

VC-SF-T8009 Specification

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Release History

Version	Change history	Date
V1.0	Initial Release	2/04,2019
V1.1	Modify the chip naming rule : add a bit identification chip type at the end	23/04,2019

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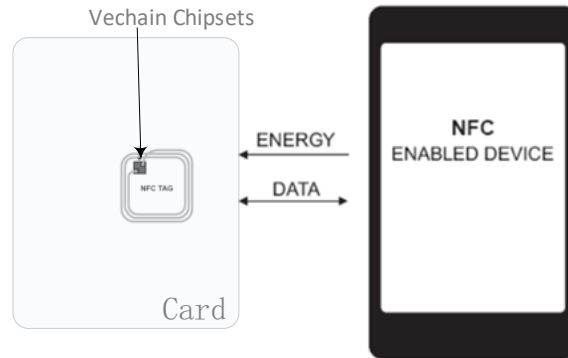
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General Description

VC-SF-T8009 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 96.7*27mm (± 0.5 mm), the Antenna Size is 88*23 mm(± 0.2 mm), the compact size fits for most scenarios, with good RF performance. In addition, we can provide customized service (such as size, logo) according to your need.

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

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

Product Features

- Substrate Material: Fragile Paper
- Antenna Material: Graphene
- Memory capacity: 144bytes
- Product Attribute: Disposable, non-toxic and environmentally friendly, long life
- Characteristics: Customized color/logo printing
- Operating Frequency: 13.0MHZ ~ 14.5MHz
- Protocol: ISO/IEC14443-A/NFC NDEF
- Read and write range: 0-3 CM (Determinate by reader and use environment)
- Programming Cycle: 100,000 cycles
- ESD: ± 2 kV

Environment Parameter

- Data Retention: 10 years
- Operating Temperature: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- Storage Temperature: $0^{\circ}\text{C} \sim 25^{\circ}\text{C}$
- Humidity: 10%~80%

Key Application

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

It can be used for anti-fake and traceability for drinks, alcohol and fresh products. 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-T8009-010	Graphene	Antenna Size 88*23mm(±0.2mm) Tag Size 96.7*27mm(±0.5mm) 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