AN14428

PN7160/PN7161 Windows driver

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1 Introduction

This document describes the PN7160/PN7161 Windows driver, known limitations, and how to get access to the Windows driver for the PN7160/PN7161.

2 Supported NFC tags

The support by Microsoft for the NFC technogy by the NFC class extension (CX) is limited and does not allow to use all functions provided by the chip and specified in the PN7160/PN7161 data sheet. For more information on NFC technology supported by Microsoft, refer to: https://learn.microsoft.com/en-us/windows-hardware/drivers/nfc/

Only the following cards are supported:

Table 1. Microsoft NFC CX lib supported tags

Tag Name	Technology
Mifare Ultralight	ISO/IEC 144443-A
NTAG203	ISO/IEC 144443-A
FeliCa	FeliCa
MIFARE DESFire EV1 2K	ISO/IEC 144443-A
MIFARE DESFire EV1 4K	ISO/IEC 144443-A
MIFARE DESFire EV1 8K	ISO/IEC 144443-A
MIFARE DESFire EV2 2K	ISO/IEC 144443-A
MIFARE DESFire EV2 4K	ISO/IEC 144443-A
Mifare Classic 1K 4 byte UID	ISO/IEC 144443-A
Mifare Classic 1K 7 byte UID	ISO/IEC 144443-A
Mifare Classic 4K 4 byte UID	ISO/IEC 144443-A
Mifare Classic 4K 7 byte UID	ISO/IEC 144443-A
ICode SLI-X	ISO/IEC 15693
Infineon T4T	ISO/IEC 144443-B
Kovio	Kovio

3 Known limitations

User must be aware of the following limitations when using the PN7160/PN7161 Windows driver:

- The Card Emulation mode is not supported.
- Peer To Peer mode available on earlier firmware versions of the PN7160/PN7161 is not supported.
- The driver is not tested for NFC Forum compliancy.
- The driver is not intended as a ready-to-use driver on a standard consumer PC. For this, Microsoft is offering the PC/SC or CCID driver architecture, which should be considered as an alternative.

4 Usage

This driver is intended for embedded use and must be build by NXP for a dedicated embedded hardware system. It typically requires a BIOS update to function with the NFC ICs PN7160/PN7161.

NXP offers an implementation based on a Raspberry PI. For more information, reach out to your NXP contact.

5 Abbreviations and acronyms

Table 2. Abbreviations

Acronym	Description
BIOS	Basic Input/Output System
CCID	Chip Card Interface Device
CX	Class Extension
NFC	Near Field Communication
PC/SC	Personal Computer/Smart Card

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6 Revision history

Table 3. Revision history

Document ID	Release date	Description
AN14428 v.1.0	27 August 2024	• Initial version

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