

# 90° 6 GHz 4x4 Asymmetrical Horn WB

## 4X4 HORN ANTENNA WITH WIDEBAND PERFORMANCE COVERING 5 GHZ AND 6 GHZ UNLICENSED BANDS

90° Asymmetrical Horn Antennas have asymmetrical beam patterns with highly suppressed sidelobes. They offer excellent noise rejection and supreme scalability options. They are perfect for high-density AP clusters and dense co-location deployments.

#### Ultimate Wideband Performance in 4x4

AH90WB-4x4-SMA provides unique wideband performance covering 5 & 6 GHz unlicensed spectrum bands with balanced H+V beams and stable gain and radiaton patterns. This 4x4 Horn Antenna is designed for excellent wideband performance with 4x4 radios.

#### **Ultimate Versatility**

AH90WB-4x4-SMA provides TwistPort<sup>™</sup> waveguide connectors as well as specific coaxial RP-SMA interface tuned for 6 GHz band. Antenna allows mounting of two connectorized radios as well as using two TPA of choice, while covering full 4900 - 7125 MHz. This makes it a highly versatile tool for any deployment within the antenna working band. Antenna can by used as 4x4, dual or single 2x2, 5 GHz, 6 GHz, wideband 5 & 6 GHz using connectorized radios with pigtails or with TPA.

#### New Innovative Design

AH90WB-4x4-SMA has completely new industrial design and is built using highly resistant materials for reduced weight, ultimate outdoor resistance and durability.

#### **TECHNICAL DATA**

Radio Connection	TwistPort <sup>™</sup> Waveguide Connector, 2x RP-SMA Female
Pigtails in Package	4x RP-SMA Male Connector 750mm (29.5 inch)
Antenna Type	Horn
Materials	Aluminium, Stainless Steel, ABS, PMMA, Zinc Alloy
Enviromental	IP65
Pole Mounting Diameter	40-80 mm (1.5-3.1 inch) Recommended as close to 80 mm (3.1 inch) as possible, recommended mounting on stand off bracket
Temperature	-35°C to +60°C (-31°F to +140°F)
Wind Survival	160 km/h (100 mi/h)
Wind Load	118/74 N - Front/Side at 160 km/h (100 mi/h)
Effective Projected Area	1115/602 cm <sup>2</sup> - Front/Side (173/93.3 in <sup>2</sup> )
Mechanical Adjustment	$\pm$ 20° Elevation, $\pm$ 20° Azimuth
Weight	5.6 kg / 12.3 lbs – single unit ** 9.0 kg / 19.8 lbs – single unit incl. package **
Single Unit	Retail Box: 490 × 435 × 435 mm (19.2 x 17.1 x 17.1 inch) **

## PERFORMANCE

Frequency Range	4900 - /125 MHz with waveguide port 5700 - 7125 MHz with RP-SMA in package Check our online SpecCheck for performance data of the particular combination of feed (TPA) and antenna
Gain	15 dBi
Azimuth Beam Width -3 dB/-6dB	H 55°, V 73° / H 90°, V 90°
Elevation Beam Width -3 dB/-6dB	H 17°, V 17° / H 25°, V 25°
Beam Efficiency	96 %*
Front-to-Back Ratio	27 dB
VSWR	1.4 (5700 - 7125 MHz) with RP-SMA in package Check our online SpecCheck for performance data of the particular combination of feed (TPA) and antenna
Polarization	Dual Linear H + V
Impedance	50 Ohm
* Beam efficiency defined up to first null	** Subject to change

# PRODUCT DIMENSIONS









RF elements® and TwistPort™are trademarks of RF elements s.r.o., Slovakia. All rights of respective trademark owners reserved. © RF elements 2024

1/2 ASYMMETRICAL HORN ANTENNAS Rev 11-2024

# **Product Datasheet**

Product ID: AH90WB-4x4-SMA



### **ANTENNA GAIN**

### Antenna Gain with RP-SMA delivered in package

This graph demonstrates the gain of the antenna in boresight with RP-SMA port delivered in package with antenna. This feeding option provides performance tuned specifically for 6 GHz band. As we offer various feeding options, we recommend you to check our SpecCheck for detailed performance graphs and specs of the antennas and feeds of your choice.



## ANTENNA BEAMWIDTH





## **AZIMUTH PATTERN**



#### **ELEVATION PATTERN**



2/2 ASYMMETRICAL HORN ANTENNAS Rev 11-2024

ISO 45001

150 95001 14001 This product was produced under the conditions of a certified manages ment system that meets the requirements of the ISO 9001, ISO 14001 and ISO 45001 standard, while this system was certified by QSCert. RF elements® and TwistPort™are trademarks of RF elements s.r.o., Slovakia. All rights of respective trademark owners reserved. © RF elements 2024