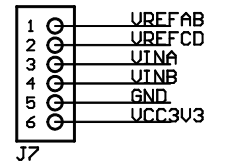
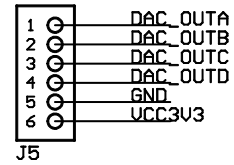
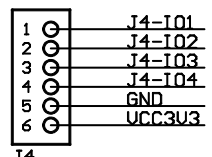
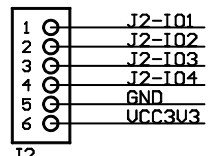
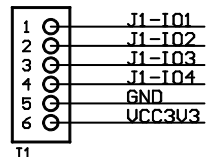


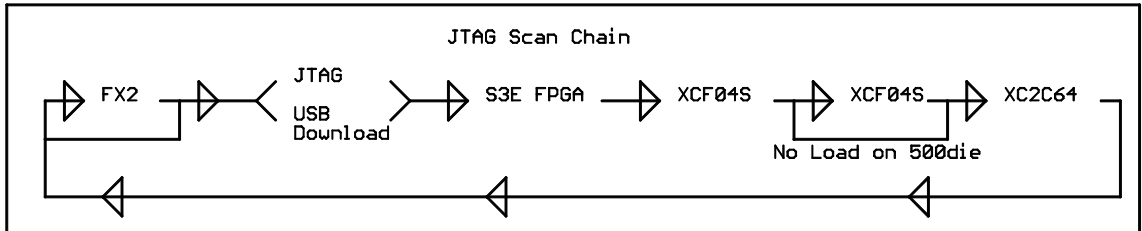
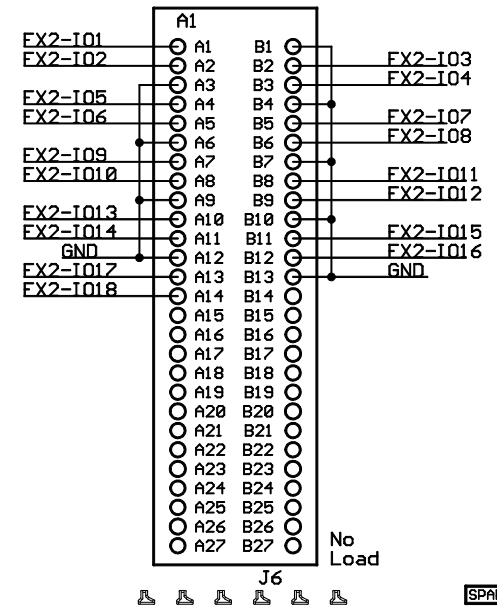
D/A and A/D header



6 Pin Header Accessory

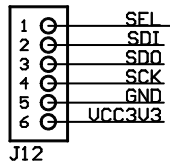


Full Size Soft Touch

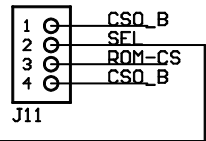


Spartan 3E 1600 Board		Engineer: CC
Digilent Inc. Copyright 2005, 2006		Author: GMA
SHEET: Hirose and Expansion Connectors		Rev: A
TITLE: S3E-1600		Doc#: 500-108
Date: 3/14/06		Sheet: 1/14

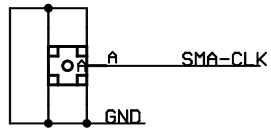
SPI Port



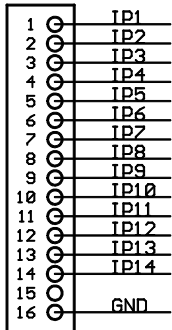
CS Jumper Select



SMA Clock



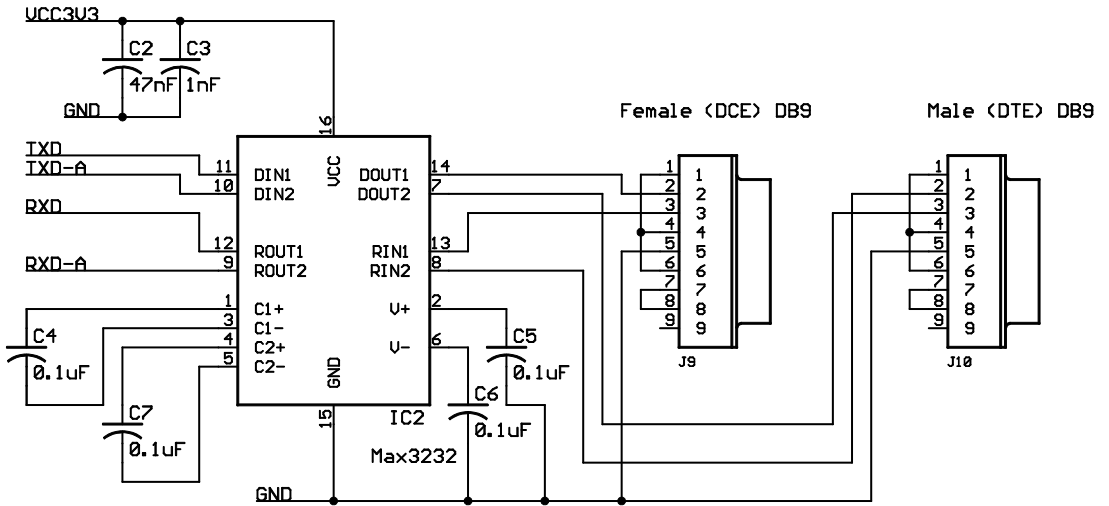
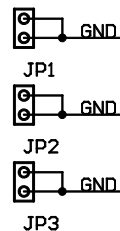
1200E/1600E Expansion Header



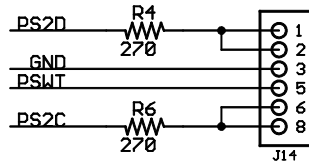
J16
Load on 1600E
No Load on 500E

- FID1
- FID2
- FID3
- FID4

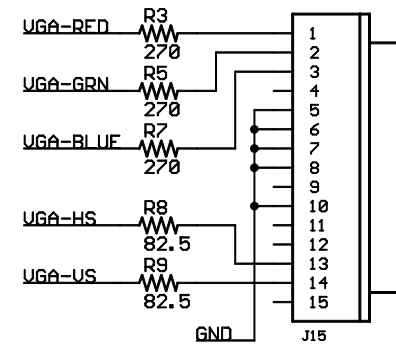
Ground Test/Storage Blocks



Keyboard PS2 connector



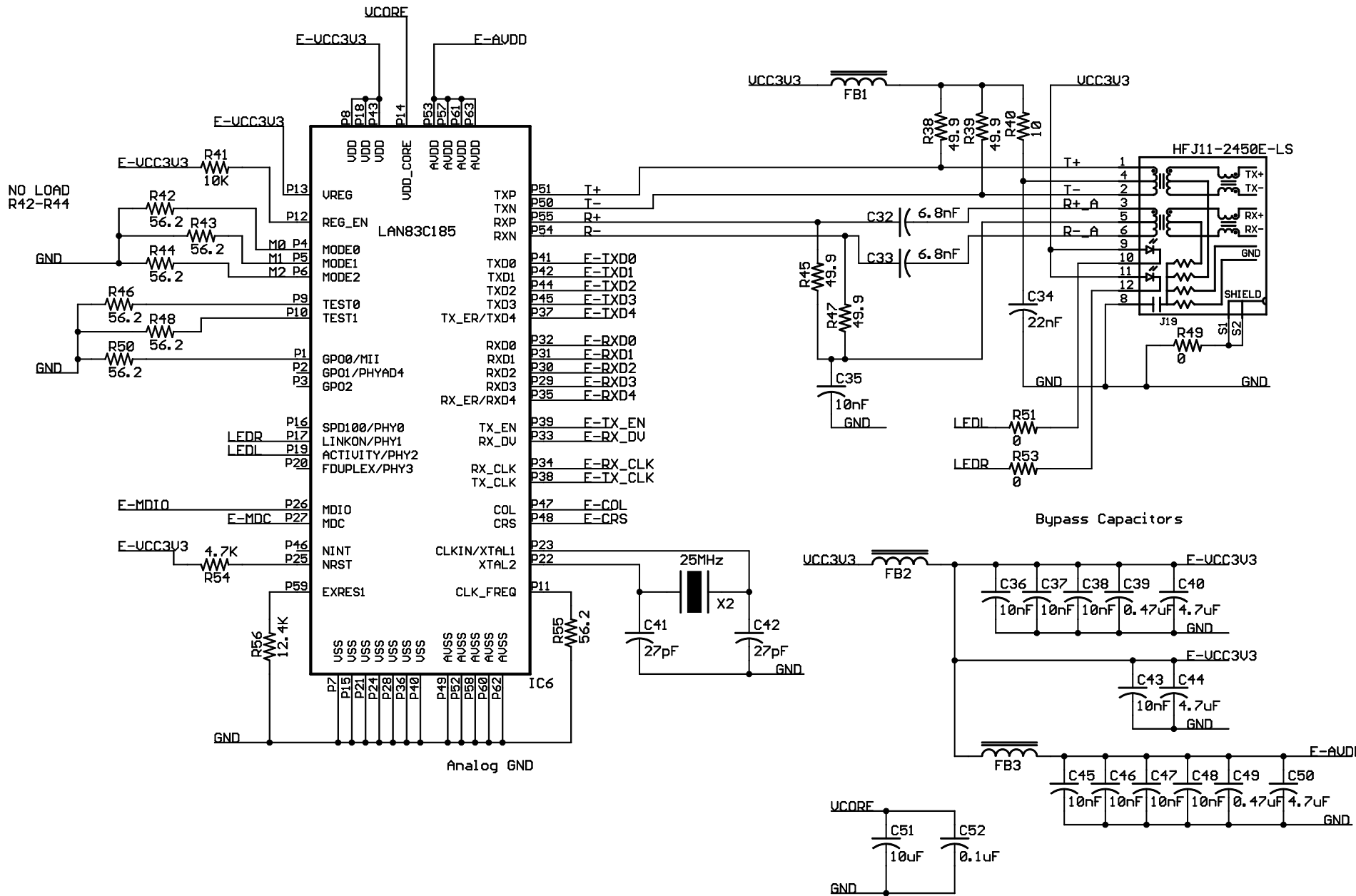
UGA Port



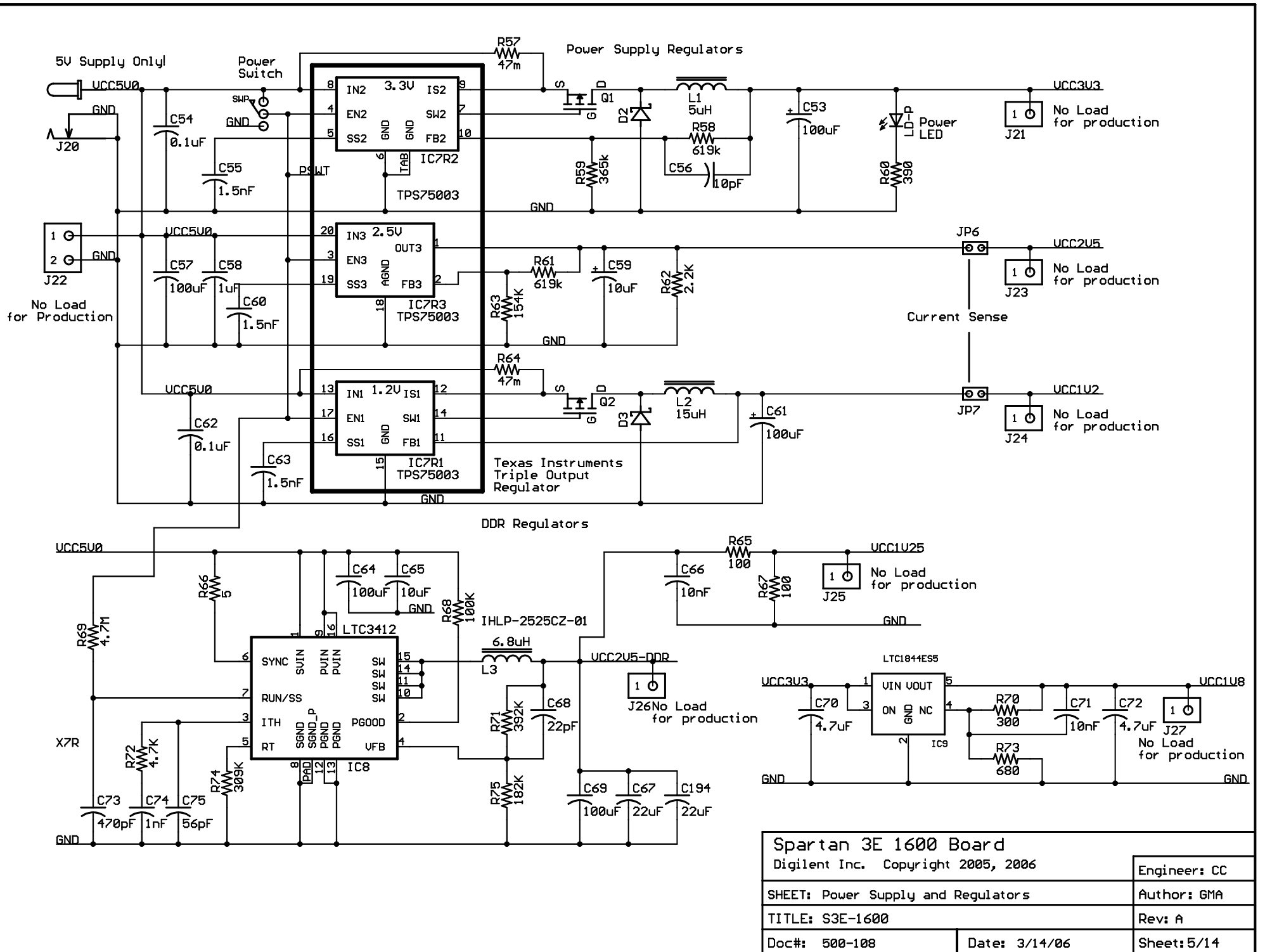
Spartan 3E 1600 Board		Engineer: CC
Digilent Inc. Copyright 2005, 2006		Author: GMA
SHEET: RS232, UGA, PS2 and Parallel I/O		Rev: A
TITLE: S3E-1600		Doc#: 500-108
Date: 3/14/06		Sheet: 2/14

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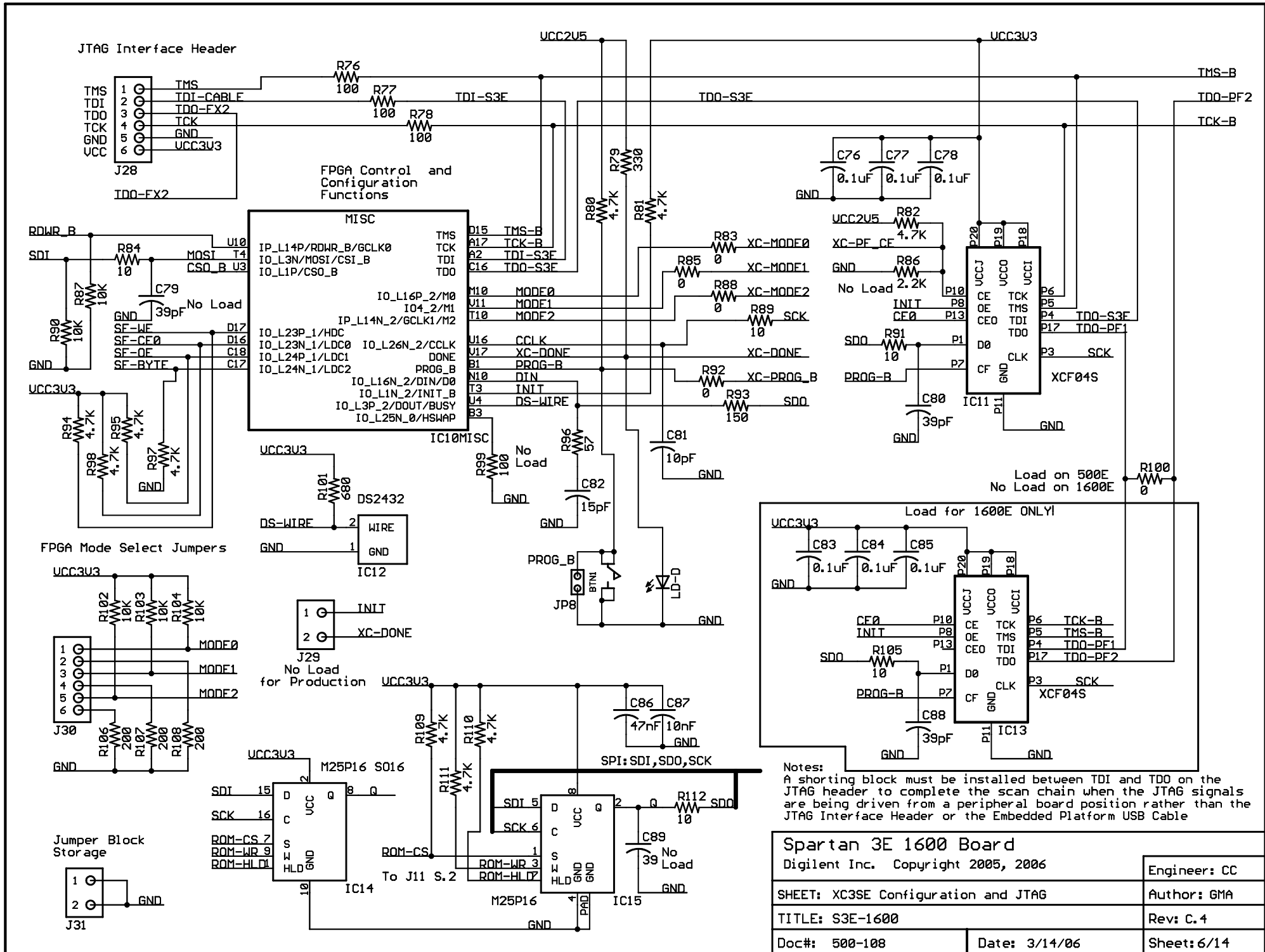
(This page outlines the Xilinx ® proprietary USB 2.0 layout/interface.)



Spartan 3E 1600 Board		Engineer: CC
Digilent Inc. Copyright 2005, 2006		Author: GMA
SHEET: Ethernet Interface		Rev: A
TITLE: S3E-1600		Date: 3/14/06
Doc#: 500-108	Date: 3/14/06	Sheet: 4/14

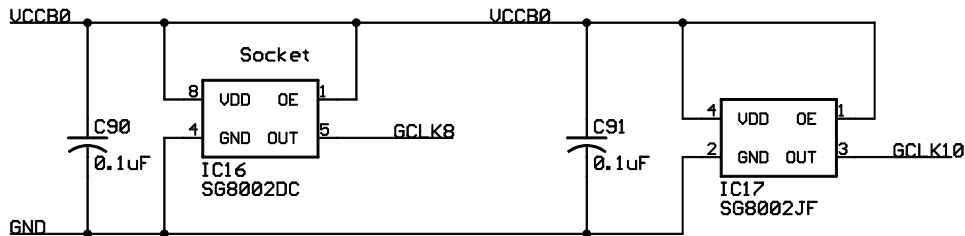
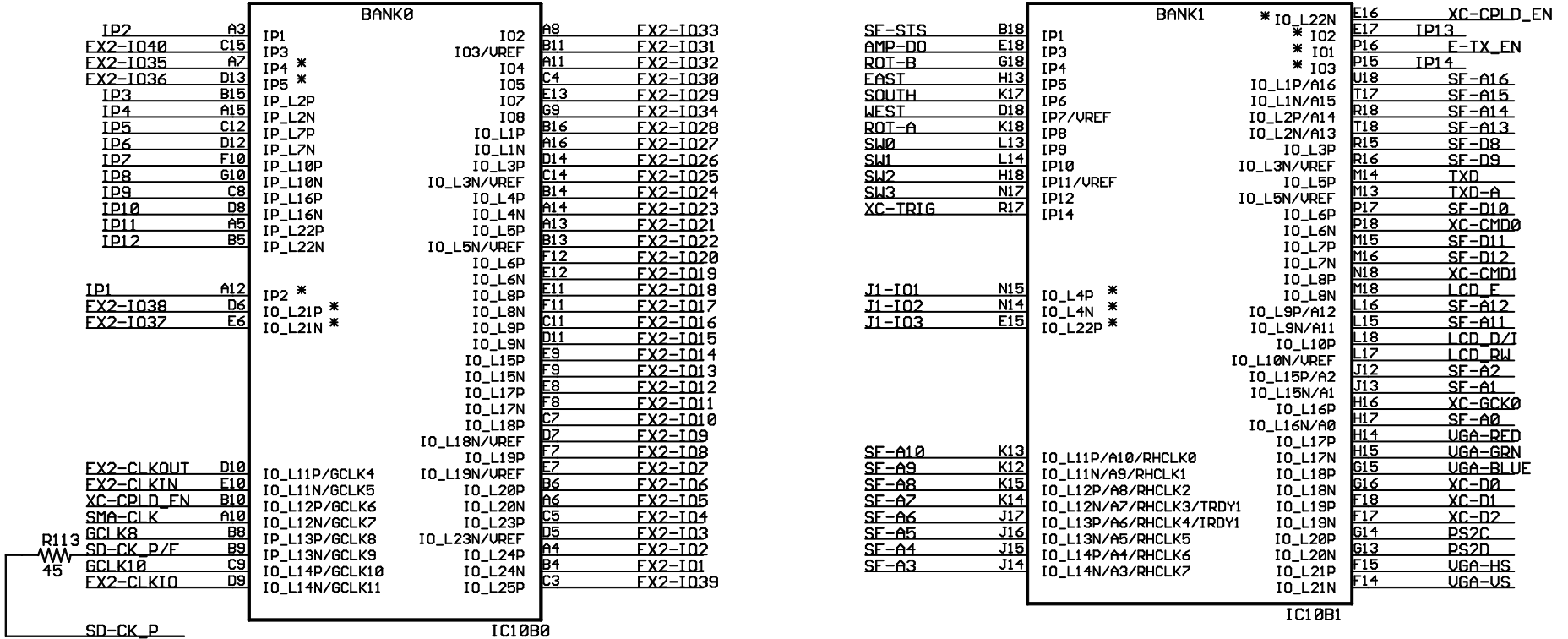


Spartan 3E 1600 Board		Engineer: CC
Digilent Inc. Copyright 2005, 2006		Author: GMA
SHEET: Power Supply and Regulators		Rev: A
TITLE: S3E-1600		Date: 3/14/06
Doc#: 500-108	Date: 3/14/06	Sheet: 5/14



UCC for Bank 0 is set By JP9 on Sheet 9

UCC for Bank 1 = 3.3V



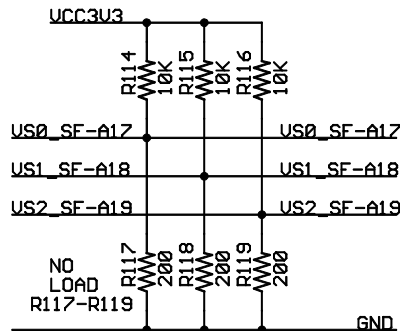
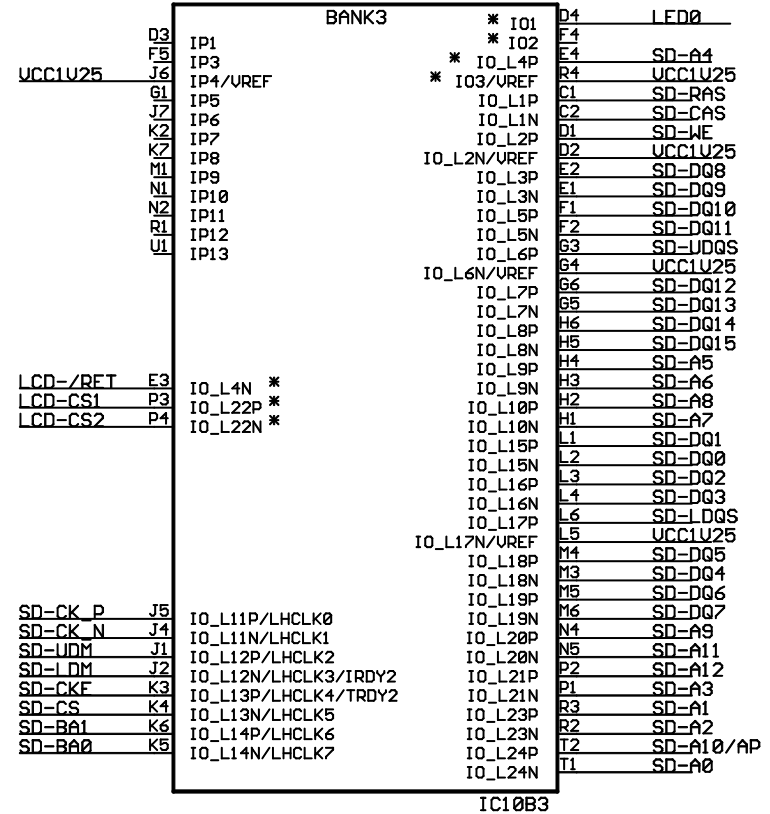
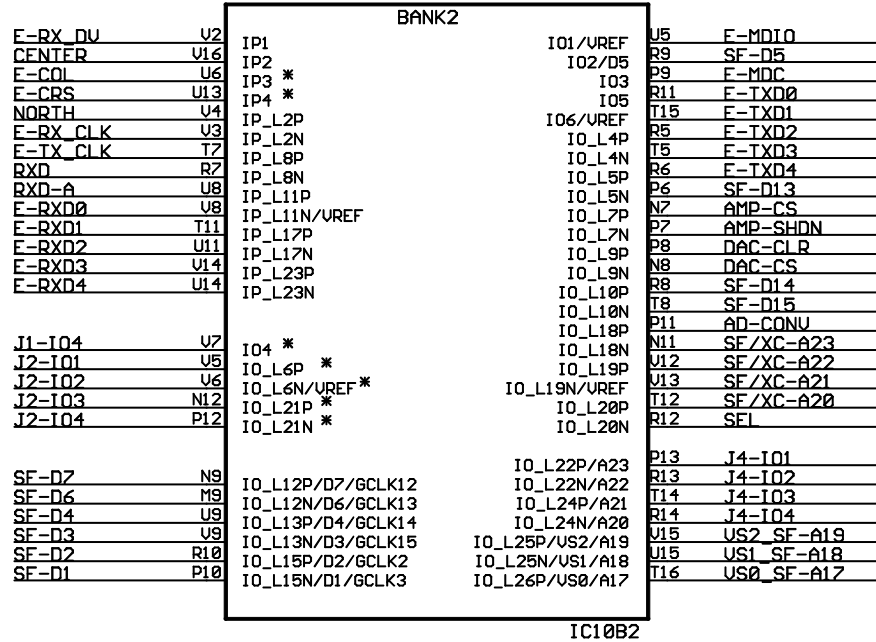
* Notes are for pins that vary between 500/1200/1600 dies

- AD - A/D Converter (11)
- AMP - Gain Amplifier (11)
- DAC - D/A converter (11)
- E- Ethernet (4)
- FX2 - Hirose FX2 Connector (1)
- ROM - M25P16 (6)
- SD- SD RAM (12)
- SF - StrataFlash (12)
- ST - Soft Touch Connector (1)
- U - USB (3)
- XC - XC9572 (10)

Spartan 3E 1600 Board		Engineer: CC
Digilent Inc. Copyright 2005, 2006		Author: GMA
SHEET: XC3SE Banks 0 and 1, Clock ICs		Rev: A
TITLE: S3E-1600		Doc#: 500-108
Date: 3/14/06		Sheet: 7/14

Ucc for Bank 2 = 3.3V

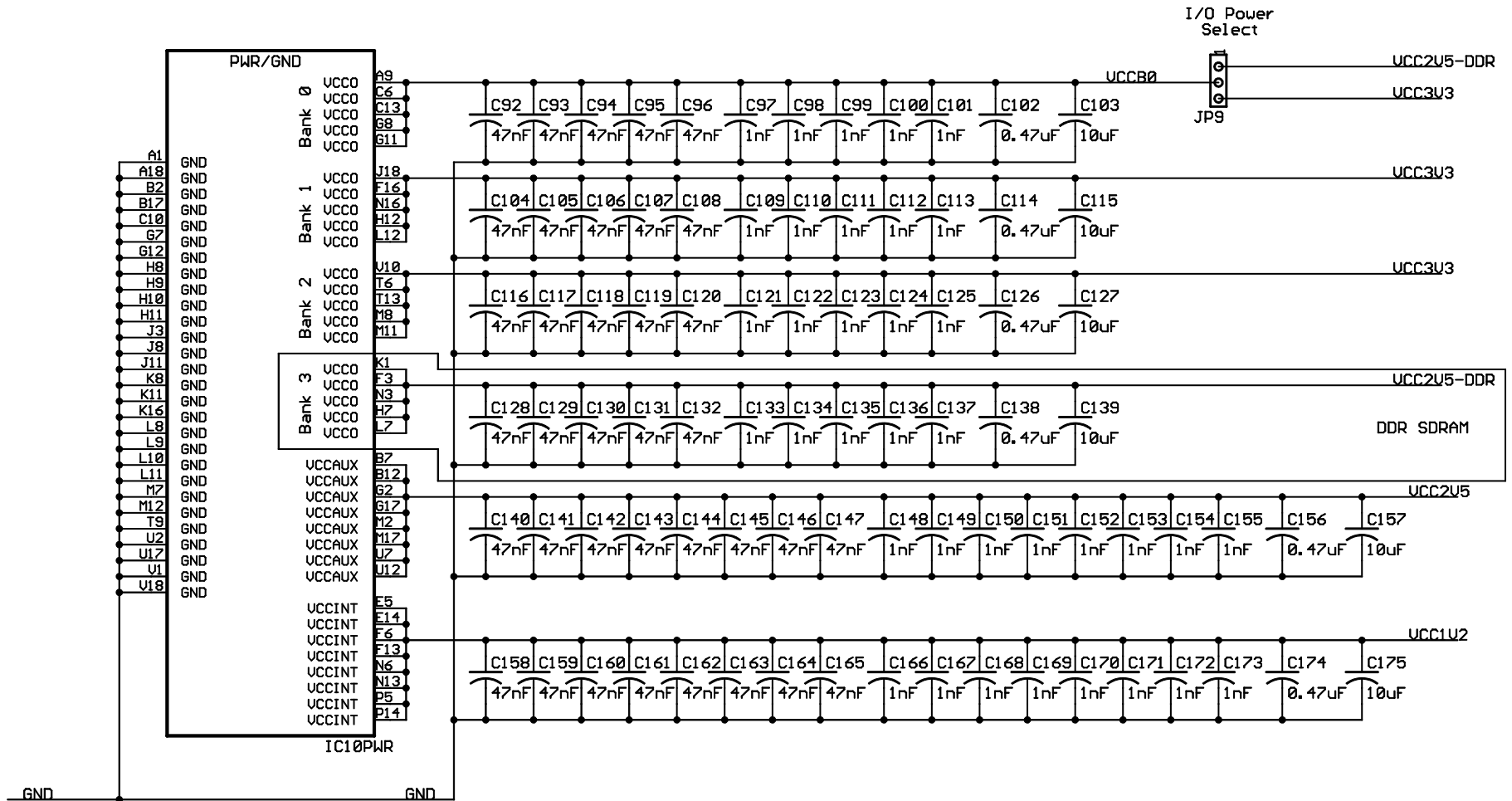
UCC vor Bank 3 = 2.5V DDR



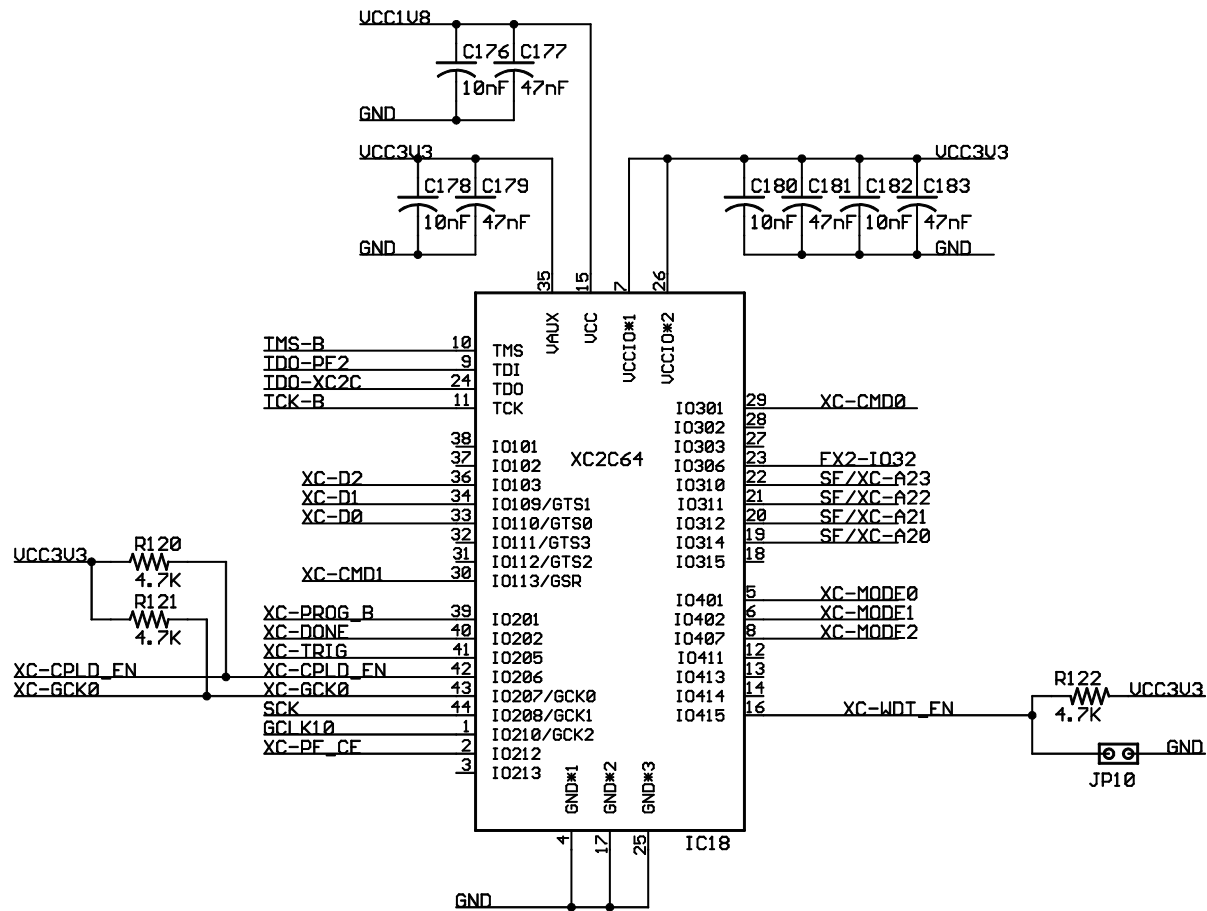
- AD - A/D Converter (11)
- AMP - Gain Amplifier (11)
- DAC - D/A converter (11)
- E- Ethernet (4)
- FX2 - Hirose FX2 Connector (1)
- ROM - M25P16 (6)
- SD- SD RAM (12)
- SF - StrataFlash (12)
- ST - Soft Touch Connector (1)
- U - USB (3)
- XC - XC9572 (10)

* Notes are for pins that vary between 500/1200/1600 dies

Spartan 3E 1600 Board		Engineer: CC
Digilent Inc. Copyright 2005, 2006		Author: GMA
SHEET: XC3SE Banks 2 and 3		Rev: A
TITLE: S3E-1600		Doc#: 500-108
Date: 3/14/06		Sheet: 8/14



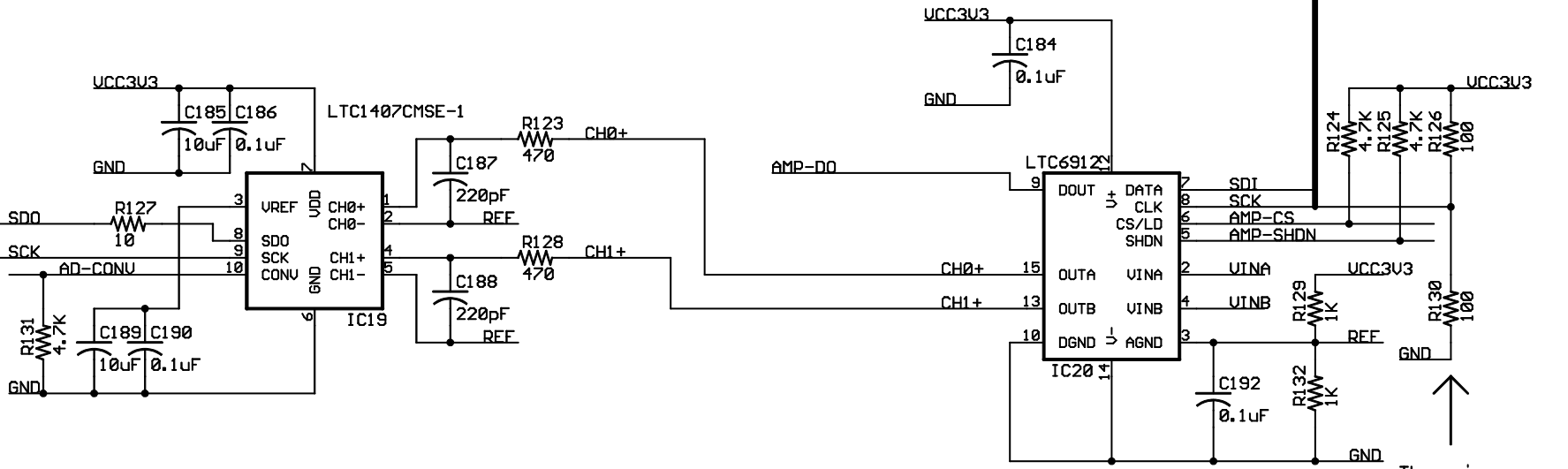
Spartan 3E 1600 Board		Engineer: CC
Digilent Inc. Copyright 2005, 2006		Author: GMA
SHEET: XC3SE Power Decoupling		Rev: A
TITLE: S3E-1600		Date: 3/14/06
Doc#: 500-108	Date: 3/14/06	Sheet: 9/14



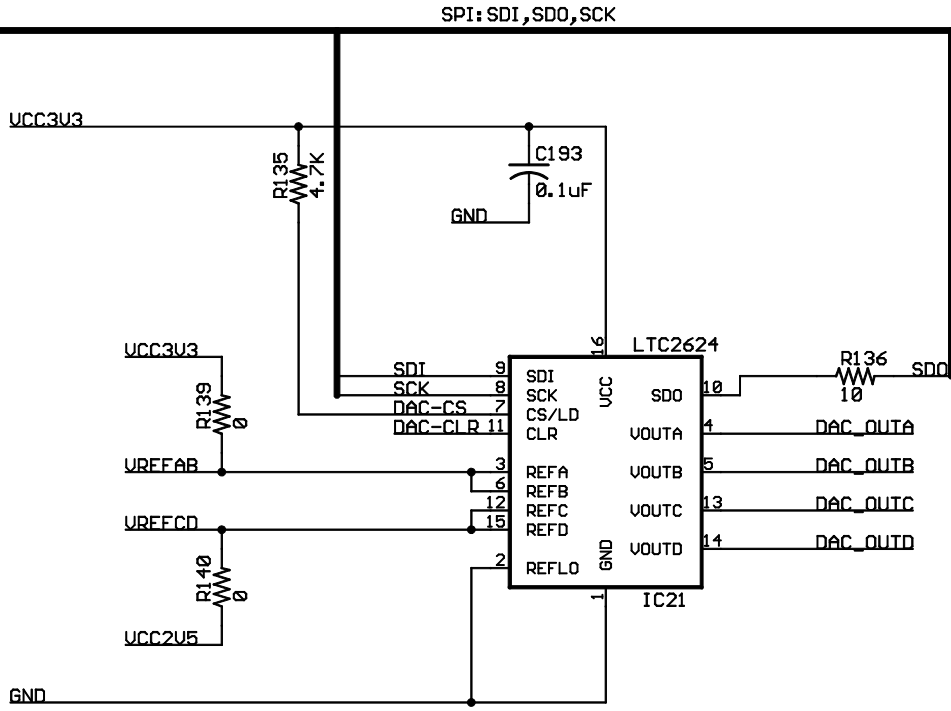
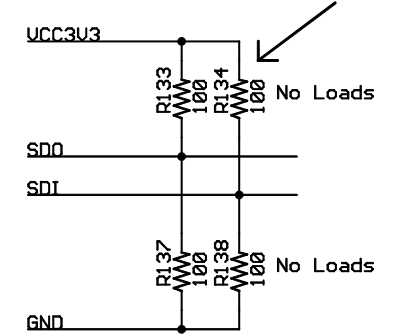
Spartan 3E 1600 Board		Engineer: CC
Digilent Inc. Copyright 2005, 2006		Author: GMA
SHEET: XC2C64 CPLD		Rev: A
TITLE: S3E-1600		Date: 3/14/06
Doc#: 500-108	Date: 3/14/06	Sheet: 10/14

SPI:SDI,SDO,SCK

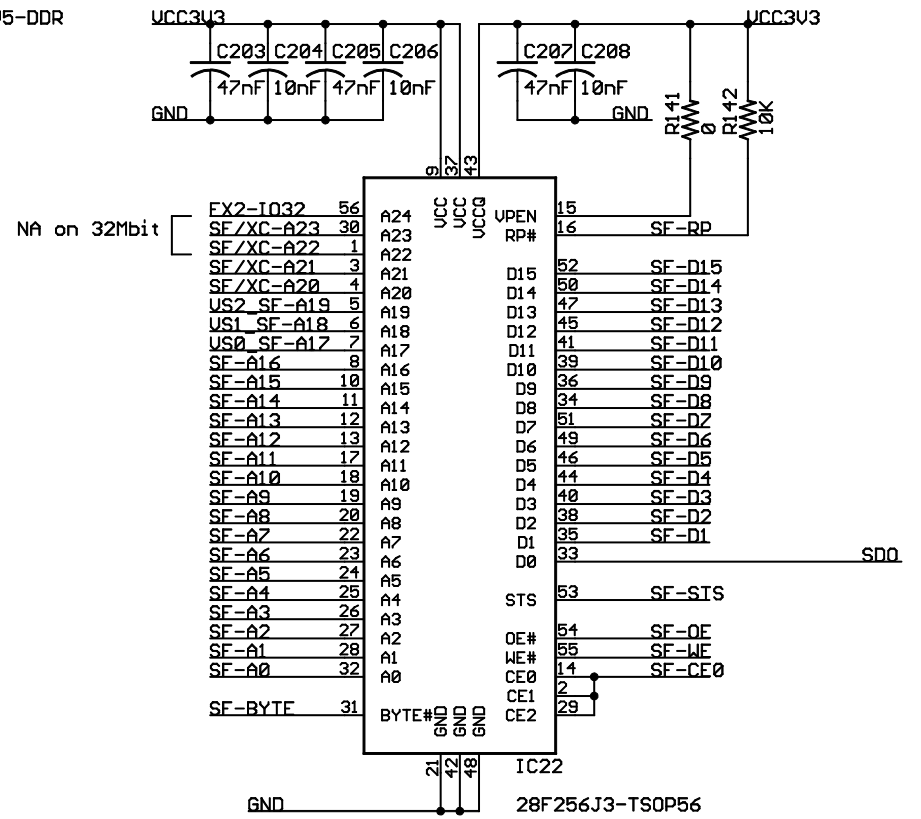
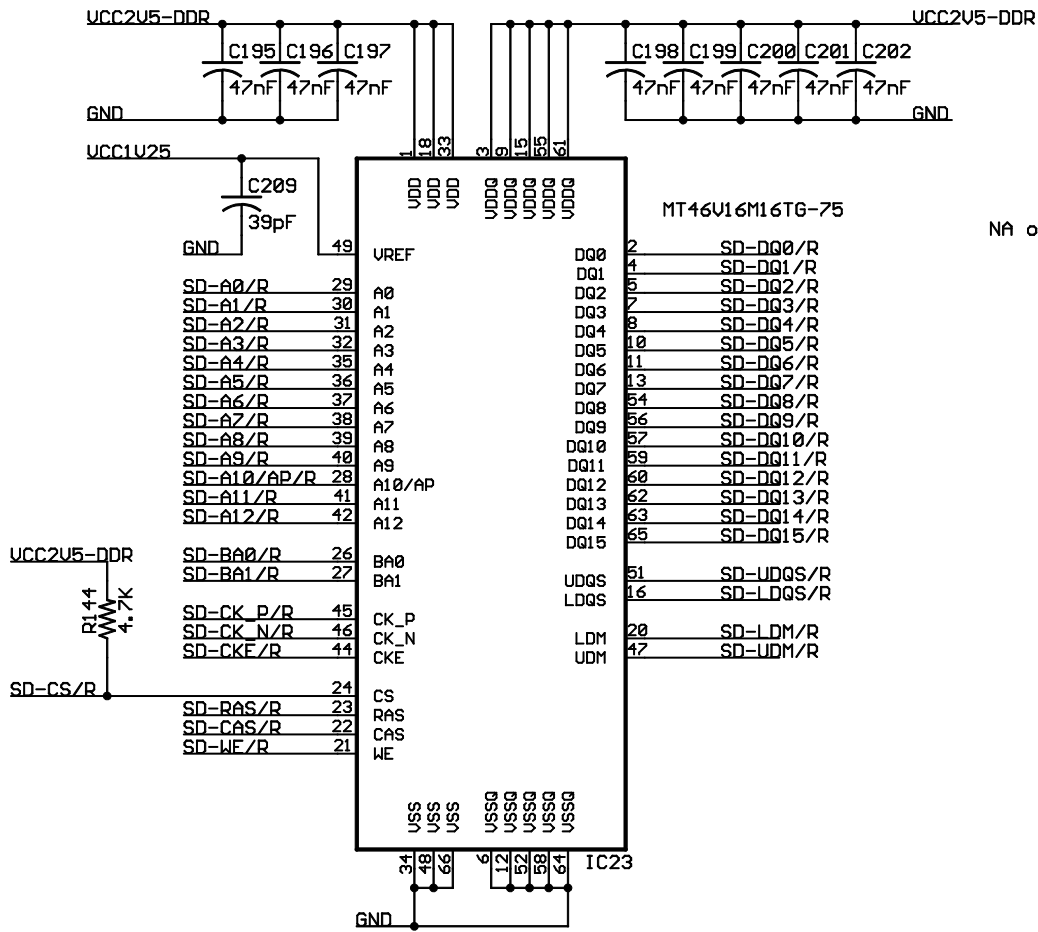
SPI:SDI,SDO,SCK



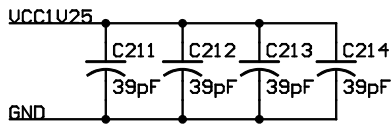
Thevenin Termination (place at end of chain)



Spartan 3E 1600 Board		Engineer: CC
Digilent Inc. Copyright 2005, 2006		Author: GMA
SHEET: A/D and D/A Converters		Rev: A
TITLE: S3E-1600		Doc#: 500-108
Date: 3/14/06		Sheet:11/14



UREF Decoupling

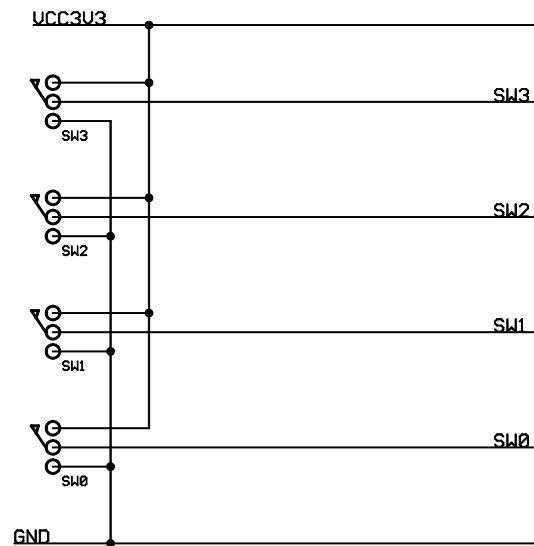


Xilinx CoolRunner 2

NOTE: Termination network for IC20, the MT46U16M16TG-75 on sheet 14

Spartan 3E 1600 Board		Engineer: CC
Digilent Inc. Copyright 2005, 2006		Author: GMA
SHEET: DDR SDRAM and StrataFlash		Rev: A
TITLE: S3E-1600		Doc#: 500-108
Date: 3/14/06		Sheet:12/14

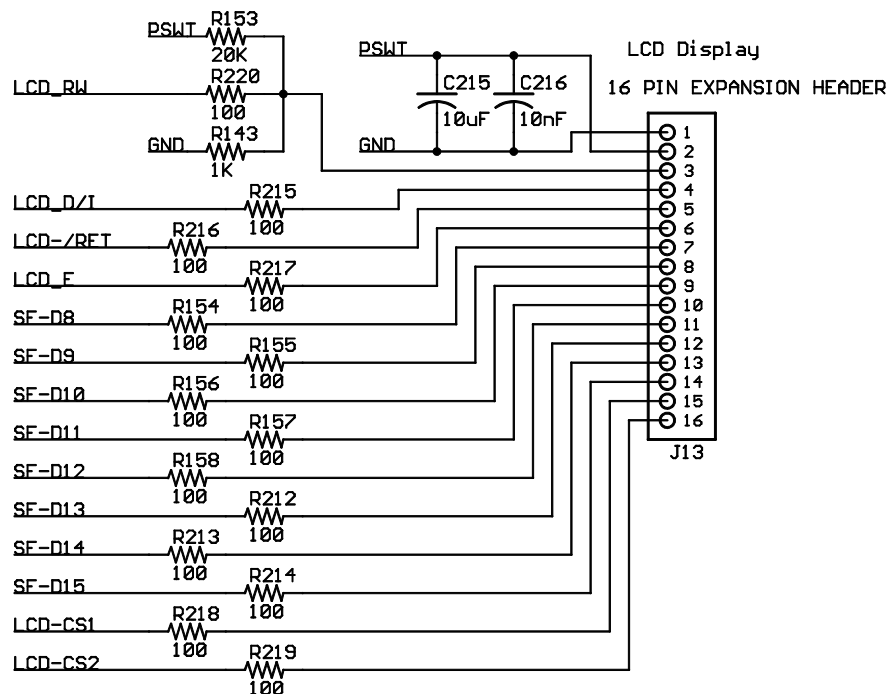
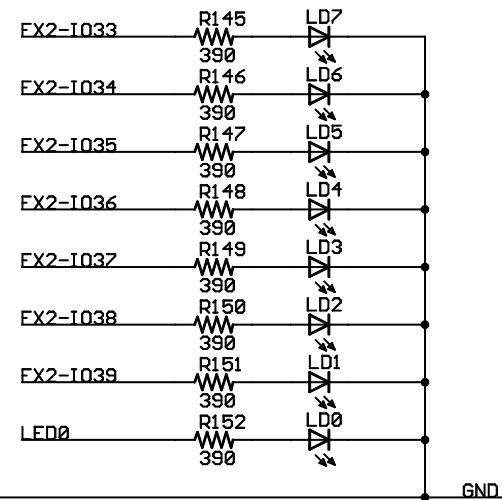
Switches



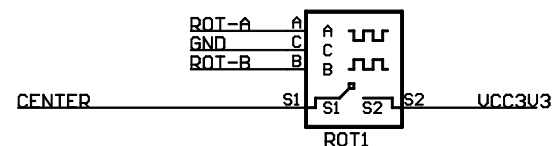
Buttons



LEDs

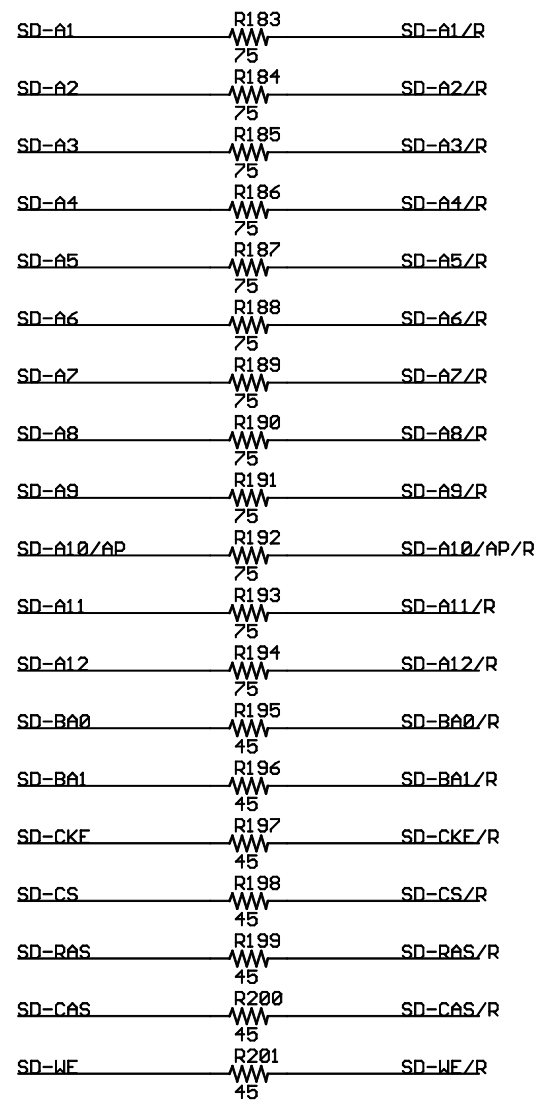
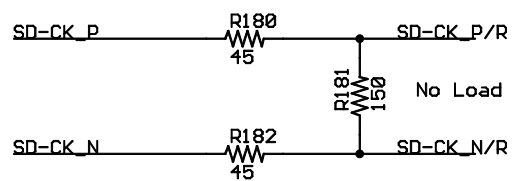
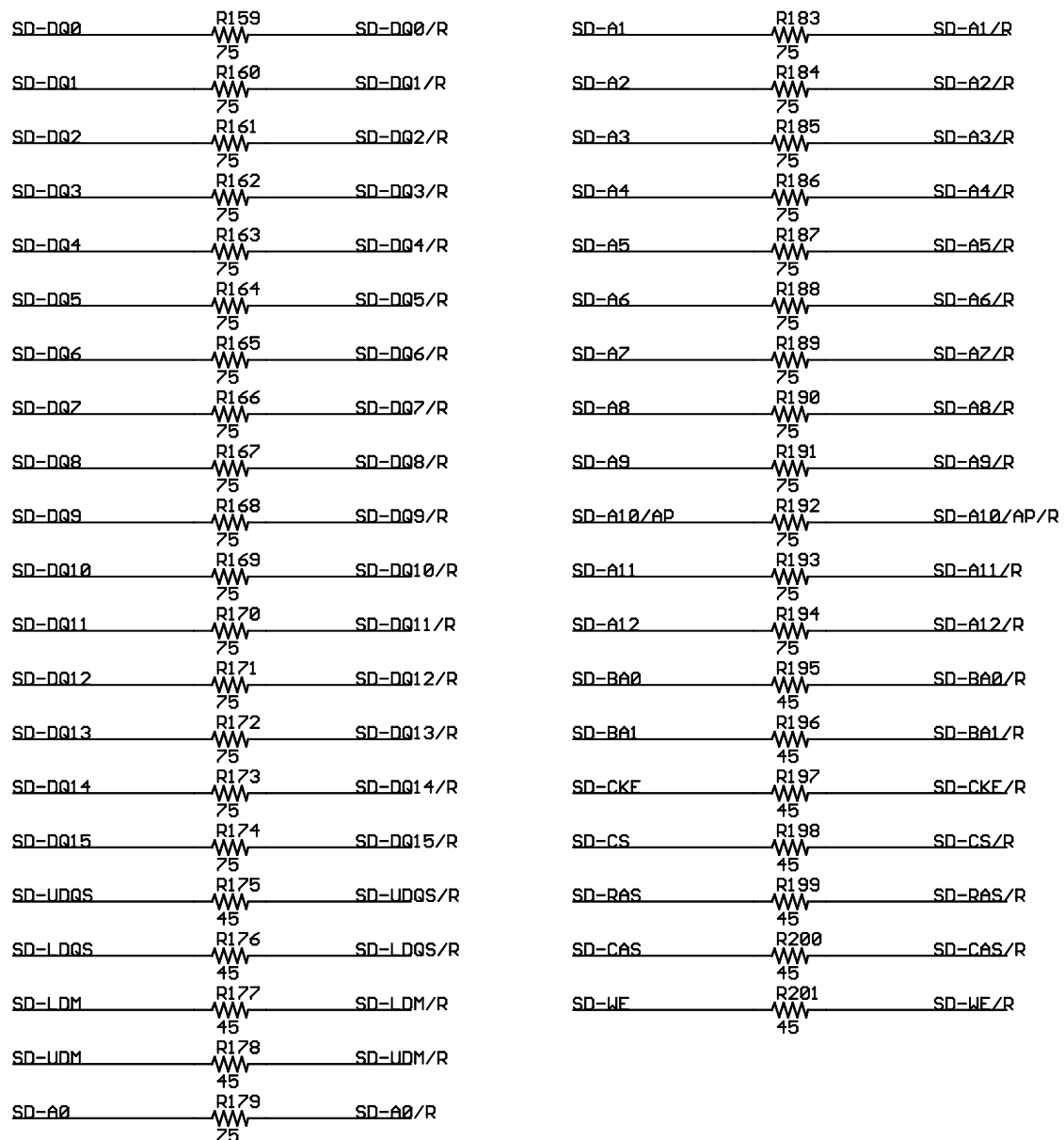


Pushbutton/Rotary Encoder

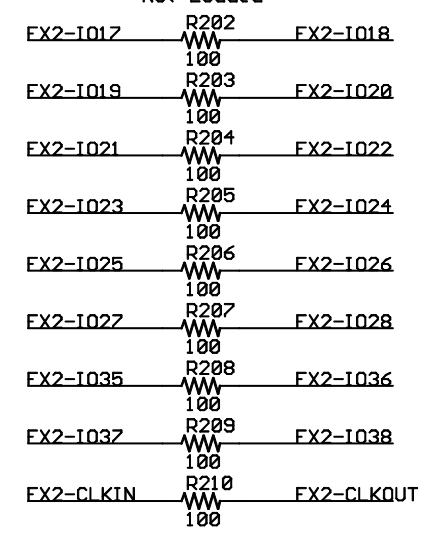


Spartan 3E 1600 Board		Engineer: CC
Digilent Inc. Copyright 2005, 2006		Author: GMA
SHEET: LCD and General IOs		Rev: A
TITLE: S3E-1600		Doc#: 500-108
Date: 3/14/06		Sheet:13/14

DDR Series Termination



FX2 Differential Termination
Not Loaded



Spartan 3E 1600 Board		Engineer: CC
Digilent Inc. Copyright 2005, 2006		Author: GMA
SHEET: DDR Memory Signals		Rev: A
TITLE: S3E-1600		Doc#: 500-108
Date: 3/14/06	Sheet:14/14	