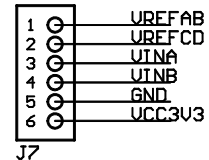
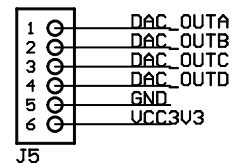
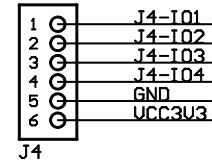
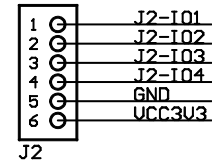
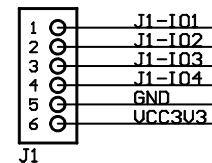


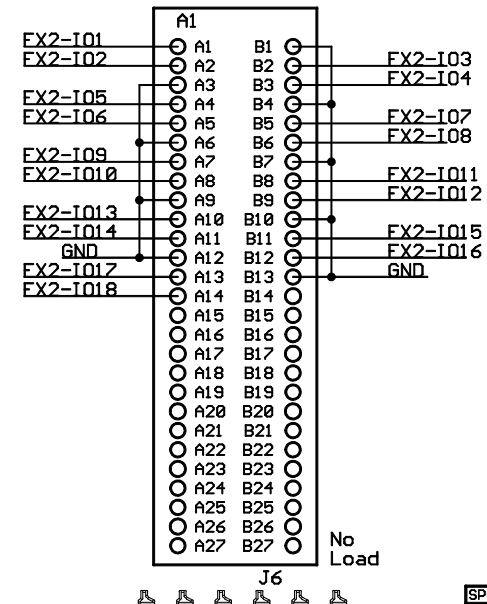
D/A and A/D header



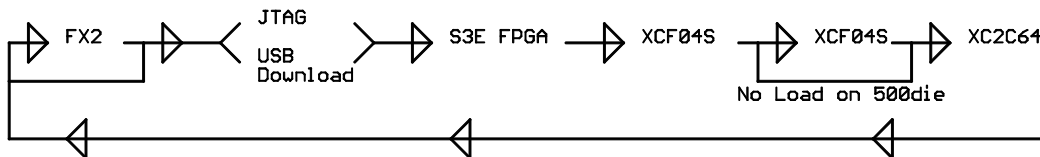
6 Pin Header Accessory



Full Size Soft Touch



JTAG Scan Chain



Xilinx.com

SPARTAN 3E

Designed and Manufactured by  
Digilent Inc.

Linear  
Technology

Micron

Intel  
Strataflash

SMSC  
Texas  
Instruments

Xilinx  
Platform  
Flash

ST  
Micro

WEE

Spartan 3E 1600 Board

Digilent Inc. Copyright 2005, 2006

Engineer: CC

SHEET: Hirose and Expansion Connectors

Author: GMA

TITLE: S3E-1600

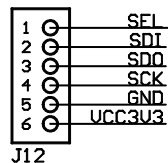
Rev: A.1

Doc#: 500-108

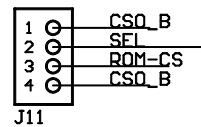
Date: 6/12/06

Sheet:1/14

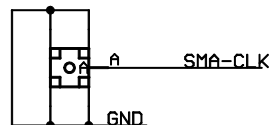
SPI Port



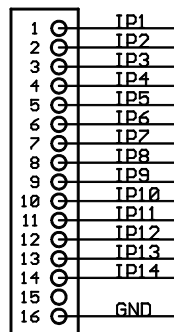
CS Jumper Select



SMA Clock



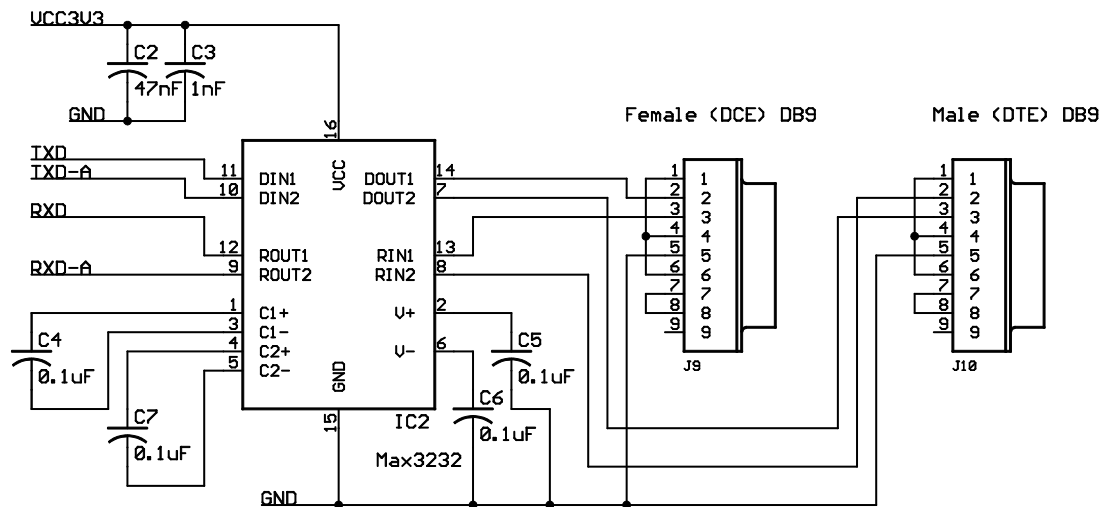
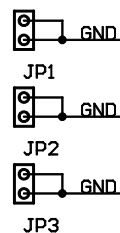
1200E/1600E Expansion Header



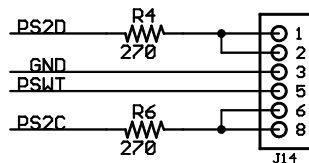
J16  
Load on 1600E  
No Load on 500E

- FID1
- FID2
- FID3
- FID4

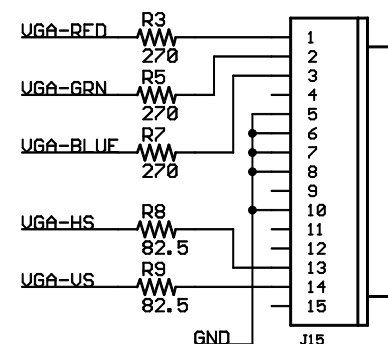
Ground Test/Storage Blocks



Keyboard PS2 connector



UGA Port



Spartan 3E 1600 Board

Digilent Inc. Copyright 2005, 2006

Engineer: CC

SHEET: RS232, UGA, PS2 and Parallel I/O

Author: GMA

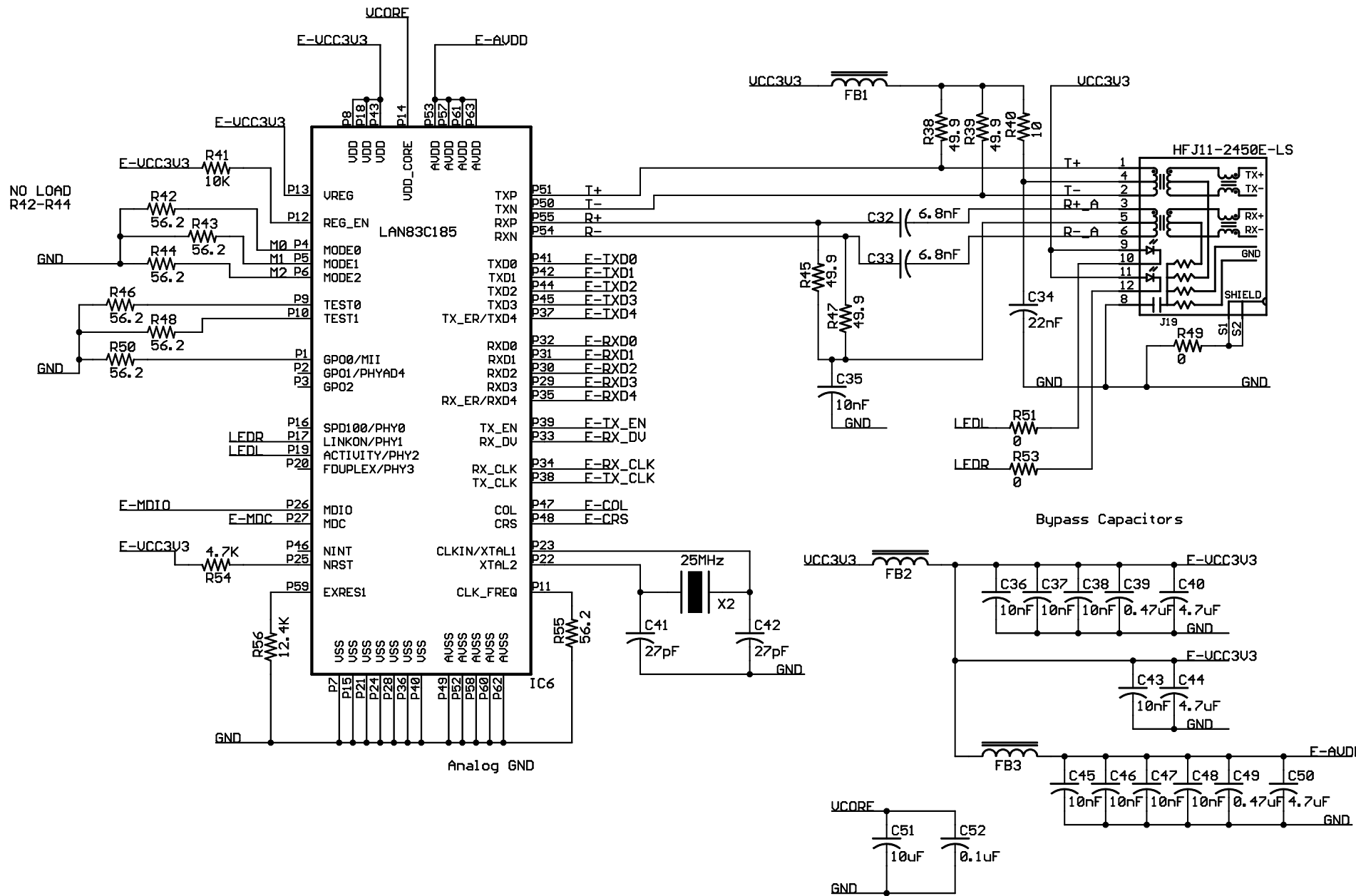
TITLE: S3E-1600

Rev: A.1

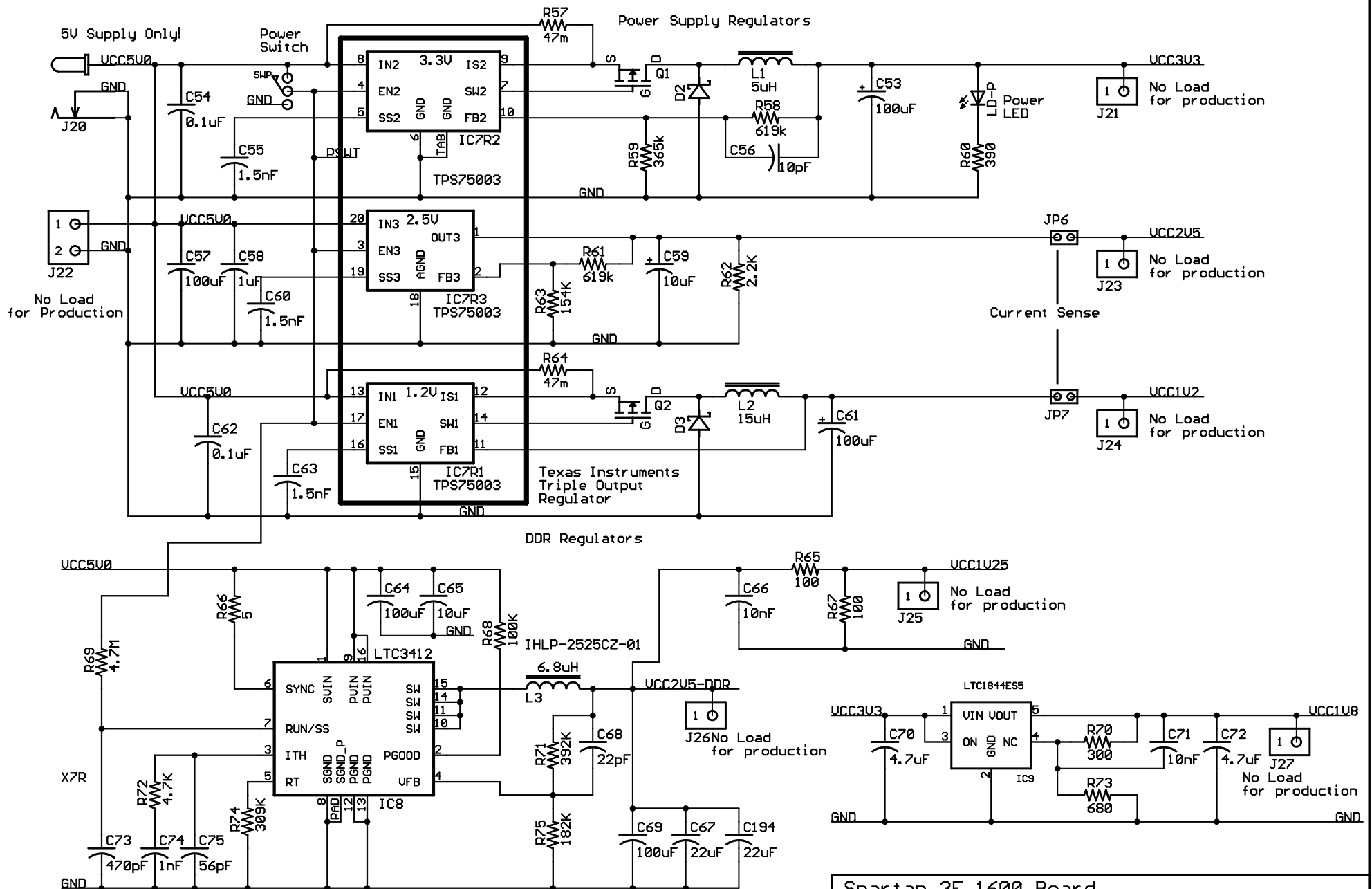
Doc#: 500-108

Date: 6/12/06

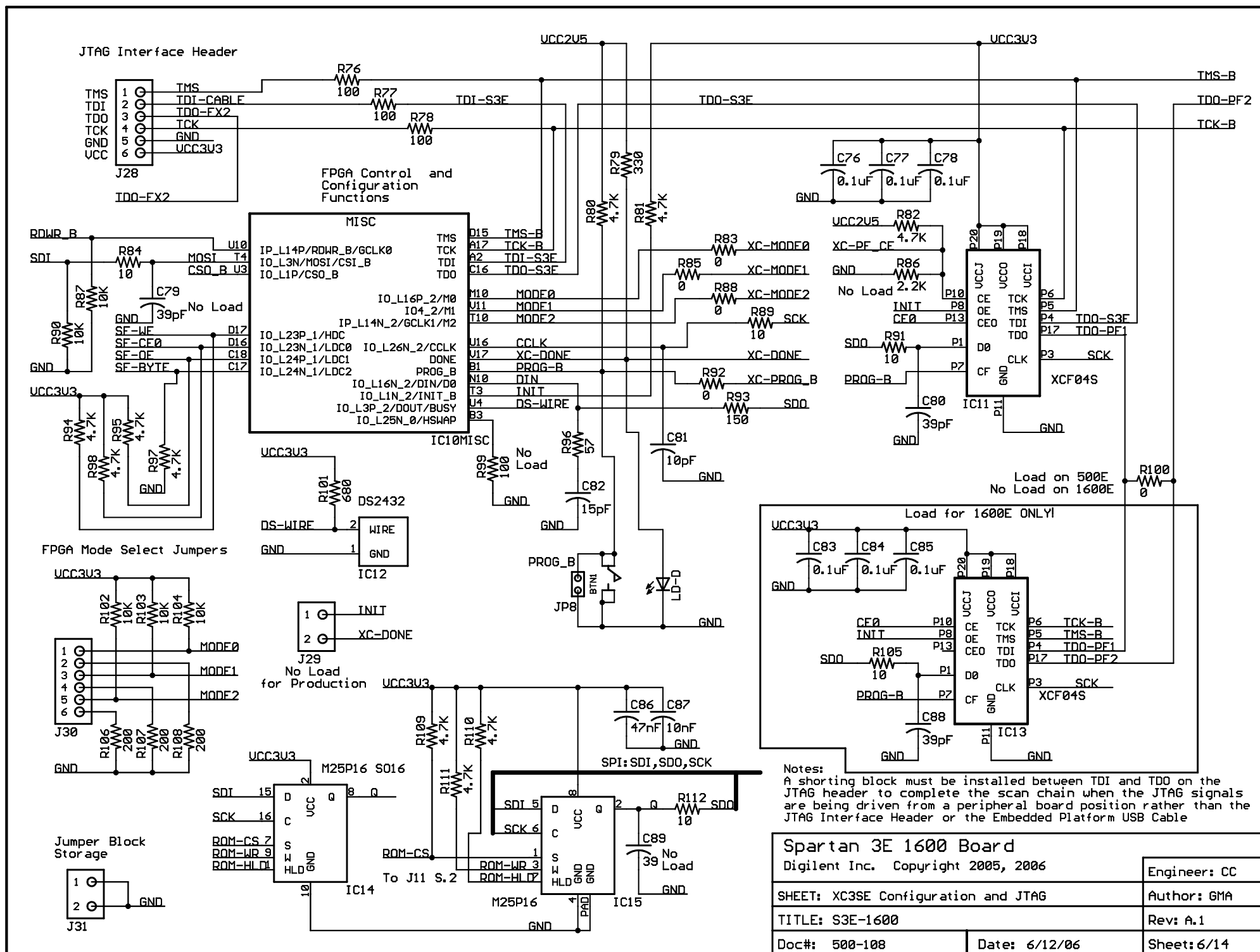
Sheet: 2/14



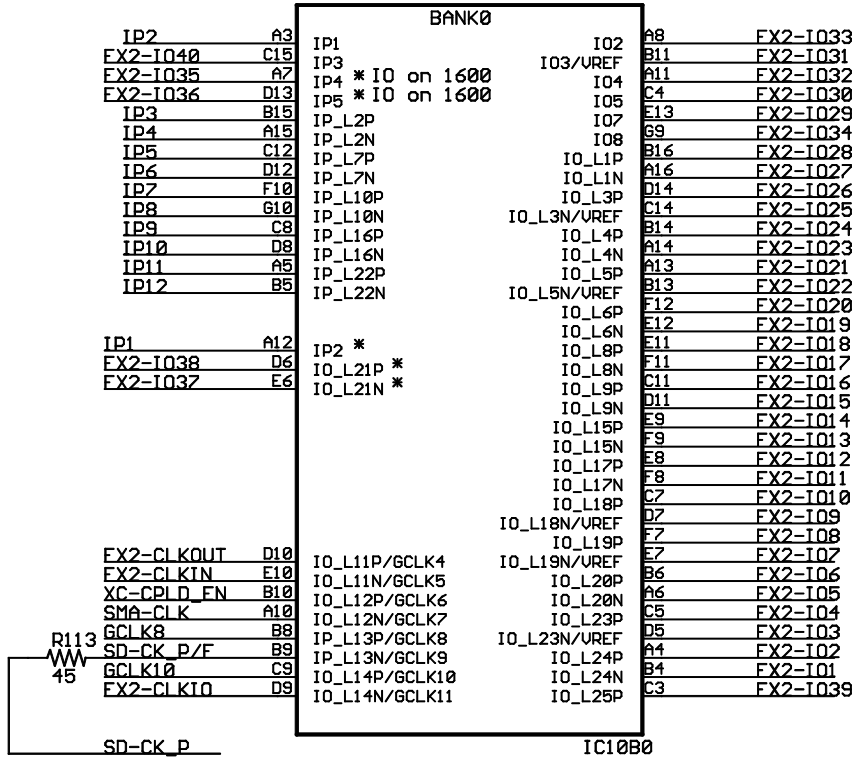
Spartan 3E 1600 Board		Engineer: CC	
Digilent Inc. Copyright 2005, 2006		Author: GMA	
SHEET: Ethernet Interface		Rev: A.1	
TITLE: S3E-1600		Date: 6/12/06	
Doc#: 500-108	Date: 6/12/06		Sheet: 4/14



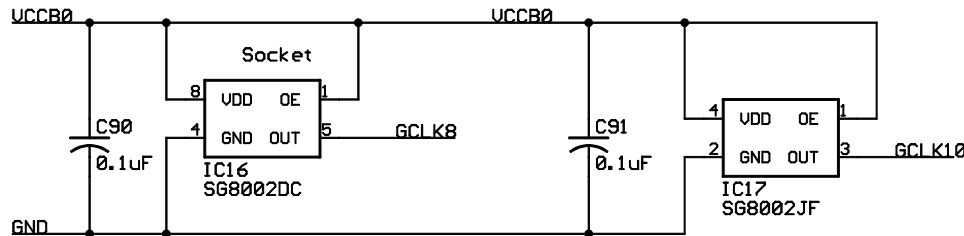
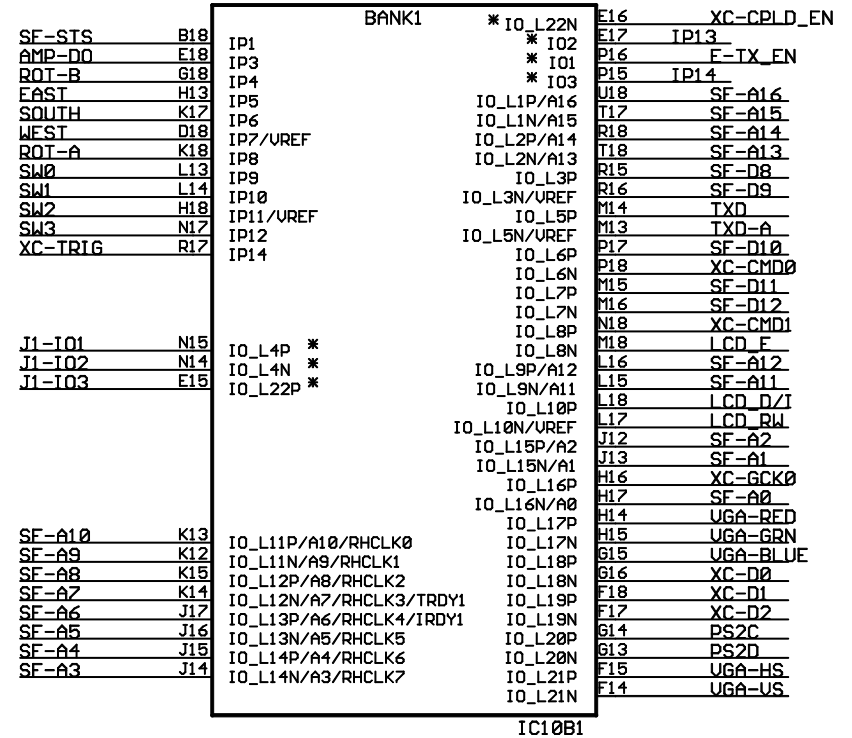
Spartan 3E 1600 Board		Engineer: CC	
Digilent Inc. Copyright 2005, 2006		Author: GMA	
SHEET: Power Supply and Regulators		Rev: A.1	
TITLE: S3E-1600		Date: 6/12/06	
Doc#: 500-108	Date: 6/12/06		Sheet: 5/14



UCC for Bank 0 is set By JP9 on Sheet 9



UCC for Bank 1 = 3.3V



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

Digilent Inc. Copyright 2005, 2006

Engineer: CC

SHEET: XC3SE Banks 0 and 1, Clock ICs

Author: GMA

TITLE: S3E-1600

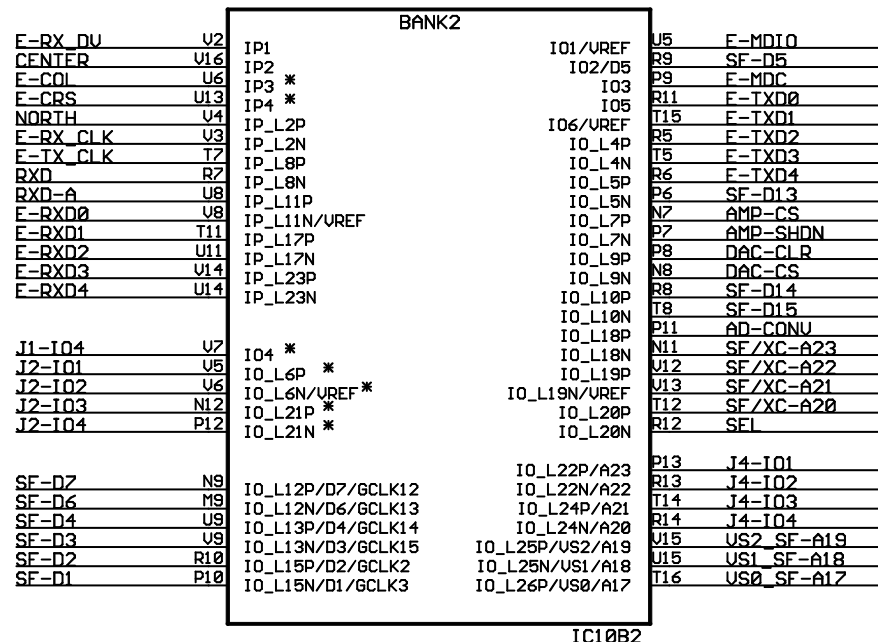
Rev: A.1

Doc#: 500-108

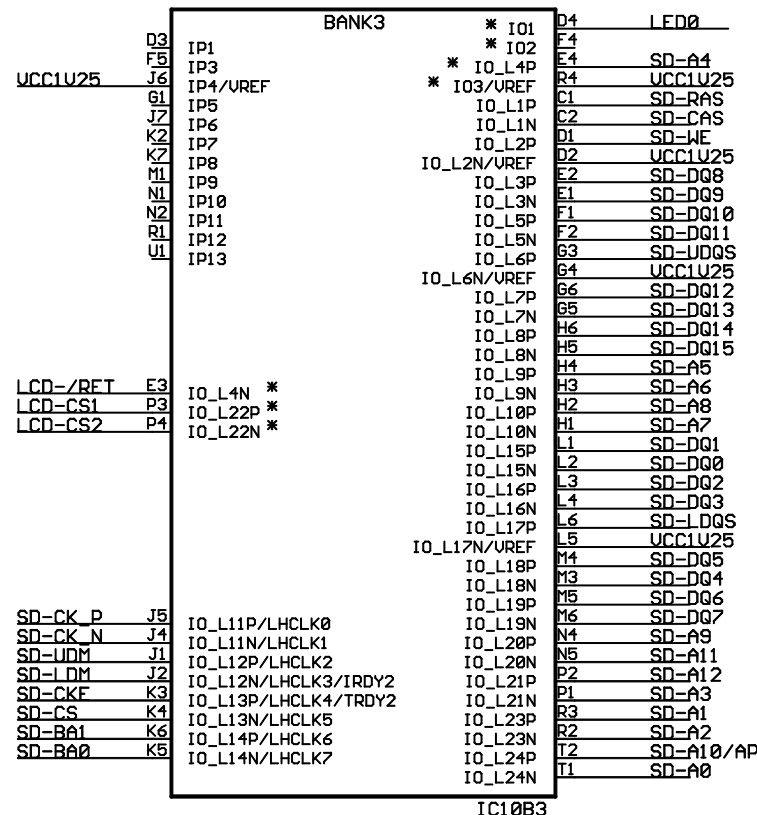
Date: 6/12/06

Sheet: 7/14

Ucc for Bank 2 = 3.3V



UCC vor Bank 3 = 2.5V DDR

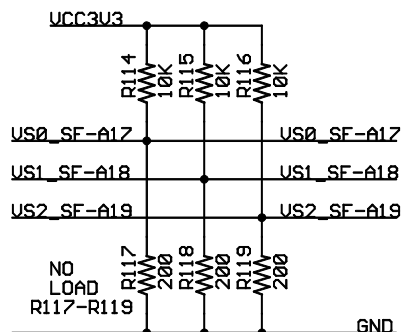


LCD-/RFT E3  
LCD-CS1 P3  
LCD-CS2 P4

SD-CK\_P J5  
SD-CK\_N J4  
SD-UDM J1  
SD-LDM J2  
SD-CKE K3  
SD-CS K4  
SD-BA1 K6  
SD-BA0 K5

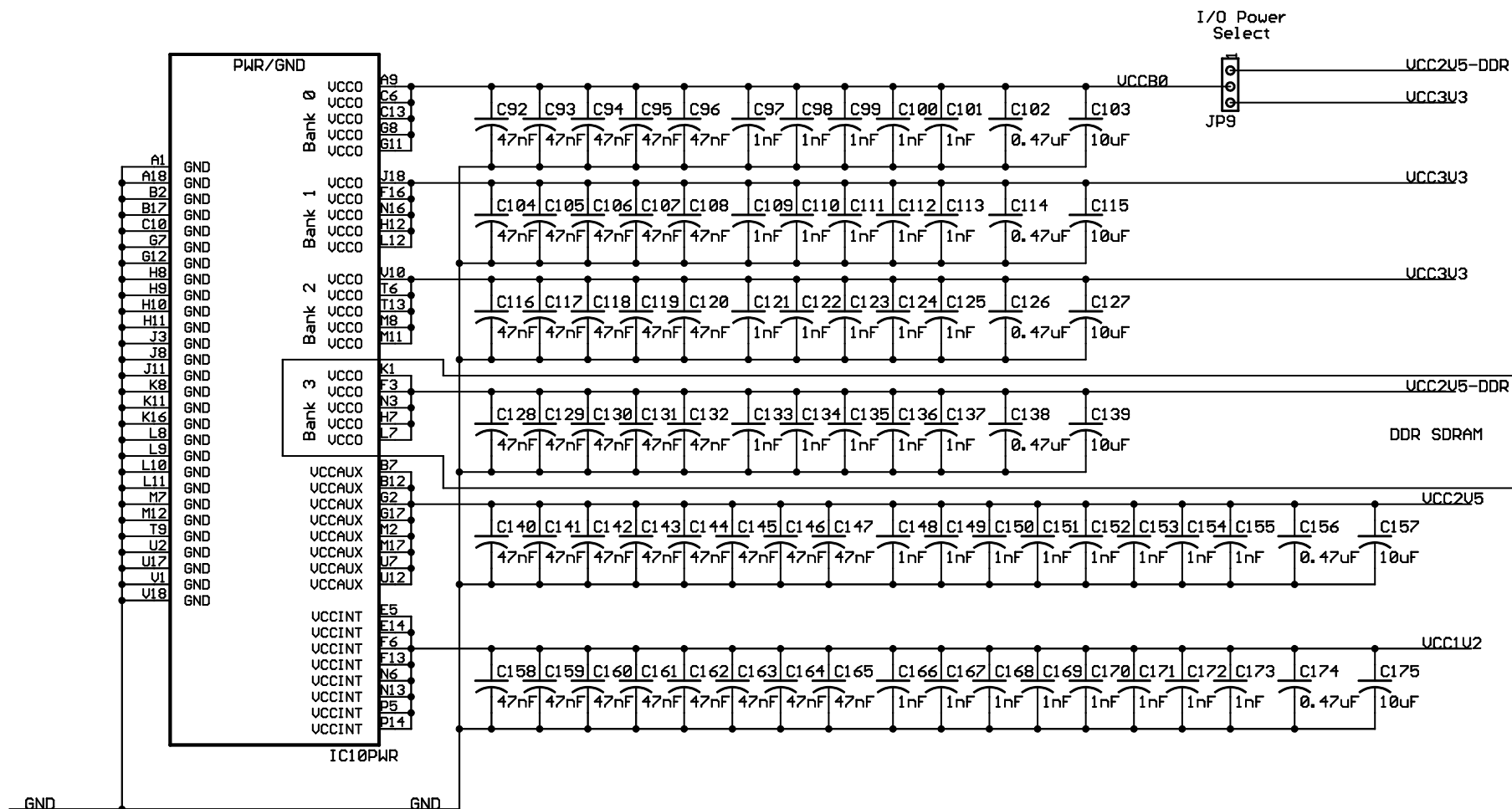
IO\_L11P/LHCLK0  
IO\_L11N/LHCLK1  
IO\_L12P/LHCLK2  
IO\_L12N/LHCLK3/TRDY2  
IO\_L13P/LHCLK4/TRDY2  
IO\_L13N/LHCLK5  
IO\_L14P/LHCLK6  
IO\_L14N/LHCLK7

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)



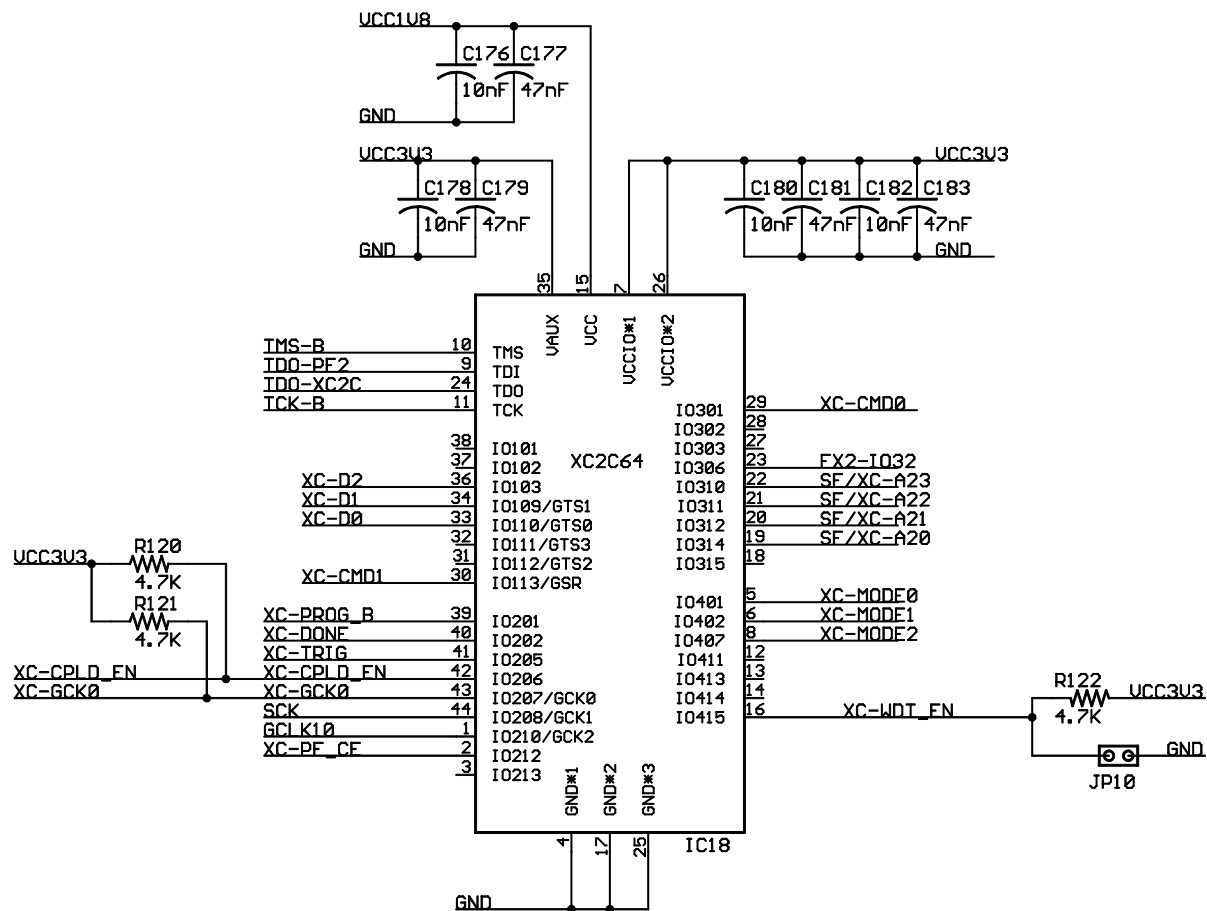
\* Notes are for pins that vary between 500/1200/1600 dies

Spartan 3E 1600 Board			Engineer: CC
Diligent Inc. Copyright 2005, 2006			
SHEET: XC3SE Banks 2 and 3			Author: GMA
TITLE: S3E-1600			Rev: A.1
Doc#: 500-108	Date: 6/12/06	Sheet: 8/14	



Spartan 3E 1600 Board		
Digilent Inc. Copyright 2005, 2006		Engineer: CC
SHEET: XC3SE Power Decoupling		Author: GMA
TITLE: S3E-1600		Rev: A.1
Doc#: 500-108	Date: 6/12/06	Sheet: 9/14





# Spartan 3E 1600 Board

Digilent Inc. Copyright 2005, 2006

Engineer: CC

SHEET: XC2C64 CPLD

Author: GMA

TITLE: S3E-1600

Rev: A.1

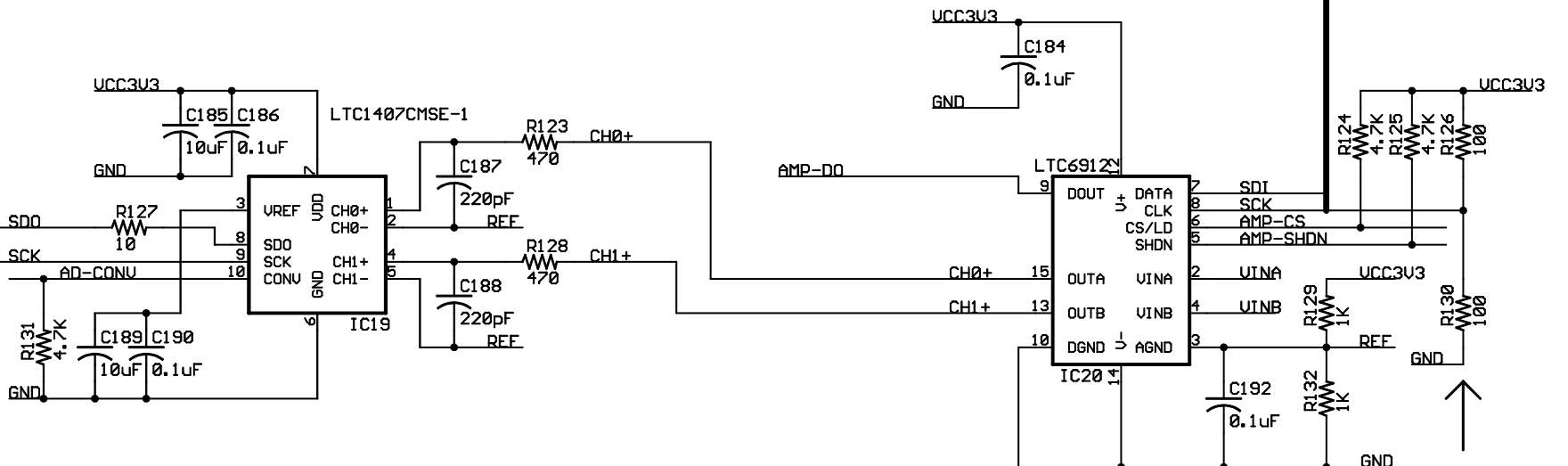
Doc#: 500-108

Date: 6/12/06

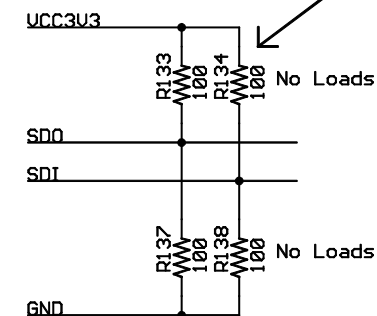
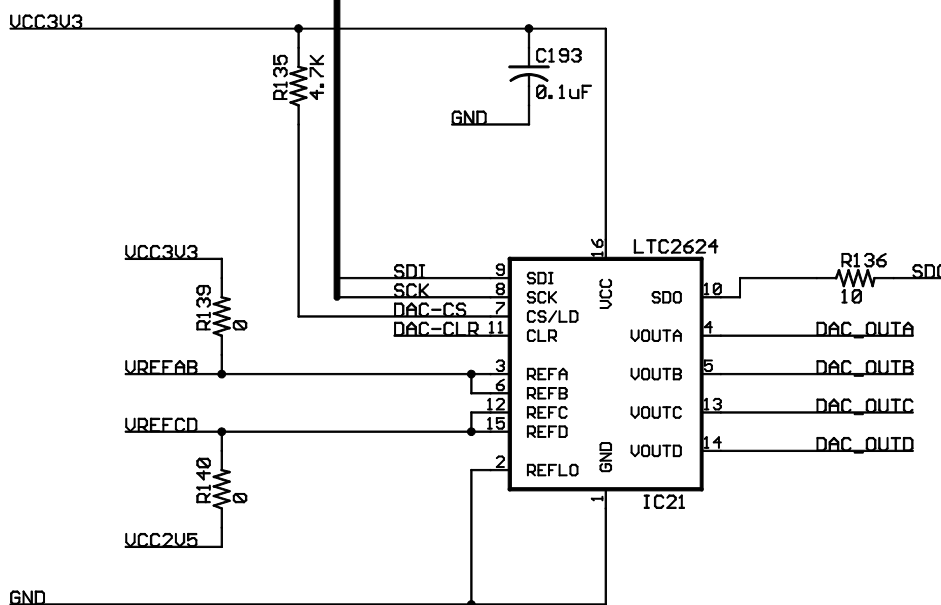
Sheet:10/14

SPI: SDI, SDO, SCK

SPI: SDI, SDO, SCK



SPI: SDI, SDO, SCK



Spartan 3E 1600 Board

Digilent Inc. Copyright 2005, 2006

Engineer: CC

SHEET: A/D and D/A Converters

Author: GMA

TITLE: S3E-1600

Rev: A.1

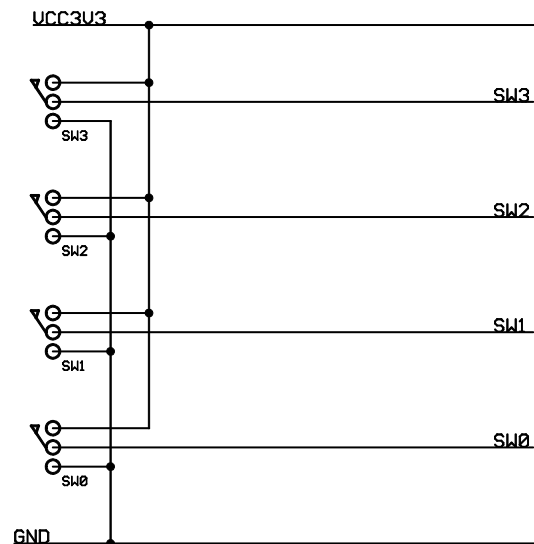
Doc#: 500-108

Date: 6/12/06

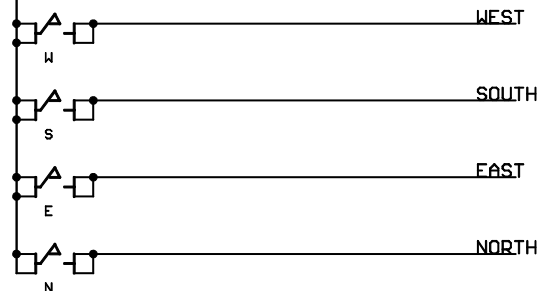
Sheet: 11/14



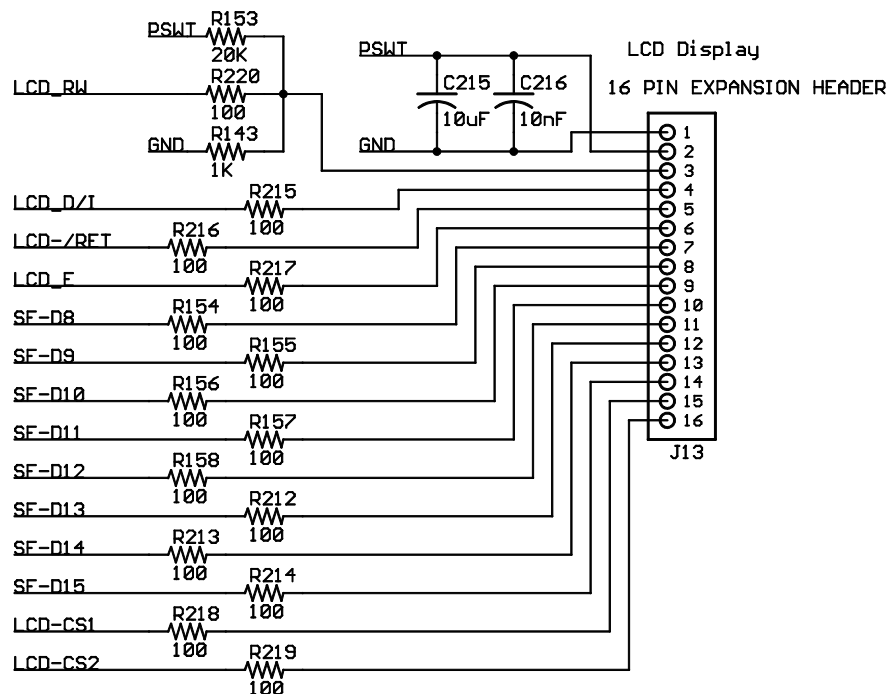
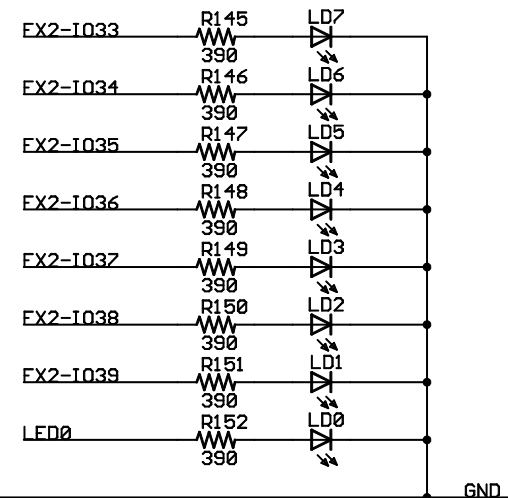
## Switches



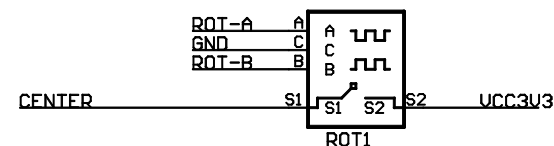
## Buttons



## LEDs



## Pushbutton/Rotary Encoder



Spartan 3E 1600 Board

Digilent Inc. Copyright 2005, 2006

Engineer: CC

SHEET: LCD and General I/Os

Author: GMA

TITLE: S3E-1600

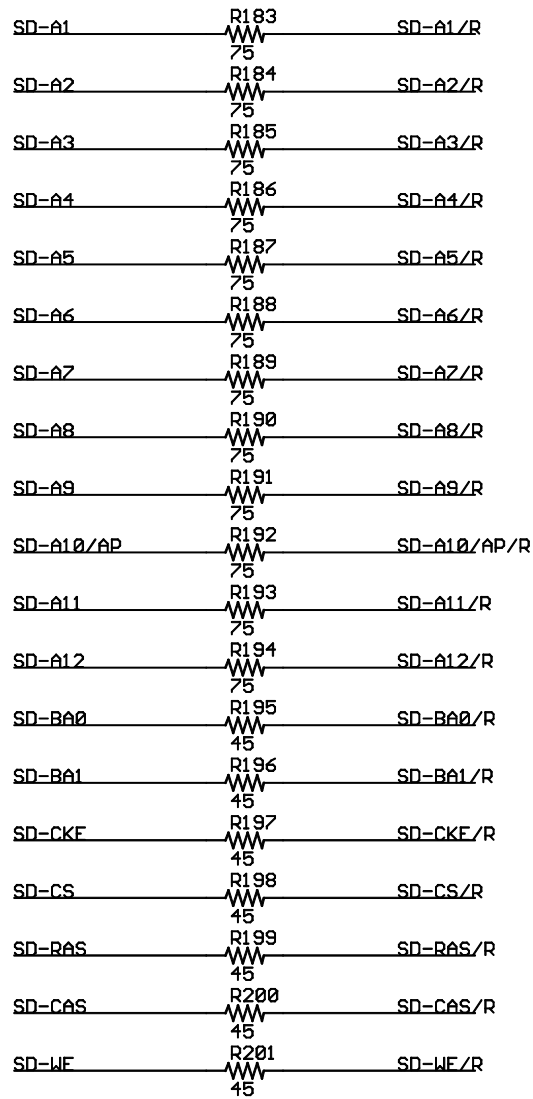
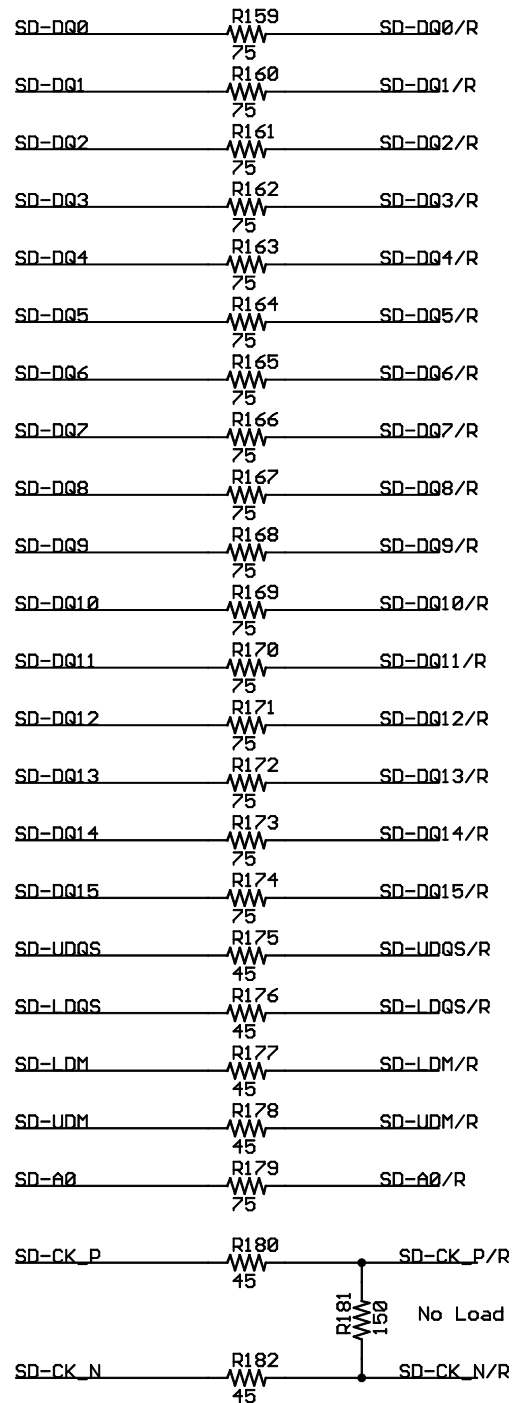
Rev: A.1

Doc#: 500-108

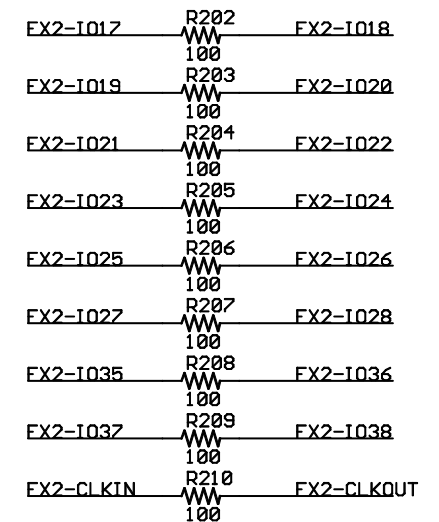
Date: 6/12/06

Sheet: 13/14

# DDR Series Termination



## FX2 Differential Termination Not Loaded



Spartan 3E 1600 Board

Digilent Inc. Copyright 2005, 2006

Engineer: CC

SHEET: DDR Memory Signals

Author: GMA

TITLE: S3E-1600

Rev: A.1

Doc#: 500-108

Date: 6/12/06

Sheet:14/14