



## Thinfilm NFC OpenSense™ for OTC

### Differentiate your over-the-counter pharmaceuticals using innovative mobile engagement

**Thinfilm’s NFC OpenSense provides the ideal mobile solution to engage and educate OTC customers while maintaining brand integrity.**

Healthcare providers and consumers are increasingly relying on mobile devices and online content to help choose the over-the-counter (OTC) medication that is best for them.

OTC brands now have the opportunity to differentiate their products using NFC OpenSense mobile connectivity.

NFC OpenSense delivers personalized content directly to customers—all with the tap of a mobile phone to an NFC OpenSense tag.

Unique IDs within each tag provide item level traceability to a package, bottle, tube or container.

Tag sensors are able to distinguish between the “factory sealed” or “open” states of a container and deliver dynamic, relevant information based on the tag status.

At the point of sale, consumers are able to tap an NFC OpenSense tag to learn about a medicine’s indications, side effects, and important drug interactions before purchasing.

The tap of a phone also verifies that the item has been “factory sealed”—allowing consumers to buy with confidence.

After purchase, improve compliance and build customer loyalty using direct-to-consumer communications.

Use NFC OpenSense to deliver expiration dates and reorder reminders or to post critical recall notifications.

Extend the dialogue by establishing medication intake logs and creating a means to report side effects.

Continue to learn from every interaction. By adding intelligence to individual OTC products, brands are able to gain more understanding of buyer behavior.

NFC OpenSense provides a secure and convenient method to foster the relationship between OTC brands and consumers.



## Thinfilm NFC OpenSense™ for OTC Pharmaceuticals

### Applications

- ☐ Compliance to usage and dosage information
- ☐ List of ingredients
- ☐ Drug interaction lookup
- ☐ Special offers
- ☐ Patient adherence
- ☐ Side effect reporting
- ☐ Expiration date reminders
- ☐ Multiple language capabilities
- ☐ Product alerts
- ☐ Recall management
- ☐ Intake logs

### Features & Benefits

- ☐ Secure customer-facing or B2B product authentication
- ☐ Unique ID-based item level traceability
- ☐ Tag senses the “sealed” or “opened” state of the product or package and wirelessly transmits a unique identifier and status of the product’s seal
- ☐ Interactive mobile content can be customized based on sealed/opened status
- ☐ The first NFC solution adopted by the World Customs Organization
- ☐ Unlike QR codes or standard NFC labels, the NFC OpenSense tag ID is factory encoded, globally unique, and cannot be altered.
- ☐ With the economic benefits and scalability of printed electronics, NFC OpenSense can be implemented on a wide range of products
- ☐ Connect to a secure database to track product lineage, provide analytics
- ☐ Physical to digital interactivity provides insight into buyer behavior

### Key Products

- ☐ Pain relievers
- ☐ Vitamins
- ☐ Nutritional supplements
- ☐ Cold remedies
- ☐ Dermalogics
- ☐ Nutraceuticals
- ☐ Other over-the-counter products

### Key Specifications

- ☐ Streamlined Tag-Talks-First (TTF) protocol enables faster reads
- ☐ To thwart cloning, tag memory is permanently encoded and cannot be electrically modified
- ☐ 13.56 MHz High Frequency (HF) operation
- ☐ 128-bit Read Only Memory (roadmap to 256 bits)
- ☐ Adheres to subset of ISO 14443 Type-A RFID standard
- ☐ 106 Kbit/sec data transfer, Manchester bit encoding and OOK load modulation at 847 kHz
- ☐ 16-bit CRC for data integrity and verification
- ☐ Supported by the latest NFC controllers from leading manufacturers
- ☐ Passive operation; tag does not require a battery
- ☐ Can be combined with tamper evident adhesives and label facestocks for additional security