Sales price £269.95

Sales price without tax £224.96
Tax amount £44.99

A 9 element low-noise LFA Yagi for 144MHz

Description

A Very Low Noise Yagi for serious DX and EME applications

The 9LFA-PBP was originally designed for G4PBP (SK)

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.

The LFA loop along with the great pattern helps to reduce noise and ensure the very best user experience with the weakest signals being heard not lost in noise. Designed with the very latest modelling software packages costing 10's of thousands of pounds, not 30 year old software costing around $100.00 !! **Accuracy** in model and real-world performance assured.

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, ensuring they work as well as our software model predicts.

1. **Marine grade Stainless Steel Fittings***
2. **Original Stauff insulator clamps**
3. **Mill finished for highest levels of accuracy**

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!

A 9el 144MHz LFA-PBP installed below and 18el 432MHz LFA @ DJ0WW

Customer photo and comments:

"Hi Justin.

I am sending a picture of the two LFA antennas for 2m and 70cm.
Both are working fine. Good SWR both in the lower CW portions of the bands as well as in the satellite portions.

The font to back for both antennas are at least 9 S units measured against a Swedish VHF beacon SK6VHF and a local UHF beacon.
The signals are S9+ when beaming towards the beacons and goes wel below the receiver noise floor at minimum.
The measurements are not in any way accurate but give me a good indication on how the antennas work.

I took some time to get the antennas but now when they are up and running, I am very pleased with their performance.

Hope you all are well in these Corona times.
Neither my wife nor I have been infected so all is fine here.

73 de Halvard, LA7XK"

Customer comments:

"Hi Justin

Thanks for the good news.

To give you some feedback: When I built a new Shack in 2014 I bought your 2m and 70cm LFAs (see Photo).

I have been using them ever since.

During contests it seemed I needed more Antenna gain, so I also put up 4 x 7 Element Wimo Yagis as an H.
On paper, the signals must be louder than with a single 9 El.

I still use the 9 El LFA as a switchable second Antenna.

However, during the last Contest on 2m I had both Antenna Systems directed to the same DX signals and compared performance by switching a Coax Relay.

When trying to work weak signals from 9A or OM, my ears told me that the signals on the 4x7 El. were not really louder, just the NOISE was!

So I contemplated 4x 9 El LFAs but the wind resistance, stability, optimum size and turning radius of the H would be a little difficult at my location, so I have decided to buy 2 new 9 El. LFAs and stack them vertically.

Your LFAs have always had an excellent VSWR and have had no problems.
The Wimos are convenient, but always have poorer VSWR and I sometimes had problems with water creepage and had to change a Dipole or cable.

Glyn DJ0WW (ex G3VAS)"

Being so boradbanded, the LFA-PBP can be used on FM in vertical mode with good effect too

"Hi Justin,

I managed to complete the antenna installation on Friday evening and was able to get on the air yesterday.

Stations I did work commented on the signal strength, two in Wales told me that it was actually end stop on

their rigs and had never seen the likes, heard comments such as "there must be a lift on" although I knew that there was no such thing.

So, all in all, a terrific result, many thanks for all your help and putting up with my constant questions.

Kind regards,

John"

Performance

Gain: 14.04dBi @ 144.100MHz

Gain: 14.06dBi @ 144.300MHz

F/B: 26.39dB @ 144.100MHz

F/B: 25.20dB @ 144.300MHz

Peak Gain: 14.09dBi

Peak F/B: 26.67dB

Power Rating: 3kw

SWR: Below 1.1.1 from 143.600MHz to 145.200MHz

Boom Length: 4.403m

Weight: 3.51kg / 7.74 lbs

Turning Radius: 2.243m / 7.36ft

Wind Loading: 0.1 Square Metres / 1.03 Square feet

Wind Survival: 278KPH / 173MPH

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

Stacking Distance Vertically: 2.2-3.1m (best trade-off 3m)

Stacking Distance Horizontally: 2.3-3.3m (best trade-off 3.25m)

Following figures calculated at 144.300MHz

2 Stacked Vertically @ 2.9m Gain: 16.97dBi

2 Stacked Vertically @ 3.1m Gain: 17.05dBi

2 Stacked Vertically @2.9m F/B: 28.84dB

2 Stacked Vertically @3.1m F/B: 28.47dB

2 Stacked Horizontally @ 3.1m Gain: 16.93dBi

2 Stacked Horizontally @ 3.1m F/B: 27.37dB

2 Stacked Horizontally @ 3.25m Gain: 16.99dBi

2 Stacked Horizontally @ 3.25m F/B: 27.43dB

4 Antennas 2.9m V x 3.1m H Gain: 20.06dBi

4 Antennas 3.1m V x 3.35m H Gain: 20.33dBi

Sky Temperature: 239.3 Kelvin @ 144.100MHz

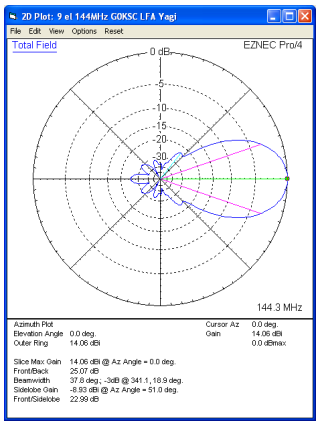
G/T Figure: -3.73dB @ 144.100MHz

Specification

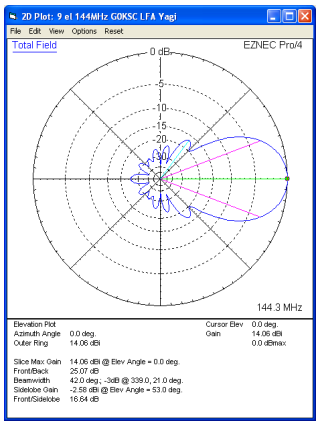
This antenna has all parasitic elements made from 1/4 inch aluminium rod. The LFA loop is constructed from 4 pieces of aluminium tube. The sections in-line with the parasitic elements are 1/2 inch while the end sections of the loop are 3/8 inch allowing the user to adjust the loop for best SWR. All elements 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 **Marine grade** stainless steel fixings and fittings.

The boom is **1.25 inch square (31.75mm)**. No boom guy is needed with this antenna

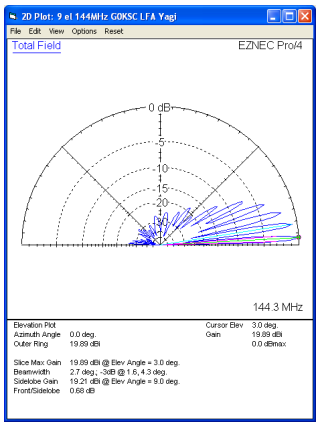
If you want an antenna to last and perform in all weathers without SWR or bandwidth shifting, this is it.



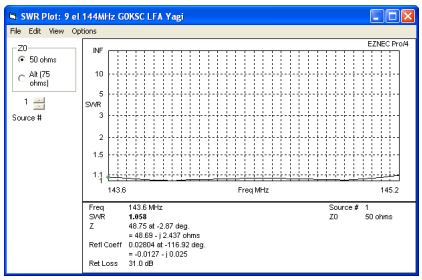
Azimuth Plot



Elevation Plot



Single antenna 10m above average ground



SWR

Manufactured the right way, not the cheapest way!

* Where possible marine grade stainless steel components are used.