

Antenna Authority, Inc.

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www.RFDFsystems.com

3381 West County Line Rd. Douglasville, GA 30135-1145

P: 770-577-7969 * F: 770-577-7180 * C: 770-331-0436

PRODUCT SPECIFICATION

Product Code --- CBS-12 Cavity Backed Spiral



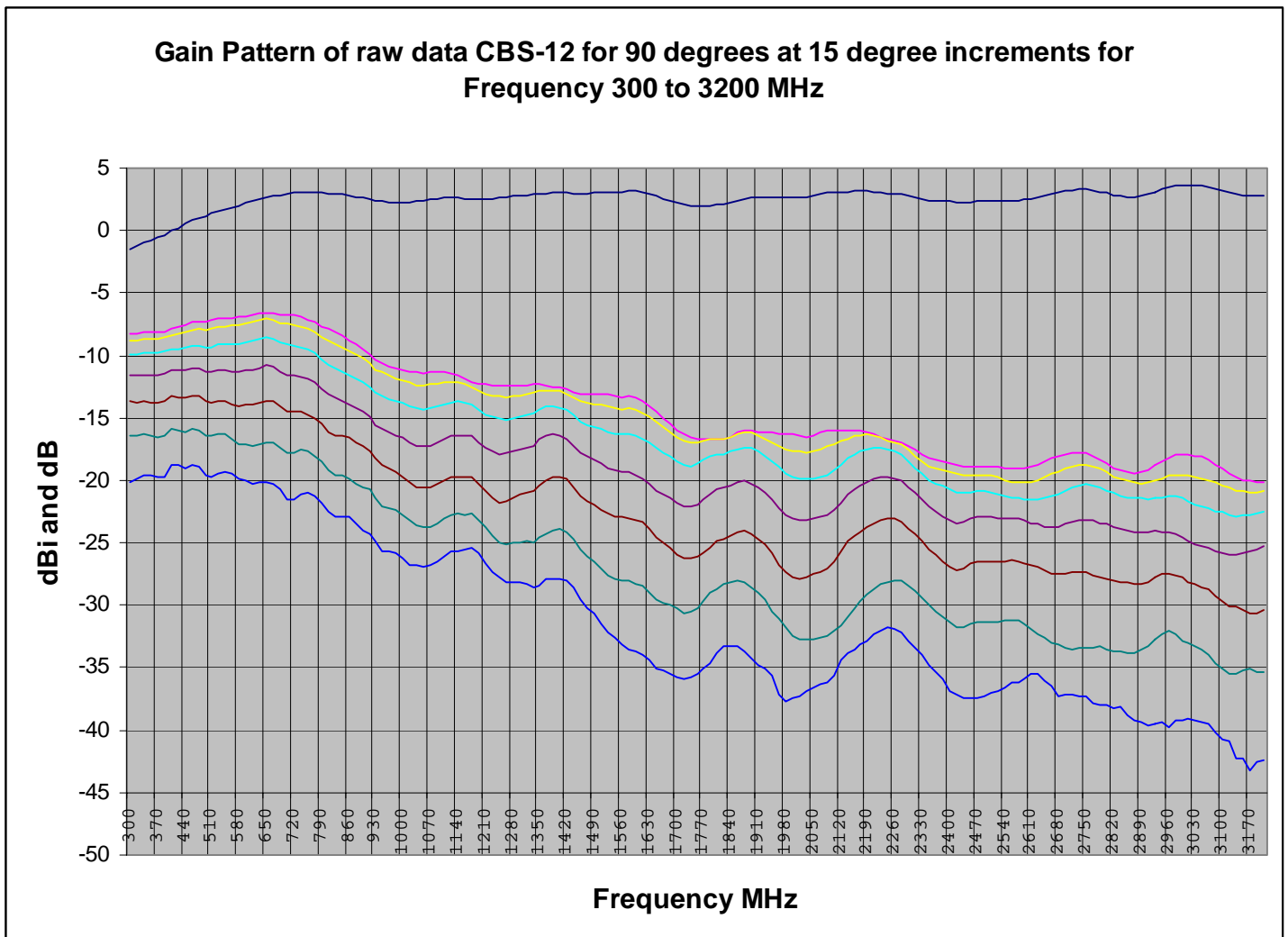
Cavity Backed Spiral Antenna

This self-complementary Archimedean spiral antenna is a frequency independent antenna. It is a lightweight medium-gain array designed to receive a circularly polarized wave. The Archimedes spirals typically cover a 10 to 1 frequency range while maintaining essentially constant impedance over the band. The circularly polarized antennas have been designed for broad-beam, broadband applications and provide a compact, lightweight antenna configuration which can be easily flush mounted. They are widely used in systems whose primary functions are surveillance, direction finding and telemetry. This Spiral antenna is mounted in a square structure and made on FR4 .063" fiberglass with a flat front face that can be easily mounted in the side of a vehicle. It is terminated and loaded with absorbing foam. Its low frequency is a function of the size and depth of the cavity, while the upper frequency is limited by the detail of the center structure. It has greater than a 10 dB F/B ratio before mounting into a vehicle.

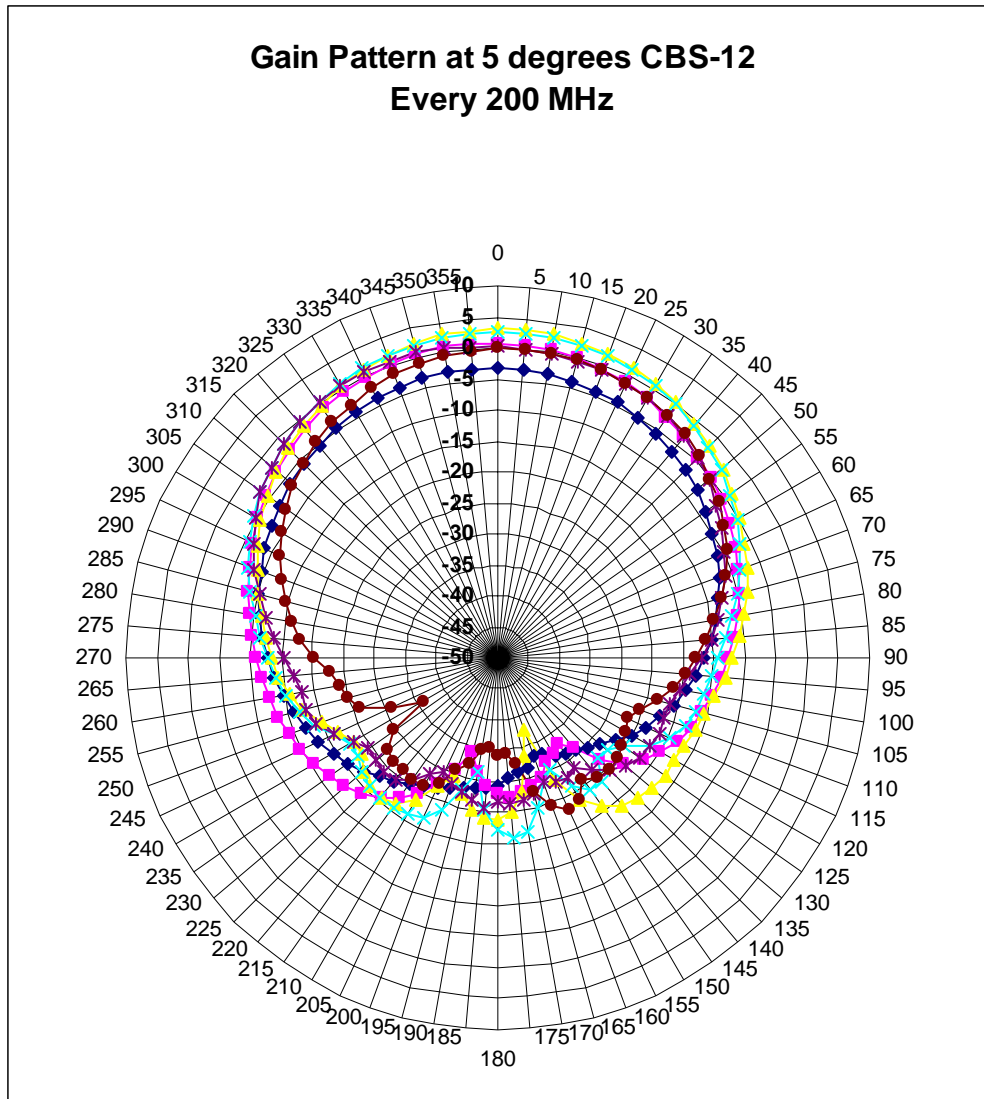
Electrical Specifications

Frequency Coverage:	300 MHz – 3.2 GHz
Azimuths Coverage:	80° beam width typical for 3 DB down
Antenna:	4-element log-periodic dipole array
Gain:	-1.5 to + 3 dBi
Polarization: CBS-12-R	Right Hand Circular
Polarization: CBS-12-L	Left Hand Circular
Impedance:	50 ohms nominal
Connectors	BNC

Gain and Pattern Plots



Polar Gain Plots



Mechanical Specifications

Dimensions: Width: 12" - Height : 12" - Thickness: 5"

Weight: 5 Lbs

Environments: Operating: -20°C to +60°C Storage: -40°C to +70°C Humidity:95%

Material: Aluminum, FR-4, Foam

Stable rugged construction, compact, light weight. Works in harsh conditions

Specifications subject to change without notice

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