



A low noise high gain 50MHz LFA-Q Directional Loop Array



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, High Gain Directional Loop array (LFA-Q)

Demo video:

The G0KSC LFA-Q possesses all of the design traits InnovAntennas have become well-known for. Direct 50 Ohm impedance (and hence no matching loss or pattern distortion), Minimal side lobes, High levels of Front to Back ratio (F/B) and Front to Rear ratio (F/R), and wide, flat bandwidth. However, the LFA-Q stands out with two more major benefits. High levels of forward gain and its' extremely rugged design which make it ideal for installation where harsh weather conditions are commonplace.

If you want the absolute best performance from minimal boom length and require performance that is available in any weather conditions or simply want something a little different, then the LFA-Q could be the one for you!



Kerry G8VR with a 5el 50MHz LFA-Q lite version

Performance

Gain: 11.38dBi @ 50.150MHz

F/B: 23.82dB @ 50.150MHz

Peak Gain: 11.41dBi

Peak F/B: 24.22dB

Power Rating: 5kw+

SWR: Below 1.1:1 from 50.00MHz to 50.500MHz

Stacking Distance: 5.5-6.2m (5m recommended)

2 Stacked Gain @ 6m spacing: 14.32dBi (free space)

2 Stacked F/B: 26.03dB

2 Stacked Gain @ 6m Spacing 10m above ground: 19.71dBi

Boom Length: 4.530m

Loop height: 25cms

Weight: 9.46Kg / 21LB

Turning Radius: 2.6m / 8.58ft

Wind Loading: 0.3 Square Metres / 3.22 Square feet

Wind Survival: 112KPH / 70MPH

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

Specification

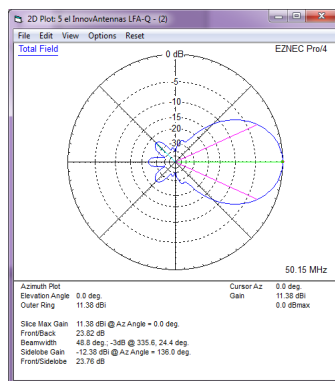
This antenna is made with tapered elements 1/2inch (12.7mm) centres and 3/8 inch (9.525mm) outer sections. The antenna has fully insulated elements which will ensure continuous, high performance for many years to come. Boom to mast brackets are included with all antennas which will support 2 inch (50mm) masts. The LFA-Q has a twin-boom system. Each section is 25.4mm square with 1.6mm wall thickness. The booms are joined each end to one another by a second piece of the same material used for the boom. A UV protected Boom Guy system is also provided with stainless steel turnbuckles for easy adjustment.

The LFA-Q is also provided with 2 boom to mast brackets, one on each boom and both brackets comprise of 4 U bolts (2 square for the boom, 2 round for the supporting mast) which have been formed from marine grade stainless steel.

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.

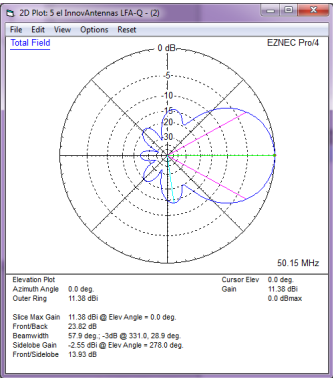
Note: Much development time has gone into our antennas, not just on basic electromagnetic design, we are able to model the effect of insulators, booms and other objects to ensure the make up of our antennas have least effect on performance and pattern degradation. More information can be found [here](#)

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

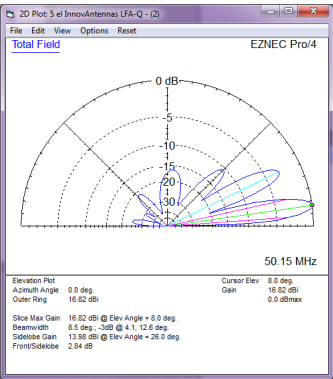


Azimuth Plot

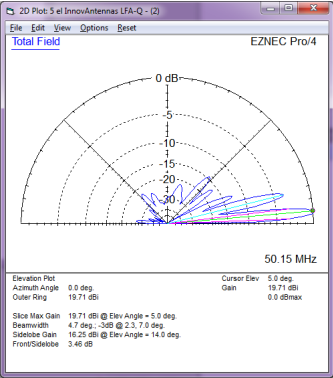
50mhz quad antenna high gain



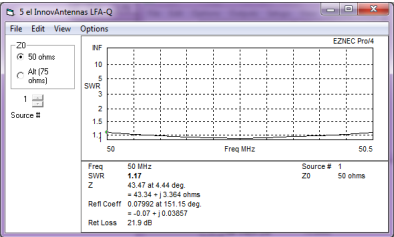
Elevation Plot



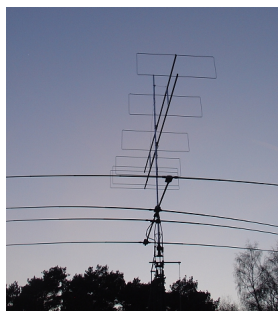
Single 5 element LFA up 10m above ground



2 x 5 el LFA Yagi 6m apart with the bottom antenna 10m above ground



SWR



A 6el 50Mhz LFA-Q at G3ZSS

Manufactured the right way, not the cheapest way!

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