



## Y(B)1503 Directional Yagi Antenna

### GOLD ANODIZED YAGI ANTENNA INSURES LONG-TERM PERFORMANCE

Laird's premium series Directional Yagi antennas are fully gold anodized for corrosion resistance. Our engineering staff has also optimized the product family for forward gain by computer analysis and then field-tested each for conformance.

#### FEATURES

- Every Yagi is tuned on a network analyzer for best power match and lowest VSWR.
- All Yagi antennas ship complete with a high quality cast aluminum mounting kit that includes stainless steel hardware and allows vertical or horizontal orientation during installation. (VHF models require light assembly)
- Available in gold or black (B) anodized finish

#### MARKETS

- Point to point directional and multiple point to omnidirectional outdoor antennas applications used by private organizations and government agencies around the globe.
- Typical applications include transportation such as railroad switching, remote locations reporting examples that include oil fields and weather conditions and meter data transmissions for utilities.



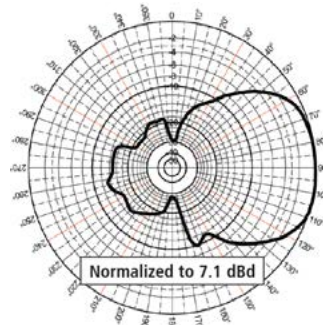
**Heavy-Duty Mounting  
Kit Included**

#### MECHANICAL SPECIFICATIONS

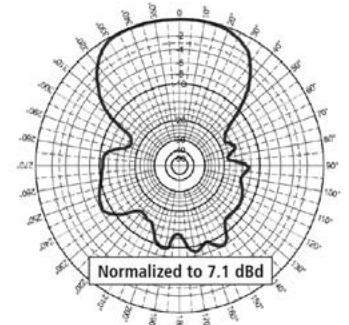
|                                            |                                                              |
|--------------------------------------------|--------------------------------------------------------------|
| Material                                   | Aluminum                                                     |
| Length                                     | 41-1/2"                                                      |
| Height                                     | 39-1/4"                                                      |
| Boom Diameter                              | 7/8"                                                         |
| Weight                                     | 4 lbs                                                        |
| Rated Wind Velocity                        | 150 mph (241 kph)                                            |
| Rated Wind Velocity (with 0.5" radial ice) | 80 mph (130 kph)                                             |
| Equivalent Flat Area                       | 0.504 sq. ft.                                                |
| Cable                                      | None                                                         |
| Termination                                | N-Female connector                                           |
| Color                                      | Gold or Black Anodized                                       |
| Lightning Protection                       | Lightning Arrestor LABH350NN (Sold Separately)               |
| Mounting Included                          | Heavy duty cast aluminum bracket accomodates up to 7/8" mast |

## ELECTRICAL SPECIFICATIONS

|                                                       |                        |
|-------------------------------------------------------|------------------------|
| Frequency Range                                       | 150 – 174 MHz          |
| Frequency Bandwidth                                   | 3 MHz typical          |
| VSWR                                                  | < 2:1                  |
| Return Loss                                           | -10dB max              |
| Nominal Gain                                          | 7.1 dBd                |
| Front to Back Ratio                                   | 17 dB                  |
| Maximum Power                                         | 300 W                  |
| Nominal Impedance                                     | $\Omega 50$            |
| Polarization                                          | Vertical or Horizontal |
| Pattern                                               | Directional            |
| Horizontal Beamwidth<br>(For Horizontal Polarization) | 78°                    |
| Vertical Beamwidth<br>(For Vertical Polarization)     | 74°                    |
| Tuning                                                | See cutting chart      |
| Transmitting/Receiving                                | Both                   |



Vertical-to-Vertical Polarization  
Azimuthal Pattern (V, Z, or E-plane)



Horizontal-to-Horizontal Polarization  
Azimuthal Pattern (V, Z, or H-plane)

## TE TECHNICAL SUPPORT CENTER

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