XBA-307 Control Board_R0C

Page 1 : IXP 42X Block diagram

Page 2 : Power Supply

Page 3 : Reset & LEDs

Page 4 : IXP 42X Decoupling

Page 5 : IXP 42X Eternet Interace

Page 6 : LAN port

Page 7 : WAN port

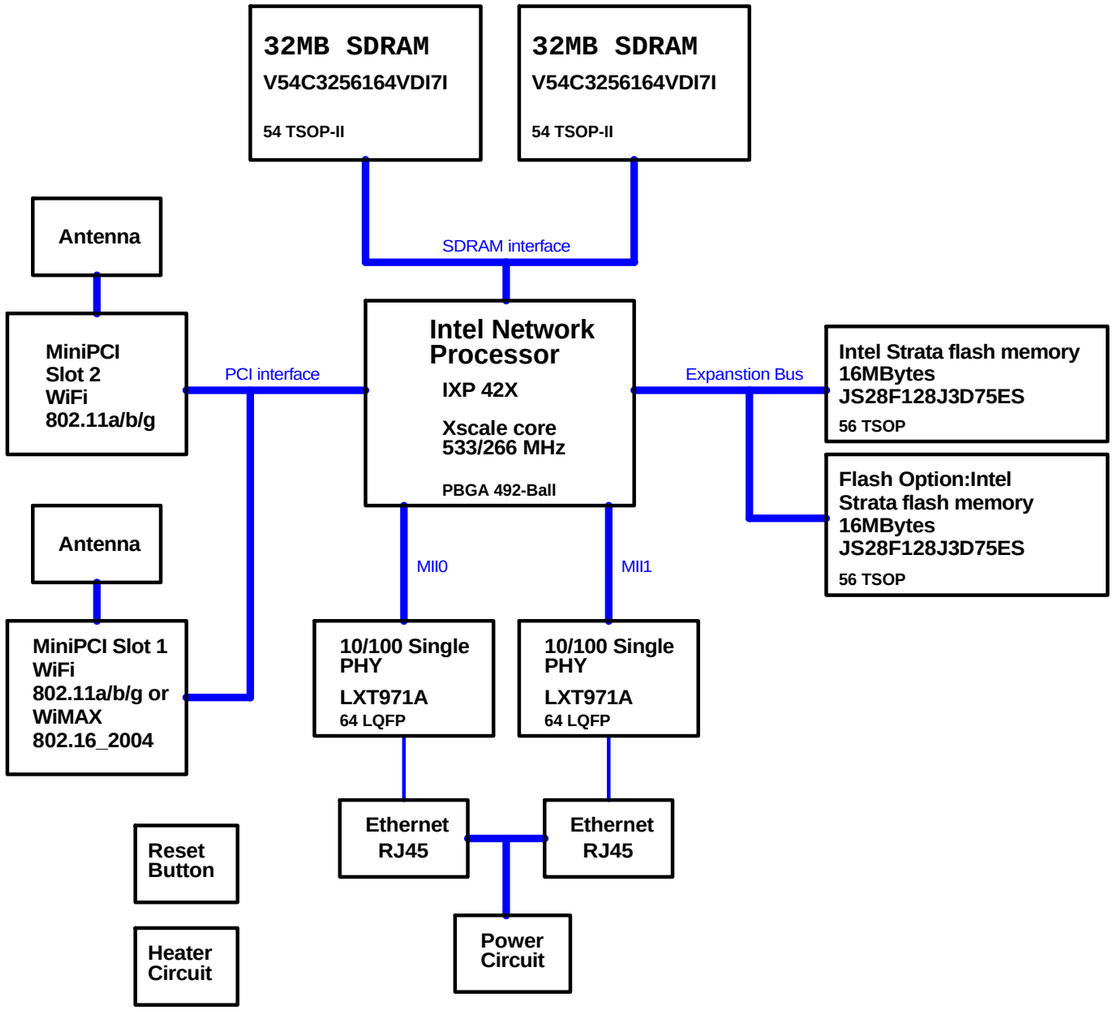
Page 8 : IXP 42X SDRAM and UART Interface

Page 9 : IXP 42X EPB interface

Page 10 : IXP 42X PCI interface

Page 11 : Mini-PCI slot 1

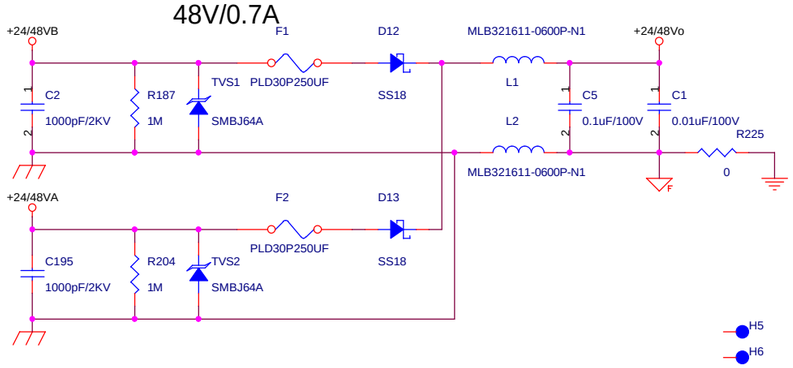
Page 12 : Mini-PCI slot 2



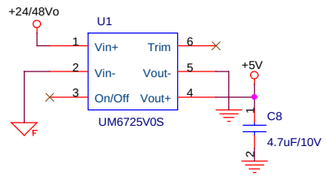
Title	XBA-307	
Size A4	Document Number XBA-307 Block Diagram	Rev R0C
Date: Tuesday, April 10, 2007	Sheet 1 of 12	

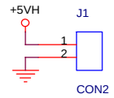
24V/1.25A

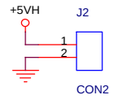
48V/0.7A

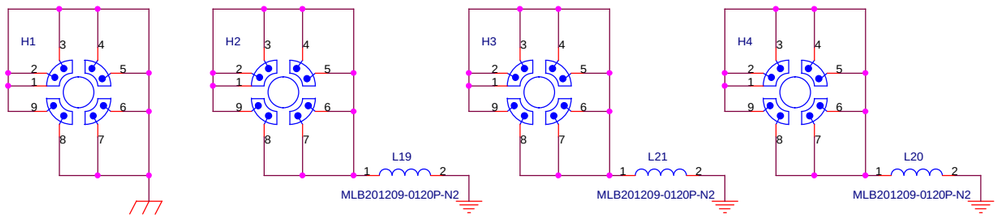


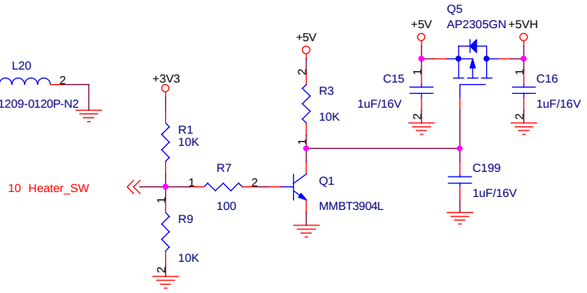
For Outdoor +24Vi change to +48V

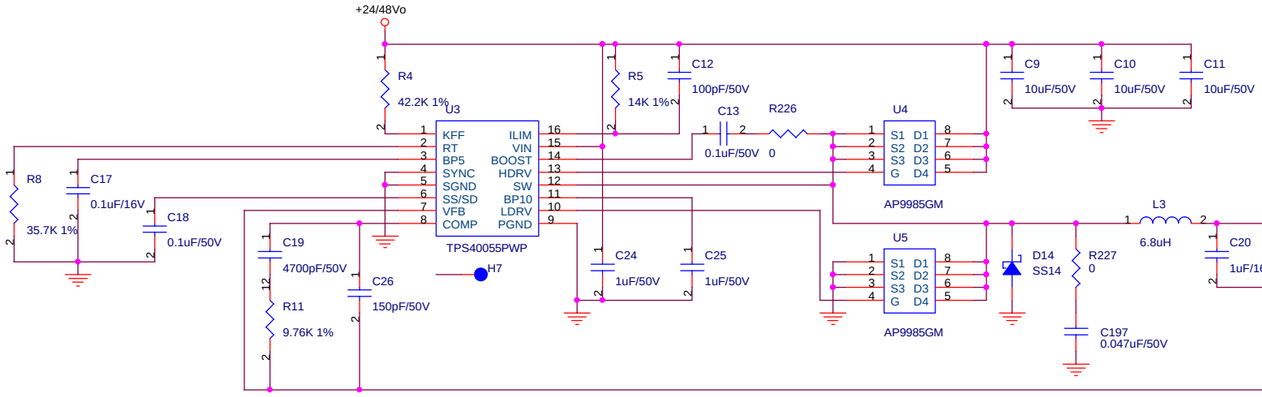




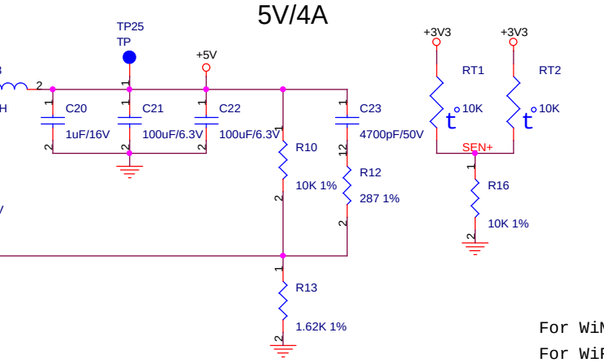


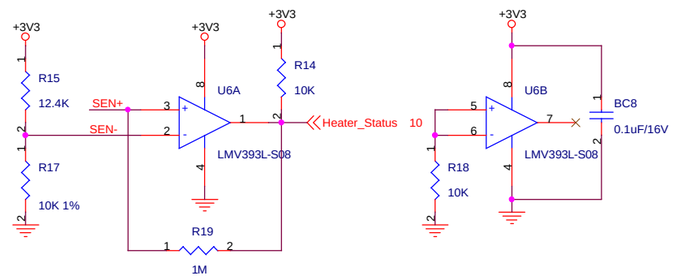






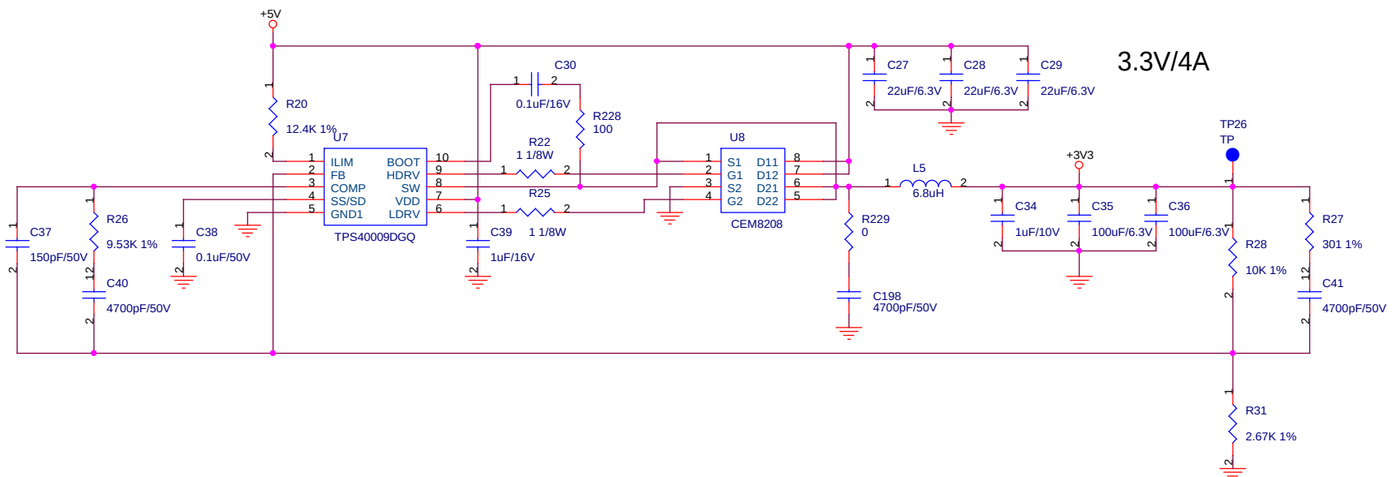
5V/4A



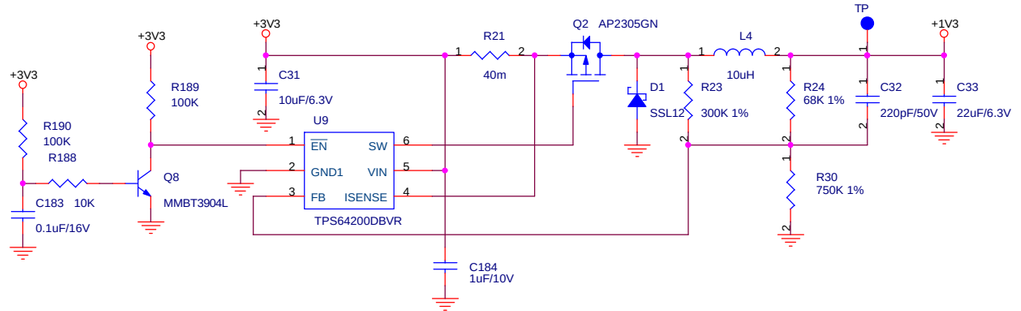


For WiMAX Combo AP R15 will be 25.5K 1%

For WiFi Mesh AP R15 will be 12.4K 1%

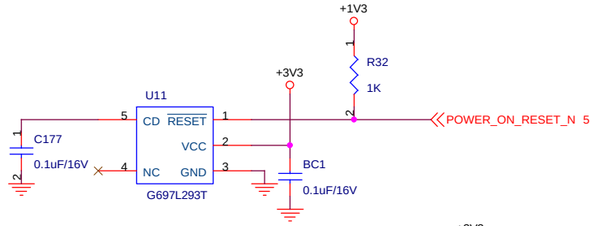


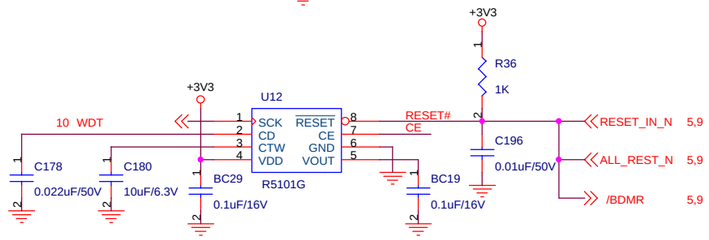
1.3V/1.5A

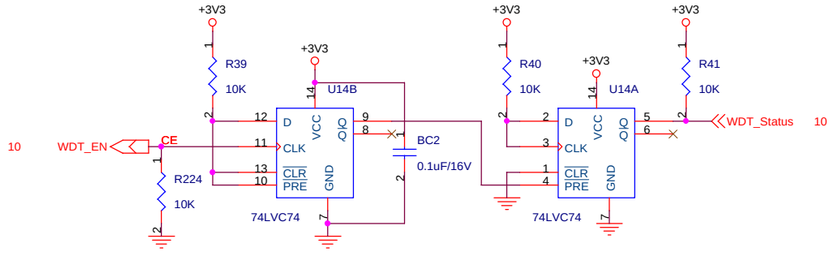


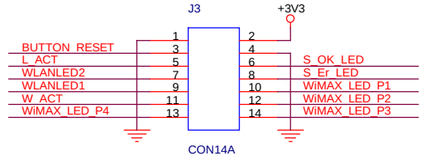
Title	XBA-307	
Size A4	Document Number Power_Circuit	Rev R0C
Date: Wednesday, June 13, 2007	Sheet 2 of 12	

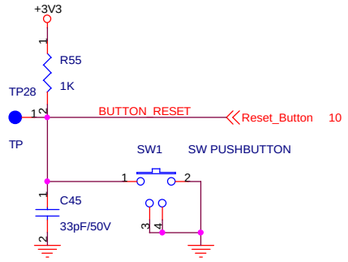
System Reset & WDT

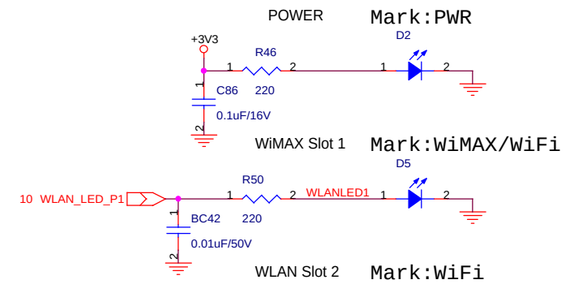


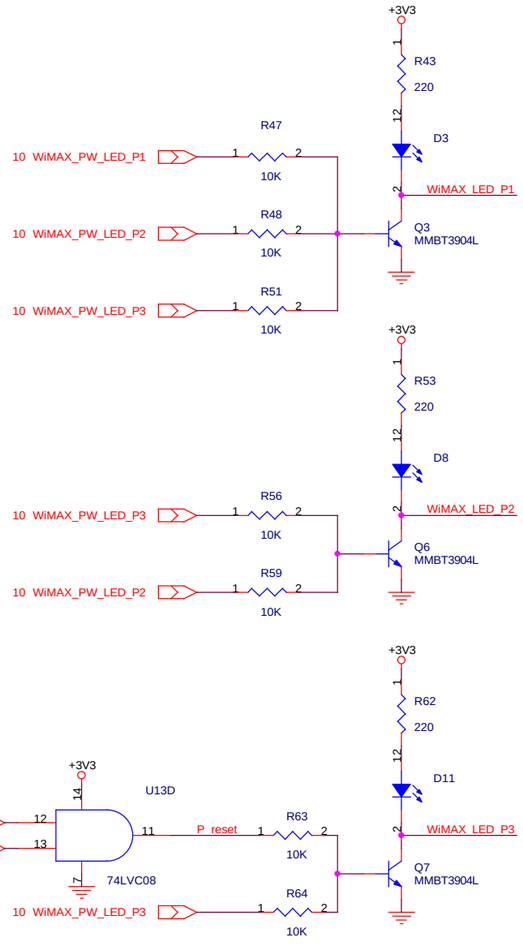


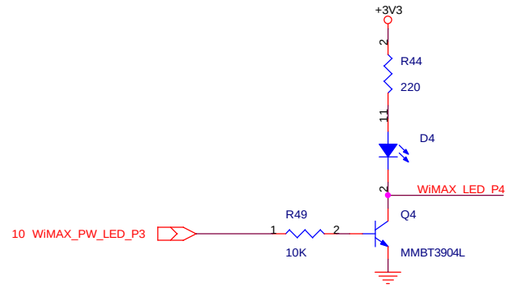


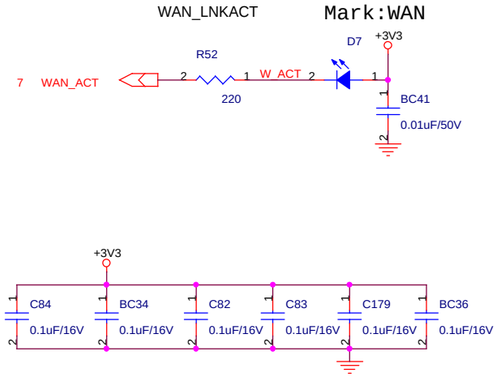


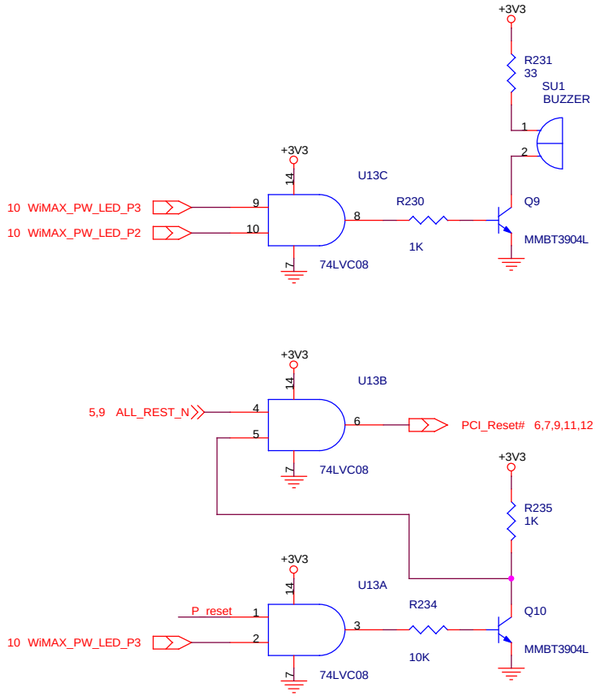






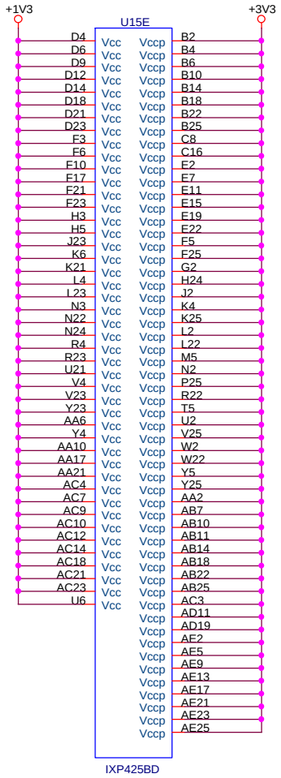


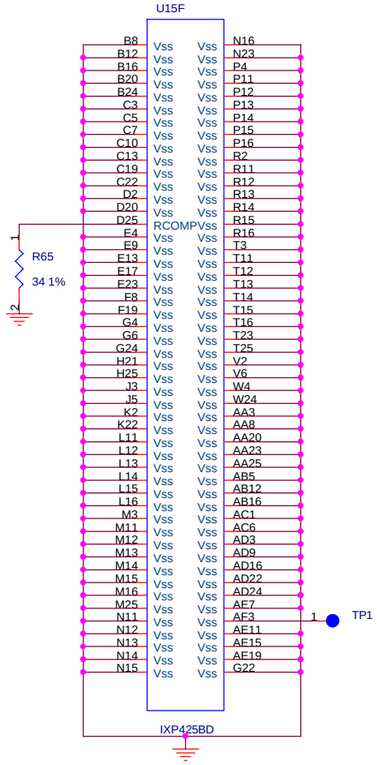




Title: XBA-307		
Size: A4	Document Number: Reset & LED	Rev: R0C
Date: Monday, June 04, 2007	Sheet 3 of 12	

I/O Decoupling

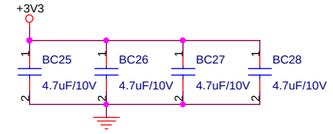




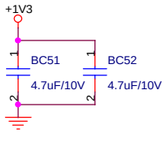
Pin AF3 is reserved. For pin D25, a 34 ohm, 1% resistor must be populated.

Place one 0.01uF cap as close as possible to each +1V3 power pin.

Place 4.7uF caps within 3mm of IXP425



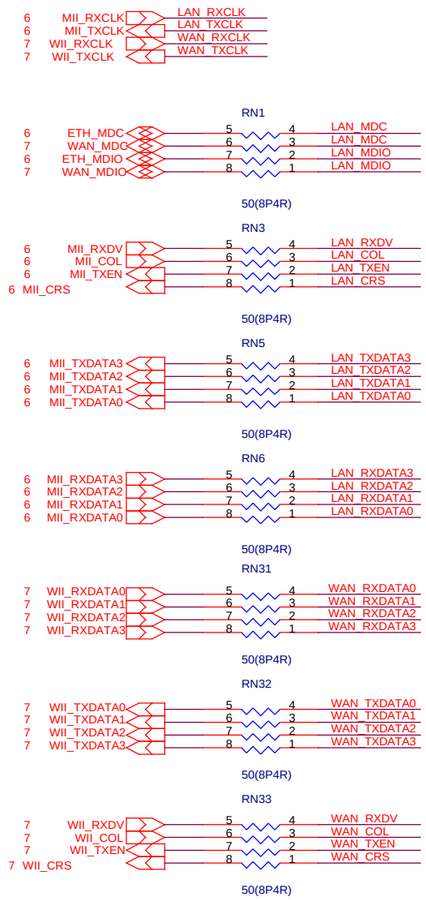
Place 4.7uF caps within 3mm of IXP425

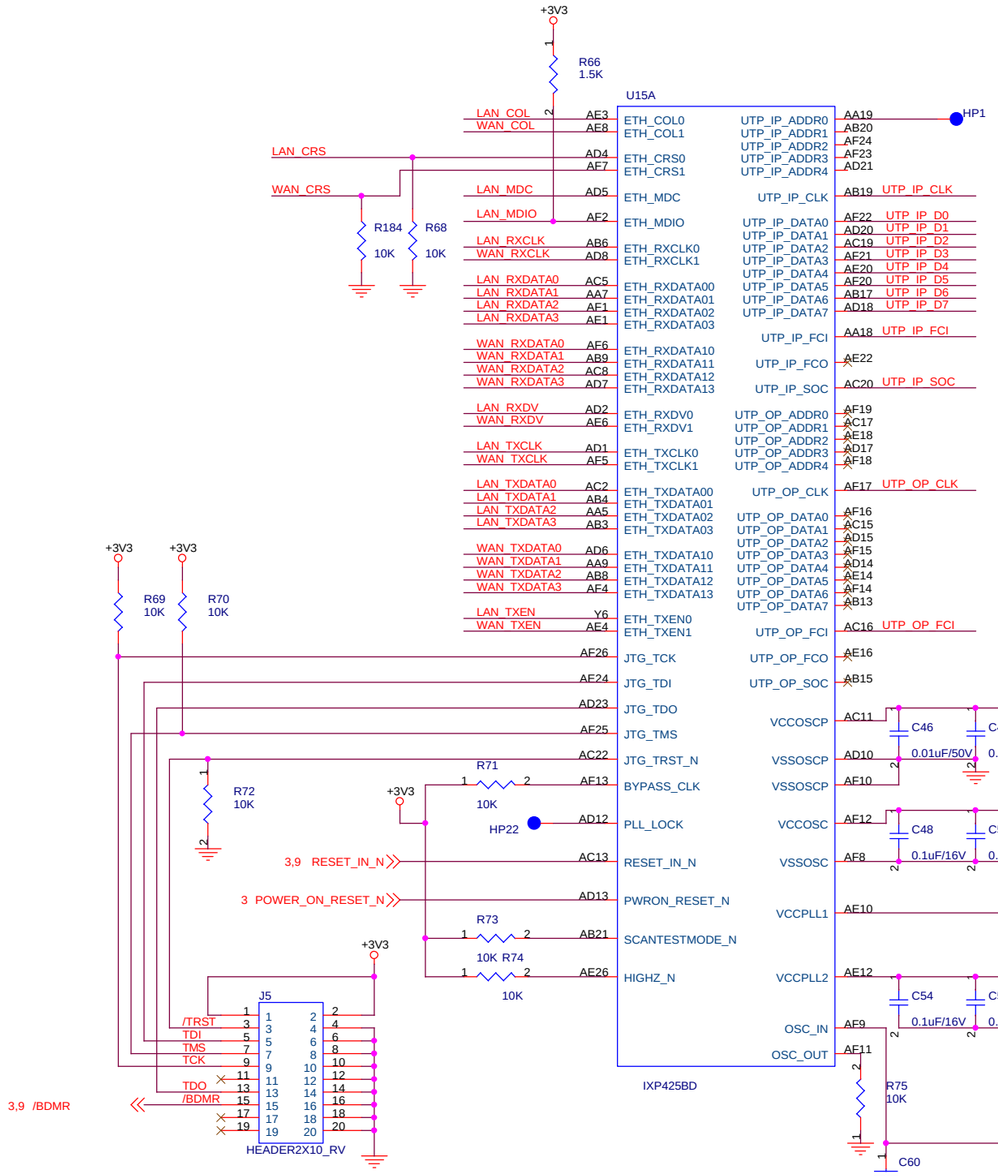


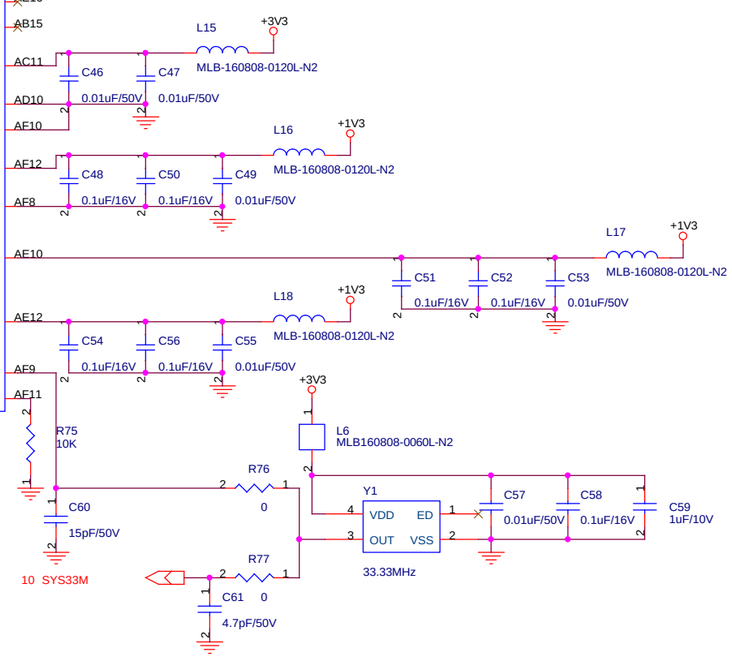
Title: XBA-307		
Size: A4	Document Number: IXP 425 Decoupling	Rev: R0C
Date: Tuesday, April 10, 2007	Sheet 4 of 12	

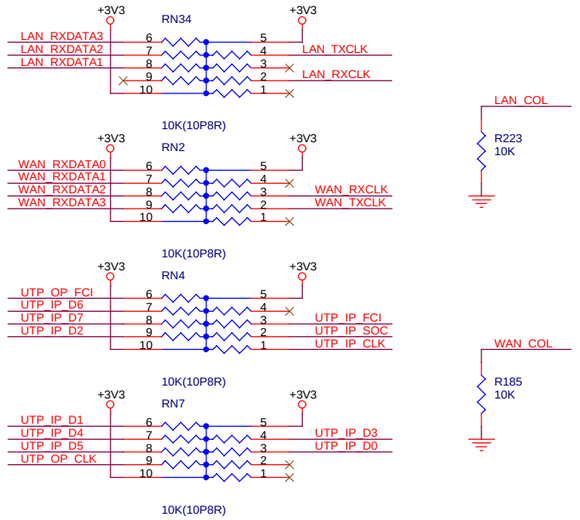
RN6 close U16

RN31 close U22









Title	XBA-307	
Size A4	Document Number IXP 425 Ethernet Interface	Rev R0C
Date: Tuesday, April 10, 2007	Sheet 5 of 12	

Close U15

5 MII_TXCLK — R78 MII_TXCK 49.9

5 MII_RXCLK — R79 MII_RXCK 49.9

5 MII_RXDV — MII_RXDV
5 MII_COL — MII_COL
5 MII_TXEN — MII_TXEN

5 MII_TXDATA3 — MII_TXDATA3
5 MII_TXDATA2 — MII_TXDATA2
5 MII_TXDATA1 — MII_TXDATA1
5 MII_TXDATA0 — MII_TXDATA0

5 MII_RXDATA3 — MII_RXDATA3
5 MII_RXDATA2 — MII_RXDATA2
5 MII_RXDATA1 — MII_RXDATA1
5 MII_RXDATA0 — MII_RXDATA0

5 ETH_MDC — MII_MDC

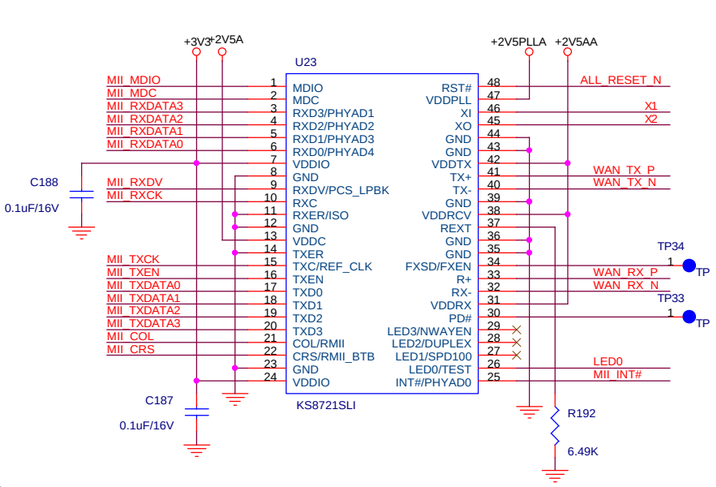
5 ETH_MDIO — MII_MDIO

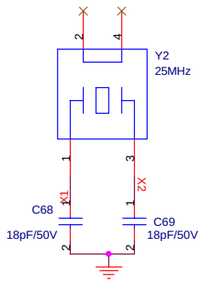
5 MII_CRS — MII_CRS

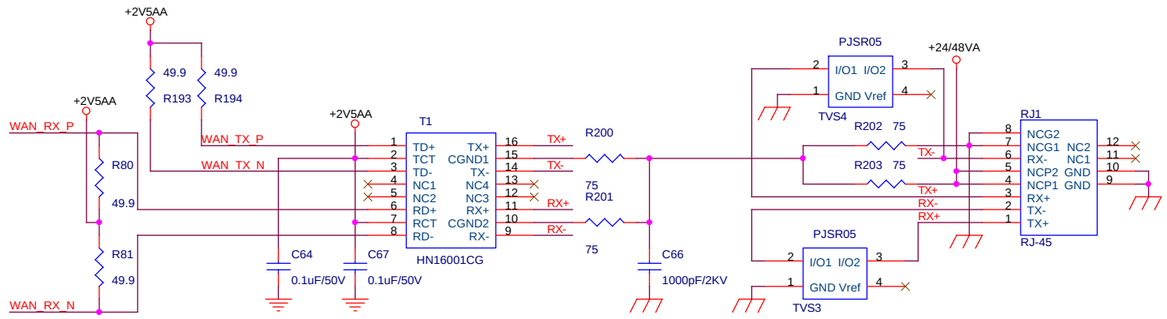
3,7,9,11,12 PCI_Reset# — ALL_RESET_N

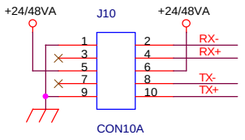
3 LNKACT — LED0

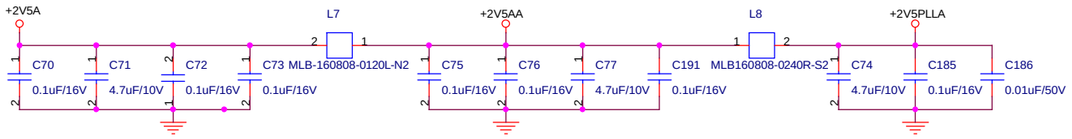
7,10 LAN_INT# — MII_INT#

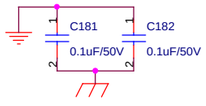






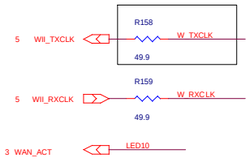


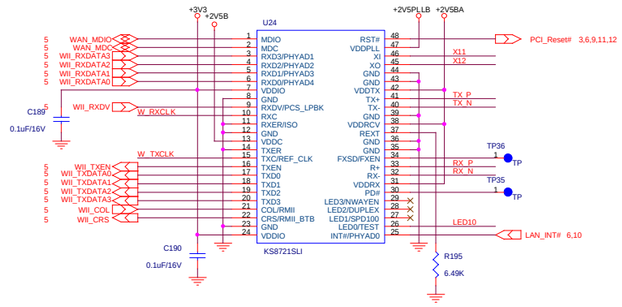


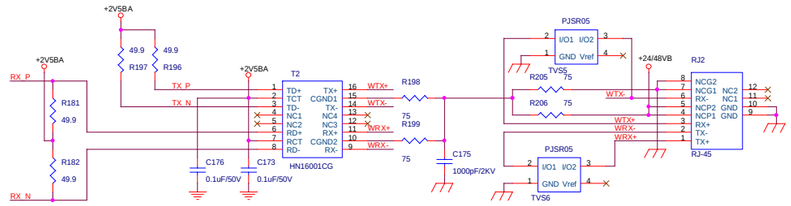


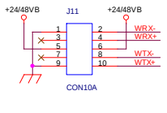
Title: XBA-307		
Size: A4	Document Number: LAN Port	Rev: R0C
Date: Friday, April 27, 2007	Sheet 6 of 12	

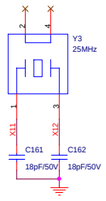
Close U15

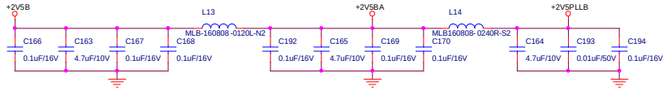




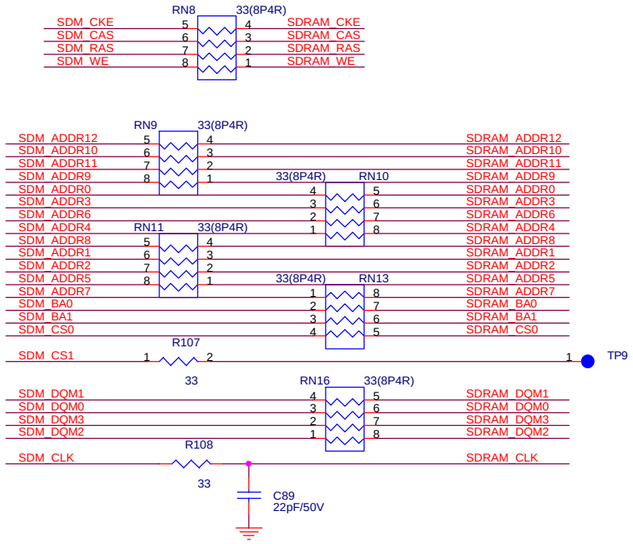


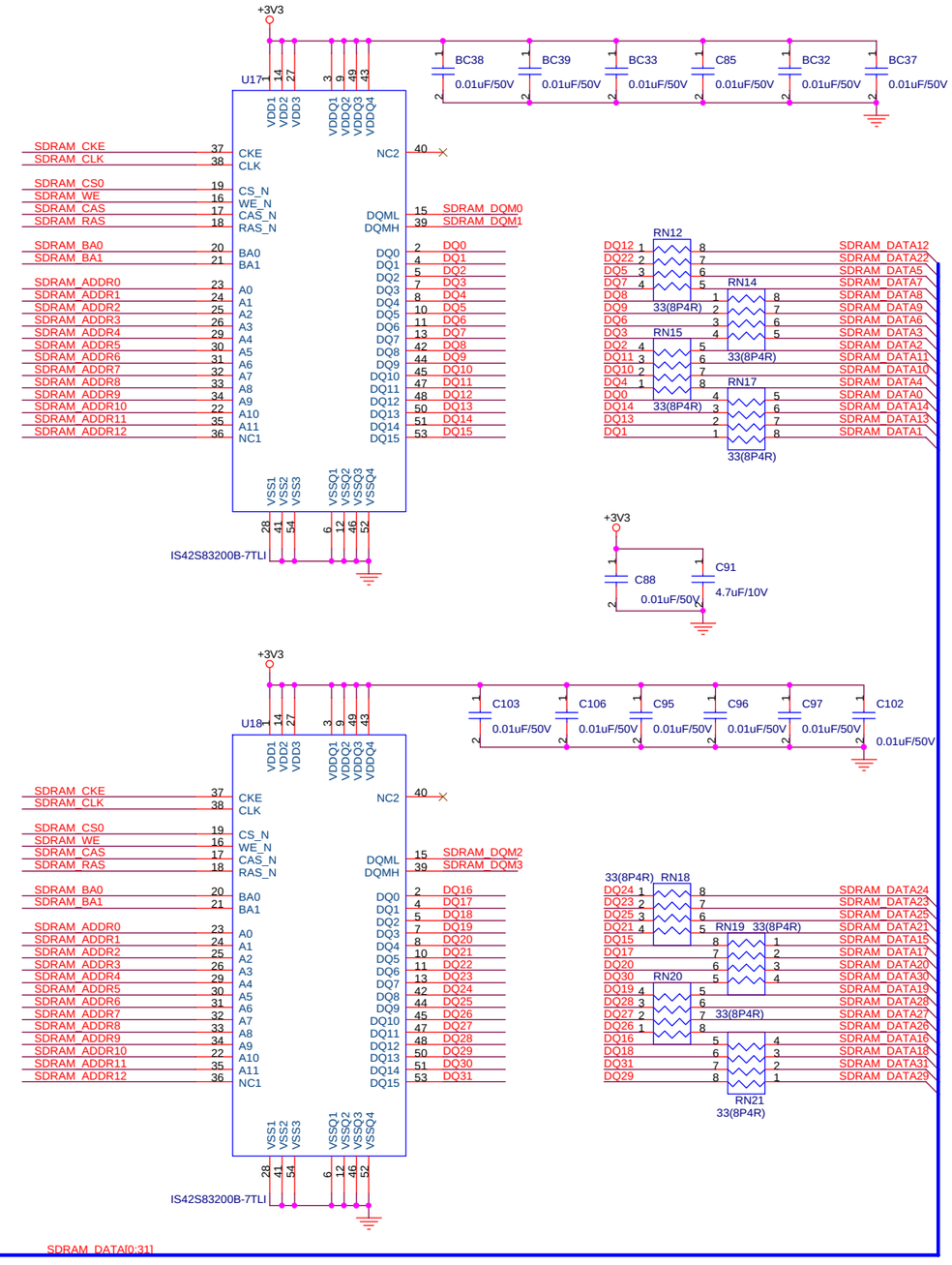






Title: XBA-307		
Size: A4	Document Number: WAN Port	Rev: R0C
Date: Tuesday, April 10, 2007	Sheet 7 of 12	





RS232 Connector

UART0

UART1

Default Console

SDRAM & UART INTERFACE

Title: XBA-307		
Size: A4	Document Number: IXP 425 SDRAM & UART	Rev: R0C
Date: Tuesday, April 10, 2007	Sheet 8 of 12	

Expantion BUS Setting

A4	FUNCTION
0	PCI CLOCK 33MHz
1	PCI CLOCK 66MHz

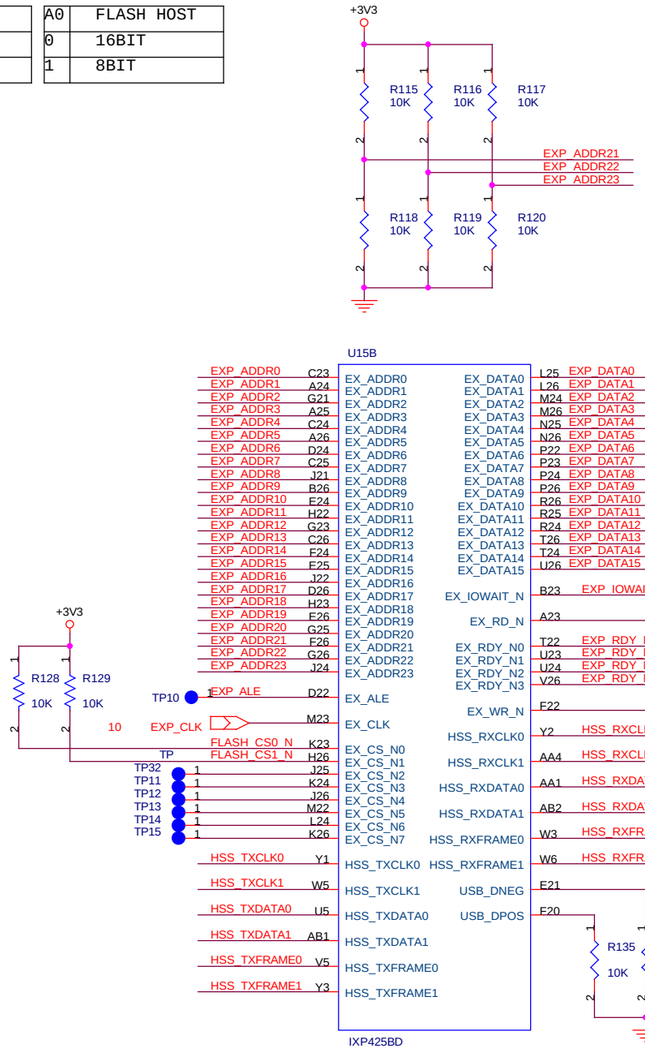
A2	PCI ARBITER
0	DISABLED
1	ENABLED

A1	PCI HOST
0	OPTION
1	HOST

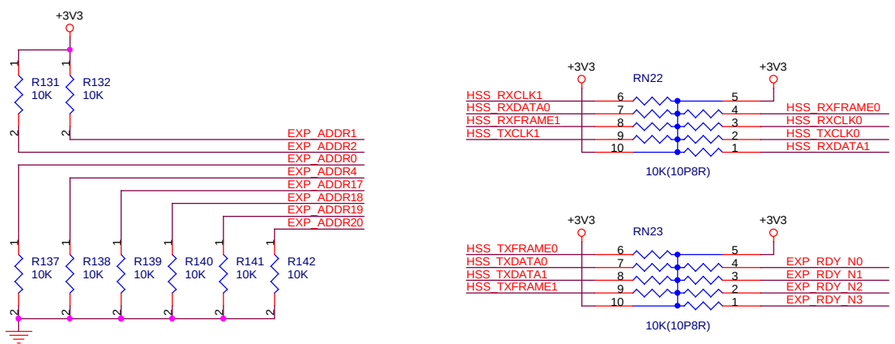
A0	FLASH HOST
0	16BIT
1	8BIT

CPU speed setting

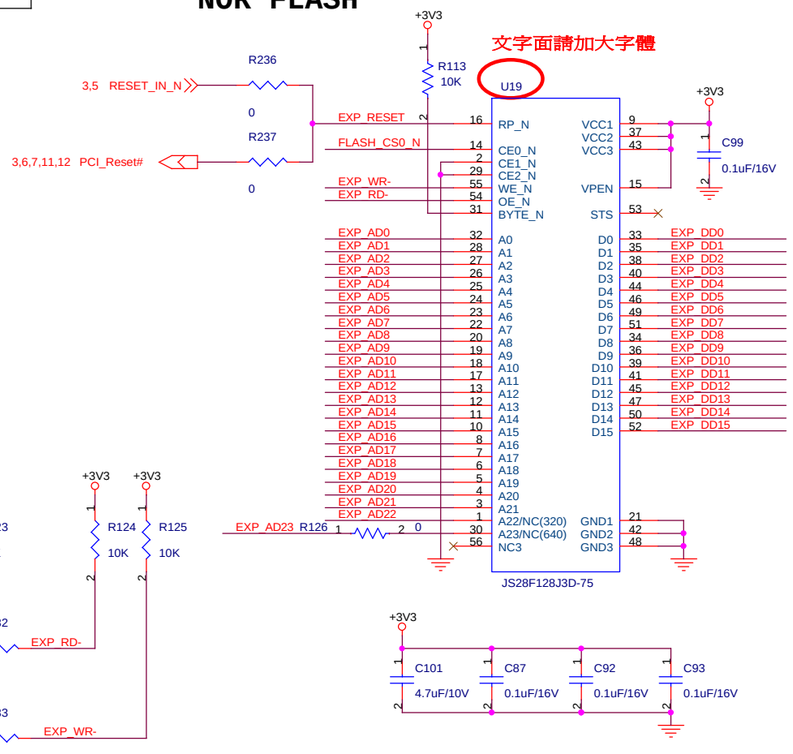
Intel XScale Core speed	ADDR23	ADDR22	ADDR21	ACtual Core Speed
266MHz	1	0	0	266MHz



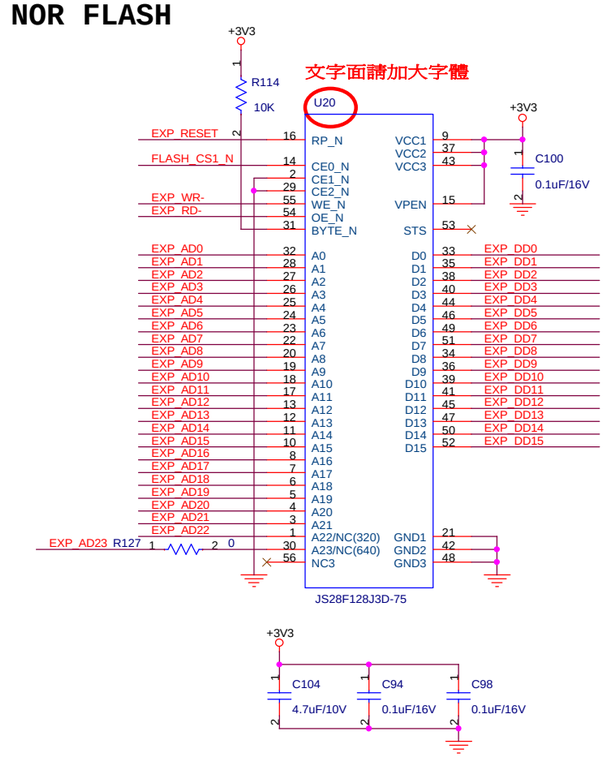
IXP 425 Expention BUS interface

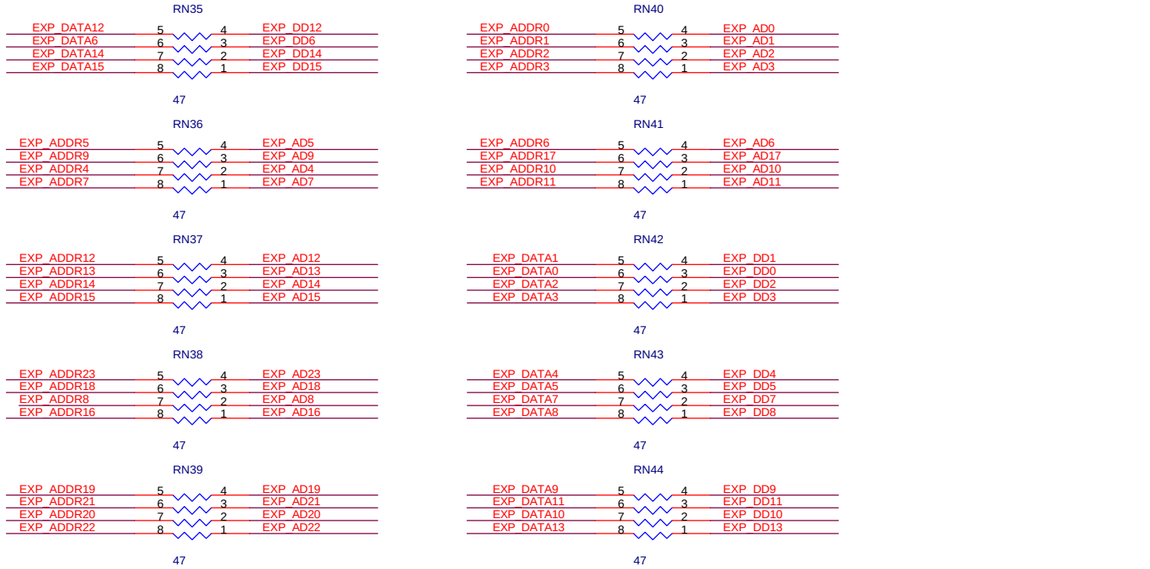


NOR FLASH

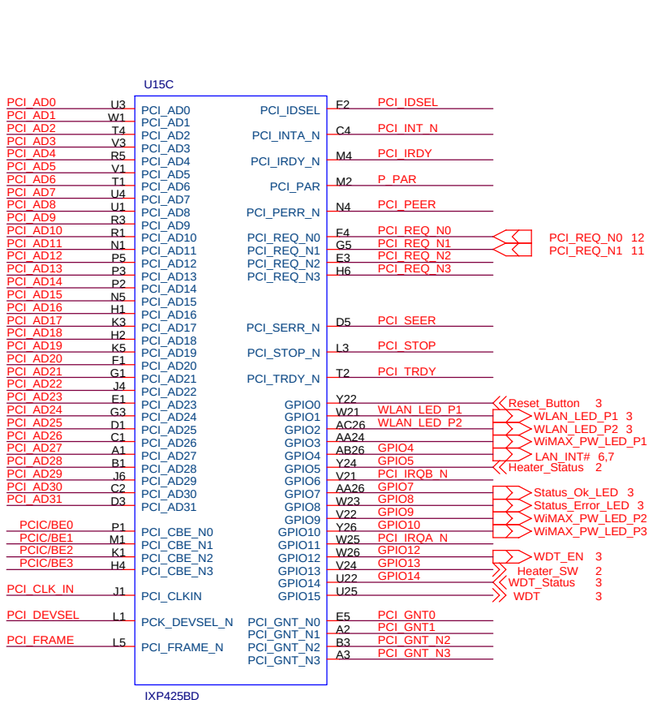


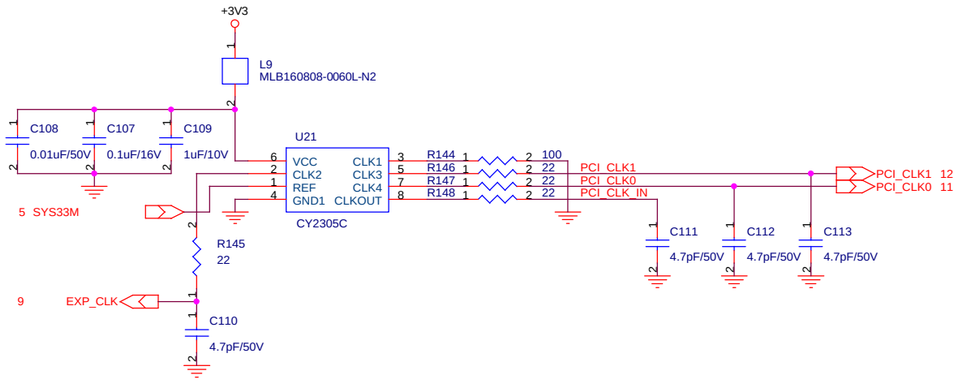
NOR FLASH

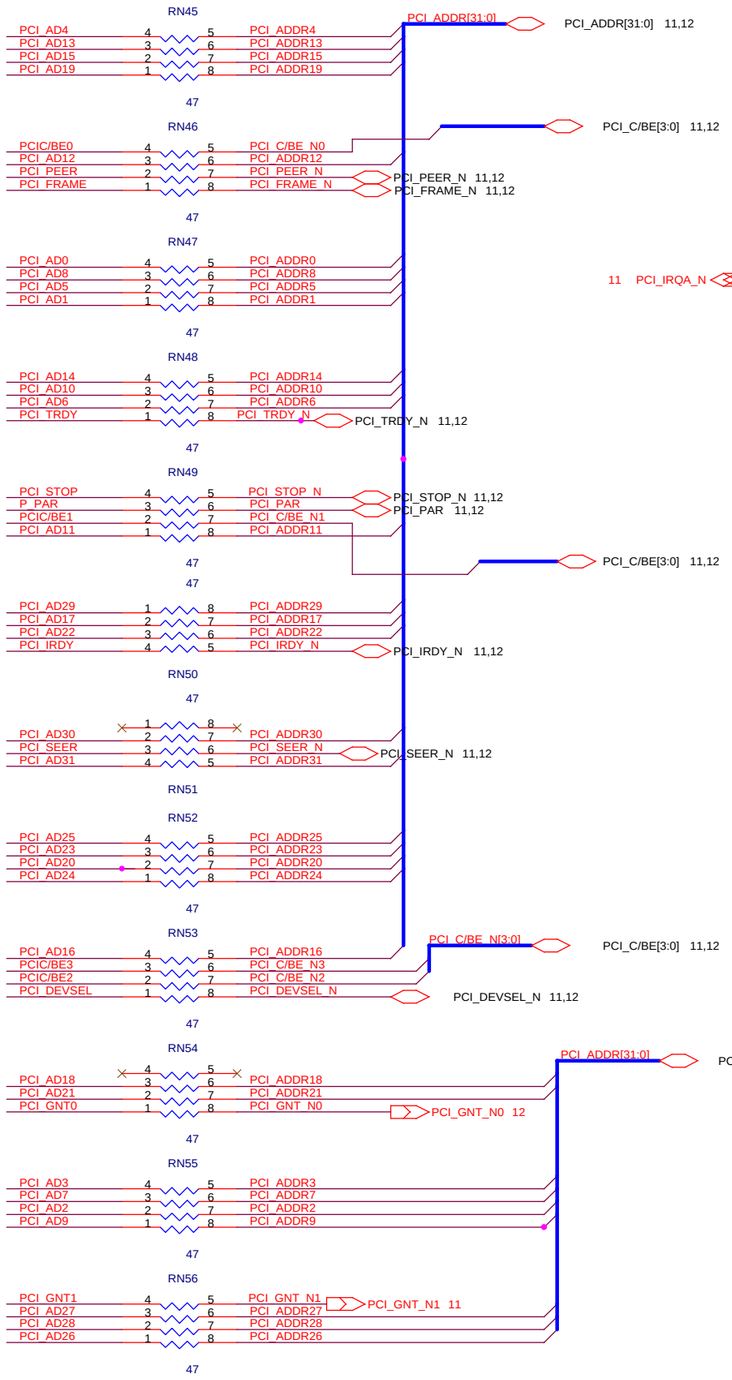




Title	XBA-307	
Size A4	Document Number IXP 425 EPB Interface	Rev R0C
Date: Tuesday, May 08, 2007	Sheet 9 of 12	

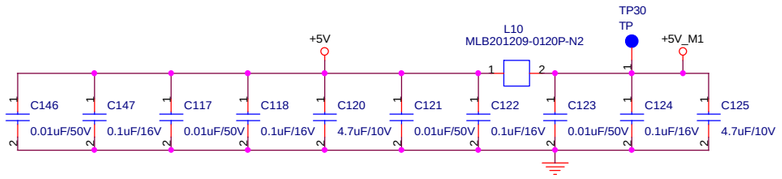


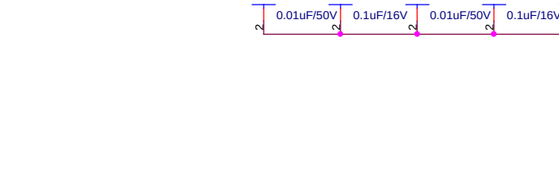


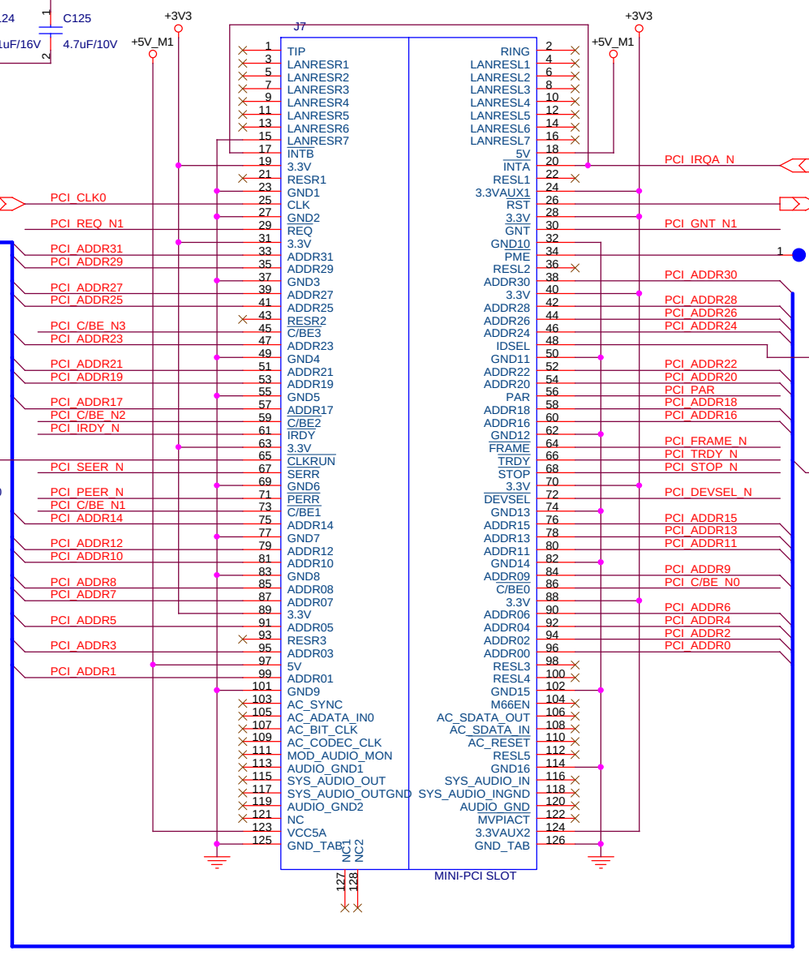


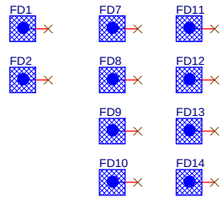
Title	XBA-307	
Size A4	Document Number IXP 425 PCI Interface	Rev R0C
Date: Tuesday, May 08, 2007	Sheet 10 of 12	

MiniPCI Slot TYPE III

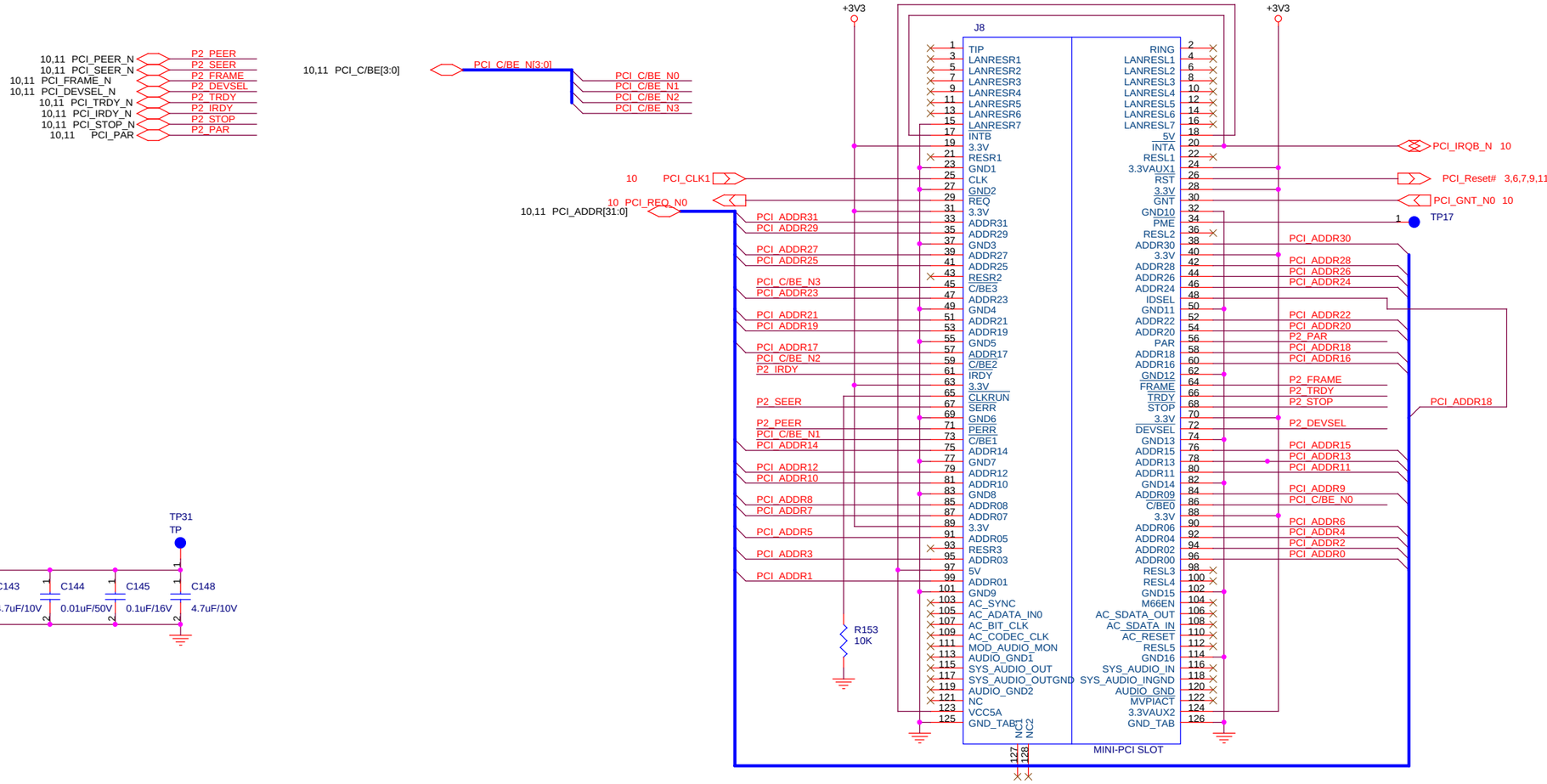








Title: XBA-307		
Size: A4	Document Number: Mini_PCI Solt 1	Rev: R0C
Date: Tuesday, April 10, 2007	Sheet 11 of 12	



Title	XBA-307	
Size A4	Document Number Mini_PCI Solt 2	Rev R0C
Date: Tuesday, April 10, 2007	Sheet 12 of 12	