
Features

- Supports Atmel's AT6K/40K FPGA & AT94K FPSLIC™
- Simple Parallel Port Interface
- No External Configuration Memory Required
- Download Directly to the SRAM-based Device
- Fast Configuration

Software Requirements

- IDS (Supports AT6K and AT40K)
- System Designer (Supports AT94K)
- Downld.exe (Included with IDS Software for AT6K – under <install dir>\bin)
- Downld40.exe (Included with IDS Software for AT40K – under <install dir>\bin)
- Downld40.exe (Included with System Designer™ Software for AT94K – under <install dir>\bin)
- Operating System – Windows® 95/98/2000/Me, Windows NT® and MS DOS

Description

Atmel's ATDH2081 download cable allows designers to configure Atmel's family of AT6K/40K Field Programmable Gate Array (FPGA) and AT94K Field Programmable System Level Integrated Circuit (FPSLIC) devices. The ATDH2081 connects to any x86 PC via the parallel port through a 10-pin header cable to configure FPGA or FPSLIC devices. The bitstream is downloaded in milliseconds.

The ATDH2081 download cable is used in conjunction with the ATDH40M motherboard (AT40K FPGAs) as well as the downld40.exe program that is provided with the IDS tool set for FPGAs. The ATDH2081 download cable is used to download directly from the PC (Mode 7).

The ATDH2081 download cable can only be used for programming directly to the Atmel's SRAM devices listed above. It is not suitable for use with configuration memory devices and the Configuration Programming System (CPS) software.

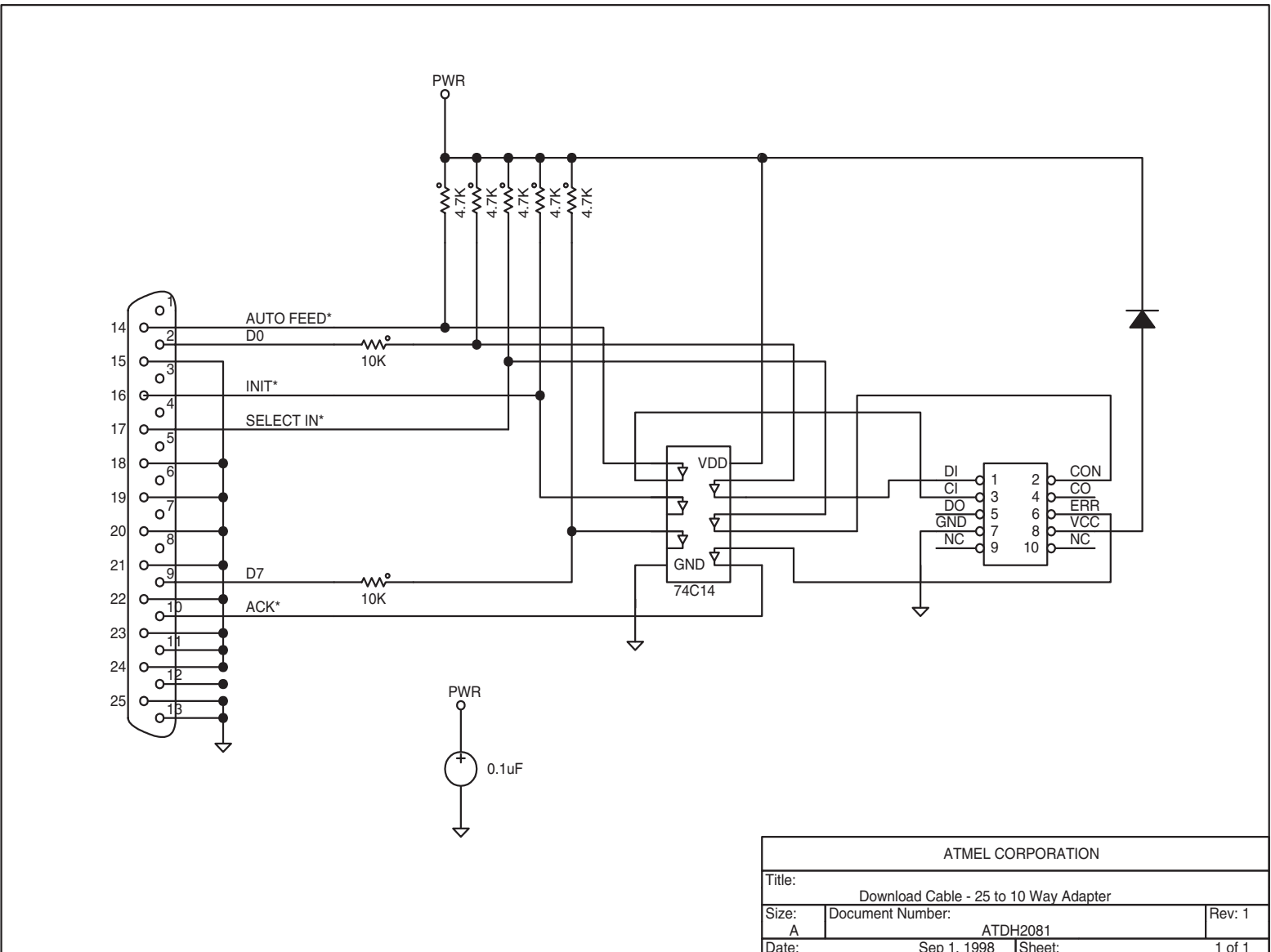


**Programmable
SLI**

**ATDH2081
Download Cable**



Figure 1. ATDH2081 Download Cable (25- to 10-Way Adapter)



Example Hardware Connections for Use with ATDH40M

1. Connect the 25-pin parallel cable to the 25-pin male connector of the ATDH2081 download cable.
2. Connect the 10-pin female header into the 10-pin male header (H1) on the ATDH40M motherboard.
3. Connect the power supply from an AC outlet to the 9V DC connector (P1) on the ATDH40M motherboard.
4. Adjust SW3 to Internal PS and SW1 to the ON position. Check to see that LED(L1) is on and visibly bright.
5. Adjust SW2 to the 5V position for AT40KXX devices and 3V position for AT40KXXLV/AT40KALXX devices. Verify the voltage reading at VCC pads.
6. Ensure that the 4 MHz signal is switched on for all left side pins of H2 and that at least one jumper is provided for H2.
7. Set CS₀ to GND and M₀, M₁ and M₂ to VCC.

Download to FPGA Directly from PC (Mode 7)

1. Verify that a jumper is placed on H2 across GCK4.
2. Adjust SW4 and SW5 according to the silk-screened table for Mode 7 on the ATDH40M motherboard.
3. Adjust SW1 to the ON position.
4. Download bitstream from the PC using the following command:
downld40 yourfile.bst.



Atmel Headquarters

Corporate Headquarters
2325 Orchard Parkway
San Jose, CA 95131
TEL (408) 441-0311
FAX (408) 487-2600

Europe

Atmel SarL
Route des Arsenaux 41
Casa Postale 80
CH-1705 Fribourg
Switzerland
TEL (41) 26-426-5555
FAX (41) 26-426-5500

Asia

Atmel Asia, Ltd.
Room 1219
Chinachem Golden Plaza
77 Mody Road Tsimhatsui
East Kowloon
Hong Kong
TEL (852) 2721-9778
FAX (852) 2722-1369

Japan

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

Atmel Product Operations

Atmel Colorado Springs

1150 E. Cheyenne Mtn. Blvd.
Colorado Springs, CO 80906
TEL (719) 576-3300
FAX (719) 540-1759

Atmel Grenoble

Avenue de Rochepleine
BP 123
38521 Saint-Egreve Cedex, France
TEL (33) 4-7658-3000
FAX (33) 4-7658-3480

Atmel Heilbronn

Theresienstrasse 2
POB 3535
D-74025 Heilbronn, Germany
TEL (49) 71 31 67 25 94
FAX (49) 71 31 67 24 23

Atmel Nantes

La Chantrerie
BP 70602
44306 Nantes Cedex 3, France
TEL (33) 0 2 40 18 18 18
FAX (33) 0 2 40 18 19 60

Atmel Rousset

Zone Industrielle
13106 Rousset Cedex, France
TEL (33) 4-4253-6000
FAX (33) 4-4253-6001

Atmel Smart Card ICs

Scottish Enterprise Technology Park
East Kilbride, Scotland G75 0QR
TEL (44) 1355-357-000
FAX (44) 1355-242-743

Fax-on-Demand

North America:
1-(800) 292-8635
International:
1-(408) 441-0732

e-mail

literature@atmel.com

Web Site

<http://www.atmel.com>

BBS

1-(408) 436-4309

© Atmel Corporation 2001.

Atmel Corporation makes no warranty for the use of its products, other than those expressly contained in the Company's standard warranty which is detailed in Atmel's Terms and Conditions located on the Company's web site. The Company assumes no responsibility for any errors which may appear in this document, reserves the right to change devices or specifications detailed herein at any time without notice, and does not make any commitment to update the information contained herein. No licenses to patents or other intellectual property of Atmel are granted by the Company in connection with the sale of Atmel products, expressly or by implication. Atmel's products are not authorized for use as critical components in life support devices or systems.

FPSLIC and System Designer are the trademarks of Atmel.

Windows and Windows NT are the registered trademarks of Microsoft Corporation.

Other terms and product names may be the trademarks of others.



Printed on recycled paper.