

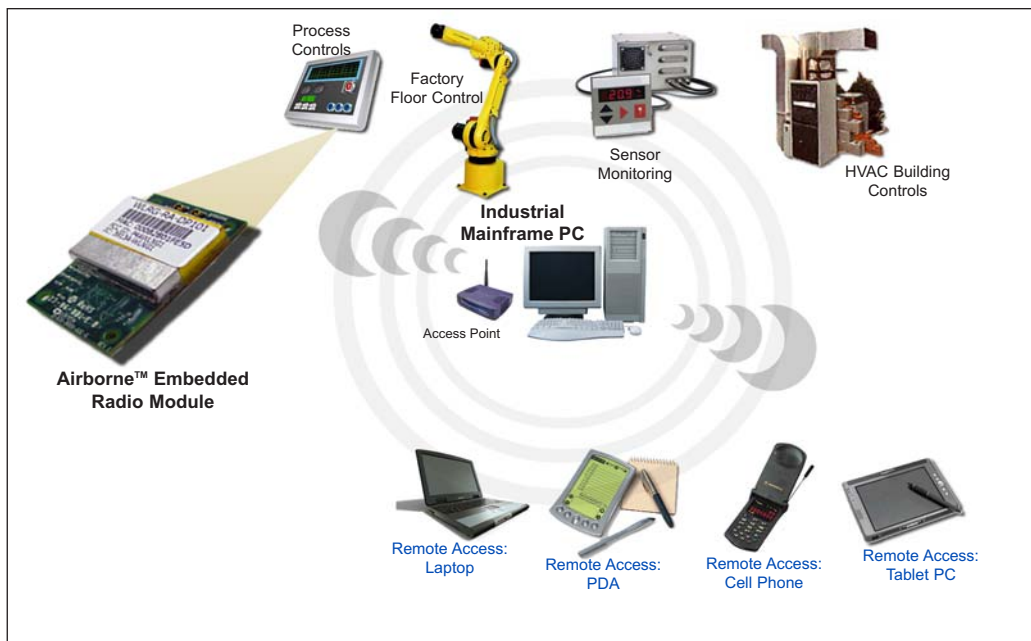
Industrial Automation Applications with Airborne™ Embedded Wireless Device Server Modules and Radios

The Airborne™ 802.11 Embedded Wireless Device Server Radios and Modules are a highly integrated solution that allows manufacturers to quickly “drop-in” wireless connectivity to a broad range of industrial control equipment in as little as six weeks. The wireless module is web-enabled and eliminates the need for a cable connection making a wide array of sensor, data acquisition, factory automation or security equipment more streamlined and accessible through the Internet.

Factory automation tools equipped with an Airborne module can transmit data via an 802.11 wireless access point to the LAN. Information is then sent directly to network-connected display monitors located in a control room, an engineer's office, or remote locations. Display stations would be able to gather data and monitor performance of multiple factory tools and equipment.

For example, factory or industrial equipment with embedded control sensors and an Airborne module can:

- Be monitored from a central control location, a service center technician's WiFi-enabled PDA, or the web
- Provide a service center technician with access to individual control systems
- Allow the installation or relocation of equipment without reconfiguration
- Share data with factory floor monitors, other departments, or remote facilities
- Send alert messages to maintenance technicians or other personnel via email or text messaging, or send alarm conditions to factory monitors
- Be accessed remotely to set alarm points, monitoring conditions, or control points
- Be controlled remotely by other devices or control other devices



Industrial automation applications that are suitable to integrate an Airborne module include:

- Sensors
- Refrigeration Control Units
- Factory Automation
- HVAC Building Controls
- SCADA, MMI, HID
- Process Controls
- CNC/DNC Equipment
- Test and Measurement Equipment

Coordinated data sharing becomes possible when multiple systems are equipped with the Airborne module. Preventative maintenance is improved because diagnostic information is readily available.

The 802.11 Wired Equivalent Privacy (WEP) data encryption standard built into the Airborne module ensures secure and private wireless transmissions.

Development and Factory Floor Benefits

During development, Airborne is easy to integrate into new and existing designs and gives manufacturers a highly integrated solution to quickly differentiate their products. By reducing development time, it lowers costs and facilitates faster time to market. The 802.11 standard supports a high data rate and works with standard enterprise software that is ideal for many industrial control application situations.

With more accurate real-time data, manufacturers achieve increased efficiency and improved processes on the factory floor. In addition, the capture and recording of information helps resolve equipment issues before they become huge and costly problems.

Quicker response time leads to improved customer service and satisfaction. Wireless technology allows for faster installation and physical relocation without reconfiguration.

The Airborne module provides competitive advantages to factory automation equipment manufacturers.

Industry Need for Wireless Capabilities

Data acquisition, factory automation, security and sensor industrial control equipment all work to help streamline the factory floor environment. Currently this equipment may or may not be wired into a central

network that monitors productivity, maintenance needs and equipment conditions.

Factory equipment may frequently be relocated to optimize work flow on the factory floor. This usually necessitates rewiring, re-cabling, and reconfiguring equipment each time it is moved. These expenses can be eliminated with the Airborne Wireless Device Server Module.

Often productivity of a factory floor can be significantly improved when data is shared, issues prevented or remedied quickly. More manufacturers are realizing the advantages and are looking to add wireless capability to increase device connectivity with a Wi-Fi (802.11) solution.