

**6' ANTENNA
ADC DOPRAD FURY®
DOPPLER WEATHER RADAR SYSTEM
SPECIFICATIONS SUMMARY**

Receiver/Transmitter

Size	7.72" high, 10.27" wide, 15.03" deep
Weight	30 lbs. maximum
Temperature Operating	+5 to +131 F
Input Power	115 V, 400 Hz, single phase 300 watts dissipated power
Cooling	Provided by Mount
Signal Processor	Pulse Pair
Ground Clutter Suppression	Based on Pulse-to-Pulse amplitude signature recognition of Doppler spectrum width.
Maximum Theoretical Precip Detection	320 Nautical Miles (368.2 Statute/593 km)
Maximum Doppler Turbulence & Mean Velocity Range	50 Nautical Miles (57.5 Statute/93 km)
Precipitation Detection	7 Calibrated Levels: 20, 25, 30, 35, 40, 45, 50 (window of 30 dBZ from a range of 60 dBZ)
Doppler Detection	Pulse Pair Variances: turbulence 5 to 12 meters per second (m/s) in 1 m/s increments 4 bit Mean Velocity +20 m/s in 2.5 m/s increments (15 levels)

Transmitter

Operating Frequency	5.44 GHz (Dual Crystal Controlled)
Output Power	200 watts peak (Nominal)
Pulse Repetition Frequency	181/362 precipitation, 1448 Doppler modes
Pulse Width	2 to 20 microseconds, variable with selected ranges
Safety Rating	.4 mw/cm ² = Measured Field Power Exposure

Receiver

Noise Figure (with ADC Mod N)	RF (preamp) <3.0 dB
Bandwidth	Variable with pulse width
Sensitivity	-127 dBm (minimum discernible signal @ 20 microseconds pulse width, For PD=50%, False Alarm Rate = 10 ⁻⁵)
IF Response	Linear

R/T Mount

Size	12.6 in high, 10.3 in wide, 17.5 in deep
Weight	4 lbs. maximum
Input Power	24VDC, for cooling fan (241 CFM)

Antenna Pedestal

Size (Extended)	27.5 in high (from top of pedestal to center of axis rotation), 9.75 in wide, 16.75 in deep
Weight	59 lbs. maximum
Temperature	Operating: +5 to +131 F
Input Power	115 V, 60 Hz
Scan Range	360 degrees
Azimuth	-2 to +60 degrees
Elevation	22.5 degrees/second (3.75 RPM), or 11.25 degrees/second (1.87 RPM) 5.625 degrees/second (.93 RPM)
Scan Rate	Controlled via display
Scan Modes	Automatic, Sector, & RHI

Antenna 6' Parabolic

Size	6 feet (72 inch diameter)
Weight	Dish - 25 lbs. Feed – 1.7 lbs. Spars – 2.5 lbs. Total Weight – 29 lbs. (approx)
Antenna Type	Parabolic dish with linear horizontally polarized feed
Beam Width	2.1 degrees maximum
Gain	37.5 dB minimum
1st Side Lobe	-25 dB, maximum referenced to main lobe

8' Radome

Size	89 in high Inner Diameter 97 in Outer Diameter 99 in Radius 49.5 in
Riser	6 in high
Opening	60 in inner diameter
Door	34 in x 31 in
Paint	Linear White High Gloss Gelcoat
Weight	225 lbs. (approximately)

Antenna Pedestal Stand

Size	18 in high, 23.375 in wide, 23.375 in depth, 21.5 in wide (from mounting hole to mounting hole)
Weight	23 lbs.

Storm Precipitation Levels:



Light	Light Green	20dBZ	0.03 to 0.05 inches/hour	0.65 to 1.33 mm/hour
Light to Moderate	Medium Green	25dBZ	0.05 to 0.11 in/hr	1.33 to 2.73 mm/hr
Moderate	Dark Green	30dBZ	0.11 to 0.22 in/hr	2.73 to 5.62 mm/hr
Moderate to Heavy	Yellow	35dBZ	0.22 to 0.45 in/hr	5.62 to 11.53 mm/hr
Heavy	Orange	40dBZ	0.45 to 0.93 in/hr	11.53 to 23.68 mm/hr
Intense	Red	45dBZ	0.93 to 1.91 in/hr	23.68 to 48.62 mm/hr
Severe	Magenta	50dBZ	1.91 in/hr and Greater	48.62 mm/hr and greater

$Z_e = 200R^{1.6}$ $Z_e = 200R^{1.6}$
 Ref set to -21 Ref set to -21

Other Z/R relationships are available

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE