

Avery Dennison Unveils New Gen 2 Inlays

The inlay manufacturer says its expanded portfolio of Gen 2 inlays focuses on readability, new form factors and global interoperability.

By Mary Catherine O'Connor

March 1, 2006—Avery Dennison RFID is expanding its line of EPC Gen 2 UHF RFID inlays. George Reynolds, the company's vice president of worldwide sales and marketing, says the inlays will be available in sample quantities next week, with production quantities expected for large orders by the end of the first quarter. The new inlays join the AD-220 and AD-221, Avery Dennison RFID's original Gen 2 inlays.

"We're working with our network of approximately 20 certified label converters right now and going through the certification process in order to make sure they are running the inlays through their label conversion process properly," Reynolds explains.

The new inlay designs, five in total, target specific applications and frequency requirements. Some are designed for use on materials that tend to cause RF interference, such as products with a high content of metal, which tends to reflect RF signals, or water, which tends to absorb them. The AD-420, AD-421 and AD-622 inlays are designed to work on product with either metallic or water content, while the AD-612 is formulated to work well on reflective products.

Because the tag antenna's orientation to an RFID interrogator often affects the tag's readability, the AD-622's antenna has three branches to provide optimal performance regardless of orientation. The AD-812, AD-811, AD-820 and AD-821 each have small antennas and are made for item-level product identification. At 1 inch by 1 inch, the AD-812 and AD-811 can be applied to most pharmaceutical bottles, while the AD-820 and AD-821, at 2.75 inch by 1.4 inches, integrate into most apparel hangtag form factors.

The AD-421, AD-811 and AD-821 were developed to accommodate the European Telecommunications Standards Institute's (ETSI's) requirements that UHF systems operate in the 865 to 868 MHz band. The AD-420, AD-812 and AD-820 on the other hand, are intended for use in the United States, where the Federal Communications Commission (FCC) reserves the 902 to 928 MHz band for UHF RFID operation. The AD-612, however, is made to work equally well in both regions. This will be beneficial to companies that want to apply tags in Europe, for example, and then ship them to be read in the United States.

With the regulatory landscape throughout Asia in flux, Reynolds says, Avery Dennison has not yet made inlays specific for use in any Asian countries. "The majority of the nations seem to be adopting subsets of U.S.—others, subsets of ETSI—but there is still work to be done there," he adds.

Pricing for the new inlays has not yet been released.

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