### Product Description of printed on metal NFC Tag for logistics management

1. Specification of printed on metal NFC Tag for logistics management

NFC Chip Type: NXP Ntag213, Mifare S50, NXP Ultralight, NXP Ultralight C, Broadcom Topaz 512 etc.

Technology: NFC Type 2 and ISO 14443A protocol.

Frequency/Protocol: 13.56mhz/HF.

R/W: the writing endurance will 100000 times.

EPPROM: 64 bytes, 192 bytes, 144 bytes, 512 bytes, 1k bytes etc. Different chips of different EPPROM.

Reading distance: 3-10cm depend on reader power and using environment.

Reading range: Max 10cm (depends on the card reader and antenna).

Antenna: Aluminum Etching

Process: Flip-chip bonded technique.

## 2.Profile Material:

Surface: PVC, Paper or PET material.

Backside: adhesive or requested 3M adhesive. Middle: anti-metal layer or ferrite material.

Size: 25mm Dia, 35\*35mm, 43\*26mm, 50\*50mm,86\*54mm, or as requested.

Thickness: 0.2-0.5mm or 0.8-1mm, or costomized.

### 3. Working Environment

Working life: 5-10 years and depend on using environment.

Store temperature: -25 °C-50 °C

Humidity: 20%-90%RH

Working temperature: -40 °C-65 °C

#### 4.Crafts

Four color off-set printing, Thermal Number Digital Number, punching, UV Coating, epoxy coating etc.

### 5. Application of NFC Tag/NFC Sticker/NFC Label

NFC mobile payment, NFC electronic intelligence posters, Electronic ticket, production identification, NFC electronic sign in, Mobile name cards, library management, entrance access, or expense, and so on.

### 6.Packaging and Shipping way

Packaging of NFC Tag/NFC Sticker/NFC Label: In roll or in single pieces, upon clients' request.

Delivery date: 5-7 working days for 10K after order confirmation.

Shipping way: by express(DHL,FEDEX), by air, by sea.

Price term: EXW,FOB,CIF,CNF.

Payment term: pay by TT, western union, paypal, etc.

Monthly capacity: 6,000,000 pcs/month. Certificate: ISO9001-2008,SGS,ROHS,EN71.

### **The Technical Bit**

The reason NFC tags does not work on metal is that the metal surface behind the tag acts as a ground and reduces the performance of the tag's antenna ,effectively stopping it creating the current needed to power the chip.

In reality, you can often get the tags to work with just a small gap (0.5-1cm) and we know of many clients who just use thick foam type sticker to create a gap. However, to do the job properly, you

should use on-metal tag which have a ferrite foil barrier between the tag and the adhesive layer.

NFC systems are now widely used in management and identification of the goods. According to the applications, the NFC Anti-metal tag should in a small size and could be mounted on the metallic surface.

**Product Picture of printed on metal NFC Tag for logistics management** 



Manufacturing of NFC Tag/NFC Sticker/NFC Label

# Product Procedure













Application of NFC Tag/NFC Sticker/NFC Label

# Extensive Experience with NFC



#### **Our Other Products**



### What is NFC Tag?

An NFC tag is a small passive (no battery) device which contains a tiny microchip attached to a small loop antenna. When the tag is scanned by an NFC reader such as a mobile phone, it powers up and wirelessly transfers information such as a web address, text or a command for an App. The NFC tag can be locked so that the data on the tag cannot be changed or left unlocked so the data can be

changed again and again.

NFC tags are typically printed stickers or plain stickers, but they can be also enclosed in NFC products such as keyfobs, wristbands, hang tags and many other items.

### **NFC Chips**

Inside each NFC tag is a tiny microchip which contains a small amount of memory. Compared to a USB stick or similar, it's a miniscule amount of memory but it's enough for a web address, an instruction or an ID - and that's what makes NFC tags brilliant. Different NFC chips contain different amounts of memory (and other features).

Available N	FC chips				
	NXP Mifare Ultralight	NXP Mifare Ultralight C	NTAG213	Topaz512	Mifare 1k
NFC Type	Type 2	Type 2	Type 2	Type 2	Type 2
User memory	64 byte	192 byte	144 byte	512 byte	1k byte
URL Length	41 Characters	132 Characters	132 Characters	132 Characters	256 Characters
Text Length	39 Characters	130 Characters	130 Characters	130 Characters	709 Characters
Data Example	Short URL Phone Number Short email address Short Text	Short URL Phone Number Short email address Short Text	Long URL Phone Number Email address Text Small Vcard	Long URL Phone Number Email address Text Small Vcard	Full Voard
Lockable	Yes	Yes	Yes	Yes	Technically No
Formatting	Blank or NDEF formatted	Blank or NDEF formatted	NDEF Formatted	Blank or NDEF formatted	Blank or NDEF formatted

### **Company Information**

<u>Shenzhen Chuang Xin Jia Smart Card Co.,Ltd</u> is a professional passive RFID tag/NFC tag manufacturer in China, which has over 15 years. Our main products include RFID tag/NFC tags, RFID/NFC card, RFID ID card, RFID wristband, NFC stickers, NFC readers, etc. Our big clients include Sony, Samsung, OPPO, British Telecom.