



RFID Transponder Evaluation Board ATAB5570

Equipped with Sensor Tag ATA5570C
(Suitable for other packaged tag versions)

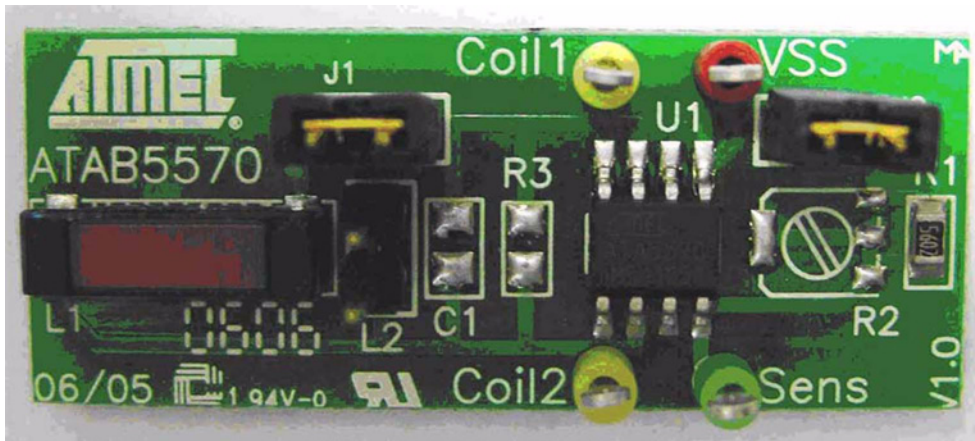
ATAB5570

1. Description

The evaluation board is intended to promote the specific ATA5570 sensor feature in addition to general RFID tag functionality. Depending on sensor state, data is transmitted in inverse or non-inverse mode. In addition, the board can also be useful for evaluation purposes or to adapt any other antenna coil to the tag IC.

Application Note

Figure 1-1. Evaluation Board



The sensor input pins 4 and 5 operates in a two state modes for controlling data transmission:

- Inverse data transmission for sensor impedance > 140 kΩ
- Non-inverse data transmission for sensor impedance < 70 kΩ

This state condition can be achieved by opening and closing jumper J2 (high impedance/56 kΩ).

Note: For tag programming, sensor path needs to be opened via jumper J2 for current saving

Figure 1-2. Development Board

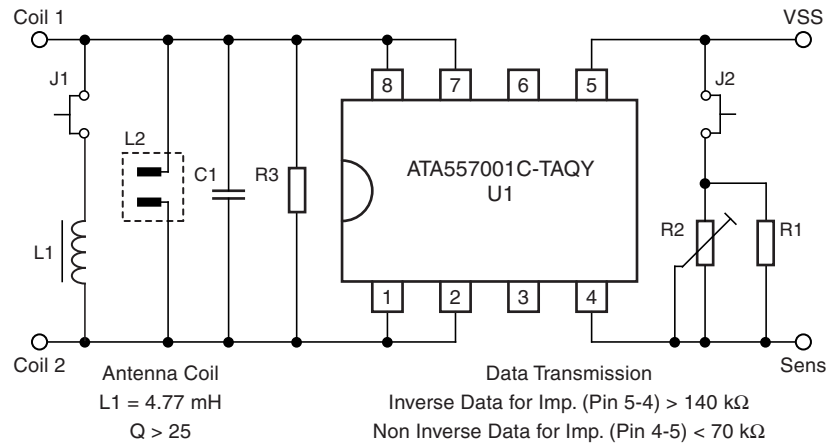


Table 1-1. Part List of the Development Board ATAB5570

Part	Designation	Value	Type	Manufacturer
U1	RFID tag		ATA557001C-TAQY	Atmel®
L1	Antenna coil	L = 4.77 mH/ Q > 25	SDTR1103-0477+	Predan
C1	Not needed for ATA557001C 340 pF internal in SO8 package			
R1	Sensor resistor	56 kΩ		
R2	Optional potentiometer	200 kΩ		
R3	Optional for Q-factor reduction			
J1, J2	Jumper			



Headquarters

Atmel Corporation
2325 Orchard Parkway
San Jose, CA 95131
USA
Tel: 1(408) 441-0311
Fax: 1(408) 487-2600

International

Atmel Asia
Unit 1-5 & 16, 19/F
BEA Tower, Millennium City 5
418 Kwun Tong Road
Kwun Tong, Kowloon
Hong Kong
Tel: (852) 2245-6100
Fax: (852) 2722-1369

Atmel Europe
Le Krebs
8, Rue Jean-Pierre Timbaud
BP 309
78054
Saint-Quentin-en-Yvelines Cedex
France
Tel: (33) 1-30-60-70-00
Fax: (33) 1-30-60-71-11

Atmel Japan
9F, Tonetsu Shinkawa Bldg.
1-24-8 Shinkawa
Chuo-ku, Tokyo 104-0033
Japan
Tel: (81) 3-3523-3551
Fax: (81) 3-3523-7581

Product Contact

Web Site
www.atmel.com

Technical Support
rfid@atmel.com

Sales Contact
www.atmel.com/contacts

Literature Requests
www.atmel.com/literature

Disclaimer: The information in this document is provided in connection with Atmel products. No license, express or implied, by estoppel or otherwise, to any intellectual property right is granted by this document or in connection with the sale of Atmel products. **EXCEPT AS SET FORTH IN ATMEL'S TERMS AND CONDITIONS OF SALE LOCATED ON ATMEL'S WEB SITE, ATMEL ASSUMES NO LIABILITY WHATSOEVER AND DISCLAIMS ANY EXPRESS, IMPLIED OR STATUTORY WARRANTY RELATING TO ITS PRODUCTS INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. IN NO EVENT SHALL ATMEL BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE, SPECIAL OR INCIDENTAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, BUSINESS INTERRUPTION, OR LOSS OF INFORMATION) ARISING OUT OF THE USE OR INABILITY TO USE THIS DOCUMENT, EVEN IF ATMEL HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.** Atmel makes no representations or warranties with respect to the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and product descriptions at any time without notice. Atmel does not make any commitment to update the information contained herein. Unless specifically provided otherwise, Atmel products are not suitable for, and shall not be used in, automotive applications. Atmel's products are not intended, authorized, or warranted for use as components in applications intended to support or sustain life.

© 2010 Atmel Corporation. All rights reserved. Atmel®, logo and combinations thereof, and others are registered trademarks or trademarks of Atmel Corporation or its subsidiaries. Other terms and product names may be trademarks of others.