

DUAL POLARIZATION DIVERSITY DISH ANTENNA

VEGA (Patented)

VERY HIGH GAIN ANTENNA for CELLULAR BANDS

1700-2690MHz Model CP12-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 1700-2690 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 CP12-WB					
Frequency Band 1700-2690 MHz	1750MHz	1850MHz	1950 MHz	2350MHz	2650 MHz	
Gain [dBi] ± 0.5dB	27.5 dBi	27.5dBi	28.4 dBi	28.7dBi	29 dBi	
3 dB Beam Width (Az & El)	6°±0.5°	5.7°±0.5°	5°±0.5°	4.6°±0.5°	4.2°±0.5°	
Cross Polarization (on Axis)	> 22dB	>27dB	> 25dB	>23dB	> 25dB	
Side Lobes Level @ ±90°	<-33dB	<-33dB	<-32dB	<-35dB	<-35dB	
Front to Back ratio	>47dB	>43dB	>41dB	>45dB	>41dB	
Polarization	Dual Slant (±45°)					
VSWR	Typ<1.4			Max<1.6		
RF Power per port (max)	200W					
PIM @ 2x +43dBm input	<-153 dBc					
Lighting Protection	DC Grounded					



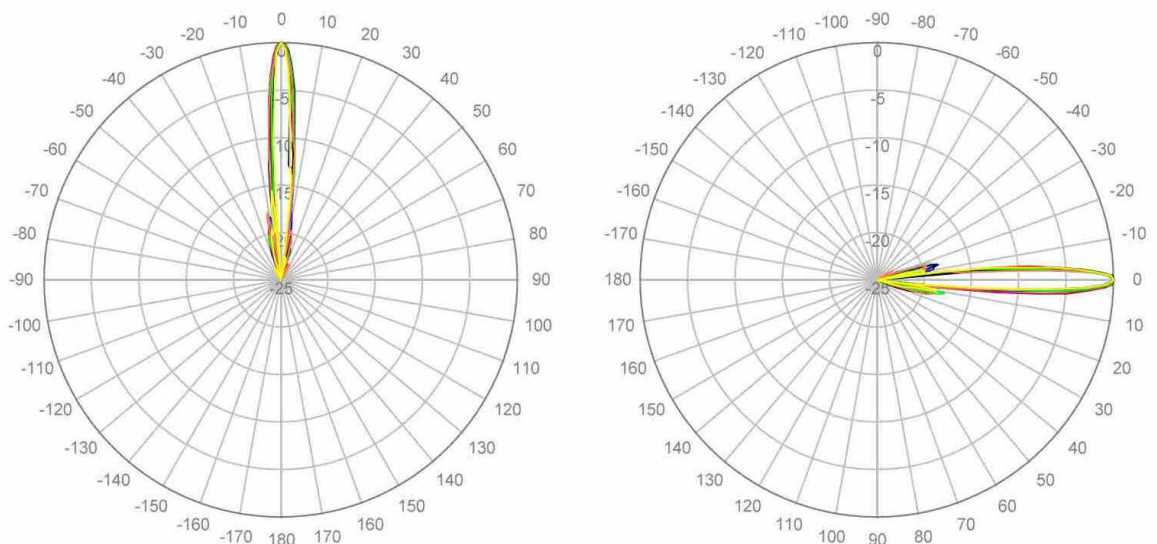
Mechanical & Environmental

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 CP12-WB Radiation Patterns



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