

## ANY QUESTIONS???

## Introduction

#### What we will cover...

- Design
  - Basic Theory
  - Antenna Construction
  - Amplification
- Installation
  - Site Survey
  - Mounting
  - Distribution
- Misc./Helpful Information
  - Industry Standards
  - Websites / Links / Propagation

## **Basic Theory**

- Digital / Analog Television Spectrum
- Antenna Bandwidth
- Antenna Gain
- Antenna front/back ratio
- Antenna Impedance

# **Basic Theory**

#### Antenna Construction

- Types of Commercial Antennas
- What Makes a good antenna?
- Combo Antennas
- Choosing the right antenna

# **Basic Theory**

### Amplification

- Types of amplifiers
- Gain / noise figures
- How much gain?
- Choosing the right amplifier

#### Transmission Lines

- Types of cables
- Cable loss
- Cable impedance
- Types of connectors

### Installation

### Site Survey

- Select Location
- Factors to consider (Terrain, Channels, etc.)
- Field Strength Test

## Installation

### Mounting

- Types of mounts
- Best location (safety/longevity)
- Waterproofing roof mounts
- Cable lead dress
- Attic installs

## Installation

#### Distribution

- Splitters and taps
- Gain calculations
- How much signal at a location

# Misc. Helpful Information

- FCC contour maps/standards
- Website and links
- DTV/analog overlapping (pre-transition)
- Propagation