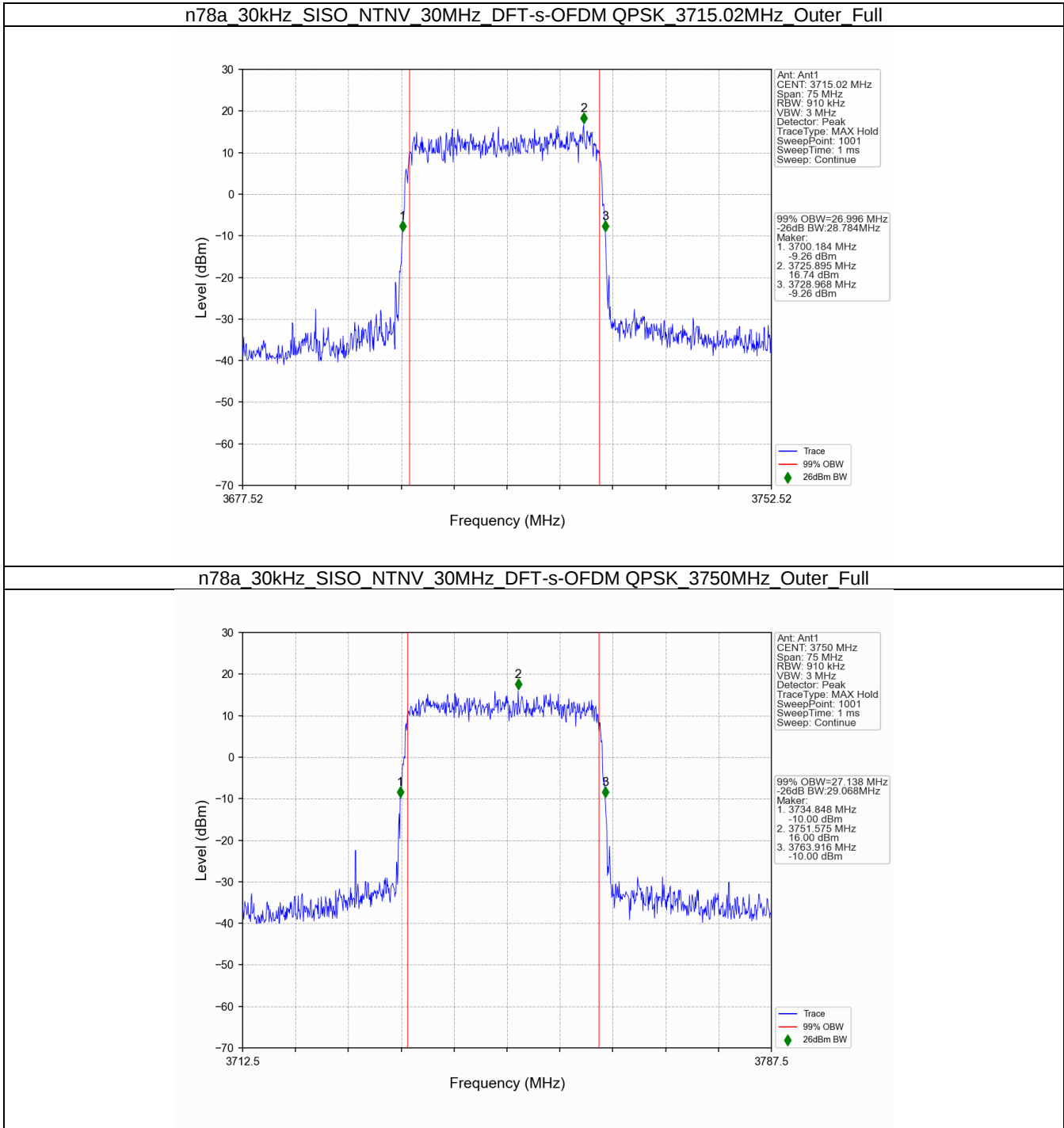


1.2 30k_SISO_30MHz_NTNV

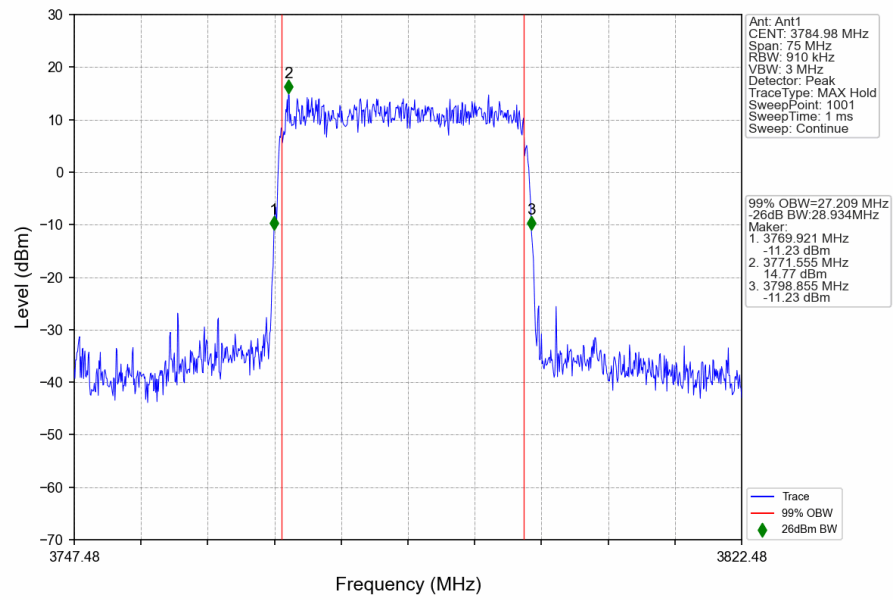
1.2.1 Test Result

5G NR n78a SCS=30kHz SISO 30MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM QPSK	3715.02	Outer_Full	27.00	28.78	/	Pass
	3750	Outer_Full	27.14	29.07	/	Pass
	3784.98	Outer_Full	27.21	28.93	/	Pass
DFT-s-OFDM 64 QAM	3715.02	Outer_Full	27.18	28.85	/	Pass
	3750	Outer_Full	27.15	28.84	/	Pass
	3784.98	Outer_Full	27.16	29.08	/	Pass
DFT-s-OFDM 256 QAM	3715.02	Outer_Full	27.18	28.77	/	Pass
	3750	Outer_Full	27.15	29.02	/	Pass
	3784.98	Outer_Full	26.87	28.85	/	Pass
CP-OFDM QPSK	3715.02	Outer_Full	28.00	29.80	/	Pass
	3750	Outer_Full	28.02	29.86	/	Pass
	3784.98	Outer_Full	28.16	29.97	/	Pass
CP-OFDM 64 QAM	3715.02	Outer_Full	28.10	29.82	/	Pass
	3750	Outer_Full	28.06	29.96	/	Pass
	3784.98	Outer_Full	28.09	29.88	/	Pass
CP-OFDM 256 QAM	3715.02	Outer_Full	28.11	29.74	/	Pass
	3750	Outer_Full	28.02	30.14	/	Pass
	3784.98	Outer_Full	28.09	29.94	/	Pass

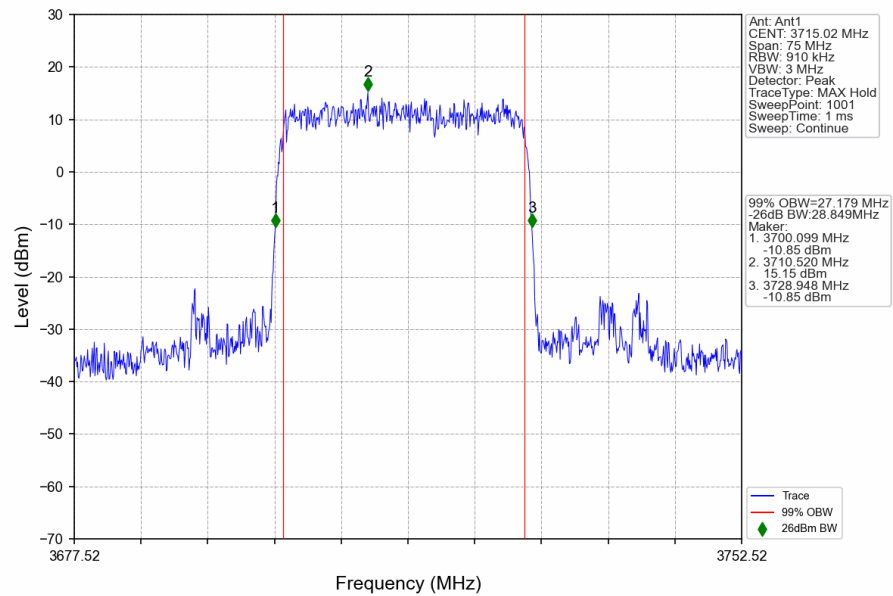
1.2.2 Test Graph



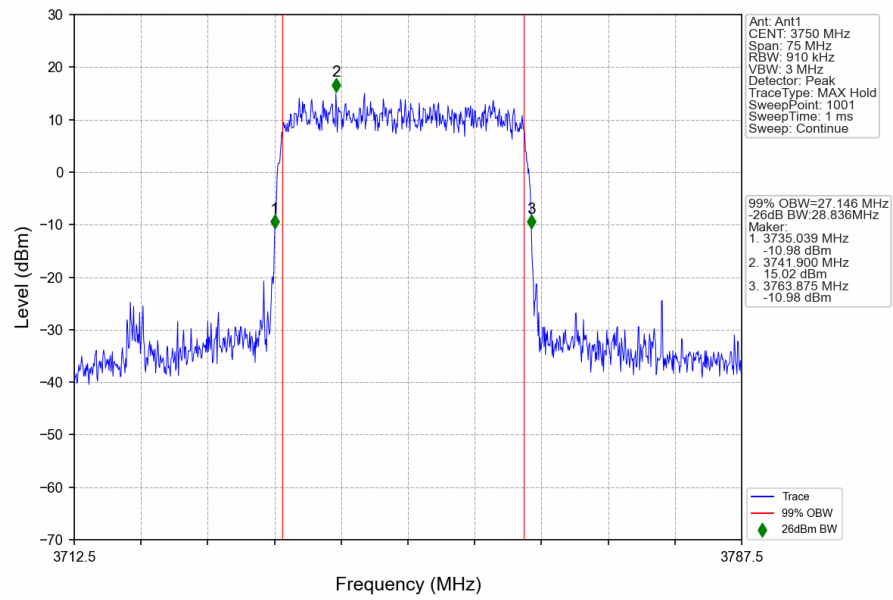
n78a_30kHz_SISO_NTNV_30MHz_DFT-s-OFDM_QPSK_3784.98MHz_Outer_Full



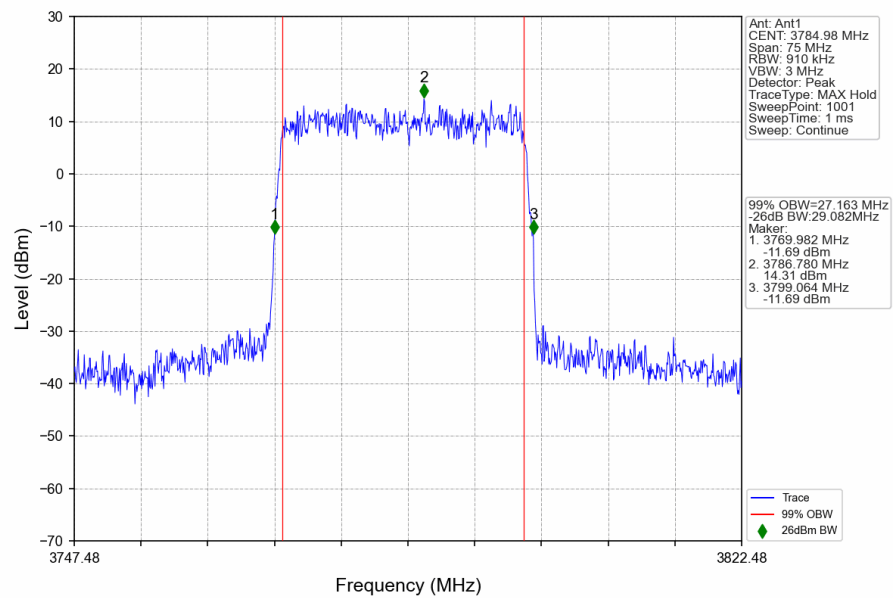
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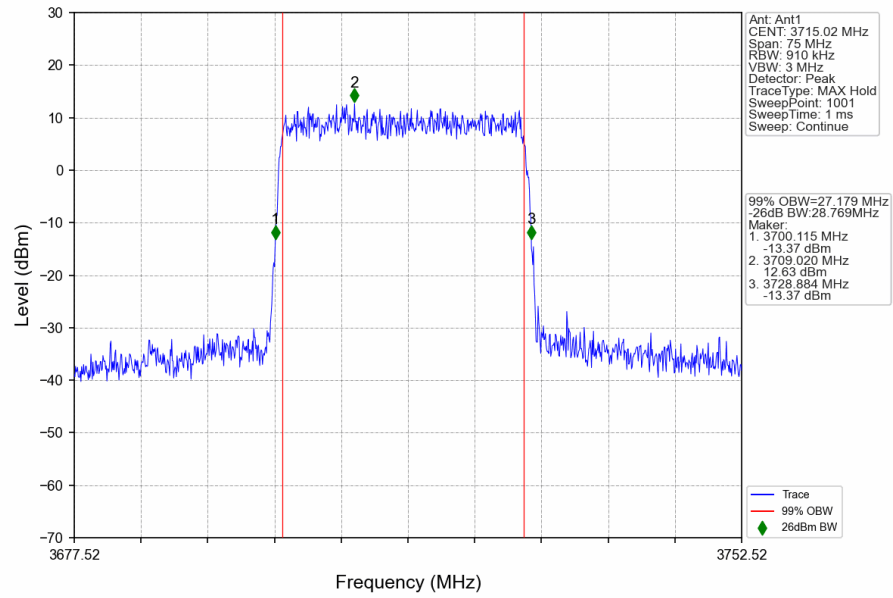
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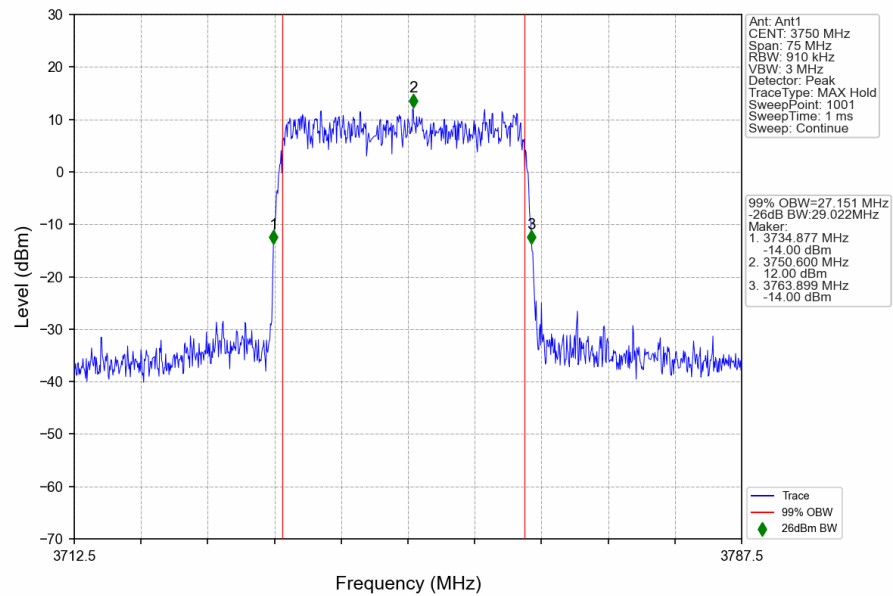
n78a_30kHz_SISO_NTNV_30MHz_DFT-s-OFDM_64_QAM_3784.98MHz_Outer_Full



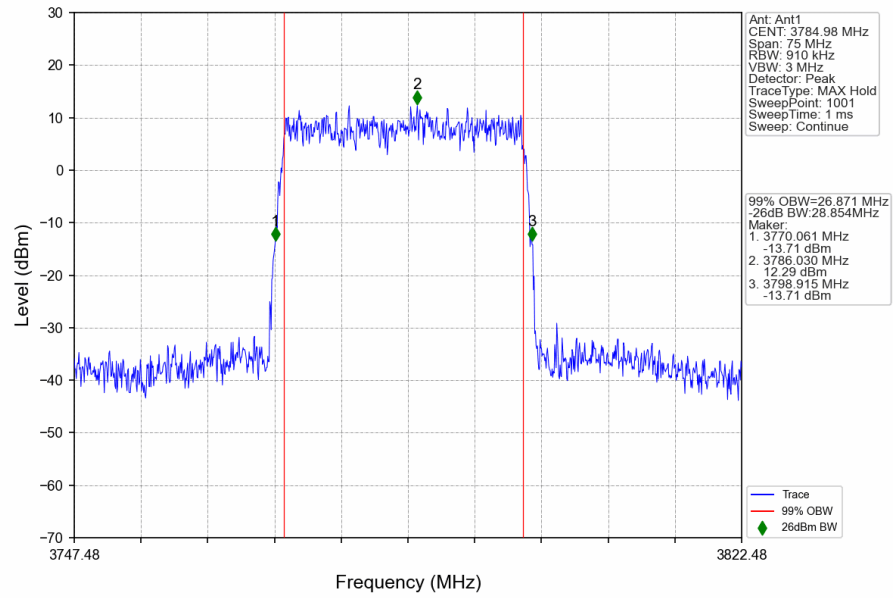
n78a_30kHz_SISO_NTNV_30MHz_DFT-s-OFDM_256_QAM_3715.02MHz_Outer_Full



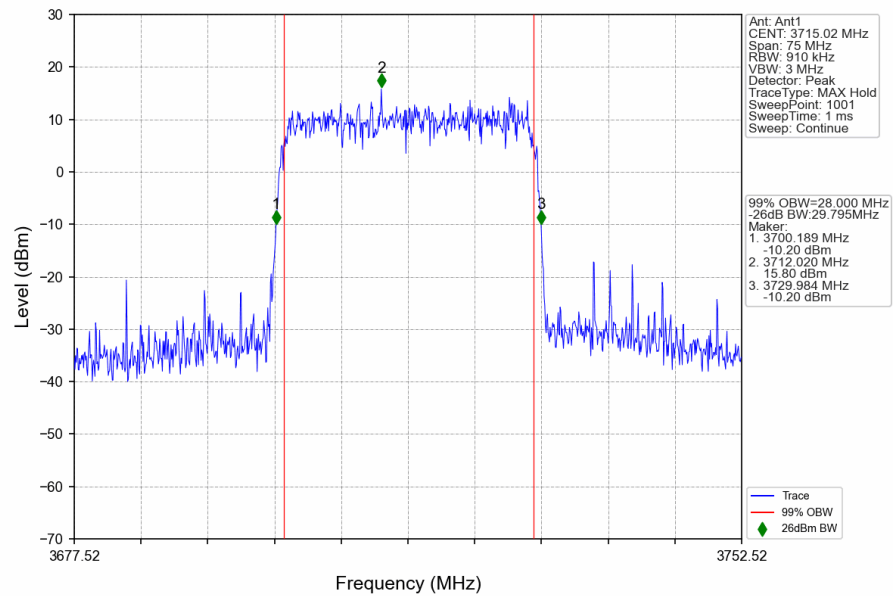
n78a_30kHz_SISO_NTNV_30MHz_DFT-s-OFDM_256_QAM_3750MHz_Outer_Full



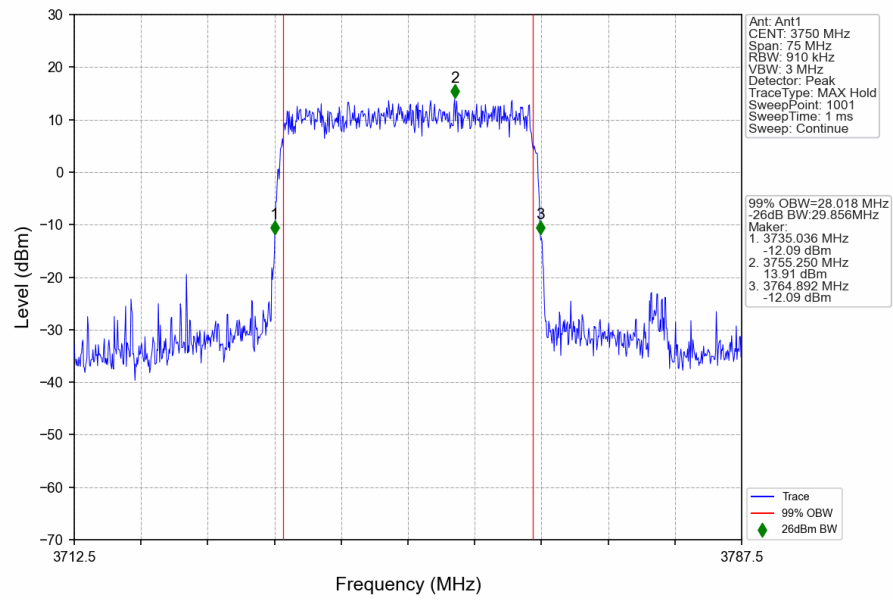
n78a_30kHz_SISO_NTNV_30MHz_DFT-s-OFDM_256_QAM_3784.98MHz_Outer_Full



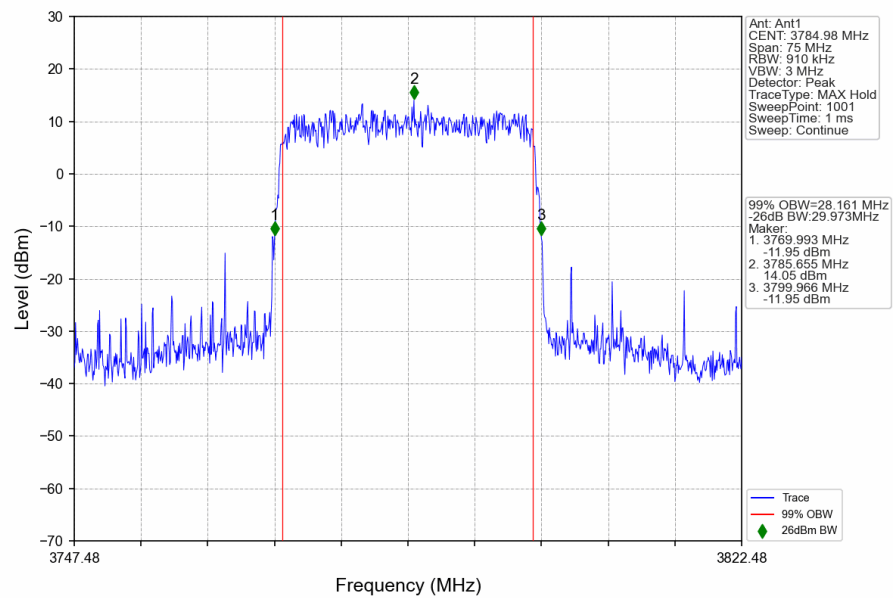
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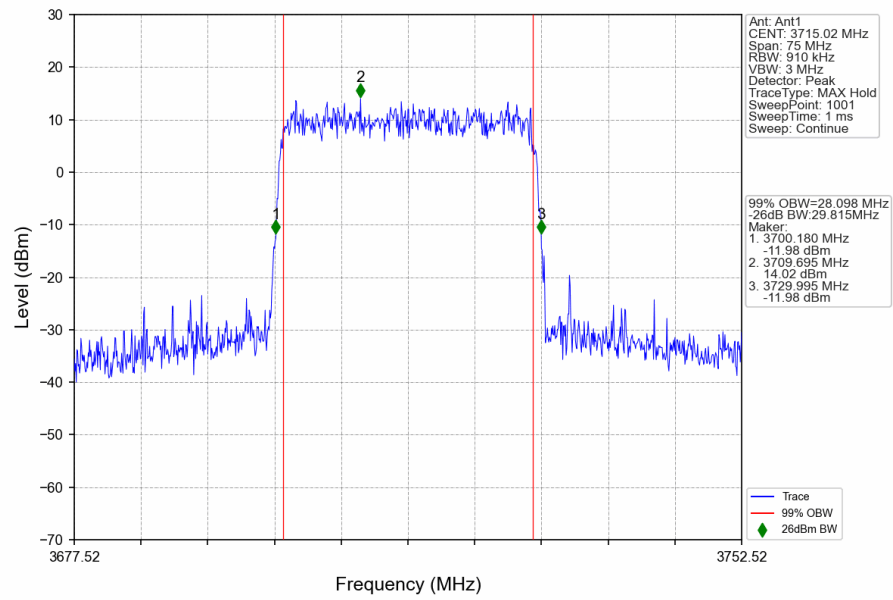
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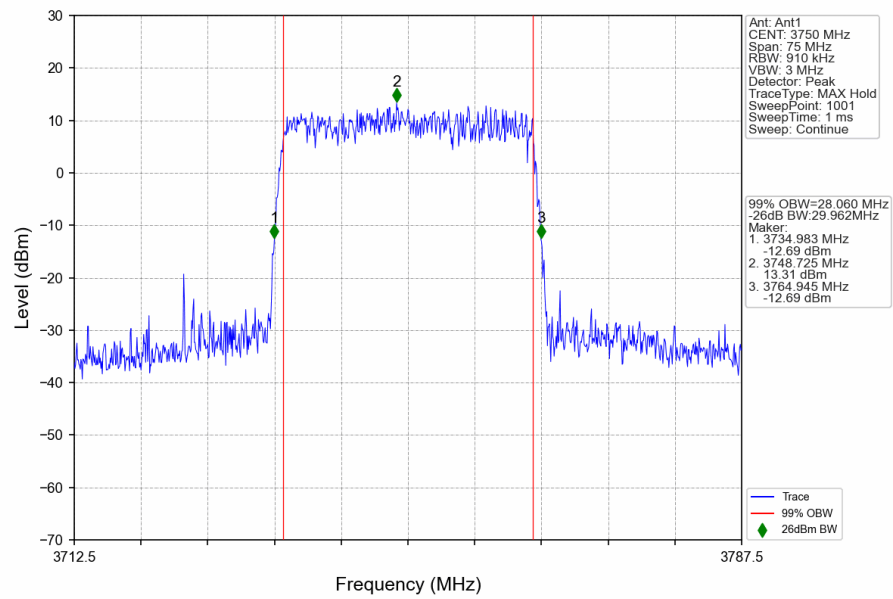
n78a_30kHz_SISO_NTNV_30MHz_CP-OFDM_QPSK_3784.98MHz_Outer_Full



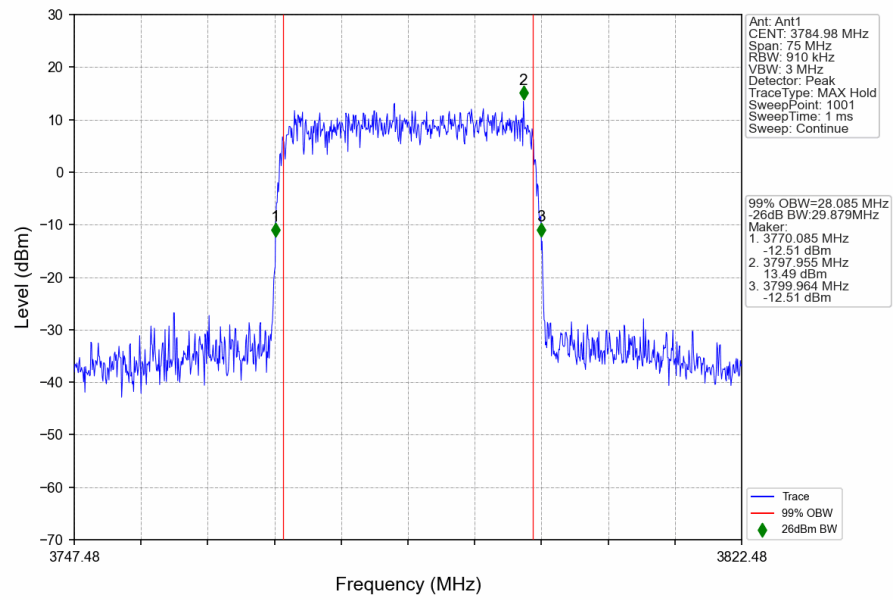
n78a_30kHz_SISO_NTNV_30MHz_CP-OFDM_64_QAM_3715.02MHz_Outer_Full



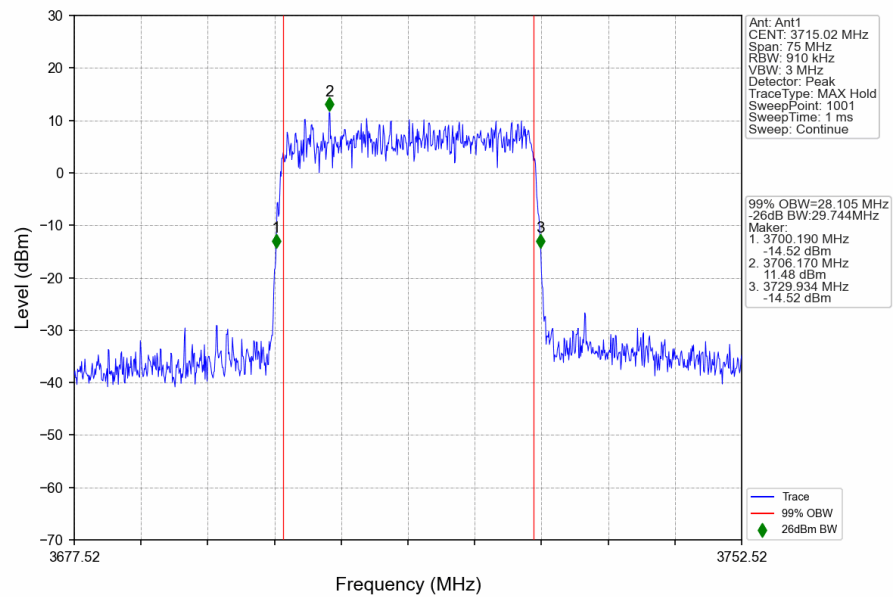
n78a_30kHz_SISO_NTNV_30MHz_CP-OFDM_64_QAM_3750MHz_Outer_Full



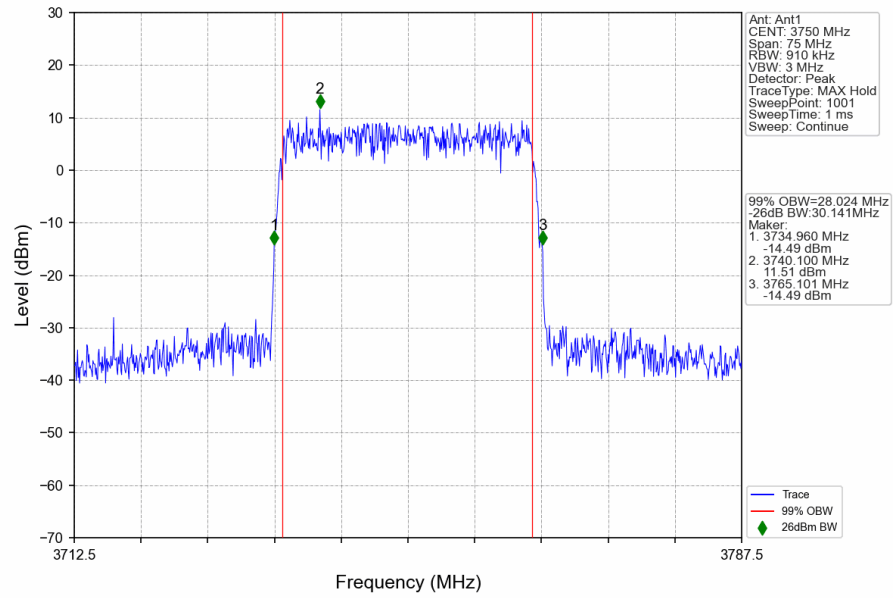
n78a_30kHz_SISO_NTNV_30MHz_CP-OFDM_64_QAM_3784.98MHz_Outer_Full



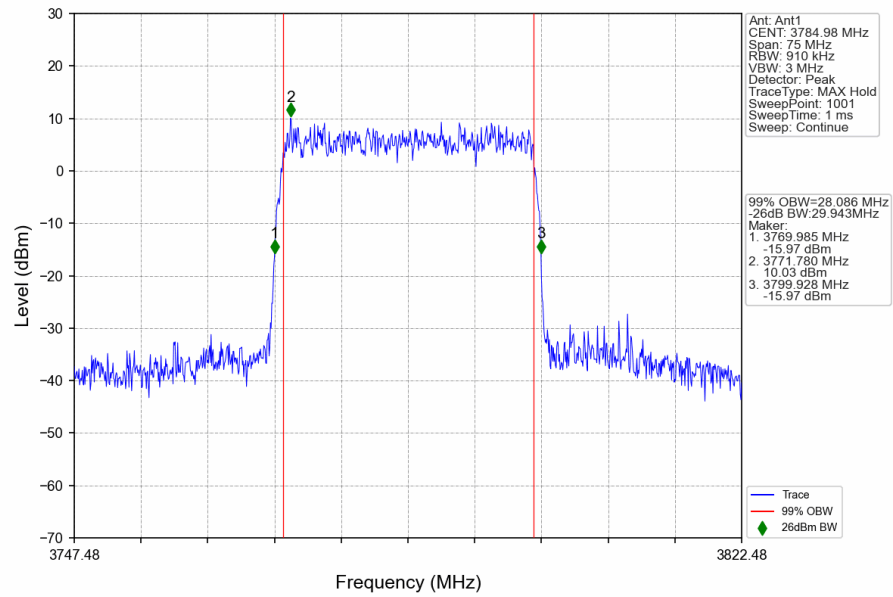
n78a_30kHz_SISO_NTNV_30MHz_CP-OFDM_256_QAM_3715.02MHz_Outer_Full



n78a_30kHz_SISO_NTNV_30MHz_CP-OFDM_256_QAM_3750MHz_Outer_Full



n78a_30kHz_SISO_NTNV_30MHz_CP-OFDM_256_QAM_3784.98MHz_Outer_Full

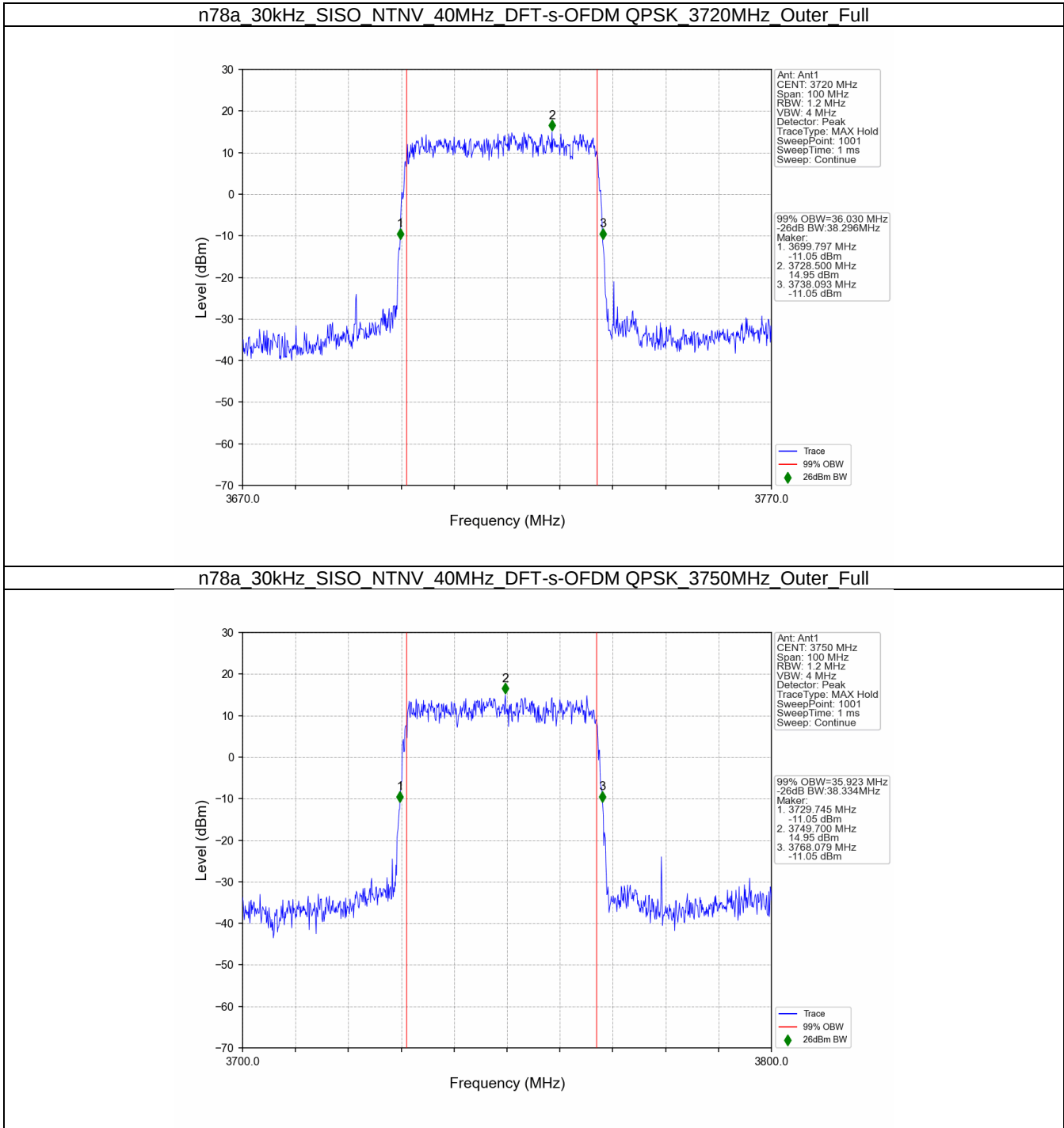


1.3 30k_SISO_40MHz_NTNV

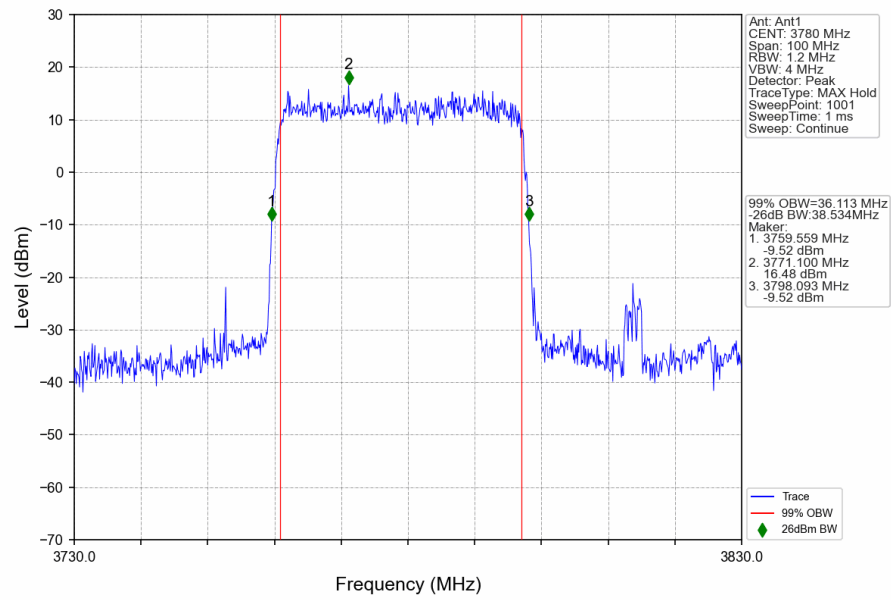
1.3.1 Test Result

5G NR n78a SCS=30kHz SISO 40MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM QPSK	3720	Outer_Full	36.03	38.30	/	Pass
	3750	Outer_Full	35.92	38.33	/	Pass
	3780	Outer_Full	36.11	38.53	/	Pass
DFT-s-OFDM 64 QAM	3720	Outer_Full	36.12	38.48	/	Pass
	3750	Outer_Full	36.14	38.51	/	Pass
	3780	Outer_Full	35.96	38.45	/	Pass
DFT-s-OFDM 256 QAM	3720	Outer_Full	36.14	38.40	/	Pass
	3750	Outer_Full	36.14	38.54	/	Pass
	3780	Outer_Full	36.14	38.35	/	Pass
CP-OFDM QPSK	3720	Outer_Full	38.05	40.62	/	Pass
	3750	Outer_Full	37.98	40.59	/	Pass
	3780	Outer_Full	38.04	40.49	/	Pass
CP-OFDM 64 QAM	3720	Outer_Full	38.00	40.43	/	Pass
	3750	Outer_Full	37.90	40.46	/	Pass
	3780	Outer_Full	38.08	40.75	/	Pass
CP-OFDM 256 QAM	3720	Outer_Full	38.12	40.49	/	Pass
	3750	Outer_Full	38.14	40.56	/	Pass
	3780	Outer_Full	37.85	40.62	/	Pass

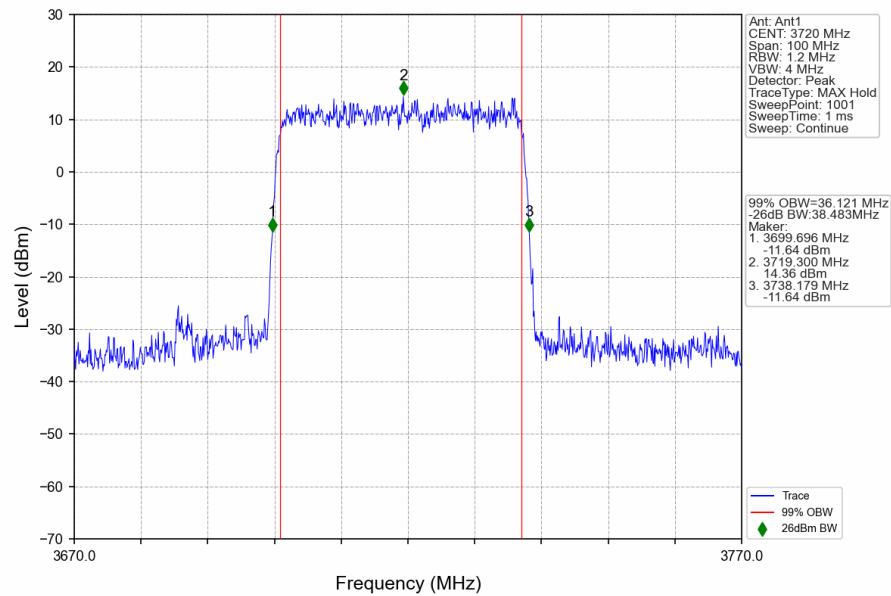
1.3.2 Test Graph



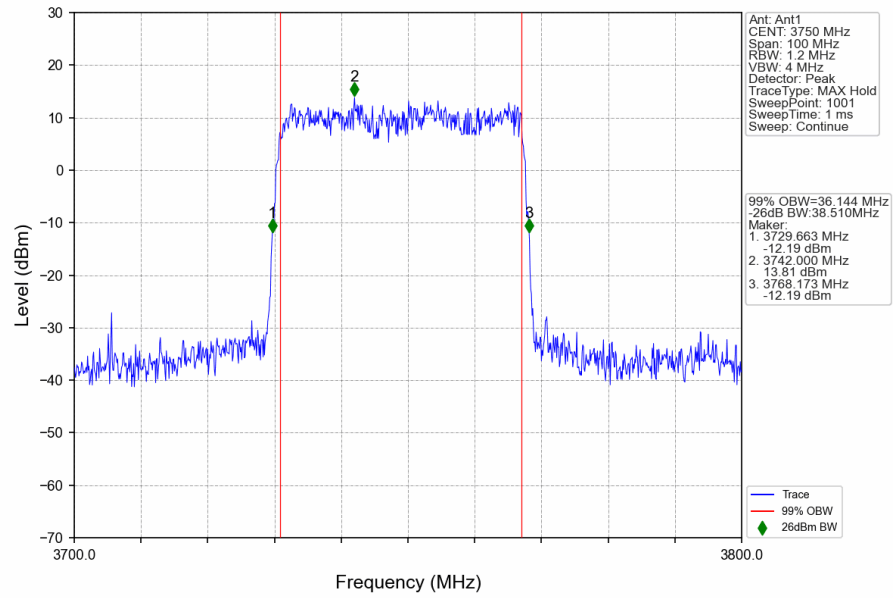
n78a_30kHz_SISO_NTNV_40MHz_DFT-s-OFDM QPSK_3780MHz_Outer_Full



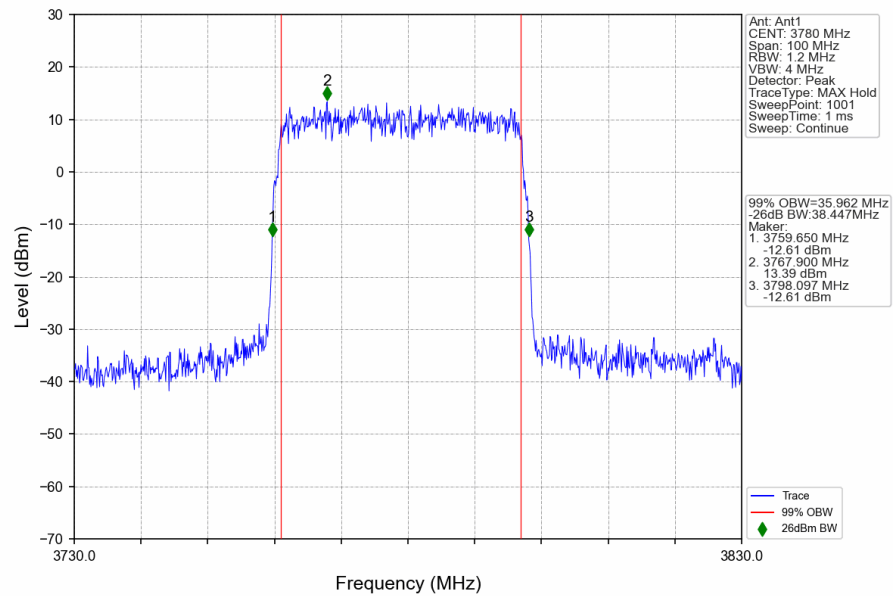
n78a_30kHz_SISO_NTNV_40MHz_DFT-s-OFDM 64 QAM_3720MHz_Outer_Full



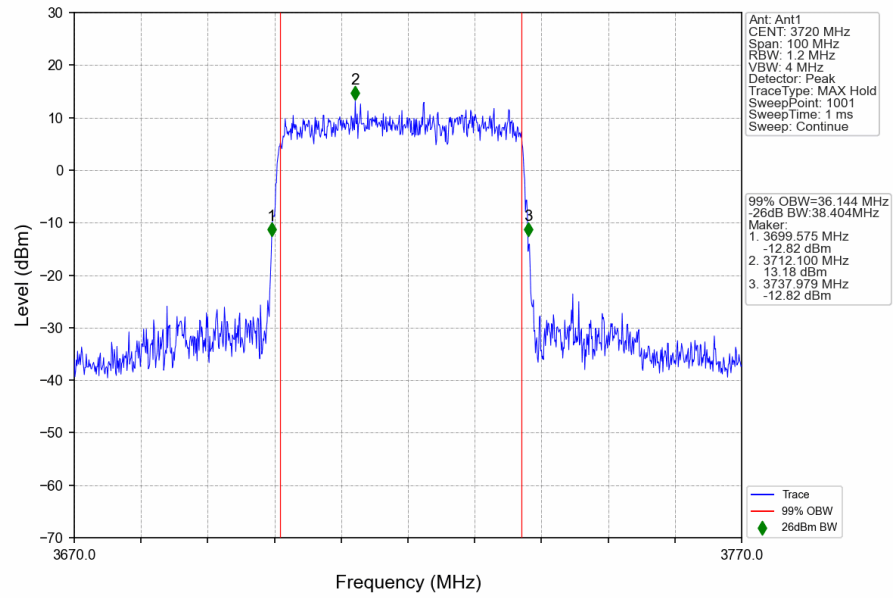
n78a_30kHz_SISO_NTNV_40MHz_DFT-s-OFDM_64_QAM_3750MHz_Outer_Full



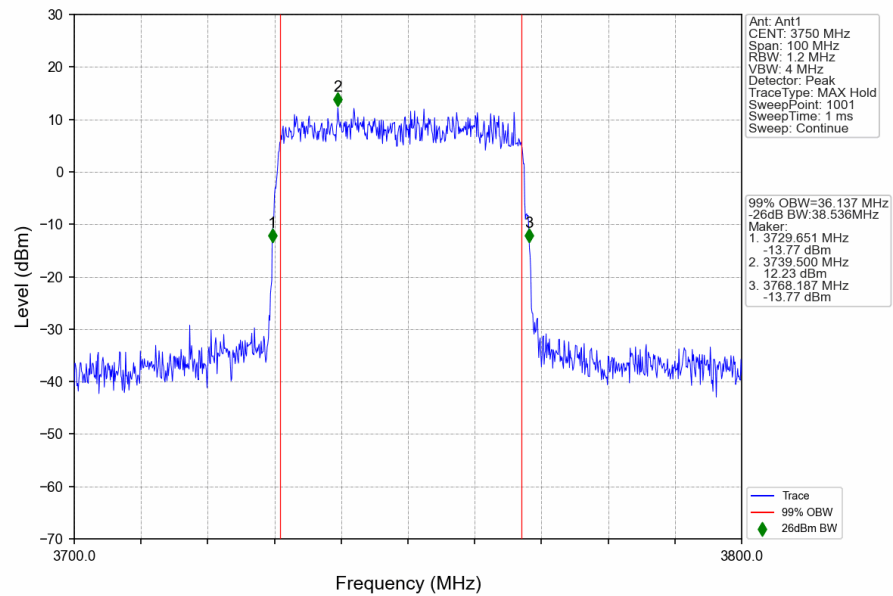
n78a_30kHz_SISO_NTNV_40MHz_DFT-s-OFDM_64_QAM_3780MHz_Outer_Full



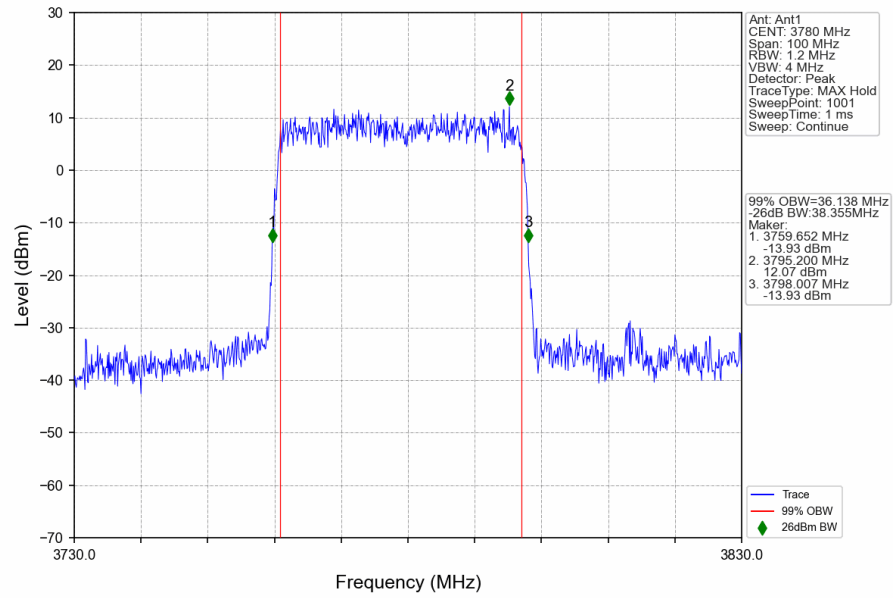
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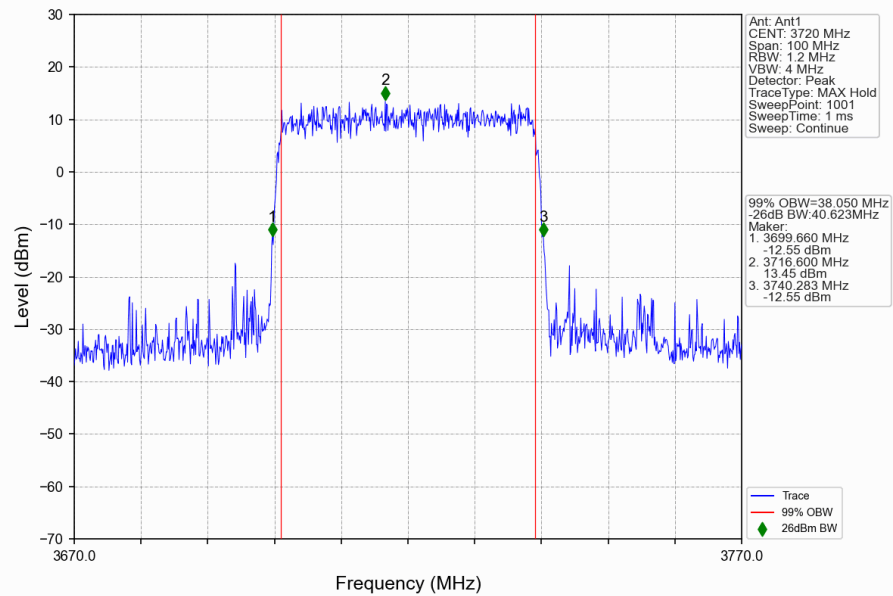
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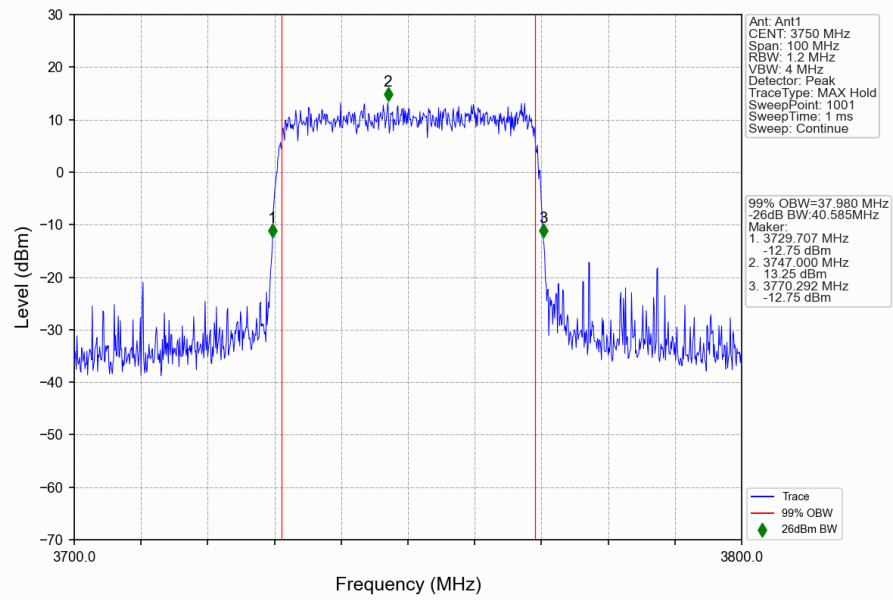
n78a_30kHz_SISO_NTNV_40MHz_DFT-s-OFDM_256_QAM_3780MHz_Outer_Full



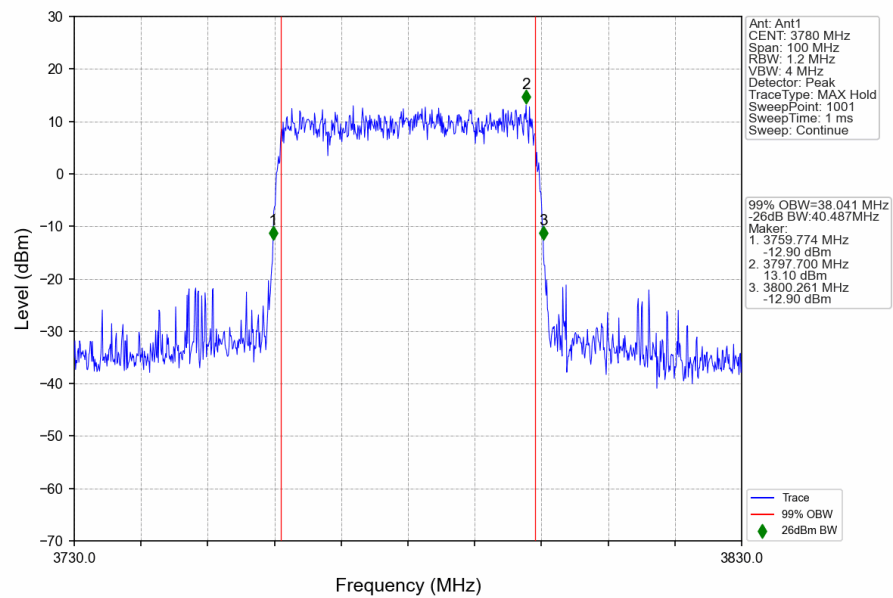
n78a_30kHz_SISO_NTNV_40MHz_CP-OFDM_QPSK_3720MHz_Outer_Full



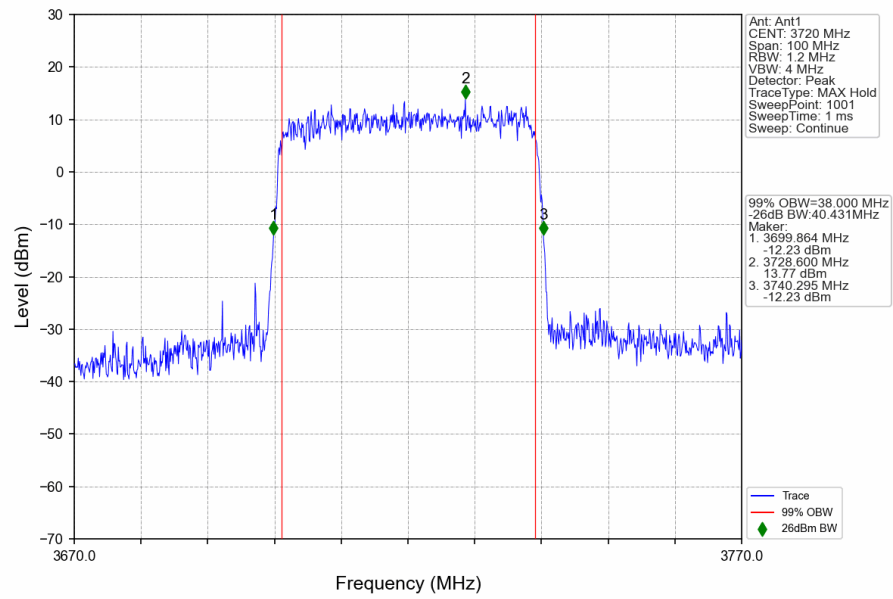
n78a_30kHz_SISO_NTNV_40MHz_CP-OFDM_QPSK_3750MHz_Outer_Full



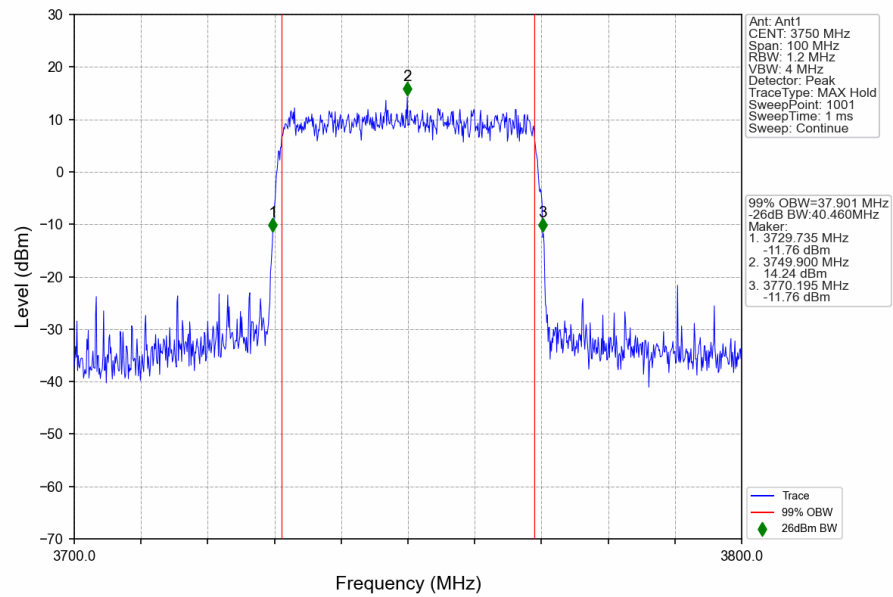
n78a_30kHz_SISO_NTNV_40MHz_CP-OFDM_QPSK_3780MHz_Outer_Full



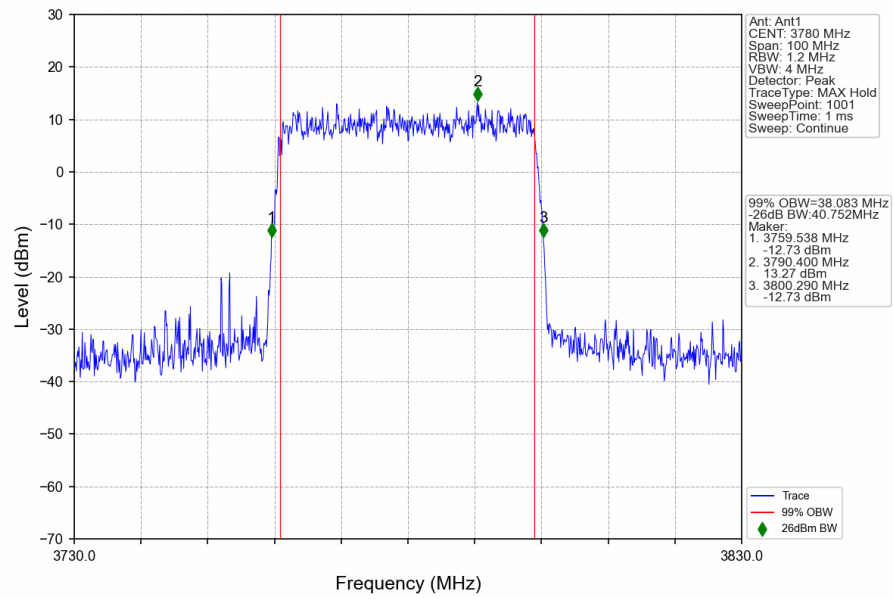
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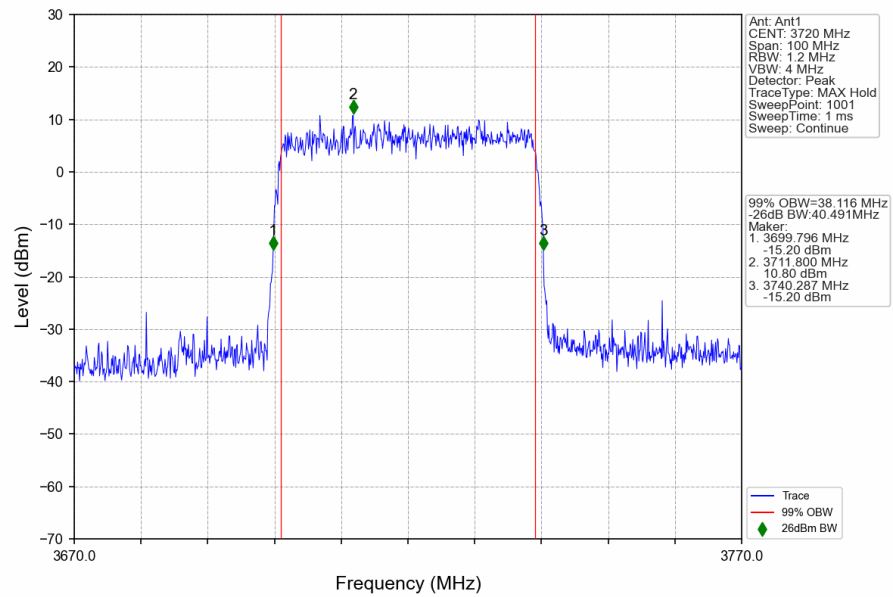
n78a_30kHz_SISO_NTNV_40MHz_CP-OFDM_64_QAM_3750MHz_Outer_Full



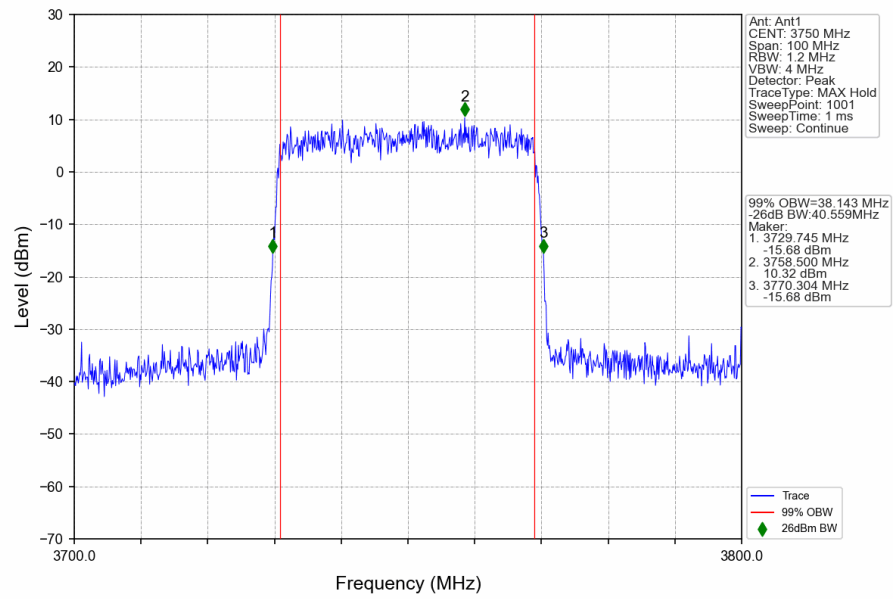
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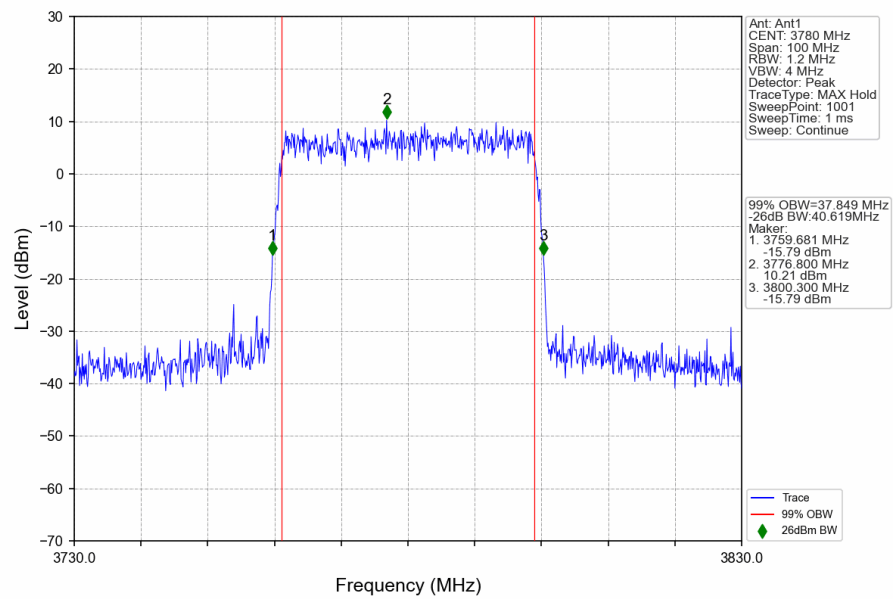
n78a_30kHz_SISO_NTNV_40MHz_CP-OFDM 256 QAM_3720MHz_Outer_Full



n78a_30kHz_SISO_NTNV_40MHz_CP-OFDM_256_QAM_3750MHz_Outer_Full



n78a_30kHz_SISO_NTNV_40MHz_CP-OFDM_256_QAM_3780MHz_Outer_Full

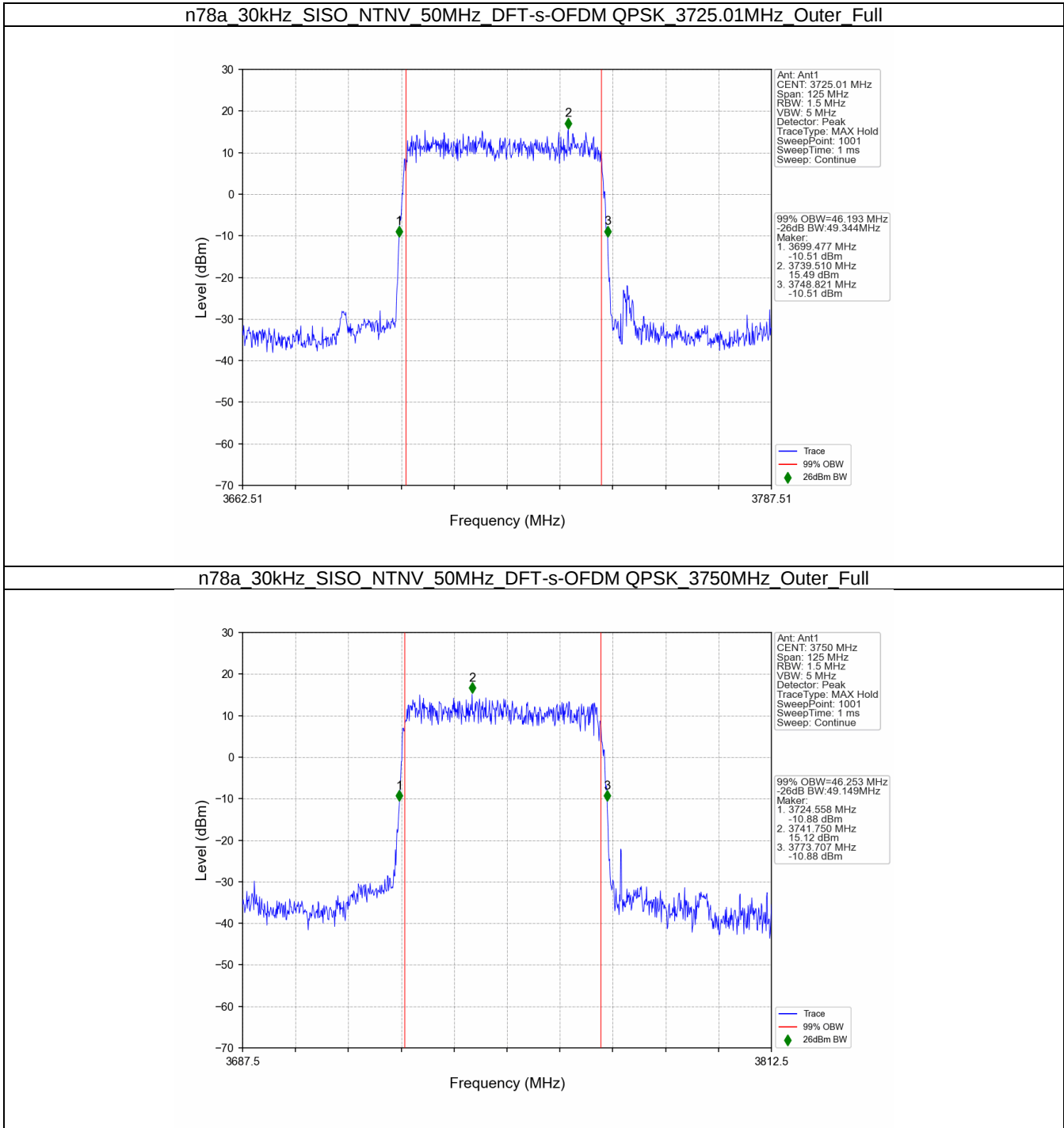


1.4 30k_SISO_50MHz_NTNV

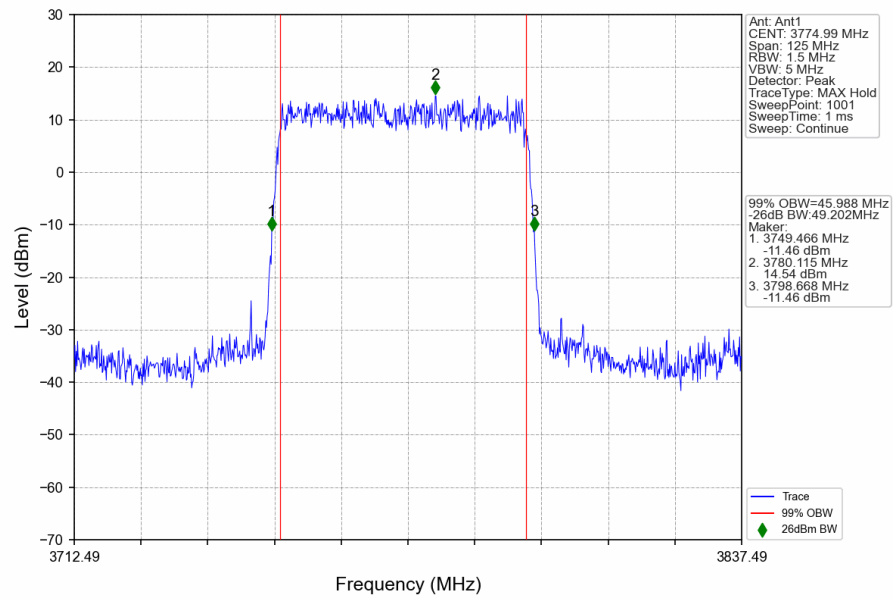
1.4.1 Test Result

5G NR n78a SCS=30kHz SISO 50MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM QPSK	3725.01	Outer_Full	46.19	49.34	/	Pass
	3750	Outer_Full	46.25	49.15	/	Pass
	3774.99	Outer_Full	45.99	49.20	/	Pass
DFT-s-OFDM 64 QAM	3725.01	Outer_Full	45.95	49.31	/	Pass
	3750	Outer_Full	45.93	49.19	/	Pass
	3774.99	Outer_Full	45.87	49.09	/	Pass
DFT-s-OFDM 256 QAM	3725.01	Outer_Full	46.07	49.17	/	Pass
	3750	Outer_Full	46.21	48.94	/	Pass
	3774.99	Outer_Full	45.68	49.21	/	Pass
CP-OFDM QPSK	3725.01	Outer_Full	47.79	50.95	/	Pass
	3750	Outer_Full	47.69	50.75	/	Pass
	3774.99	Outer_Full	47.61	50.98	/	Pass
CP-OFDM 64 QAM	3725.01	Outer_Full	47.69	51.20	/	Pass
	3750	Outer_Full	47.81	50.80	/	Pass
	3774.99	Outer_Full	47.72	50.81	/	Pass
CP-OFDM 256 QAM	3725.01	Outer_Full	47.69	51.12	/	Pass
	3750	Outer_Full	47.56	50.66	/	Pass
	3774.99	Outer_Full	47.87	50.87	/	Pass

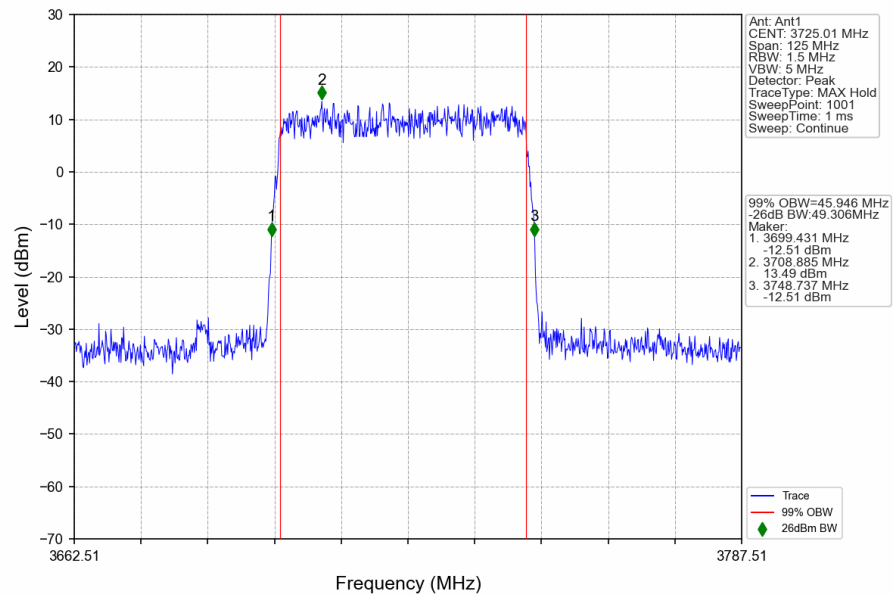
1.4.2 Test Graph



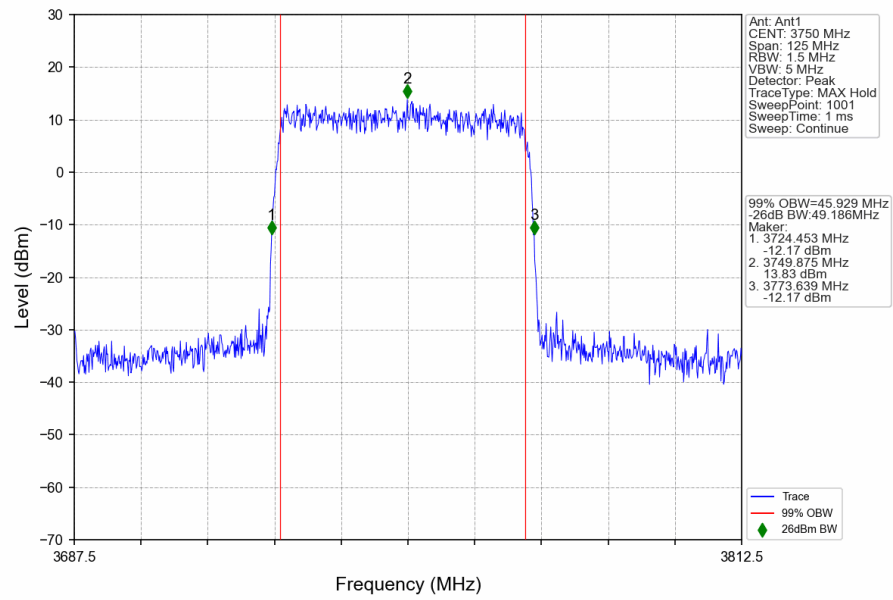
n78a_30kHz_SISO_NTNV_50MHz_DFT-s-OFDM_QPSK_3774.99MHz_Outer_Full



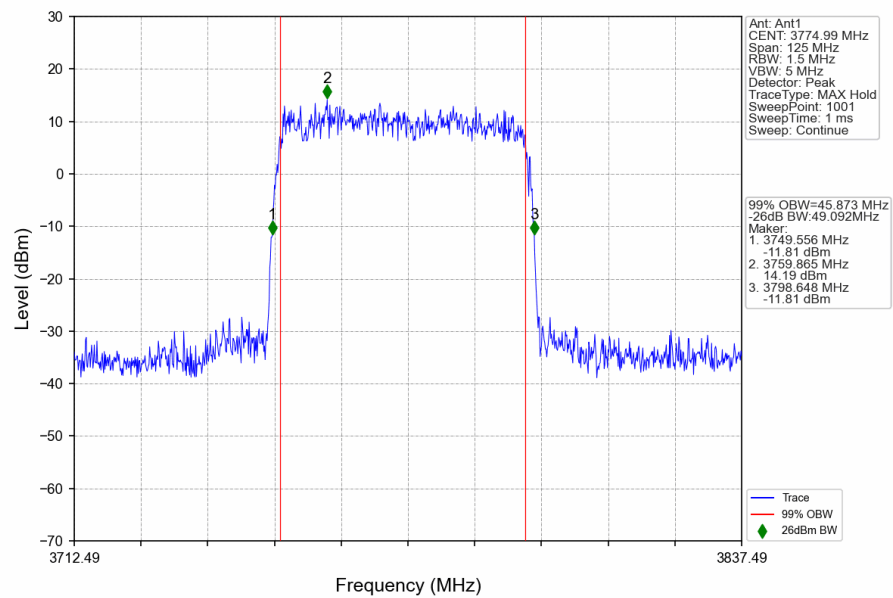
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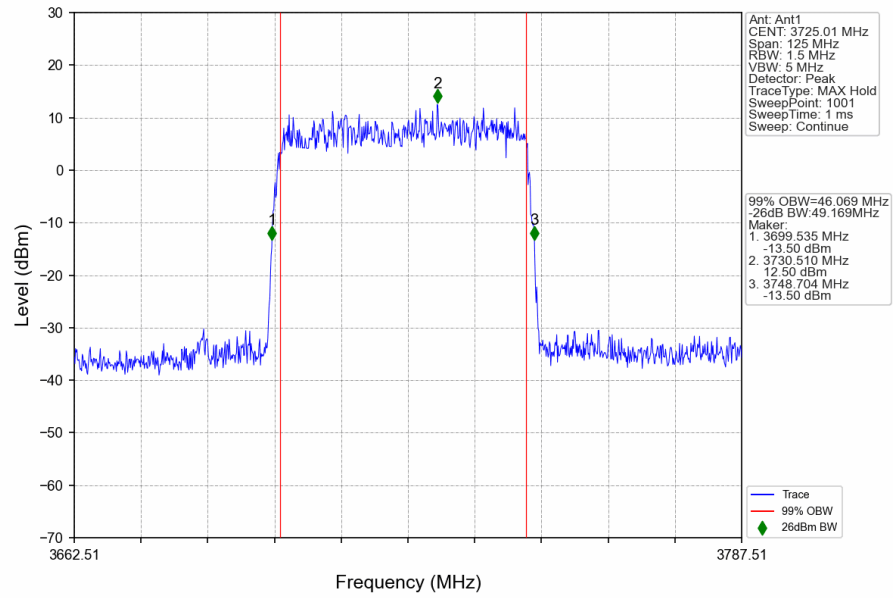
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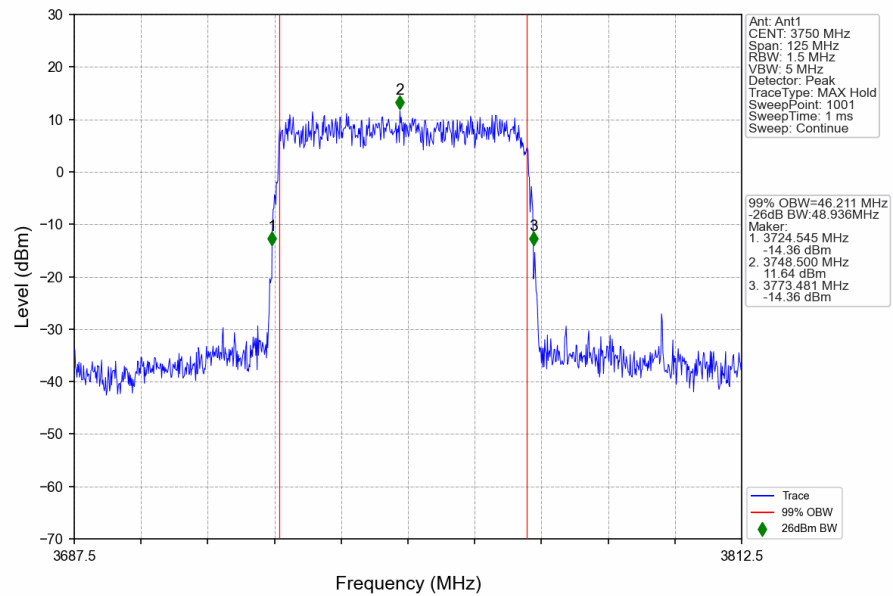
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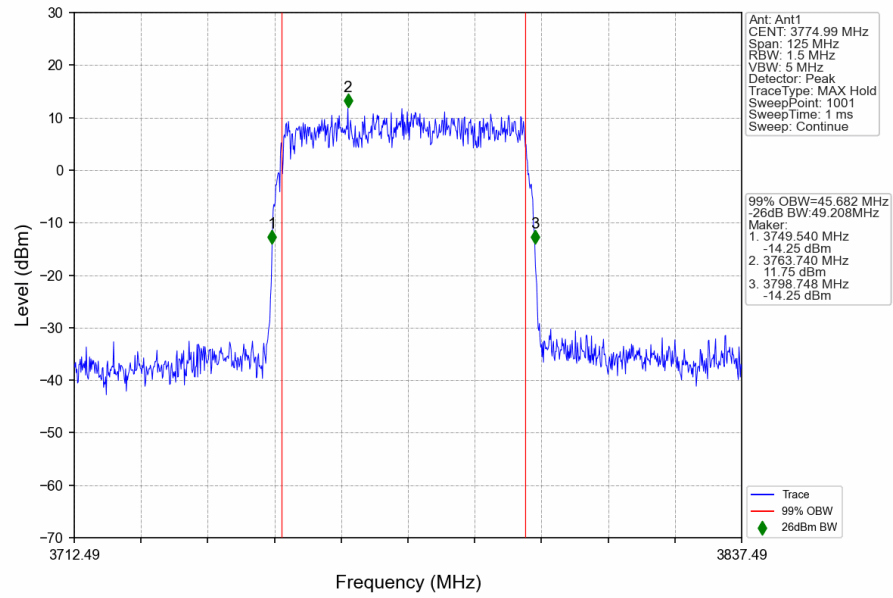
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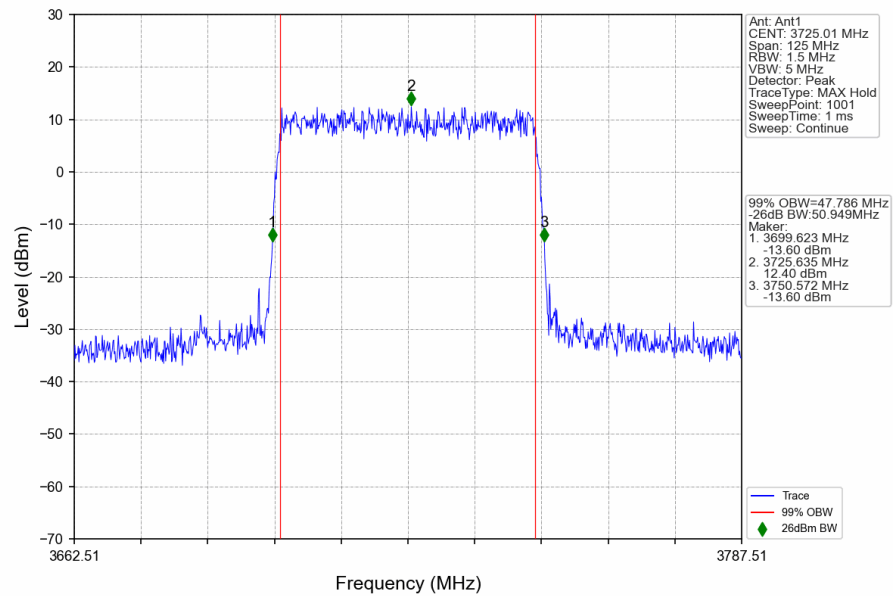
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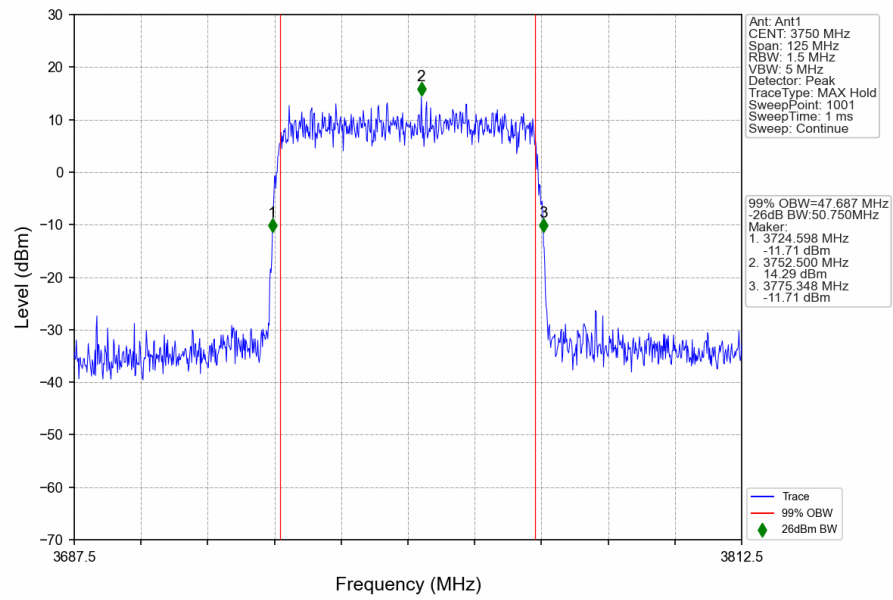
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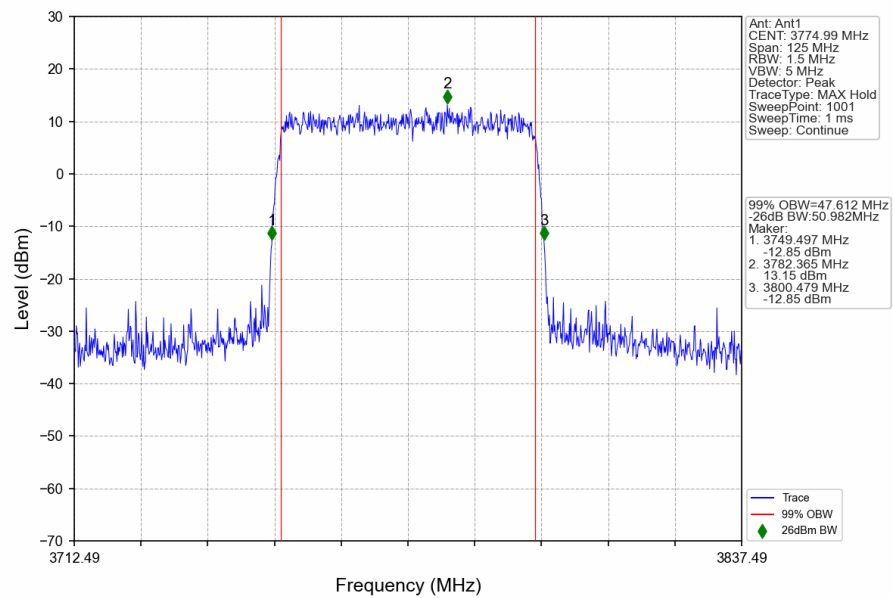
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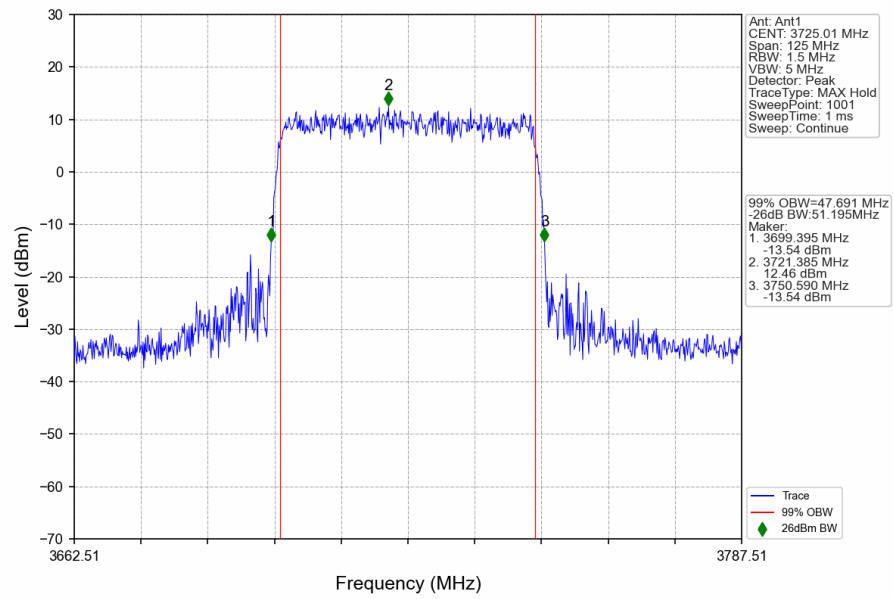
n78a_30kHz_SISO_NTNV_50MHz_CP-OFDM_QPSK_3750MHz_Outer_Full



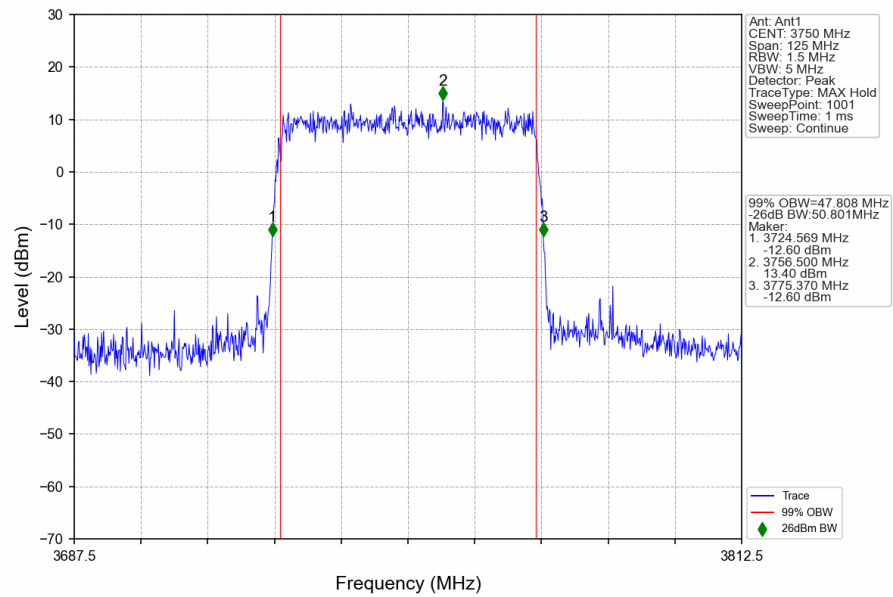
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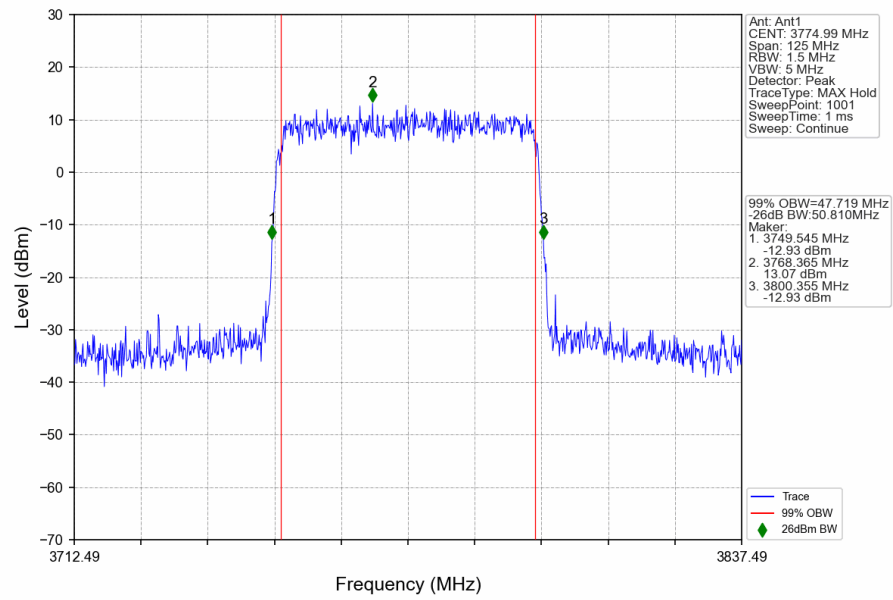
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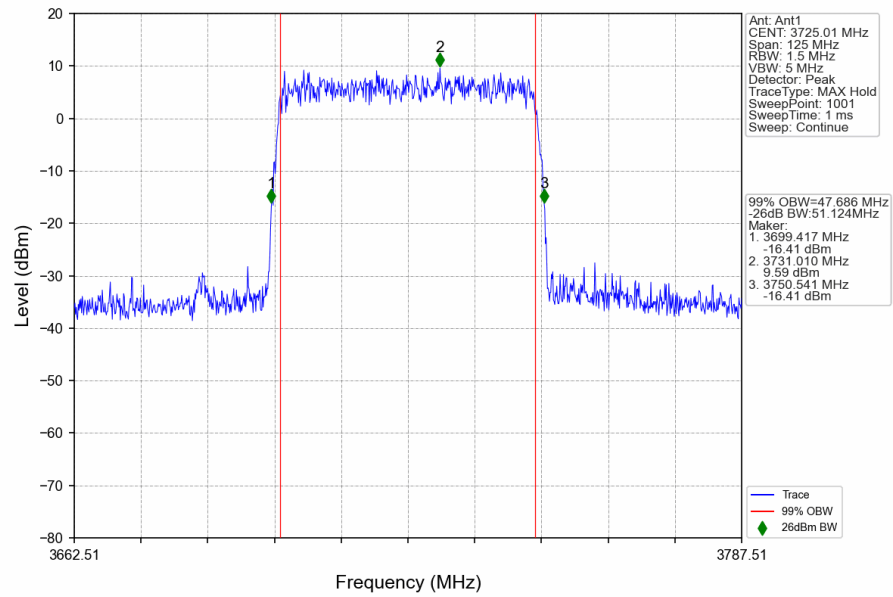
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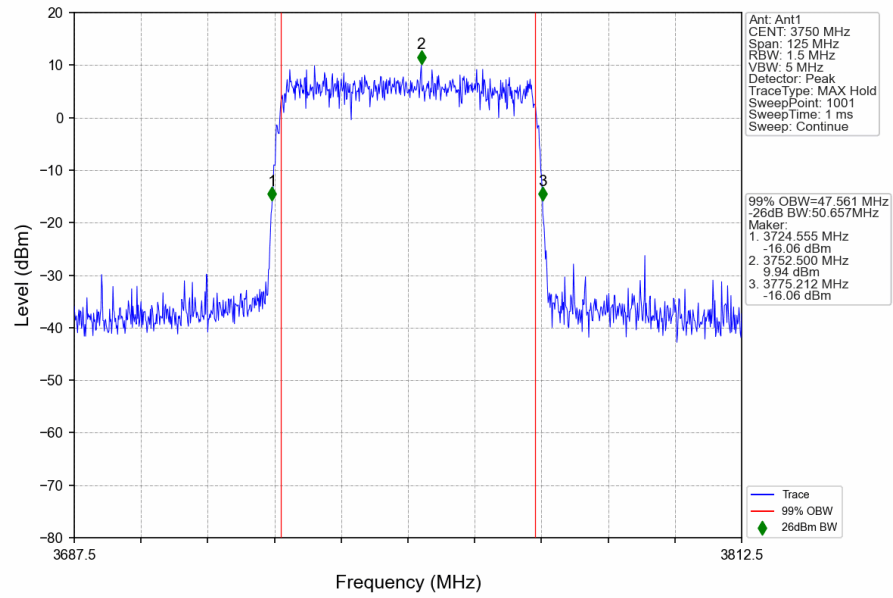
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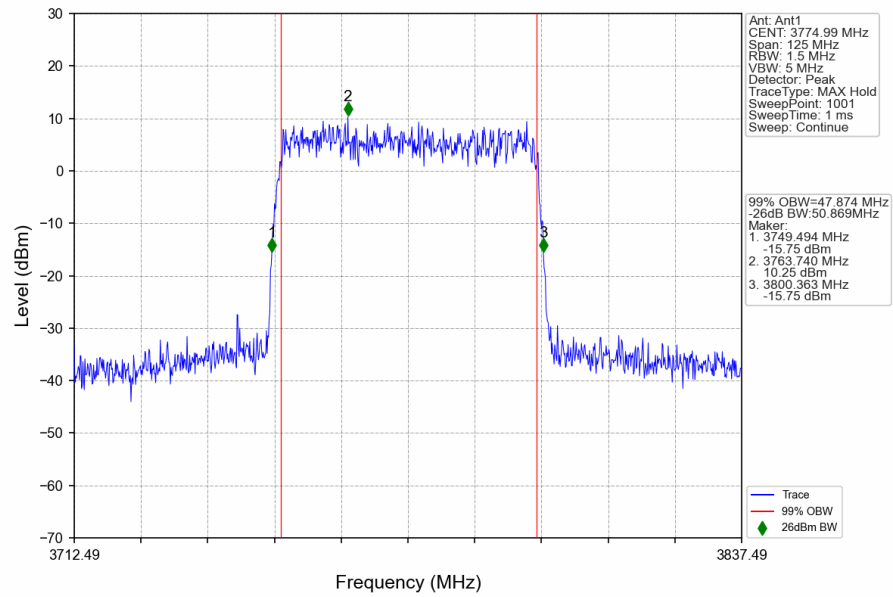
n78a_30kHz_SISO_NTNV_50MHz_CP-OFDM_256_QAM_3725.01MHz_Outer_Full



n78a_30kHz_SISO_NTNV_50MHz_CP-OFDM_256_QAM_3750MHz_Outer_Full



n78a_30kHz_SISO_NTNV_50MHz_CP-OFDM_256_QAM_3774.99MHz_Outer_Full

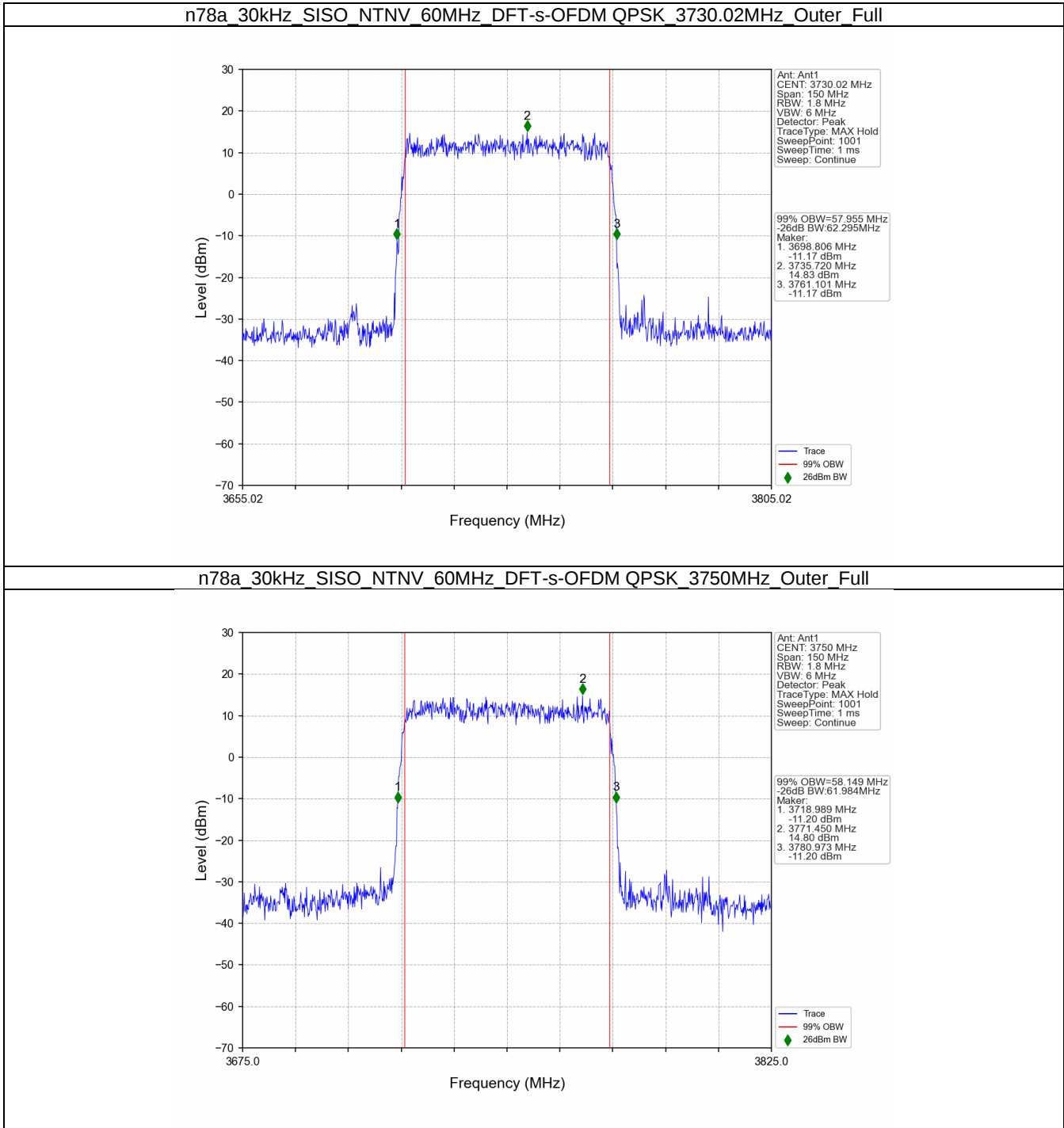


1.5 30k_SISO_60MHz_NTNV

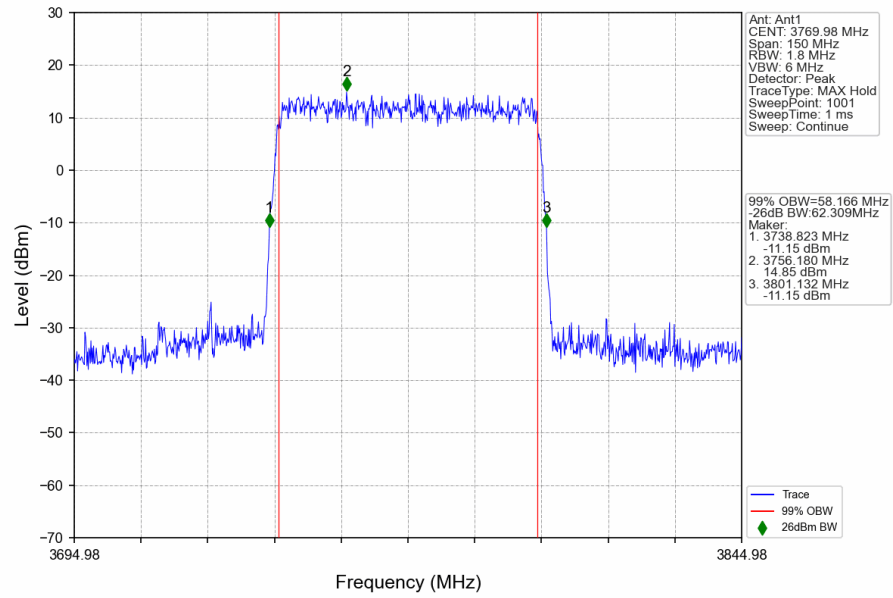
1.5.1 Test Result

5G NR n78a SCS=30kHz SISO 60MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM QPSK	3730.02	Outer_Full	57.95	62.30	/	Pass
	3750	Outer_Full	58.15	61.98	/	Pass
	3769.98	Outer_Full	58.17	62.31	/	Pass
DFT-s-OFDM 64 QAM	3730.02	Outer_Full	58.18	62.23	/	Pass
	3750	Outer_Full	58.03	62.09	/	Pass
	3769.98	Outer_Full	58.07	61.97	/	Pass
DFT-s-OFDM 256 QAM	3730.02	Outer_Full	57.91	61.96	/	Pass
	3750	Outer_Full	58.09	62.13	/	Pass
	3769.98	Outer_Full	58.41	61.64	/	Pass
CP-OFDM QPSK	3730.02	Outer_Full	58.01	61.86	/	Pass
	3750	Outer_Full	58.21	62.14	/	Pass
	3769.98	Outer_Full	58.20	62.05	/	Pass
CP-OFDM 64 QAM	3730.02	Outer_Full	57.87	62.00	/	Pass
	3750	Outer_Full	58.17	61.99	/	Pass
	3769.98	Outer_Full	58.32	61.98	/	Pass
CP-OFDM 256 QAM	3730.02	Outer_Full	57.69	62.04	/	Pass
	3750	Outer_Full	57.98	61.88	/	Pass
	3769.98	Outer_Full	57.99	61.99	/	Pass

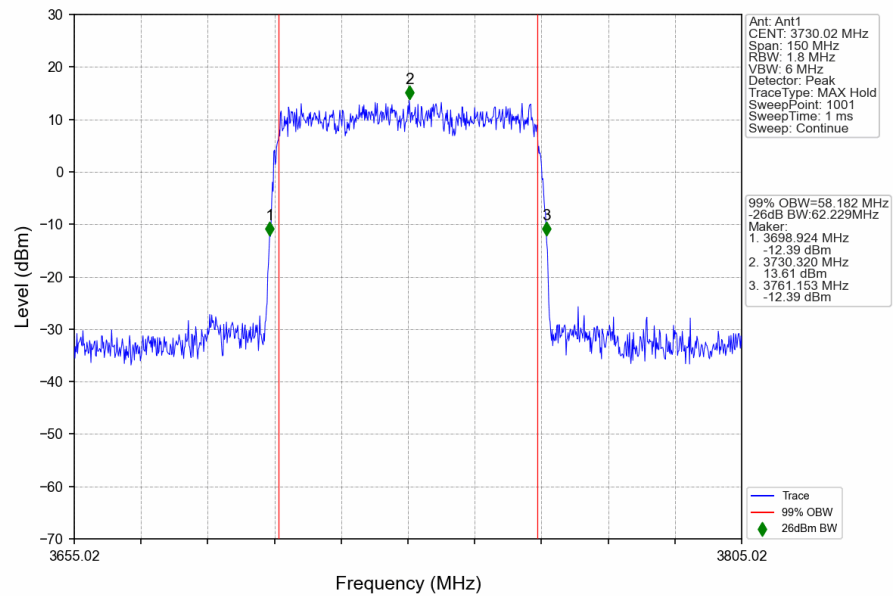
1.5.2 Test Graph



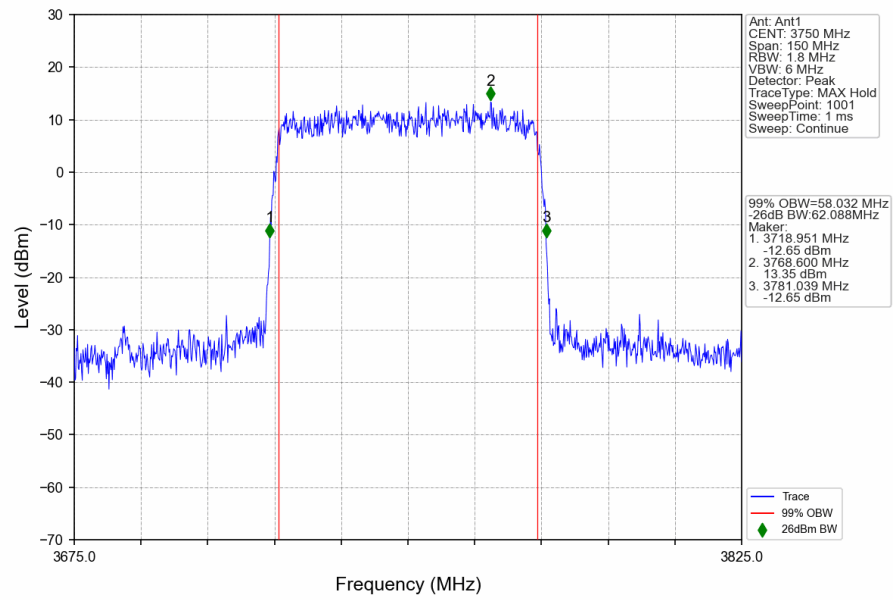
n78a_30kHz_SISO_NTNV_60MHz_DFT-s-OFDM_QPSK_3769.98MHz_Outer_Full



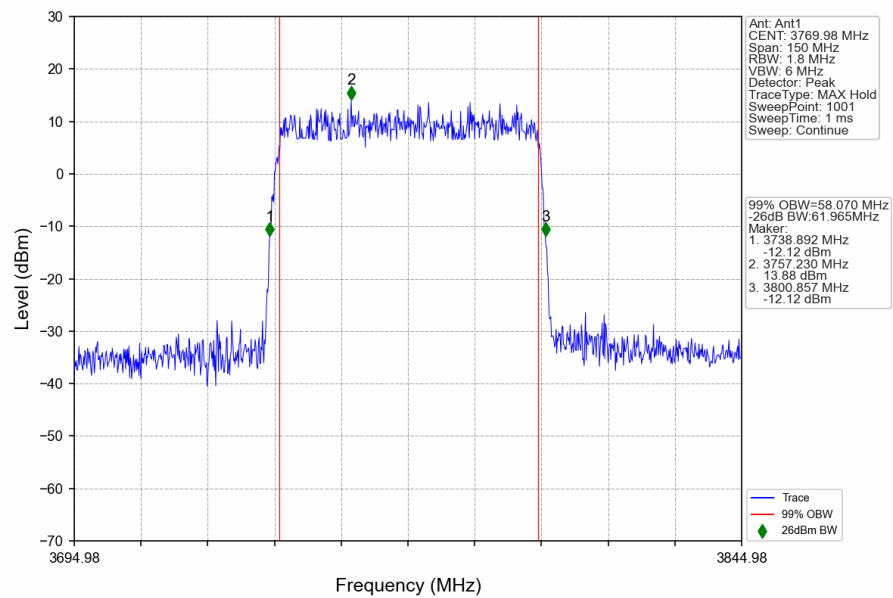
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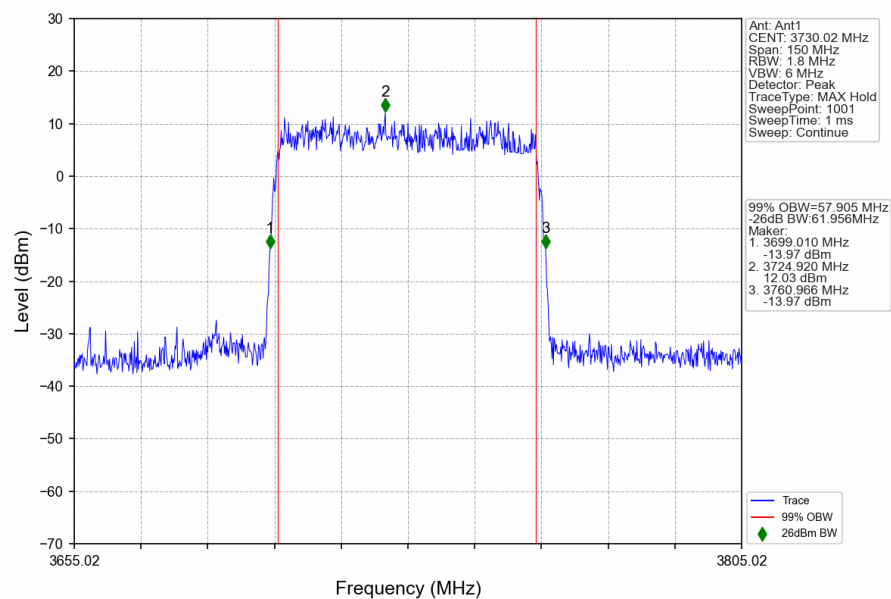
n78a_30kHz_SISO_NTNV_60MHz_DFT-s-OFDM_64_QAM_3750MHz_Outer_Full



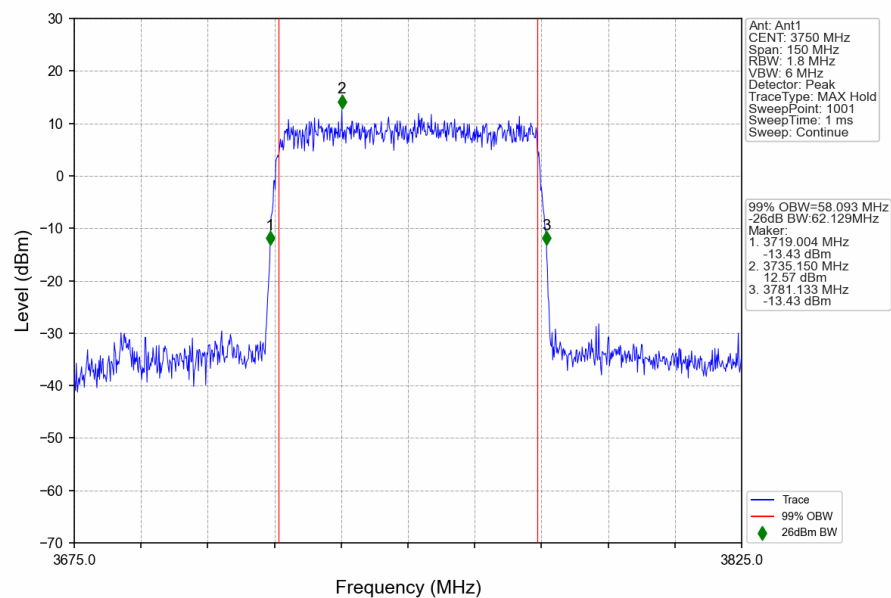
n78a_30kHz_SISO_NTNV_60MHz_DFT-s-OFDM_64_QAM_3769.98MHz_Outer_Full



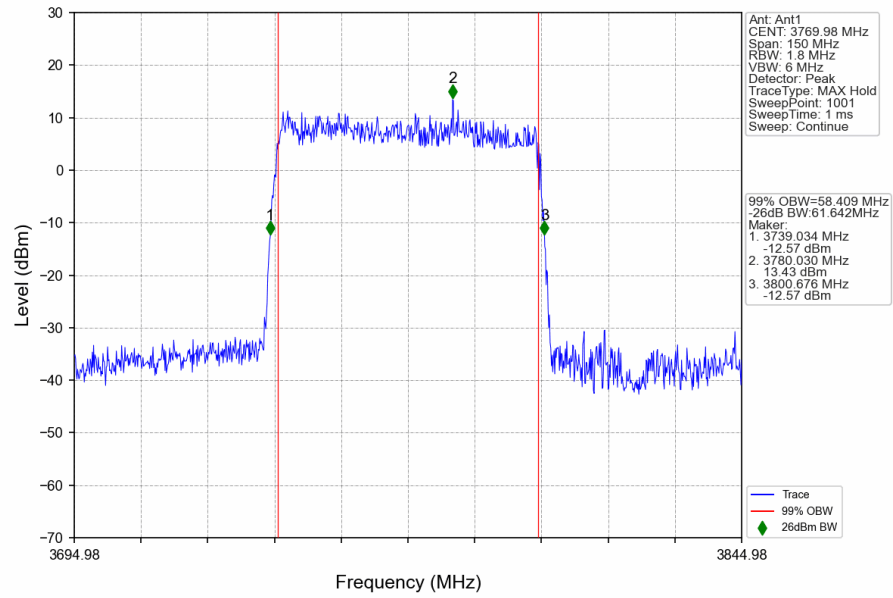
n78a_30kHz_SISO_NTNV_60MHz_DFT-s-OFDM_256_QAM_3730.02MHz_Outer_Full



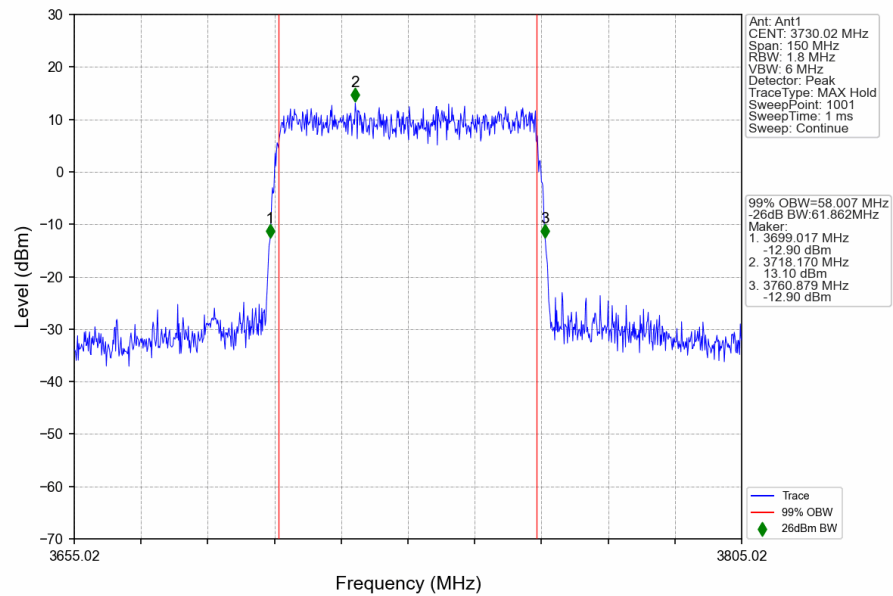
n78a_30kHz_SISO_NTNV_60MHz_DFT-s-OFDM_256_QAM_3750MHz_Outer_Full



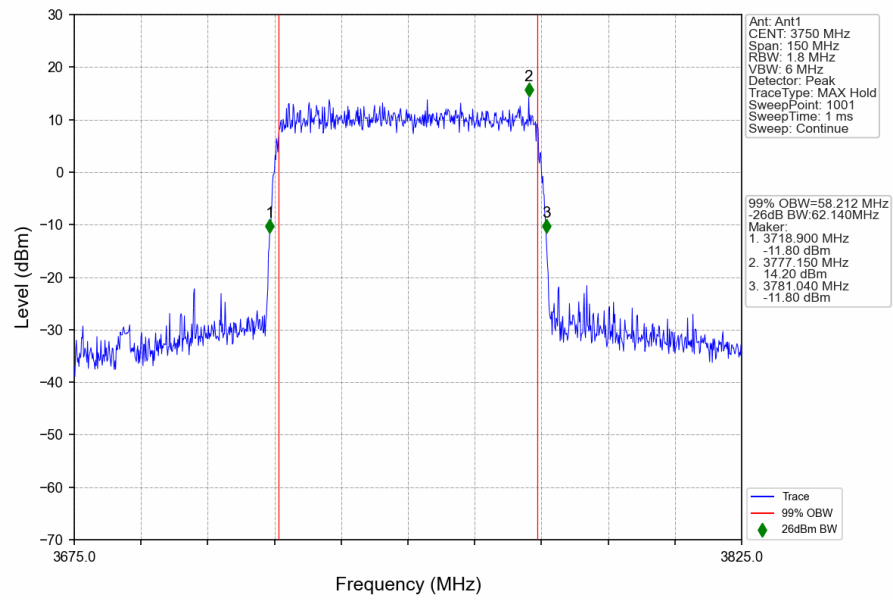
n78a_30kHz_SISO_NTNV_60MHz_DFT-s-OFDM_256_QAM_3769.98MHz_Outer_Full



n78a_30kHz_SISO_NTNV_60MHz_CP-OFDM_QPSK_3730.02MHz_Outer_Full



n78a_30kHz_SISO_NTNV_60MHz_CP-OFDM_QPSK_3750MHz_Outer_Full



n78a_30kHz_SISO_NTNV_60MHz_CP-OFDM_QPSK_3769.98MHz_Outer_Full

