

# DATA SHEET



## HE SERIES COMPACT HELICAL ANTENNAS

ANT-315-HE\*\*, ANT-418-HE\*\*  
ANT-433-HE\*\*, ANT-916-HE\*\*

\*\* = SM (SURFACE-MOUNT)  
TH (THROUGH-HOLE)

### DESCRIPTION

In low-cost RF applications a whip antenna generally provides the best overall performance. In many cases, however, the use of a whip is not practical for cost or cosmetic reasons. In instances where a designer is looking for a blend of easy concealment, low cost and good performance, a helical antenna is usually the optimum choice. The HE series from Linx delivers exceptional performance and ease of use, while maintaining a cost factor appropriate for high-volume applications. Linx helical antennas are precisely wound and matched to provide the lowest possible SWR at the operational frequency. In addition, the antenna diameter and inter-coil spacing are optimized to provide a wider than typical bandwidth.

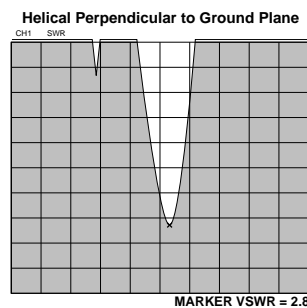
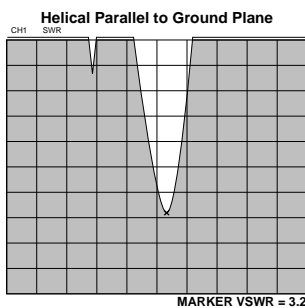
### FEATURES

- Compact design for easy concealment
- High-grade phosphoric bronze construction
- Precision wound for consistent performance
- Surface-mount or through-hole styles
- Low physical impedance
- Rugged construction
- Very low cost in volume

### ORDERING INFORMATION

| PART #       | DESCRIPTION           | PART #       | DESCRIPTION          |
|--------------|-----------------------|--------------|----------------------|
| ANT-315-HESM | SURFACE-MOUNT 315 MHZ | ANT-315-HETH | THROUGH-HOLE 315 MHZ |
| ANT-418-HESM | SURFACE-MOUNT 418 MHZ | ANT-418-HETH | THROUGH-HOLE 418 MHZ |
| ANT-433-HESM | SURFACE-MOUNT 433 MHZ | ANT-433-HETH | THROUGH-HOLE 433 MHZ |
| ANT-916-HESM | SURFACE-MOUNT 916 MHZ | ANT-916-HETH | THROUGH-HOLE 916 MHZ |

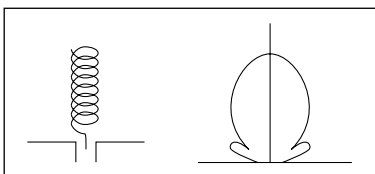
### PERFORMANCE CHARACTERISTICS



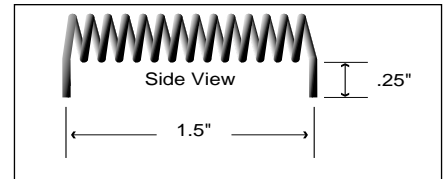
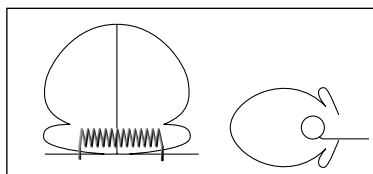
### RADIATION PATTERN

HE Series antenna patterns have not been fully characterized as of this time. The patterns below illustrate typical patterns for antennas of this type.

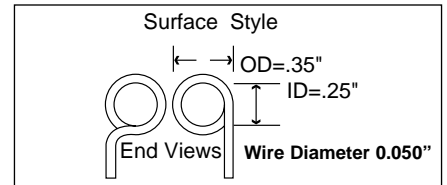
#### Perpendicular to Groundplane



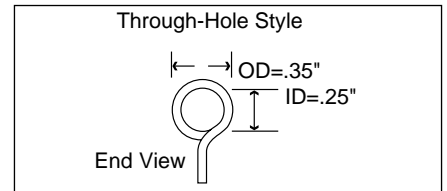
#### Parallel to Groundplane



#### Surface-Mount Style

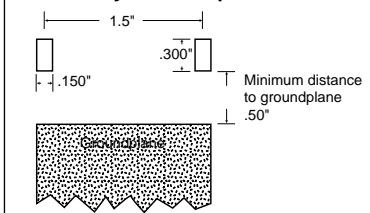


#### Through-Hole Style

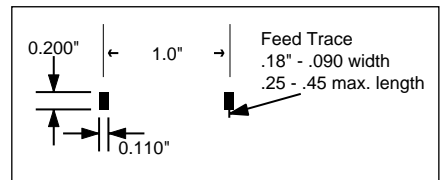


### Suggested Board Layout

#### Helical Layout Example



#### (916MHz)



### For Applications Subject to Vibration or Shock

