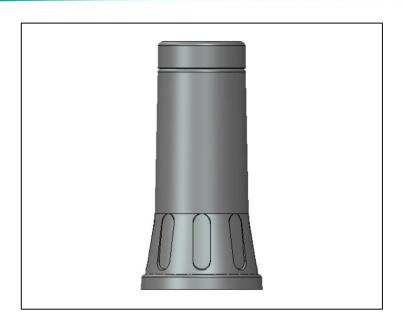




**Series: LPT Antenna** 

# **Description: LPT 450-512MHz Antenna**

PART NUMBER: LPT450/512NMO



# Ø 31.8 [ 1.25" ] 668 8 256 9 44.2 [ 1.74" ]

# Features:

- Wide Bandwidth
  - Support wider BW modern radios
- Excellent Gain
- Excellent VSWR
  - 2:1 at 450-512Mhz
  - 2.3:1 at 450-520Mhz
- Low Profile (3.5 " tall)
- NMO Mount

# **Applications:**

- Public Safety
  - Police
  - Fire
  - Ambulance
- Most Demanding Applications:
  - High Gain (4.6 dBi peak)
- Dealers seeking fewer stocking SKUs.

All dimensions are in mm / inches

Issue: 1627

In the effort to improve our products, we reserve the right to make changes judged to be necessary.  $\texttt{CONFIDENTIAL} \ \texttt{AND} \ \texttt{PROPRIETARY} \ \texttt{INFORMATION}$ 

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### **TECHNICAL DATA SHEET**

**Description: LPT 450-512MHz Antenna** 

**Series: LPT Antenna** 

PART NUMBER: LPT450/512NMO

# **ELECTRICAL SPECIFICATIONS**

Antenna type Monopole, Measured on Ø1.3M (Ø51") ground plane

Frequency 450-512 MHz

Nominal Impedance  $50 \Omega$ 

VSWR 2:1

Gain 4.6 dBi

HPBW / H-Plane 360°

HPBW / E-Plane 40°

Polarization Vertical

Power withstanding 100 W

E.S.D. Protection DC Grounded

Connector type NMO



### **TECHNICAL DATA SHEET**

**Description: LPT 450-512MHz Antenna** 

**Series: LPT Antenna** 

PART NUMBER: LPT450/512NMO

# **MECHANICAL SPECIFICATIONS**

Plastic radome MACROBLEND

Color BLACK

Ingress Protection IP67

Weight 105 g

Overall Length 89.9 mm

Fixing system NMO Mount Required

# **ENVIRONMENTAL SPECIFICATIONS**

Operating temperature

-40 ~ +85° C



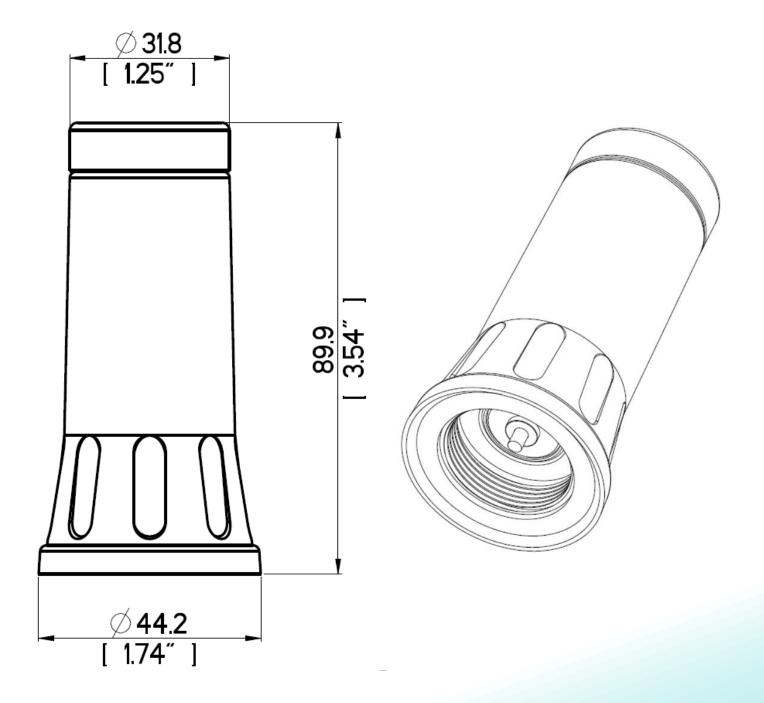




**Series: LPT Antenna** 

PART NUMBER: LPT450/512NMO

# **MECHANICAL DRAWING**









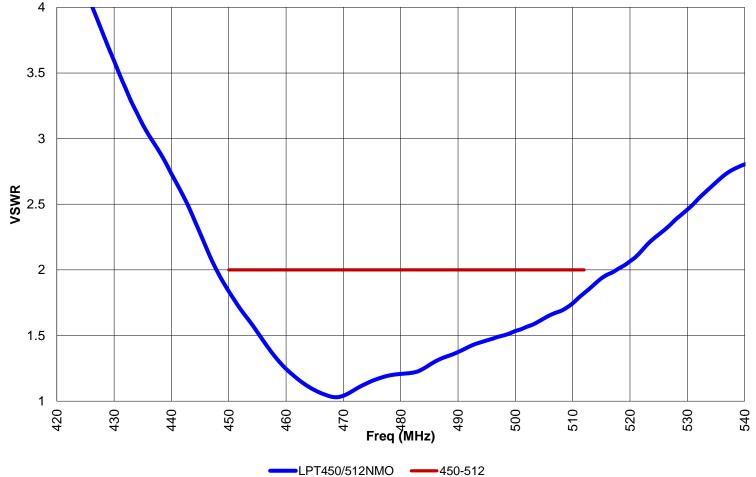


**Series: LPT Antenna** 

PART NUMBER: LPT450/512NMO

# **CHARTS**

# S11 Parameter Ø51" GROUND PLANE, CAL AT ANTENNA



LF 1430/31211010







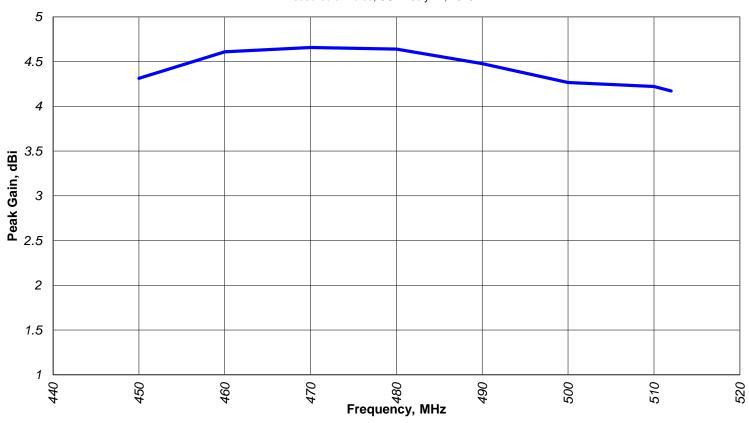
**Series: LPT Antenna** 

PART NUMBER: LPT450/512NMO

# **CHARTS**

# Peak Gain vs Frequency LP450/512NMO

Measured at Pulse, USA - July 11, 2016



450-512







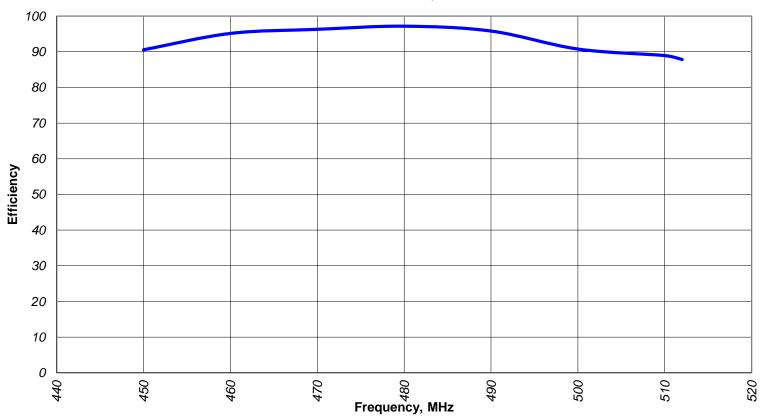
**Series: LPT Antenna** 

PART NUMBER: LPT450/512NMO

# **CHARTS**

# Efficiency vs Frequency LPT450/512NMO

Measured at Pulse, USA - July 11, 2016



450-512



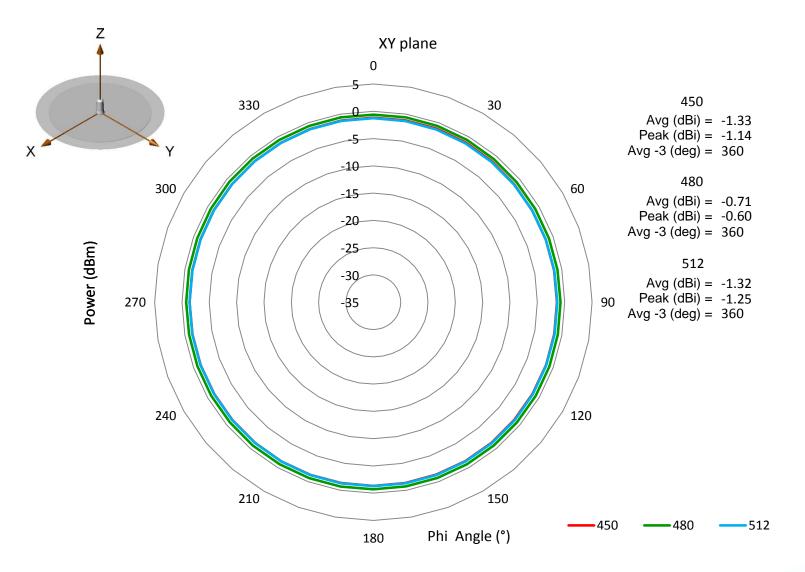




**Series: LPT Antenna** 

PART NUMBER: LPT450/512NMO

# **CHARTS**



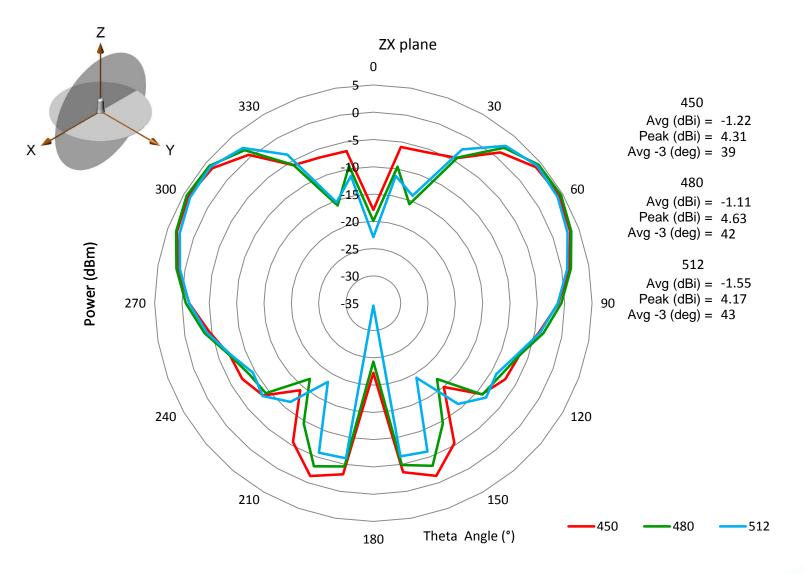




**Series: LPT Antenna** 

PART NUMBER: LPT450/512NMO

## **CHARTS**



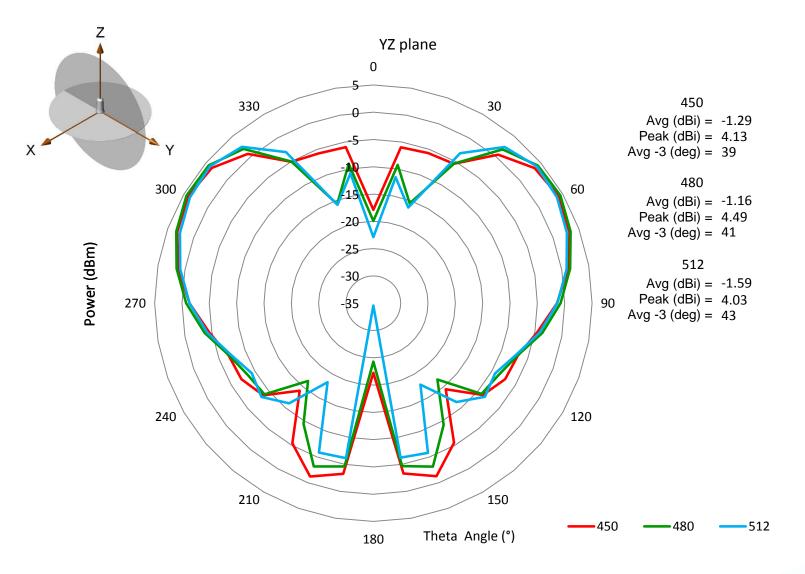




**Series: LPT Antenna** 

PART NUMBER: LPT450/512NMO

# **CHARTS**







**Series: LPT Antenna** 

PART NUMBER: LPT450/512NMO

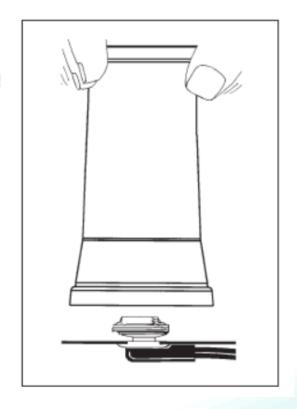
# **ASSEMBLY**

# ANTENNA MOUNTING

# MINIMUM GROUND PLANE

406 - 512 MHz 24" Diameter 806 - 960 MHz and above 16" Diameter

- Place SuperSeal gasket on the base of the antenna. SuperSeal gasket must be used when mounting Shadow antennas.
- Carefully line up the threads of the antenna with the threads of the base and turn slowly.
- Stop when the antenna feels snug.







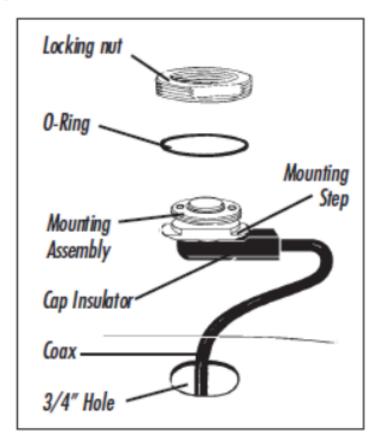
**Series: LPT Antenna** 

PART NUMBER: LPT450/512NMO

# **ASSEMBLY**

# MOUNTING KIT INSTALLATION

- Use hole saw to drill 3/4" (19 mm) hole in vehicle.
- Metal to metal contact between the vehicle and mount is essential for best performance. Remove any burrs on the under side of the hole.
- Screw the locking nut onto the mounting assembly and twist one and a half times. Feed the coax and serrated part of the mount (mounting assembly) through the hole.





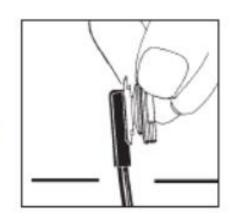


**Series: LPT Antenna** 

PART NUMBER: LPT450/512NMO

# **ASSEMBLY**

4. Pull up on the locking nut and slip the mount step into proper alignment in the hole. Continue to pull upwards and tighten the locking nut until finger tight. Be sure the "O" ring on the underside of the locking nut is properly seated.



 Use a spanner wrench or long nose pliers to hold the mounting assembly. Then use an adjustable or open end wrench on the locking nut and tighten firmly (60 in.-lbs. max).

