

LogicaCMG and PowerID Team Up

The companies will develop solutions leveraging the benefits of battery-assisted tags, focused initially on the aerospace, automotive and logistics markets.

By Jonathan Collins

Dec. 2, 2005—European systems integrator [LogicaCMG](#) and [Power Paper](#)'s radio frequency identification division, [PowerID](#), say they will work together to offer RFID tracking applications in the aerospace, automotive and logistics markets.

LogicaCMG has reportedly been testing the performance of PowerID's battery-assisted tags at its Rotterdam RFID demonstration center and has been impressed with their ability to extend read range and performance in RFID-challenging environments. As an RFID systems designer and integrator, LogicaCMG is developing RFID applications and deployments using a range of tags and interrogators (readers) from a number of vendors.

"PowerID's technology is very good for getting 100 percent read rates over a distance of up to 10-15 meters in tough environments with a lot of metal and liquid," says Paul Stam de Jonge, group director of RFID solutions at London-based LogicaCMG. Although fitted with a battery, PowerID's tags are battery-assisted (semi-passive), and non-active. Active tags use a battery to power both the tags' microchip and the signal they transmit, whereas battery-assisted tags use a battery only to power the tags' microchip, instead of depending on an interrogator's RF to power the chip. As such, battery-assisted tags have a stronger RF signal to backscatter, or reflect, back to the RFID reader. The company attaches thin-film batteries to its UHF RFID tags, thereby increasing the distance from which a unique serial number on the RFID tag can be read.

As part of its efforts to develop RFID applications using the battery-assisted tags for specific customers, LogicaCMG says it has already adapted its demonstration software to support PowerID tags. The firm uses the software to show customers the potential of using RFID in their own operations.

PowerID's tags use [SAMSys Technology](#)'s SuperTag protocol to communicate with readers. Measuring 120-by-80-by-0.5 -millimeters, the tags carry 64 bits of memory and come in two versions, each with a different capacity battery. One battery lasts for six months, the other for 18. According to the company, the tag with the shorter battery life is suitable for short-life objects such as a loaded pallet; the tag with the longer battery life, on the other hand, is better for items with a longer shelf life, such as automotive or aerospace parts.

LogicaCMG agrees that the use of battery-assisted tags is limited to certain applications. Because the thin-film batteries have a limited life span, LogicaCMG will consider PowerID tags only for closed-loop applications where the tags will not lose power while out of the customer companies' control.

"These tags have to be used on assets that don't pass out of the system for more than a year, as the batteries will run out," says Stam de Jonge.

Although the U.S. Federal Aviation Authority (FAA) has cleared passive tags for use on commercial aircraft, the agency prohibits active and battery-assisted tags from being used because of concerns over the potential effects they might have on a plane's in-flight systems. Even so, LogicaCMG maintains that aerospace remains a viable market for applications using active or battery-assisted tags, such as using the tags to track metallic spare parts and similar items accurately while still in storage, prior to being fitted to an aircraft.

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