

# LT-ANT-138-174-3DF

## VHF HIGH-GAIN BASE STATION ANTENNA

The LT-ANT-138-174-3DF is a high-performance fiberglass omnidirectional base antenna optimized for VHF communication systems operating within the 138–174 MHz frequency range. Delivering a  $3\pm1$  dBi gain and a full  $360^\circ$  horizontal beamwidth, it provides stable and consistent coverage ideal for demanding communication networks. Built with rugged fiberglass construction and an IP65 waterproof rating, the LT-ANT-138-174-3DF ensures long-lasting reliability and superior performance in both urban and remote outdoor environments.

### Key Features

- **Wide Frequency Range:** Covers 138–174 MHz, ideal for a broad range of VHF communication systems.
- **High Gain Performance:** Delivers  $3\pm1$  dBi gain for enhanced signal strength and long-distance coverage.
- **Omnidirectional Coverage:** Provides  $360^\circ$  horizontal beamwidth for reliable, all-direction communication.
- **Rugged Fiberglass Construction:** Built with durable fiberglass radome for long-term outdoor performance.
- **All-Weather Operation:** Rated IP65 waterproof and resistant to salt spray, ensuring dependable operation in extreme conditions.

Electrical Specifications	
Frequency Range	138~174 MHz
Bandwidth(MHz)	Wide Band
Polarization	Vertical
Gain	$3\pm1$ dBi
Horizontal Beamwidth	$360^\circ$
Vertical Beamwidth	$68\pm15^\circ$
Horizontal Unroundness	$\pm1.5$ dB
Impedance	50 $\Omega$
VSWR	$\leq 1.5$
Maximum Input Power	500 W
Mechanical Specifications	
Connector Type	DIN-F
Connector Position	Bottom
Antenna Size	$\phi 70^*$ (1450 $\pm$ 20) mm
Antenna Weight	2.5 $\pm$ 0.05 (exclude the bracket) Kg
Radome Material	Fiberglass
Radome Color	Blue @Fiberglass
Operating Temperature	-50~+70
Relative Humidity	5~95 %
Rated Wind Velocity	60 m/s
Salt Spray Resistance	96Hour Neutral GB/T 2423.17-2008)
Waterproofing Grade	IP65
Applications	Outdoor
Mounting Diameter	$\phi 70$ - $\phi 114$
Mounting Kit	Butterfly Bracket

### Applications

VHF base station and repeater networks  
Public safety and emergency communications  
Aviation, marine, and transportation networks  
Critical infrastructure coverage  
Wide-area urban and rural deployments

### Ordering Information

The LT-ANT-138-174-3DF belongs to the Base Station Antenna Series ( $3\pm1$  dBi, 500W, slim 3 m radome). Other available models in this other series :

LT-ANT-138-174-3DF (138-174 MHz)  
LT-ANT-400-440-3DF (400-440 MHz)  
LT-ANT-440-480-3DF (400-480 MHz)

Custom options are available upon request, including specific frequency ranges, connector types, and channel bandwidths.

