

# Measuring Magnetically Treated Water

Robert M. Haralick

# The Sequid SDM-10G Dielectric Probe



1 1/4 inches in Diameter

# Faraday Cage



12 Inches High, 5 Inches Diameter

# Faraday Cage



5 Inches in Diameter  
Ultraperm 80 Mu Metal Alloy Shielding

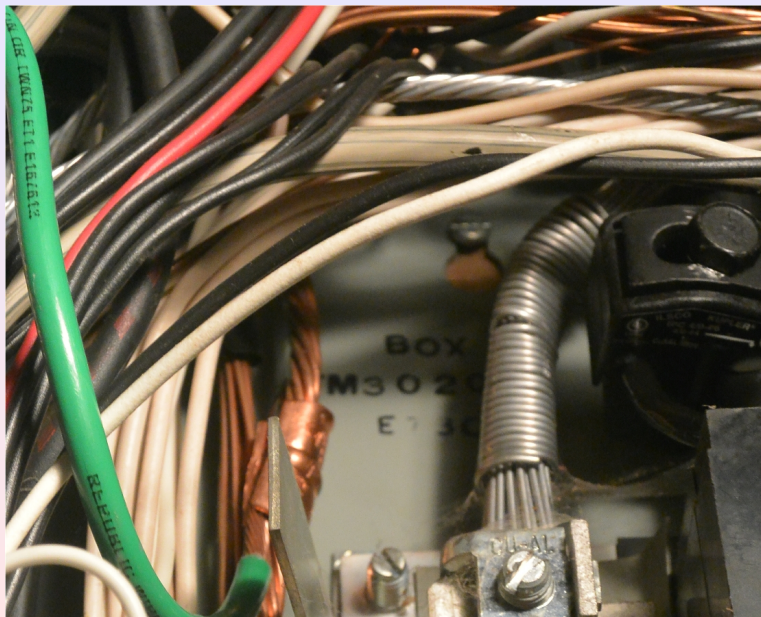
# Ground Rod



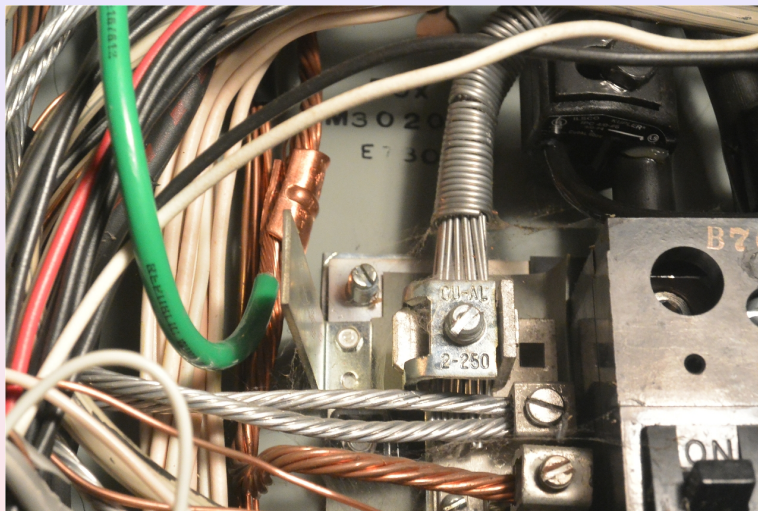
# Ground Rod



# Circuit Breaker Panel



# Circuit Breaker Panel





# Vector Network Analyzer: Tektronix TTR506A



- Frequency Range
- 300KHz - 6 GHz

# Vector Network Analyzer

- The coaxial cable and wires that connect the VNA to the dielectric probe act as a transmission line
- The load on the transmission line is the Dielectric Probe
- The Dielectric Probe is put into the water
- When the wave traveling down the transmission line reaches the end
  - Part of its energy is absorbed
  - Part of its energy is reflected
  - Part of its energy is radiated
- The vector network analyzer measures the complex reflection coefficient
- The reflected complex reflection coefficient depends on the water's permittivity and permeability

# Traveling Waves

Forward Direction:

- $v(t, x) = \sin(\omega t - kx)$
- If  $t$  increases,  $x$  must increase to keep  $(\omega t - kx)$  constant

Back Direction:

- $v(t, x) = \sin(\omega t + kx)$
- If  $t$  increases,  $x$  must decrease to keep  $(\omega t + kx)$  constant

# Reflected Waves

Wave	Time Domain	Phasor
Forward Wave	$v^+(x, t) = \sin(\omega t - kx)$	$V^+ = 1$
Reflected Wave	$v^-(x, t) = A \sin(\omega t + kx + \phi)$	$V^- = Ae^{j\phi}$

There is a change in

- Amplitude
- Phase

Reflection Coefficient  $\Gamma = \frac{V^-}{V^+} = Ae^{j\phi}$

# Mismatched Load Causes the Reflected Wave

Suppose that

- The wave generator has an impedance of  $Z_0$
- The transmission line has an impedance of  $Z_0$
- The load at the end of the transmission line has an impedance of  $Z_L$
- When  $Z_0 \neq Z_L$  there will be a reflected wave

# Complex Reflection Coefficient

- The VNA sends a sinusoid with phasor  $V^+$
- The dielectric probe at the end of the transmission line sends back a sinusoid phasor  $V^- = \Gamma V^+$
- $\Gamma$  is the complex reflection coefficient
- $\Gamma = \frac{V^-}{V^+}$
- If  $V^- \neq 0$  the result is a standing wave on the transmission line
- $Z_L$  is the load impedance
- $Z_0$  is the characteristic transmission line impedance

$$\Gamma = \frac{Z_L - Z_0}{Z_L + Z_0}$$

# The Complex Reflection Coefficient

$$\Gamma = \frac{Z_L - Z_0}{Z_L + Z_0}$$
$$Z_L = Z_0 \frac{1 + \Gamma}{1 - \Gamma}$$

Characteristic Impedance	$Z_L = Z_0$	$\Gamma = 0$
Short	$Z_L = 0$	$\Gamma = -1$
Open	$Z_L = \infty$	$\Gamma = 1$

# Kinds of VNA Measurements

- Magnitude and Phase
  - $\Gamma(\omega) = |\Gamma(\omega)|e^{j\theta(\omega)}$
- Real and Imaginary
  - $\Gamma(\omega) = \text{Real}(\Gamma(\omega)) + j \text{Imaginary}(\Gamma(\omega))$
  - Smith Chart



# VNA Experimental Protocol

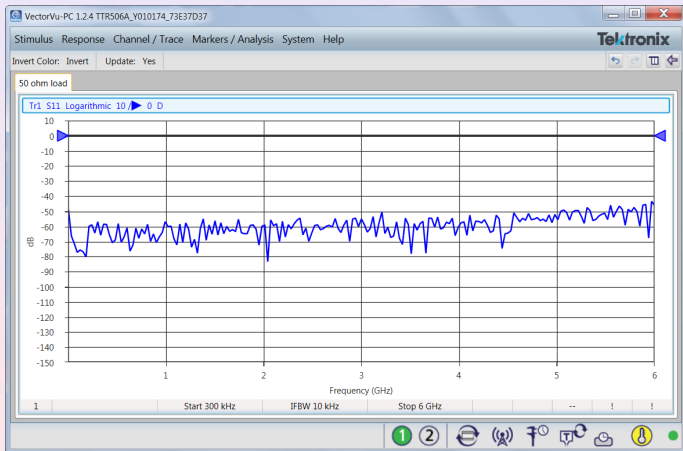
- Calibrate Vector Network Analyzer
- Plastic Test Tube 1.5 inches in Diameter
- Pour 40ml of Water To Be Tested Into Test Tube
- Insert Dielectric Probe
- Put Test Tube With Probe Into Faraday Cage
- Measure
  - Log Magnitude
  - Linear Magnitude
  - Real
  - Imaginary
  - Smith

# Log Magnitude Complex Reflection Coefficient

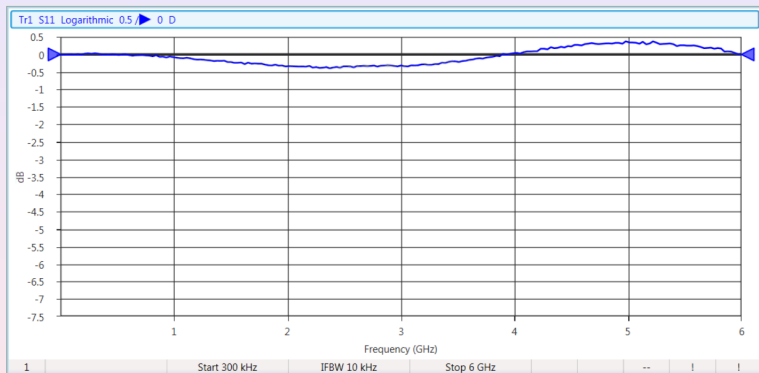
Short             $\log \text{ magnitude}(\text{short}) = 0$

Open             $\log \text{ magnitude}(\text{open}) = 0$

50 ohm load     $\log \text{ magnitude}(50 \text{ Ohm}) = -\infty$



# Dielectric Probe In Open Air



# Dielectric Probe in Test Tube



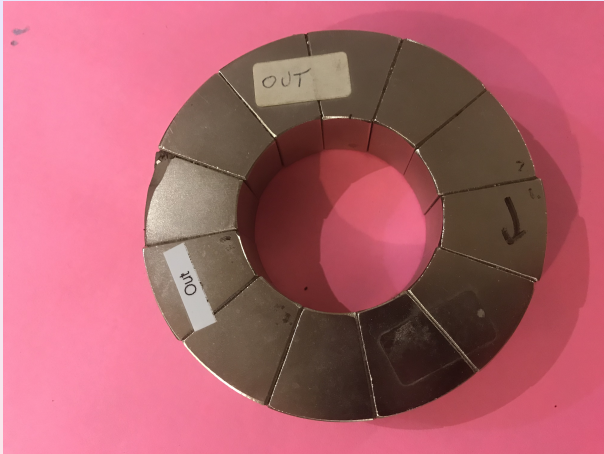
# Water Smacker



# Experimental Protocol

- Put Distilled Water in Water Smacker
- Treat At Least 1 Hour With
  - Circumferentially Out Polarized Ring Magnet
  - Circumferentially In Polarized Ring Magnet
  - Radially Polarized Ring Magnet N inside
  - Radially polarized Ring Magnet S inside
  - Axially Polarized Ring Magnet N up
  - Axially Polarized Ring Magnet S up

# Circumferential Ring Magnet



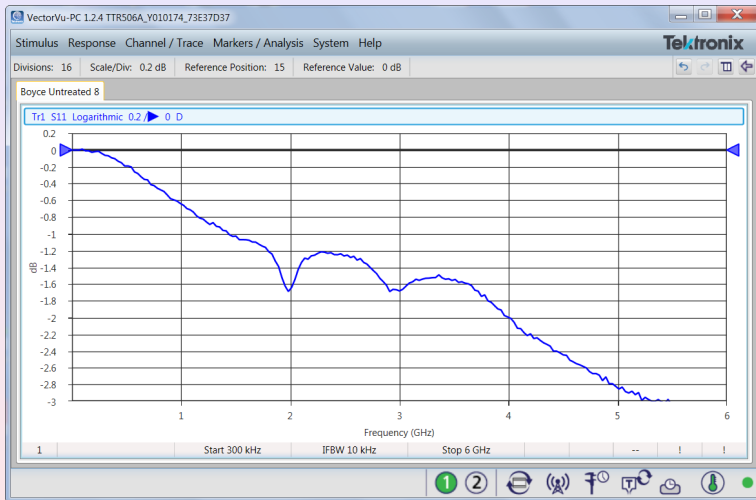
Out Means that My Wife Says It Pushes On Her Hand

# Circumferential Out Magnetic Treatment

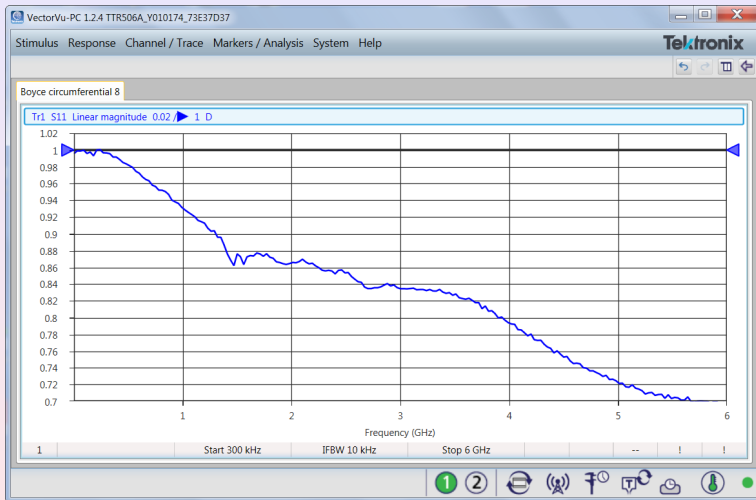




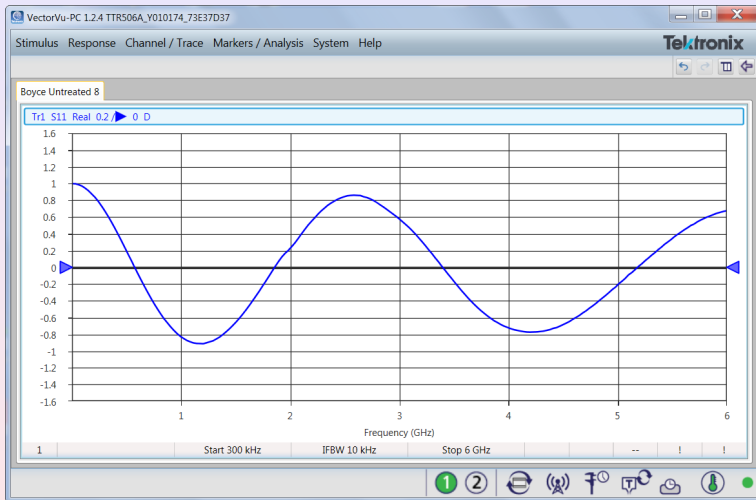
# Boyce Untreated Log Magnitude



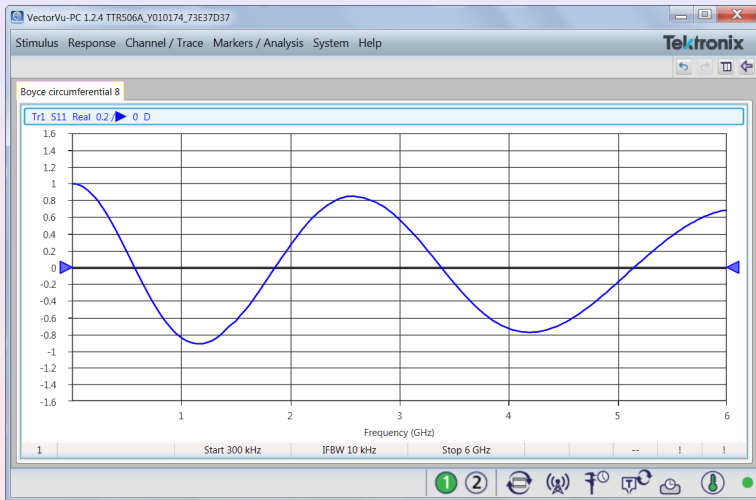
# Boyce Circumferential Out Log Magnitude



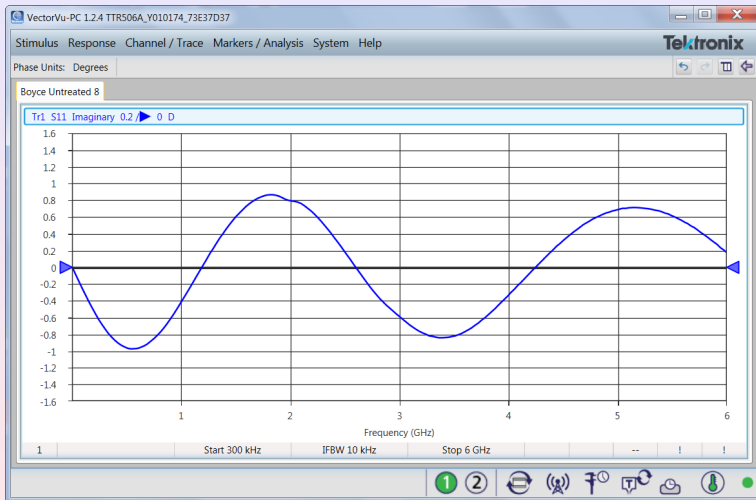
# Boyce Untreated Real



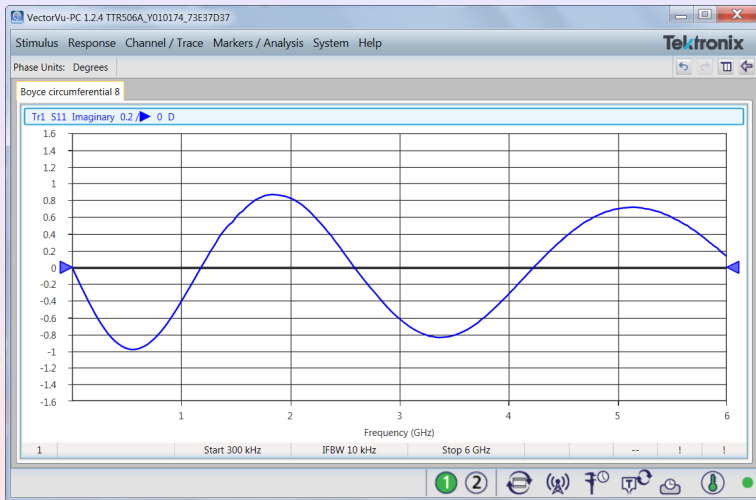
# Boyce Circumferential Out Real



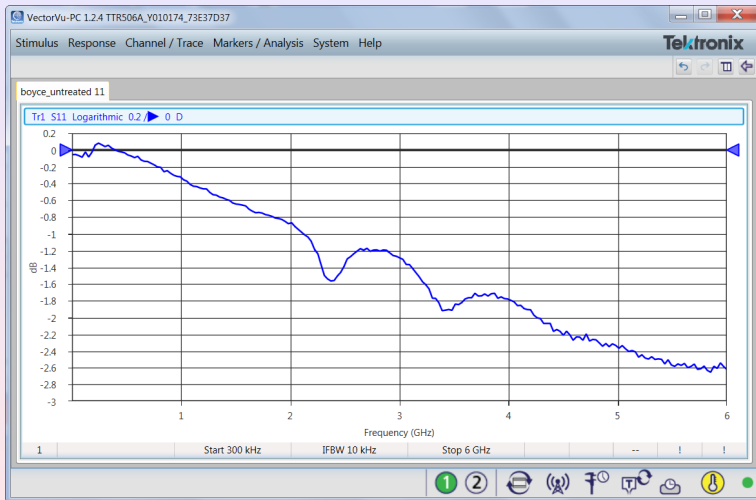
# Boyce Untreated Imaginary



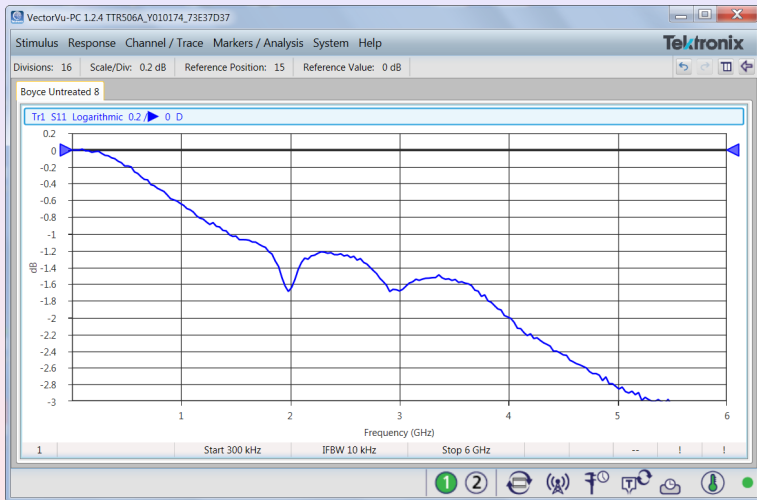
# Boyce Circumferential Out Imaginary



# Boyce Untreated Log Magnitude

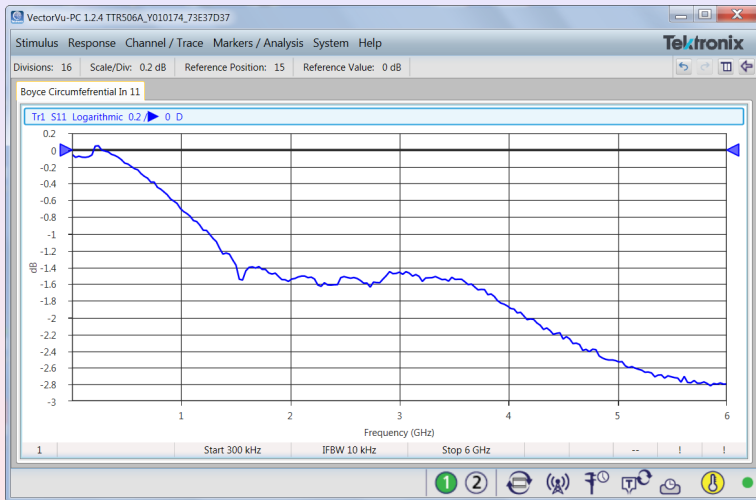


# Boyce Untreated Log Magnitude From Circum. Out

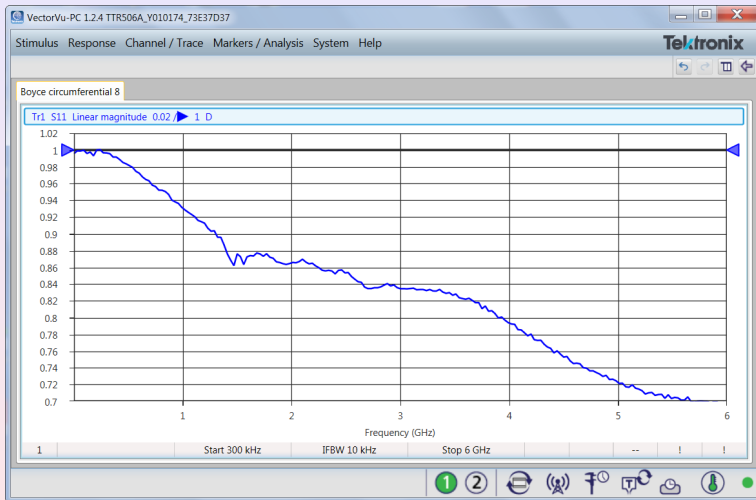




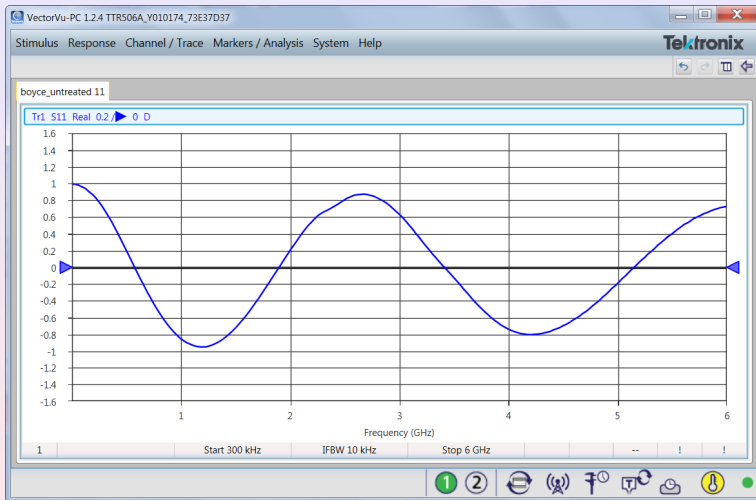
# Boyce Circumferential In Log Magnitude



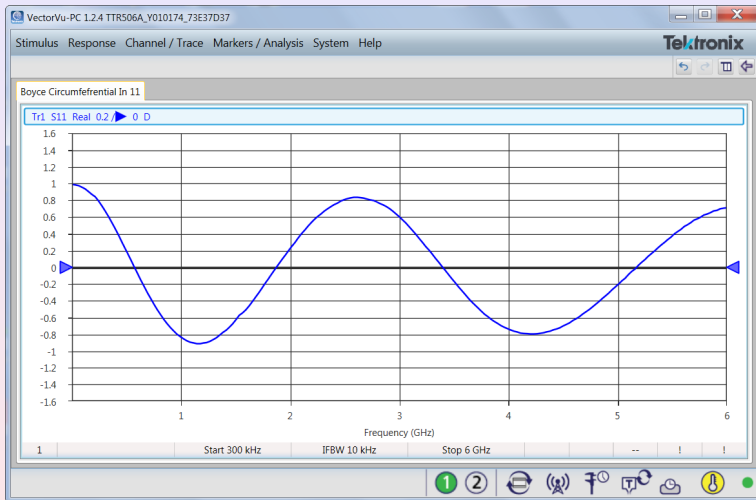
# Boyce Circumferential Out In Log Magnitude



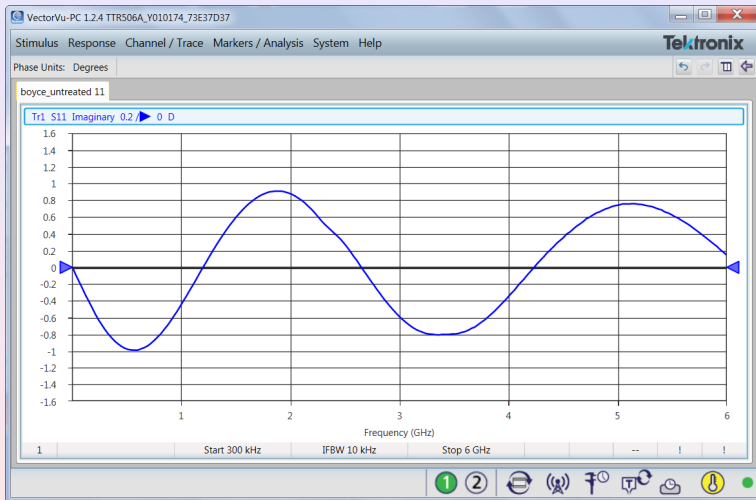
# Boyce Untreated Real



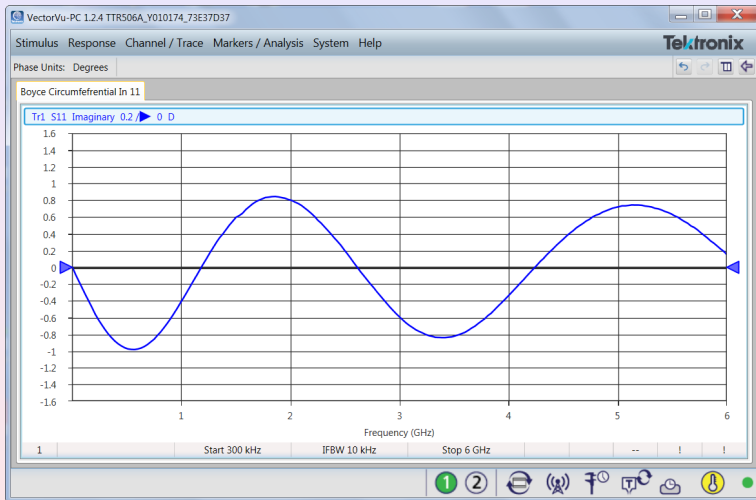
# Boyce Circumferential In Real



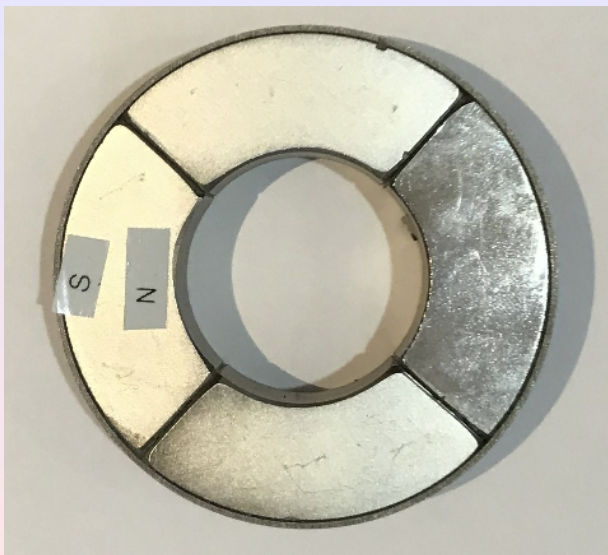
# Boyce Untreated Imaginary



# Boyce Circumferential In Imaginary

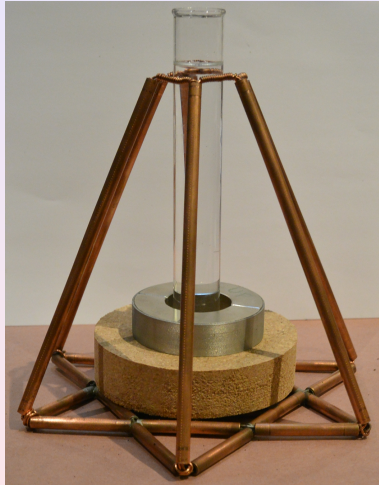


# Radially Polarized Ring Magnet North Inside



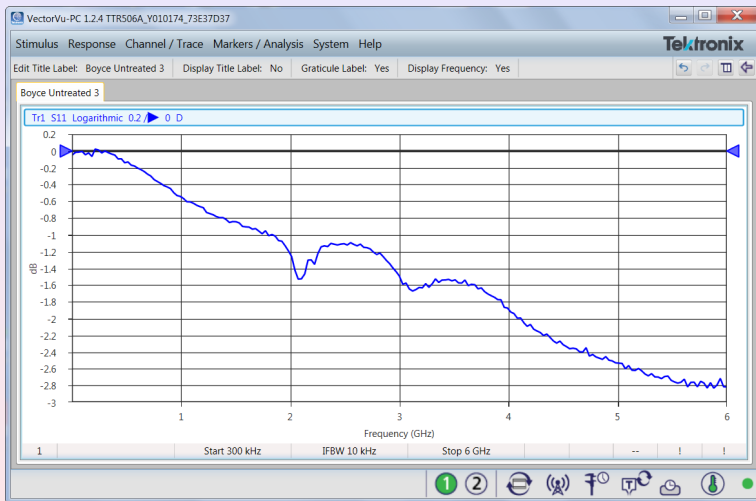
North Means North Seeking Pole

# Magnetic Radial N Inside Treatment





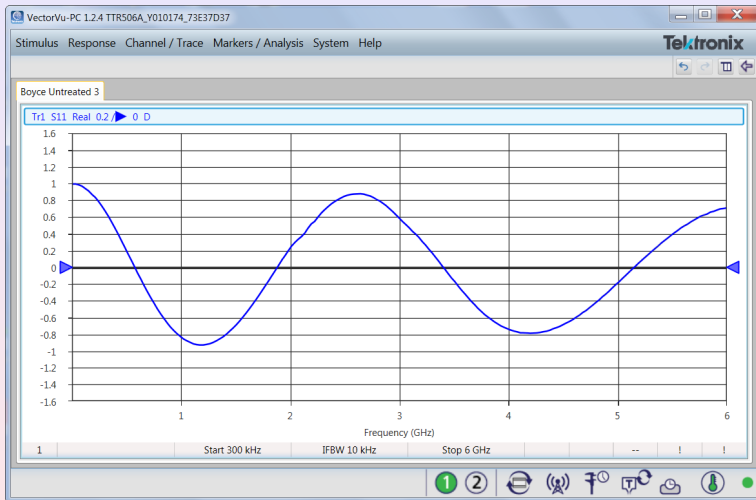
# Boyce Untreated Log Magnitude



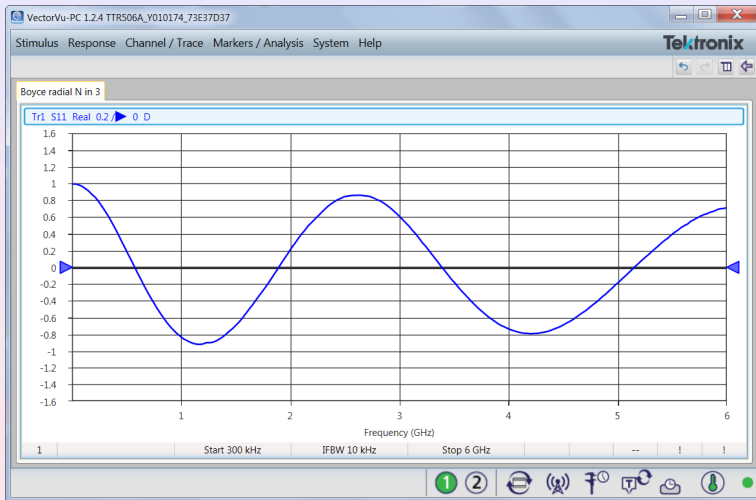
# Boyce Radial N Inside Log Magnitude



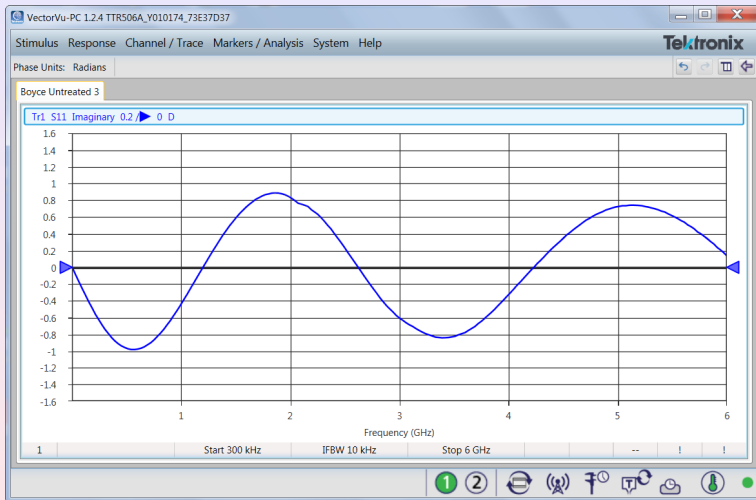
# Boyce Untreated Real



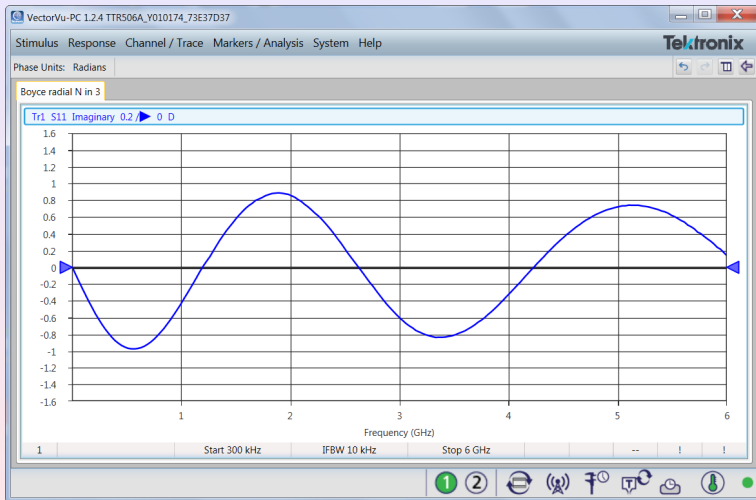
# Boyce Radial N Inside Real



# Boyce Untreated Imaginary



# Boyce Radial N Inside Imaginary

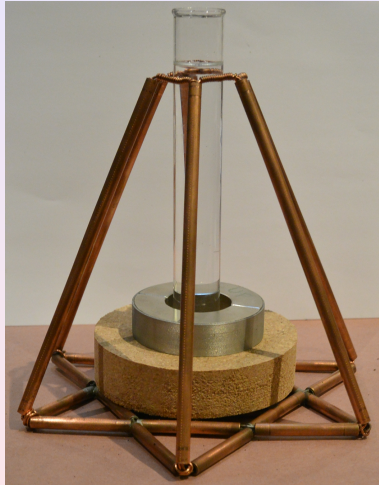


# Radially Polarized South Inside Ring Magnet



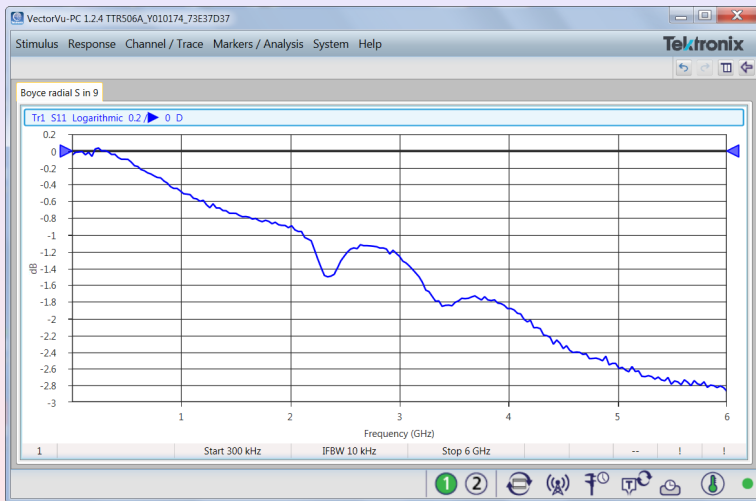
South means south seeking pole

# Magnetic Radial South Inside Treatment

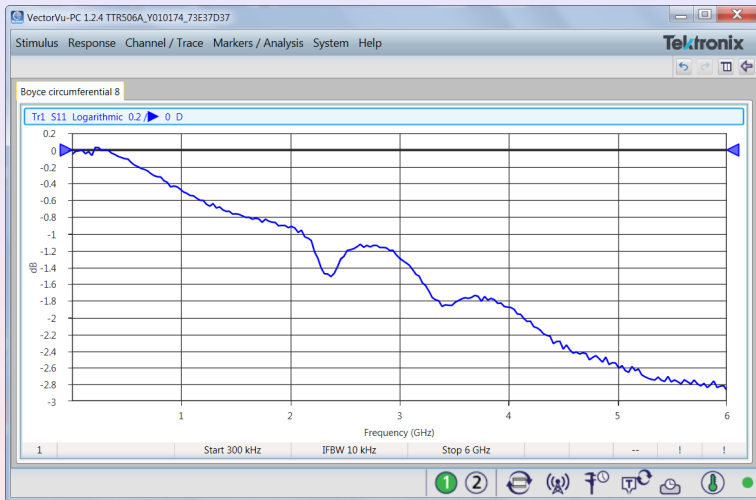




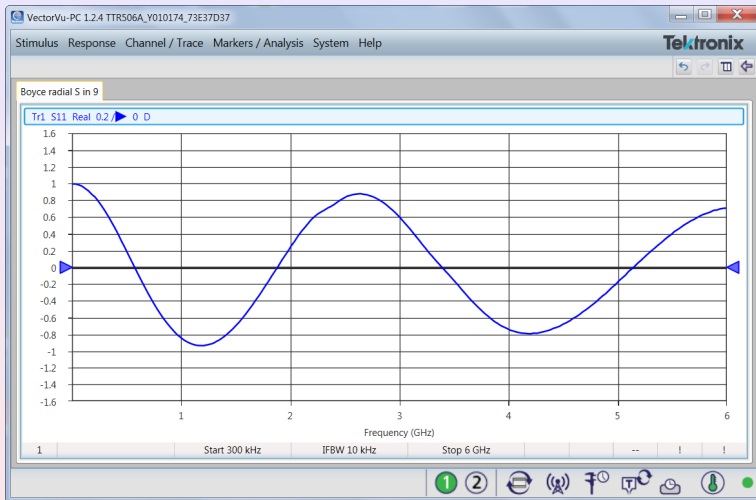
# Boyce Untreated Log Magnitude



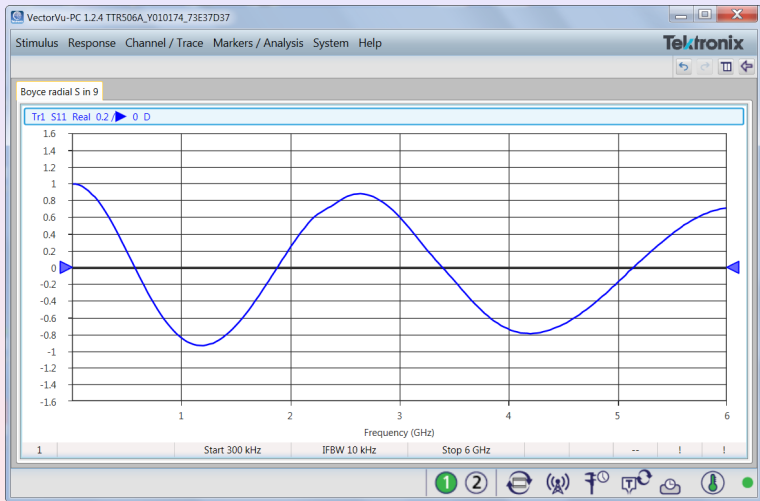
# Boyce Radial S Inside Log Magnitude



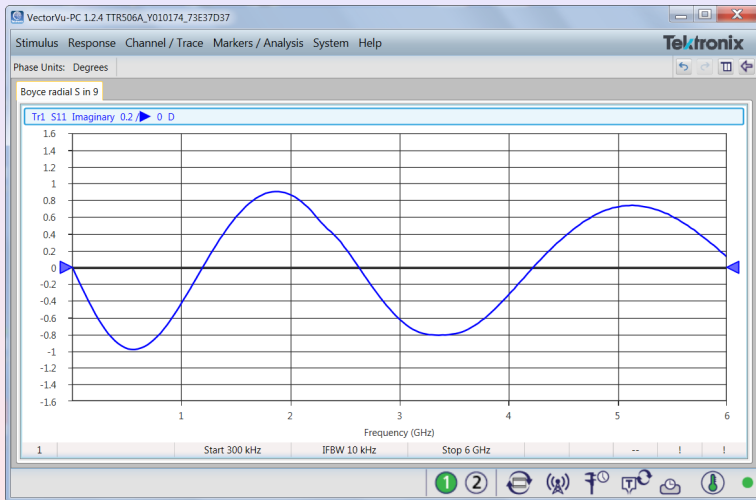
# Boyce Untreated Real



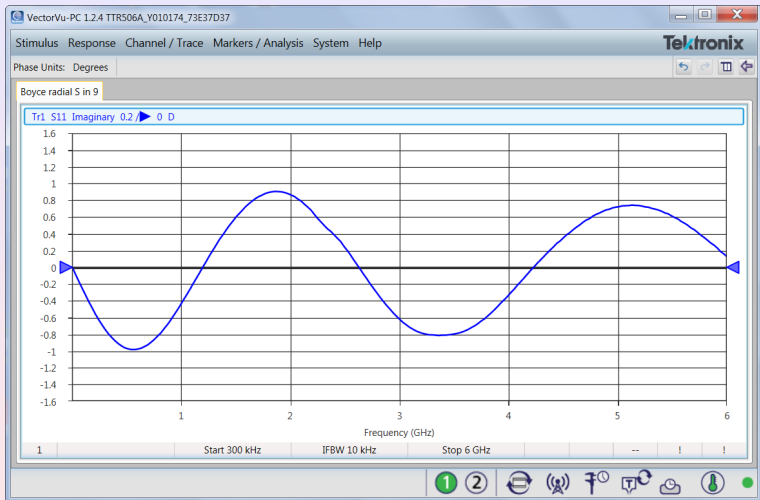
# Boyce Radial S Inside Real



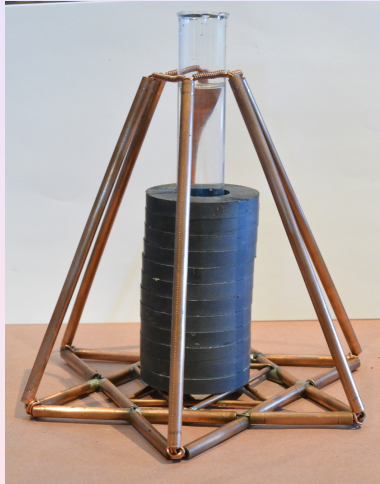
# Boyce Untreated Imaginary



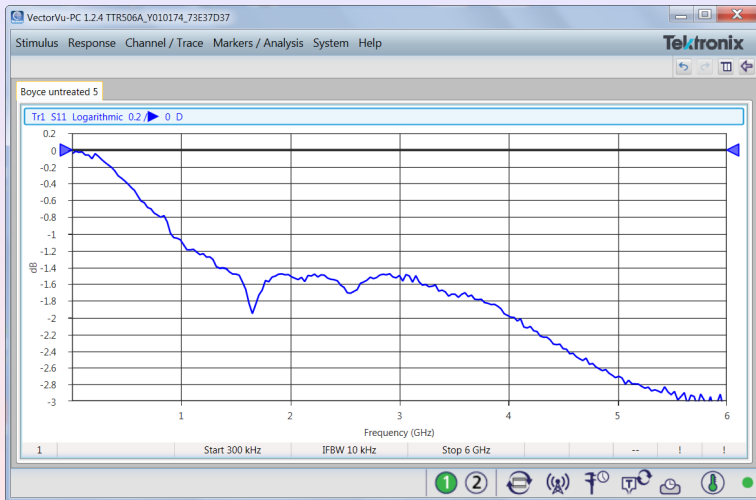
# Boyce Radial S Inside Imaginary



# Axially Polarized South Up Treatment

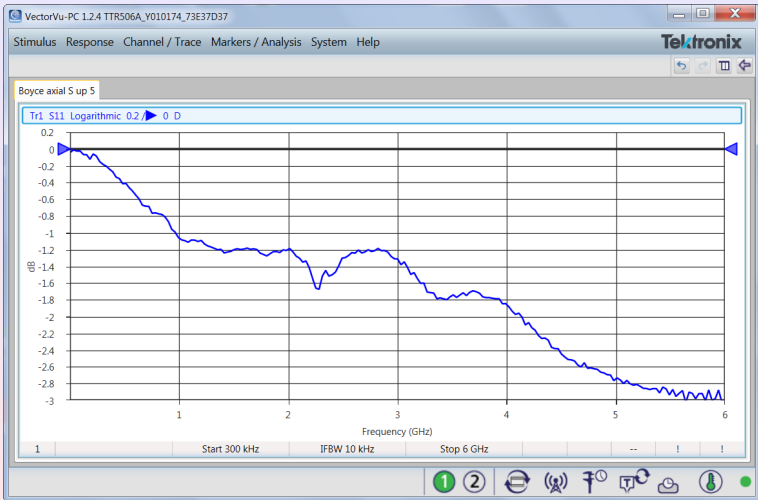


# Boyce Untreated Log Magnitude

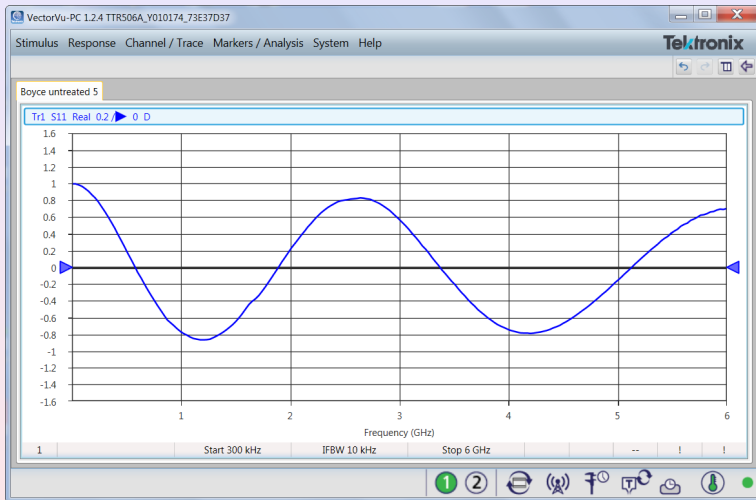




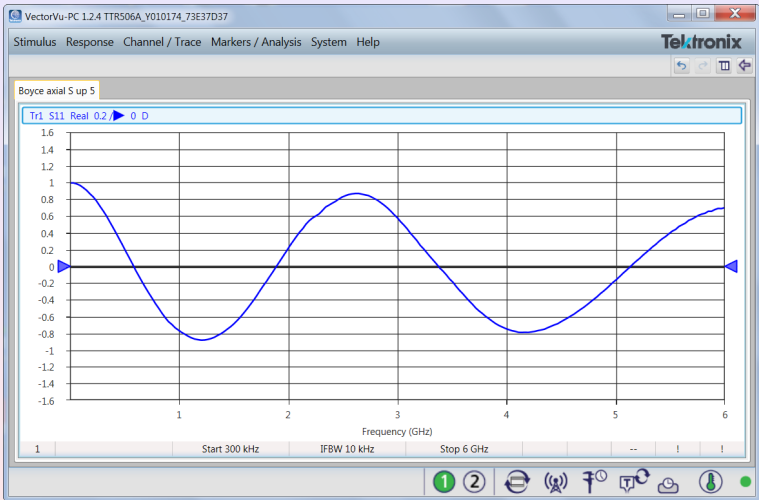
# Boyce Axial South Up Log Magnitude



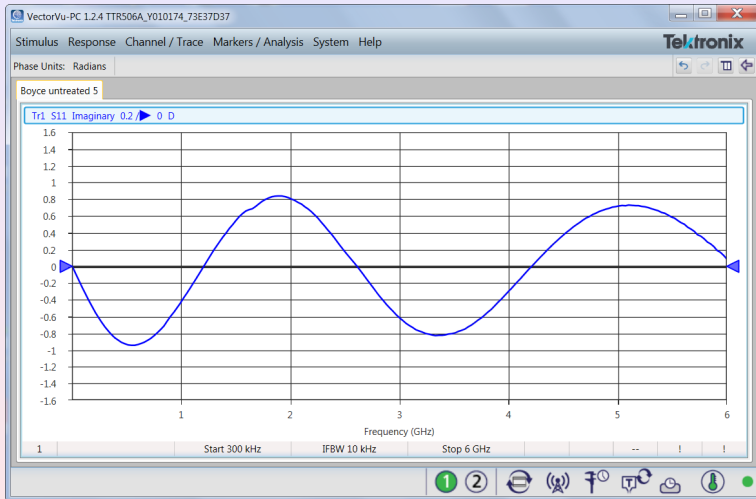
# Boyce Untreated Real



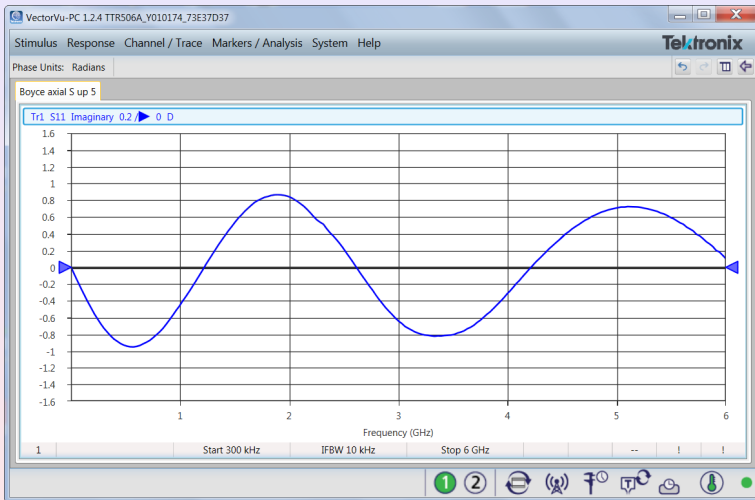
# Boyce Axial South Up Real



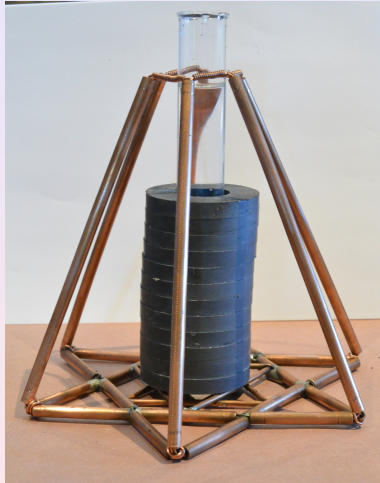
# Boyce Untreated Imaginary



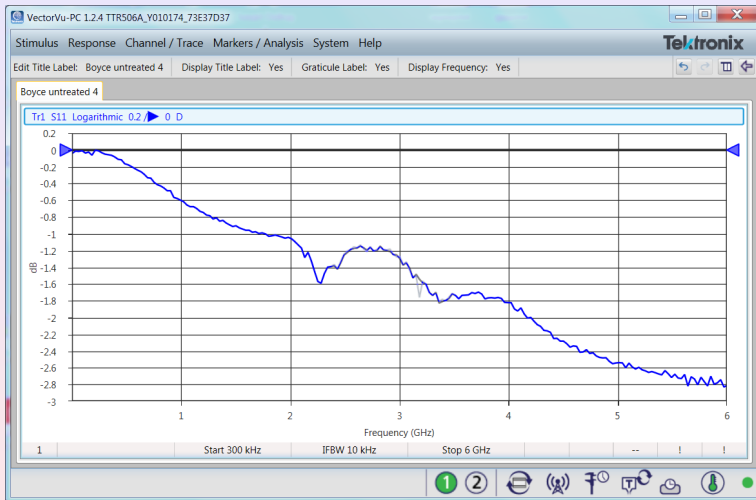
# Boyce Axial South Up Imaginary



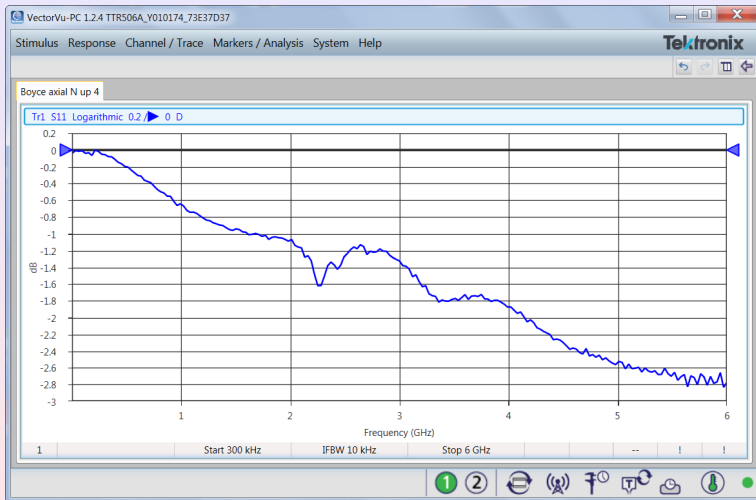
# Axially Polarized North Up Treatment



# Boyce Untreated Log Magnitude

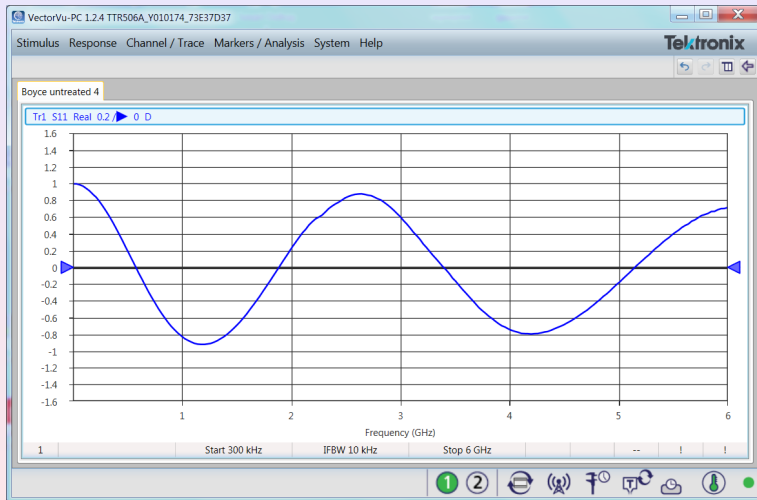


# Boyce Axial North Up Log Magnitude

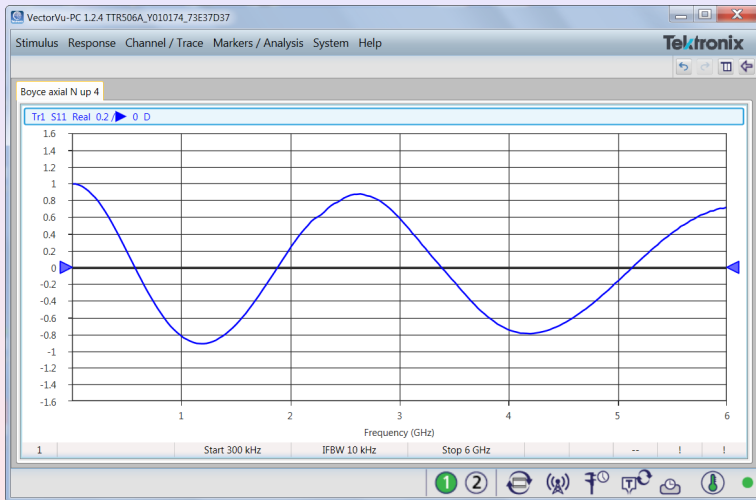




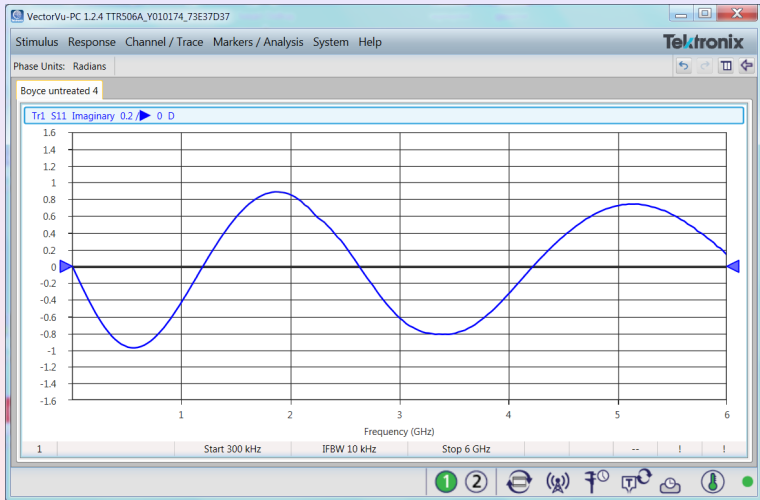
# Boyce Untreated Real



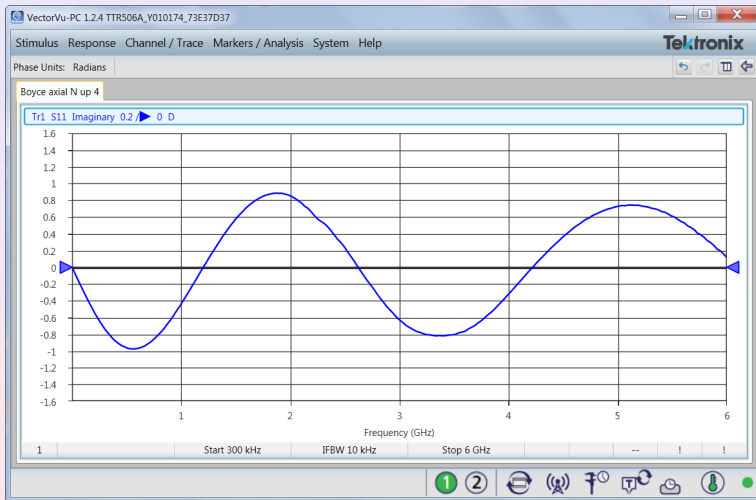
# Boyce Axial North Up Real



# Boyce Untreated Imaginary



# Boyce Axial North Up Imaginary

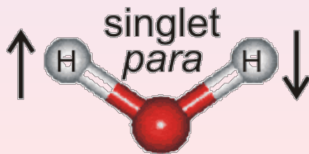
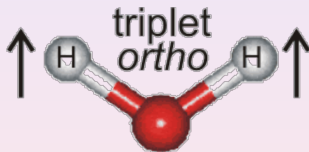


# Observations

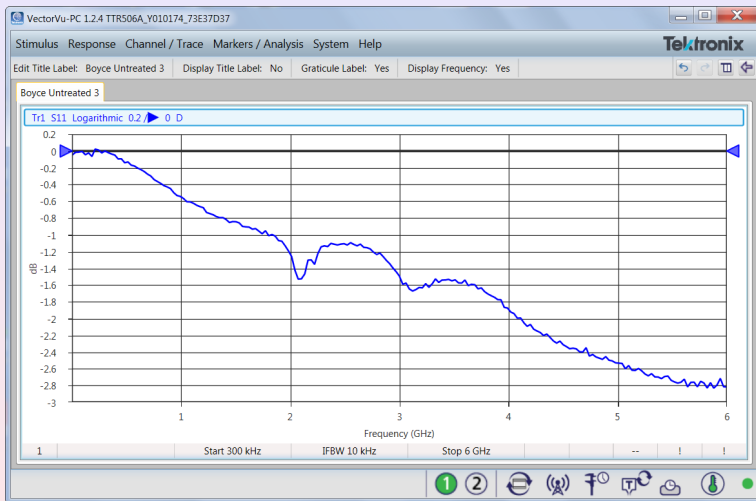
- Circumferential Out generated a smoother curve than Circumferential In
- Radial N Inside generated a smooth sloped line
- Radial S Inside had no effect
- Axial South Up moved the dips by 1GHz
- Axial North had no effect

# What Might Be Changing

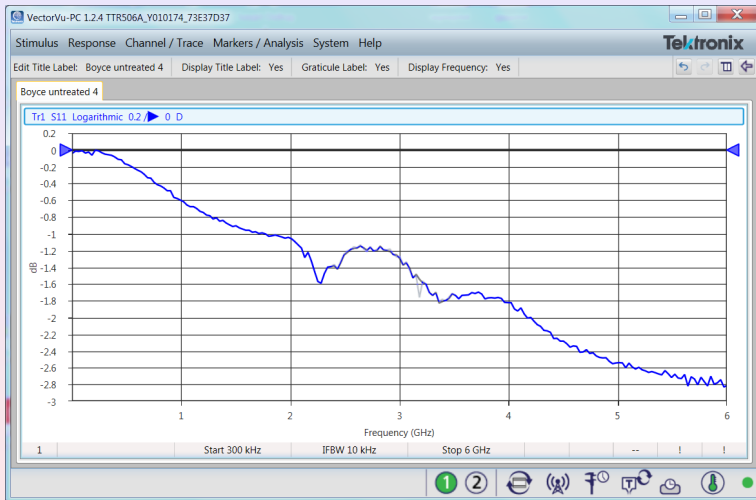
- Water molecules  $H_2O$  exist in two forms or isomers
- *ortho* and *para*
- They have different proton spin states
- Ortho water 75% (Higher Energy State)
  - The proton spins of the hydrogens are parallel
- Para Water 25% (Lower Energy State)
  - The proton spins of the hydrogens are antiparallel



# Boyce Untreated Log Magnitude 36 Hours

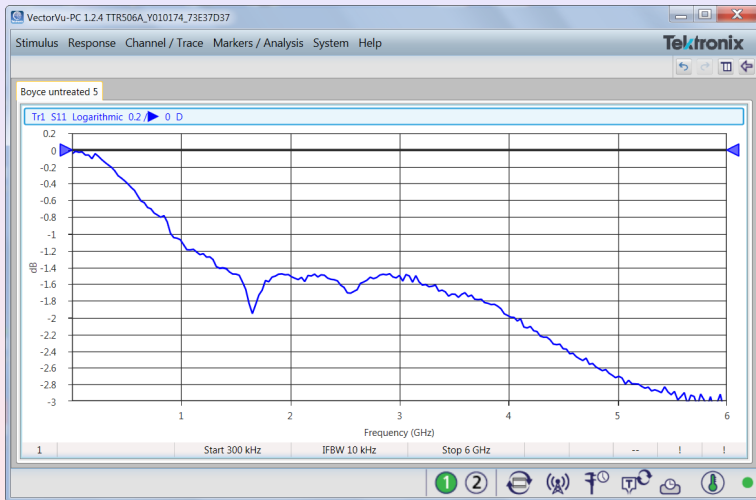


# Boyce Untreated Log Magnitude 40 Hours

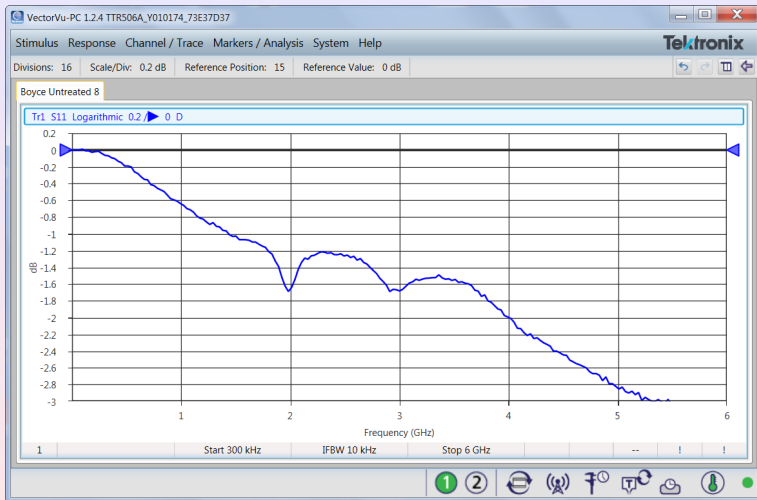




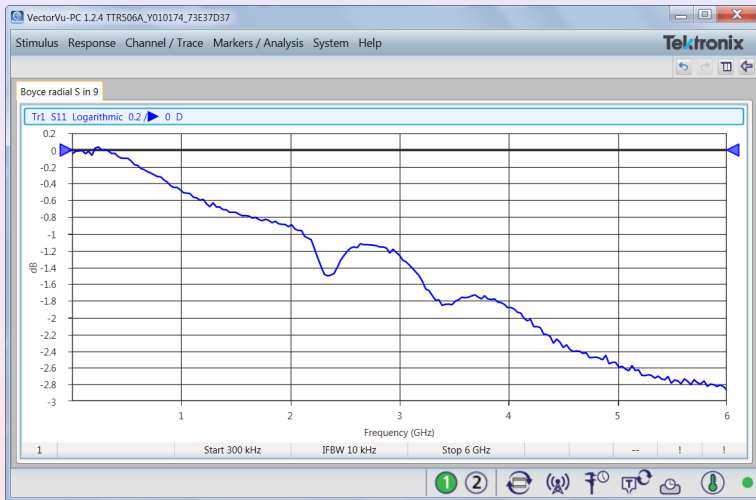
# Boyce Untreated Log Magnitude 42 Hours



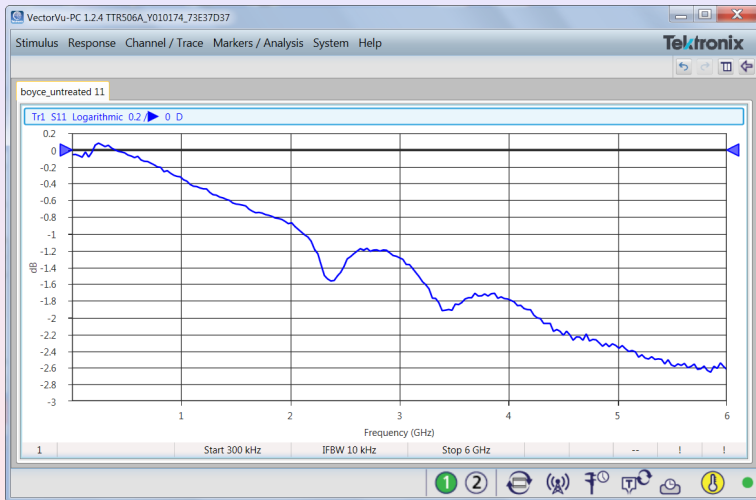
# Boyce Untreated Log Magnitude 53 Hours



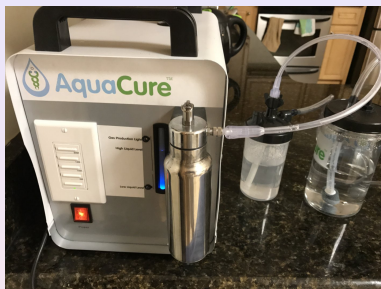
# Boyce Untreated Log Magnitude 118 Hours



# Boyce Untreated Log Magnitude 150 Hours

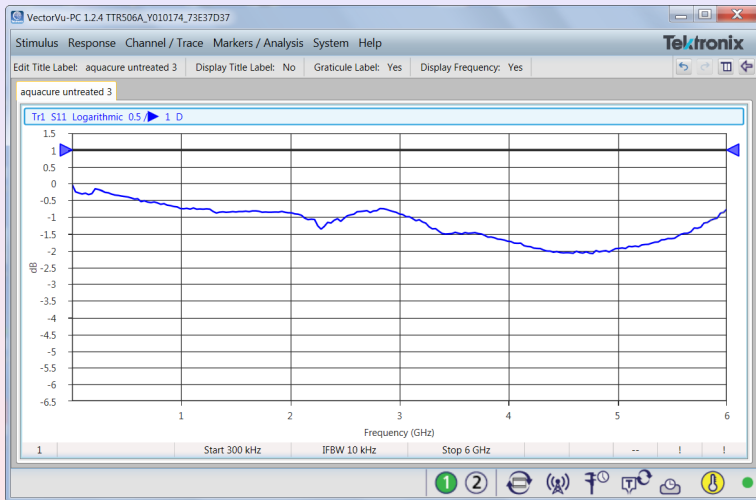


# Aquacure

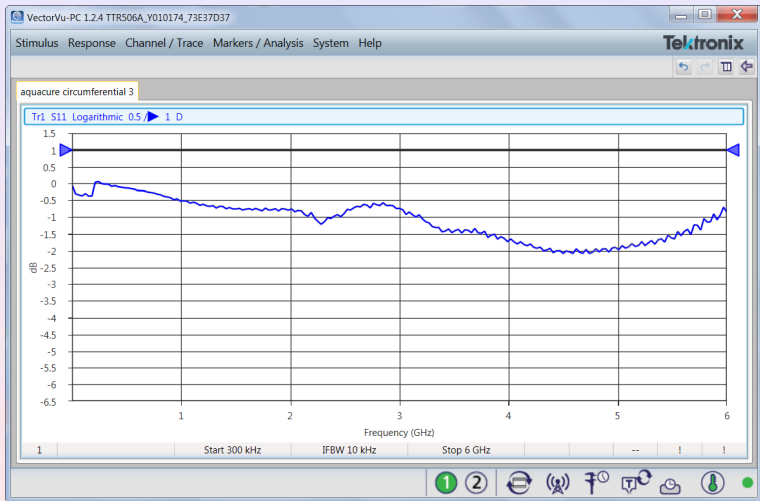


- The AquaCure (Model EA-H160)
- Generates up to 75 liters per hour (lph)
- Mixed hydrogen and oxygen gases (Brown's Gas)

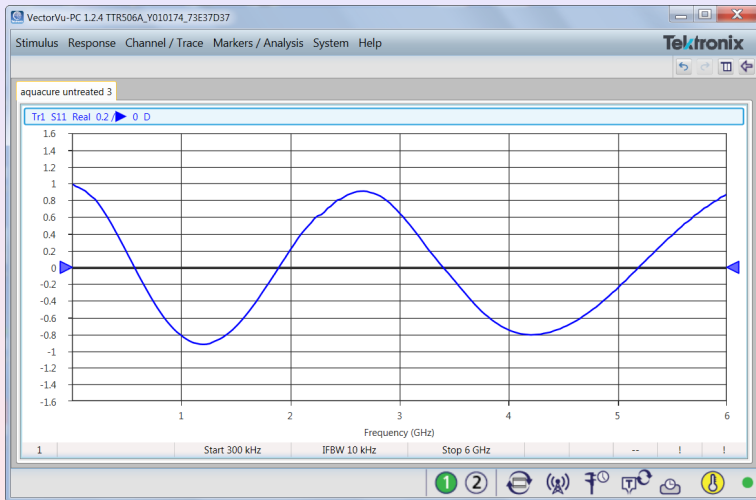
# Aquacure Untreated Log Magnitude



# Aquacure Circumferential Out Log Magnitude

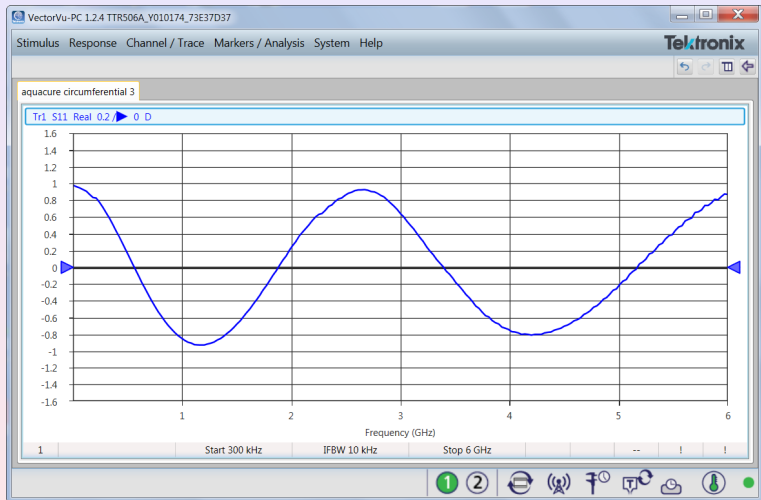


# Aquacure Untreated Real

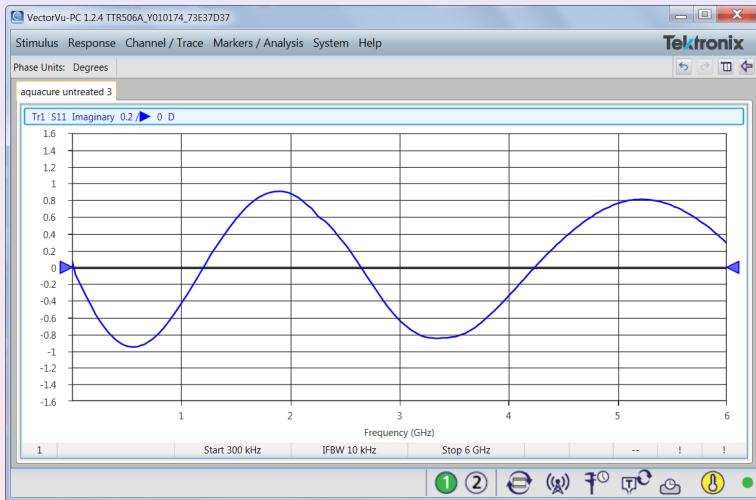




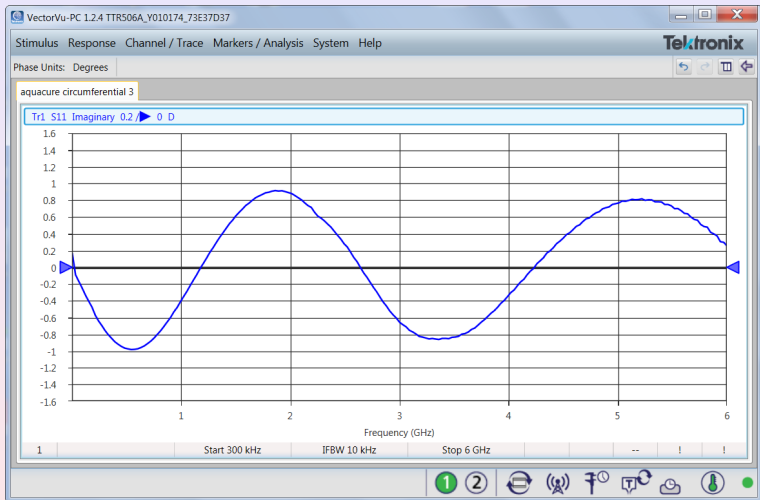
# Aquacure Circumferential Out Real



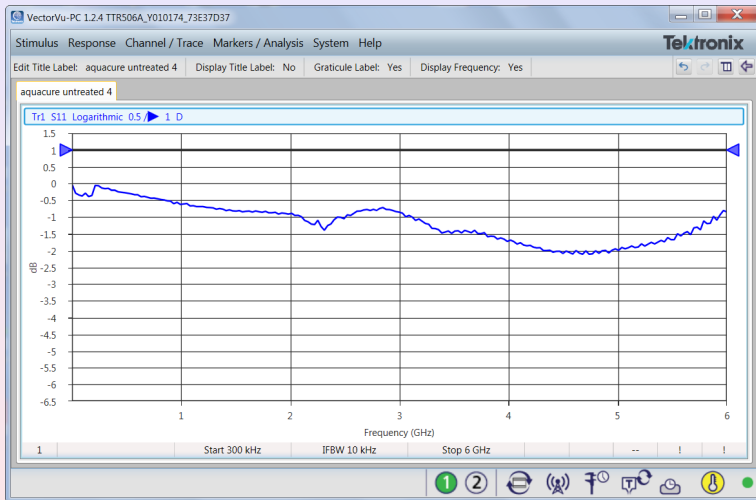
# Aquacure Untreated Imaginary



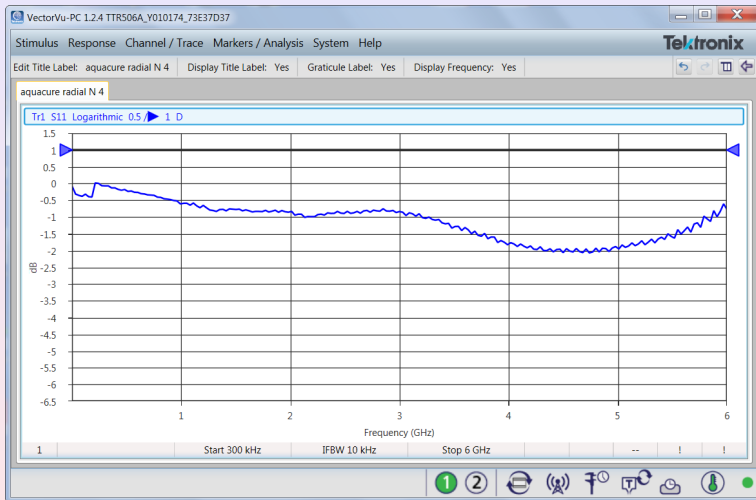
# Aquacure Circumferential Out Imaginary



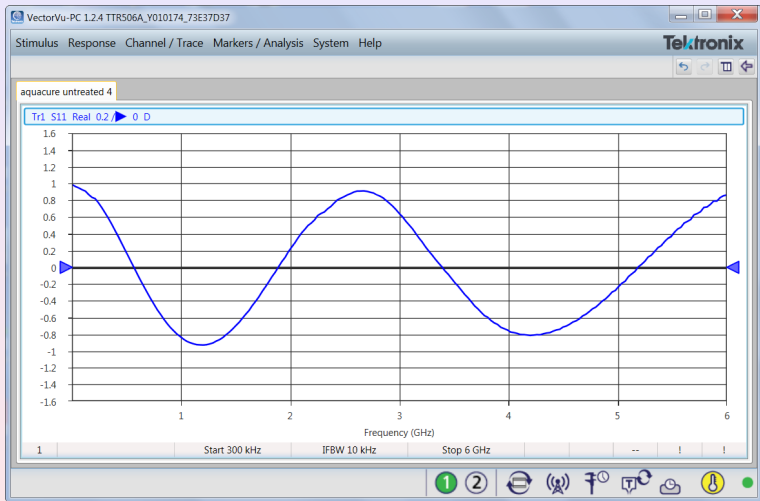
# Aquacure Untreated Log Magnitude



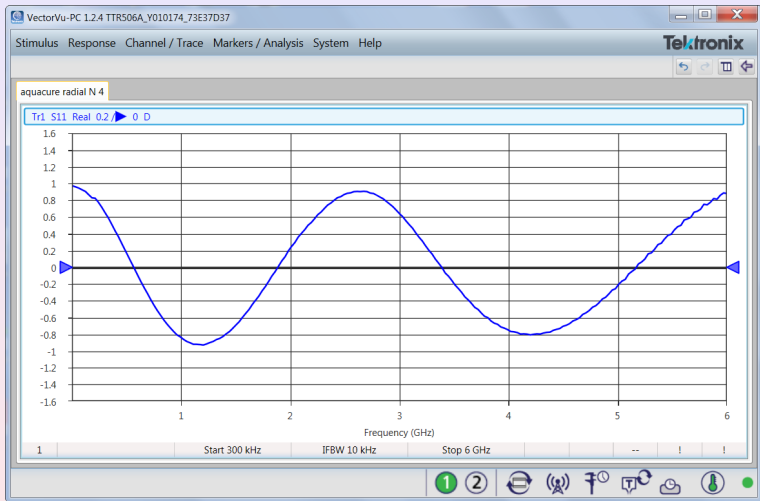
# Aquacure Radial N Inside Log Magnitude



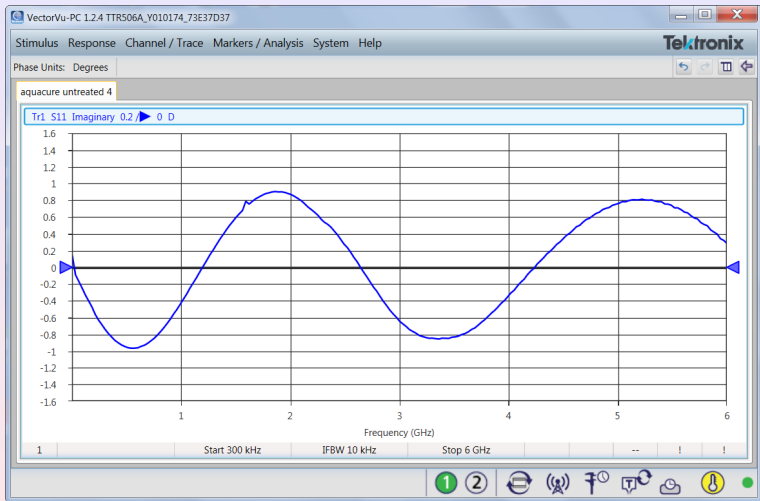
# Aquacure Untreated Real



# Aquacure Radial N Inside Real

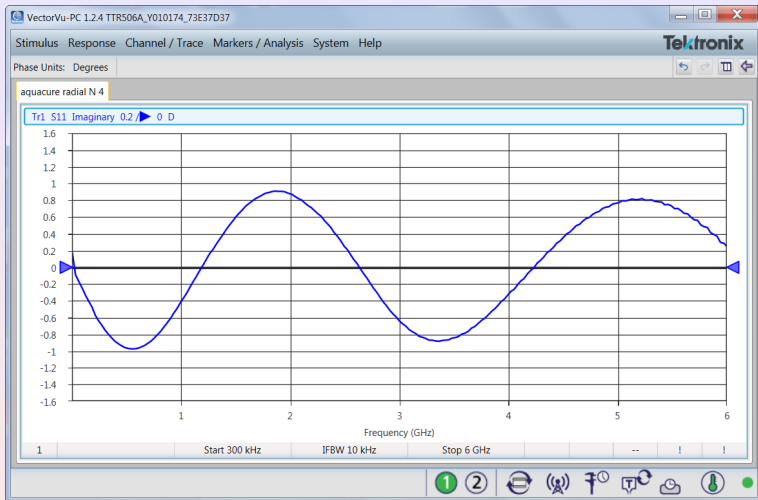


# Aquacure Untreated Imaginary

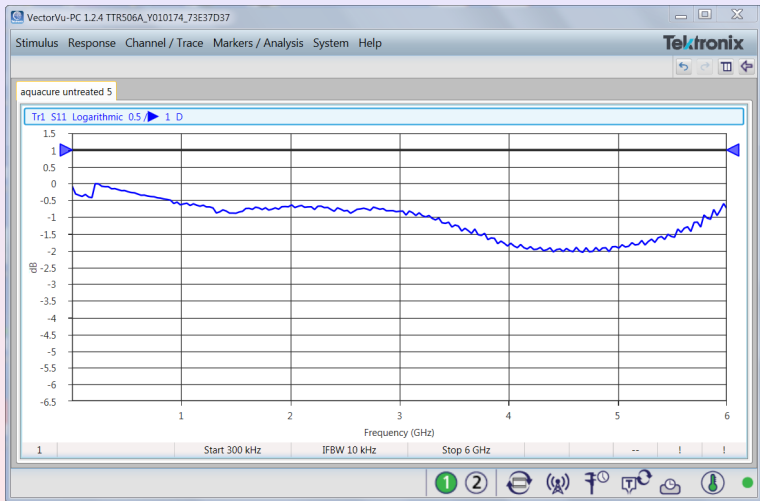




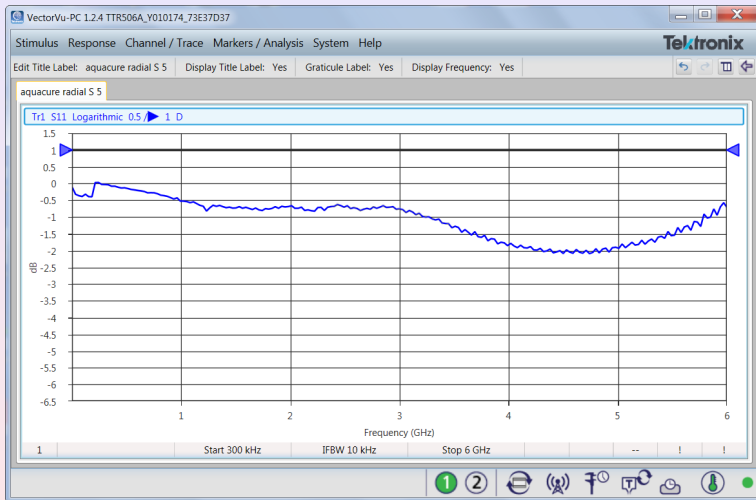
# Aquacure Radial N Inside Imaginary



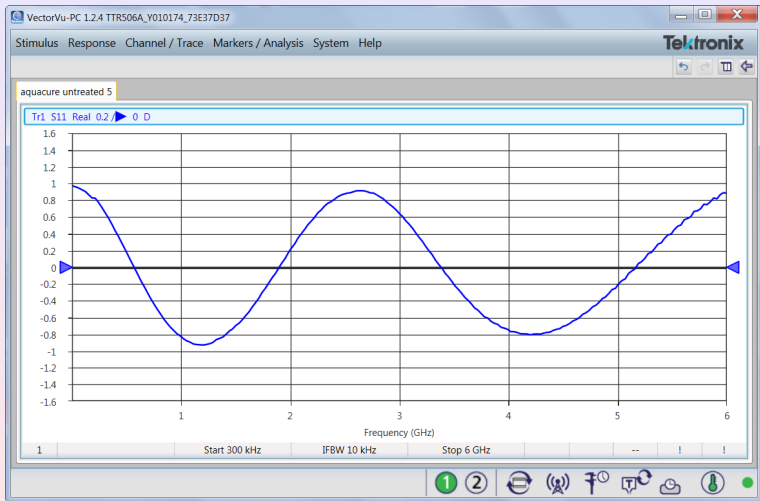
# Aquacure Untreated Log Magnitude



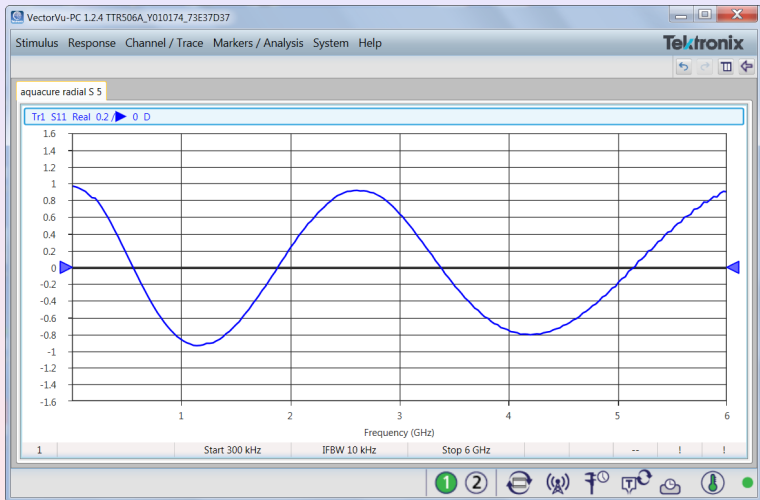
# Aquacure Radial S Inside Log Magnitude



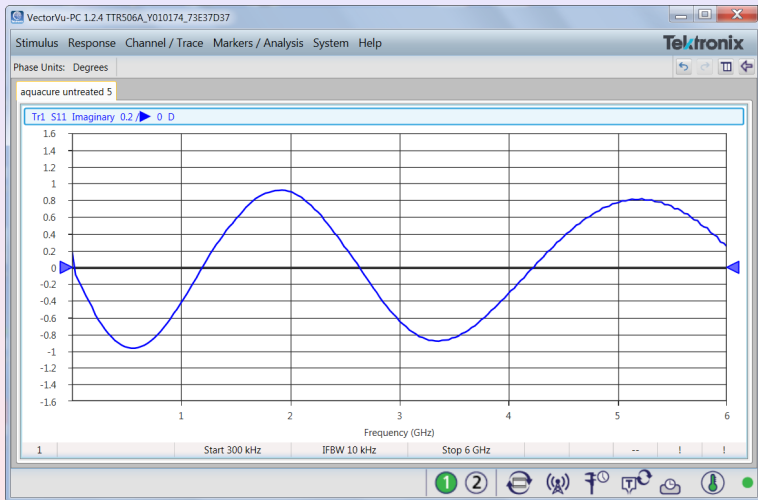
# Aquacure Untreated Real



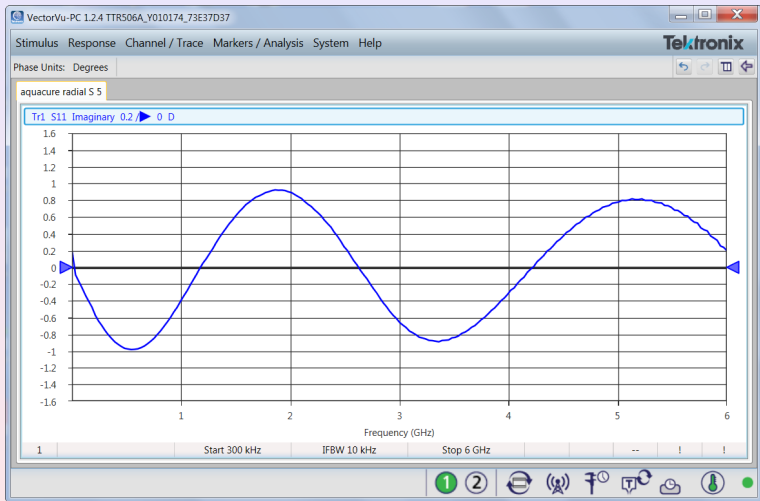
# Aquacure Radial S Inside Real



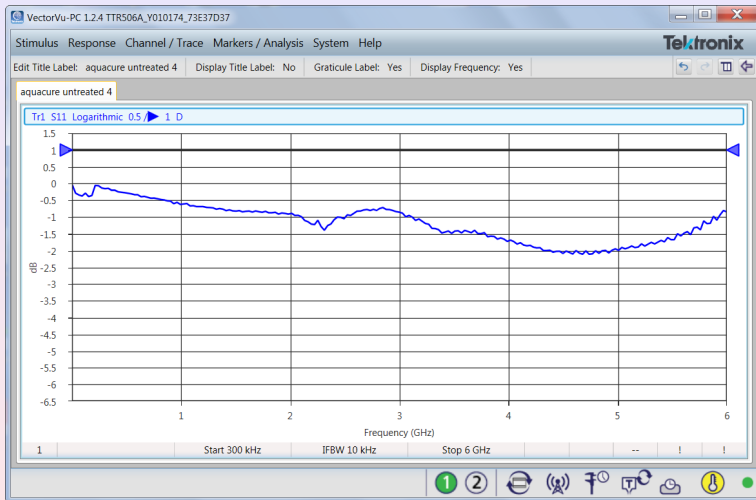
# Aquacure Untreated Imaginary



# Aquacure Radial S Inside Imaginary

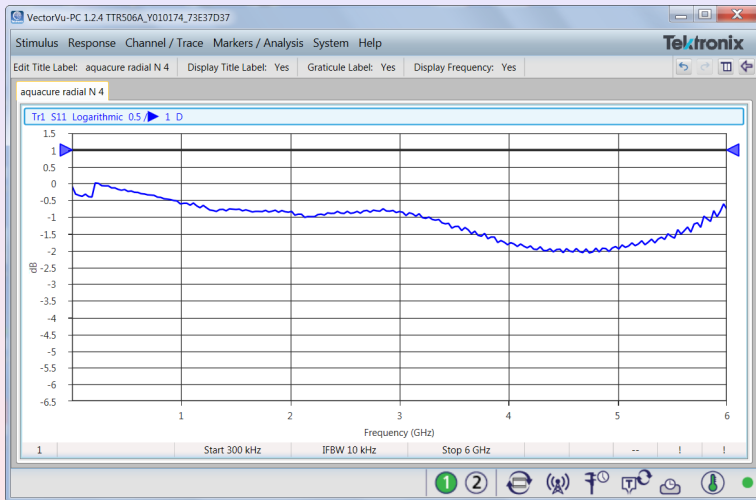


# Aquacure Untreated Log Magnitude

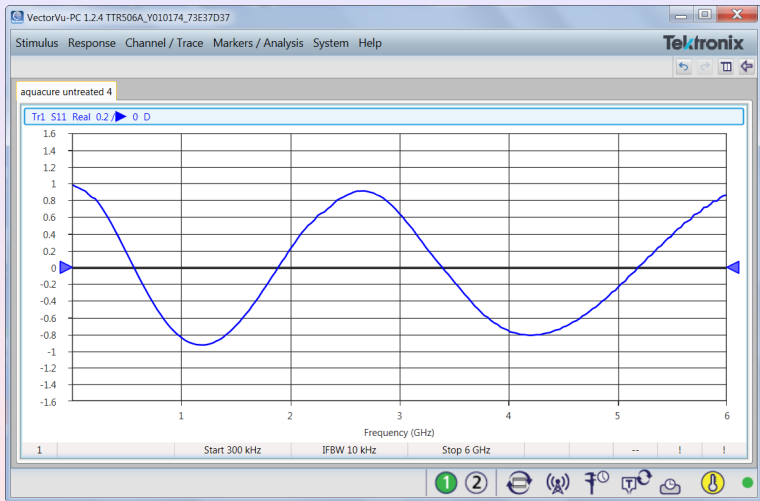




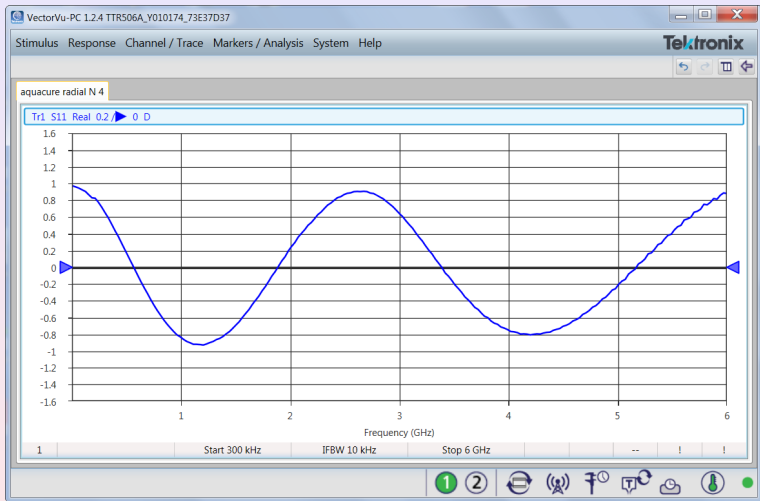
# Aquacure Radial N Inside Log Magnitude



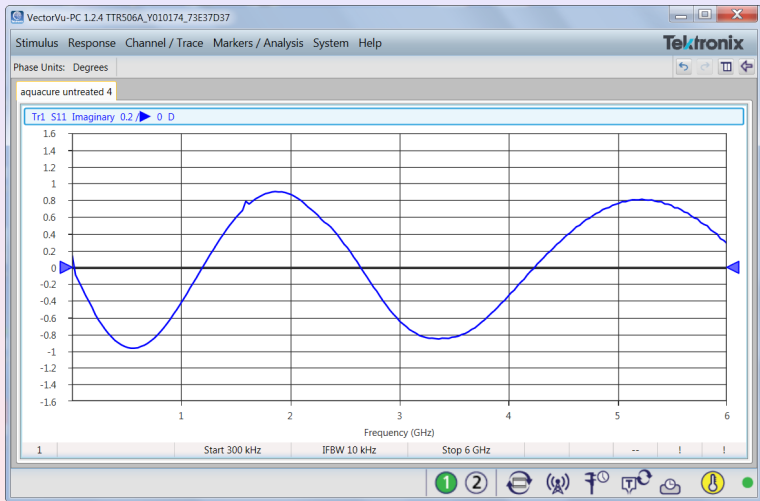
# Aquacure Untreated Real



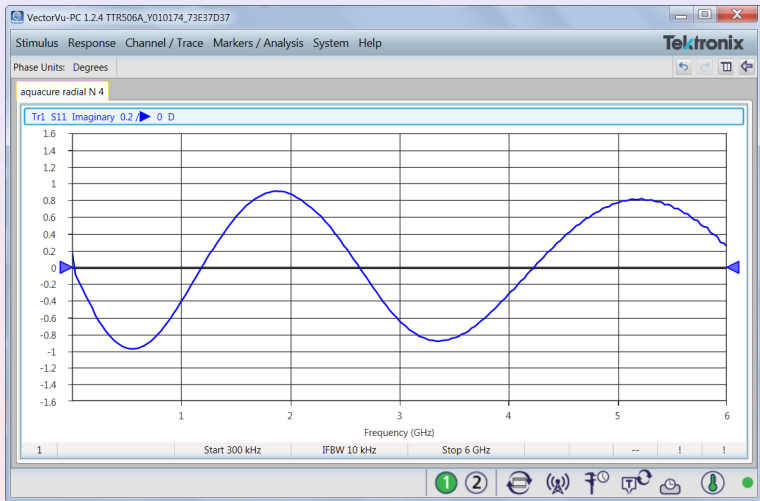
# Aquacure Radial N Inside Real



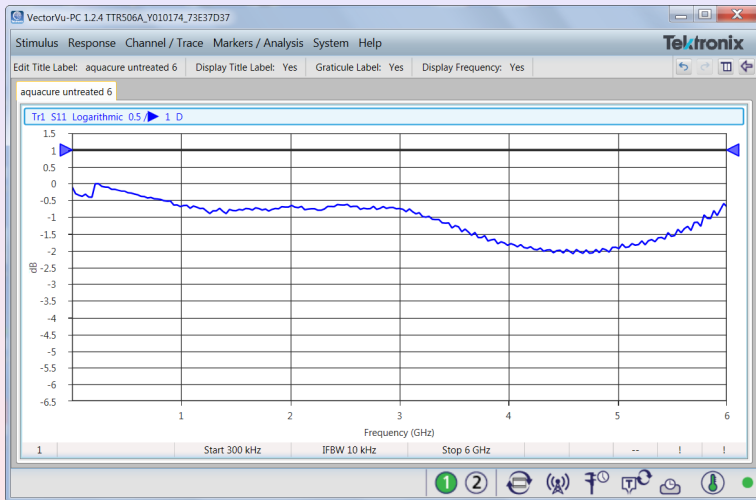
# Aquacure Untreated Imaginary



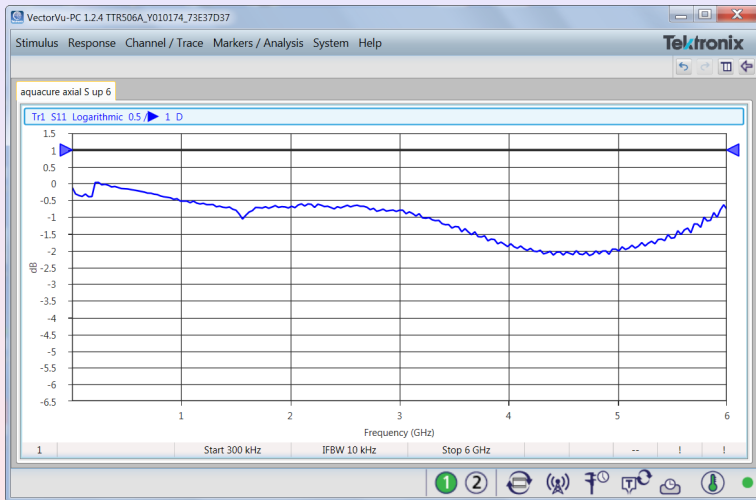
# Aquacure Radial N Inside Imaginary



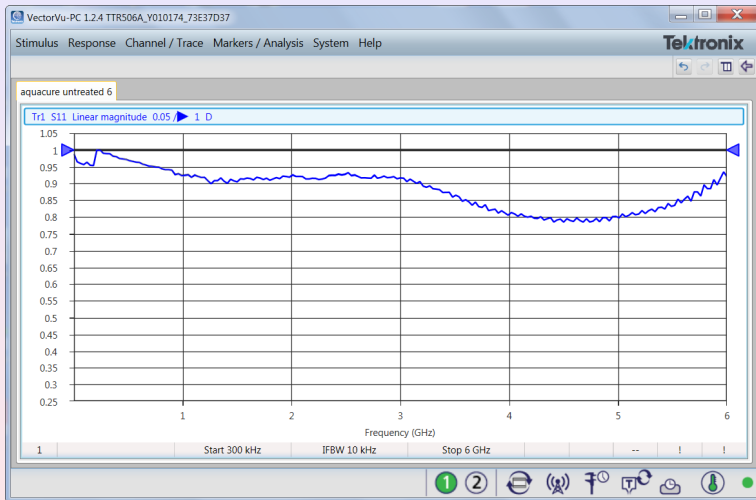
# Aquacure Untreated Log Magnitude



# Aquacure Axial S Up Log Magnitude

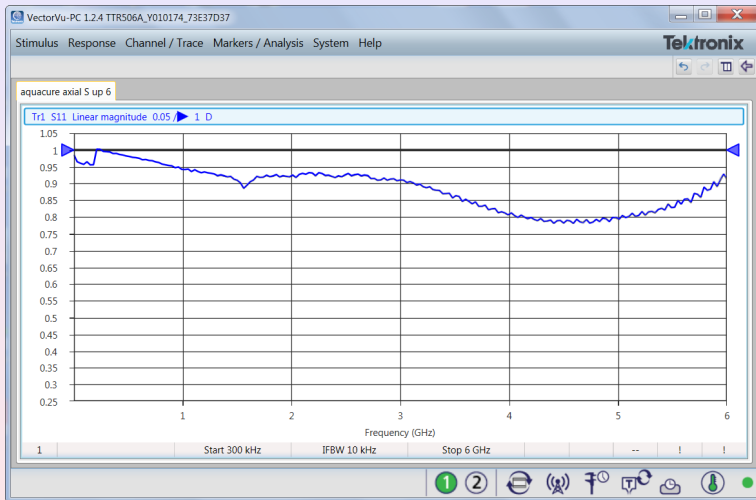


# Aquacure Untreated Linear Magnitude

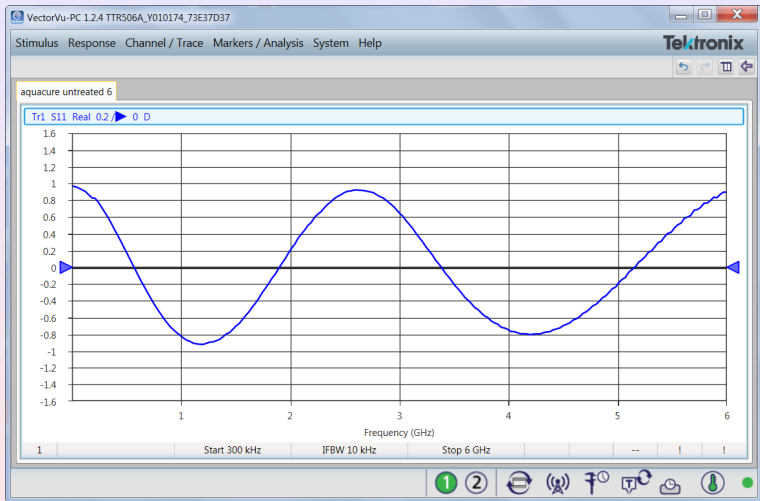




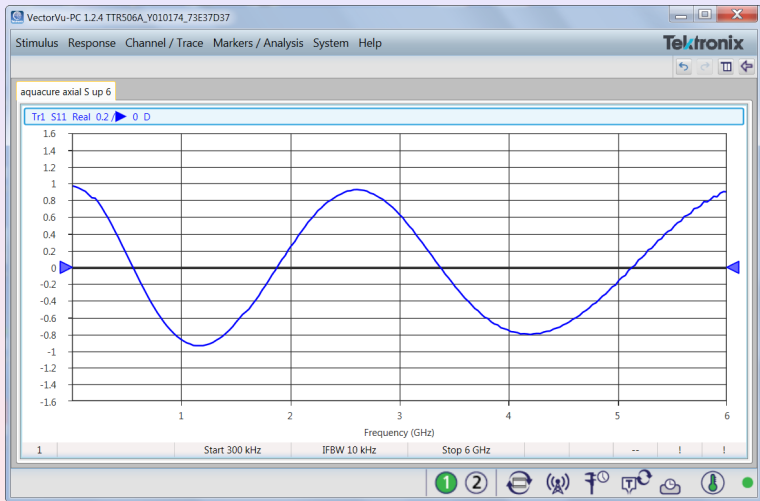
# Aquacure Axial S Up Linear Magnitude



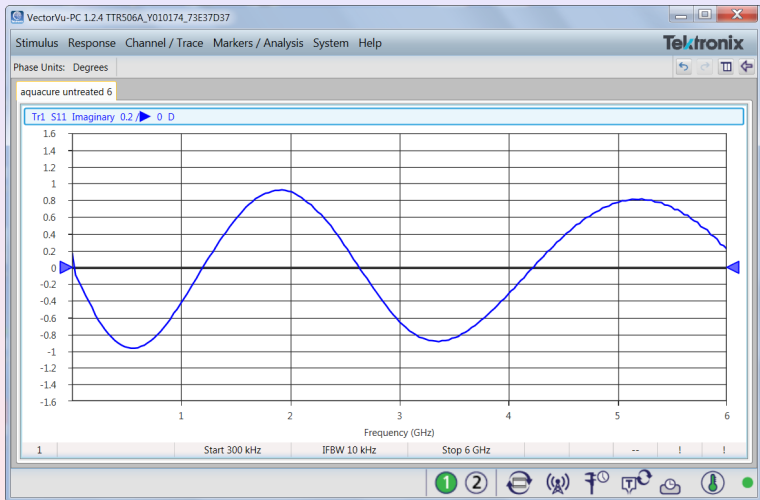
# Aquacure Untreated Real



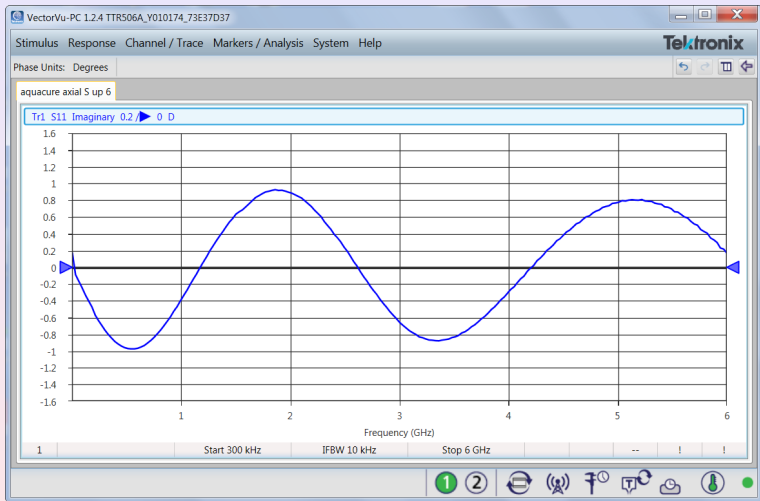
# Aquacure Axial S Up Real



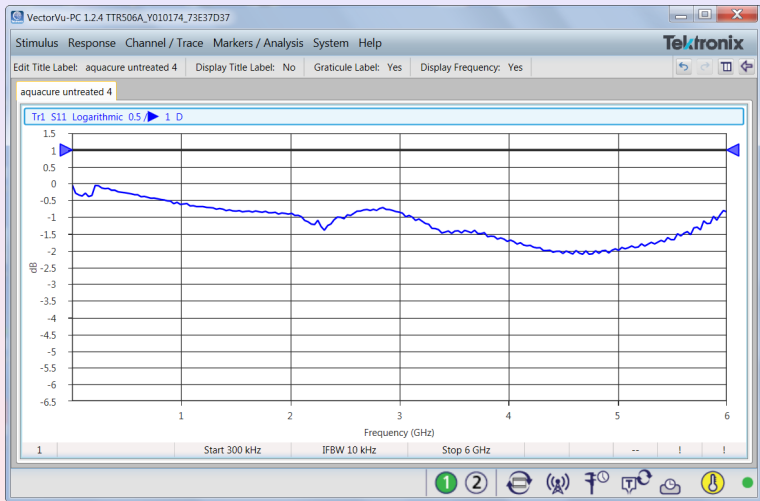
# Aquacure Untreated Imaginary



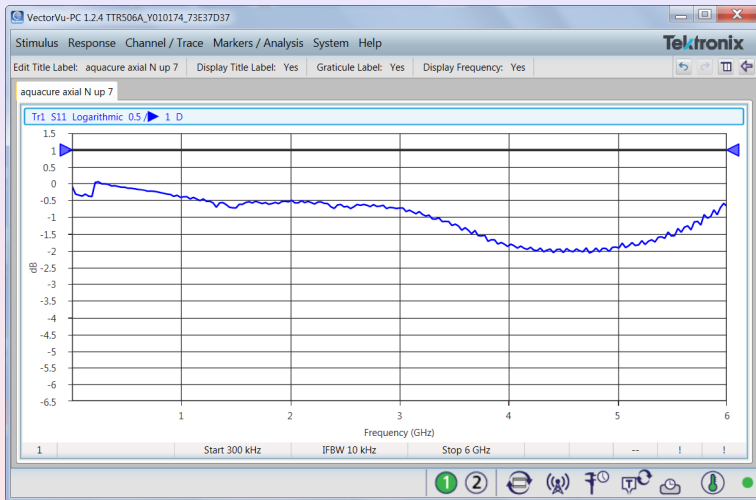
# Aquacure Axial S Up Imaginary



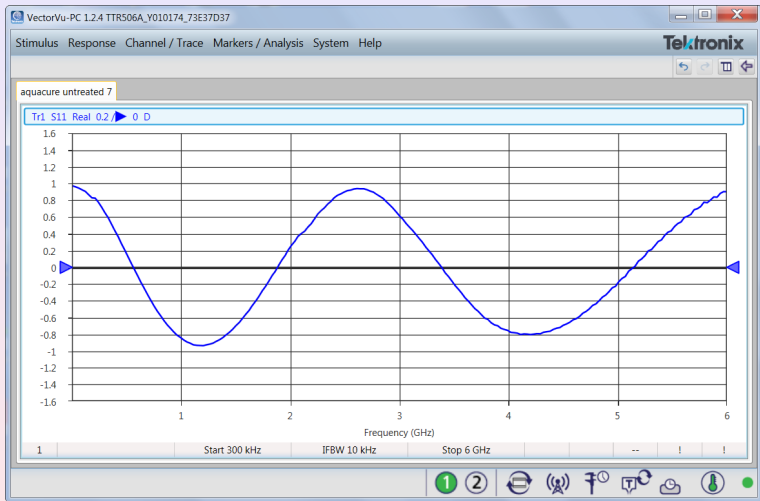
# Aquacure Untreated Log Magnitude



# Aquacure Axial N Up Log Magnitude

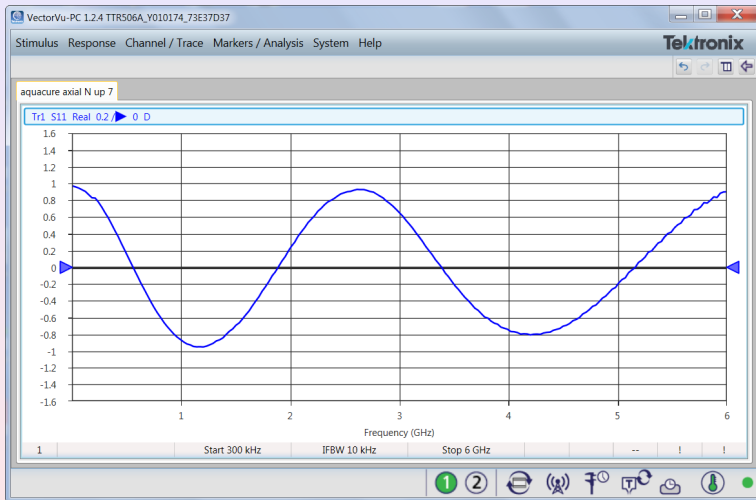


# Aquacure Untreated Real





# Aquacure Axial N Up Real



# Observations

- Circumferential Out generated no change
- Radial N Inside generated a smoother curve
- Radial S Inside generated no change
- Axial S Up generated no change
- Axial N Up generated a smoother curve

# Scalar Healing Machine

Created By Micha Eizen



The device works on the principle of amplifying one's intention, thus accelerating moving into a state of well-being physically and mentally.

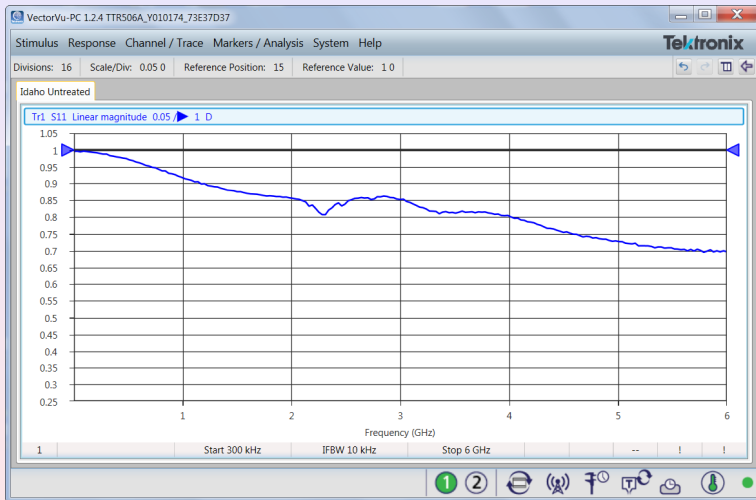
- 528 Hertz Oscillator
  - 528 Hz is the *Miracle* note of the original Solfeggio musical scale
  - The *Miracle* tone brings remarkable and extraordinary changes
  - 528 Hz is the bioenergy of health and longevity
- Fourth Harmonic 2,112 Hertz Pulsed
- Quartz Crystal
- Counter-Wound Coils Around the Quartz Crystal

# Scalar Healing Machine



O.L.S.A. = Only Love Should Activate

# Untreated Linear Magnitude



# Conscious Intention Linear Magnitude

