

DUAL BEAM & DUAL POLARIZATION DISH ANTENNA

VEGA *Mx* (Patented)

VERY HIGH GAIN, Dual BEAM, Dual Pol ANTENNA

1710-2690MHz Model CMP22WB



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 Dual beam, $\pm 45^\circ$ Dual Slant Polarization design combines very high gain with polarization Diversity enabling 4x4MIMO in dense urban environment.

Dual Beam antenna enables higher order sectorization = higher spectral efficiency

CMP22WB True narrow beams are an ideal solution for long corridor coverage such as highways, railways and deep valleys.

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

The VEGA Parabolic Dish Antenna is robustly constructed of lightweight Aluminum dish for low wind and ice loading and low environmental impact.



Features

**Extremely Cost Effective
Coverage Enhancement Solution**

- ◆ Covers all Bands within 1710-2690 MHz
- ◆ Higher Gain for Distance Coverage
- ◆ Two Pencil Beams minimizes Interference
- ◆ Lower Coverage Overlap between beams
- ◆ Reduces Network Expansion Cost
- ◆ Dual Beam and Dual Polarization
- ◆ Enables 4x4 MIMO in dense urban area
- ◆ $\pm 15^\circ$ Tilt and Azimuth Mechanism
- ◆ Easy Field Installation
- ◆ Compatible with 3G, 4G, 5G Standards
- ◆ Small Transportation Packaging
- ◆ Low Weight Welded Galvanized Structure



Applications

**VEGA applications Save
BTS installations**

- ◆ Enables 4x4 MIMO in dense urban area
- ◆ Long Highway & Railway Coverage
- ◆ Remote Illumination of Distant Targets
- ◆ Increased Capacity and Coverage
- ◆ Indoor Penetration
- ◆ Improved QOS
- ◆ Spatial Interference Elimination
- ◆ Up & Down Link Budget Improvements
- ◆ BTS Narrow Sectorization
- ◆ Range Enhancing without Tower-Top LNA
- ◆ EIRP Boosting for Hot-Spot Coverage
- ◆ Less towers along highways needed

The VEGA is a COMARCOM product



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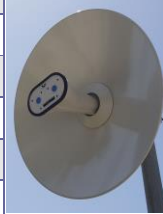
Specification subjected to change without notice



Dual Polarization Diversity Dish Antenna

Electrical Specifications

Parameter	Model CMP22WB				
Frequency Band 1710-2690 MHz	1750MHz	1950MHz	2150 MHz	2350MHz	2650 MHz
Gain IdBiI + 0.5dB	22 dBi	22.5dBi	23.5 dBi	24dBi	25 dBi
3 dB Beam Width (Az & El)	10.8°±0.5°	9.5°±0.5°	9.0°±0.5°	8.0°±0.5°	7.4°±0.5°
Beam Centers from boresight (Az)	±7.5°	±7.5°	±7.0°	±7.0°	±7.5°
Azimuth Beams Crossover	-8 dB	-8.5 dB	-9dB	-10dB	-11dB
Cross Polarization (on Axis)	> 26dB	>24dB	>25dB	>23dB	> 21dB
Interbeam Co-Pol Isolation	>20dB	>20dB	>20dB	>20dB	>20dB
Intrabeam Port to Port Isolation	>25dB	>30dB	>25dB	>23dB	>23dB
Side Lobes Level @ ±60°	<-20dB	<-18dB	<-17dB	<-17dB	<-19dB
Front to Back ratio	>35dB	>27dB	>27dB	>32dB	>34dB
Polarization	Both Beams are Dual Slant (±45°)				
VSWR	Typ<1.4		Max<1.6		
RF Power per port (max)	200W				
PIM @2x+43dBm input	< -153 dBc				
Lightning Protection	DC Grounded				



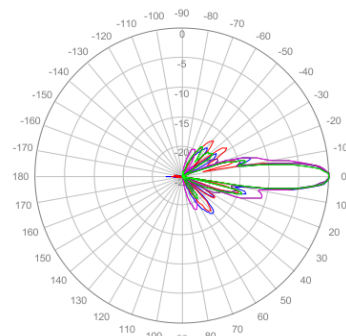
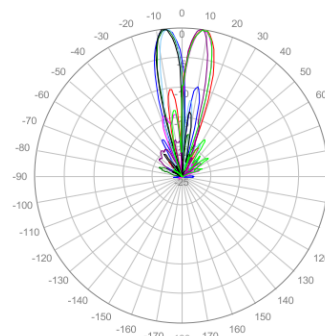
Mechanical & Environmental

Parameter	Specification
Reflector Aperture Diameter	1.0 meters (3.3 feet)
Reflector / 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 Range [C]	+60 to -60
Down Tilt Adjustment Continuous Range	±15°
Azimuth Adjustment Continuous Range	+15° / -15°
Connectors	4.3/10 DIN, Female

*Antenna mount & hoisting sling always included

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Typical VEGA model CMP22WB Radiation Patterns



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