

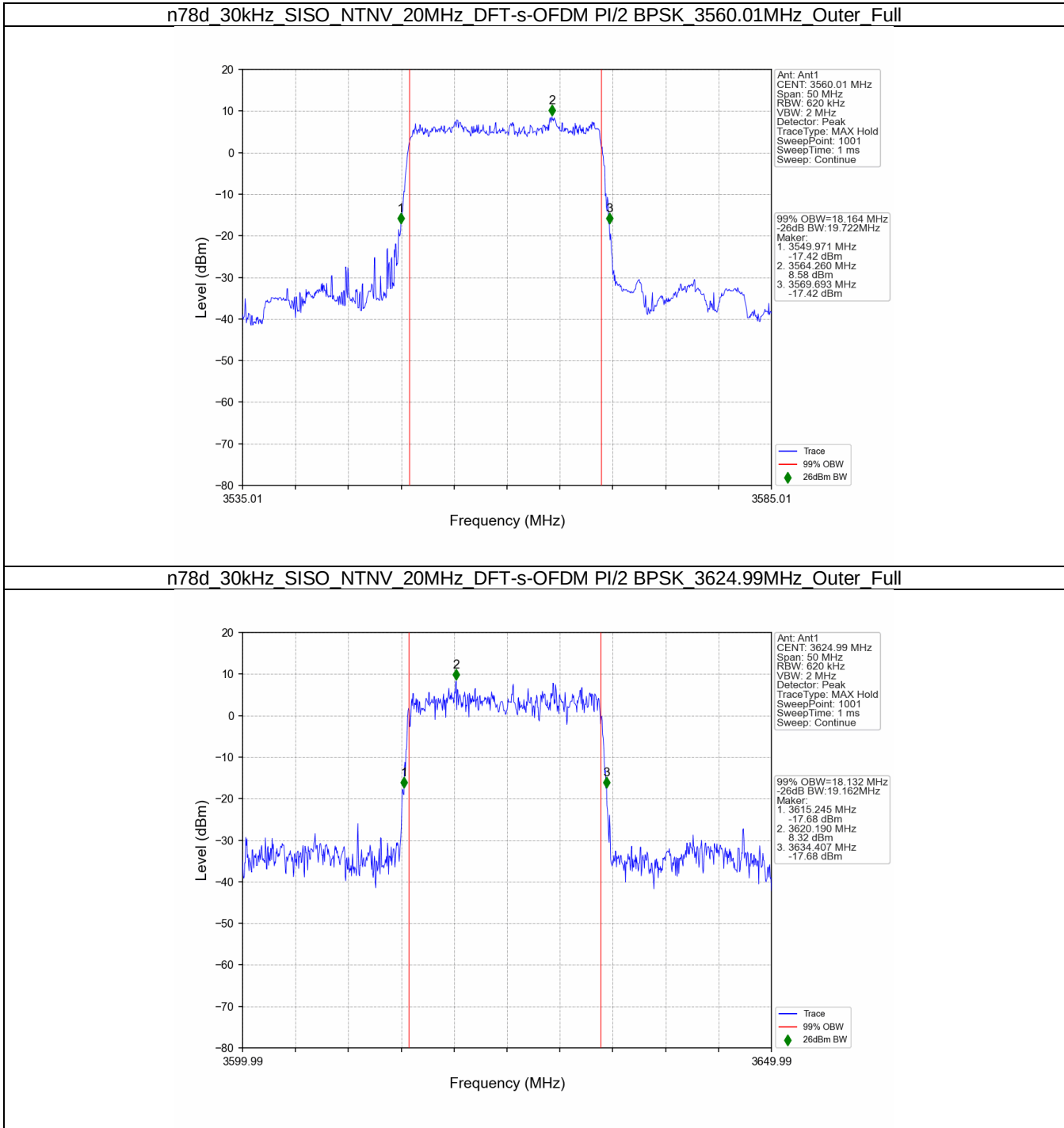
1. 99% & 26dB Bandwidth

1.1 30k_SISO_20MHz_NTNV

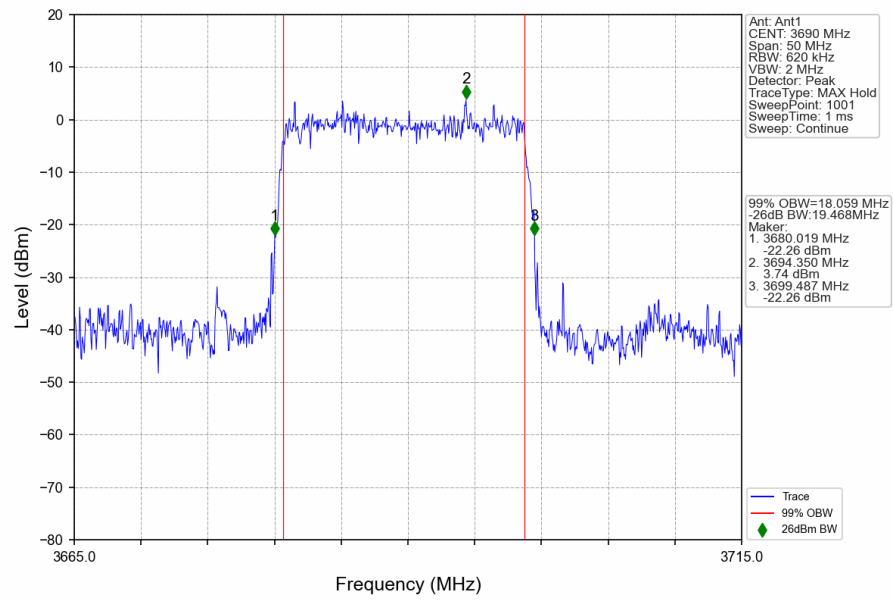
1.1.1 Test Result

5G NR n78d SCS=30kHz SISO 20MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	3560.01	Outer_Full	18.16	19.72	/	Pass
	3624.99	Outer_Full	18.13	19.16	/	Pass
	3690	Outer_Full	18.06	19.47	/	Pass
DFT-s-OFDM QPSK	3560.01	Outer_Full	18.11	23.77	/	Pass
	3624.99	Outer_Full	18.22	19.36	/	Pass
	3690	Outer_Full	18.04	19.49	/	Pass
DFT-s-OFDM 16 QAM	3560.01	Outer_Full	18.13	19.63	/	Pass
	3624.99	Outer_Full	18.17	19.34	/	Pass
	3690	Outer_Full	18.11	19.42	/	Pass
DFT-s-OFDM 64 QAM	3560.01	Outer_Full	18.13	19.74	/	Pass
	3624.99	Outer_Full	18.16	19.74	/	Pass
	3690	Outer_Full	18.13	19.40	/	Pass
DFT-s-OFDM 256 QAM	3560.01	Outer_Full	18.12	19.71	/	Pass
	3624.99	Outer_Full	17.96	19.48	/	Pass
	3690	Outer_Full	17.99	19.32	/	Pass
CP-OFDM QPSK	3560.01	Outer_Full	18.41	20.10	/	Pass
	3624.99	Outer_Full	18.29	19.87	/	Pass
	3690	Outer_Full	18.37	19.72	/	Pass
CP-OFDM 16 QAM	3560.01	Outer_Full	18.42	20.12	/	Pass
	3624.99	Outer_Full	18.44	19.68	/	Pass
	3690	Outer_Full	18.52	19.79	/	Pass
CP-OFDM 64 QAM	3560.01	Outer_Full	18.41	20.20	/	Pass
	3624.99	Outer_Full	18.51	19.72	/	Pass
	3690	Outer_Full	18.44	19.96	/	Pass
CP-OFDM 256 QAM	3560.01	Outer_Full	18.40	21.34	/	Pass
	3624.99	Outer_Full	18.48	19.89	/	Pass
	3690	Outer_Full	18.48	19.87	/	Pass

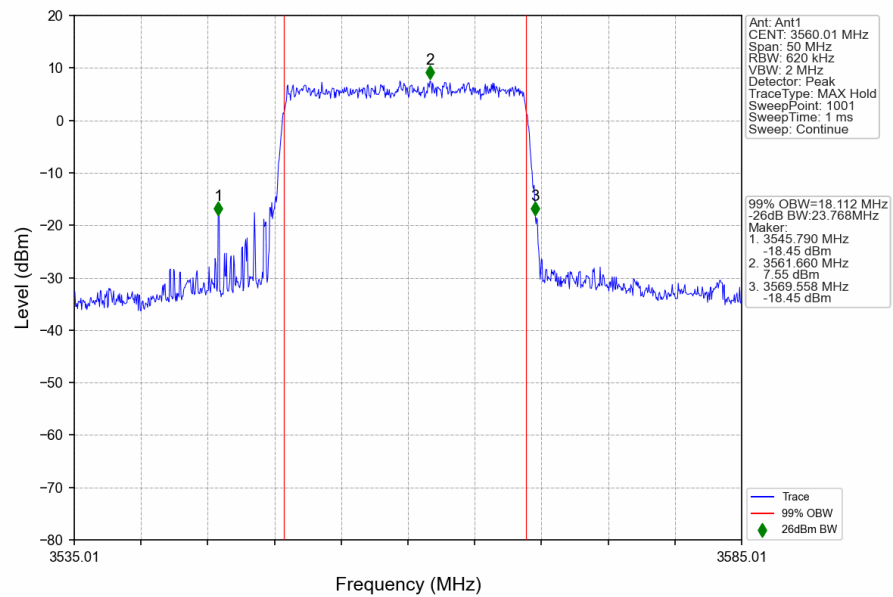
1.1.2 Test Graph



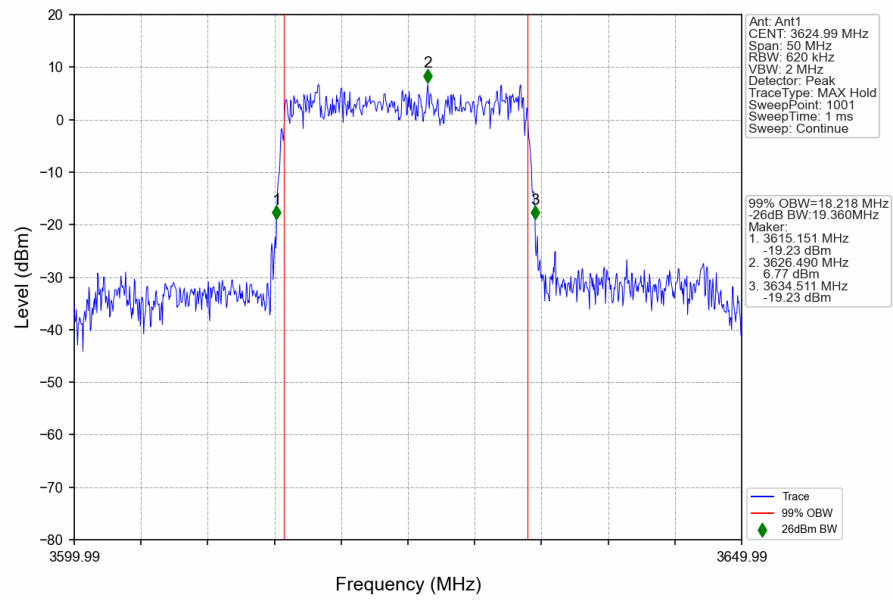
n78d_30kHz_SISO_NTNV_20MHz_DFT-s-OFDM_PI/2_BPSK_3690MHz_Outer_Full



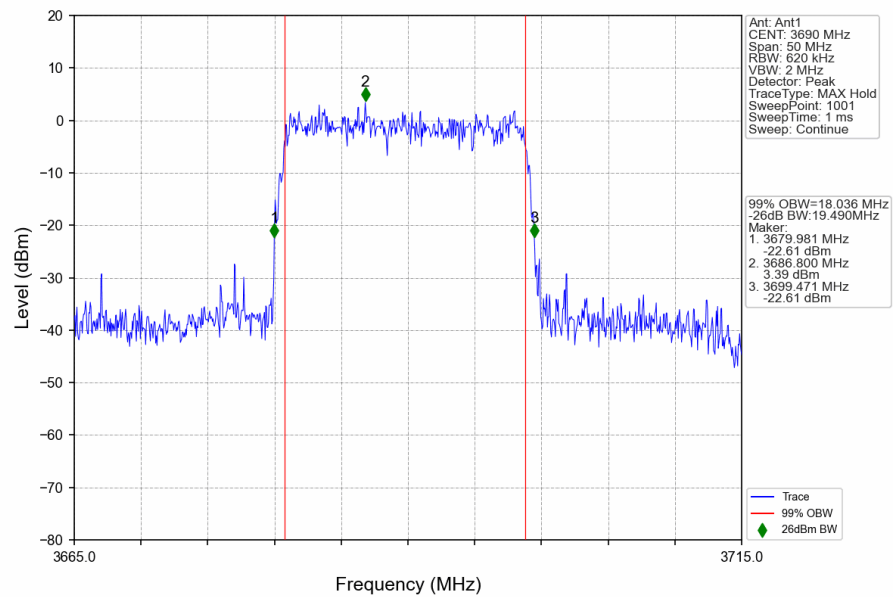
n78d_30kHz_SISO_NTNV_20MHz_DFT-s-OFDM_QPSK_3560.01MHz_Outer_Full



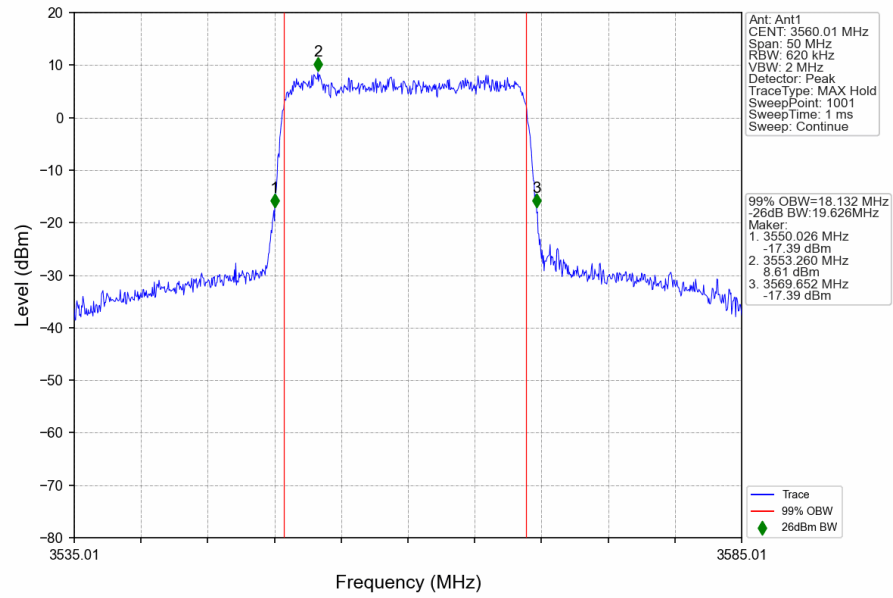
n78d_30kHz_SISO_NTNV_20MHz_DFT-s-OFDM_QPSK_3624.99MHz_Outer_Full



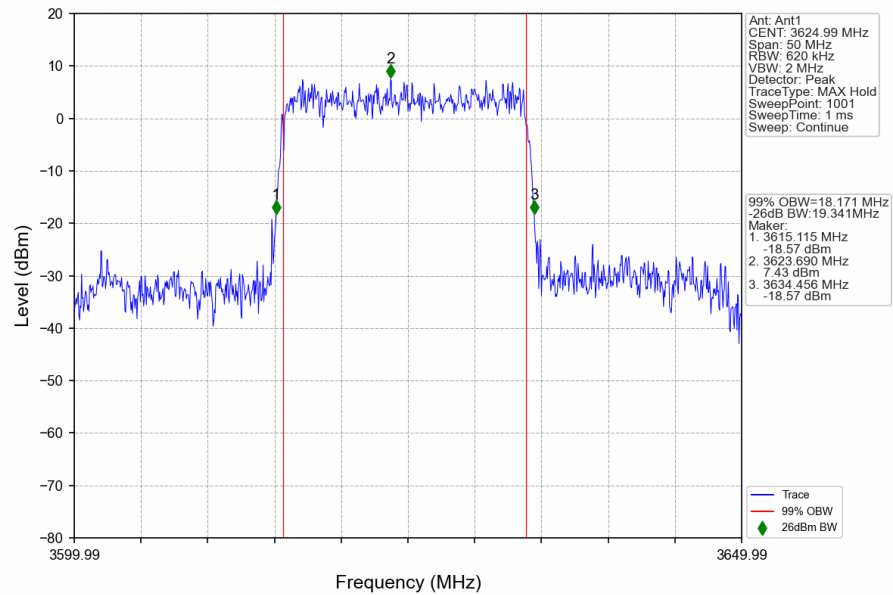
n78d_30kHz_SISO_NTNV_20MHz_DFT-s-OFDM_QPSK_3690MHz_Outer_Full



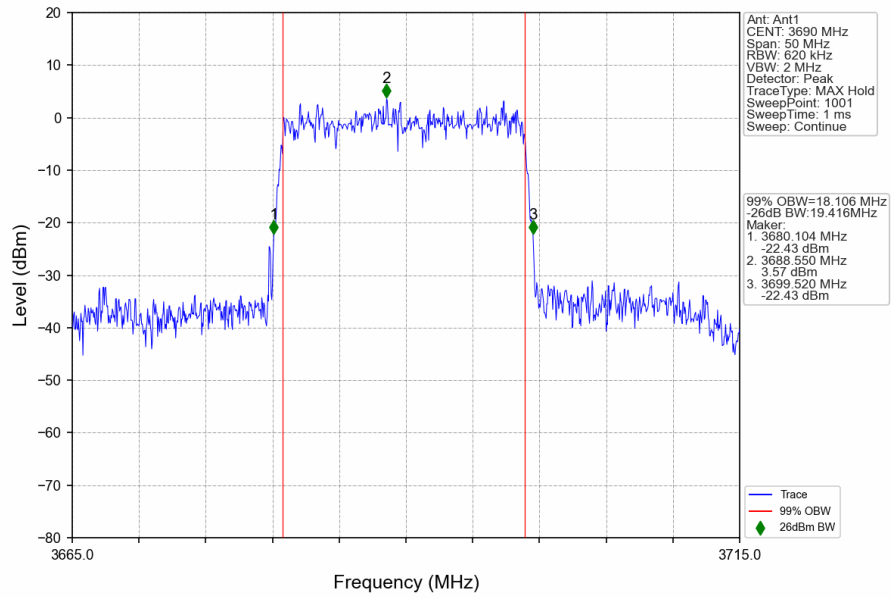
n78d_30kHz_SISO_NTNV_20MHz_DFT-s-OFDM_16_QAM_3560.01MHz_Outer_Full



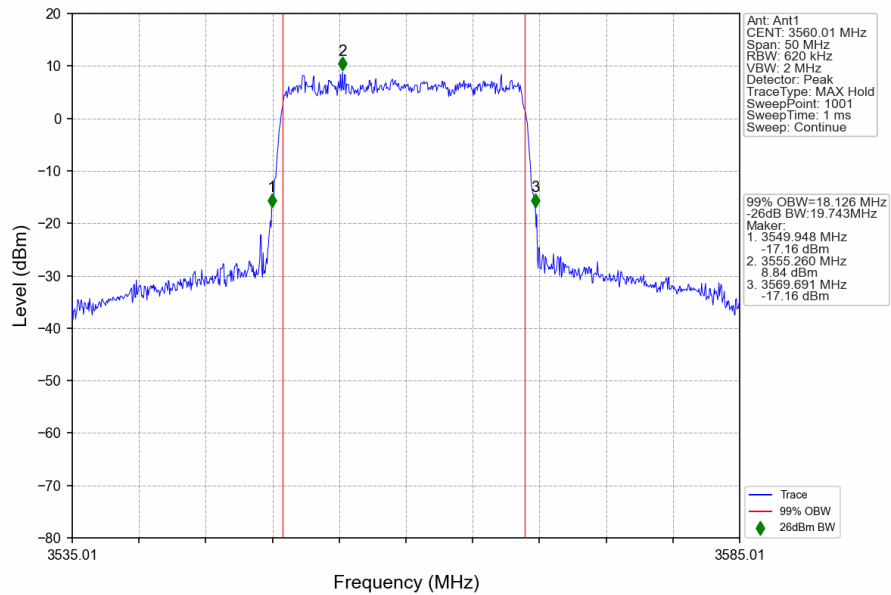
n78d_30kHz_SISO_NTNV_20MHz_DFT-s-OFDM_16_QAM_3624.99MHz_Outer_Full



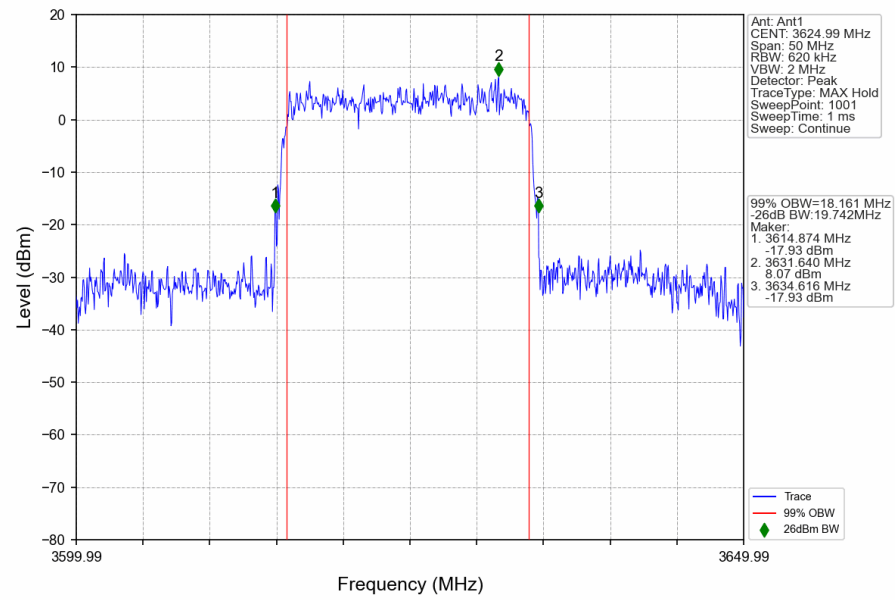
n78d_30kHz_SISO_NTNV_20MHz_DFT-s-OFDM_16_QAM_3690MHz_Outer_Full



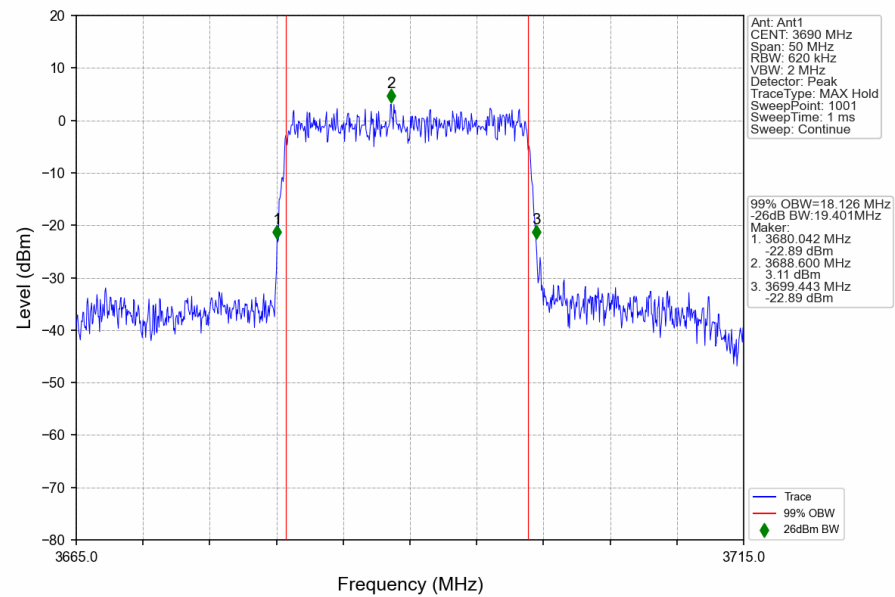
n78d_30kHz_SISO_NTNV_20MHz_DFT-s-OFDM_64_QAM_3560.01MHz_Outer_Full



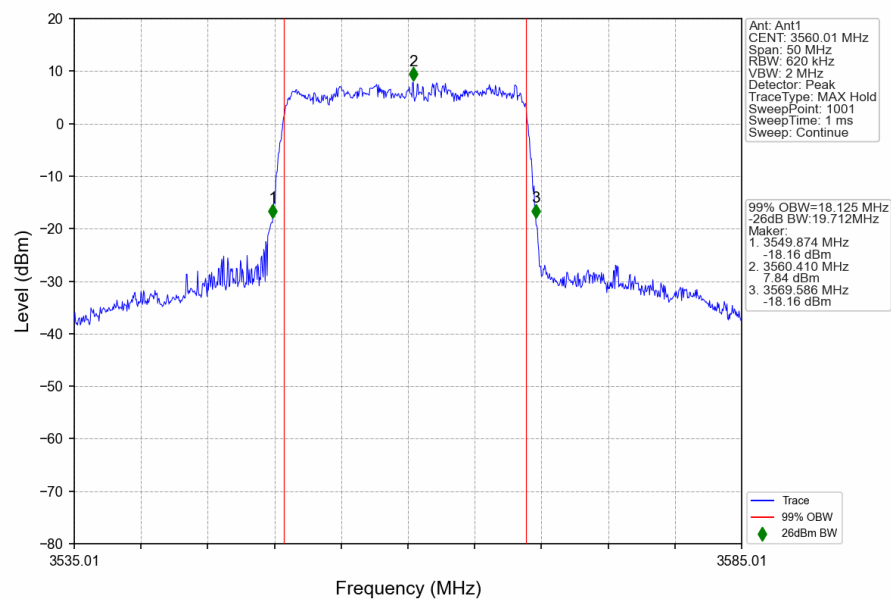
n78d_30kHz_SISO_NTNV_20MHz_DFT-s-OFDM_64_QAM_3624.99MHz_Outer_Full



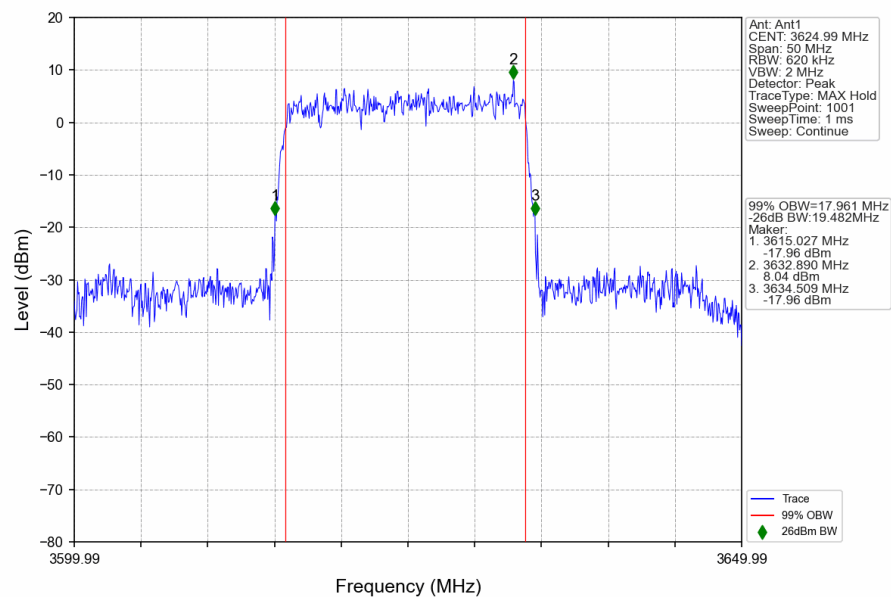
n78d_30kHz_SISO_NTNV_20MHz_DFT-s-OFDM_64_QAM_3690MHz_Outer_Full



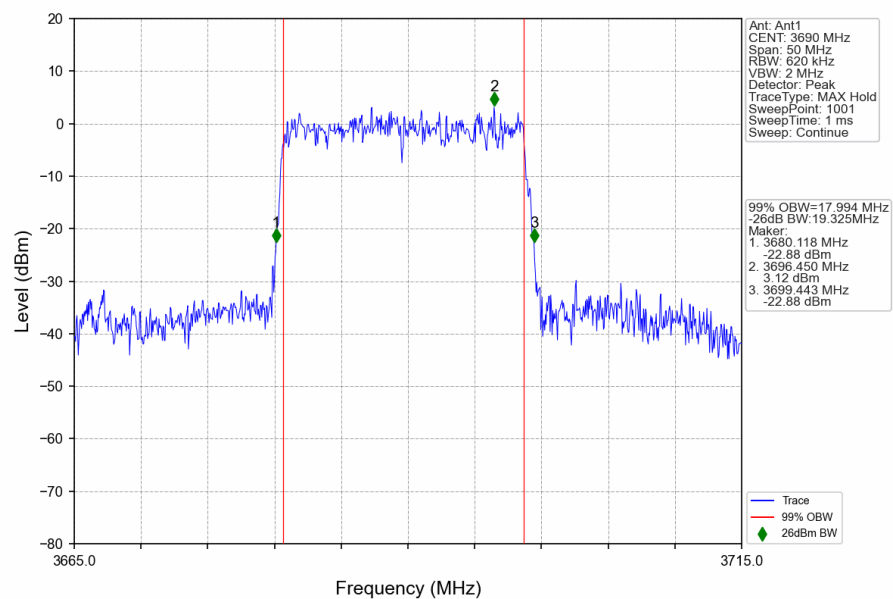
n78d_30kHz_SISO_NTNV_20MHz_DFT-s-OFDM_256_QAM_3560.01MHz_Outer_Full



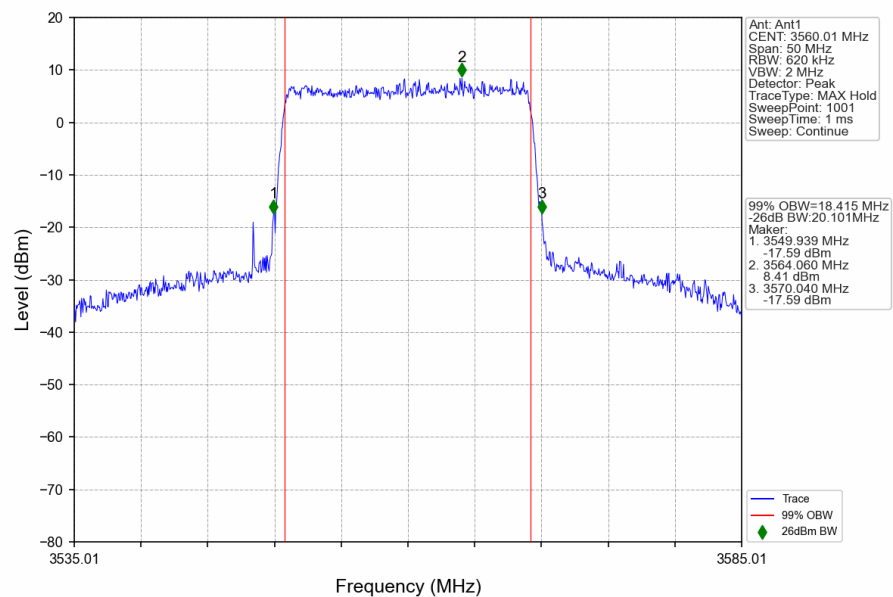
n78d_30kHz_SISO_NTNV_20MHz_DFT-s-OFDM_256_QAM_3624.99MHz_Outer_Full



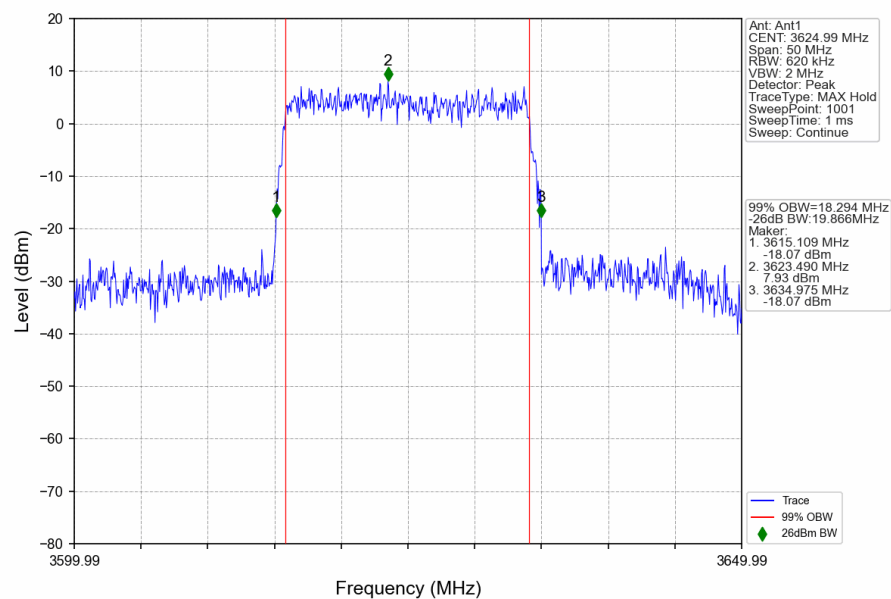
n78d_30kHz_SISO_NTNV_20MHz_DFT-s-OFDM 256 QAM_3690MHz_Outer_Full



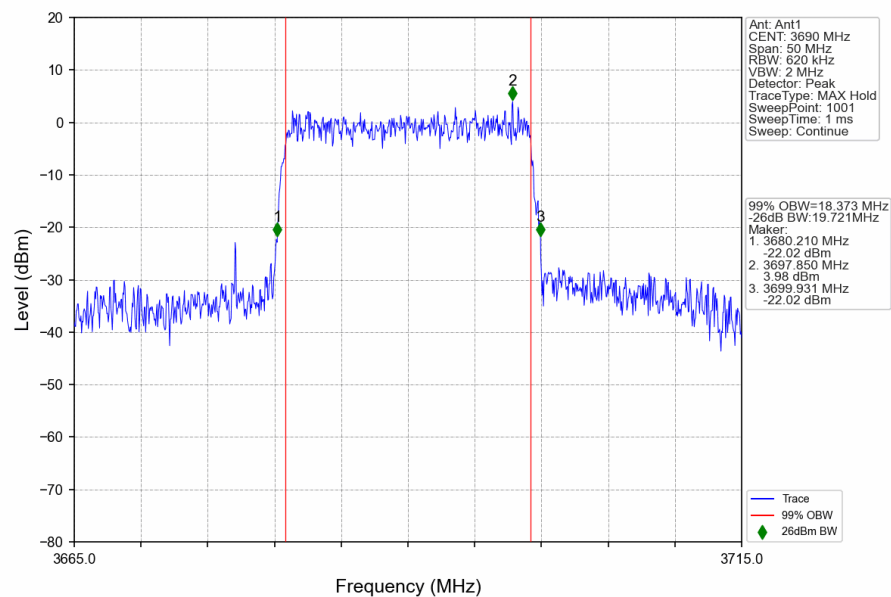
n78d_30kHz_SISO_NTNV_20MHz_CP-OFDM QPSK_3560.01MHz_Outer_Full



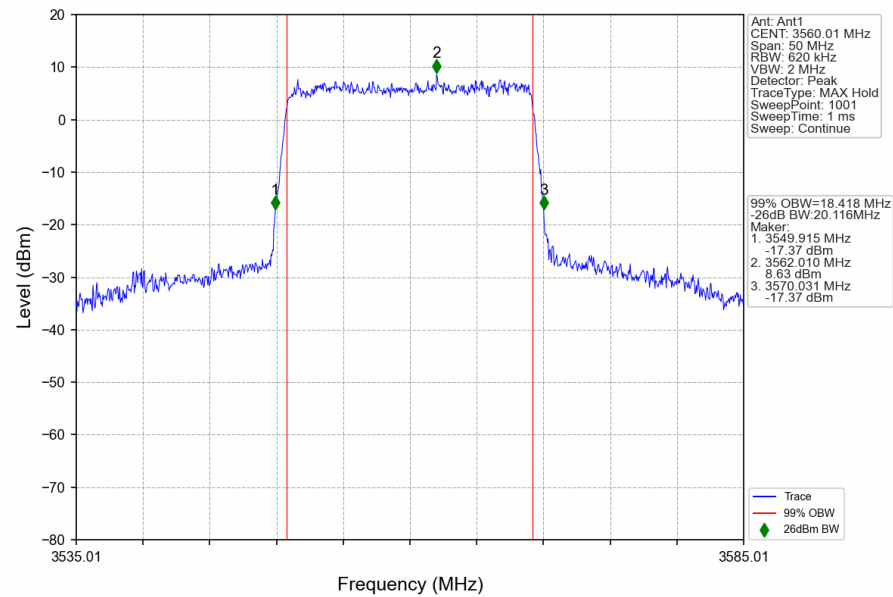
n78d_30kHz_SISO_NTNV_20MHz_CP-OFDM_QPSK_3624.99MHz_Outer_Full



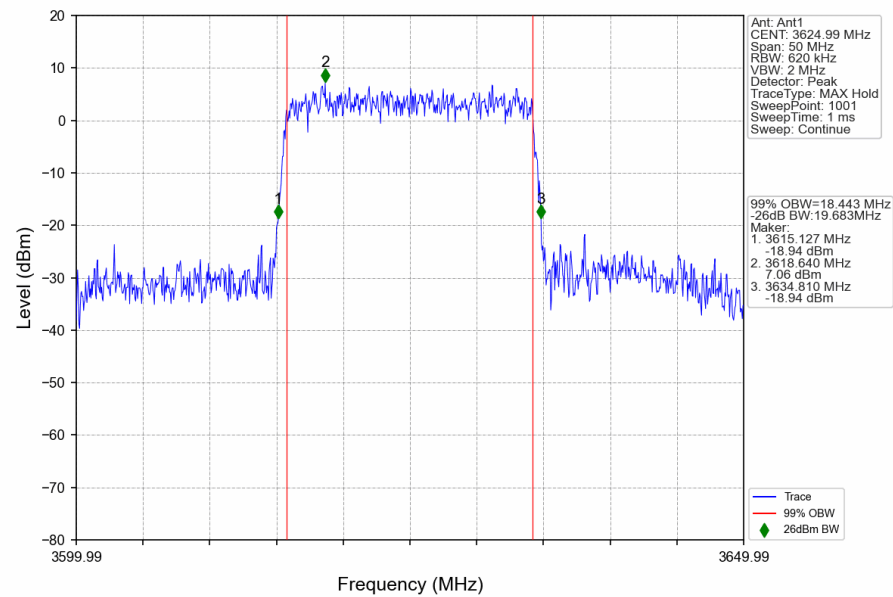
n78d_30kHz_SISO_NTNV_20MHz_CP-OFDM_QPSK_3690MHz_Outer_Full



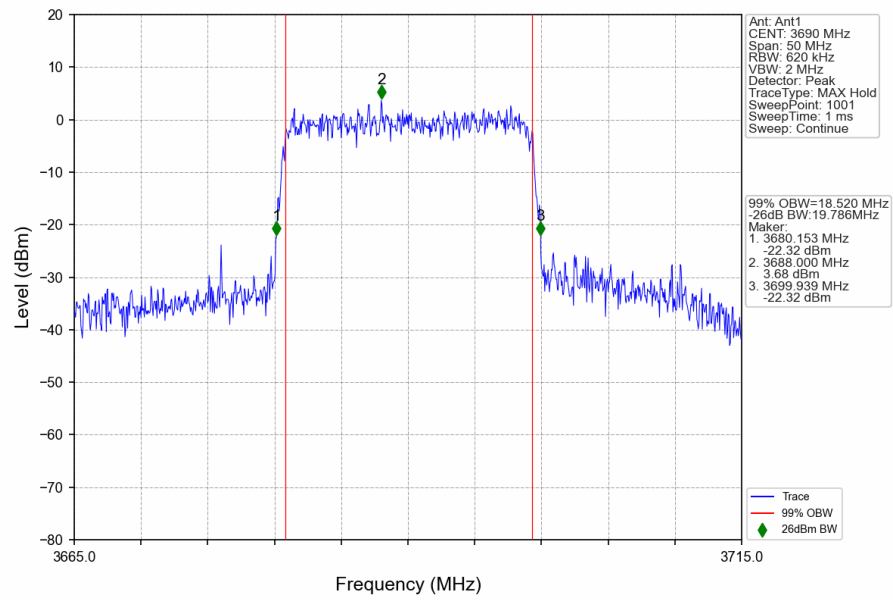
n78d_30kHz_SISO_NTNV_20MHz_CP-OFDM_16_QAM_3560.01MHz_Outer_Full



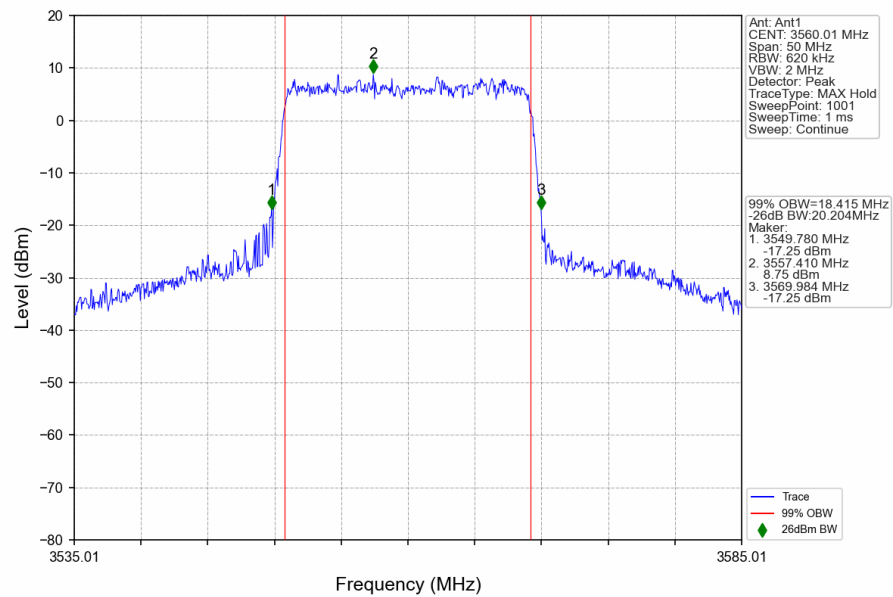
n78d_30kHz_SISO_NTNV_20MHz_CP-OFDM_16_QAM_3624.99MHz_Outer_Full



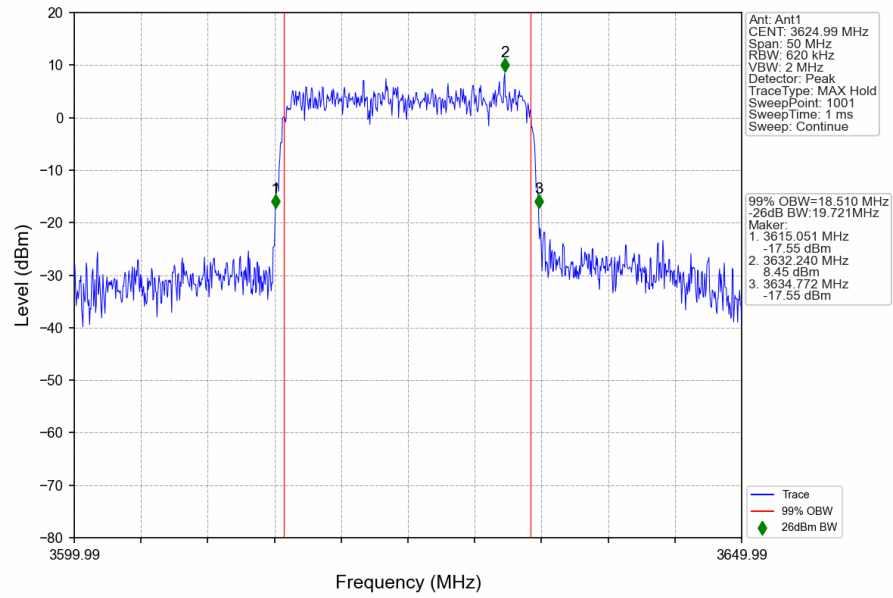
n78d_30kHz_SISO_NTNV_20MHz_CP-OFDM 16 QAM 3690MHz_Outer_Full



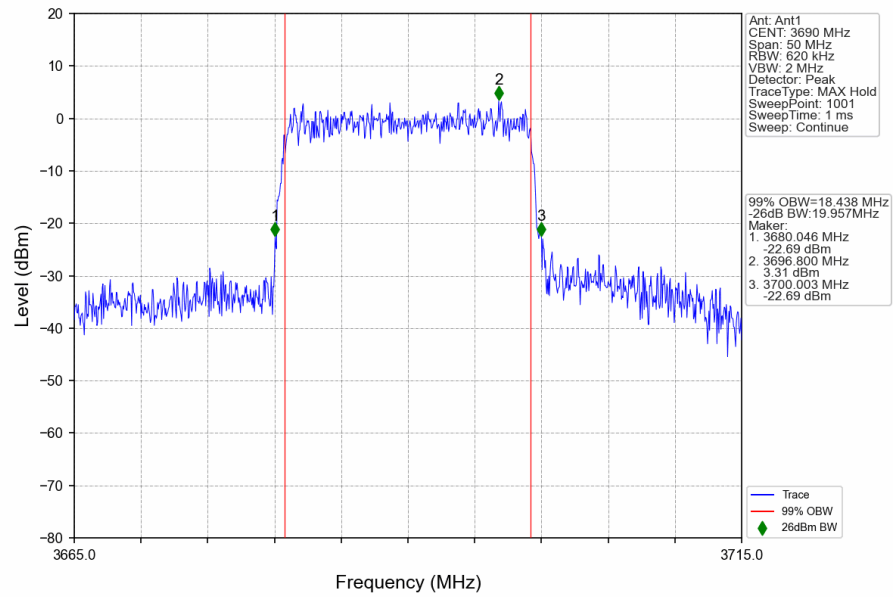
n78d_30kHz_SISO_NTNV_20MHz_CP-OFDM 64 QAM 3560.01MHz_Outer_Full



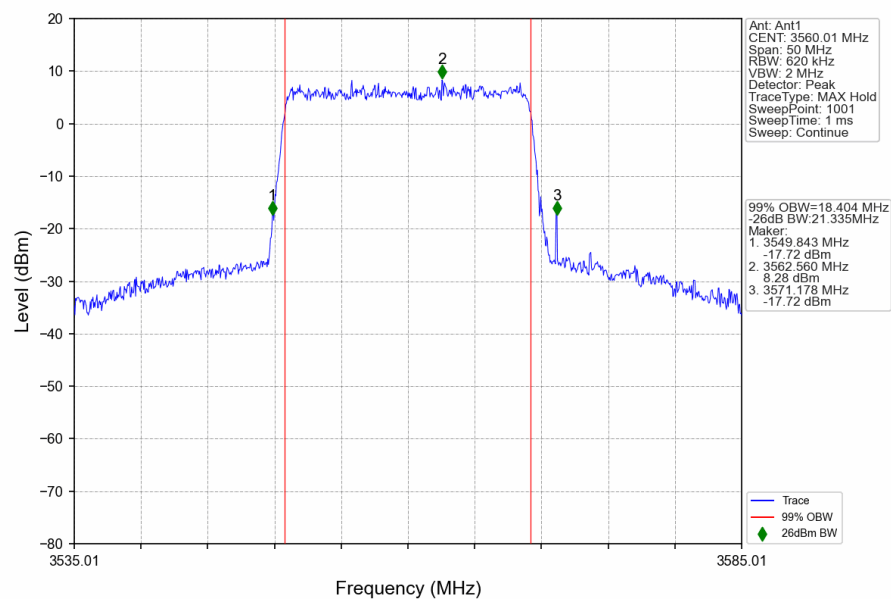
n78d_30kHz_SISO_NTNV_20MHz_CP-OFDM_64_QAM_3624.99MHz_Outer_Full



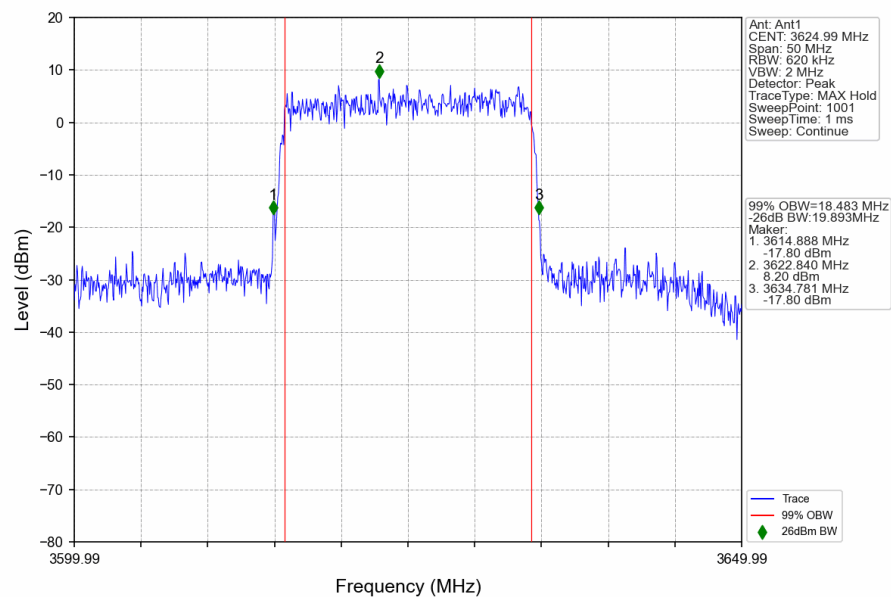
n78d_30kHz_SISO_NTNV_20MHz_CP-OFDM_64_QAM_3690MHz_Outer_Full

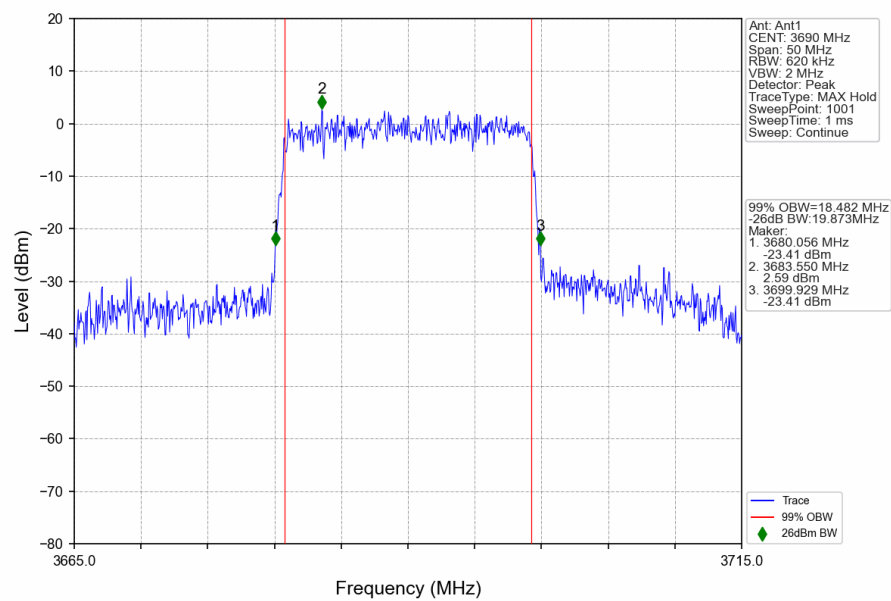


n78d_30kHz_SISO_NTNV_20MHz_CP-OFDM_256_QAM_3560.01MHz_Outer_Full



n78d_30kHz_SISO_NTNV_20MHz_CP-OFDM_256_QAM_3624.99MHz_Outer_Full



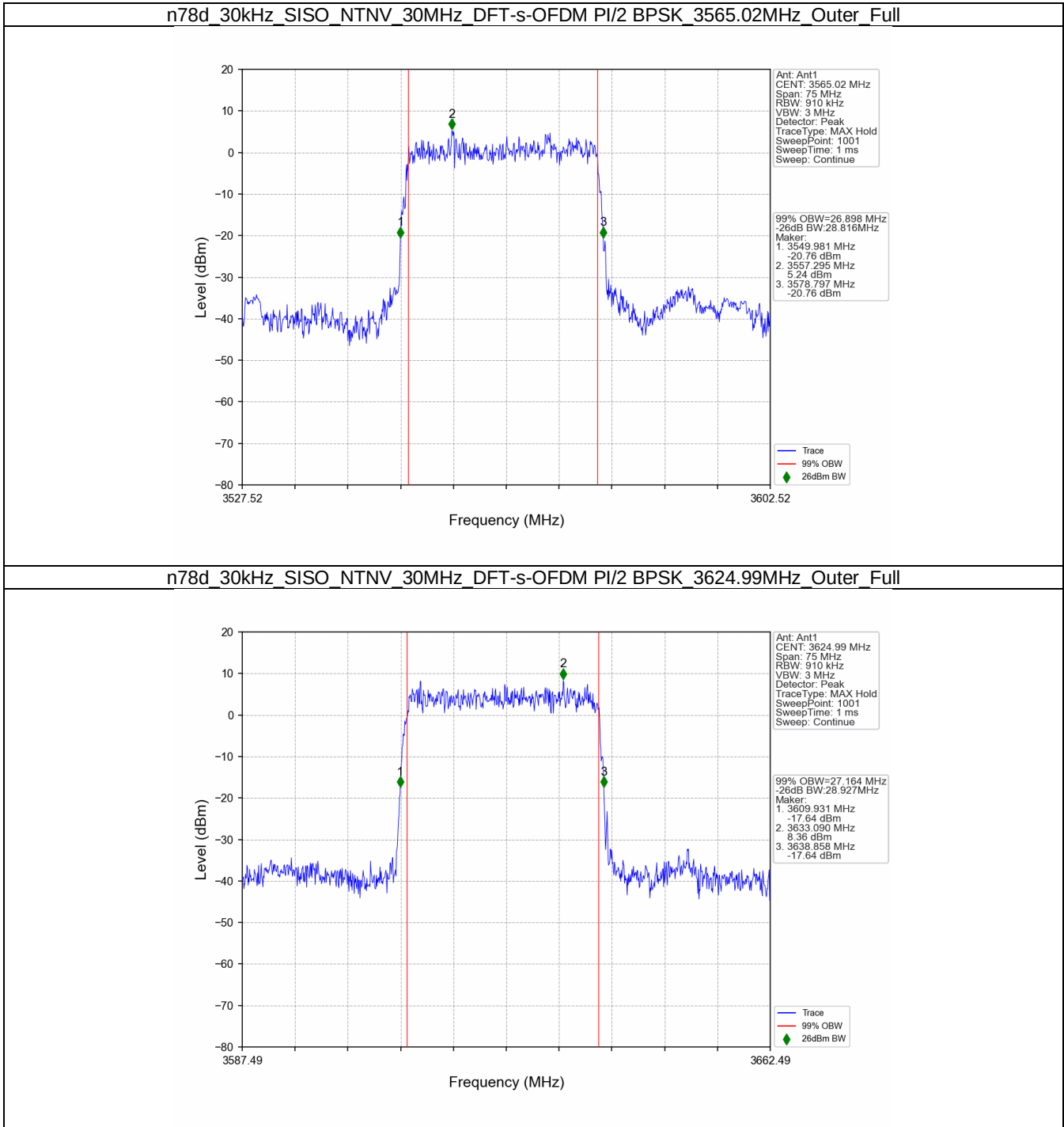


1.2 30k_SISO_30MHz_NTNV

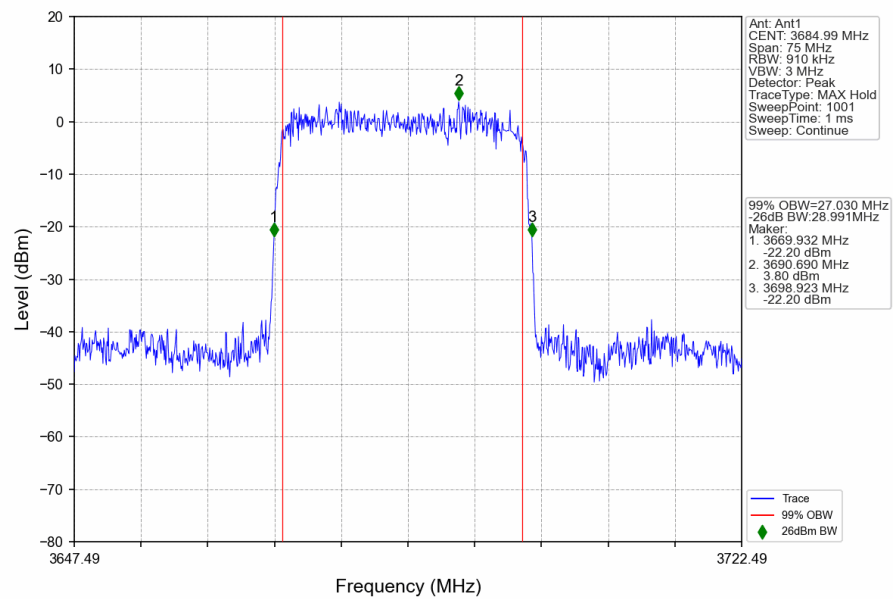
1.2.1 Test Result

5G NR n78d SCS=30kHz SISO 30MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	3565.02	Outer_Full	26.90	28.82	/	Pass
	3624.99	Outer_Full	27.16	28.93	/	Pass
	3684.99	Outer_Full	27.03	28.99	/	Pass
DFT-s-OFDM QPSK	3565.02	Outer_Full	27.25	28.95	/	Pass
	3624.99	Outer_Full	27.19	29.05	/	Pass
	3684.99	Outer_Full	27.14	28.86	/	Pass
DFT-s-OFDM 16 QAM	3565.02	Outer_Full	27.10	28.92	/	Pass
	3624.99	Outer_Full	27.19	28.98	/	Pass
	3684.99	Outer_Full	27.05	28.94	/	Pass
DFT-s-OFDM 64 QAM	3565.02	Outer_Full	27.09	28.86	/	Pass
	3624.99	Outer_Full	27.16	29.01	/	Pass
	3684.99	Outer_Full	26.98	29.06	/	Pass
DFT-s-OFDM 256 QAM	3565.02	Outer_Full	27.08	28.84	/	Pass
	3624.99	Outer_Full	27.08	28.95	/	Pass
	3684.99	Outer_Full	27.14	28.87	/	Pass
CP-OFDM QPSK	3565.02	Outer_Full	28.13	29.99	/	Pass
	3624.99	Outer_Full	28.16	29.97	/	Pass
	3684.99	Outer_Full	27.95	29.92	/	Pass
CP-OFDM 16 QAM	3565.02	Outer_Full	28.19	29.92	/	Pass
	3624.99	Outer_Full	28.02	29.99	/	Pass
	3684.99	Outer_Full	28.01	30.05	/	Pass
CP-OFDM 64 QAM	3565.02	Outer_Full	28.29	29.94	/	Pass
	3624.99	Outer_Full	27.78	29.95	/	Pass
	3684.99	Outer_Full	27.99	29.96	/	Pass
CP-OFDM 256 QAM	3565.02	Outer_Full	28.09	30.28	/	Pass
	3624.99	Outer_Full	27.96	30.03	/	Pass
	3684.99	Outer_Full	28.02	29.89	/	Pass

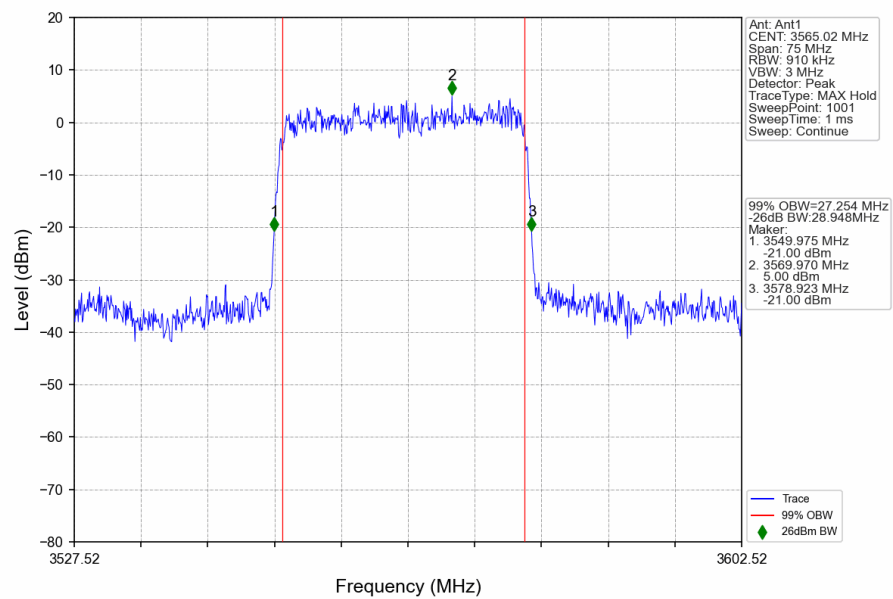
1.2.2 Test Graph



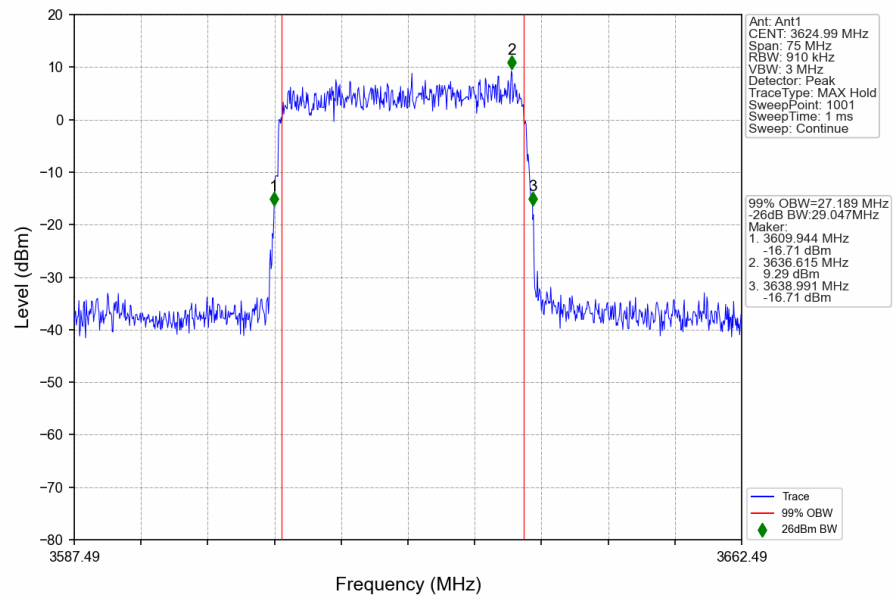
n78d_30kHz_SISO_NTNV_30MHz_DFT-s-OFDM_PI/2_BPSK_3684.99MHz_Outer_Full



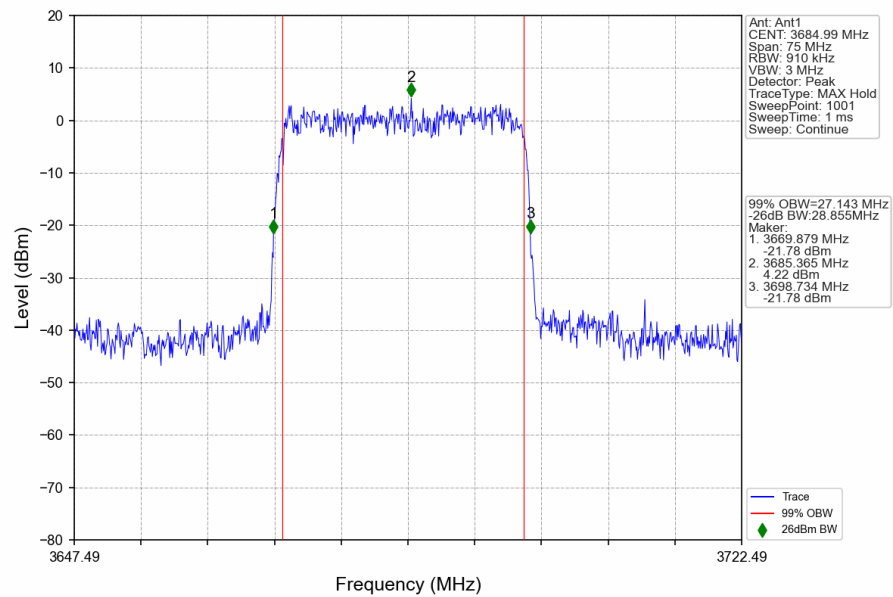
n78d_30kHz_SISO_NTNV_30MHz_DFT-s-OFDM_QPSK_3565.02MHz_Outer_Full



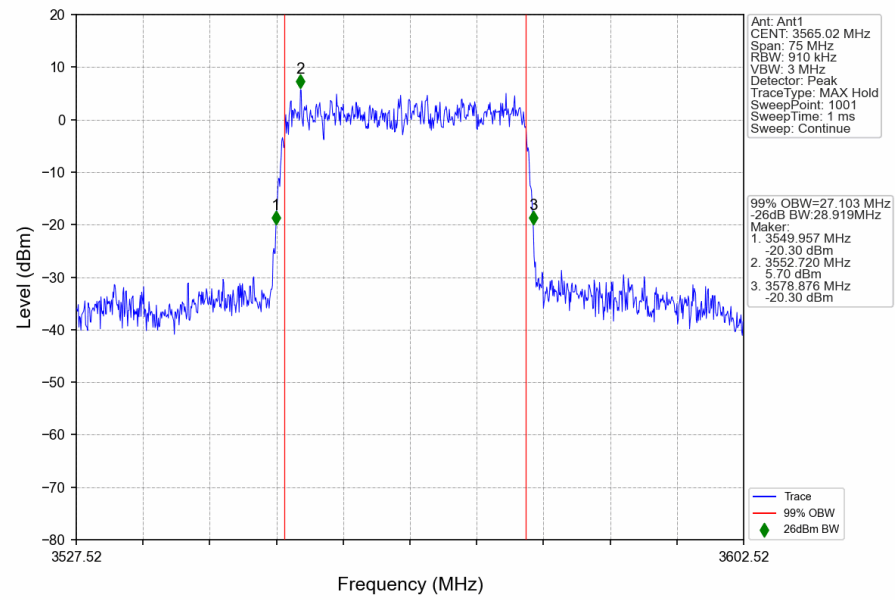
n78d_30kHz_SISO_NTNV_30MHz_DFT-s-OFDM_QPSK_3624.99MHz_Outer_Full



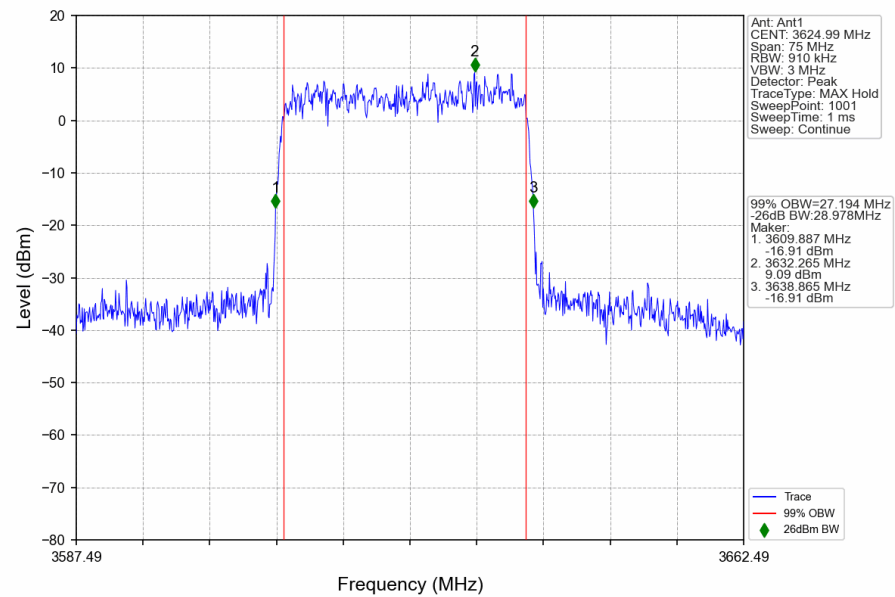
n78d_30kHz_SISO_NTNV_30MHz_DFT-s-OFDM_QPSK_3684.99MHz_Outer_Full



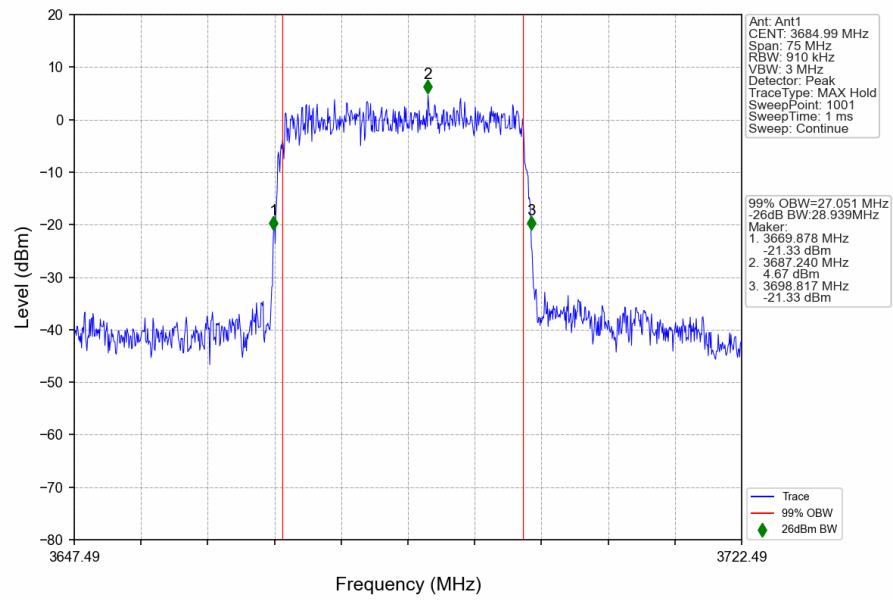
n78d_30kHz_SISO_NTNV_30MHz_DFT-s-OFDM_16_QAM_3565.02MHz_Outer_Full



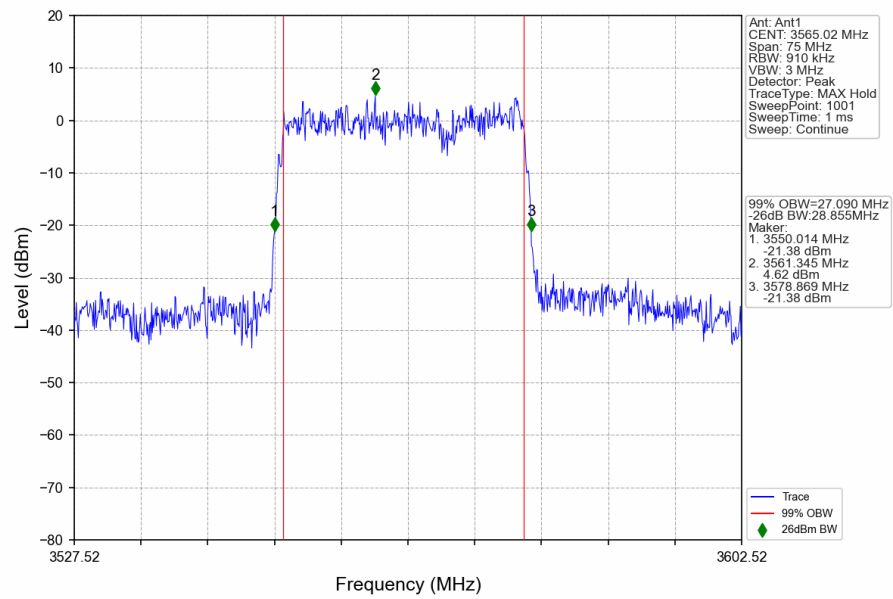
n78d_30kHz_SISO_NTNV_30MHz_DFT-s-OFDM_16_QAM_3624.99MHz_Outer_Full



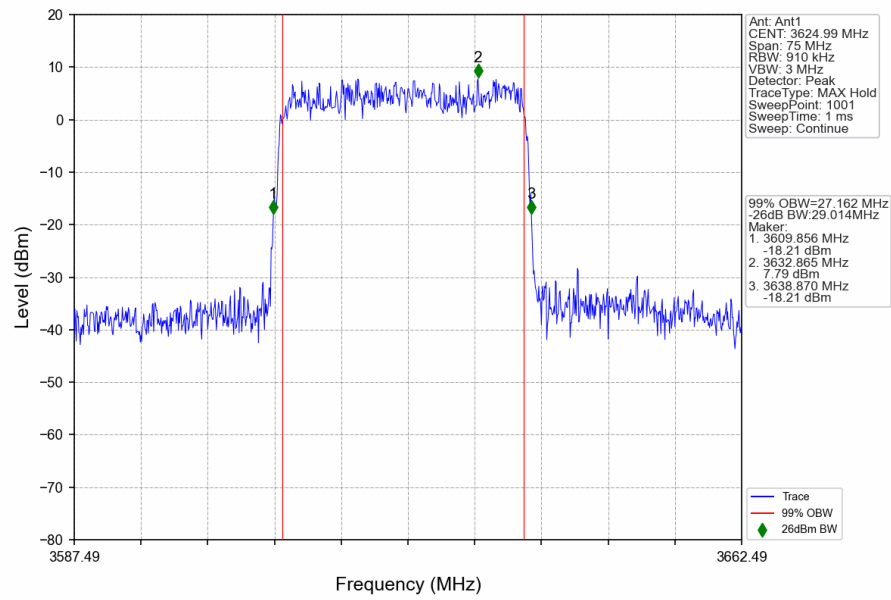
n78d_30kHz_SISO_NTNV_30MHz_DFT-s-OFDM_16_QAM_3684.99MHz_Outer_Full



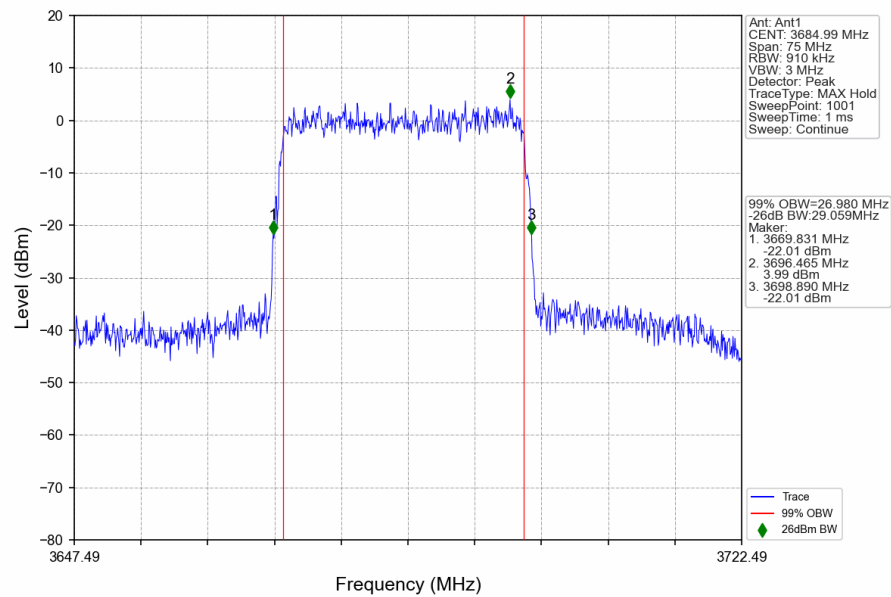
n78d_30kHz_SISO_NTNV_30MHz_DFT-s-OFDM_64_QAM_3565.02MHz_Outer_Full



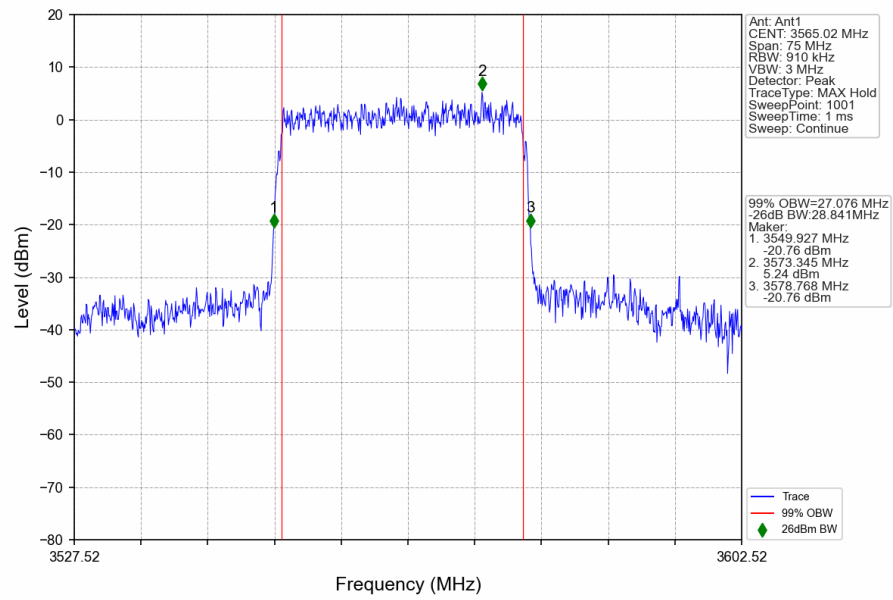
n78d_30kHz_SISO_NTNV_30MHz_DFT-s-OFDM_64_QAM_3624.99MHz_Outer_Full



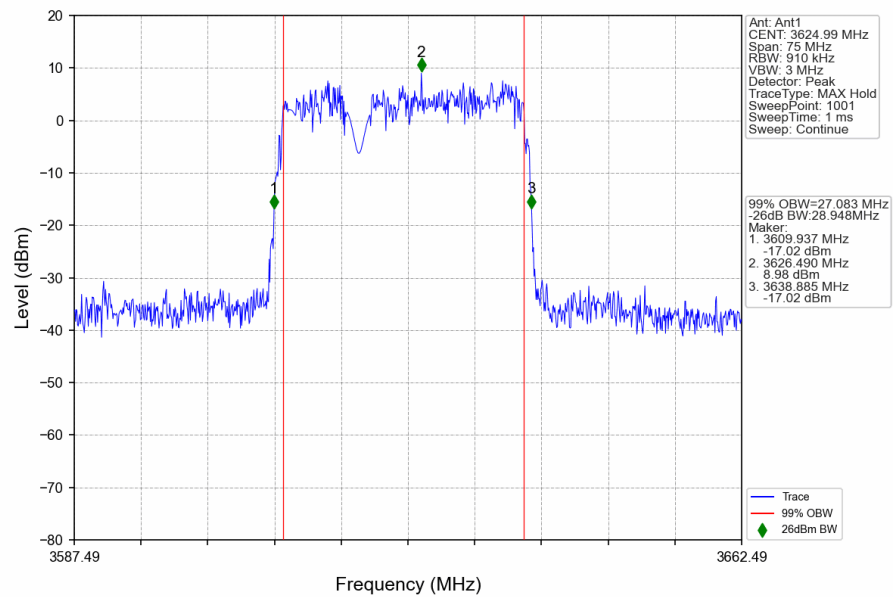
n78d_30kHz_SISO_NTNV_30MHz_DFT-s-OFDM_64_QAM_3684.99MHz_Outer_Full



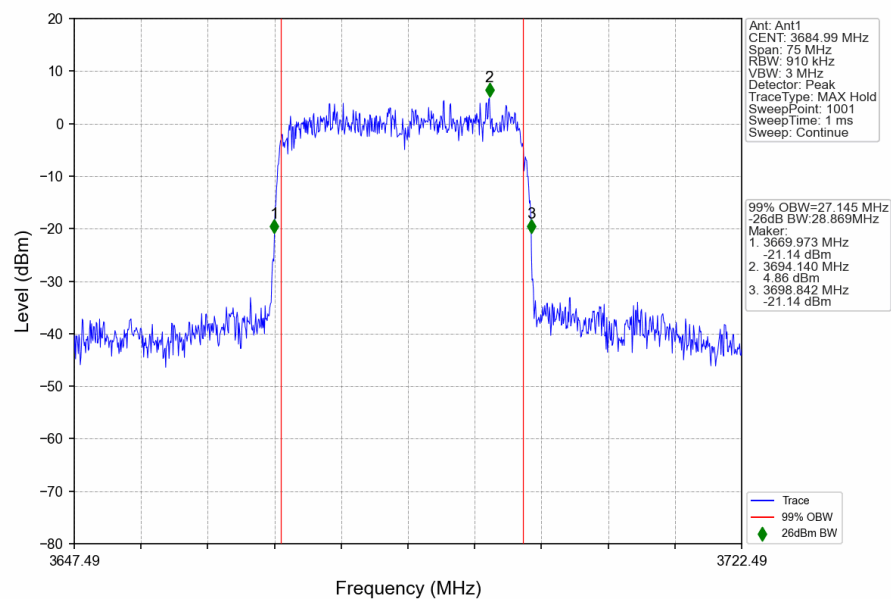
n78d_30kHz_SISO_NTNV_30MHz_DFT-s-OFDM_256_QAM_3565.02MHz_Outer_Full



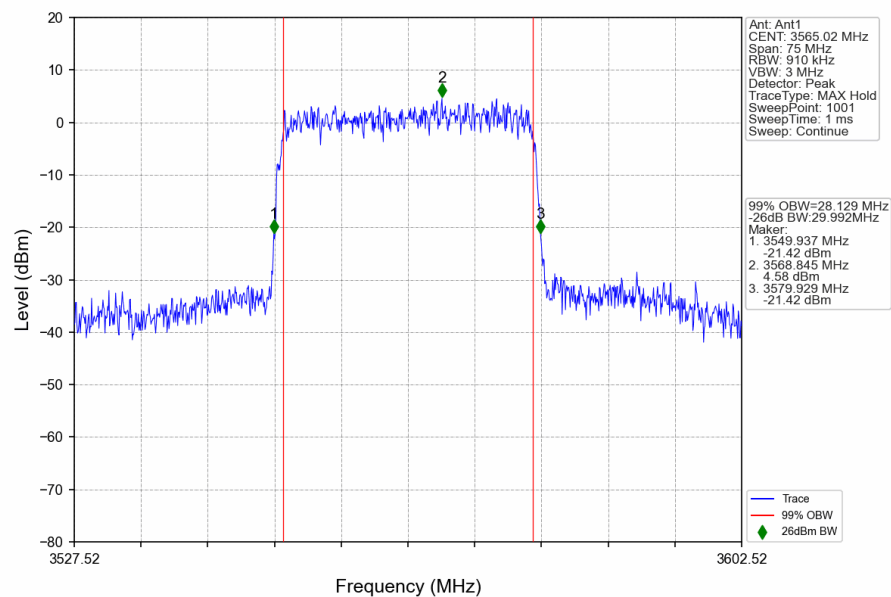
n78d_30kHz_SISO_NTNV_30MHz_DFT-s-OFDM_256_QAM_3624.99MHz_Outer_Full



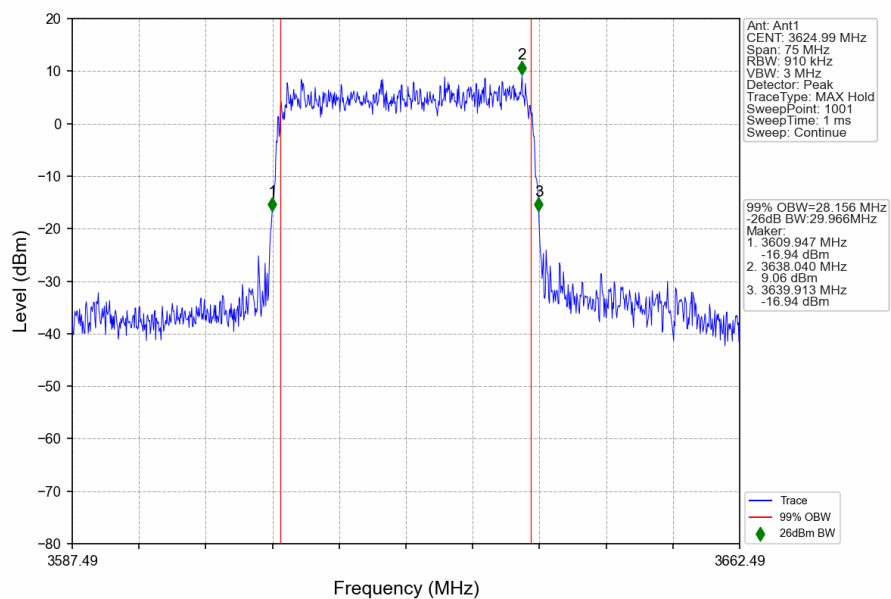
n78d_30kHz_SISO_NTNV_30MHz_DFT-s-OFDM_256_QAM_3684.99MHz_Outer_Full



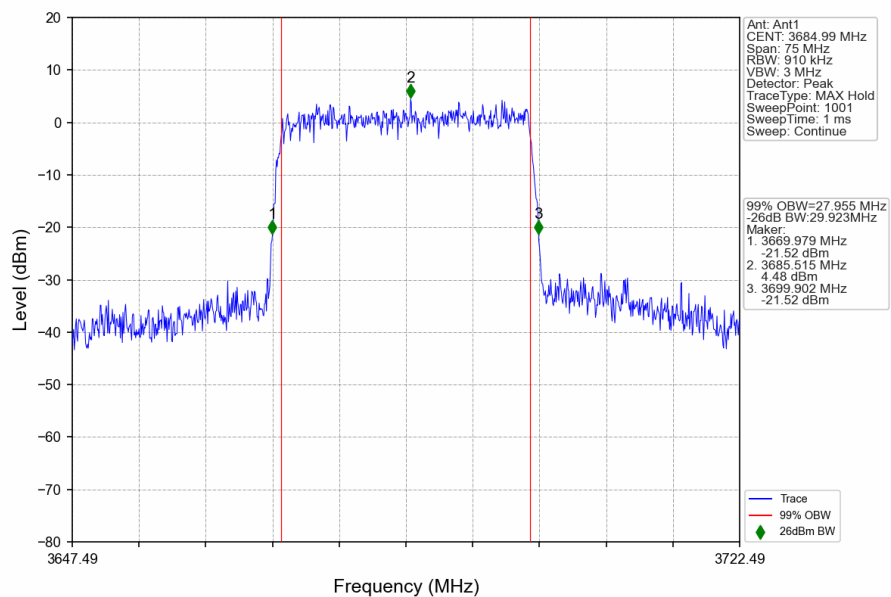
n78d_30kHz_SISO_NTNV_30MHz_CP-OFDM_QPSK_3565.02MHz_Outer_Full



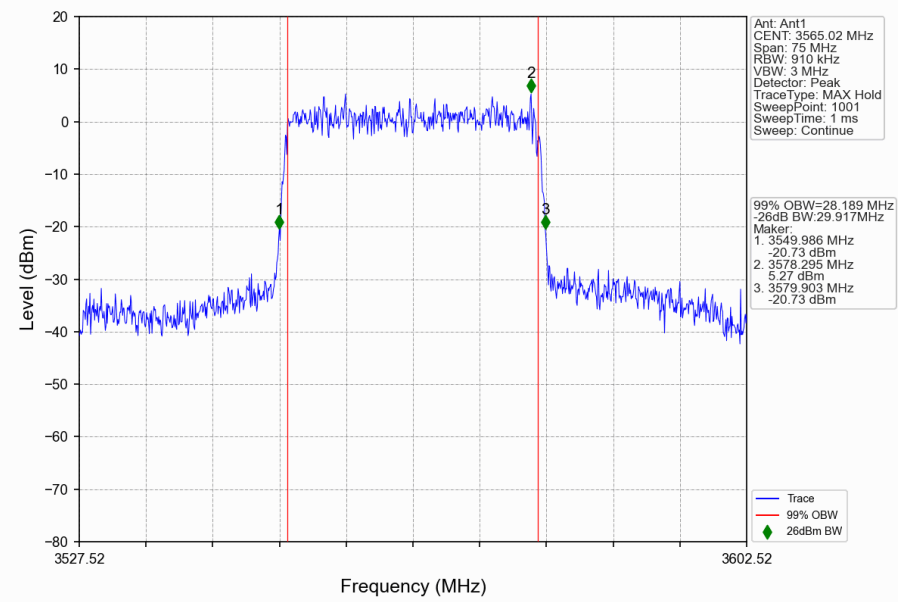
n78d_30kHz_SISO_NTNV_30MHz_CP-OFDM_QPSK_3624.99MHz_Outer_Full



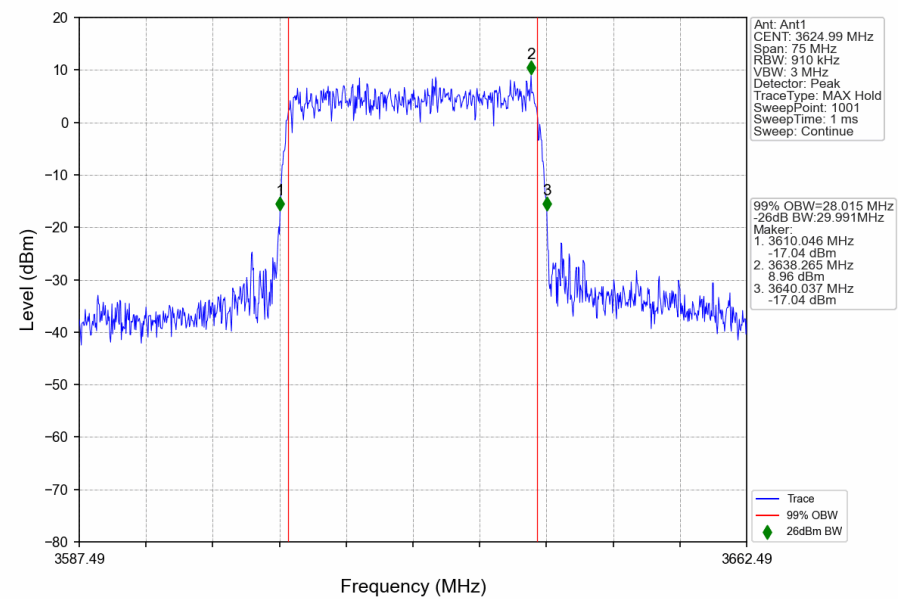
n78d_30kHz_SISO_NTNV_30MHz_CP-OFDM_QPSK_3684.99MHz_Outer_Full



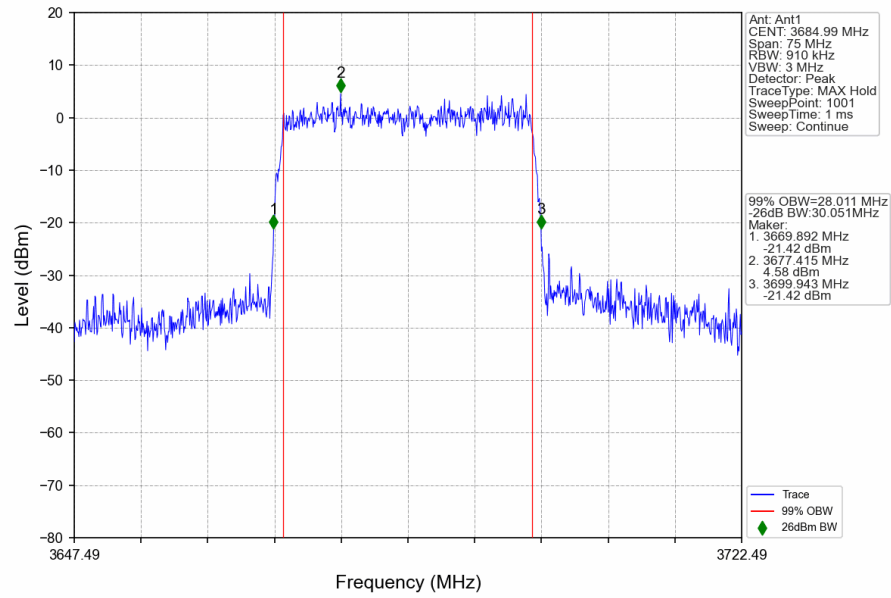
n78d_30kHz_SISO_NTNV_30MHz_CP-OFDM_16_QAM_3565.02MHz_Outer_Full



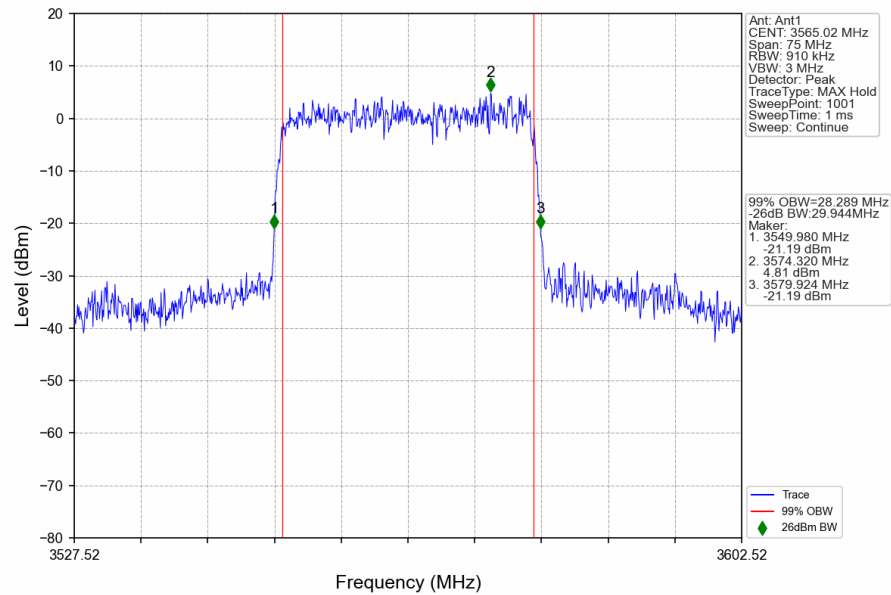
n78d_30kHz_SISO_NTNV_30MHz_CP-OFDM_16_QAM_3624.99MHz_Outer_Full



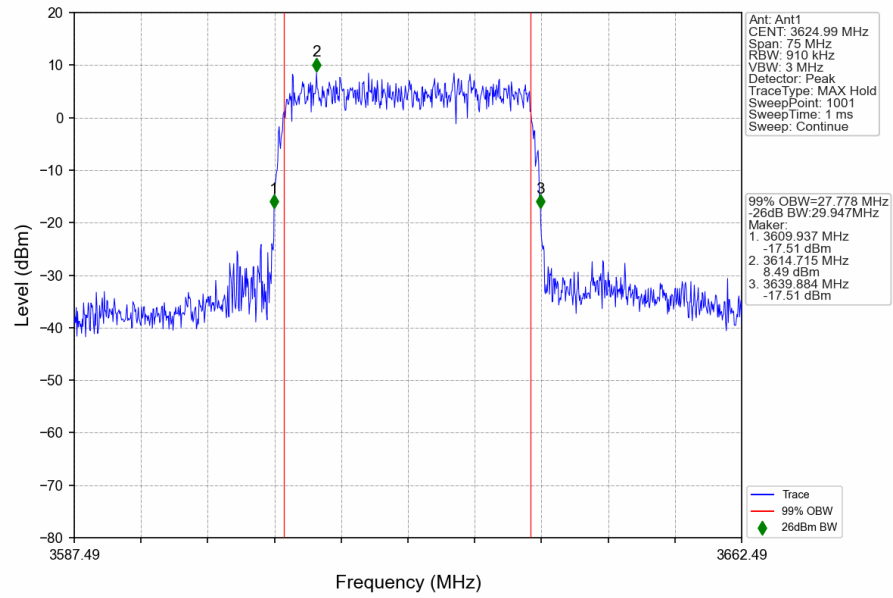
n78d_30kHz_SISO_NTNV_30MHz_CP-OFDM 16 QAM 3684.99MHz_Outer_Full



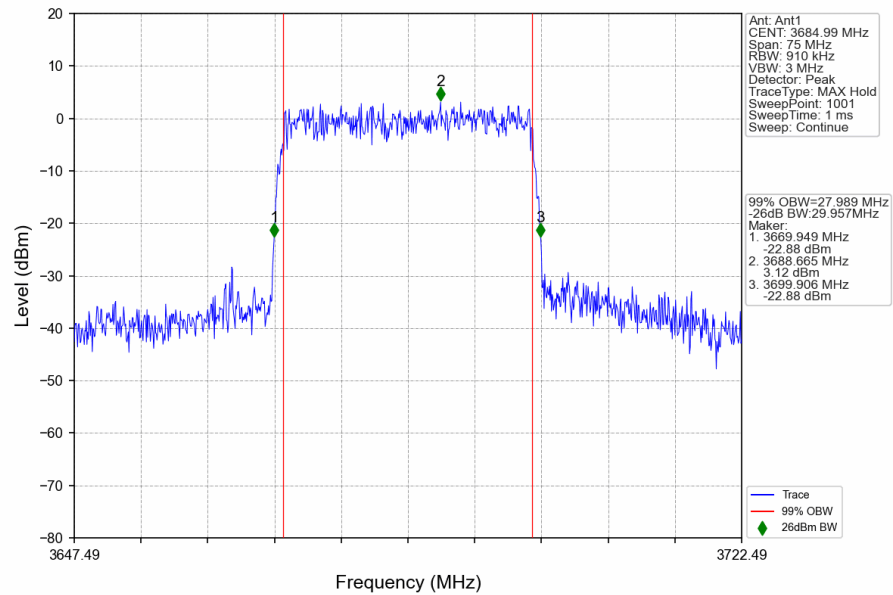
n78d_30kHz_SISO_NTNV_30MHz_CP-OFDM 64 QAM 3565.02MHz_Outer_Full



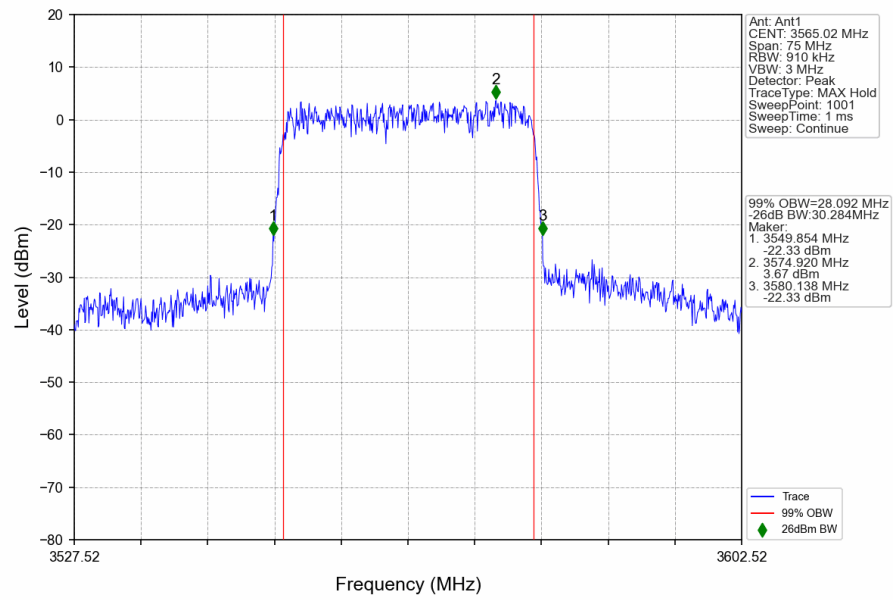
n78d_30kHz_SISO_NTNV_30MHz_CP-OFDM_64_QAM_3624.99MHz_Outer_Full



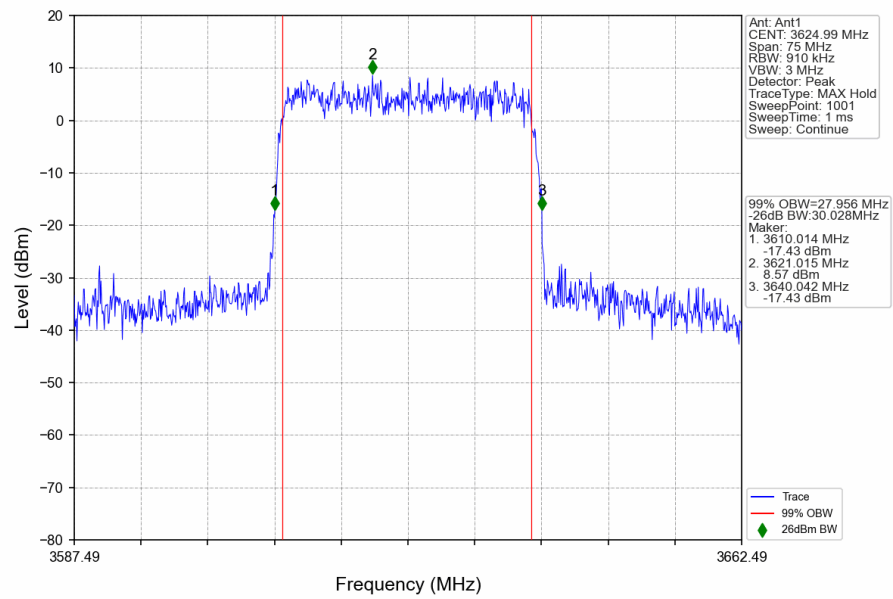
n78d_30kHz_SISO_NTNV_30MHz_CP-OFDM_64_QAM_3684.99MHz_Outer_Full



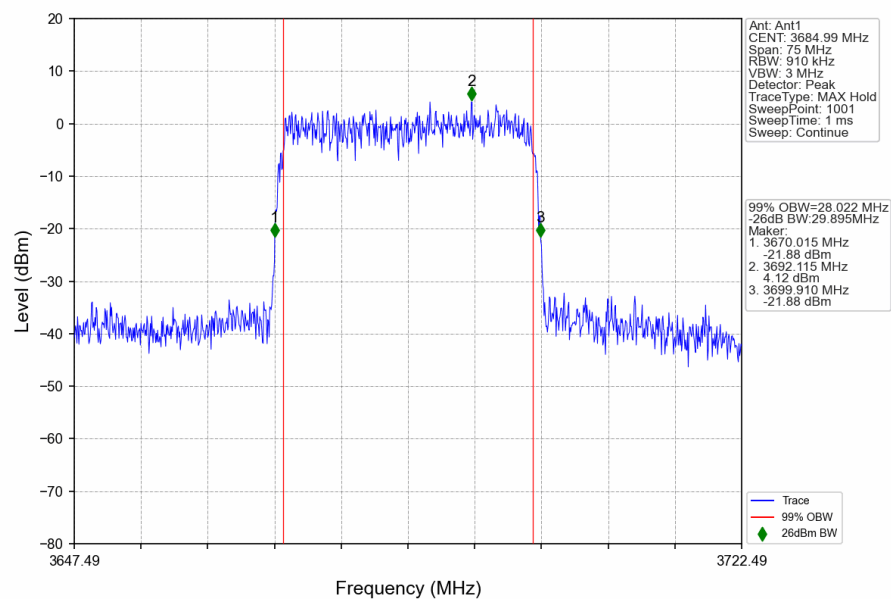
n78d_30kHz_SISO_NTNV_30MHz_CP-OFDM_256_QAM_3565.02MHz_Outer_Full



n78d_30kHz_SISO_NTNV_30MHz_CP-OFDM_256_QAM_3624.99MHz_Outer_Full



n78d_30kHz_SISO_NTNV_30MHz_CP-OFDM_256_QAM_3684.99MHz_Outer_Full

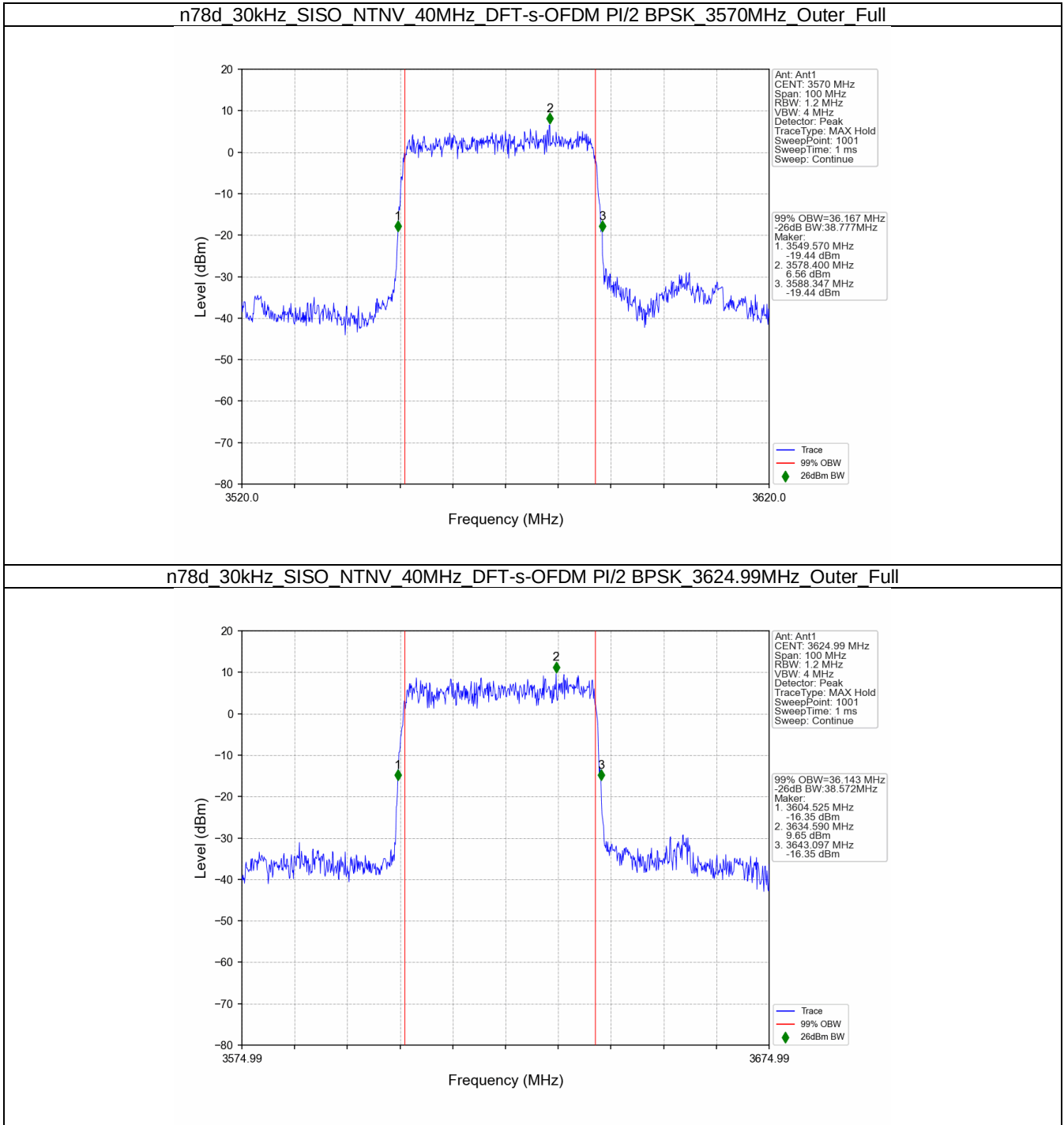


1.3 30k_SISO_40MHz_NTNV

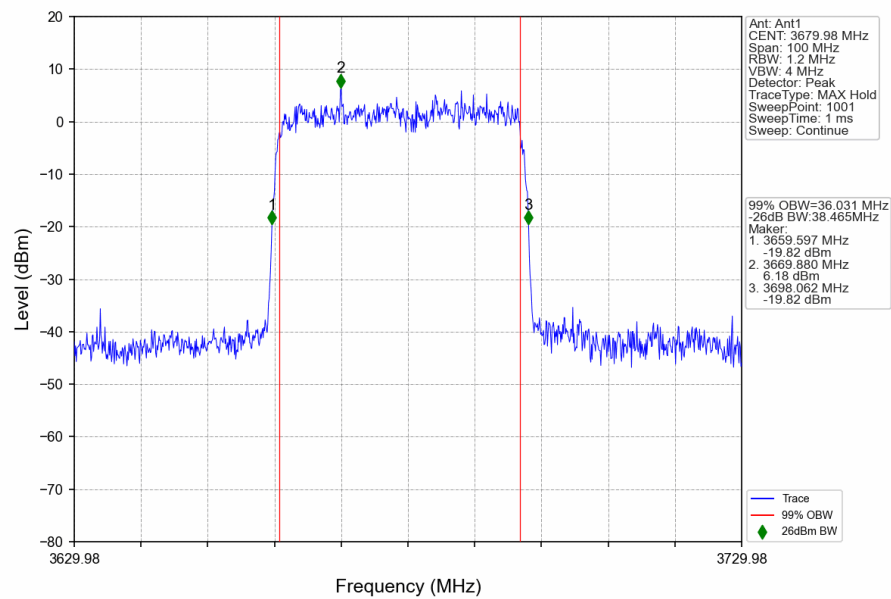
1.3.1 Test Result

5G NR n78d SCS=30kHz SISO 40MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	3570	Outer_Full	36.17	38.78	/	Pass
	3624.99	Outer_Full	36.14	38.57	/	Pass
	3679.98	Outer_Full	36.03	38.47	/	Pass
DFT-s-OFDM QPSK	3570	Outer_Full	36.22	38.49	/	Pass
	3624.99	Outer_Full	36.00	38.37	/	Pass
	3679.98	Outer_Full	35.85	38.50	/	Pass
DFT-s-OFDM 16 QAM	3570	Outer_Full	36.04	38.80	/	Pass
	3624.99	Outer_Full	35.91	38.57	/	Pass
	3679.98	Outer_Full	36.12	38.72	/	Pass
DFT-s-OFDM 64 QAM	3570	Outer_Full	36.01	38.51	/	Pass
	3624.99	Outer_Full	36.20	38.70	/	Pass
	3679.98	Outer_Full	35.98	38.37	/	Pass
DFT-s-OFDM 256 QAM	3570	Outer_Full	36.32	38.45	/	Pass
	3624.99	Outer_Full	36.09	38.70	/	Pass
	3679.98	Outer_Full	36.04	38.54	/	Pass
CP-OFDM QPSK	3570	Outer_Full	38.04	40.72	/	Pass
	3624.99	Outer_Full	38.12	40.61	/	Pass
	3679.98	Outer_Full	38.16	40.83	/	Pass
CP-OFDM 16 QAM	3570	Outer_Full	38.17	40.60	/	Pass
	3624.99	Outer_Full	38.17	40.65	/	Pass
	3679.98	Outer_Full	37.89	40.72	/	Pass
CP-OFDM 64 QAM	3570	Outer_Full	38.11	40.66	/	Pass
	3624.99	Outer_Full	38.18	40.63	/	Pass
	3679.98	Outer_Full	38.16	40.70	/	Pass
CP-OFDM 256 QAM	3570	Outer_Full	38.17	40.74	/	Pass
	3624.99	Outer_Full	38.08	40.59	/	Pass
	3679.98	Outer_Full	38.03	40.75	/	Pass

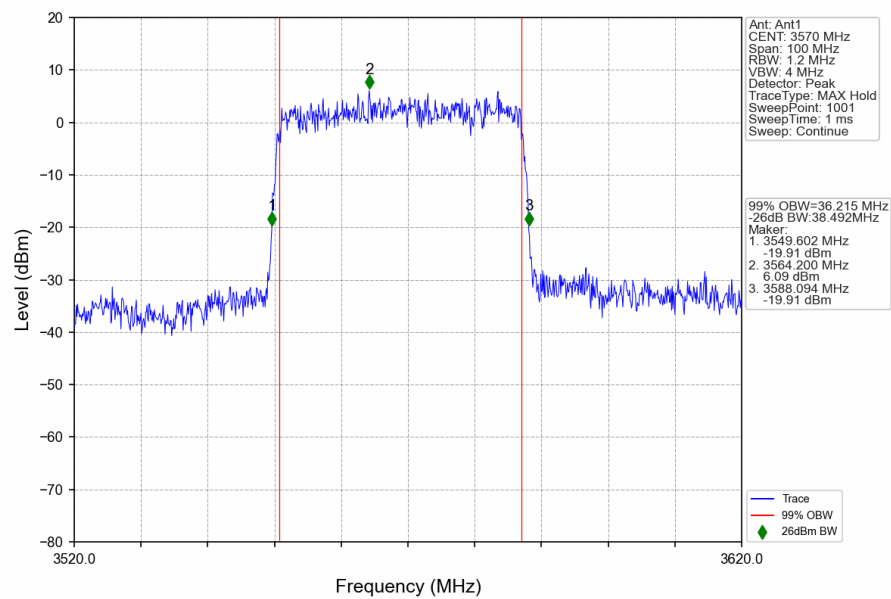
1.3.2 Test Graph



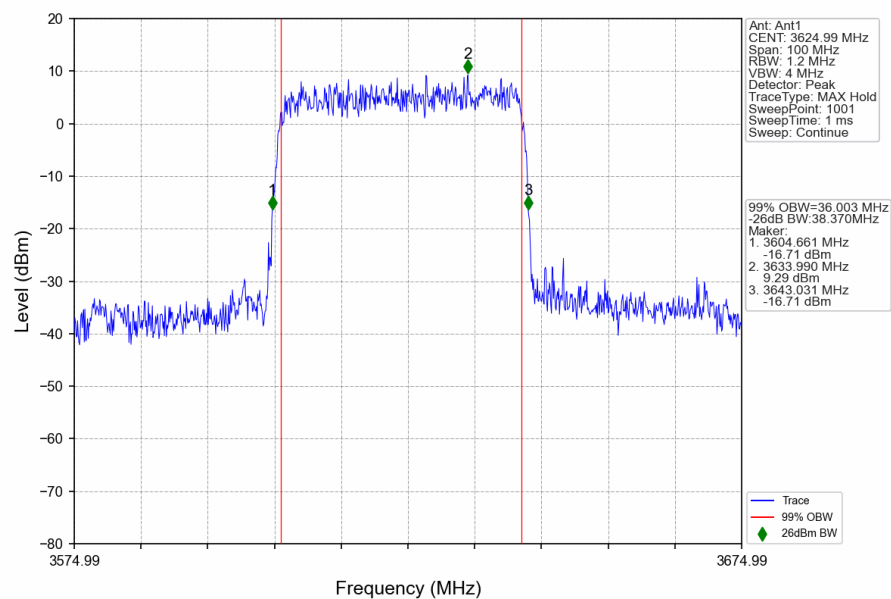
n78d_30kHz_SISO_NTNV_40MHz_DFT-s-OFDM_PI/2_BPSK_3679.98MHz_Outer_Full



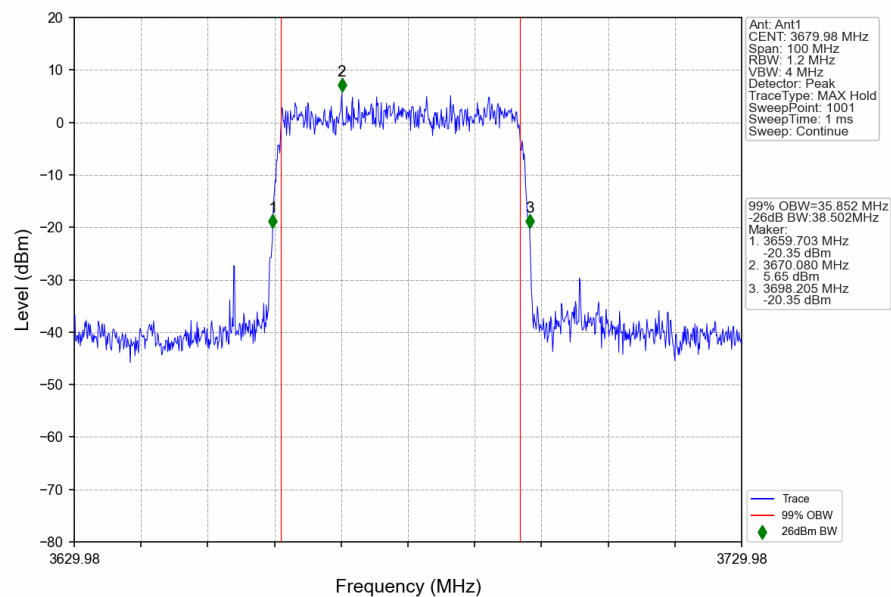
n78d_30kHz_SISO_NTNV_40MHz_DFT-s-OFDM_QPSK_3570MHz_Outer_Full



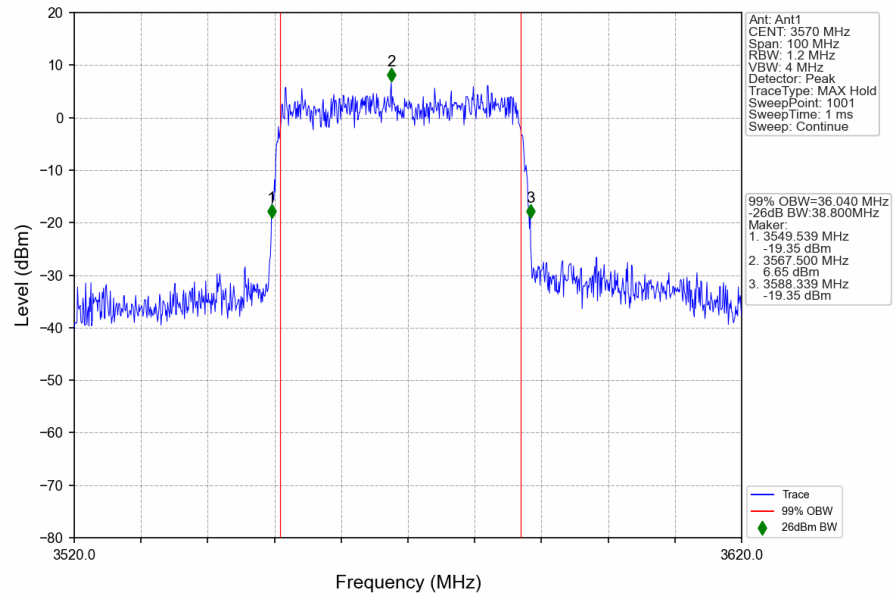
n78d_30kHz_SISO_NTNV_40MHz_DFT-s-OFDM_QPSK_3624.99MHz_Outer_Full



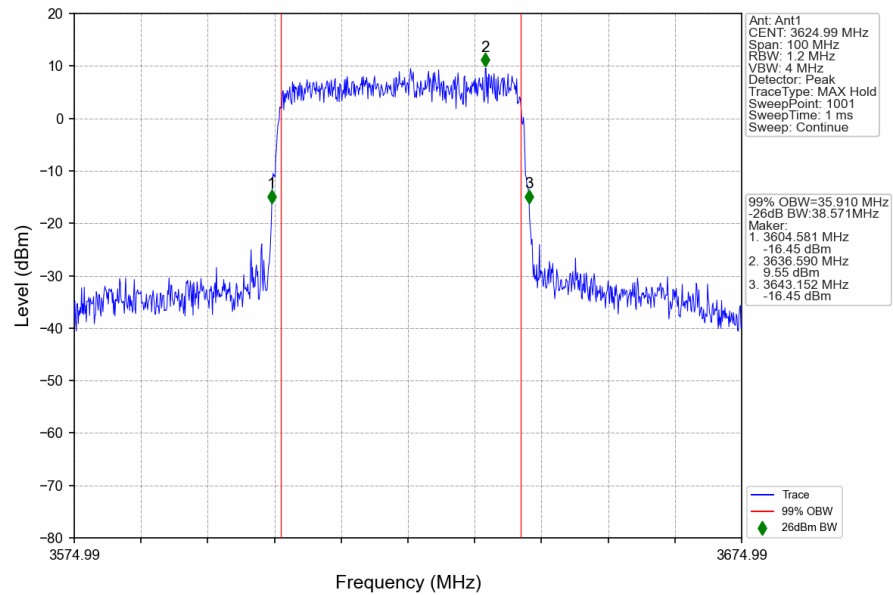
n78d_30kHz_SISO_NTNV_40MHz_DFT-s-OFDM_QPSK_3679.98MHz_Outer_Full



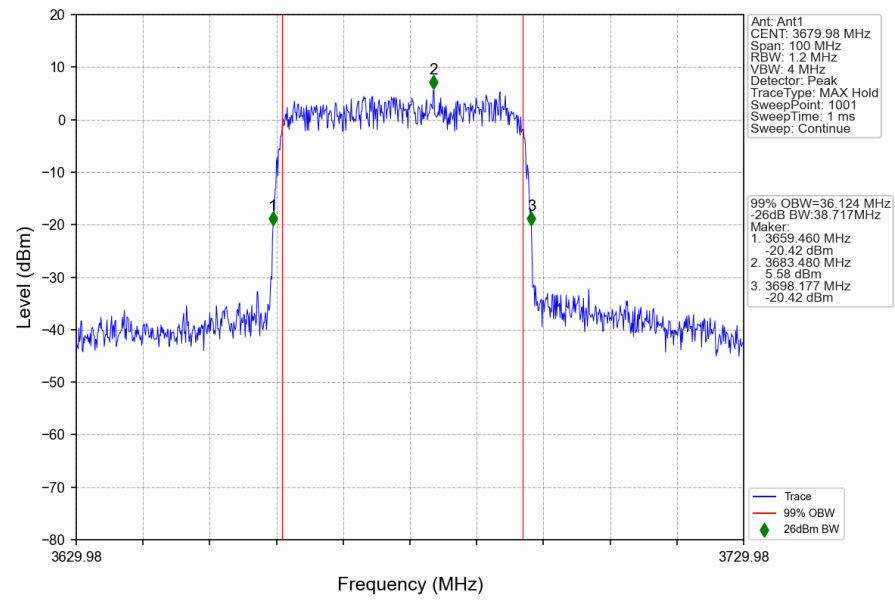
n78d_30kHz_SISO_NTNV_40MHz_DFT-s-OFDM_16_QAM_3570MHz_Outer_Full



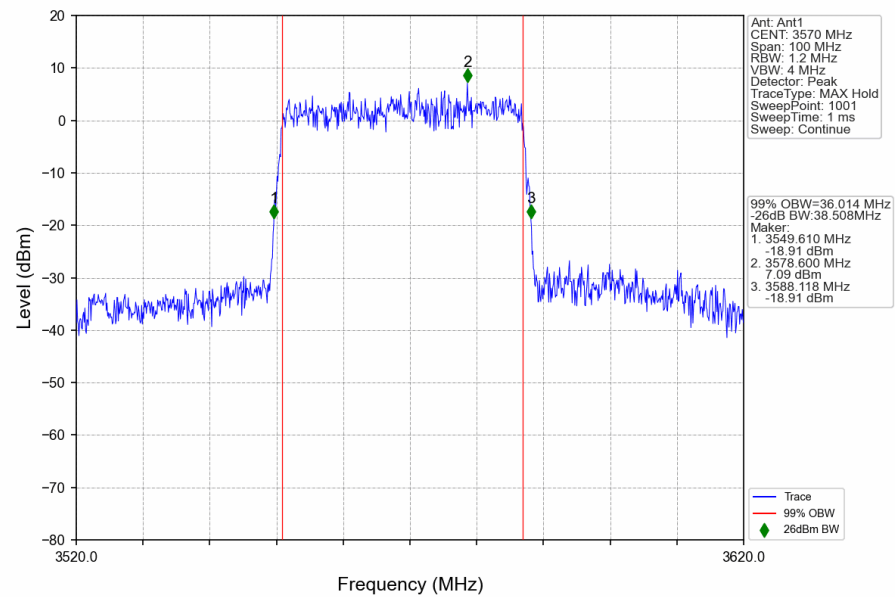
n78d_30kHz_SISO_NTNV_40MHz_DFT-s-OFDM_16_QAM_3624.99MHz_Outer_Full



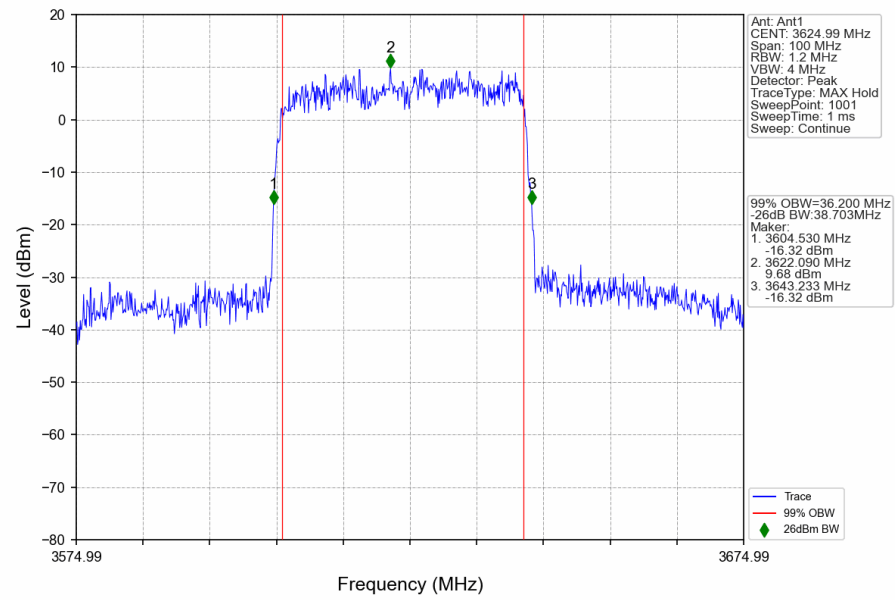
n78d_30kHz_SISO_NTNV_40MHz_DFT-s-OFDM 16 QAM_3679.98MHz_Outer_Full



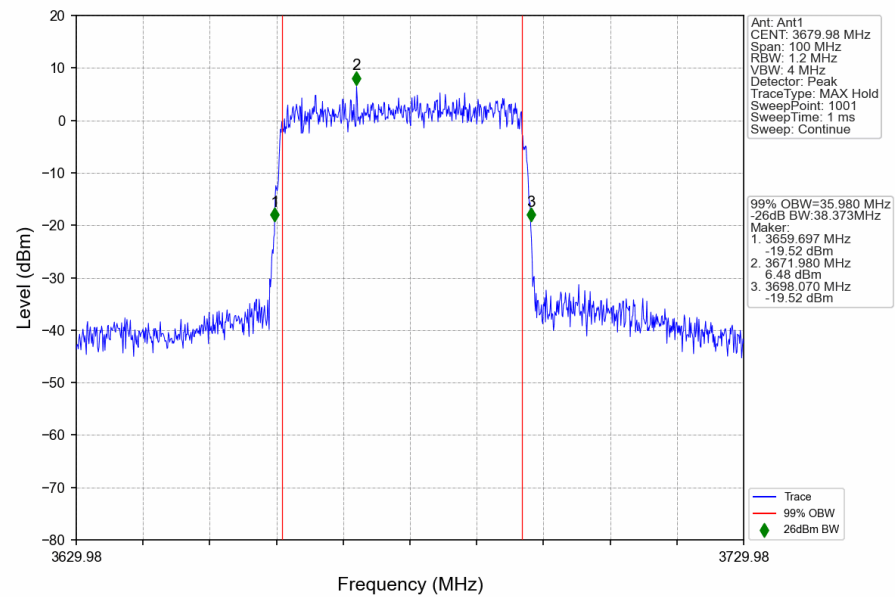
n78d_30kHz_SISO_NTNV_40MHz_DFT-s-OFDM 64 QAM_3570MHz_Outer_Full



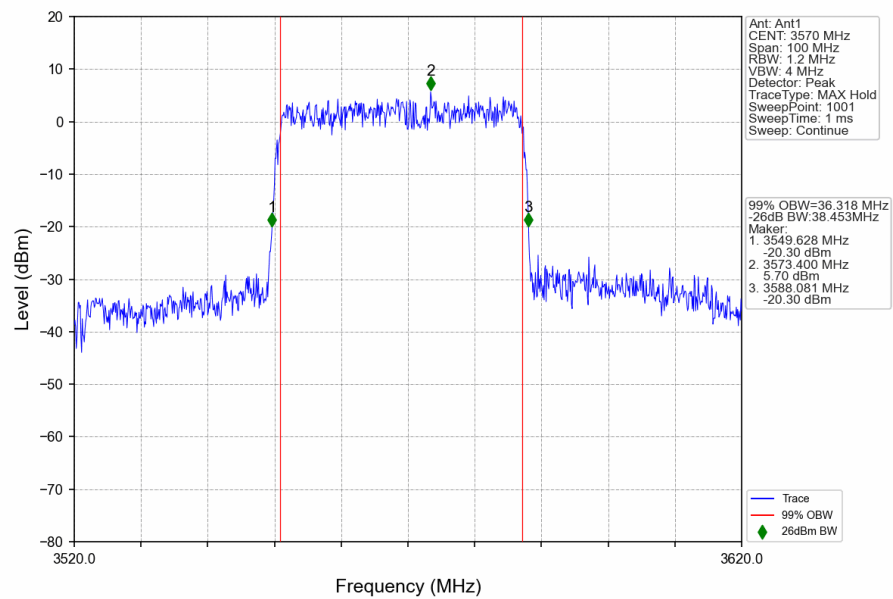
n78d_30kHz_SISO_NTNV_40MHz_DFT-s-OFDM_64_QAM_3624.99MHz_Outer_Full



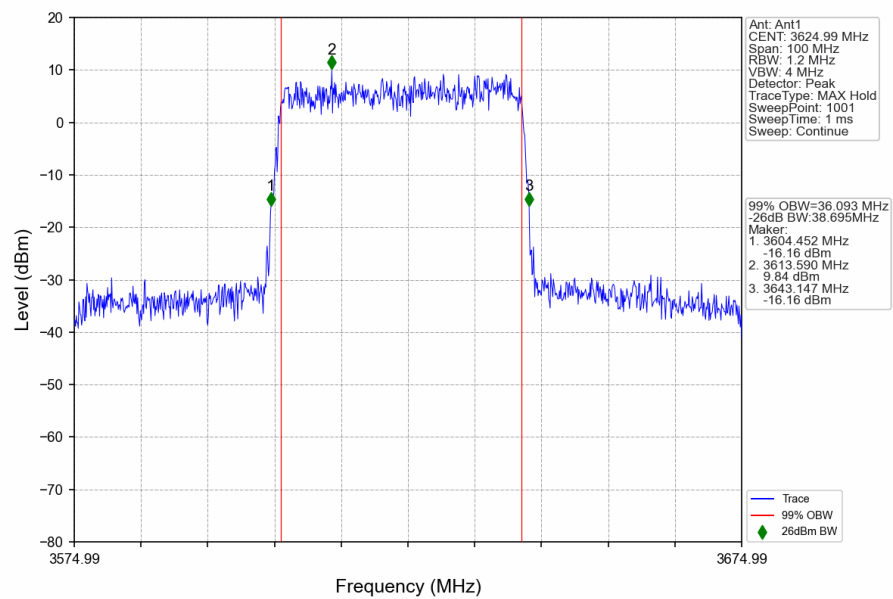
n78d_30kHz_SISO_NTNV_40MHz_DFT-s-OFDM_64_QAM_3679.98MHz_Outer_Full



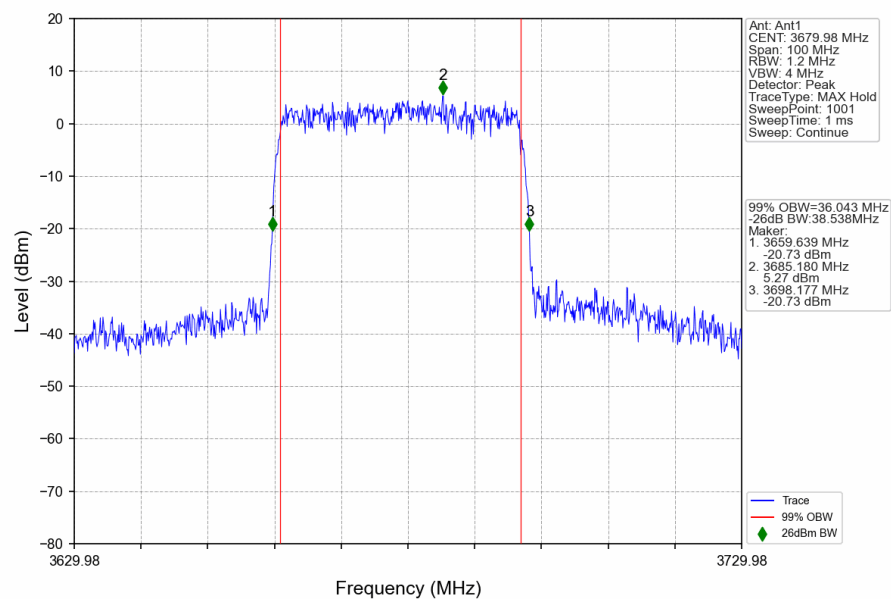
n78d_30kHz_SISO_NTNV_40MHz_DFT-s-OFDM_256_QAM_3570MHz_Outer_Full



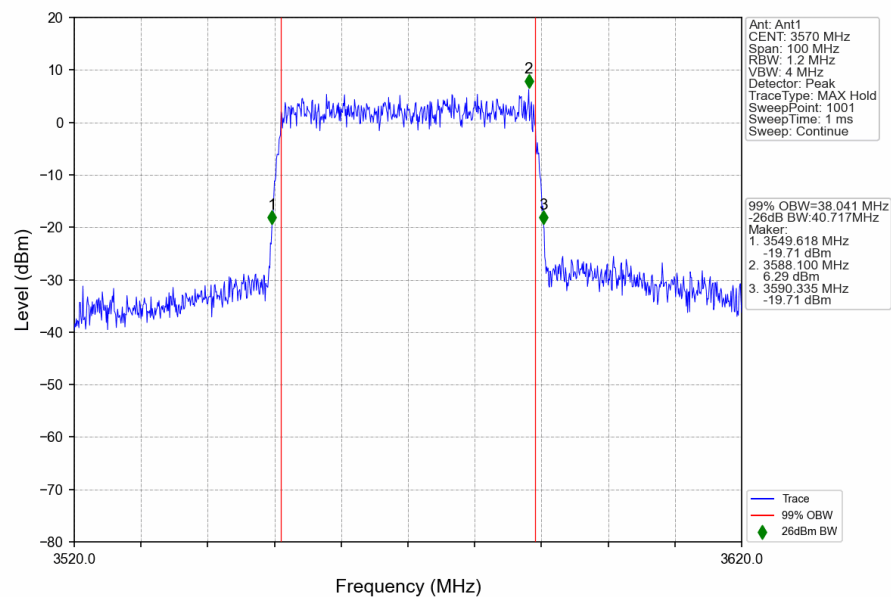
n78d_30kHz_SISO_NTNV_40MHz_DFT-s-OFDM_256_QAM_3624.99MHz_Outer_Full



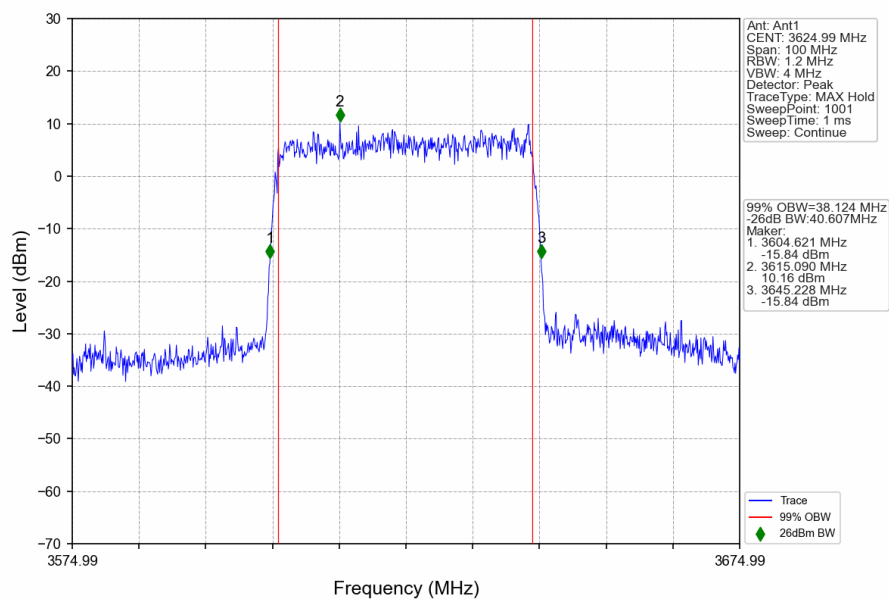
n78d_30kHz_SISO_NTNV_40MHz_DFT-s-OFDM_256_QAM_3679.98MHz_Outer_Full



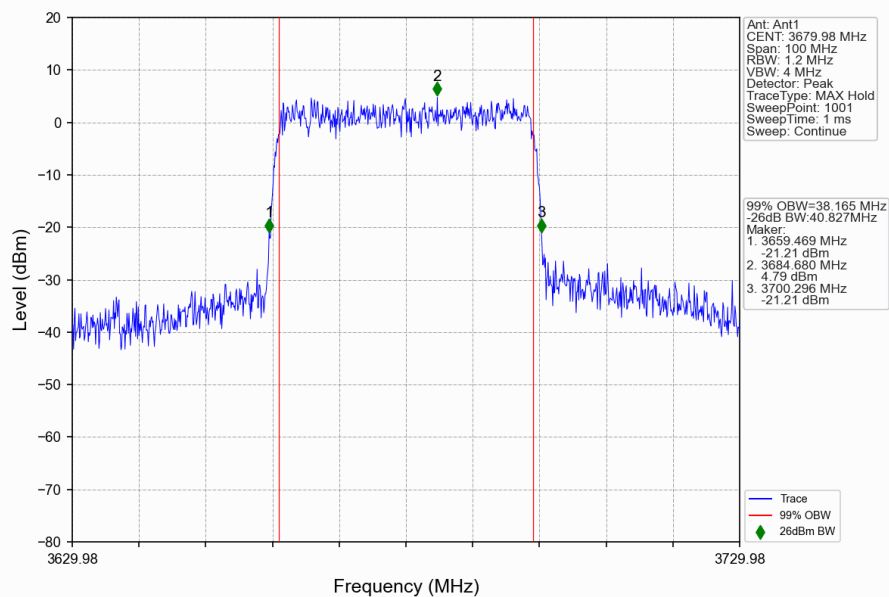
n78d_30kHz_SISO_NTNV_40MHz_CP-OFDM_QPSK_3570MHz_Outer_Full



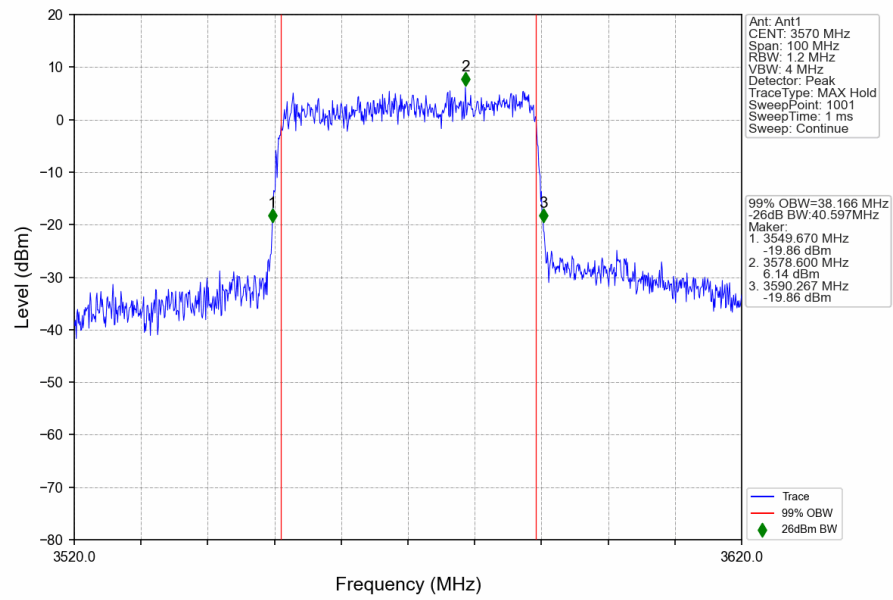
n78d_30kHz_SISO_NTNV_40MHz_CP-OFDM_QPSK_3624.99MHz_Outer_Full



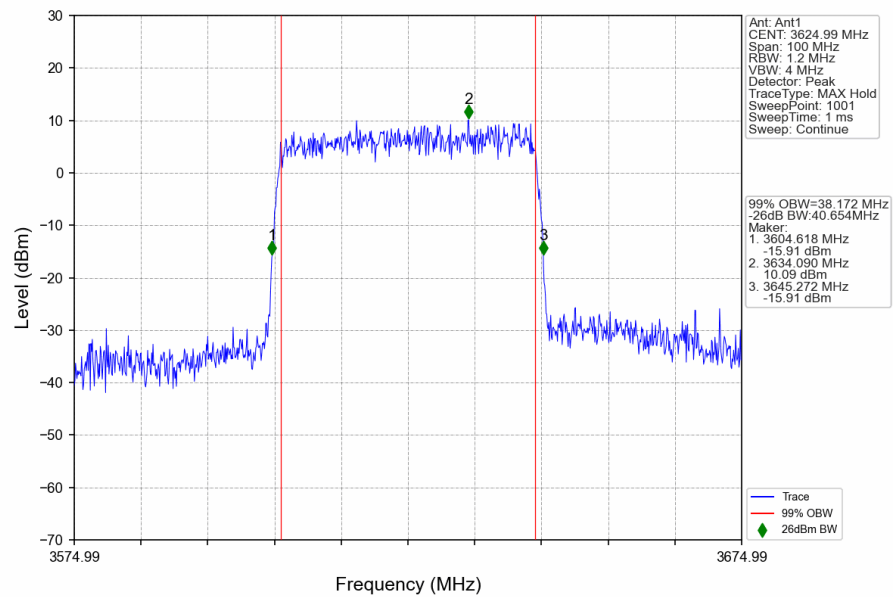
n78d_30kHz_SISO_NTNV_40MHz_CP-OFDM_QPSK_3679.98MHz_Outer_Full



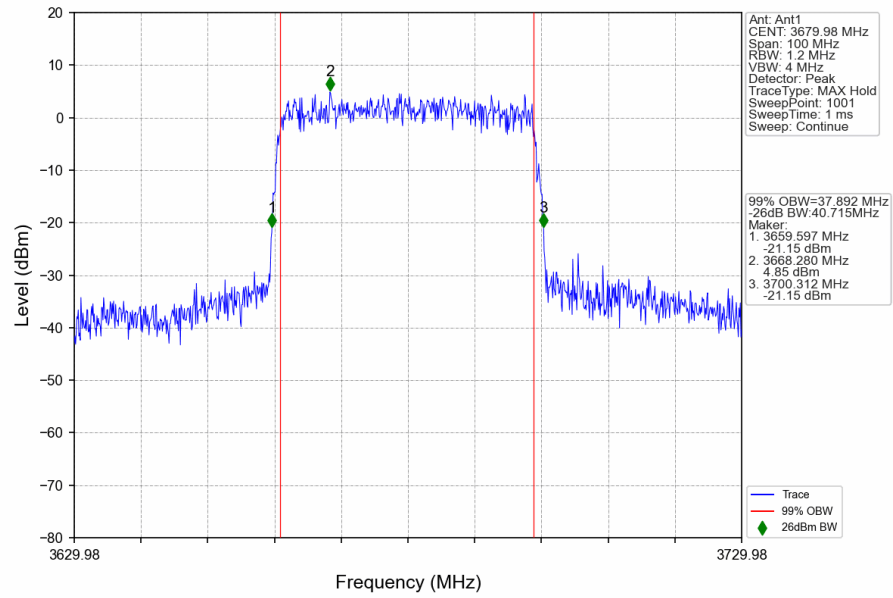
n78d_30kHz_SISO_NTNV_40MHz_CP-OFDM_16_QAM_3570MHz_Outer_Full



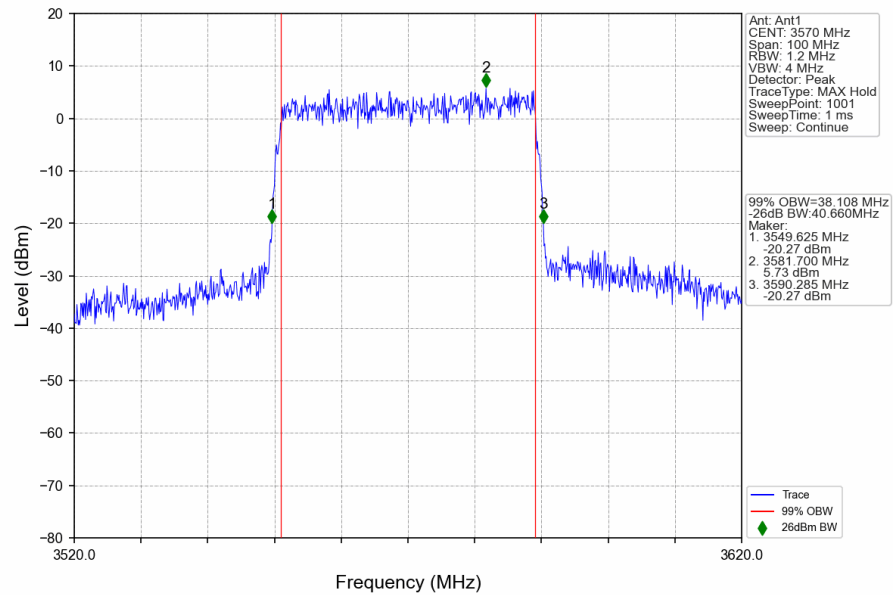
n78d_30kHz_SISO_NTNV_40MHz_CP-OFDM_16_QAM_3624.99MHz_Outer_Full



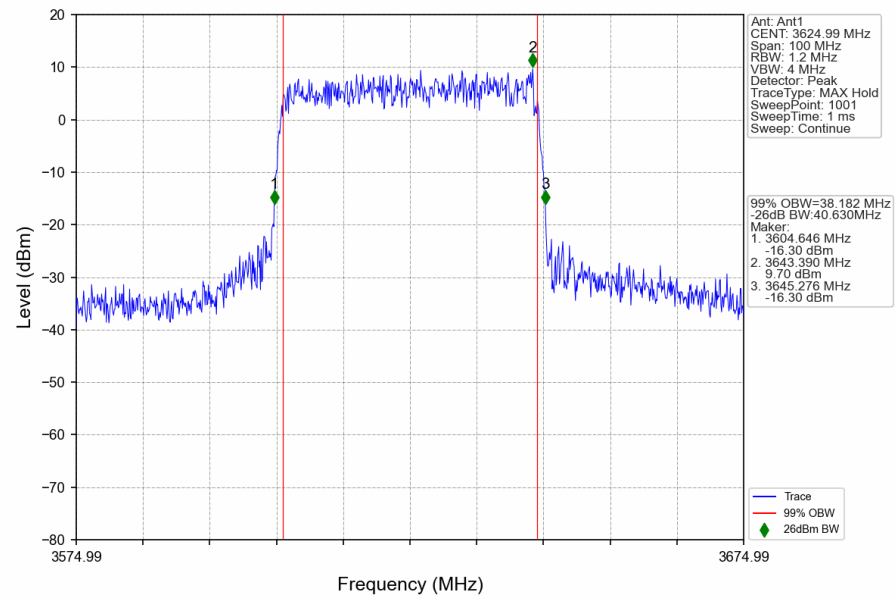
n78d_30kHz_SISO_NTNV_40MHz_CP-OFDM 16 QAM 3679.98MHz_Outer_Full



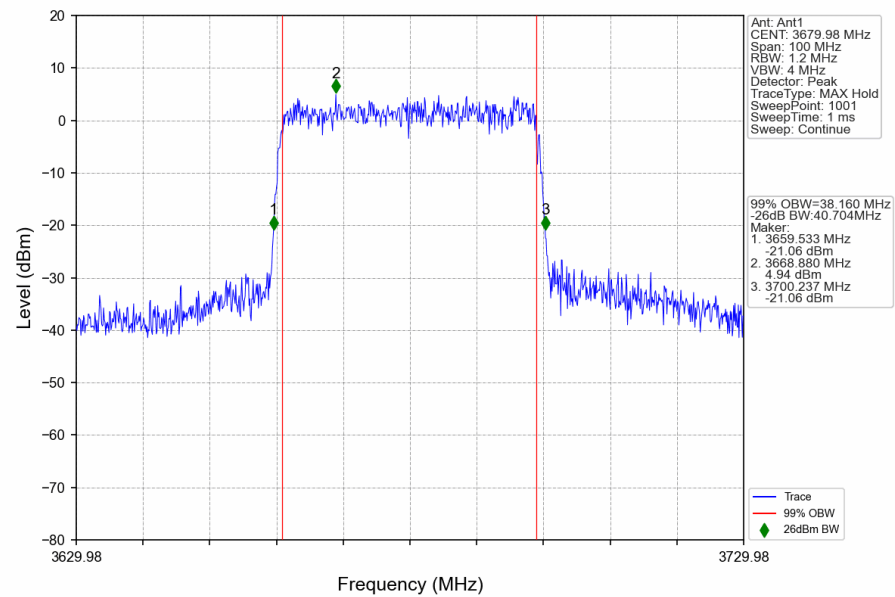
n78d_30kHz_SISO_NTNV_40MHz_CP-OFDM 64 QAM 3570MHz_Outer_Full



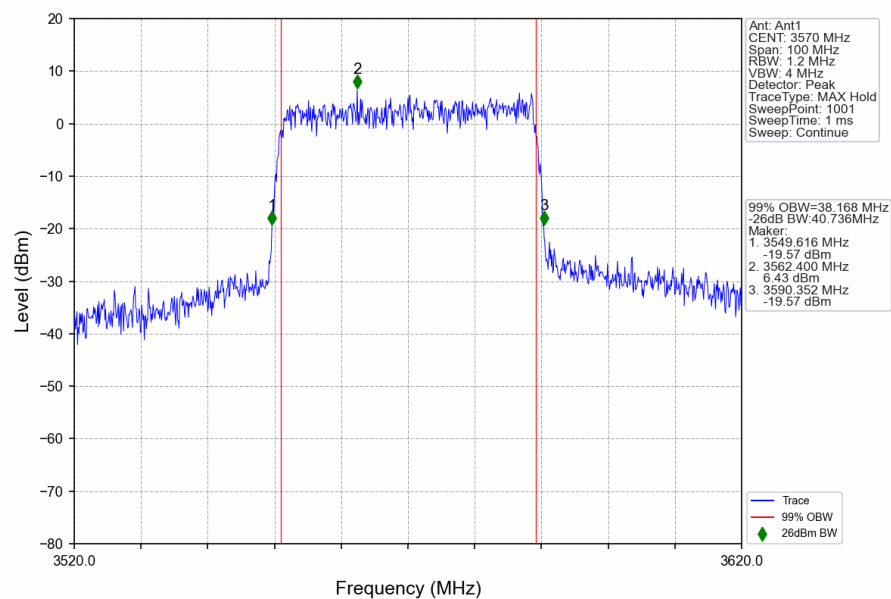
n78d_30kHz_SISO_NTNV_40MHz_CP-OFDM 64 QAM_3624.99MHz_Outer_Full



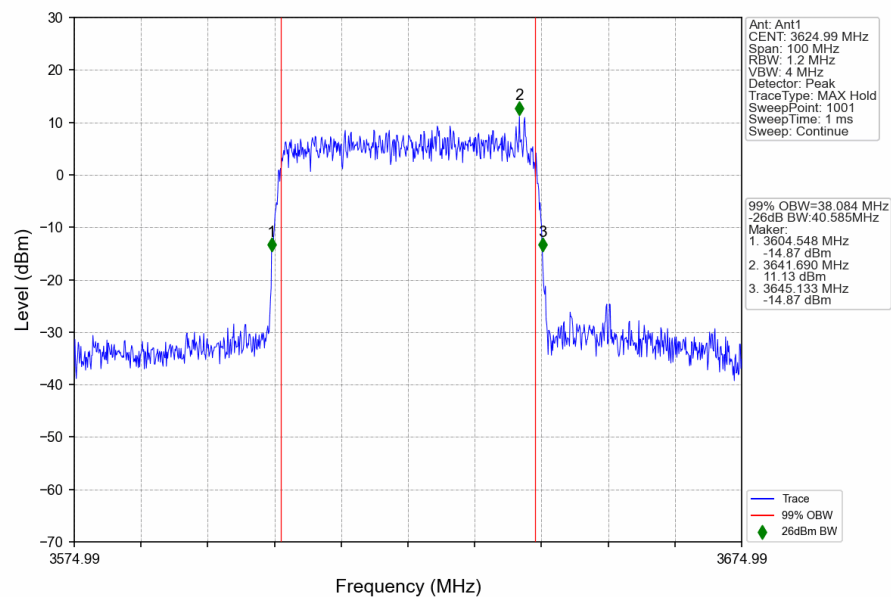
n78d_30kHz_SISO_NTNV_40MHz_CP-OFDM 64 QAM_3679.98MHz_Outer_Full



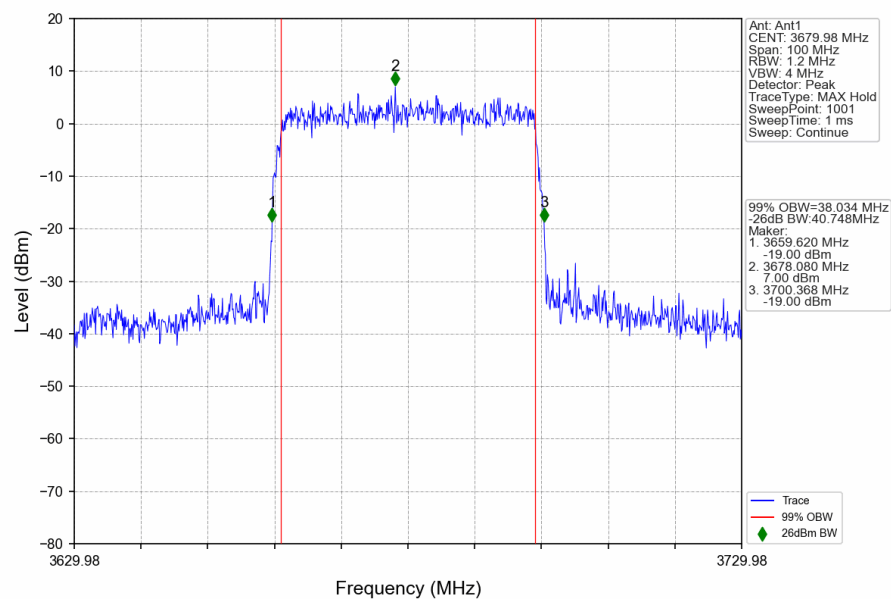
n78d_30kHz_SISO_NTNV_40MHz_CP-OFDM_256_QAM_3570MHz_Outer_Full



n78d_30kHz_SISO_NTNV_40MHz_CP-OFDM_256_QAM_3624.99MHz_Outer_Full



n78d_30kHz_SISO_NTNV_40MHz_CP-OFDM_256_QAM_3679.98MHz_Outer_Full

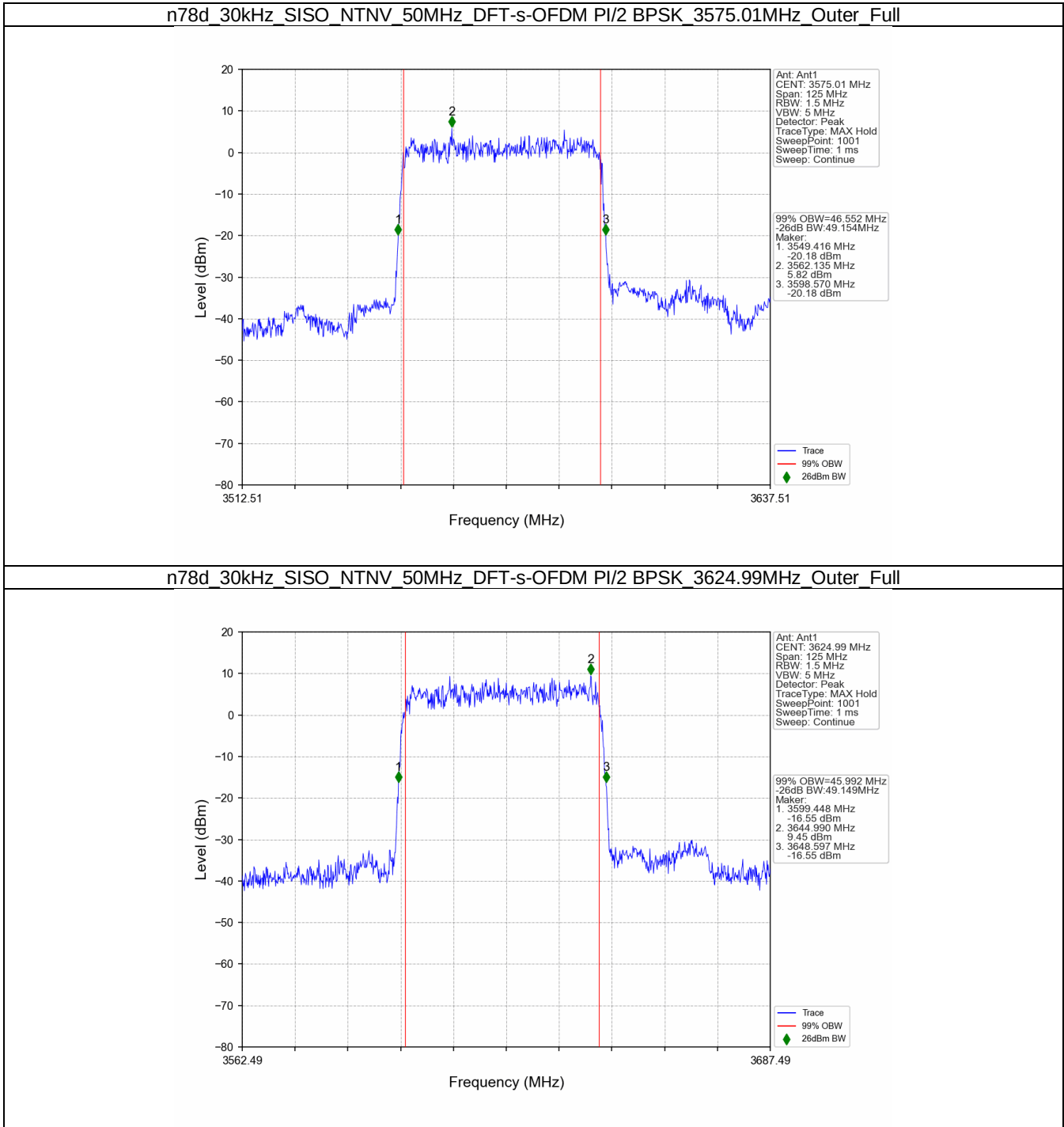


1.4 30k_SISO_50MHz_NTNV

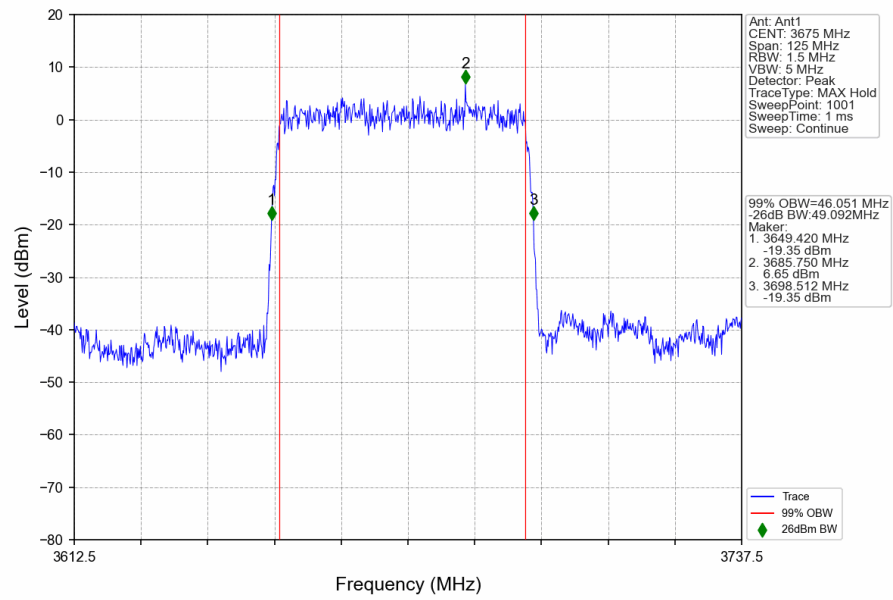
1.4.1 Test Result

5G NR n78d SCS=30kHz SISO 50MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	3575.01	Outer_Full	46.55	49.15	/	Pass
	3624.99	Outer_Full	45.99	49.15	/	Pass
	3675	Outer_Full	46.05	49.09	/	Pass
DFT-s-OFDM QPSK	3575.01	Outer_Full	46.24	49.46	/	Pass
	3624.99	Outer_Full	46.20	49.13	/	Pass
	3675	Outer_Full	46.28	49.00	/	Pass
DFT-s-OFDM 16 QAM	3575.01	Outer_Full	46.39	49.02	/	Pass
	3624.99	Outer_Full	46.07	49.27	/	Pass
	3675	Outer_Full	46.11	48.97	/	Pass
DFT-s-OFDM 64 QAM	3575.01	Outer_Full	46.07	49.29	/	Pass
	3624.99	Outer_Full	45.98	49.06	/	Pass
	3675	Outer_Full	46.31	49.08	/	Pass
DFT-s-OFDM 256 QAM	3575.01	Outer_Full	46.02	49.17	/	Pass
	3624.99	Outer_Full	46.27	48.89	/	Pass
	3675	Outer_Full	46.19	49.09	/	Pass
CP-OFDM QPSK	3575.01	Outer_Full	48.29	50.77	/	Pass
	3624.99	Outer_Full	47.70	51.04	/	Pass
	3675	Outer_Full	47.61	50.97	/	Pass
CP-OFDM 16 QAM	3575.01	Outer_Full	47.91	50.78	/	Pass
	3624.99	Outer_Full	47.59	50.94	/	Pass
	3675	Outer_Full	48.09	50.95	/	Pass
CP-OFDM 64 QAM	3575.01	Outer_Full	47.76	50.87	/	Pass
	3624.99	Outer_Full	47.53	51.00	/	Pass
	3675	Outer_Full	47.82	51.28	/	Pass
CP-OFDM 256 QAM	3575.01	Outer_Full	47.89	50.97	/	Pass
	3624.99	Outer_Full	47.49	50.92	/	Pass
	3675	Outer_Full	47.84	51.04	/	Pass

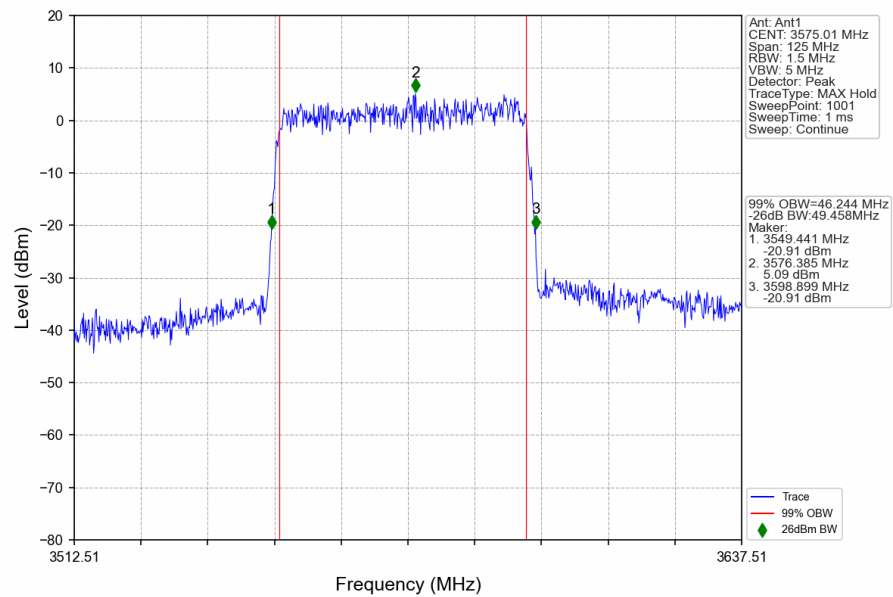
1.4.2 Test Graph



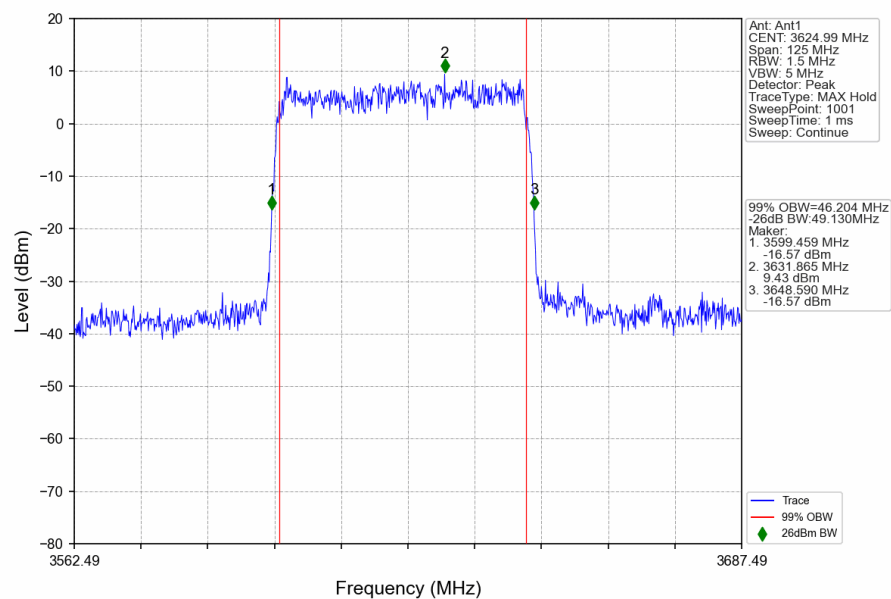
n78d_30kHz_SISO_NTNV_50MHz_DFT-s-OFDM_PI/2_BPSK_3675MHz_Outer_Full



n78d_30kHz_SISO_NTNV_50MHz_DFT-s-OFDM_QPSK_3575.01MHz_Outer_Full



n78d_30kHz_SISO_NTNV_50MHz_DFT-s-OFDM_QPSK_3624.99MHz_Outer_Full



n78d_30kHz_SISO_NTNV_50MHz_DFT-s-OFDM_QPSK_3675MHz_Outer_Full

