

## Features

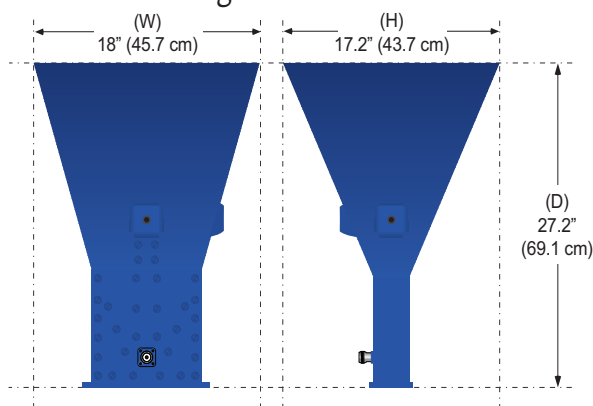
- **Frequency Range**  
800 MHz to 5 GHz (useable up to 6.5 GHz)
- **High Isotropic Gain**  
>10 dBi (800 MHz) increasing to >20 dBi (3 to 5 GHz)
- **Transmit & Receive Capabilities**
- **Individual Calibration Included**
- **Three-year Standard Warranty**

## Description

The **AH-8055** is a broadband, linearly polarized High-Gain Horn Antenna, operating with very high efficiency over the frequency range of 800 MHz to 5 GHz. The antenna may be used up to 6.5 GHz with some sacrifice in efficiency.

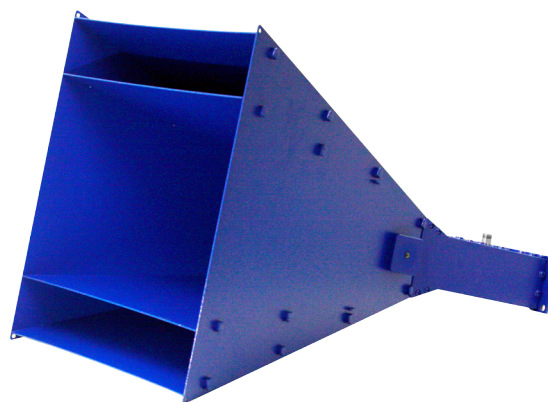
## Construction

The **AH-8055** is designed to be extremely durable, making it an ideal choice for daily use in laboratory environments, both indoors and outdoors, and even under continuous exposure to extreme weather conditions. The antenna is constructed using high grade aluminum with a corrosion resistant conductive coating.



## Calibration

Each antenna is individually calibrated per ANSI C63.5 or SAE ARP958 with NIST traceability. The calibration data and certificate is provided. Recognized ISO 17025 accredited calibration is available upon request.



## Application

The **AH-8055** is intended primarily for use as a transmitting antenna for establishing radiated RF fields for product immunity tests. Its high isotropic gain produces high field strengths with relatively low input power. It is capable of handling continuous power levels up to 450 Watts, yielding field strengths as high as 1,670 V/m @ 1 meter. A graph showing typical field strength values vs frequency, based on the isotropic gain and 450 Watts input power is given on the following page.

The antenna can also be used as a receiving antenna for electromagnetic interference (EMI) testing; however, its focused beamwidth at higher frequencies makes it less than ideal when the antenna height is scanned up to 4 or 6 meters, without changing the angle of the antenna.

Notwithstanding the above applications, the **AH-8055** can also be used for chamber characterizations or comparisons, shielding effectiveness tests of large enclosures or chambers, field monitoring, site surveys, or other general purposes.

## Mounting

Due to size and weight of the **AH-8055**, care should be taken to ensure it is properly supported. The antenna has two 1/4-inch x 20 mounting holes, for vertical and horizontal mounting, respectively.

Com-Power's **AT-220** Tripod is the recommended support for the **AH-8055**.

## Specifications

Product Name	High Gain Horn Antenna
Frequency Range	800 MHz to 5 GHz (useable up to 6.5 GHz)
Polarization	Linear
Nominal Impedance	50Ω
Power Handling (CW)	450 Watts (continuous)
Connector	N-type (female)
Antenna Factor	13.8 to 24.2 (average: 19.7) [dB(m <sup>-1</sup> )]
Isotropic Gain	10.6 to 23.1 (average: 18.8) dBi
VSWR	1.17 to 2.88 (average: 1.69) :1
Return Loss	6.3 to 22 (average: 13) dB
Radiated Field Strength	see graph below
Specifications	FCC, CISPR, EN, ETSI, FAA, MIL-STD-461, SAE, etc.
Dimensions (H x W x D)	17.2" x 18" x 27.2" [43.6 x 45.6 x 69 cm]
Weight	20.5 lbs. [9.3 kg]

All specifications are subject to change without notice.  
All values are typical, unless specified.

## Accessories available from Com-Power:



PAM-103 Preamplifier



AT-220 Antenna Tripod



SPA-900TG Series Spectrum Analyzers

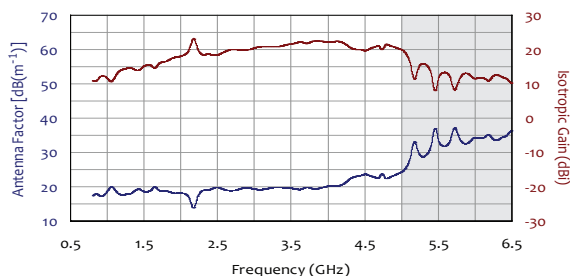
## Also Available:

AL-130R Active Loop Antenna

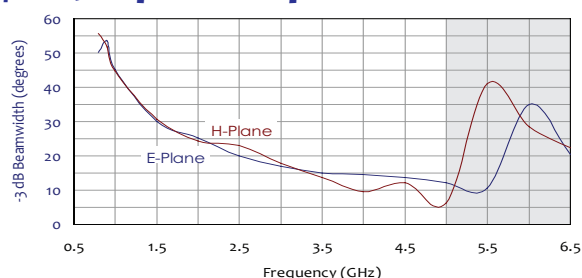
AM-741R Active Monopole Antenna

AB-900A/ABF-900A Biconical Antennas

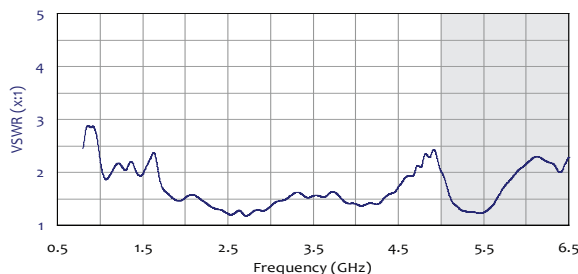
## Typical Antenna Factors / Isotropic Gain



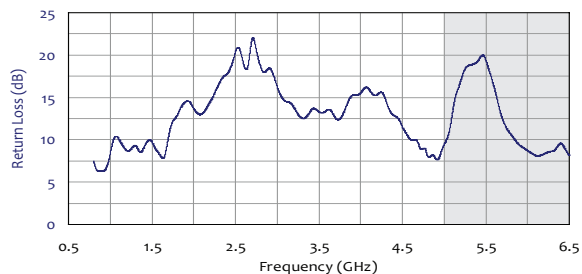
## Typical -3 dB [Half-Power] Beamwidth



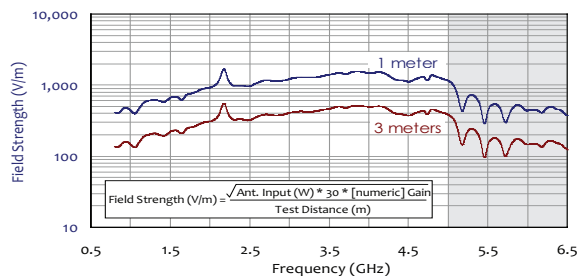
## Typical VSWR



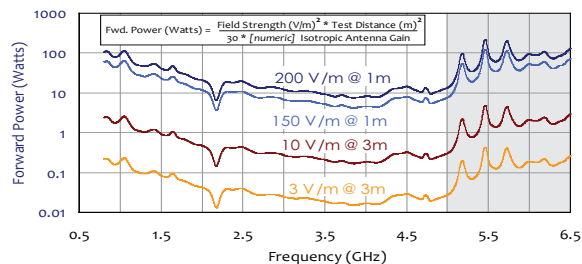
## Typical Return Loss



## Typical Field Strength with 450W Input Power



## Typical Forward Power Levels



Rev. D10.18