

The Five Cent RFID Tag is Here, the Five Cent Tag RFID is Here! Well, Almost

Chinese Company Now Offers Inlays in US for 5.8 Cents; Will it Have an Impact on Adoption?

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Somewhere along the way at the original Auto ID Lab at MIT, the vision of the five cent tag was born.

The concept was that by simplifying and standardizing the design of RFID tags (a strategy that was ultimately embodied in the Electronic Product Code (UPC) standards), RFID tag prices (then very expensive) could be dramatically reduced – perhaps to as low as just five cents each.

At that low price level, many predicted, RFID adoption would take off, as low recurring costs for tags would make the ROI favorable for an increasing number of potential applications, especially in the consumer goods to retail supply chain where costs for tagging billions of cases and items were clearly a big barrier to adoption.

The “five cent tag” took on something of iconic status, akin in some ways to predictions of a world with 500 television channels, and was cited as the likely future state in virtually every report or white paper on RFID, it seemed, for several years.

The march towards realizing this five-cent tag vision has taken longer than many expected, with the perpetual back and forth between tag prices, which impact tag volumes, which impact tag prices, etc.

But we are getting closer.

Chinese Company Offers New 5.8-Cent Inlay

Slowly but surely, tag prices have been dropping. Of

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late, at high unit volume purchases (in the millions of tags), prices for so-called “inlays,” have been at or near the 7 cents per inlay level. An inlay is a chip and antenna combination, which generally must be converted into a usable tag form, such as a label. That process adds several pennies or more of additional cost beyond the inlay itself. In some applications, however, such as embedding a tag inside a corrugate carton, an inlay might be used directly.

Inlay prices in the 7-8 cent range were announced over two years ago. They have remained about flat ever since, in part because volumes have not dramatically increased in the past few years, as the manufacturers hoped. Some also believe the 7-cent tag prices were offered at little above true manufacturing cost, in the hopes of stoking volumes.

Now, Chinese RFID tag and reader company Inveno, which has a strong presence in some Asian markets but relatively little in the US and Europe until now, this week announced entry in the US market with a new EPC-compliant inlay at a price

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of just 5.8 cents each on purchase volumes of 5 million or more. Invengo's growth into an Asian RFID leader was turbocharged in 1999 with a contract from the government for a huge system for China's railroad network. This will not result in a true five-cent tag, of course, but now at least the key component of a tag is available at a cost that starts with a "5."

The company's headquarters and tag production facilities are both in Shenzhen, China. Its Chinese web site lists a number of patents awarded in China for RFID reader technology.

Invengo will maintain inlay inventories in the US for customer shipments. In general, inlay manufacturers do not sell directly to RFID using companies, but rather to label converters and other players in the RFID tag value chain, which in turn sell complete tags to users.

Whether Invengo is really making a profit at a 5.8-cent price point is not known. It can't be



much.

We are still some years away from a true 5-cent tag for end uses, but with a 5-cent inlay the journey has just become a bit shorter.