## **Atmel LF-RFID Kit Comparison Chart**

### 1. Description

Atmel<sup>®</sup> offers several types of development and evaluation kits.

The Atmel **ATA2270-EK1** is an evaluation kit that supports a limited number of modes in stand-alone mode. Support during the entire development phase is provided by the PC interface and the application software. Both tools enable to control the tag configuration. This kit is AVR<sup>®</sup> ATmega128-based and provides all necessary source and object codes. The CD-ROM also includes layout data in Gerber format. Code and layout data enable the quick and easy design of individual RFID readers. An API (advanced programming interface) allows to control the kit by an user written software. Registered kit users will have access to an Atmel FTP server for firmware and software upgrades.

The Atmel kits **<u>ATARFID-EK1</u>** and **<u>ATARFID-EK2</u>** are based on a commercial reader/programmer supplied by the company GIS. The first version in the kit EK1 operates at 125kHz. It is best suited for access control, industrial and any kind of consumer applications. This EK2 kit operates at 134.2kHz according to the Animal ID standards ISO 11784 and 11785 (FDX-A and FDX-B). Both kits allow not only to read the tags but as well configure and program them. The readers have an USB connection and come with a PC based user interface. Samples tags complete this kit.

A different kit is the Atmel **ATA5505-EK1**. This is a USB-LF-RFID reader in memory stick format based on Atmel's LF-Reader-AVR circuit. The kit operates at 125kHz and 134.2kHz and is supporting all above already mentioned LF applications. Just plugged in a PC the kit operates stand alone. After a successful read of a tag in UNIQUE-format at 125kHz a red LED indicates this read. If the LED lights green, a Animal ID tag according ISO 11784 and 11785 at 134.2kHz (FDX-B) was detected. The kit can also be controlled using the GUI as used for the ATA2270-EK1. Some tags compete the kit.



Atmel LF-RFID Kit Comparison Chart

## **Application Note**

4980D-RFID-03/11





## 2. LF-RFID Kit Comparison Chart - Table

	ATA2270-EK1	ATARFID-EK1	ATARFID-EK2	ATA5505-EK1
General				
Evaluation kit	х	x	x	x
PC controlled	х	x	x	x
PC software	х	x	x	x
Serial interface (with USB converter option)	х			
USB interface	(3)	x	x	x
LCD display	х			
Keys and joystick	х			
Buzzer	х			
Kits Content				
Main and interface board	х			
Reader antenna coil	х			
Complete reader		x	x	x
Power supply 120V to 240V	х			
Serial cable	х			
USB serial dongle	х			
USB cable	(3)	x	x	
CD-ROM software and documentation	х	x	x	x
Supported RFID IC Devices				
T5551/TK5551	х			x
e5530/TK5530	х			x
T5552/TK5552				
T5554	x <sup>(1)</sup>			x <sup>(1)</sup>
ATA5558	х			x
T5557 compatible	x <sup>(2)</sup>			x <sup>(2)</sup>
T5557 extended	х			x
e5561/TK5561				
ATA5567 compatible	x <sup>(2)</sup>			x <sup>(2)</sup>
ATA5567 extended	x			x
ATA5570	x			x
ATA5577	x	x	х	x
ATA5575M1 and ATA5575M2	x	x (M1)	x (M2)	x

Notes: 1. To use the T5554 select tag type T5551 in the software.

2. This mode is only supported in the PC application software. All tag modes are programmable in this tool.

3. Planned

4. Several suppliers

# Atmel LF-RFID Kit

## 2. LF-RFID Kit Comparison Chart - Table (Continued)

	ATA2270-EK1	ATARFID-EK1	ATARFID-EK2	ATA5505-EK1		
Tag, Transponder and IC Samples Contained in Kit						
ATA5577 ISO card <sup>(4)</sup>	x	x		х		
ATA5577 coin <sup>(4)</sup>	x	x				
ATA5577 fob <sup>(4)</sup>	x	x				
ATA5577 ISO11784/85 tag <sup>(4)</sup>	x		х	х		
ATA5575M2 ISO11784/85 tag <sup>(4)</sup>	x		х			
ATA5575M1 ISO card <sup>(4)</sup>	x	x				
ATA5558 ISO card <sup>(4)</sup>						
ATA5558 coin <sup>(4)</sup>						
U2270-MFPG3Y	3					
TK5551M-PP	3					
ATA5577M1330-PAE	3					
ATAB5570 board	1					
TK5561A-PP						
U3280M-NFPG3						
Tag test coil	1					
Supported Reader-RFID IC Devices						
U2270B	x					
ATA5505				х		
Documentation on CD-ROM						
User guide	x					
Using ISO 11784/11785 application note	x					
AVR source code	х			х		
Gerber data	x			х		

Notes: 1. To use the T5554 select tag type T5551 in the software.

2. This mode is only supported in the PC application software. All tag modes are programmable in this tool.

3. Planned

4. Several suppliers





## 3. Revision History

Please note that the following page numbers referred to in this section refer to the specific revision mentioned, not to this document.

Revision No.	History
4980D-RFID-03/11	<ul> <li>Section 1 "Description" on page 1 changed</li> <li>Section 2 "LF-RFID Kit Comparison Chart - Table" on pages 2 to 3 changed</li> </ul>
4980C-RFID-11/09	<ul> <li>Section 1 "Description" on page 1 changed</li> <li>Section 2 "LF-RFID Kit Comparison Chart - Table" on pages 2 to 3 changed</li> </ul>
4980B-RFID-12/08	<ul> <li>Section 1 "Description" on page 1 changed</li> <li>Section 2 "LF-RFID Kit Comparison Chart - Table" on pages 2 to 3 changed</li> </ul>



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