

### **TECHNICAL DATA SHEET**

Description: 806-866 MHz 8 dBi 4-Element Yagi, Black, All-Welded, N-female connector

PART NUMBER: YA6800W

# Features:

- 806-866 MHz
- Gain 8.5 dBi
- N connector
- 4 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: 1831

In the effort to improve our products, we reserve the right to make changes judged to be necessary. CONFIDENTIAL AND PROPRIETARY INFORMATION

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## **ELECTRICAL SPECIFICATIONS**

Antenna Type Yagi-Uda Frequency 806-866 MHz Nominal Impedance 50  $\Omega$ 

VSWR 2:1 Max
Gain 8.5 dBi
Efficiency 85%

Horizontal / Vertical -3 dB Bandwidth 83 ° / 55 °

Horizontal / Vertical Side Lobe Level -12 dB / -15 dB

Front to Back Ratio -16 dB min

Polarization Linear
Power Withstanding 300 W

### **MECHANICAL SPECIFICATIONS**

Overall Length 445 mm Weight 470 g

Antenna Color Powder Coat Black

Antenna Material Aluminum

Connector type N Female

Fixing System Pole Clamp

Azimuth Adjustment 360 °





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### **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^2 - 9/200 Hz

Random Vibration Level (ASD) 1 m^2/s^2 - 10/200 Hz

0.3 m^2/s^3 - 200/2000 Hz

Shocks 100 m/s^2

Drop Test 1.0 m

RoHS Compliant Yes

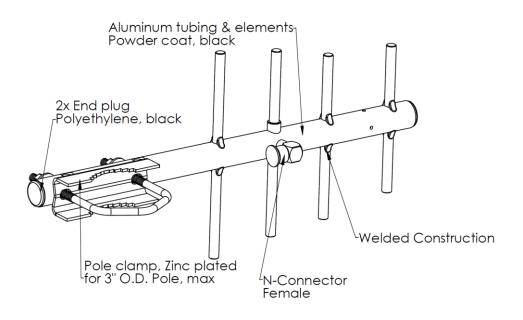


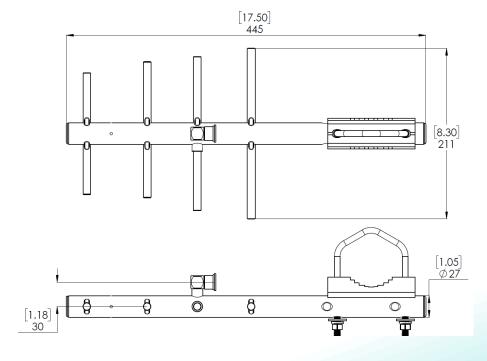
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## **MECHANICAL DRAWING**





Unit: mm [in]



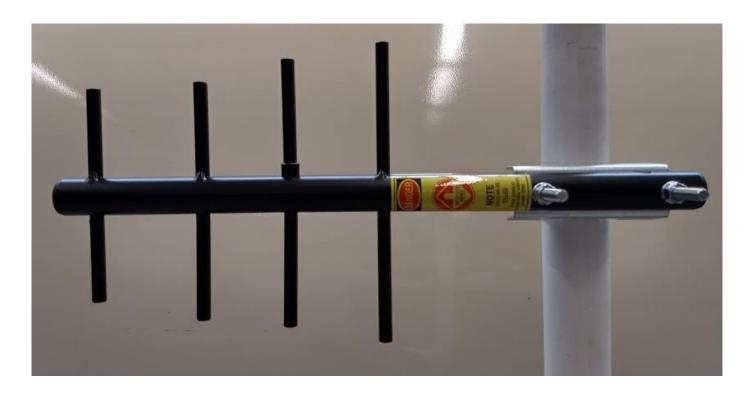


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## **TEST SETUP**



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

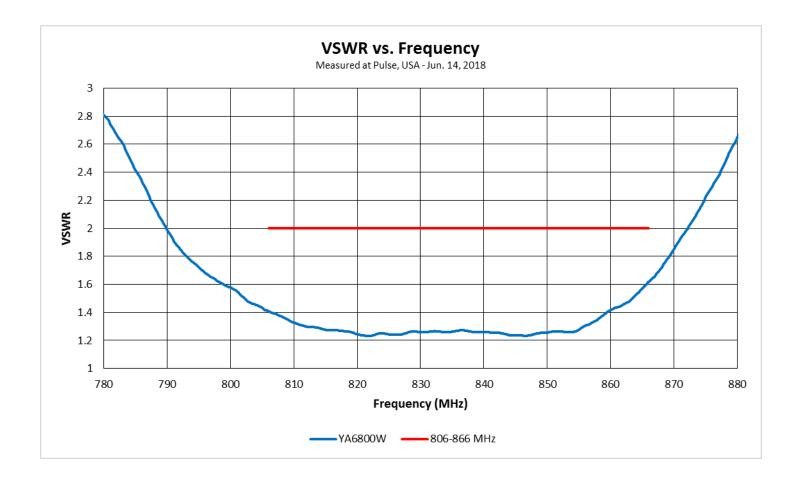


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## **CHARTS**





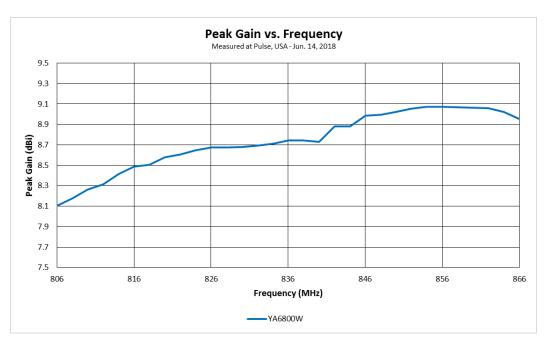


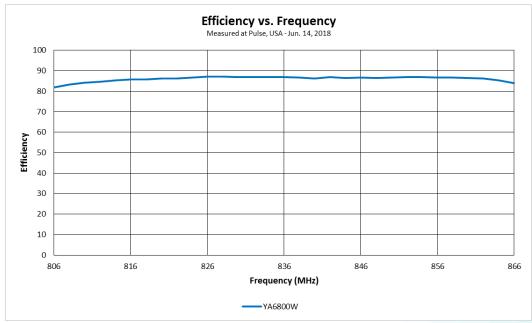
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## **CHARTS**









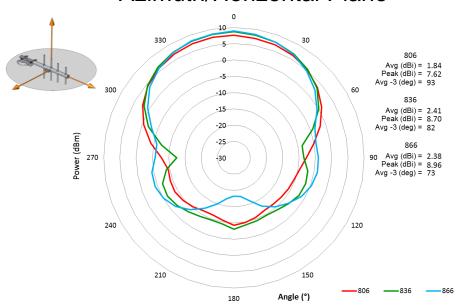
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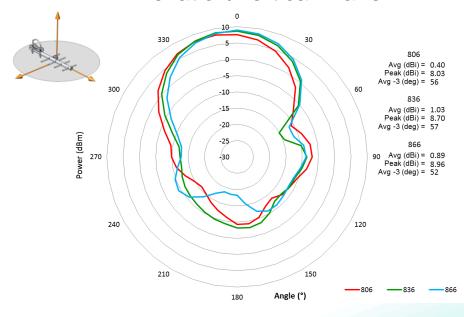
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## **CHARTS**

## 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

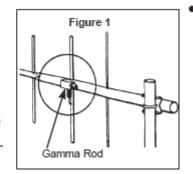
1 label on cardboard box with part number, date code, characteristics

## **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).

