



A Wideband 18MHz OP-DES 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](http://www.dxengineering.com) - [www.wimo.com](http://www.wimo.com)



### A 4 element wideband 18MHz OP-DES (Opposing Phase Driven Element System) Yagi

The OP-DES is the newest in patent technology produced by InnovAntennas and is specifically designed for maximum performance, wide-band HF applications. Read more about the [OP-DES Yagi Here](#). InnovAntennas use the latest in [Electromagnetic Design Technology](#) to ensure the very best results and the OP-DES Yagi is proof of that!

This antenna has a flat SWR curve covering 18.050 - 18.190MHz at 1.3:1 SWR.



A 17m 4el OP-DES

### Performance

Gain: 9.51dBi @ 18.110MHz

F/B: 17.80dB @ 18.110MHz

Peak Gain: 9.63dBi

# 18MHz LFA Yagis: 4 element 18MHz OP-DES Yagi (6.4m)

Gain at 15m above Ground: 14.65dBi

Peak F/B: 18.46dB

Power Rating: 5kw

SWR: Below 1.3:1 from 18.050MHz to 18.190MHz

Boom Length: 6.363m

Stacking Distance: 9 - 13m ( 11m recommended)

2 Stacked Gain @ 9m spacing: 12.34dBi

2 Stacked F/B: 24.34dB

2 Stacked Gain @ 9m Spacing 15m above ground: 17.18dBi

Weight: 12.41Kg / 27.4LB

Turning Radius: 5.19m / 17.02ft

Wind Loading: 0.57 Square Metres / 6.18 Square feet

Wind Survival: 167KPH / 104MPH - **A 125MPH (HD) version is available upon request**

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

## Specification

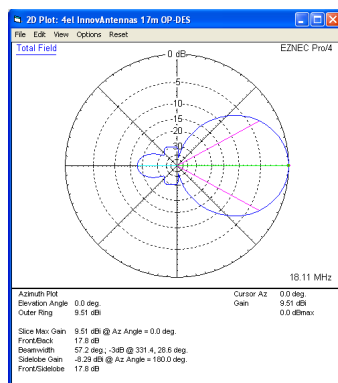
This antenna is made with 7/8 inch (22.23mm) and 3/4 inch (19.05mm) element sections in the centre of each element, followed by 5/8 inch (15.88mm) and 1/2 inch (12.7mm) outer elements with the OP-DES end sections 3/8 inch (9.525mm). The antenna has fully insulated elements which will ensure continuous, 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 1.75 inch square 10SWG (44.45mm) aluminum. A Kevlar Guy arrangement is also supplied with stainless steel fixtures and fittings including adjustable stainless steel turnbuckles.

## OTHER TAPER SCHEDULES ARE AVAILABLE FOR THIS ANTENNA, CALL OR EMAIL FOR DETAILS

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.

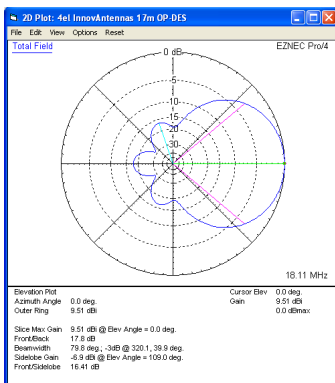
Note: Much development time has gone into our antennas, not just on basic electromagnetic design, we are able to model the effect of insulators, booms and other objects to ensure the make up of our antennas have least effect on performance and pattern degradation. More information can be found [here](#)

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

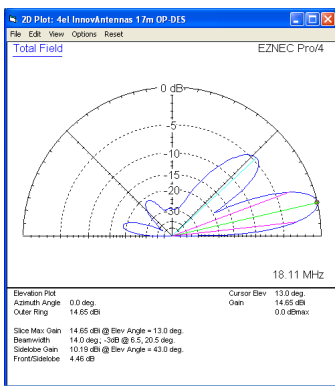


Azimuth Plot

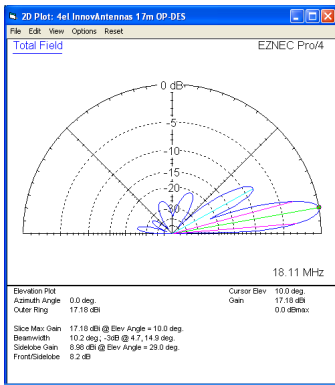
18MHz LFA Yagis: 4 element 18MHz OP-DES Yagi (6.4m)



Elevation Plot



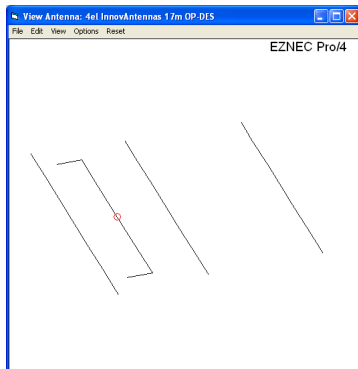
Single 4 element OP-DES up 17m above ground



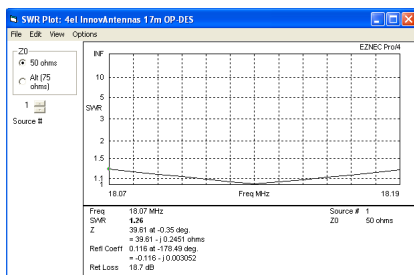
2 x 4el OP-DES Yagi 11m apart with the bottom antenna 17m above ground

# 18MHz LFA Yagis: 4 element 18MHz OP-DES Yagi (6.4m)

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The 4el 18MHz OP-DES Element Layout - how the OP-DES Yagi looks



## SWR

**Manufactured the right way, not the cheapest way!**

\* Where possible marine grade stainless steel components are used

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