

## ITEM AUTHENTICATION

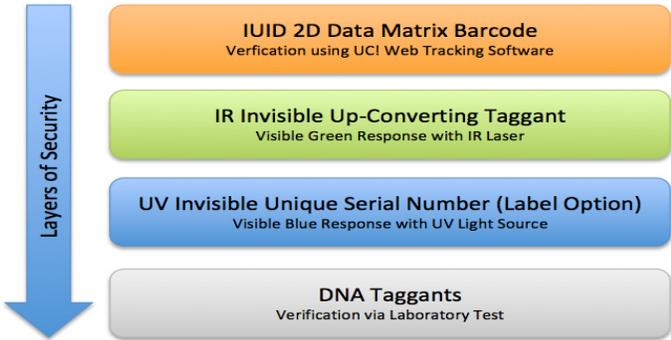
### A FAIL-PROOF WAY TO FIGHT COUNTERFEIT PARTS

Manufacturers face a growing problem in today’s global economy: counterfeit parts continue to show up in supply chains – compromising safety, security, and brand integrity. Critical components used in electronics, computers, medical devices and weapons systems are particularly vulnerable. And no single technology there has been developed to eliminate the problem once and for all. Until now.

### MULTI-LAYER COUNTERFEIT ITEM DETECTION

Overt and semi-covert part-marking using tamper-evident labels or coded information visible with UV light identifies items by batch and origin, but these marks can also be duplicated. The same is true for barcode labels. On the other hand, covert or forensic part-marking – applying a coating of DNA or printing barcode labels using DNA-laden inks – cannot be duplicated by counterfeiters, but they can’t be tracked through the supply chain as individual items, either. Companies seeking the ultimate anti-counterfeit solution need a quick way to authenticate items on a physical or forensic DNA level AND match it to the electronic Pedigree that can be tracked throughout the item’s lifetime. A multi-layer solution which can be expanded to correspond with value of the item .

#### Layers of Security



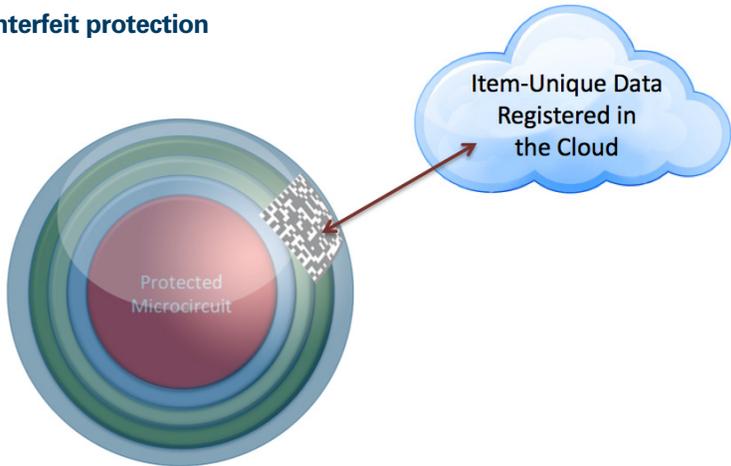
### ITEM AUTHENTICATION

A2B offers a multi-layer impenetrable system for counterfeit prevention that combines a cost-efficient synthetic DNA taggant with and data-level Item Unique Identification (IUID) marking methodology. Our system fuses covert and semi-covert part marking with machine-readable IUID marking that, with the wave a scanner, connects the part to item-unique data that has been captured and stored in the cloud. The item is tracked throughout the supply chain to ensure authenticity.

## KEY ADVANTAGES

- Secure supply chains reduce liability
- Protection against diversion, tampering, counterfeiting and piracy
- Physical properties that cannot be replicated, removed or reattached
- A comprehensive track and trace system to authenticate marked items
- A process that can be easily integrated into your existing production processes with no impact to the technical integrity of the item being marked

### DNA-protected microcircuit with enhanced anti-counterfeit protection at the data level



## HOW WE DO IT

Each layer of technology provides a greater level of security and is coupled with unique item identification data that is tracked in the cloud. As you progress from covert to overt marking, the equipment required to adhere and read your results becomes specialized to form your own signature that makes it virtually impossible to replicate and put counterfeit into the supply chain.

## CUSTOM-ENGINEERED LABELS AND SEAL

We offer an extensive list of brand protection solutions that protect against counterfeiting and piracy, including the latest in overt, covert, and track and trace technology. Through the use of custom-engineered labels and seals, can create brand protection solutions with:

- Security holograms
- Color shifting film and ink
- Encrypted data
- Hidden images
- Forensic encoding
- Tamper-indicating features

## ON THE LEVEL: A CLOSER LOOK

### DNA Level Security

Synthetic DNA has several advantages in anti-counterfeit and diversion applications. DNA provides forensic proof of authenticity of the source of supply by creating a unique DNA tag for each source, and potentially distinguish, within each source, components of different classifications or end uses. Unlike botanical DNA, the unique physical structure of the individual synthetic DNA tags used for marking the items is made up of many unique DNA strands that are combined into segments of varying length that allow for the creation of a specific mathematically encoded DNA tag. It has been successfully utilized in a wide range of plastics, master batch polymers, inks, and substrates.

### Data Level Traceability in the Secure Cloud

Data is the key to creating a unique code that can be identified and traced. Layering machine-readable barcode –with a unique item identifier, data offers an element of control that follows the item throughout its lifecycle – from production, through supply chain, during usage and finally at the disposal phase. Uniquely serialized part marking is compatible with continuous production practices already in use and is capture in software and can be accessed anytime, anywhere in the cloud.

Additional unique serialized numbers can be added to the mark and can be human readable or invisible to the human eye read on by fluoresce when exposed to UV light. The serialized code will uniquely identify the authentication authority's unique signature. Any inconsistency in the sequence or concentration of synthetic DNA OR in registered item-unique data in the cloud at any checkpoint will trigger detection of a counterfeit or otherwise non-conforming item.

### ITEM AUTHENTICATION FROM A2B

A2B Tracking works closely with brand owners, manufacturers, and other organizations to develop ways to secure supply chains, reduce liability, detect counterfeits, implement track and trace, identify gray market diversion, and verify product recycle chains. We can facilitate the entire solution, or setup an environment that allows us to integrate the entire process into your operation, and to successfully implement and manage on-demand marking to reliably deter counterfeiters.

### LEARN MORE

Call **800-733-7592** and speak with an A2B Product Representative to learn more about the new UC! Web Tool Crib Manager and how it will streamline your operations.