

Antenna Technologies



Overview

The CPI Antenna Technologies' 3.7m Wide C-Band RxO Antenna Series 1374 is ideally suited for demanding commercial applications. The 8-piece compression molded reflector is precision manufactured for high-efficiency operation. The Az/EI mount is designed for easy installation on standard 6" Schedule Pipe (6.63" or 168 mm OD) Installation Mounts and features fine Elevation Adjustment. The Az/EI mount is constructed from heavy gauge galvanized steel for strength and corrosion resistance.

The electrical performance is compliant with FCC and ITU-RS-580 sidelobe specifications and Intelsat (A, B, C) and Eutelsat requirements.

FEATURES:

- Available in offset axisymmetric designs
- Designed for 3.4 to 12.75 GHz operation, meeting FCC and ITU-RS-580 requirements
- Galvanized steel elevation-over-azimuth pedestal with jackscrews
- Survives 125 mph winds in any position

BENEFITS:

- High antenna efficiency
- Excellent rejection of noise and microwave interference
- Quickly re-establish communications in the wake of a disaster

APPLICATIONS:

- Communications, Data Transfer, Broadcast

Specifications

ELECTRICAL ⁽¹⁾	Series 1374 LP C-Band	Series 1374 CP C-Band
Antenna Size	3.7 m (144 in)	3.7 m (144 in)
Operating Frequency (GHz)	3.400 - 4.200	3.400 - 4.200
Antenna Gain, Midband (+/- .3dBi)	40.90 dBi	40.90 dBi
Antenna Noise Temperature (K)		
10° Elevation	41 K	39 K
20° Elevation	39 K	37 K
30° Elevation	37 K	35 K
Antenna Sidelobe Envelope	Per ITU-R S.580-6	Per ITU-R S.580-6
Antenna Beamwidth	1.5°	1.55°
Polarization	Linear, orthogonal	Circular, orthogonal
Cross Polarization Isolation		
On Axis	>30 dB	>21.3 dB
VSWR	1.43:1 Max.	1.4:1 Max.
Operating Frequency (GHz)	3.40-4.20 GHz	3.40-4.20 GHz
Isolation, Port-to-Port	35 dB	18 dB
Feed Interface	2 x CPR229F	2 x CPR229F

⁽¹⁾ Some specifications may vary based on the combination of equipment, options and/or upgrades ordered.

Specifications

MECHANICAL ⁽¹⁾		
Reflector Material		Glass fiber reinforced polyester SMC
Antenna Optics		Prime focus, axisymmetric, 0.375 F/D, 8 pc reflector
Mount Type		Elevation over Azimuth
Mast Pipe Size		6" SCH pipe (6.63" OD) 168 mm OD
Elevation Adjustment Range		10° to 70° continuous fine adjustment (90° optional)
Azimuth Adjustment Range		360° continuous
Declination Corrected Polar Range (1305/1345/1375)		90° arc coverage with 36" actuator
Shipping Specifications		575 lbs (259 kg)
ENVIRONMENTAL ⁽¹⁾		
Wind Loading	Operational Survival	45 mph (72 km/h) 125 mph (201 km/h)
Temperature	Operational Survival	-40° to 140° F (-40° to 60° C) -50° to 160° F (-46° to 71° C)
Rain	Operational Survival	½" (13 mm) / hr 2 inch /hr (51 mm /hr)
Ice	Survival	½ inch (13 mm) radial ice
Atmospheric Conditions		Salt, pollutants, and contaminants as encountered in coastal and industrial areas
Solar Radiation		360 BTU/h/ft ² (1135 w/m ²)

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