

TECHNICAL DATA SHEET Description: 740-806 MHz 11 dBi 7-Element Yagi, Black, All-Welded, N-female connector

Series: Yagi

PART NUMBER: YA5740W

## **Features:**

- 740-806 MHz
- Gain 11.5 dBi
- N connector
- 7 Elements
- All-Welded Aluminum
- Black Powder Coat
- Includes "U"-Bolt Bracket for maximum 3 in. diameter pole
- 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



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All dimensions are in mm / inches

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## **ELECTRICAL SPECIFICATIONS**

Antenna Type	Yagi-Uda
Frequency	740-806 MHz
Nominal Impedance	50 Ω
VSWR	2:1 Max
Gain	11.5 dBi
Horizontal / Vertical -3 dB Bandwidth	55 ° / 43 °
Horizontal / Vertical Side Lobe Level	-12 dB / -18 dB
Front to Back Ratio	-17 dB min
Polarization	Linear
Power Withstanding	300 W

### **MECHANICAL SPECIFICATIONS**

Overall Length	832 mm
Weight	774 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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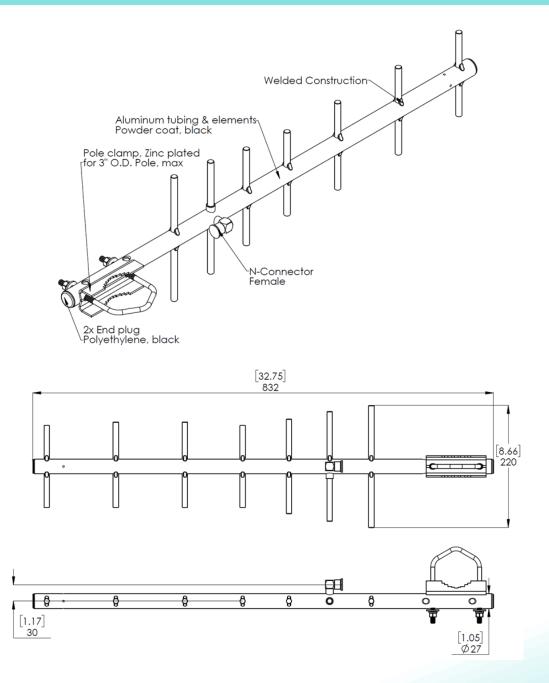


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### **MECHANICAL DRAWING**



### Unit: mm [in]

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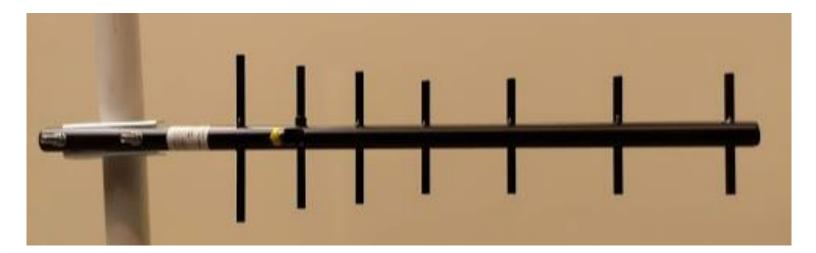


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# TEST SETUP



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

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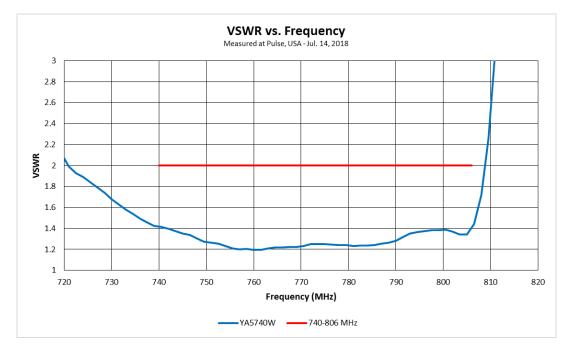


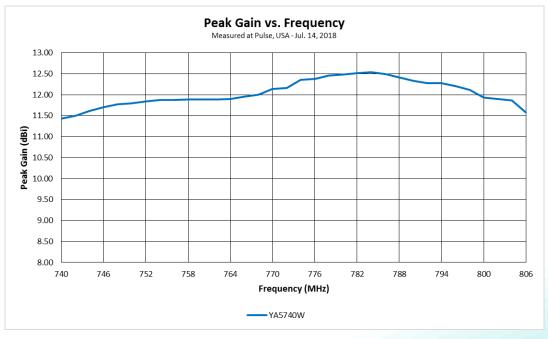
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# CHARTS





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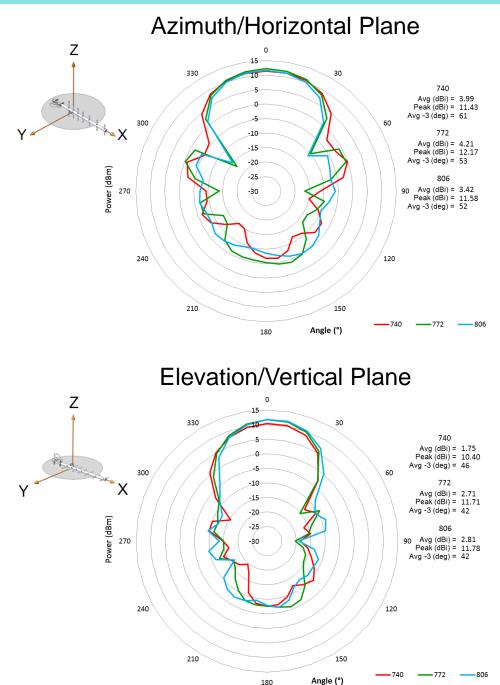


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# PACKAGING

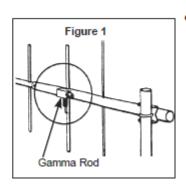
- 1 cardboard box containing:
- 1 antenna
- 1 cardboard partition
- 1 plastic bag containing:
  - 1 bracket kit
  - 1 instructions for antenna installation
  - 1 warning regarding electrocution hazards
- 1 bag of air
- 1 label on cardboard box with part number, date code, characteristics

# ASSEMBLY

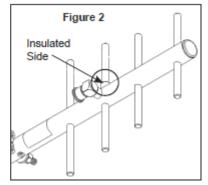
### INSTALLATION INSTRUCTIONS

### 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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