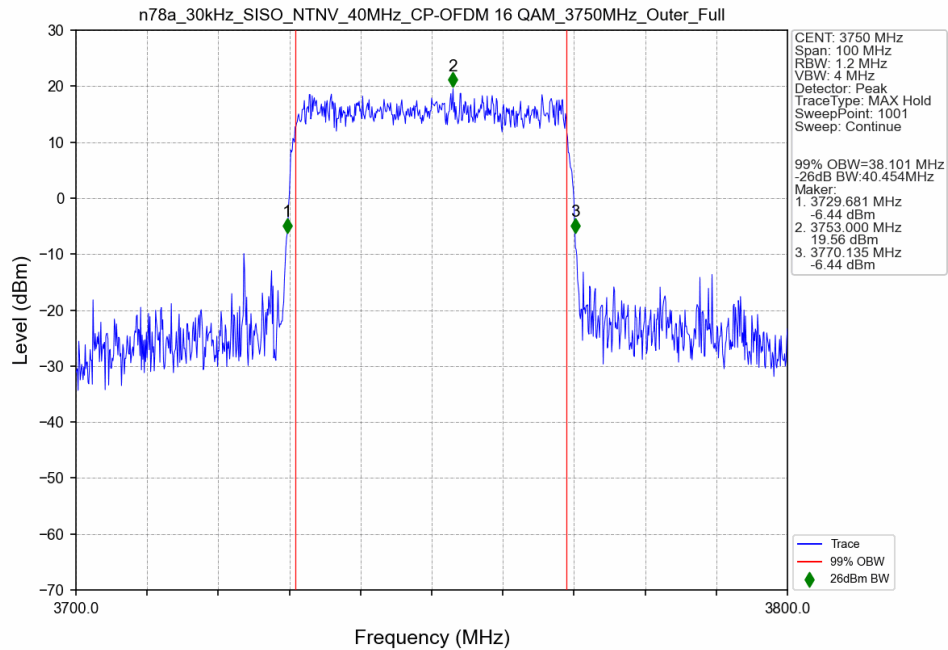
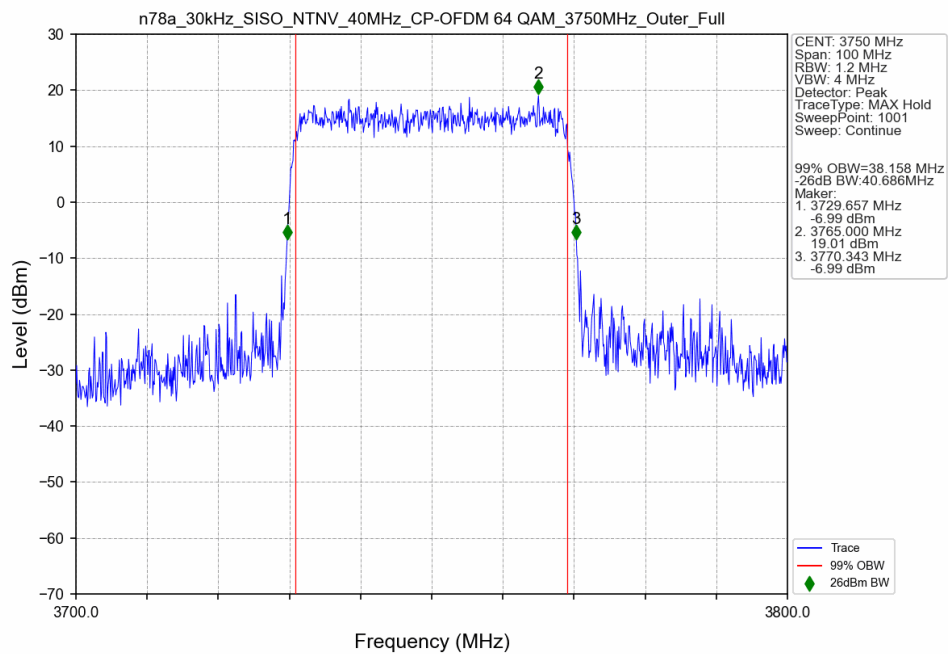


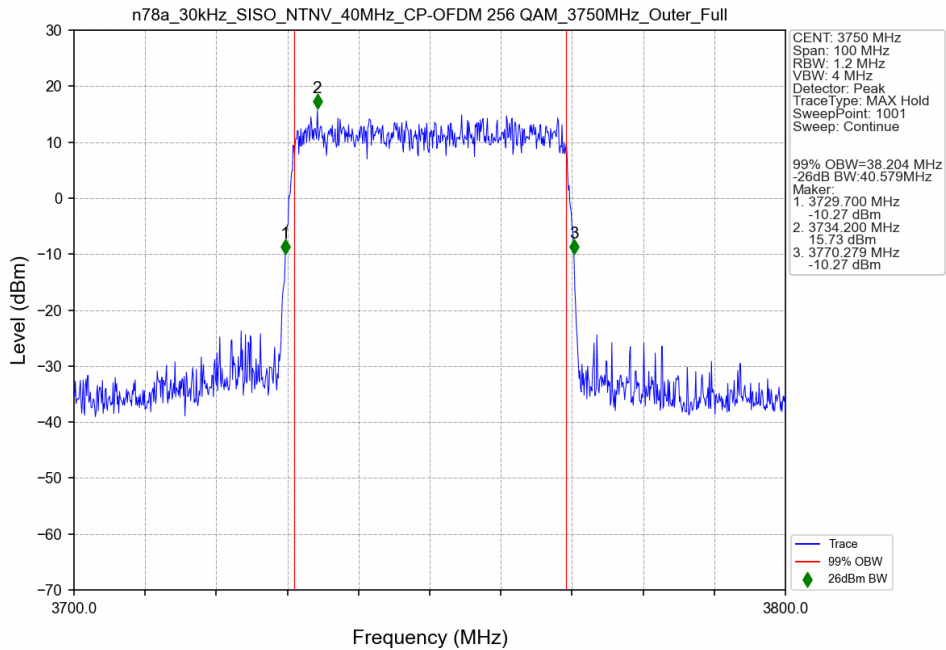
n78a_30kHz_SISO_NTNV_40MHz_CP-OFDM 16 QAM 3750MHz_Outer_Full_Ant8



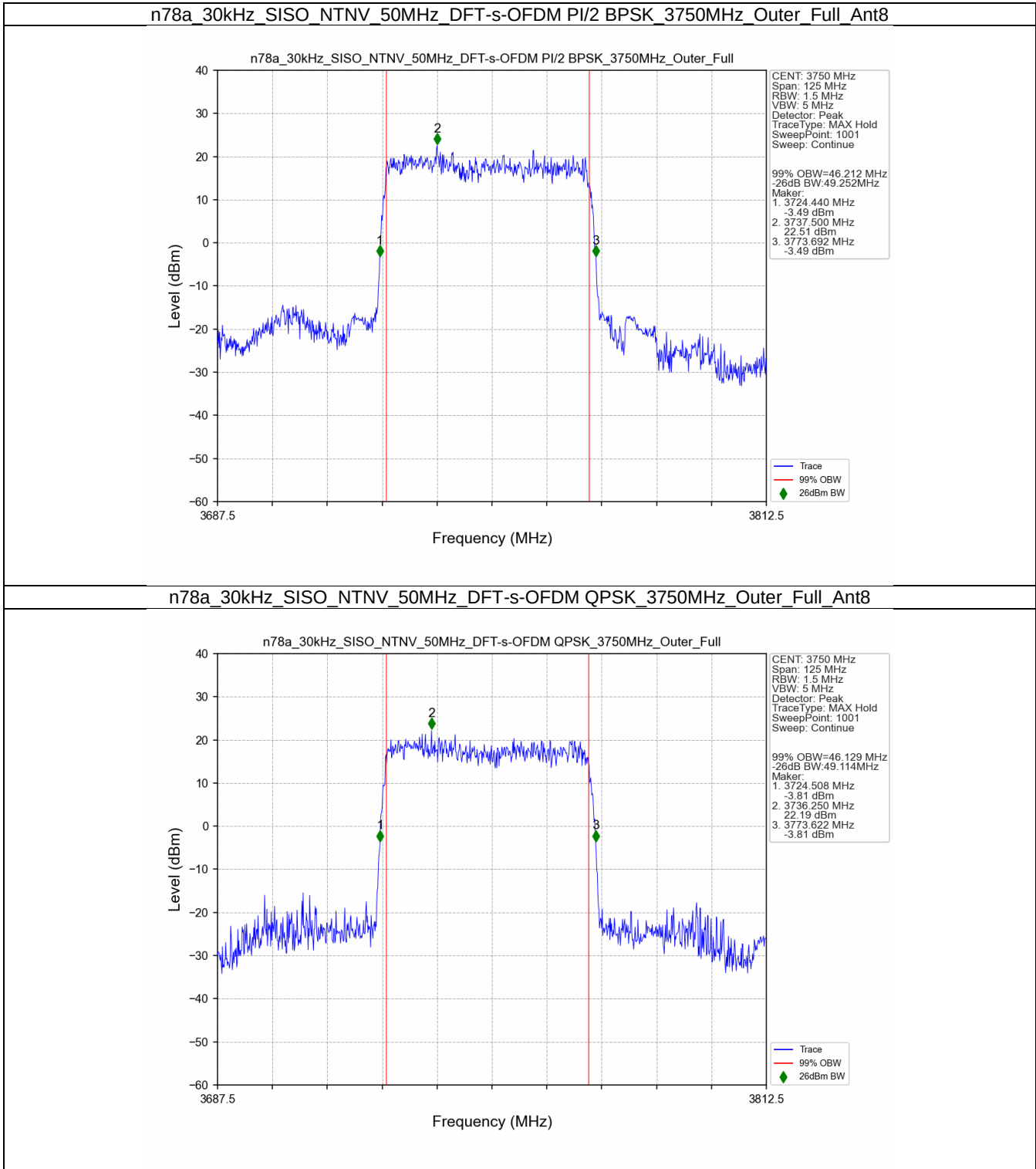
n78a_30kHz_SISO_NTNV_40MHz_CP-OFDM 64 QAM 3750MHz_Outer_Full_Ant8



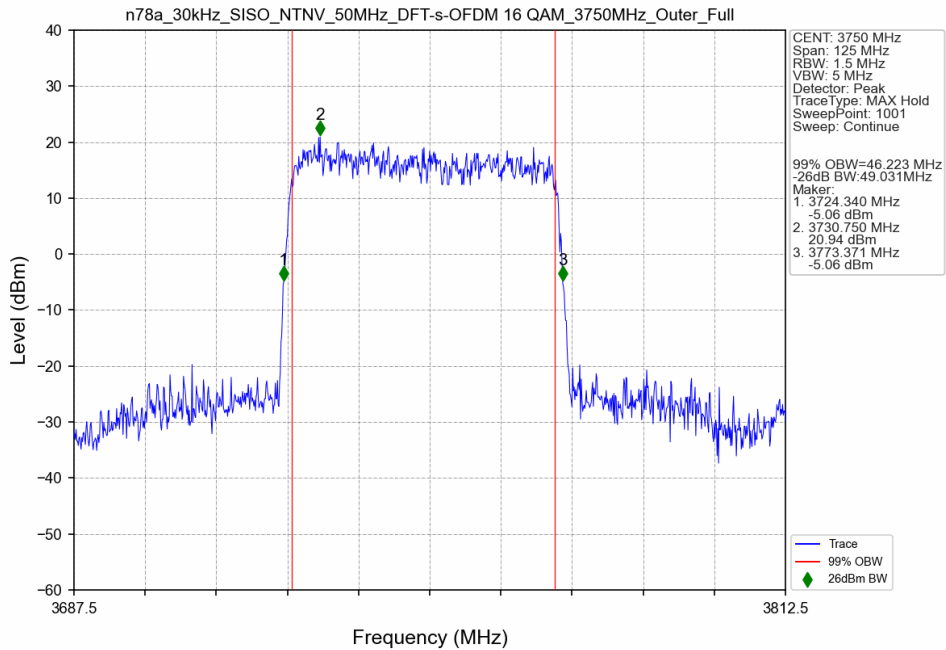
n78a_30kHz_SISO_NTNV_40MHz_CP-OFDM_256_QAM_3750MHz_Outer_Full_Ant8



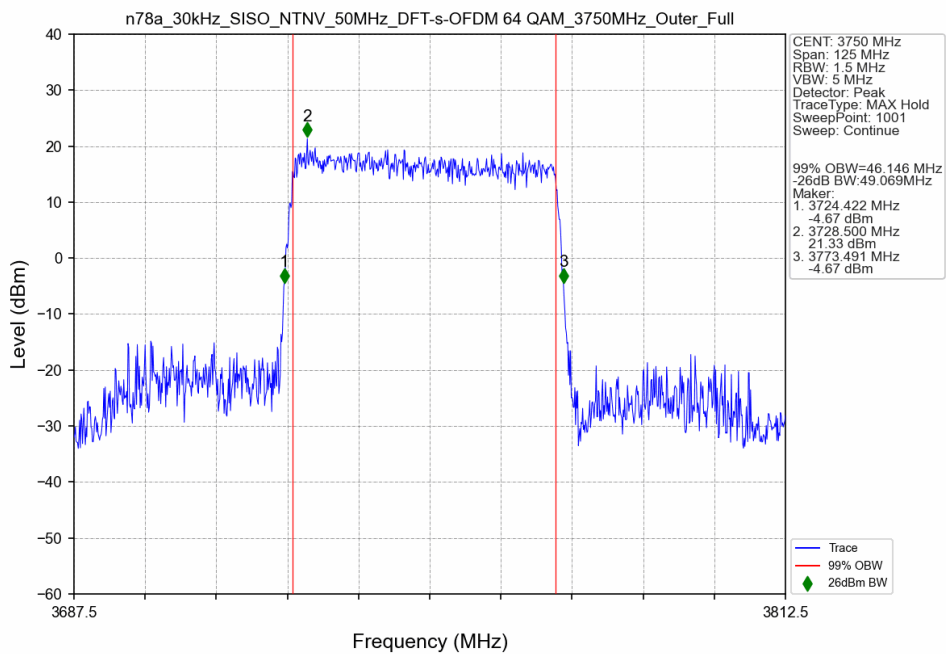
3.2.7 30_S_50M_NTNV



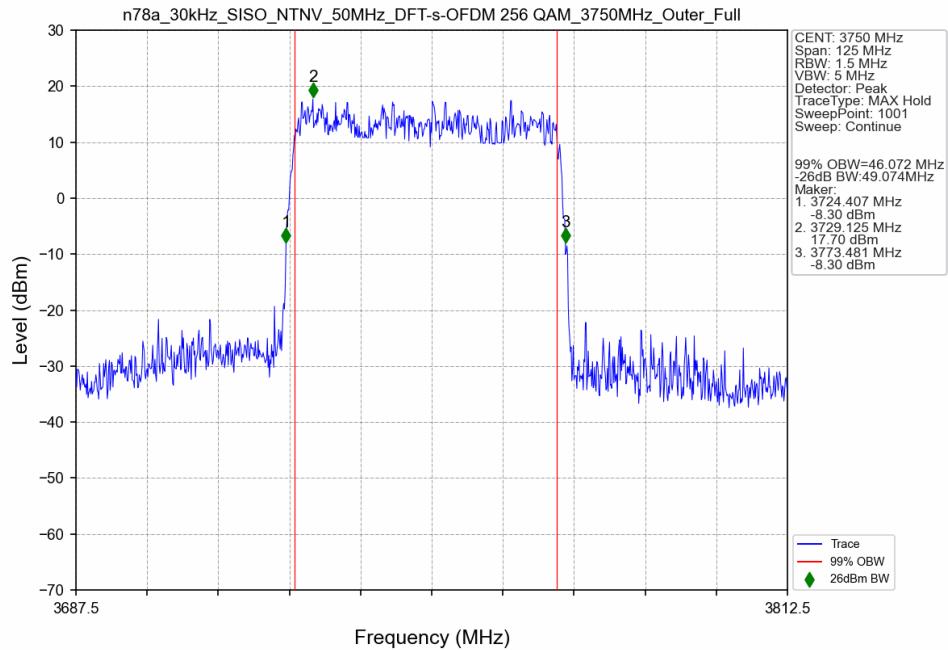
n78a_30kHz_SISO_NTNV_50MHz_DFT-s-OFDM 16 QAM_3750MHz_Outer_Full_Ant8



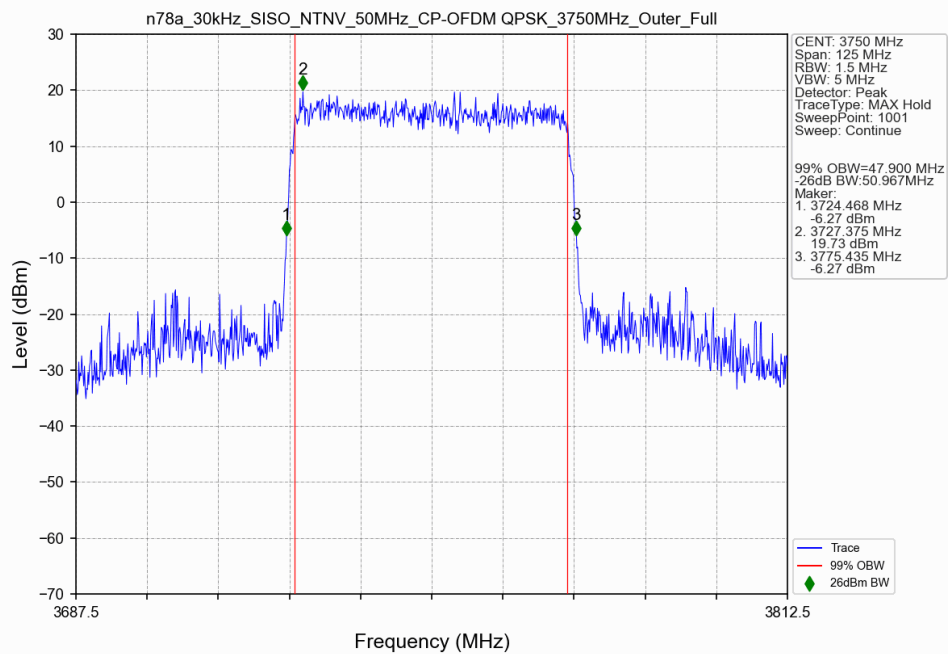
n78a_30kHz_SISO_NTNV_50MHz_DFT-s-OFDM 64 QAM_3750MHz_Outer_Full_Ant8



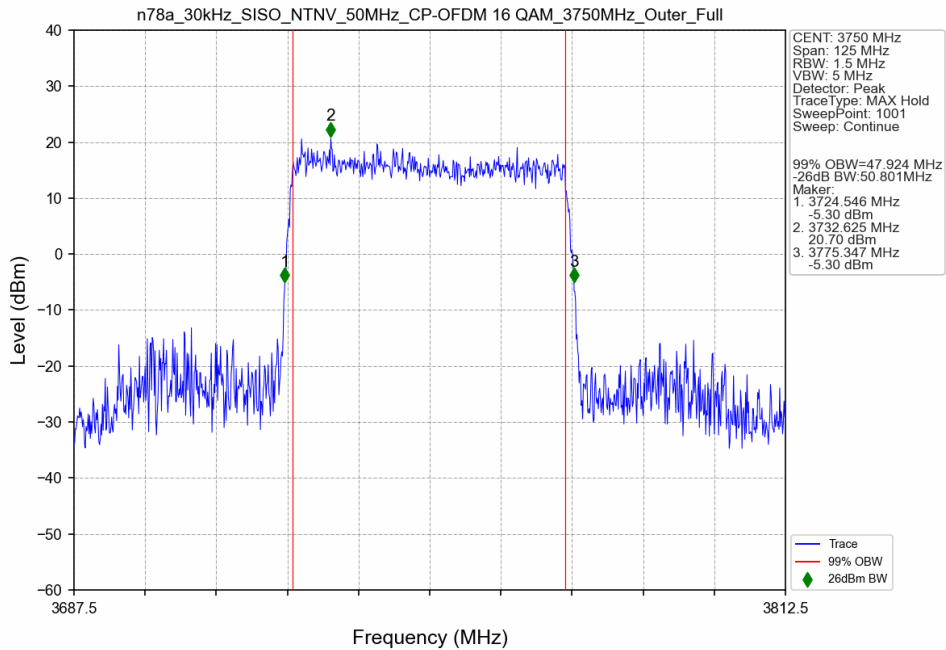
n78a_30kHz_SISO_NTNV_50MHz_DFT-s-OFDM 256 QAM_3750MHz_Outer_Full_Ant8



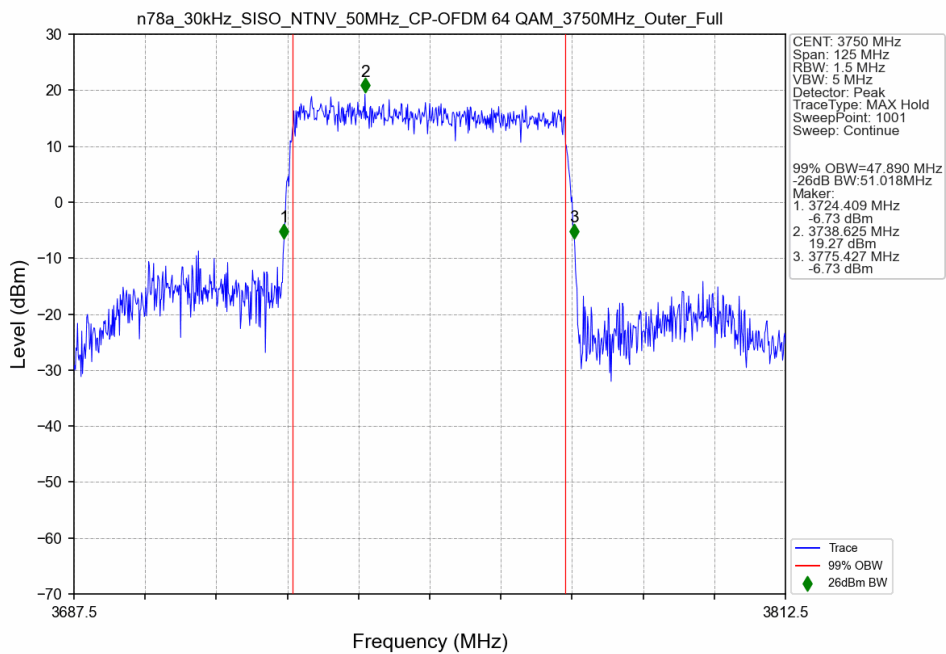
n78a_30kHz_SISO_NTNV_50MHz_CP-OFDM QPSK_3750MHz_Outer_Full_Ant8



n78a_30kHz_SISO_NTNV_50MHz_CP-OFDM 16 QAM 3750MHz_Outer_Full_Ant8

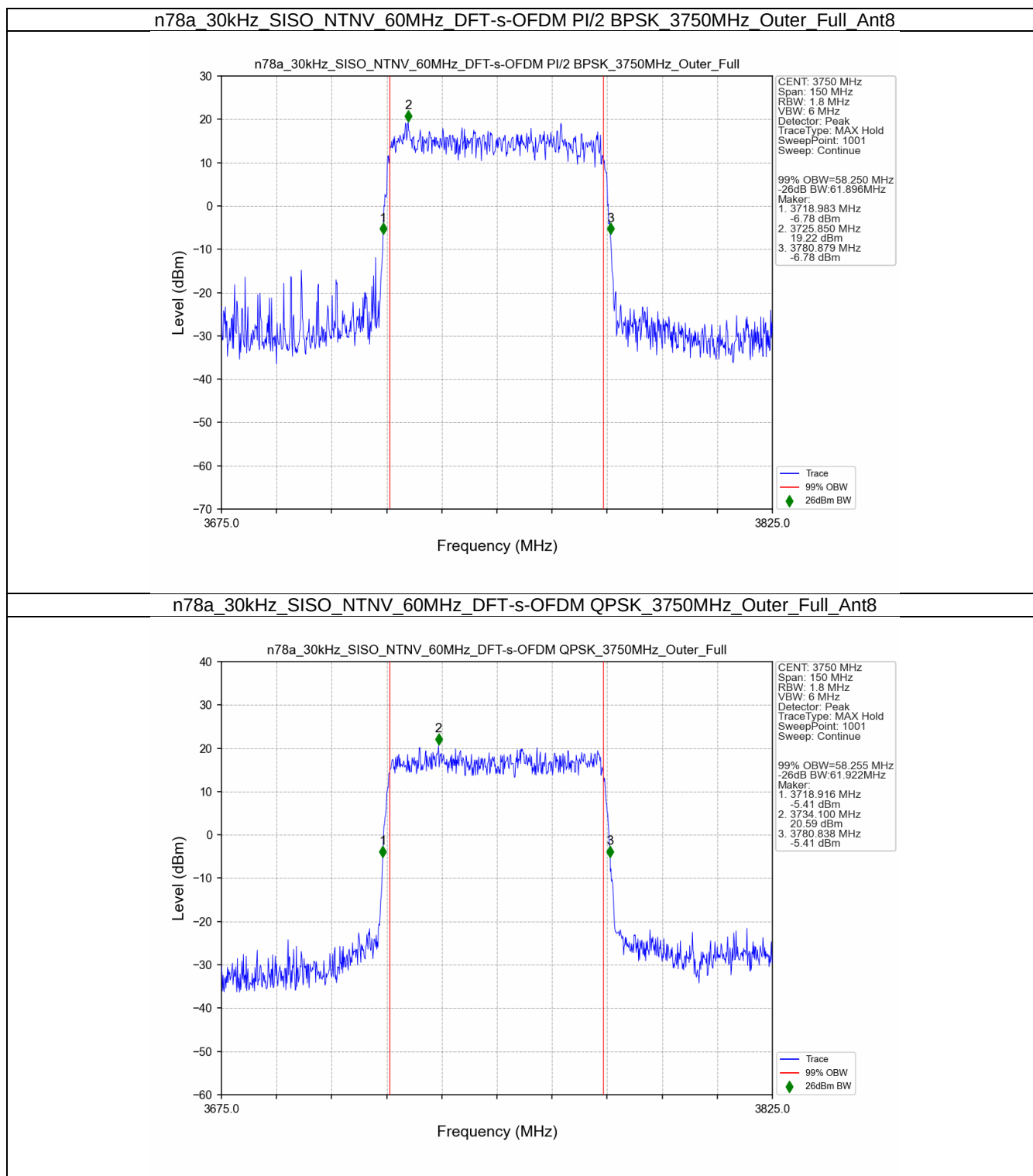


n78a_30kHz_SISO_NTNV_50MHz_CP-OFDM 64 QAM 3750MHz_Outer_Full_Ant8

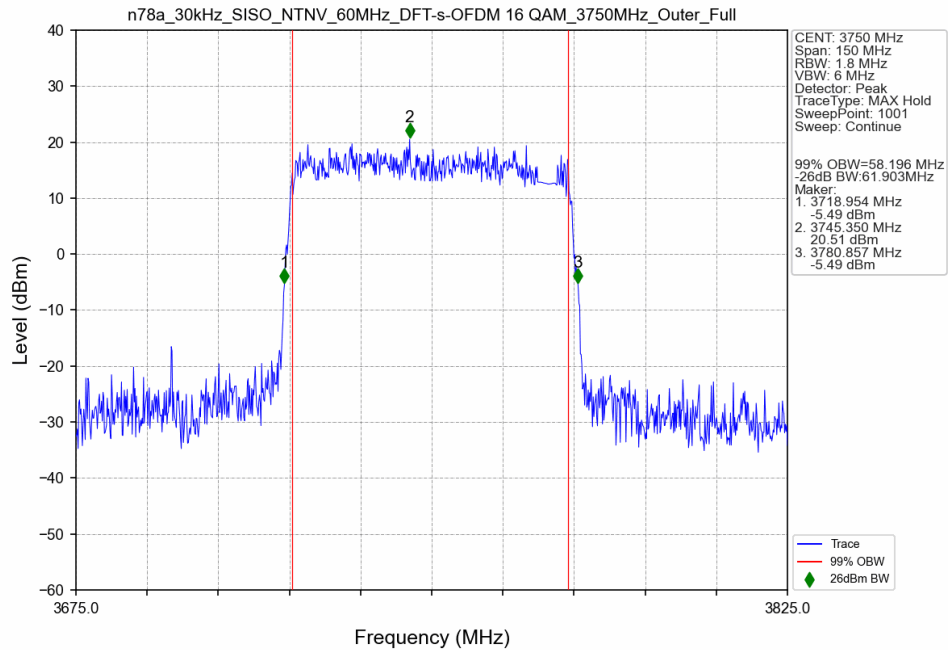




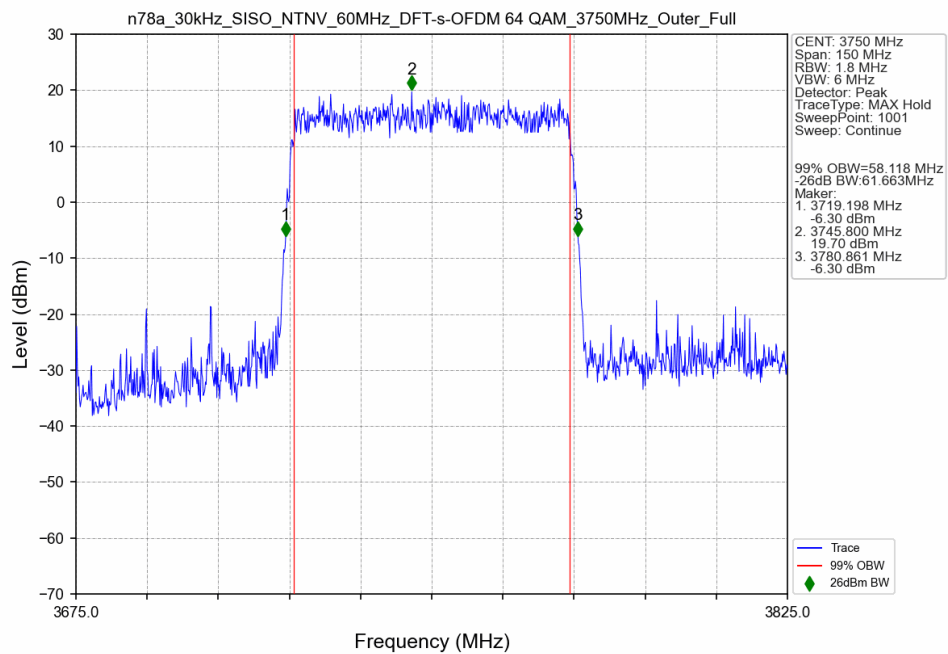
3.2.8 30_S_60M_NTNV



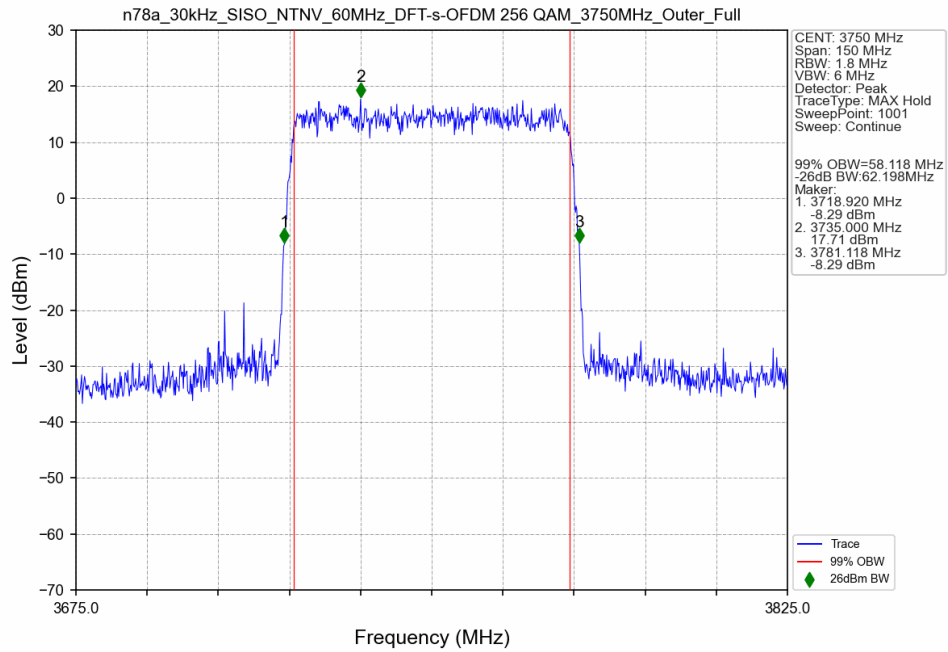
n78a_30kHz_SISO_NTNV_60MHz_DFT-s-OFDM 16 QAM 3750MHz_Outer_Full_Ant8



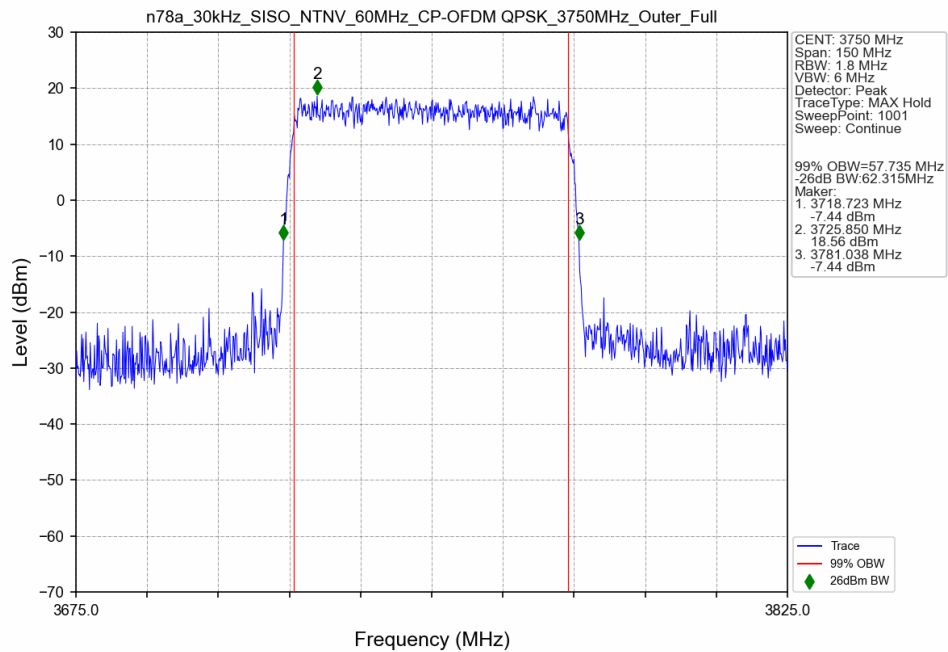
n78a_30kHz_SISO_NTNV_60MHz_DFT-s-OFDM 64 QAM 3750MHz_Outer_Full_Ant8



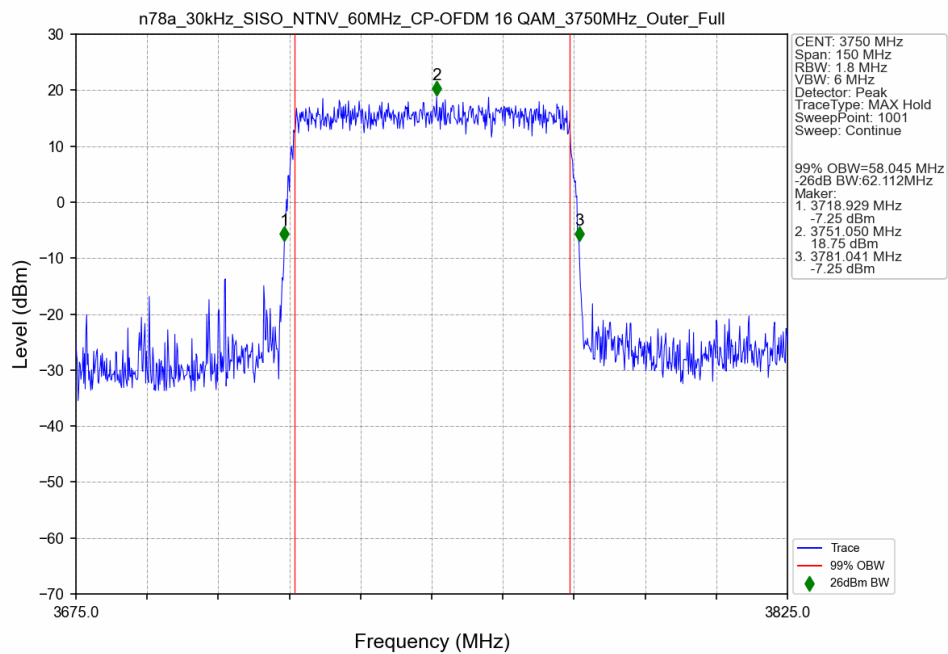
n78a_30kHz_SISO_NTNV_60MHz_DFT-s-OFDM 256 QAM_3750MHz_Outer_Full_Ant8



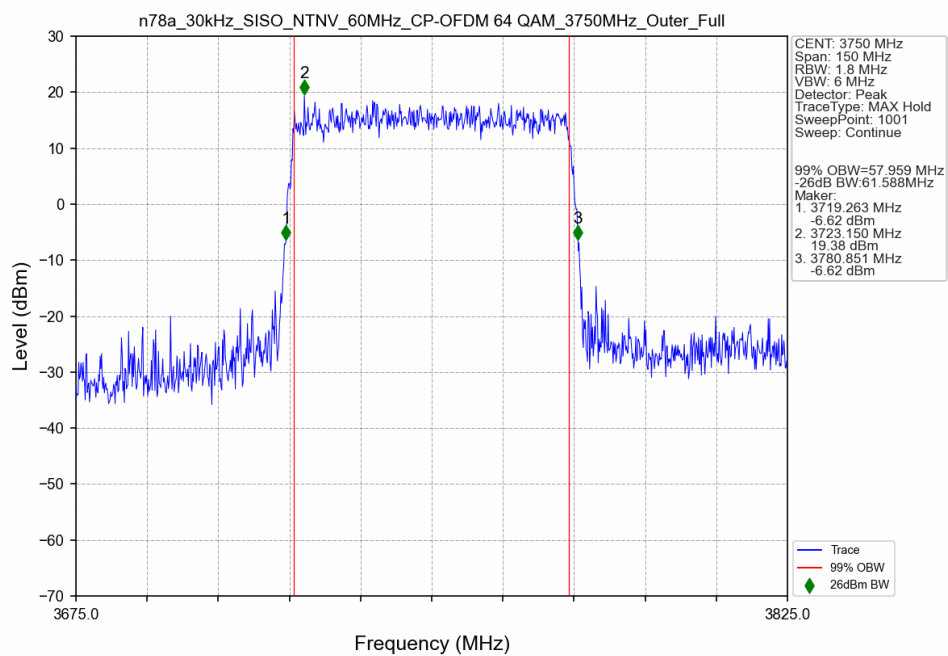
n78a_30kHz_SISO_NTNV_60MHz_CP-OFDM QPSK_3750MHz_Outer_Full_Ant8



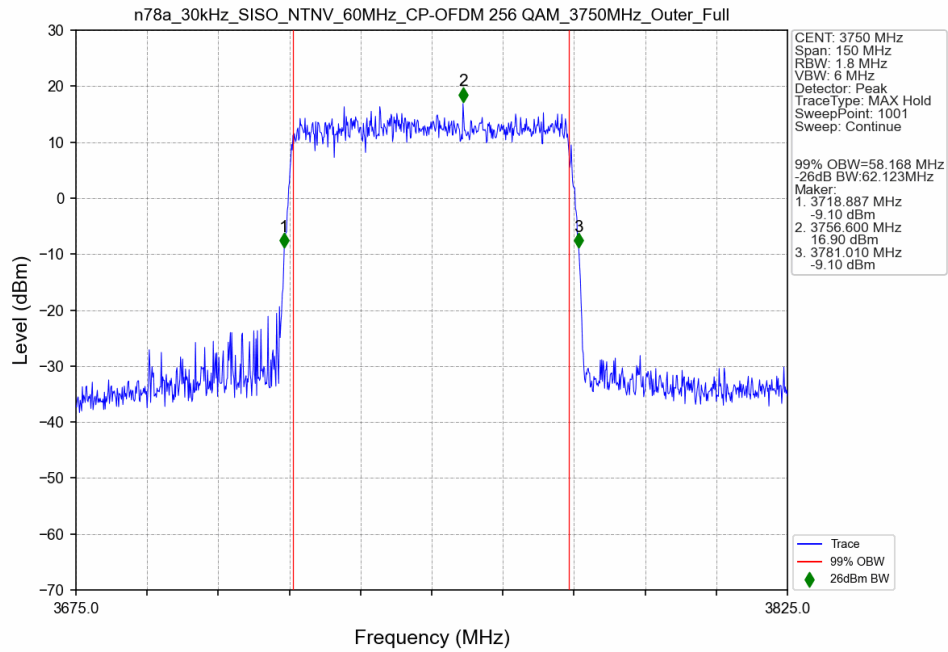
n78a_30kHz_SISO_NTNV_60MHz_CP-OFDM 16 QAM 3750MHz_Outer_Full_Ant8



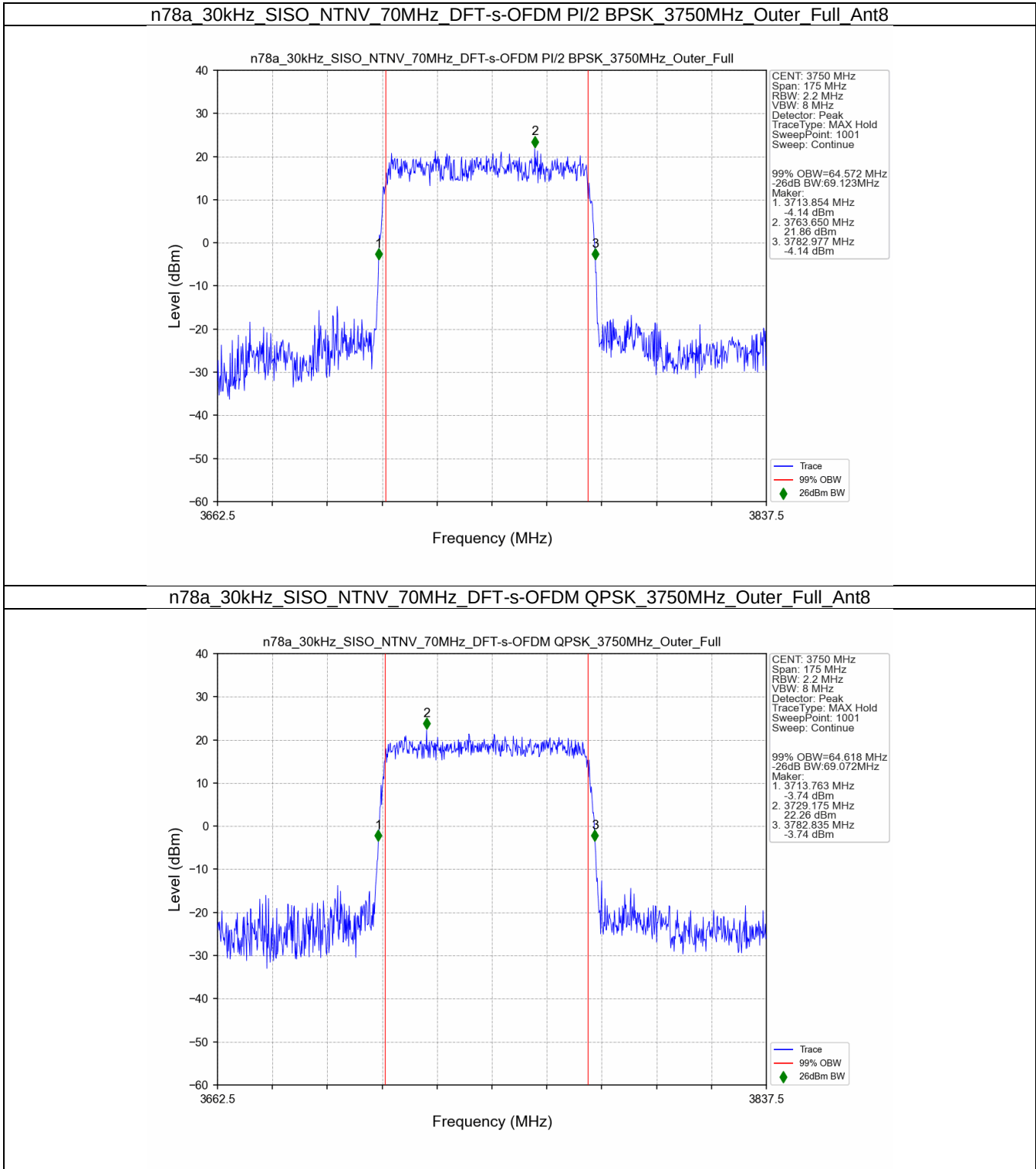
n78a_30kHz_SISO_NTNV_60MHz_CP-OFDM 64 QAM 3750MHz_Outer_Full_Ant8



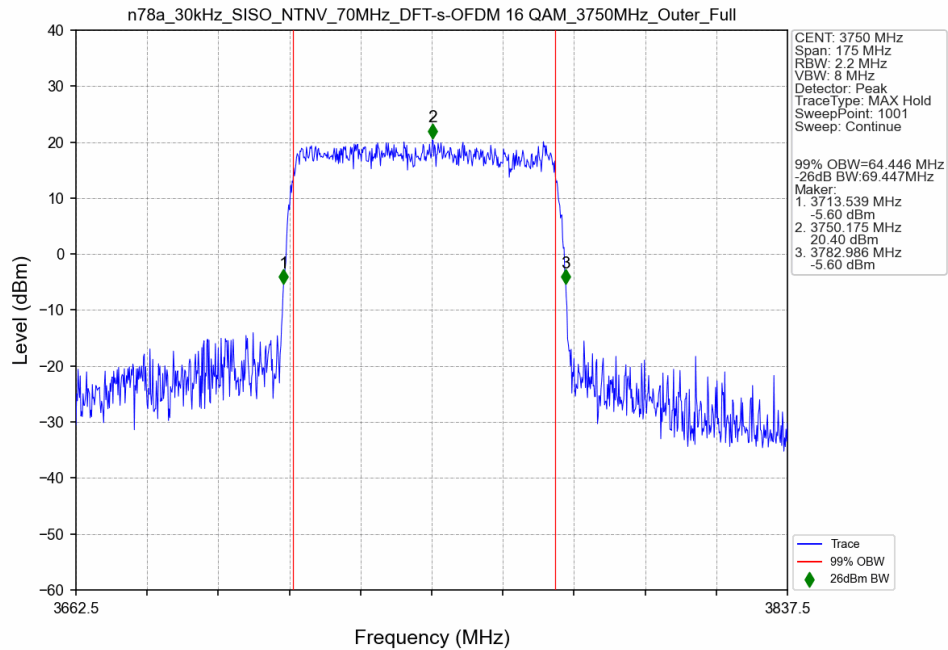
n78a_30kHz_SISO_NTNV_60MHz_CP-OFDM_256_QAM_3750MHz_Outer_Full_Ant8



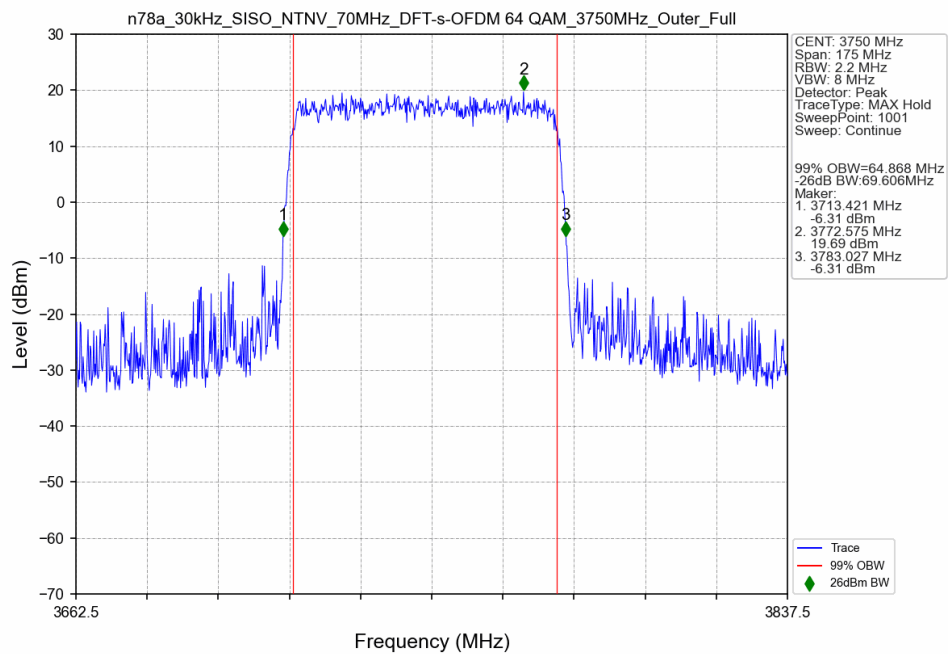
3.2.9 30_S_70M_NTNV



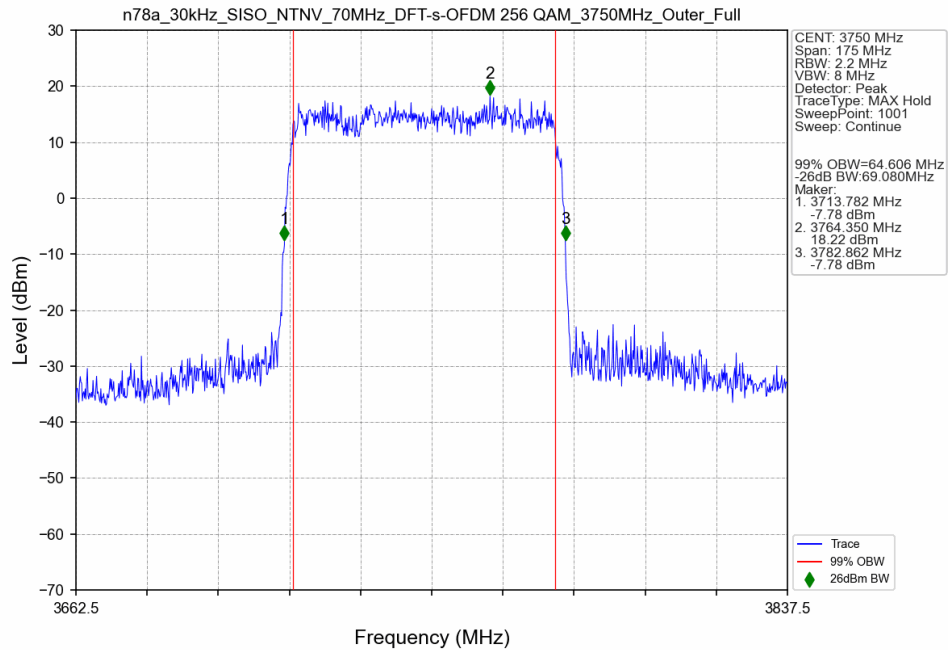
n78a_30kHz_SISO_NTNV_70MHz_DFT-s-OFDM 16 QAM 3750MHz_Outer_Full_Ant8



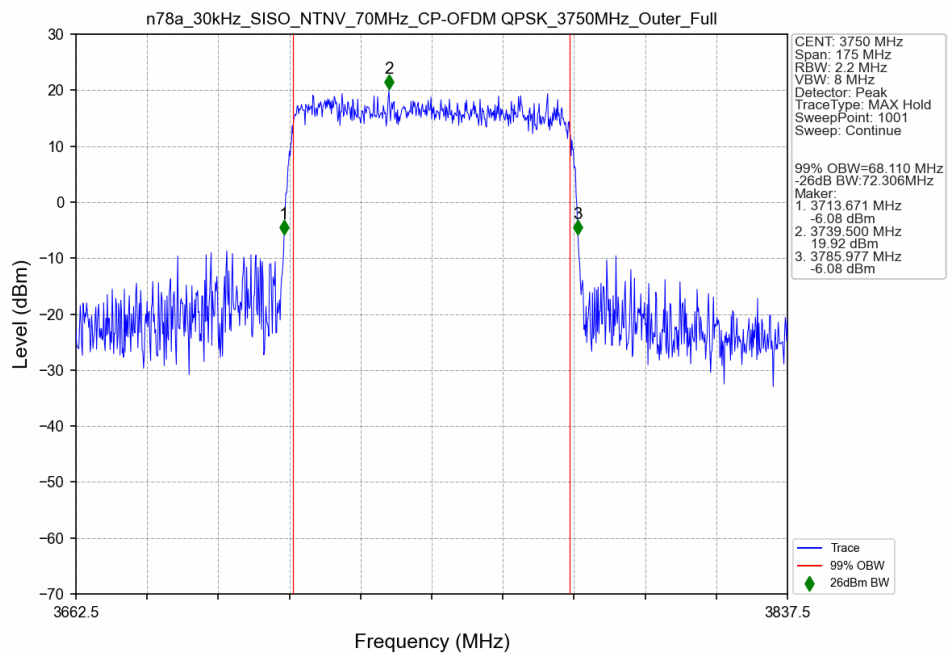
n78a_30kHz_SISO_NTNV_70MHz_DFT-s-OFDM 64 QAM 3750MHz_Outer_Full_Ant8



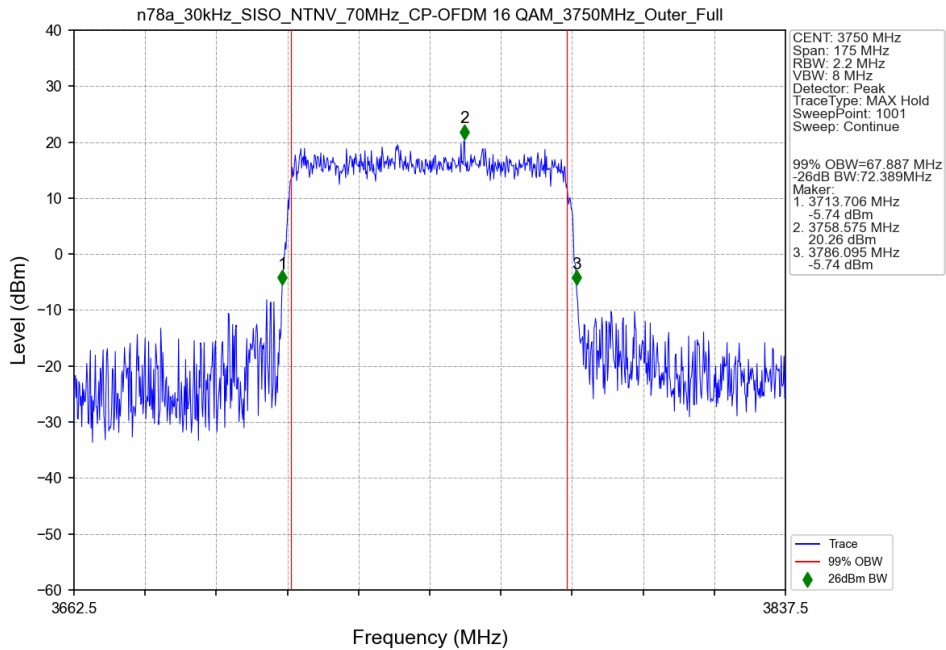
n78a_30kHz_SISO_NTNV_70MHz_DFT-s-OFDM_256_QAM_3750MHz_Outer_Full_Ant8



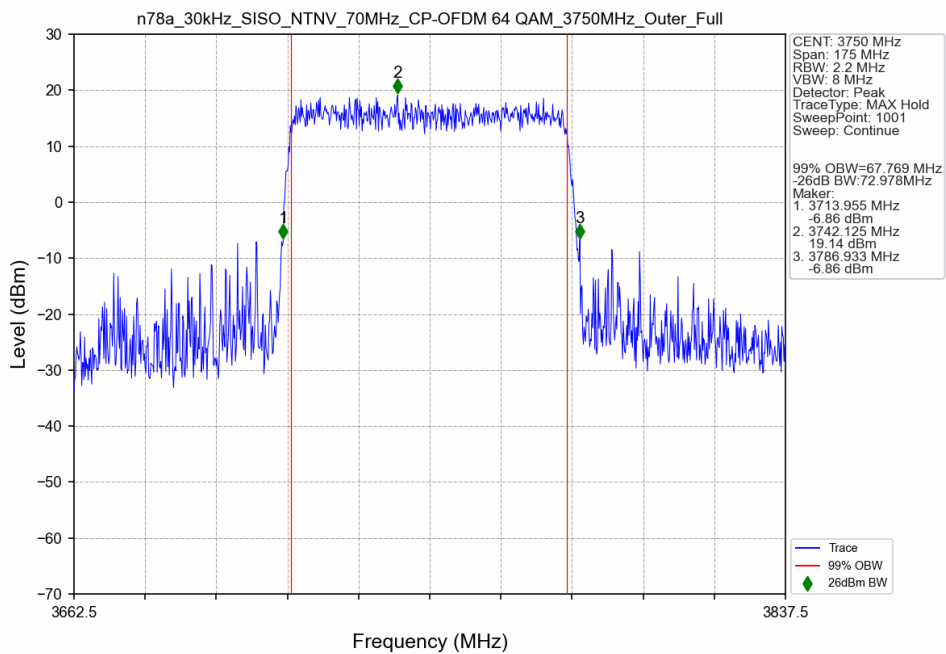
n78a_30kHz_SISO_NTNV_70MHz_CP-OFDM_QPSK_3750MHz_Outer_Full_Ant8



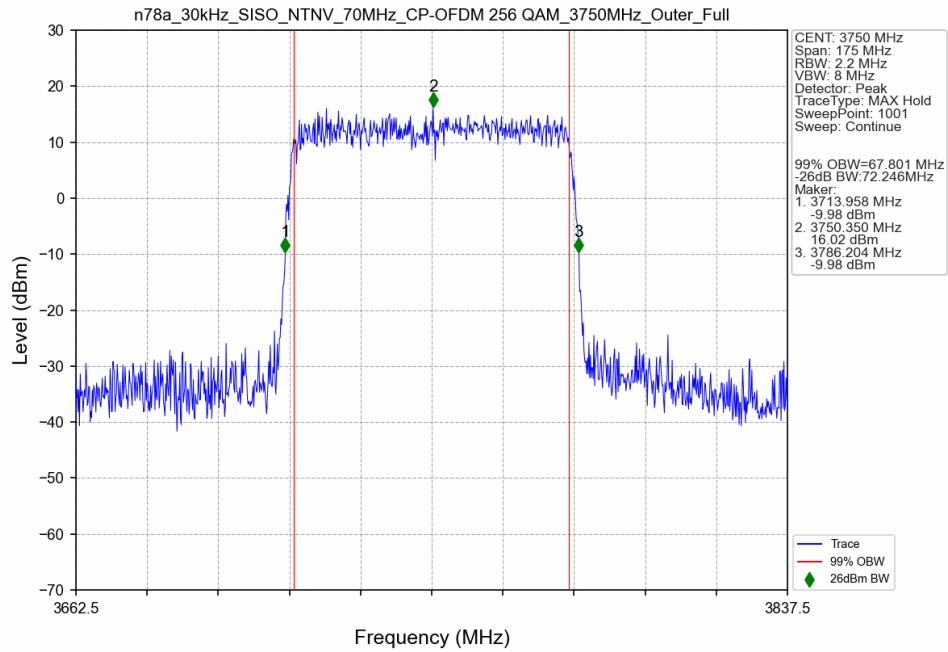
n78a_30kHz_SISO_NTNV_70MHz_CP-OFDM 16 QAM 3750MHz_Outer_Full_Ant8



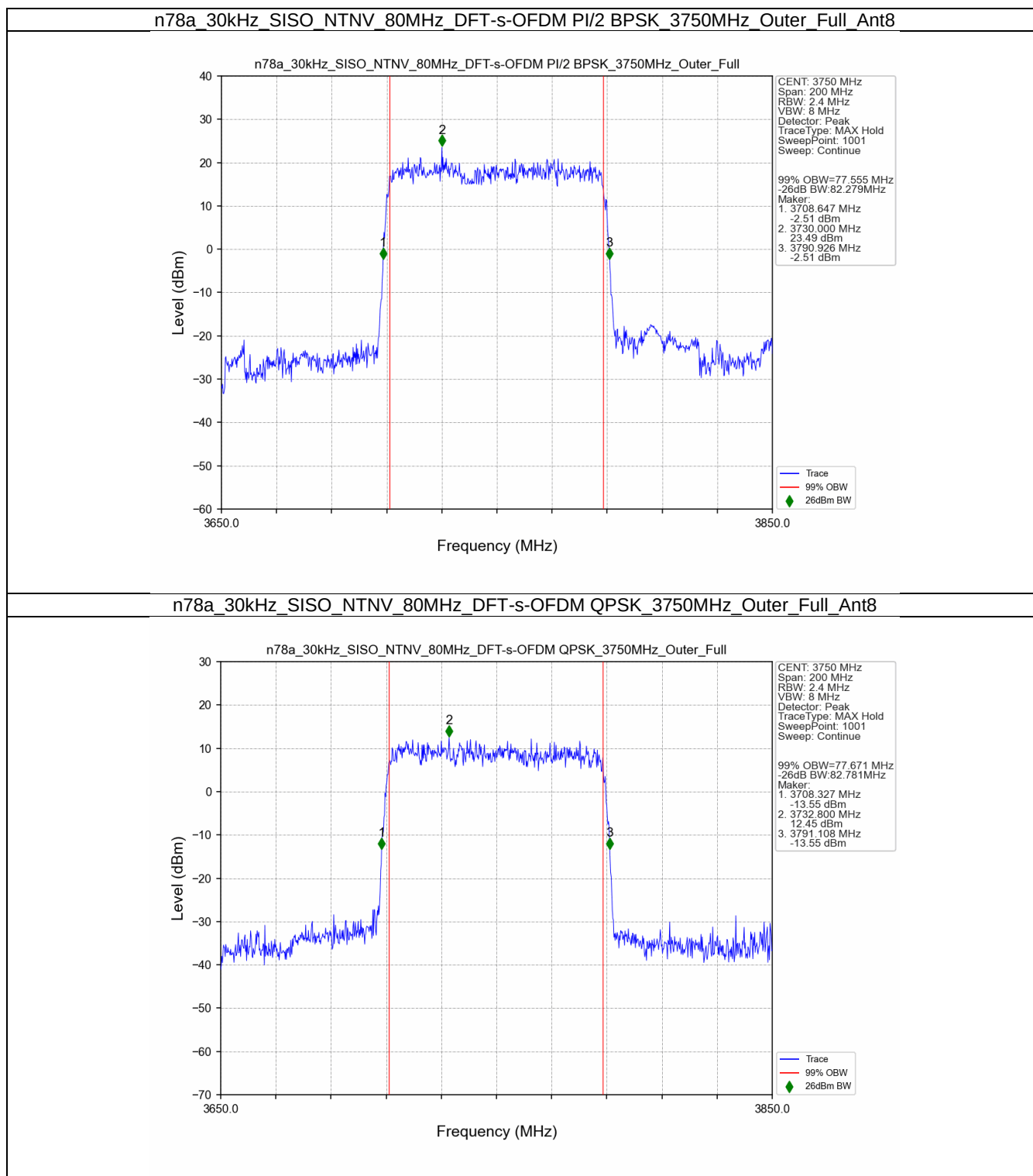
n78a_30kHz_SISO_NTNV_70MHz_CP-OFDM 64 QAM 3750MHz_Outer_Full_Ant8



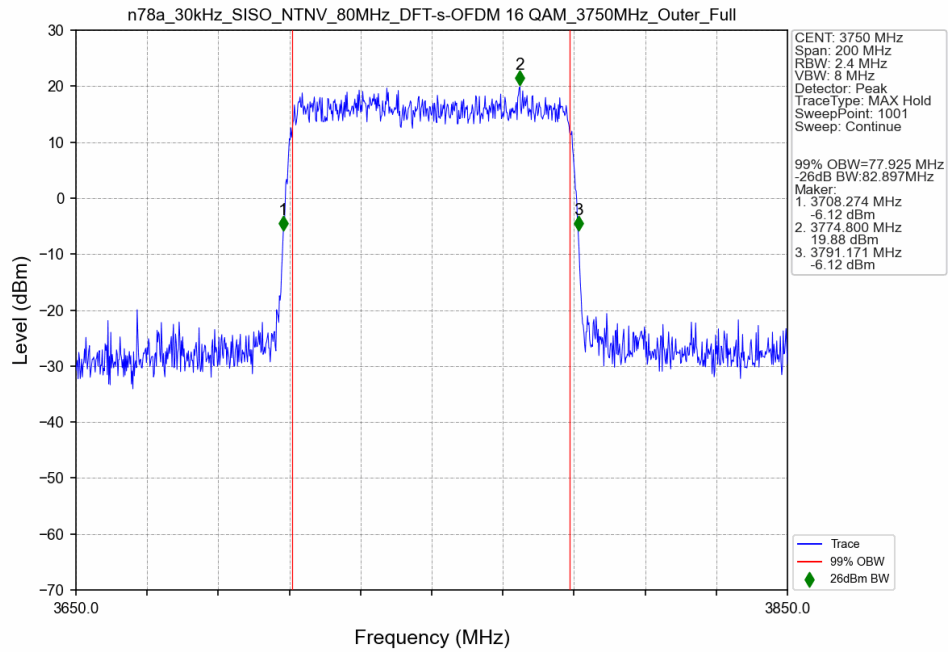
n78a_30kHz_SISO_NTNV_70MHz_CP-OFDM_256_QAM_3750MHz_Outer_Full_Ant8



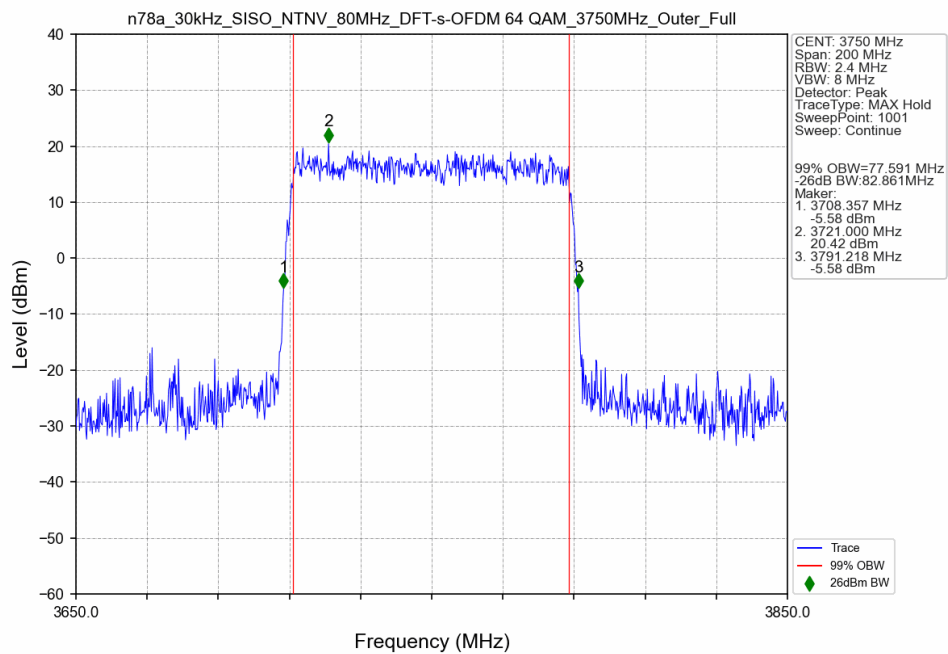
3.2.10 30_S_80M_NTNV



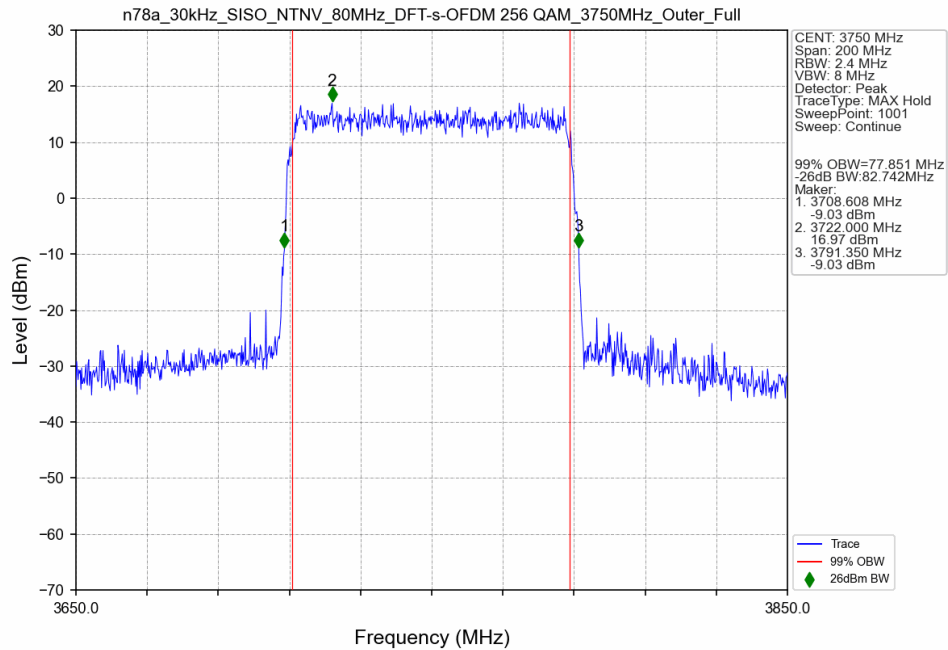
n78a_30kHz_SISO_NTNV_80MHz_DFT-s-OFDM 16 QAM 3750MHz_Outer_Full_Ant8



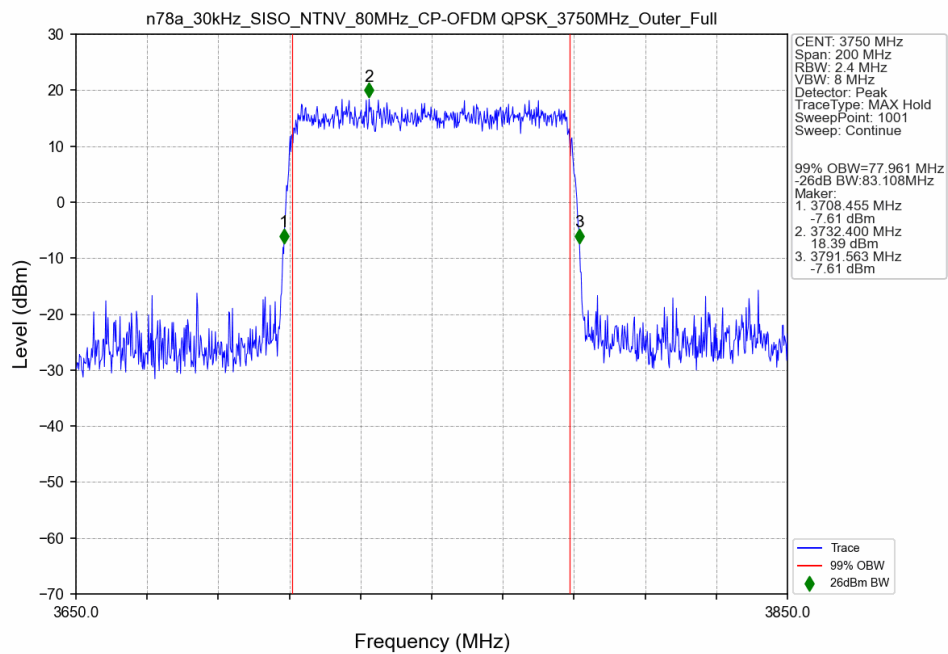
n78a_30kHz_SISO_NTNV_80MHz_DFT-s-OFDM 64 QAM 3750MHz_Outer_Full_Ant8



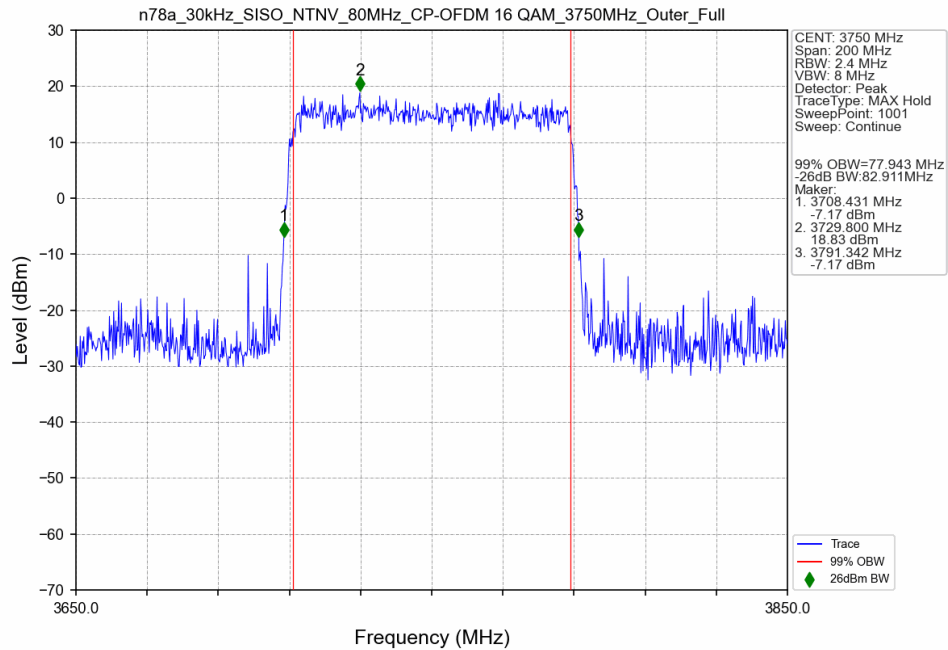
n78a_30kHz_SISO_NTNV_80MHz_DFT-s-OFDM 256 QAM_3750MHz_Outer_Full_Ant8



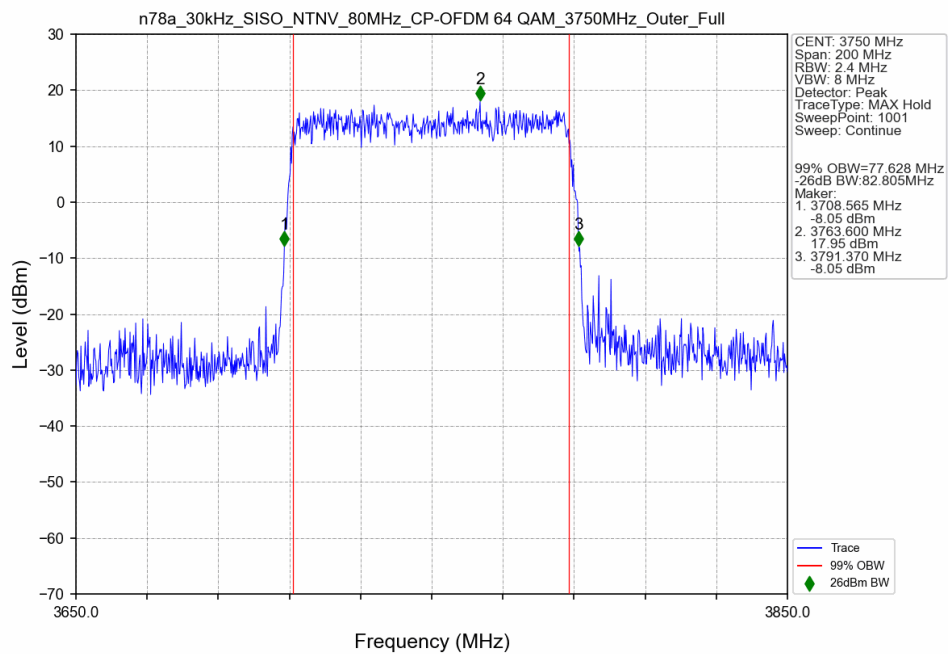
n78a_30kHz_SISO_NTNV_80MHz_CP-OFDM QPSK_3750MHz_Outer_Full_Ant8



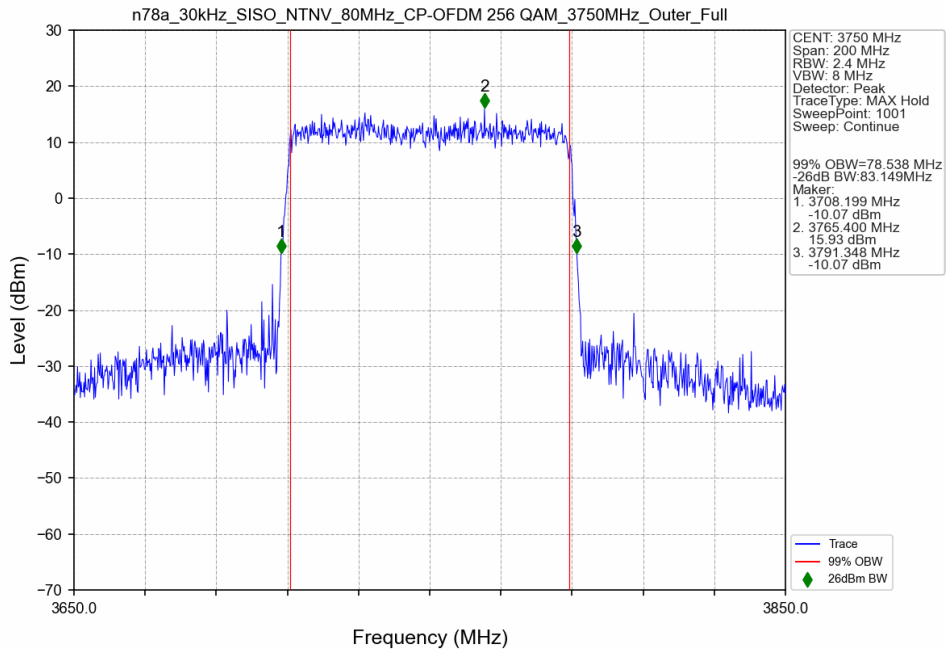
n78a_30kHz_SISO_NTNV_80MHz_CP-OFDM 16 QAM 3750MHz_Outer_Full_Ant8



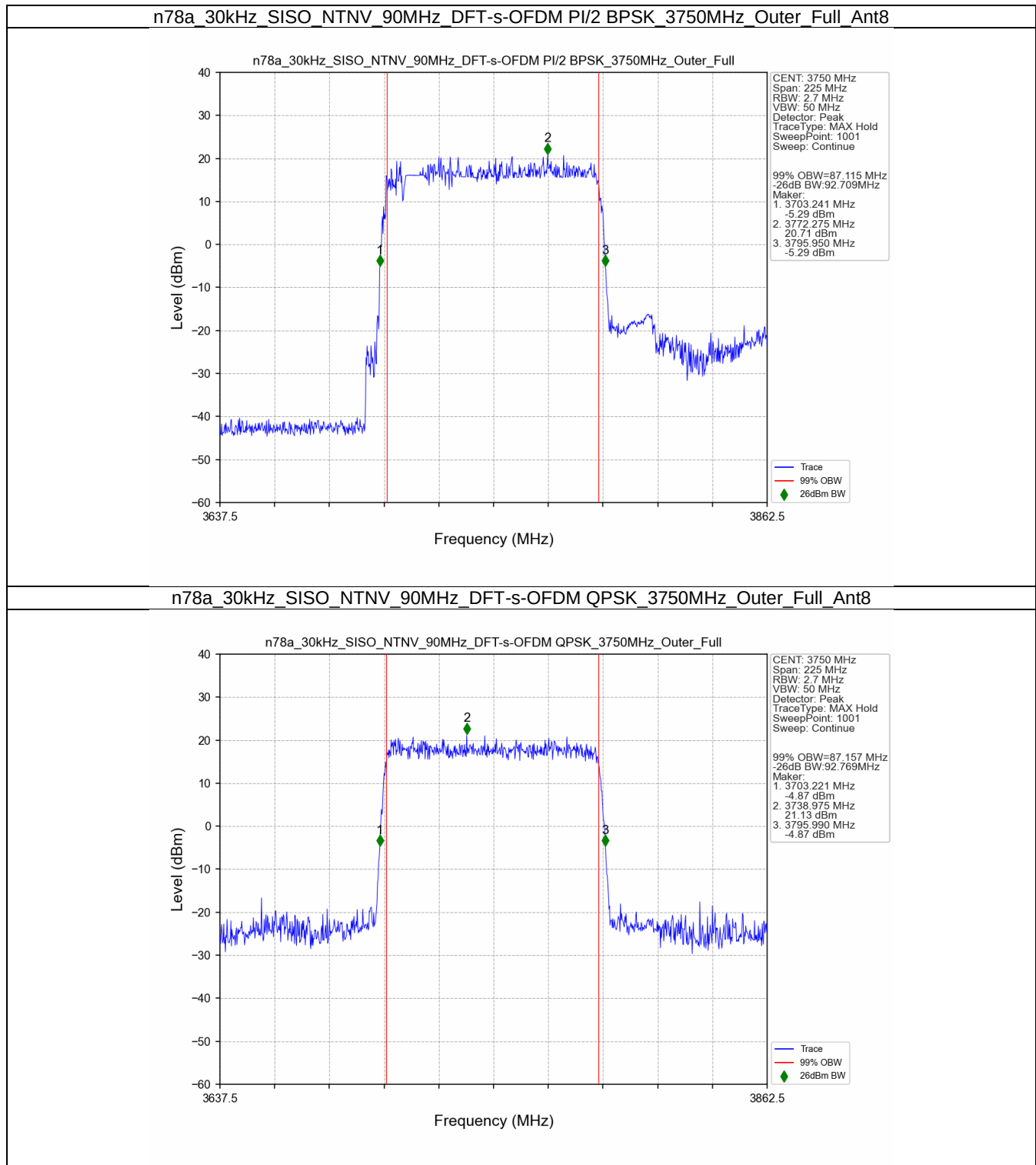
n78a_30kHz_SISO_NTNV_80MHz_CP-OFDM 64 QAM 3750MHz_Outer_Full_Ant8



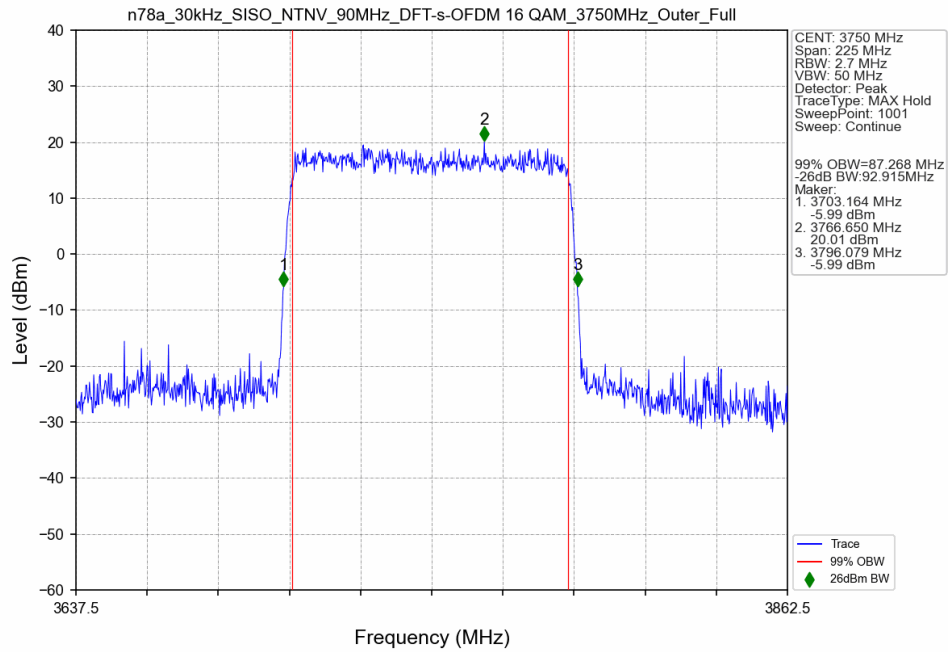
n78a_30kHz_SISO_NTNV_80MHz_CP-OFDM_256_QAM_3750MHz_Outer_Full_Ant8



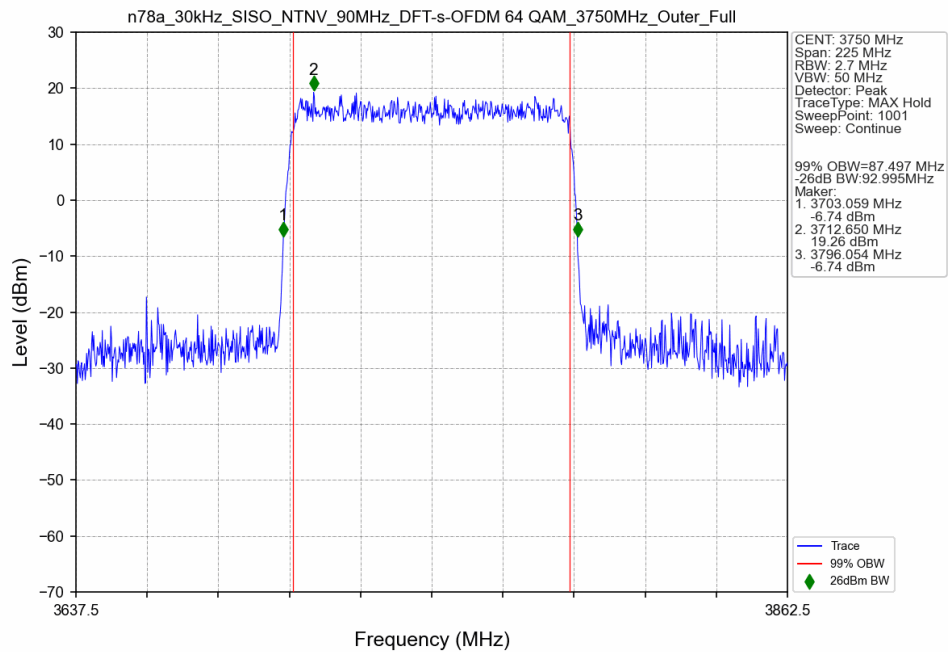
3.2.11 30_S_90M_NTNV



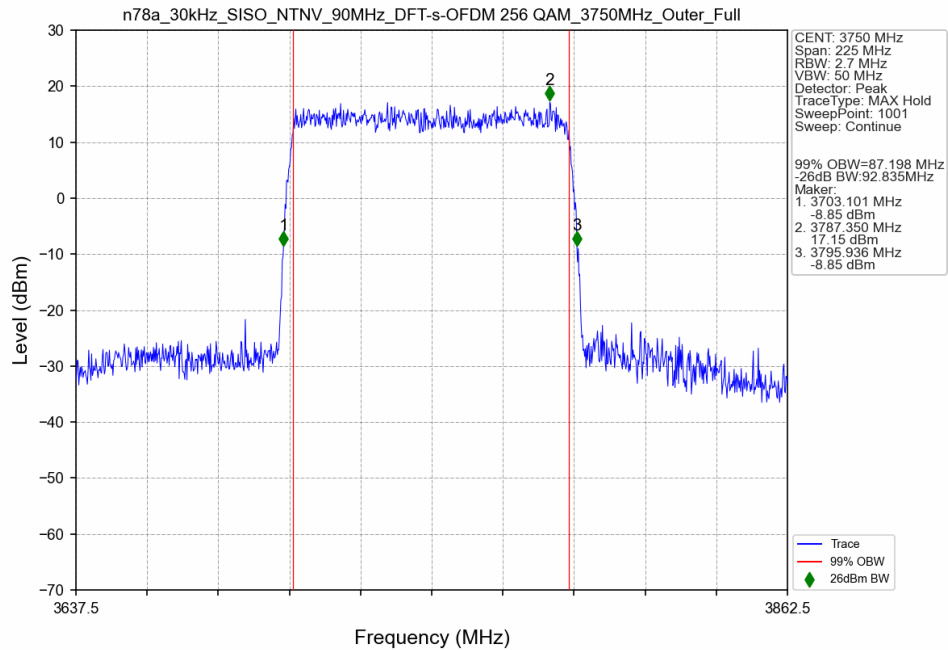
n78a_30kHz_SISO_NTNV_90MHz_DFT-s-OFDM 16 QAM 3750MHz_Outer_Full_Ant8



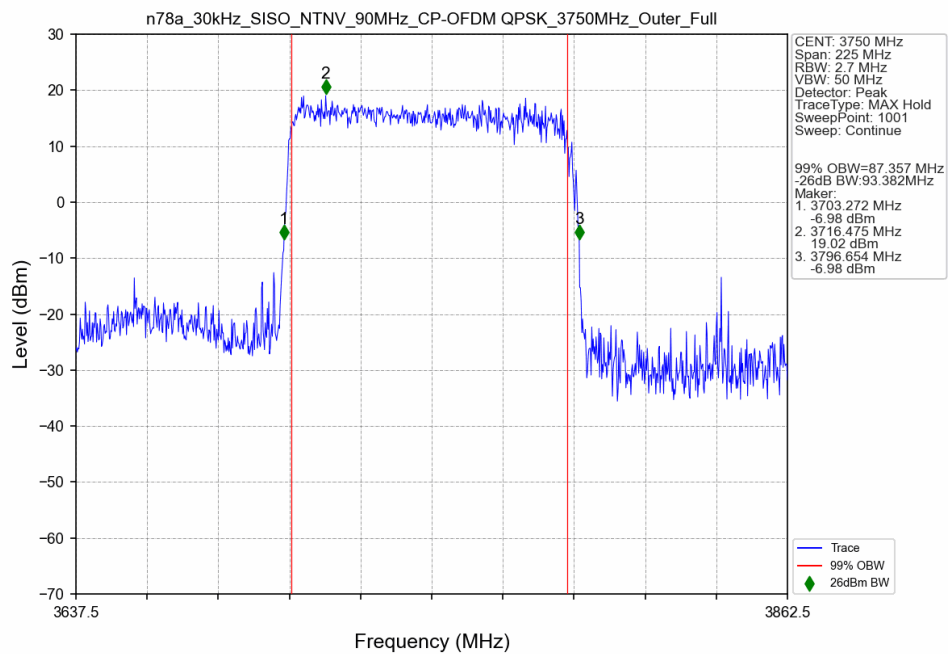
n78a_30kHz_SISO_NTNV_90MHz_DFT-s-OFDM 64 QAM 3750MHz_Outer_Full_Ant8



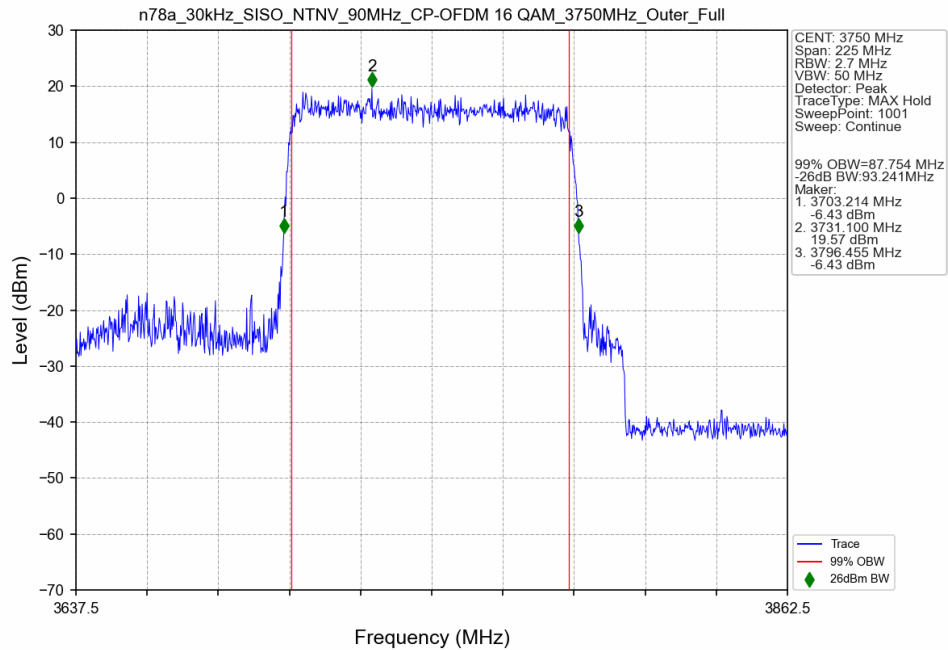
n78a_30kHz_SISO_NTNV_90MHz_DFT-s-OFDM 256 QAM_3750MHz_Outer_Full_Ant8



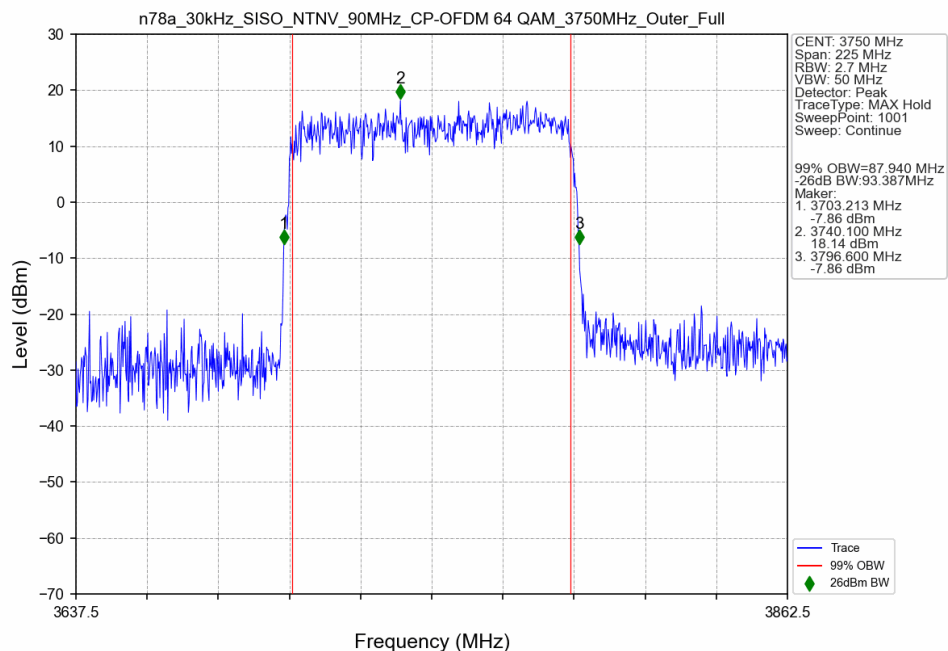
n78a_30kHz_SISO_NTNV_90MHz_CP-OFDM QPSK_3750MHz_Outer_Full_Ant8

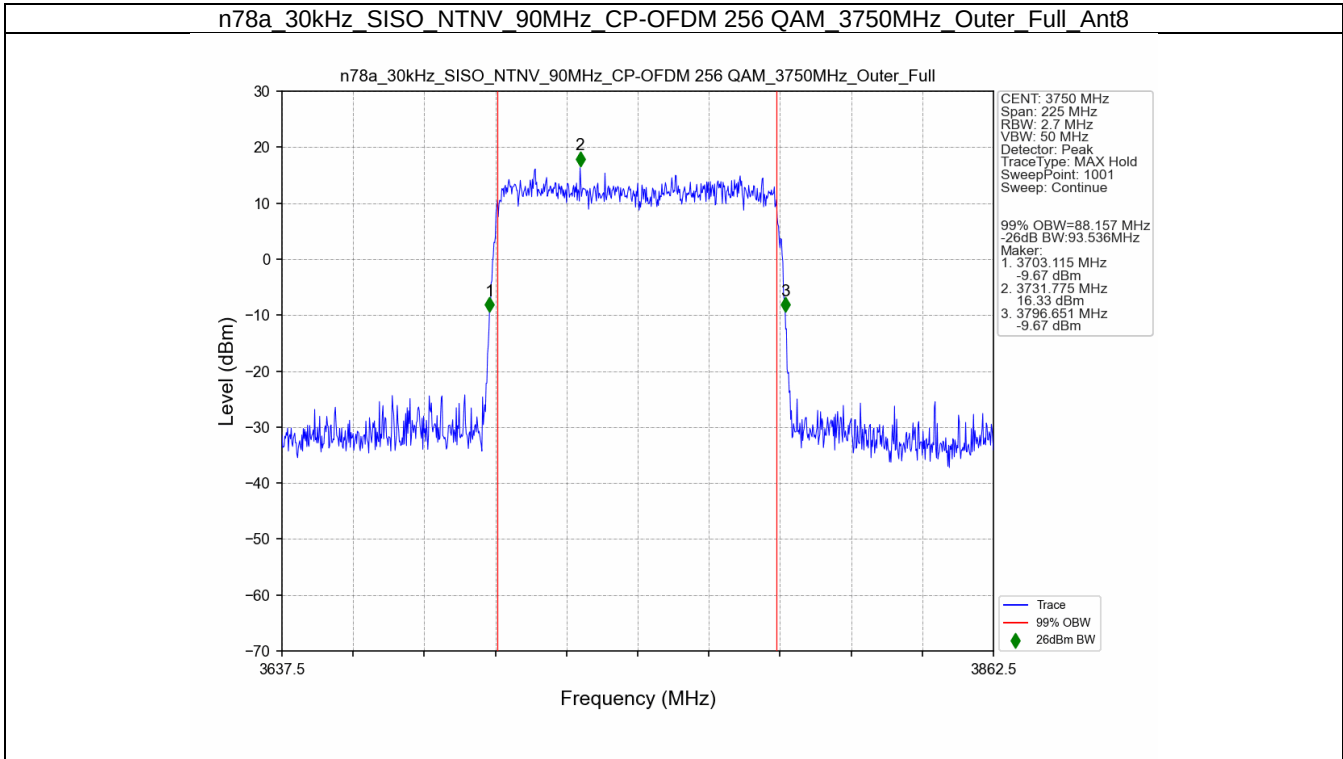


n78a_30kHz_SISO_NTNV_90MHz_CP-OFDM 16 QAM 3750MHz_Outer_Full_Ant8

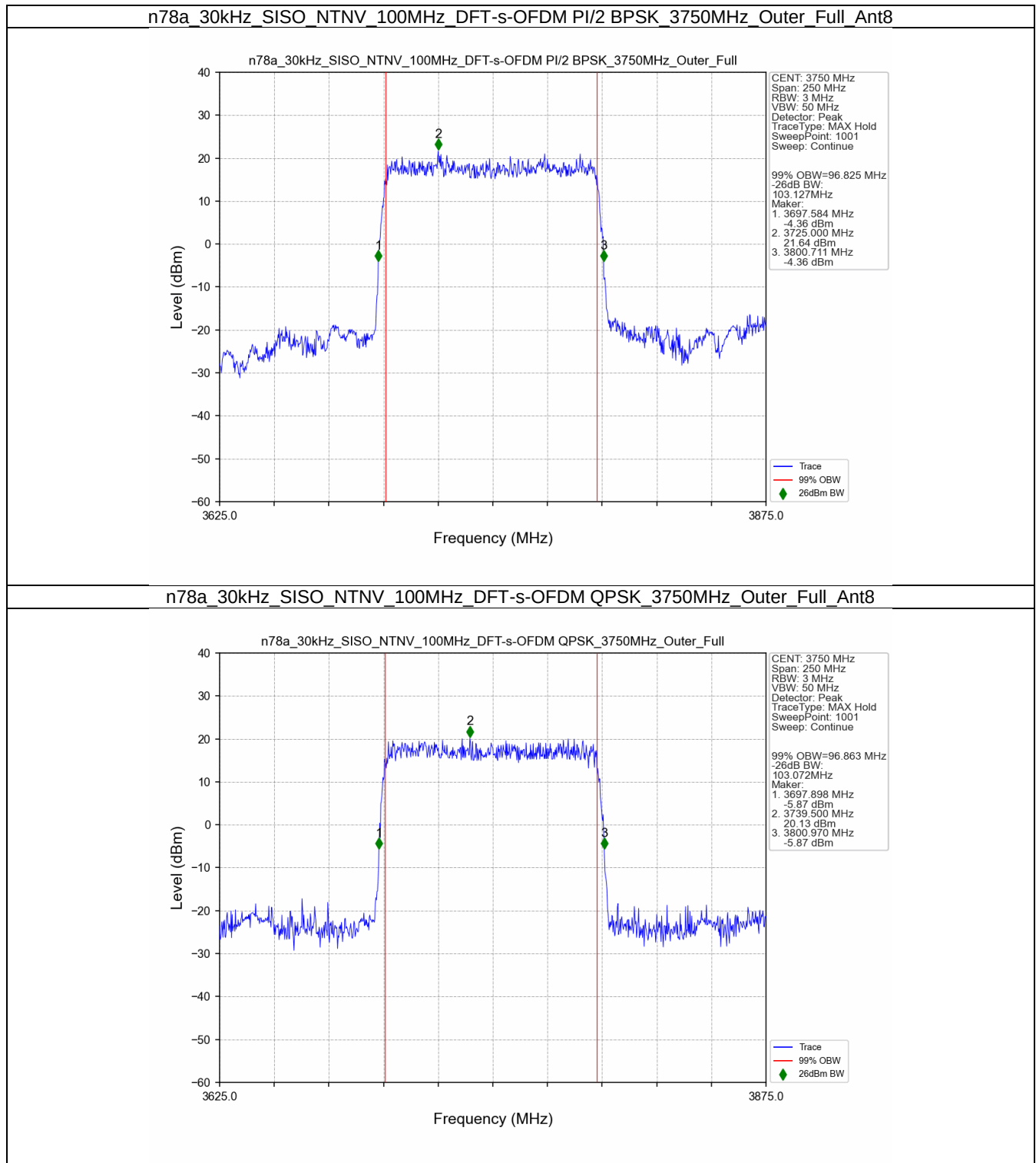


n78a_30kHz_SISO_NTNV_90MHz_CP-OFDM 64 QAM 3750MHz_Outer_Full_Ant8

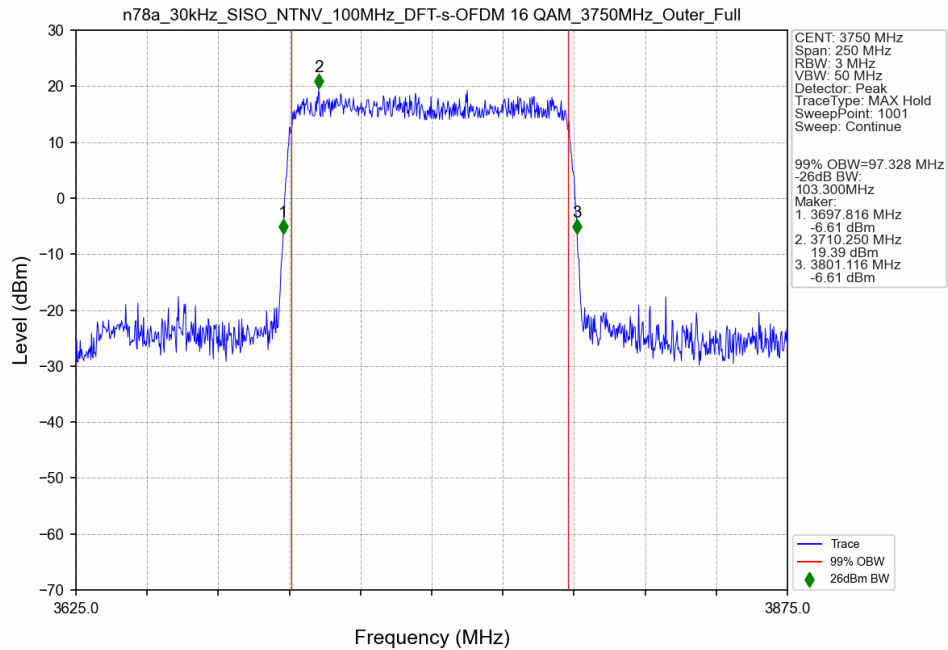




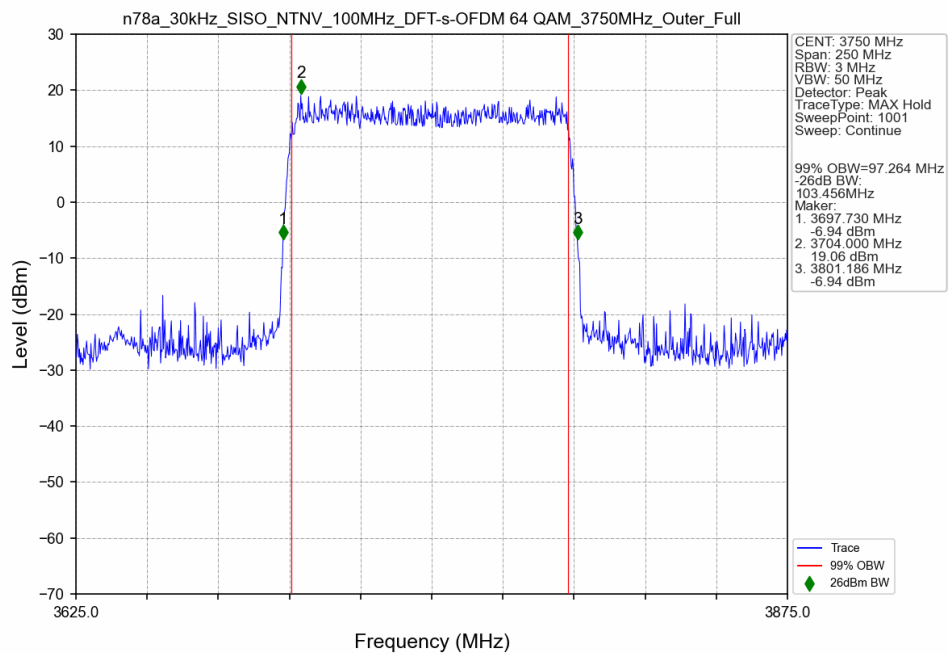
3.2.12 30_S_100M_NTNV



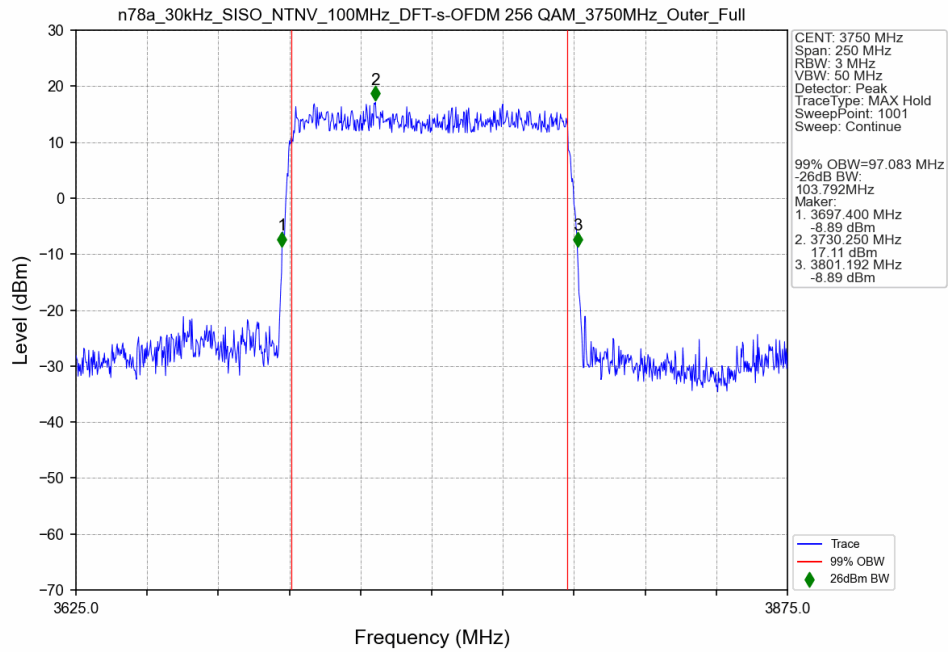
n78a_30kHz_SISO_NTNV_100MHz_DFT-s-OFDM 16 QAM_3750MHz_Outer_Full_Ant8



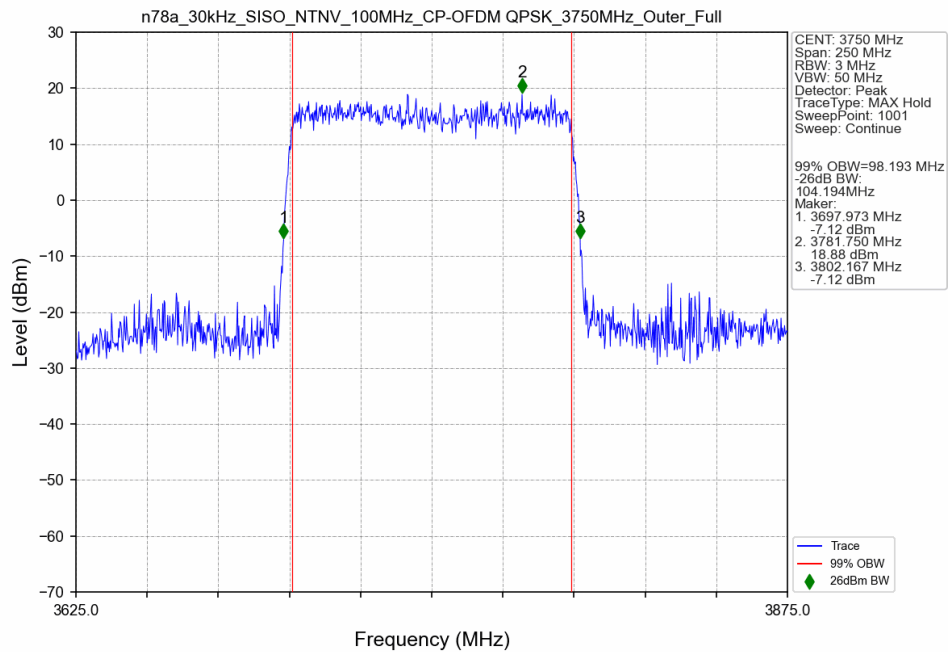
n78a_30kHz_SISO_NTNV_100MHz_DFT-s-OFDM 64 QAM_3750MHz_Outer_Full_Ant8



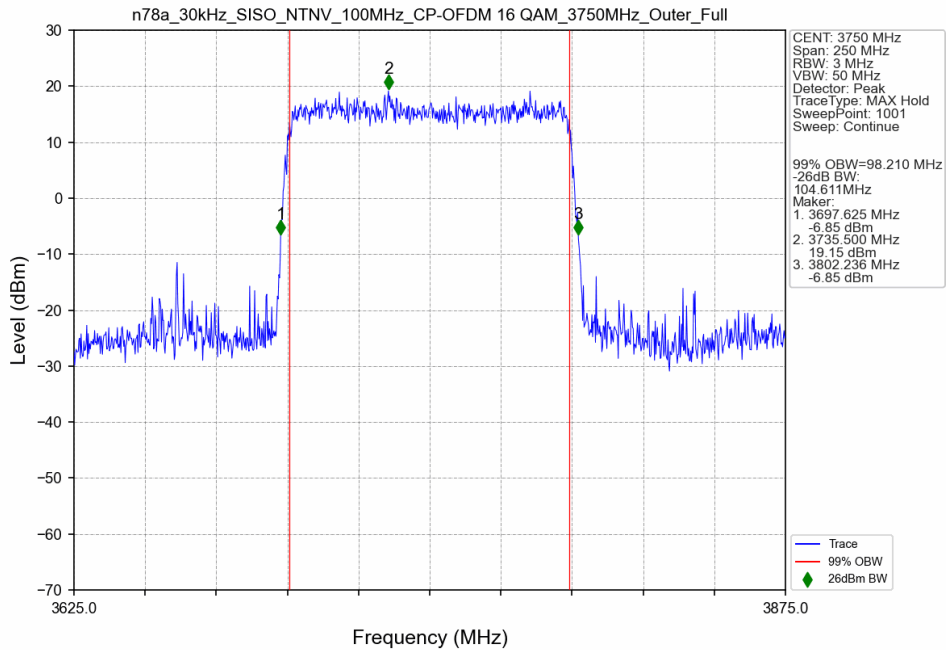
n78a_30kHz_SISO_NTNV_100MHz_DFT-s-OFDM 256 QAM_3750MHz_Outer_Full_Ant8



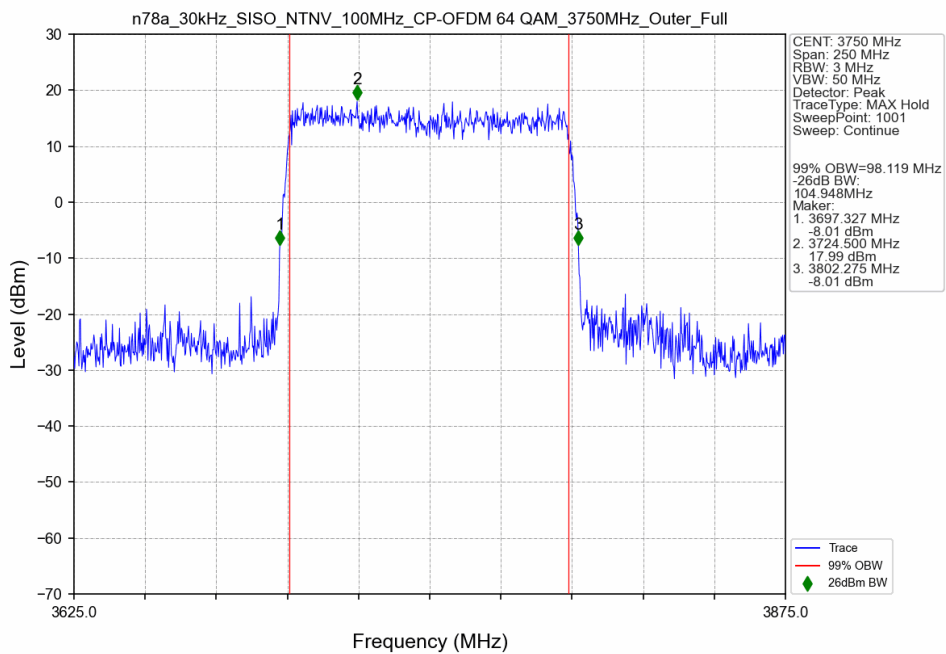
n78a_30kHz_SISO_NTNV_100MHz_CP-OFDM QPSK_3750MHz_Outer_Full_Ant8



n78a_30kHz_SISO_NTNV_100MHz_CP-OFDM 16 QAM_3750MHz_Outer_Full_Ant8



n78a_30kHz_SISO_NTNV_100MHz_CP-OFDM 64 QAM_3750MHz_Outer_Full_Ant8





4. Peak-Average Ratio

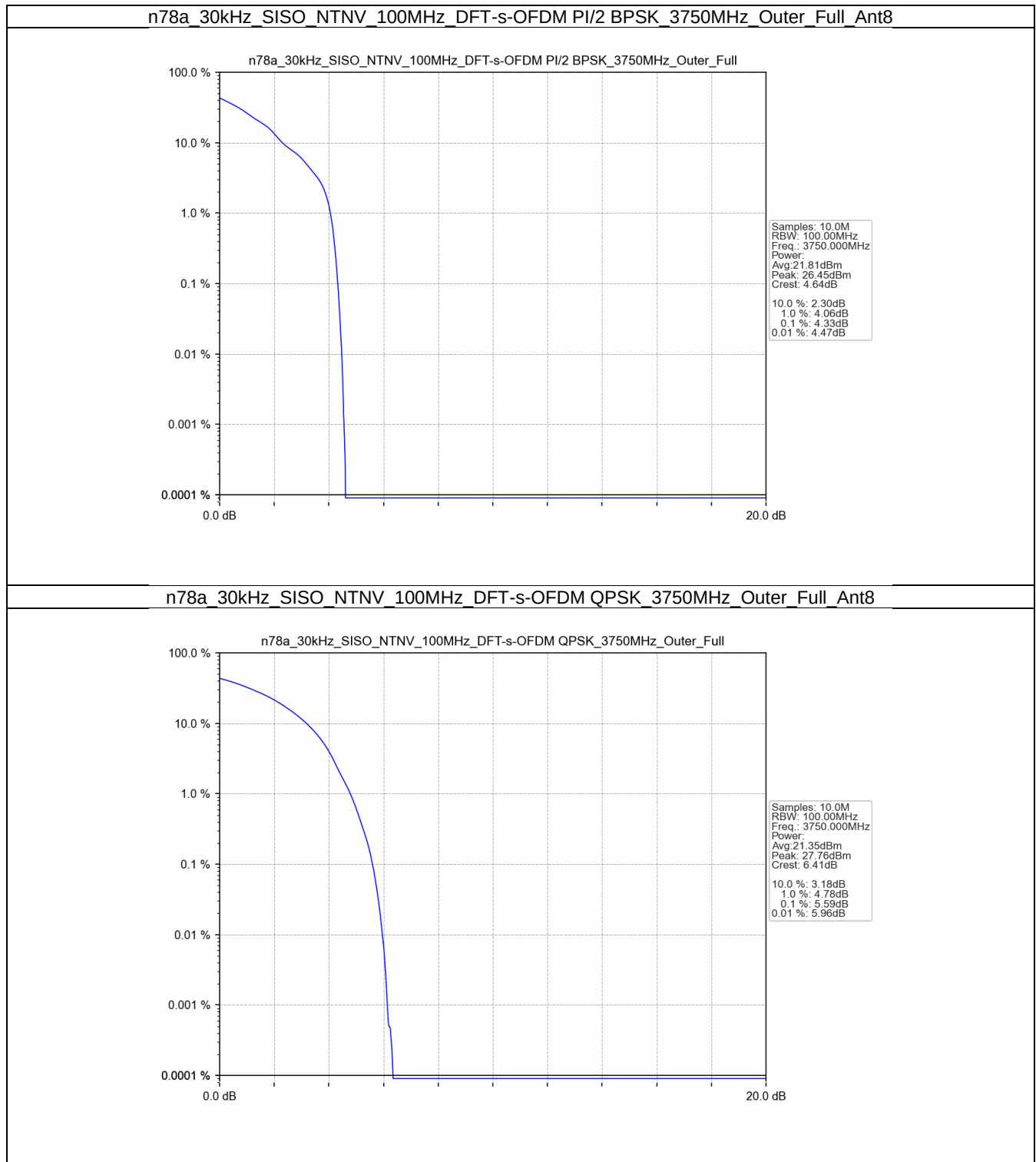
4.1 Test Result

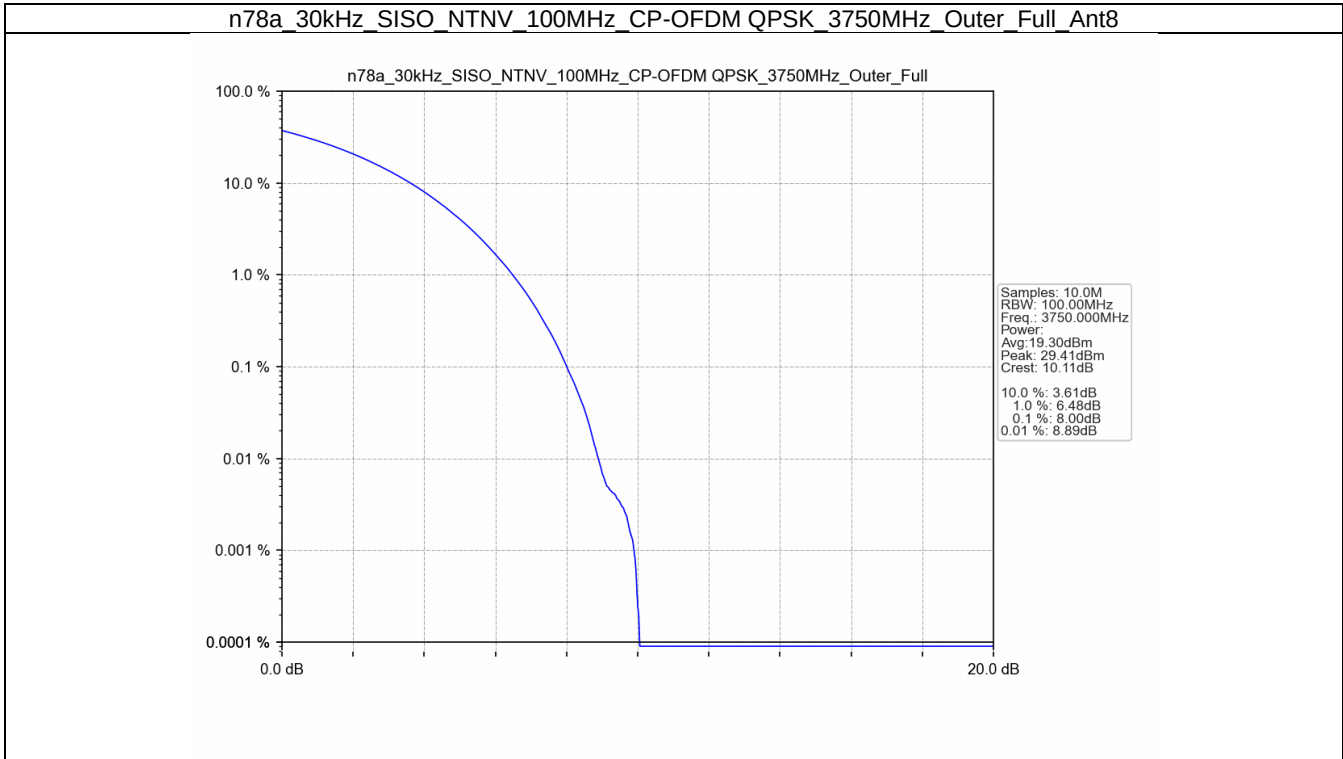
4.1.1 30_S_100M_NTNV

5G NR n78a SCS=30kHz SISO 100MHz NTN							
Modulation	Frequency (MHz)	RB Allocation	Peak-Average Ratio (dB)				Verdict
			Ant8	Ant2	Sum	Limit	
DFT-s-OFDM PI/2 BPSK	3750	Outer_Full	4.33	/	/	<=13	Pass
DFT-s-OFDM QPSK	3750	Outer_Full	5.59	/	/	<=13	Pass
CP-OFDM QPSK	3750	Outer_Full	8.00	/	/	<=13	Pass

4.2 Test Graph

4.2.1 30_S_100M_NTNV





5. Spurious Emission

5.1 Test Result

5.1.1 30_S_10M_NTNV

5G NR n78a SCS=30kHz SISO 10MHz NTN							
Modulation	Frequency (MHz)	RB Allocation	Spurious Emission				Verdict
			Ant8	Ant2	Sum	Limit	
DFT-s-OFDM PI/2 BPSK	3705	Edge_1RB_Left	Refer To Test Graph				Pass
		Outer_Full	Refer To Test Graph				Pass
	3750	Edge_1RB_Left	Refer To Test Graph				Pass
		3795	Edge_1RB_Right	Refer To Test Graph			
	Outer_Full		Refer To Test Graph				Pass
	DFT-s-OFDM QPSK	3705	Edge_1RB_Left	Refer To Test Graph			
Outer_Full			Refer To Test Graph				Pass
3750		Edge_1RB_Left	Refer To Test Graph				Pass
		3795	Edge_1RB_Right	Refer To Test Graph			
Outer_Full			Refer To Test Graph				Pass
CP-OFDM QPSK		3705	Edge_1RB_Left	Refer To Test Graph			
	Outer_Full		Refer To Test Graph				Pass
	3750	Edge_1RB_Left	Refer To Test Graph				Pass
		3795	Edge_1RB_Right	Refer To Test Graph			
	Outer_Full		Refer To Test Graph				Pass

5.1.2 30_S_50M_NTNV

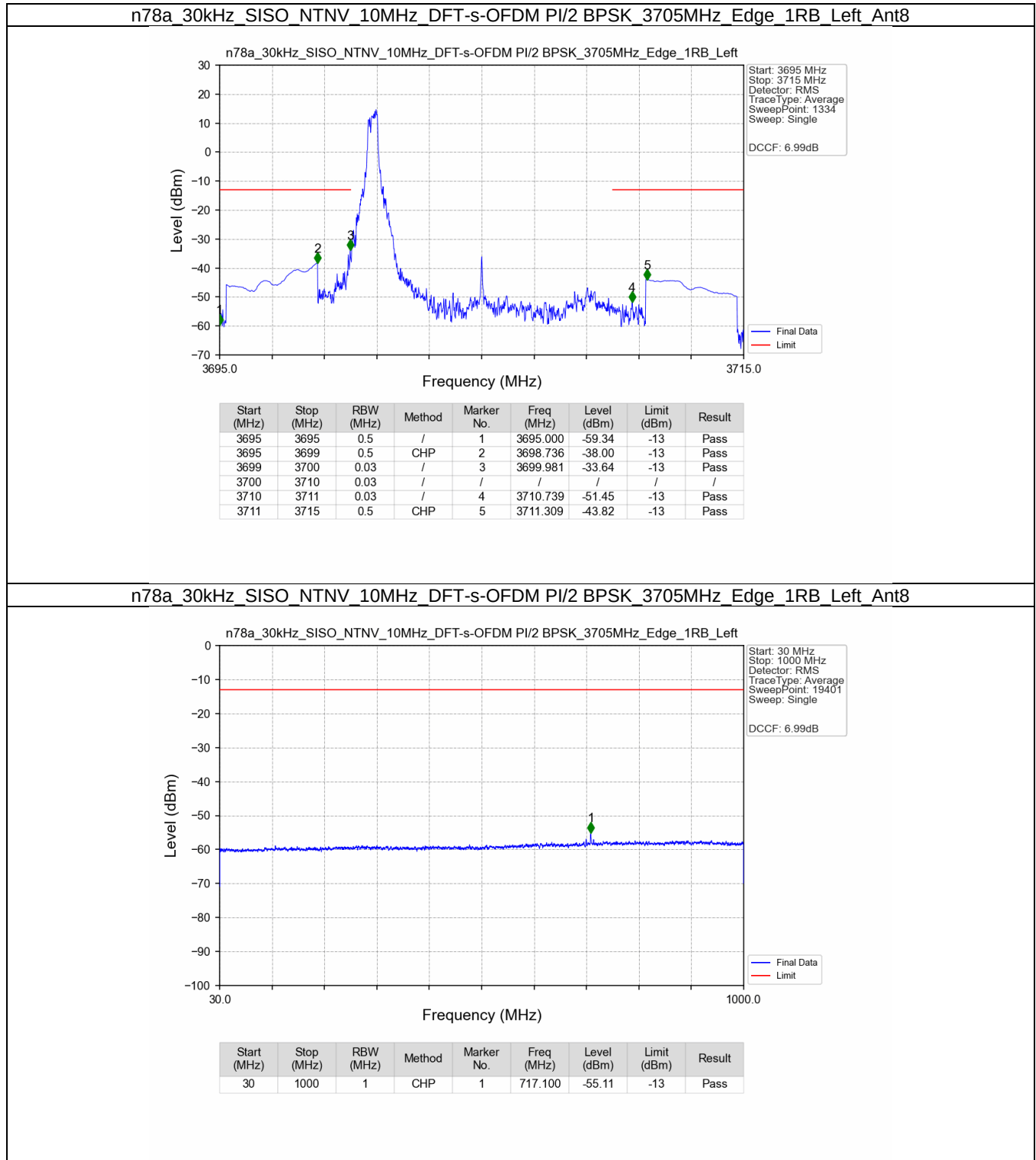
5G NR n78a SCS=30kHz SISO 50MHz NTN							
Modulation	Frequency (MHz)	RB Allocation	Spurious Emission				Verdict
			Ant8	Ant2	Sum	Limit	
DFT-s-OFDM PI/2 BPSK	3725.01	Edge_1RB_Left	Refer To Test Graph				Pass
		Outer_Full	Refer To Test Graph				Pass
	3750	Edge_1RB_Left	Refer To Test Graph				Pass
		Edge_1RB_Right	Refer To Test Graph				Pass
	3774.99	Outer_Full	Refer To Test Graph				Pass
DFT-s-OFDM QPSK	3725.01	Edge_1RB_Left	Refer To Test Graph				Pass
		Outer_Full	Refer To Test Graph				Pass
	3750	Edge_1RB_Left	Refer To Test Graph				Pass
		Edge_1RB_Right	Refer To Test Graph				Pass
	3774.99	Outer_Full	Refer To Test Graph				Pass
CP-OFDM QPSK	3725.01	Edge_1RB_Left	Refer To Test Graph				Pass
		Outer_Full	Refer To Test Graph				Pass
	3750	Edge_1RB_Left	Refer To Test Graph				Pass
		Edge_1RB_Right	Refer To Test Graph				Pass
	3774.99	Outer_Full	Refer To Test Graph				Pass

5.1.3 30_S_100M_NTNV

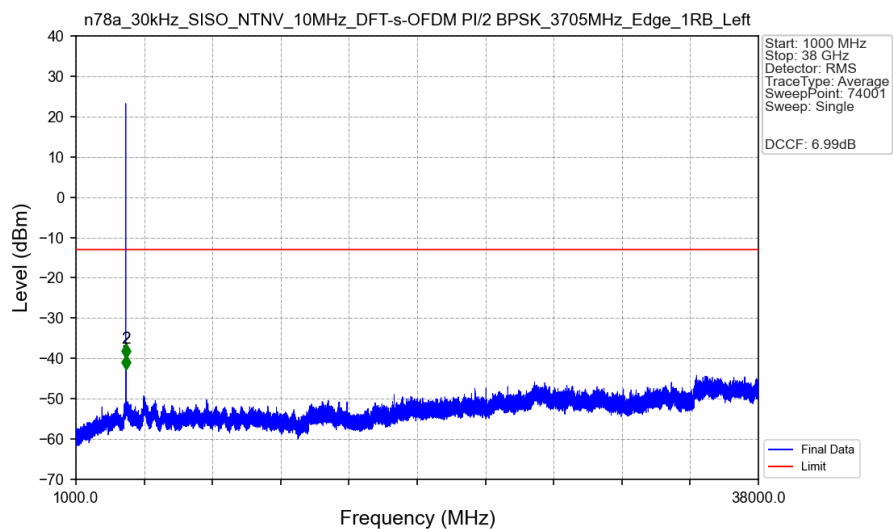
5G NR n78a SCS=30kHz SISO 100MHz NTN							
Modulation	Frequency (MHz)	RB Allocation	Spurious Emission				Verdict
			Ant8	Ant2	Sum	Limit	
DFT-s-OFDM PI/2 BPSK	3750	Edge_1RB_Left	Refer To Test Graph				Pass
		Outer_Full	Refer To Test Graph				Pass
DFT-s-OFDM QPSK	3750	Edge_1RB_Left	Refer To Test Graph				Pass
		Outer_Full	Refer To Test Graph				Pass
CP-OFDM QPSK	3750	Edge_1RB_Left	Refer To Test Graph				Pass
		Outer_Full	Refer To Test Graph				Pass

5.2 Test Graph

5.2.1 30_S_10M_NTNV

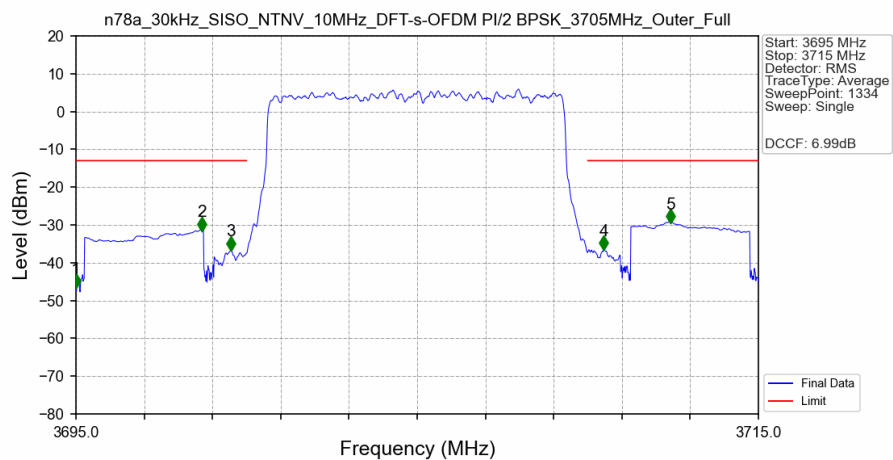


n78a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM PI/2 BPSK 3705MHz_Edge_1RB_Left Ant8



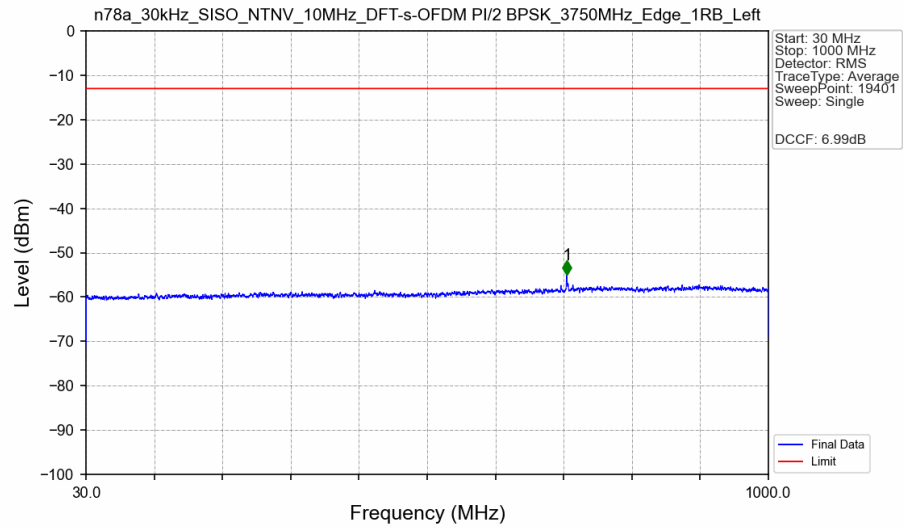
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1000	3695	1	/	1	3694.500	-42.74	-13	Pass
3695	3715	1	/	/	/	/	/	/
3715	38000	1	/	2	3715.500	-39.94	-13	Pass

n78a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM PI/2 BPSK 3705MHz_Outer_Full Ant8



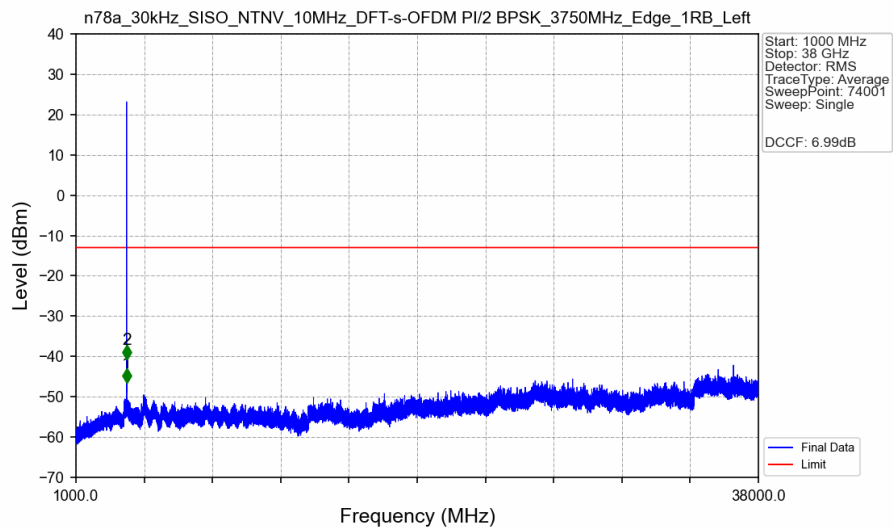
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
3695	3695	0.5	/	1	3695.000	-46.42	-13	Pass
3695	3699	0.5	CHP	2	3698.691	-31.28	-13	Pass
3699	3700	0.09332	CHP	3	3699.546	-36.40	-13	Pass
3700	3710	0.09332	CHP	/	/	/	/	/
3710	3711	0.09332	CHP	4	3710.469	-36.34	-13	Pass
3711	3715	0.5	CHP	5	3712.419	-29.23	-13	Pass

n78a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM PI/2 BPSK 3750MHz_Edge_1RB_Left_Ant8



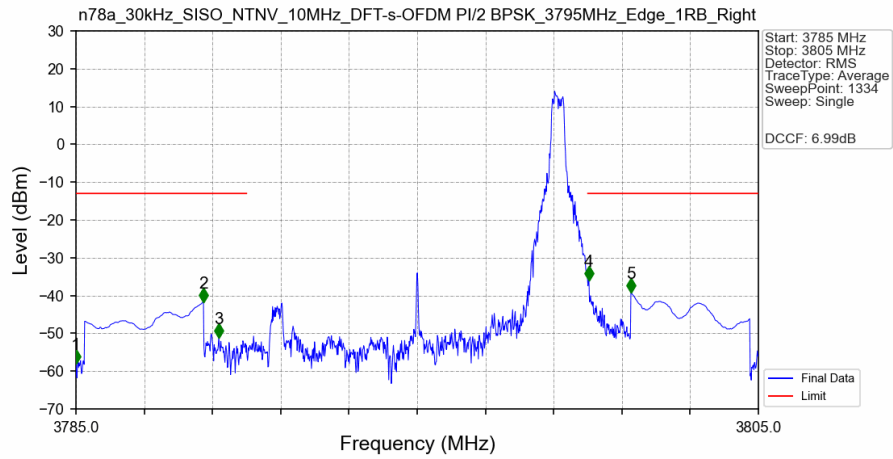
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
30	1000	1	CHP	1	713.500	-54.95	-13	Pass

n78a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM PI/2 BPSK 3750MHz_Edge_1RB_Left_Ant8



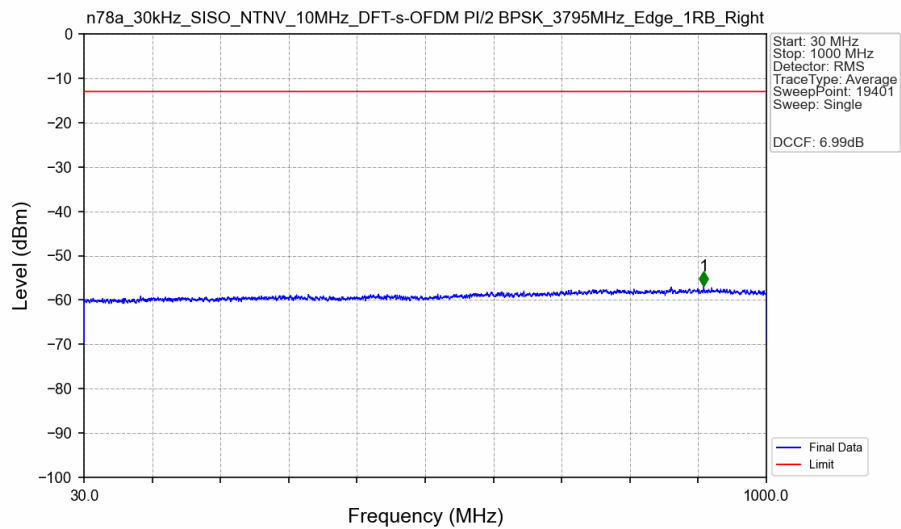
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1000	3740	1	/	1	3739.500	-46.54	-13	Pass
3740	3760	1	/	/	/	/	/	/
3760	38000	1	/	2	3760.500	-40.67	-13	Pass

n78a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM PI/2 BPSK_3795MHz_Edge_1RB_Right_Ant8



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
3785	3785	0.5	/	1	3785.000	-57.73	-13	Pass
3785	3789	0.5	CHP	2	3788.736	-41.53	-13	Pass
3789	3790	0.03	/	3	3789.186	-50.91	-13	Pass
3790	3800	0.03	/	/	/	/	/	/
3800	3801	0.03	/	4	3800.034	-35.77	-13	Pass
3801	3805	0.5	CHP	5	3801.264	-38.98	-13	Pass

n78a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM PI/2 BPSK_3795MHz_Edge_1RB_Right_Ant8



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
30	1000	1	CHP	1	910.650	-56.85	-13	Pass