

### Features:

- 806-866 MHz
- Gain 10.8 dBi
- N connector
- 7 Elements
- All-Welded Aluminum
- Black Powder Coat
- Wind loading 164 km/h = 100 MPH

### Applications:

- Harsh Environmental Conditions
- Highly Directional
- Remote Monitoring / Scada
- Mining, Industrial
- Oil / Gas
- Utility and SmartGrid
- Wastewater, Irrigation
- Municipal / Transportation

All dimensions are in mm / inches

Issue: 1834

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Series: Yagi

Description: 806-866 MHz 11 dBi 7-Element  
Yagi, Black, All-Welded, N-female connector

PART NUMBER: YA5800W

## ELECTRICAL SPECIFICATIONS

Antenna Type	Yagi-Uda
Frequency	806-866 MHz
Nominal Impedance	50 $\Omega$
VSWR	2:1 Max
Gain	10.8 dBi
Horizontal / Vertical -3 dB Bandwidth	54 ° / 44 °
Horizontal / Vertical Side Lobe Level	-12 dB / -16 dB
Front to Back Ratio	-14 dB min
Polarization	Linear
Power Withstanding	300 W

## MECHANICAL SPECIFICATIONS

Overall Length	794 mm
Weight	702 g
Antenna Color	Powder Coat Black
Antenna Material	Aluminum
Connector type	N Female
Fixing System	Pole Clamp
Azimuth Adjustment	360 °

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Yagi, Black, All-Welded, N-female connector****PART NUMBER: YA5800W****ENVIRONMENTAL SPECIFICATIONS**

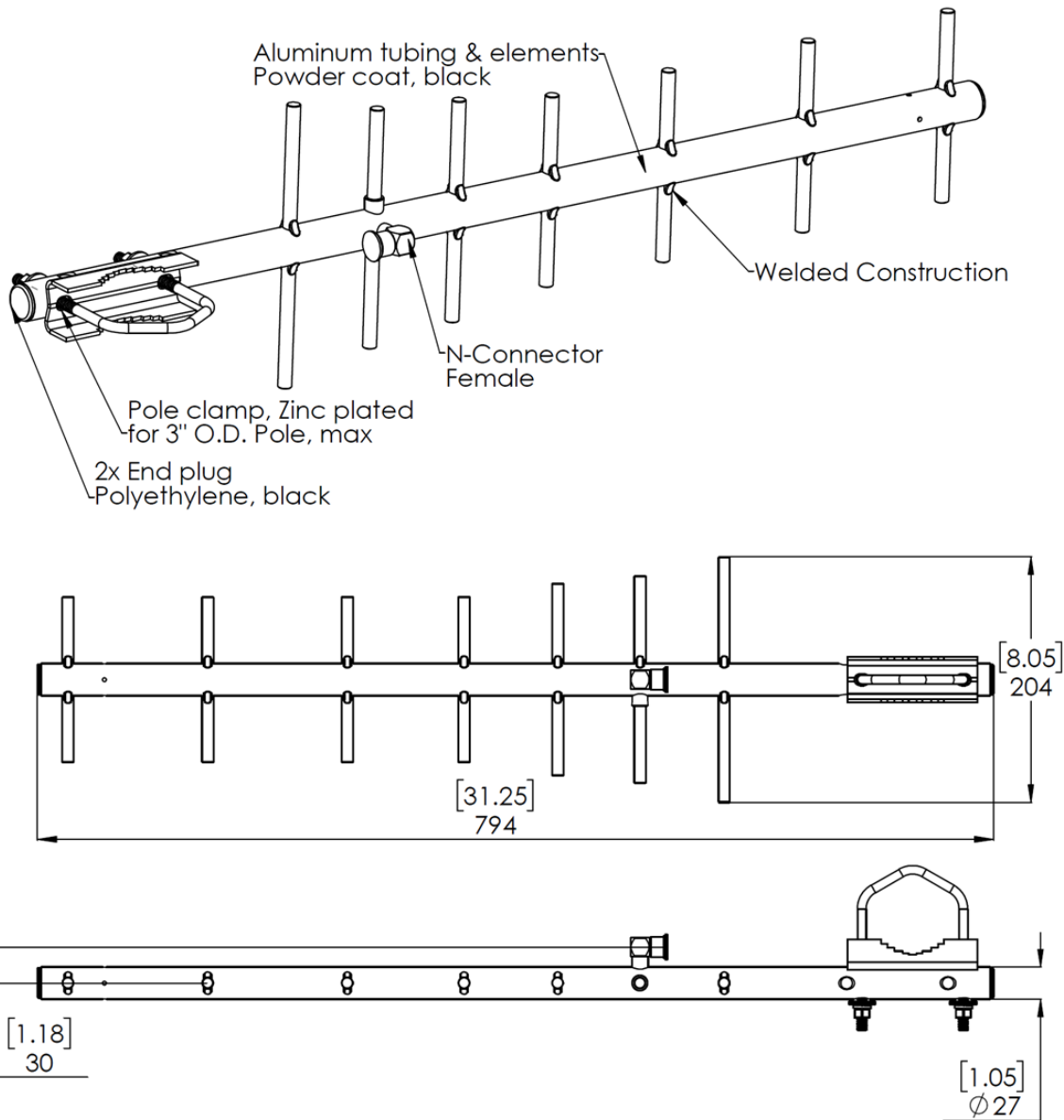
Operating Temperature	-40 to +85 ° C
Storage Temperature	-40 to +85 ° C
Cyclic	-40 to +55 ° C (5 ° C/min)
Wind-loading	164 km/h / 100 mi/h
Humidity	93% @ +30 ° C
Cyclic	95% @ +30 ° C
Rain	15 mm/min (30 min)
Salt Mist	7 Days
Industrial Atmosphere	4 Days
Sinusoidal Vibration Displacement	3 mm - 2/9 Hz
Sinusoidal Vibration Acceleration	10 m/s <sup>2</sup> - 9/200 Hz
Random Vibration Level (ASD)	1 m <sup>2</sup> /s <sup>2</sup> - 10/200 Hz 0.3 m <sup>2</sup> /s <sup>3</sup> - 200/2000 Hz
Shocks	100 m/s <sup>2</sup>
Drop Test	1.0 m
RoHS Compliant	Yes

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## MECHANICAL DRAWING



Unit: mm [in]

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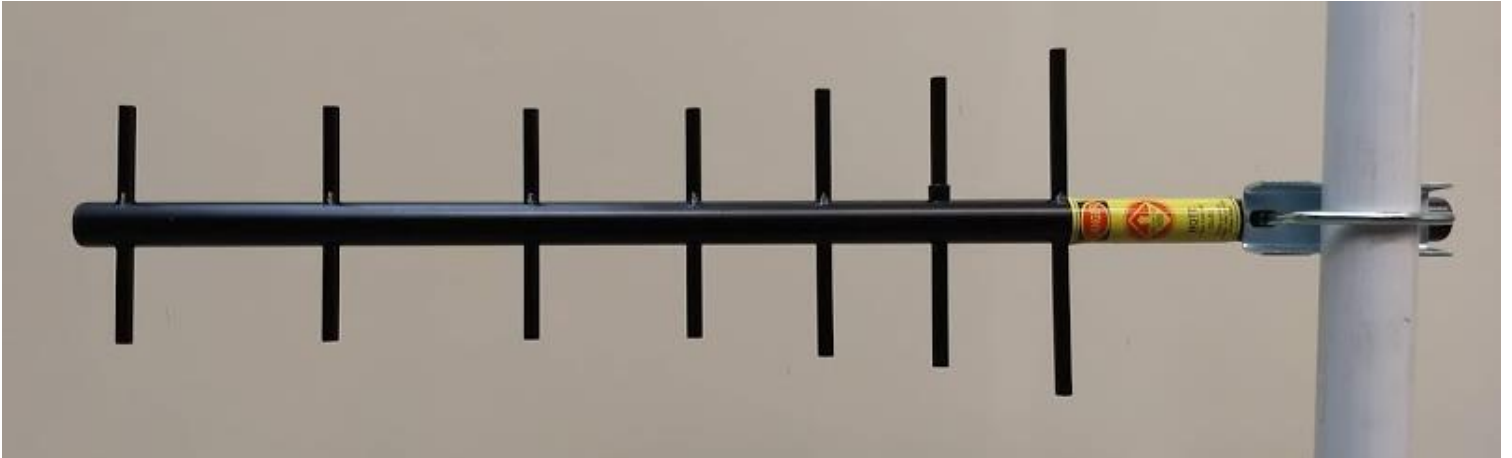
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## TEST SETUP



Antenna mounted vertically on post with  
insulator on driven element facing up

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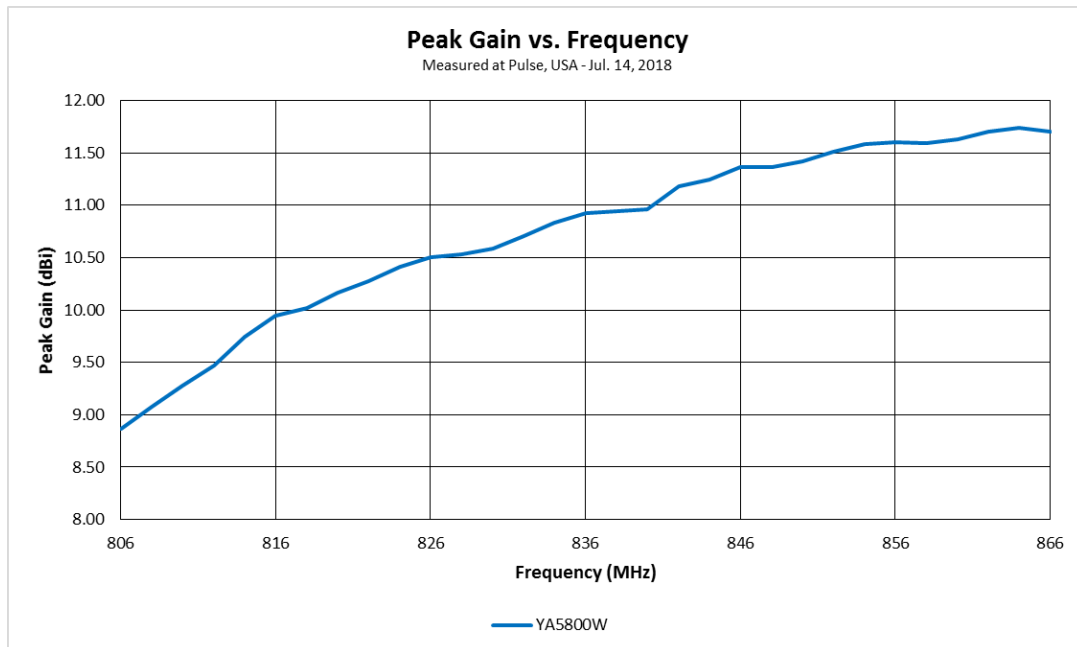
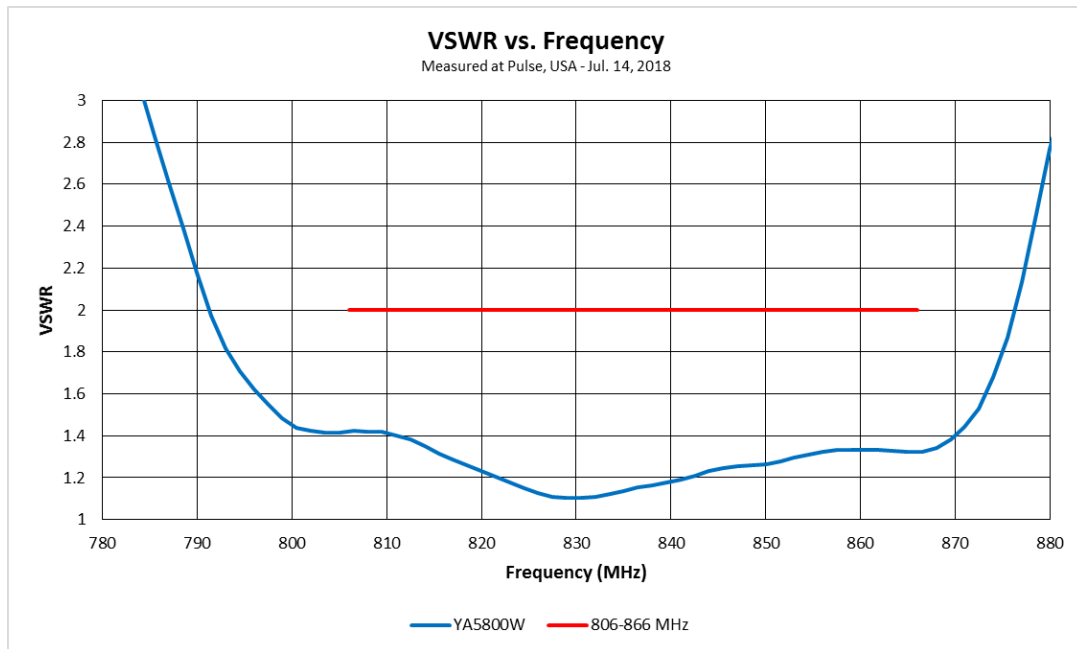
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## CHARTS



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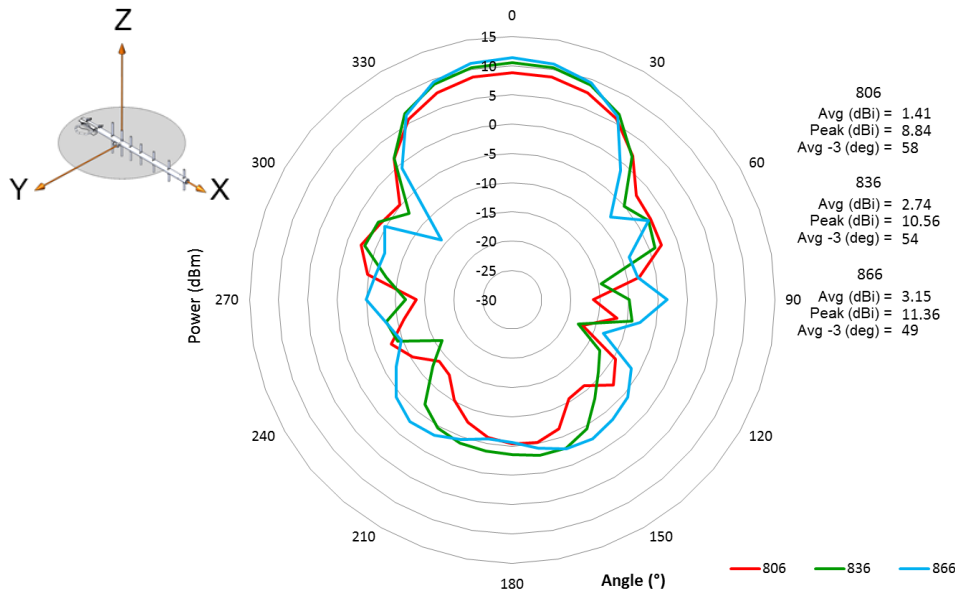
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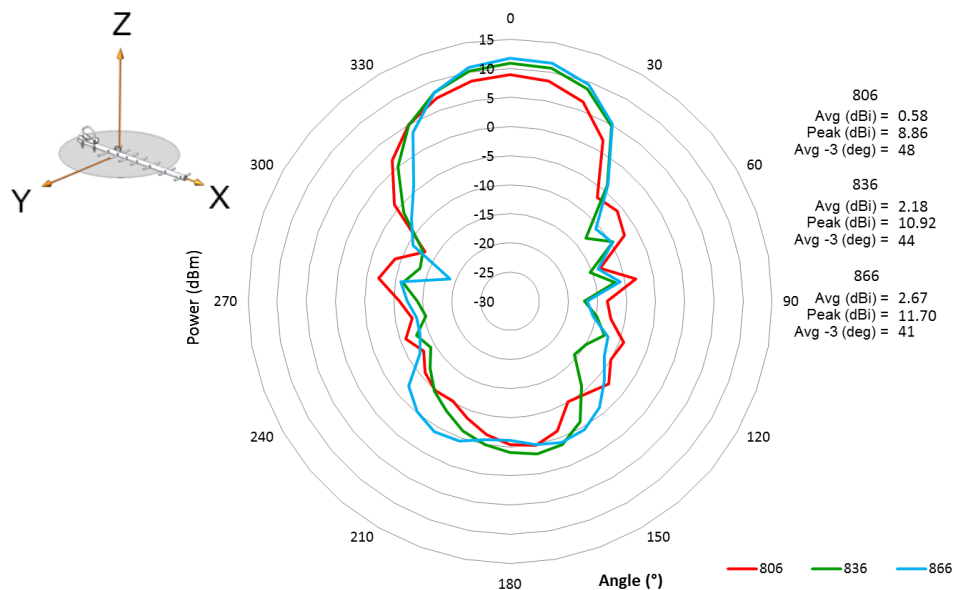
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## CHARTS

### Azimuth/Horizontal Plane



### Elevation/Vertical Plane



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## PACKAGING

1 cardboard box containing:

- 1 antenna
- 1 cardboard partition
- 1 plastic bag containing:
  - 1 bracket kit
  - 1 instructions for antenna installation
  - 1 warning regarding electrocution hazards
- 1 bag of air

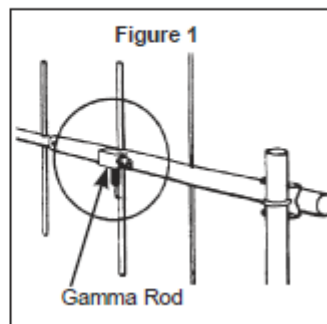
1 label on cardboard box with part number, date code, characteristics

## ASSEMBLY

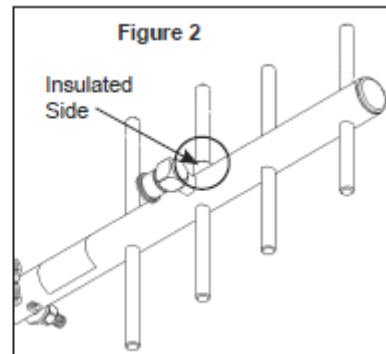
### INSTALLATION INSTRUCTIONS

#### PRE-INSTALLATION

- Larsen Yagis are designed to mount vertically.
- YA3 Series (UHF): Gamma rod must be facing down for weather considerations (see Figure 1).



- YA5 and YA6 Series: The insulated side of the driven element should be facing up (see Figure 2).



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