Enterprise Electronics Corporation is proud to introduce the DWSR-2500C/K, a world class fully coherent commercial C-Band Doppler weather radar. A direct development from our field proven DWSR-2500 series radar systems, the DWSR-2500C/K extends and expands the EEC tradition of excellence with state-of-the-art design. The system includes a precise solid-state high voltage modulator, a choice of digital or analog receivers, proven antenna systems with sealed planetary pedestal drive trains and brushless drive motors, the best BITE subsystem available anywhere and a choice of full-featured control and display systems. With more than 250 Kilowatts peak radiated power and unprecedented transmitter stability, the DWSR-2500C/K provides the best possible clutter rejection and C-Band range performance for observing multiple long-range weather phenomena. The DWSR-2500C/K routinely reaches levels of coherence that required the invention of new techniques for proper measurement. Precise Doppler processing eliminates virtually all false echoes and ground clutter from the radar screen, leaving a clean, high definition picture of the rain and wind at the longest useful ranges. The power amplifier architecture permits coding of the radiated pulse, a technique used for identification of second trip echoes.
The DWSR-2500C/K is available with either a conventional super-heterodyne analog receiver or an EDRP-8 digital receiver. Both provide superb performance with the selection determined by available maintenance resources and budgets.

### Customized Configurations

The DWSR-2500C/K uses a fully solid-state modulator to provide the > 47 kV pulse to the klystron tube. The high voltage section is optimized to provide current pulses of sufficient width to produce the standard RF pulse widths of 0.8 µsec and 2.0 µsec. Customized pulse widths to meet special requirements are available as an optional configuration.
The BITE 2100 subsystem is a standard feature of the DWSR-2500C/K providing comprehensive system status monitoring to operators and troubleshooting assistance to maintenance personnel. Ease of use and practical, helpful information are the most prominent features. Other features include Graphical User Interface, Touch-Screen or mouse control menus, one touch automatic system calibration, automatic audible and visual warnings to all operator stations, Pentium PC processor, and MS Windows or NT Operating System.

The BITE processing and control is a sub function of the RADSYS 3000 Maintenance Control and Display System. RADSYS 3000 provides full radar control functions and real time product generation. Intended as a maintenance tool in the DWSR-2500C/K, RADSYS 3000 is powerful enough to provide full system operation in a backup role. RADSYS 3000 is fully compatible with the EEC EDGE primary data processing system and can display real-time raw data while EDGE is processing data and generating products.

The DWSR-2500C/K is designed to reduce the time and expense required for maintenance. Highly reliable precision components, minimal alignment and adjustment and easy access cabinet design contribute to low life cycle costs. The most critical component, the klystron amplifier and focus assembly, can be removed and replaced by one engineer in less than one hour using the equipment provided.

The DWSR-2500C/K is a true Master Oscillator Power Amplifier using the VKS-8387 klystron as the primary amplification device. The standard klystron operates in the 5600-5650 MHz frequency band. Other 50 MHz operating bands are available as optional configurations.
EEC’s development of the first commercially available Doppler weather radar in 1981 made the science of advanced weather analysis readily available. Unlike conventional radar, the EEC DWSR-2500C/K Doppler systems measure both the intensity of rainfall and the radial velocity of the storm. The EEC radar control and display software permits the DWSR-2500C/K to also predict the likelihood of hazardous activity, detect the conditions for hail, forecast floods, and, perhaps most importantly, analyze the behavior of winds inside a storm for early detection and tracking of tornadoes and severe storms.