Datasheet

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Horn[™] 5

5 GHz Beamwidth Horn Antenna

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Models: Horn-5-30, Horn-5-45, Horn-5-60, and Horn-5-90

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Isolation Antenna Horns for airFiber $\ensuremath{^{\circledast}}\xspace$ LTU and airMAX $\ensuremath{^{\otimes}}\xspace$

Designed for Increased Co-Location Performance

Dual-Linear Polarization



Overview

Ubiquiti Networks launches a new family of beamwidth isolation horn antennas.

Modular Design

With flexible sectorization for optional antenna beamwidths, the horn antennas are interchangeable and improve beam-shaping for specific deployment and environment needs. Sector horn antennas are designed to increase co-location performance without sacrificing gain.

Scalability

There are two symmetrical horn antennas:

- Horn-5-30: 30° beamwidth
- Horn-5-45: 45° beamwidth

These models offer breakthrough scalability options for wireless systems. Unique beam performance and great co-location characteristics allow for a higher density of sectors than traditional sector technology.

Enhanced Co-Location

There are two asymmetrical horn antennas:

- Horn-5-60: 60° beamwidth
- Horn-5-90: 90° beamwidth

These models have naturally attenuated side lobes and extremely low back radiation. They offer best front-to-back ratio in the industry and the lowest side lobe radiation.

Asymmetrical horn antennas are ideal for cluster sector installations with high co-location requirements.

Versatility

The horn antennas can be used with the following radios:

- airFiber LTU[™] AF-LTU
- IsoStation IS-5AC
- IsoStation IS-M5
- PrismStation PS-5AC

Application Example

PtMP Client Links



The PrismStation^m 5AC (with a horn antenna) is used as an AP to communicate with the IsoStation^m 5AC for each client in an airMAX PtMP (Point-to-MultiPoint) network.



Use an IsoStation 5AC on each side of a PtP (Point-to-Point) link.

Beam Performance Perfected



Modular Design

The horn antennas come with precise radiation angles for specific beam shaping, ranging from 30° to 90°, making them suitable for a wide range of installations.

- · Horn designed for improved beam shaping
- Enhanced co-location performance
- Single button release for ease of changing antennas

Model Comparison



	Horn-5-30	Horn-5-45	Horn-5-60	Horn-5-90
Beamwidth	30°	45°	60°	90°
Gain	19 dBi	15.5 dBi	16 dBi	13 dBi



PS-5AC with Horn-5-45 Mounted on Pole

Horn[®] 5 30 Specifications

Horn-5-30				
Dimensions	Ø 221.4 x 184.2 mm (8.71 x 7.3")			
Weight	1.1 kg (38.8 oz)			
Supported Frequency Range	5.15 - 5.85 GHz			
Gain	19 dBi			
HPOL Beamwidth	30°			
VPOL Beamwidth	30°			
Elevation Beamwidth	30°			
Maximum VSWR	1.7:1			
Wind Survivability	200 km/h (125 mph)			
Wind Loading	56 N @ 200 km/h (12.6 lbf @ 125 mph)			
Polarization	Dual-Linear			
Cross-Pol Isolation	17 dB			



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Vertical Elevation

Horizontal Azimuth





-90

-150

-120

-30

-60

Horizontal Elevation

Return Loss



Horn[®] 5 45 Specifications

Horn-5-45			
Dimensions	Ø 175 x 96 mm (6.9 x 3.78")		
Weight	1.34 kg (47.23 oz)		
Supported Frequency Range	5.15 - 5.85 GHz		
Gain	15.5 dBi		
HPOL Beamwidth	45°		
VPOL Beamwidth	45°		
Elevation Beamwidth	45°		
Maximum VSWR	1.7:1		
Wind Survivability	200 km/h (125 mph)		
Wind Loading	56 N @ 200 km/h (12.6 lbf @ 125 mph)		
Polarization	Dual-Linear		
Cross-Pol Isolation	17 dB		



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Vertical Elevation

90

120

0dB

-5dB

-10dB

-15dB

-20dB

60

30

0

Horizontal Azimuth



Horizontal Elevation



Return Loss



Horn 5 60 Specifications

Horn-5-60				
Dimensions	161.6 x 173.3 x 170.9 mm (6.4 x 6.82 x 6.73")			
Weight	720g (25.39 oz)			
Supported Frequency Range	5.15 - 5.85 GHz			
Gain	16 dBi			
HPOL Beamwidth	60°			
VPOL Beamwidth	60°			
Elevation Beamwidth	30°			
Maximum VSWR	2:1			
Wind Survivability	200 km/h (125 mph)			
Wind Loading	50 N @ 200 km/h (11.2 lbf @ 125 mph)			
Polarization	Dual-Linear			
Cross-Pol Isolation	17 dB			



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Vertical Elevation

Horizontal Azimuth





Horizontal Elevation



Return Loss



Horn 5 90 Specifications

Horn-5-90				
Dimensions	152.1 x 186.8 x 113.2 mm (5.99 x 7.35 x 4.46")			
Weight	920 g (32.45 oz)			
Supported Frequency Range	5.15 - 5.85 GHz			
Gain	13 dBi			
HPOL Beamwidth	90°			
VPOL Beamwidth	90°			
Elevation Beamwidth	45°			
Maximum VSWR	2:1			
Wind Survivability	200 km/h (125 mph)			
Wind Loading	46 N @ 200 km/h (10.3 lbf @ 125 mph)			
Polarization	Dual-Linear			
Cross-Pol Isolation	17 dB			



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Vertical Elevation

Horizontal Azimuth







Return Loss



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