## PI 6-44-P7A/F



1.8 m | 6 ft Standard Parabolic, Low VSWR Unshielded Antenna, single-polarized, 4.400–5.000 GHz, CPR187G, gray antenna, with flash, standard pack—one-piece reflector

#### **OBSOLETE**

This product was discontinued on: August 31, 2018

**Replaced By** 

HX6-4-6GR 1.8m | 6ft ValuLine® High Performance, High XPD Antenna, dual-polarized, 4.400 – 5.000 GHz, gray,

CPR187G flange

#### **Product Classification**

Product Type Microwave antenna

### General Specifications

Antenna Type PL - Standard Parabolic, Low VSWR Unshielded Antenna, single-polarized

Diameter, nominal1.8 m | 6 ftPackingStandard packReflector ConstructionOne-piece reflector

Antenna Input CPR187G
Antenna Color Gray

Antenna Type PL - Standard Parabolic, Low VSWR Unshielded Antenna, single-polarized

**Diameter, nominal** 1.8 m | 6 ft

Flash Included Yes
Polarization Single

# **Electrical Specifications**

**Operating Frequency Band** 4.400 – 5.000 GHz

Beamwidth, Horizontal 2.5 °
Beamwidth, Vertical 2.5 °
Cross Polarization Discrimination (XPD) 30 dB
Electrical Compliance ETSI Class 1
Front-to-Back Ratio 44 dB
Gain, Low Band 36.0 dBi

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## PL6-44-P7A/F

Gain, Mid Band36.6 dBiGain, Top Band37.1 dBi

Operating Frequency Band 4.400 – 5.000 GHz

Radiation Pattern Envelope Reference (RPE)2552EReturn Loss30.7 dBVSWR1.06

### Mechanical Specifications

Fine Azimuth Adjustment ±15°
Fine Elevation Adjustment ±20°

Mounting Pipe Diameter115 mm | 4.5 inNet Weight70 kg | 154 lb

Side Struts, Included1 inboardSide Struts, Optional1 inboard

Wind Velocity Operational 110 km/h | 68 mph Wind Velocity Survival Rating 200 km/h | 125 mph

### Wind Forces At Wind Velocity Survival Rating

Angle a for MT Max -130 °

 Axial Force (FA)
 8779 N | 1974 lbf

 Side Force (FS)
 1946 N | 437 lbf

 Twisting Moment (MT)
 3826 N-m | 2822 ft lb

 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



# 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

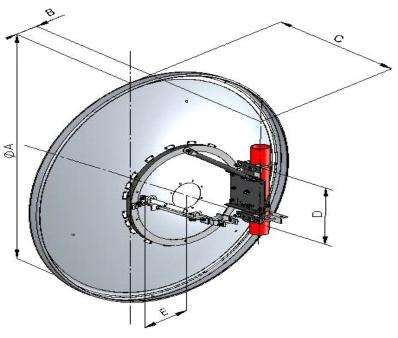
 Length
 2070.0 mm | 81.5 in

**Volume** 3.4 m<sup>3</sup>

**Width** 780.0 mm | 30.7 in

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# Antenna Dimensions And Mounting Information



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

# Regulatory Compliance/Certifications

Agency Classification

ISO 9001:2015 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° ±40°, across the band.

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# PL6-44-P7A/F

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.

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 define an antenna's ability to discriminate against unwanted signals.

Under still dry conditions, production antennas will not have any peak exceeding the current RPE by more than 3dB, maintaining an angular accuracy of +/-1° throughout

**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.