

## PORTABLE RADIO ANTENNAS

The following chart summarizes performance, size and cost parameters for various antenna types.

### ANTENNA PERFORMANCE CHART

| Type                 | Bandwidth | Performance   | Length  | Connector      | Frequency       | Pricing    |
|----------------------|-----------|---------------|---------|----------------|-----------------|------------|
| Helical Short        | 6%        | Poor (**)     | Short   | All            | VHF/UHF         | \$\$       |
| Helical              | 8%        | Average (***) | Shorter | All            | Low/Mid/VHF/UHF | \$\$       |
| Helical Quarter Wave | 12%       | Good (***)    | Longer  | All except SMA | VHF             | \$\$       |
| Whip                 | 12%       | Good (***)    | Mid     | All            | UHF             | \$         |
| End Fed Half Wave    | 10%       | Better (****) | Longer  | Coaxial        | 800             | \$\$\$     |
| Half Wave Dipole     | 10%       | Best (*****)  | Longer  | Coaxial        | 800             | \$\$\$\$   |
| Wide Band            | 25%       | Good (***)    | Longer  | Coaxial        | All             | \$\$\$\$\$ |
| Dual Band            | 2x8%      | Average (***) | Mid     | Coaxial        | VHF/UHF         | \$\$       |

Due to the high variability of use, measurements are difficult to make on portable antennas. All Larsen portable antenna designs are tested for gain and VSWR using a standard fixture for portable antennas. Gain measurements are determined based on range or chamber measurements. Performance ratings are determined using a VSWR standard of less than 2.0:1.

### Skyline Series: Dualband Portable Antenna



**SMA F T2**  
SMA Female recessed insulator & partial(long) skirt (SFU type)  
Popular Brands Supported  
Standard

| PART NUMBER   | FREQUENCY BAND (MHz) | ANTENNA TYPE | APPROXIMATE LENGTH |
|---|----------------------|--------------|--------------------|
| SMA Female Standard - Half Skirt Base - T3 (SFU Type) |                      |              |                    |
| SLHL23365   | 350-380 1559-1606    | Helix 1/4λ   | 3.5"               |
| SLHL23375   | 350-400 1559-1606    | Helix 1/4λ   | 3.5"               |
| SLHL23415   | 400-430 1559-1606    | Helix 1/4λ   | 3.5"               |
| SLHL23435   | 400-470 1559-1606    | Helix 1/4λ   | 3.5"               |
| SLWH23415   | 400-430 1559-1606    | Whip 1/4λ    | 5.8"               |
| SLWH23435   | 400-470 1559-1606    | Whip 1/4λ    | 5.8"               |



**SMA MALE T2**  
SMA Male partial (long) skirt  
Popular Brands  
Standard

| PART NUMBER                              | FREQUENCY BAND (MHz) | ANTENNA TYPE | APPROXIMATE LENGTH |
|--|----------------------|--------------|--------------------|
| SMA Male Standard - Half Skirt Base - T2 |                      |              |                    |
| SLHL24365                                | 350-380 1559-1606    | Helix 1/4λ   | 3.5"               |
| SLHL24375                                | 350-400 1559-1606    | Helix 1/4λ   | 3.5"               |
| SLHL24415                                | 400-430 1559-1606    | Helix 1/4λ   | 3.5"               |
| SLHL24435                                | 400-470 1559-1606    | Helix 1/4λ   | 3.5"               |
| SLWH24415                                | 400-430 1559-1606    | Whip 1/4λ    | 5.8"               |
| SLWH24435                                | 400-470 1559-1606    | Whip 1/4λ    | 5.8"               |



\*MADE IN THE USA

## PORTABLE RADIO ANTENNAS

All factory tuned Kulduckies® are exact tuned to your specified frequency

\* To order, replace the FREQ, UHF or VHF designation with your desired centered frequency.



### KULDUCKIE® FREQUENCY COLOR CODE

| VHF FREQUENCY | COLOR  | UHF FREQUENCY | COLOR |
|---------------|--------|---------------|-------|
| 136 - 140 MHz | Blue   | 406 - 420 MHz | Black |
| 142 - 149 MHz | Green  | 450 - 469 MHz | Black |
| 150 - 160 MHz | Yellow | 470 - 512 MHz | Black |
| 162 - 174 MHz | Red    | 150 / 450 MHz | Blue  |

### Kulduckie®

All factory tuned KulDUCKIES® are ExactTuned to your specified frequency.

\*[To order, replace the FREQ, UHF or VHF designation with your desired center frequency]



**1/4-32X3/16**  
Male stud type mount with skirt (MX type)  
KD2/12

| PART NUMBER | ELECTRICAL TYPE  | FREQUENCY BAND | APPROX LENGTH |
|-------------|------------------|----------------|---------------|
| 1/4-32x3/16 |                  |                |               |
| KD2FREQHQ1* | HQ Helical 1/4 λ | 136 - 140 MHz  | 9 1/2"        |
| KD2FREQHQ2* | HQ Helical 1/4 λ | 142 - 149 MHz  | 9 1/2"        |
| KD2FREQHQ3* | HQ Helical 1/4 λ | 150 - 161 MHz  | 9 1/2"        |
| KD2FREQHQ4* | HQ Helical 1/4 λ | 162 - 174 MHz  | 9 1/2"        |



**TNC**  
TNC Male coaxial connector unskirted (TN type)  
KD3/13

| PART NUMBER | ELECTRICAL TYPE  | FREQUENCY BAND | APPROX LENGTH  |
|-------------|------------------|----------------|----------------|
| TNC MALE    |                  |                |                |
| KD3FREQHQ1* | HQ Helical 1/4 λ | 136 - 140 MHz  | 9 1/2"         |
| KD3FREQHQ2* | HQ Helical 1/4 λ | 142 - 149 MHz  | 9 1/2"         |
| KD3FREQHQ3* | HQ Helical 1/4 λ | 150 - 161 MHz  | 9 1/2"         |
| KD3FREQHQ4* | HQ Helical 1/4 λ | 162 - 174 MHz  | 9 1/2"         |
| KD3FREQHQ5* | HQ Helical 1/4 λ | 220 - 222 MHz  | 9 1/2"         |
| KD13(freq)* | 1/4 λ            | 406 - 960 MHz  | 6"             |
| TNCQ*       | 1/4 λ            | 136 - 512 MHz  | Varies by freq |



**BNC**  
BNC Male coaxial connector unskirted  
KD4/14

| PART NUMBER  | ELECTRICAL TYPE  | FREQUENCY BAND | APPROX LENGTH  |
|--------------|------------------|----------------|----------------|
| BNC MALE     |                  |                |                |
| KD4UHF*      | Helical 1/4 λ    | 406 - 512 MHz  | 3"             |
| KD4VHF1*     | Helical 1/4 λ    | 136 - 141 MHz  | 8"             |
| KD4VHF2*     | Helical 1/4 λ    | 142 - 149 MHz  | 8"             |
| KD4VHF3*     | Helical 1/4 λ    | 150 - 161 MHz  | 8"             |
| KD4VHF4*     | Helical 1/4 λ    | 162 - 174 MHz  | 8"             |
| KD4FREQHQ1*  | HQ Helical 1/4 λ | 136 - 140 MHz  | 9 1/2"         |
| KD4FREQHQ2*  | HQ Helical 1/4 λ | 142 - 149 MHz  | 9 1/2"         |
| KD4FREQHQ3*  | HQ Helical 1/4 λ | 150 - 161 MHz  | 9 1/2"         |
| KD4FREQHQ4*  | HQ Helical 1/4 λ | 162 - 174 MHz  | 9 1/2"         |
| KD4150T*     | Helical 1/4 λ    | 130 - 180 MHz  | Varies by freq |
| KD14(freq)*  | 1/4 λ            | 406 - 960 MHz  | 6"             |
| KD14FREQHW1* | HW UHF 1/2 λ     | 315 - 409 MHz  | 16 1/2"        |
| KD14FREQHW2* | HW UHF 1/2 λ     | 416 - 504 MHz  | 16 1/2"        |
| BNCQ*        | 1/4 λ            | 136 - 512 MHz  | Varies by freq |



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\* To order, replace the FREQ, UHF or VHF designation with your desired centered frequency.

| PART NUMBER | ELECTRICAL TYPE  | FREQUENCY BAND | APPROX LENGTH |
|-------------|------------------|----------------|---------------|
| 5/16-32X3/8 |                  |                |               |
| KD7FREQHQ1* | HQ Helical 1/4 λ | 136 - 140 MHz  | 9 1/2"        |
| KD7FREQHQ2* | HQ Helical 1/4 λ | 142 - 149 MHz  | 9 1/2"        |
| KD7FREQHQ3* | HQ Helical 1/4 λ | 150 - 161 MHz  | 9 1/2"        |
| KD7FREQHQ4* | HQ Helical 1/4 λ | 162 - 174 MHz  | 9 1/2"        |



5/16-32X3/8  
Male stud type mount (KR type)  
KD7

| PL-259      |                  |               |                |
|-------------|------------------|---------------|----------------|
| KD9FREQHQ1* | HQ Helical 1/4 λ | 136 - 140 MHz | 9 1/2"         |
| KD9FREQHQ2* | HQ Helical 1/4 λ | 142 - 149 MHz | 9 1/2"         |
| KD9FREQHQ3* | HQ Helical 1/4 λ | 150 - 161 MHz | 9 1/2"         |
| KD9FREQHQ4* | HQ Helical 1/4 λ | 162 - 174 MHz | 9 1/2"         |
| KD19(freq)* | 1/4 λ            | 406 - 512 MHz | 6"             |
| PQ*         | 1/4 λ            | 144 - 512 MHz | Varies by freq |



PL-259  
Standard UHF Connector Male  
KD9/19

| 5/16-24 THDS Female |                  |               |        |
|---------------------|------------------|---------------|--------|
| KD22VHF1*           | Helical 1/4 λ    | 136 - 141 MHz | 8"     |
| KD22VHF2*           | Helical 1/4 λ    | 142 - 149 MHz | 8"     |
| KD22VHF3*           | Helical 1/4 λ    | 150 - 161 MHz | 8"     |
| KD22VHF4*           | Helical 1/4 λ    | 162 - 174 MHz | 8"     |
| KD22FREQHQ1*        | HQ Helical 1/4 λ | 136 - 140 MHz | 9 1/2" |
| KD22FREQHQ2*        | HQ Helical 1/4 λ | 142 - 149 MHz | 9 1/2" |
| KD22FREQHQ3*        | HQ vv 1/4 λ      | 150 - 161 MHz | 9 1/2" |
| KD22FREQHQ4*        | HQ Helical 1/4 λ | 162 - 174 MHz | 9 1/2" |



516-24THDS Female  
Female threaded  
KD22



## SPOTS!

### SPOTS! FREQUENCY COLOR CODE (SEE COLOR SPOT ON ANTENNA TOP)

| VHF | CENTER FREQUENCY | COLOR  |
|-----|------------------|--------|
| 144 | 138 - 150 MHz    | Gray   |
| 156 | 150 - 162 MHz    | Orange |
| 160 | 154 - 166 MHz    | Green  |
| 167 | 160 - 174 MHz    | Red    |

| UHF | CENTER FREQUENCY | COLOR  |
|-----|------------------|--------|
| 420 | 403 - 437 MHz    | Blue   |
| 450 | 432 - 468 MHz    | Yellow |
| 470 | 450 - 490 MHz    | Red    |
| 490 | 470 - 510 MHz    | Green  |

| 800 / 900 | CENTER FREQUENCY | COLOR |
|-----------|------------------|-------|
| 832       | 795 - 870 MHz    | Blue  |
| 918       | 872 - 964 MHz    | Red   |
| 1800      | 1710 - 1850 MHz  | Black |
| 1900      | 1850 - 1990 MHz  | Black |
| 2400      | 2400 - 2500 MHz  | Black |



### SPOTS! CODE ANTENNA SELECTION GUIDE BY CONNECTOR TYPE

Determine connector type on the following pages and select the proper antenna based on frequency and type below. Field tunable antennas come with a cutting chart and cap to allow for tuning to exact frequency.



1/4-32X3/16  
Male stud type mount with skirt (MX type)

#### Popular Brands Supported

Motorola, Kenwood, Maxon, Midland, Wilson, G.E., Vertex

#### 1/4-32X3/16 - MALE STUD CONNECTOR (MX TYPE)

| PART NUMBER  | FREQUENCY BAND (MHZ)    | ANTENNA TYPE             | APPROX LENGTH |
|--------------|-------------------------|--------------------------|---------------|
| SPHL10156    | 150 - 162               | Helical Standard 1/4 λ   | 8"            |
| SPHS10156    | 152 - 160               | Helical Short 1/4 λ      | 4"            |
| SPHL10160    | 154 - 166               | Helical Standard - 1/4 λ | 8"            |
| SPHL10160IC* | CC to 157               | Helical Standard 1/4 λ   | 8"            |
| SPHL10167    | 160 - 174               | Helical Standard 1/4 λ   | 8"            |
| SPHL10167IC* | CC to 167               | Helical Standard 1/4 λ   | 8"            |
| SPWH10420    | 395 - 445               | Whip Standard 1/4 λ      | 6"            |
| SPHS10420    | 403 - 437               | Helical Short 1/4 λ      | 3"            |
| SPWH10450    | 425 - 475               | Whip Standard 1/4 λ      | 6"            |
| SPHS10450    | 432 - 468               | Helical Short 1/4 λ      | 3"            |
| SPWH10470    | 450 - 490               | Whip Standard 1/4 λ      | 6"            |
| SPHS10470    | 452 - 488               | Helical Short 1/4 λ      | 3"            |
| SPHL10FT     | Field Tunable 136 - 221 | Helical Standard 1/4 λ   | 8"            |
| SPWH10FT     | Field Tunable 400 - 512 | Whip Standard 1/4 λ      | 6"            |

\* This antenna is designed with a longer "skirt" for use with ICOM radios.