

**INTERMODULATION AND HARMONIC MEASUREMENTS**  
**COMBINED ANTENNA SYSTEM**  
**RADIO STATIONS KJSN, 102.3 MHz and KMRQ, 96.7 MHz**

SAMPLED KJSN CARRIER LEVEL: -7.0DBM

SAMPLED KMRQ CARRIER LEVEL : -6.9DBM

							PRODUCT	Dbm	Dbc
1	X	102.3	SUM	1	X	96.7	199	NIL	
1	X	96.7	SUM	1	X	102.3	199	NIL	
1	X	102.3	SUM	2	X	96.7	295.7	-100	-93
1	X	96.7	SUM	2	X	102.3	301.3	-99	-92
1	X	102.3	SUM	3	X	96.7	392.4	NIL	
1	X	96.7	SUM	3	X	102.3	403.6	NIL	
2	X	102.3					204.6	-104.7	-97.7
2	X	102.3	SUM	1	X	96.7	301.3	-99	-92
2	X	102.3	DIFF	1	X	96.7	107.9	NIL	
2	X	96.7					193.4	NIL	
2	X	96.7	SUM	1	X	102.3	295.7	-100	-93
2	X	96.7	DIFF	1	X	102.3	91.1	NIL	
2	X	102.3	SUM	2	X	96.7	398	NIL	
2	X	96.7	SUM	2	X	102.3	398	NIL	
2	X	102.3	SUM	3	X	96.7	494.7	NIL	
2	X	96.7	SUM	3	X	102.3	500.3	NIL	
3	X	102.3					306.9	-99	-92
3	X	102.3	SUM	1	X	96.7	403.6	NIL	
3	X	102.3	DIFF	1	X	96.7	210.2	NIL	
3	X	96.7					290.1	-98	-91
3	X	96.7	SUM	1	X	102.3	392.4	NIL	
3	X	96.7	DIFF	1	X	102.3	187.8	NIL	
3	X	102.3	SUM	2	X	96.7	500.3	NIL	
3	X	102.3	DIFF	2	X	96.7	113.5	NIL	
3	X	96.7	SUM	2	X	102.3	494.7	NIL	
3	X	96.7	DIFF	2	X	102.3	85.5	NIL	
3	X	102.3	SUM	3	X	96.7	597	NIL	
3	X	96.7	SUM	3	X	102.3	597	NIL	

Value of "NIL" indicates that the product was below the noise floor of the analyzer  
The noise floor of the analyzer was approximately -106 Dbm (-99 Dbc)

Measurements were made on February 17, 2010 by Stephen E. Minshall,  
Director of Engineering, Clear Channel Radio, Modesto CA.

Analyzer used is an Agilent N9340B, SN CN03480724

Notch filters at the stations carrier frequencies were used to prevent overload  
of the analyzer after carrier levels were determined.

Dbc was determined using the lower of the two carrier level signals

*Stephen E. Minshall*