PO Box 6025, Lubbock, TX 79493

# AM SPECTRUM EMISSION STUDY
# KJTV-AM
# 950kHz
# Lubbock, TX
# 12-27 -2018

## Qualifications & Procedures

The licensee of the station contracted Rock Tex Technologies, LLC to conduct measurements pursuant to Federal Code sub part 73.44 of the rules to determine ongoing compliance.

## Qualifications

Steven Hasskamp, Primary Member of Rock Tex Technologies, LLC a Texas entity He is the Senior RF engineer for Rock Tex Technologies, LLC. He holds a BSEE and has practiced before the commission since 1978. His qualifications are a matter of record before the Federal Communications Commission.

## Equipment Description

The following test equipment was used for meeting the requirements of 73.44 of the FCC Rules:
Anritsu MS2721B Spectrum Analyzer with no video filtering and
300 Hz Bandwidth resolution and peak hold time of 10 minutes.
Waveforms are transferred to a computer to be placed in the report
Potomac FIM 41 Field Strength Meter for measurements of station's
Carrier and Harmonics.
General Receiver to identify emissions above the mask as needed
A laboratory grade calibrated standard H-Field Antennae

## Test Procedures

(a) Measurements were conducted at a location approximately one km from the station's antennae. The general bearing is noted in the report.

(b) The station's field strength was measured on Potomac FIM-41 at the location for reference level. This station is an operating station and measurements were made per 73.44(d)(3). The station was operating at no less than 90% rated daytime power as per 73.44(ii)

(c) Second Harmonic Radiation was measured with the FIM-41 and is calculated as it is referenced to the carrier in decibels and entered in the report.

(d) Third Harmonic Radiation was measured with the FIM-41 and is calculated as it is referenced to the carrier in decibels and entered in the report.

(e) If spurious radiation from the station is suspected, additional tests are conducted as necessary to determine the extent of the emissions on the Radio Receiver. Any spurious radiation, if found, is detailed in the report.

(f) Photographs of the station's signal as observed on the spectrum analyzer are shown as Exhibit 1 and Exhibit 2 of this report. The station's compliance with 73.44(b) is noted in the report and shown in the exhibits. Other signals shown on the photographs are identified to insure this station is not radiating them

Exhibit 1. The station's main carrier is shown in the center of the screen and is adjusted for reference that demonstrates sufficient parameters to determine

mask compliance. Bandwidth is set to +/-20kHz per division with a resolution bandwidth of 300Hz with signal strength setting at 10dB/division. The "Max Hold" feature is employed to capture peaks for a duration of 10 minutes.

Exhibit 2. The station's main carrier is shown in the center of the screen and is adjusted for reference that demonstrates sufficient parameters to determine mask compliance. Bandwidth is set to +/-5kHz per division with a resolution bandwidth of 300Hz with signal strength setting at 10dB/division. The "Max Hold" feature is employed to capture peaks for a duration of 10 minutes.

## Discrepancies

Any measurements taken which are not within the limits as prescribed by 73.44 of the FCC Rules and Regulations will be outlined in Exhibit 3 and it's attachment will be noted on the *Report* of *Measurements & Data* of this report. The licensee will also be notified of their failure to comply in writing.

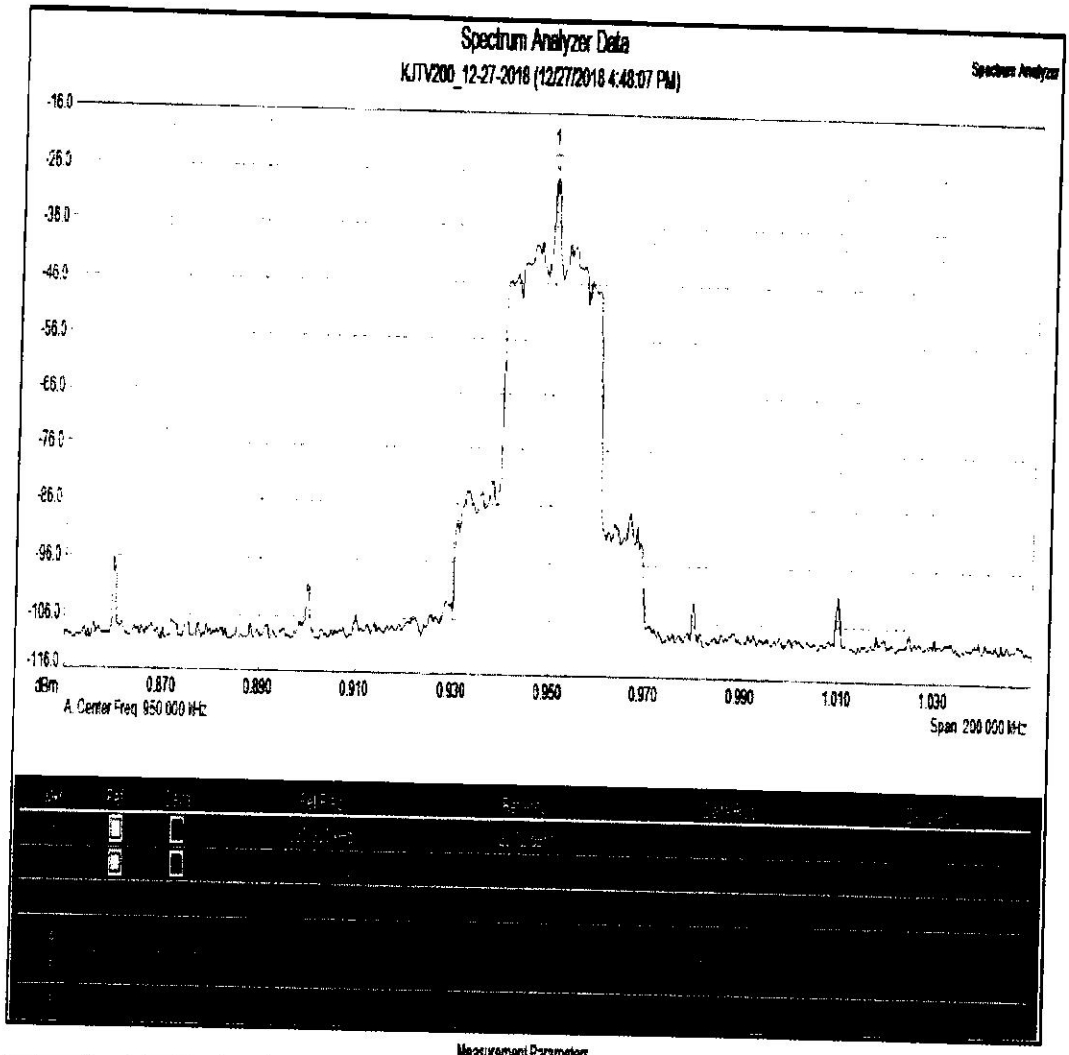
## Report of Measurements & Data

| | |
|---|---|
| STATION: | KJTV-AM |
| CITY & STATE: | Lubbock, TX |
| FREQUENCY: | 950 kHz |
| DAYTIME POWER: | 5 kW |
| DISCRIPTION OF LOCATION WHERE MEASUREMENTS WERE TAKEN: | 1km bearing 315 degrees |
| (b) SECOND HARMONIC FIELD STRENGTH IN -dB | -93 dB |
| (c) THIRD HARMONIC FIELD STRENGTH IN -dB | -86 dB |
| Any spurious emission is noted: | |
| Does station meet 73.44(b) | Yes |
| Date of Measurements: | 12-27 2018 |
| Time of Measurements: | 10:21 |

I hereby certify the measurement data contained in this exhibit was either taken by myself or under my direct supervision. All statements are true and correct to the best of my knowledge.

Steven P. Hasskamp
Senior RF Engineer
Rock Tex Technologies, LLC
12-31-2018

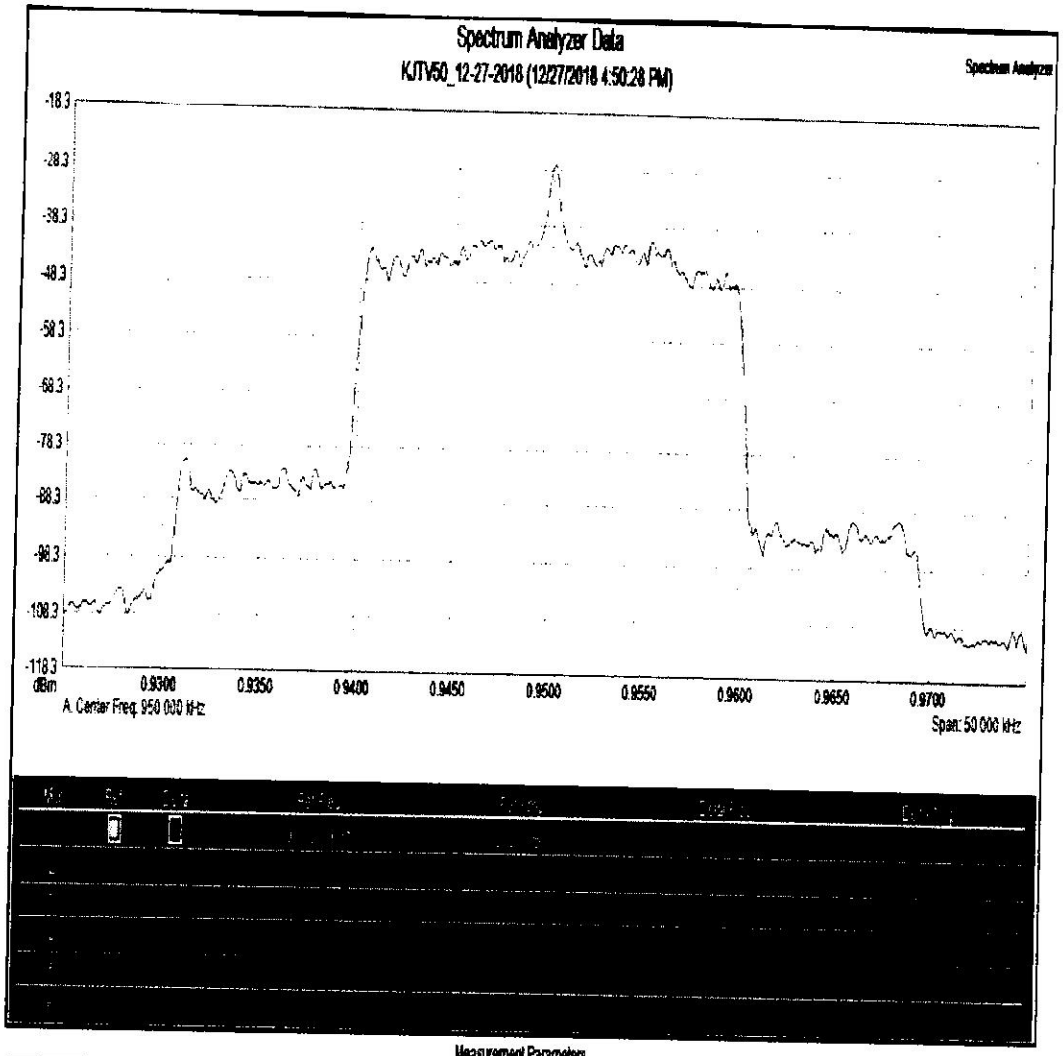
# KJTV-AM, Lubbock, TX




Measurement Parameters

| | | | |
|---|---|---|---|
| | | Stop Frequency | 1.050 000 MHz |
| Trace Mode | Max Hold | Frequency Span | 200.000 000 kHz |
| Preamp | OFF | Reference Level | -11.000 dBm |
| Min Sweep Time | 0.001 S | Scale | 10.0 dB/div |
| Reference Level Offset | 5 dB | Serial Number | 1827112 |
| Input Attenuation | 10.0 dB | Base Ver. | V5.71 |
| RBW | 390.0 Hz | App Ver. | V5.73 |
| VBW | 39.0 kHz | Model | MS2721B |
| Detection | Peak | Options | 20 |
| Center Frequency | 950.000 000 kHz | Date | 12/27/2018 4:48:07 PM |
| Start Frequency | 850.000 000 kHz | Device Name | RockTexTechnologies11 -8-18 |

# KJTV-AM, Lubbock, TX




Measurement Parameters

| | | | |
|---|---|---|---|
| Trace Mode | Max Hold | Stop Frequency | 975.000 000 kHz |
| Preamp | Off | Frequency Span | 50.000 000 kHz |
| Min Sweep Time | 0.001 S | Reference Level | -13.300 dBm |
| Reference Level Offset | 5 dB | Scale | 10.0 dB/div |
| Input Attenuation | 0.0 dB | Serial Number | 1027112 |
| RBW | 300.0 Hz | Base Ver | V5.71 |
| VBW | 30.0 kHz | App Ver. | V5.73 |
| Detection | Peak | Model | MS2721B |
| Center Frequency | 950.000 000 kHz | Options | 26 |
| Start Frequency | 925.000 000 kHz | Date | 12/27/2018 4:50:28 PM |
| | | Device Name | RockTexTechnologies11 -8-18 |