

# DUAL POLARIZATION DIVERSITY DISH ANTENNA

## VEGA *Mx* (Patented)

VERY HIGH GAIN ANTENNA for CELLULAR BANDS

1710-2690MHz Model CMP12WB



### 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 1710-2690 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
- ◆  $\pm 15^\circ$  Tilt and Azimuth 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 CMP12WB					
Frequency Band <b>1710-2690</b> MHz	1750MHz	1850MHz	1950 MHz	2350MHz	2650 MHz	
Gain [dBi] + 0.5dB	22 dBi	22.5dBi	22.5 dBi	23dBi	24 dBi	
3 dB Beam Width (Az & El)	10.8°±0.5°	9.5°±0.5°	9.2°±0.5°	9.0°±0.5°	8.4°±0.5°	
Cross Polarization (on Axis)	> 27dB	>27dB	> 25dB	>35dB	> 30dB	
Side Lobes Level @ ±60°	<-27dB	<-22dB	<-23dB	<-20dB	<-18dB	
Front to Back ratio	>24dB	>26dB	>32dB	>38dB	>30dB	
Polarization	Dual Slant (±45°)					
VSWR	T <sub>VP</sub> <1.4			Max<1.6		
RF Power per port (max)	200W					
PIM @ 2x+43dBm input	< -153 dBc					
Lightning Protection	DC Grounded					

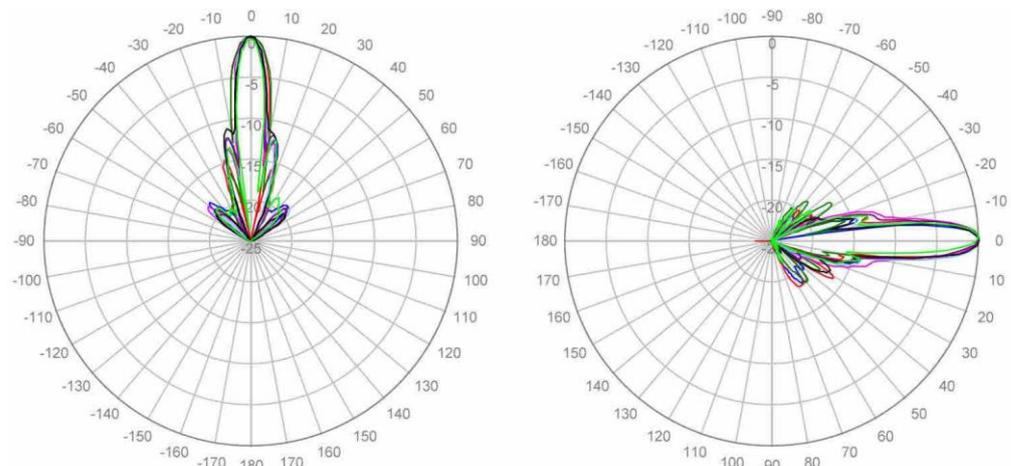
## Mechanical & Environmental

Parameter	Specification
Reflector Aperture Diameter	1.0 meters (3.3 feet)
Reflector and Back Mount Material	Aluminum / Galvanized Steel
Mounting Pipe Diameter *	76mm-115mm (3"-4.5") O.D
Antenna Weight (including Mounting)	13 Kg (28 lb )
Wind Load (axial; side) @150km/h (94mph)	1416N; 484N (317 lb;114 lb)
Survival Wind Speed	200km/h (125mph)
Operating Temperature [ °C]	+60 to -60 °C
Down Tilt Adjustment Continuous Range	±15°
Azimuth Adjustment Continuous Range	+15° / -15°
Connectors	7/16 DIN or 4.3/10 DIN, Female

\* Antenna mount & hoisting sling always included

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### Typical VEGA model CMP12WB Radiation Patterns



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**COMARCOM**  
 Special Antenna Solutions

Specification subjected to change without notice

