

Dual Polarization Diversity Dish Antenna

VEGA Mx (Patented)

Very High Gain Antenna
Covering 1710-2170MHz



VEGA Mx - Highest Gain - Targeted Coverage - Lowest Capex

The VEGA Mx very high gain antenna is the most flexible & cost effective solution to some of the more pressing coverage problems in advanced cellular networks.

The VEGA Mx antennas unique $\pm 45^\circ$ dual polarization design combines high gain with polarization diversity making it an ideal solution for long corridor coverage such as highways & railways and for covering remote distant communities and installations. Extremely low side lobes enable the operator to use a stronger signal without creating interference to surrounding BTS.

UMTS networks using existing GSM towers need not suffer from weak signals & slow data rates in areas distant from BTS.

The VEGA Mx dual pole antenna can be used to illuminate "difficult to penetrate" office, commercial & residential buildings in place of expensive & difficult to set up in-door coverage networks.

The VEGA Mx parabolic dish antenna is robustly constructed of light weight rolled aluminum. Small size (100 cm. \varnothing) & light weight insure lower tower load & environmental impact.

Feature

- Extremely cost effective coverage enhancement solution
- Covers bands from 1710-2170 MHz
- Higher gain for distance coverage
- Pencil beam for minimu interference
- Dual polarization for diversity gain
- Extremely low side lobes
- Integral mount features $\pm 15^\circ$ tilt
- Azimuth fine adjustment $\pm 15^\circ$
- Easy Field Installation
- Compact transportation packaging
- Dish antenna for low zoning impact
- Compatible with all cellular standards
- Very low wind load

Application

- Less Base Stations Necessary
- Long Highway & Railway Coverage
- Remote Illumination of Distant Targets
- Corridor Coverage Enhancement
- In-Building 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 Reflections
- Allows More Frequency Reuse

The VEGA is a COMARCOM product

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COMARCOM
Special Antenna Solutions

Dual Polarization Diversity Dish Antenna

Electrical Specifications

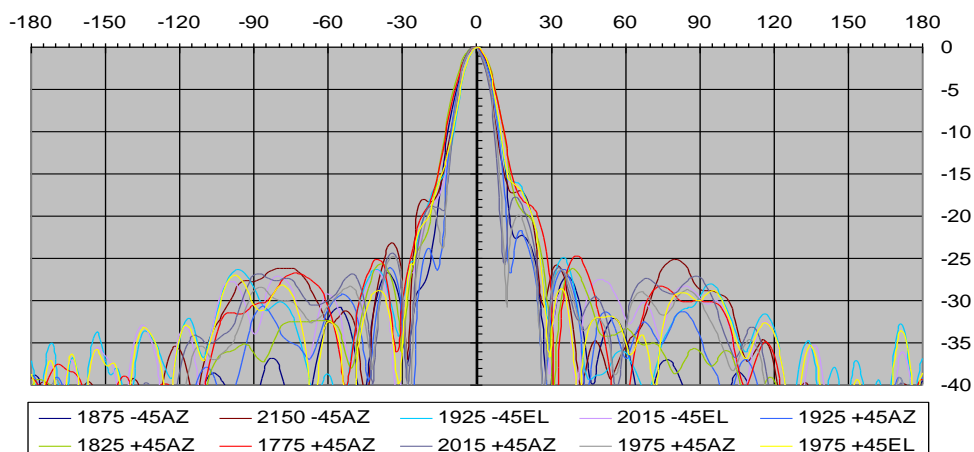
| <i>Parameter</i> | <i>Model CMP-12-HP4G</i> | |
|------------------------------|--------------------------|-----------------|
| Frequency Band | 1710 – 1990 MHz | 1900 – 2170 MHz |
| Antenna Gain | 22.5 ±0.5 dBi | 23 ± 0.5 dBi |
| 3 dB Beam Width (Az & El) | 11° ±0.5° | 10° ±0.5° |
| Cross Polarization (on Axis) | >25 dB | >25 dB |
| Side Lobes Level @ ±90° | <-25dB | <-25dB |
| Front to Back Ratio | >35dB | >35dB |
| Polarization | Dual (±45°) | Dual (±45°) |
| V S W R | <1.5:1 typical | <1.5:1 typical |
| RF Power | 200W max. | 200W max. |
| PIM @ 2x +43 dBm | <-153dBc | <-153 dBc |
| Lightning Protection | DC Grounded | |

Mechanical & Environmental

| <i>Parameter</i> | <i>Specification</i> |
|--|-----------------------------|
| 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) |
| Down Tilt Adjustment Continuous Range | ±15° |
| Azimuth Adjustment Continuous Range | ±15° |
| Connectors | 7/16 DIN, Female |

* Antenna mount & hoisting loop always included in price! No added cost or hassle!

1710 - 2170 MHz VEGA Mx Antenna Radiation Patterns



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