

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

Receiver/Transmitter WRT-701C

Size	7.72" high, 10.27" wide, 15.03" deep
Weight	30 lbs. maximum
Temperature Operating	+5 to +131 F
Input Power	24VDC
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 Range	320 Nautical Miles (368.2 Range Statute/593 km)
Maximum Doppler Turbulence & Mean Velocity Range	50 Nautical Miles (57.5 & Mean Velocity Range 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	2 mw/cm ² = Max Measured Field Power Exposure

Receiver

Noise Figure	RF (preamp) < 3.0dB
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 (241cfm)

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	
Azimuth	360 degrees
Elevation	-2 to +60 degrees
Scan Rate	22.5 degrees/second (3.75 RPM), or 11.25 degrees/second (1.87 RPM) 5.625 degrees/second (.93 RPM) controlled via display
Scan Modes	Automatic, Sector, & RHI

Antenna 8' Parabolic

Size 8 feet in diameter
 Weight Dish – 42.5 lbs.
 Feed – 2 lbs.
 Spars – 2.5 lbs.
 Total Weight – 47 lbs. (approx)
 Antenna Type Parabolic dish with linear horizontally polarized feed
 Beam Width 1.75 degrees maximum
 Gain 39 dB minimum
 1st Side Lobe -26 dB, maximum referenced to main lobe

10' Radome

Size 115 in high
 Inner Diameter 126 in
 Outer Diameter 128 in
 Radius 64 in
 Opening 77.7 in inner diameter
 Door 34 in x 31 in
 Paint Linear White High Gloss Gelcoat
 Weight 300 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.

Lift Kit

Quantity four
 Size 9" high, 5.25" wide, 3.25" deep
 Total weight for all Four lifts 9 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

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

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Other Z/R relationships are available

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE