TZ150

Change History

DATE	Version	Description	Designer
05/03/2004	0.1	Initial schematic received	
05/13/2004	0.2	Page2 Remove U2, R20, C21, add decap for CPU power. Page3 Pull-up PCI req, PCI Int, pull-down MIIA-RXERR U1_E1, no stuff for R39, R40, stuff R42, R41, connect MIIC_RXERR U1_A2, pull-down SDR_CLK_IN, use serial termination resistors, no FB. add FB for switch add GPIO for WLAN. Page4 Remove 56TSOP flash, add GPIO pull-up/down. Page5 No FB for SDR CLK, add decap for SDR power, add serial termination for SDR control/address, add RC termination for SDR data, specify SDR serial termination placement Page6 connect miniPCI chassis to net_gnd, add 5V decap, add serial resistor to IDSEL, add 0.001uf decap, disconnect miniPCI audio ground Page7 Add FB to 1.8 AVCC, remove NRESET, replace FB with resistor, connects PMEXR U10_66, add serial termination for MII, stuff option for PS0/PS1, pull-down U10_1, U10_120 serial to gND, use LED5 for WAN Page8 WAN as NIC, LAN as HUB connection, RX->RD & TX->TD Page9 Use 2 LED for Link/Act and Speed, remove PPPoE and add WLAN Link/Act, add LED color text.	G Tsang

Change History

DATE	Ver.	Description	PCB number
2004/04/21	0.1	Initial schematic	4900PK00A
2004/05/17	0.2	Page2 1. Remove U2, R20, C21 2. add decap for CPU power. Page3 1. Pull-up PCI req, PCI Int. 2. Connect MIIC_RXERR U1_A2. 3. Add FB for switch add GPIO for WLAN. Page4 1. Add GPIO pull-up/down. Page5 1. Add serial termination for SDR control/address, add RC termination for SDR data. Page6 1. Connect miniPCI chassis to net_gnd, add 5V decap. 2. disconnect miniPCI audio ground Page7 1. Add FB to 1.8 AVCC 2. Connects PMEXR U10_66 3. Add serial termination for MII 4. Use LED5 for WAN Page9 1. Use 2 LED for Link/Act and Speed, remove PPPoE and add WLAN Link/Act, add LED color text.	

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Project Name: TZ150

Page Description: Cover Page

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A	108-100022-00	1.0

Date: Thursday, September 02, 2004 Sheet 1 of 12

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Title

TZ150 - HISTORY

Size	Document Number	Rev
A	4900PK00	1.1

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Change History			
DATE	Version	Description	Designer
05/21/2004	0.3	Page3 Add GPIO for SPI select, pull-down SDR_CLK_IN, add PCI add PCI separated clok PCI_CLK_OUT_USB for USB. Page4 Add RC termination for ELB bus on flash. Suggest to remove 56TSOP flash. Page6 No stuff resistor for PCI_PAR, add RC temination option PCI bus control/AD. Page7 Add SPI select from GPIO, re-arrange SPI bus. Suggest to fix KS8995XA symbol. Page8 Request to make change for connection WAN as NIC. Page9 No stuff for inverter, provide individual power for USB no stuff option for 5V fuse, PCI_CLK_OUT_USB from CPU. Page10 Re-arrange Link/Act for green LED, Speed for yellow LED, correct LED color text.	G Tsang
05/25/2004	0.4	Page3 Adds 56 Ohm in serial with U25_9 & U25_10 and 0 Ohm in serial with U25_7 & U25_8. We may need to stuff 1000 Ohm @100 MHZ FB later for test. Page4 Only ELB_AD14, AD15, AD18, AD20, AD21, AD22 and control signals ELB_OE, RW, CSA, CSB for stuff option (NU) RC termination. Adds STmicro M29DW323D and M29D640D for Flash reference.	G Tsang
2004/08/03	1.0	1.0 is the same as 0.5	
2004/09/01	1.1	Remove R219 and install R48	

Change History			
DATE	Ver.	Description	PCB number
2004/05/24	0.3	Page3 1. Add GPIO for SPI select. 2. Pull-down SDR_CLK_IN. 3. Add PCI separated clok PCI_CLK_OUT_USB for USB. 4. Add RS232 for debug port Page4 1. Add RC termination for ELB bus on flash. 2. Remove 56TSOP flash. Page6 1. No stuff resistor for PCI_PAR. 2. Add RC temination option PCI bus control/AD. Page7 1. Add SPI select from GPIO, re-arrange SPI bus. 2. Fix KS8995XA symbol. Page8 1. Make change for connection WAN as NIC. Page9 1. Reomve inverter, provide individual power for USB. 2. PCI_CLK_OUT_USB from CPU. Page10 1. Re-arrange Link/Act for green LED, Speed for yellow LED, correct LED color text.	
2004/05/26	0.4	Page3 1. Adds 56 Ohm in serial with U25_9 & U25_10 and 0 Ohm in serial with U25_7 & U25_8. 2. Stuff R37, R38, no stuff for R40, R41. Page4 1. Remove terminator resistors for ELB_OE, RW, and else, because they are also terminated in PCI. 2. Adds STmicro M29DW323D and M29D640D for Flash reference. 3. Remove resisters reserved for Intel A3 Flash. 4. Use 12V@1.66A switching power adaptor. 5. Use a 5X2 pin header as the debug port.	
2004/07/29	0.5	1. Add MX29LV320ATTC and MX29LV640TTC for reference.	4900PK00B
2004/08/03	1.0	1.0 is the same as 0.5	
2004/09/01	1.1	Remove R219 and install R48	

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Project Name: TZ150			
Page Description: History update			
Size B	Document Number 108-100022-00		Rev 1.0
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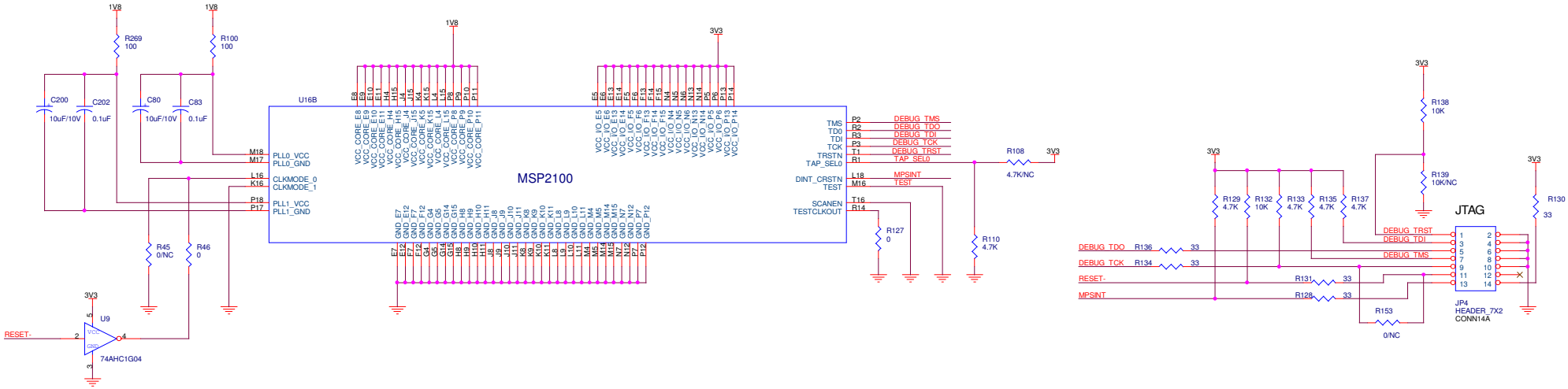
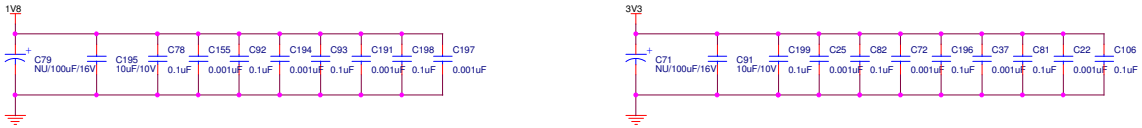
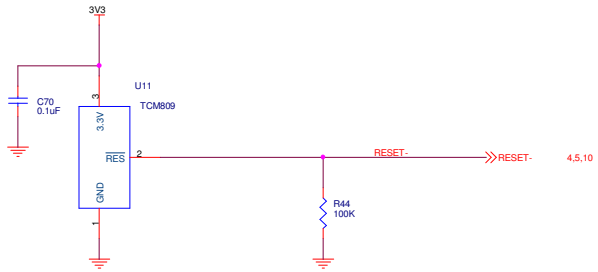
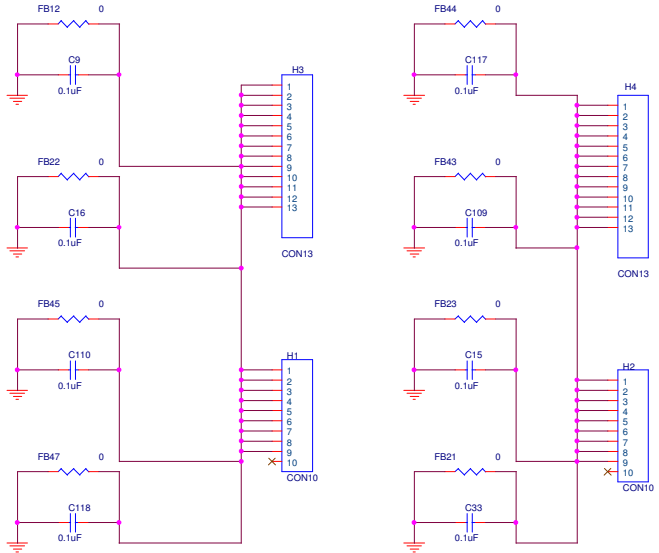
Title: TZ150 - HISTORY			
Size B	Document Number 4900PK00		Rev 1.1
Date: Thursday, September 02, 2004	Sheet 2 of 12		









HI~H4: Mounting Hole

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Title: TZ150 - JTAG

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U16A

MSP2100
FBGA276

ELB_ADDR0 / PCI_ADDR26
ELB_ADDR1 / PCI_ADDR25
ELB_ADDR2 / PCI_ADDR24
ELB_ADDR3 / PCI_ADDR23
ELB_ADDR4 / PCI_ADDR22
ELB_ADDR5 / PCI_ADDR21
ELB_ADDR6 / PCI_ADDR20
ELB_ADDR7 / PCI_ADDR18
ELB_ADDR8 / PCI_C_BEN1_N
ELB_ADDR9 / PCI_ADDR14
ELB_ADDR10 / PCI_ADDR9
ELB_ADDR11 / PCI_ADDR12
ELB_ADDR12 / PCI_C_BEN2_N
ELB_ADDR13 / PCI_PAR
ELB_ADDR14 / cbPCI_PERR_N
ELB_ADDR15
ELB_ADDR16 / PCI_ADDR19 / pc16_ELB_ADDR_25
ELB_ADDR17 / PCI_ADDR16
ELB_ADDR18
ELB_ADDR19 / PCI_ADDR17 / pc16ELB_ADDR24
ELB_ADDR20 / cbPCI_PERR_N
ELB_ADDR21 / GPIO23
ELB_ADDR22 / GPIO22

ELB_DATA0 / PCI_ADDR27
ELB_DATA1 / PCI_ADDR29
ELB_DATA2 / PCI_ADDR10
ELB_DATA3 / PCI_ADDR0
ELB_DATA4 / PCI_ADDR1
ELB_DATA5 / PCI_ADDR3
ELB_DATA6 / PCI_ADDR5
ELB_DATA7 / PCI_ADDR7

ELB_RW / PCI_C_BEN0_N / cbPCI_GNT0_N
ELB_OE / PCI_ADDR11
ELB_WAIT / GPIO26 / cbCD2_N
ELB_ALE / PCI_IDSEL
ELB_CLKO
ELB_BE_HI / GPIO24 / CE2_N / cbPCI_ADDR_10
ELB_BE_LOW / GPIO25 / CE1_N / cbPCI_CBE0_N

ELB_CS0
ELB_CS1 / SPI_CS_0
ELB_CS2 / GPIO32
ELB_CS3 / GPIO31
ELB_CS4 / GPIO30 / PCI_REQ_3
ELB_CS5 / GPIO29 / ELB_DATA14
ELB_CS6 / GPIO28 / PCI_ADDR13 / ELB_R_IO
ELB_CS7 / GPIO27 / PCI_ADDR15 / ELB_W_IO

ELB_INT0 / GPIO36 / PCI_INTA
ELB_INT1 / GPIO35 / PCI_INTB
ELB_INT2 / GPIO34 / PCI_INTC
ELB_INT3 / GPIO33 / PCI_INTD

MII_A_TXD0 / RMII_A_TXD0 (vpd_load)
MII_A_TXD1 / RMII_A_TXD1 (tw_spi_vpd)
MII_A_TXD2 / RMII_B_TXD0 (boot_option0)
MII_A_TXD3 / RMII_B_TXD1 (boot_option1)
MII_A_TXEN / RMII_A_TXEN (spi_tw_extend)
MII_A_TXCLK / RMII_CLK
MII_A_TXERR / RMII_B_TXEN (mac_mode1)
MII_A_RXD0 / RMII_A_RXD0
MII_A_RXD1 / RMII_A_RXD1
MII_A_RXD2 / RMII_B_RXD0
MII_A_RXD3 / RMII_B_RXD1
MII_A_RXCLK / RMII_B_RXERR
MII_A_RXERR / RMII_A_RXERR
MII_A_RXDV / RMII_A_CRS
MII_A_COL
MII_A_CRS / RMII_B_CRS
MII_A_MDCLK (miib_pci)
MII_A_MDIO

MII_B_TXD0 / PCI_GNT1 (pci_host)
MII_B_TXD1 / PCI_GNT0 (boot_16bit)
MII_B_TXD2 / PCI_GNT3 / pc16ELB_ADR_19 (full_mux)
MII_B_TXD3 / PCI_ADDR31 / ELB_DATA10
MII_B_TXEN / PCI_GNT2 (mac_mode0)
MII_B_TXCLK / PCI_FRAME / pc16ELB_ADDR_23
MII_B_TXERR / PCI_ADDR28 / ELB_DATA8
MII_B_RXD0 / PCI_REQ0
MII_B_RXD1 / PCI_REQ1
MII_B_RXD2 / PCI_REQ2
MII_B_RXD3 / PCI_ADDR6 / ELB_DATA13
MII_B_RXCLK / PCI_ADDR4 / ELB_DATA12
MII_B_RXERR / PCI_CLK_IN
MII_B_RXDV / PCI_RST_N / pc16_RST
MII_B_COL / PCI_SERR_N / pc16ELB_WAIT
MII_B_CRS / PCI_ADDR2 / ELB_DATA11
MII_B_MDCLK / PCI_ADDR30 / ELB_DATA9
MII_B_MDIO / PCI_C_BEN3_N / REG_N

MII_C_TXD0 / GPIO39 / RMII_C_TXD0
MII_C_TXD1 / GPIO40 / RMII_C_TXD1
MII_C_TXD2 / GPIO43
MII_C_TXD3 / GPIO42
MII_C_TXEN / GPIO37 / RMII_C_TXEN
MII_C_TXCLK / GPIO41
MII_C_TXERR / GPIO52
MII_C_RXD0 / GPIO45 / RMII_C_RXD0
MII_C_RXD1 / GPIO46 / RMII_C_RXD1
MII_C_RXD2 / GPIO47
MII_C_RXD3 / GPIO48
MII_C_RXCLK / GPIO44
MII_C_RXERR / GPIO51 / RMII_C_RXERR
MII_C_RXDV / GPIO53
MII_C_COL / GPIO38
MII_C_CRS / GPIO54 / RMII_C_CRS
MII_C_MDCLK / GPIO50
MII_C_MDIO / GPIO49

GPIO0 / PCI_PERR_N / TIMER_A
GPIO1 / TIMER_B
GPIO2 / TDM_RXCLK
GPIO3 / TDM_RXFS
GPIO4 / TDM_RXD
GPIO5 / TDM_TXCLK
GPIO6 / TDM_TXFS
GPIO7 / TDM_TXD
GPIO8 / PCI_ADDR8 / ELB_DATA15

SMPI_SDI / GPIO10
SMPI_SDO / GPIO9
SMPI_SCLK / GPIO11

URT0_RXDATA / GPIO18
URT0_TXDATA / GPIO19
URT0_CTS / GPIO21 / CD1_N
URT0_RTS / GPIO20 / IOIS16

URT1_RXDATA / GPIO16
URT1_TXDATA / GPIO15
URT1_CTS / GPIO17
URT1_RTS / GPIO14

TW_SCLK / GPIO13
TW_SDA / GPIO12

RESET_N
XTALOUT
XTALIN

SDR_ADD0 SDR_ADD1 SDR_ADD2 SDR_ADD3 SDR_ADD4 SDR_ADD5 SDR_ADD6 SDR_ADD7 SDR_ADD8 SDR_ADD9 SDR_ADD10 SDR_ADD11 SDR_ADD12 SDR_BS0 SDR_BS1
SDRAM_A[12:0] 6
SDRAM_BS0 6
SDRAM_BS1

SDR_DATA0 SDR_DATA1 SDR_DATA2 SDR_DATA3 SDR_DATA4 SDR_DATA5 SDR_DATA6 SDR_DATA7 SDR_DATA8 SDR_DATA9 SDR_DATA10 SDR_DATA11 SDR_DATA12 SDR_DATA13 SDR_DATA14 SDR_DATA15 SDR_DATA16 SDR_DATA17 SDR_DATA18 SDR_DATA19 SDR_DATA20 SDR_DATA21 SDR_DATA22 SDR_DATA23 SDR_DATA24 SDR_DATA25 SDR_DATA26 SDR_DATA27 SDR_DATA28 SDR_DATA29 SDR_DATA30 SDR_DATA31
SDRAM_D[31:0] 6

SDR_DQM0 SDR_DQM1 SDR_DQM2 SDR_DQM3
SDRAM_DMQ[3:0] 6

SDR_RAS SDR_CAS SDR_CLKEN SDR_CLK_OUT SDR_CS SDR_WEN SDR_CLK_IN
SDRAM_RAS 6
SDRAM_CAS 6
SDRAM_CLKEN 6
SDRAM_CLK_OUT 6
SDRAM_CS 6
SDRAM_WE 6

PCI_IRDY_N / pc16ELB_ADDR_15
PCI_DEVSEL_N / pc16ELB_ADDR_21
PCI_TRDY_N / pc16ELB_ADDR_22
PCI_STOP_N / pc16ELB_ADDR_20
PCI_CLK_OUT / pc16ELB_ADR_16
PCI_IRDYN 7,10
PCI_DEVSELN 7,10
PCI_TRDYN 7,10
PCI_STOPN 7,10
PCI_CLK_OUT 7
PCI_CLK_OUT_USB 10
PCI_CLK_IN

NC_E15
NC_P15

SDRAM_CLK_OUT
SDRAM_CS
SDRAM_WE
SDRAM_RAS
SDRAM_CAS
SDRAM_CLKEN
SDRAM_D[31:0]
SDRAM_DMQ[3:0]
SDRAM_A[12:0]

SPIS 8
WLAN_S 11

RESET- 3,5,10

5,7,10 ELB_AD[22:0]
5,7,10 ELB_D[7:0]
5,7,10 PCI_AD[31:0]
5,7,10 PCI_CBE1N
5,7,10 ELB_RW
5,7,10 PCI_CBE2N
5,7,10 PCI_PAR
5,7,10 ELB_OE
5,7,10 PCI_CBE0N
7 RF_RESETN
8 2100_SWRST
5 ELB_CS0
5 ELB_CS1
11 WLAN_LinkAct
11 POWER
7 PCI_INTA
7 PCI_INTB
10 PCI_INTC
10 PCI_INTD
8 MIIA_TXD0
8 MIIA_TXD1
8 MIIA_TXD2
8 MIIA_TXD3
8 MIIA_TXEN
8 MIIA_TXCLK
8 MIIA_TXERR
8 MIIA_RXD0
8 MIIA_RXD1
8 MIIA_RXD2
8 MIIA_RXD3
8 MIIA_RXCLK
8 MIIA_RXDV
8 MIIA_COL
8 MIIA_CRS
10 PCI_GNT1
7 PCI_GNT0
7,10 PCI_FRAMEN
7 PCI_REQ0
10 PCI_REQ1
7,10 PCI_RSTN
7,10 PCI_SERRN
7,10 PCI_CBE3N
8 MIIC_TXD0
8 MIIC_TXD1
8 MIIC_TXD2
8 MIIC_TXD3
8 MIIC_TXEN
8 MIIC_TXCLK
8 MIIC_TXERR
8 MIIC_RXD0
8 MIIC_RXD1
8 MIIC_RXD2
8 MIIC_RXD3
8 MIIC_RXCLK
8 MIIC_RXERR
8 MIIC_RXDV
8 MIIC_COL
8 MIIC_CRS
8 MIIC_MDCLK
8 MIIC_MDIO
7,10 PCI_PERRN
11 STATUS
5 GPIO_2
5 GPIO_3
5 GPIO_4
5 GPIO_5
5 GPIO_6
5 GPIO_7
8 SPIQ
8 SPID
8 SPIC

For KS8995M/MA only, no stuff.

PCI_REQ2 R268 4.7K
PCI_REQ3 R111 4.7K
Pull-up un-used PCI signals

FULL_MUX NO PC Card 16/32 Auto Detect MODE
SPI_TW_EXT No initial configure data
BOOT_DECODE0 Boot from Flash/ELB
BOOT_DECODE1 Boot from Flash/ELB
VPD_LOAD No initial configure data
R98 100K R94 100K R95 100K R99 100K R267 100K

PCI_HOST PCI Host Inteface
MAC_MODE1 enable MIIA and MIIC
MAC_MODE0 enable MIIA and MIIC
TW_SPI_VPD No initial configure data
MIIB_PCI enable PCI, and no MIIB
BOOT_16BIT 8bit boot device
R271 100K
R109 100K R73 100K R97 100K R270 100K R96 100K

R91 4.7K
R75 33 MIIB_PCI
R72 33
R82 4.7K/NC
R83 0
R84 1K
C73 2.4K
R85 4.7K/NC
R126 200/NC
R28 200/NC
FB33 160808-9047B-N3
FB42 201209-0030A-N2
FB29 0
FB37 201209-0030A-N2
C44 10pF/NC
C106 10pF/NC
C107 10pF/NC
TP5
TP7

R1 10K
FB4 0
PB_INPUT
S1 PUSHBUTTON
C4 0.1uF

DEBUG PORT
JP1 4_HEADER
C103 0.1uF
C104 0.1uF
C89 0.1uF
C88 0.1uF
C105 0.1uF
U15 MAX3232 TSSOP16-SER
C1+ C1- C2+ C2- VCC V+ V- T1IN T2IN R1OUT R2OUT T1OUT T2OUT R1IN R2IN GND
R103 56
R102 56
R87 4.7K
R86 4.7K
FB40 0
FB41 0
TXD
RXD
JP2 5X2_HEADER
PB_INPUT

R105 0/NU
R264 0/NU
R254 0/NU
R88 NU/4.7K
R250 NU/4.7K
R251 NU/4.7K

FB38 0
FB39 0
R112 1M
X2 25MHZ
C94 20pF
C95 20pF

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Title: TZ150 - Brecis 2100
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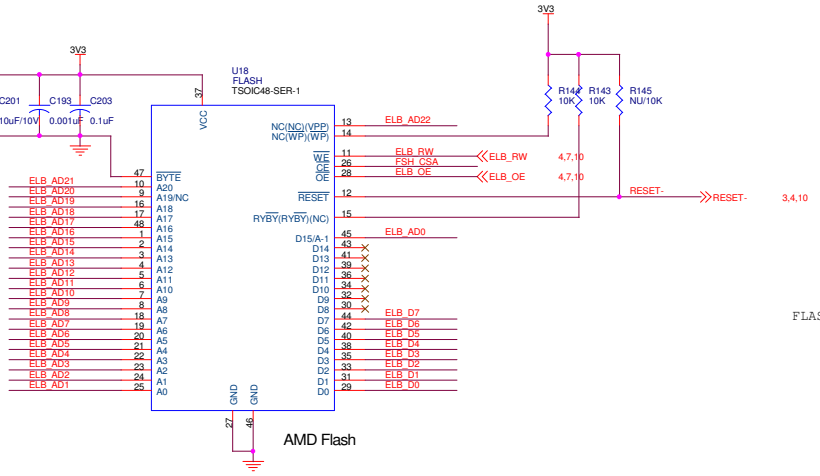
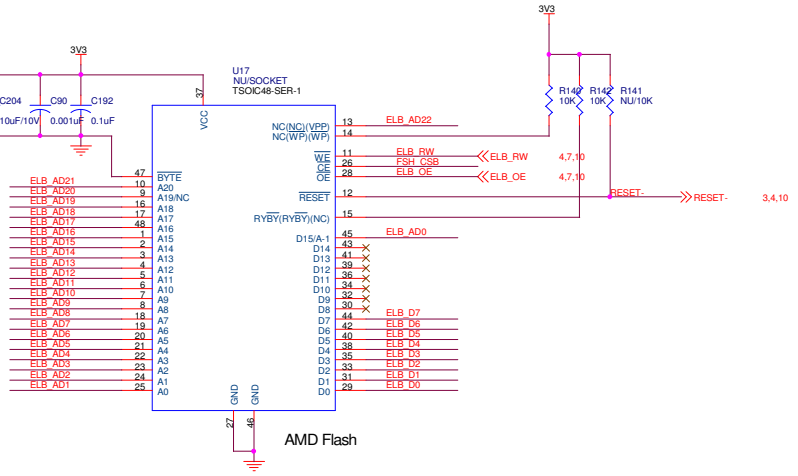
4,7,10 ELB_AD[22:0]

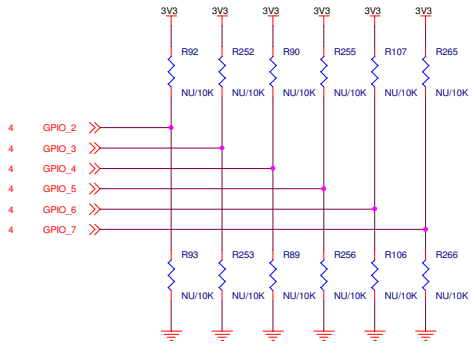
4,7,10 ELB_D[7:0]



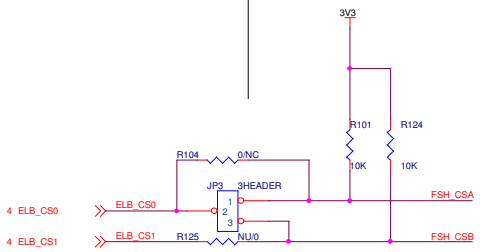
FLASH

SOCKET





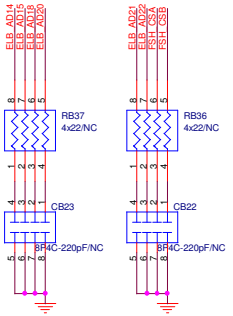
GPIO pull-up and pull-down for future reference



FLASH TYPE		
STMicron	AMD	MXIC
	AM29LV800BT	
	AM29LV160DT	
M29DW323DT70N6	AM29LV320DT	MX29LV320ATTC
M29DW640DT90N6	AM29DL640D	MX29LV640TTC

pin	function
1-2	Flash
2-3	Socket

RC termination for ELB bus, place end of the ELB bus



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Title: TZ150 - FLASH

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C	4900PK00	1.1

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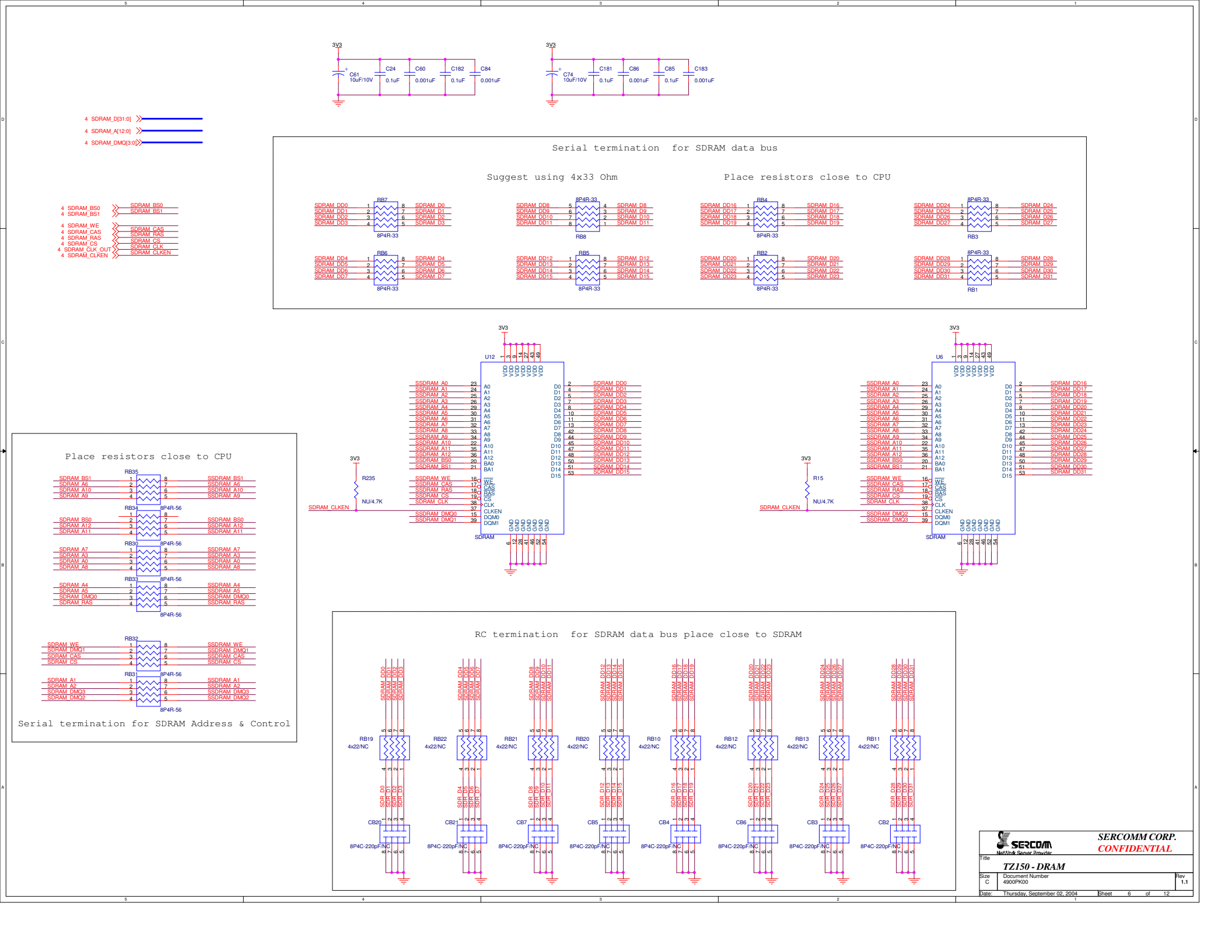
3V3
C61 10uF/10V
C24 0.1uF
C60 0.001uF
C182 0.1uF
C84 0.001uF
C74 10uF/10V
C181 0.1uF
C86 0.001uF
C85 0.1uF
C183 0.001uF
4 SDRAM_D[31:0]
4 SDRAM_A[12:0]
4 SDRAM_DMQ[3:0]
Serial termination for SDRAM data bus
Suggest using 4x33 Ohm
Place resistors close to CPU
RB7
RB8
RB4
RB3
RB6
RB5
RB2
RB1
8P4R-33
4 SDRAM_BS0
4 SDRAM_BS1
4 SDRAM_WE
4 SDRAM_CAS
4 SDRAM_RAS
4 SDRAM_CS
4 SDRAM_CLK_OUT
4 SDRAM_CLKEN
SDRAM_BS0
SDRAM_BS1
SDRAM_CAS
SDRAM_RAS
SDRAM_CS
SDRAM_CLK
SDRAM_CLKEN
U12
U6
SDRAM
R235
R15
NU/4.7K
SDRAM_CLKEN
Place resistors close to CPU
RB35
RB34
RB30
RB33
RB32
RB31
8P4R-56
Serial termination for SDRAM Address & Control
RC termination for SDRAM data bus place close to SDRAM
RB19
RB22
RB21
RB20
RB10
RB12
RB13
RB11
4x22/NC
CB20
CB21
CB7
CB5
CB4
CB6
CB3
CB2
8P4C-220pF/NC
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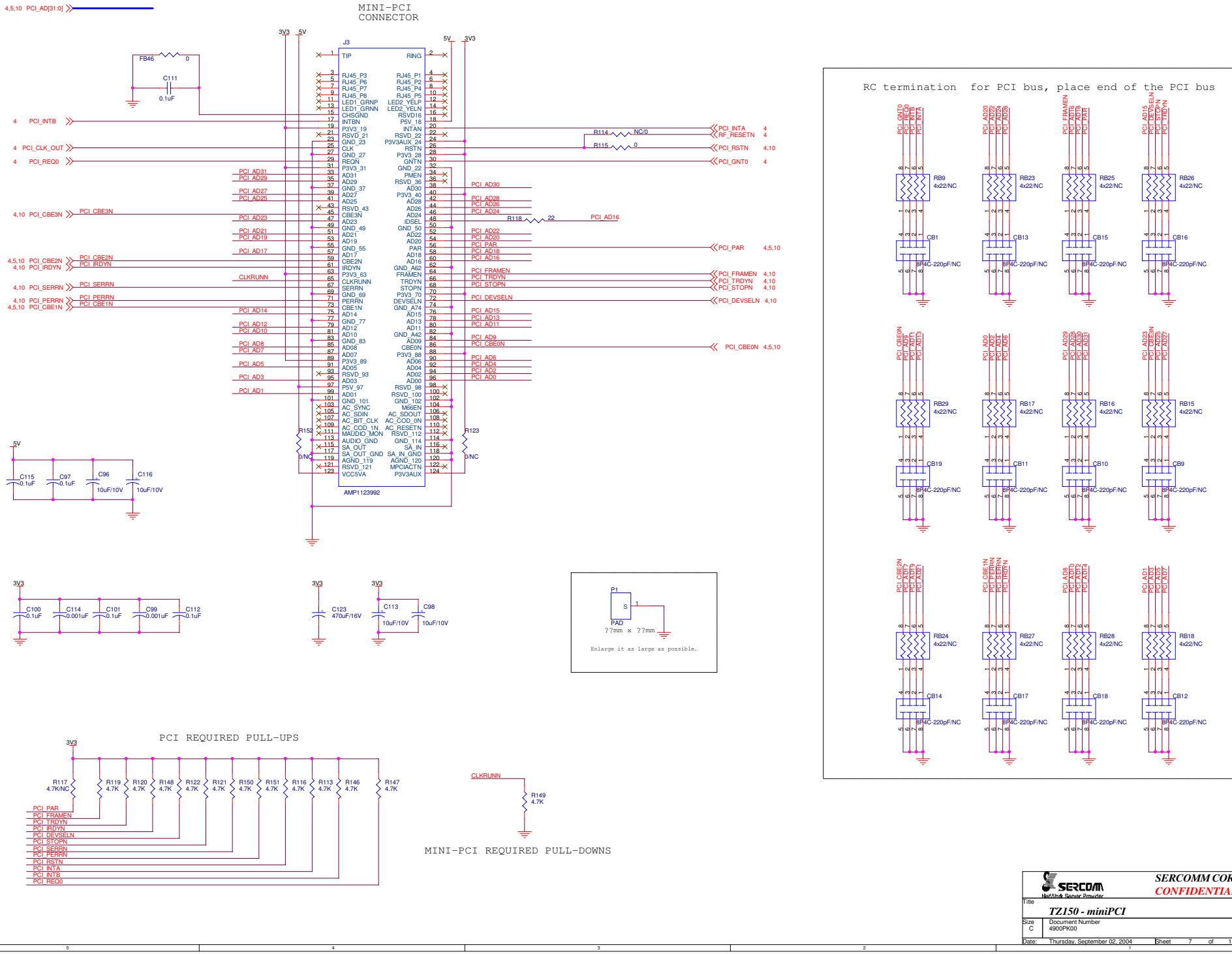
MINI-PCI
CONNECTOR
J3
AMP1123992
RC termination for PCI bus, place end of the PCI bus
RB9 4x22/NC
RB23 4x22/NC
RB25 4x22/NC
RB26 4x22/NC
RB29 4x22/NC
RB17 4x22/NC
RB16 4x22/NC
RB15 4x22/NC
RB24 4x22/NC
RB27 4x22/NC
RB28 4x22/NC
RB18 4x22/NC
8P4C-220pF/NC
PCI REQUIRED PULL-UPS
MINI-PCI REQUIRED PULL-DOWNS
Enlarge it as large as possible.
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TZ150 - miniPCI
Document Number 4900PK00
Rev 1.1
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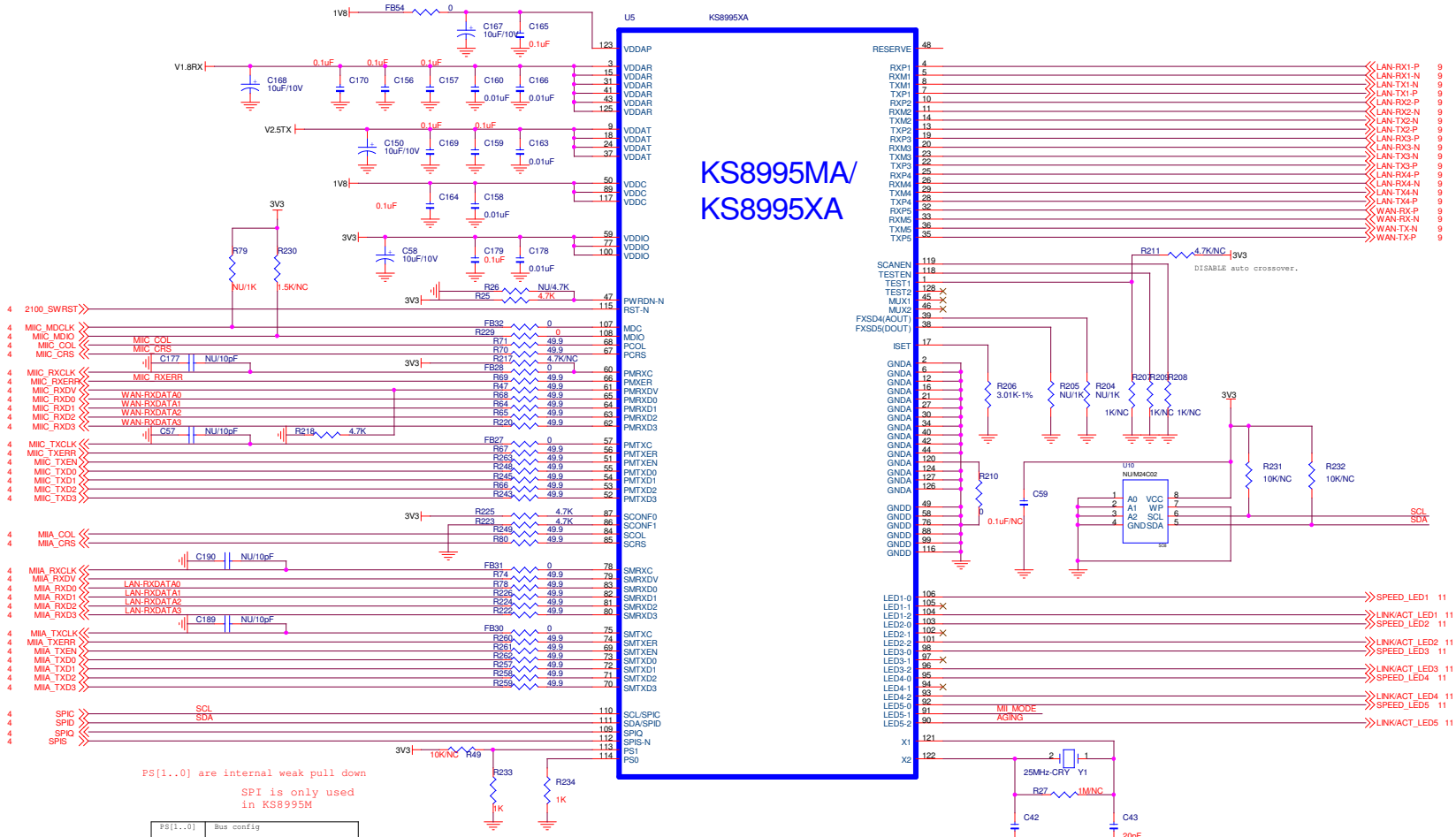

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Title	TZ150 - KS8995XA	
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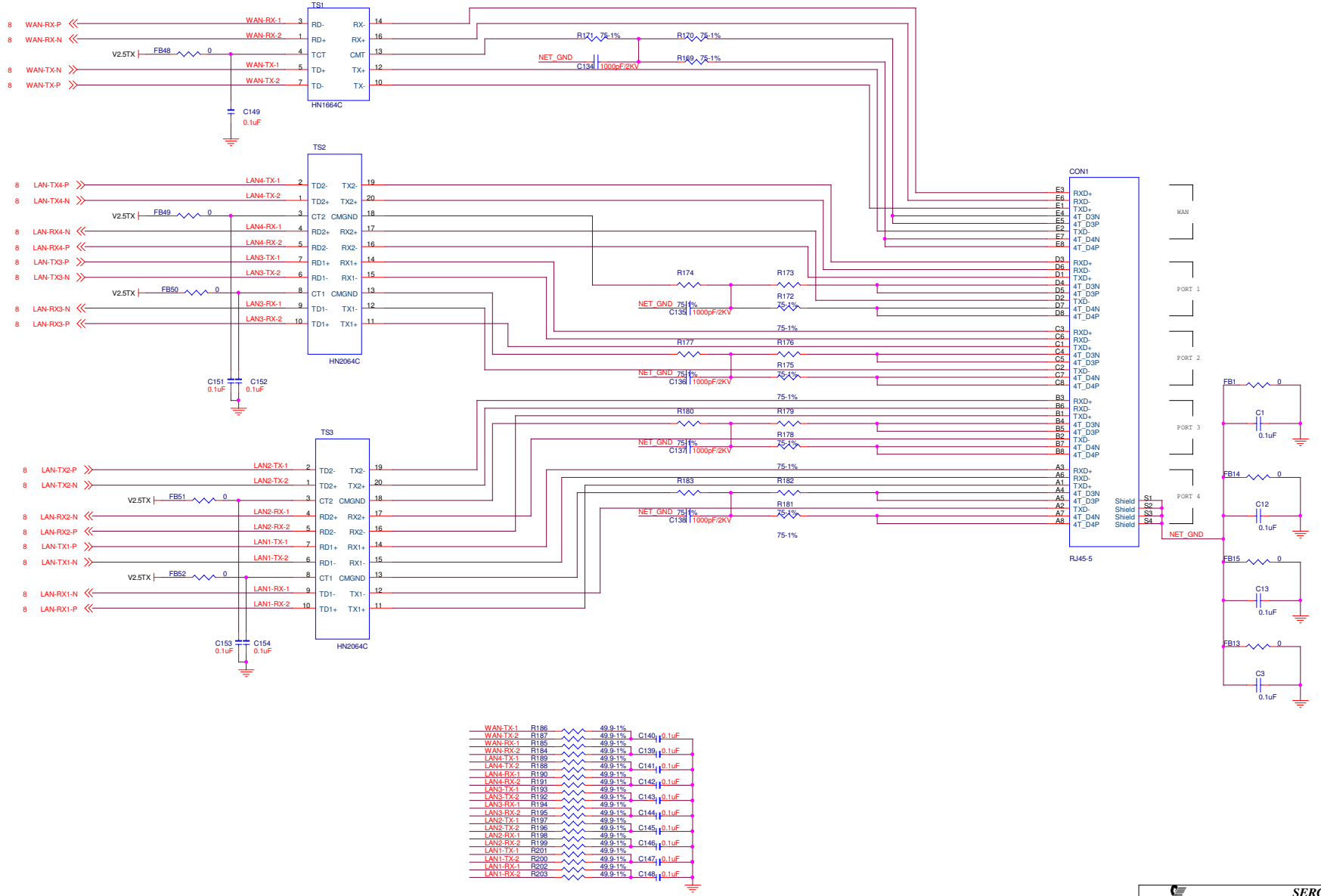

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Title: TZ150 - Transformer & RJ45

Size	Document Number	Rev
C	4900PK00	1.1

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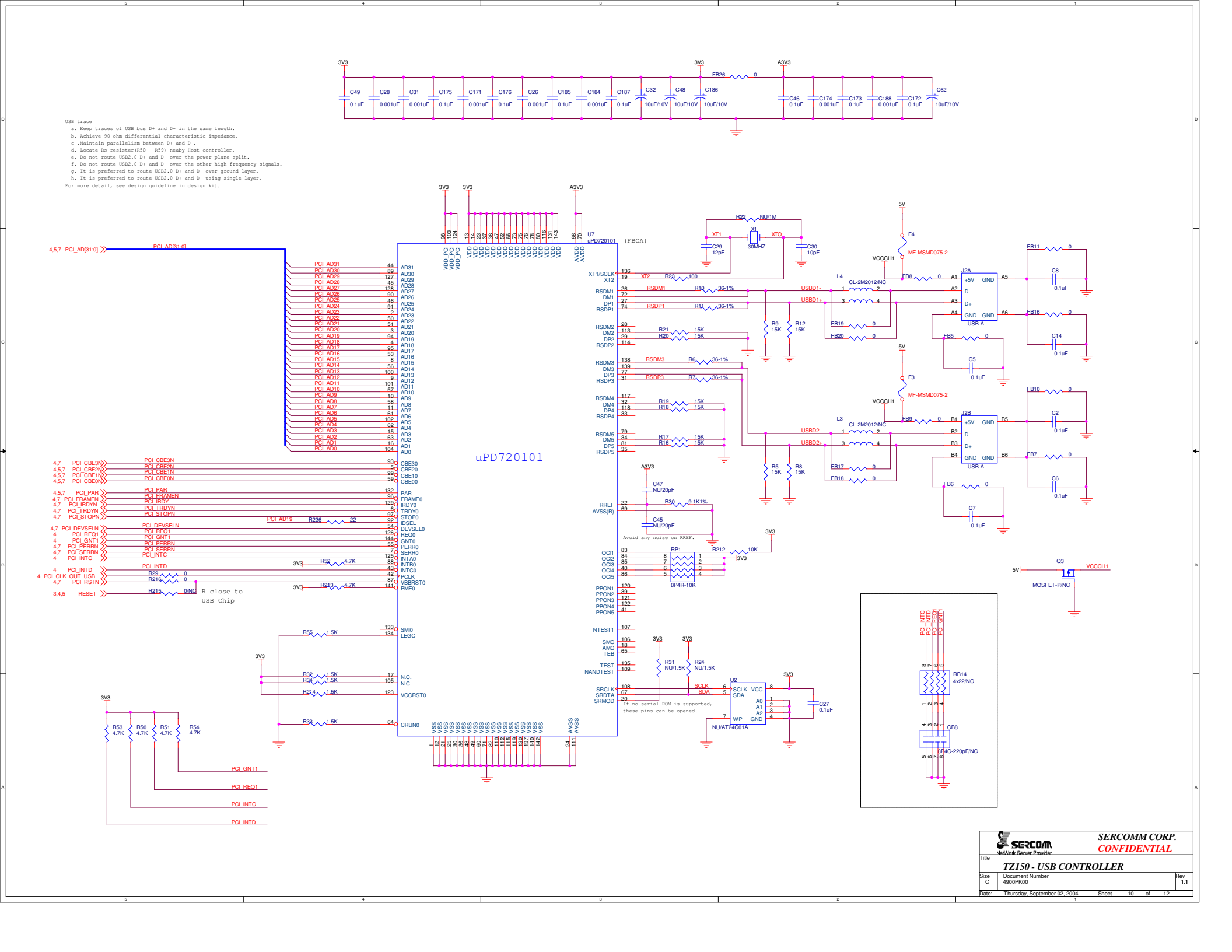
USB trace
a. Keep traces of USB bus D+ and D- in the same length.
b. Achieve 90 ohm differential characteristic impedance.
c .Maintain parallelism between D+ and D-.
d. Locate Rs resister(R50 - R59) neaby Host controller.
e. Do not route USB2.0 D+ and D- over the power plane split.
f. Do not route USB2.0 D+ and D- over the other high frequency signals.
g. It is preferred to route USB2.0 D+ and D- over ground layer.
h. It is preferred to route USB2.0 D+ and D- using single layer.
For more detail, see design guideline in design kit.
uPD720101
U7 uPD720101 (FBGA)
R close to USB Chip
If no serial ROM is supported, these pins can be opened.
NU/AT24C01A
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TZ150 - USB CONTROLLER
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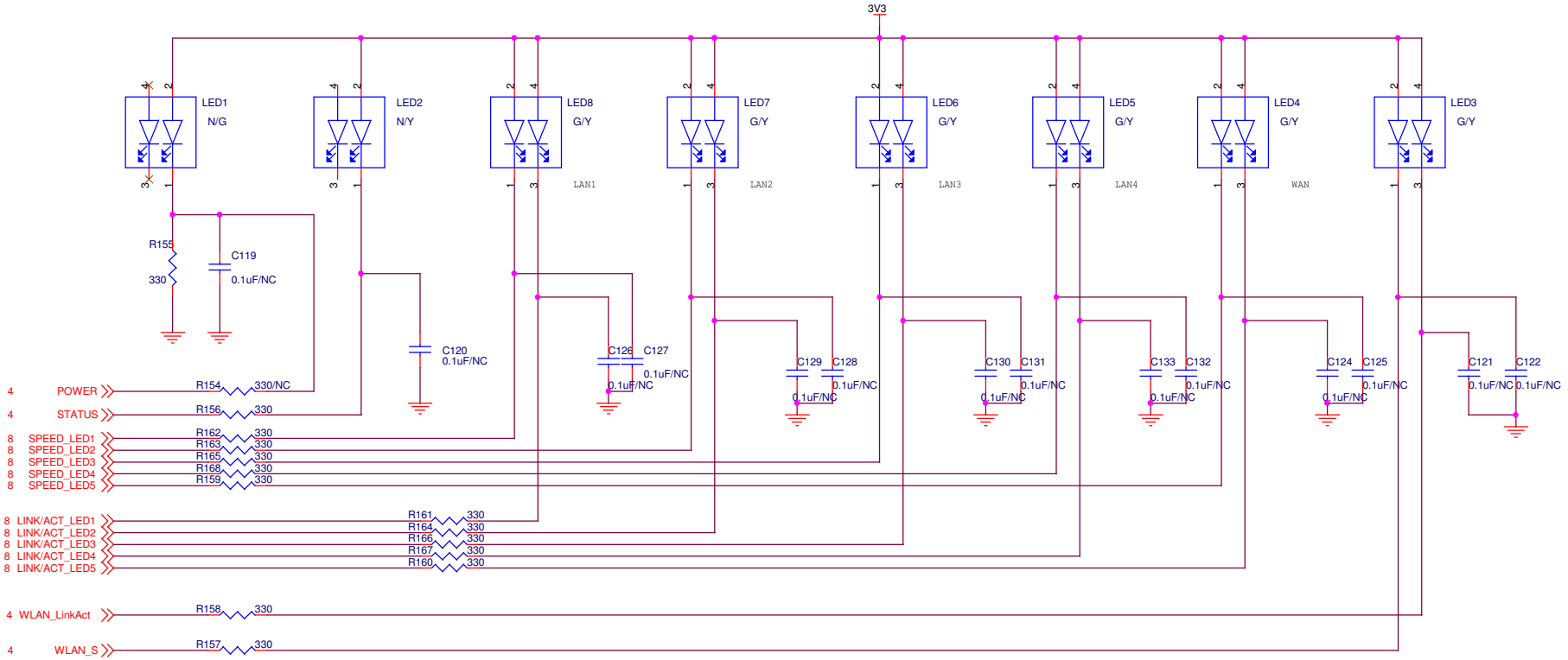

		WAN	LAN [PORT 1 - PORT 4]					Wireless LAN
TOP PIN 3 & 4	Green LED	Link - Solid Act - Flashing	Link - Solid Act - Flashing	Link - Solid Act - Flashing	Link - Solid Act - Flashing	Link - Solid Act - Flashing	Power	Link - Solid Act - Flashing
PIN 1 & 2 BOTTOM	Yellow LED	Speed - 10BT / OFF Speed - 100BT / ON	Speed - 10BT / OFF Speed - 100BT / ON	Speed - 10BT / OFF Speed - 100BT / ON	Speed - 10BT / OFF Speed - 100BT / ON	Speed - 10BT / OFF Speed - 100BT / ON	Status	Wi-Fi Sec TBD

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Network Server Provider

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Title: TZ150 - LED display

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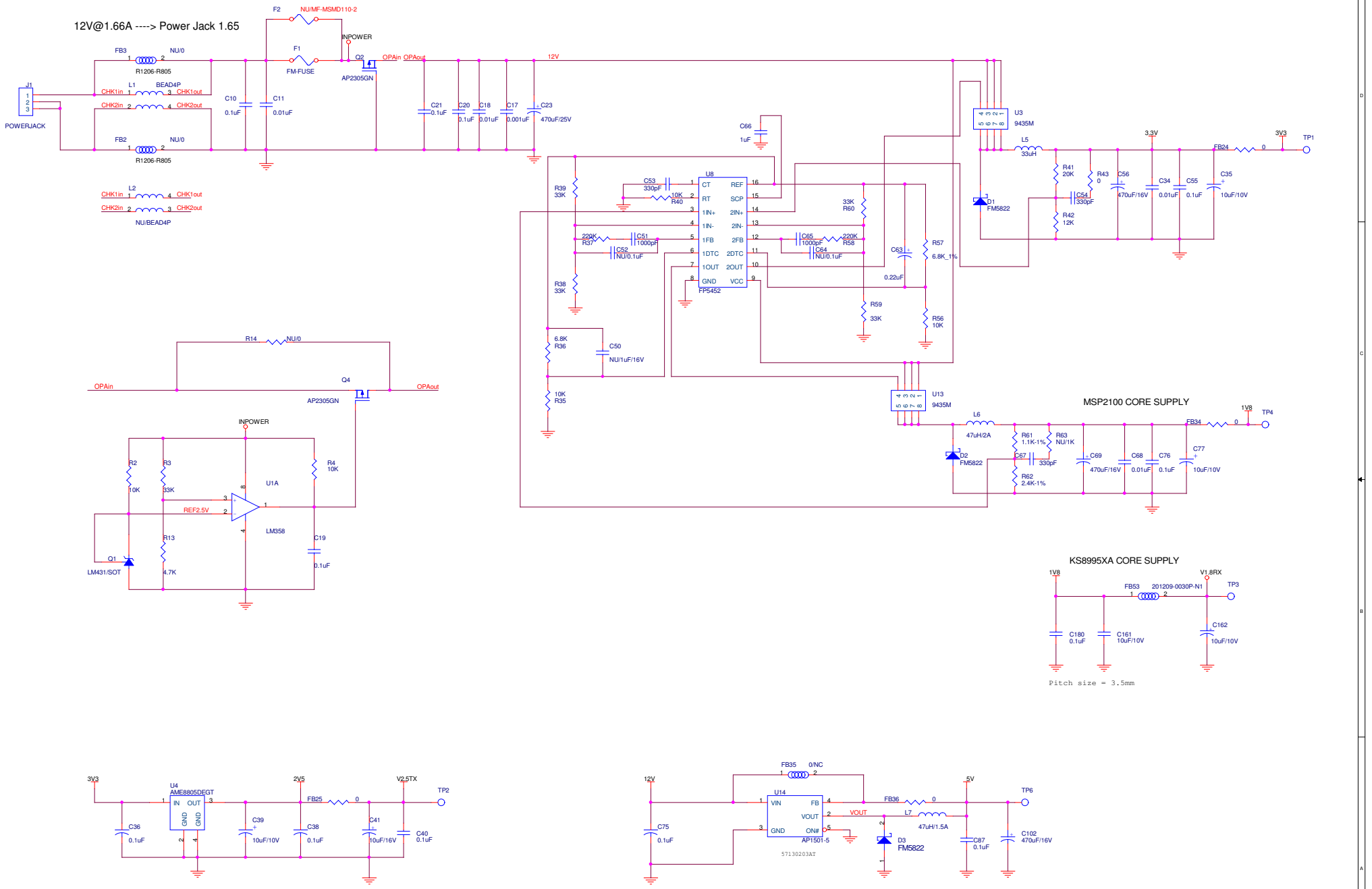
12V@1.66A ----> Power Jack 1.65
POWERJACK
F2
NU/MF-MSMD110-2
INPOWER
F1
FM-FUSE
Q2
AP2305GN
OPAin OPAout
12V
FB3
NU/0
R1206-R805
FB2
NU/0
R1206-R805
L1
BEAD4P
L2
NU/BEAD4P
CHK1in
CHK1out
CHK2in
CHK2out
C10
0.1uF
C11
0.01uF
C21
0.1uF
C20
0.1uF
C18
0.01uF
C17
0.001uF
C23
470uF/25V
C66
1uF
U8
FP5452
CT
RT
1IN+
1IN-
1FB
1DTC
1OUT
GND
REF
SCP
2IN+
2IN-
2FB
2DTC
2OUT
VCC
R39
33K
R38
33K
C53
330pF
R40
10K
R37
220K
C51
1000pF
C52
NU/0.1uF
C65
1000pF
R58
220K
C64
NU/0.1uF
R60
33K
C63
0.22uF
R57
6.8K_1%
R59
33K
R56
10K
R36
6.8K
C50
NU/1uF/16V
R35
10K
U3
9435M
L5
33uH
3.3V
R41
20K
R43
0
C56
470uF/16V
C54
330pF
R42
12K
C34
0.01uF
C55
0.1uF
C35
10uF/10V
FB24
0
3V3
TP1
D1
FM5822
U13
9435M
L6
47uH/2A
D2
FM5822
R61
1.1K-1%
R63
NU/1K
C67
330pF
R62
2.4K-1%
C69
470uF/16V
C68
0.01uF
C76
0.1uF
C77
10uF/10V
FB34
0
1V8
TP4
MSP2100 CORE SUPPLY
R14
NU/0
OPAin
OPAout
Q4
AP2305GN
INPOWER
R2
10K
R3
33K
U1A
LM358
R4
10K
REF2.5V
R13
4.7K
C19
0.1uF
Q1
LM431/SOT
KS8995XA CORE SUPPLY
1V8
V1.8RX
FB53
201209-0030P-N1
TP3
C180
0.1uF
C161
10uF/10V
C162
10uF/10V
Pitch size = 3.5mm
3V3
U4
AME8805DEGT
IN
OUT
GND
GND
C36
0.1uF
C39
10uF/10V
2V5
FB25
0
C38
0.1uF
C41
10uF/16V
V2.5TX
C40
0.1uF
TP2
12V
FB35
0/NC
U14
AP1501-5
VIN
FB
VOUT
ON#
GND
C75
0.1uF
FB36
0
VOUT
L7
47uH/1.5A
D3
FM5822
5V
C87
0.1uF
C102
470uF/16V
TP6
57130203AT
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Title
TZ150 - Power supply
Size
C
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