

## A Monoband Antenna - On Every Frequency!



*The telescoping fiberglass supports do not move - the copper beryllium elements change length on the inside of the supports*

*Remotely adjustable— 7.0 MHz - 54 MHz continuous coverage! You can even create your own antenna and store it in memory*

*Easy to assemble, regardless of antenna type!*

*Unequaled F/B ratios combined with forward gain performance equal or exceeding that of antennas with much larger profiles*

*Excellent SWR on all frequencies*

*All three elements are individually adjusted automatically by the microprocessor based controller*

*In life cycle testing, the unit has gone over 60,000 cycles without failure - That's over 2 million band changes!*

*Wind rated to 100 mph; simple and durable design*

*Bi-directional mode gives user gain in two directions simultaneously (yagi)*

*Switch direction of antenna 180° in just three seconds (yagi), greatly reduces rotating time and wear - outstanding for short path / long path operation*

*All materials are corrosion resistant and are designed for long term, outdoor applications*

*Excellent for ham, military, commercial, marine and SWL communications*

**MonstIR 40m-6m Yagi Now Available -  
7.8 dBi Gain, 25 dB F/R on 40m!  
8.2 dBi Gain, 20 dB F/R on 30m!**

**[www.steppir.com](http://www.steppir.com)**

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## Available Products:

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 40 - 10 meters. On 6 meters, an optional passive element is available that creates a long boom 4 element Yagi (6 el on 4 el Yagi’s).

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 strip is driven

out into hollow, lightweight 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 antenna elements, coupled with the collapsible fiberglass poles makes the entire system extremely portable. The antenna is easy to assemble, and can be installed on the ground or up on the antenna tower using our Boomslide™ assembly system. 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).

|                         |                            |
|-------------------------|----------------------------|
| <b>1/2 wave dipole</b>  | <b>13.800 - 54.000 MHz</b> |
| <b>2 element Yagi</b>   | <b>13.800 - 54.000 MHz</b> |
| <b>3 element Yagi</b>   | <b>13.800 - 54.000 MHz</b> |
| <b>4 element Yagi</b>   | <b>13.800 - 54.000 MHz</b> |
| <b>BigIR Vertical</b>   | <b>6.9 - 54.000 MHz</b>    |
| <b>SmallIR Vertical</b> | <b>13.800 - 54.000 MHz</b> |
| <b>MonstIR Yagi</b>     | <b>6.9 - 54.000 MHz</b>    |

| Specifications                | • | Dipole                                    | 2 element Yagi                          | 3 element Yagi                            | 4 element Yagi                            | BigIR Vertical                            | MonstIR Yagi                             |
|-------------------------------|---|---|---|---|---|---|--|
| Weight                        | • | 10.5 lb / 4.5 kg                          | 30 lb / 13.6 kg                         | 42 lb / 19.0 kg                           | 75 lb / 34 kg                             | 15 lb / 6.8 kg                            | 215 lb / 98 kg                           |
| Max. Wind Surface Area        | • | 1.9 ft <sup>2</sup> / 0.17 m <sup>2</sup> | 4.0 ft <sup>2</sup> / .37m <sup>2</sup> | 6.1 ft <sup>2</sup> / 0.57 m <sup>2</sup> | 9.7 ft <sup>2</sup> / 0.90 m <sup>2</sup> | 1.9 ft <sup>2</sup> / 0.17 m <sup>2</sup> | 23.9ft <sup>2</sup> / 2.22m <sup>2</sup> |
| Wind Rating                   | • | 100 MPH                                   | 100 MPH                                 | 100 MPH                                   | 100 MPH                                   | 80 MPH w/ 3 guys@ 14’                     | 100 MPH EIA-222-C                        |
| Longest Element               | • | 36 ft / 10.97 m                           | 36 ft / 10.97 m                         | 36 ft / 10.97 m                           | 36 feet / 10.97 m                         | 32 ft / 9.75 m                            | 70 ft / 21.5 m                           |
| Power Rating                  | • | 3000 Watts Key Down                       | 3000 Watts Key Down                     | 3000 Watts Key Down                       | 3000 Watts Key Down                       | 3000 Watts Key Down                       | 3000 Watts Key Down                      |
| Boom Length                   | • | —   | 57 in / 1.44 m                          | 16 ft / 4.87 m                            | 32 ft / 9.75 m                            | —   | 34 ft / 10.46 m                          |
| Boom Diameter                 | • | —   | 1-3/4 in<br>4.5 cm                      | 1-3/4 in<br>4.5 cm                        | 2.25-1.75 in<br>5.7 - 4.5 cm              | —   | 2.75-2.50 in<br>7-6.35 cm                |
| Frequency Coverage            | • | 20m - 6m Continuous                       | 20m - 6m Continuous                     | 20m - 6m Continuous                       | 20m - 6m Continuous                       | 40m - 6m Continuous                       | 40m - 6m Continuous                      |
| Turning Radius                | • | 9 ft / 2.74 m                             | 18.15 ft / 5.53 m                       | 19.7 ft / 6 m                             | 24.1 ft / 7.35 m                          | —   | 39.7 ft / 12.2m                          |
| Cable Requirements (shielded) | • | 4 cond (22 ga)                            | 12 conductor 22 AWG                     | 12 conductor 22 AWG                       | 16 conductor 22 AWG                       | 4 conductor 22 AWG                        | 16 conductor 22 AWG                      |
| Tuning Rate                   | • | 1.33 ft/ sec                              | 1.33 ft/ sec                            | 1.33 ft/ sec                              | 1.33 ft/ sec                              | .665 ft/ sec                              | 1.33 ft/ sec                             |
| Balun Included?               | • | No (optional)                             | Yes                                     | Yes                                       | Yes                                       | No  | Yes                                      |