

# DWSR-2501C DOPPLER WEATHER SURVEILLANCE RADAR



## Digital Weather Processing Innovation

The Enterprise Electronics Corporation (EEC) DWSR-2501C, the class leader in C-Band Doppler weather radar, is a state-of-the-art design that includes a solid-state modulator, digital receiver and signal processor, high precision antenna/pedestal drive train, and a choice of full-featured control and display systems.

The DWSR-2501C Doppler radar system has the precision to go beyond just the measurement of rainfall intensity. It also predicts the likelihood of hazardous activity, detects the conditions for hail, forecasts floods, and analyzes the behavior of winds inside a storm for early detection and tracking of tornadoes and severe weather events.

The standard features of the DWSR-2501C offer improved performance and reliability over other weather radar systems. More stable operation contributes to overall system precision and accuracy, and increased reliability saves both maintenance time and the cost of replacement parts.

EEC is an ISO 9001:2000 company.



# EEC DWSR-2501C

## Technical Specifications

### Features

- Long Range Detection
- 250 KW Transmitter
- Long-Life Magnetron
- Solid-State Modulator
- Digital Receiver
- >98% System Availability
- Precision Pulse-Pair Video Processor with >40 dB Clutter Rejection
- Precise, Reliable, Low Maintenance Antenna Subsystems in Various Sizes
- Custom Radomes, Towers, and Shelters Designed for Weather Radar

### DWSR-2501C System Level Characteristics

Transmitter Frequency and Power . . . . . C-Band, 250 KW  
Clutter Suppression . . . . . -40 dB Minimum  
Maximum Range . . . . . up to 550 KM  
Maximum Unambiguous Velocity @ 5600 MHz . . . . . 48 m/s

### Antenna Subsystem

Reflector Type . . . . . Solid-Surface Parabolic  
Standard Diameter . . . . . **Beamwidth** **Gain**  
14' . . . . . 1.00° 45 dB  
Polarization . . . . . Linear Horizontal / Optional Dual Polarization  
AZ Rotation . . . . . 360° Continuous  
AZ / EL Accuracy and Resolution . . . . . ±0.1°  
EL Movement Range . . . . . -2° to + 90°  
Safety Devices . . . . . Safe switches and door interlocks

### Transmitter Subsystem

Magnetron Type . . . . . Tunable Coaxial Long-Life Vacuum Tube  
Modulator Type . . . . . Solid-State  
Pulse Duration . . . . . 0.4, 0.8, and 2.0 µsec

### Digital Receiver

Intermediate Frequency . . . . . 60 MHz  
IF A/D Converter (14 bit) . . . . . 4 Channels and TX Reference  
Dynamic Range . . . . . > 100 dB  
Sensitivity @2.0 µsec . . . . . greater or equal than 114 dBm

ENTERPRISE ELECTRONICS CORPORATION  
128 South Industrial Blvd.  
Enterprise, AL 36330

334.347.3478  
Fax 334.393.4556  
sales@eecradar.com  
www.eecradar.com

INTERNATIONAL SALES  
5801 Lee Highway  
Arlington, VA 22207

703.533.7291  
Fax 703.533.3190  
info@eecradarintl.com

