



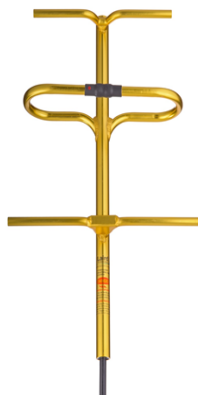
Smart Technology. Delivered.

# 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

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### RADIATION PATTERNS

**Azimuth**

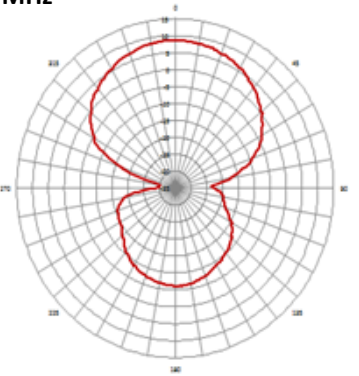
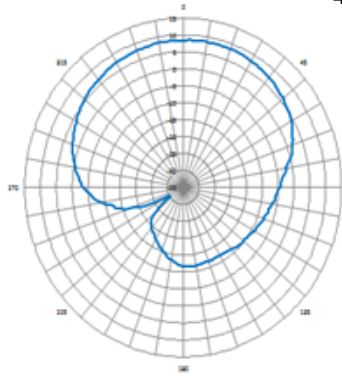
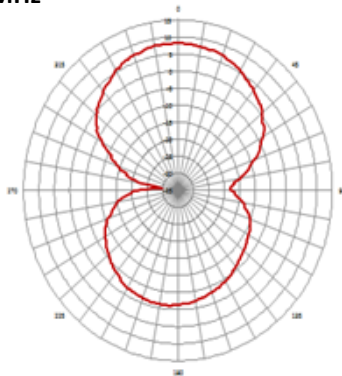
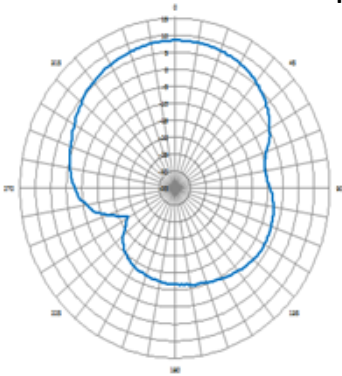
**450 MHz**

**Elevation**

**Azimuth**

**470 MHz**

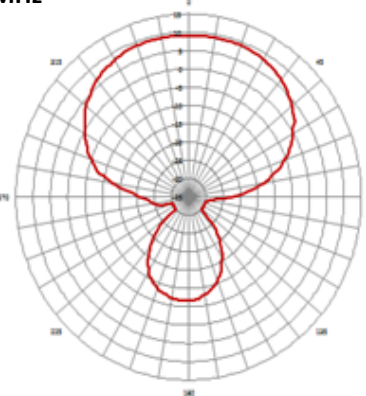
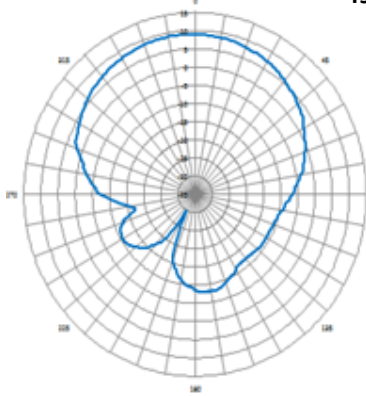
**Elevation**



**Azimuth**

**490 MHz**

**Elevation**



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