# cushcraft

Amateur Radio Antennas

# 2010 Ham Catalog

*Keeping you in touch around the Globe!*

**ARX2B Ringo Ranger II**

**R8 Multi-Band Vertical**

**MA5B Compact HF Multi-Band Beam**





**A2710S Dual Band Yagi**

# Cushcraft R6000 Multiband HF Vertical

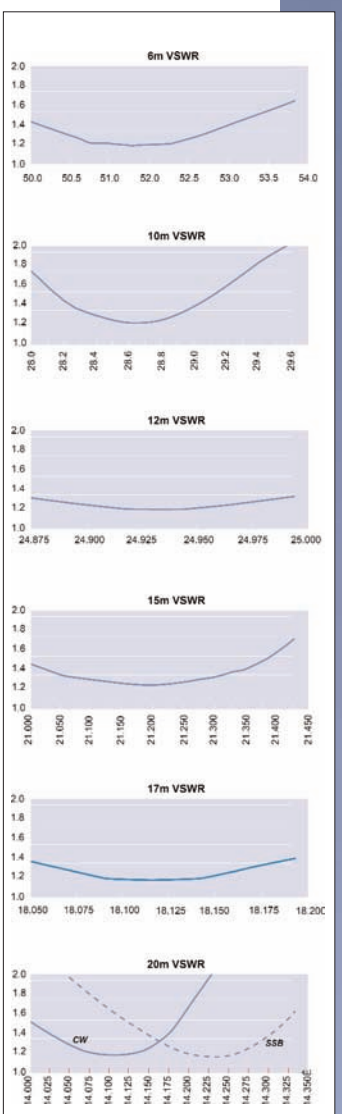
**6-20 Meters**

## The Shape of Things to Come

R6000
**$429.95**

The R6000 is a 6 through 20 meter, no ground radial antenna. It includes many of the features of the R8, R7 and R5 antennas. R6000 means excellent performance, easy installation and use, slim silhouette and high reliability. There are no traps used on 6, 10 and 15 meters for maximum efficiency and power handling.

- **EASY INSTALLATION**
  For typical use, tuning is not required
- **INSTANT BAND CHANGING**
  To any band 6 through 20 Meters
- **SLIM SILHOUETTE**
  Gain favor of family and neighbors with the slim, low profile of the R6000
- **6 METER OPERATION**
  Join the fun of the "Magic Band" and take advantage of the new HF/50 MHz transceivers
- **AFFORDABLE PRICE**
  Cushcraft delivers the best quality and performance at a price no one else can match

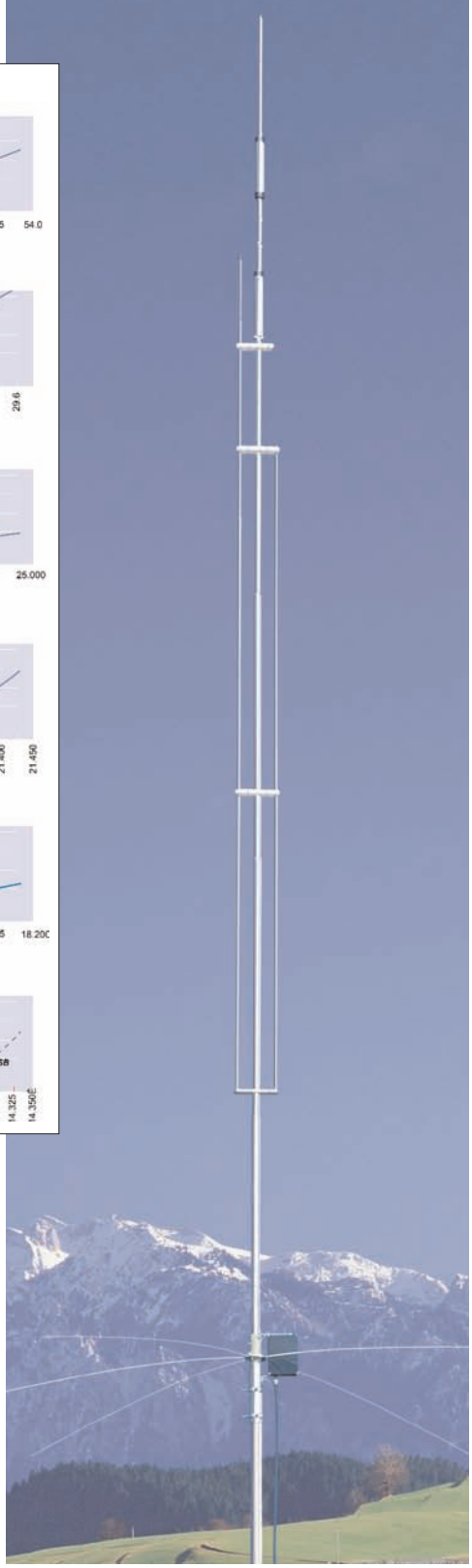



| Specifications: | R6000 |
|---|---|
| Frequency,meters | 6, 10, 12, 15, 17, 20 |
| Gain (dBi) | 3 |
| VSWR at resonance | 1.2:1 typical |
| 2:1 bandwidth, KHz | 6m >1300<br>10m >1700<br>12m >100<br>15m >450<br>17m >100<br>20m 300 |
| Power Watts PEP (FM) | 1500 (500) |
| Radiation angle, deg. | 16 |
| Horizontal rad, deg. | 360 |
| Height, ft (m) | 20.5 (6.25) |
| Mast size range, in (cm) | 1.5 -1.75 (3.8-4.4) |
| Wind load, ft2 (m2) | 1.5 (.14) |
| Weight, lb (kg) | 16 (6.25) |
| Shipping Dimensions | 7"x 4.5"x 63" |

The R6000 employs quarter wavelength stubs on 10 and 15 Meters to replace standard trap coils. The result is lower loss and wider bandwidth. The R6000 covers all bands 6 through 15 meters at a VSWR under 2:1. On 20 meters you can select the top 300 KHz or bottom 300 KHz of the band.

The R6000 weighs only 12-1/2 pounds (5.6 kg). It is lightweight and easy to mount for portable or permanent installations. Machined aluminum clamps and UV stable insulators guarantee years of reliable service. The R6000 comes with the standard warranty of one year from purchase - plus the industry's leading technical support team stands behind each antenna.

The R6000 makes an excellent diversity antenna to complement even the most complete stations, or pack up the R6000 for a trip to the DX location of your dreams.



# Cushcraft R8 Multiband HF Vertical

**6-40 Meters**


## HF Multiband Vertical Antenna

### 6, 10, 12, 15, 17, 20, 30, and 40 Meter

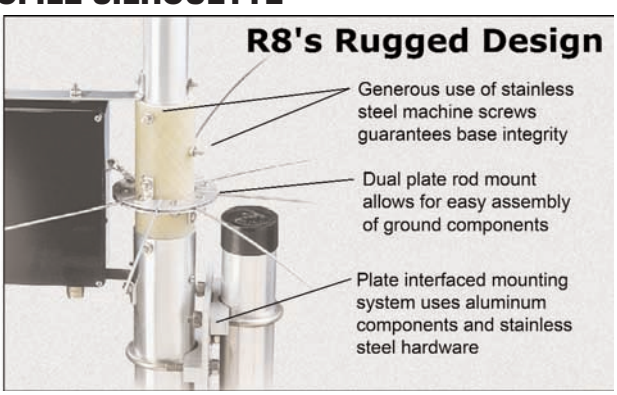
This multiband vertical design provides 8 band coverage encompassing the 6, 10, 12, 15, 17, 20, 30 and 40 meter bands. Cushcraft achieved a major breakthrough in the development of an HF multiband vertical antenna that has been specifically designed for use with a tuner and amplifier. As a result, the antenna more accurately addresses the needs of the contemporary ham shack.

Multiband vertical antennas have always been complicated designs with components as likely to be damaged by high levels of mismatched transmit power as the rigs they are attached to. Before the use of tuners became widespread, the antenna was protected by the same safety mechanisms that protected the rig. Now, the automatic power reduction circuits of the past have actually become a second layer of protective circuitry. Although the auto-tuner provides the ham with a more versatile device as well as protecting the rig's components, the antenna is more vulnerable than ever. With the press of a button, very high loads can be imposed on the antenna. The result to theantenna can be catastrophic failure in some instances.

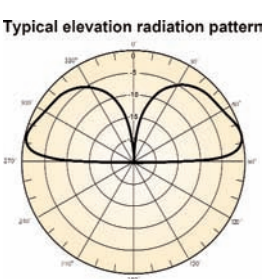
The R8 is the first multiband vertical designed for the rigors of contemporary operating conditions. Although the antenna is best operated within it's 2.0:1 VSWR bandwidth,it can sustain a 3.0:1 VSWR mismatch at full power for typical operating intervals. Now radio amateurs can take full advantage of the versatility that a tuner used in conjunction with a multiband HF vertical antenna can give them. For high wind environments, add the R8GK Guy kit-three point non-conductive guy system.

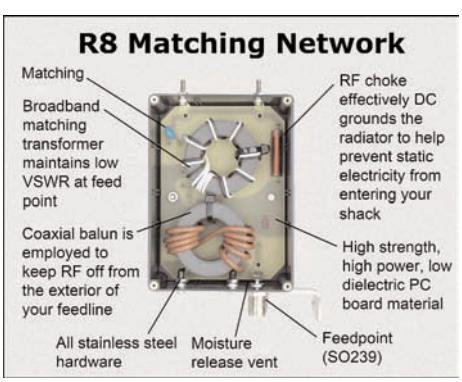
- **RUGGED CONSTRUCTION**
- **INSTANT BAND CHANGING**
- **SLIM, LOW PROFILE SILHOUETTE**

| Specifications: | R8 |
|---|---|
| Frequency, meters | 6, 10, 12, 15, 17, 20, 30, 40 |
| Gain (dBi) | 3 |
| VSWR at resonance | 1.3:1 typical |
| VSWR 2:1 bandwidth, KHz | 40m (150) 30m (>50)<br>20m (>350) 17m (>100)<br>15m (>450) 12m (>100)<br>10m (>1500 6m (>1500) |
| Power Watts PEP (FM) | 1500 (500) |
| Radiation angle, deg. | 16 |
| Horizontal rad, deg. | 360 |
| Height, ft (m) | 28.5 (8.7) |
| Mast size range, in (cm) | 1.25-2" (3.18-5.1) |
| Wind load, ft2 (m2) | 1.5 (.14) |
| Wind surface area) | 2.5 sq ft (0.23 sq m) |
| Weight, lb (kg) | 23 (10.5) |
| Shipping Dimensions | 3-3/4" x 5-1/4" x 84-1/2" |

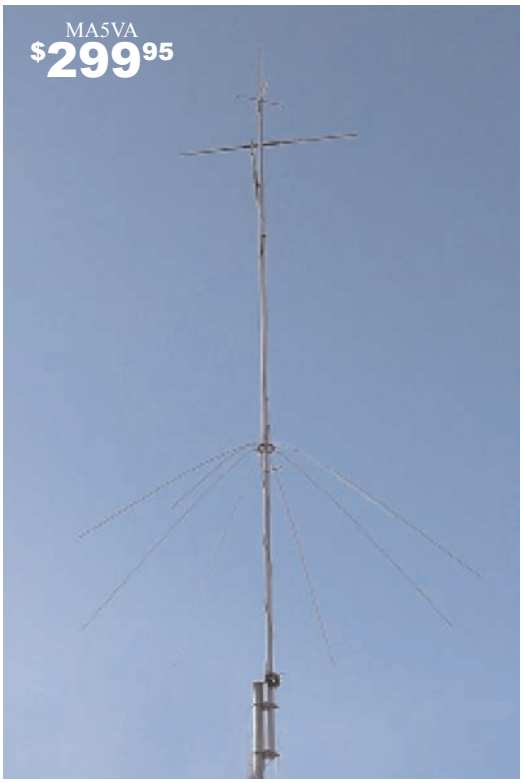



The R8 provides 360 degree (omni) coverage on the horizon and a low radiation angle in the vertical plane for a better DX.



## MA5V Five-Band Restricted-Space Vertical Antenna




The MA5VA delivers superb HF multi-band performance while maintaining a neighbor-friendly low profile. Perfect for roof-mounts, patios, small backyards, condos, and motor homes, this 6.5-pound bantam-weight installs quickly without the "heavy lifting" required of larger antennas. Whether you install it permanently or take it down between operating sessions, you'll appreciate special features like the MA5VA's gust-absorbing fiberglass base, resin-sealed resonator coils, aluminum mast blocks, and all-stainless hardware. Best of all, the MA5VA is solidly engineered-its "no-radial" OCFD design delivers low SWR and high performance without using exotic matching networks or tuners. Simply connect a radio and you're ready to work the world! The MA5V is the perfect restricted-space DX solution for 20, 17, 15, 12, and 10 meters!

- **Light-weight rugged construction**
- **Rapid breakdown for storage or transport**
- **No exotic matching networks or tuners**
- **Advanced "no radial" OCFD design**

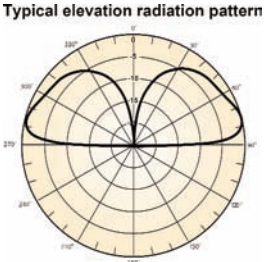
| Specifications: | MA5VA | MA6VA |
|---|---|---|
| Frequency, meters | 10, 12, 15, 17, 20 | 6,10, 12, 15, 17, 20 |
| Gain (dBi) | 1-2 | 1-2 |
| VSWR at resonance | 1.2:1 All bands | 1.2:1 All bands |
| Wind surface area | .82 ft $^2$ (.076 m $^2$) | .82 ft $^2$ (.076 m $^2$) |
| Wind Survival, mph | >80 | >80 |
| Power Watts PEP. (FM) | 250 W (100W) | 250 W (100W) |
| Height, ft (m) | 14.7 (4.48) | 14.7 (4.48) |
| Weight, lb (kg) | 6.5 (2.95) | 6.9 (3.13) |
| Shipping Dimensions | 3"x 3"x 80"-1/2" | 3"x 3"x 80"-1/2" |

## MA6VA Six-Band Restricted-Space Vertical Antenna


Made for today's expanded-coverage radios, Cushcraft's MA6V provides the same great versatility and performance of the MA5V- with the addition of 6 Meters. Enjoy congestion-free FM-repeater operation and explore the world of exotic seasonal band openings on 50 MHz CW and SSB. It's a great way to add amateur radio's "magic band" to your operating repertoire!

- **Neighbor-friendly low profile**
- **Rugged light-weight construction**
- **Air-baggage transportable (longest tube is 54")**
- **Robust mounting hardware included**
- **New bandwidth enhancing 8-rod counterpoise**
- **New low loss balun**

**Typical elevation radiation pattern**



# Cushcraft Compact HF Multi-Band Beam 10-20 Meters

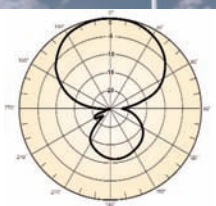
## The MA5B, Compact HF Multi-Band Beam

MA5B
$499.95

### Small Footprint -- Big Signal

MA5B, Cushcraft's multiband HF antenna provides 5-Band operation in a package small enough to mount to a tripod. The MA5B is a design that does not sacrifice ruggedness, performance and power handling for size and ease of installation.

| Specifications: | MA5B | | | | |
|---|---|---|---|---|---|
| Frequency,Bands | 10 | 12 | 15 | 17 | 20 |
| Elements per Band | 2 | 1 | 2 | 1 | 2 |
| Gain, dBi | 5.3 | 2 | 4.8 | 2 | 3.6 |
| Front to Back Ratio, dB | 10 | 0 | 12 | 0 | 22 |
| Side Lobe Atten. dB | 25 | 20 | 25 | 20 | 25 |
| VSWR 2:1 Bandwidth. KHz | 655 | >10 | 225 | >100 | 90 |
| Longest Element, in (cm) | 17.1'(52m) | 17.1'(52m) | 17.1'(52m) | 17.1'(52m) | 17.1'(52m) |
| Turning Radius, ft (m) | 8.8'(2.7m) | 8.8'(2.7m) | 8.8'(2.7m) | 8.8'(2.7m)) | 8.8'(2.7m) |
| Boom Length, ft (m) | 7.3'(2.2) | 7.3'(2.2) | 7.3'(2.2) | 7.3'(2.2)) | 7.3'(2.2) |
| Boom Diameter, ft (m) | 1.5"(3.8cm) | 1.5"(3.8cm | 1.5"(3.8cm | 1.5"(3.8cm | 1.5"(3.8cm |
| Max. Wind Surface Area | 3.22ft$^2$ (3m$^2$) | 3.22ft$^2$ (3m$^2$) | 3.22ft$^2$ (3m$^2$) | 3.22ft$^2$ (3m$^2$) | 3.22ft$^2$ (3m$^2$) |
| Max. Power Watts PEP (FM) | 1200W (400W) | 1200W (400W) | 1200W (400W) | 1200W (400W) | 1200W (400W) |
| Weight, lb (kg) | 26.5 (12) | 26.5 (12) | 26.5 (12 | 26.5 (12) | 26.5 (12) |



**High Front to Back Ratio on 10/15/20 M**

# Cushcraft Low Frequency Verticals 160 and 80/40 Meters

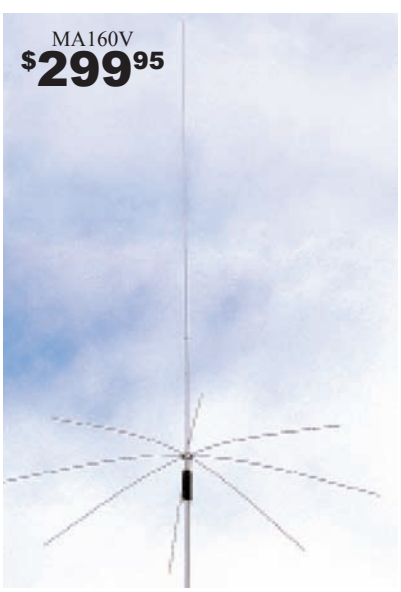
## MA8040V 3.5-7.3 MHz Vertical Antenna

MA8040V
$319.95

MA8040V is a compact self-supporting HF vertical that delivers excellent DX-hunting performance on 80 and 40 Meters. Only 27 feet tall and weighing in at less than nine pounds, it is small and light enough for one person to handle easily without assistance. Once installed, the MA8040V virtually disappears against a backdrop of trees and foliage. Parallel resonators use a combination of inductive and capacitive top loading to deliver automatic band switching, high efficiency, and rock-bottom SWR on both bands. Designed to handle maximum legal power and built to last year after year, it's the perfect DX solution when the sunspots silence the higher bands. Radial kit included.

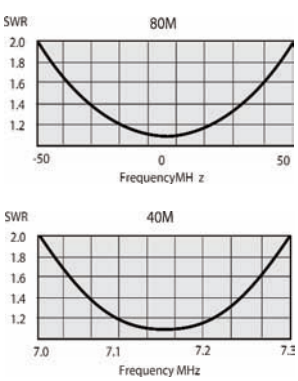
## MA160V 160-Meter Vertical Monopole Antenna

MA160V
$299.95



MA160V is a compact efficient vertical especially designed for working top-band DX from an average-size house lot. A low launch angle and deep overhead null combine to pull in distant stations while rejecting local QRM. The MA160V features a heavy-duty high-Q copper loading coil plus a wide 100-inch diameter stainless capacitive hat for high efficiency, resiliency and 1500-Watt power handling. An adjustable stinger provides coverage on any 40-kHz segment across the 1.8 2.0 MHz band. Weighing only 12-pounds, the MA160V installs easily and blends in with backyard trees and vegetation. Each antenna comes with a 400-foot spool of ground-radial wire plus a Danscord™ insulated guying kit.

| Specifications: | MA8040V | MA160V |
|---|---|---|
| Frequency MHz (MA8040V Tunable) | 3.5-7.0 (80M) 7.0-7.3 (40M) | 1.8-2.0 |
| Gain, dBi [radial / dependant] | 0 (80M), 2 (40M) | 0 |
| Minimum VSWR | 1.1:1 | 1.1:1 |
| Bandwidth (2:1 SWR) | 100 KHz (80M) 300 KHz (40M) | 40 KHz |
| Polarization | Linear Vertical | Linear Vertical |
| Power Handling PEP | 1500 W | 1500 W |
| Vertical Height (m) | 23'-27'(7-8.2) | 30'-36'(12-14) |
| Weight (antenna only) lbs.(kg) | 9.0 (4.1) | 12 (5.4) |
| Mount Style | Mast | Mast |
| Ground Radials | 8 Recomended | 8 Recomended |

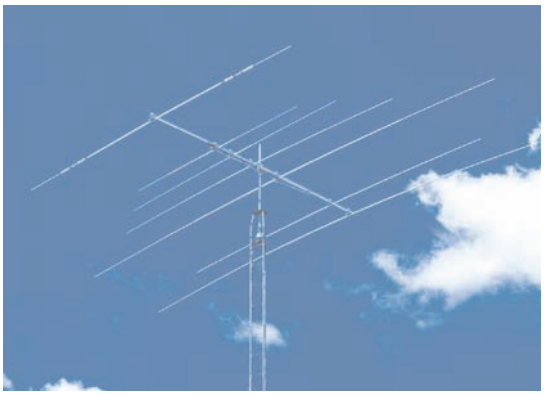


# Cushcraft HF Yagis and Log Periodics

# 10-20 Meters

## X7 BIG THUNDER TRIBANDER YAGI

The X7 Triband Yagi is geared to set new standards in both radiating performance and mechanical reliability. The product development team has employed the latest computer modeling technology to achieve a superior electrical design as well as elegant new mechanical hardware and assembly techniques. Each mechanical component was designed to 100+ MPH wind survival with a 1.25 safety factor. Traps were eliminated from the high current driven elements and reflectors using the new 4L Log Cell design, which yields virtual monoband performance and maximum power handling capability. Traps are employed only in the lower current directors for increased gain and sharper pattern. The result is a truly high performance antenna which will easily handle the legal limit.



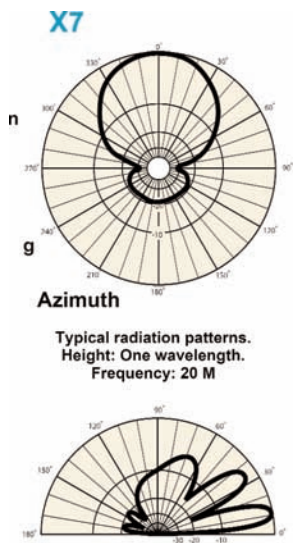
X7
$1099.95

- **New High Efficiency Computer Optimized Design for Maximum Gain and Ultra Clean Radiating Pattern**
- **100+ MPH Construction for Best Reliability and Long Life**
- **NEW 4L Log Cell Driven Elements for better VSWR Bandwidth**
- **Trapless Driven Elements and Reflectors for Reliable Power Handling**

| Specifications: | X7 | ALS2010 |
|---|---|---|
| Frequency Coverage | 10, 15, 20 (Meters) | 13.5-32 MHz |
| Number of Elements | 7 | 8 |
| Gain, dBi | 12.5 (20m) @14°<br>13.0 (15m) @12°<br>12.9 (10m) @12° | 6.4 |
| Front to Back Ratio, dB | 20 | 15-20 |
| SWR 2:1 Bandwidth | 600 KHz (20m)<br>750 KHz (15m)<br>1700 KHz (10m) | 18.5 MHz |
| Longest Element, in (cm) | 37.2' (11.33) | 38 (11.58) |
| Turning Radius, ft (m) | 20.0' (6.09) | 19.25' (5.86) |
| Boom Length, ft (m) | 18' (5.48) | 18' (5.48) |
| Wind Load ft² (m²) | 7.9 (.73) | 10.1 (.93) |
| Max. Power Watts PEP | 1500W | 1500W |
| Weight, lb (kg) | 60 (27.2) | 55 (25.5) |

40 Meter Add On Kit

| Specifications: | X740 |
|---|---|
| Band | 7 MHz |
| Element Length | 41 (12.5) |
| Power (PEP) | 1500W |



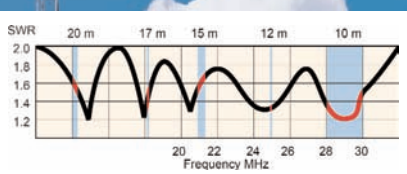

Typical radiation patterns.
Height: One wavelength.
Frequency: 20 M

## LOG PERIODIC

### Skylog ASL2010, 13 - 32 MHz

The ASL2010 log periodic antenna is the most cost effective, high gain, five band antenna solution on the market today. Skylog offers continuous operation from 13.5 to 32 MHz. Antenna gain and beamwidth are constant for uniform coverage from 10 through 20 meters. The ASL2010 is rated for continuous duty at full legal power. Skylog is designed for maximum gain on a manageable 18 foot boom with only 10.1 square feet of wind surface area. All stainless steel hardware and rugged element design are only some of the many features that provide years of superior antenna performance. Skylog ASL2010 is the smart choice for multiband HF operation.


- **Continuous five band coverage 13.5-32 MHz**
- **Constant over entire frequency range**
- **6.4 dBi gain, 65 degree beamwidth**
- **18 foot boom and 19.5 foot turning radius**
- **High efficiency design, antenna stays cool and VSWR steady**



# Cushcraft VHF/UHF Yagis

## 6-2 Meters, 440 MHz

### A627013S 6 Meter / 2 Meter / 70 CM

Cushcraft's multiband directional yagi is designed to provide hobbyists who have limited tower or mast space with directional antenna performance on three of the most popular bands. The A627013S combines 6 meters, 2 meters and 70 centimeters on one boom. The 2m and 70cm interlaced Yagis are designed to share a common feed line. An indepedent feed line drives the 6m portion.

- **Outstanding performance thanks to Cushcraft's unmatched multiband design technology and experience.**
- **Rugged stainless steel mounting hardware is easy to install and maintain.**

A627013S
$279.95

| Specifications: | | A627013S | |
|---|---|---|---|
| Frequency MHz | 50-54 | 144-148 | 430-450 |
| Number of Elements | 3 | 5 | 5 |
| Gain, dBi | 8 | 10 | 10 |
| Front to Back Ratio dB | 20 | 20 | 18 |
| SWR 1.2:1 Typical 2:1 Bandwidth, MHz | >1 | >4 | >10 |
| Longest Element, in (cm) | 117 (300) | 117 (300) | 117 (300) |
| Turning Radius, ft (m) | 6.16' (1.87) | 6.16' (1.87) | 6.16' (1.87) |
| Boom Length, ft (m) | 8.66 (2.66) | 8.66 (2.66) | 8.66 (2.66) |
| Wind Load ft $^2$ (m $^2$) | 2.52 (0.23) | 2.52 (0.23) | 2.52 (0.23) |
| Max. Power Watts PEP | 1000W | 350W | 350W |
| Weight, lb (kg) | 9.5 (4.3) | 9.5 (4.3) | 9.5 (4.3) |

# Cushcraft HF Monobander

## 40 Meters

### XM240 Big Thunder Monobander

Cushcraft's XM240 monobander utilizes rugged Big Thunder hardware that combined with high strength aluminum tubing affords the antenna outstanding wind survivability. Phillystran boom trusses are used in the XM240 design for extra boom stability. The feed system is a 50 ohm direct feed VSWR is flat across the band. A high power 1:1 balun is included. The XM240 is field-proven or reliability and performance. Excellent front to back ratio and gain makes the XM240 the right choice for DX and for stacking as well.

XM240
$999.95

| Specifications: | XM240 |
|---|---|
| Frequency MHz | 7.0 - 7.3 |
| Number of Elements | 2 |
| Gain, dBi | 6 |
| Front to Back Ratio, dB | 20-25 |
| Side Lobe Atten. dB | >35 |
| VSWR Typical Minimum | 1.1:1 |
| Longest Element, in (cm) | 43 (13.1) |
| Turning Radius, ft (m) | 24.3 (7.4) |
| Boom Length, ft (m) | 22 (6.7) |
| Wind Surface Area sq ft (sq m) | 5.5 (.51) |
| Wind Load @ 80 mph, lbs (kg | 142 (64.4) |
| Max. Power Watts PEP | 1500W |
| Weight, lb (kg): | 55 (25) |

Element Hardware

Boom-to-Mast

# Cushcraft Multiband HF Yagis

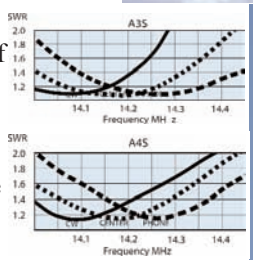
**10 - 40 Meters**

## A4S Four Element Beam - 10, 15 & 20 Meters

A4S is the true, high performance tribander. Precisely tuned high-power traps, carefully selected element lengths, and proper spacing combine to make the A4S the preferred antenna for your HF work! This is the premium antenna with all the features that you want. High gain, low SWR, and wide bandwidth keep the contacts coming in. All U-bolts, clamps and hardware are stainless steel. A4S has pinned boom sections and formed aluminum brackets to keep elements straight in all conditions. Our solid construction keeps the A4S on the tower! Add 40 meters with A744 kit.


## A3S Three Element Beam - 10, 15 & 20 Meters

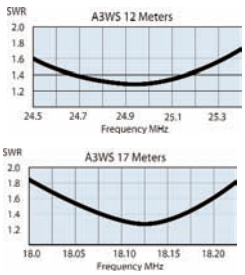
A3 World Ranger, our top selling tribander, has become the A3S with all stainless steel hardware. It's a real power-house in a small space and lets you work the pile-ups with confidence. All you need is a lightweight tower and rotator to enjoy the benefits of the A3S. It's a proven performer in DX-peditions and contests. Handles full power from your amp.Construction features include pinned boom sections, heavy duty element clamps with backing plates plus all stainless steel hardware. When space is a premium, but you want benefits of a full-size tribander, A3S is right for you! Add 40M with A743 kit.

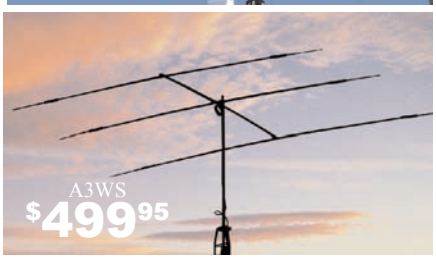




## A3WS WARC Bands 3 Element, 12 & 17M

Enjoy the excitement of the WARC bands with this popular beam. A3WS gives full performance on 12/17 meters. With the addition of our easy-to-use A103 add on kit, it will also cover 30 meters. A3WS needs only a lightweight tower and rotator or mount it above an existing tribander. Construction features include pinned boom sections, heavy duty element clamps with backing plates plus all stainless steel hardware.




## 30/40M Add Kits for A3S, A4S & A3WS

40 meters will come alive by adding one of these kits to the dipole of your A3S or A4S. Kits include high power traps with heavy wall fiberglass insulator and all hardware. A simple adjustment allows 30 meter operation. For our newest beam, the A3WS, we have a 30 meter add on kit, the A103.

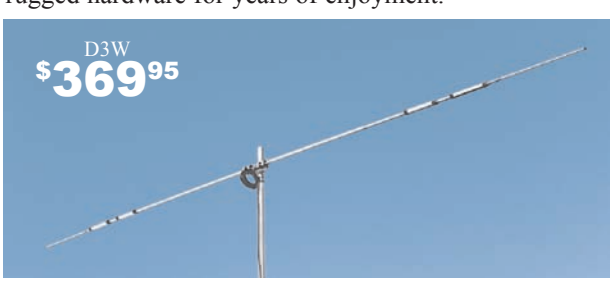
**A743, $199.95.** 7 MHz/10 MHz kit for A3S;
**A744, $199.95.** 7 MHz/10 MHz kit for A4S;
**A103, $199.95.** 10 MHz kit for A3WS.

| Specifications: | A743/A744 | A743/A744 | A103 |
|---|---|---|---|
| Band | 7 MHz (40 m) | 10 MHz (30m) | 10 MHz (30m) |
| Adapter kit, ft (m) | 33.19 min.<br>35.33 max.<br>(10.12-10.77) | 27.12<br>28.4 max.<br>(8.27-8.66) | 32.1<br><br>(9.8) |
| Windloading ft2 (m2) | .58 (.05) | .27 (.03) | .45 (.04) |
| Bandwidth, KHz | 125 | 150 | 250 |
| Power Rating, Watts | 1500 PEP | 1500 PEP | 1500 PEP |
| Side Rejection, dB | 20 | 20 | 20 |
| Weight, lb (kg) | 3.44 (1.56) | 2.29 (1.04) | 3.25 (1.47) |

| Specifications: | A4S | A3S | A3WS |
|---|---|---|---|
| Frequency MHz | 28, 21, 14 | 28, 21, 14 | 24, 18 |
| Number of Elements | 4 | 4 | 3 |
| Gain, dBi | 8.9 | 8.0 | 8.0 |
| Front to Back Ratio, dB | 25 | 25 | 25 |
| SWR 1.2:1 Typical.<br>2:1 Bandwith, MHz | >500 | >500 | >300 |
| 3 dB Beam Width, Deg E Plane | 58 | 60 | 60 |
| Longest Element, in (cm) | 32 (9.75) | 27.75 (8.45) | 25.1 (7.66) |
| Turning Radius, ft (m) | 18.4 (5.49) | 15.5 (4.72) | 14.4 (4.4) |
| Boom Length, ft (m) | 18 (5.48) | 114 (4.27) | 114 (4.27) |
| Wind Load, ft² (m²) | 1.80 (0.17) | 4.36 (0.40) | 4.1 (0.38) |
| Mast Size Range, in (cm) | 1.25-2.00<br>(3.18-5.08) | 1.25-2.00<br>(3.18-5.08) | 1.25-2.00<br>(3.18-5.08) |
| Max. Power Watts PEP(FM) | 1500W (1500) | 1500W(1500) | 1500W(1500) |
| Weight, lb (kg): | 37 (16.8) | 27 (12.9) | 22.5 (10.2) |

## Rotatable Dipoles

The World Ranger Dipoles give bi-directional patterns and rotatable convenience. You can mount them high and away from the trees for better performance than a wire dipole. These single and multi-band dipoles feature high-performance traps, heavy wall tubing, and rugged hardware for years of enjoyment.




| Specifications: | D40 $399.95 | D4 $419.95 | D3 $369.95 | D3W $369.95 |
|---|---|---|---|---|
| Frequency MHz | 7 | 28,21,14,7 | 28,21,14 | 24,18,10 |
| SWR 1.2:1 Typical.<br>2:1 Bandwith, KHz | 40>125 | >350 | >500 | >200 |
| Power Rating<br>Watts PEP (CW) | 1500<br>(500) | 1500<br>(500) | 1500<br>(500) | 1500<br>(500) |
| Length ft<br>(m) | 42.25<br>(12.88) | 35.8<br>(10.92) | 25.8<br>(7.86) | 34.0<br>(10.37) |
| Mast Size, in(cm): | 1.5-2 (3.8-5) | 1.5-2 (3.8-5) | 1.5-2 (3.8-5) | 1.5-2 (3.8-5) |
| Wind Load, ft2 (m2) | 1.3 (.12) | 1.3 (.12) | .9 (.08) | .9 (.08) |
| Weight, lb (kg): | 12 (5) | 13 (6) | 9 (4) | 11 (5) |

## AR270B 5.5/7.5 dB Dual Band Ringo

This model gives very high gain with a low angle of radiation and it is only 7.7 feet (2.35 m) high. The AR270B is computer optimized with two 5/8 wavelength collinear elements on 2 meters and four 5/8 wavelength elements on 70 cm. It is broadbanded for minimum SWR on both bands. It is easy to assemble with three rugged aluminum tubing sections, a durable mast mount and factory sealed coils for best performance.



## AR270 3.0/ 5.5 dB Dual Band Ringo

The "Dual Wonder"AR270 is only 3.75 feet(1.1 meters) high. It has great performance for its size, making it the most popular 2m/70 cm base antenna.

| Specifications: | AR270 | | AR270B | |
|---|---|---|---|---|
| Frequency MHz | 144-148 | 430-450 | 144-148 | 430-450 |
| Gain, dBi | 3.0 | 5.5 | 5.5 | 7.5 |
| SWR 1.2:1 Typical 2:1 Bandwidth, MHz | >4 | >15 | >4 | >15 |
| Horizontal Radiation Pattern, Degrees | 360 | 360 | 360 | 360 |
| Height, ft, (m) | 3.75 (1.13) | | 7.7 (2.3) | |
| Mast Size Range, in | 1.25-2 (3.2-5.1) | | 1.25-2 (3.2-5.1) | |
| Radial Length, in (cm) | 6.75 (17.1) | | 6.75 (17.1) | |
| Wind Load, ft2 (m2) | 0.27 (0.03) | | 0.47 (0.044) | |
| Power, Watts FM | 250 | | 250 | |
| Weight, lb (kg) | 2 (0.9) | | 2.4 (1.09) | |

## A27010S and A2706S
## 10 and 7.8 dB Dual Band Yagis

Increase your range by selecting one of the new Cushcraft dual band Yagis on 2 meters and 70 cm. You can point the antenna at stations while you are in QSO with them. This will direct more of your output power when transmitting at the same time reducing interference and increasing signal strength when receiving. These antennas are perfect for packet applications. Assembly is a snap with our fully illustrated assembly manuals.

| Specifications: | A27010S | | A2706S | |
|---|---|---|---|---|
| Frequency | VHF | UHF | VHF | UHF |
| Number of Elements | 5 | | 3 | |
| Forward Gain, dBi | 10 | | 7.8 | |
| Front to Back Ratio, dB | 20 | 18 | 20 | 18 |
| SWR 1.2:1 Typical 2:1 Bandwidth, MHz | $^{3}4$ | $^{3}10$ | $^{3}4$ | $^{3}20$ |
| Power Rating, Watts PEP: | 350 | | 350 | |
| 3dB Beamwidth, Degrees<br>E Plane<br>H Plane: | <br>52<br>60 | | <br>66<br>108 | |
| Longest Element, in (cm) | 40.3 (102.4) | | 41 (104.1) | |
| Turning Radius, ft (m) | 6 (1.8) | | 2.8 (.85) | |
| Boom Length, ft (m) | 6.17 (1.9) | | 2.8 (.85) | |
| Mast Size Range, in (cm) | 1.25-2 (3.2-5.1) | | 1.25-2 (3.2-5.1) | |
| Wind Load, ft2 (m2) | .725 (.07) | | .3 (.02) | |
| Weight, lb (kg): | 1.8 (.81) | | 1.7 (.8) | |


## Ringo Ranger II, Ringo Ranger, Ringo

### Ringo Ranger II

The Ringo Ranger II has more gain, less windload, and more mechanical integrity than other two meter antennas. You'll quickly appreciate the benefits of this amazing antenna! Based on the original W1BX Ringo, the Ringo Ranger II is the latest design featuring three 5/8 wave radiating elements and an adjustable 1/8 wave phasing stub. The result is a very low angle of radiation over your coverage area. The Ringo Ranger II has built-in lightning protection, UV-stabilized insulators, heavy wall tubing, improved decoupling radials to eliminate feedline radiation, and all-weather performance.

| Specifications: | ARX2B | ARX220B | ARX450B |
|---|---|---|---|
| Frequency MHz | 135-160 | 222-225 | 435-450 |
| SWR 1.2:1 Typical 2:1 Bandwidth, MHz | >3 | >5 | >5 |
| Gain, dBi | 7.0 | 7.0 | 7.0 |
| Power Rating,Watt FM | 1000 | 500 | 500 |
| Radiation Angle, Deg. | 7 | 7 | 7 |
| Horizontal Radiation Pattern, Degrees | 360 | 360 | 360 |
| Radiator Base Dia, in (cm) | .75 (1.9) | .75 (1.9) | .50 (1.2) |
| Height, ft, (m) | 14 (4.3) | 9.3 (2.8) | 4.9 (1.5) |
| Mast Size Range, in (cm): | 1.0-1.25 (2.54-3.1) | 1.0-1.25 (2.54-3.1) | .75-.88 (1.9-2.22) |
| Wind Load ft $^2$ (m $^2$) | 0.5 (0.05) | 0.3 (0.03) | 20.2 (0.02) |
| Radial Length, in (cm) | 20.5 (52.1) | 3.75 (33.7) | 6.75 (17.1) |
| Weight, lb (kg) | 6 (2.7) | 5 (2.3) | 1 (.45) |

ARX450B
$99.95

ARX220B
$114.95

ARX2B
$109.95

### Ringo

These are the original W1BX F M Ringos. If you want a combination of compact size, wide bandwidth, a low radiation angle, these economical antennas are just for you. Since radials are not needed, you can even use our Ringos indoors. Our Ringos are 1/2 wave and include built-in lightning protection. Put up one of these easily installed antennas and start enjoying FM!

| Specifications: | AR2 | AR6 | AR10 | AR450 |
|---|---|---|---|---|
| Frequency MHz | 135-160 | 50-54 | 28-29.7 | 440-460 |
| Gain, dBi | 3 | 3 | 3 | 3 |
| Radiation Angle, Deg. | 16 | 16 | 16 | 16 |
| Horizontal Radiation Pattern, Degrees: | 360 | 360 | 360 | 360 |
| SWR 1.2:1 Typical. 2:1 Bandwith, MHz | 10 | 2 | >1.5 | 20 |
| Ring Diameter, in (cm) | 5 (12.7) | 13 (33) | 13 (33) | 3.5 (8.9) |
| Radiator Base Dia, in(cm): | .75 (1.9) | 1 (2.5) | 1 (2.5) | .5 (1.3) |
| Height, ft, (m): | 3.9 (1.2) | 10.1 (3.1) | 17.6 (5.36) | 1.4 (.43 |
| Mast Size Range, in (cm) | 1-1.25 | 1-1.25 | 1-1.25) | .75-.88 |
| Wind Load, ft$^2$ (m$^2$) | .21 (.02)) | .37 (.03) | 1.68 (.16) | .1 (.01) |
| Max. Power Watts PEP | 1000W | 1000W | 1000W | 500W |
| Weight, lb (kg): | 1.5 (.68) | 2.5 (1.1) | 4 (1.8) | 1 (.45) |

AR2
$64.95

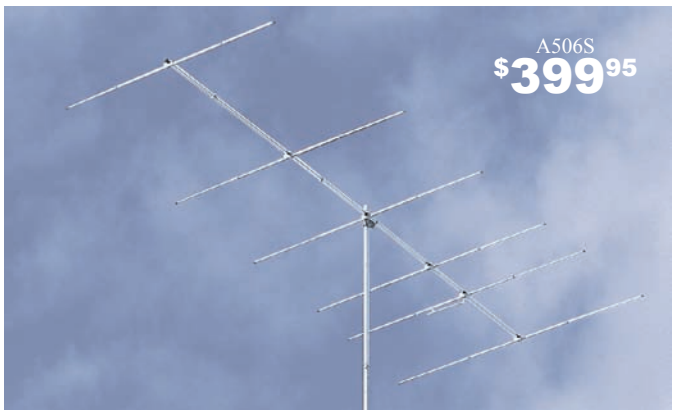
AR6
$99.95

AR10
$109.95

## 6 Meter Yagis - SSB/CW/FMI

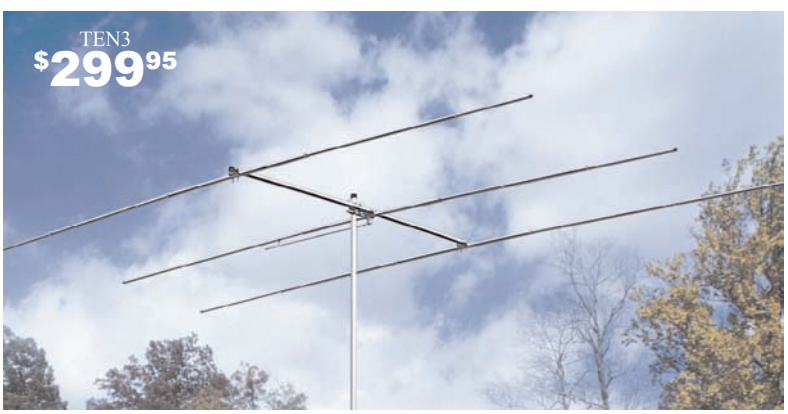
Computer-aided modeling and test range techniques were used by Cushcraft engineers to further optimize the performance of our popular 6 meter Yagis. This process means more gain and cleaner patterns with excellent front-to-back ratios. S-models have very broad bandwidth so they will not detune in bad weather. They feature stainless steel hardware for long trouble-free life. Enjoy the new popularity and exciting contacts on the 6 meter band with one of the S-series Laird Yagis. The A503S, A505S and A506S may be mounted vertically for FM use.






## TEN3 10 Meter Yagi

Looking for a lightweight, economical alternative to the 10 meter big boys? Choose the TEN3. Although it's popular with novices and technicians, this antenna is for any ham who wants more gain with a good front to back ratio on 10 meters. This antenna has an 8 foot boom (2.4m) making it easy to install on a very simple mount with only a light rotator. The matching system is our proven Reddi-Match for 50 Ohm no balun feed and SO-238 connector. Make more positive contacts with the TEN3.




| Specifications: | A503S | A505S | A506S | TEN3 |
|---|---|---|---|---|
| Frequency MHz | 50-54 | 50-54 | 50-54 | 28-29.7 |
| Number of Elements | 3 | 5 | 6 | 3 |
| Gain, dBi | 8 | 10.5 | 11.6 | 8 |
| Front to Back Ratio, dB | 20 | 24 | 26 | 25 |
| Side Lobe Atten. dB | 25 | 25 | 25 | 25 |
| SWR 1.2:1 Typical. 2:1 Bandwith, MHz | >1 | >1 | >1 | >1.5 |
| Longest Element, in (cm) | 117 (300) | 123 (312) | 119 (302) | 18 (5.49) |
| Turning Radius, ft (m) | 6' (1.8) | 7.8' (2.37) | 11.5' (3.5) | 9.8' (3.0) |
| Boom Length, ft (m) | 6' (1.8) | 12' (3.7) | 20' (6.1) | 8' (2.44) |
| Wind Load, ft² (m²) | 1.80 (0.17) | 2.9 (0.273) | 4.46 (.41) | 2.0 (.20) |
| Max. Wind Surface Area | 3.22ft² (3m²) | 3.22ft² (3m²) | 3.22ft² (3m²) | 3.22ft² (3m²) |
| Max. Power Watts PEP | 1000W | 1000W | 1000W | 1500W |
| Weight, lb (kg): | 7 (3.2) | 11 (5.0) | 18 (8.2) | 9.9 (4.45) |

## A13B2 -13 Element Wideband Boomer

The A13B2 is as versatile as the A17B2 is specialized. A13B2 will be your choice for high performance across the entire 2 meter band. New and experienced hams will enjoy 15.8 dBi gain on FM, packet, CW, or sideband across the 4 MHz operating range. The A13B2 is easily mounted vertically or horizontally for maximum performance on your favorite mode. Its optimum boom length makes it a popular antenna that fits just about anywhere. The new UltraMatch balanced feed on the A13B2 provides a 50 Ohm match via a standard SO-239 UHF female connector. Model A13B2N has N connector.


## A17B2 - 17 Element CW/SSB Boomer

The serious two meter operator who is interested in EME, aurora, scatter, SSB, CW, tropo etc, will choose the A17B2. It has 17 elements on a 4.5 wavelength boom. Our computer-aided design supported by precise test range data and the latest manufacturing technology gives you a cleaner pattern and 18 dBi gain in this long boom design. Significant enhancement is provided by the new UltraMatch balanced feed system with N-connector.

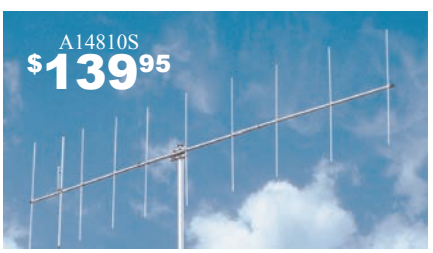

The UltraMatch is a modified T-match system that provides a balanced current distribution on your Boomer. It uses UltraLink teflon¨ dielectric cable allowing for low loss high power applications. UltraMatch is completely enclosed for weather proofing. UltraMatch features an N-connector on the A17B2 and UHF SO239 on the A13B2. When all-weather performance is important, you will choose the new UltraMatched Boomers everytime.

## A26B2 - 26 Element Wideband Boomer

This antenna offers the highest gain of any 2 meter FM antenna in the world. The A26B2 includes 2 complete A13B2 antennas, stacking boom and phasing harnesses.

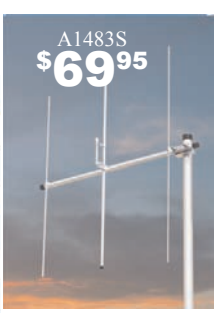

## A124WB - 4 Element Wideband Boomer

This is the right choice for packet systems and other applications requiring a dedicated directional antenna.


## A14810S & A1483S 2M Yagis

These antennas are the newest computer optimized models of our 2 meter Yagis. We have improved both the pattern and gain to give you better FM coverage. The A1483S is the low priced quality leader for Packet, FM or even portable use. It is easily rear mounted. A14810S is one of our best value designs with excellent gain and front-to-back ratio. Use it for long range FM or full band 2 meter operation.




| Specifications: | A13B2 | A17B2 | A124WB | A26B2 | A1483S | A14810S |
|---|---|---|---|---|---|---|
| Frequency MHz | 144-148 | 144-145 | 144-148 | 144-148 | 144-148 | 144-148 |
| Elements per Band | 13 | 17 | 4 | 26 | 3 | 10 |
| Gain, dBi | 15.8 | 18.0 | 10.2 | 17 | 7.8 | 13.2 |
| Front to Back Ratio, dB | 26 | 26 | 19 | 26 | 18 | 24 |
| Side Lobe Atten. dB | >60 | >60 | 40 | >60 | | |
| SWR 1.2:1 Bandwidth MHz | >4 | >2 | 4 | >4 | >5 | [3]4 |
| Longest Element, in (cm) | 39.75 (101) | 40.75 (103.5) | 40.75 (104) | 39.75 (101) | 41 (104.1) | 40.3 (102.4) |
| Turning Radius, ft (m) | 8.9 (2.7) | 17.25 (5.26) | 4 (1.22) | 10.4 (3.18) | 2.8 (.8) | 6 (1.8) |
| Boom Length, ft (m) | 15 (4.57) | 31 (9.45) | 4 (1.22) | 15 (4.57) | 2.8 (.85) | 12 (3.6) |
| Electrical Wavelength | 2.2 | 4.5 | .5 | 2.2 | | |
| Wind Load ft $^2$ (m $^2$) | 1.8 (.17) | 3.9 (.36) | .34 (.034) | 4.84 (.45) | .27 (.02) | 1.21 (.11) |
| Max. Power Watts PEP | 1500W | 1500W | 1500W | 1500W | 1000W | 1000W |
| Weight, lb (kg) | 6.7 (.31) | 15.75 (7.14) | 3 (1.36) | 21.5 (9.75) | 1.5 (.7) | 6 (2.7) |

## A14820T
## 2 Meter Hi-Lo Cross Yagi

Here's the antenna that solves multi-mode problems! Ten vertically polarized and ten horizontally polarized elements provide 11.1 dBi gain covering 144-148 MHz. The horizontal elements handle your CW and SSB needs, while the vertical elements cover FM. Hardware is stainless steel. Separate coax feeds allow polarization changes.

## A224WB
## 220 MHz Widebands

This 222 MHz 4 element beam is perfect for Packet, FM repeaters, or sideband/CW. It can be mounted for vertical or horizontal polarization.


| Specifications: | A224WB | A14820T |
|---|---|---|
| Frequency MHz | 222-225 | 144-148 |
| Number of Elements | 4 | 10/10 |
| Forward Gain, dBi | 10.2 | 13 |
| Front to Back Ratio, dB | 20 | 24 |
| SWR 1.2:1 Typical<br>2:1 Bandwidth, MHz | >5 | >4 |
| Power Rating, Watts PEP (FM) | 1500 (750) | 1000 (500) |
| 3dB Beamwidth, Degrees<br>E Plane<br>H Plane | <br>60<br>88 | <br>45<br>50 |
| Side Lobe Attenuation,<br>dB E Plane | 40 | 40 |
| Boom Length, ft (m) | 3 (.91) | 1(3.4) |
| Electrical Wavelength | 0.5 | 1.6 |
| Longest Element, in (cm) | 26.7 (68) | 40.6 (103) |
| Turning Radius, ft (m) | 3 (.91) | 7.5 (2.3) |
| Mast Size Range, in (cm) | 1.25-2<br>(3.2-5.1) | 1.25-2<br>(3.2-5.1) |
| Wind Load, ft2 (m2) | .23 (.021) | 0.39(0.11) |
| Weight, lb (kg) | 1.7 (.77) | 7 (3.15) |


## A4496S/A44911S
### 440 MHz Beams

Use one of these 440 MHz beams for yourFM/Packet needs. Both work great for vertical or horizontal polarization.

## A719B
## FM, CW and SSB 15.5 dBi

Looking for an antenna to enhance performance on all modes of the 70 CM band? The 13.5 foot long 719B is the right choice. Mount it vertical for FM or horizontal for CW and Sideband. The 719B joins the 2 meter 13B2 as a classic for improved performance.

| Specifications: | A719B $249.95 | A43011S $119.95 | A4496S $79.95 | A44911S $109.95 |
|---|---|---|---|---|
| Frequency MHz | 430-450 | 430-440 | 440-450 | 440-450 |
| Number of Elements | 19 | 11 | 6 | 11 |
| Forward Gain, dBi | 15.5 | 13.2 | 10.5 | 13.2 |
| Front to Back Ratio, dB | 25 | 20 | 18 | 20 |
| SWR 1.2:1 Typical<br>2:1 Bandwidth, MHz | 20 | >10 | >10 | >10 |
| Power Rating, Watts PEP | 2000 | 350 | 350 | 350 |
| 3dB Beamwidth, Degrees<br>E Plane<br>H Plane | <br>24<br>19 | <br>48 | <br>60 | <br>48 |
| Side Lobe Atten.,dB,E Plane | 60 | 40 | 30 | 40 |
| Boom Length, ft (m) | 13.5 (4.1) | 4.6 (1.39) | 2.9 (0.89) | 4.4 (1.35) |
| Connector Type | N | UHF | UHF | UHF |
| Longest Element, in (cm) | 13.75 (34.9) | 14 (35) | 13 (33) | 13 (33) |
| Turning Radius, ft (m) | 7.25 (2.2) | 2.8 (.85) | 2.9 (.89) | 2.8 (.85) |
| Mast Size Range, in (cm) | 1.25-2<br>(3.2-5.1) | 1.25-1.5<br>1.25-1.5 | 1.25-2.0<br>(3.2-5.1) | 1.25-1.5<br>1.25-1.5 |
| Wind Load, ft2 (m2) | 1.2 (.11) | 0.42 (0.04) | 0.30 (0.03) | 0.39 (0.04) |
| Weight, lb (kg) | 5.6 (2.55) | 4 (1.8) | 3 (1.4) | 4 (1.8) |


## Power Dividers For Boomers

Our power dividers make it a snap to stack Laird Boomers. Just add equal lengths of 50-Ohm coax to each of the antenna feed points.

**PD-2, $69.95.** For two 2 m or 70cm Beams.
**PD-4, $89.95.** For four 2 m or 70cm Beams.
**Order** PD2N, PD4N for "N" connectors.