



FM Harmonic and Intermod
Emissions

Prepared for:
Cumulus Radio

Robertsdale AL Tower Site

WBLX-FM 92.9 MHz
WJLQ-FM 100.7 MHz
WYOK-FM 104.1MHz

Data was taken using an Agilent E4408B ESA-L Series Spectrum Analyzer

Measurements were taken from a Directional Coupler of the combiner output.

The transmitter of each station was operating at a TPO of 31.4 kW at the time of test.

Freq A	Freq B		Freq A	Freq B		Freq A	Freq B	
100.7	104.1		92.9	100.7		92.9	104.1	
IntMod	Freq MHz	Level(dBc)	IntMod	Freq MHz	Level(dBc)	IntMod	Freq MHz	Level(dBc)
A+B	204.8	-81	A+B	193.6	-81	A+B	197	-88.3
B-A	3.4	-90	B-A	7.8	-82	B-A	11.2	-82.5
2A-B	97.3	-82.3	2A-B	85.1	-80.9	2A-B	81.7	-80.5
2B-A	107.5	-83.1	2B-A	108.5	-80.7	2B-A	115.3	-81.3
2A+B	305.5	-88.6	2A+B	286.5	-81.4	2A+B	289.9	-89.7
2B+A	308.9	-83.2	2B+A	294.3	-88.1	2B+A	301.1	-88.2
2A+2B	409.6	-81.4	2A+2B	387.2	-87.4	2A+2B	394	-89.6
2B-2A	6.8	-85	2B-2A	15.6	-82	2B-2A	22.4	-85.4
3A-B	198	-82.4	3A-B	178	-87.1	3A-B	174.6	-84.7
3A+B	406.2	-80.1	3A+B	379.4	-83.8	3A+B	382.8	-89.1
3B+A	413	-85.4	3B+A	395	-87	3B+A	405.2	-90.6
3B-A	211.6	-88.3	3B-A	209.2	-82.5	3B-A	219.4	-83.5
3A+2B	510.3	-90.1	3A+2B	480.1	-90.1	3A+2B	486.9	-87.8
3A-2B	93.9	-80.2	3A-2B	77.3	-81.2	3A-2B	70.5	-82.7
3B+2A	520.5	-88.9	3B+2A	503.5	-88.7	3B+2A	520.5	-84.8
3B-2A	110.9	-80.7	3B-2A	116.3	-83.4	3B-2A	126.5	-82.1
3B+3A	614.4	-88	3B+3A	580.8	-87.5	3B+3A	591	-89.7
3B-3A	10.2	-88.6	3B-3A	23.4	-83.7	3B-3A	33.6	-83.8

Data was taken using an Agilent E4408B ESA-L Series Spectrum Analyzer

Measurements were taken from a test port of the transmitter

The transmitter of each station was operating at a TPO of 31.4 kW at the time of test.

Measurements show a compliance with FCC 73.317(b) through 73.317(d)

WBLX-FM 92.9 MHz

120 kHz – 240 kHz > 30 dB below the level of the unmodulated carrier

240 kHz – 600 kHz > 40 dB below the level of the unmodulated carrier

Greater than 600 kHz > 80 dB below the level of the unmodulated carrier

WJLQ-FM 100.7 MHz

120 kHz – 240 kHz > 31 dB below the level of the unmodulated carrier

240 kHz – 600 kHz > 41 dB below the level of the unmodulated carrier

Greater than 600 kHz > 80 dB below the level of the unmodulated carrier

WYOK-FM 104.1 MHz

120 kHz – 240 kHz > 29 dB below the level of the unmodulated carrier

240 kHz – 600 kHz > 43 dB below the level of the unmodulated carrier

Greater than 600 kHz > 80 dB below the level of the unmodulated carrier

All measurements were completed by Daniel Barton, BSEE of Alive Telecommunications.

Daniel Barton 6/15/05