AVIANT SYSTEMS

Aviant's Role as a Systems Integrator

Aviant Systems designs and builds complete RFID solutions by integrating custom hardware and software with commercially available RFID components. Once an application is successfully deployed, Aviant also provides on-going production support through a network of resources.

Prior to developing an application, Aviant conducts a thorough assessment of a company's business goals and potential issues. If RFID is found to be the best approach, Aviant then assists companies with selecting the right components to meet their needs and provides as much customization as necessary to complete a solution.

Tag/Frequency Selection

RFID solutions require tags, readers and antennae to communicate. Tags and frequency (Low Frequency, High Frequency, and Ultra High Frequency) are selected based on the items that need to be identified and the application environment.

To date, Aviant has sourced and produced a wide range of tags and tag form factors for tough industrial environments. Operating temperatures can be as high as 200° C and as low as -40° C. Read distance can be as far as 20 feet and greater for active solutions.

Reader Selection/Design

Aviant offers Low Frequency, High Frequency and Ultra High Frequency (LF/HF/UHF) readers and antenna products, as well as custom antenna design for fit and functionality.

Aviant also has the ability to build custom readers using a basic integrated circuit and software development to program the reader for optimal performance. For example, this could include querying multiple antennae at one time.

Aviant introduced the first LF classic stand alone reader module in 2003. It includes the industry's best tuning module for hard to tune LF antennae.

Custom Mechanical Design/Integration/Software Development

RFID applications typically require custom antenna design to fit the antenna into a machine or fixture. Aviant is experienced at building unique antennae and enclosures out of various materials to achieve the right fit and read range.

Aviant often builds embedded systems (hardware and firmware) and interface software to control other systems within the solution.

Aviant has built embedded solutions to control RFID reader integrated circuits (ICs), RFID reader units, production machines, medical devices and Wi-Fi and cell networks to transmit RFID (and other) data, to date.

On-going Production

Aviant has assembled a network of targeted personnel and companies to produce and assemble various components of the end solution. These include circuit board production and assembly factories, injection molded tag producers and ultrasonic welding experts.