

Features

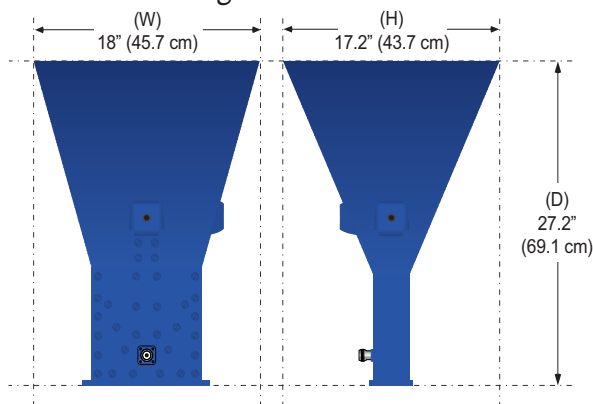
- **Frequency Range**
800 MHz to 5 GHz (useable up to 6.5 GHz)
- **High Isotropic Gain**
>10 dBi (800 MHz) increasing to >20 dBi (3 to 5 GHz)
- **Transmit & Receive Capabilities**
- **Individual Calibration Included**
- **Three-year Standard Warranty**

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 frequency range can be extended up to 6.5 GHz with some sacrifice in efficiency.

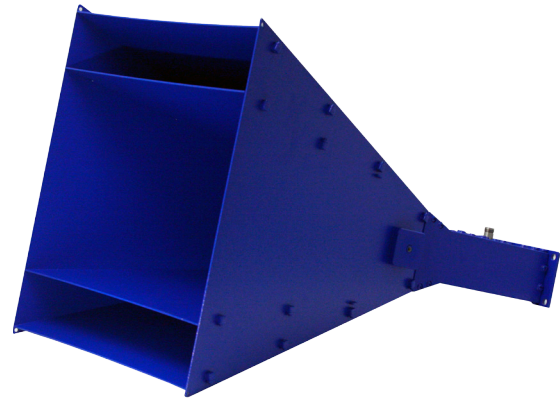
Construction

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 ⁻¹)]
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-103A Preamplifier (1 MHz to 1 GHz)



AT-220 Antenna Tripod

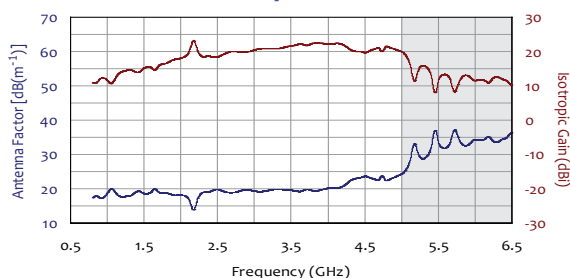


SPA-800 Spectrum Analyzer

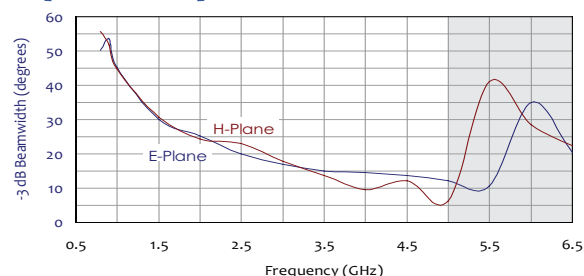
Also Available:

AH-826 Horn Antenna (18-26.5 GHz)
AHA-118A Active Horn Antenna (1-18 GHz)
AL-100, ALC-100, ALP-100 Log Periodic Antennas

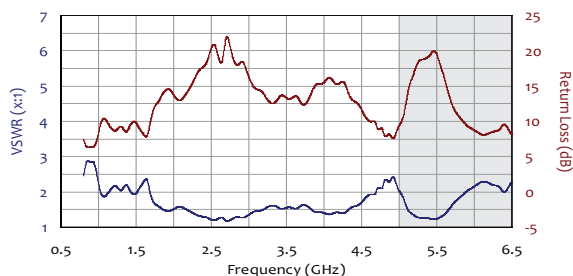
Antenna Factors / Isotropic Gain



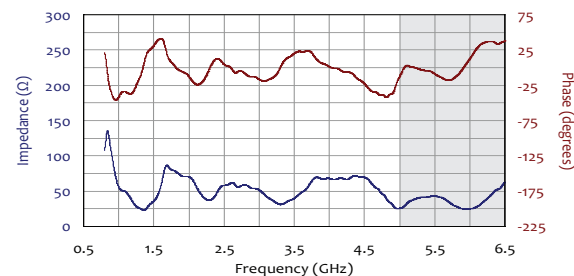
-3 dB [Half-Power] Beamwidth



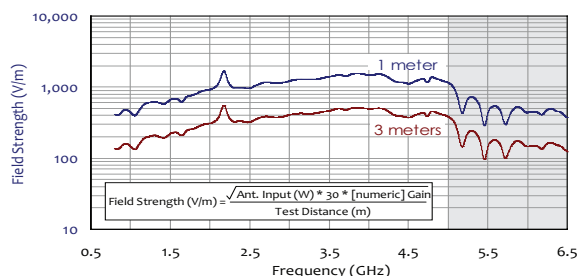
VSWR/Return



Impedance/Phase



Field Strength with 450W Input Power



Forward Power Levels

