

SteppIR Communication Systems products are designed for performance, period. We offer Yagi, Vertical and Dipole antennas in configurations designed to satisfy requirements at every level.

Our products offer the pinnacle of performance for Amateur Radio, Emergency Communications, Military and Commercial applications – and everything in between! There is no substitute for having the ability to tune your antenna to the exact length required on any given frequency – Step up to SteppIR, a monoband antenna on every frequency!

maximize your capabilities

WITH STEPPIR COMMUNICATION SYSTEMS

The SteppIR antenna was conceived to solve the problem of covering up to nine ham bands (80m, 40m, 30m, 20m, 17m, 15m, 12m, 10m and 6m) on a single antenna tower, without suffering the performance sacrifices caused by interaction between the multiple antennas that would traditionally be required.

The Stepper antenna was conceived to solve the problem of covering up to nine ham bands (80m, 40m, 30m, 20m, 17m, 15m, 12m, 10m, 6m and every frequency in between) on a single antenna tower, without suffering the performance sacrifices caused by interaction between the multiple antennas that would be traditionally required.

Yagi antennas are basically single frequency devices that work well only over a very narrow range, typically 0.5% change in frequency. Fixed length Yagis compensate by using a variety of techniques, all of which result in serious degradation of performance, especially in Front-to-Rear rejection, and added complexity, size, and weight. Our patented solution is to individually adjust the length of the antenna elements to the optimal length for the desired frequency with none of the compromises in performance that all fixed length antennas require. This is accomplished remotely using an electronic controller that can even automatically follow the radios' frequency. Whether a Yagi, Dipole or Vertical array, all SteppIR antennas enjoy optimal performance on every frequency within their specified frequency range (varies by model) – and that includes non-ham radio frequencies as well!

The SteppIR design was made possible by the convergence of determination and high tech materials. The availability of new lightweight glass fiber composites, Teflon blended thermoplastics, high conductivity copper-beryllium and extremely reliable stepper motors has allowed the SteppIR to be a commercially feasible product for over 18 years.

The present-day SteppIR product is the highest-performance and most reliable antenna that we have every produced – there are thousands in operation all over the world that serve as a testimonial to this, just hop on the air and you may be surprised just how many people are using a SteppIR.

Welcome to the world of SteppIR, a monoband antenna - on every frequency!

Communication Systems:

YAGI ANTENNAS

The best performing HF antennas available

DIPOLE ANTENNAS

Very simple and easy to install

VERTICAL ANTENNAS

True quarter wave continuous coverage

PORTABLE ANTENNAS

Full legal limit power handling capability for DXpeditions

CUSTOM DESIGN

Have a commercial requirement? We offer custom and contract manufacturing options. Contact us for more information.

PORTABLE ANTENNA ANALYZERS

Be sure to check out our SARK Series 110 compact, high performance antenna analyzer

ACCESSORIES

The best controllers and accessories to complete your antenna package

See our website at: www.SteppIR.com



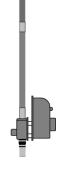
BIG & SMALL IR

There are two models – the BigIR stands 32 feet in height and covers 40m-6m continuously. There is a stepper motor controlled loading coil available for the BigIR that extends coverage to 80m. Note that when the coil is activated the maximum power rating is 1500 watts. For the SmallIR, there are two coil options; an 80/40/30 option that is rated to 500 watts when activated or a 40/30 option that is rated to 1500 watts when the coils are activated. On either the BigIR or the SmallIR, when the coils are not activated the power rating reverts back to 3000 watts. Radial systems are necessary with all $\frac{1}{4}$ wave verticals, check our website for our custom made radial options. We also recommend a 1:1 balun for all vertical installations to keep RF from coming back to the shack – these are also available on our website. Fun Fact: the BigIR has a $\frac{3}{4}$ wave vertical option (at the click of a button) on 21mHz – 54 mHz.

Big IR / Small IR Specs

| Specifications | BigIR 40-6 Vertical | Small IR 20-6 Vertical |
|----------------------|---|---|
| Weight | 15 lb / 6.8 kg | 12 lb / 5.4 kg |
| Wind Load | $1.9\mathrm{sq}\mathrm{ft}/0.17\mathrm{sq}\mathrm{m}$ | 1.0 sq ft / 0.9 sq m |
| Longest Element | 33 ft / 10.05 m | 18 ft / 5.49 m |
| Optional Coil | Yes - 80 m | Yes - 40 m or 80/40 m |
| Power Rating | 3kW (1.5kW w/80 m coil) | 3kW (500W w/80 m coil) |
| Guyed Wind Rating | 100 mph / 160 km/h | 100 mph / 160 km/h |
| Frequency Coverage | 6.8 - 54 mHz | 13.8 - 54 mHz |
| Cable Requirements | 4 conductor (8 with coil) | 4 conductor (8 with coil) |
| Tuning Rate | $1.33\mathrm{ft}\mathrm{sec}/0.4\mathrm{m}\mathrm{sec}$ | $1.33\mathrm{ft}\mathrm{sec}/0.4\mathrm{m}\mathrm{sec}$ |
| Un-guyed Wind Rating | 50 mph / 80 km/h | 100 mph / 160 km/h |
| Guyed Wind Rating | 80 mph / 133 km/h | |







Big IR

Small IR







The 20m-6m dipole is arguably our most portable antenna. The dipole is simple to install, weighs a total of 15 lb and consists of two telescoping poles and an EHU. Length when operating is 36 ft. The dipole is portable and easy to install, but make no mistake, this antenna is a full-sized performer. There is no substitute for being able to tune the antenna to the exact length needed on all frequencies within it's range. The picture to the right is of a SteppIR dipole mounted on a houseboat - QTH is Lake Powell, Utah - owner unknown, scene priceless!



Dipole Specs

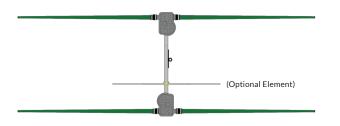
| Specifications | 20-6m Dipole |
|--------------------|----------------------------|
| Weight | 15 lb / 6.8 kg |
| Wind Load | 1.9 sq ft / 0.177 sq m |
| Longest Element | 36 ft / 10.97 m |
| Turning Radius | 18 ft / 5.49 m |
| Boom Length | N/A |
| Mast Hardware | N/A |
| Power Rating | 3 KW |
| Wind Rating | 100 mph / 160 km/h |
| Frequency Coverage | 13.8 MHz-54 MHz |
| Cable Requirements | 4 conductor 22 ga shielded |
| Tuning Rate | 1.33 ft/sec - 0.4 m/sec |
| | |

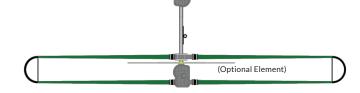




The 2 Element Yagi has the highest value-to-performance of any of our antennas and is the antenna of choice for DXpeditions. It actually performs more like a 3 element Yagi, due to its innovative 57 inch boom. This narrow element spacing allows for optimal performance throughout its entire frequency range. Fun fact: you would never want to make an antenna like this with a fixed length aluminum Yagi as your bandwidth would be very limited but on a SteppIR, it's not a problem, because you can adjust the elements!







2 Element 20m-6m Yagi

2 Element Yagi with 40/30m Dipole

2 Flement Specs

| 2 Lienient Specs | | |
|--------------------|-----------------------------|---|
| Specifications | 2 Element 20m-6m | 2 Element + 40/30m Dipole |
| Weight | 30 lb / 13.6 kg | 37 lb / 16.8 kg |
| Wind Load | 4.0 sq ft / 0.37 sq m | $6.0\mathrm{sq}\mathrm{ft}/0.56\mathrm{sq}\mathrm{m}$ |
| Longest Element | 36 ft / 10.97 m | 39 ft / 11.9 m |
| Turning Radius | 18.2 ft / 5.53 m | 20 ft / 6.09 m |
| Boom Length | 57" / 1.44m | 57" / 1.44m |
| Mast Hardware | 2.0 in / 5.08 cm | 2.0 in / 5.08 cm |
| Power Rating | 3 KW | 3 KW |
| Wind Rating | 100 mph / 160 km/h | 100 mph / 160 km/h |
| Frequency Coverage | 13.8 mHz-54 mHz | 6.8 mHz-54 mHz |
| Cable Requirements | 12 conductor 22 ga shielded | 12 conductor 22 ga shielded |
| Tuning Rate | 1.33 ft/sec - 0.4 m/sec | 1.33 ft/sec - 0.4 m/sec |

2 Element Performance

| le | Band | dBiGain | F/R dB |
|----|---------------|-------------------|----------|
| | 40 m | 1.8* | N/A |
| | 30 m | 2.1* | N/A |
| | 20 m | 6.6 | 21 |
| | 17 m | 6.6 | 16 |
| | 15 m | 6.5 | 13 |
| | 12 m | 6.4 | 11 |
| | 10 m | 6.2 | 9 |
| | 6 m | 5.0 (8.3)** | 2 (20)** |
| | * with option | onal 40/30 dipole | <u> </u> |

^{**} with optional 6m kit

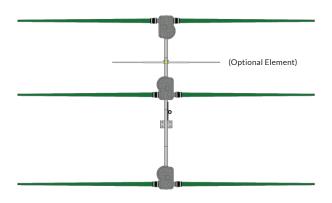




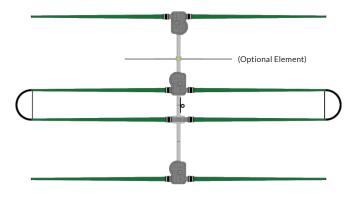
3 ELEMENT

The 3 element Yagi is the original Steppir antenna. Using our proven technology, it gives continuous frequency coverage from 20m-6m. The 3 element Yagi with the 40/30 dipole option is our most popular antenna. With a 16 foot boom, the antenna models that are programmed into the controller deliver solid gain and exceptional front-to-rear ratios. Ask any SteppIR owner to "hit the 180" button, and you may be surprised to hear just how good the front-to-rear really is for this antenna. If higher performance is desired for the 40m/30m bands, please refer to our DB18/DB18E series antennas. Fun fact: all SteppIR Yagis have the ability to reverse direction in just 2 seconds at a press of a button!





3 Element 20m-6m Yagi



3 Element Yagi with 40/30m Dipole

3 Element Performance

3 Element Specs

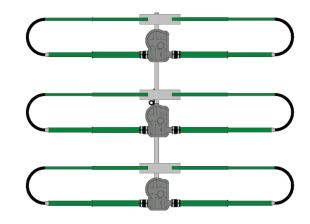
| Specifications | 3 Element 20m-6m | 3 Element + 40/30m Dipole | Band | dBiGain | F/R dB |
|--------------------|---|-----------------------------|--------------|----------------------------------|----------|
| Weight | 51 lb / 23.1 kg | 58 lb / 26.3 kg | 40 m | 1.8* | N/A |
| Wind Load | $6.1\mathrm{sq}$ ft / $0.57\mathrm{sq}$ m | 8.1 sq ft / 0.76 sq m | 30 m | 2.1* | N/A |
| Longest Element | 36 ft / 10.97 m | 39 ft / 11.90 m | 20 m | 7.4 | 25 |
| Turning Radius | 19.7 ft / 6 m | 19.7 ft / 6 m | 17 m | 8.3 | 25 |
| Boom Length | 16 ft / 4.87 m | 16 ft / 4.87 m | 15 m | 8.5 | 20 |
| Mast Hardware | 2.0 in / 5.08 cm | 2.0 in / 5.08 cm | 12 m | 8.8 | 15 |
| Power Rating | 3 KW | 3 KW | 10 m | 9.0 | 11 |
| Wind Rating | 100 mph / 160 km/h | 100 mph / 160 km/h | 6 m | 6.2(10.1)** | 4 (30)** |
| Frequency Coverage | 13.8 mHz-54 mHz | 6.8 mHz-54 mHz | * •.1 | 1.40/00 1: 1 | |
| Cable Requirements | 12 conductor 22 ga shielded | 12 conductor 22 ga shielded | • | onal 40/30 dipole onal 6m kit | |
| Tuning Rate | 1.33 ft/sec - 0.4 m/sec | 1.33 ft/sec - 0.4 m/sec | | | |



3 ELEMENT

With the DB11 Yagi, you don't have to give up performance to fit the antenna into a small space! At only 19 feet in length and with an 11 foot boom, the DB11 is the smallest of our Yagi antennas. All of our DB series antennas utilize looped elements. This is a distinctive advantage, allowing for a 40% smaller size platform with excellent performance. The DB11 uses an integral coax switch to select which one of the three elements are driven to give equal performance in forward and reverse di-rections. The DB11 has two active elements on 20m and three active elements on 17-6m. This is arguably the highest performance Yagi of this size in the world!





DB11 20-6m 3 Element Yagi

DB11 Specs

| DB11 |
|-----------------------------|
| 63 lb / 28.57 kg |
| 5.9 sq ft / 0.54 sq m |
| 19 ft / 5.79 m |
| 10.5 ft / 3.2 m |
| 11 ft / 3.35 m |
| 2.0 in / 5.08 cm |
| 3 KW |
| 100 mph / 160 km/h |
| 13.8 MHz-54 MHz |
| 16 conductor 22 ga shielded |
| 1.33 ft/sec - 0.4 m/sec |
| |

DB11 Performance

| Band | dBiGain | F/R dB |
|------|---------|--------|
| 20 m | 6.41 | 19.53 |
| 17 m | 7.02 | 16.19 |
| 15 m | 7.08 | 21.35 |
| 12 m | 7.25 | 23.17 |
| 10 m | 7.46 | 24.55 |
| 6 m | 8.76 | 15.09 |
| | | |

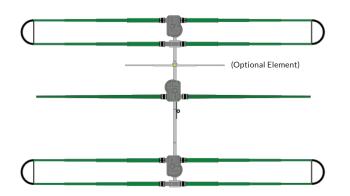




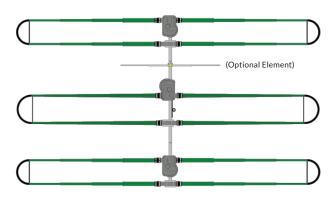
3 ELEMENT

The DB18 and DB18E are for those that are looking for high performance on the 40m and 30m bands but need the antenna to be reasonably sized. Both models have a nicely spaced high-performance 2 element Yagi on 40m and while both function as a Yagi on 30m, the primary difference between the two antennas is the DB18 has a wide spaced two element Yagi on 30m and three elements 20m-6m, and the DB18E employs a very nicely spaced three element Yagi on 30m as well as 20m-6m. The DB18/DB18E uses an integral coax switch to select with one of the 3 elements are driven to give equal performance in forward and reverse directions. Fun Fact: All SteppIR Yagi's have the ability to operate in bi-directional mode which means you have a Yagi beamed in opposite directions at the same time!





DB18 40-6m 3 Element Yagi



DB18E 40-6m 3 Element Yagi

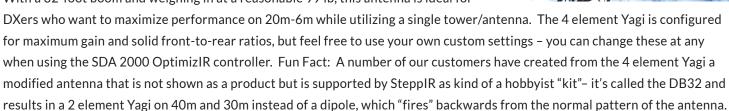
DB18 / DB18E Performance

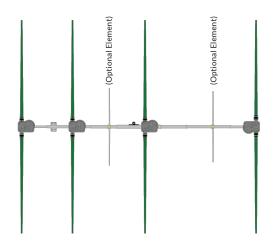
DB18 / DB18E Specs

| Specifications | DB18 | DB18E | Band | dBiGain | F/R dB |
|-----------------------|--|-----------------------------|-------------|-------------|------------|
| Weight | 96 lb / 43.5 kg | 110 lb / 50 kg | 40 m | 6.2 | 20 |
| Wind Load | $10.1\mathrm{sq}\mathrm{ft}$ / $0.93\mathrm{sq}\mathrm{m}$ | 12.1 sq ft / 1.12 sq m | 30 m | 5.4 / 7.0 | (N/A) / 20 |
| Longest Element | 39 ft / 11.9 m | 39 ft / 11.9 m | 20 m | 7.4 | 25 |
| Turning Radius | 21.58 ft / 6.57 m | 21.58 ft / 6.57 m | 17 m | 8.3 | 25 |
| Boom Length | 19 ft / 5.79 m | 19 ft / 5.79 m | 15 m | 8.5 | 20 |
| Mast Hardware | 2.0 in / 5.08 cm | 2.0 in / 5.08 cm | 12 m | 8.8 | 15 |
| Power Rating | 3 KW | 3 KW | 10 m | 9.0 | 11 |
| Wind Rating | 100 mph / 160 km/h | 100 mph / 160 km/h | 6 m | 6.2(10.1)** | 4 (30)** |
| Frequency Coverage | 6.8 mHz-54 mHz | 6.8 mHz-54 mHz | * '11 ! | | |
| Cable Requirements | 16 conductor 22 ga shielded | 16 conductor 22 ga shielded | with option | onal 6m kit | |
| Tuning Rate | 1.33 ft/sec - 0.4 m/sec | 1.33 ft/sec - 0.4 m/sec | | | |

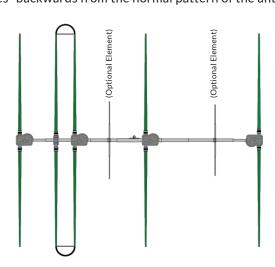


The 4 element is unmatched in its class as a high-gain, solid front-to-rear antenna that is quite a bit lighter and has less wind load than our DB series four element Yagi. With a 32-foot boom and weighing in at a reasonable 99 lb, this antenna is ideal for





4 Element 20m-6m Yagi



4 Element Yagi with 40/30m Dipole

4 Element Specs

4 Element Performance

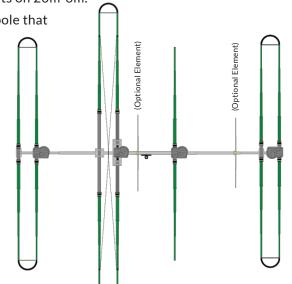
| Specifications | 4 Element 20m-6m | 4 Element + 40/30m Dipole | Band | dBiGain | F/R dB |
|-----------------------|-----------------------------|-------------------------------|------|-----------------------------------|----------|
| Weight | 99 lb / 45 kg | 106 lb / 48.2 kg | 40 m | 1.8* | N/A |
| Wind Load | 9.7 sq ft / 0.9 sq m | 11.7 sq ft / 1.09 sq m | 30 m | 2.1* | N/A |
| Longest Element | 36 ft / 10.97 m | 39 ft / 11.9 m | 20 m | 9.5 | 21 |
| Turning Radius | 24.1 ft / 7.35 m | 24.1 ft / 7.35 m | 17 m | 10 | 20 |
| Boom Length | 32 ft / 9.75 m | 32 ft / 9.75 m | 15 m | 10.2 | 27 |
| Mast Hardware | 2.0 in / 5.08 cm | 2.0 in / 5.08 cm | 12 m | 10.4 | 21 |
| Power Rating | 3 KW | 3 KW | 10 m | 10.6 | 11 |
| Wind Rating | 100 mph / 160 km/h | 100 mph / 160 km/h | 6 m | 7.8 (13)** | 4 (30)** |
| Frequency Coverage | 13.8 mHz-54 mHz | 6.8 mHz-54 mHz | * ' | 1.40./00 11 1 | |
| Cable Requirements | 16 conductor 22 ga shielded | 16 conductor 22 ga shielded d | • | onal 40/30 dipole Ional 6m kit | 2 |
| Tuning Rate | 1.33 ft/sec - 0.4 m/sec | 1.33 ft/sec - 0.4 m/sec | | | |





The DB36 Yagi is unique among the Dream Beam series antennas in that it has a single feed line, and no relays inside the EHU's. The DB36 has a 49 ft looped driven element. This patented design allows us to make the end loop elements only 39 feet long, yet the performance is as if all 3 of the loop elements are 49 feet long. The folded dipole loop technology lets the footprint be 40% less than that of the a full sized Yagi, losing only 0.3dB in gain performance. There are 3 active elements on 40m/30m and 4 active elements on 20m-6m.

The DB36 has a optional 80M dipole that allows for full coverage of the 80M band. The dipole runs parallel to the boom and uses the end elements as capacity hats, creating zero interaction with the rest of the antenna.





DB36 40-6m 4 Element Yagi

DB36 Specs

| Specifications | DB36 |
|--------------------|-----------------------------|
| Weight | 160lb / 72.8 kg |
| Wind Load | 17.5 sq ft / 1.63 sq m |
| Longest Element | 49 ft / 14.9 m |
| Turning Radius | 26 ft / 8.0 m |
| Boom Length | 36 ft / 10.97 m |
| Mast Hardware | 2.0 in / 5.08 cm |
| Power Rating | 3 KW |
| Wind Rating | 100 mph / 160 km/h |
| Frequency Coverage | **6.8 mHz-54 mHz |
| Cable Requirements | 16 conductor 22 ga shielded |
| Tuning Rate | 1.33 ft/sec - 0.4 m/sec |

DB36 Performance

| Band | dBiGain | F/R dB |
|--------|--------------|-------------|
| 80 m** | 1.35 | N/A |
| 40 m | 7.2 | 21 |
| 30 m | 8.2 | 18 |
| 20 m | 9.27 | 21.5 |
| 17 m | 9.88 | 26.5 |
| 15 m | 10.21 | 27.1 |
| 12 m | 10.43 | 21.1 |
| 10 m | 10.65 | 11 |
| 6 m* | 4.0 (12.75*) | 1.78 (27.4* |
| | | |

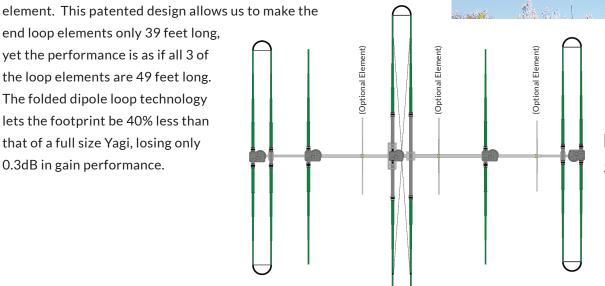
^{**} with optional 80 m dipole





The DB42 MonstIR Pro is currently the largest of the DB series of Yagi antennas, with five active elements on 20m-6m and three active elements on 40/30. For those who aspire to the absolute pinnacle of performance, the DB42 provides coverage from 80m through 6m (with optional 80m dipole kit). The dipole runs parallel to the boom and uses the end elements as capacity hats, creating zero interaction with the rest of the antenna. The DB42 has a 49 ft looped driven

end loop elements only 39 feet long, yet the performance is as if all 3 of the loop elements are 49 feet long. The folded dipole loop technology lets the footprint be 40% less than that of a full size Yagi, losing only 0.3dB in gain performance.



DB42 40-6m **5 Element Yagi**

DB42 Specs

| | • |
|--------------------|-----------------------------|
| Specifications | DB42 |
| Weight | 238 lb / 108 kg g |
| Wind Load | 19.9 sq ft / 1.85 sq m |
| Longest Element | 49 ft / 14.9 m |
| Turning Radius | 29 ft / 8.8 m |
| Boom Length | 43 ft / 13.0 m |
| Mast Hardware | 2.0 in / 5.08 cm |
| Power Rating | 3 KW |
| Wind Rating | 100 mph / 160 km/h |
| Frequency Coverage | 6.8 mHz-54 mHz |
| Cable Requirements | 24 conductor 22 ga shielded |
| Tuning Rate | 1.33 ft/sec - 0.4 m/sec |

DB42 Performance

| Band | dBiGain | F/R dB |
|--------|--------------|-------------|
| 80 m** | 1.70 | N/A |
| 40 m | 8.0 | 25.5 |
| 30 m | 9.0 | 12.4 |
| 20 m | 10.12 | 22 |
| 17 m | 10.8 | 23.2 |
| 15 m | 11.0 | 25.7 |
| 12 m | 11.9 | 24.1 |
| 10 m | 12.2 | 20 |
| 6 m* | 5.0 (12.75*) | 2.0 (27.4*) |

^{**} with optional 80 m dipole



^{*} with optional 6 m kit

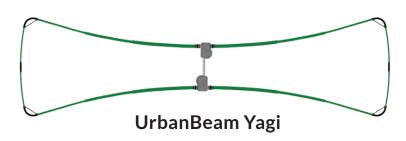
^{*} with optional 6 m kit

URBAN BEAM

The UrbanBeam is excellent for use in high density population areas or properties with small lot sizes, where a full-sized Yagi may not be an option.

The distinctive shape and small footprint (15.5 ft turning radius) of the UrbanBeam helps make neighbors and spouses happier, while still delivering the exceptional results you would expect of a SteppIR Yagi. The UrbanBeam is a high-performance, two element Yagi on 20m-6m and folded dipole on 40m/30m. With features such as 180 degree direction change, bi-directional mode and full element retraction for stormy weather, You can enjoy all the features of a SteppIR Yagi while chasing low-sunspot-cycle DX or rag-chewing with your friends!





UrbanBeam Specs

| Specifications | UrbanBeam |
|-------------------------|-----------------------------|
| Weight | 45 lb / 20.5 kg |
| Wind load - EIA-222-F/G | 7.9 sq ft / .73 sq m |
| Wind load - EIA-222-C | 4.4 sq ft / .41 sq m |
| Turning Radius | 15.5 ft / 4.72 m |
| Boom Length | 4.0 ft / 1.22 m |
| Longest Element | 30.5 ft / 9.3 m |
| Power Rating | 3 KW |
| Wind Rating | 100 mph / 160 km/h |
| Frequency Coverage | 6.8 mHz-54 mHz |
| Cable Requirements | 12 conductor 22 ga shielded |
| Adjustable Elements | 2 |
| Frequency Coverage | **6.8 mHz-54 mHz |
| Cable Requirements | 24 conductor 22 ga shielded |

UrbanBeam Performance

| Band | dBiGain | F/R dB |
|------|---------|------------|
| 40 m | 1.6* | 9.55 (F/S) |
| 30 m | 1.77** | 9.63 (F/S) |
| 20 m | 6.5 | 12 |
| 17 m | 6.6 | 12.6 |
| 15 m | 6.6 | 14 |
| 12 m | 6.7 | 15.7 |
| 10 m | 6.65 | 14.8 |
| 6 m* | 6.15 | 4 |
| | | |

^{*} A full size dipole is referenced at 2.1dBi



CRANKIR

Crank IR - Portable Antenna

A lightweight, high performance, extremely portable vertical antenna rated at 1500 watts key-down with fully manual operation (no electrical power or controller required). It's patented folded design allows for a 40% reduction in size with only a 0.3dB reduction in performance compared to a full length vertical. CrankIR is a high-performance on-the-road antenna. Perfect for deploying your team in an emergency, or for a public service event. CrankIR sets up quickly and allows you the flexibility to change bands even faster. Just "Turn the Crank", that's it! No fussing with changing traps, taps, or coils. This is a serious antenna for every communication need - even if your "emergency" is just letting fellow hams know its a beautiful day on the beach!



| Specifications | CrankIR |
|---------------------|-------------------------------------|
| CrankIR Main Unit | 3.3 lbs |
| 16' Fiberglass Pole | 2.0 lbs, 24 in collapsed |
| Tunable Radial | 1.5 lbs |
| Frequency Range* | 7-148 MHz, (*3.5-148 w/80 m Option) |
| Power Rating | 1.5 KW (40 m-2 m 1/8 wl) |



Bob Fuller, W7KWS operating portable in Kauai, HI



^{**} Measured SWR is 2.3:1 for this model on 30m







SDA 100 - Controller

The SDA 100 Electronic controller is the "brains" of a SteppIR antenna.

The SDA 100 is included as the basic controller with all antenna purchases with the exception of the CrankIR, which does not utilize a controller.

Basic features of the SDA 100 include:

180 DEGREE MODE

The 180 mode allows users to electrically "rotate" the antenna 180 degrees opposite the forward direction beam heading. This is accomplished with the simple press of a button, and in seconds, the transformation is complete - the Yagi is pointing in the exact opposite direction.



BI-DIRECTIONAL MODE

The Bi-Directional mode function operates in a similar manner to the 180 degree mode, except when enabled, the antenna operates as a hybrid Yagi, with forward gain occurring in opposite directions, simultaneously. For the SteppIR BigIR and SmallIR verticlas, when this mode is enabled the antenna changes from ¼ wave to ¾ wave.

CUSTOM ANTENNA CREATION

The factory default antennas that are programmed into the SDA 100 controller have been modeled and field tested to provide very good gain, without sacrificing the frontto-rear performance. The Create, Modify menu allows the user to change the length of any of the SteppIR elements for each antenna segment and then save these changes.

ELEMENT RETRACT MODE

With the Element Retract Mode, the user can retract all the elements on a SteppIR antenna to the home position, and the controller will then power down automatically. Retracting elements is an extremely valuable option in the event of inclement weather such as high winds, snow or radial icing. During lightning events, a retracted antenna greatly reduces the conductive area of the antenna platform.

OPTIONS AVAILABLE FOR THE SDA 100:

Transceiver Interface (cable required), Tuning Relay (amplifier lockout), Advanced Lightning Protection (ALP) module.



Patent Pending

New items only found on the SDA 2000 OptimizIR:

Antenna-Optimizer mode allows the user to select multiple antenna performance types:

OPTIMIZERS

- Maximum gain (dBi)
- Maximum front-to-rear (FR)
- Combination of the two

The full color screen displays:

- Selected antenna pattern (normal, 180, or bi-directional mode)
- Visual representation via bar graph of gain/FB
- Numeric gain values in dBi and front-to-rear in dB
- Beam Width of Antenna

Expanded create modify mode, up to 16 separate patterns can be created per band of operations

Create antennas for multiple SteppIR products (Yagi, vertical, dipole) using the same controller

Create custom antenna models using 3rd party software such as AutoEZ; download new antenna designs directly to the SDA 2000 via mini SD card

SDA 2000

Firmware upgrades are downloadable via USB

Improved diagnostics for troubleshooting

Expansion buss for future options

The OptimizIR is available as a standalone product or you can upgrade when purchasing a SteppIR Antenna

Note:

The SDA 2000 OptimizIR has all the features of the SDA 100 and in addition has 3 items that are standard that are normally options in the SDA 100:

- Transceiver Interface
- Tuning Relay
- Advanced Lightning Protection







- ADDED YEAR OF WARRANTY on new antenna purchases
 - 3 Year Warranty instead of 2
- \$100 IN STEPPIR CASH redeemable on any SteppIR order
 - Applicable for each renewal and rolls over if not used!
- ADVANCE NOTIFICATIONS on new product releases
- ACCESS TO INSIDER CLUB HOSPITALITY ROOMS
 - At Major Ham Radio shows that SteppIR attends
- SEASONAL DISCOUNTS AND SPECIAL OFFERS
 - Exclusive to Insider Club members



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