



400 – 512 MHz

# DIRECTIONAL STATION ANTENNA

## LS-436

The Model LS-436 is a dual dipole feed, corner reflector antenna. The antenna is specifically designed to work over very broadband operation and extremely harsh environmental conditions while providing 12 db of antenna gain with low input VSWR.

One of the LS-436's special design features is that the reflector sides are hinged and fold together to make a compact assembly for shipment while also making installation in the field very easy and quick. The antenna is factory-assembled and tested in our factory test range prior to shipment. It requires no field adjustments or tuning at the installation site.

Mechanically, the reflector screen is constructed of 3/4-inch square aluminum tubes for the frame and 3/8-inch diameter aluminum rods for the reflector panels. All aluminum surfaces are iridite-treated to provide a long, corrosion-free life. The dipole feed structure is constructed of brass and matched to the low VSWR through a broadband balun. The feed is totally enclosed in a plastic radome to prevent detuning due to ice deposits.

Three galvanized steel mounting clamps are furnished with the LS-436 in order to attach the antenna to any 1- to 3-inch-O.D. cylindrical mast.



### ELECTRICAL DATA

**Frequency:**

LS-436A.....400 – 460 MHz  
LS-436B.....460 – 512 MHz

**Bandwidth**.....55 MHz

**Gain**.....12.0 dbd

**Input Impedance**.....50 ohms nominal

**VSWR**.....1.5 : 1.0 or less

**Maximum Power Input**.....250 watts

**Beamwidth (3 db):**

Horizontal.....35°  
Vertical.....40°

**Front-to-Back Ratio**.....21 db or better

**Lightning Protection**.....Direct ground

**Termination**.....Type N male connector attached to a 22" length of RG-213/U coaxial cable.  
(Other connectors available upon request.)

### MECHANICAL DATA

**Material:**

Support Frame.....6061-T6 aluminum  
Reflector Panels.....6061-T6 aluminum  
Radiating Dipole.....Brass  
Mounting Clamps.....Galvanized steel

**Reflector Size:**

Height.....48 inches  
Width.....50 inches  
Depth.....25 inches

**Wind Rating:**

Survival (w/o ice).....150 mph  
Survival (w/ 1/2" radial ice).....100 mph

**Maximum Exposed Area**.....5.3 – 5.5 sq. ft.

**Lateral Thrust at 100 mph**.....159 lbs.

**Weight**.....41 – 44 lbs.

**Shipping Weight**.....55 lbs.

**Mounting**.....Three galvanized steel clamps are supplied for attachment to a round member up to 3" in diameter. (Other mounts may be ordered.)