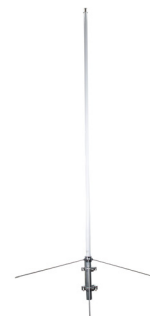


## 134 to 174 MHz, 4.5 dBi Omnidirectional Antenna with N Female, Vertical Polarization, 1 Port, 1.5 VSWR

### KP-138SPOMA-8-NF



#### Features

- Frequency coverage for 134 MHz to 174 MHz with Type N Female connector
- Moderate Gain 4.5 dBi / 2.35 dBd antennas
- Easy and quick time to installations
- Industrially tuned antenna allows plug and play
- Environmentally friendly strong fiberglass radome material
- Direct ground lightning protection
- 100 W max input power per port
- Vertical Polarization
- Tunable Frequency

#### Applications

- Outdoor point-to-point (PtP) or point-to-multipoint (PtMP) applications
- VHF radio applications supported with Trunking for two-way radio communications
- Public Safety / Emergency services / Marine communications / Rail road communications
- Tetra and P-25 Applications exclusively supported
- Land Mobile Radio (LMR) and Private Mobile Radio (PMR)
- Fixed and mobile services for paging/voice/data in full duplex and half duplex mode

#### Description

The KP Performance KP-138SPOMA-8-NF 134 to 174 MHz, 4.5 dBi omnidirectional antenna, with N female connector is a low cost, high performance antenna designed for high power applications. With a frequency range of 134 to 174 MHz, this omnidirectional antenna is suitable for military communications, trunking, public safety, industrial communication, and amateur radio applications. This high gain 4.5 dBi antenna transmits high power signals, increasing the signal strength, thus providing improved coverage, better broadcast control, and faster speed.

KP's KP-138SPOMA-8-NF omnidirectional antenna is made of fiberglass, is omnidirectional and covers good bandwidth and range. It has a 1.5 VSWR that results in the best power transfer and reduced losses. This 134 to 174 MHz VHF/UHF antenna radiates equal power in all directions perpendicular to the axis, with power declining to zero on the axis, when graphed, radiation pattern describes a doughnut shape. It comes with a N female connector, which is a threaded and weatherproof that ensures a reliable physical connection.

This omnidirectional antenna uses vertical polarization to transmit signals, thus reducing interference and performing better at lower heights. Our omnidirectional antenna has 1 port to connect an external circuit with 100W maximum input power per port. All components of this 4.5 dBi antenna are DC grounded for lightning protection, have a rugged outdoor design, and have a high-power handling capacity .

This antenna with a 4.5 dBi maximum gain is ideal for LMR, military, airports, construction, mining, commercial applications and radio users. This KP-138SPOMA-8-NF omnidirectional antenna from KP comes in compact packaging for lower shipping costs, is in stock and available for same-day shipping. For further information on similar products, our expert technical support and highly trained sales team can get you the perfect 134 to 174 MHz, 4.5 dBi omnidirectional antenna with a N female connector as per your requirement.

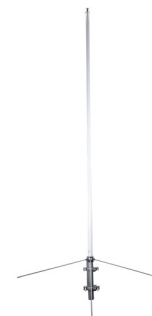
#### Configuration

Band Type	Single
Radiation Pattern	Omni Directional
Polarization	Vertical
Connector Type	N Female
Number of Ports	1
Lightning Protection	DC Ground

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications:  
[134 to 174 MHz, 4.5 dBi Omnidirectional Antenna with N Female, Vertical Polarization, 1 Port, 1.5 VSWR KP-138SPOMA-8-NF](#)

134 to 174 MHz, 4.5 dBi Omnidirectional Antenna with N Female, Vertical Polarization, 1 Port, 1.5 VSWR

**KP-138SPOMA-8-NF**



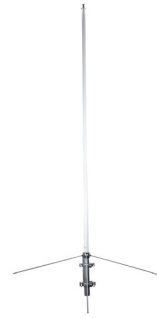
**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range (Tunable)	134		174	MHz
Operational Bandwidth		5		MHz
Input VSWR			1.5:1	
Impedance		50		Ohms
Gain			4.5	dBi
Input Power			100	Watts

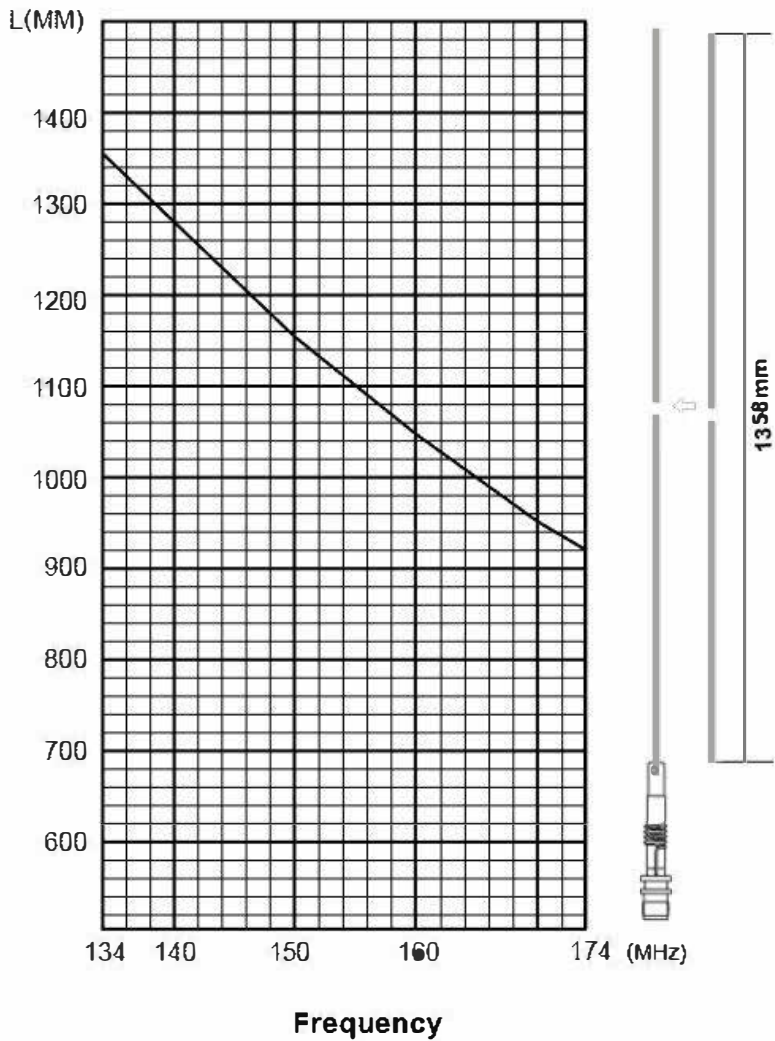
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134 to 174 MHz, 4.5 dBi Omnidirectional Antenna with N Female, Vertical Polarization, 1 Port, 1.5 VSWR

**KP-138SPOMA-8-NF**



**CUTTING CHART**



**Mechanical Specifications**

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications:  
[134 to 174 MHz, 4.5 dBi Omnidirectional Antenna with N Female, Vertical Polarization, 1 Port, 1.5 VSWR KP-138SPOMA-8-NF](#)

134 to 174 MHz, 4.5 dBi Omnidirectional Antenna with N Female, Vertical Polarization, 1 Port, 1.5 VSWR

**KP-138SPOMA-8-NF**



Radome Material	Fiberglass
<b>Size</b>	
Length	65 in [165.1 cm]
Width	1.2 in [30.48 mm]
Height	1.2 in [30.48 mm]
Weight	2.65 lbs [1.2 kg]

**Environmental Specifications**

<b>Temperature</b>	
Operating Range	-40 to +80 deg C

**Plotted and Other Data**

Notes:

- • Remove the bolt and washer holding the support tube in place.
- Lower the support tube to expose the N connector.
- Using an Allen wrench, loosen the set screw holding the N Connector assembly in place.
- Withdraw the radiating element from the fiberglass tube.
- Measure and Cut.
- Reassemble and re-mount.

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134 to 174 MHz, 4.5 dBi Omnidirectional Antenna with N Female, Vertical Polarization, 1 Port, 1.5 VSWR

**KP-138SPOMA-8-NF**



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**Appendix**

**Electrical Downtilt:** Angle in the antenna's elevation pattern in which the maximum gain occurs.

**Gain:** Antenna's average gain.

**Front to Back Ratio @ 180°±30°:** Average difference between the antenna's maximum gain and the maximum gain in the antenna's back lobe over ±30° angles.

**Cross-polarization Ratio (dB):** Typical difference between the co-polarization and cross-polarization gain across the sector's 3 dB Beam Width.

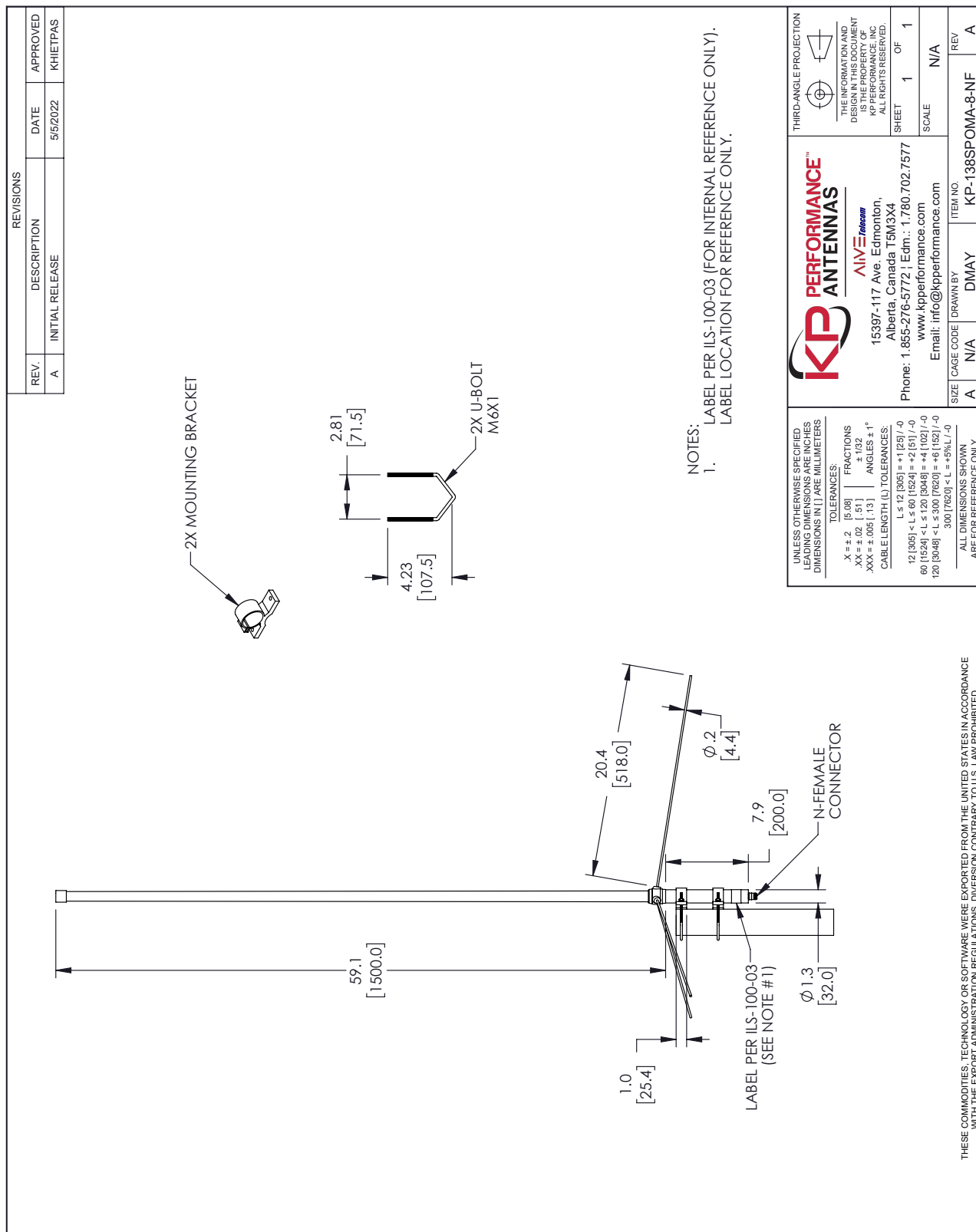
Dedicated to serving the needs of the Wireless Internet Service Provider (WISP) market, KP Performance Antennas offers purpose built products that reliably perform in the field. KP Performance Antennas product line consists of Yagi, Grid, Omni, Dish and other style antennas that operate in the 900 MHz, 2.4 GHz, 3 GHz, and 5 GHz frequencies.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [134 to 174 MHz, 4.5 dBi Omnidirectional Antenna with N Female, Vertical Polarization, 1 Port, 1.5 VSWR KP-138SPOMA-8-NF](#)

URL: <https://www.kpperformance.com/134-to-174-mhz-4.5-dbi-omnidirectional-antenna-with-n-female-vertical-polarization-1-port-1.5-vswr-kp-138spoma-8-nf-p.aspx>

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KP-138SPOMA-8-NF CAD Drawing



REVISIONS		
REV.	DESCRIPTION	DATE
A	INITIAL RELEASE	5/5/2022
		APPROVED
		KHIETPAS

**KP PERFORMANCE™ ANTENNAS**  
**ALIVE Telecom**  
 15397-117 Ave. Edmonton,  
 Alberta, Canada T5M3X4  
 Phone: 1.855-276-5772 | Edm.: 1.780.702.7577  
 www.kpperformance.com  
 Email: info@kpperformance.com

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

SIZE A N/A DRAWN BY DMAY ITEM NO. KP-138SPOMA-8-NF REV A

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE IN INCHES DIMENSIONS IN [ ] ARE MILLIMETERS

TOLERANCES:  
 .X = ±.2 [5.08] FRACTIONS ± 1/32  
 .XX = ±.02 [ .51] ANGLES ± 1°  
 .XXX = ±.005 [ .13]

CABLE LENGTH (L) TOLERANCES:  
 L ≤ 12 [305] = ±1 [25] / -0  
 12 [305] < L ≤ 60 [1524] = ±2 [51] / -0  
 60 [1524] < L ≤ 120 [3048] = ±4 [102] / -0  
 120 [3048] < L ≤ 300 [7620] = ±6 [152] / -0  
 300 [7620] < L = +5% / L / -0

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

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T-Rev.D