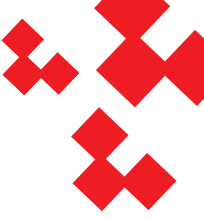


2.4 GHz 20 dBi 90 Degree Sector Panel Wireless LAN Antenna Model: ANDES-P90-2.4-20



Applications and Features

Applications

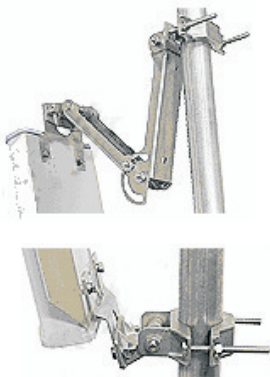
- * 2.4 GHz ISM Band
- * IEEE 802.11b, 802.11g, 802.11n Wireless LAN
- * Bluetooth®
- * Public Wireless Hotspot
- * WiFi
- * Wireless Video Systems
- * Wireless Internet Provider "cell" sites

Features

- * Superior performance
- * All weather operation
- * 90° beam-width
- * 20° Down-Tilt Mounting Bracket
- * Includes Mast Mounting Hardware
- * Integral N-Female Connector
- * RoHS Compliant



Description



Superior Performance

The WWP-P90-2.4-20 Sector Panel WiFi Antenna combines very high gain with a wide 90° beam-width. It is a professional quality "cell site" antenna designed primarily for service providers in the 2.4GHz ISM band. Applications include IEEE 802.11b, 802.11g and 802.11n wireless LAN systems.

Rugged and Weatherproof

This antenna features a heavy-duty plastic radome for all-weather operation. The mounting system adjusts from 0 to 20 degrees down-tilt.

Ideal for Wireless Internet "Cell" Sites

This antenna is an ideal choice for Wireless Internet Provider "cell" sites since the cell size can be easily determined by adjusting the down-tilt angle. Horizontal coverage is a full 90 degrees, and side-radiation is minimized by the heavy-duty aluminum reflector.

2.4 GHz 20 dBi 90 Degree Sector Panel Wireless LAN Antenna

Model: ANDES-P90-2.4-20

Specifications

Electrical Specifications

Frequency:	2400 - 2500 MHz
Gain:	20 dBi
Horizontal Beam Width:	90 degrees
Vertical Beam Width:	+/- 5°
Impedance:	50 Ohm
Max. Input Power:	250 Watts
VSWR:	< 1.3:1 avg.
Connector:	N Female
Lightning Protection:	Direct Ground

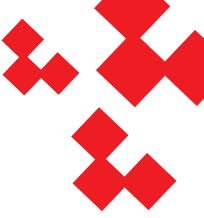
Mechanical Specifications

Weight:	12 lbs. (5.44 Kg)
Dimensions:	39 x 9 x 2.5 inches (99 x 22.9 x 6.4 cm)
Radome Material:	UV-Inhibited Polymer
Reflector Material:	Aluminum
Operating Temperature:	-40° C to to 85° C (-40° F to 185° F)
Mounting:	2 inch (5 cm) O.D. pipe max.
Polarization:	Vertical
Downtilt (mech):	0 to 20 degrees (adjustable)
RoHS Compliant:	Yes

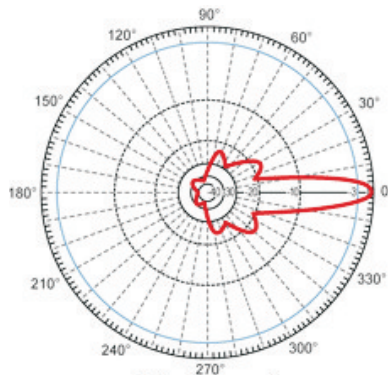
Wind Loading Data

Wind Loading Area:	@ 100 MPH (161 KPH)
Front Surface:	2.43 sq. ft. (.23 sq. meters) 79 lbs. (35.8 Kg)
Side Surface:	0.68 (.06 sq. meters) 23 lbs.(10.4 Kg)

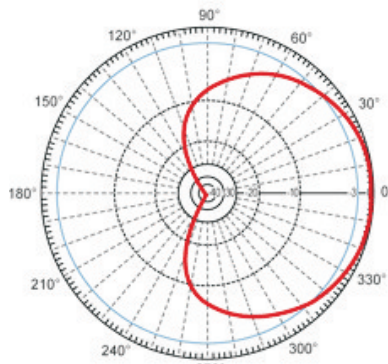
2.4 GHz 20 dBi 90 Degree Sector
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RF Antenna Gain Patterns



Vertical



Horizontal



IMPORTANT SAFETY PRECAUTIONS:

LIVES MAY BE AT RISK! Carefully observe these instructions and any special instructions that are included with the equipment you are installing.

IMPORTANT: Look over the site before beginning any installation, and anticipate possible hazards, especially these:

CONTACTING POWER LINES CAN BE LETHAL. Make sure no power lines are anywhere where possible contact can be made. Antennas, masts, towers, guy wires or cables may lean or fall and contact these lines. People may be injured or killed if they are touching or holding any part of equipment when it contacts electric lines. Make sure there is NO possibility that equipment or personnel can come in contact directly or indirectly with power lines.

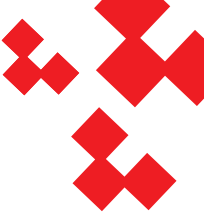


Assume all overhead lines are power lines.

The horizontal distance from a tower, mast or antenna to the nearest power line should be at least twice the total length of the mast/antenna combination. This will ensure that the mast will not contact power if it falls either during installation or later.

2.4 GHz 20 dBi 90 Degree Sector Panel Wireless LAN Antenna

Model: ANDES-P90-2.4-20



TO AVOID FALLING, USE SAFE PROCEDURES WHEN WORKING AT HEIGHTS ABOVE GROUND.

- Select equipment locations that will allow safe, simple equipment installation.
- Don't work alone. A friend or co-worker can save your life if an accident happens.
- Use approved non-conducting ladders and other safety equipment. Make sure all equipment is in good repair.
- If a tower or mast begins falling, don't attempt to catch it. Stand back and let it fall.
- If anything such as a wire or mast does come in contact with a power line, **DON'T TOUCH IT OR ATTEMPT TO MOVE IT.** Instead, save your life by calling the power company.
- Don't attempt to erect antennas or towers on windy days.

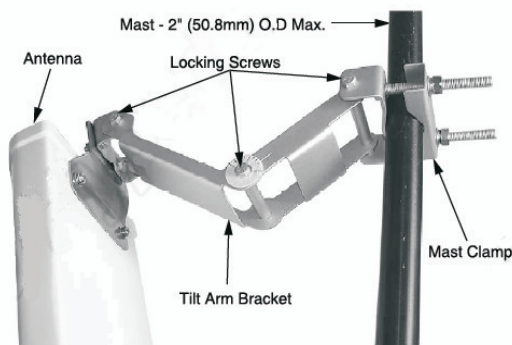
MAKE SURE ALL TOWERS AND MASTS ARE SECURELY GROUNDED, AND ELECTRICAL CABLES CONNECTED TO ANTENNAS HAVE LIGHTNING ARRESTORS. This will help prevent fire damage or human injury in case of lightning, static build-up, or short circuit within equipment connected to the antenna.

- The base of the antenna mast or tower must be connected directly to the building protective ground or to one or more approved grounding rods, using 1 OAWG ground wire and corrosion-resistant connectors.
- Refer to the National Electrical Code for grounding details.
- Lightning arrestors for antenna feed coaxial cables are available from HyperLink Technologies, Inc.

IF A PERSON COMES IN CONTACT WITH ELECTRICAL POWER, AND CANNOT MOVE:

- **DON'T TOUCH THAT PERSON, OR YOU MAY BE ELECTROCUTED.**
- Use a non-conductive dry board, stick or rope to push or drag them so they no longer are in contact with electrical power.
- Once they are no longer contacting electrical power, administer CPR if you are certified, and make sure that emergency medical aid has been requested.

Instrucciones para la instalacion



Mounting Instructions

1. Attach Tilt Arm Bracket and Hinge Bracket to antenna as shown with supplied hardware. For down-tilt installations, brackets should be attached to the antenna as shown. For up-tilt installations, reverse the brackets (hinge bracket on top and tilt arm on bottom)

Note: When mounting antenna, connector should be at the bottom.

2. Mount antenna to mast using the two mast clamps and supplied hardware.
3. Position the antenna tilt to its final location and lock into place with the locking screws as shown.

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