

A low-noise 50MHz LFA3 Compact High Gain Yagi by G0KSC - InnovAntennas



# Description

Available through WiMo Germany and DX Engineering in the USA - for Direct factory supply, Email us for pricing and time lines.

www.dxengineering.com - www.wimo.com

## A 5 element low-noise LFA-3 compact Yagi - The LFA-3 is the thrid generation of G0KSC design LFA's new for 2023!

The G0KSC LFA-3 Yagi is a major step forward in the development of the Yagi Antenna; **it provides a low-noise front-end for your radio so you hear more weak signals**. This compact 5 element 50Mhz LFA-3 provides stunning performance across the important section of the 6m band (50.00 - 50.300MHz). Hard to beat with a direct 50 Ohm feed-point and no matching losses and suppression of unwanted noise!!

Note: The HG LFA3 has been optimised to provide class-leading gain for its given boom length.



K9RE's 5el LFA-HG Low Noise Yagi and some of his comments below:

"The antenna is a stunning performer at reducing noise. It is so effective that your first impression is that the coax is disconnected or the rig is broken. This morning just before I took down my old antenna, I had raspy buzzy noise in most directions and especially to the west. Now that noise is mostly gone although I do hear it if I point the antenna to the west. Actually I can hear a different noise source to the southwest which is weaker and sounds different whereas before they pretty much all blended into one mass of noise. I could also hear the noise off the back of the antenna when pointed to the east but now the noise is gone when the antenna is pointed east.

It is really quite amazing and makes a huge difference for me at this location. The antenna it replaces is a Hy-Gain 4L on a 12' boom; an older design that doesn't really perform that well. I don't think it lives up to its gain or F/B specs. "

## Performance

10.7dBi @ 50.150MHz

31.04dB @ 50.150MHz

Peak Gain: 10.75dBi

Gain at 10m above Ground: 16.17dBi

Peak F/B: 31.79dB

Power Rating: 8kw

SWR: Below 1.4:1 from 50.00MHz to 50.300MHz

Stacking Distance: 5m

2 Stacked Gain @ 5m spacing: 13.59dBi

2 Stacked F/B: 29.64dB

2 Stacked Gain @ 5.m Spacing 10m above ground: 18.78dBi

Boom Length: 3.9m

Weight: 5.92Kg / 13LB

Turning Radius: 2.959m / 9.8ft

Wind Loading: 0.2 Square Metres / 2.03 Square feet

Wind Survival: 256KPH / 159MPH

Other options available if higher wind loading/survival is required.

#### Specification

This antenna is made with single piece (centre join at insulator) 5/8 inch (15.88mm) elements with 1/2 inch (12.7mm) tips with loop ends being 3/8" (9.525mm). The antenna has fully insulated elements which will ensure continuous, high performance for many years to come. Boom to mast brackets are included with all antennas which will support 2 inch (50mm) masts. Boom is 1.25 inch square 16SWG aluminum.

Our antennas are constructed with the best quality materials in order that the best mechanical construction can be achieved, not the cheapest and most profitable! Even a digital caliper is used (with an accuracy of .01mm) to measure the elements during production to ensure they are within 0.2mm of what they should be, this ensures they work as well as our software model predicts.

Note: Much development time has gone into our antennas, not just on basic electromagnetic design, we are able to model the effect of insulators, booms and other objects to ensure the make up of our antennas have least effect on performance and pattern degradation. More information can be found <u>here</u>

- Marine grade Stainless Steel Fittings
- Original Stauff Insulation clamps
- · Mill finished boom and elements for highest levels of accuracy



# **Azimuth Plot**



# **Elevation Plot**







The compact 5el LFA at G4AMV

Manufactured the right way, not the cheapest way!  $\prime\prime$