DSTINIm410
Networked Micro Evaluation Board

www.maxim-ic.com

GENERAL DESCRIPTION

The DSTINIm410 is a fully assembled and tested circuit board that evaluates the DS80C410 network microcontroller. In addition to the DS80C410, the DSTINIm410 includes a real-time clock, 1MB flash, 1MB static RAM, and support for an external Ethernet PHY for connecting to a wide variety of networks. The circuit board is designed as a module to be plugged into a 144-pin SODIMM connector. For evaluation, the DSTINIm410 can be inserted into the DSTINIs400 socket board. The combination of the two boards allows full evaluation of the features of the DS80C410 using an Ethernet network.

Detailed information about the initial setup process and use of the TINI platform is contained in *Application Note 612: Getting Started with the TINIm400 (DS80C400) Verification Module.*

ORDERING INFORMATION

PART	TEMP RANGE	DIMENSIONS
DSTINIm410	Room temp	Approx. 67mm x 48mm, 144 SODIMM
DSTINIm410#	Room temp	Approx. 67mm x 48mm, 144 SODIMM

Note: *To evaluate the DS80C410, order the DSTINIm410 and DSTINIs400.*

 # Denotes a RoHS-compliant device that may include lead that is exempt under the RoHS requirements.

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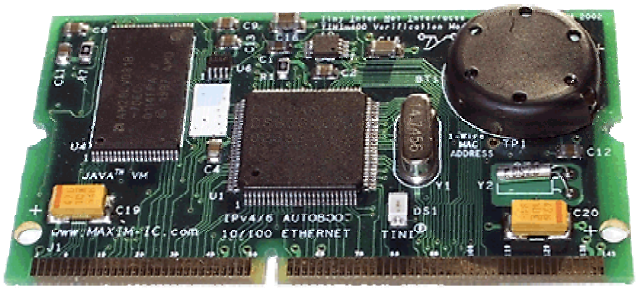
FEATURES

- **Hosts the TINI® Runtime Environment in Validated Hardware Design (in Conjunction with the DSTINIs400)**
- **Industry Standard MII Interface to Connects to Network Interfaces Including 10/100 Base-T, Optical, and HomePNA**
- **Three Hardware Serial Ports**
- **Integrated 1-Wire® Network Master**
- **CAN 2.0B Port**
- **Real-Time Clock for Time Stamping**
- **1MB Flash ROM for Application Storage**
- **1MB NV SRAM for Data Storage**
- **3.3V Single-Supply Operation**
- **Fully Assembled and Tested Design**



COMPONENT LIST (continued)

DESIGNATION	QTY	DESCRIPTION
R6	1	10Ω, ±5% resistor (0805)
U1	1	DS80C410-FNY networked microcontroller
U2, U3	2	R1LV0408CSB-7LC 512kB RAM
U4	1	AM29LV081B-70EC 1MB flash
U5, U6	2	MAX6365PKA31 reset controller

DESIGNATION	QTY	DESCRIPTION
U7	1	MAX1792EUA18 voltage regulator
U8	1	DS1672U-33 real-time clock
U9	1	DS2502-E48 IEEE MAC address
Y1	1	14.7456MHz crystal
Y2	1	32kHz crystal

QUICK START

It is highly recommended that the developer use the DSTINIs400 sockets board in conjunction with the DSTINIm410. The DSTINIs400 was specifically designed to hold the DSTINIm410 and provide the physical interconnects (Ethernet PHY), as well as the 1-Wire, I^2C, SPI™, CAN, and four serial port connectors.

If the developer wishes to implement his or her own design using the DSTINIm410, a 144-pin SODIMM connector such as the Hirose SX6E-144S-0.8SH is required.

The DSTINIm410 must be seated correctly into the DSTINIs400 to ensure a proper connection. Insert the DSTINIm410 into the connector at a 30-degree angle. Place index fingers behind the SODIMM connector and place thumbs on the top edge of the DSTINIm410, pressing firmly until it clicks into place or seats with only a millimeter of gold contact exposed. Press the DSTINIm410 down parallel to the DSTINIs400 until the side arms latch into the center of the semicircular cutouts on the DSTINIm410.

Note that the flash used on the DSTINIm410 limits applications to a maximum of 2x clock multiplier mode with the included 14.7456MHz crystal. Use of the 4x clock multiplier mode results in unstable operations.

FOR MORE INFORMATION

TINI platform details can be found at www.maxim-ic.com/TINI. The *TINI Specification and Developer's Guide* (Addison-Welsey, 2001) is an invaluable resource when developing with the TINI platform. Download a free copy from our website at www.maxim-ic.com/TINIguide.

DS80C410 INFORMATION

For more information about the DS80C410 network microcontroller, refer to the DS80C410 data sheet available on our website at www.maxim-ic.com/DS80C410.

ADDITIONAL RESOURCES

For detailed information about the initial setup and use of the TINI platform, refer to *Application Note 612: Getting Started with the TINIm400 (DS80C410) Verification Module at* www.maxim-ic.com/appnoteindex.

DS80C410 Networked Microcontroller Data Sheet: www.maxim-ic.com/DS80C410

DSTINIm400 Networked Microcontroller Evaluation Board: www.maxim-ic.com/DSTINIm400

DSTINIs400/DSTINIs-00x Sockets Evaluation Board: www.maxim-ic.com/DSTINIs400

Microcontroller Website: www.maxim-ic.com/microcontrollers

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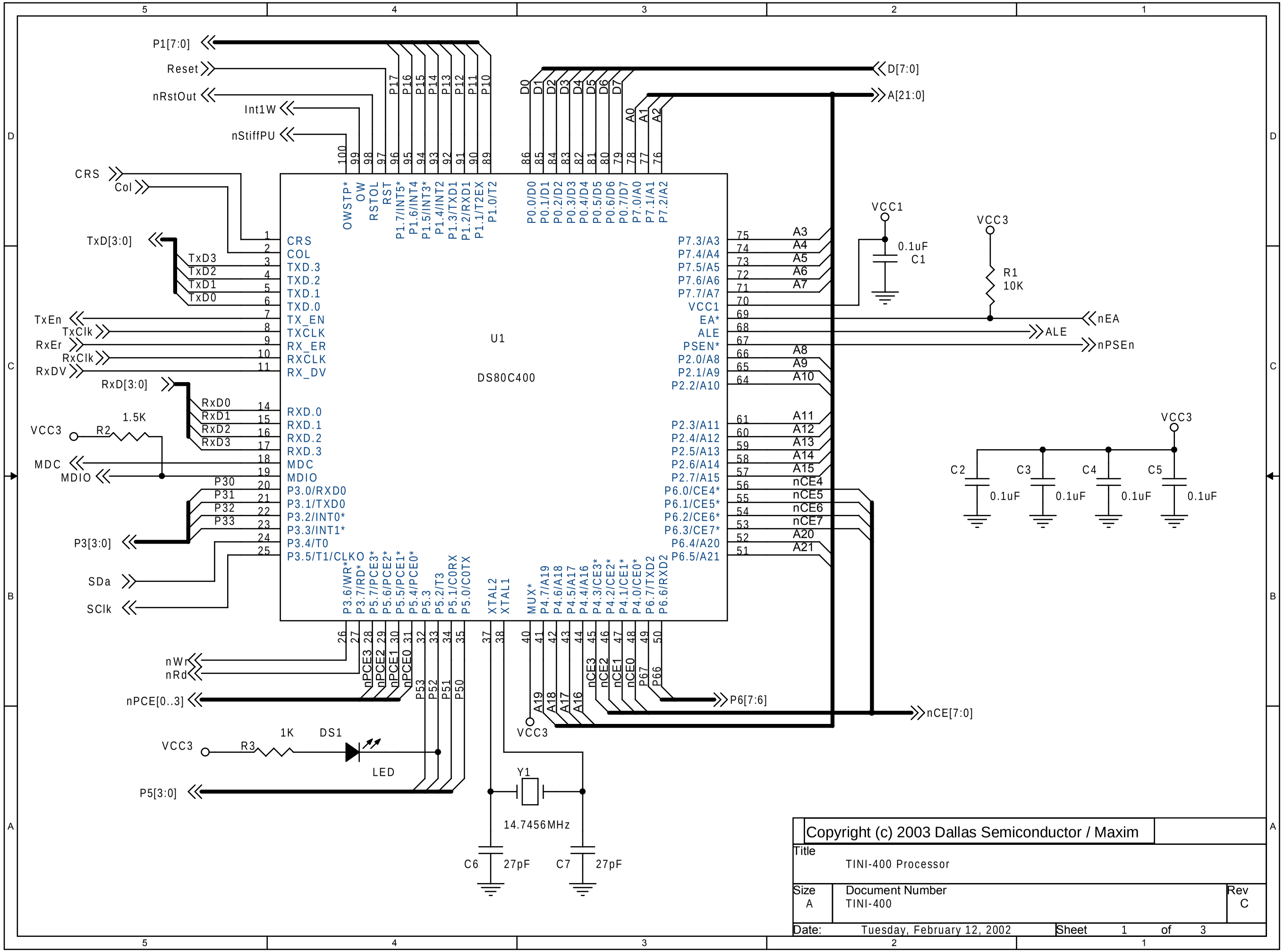

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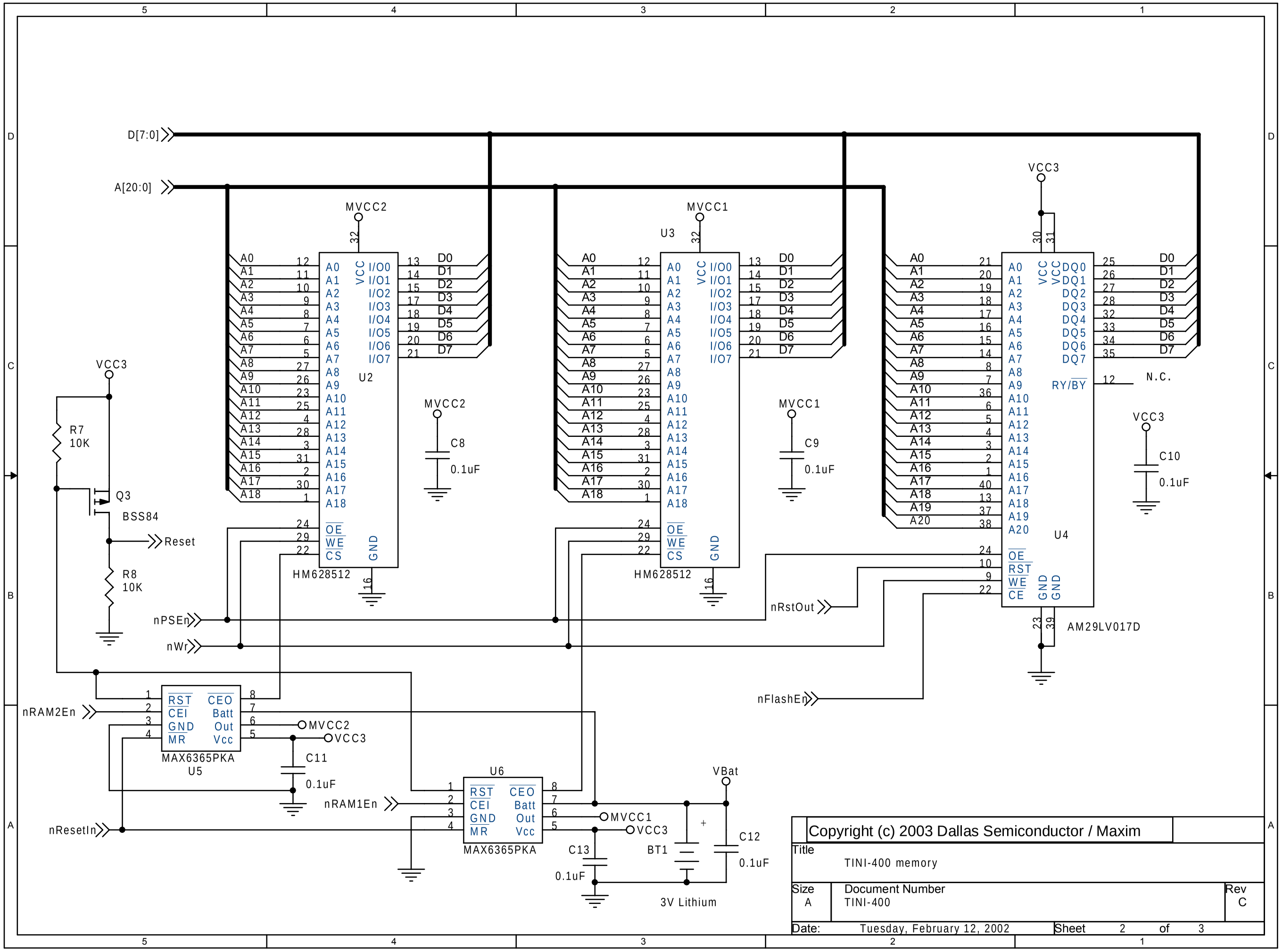
Title: TINI-400 Processor

Size	Document Number	Rev
A	TINI-400	C

Date: Tuesday, February 12, 2002 Sheet 1 of 3



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Title: TINI-400 memory

Size	Document Number	Rev
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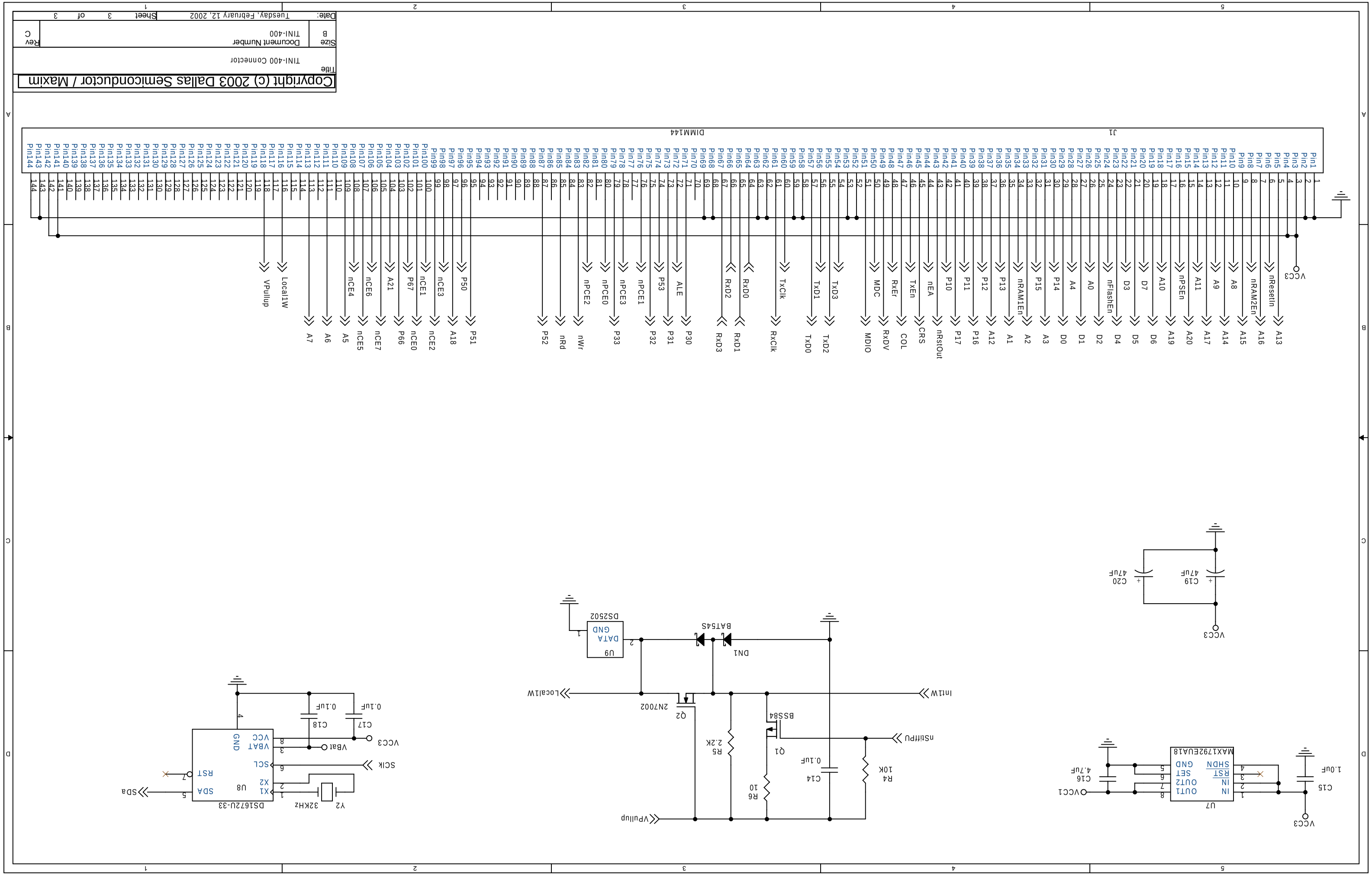

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Title	TINI-400 Connector		
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