

# **VC-SF-T8002 Specification**

## Release History

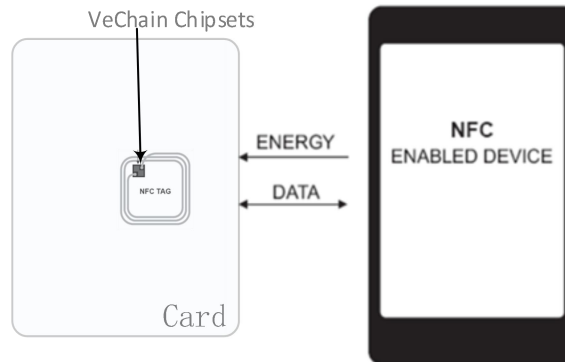
Version	Change history	Date
V1.0	Initial Release	26/11,2018
V1.1	Change naming rule: change specification number from VC-SFTG-C8002 to VC-SF-T8002.  Modify the chip naming rule : add a bit identification chip type at the end	23/04,2019

## Contents

<b>GENERAL DESCRIPTION.....</b>	<b>4</b>
<b>PRODUCT FEATURES.....</b>	<b>5</b>
<b>ENVIRONMENT PARAMETER.....</b>	<b>6</b>
<b>KEY APPLICATION.....</b>	<b>6</b>
<b>APPLICABLE DOCUMENTS.....</b>	<b>6</b>
<b>ORDERING INFORMATION.....</b>	<b>7</b>
<b>LEGAL INFORMATION.....</b>	<b>8</b>
<b>CONTACT INFORMATION.....</b>	<b>8</b>

# General Description

VC-SF-T8002 Series is a passive NFC tag product, which is compliant with the ISO/IEC14443A /NFC Forum Standard. It can communicate with NFC device (e.g. mobile phone) contactless to transfer data as below picture shows.



a. Contactless System



b. Product Pic



c. Package Pic

The tag is pre-programmed with VeChain IDs and cryptographic keys, which can be used in VeChain Blockchain solutions, such as anti-counterfeiting, traceability and inventory in logistics supply chain management and consumer engagement.

The product dimension is 172\*26mm(+/- 0.5mm), the compact size fits for most scenarios, with good RF performance. In addition, we can provide customized service (such as size, color) according to your needs.

Fragile paper is very easy to be teared to prevent from being reused.

The product can be packaged by roll, please refer figure C.

- Packing Volume Number: 3000~5000PCS (According to actual demand)
- The Roll Direction: the Surface or Printing Facing out or up (According to actual demand)
- Packing Material: Anti-static PE + Foam stuff + Anti-static Bag

## Product Features

- Substrate Material: Polyester Film (PET)
- Antenna Material: Aluminum Etching
- Surface Material: Fragile Paper
- Memory capacity: 144bytes
- Product Attribute: Disposable, Prevent Heat Transfer
- Characteristics: Flexible Tag, Transparent or customized color/logo printing
- Operating Frequency: 13.0MHZ~14.50MHZ
- Protocol: ISO/IEC14443-A/NFC NDEF
- Read and write range: 0~3CM (Determinate by reader and use environment)
- Programming Cycle: 100,000 cycles

## Environment Parameter

- Data Retention: 10 years
- Operating Temperature: -40°C~85°C
- Storage Temperature: 0°C~25°C
- Humidity: 10%~80%

## Key Application

- Goods and device authentication
- Product information
- Loyalty (vouchers, coupons)
- Logistic management

It can be used for anti-counterfeiting and traceability for Jewelry, food, tobacco, alcohol, drugs, cosmetics and spare parts items. Product appearance and surface label printing can customize according to customer needs.

## Applicable Documents

[ISO/IEC 14443-2]

- ISO/IEC 14443-2 Type A Identification Cards- Contactless Integrated circuit(s) cards- Proximity Cards- Part 2: Radio frequency power and signal interface

[ISO/IEC 14443-3]

- ISO/IEC14443-3 Type A Identification Cards- Contactless Integrated circuit(s) cards- Proximity Cards- Part 3: Initialization and Anti-collision

[NDEF]

- “NFC Data Exchange Format (NDEF)”, NFC Forum™, Technical Specification, May 2006.

## Ordering information

Part number	Antenna Description	Product Description	Package Description
VC-SF-T8002-010	Inlay	Ø26mm; 172mm length; 6mm width (rear); VeChain Logo Chip IC: - NXP (NFC)	By piece and packaged by roll
VC-SF-T8002-020	Inlay	Ø26mm; 115mm length;6mm width (rear);VeChain Logo Chip IC: - NXP (NFC)	By piece and packaged by roll

## Legal Information



## Contact information



For more information, please visit: <https://www.Vechain.com>

For sales office addresses, please send an email to: [bd@vechain.com](mailto:bd@vechain.com)