

DUAL POLARIZATION DIVERSITY DISH ANTENNA

VEGA (Patented)

VERY HIGH GAIN ANTENNA for CELLULAR BANDS

690-960MHz Model CC12-WB



VEGA-Highest Gain for Targeted Coverage with Lowest Capex

The VEGA (Very High Gain Antenna) solution is the most flexible & cost effective means to meet some of the more pressing coverage challenges in Cellular Access Networks.

VEGA's unique $\pm 45^\circ$ Dual Slant Polarization design combines high gain with polarization diversity and true narrow beam making it an ideal solution for long corridor coverage such as highways, railways and deep valleys.

Remote rural communities can be provided good service without the need for another BTS.

VEGA Solutions can be used to illuminate "difficult to penetrate" office, commercial & residential buildings in place of expensive and difficult to set up In-Door coverage networks.

The VEGA Parabolic Dish Antenna is robustly constructed of semi-transparent steel mesh for low wind and ice loading and low environmental impact.

Features

Extremely Cost Effective Coverage Enhancement Solution

- ◆ Covers all Bands 690-960 MHz
- ◆ Higher Gain for Distance Coverage
- ◆ Pencil Beam for Minimum Interference
- ◆ Designed for Cellular Applications
- ◆ Dual Polarization for Diversity Gain
- ◆ Extremely Rugged all Steel Structure
- ◆ Very low Wind Load
- ◆ $+5^\circ$ to -15° Down Tilt Mechanism
- ◆ Easy Field Installation
- ◆ Compatible with all Cellular Standards
- ◆ Small Transportation Packaging
- ◆ Low Weight Welded Galvanized Structure
- ◆ Transparent Dish for Low Zoning Impact

Applications

VEGA applications Save BTS installations

- ◆ Less Base Stations Necessary
- ◆ Long Highway & Railway Coverage
- ◆ Remote Illumination of Distant Targets
- ◆ Corridor Coverage Enhancement
- ◆ Indoor Penetration
- ◆ Narrow Beam for Repeater Donor Antenna
- ◆ Cascaded RF Repeater Antenna
- ◆ Spatial Interference Elimination
- ◆ Up & Down Link Budget Improvements
- ◆ BTS Narrow Sectorization
- ◆ Range Enhancing without Tower-Top LNA
- ◆ EIRP Boosting for Hot-Spot Coverage
- ◆ Overcoming Multiple Reflection Problems

The VEGA is a COMARCOM product



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Dual Polarization Diversity Dish Antenna

Electrical Specifications

Parameter	Model CC12-WB		
Frequency Band 690-960MHz	@750 MHz	@850 MHz	@950 MHz
Gain [dBi] ± 0.5 dB	21.6 dBi	22.5 dBi	23 dBi
3 dB Beam Width (Az & El)	13°±0.5°	11.5°±0.5°	10.5°±0.5°
Cross Polarization (on Axis)	> 20dB	> 22dB	> 22dB
Side Lobes Level @ ±90°	<-24dB	<-25dB	<-25dB
Front to Back ratio	>28dB	>32dB	>36dB
Polarization	Dual Slant (±45°)		
VSWR	Typ<1.4	Max<1.6	
RF Power per port (max)	200W		
PIM @ 2x +43dBm input	<-153dBc		
Lightning Protection	DC Grounded		



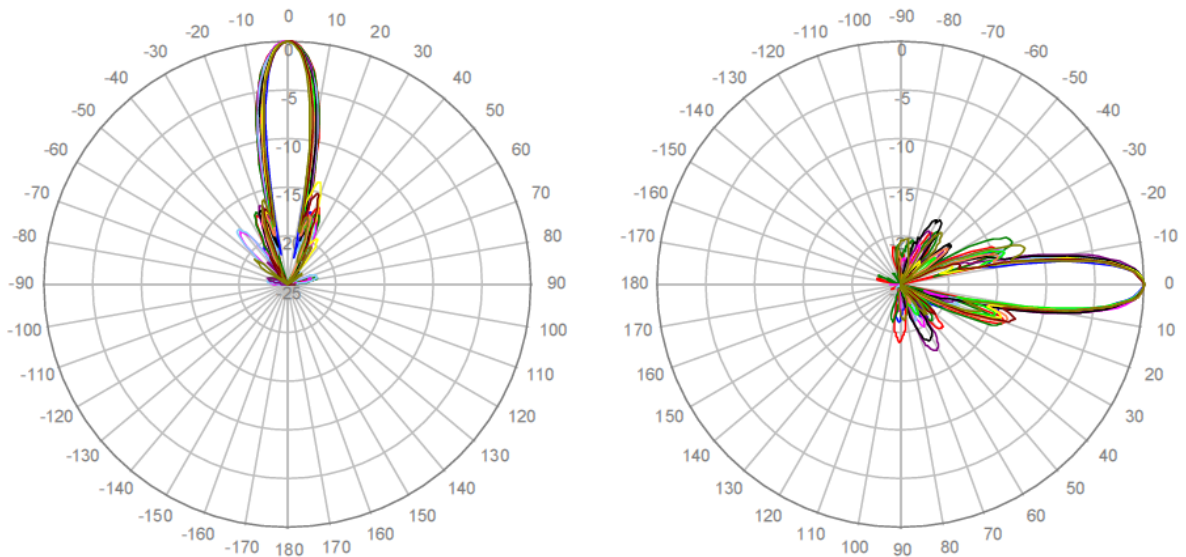
Mechanical & Environmental

Parameter	Specification
Reflector Aperture Diameter	2.0 meters (6.66 feet)
Reflector and Back Mount Material	Perforated Galvanized Steel Mesh /Galvanized Steel
Mounting Pipe Diameter *	76mm-115mm (3"-4.5") O.D
Antenna Weight (including Mounting)	41 Kg (90 lb)
Wind Load (axial; side) @150km/h (94mph)	2556N;935N (574 lb;210 lb)
Survival Wind Speed	200km/h (125mph)
Down Tilt Continuous Range	+5° to -15°
Connectors	7/16 DIN or 4.3/10 DIN, Female



* Antenna mount & hoisting sling always included

Typical VEGA model CC12-WB Radiation Patterns



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COMARCOM
 Special Antenna Solutions

Specification subjected to change without notice