

94.9MHz WWRM and 101.5Mhz WPOI

IM measurements

American Tower Site

Riverview, Florida

February 28, 2011

The attached IM measurements were made with 94.9 MHz, WWRM and 101.5, WPOI, operating at full power into a Dielectric six station combiner feeding a Dielectric FMV-03-8/24-2-T antenna. The output of the combiner is split to feed two 6 1/8" transmission lines. One transmission line feeding the top 4-bays of the antenna, the other transmission line feeding to bottom 4-bays. Measurements were made from sample ports on both transmission lines. There was no difference seen between the two lines. Eagle Notch Filters were used to notch the primary signals at the input to the Agilent Spectrum Analyzer.

A broadband sweep was also made from 2Mhz to 1GHz and no IM products were seen that exceeded -80db.

These measurements were made in support of 302FM's being filed for WWRM and WPOI. WWRM and WPOI are currently licensed for this site at this height and power. The antenna was changed to allow additional stations to operate from this tower. Additional IM measurements will be completed when additional stations begin operating from the system.

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Chief Engineer

Mult	X	Freq		Mult	X	Freq	=	Product	Measurement
5	X	101.5	-	5	X	94.9	=	33.0	Below Noise Floor
5	X	94.9	-	4	X	101.5	=	68.5	Below Noise Floor
4	X	94.9	-	3	X	101.5	=	75.1	Below Noise Floor
3	X	94.9	-	2	X	101.5	=	81.7	Below Noise Floor
2	X	94.9	-	1	X	101.5	=	88.3	Unable to measure 88.5 MHz FM on site
2	X	101.5	-	1	X	94.9	=	108.1	-81.41db
3	X	101.5	-	2	X	94.9	=	114.7	-80.15db

4	X	101.5	-	3	X	94.9	=	121.3	Below Noise Floor
5	X	101.5	-	4	X	94.9	=	127.9	Below Noise Floor
5	X	94.9	-	3	X	101.5	=	170.0	Below Noise Floor
4	X	94.9	-	2	X	101.5	=	176.5	Below Noise Floor
3	X	94.9	-	1	X	101.5	=	183.2	Below Noise Floor
2	X	94.9					=	189.8	Below Noise Floor
1	X	94.9	+	1	X	101.5	=	196.4	Below Noise Floor
1	X	101.5	+	1	X	94.9	=	196.4	Below Noise Floor
2	X	101.5					=	203.0	Below Noise Floor
3	X	101.5	-	1	X	94.9	=	209.6	Below Noise Floor
4	X	101.5	-	2	X	94.9	=	216.2	Below Noise Floor
5	X	101.5	-	3	X	94.9	=	222.8	Below Noise Floor
5	X	94.9	-	2	X	101.5	=	271.5	Below Noise Floor
4	X	94.9	-	1	X	101.5	=	278.1	Below Noise Floor
3	X	94.9					=	284.7	-80.15db
1	X	101.5	+	2	X	94.9	=	291.3	-80.92db
1	X	94.9	+	2	X	101.5	=	297.9	-80.77db
3	X	101.5					=	304.5	-80.36db
4	X	101.5	-	1	X	94.9	=	311.1	Below Noise Floor
5	X	101.5	-	2	X	94.9	=	317.7	Below Noise Floor
5	X	94.9	-	1	X	101.5	=	373.0	Below Noise Floor
4	X	94.9					=	379.6	Below Noise Floor
1	X	101.5	+	3	X	94.9	=	386.2	Below Noise Floor
3	X	94.9	+	1	X	101.5	=	386.2	Below Noise Floor
2	X	94.9	+	2	X	101.5	=	392.8	Below Noise Floor

2	X	101.5	+	2	X	94.9	=	392.8	Below Noise Floor
1	X	94.9	+	3	X	101.5	=	399.4	Below Noise Floor
4	X	101.5					=	406.0	Below Noise Floor
5	X	101.5	-	1	X	94.9	=	412.6	Below Noise Floor
5	X	94.9					=	474.5	Below Noise Floor
1	X	101.5	+	4	X	94.9	=	481.1	Below Noise Floor
2	X	101.5	+	3	X	94.9	=	487.7	Below Noise Floor
2	X	94.9	+	3	X	101.5	=	494.3	Below Noise Floor
1	X	94.9	+	4	X	101.5	=	500.9	Unable to measure Digital UHF Channel 19 500-506MHz on site.
5	X	101.5					=	507.5	Below Noise Floor
1	X	101.5	+	5	X	94.9	=	576.0	Below Noise Floor
5	X	94.9	+	1	X	101.5	=	576.0	Below Noise Floor
2	X	101.5	+	4	X	94.9	=	582.6	Below Noise Floor
3	X	94.9	+	3	X	101.5	=	589.2	Below Noise Floor
2	X	94.9	+	4	X	101.5	=	595.8	Below Noise Floor