

Outdoor High Isolation Narrow Beam Antenna

ODP-030V14MN

758-869MHz, N-Female

- High Isolation Narrow Beam Directional Antenna specifically designed for the 758-869 frequency range, which falls within the 700/800 Public Safety Band.
- The antenna is ideal solution donor antenna application where high isolation. and focused coverage are required.
- Designed high reliability to withstand challenging environmental conditions, including high wind.



Electrical Specification

Product Model	ODP-030V14MN
Frequency (MHz)	758-869
Gain (dBi)	15.5 ± 0.5
Polarization	Vertical. Optionally supports Horizontal
Beamwidth Horizontal (°)	28.0 ± 2.0
Beamwidth Vertical (°)	28.0 ± 2.0
Front to Back Ratio (dB)	≥ 31
1 st upper sidelobe suppression (dB)	≥ 18
Mechanical Adjustable Down tilt (°)	0-14
PIM (dBc)	<-151dBc @ 2 x 43dBm)
VSWR	≤ 1.5
Average Power, max (W)	250
Impedance (ohm)	50

Mechanical Specification

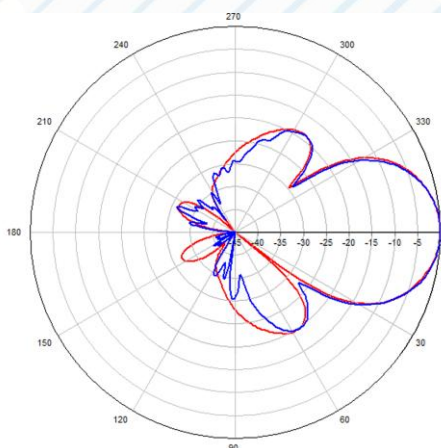
Dimension (in/mm)	26.8x26.8x7.5 / 680x680x190
Shipping Dimension (in/mm)	36.6x29.9x13.0 / 930x760x330
Product Weight (lb./kg)	28.7 / 13
Bracket Weight (lb./kg)	8.4 / 3.8
Shipping Weight including mounting kit (lb/kg)	44.8 / 20.3
Radome Material & color	Fiberglass, Grey
Bracket Material	Galvanized Steel, salt water resistant
Diameter of the mounting pole(in/mm)	Ø2.4 - 4.5 / Ø60 - 115
Connector type	N-Female

Environment & Compliance

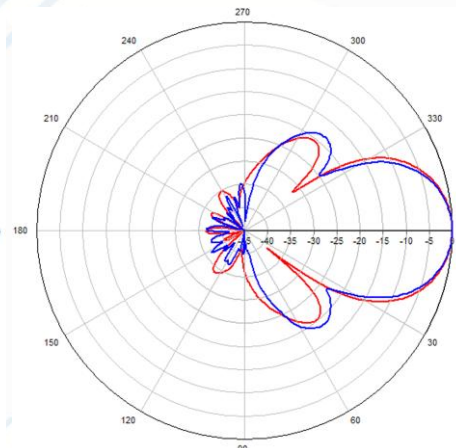
Application	Outdoor
Operating Temperature	-40°C to +70°C
Relative Humidity	Up to 95%
Wind Load @150km/h	
Frontal/Rear/Side (N)	443 / 127 / 504
Max. Wind Velocity (km/h)	298
Max. Wind Velocity (mph)	185
RoHS	Compliant

Antenna Pattern

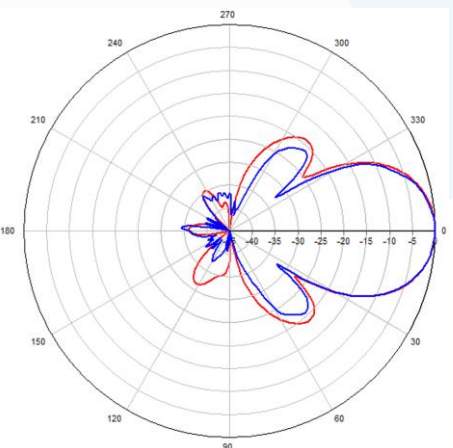
Horizontal Vertical



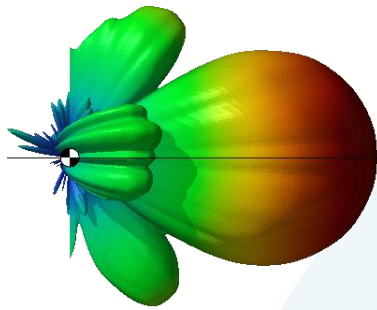
758MHz



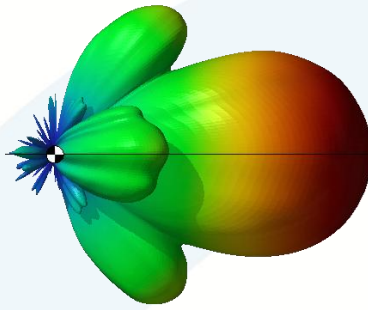
824MHz



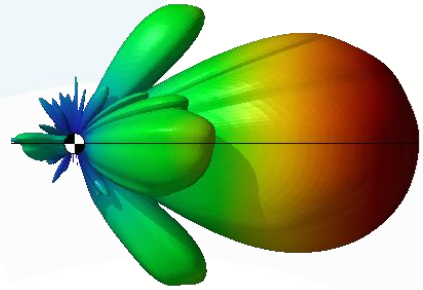
869MHz



758MHz



824MHz

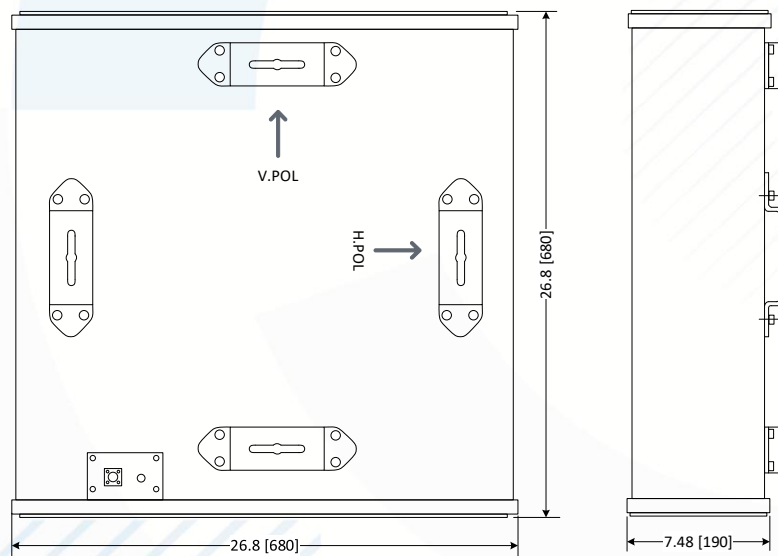


869MHz

Mechanical Drawing and Installation Guide

1. Drawing

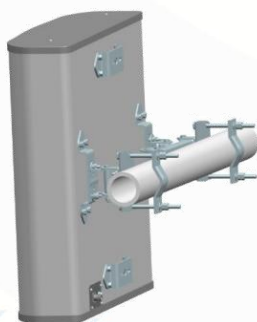
Unit: inches [mm]



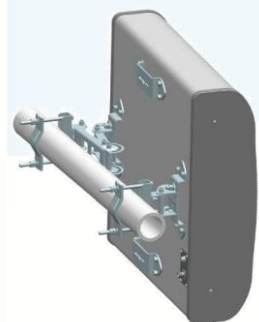
2. Antenna Installation



Vertical Polarization



Horizontal Polarization



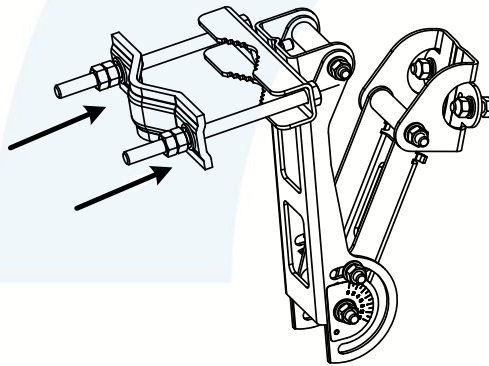
3. Installation Instructions

Note: vertical Polarization(default). Antenna port location-bottom left on the back face of the antenna and horizontal polarization(optional). Antenna port location-bottom right

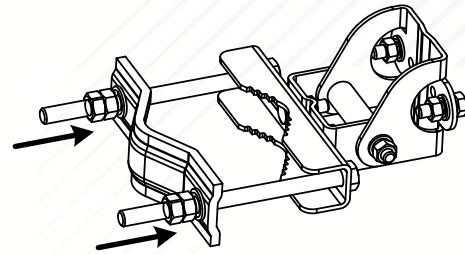
a. Step A

- i. Place the M10 bolts through the splint and the upper mounting bracket of the antenna.
- ii. Align the lower mounting bracket with the bolts and place it in position.
- iii. Slide M10 nuts onto the bolts and hand-tighten them.
- iv. Use a wrench to pretighten (not fully tighten) the M10 nuts on both upper and lower brackets.

*Following these steps will ensure that everything is securely assembled before final tightening



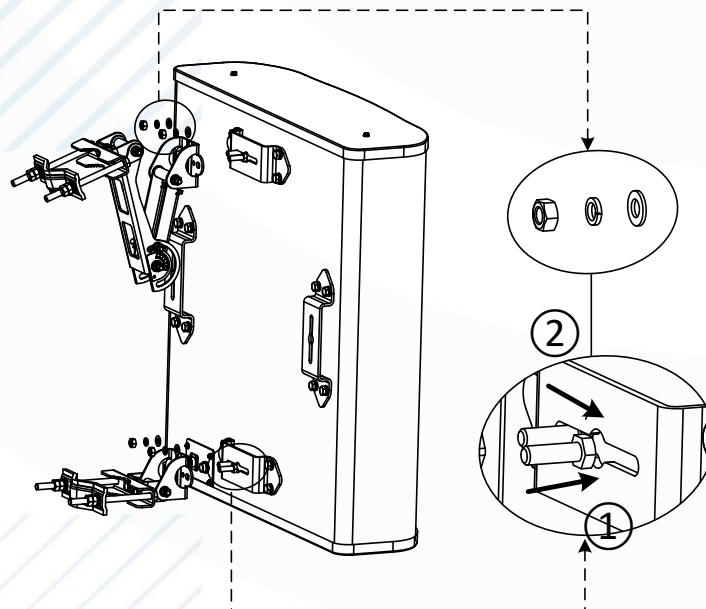
Upper Mounting Bracket



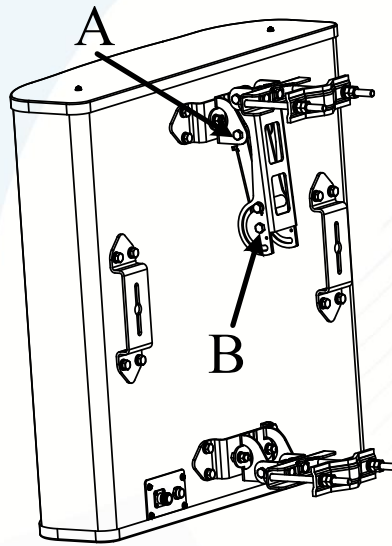
Lower Mounting Bracket

b. Step B

- i. Place the M8 bolts through the brackets and align them with the holes on the rear of the antenna.
- ii. Slide M8 nuts onto each bolt and hand-tighten them.
- iii. Using a torque wrench, tighten each nut to a torque of 25N/m.



- c. Step C
- Set the torque wrench's scale to 0 degrees.
 - Place the wrench on the nut and apply pressure in a clockwise direction until you reach the desired torque of 25N/m.
 - Using a level or an inclinometer, adjust the mounting bracket until it is tilted to 0 degrees.
 - Pre-tighten nuts at points A and B using an appropriate tool such as a wrench or socket wrench.
 - While tightening, ensure that the upper mounting bracket (long arm) remains vertical and parallel to the back face of the antenna.



4. Packing list

Item	Qty
Upper Mounting Bracket	1
Lower Mounting Bracket	1
Carriage bolt (M8x25)	4
Installation Instruction. Hard copy	1