



YF45018

Directional Yagi Antenna 440-490 MHz

TE's premium series directional Yagi antennas (U.S. Patent 10,116,063) 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. We optimized the product family for forward gain by computer analysis and then fieldtested each for conformance. The mechanical construction is further enhanced to have an ingress protection rating of IP67.

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.



ELECTRICAL SPECIFICATIONS

| | |
|---------------------------------|----------|
| Model Number | YF45018 |
| Operating Frequency (MHz) | 440-490 |
| Peak Gain (dBi) - Typ | 8.3 |
| Peak Gain (dBi) - Max | 9.1 |
| VSWR - Avg | <1.5:1 |
| VSWR - Max | <2:1 |
| Nominal Impedance (Ohms) | 50 |
| Polarization | Vertical |
| Vertical Plane 3 dB Beamwidth | 62° |
| Horizontal Plane 3 dB Beamwidth | 90° |
| Front-to-Back Ratio (dB) | 15 |
| Max Power - Ambient 25°C (W) | 250 |

MECHANICAL SPECIFICATION

| | |
|---|---|
| Dimensions (L x W x T) - mm (in.) | 457 x 305 x 98 (18.0 x 12.0 x 3.86) |
| Weight - kg (lbs.) | 0.68 (1.50) 1.37 (3.02) - with brackets |
| Exposed Cable Length - cm (in.) - RG213 | 61.0 (24.0) |
| Connector | Type N female |

ENVIRONMENTAL SPECIFICATION

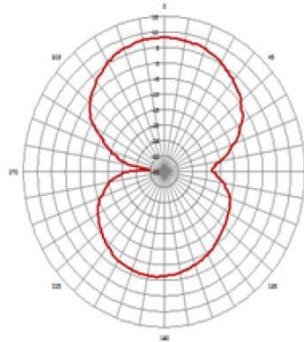
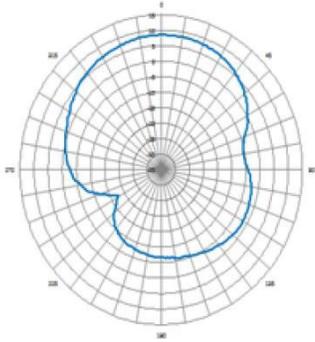
| | |
|---------------------------------|------------------------------|
| Operating Temperature - °C (°F) | -30 to +70°C (-22 to +158°F) |
| Storage Temperature - °C (°F) | -40 to +85°C (-40 to +185°F) |
| Wind Operational - km/hr (mph) | 160 (100) |
| Wind Survival - km/hr (mph) | 220 (136) |
| Ingression Protection | IP67 |
| Material Substance Compliance | RoHS |

CONFIGURATION

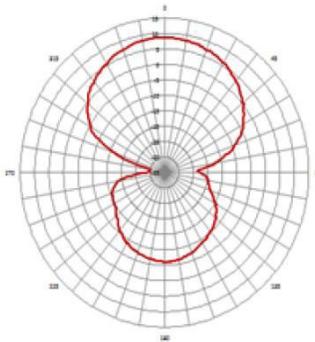
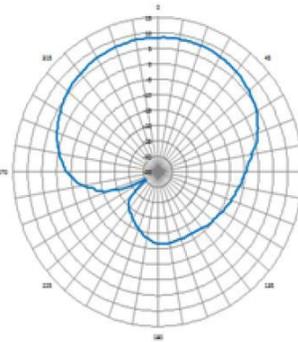
| PART NUMBER | CABLE LENGTH | CONNECTOR |
|----------------------|----------------|---------------|
| YF45018-61NF | 61 cm (24 in.) | Type N-female |
| YF45018B-61NF (bulk) | 61 cm (24 in.) | Type N-female |

RADIATION PATTERNS

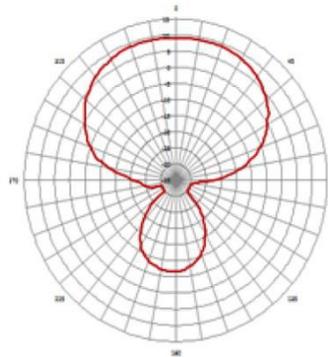
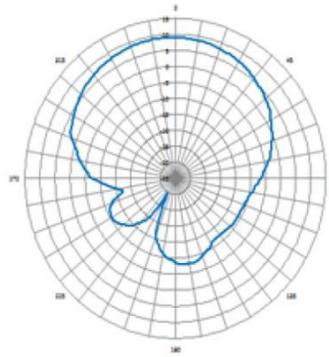
450 MHz



470 MHz



490 MHz



TE TECHNICAL SUPPORT CENTER

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