

# PRODUCT SPECIFICATION Product Code --- CBS-12 Cavity Backed Spiral





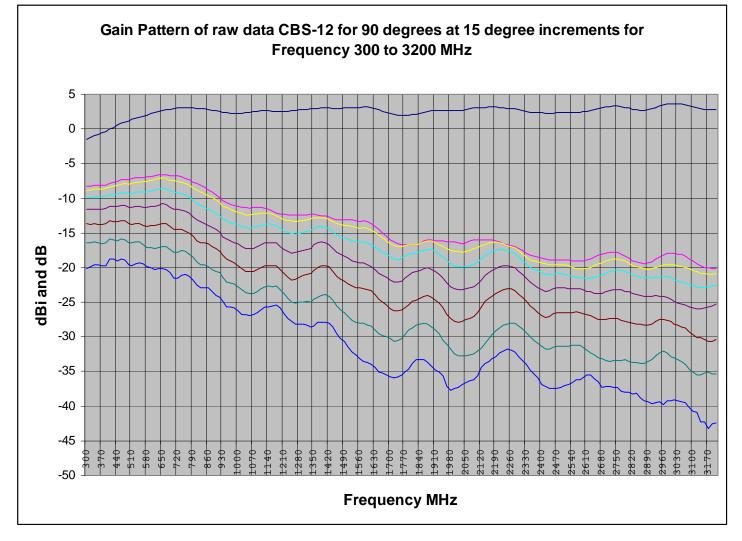
#### **Cavity Backed Spiral Antenna**

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.

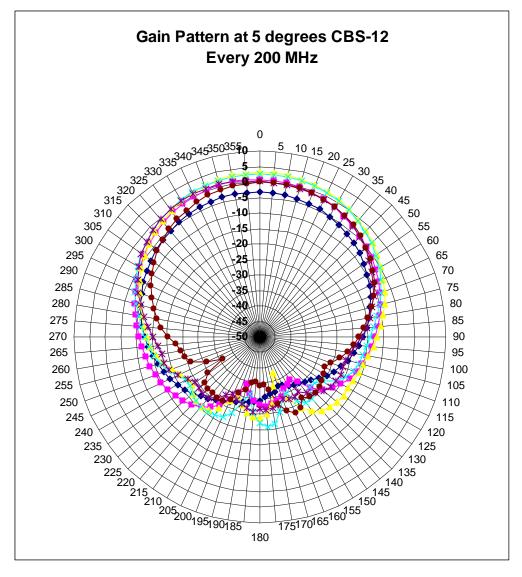
## **Electrical Specifications**

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

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