

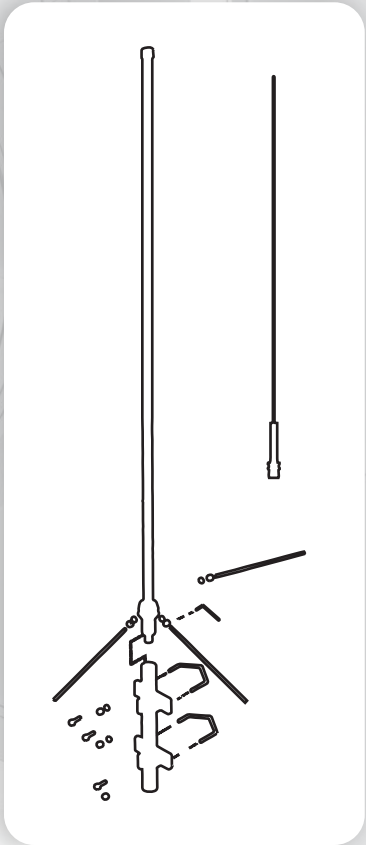
# LT-ANTL406-512-6.5

## UHF CUT-TUNED BASE STATION ANTENNA

The LT-ANTL406-512-6.5 is a UHF cut-tuned base station antenna covering the 406–512 MHz band. With a 6.5 dBd gain and 200 W power handling, it is designed for reliable performance across a wide frequency range. Using a three-section 5/8λ design with ground radials, this antenna offers flexibility, lightweight construction, and durable outdoor operation for professional communication networks.

### Key Features

- Frequency range: 406–512 MHz (cut-tuned adjustment)
- Gain: 6.5 dBd
- 200 W maximum input power
- Low VSWR ( $\leq 1.5$ )
- SO-239 connector for PL-259 compatibility
- Three-section radiator design for flexible tuning
- Lightweight (~1.0 kg) for easy installation
- Wind resistance: up to 130 mph (55 m/s)
- Supplied with U-Bolts, brackets, and ground radials



| Feature           | LT-ANTL406-512-6.5                                   |
|-------------------|--|
| Frequency Range   | 406–512 MHz (cut-tuned)                              |
| Gain              | 6.5 dBd  |
| VSWR              | $\leq 1.5$   |
| Impedance         | 50 $\Omega$  |
| Polarization      | Vertical   |
| Max. Power        | 200 W  |
| Connector         | SO-239   |
| Radiation Pattern | Omnidirectional (3-section 5/8λ design)              |
| Length            | Adjustable (per cut chart)                           |
| Weight            | ~1.0 kg  |
| Wind Rating       | 130 mph (55 m/s)                                     |
| Mounting          | Support pipe, U-Bolts, and ground radials (supplied) |

### Applications

UHF base station communications  
Public safety and emergency services  
Wide-area networks requiring flexible frequency tuning  
Industrial and transportation networks  
Lightweight and cost-effective deployment

### Ordering Information

The LT-ANTL406-512-6.5 belongs to the Cut-Tuned Antenna Series (200 W, radial-mount design). Other available models in this series include:

LT-ANTL134-184-4.5 (134–184 MHz)  
LT-ANTL144-174-6.7 (144–174 MHz)

Custom options are available upon request, including frequency tuning, connector types, and mounting accessories.



# LT-ANTL406-512-6.5

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### Cutting Chart

| Frequency (MHz) | L1 (mm) | L2 (mm) | L3 (mm) |
|-----------------|---------|---------|---------|
| 400             | 445     | 340     | 485     |
| 405             | 445     | 340     | 485     |
| 410             | 445     | 340     | 455     |
| 415             | 445     | 340     | 455     |
| 420             | 445     | 340     | 415     |
| 425             | 445     | 340     | 415     |
| 430             | 445     | 340     | 395     |
| 435             | 440     | 335     | 390     |
| 440             | 440     | 335     | 390     |
| 442             | 430     | 335     | 390     |
| 444             | 390     | 335     | 390     |
| 448             | 380     | 325     | 385     |
| 452             | 370     | 325     | 385     |
| 457             | 360     | 320     | 380     |
| 461             | 355     | 315     | 380     |
| 466             | 345     | 310     | 380     |

### Package Content

| No. | Description                     | Qty. |
|-----|---------------------------------|------|
| 1   | Outer tube                      | 1    |
| 2   | Radials with nut, spring washer | 3    |
| 3   | Metal antenna base              | 1    |
| 4   | Locking screw                   | 3    |
| 5   | Locking washer                  | 4    |
| 6   | Locking nut                     | 4    |
| 7   | Supporting pipe                 | 1    |
| 8   | U-Bolt                          | 2    |
| 9   | Bracket                         | 2    |
| 10  | Wrench                          | 1    |

### Adjustments

The LT-ANTL406-512-6.5 operates across the 406–512 MHz band by cut-tuning the radiator elements.

Unfasten the locking screw on the metal antenna base (part #3).

Pull out the SO-239 connector and slide the radiator element off the outer tube.

Cut the radiator sections L1, L2, and L3 according to the cutting chart.

Reassemble the radiator sections, fastening securely with screws.

Slide the radiator back into the outer tube and push the SO-239 connector into place.

Tighten the locking screw with a wrench (part #10).

### Re-assembly

Screw the three radials (part #2) into the threaded holes on the metal base (part #3). Hand-tighten, then secure with the locking nuts using a wrench.

Secure the support pipe (part #7) to the mounting pole (not included) using the supplied brackets (part #9), U-bolts (part #8), locking screws (part #4), and washers (parts #5, #6). Tighten firmly with a wrench or screwdriver.

Run the cable from the radio through the support pipe (part #7) and attach the PL-259 connector to the SO-239 socket at the antenna base.

Insert the antenna into the support pipe, aligning the threaded hole with the locking screw hole. Insert the locking screw (part #4) and tighten securely.

