

Microcontroller Group

DS80C400 Kit

Quick-Start Guide for Use with Windows®

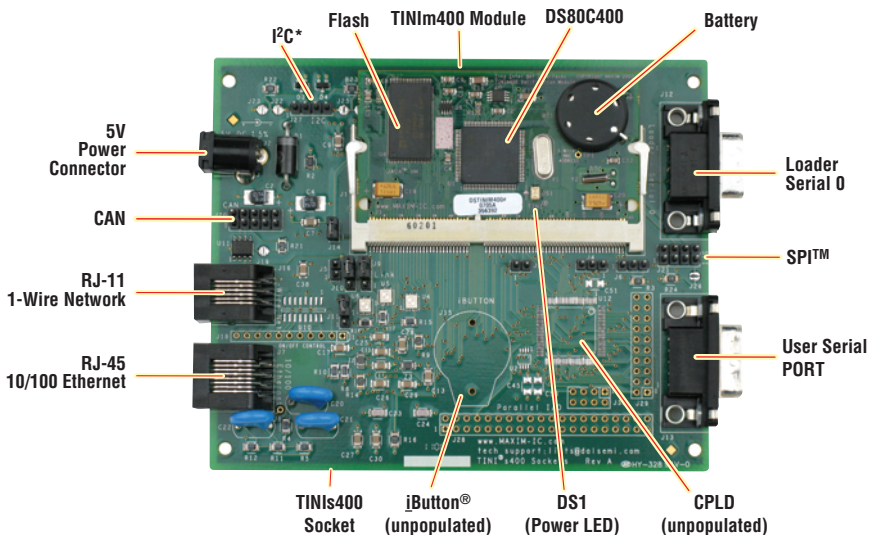


Figure 1. DS80C400 Evaluation Kit Boards

Hardware Installation

Assemble the DSTINix400

1. Insert the DSTINIm400 module into the DSTINIs400 socket board at a 30° angle into J10 and carefully press down the DSTINIm400 until it snaps into place.
2. Connect the supplied crossover Ethernet cable from your PC to J8, the RJ-45 Ethernet connector on the DSTINIs400 socket board. (When using a hub, connect using a straight-through cable.)
3. Connect the supplied serial cable to J12 (Loader–Serial 0) of the DSTINIs400 socket board and connect the other end to the COM port on your PC or to a USB-to-serial adapter.
4. Connect the 5V ($\pm 5\%$) 300mA, center-positive power supply to J2 of the DSTINIs400 socket board and a wall outlet. The power LED (DS1) of the DSTINIs400 module board should light up. Note: The power supply (#DPR050030-P6) is not included.

Software Installation

Install MTK Software and Load TINI® Firmware

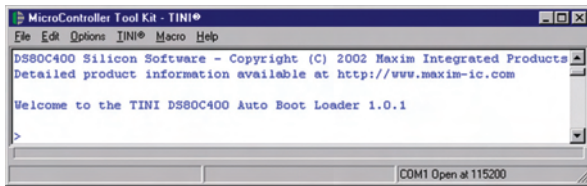
1. Insert the DS80C400 kit install CD into your computer's CD-ROM drive. The CD will autoboot and display the TINI400 welcome screen. Note: If the CD-ROM does not autoboot, browse the CD root folder and double-click on the "INDEX.html" file.
2. Click the "Install MTK" button and click the "Run" button to begin installation.
3. During the MTK installation, select the default settings. Note: Security warnings may appear, depending on your Internet Explorer security settings and your version of Windows.
4. After the installation completes, run MTK from "Start" > "Programs" > "Dallas Semiconductor MTK" > "MTK". When prompted to select a device, click "TINI®". The following windows should appear:



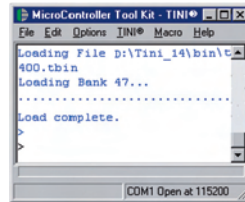
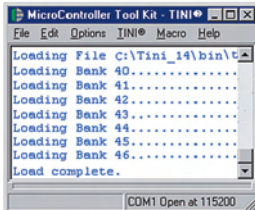
5. The serial port must be configured in MTK to download *.bin files into the DS80C400 kit. The following configuration must be set in MTK.

Note: Make sure that no other program or PDA software is using the COM port.

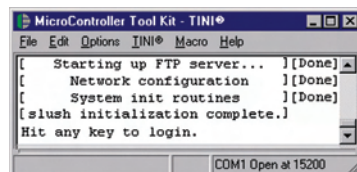
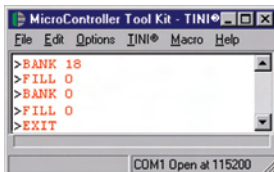
- a. Click "Options" > "Configure Serial Port" to select the correct COM port and select 115200 for the speed. Click OK.
- b. Click "TINI®" > "Open COM at 115200 Baud" from the menu.
- c. Click "TINI®" > "Reset", which should display the following welcome screen:



6. First, load the tini400.tbin file by clicking "File" > "Load Tbin" and open the tbin file, tini400.tbin, located at "C:\TINI400\firmware\tini400.tbin". Then, wait for the "Load complete" message.
7. Next, load the slush400.tbin file by clicking "File" > "Load Tbin," and open the tbin file, slush400.tbin, located at "C:\TINI400\firmware\slush400.tbin". Then, wait for the "Load complete" message. The following screens should be displayed:



8. To initialize the TINI firmware, type the following commands (in RED) followed by the enter key: "BANK 18 <CR>", "FILL 0 <CR>", "BANK 0 <CR>", "FILL 0 <CR>", "EXIT <CR>". The following screens should be displayed:



9. Press any key to login and at the TINI login, type "root", then press enter. Type "tini" for the password, then press enter. Note: The password characters typed at the password prompt are not echoed by the system. Login name and password are case sensitive.

Configure the Network Settings

1. To set the TINI static IP address and the subnet mask, type the following commands (in RED): "TINI /> ipconfig -a 192.168.0.15 -m 255.255.255.0". When prompted to proceed, type "y". The screen should appear as follows:

```

MicroController Tool Kit - TINI*
File Edit Options TINI* Macro Help

TINI /> ipconfig -a 192.168.0.15 -m 255.255.255.0
Warning: This will disconnect any connected network users
and reset all network servers.
OK to proceed? (Y/N): y
[Tue Oct 01 08:01:59 GMT 2002] Message from System:FTP server stopped.
[Tue Oct 01 08:01:59 GMT 2002] Message from System:Telnet server stopped.
[Tue Oct 01 08:02:00 GMT 2002] Message from System:Telnet server started.
[Tue Oct 01 08:02:00 GMT 2002] Message from System:FTP server started.
TINI /> |
  
```

2. Set your PC's IP address and subnet mask on Windows XP. Note: The procedure varies among various Windows operating systems, but the steps are similar. Please refer to your Windows online help for instructions on how to set your IP address.
 - a. From "Start" > "Control Panel", click on the "Network Connections" icon.
 - b. Right click on "Local Area Connection" and select "Properties".
 - c. Select "Internet Protocol (TCP/IP)" and click the "Properties" button.
 - d. Select the "Use the Following IP Address" radio button. Type the following IP address, "192.168.0.14", and a subnet mask of "255.255.255.0".
 - e. Click "OK" button, and then click "OK" again to close the second window.

Note: No configurations are needed on the default gateway and the DNS server.

3. To test network connectivity, go to "Start" > "Run" and type in "CMD". This will open a command prompt window.
4. At the command prompt, type "ping 192.168.0.15", and you will see the following:

```

Microsoft(R) Windows NT(TM)
(C) Copyright 1985-1996 Microsoft Corp.
C:\>ping 192.168.0.15
Pinging 192.168.0.15 with 32 bytes of data:
Reply from 192.168.0.15: bytes=32 time<10ms TTL=255
Reply from 192.168.0.15: bytes=32 time<10ms TTL=255
Reply from 192.168.0.15: bytes=32 time<10ms TTL=255
Reply from 192.168.0.15: bytes=32 time<10ms TTL=255
  
```

Running Web Server Demonstration Code Using FTP and Telnet

1. The web server will require an html folder and a log folder. To create a folder using telnet, type the following commands (in RED) into the command prompt window and then the telnet window: "telnet 192.168.0.15 <CR>, root <CR>, tini <CR>, mkdir html <CR>, mkdir log <CR>, exit <CR>". The output should appear as follows:

```

C:\WINNT\System32\cmd.exe
Microsoft(R) Windows NT(TM)
(C) Copyright 1985-1996 Microsoft Corp.
C:\>telnet 192.168.0.15
C:\>_

Telnet - 192.168.0.15
Connect Edit Terminal Help
Welcome to slush. (Version 1.14)
tini018bfa login: root
tini018bfa password: tini
tini018bfa /> mkdir html
tini018bfa /> mkdir log
tini018bfa /> exit
Connection Terminated.
  
```

2. To add files into your DS80C400 kit using the FTP server, type the following commands (in RED) into the command prompt window: "cd C:\TINI400\sample_code\HelloWeb <CR>, ftp 192.168.0.15 <CR>, root <CR>, tini <CR>, bin <CR>, put HelloWeb.tini <CR>, cd html <CR>, put index.html <CR>, bye <CR>". The output should look like the following:

```
C:\WINNT\System32\cmd.exe - ftp 192.168.0.15
C:\>cd c:\tini\sample_code\HelloWeb
C:\tini\sample_code\HelloWeb>ftp 192.168.0.15
Connected to 192.168.0.15.
220 Welcome to slush. (Version 1.14) Ready for user login.
User (192.168.0.15:(none)): root
131 Password Required for root
Password:tini
230 User root logged in.
ftp>bin
200 Type set to Binary
ftp>put HelloWeb.tini
200 Command successful.
150 BINARY connection open, putting HelloWeb.tini
226 Closing data connection.
3911 bytes sent in 0.05 seconds (178.22 Kbytes/sec)
ftp>cd html
250 CWD command successful.
ftp>put index.html
200 Command successful.
150 BINARY connection open, putting index.html
226 Closing data connection.
103 bytes sent in 0.00 seconds (103000.00 Kbytes/sec)
ftp>bye
```

3. The web server is run using telnet by typing the following commands (in RED): “telnet 192.168.0.15 <CR>, root <CR>, tini <CR>, java HelloWeb.tini & <CR>”.

```
C:\WINNT\System32\cmd.exe
Microsoft(R) Windows NT(TM)
(C) Copyright 1985-1996 Microsoft Corp.

C:\>telnet 192.168.0.15
C:\>_
```

```
Telnet - 192.168.0.15
Connect Edit Terminal Help

Welcome to slush. (Version 1.14)
tini018bfa login: root
tini018bfa password:tini
tini018bfa /> java HelloWeb.tini &
tini018bfa /> |
```

4. To see your web page, type “http://192.168.0.15” in your web browser. The page is displayed from your TINI web server.



A troubleshooting guide is located at: “C:\document\Getting Started with Tini.pdf”. Dallas Semiconductor also has a forum at <http://discuss.dalsemi.com> for online technical support and discussions. For additional support, please contact Dallas Semiconductor by email at: micro.support@dalsemi.com.

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