LT-ANTL406-512-6.5

Vertical Fibergalss Base Antenna | 406-512 MHz | 6.5 dBd

Key Features :

- Frequency Range: 406-512 MHz
- Gain: 6.5 dBi
- Impedance: 50 Ohms
- Construction: Durable fiberglass radome with a protective ultraviolet-inhibiting coating
- VSWR: ≤ 1.5:1
- Power Rating: 200 W

Product Overview :

The LT-ANTL406-512-6.5 is a high-performance omnidirectional base station antenna designed for VHF wide-band applications. Its collinear design is enclosed in high-density white fiberglass, providing durability and protection against environmental factors. The antenna is lightweight and easy to install, with included tuning instructions to optimize communication system performance.

Specification :

LT-ANTL406-512-6.5	
Antenna Gain	6.5 dBd
VSWR	less than 1.5:1
Frequency Range	406-512 MHz (VHF Band) (by antenna element cut-tuning)
Polarization	Vertical
Impedance	50 Ω
Power Capacity	200 W
Connector	SO-239
Omnidiretional	3-sec. 5/8λ design
Length	2.95 meters (2 sections)
Weight	About 1.0 Kg
Max. Wind	130 mph (55m/sec)

Applications :

- Public Safety Communications (TETRA, LTE Band 28)
- Land Mobile Radio (LMR)
- Base Station Antenna Systems
- Remote Monitoring and IoT Gateways
- Oil & Gas / Utility Infrastructure

Adjustments

LT-ANTL406-512-6.5 works well on any frequency between 406 – 512 MHz by radiator element cut-tuning. Please refer to the drawing on page 2 of this instruction sheet. Unfasten the locking screw on the metal antenna base (part #3) of LT-ANTL406-512-6.5. Pull SO-239 connector out and slide the radiator element off the outer tube carefully. Unfasten the screws on the radiator with a screw driver. Cut the L1/L2/L3 to proper length according to the cutting chart. Then assemble three parts of radiator elements and fasten screw with a screw driver. Slide the radiator back into the outer tube and push SO-239 to proper position then fasten the locking screw with a wrench (part #10). Now you can follow below “Assembly step 1 to step 4“ to install LT-ANTL406-512-6.5.

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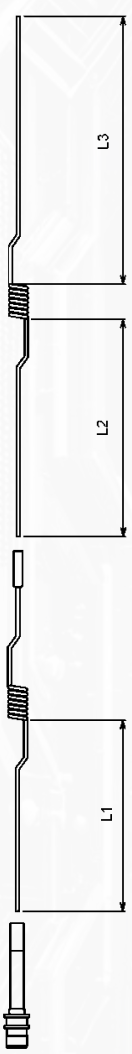
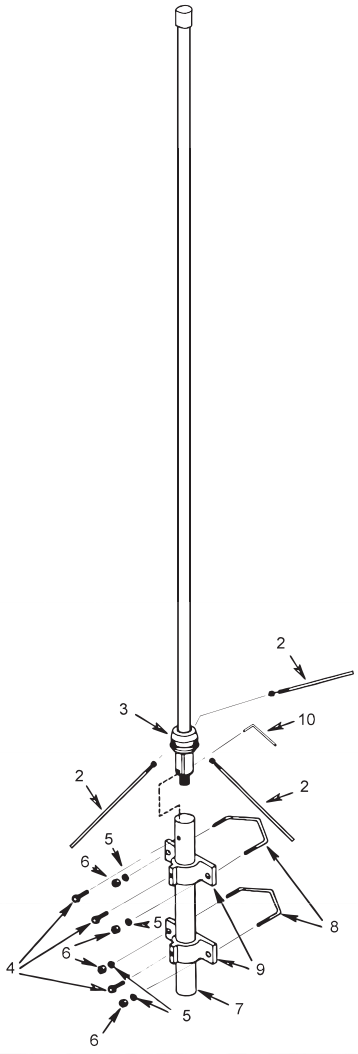
Cutting Chart			
Frequency (MHz)	Length (mm)		
	L1	L2	L3
400	445	340	485
405	445	340	485
410	445	340	455
415	445	340	455
420	445	340	415
425	445	340	415
430	445	340	395
435	440	335	390
440	440	335	390
442	430	335	390
444	390	335	390
448	380	325	385
452	370	325	385
457	360	320	380
461	355	315	380
466	345	310	380
470	335	310	380
475	325	300	375
480	315	295	375
486	305	295	375
491	300	290	375
495	285	285	370
495	285	285	370
502	270	275	365
508	265	275	365
512	260	275	365





Assembly

1. Refer to the drawing (page 2).
2. Put the locking nut and washer onto the ground plane radials, then screw the three radials (part #2) into threaded holes on the metal antenna base (part #3) and tighten them by fingers. Secure the radials by tightening locking nuts with wrench.
3. Secure the supporting pipe (part #7) to the mounting pole (not included) on desired location by using brackets (part #9), U-bolts (part #8), locking screws (part #4), locking washers (part #5), and locking nuts (part #6) supplied. Tighten them securely with a wrench or screw driver.
4. Run up the cable from radio through supporting pipe (part #7) and screw PL-259 on cable end tightly onto SO-239 connector at the bottom of antenna. Assemble antenna into support pipe with open threaded hole turned so that it will align with hole on support pipe for locking screw. Screw the locking screw (part #4) into hole and tighten it securely with wrench or screw driver.

Parts		
No.	Description	Qty.
1	Outer tube	1
2	Radials with nut, spring washer	3
3	Mast	1
4	Locking screw	3
5	Locking washer	4
6	Nut	4
7	Supporting pipe	1
9	Bracket	2
10	Wrench	1