BROADCAST WORKS!

Technical Excellence

Ph: 903.509.2470
Fax: 903.509.0880

2105 Anthony Drive
Tyler TX 75701

SPURIOUS EMISSION REPORT
KMJJ RADIO AND ASSOCIATED COMBINED SYSTEM of KVMA and KQHN
AUGUST 5, 2010

On August 5, 2010 KMJJ radio was added to the existing combiner system of KVMA and KQHN radio in Shreveport Louisiana. Spurious Emission test where conducted which evaluated the level of spurious, harmonic and mix product signals. The test where conducted by myself and assisted by Engineer Dave Allen of Broadcast Works.

The test was conducted by operating all three stations at nominal power and modulation. The sample RF signal was taken from a test port at the output of the three station Dielectric combiner. Notch filters where used to reduce the level of each station's carrier so as not to overload the spectrum analyzer. Please reference the attached report for the measurement data. The tests determined that the combined system of KMJJ, KQHN and KVMA is in compliance with the FCC part 73.317 emission requirements.

John S. Bridges, CPBE
Engineering Project Manager
Broadcast Works!
FCC General Radiotelephone Operators License # PG-10-8969.

EXHIBIT #B
APP FOR STATION LICENSE
CUMULUS LICENSING LLC
KMJJ-FM RADIO STATION
CH259C2 - 23.5 KW
SHREVEPORT, LOUISIANA
August 2010

KQHN, KMJJ, KVMA Spurious Measurements

Broadcast Works Inc.
(903)-509-2470

Location: **Shreveport, LA**

1080510dra

	Subject Station: Class	Call	Freq	TPO (KW)	Transmitter Model and serial	Unmodulated Carrier Level (dB) "UCL" (dB)
F1	C2	KQHN	97.3	16.2	CEC 816R-3 sn=589	18.0
F2	C2	KMJJ	99.7	7.6	Harris HT20CD sn=MP01556-00001	14.42
F3	C2	KVMA	102.9	12.8	Harris HT20CD sn=MP02043000001	17.27

Frequency Combination (Mhz)	Calculated Spur (Mhz)	Measured Spur Level (dB)	Main Carrier Ref (Mhz)	dB down (UCL - Measured Spur)
2F1-F2	94.9	-85.4	F1	103.4
2F1-F3	91.7	-75.7	F1	93.7
2F2-F1	102.1	-67.0	F1	85.1
2F2-F3	96.5	-75.4	F1	93.4
2F3-F1	108.5	-87.9	F1	105.9
2F3-F2	106.1	-88.6	F1	106.7
3F1-F2	192.2	-88.1	F1	106.1
3F1-F3	189.0	-83.9	F1	102.0
3F2-F1	201.8	-85.3	F1	103.3
3F2-F3	196.2	-87.9	F1	105.9
3F3-F1	211.4	-87.4	F1	105.4
3F3-F2	209.0	-85.3	F1	103.4
2F1	194.6	-74.7	F1	92.7
3F1	291.9	-87.1	F1	105.1
2F2	199.4	-82.2	F1	100.2
3F2	299.1	-87.7	F1	105.7
2F3	205.8	-80.0	F1	98.0
3F3	308.7	-84.4	F1	102.4
F1+F2	197.0	-72.9	F1	90.9
F1+F3	200.2	-85.4	F1	103.4
F2+F3	202.6	-79.5	F1	97.5

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2F1-F3	91.7	-75.7	F2	90.1
2F2-F1	102.1	-67.0	F2	81.5
2F2-F3	96.5	-75.4	F2	89.8
2F3-F1	108.5	-87.9	F2	102.3
2F3-F2	106.1	-88.6	F2	103.1
3F1-F2	192.2	-88.1	F2	102.5
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3F3-F2	209.0	-85.3	F2	99.8
2F1	194.6	-74.7	F2	89.1
3F1	291.9	-87.1	F2	101.5
2F2	199.4	-82.2	F2	96.6
3F2	299.1	-87.7	F2	102.1
2F3	205.8	-80.0	F2	94.4
3F3	308.7	-84.4	F2	98.8
F1+F2	197.0	-72.9	F2	87.3
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2F2-F1	102.1	-67.0	F3	84.3
2F2-F3	96.5	-75.4	F3	92.7
2F3-F1	108.5	-87.9	F3	105.2
2F3-F2	106.1	-88.6	F3	105.9
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F1+F2	197.0	-72.9	F3	90.2
F1+F3	200.2	-85.4	F3	102.7
F2+F3	202.6	-79.5	F3	96.8

The signals were sampled at the output of the antenna combiner system, all at their licensed RF output levels. The measurements were made using an Agilent N93408 Spectrum Analyzer, Ser #CN03480818 calibrated 10/21/08. Each fundamental frequency was attenuated using a Microwave Filter Company model 6367 cavity notch filter tuned to the fundamental. Measured intermodulation products of the shared antenna system was at least 80 dB below the unmodulated carriers of the associated stations. Based on these measurements it is believed the stations are in compliance with 73.317 of the Commission's rules.

Date: 8-5-10
Engineer: Dave Allen