



Standard Performance, Point-to-Point Microwave Antennas

Single-polarized, unshielded parabolic antennas

Andrew Solutions P Series antennas are ideal for microwave applications requiring minimal pattern performance and frequency coordination.

Andrew Solutions unshielded point-to-point microwave antennas are ideally suited for uncongested networks where there is minimal risk of interference. Where reliability and cost are more of an issue than back and side lobe suppression, Andrew Solutions provides a complete line of economic unshielded, parabolic antennas

Andrew Solutions designs and engineers a complete range of point-to-point microwave antennas that help operators to maximize bandwidth efficiency and increase system reliability while minimizing both capital and operational expenditures.

Equipped with a painted reflector, each P series unshielded antenna features a feed assembly and a vertical pipe-mount. All antennas are engineered and tested to Andrew Solutions uncompromising standards. Molded radomes can also be ordered for the majority of sizes, giving you more flexibility in network design and deployment.

Radiation Pattern Envelopes—For each antenna model, Andrew Solutions publishes a complete range of radiation pattern envelopes (RPEs). Each detailed pattern envelope provides an easy-to-read and informative description of how the antenna performs at various frequencies and along specific planes. Copies of the RPEs for each antenna are also on file at various regulatory offices around the world.

- Great RF pattern performance
- Low lifetime cost
- Lower cost of ownership

P6F-52-N7A/A**1.8 m | 6 ft Standard Parabolic Unshielded Antenna, single-polarized, unpressurized, 5.250–5.850 GHz, N Female, gray antenna, with flash, standard pack—one-piece reflector**

General Specifications

Packing	Standard pack
Reflector Construction	One-piece reflector
Antenna Input	N Female
Antenna Color	Gray
Antenna Type	PF - Standard Parabolic Unshielded Antenna, single-polarized, unpressurized
Diameter, nominal	1.8 m 6 ft
Flash Included	Yes
Polarization	Single

Electrical Specifications

Beamwidth, Horizontal	1.8 °
Beamwidth, Vertical	1.8 °
Cross Polarization Discrimination (XPD)	30 dB
Electrical Compliance	ETSI 302 217 Class 1
Front-to-Back Ratio	49 dB
Gain, Low Band	37.0 dBi
Gain, Mid Band	37.6 dBi
Gain, Top Band	38.1 dBi
Operating Frequency Band	5.250 – 5.850 GHz
Radiation Pattern Envelope Reference (RPE)	4751
Return Loss	14.0 dB
VSWR	1.50

Mechanical Specifications

Fine Azimuth Adjustment	±15°
Fine Elevation Adjustment	±20°
Mounting Pipe Diameter	115 mm 4.5 in
Net Weight	70 kg 154 lb
Side Struts, Included	1 inboard
Side Struts, Optional	1 inboard
Wind Velocity Operational	110 km/h 68 mph
Wind Velocity Survival Rating	200 km/h 124 mph

Wind Forces At Wind Velocity Survival Rating

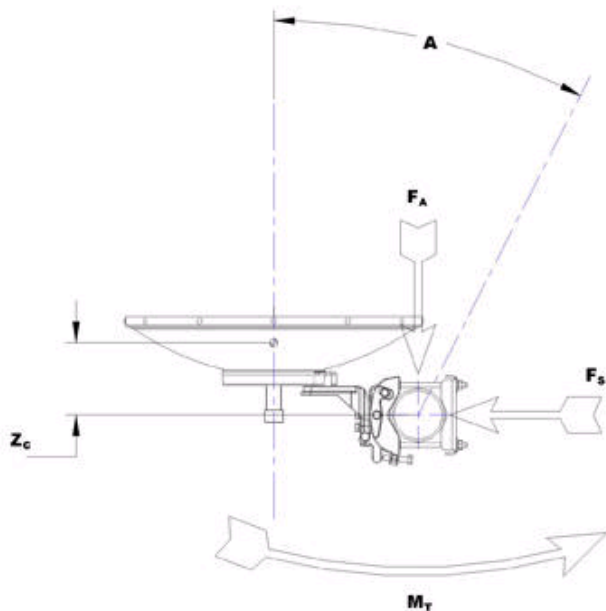
Angle α for MT Max	-130 °
Axial Force (FA)	8779 N 1974 lbf
Side Force (FS)	1946 N 437 lbf
Twisting Moment (MT)	3826 N•m
Weight with 1/2 in (12 mm) Radial Ice	122 kg 269 lb
Zcg with 1/2 in (12 mm) Radial Ice	347 mm 14 in
Zcg without Ice	278 mm 11 in

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Wind Forces At Wind Velocity Survival Rating Image



Packed Dimensions

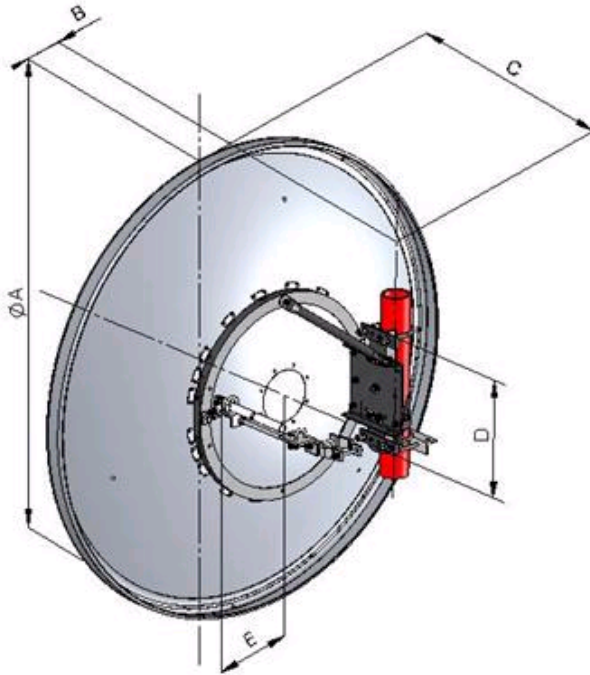
Gross Weight, Packed Antenna	117.0 kg 257.9 lb
Height	2100.0 mm 82.7 in
Length	2070.0 mm 81.5 in
Volume	3.4 m ³
Width	780.0 mm 30.7 in

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Antenna Dimensions And Mounting Information



Dimensions in Inches (mm)					
Antenna Size, ft (m)	A	B	C	D	E
6 (1.8)	76.3 (1939)	17.1 (435)	17.9 (455)	19.3 (490)	14.3 (362)

Regulatory Compliance/Certifications

Agency

ISO 9001:2008

Classification

Designed, manufactured and/or distributed under this quality management system

* Footnotes

Axial Force (FA)

Maximum forces exerted on a supporting structure as a result of wind from the most critical direction for this parameter. The individual maximums specified may not occur simultaneously. All forces are referenced to the mounting pipe.

Cross Polarization Discrimination (XPD)

The difference between the peak of the co-polarized main beam and the maximum cross-polarized signal over an angle twice the 3 dB beamwidth of the co-polarized main beam.

Front-to-Back Ratio

Denotes highest radiation relative to the main beam, at $180^\circ \pm 40^\circ$, across the band. Production antennas do not exceed rated values by more than 2 dB unless stated otherwise.

Gain, Mid Band

For a given frequency band, gain is primarily a function of antenna size. The gain of Andrew antennas is determined by either gain by comparison or by computer integration of the measured antenna patterns.

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Operating Frequency Band	Bands correspond with CCIR recommendations or common allocations used throughout the world. Other ranges can be accommodated on special order.
Packing	Andrew standard packing is suitable for export. Antennas are shipped as standard in totally recyclable cardboard or wire-bound crates (dependent on product). For your convenience, Andrew offers heavy duty export packing options.
Radiation Pattern Envelope Reference (RPE)	Radiation patterns determine an antenna's ability to discriminate against unwanted signals under conditions of radio congestion. Radiation patterns are dependent on antenna series, size, and frequency.
Return Loss	The figure that indicates the proportion of radio waves incident upon the antenna that are rejected as a ratio of those that are accepted.
Side Force (FS)	Maximum side force exerted on the mounting pipe as a result of wind from the most critical direction for this parameter. The individual maximums specified may not occur simultaneously. All forces are referenced to the mounting pipe.
Twisting Moment (MT)	Maximum forces exerted on a supporting structure as a result of wind from the most critical direction for this parameter. The individual maximums specified may not occur simultaneously. All forces are referenced to the mounting pipe.
VSWR	Maximum; is the guaranteed Peak Voltage-Standing-Wave-Ratio within the operating band.
Wind Velocity Operational	The wind speed where the antenna deflection is equal to or less than 0.1 degrees. In the case of ValuLine antennas, it is defined as a maximum deflection of 0.3 x the 3 dB beam width of the antenna.
Wind Velocity Survival Rating	The maximum wind speed the antenna, including mounts and radomes, where applicable, will withstand without permanent deformation. Realignment may be required. This wind speed is applicable to antenna with the specified amount of radial ice.