



# Cisco Symmetrical Horn CC Antenna (IW-ANT-H90-510-N)

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## Overview

The Cisco Symmetrical Horn CC Antenna (IW-ANT-H90-510-N) offers unique RF performance in a compact package. Scalar horn antennas have symmetrical main beam with identical beam width in Vertical and Horizontal plane. Exceptionally small side lobes ensure remarkable interference suppression. These antennas are ideal for coverage of areas with clients close to the installation site, where null zone issues exist. High density AP clusters and radio co-location is made possible due to unique radiation patterns and compact size.

These antennas feature multiple improvements of RF performance and design, namely, optically lighter body and significantly improved bracket. The antenna is equipped with N-female connectors.

Figure 1: IW-ANT-H90-510-N Antenna



## Technical Specifications

The following table is a summary of the technical specifications:

Radio Connection	2x N Female Bulkhead Connector
Antenna Type	Horn
Materials	UV Resistant polycarbonate, Polypropylene, Aluminium, Zinc, Stainless Steel
Environmental	IP55
Flame Rating	UL 94 HB
Pole Mounting Diameter	30-80 mm (1.1-3.1 inch) Recommended as close to 80 mm (3.1 inch) as possible
Temperature	-30°C to +55°C (-22°F to +131°F)
Wind Survival	160 km/h (100 mi/h)
Wind Load	25/10 N - Front/Side at 160 km/h (100 mi/h)
Effective Projected Area	203/80 cm <sup>2</sup> - Front/Side (31.5/12.4 in <sup>2</sup> )
Mechanical Tilt	± 25°
Weight	1.8 kg / 3.9 lbs

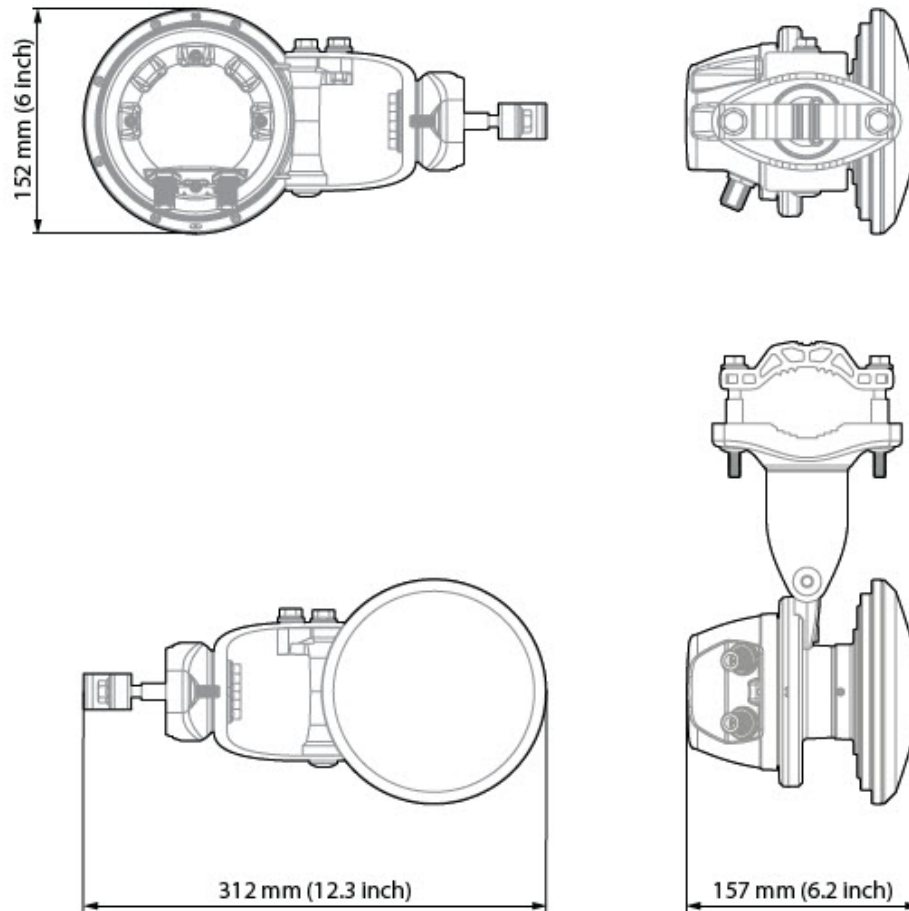
## Performance Specifications

The following table is a summary of the performance specifications:

Frequency Range	5180 - 6400 MHz
Gain	9.6 dBi
Azimuth/Elevation BW -3 dB	H 67° / V 67°
Azimuth/Elevation BW -6 dB	H 90° / V 90°
Front-to-Back Ratio	28 dB
VSWR Max 5180-5850 MHz	1.6
VSWR Max 5850-6400 MHz	1.9
Beam Efficiency	92% <b>Note</b> Beam efficiency defined up to first null
Polarization	Dual Linear H + V
Impedance	50 Ohm

## Mechanical Drawing

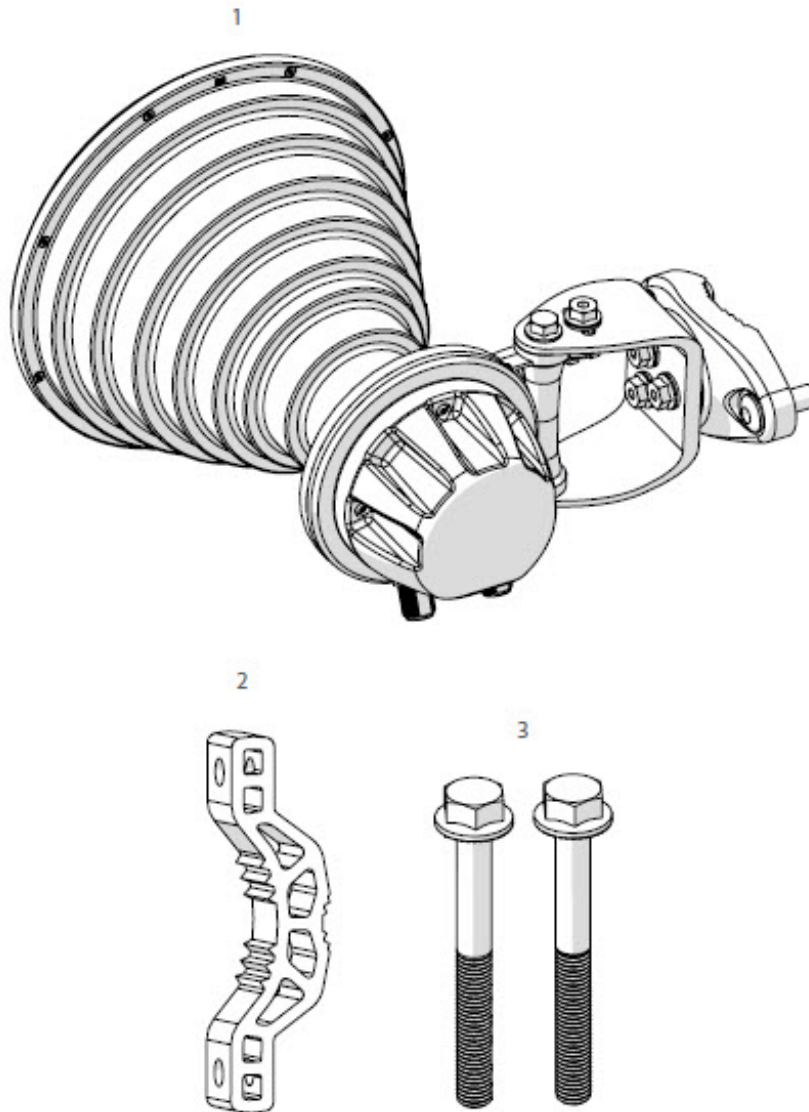
The following diagram provides mechanical details of the antenna.



## Installation Instructions

This section illustrates how to install the antenna on a pole.

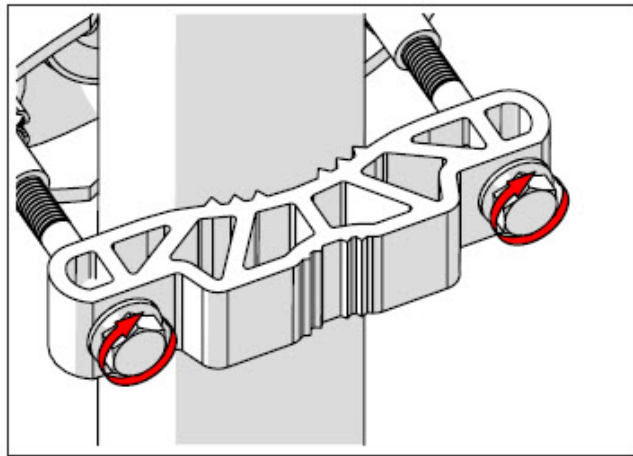
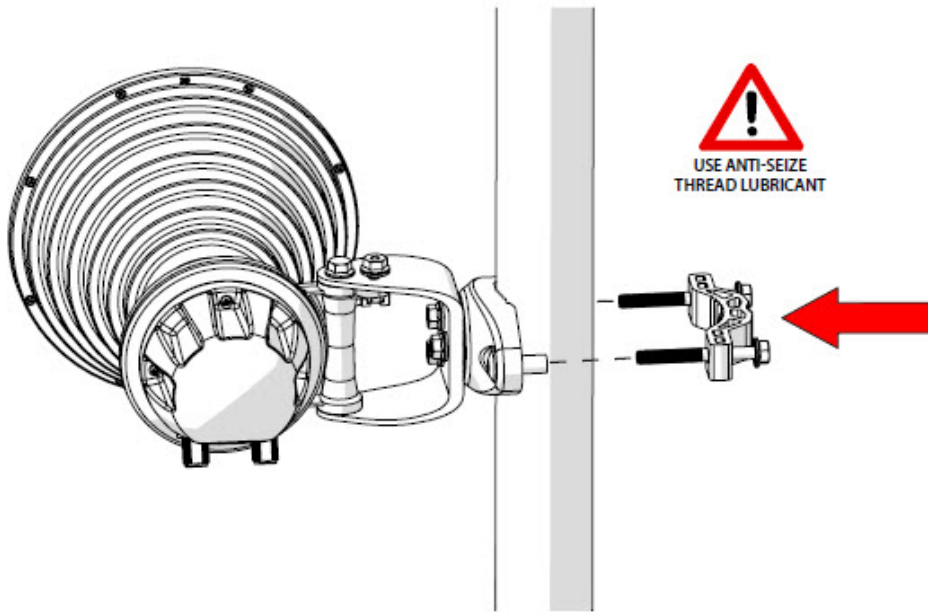
The following figure shows the package contents:



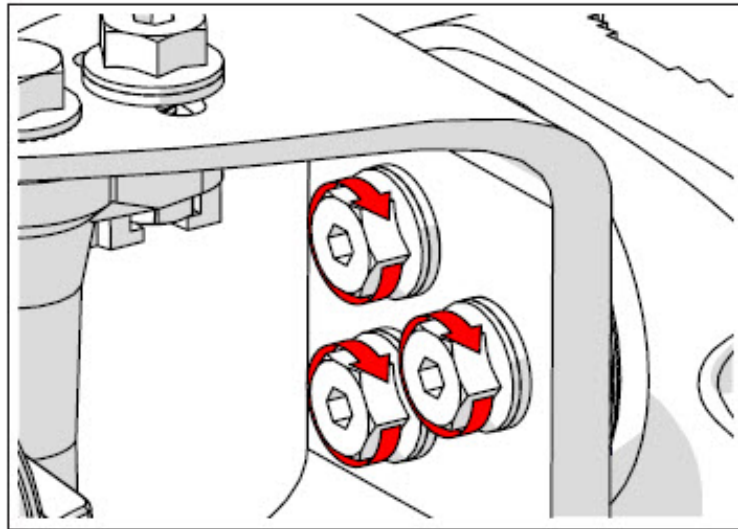
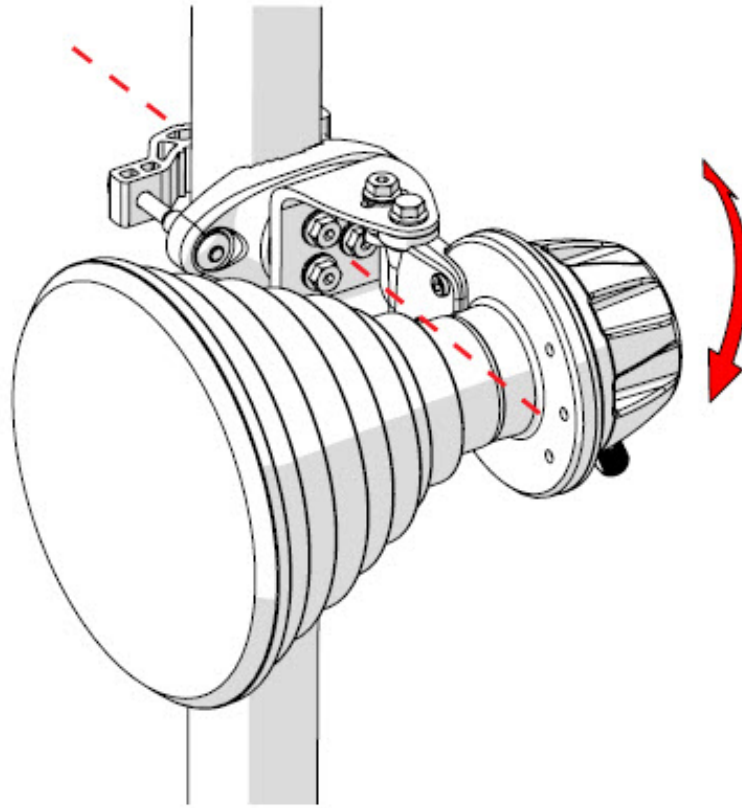
Number	Description	Quantity
1	SH-CC Body	1x
2	SH-CC Bracket	1x
3	M8 x 75mm Screw	2x

The antenna is pre-assembled for installation on the left side of the pole. If you need to install it on the right, see Swapping From Right or Left Sided Pole Mount below.

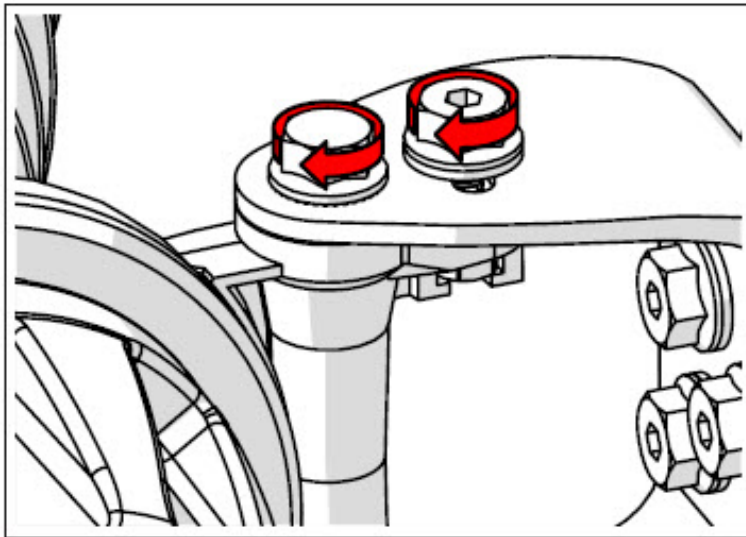
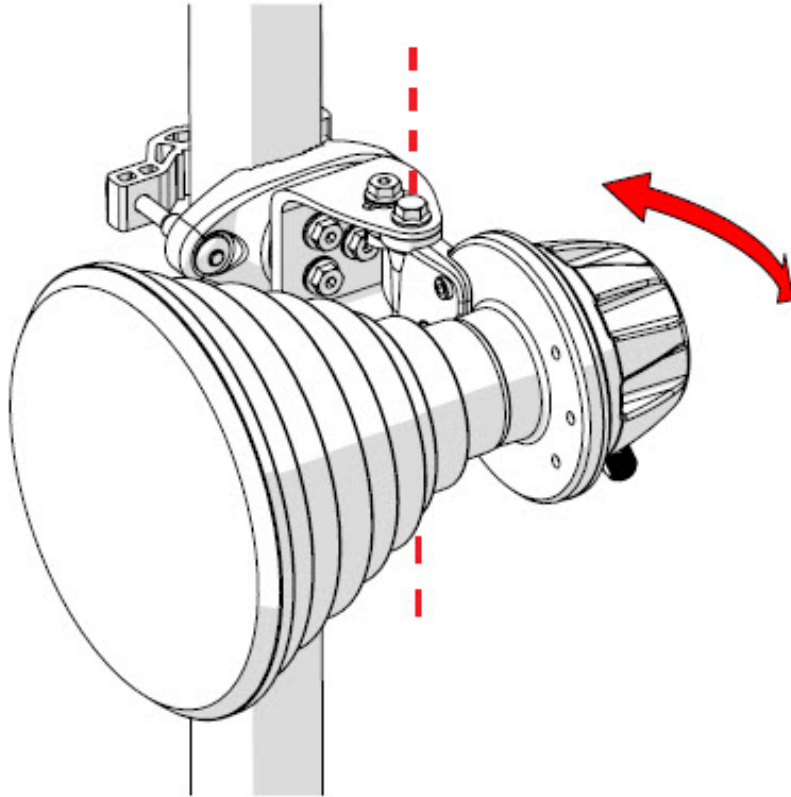
## Step 1 Pole Mount Step 1



**Step 2** Pole Mount Step 2

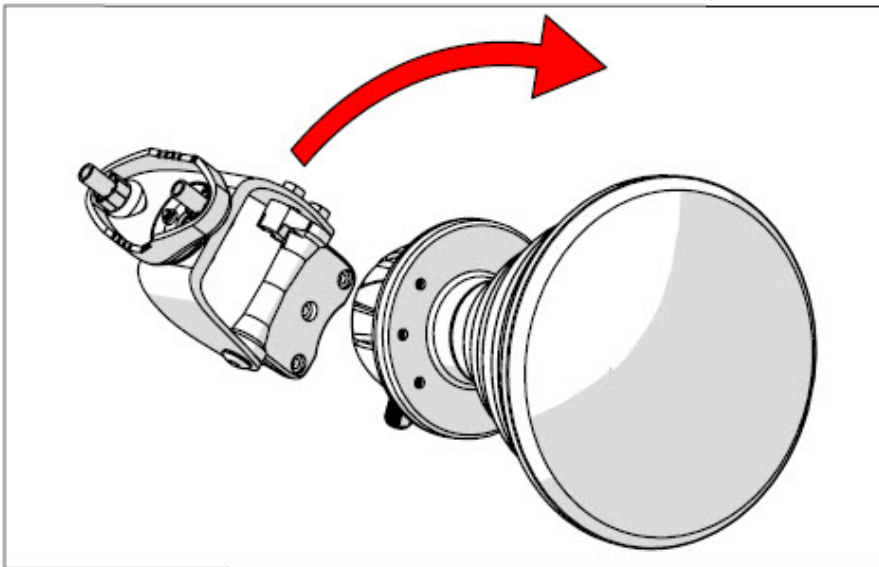
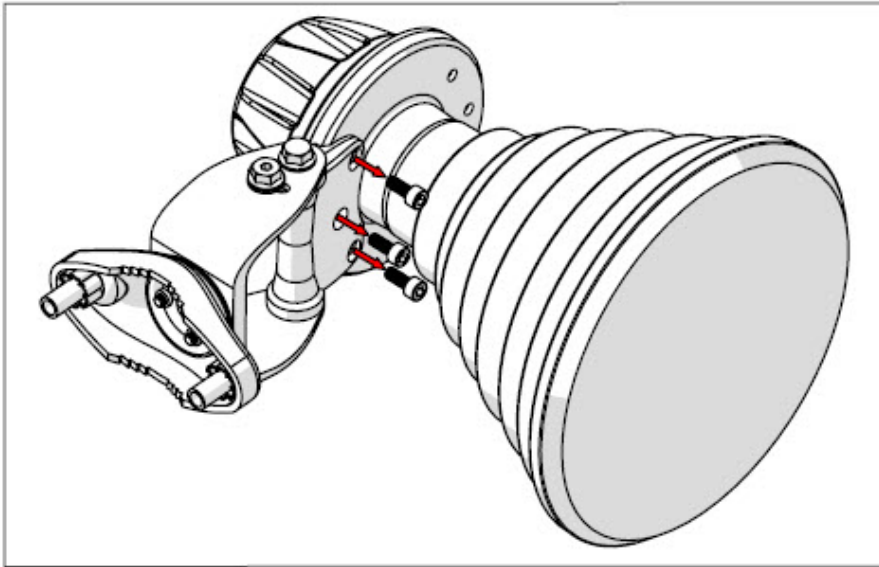


**Step 3** Pole Mount Step 3

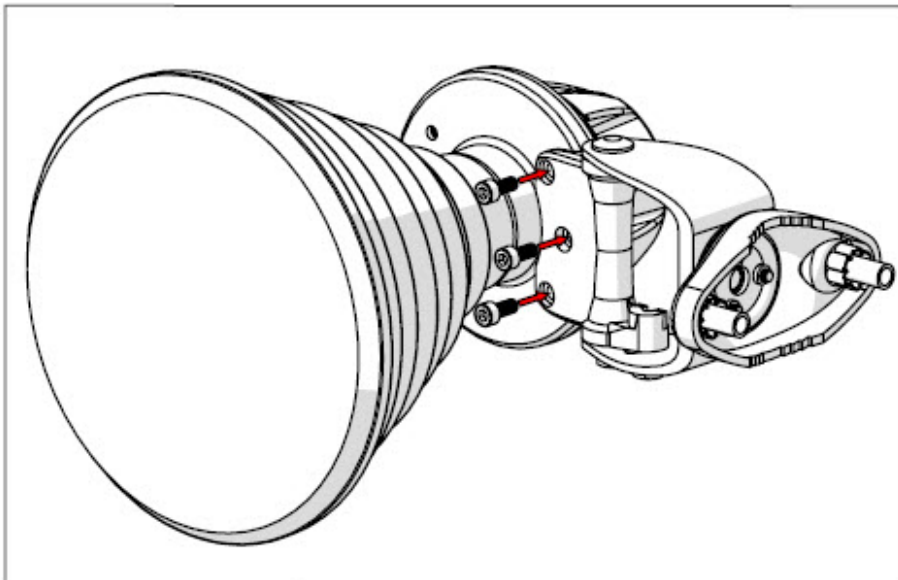
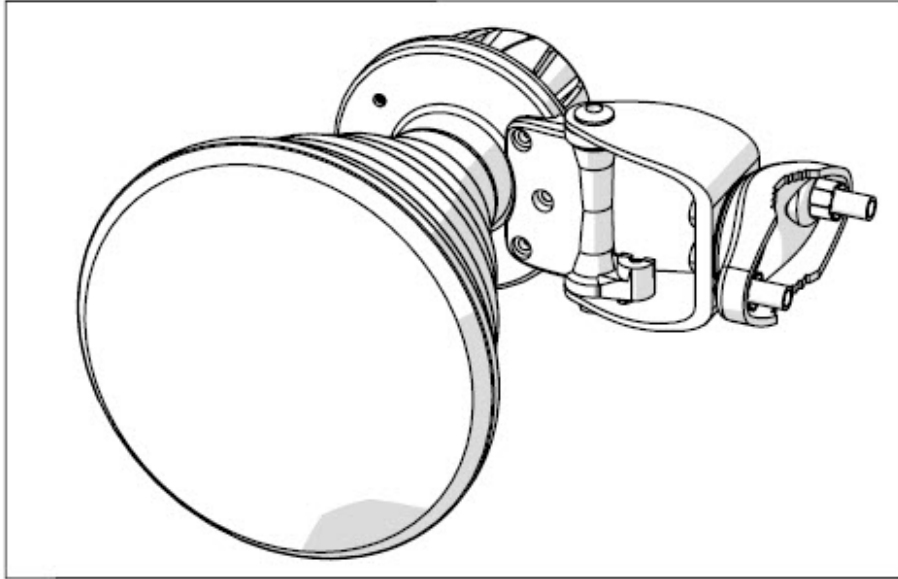


**Step 4** Swapping From Right or Left Sided Pole Mount Step 1





**Step 5** Swapping From Right or Left Sided Pole Mount Step 2



## Radiation Patterns

The following figures show the antenna radiation patterns.

Figure 2: Azimuth

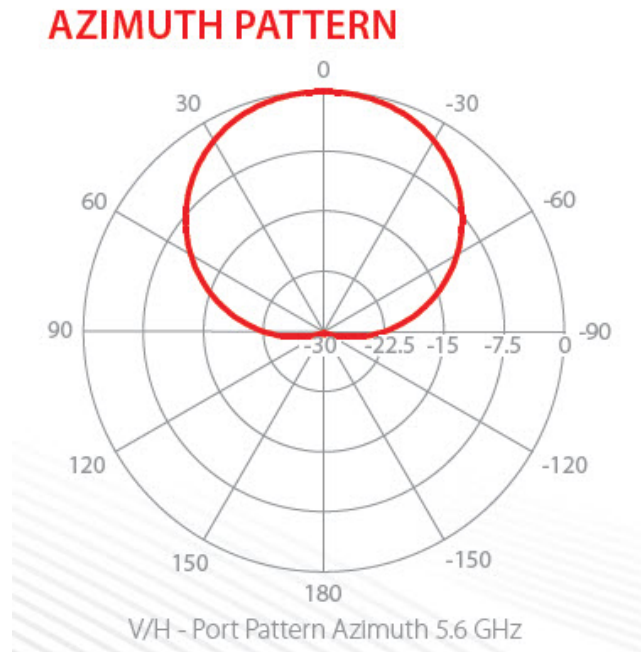


Figure 3: Elevation

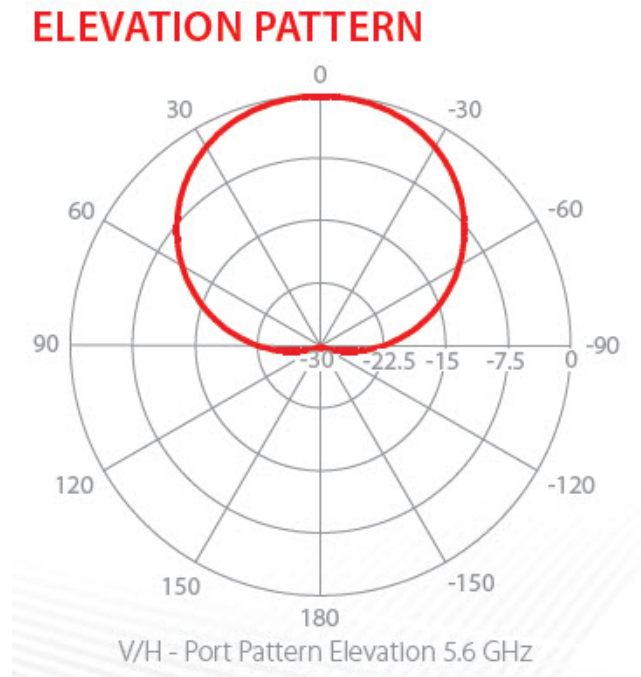


Figure 4: Gain

