

**PATA NANDrive™ Evaluation Board with
CompactFlash Connector
User Guide**

Rev 00.001

**Greenliant Systems
Proprietary and Confidential
03/18/2011**

Application Note

March 2011

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Revision History

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00.001	Converted to Greenliant format	03/18/2011

1 Introduction

The NANDrive Evaluation Board allows NANDrive products to be tested and/or demonstrated in a realistic environment. The board connects to the user environment using the Integrated Drive Electronics (IDE) interface. This board works for all NANDrive products.

1.1 Required Equipment

The Greenliant NANDrive evaluation board will operate in any environment with a storage device utilizing a CompactFlash connector. This would include any computer with Windows XP, Windows 2000, Windows Vista, DOS, Linux, or even proprietary operating systems.

1.2 Included Equipment

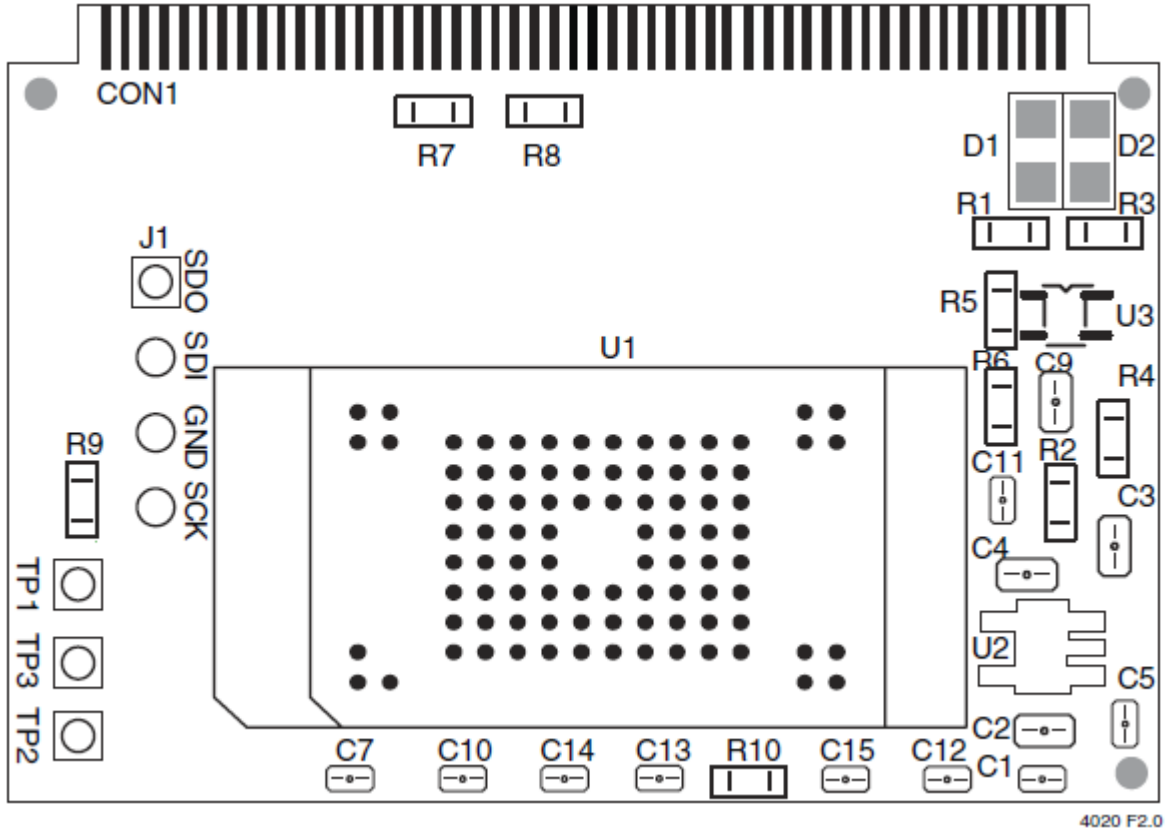
NANDrive Evaluation Board with CompactFlash connector - See Figures 1 and 2.

1.3 Board Layout

The evaluation board is shown in Figure 1. For the board layout, see Figure 2 and Table 1.



Figure 1: NANDrive Evaluation Board


Figure 2: Top View of Board Layout
Table 1: Board Components

Symbol	Description	Notes
CON1	CompactFlash Connector	50pins connector
C3, C1	Capacitor	2.2 μ F
C2, C5, C8, C9, C10, C11, C12, C13, C14, C15	Capacitor	0.1 μ F
C4	Capacitor	470pF
C7	Capacitor	4.7 μ F
D1	Green LED	LED1206
D2	Red LED	LED1206
J1	SCI Debug Port	
R1, R3, R6	Register	470 Ω
R2, R4, R5, R9	Register	0 Ω
R10	Register	10k Ω
R7, R8	Register	No Connect
TP1, TP2, TP3	FCE4#, FCE5#, FCE6#	
U1	Greenliant NANDrive	
U2	LDO Voltage Regulator	Supply 3.3V operation voltage
U3	Voltage detector	Supply 3.3V operation voltage

2 Install the Evaluation Board

Perform these two tasks to install the evaluation board:

1. Connect board to PC via CompactFlash reader
2. Configure or Add a drive (if required)

2.1 Connect Board to PC via CompactFlash Reader

The evaluation board easily connects to any desktop PC with a CompactFlash reader that supports UDMA and PIO standards.

CAUTION: Never connect this board to a CompactFlash reader that does not use True-IDE mode; doing so could damage the device. This evaluation board only works with devices using True-IDE mode.

2.1.1 To connect the board using the CompactFlash connector:

1. Insert the evaluation board into the CompactFlash card reader on your PC. The BIOS should automatically detect and mount the NANDrive as a new drive.
2. If the NANDrive is not automatically detected, follow the directions in “Configure/Add a Drive”.

2.2 Configure / Add a Drive

If you wish to mount the drive using non-default settings, use the “add a drive” functionality for your particular OS to remount the drive in your chosen configuration.

Consult the PC’s user manual for instructions to add a new drive. Below are directions for Windows® XP and DOS systems.

The NANDrive can be installed as either a physical drive or as an OS-partitioned drive. When configured as a physical drive, do not access the drive through the OS. When configured as an OS-partitioned drive, access the drive through the OS.

2.2.1 To add a drive in Windows XP:

1. Right-click on **My Computer**.
2. Select **Manage** from the drop-down list. The **Computer Management** interface opens, see Figure 3.

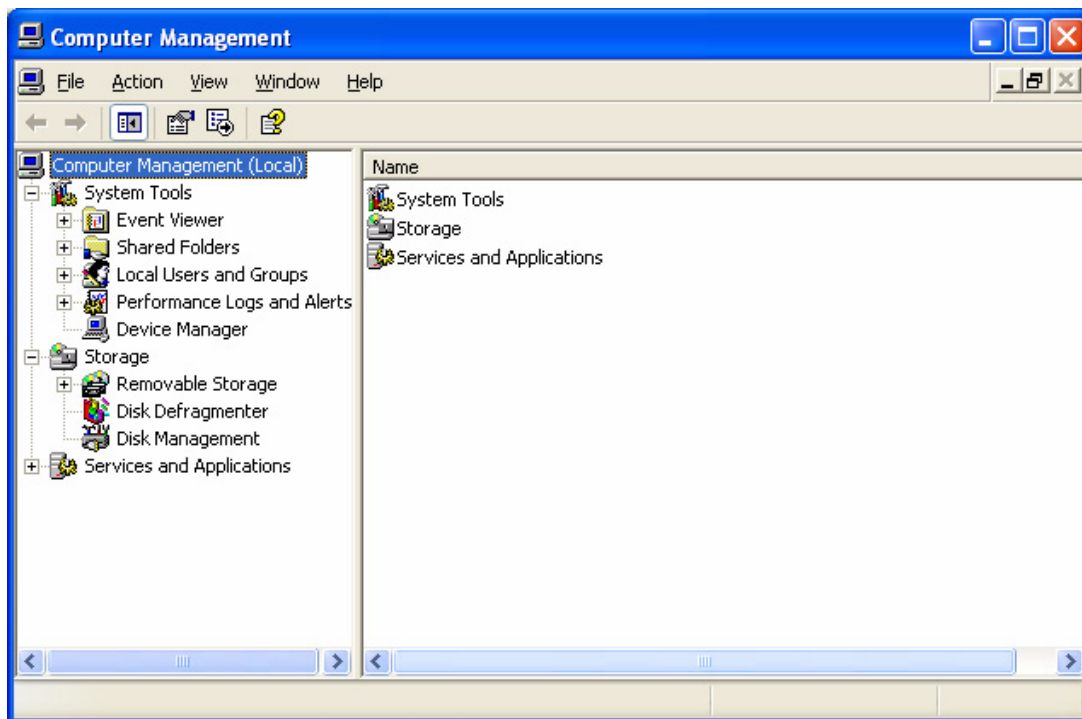
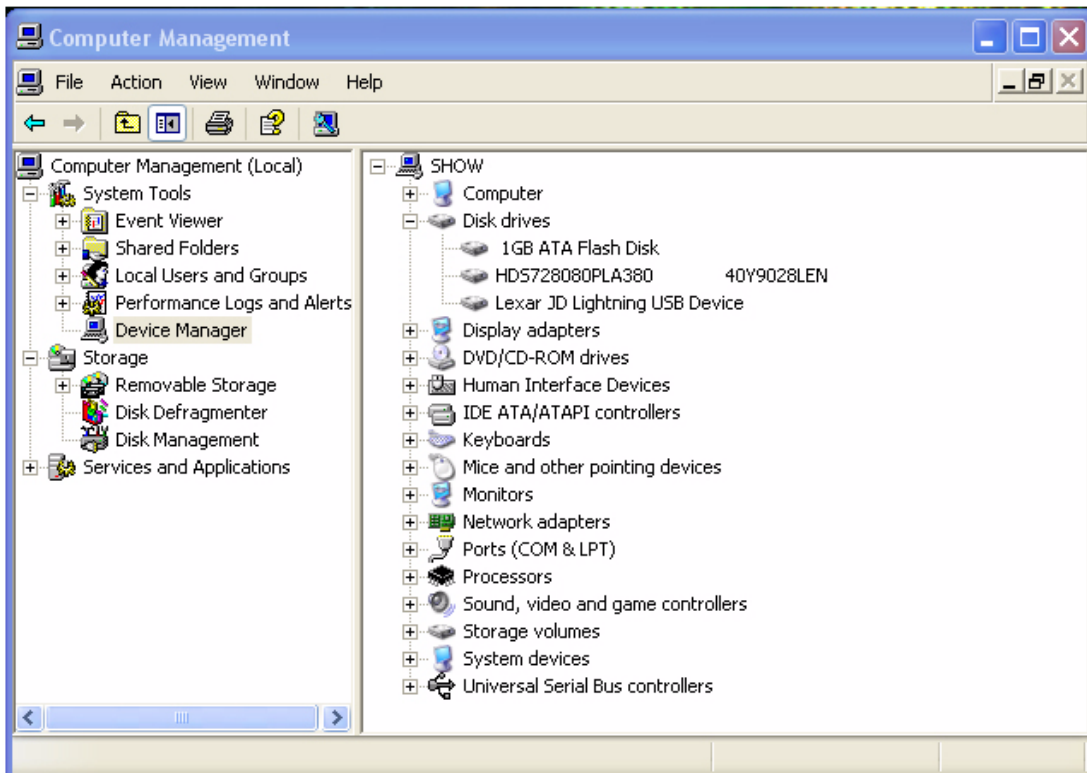


Figure 3: Computer Management Interface

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3. In the left-hand pane of the **Computer Management** interface, click on **Device Manager**. The NANDrive will appear in the right-hand window under **Disk Drives**. See Figure 4.

**Figure 4: Device Manager**

4. In the left-hand pane, click on **Disk Management**. Choose if you want to connect the NANDrive as a physical drive or as a partitioned drive. Follow the appropriate directions below.

2.2.2 To connect as a physical drive:

1. Right-click on the NANDrive icon in the right-hand pane. See Figure 5.
2. Select **Delete Partition**. The label for the NANDrive will change to “unallocated” and the drive will not show up as a resource under **My Computer**.

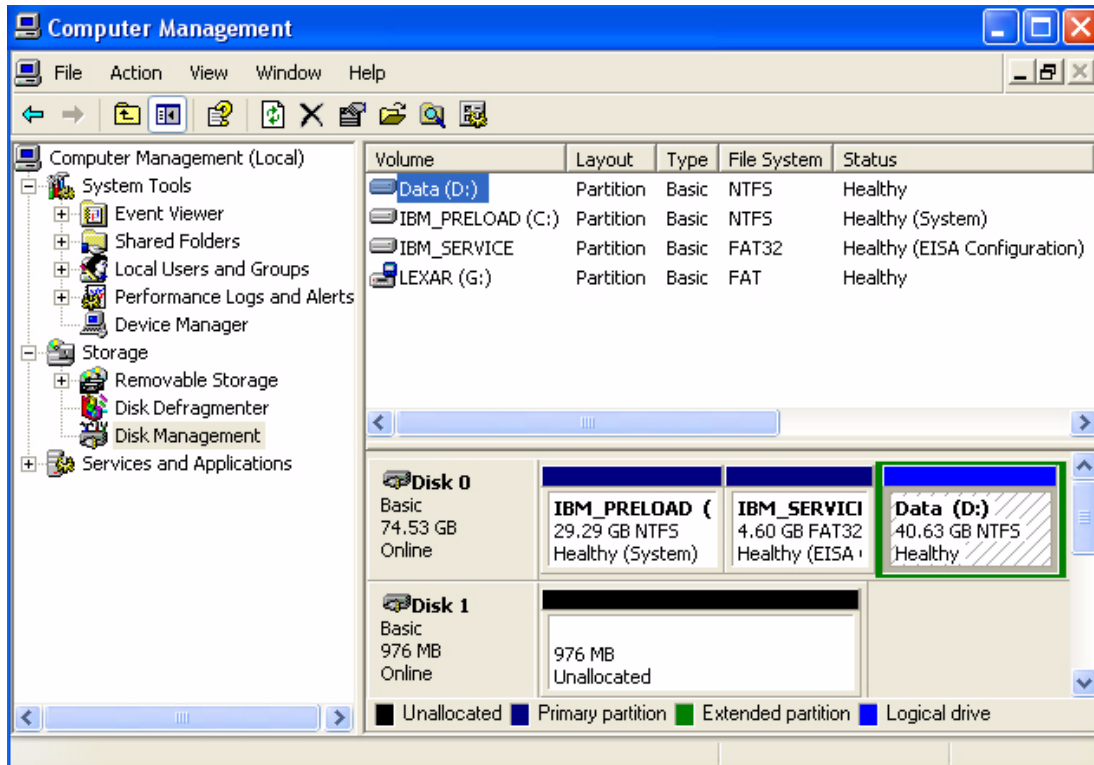


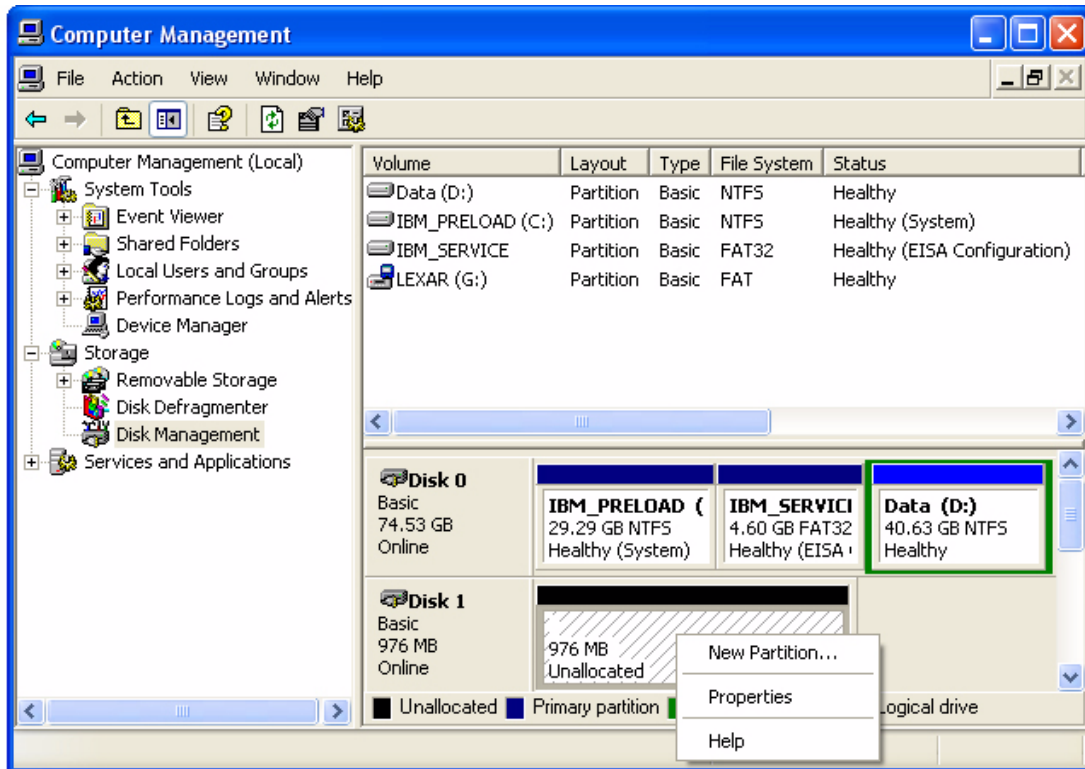
Figure 5: Connect as a Physical Device

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2.2.3 To connect as an OS-partitioned drive:

1. Right-click on the **NANDrive** icon in the right-hand pane. See Figure 6.
2. Select **New Partition**. Follow the prompts to add a new partition. The NANDrive will now show up as a drive-lettered resource under **My Computer**.


Figure 6: OS-Partitioned Drive

3. Go to **My Computer** to confirm that the NANDrive is connected in your chosen configuration.

2.2.4 To add a drive in DOS:

1. Type FDISK.exe. This will create a partition.
2. Type FORMAT.exe. This will format the new partition.

2.3 Troubleshooting

If you encounter problems when trying to use this evaluation board, contact Greenliant for assistance.

3 Schematic

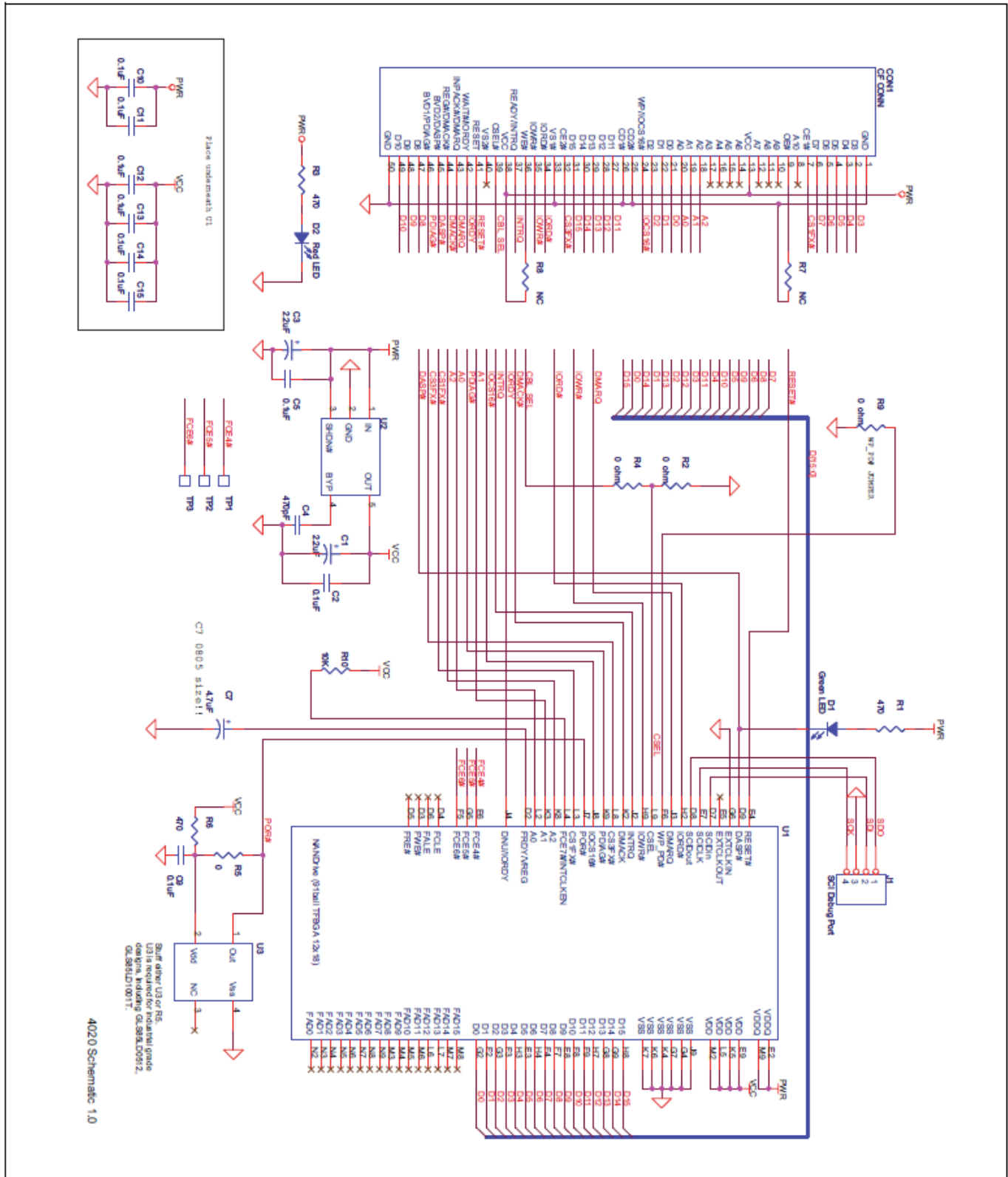


Figure 7: Evaluation Board Schematic