Other Information

To obtain the most recent and complete documentation for this demonstration board, including:

- User's Guide
- Board Description
- Board Schematics
- Source Code
- Application Examples
- Links to Web Seminars

please refer to the web sites: **http://www.microchip.com/tcpip**

http://www.microchip.com/Ethernet

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Microchip Technology Inc. • 2355 West Chandler Blvd. • Chandler, AZ 85224-6199
www.microchip.com

DS51602B

Ethernet PICtail™ Plus Daughter Board

Overview

The Ethernet PICtail™ Plus Daughter Board is an Ethernet demonstration board for evaluating Microchip Technology's ENC28J60 stand-alone 10Base-T Ethernet controller. It is an expansion board compatible with the Explorer 16 development board.

Features

- ENC28J60 Ethernet Controller with 25 MHz oscillator and integrated, magnetic RJ-45 connector (see device data sheet, DS39662, for additional information)
- PICtail™ Plus Daughter Board connection interface

Please see reverse side for schematic.

Getting Started

To get started, an Explorer 16 development board is required. All Explorer 16 development boards are shipped with connector J5 installed. The Ethernet PICtail Plus Daughter Board should be inserted into the top most socket of J5. The orientation of the Ethernet PICtail Plus Daughter Board should be such that the RJ-45 socket points toward the prototyping area on the Explorer 16 development board. It is possible to insert the Ethernet PICtail Plus Daughter Board into the second top most socket of J5 and use the second SPI module; however, pin remapping in the example firmware will be required.

TCP/IP Stack and Firmware

The Microchip TCP/IP stack and other firmware examples can be downloaded from **http://www.microchip.com/Ethernet**, then select "TCP/IP Stack", or go directly to **http://www.microchip.com/tcpip**. Make sure to download the firmware version that has been designated for the Explorer 16 development board.

Signal Interface

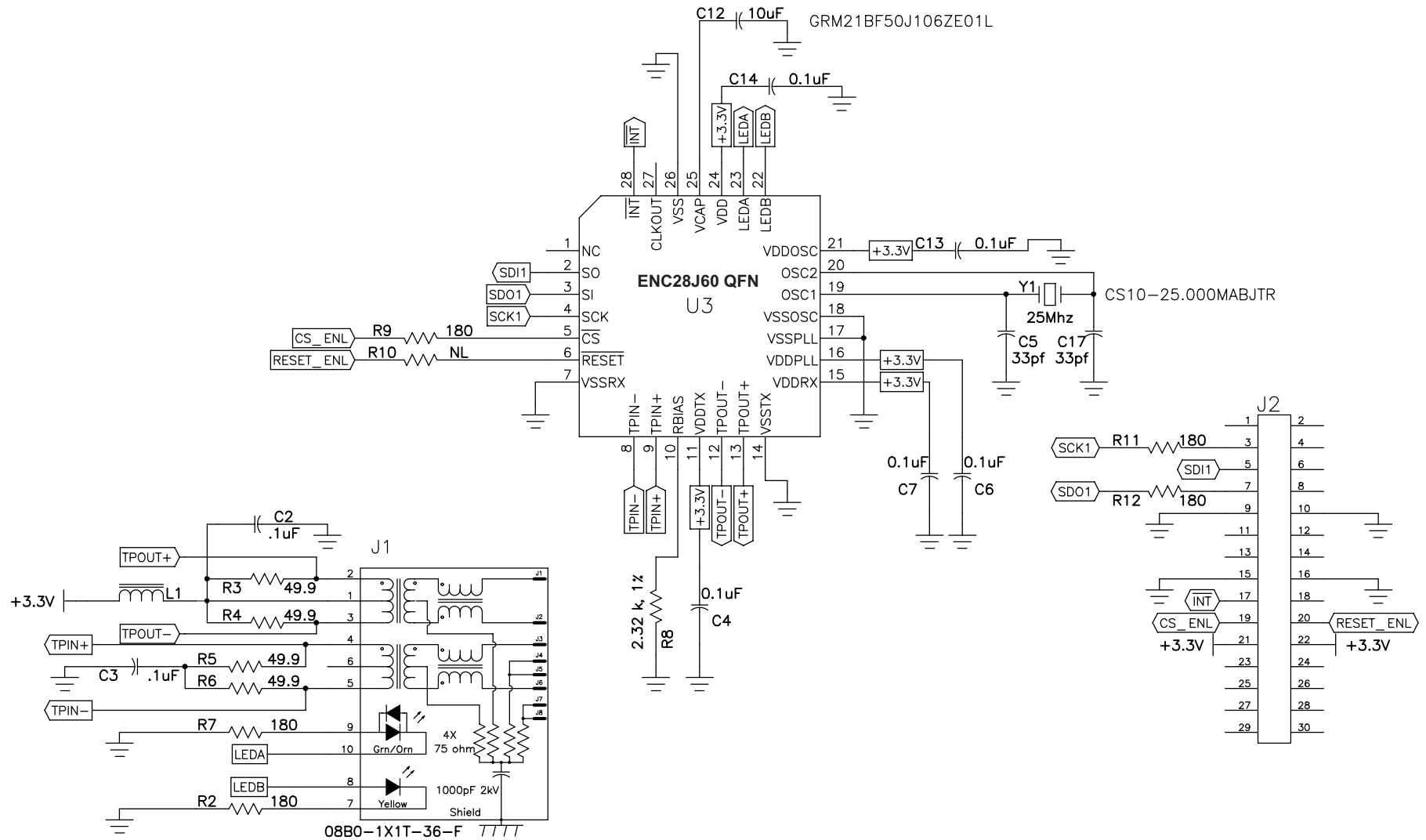| Function	I/O	Pin	Description
CS̄	I	RD14/U1CTS_E	SPI Chip Select
SCK	I	RF6/SCK1	SPI Clock
SO	O	RF7/SDI1_E	SPI Data Out from ENC28J60
SI	I	RF8/SDO1_E	SPI Data In to ENC28J60
I̅N̅T̅	O	RE9/INT2	INT Interrupt Signal

Note: Input signal, R̅E̅S̅E̅T̅, is optional. Install R10 with a 180 ohm resistor to use this signal. The corresponding pin on the Explorer 16 development board is RD15/U1RTS_E.

Media Access Control (MAC) Address

For evaluation purposes, each Ethernet PICtail Plus Daughter Board comes with a board number which can be used to form a unique MAC address. This number can be found on the sticker label on each board. To form a MAC address, replace the last 3 bytes of the following MAC address, 00-04-A3-XX-XX-XX, with the number from the sticker. The number on the sticker is in decimal format and conversion to a hex number is required. For example, if the sticker has the value of "12345", then the MAC address would be 00-04-A3-00-30-39.

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Board Schematic

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