

AN 104010

UCEV10x - Quick Introduction Sheet

Rev. 1.0 — 28 June 2007

Application note

Document information

Info	Content
Keywords	UCEV101, UCEV102, UCEV103, UHF, UCODE, smart label IC, long range, demo kit, quick introduction guide
Abstract	This document describes the content, features, system requirements and usage conditions of the UCEV10x UHF long range demo kit for NXP UCODE smart label IC's.

Revision history

Rev	Date	Description
1.0	20070628	Initial Version

Contact information

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1. General Information

This document describes the UCEV10x UHF long range demo kit for NXP UCODE smart label IC's.. The demo kit is based on a UHF long range reader and several NXP UCODE smart labels.

The includes documentation, demo software and reference labels allows the user to evaluate NXP broad range of contact less smart label and tag IC's based on ISO 18000 & EPC Global Class Gen 2. The demo kit can be used for various purposes, such as to perform system demonstration, to evaluate the technology and performance and/or to develop own applications.

This quick introduction sheet gives an overview about the added documents, the content of the CDROM and the system requirements.

2. Content

The UCEV10x UHF long range demo kit includes following items (see Fig 1):

- UHF long range reader LRU 2000
- Power Supply
- Circular polarized antenna
- Antenna cable 2 m
- Set of UHF labels:
 - 10 UCODE HSL,
 - 10 UCODE EPC 1.19,
 - 10 UCODE EPC G2
- Set of data sheets
- Serial cable
- CD



Fig 1. Content of UCEV10x demo kit

2.1 Printed Documents

<u>Printed Document</u>	<u>Description</u>
UCEV10x – Getting Started Guide	This document describes the necessary steps to install and configure the UCEV10x UHF long range demo kit hardware and software to evaluate NXP UCODE smart label IC's.
UCEV10x – Quick Introduction Sheet	This document describes the content, features, system requirements and usage conditions of the UCEV10x UHF long range demo kit for NXP UCODE smart label IC's.

2.2 Content CD

<u>Path and File Name</u>	<u>Description</u>
\	
UM_UCEV10x - Getting Started Guide.pdf	See Chapter 2.1 Printed Documents
AN_UCEV10x - Quick Introduction Sheet.pdf	See Chapter 2.1 Printed Documents
EULA.pdf	End User License Agreement
\Documents	
UM - RFIDDemo.pdf	This document describes the demo program <i>RFIDDemo</i> .
M40900-3de-ID-B.pdf	Mounting instructions UHF long range antenna
M60801-0de-ID-B.pdf	Mounting instruction UHF long range reader
H60701-1e-ID-B.pdf	UHF reader system manual
\Datasheets	
DS_SL3ICS31 01 – UCODE EPC 1.19.pdf	Product data sheet UCODE EPC 1.19 – Functional Specification
DS_SL3ICS30 01 – UCODE HSL.pdf	Product data sheet UCODE HSL – Functional Specification
DS_SL3ICS10 01 – UCODE EPC Gen2.pdf	Product data sheet UCODE EPC Gen 2 – Functional Specification
DS_Label_UCODE_1.19.pdf	Data sheet UHF smart label based on NXP UCODE EPC 1.19
DS_Label_UCODE_HSL.pdf	Data sheet UHF smart label based on NXP UCODE HSL
DS_Label_UCODE_Gen2.pdf	Data sheet UHF smart label based on NXP UCODE EPC Gen2
ANT.U250_250_E.pdf	Data sheet UHF long range antenna
id_isc.lru2000_en.pdf	Data sheet UHF long range reader
\Applications	
\Applications\RFIDDemo	
setup.exe	Installation program <i>RFIDDemo</i>

3. Features

3.1.1 Compliance

- Fully compliant to ISO 18000-6B & EPC Global Class Gen 2
- Operates under EN300220, EN202208, FCC 47 Part 15
- Optimized for NXP UCODE smart label IC's
- Supports special NXP UCODE smart label IC's commands such as "Change EAS" and "EAS Alarm"

3.1.2 Reader

- Operating frequency
 - EU 869.525MHz 865.6 – 867.6MHz (200KHz Step)
 - US 902-928MHz (500KHz Step)
- Interface
 - RS 232 and RS 485
 - Ethernet
- Modulation: 20% - 40% and 100% (software configurable)
- Receiver data rates: 40 – 320kbps
- Antenna connections: 4 x SMA socket (50Ω)

3.1.3 Antenna

- Operating frequency
 - EU antenna: 865 MHz - 870 MHz
 - US antenna: 902 MHz - 928 MHz
- Gain
 - EU antenna: 8.3 dBic @ 866 MHz
 - US antenna: 8.7 dBic @ 915 MHz
- 3dB beam with
 - E-plane: 65°
 - H-plane: 65°
- Polarization: circular
- VSWR < 1.5:1
- Antenna connection: SMA Socket (50 Ω)

4. System requirements

The demo kit hardware and software assumes following requirements:

- Personal computer IBM PC Pentium 100 MHz or faster recommended
- Windows[®] 2000 or WindowsXP[®] with 256MB RAM
- Windows[®]-compatible SuperVGA graphics card (800x600). (1024x768 recommended)
- Windows[®]-compatible mouse
- Hard disk with minimum 10MB free
- CD-ROM drive

Note: Please refer to the document “UCEV10x - Getting Started Guide” to install the hardware and demonstration software.

5. General Conditions

5.1 Usage

You may use the demo program and source codes contained on this CD for the development of free and/or commercially sold applications. You may also modify the source codes. We do not warrant that the functions contained in the source codes will meet your requirements or that the software operation will be uninterrupted or error free. The codes are only examples to show the usage of the hardware. They are not optimised in terms of speed or code size. The entire risk as to the results and performance of the codes is assumed by you.

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Purchase of NXP <xxx> components

<License statement text>

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<Patent ID> — owned by <Company name>

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