

A 14 element low-noise 144MHz LFA Yagi

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 Very Low Noise Yagi for serious DX and EME applications

The G0KSC LFA (Loop Fed Array) Yagi has quickly become 'the one to have' if you are looking for serious weak signal work on the bottom of the 2m band. The LFA Yagi has been specifically designed to ensure the lowest levels of unwanted noise are received. The compliment of a tight, highly suppressed pattern and closed loop fed system ensure everything from rain static to man-made noise are heavily reduced.

The LFA is especially effective for EME where very low noise antennas are required and many hours development have been spent ensuring the highest levels of performance have been achieved in an antenna that is not affected by wet weather conditions. As a single, double and 4 stack system, the LFA Yagi is the one to have.

Our antennas are constructed with the best quality materials in order 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, ensuring they work as well as our software model predicts.

1. **Marine grade stainless steel fittings***
2. **Original and best Stauff Insulator clamps**
3. **Mill machined for pin-point accuracy throughout**

If you are looking for the best of the best from both a performance and mechanical construction perspective then look no further, you have come to the right place!

Performance

Gain: 16.58dBi @ 144.100MHz

Gain: 16.60dBi @ 144.300MHz

F/B: 31.26dB @ 144.100MHz

F/B: 33.86dB @ 144.300MHz

Peak Gain: 16.64dBi

Gain at 10m above ground: 22.47dBi

Peak F/B: 34.21dB

Power Rating: 3kw

SWR: Below 1.1:1 from 143.900MHz to 144.800MHz

Boom Length: 8.956m

Weight: 5.33Kg / 11.75LB

Turning Radius: 4.284m / 14.06ft

Wind Loading: 0.19 Square Metres / 2.07 Square feet

Wind Survival: 134KPH / 83MPH

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

Stacking Distance Vertically: 2.7-4.0m (best trade-off 3.8m)

Stacking Distance Horizontally: 2.9-4.3m (best trade-off 3.9m)

Following figures calculated at 144.300MHz

2 Stacked Vertically @ 3.6m Gain: 19.39dBi

2 Stacked Vertically @ 3.95m Gain: 19.52dBi

2 Stacked Vertically @ 3.6m F/B: 37.80dB

2 Stacked Vertically @ 3.95m F/B: 39.15dB

2 Stacked Horizontally @ 3.75m Gain: 19.38dBi

2 Stacked Horizontally @ 3.75m F/B: 36.39dB

2 Stacked Horizontally @ 4.15m Gain: 19.52dBi

2 Stacked Horizontally @ 4.15m F/B: 36.35dB

4 Antennas 3.95m V x 4.15m H Gain: 22.06dBi

4 Antennas 3.6m V x 3.75m H Gain: 21.67dBi

Sky Temperature: 214.9 Kelvin @ 144.100MHz

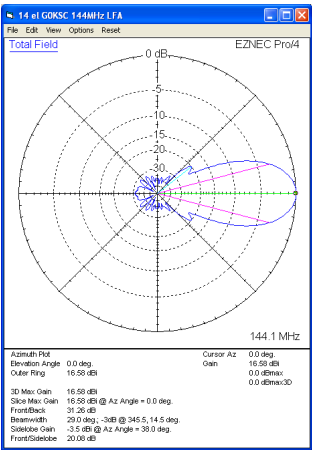
G/T Figure: -0.85dB @ 144.100MHz

Specification

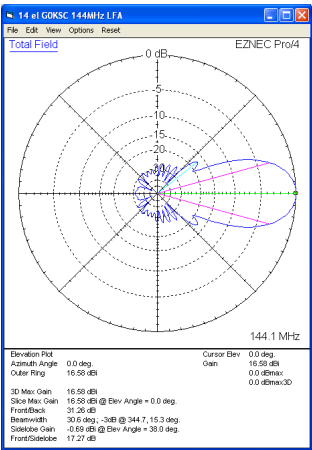
This antenna has all parasitic elements made from 1/4 inch aluminum rod. The LFA loop is constructed from 4 pieces of aluminum tube. The sections in-line with the parasitic elements are 1/2 inch while the end sections of the loop are 3/8 inch allowing the user to adjust the loop for best SWR. All elements are fully insulated from the boom held in place by high quality UV resistant, **RF neutral insulators** which in-turn are held to the boom via stainless steel fixings and fittings.

The boom is 1.25 inch square (31.75mm) and a boom guy is supplied with this antenna.

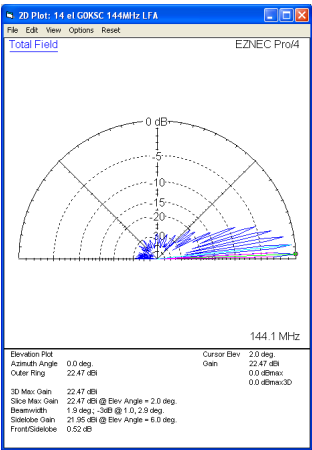
If you want an antenna to last and perform in all weathers without SWR or bandwidth shifting, this is it.



Azimuth Plot

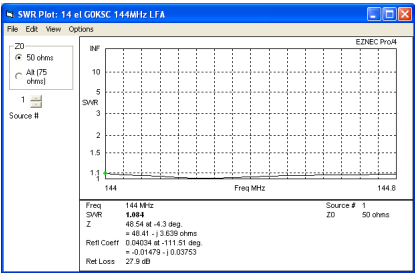


Elevation Plot



Single antenna 10m above average ground

144MHz to 148MHz Yagis: 14 element 144MHz LFA Yagi



SWR



2 x 14el InnovAntennas LFA Yagis installed at G4KWQ

'Performance seems very good. I have previously struggled a bit with eme but hrd S58M and R9SL in the first 5 mins of pointing to the moon (moon elevation approx 9 degrees)'

Manufactured the right way, not the cheapest way!

* Where possible marine grade stainless steel components are used
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