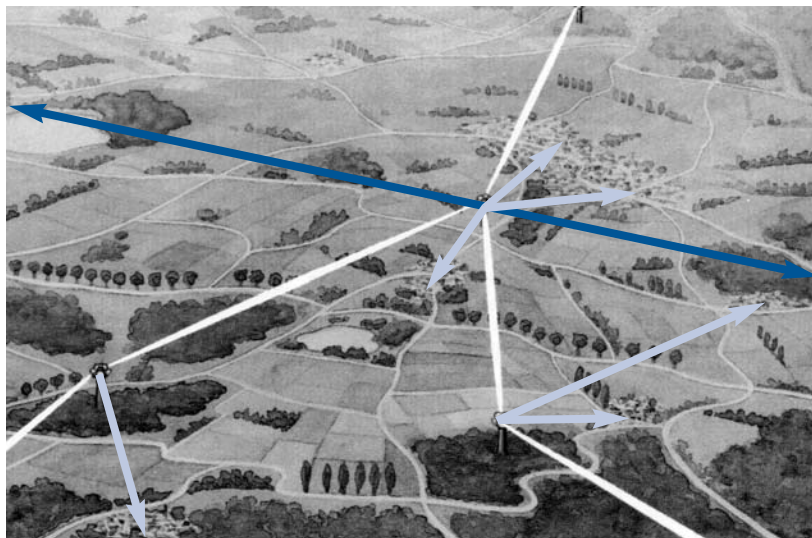


Systems and Applications

Introduction

Over the past decade microwave links have proven a popular solution for the telecommunication industry. The relative ease and economy of installation has seen them deployed in an increasing number of point-to-point applications – from communications backbones (blue), to branch links (white) and distribution networks (light blue), not to mention applications in the broadcast industry and private enterprises.

With the rise of new cellular operators and technologies, overall microwave network density is undeniably escalating.



Backbone systems are built country wide in a majority of cases using a ring structure. In the very seldom case that a link is down the service will remain full operational. The frequencies in use are below 10 GHz allowing link distances up to 50 km with antennas up to 4.5m diameter.

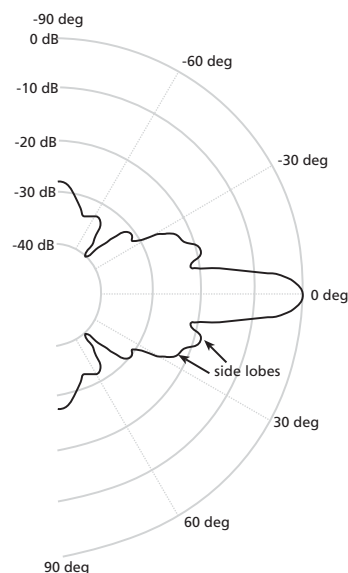
Branch links are connected to the backbone towers providing the signal to main areas and towns. The frequencies in use are up to 20 GHz providing links up to 20 km with medium size antennas.

Distribution links using frequencies above 22 GHz with small antennas are completing the network.

Yet this intensification of microwave communications brings added challenge. The greater the number of point-to-point links in a given area, the greater the potential for these to interact with one another and cause interference. Since any distortion of the signal reduces the quality of service, controlling interferences is now the mandate of any radio network operator and national authority. The key issue for consideration is the design and location of the source of the signal – the antenna.

Minimizing Interference by antenna design

The radiated power of a microwave antenna apart from the main beam at 0 deg is significant up to 90 deg from the main beam. It is these side lobes that can cause interference with adjacent point-to-point links, and it is these side lobes that must be minimized through careful antenna design and installation.



RFS is taking care on this fact using advanced antenna designs and extensive quality control during production.

In addition the antenna mounts as well as fine adjustments means provide an easy and quick antenna installation.

Microwave Antenna Systems

Systems and Applications

Radio Link Applications

In the field of telecommunications, recent years have been marked by the rapid construction of radio link networks for different applications.

Radio Link Backbone Systems

Backbone or back haul systems have been built for mobile operators who want to be independent from Telcos and fixed wire operators. It saves cost for leasing a fixed line and allows a simple upgrade of the network if higher capacity is required.

In addition traditional and new telcom's, utilities as well as broadcast organizations are upgrading their networks to offer higher capacities to clients or to upgrade their system from analogue to digital service.

Backbone systems usually use large size antennas in frequency bands below 10 GHz.

Due to the distance from the antenna to the radio a flexible elliptical waveguide is used for connection. RFS antennas plus FLEXWELL® Elliptical waveguides match perfectly the needs.

Radio link systems for base station connectivity

Mobile operators use microwave in about 70% of cases for the connection of base station to base station and base station to switching centers. A very quick and cost effective deployment is mandatory to be successful in a rapidly growing market.

This construction process is still a long way from completion. The central issues are higher and more secure network coverage as well as expansion of capacity.

Radio link stations can be erected in a large variety of locations, and these all have specific structural and electrical requirements which must be fulfilled by the antenna/waveguide system.

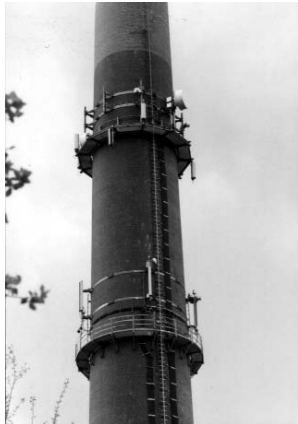
It is now common practice to install new base stations on existing radio link towers for backhaul applications to share the cost of a site. Maximum use is made of existing infrastructure. The disadvantage in such cases is the high level of radiated interference caused by existing telecommunication equipment.

These problems can however be overcome by careful frequency planning together with the use of antennas with high side lobe suppression and high cross-polarization discrimination.



Microwave Antenna Systems

Systems and Applications



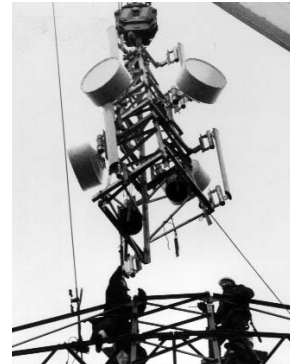
The number of available radio link towers is no way near enough to achieve satisfactory network coverage for mobile applications, as the distance between adjacent towers can be 20 to 50 km depending on the frequency range in use. For this reason network operators are forced to use other sites in unusual locations.

On account of their height industrial chimneys can be ideal. However large concentration of emitted gases, which are caused by turbulence and are potentially highly corrosive, are encountered in such locations. This means that the antenna system must be manufactured from corrosion-resistant materials. Furthermore, any combination of different materials must also be able to resist corrosion.

In urban environments radio links can be installed on multi-story buildings. This however does not always have a positive effect on the overall visual impression created by the building. The number of installation options is restricted, especially if preservation orders have to be taken into account as well. In such cases the planner's work can be made easier by incorporating antennas which either blend with the background or are at least to a large degree inconspicuous.

RFS CompactLine® and Lens antennas meet perfectly these requirements offering a very small shape.

A way of reducing the cost for erecting new towers is the use of high-voltage masts. Large numbers of these masts and pylons already exist and providing the necessary height. The disadvantage here is that it is not possible to switch-off the high-voltage supply in order to undertake repairs and maintenance or to replace the transmission equipment.



It follows therefore that the radio equipment can only be mounted on the mast at a point below the high-voltage cables. RFS low attenuation FLEXWELL® Elliptical waveguide can be used for transferring the RF signal to and from the antenna. In frequency bands above 10 GHz RFS overmoded FLEXWELL® Elliptical waveguide provides an extremely low attenuation. This could lead to the use of a smaller antenna size on top of the mast or to a reduced power of the radio which is enlarging the lifetime of the electronic equipment.

In locations where there is no possibility of installing the antenna on an existing structure, it will be necessary to erect a new tower. In order to keep the size and associated costs of the new tower within manageable proportions, the antennas should offer minimum wind loading while at the same time assuring high mechanical stability. Simple and fast installation is also a standard requirement.

Especially RFS small and medium size antennas with their advanced casting mounts meet these requirements perfectly.



Microwave Antenna Systems

Systems and Applications

Antennas with waveguide installation

Small antennas (1 and 2 ft) operating in the frequency range above 10 GHz are, as a rule, connected directly to the transmission equipment. Special mechanical and electrical matching ensures that the RF signal passes directly into the radio equipment with the minimum loss.

It is not always possible to integrate the antenna and radio equipment due to structural restrictions at the installation site. In this case, as with larger antennas, use is made of flexible waveguide. Long connections lead to increased losses. These losses can only be offset in the overall link calculations by using larger antennas or additional amplifier stages in the transmission equipment.

An alternative solution is the use of overmoded waveguide. The attenuation with this type of waveguide is particularly low, as it no longer operates in the single-moded frequency range.

High order modes are suppressed by means of appropriate filter units in the waveguide connectors.

There are significant advantages to be gained by using overmoded waveguide whenever a frequency range above 18 GHz is used in a mobile communication network.

RFS end-to-end philosophy

RFS offers for all installation scenarios the right products:

Radio integrated with antenna

The radio unit is directly mounted onto the back of the antenna. This is a very common type of installation providing a quick and cost effective solution.

RFS is providing a variety of integrated antennas in different sizes. All interfaces meet highest electrical as well as mechanical specification to secure a stable operation in the field.

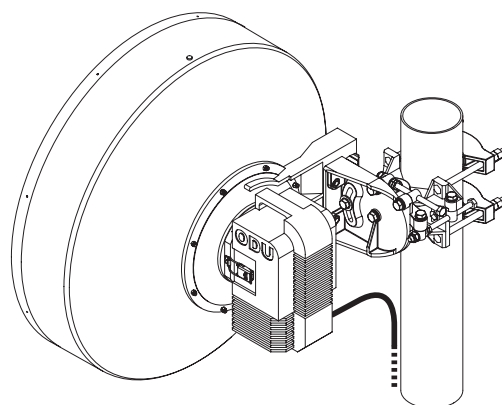
Please contact RFS for more detail.

Radio near to the antenna

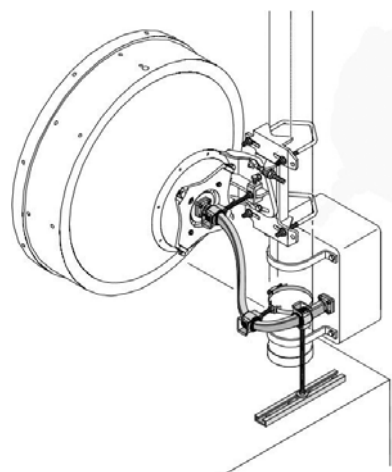
In cases where the radio can not be attached directly to the antenna, an additional section of a Twistflex waveguide provides the connection to the radio. The radio is installed on the pipe or tower near to the antenna.

Twistflex waveguides are also used to connect antennas to waveguide runs providing the necessary flexibility during installation.

RFS provides Twistflex waveguides in all frequency bands with different lengths. Necessary fixing hardware can be ordered separately.



Antenna integrated with ODU



Antenna with Twistflex installation

Microwave Antenna Systems

Systems and Applications

Radio in a shelter

In traditional backbone systems as well as in configurations where quick and easy maintenance is required, the radio is installed in a shelter at ground level. In such cases FLEXWELL® Elliptical Waveguide provides a low-loss connection to the antenna.

RFS is providing all necessary tools and accessories to install the antenna/waveguide system with best electrical and mechanical performance. This includes hoisting stockings, flanging tools, bending tools and fast earthing components.

As waveguide runs have to be filled with dry air, suitable equipment for manual as well as automatic dehydration is part of the RFS product portfolio.

The bottom line

RFS antenna/waveguide systems provide a high mechanical stability and corrosion resistance and are easy to install. Antennas and waveguides are matched offering highest system performance and stability.

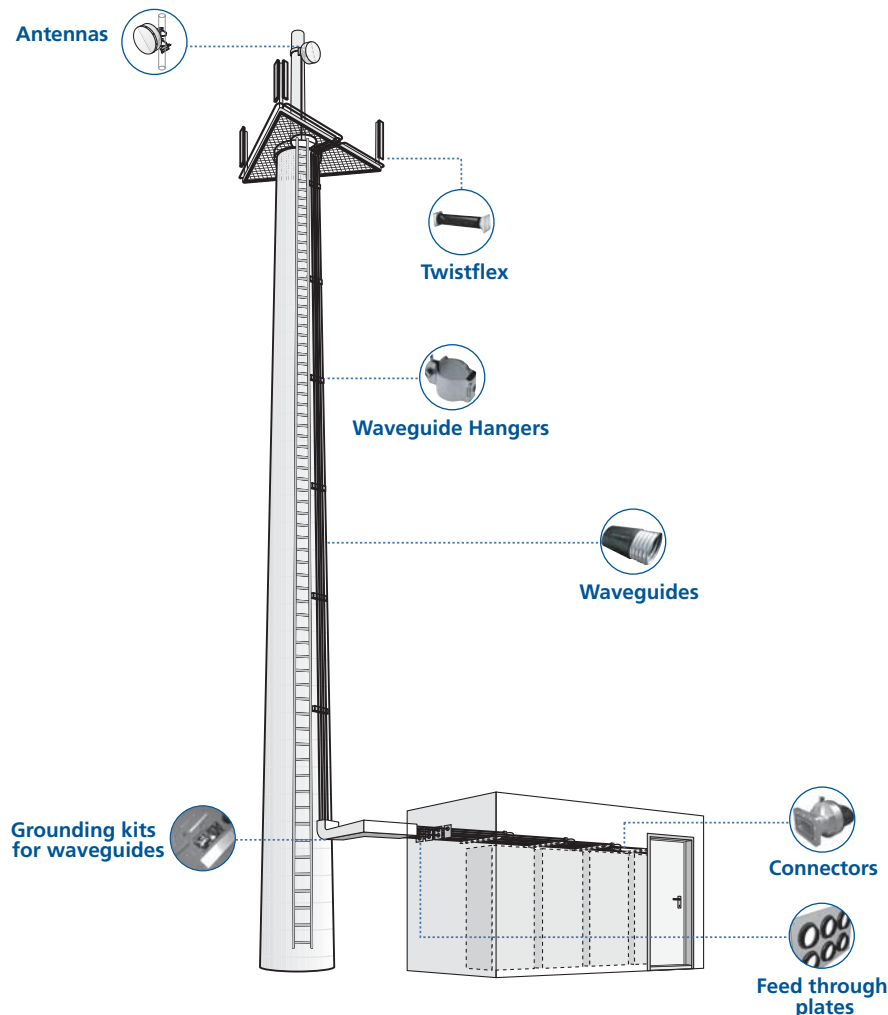
Mechanical features are outstanding to secure the radio link even under severe environmental conditions.

Small size antennas are offered with a very small shape to minimize the environmental impact. This is required in rural areas to get the permission for a radio link much easier.

Electrical characteristics comply and even exceed with national and international standards to minimize interference and to simplify network planning.

Low-Loss waveguides and simple means of dehydrating short waveguide runs make planning and maintenance easier.

Optimized logistic and state-of-the-art manufacturing respond to the request for short delivery times.

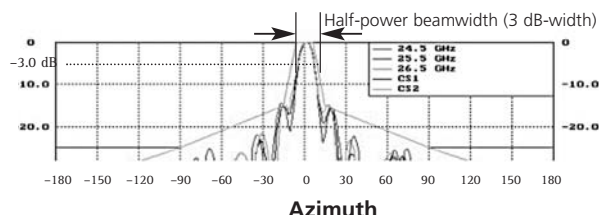


Microwave Antenna Systems

Properties and Definitions

Half Power Beam Width (HPBW)

The angle, relative to the main beam axis, between the two directions at which the co-polar pattern is 3 dB below the value on the main beam axis. The values are nominal and stated as the minimum for the frequency band.



Gain

The ratio of the radiation intensity, in the main beam axis to the radiation intensity that would be obtained if the power accepted by the antenna were radiated isotropically. Value measured in dBi. The values are stated for the three frequencies at mid-band as well as at bottom and top of the frequency band.

The tolerance for antenna gain is ± 0.2 dB for single polarized antennas. In the case of dual polarized antennas, tolerance is also ± 0.2 dB for the average value of both ports and ± 0.3 dB for each port alone.

Front-to-back-ratio (F/B)

Denotes the highest level of radiation relative to the main beam in an angular zone of $180^\circ \pm 40^\circ$ for all antennas. Tolerance on stated values is 2 dB.

Cross-polar discrimination (XPD)

The difference in dB between the co-polarized main beam gain and the cross-polarized signal measured within an angular zone in azimuth of twice the maximum half power beam width of the frequency band.

The value is 30 dB minimum for all antennas except where noted.

Antenna inter-port isolation (IPI)

Denotes the ratio in dB of the power level applied to one port of a dual polarized antenna to the power level received in the other input port of the same antenna.

The value is 35 dB minimum for all antennas (40 dB respectively 45 dB for UXA antennas).

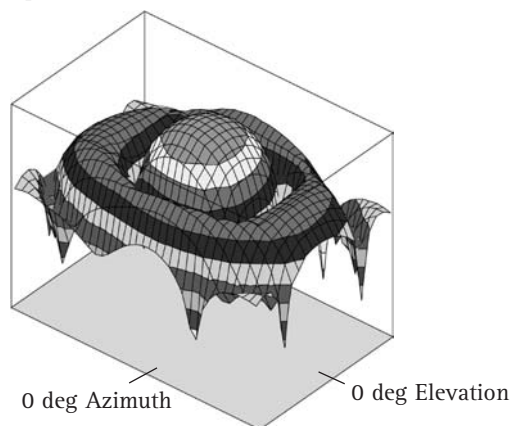
Return loss / voltage-standing-wave-ratio (VSWR)

The stated values are guaranteed across the frequency band of operation.

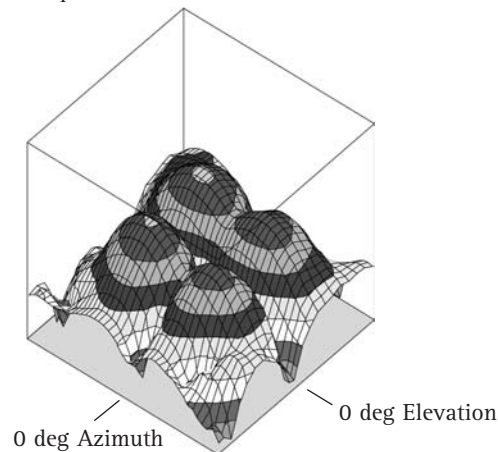
Radiation pattern

A diagram relating power flux density at a constant distance from an antenna to direction relative to the antenna main beam axis.

a.) Copolar Pattern and RPE



b.) Cross polar Pattern and RPE

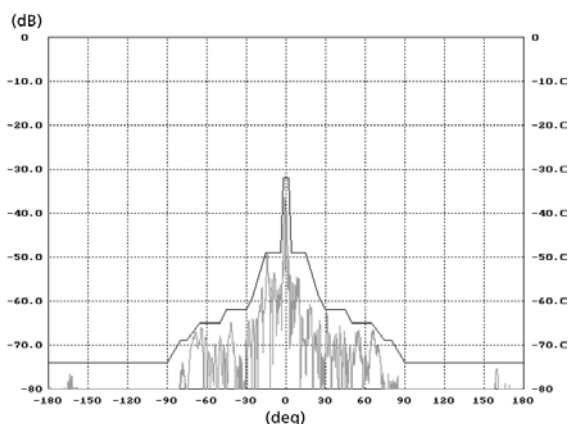
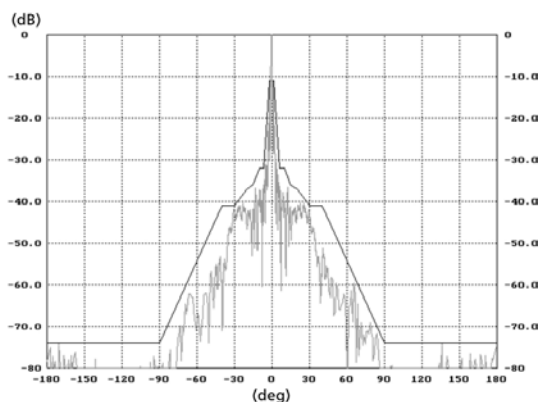


Properties and Definitions

Radiation pattern envelopes (RPE's)

The envelope represent the worst values of measurements taken on the pattern test range at the three frequencies mid-band, bottom and top of the band, in both copolar and cross polar condition, horizontal and vertical polarized, over the full 360° of azimuth.

Since the envelope is drawn over the highest peaks out of all measurements actual interference radiation in an operation system will be generally smaller than calculated from the RPE. Tolerance on given values is 3 dB in an angular region of $\pm 100^\circ$ and 2 dB from 100° to 180° .



Mechanical Properties and Definitions

In addition to the electrical performance RFS designs antennas with outstanding mechanical features. This assures a high link stability as well as a long lifetime.

Key mechanical features are Survival and Operational windspeed.

Survival windspeed

The antenna sub-system will survive the specified survival windspeed without any permanent deformation or changes of shape. The value is 250 km/h (70 m/sec) for the 1 ft and 2 ft antennas and 200 km/h (56 m/sec) for all other antennas.

An additional load of an ice layer of 30 mm radial ice is taken into account. Special 'Windload kits' are available to improve the survival windspeed of all antennas up to 250 km/h.

Operational windspeed

The antenna axis deflection is less than one third of the half power beam width at the highest frequency which occurs. The drop in signal is only approximately 1 dB; the radio link will therefore continue to operate. The value is 190 km/h (53 m/sec) for all antennas.

Antennas with windload kit offer an operational windspeed of 200 km/h all types.

Microwave Antenna Systems

Mechanical Design

All RFS designs are based on advanced methods of calculation (Finite Element Method) providing state of the art results. In addition there are numerous possibilities for simulation based on recognized standards and regulations. Results have been approved by independent stress analysts.

The proof of mechanical stability is determined on the basis of EIA Standards RS-195-* and RS-222-* which are recognized world-wide.

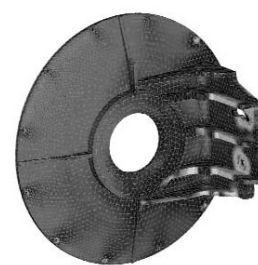
* Current Version

These standards prescribe the wind resistance coefficients (C_w values) to be used for calculating the equivalent forces caused by wind loading. The values are the result of numerous trials in a wind tunnel and calculations of aerodynamic properties. Amongst other things they also take into account the physical shape of the antenna, e.g. reflector only (standard antenna) or reflector with shroud and radome (high performance antenna).

A wind force F_{wind} acting on the antenna leads to a load on the mounting pipe. This load can be divided into an axial force F_{AT} , a lateral force F_{ST} and a torque (turning moment) M_t .



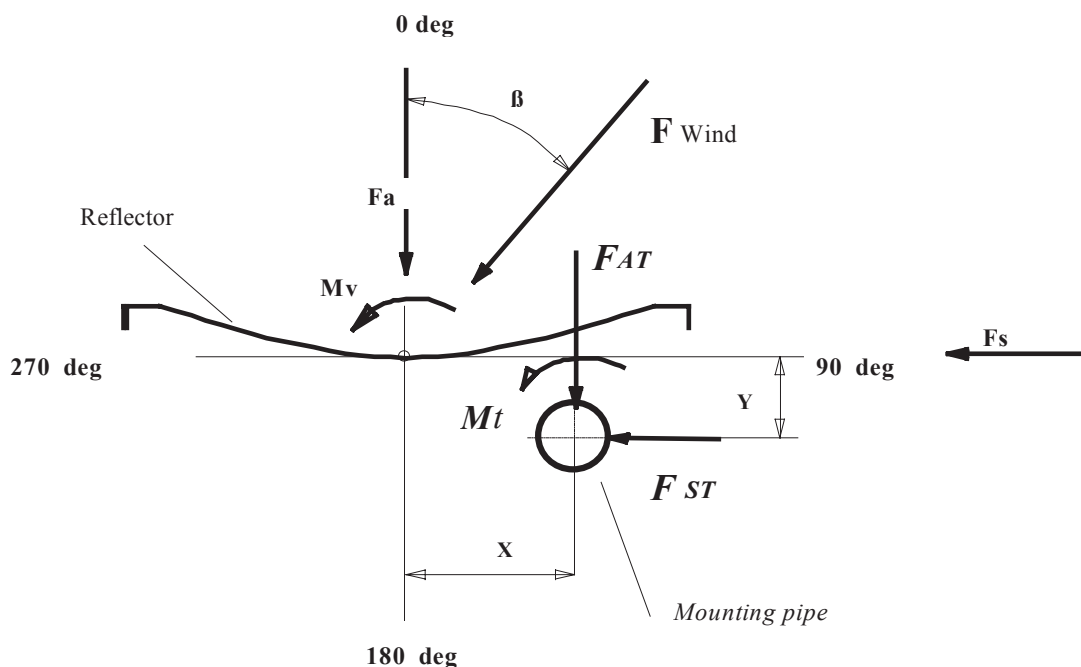
2ft M-Mount Complete



4ft Ring



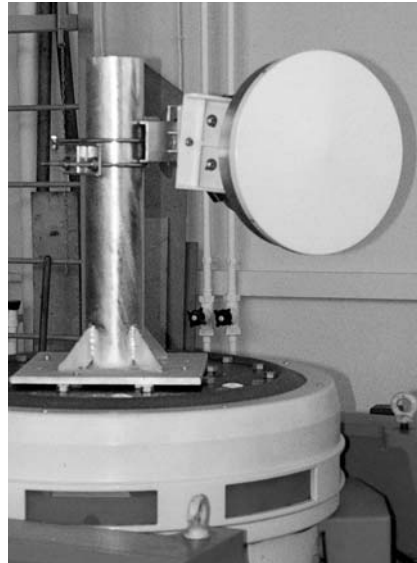
4ft Reflector with Sway Bar



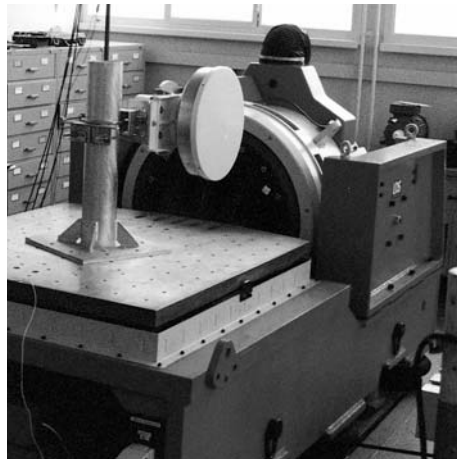
Microwave Antenna Systems

Mechanical Tests

In addition to calculation RFS has proven the design with extensive physical testing. Small size antennas have been put on a shock and vibration test facility. The applied test conditions exceed the requirement of the European standard EN 300 019, class 4M5.

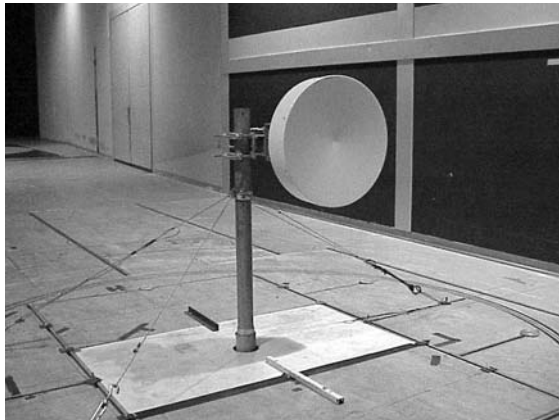


Shock Test

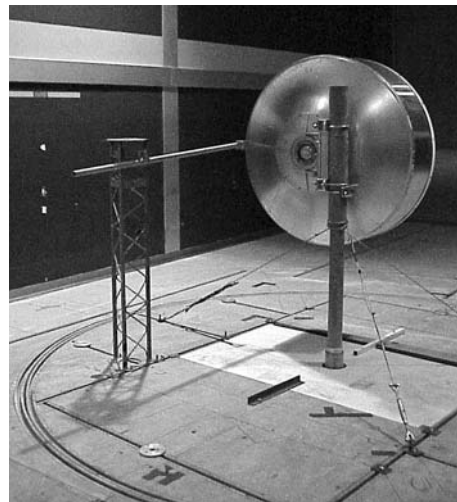


Vibration Test

Wind tunnel tests including 4 ft (1.2m) antennas and equivalent windload tests complete the mechanical testing. Windspeeds have been applied exceeding the mechanical design wind speeds to prove the design even under extreme conditions.



2 ft antenna on a rot table



4 ft antenna with sway bar for 250 km/h survival wind speed

Microwave Antenna Systems

Mechanical Tests

Large size antennas are difficult to be tested in a standard wind tunnel due to a missing rigid mounting structure. Therefore RFS has designed an equivalent windload test rig.

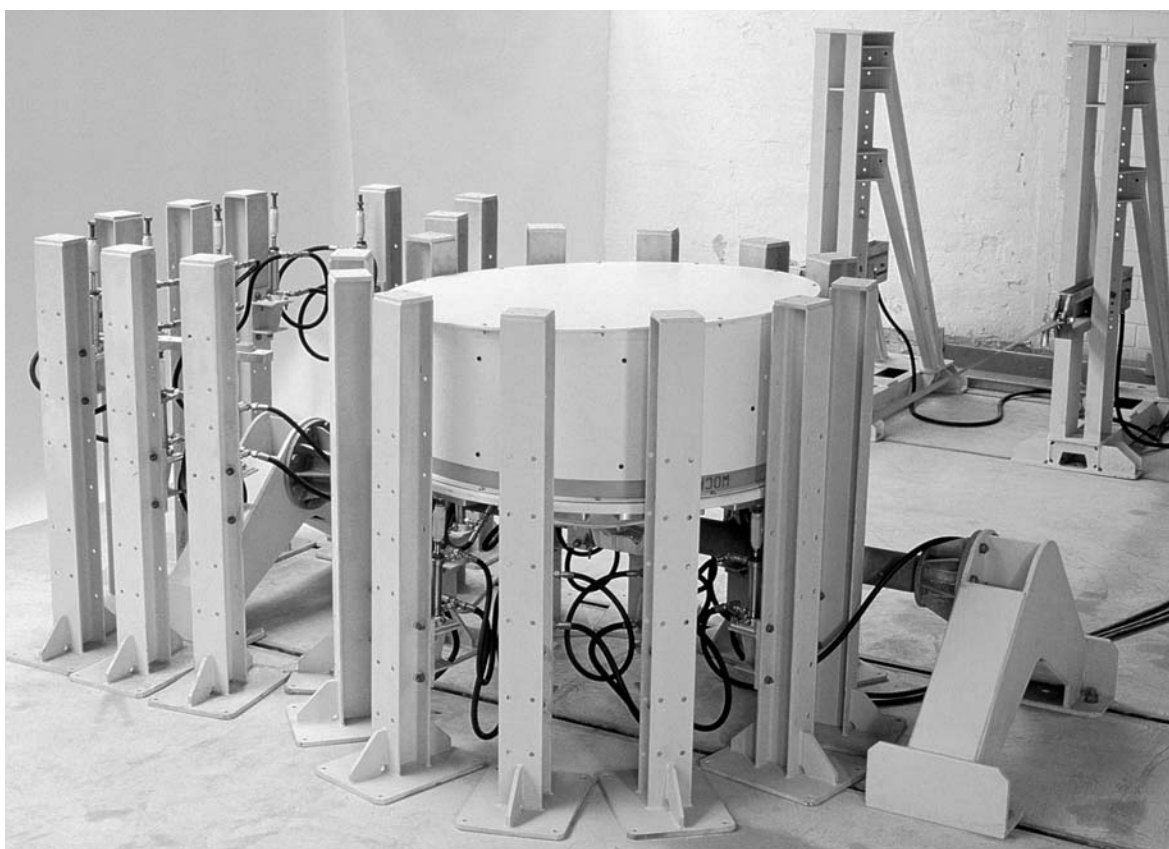
The job of the test rig is to apply different forces to the antenna in such a way that it simulates the wind force, split into an axial component F_a , a lateral component F_s and the torque M_v that develops in the vertex of the antenna.

For this purpose the test rig has different independent hydraulic systems, which employ hydraulic cylinders and a band to apply forces to the antenna.

The contour of the antenna is checked with a template before and after the load is applied. According to the definition of survival windspeed no permanent deformation or changes of shape has to occur on the antenna sub-system.

Dial gauges register the flexible change of shape of the antenna and the mast mounting during the test.

This system enables antennas with a diameter of up to 4.5 m to be measured at a wind load of up to 250 km/h. Forces acting on the mounting pipe can be up to 150 kN axially and 40 kN laterally, together with a torque of 90 kNm. The hydraulic pressure required to create these measurement conditions is approx. 65 bar.



Equivalent Windload Test

Bottom Line: RFS antennas provide secure operations under all standard environmental conditions. This is assured by the use of corrosion resistant materials as well as selected material combinations. Continuous proving in environmental chambers and salt fog spray test facilities guarantee an outstanding long lifetime.

Solid Parabolic Microwave Antennas

Introduction and Antenna Descriptions



Radio Frequency Systems offers the most comprehensive line of highest quality microwave antennas in the industry. Antennas are available in all the common frequency bands ranging from 3GHz to 60GHz. They are available in diameters from 1 ft (0.3 m) to 15 ft (4.60 m).

System design becomes easy and efficient with such a comprehensive antenna offering.

The antennas are available in four performance classes offering complete flexibility when designing a network.

The antennas meet the pattern requirements according to EN 300 631, EN 300 833 and FCC depending on the frequency range.

In addition to the different electrical classes of antennas Radio Frequency Systems offers the system design engineers different options of survival wind speeds. This allows the use of antennas in areas where extreme wind conditions are normal.

Standard Performance Antennas

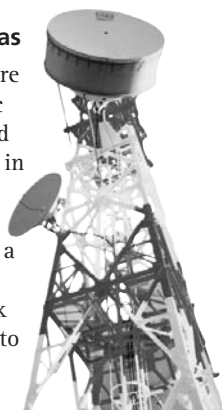
Standard Performance Antennas are economical solutions for systems where side lobe suppression is of less importance. The antennas consist of a reflector, feed and tower mount. Low VSWR versions are available for low echo distortion.

STANDARD PERFORMANCE ANTENNAS

Single polarized	PA & PAL series
Single polarized, spread spectrum	PSF series
Dual polarized	PAX series

Improved Performance Antennas

Improved Performance Antennas are unshrouded and offer an economic solution for systems requiring good radiation performance particularly in the back region. The improved F/B ratio is achieved by use of an efficient feed design together with a deep dish reflector. These features result in an improved front to back ratio, and were specially designed to meet FCC category A standards.



IMPROVED PERFORMANCE ANTENNAS

Single polarized	PAD series
Dual polarized	PADX series

High Performance Antennas

High Performance Antennas are similar to Ultra High Performance Antennas in construction. They are ideally suited for systems where a good level of side lobe suppression is required.

HIGH PERFORMANCE ANTENNAS

Single polarized	DA series
Dual polarized	DAX series

Ultra High Performance Antennas

Ultra High Performance Antennas are the optimum choice for systems where a high level of pattern performance is required because of high local radio congestion. The antennas are supplied with low VSWR feed, planar radome, tower mount and shroud with RF absorber.

ULTRA HIGH PERFORMANCE ANTENNAS

Single polarized	UA series
Dual polarized	UDA series

High Cross Polar Discrimination Antennas

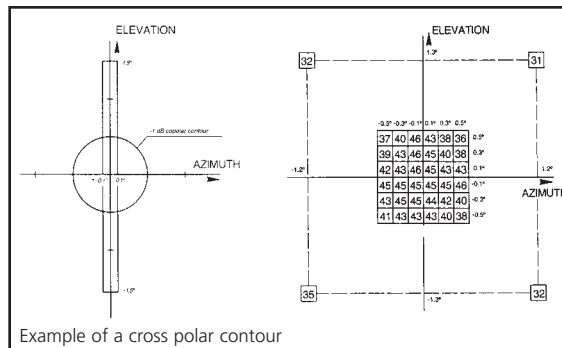
UXA series of antennas are based on Ultra High Performance Antennas. These antennas offer high side lobe suppression. In addition UXA antennas offer extremely high cross-polar discrimination. They are therefore ideally suited for very high capacity systems utilizing extensive frequency reuse in highly congested environments. This outstanding performance is achieved by use of a special corrugated illuminator, a rigid torsion box back structure which ensures the reflector maintains its shape in the field and strict quality control during manufacture.

The cross-polar characteristics for radiation angles close to bore sight meet the highest XPD requirements according to EN 300 833 and FCC.

High cross-polar discrimination antennas are available for frequencies from 4 GHz to 23 GHz.

ULTRA HIGH PERFORMANCE ANTENNAS

Dual Polarized	UXA series
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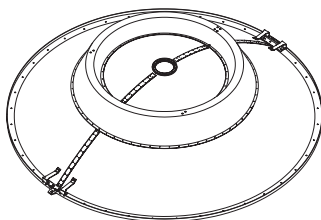


Solid Parabolic Microwave Antennas

Introduction and Antenna Descriptions

Reflectors

Antennas with diameters up to 10ft (3.0m) are supplied with reflectors in one piece. Antennas with diameters 12ft (3.7m) are supplied with a two piece reflector (except UXA-types). Antennas with diameters of 15ft (4.6m) are supplied with a 3 piece reflector.



8ft and 10ft antennas are available in 2 pieces optional for easy transportation.

Colors



Standard color for RFS Microwave Antennas is white. Custom colors are available upon request.

Molded fiberglass radomes are white. High Performance, Ultra High Performance and High Cross Polarization Discrimination

antenna are supplied with planar white radomes. Custom colors are available upon request.



The CompactLine series of antennas use a special feed system which results in a reduced shroud length and consequently a lower profile antenna. These antennas are lighter in weight than standard antennas for reduced tower loading and shipping costs. Furthermore CompactLine antennas up to 2ft (0.6m) diameter are very rugged, with a wind loading rating of 250 km/h (155mph). Their type designation is SB for single polarization and SBX for dual polarization. CompactLine antennas are available in 1ft (0.3 m), 2 ft (0.6 m), 3ft (0.9 m) and 4ft (1.2 m) diameters.



SlimLine and CompactLine Antennas

Radio Frequency Systems recognizes that mobile operators and private microwave users have requirements for cost effective solutions for their microwave antenna systems. These needs include products, which are easy and quick to install while maintaining good electrical performance. In response to these needs Radio Frequency Systems developed the SlimLine and CompactLine series of antennas.

The SlimLine series of antennas utilize a conventional feed system and are available in Standard, High and Ultra High performance versions. The SlimLine series of antennas are available in diameters from 1ft (0.3 m) to 6 ft (1.8 m).

RFS SLIMLINE® ANTENNAS

Single polarized	Standard	SP
	Standard, non-pressurized	SPF
	High performance	SD
	Ultra High Performance	SU
Dual Polarized	Standard	SPX
	High performance	SDX
	Ultra High Performance	SUX

RFS COMPACTLINE® ANTENNAS

Single polarized	Ultra High Performance	SB
Dual Polarized	Ultra High Performance	SBX

1ft and 2 ft antennas consist of an integrated reflector/shroud system avoiding any RF-leakage. This is a further contribution offering excellent radiation performance especially in the back direction.



Solid Parabolic Microwave Antennas

Lens Antennas

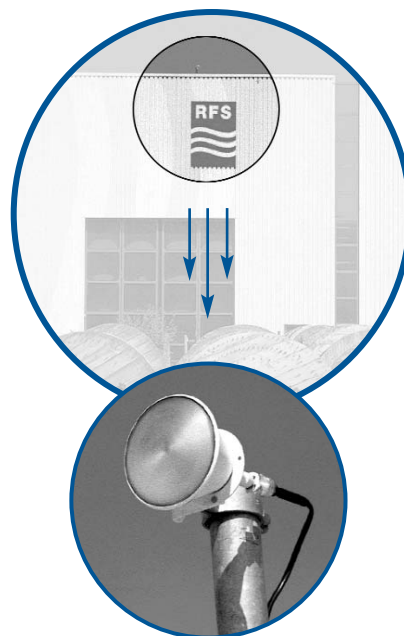
RFS lens antennas are an economical solution for short haul radio links. The antennas are based on conventional horn antenna design. A dielectric lens is used to correct the phase difference at the aperture, which occurs due to the large ratio of wavelength to aperture diameter. Lens antennas have no metallic parts blocking the radiating aperture. This results in a very high antenna efficiency of nearly 70%.

An additional advantage is the visual impression. To a certain extent a lens antenna looks like a lamp. This solution is highly suited to installations where environmental restrictions limit the choice of antenna type, such as in the proximity of listed buildings or monuments.

Lens antennas are available with a diameter of 0.5ft (0.15m) offering an ultra high radiation performance.

RFS LENS ANTENNAS

Single polarized	Ultra High Performance	LA
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Customized Antennas

RFS SlimLine® and especially RFS CompactLine® antennas can be provided with a custom designed adaption for the outdoor unit of the radio equipment. This allows the outdoor unit of the radio to be mounted directly the antenna, removing the need for an additional twistflex or elliptical waveguide connection between the radio and the antenna. The antenna is normally mounted to a vertical pole. The equipment box can be replaced without the need for a realignment the antenna system. RFS is taken special care to meet highest electrical as well as mechanical requirements of the interface. In addition to wind tunnel tests, shock and vibration tests with radios as well as water spray tests are performed demonstrating a leakage free interface.

RFS is continuously increasing the product portfolio of customized antennas. For more details please contact RFS.



Rain Test

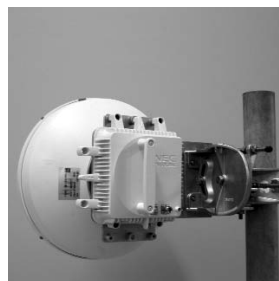
Integrated Antennas with Multi purpose mount



2ft Ceragon



2ft Alcatel



1ft NEC



2ft Siemens

Solid Parabolic Microwave Antennas

Antenna Types, Overview

STANDARD PERFORMANCE



PAD
Single polarized,
standard, (FCC part
101, category "A"
compliant)



PADX
Dual polarized,
standard, (FCC part
101, category "A"
compliant)



PA, SP
Single polarized
PAL
Single polarized,
low VSWR



PAX, SPX
Dual polarized



PSF, SPF
Single polarized,
non-pressurized,
Spread Spectrum

HIGH PERFORMANCE



DA, SD, SDF
Single polarized



DAX, SDX
Dual polarized

ULTRA HIGH PERFORMANCE



UA, SU
Single polarized



UDA, SUX
Dual polarized



UXA
Dual polarized,
high XPD



SB
CompactLine,
single polarized



SBX
CompactLine,
dual polarized



LA
Lens,
single polarized

Solid Parabolic Microwave Antennas

Antenna Selection Guide

PERFORMANCE		STANDARD				IMPROVED		HIGH			ULTRA HIGH, HIGH XPD			ULTRA HIGH		
Frequency, GHz	RFS Code	single PA/SP	single PAL	single PSF/SPF	dual PAX/SPX	single PAD	dual PADX	single DA/SD	single SDF	dual DAX/SDX	single UA/SU	dual UDA/SUX	dual UXA	single SB	dual SBX	single LA
2.3-2.5	23			2-6ft												
3.4-3.6	35		4-8ft													
3.6-4.2	36		6-15ft		6-15ft			6-15ft		8-15ft	6-12ft	6ft	8-15ft			
4.4-5.0	44		6-15ft		6-15ft			6-15ft		6-15ft	6-12ft	6ft	8-15ft	2ft		
5.25-5.85	52			2-6ft				4-6ft								
5.725-5.85	57	4-12ft		8-12ft				4-12ft								
5.725-6.875	W57	4-12ft				6-8ft		4-12ft								
5.925-6.425	59	4-6ft	8-15ft		6-15ft	6-10ft	6-10ft	4-15ft		4-15ft	4-12ft	6ft	6-15ft			
5.925-6.875	W59				8-12ft	6-10ft	10ft						10-12ft			
6.425-7.125	65	4-6ft	8-15ft		4-15ft	6-10ft	6-10ft	4-15ft		4-15ft	4-12ft	4-6ft	6-15ft			
7.125-7.75	71	2-6ft	8-15ft		4-15ft			4-15ft		4-15ft	2-12ft	4-6ft	4-15ft			
7.125-8.5	W71	2-6ft	8-15ft		4-15ft			2-15ft		4-15ft	2-12ft	4-15ft		4ft		
7.725-8.275	77									4-15ft			6-15ft			
7.75-8.5	78	2-6ft	8-15ft		4-15ft			4-15ft		4-15ft	2-12ft	4-6ft	6-15ft			
10.3-10.7	103	2-6ft	8-12ft		4-12ft			2-12ft		4-12ft	2-12ft	4-6ft	4-12ft	2ft		
10.5-10.7	105					6-8ft	6-8ft	4-12ft		4-8ft			4-8ft	2-3ft		
10.7-11.7	107	2-6ft	8-12ft		4-12ft	6-10ft	6-10ft	2-12ft		4-12ft	2-12ft	4-6ft	4-12ft	2-4ft		
12.2-13.25	122		2-10ft		6-10ft			2-10ft		2-10ft						
12.7-13.25	127	2-6ft	8-10ft		2-10ft			2-10ft		2-10ft	2-10ft	2-6ft	4-10ft	1-4ft	2ft	
14.2-15.35	142	2-6ft	8ft		2-8ft			8ft			2-8ft	2-6ft	2-8ft	1-4ft	1-2ft	
17.7-19.7	190	2-6ft			2-6ft						3-6ft	1-6ft	2-6ft	1-4ft	1-2ft	
21.2-23.6	220	2-6ft			2-6ft						3-6ft	1-6ft	2-6ft	1-4ft	1-2ft	0.5ft
24.25-26.5	250										3-4ft	1-4ft		1-4ft	1-2ft	
27.3-28.5	270													1-2ft		
27.5-29.5	280													1-2ft	1-2ft	
29.5-31.5	300													1-2ft		
31.0-33.4	320													1-2ft	1-2ft	
37.0-39.5	380											1-2ft		1-2ft	1-2ft	0.5ft
51.4-52.6	520													1ft		
54.25-59.0	550													1ft		

Flange Selection Guide

DESIGNATOR	FLANGE TYPE
B	PBR-flange
C	CPR-flange
D	PDR-flange
E	EIA-flange
G	Cover gasket
J	N-male connector with Jumper
K	WR75 contact flange
M	CMR flange
N	N-female connector
O	UAR-flange
P	PAR-flange
U	UG Cover-flange
V	UDR-flange
W	UBR-flange
Y	CBR flange
Z	UG Choke-flange

Solid Parabolic Microwave Antennas

Ordering Information & Antenna Options

In order to easily identify an antenna model RFS utilizes a model numbering system which clearly identifies the antenna type, diameter, frequency, revision and antenna input.

In addition to the standard products Radio Frequency Systems offers, products with increased wind rating, improved environmental ratings, planar radome colors and radome types. For these options please contact your local RFS sales office.

As an example	DA 12 - 59 A C	
Antenna Type	DA	see page 280
Antenna Diameter	12	12ft (3.7m) diameter
Frequency Band	59	5.925 - 6.425GHz.
Design Revision	A	
Input Flange	C	CPR

Flanges

Different flange types are available for the whole antenna range. The flange sizes, -profiles and dimensions are in accordance with specifications 154 IEC and EIA (Electronic Industry Association) which classifies the flange types in the following coding systems:

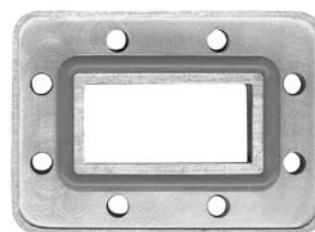
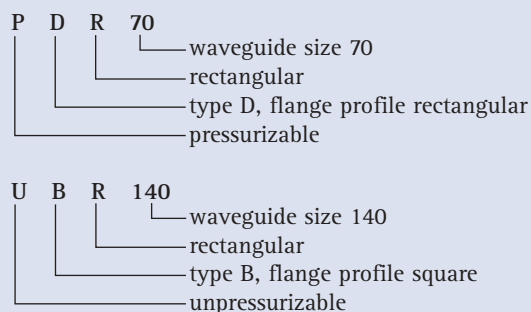
IEC-flanges

1st digit	pressurizable unpressurizable etc.
2nd digit	flange type-A, B, D etc.
3rd digit	waveguide profile, rectangular, etc.
secondary numbers	Waveguide size according to 154-IEC

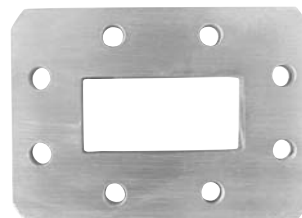
DESCRIPTION OF FLANGE TYPES:

Type	Flange Profile
A	Round
B	Square
D	Rectangular

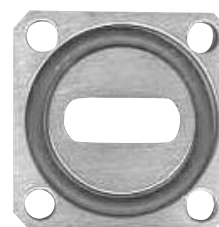
Typical coding examples



PDR



UDR



PBR

Solid Parabolic Microwave Antennas

EIA Flange Identification

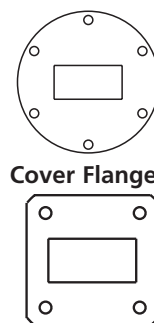
CPRG Flanges

CPRG, pressurizable contact flanges, are flat faced with a gasket groove and secured with nuts and bolts. One full thickness gasket is used when mating two CPRG flanges.



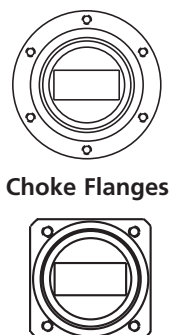
Cover Flanges

Cover flanges are flat faced without any choke or gasket grooves, and have clear bolt holes for mating to a choke or cover flange. A conductive gasket is required when mating two cover flanges. One O-ring is used when mating a cover flange to a cover/gasket flange.



Choke Flanges

Choke flanges include a choke groove, gasket groove and threaded bolt holes for mating to a cover flange. One O-ring is used when mating a choke flange to a cover flange without gasket groove. Use an O-ring and half gasket when mating a choke flange to a cover/gasket flange. Two choke flanges cannot be mated.



Cover/Gasket

Cover/gasket flanges are flat faced with a gasket groove only, and have clear bolt holes for mating with a choke, cover, or cover/gasket flange. One O-ring and a half gasket are used when mating two cover/gasket flanges or when mating a cover/gasket flange to a choke flange. One O-ring is used when mating a cover/gasket flange to a cover flange without gasket groove.



CONTACT FLANGES

Flange Size/type

	CPR(G)	CPR(F)
CPR90G	Comes with CPR G Connector (Use Full gasket)	Comes with CPR F Connector (Use 1/2 gasket)
CPR112G	Comes with CPR G Connector (Use Full gasket)	Comes with CPR F Connector (Use 1/2 gasket)
CPR137G	Comes with CPR G Connector (Use Full gasket)	Comes with CPR F Connector (Use 1/2 gasket)
CPR159G	Comes with CPR G Connector (Use Full gasket)	Comes with CPR F Connector (Use 1/2 gasket)
CPR187G	Comes with CPR G Connector (Use Full gasket)	Comes with CPR F Connector (Use 1/2 gasket)
CPR229G	Comes with CPR G Connector (Use Full gasket)	Comes with CPR F Connector (Use 1/2 gasket)
CPR90F	Comes with CPR G Connector (Use 1/2 gasket)	Mates (Not Pressurizable)
CPR112F	Comes with CPR G Connector (Use 1/2 gasket)	Mates (Not Pressurizable)
CPR137F	Comes with CPR G Connector (Use 1/2 gasket)	Mates (Not Pressurizable)
CPR159F	Comes with CPR G Connector (Use 1/2 gasket)	Mates (Not Pressurizable)
CPR187F	Comes with CPR G Connector (Use 1/2 gasket)	Mates (Not Pressurizable)
CPR229F	Comes with CPR G Connector (Use 1/2 gasket)	Mates (Not Pressurizable)

Solid Parabolic Microwave Antennas

Mounting Information

Multi-purpose mount (M-mount) for 1 and 2 ft antennas

The mounting hardware – called the M-mount – has been especially designed for the installation of small antennas (1 and 2 ft).

The M-mount provides ± 30 deg fine adjustment of both azimuth and elevation.

This is especially important for small antennas used in short radio links.

The mount is made primarily from cast aluminum parts, which provide outstanding stability together with a very low weight.

The basic material of the mount is seawater-resistant aluminum alloy.

The M-mount enables small antennas (1 and 2 ft) to be mounted on pipe diameters of 48-114 mm (2-4.5 in).

The mount is standard for all 2 ft antennas. It can be ordered optional for 1 ft antennas.

Oversized Mounting Hardware

The Oversized Mounting Hardware has been specially designed for the installation of small antennas on larger diameter pipes which are already in place on radio link towers. These pipes are often larger than the standard 114 mm. Therefore RFS has designed an alternative mounting bracket which makes it unnecessary for the installation team to provide a special mechanical interface.

The Oversized Mounting Hardware enables small antennas to be mounted on pipe diameters of 120-219 mm (4.8-9 in).

The easy and fast installation saves time and cost because no additional steel work has to be prepared. In addition the Oversized Mounting Hardware provides more flexibility and higher stability to secure the link. For more details contact RFS.



1ft M-Mount, optional



2ft M-Mount

Solid Parabolic Microwave Antennas

Antenna Options

Increased Wind Load Kit

Large RFS antennas, 6 to 12 ft (1.8 to 3.7m) diameter, already incorporate a strong back ring structure to support the reflector. The hot dip galvanized steel mount is fixed to the back ring.

This configuration allows a simple upgrade of one of the antenna's most important mechanical features.

The Increased Wind Load Kit consists of additional struts for mounting between the back ring and the reflector rim. Thus enables the wind forces to be directed to the most rigid part of the antenna mount.

The 3 and 4 ft antennas can simply be upgraded by an additional side strut due to basic strong casting mount.

The kit can be installed on site before lifting the antenna onto the tower.

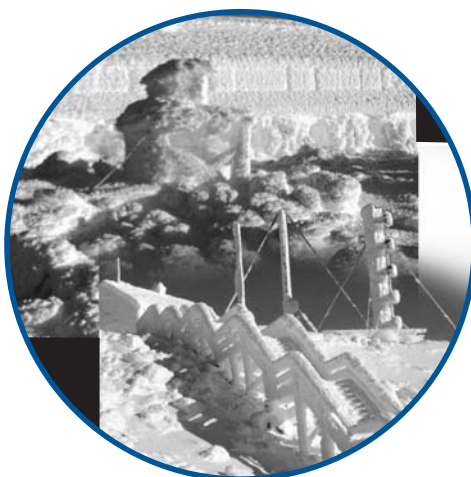
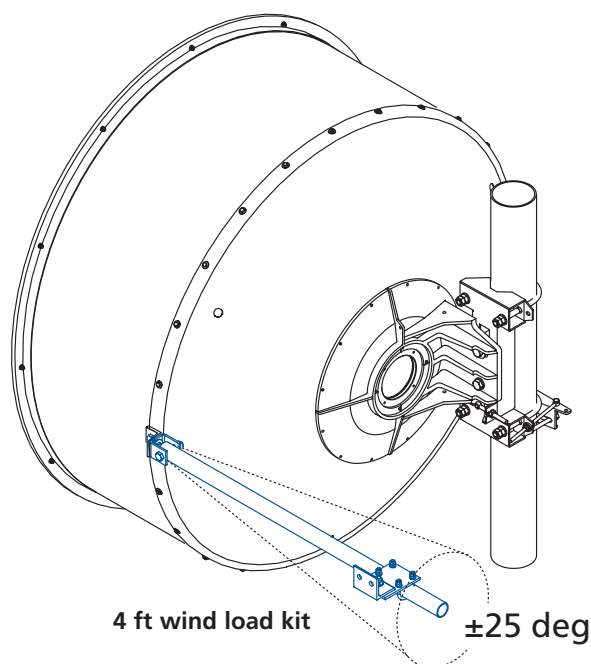
Antennas with a wind load kit provide a survival wind speed of 250 km/h (155mph), 200 km/h (125mph) without kit, and an operational wind speed of 200 km/h (125mph), 190 km/h (118mph) without kit.

Sway Bars

For protection against antenna shifting and deflection, 6, 8, 10 and 12 ft (1.8, 2.4, 3.0 and 3.7m) antennas contain one sway bar and 15 ft (4.6m) antennas have four (4) sway bars. Additional sway bars are available as an option for all 6ft (1.8 m) to 12ft (3.7m) antennas.

Harsh Environment Antennas

For increased protection within extreme corrosive and humid environments, harsh environment antennas are offered as an option. These antennas come with special corrosion resistant components and finishes, and are designed to withstand corrosive weathering environments typical of industrial, shoreline and offshore environments.

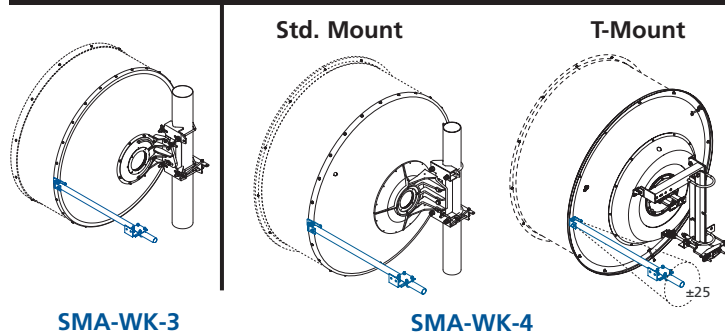


Solid Parabolic Microwave Antennas

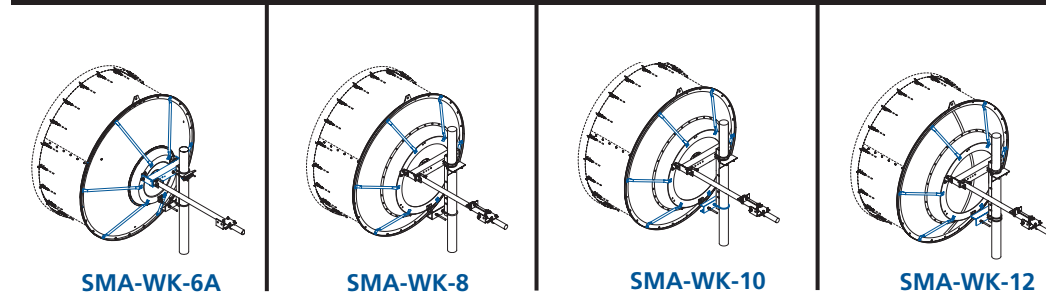
Wind and Installation Kits Overview

250 Km/h Windkit

3 ft 4 ft

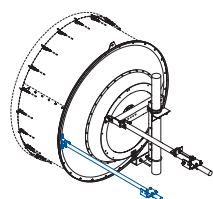


6 ft 8 ft 10 ft 12 ft



Additional Swaybar Kits

6 to 12 ft



SMA-SK-60-2000A
SMA-SK-60-3000A

Solid Parabolic Microwave Antennas

Radomes

Molded Radomes

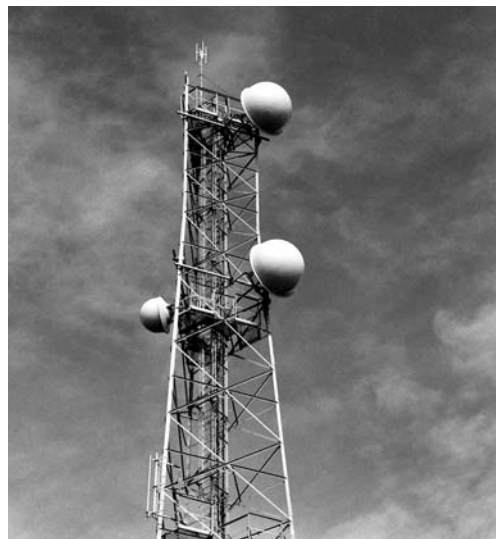
Optional molded radomes are available for Standard Performance antennas 2 to 12 ft. The radomes are made of fiberglass reinforced polyester resin covered with a gel coat. The 2 ft radome is manufactured from ABS material.

The shape minimizes the influence of the radome upon antenna gain, return loss and radiation characteristic.

Radomes with a special flat shape are available for all 4 and 6 ft antennas above 5.6 GHz. These radomes provide reduced packing volume and therefore are ideal for transportation. The radomes are identified by 'SH' in the model name.

Moulded radomes protect against the accumulation of snow, ice and dirt, and reduce windload. The surface is protected against ultraviolet degradation.

The standard colour is white.



MODEL NUMBER	DIAMETER ft (m)	ATTENUATION, dB								ADD TO ANTENNA VSWR		
		6 GHz	8 GHz	11 GHz	13 GHz	15 GHz	18 GHz	22 GHz		6 to 9 GHz	10 to 16 GHz	>17 GHz
Radome_2	2 (0.6)	NA	0.5	0.9	1.1	1.3	2	2.4		0.03	0.04	0.05
Radome_4	4 (1.2)	0.3	0.5	1	1.3	1.5	2	2.4		0.03	0.04	0.05
Radome_4SH	4 (1.2)	0.3	0.5	1	1.3	1.5	2	2.4		0.03	0.04	0.05
Radome_6	6 (1.8)	0.4	0.6	1	1.4	1.5	2	2.5		0.03	0.04	0.05
Radome_6SH	6 (1.8)	0.4	0.6	1	1.4	1.5	2.1	2.5		0.03	0.04	0.05
Radome_8	8 (2.4)	0.5	0.6	1.1	1.6	1.8	NA	NA		0.03	0.04	NA
Radome_10	10 (3.0)	0.8	1	1.5	1.9	NA	NA	NA		0.03	0.04	NA
Radome_12	12 (3.7)	0.9	1.1	1.6	NA	NA	NA	NA		0.03	0.04	NA

Flexible Planar Radomes

Flexible Planar radomes manufactured from Complan are supplied with all shrouded antennas > 2ft with the exception of 3 and 4 ft CompactLine antennas. For Teflon coated fiberglass radomes please contact RFS.

Replacement Planar Radomes

Replacement radomes are available. Please contact RFS.

Parabolic Point to Point Antennas

2.3 - 2.5 GHz

Antenna Input¹ – N Male

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
SlimLine Standard Performance, Non-Pressurized, Single Polarized												
SPF2-23A	2 (0.6)	13.8	20.1 20.5 20.9	30	25		1.50/13.98	± 5 ± 15	200 (125)	10 (22)	–	
SPF3-23A	3 (0.9)	9.2	23.8 24.2 24.5	33	25		1.50/13.98	± 5 ± 15	200 (125)	16 (35.2)	–	
SPF4-23A	4 (1.2)	6.9	26.7 27.1 27.4	36	25		1.50/13.98	± 5 ± 10	200 (125)	24 (52.8)	–	
SPF6-23A	6 (1.8)	4.6	30.2 30.6 31.0	39	25		1.50/13.98	± 5 ± 5	200 (125)	70 (154)	–	

3.6 - 4.2 GHz

Antenna Input¹ – 154 IEC-PDR 40

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
Standard Performance, Low VSWR, Single Polarized												
PAL6-36B	6 (1.8)	3	34.3 34.8 35.5	42	30		1.08 / 28.3	± 5 ± 5	200 (125)	50 (110)		Range 1, class 1
PAL8-36A	8 (2.4)	2.3	36.6 37.3 37.9	44	30		1.06 / 30.7	± 5 ± 5	200 (125)	120 (264)		Range 1, class 1
PAL10-36A	10 (3.0)	1.8	38.5 39.2 39.8	47	30		1.06 / 30.7	± 5 ± 5	200 (125)	215 (473)	B	Range 1, class 1
PAL12-36A	12 (3.7)	1.5	40.1 40.8 41.4	50	30		1.06 / 30.7	± 5 ± 5	200 (125)	310 (682)	B	Range 1, class 1
PAL15-36A	15 (4.6)	1.1	42 42.7 43.3	52	30		1.06 / 30.7	± 5 ± 5	200 (125)	570 (1254)	B	Range 1, class 1
Standard Performance, Dual Polarized												
PAX6-36B	6 (1.8)	3	34.2 34.7 35.4	42	30 35		1.08 / 28.3	± 5 ± 5	200 (125)	50 (110)		Range 1, class 1
PAX8-36A	8 (2.4)	2.3	36.5 37.2 37.8	44	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	120 (264)		Range 1, class 1
PAX10-36A	10 (3.0)	1.8	38.4 39.1 39.7	46	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	215 (473)		Range 1, class 1
PAX12-36A	12 (3.7)	1.5	40 40.7 41.3	49	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	310 (682)	B	Range 1, class 1
PAX15-36A	15 (4.6)	1.1	42 42.7 43.3	52	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	570 (1254)	B	Range 1, class 1
High Performance, Single Polarized												
DA6-36B	6 (1.8)	3	33.7 34.4 35	56	30		1.08 / 28.3	± 5 ± 5	200 (125)	95 (209)		Range 1, class 2
DA8-36A	8 (2.4)	2.3	36.5 37.2 37.8	60	30		1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)		Range 1, class 2
DA10-36A	10 (3.0)	1.8	38.4 39.1 39.7	62	30		1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)		Range 1, class 2
DA12-36A	12 (3.7)	1.5	40 40.7 41.3	63	30		1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)	B	Range 1, class 2
DA15-36A	15 (4.6)	1.1	42 42.7 43.3	65	30		1.06 / 30.7	± 5 ± 5	200 (125)	750 (1650)	B	Range 1, class 2
High Performance, Dual Polarized												
DAX8-36A	8 (2.4)	2.3	36.5 37.2 37.8	60	30 35		1.08 / 28.3	± 5 ± 5	200 (125)	180 (396)		Range 1, class 2
DAX10-36A	10 (3.0)	1.8	38.4 39.1 39.7	62	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)		Range 1, class 2
DAX12-36A	12 (3.7)	1.5	40 40.7 41.3	63	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)	B	Range 1, class 2
DAX15-36A	15 (4.6)	1.1	42 42.7 43.3	65	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	750 (1650)	B	Range 1, class 2
Ultra High Performance, Single Polarized												
UA6-36B	6 (1.8)	3	33.7 34.4 35	60	30		1.08 / 28.3	± 5 ± 5	200 (125)	95 (209)		Range 1, class 3
UA8-36A	8 (2.4)	2.3	36.5 37.2 37.8	64	30		1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)		Range 1, class 3
UA10-36A	10 (3.0)	1.8	38.4 39.1 39.7	66	30		1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)	B	Range 1, class 3
UA12-36A	12 (3.7)	1.5	40 40.7 41.3	68	30		1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)	B	Range 1, class 3
Ultra High Performance, Dual Polarized												
UDA6-36B	6 (1.8)	3	33.5 34.2 34.8	60	30 35		1.08 / 28.3	± 5 ± 5	200 (125)	95 (209)		Range 1, class 3
Ultra High Performance, High Crosspolar Discrimination, Dual Polarized												
UXA8-36A	8 (2.4)	2.3	36.5 37.2 37.8	66	40 45		1.08 / 28.3	± 5 ± 5	200 (125)	180 (396)		Range 1, class 3, XPD
UXA10-36A	10 (3.0)	1.8	38.4 39.1 39.7	67	40 45		1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)	B	Range 1, class 3, XPD
UXA12-36A	12 (3.7)	1.5	40 40.7 41.3	70	40 45		1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)	A	Range 1, class 3, XPD
UXA15-36A	15 (4.6)	1.1	42 42.7 43.3	72	38 45		1.06 / 30.7	± 5 ± 5	200 (125)	750 (1650)	B	Range 1, class 3, XPD

¹To specify antenna input at the time of order, insert the appropriate antenna input code, from page 281, after the revision letter in the model number.

Antenna Input¹ – 154 IEC-PDR 48, UG-148/U

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
Standard Performance, Low VSWR, Single Polarized												
PAL6-44B	6 (1.8)	2.4	35.9 36.5 37	45	30		1.06 / 30.7	± 5 ± 5	200 (125)	50 (110)		Range 1, class 1
PAL8-44A	8 (2.4)	1.8	38.5 39.1 39.6	46	30		1.06 / 30.7	± 5 ± 5	200 (125)	120 (264)		Range 1, class 1
PAL10-44A	10 (3.0)	1.5	40.4 41 41.5	50	30		1.06 / 30.7	± 5 ± 5	200 (125)	215 (473)		Range 1, class 1
PAL12-44A	12 (3.7)	1.2	42 42.6 43.1	51	30		1.06 / 30.7	± 5 ± 5	200 (125)	310 (682)		Range 1, class 1
PAL15-44A	15 (4.6)	0.9	43.7 44.3 44.8	52	30		1.06 / 30.7	± 5 ± 5	200 (125)	570 (1254)		Range 1, class 1
Standard Performance, Dual Polarized												
PAX6-44B	6 (1.8)	2.4	35.6 36.2 36.7	45	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	50 (110)		Range 1, class 1
PAX8-44A	8 (2.4)	1.8	38.2 38.8 39.3	46	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	120 (264)		Range 1, class 1
PAX10-44A	10 (3.0)	1.5	40.1 40.7 41.2	50	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	215 (473)		Range 1, class 1
PAX12-44A	12 (3.7)	1.2	41.7 42.3 42.8	51	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	310 (682)		Range 1, class 1
PAX15-44A	15 (4.6)	0.9	43.7 44.3 44.8	52	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	570 (1254)		Range 1, class 1
High Performance, Single Polarized												
DA6-44B	6 (1.8)	2.4	35.9 36.5 37	62	30		1.06 / 30.7	± 5 ± 5	200 (125)	95 (209)		Range 1, class 2
DA8-44A	8 (2.4)	1.8	38.5 39.1 39.6	65	30		1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)		Range 1, class 2
DA10-44A	10 (3.0)	1.5	40.4 41 41.5	67	30		1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)		Range 1, class 2
DA12-44A	12 (3.7)	1.2	42 42.6 43.1	68	30		1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)		Range 1, class 2
DA15-44A	15 (4.6)	0.9	43.7 44.3 44.8	68	30		1.06 / 30.7	± 5 ± 5	200 (125)	750 (1650)		Range 1, class 2
High Performance, Dual Polarized												
DAX6-44B	6 (1.8)	2.4	35.6 36.2 36.7	60	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	95 (209)		Range 1, class 2
DAX8-44A	8 (2.4)	1.8	38.2 38.8 39.6	64	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)		Range 1, class 2
DAX10-44A	10 (3.0)	1.5	40.1 40.7 41.2	66	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)		Range 1, class 2
DAX12-44A	12 (3.7)	1.2	41.7 42.3 42.8	67	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)		Range 1, class 2
DAX15-44A	15 (4.6)	0.9	43.7 44.3 44.8	67	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	750 (1650)		Range 1, class 2
Ultra High Performance, Single Polarized												
UA6-44B	6 (1.8)	2.4	35.9 36.5 37	64	30		1.06 / 30.7	± 5 ± 5	200 (125)	95 (209)		Range 1, class 3
UA8-44A	8 (2.4)	1.8	38.5 39.1 39.6	66	30		1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)		Range 1, class 3
UA10-44A	10 (3.0)	1.5	40.4 41 41.5	68	30		1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)		Range 1, class 3
UA12-44A	12 (3.7)	1.2	42 42.6 43.1	71	30		1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)		Range 1, class 3
Ultra High Performance, Dual Polarized												
UDA6-44B	6 (1.8)	2.4	35.6 36.2 36.7	62	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	95 (209)		Range 1, class 3
Ultra High Performance, High Crosspolar Discrimination, Dual Polarized												
UXA8-44A	8 (2.4)	1.8	38.2 38.8 39.6	66	40	45	1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)		Range 1, class 3, XPD
UXA10-44A	10 (3.0)	1.5	40.1 40.7 41.2	68	40	45	1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)		Range 1, class 3, XPD
UXA12-44A	12 (3.7)	1.2	41.7 42.3 42.8	69	40	45	1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)		Range 1, class 3, XPD
UXA15-44A	15 (4.6)	0.9	43.7 44.3 44.8	71	38	45	1.06 / 30.7	± 5 ± 5	200 (125)	750 (1650)		Range 1, class 3, XPD
CompactLine, Single Polarized												
SB2-44B	2 (0.6)	5.9	25.6 26.6 27.6	42	30		1.30/17.7	± 30 ± 30	250 (156)	12 (26.5)		Range 1, class 1

5.25 - 5.85 GHz

Antenna Input¹ – N Female

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
SlimLine Standard Performance, Non-Pressurized, Single Polarized												
SPF2-52B	2 (0.6)	5.8	27.8 28.5 29.1	43	30		1.50 / 13.98		200 (125)	10 (22)		
SPF3-52B	3 (0.9)	3.9	31.3 32.0 32.6	45	30		1.50 / 13.98		200 (125)	16 (35.2)		
SPF4-52B	4 (1.2)	3.0	33.9 34.4 34.9	48	30		1.50 / 13.98		200 (125)	24 (52.8)		
SPF6-52B	6 (1.8)	2.0	37.6 38.1 38.6	50	30		1.50 / 13.98		200 (125)	70 (154)		
SlimLine High Performance, Non-Pressurized, Single Polarized												
SDF3-52B	3 (0.9)	3.9	31.3 32.0 32.6	55	30		1.50 / 13.98		200 (125)	16 (35.2)		
SDF4-52B	4 (1.2)	3.0	33.9 34.4 34.9	58	30		1.50 / 14.0		200 (125)	24 (52.8)		
SDF6-52B	6 (1.8)	2.0	37.6 38.1 38.6	61	30		1.50 / 14.0		200 (125)	70 (154)		

¹To specify antenna input at the time of order, insert the appropriate antenna input code, from page 281, after the revision letter in the model number.

Parabolic Point to Point Antennas

5.725 - 5.85 GHz

Antenna Input¹ – N Female, 154 IEC-PDR70, CPR137G

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
Standard Performance, Single Polarized												
PA4-57A	4 (1.2)	3.1	34.7 34.8 34.9	42	30		1.15 / 23.1	± 5 ± 10	200 (125)	48 (105)	-	Range 1, class 1
PA6-57B	6 (1.8)	2.1	38.2 38.3 38.4	46	30		1.15 / 23.1	± 5 ± 5	200 (125)	50 (110)	-	Range 1, class 1
PA8-57A	8 (2.4)	1.5	40.7 40.8 40.9	48	30		1.15 / 23.1	± 5 ± 5	200 (125)	120 (264)	-	Range 1, class 1
PA10-57A	10 (3.0)	1.2	42.6 42.7 42.8	51	30		1.15 / 23.1	± 5 ± 5	200 (125)	215 (473)	-	Range 1, class 1
PA12-57A	12 (3.7)	1	44.2 44.3 44.4	52	30		1.15 / 23.1	± 5 ± 5	200 (125)	310 (682)	-	Range 1, class 1
Standard Performance, Non-Pressurized, Single Polarized												
PSF8-57A	8 (2.4)	1.7	40.3 40.4 40.5	46	25		1.30 / 17.7	± 5 ± 5	200 (125)	130 (285)	-	
PSF10-57A	10 (3.0)	1.4	42.2 42.7 42.8	49	25		1.30 / 17.7	± 5 ± 5	200 (125)	264 (580)	-	
PSF12-57A	12 (3.7)	1.2	43.8 43.9 44.0	50	25		1.30 / 17.7	± 5 ± 5	200 (125)	364 (800)	-	
High Performance, Single Polarized												
DA4-57A	4 (1.2)	3.1	34.7 34.8 34.9	55	30		1.15 / 23.1	± 5 ± 10	200 (125)	63 (140)	-	Range 1, class 2
DA6-57B	6 (1.8)	2.1	38.2 38.3 38.4	64	30		1.15 / 23.1	± 5 ± 5	200 (125)	95 (209)	-	Range 1, class 2
DA8-57A	8 (2.4)	1.5	40.7 40.8 40.9	68	30		1.15 / 23.1	± 5 ± 5	200 (125)	180 (396)	-	Range 1, class 2
DA10-57A	10 (3.0)	1.2	42.6 42.7 42.8	70	30		1.15 / 23.1	± 5 ± 5	200 (125)	290 (638)	-	Range 1, class 2
DA12-57A	12 (3.7)	1	44.2 44.3 44.4	71	30		1.15 / 23.1	± 5 ± 5	200 (125)	420 (924)	-	Range 1, class 2

5.725 - 6.875 GHz

Antenna Input¹ – 154 IEC-PDR70, CPR137G

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
Standard Performance, Single Polarized												
PA4-W57A	4 (1.2)	2.8	34.7 35.5 36.3	42	28		1.20 / 20.8	± 5 ± 10	200 (125)	48 (105)	-	Range 1, class 1
PA6-W57B	6 (1.8)	1.9	38.2 39.0 39.8	46	30		1.15 / 23.1	± 5 ± 5	200 (125)	50 (110)	-	Range 1, class 1
PA8-W57A	8 (2.4)	1.4	40.7 41.5 42.3	48	30		1.15 / 23.1	± 5 ± 5	200 (125)	120 (264)	-	Range 1, class 1
PA10-W57A	10 (3.0)	1.1	42.6 43.5 44.2	51	30		1.15 / 23.1	± 5 ± 5	200 (125)	215 (473)	-	Range 1, class 1
PA12-W57A	12 (3.7)	0.9	44.2 45.1 45.8	52	30		1.15 / 23.1	± 5 ± 5	200 (125)	310 (682)	-	Range 1, class 1
Improved Performance, Single Polarized (FCC Part 101, category A compliant)												
PAD6-W57A	6 (1.8)	1.9	38.1 38.9 39.7	55	30		1.15 / 23.1	± 5 ± 5	200 (125)	84 (185)	A	
PAD8-W57A	8 (2.4)	1.4	40.6 41.4 42.2	57	30		1.15 / 23.1	± 5 ± 5	200 (125)	130 (285)	A	
High Performance, Single Polarized												
DA4-W57A	4 (1.2)	2.8	34.7 35.5 36.3	55	28		1.20 / 20.8	± 5 ± 10	200 (125)	63 (140)	-	Range 1, class 2
DA6-W57B	6 (1.8)	1.9	38.2 39.0 39.8	64	30		1.15 / 23.1	± 5 ± 5	200 (125)	95 (209)	-	Range 1, class 2
DA8-W57A	8 (2.4)	1.4	40.7 41.5 42.3	68	30		1.15 / 23.1	± 5 ± 5	200 (125)	180 (396)	-	Range 1, class 2
DA10-W57A	10 (3.0)	1.1	42.6 43.5 44.2	70	30		1.15 / 23.1	± 5 ± 5	200 (125)	290 (638)	-	Range 1, class 2
DA12-W57A	12 (3.7)	0.9	44.2 45.1 45.8	71	30		1.15 / 23.1	± 5 ± 5	200 (125)	420 (924)	-	Range 1, class 2

¹To specify antenna input at the time of order, insert the appropriate antenna input code, from page 281, after the revision letter in the model number.

Antenna Input¹ – 154 IEC-PDR 70, CPR137G

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
Standard Performance, Low VSWR, Single Polarized												
PAL8-59A	8 (2.4)	1.5	41.2 41.6 42	48	30		1.06 / 30.7	± 5 ± 5	200 (125)	120 (264)	B	Range 1, class 1
PAL10-59A	10 (3.0)	1.2	43 43.4 43.7	51	30		1.06 / 30.7	± 5 ± 5	200 (125)	215 (473)	B	Range 1, class 1
PAL12-59A	12 (3.7)	0.9	44.8 45.1 45.4	52	30		1.06 / 30.7	± 5 ± 5	200 (125)	310 (682)	B	Range 1, class 1
PAL15-59A	15 (4.6)	0.8	46.3 46.6 47	54	30		1.06 / 30.7	± 5 ± 5	200 (125)	570 (1254)		Range 1, class 1
Standard Performance, Dual Polarized												
PAX8-59A	8 (2.4)	1.5	40.9 41.3 41.7	48	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	120 (264)	B	Range 1, class 1
PAX10-59A	10 (3.0)	1.2	42.9 43.2 43.5	51	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	215 (473)	B	Range 1, class 1
PAX12-59A	12 (3.7)	0.9	44.6 44.8 45.2	52	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	310 (682)	B	Range 1, class 1
PAX15-59A	15 (4.6)	0.8	46.3 46.6 47	54	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	570 (1254)	B	Range 1, class 1
Improved Performance, Single Polarized (FCC Part 101, category A compliant)												
PAD6-59A	6 (1.8)	1.8	38.4 38.7 39.1	55	30		1.06 / 30.7	± 5 ± 5	200 (125)	84 (185)	A	
PAD8-59A	8 (2.4)	1.4	40.9 41.3 41.6	57	30		1.06 / 30.7	± 5 ± 5	200 (125)	130 (285)	A	
PAD10-59A	10 (3.0)	1.2	42.8 43.2 43.5	61	30		1.06 / 30.7	± 5 ± 5	200 (125)	264 (580)	A	
Improved Performance, Dual Polarized (FCC Part 101, category A compliant)												
PADX6-59A	6 (1.8)	1.8	38.2 38.5 38.9	55	30		1.06 / 30.7	± 5 ± 5	200 (125)	84 (185)	A	
PADX8-59A	8 (2.4)	1.4	40.7 41.1 41.4	57	30		1.06 / 30.7	± 5 ± 5	200 (125)	130 (285)	A	
PADX10-59A	10 (3.0)	1.2	42.7 43.1 43.4	61	30		1.06 / 30.7	± 5 ± 5	200 (125)	264 (580)	A	
High Performance, Single Polarized												
DA4-59A	4 (1.2)	2.8	34.9 35.3 35.6	58	30		1.10 / 26.4	± 5 ± 10	200 (125)	45 (99)		Range 1, class 2
DA6-59B	6 (1.8)	1.9	38.5 39 39.3	62	30		1.06 / 30.7	± 5 ± 5	200 (125)	95 (209)	A	Range 1, class 2
DA8-59A	8 (2.4)	1.5	41.2 41.6 42	66	30		1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)	A	Range 1, class 2
DA10-59A	10 (3.0)	1.2	43 43.4 43.7	69	30		1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)	A	Range 1, class 2
DA12-59A	12 (3.7)	0.9	44.8 45.1 45.4	70	30		1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)	A	Range 1, class 2
DA15-59A	15 (4.6)	0.8	46.3 46.6 47	71	30		1.06 / 30.7	± 5 ± 5	200 (125)	750 (1650)	B	Range 1, class 2
High Performance, Dual Polarized												
DAX4-59A	4 (1.2)	2.8	34.1 34.5 34.8	56	30 35		1.10 / 26.4	± 5 ± 5	200 (125)	45 (99)		Range 1, class 2
DAX6-59B	6 (1.8)	1.9	38.3 38.7 39	64	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	95 (209)	A	Range 1, class 2
DAX8-59A	8 (2.4)	1.5	40.9 41.3 41.7	67	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)	A	Range 1, class 2
DAX10-59A	10 (3.0)	1.2	42.9 43.2 43.5	69	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)	A	Range 1, class 2
DAX12-59A	12 (3.7)	0.9	44.6 44.8 45.2	71	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)	A	Range 1, class 2
DAX15-59A	15 (4.6)	0.8	46.3 46.6 47	71	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	750 (1650)	A	Range 1, class 2
Ultra High Performance, Single Polarized												
UA6-59B	6 (1.8)	1.9	38.5 39 39.3	67	30		1.06 / 30.7	± 5 ± 5	200 (125)	95 (209)	A	Range 1, class 3
UA8-59A	8 (2.4)	1.5	41.2 41.6 42	70	30		1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)	A	Range 1, class 3
UA10-59A	10 (3.0)	1.2	43 43.4 43.7	72	30		1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)	A	Range 1, class 3
UA12-59A	12 (3.7)	0.9	44.8 45.1 45.4	74	30		1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)	A	Range 1, class 3
Ultra High Performance, High Crosspolar Discrimination, Dual Polarized												
UXA6-59B	6 (1.8)	1.9	38.3 38.7 39	69	40 45		1.06 / 30.7	± 5 ± 5	200 (125)	95 (209)	A	Range 1, class 3, XPD
UXA8-59A	8 (2.4)	1.5	40.9 41.3 41.7	71	40 45		1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)	A	Range 1, class 3, XPD
UXA10-59A	10 (3.0)	1.2	42.9 43.2 43.5	74	40 45		1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)	A	Range 1, class 3, XPD
UXA12-59A	12 (3.7)	0.9	44.6 44.8 45.2	76	40 45		1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)	A	Range 1, class 3, XPD
UXA15-59A	15 (4.6)	0.8	46.3 46.6 47	77	38 45		1.06 / 30.7	± 5 ± 5	200 (125)	750 (1650)	A	Range 1, class 3, XPD
SlimLine Standard Performance, Single Polarized												
SP4-59A	4 (1.2)	2.8	34.9 35.3 35.6	42	30		1.15 / 23.1	± 5 ± 10	200 (125)	30 (66)		Range 1, class 1
SP6-59B	6 (1.8)	1.9	38.5 39 39.6	46	30		1.15 / 23.1	± 5 ± 5	200 (125)	50 (110)		Range 1, class 1
SlimLine Standard Performance, Dual Polarized												
SPX6-59B	6 (1.8)	1.9	38.3 38.8 39.1	46	30 35		1.15 / 23.1	± 5 ± 5	200 (125)	50 (110)		Range 1, class 1
SlimLine Ultra High Performance, Single Polarized												
SU6-59B	6 (1.8)	1.9	38.3 38.8 39.1	64	30		1.15 / 23.1	± 5 ± 5	200 (125)	95 (209)		Range 1, class 3
SlimLine Ultra High Performance, Dual Polarized												
SUX6-59B	6 (1.8)	1.9	38.1 38.6 38.9	64	30 35		1.15 / 23.1	± 5 ± 5	200 (125)	95 (209)		Range 1, class 3

¹To specify antenna input at the time of order, insert the appropriate antenna input code, from page 281, after the revision letter in the model number.

Parabolic Point to Point Antennas

5.925 - 6.875 GHz

Antenna Input¹ – 154 IEC-PDR 70, CPR137G

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
Standard Performance, Dual Polarized												
PAX8-W59A	8 (2.4)	1.3	40.9 41.7 42.5	49	30	35	1.08 / 28.3	± 5 ± 5	200 (125)	120 (264)		Range 1, class 1
PAX10-W59A	10 (3.0)	1	42.9 43.6 44.4	51	30	35	1.08 / 28.3	± 5 ± 5	200 (125)	215 (473)		Range 1, class 1
PAX12-W59A	12 (3.7)	0.8	44.6 45.2 46	52	30	35	1.08 / 28.3	± 5 ± 5	200 (125)	310 (682)		Range 1, class 1
Improved Performance, Single Polarized (FCC Part 101, category A compliant)												
PAD6-W59B	6 (1.8)	1.7	38.4 39.1 39.7	55	30		1.08 / 28.3	± 5 ± 5	200 (125)	50 (110)	A	
PAD8-W59A	8 (2.4)	1.3	40.9 41.6 42.2	57	30		1.08 / 28.3	± 5 ± 5	200 (125)	130 (285)	A	
PAD10-W59A	10 (3.0)	1.1	42.7 43.4 44.0	61	30		1.08 / 28.3	± 5 ± 5	200 (125)	264 (580)	A	
Improved Performance, Dual Polarized (FCC Part 101, category A compliant)												
PADX10-W59A	10 (3.0)	1.1	42.7 43.4 44.0	59	30		1.10 / 26.4	± 5 ± 5	200 (125)	264 (580)	A	
High Performance, Dual Polarized												
DAX8-W59A	8 (2.4)	1.3	40.9 41.5 42.1	63	30	35	1.08 / 28.3	± 5 ± 5	200 (125)	180 (396)		Range 1, class 2
DAX10-W59A	10 (3.0)	1	42.9 43.5 44.1	66	30	35	1.08 / 28.3	± 5 ± 5	200 (125)	290 (638)		Range 1, class 2
DAX12-W59A	12 (3.7)	0.8	44.6 45.1 45.7	68	30	35	1.08 / 28.3	± 5 ± 5	200 (125)	420 (924)		Range 1, class 2
DAX15-W59A	15 (4.6)	0.7	46.3 46.9 47.6	70	30	35	1.08 / 28.3	± 5 ± 5	200 (125)	750 (1650)		Range 1, class 2
Ultra High Performance, High Crosspolar Discrimination, Dual Polarized												
UXA10-W59A	10 (3.0)	1	42.9 43.5 44.1	73	40	45	1.08 / 28.3	± 5 ± 5	200 (125)	290 (638)		Range 1, class 3, XPD
UXA12-W59A	12 (3.7)	0.8	44.6 45.1 45.7	75	40	45	1.08 / 28.3	± 5 ± 5	200 (125)	420 (924)		Range 1, class 3, XPD

¹To specify antenna input at the time of order, insert the appropriate antenna input code, from page 281, after the revision letter in the model number.

Antenna Input¹ – 154 IEC-PDR 70, CPR137G

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
Standard Performance, Low VSWR, Single Polarized												
PAL8-65A	8 (2.4)	1.3	42 42.4 42.9	49	30		1.06 / 30.7	± 5 ± 5	200 (125)	120 (264)	B	Range 1, class 1
PAL10-65A	10 (3.0)	1	43.7 44.1 44.6	52	30		1.06 / 30.7	± 5 ± 5	200 (125)	215 (473)	B	Range 1, class 1
PAL12-65A	12 (3.7)	0.8	45.3 45.8 46.2	53	30		1.06 / 30.7	± 5 ± 5	200 (125)	310 (682)	B	Range 1, class 1
PAL15-65A	15 (4.6)	0.7	47 47.5 47.9	55	30		1.06 / 30.7	± 5 ± 5	200 (125)	570 (1254)	B	Range 1, class 1
Standard Performance, Dual Polarized												
PAX8-65A	8 (2.4)	1.3	41.8 42.2 42.7	51	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	120 (264)	B	Range 1, class 1
PAX10-65A	10 (3.0)	1	43.5 43.9 44.4	52	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	215 (473)	B	Range 1, class 1
PAX12-65A	12 (3.7)	0.8	45.1 45.6 46	53	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	310 (682)	B	Range 1, class 1
PAX15-65A	15 (4.6)	0.7	47 47.5 47.9	55	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	570 (1254)	B	Range 1, class 1
Improved Performance, Single Polarized (FCC Part 101, category A compliant)												
PAD6-65A	6 (1.8)	1.6	39.1 39.6 40.0	57	30		1.06 / 30.7	± 5 ± 5	200 (125)	84 (185)	A	
PAD8-65A	8 (2.4)	1.2	41.6 42.1 42.5	59	30		1.06 / 30.7	± 5 ± 5	200 (125)	130 (285)	A	
PAD10-65A	10 (3.0)	1.1	43.5 43.9 44.3	63	30		1.06 / 30.7	± 5 ± 5	200 (125)	264 (580)	A	
Improved Performance, Dual Polarized (FCC Part 101, category A compliant)												
PADX6-65A	6 (1.8)	1.6	38.9 39.4 39.8	57	30		1.06 / 30.7	± 5 ± 5	200 (125)	84 (185)	A	
PADX8-65A	8 (2.4)	1.2	41.4 41.9 42.3	59	30		1.06 / 30.7	± 5 ± 5	200 (125)	130 (285)	A	
PADX10-65A	10 (3.0)	1	43.6 43.9 44.4	63	30		1.06 / 30.7	± 5 ± 5	200 (125)	264 (580)	A	
High Performance, Single Polarized												
DA4-65A	4 (1.2)	2.5	35.6 36 36.5	58	30		1.08 / 28.3	± 5 ± 10	200 (125)	45 (99)		Range 1, class 2
DA6-65B	6 (1.8)	1.7	39.4 39.8 40.2	64	30		1.06 / 30.7	± 5 ± 5	200 (125)	95 (209)	A	Range 1, class 2
DA8-65A	8 (2.4)	1.3	41.9 42.3 42.8	66	30		1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)	A	Range 1, class 2
DA10-65A	10 (3.0)	1	43.7 44.1 44.6	69	30		1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)	A	Range 1, class 2
DA12-65A	12 (3.7)	0.8	45.3 45.8 46.2	70	30		1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)	A	Range 1, class 2
DA15-65A	15 (4.6)	0.7	47 47.5 47.9	71	30		1.06 / 30.7	± 5 ± 5	200 (125)	750 (1650)	A	Range 1, class 2
High Performance, Dual Polarized												
DAX4-65A	4 (1.2)	2.5	34.8 35.3 35.7	58	30 35		1.10 / 26.4	± 5 ± 5	200 (125)	45 (99)		Range 1, class 2
DAX6-65B	6 (1.8)	1.7	39.2 39.7 40.1	64	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	95 (209)	A	Range 1, class 2
DAX8-65A	8 (2.4)	1.3	41.8 42.2 42.7	68	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)	A	Range 1, class 2
DAX10-65A	10 (3.0)	1	43.5 43.9 44.4	70	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)	A	Range 1, class 2
DAX12-65A	12 (3.7)	0.8	45.1 45.6 46	71	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)	A	Range 1, class 2
DAX15-65A	15 (4.6)	0.7	47 47.5 47.9	71	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	750 (1650)	A	Range 1, class 2
Ultra High Performance, Single Polarized												
UA4-65A	4 (1.2)	2.5	35.6 36 36.5	63	30		1.06 / 30.7	± 5 ± 10	200 (125)	45 (99)		Range 1, class 3
UA6-65B	6 (1.8)	1.7	39.4 39.8 40.2	67	30		1.06 / 30.7	± 5 ± 5	200 (125)	95 (209)	A	Range 1, class 3
UA8-65A	8 (2.4)	1.3	41.9 42.3 42.8	70	30		1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)	A	Range 1, class 3
UA10-65A	10 (3.0)	1	43.7 44.1 44.6	72	30		1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)	A	Range 1, class 3
UA12-65A	12 (3.7)	0.8	45.3 45.8 46.2	74	30		1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)	A	Range 1, class 3
Ultra High Performance, Dual Polarized												
UDA10-65A	10 (3.0)	1	43.5 43.9 44.4	73	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)		Range 1, class 3
UDA12-65A	12 (3.7)	0.8	45.1 45.6 46	75	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)		Range 1, class 3
Ultra High Performance, High Crosspolar Discrimination, Dual Polarized												
UXA6-65B	6 (1.8)	1.7	39.2 39.7 40.1	69	40 45		1.06 / 30.7	± 5 ± 5	200 (125)	95 (209)	A	Range 1, class 3, XPD
UXA8-65A	8 (2.4)	1.3	41.8 42.2 42.7	71	40 45		1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)	A	Range 1, class 3, XPD
UXA10-65A	10 (3.0)	1	43.5 43.9 44.4	74	40 45		1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)	A	Range 1, class 3, XPD
UXA12-65A	12 (3.7)	0.8	45.1 45.6 46	76	40 45		1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)	A	Range 1, class 3, XPD
UXA15-65A	15 (4.6)	0.7	47 47.5 47.9	77	38 45		1.06 / 30.7	± 5 ± 5	200 (125)	750 (1650)	A	Range 1, class 3, XPD
SlimLine Standard Performance, Single Polarized												
SP4-65A	4 (1.2)	2.5	35.9 36.4 36.8	43	30		1.15 / 23.1	± 5 ± 10	200 (125)	30 (66)		Range 1, class 1
SP6-65B	6 (1.8)	1.7	39.4 39.9 40.3	47	30		1.15 / 23.1	± 5 ± 5	200 (125)	50 (110)		Range 1, class 1
SlimLine Standard Performance, Dual Polarized												
SPX4-65A	4 (1.2)	2.5	35.3 35.8 36.2	43	30 35		1.15 / 23.1	± 5 ± 5	200 (125)	30 (66)		Range 1, class 1
SPX6-65B	6 (1.8)	1.7	39.2 39.7 40.1	47	30 35		1.15 / 23.1	± 5 ± 5	200 (125)	50 (110)		Range 1, class 1
SlimLine Ultra High Performance, Single Polarized												
SU4-65A	4 (1.2)	2.5	35.6 36 36.5	61	30		1.15 / 23.1	± 5 ± 10	200 (125)	45 (99)		Range 1, class 3
SU6-65B	6 (1.8)	1.7	39.2 39.7 40.1	65	30		1.15 / 23.1	± 5 ± 5	200 (125)	95 (209)		Range 1, class 3
SlimLine Ultra High Performance, Dual Polarized												
SUX4-65A	4 (1.2)	2.5	34.8 35.3 35.7	61	30 35		1.15 / 23.1	± 5 ± 5	200 (125)	45 (99)		Range 1, class 3
SUX6-65B	6 (1.8)	1.7	39 39.5 39.9	65	30 35		1.15 / 23.1	± 5 ± 5	200 (125)	95 (209)		Range 1, class 3

¹To specify antenna input at the time of order, insert the appropriate antenna input code, from page 281, after the revision letter in the model number.

Parabolic Point to Point Antennas

7.125 - 7.75 GHz

Antenna Input¹ – 154 IEC-PDR 70, CPR137G

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
Standard Performance, Low VSWR, Single Polarized												
PAL8-71A	8 (2.4)	1.1	42.6 43 43.3	50	30		1.06 / 30.7	± 5 ± 5	200 (125)	120 (264)		Range 1, class 1
PAL10-71A	10 (3.0)	0.9	44.6 44.9 45.3	52	30		1.06 / 30.7	± 5 ± 5	200 (125)	215 (473)		Range 1, class 1
PAL12-71A	12 (3.7)	0.7	46.2 46.6 47	54	30		1.06 / 30.7	± 5 ± 5	200 (125)	310 (682)		Range 1, class 1
PAL15-71A	15 (4.6)	0.6	47.9 48.3 48.6	56	30		1.06 / 30.7	± 5 ± 5	200 (125)	570 (1254)		Range 1, class 1
Standard Performance, Dual Polarized												
PAX8-71A	8 (2.4)	1.1	42.4 42.8 43.1	50	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	120 (264)		Range 1, class 1
PAX10-71A	10 (3.0)	0.9	44.4 44.7 45.1	52	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	215 (473)		Range 1, class 1
PAX12-71A	12 (3.7)	0.7	46 46.4 46.8	54	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	310 (682)		Range 1, class 1
PAX15-71A	15 (4.6)	0.6	47.9 48.3 48.6	56	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	570 (1254)		Range 1, class 1
High Performance, Single Polarized												
DA4-71A	4 (1.2)	2.2	36.6 37 37.3	62	30		1.08 / 28.3	± 5 ± 10	200 (125)	45 (99)		Range 1, class 2
DA6-71B	6 (1.8)	1.5	40.1 40.5 40.8	66	30		1.06 / 30.7	± 5 ± 5	200 (125)	95 (209)		Range 1, class 2
DA8-71A	8 (2.4)	1.1	42.6 43 43.3	68	30		1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)		Range 1, class 2
DA10-71A	10 (3.0)	0.9	44.6 44.9 45.3	70	30		1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)		Range 1, class 2
DA12-71A	12 (3.7)	0.7	46.2 46.6 47	71	30		1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)		Range 1, class 2
DA15-71A	15 (4.6)	0.6	47.9 48.3 48.6	72	30		1.06 / 30.7	± 5 ± 5	200 (125)	750 (1650)		Range 1, class 2
High Performance, Dual Polarized												
DAX4-71A	4 (1.2)	2.2	36.2 36.6 36.9	61	30	35	1.10 / 26.4	± 5 ± 5	200 (125)	45 (99)		Range 1, class 2
DAX6-71B	6 (1.8)	1.5	39.9 40.3 40.6	65	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	95 (209)		Range 1, class 2
DAX8-71A	8 (2.4)	1.1	42.4 42.8 43.1	68	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)		Range 1, class 2
DAX10-71A	10 (3.0)	0.9	44.4 44.7 45.1	70	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)		Range 1, class 2
DAX12-71A	12 (3.7)	0.7	46 46.4 46.8	71	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)		Range 1, class 2
DAX15-71A	15 (4.6)	0.6	47.9 48.3 48.6	72	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	750 (1650)		Range 1, class 2
Ultra High Performance, Single Polarized												
UA8-71A	8 (2.4)	1.1	42.6 43 43.3	71	30		1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)		Range 1, class 3
UA10-71A	10 (3.0)	0.9	44.6 44.9 45.3	73	30		1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)		Range 1, class 3
UA12-71A	12 (3.7)	0.7	46.2 46.6 47	74	30		1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)		Range 1, class 3
Ultra High Performance, High Crosspolar Discrimination, Dual Polarized												
UXA4-71A	4 (1.2)	1.5	35.7 36.1 36.4	62	40	40	1.10 / 26.4	± 5 ± 5	200 (125)	45 (99)		Range 1, class 3, XPD
UXA6-71B	6 (1.8)	1.5	39.9 40.3 40.6	68	40	45	1.06 / 30.7	± 5 ± 5	200 (125)	95 (209)		Range 1, class 3, XPD
UXA8-71A	8 (2.4)	1.1	42.4 42.8 43.1	72	40	45	1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)		Range 1, class 3, XPD
UXA10-71A	10 (3.0)	0.9	44.4 44.7 45.1	74	40	45	1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)		Range 1, class 3, XPD
UXA12-71A	12 (3.7)	0.7	46 46.4 46.8	76	40	45	1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)		Range 1, class 3, XPD
UXA15-71A	15 (4.6)	0.6	47.9 48.3 48.6	77	38	45	1.06 / 30.7	± 5 ± 5	200 (125)	750 (1650)		Range 1, class 3, XPD
SlimLine Standard Performance, Single Polarized												
SP2-71B	2 (0.6)	4.6	30.6 31 31.3	40	30		1.15 / 23.1	± 30 ± 30	250 (156)	10 (22)		Range 1, class 1
SP4-71A	4 (1.2)	2.3	36.6 37 37.3	46	30		1.15 / 23.1	± 5 ± 10	200 (125)	30 (66)		Range 1, class 1
SP6-71B	6 (1.8)	1.5	40.2 40.6 40.9	48	30		1.15 / 23.1	± 5 ± 5	200 (125)	50 (110)		Range 1, class 1
SlimLine Standard Performance, Dual Polarized												
SPX4-71A	4 (1.2)	2.3	36.3 36.7 37.0	46	30	35	1.15 / 23.1	± 5 ± 5	200 (125)	30 (66)		Range 1, class 1
SPX6-71B	6 (1.8)	1.5	40 40.4 40.7	48	30	35	1.15 / 23.1	± 5 ± 5	200 (125)	50 (110)		Range 1, class 1
SlimLine Ultra High Performance, Single Polarized												
SU2-71B	2 (0.6)	4.6	30.2 30.6 30.9	55	30		1.15 / 23.1	± 30 ± 30	250 (156)	15 (33)		Range 1, class 2
SU4-71A	4 (1.2)	2.3	36.2 36.6 36.9	62	30		1.15 / 23.1	± 5 ± 10	200 (125)	45 (99)		Range 1, class 3
SU6-71B	6 (1.8)	1.5	39.9 40.3 40.6	66	30		1.15 / 23.1	± 5 ± 5	200 (125)	95 (209)		Range 1, class 3
SlimLine Ultra High Performance, Dual Polarized												
SUX4-71A	4 (1.2)	2.3	35.7 36.1 36.4	62	30	35	1.15 / 23.1	± 5 ± 5	200 (125)	45 (99)		Range 1, class 3
SUX6-71B	6 (1.8)	1.5	39.9 40.3 40.6	66	30	35	1.15 / 23.1	± 5 ± 5	200 (125)	95 (209)		Range 1, class 3

¹To specify antenna input at the time of order, insert the appropriate antenna input code, from page 281, after the revision letter in the model number.

Antenna Input¹ – 154 IEC-PDR 84, CPR112G

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
Standard Performance, Low VSWR, Single Polarized												
PAL8-W71A	8 (2.4)	1.1	42.6 43.3 44.0	50	30		1.10 / 26.4	± 5 ± 5	200 (125)	120 (264)		Range 1, class 1
PAL10-W71A	10 (3.0)	0.9	44.6 45.3 46.0	52	30		1.10 / 26.4	± 5 ± 5	200 (125)	215 (473)		Range 1, class 1
PAL12-W71A	12 (3.7)	0.7	46.2 47.0 47.7	54	30		1.10 / 26.4	± 5 ± 5	200 (125)	310 (682)		Range 1, class 1
PAL15-W71A	15 (4.6)	0.6	47.9 48.7 49.4	56	30		1.10 / 26.4	± 5 ± 5	200 (125)	570 (1254)		Range 1, class 1
Standard Performance, Dual Polarized												
PAX8-W71A	8 (2.4)	1.1	42.4 43.1 43.9	50	30	35	1.10 / 26.4	± 5 ± 5	200 (125)	120 (264)		Range 1, class 1
PAX10-W71A	10 (3.0)	0.9	44.4 45.1 45.9	52	30	35	1.10 / 26.4	± 5 ± 5	200 (125)	215 (473)		Range 1, class 1
PAX12-W71A	12 (3.7)	0.7	46 46.7 47.5	54	30	35	1.10 / 26.4	± 5 ± 5	200 (125)	310 (682)		Range 1, class 1
PAX15-W71A	15 (4.6)	0.6	47.7 48.6 49.4	56	30	35	1.10 / 26.4	± 5 ± 5	200 (125)	570 (1254)		Range 1, class 1
High Performance, Single Polarized												
DA2-W71B	2 (0.6)	4.3	30.8 31.3 31.7	52	30		1.19 / 21.2	± 30 ± 30	250 (156)	15 (33)		Range 1, class 2
DA4-W71A	4 (1.2)	2.2	36.6 37.3 38.1	62	30		1.10 / 26.4	± 5 ± 10	200 (125)	45 (99)		Range 1, class 2
DA6-W71B	6 (1.8)	1.5	40.1 40.8 41.6	66	30		1.10 / 26.4	± 5 ± 5	200 (125)	95 (209)		Range 1, class 2
DA8-W71A	8 (2.4)	1.1	42.6 43.3 44.1	68	30		1.10 / 26.4	± 5 ± 5	200 (125)	180 (396)		Range 1, class 2
DA10-W71A	10 (3.0)	0.9	44.6 45.3 46.1	70	30		1.10 / 26.4	± 5 ± 5	200 (125)	290 (638)		Range 1, class 2
DA12-W71A	12 (3.7)	0.7	46.2 47.0 47.7	71	30		1.10 / 26.4	± 5 ± 5	200 (125)	420 (924)		Range 1, class 2
DA15-W71A	15 (4.6)	0.6	47.9 48.7 49.4	72	30		1.10 / 26.4	± 5 ± 5	200 (125)	750 (1650)		Range 1, class 2
High Performance, Dual Polarized												
DAX4-W71A	4 (1.2)	2.2	36.2 36.9 37.7	61	30	35	1.10 / 26.4	± 5 ± 5	200 (125)	45 (99)		Range 1, class 2
DAX6-W71B	6 (1.8)	1.5	39.9 40.6 41.4	65	30	35	1.10 / 26.4	± 5 ± 5	200 (125)	95 (209)		Range 1, class 2
DAX8-W71A	8 (2.4)	1.1	42.4 43.1 43.9	68	30	35	1.10 / 26.4	± 5 ± 5	200 (125)	180 (396)		Range 1, class 2
DAX10-W71A	10 (3.0)	0.9	44.4 45.1 45.9	70	30	35	1.10 / 26.4	± 5 ± 5	200 (125)	290 (638)		Range 1, class 2
DAX12-W71A	12 (3.7)	0.7	46 46.7 47.5	71	30	35	1.10 / 26.4	± 5 ± 5	200 (125)	420 (924)		Range 1, class 2
DAX15-W71A	15 (4.6)	0.6	47.7 48.6 49.4	72	30	35	1.10 / 26.4	± 5 ± 5	200 (125)	750 (1650)		Range 1, class 2
Ultra High Performance, Single Polarized												
UA8-W71A	8 (2.4)	1.1	42.6 43.3 44.1	71	30		1.10 / 26.4	± 5 ± 5	200 (125)	180 (396)		Range 1, class 3
UA10-W71A	10 (3.0)	0.9	44.6 45.3 46.1	73	30		1.10 / 26.4	± 5 ± 5	200 (125)	290 (638)		Range 1, class 3
UA12-W71A	12 (3.7)	0.7	46.2 47.0 47.7	74	30		1.10 / 26.4	± 5 ± 5	200 (125)	420 (924)		Range 1, class 3
Ultra High Performance, Dual Polarized												
UDA8-W71A	8 (2.4)	1.1	42.4 43.1 43.9	71	30	35	1.10 / 26.4	± 5 ± 5	200 (125)	180 (396)		Range 1, class 3
UDA10-W71A	10 (3.0)	0.9	44.4 45.1 45.9	73	30	35	1.10 / 26.4	± 5 ± 5	200 (125)	290 (638)		Range 1, class 3
UDA12-W71A	12 (3.7)	0.7	46 46.7 47.5	74	30	35	1.10 / 26.4	± 5 ± 5	200 (125)	420 (924)		Range 1, class 3
UDA15-W71A	15 (4.6)	0.6	47.7 48.6 49.4	76	30	35	1.10 / 26.4	± 5 ± 5	200 (125)	750 (1650)		Range 1, class 3
SlimLine Standard Performance, Single Polarized												
SP2-W71B	2 (0.6)	4.3	30.8 31.3 31.9	40	30		1.20 / 20.8	± 30 ± 30	250 (156)	10 (22)		Range 1, class 1
SP4-W71A	4 (1.2)	2.2	36.6 37.3 38	45	30		1.15 / 23.1	± 5 ± 10	200 (125)	30 (66)		Range 1, class 1
SP6-W71B	6 (1.8)	1.5	40.1 40.8 41.6	48	30		1.15 / 23.1	± 5 ± 5	200 (125)	50 (110)		Range 1, class 1
SlimLine Standard Performance, Dual Polarized												
SPX4-W71A	4 (1.2)	2.2	36.2 36.9 37.6	45	30	35	1.19 / 21.2	± 5 ± 5	200 (125)	30 (66)		Range 1, class 1
SPX6-W71B	6 (1.8)	1.5	39.9 40.6 41.4	48	30	35	1.19 / 21.2	± 5 ± 5	200 (125)	50 (110)		Range 1, class 1
SlimLine Ultra High Performance, Single Polarized												
SU2-W71B	2 (0.6)	4.3	30.8 31.3 31.9	55	30		1.20 / 20.8	± 30 ± 30	250 (156)	15 (33)		Range 1, class 2
SU3-W71A	3 (0.9)	2.6	33.7 34.4 35.3	58	30		1.20 / 20.8	± 5 ± 15	200 (125)	23 (50.5)		Range 1, class 3
SU4-W71A	4 (1.2)	2.2	36.2 36.9 37.6	63	30		1.15 / 23.1	± 5 ± 10	200 (125)	45 (99)		Range 1, class 3
SU6-W71B	6 (1.8)	1.5	40 40.8 41.6	67	30		1.15 / 23.1	± 5 ± 5	200 (125)	95 (209)		Range 1, class 3
SlimLine Ultra High Performance, Dual Polarized												
SUX4-W71A	4 (1.2)	2.2	36.1 36.8 37.5	63	30	35	1.19 / 21.2	± 5 ± 5	200 (125)	45 (99)		Range 1, class 3
SUX6-W71B	6 (1.8)	1.5	39.8 40.6 41.4	67	30	35	1.19 / 21.2	± 5 ± 5	200 (125)	95 (209)		Range 1, class 3
CompactLine, Single Polarized												
SB4-W71A	4 (1.2)	2.3	36.2 36.9 37.6	63	30		1.30 / 17.7	± 5 ± 10	200 (125)	39 (86)		Range 1, class 3

¹To specify antenna input at the time of order, insert the appropriate antenna input code, from page 281, after the revision letter in the model number.

Parabolic Point to Point Antennas

7.725 - 8.275 GHz

Antenna Input¹ – 154 IEC-PDR 84

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
High Performance, Dual Polarized												
DAX4-77A	4 (1.2)	2.1	37.1 37.4 37.7	58	30	35	1.10 / 26.4	± 5 ± 5	200 (125)	45 (99)		Range 1, class 2
DAX6-77B	6 (1.8)	1.5	40.5 40.8 41.1	63	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	95 (209)		Range 1, class 2
DAX8-77A	8 (2.4)	1.1	43.1 43.4 43.7	65	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)		Range 1, class 2
DAX10-77A	10 (3.0)	0.9	45 45.3 45.6	67	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)		Range 1, class 2
DAX12-77A	12 (3.7)	0.7	46.6 46.9 47.2	69	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)		Range 1, class 2
DAX15-77A	15 (4.6)	0.6	48.3 48.6 48.9	71	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	750 (1650)		Range 1, class 2
Ultra High Performance, High Crosspolar Discrimination, Dual Polarized												
UXA6-77B	6 (1.8)	1.5	40.5 40.8 41.1	70	40	45	1.06 / 30.7	± 5 ± 5	200 (125)	95 (209)		Range 1, class 3, XPD
UXA8-77A	8 (2.4)	1.1	43 43.3 43.6	73	40	45	1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)		Range 1, class 3, XPD
UXA10-77A	10 (3.0)	0.9	45 45.3 45.6	76	40	45	1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)		Range 1, class 3, XPD
UXA12-77A	12 (3.7)	0.7	46.6 46.9 47.2	77	40	45	1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)		Range 1, class 3, XPD
UXA15-77A	15 (4.6)	0.6	48.3 48.6 48.9	78	38	45	1.06 / 30.7	± 5 ± 5	200 (125)	750 (1650)		Range 1, class 3, XPD

¹To specify antenna input at the time of order, insert the appropriate antenna input code, from page 281, after the revision letter in the model number.

Antenna Input¹ – 154 IEC-PDR 84, CPR112G

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
Standard Performance, Low VSWR, Single Polarized												
PAL8-78A	8 (2.4)	1.1	43.3 43.8 44.1	51	30		1.06 / 30.7	± 5 ± 5	200 (125)	120 (264)		Range 1, class 1
PAL10-78A	10 (3.0)	0.9	45.3 45.7 46.1	53	30		1.06 / 30.7	± 5 ± 5	200 (125)	215 (473)		Range 1, class 1
PAL12-78A	12 (3.7)	0.7	46.9 47.3 47.7	54	30		1.06 / 30.7	± 5 ± 5	200 (125)	310 (682)		Range 1, class 1
PAL15-78A	15 (4.6)	0.6	48.6 49 49.4	57	30		1.06 / 30.7	± 5 ± 5	200 (125)	570 (1254)		Range 1, class 1
Standard Performance, Dual Polarized												
PAX8-78A	8 (2.4)	1.1	43.1 43.6 43.9	51	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	120 (264)		Range 1, class 1
PAX10-78A	10 (3.0)	0.9	45.1 45.5 45.9	52	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	215 (473)		Range 1, class 1
PAX12-78A	12 (3.7)	0.7	46.7 47.1 47.5	54	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	310 (682)		Range 1, class 1
PAX15-78A	15 (4.6)	0.6	48.6 49 49.4	56	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	570 (1254)		Range 1, class 1
High Performance, Single Polarized												
DA4-78A	4 (1.2)	2.1	37.3 37.7 38.1	63	30		1.08 / 28.3	± 5 ± 10	200 (125)	45 (99)		Range 1, class 2
DA6-78B	6 (1.8)	1.5	40.8 41.3 41.6	67	30		1.06 / 30.7	± 5 ± 5	200 (125)	95 (209)		Range 1, class 2
DA8-78A	8 (2.4)	1.1	43.3 43.8 44.1	68	30		1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)		Range 1, class 2
DA10-78A	10 (3.0)	0.9	45.3 45.7 46.1	70	30		1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)		Range 1, class 2
DA12-78A	12 (3.7)	0.7	46.9 47.3 47.7	71	30		1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)		Range 1, class 2
DA15-78A	15 (4.6)	0.6	48.6 49 49.4	71	30		1.06 / 30.7	± 5 ± 5	200 (125)	750 (1650)		Range 1, class 2
High Performance, Dual Polarized												
DAX4-78A	4 (1.2)	2.1	37.1 37.5 37.9	58	30	35	1.10 / 26.4	± 5 ± 5	200 (125)	45 (99)		Range 1, class 2
DAX6-78B	6 (1.8)	1.5	40.6 41.1 41.4	63	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	95 (209)		Range 1, class 2
DAX8-78A	8 (2.4)	1.1	43.1 43.6 43.9	65	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)		Range 1, class 2
DAX10-78A	10 (3.0)	0.9	45.1 45.5 45.9	67	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)		Range 1, class 2
DAX12-78A	12 (3.7)	0.7	46.7 47.1 47.5	69	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)		Range 1, class 2
DAX15-78A	15 (4.6)	0.6	48.6 49 49.4	71	30	35	1.06 / 30.7	± 5 ± 5	200 (125)	750 (1650)		Range 1, class 2
Ultra High Performance, Single Polarized												
UA8-78A	8 (2.4)	1.1	43.3 43.8 44.1	71	30		1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)		Range 1, class 3
UA10-78A	10 (3.0)	0.9	45.3 45.7 46.1	73	30		1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)		Range 1, class 3
UA12-78A	12 (3.7)	0.7	46.9 47.3 47.7	75	30		1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)		Range 1, class 3
Ultra High Performance, High Crosspolar Discrimination, Dual Polarized												
UXA6-78B	6 (1.8)	1.5	40.6 41.1 41.4	70	40	45	1.06 / 30.7	± 5 ± 5	200 (125)	95 (209)		Range 1, class 3
UXA8-78A	8 (2.4)	1.1	43.1 43.6 43.9	73	40	45	1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)		Range 1, class 3
UXA10-78A	10 (3.0)	0.9	45.1 45.5 45.9	76	40	45	1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)		Range 1, class 3
UXA12-78A	12 (3.7)	0.7	46.7 47.1 47.5	77	40	45	1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)		Range 1, class 3
UXA15-78A	15 (4.6)	0.6	48.6 49 49.4	78	38	45	1.06 / 30.7	± 5 ± 5	200 (125)	750 (1650)		Range 1, class 3
SlimLine Standard Performance, Single Polarized												
SP2-78B	2 (0.6)	4.3	31.4 31.7 32.1	41	30		1.15 / 23.1	± 30 ± 30	250 (156)	10 (22)		Range 1, class 1
SP4-78A	4 (1.2)	2.1	37.3 37.7 38.1	45	30		1.15 / 23.1	± 5 ± 10	200 (125)	30 (66)		Range 1, class 1
SP6-78B	6 (1.8)	1.5	41 41.4 41.8	49	30		1.15 / 23.1	± 5 ± 5	200 (125)	50 (110)		Range 1, class 1
SlimLine Standard Performance, Dual Polarized												
SPX4-78A	4 (1.2)	2.1	37.2 37.6 38	45	30	35	1.15 / 23.1	± 5 ± 5	200 (125)	30 (66)		Range 1, class 1
SPX6-78B	6 (1.8)	1.5	40.6 41.1 41.4	49	30	35	1.15 / 23.1	± 5 ± 5	200 (125)	50 (110)		Range 1, class 1
SlimLine Ultra High Performance, Single Polarized												
SU2-78B	2 (0.6)	4.3	31.1 31.4 31.8	55	30		1.15 / 23.1	± 30 ± 30	250 (156)	15 (33)		Range 1, class 2
SU4-78A	4 (1.2)	2.1	37 37.4 37.8	63	30		1.15 / 23.1	± 5 ± 10	200 (125)	45 (99)		Range 1, class 3
SU6-78B	6 (1.8)	1.5	40.8 41.3 41.6	68	30		1.15 / 23.1	± 5 ± 5	200 (125)	95 (209)		Range 1, class 3
SlimLine Ultra High Performance, Dual Polarized												
SUX4-78A	4 (1.2)	2.1	36.8 37.2 37.6	63	30	35	1.15 / 23.1	± 5 ± 5	200 (125)	45 (99)		Range 1, class 3
SUX6-78B	6 (1.8)	1.5	40.6 41.1 41.4	68	30	35	1.15 / 23.1	± 5 ± 5	200 (125)	95 (209)		Range 1, class 3

¹To specify antenna input at the time of order, insert the appropriate antenna input code, from page 281, after the revision letter in the model number.

Parabolic Point to Point Antennas

10.3 - 10.7 GHz

Antenna Input¹ – 154 IEC-PDR 100, 154 IEC-PBR 100

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
Standard Performance, Low VSWR, Single Polarized												
PAL8-103A	8 (2.4)	0.8	45.7 45.9 46	52	30		1.08 / 28.3	± 5 ± 5	200 (125)	120 (264)	B	Range 1, class 1
PAL10-103A	10 (3.0)	0.7	47.6 47.8 47.9	54	30		1.08 / 28.3	± 5 ± 5	200 (125)	215 (473)	B	Range 1, class 1
PAL12-103A	12 (3.7)	0.5	49 49.2 49.3	56	30		1.08 / 28.3	± 5 ± 5	200 (125)	310 (682)	B	Range 1, class 1
Standard Performance, Dual Polarized												
PAX8-103A	8 (2.4)	0.8	45.6 45.8 45.9	52	30 35		1.10 / 26.4	± 5 ± 5	200 (125)	120 (264)	B	Range 1, class 1
PAX10-103A	10 (3.0)	0.7	47.5 47.7 47.8	54	30 35		1.10 / 26.4	± 5 ± 5	200 (125)	215 (473)	B	Range 1, class 1
PAX12-103A	12 (3.7)	0.5	48.9 49.1 49.2	56	30 35		1.10 / 26.4	± 5 ± 5	200 (125)	310 (682)	B	Range 1, class 1
High Performance, Single Polarized												
DA8-103A	8 (2.4)	0.8	45.7 45.9 46	68	30		1.08 / 28.3	± 5 ± 5	200 (125)	180 (396)	A	Range 1, class 2
DA10-103A	10 (3.0)	0.7	47.6 47.8 47.9	70	30		1.08 / 28.3	± 5 ± 5	200 (125)	290 (638)	A	Range 1, class 2
DA12-103A	12 (3.7)	0.5	49 49.2 49.3	71	30		1.08 / 28.3	± 5 ± 5	200 (125)	420 (924)	A	Range 1, class 2
High Performance, Dual Polarized												
DAX8-103A	8 (2.4)	0.8	45.6 45.8 45.9	68	30 35		1.10 / 26.4	± 5 ± 5	200 (125)	180 (396)	A	Range 1, class 2
DAX10-103A	10 (3.0)	0.7	47.5 47.7 47.8	70	30 35		1.10 / 26.4	± 5 ± 5	200 (125)	290 (638)	A	Range 1, class 2
DAX12-103A	12 (3.7)	0.5	48.9 49.1 49.2	71	30 35		1.10 / 26.4	± 5 ± 5	200 (125)	420 (924)	A	Range 1, class 2
Ultra High Performance, Single Polarized												
UA8-103A	8 (2.4)	0.8	45.7 45.9 46	72	30		1.08 / 28.3	± 5 ± 5	200 (125)	180 (396)	A	Range 1, class 3
UA10-103A	10 (3.0)	0.7	47.6 47.8 47.9	74	30		1.08 / 28.3	± 5 ± 5	200 (125)	290 (638)	A	Range 1, class 3
UA12-103A	12 (3.7)	0.5	49 49.2 49.3	76	30		1.08 / 28.3	± 5 ± 5	200 (125)	420 (924)	A	Range 1, class 3
Ultra High Performance, High Crosspolar Discrimination, Dual Polarized												
UXA4-103A	4 (1.2)	1.7	39.5 39.7 39.8	69	40 45		1.10 / 26.4	± 5 ± 10	200 (125)	40 (88)	A	Range 1, class 3, XPD
UXA6-103B	6 (1.8)	1	43.1 43.3 43.4	73	40 45		1.08 / 28.3	± 5 ± 5	200 (125)	95 (209)	A	Range 1, class 3, XPD
UXA8-103A	8 (2.4)	0.8	45.6 45.8 45.9	76	40 45		1.08 / 28.3	± 5 ± 5	200 (125)	180 (396)	A	Range 1, class 3, XPD
UXA10-103A	10 (3.0)	0.7	47.5 47.7 47.8	78	40 45		1.08 / 28.3	± 5 ± 5	200 (125)	290 (638)	A	Range 1, class 3, XPD
UXA12-103A	12 (3.7)	0.5	48.9 49.1 49.2	78	40 45		1.08 / 28.3	± 5 ± 5	200 (125)	420 (924)	A	Range 1, class 3, XPD
SlimLine Standard Performance, Single Polarized												
SP2-103B	2 (0.6)	3.2	33.4 33.6 33.8	40	28		1.20 / 20.8	± 30 ± 30	250 (156)	10 (22)		Range 1, class 1
SP3-103A	3 (0.9)	2.2	36.9 37.1 37.2	44	30		1.20 / 20.8	± 5 ± 15	200 (125)	16 (35.2)		Range 1, class 1
SP4-103A	4 (1.2)	1.6	39.6 39.8 39.9	46	30		1.15 / 23.1	± 5 ± 10	200 (125)	24 (53)		Range 1, class 1
SP6-103B	6 (1.8)	1	43.2 43.4 43.5	50	30		1.15 / 23.1	± 5 ± 5	200 (125)	50 (110)	B	Range 1, class 1
SlimLine Standard Performance, Dual Polarized												
SPX4-103A	4 (1.2)	1.6	39.5 39.7 39.8	46	30 35		1.20 / 20.8	± 5 ± 10	200 (125)	24 (53)		Range 1, class 1
SPX6-103B	6 (1.8)	1	43.1 43.3 43.4	50	30 35		1.20 / 20.8	± 5 ± 5	200 (125)	50 (110)	B	Range 1, class 1
SlimLine High Performance, Single Polarized												
SD2-103B	2 (0.6)	3.2	33.4 33.6 33.8	54	28		1.20 / 20.8	± 30 ± 30	250 (156)	15 (33)		Range 1, class 2
SD3-103A	3 (0.9)	2.2	36.9 37.1 37.2	58	30		1.20 / 20.8	± 5 ± 15	200 (125)	23 (50.5)	A	Range 1, class 2
SD4-103A	4 (1.2)	1.6	39.6 39.8 39.9	60	30		1.15 / 23.1	± 5 ± 10	200 (125)	35 (77)	A	Range 1, class 2
SD6-103B	6 (1.8)	1	43.2 43.4 43.5	64	30		1.15 / 23.1	± 5 ± 5	200 (125)	95 (209)	A	Range 1, class 2
SlimLine High Performance, Dual Polarized												
SDX4-103A	4 (1.2)	1.6	39.5 39.7 39.8	60	30 35		1.20 / 20.8	± 5 ± 10	200 (125)	35 (77)		Range 1, class 2
SDX6-103B	6 (1.8)	1	43.1 43.3 43.4	64	30 35		1.20 / 20.8	± 5 ± 5	200 (125)	95 (209)	A	Range 1, class 2
SlimLine Ultra High Performance, Single Polarized												
SU2-103B	2 (0.6)	3.2	33.4 33.6 33.8	59	30		1.20 / 20.8	± 30 ± 30	250 (156)	15 (33)		Range 1, class 3
SU3-103A	3 (0.9)	2.2	36.9 37.1 37.2	63	30		1.20 / 20.8	± 5 ± 15	200 (125)	23 (50.5)	A	Range 1, class 3
SU4-103A	4 (1.2)	1.6	39.6 39.8 39.9	65	32		1.15 / 23.1	± 5 ± 10	200 (125)	35 (77)	A	Range 1, class 3
SU6-103B	6 (1.8)	1	43.2 43.4 43.5	70	32		1.15 / 23.1	± 5 ± 5	200 (125)	95 (209)	A	Range 1, class 3
SlimLine Ultra High Performance, Dual Polarized												
SUX4-103A	4 (1.2)	1.6	39.5 39.7 39.8	65	32 35		1.20 / 20.8	± 5 ± 10	200 (125)	35 (77)		Range 1, class 3
SUX6-103B	6 (1.8)	1	43.1 43.3 43.4	70	32 35		1.20 / 20.8	± 5 ± 5	200 (125)	95 (209)	A	Range 1, class 3
CompactLine, Single Polarized												
SB2-103B	2 (0.6)	3.1	34.3 34.5 34.7	60	30		1.25 / 19.1	± 30 ± 30	250 (156)	12 (26.5)		Range 1, class 3
SB3-103A	3 (0.9)	2.1	37.3 37.5 37.7	63	30		1.30 / 17.7	± 5 ± 15	200 (125)	23 (50.5)		Range 1, class 3

¹To specify antenna input at the time of order, insert the appropriate antenna input code, from page 281, after the revision letter in the model number.

Antenna Input¹ – 154 IEC-PDR100 (except CompactLine), CPR90G

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
Improved Performance, Single Polarized (FCC Part 101, category A compliant)												
PAD6-105A	6 (1.8)	1	43.4 43.5 43.5	60	30		1.06 / 30.7	± 5 ± 5	200 (125)	70 (154)	A	
PAD8-105A	8 (2.4)	0.8	45.8 45.9 46.0	62	30		1.06 / 30.7	± 5 ± 5	200 (125)	127 (280)	A	
Improved Performance, Dual Polarized (FCC Part 101, category A compliant)												
PADX6-105A	6 (1.8)	1	43.3 43.4 43.4	60	30		1.08 / 28.3	± 5 ± 5	200 (125)	70 (154)	A	
PADX8-105A	8 (2.4)	0.8	45.7 45.8 45.9	62	30		1.08 / 28.3	± 5 ± 5	200 (125)	127 (280)	A	
High Performance, Single Polarized												
DA4-105A	4 (1.2)	1.7	39.7 39.8 39.9	61	30		1.10 / 26.4	± 5 ± 10	200 (125)	35 (77)	A	Range 1, class 2
DA6-105B	6 (1.8)	1.1	43.5 43.6 43.7	68	30		1.08 / 28.3	± 5 ± 5	200 (125)	95 (209)	A	Range 1, class 2
DA8-105A	8 (2.4)	0.85	45.9 46.0 46.1	69	30		1.06 / 30.7	± 5 ± 5	200 (125)	200 (440)	A	Range 1, class 2
DA10-105A	10 (3.0)	0.7	47.8 47.9 48.0	70	30		1.06 / 30.7	± 5 ± 5	200 (125)	360 (792)	A	Range 1, class 2
DA12-105A	12 (3.7)	0.5	49.2 49.2 49.3	71	30		1.08 / 28.3	± 5 ± 5	200 (125)	420 (924)	A	Range 1, class 2
High Performance, Dual Polarized												
DAX4-105A	4 (1.2)	1.7	40.0 40.1 40.2	64	30		1.10 / 26.4	± 5 ± 10	200 (125)	35 (77)	A	Range 1, class 2
DAX6-105B	6 (1.8)	1.1	43.5 43.6 43.7	68	30		1.08 / 28.3	± 5 ± 5	200 (125)	95 (209)	A	Range 1, class 2
DAX8-105A	8 (2.4)	0.85	45.9 46 46.1	69	30		1.06 / 30.7	± 5 ± 5	200 (125)	200 (440)	A	Range 1, class 2
Ultra High Performance, High Crosspolar Discrimination, Dual Polarized												
UXA4-105A	4 (1.2)	1.7	40.0 40.1 40.2	69	40		1.08 / 28.3	± 5 ± 10	200 (125)	40 (88)	A	Range 1, class 3, XPD
UXA6-105B	6 (1.8)	1.1	43.5 43.6 43.7	75	40		1.06 / 30.7	± 5 ± 5	200 (125)	95 (209) *	A	Range 1, class 3, XPD
UXA8-105A	8 (2.4)	0.85	45.9 46.0 46.1	79	40		1.06 / 30.7	± 5 ± 5	200 (125)	200 (440)	A	Range 1, class 3, XPD
CompactLine, Single Polarized												
SB2-105B	2 (0.6)	3.1	34.5 34.6 34.7	60	30		1.20 / 20.8	± 30 ± 30	250 (156)	12 (26.5)	A	Range 1, class 3
SB3-105A	3 (0.9)	2.1	37.5 37.6 37.7	63	30		1.30 / 17.7	± 5 ± 15	200 (125)	23 (50.5)	A	Range 1, class 3

¹To specify antenna input at the time of order, insert the appropriate antenna input code, from page 281, after the revision letter in the model number.

Parabolic Point to Point Antennas

10.7 - 11.7 GHz

Antenna Input¹ – 154 IEC-PDR 100, 154 IEC-PBR 100, CPR90G, UG40B/U

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
Standard Performance, Low VSWR, Single Polarized												
PAL8-107A	8 (2.4)	0.8	46.1 46.4 46.9	53	30		1.06 / 30.7	± 5 ± 5	200 (125)	120 (264)	B	Range 1, class 1
PAL10-107A	10 (3.0)	0.7	48 48.4 48.6	55	30		1.06 / 30.7	± 5 ± 5	200 (125)	215 (473)	B	Range 1, class 1
PAL12-107A	12 (3.7)	0.5	49.4 49.8 50	56	30		1.06 / 30.7	± 5 ± 5	200 (125)	310 (682)	B	Range 1, class 1
Standard Performance, Dual Polarized												
PAX8-107A	8 (2.4)	0.8	45.9 46.2 46.7	53	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	120 (264)	B	Range 1, class 1
PAX10-107A	10 (3.0)	0.7	47.8 48.2 48.4	55	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	215 (473)	B	Range 1, class 1
PAX12-107A	12 (3.7)	0.5	49.2 49.6 49.9	56	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	310 (682)	B	Range 1, class 1
Improved Performance, Single Polarized (FCC Part 101, category A compliant)												
PAD6-107A	6 (1.8)	1.0	43.5 43.9 44.3	60	30		1.06 / 30.7	± 5 ± 5	200 (125)	84 (185)	A	
PAD8-107A	8 (2.4)	0.7	46.0 46.4 46.8	62	30		1.06 / 30.7	± 5 ± 5	200 (125)	130 (285)	A	
PAD10-107A	10 (3.0)	0.7	47.9 48.3 48.5	64	30		1.06 / 30.7	± 5 ± 5	200 (125)	264 (580)	A	
Improved Performance, Dual Polarized (FCC Part 101, category A compliant)												
PADX6-107A	6 (1.8)	1.0	43.4 43.8 44.2	60	30		1.08 / 28.3	± 5 ± 5	200 (125)	84 (185)	A	
PADX8-107A	8 (2.4)	0.7	45.9 46.3 46.7	62	30		1.08 / 28.3	± 5 ± 5	200 (125)	130 (285)	A	
PADX10-107A	10 (3.0)	0.7	47.9 48.3 48.5	64	30		1.08 / 28.3	± 5 ± 5	200 (125)	264 (580)	A	
High Performance, Single Polarized												
DA8-107A	8 (2.4)	0.8	46.1 46.4 46.9	71	30		1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)	A	Range 1, class 2
DA10-107A	10 (3.0)	0.7	48 48.4 48.6	71	30		1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)	A	Range 1, class 2
DA12-107A	12 (3.7)	0.5	49.4 49.8 50	71	30		1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)	A	Range 1, class 2
High Performance, Dual Polarized												
DAX8-107A	8 (2.4)	0.8	45.9 46.2 46.7	69	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)	A	Range 1, class 2
DAX10-107A	10 (3.0)	0.7	47.8 48.2 48.4	70	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)	A	Range 1, class 2
DAX12-107A	12 (3.7)	0.5	49.2 49.6 49.9	72	30 35		1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)	A	Range 1, class 2
Ultra High Performance, Single Polarized												
UA8-107A	8 (2.4)	0.8	46.1 46.4 46.9	74	30		1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)	A	Range 1, class 3
UA10-107A	10 (3.0)	0.7	48 48.4 48.6	75	30		1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)	A	Range 1, class 3
UA12-107A	12 (3.7)	0.5	49.4 49.8 50	76	30		1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)	B	Range 1, class 3
Ultra High Performance, High Crosspolar Discrimination, Dual Polarized												
UXA4-107A	4 (1.2)	1.5	40 40.4 40.8	70	40 45		1.08 / 28.3	± 5 ± 10	200 (125)	40 (88)	A	Range 1, class 3, XPD
UXA6-107B	6 (1.8)	1	43.5 43.8 44.3	73	40 45		1.06 / 30.7	± 5 ± 5	200 (125)	95 (209)	A	Range 1, class 3, XPD
UXA8-107A	8 (2.4)	0.8	45.9 46.2 46.7	75	40 45		1.06 / 30.7	± 5 ± 5	200 (125)	180 (396)	A	Range 1, class 3, XPD
UXA10-107A	10 (3.0)	0.7	47.8 48.2 48.4	77	40 45		1.06 / 30.7	± 5 ± 5	200 (125)	290 (638)	A	Range 1, class 3, XPD
UXA12-107A	12 (3.7)	0.5	49.2 49.6 49.9	78	40 45		1.06 / 30.7	± 5 ± 5	200 (125)	420 (924)	A	Range 1, class 3, XPD
SlimLine Standard Performance, Single Polarized												
SP2-107B	2 (0.6)	3.1	33.8 34.2 34.6	41	28		1.20 / 20.8	± 30 ± 30	250 (156)	10 (22)		Range 1, class 1
SP3-107A	3 (0.9)	2	37.2 37.6 38	44	30		1.20 / 20.8	± 5 ± 15	200 (125)	16 (35.2)	B	Range 1, class 1
SP4-107A	4 (1.2)	1.5	40.1 40.5 40.9	47	30		1.15 / 23.1	± 5 ± 10	200 (125)	24 (53)	B	Range 1, class 1
SP6-107B	6 (1.8)	1	43.7 44 44.5	51	30		1.15 / 23.1	± 5 ± 5	200 (125)	50 (110)	B	Range 1, class 1
SlimLine Standard Performance, Dual Polarized												
SPX4-107A	4 (1.2)	1.5	40 40.4 40.8	47	30 35		1.20 / 20.8	± 5 ± 10	200 (125)	24 (53)		Range 1, class 1
SPX6-107B	6 (1.8)	1	43.6 43.9 44.4	51	30 35		1.20 / 20.8	± 5 ± 5	200 (125)	50 (110)		Range 1, class 1
SlimLine High Performance, Single Polarized												
SD2-107B	2 (0.6)	3.1	33.8 34.2 34.6	55	28		1.20 / 20.8	± 30 ± 30	250 (156)	15 (33)		Range 1, class 2
SD3-107A	3 (0.9)	2	37.2 37.6 38	58	30		1.20 / 20.8	± 5 ± 15	200 (125)	23 (50.5)	B	Range 1, class 2
SD4-107A	4 (1.2)	1.5	40.1 40.5 40.9	61	30		1.15 / 23.1	± 5 ± 10	200 (125)	35 (77)	A	Range 1, class 2
SD6-107B	6 (1.8)	1	43.7 44 44.5	65	30		1.15 / 23.1	± 5 ± 5	200 (125)	95 (209)	A	Range 1, class 2
SlimLine High Performance, Dual Polarized												
SDX4-107A	4 (1.2)	1.5	40 40.4 40.8	61	30 35		1.20 / 20.8	± 5 ± 10	200 (125)	35 (77)	A	Range 1, class 2
SDX6-107B	6 (1.8)	1	43.6 43.9 44.4	65	30 35		1.20 / 20.8	± 5 ± 5	200 (125)	95 (209)	A	Range 1, class 2
SlimLine Ultra High Performance, Single Polarized												
SU2-107B	2 (0.6)	3.1	33.8 34.2 34.6	60	30		1.20 / 20.8	± 30 ± 30	250 (156)	15 (33)		Range 1, class 2
SU3-107A	3 (0.9)	2	37.2 37.6 38	63	30		1.20 / 20.8	± 5 ± 15	200 (125)	23 (50.5)	B	Range 1, class 2
SU3-107F	3 (0.9)	2.2	36.6 37.5 38.1	63	30		1.20 / 20.8	± 5 ± 15	200 (125)	23 (50.5)	A	
SU4-107A	4 (1.2)	1.5	40.1 40.5 40.9	66	32		1.15 / 23.1	± 5 ± 10	200 (125)	35 (77)	A	Range 1, class 3
SU6-107B	6 (1.8)	1	43.7 44 44.5	70	32		1.15 / 23.1	± 5 ± 5	200 (125)	95 (209)	A	Range 1, class 3

continued on next page

¹To specify antenna input at the time of order, insert the appropriate antenna input code, from page 281, after the revision letter in the model number.

Antenna Input¹ – 154 IEC-PDR 100, 154 IEC-PBR 100, CPR90G, UG40B/U

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
SlimLine Ultra High Performance, Dual Polarized												
SUX4-107A	4 (1.2)	1.5	40 40.4 40.8	66	32	35	1.20 / 20.8	± 5 ± 10	200 (125)	35 (77)	A	Range 1, class 3
SUX6-107B	6 (1.8)	1	43.6 43.9 44.4	70	32	35	1.20 / 20.8	± 5 ± 5	200 (125)	95 (209)	A	Range 1, class 3
CompactLine, Single Polarized												
SB2-107C	2 (0.6)	3.0	34.8 35.1 35.4	60	30		1.30 / 17.7	± 30 ± 30	250 (156)	12 (26.5)	B	Range 1, class 3
SB4-107B	4 (1.2)	1.5	40.0 40.4 40.8	67	30		1.30 / 17.7	± 5 ± 10	200 (125)	35 (77)	A	Range 1, class 3
SB3-107A	3 (0.9)	2	37.9 38.4 38.8	64	30		1.30 / 17.7	± 5 ± 15	200 (125)	23 (50.5)	B	Range 1, class 3

12.2 - 13.25 GHz

Antenna Input¹ – 154 IEC-PDR 120, WR75 CHOKE

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
Standard Performance, Low VSWR, Single Polarized												
PAL2-122B	2 (0.6)	2.7	35.2 35.5 35.8	42	30		1.13 / 24.3	± 30 ± 30	250 (156)	10 (22)		Range 1, class 1
PAL4-122A	4 (1.2)	1.4	41.3 41.6 41.9	48	30		1.10 / 26.4	± 5 ± 10	200 (125)	30 (66)	B	Range 1, class 1
PAL6-122B	6 (1.8)	0.9	44.8 45.2 45.5	52	30		1.08 / 28.3	± 5 ± 5	200 (125)	50 (110)	A	Range 1, class 1
PAL8-122A	8 (2.4)	0.7	47.3 47.6 47.9	54	30		1.08 / 28.3	± 5 ± 5	200 (125)	120 (264)	A	Range 1, class 1
PAL10-122A	10 (3.0)	0.6	49 49.4 49.7	57	30		1.08 / 28.3	± 5 ± 5	200 (125)	215 (473)	A	Range 1, class 1
Standard Performance, Dual Polarized												
PAX6-122B	6 (1.8)	0.9	44.6 45 45.3	52	30	35	1.10 / 26.4	± 5 ± 5	200 (125)	50 (110)	A	Range 1, class 1
PAX8-122A	8 (2.4)	0.7	47.1 47.4 47.7	54	30	35	1.10 / 26.4	± 5 ± 5	200 (125)	120 (264)	A	Range 1, class 1
PAX10-122A	10 (3.0)	0.6	48.8 49.2 49.5	57	30	35	1.10 / 26.4	± 5 ± 5	200 (125)	215 (473)	A	Range 1, class 1
High Performance, Single Polarized												
DA2-122B	2 (0.6)	2.7	35.2 35.5 35.8	56	30		1.13 / 24.3	± 30 ± 30	250 (156)	15 (33)		Range 1, class 2
DA4-122A	4 (1.2)	1.4	41.3 41.6 41.9	62	30		1.10 / 26.4	± 5 ± 10	200 (125)	35 (77)	B	Range 1, class 2
DA6-122B	6 (1.8)	0.9	44.8 45.2 45.5	67	30		1.08 / 28.3	± 5 ± 5	200 (125)	95 (209)	A	Range 1, class 2
DA8-122A	8 (2.4)	0.7	47.3 47.6 47.9	70	30		1.08 / 28.3	± 5 ± 5	200 (125)	180 (396)	A	Range 1, class 2
DA10-122A	10 (3.0)	0.6	49 49.4 49.7	71	30		1.08 / 28.3	± 5 ± 5	200 (125)	290 (638)	A	Range 1, class 2
High Performance, Dual Polarized												
DAX2-122B	2 (0.6)	2.7	34.9 35.2 35.5	56	30	35	1.15 / 23.1	± 30 ± 30	250 (156)	15 (33)		Range 1, class 2
DAX4-122A	4 (1.2)	1.4	41 41.3 41.6	62	30	35	1.10 / 26.4	± 5 ± 10	200 (125)	35 (77)	B	Range 1, class 2
DAX6-122B	6 (1.8)	0.9	44.6 45 45.3	67	30	35	1.10 / 26.4	± 5 ± 5	200 (125)	95 (209)	A	Range 1, class 2
DAX8-122A	8 (2.4)	0.7	47.1 47.4 47.7	70	30	35	1.10 / 26.4	± 5 ± 5	200 (125)	180 (396)	A	Range 1, class 2
DAX10-122A	10 (3.0)	0.6	48.8 49.2 49.5	71	30	35	1.10 / 26.4	± 5 ± 5	200 (125)	290 (638)	A	Range 1, class 2

¹To specify antenna input at the time of order, insert the appropriate antenna input code, from page 281, after the revision letter in the model number.

Parabolic Point to Point Antennas

12.7 - 13.25 GHz

Antenna Input¹ – 154 IEC-PDR 120 (except CompactLine), 154 IEC-PBR 120

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
Standard Performance, Low VSWR, Single Polarized												
PAL8-127A	8 (2.4)	0.7	47.6 47.7 47.9	54	30	1.08 / 28.3	± 5	± 5	200 (125)	120 (264)	A	Range 1, class 1
PAL10-127A	10 (3.0)	0.6	49.4 49.5 49.7	57	30	1.08 / 28.3	± 5	± 5	200 (125)	215 (473)	A	Range 1, class 1
Standard Performance, Dual Polarized												
PAX8-127A	8 (2.4)	0.7	47.4 47.5 47.7	54	30 35	1.10 / 26.4	± 5	± 5	200 (125)	120 (264)	A	Range 1, class 1
PAX10-127A	10 (3.0)	0.6	49.2 49.3 49.5	57	30 35	1.10 / 26.4	± 5	± 5	200 (125)	215 (473)	A	Range 1, class 1
High Performance, Single Polarized												
DA8-127A	8 (2.4)	0.7	47.6 47.7 47.9	71	30	1.08 / 28.3	± 5	± 5	200 (125)	180 (396)	A	Range 1, class 2
DA10-127A	10 (3.0)	0.6	49.4 49.5 49.7	71	30	1.08 / 28.3	± 5	± 5	200 (125)	290 (638)	A	Range 1, class 2
High Performance, Dual Polarized												
DAX8-127A	8 (2.4)	0.7	47.4 47.5 47.7	70	30 35	1.10 / 26.4	± 5	± 5	200 (125)	180 (396)	A	Range 1, class 2
DAX10-127A	10 (3.0)	0.6	49.2 49.3 49.5	71	30 35	1.10 / 26.4	± 5	± 5	200 (125)	290 (638)	A	Range 1, class 2
Ultra High Performance, Single Polarized												
UA8-127A	8 (2.4)	0.7	47.6 47.7 47.9	74	30	1.08 / 28.3	± 5	± 5	200 (125)	180 (396)	A	Range 1, class 3
UA10-127A	10 (3.0)	0.6	49.4 49.5 49.7	76	30	1.08 / 28.3	± 5	± 5	200 (125)	290 (638)	A	Range 1, class 3
Ultra High Performance, High Crosspolar Discrimination, Dual Polarized												
UXA4-127A	4 (1.2)	1.4	41.3 41.4 41.6	67	40 45	1.10 / 26.4	± 5	± 10	200 (125)	40 (88)	B	Range 1, class 3
UXA6-127B	6 (1.8)	0.9	45 45.1 45.3	73	40 45	1.10 / 26.4	± 5	± 5	200 (125)	95 (209)	A	Range 1, class 3
UXA8-127A	8 (2.4)	0.7	47.4 47.5 47.7	75	40 45	1.10 / 26.4	± 5	± 5	200 (125)	180 (396)	A	Range 1, class 3
UXA10-127A	10 (3.0)	0.6	49.2 49.3 49.5	76	40 45	1.10 / 26.4	± 5	± 5	200 (125)	290 (638)	A	Range 1, class 3
SlimLine Standard Performance, Single Polarized												
SP2-127B	2 (0.6)	2.7	35.3 35.5 35.7	44	32	1.20 / 20.8	± 30	± 30	250 (156)	10 (22)		Range 1, class 1
SP3-127A	3 (0.9)	1.8	38.7 38.9 39.1	46	32	1.20 / 20.8	± 5	± 15	200 (125)	16 (35.2)		Range 1, class 1
SP4-127A	4 (1.2)	1.4	41.5 41.7 41.9	48	32	1.20 / 20.8	± 5	± 10	200 (125)	24 (53)	B	Range 1, class 1
SP6-127B	6 (1.8)	0.9	45.1 45.3 45.5	54	32	1.20 / 20.8	± 5	± 5	200 (125)	50 (110)	B	Range 1, class 1
SlimLine Standard Performance, Dual Polarized												
SPX2-127B	2 (0.6)	2.7	35.1 35.3 35.5	44	32 35	1.25 / 19.1	± 30	± 30	250 (156)	10 (22)		Range 1, class 1
SPX3-127A	3 (0.9)	1.8	38.6 38.8 39	46	32 35	1.25 / 19.1	± 5	± 15	200 (125)	16 (35.2)		Range 1, class 1
SPX4-127A	4 (1.2)	1.4	41.3 41.5 41.7	48	32 35	1.25 / 19.1	± 5	± 10	200 (125)	24 (53)	B	Range 1, class 1
SPX6-127B	6 (1.8)	0.9	44.8 45 45.2	54	32 35	1.25 / 19.1	± 5	± 5	200 (125)	50 (110)	B	Range 1, class 1
SlimLine High Performance, Single Polarized												
SD2-127B	2 (0.6)	2.7	35.3 35.5 35.7	56	30	1.20 / 20.8	± 30	± 30	250 (156)	15 (33)		Range 1, class 2
SD3-127A	3 (0.9)	1.8	38.7 38.9 39.1	60	30	1.20 / 20.8	± 5	± 15	200 (125)	23 (50.5)		Range 1, class 2
SD4-127A	4 (1.2)	1.4	41.5 41.7 41.9	62	30	1.20 / 20.8	± 5	± 10	200 (125)	35 (77)		Range 1, class 2
SD6-127B	6 (1.8)	0.9	45.1 45.3 45.5	66	30	1.20 / 20.8	± 5	± 5	200 (125)	95 (209)		Range 1, class 2
SlimLine High Performance, Dual Polarized												
SDX2-127B	2 (0.6)	2.7	35.1 35.3 35.5	56	30 35	1.25 / 19.1	± 30	± 30	250 (156)	15 (33)		Range 1, class 2
SDX3-127A	3 (0.9)	1.8	38.6 38.8 39	60	30 35	1.25 / 19.1	± 5	± 15	200 (125)	23 (50.5)		Range 1, class 2
SDX4-127A	4 (1.2)	1.4	41.3 41.5 41.7	62	30 35	1.25 / 19.1	± 5	± 10	200 (125)	35 (77)		Range 1, class 2
SDX6-127B	6 (1.8)	0.9	44.8 45 45.2	66	30 35	1.25 / 19.1	± 5	± 5	200 (125)	95 (209)		Range 1, class 2
SlimLine Ultra High Performance, Single Polarized												
SU2-127B	2 (0.6)	2.7	35.2 35.4 35.6	62	32	1.20 / 20.8	± 30	± 30	250 (156)	15 (33)		Range 1, class 3
SU3-127A	3 (0.9)	1.8	38.6 38.8 39	64	32	1.20 / 20.8	± 5	± 15	200 (125)	23 (50.5)		Range 1, class 3
SU4-127A	4 (1.2)	1.4	41.3 41.5 41.7	67	32	1.20 / 20.8	± 5	± 10	200 (125)	35 (77)	B	Range 1, class 3
SU6-127B	6 (1.8)	0.9	44.9 45.1 45.3	72	32	1.20 / 20.8	± 5	± 5	200 (125)	95 (209)	A	Range 1, class 3
SlimLine Ultra High Performance, Dual Polarized												
SUX2-127B	2 (0.6)	2.7	35.1 35.3 35.5	65	32 35	1.25 / 19.1	± 30	± 30	250 (156)	15 (33)		Range 1, class 3
SUX3-127A	3 (0.9)	1.8	38.6 38.8 39	64	32 35	1.25 / 19.1	± 5	± 15	200 (125)	23 (50.5)		Range 1, class 3
SUX4-127A	4 (1.2)	1.4	41.3 41.5 41.7	67	32 35	1.25 / 19.1	± 5	± 10	200 (125)	35 (77)	B	Range 1, class 3
SUX6-127B	6 (1.8)	0.9	44.8 45 45.2	72	32 35	1.25 / 19.1	± 5	± 5	200 (125)	95 (209)	A	Range 1, class 3
CompactLine, Single Polarized												
SB1-127B	1 (0.3)	4.5	30.6 31.0 31.4	56	30	1.30 / 17.7	± 5	± 25	250 (156)	4 (8.8)		Range 1, class 3
SB2-127C	2 (0.6)	2.7	36.4 36.7 37	62	30	1.30 / 17.7	± 30	± 30	250 (156)	12 (26.5)		Range 1, class 3
SB3-127A	3 (0.9)	1.8	39.2 39.5 39.8	65	30	1.30 / 17.7	± 5	± 15	200 (125)	23 (50.5)	A	Range 1, class 3
SB4-127A	4 (1.2)	1.4	41.2 41.5 41.8	67	30	1.30 / 17.7	± 5	± 10	200 (125)	35 (77)	A	Range 1, class 3
CompactLine, Dual Polarized												
SBX2-127C	2 (0.6)	2.7	36.2 36.5 36.8	62	30 35	1.28 / 18.2	± 30	± 30	250 (156)	12 (26.5)		Range 1, class 3

¹To specify antenna input at the time of order, insert the appropriate antenna input code, from page 281, after the revision letter in the model number.

Antenna Input¹ – 154 IEC-PBR 140, UG-541/U

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
Standard Performance, Single Polarized												
PA8-142A	8 (2.4)	0.6	48.3 48.5 48.8	56	30	1.10 / 26.4	± 5 ± 5	200 (125)	120 (264)			Range 2, class 1
Standard Performance, Dual Polarized												
PAX8-142A	8 (2.4)	0.6	48.3 48.5 48.8	56	30	35 1.10 / 26.4	± 5 ± 5	200 (125)	120 (264)			Range 2, class 1
High Performance, Single Polarized												
DA8-142A	8 (2.4)	0.6	48.3 48.5 48.8	70	30	1.10 / 26.4	± 5 ± 5	200 (125)	180 (396)			Range 2, class 1
Ultra High Performance, Single Polarized												
UA8-142A	8 (2.4)	0.6	48.3 48.5 48.8	73	30	1.10 / 26.4	± 5 ± 5	200 (125)	180 (396)			Range 2, class 3
Ultra High Performance, High Crosspolar Discrimination, Dual Polarized												
UXA2-142C	2 (0.6)	2.3	36.3 36.5 36.8	64	40	45 1.13 / 24.3	± 30 ± 30	250 (156)	15 (33)			Range 2, class 2
UXA4-142B	4 (1.2)	1.2	42.3 42.5 42.8	70	40	45 1.10 / 26.4	± 5 ± 10	200 (125)	40 (88)			Range 2, class 2
UXA6-142C	6 (1.8)	0.8	45.8 46 46.3	75	40	45 1.10 / 26.4	± 5 ± 5	200 (125)	95 (209)			Range 2, class 2
UXA8-142A	8 (2.4)	0.6	48.3 48.5 48.8	76	38	40 1.10 / 26.4	± 5 ± 5	200 (125)	180 (396)			Range 2, class 2
SlimLine Standard Performance, Single Polarized												
SP2-142B	2 (0.6)	2.3	36.2 36.5 36.8	43	32	1.20 / 20.8	± 30 ± 30	250 (156)	10 (22)			Range 2, class 1
SP3-142A	3 (0.9)	1.6	39.6 40 40.3	47	32	1.20 / 20.8	± 5 ± 15	200 (125)	16 (35.2)			Range 2, class 1
SP4-142A	4 (1.2)	1.2	42.2 42.5 42.8	49	32	1.20 / 20.8	± 5 ± 10	200 (125)	24 (53)			Range 2, class 1
SP6-142B	6 (1.8)	0.8	45.7 46 46.3	53	32	1.20 / 20.8	± 5 ± 5	200 (125)	50 (110)			Range 2, class 1
SlimLine Standard Performance, Dual Polarized												
SPX2-142B	2 (0.6)	2.3	36.1 36.4 36.7	43	32	35 1.25 / 19.1	± 30 ± 30	250 (156)	10 (22)			Range 2, class 1
SPX3-142A	3 (0.9)	1.6	39.5 39.9 40.2	47	32	35 1.25 / 19.1	± 5 ± 15	200 (125)	16 (35.2)			Range 2, class 1
SPX4-142A	4 (1.2)	1.2	42.1 42.4 42.7	49	32	35 1.25 / 19.1	± 5 ± 10	200 (125)	24 (53)			Range 2, class 1
SPX6-142B	6 (1.8)	0.8	45.7 45.9 46.2	53	32	35 1.25 / 19.1	± 5 ± 5	200 (125)	50 (110)			Range 2, class 1
SlimLine Ultra High Performance, Single Polarized												
SU2-142B	2 (0.6)	2.3	36.2 36.5 36.8	62	32	1.20 / 20.8	± 30 ± 30	250 (156)	15 (33)			Range 2, class 2
SU3-142A	3 (0.9)	1.6	39.6 40 40.3	67	32	1.20 / 20.8	± 5 ± 15	200 (125)	23 (50.5)			Range 2, class 2
SU4-142A	4 (1.2)	1.2	42.2 42.5 42.8	70	32	1.20 / 20.8	± 5 ± 10	200 (125)	35 (77)			Range 2, class 2
SU6-142B	6 (1.8)	0.8	45.7 46 46.3	73	32	1.20 / 20.8	± 5 ± 5	200 (125)	95 (209)			Range 2, class 2
SlimLine Ultra High Performance, Dual Polarized												
SUX2-142B	2 (0.6)	2.3	36.1 36.4 36.7	65	32	35 1.25 / 19.1	± 30 ± 30	250 (156)	15 (33)			Range 2, class 3
SUX3-142A	3 (0.9)	1.6	39.5 39.9 40.2	64	32	35 1.25 / 19.1	± 5 ± 15	200 (125)	23 (50.5)			Range 2, class 2
SUX4-142A	4 (1.2)	1.2	42.1 42.4 42.7	70	32	35 1.25 / 19.1	± 5 ± 10	200 (125)	35 (77)			Range 2, class 2
SUX6-142B	6 (1.8)	0.8	45.6 45.9 46.2	74	32	35 1.25 / 19.1	± 5 ± 5	200 (125)	95 (209)			Range 2, class 3
CompactLine, Single Polarized												
SB1-142B	1 (0.3)	4.2	31.9 32.0 32.1	53	30	1.30 / 17.7	± 5 ± 25	250 (156)	4 (8.8)			Range 2, class 2
SB2-142C	2 (0.6)	2.1	37.1 37.3 37.5	66	30	1.30 / 17.7	± 30 ± 30	250 (156)	12 (26.5)			Range 2, class 3
SB3-142A	3 (0.9)	1.5	40.2 40.4 40.6	68	30	1.30 / 17.7	± 5 ± 15	200 (125)	23 (50.5)			Range 2, class 3
SB4-142A	4 (1.2)	1.2	42.2 42.5 42.8	72	30	1.30 / 17.7	± 5 ± 10	200 (125)	35 (77)			Range 2, class 3
CompactLine, Dual Polarized												
SBX1-142B	1 (0.3)	4.3	31.7 31.8 31.9	53	30	35 1.30 / 17.7	± 5 ± 25	250 (156)	4 (8.8)			Range 2, class 2
SBX2-142C	2 (0.6)	2.1	36.9 37.1 37.3	66	30	35 1.28 / 18.2	± 30 ± 30	250 (156)	12 (26.5)			Range 2, class 3

¹To specify antenna input at the time of order, insert the appropriate antenna input code, from page 281, after the revision letter in the model number.

Parabolic Point to Point Antennas

17.7 - 19.7 GHz

Antenna Input¹ – 154 IEC-PBR 220, UG-596/U

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
Ultra High Performance, High Crosspolar Discrimination, Dual Polarized												
UXA2-190C	2 (0.6)	1.9	37.8 38.3 38.7	66	40	45	1.13 / 24.3	± 30 ± 30	250 (156)	15 (33)	A	Range 2, class 3
UXA4-190B	4 (1.2)	0.9	44 44.5 44.9	72	40	45	1.13 / 24.3	± 5 ± 10	200 (125)	40 (88)	A	Range 2, class 3
UXA6-190B	6 (1.8)	0.7	47.5 48 48.4	76	36	40	1.13 / 24.3	± 5 ± 5	200 (125)	95 (209)	A	Range 2, class 3
SlimLine Standard Performance, Single Polarized												
SP2-190B	2 (0.6)	1.9	38.2 38.7 39.2	48	32		1.20 / 20.8	± 30 ± 30	250 (156)	10 (22)		Range 2, class 1
SP3-190A	3 (0.9)	1.3	41.6 42.1 42.6	50	32		1.20 / 20.8	± 5 ± 15	200 (125)	16 (35.2)	B	Range 2, class 1
SP4-190A	4 (1.2)	0.9	44.2 44.7 45.2	54	32		1.20 / 20.8	± 5 ± 10	200 (125)	24 (53)	B	Range 2, class 1
SP6-190B	6 (1.8)	0.7	47.7 48.2 48.7	57	32		1.20 / 20.8	± 5 ± 5	200 (125)	50 (110)	B	Range 2, class 1
SlimLine Standard Performance, Dual Polarized												
SPX2-190B	2 (0.6)	1.9	38 38.5 39	48	32	35	1.25 / 19.1	± 30 ± 30	250 (156)	10 (22)		Range 2, class 1
SPX3-190A	3 (0.9)	1.3	41.5 42 42.5	50	32	35	1.25 / 19.1	± 5 ± 15	200 (125)	16 (35.2)	B	Range 2, class 1
SPX4-190A	4 (1.2)	0.9	44 44.5 45	54	32	35	1.25 / 19.1	± 5 ± 10	200 (125)	24 (53)	B	Range 2, class 1
SPX6-190B	6 (1.8)	0.7	47.4 47.9 48.4	57	32	35	1.25 / 19.1	± 5 ± 5	200 (125)	50 (110)	B	Range 2, class 1
SlimLine Ultra High Performance, Single Polarized												
SU3-190A	3 (0.9)	1.3	41.6 42.1 42.6	63	32		1.20 / 20.8	± 5 ± 15	200 (125)	23 (50.5)	A	Range 2, class 2
SU4-190A	4 (1.2)	0.9	44.1 44.6 45.1	71	32		1.20 / 20.8	± 5 ± 10	200 (125)	35 (77)	A	Range 2, class 2
SU6-190B	6 (1.8)	0.7	47.5 48 48.5	75	32		1.20 / 20.8	± 5 ± 5	200 (125)	95 (209)	A	Range 2, class 3
SlimLine Ultra High Performance, Dual Polarized												
SUX1-190A	1 (0.3)	3.4	32.5 33 33.5	58	30	35	1.25 / 19.1	± 5 ± 25	250 (156)	5 (11)		Range 2, class 2
SUX2-190B	2 (0.6)	1.9	38 38.5 39	62	32	35	1.25 / 19.1	± 30 ± 30	250 (156)	15 (33)		Range 2, class 2
SUX3-190A	3 (0.9)	1.3	41.5 42 42.5	63	32	35	1.25 / 19.1	± 5 ± 15	200 (125)	23 (50.5)	A	Range 2, class 2
SUX4-190A	4 (1.2)	0.9	44 44.5 45	67	32	35	1.25 / 19.1	± 5 ± 10	200 (125)	35 (77)	A	Range 2, class 2
SUX6-190B	6 (1.8)	0.7	47.4 47.9 48.4	76	32	35	1.25 / 19.1	± 5 ± 5	200 (125)	95 (209)	A	Range 2, class 3
CompactLine, Single Polarized												
SB1-190B	1 (0.3)	3.4	33.5 34 34.4	55	30		1.30 / 17.7	± 5 ± 25	250 (156)	4 (8.8)		Range 2, class 2
SB2-190C	2 (0.6)	1.8	38.5 39.0 39.5	70	30		1.30 / 17.7	± 30 ± 30	250 (156)	12 (26.5)	A	Range 2, class 3
SB3-190A	3 (0.9)	1.3	41.6 42.1 42.6	70	30		1.30 / 17.7	± 5 ± 15	200 (125)	23 (50.5)	A	Range 2, class 3
SB4-190A	4 (1.2)	0.9	43.7 44.5 45.2	72	30		1.30 / 17.7	± 5 ± 10	200 (125)	35 (77)	A	Range 2, class 3
CompactLine, Dual Polarized												
SBX1-190B	1 (0.3)	3.4	33.3 33.8 34.2	55	30	35	1.30 / 17.7	± 5 ± 25	250 (156)	4 (8.8)		Range 2, class 2
SBX2-190C	2 (0.6)	1.8	38.3 38.8 39.3	70	30	35	1.28 / 18.2	± 30 ± 30	250 (156)	12 (26.5)	A	Range 2, class 3

¹To specify antenna input at the time of order, insert the appropriate antenna input code, from page 281, after the revision letter in the model number.

Antenna Input¹ – 154 IEC-PBR 220, 154 IEC-UBR220 (only Lens Antenna), UG-596/U

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
Ultra High Performance, High Crosspolar Discrimination, Dual Polarized												
UXA2-220C	2 (0.6)	1.6	39.5 40 40.5	66	40 45	1.15 / 23.1	± 30	± 30	250 (156)	15 (33)		Range 3, class 2, XPD
UXA4-220A	4 (1.2)	0.8	45.5 46 46.4	72	36 40	1.13 / 24.3	± 5	± 10	200 (125)	40 (88)		Range 3, class 3, XPD
UXA6-220B	6 (1.8)	0.5	49 49.5 49.9	76	36 40	1.13 / 24.3	± 5	± 5	200 (125)	95 (209)		Range 3, class 2, XPD
SlimLine Standard Performance, Single Polarized												
SP2-220B	2 (0.6)	1.6	39.7 40.2 40.7	52	32	1.20 / 20.8	± 30	± 30	250 (156)	10 (22)		Range 3, class 1
SP3-220A	3 (0.9)	1.1	43.1 43.6 44.1	53	32	1.20 / 20.8	± 5	± 15	200 (125)	16 (35.2)	B	
SP4-220A	4 (1.2)	0.8	45.8 46.3 46.8	58	32	1.20 / 20.8	± 5	± 10	200 (125)	24 (53)	B	
SP6-220B	6 (1.8)	0.5	49.2 49.7 50.2	61	32	1.20 / 20.8	± 5	± 5	200 (125)	50 (110)	B	Range 3, class 1
SlimLine Standard Performance, Dual Polarized												
SPX2-220B	2 (0.6)	1.6	39.5 40 40.5	52	32 35	1.25 / 19.1	± 30	± 30	250 (156)	10 (22)	B	Range 3, class 1
SPX3-220A	3 (0.9)	1.1	43 43.5 44	53	32 35	1.25 / 19.1	± 5	± 15	200 (125)	16 (35.2)	B	
SPX4-220A	4 (1.2)	0.8	45.5 46 46.5	58	32 35	1.25 / 19.1	± 5	± 10	200 (125)	24 (53)	B	Range 3, class 1
SPX6-220B	6 (1.8)	0.5	48.9 49.4 49.9	61	32 35	1.25 / 19.1	± 5	± 5	200 (125)	50 (110)	A	Range 3, class 1
SlimLine Ultra High Performance, Single Polarized												
SU3-220A	3 (0.9)	1.1	43.1 43.6 44.1	70	32	1.20 / 20.8	± 5	± 15	200 (125)	23 (50.5)	A	Range 3, class 2
SU4-220A	4 (1.2)	0.8	45.6 46.1 46.6	72	32	1.20 / 20.8	± 5	± 10	200 (125)	35 (77)	A	Range 3, class 3
SU6-220B	6 (1.8)	0.5	49 49.5 50	75	32	1.20 / 20.8	± 5	± 5	200 (125)	95 (209)	A	Range 3, class 2
SlimLine Ultra High Performance, Dual Polarized												
SUX1-220A	1 (0.3)	2.8	34.1 34.6 35.1	61	30 35	1.25 / 19.1	± 5	± 25	250 (156)	5 (11)		Range 3, class 2
SUX2-220B	2 (0.6)	1.6	39.5 40 40.5	66	32 35	1.25 / 19.1	± 30	± 30	250 (156)	15 (33)	B	Range 3, class 2
SUX3-220A	3 (0.9)	1.1	43 43.5 44	68	32 35	1.25 / 19.1	± 5	± 15	200 (125)	23 (50.5)	A	Range 3, class 3
SUX4-220A	4 (1.2)	0.8	45.5 46 46.5	72	32 35	1.25 / 19.1	± 5	± 10	200 (125)	35 (77)	A	Range 3, class 3
SUX6-220B	6 (1.8)	0.5	48.9 49.4 49.9	75	32 35	1.25 / 19.1	± 5	± 5	200 (125)	95 (209)	A	Range 3, class 2
CompactLine, Single Polarized												
SB1-220B	1 (0.3)	2.7	35.3 35.6 35.9	61	30	1.30 / 17.7	± 5	± 25	250 (156)	4 (8.8)	B	Range 3, class 3
SB2-220C	2 (0.6)	1.5	40.5 41 41.5	66	30	1.30 / 17.7	± 30	± 30	250 (156)	12 (26.5)	A	Range 3, class 3
SB3-220A	3 (0.9)	1.1	43.1 43.6 44.1	70	30	1.30 / 17.7	± 5	± 15	200 (125)	23 (50.5)	A	Range 3, class 3
SB4-220A	4 (1.2)	0.8	45.5 46.1 46.6	74	30	1.30 / 17.7	± 5	± 10	200 (125)	33 (73)	A	Range 3, class 3
CompactLine, Dual Polarized												
SBX1-220B	1 (0.3)	2.7	35.1 35.4 35.7	61	30 35	1.28 / 18.2	± 5	± 25	250 (156)	4 (8.8)		Range 3, class 3
SBX2-220C	2 (0.6)	1.6	40.3 40.8 41.3	66	30 35	1.28 / 18.2	± 30	± 30	250 (156)	12 (26.5)	A	Range 3, class 3
Lens Antenna												
LA05-220B	0.5 (0.15)	6	28.3 28.8 29.3	45	30	1.15 / 23.1			250 (156)	2 (4.4)		Range 3, class 1

¹To specify antenna input at the time of order, insert the appropriate antenna input code, from page 281, after the revision letter in the model number.

Parabolic Point to Point Antennas

24.25 - 26.5 GHz

Antenna Input¹ – 154 IEC-PBR 220

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
SlimLine Ultra High Performance, Single Polarized												
SU3-250A	3 (0.9)	0.9	44.2 44.6 45	70	30		1.20 / 20.8	± 5 ± 15	200 (125)	23 (50.5)	A	Range 4, class 2
SU4-250A	4 (1.2)	0.7	46.8 47.2 47.6	73	32		1.20 / 20.8	± 5 ± 10	200 (125)	35 (77)	A	Range 4, class 2
SlimLine Ultra High Performance, Dual Polarized												
SUX1-250A	1 (0.3)	2.5	35.3 35.7 36.1	62	30	35	1.25 / 19.1	± 5 ± 25	250 (156)	5 (11)		Range 4, class 2
SUX2-250B	2 (0.6)	1.4	40.5 40.8 41.3	67	30	35	1.25 / 19.1	± 30 ± 30	250 (156)	15 (33)	B	Range 4, class 2
SUX3-250A	3 (0.9)	0.9	44 44.4 44.8	70	30	35	1.25 / 19.1	± 5 ± 15	200 (125)	23 (50.5)		Range 4, class 2
SUX4-250A	4 (1.2)	0.7	46.7 47.1 47.5	73	32	35	1.25 / 19.1	± 5 ± 10	200 (125)	35 (77)	A	Range 4, class 2
CompactLine, Single Polarized												
SB1-250B	1 (0.3)	2.4	36 36.4 36.8	62	30		1.30 / 17.7	± 5 ± 25	250 (156)	4 (8.8)		Range 4, class 2
SB2-250C	2 (0.6)	1.3	41.3 41.8 42.3	70	30		1.30 / 17.7	± 30 ± 30	250 (156)	12 (26.5)	A	Range 4, class 2
SB4-250A	4 (1.2)	0.7	46.8 47.2 47.6	73	30		1.30 / 17.7	± 5 ± 10	200 (125)	33 (73)	A	Range 4, class 2
CompactLine, Dual Polarized												
SBX1-250B	1 (0.3)	2.4	35.8 36.2 36.6	62	30	35	1.28 / 18.2	± 5 ± 25	250 (156)	4 (8.8)		Range 4, class 2
SBX2-250C	2 (0.6)	1.3	41.1 41.6 42.1	70	30	35	1.28 / 18.2	± 30 ± 30	250 (156)	12 (26.5)	A	Range 4, class 2

27.3 - 28.5 GHz

Antenna Input¹ – 154 IEC-PBR 320

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
CompactLine, Single Polarized												
SB1-270A	1 (0.3)	2.2	36.6 36.9 37.2	63	30		1.30 / 17.7	± 5 ± 25	250 (156)	4 (8.8)		Range 4, class 2
SB2-270B	2 (0.6)	1.3	41.6 41.9 42.2	68	30		1.30 / 17.7	± 30 ± 30	250 (156)	12 (26.5)		Range 4, class 2

27.5 - 29.5 GHz

Antenna Input¹ – 154 IEC-PBR 320

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
CompactLine, Single Polarized												
SB1-280B	1 (0.3)	2.2	37.0 37.2 37.4	63	30		1.30 / 17.7	± 5 ± 25	250 (156)	4 (8.8)		Range 4, class 2
SB2-280C	2 (0.6)	1.3	42.0 42.4 42.8	69	30		1.30 / 17.7	± 30 ± 30	250 (156)	12 (26.5)		Range 4, class 2
CompactLine, Dual Polarized												
SBX1-280B	1 (0.3)	2.2	36.8 37.0 37.2	63	30	35	1.28 / 18.2	± 5 ± 25	250 (156)	4 (8.8)		Range 4, class 2
SBX2-280C	2 (0.6)	1.3	41.8 42.2 42.6	69	30	35	1.28 / 18.2	± 30 ± 30	250 (156)	12 (26.5)		Range 4, class 2

29.5 - 31.5 GHz

Antenna Input¹ – 154 IEC-PBR 320

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
CompactLine, Single Polarized												
SB1-300A	1 (0.3)	2.2	37.3 37.6 37.8	63	30		1.30 / 17.7	± 5 ± 25	250 (156)	4 (8.8)		Range 4 and 5, class 2
SB2-300B	2 (0.6)	1.3	42.5 42.8 43.1	68	30		1.30 / 17.7	± 30 ± 30	250 (156)	12 (26.5)		Range 4 and 5, class 2

¹To specify antenna input at the time of order, insert the appropriate antenna input code, from page 281, after the revision letter in the model number.

Antenna Input¹ – 154 IEC-PBR 320

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
CompactLine, Single Polarized												
SB1-320B	1 (0.3)	2.1	37.7 38 38.3	63	30		1.30 / 17.7	± 5 ± 25	250 (156)	4 (8.8)		Range 5, class 3a
SB2-320C	2 (0.6)	1.2	42.9 43.2 43.5	68	30		1.30 / 17.7	± 30 ± 30	250 (156)	12 (26.5)		Range 5, class 3a
CompactLine, Dual Polarized												
SBX1-320B	1 (0.3)	2.1	37.5 37.8 38.1	63	30	35	1.28 / 18.2	± 5 ± 25	250 (156)	4 (8.8)		Range 5, class 3a
SBX2-320C	2 (0.6)	1.2	42.7 43.1 43.3	68	30	35	1.28 / 18.2	± 30 ± 30	250 (156)	12 (26.5)		Range 5, class 3a

37.0 - 39.5 GHz

Antenna Input¹ – 154 IEC-PBR 320, 154 IEC-UBR 320 (only lens antenna)

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
SlimLine Ultra High Performance, Dual Polarized												
SUX1-380A	1 (0.3)	1.7	39 39.3 39.6	58	28	35	1.25 / 19.1	± 5 ± 25	250 (156)	5 (11)	B	Range 5, class 2
SUX2-380B	2 (0.6)	1	44.1 44.4 44.7	63	28	35	1.25 / 19.1	± 30 ± 30	250 (156)	15 (33)	A	Range 5, class 2
Lens Antenna												
LA05-380B	0.5 (0.15)	3.6	33.4 33.7 34.0	44	28		1.15 / 23.1		250 (156)	2 (4.4)		Range 5, class 2

37.0 - 40.0 GHz

Antenna Input¹ – 154 IEC-PBR 320

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
CompactLine, Single Polarized												
SB1-380B	1 (0.3)	1.6	39.7 40 40.3	60	30		1.30 / 17.7	± 5 ± 25	250 (156)	4 (8.8)	A	Range 5, class 3b
SB2-380C	2 (0.6)	0.9	44.7 45 45.3	67	30		1.30 / 17.7	± 30 ± 30	250 (156)	12 (26.5)	A	Range 5, class 3b
CompactLine, Dual Polarized												
SBX1-380B	1 (0.3)	1.7	39.5 39.8 40.1	60	28	35	1.28 / 18.2	± 5 ± 25	250 (156)	4 (8.8)	A	Range 5, class 3b
SBX2-380C	2 (0.6)	0.9	44.5 44.8 45.1	65	30	35	1.28 / 18.2	± 30 ± 30	250 (156)	12 (26.5)	A	Range 5, class 3b

51.4 - 52.6 GHz

Antenna Input¹ – UG 383

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
CompactLine, Single Polarized												
SB1-520A	1 (0.3)	1.2	41.7 41.8 41.9	63	30		1.30 / 17.7	± 5 ± 25	250 (156)	4 (8.8)		Range 6, class 2 and 3

54.25 - 59.0 GHz

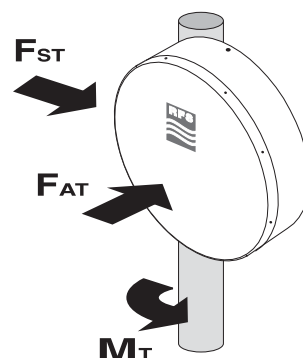
Antenna Input¹ – UG 383

Model Number	Diameter ft (m)	3 dB-BW (deg)	Gain (dBi) Low Mid High	F/B Ratio (dB)	XPD (dB)	IPI (dB)	VSWR/ R L (dB)	Fine Adjustment Az (deg) Elev (deg)	Windspeed km/h (mph)	Weight kg (lb)	FCC Standard	ETSI Standard
CompactLine, Single Polarized												
SB1-550A	1 (0.3)	1.1	42.1 42.5 42.9	63	30		1.30 / 17.7	± 5 ± 25	250 (156)	4 (8.8)		Range 6, class 2 and 3

¹To specify antenna input at the time of order, insert the appropriate antenna input code, from page 281, after the revision letter in the model number.

Solid Parabolic Microwave Antennas

Forces and Twisting Moments Due to Wind



Antenna Diameter	Antenna Type	Forces Moments	Pipe Diameter 51 mm		Pipe Diameter 114 mm		Pipe Diameter 219 mm	
			Wind Speed 110 km/h (68mph)	200 km/h (125mph)	Wind Speed 110 km/h (68mph)	200 km/h (125mph)	Wind Speed 110 km/h (68mph)	200 km/h (125mph)
.5ft (0.15m)	LA	FAT max N (lb)	8 (1.8)	27 (6)				
		FST max N (lb)	11 (2.5)	39 (8.7)				
		MT max Nm (ft lb)	2 (1.5)	7 5.2)				
1ft (0.3m)	SB, SBX	FAT max N (lb)	90 (20)	280 (62)	90 (20)	280 (62)		
		FST max N (lb)	30 (6.7)	90 (20)	30 (6.7)	90 (20)		
		MT max Nm (ft lb)	25 (18.6)	80 (60)	25 (18.6)	80 (60)		
1ft (0.3m)	SUX	FAT max N (lb)	90 (20)	280 (63)	90 (20)	280 (62)		
		FST max N (lb)	40 (9)	140 (31)	40 (9)	140 (31)		
		MT max Nm (ft lb)	25 (18.6)	80 (60)	25 (18.6)	80 (60)		
2ft (0.6m)	SB, SBX	FAT max N (lb)	275 (61)	905 (200)	275 (61)	905 (200)		
		FST max N (lb)	105 (24)	330 (73)	105 (24)	330 (73)		
		MT max Nm (ft lb)	95 (69)	305 (221)	105 (76)	340 (247)		
2ft (0.6m)	SD, SDX, SU, SUX DA, UXA	FAT max N (lb)	275 (61)	905 (200)	275 (61)	905 (200)		
		FST max N (lb)	135 (30)	450 (100)	135 (30)	450 (100)		
		MT max Nm (ft lb)	95 (69)	305 (221)	105 (76)	340 (247)		
2ft (0.6m)	SP, SPX PAL, PAX	FAT max N (lb)	360 (80)	1195 (264)	360 (80)	1195 (264)		
		FST max N (lb)	105 (24)	350 (78)	105 (24)	350 (78)		
		MT max Nm (ft lb)	130 (95)	430 (312)	145 (105)	475 (344)		
3ft (0.9m)	SB	FAT max N (lb)			540 (120)	1800(403)		
		FST max N(lb)			210 (47)	685 (155)		
		Mtmax NM (ft lb)			160 (119)	530 (344)		
3ft (0.9m)	SD, SDX, SU, SUX	FAT max N (lb)			540 (120)	1800 (403)		
		FST max N (lb)			270 (60)	890 (200)		
		MT max Nm (ft lb)			160 (119)	530 (344)		
3ft (0.9m)	SP, SPX	FAT max N (lb)			720 (161)	2380 (533)		
		FST max N (lb)			210 (47)	700 (157)		
		MT max Nm (ft lb)			230 (171)	530 (392)		
4ft (1.2m)	SB	FAT max N (lb)			1000 (225)	3290 (740)		
		FST max N (lb)			415 (93)	1360 (306)		
		MT max Nm (ft lb)			320 (238)	1055 (784)		
4ft (1.2m)	SD, SDX, SU, SUX DA, DAX, UA, UXA	FAT max N (lb)			1000 (224)	3290 (737)		
		FST max N (lb)			500 (112)	1630 (365)		
		MT max Nm (ft lb)			320 (238)	1055 (784)		
4ft (1.2m)	PAL, PAX, SP, SPX	FAT max N (lb)			1310 (293)	4345 (973)		
		FST max N (lb)			390 (87)	1280 (286)		
		MT max Nm (ft lb)			460 (342)	1500 (1120)		

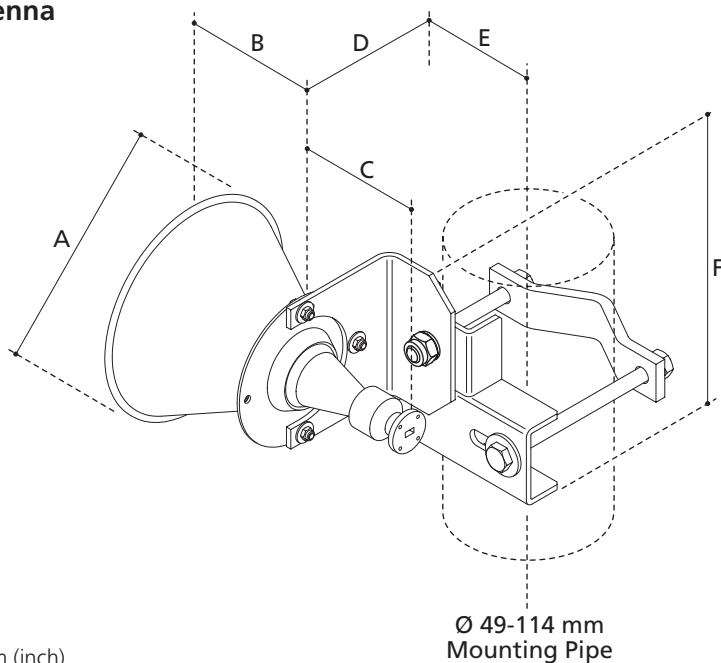
Solid Parabolic Microwave Antennas

Forces and Twisting Moments Due to Wind

Antenna Diameter	Antenna Type	Forces Moments	Pipe Diameter 51 mm		Pipe Diameter 114 mm		Pipe Diameter 219 mm	
			Wind Speed 110 km/h (68mph)	200 km/h (125mph)	Wind Speed 110 km/h (68mph)	200 km/h (125mph)	Wind Speed 110 km/h (68mph)	200 km/h (125mph)
6ft (1.8m)	SD, SDX, SU, SUX DA, DAX, UA, UDA, UXA	FAT max N (lb)			2270 (508)	7500 (1680)		
		FST max N (lb)			1125 (252)	3715 (832)		
		MT max Nm (ft lb)			860 (640)	2835 (2100)		
6ft (1.8m)	PAL, PAX, SP, SPX	FAT max N (lb)			2995 (670)	9900 (2217)		
		FST max N (lb)			880(197)	2910 (651)		
		MT max Nm (ft lb)			925 (690)	3055 (2270)		
8ft (2.4m)	PAL, PAX	FAT max N (lb)			5120 (1147)	16940 (3795)		
		FST max N (lb)			1500 (336)	4980 (1115)		
		MT max Nm (ft lb)			1960 (1450)	6470 (4800)		
8ft (2.4m)	DA, DAX, UA, UDA, UXA	FAT max N (lb)			3880 (870)	12380 (2773)		
		FST max N (lb)			1920 (430)	6350 (1422)		
		MT max Nm (ft lb)			1800 (1340)	5960 (4400)		
10ft (3.0m)	PAL, PAX UDA, UXA	FAT max N (lb)			7730 (1730)	25570 (5728)		
		FST max N (lb)			2270 (508)	7520 (1684)		
		MT max Nm (ft lb)			3410 (2523)	11260 (8400)		
10ft (3.0m)	DA, DAX, UA, UDA, UXA	FAT max N (lb)			5860 (1312)	19370 (4340)		
		FST max N (lb)			2900 (650)	9590 (2148)		
		MT max Nm (ft lb)			3100 (2300)	10240 (7600)		
12ft (3.7m)	PAL , PAX	FAT max N (lb)			11050 (2475)	36530 (8182)		
		FST max N (lb)			3250 (728)	10740 (2405)		
		MT max Nm (ft lb)			5580 (4129)	18450 (13700)		
12ft (3.7m)	DA, DAX, UA, UDA, UXA	FAT max N (lb)			8370 (1875)	27670 (6200)		
		FST max N (lb)			4150 (930)	13710 (3071)		
		MT max Nm (ft lb)			5040 (3750)	16650 (12400)		
15ft (4.6m)	PAL, PAX	FAT max N (lb)					5600 (1255)	16940 (3795)
		FST max N (lb)					4980(1115)	16460 (3690)
		MT max Nm (ft lb)					10940 (8095)	36160 (26758)
15ft (4.6m)	DA, DAX UDA, UXA	FAT max N (lb)					12830 (2874)	42430 (9504)
		FST max N (lb)					6360 (1425)	21000 (4704)
		MT max Nm (ft lb)					9910 (7333)	32750 (24235)

Antenna Mount Outlines

0.5 ft Lens Antenna



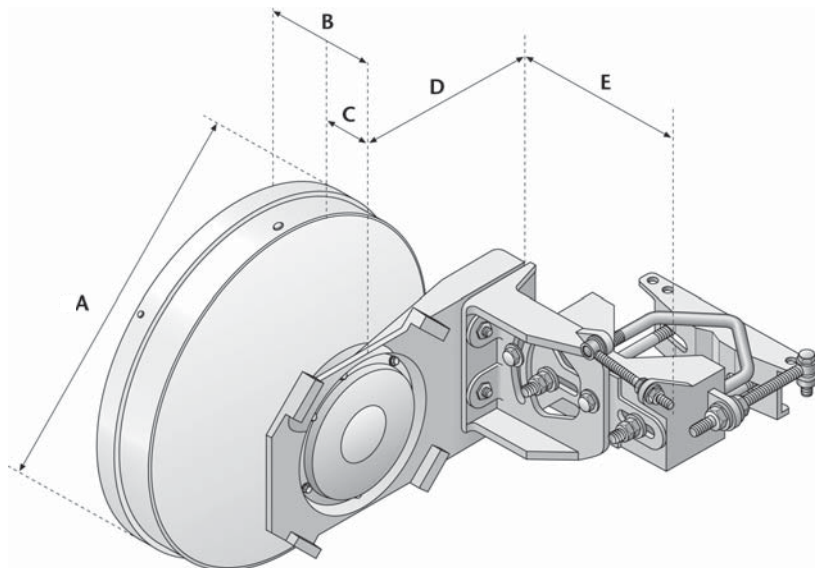
All dimensions in mm (inch)

A	B	C	DØ49	DØ89	DØ114	E	F
160(6.3)	126(5.0)	100(3.9)	134(5.3)	154(6.1)	167(6.6)	40(1.6)	110(4.3)

Antenna Mount Outlines

1 ft Antenna with Standard Mount

SB, SBX,
SUX

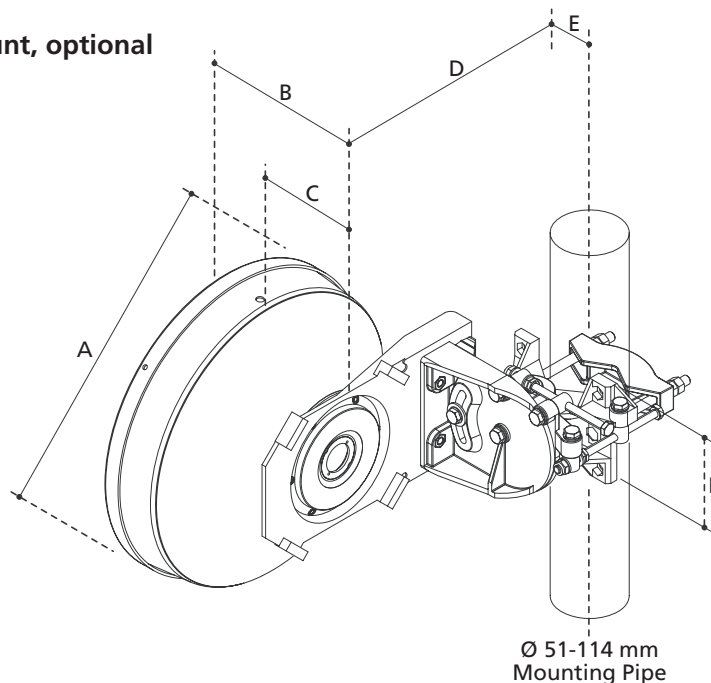


All dimensions in mm (inch)

ANT TYPE	A	B	C	D PIPE Ø 114	D PIPE Ø 51	E
SB, SBX	380(15)	170(6.7)	85(3.3)	287(11.3)	242(9.5)	133(5.2)
SUX	380(15)	250 (9.8)	85(3.3)	287(11.3)	242(9.5)	133(5.2)

1 ft Antenna with M-mount, optional

SB, SBX,
SUX



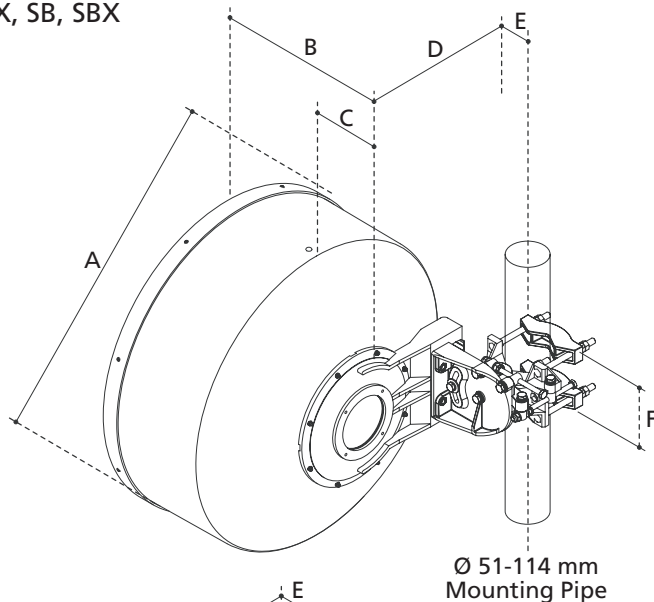
All dimensions in mm (inch)

ANT TYPE	A	B	C	D PIPE Ø114	D PIPE Ø89	D PIPE Ø 51	E	F
SB, SBX	380(15)	170(6.7)	85(3.3)	321(12.6)	306(12.0)	282(11.1)	96(3.8)	140(5.5)
SUX	380(15)	250(9.8)	85(3.3)	321(12.6)	306(12.0)	282(11.1)	96(3.8)	140(5.5)

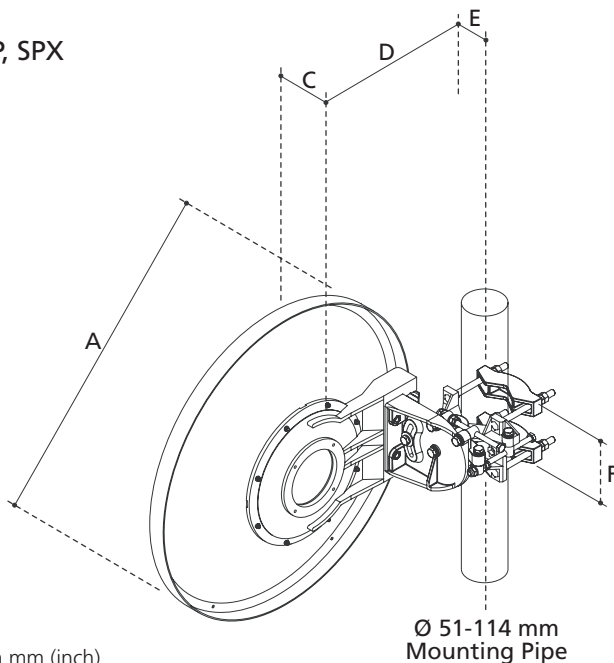
Antenna Mount Outlines

2 ft Antenna

DA, UXA, SD, SDX, SU, SUX, SB, SBX



PAL, PAX, SP, SPX

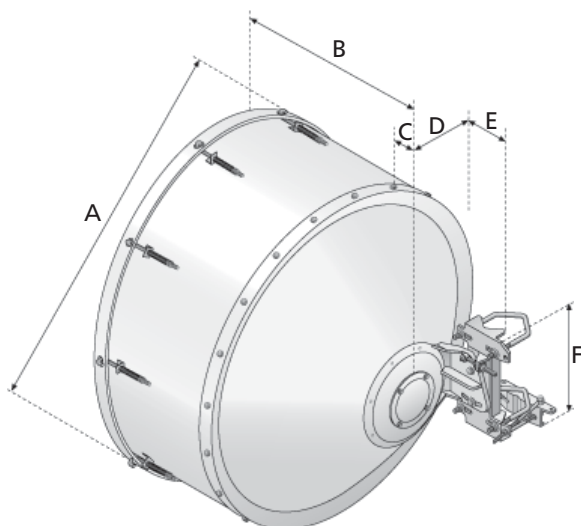


All dimensions in mm (inch)

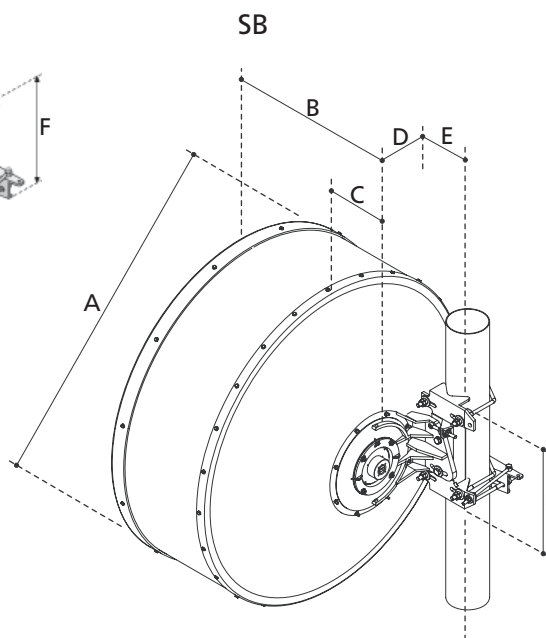
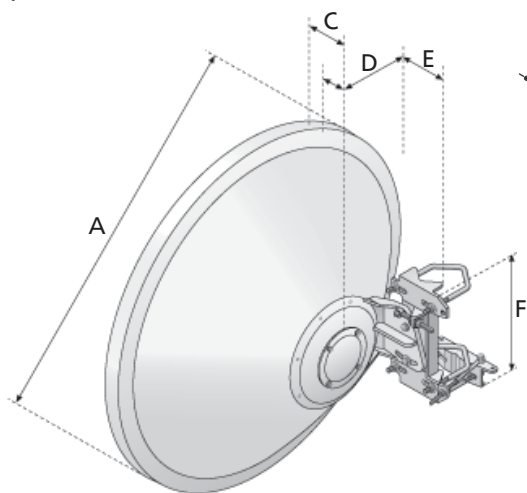
ANT TYPE	A	B	C	D PIPE Ø114	D PIPE Ø89	D PIPE Ø 51	E	F
DA, UXA, SD,								
SDX, SU, SUX	700(28)	389(15.4)	114(4.5)	371(14.6)	357(14.1)	333(13.1)	99(3.9)	146(5.7)
PAL, PAX, SP, SPX	700(28)		114(4.5)	371(14.6)	357(14.1)	333(13.1)	99(3.9)	146(5.7)
SB, SBX	700(28)	289(11.5)	114(4.5)	371(14.6)	357(14.1)	333(13.1)	99(3.9)	146(5.7)

Antenna Mount Outlines

3 ft Antenna SD, SDX, SU, SUX



SP, SPX



All dimensions in mm (inch)

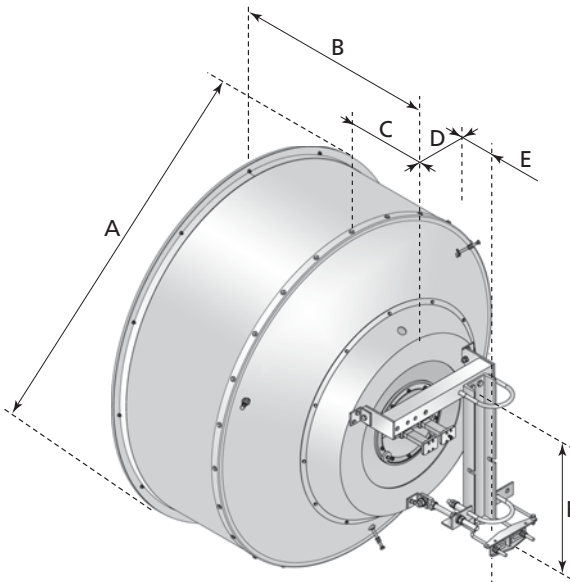
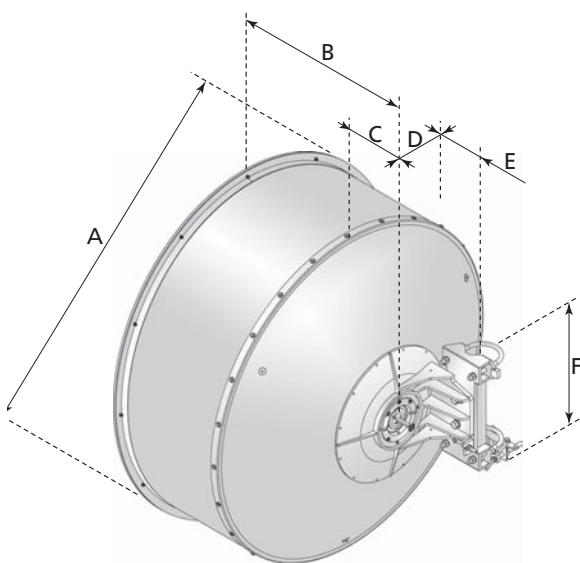
ANT TYPE	A	B	C	D	E	F
SD, SDX, SU, SUX	970(38.3)	620(24.5)	165(6.5)	273(10.8)	67(2.6)	350(13.8)
SP, SPX	970(38.3)		165(6.5)	273(10.8)	67(2.6)	350(13.8)
SB	970(38.3)	500(19.8)	170(6.8)	273(10.8)	65(2.5)	350(13.8)

Antenna Mount Outlines

4 ft Antenna

DA, DAX, UA, UXA,
SD, SDX, SDF, SU, SUX

DAX, UXA, SDX, SUX (<10GHz)

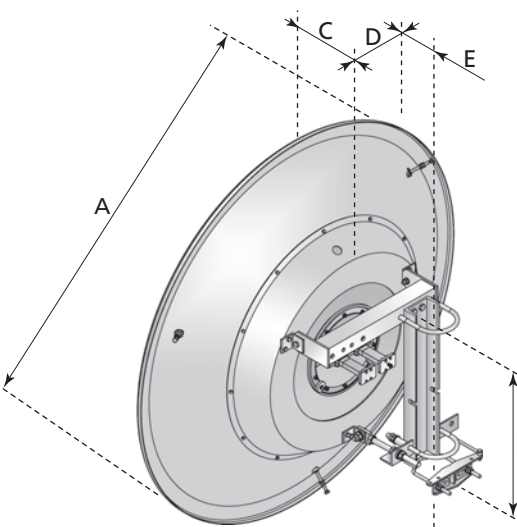
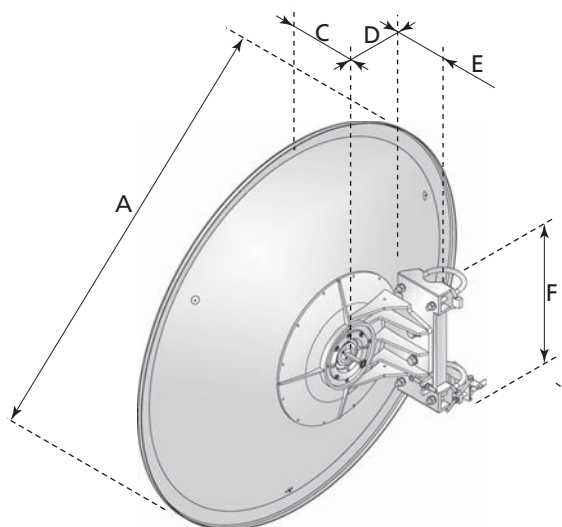


All dimensions in mm (inch)

ANT TYPE	A	B	C	DØ114	E	F
Single Pol. (All frequencies)	1313(51.7)	746(29.4)	248(9.8)	291(11.5)	95(3.8)	451(17.8)
Dual Pol. (>10GHz)	1313(51.7)	746(29.4)	248(9.8)	291(11.5)	95(3.8)	451(17.8)
Dual Pol. (<10GHz)	1313(51.7)	810(31.8)	230(9.1)	144(5.7)	229(9.0)	590(23.2)

PA, PAL, PAX, SP, SPF, SPX

PAX, SPX (<10GHz)

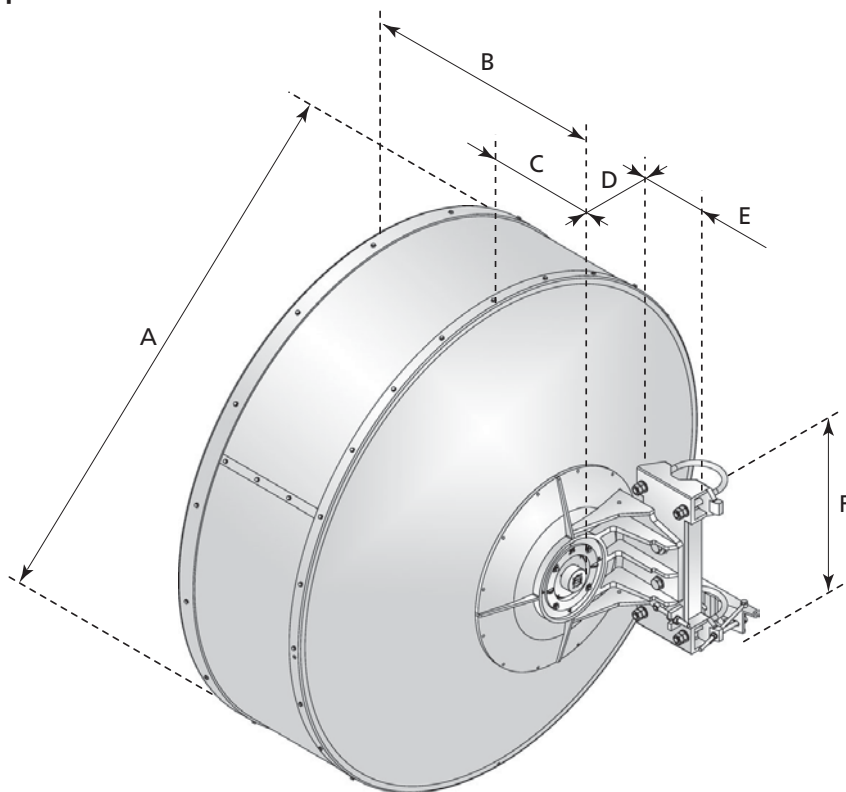


All dimensions in mm (inch)

ANT TYPE	A	B	C	DØ114	E	F
Single Pol. (All frequencies)	1262(49.9)	–	211(8.3)	291(11.5)	95(3.8)	451(17.8)
Dual Pol. (>10GHz)	1262(49.9)	–	211(8.3)	291(11.5)	95(3.8)	451(17.8)
Dual Pol. (<10GHz)	1262(49.9)	–	230(9.1)	144(5.7)	229(9.0)	590(23.2)

Antenna Mount Outlines

CompactLine® 4 ft Antenna SB



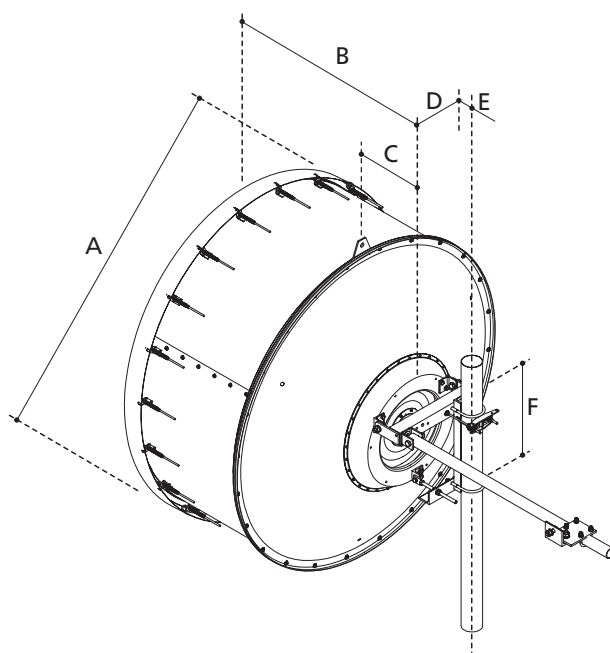
All dimensions in mm (inch)

A	B	C	DØ114	E	F
1262(49.7)	631(24.9)	248(9.8)	291(11.5)	82(3.2)	451(17.8)

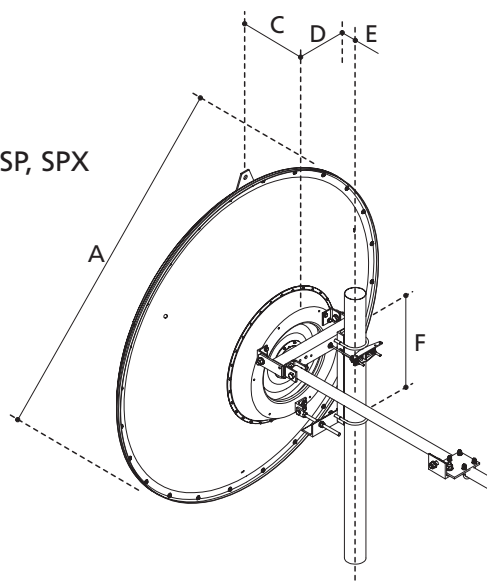
Antenna Mount Outlines

6 ft Antenna

UA, UDA, UXA, DA, DAX, SD, SDX, SU, SUX



PA, PAL, PAX, SP, SPX



All dimensions in mm (inch)

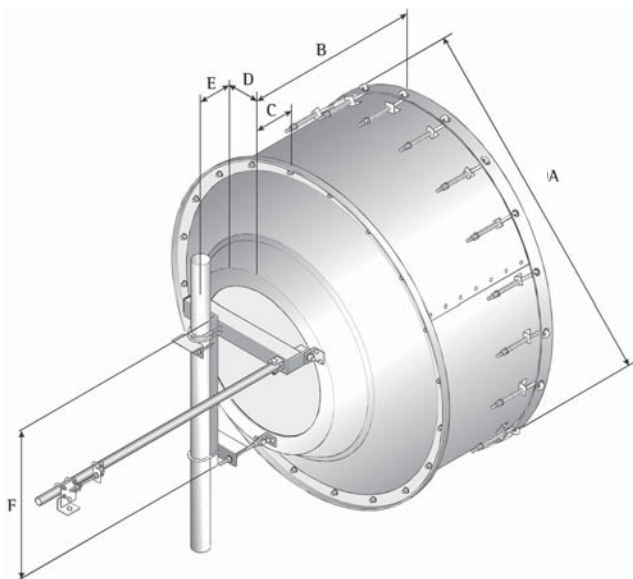
A	B	C	D Ø114	E	F
2000(79)	1242(48.9)*	364(14.3)	175(6.9)	283(11.1)	590(23.2)

*3.6-4.2 GHz = 1342(52.8)

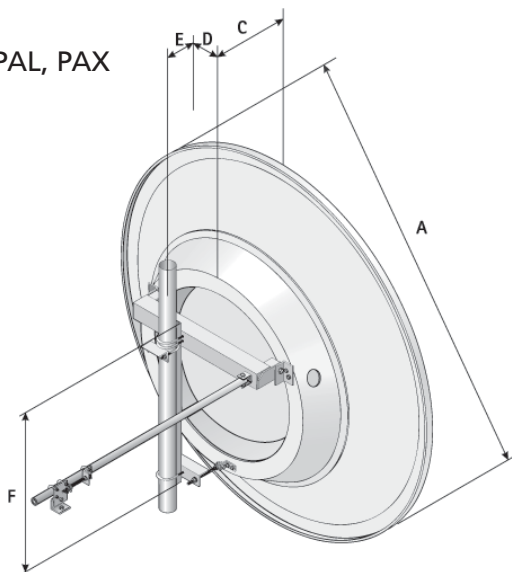
Antenna Mount Outlines

8 ft Antenna

UA, UDA, UXA, DA, DAX



PA, PAL, PAX



All dimensions in mm (inch)

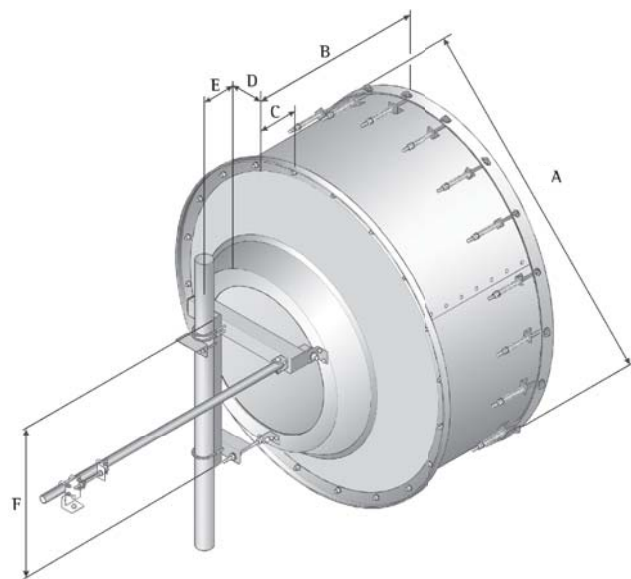
A	B	C	D Ø114	E	F
2616(103.4)	1455(57.5)*	465(18.4)	190(7.5)	310(12.3)	1125(44.5)

*3.6-4.2 GHz = 1645(65)

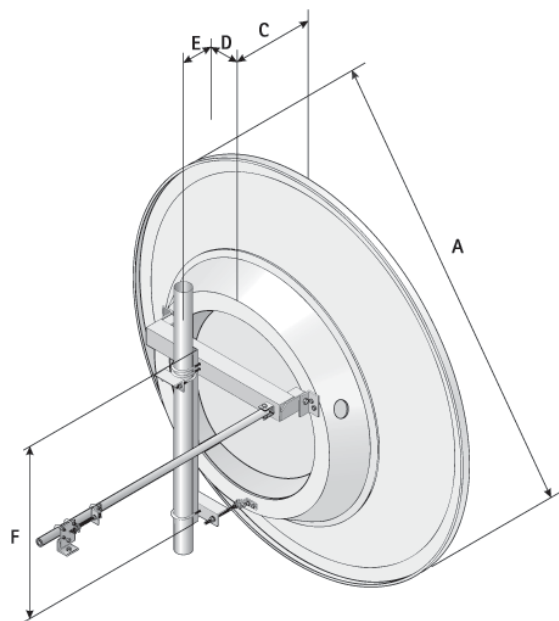
Antenna Mount Outlines

10 ft Antenna

UA, UDA, UXA, DA, DAX



PA, PAL, PAX



All dimensions in mm (inch)

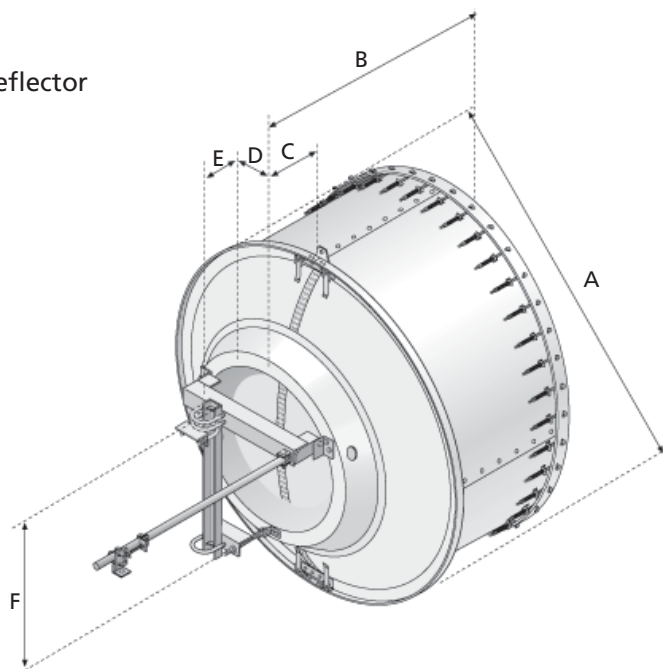
A	B	C	D Ø114	E	F
3170(125.3)	1645(65)*	550(21.7)	190(7.5)	370(14.6)	1440(56.9)

*3.6-4.2 GHz = 1845(72.9)

Antenna Mount Outlines

12 ft Antenna

UXA with non split reflector
UA, UDA, DA, DAX



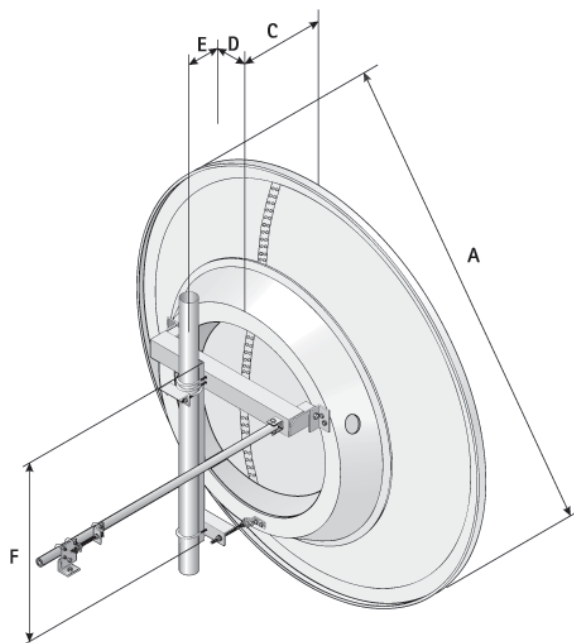
All dimensions in mm (inch)

A	B	C	D Ø114	E	F
3800(150)	1880(74.3)*	670(26.5)	190(7.5)	410(16.2)	1580(62.5)

*3.6-4.2 GHz = 2070(81.8)

12 ft Antenna

PAL, PAX



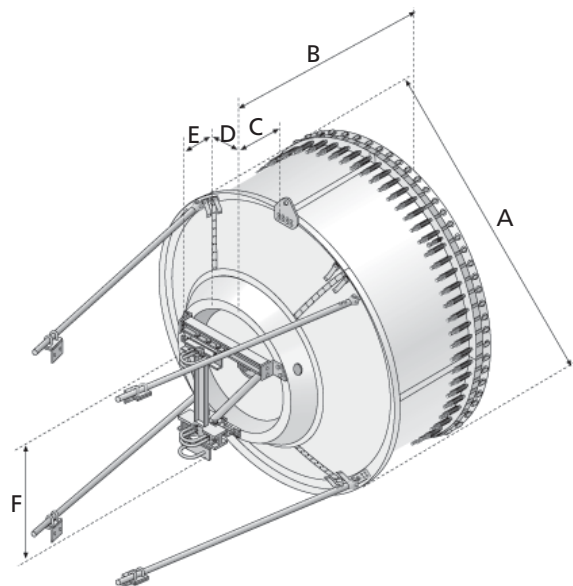
All dimensions in mm (inch)

A	B	C	D Ø114	E	F
3840(151.8) P-type	-	670(26.5)	190(7.5)	410(16.2)	1580(62.5)

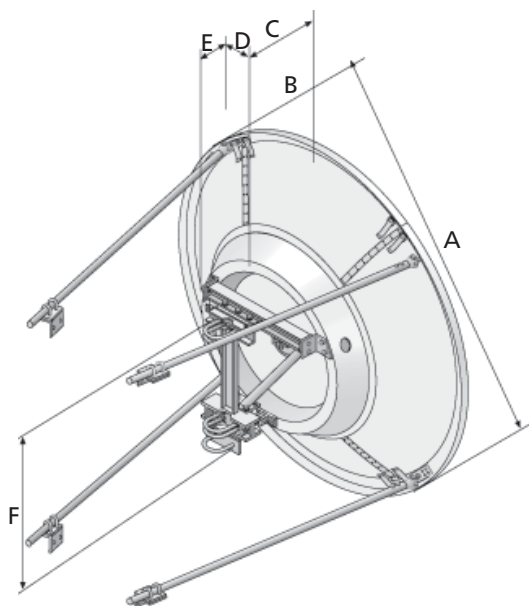
Antenna Mount Outlines

15 ft Antenna

UDA, UXA, DA, DAX



PAL, PAX



All dimensions in mm (inch)

A	B	C	D	E	F
4757(188)	2360(93.3)*	855(33.8)	294(11.6)	455(17.9)	1690(66.8)

*3.6-4.2 GHz = 2600(103)

Solid Parabolic Microwave Antennas

Packing Information

ANTENNA SIZE	ANTENNA TYPE	NUMBER OF ANTENNAS	SIZE CRATE LXWXH [cm]	VOLUME [m³]	WEIGHT NET/GROSS [kg]	PACKING TYPE
1 ft	SU-SUX	1	43x39x40	0.07	5/5	Cardboard
		18	132x82x134	1.45	100/134	Cardboard + pallet
		1	45x41x41	0.07	5/7	Laidflat
1 ft	SB-SBX	1	43x39x30	0.05	4/5	Cardboard
		24	132x82x126	1.36	96/138	Cardboard + pallet
		1	45x41x41	0.07	4/6	Laidflat
2 ft	PAL-PAX-SP-SPX	1	72x72x33	0.17	10/12	Cardboard
		16	147x147x147	3.18	160/220	Cardboard + pallet
		1	72x72x33	0.17	10/15	Laidflat
2 ft	DA-UXA-SD-SDX-SU-SUX	1	72x72x53	0.27	15/17	Cardboard
		12	147x147x173	3.74	180/230	Cardboard + pallet
2 ft	SB-SBX	1	72x72x44	0.23	12/15	Cardboard
		12	147x147x58	3.22	150/200	Cardboard + pallet
		1	75x75x58	0.33	12/20	Laidflat
3 ft	SP-SPX	1	100x100x44	0.44	16/20	Cardboard
		6	200x100x134	2.68	96/150	Cardboard + pallet
		1	100x100x50	0.50	16/30	Laidflat
3 ft	SD-SDX-SU-SUX	1	100x100x54	0.54	23/30	Cardboard
		4	200x100x122	2.44	92/150	Cardboard + pallet
		6	200x100x176	3.52	138/210	Cardboard + pallet
		1	100x100x65	0.65	23/35	Laidflat
3 ft	SB-SBX	1	100x100x44	0.44	16/20	Cardboard
4 ft	PAL-PAX-SP-SPX	1	135x135x52	0.95	24/70	Laidflat
		1	135x135x81	1.47	24/90	Laidflat
4 ft	All types	2	145x145x100	2.10	70/315	Open-work
		3	145x145x130	2.73	105/360	Open-work
		4	145x145x160	3.36	140/410	Open-work
4 ft	DA-DAX-UA-UXA-SU-SUX	1	135x135x64	1.17	35/80	Laidflat
		1	135x135x81	1.47	45/105	Laidflat
4 ft	All types	2	145x145x145	3.05	90/360	Open-work
		3	145x145x205	4.31	135/470	Open-work
		4	280x145x145	5.89	180/530	Open-work
4 ft	SB	1	135x115x87	1.35	35/68	Laidflat
6 ft	PAL-PAX-SP-SPX	1	198x198x80	3.14	70/210	Laidflat
		2	270x212x90	5.15	140/396	Open-work
6 ft	PAX (f<10 GHz)	1	198x198x102	4.00	70/220	Laidflat
		2	270x212x120	6.87	140/360	Open-work
6 ft	DA-DAX-UA-UXA-SU-SUX	1	198x198x80	3.14	110/255	Laidflat
		2	300x212x120	7.63	220/460	Open-work
6 ft	DAX-UXA (f<10 GHz)	1	198x198x102	4.00	190/300	Laidflat
		2	300x212x135	8.59	220/580	Open-work
6 ft	Windkit SMA-WK-6	1	20x100x30	0.06	30	Cardboard








IMPORTANT PLEASE NOTE: The standard packing can vary slightly depending on the manufacturing location and antenna configuration. Please confirm final packing with RFS.

Solid Parabolic Microwave Antennas

Packing Information

ANTENNA SIZE	ANTENNA TYPE	NUMBER OF ANTENNAS	SIZE CRATE LXWXH [cm]	VOLUME [m³]	WEIGHT NET/GROSS [kg]	PACKING TYPE
8 ft	PAL-PAX	1	274x225x190	11.71	120/380	Open-work
		2	274x225x200	12.33	240/510	Open-work
		1, split refl.	275x217x103	6.14	120/420	Open-work
		2, split refl.	300x175x160	8.40	240/610	Open-work
8 ft	DA-DAX-UA-UXA	1	274x225x190	11.71	180/555	Open-work
		2	335x225x200	15.07	360/735	Open-work
		1, split refl.	335x180x150	9.04	180/540	Open-work
		2, split refl.	300x225x190	12.82	180/550	Open-work
8 ft	Windkit SMA-WK-8	1	18x90x40	0.06	10	Cardboard
10 ft	PAL-PAX	1	334x240x260	20.84	215/665	Open-work
		2	334x240x265	21.24	430/1170	Open-work
		1, split refl.	330x225x113	8.39	215/500	Open-work
		2, split refl.	334x225x145	10.90	430/750	Open-work
10 ft	DA-DAX-UA-UXA	1	334x240x260	20.84	290/835	Open-work
		2	400x240x265	25.44	580/1320	Open-work
		1, split refl.	357x225x137	11.00	290/575	Open-work
		2, split refl.	445x225x185	18.52	580/1100	Open-work
10 ft	Windkit SMA-WK-10	1	20x125x40	0.10	20	Cardboard
12 ft	PAL-PAX	1, split refl.	394x225x133	11.79	310/630	Open-work
		2, split refl.	400x225x180	16.20	620/900	Open-work
		1	400x240x340	32.64	310/950	Open-work
		2	450x240x345	37.26	620/1478	Open-work
12 ft	DA-DAX-UA-UXA	1, split refl.	447x225x167	16.80	420/830	Open-work
		2, split refl.	500x225x200	22.50	840/1200	Open-work
		1	400x240x340	32.64	420/1050	Open-work
		2	480x240x345	39.74	740/1700	Open-work
12 ft	Windkit SMA-WK-12	1	20x125x40	0.10	35	Cardboard
15 ft	PAL-PAX	1, split refl.	500x224x282	33.84	570/1650	Open-work
		2, split refl.	500x240x318	38.16	1140/2500	Open-work
15 ft	DA-DAX-UA-UXA	1, split refl.	500x240x282	33.84	750/1750	Open-work
		2, split refl.	520x240x318	39.69	900/2120	Open-work

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<p>1 ft</p>  <p>Cardboard Laid flat</p> <p>Cardboard & Pallet Bottom</p>	<p>2 ft</p>  <p>Cardboard Laid flat</p> <p>Cardboard & Pallet Bottom</p>	<p>3 ft</p>  <p>Cardboard Laid flat</p> <p>Cardboard & Pallet Bottom</p>	<p>4 ft</p>  <p>Laid flat</p>
<p>6 ft</p>  <p>Laid flat</p>	<p>8 ft</p>  <p>Open-work</p>	<p>10/12/15 ft</p>  <p>Open-work • Crossbars Open-work</p>	