

3.1.5 30_S_50M_NTNV

5G NR n77d SCS=30kHz SISO 50MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM QPSK	3500.01	Outer_Full	46.19	49.31	/	Pass
DFT-s-OFDM 16 QAM	3500.01	Outer_Full	46.15	49.31	/	Pass
DFT-s-OFDM 64 QAM	3500.01	Outer_Full	46.25	49.38	/	Pass
DFT-s-OFDM 256 QAM	3500.01	Outer_Full	46.07	49.30	/	Pass
CP-OFDM QPSK	3500.01	Outer_Full	47.83	51.04	/	Pass
CP-OFDM 16 QAM	3500.01	Outer_Full	47.68	51.13	/	Pass
CP-OFDM 64 QAM	3500.01	Outer_Full	47.88	51.13	/	Pass
CP-OFDM 256 QAM	3500.01	Outer_Full	47.84	51.05	/	Pass

3.1.6 30_S_60M_NTNV

5G NR n77d SCS=30kHz SISO 60MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM QPSK	3500.01	Outer_Full	58.21	62.32	/	Pass
DFT-s-OFDM 16 QAM	3500.01	Outer_Full	58.36	62.17	/	Pass
DFT-s-OFDM 64 QAM	3500.01	Outer_Full	58.31	62.27	/	Pass
DFT-s-OFDM 256 QAM	3500.01	Outer_Full	58.31	62.25	/	Pass
CP-OFDM QPSK	3500.01	Outer_Full	58.15	62.22	/	Pass
CP-OFDM 16 QAM	3500.01	Outer_Full	58.20	62.18	/	Pass
CP-OFDM 64 QAM	3500.01	Outer_Full	58.31	62.12	/	Pass
CP-OFDM 256 QAM	3500.01	Outer_Full	58.18	62.22	/	Pass

3.1.7 30_S_70M_NTNV

5G NR n77d SCS=30kHz SISO 70MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM QPSK	3500.01	Outer_Full	64.81	69.59	/	Pass
DFT-s-OFDM 16 QAM	3500.01	Outer_Full	64.83	69.44	/	Pass
DFT-s-OFDM 64 QAM	3500.01	Outer_Full	64.97	69.54	/	Pass
DFT-s-OFDM 256 QAM	3500.01	Outer_Full	64.78	69.44	/	Pass
CP-OFDM QPSK	3500.01	Outer_Full	68.10	72.84	/	Pass
CP-OFDM 16 QAM	3500.01	Outer_Full	67.88	72.54	/	Pass
CP-OFDM 64 QAM	3500.01	Outer_Full	67.98	72.76	/	Pass
CP-OFDM 256 QAM	3500.01	Outer_Full	67.95	72.67	/	Pass

3.1.8 30_S_80M_NTNV

5G NR n77d SCS=30kHz SISO 80MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM QPSK	3500.01	Outer_Full	77.61	82.80	/	Pass
DFT-s-OFDM 16 QAM	3500.01	Outer_Full	77.50	82.65	/	Pass
DFT-s-OFDM 64 QAM	3500.01	Outer_Full	78.01	82.57	/	Pass
DFT-s-OFDM 256 QAM	3500.01	Outer_Full	77.78	82.57	/	Pass
CP-OFDM QPSK	3500.01	Outer_Full	78.06	83.14	/	Pass
CP-OFDM 16 QAM	3500.01	Outer_Full	77.89	83.03	/	Pass

CP-OFDM 64 QAM	3500.01	Outer_Full	78.00	83.29	/	Pass
CP-OFDM 256 QAM	3500.01	Outer_Full	78.00	83.36	/	Pass

3.1.9 30_S_90M_NTNV

5G NR n77d SCS=30kHz SISO 90MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM QPSK	3500.01	Outer_Full	87.25	93.11	/	Pass
DFT-s-OFDM 16 QAM	3500.01	Outer_Full	87.28	92.93	/	Pass
DFT-s-OFDM 64 QAM	3500.01	Outer_Full	87.31	92.69	/	Pass
DFT-s-OFDM 256 QAM	3500.01	Outer_Full	87.45	92.87	/	Pass
CP-OFDM QPSK	3500.01	Outer_Full	87.86	93.49	/	Pass
CP-OFDM 16 QAM	3500.01	Outer_Full	87.89	93.21	/	Pass
CP-OFDM 64 QAM	3500.01	Outer_Full	87.75	93.47	/	Pass
CP-OFDM 256 QAM	3500.01	Outer_Full	88.22	93.71	/	Pass

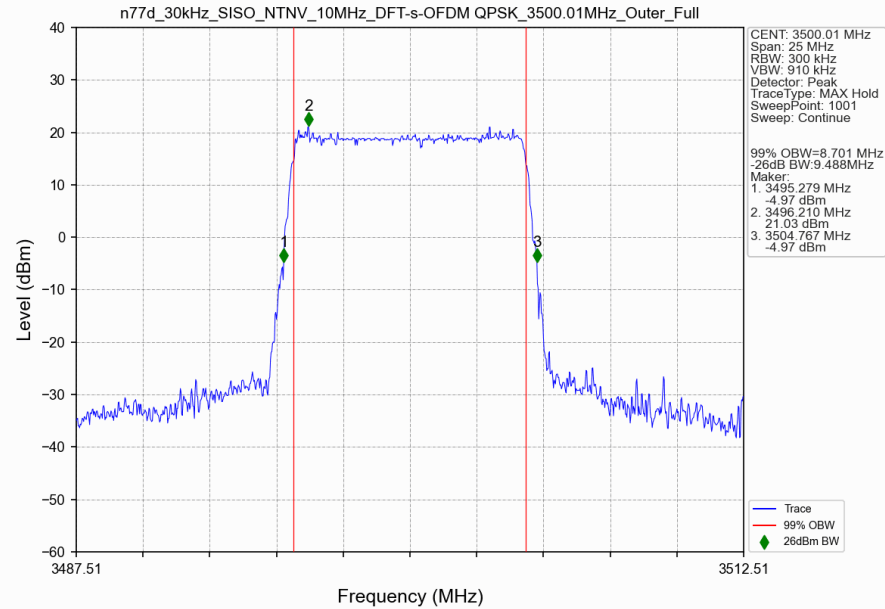
3.1.10 30_S_100M_NTNV

5G NR n77d SCS=30kHz SISO 100MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM QPSK	3500.01	Outer_Full	96.87	102.81	/	Pass
DFT-s-OFDM 16 QAM	3500.01	Outer_Full	96.66	103.74	/	Pass
DFT-s-OFDM 64 QAM	3500.01	Outer_Full	97.09	103.40	/	Pass
DFT-s-OFDM 256 QAM	3500.01	Outer_Full	97.05	102.66	/	Pass
CP-OFDM QPSK	3500.01	Outer_Full	98.23	104.60	/	Pass
CP-OFDM 16 QAM	3500.01	Outer_Full	97.81	104.66	/	Pass
CP-OFDM 64 QAM	3500.01	Outer_Full	98.44	104.31	/	Pass
CP-OFDM 256 QAM	3500.01	Outer_Full	97.83	104.23	/	Pass

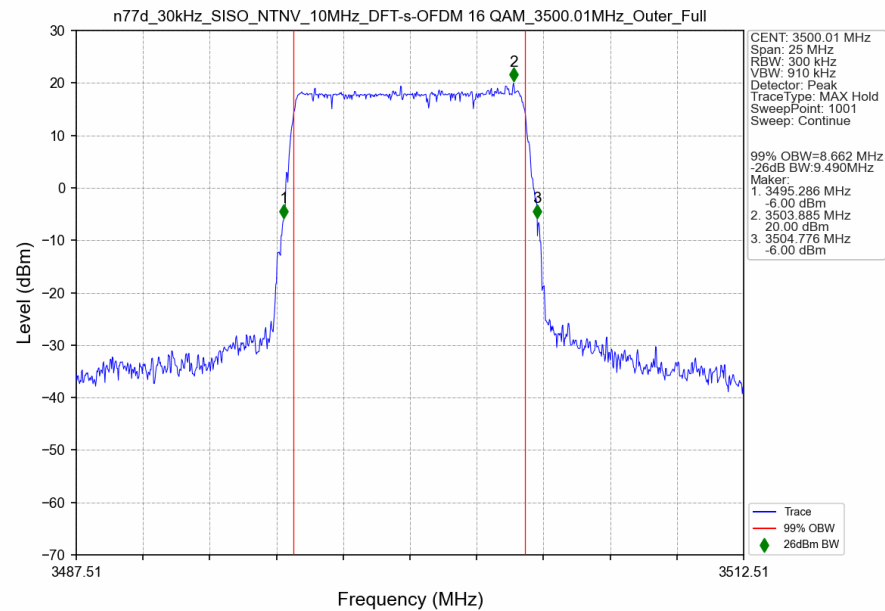
3.2 Test Graph

3.2.1 30_S_10M_NTNV

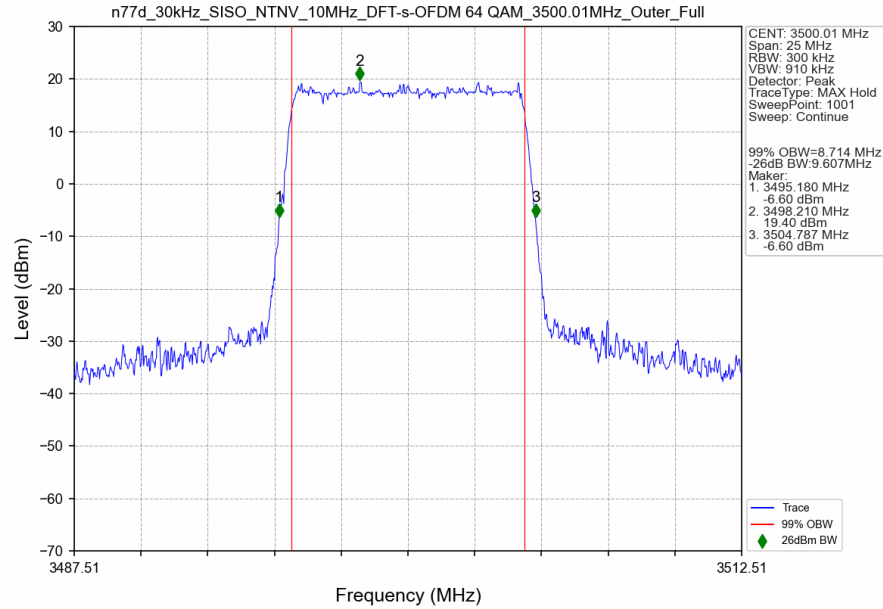
n77d_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM QPSK_3500.01MHz_Outer_Full_Ant8



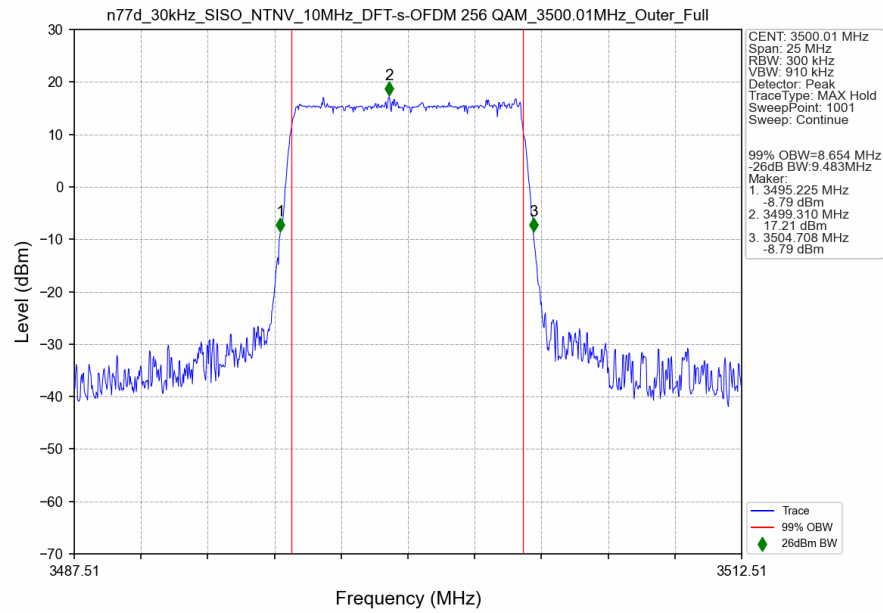
n77d_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM 16 QAM_3500.01MHz_Outer_Full_Ant8



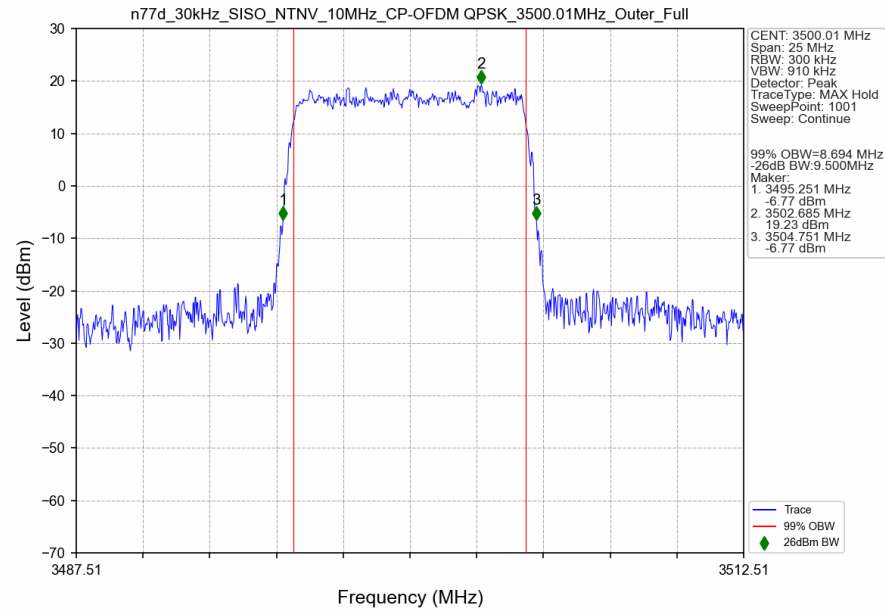
n77d_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM 64 QAM_3500.01MHz_Outer_Full_Ant8



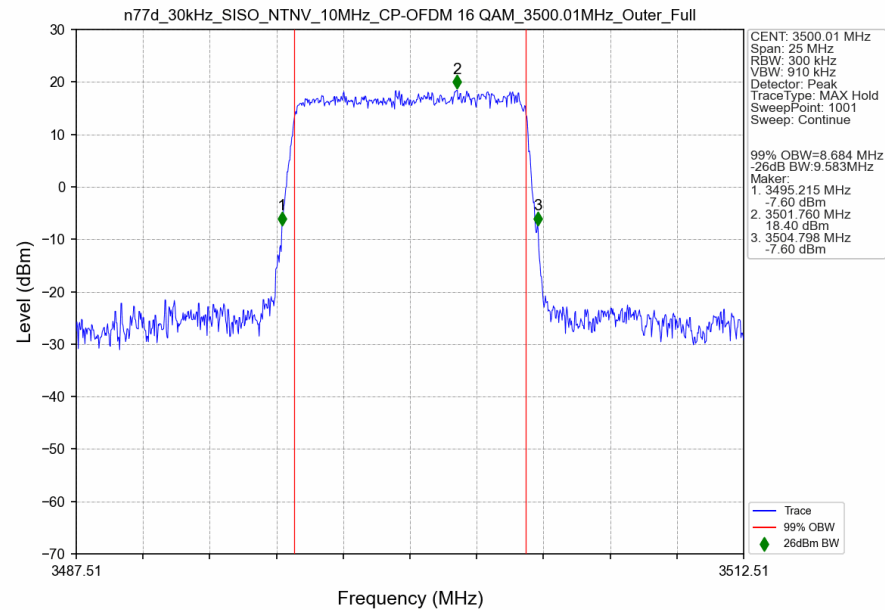
n77d_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM 256 QAM_3500.01MHz_Outer_Full_Ant8



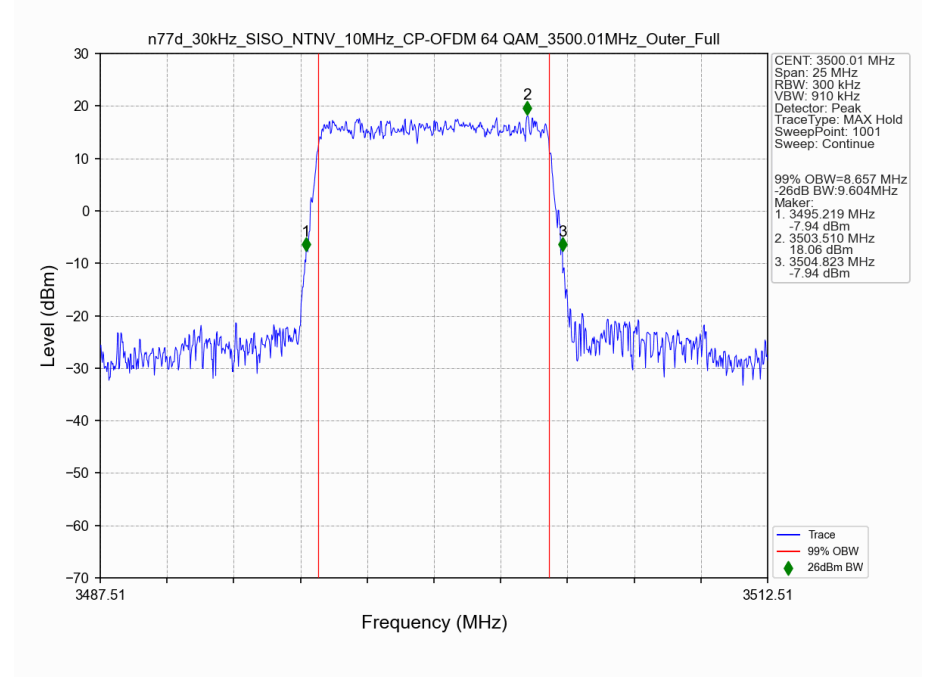
n77d_30kHz_SISO_NTNV_10MHz_CP-OFDM QPSK_3500.01MHz_Outer_Full_Ant8



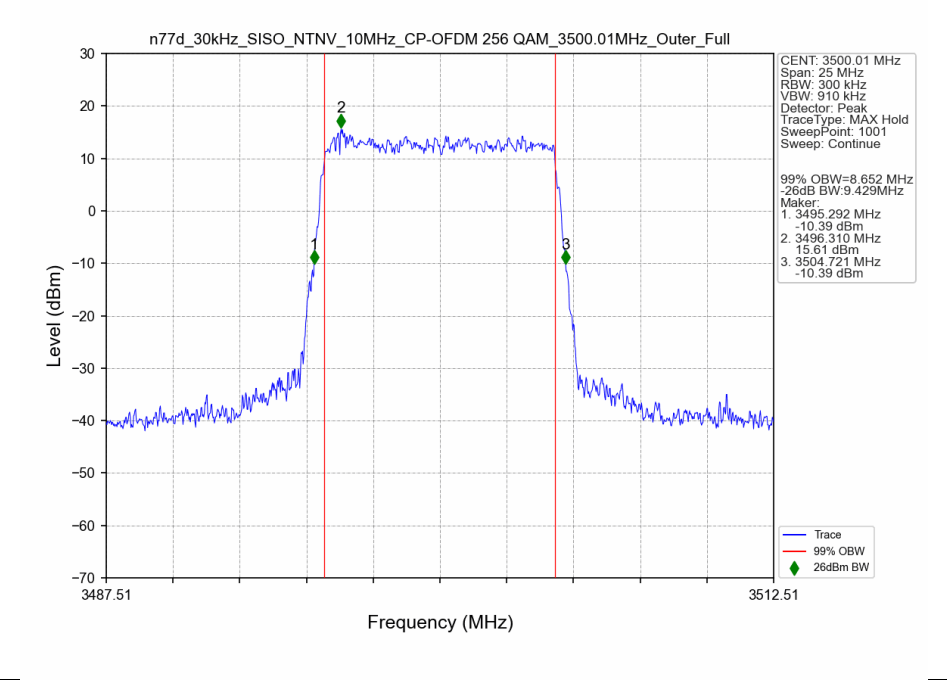
n77d_30kHz_SISO_NTNV_10MHz_CP-OFDM 16 QAM_3500.01MHz_Outer_Full_Ant8



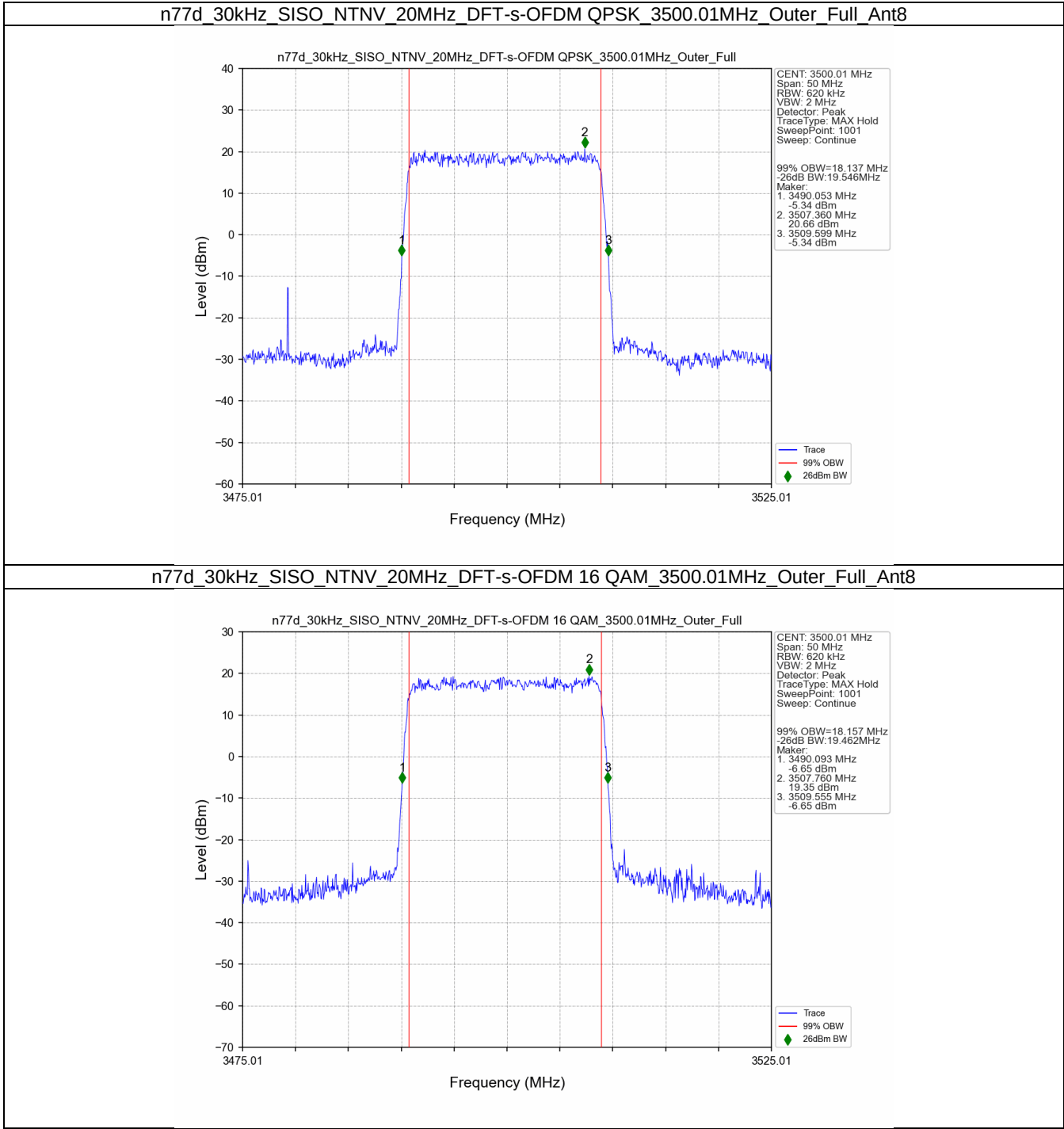
n77d_30kHz_SISO_NTNV_10MHz_CP-OFDM 64 QAM_3500.01MHz_Outer_Full_Ant8



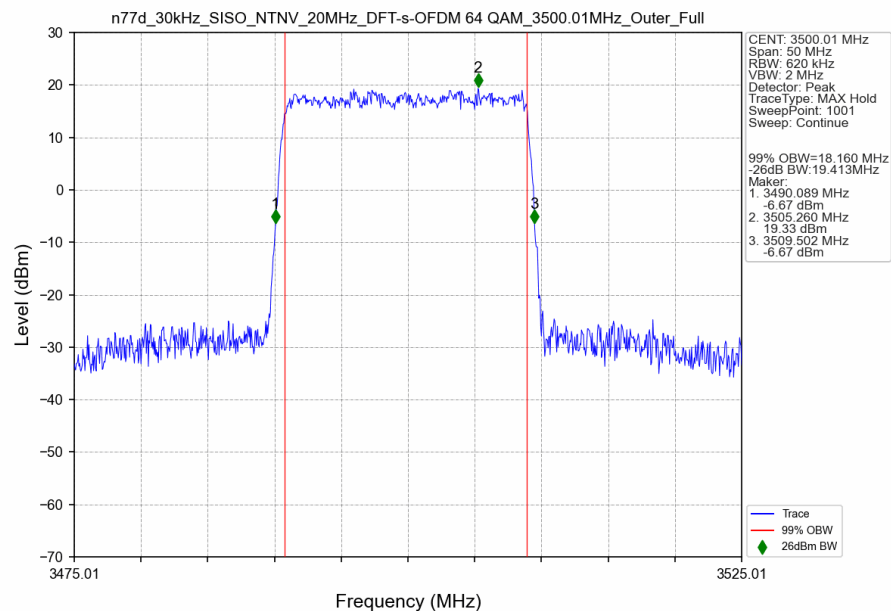
n77d_30kHz_SISO_NTNV_10MHz_CP-OFDM 256 QAM_3500.01MHz_Outer_Full_Ant8



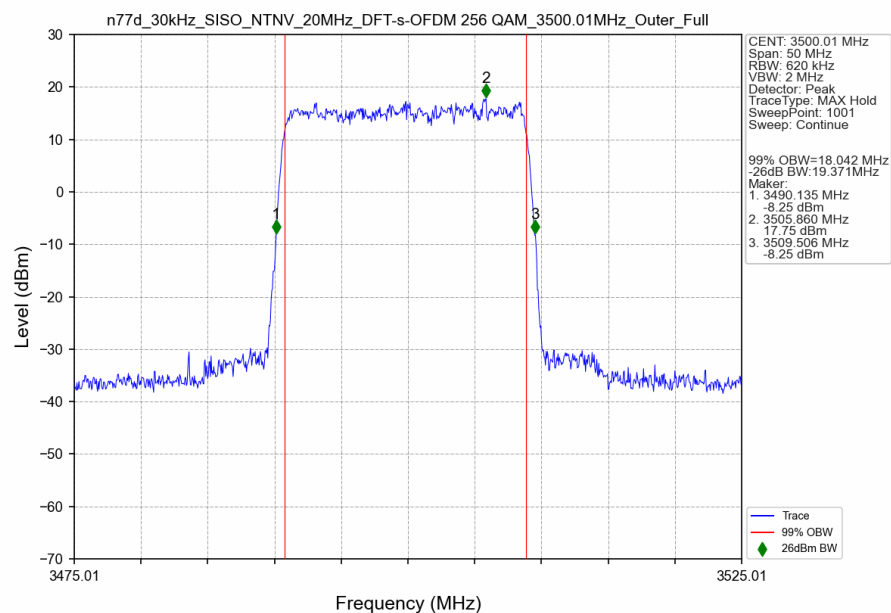
3.2.2 30_S_20M_NTNV



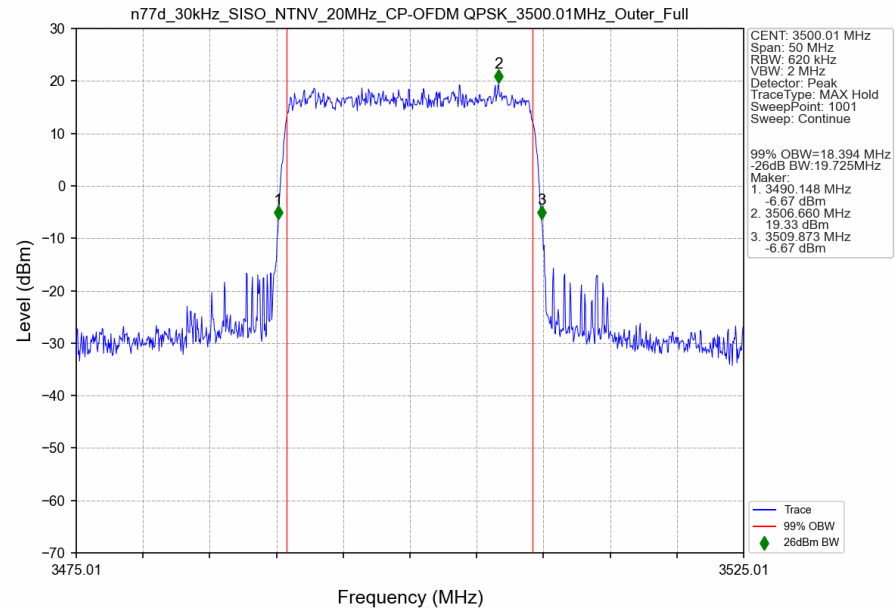
n77d_30kHz_SISO_NTNV_20MHz_DFT-s-OFDM 64 QAM_3500.01MHz_Outer_Full_Ant8



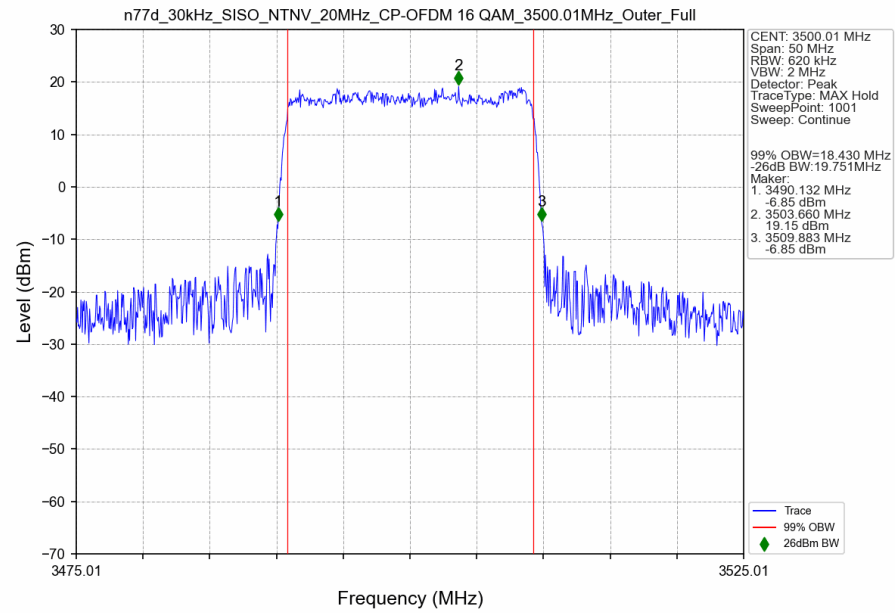
n77d_30kHz_SISO_NTNV_20MHz_DFT-s-OFDM 256 QAM_3500.01MHz_Outer_Full_Ant8



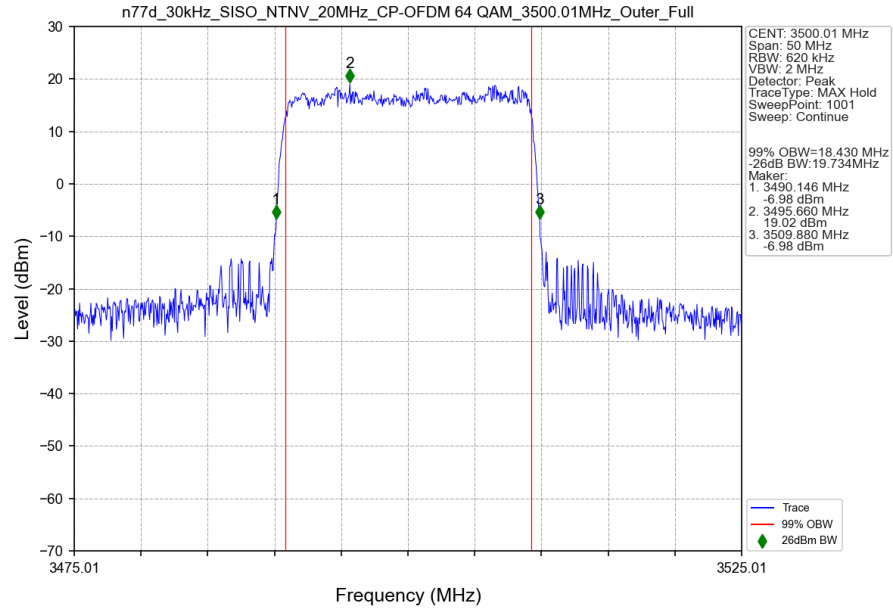
n77d_30kHz_SISO_NTNV_20MHz_CP-OFDM QPSK_3500.01MHz_Outer_Full_Ant8



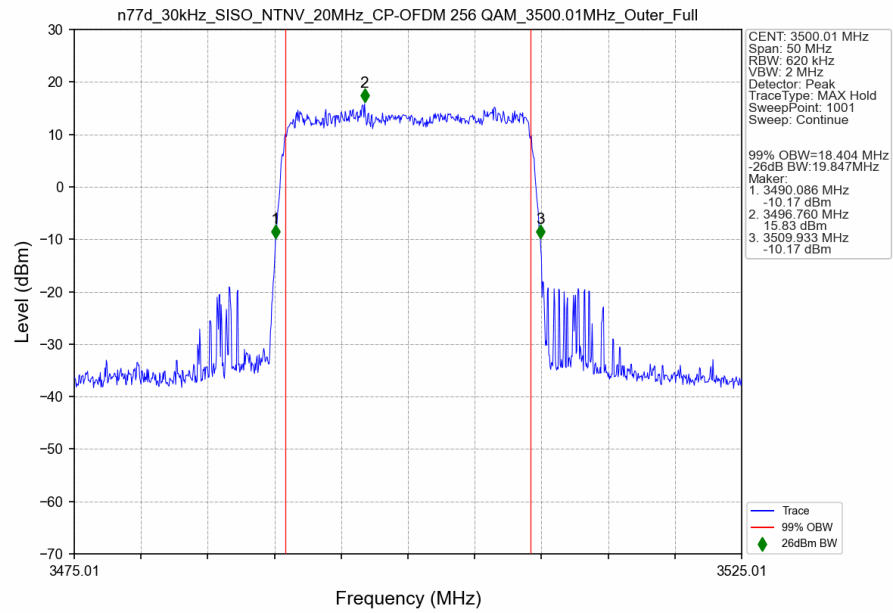
n77d_30kHz_SISO_NTNV_20MHz_CP-OFDM 16 QAM_3500.01MHz_Outer_Full_Ant8



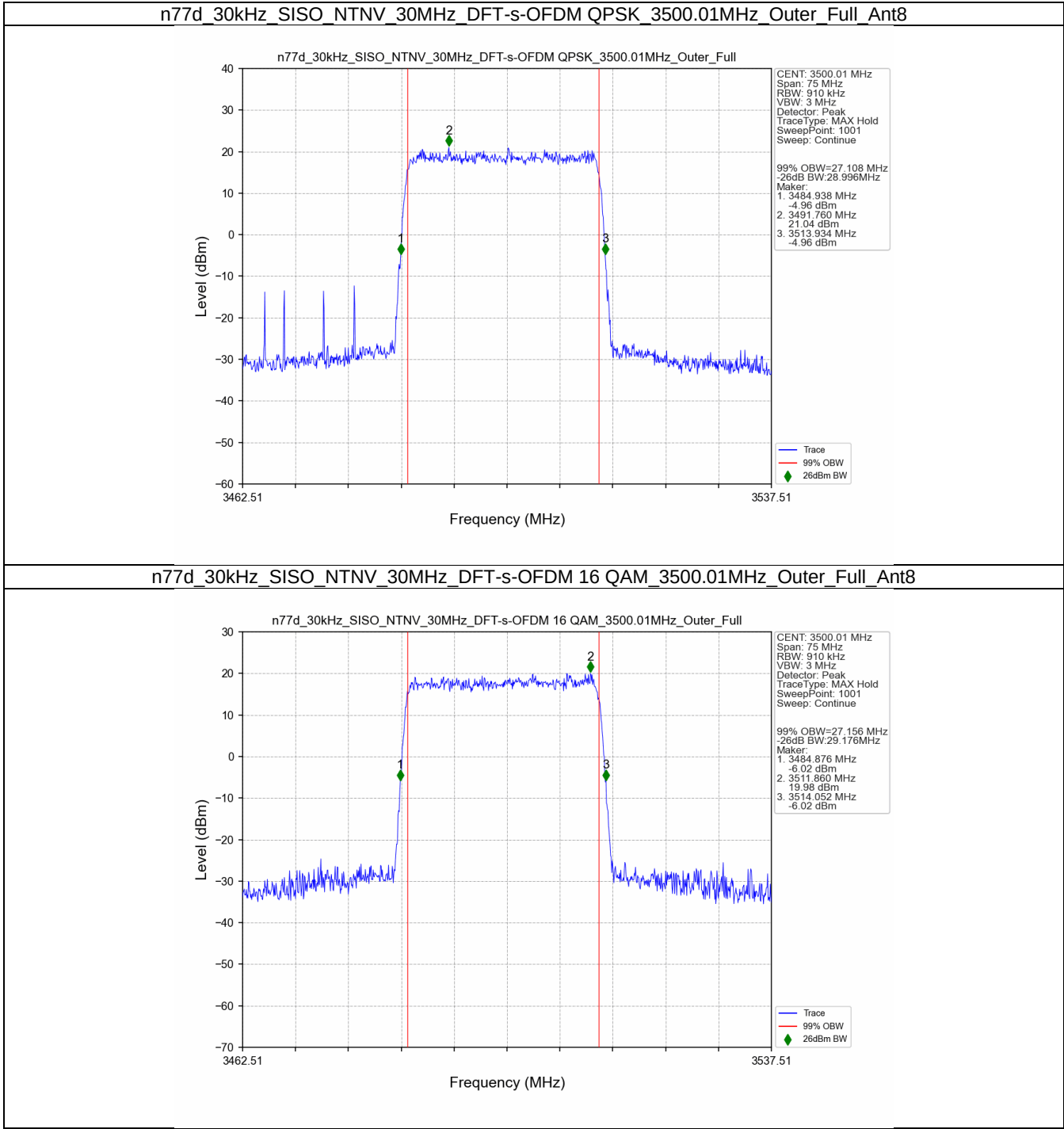
n77d_30kHz_SISO_NTNV_20MHz_CP-OFDM 64 QAM_3500.01MHz_Outer_Full_Ant8



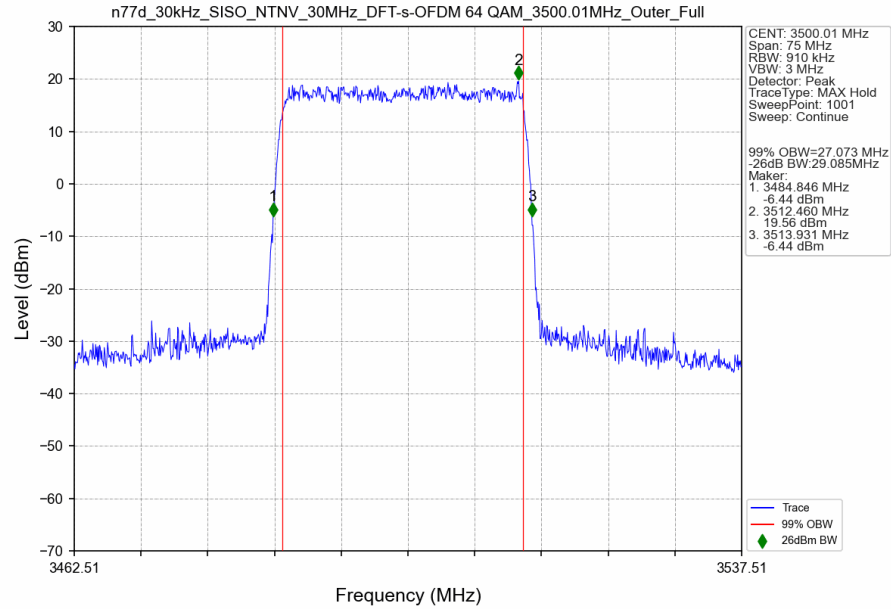
n77d_30kHz_SISO_NTNV_20MHz_CP-OFDM 256 QAM_3500.01MHz_Outer_Full_Ant8



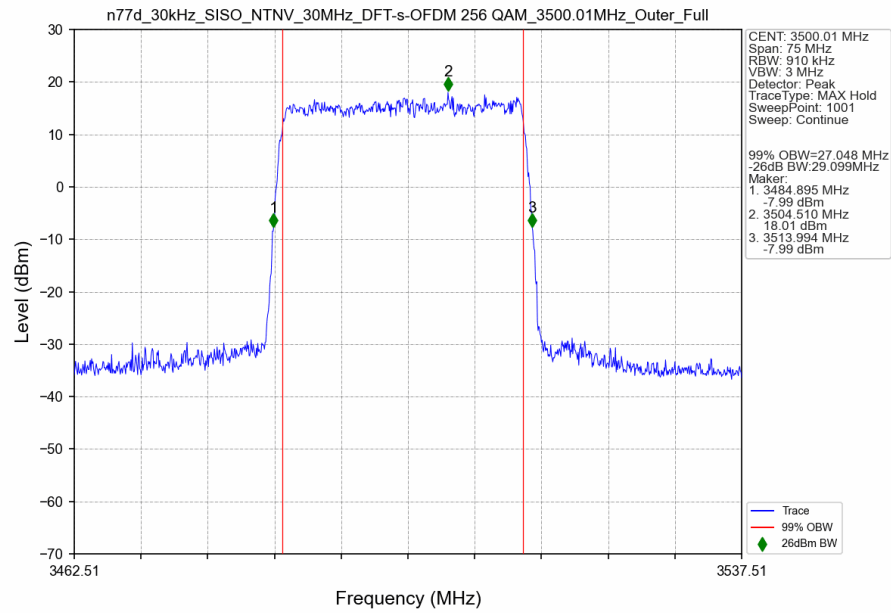
3.2.3 30_S_30M_NTNV



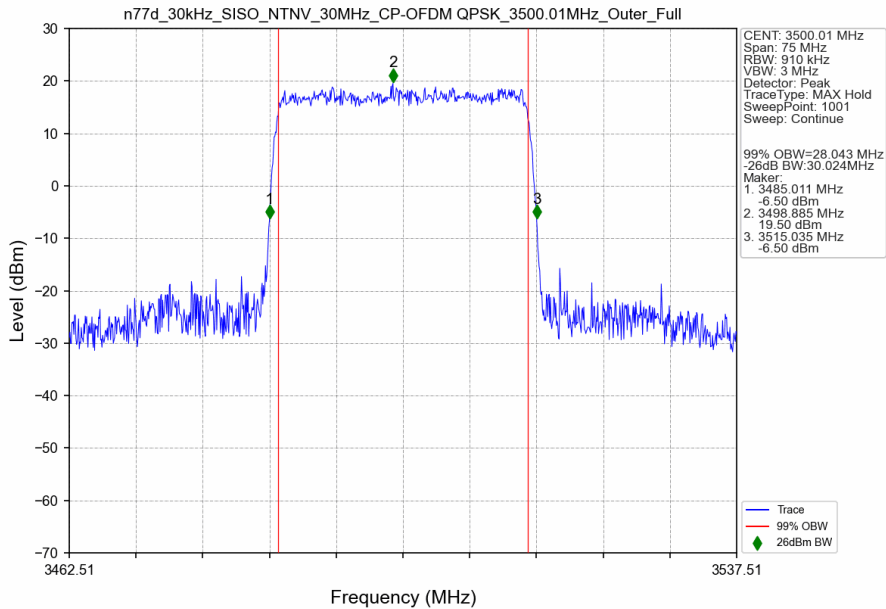
n77d_30kHz_SISO_NTNV_30MHz_DFT-s-OFDM 64 QAM_3500.01MHz_Outer_Full_Ant8



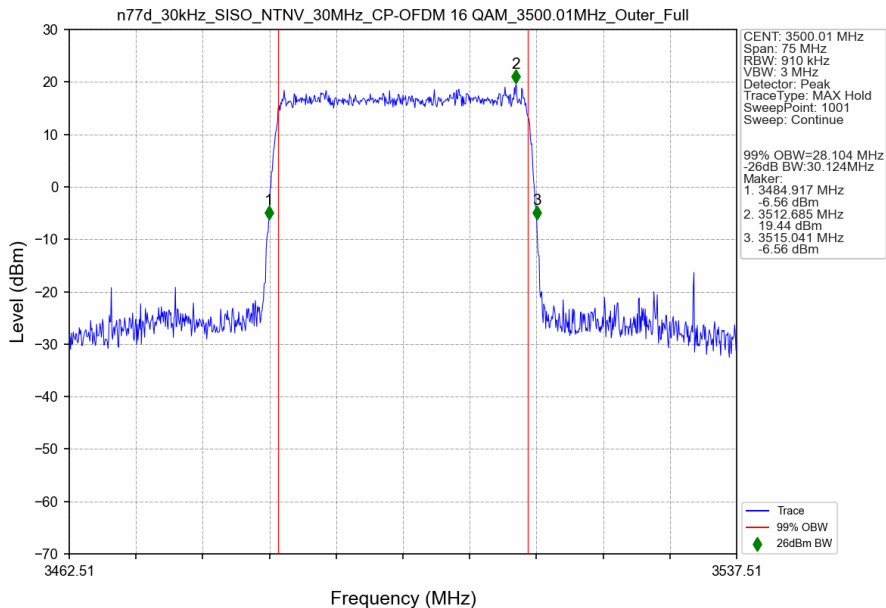
n77d_30kHz_SISO_NTNV_30MHz_DFT-s-OFDM 256 QAM_3500.01MHz_Outer_Full_Ant8

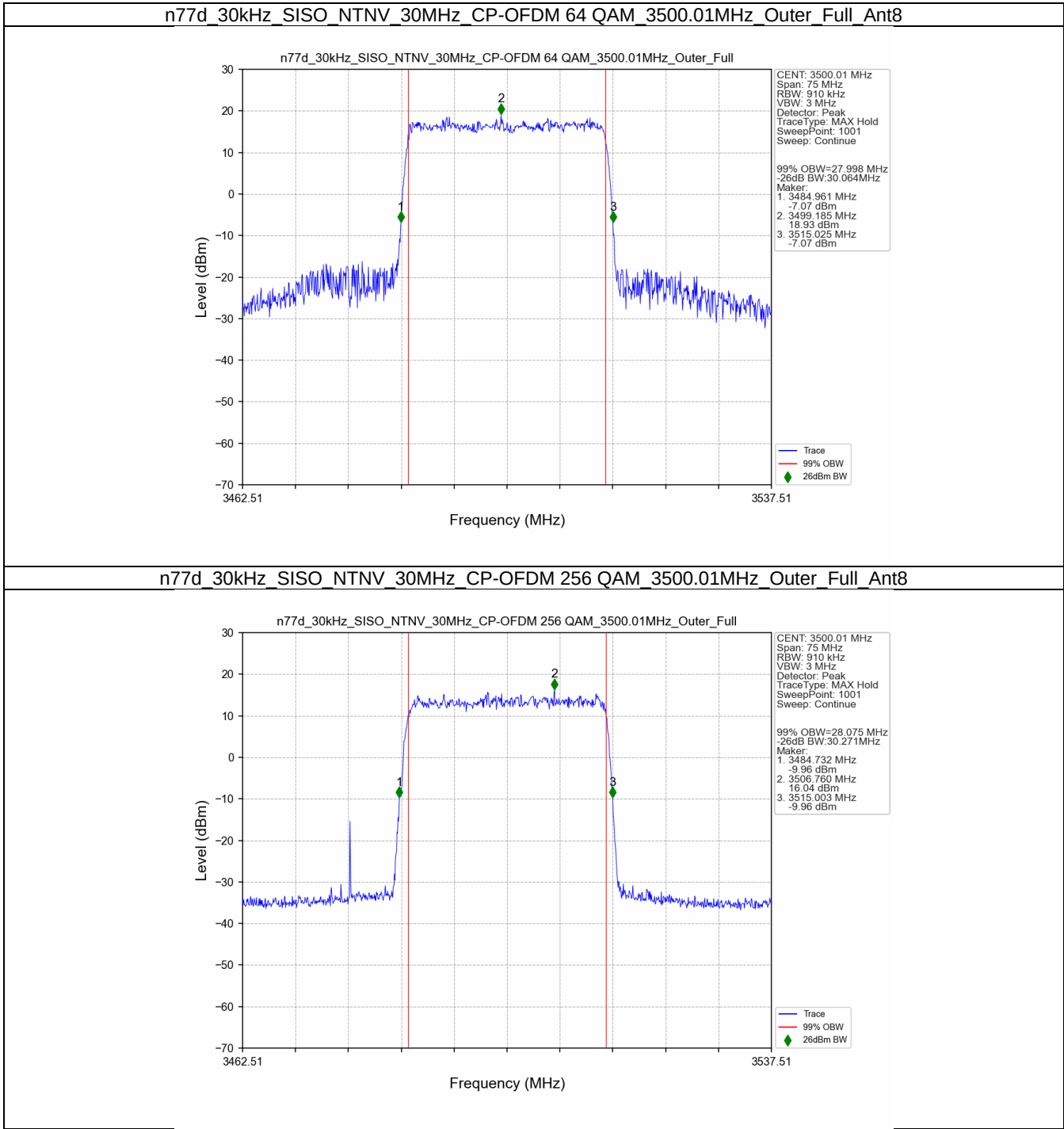


n77d_30kHz_SISO_NTNV_30MHz_CP-OFDM QPSK_3500.01MHz_Outer_Full_Ant8

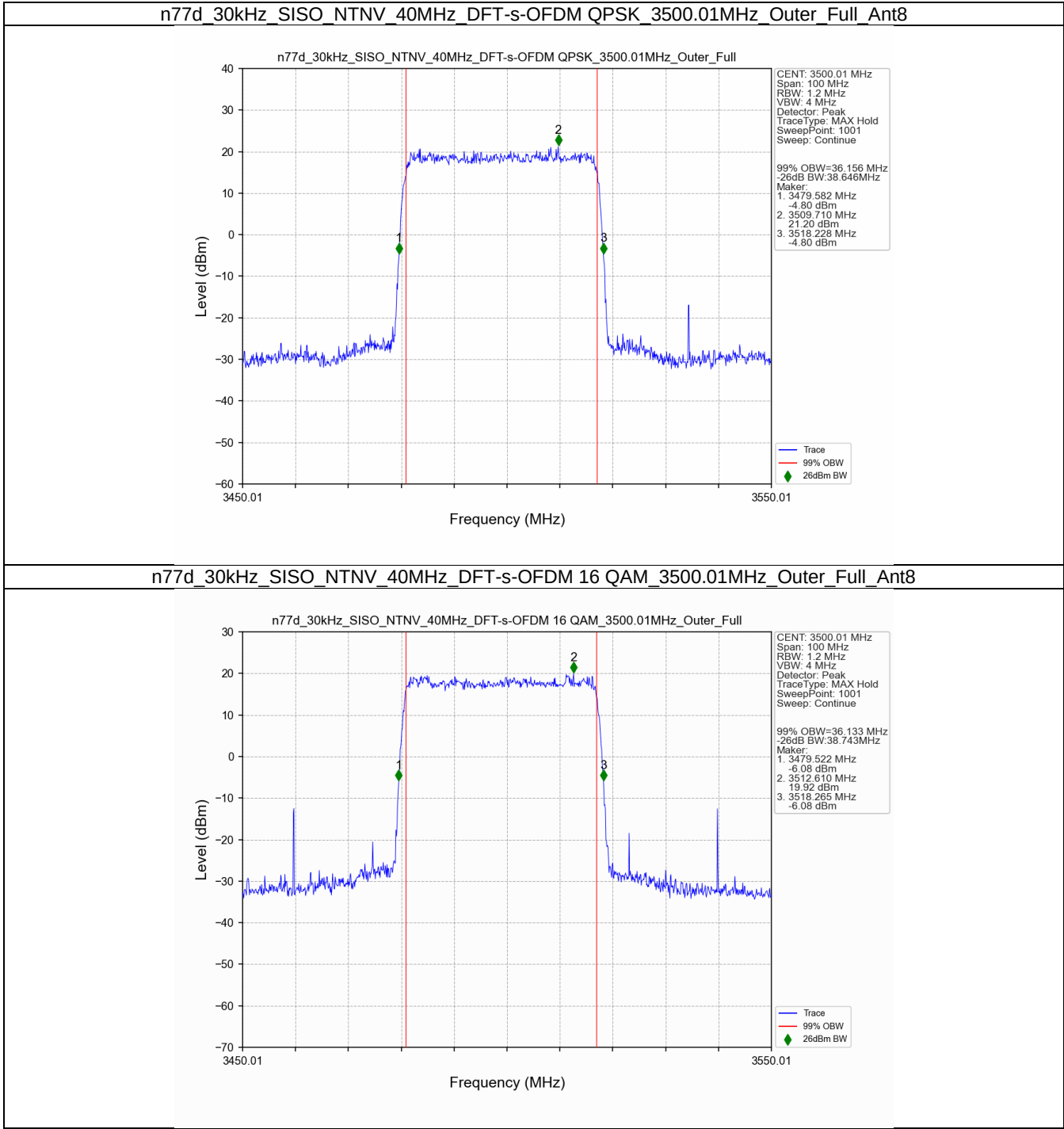


n77d_30kHz_SISO_NTNV_30MHz_CP-OFDM 16 QAM_3500.01MHz_Outer_Full_Ant8

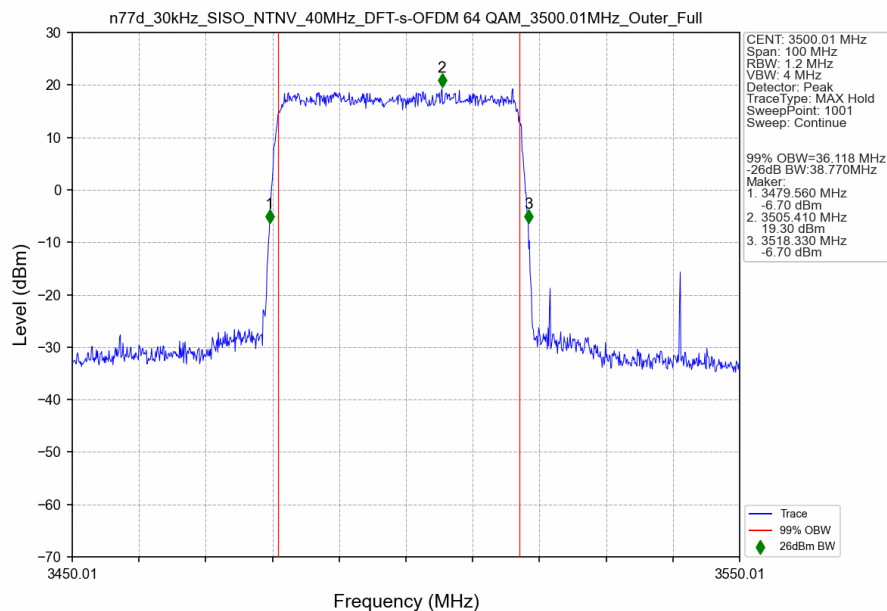




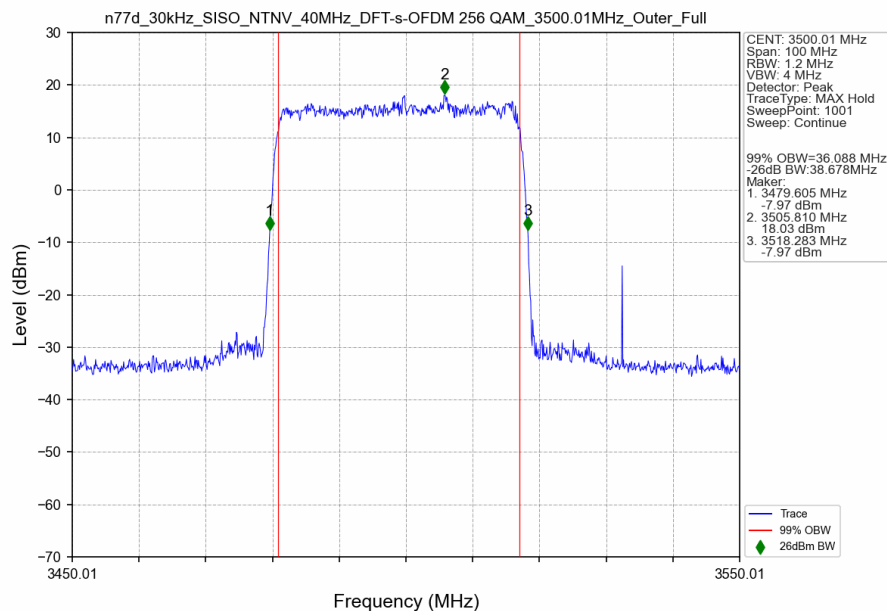
3.2.4 30_S_40M_NTNV



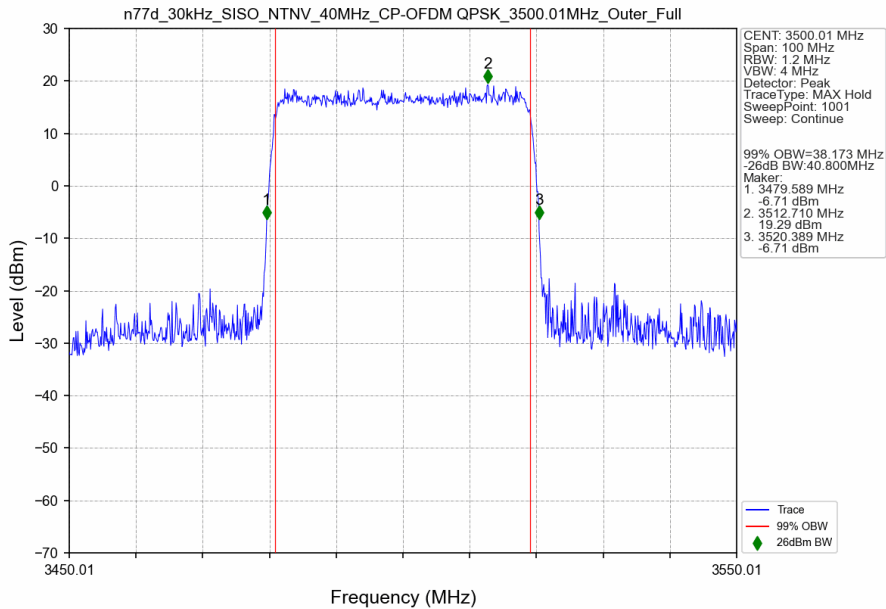
n77d_30kHz_SISO_NTNV_40MHz_DFT-s-OFDM 64 QAM_3500.01MHz_Outer_Full_Ant8



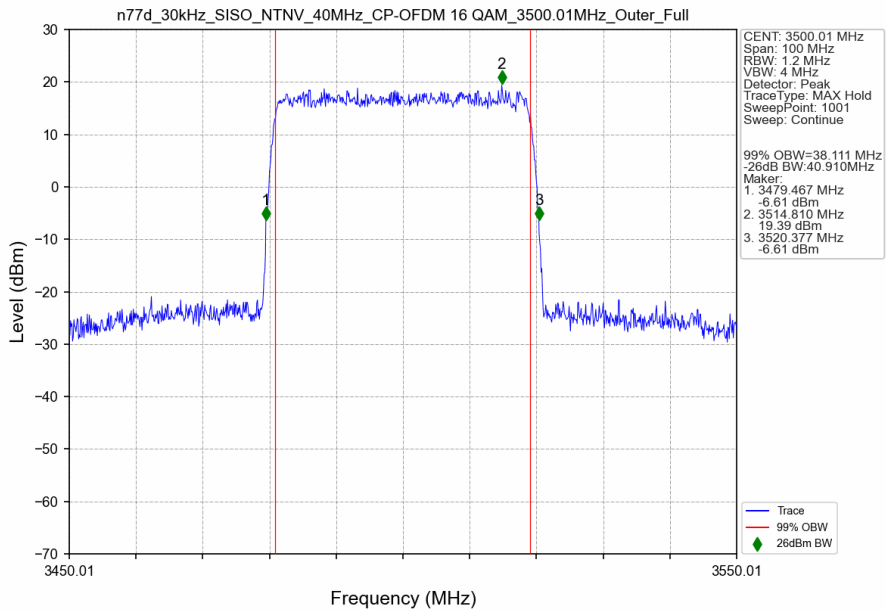
n77d_30kHz_SISO_NTNV_40MHz_DFT-s-OFDM 256 QAM_3500.01MHz_Outer_Full_Ant8



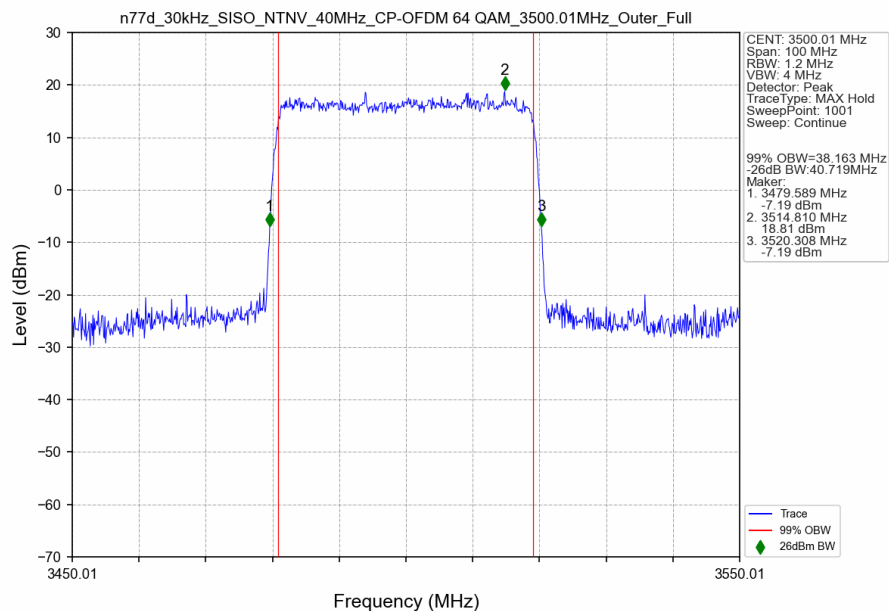
n77d_30kHz_SISO_NTNV_40MHz_CP-OFDM QPSK_3500.01MHz_Outer_Full_Ant8



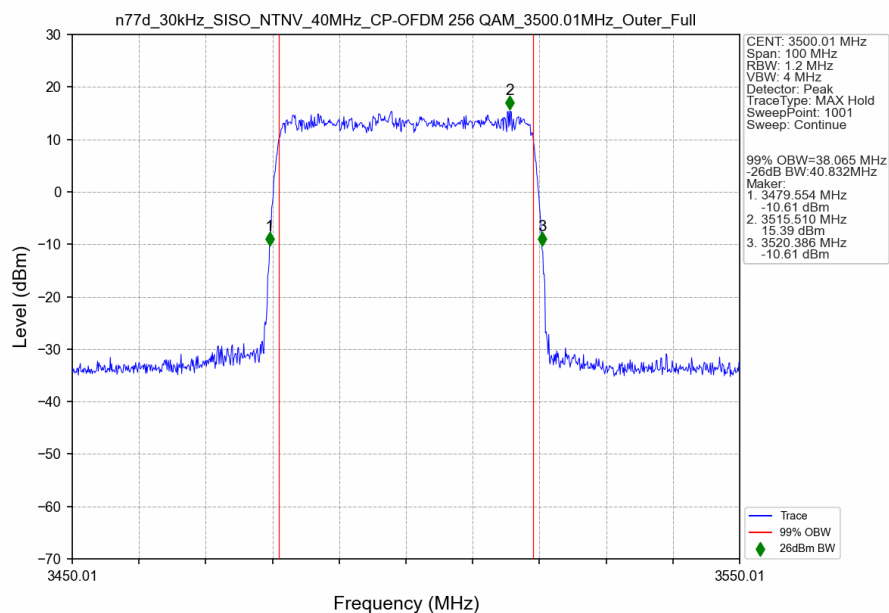
n77d_30kHz_SISO_NTNV_40MHz_CP-OFDM 16 QAM_3500.01MHz_Outer_Full_Ant8



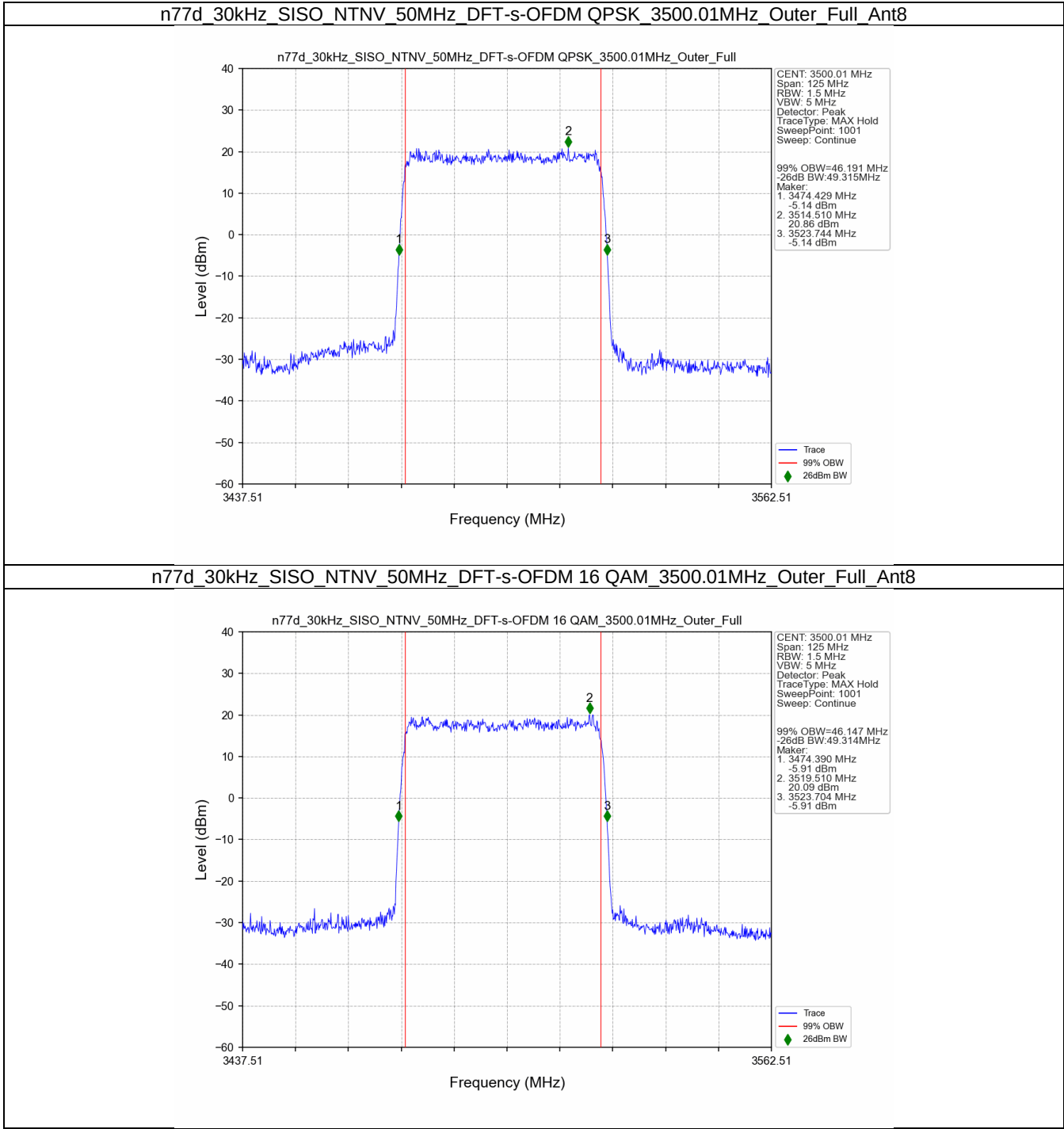
n77d_30kHz_SISO_NTNV_40MHz_CP-OFDM 64 QAM_3500.01MHz_Outer_Full_Ant8



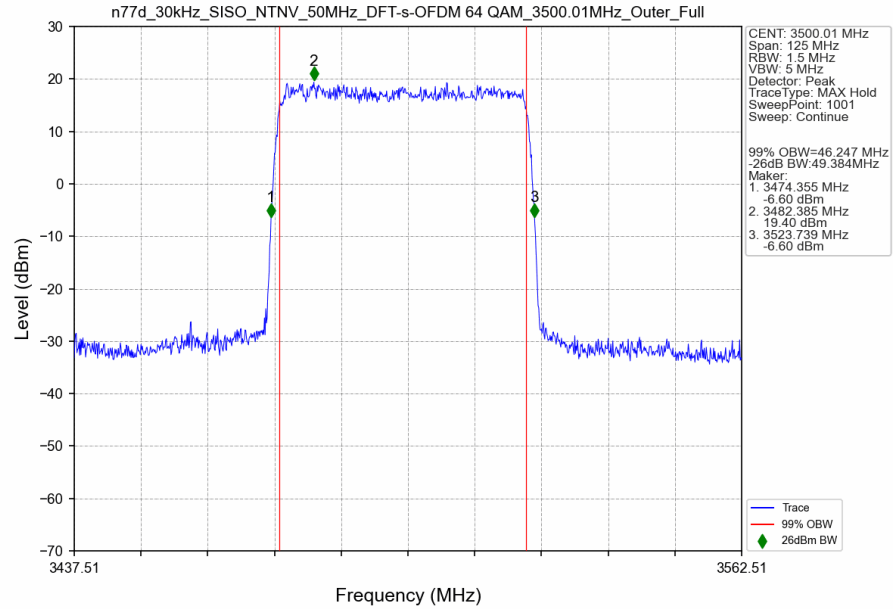
n77d_30kHz_SISO_NTNV_40MHz_CP-OFDM 256 QAM_3500.01MHz_Outer_Full_Ant8



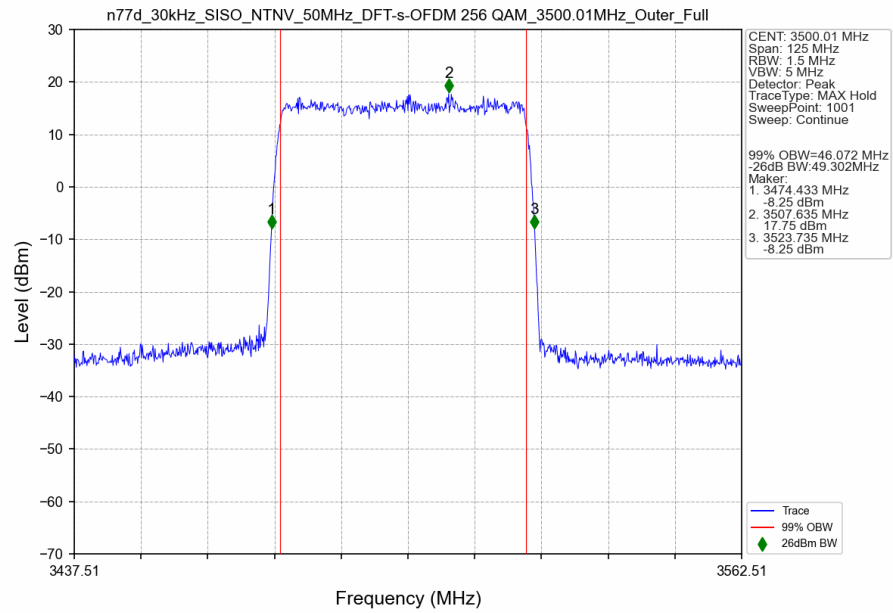
3.2.5 30_S_50M_NTNV



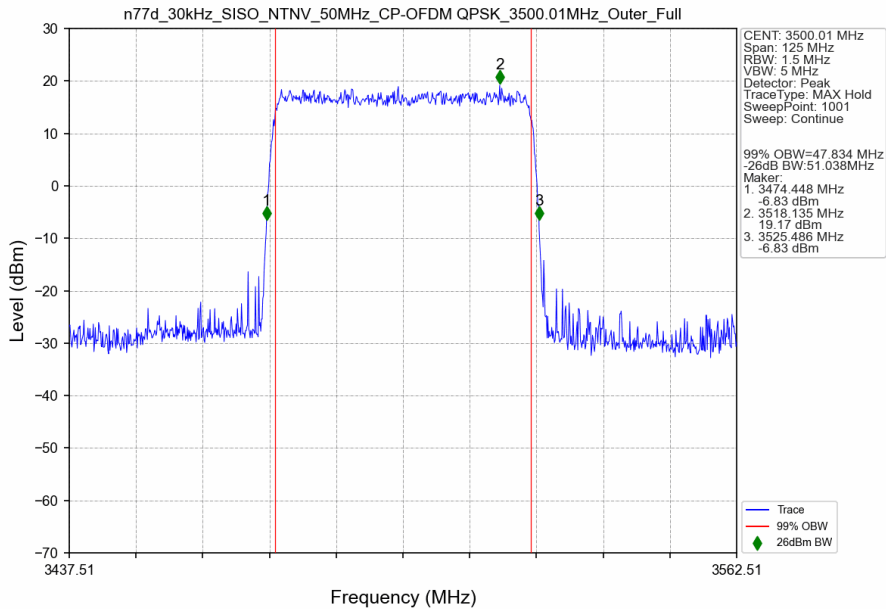
n77d_30kHz_SISO_NTNV_50MHz_DFT-s-OFDM 64 QAM_3500.01MHz_Outer_Full_Ant8



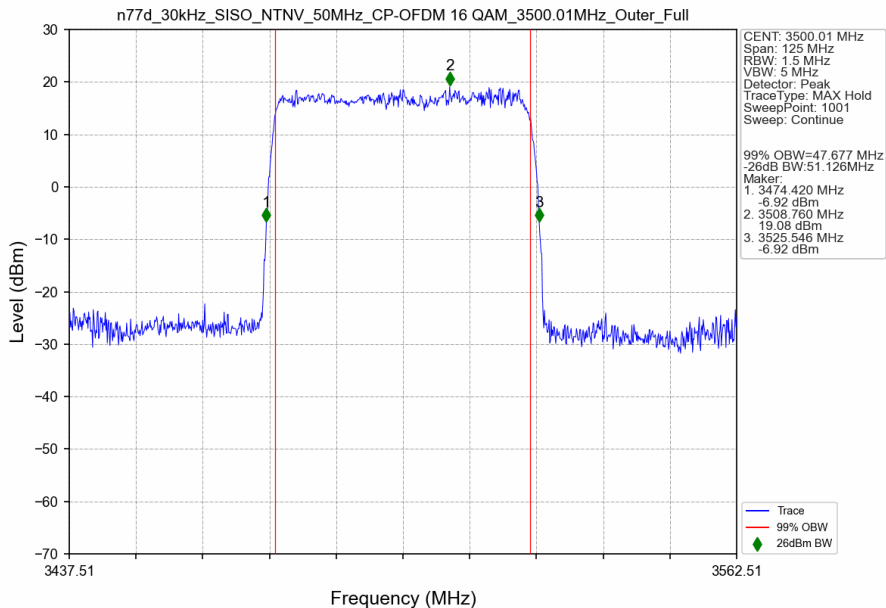
n77d_30kHz_SISO_NTNV_50MHz_DFT-s-OFDM 256 QAM_3500.01MHz_Outer_Full_Ant8



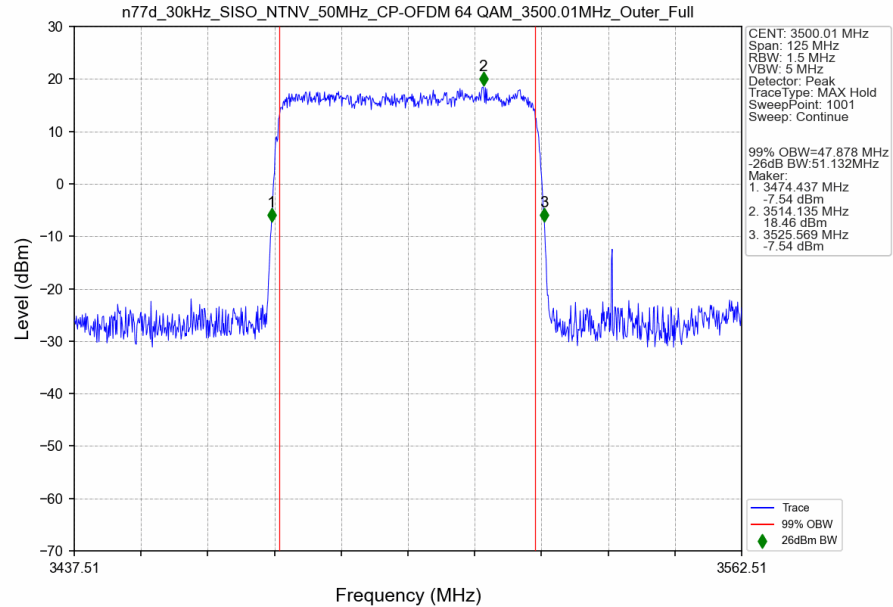
n77d_30kHz_SISO_NTNV_50MHz_CP-OFDM QPSK_3500.01MHz_Outer_Full_Ant8



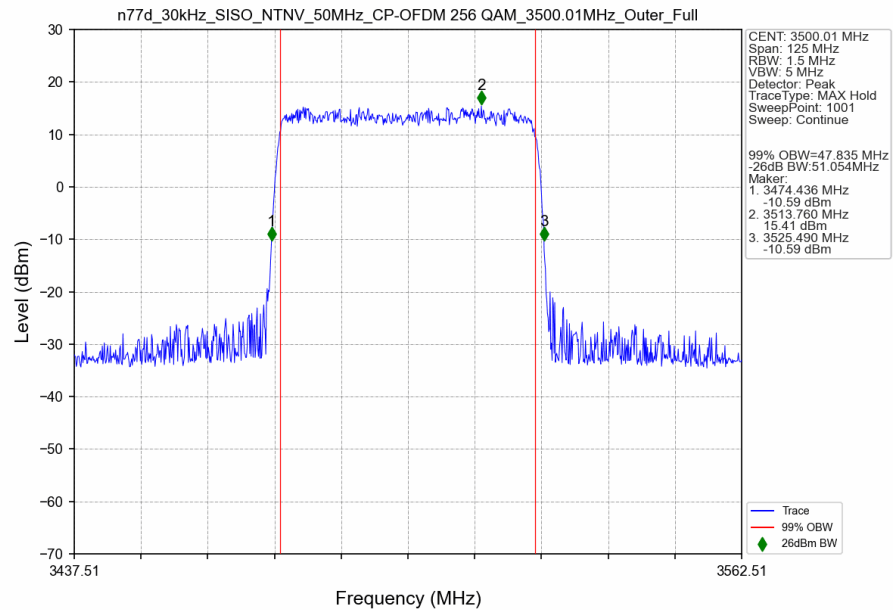
n77d_30kHz_SISO_NTNV_50MHz_CP-OFDM 16 QAM_3500.01MHz_Outer_Full_Ant8



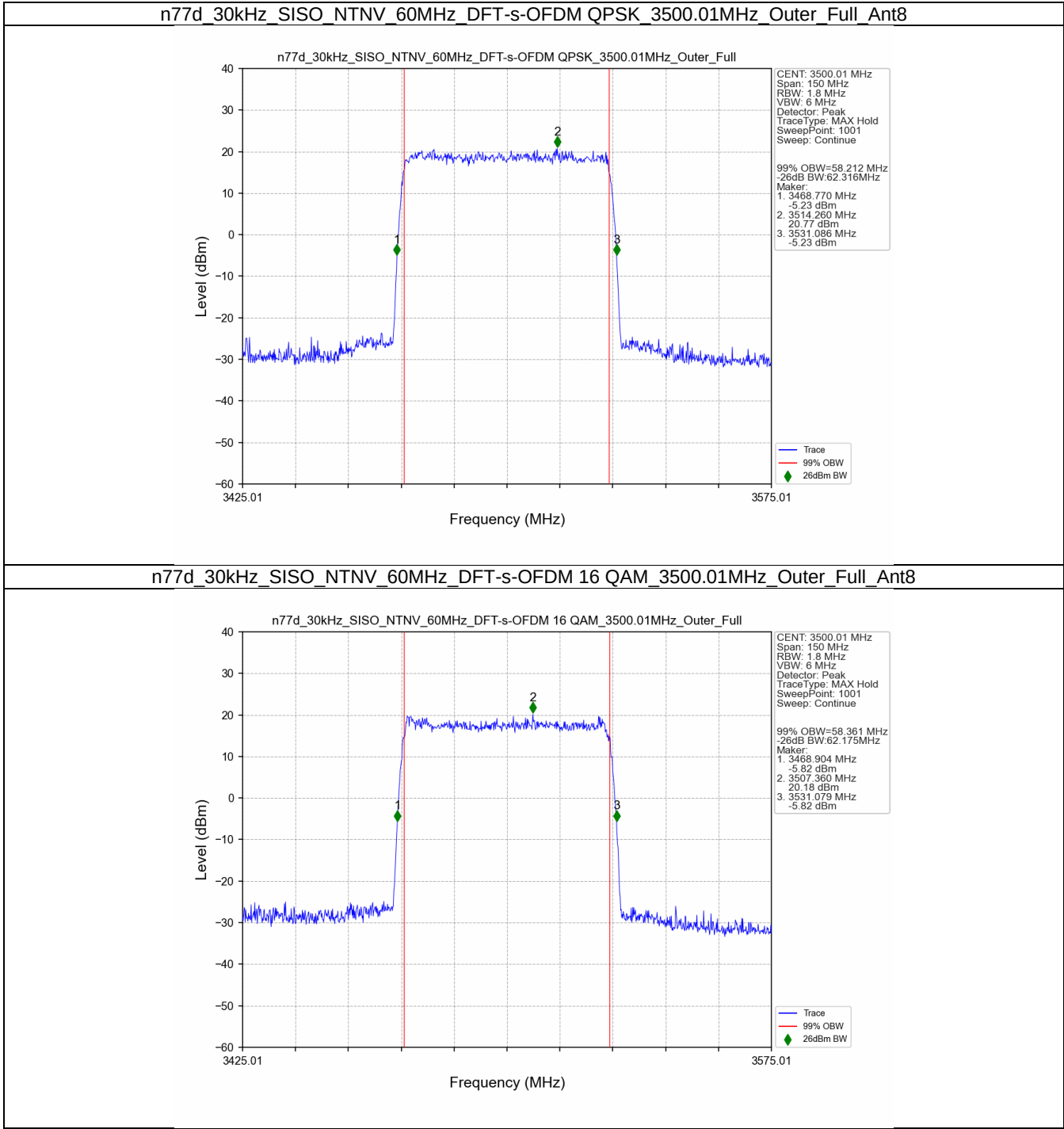
n77d_30kHz_SISO_NTNV_50MHz_CP-OFDM 64 QAM_3500.01MHz_Outer_Full_Ant8



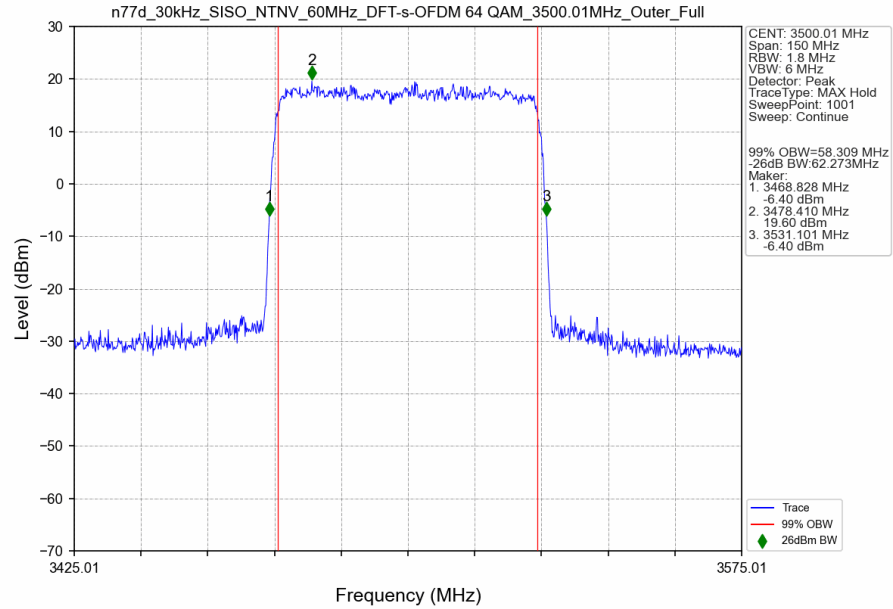
n77d_30kHz_SISO_NTNV_50MHz_CP-OFDM 256 QAM_3500.01MHz_Outer_Full_Ant8



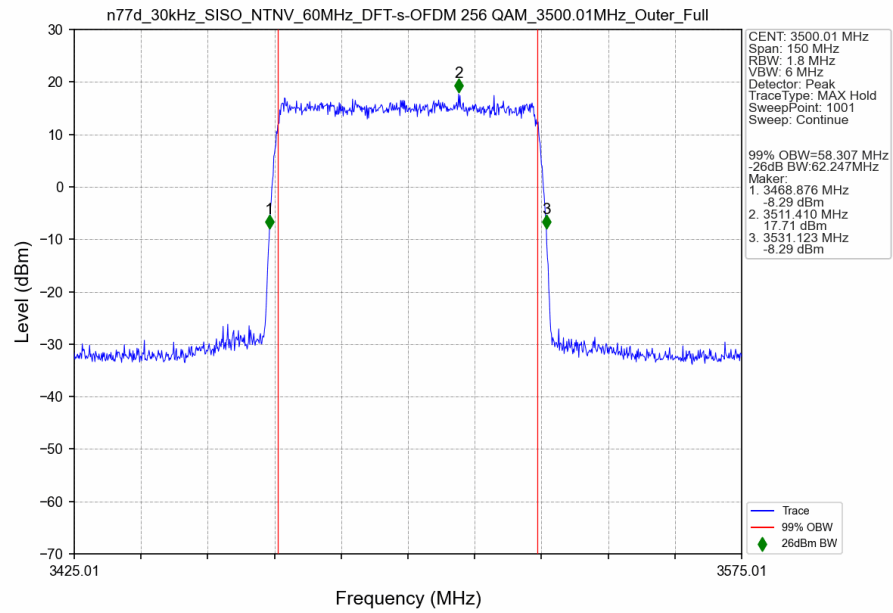
3.2.6 30_S_60M_NTNV



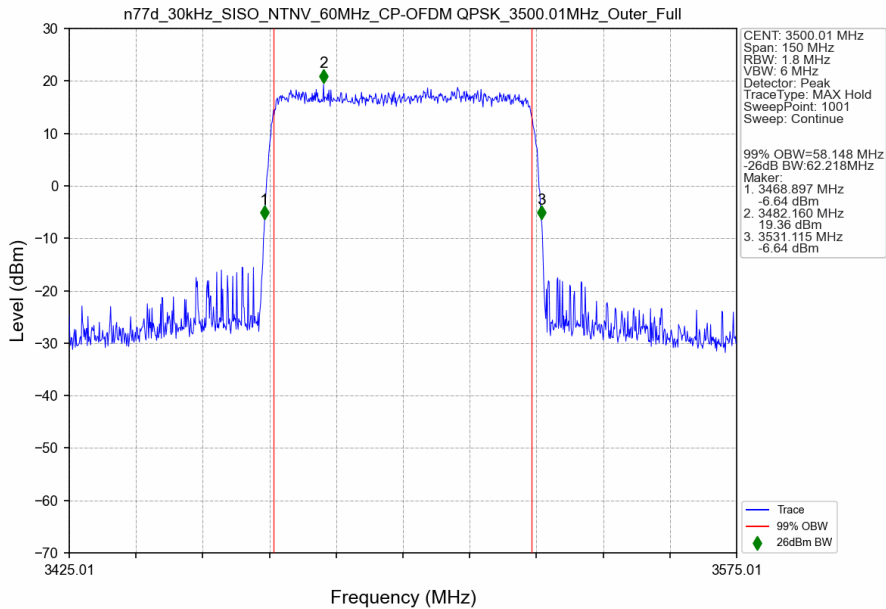
n77d_30kHz_SISO_NTNV_60MHz_DFT-s-OFDM 64 QAM_3500.01MHz_Outer_Full_Ant8



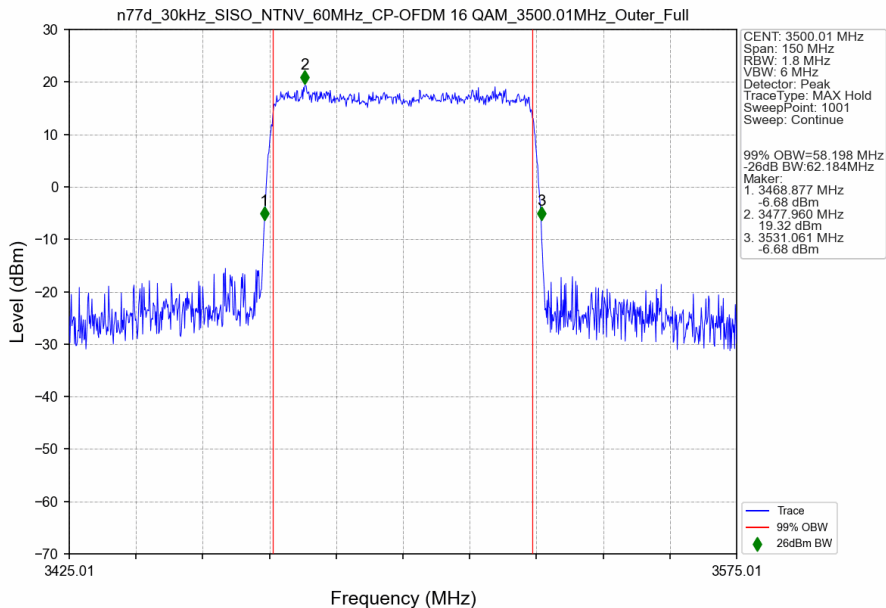
n77d_30kHz_SISO_NTNV_60MHz_DFT-s-OFDM 256 QAM_3500.01MHz_Outer_Full_Ant8



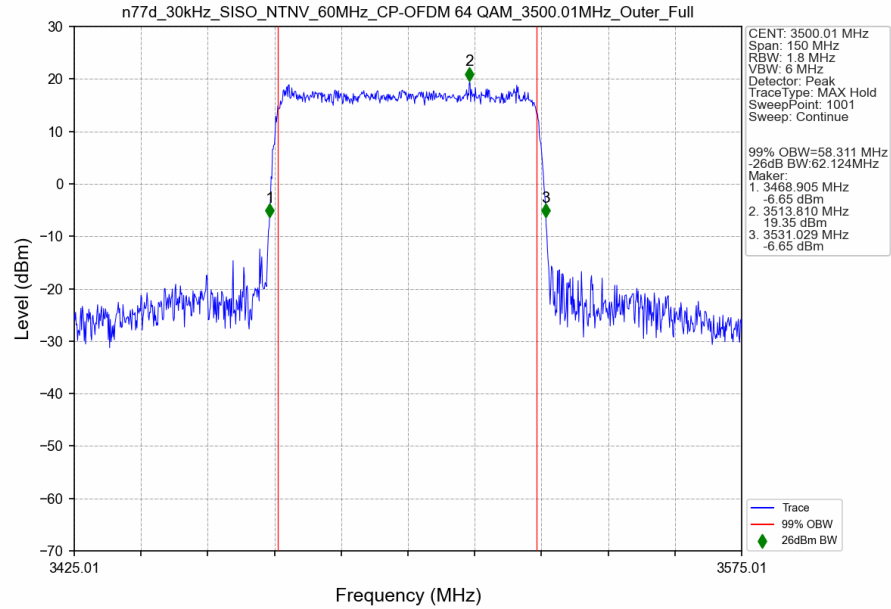
n77d_30kHz_SISO_NTNV_60MHz_CP-OFDM QPSK_3500.01MHz_Outer_Full_Ant8



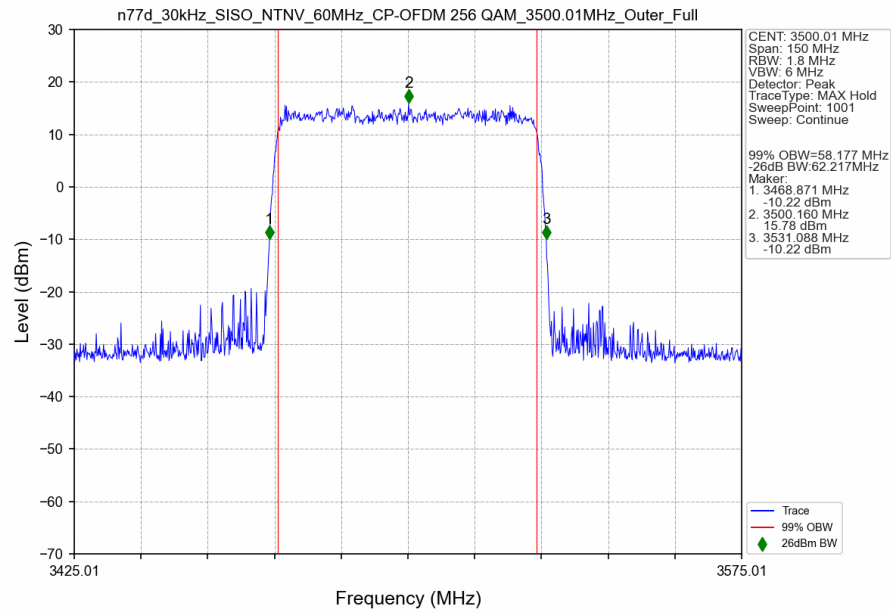
n77d_30kHz_SISO_NTNV_60MHz_CP-OFDM 16 QAM_3500.01MHz_Outer_Full_Ant8

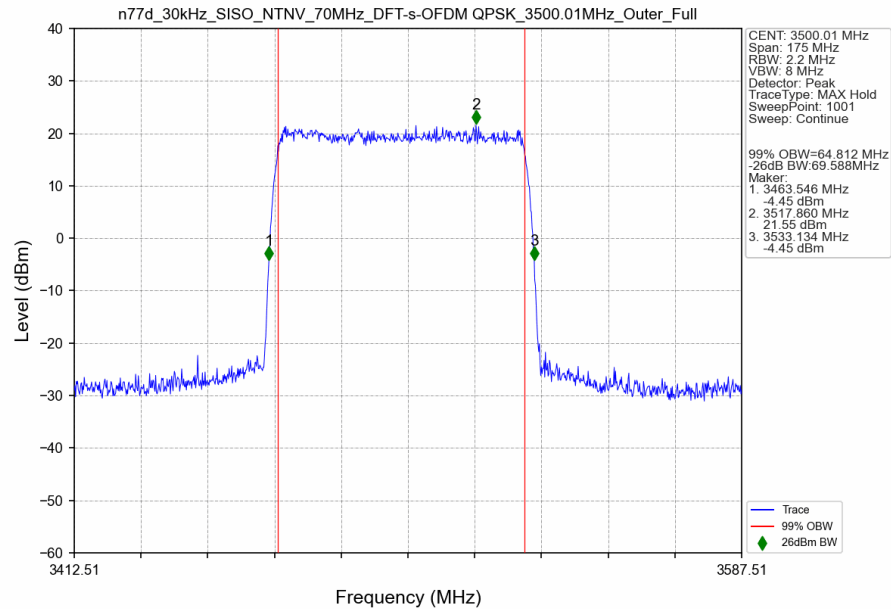
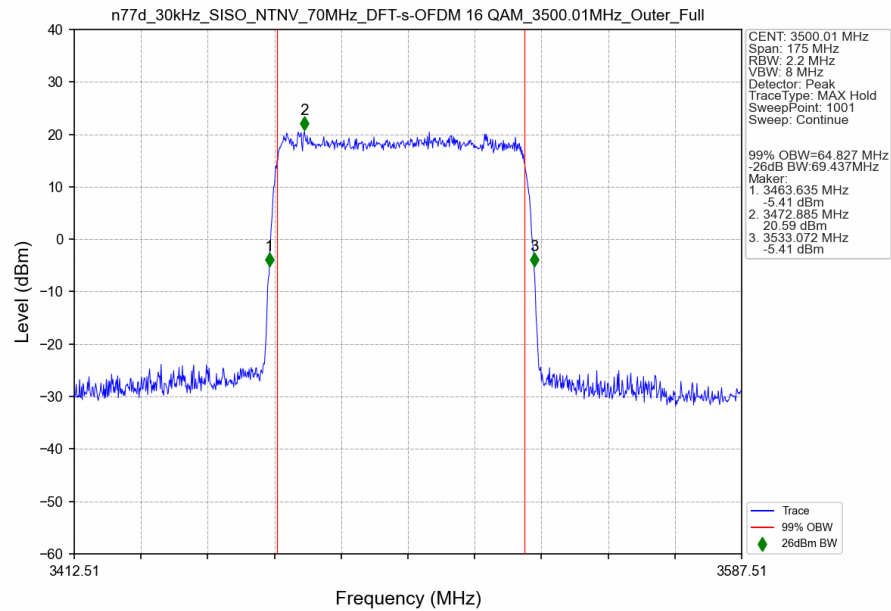


n77d_30kHz_SISO_NTNV_60MHz_CP-OFDM 64 QAM_3500.01MHz_Outer_Full_Ant8

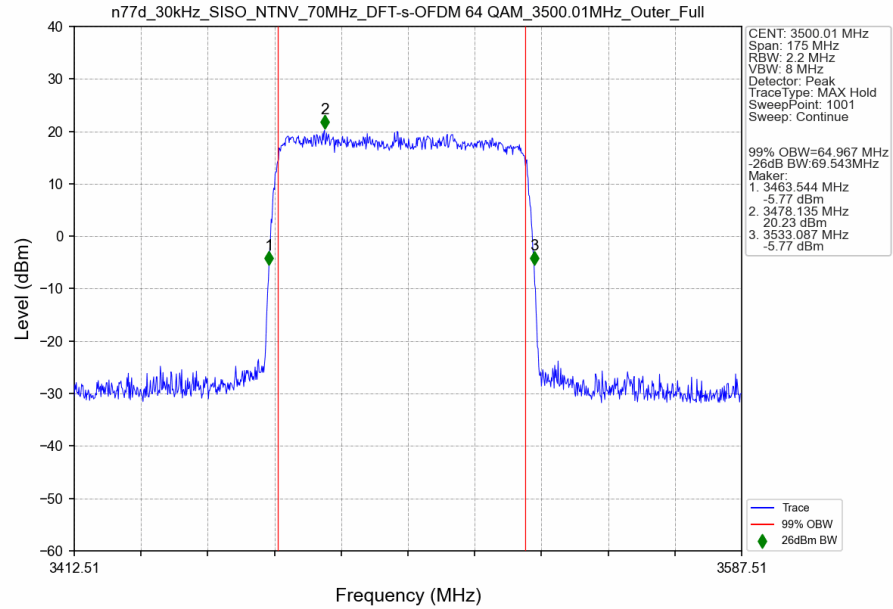


n77d_30kHz_SISO_NTNV_60MHz_CP-OFDM 256 QAM_3500.01MHz_Outer_Full_Ant8

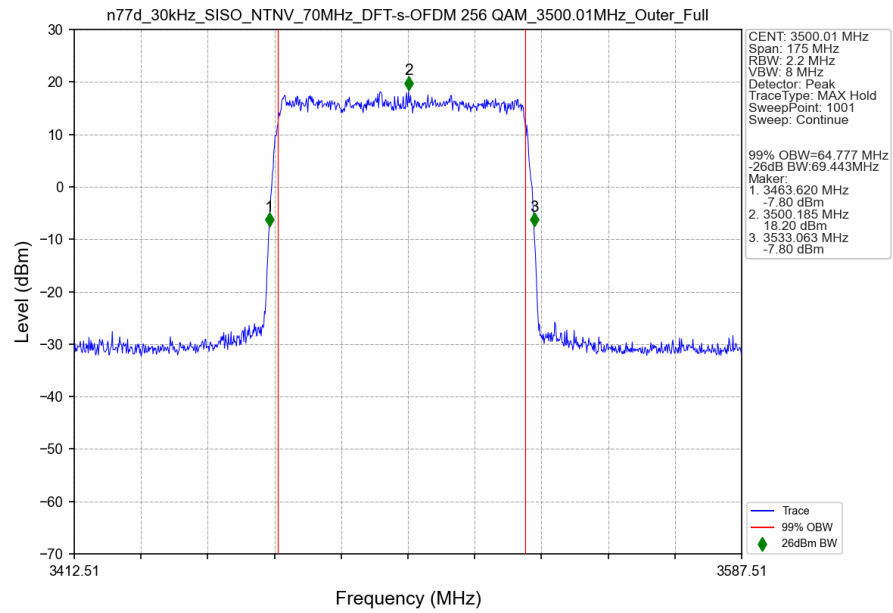


3.2.7 30_S_70M_NTNV**n77d_30kHz_SISO_NTNV_70MHz_DFT-s-OFDM QPSK_3500.01MHz_Outer_Full_Ant8****n77d_30kHz_SISO_NTNV_70MHz_DFT-s-OFDM 16 QAM_3500.01MHz_Outer_Full_Ant8**

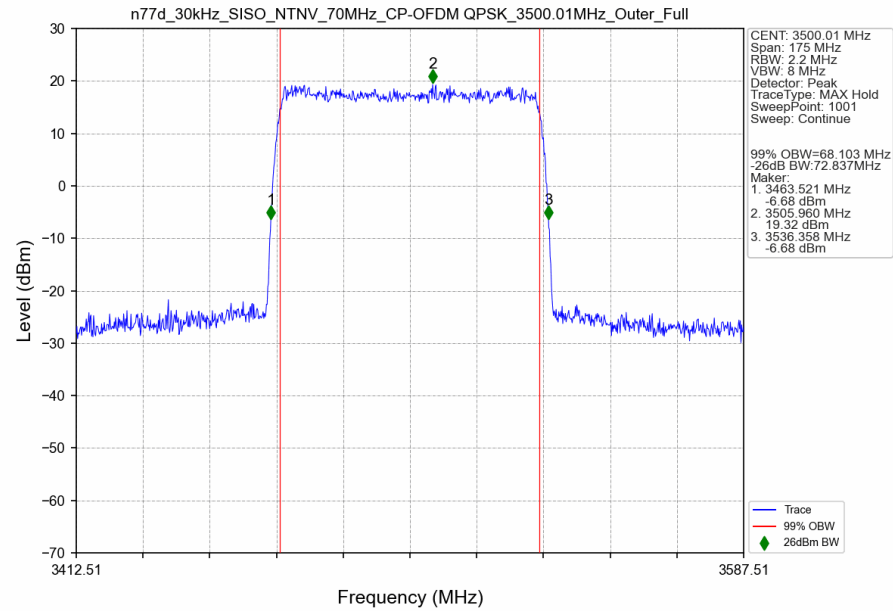
n77d_30kHz_SISO_NTNV_70MHz_DFT-s-OFDM 64 QAM_3500.01MHz_Outer_Full_Ant8



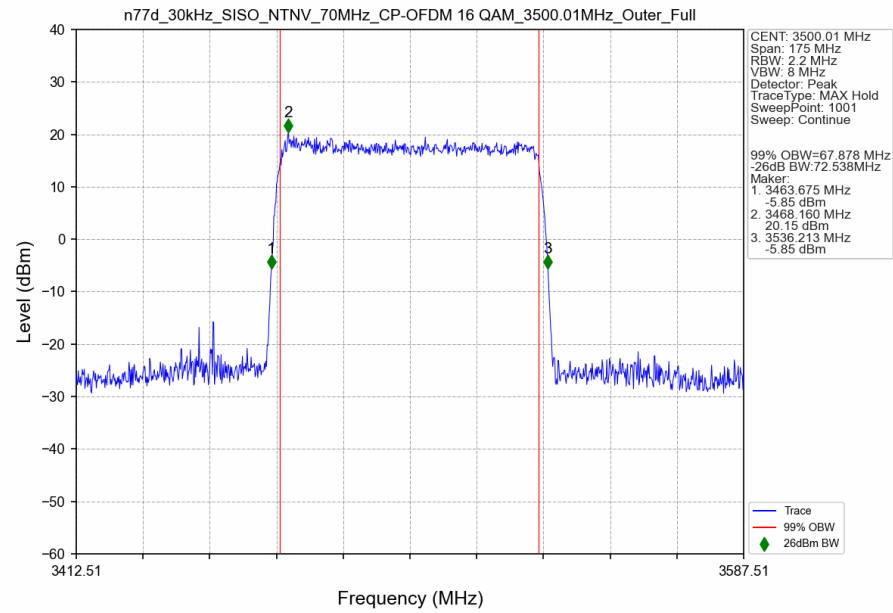
n77d_30kHz_SISO_NTNV_70MHz_DFT-s-OFDM 256 QAM_3500.01MHz_Outer_Full_Ant8



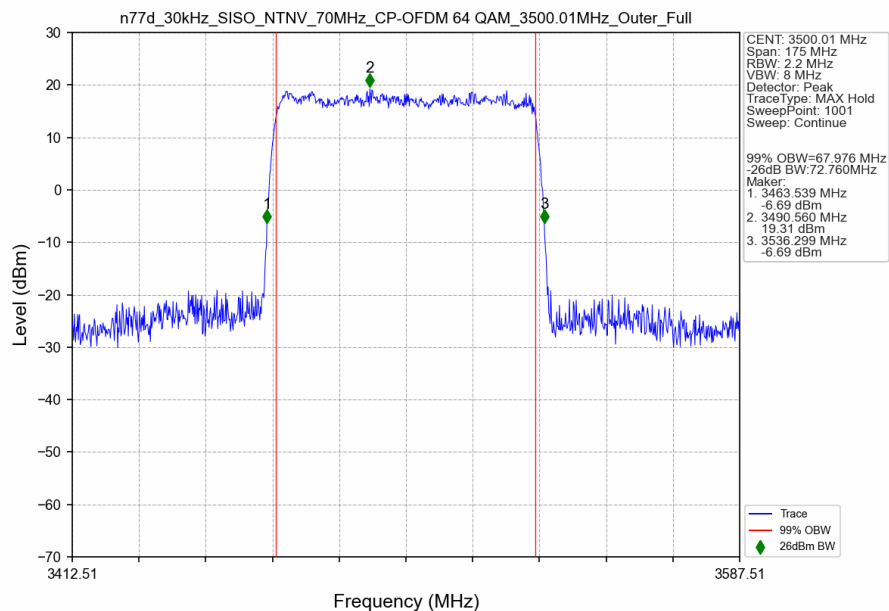
n77d_30kHz_SISO_NTNV_70MHz_CP-OFDM QPSK_3500.01MHz_Outer_Full_Ant8



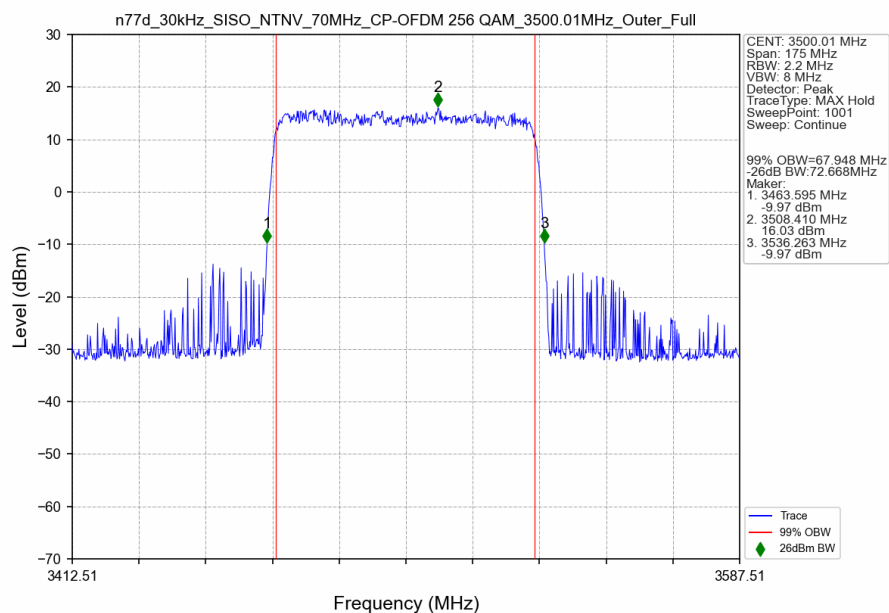
n77d_30kHz_SISO_NTNV_70MHz_CP-OFDM 16 QAM_3500.01MHz_Outer_Full_Ant8



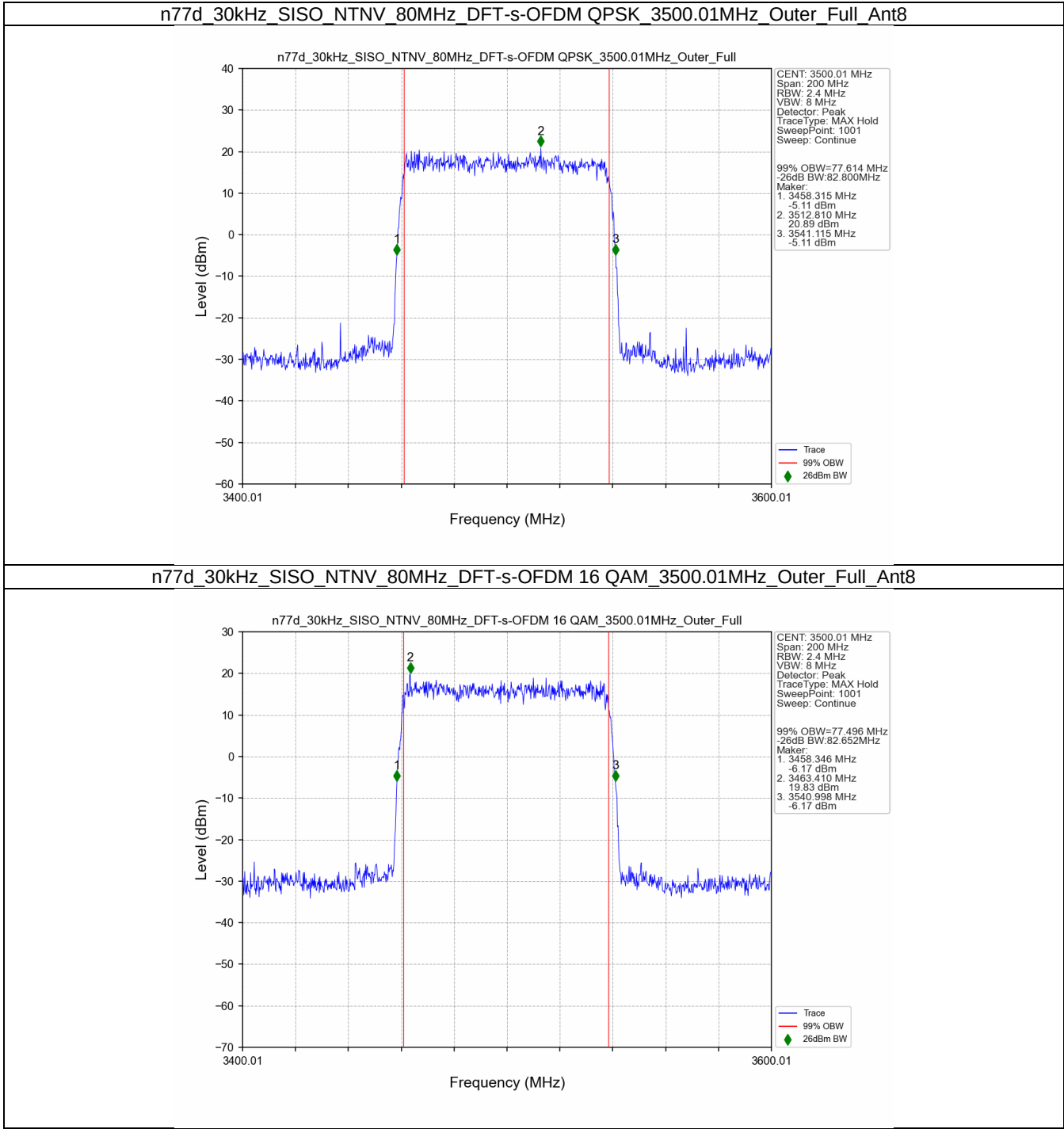
n77d_30kHz_SISO_NTNV_70MHz_CP-OFDM 64 QAM_3500.01MHz_Outer_Full_Ant8



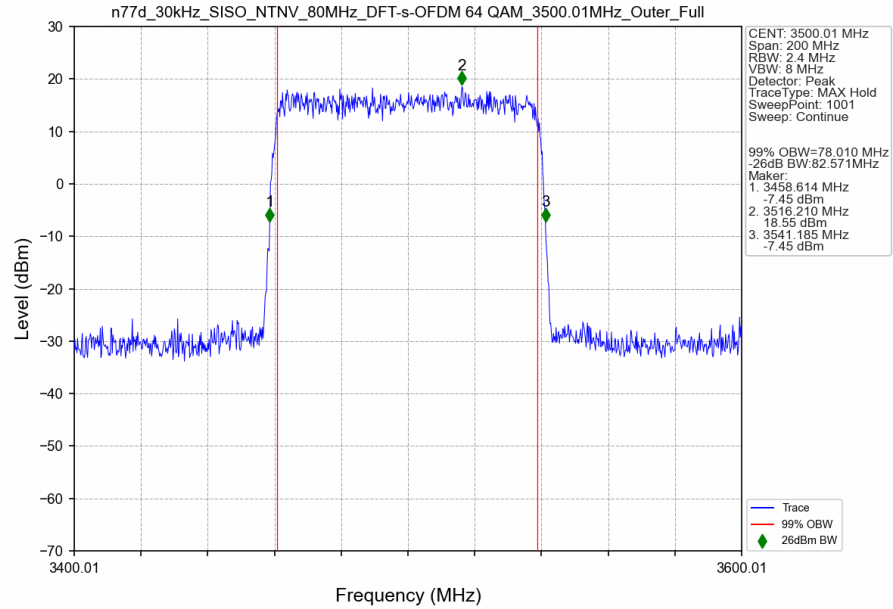
n77d_30kHz_SISO_NTNV_70MHz_CP-OFDM 256 QAM_3500.01MHz_Outer_Full_Ant8



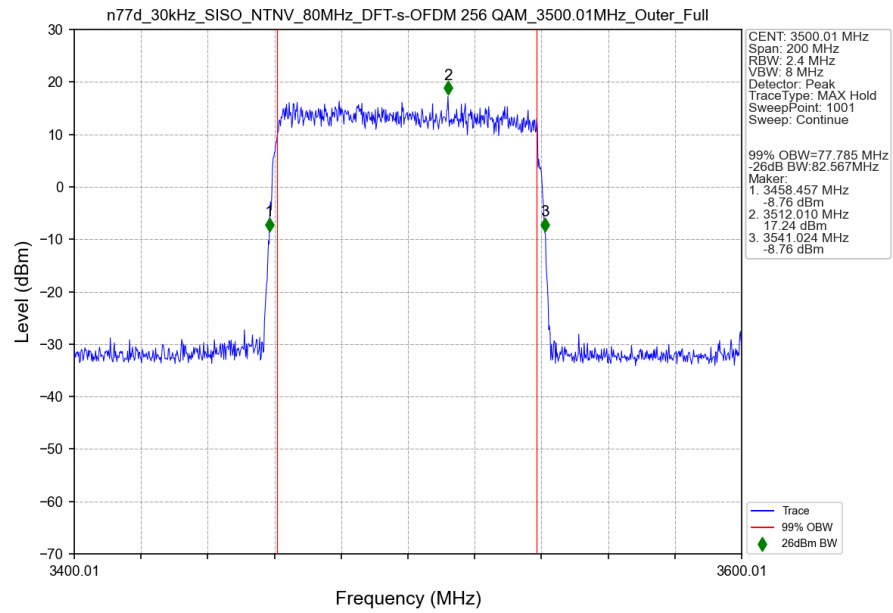
3.2.8 30_S_80M_NTNV



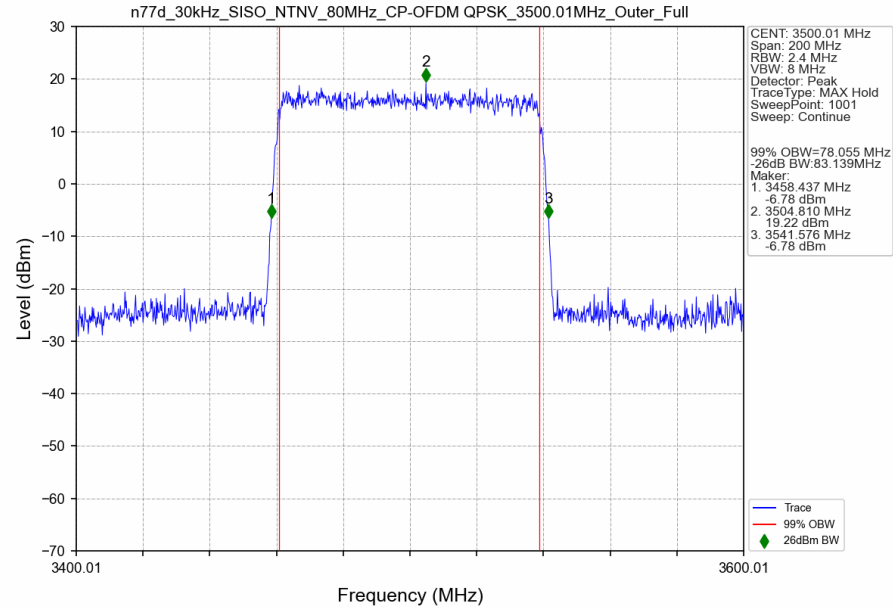
n77d_30kHz_SISO_NTNV_80MHz_DFT-s-OFDM 64 QAM_3500.01MHz_Outer_Full_Ant8



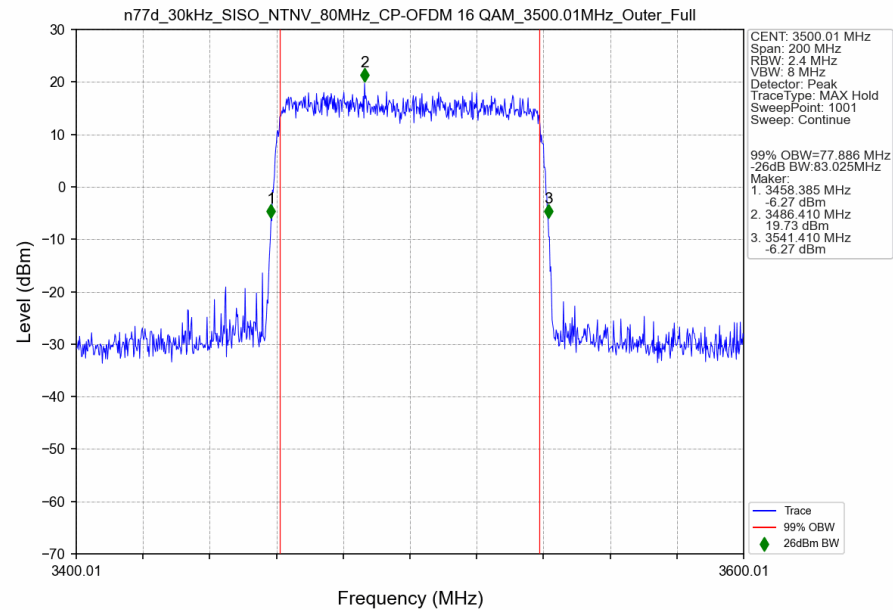
n77d_30kHz_SISO_NTNV_80MHz_DFT-s-OFDM 256 QAM_3500.01MHz_Outer_Full_Ant8



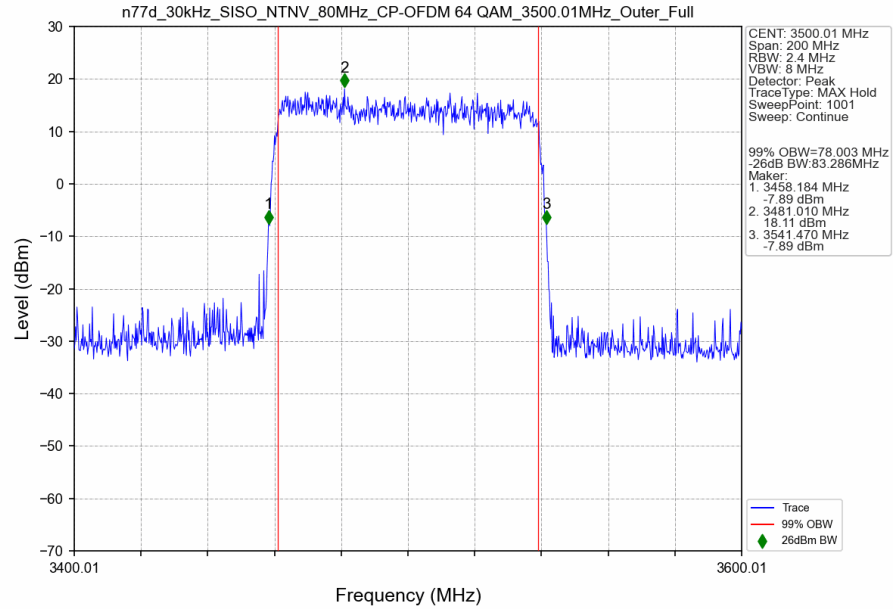
n77d_30kHz_SISO_NTNV_80MHz_CP-OFDM QPSK_3500.01MHz_Outer_Full_Ant8



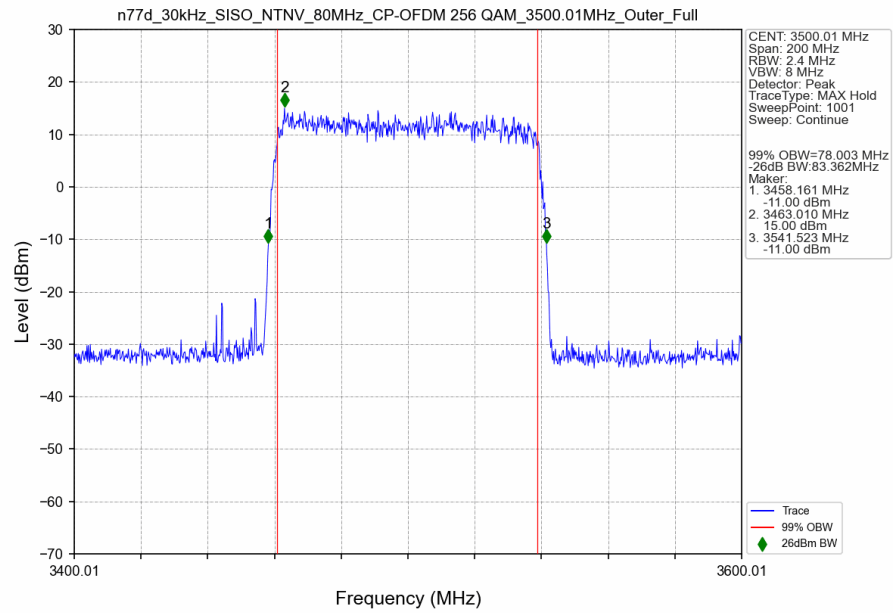
n77d_30kHz_SISO_NTNV_80MHz_CP-OFDM 16 QAM_3500.01MHz_Outer_Full_Ant8

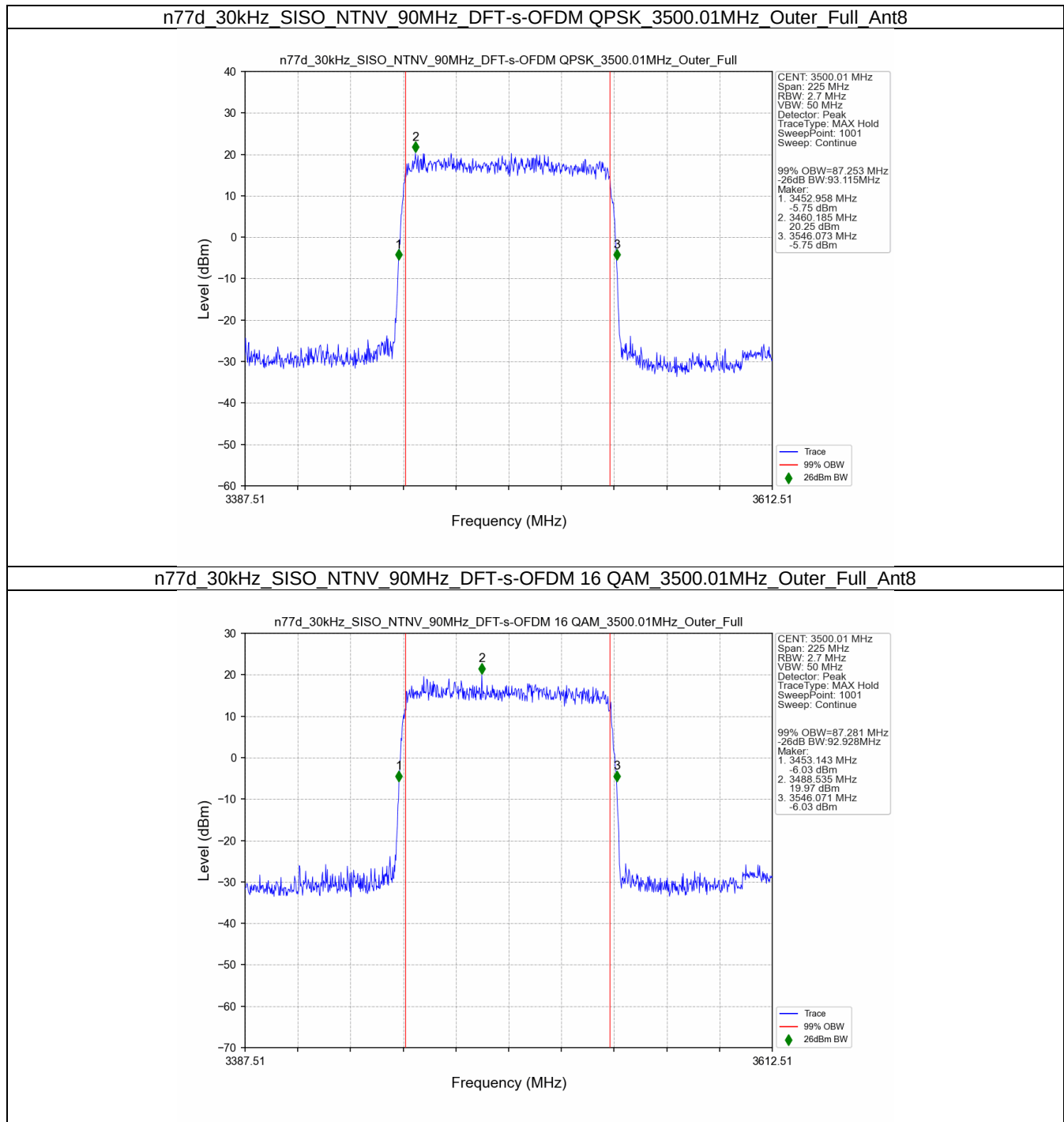


n77d_30kHz_SISO_NTNV_80MHz_CP-OFDM 64 QAM_3500.01MHz_Outer_Full_Ant8

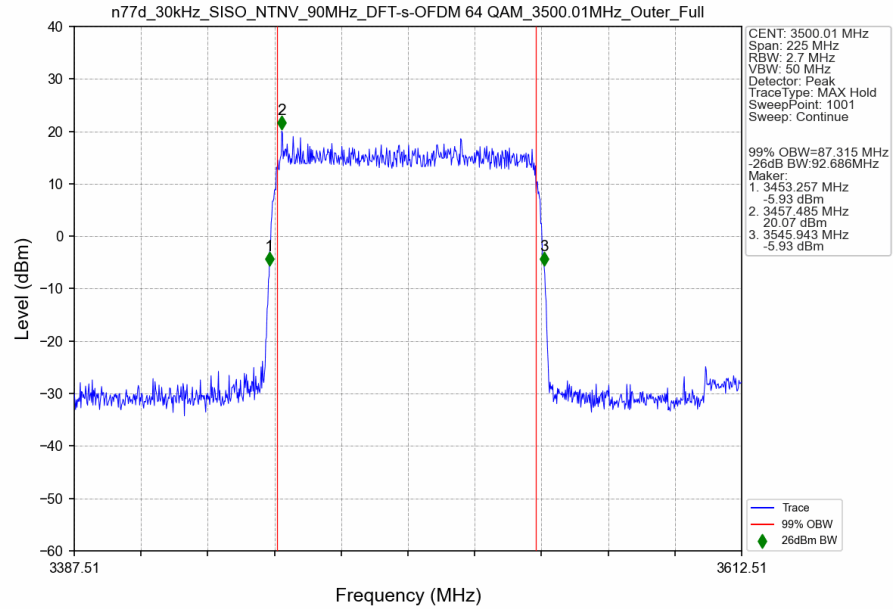


n77d_30kHz_SISO_NTNV_80MHz_CP-OFDM 256 QAM_3500.01MHz_Outer_Full_Ant8

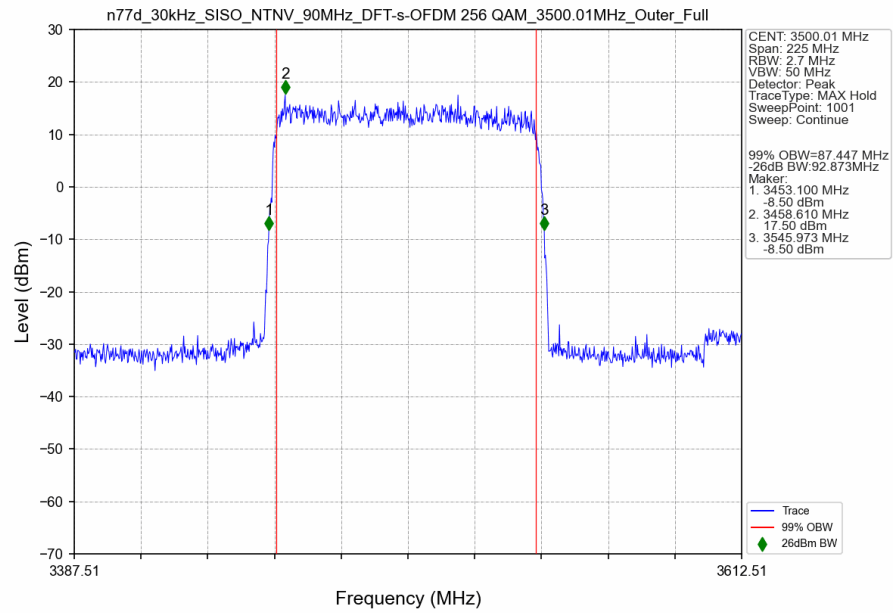


3.2.9 30_S_90M_NTNV

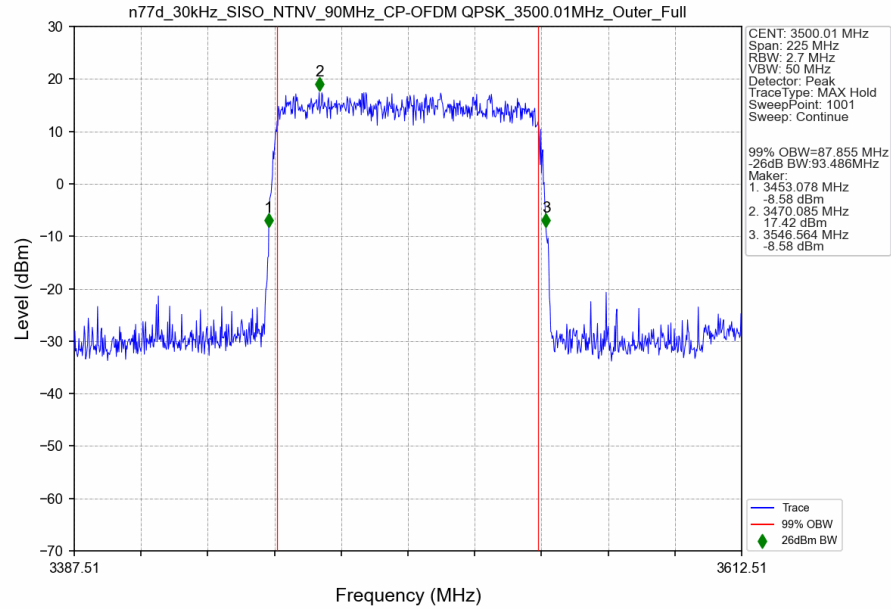
n77d_30kHz_SISO_NTNV_90MHz_DFT-s-OFDM 64 QAM_3500.01MHz_Outer_Full_Ant8



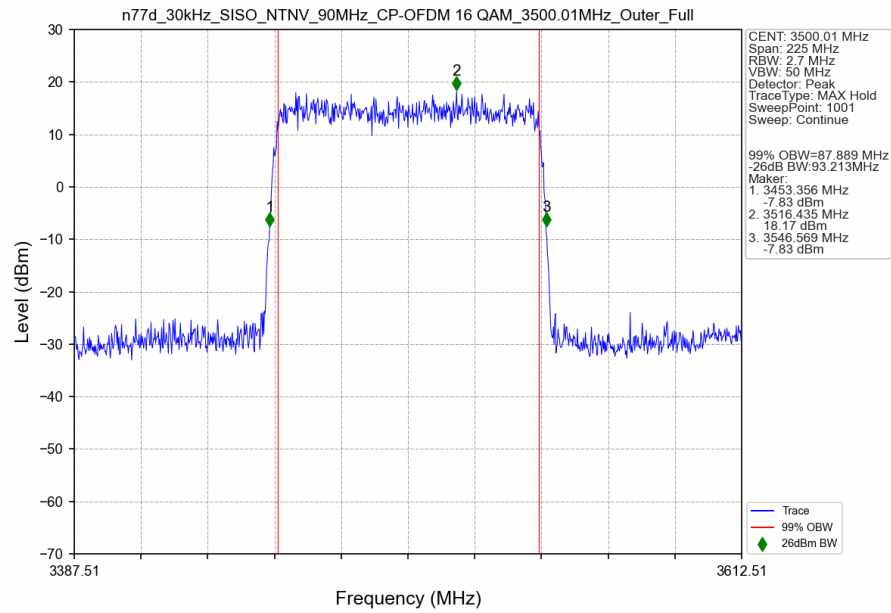
n77d_30kHz_SISO_NTNV_90MHz_DFT-s-OFDM 256 QAM_3500.01MHz_Outer_Full_Ant8

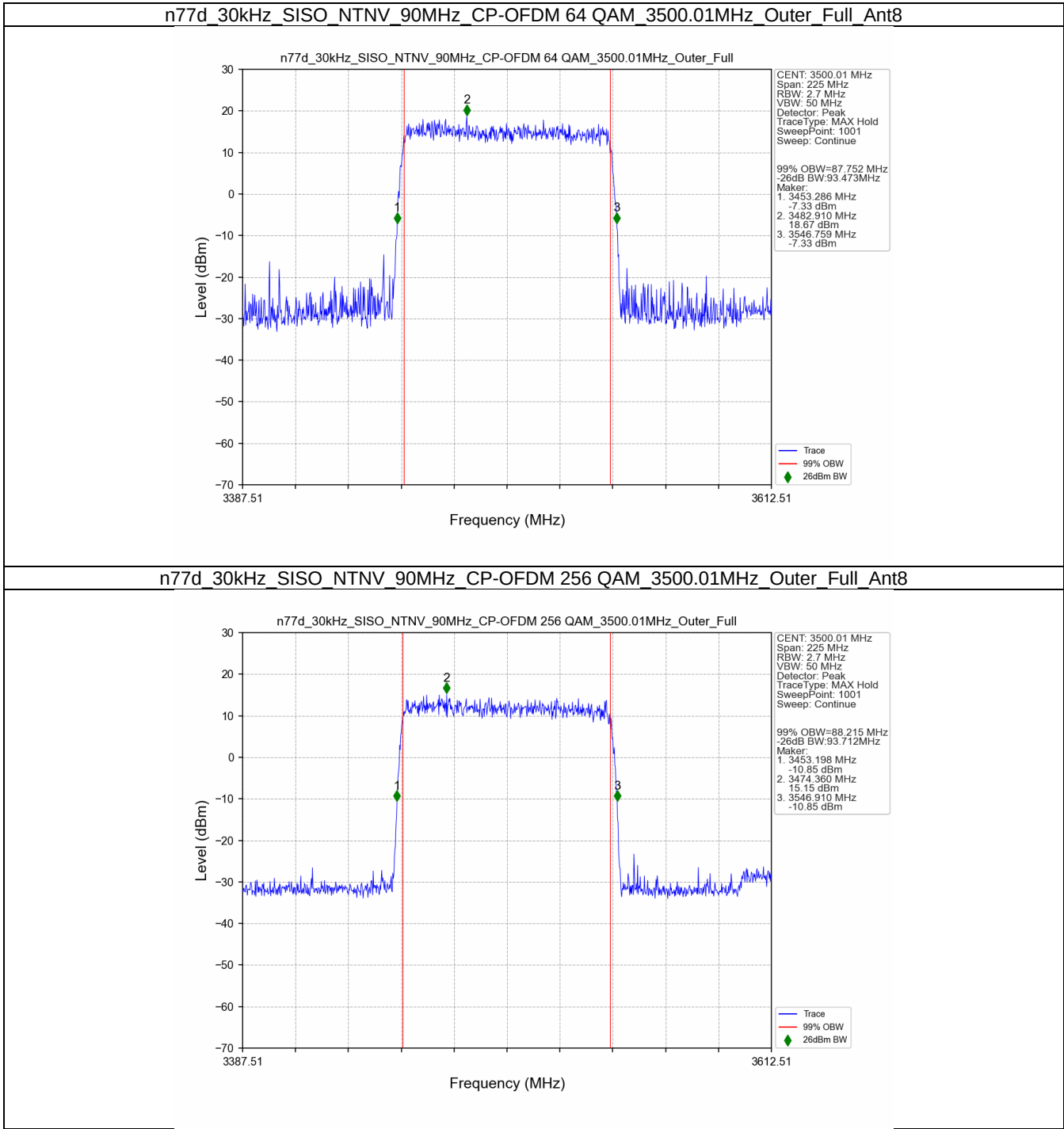


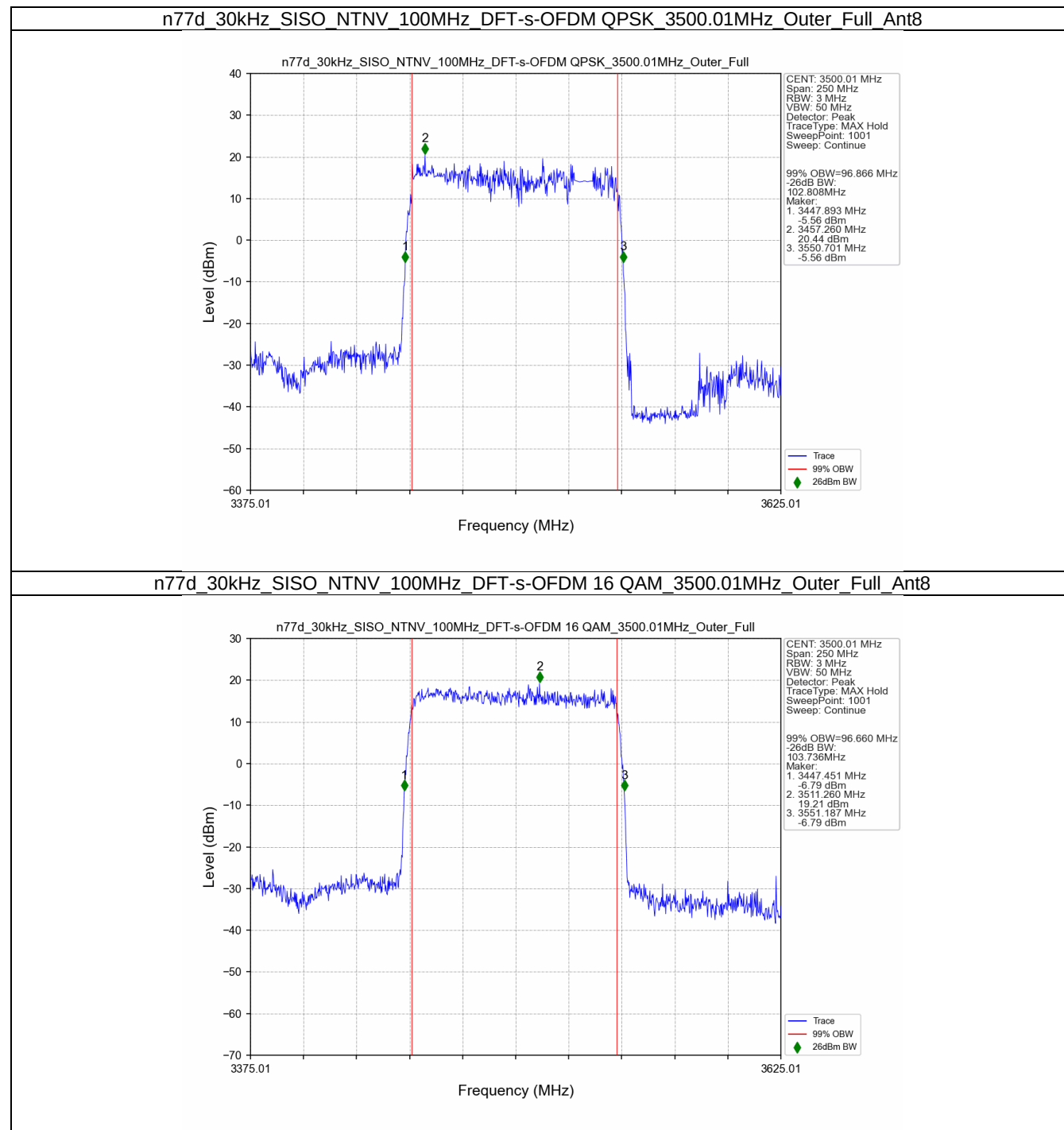
n77d_30kHz_SISO_NTNV_90MHz_CP-OFDM QPSK_3500.01MHz_Outer_Full_Ant8



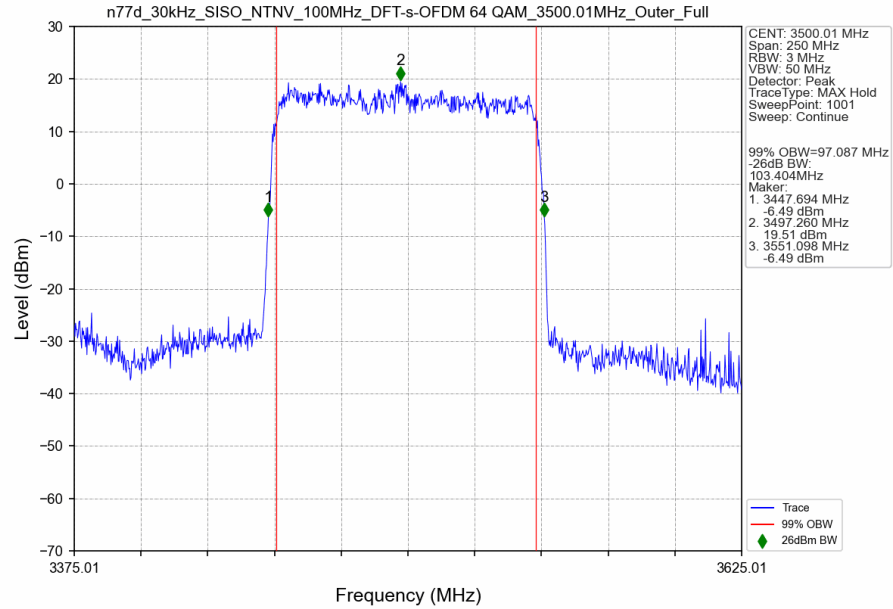
n77d_30kHz_SISO_NTNV_90MHz_CP-OFDM 16 QAM_3500.01MHz_Outer_Full_Ant8



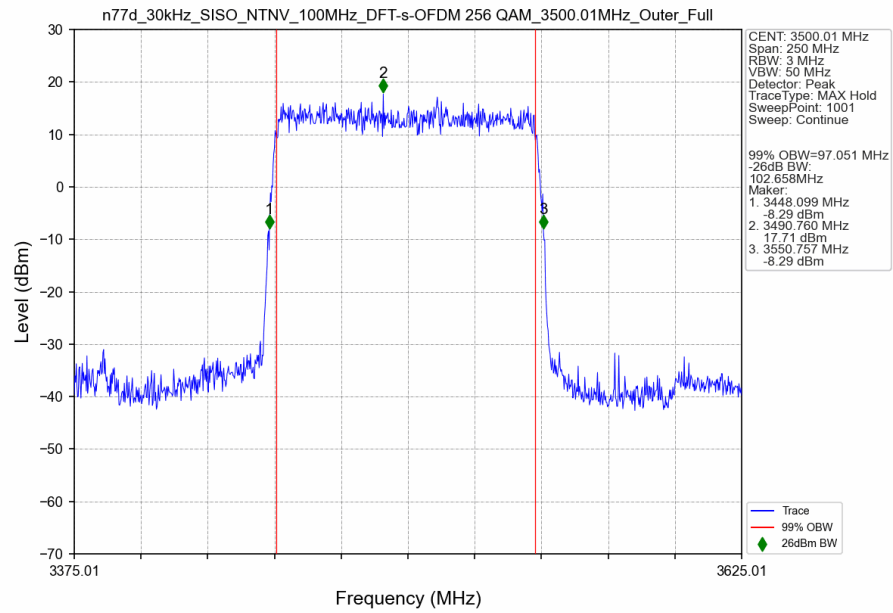


3.2.10 30_S_100M_NTNV

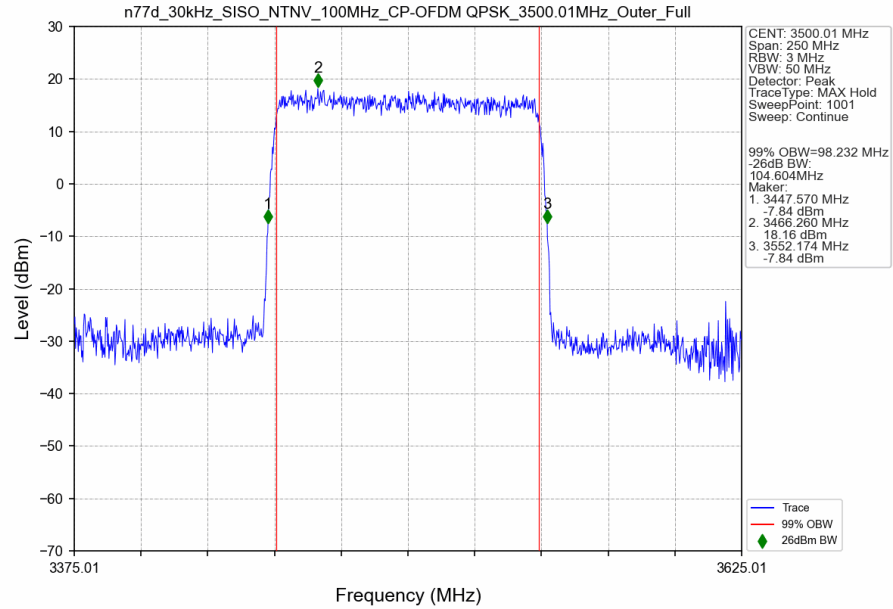
n77d_30kHz_SISO_NTNV_100MHz_DFT-s-OFDM 64 QAM_3500.01MHz_Outer_Full_Ant8



n77d_30kHz_SISO_NTNV_100MHz_DFT-s-OFDM 256 QAM_3500.01MHz_Outer_Full_Ant8



n77d_30kHz_SISO_NTNV_100MHz_CP-OFDM QPSK_3500.01MHz_Outer_Full_Ant8



n77d_30kHz_SISO_NTNV_100MHz_CP-OFDM 16 QAM_3500.01MHz_Outer_Full_Ant8

