



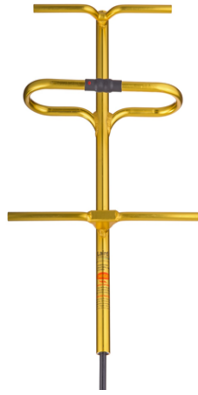
Smart Technology. Delivered.

# DIRECTIONAL YAGI ANTENNAS

## YF45018

### GOLD SERIES DIRECTIONAL 8 dBi YAGI ANTENNAS PROVIDE INDUSTRY-LEADING DESIGN FEATURES WITH LONG TERM OPTIMAL PERFORMANCE

Laird's patent pending premium series directional Yagi antennas are either fully gold, or fully black, anodized for corrosion resistance. All UHF and above frequency antennas feature internal matching to assure broad bandwidth and resistance to severe weather conditions. There is no gamma match to ice up, corrode or detune. Our engineering staff has optimized the product family for forward gain by computer analysis and then field-tested each for conformance. The mechanical construction has been further enhanced to have an ingress protection rating of IP67.



Patent Pending



#### FEATURES AND BENEFITS:

- All UHF and higher frequency antennas feature 360° welds around each element and an end-of-boom N connector feed with an internal transmission line feeding the driven element.
- 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.
- The antenna has an ingress protection rating of IP67.

#### APPLICATIONS

- Point-to-point and multi-point / directional 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, weather conditions and, meter data transmissions for utilities.

| PARAMETER                      | SPECIFICATIONS                                     |
|--------------------------------|--|
| Model Number                   | YF45018  |
| Frequency Bands, MHz           | 450 – 490 MHz                                      |
| Peak Gain, dBi (Typ)           | 8.6  |
| Peak Gain, dBi (Max)           | 9.1  |
| VSWR, Nominal                  | <1.5:1   |
| VSWR, Max                      | <1.7:1   |
| Nominal Impedance              | 50Ω  |
| Polarization                   | Vertical   |
| Azimuth 3 dB Beamwidth         | 90°  |
| Elevation 3 dB Beamwidth       | 62°  |
| Front-to-Back Ratio            | 15 dB  |
| Max Power (Ambient 25°C)       | 250 Watts  |
| Antenna Dimension (L x W x T ) | 457 x 305 x 98 mm (18.0" x 12.0" x 3.86")          |
| Exposed Cable Length           | 610 mm RG213 (24")                                 |
| Connector                      | Type N female                                      |
| Weight                         | 0.68 kg ( 1.50 lbs); w/brackets 1.37 kg (3.03 lbs) |
| Wind Operational               | 160 km/h (100 mph)                                 |
| Wind Survival                  | 220 km/h (136 mph)                                 |
| Operating Temperature          | -30°C to +70°C                                     |
| Storage Temperature            | -40°C to +85°C                                     |
| Ingression Protection          | IP67   |

| PART NUMBER  | CABLE LENGTH | CONNECTOR      |
|--------------|--------------|----------------|
| YF45018-61NF | 61 cm (24")  | Type N- female |

Americas: +1.847.839.6925  
IAS-AmericasEastSales@lairdtech.com

Europe: +44.1628.858941  
IAS-EUSales@lairdtech.com

Asia: IAS-AsiaSales@lairdtech.com

Middle East and Africa: +44.1628.858941  
IAS-MEASales@lairdtech.com

[www.lairdtech.com](http://www.lairdtech.com)

### RADIATION PATTERNS

**Azimuth**

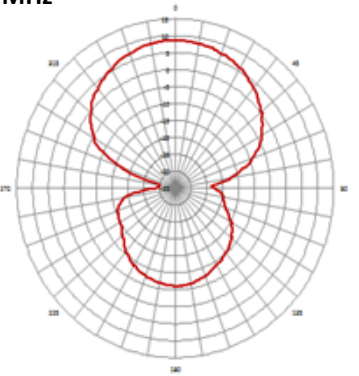
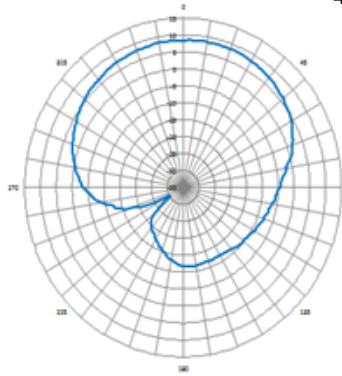
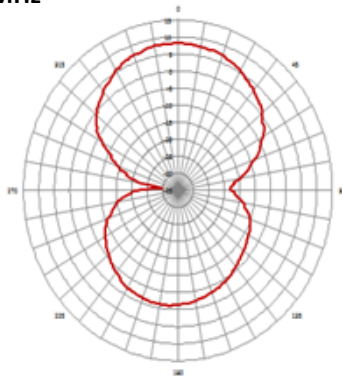
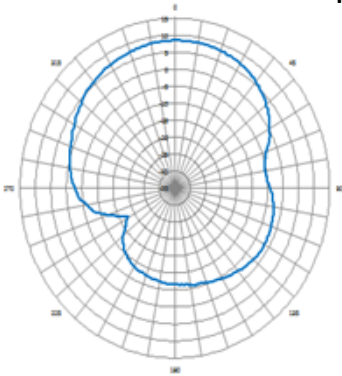
**450 MHz**

**Elevation**

**Azimuth**

**470 MHz**

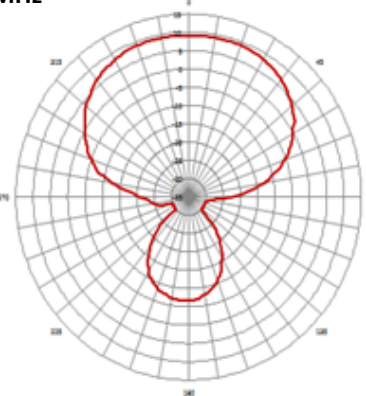
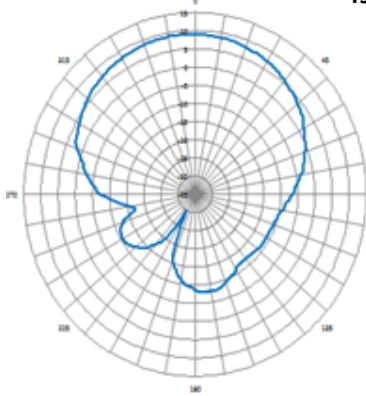
**Elevation**



**Azimuth**

**490 MHz**

**Elevation**



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- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.