

VEGA Mx Dual Polarisation Antenna



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 aluminium. Small size (100 cm. \varnothing) & light weight insure lower tower load & environmental impact.

Key Features

- Covers bands from 1710-2170 MHz (DECT-PCS-DCS-UMTS)
- Higher gain for distance coverage
- Pencil beam for minimum interference
- Dual polarization for diversity gain
- Extremely low side lobes
- Integral mount features 15° down tilt & $\pm 7.5^\circ$ azimuth fine adjustment
- Easy Field Installation
- Compact transportation packaging
- Dish antenna for low zoning impact
- Compatible with all cellular standards
- Very low wind load

VEGA Mx Dual Polarisation Antenna (cont.)

Applications

- Less Base Stations Necessary
- Long Highway & Railway Coverage
- Remote Illumination of Distant Targets
- Corridor Coverage Enhancement
- 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 with out Tower-Top LNA
- EIRP Boosting for Hot-Spot Coverage
- Overcoming Multiple Reflections
- Allows More Frequency Reuse



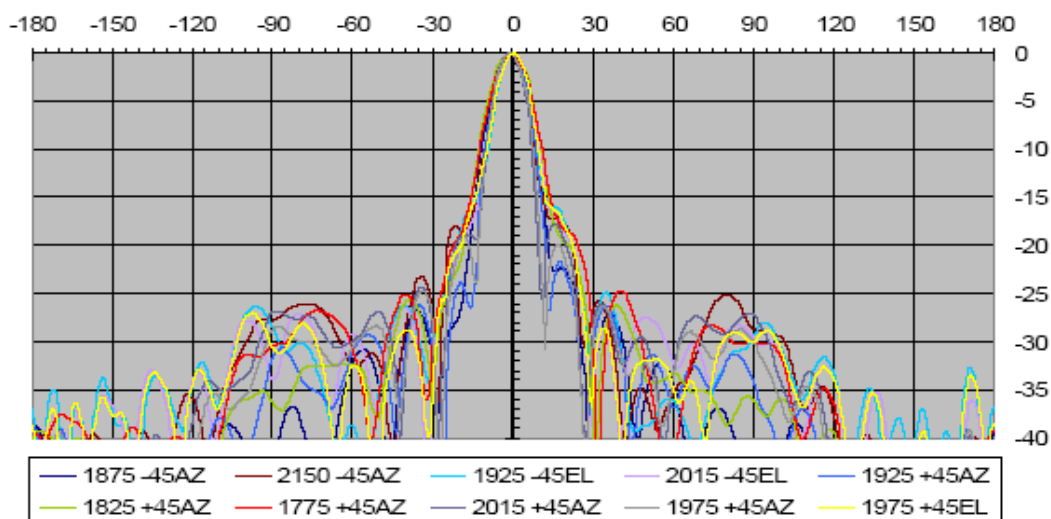
Electrical Specifications

Part Number	Model CMP-12	
	at DECT, DCS, PCS	at UMTS
Frequency Band	1710 – 1990 MHz	1900 – 2170 MHz
Antenna Gain	22.5 ±0.5 dBi	23± 0.5 dBi
3 dB Beam Width	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°)
VSWR	1.5:1 typical	1.5:1 typical
RF Power	50W max.	50W max.

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Mechanical Specifications

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) @200km/h 125mph)	1400N;1140N (318 lb;137 lb)
Down Tilt Continuous Range	0-15°
Azimuth Fine Adjustment Continuous Range	+7.5° / -7.5°
Connectors	7/16 DIN, Female



1710 - 2170 MHz VEGA Mx Antenna Radiation Patterns