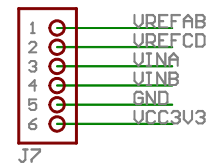
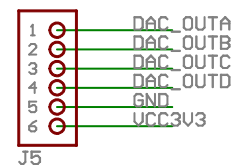
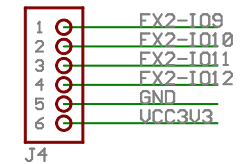
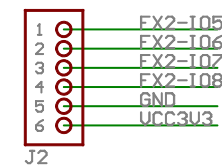
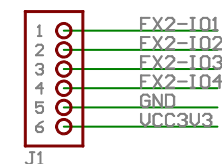


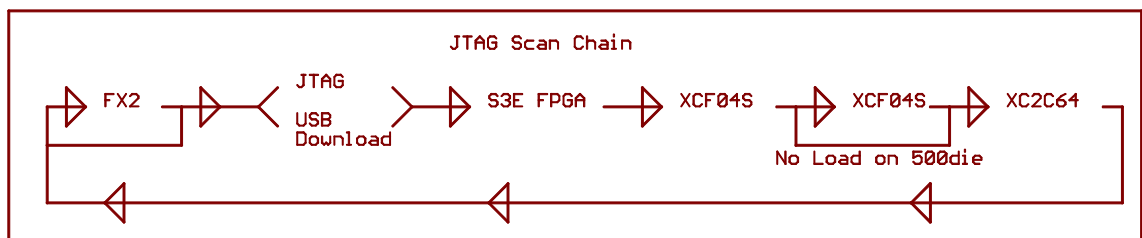
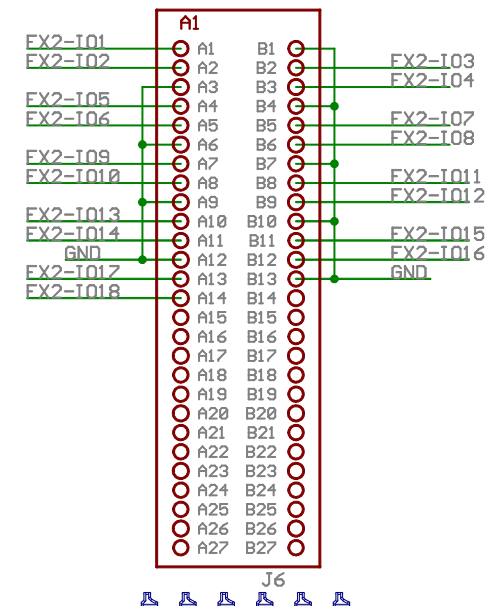
D/A and A/D header



6 Pin Header Accessory

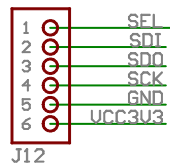


Full Size Soft Touch

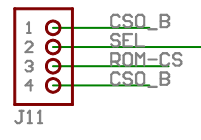


Spartan 3E Starter Board			Engineer: CC
Copyright 2004, 2005			Author: GMA
SHEET: Hirose and Expansion Connectors			Rev: C.1
TITLE: S3E Starter			Doc#: 500-087
Date: 11/1/05			Sheet:1/14

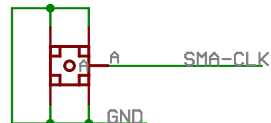
SPI Port



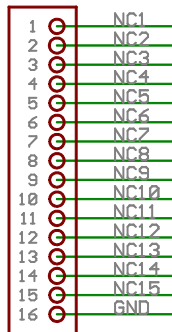
CS Jumper Select



SMA Clock



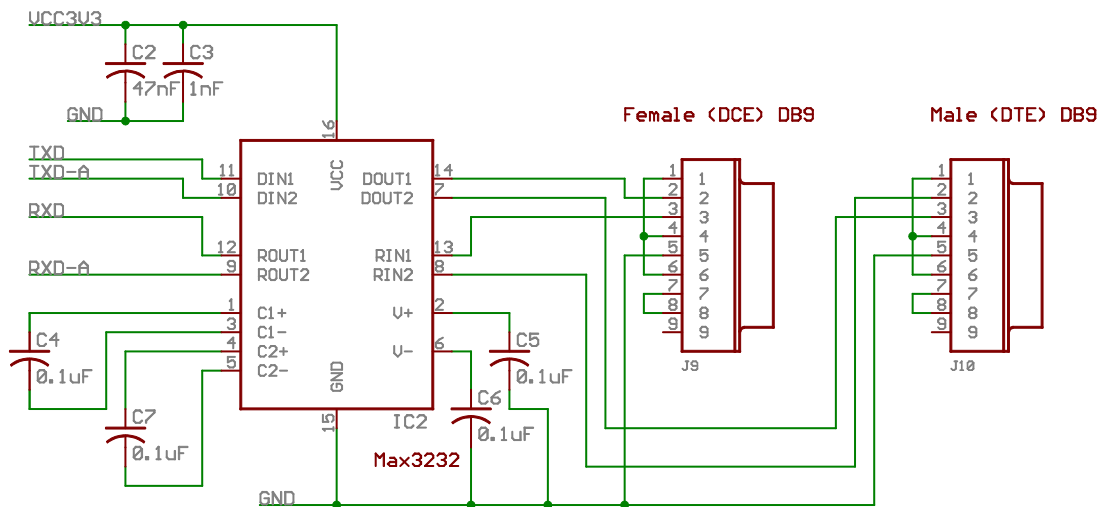
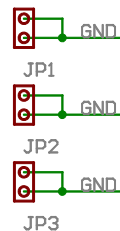
1200E/1600E Expansion Header



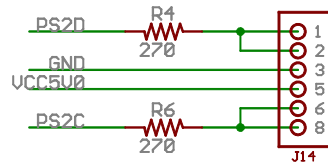
Load on 1600E
No Load on 500E

- FID1
- FID2
- FID3
- FID4

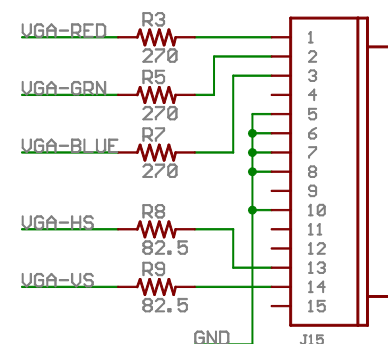
Ground Test/Storage Blocks



Keyboard PS2 connector



UGA Port



Spartan 3E Starter Board

Copyright 2004, 2005

Engineer: CC

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

Author: GMA

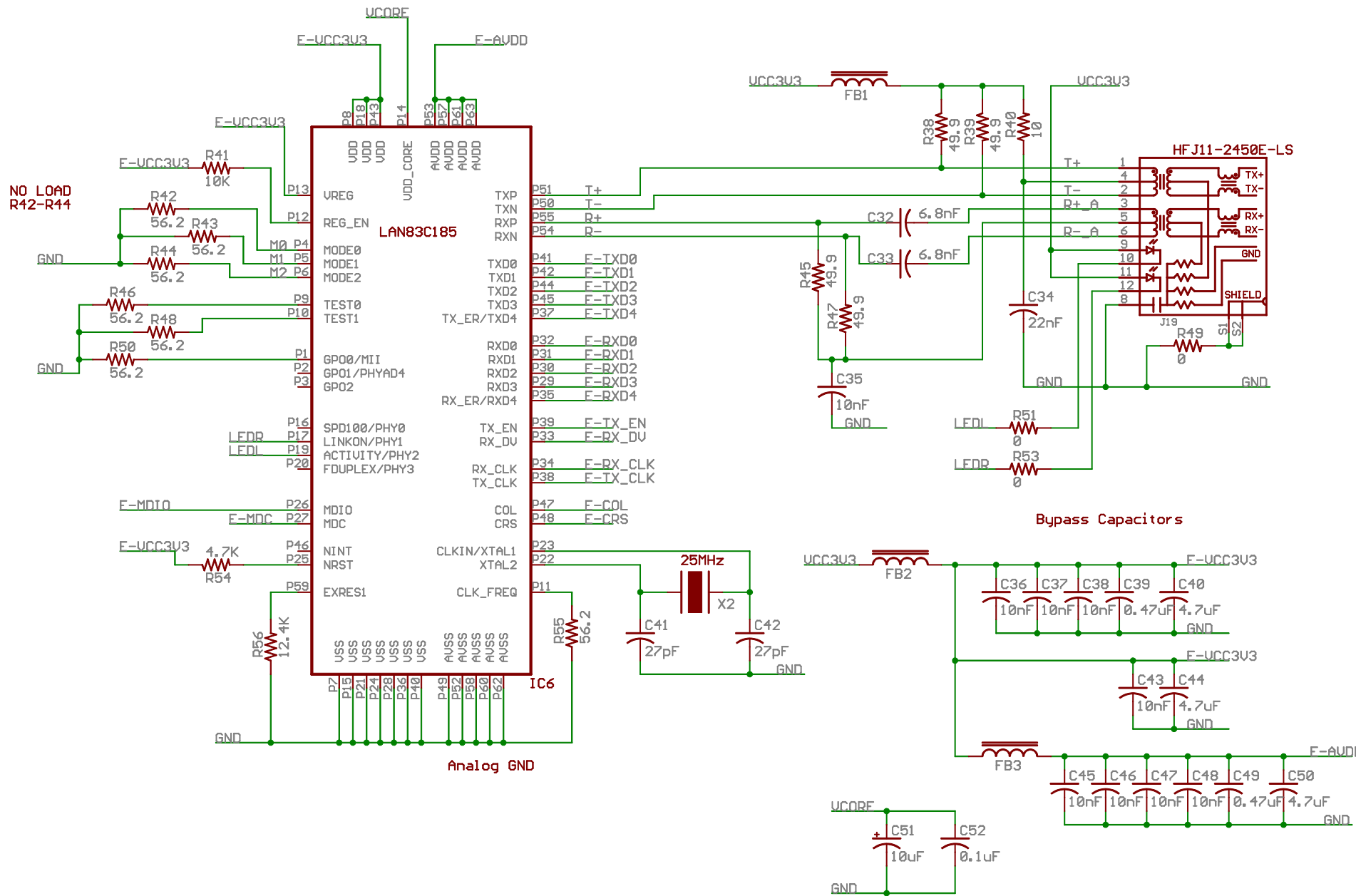
TITLE: S3E Starter

Rev: C.1

Doc#: 500-087

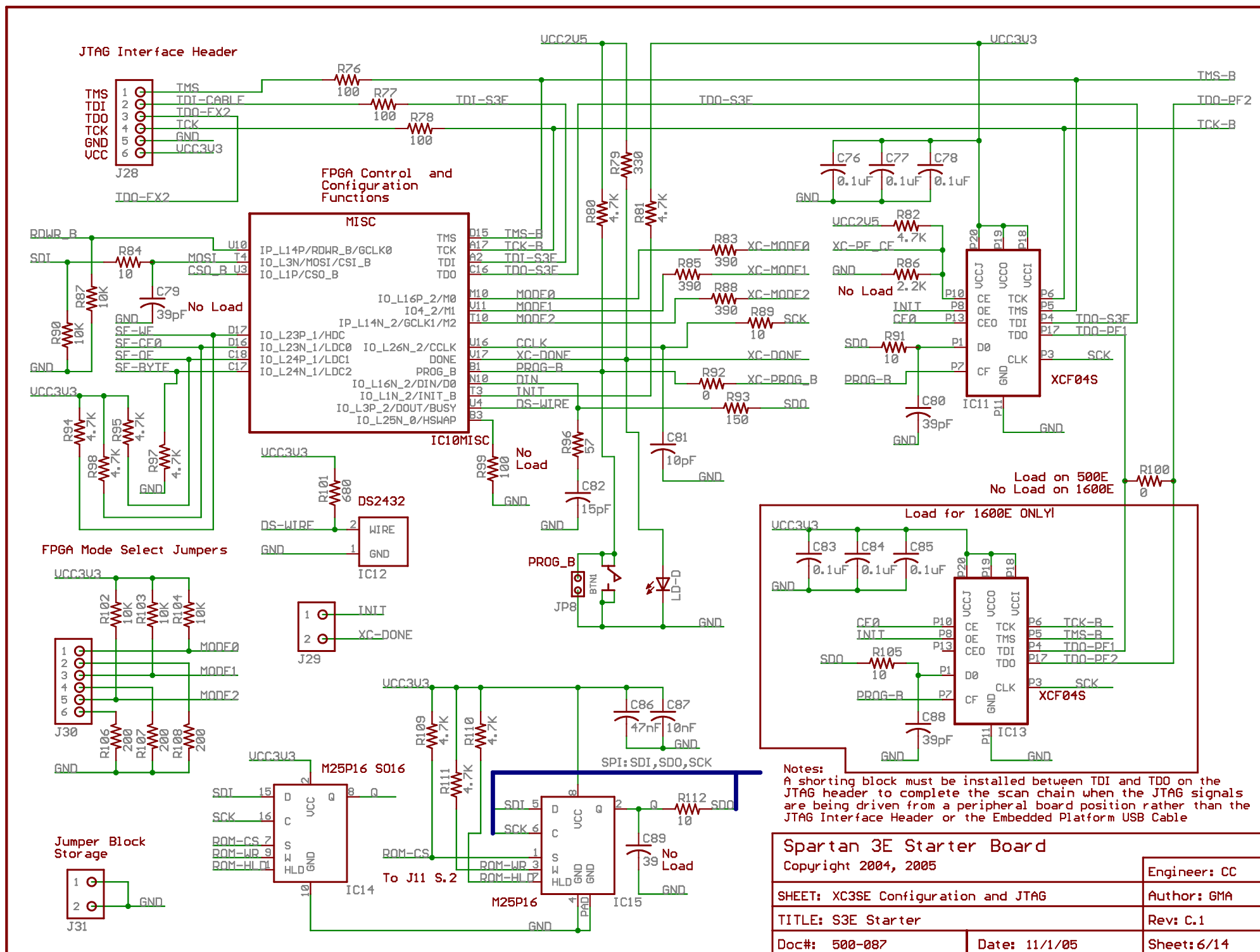
Date: 11/1/05

Sheet: 2/14

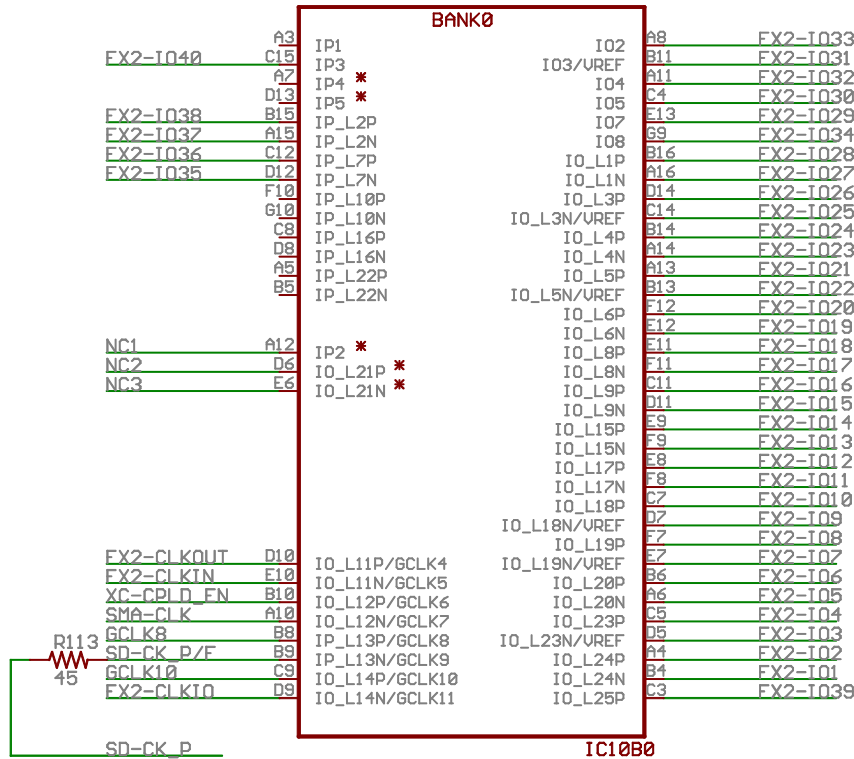


Spartan 3E Starter Board		Engineer: CC	
Copyright 2004, 2005		Author: GMA	
SHEET: Ethernet Interface		Rev: C.1	
TITLE: S3E Starter		Date: 11/1/05	
Doc#: 500-087		Sheet: 4/14	

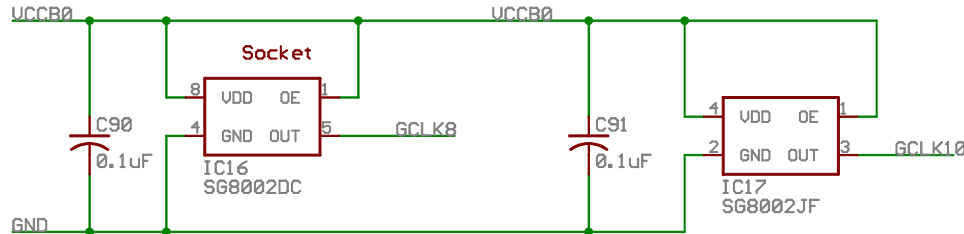
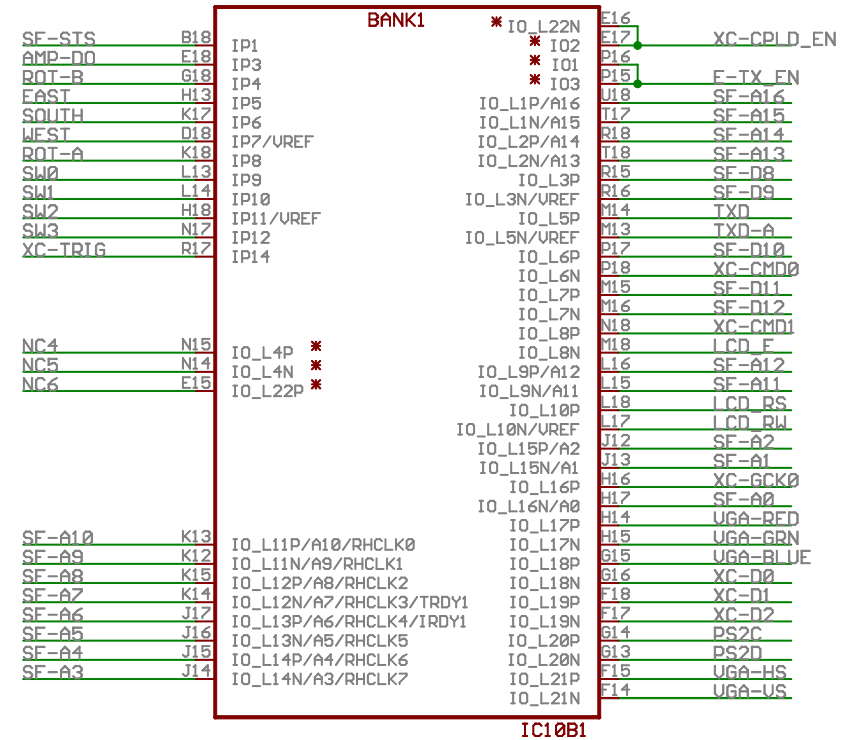




UCC for Bank 0 is set By JP9 on Sheet 9



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 Starter Board

Copyright 2004, 2005

Engineer: CC

SHEET: XC3SE Banks 0 and 1, Clock ICs

Author: GMA

TITLE: S3E Starter

Rev: C.1

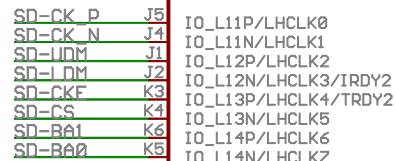
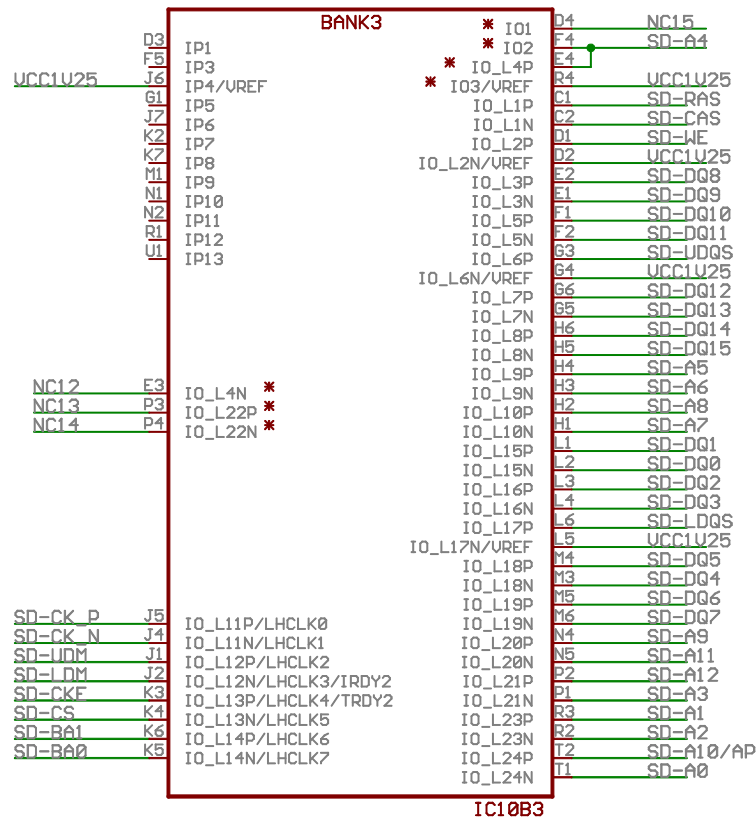
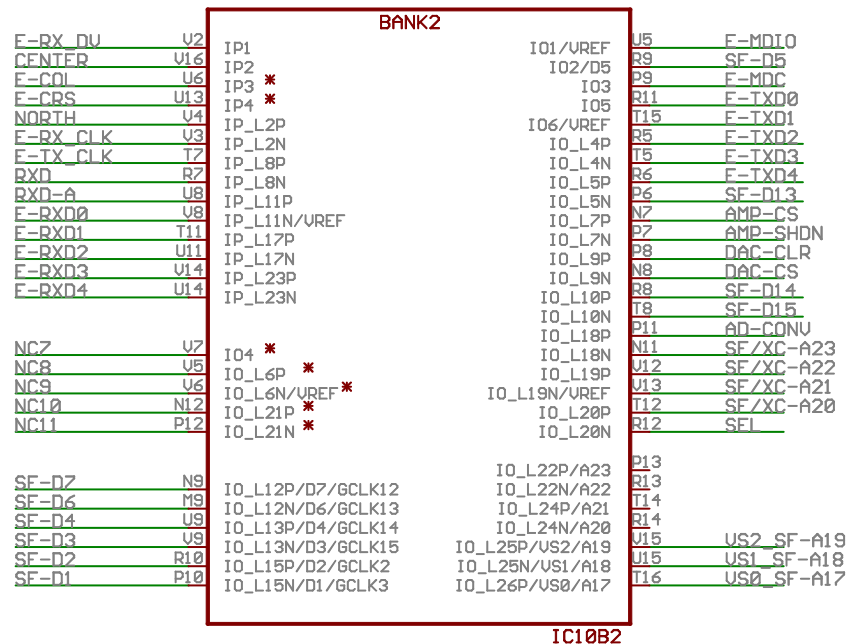
Doc#: 500-087

Date: 11/1/05

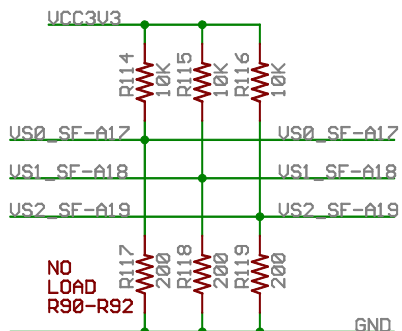
Sheet: 7/14

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 Starter Board

Copyright 2004, 2005

Engineer: CC

SHEET: XC3SE Banks 2 and 3

Author: GMA

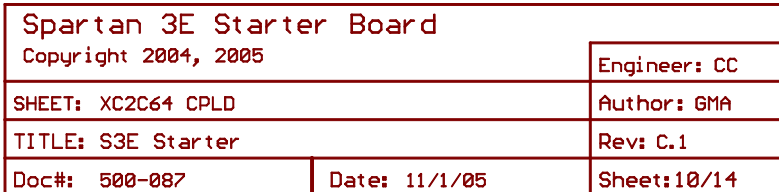
TITLE: S3E Starter

Rev: C.1

Doc#: 500-087

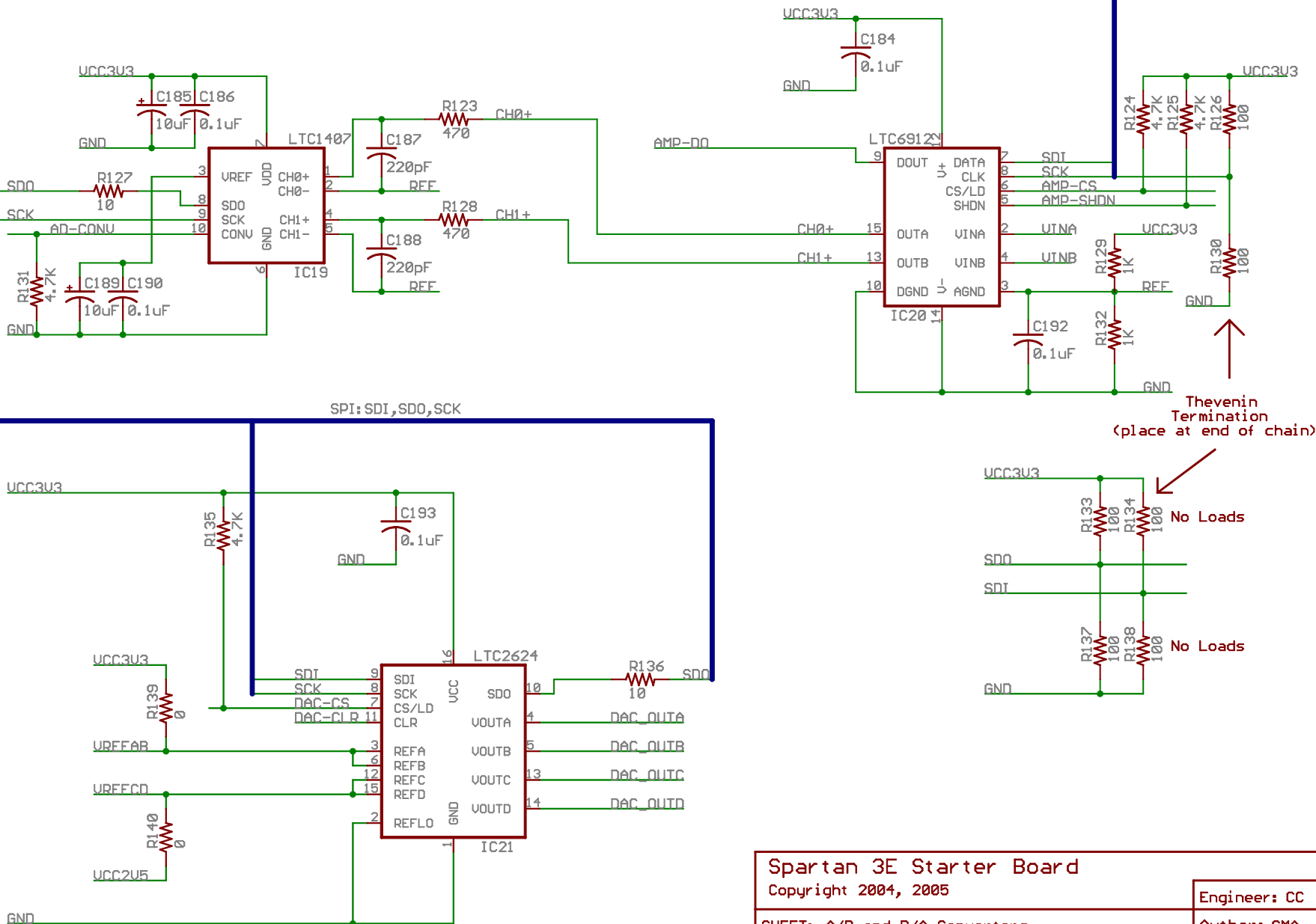
Date: 11/1/05

Sheet: 8/14



SPI:SDI,SDO,SCK

SPI:SDI,SDO,SCK



Spartan 3E Starter Board

Copyright 2004, 2005

Engineer: CC

SHEET: A/D and D/A Converters

Author: GMA

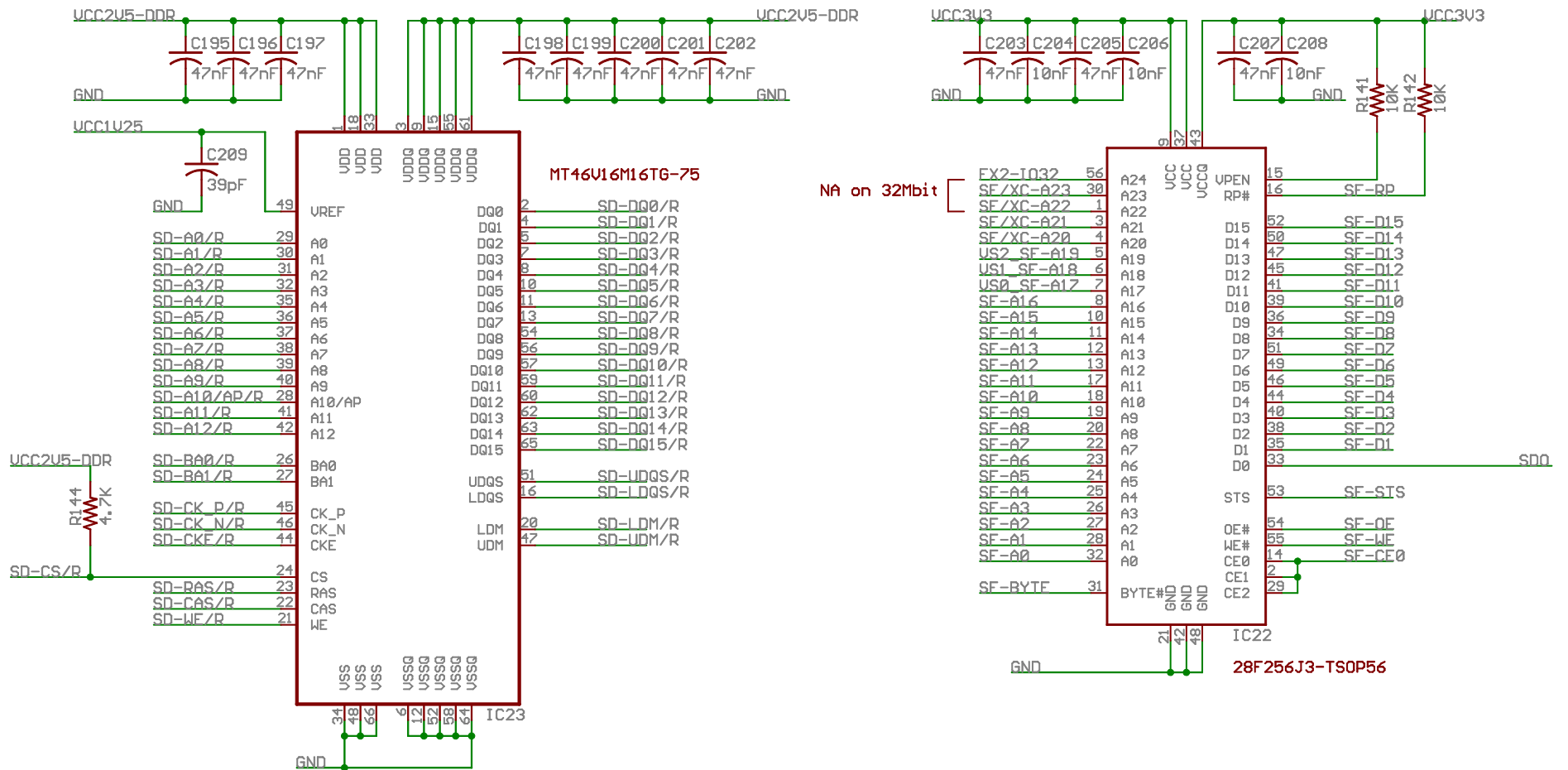
TITLE: S3E Starter

Rev: C.1

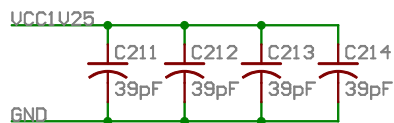
Doc#: 500-087

Date: 11/1/05

Sheet:11/14



VREF Decoupling



Spartan 3E Starter Board

Copyright 2004, 2005

Engineer: CC

SHEET: DDR SDRAM and StrataFlash

Author: GMA

TITLE: S3E Starter

Rev: C.1

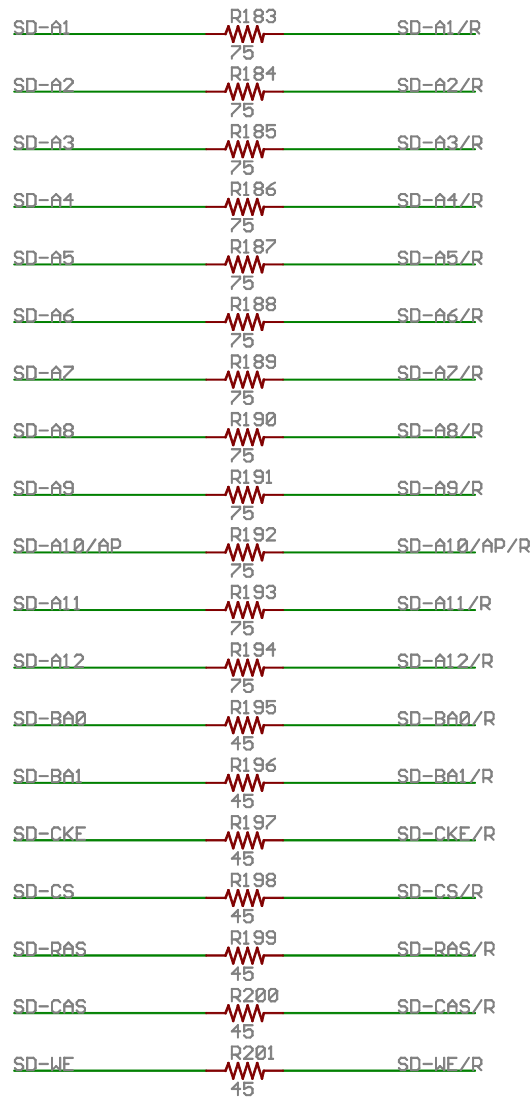
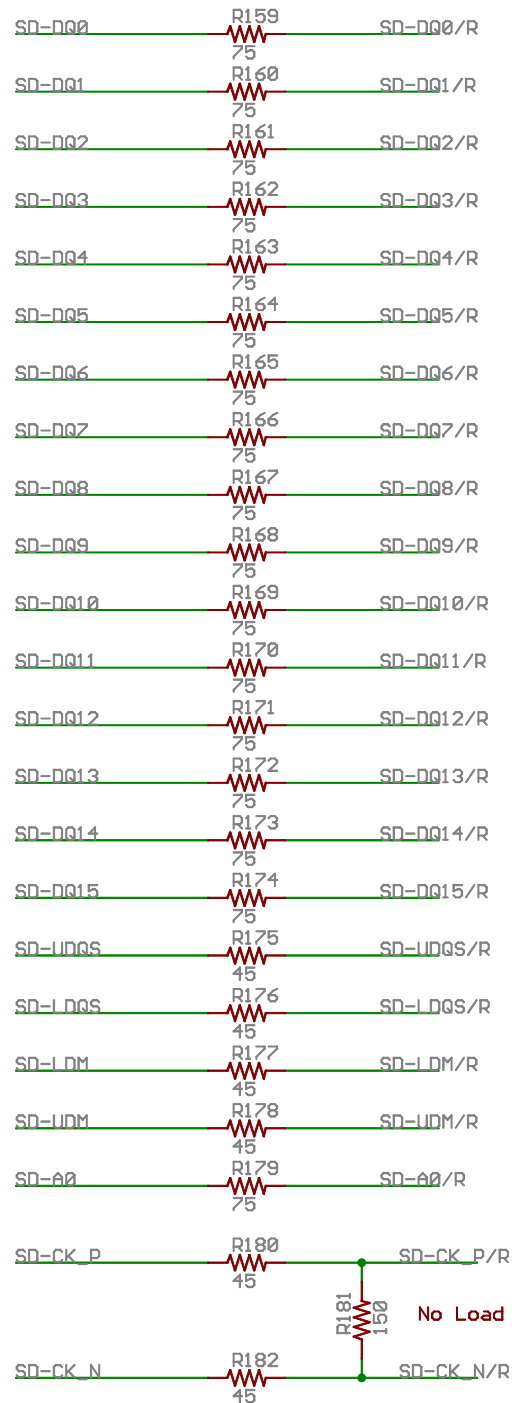
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Date: 11/1/05

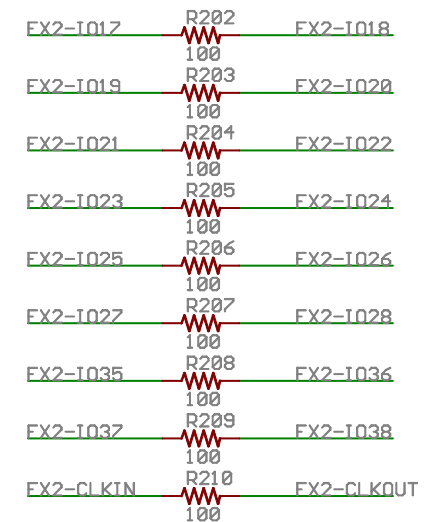
Sheet:12/14

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

DDR Series Termination



FX2 Differential Termination Not Loaded



Spartan 3E Starter Board

Copyright 2004, 2005

Engineer: CC

SHEET: DDR Memory Signals

Author: GMA

TITLE: S3E Starter

Rev: C.1

Doc#: 500-087

Date: 11/1/05

Sheet:14/14