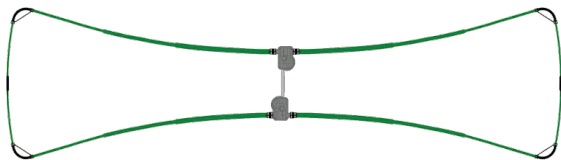


FIELD OPERATIONS

SY2P  
YAGI ANTENNA



SY2P Specs

Specifications	SY2P
Weight	45 lb / 20.5 kg g
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	3kW
Wind Rating	100 mph / 160 km/h
Frequency Coverage	6.8 mHz—54 mHz
Cable Requirements	24 conductor 22 ga shielded
Adjustable Elements	2
Frequency Coverage	**6.8 mHz—54 mHz
Cable Requirements	24 conductor 22 ga shielded

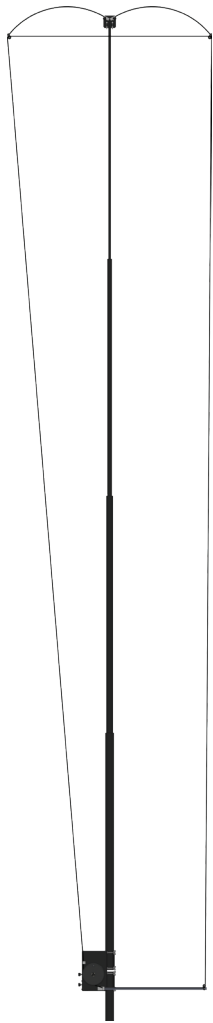
The SY2P is excellent for use in the field where portability and easy setup is required, without sacrificing performance – all while maintaining a significantly smaller profile than traditional high-performance Yagi antennas. The SY2P utilizes a very short boom (48”), which makes for an extremely versatile antenna – this is a product that is very portable for its size but is also frequently used for permanent installations as well. The SY2P functions as a high-performance two element Yagi from 54 -13 mHz continuous and as a folded dipole from 13.1- 6.8 mHz, continuous. The patented design allows for a 40% reduction in size with only a 0.3dB reduction in performance as compared to a full-length Yagi. The SY2P employs standard features such as 180-degree direction change, bi-directional operation mode and full-element retraction, and can be utilized for NVIS operations within its specified frequency range.

SV22P  
PORTABLE VERTICAL

The SV22P is a lightweight, high-performance, extremely portable vertical antenna rated at 1500 watts key-down with fully manual operation – no electrical power is required for this antenna system. The SV22P has continuous frequency coverage from 3.3 – 144 mHz. Its patented folded design allows for a 40% reduction in size with only 0.3dB reduction in performance as compared to a full length vertical. The SV22P can be set up or taken down within minutes (after initial setup), perfect for deploying fast-action teams in crisis situations. The SV22P utilizes a single adjustable radial that functions in concert with the antenna portion of the system. Dual-radial options are available as well. There are no traps, taps or coils, making this an antenna that offers full-size performance in an incredibly portable package – the entire antenna (not including optional antenna stand) fits into the included 8” x 8” x 24” fabric carrying case.

SV22P Specs

Specifications	SV22P
SV22P Main Unit	3.3 lbs
16’ Fiberglass Pole	2.0 lbs, 24 in collapsed
Tunable Radial	1.5 lbs
Frequency Range	3.5 – 148 mHz
Power Rating	1.5 kW



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Photo: Bob Fuller, W7KWS operating portable in Kauai, HI



SPECIALTY PRODUCT GUIDE

EMERGENCY  
COMMUNICATIONS



In disaster situations, there is no room for compromise.

SteppIR Communication Systems manufactures products that pair performance with portability while offering product features that will ensure effectiveness, efficiency and peace of mind when it counts the most.

SteppIR products are unique in that they can be tuned remotely to the exact resonant length required for each active element, ensuring optimal performance on every frequency within its specified range.

Ask us about custom antenna / frequency ranges.

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SV32 / SV18

VERTICAL ANTENNAS

The SV32 and SV18 verticals are the only true ¼ wave continuous coverage antennas available within their specified continuous frequency range of 6.8 – 54 mHz. The SteppIR tuning technology has had a profound impact on improving vertical antenna performance over that of traditional designs – there is no substitute for having a ¼ wave vertical on every frequency within the coverage range, without having to “trick” the antenna into acting like it is resonant. Being able to adjust the length of the element allows the SteppIR vertical to be mounted nearly anywhere and still provide a good match to your emergency communications transceiver. There are two models – the SV32 stands 33 ft high and covers 6.8- 54 mHz continuously; The SV18 stands 18 ft high and covers 13-54 mHz continuously. Optional tunable coils are available for high-performance continuous frequency coverage up to 3.3 mHz. Radials are necessary with all ¼ wave verticals.



SV32



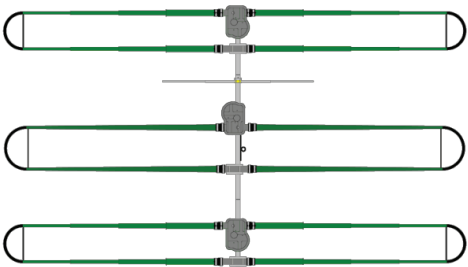
SV18

SV32 / SV18 Specs

Specifications	SV32 40-6 Vertical	SV18 20-6 Vertical
Weight	15 lb / 6.8 kg	12 lb / 5.4 kg
Wind Load	1.9 sq ft / 0.17 sq m	1.0 sq ft / 0.9 sq m
Longest Element	33 ft / 10.05 m	18 ft / 5.49 m
Optional Coil	Yes; 6.8- 3.4 mHz	Yes; 13- 3.4 mHz
Power Rating	3kW (1.5kW w/ coil)	3 kW (1.5kW w/ 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 ft sec / 0.4 m sec	1.33 ft sec / 0.4 m sec
Un-guyed Wind Rating	50 mph / 80 km/h	100 mph / 160 km/h

SY18E

40-6M 3 ELEMENT YAGI



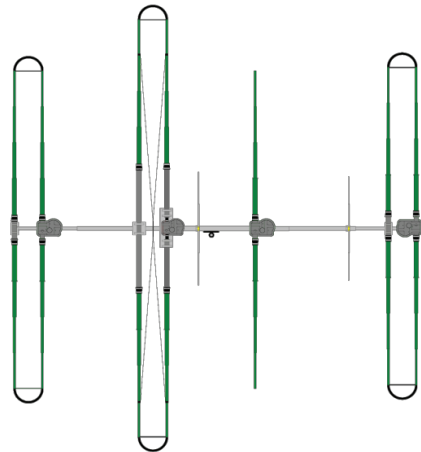
The SY18E Yagi antenna offers incredible versatility and performance for its size and profile. The SY18E utilizes loop elements for performance on frequencies from 13.1 – 6.8 mHz. The patented loop elements are 40% shorter than a full-size element would be, with very little sacrifice in performance (-0.3dB). The SY18E uses an integral coax-switch to select which one of the three elements are driven in order to give equal performance in forward, reverse and bi-directional antenna positions. The SY18E has three active elements continuous 54-10.0 mHz and two active elements continuous 9.9- 6.8 mHz, with NVIS capability within its entire frequency range.

SY18E Specs

Specifications	SY18E
Weight	110 lb / 50 kg
Wind Load	12.1 sq ft / 1.12 sq m
Longest Element	39 ft / 11.9 m
Turning Radius	21.58 ft / 6.57 m
Boom Length	19 ft / 5.79 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

SY36

40-6M 4 ELEMENT YAGI



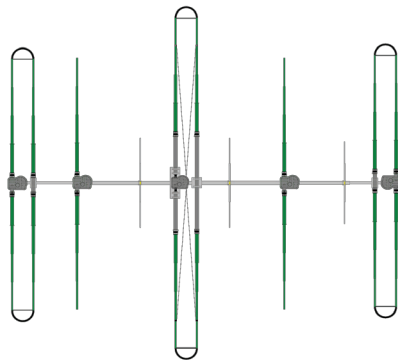
The SY36 Yagi is unique among the SY series antennas in that it has a single feed line, and no relays in side the element housing units (EHU's). This makes for a potent permanent-installation Yagi that is surprisingly simple in terms of design. The SY36 utilizes a 49 ft looped driven element. This patented design allows us to make the end loop elements only 39 feet long, yet the performance is as if all three of the loop elements are 49 feet long. This creates a very high-performance continuous coverage three active element Yagi antenna on 6.8 – 10 mHz – while keeping a compact profile. There are four active continuous coverage elements from 10 – 54 mHz. The SY36 has an optional dipole available with continuous frequency coverage of 3.4 – 5.5 mHz. The dipole runs parallel to the boom and used the end elements as capacity hats, creating zero interaction with the rest of the antenna. The SY36 Yagi is fully compatible for NVIS operation within its entire frequency range.

SY36 Specs

Specifications	SY36
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	3kW (1.5kW w opt. dipole)
Wind Rating	100 mph / 160 km/h
Frequency Coverage	6.8 – 54 mHz
Frequency Coverage w opt. Dipole:	3.4 – 54 mHz
Cable Requirements	16 conductor 22 ga shielded
Tuning Rate	1.33 ft/sec - 0.4 m/sec

SY42

40-6M 5 ELEMENT YAGI



The SY42 Yagi is currently the largest and highest-performing of the SY series antennas, for emergency ops centers that desire the pinnacle-in-performance solution for emergency communications. The SY42 has five active continuous coverage elements 13-54 mHz and three active continuous coverage elements 12.9 – 6.8 mHz. The SY42 utilizes 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 three of the loop elements are 49 feet long. This creates a very high-performance continuous coverage three active element Yagi antenna on 6.8 – 10 mHz, while keeping a compact profile -with improved performance over the SY36 due to its longer boom length. The SY42 has an optional dipole available with continuous frequency coverage of 3.4 – 5.5 mHz. The dipole runs parallel to the boom and used the end elements as capacity hats, creating zero interaction with the rest of the antenna. Due to the longer boom length, the optional dipole utilized by the SY42 has improved performance over that of the SY36. The SY42 is fully compatible with NVIS operation within its entire frequency range.

SY42 Specs

Specifications	SY42
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



SteppIR SY36