## HFT540C Yagi Data Sheet



## Description

The HFT series Yagis are an industrial grade antenna solution that can be customized to meet the specific requirements of the user. The HFT series antennas are designed to be heavy-duty in order to withstand difficult conditions, while still offering the utmost in reliability and performance that SteppIR products are well known for.

Our patented system utilizes an electronic controller which remotely adjusts each stepper motor driven antenna element to the exact length required on every frequency within its range- providing optimal performance with none of the compromises that all fixed length antennas require.

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HFT540C Specifications

| Frequency coverage | $6.8-30 \mathrm{MHz}$-continuous |
| :--- | :--- |
| Active elements | 3 elements $6.8-8.225 \mathrm{MHz} ; 4$ elements $8.225-13.315 \mathrm{MHz} ; 5$ elements $13.315-30 \mathrm{MHz}$ |
| Element length | Three @ $71.5 \mathrm{ft}[21.79 \mathrm{~m}]$ one @ $51.5 \mathrm{ft}[15.69 \mathrm{~m}]$ one @ $37.2 \mathrm{ft}[11.33 \mathrm{~m}]$ |
| Boom type/length | Aluminum square tube, $4^{\prime \prime}[10.16 \mathrm{~cm}] ; 40 \mathrm{ft}[12.19 \mathrm{~m}]$ length; |
| Antenna weight | $495 \mathrm{lb}[224 \mathrm{~kg}] ;$ does not include boom to mast assembly; |
| Truss system | Double truss boom; dual top truss on $71.5 \mathrm{ft} / 51.5 \mathrm{ft}$ elements |
| Antenna system | Automatic remote coax switching system; single feed line, relay switched |
| Wind Load | $5.01 \mathrm{~m}^{2}\left[54.11 \mathrm{ft}^{2}\right]$ |
| Wind Rating | $110 \mathrm{MPH}[178 \mathrm{KPH}]$ |
| Turning Radius | $41.75 \mathrm{ft}[12.73 \mathrm{~m}]$ |
| Power Rating | $3 \mathrm{KW}[50 \%$ duty cycle] 1.5 KW [90\% duty cycle] High-power version available |
| Mast Hardware | $3^{\prime \prime}[7.62 \mathrm{~cm}]$ Aluminum saddles; Mast OD must be 3.00 in $/ 7.62 \mathrm{~cm}$ |
| Cable Requirements | 24 wire 22 ga shielded; Lightning/voltage suppressor recommended |

Gain / Front-to-Rear / Beamwidth at 130 ft height

| Frequency (KHz) | Gain (dBi) | Front to <br> Rear (dB) | Frequency <br> $(\mathrm{KHz})$ | Gain (dBi) | Front to <br> Rear (dB) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6800 | 13.45 | 25.44 | 16215 | 16.05 | 25.11 |
| 7275 | 13.68 | 25.34 | 16940 | 16.22 | 25.35 |
| 7750 | 13.97 | 25.21 | 17665 | 16.18 | 26.19 |
| 8225 | 14.03 | 25.04 | 18390 | 16.48 | 25.26 |
| 8700 | 14.19 | 25.15 | 19115 | 16.31 | 25.66 |
| 9195 | 14.30 | 25.34 | 19840 | 15.93 | 25.60 |
| 9690 | 14.29 | 25.33 | 20565 | 15.74 | 25.23 |
| 10415 | 14.21 | 25.21 | 21290 | 15.61 | 25.21 |
| 11140 | 14.14 | 25.29 | 22015 | 16.54 | 25.52 |
| 11865 | 14.18 | 25.18 | 22740 | 16.42 | 25.40 |
| 12590 | 14.37 | 25.40 | 23465 | 16.6 | 25.49 |
| 13315 | 14.48 | 25.35 | 24915 | 16.93 | 25.48 |
| 14040 | 15.41 | 25.29 | 26365 | 17.13 | 25.36 |
| 14765 | 15.71 | 25.09 | 27815 | 17.11 | 25.40 |
| 15490 | 16.03 | 25.49 | 29265 | 17.18 | 25.49 |

