## DUAL POLARIZATION 2X2 MIMO DISH ANTENNA

## VEGA $A_{\text {max }}$

VERY HIGH GAIN ANTENNA for 5G BANDS
2.1,2.3,2.5,2.6,3.3-3.8 GHz Model CMW12WB


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 $\pm 45^{\circ}$ Dual Slant Polarization design combines very high gain with polarization Diversity $2 \times 2$ MIMO and true narrow beam making it 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. 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 lightweight Aluminum dish for low wind and ice loading and low environmental impact.

## Features <br> Extremely Cost Effective Coverage Enhancement Solution

- Covers all Cellular Bands 2100-3800 MHz
- Very High Gain for Distance Coverage
- Pencil Beam for Minimum Interference
- Low PIM Multi Carrier 5G applications
- Designed for Cellular Applications
- Dual Polarization for 2x2 MIMO
- Extremely Rugged Structure
- Mechanical $\pm 15^{\circ}$ Tilt and $\pm 10^{\circ}$ Azimuth
- Easy Field Installation
- Compatible with all Cellular Standards
- Robust Galvanized Mounting Structure
- Mounting Structure included


## Applications

VEGA applications Save BTS installations

- Less Base Stations Necessary
- Long Highway Coverage
- 5 G service along long Rails
- 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

The VEGA is a COMARCOM product

## Electrical Specifications

| Parameter | Model CMW12WB |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Freauencv Band 2100-3800 MHz 2100MHz | 2350 MHz | 2550 MHz | 2650 MHz | $3.5-3.8 \mathrm{GHz}$ |
| Gain [dBi〕 $\pm 0.5 \mathrm{~dB} \quad 23 \mathrm{dBi}$ | 24 dBi | 25 dBi | 25.5 dBi | 26 dBi |
| 3 dB Beam Width ( Az \& El) $\quad 9{ }^{\circ} \pm 0.5^{\circ}$ | $8.5{ }^{\circ} \pm 0.5^{\circ}$ | $8^{\circ} \pm 0.5^{\circ}$ | $7.5^{\circ} \pm 0.5^{\circ}$ | $6^{\circ} \pm 0.5^{\circ}$ |
| Cross Polarization (on Axis) $>23 \mathrm{~dB}$ | $>24 \mathrm{~dB}$ | $>20 \mathrm{~dB}$ | $>23 \mathrm{~dB}$ | $>16 \mathrm{~dB}$ |
| $1{ }^{\text {st }}$ Side Lobes Level $\ll-15 \mathrm{~dB}$ | $<-15 \mathrm{~dB}$ | $<-15 \mathrm{~dB}$ | $<-15 \mathrm{~dB}$ | $<-15 \mathrm{~dB}$ |
| Front to Back ratio >29dB | >38dB | $>30 \mathrm{~dB}$ | >31dB | >38dB |
| Polarization | Dual Slant ( $\pm 45^{\circ}$ ) |  |  |  |
| VSWR | Tvpical <1.4 |  | Max<1.5 |  |
| RF Power per port (max) | 200W |  |  |  |
| PIM @ 2x+43dBm indut | $<-153 \mathrm{dBc}$ |  |  |  |
| 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 * | $76 \mathrm{~mm}-115 \mathrm{~mm}$ (3"-4.5") O.D |  |  |  |
| Antenna Weight (including Mounting) | $13 \mathrm{Kg} \mathrm{(28} \mathrm{lb} \mathrm{)}$ |  |  |  |
| Wind Load (axial; side) @ 150km/h (94mph) | $1416 \mathrm{~N} ; 484 \mathrm{~N}$ ( $317 \mathrm{lb} ; 114 \mathrm{lb}$ ) |  |  |  |
| Survival Wind Speed | $200 \mathrm{~km} / \mathrm{h}(125 \mathrm{mph})$ |  |  |  |
| Operating Temperature [ ${ }^{\circ} \mathrm{C}$ ] | +60 to $-60{ }^{\circ} \mathrm{C}$ |  |  |  |
| Down Tilt Adjustment Continuous Range | $\pm 15^{\circ}$ |  |  |  |
| Azimuth Adjustment Continuous Range | $\pm 10^{\circ}$ |  |  |  |
| Connectors | 4.3/10 DIN, Female |  |  |  |



* Antenna mount \& hoisting sling always included


## VEGA-Highest Gain for Targeted Coverage with Lowest Capex

 Typical VEGA model CMW12WB Radiation Patterns

The VEGA is a COMARCOM product

Email: contact@comarcom.biz - WEB: www.comarcom.biz
Specification subjected to change without notice

