



Yagi • Dipole • Vertical

(Patent Pending)

The Most Powerful Multi-Band Antenna in the World!



13.6 - 54 MHz Continuous Coverage

100 MPH Wind Rating

Rated to 2000 Watts Key Down

Switch Directions 180° in 3 seconds

**Simultaneous Gain in
Opposite Directions**

Unequaled Gain and Front-to-Back!

Assembly Time of Less Than 3 Hours

**Cycle Tested 2 Million Band Changes
Without a Failure**

**Elements are Remotely Adjusted
from the Ham Shack**

Introducing the SteppIR 4 Element Yagi

**Mono-Band Performance on 20m, 17m, 15m, 12m, 10m, 6m
and Every Single Frequency in Between!**

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Currently, most multi-band antennas use traps, log cells or interlaced elements as a means to cover several frequency bands. All of these methods have one thing in common—they significantly compromise performance. The SteppIR™ antenna system is our answer to the problem. Resonant antennas must be made a specific length to operate optimally on a given frequency.

So, instead of trying to “trick” the antenna into thinking it is a different length, or simply adding more elements that may destructively interact, why not just change the antenna length? Optimal performance is then possible on all frequencies with a lightweight, compact antenna. Since the SteppIR can control each element length, a long boom is not needed to achieve near optimum gain and front to back ratios on 20 - 10 meters. On 6 meters, an optional passive element is available that creates a long boom 6 element yagi.

Each antenna element consists of two spools of flat copper-beryllium strip conductor mounted in the antenna housing. The strips are perforated to allow a stepper motor to drive them simultaneously with a sprocket. Stepper motors are well known for their ability to index very accurately, thus giving very precise control of the antenna length. In addition, the motors are brushless and provide extremely long service life. The copper-beryllium strip is driven out into hollow, lightweight



SteppIR Microprocessor Based Controller

fiberglass support elements (the support elements stay extended), forming an element of any desired length up to 36' long. The fiberglass poles are telescoping, lightweight and very durable. When fully collapsed, each element measures 48" in length.

The ability to completely retract the copper-beryllium antenna elements, coupled with the collapsible fiberglass poles makes the entire system extremely portable. The antenna is easy to assemble, and can be installed in less than 2 hours.

The antenna is connected to a microprocessor-based controller (via 22 gauge conductor cable) that offers numerous functions including dedicated buttons for each ham band, continuous frequency selection from 20m to 6m, 17 ham and 6 non-ham band memories, 180° direction reversal (allows you to switch directions of the Yagi 180° in 2.5 seconds) or bi-directional mode (simultaneous gain in opposite directions).

4 element Gain and Front-to-rear:

Notes: Gain and front-to-rear figures are shown in free space. Front to rear measurement is the worst case scenario, front-to-back is merely the measurement 180° from the forward direction, which is rarely the worst case.

| Specifications | • | 4 element Yagi |
|-------------------------------|---|---|
| Weight | • | 80 lb / 36 kg |
| Max. Wind Surface Area | • | 9.7 ft ² / 0.90 m ² |
| Wind Rating | • | 100 MPH |
| Longest Element | • | 36 feet / 10.97 m |
| Power Rating | • | 2000 W PEP |
| Boom Length | • | 32 ft / 9.75 m |
| Boom Diameter | • | 2.25-1.75 in 5.7 - 4.5 cm |
| Frequency Coverage | • | 20m - 6m Continuous |
| Turning Radius | • | 24.1 ft / 7.35 m |
| Cable Requirements (shielded) | • | 16 conductor 22 AWG |
| Tuning Rate | • | 1.17 MHz / sec |
| Balun Included? | • | Yes |

| Band | Gain dBi | *Front to Rear dB |
|------|----------|-------------------|
| 20m | 9.5 | 21 |
| 17m | 10.0 | 20 |
| 15m | 10.2 | 27 |
| 12m | 10.4 | 21 |
| 10m | 10.6 | 11 |
| 6m* | 13.0 | 30 |

*With optional passive element kit