

# 90° Asymmetrical Beam Antenna

## HORN ANTENNA WITH TWISTPORT™ CONNECTOR

90° Asymmetrical Horn TP Antenna combines the best of both worlds - a high gain of a traditional sector antenna and zero side lobes of a horn. Its radiation pattern is wide in azimuthal and narrow in the elevation plane, greatly improving coverage planning options. 90° Asymmetrical Horn TP Antenna delivers unmatched beam performance thanks to the high stability of gain and radiation pattern in the whole band of operation. Outstanding performance favors 90° Asymmetrical Horn TP antenna for high-density AP clusters, in highly populated areas and dense co-location sites. AH90-TP features our revolutionary TwistPort™ connector, a patent-pending twist-and-lock waveguide port. 90° Asymmetrical Horn TP Antenna supports a wide range of third party mainstream radios with our TPA TwistPort™ Adaptor. AH90-TP features an all new mechanical structure with a massive aluminum ring and mounting bracket. Stainless steel hardware comes with black coating that prevents hardware seizing.



Asymmetrical Horn antennas were awarded WISPA Product of the Year 2019, 2020 and 2021 Awards.

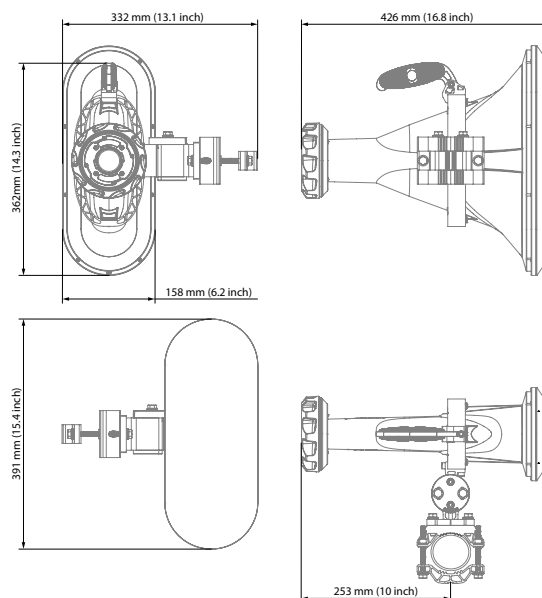
### TECHNICAL DATA

Antenna Connection	TwistPort™ - Quick Locking Waveguide Port
Antenna Type	Horn
Materials	UV Resistant ABS Plastic, Polycarbonate, HDPE, Aluminium, Stainless Steel
Environmental	IP55
Pole Mounting Diameter	40-80 mm (1.5-3.1 inch) Recommended as close to 80 mm (3.1 inch) as possible
Temperature	-35°C to +60°C (-31°F to +140°F)
Wind Survival	160 km/h (100 mi/h)
Wind Load	79/82 N - Front/Side at 160 km/h (100 mi/h)
Effective Projected Area	646/654 cm² - Front/Side (100.1/101.4 in²)
Mechanical Adjustment	± 20° Elevation, ± 20° Azimuth
Weight	5.3 kg (11.6 lbs) – single unit* 7.2 kg (15.9 lbs) – single unit incl. package*
Single Unit	Retail Box: 510 × 420 × 175 mm (20 × 16.5 × 6.8 inch)*

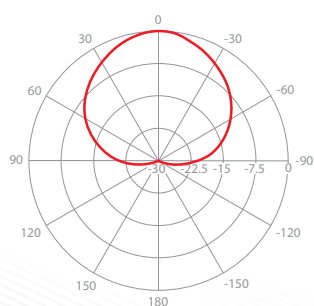
### PERFORMANCE

Frequency Range	5180 - 6000 MHz
Gain	16 dBi
Azimuth Beam Width -3 dB	H 60° / V 60°
Elevation Beam Width -3 dB	H 16° / V 16°
Azimuth Beam Width -6 dB	H 90° / V 90°
Elevation Beam Width -6 dB	H 25° / V 25°
Beam Efficiency**	90%
Front-to-Back Ratio	30 dB

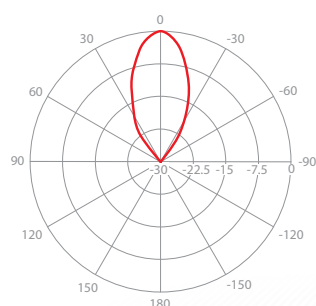
### PRODUCT DIMENSIONS



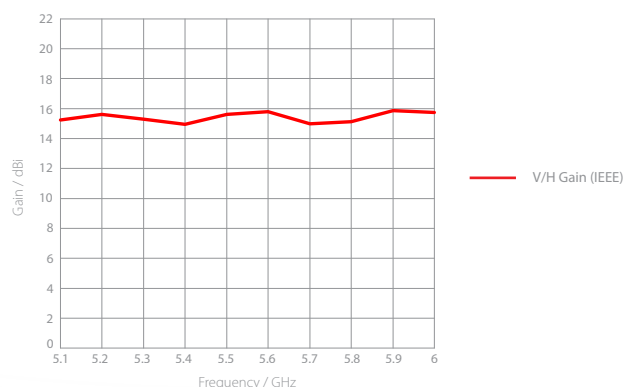
### AZIMUTH PATTERN



### ELEVATION PATTERN



### GAIN



\*Subject to change \*\*Beam efficiency defined up to first null

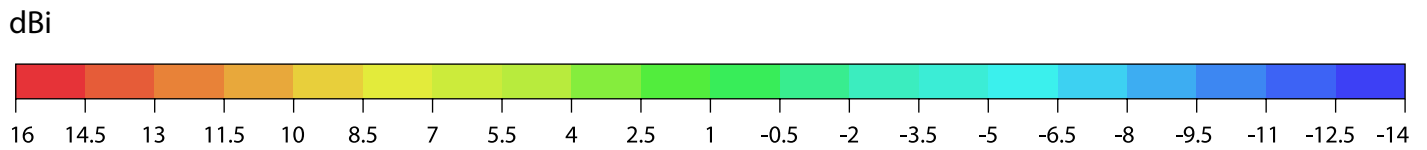
1/1 ASYMMETRICAL HORN ANTENNAS Rev 12-2021

### 3D RADIATION DIAGRAM

SCALE: 30dBi

COMPATIBLE WITH: ADOBE ACROBAT READER DC. NOT SUPPORTED ON MOBILE.

USE MOUSE TO ROTATE THE DIAGRAM. SCROLL IN/OUT TO ZOOM IN/OUT



FRONT	BACK	RIGHT	LEFT	UP	DOWN
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