

**Sales price £319.95**

Sales price without tax £266.63  
Tax amount £53.33

A Wideband 50MHz OP-DES Yagi 6el OP-JHC

## Description

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HD versions available

**A 6 element wideband 50-50.6MHz OP-DES Model 6-OP-JHC (Opposing Phase Driven Element System) Yagi - Named after G0JHC - Second Generation OP-DES Yagi 2019 version now Super HD !**

The OP-DES is the newest in patent technology produced by InnovAntennas and is specifically designed for maximum performance, wide-band 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 50.0-50.60MHz at 1.1:1 SWR. The super-compact 6el has incredible rearward suppression and a huge punch too, Take a look!



"Justin. Thanks for supplying yet another fantastic Innov antenna. The 6 element OP-DES more than compliments our excellent XR6C. Build quality is once again first class and construction was easily achieved in the couple of hours between rain showers. After sourcing an N type connector from a chum it was duely added to our vhf mast.

I expected it to be up and down a couple of times to get optimal tuning . However following the dimensions given I was amazed to find it tunes perfectly well over the band. Bravo on achieving that. The first evening I put out a few calls on 6m FT8 expecting to contact a few of the usual suspects but was however surprised by a short opening to Europe netting contacts in I think 8 countries.

I can highly recomend this first class antenna and look forward to some fantastic contacts during the summer. Thanks again and all best regards as ever. Steve GM1DSK. "

***"Not a bad little 4.8m ant that OP-DES 6 ele, wkd 82JA/HL with it this morning, on top of 200+ NA this week" Neil G0JHC***



6el 50MHz OP-DES @ G8VR



And now 2 x 6el OP-DES at G8VR



Installed at DF9CT 2021

"Hi Justin,

*It took a while, but now I have the 6 element OP-DES antenna for 50 MHz on top of my tower. Compared to my former antennas it seems to perform very well. The overall noise floor is considerably lower - except a few directions, where it is higher than before. There seem to be noise sources which of course come out clearer as well. When taking down the tower the antenna starts to point into the sky (up to 90 degrees) and the overall noise goes down by approximately 2.7 dB. With my old 6,4m long yagi I could only see 1,1 dB decrease, which confirms the very good F/B ratio of the 6 element. This is measured with the SDR-IQ. The VSWR I first measured 1,15:1 what could be reduced down to 1,07 by*

## 50MHz Yagis (all): 6 element 50MHz OP-DES Yagi (4.8m)

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carefully pulling out the dipole ends by ca 20mm each side. First on-the-air test show good performance and JA7QVI was seen over the moon. With stronger signals no sidelobes are seen, just as the simulation indicates. I have put the antenna data into EZNEC 6+ and I get very similar results compared to those on your webpage. In short words: I am pleased.

I attach an image here for an impression and you may use the image for your purposes (website or what else). Thanks a lot for the antenna.

73 de Christoph DF9CY"

### Performance

**Gain:** 11.03dBi @ 50.150MHz

**F/B:** 32.85dB @ 50.150MHz

**Peak Gain:** 11.10dBi

**Gain at 10m above Ground:** 16.51dBi

**Peak F/B:** 33.10dB

**Power Rating:** 5kw

**SWR:** Below 1.1:1 from 50.000MHz to 50.60MHz

**Stacking Distance:** 4.5-5.3m ( 4.9m recommended)

**2 Stacked Gain @ 4.9m spacing:** 13.87dBi

**2 Stacked F/B:** 36.99dB

**2 Stacked Gain @ 4.9m Spacing 10m above ground:** 19.06dBi

**Boom Length:** 4.840m

**Weight:** 6Kg / 13.22LB

**Turning Radius:** 2.88m / 9.45ft

**Wind Loading:** 0.22 Square Metres / 2.31 Square feet

**Wind Survival:** **216KPH / 134MPH**

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

### Specification

This antenna is made with **15.88mm** centre elements and **12.7mm** outer elements with the OP-DES end sections **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 32mm square aluminum with a 1.6mm wall thickness.

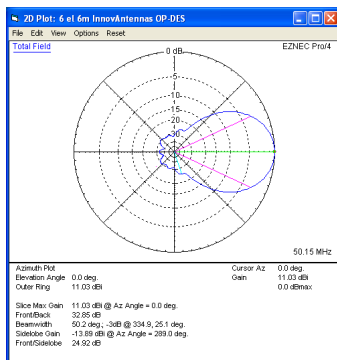
**OTHER TAPER SCHEDULES ARE AVAILABLE FOR THIS ANTENNA, CALL OR EMAIL FOR DETAILS**

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

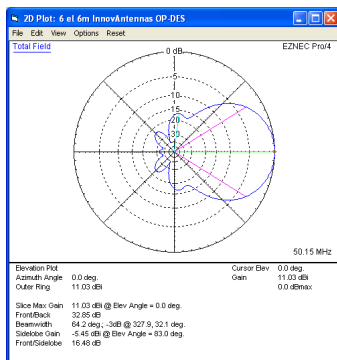
Note: Much development time has gone into our antennas, not just on basic electromagnetic design, we are able to model the effect of insulators, booms and other objects to ensure the make up of our antennas have least effect on performance and pattern degradation. More information can be found [here](#)

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

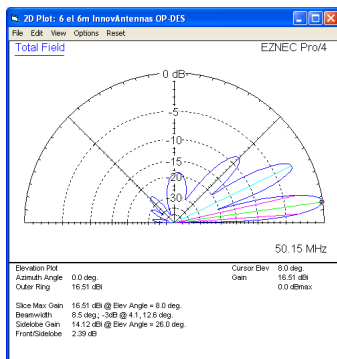
50MHz Yagis (all): 6 element 50MHz OP-DES Yagi (4.8m)



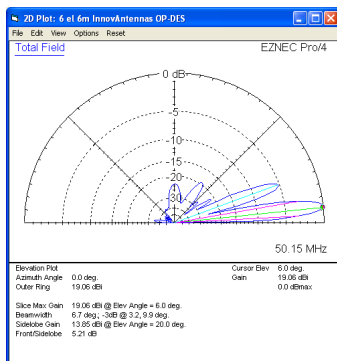
Azimuth Plot



Elevation Plot



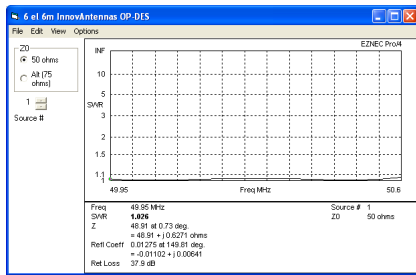
Single 6 element OP-DES up 10m above ground



2 x 6el OP-DES Yagi 4.9m apart with the bottom antenna 10m above ground

# 50MHz Yagis (all): 6 element 50MHz OP-DES Yagi (4.8m)

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**SWR**



**How the OP-DES looks; A 6el 10m OP-DES**

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

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