2026

SURVEY OF

AM EMISSION NRSC-2

PERFORMANCE

FOR

KSAMple - 1500 kHz -Day Mode
Anywhere, NE

BY
Kenneth Beckwith
Beckwith Technical Services
8671 Ridge Hollow Dr.
Lincoln, NE
68526
402-540-2264
1/2/2026

Emission Performance Measurements as required by the FCC Rules: 73.44 & 73.1590

Were taken on station: KSAMple-Day Freq: 960 TPO: 5000 OMNI DA

On: 1/2/2026 Between: 9:00 & 11:00 Central Monitor Location 40-48-29 N

96-41-59 W

METHODOLOGY

Measuring vehicle was driven to a location approximately 1 kilometer from the tower site, or as indicated above. A model LP-3 Shielded loop antenna manufactured by Chris Scott and Associates was used for these measurements. The antenna was rotated to give maximum signal from the station under test while other signals were watched to see if their levels increased or decreased from the station under test. An Anritsu MT8222A spectrum analyzer was used. During bandwidth measurements, A res bandwidth of 300Hz was used and a Chris Scott Low loss AM Notch filter may have been used to improve the + - 75KHz Plus noise floor readings. For harmonic measurements, a Potomac FIM-41 was utilised.

BANDWIDTH MEASUREMENTS

	ABSOLUTE		NORMALIZED		FCC LIMIT	
CARRIER	-26.3		0		0	
±10.2 KHz	-84.95	-86.73	-58.65	-60.43	-25	dBc
±20 KHz	-100.14	-102.4	-73.84	-76.1	-35	dBc
±30 KHz	-108.32	-108.68	-82.02	-82.38	-35	dBc
±40 KHz	108.86	-110.22	135.16	-83.92	-45	dBc
±50 KHz	-108.26	-108.45	-81.96	-82.15	-55	dBc
±60 KHz	-110.08	-109.55	-83.78	-83.25	-65	dBc
>±75 KHz	-110.42	-110.46	-84.12	-84.16	-80	dBc

HARMONIC MEASUREMENTS

	Frequency	ABSOLUTE	NORMALIZED	FCC Limit
CARRIER	960	-15	0	N/A
SECOND	1920	-105	-90	-80
THIRD	2880	-106	-91	-80

FCC Limits: 5KW+ -80DB, 2.5KW -77DB, 1KW -73DB, 500W -70DB, 250W -67DB, 158W or less -65DB

Frequency Measurement: 960.000 kHz

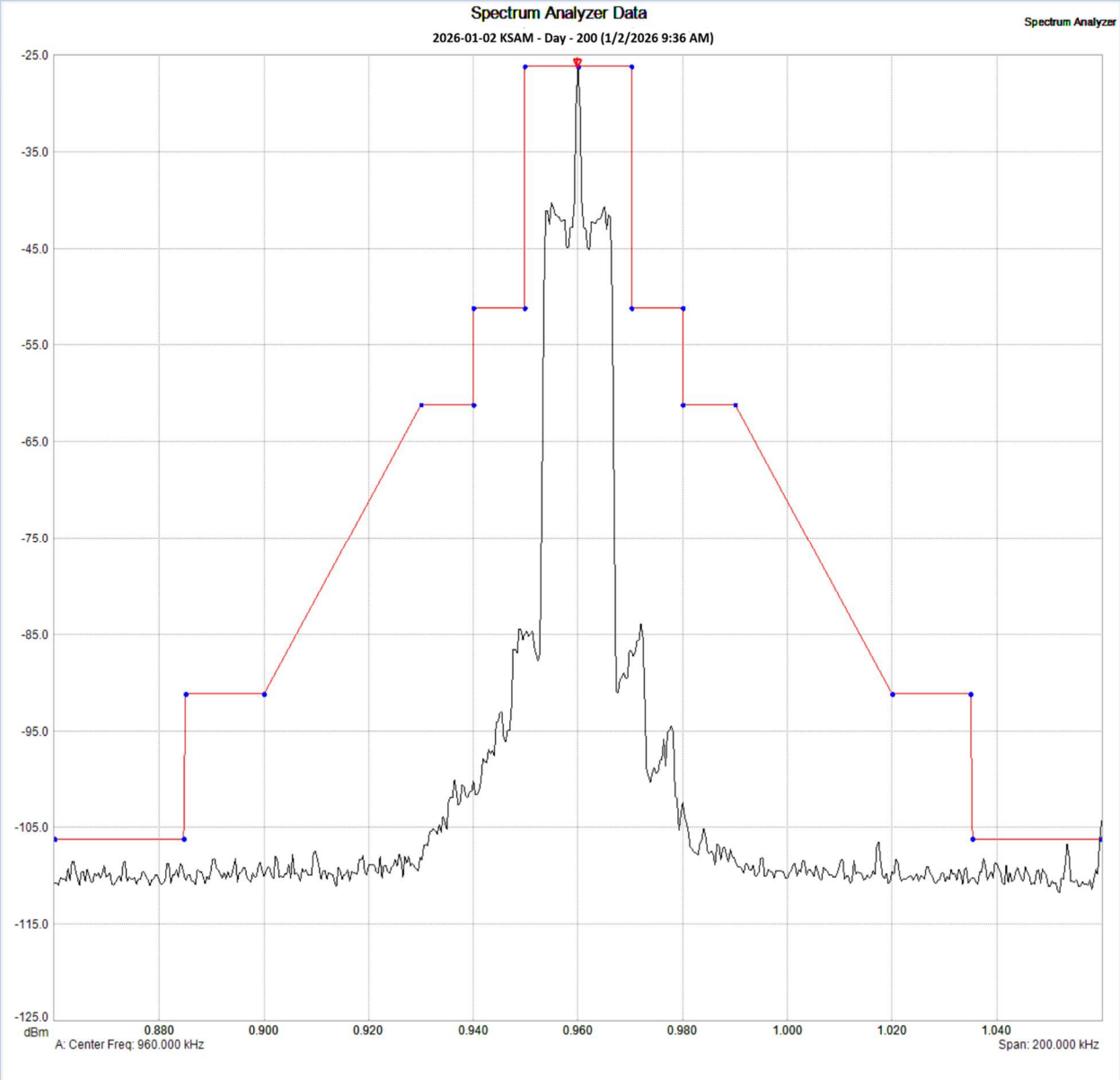
PASS	FAIL
X	

Signature: _____ Date: _____

KSAM NRSC 200 kHz Measurement Report

KSAM Communications

Prepared for: Joe Cool Engineer

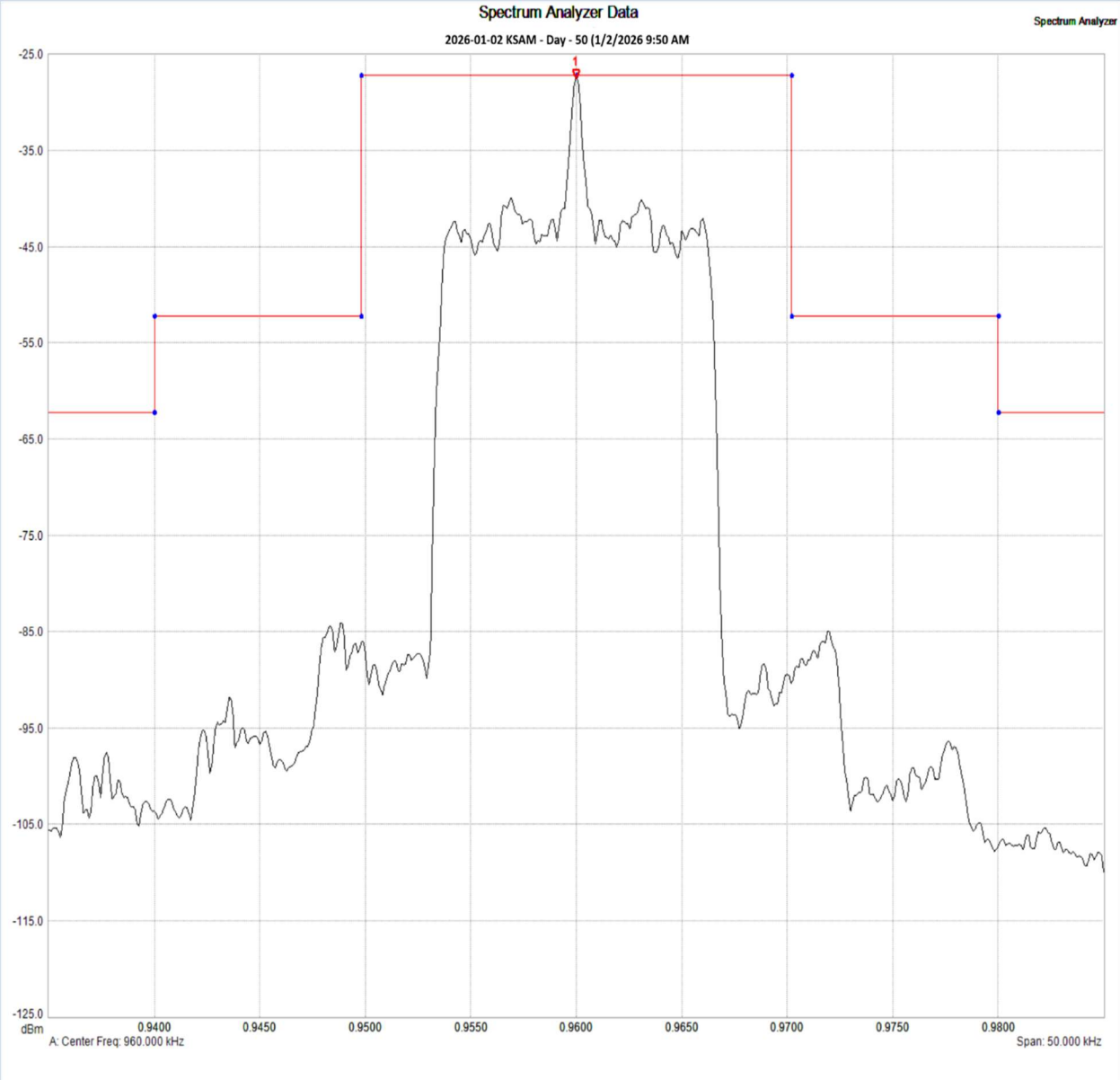


Mkr	Ref	Delta	Ref Freq	Ref Amp
1	■		960.000 kHz	-26.30 dBm
2			--	--
3			--	--
4			--	--
5			--	--
6			--	--

KSAM NRSC 50 kHz Measurement Report

KSAM Communications

Prepared for: Joe Cool Engineer

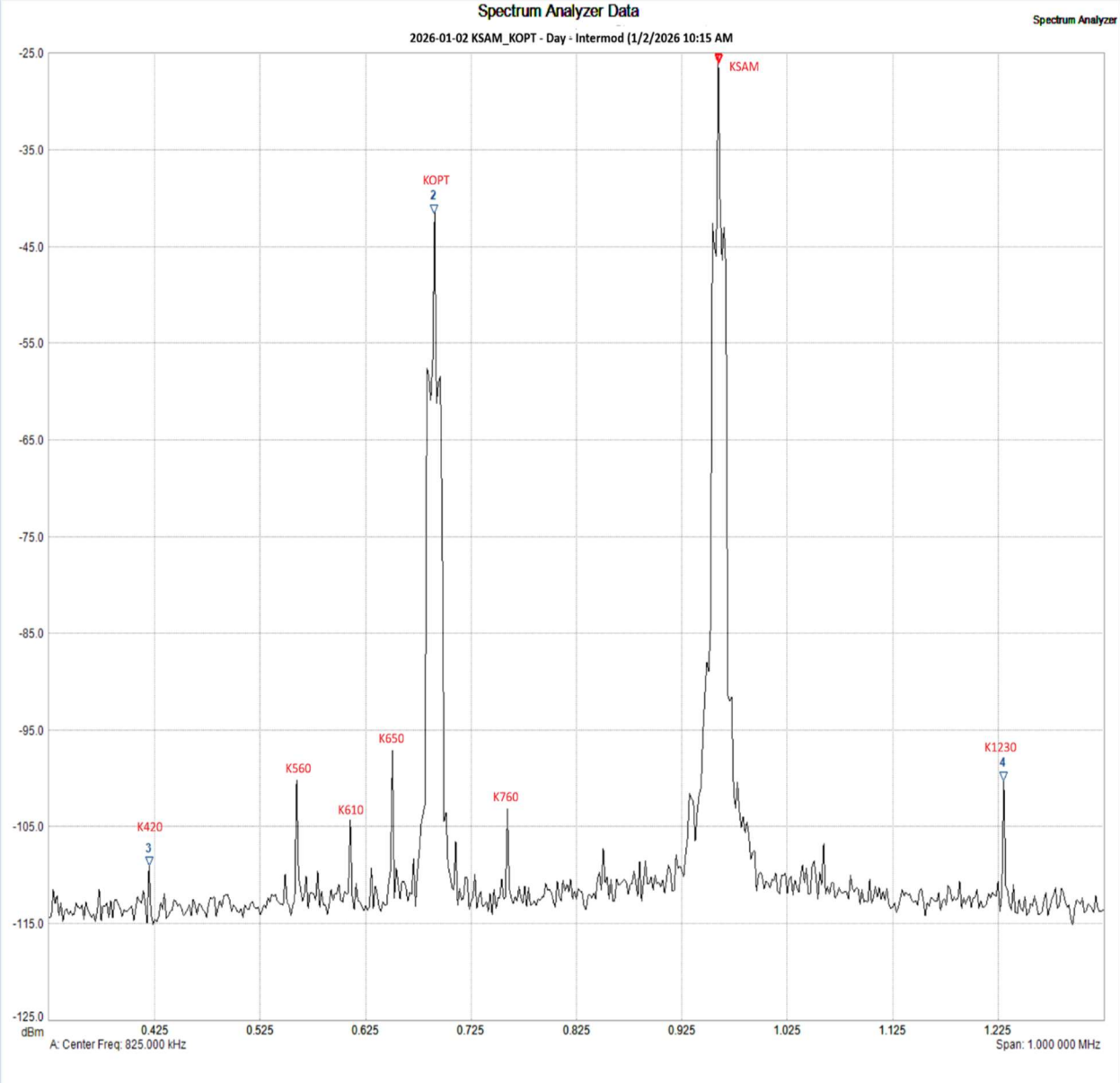


Mkr	Ref	Delta	Ref Freq	Ref Amp
1	■	□	960.000 kHz	-27.51 dBm
2	□	□	--	--
3	□	□	--	--
4	□	□	--	--
5	□	□	--	--
6	□	□	--	--

KSAM NRSC Intermod Measurement Report

KSAM Communications

Prepared for: Joe Cool Engineer

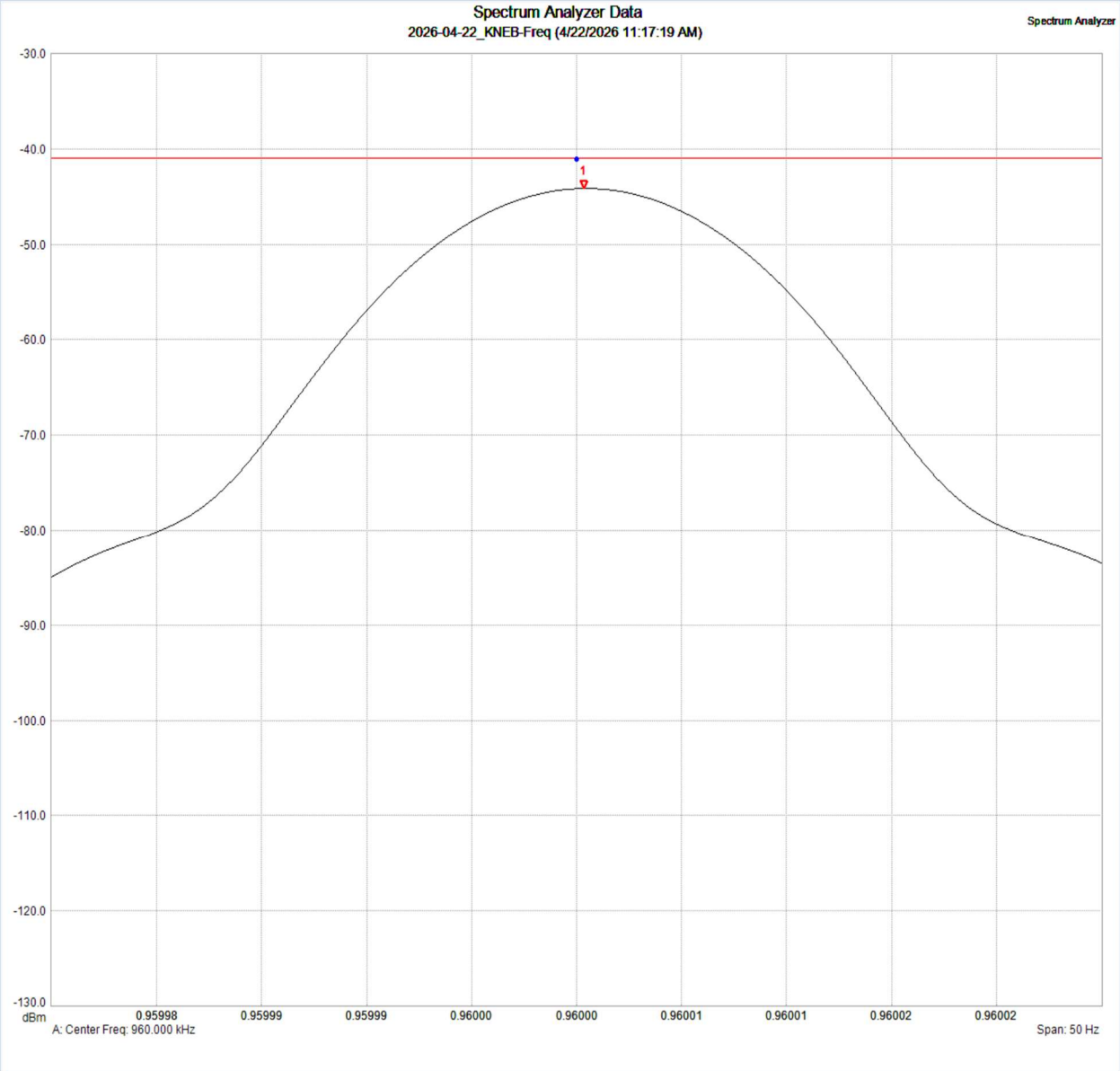


Mkr	Ref	Delta	Ref Freq	Ref Amp
1	■	□	960.000 kHz	-26.02 dBm
2	■	□	690.000 kHz	-41.56 dBm
3	■	□	420.000 kHz	-109.01 dBm
4	■	□	1.230 000 MHz	-100.24 dBm
5	□	□	--	--
6	□	□	--	--

KSAM NRSC Frequency Measurement Report

KSAM Communications

Prepared for: Joe Cool Engineer



Mkr	Ref	Delta	Ref Freq	Ref Amp
1	■	□	960.000 kHz	-44.15 dBm
2	□	□	--	--
3	□	□	--	--
4	□	□	--	--
5	□	□	--	--
6	□	□	--	--

NRSC Checklist

Equipment Needed:	Meaurements Needed	Underlined items need to be entered prior to visit.
Anritsu Spectrum Analyzer	Mask at 200 kHz bandwidth	Boxed items need to be entered upon measurement
Shielded Loop Antenna	Mask at 50 kHz bandwidth	
AM Frequency Notch Filter	IM check at 500 kHz or 1 MHz bandwidth	
VNA	Harmonic check at bandwidth to include 3rd harmonic	
Potomac FIM-41	Frequency Measurement	
AM Radio capable of receiving harmonic frequencies		

Station	Power in Watts	Frequency
KSAMple-Day	5000	960

Other Local Stations	Frequency	Potential IM Frequency	Potential IM Frequency
KOPTional	690	1230	420
		0	0
		0	0
		0	0

	2nd Harmonic	3rd Harmonic
	1920	2880

Harmonic Measurements	Peak Reference Level	Noise Threshhold
	-15	-80

Required noise level threshhold
-95

Recorded Level	Recorded Level
-105	-106
Actual Level	Actual Level
-90	-91
Pass/Fail	Pass/Fail
PASS	PASS

Monitor Location

40-48-29	N
96-41-59	W

PWR LVL in watts	Noise Floor Threshhold	
5000	-80 dB	for any power level below 158 watts the level is -65dB
		for any other power level the level is the calculated level or -80dB, whichever is less
		identify any signal over the threshhold to determine if it is intermod

Setup Checklist

- [x] Recall NRSC Setup
- [x] Check Auto Atten - Off
- [x] Check PreAmp - Off
- [x] Set Frequency of Station
- [x] Check RBW and VBW
- [x] Attach Antenna
- [x] Set Proper Amplitude
- [x] Recall Correct Mask and Adjust level when signal settles down
- [x] Set Trace A to Max Hold for 10 minutes
- [x] Set necessary Markers
- [x] 200K Bandwidth Measurement
- [x] 50K Bandwidth Measurement
- [x] IM Measurement
- [x] Harmonic Measurement
- [x] Save All Results
- [x] Record Location Information