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

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

All dimensions are in mm / inches
## ELECTRICAL SPECIFICATIONS

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

## MECHANICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Length</td>
<td>832 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>774 g</td>
</tr>
<tr>
<td>Antenna Color</td>
<td>Powder Coat Black</td>
</tr>
<tr>
<td>Antenna Material</td>
<td>Aluminum</td>
</tr>
<tr>
<td>Connector type</td>
<td>N Female</td>
</tr>
<tr>
<td>Fixing System</td>
<td>Pole Clamp</td>
</tr>
<tr>
<td>Azimuth Adjustment</td>
<td>360 °</td>
</tr>
</tbody>
</table>
Series: Yagi

**PART NUMBER:** YA5740W

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### ENVIRONMENTAL SPECIFICATIONS

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

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

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Series: Yagi

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

PART NUMBER: YA5740W

MECHANICAL DRAWING

Unit: mm [in]
Antenna mounted vertically on post with insulator on driven element facing up
Series: Yagi

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

PART NUMBER: YA5740W

CHARTS

VSWR vs. Frequency
Measured at Pulse, USA - Jul. 14, 2018

Peak Gain vs. Frequency
Measured at Pulse, USA - Jul. 14, 2018
Series: Yagi

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

PART NUMBER: YA5740W

**CHARTS**

**Azimuth/Horizontal Plane**

- Frequency: 740 MHz
  - Avg (dB): 3.99
  - Peak (dB): 11.43
  - Avg -3 (deg): 61
- Frequency: 772 MHz
  - Avg (dB): 4.21
  - Peak (dB): 12.17
  - Avg -3 (deg): 53
- Frequency: 806 MHz
  - Avg (dB): 3.42
  - Peak (dB): 11.58
  - Avg -3 (deg): 52

**Elevation/Vertical Plane**

- Frequency: 740 MHz
  - Avg (dB): 1.75
  - Peak (dB): 10.40
  - Avg -3 (deg): 46
- Frequency: 772 MHz
  - Avg (dB): 2.71
  - Peak (dB): 11.71
  - Avg -3 (deg): 42
- Frequency: 806 MHz
  - Avg (dB): 2.81
  - Peak (dB): 11.78
  - Avg -3 (deg): 42

Issue: 1835

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Series: Yagi

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

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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).