

Equipment Performance Measurements (FM)

Call Letters - KQNV Community Of License Fallon, NV
 Technician - Kevin Fitzgerald Date & Time - 10/12/2013
 Transmitter Make & Model - Armstrong FM1300B
 Exciter Make & Model - Nicom NT-20
 Frequency - 89.9 Frequency Calibrated? - Y
 Analyzer Brand & Model - Winradio WR6305e
 Serial Number - 0309/09129006FB Source Of Analyzer - Kevin Fitzgerald
 Analyzer Calibration Date - Y2011 Other _____
 * Measurements at Transmitter site with wire antenna

Measurements

1) 120 kHz to 240 kHz from the carrier:

Below Level Of Unmodulated Carrier Below Level Of Unmodulated Carrier

Minus 120 kHz	<u>78dB</u>	Plus 120 kHz	<u>73dB</u>
Minus 180 kHz	<u>81dB</u>	Plus 180 kHz	<u>75dB</u>
Minus 240 kHz	<u>87dB</u>	Plus 240 kHz	<u>87dB</u>

Any point between 120 kHz and 240 kHz inclusive attenuated to a lower dB level of the unmodulated carrier than the 3 listed above: No

All points between 120 kHz and 240 kHz inclusive attenuated at least 25 dB below the level of the unmodulated carrier lower: Yes

2) 240 kHz to 600 kHz from the carrier:

Below Level Of Unmodulated Carrier Below Level Of Unmodulated Carrier

Minus 240 kHz	<u>87dB</u>	Plus 240 kHz	<u>87dB</u>
Minus 300 kHz	<u>87dB</u>	Plus 300 kHz	<u>87dB</u>
Minus 350 kHz	<u>87dB</u>	Plus 350 kHz	<u>87dB</u>
Minus 400 kHz	<u>87dB</u>	Plus 400 kHz	<u>87dB</u>
Minus 500 kHz	<u>87dB</u>	Plus 500 kHz	<u>87dB</u>
Minus 600 kHz	<u>87dB</u>	Plus 600 kHz	<u>87dB</u>

Any point between 240 kHz and 600 kHz inclusive attenuated to a lower dB level of the unmodulated carrier than the 6 listed above: No

All points between 240 kHz and 600 kHz inclusive attenuated at least 35 dB below the level of the unmodulated carrier: Yes

3) Greater than 600 kHz from the carrier:

Based on the formula in 73.317(d) and a TPO of 1.59kw the minimum attenuation level is 80 dB.

Below level of Unmodulated carrier		Below level of Unmodulated carrier	
Minus 700 kHz	87dB	Plus 700 kHz	84dB
Minus 800 kHz	87dB	Plus 800 kHz	85dB
Minus 1 mHz	83dB	Plus 1 mHz	86dB
Minus 1.5 mHz	85dB	Plus 1.5 mHz	87dB
Minus 2 mHz	87dB	Plus 2 mHz	87dB
Minus 3 mHz	87dB	Plus 3 mHz	87dB
Minus 5 mHz	87dB	Plus 5 mHz	87dB
Minus 6 mHz	87dB	Plus 6 mHz	84dB

Any point greater than 600 kHz from the carrier attenuated to a lower dB level of the unmodulated carrier than the 8 listed above: No

All points greater than 600 kHz from the carrier attenuated at least 80 dB below the level of the unmodulated carrier: Yes

Comments: At 115-1983 mHz very low level harmonic attenuated 83dB below, This is OK, Tested by turning off KQNV transmitter, harmonic not coming from KQNV transmitter.
Tested following harmonics: 75.7mHz (104.1-89.9) → 87dB below
74.5mHz (105.3-89.9) → 87dB below, 73.5mHz (106.3-89.9) → 87dB below, 72.5mHz (107.3-89.9) → 87dB below
Also, at 79.2mHz very low level signal 83dB below
Turned off KQNV, signal not coming from KQNV transmitter.

4) Preemphasis set at: 75 uSec