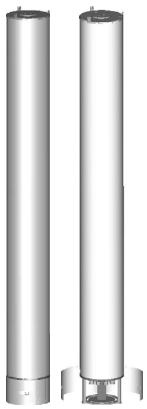
Compact Tri-sector Dual-band (BB/BB)D250 antenna for BTS



Features

Frecuency bands
· 1710-2170 MHz
· 1710-2170 MHz.

Multisector configuration
Monosector, bisector 120º, bisector 180º and trisector configuration available.

Variable Electrical Tilt, RET
· Wide Electrical Tilt range (4-14º).
· Ready for RET configuration.

Double azimuth
Global azimuth (+/-50º) and independent azimuth for each sector (+/-10º).

Accessibility
The lower compartment allows easy access to connectors and antenna adjusting (azimuth and tilt).

Minimum size
Minimum weight and size in the market, thanks to fractal technology. It reduces stress due to wind and structural requirements .

MAST + ANTENNA SOLUTION

Minimum visual impact
Its small size, together with the mast and add-ons integrated into city scapes, reduces visual impact to the minimum, making it easier to find installation sites.

Increased safety
The safety systems included reduce the risk of accidents and the need to work at height. Availability of access for installers only.

Cost savings
Folding Mast: Reduces installation time and costs, without expensive work at height. Modular Mast and Base Plate: no crane or civil work costs, resulting in high productivity. It makes it posible to work under adverse weather conditions. Cables channelled inside the mast.

Description

The TELNET **Compact Tri-sector Dual-band (BB/BB) antenna** is part of the ***ENVIA*** family, a new generation of antennas for mobile telephone base stations, with radiating components based on fractal geometry. This technology significantly reduces the overall size of the antenna, allowing it to be incorporated under a single cylindrical radome, equivalent to 6 single-band panels in a traditional antenna.

This innovative line of TELNET Compact Antennas has significantly reduced visual impact. It can be assimilated almost imperceptibly into the urban environment by mimicking building elements. In addition, the small height and weight of this family of antennas simplifies installation and maintenance tasks.

MAST + ANTENNA SOLUTION

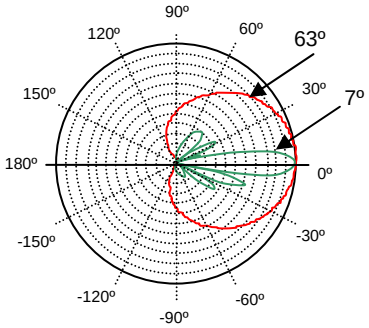
Each Compact Antenna can be supplied in monosector, bisector or trisector configurations. In addition, each antenna can be supplied in different colours and covers. This family of antennas is ready for RET (Remote Electrical Tilt) technology.

TELNET Compact Antennas are supplied with a modular mast. The masts can reach heights of up to 6 metres and have available a module to house the TMA inside. They are available in different colours and finishes, and three safety options to make installation safer.

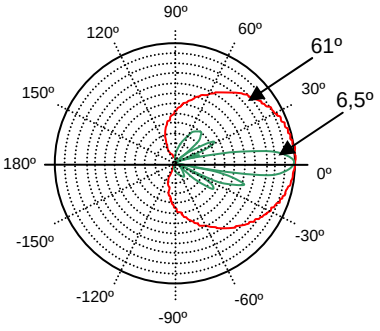
Finally, the whole antenna and mast unit is supported by an anchoring mechanism. There are three types available, depending on the needs of each location: floating bedplate, ground pillar mounted and wall mounted.

Family TNA570 - Technical Features

Radio-Electrical	Broadband Down	Broadband Up
Frequency Range	1710 - 2170 MHz DCS // UMTS	1710 - 2170 MHz DCS // UMTS
Polarization	Xpol, +/- 45º	Xpol, +/- 45º
Gain Max **Gain +/- Avg. Dev**	17,3 dBi 16,64 ± 0,2 dBi // 16,64 ± 0,3 dBi	17 dBi 16,64 ± 0,2 dBi // 16,64 ± 0,3 dBi
Horizontal Beam width	63º // 61º	63º // 61º
Vertical Beam width	7º // 6,5º	7º// 6,5º
Cross Polar Discrimination Boresight	>25dB	>25dB
F/B Ratio Copolar (180º+/-30º cone)	27 dB	27 dB
Side lobe suppression for first side lobe above horizon	15 17 15 dB 4º 10º 14º	15 17 15 dB 4º 10º 14º
Electrical tilt continuously adjustable	4º - 14º (sector and band independent)	4º - 14º (sector and band independent)
VSWR	< 1.5:1	< 1.5:1
Interport Isolation	> 30 dB	> 30 dB
Nullfill	25 dB	25 dB
Impedance	50 Ohms	50 Ohms
Max. Power per input	300W	300W
Inter modulation Products (2*20W)	150dBc	150dBc
Azimuth	+/-50º : Full Antenna Azimuth (as a block) +/-10º: Independent Azimuth per sector	
Prepared for RET	OK	OK



DCS pattern per sector



UMTS pattern per sector

Mechanical	
Input	12 x 7/16 female
Connectors position	Bottom, 3 x 4 (7/16)
Dimensions	Diameter: 250 mm Length: 2700mm + 200 mm
Weight	50 Kg.
Max. speed wind	200 Km/h

Material	
Radome	Fiber glass + polyester
End Caps	Stainless Steel
Screws and Nuts	Stainless Steel

Enviromental and mechanical tests	
IEC 60068-2-2: Dry Heat	IEC 60068-2-64: Random Vibration
IEC 60068-2-56: Damp Heat Steady State	IEC 60068-2-6: Sine Vibration
IEC 60068-2-30: Damp Heat Cyclic	IEC 60068-2-27: Shock Test
IEC 60068-2-14: Change of Temperature	IEC 60068-2-32: Free Fall Test
IEC 60068-2-1: Cold	IEC 60068-2-29: Bump Test
IEC 60068-2-18: Water (Handheld shower)	IEC 60068-2-52: Salt mist Cyclic
IEC 60068-2-11: Salt mist	

Telnet antennas have passed environmental tests recommended in ETS 300 019-2-4, and extensive test recommended by the main operators over the world.

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