



2.18 30k_SISO_90MHz

2.18.1 Test Result

5G NR n77a SCS=30kHz SISO 90MHz								
Modulation	Frequency (MHz)	RB Allocation	Temp. (°C)	Volt.	Freq. Error (Hz)	Freq. vs. rated (ppm)		Verdict
						Result	Limit	
DFT-s-OFDM PI/2 BPSK	3840	Outer_Full	20	LV	-9.50	-0.0025	>=-2.5 & <=2.5	Pass
				HV	-5.20	-0.0014	>=-2.5 & <=2.5	Pass
			-30	NV	-9.00	-0.0023	>=-2.5 & <=2.5	Pass
			-20	NV	-9.10	-0.0024	>=-2.5 & <=2.5	Pass
			-10	NV	-3.90	-0.0010	>=-2.5 & <=2.5	Pass
			0	NV	-4.30	-0.0011	>=-2.5 & <=2.5	Pass
			10	NV	-6.50	-0.0017	>=-2.5 & <=2.5	Pass
			20	NV	-2.10	-0.0005	>=-2.5 & <=2.5	Pass
			30	NV	-4.30	-0.0011	>=-2.5 & <=2.5	Pass
			40	NV	1.10	0.0003	>=-2.5 & <=2.5	Pass
50	NV	-3.50	-0.0009	>=-2.5 & <=2.5	Pass			
DFT-s-OFDM QPSK	3840	Outer_Full	20	LV	-4.40	-0.0011	>=-2.5 & <=2.5	Pass
				HV	-6.50	-0.0017	>=-2.5 & <=2.5	Pass
			-30	NV	-5.40	-0.0014	>=-2.5 & <=2.5	Pass
			-20	NV	3.20	0.0008	>=-2.5 & <=2.5	Pass
			-10	NV	-3.50	-0.0009	>=-2.5 & <=2.5	Pass
			0	NV	-4.70	-0.0012	>=-2.5 & <=2.5	Pass
			10	NV	-6.60	-0.0017	>=-2.5 & <=2.5	Pass
			20	NV	-4.70	-0.0012	>=-2.5 & <=2.5	Pass
			30	NV	-6.40	-0.0017	>=-2.5 & <=2.5	Pass
			40	NV	-3.70	-0.0010	>=-2.5 & <=2.5	Pass
50	NV	-2.70	-0.0007	>=-2.5 & <=2.5	Pass			
DFT-s-OFDM 16 QAM	3840	Outer_Full	20	LV	3.50	0.0009	>=-2.5 & <=2.5	Pass
				HV	-3.90	-0.0010	>=-2.5 & <=2.5	Pass
			-30	NV	-7.70	-0.0020	>=-2.5 & <=2.5	Pass
			-20	NV	-5.90	-0.0015	>=-2.5 & <=2.5	Pass
			-10	NV	-6.50	-0.0017	>=-2.5 & <=2.5	Pass
			0	NV	-4.00	-0.0010	>=-2.5 & <=2.5	Pass
			10	NV	2.40	0.0006	>=-2.5 & <=2.5	Pass
			20	NV	-5.70	-0.0015	>=-2.5 & <=2.5	Pass
			30	NV	-6.20	-0.0016	>=-2.5 & <=2.5	Pass
			40	NV	2.00	0.0005	>=-2.5 & <=2.5	Pass
50	NV	-3.70	-0.0010	>=-2.5 & <=2.5	Pass			
DFT-s-OFDM 64 QAM	3840	Outer_Full	20	LV	-5.60	-0.0015	>=-2.5 & <=2.5	Pass
				HV	-4.10	-0.0011	>=-2.5 & <=2.5	Pass
			-30	NV	-5.70	-0.0015	>=-2.5 & <=2.5	Pass
			-20	NV	-3.90	-0.0010	>=-2.5 & <=2.5	Pass
			-10	NV	-5.30	-0.0014	>=-2.5 & <=2.5	Pass
			0	NV	-3.70	-0.0010	>=-2.5 & <=2.5	Pass
			10	NV	-4.30	-0.0011	>=-2.5 & <=2.5	Pass
			20	NV	-5.30	-0.0014	>=-2.5 & <=2.5	Pass



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Table with columns for Test Item, Modulation, Bandwidth, Subcarrier Spacing, Frequency Offset, SNR, and Result. Rows include DFT-s-OFDM 256 QAM, CP-OFDM QPSK, CP-OFDM 16 QAM, CP-OFDM 64 QAM, and CP-OFDM 256 QAM.



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			-30	NV	-2.00	-0.0005	>=-2.5 & <=2.5	Pass
			-20	NV	-4.90	-0.0013	>=-2.5 & <=2.5	Pass
			-10	NV	-5.20	-0.0014	>=-2.5 & <=2.5	Pass
			0	NV	-7.90	-0.0021	>=-2.5 & <=2.5	Pass
			10	NV	-5.90	-0.0015	>=-2.5 & <=2.5	Pass
			20	NV	-2.60	-0.0007	>=-2.5 & <=2.5	Pass
			30	NV	-4.30	-0.0011	>=-2.5 & <=2.5	Pass
			40	NV	-4.50	-0.0012	>=-2.5 & <=2.5	Pass
			50	NV	-6.90	-0.0018	>=-2.5 & <=2.5	Pass



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Member of the SGS Group (SGS SA)



2.19 30k_SISO_100MHz

2.19.1 Test Result

5G NR n77a SCS=30kHz SISO 100MHz								
Modulation	Frequency (MHz)	RB Allocation	Temp. (°C)	Volt.	Freq. Error (Hz)	Freq. vs. rated (ppm)		Verdict
						Result	Limit	
DFT-s-OFDM PI/2 BPSK	3840	Outer_Full	20	LV	-7.10	-0.0018	>=-2.5 & <=2.5	Pass
				HV	-5.30	-0.0014	>=-2.5 & <=2.5	Pass
			-30	NV	-3.30	-0.0009	>=-2.5 & <=2.5	Pass
			-20	NV	-8.50	-0.0022	>=-2.5 & <=2.5	Pass
			-10	NV	-5.40	-0.0014	>=-2.5 & <=2.5	Pass
			0	NV	-6.80	-0.0018	>=-2.5 & <=2.5	Pass
			10	NV	-3.20	-0.0008	>=-2.5 & <=2.5	Pass
			20	NV	-5.80	-0.0015	>=-2.5 & <=2.5	Pass
			30	NV	-6.80	-0.0018	>=-2.5 & <=2.5	Pass
			40	NV	-1.90	-0.0005	>=-2.5 & <=2.5	Pass
50	NV	-2.50	-0.0007	>=-2.5 & <=2.5	Pass			
DFT-s-OFDM QPSK	3840	Outer_Full	20	LV	-5.40	-0.0014	>=-2.5 & <=2.5	Pass
				HV	-1.70	-0.0004	>=-2.5 & <=2.5	Pass
			-30	NV	0.60	0.0002	>=-2.5 & <=2.5	Pass
			-20	NV	-3.60	-0.0009	>=-2.5 & <=2.5	Pass
			-10	NV	-10.20	-0.0027	>=-2.5 & <=2.5	Pass
			0	NV	-4.70	-0.0012	>=-2.5 & <=2.5	Pass
			10	NV	-4.90	-0.0013	>=-2.5 & <=2.5	Pass
			20	NV	-7.20	-0.0019	>=-2.5 & <=2.5	Pass
			30	NV	-5.20	-0.0014	>=-2.5 & <=2.5	Pass
			40	NV	-3.70	-0.0010	>=-2.5 & <=2.5	Pass
50	NV	-3.30	-0.0009	>=-2.5 & <=2.5	Pass			
DFT-s-OFDM 16 QAM	3840	Outer_Full	20	LV	1.70	0.0004	>=-2.5 & <=2.5	Pass
				HV	-7.10	-0.0018	>=-2.5 & <=2.5	Pass
			-30	NV	-4.10	-0.0011	>=-2.5 & <=2.5	Pass
			-20	NV	3.40	0.0009	>=-2.5 & <=2.5	Pass
			-10	NV	-3.20	-0.0008	>=-2.5 & <=2.5	Pass
			0	NV	3.30	0.0009	>=-2.5 & <=2.5	Pass
			10	NV	-5.30	-0.0014	>=-2.5 & <=2.5	Pass
			20	NV	4.70	0.0012	>=-2.5 & <=2.5	Pass
			30	NV	3.50	0.0009	>=-2.5 & <=2.5	Pass
			40	NV	-7.80	-0.0020	>=-2.5 & <=2.5	Pass
50	NV	-4.00	-0.0010	>=-2.5 & <=2.5	Pass			
DFT-s-OFDM 64 QAM	3840	Outer_Full	20	LV	-7.10	-0.0018	>=-2.5 & <=2.5	Pass
				HV	-7.50	-0.0020	>=-2.5 & <=2.5	Pass
			-30	NV	-1.20	-0.0003	>=-2.5 & <=2.5	Pass
			-20	NV	2.80	0.0007	>=-2.5 & <=2.5	Pass
			-10	NV	-4.30	-0.0011	>=-2.5 & <=2.5	Pass
			0	NV	7.00	0.0018	>=-2.5 & <=2.5	Pass
			10	NV	-1.70	-0.0004	>=-2.5 & <=2.5	Pass
			20	NV	-2.60	-0.0007	>=-2.5 & <=2.5	Pass



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Table with columns for Test Item, Modulation, Bandwidth, Subcarrier Spacing, Frequency Offset, SNR, and Result. Rows include DFT-s-OFDM 256 QAM, CP-OFDM QPSK, CP-OFDM 16 QAM, CP-OFDM 64 QAM, and CP-OFDM 256 QAM.



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			-30	NV	-2.30	-0.0006	>=-2.5 & <=2.5	Pass
			-20	NV	-6.80	-0.0018	>=-2.5 & <=2.5	Pass
			-10	NV	-6.90	-0.0018	>=-2.5 & <=2.5	Pass
			0	NV	-1.30	-0.0003	>=-2.5 & <=2.5	Pass
			10	NV	-4.60	-0.0012	>=-2.5 & <=2.5	Pass
			20	NV	-4.80	-0.0013	>=-2.5 & <=2.5	Pass
			30	NV	-8.90	-0.0023	>=-2.5 & <=2.5	Pass
			40	NV	-2.50	-0.0007	>=-2.5 & <=2.5	Pass
			50	NV	-7.10	-0.0018	>=-2.5 & <=2.5	Pass



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3. Field Strength of Spurious Radiation

Test Band = SA Band 77 3700-3980_ TM1
Test Channel = Low Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	8759.75	45.40	-43.79	37.26	-56.39	-13.00	43.39	Horizontal
2	13592.625	40.00	-38.33	39.96	-53.63	-13.00	40.63	Horizontal
3	17970.2917	38.67	-37.06	45.11	-48.54	-13.00	35.54	Horizontal
4	7310.18	44.75	-45.96	36.34	-60.13	-13.00	47.13	Horizontal
5	10965.27	39.32	-40.40	39.37	-56.97	-13.00	43.97	Horizontal
6	14620.36	37.22	-38.14	40.40	-55.77	-13.00	42.77	Horizontal

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	8790.8958	45.74	-43.84	37.31	-56.06	-13.00	43.06	Vertical
2	13525.5417	40.44	-38.79	39.81	-53.80	-13.00	40.80	Vertical
3	17218.4792	38.00	-37.16	40.30	-54.12	-13.00	41.12	Vertical
4	7310.18	45.13	-45.96	36.34	-59.75	-13.00	46.75	Vertical
5	10965.27	38.84	-40.40	39.37	-57.45	-13.00	44.45	Vertical
6	14620.36	36.75	-38.14	40.40	-56.24	-13.00	43.24	Vertical



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Test Band = SA Band 77 3700-3980_ TM1
 Test Channel = Mid Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	9519.2292	43.90	-42.47	38.07	-55.77	-13.00	42.77	Horizontal
2	13722.9583	39.74	-38.08	40.26	-53.34	-13.00	40.34	Horizontal
3	17665.5417	38.72	-37.45	43.16	-50.83	-13.00	37.83	Horizontal
4	7590.18	44.17	-45.00	36.69	-59.39	-13.00	46.39	Horizontal
5	11835.27	39.27	-39.48	39.23	-56.24	-13.00	43.24	Horizontal
6	15180.36	36.41	-37.74	39.76	-56.83	-13.00	43.83	Horizontal

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	9388.4167	44.68	-42.83	37.95	-55.46	-13.00	42.46	Vertical
2	14167.625	39.49	-38.34	40.77	-53.35	-13.00	40.35	Vertical
3	17224.2292	37.88	-37.16	40.34	-54.20	-13.00	41.20	Vertical
4	7590.18	44.43	-45.00	36.69	-59.13	-13.00	46.13	Vertical
5	11835.27	40.30	-39.48	39.23	-55.21	-13.00	42.21	Vertical
6	15180.36	36.20	-37.74	39.76	-57.04	-13.00	44.04	Vertical



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Test Band = SA Band 77 3700-3980_ TM1
 Test Channel = High Channel

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	9357.75	44.31	-42.86	37.92	-55.89	-13.00	42.89	Horizontal
2	13580.6458	40.50	-38.41	39.94	-53.24	-13.00	40.24	Horizontal
3	17959.75	38.80	-37.09	45.04	-48.51	-13.00	35.51	Horizontal
4	7870.18	44.45	-44.95	36.36	-59.40	-13.00	46.40	Horizontal
5	11805.27	40.00	-39.28	39.24	-55.30	-13.00	42.30	Horizontal
6	15740.36	36.73	-37.99	38.69	-57.83	-13.00	44.83	Horizontal

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	9403.75	44.32	-42.80	37.96	-55.78	-13.00	42.78	Vertical
2	14182.4792	39.51	-38.25	40.75	-53.25	-13.00	40.25	Vertical
3	17971.7292	38.42	-37.06	45.12	-48.78	-13.00	35.78	Vertical
4	7870.18	44.87	-44.95	36.36	-58.98	-13.00	45.98	Vertical
5	11805.27	39.84	-39.28	39.24	-55.46	-13.00	42.46	Vertical
6	15740.36	37.29	-37.99	38.69	-57.27	-13.00	44.27	Vertical

Remark:

1) The field strength is calculated by adding the Antenna Factor, Cable Factor & AMP. The basic equation with a sample calculation is as follows:

AF = Antenna Factor(dB/m)

Factor = Cable Factor(dB) - Preamplifier (dB)

Level = Reading Level + AF + Factor -95.26

Margin = Limit – Level

2) All antennas of RSE are tested, and only the worst data is presented.



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4. 99% & 26dB Bandwidth

4.1 15k_SISO_10MHz_NTNV

4.1.1 Test Result

5G NR n77a 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	3705	Outer_Full	9.07	9.68	/	Pass
	3840	Outer_Full	9.05	9.66	/	Pass
	3975	Outer_Full	9.02	9.67	/	Pass
DFT-s-OFDM QPSK	3705	Outer_Full	9.05	9.68	/	Pass
	3840	Outer_Full	9.04	9.66	/	Pass
	3975	Outer_Full	9.05	9.71	/	Pass
DFT-s-OFDM 16 QAM	3705	Outer_Full	9.04	9.64	/	Pass
	3840	Outer_Full	9.06	9.71	/	Pass
	3975	Outer_Full	9.03	9.65	/	Pass
DFT-s-OFDM 64 QAM	3705	Outer_Full	9.05	9.66	/	Pass
	3840	Outer_Full	9.04	9.67	/	Pass
	3975	Outer_Full	9.08	9.67	/	Pass
DFT-s-OFDM 256 QAM	3705	Outer_Full	9.04	9.69	/	Pass
	3840	Outer_Full	9.04	9.65	/	Pass
	3975	Outer_Full	9.01	9.63	/	Pass
CP-OFDM QPSK	3705	Outer_Full	9.36	10.00	/	Pass
	3840	Outer_Full	9.36	9.99	/	Pass
	3975	Outer_Full	9.35	10.01	/	Pass
CP-OFDM 16 QAM	3705	Outer_Full	9.35	9.99	/	Pass
	3840	Outer_Full	9.37	10.03	/	Pass
	3975	Outer_Full	9.35	9.99	/	Pass
CP-OFDM 64 QAM	3705	Outer_Full	9.41	9.99	/	Pass
	3840	Outer_Full	9.32	9.98	/	Pass
	3975	Outer_Full	9.39	10.04	/	Pass
CP-OFDM 256 QAM	3705	Outer_Full	9.35	10.02	/	Pass
	3840	Outer_Full	9.34	10.00	/	Pass
	3975	Outer_Full	9.38	9.95	/	Pass

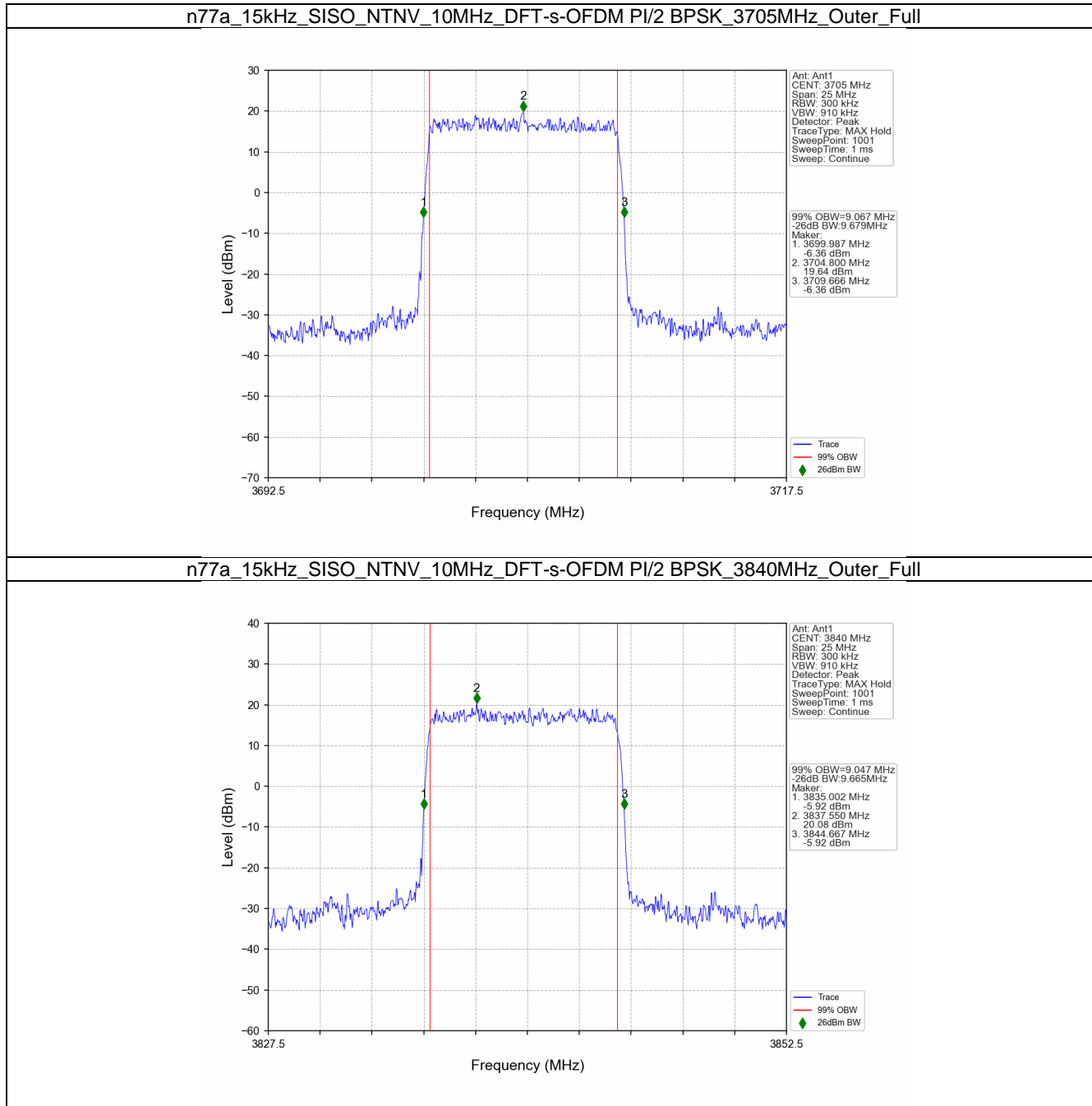


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4.1.2 Test Graph

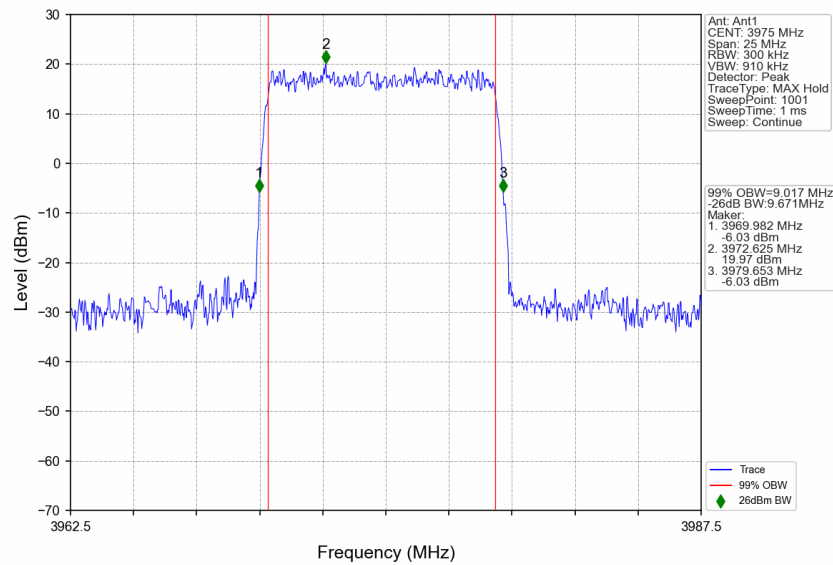


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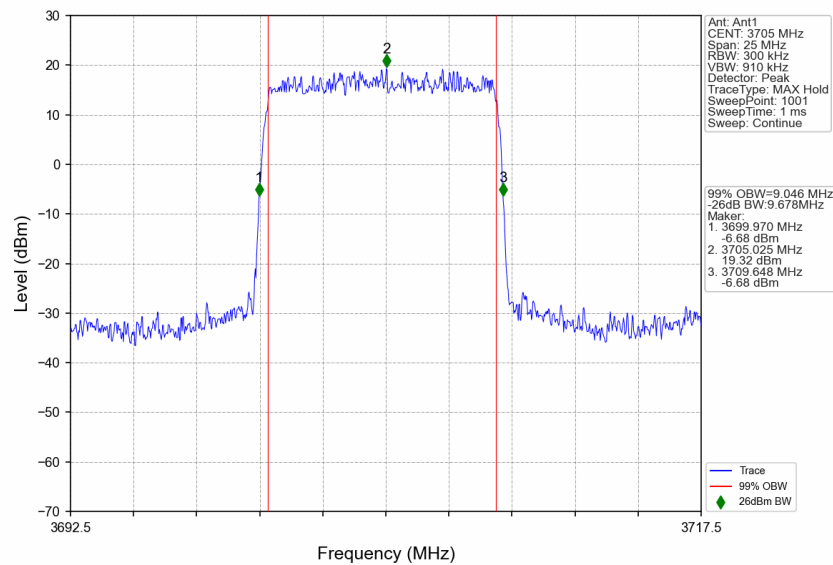
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n77a_15kHz_SISO_NTNV_10MHz_DFT-s-OFDM PI/2 BPSK_3975MHz_Outer_Full



n77a_15kHz_SISO_NTNV_10MHz_DFT-s-OFDM QPSK_3705MHz_Outer_Full

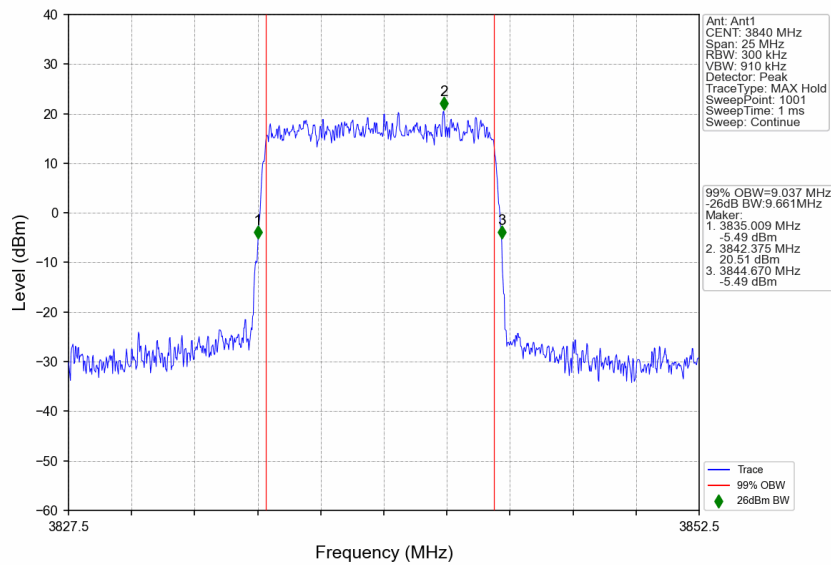


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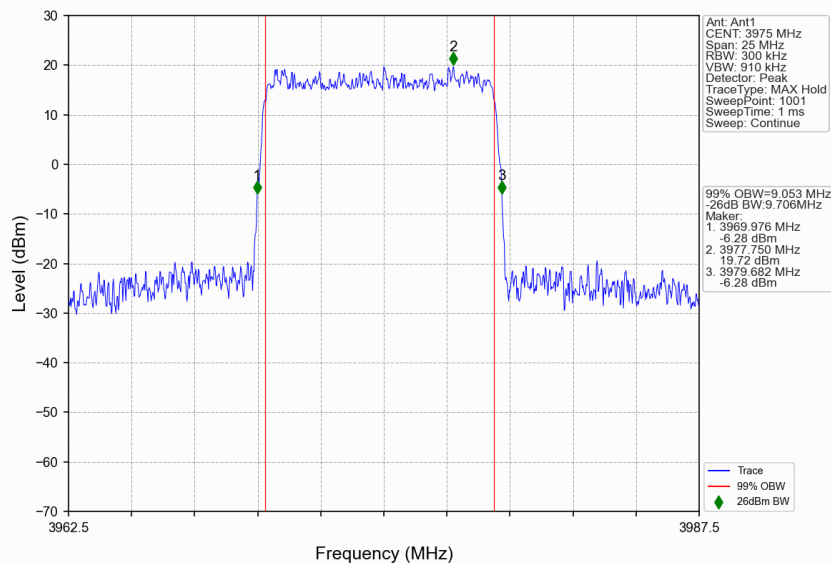
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n77a_15kHz_SISO_NTNV_10MHz_DFT-s-OFDM QPSK_3840MHz_Outer_Full



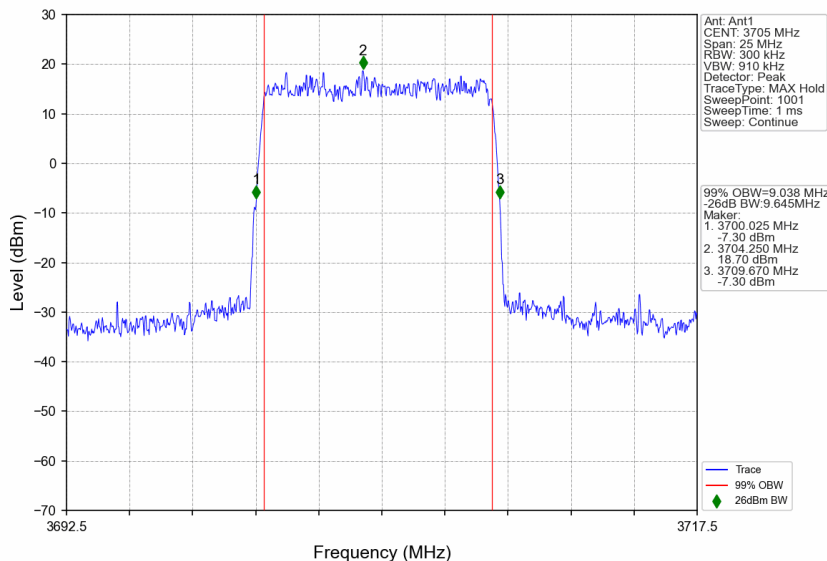
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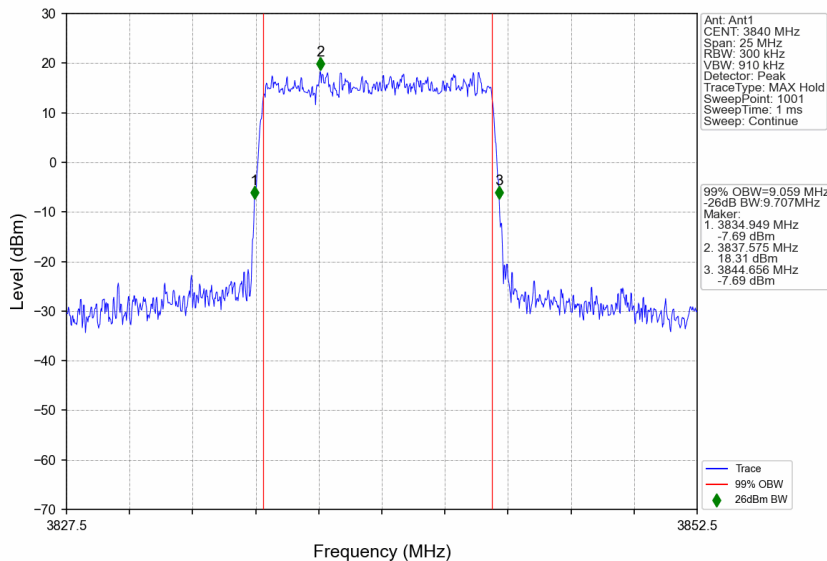
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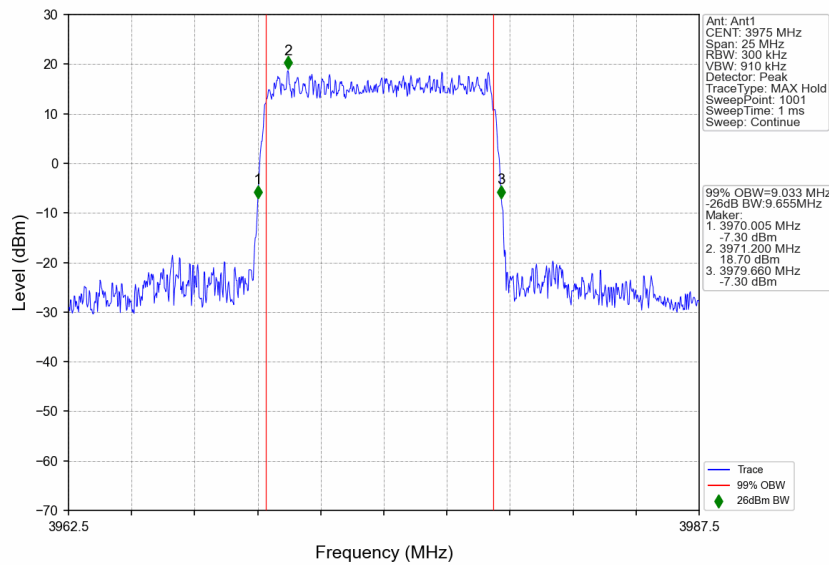
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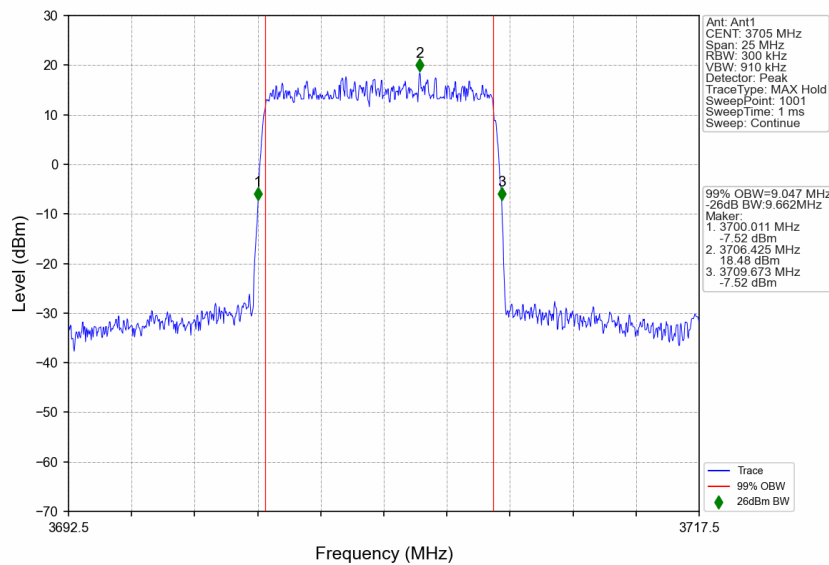
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n77a_15kHz_SISO_NTNV_10MHz_DFT-s-OFDM 64 QAM_3705MHz_Outer_Full

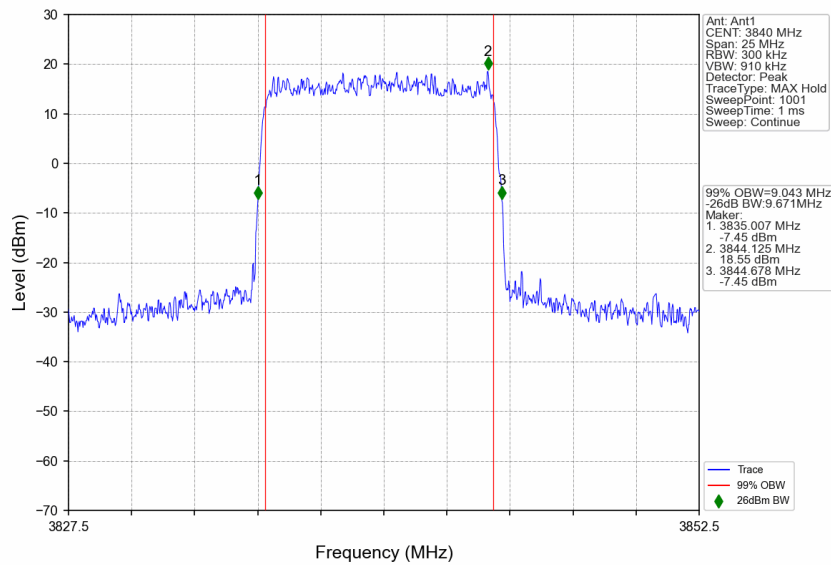


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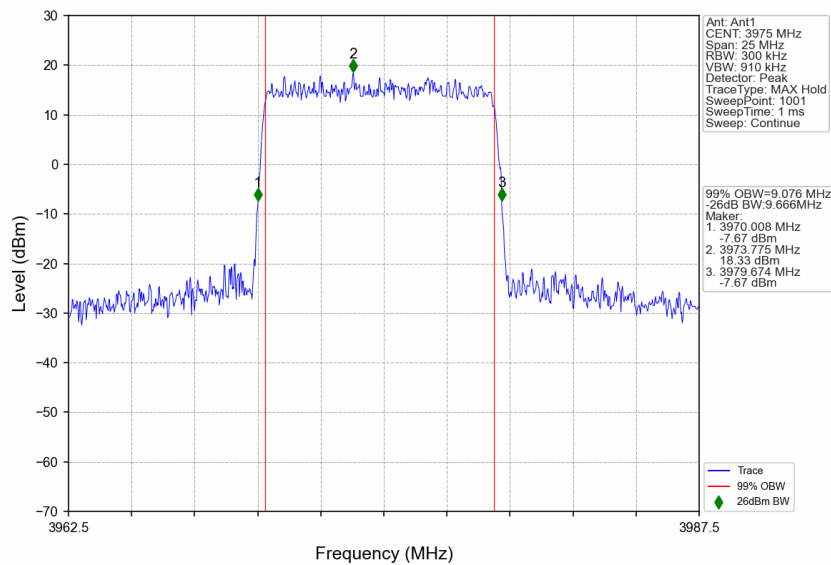
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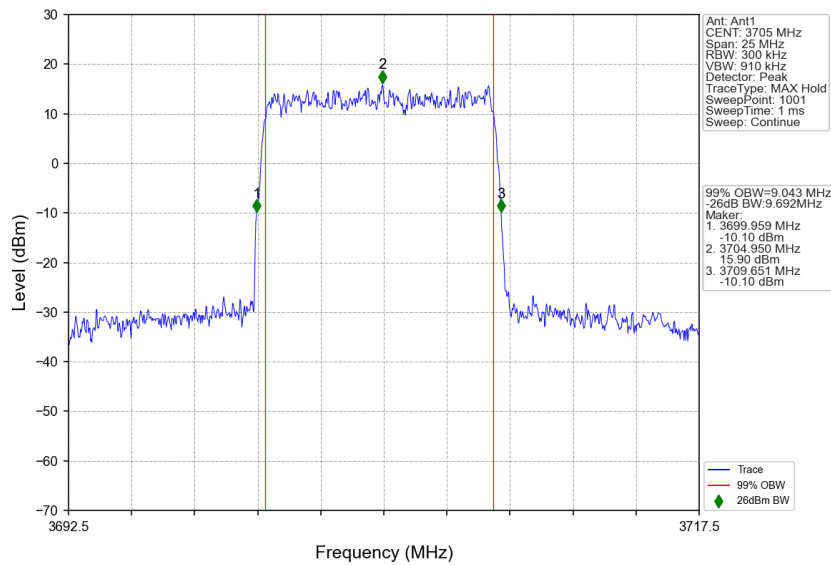


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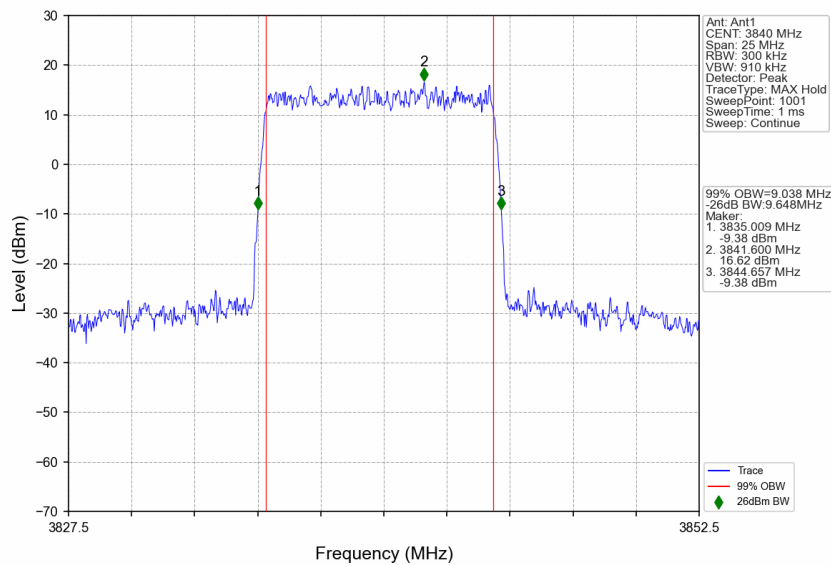
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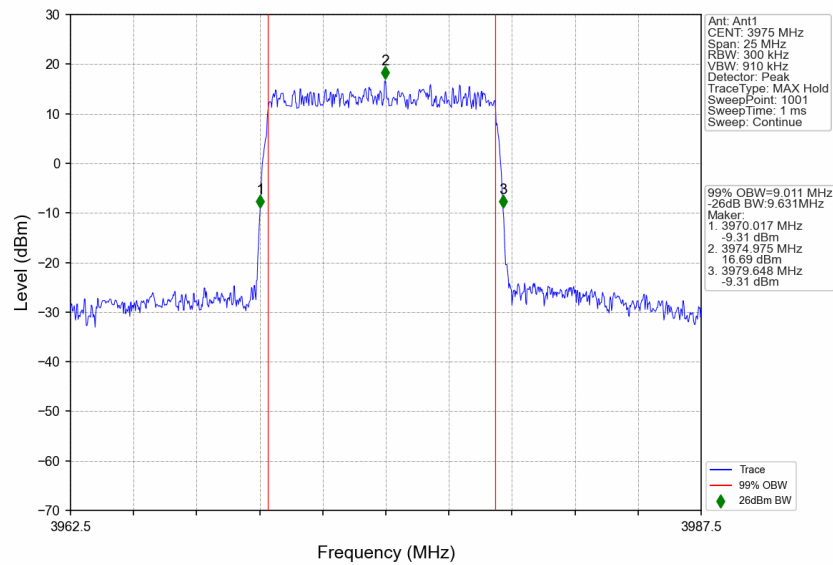


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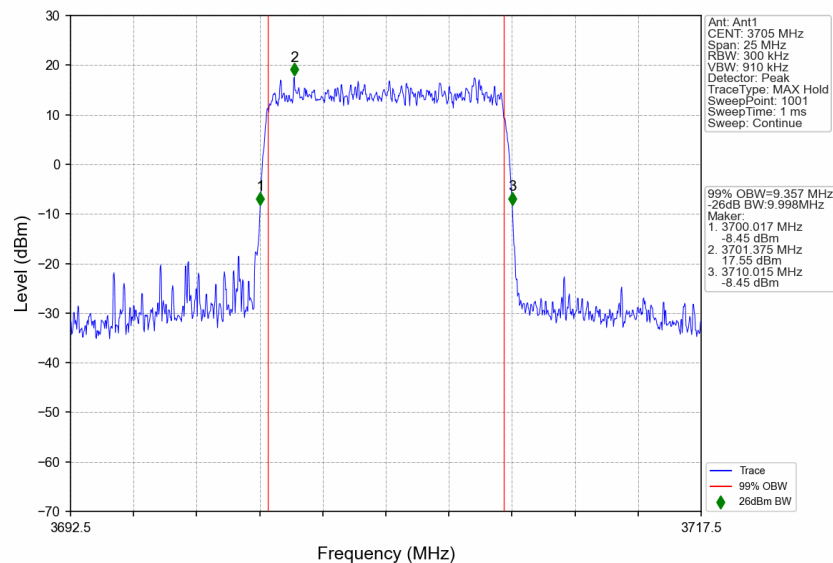
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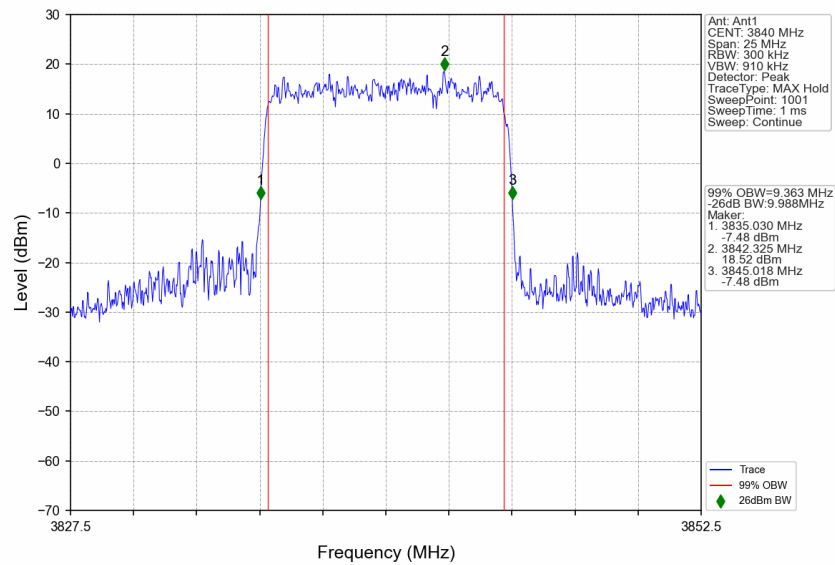


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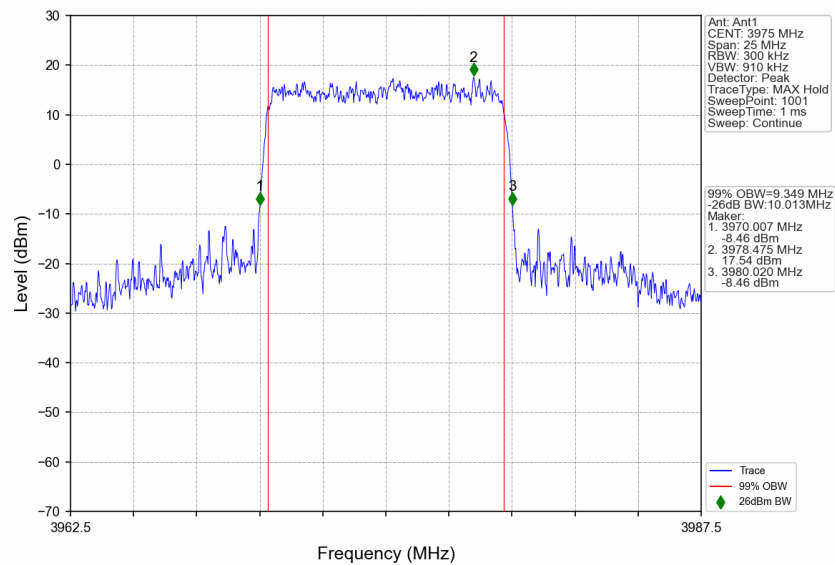
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n77a_15kHz_SISO_NTNV_10MHz_CP-OFDM QPSK_3975MHz_Outer_Full

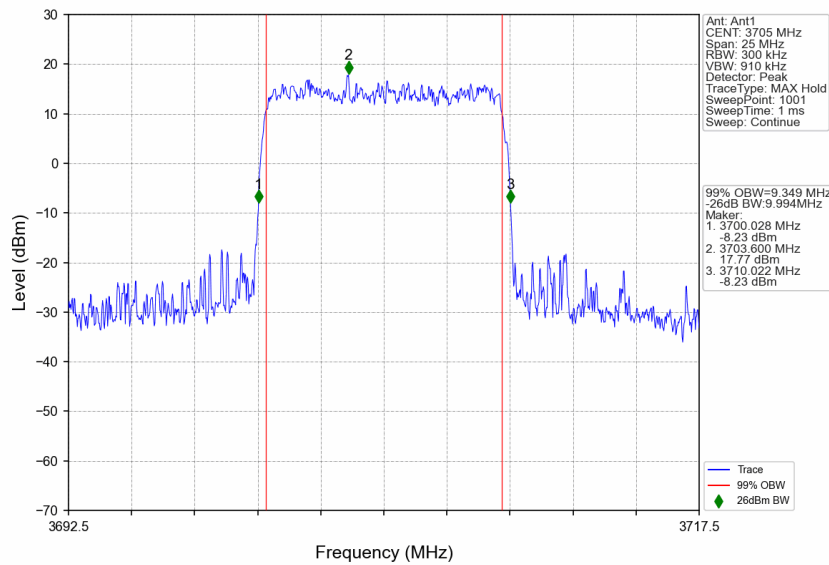


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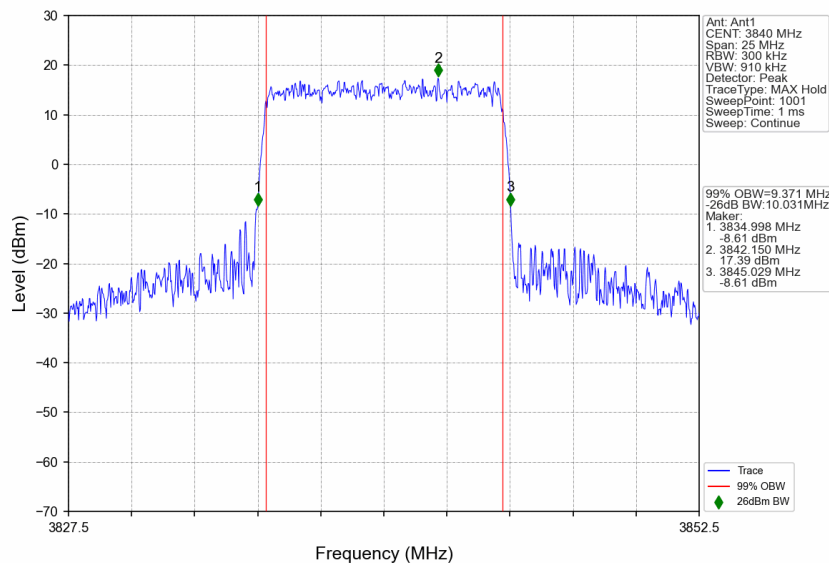
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n77a_15kHz_SISO_NTNV_10MHz_CP-OFDM 16 QAM_3705MHz_Outer_Full



n77a_15kHz_SISO_NTNV_10MHz_CP-OFDM 16 QAM_3840MHz_Outer_Full



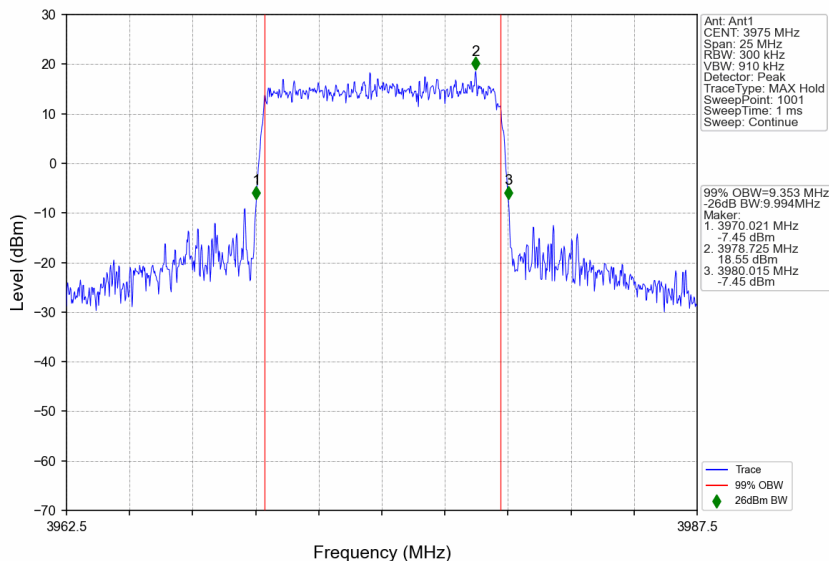
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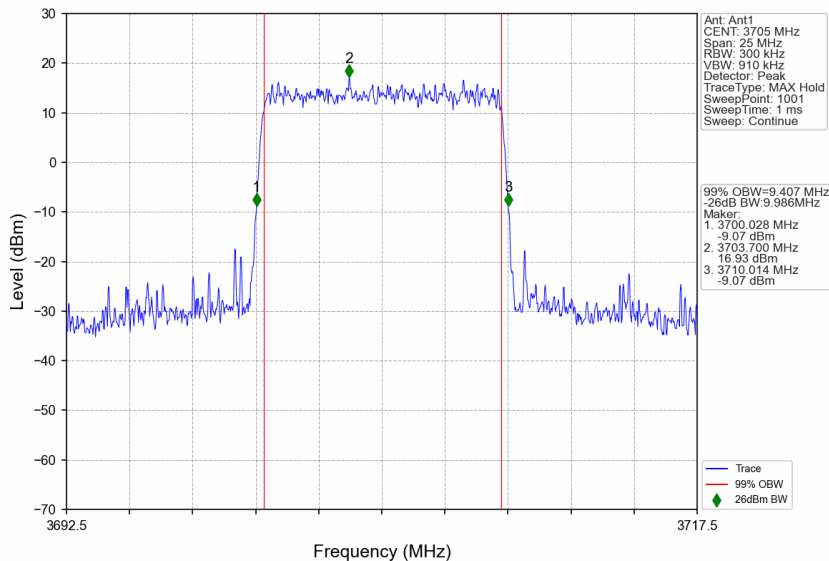
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n77a_15kHz_SISO_NTNV_10MHz_CP-OFDM 16 QAM_3975MHz_Outer_Full



n77a_15kHz_SISO_NTNV_10MHz_CP-OFDM 64 QAM_3705MHz_Outer_Full

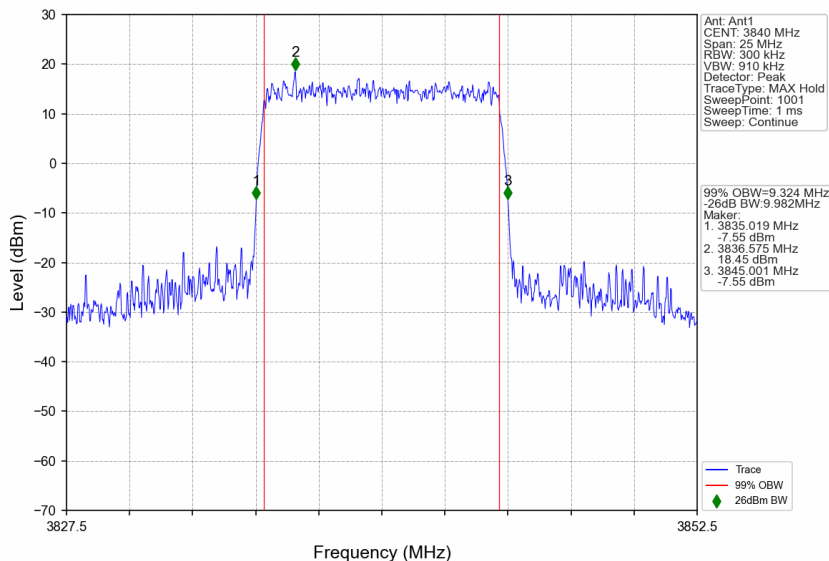


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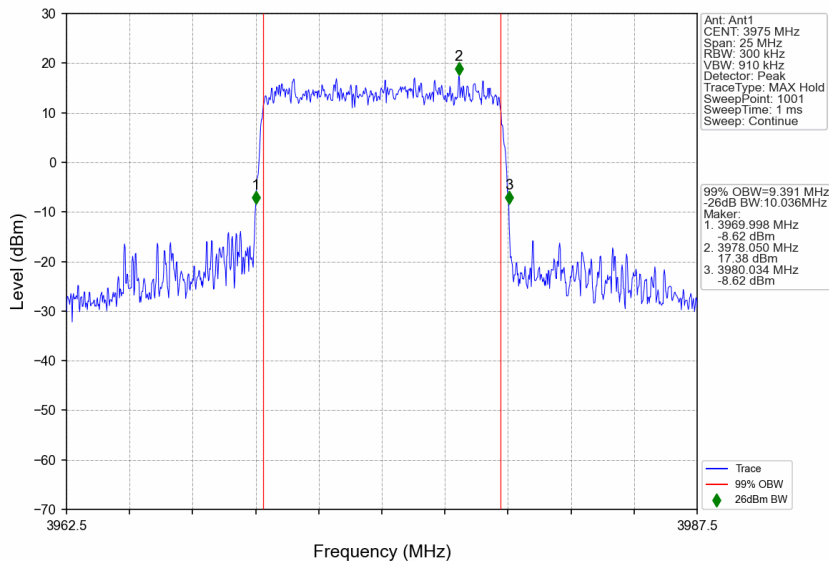
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n77a_15kHz_SISO_NTNV_10MHz_CP-OFDM 64 QAM_3840MHz_Outer_Full



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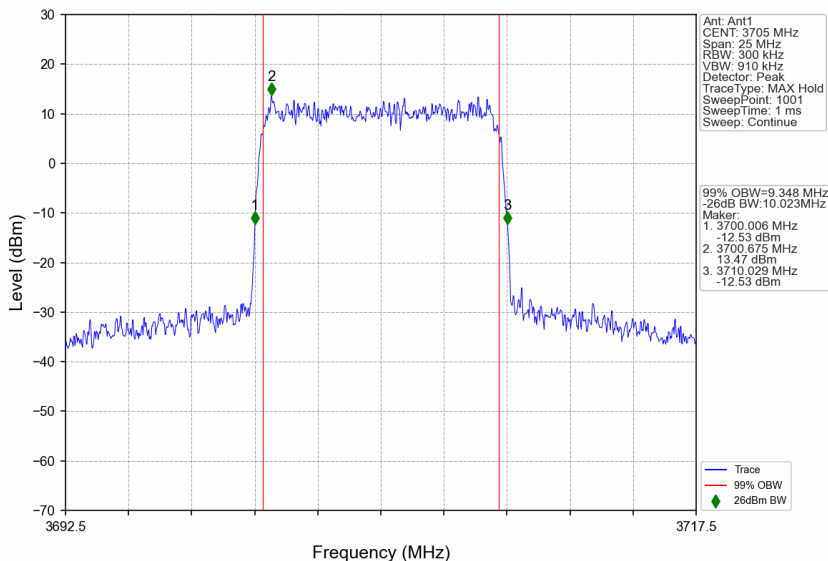


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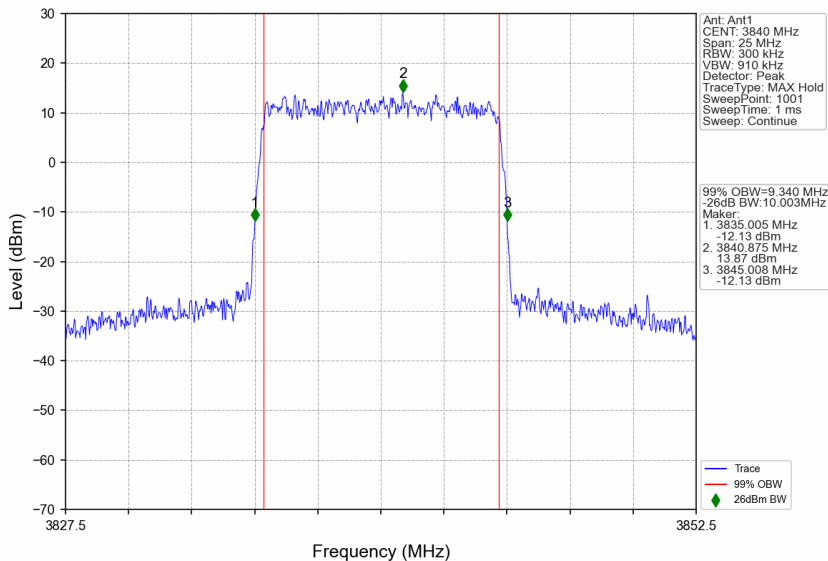
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n77a_15kHz_SISO_NTNV_10MHz_CP-OFDM 256 QAM_3705MHz_Outer_Full



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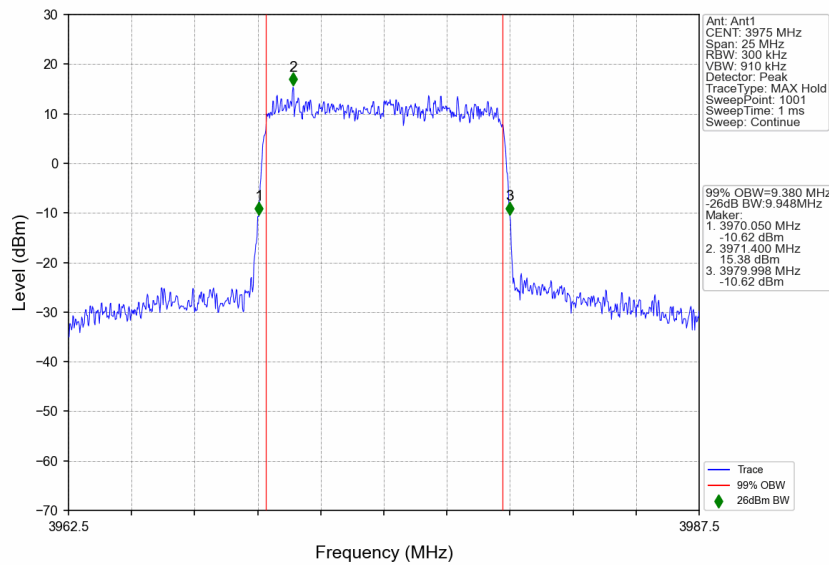


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n77a_15kHz_SISO_NTNV_10MHz_CP-OFDM 256 QAM_3975MHz_Outer_Full



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4.2 15k_SISO_15MHz_NTNV

4.2.1 Test Result

5G NR n77a SCS=15kHz SISO 15MHz NTNv						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	3707.505	Outer_Full	13.54	14.53	/	Pass
	3840	Outer_Full	13.57	14.56	/	Pass
	3972.495	Outer_Full	13.60	14.53	/	Pass
DFT-s-OFDM QPSK	3707.505	Outer_Full	13.57	14.56	/	Pass
	3840	Outer_Full	13.54	14.59	/	Pass
	3972.495	Outer_Full	13.58	14.57	/	Pass
DFT-s-OFDM 16 QAM	3707.505	Outer_Full	13.60	14.52	/	Pass
	3840	Outer_Full	13.57	14.50	/	Pass
	3972.495	Outer_Full	13.56	14.57	/	Pass
DFT-s-OFDM 64 QAM	3707.505	Outer_Full	13.53	14.52	/	Pass
	3840	Outer_Full	13.58	14.54	/	Pass
	3972.495	Outer_Full	13.58	14.54	/	Pass
DFT-s-OFDM 256 QAM	3707.505	Outer_Full	13.54	14.55	/	Pass
	3840	Outer_Full	13.62	14.47	/	Pass
	3972.495	Outer_Full	13.60	14.55	/	Pass
CP-OFDM QPSK	3707.505	Outer_Full	14.27	15.22	/	Pass
	3840	Outer_Full	14.29	15.24	/	Pass
	3972.495	Outer_Full	14.26	15.22	/	Pass
CP-OFDM 16 QAM	3707.505	Outer_Full	14.26	15.20	/	Pass
	3840	Outer_Full	14.22	15.24	/	Pass
	3972.495	Outer_Full	14.27	15.14	/	Pass
CP-OFDM 64 QAM	3707.505	Outer_Full	14.25	15.22	/	Pass
	3840	Outer_Full	14.21	15.20	/	Pass
	3972.495	Outer_Full	14.21	15.19	/	Pass
CP-OFDM 256 QAM	3707.505	Outer_Full	14.28	15.25	/	Pass
	3840	Outer_Full	14.25	15.21	/	Pass
	3972.495	Outer_Full	14.30	15.21	/	Pass

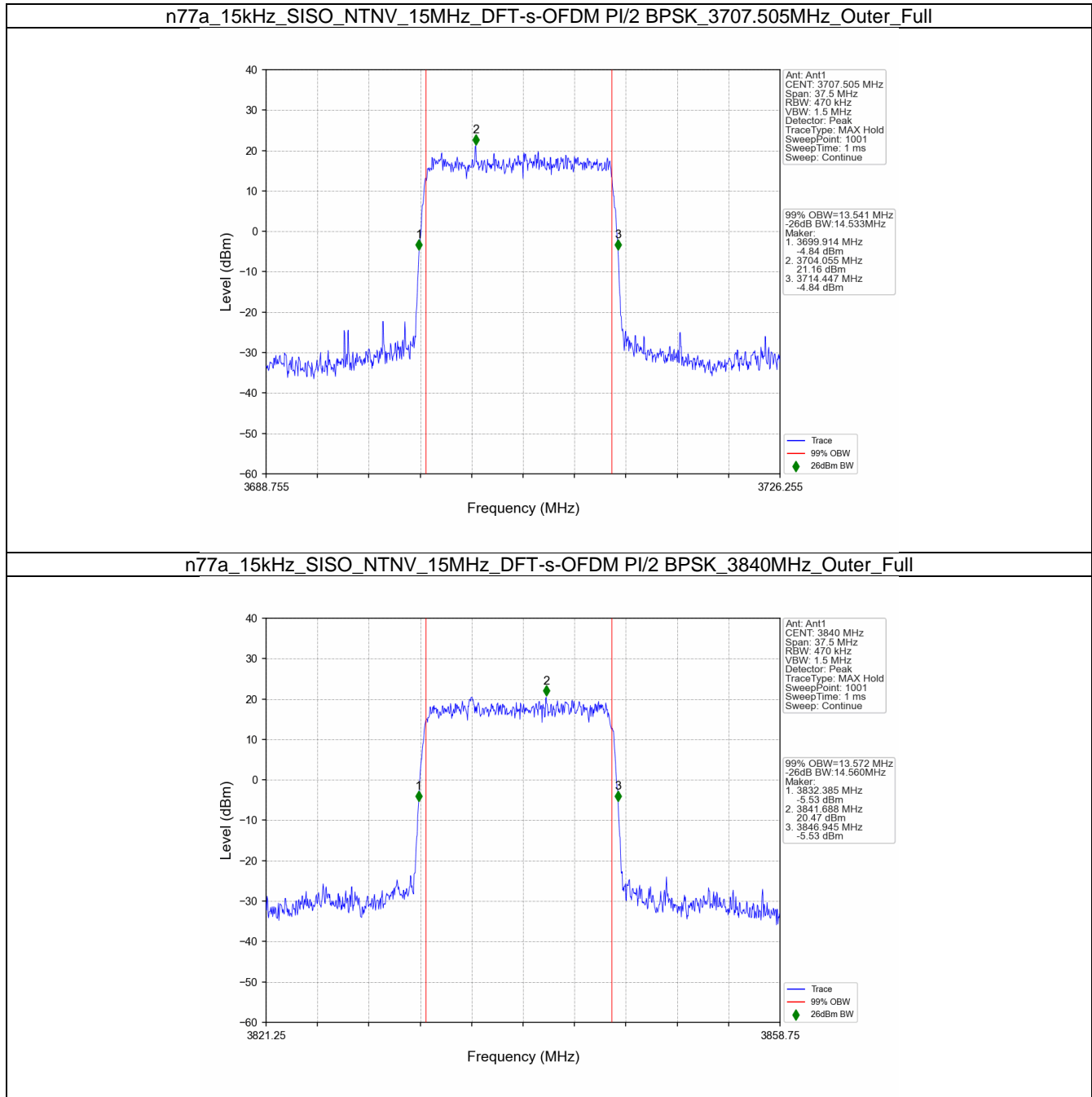


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4.2.2 Test Graph

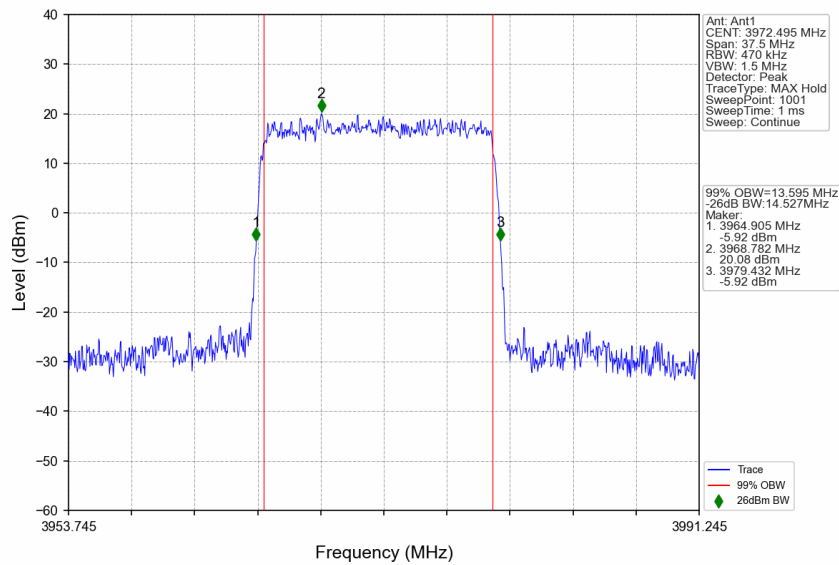


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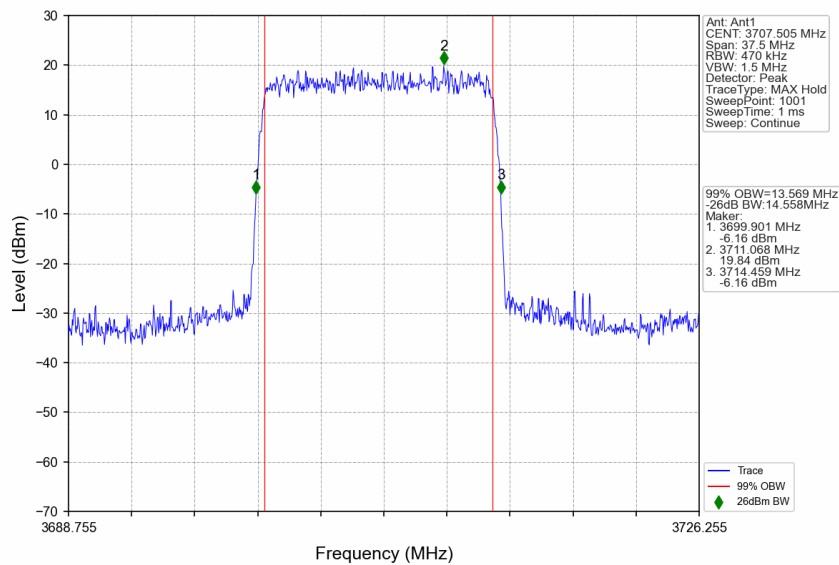
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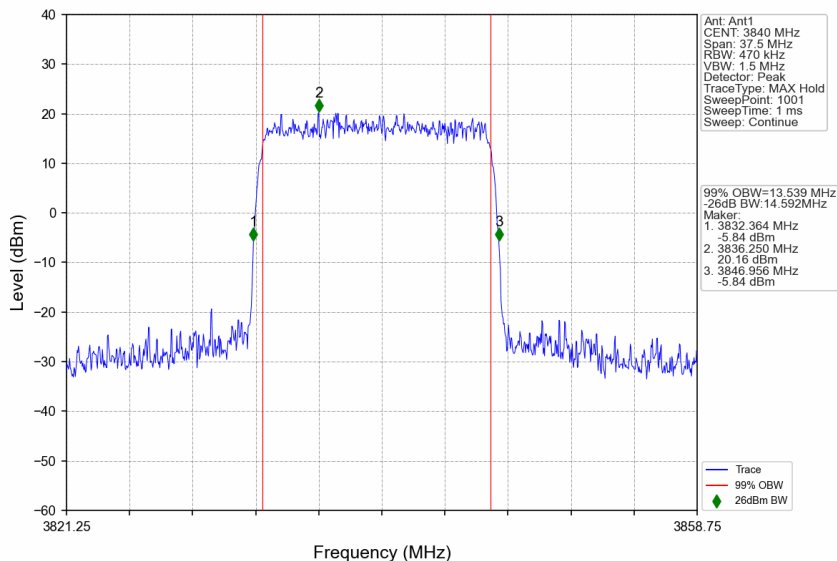


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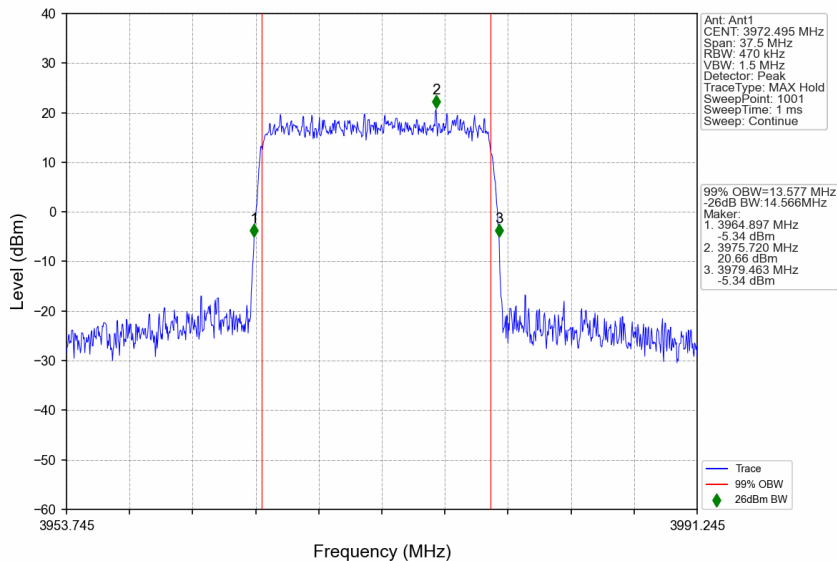
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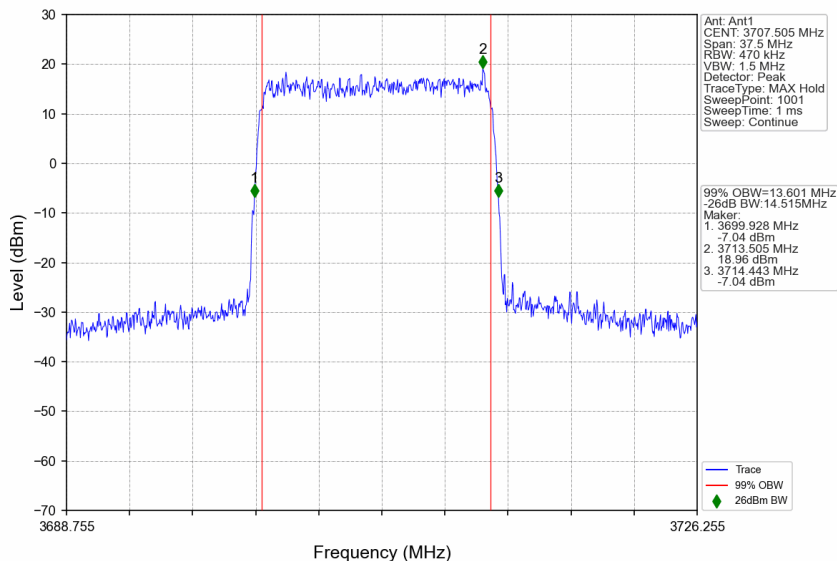


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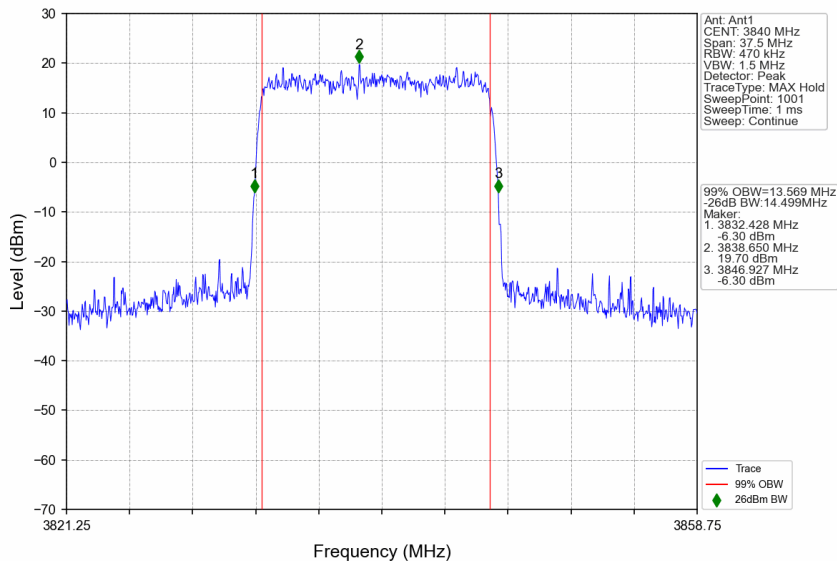
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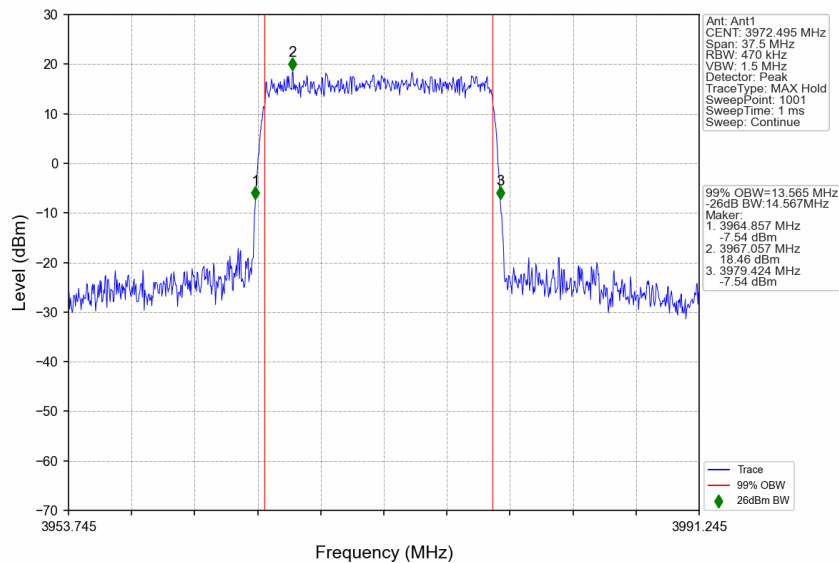


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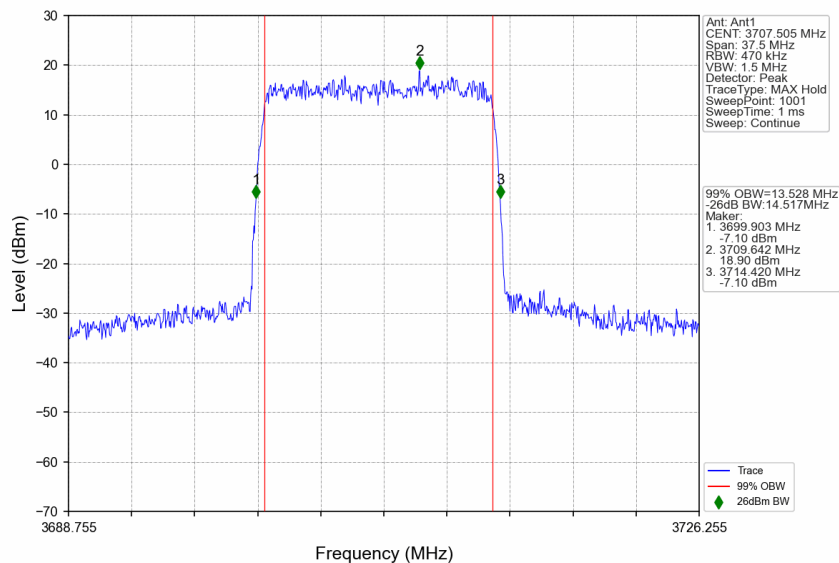
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n77a_15kHz_SISO_NTNV_15MHz_DFT-s-OFDM 64 QAM_3707.505MHz_Outer_Full

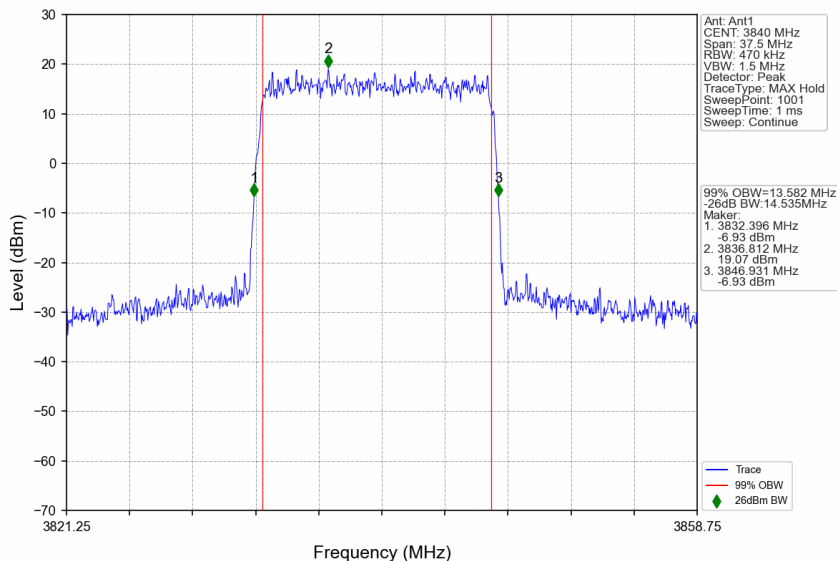


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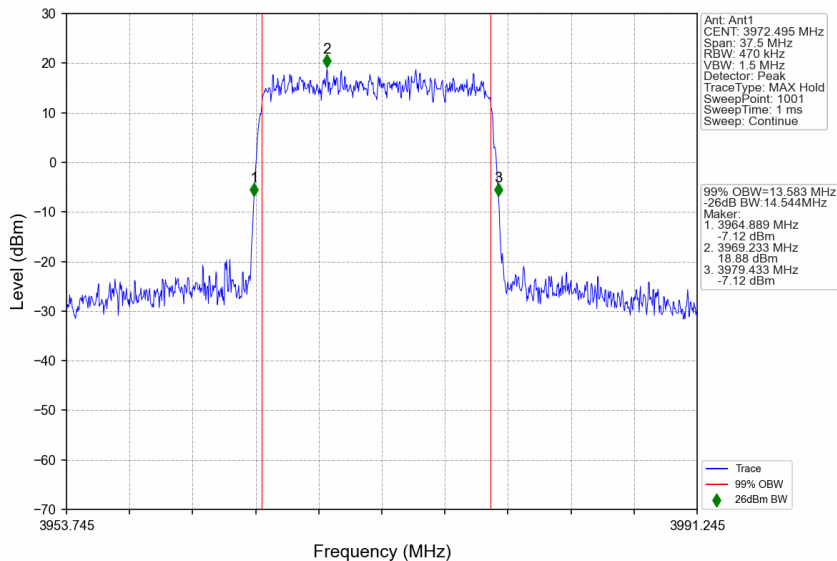
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n77a_15kHz_SISO_NTNV_15MHz_DFT-s-OFDM 64 QAM_3840MHz_Outer_Full



n77a_15kHz_SISO_NTNV_15MHz_DFT-s-OFDM 64 QAM_3972.495MHz_Outer_Full



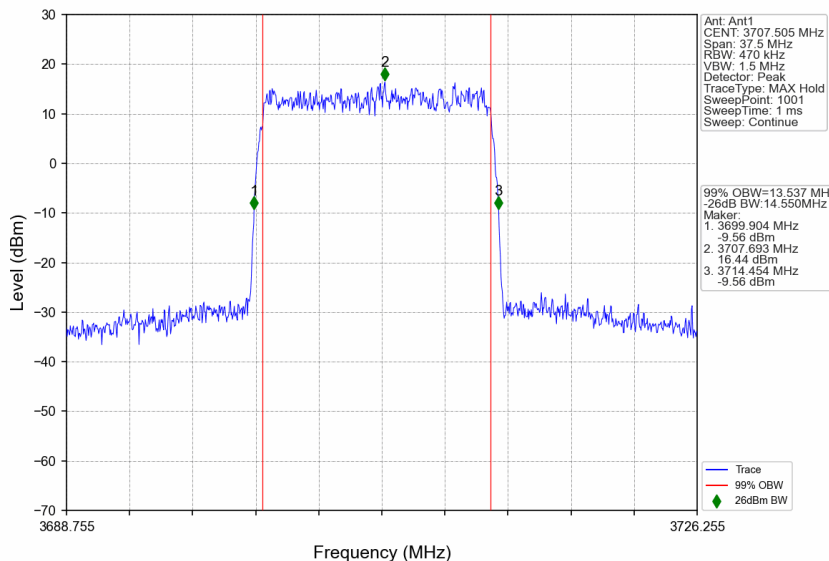
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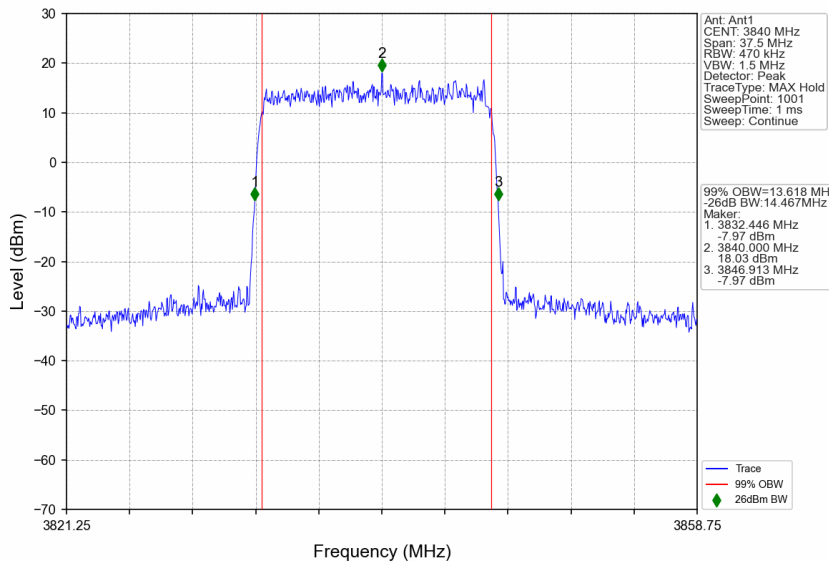
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n77a_15kHz_SISO_NTNV_15MHz_DFT-s-OFDM 256 QAM_3707.505MHz_Outer_Full



n77a_15kHz_SISO_NTNV_15MHz_DFT-s-OFDM 256 QAM_3840MHz_Outer_Full

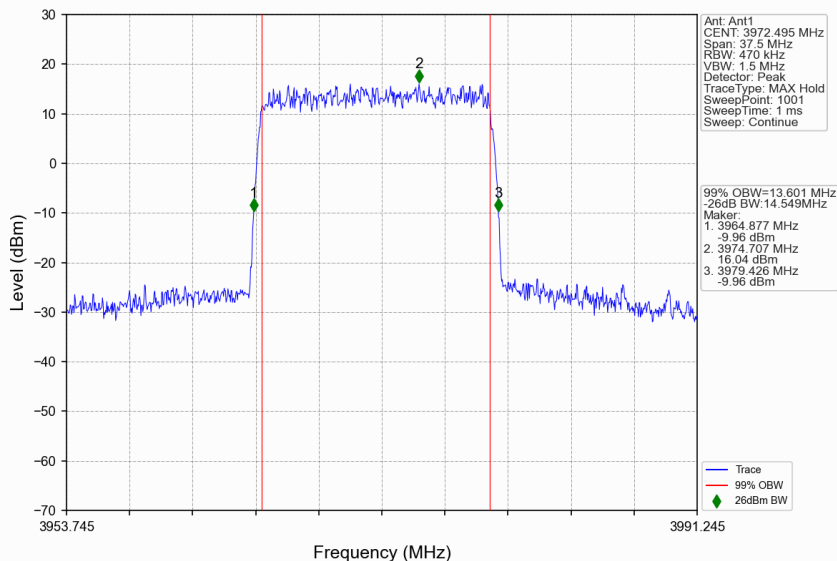


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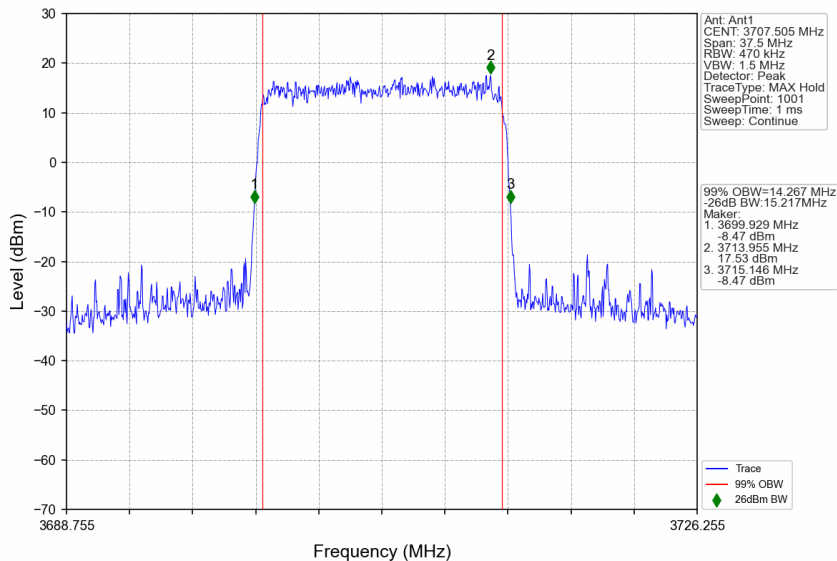
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n77a_15kHz_SISO_NTNV_15MHz_DFT-s-OFDM 256 QAM_3972.495MHz_Outer_Full



n77a_15kHz_SISO_NTNV_15MHz_CP-OFDM QPSK_3707.505MHz_Outer_Full

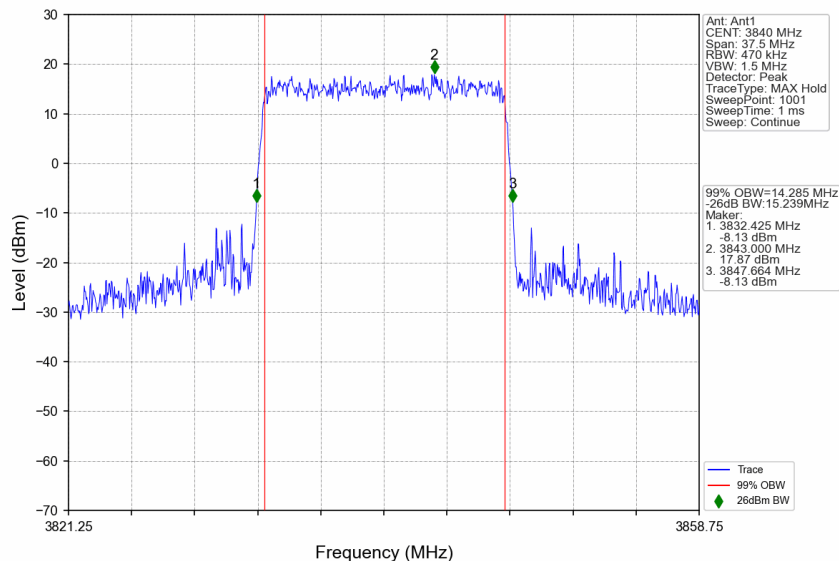


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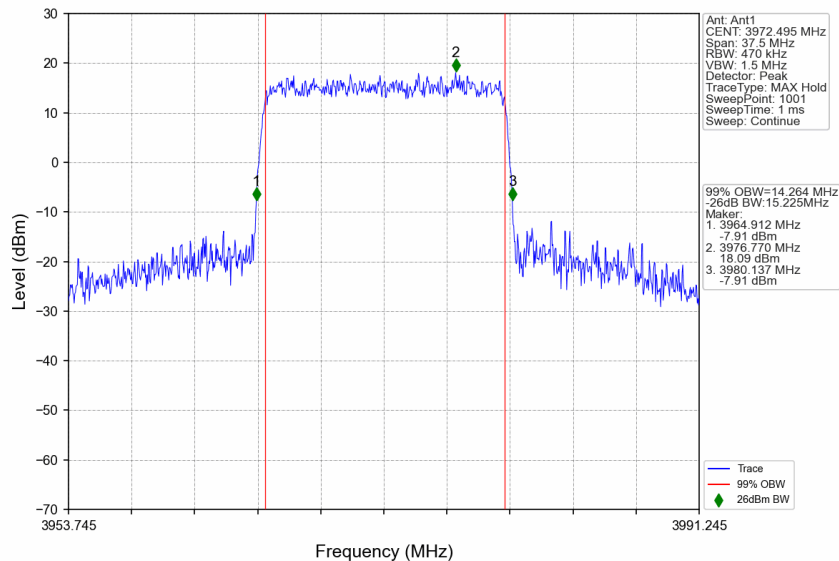
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n77a_15kHz_SISO_NTNV_15MHz_CP-OFDM QPSK_3840MHz_Outer_Full



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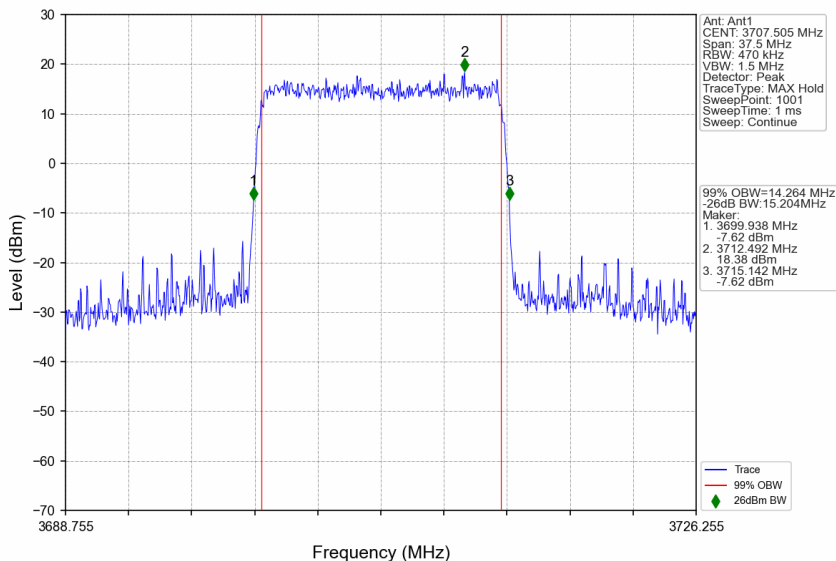


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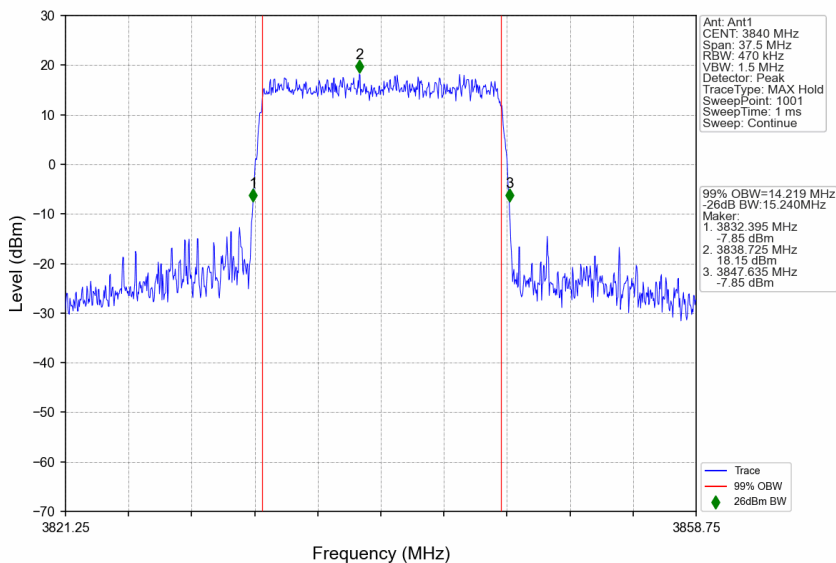
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n77a_15kHz_SISO_NTNV_15MHz_CP-OFDM 16 QAM_3707.505MHz_Outer_Full



n77a_15kHz_SISO_NTNV_15MHz_CP-OFDM 16 QAM_3840MHz_Outer_Full

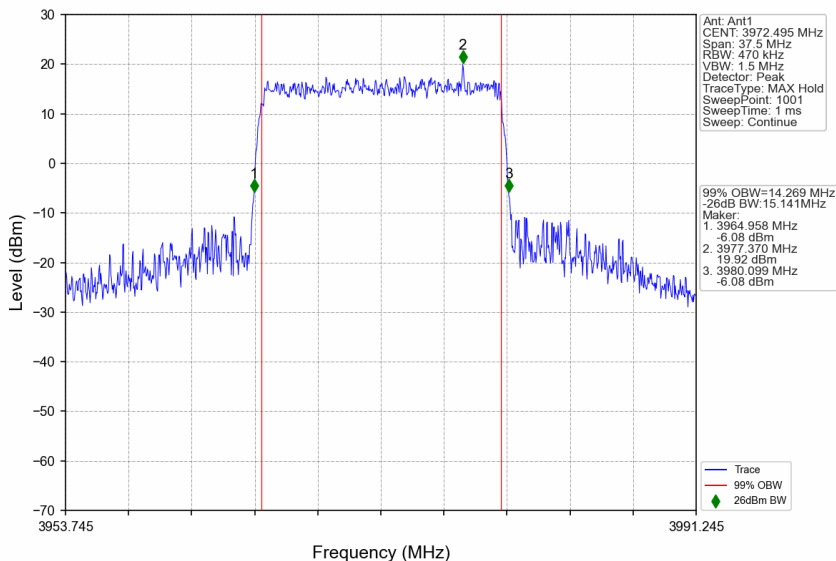


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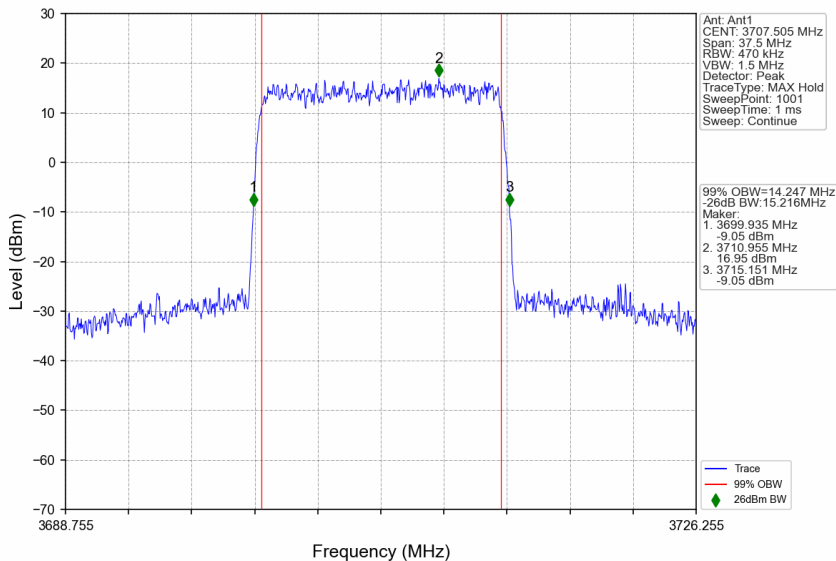
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n77a_15kHz_SISO_NTNV_15MHz_CP-OFDM 16 QAM_3972.495MHz_Outer_Full



n77a_15kHz_SISO_NTNV_15MHz_CP-OFDM 64 QAM_3707.505MHz_Outer_Full

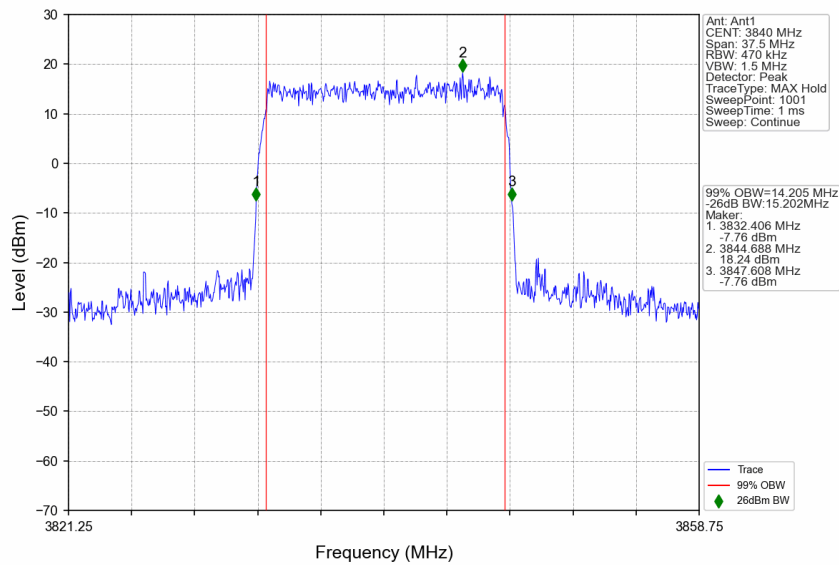


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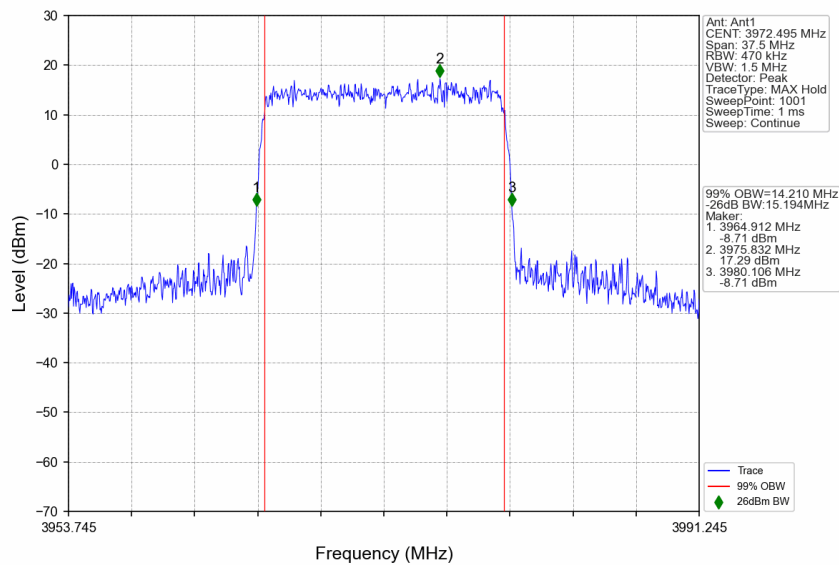
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n77a_15kHz_SISO_NTNV_15MHz_CP-OFDM 64 QAM_3840MHz_Outer_Full



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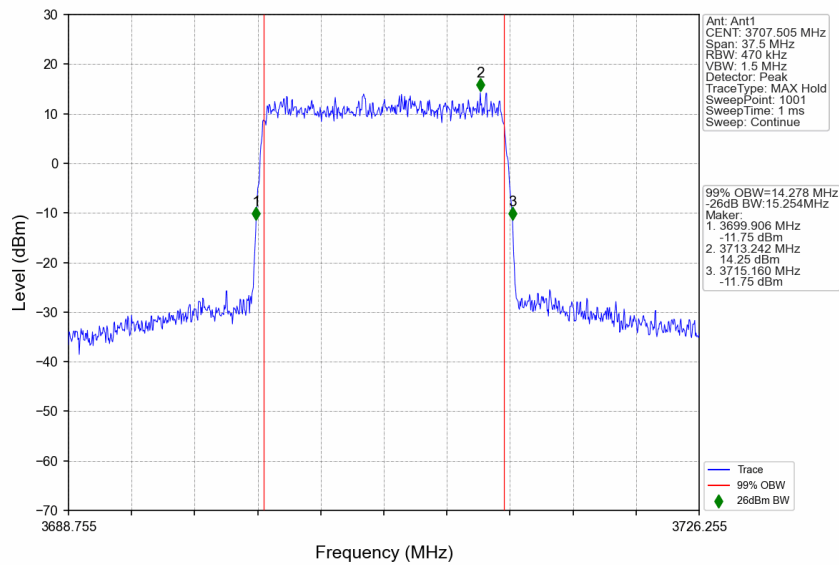


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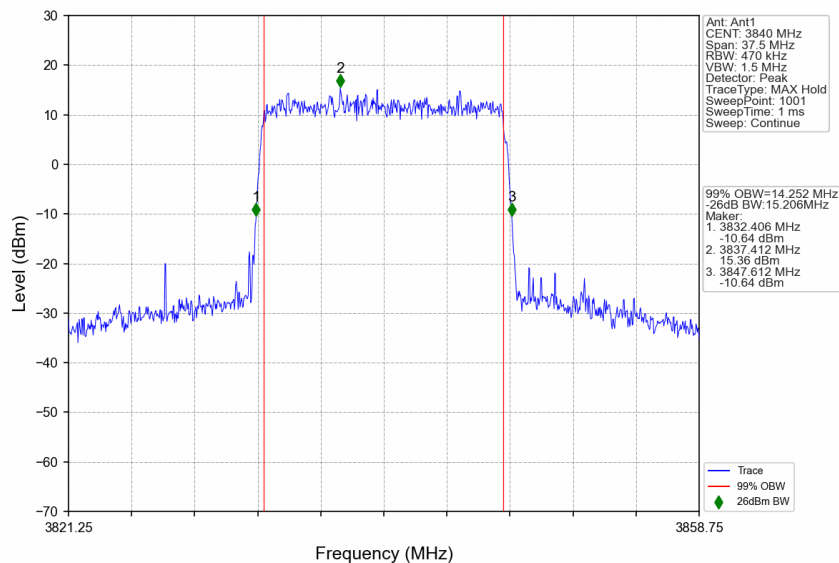
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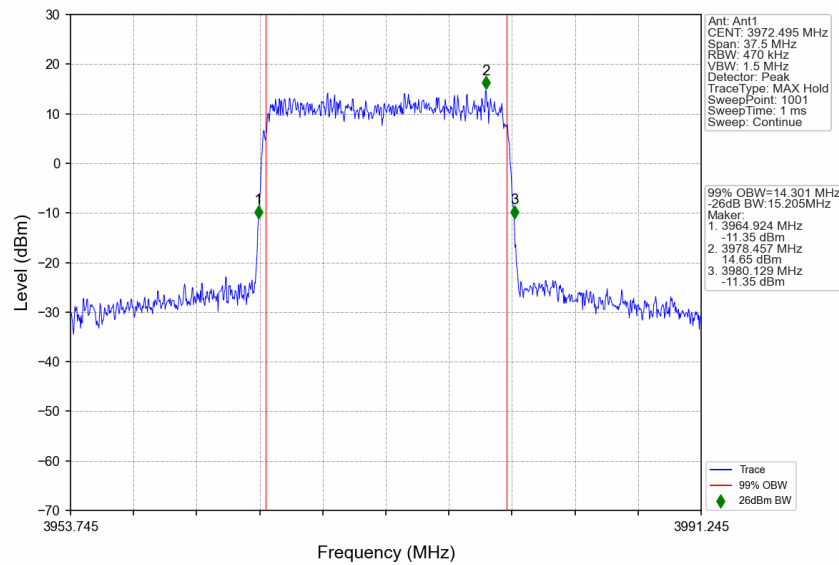
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4.3 15k_SISO_20MHz_NTNV

4.3.1 Test Result

5G NR n77a 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	3710.01	Outer_Full	18.06	19.37	/	Pass
	3840	Outer_Full	18.03	19.39	/	Pass
	3969.99	Outer_Full	18.08	19.36	/	Pass
DFT-s-OFDM QPSK	3710.01	Outer_Full	18.07	19.39	/	Pass
	3840	Outer_Full	18.04	19.31	/	Pass
	3969.99	Outer_Full	18.05	19.36	/	Pass
DFT-s-OFDM 16 QAM	3710.01	Outer_Full	18.05	19.37	/	Pass
	3840	Outer_Full	18.06	19.35	/	Pass
	3969.99	Outer_Full	18.05	19.40	/	Pass
DFT-s-OFDM 64 QAM	3710.01	Outer_Full	18.05	19.39	/	Pass
	3840	Outer_Full	18.20	19.40	/	Pass
	3969.99	Outer_Full	18.07	19.38	/	Pass
DFT-s-OFDM 256 QAM	3710.01	Outer_Full	18.02	19.33	/	Pass
	3840	Outer_Full	18.07	19.29	/	Pass
	3969.99	Outer_Full	18.08	19.30	/	Pass
CP-OFDM QPSK	3710.01	Outer_Full	19.10	20.37	/	Pass
	3840	Outer_Full	19.11	20.45	/	Pass
	3969.99	Outer_Full	19.07	20.34	/	Pass
CP-OFDM 16 QAM	3710.01	Outer_Full	19.05	20.38	/	Pass
	3840	Outer_Full	19.08	20.38	/	Pass
	3969.99	Outer_Full	19.17	20.37	/	Pass
CP-OFDM 64 QAM	3710.01	Outer_Full	19.05	20.45	/	Pass
	3840	Outer_Full	19.05	20.40	/	Pass
	3969.99	Outer_Full	19.07	20.46	/	Pass
CP-OFDM 256 QAM	3710.01	Outer_Full	19.06	20.37	/	Pass
	3840	Outer_Full	19.03	20.40	/	Pass
	3969.99	Outer_Full	19.01	20.42	/	Pass

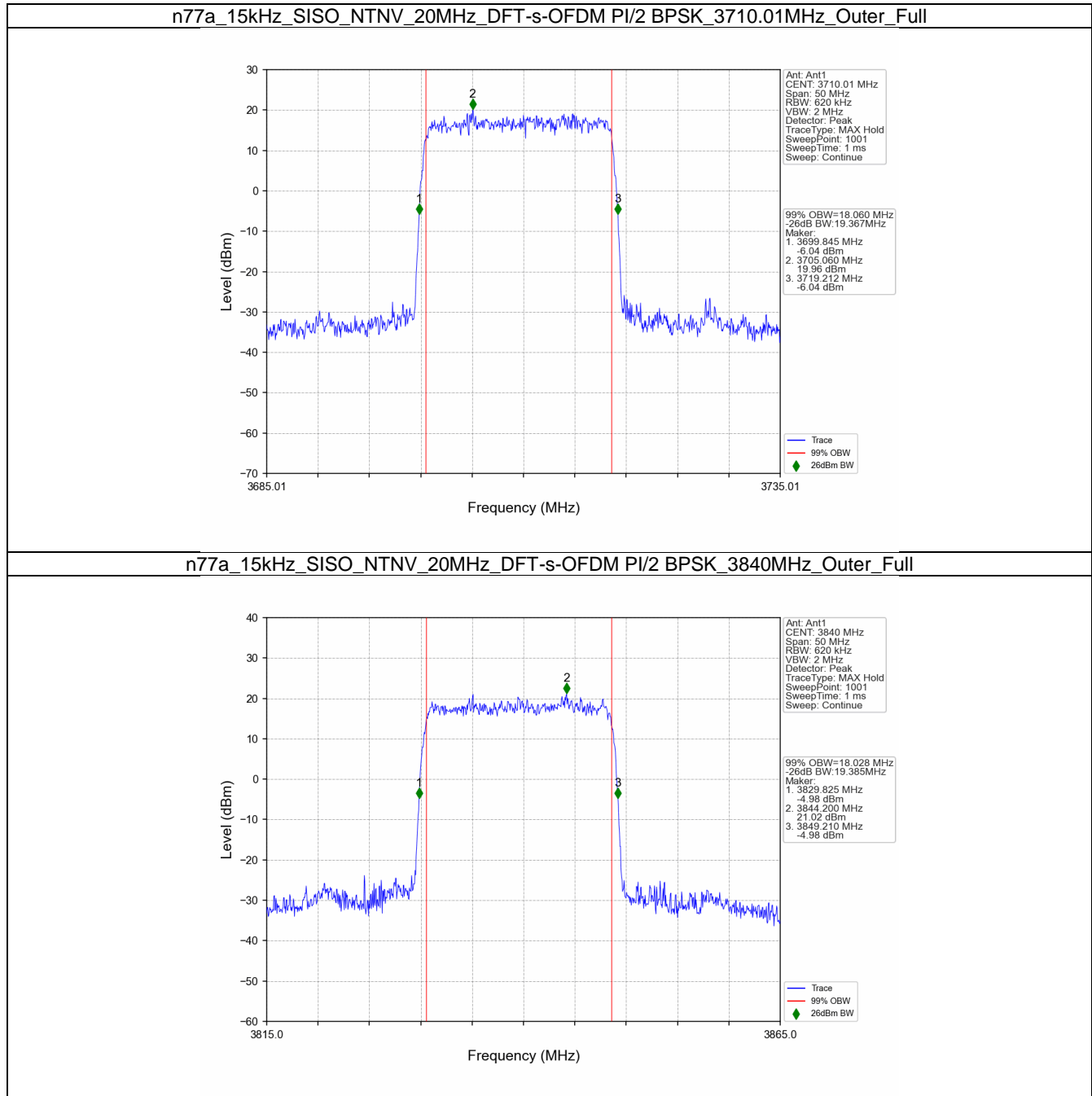


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4.3.2 Test Graph

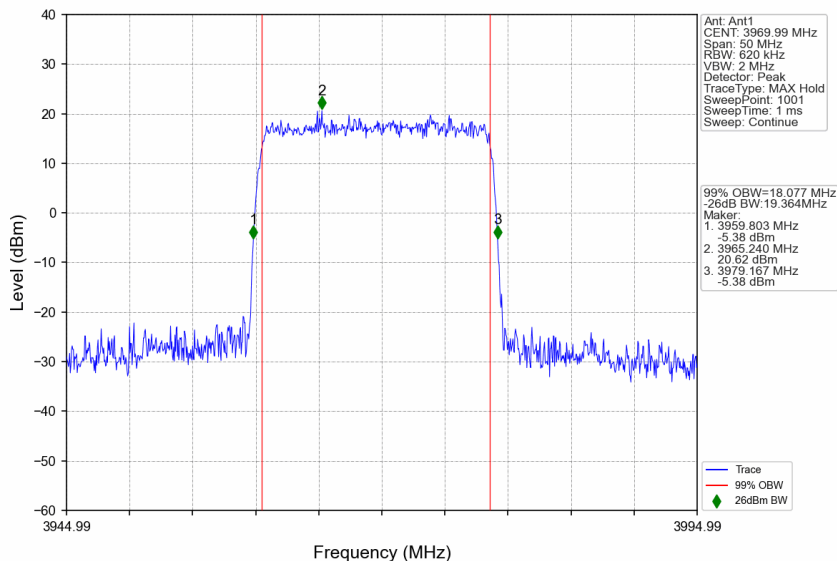


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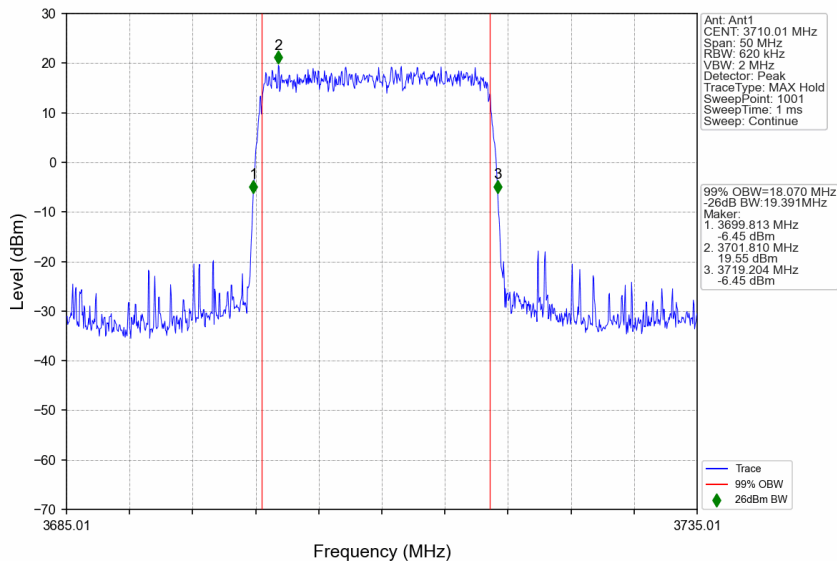
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n77a_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM PI/2 BPSK_3969.99MHz_Outer_Full



n77a_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM QPSK_3710.01MHz_Outer_Full

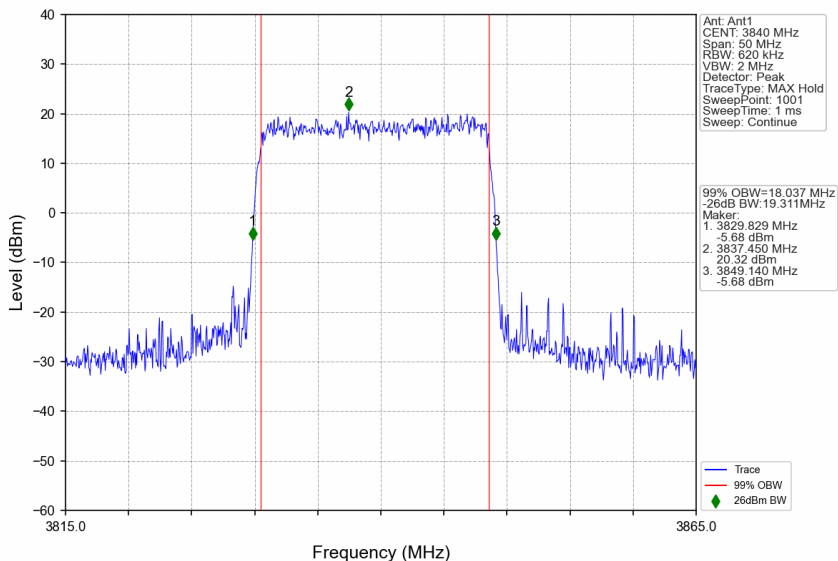


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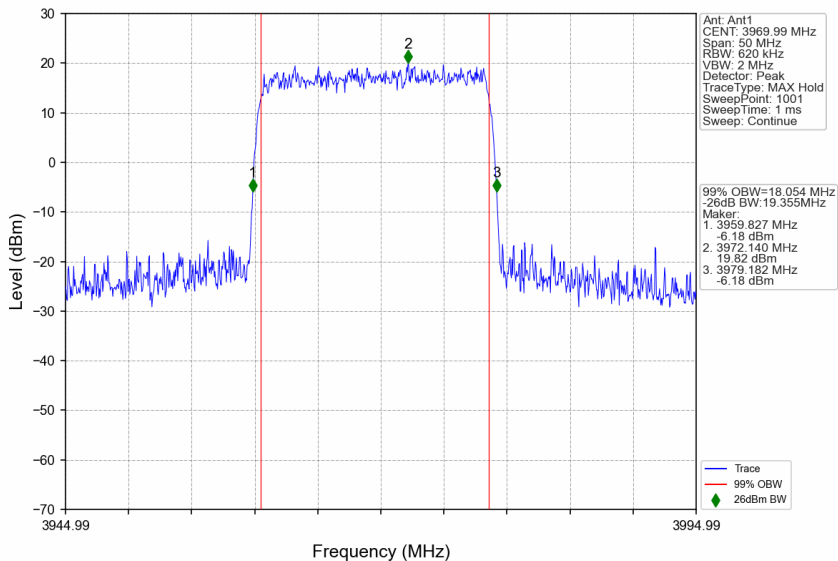
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n77a_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM QPSK_3840MHz_Outer_Full



n77a_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM QPSK_3969.99MHz_Outer_Full

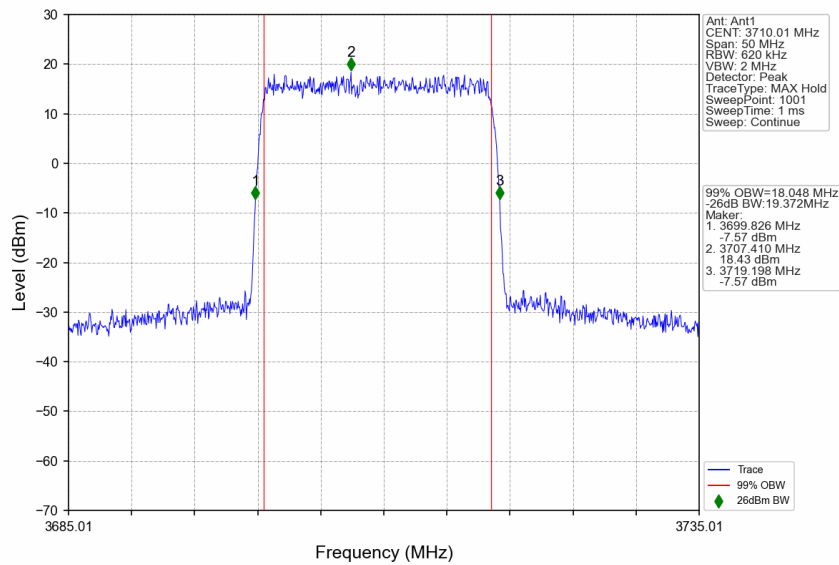


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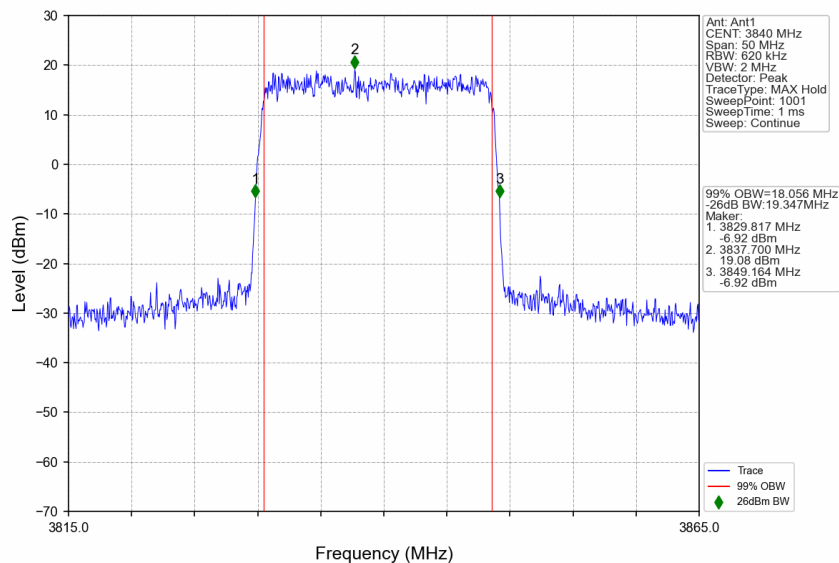
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n77a_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM 16 QAM_3710.01MHz_Outer_Full



n77a_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM 16 QAM_3840MHz_Outer_Full

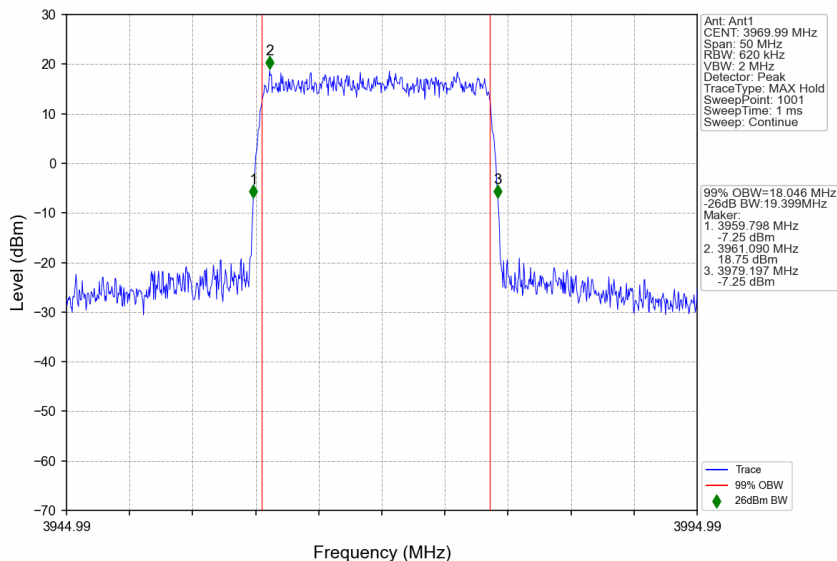


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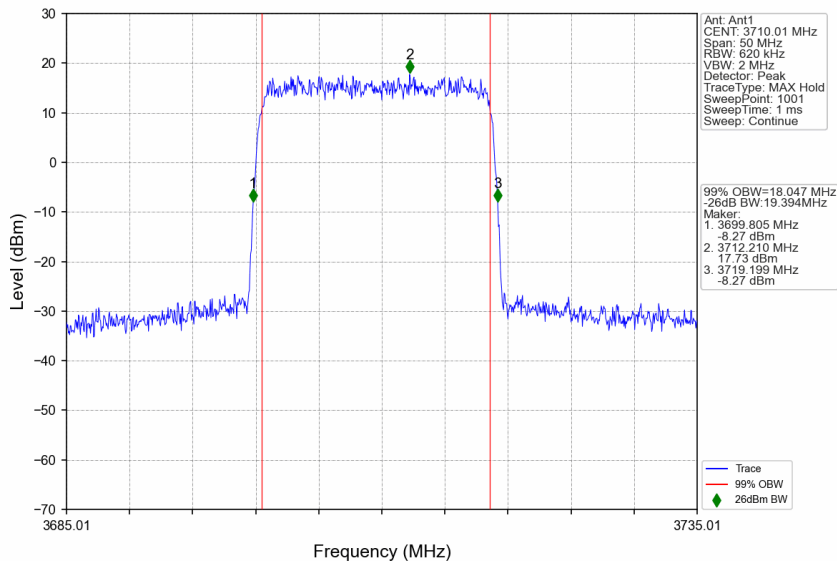
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n77a_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM 16 QAM_3969.99MHz_Outer_Full



n77a_15kHz_SISO_NTNV_20MHz_DFT-s-OFDM 64 QAM_3710.01MHz_Outer_Full

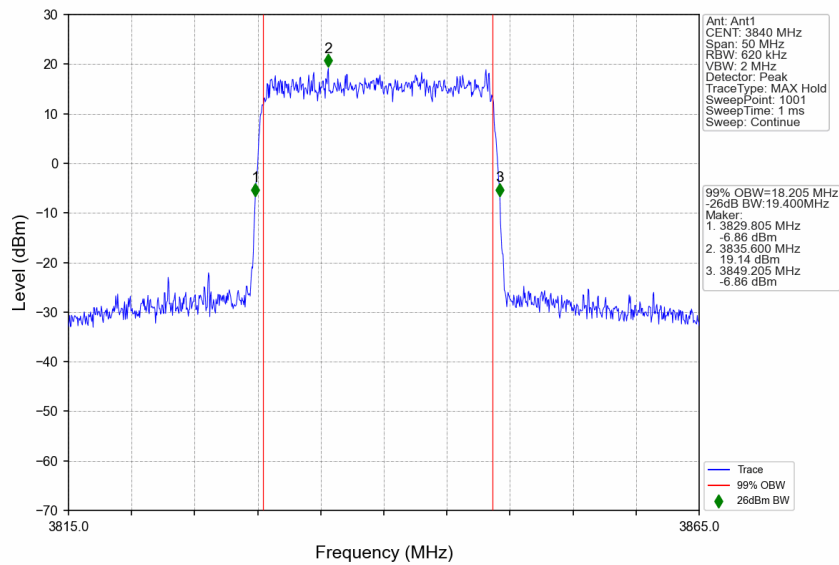


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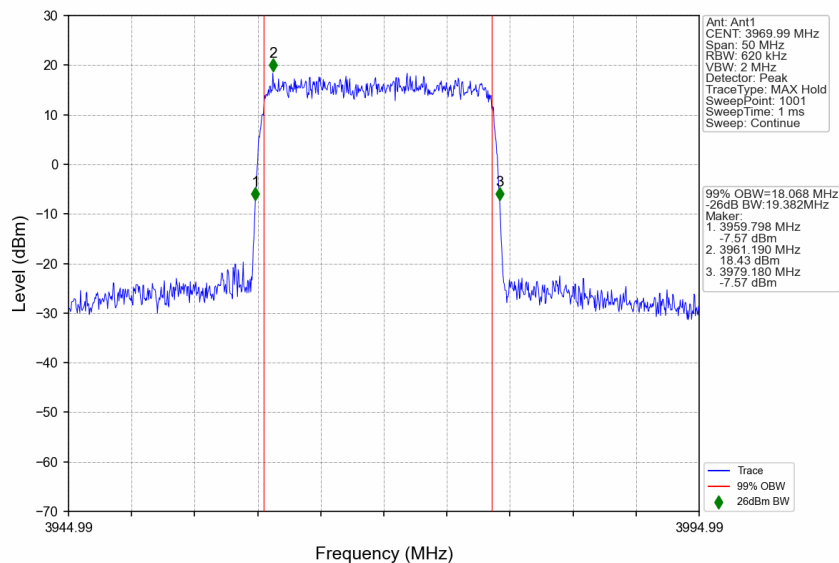
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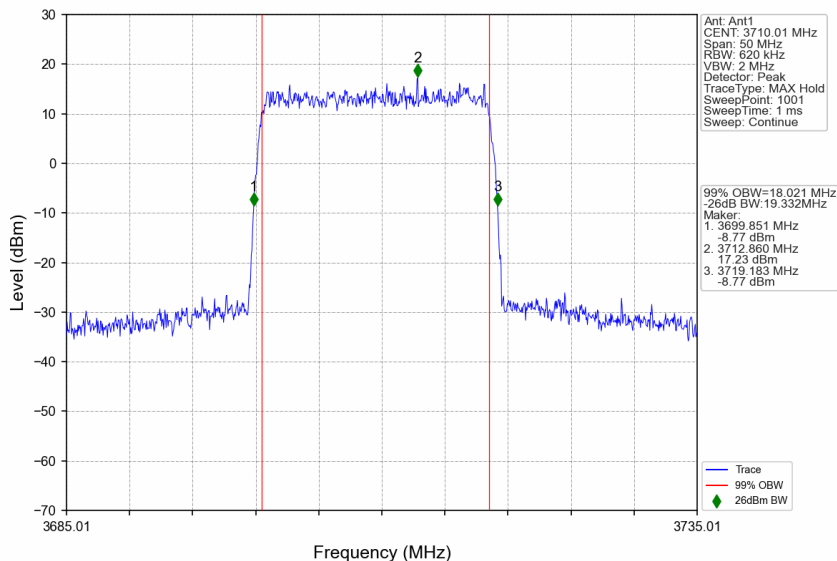


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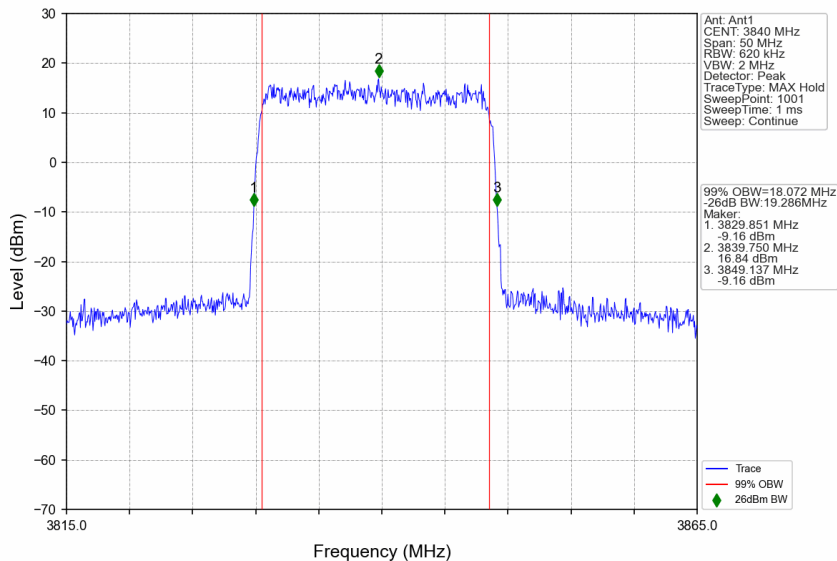
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