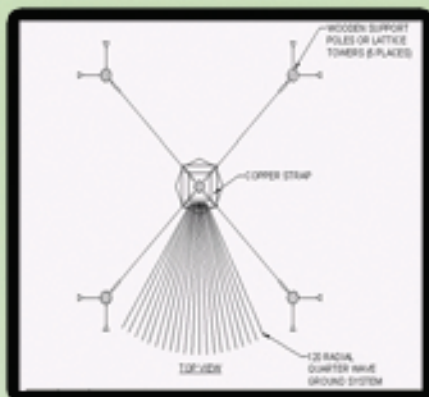




AM/Medium Wave Low Profile Antenna Technology

**A HIGH EFFICIENCY ANTENNA SOLUTION FOR
TOWER HEIGHT ZONING RESTRICTIONS**

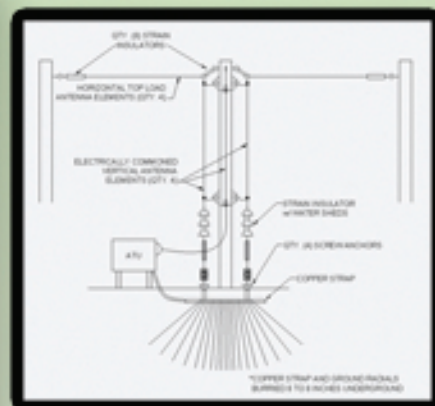


**Aerial View
of
Antenna Support**

* Wooden Utility poles or Standard Lattice Towers Can Be Used Depending on Frequency *



**DO YOU SEE AN AM BROADCAST ANTENNA
IN THIS PHOTO?**



**Plan View
of
Tower Feed Configuration**

MODEL KSA-VCTB-1/5/10 SHOWN



**Overview
of
KinStar
Antenna
Showing Center
Support w/Fence
on Left & XMTR
on Right**



**Antenna
Tuning
Unit
Installed at
Base of Center
Support**

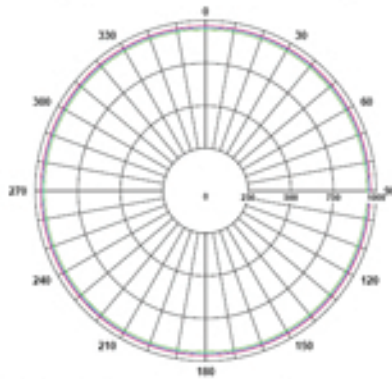
KINTRONIC  LABS

PH: 1.423.878.3141

FAX: 1.423.878.4224

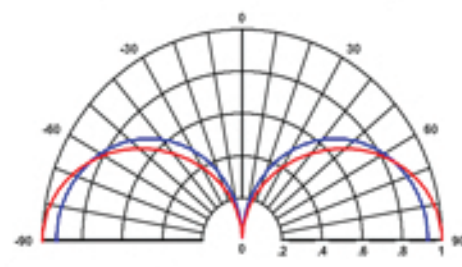
Technical Features

FIELD STRENGTH COMPARISON (mV/m)
10 KW On 1680 KHz At 1 km
(BASED ON ACTUAL MEASUREMENTS)



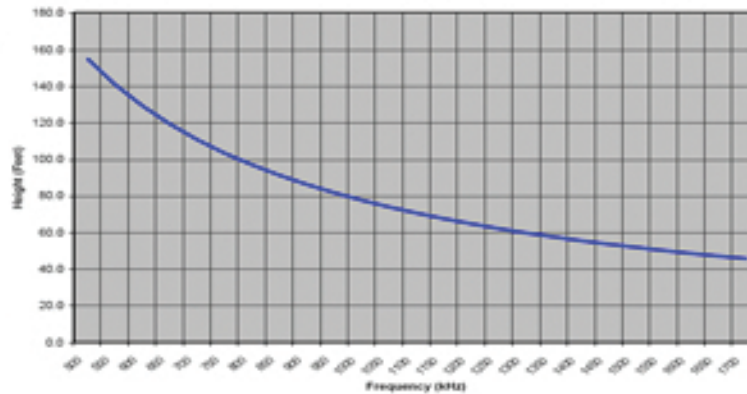
KinStar vs. Quarter Wave Mast on Same Frequency Horizontal Pattern Comparison

NORMALIZED VERTICAL FIELD COMPARISON



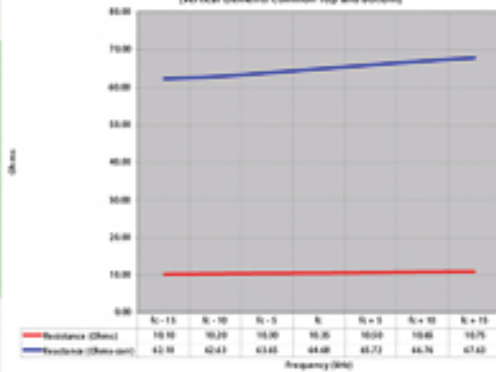
KinStar vs. Quarter Wave Mast on Same Frequency Vertical Form Factor Comparison

KinStar Antenna Height vs Frequency



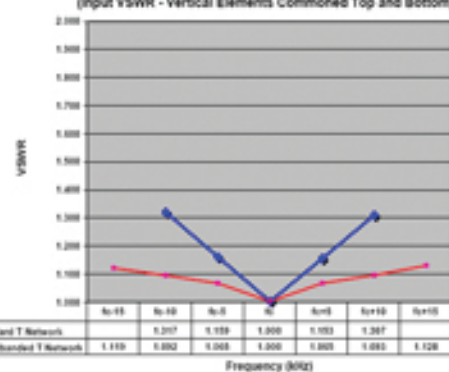
KinStar Physical Height (Ft.) vs. Frequency (kHz)

KinStar Low-Profile Antenna Model KSA-VCTB
Typical Antenna Load Impedance
(Vertical Elements Commoned Top and Bottom)



Typical Antenna Load Impedance

KINSTAR Antenna VSWR vs Frequency
(Input VSWR - Vertical Elements Commoned Top and Bottom)



Input Audio Bandwidth With & Without Broadbanding (VSWR vs. Frequency)

INSTALLATION

- * Less than one third electrical height of quarter wave mast on the same frequency
- * Requires five vertical supports that may be wooden utility poles or guyed, lattice masts depending on the frequency of operation
- * Requires 120-radial quarter wave ground system
- * No lights or paint required

PERFORMANCE

- * Radiating efficiency of 98% compared to quarter wave mast
- * Input audio bandwidth compatible with IBOC (HD)TM & Digital Radio Mondiale (DRM) digital audio broadcast transmitters
- HD is a Trademark of Ibiquty Digital Corporation