

Appendix G for KSCR2307001146AT-N77-C-Band

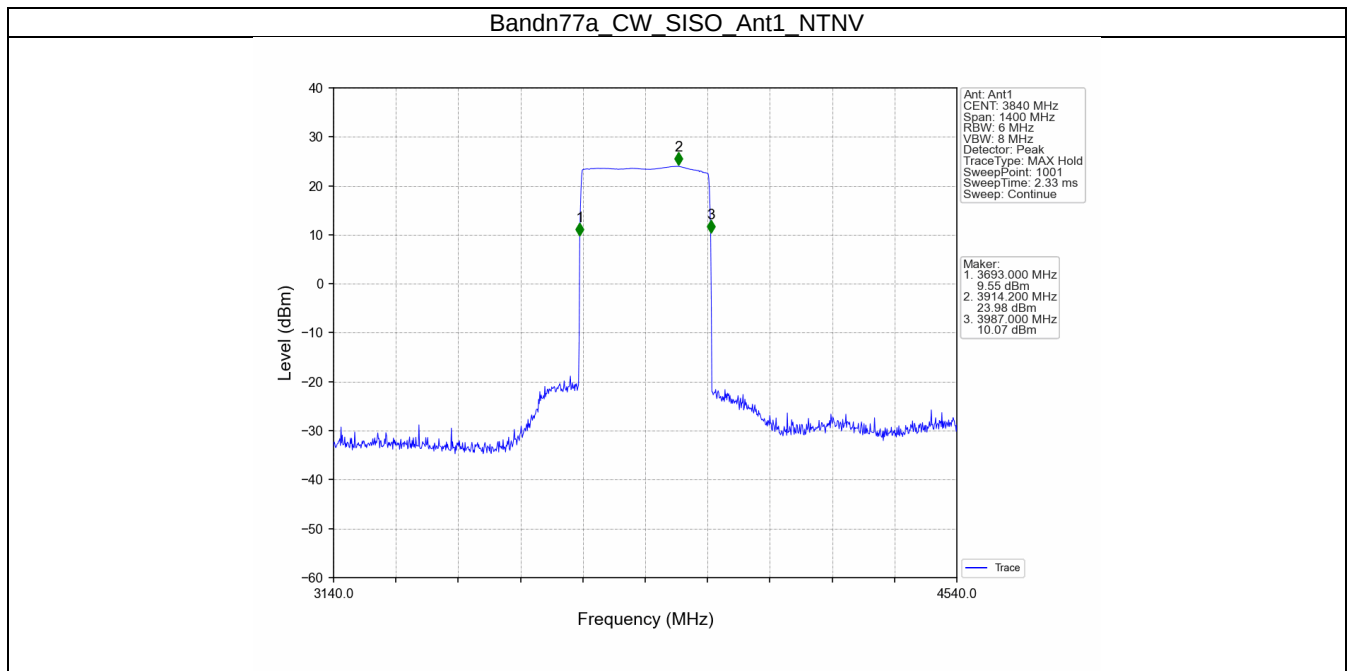
1. Out of band rejection

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 / NTNV					
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

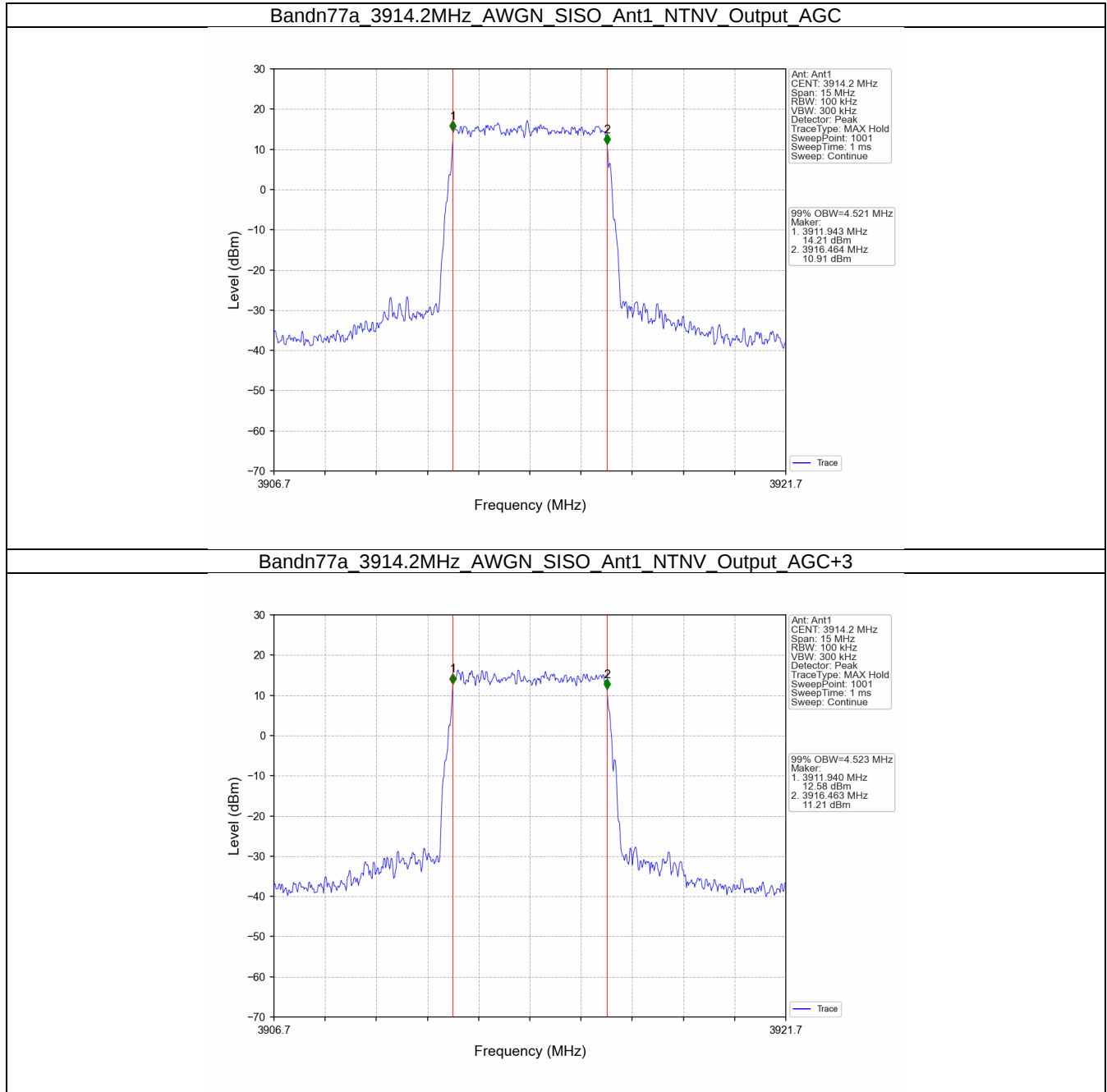
3.1.1 Test Result

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

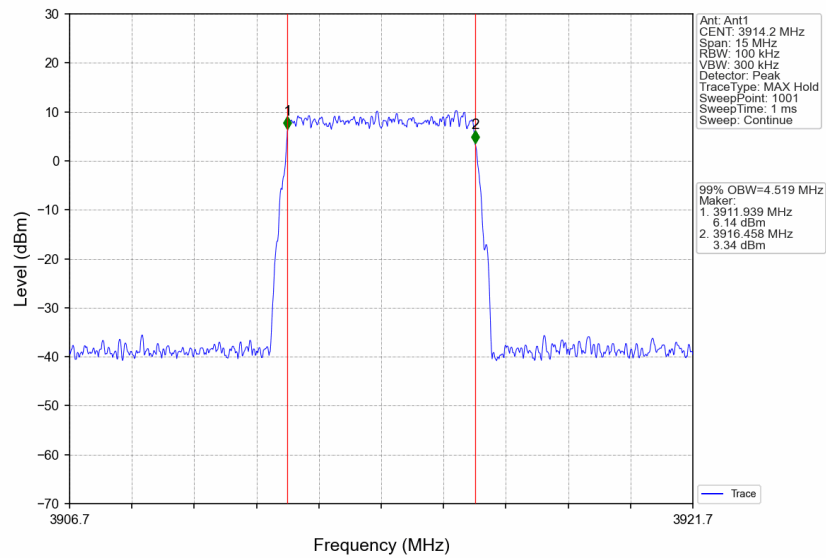
For 100MHz BW

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

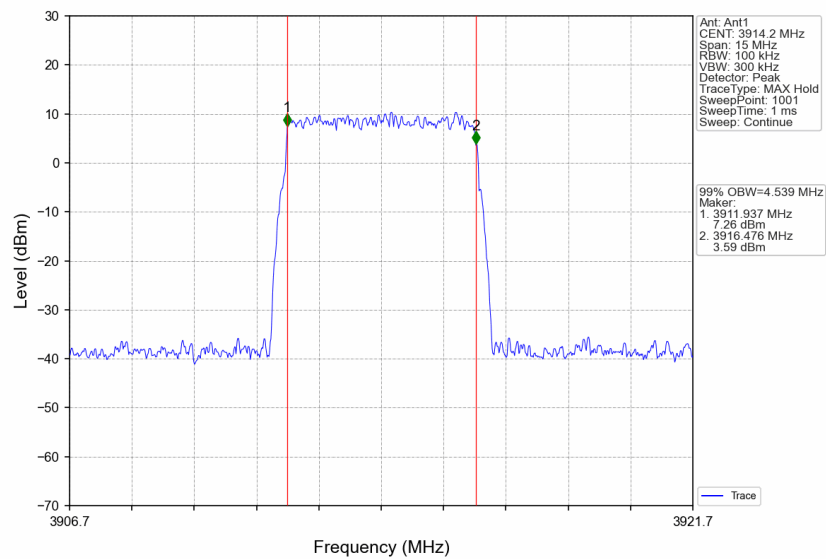
3.1.2 Test Graph



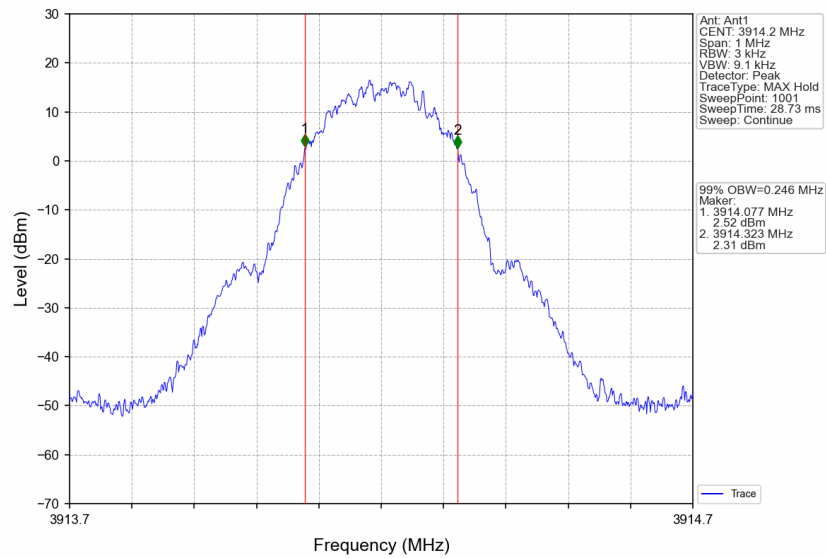
Bandn77a_3914.2MHz_AWGN_SISO_Ant1_NTNV_Input_AGC



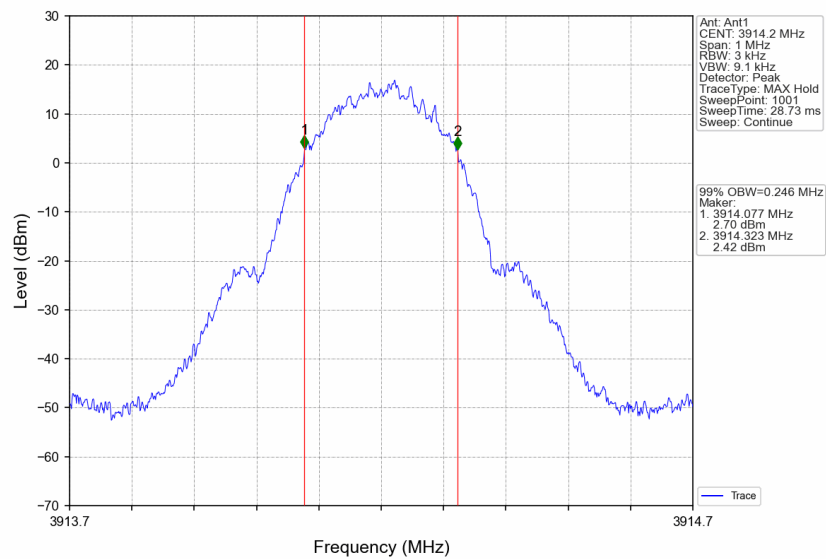
Bandn77a_3914.2MHz_AWGN_SISO_Ant1_NTNV_Input_AGC+3



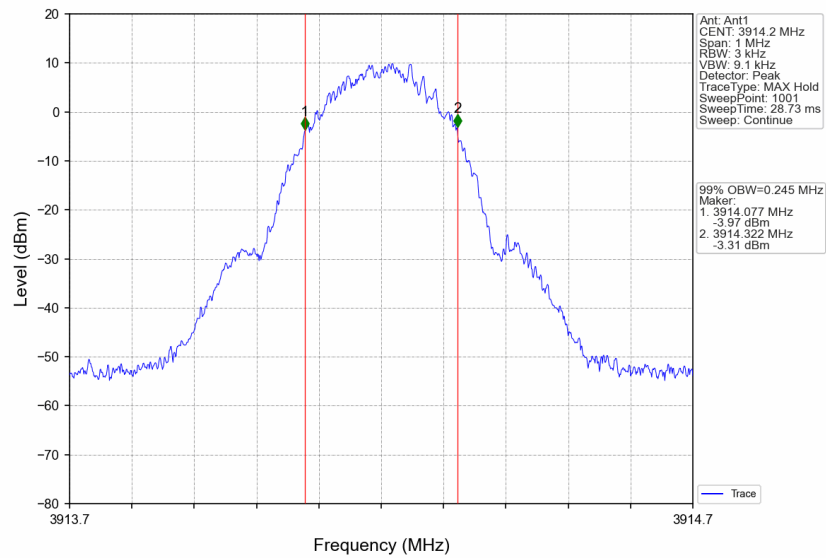
Bandn77a_3914.2MHz_GMSK_SISO_Ant1_NTNV_Output_AGC



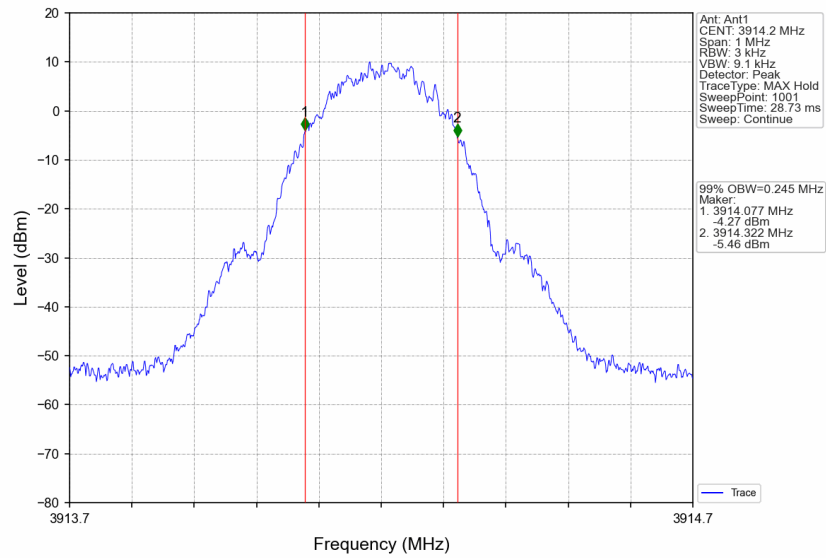
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Bandn77a_3914.2MHz_GMSK_SISO_Ant1_NTNV_Input_AGC

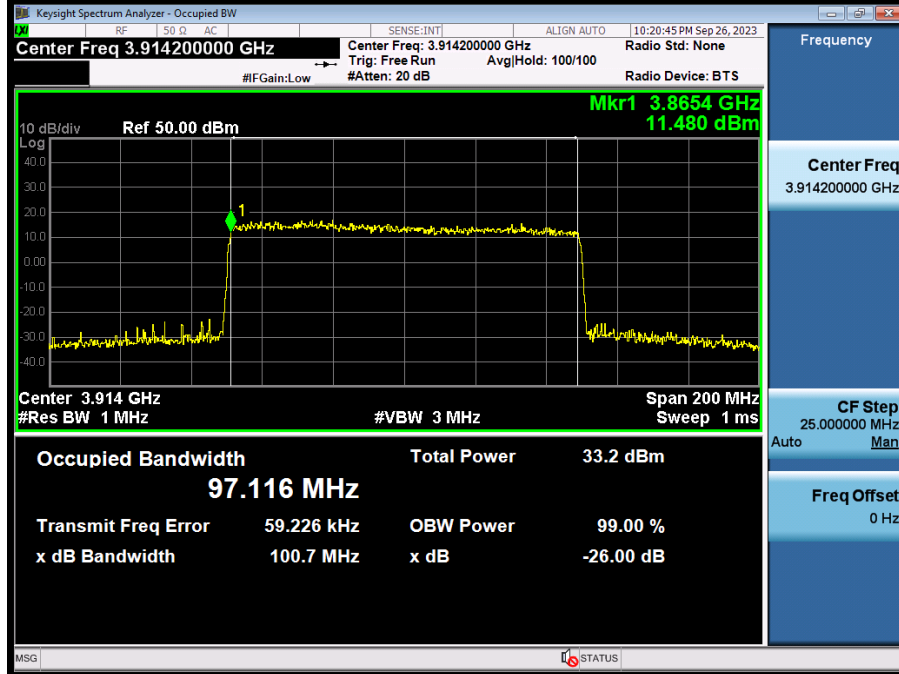


Bandn77a_3914.2MHz_GMSK_SISO_Ant1_NTNV_Input_AGC+3

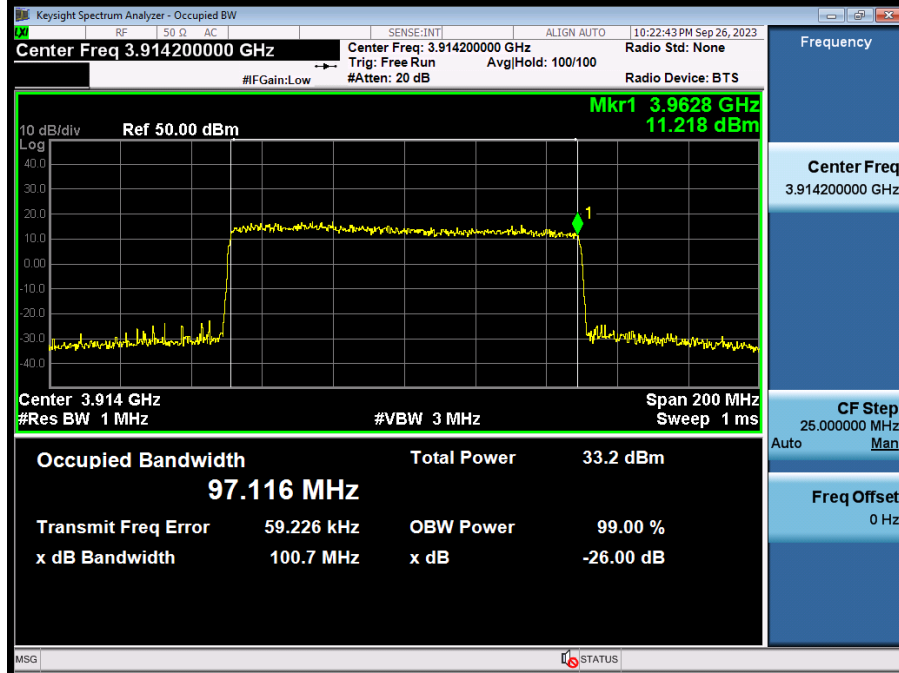


For 100MHz BW

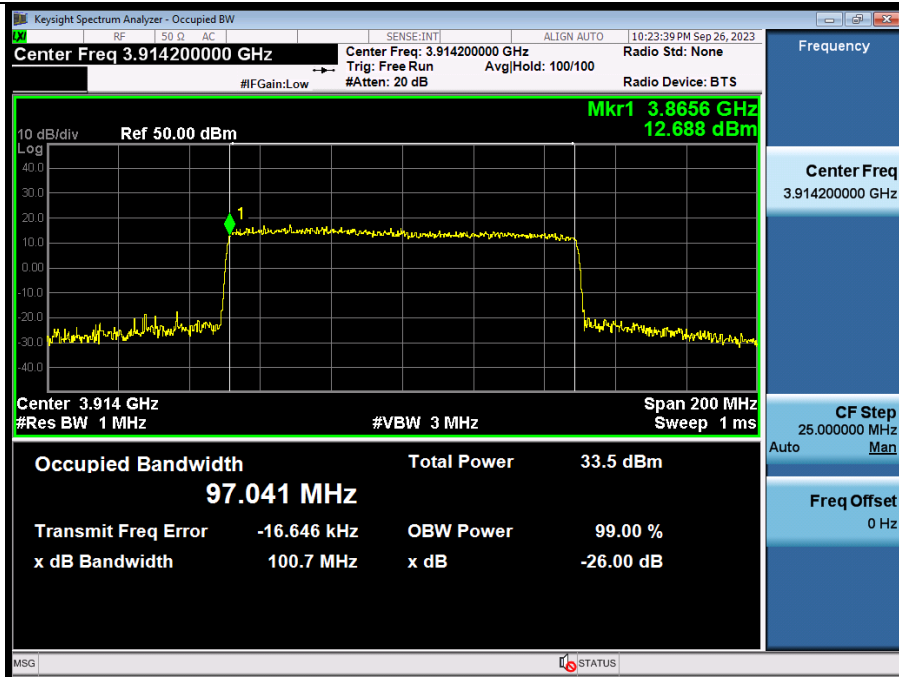
Bandn77a 3914.2MHz AWGN SISO Ant1 NTN Output AGC



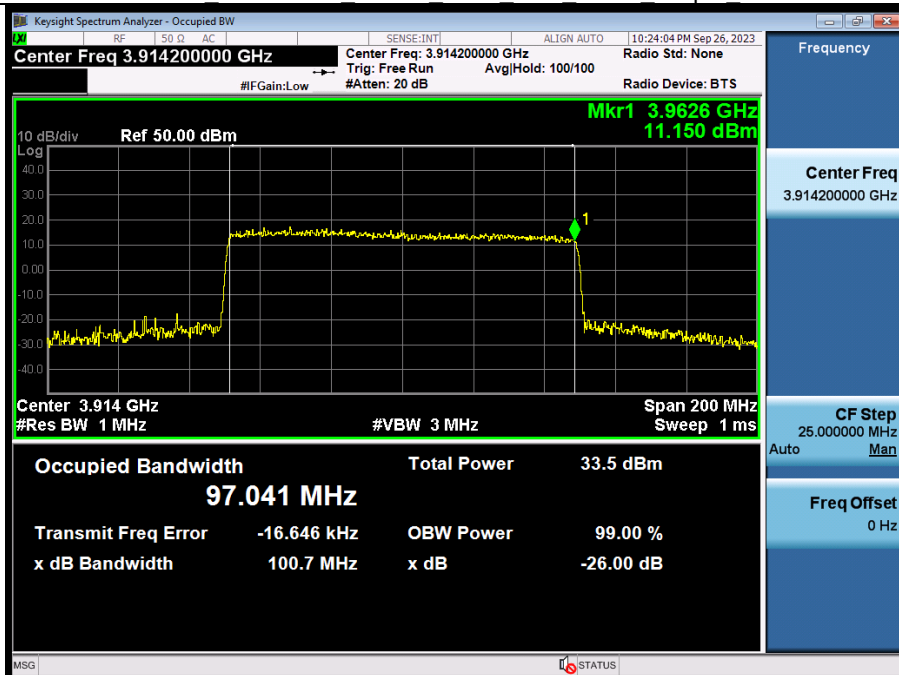
Bandn77a 3914.2MHz AWGN SISO Ant1 NTN Output AGC



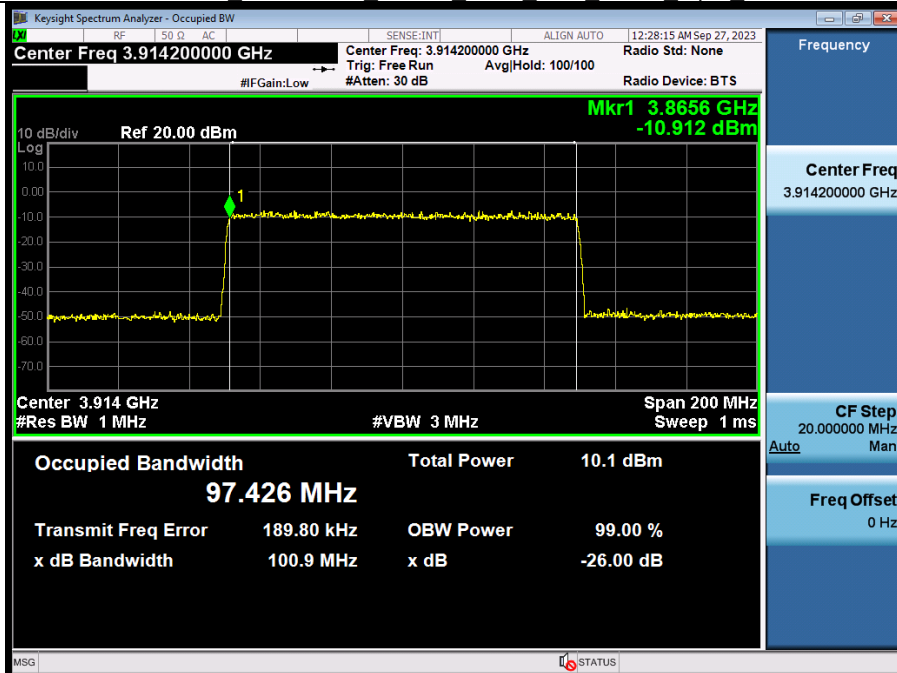
Bandn77a 3914.2MHz AWGN SISO Ant1 NTN Output AGC+3



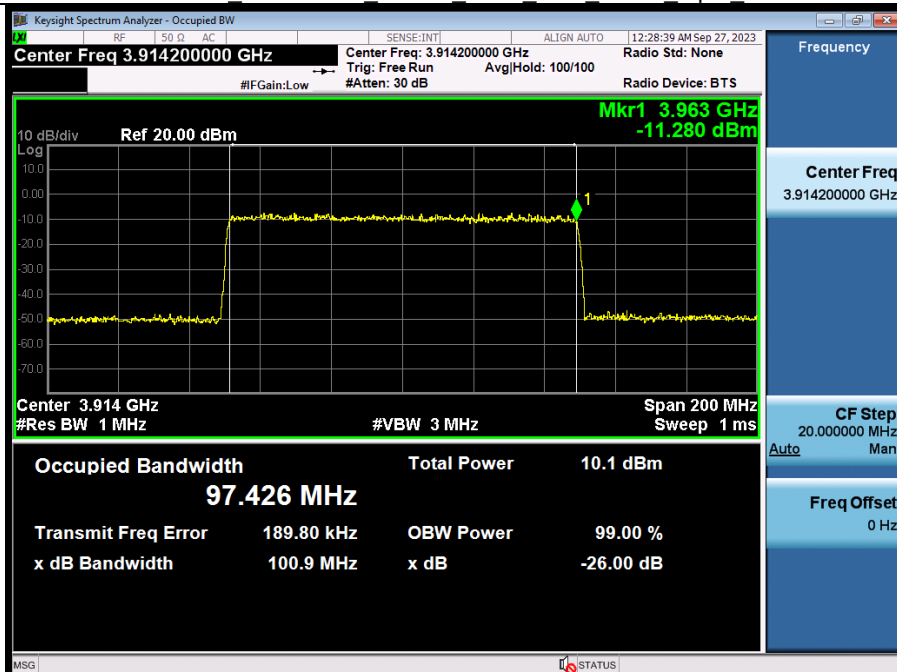
Bandn77a 3914.2MHz AWGN SISO Ant1 NTN Output AGC+3



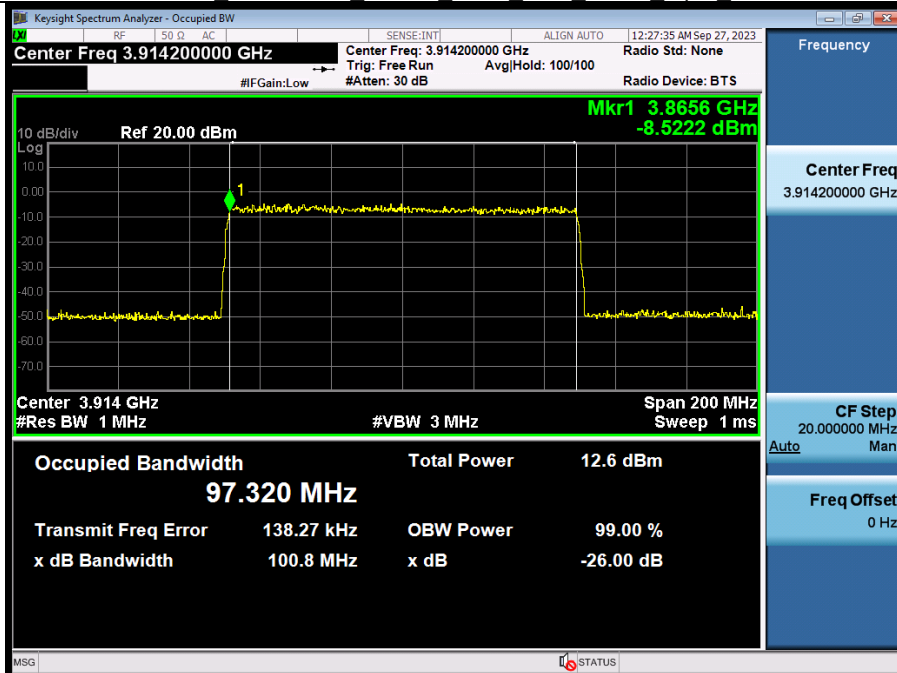
Bandn77a 3914.2MHz AWGN SISO Ant1 NTN Input AGC



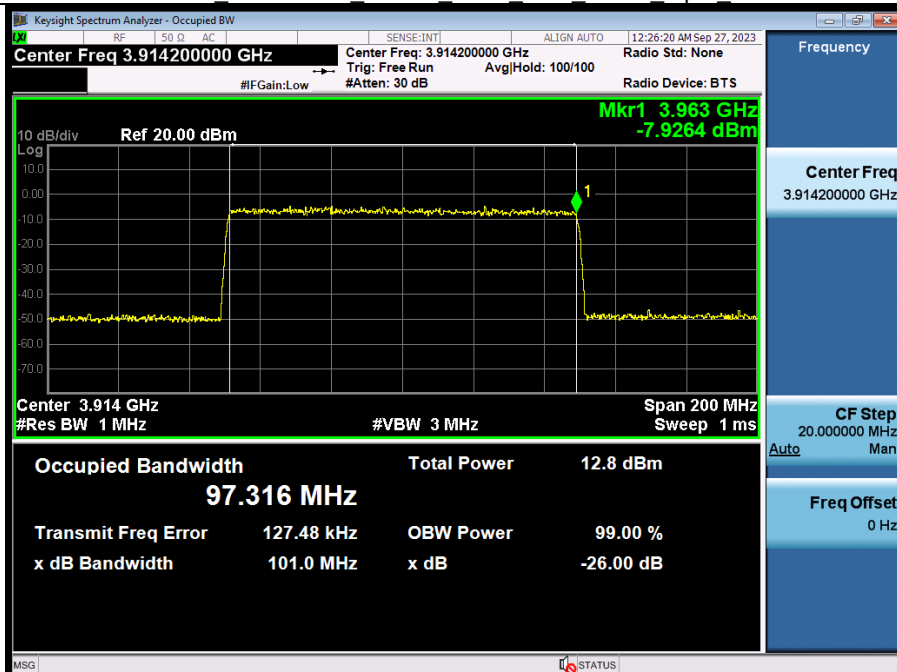
Bandn77a 3914.2MHz AWGN SISO Ant1 NTN Input AGC



Bandn77a 3914.2MHz AWGN SISO Ant1 NTNv Input AGC+3



Bandn77a 3914.2MHz AWGN SISO Ant1 NTNv Input AGC+3



3.2 Bandn77a_EBW

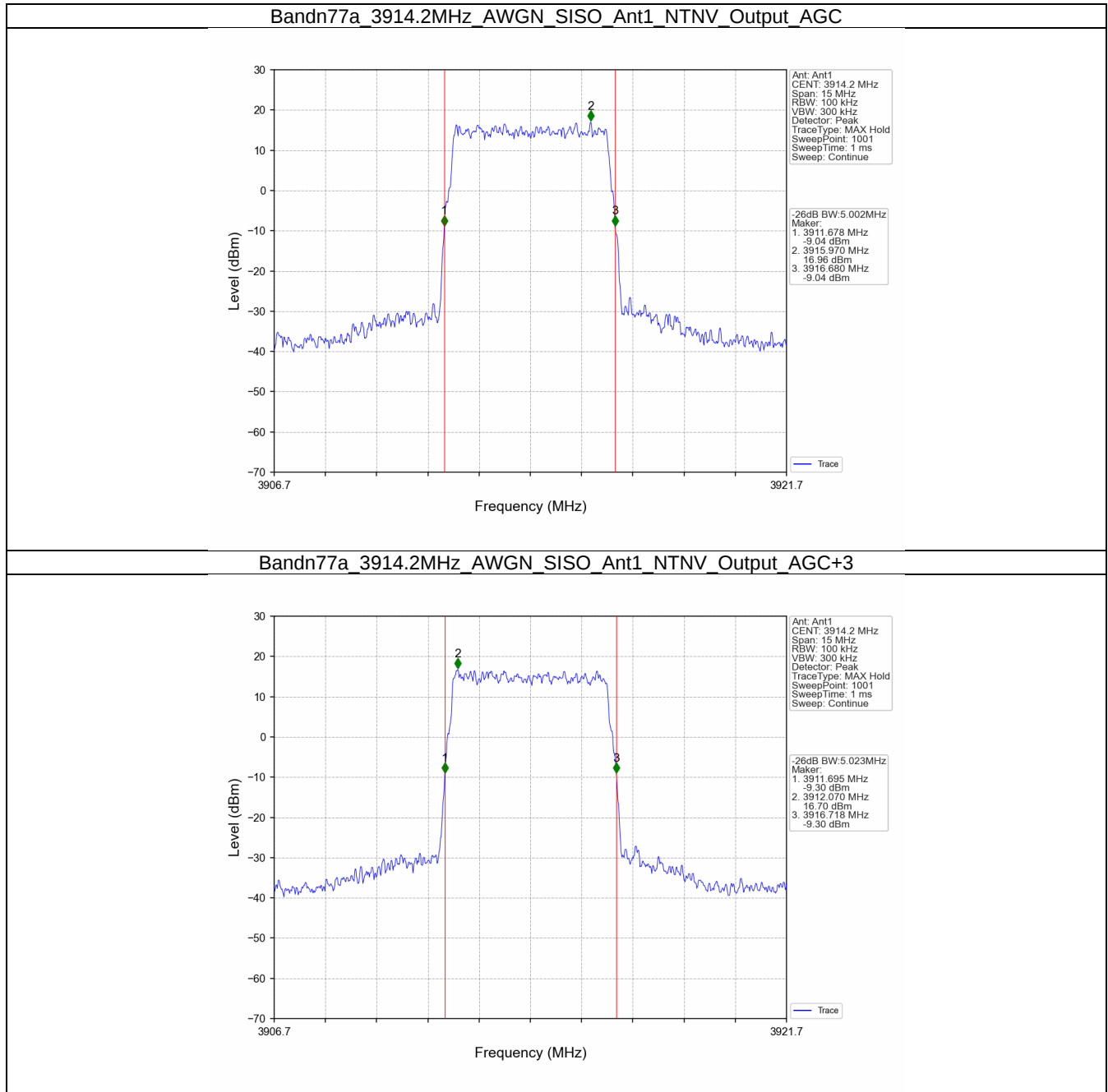
3.2.1 Test Result

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

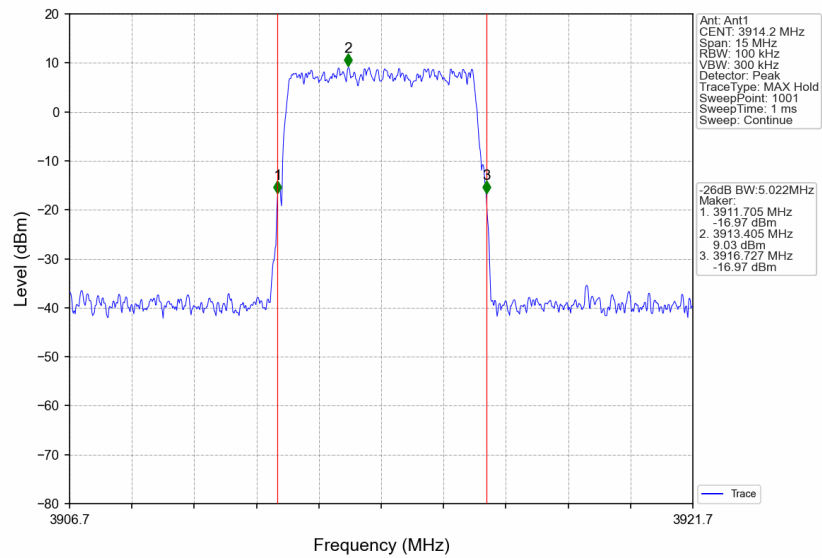
For 100MHz BW

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

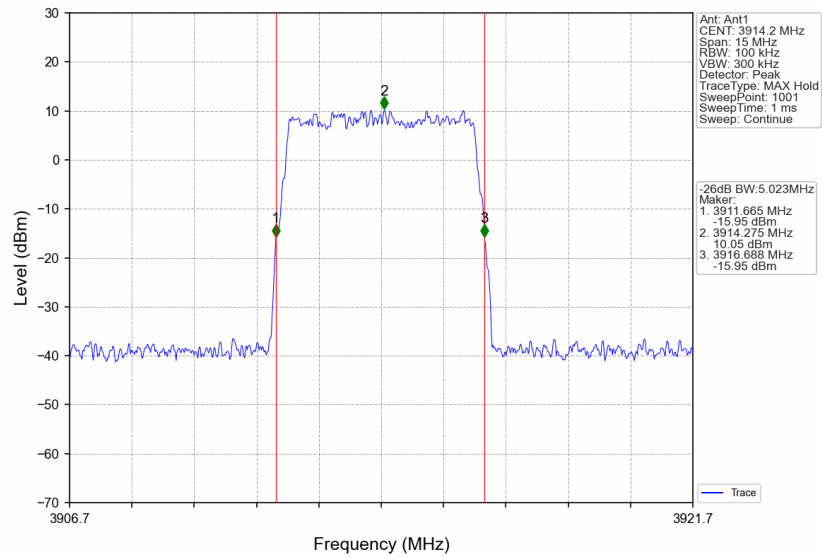
3.2.2 Test Graph



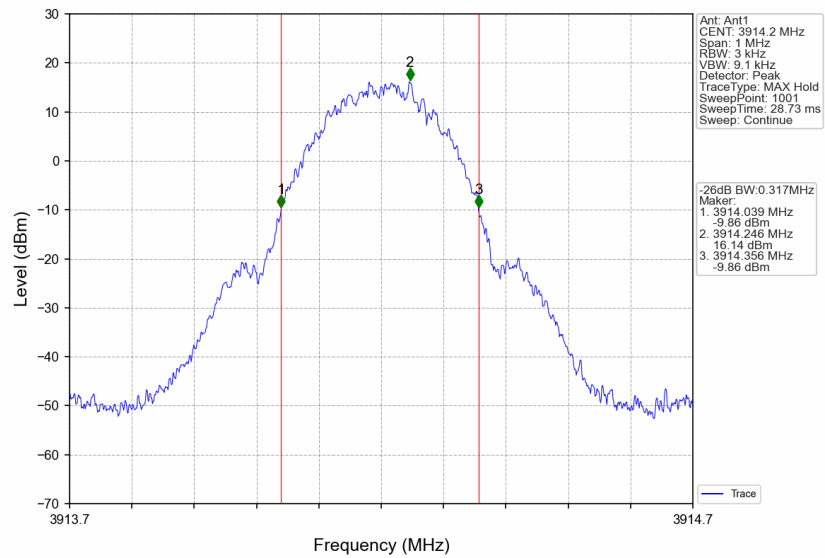
Bandn77a_3914.2MHz_AWGN_SISO_Ant1_NTNV_Input_AGC



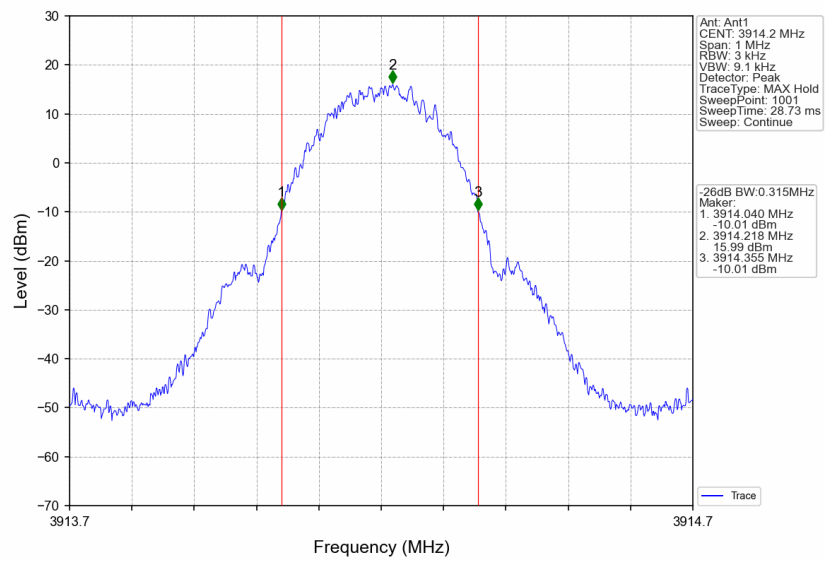
Bandn77a_3914.2MHz_AWGN_SISO_Ant1_NTNV_Input_AGC+3



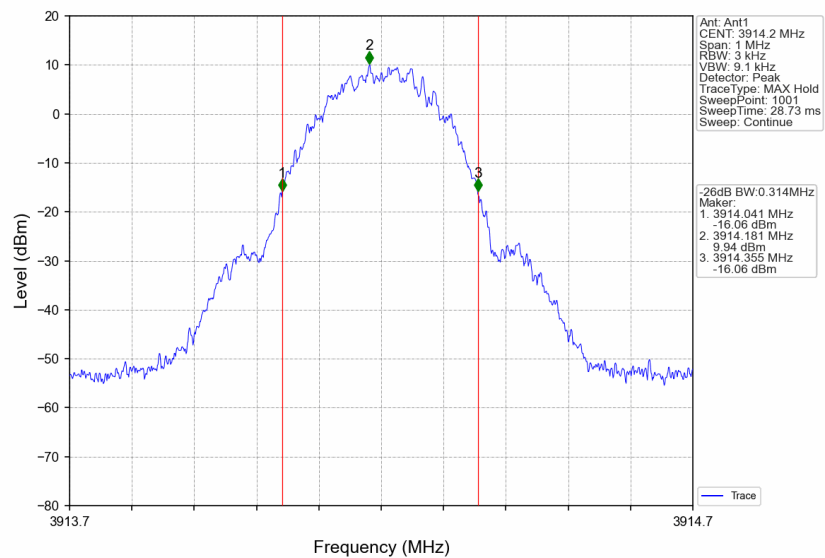
Bandn77a_3914.2MHz_GMSK_SISO_Ant1_NTNV_Output_AGC



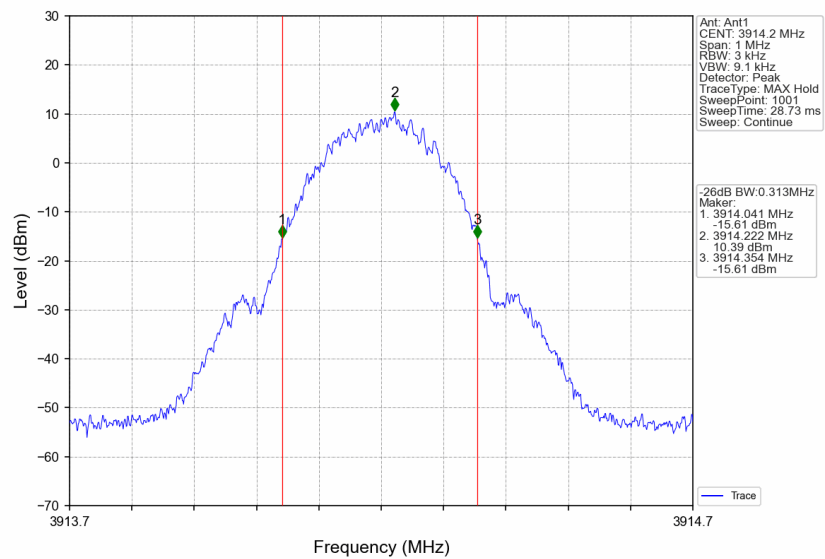
Bandn77a_3914.2MHz_GMSK_SISO_Ant1_NTNV_Output_AGC+3



Bandn77a_3914.2MHz_GMSK_SISO_Ant1_NTNV_Input_AGC

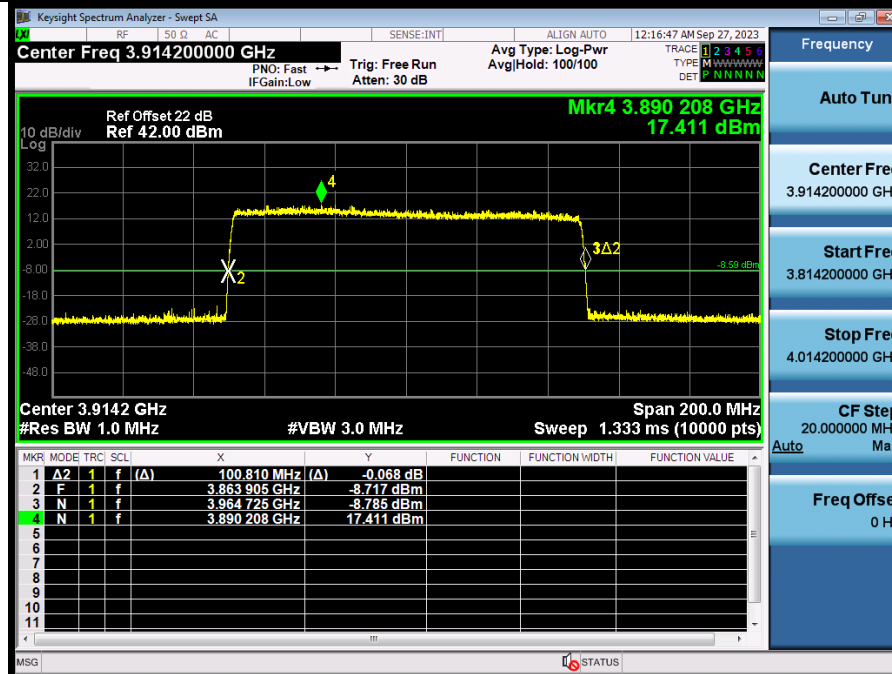


Bandn77a_3914.2MHz_GMSK_SISO_Ant1_NTNV_Input_AGC+3

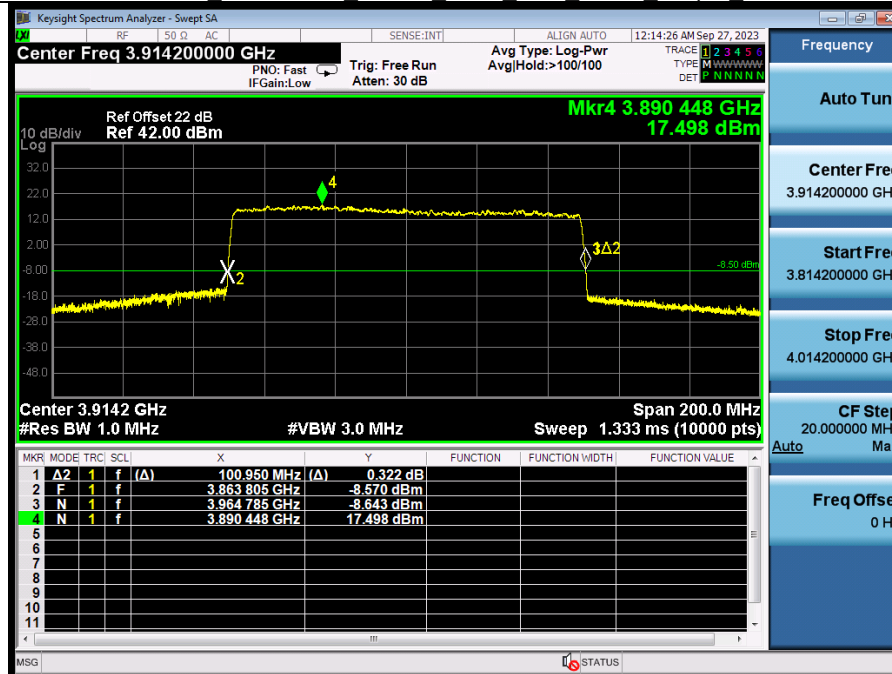


For 100MHz BW

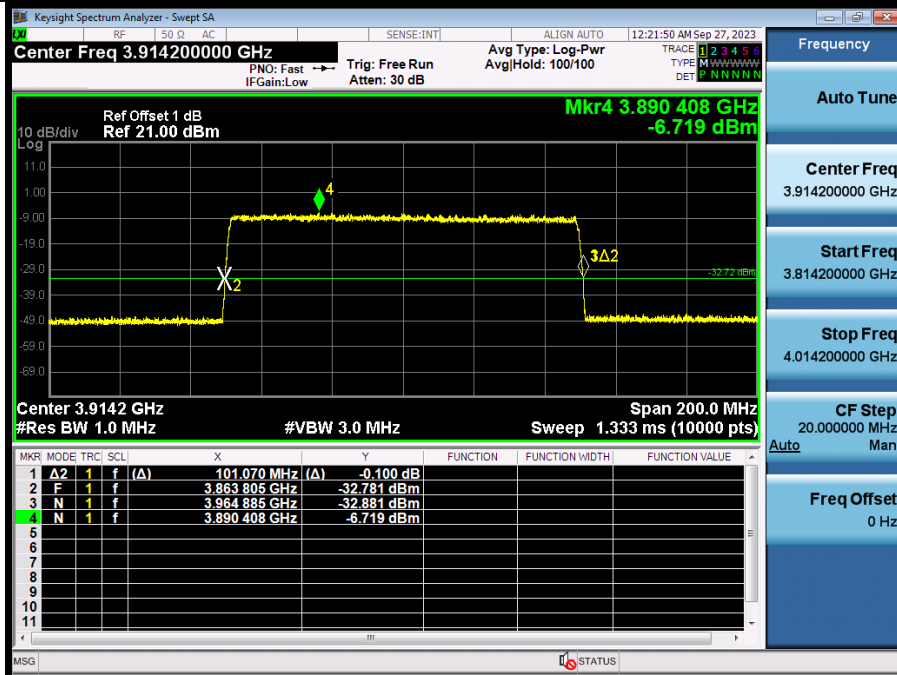
Bandn77a 3914.2MHz AWGN SISO Ant1 NTN Output AGC



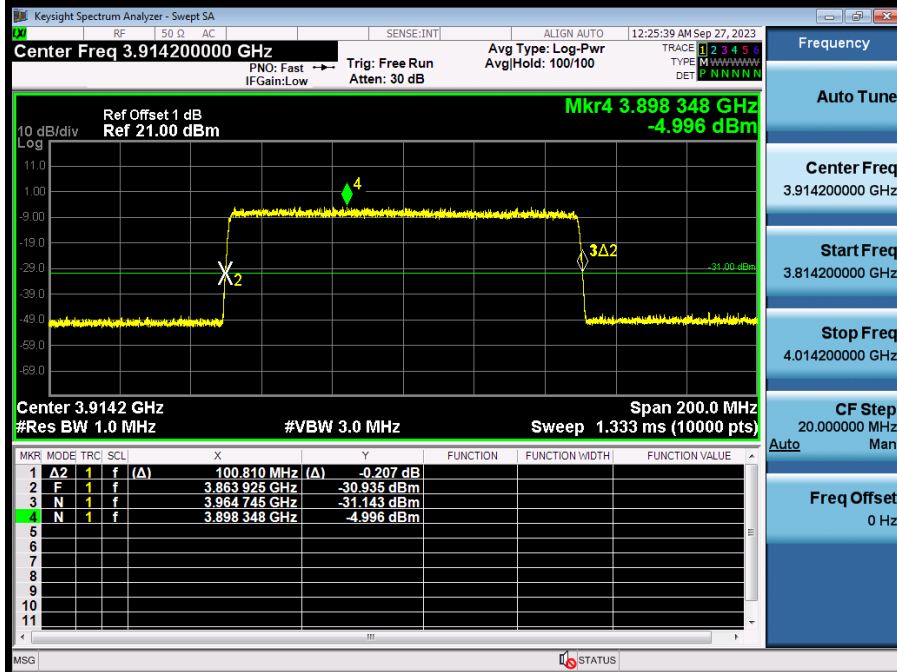
Bandn77a 3914.2MHz AWGN SISO Ant1 NTN Output AGC+3



Bandn77a 3914.2MHz AWGN SISO Ant1 NTN Input AGC



Bandn77a 3914.2MHz AWGN SISO Ant1 NTNv 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

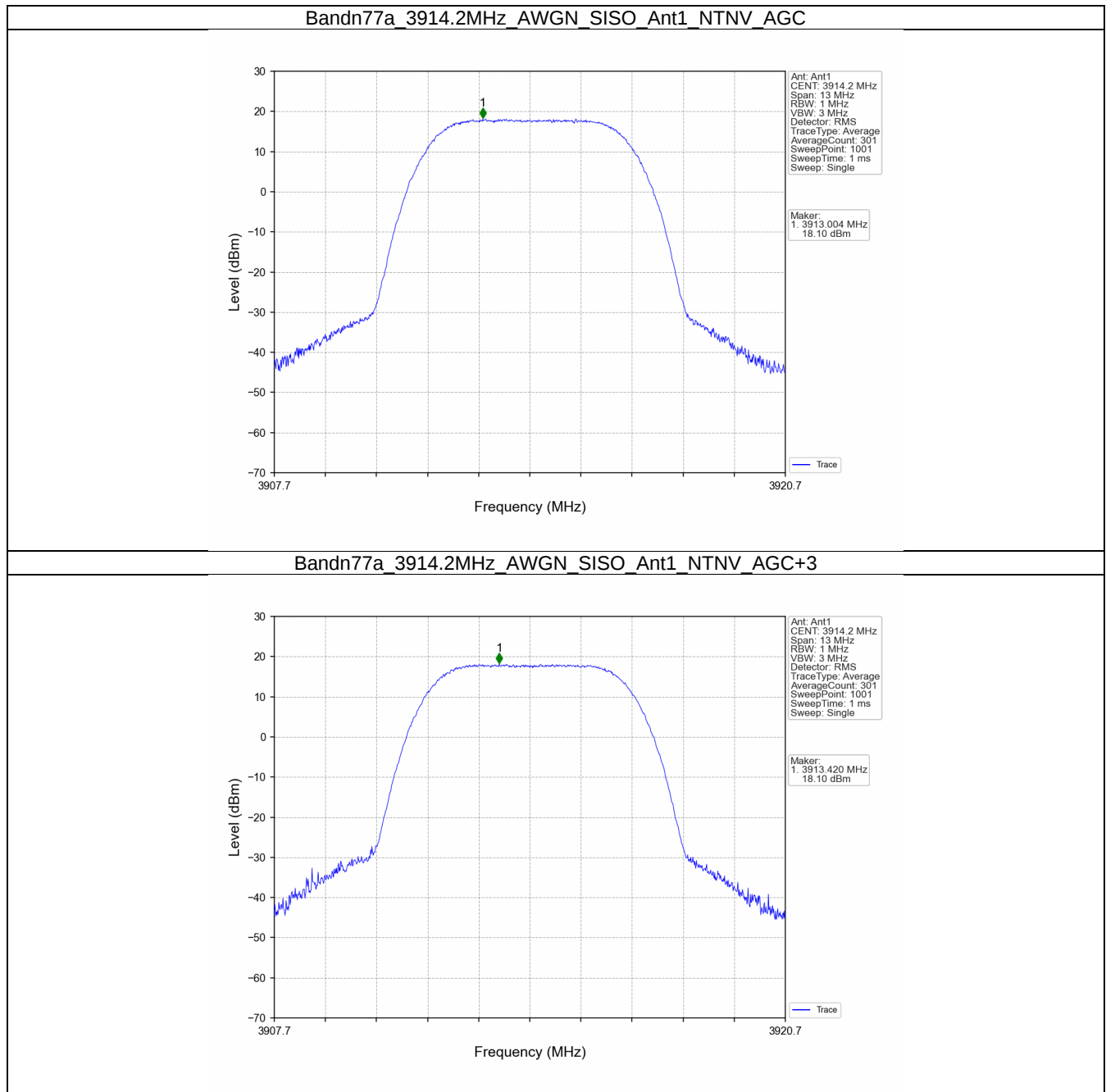
3700MHz-3980MHz / NTNV							
Operation Band	Frequency (MHz)	Signal Type	Signal Level	Input Power (dBm)	Total Output Power (dBm)	EIRP (dBm)	Gain (dB)
3700MHz-3980MHz	3914.2	AWGN	Pre-AGC	-4	24.43	26.43	/
			3dB Above AGC	-1	24.47	26.47	/
	3914.2	GMSK	Pre-AGC	-4	24.49	26.49	/
			3dB Above AGC	-1	24.53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

For 100MHz BW

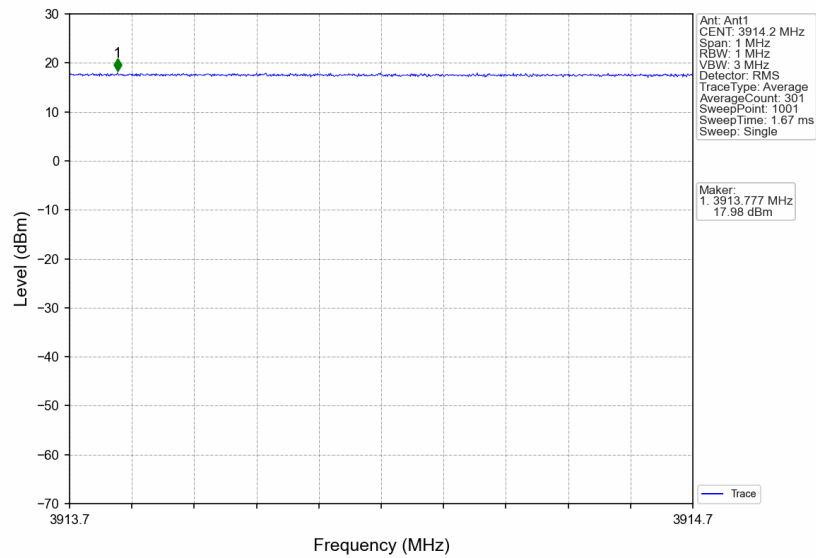
Band: n77a / NTNV											
Signal			TX Type	ANT	Conducted Power (dBm/MHz)		EIRP (dBm/MHz)		Booster Gain (dB)	Nominal gain (dB)	Verdict
Type	Level (dBm)	Frequency (MHz)			Output	Input	Result	Limit			
AWGN	-4	3914.2	SISO	1	5.615	-22.548	7.615	<=62.15	28.16	27±2	Pass
	-1	3914.2	SISO	1	5.886	-19.357	7.886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

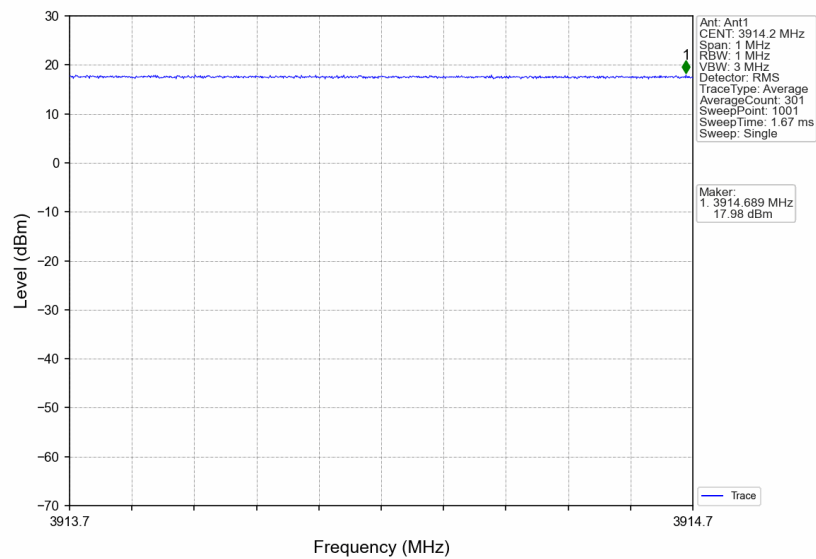
4.1.2 Test Graph



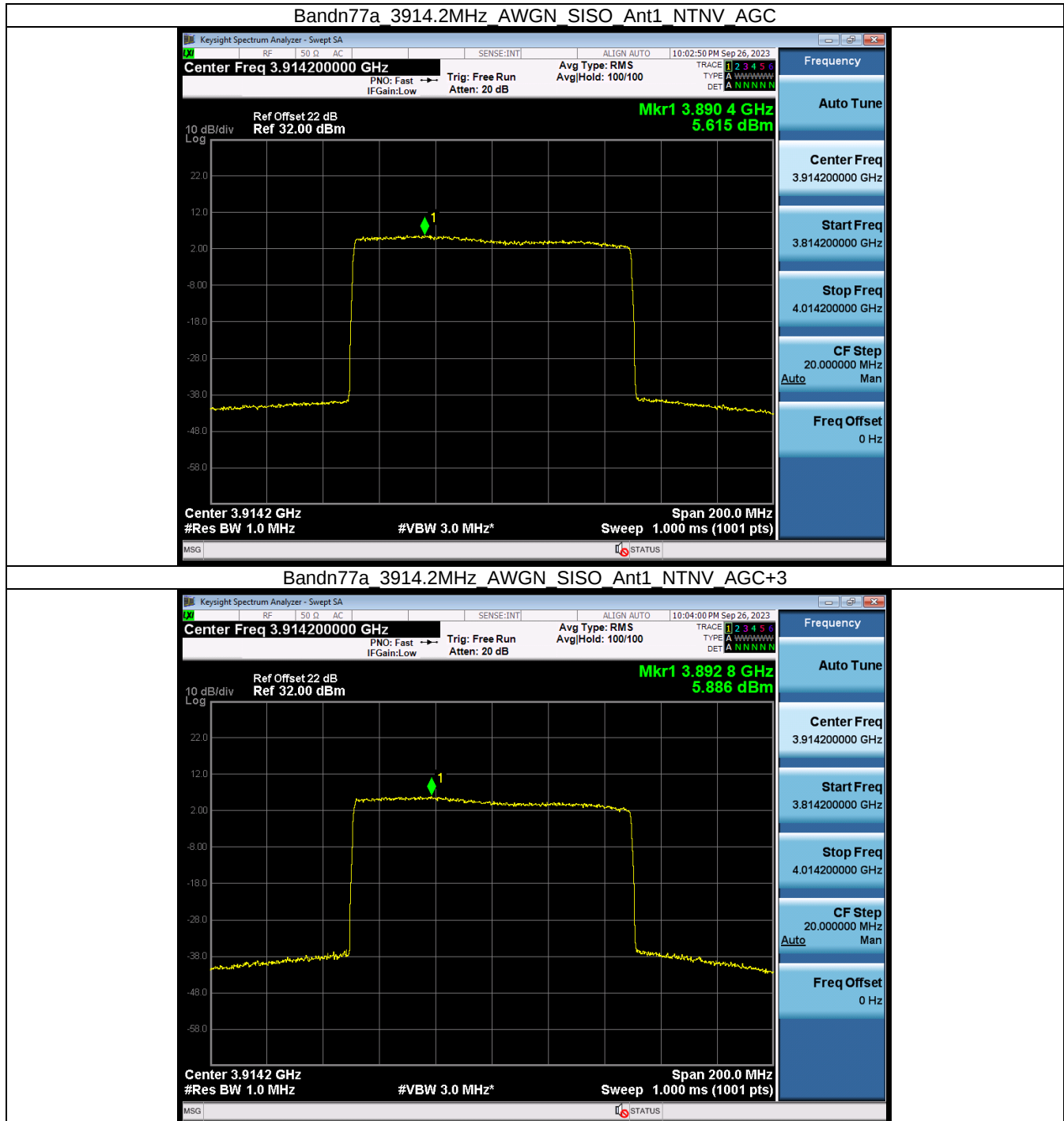
Bandn77a_3914.2MHz_GMSK_SISO_Ant1_NTNV_AGC



Bandn77a_3914.2MHz_GMSK_SISO_Ant1_NTNV_AGC+3



For 100MHz BW



4.2 Bandn77a_PAPR

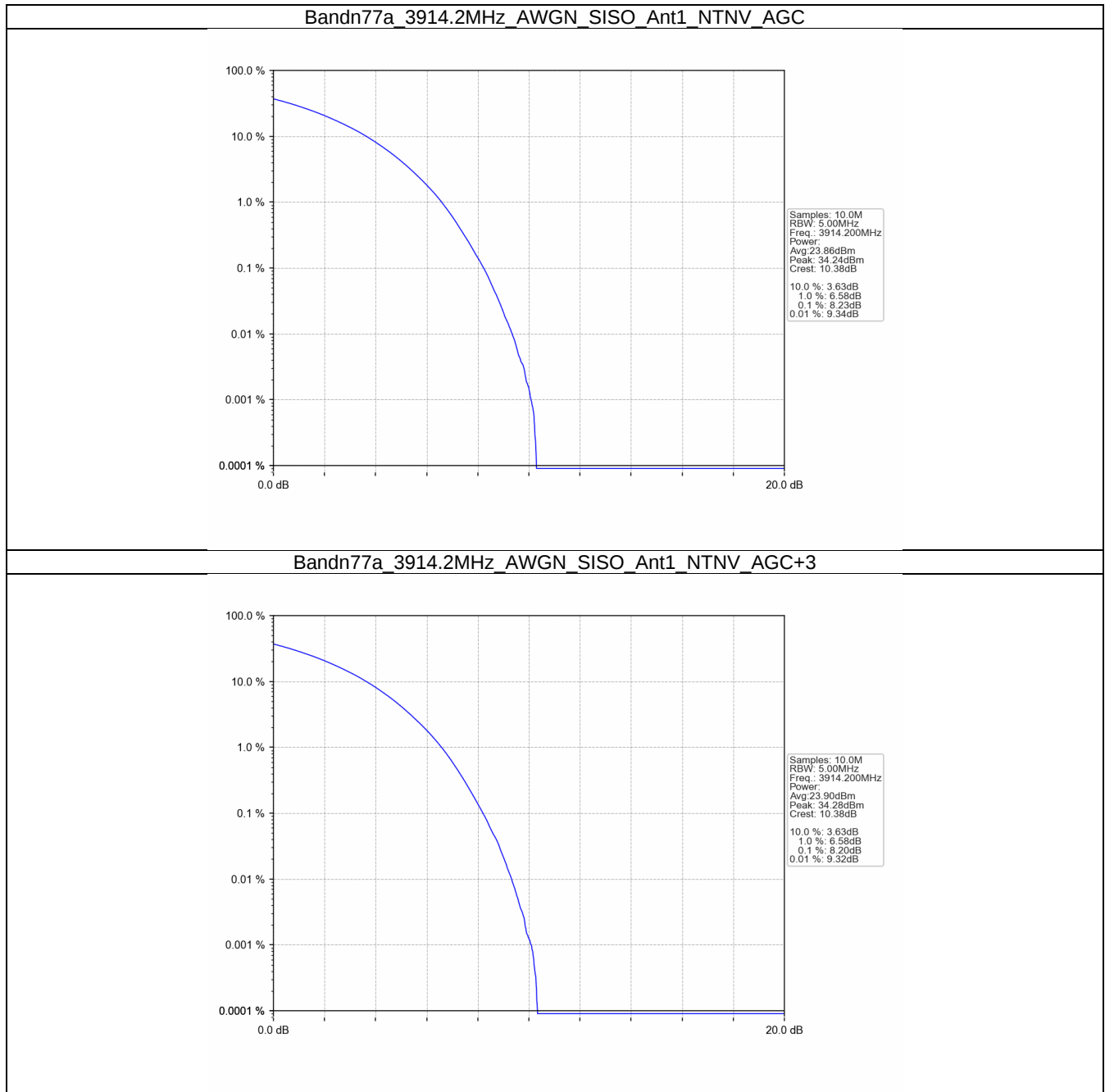
4.2.1 Test Result

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

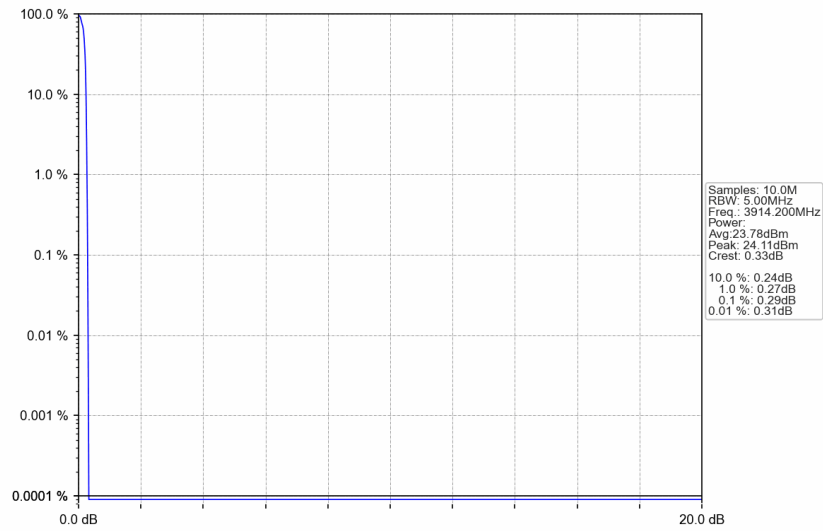
For 100MHz BW

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

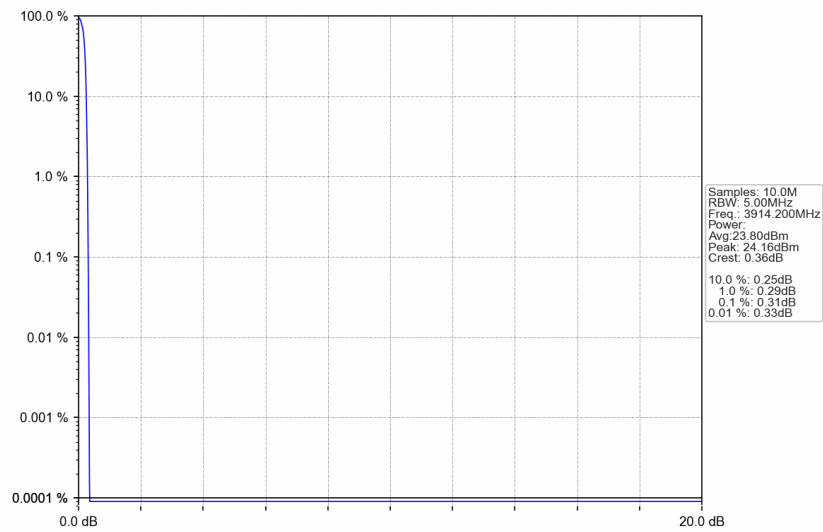
4.2.2 Test Graph



Bandn77a_3914.2MHz_GMSK_SISO_Ant1_NTNV_AGC

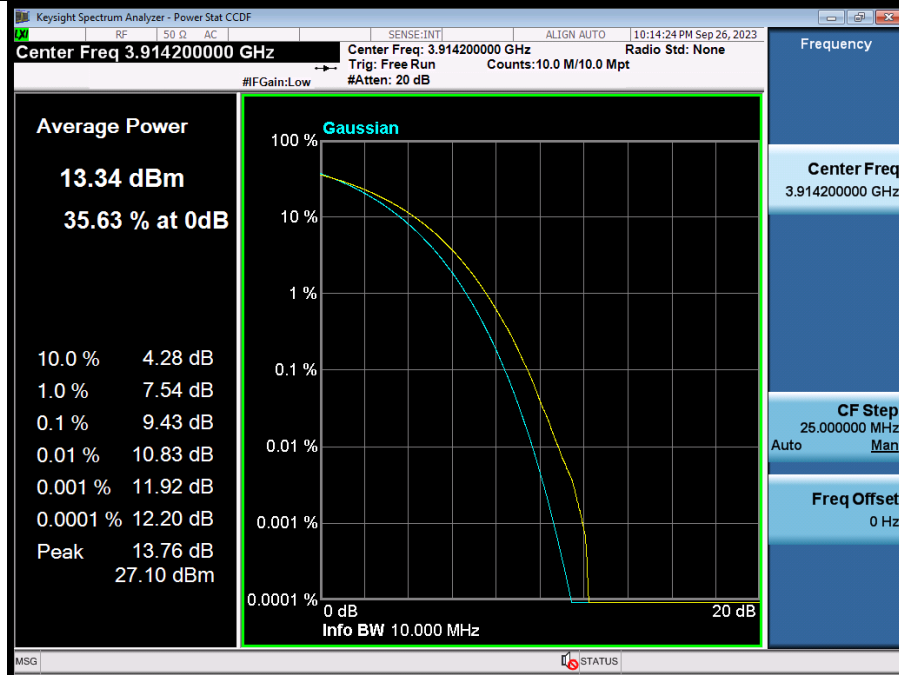


Bandn77a_3914.2MHz_GMSK_SISO_Ant1_NTNV_AGC+3

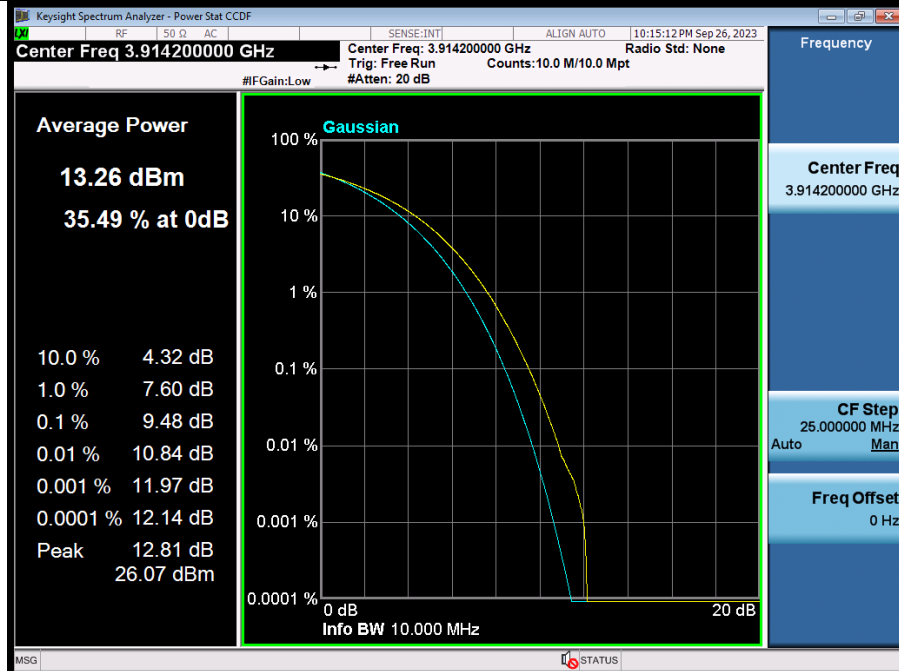


For 100MHz BW

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

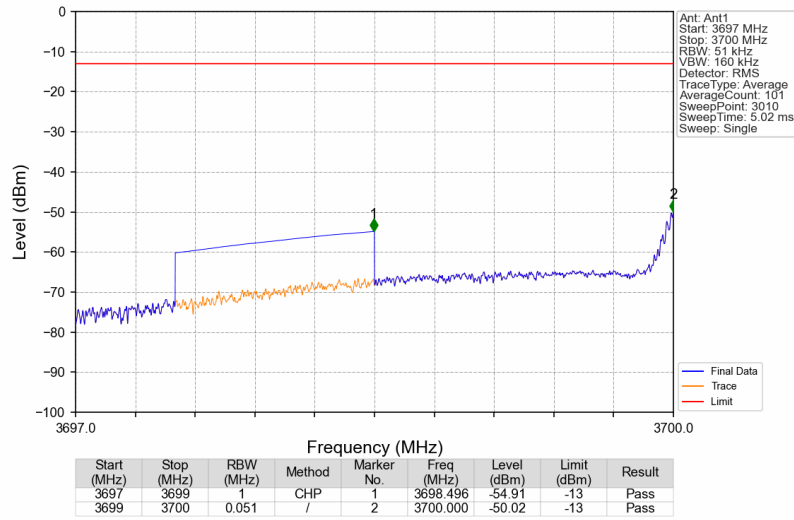
Band: n77a / NTNV									
Signal				Channel	TX Type	ANT	OOB (dBm)		Verdict
Input	Type	Level (dBm)	Frequency (MHz)				Result	Limit	
Two	AWGN	-4	3702.5	LCH	SISO	1	-50.02	Refer To Test Graph	Pass
		-1	3702.5	LCH	SISO	1	-49.67	Refer To Test Graph	Pass
One	AWGN	-4	3702.5	LCH	SISO	1	-50.47	Refer To Test Graph	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

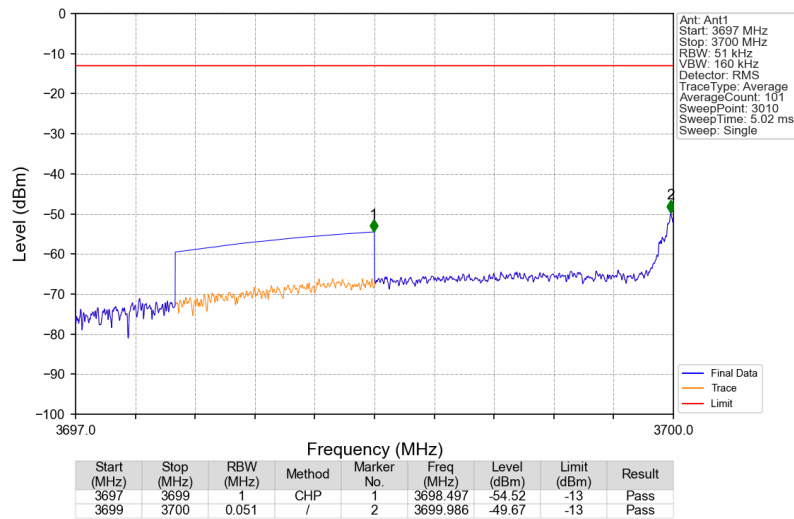
Band: n77a / NTNV									
Signal				Channel	TX Type	ANT	OOB (dBm)		Verdict
Input	Type	Level (dBm)	Frequency (MHz)				Result	Limit	
Two	AWGN	-4	3750	MCH	SISO	1	-18.393	Refer To Test Graph	Pass
		-1	3750	MCH	SISO	1	-17.963	Refer To Test Graph	Pass
One	AWGN	-4	3750	MCH	SISO	1	-18.730	Refer To Test Graph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

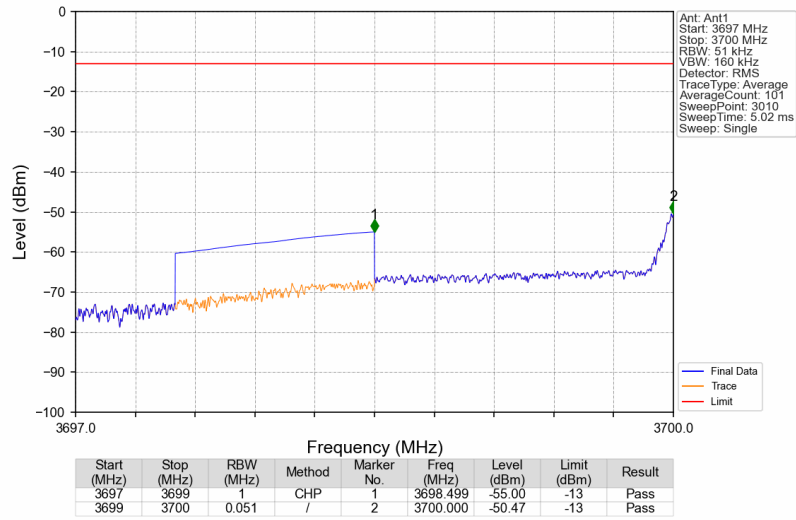
Bandn77a_3702.5MHz_AWGN_SISO_Ant1_NTNV_AGC



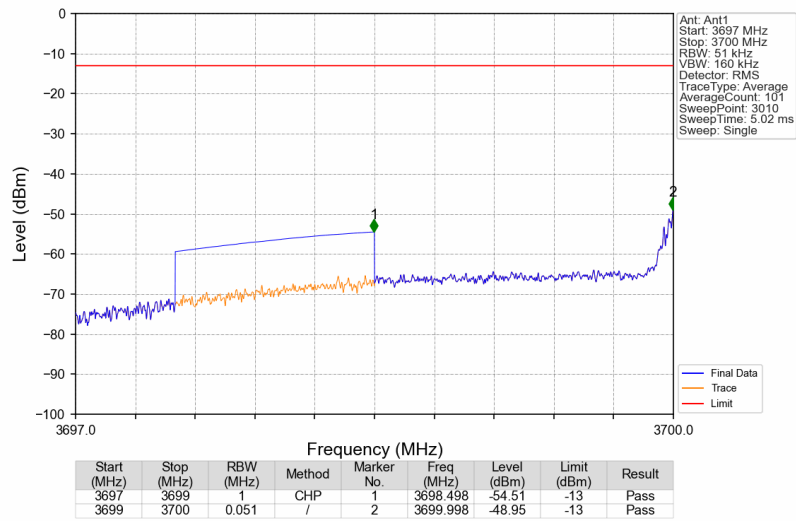
Bandn77a_3702.5MHz_AWGN_SISO_Ant1_NTNV_AGC+3



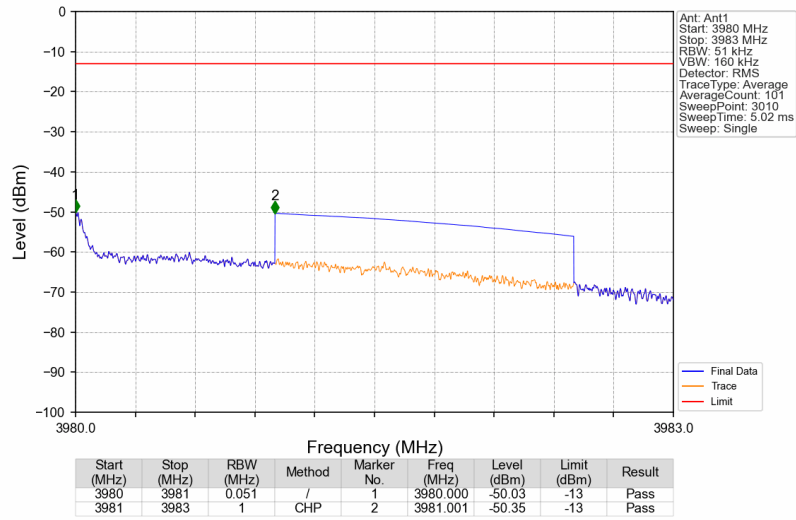
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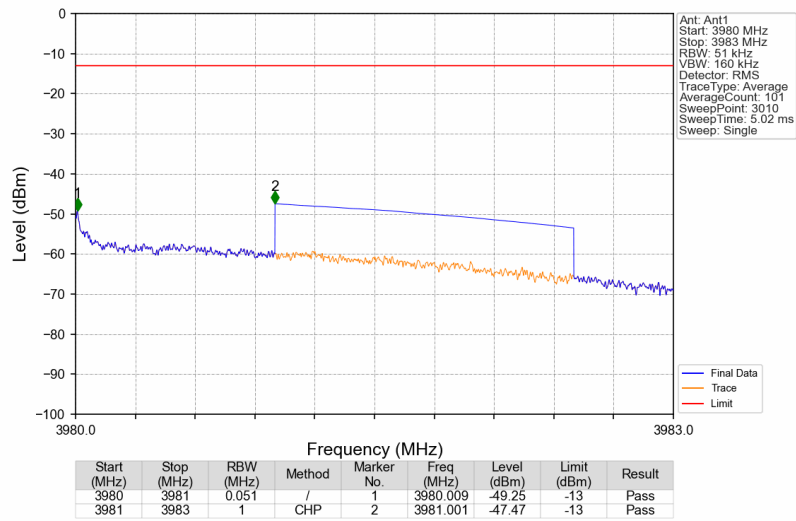
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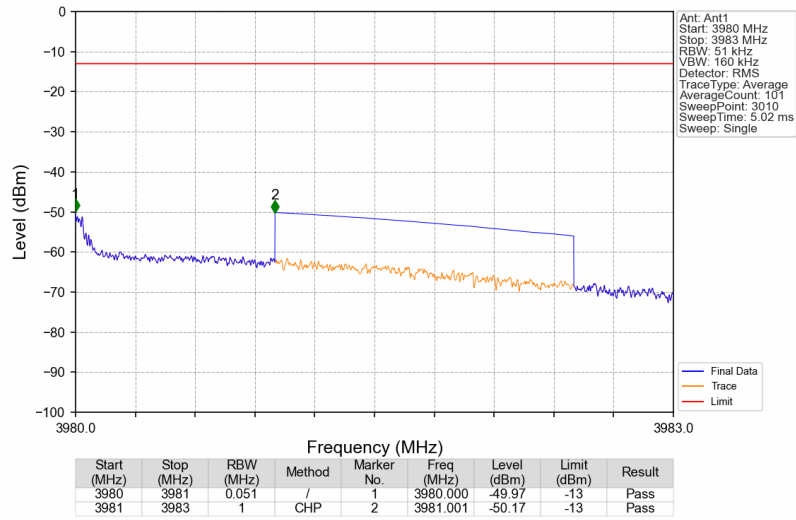
Bandn77a_3977.5MHz_AWGN_SISO_Ant1_NTNV_AGC



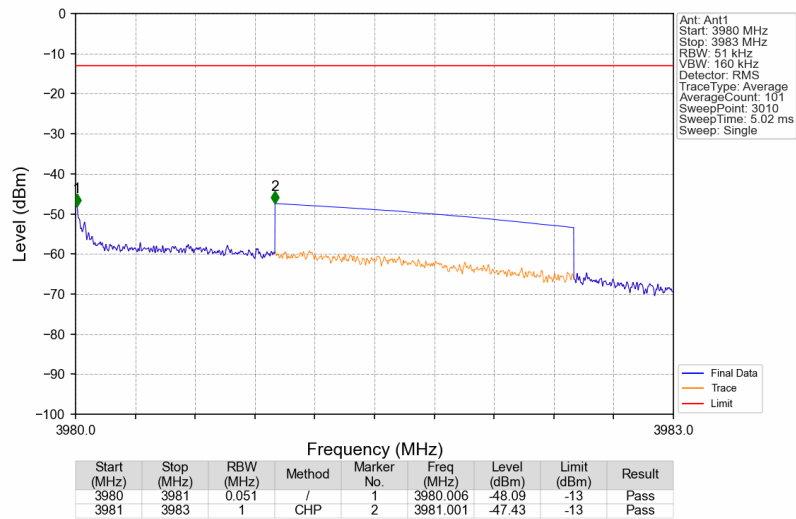
Bandn77a_3977.5MHz_AWGN_SISO_Ant1_NTNV_AGC+3



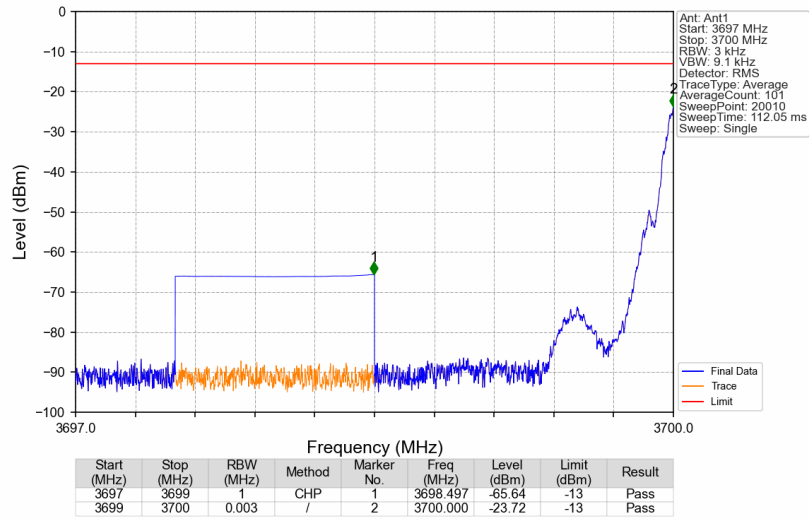
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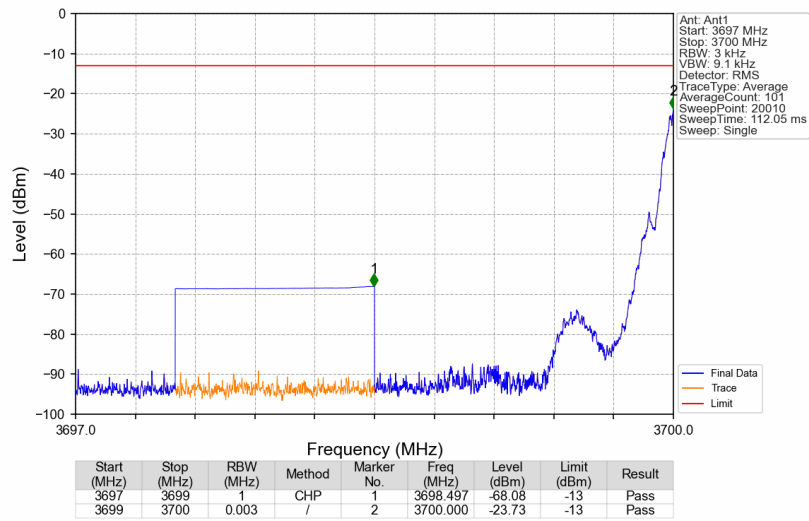
Bandn77a_3977.5MHz_AWGN_SISO_Ant1_NTNV_AGC+3



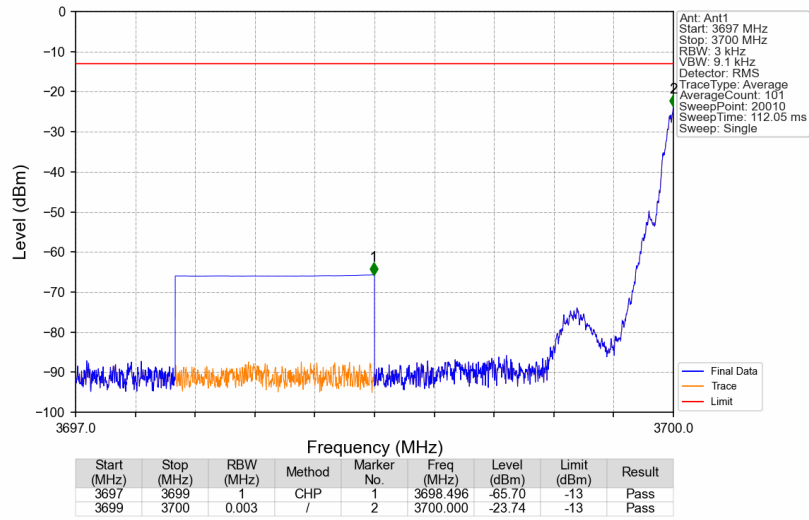
Bandn77a_3700.1MHz_GMSK_SISO_Ant1_NTNV_AGC



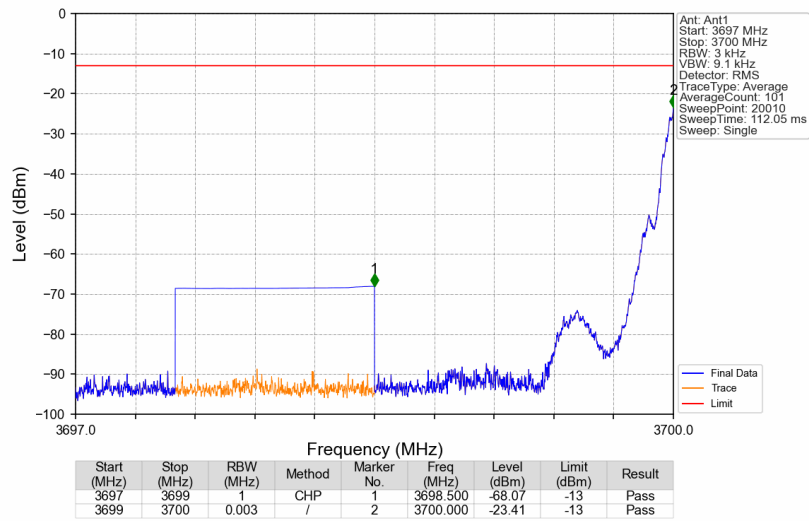
Bandn77a_3700.1MHz_GMSK_SISO_Ant1_NTNV_AGC+



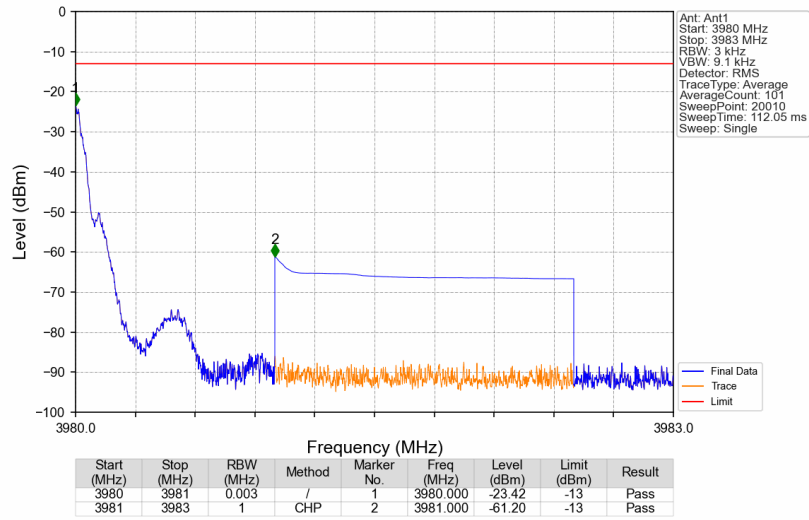
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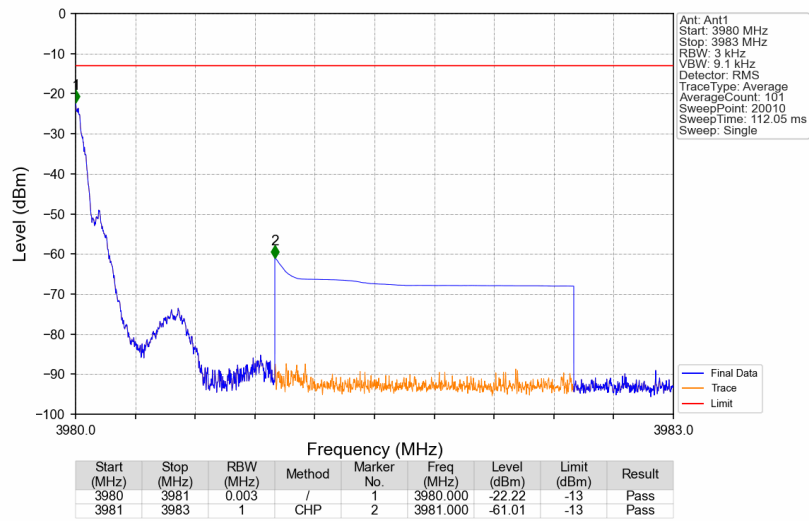
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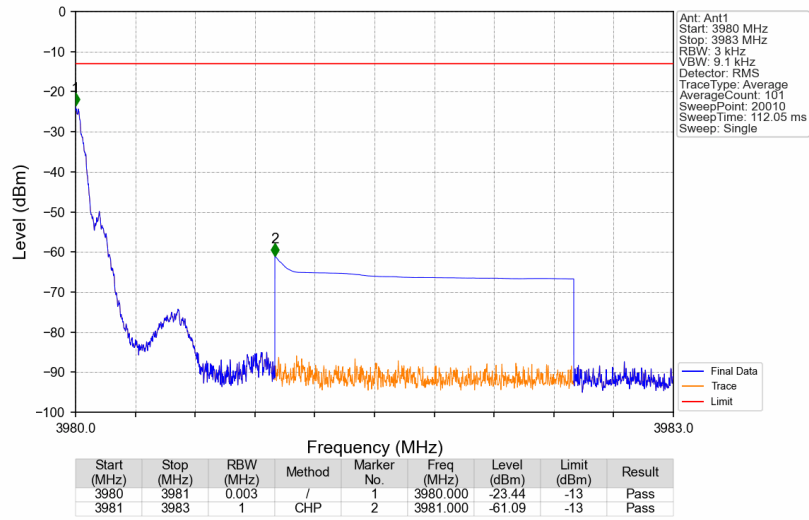
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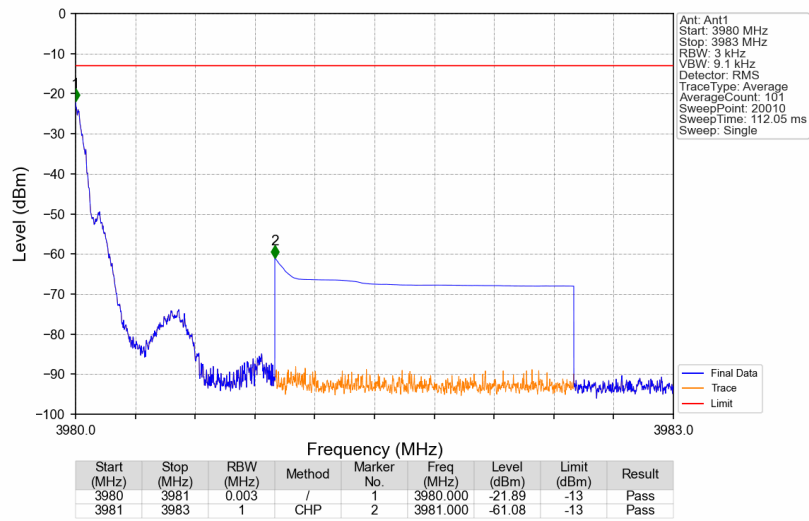
Bandn77a_3979.9MHz_GMSK_SISO_Ant1_NTNV_AGC+3



Bandn77a_3979.9MHz_GMSK_SISO_Ant1_NTNV_AGC

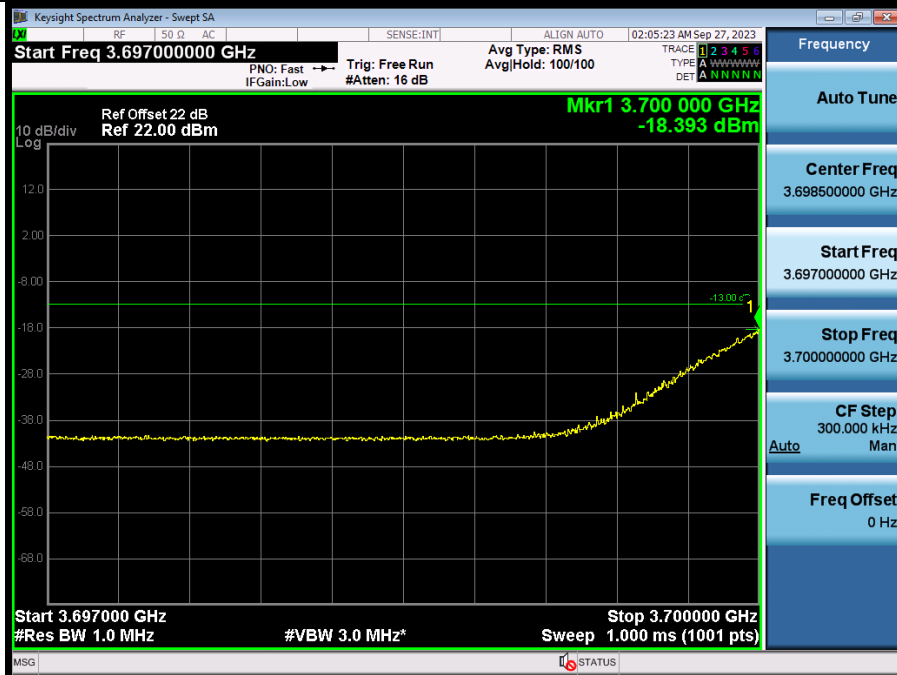


Bandn77a_3979.9MHz_GMSK_SISO_Ant1_NTNV_AGC+3

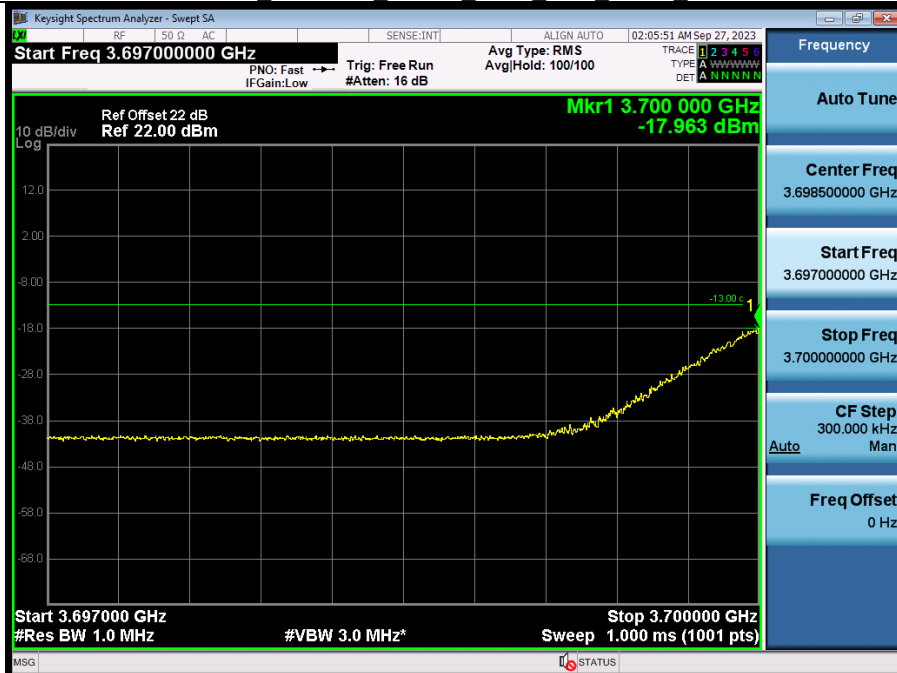


For 100MHz BW

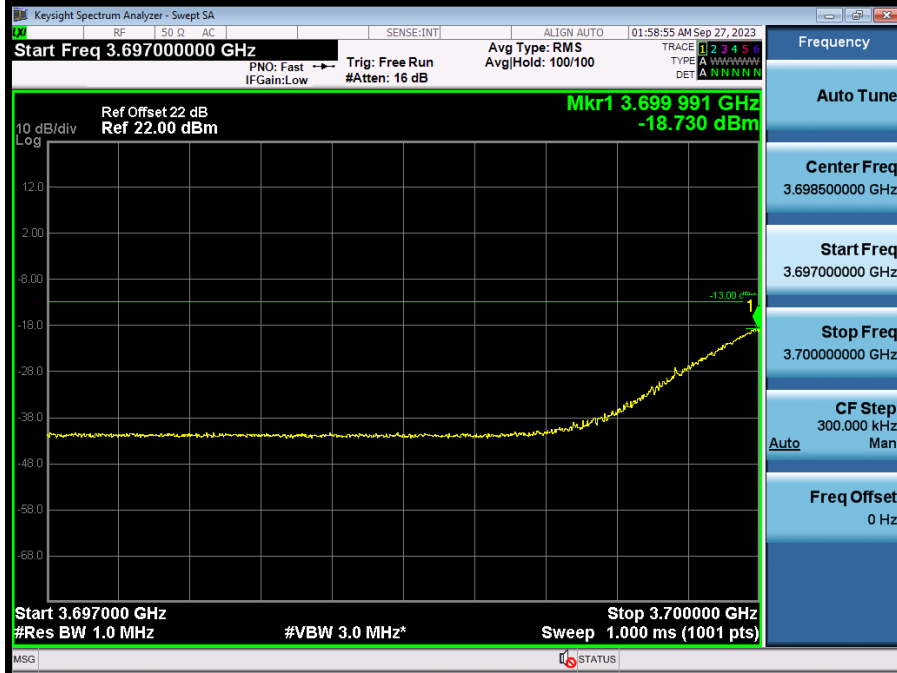
Bandn77a 3750MHz AWGN SISO Ant1 NTN AGC



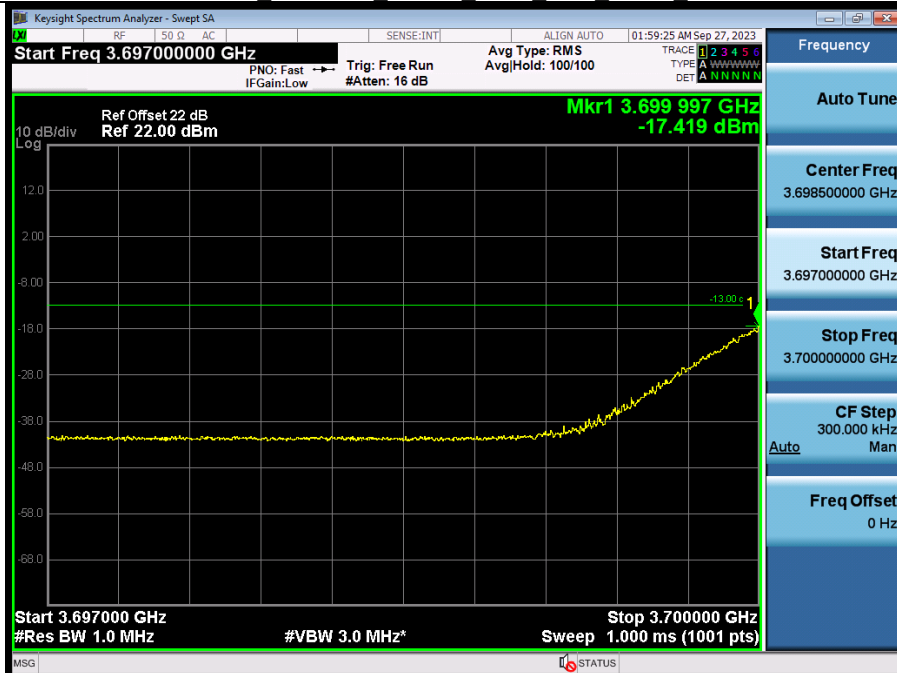
Bandn77a 3750MHz AWGN SISO Ant1 NTN AGC+3



Bandn77a 3750MHz AWGN SISO Ant1 NTN/ AGC



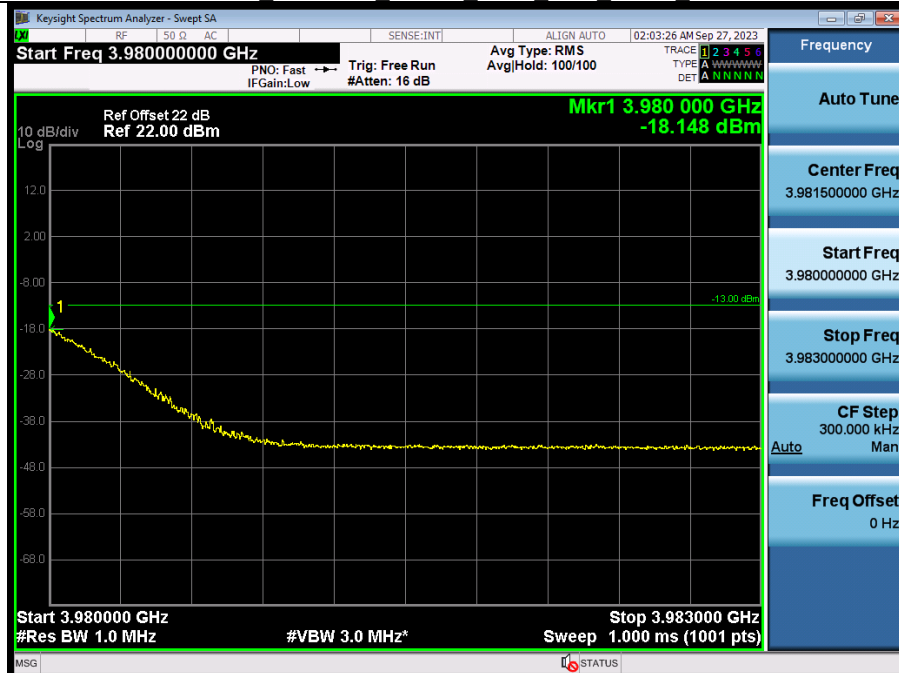
Bandn77a 3750MHz AWGN SISO Ant1 NTN/ AGC+3



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 / NTNV								
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 / NTVN								
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

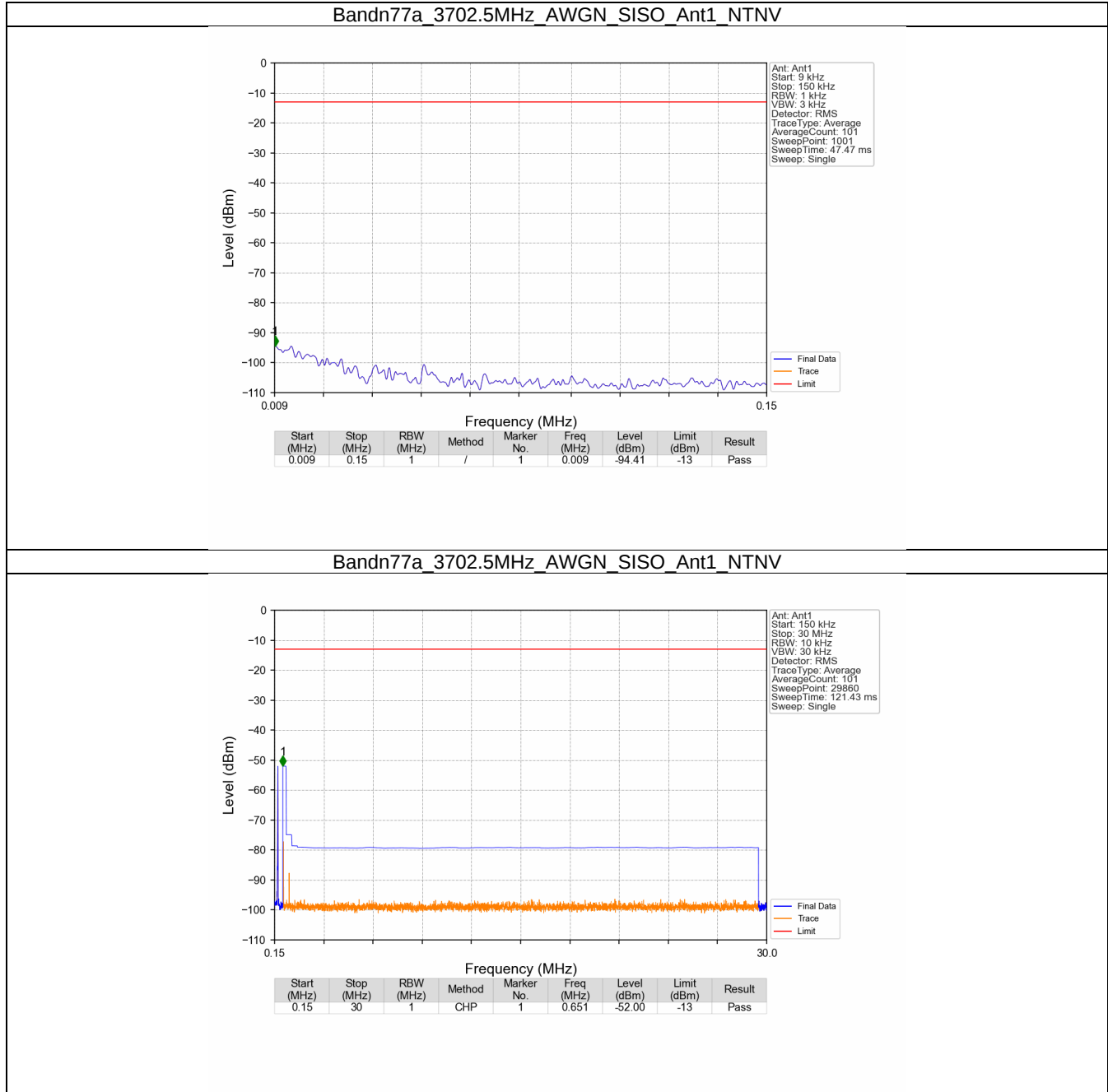
Band: n77a / NTVN								
Signal			Channel	TX Type	ANT	SE (dBm)		Verdict
Type	Level (dBm)	Frequency (MHz)				Result	Limit	
AWGN	-4	3702.5	LCH	SISO	1	Refer To Test Graph		Pass
		3840	MCH	SISO	1	Refer To Test Graph		Pass
		3977.5	HCH	SISO	1	Refer To Test Graph		Pass
GMSK	-4	3700.1	LCH	SISO	1	Refer To Test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

For 100MHz BW

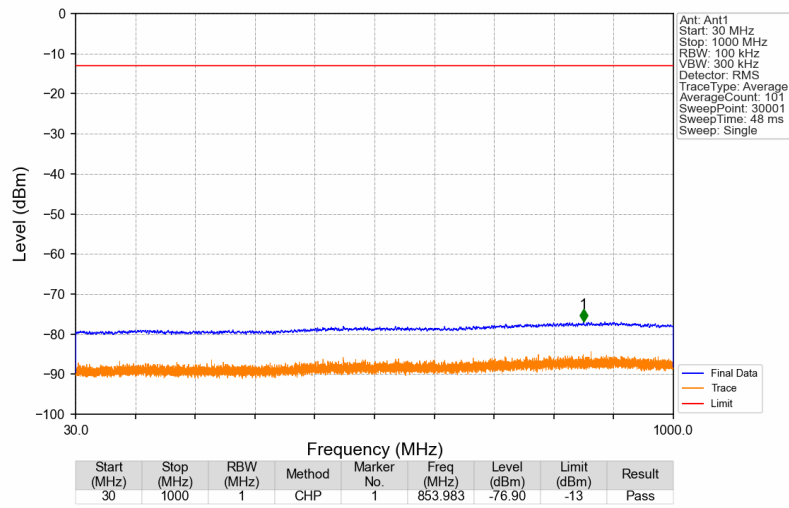
Band: n77a / NTNV								
Signal			Channel	TX Type	ANT	SE (dBm)		Verdict
Type	Level (dBm)	Frequency (MHz)				Result	Limit	
AWGN	-4	3750	LCH	SISO	1	Refer To Test Graph		Pass
		3840	MCH	SISO	1	Refer To Test Graph		Pass
		3930	HCH	SISO	1	Refer To Test Graph		Pass

6.1.2 Test Graph

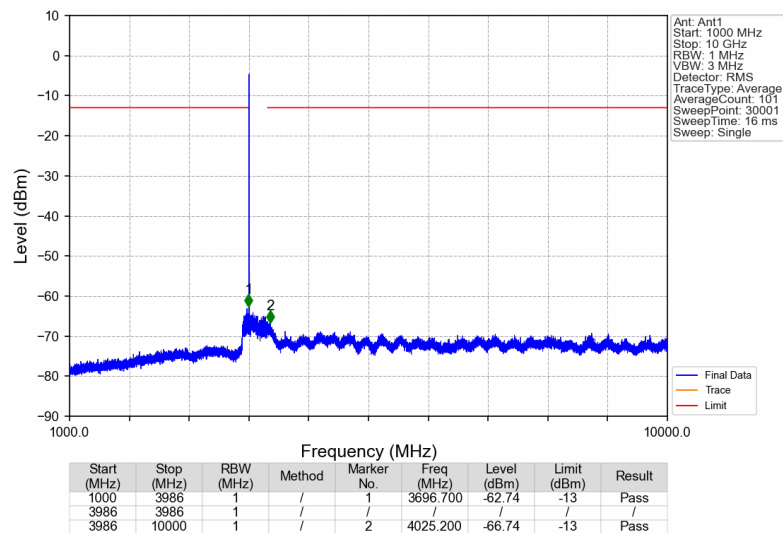
For FCC



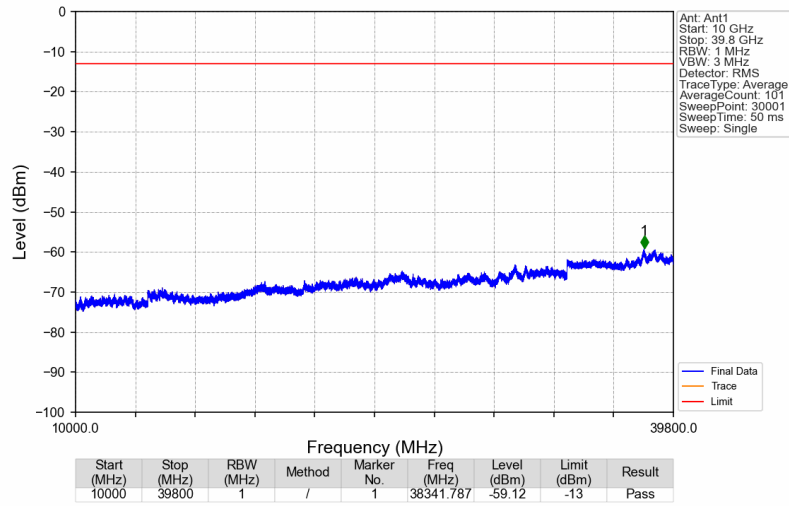
Bandn77a_3702.5MHz_AWGN_SISO_Ant1_NTNV



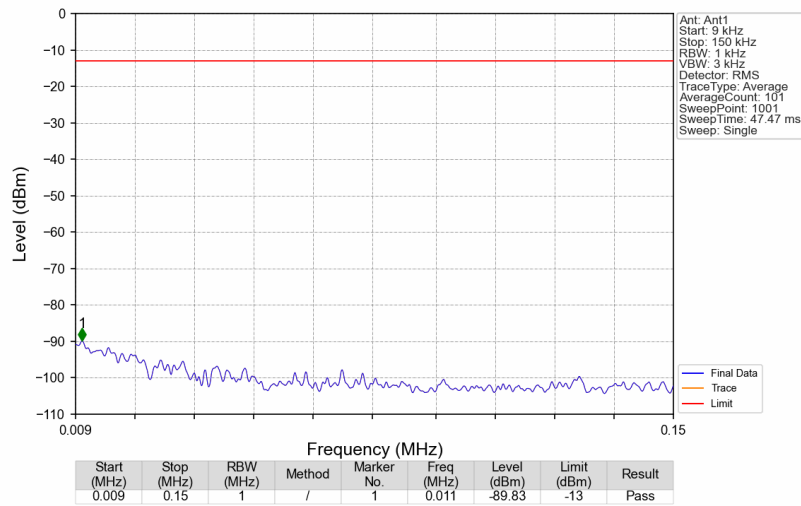
Bandn77a_3702.5MHz_AWGN_SISO_Ant1_NTNV



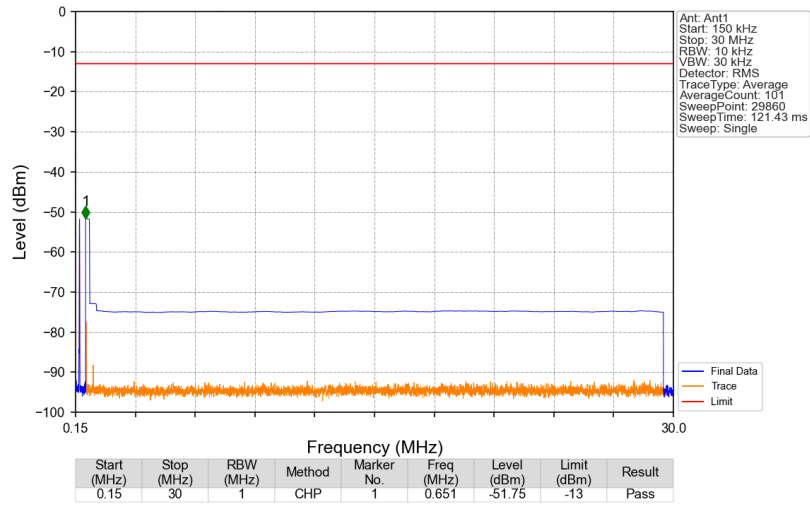
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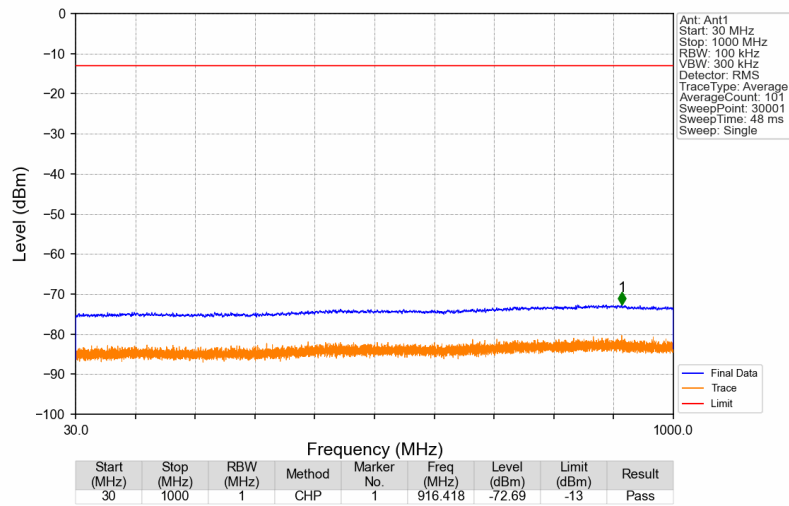
Bandn77a_3840MHz_AWGN_SISO_Ant1_NTNV



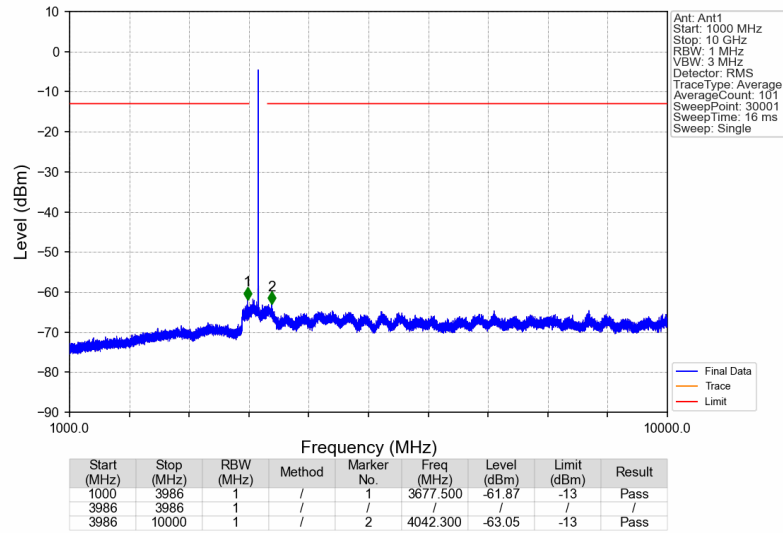
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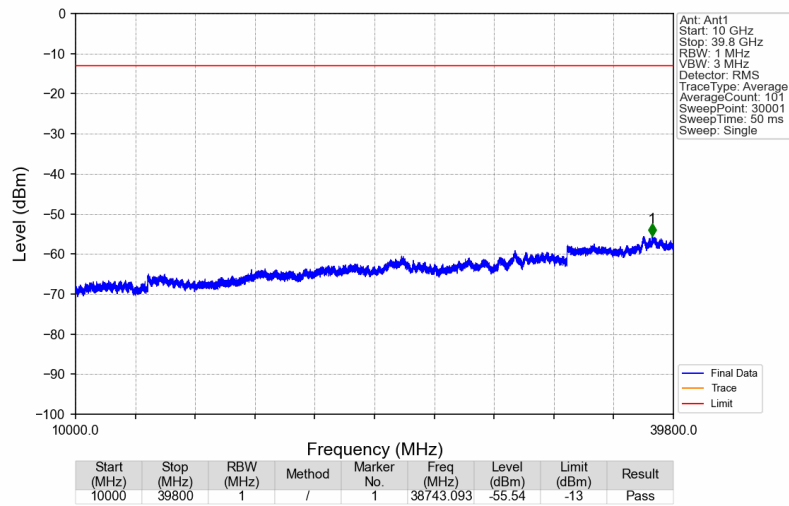
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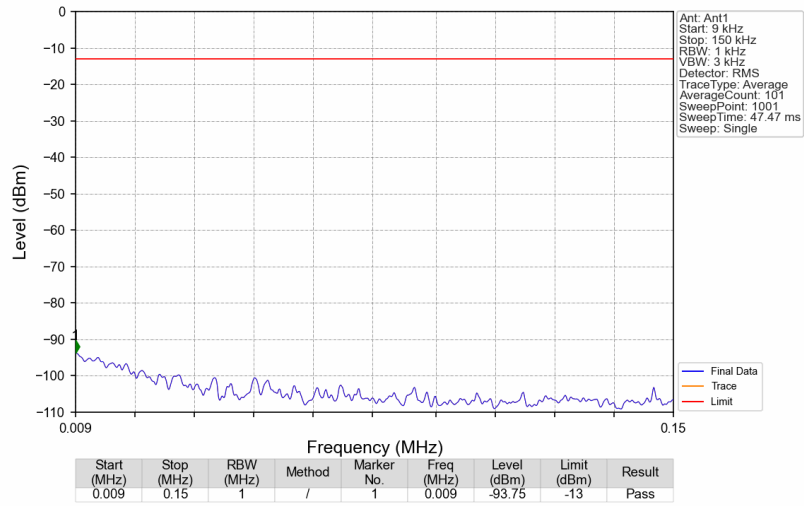
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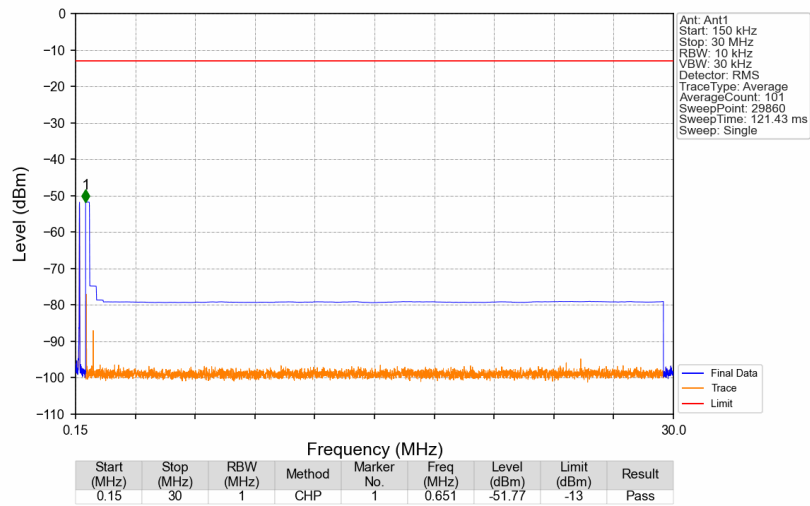
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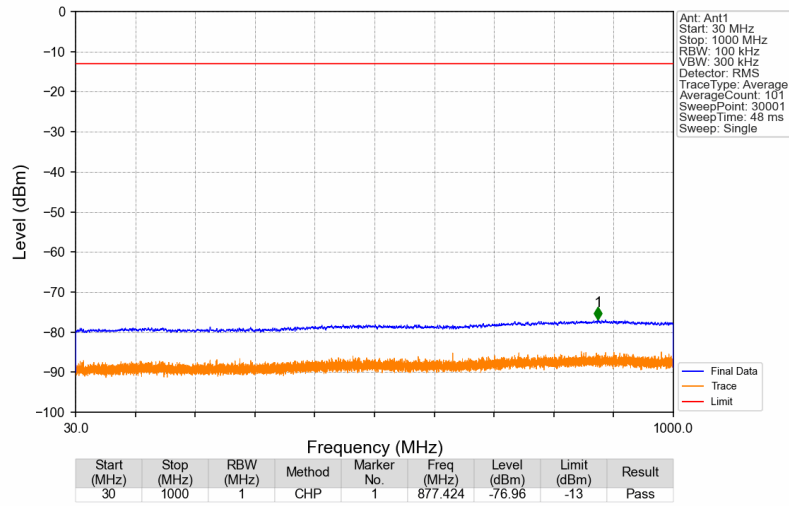
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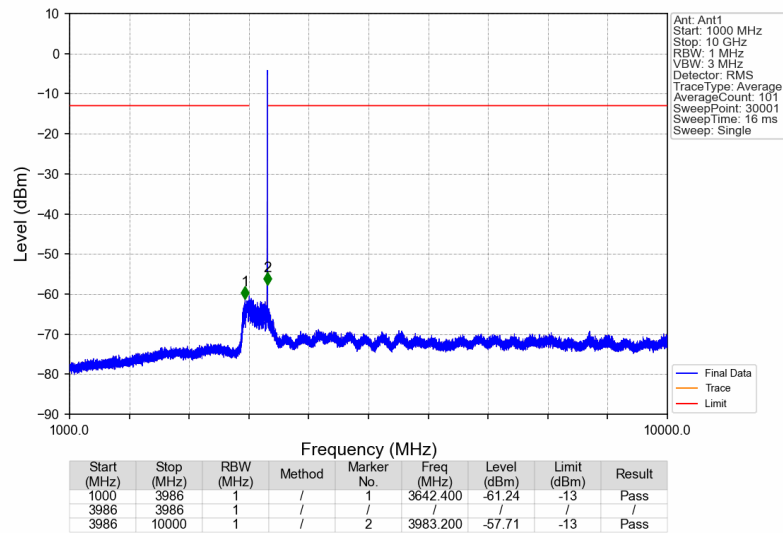
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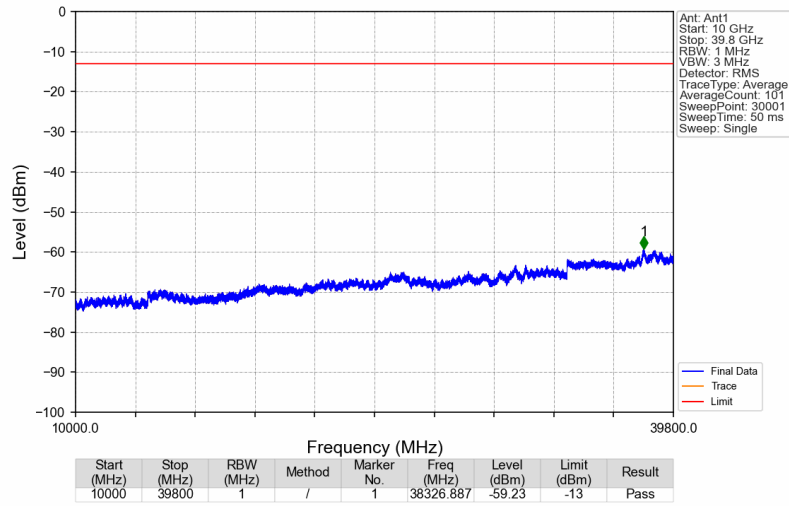
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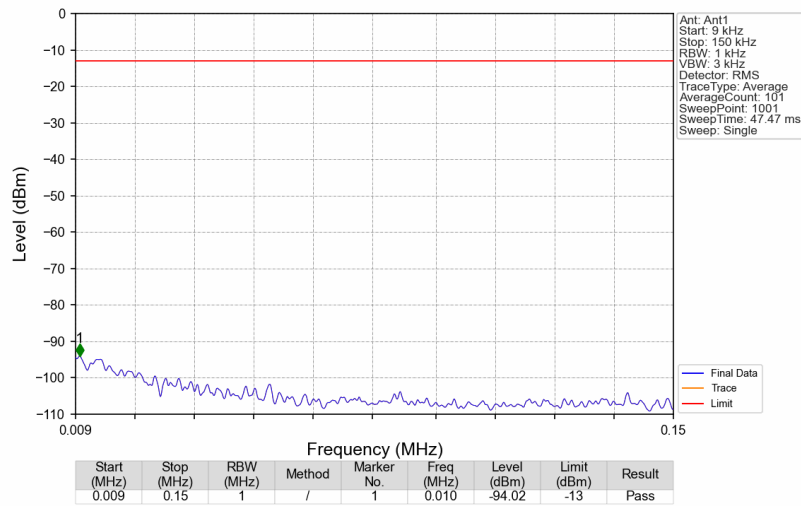
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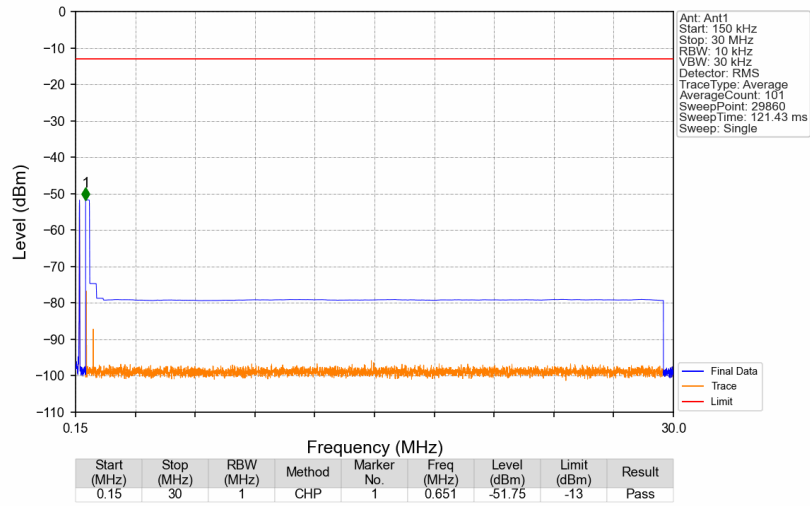
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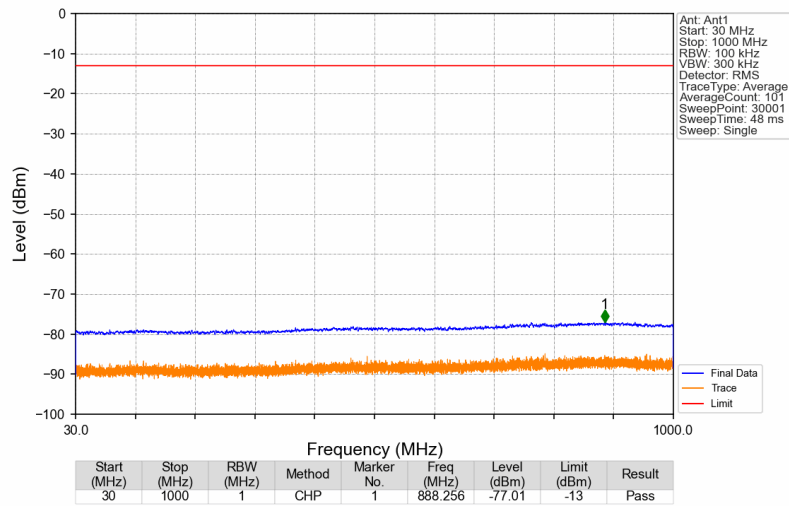
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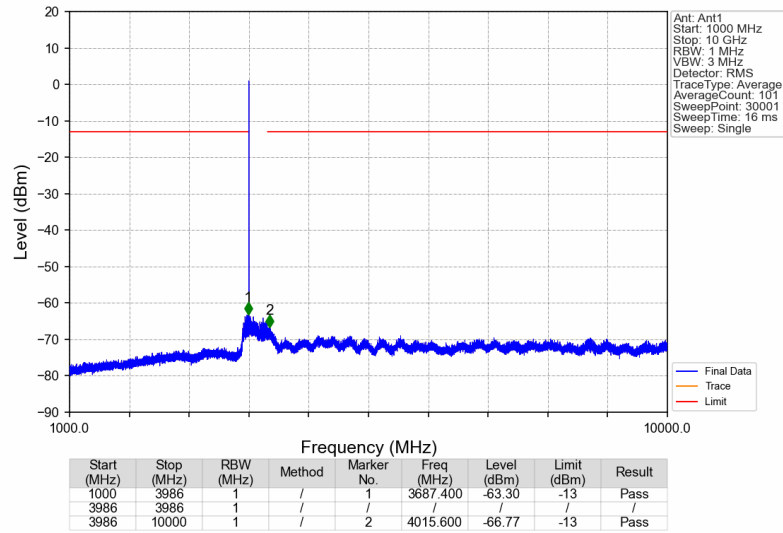
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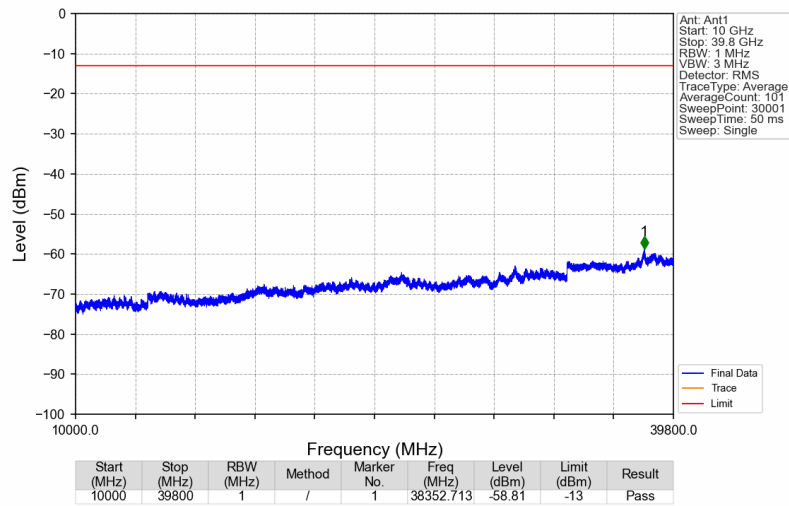
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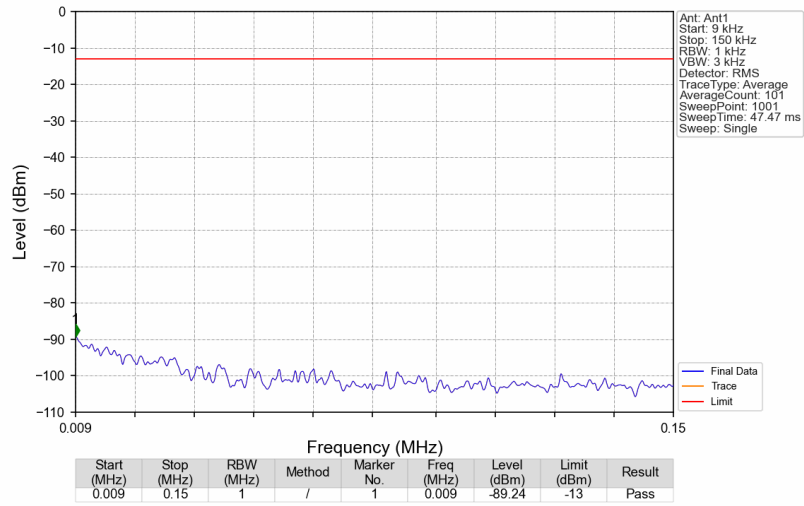
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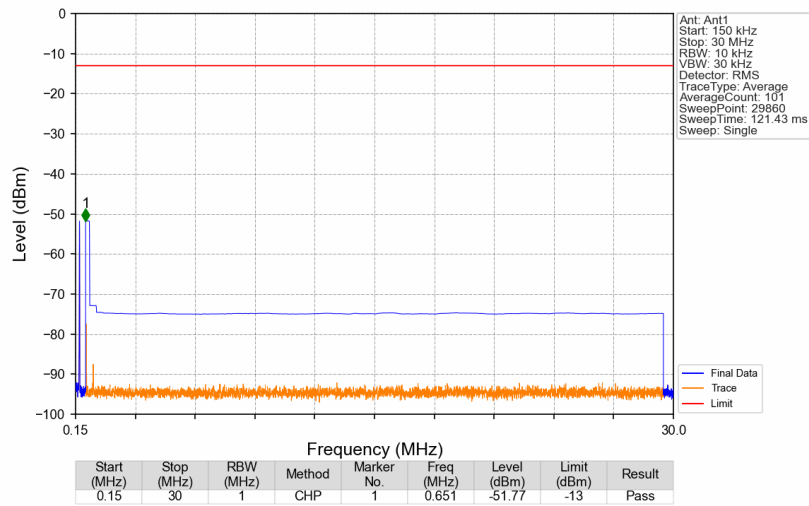
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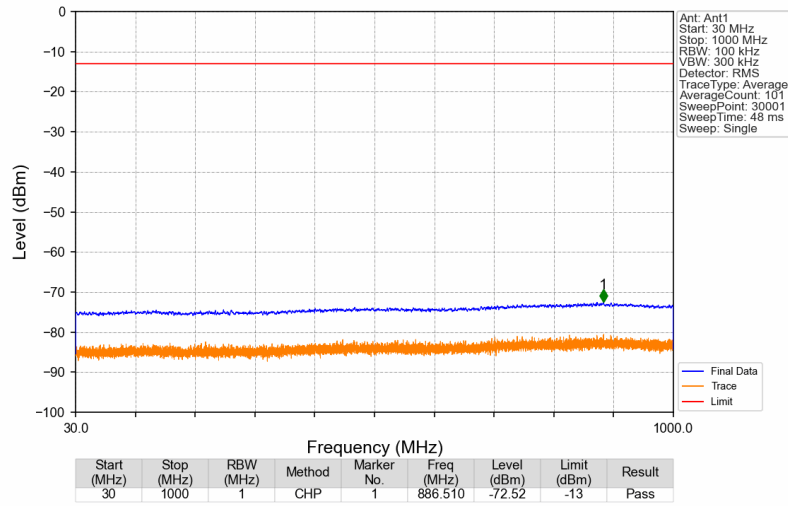
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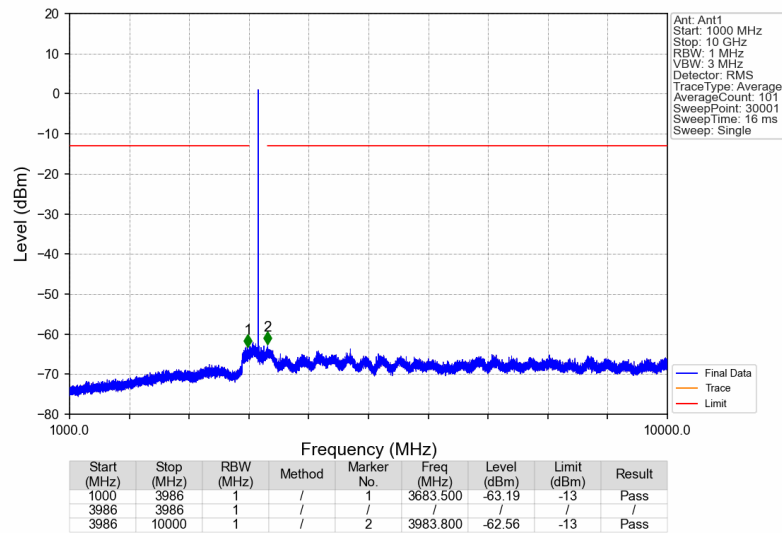
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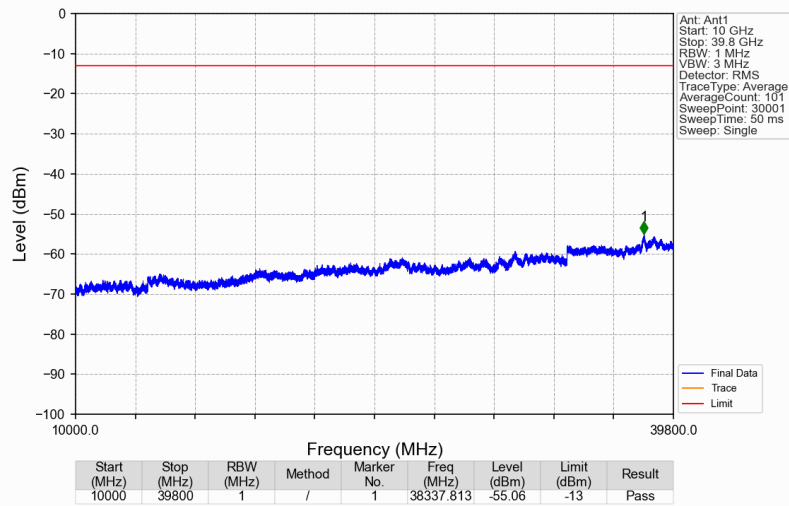
Bandn77a_3840MHz_GMSK_SISO_Ant1_NTNV



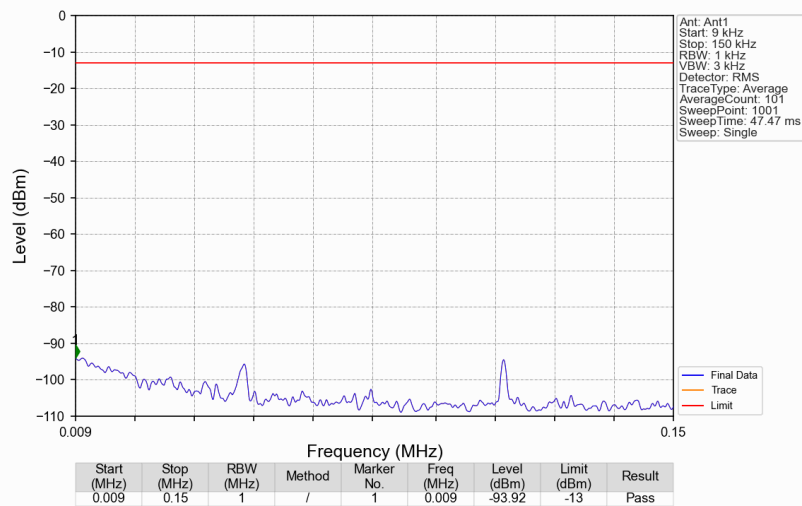
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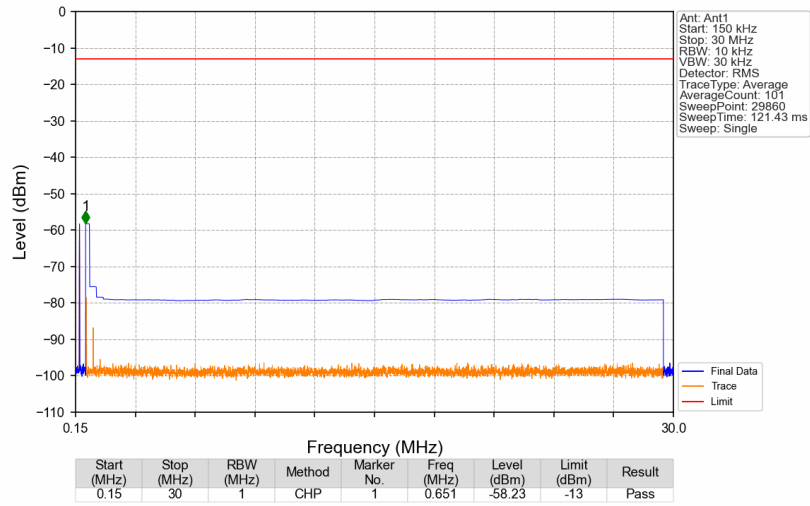
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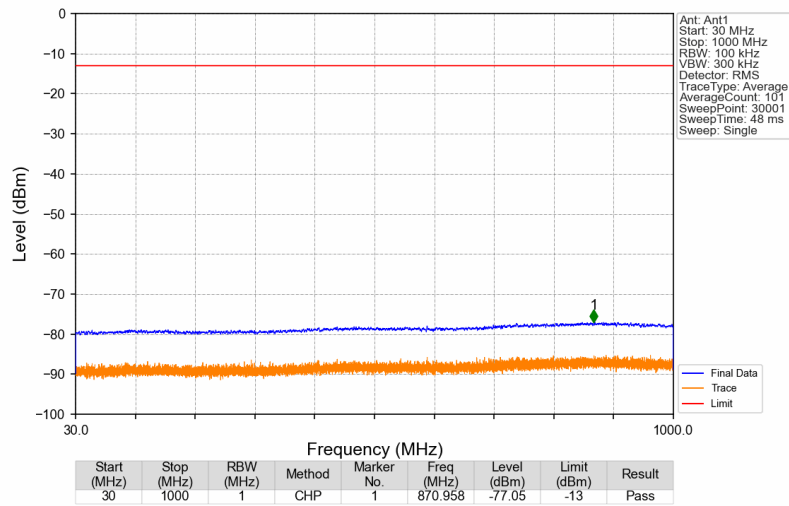
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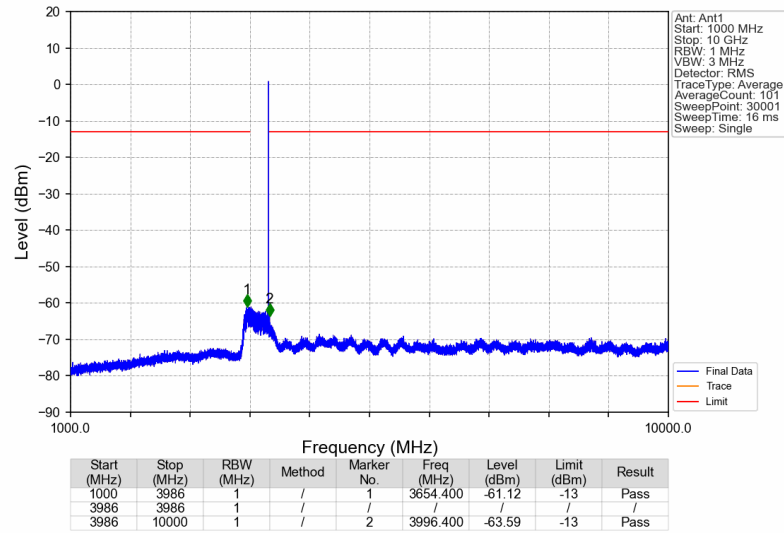
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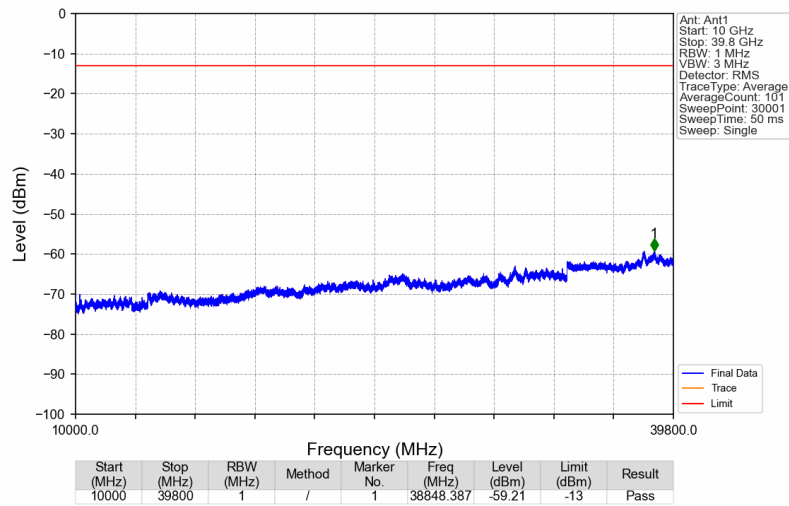
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Bandn77a_3979.9MHz_GMSK_SISO_Ant1_NTNV

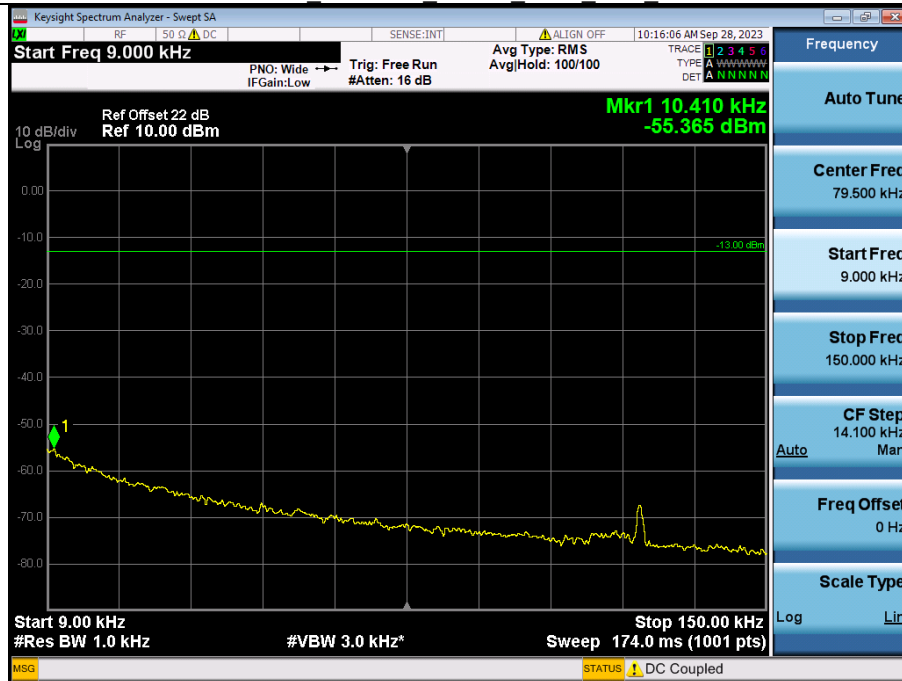


Bandn77a_3979.9MHz_GMSK_SISO_Ant1_NTNV

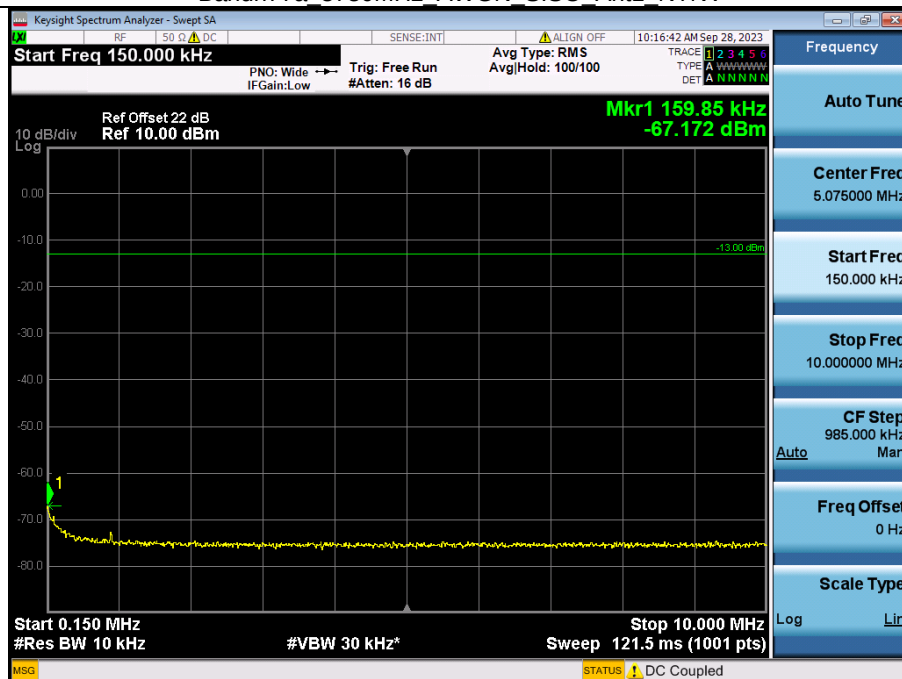


For 100MHz BW

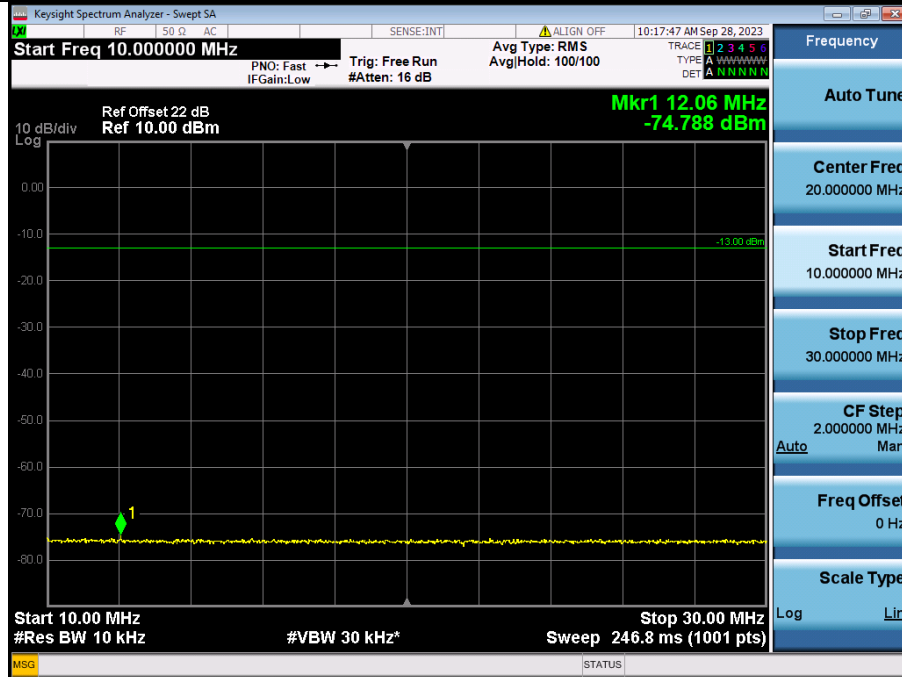
Bandn77a 3730MHz AWGN SISO Ant1 NTN



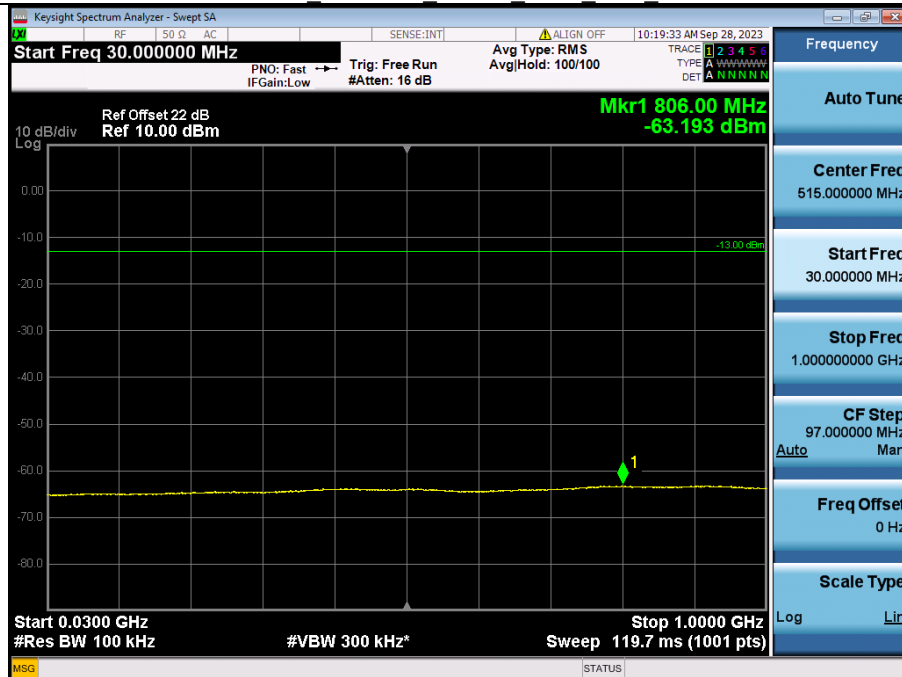
Bandn77a 3730MHz AWGN SISO Ant1 NTN



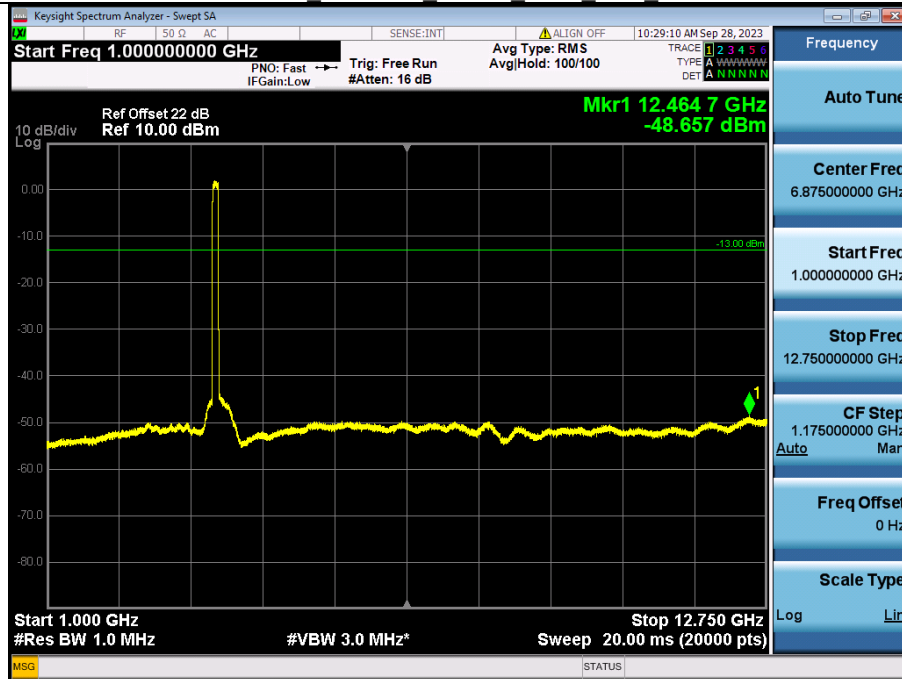
Bandn77a 3730MHz AWGN SISO Ant1 NTN



Bandn77a 3730MHz AWGN SISO Ant1 NTN



Bandn77a_3730MHz_AWGN_SISO_Ant1_NTNV



Bandn77a_3730MHz_AWGN_SISO_Ant1_NTNV

