

FM Broadcasting Field Data

**WPVL-FM
107.1**

Platteville, WI

**Includes:
TPO Calculations
Transmitter Performance Measurements
FM Combiner Test Plots
FM Antenna System Test Plots**

prepared for:

QueenB Radio Wisconsin, Inc.

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QueenB Radio Wisconsin-WPVL-FM

TPO Calculations

Licensed ERP- 4.2 KW

Antenna Model- ERI SHPX-4AC Full Wave Spaced

Antenna Power Gain-2.098

Transmission Line- Myatt 3" rigid x 300'

Transmission Line Efficiency- 93.16%

Combiner- Dielectric DCF14005BR2

Combiner Loss- .4 db

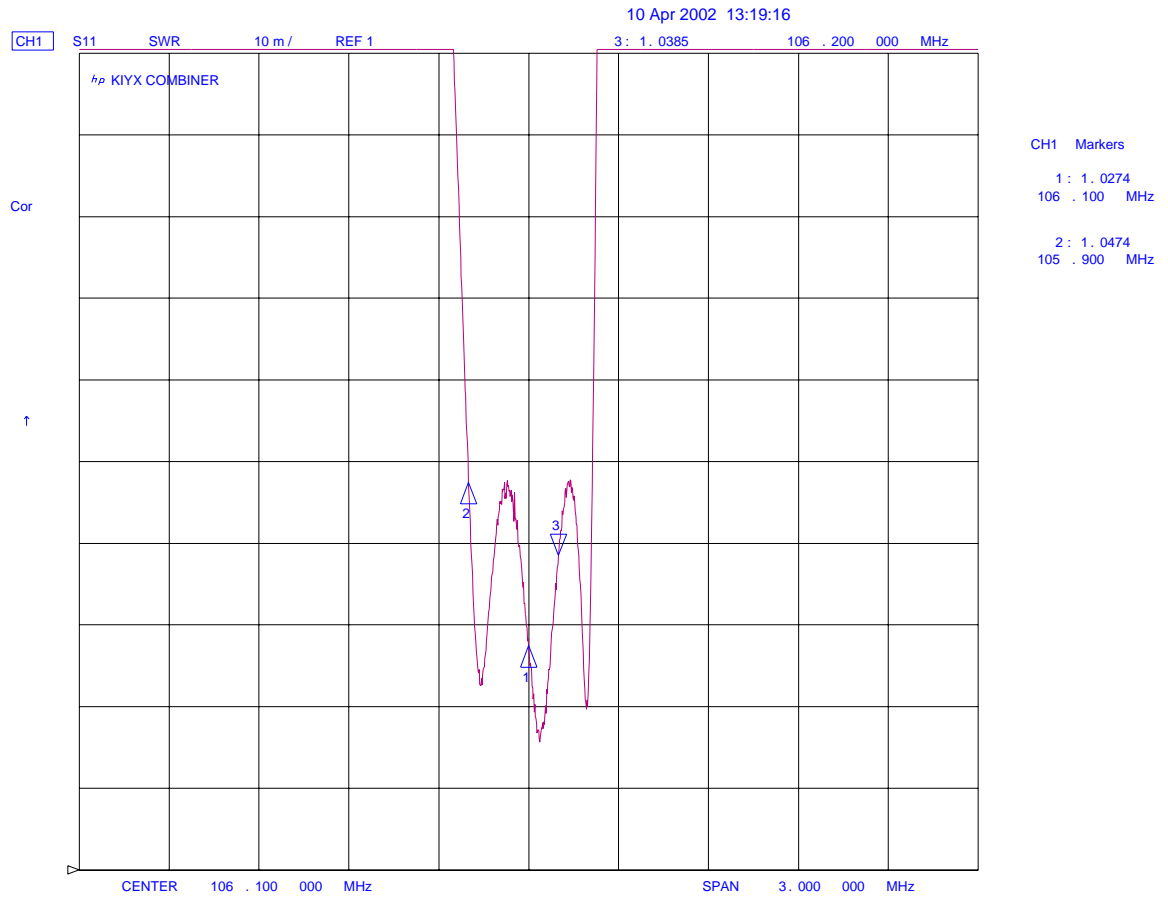
TPO= { (ERP / Antenna Power Gain) / TX Line Efficiency } +Combiner Loss

TPO= { (4.2 KW / 2.098) / .9316 } + 0.20 KW

TPO= 2.34 KW

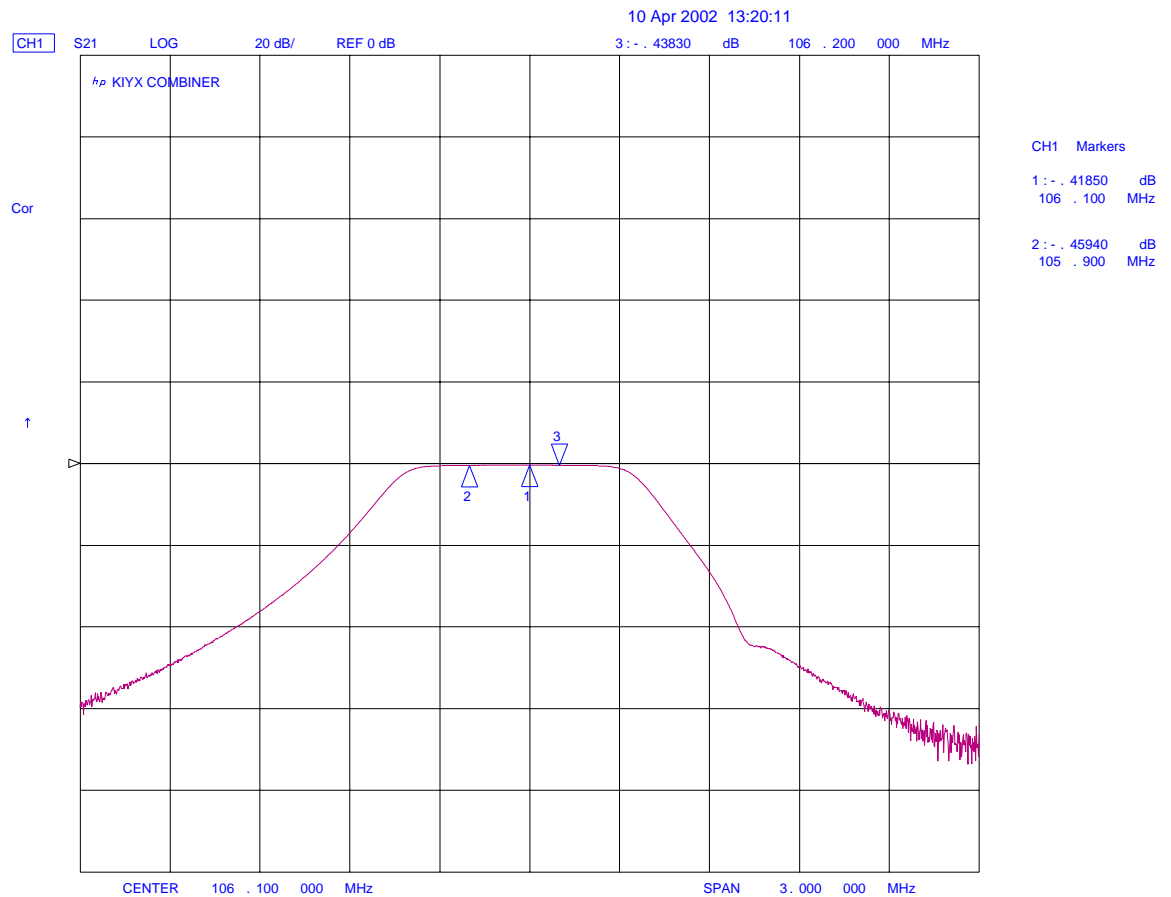
Richard Wood
Resonant Results, Ltd.
4/24/2002

QueenB Radio Wisconsin Inc.-FM Combiner



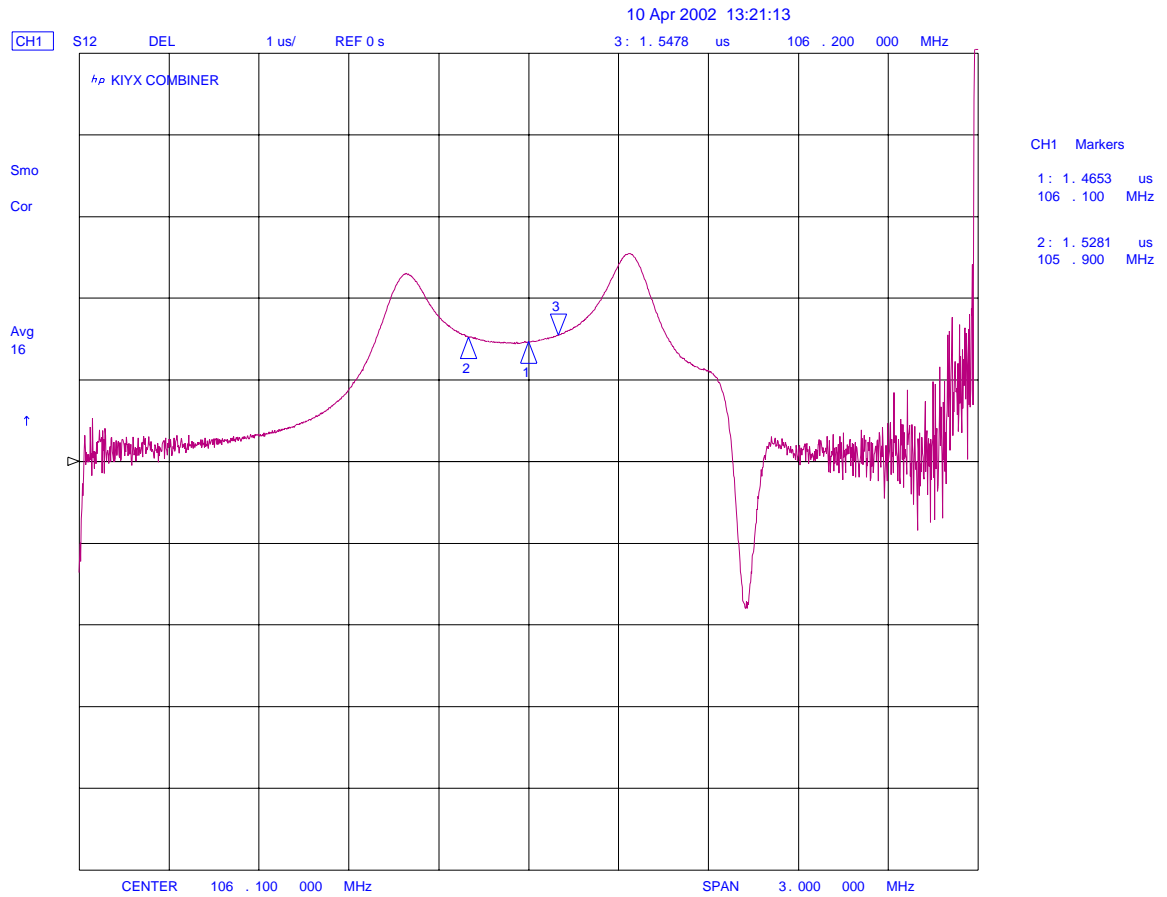
**Plot #1 Frequency Domain VSWR
3 Mhz Pulse
Combiner VSWR- KIYX Input**

QueenB Radio Wisconsin, Inc.-FM Combiner



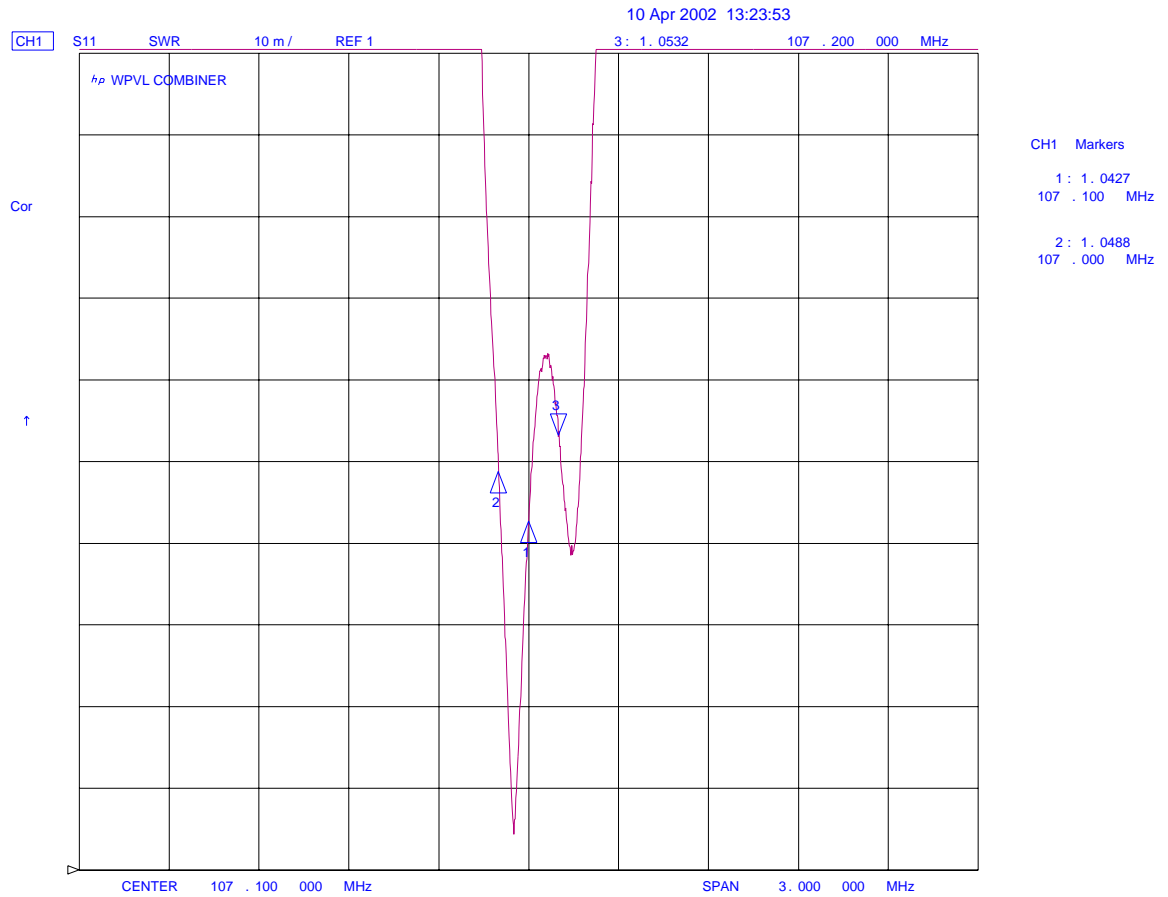
**Plot #2 Frequency Domain Log Magnitude
3 Mhz Pulse
Combiner Insertion Loss -KIYX Input**

QueenB Radio Wisconsin, Inc.-FM Combiner



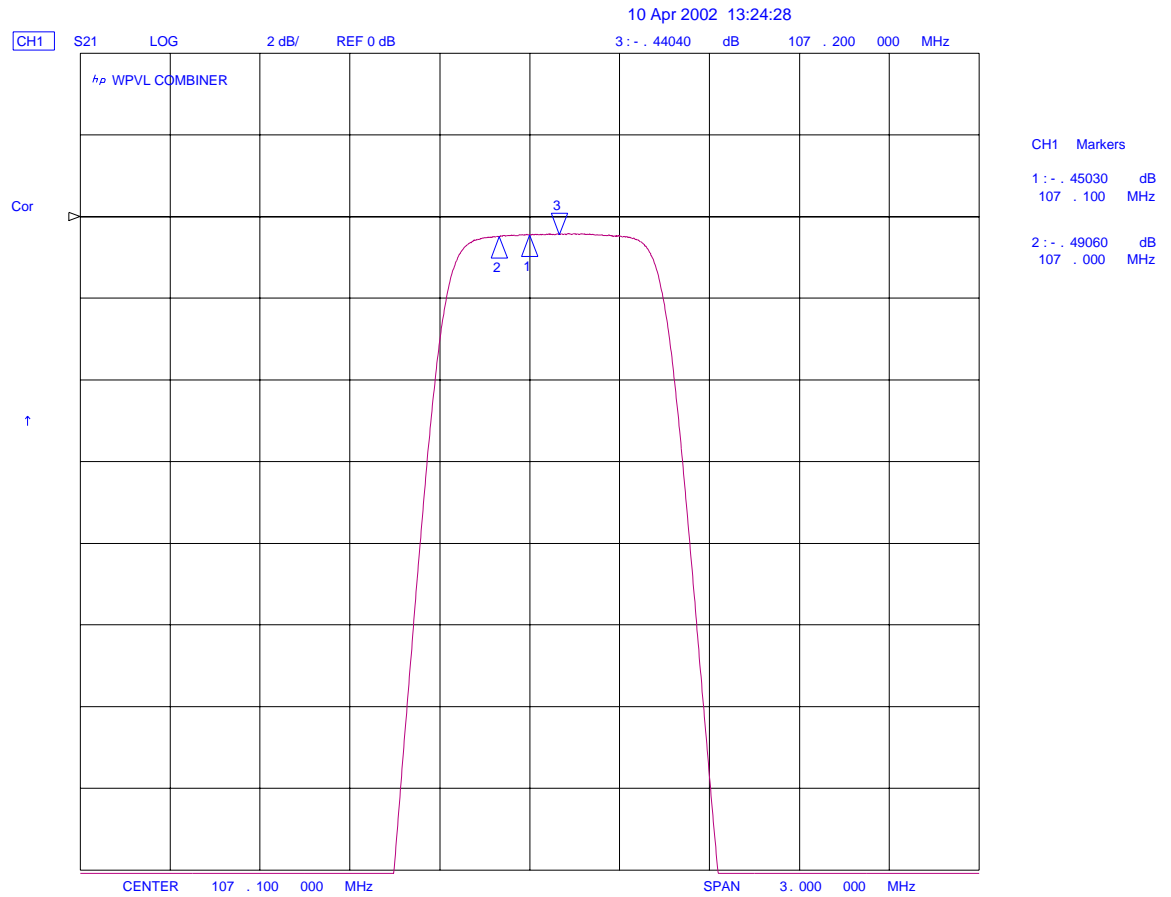
**Plot #3 Frequency Domain Delay
3 Mhz Pulse
Combiner Group Delay-KIYX Input**

QueenB Radio Wisconsin, Inc.-FM Combiner



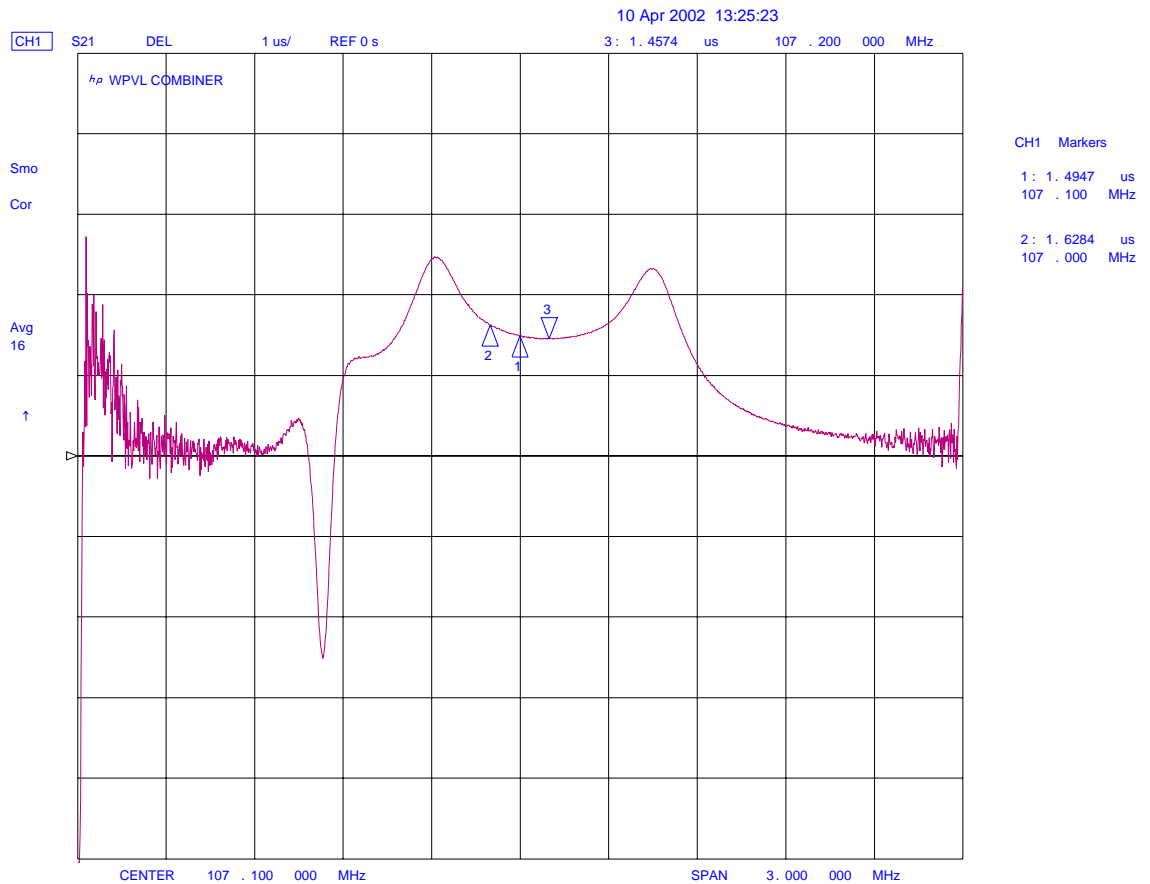
Plot #4 Frequency Domain VSWR
3 Mhz Pulse
Combiner VSWR-WPVL Input

QueenB Radio Wisconsin, Inc.-FM Combiner



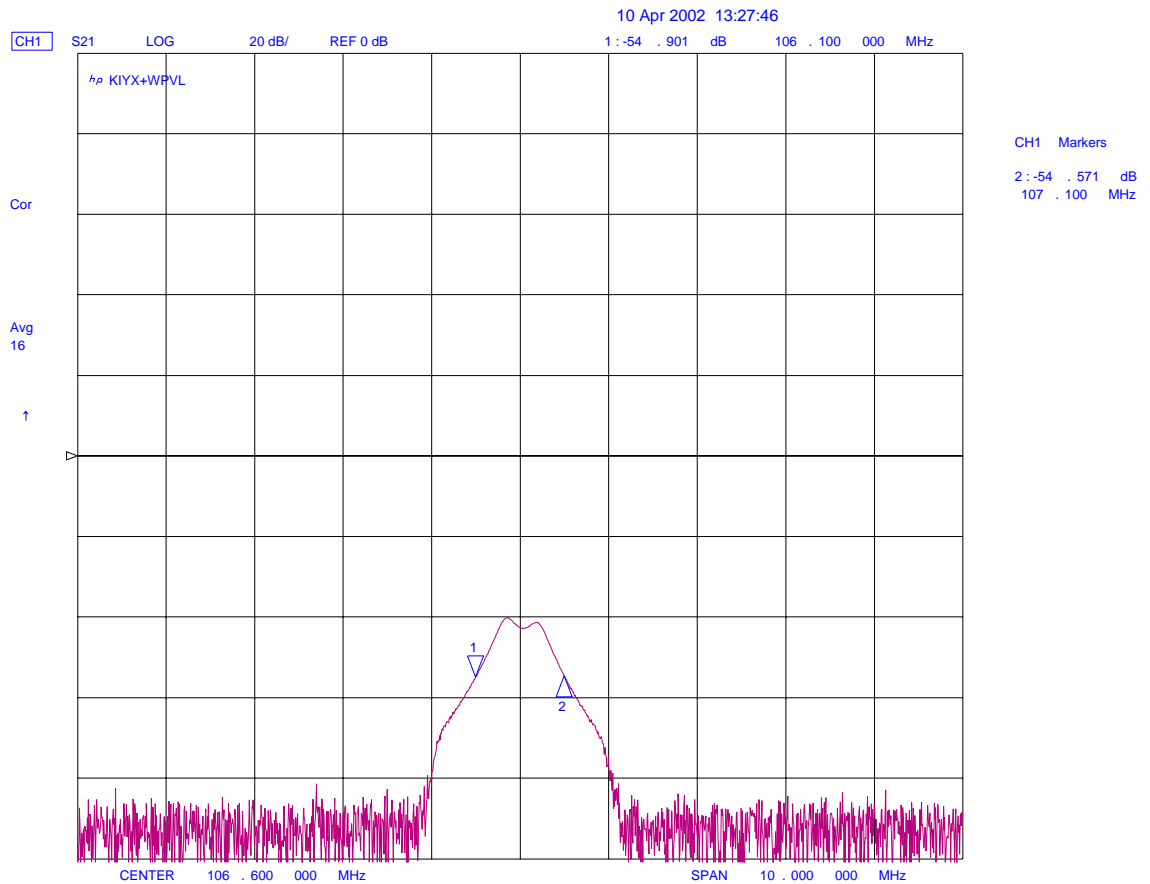
**Plot #5 Frequency Domain Log Magnitude
3 Mhz Pulse
Combiner Insertion Loss-WPVL Input**

QueenB Radio Wisconsin, Inc.-FM Combiner



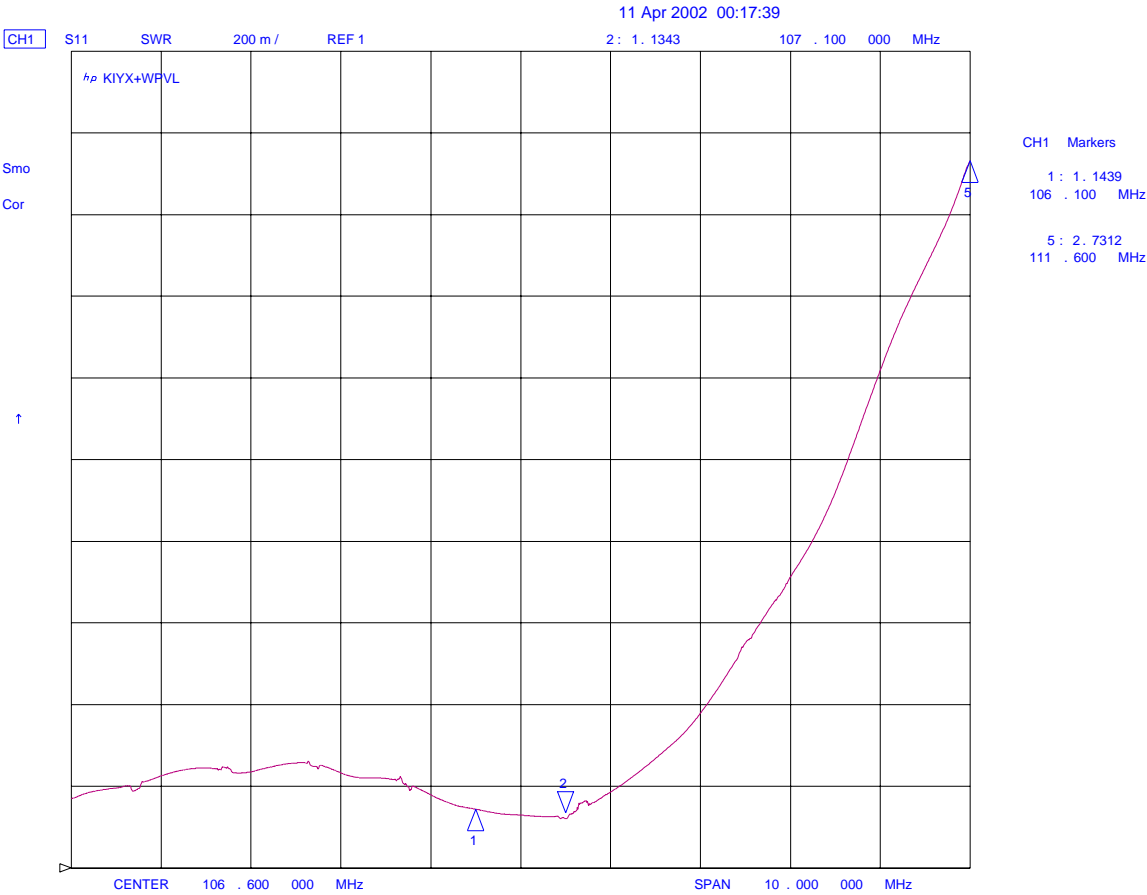
**Plot #6 Frequency Domain Delay
3 Mhz Pulse
Combiner Group Delay-WPVL Input**

QueenB Radio Wisconsin, Inc.-FM Combiner



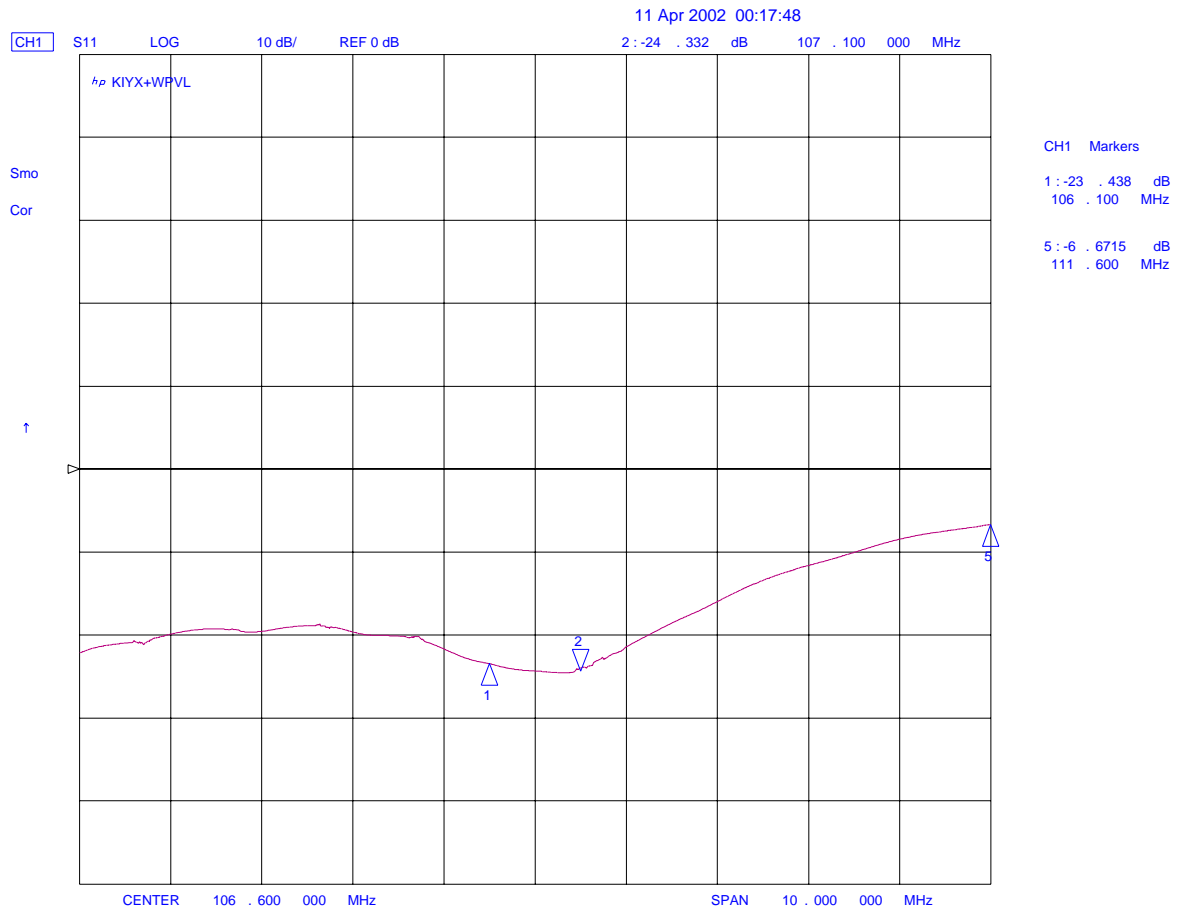
**Plot #7 Frequency Domain Log Magnitude
10 Mhz Pulse
Combiner Isolation-WPVL Input to KIYX Input**

QueenB Radio Wisconsin, Inc.-FM Antenna



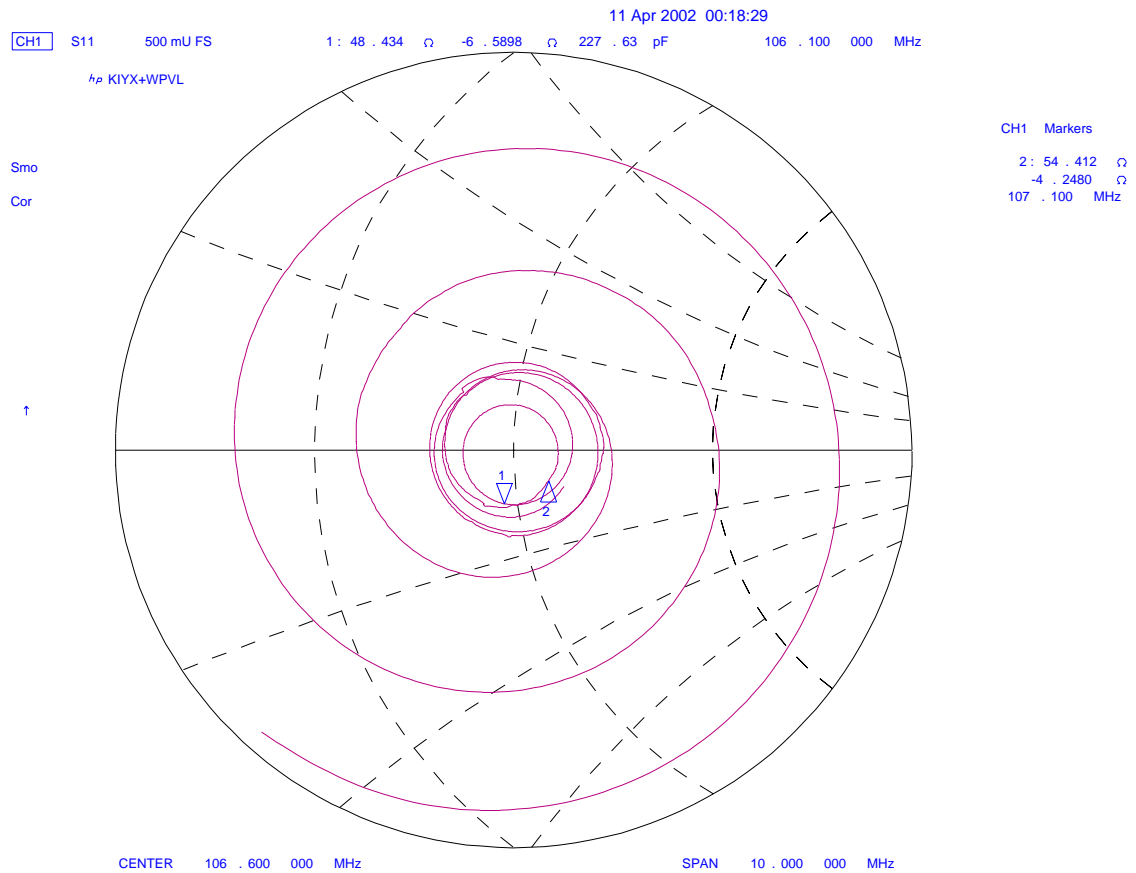
Plot #1 Frequency Domain VSWR
10 Mhz Pulse
WPVL & KIYX Antenna System

QueenB Radio Wisconsin, Inc.- FM Antenna



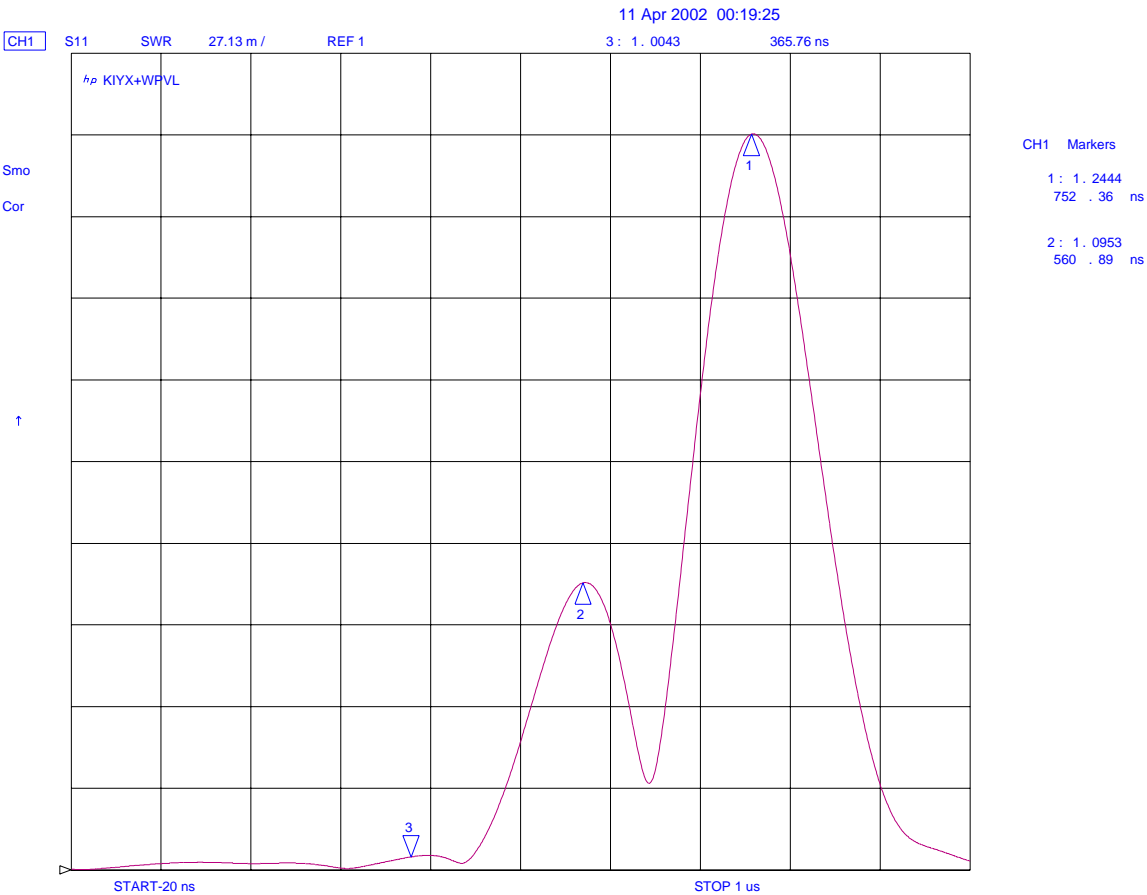
**Plot #2 Frequency Domain Log Magnitude
10 Mhz Pulse
WPVL & KIYX Antenna System**

QueenB Radio Wisconsin, Inc.-FM Antenna



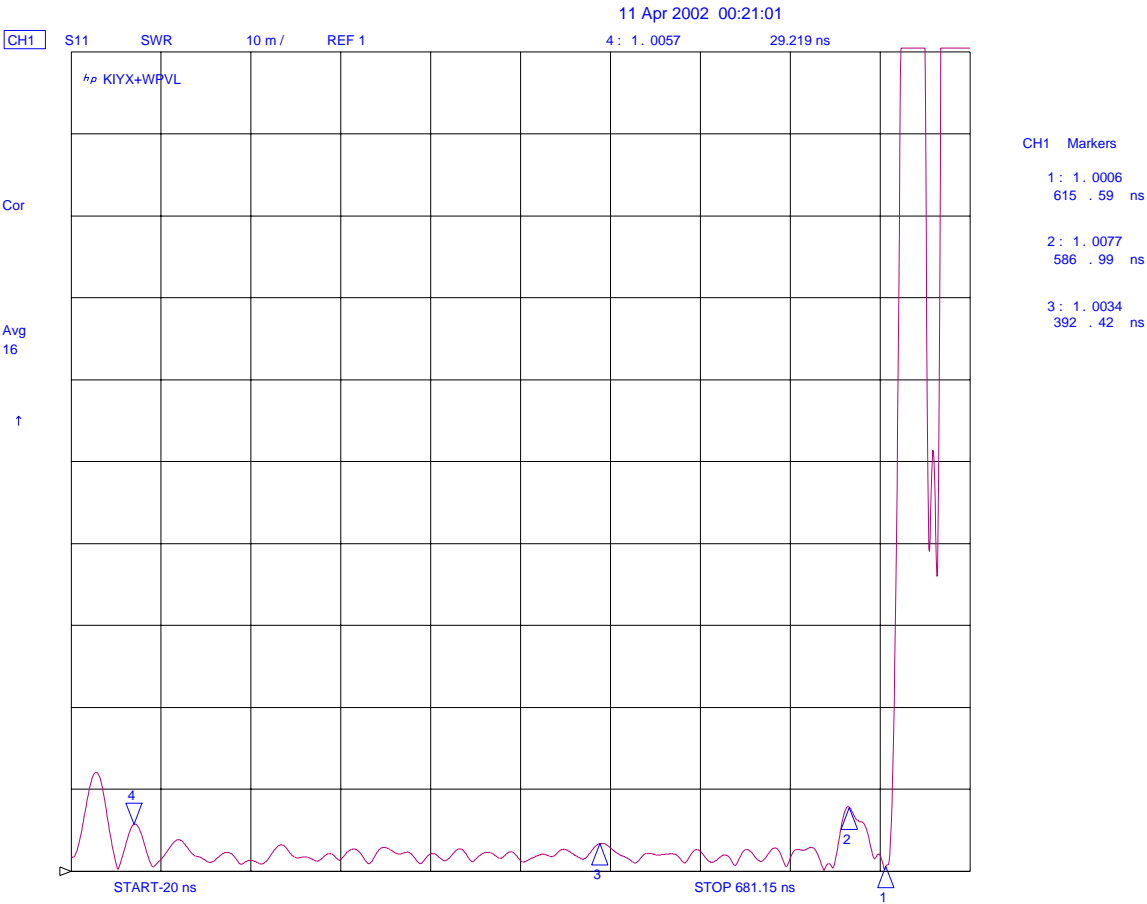
**Plot #3 Frequency Domain Smith Chart
10 Mhz Pulse
WPVL & KIYX Antenna System**

QueenB Radio Wisconsin, Inc.-FM Antenna



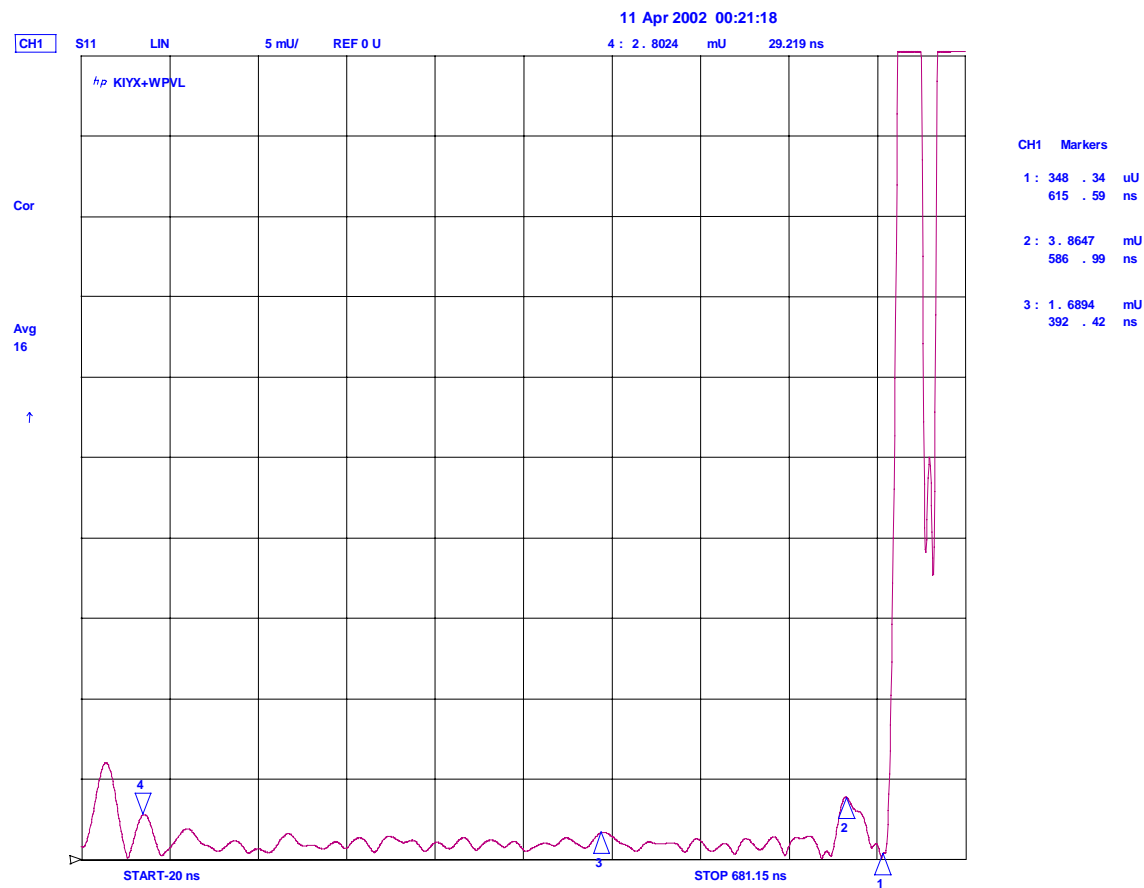
Plot #4 Time Domain VSWR
10 Mhz Pulse
WPVL & KIYX Antenna System

QueenB Radio Wisconsin, Inc.-FM Antenna



Plot #5 Time Domain VSWR
100 Mhz Pulse
WPVL & KIYX Antenna System

QueenB Radio Wisconsin, Inc.-FM Antenna



Plot #6 Time Domain Linear Magnitude
100 Mhz Pulse
WPVL & KIYX Antenna System