

# **my-d<sup>™</sup> move and my-d<sup>™</sup> move NFC**

## **Release Notes**

Intelligent 152 byte EEPROM with contactless interface compliant to  
ISO/IEC 14443-3 Type A and support of NFC Forum<sup>™</sup> Type 2 Tag operation

## **About this document**

### **Scope and purpose**

This document provides information about the released version of the my-d<sup>™</sup> move and my-d<sup>™</sup> move NFC.

### **Intended audience**

This document is primarily intended for use by customers.

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## **1 Overview**

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This document describes the limitations of my-d™ move (SLE 66R01P) and my-d™ move NFC (SLE 66R01PN) with respect to the latest my-d™ move and my-d™ move NFC Datasheet.

### **Affected product**

SLE 66R01P and SLE 66R01PN, design step A11.

## 2 Known limitations

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### 2.1 Maximum PICC PauseA length support at high field strength

#### Problem

For the PICC the ISO/IEC 14443-2 [1] (Section 8.1.2, Table 6), indicates for a bit rate of  $f_C/128$  the maximum PauseA length  $t_1 = 41/f_C$  (3.02  $\mu$ s) for the RF operating field strength up to  $H_{max} = 7.5$  A/m.

The my-d™ move and my-d™ move NFC reliably communicates with the maximum PICC reception PauseA length of  $t_1 = 41/f_C$  up to an operating field strengths of  $H_{max} = 4.5$  A/m.

If the PCD considers a shortened PauseA length of  $t_1 = 40.5/f_C$  (2.99  $\mu$ s) as specified in the ISO/IEC 14443-2 [1], the my-d™ move and my-d™ move NFC reliably operates at a field strength of up to  $H_{max} = 5.5$  A/m.

#### Cause

In case of multi-byte commands an internal counter of the digital circuitry mismatches.

#### 2.1.1 Workaround

The my-d™ move and my-d™ move NFC operates up to the maximum operating field strength of  $H_{max} = 7.5$  A/m if the PICC PauseA length is shortened to at least  $t_1 = 39/f_C$  (2.88  $\mu$ s) for any resonance frequency and maximum PICC PauseA rise time ( $t_4$ ).

#### Outlook

Modification in digital circuitry.

## **References**

- [1] ISO/IEC 14443-2:2020: *Cards and security devices for personal identification – Contactless proximity objects – Part 2: Radio frequency power and signal interface (Fourth edition)*; 2020-07
- [2] ISO/IEC 14443-3:2018: *Cards and security devices for personal identification – Contactless proximity objects – Part 3: Initialization and anticollision (Fourth edition)*; 2018-07

## **Glossary**

### **EEPROM**

*electrically erasable programmable read-only memory (EEPROM)*

### **IEC**

*International Electrotechnical Commission (IEC)*

The international committee responsible for drawing up electrotechnical standards.

### **ISO**

*International Organization for Standardization (ISO)*

### **NFC**

*near field communication (NFC)*

### **PCD**

*proximity coupling device (PCD)*

A reader device for NFC cards.

### **PICC**

*proximity integrated circuit card (PICC)*

A contactless smart card which can be read without inserting it into a reader device.

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**Revision history**

## **Revision history**

<b>Reference</b>	<b>Description</b>
<b>Revision 1.0, 2021-12-20</b>	
All	Initial release

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