



# KINTRONIC LABS

an ISO 9001 registered company

## Custom AM/MW Multiplexing System



WKDM/WWRU AM Diplexed DA, Meadowlands, NYC, NY

### AVAILABLE FEATURES

- Networks Factory Pre-Tuned
- Complete RF Schematic, Electrical Parts List and Installation Instructions
- Wideband Design for HD Radio or Digital Radio Mondiale (DRM) digital performance
- Matching and filter networks fabricated in weatherproof aluminum cabinets with isolated compartments for each network
- Component Voltage and Current Ratings For 125% Positive Peak Modulation
- Silver-plated Inductors (up to 60 A) and Interconnection Tubing and Strap
- Toroidally Sampled RF Current Metering Systems or Thermocouple Meters on Meter Plugs
- Light with insulated guard and dual AC receptacle in each system cabinet

## System Considerations for Potential AM/MW Multiplexing Application

1. Characteristics of Tower(s)
  - a. Type
    - i. Fixed cross section, guyed, series fed
    - ii. Self-supporting
    - iii. Shunt/Unipole Skirt Fed
  - b. Tower layout and pattern requirements for directional antennas
  - c. Base and guy wire insulator voltage ratings
2. Transmitter Specifications
  - a. Transmitter power of each station
  - b. Frequency of each station
  - c. Transmitter Make and Model







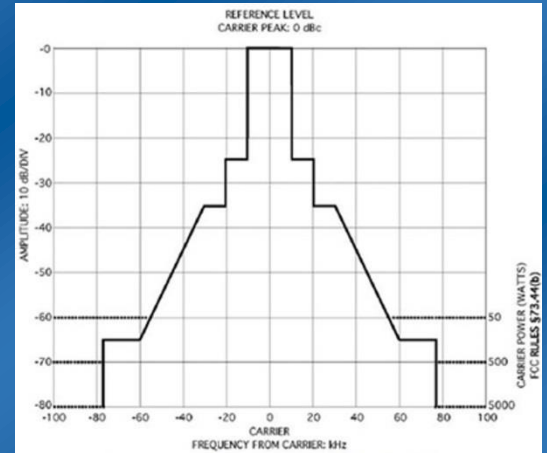
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## Spurious Emission Limitations

For application in the United States or its territories where FCC regulations are enforced, the cross-modulation products that are produced in the output RF stages of the transmitters in a multiplexed system must be limited in accordance with Section 73.44 of the FCC Rules. These spurious emission limitations are a contributing factor in determining the required level of isolation between each of the radio stations multiplexed into a common antenna. Equally important are the relative transmitted power and drive impedance of each station, which determines the base voltage produced by each transmitter at each of the antenna elements.

Multiplexed systems need to be carefully modeled as a whole to achieve the best performance of all stations involved. Each design undergoes a full nodal analysis of all networks involved to ensure proper performance and to minimize installation time. We strive to select the best filter, prematching, and matching network configurations to achieve the desired isolation, pattern and impedance bandwidth. We work with site and budget constraints to incorporate the station's existing equipment when feasible.



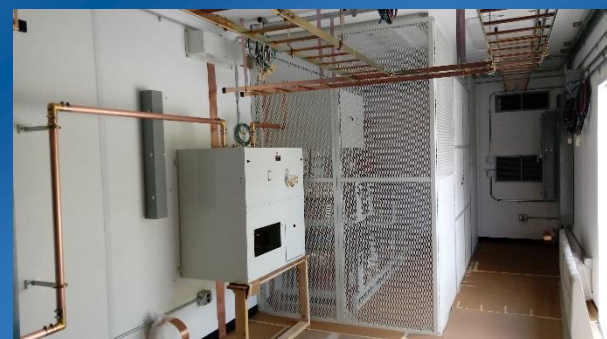
## Diplexer Housing Options



Open Panel & Shelf  
Configuration



Weatherproof Aluminum Cabinet  
Configuration



Prefabricated Concrete (shown) or Aluminum  
Building Configuration