

PS-5800-22-03-DP
PS-5800-29-06-DP
PS-5800-32-09-DP
PS-5800-34-12-DP
PS-5800-37-18-DP



ANTENNAS

PARABOLIC SHIELDED ANTENNA

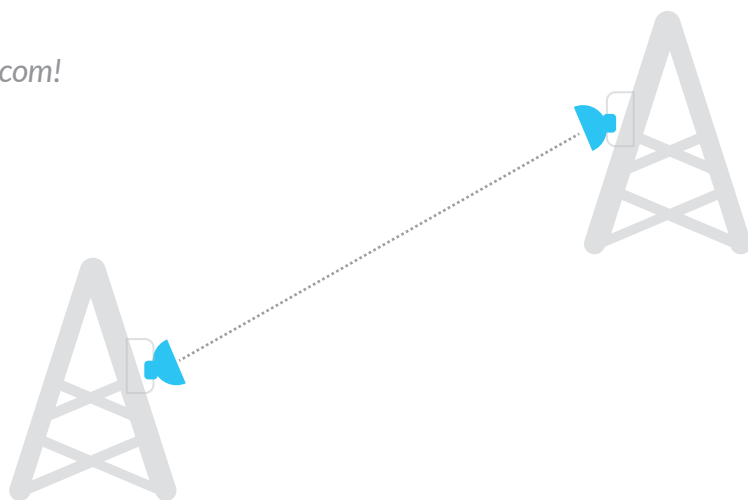
- Dual Slant links +/- 45°
- Excellent shielding
- State-of-the-art computational tool design

APPLICATION

ALGcom Parabolic Shielded Antennas were designed with high technology to ensure the best performance in unlicensed frequency wireless links.

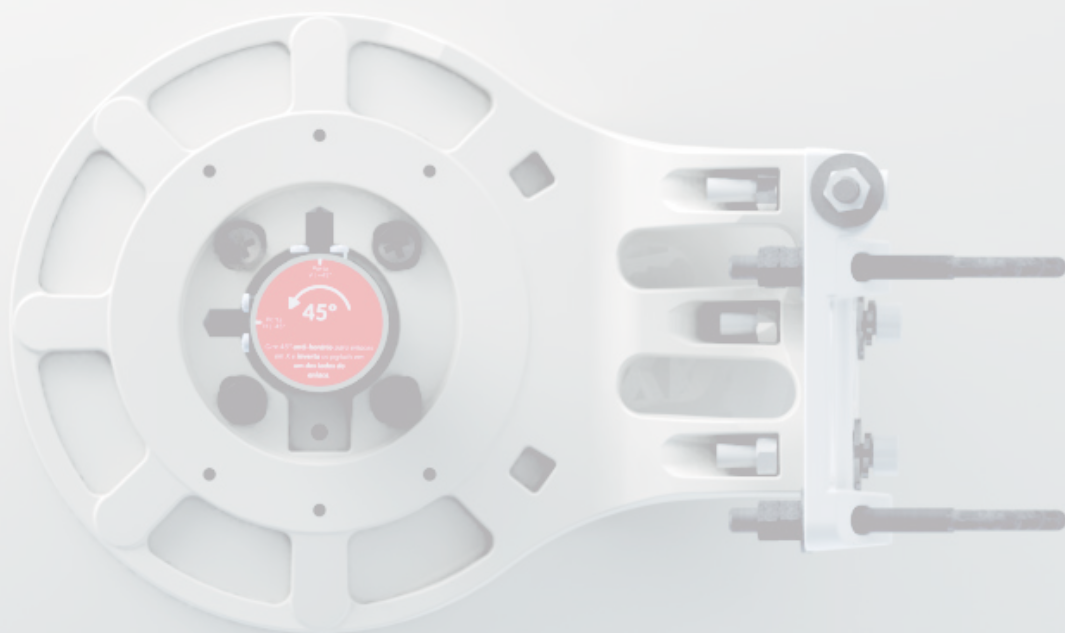
They are used on point-to-point wireless links and have standard fitting for coupling the ALGcom Armored Boxes, in addition to having a support that allows for the easy link alignment.

Get to know following Ultra High Performance ALGcom!



SLANT 45° LINKS

Better flexibility in double-polarized links with possibility of installation V / H or +/- 45°

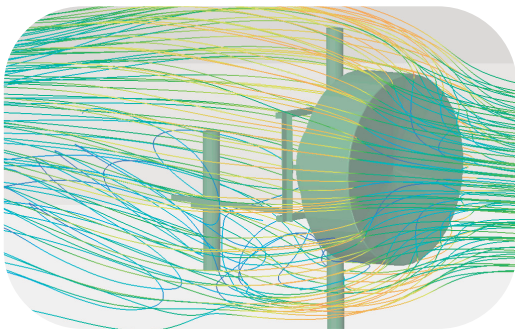


STATE-OF-THE-ART COMPUTATIONAL TOOLS

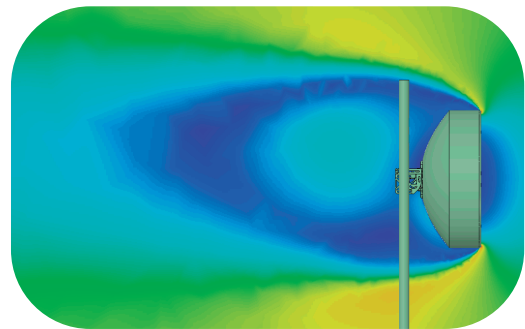
ALGcom Parabolic Shielded Antennas are designed using electromagnetic simulation and structural calculation softwares, providing the best structural performance, reducing the weight and improving the product life span.

In all ALGcom products are used sophisticated calculation methods and state of the art tools. There are many possibilities of simulation, based on rules and regulations. The results were approved by our engineers and the mechanical stability proof is based on Anatel's 932 ACT and 953 ACT (resolutions 609 and 610).

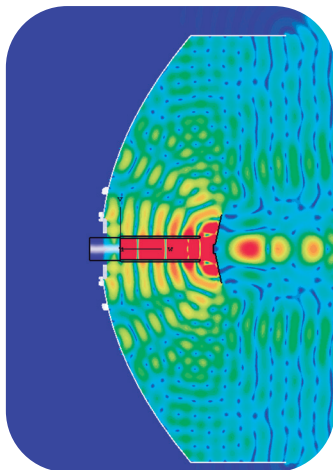
The values identified as wind forces resulting from several fluid dynamics simulations by numerical analysis' software and aerodynamic property calculations. The patterns determine resistance and wind forces coefficients that act on the antenna, leading a load to the mounting pipe. This load can be divided in an axial force, a lateral force and a torsion moment. Aspects like the shape of antenna, radome, and reflectors are taken into account too.



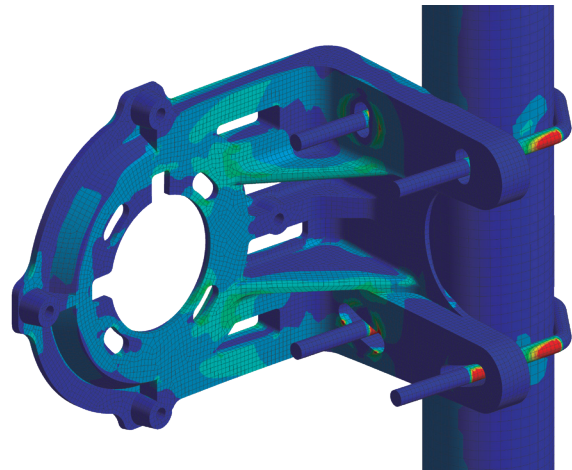
Computation Fluids Dynamics Analysis



Computation Fluids Dynamics Analysis



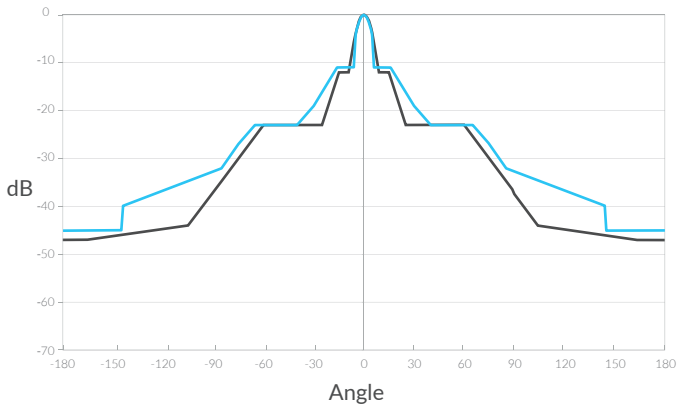
Transient Finite Integration Technique



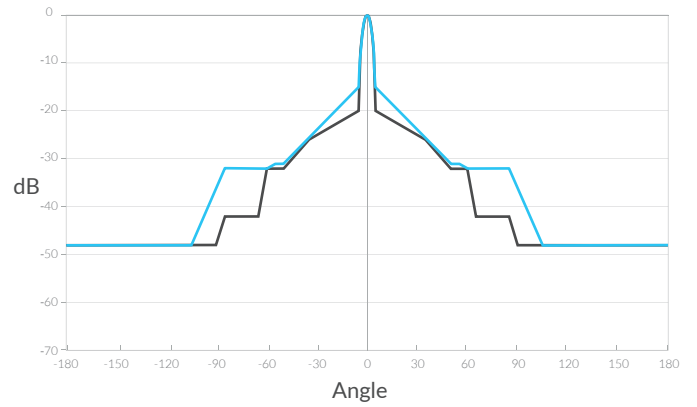
Structural Finite Elements Analysis

EXCELLENT SHIELDING

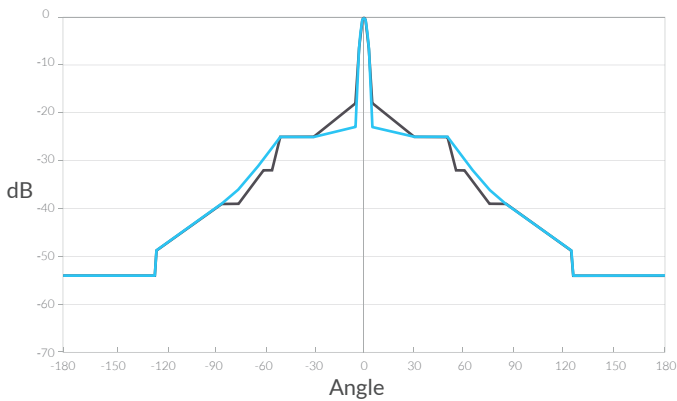
ALGcom Parabolic Shielded Antennas have an excellent noise immunity guaranteed by their lateral shielding. Find below the irradiation diagrams of each model:



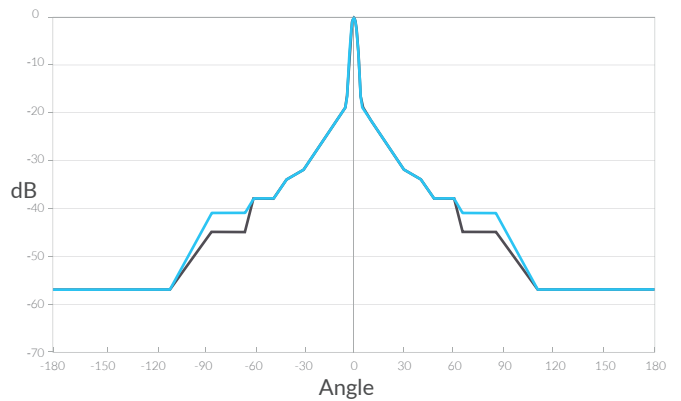
— PS-5800-22-03-DP - Diagram H
— PS-5800-22-03-DP - Diagram V



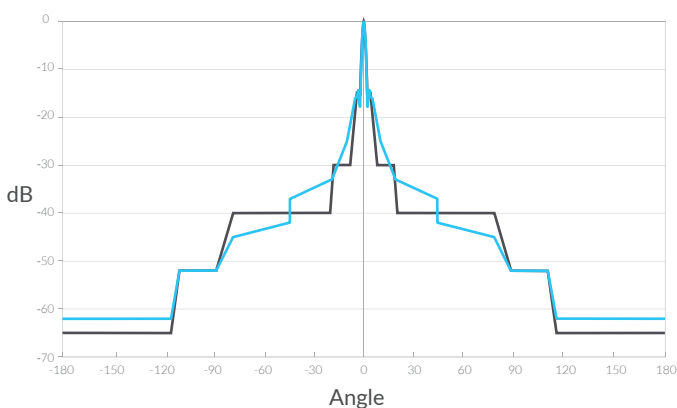
— PS-5800-29-06-DP - Diagram H
— PS-5800-29-06-DP - Diagram V



— PS-5800-32-09-DP - Diagram H
— PS-5800-32-09-DP - Diagram V



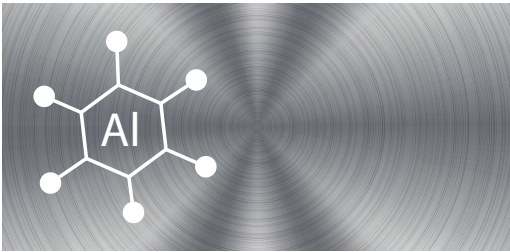
— PS-5800-34-12-DP - Diagram H
— PS-5800-34-12-DP - Diagram V



— PS-5800-37-18-DP - Diagram H
— PS-5800-37-18-DP - Diagram V

PARABOLIC SHIELDED ANTENNA

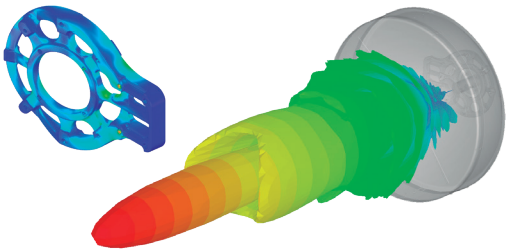
5.250 - 5.875 GHz



100% Aluminum Structure.



VSWR and isolation 100% verified. Technical report is included.



Projects are designed with computational tools that allows ALGcom to optimize the radiation efficiency and evaluate the mechanical structure.



Complete range of accessories to suit all applications and ensure the best link performance.



All models approved by Anatel
3 years warranty

MODELS

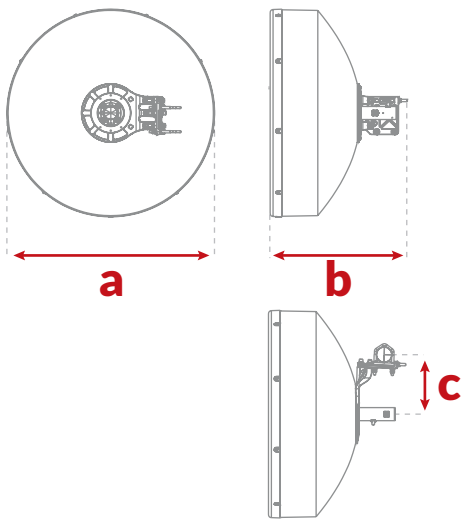
ELECTRICAL SPECIFICATIONS

	PS-5800-22-03-DP	PS-5800-29-06-DP	PS-5800-32-09-DP	PS-5800-34-12-DP	PS-5800-37-18-DP
Frequency range	5.250 to 5.875 GHz				
Diameter	0.3 m	0.6 m	0.9 m	1.2 m	1.8 m
Gain High Band	23.9 dBi	30.1 dBi	33.5 dBi	35.8 dBi	38.2 dBi
Mid Band	23.3 dBi	29.4 dBi	32.9 dBi	35.2 dBi	37.8 dBi
Low Band	22.8 dBi	29.0 dBi	32.4 dBi	34.7 dBi	37.3 dBi
Beamwidth	10°	6.2°	3.6°	3.1°	1.9°
Front-to-back ratio	> 45 dB	> 48 dB	> 54 dB	> 57 dB	> 61 dB
Polarization	Double (V and H) or Slant (+/- 45°)				
XPD	> 30 dB				
Isolation between ports	> 30 dB				
VSWR	< 1.5:1				
Antenna input	SMA Male Reverse				

MECHANICAL SPECIFICATIONS

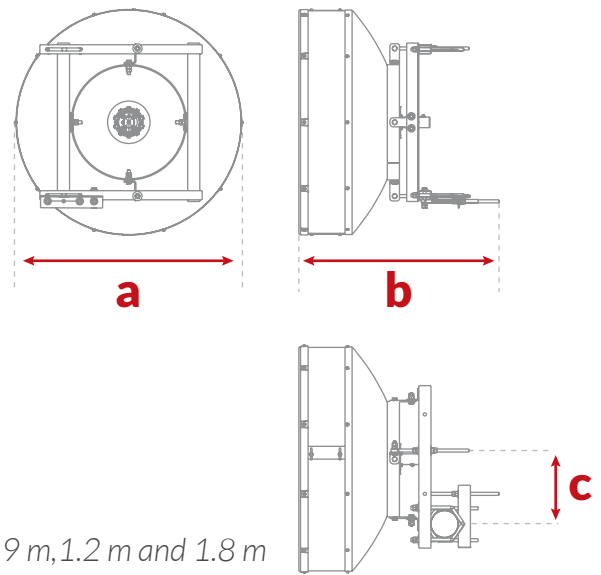
	PS-5800-22-03-DP	PS-5800-29-06-DP	PS-5800-32-09-DP	PS-5800-34-12-DP	PS-5800-37-18-DP
Azimuth adjustment	+/- 10°				
Elevation adjustment	+/- 7.5°				
Polarization adjustment	+/- 5°				
Approximate weight	3.5 kg	6.5 kg	20.5 kg	28.5 kg	70.2 kg
Mounting pipe diameter	Ø1"to Ø2"		Ø2"to Ø4.1/2"		Ø4.1/2"
Operational windspeed	110 km/h				
Survival windspeed	200 km/h				

DIMENSIONS



0.3 m and 0.6 m

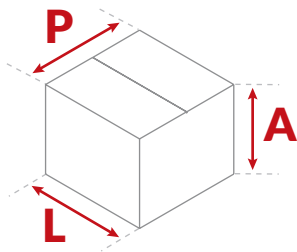
Diameter	0.3 m	0.6 m
a	409.91 mm	703 mm
b	333 mm	466 mm
c	202 mm	202 mm



0.9 m, 1.2 m and 1.8 m

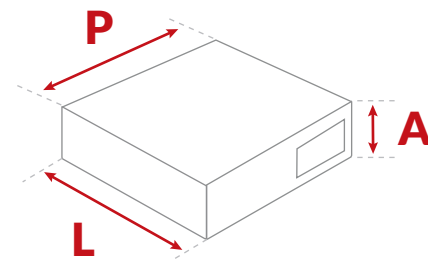
Diameter	0.9 m	1.2 m	1.8 m
a	940 mm	1285 mm	1912 mm
b	839 mm	1070 mm	2240 mm
c	317 mm	350 mm	272 mm

PACKING



0.3 m and 0.6 m

	0.3 m	0.6 m
Material	Carboard	
Height (A)	345 mm	500 mm
Width (L)	420 mm	730 mm
Depth (P)	415 mm	730 mm
Volume	0.060 m ³	0.266 m ³
Weight	4.7 kg	10.5 kg

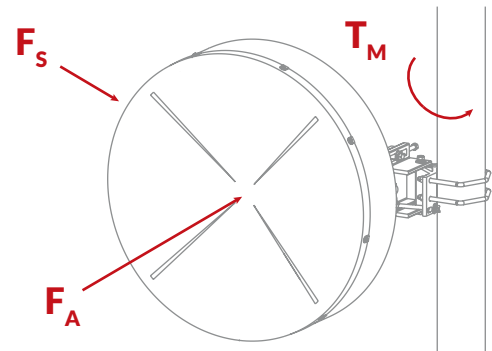


0.9 m, 1.2 m and 1.8 m

	0.9 m	1.2 m	1.8 m
Material	Cardboard		Wood
Height (A)	370 mm	450 mm	2150 mm
Width (L)	1010 mm	1094 mm	2050 mm
Depth (P)	1010 mm	1094 mm	700 mm
Volume	0.377 m ³	0.539 m ³	3.085 m ³
Weight	26 kg	38.5 kg	122 kg

WIND FORCES AT WIND VELOCITY SURVIVAL RATE

	Diameter 0.3 m	Diameter 0.6 m	Diameter 0.9 m	Diameter 1.2 m	Diameter 1.8 m
Torque maximum (T_M)	145 Nm	186 Nm	522 Nm	940 Nm	1871 Nm
Axial force (F_A)	729 N	928 N	1589 N	2855 N	6590 N
Side force (F_S)	162 N	430 N	905 N	1620 N	3462 N



Technology for professional links

Transforming ideas into future

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