

Appendix G for KSCR2401000129AT-N77-C-Band

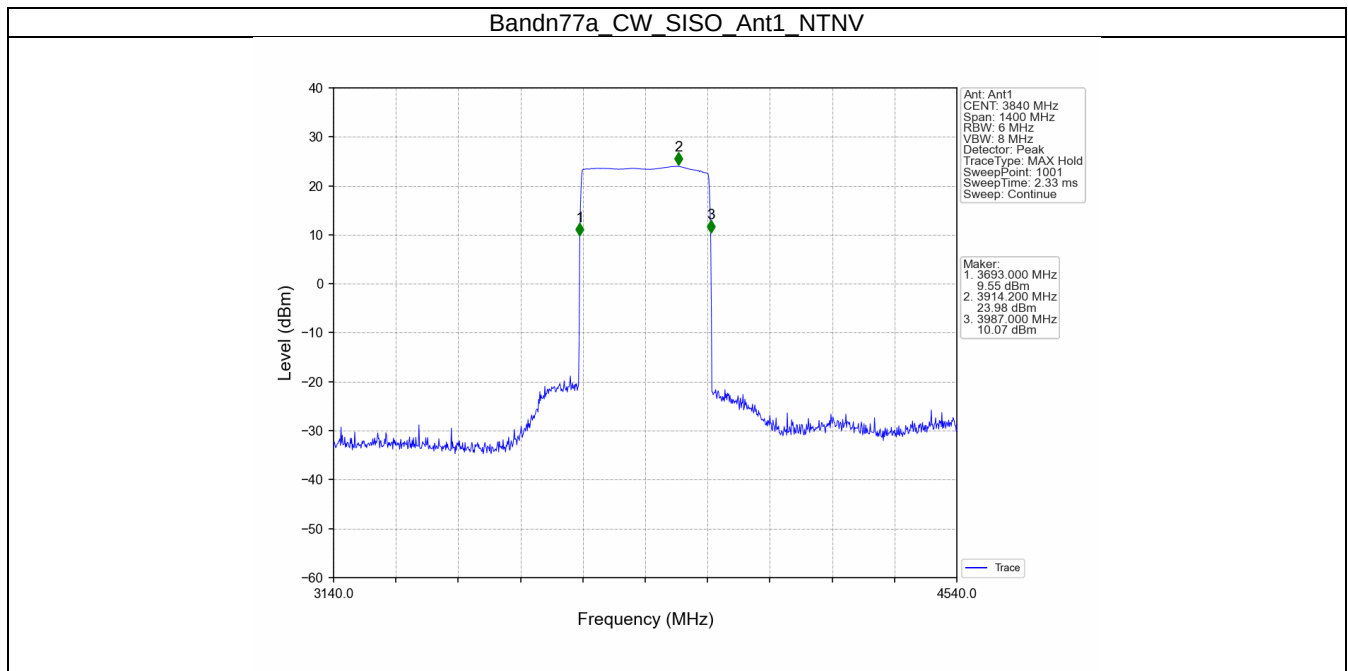
1. Out of band rejection

1.1 Bandn77a

1.1.1 Test Result

Band: n77a / NTV							
Signal	Sweep Frequency Range (MHz)	TX Type	ANT	F0 (MHz)	FL (MHz)	FH (MHz)	Verdict
CW	3140 - 4540	SISO	1	3914.200	3693.000	3987.000	Pass

1.1.2 Test Graph



2. AGC threshold

2.1 Bandn77a

2.1.1 Test Result

Band: n77a / NTV					
Signal	Frequency (MHz)	TX Type	ANT	AGC Threshold (dBm)	Verdict
AWGN	3914.2	SISO	1	-4.00	Pass
GMSK	3914.2	SISO	1	-4.00	Pass

3. Input-versus-output signal comparison

3.1 Bandn77a_OBW

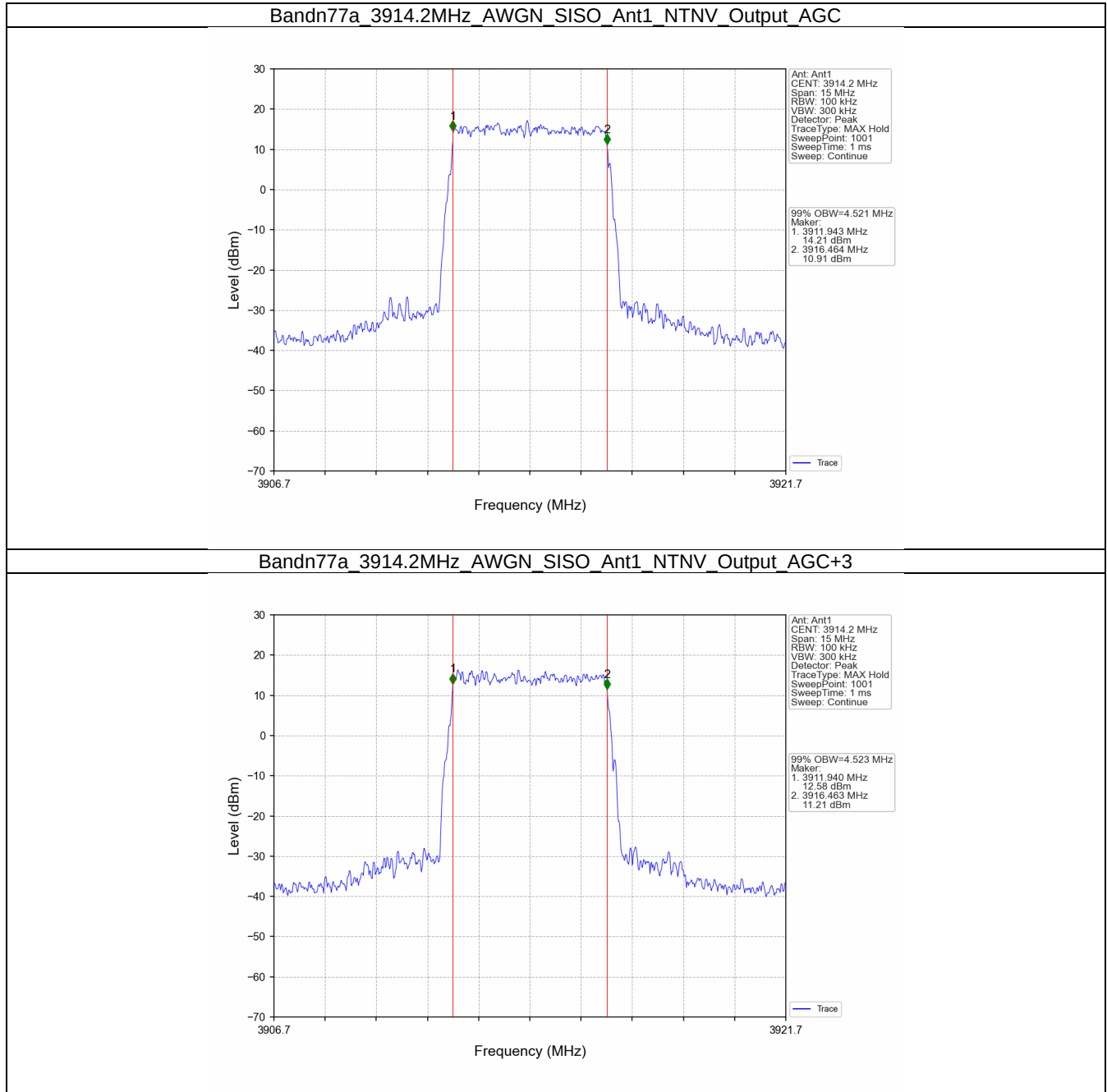
3.1.1 Test Result

Band: n77a / NTNV									
Signal			TX Type	ANT	99% OBW (MHz)		Discrepancy (%)	Limit (%)	Verdict
Type	Level (dBm)	Frequency (MHz)			Output	Input			
AWGN	-1	3914.2	SISO	1	4.521	4.519	0.0443	5	Pass
	-4	3914.2	SISO	1	4.523	4.539	-0.3530	5	Pass
GMSK	-1	3914.2	SISO	1	0.246	0.245	0.4082	5	Pass
	-4	3914.2	SISO	1	0.246	0.245	0.4082	5	Pass

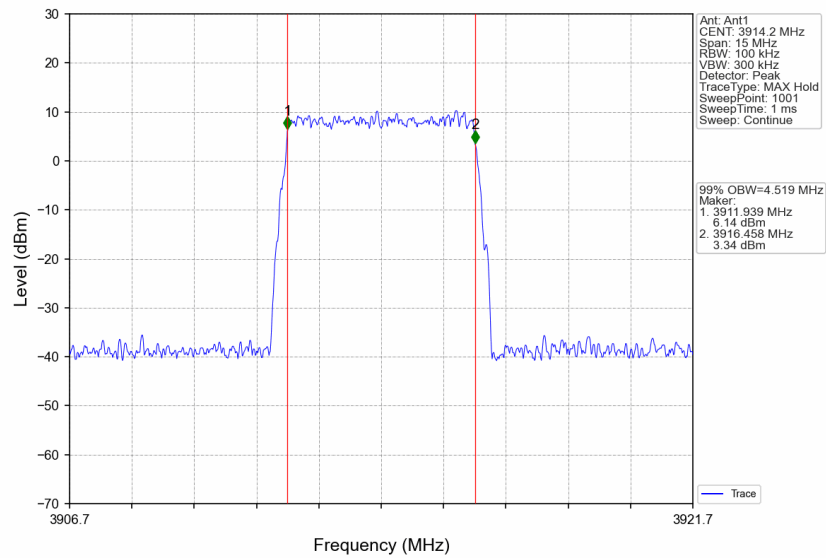
For 100MHz BW

Band: n77a / NTNV									
Signal			TX Type	ANT	99% OBW (MHz)		Discrepancy (%)	Limit (%)	Verdict
Type	Level (dBm)	Frequency (MHz)			Output	Input			
AWGN	-1	3914.2	SISO	1	97.116	97.426	-0.3180	5	Pass
	-4	3914.2	SISO	1	97.041	97.320	-0.2870	5	Pass

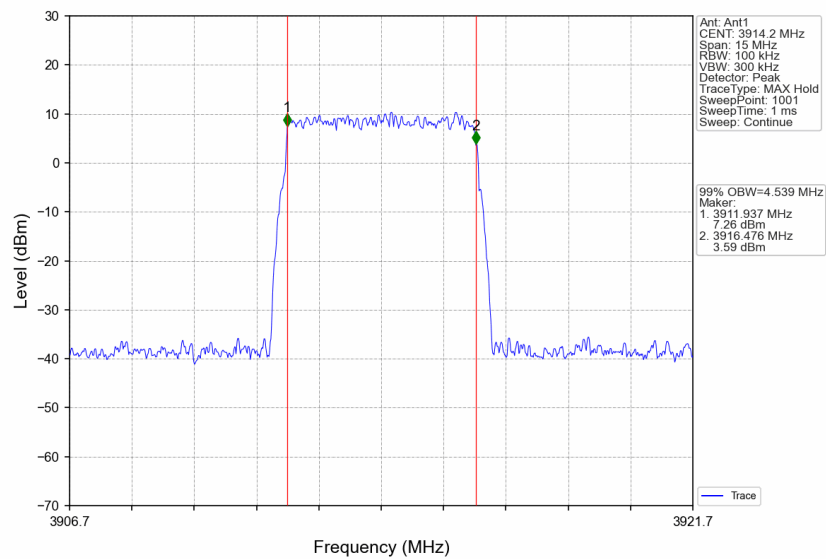
3.1.2 Test Graph



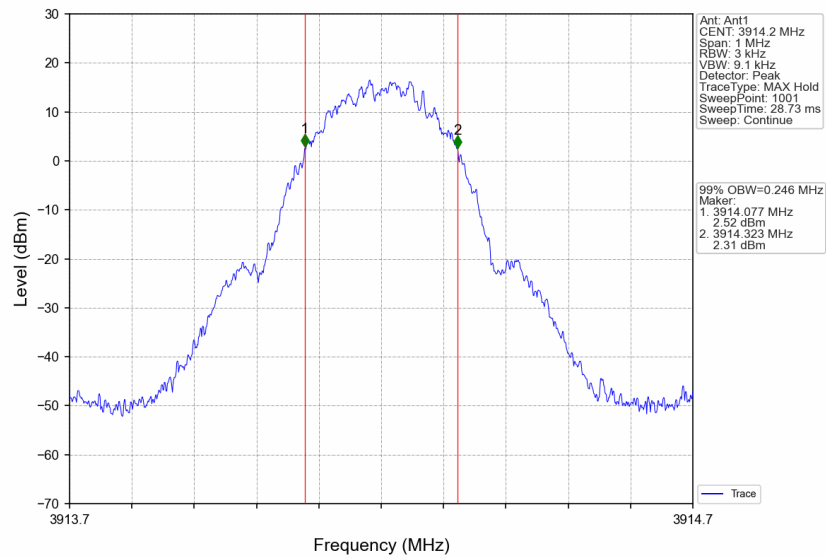
Bandn77a_3914.2MHz_AWGN_SISO_Ant1_NTNV_Input_AGC



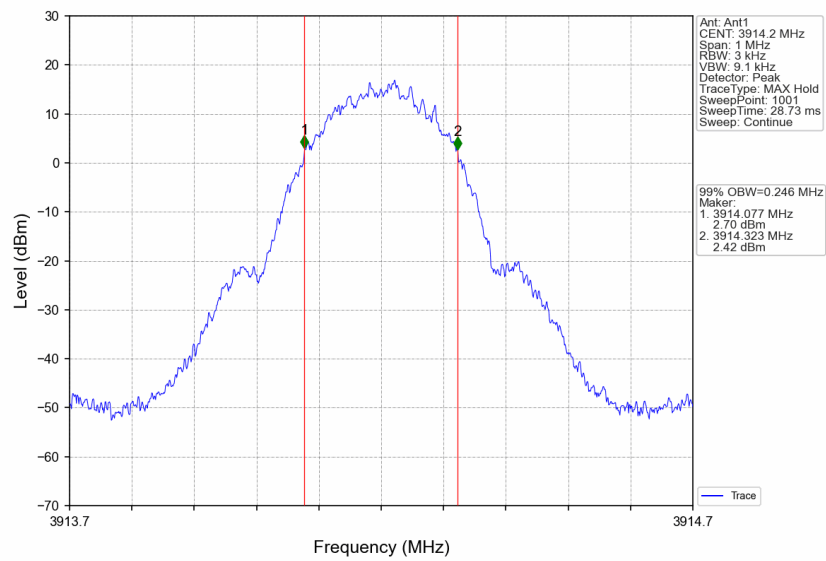
Bandn77a_3914.2MHz_AWGN_SISO_Ant1_NTNV_Input_AGC+3



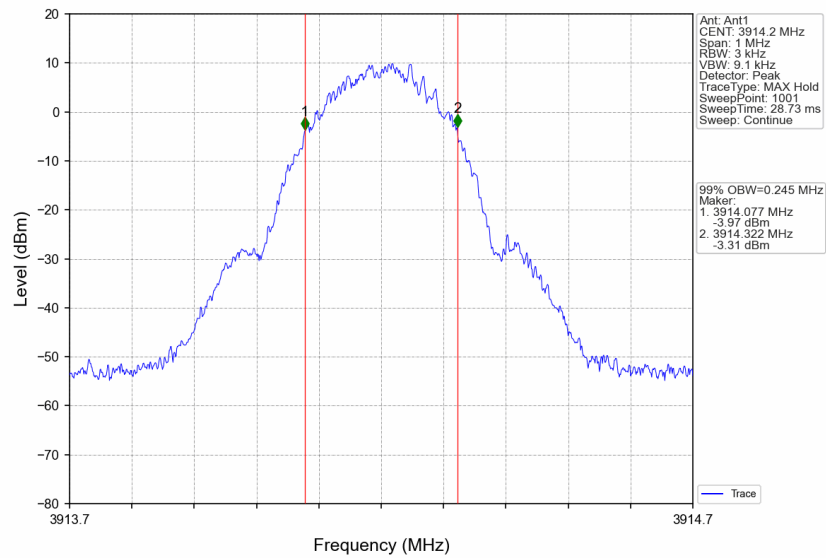
Bandn77a_3914.2MHz_GMSK_SISO_Ant1_NTNV_Output_AGC



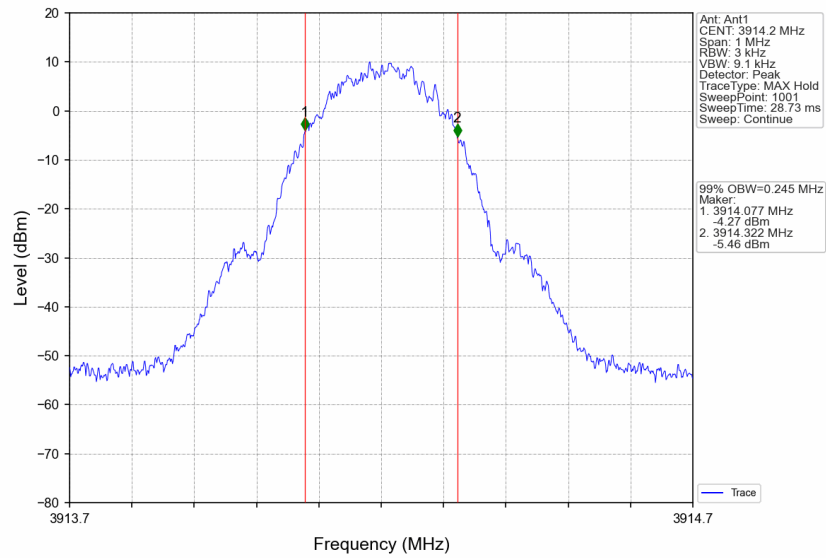
Bandn77a_3914.2MHz_GMSK_SISO_Ant1_NTNV_Output_AGC+3



Bandn77a_3914.2MHz_GMSK_SISO_Ant1_NTNV_Input_AGC

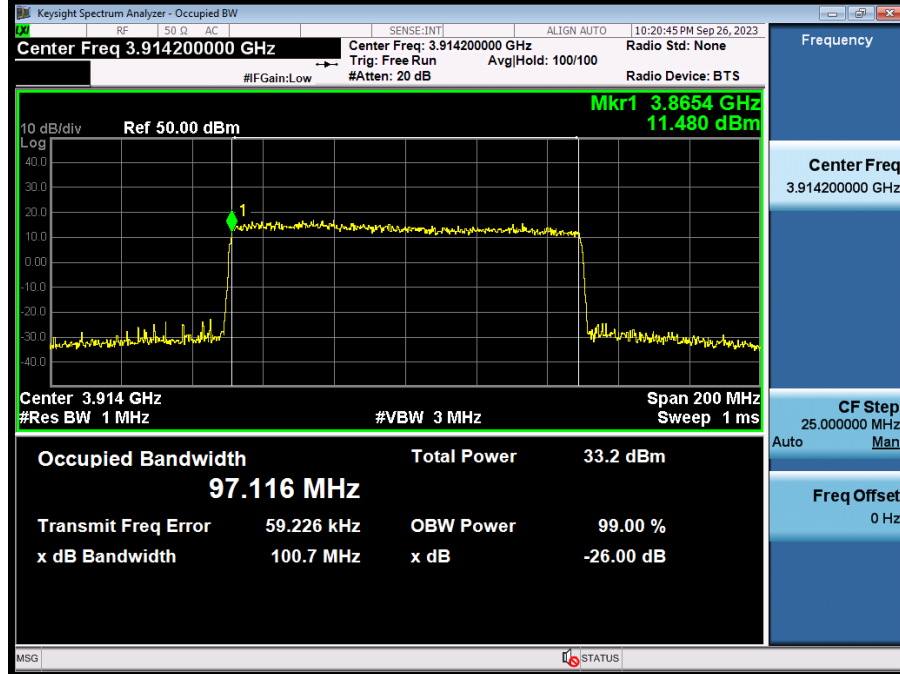


Bandn77a_3914.2MHz_GMSK_SISO_Ant1_NTNV_Input_AGC+3

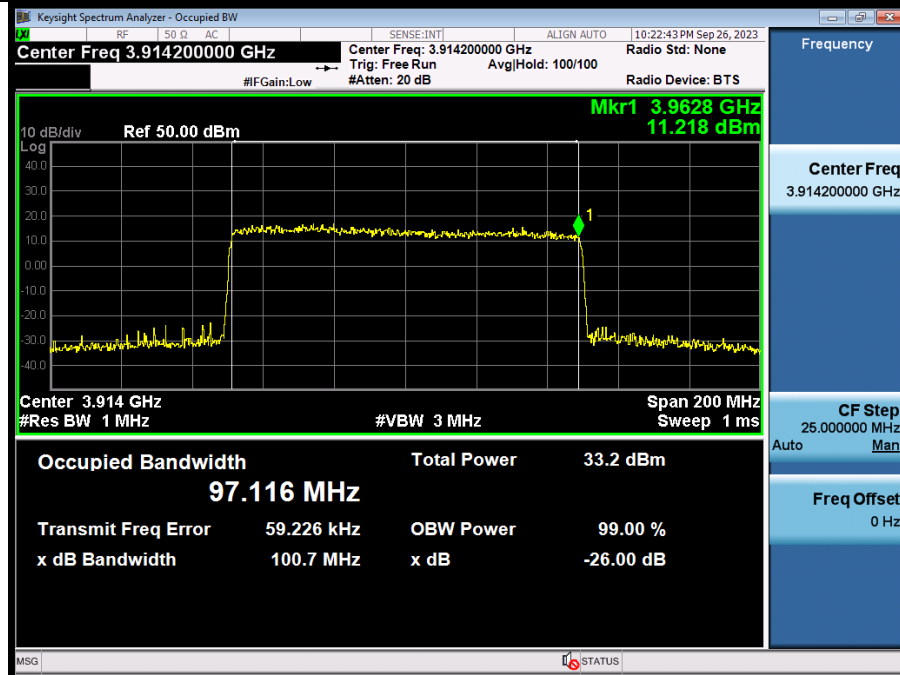


For 100MHz BW

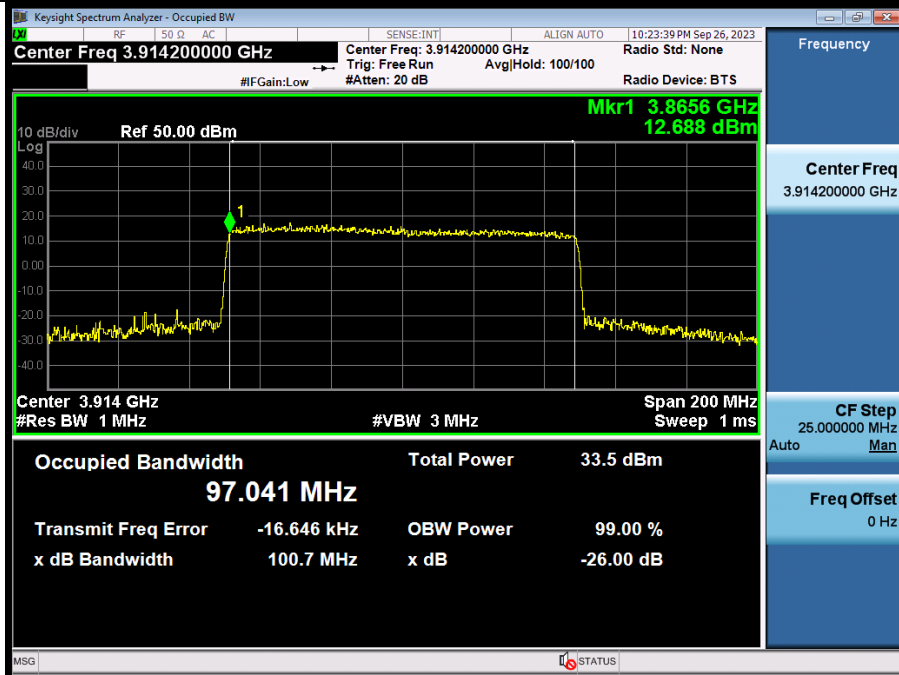
Bandn77a 3914.2MHz AWGN SISO Ant1 NTN Output AGC



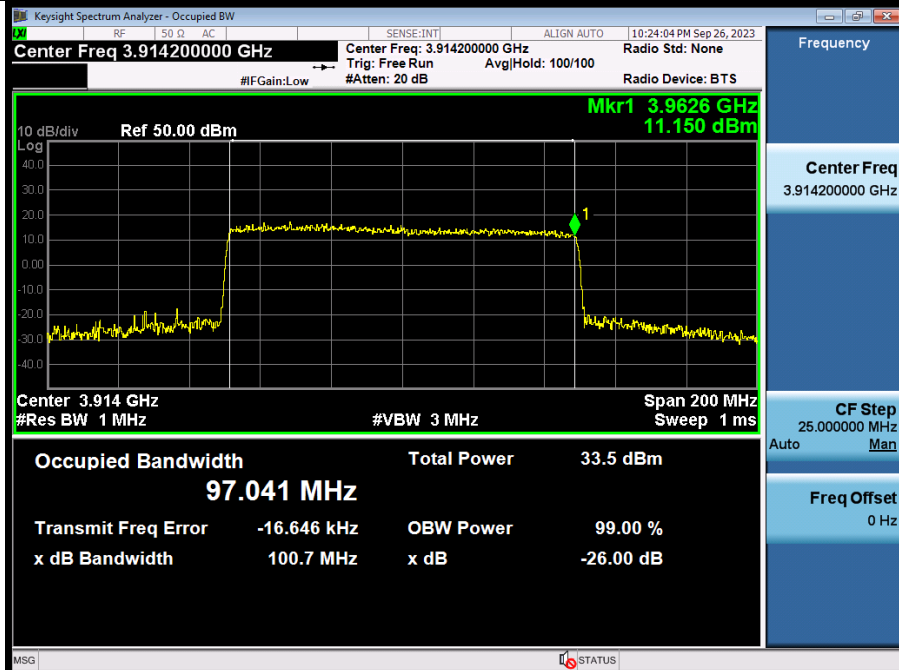
Bandn77a 3914.2MHz AWGN SISO Ant1 NTN Output AGC



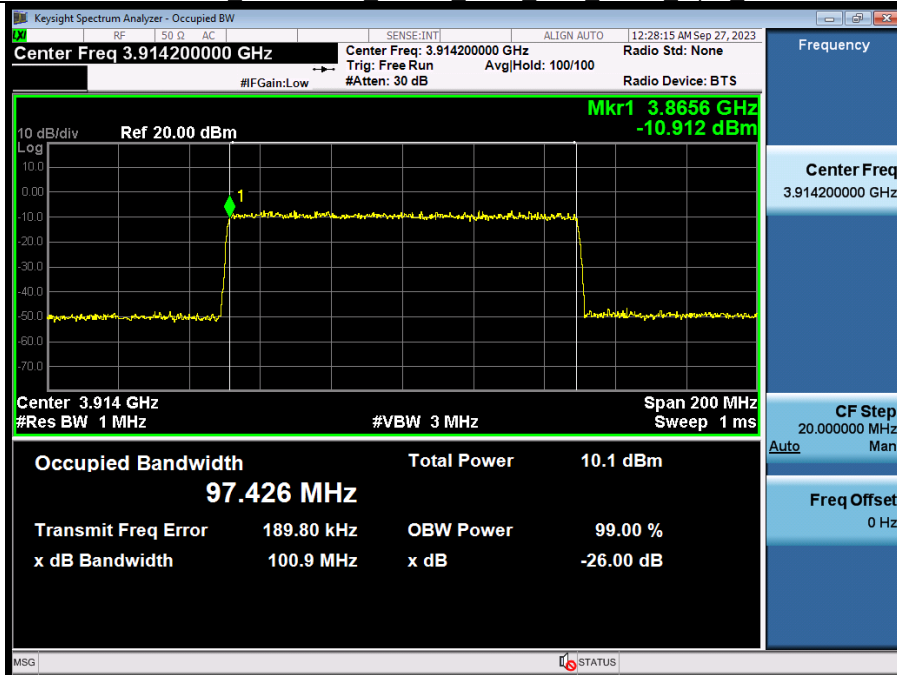
Bandn77a 3914.2MHz AWGN SISO Ant1 NTN Output AGC+3



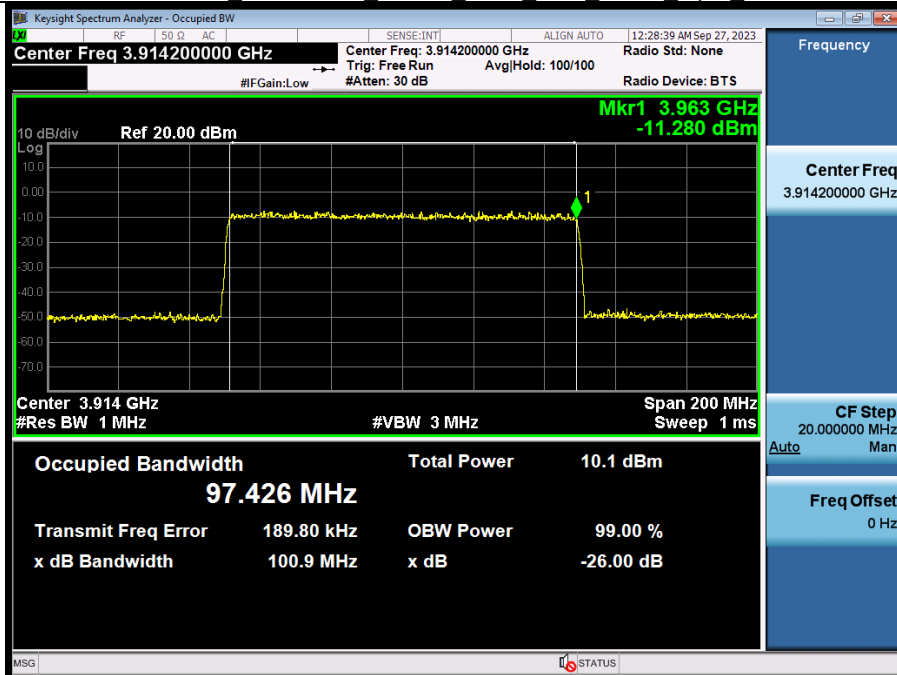
Bandn77a 3914.2MHz AWGN SISO Ant1 NTN Output AGC+3



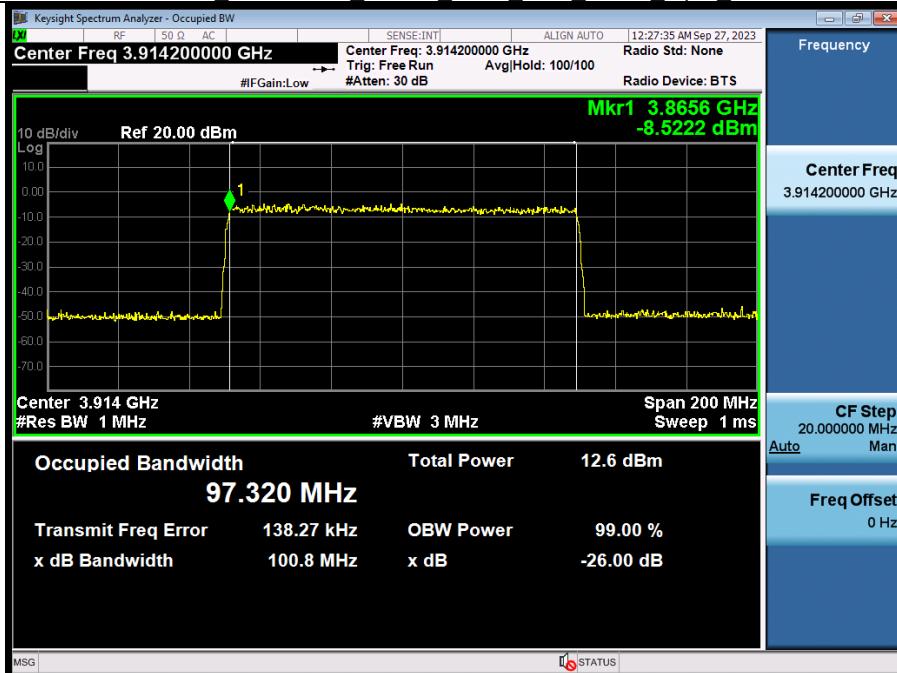
Bandn77a 3914.2MHz AWGN SISO Ant1 NTN Input AGC



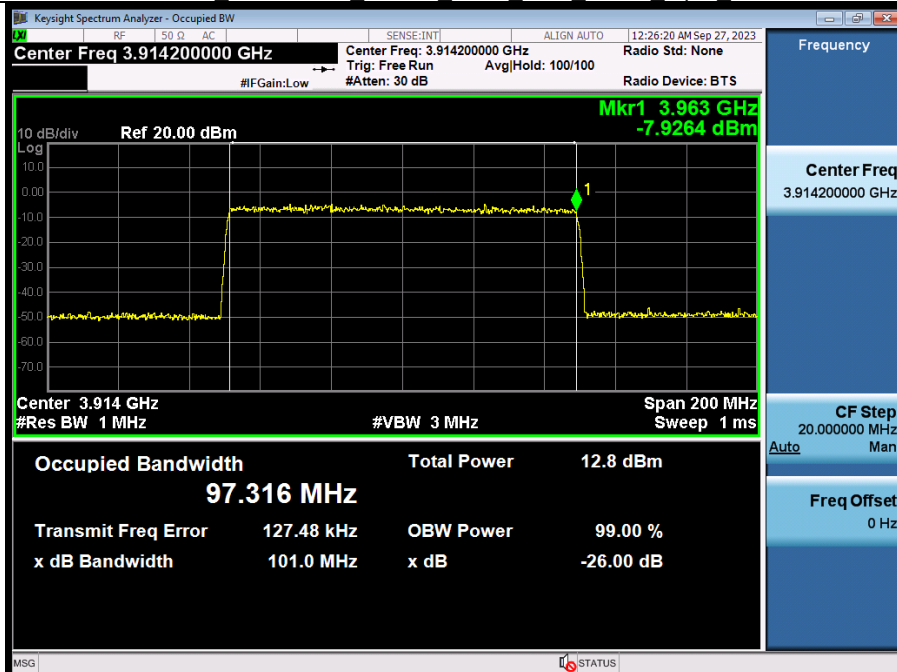
Bandn77a 3914.2MHz AWGN SISO Ant1 NTN Input AGC



Bandn77a 3914.2MHz AWGN SISO Ant1 NTNv Input AGC+3



Bandn77a 3914.2MHz AWGN SISO Ant1 NTNv Input AGC+3



3.2 Bandn77a_EBW

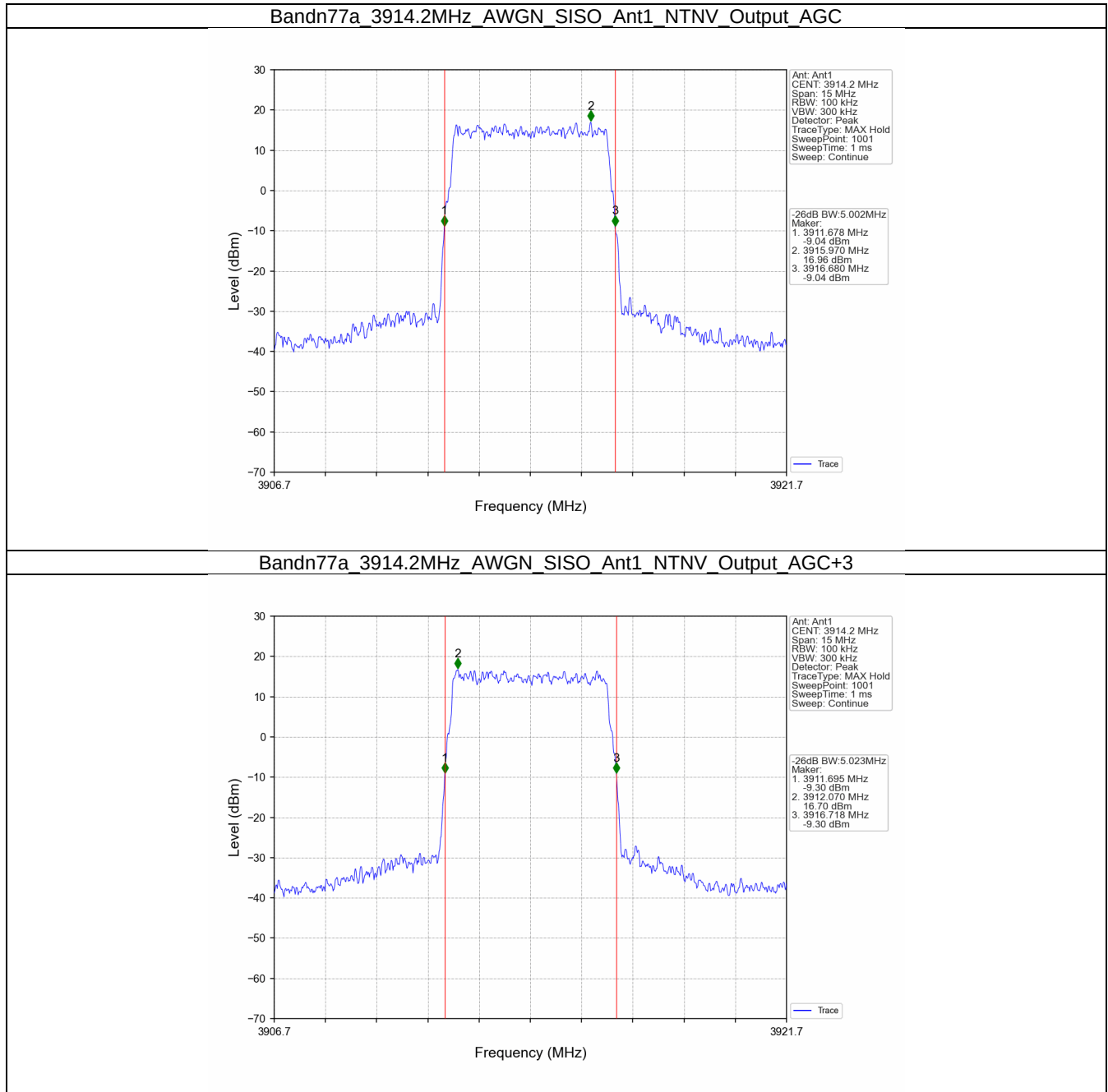
3.2.1 Test Result

Band: n77a / NTNV									
Signal			TX Type	ANT	26dB EBW (MHz)		Discrepancy (%)	Limit (%)	Verdict
Type	Level (dBm)	Frequency (MHz)			Output	Input			
AWGN	-1	3914.2	SISO	1	5.002	5.022	-0.3980	5	Pass
	-4	3914.2	SISO	1	5.023	5.023	0.0000	5	Pass
GMSK	-1	3914.2	SISO	1	0.317	0.314	0.9554	5	Pass
	-4	3914.2	SISO	1	0.315	0.313	0.6390	5	Pass

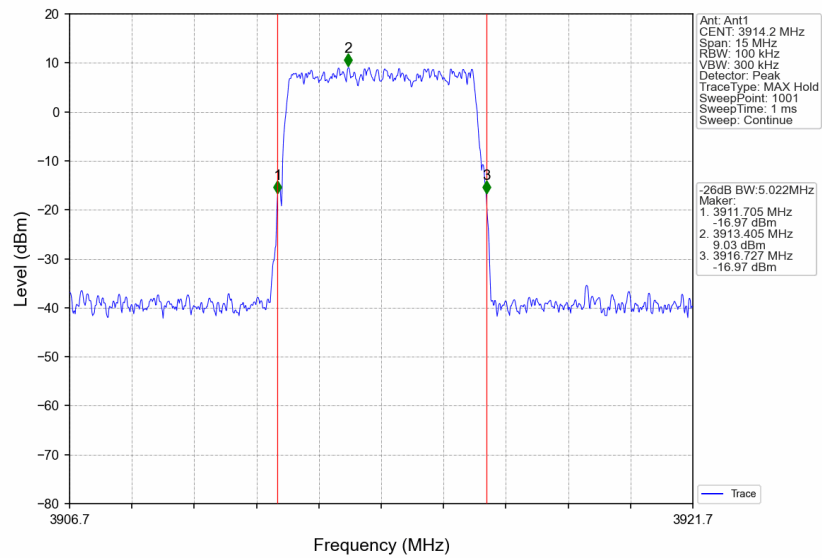
For 100MHz BW

Band: n77a / NTNV									
Signal			TX Type	ANT	26dB EBW (MHz)		Discrepancy (%)	Limit (%)	Verdict
Type	Level (dBm)	Frequency (MHz)			Output	Input			
AWGN	-1	3914.2	SISO	1	100.81	101.07	-0.2570	5	Pass
	-4	3914.2	SISO	1	100.95	100.81	0.1389	5	Pass

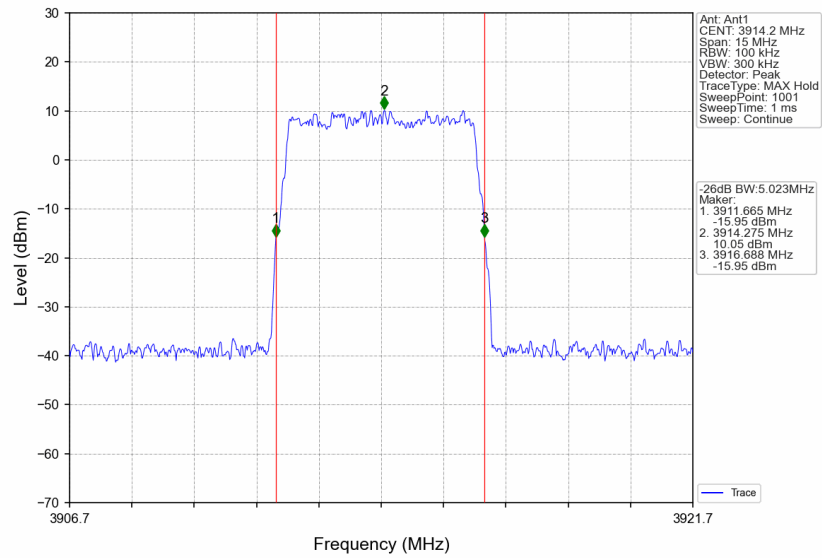
3.2.2 Test Graph



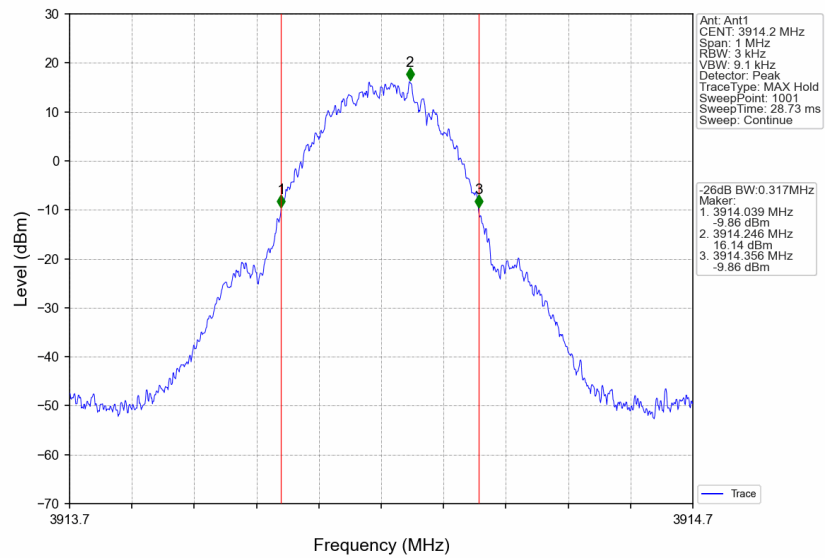
Bandn77a_3914.2MHz_AWGN_SISO_Ant1_NTNV_Input_AGC



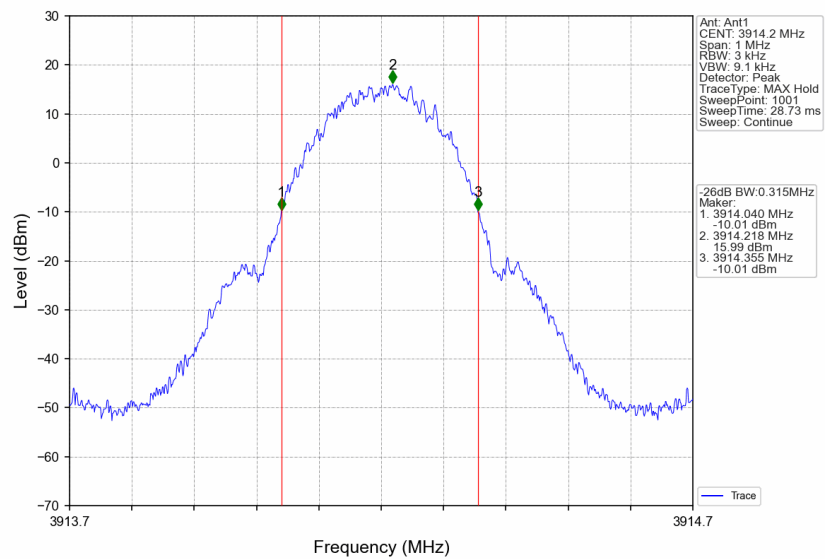
Bandn77a_3914.2MHz_AWGN_SISO_Ant1_NTNV_Input_AGC+3



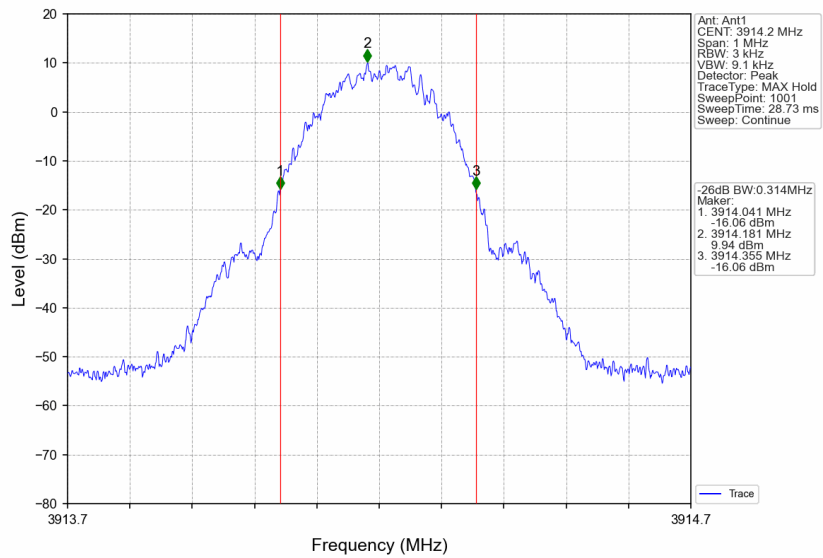
Bandn77a_3914.2MHz_GMSK_SISO_Ant1_NTNV_Output_AGC



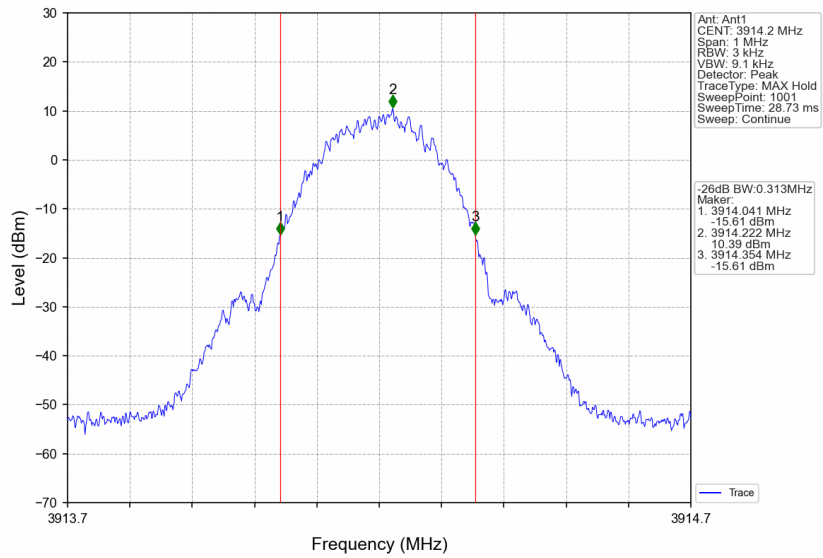
Bandn77a_3914.2MHz_GMSK_SISO_Ant1_NTNV_Output_AGC+3



Bandn77a_3914.2MHz_GMSK_SISO_Ant1_NTNV_Input_AGC

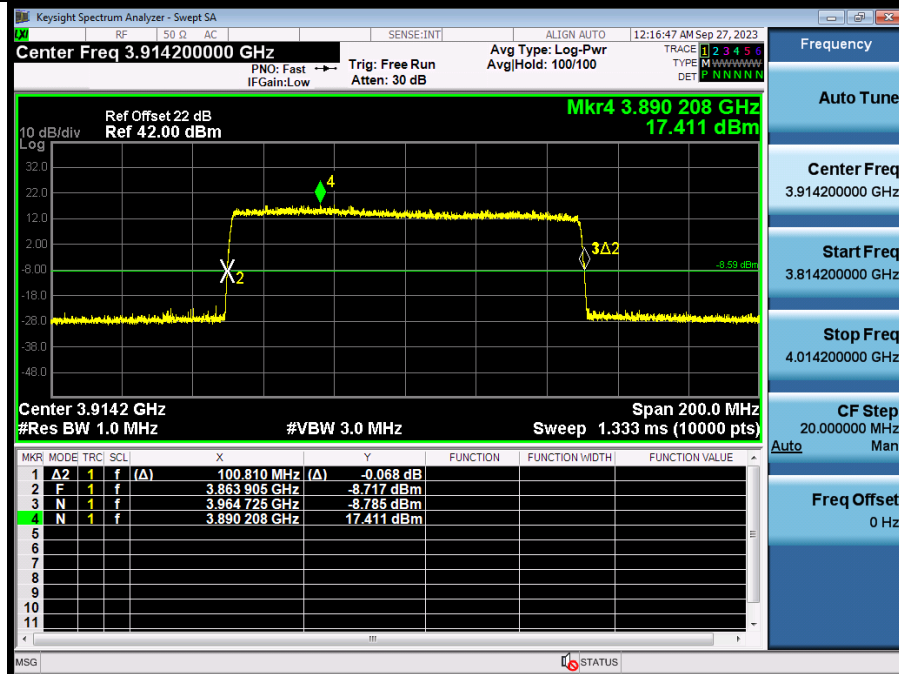


Bandn77a_3914.2MHz_GMSK_SISO_Ant1_NTNV_Input_AGC+3

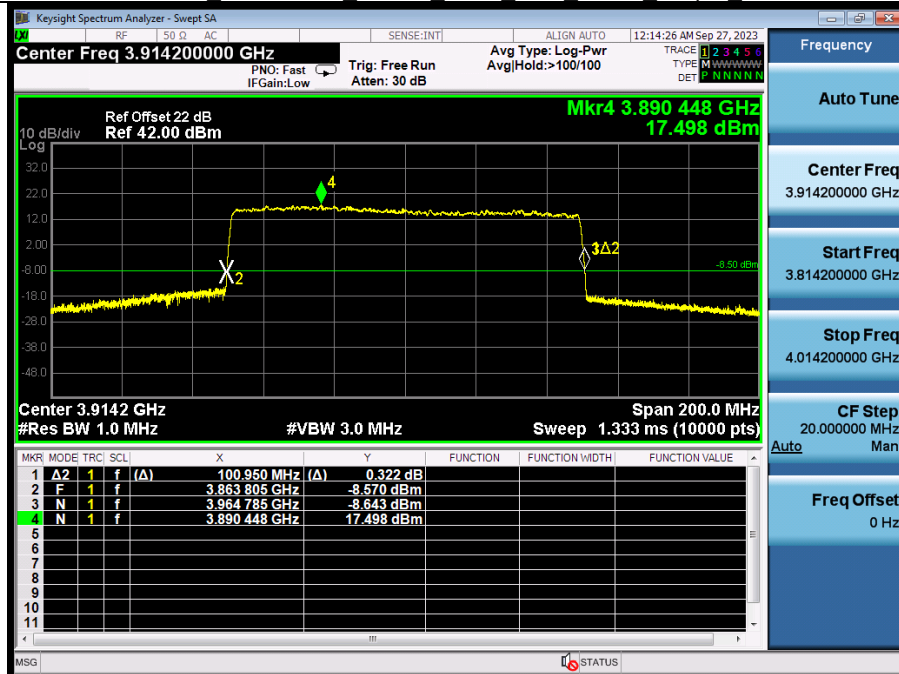


For 100MHz BW

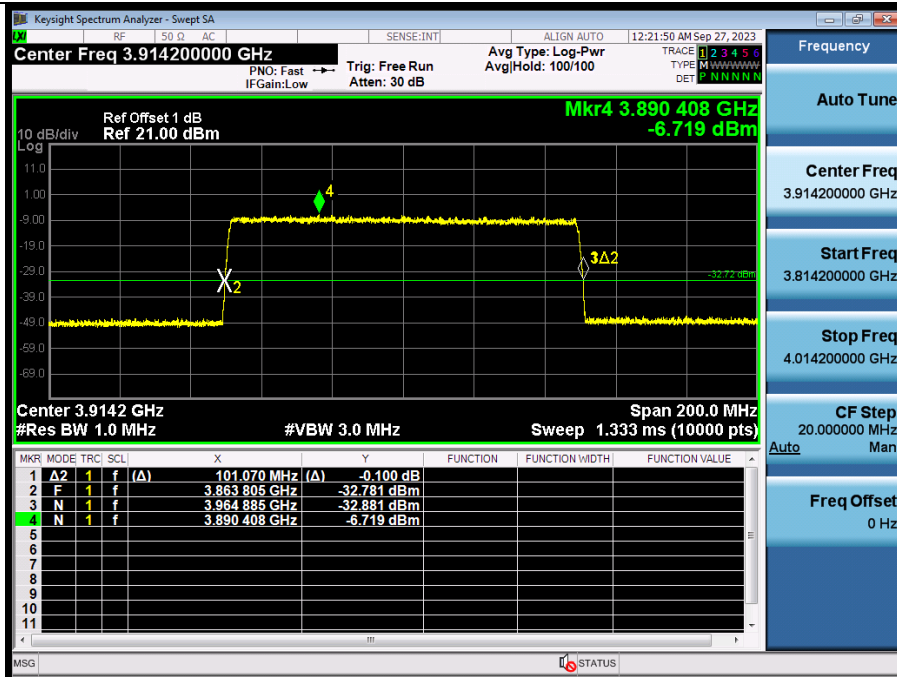
Bandn77a 3914.2MHz AWGN SISO Ant1 NTN Output AGC



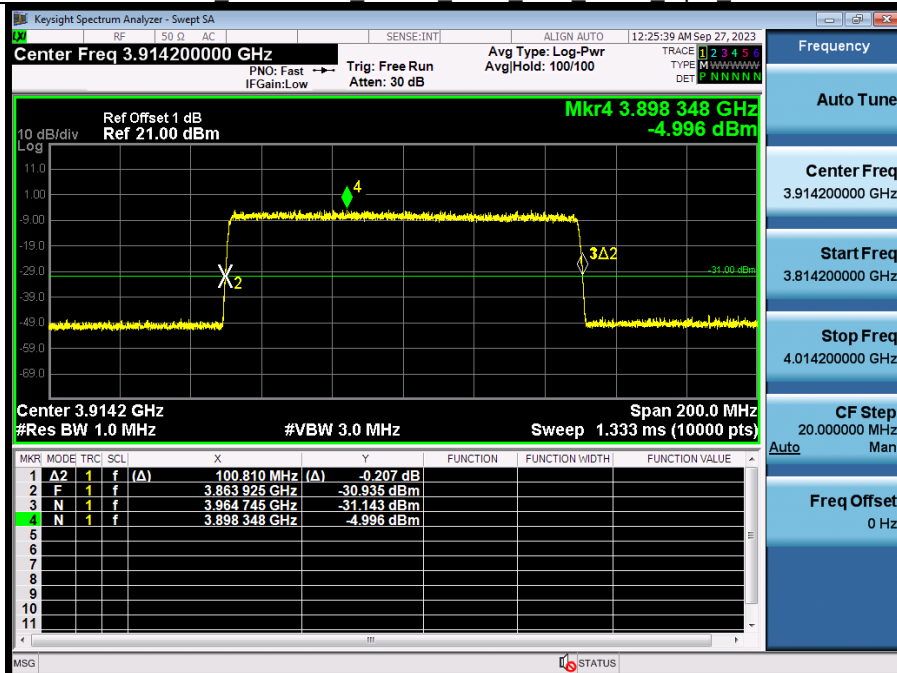
Bandn77a 3914.2MHz AWGN SISO Ant1 NTN Output AGC+3



Bandn77a 3914.2MHz AWGN SISO Ant1 NTN Input AGC



Bandn77a 3914.2MHz AWGN SISO Ant1 NTN Input AGC+3



4. Input/output power and amplifier/booster gain

4.1 Bandn77a_EIRP

4.1.1 Test Result

Band: n77a / NTNV											
Signal			TX Type	ANT	Conducted Power (dBm/MHz)		EIRP (dBm/MHz)		Booster Gain (dB)	Nominal gain (dB)	Verdict
Type	Level (dBm)	Frequency (MHz)			Output	Input	Result	Limit			
AWGN	-4	3914.2	SISO	1	18.10	-10.47	20.10	<=62.15	28.57	27±2	Pass
	-1	3914.2	SISO	1	18.10	-7.42	20.10	<=62.15	/	/	Pass
GMSK	-4	3914.2	SISO	1	17.98	-10.57	19.98	<=62.15	28.55	27±2	Pass
	-1	3914.2	SISO	1	17.98	-7.47	19.98	<=62.15	/	/	Pass

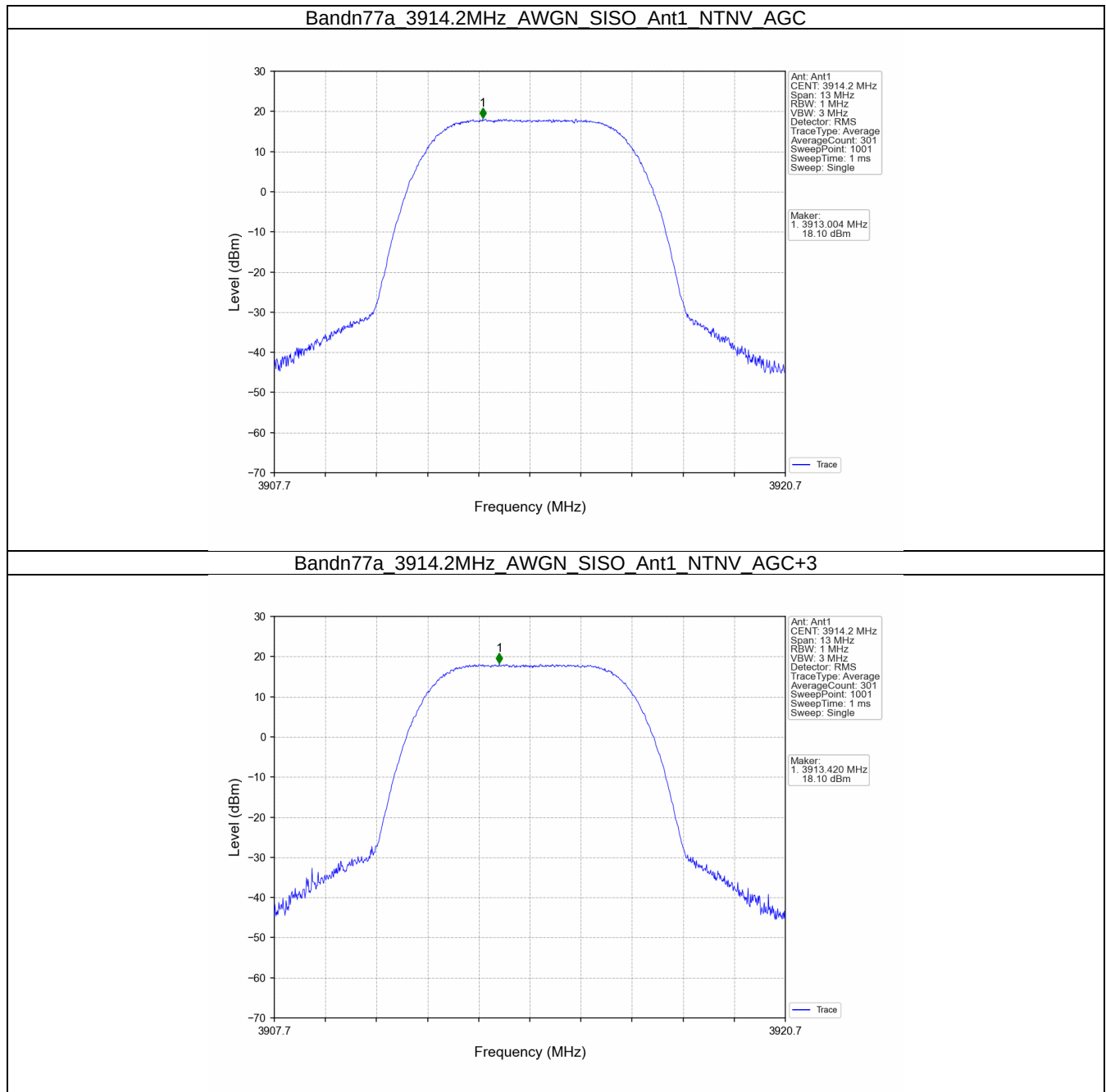
3700MHz-3980MHz / NTNV							
Operation Band	Frequency (MHz)	Signal Type	Signal Level	Input Power (dBm)	Total Output Power (dBm)	EIRP (dBm)	Gain (dB)
3700MHz-3980MHz	3914.2	AWGN	Pre-AGC	-4	24.43	26.43	/
			3dB Above AGC	-1	24.47	26.47	/
	3914.2	GMSK	Pre-AGC	-4	24.49	26.49	/
			3dB Above AGC	-1	24.53	26.53	/

For 100MHz BW

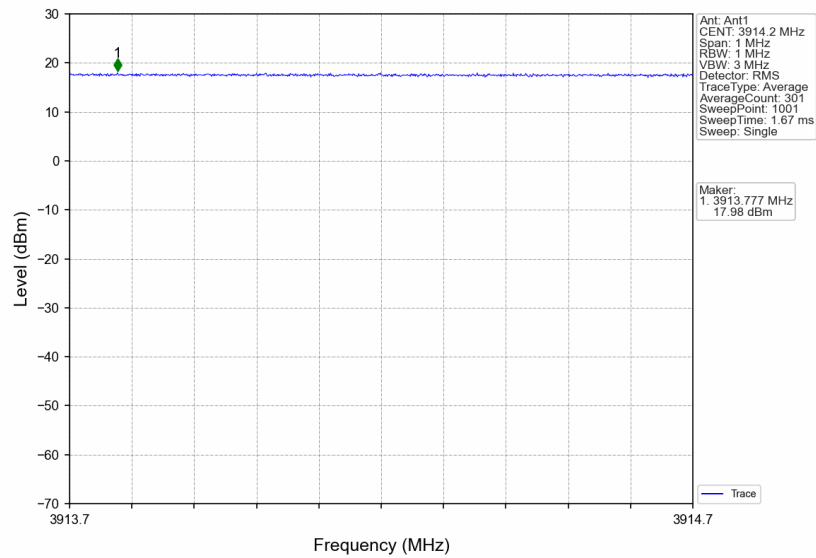
Band: n77a / NTNV											
Signal			TX Type	ANT	Conducted Power (dBm/MHz)		EIRP (dBm/MHz)		Booster Gain (dB)	Nominal gain (dB)	Verdict
Type	Level (dBm)	Frequency (MHz)			Output	Input	Result	Limit			
AWGN	-4	3914.2	SISO	1	5.615	-22.548	7.615	<=62.15	28.16	27±2	Pass
	-1	3914.2	SISO	1	5.886	-19.357	7.886	<=62.15	/	/	Pass

3700MHz-3980MHz / NTNV							
Operation Band	Frequency (MHz)	Signal Type	Signal Level	Input Power (dBm)	Total Output Power (dBm)	EIRP (dBm)	Gain (dB)
3700MHz-3980MHz	3914.2	AWGN	Pre-AGC	-4	24.47	26.47	/
			3dB Above AGC	-1	24.55	26.55	/

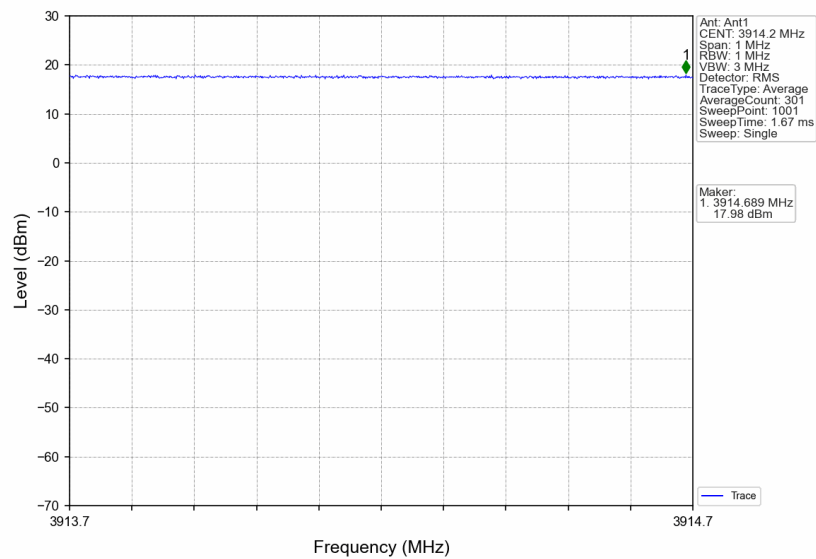
4.1.2 Test Graph



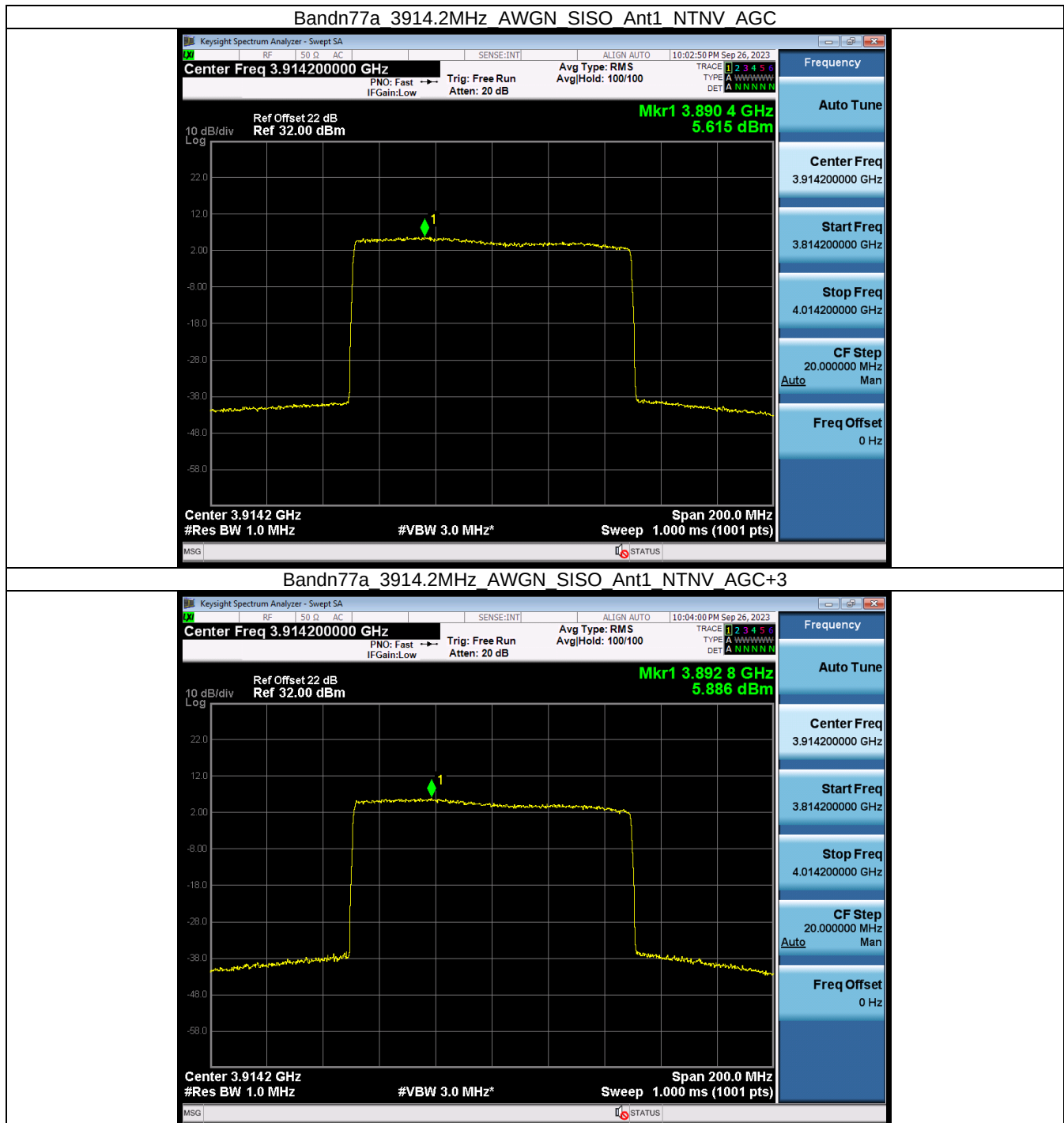
Bandn77a_3914.2MHz_GMSK_SISO_Ant1_NTNV_AGC



Bandn77a_3914.2MHz_GMSK_SISO_Ant1_NTNV_AGC+3



For 100MHz BW



4.2 Bandn77a_PAPR

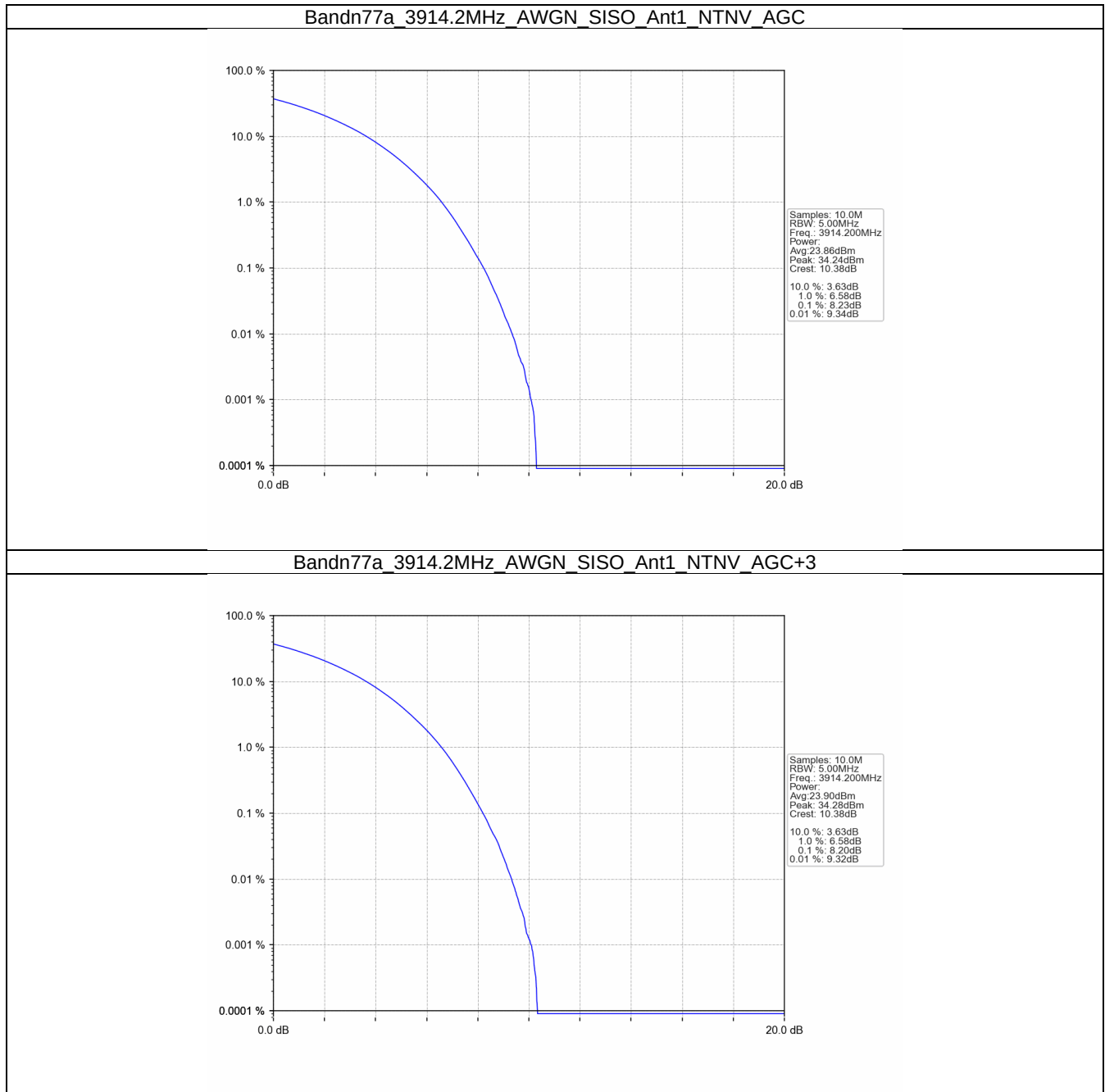
4.2.1 Test Result

Band: n77a / NTNV							
Signal			TX Type	ANT	PAPR (dB)		Verdict
Type	Level (dBm)	Frequency (MHz)			Result	Limit	
AWGN	-4	3914.2	SISO	1	8.23	<=13	Pass
	-1	3914.2	SISO	1	8.20	<=13	Pass
GMSK	-4	3914.2	SISO	1	0.29	<=13	Pass
	-1	3914.2	SISO	1	0.31	<=13	Pass

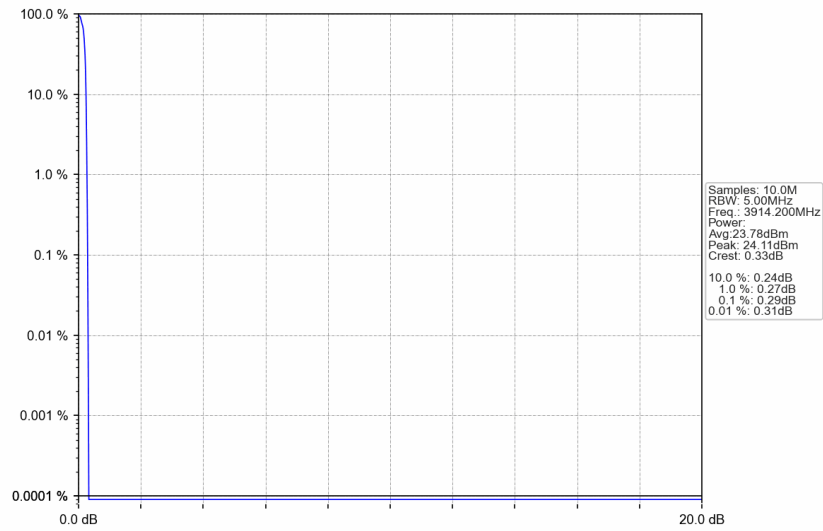
For 100MHz BW

Band: n77a / NTNV							
Signal			TX Type	ANT	PAPR (dB)		Verdict
Type	Level (dBm)	Frequency (MHz)			Result	Limit	
AWGN	-4	3914.2	SISO	1	9.43	<=13	Pass
	-1	3914.2	SISO	1	9.48	<=13	Pass

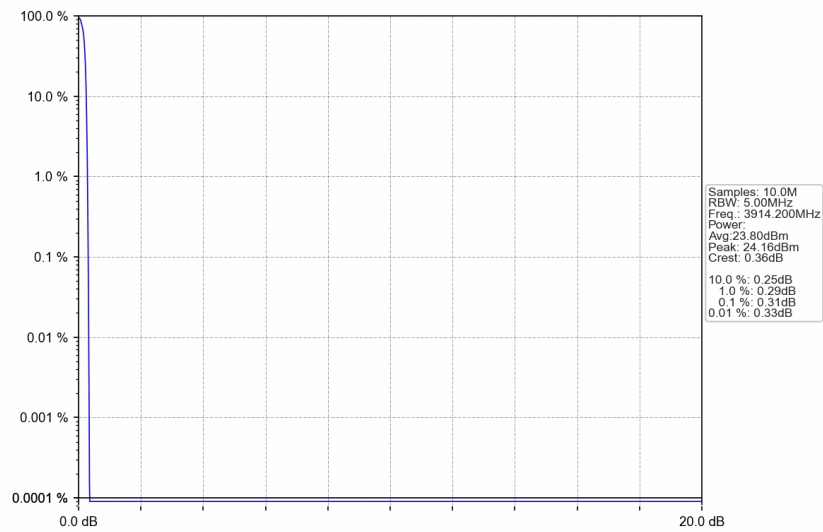
4.2.2 Test Graph



Bandn77a_3914.2MHz_GMSK_SISO_Ant1_NTNV_AGC

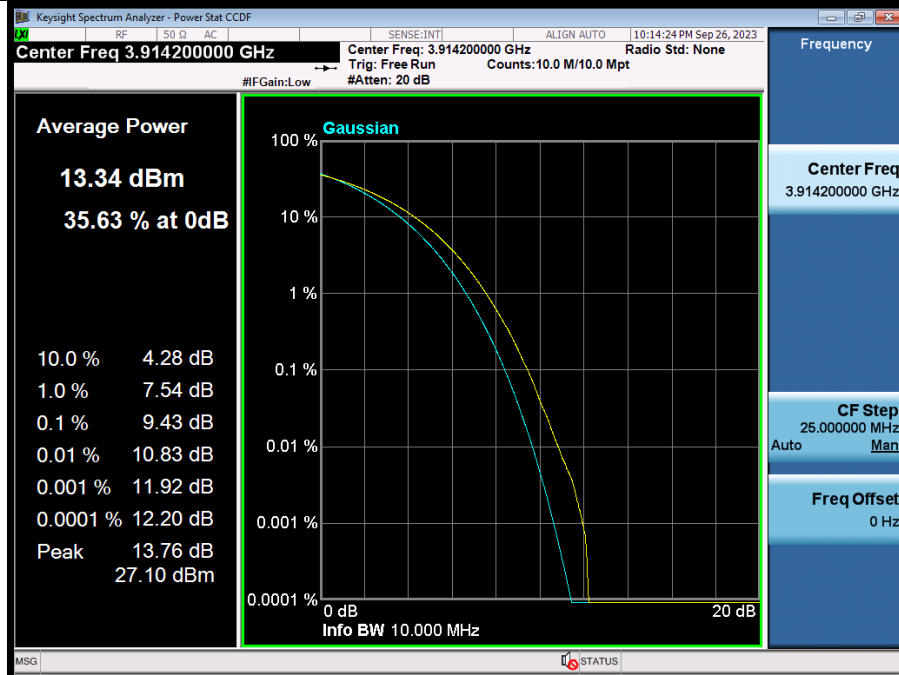


Bandn77a_3914.2MHz_GMSK_SISO_Ant1_NTNV_AGC+3

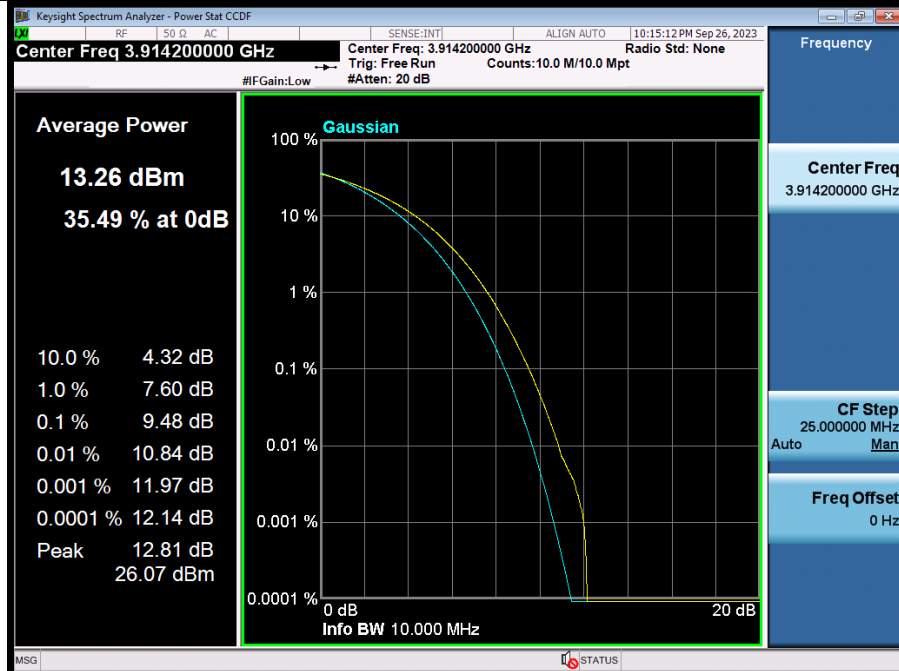


For 100MHz BW

Bandn77a 3914.2MHz AWGN SISO Ant1 NTN AGC



Bandn77a 3914.2MHz AWGN SISO Ant1 NTN AGC+3



5. Out-of-band/out-of-block (including intermodulation) emissions

5.1 Bandn77a

5.1.1 Test Result

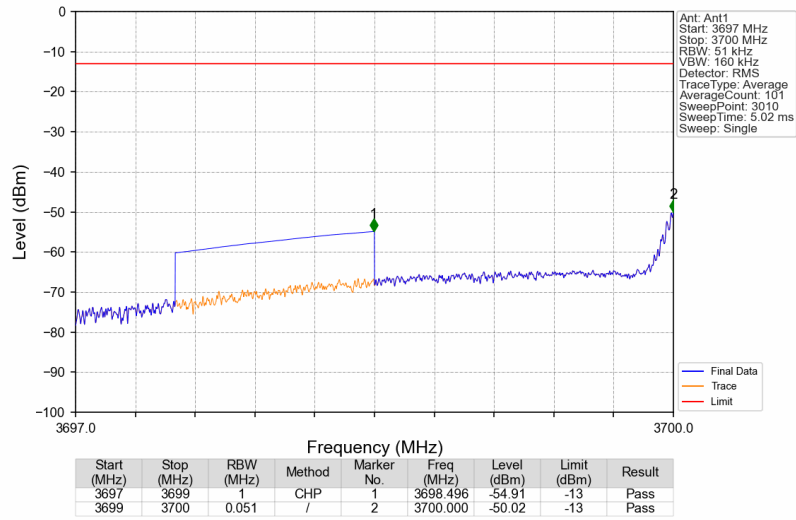
Band: n77a / NTNV									
Signal				Channel	TX Type	ANT	OOB (dBm)		Verdict
Input	Type	Level (dBm)	Frequency (MHz)				Result	Limit	
Two	AWGN	-4	3702.5	LCH	SISO	1	-50.02	Refer To Test Graph	Pass
		-1	3702.5	LCH	SISO	1	-49.67	Refer To Test Graph	Pass
One	AWGN	-4	3702.5	LCH	SISO	1	-50.47	Refer To Test Graph	Pass
		-1	3702.5	LCH	SISO	1	-48.95	Refer To Test Graph	Pass
Two	AWGN	-4	3977.5	HCH	SISO	1	-50.03	Refer To Test Graph	Pass
		-1	3977.5	HCH	SISO	1	-47.47	Refer To Test Graph	Pass
One	AWGN	-4	3977.5	HCH	SISO	1	-49.97	Refer To Test Graph	Pass
		-1	3977.5	HCH	SISO	1	-47.43	Refer To Test Graph	Pass
Two	GMSK	-4	3700.1	LCH	SISO	1	-23.72	Refer To Test Graph	Pass
		-1	3700.1	LCH	SISO	1	-23.73	Refer To Test Graph	Pass
One	GMSK	-4	3700.1	LCH	SISO	1	-23.74	Refer To Test Graph	Pass
		-1	3700.1	LCH	SISO	1	-23.41	Refer To Test Graph	Pass
Two	GMSK	-4	3979.9	HCH	SISO	1	-23.42	Refer To Test Graph	Pass
		-1	3979.9	HCH	SISO	1	-22.21	Refer To Test Graph	Pass
One	GMSK	-4	3979.9	HCH	SISO	1	-23.44	Refer To Test Graph	Pass
		-1	3979.9	HCH	SISO	1	-21.89	Refer To Test Graph	Pass

For 100MHz BW

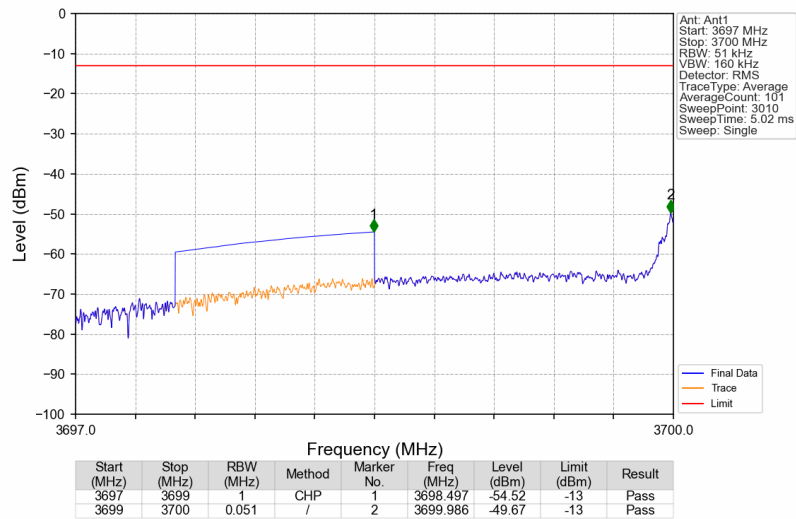
Band: n77a / NTNV									
Signal				Channel	TX Type	ANT	OOB (dBm)		Verdict
Input	Type	Level (dBm)	Frequency (MHz)				Result	Limit	
Two	AWGN	-4	3750	MCH	SISO	1	-18.393	Refer To Test Graph	Pass
		-1	3750	MCH	SISO	1	-17.963	Refer To Test Graph	Pass
One	AWGN	-4	3750	MCH	SISO	1	-18.730	Refer To Test Graph	Pass
		-1	3750	MCH	SISO	1	-17.419	Refer To Test Graph	Pass
Two	AWGN	-4	3930	MCH	SISO	1	-18.806	Refer To Test Graph	Pass
		-1	3930	MCH	SISO	1	-18.148	Refer To Test Graph	Pass
One	AWGN	-4	3930	MCH	SISO	1	-18.260	Refer To Test Graph	Pass
		-1	3930	MCH	SISO	1	-18.037	Refer To Test Graph	Pass

5.1.2 Test Graph

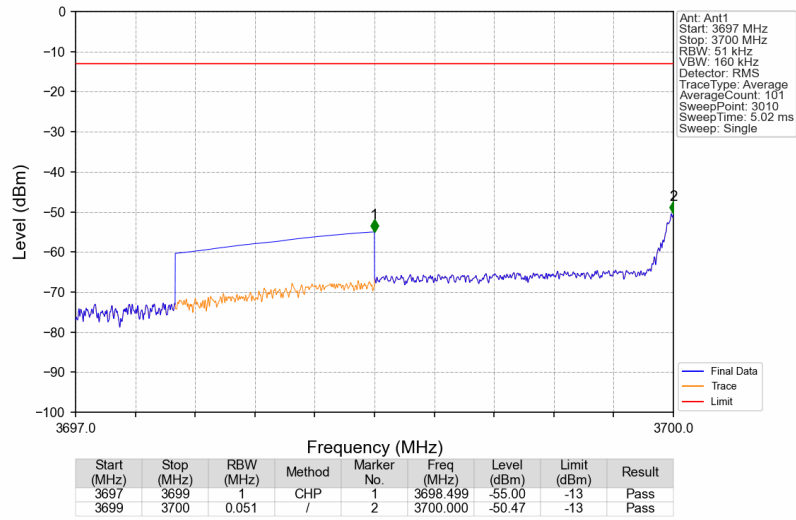
Bandn77a_3702.5MHz_AWGN_SISO_Ant1_NTNV_AGC



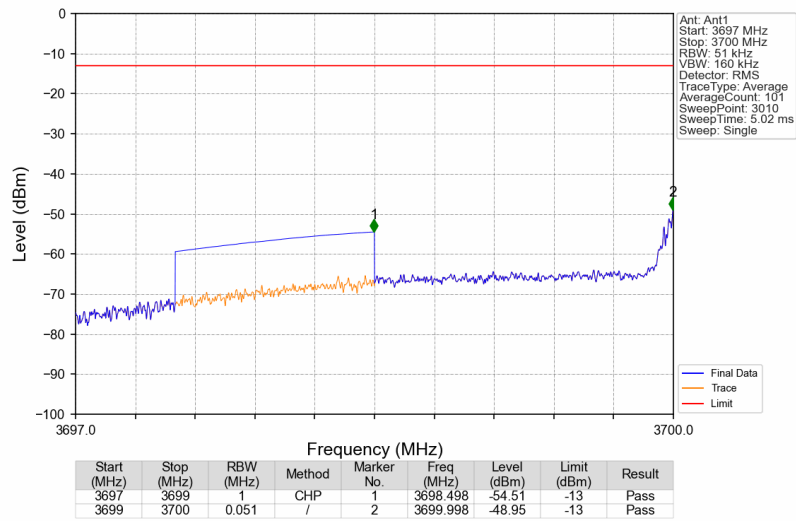
Bandn77a_3702.5MHz_AWGN_SISO_Ant1_NTNV_AGC+3



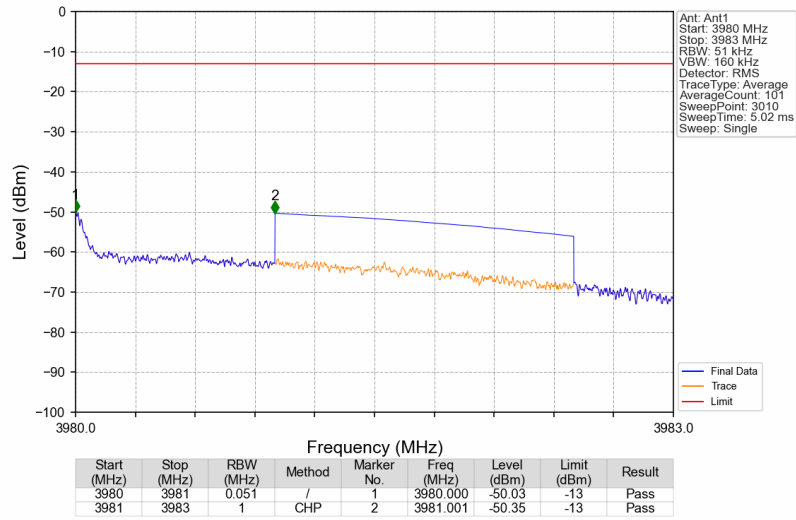
Bandn77a_3702.5MHz_AWGN_SISO_Ant1_NTNV_AGC



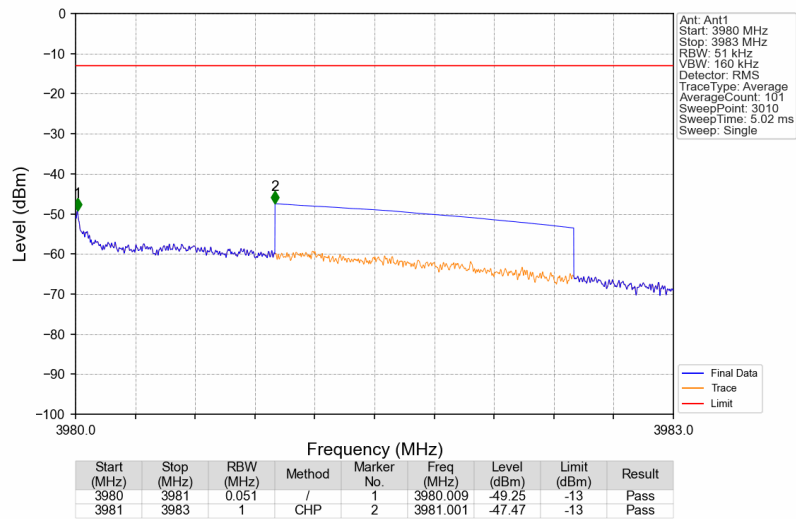
Bandn77a_3702.5MHz_AWGN_SISO_Ant1_NTNV_AGC+3



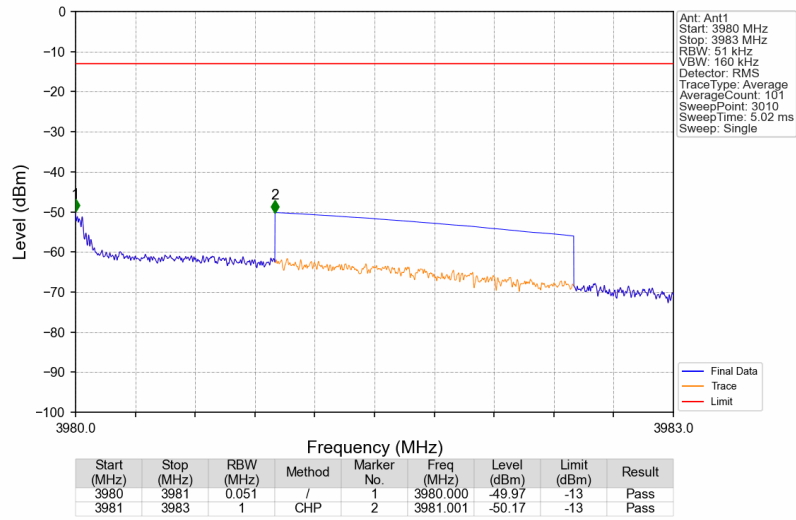
Bandn77a_3977.5MHz_AWGN_SISO_Ant1_NTNV_AGC



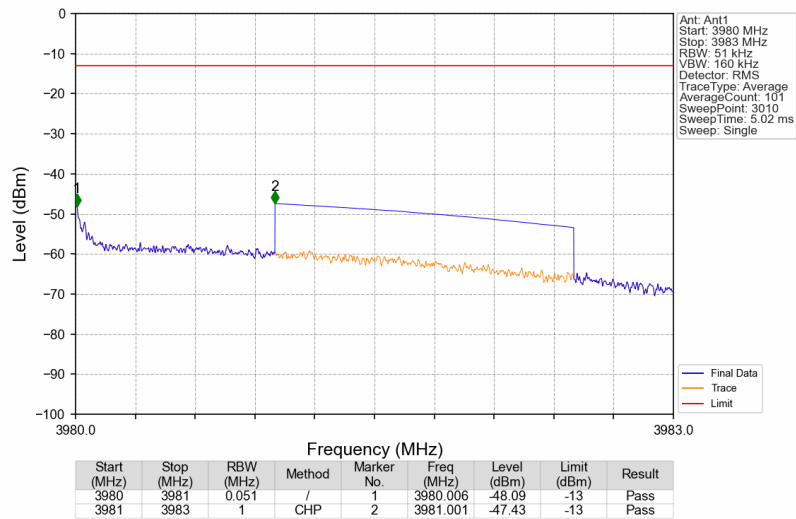
Bandn77a_3977.5MHz_AWGN_SISO_Ant1_NTNV_AGC+3



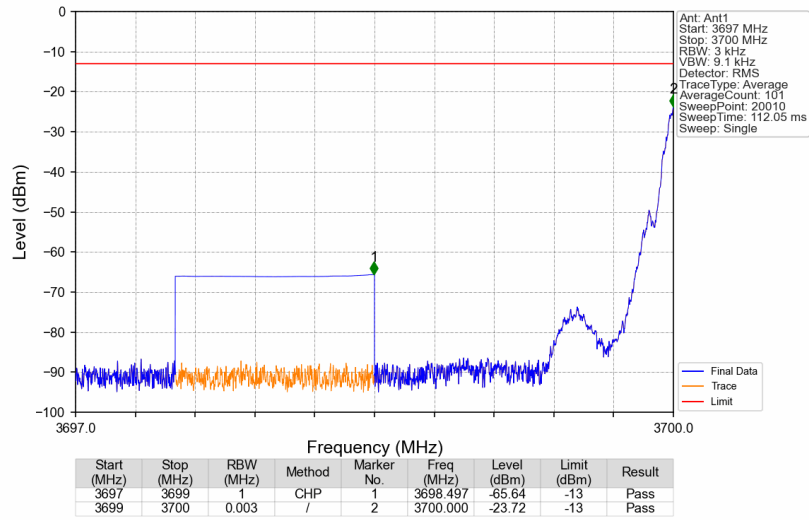
Bandn77a_3977.5MHz_AWGN_SISO_Ant1_NTNV_AGC



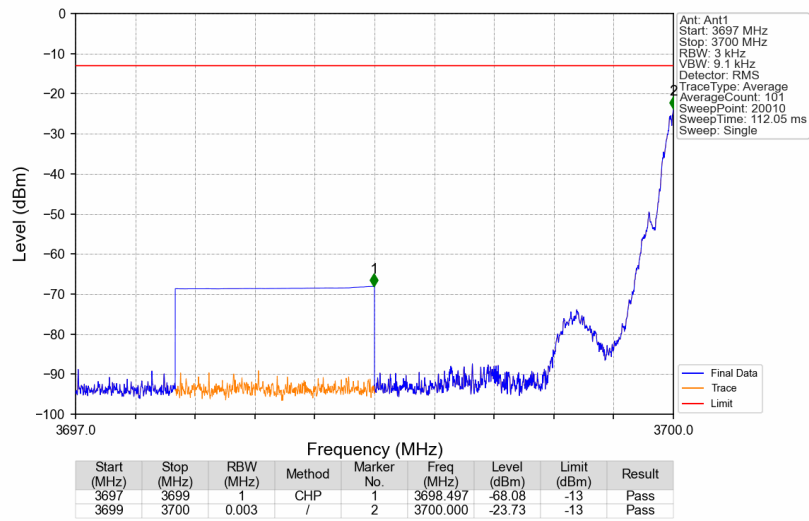
Bandn77a_3977.5MHz_AWGN_SISO_Ant1_NTNV_AGC+3



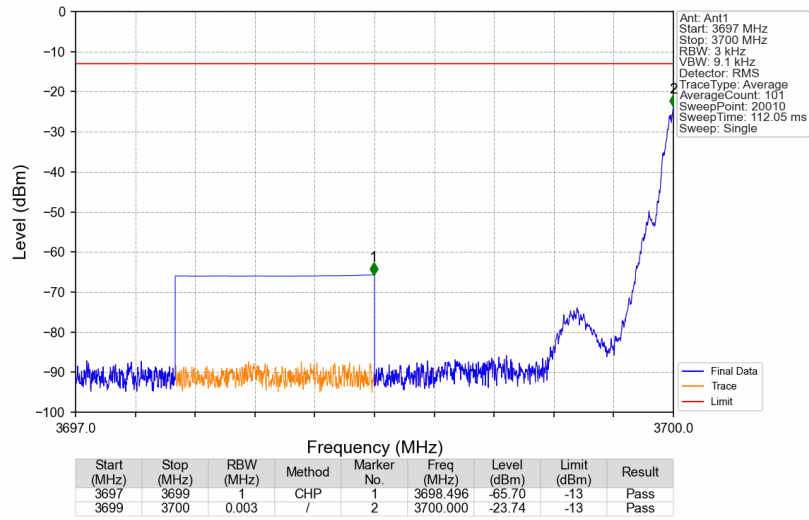
Bandn77a_3700.1MHz_GMSK_SISO_Ant1_NTNV_AGC



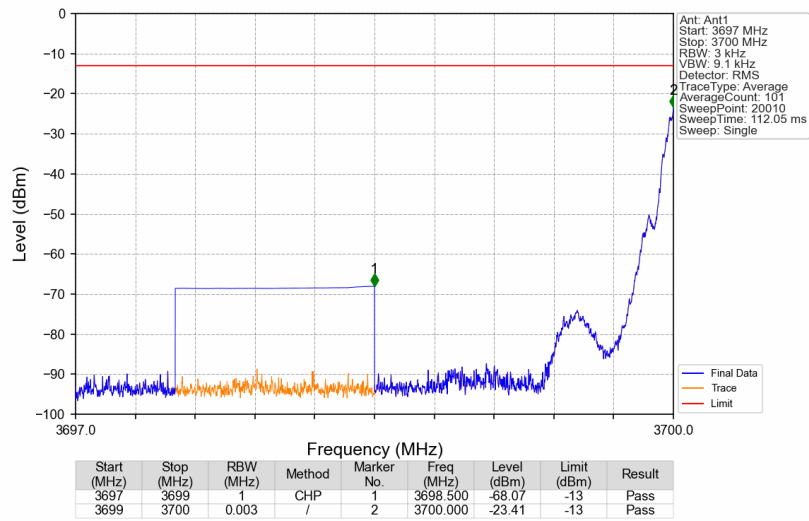
Bandn77a_3700.1MHz_GMSK_SISO_Ant1_NTNV_AGC+



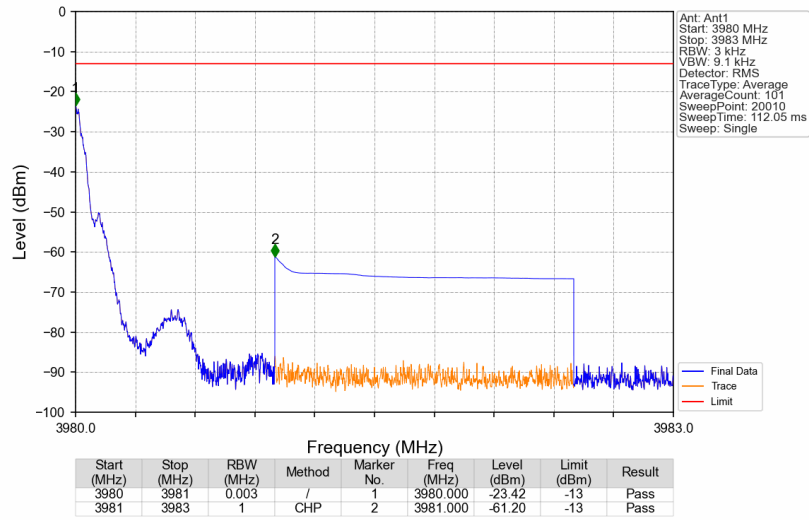
Bandn77a_3700.1MHz_GMSK_SISO_Ant1_NTNV_AGC



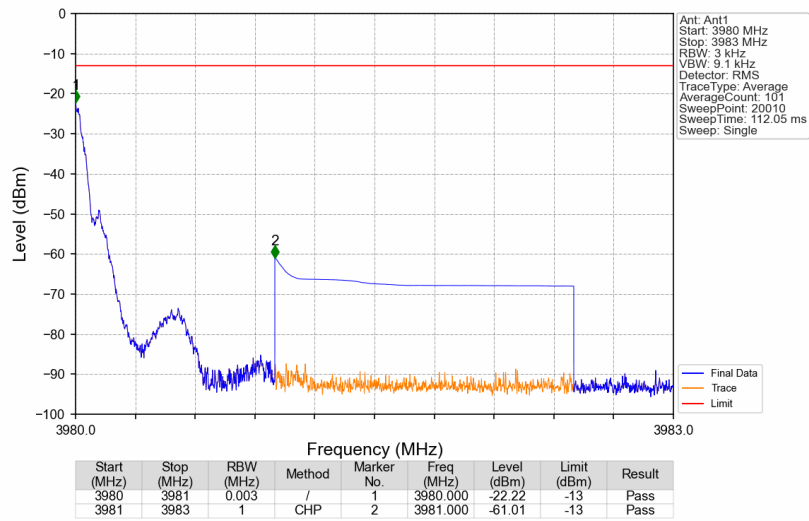
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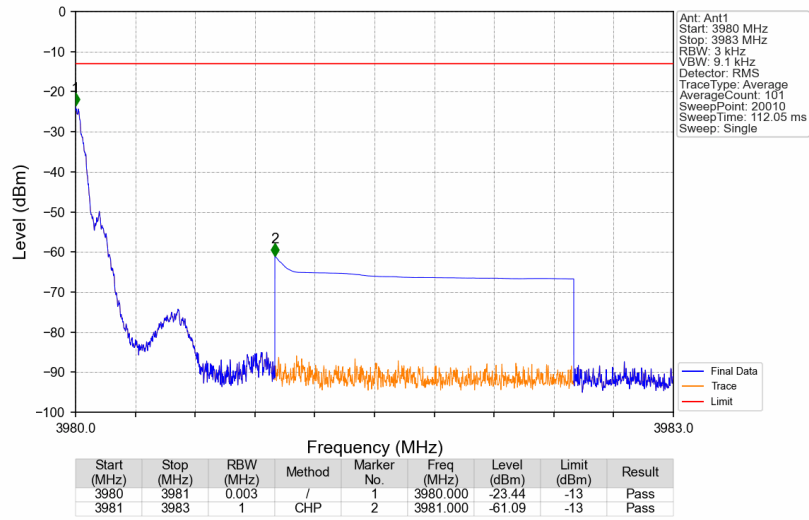
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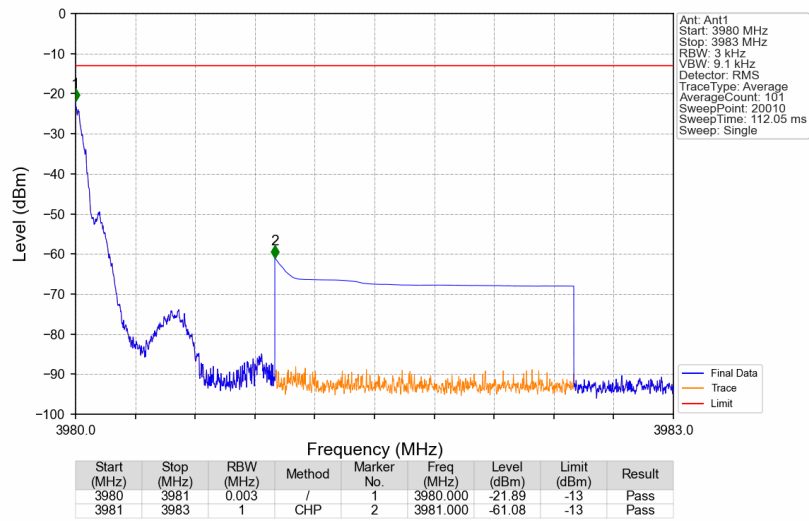
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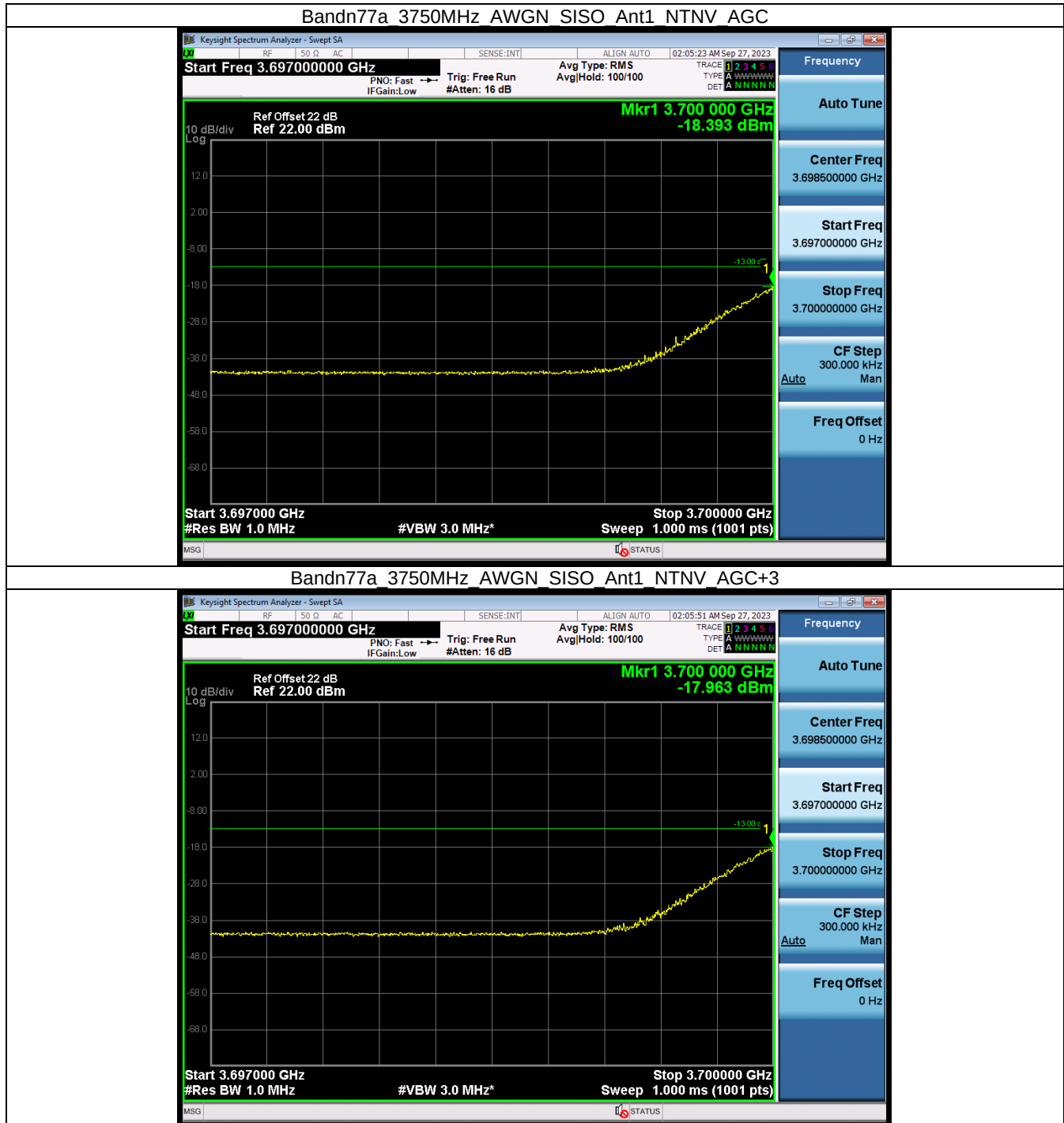
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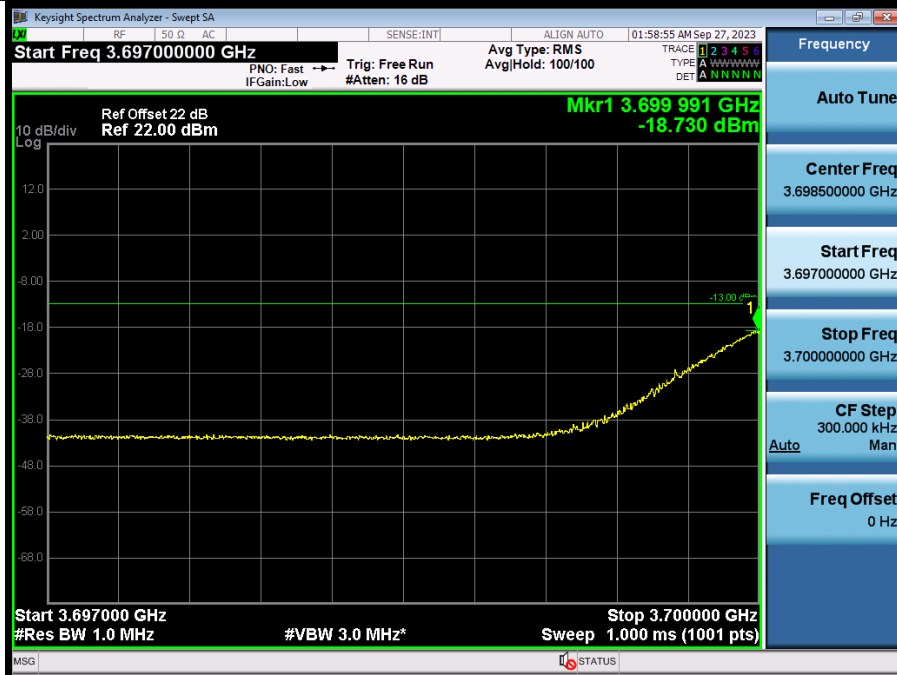
Bandn77a_3979.9MHz_GMSK_SISO_Ant1_NTNV_AGC+3



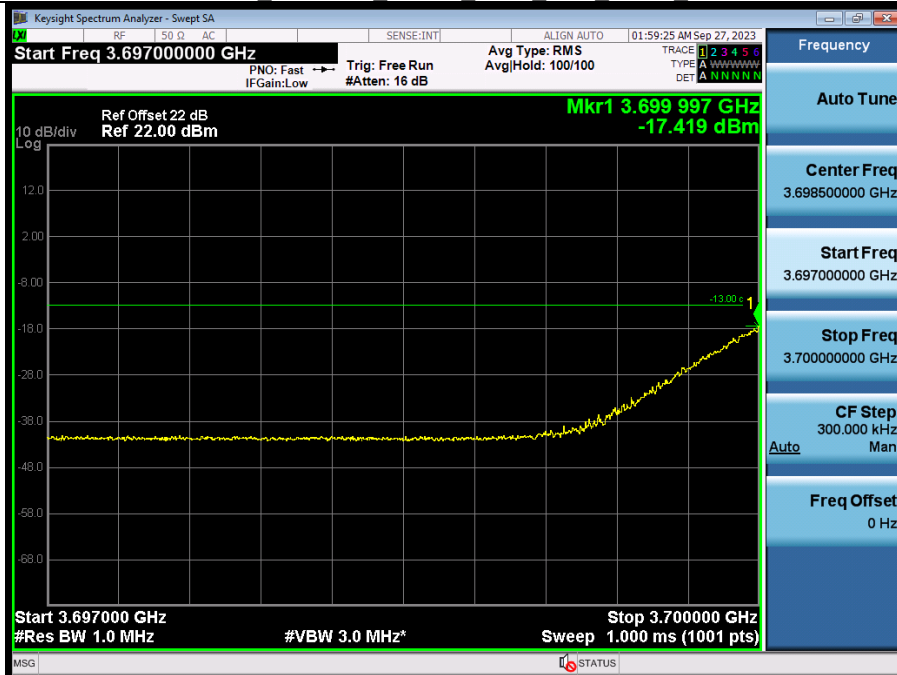
For 100MHz BW



Bandn77a 3750MHz AWGN SISO Ant1 NTN AGC



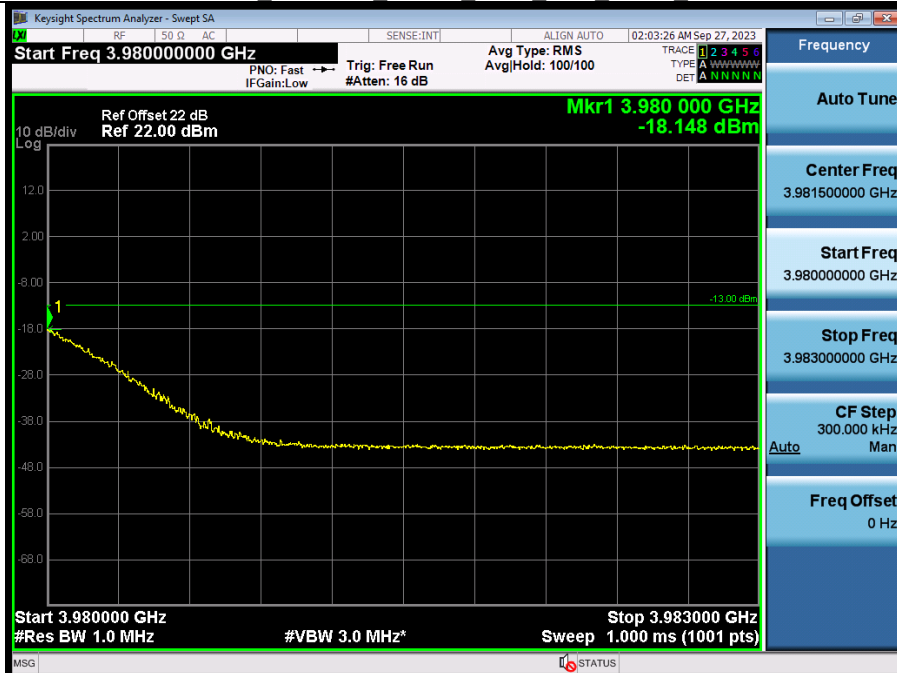
Bandn77a 3750MHz AWGN SISO Ant1 NTN AGC+3



Bandn77a 3930MHz AWGN SISO Ant1 NTN AGC



Bandn77a 3930MHz AWGN SISO Ant1 NTN AGC+3



Bandn77a 3930MHz AWGN SISO Ant1 NTN AGC



Bandn77a 3930MHz AWGN SISO Ant1 NTN AGC+3



6. Spurious emissions

6.1 Band n77a

6.1.1 Test Result

For FCC

Band: n77a / NTVN								
Signal			Channel	TX Type	ANT	SE (dBm)		Verdict
Type	Level (dBm)	Frequency (MHz)				Result	Limit	
AWGN	-4	3702.5	LCH	SISO	1	Refer To Test Graph		Pass
		3840	MCH	SISO	1	Refer To Test Graph		Pass
		3977.5	HCH	SISO	1	Refer To Test Graph		Pass
GMSK	-4	3700.1	LCH	SISO	1	Refer To Test Graph		Pass
		3840	MCH	SISO	1	Refer To Test Graph		Pass
		3979.9	HCH	SISO	1	Refer To Test Graph		Pass

For 100MHz BW

Band: n77a / NTNV								
Signal			Channel	TX Type	ANT	SE (dBm)		Verdict
Type	Level (dBm)	Frequency (MHz)				Result	Limit	
AWGN	-4	3750	LCH	SISO	1	Refer To Test Graph		Pass
		3840	MCH	SISO	1	Refer To Test Graph		Pass
		3930	HCH	SISO	1	Refer To Test Graph		Pass

For IC

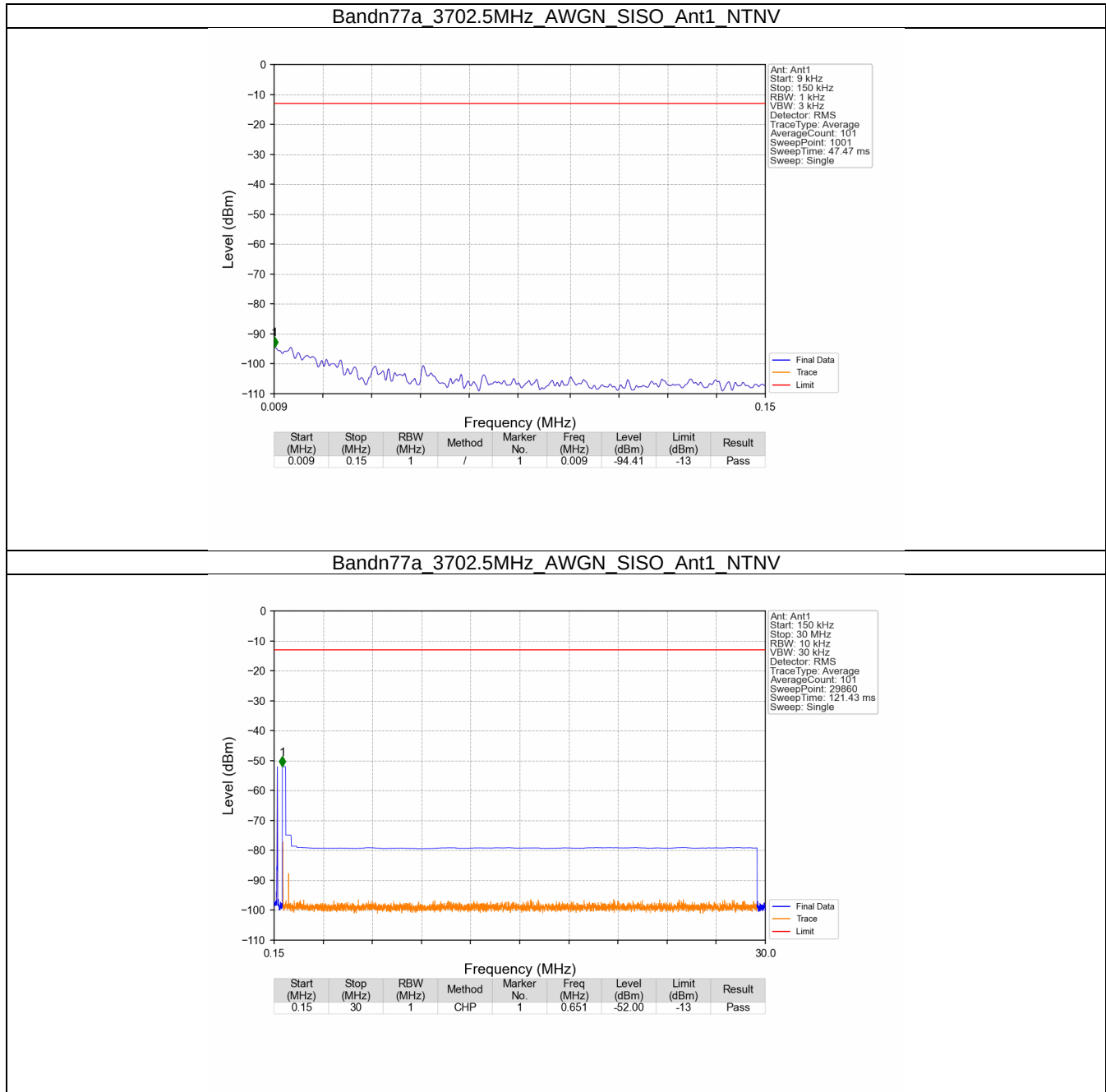
Band: n77a / NTVN								
Signal			Channel	TX Type	ANT	SE (dBm)		Verdict
Type	Level (dBm)	Frequency (MHz)				Result	Limit	
AWGN	-4	3702.5	LCH	SISO	1	Refer To Test Graph		Pass
		3840	MCH	SISO	1	Refer To Test Graph		Pass
		3977.5	HCH	SISO	1	Refer To Test Graph		Pass
GMSK	-4	3700.1	LCH	SISO	1	Refer To Test Graph		Pass
		3840	MCH	SISO	1	Refer To Test Graph		Pass
		3979.9	HCH	SISO	1	Refer To Test Graph		Pass

For 100MHz BW

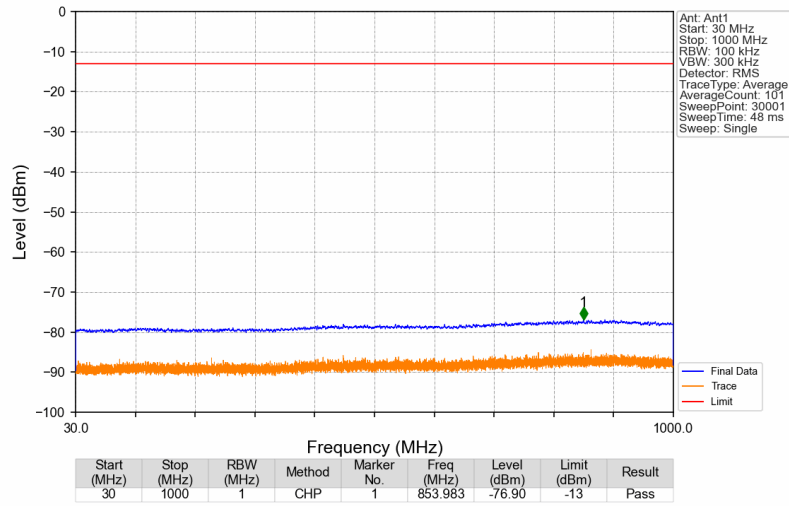
Band: n77a / NTNV								
Signal			Channel	TX Type	ANT	SE (dBm)		Verdict
Type	Level (dBm)	Frequency (MHz)				Result	Limit	
AWGN	-4	3750	LCH	SISO	1	Refer To Test Graph		Pass
		3840	MCH	SISO	1	Refer To Test Graph		Pass
		3930	HCH	SISO	1	Refer To Test Graph		Pass

6.1.2 Test Graph

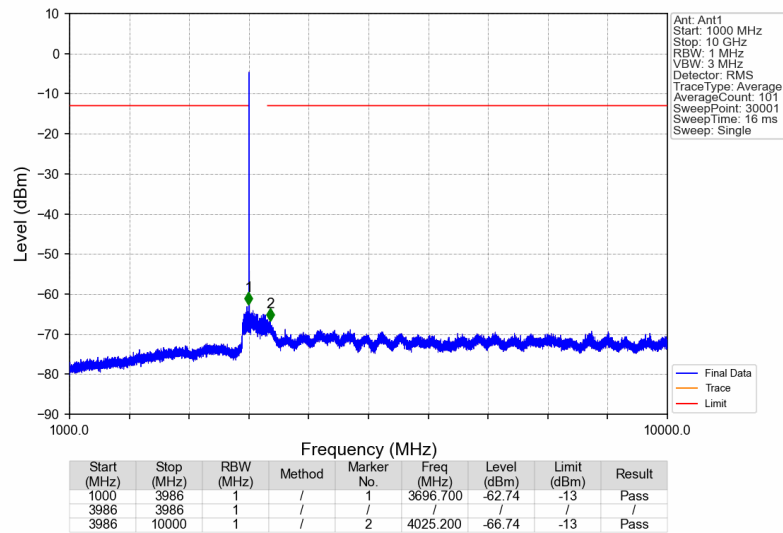
For FCC



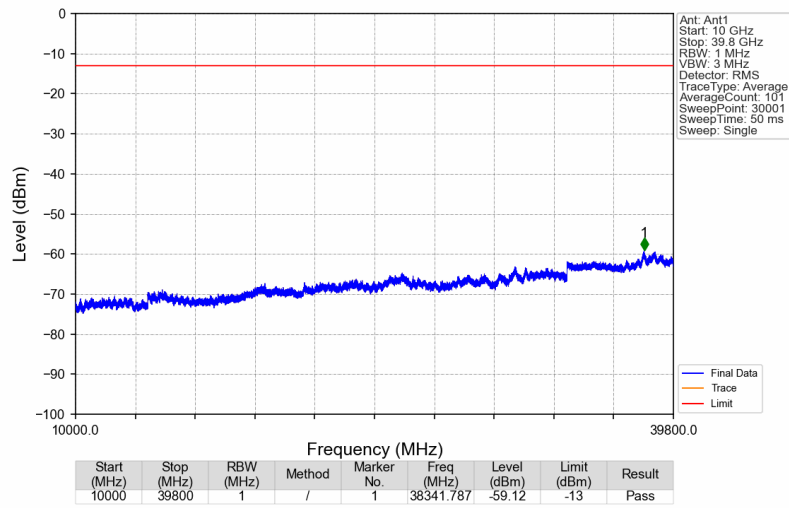
Bandn77a_3702.5MHz_AWGN_SISO_Ant1_NTNV



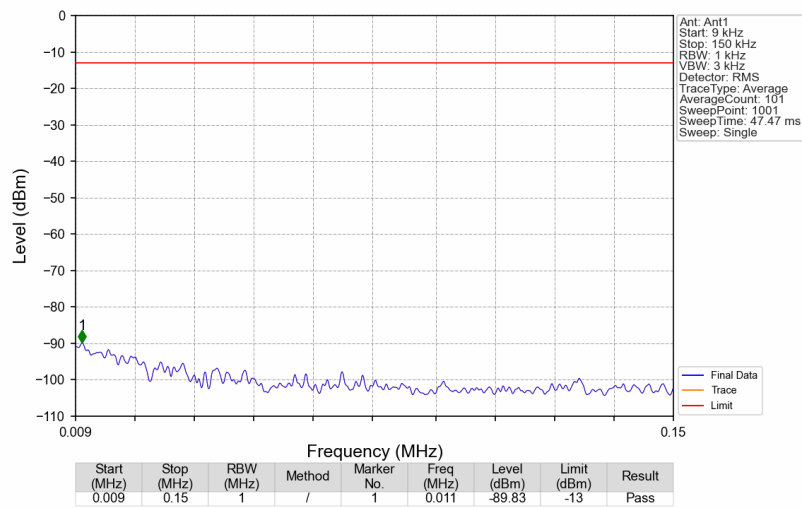
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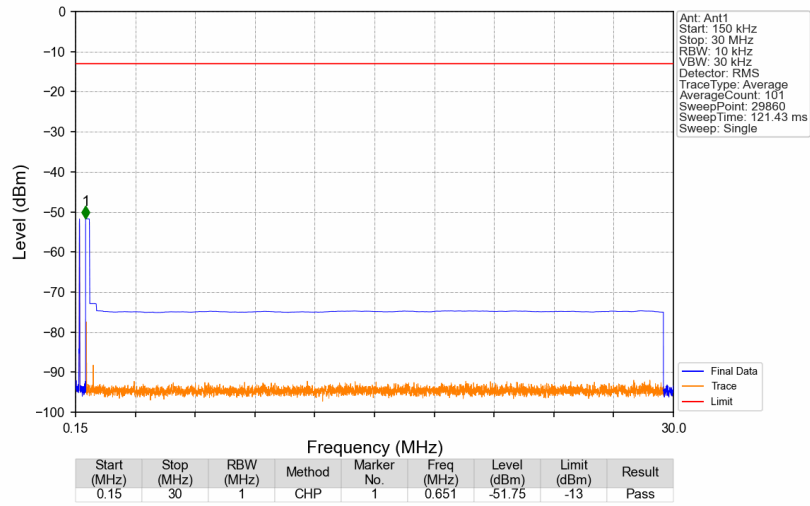
Bandn77a_3702.5MHz_AWGN_SISO_Ant1_NTNV



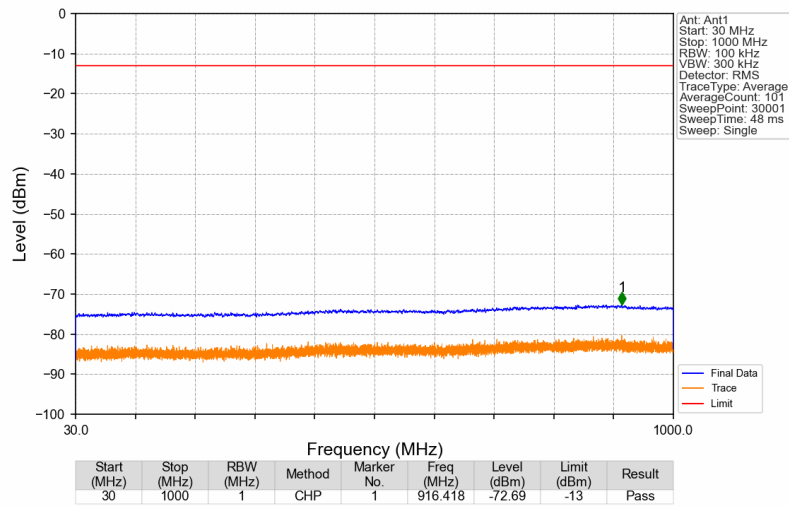
Bandn77a_3840MHz_AWGN_SISO_Ant1_NTNV



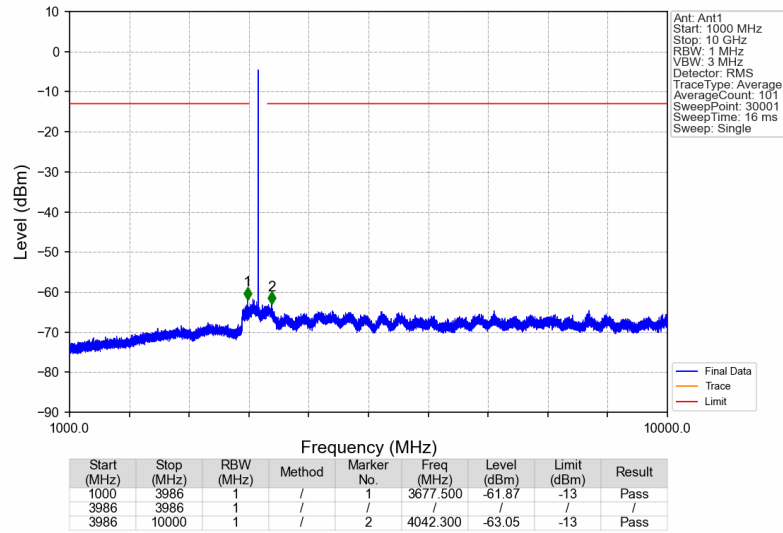
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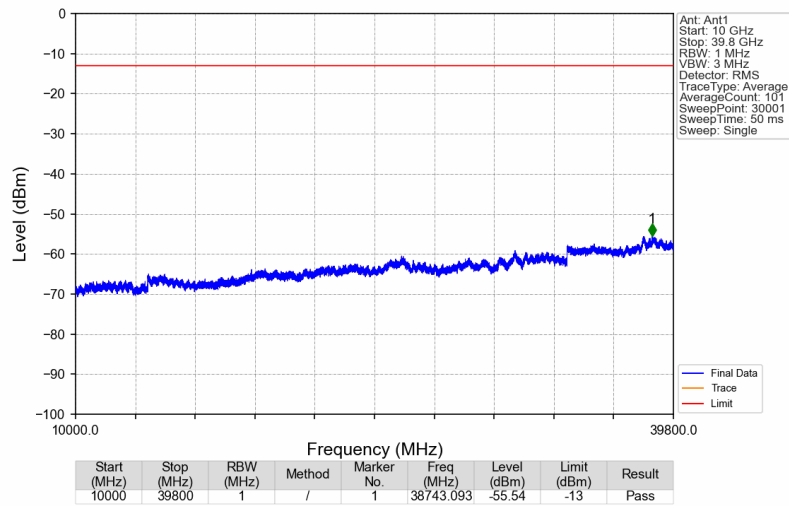
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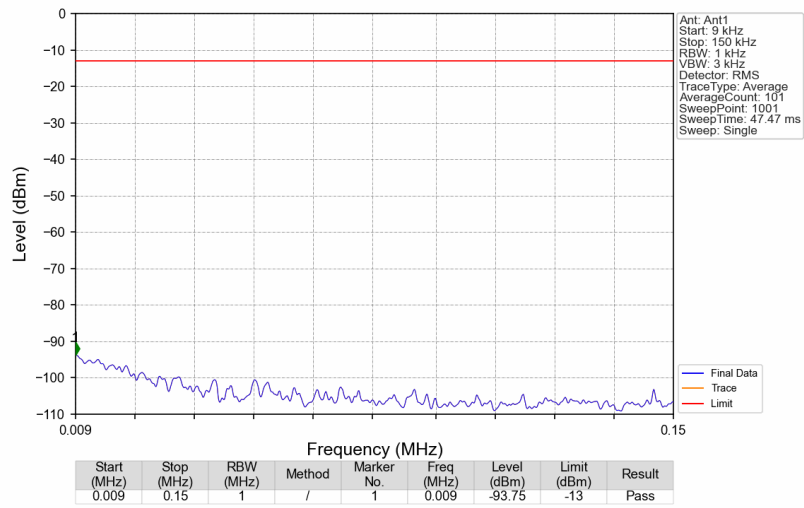
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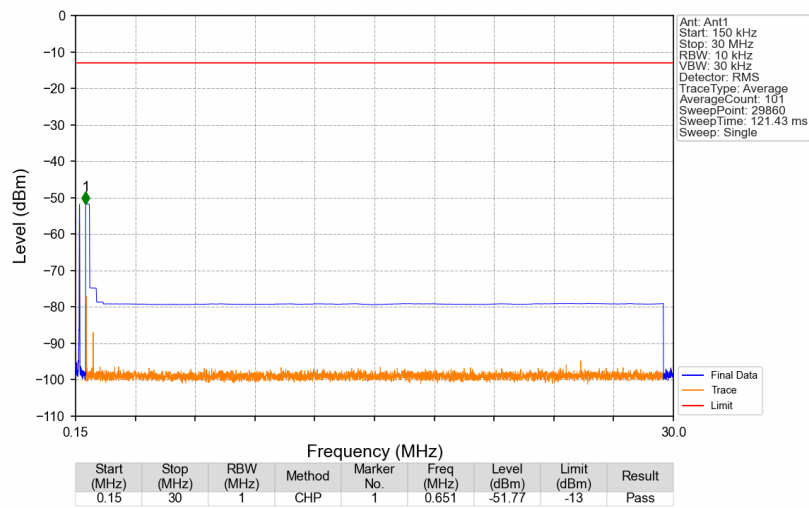
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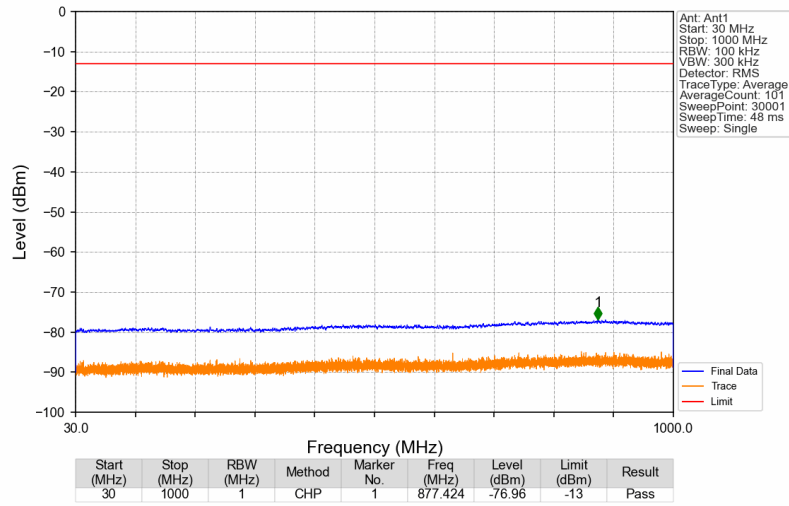
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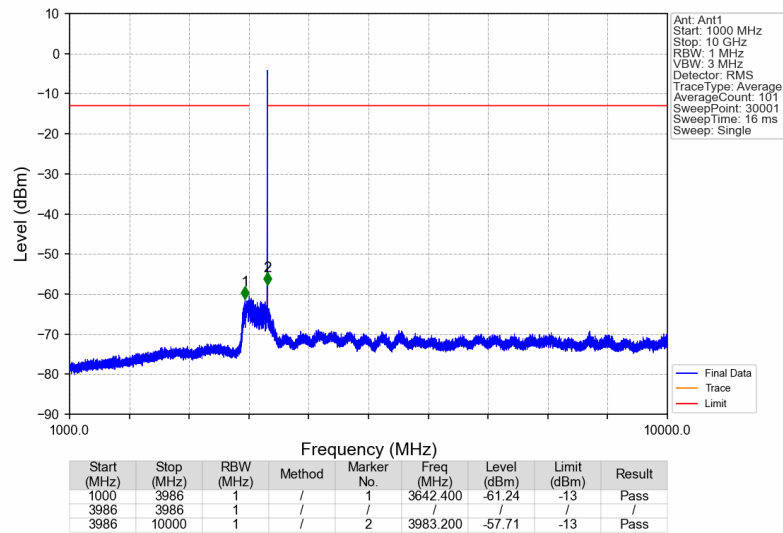
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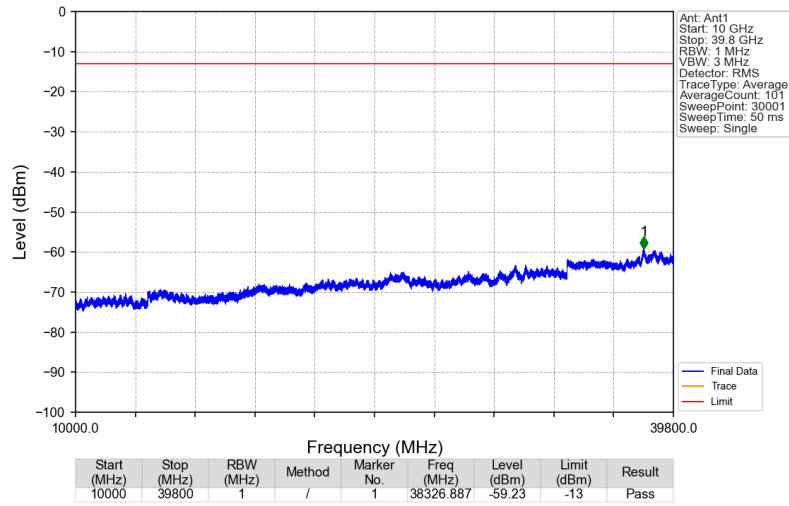
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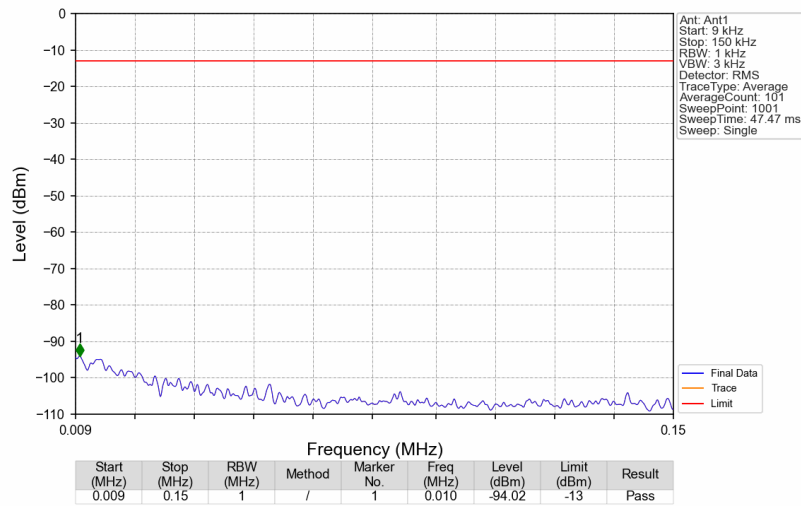
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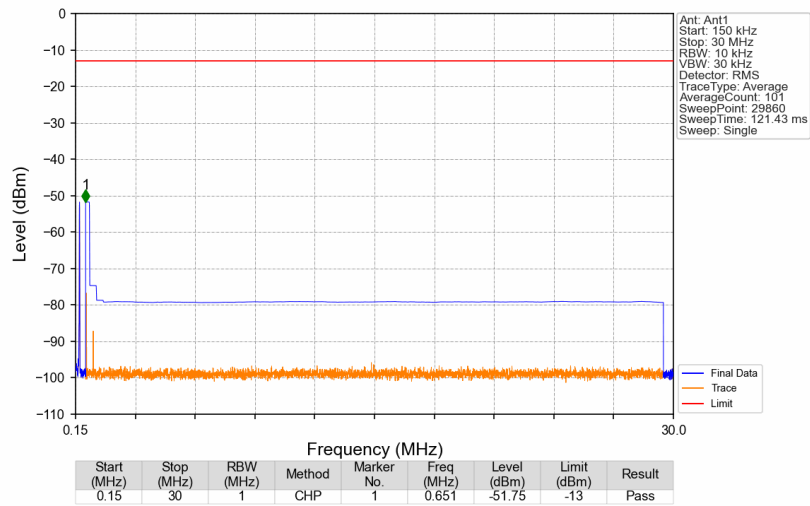
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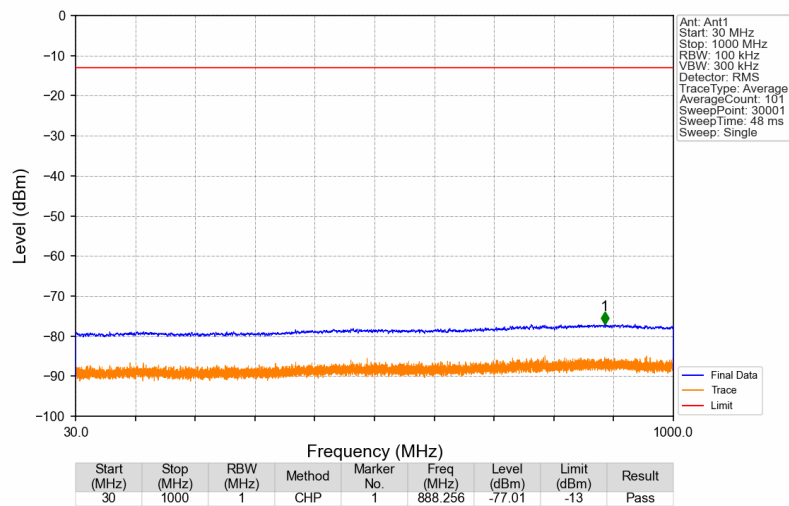
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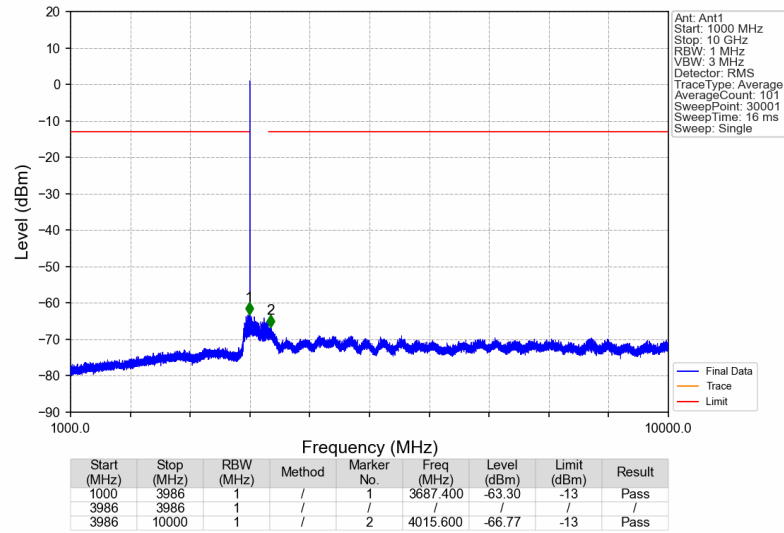
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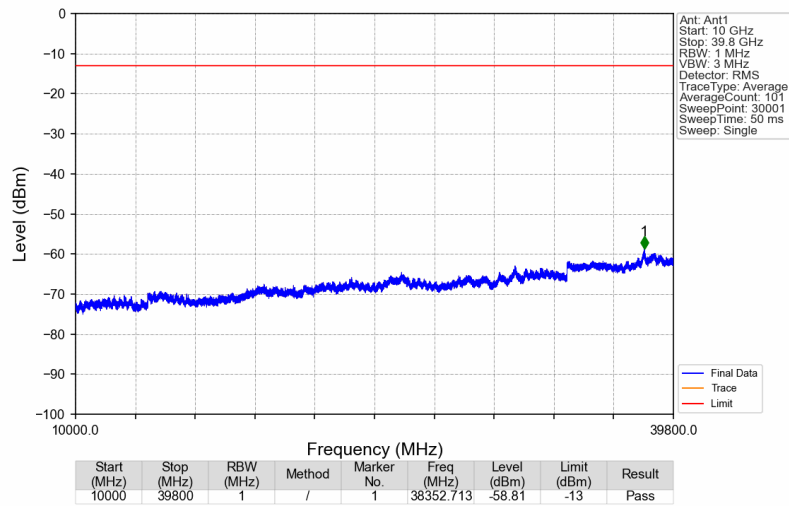
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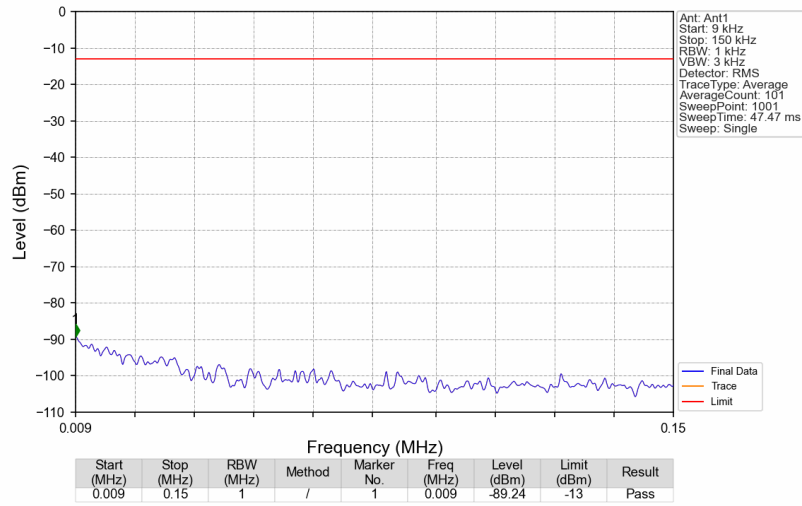
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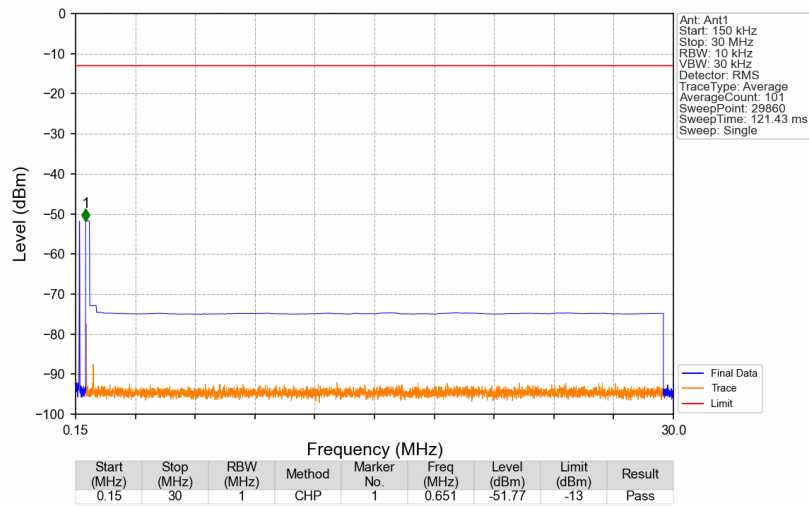
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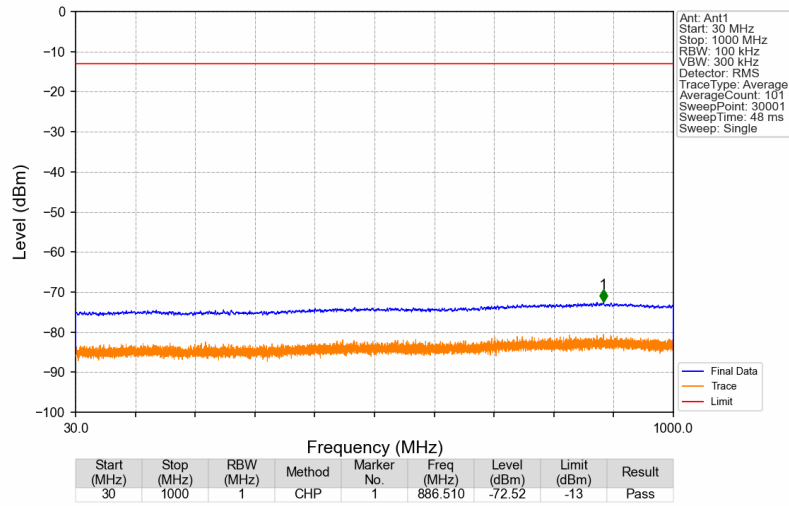
Bandn77a_3840MHz_GMSK_SISO_Ant1_NTNV



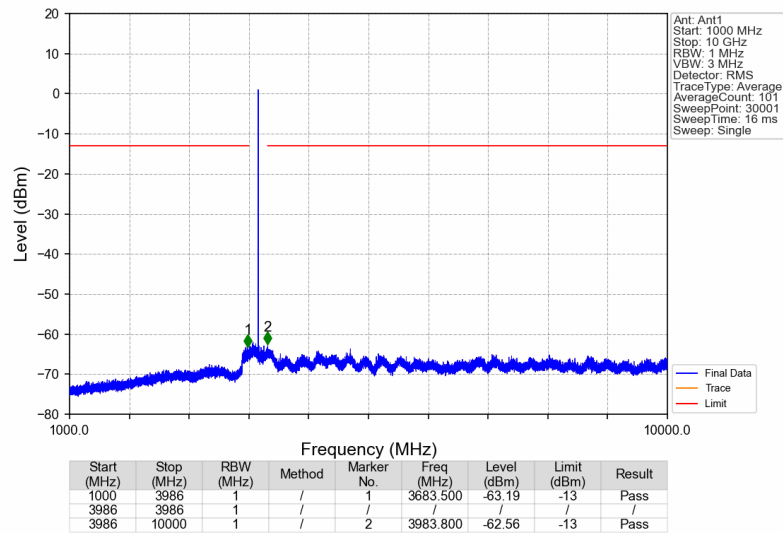
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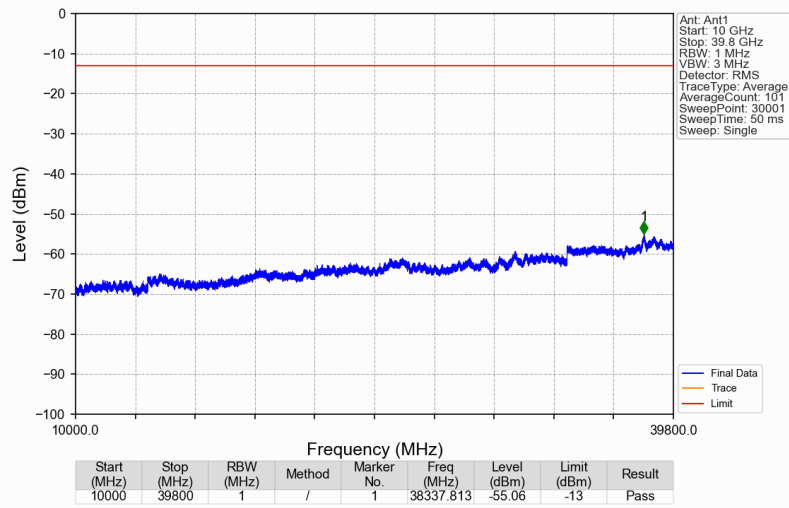
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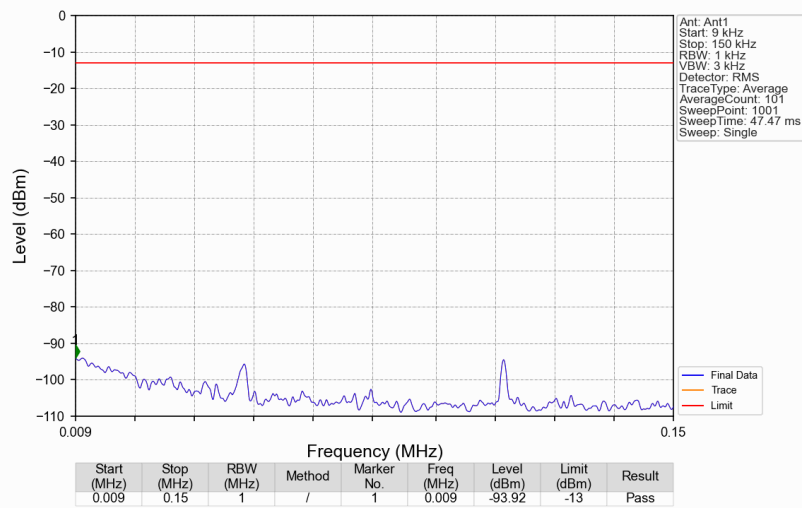
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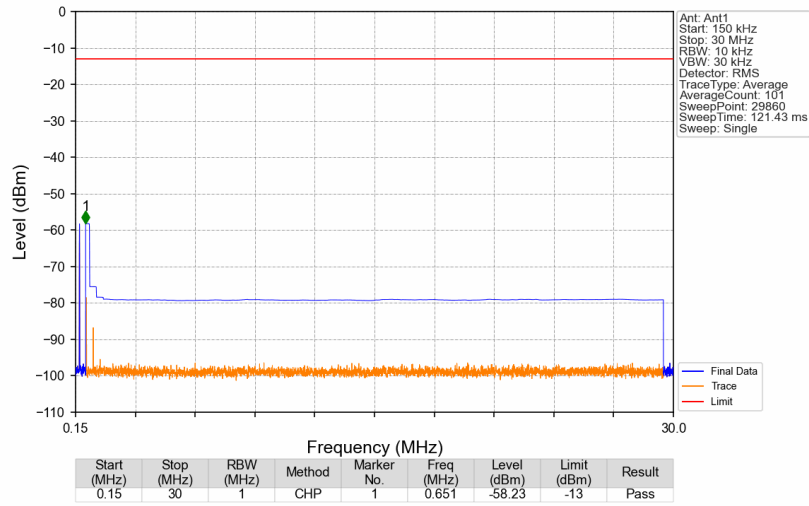
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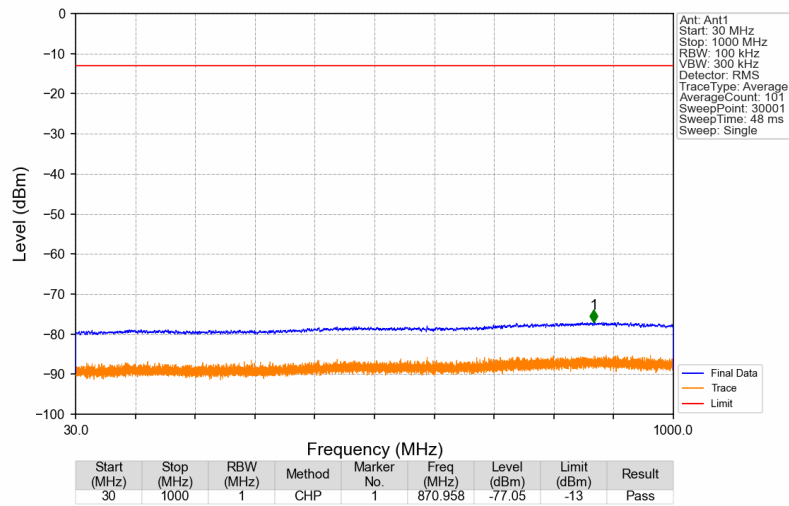
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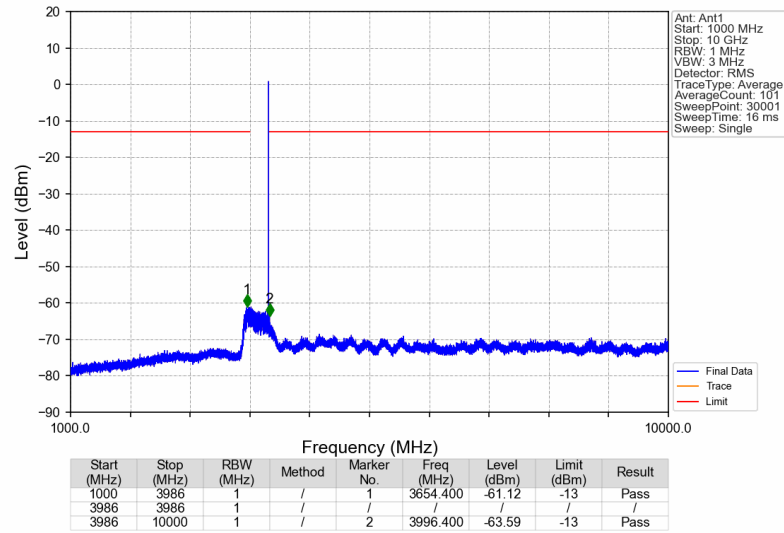
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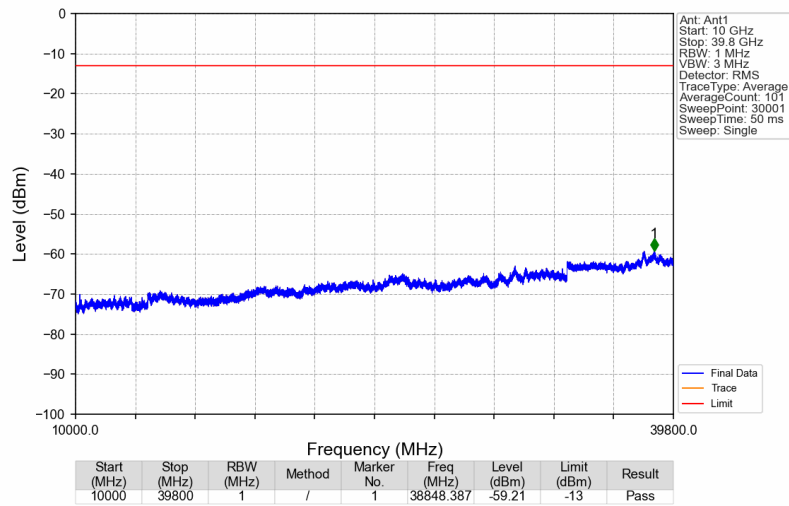
Bandn77a_3979.9MHz_GMSK_SISO_Ant1_NTNV



Bandn77a_3979.9MHz_GMSK_SISO_Ant1_NTNV

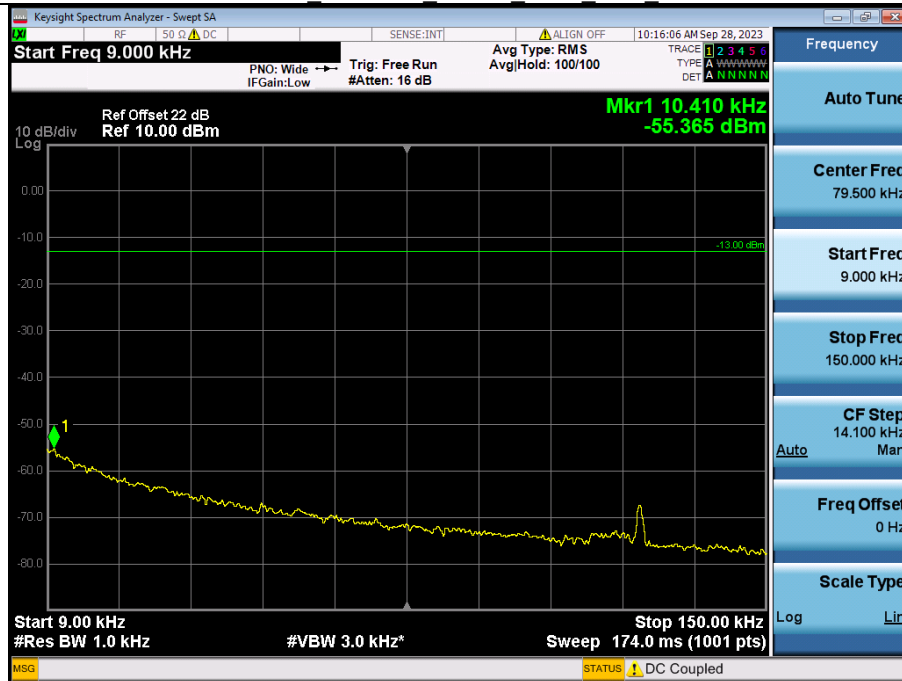


Bandn77a_3979.9MHz_GMSK_SISO_Ant1_NTNV

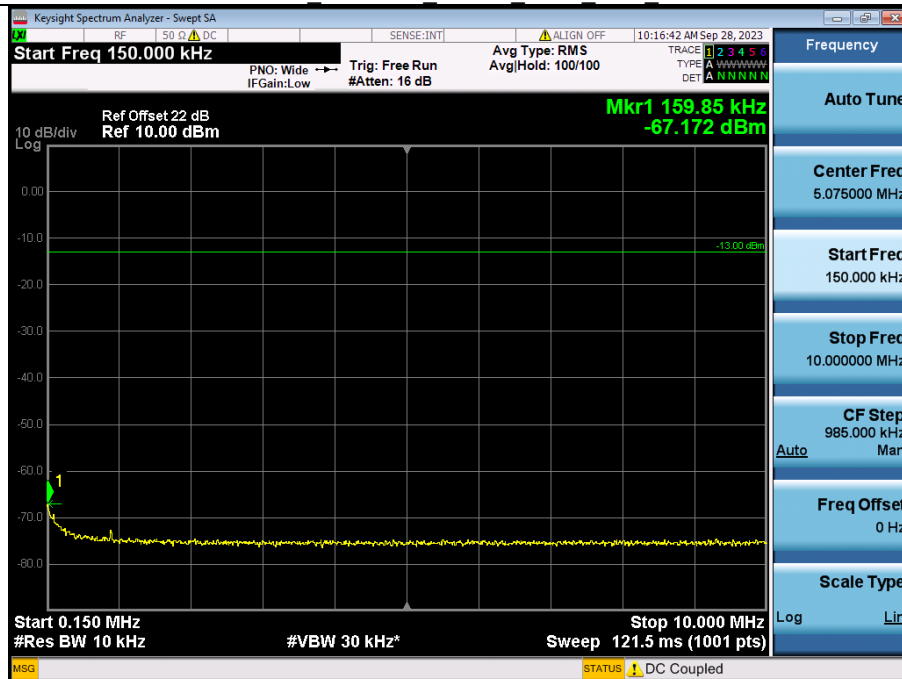


For 100MHz BW

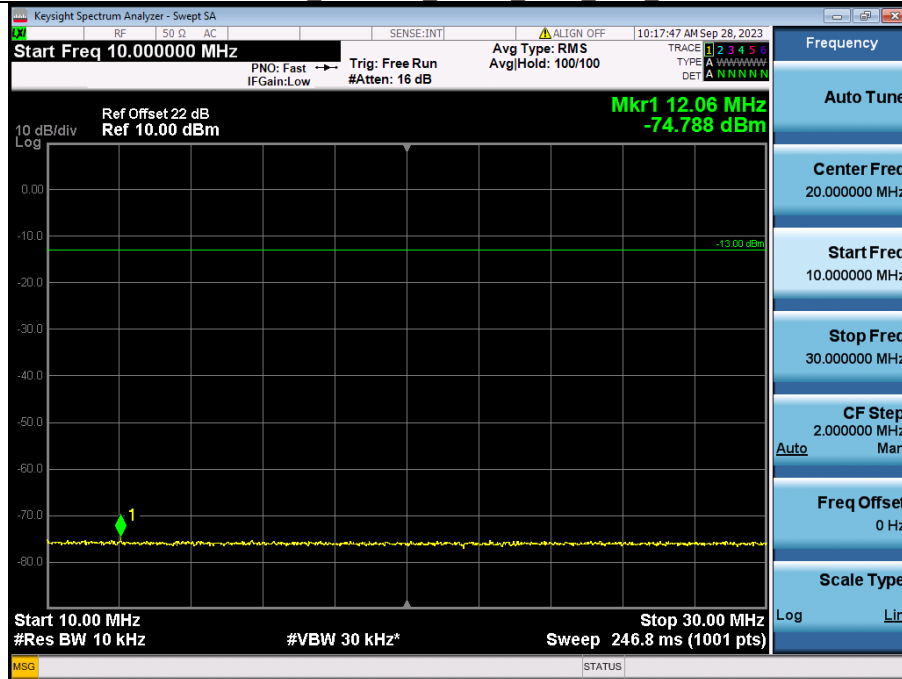
Bandn77a 3730MHz AWGN SISO Ant1 NTN



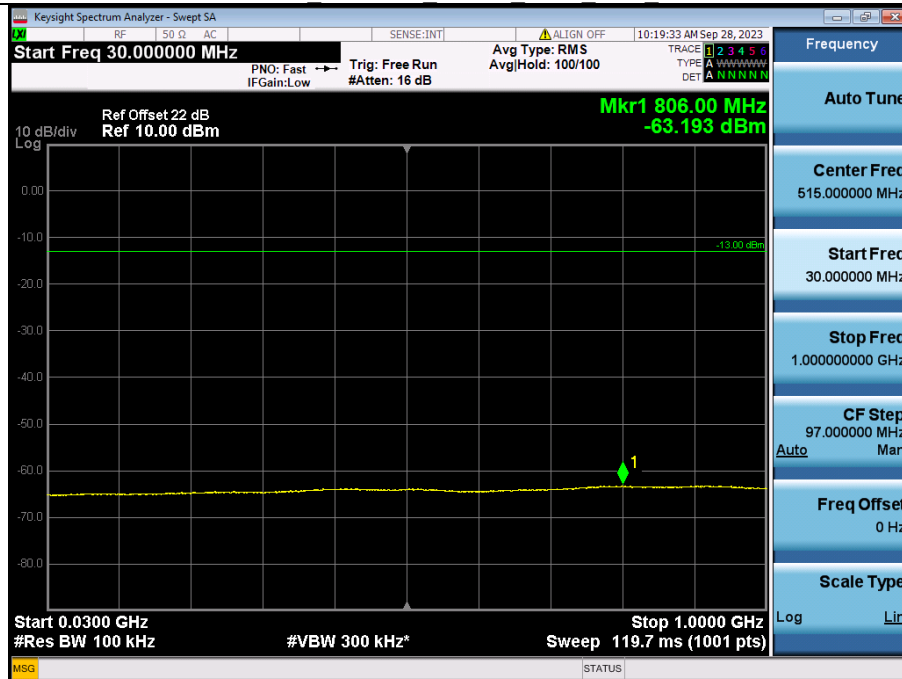
Bandn77a 3730MHz AWGN SISO Ant1 NTN



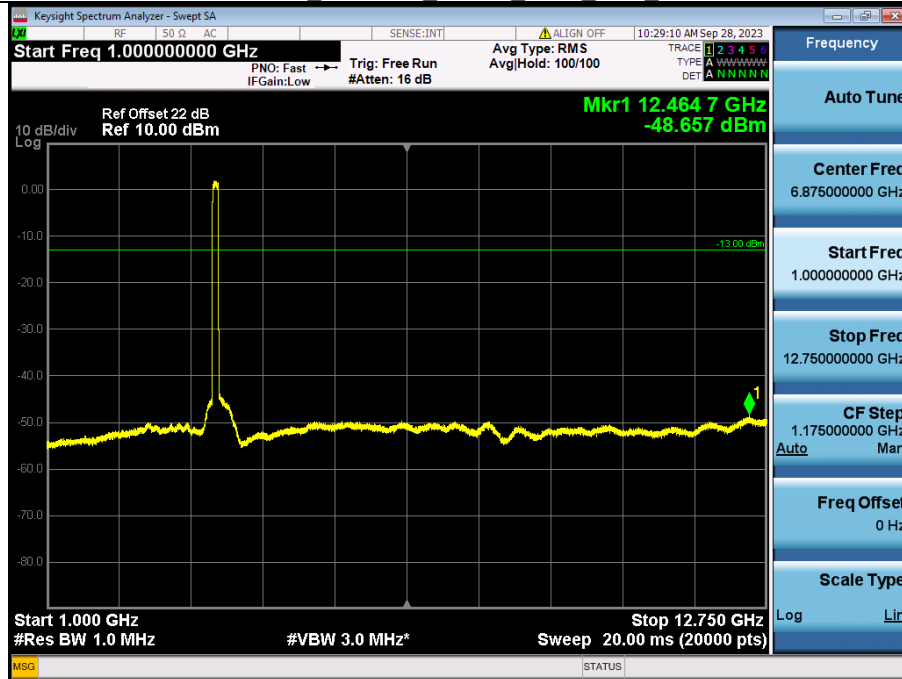
Bandn77a 3730MHz AWGN SISO Ant1 NTN



Bandn77a 3730MHz AWGN SISO Ant1 NTN



Bandn77a 3730MHz AWGN SISO Ant1 NTN



Bandn77a 3730MHz AWGN SISO Ant1 NTN

