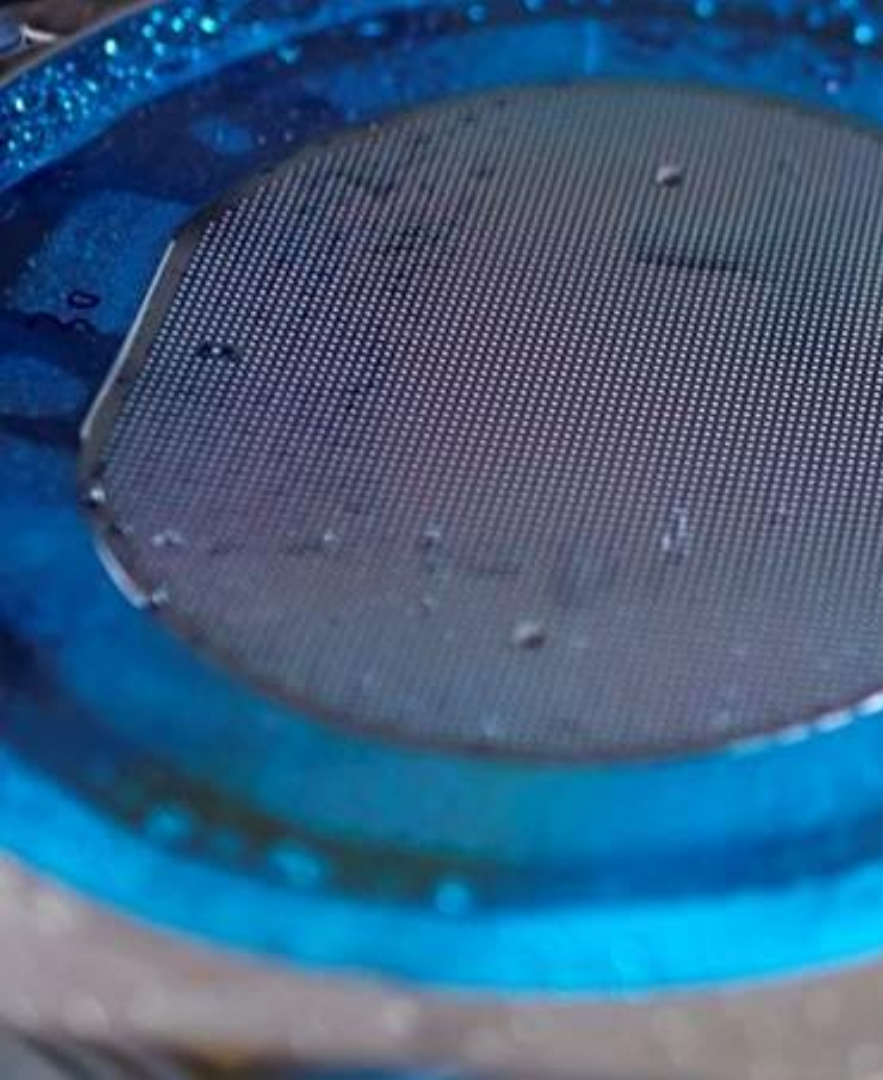


DESIGN AND IMPLEMENT NFC APPLICATIONS

SESSION 1: PRODUCT SUPPORT PACKAGE FOR NXP NFC READERS

September 2016





Agenda

Design and implement NFC applications

Session I, [7th September](#)

Product support package for NXP NFC readers

<https://attendee.gotowebinar.com/rt/2329750067403618817>

Session II, [28th September](#)

Antenna design considerations for NXP NFC reader solutions

<https://attendee.gotowebinar.com/rt/282682617345186049>

Session III, [18th October](#)

The NFC Cockpit - the complete design tool for engineers

<https://attendee.gotowebinar.com/rt/4665515186055692545>

Session IV, [31th October](#)

NFC Reader Library - SW support for NFC frontend solutions

<https://attendee.gotowebinar.com/rt/7151741873899128067>





Agenda

Design and implement NFC applications

Session I, [7th September](#)

Product support package for NXP NFC readers

- ▶ NFC products in our portfolio
- ▶ Support material to choose the right NFC solution
- ▶ **HW support:** Demokits and reference boards
- ▶ **SW support:** Software tools and source code examples
- ▶ **More design support:** Antenna design, NFC community, online academy
- ▶ Wrap up of our support package for NFC readers



NXP has the best support package on the market

We reduce complexity, streamline tasks and add flexibility
at every point in development



We know each step in the NFC implementation process

Our support package simplifies the process and reduces time to market



We have the right material for each design step

Full range of development kits, design files, sample code, app notes, online training, tutorials



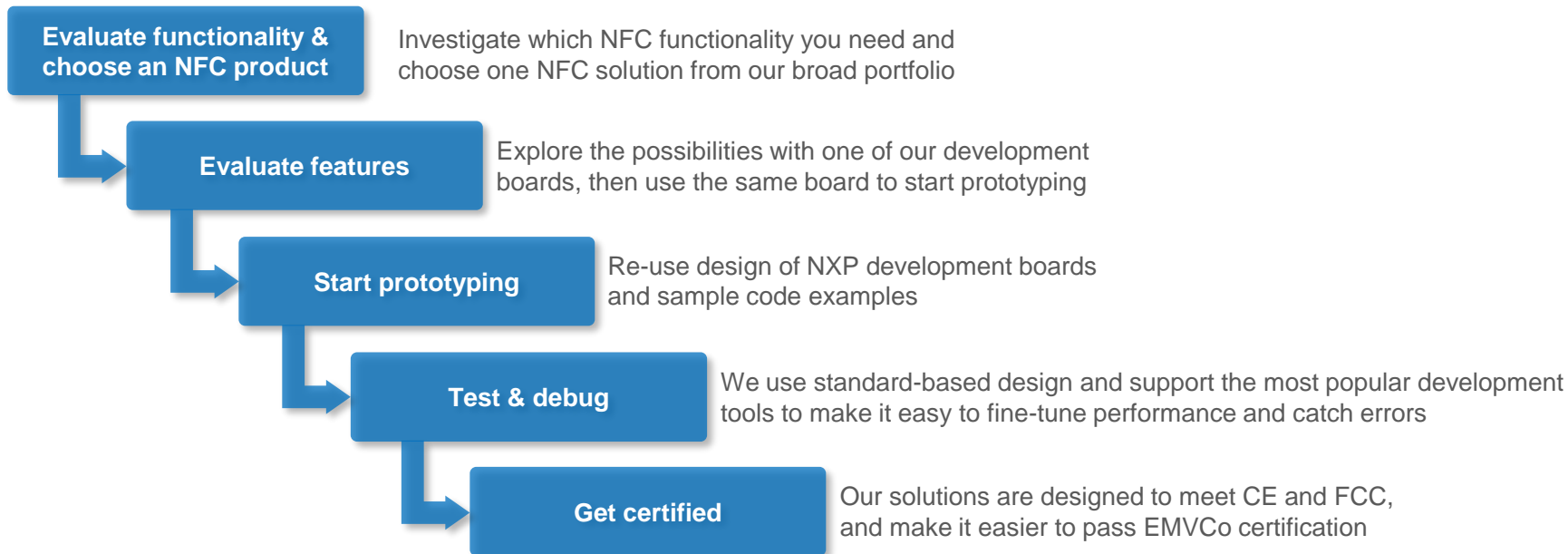
Directly find answers to your questions

Through our technical NFC community and NXP certified Independent Design Houses (IDHs)

A unique combination of PCB boards, software tools, software examples,
training material, documentation, tutorials and support community

Our support for NFC

The NXP website is your starting point for any NFC design. It's where you'll find online resources that help you **select** a product, **order samples**, and **begin development**.



CHOOSE AN NFC PRODUCT



Where to find our NFC portfolio

The screenshot shows the NXP website homepage. The 'PRODUCTS' menu is highlighted in the top navigation bar. Below it, the 'IDENTIFICATION & SECURITY' category is expanded, and the 'NFC' sub-category is highlighted with a red box. The left sidebar lists various product categories like ARM Processors, Power Architecture, and More Processors. The main content area displays a grid of product categories including Discrete & Logic, Identification & Security, Automotive Products, Development Tools, Software Center, and More Product Information.

The screenshot shows the 'NFC and Reader ICs' product page on the NXP website. The page features a central circular diagram with segments for different NFC and Reader IC solutions: Contact Smart Card Reader ICs, Connected Tag Solutions, MIFARE SAMS for Reader Systems, NFC Frontend Solutions, NFC Controller Solutions, and HITAG Reader ICs. The 'NFC and Reader ICs' category is highlighted in the left sidebar. The page also includes a search bar, navigation links, and a description of the wide range of NFC and reader ICs for physical access systems, POS terminals, PC solutions, eGovernment applications, public transport schemes, Pay TV solutions, eMetering, gaming, industrial and white goods applications.

<http://www.nxp.com/>

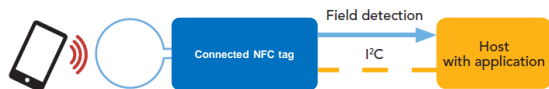
http://www.nxp.com/products/identification-and-security/nfc-and-reader-ics:MC_71110

NFC focus products addressing all your needs

Entry level NFC applications: Connected tag solutions

NTAG I²C plus

New

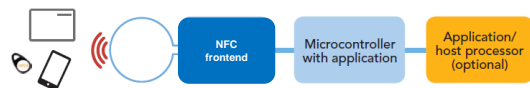


- Ideal for low power operations

Maximum flexibility: NFC frontend solutions

SLRC610, MFRC630, CLRC663, **PN5180**

New



- Integration with an external MCU

Plug-and-play: NFC controllers with integrated FW

PN7120, **PN7150**

New



- Easy integration into any OS-environment

All-in-one: NFC controllers with customizable FW

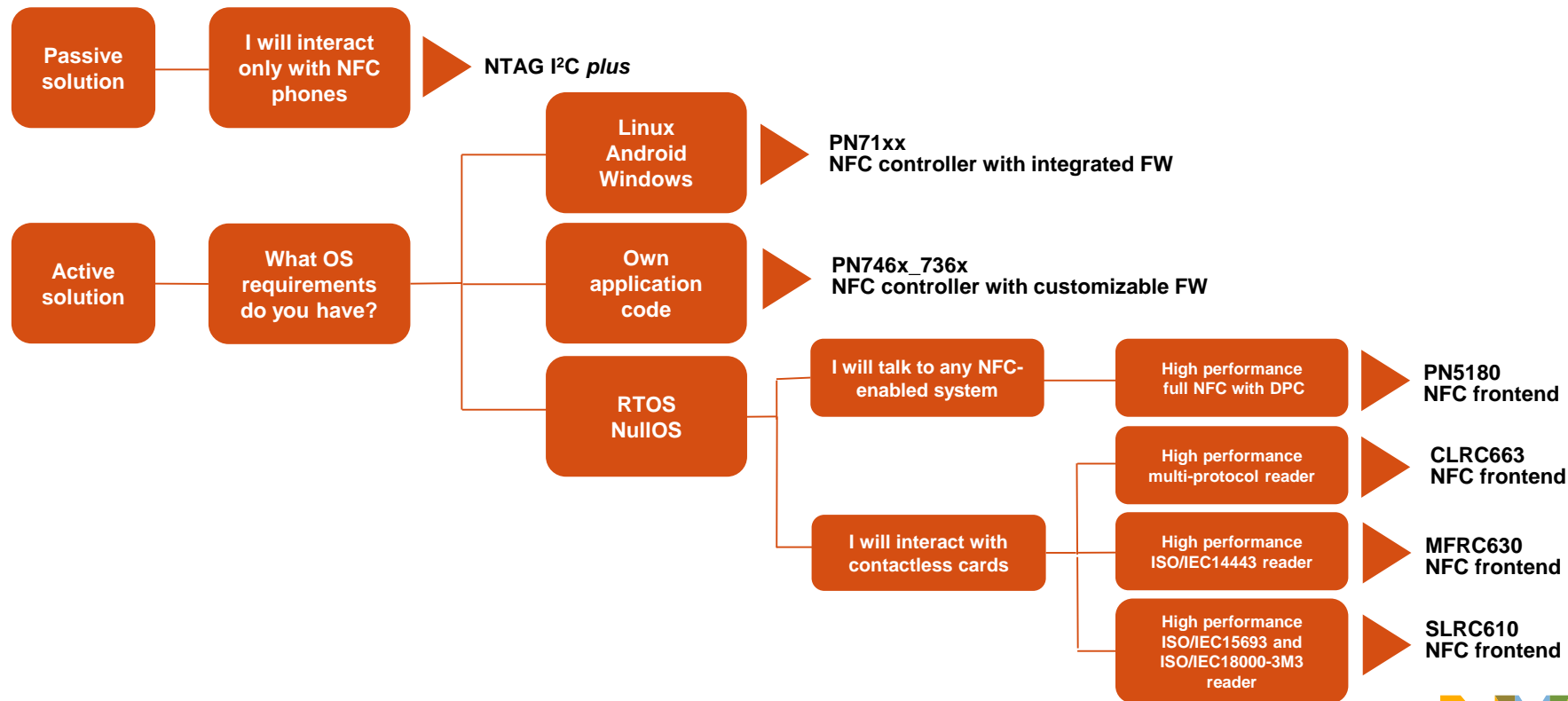
PN7462 family

New



- Contact and contactless interfaces, MCU and software in one chip

The product selection path



More support material to choose an NFC product

Plenty of technical details on our NFC solutions in our **recorded sessions!**



NXP NFC readers portfolio overview

<http://www.nxp.com/support/online-academy/nxps-nfc-product-portfolio:NFC-USE-CASES-WEBINAR-2>



NFC product selection app

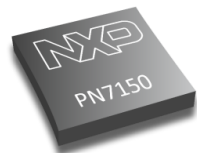
<https://play.google.com/store/apps/details?id=com.nxp.nfcproducts&hl=en>

<https://itunes.apple.com/us/app/nfc-product-selection/id991603749?mt=8>



NTAG I²C *plus* – Your entry way to NFC

<http://www.nxp.com/support/online-academy/ntag-i2c-plus-your-entryway-to-nfc:NTAG-I2C-PLUS-ENTRYWAY-TO-NFC>



PN71xx family – Plug-and-play NFC solutions

<http://www.nxp.com/support/online-academy/pn71xx-product-presentation:PN71XX-PRODUCT-PRESENTATION>



PN5180 – The best full NFC frontend on the market

<http://www.nxp.com/support/online-academy/pn5180-the-best-full-nfc-frontend-on-the-market:PN5180-NFC-FRONTEND-OVERVIEW>



PN7462 family – First all-in-one full NFC solution

<http://www.nxp.com/support/online-academy/pn7462-first-all-in-one-nfc-controller-solution:PN7462-ALL-IN-ONE-NFC-SOLUTION>

FIND THE SUPPORT PACKAGE



Where to find the support package?

The screenshot shows the NXP website's 'Products' page for 'NFC Controller Solutions'. The 'Products' tab is highlighted in the top navigation bar. On the left sidebar, the 'NFC Controller Solutions' category is selected. The main content area displays a table of products with columns for 'Products/Parts', 'Order', 'Supported standards', 'RF driver current', 'RF Output Power', 'Host Interface', and 'Contact Interface'. The product 'PN746X_736X_SERIES' is highlighted in the table. Below the table, there are links for 'Download XLS', 'Download PDF', and 'Email Link'.

Products/Parts	Order	Supported standards	RF driver current [max] (mA)	RF Output Power [max]	Host Interface	Contact Interface
7						
<input type="checkbox"/> PN5321A3HN	Buy Options	ISO/IEC 14443A; PCD and PICC modesISO/IEC ...	<input type="checkbox"/> 100.0 <input type="checkbox"/> 150.0 <input type="checkbox"/> 180.0 <input type="checkbox"/> 250.0	300mW	<input type="checkbox"/> I2C <input type="checkbox"/> NCI protocol <input type="checkbox"/> SPI <input type="checkbox"/> UART	N
<input type="checkbox"/> PN531B3HN	Buy Options	ISO/IEC 14443A; PCD and PICC modesISO/IEC ...	100	300mW	USB, UART	N
<input checked="" type="checkbox"/> PN7120		ISO/IEC 14443A; PICC and PCDSISO/IEC ...	180	450mW	I2C, NCI protocol	N
<input type="checkbox"/> PN7150B0HN		ISO/IEC 14443A; PICC and PCDSISO/IEC ...	180	700mW	I2C, NCI protocol	N
<input checked="" type="checkbox"/> PN746X_736X_SERIES		ISO/IEC 14443A; -3 and -4 PICC and PCDSISO/IEC ...	250	-	SPI, I2C, UART, USB	Y
<input type="checkbox"/> LP2E331C3HM	Buy Options	ISO/IEC 14443A; ...	100	330mW	USB, UART	N

http://www.nxp.com/products/identification-and-security/nfc-and-reader-ics/nfc-controller-solutions/MC_1429876594926?cof=0&am=0&tab=Products

The screenshot shows the NXP website's 'Software & Tools' page for the 'PN746X_736X_SERIES: NFC Cortex-M0 microcontroller'. The 'Software & Tools' tab is highlighted in the top navigation bar. The page displays a list of software and tools, including 'NFC Controller development kit', 'NFC Reader Library', 'PN7462AU FW and SW Examples Full Version', and 'NFC Cockpit tool'. Each item has a download button and a brief description.

Evaluation/Development Boards and Systems (1)

- NFC Controller development kit. OM27462CDK is a complete kit enabling easy and fast development of applications. It contains a PN7462 NFC controller...

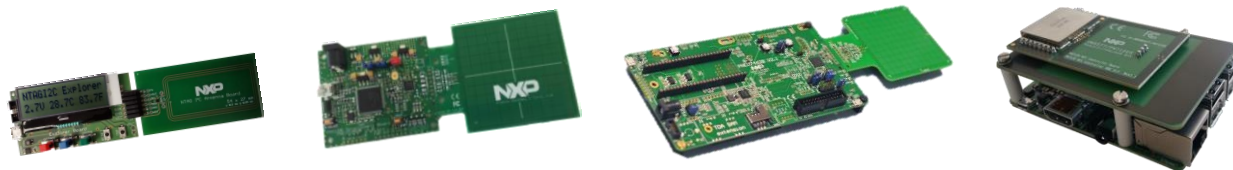
Software (3)

- NFC Reader Library - Software support for NFC Frontend solutions. Feature complete software support library for NFC Frontend ICs. Designed to give developers a faster and simpler way to deliver NFC-enabled products....
- PN7462AU FW and SW Examples Full Version - v04_01_01 (REV 1.2) [Download](#)
ZIP (29.1 MB) SW3683 7/7/2016
- NFC Cockpit tool (REV 1.0) [Download](#)
ZIP (5.6 MB) SW3707 4/7/2016

http://www.nxp.com/products/identification-and-security/nfc-and-reader-ics/nfc-controller-solutions/nfc-cortex-m0-microcontroller:PN746X_736X_SERIES?&fpp=1&tab=Design_Tools_Tab

Our demokits are comprehensive packages with extensive support material

Hardware PCBs



Reference source code and tools



IC samples



Documentation

Application notes, User Manuals,
Quick start guides



SUPPORT PACKAGE FOR: CONNECTED TAGS PORTFOLIO



OM5569: NTAG I²C *plus* Explorer kit and variants

OM5569-NT322E



Contents

- NFC Explorer board with Class 4 antenna
- Field detector board
- Additional NFC flex antenna (Class 6)
- NTAG I²C *plus* package SO8 samples

Features

- Explorer kit to evaluate NTAG I²C *plus* and simple prototyping

Ordering details

- Orderable part number: **OM5569-NT322E**
- 12NC: 935307849699
- URL: <http://www.nxp.com/demoboard/OM5569-NT322E.html>

OM5569-NT322ER



Contents

- NFC Explorer board with Class 4 antenna
- Identive CLOUD 3700F reader
- Field detector board
- Additional NFC flex antenna (Class 6)
- NTAG I²C *plus* package SO8 samples

Features

- Explorer kit to including USB NFC reader to evaluate NTAG I²C *plus* and simple prototyping including

Ordering details

- Orderable part number: **OM5569-NT322ER**
- 12NC: 935307848699
- URL: <http://www.nxp.com/demoboard/OM5569-NT322ER.html>

OM5569-NT322F



Contents

- Class 4 flex antenna
- Class 5 flex antenna
- Class 6 flex antenna
- 10 NTAG I²C *plus* SO8 samples

Features

- Add-on Flex antenna kit to be used with NFC Explorer board or your own microcontroller for easy prototyping with NTAG I²C *plus*

Ordering details

- Orderable part number: **OM5569-NT322F**
- 12NC: 935307851699
- URL: <http://www.nxp.com/demoboard/OM5569-NT322F.html>

NTAG I²C *plus* support tools and SW

NTAG I²C *plus* support tools and SW allow you to evaluate the IC capabilities, but also develop and test your own applications

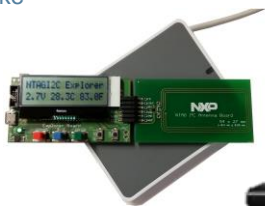
Mobile applications

- Explorer kit Android application



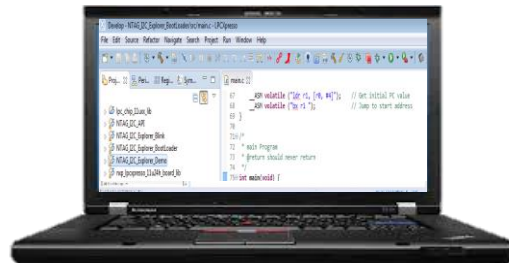
Desktop applications

- Explorer kit Windows application
- Peek and Poke



LPCXpresso & firmware

- NTAG I²C Explorer board firmware
 - NTAG I²C Explorer bootloader
 - NTAG I²C Explorer demo
 - NTAG I²C Explorer blink



SUPPORT PACKAGE FOR:

NFC FRONTENDS

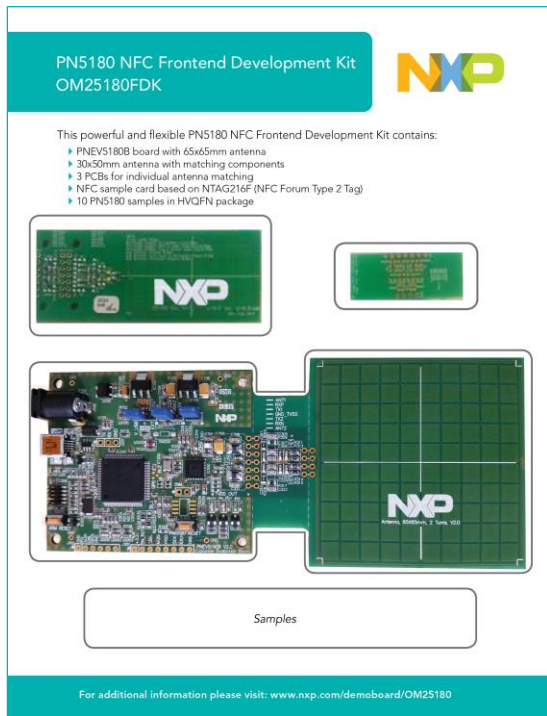
&

NFC CONTROLLERS WITH

CUSTOMIZABLE FW



OM25180FDK: PN5180 NFC frontend development kit



Contents

- PNEV5180B board with 65x65mm antenna optimized for EMVCo applications
- 30 mm x 50 mm antenna with matching components optimized for NFC applications
- Three small antenna matching PCBs for custom antenna matching
- NFC sample card (NTAG216)
- 10 PN5180 IC samples (HVQFN package)

Features

- Quick evaluation of PN5180 NFC frontend IC.
- Connect a custom antenna to PNEV5180 board
- Define and optimize the analog settings for any connected antenna
- Develop NFC applications based on the NFC Reader Library

Ordering details

- Orderable part number: OM25180FDK
- 12NC: 935307319699
- URL: <http://www.nxp.com/demoboard/om25180fdk.html>

CLEV663B: CLRC663 family development board

Features

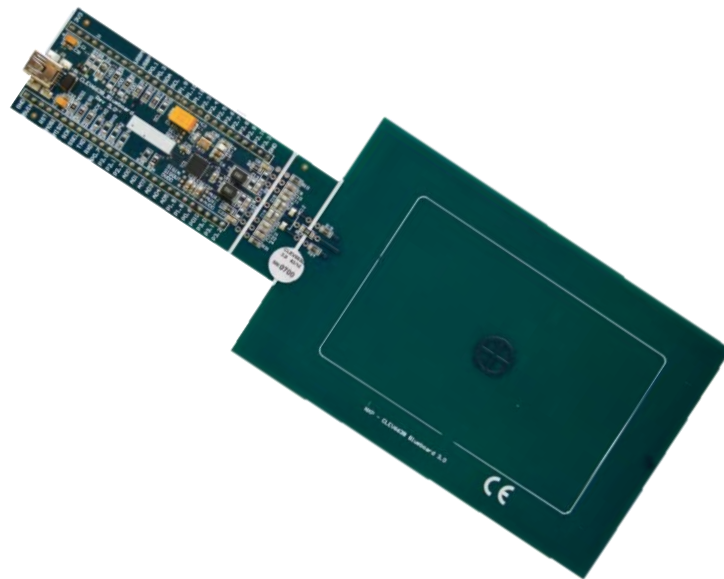
- CLEV663B is an NFC frontend development board which can be used for embedded software development based on LPCXpresso
- Power supply by USB cable.
- Antenna can be separated from the reader IC section.
- Software development kit based on NFC Reader Library.
- Including examples such as: polling loop, MIFARE Ultralight, MIFARE Classic, MIFARE DESFire EV1.

Ordering details

- Orderable part number: CLEV663B
- 12NC: 935297815699
- URL: <http://www.nxp.com/demoboard/CLEV663B.html>

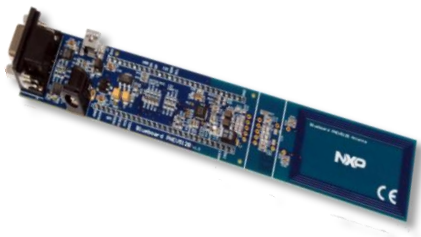
Supported ICs

- Development board for CLRC663, MFRC630 and SLRC610



PNEV512B and EXPLORE-NFC boards

PNEV512B board



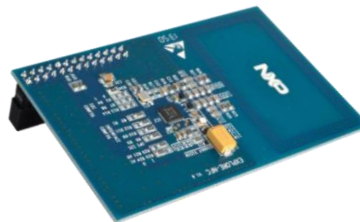
Features

- PNEV512Bis an NFC frontend development board which can be used for embedded software development based on LPCXpresso
- Power supply by USB cable.
- Antenna can be separated from the reader IC section.
- Software development kit based on NFC Reader Library.

Ordering details

- Orderable part number: PNEV512B
- 12NC: 935298199699
- URL: <http://www.nxp.com/demoboard/pnev512b.html>

EXPLORE - NFC



Features

- EXPLORE-NFC is a high performance full NFC expansion board for the Raspberry Pi
- Based on PN512 NFC frontend reader IC
- Integrated high performance antenna
- Examples available for card polling, P2P communication and card emulation

Ordering details

- Orderable part number: PNEV512R
- 12NC: 935303828699
- URL: <http://www.nxp.com/demoboard/PNEV512R.html>

OM27462CDK: PN7462 NFC controller development kit



Contents

- PNEV7462B NFC controller board with standard 65x65mm antenna
- 30x50mm antenna with matching components
- Three PCBs for individual antenna matching
- Two USB cables
- OM13054 LPC-Link2 debug adapter
- 10 PN7462 IC samples
- NFC sample cards and tags

Features

- Easy antenna design with NFC Cockpit software and PCB adaptors for antenna matching
- Easy application development with full NFC Forum and EMVCo compliant contact and contactless libraries
- Smartcard reader and SAM slot extensions

Ordering details

- Orderable part number: OM27462CDK
- 12NC: 935307673699
- URL: <http://www.nxp.com/demoboard/om27462CDK.html>

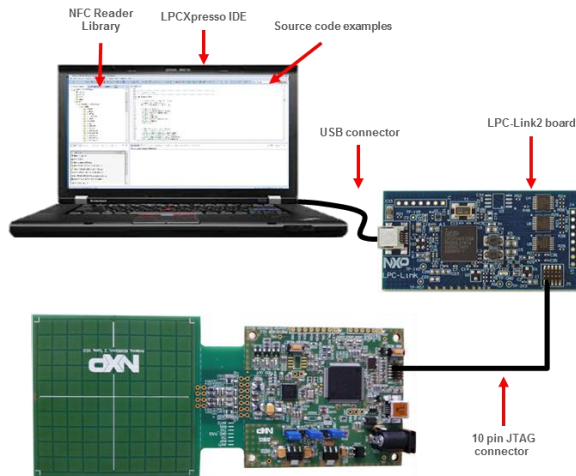
NFC Reader Library: software support for NFC frontend solutions

NFC Reader Library

- The NFC Reader Library is a multi-layer library, written in ANSI C which makes it easy to create NFC-based applications.
- Each layer consists of different components having a generic interface and a specific implementation
- The library structure provides a modular way of programming and is designed in a way to be easily portable to many different microcontrollers.



More info and source code: <http://www.nxp.com/pages:/NFC-READER-LIBRARY>



NFC Reader Library software packages

- PN512
- CLR663
- PN5180
- Linux
- PN7462

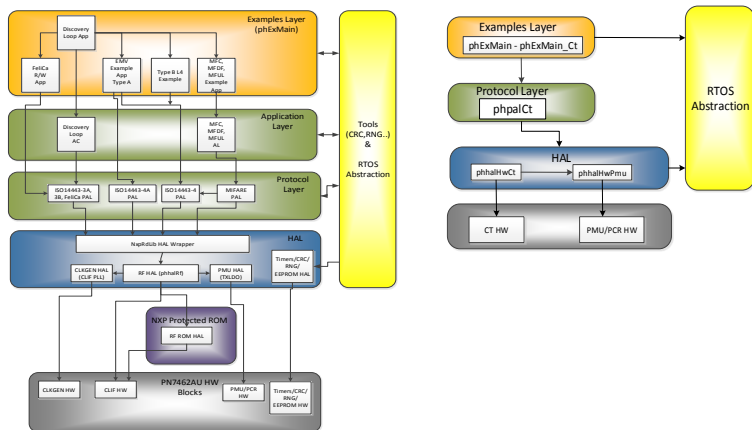
Webinar session
31/10/2016

PN7462 family dedicated firmware and software examples

Based on the NFC Reader Library and NXP Contact Library

PN7462 FW and SW examples

- PN7462 is supported by contact and contactless (based on NFC Reader Library) software libraries that are validated and pre-certified for EMVCo and also comply with NFC Forum guidelines
- Written in C language and provide an API that facilitates all the operations and commands required in contact and contactless applications
- Multiple source code examples for the most popular use cases, including payment and access are available.



PN7462AU FW and examples Library

LPCXpresso IDE

USB connector



LPC-Link2 board

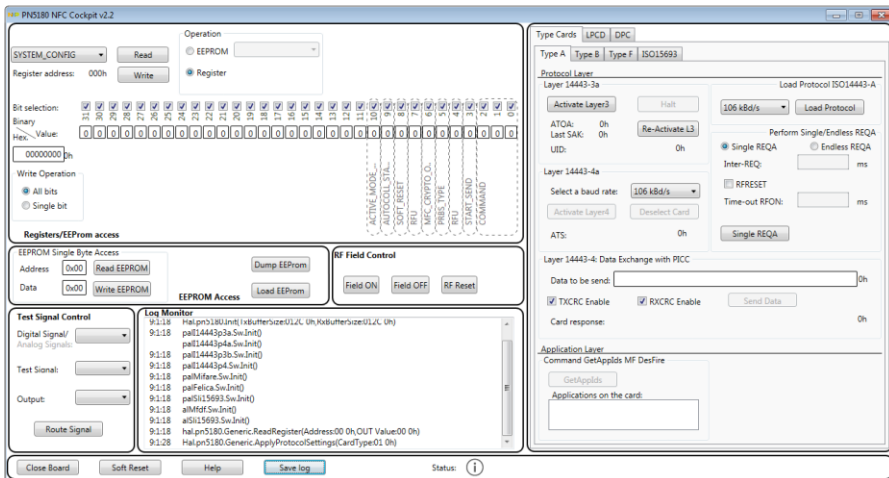


10 pin JTAG connector

NFC Cockpit - the complete design tool for engineers

NFC Cockpit

- It is a PC-based GUI that can be used to explore the IC functionality and perform RF and antenna design related tests.
- It can be used to optimize antenna tuning to perform the DPC calibration and the related Tx and Rx optimization without touching any source code.
- It allows direct register and EEPROM modification and fine tuning



Supported NFC solutions

- PN5180 NFC frontend**, delivering full NFC Forum compliance and high performance
- PN7462 NFC controller family**, state of the art RF interface

Webinar session

18/10/2016

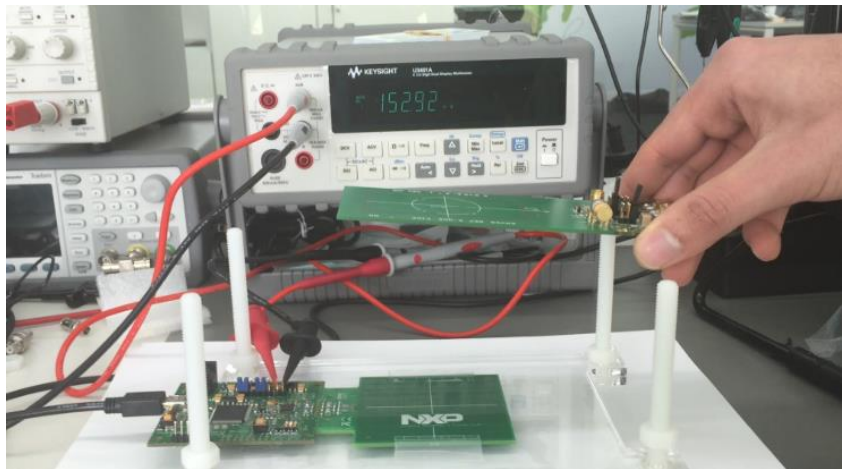


Fig1. DPC feature in action after calibration with the NFC Cockpit tool

SUPPORT PACKAGE FOR NFC CONTROLLERS WITH EMBEDDED FIRMWARE



OM5578: Development kits for PN7150 plug-and-play NFC controller

PN7150 demokits cover integration with **Raspberry Pi**, **BeagleBone Black** and any board with **Arduino-compliant** header (including LPCXpresso, Kinetis and i.MX boards)



Flexible and easy-to-use SBC Kit with BeagleBone Black interface board



Contents

- PN7150 NFC controller board
- Arduino interface board
- NFC Forum Type 2 Tag

Ordering details

- Orderable part number: OM5578/PN7150ARD
- 12NC: 935309078699
- URL: <http://www.nxp.com/demoboard/OM5578.html>



PN7150 NFC CONTROLLER SBC KIT FOR ARDUINO®

Flexible and easy-to-use SBC Kit with Arduino interface for many LPCXpresso, Kinetis and i.MX boards



Contents

- PN7150 NFC controller board
- BeagleBone Black interface board
- NFC Forum Type 2 Tag

Ordering details

- Orderable part number: OM5578/PN7150BBB
- 12NC: 935309077699
- URL: <http://www.nxp.com/demoboard/OM5578.html>



PN7150 NFC CONTROLLER SBC KIT FOR RASPBERRY PI®

Flexible and easy-to-use SBC Kit with Raspberry Pi interface board



Contents

- PN7150 NFC controller board
- Raspberry Pi interface board
- NFC Forum Type 2 Tag

Ordering details

- Orderable part number: OM5578/PN7150RPI
- 12NC: 935309076699
- URL: <http://www.nxp.com/demoboard/OM5578.html>

OM5577: Development kits for PN7120 plug-and-play NFC controller

PN7120 demokits cover integration with Raspberry Pi, BeagleBone Black and any board with Arduino-compliant header (including LPCXpresso, Kinetis and i.MX boards)



Contents

- PN7120 NFC controller board
- RaspberryPi interface board
- BeagleBone Black interface board
- NFC Forum Type 2 Tag

Ordering details

- Orderable part number: OM5577/PN7120S
- 12NC: 935306352699
- URL: <http://www.nxp.com/demoboard/OM5577.html>



Contents













- PN7120 NFC controller board
- Arduino interface board
- NFC Forum Type 2 Tag

Ordering details

- Orderable part number: OM5577/PN7120ARD
- 12NC: 935308904699
- URL: <http://www.nxp.com/demoboard/OM5577.html>











PN7150 Software images & examples vs hardware compatibility

Development kits for PN7150 (OM5578)

Development kit	Hardware platforms supported	Software images and software examples available
<div data-bbox="79 282 198 475"><p>PN7150 NFC CONTROLLER SBC KIT FOR ARDUINO®</p><p>Flexible and easy-to-use SBC Kit with Arduino interface for every Arduino, Uno and MEGA boards</p></div> <div data-bbox="249 288 492 478"><p>OM5578/PN7150ARD PN7150 SBC Kit for Arduino</p></div>	<p>Any development board with an Arduino compliant header (e.g. LPCXpresso, Kinetis & Freedom boards, i.MX boards)</p> <div data-bbox="620 380 1108 494"></div>	<p>Linux SW image (for UDOO NEO board): OM5578 PN7150 ARD UDOO Linux demo image Android SW image (for UDOO NEO board): OM5578 UDOO Neo Android Lollipop demo image LPCXpresso SW example (LPC824, LPC1114, LPC1114U37H, LPC1227 board) NXP-NCI LPCXpresso example Kinetis SW example (for FRDM-K64F board): NXP-NCI Kinetis Design Studio example</p>
<div data-bbox="79 541 198 718"><p>PN7150 NFC CONTROLLER SBC KIT FOR RASPBERRY PI</p><p>Flexible and easy-to-use SBC Kit with Raspberry Pi interface board</p></div> <div data-bbox="239 546 471 710"><p>OM5578/PN7150RPI PN7150 SBC Kit for Raspberry</p></div>	<div data-bbox="627 565 813 674"></div> <p>Raspberry Pi</p>	<p>Linux SW image: OM5578 PN7150 RPI Linux demo image WinIoT SW image: OM5578x PN7150 RPI2 WinIoT</p>
<div data-bbox="79 768 198 938"><p>PN7150 NFC CONTROLLER SBC KIT FOR BEAGLEBONE BLACK</p><p>Flexible and easy-to-use SBC Kit with BeagleBone Black interface board</p></div> <div data-bbox="239 772 481 947"><p>OM5578/PN7150BBB PN7150 SBC Kit for BeagleBone Black</p></div>	<div data-bbox="633 776 797 880"></div> <p>BeagleBone Black</p>	<p>Linux SW image : OM5578 PN7150 BBB Linux demo image Android SW image : OM5578 PN7150 BBB KitKat demo image</p>

PN7120 Software images & examples vs hardware compatibility

Development kits for PN7120 (OM5577)

Development kit	Hardware platforms supported	Software images and software examples available
 <p>OM5577/PN7120S PN7120 SBC Kit for Raspberry Pi and BeagleBone Black</p>  	 <p>BeagleBone Black</p>	Linux SW image: OM5577 BeagleBone Linux demo image Android SW image: OM5577 BeagleBone Android KitKat demo image
	 <p>Raspberry Pi</p>	Linux SW image: OM5577 Raspberry Pi Linux demo image WinIoT SW image: OM557x PN71x0 RPI2 WinIoT
 <p>OM5577/PN7120ARD PN7120 SBC Kit for Arduino</p> 	Any development board with an Arduino compliant header (e.g. LPCXpresso, Kinetis & Freedom boards, i.MX boards)   	Linux SW image (for UDOO NEO board): OM5577 PN7120 ARD UDOO Linux Android SW image (for UDOO NEO board): OM5577 UDOO Neo Android Lollipop demo image LPCXpresso SW example (LPC824, LPC11U37H LPC1227): NXP-NCI LPCXpresso example Kinetis SW example (for FRDM-K64F board): NXP-NCI Kinetis Design Studio example

MORE SUPPORT



More support material to get started with NFC demokits

Plenty of details on how to get started with our demokits
and SW tools in our recorded sessions!



NTAG I2C *plus* – product support package
<http://www.nxp.com/support/online-academy/ntag-i2c-plus-product-support-package:NTAG-I2C-PLUS-PRODUCT-SUP-PCKG>



PN5180 – product support package
<http://www.nxp.com/support/online-academy/pn5180-product-support-package:PN5180-PRODUCT-SUPPORT-PACKAGE>



PN71xx – product support package
<http://www.nxp.com/support/online-academy/pn71xx-product-support-package:PN71XX-PRODUCT-SUPPORT>

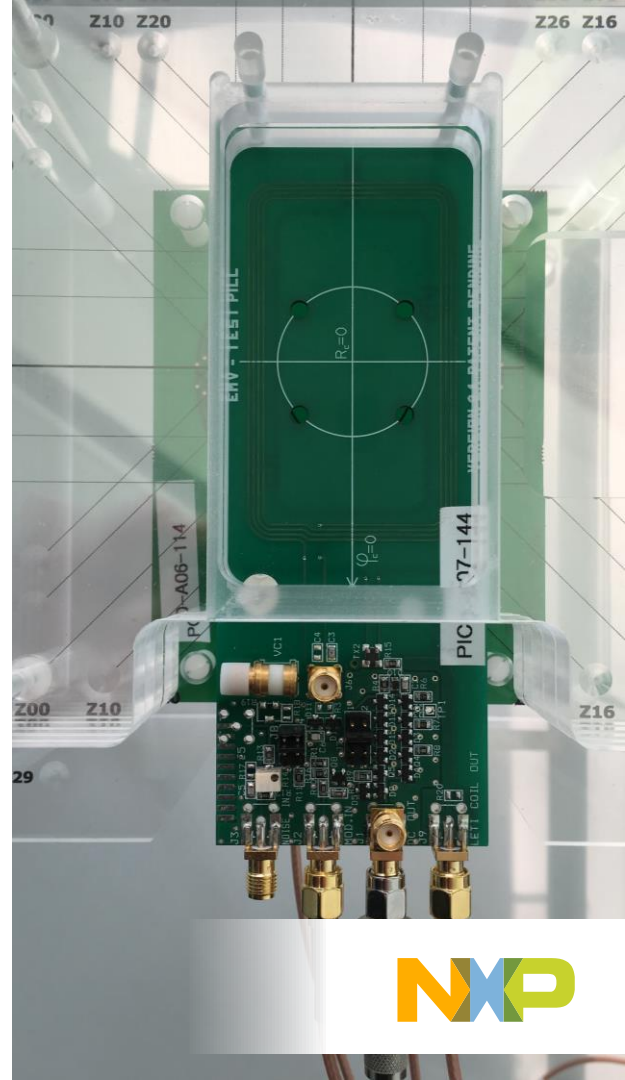


PN7462 – product support package
<http://www.nxp.com/support/online-academy/pn7462-product-support-package:PN7462-PRODUCT-SUPPORT-PACKAGE>

NFC antenna design support

- [AN11276](#) NTAG antenna design guide
- [AN14445](#) Antenna design guide for MFRC52x, PN51x, PN53x
- [AN11019](#) CLRC663, MFRC630, MFRC631, SLRC610 antenna design guide
- [AN11740](#) PN5180 antenna design guide
- [AN11564](#) PN7120 antenna design and matching guide
- [AN11755](#) PN7150 antenna design and matching guide
- [AN11706](#) PN7462AU antenna design guide
- [AN11741](#) How to design an antenna with DPC
- [AN11535](#) Measurement and tuning of a NFC and reader IC antenna with a miniVNA

Webinar session
28/09/2016



Use our technical community for your questions

Become a registered member and get expert advice from the developer community

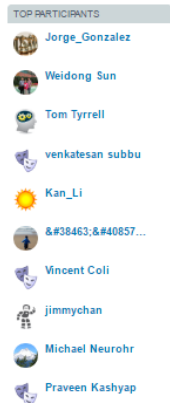
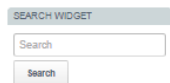
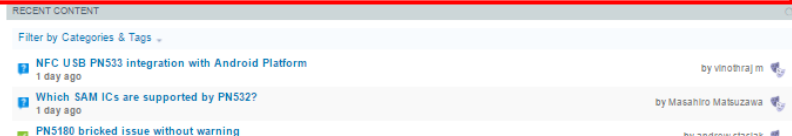
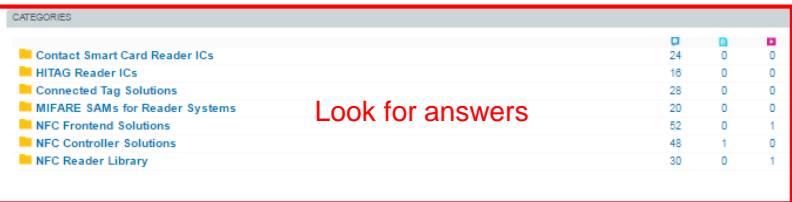
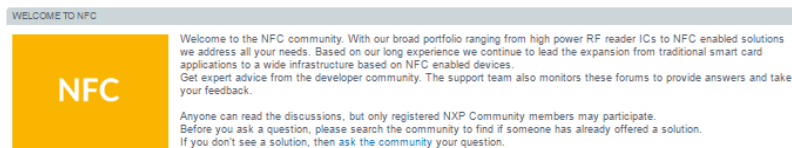
<https://community.nxp.com/community/nfc>

How to get there

- NFC and Reader ICs → NFC Technology hub → NFC support → NFC community
- URL: <https://community.nxp.com/community/nfc>



Log in [Log in to follow, share and participate in this community.](#)



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Hundreds of hours of webinars and presentations on NXP products, applications, software, and tools.

Find recorded sessions, among others, for:

- NFC essentials
- NFC use cases
- NFC standards
- NFC reader antenna design (6 sessions)
- NFC reader portfolio
- NFC in smart home, gaming, payments,
- ...

How to get there

- NFC and Reader ICs → NFC Technology hub → NFC support → NFC webinars
- URL: <http://www.nxp.com/support/online-academy/nfc-webinars:NFC-WEBINARS>



NFC Webinars

Date	Title	Overview
20 Jul 2016	Connected NFC Tags - Overview Enhancing everyday products with NFC - Welcome to the Internet of Things NFC Antenna Design 1: Which Antenna for what purpose? NFC Antenna Design 2: Antenna Matching NFC Antenna Design 3: Metal environment NFC Antenna Design 4: Optimization & Debugging NFC Antenna Design 5: Test & Qualification NFC Antenna Design 6: EMC related Design NFC application: Access control NFC application: Consumer Electronics NFC Essentials	and easy-to-use Single controllers respectively. PN71x0 in a Linux, based on RTOS or contain a PN71x0 table with: aturing Arduino and i.MX boards
11 Jul 2016	NFC in Linux - Get started with the PN7120S controller board NFC reader design I - How to build your own reader NFC reader design II - Antenna design considerations NFC Standards NFC use cases NTAG I2C plus - Product support package NTAG I2C plus - Your entryway to NFC	1x0 he ideal plug'n play environment, reducing family offers SW as well as HW with Arduino- ing personalization, as integration of NFC
17 Jun 2016	NXP's NFC product portfolio	When you eventually decide to integrate NFC technology, there are three options to choose: NFC frontends, the most flexible way to add NFC to an application, working seamlessly with our NFC Reader Library. NFC controllers, which combine the NFC frontend with a microcontroller, with integrated firmware enabling plug'n play integration of NFC functionality into any system. And NFC connected tag ICs, the fastest, most BoM-optimized way to add tap-and-go connectivity to just about any electronic device. We have released new products in all categories, fostering a new era in the evolution of NFC to bring intuitive proximity technology everywhere. This webinar will guide you through NXP's NFC product portfolio, helping you to select the best product for your design while highlighting product key features, benefits and support packages.
10 Jun 2016	NFC use cases	Near Field Communication, the tap-and-go technology co-invented by NXP, has shifted into high gear. This simple, intuitive technology, which lets you initiate interactions with a simple touch, is now in millions of smartphones, tablets, and other consumer electronics, with new devices arriving almost daily. Why is NFC such a hot topic? Because it's fast, intuitive, and easy to use. It helps you to interact with both the people and things around you in ways you can't imagine until you start using the technology.
20 Apr 2016	PN7462 - Product support package	The OM27462CDK is a complete development kit enabling easy antenna design with the NFC Codekit software and fast application development with the full NFC Forum compliant and contact software libraries. The OM27462CDK development kit contains a PN7462 NFC controller board (PNEV7462B) with a smartcard reader and SAM slot extension, two different



Find the right partner



Partner List

PRODUCTS APPLICATIONS SUPPORT ABOUT					
NXP > NXP Partner Program > Partner List					
Partner List					
Our partners are listed in an alphabetical order below. Click on the company name to view a description of the company, their contact information, and a link to their website.					
Show 10 entries		Search: NFC			
Company name	Type	Region	Country	Application areas	Product focus
Beijing Bering Tech Co. Ltd.	IDH	Greater China	China	Smart appliances NFC and reader IC's	MCU, Logic, GA, Interface, NFC
Bristlestone Limited	IDH	Greater China	China	NFC and reader IC's	NFC, MCU, Thyristors and Sensor
Engisam	IDH	EMEA	Italy	Smart appliances NFC and reader IC's	MCU, RFID, IPCamera
GOLD FULL ELECTRONICS (H.K.) CO., LIMITED	IDH				Logic, NFC tag module, GA
Golden IC Technology CO. LTD	IDH	Greater China	Taiwan	Smart appliances NFC and reader IC's	LPC8xx, LPC11xx, LPC1768, LPC4088, LPC4350, NFC, Logic IC
IHST	IDH	EMEA	Germany	NFC and reader IC's	NFC
ipTronix	IDH	EMEA	Italy	NFC and reader IC's	NFC
Kronegger GmbH	IDH	EMEA	Austria	NFC and reader IC's	NFC, RFID
MobileKnowledge	IDH	EMEA	Spain	NFC and reader IC's	NFC
New RFID Concept	IDH	EMEA	France	NFC and reader IC's	NFC

NXP > Support > NXP Partner Program > Partner List

[Partner list](#) (and search for NFC)

How to get there

- NFC and Reader IC's → NFC Technology hub → NFC support → NFC IDH partners
- URL: <http://www.nxp.com/pages/partner-list:PARTNER-LIST>



More information about NFC

Visit **NFC knowledge base** to get familiar with NFC technology ...

The screenshot shows the NXP website's navigation menu on the left, with 'PRODUCTS' selected. Under 'PRODUCTS', 'Identification and Security' is highlighted, and 'NFC Knowledge Base' is listed. The main content area is titled 'NFC Knowledge Base' and contains a search bar, a list of articles, and a sidebar with 'Microcontrollers and Processors' and 'Discrete and Logic' categories. The article list includes 'NFC Knowledge Base', 'NFC Operating Modes', 'Read/Write Mode', 'Peer-to-Peer Mode', 'Passive Communication Scheme', and 'Active Communication Scheme'.

How to get there

- NFC and Reader ICs → NFC Technology hub → NFC knowledge Base
- URL: <http://www.nxp.com/products/identification-and-security/nfc-and-reader-ics/nfc-technology-hub/nfc-knowledge-base:NFC-KNOWLEDGE-BASE>

Visit our **blog** for more news about NFC...

The screenshot shows the NXP blog page with a search bar and a list of articles. The articles are arranged in a grid and include titles like 'The IoT at home: NFC makes it easier to create smart environments', '5 reasons why your living room wants NFC', 'Meet an NFC innovator: Traces', 'NFC pairing: More time to relax, entertain, and connect at home', and 'Meet an NFC innovator: OriginTag'. Each article has a 'READ ON' button.





How to get there

- About NXP → Blogs
- URL: <http://blog.nxp.com/?s=nfc>

OUR SUPPORT PACKAGE IN A NUTSHELL



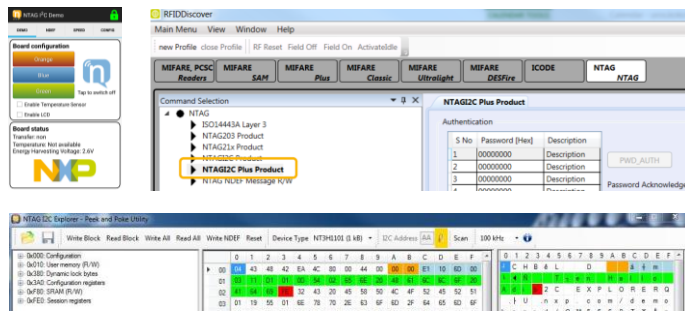
Reference boards and demokits

	Connected tags	NFC frontends					NFC Controller		
		PN512	SLRC610	MFRC630	CLRC663	PN5180	PN7120	PN7150	PN7462
Development boards 		PNEV512B	CLEV633B	CLEV633B	CLEV633B	OM25180FDK			OM27462CDK
Single board Computer 							OM5577/ PN7120S OM5577/ PN7120ARD	OM5578/ PN7150ARD OM5578/ PN7150BBB OM5578/ PN7150RPI	
Connected tag EXPLORER kits 	OM5569/ NT322E OM5569/ NT322ER OM5569/ NT322EF								
Explore NFC 		PNEV512R							

Support for connected tags

PC tools

- Windows application for NTAG I2C plus Explorer board
- Peek and Poke
- RFID discover



Development kit

- NTAG I2C plus Explorer Kit



Android applications

- NTAG I2C demo app
- TagInfo
- TagWriter



Source code examples

- NTAG I2C Explorer board C firmware
- NTAG I2C demo app Android app source
- NTAG I2C PC app source code



Documentation

- Application notes
- User Manuals
- Getting started guides



Development environment

- LPCXpresso IDE for LPC MCUs
- MIFARE SDK



Support for NFC controllers with integrated FW

Single board computer kits

- SingleBoard Computer (SBC) kits with interface boards for Arduino, Raspberry Pi and BeagleBone Black



Compatibility with development boards

- Integration with any boards featuring Arduino-compatible header, including many LPC, Kinetis and i.MxX boards



SW images and SW examples

- For Windows 10 IoT, Android, Linux, RTOS, NulIOS together with illustrative NFC SW examples



Documentation

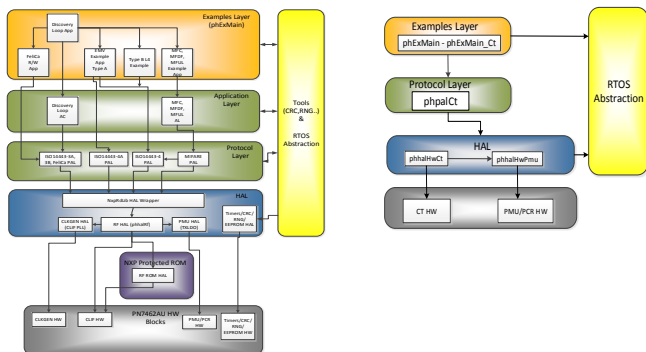
- Application notes
- User Manuals
- Getting started guides



Support for NFC controllers with customizable FW

Fully customizable firmware

- Based on the NFC Reader Library and NXP Contact Library



Development kits

- OM27462CDK NFC Controller development kit enabling easy and fast development of applications



Source code examples

- SW examples based on contact and contactless SW libraries demonstrating NFC controller capabilities



Development environment

- LPCXpresso IDE
- Keil and IAR tool chain



Documentation

- Application notes
- User Manuals
- Getting started guides



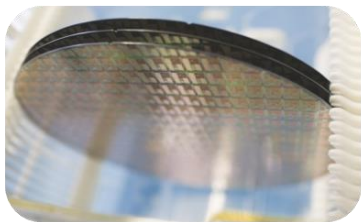
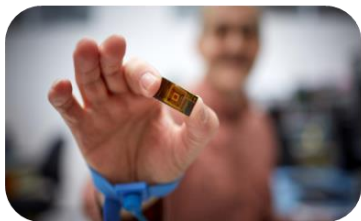
NFC Cockpit

- A PC tool that ease design process, antenna tuning and register configuration



NXP is the right choice for your design

We have the technology



We are NFC



We share our know-how



We enable easy design-in





Next sessions

Design and implement NFC applications

Session I, [7th September](#)

Product support package for NXP NFC readers

<https://attendee.gotowebinar.com/rt/2329750067403618817>

Session II, [28th September](#)

Antenna design considerations for NXP NFC reader solutions

<https://attendee.gotowebinar.com/rt/282682617345186049>

Session III, [18th October](#)

The NFC Cockpit - the complete design tool for engineers

<https://attendee.gotowebinar.com/rt/4665515186055692545>

Session IV, [31th October](#)

NFC Reader Library - SW support for NFC frontend solutions

<https://attendee.gotowebinar.com/rt/7151741873899128067>



Software development in Android and iOS

Embedded software for MCUs

JCOP, Java Card operating Systems

Hardware design and development

Digital, analog, sensor acquisition, power management

Wireless communications WiFi, ZigBee, Bluetooth, BLE

Contactless antenna RF design, evaluation and testing

MIFARE applications

End-to-end systems, readers and card-related designs

EMVco applications

Readers, cards, design for test compliancy (including PCI)

Secure Element management

GlobalPlatform compliant backend solutions

Secure services provisioning OTA, TSM services



We help companies leverage the
mobile and contactless revolution



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(Spain)

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mk@themobileknowledge.com



Design and implement NFC applications

Session 1: Product support package for NXP NFC readers

Jordi Jofre (Speaker)

Angela Gemio (Host)

Thank you for your kind attention!

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www.themobileknowledge.com/content/knowledge-catalog-0

