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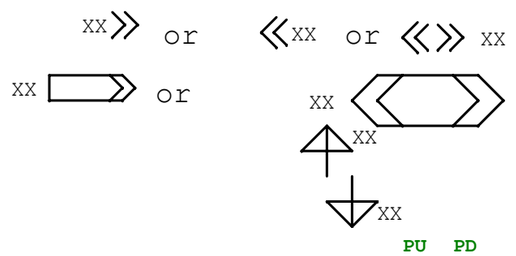
13	Power Decoupling
14	Power, Indication
15	DDR POWER

Revision History

PROTO REV1	30.05.06
PROTO REV2 Flash address correction	14.09.06

LEGEND:



On-page signal connection

Off-page signal connections

Signal has pull-up

Signal has pull-down

FPGA pins termination

MWI: 081-8360EPSYS-5

PCB: 084-00XXX-1

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Title: **MPC8360EA_MDS_PB**

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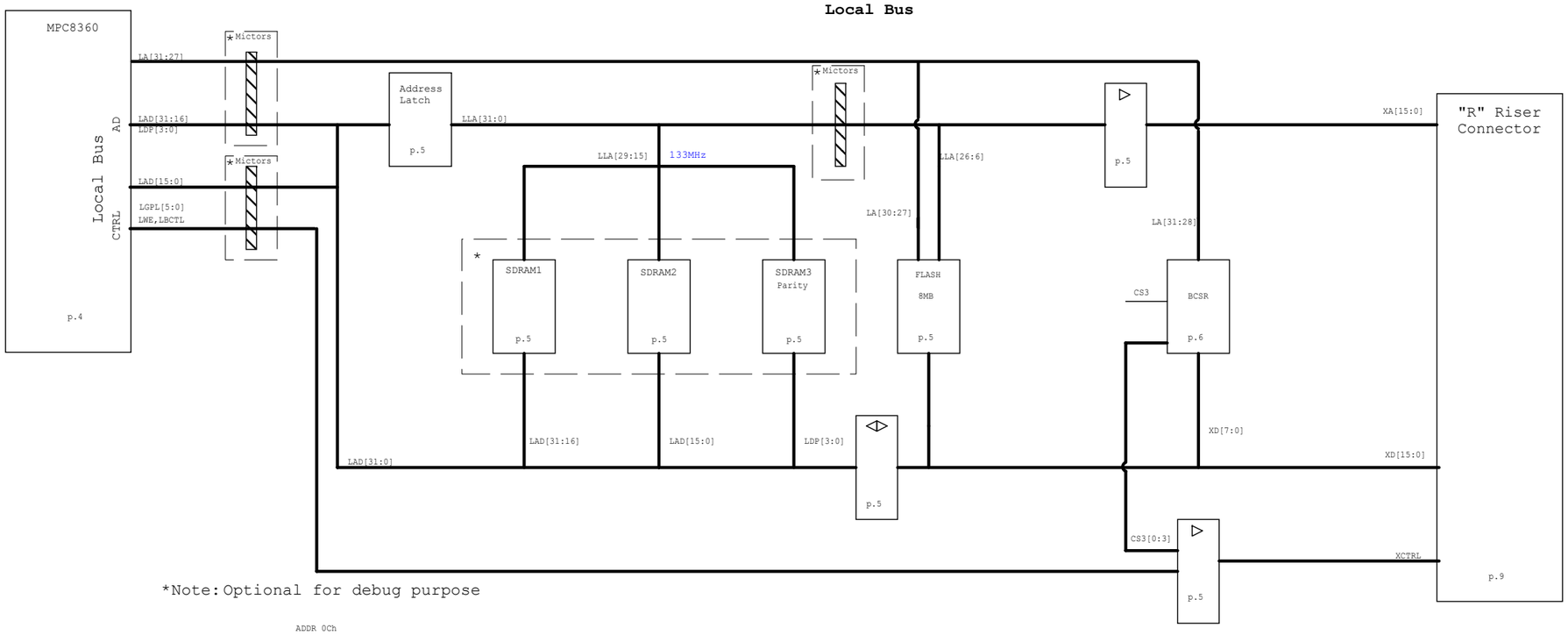
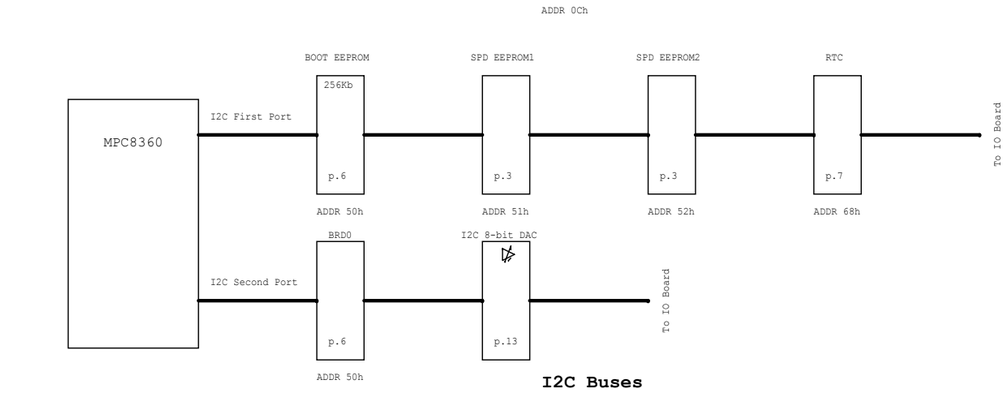
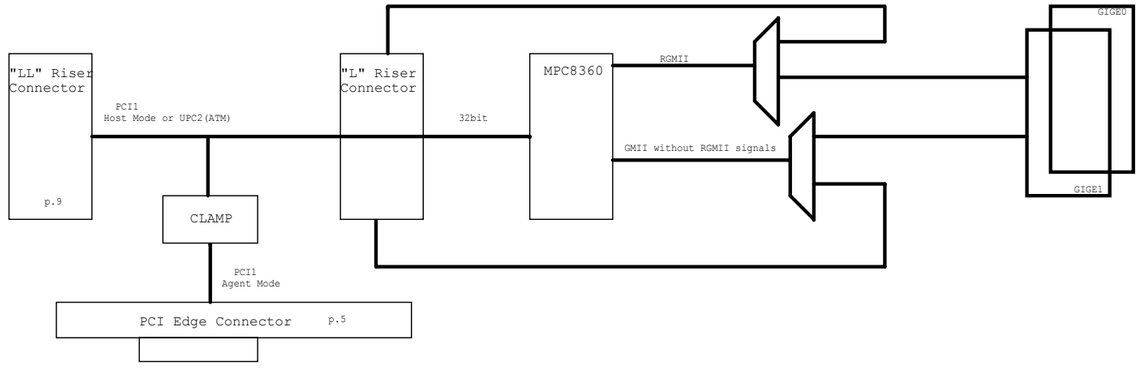
Local Bus



*Note: Optional for debug purpose

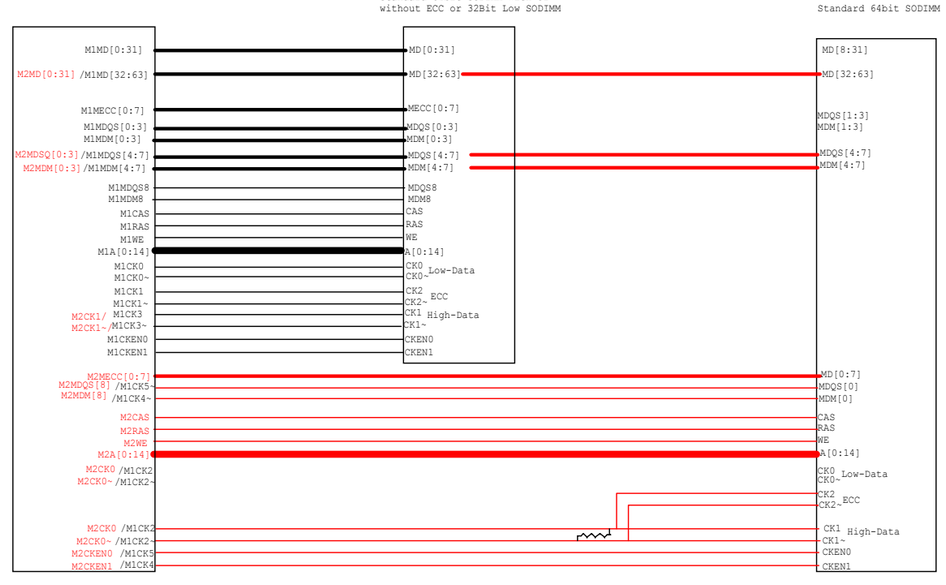


I2C Buses



PCI Bus

DDR Block Diagram



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Title	MPC8360EA_MDS_PB	
Size C	Document Number: *Config Diagram*	Rev PROTO2
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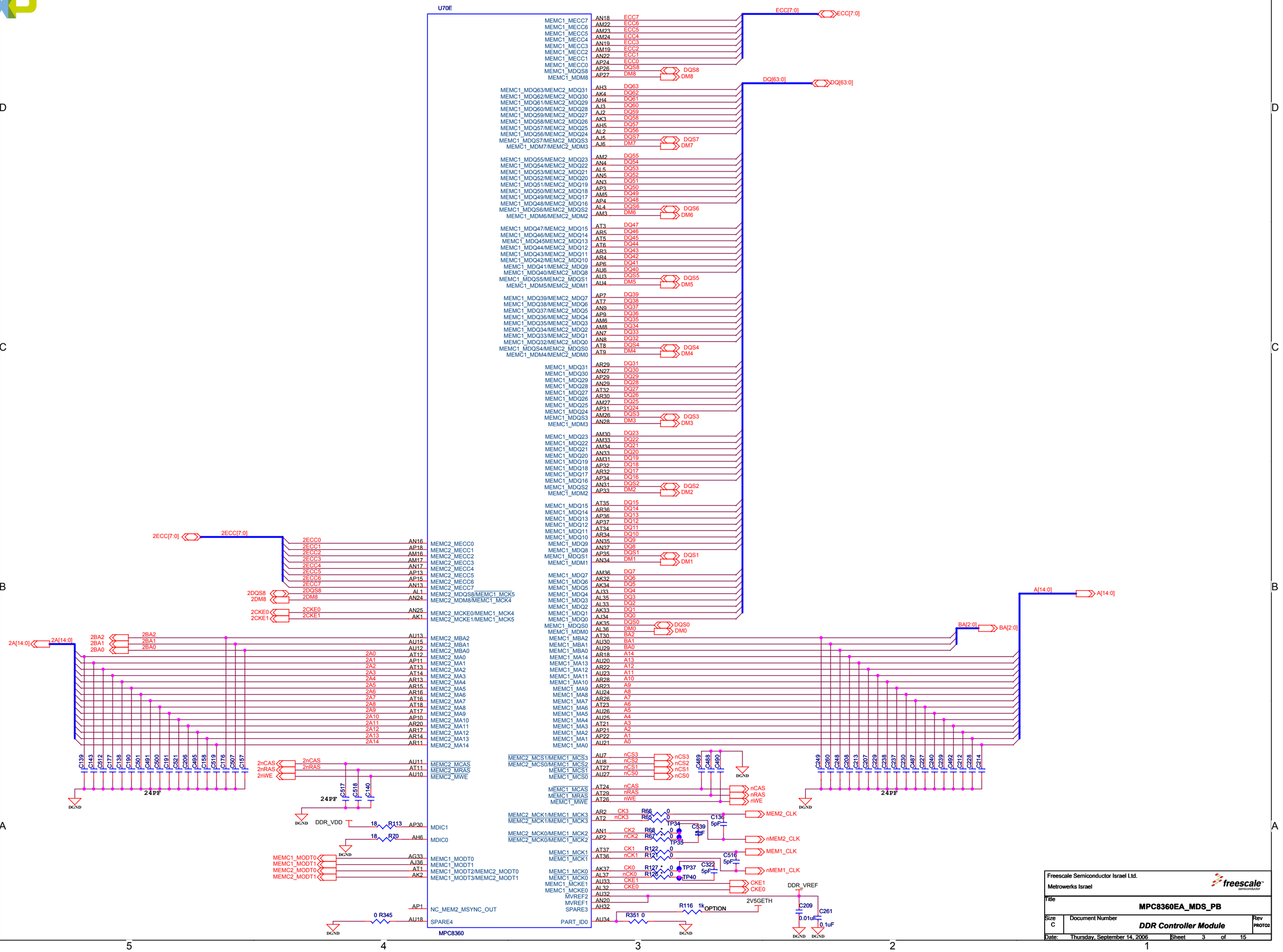

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Title	MPC8360EA_MDS_PB	
Size C	Document Number: DDR Controller Module	Rev PROTO2
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Located Print Side

Located Componnent Side

U69

U33

This Socket can populate only 64bit SO-DIMM.

This Socket can populate 32L/64bit SO-DIMM

1473005-4 : STD
DDR2_SODIMM200_5_2mm_STD

1734073-2 :RVS
DDR2_SODIMM200_9_2mm_RVS

SODIMM200
WV3HG32M72EEU403PD4xG
WHITE ELECTRONICS
U2000
1473005-1

SODIMM200
WV3HG32M40SEU-PD4
WHITE ELECTRONICS
U2001

1473006-1
For test only

I2C1 SPD ADDR 51h

I2C1 SPD ADDR 52h

Note:
The second SODIMM is optional

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Title: MPC8360EA_MDS_PB

Size: C | Document Number: SODIMM DDR Module | Rev: PROTO2

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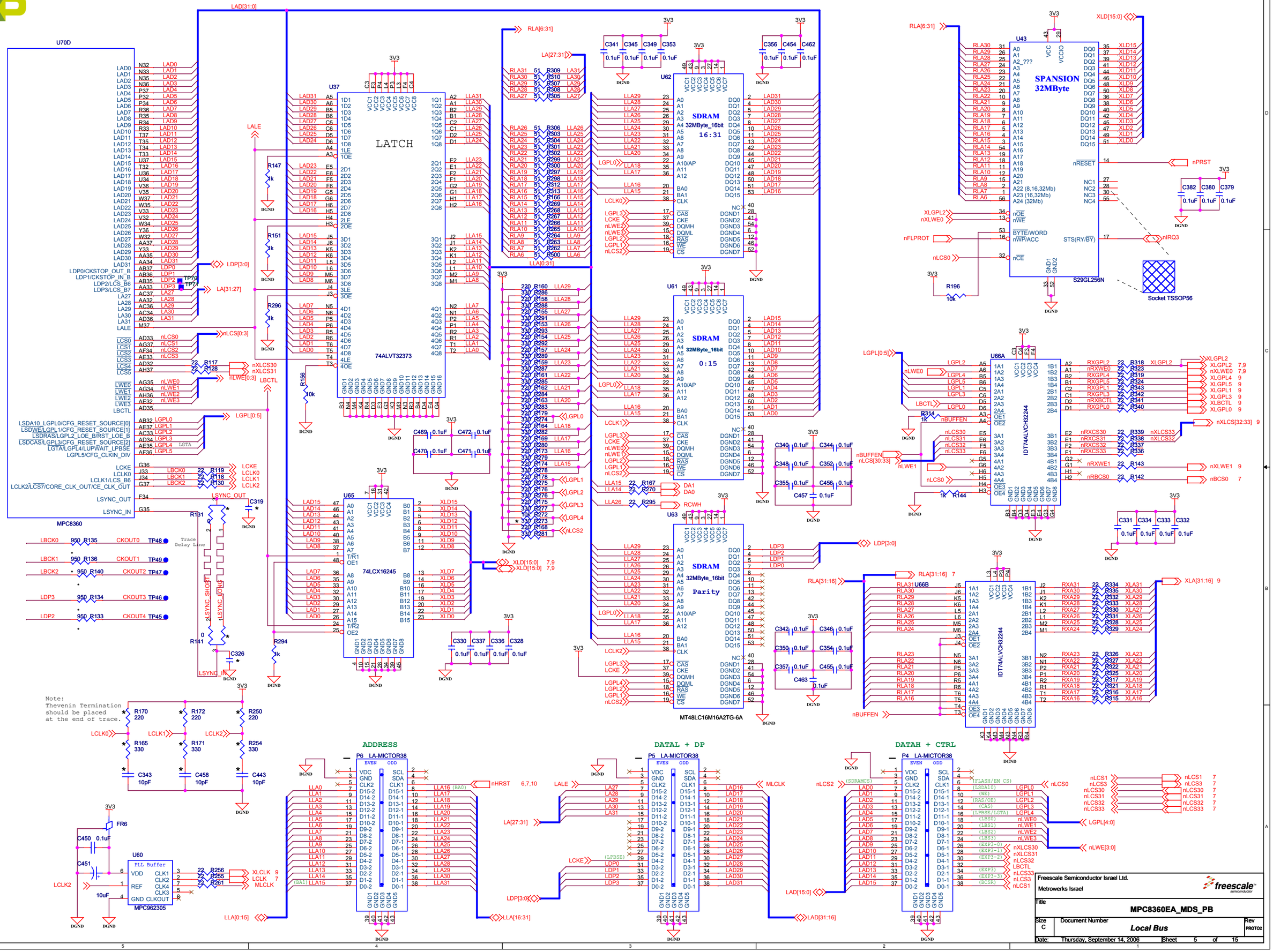
U70D
MPC8360
LAD[31:0]
LA[27:31]
LA[31:27]
LDP[3:0]
nLCS[0:3]
nLWE[0:3]
LBCTL
LALE
LGPL[0:5]
LSYNC_OUT
LSYNC_IN
CKOUT0 TP48
CKOUT1 TP49
CKOUT2 TP47
CKOUT3 TP46
CKOUT4 TP45
Trace Delay Line
LSYNC_SHORT
LSYNC_LONG
U37
74ALVT32373
LATCH
RLA[6:31]
LLA[0:31]
U62
U61
U63
SDRAM
32MByte_16bit
16:31
0:15
Parity
MT48LC16M16A2TG-6A
U43
SPANSION
32MByte
S29GL256N
Socket TSSOP56
XLD[15:0]
nPRST
nIRQ3
nFLPROT
nLCS0
nBUFFEN
U65
74LCX16245
XLD[15:0] 7,9
U66A
U66B
IDT74ALVCH32244
IDT74ALVCH16244
nBUFFEN
nLCS[30:33]
nLWE1
nLWE0
nLBCTL
nLGPL0
nLGPL1
nLGPL2
nLGPL3
nLGPL4
nLGPL5
nLCS[0:3]
nLWE[0:3]
nLGPL[0:5]
nLGPL[4:0]
nLWE[3:0]
nLCS1
nLCS3
nLCS30
nLCS31
nLCS32
nLCS33
XLA[31:16] 9
RLA[31:16] 7
Note:
Thevenin Termination
should be placed
at the end of trace.
ADDRESS
DATAL + DP
DATAH + CTRL
P6 LA-MICTOR38
P5 LA-MICTOR38
P4 LA-MICTOR38
U60
PLL Buffer
MPC962305
FR6
XLCLK 9
LCLK 7
MLCLK
LLA[0:15]
LLA[16:31]
LAD[15:0]
LAD[31:16]
nHRST 6,7,10
MLCLK
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Title
MPC8360EA_MDS_PB
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Local Bus
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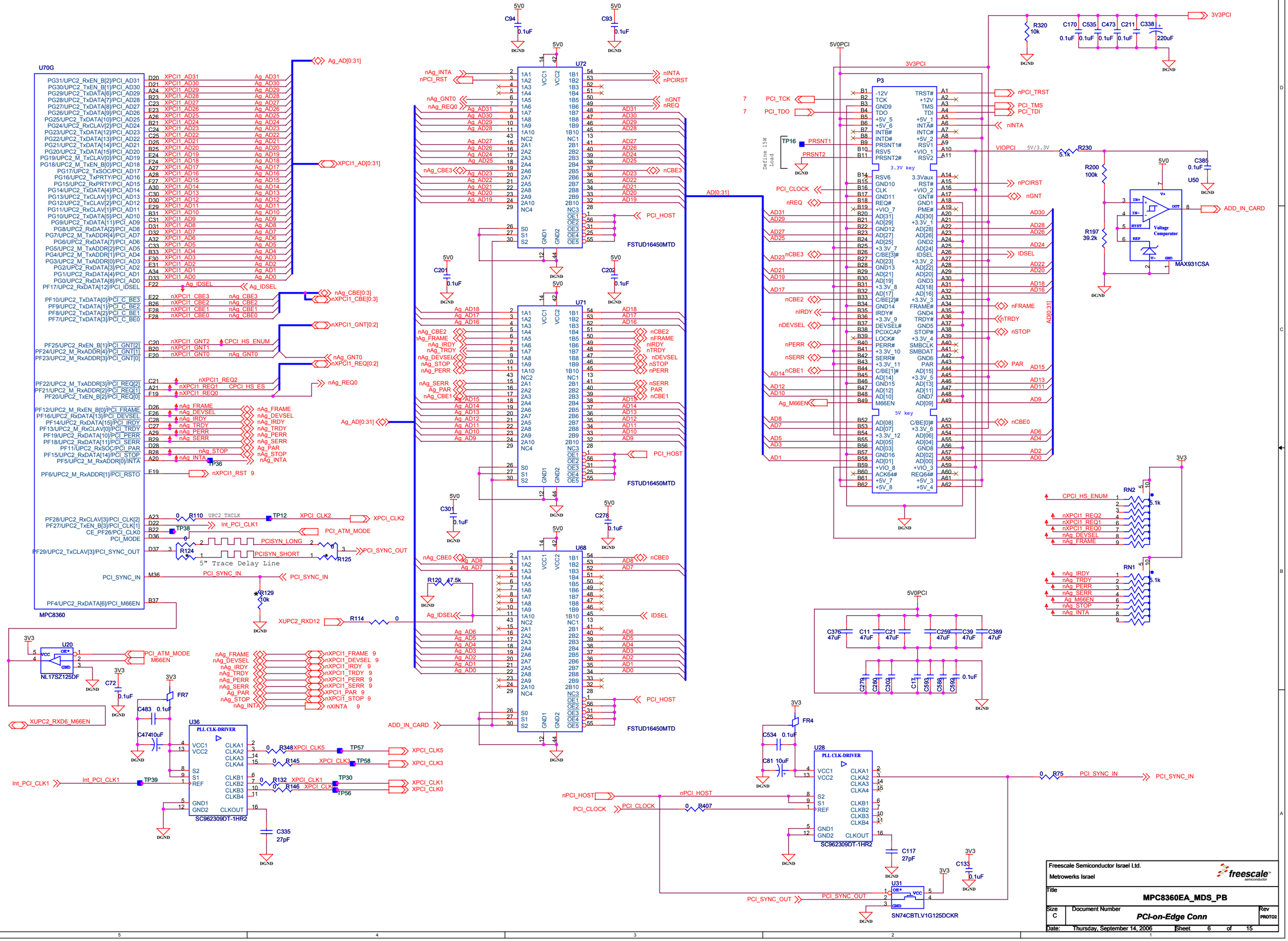
U70G
MPC8360
XPCI1_AD[0:31]
nAg_CBE[0:3]
nXPCI1_CBE[0:3]
nXPCI1_GNT[0:2]
nAg_GNT0
nXPCI1_REQ[0:2]
nAg_REQ0
nAg_FRAME
nAg_DEVSEL
nAg_IRDY
nAg_TRDY
nAg_PERR
nAg_SERR
Ag_PAR
nAg_STOP
nAg_INTA
nXPCI1_RST 9
PCI_SYNC_IN
PCI_ATM_MODE
M66EN
XUPC2_RXD6_M66EN
XUPC2_RXD12
R114 0
R129 10k
R124
R125
PCISYN_LONG
PCISYN_SHORT
5" Trace Delay Line
R110 UPC2_TXCLK
TP12 XPCI_CLK2
XPCI_CLK2
Int_PCI_CLK1
PCI_ATM_MODE
TP38
TP39
TP36
TP57 XPCI_CLK5
TP58 XPCI_CLK3
TP30 XPCI_CLK1
TP56 XPCI_CLK0
R348 R145 R132 R146
U72
U71
U68
FSTUD16450MTD
PCI_HOST
ADD_IN_CARD
U36
PLL CLK-DRIVER
SC962309DT-1HR2
C335 27pF
NL17SZ125DF
U20
FR7
C483 0.1uF
C472 10uF
C72 0.1uF
C94 0.1uF
C93 0.1uF
C201 0.1uF
C202 0.1uF
C301 0.1uF
C278 0.1uF
R120 47.5k
P3
3.3V key
5V key
TP16
Define 15W Load
PRSNT1
PRSNT2
PCI_TCK
PCI_TDO
PCI_CLOCK
nREQ
nPCI_TRST
PCI_TMS
PCI_TDI
nINTA
VIOPCI
5V/3.3V
R230 5.1k
R200 100k
R197 39.2k
C385 0.1uF
U50
MAX931CSA
Voltage Comparator
ADD_IN_CARD
R320 10k
C170 0.1uF
C535 0.1uF
C473 0.1uF
C211 0.1uF
C338 220uF
3V3PCI
5V0PCI
C376 47uF
C11 47uF
C21 47uF
C259 47uF
C39 47uF
C389 47uF
C279 C280 C302 C17 C593 C598 C599 0.1uF
RN2 5.1k
RN1 5.1k
CPCI_HS_ENUM
nXPCI1_REQ2
nXPCI1_REQ1
nXPCI1_REQ0
nAg_DEVSEL
nAg_FRAME
nAg_IRDY
nAg_TRDY
nAg_PERR
nAg_SERR
Ag_M66EN
nAg_STOP
nAg_INTA
U28
C534 0.1uF
C81 10uF
R407
R75
PCI_SYNC_IN
PCI_SYNC_OUT
U31
SN74CBTLV1G125DCKR
C117 27pF
C133 0.1uF
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Title
MPC8360EA_MDS_PB
Size C
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PCI-on-Edge Conn
Rev PROTO2
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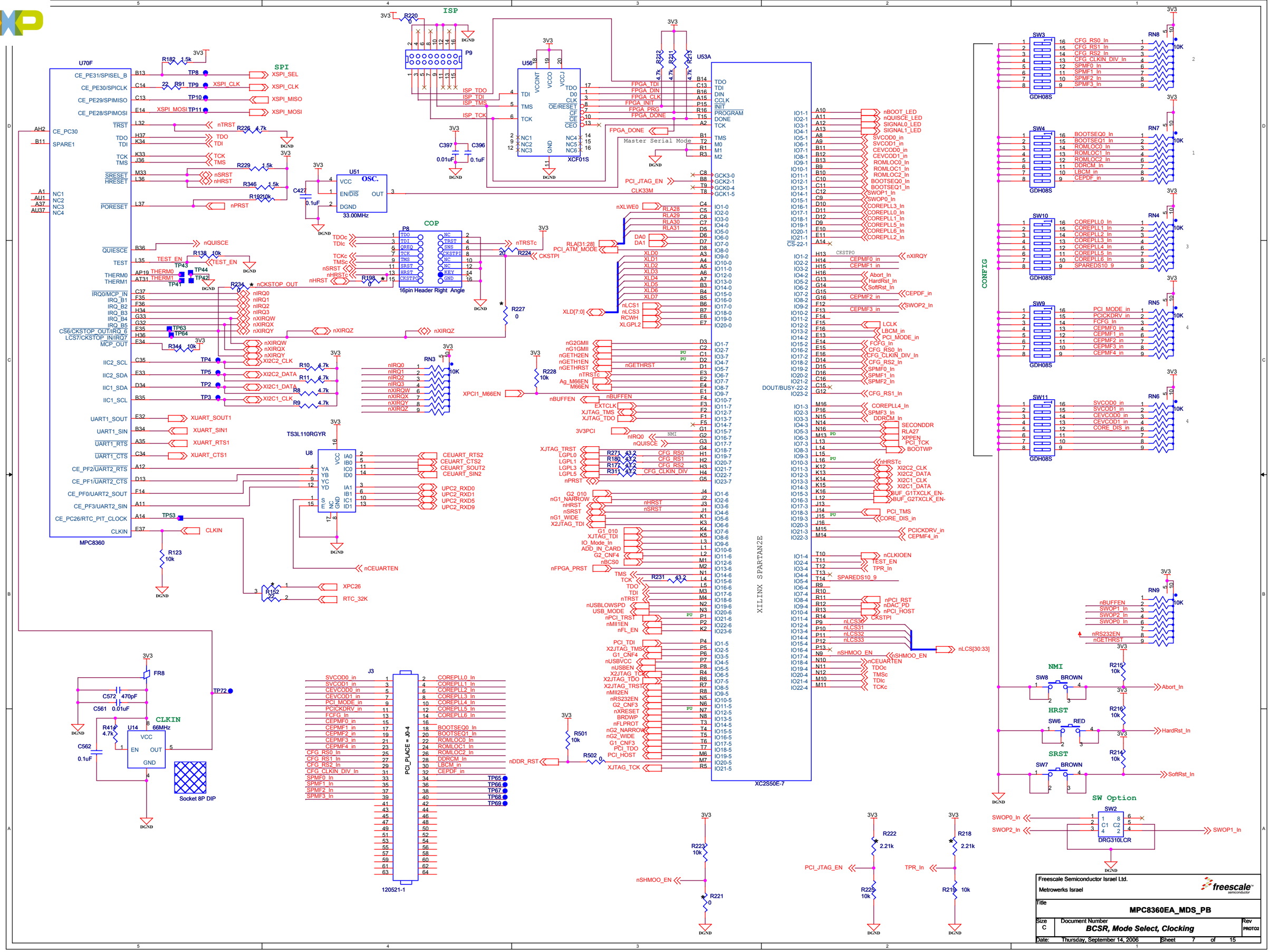
ISP
SPI
COP
CONFIG
U70F
MPC8360
U51
OSC.
33.00MHz
U56
XCF01S
U53A
XC2S50E-7
XILINX SPARTAN2E
U8
TS3L110RGYR
P9
P8
16pin Header Right Angle
J3
120521-1
PCI_PLACE = JO-4
Socket 8P DIP
SW3
SW4
SW10
SW9
SW11
GDH08S
RN8
RN7
RN4
RN5
RN6
RN9
SW8
SW6
SW7
SW2
DRG310LCR
NMI
HRST
SRST
SW Option
Abort_In
HardRst_In
SoftRst_In
SWOP0_In
SWOP1_In
SWOP2_In
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Title
MPC8360EA_MDS_PB
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Document Number
BCSR, Mode Select, Clocking
Rev PROTO2
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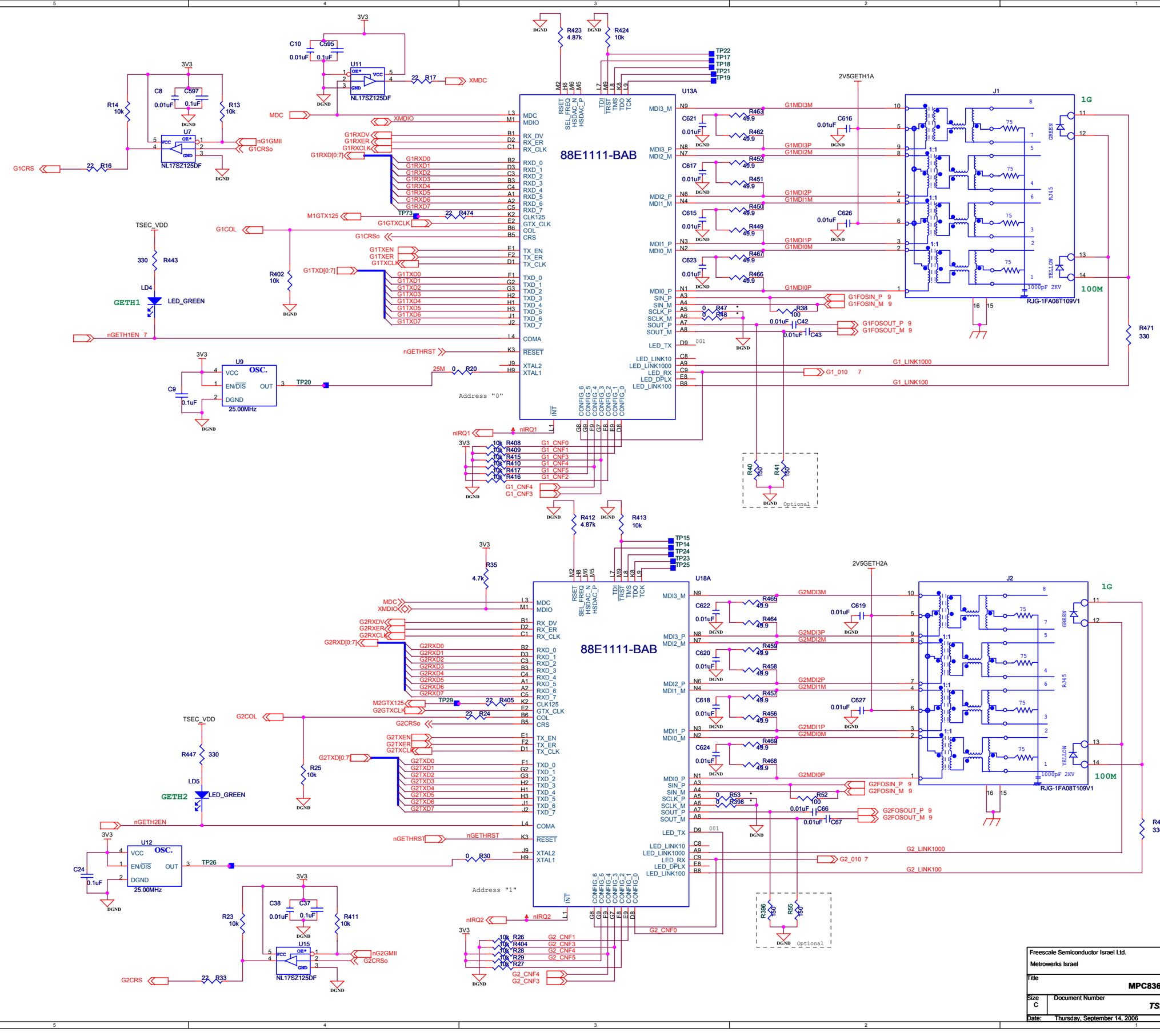
88E1111-BAB
U13A
U18A
J1
J2
RJG-1FA08T109V1
2V5GETH1A
2V5GETH2A
3V3
DGND
TSEC_VDD
GETH1
GETH2
LED_GREEN
NL17SZ125DF
25.00MHz
Address "0"
Address "1"
Optional
1G
100M
GREEN
YELLOW
RJ45
1000pF 2KV
MDC
MDIO
XMDIO
XMDC
nG1GMII
G1CRSo
G1CRS
G1COL
G1RXDV
G1RXER
G1RXCLK
G1RXD[0:7]
G1TXEN
G1TXER
G1TXCLK
G1TXD[0:7]
M1GTX125
G1GTXCLK
nGETH1EN
nGETHRST
nIRQ1
G1_CNF0
G1_CNF1
G1_CNF3
G1_CNF4
G1_CNF5
G1_CNF2
G1MDI3M
G1MDI3P
G1MDI2M
G1MDI2P
G1MDI1M
G1MDI1P
G1MDI0M
G1MDI0P
G1FOSIN_P
G1FOSIN_M
G1FOSOUT_P
G1FOSOUT_M
G1_LINK1000
G1_LINK100
G1_010
G2MDI3M
G2MDI3P
G2MDI2M
G2MDI2P
G2MDI1M
G2MDI1P
G2MDI0M
G2MDI0P
G2FOSIN_P
G2FOSIN_M
G2FOSOUT_P
G2FOSOUT_M
G2_LINK1000
G2_LINK100
G2_010
G2_CNF0
G2_CNF1
G2_CNF3
G2_CNF4
G2_CNF5
nG2GMII
G2CRSo
G2CRS
G2COL
G2RXDV
G2RXER
G2RXCLK
G2RXD[0:7]
G2TXEN
G2TXER
G2TXCLK
G2TXD[0:7]
M2GTX125
G2GTXCLK
nGETH2EN
nGETHRST
nIRQ2
LED_TX
LED_LINK10
LED_LINK1000
LED_RX
LED_DPLX
LED_LINK100
TP22
TP17
TP18
TP21
TP19
TP15
TP14
TP24
TP23
TP25
TP73
TP29
TP26
TP20
R423 4.87k
R424 10k
R412 4.87k
R413 10k
R35 4.7k
R471 330
R472 330
R443 330
R447 330
R402 10k
R25 10k
R23 10k
R411 10k
R38 100
R52 100
R40 150
R41 150
R396 150
R55 150
C616 0.01uF
C626 0.01uF
C619 0.01uF
C627 0.01uF
C42 0.01uF
C43 0.01uF
C66 0.01uF
C67 0.01uF
C9 0.1uF
C24 0.1uF
C37 0.1uF
C38 0.01uF
C595 0.01uF 0.1uF
C597 0.01uF 0.1uF
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Title
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TSEC1,2
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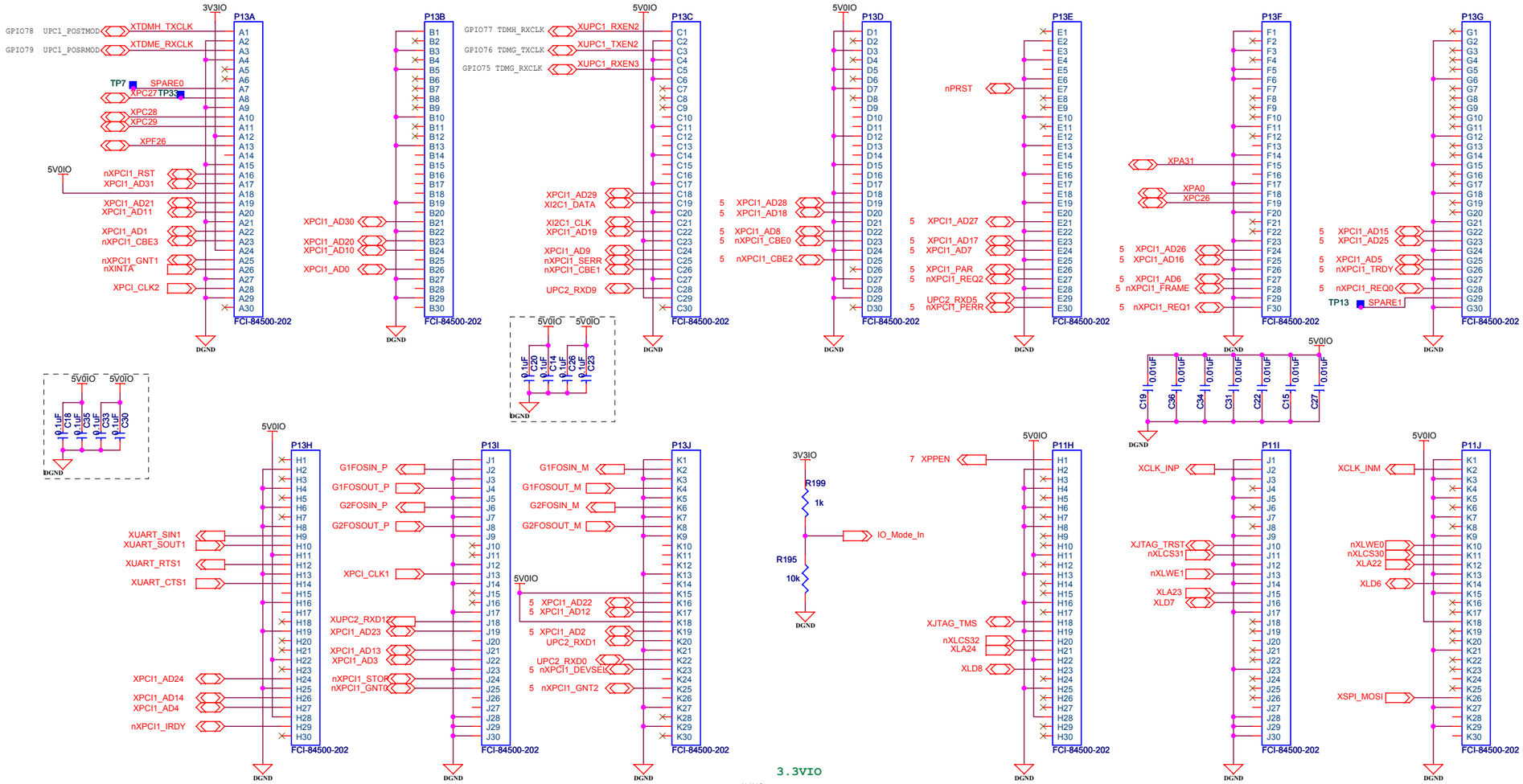
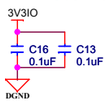
PCI1 Bus, UART,GPIO

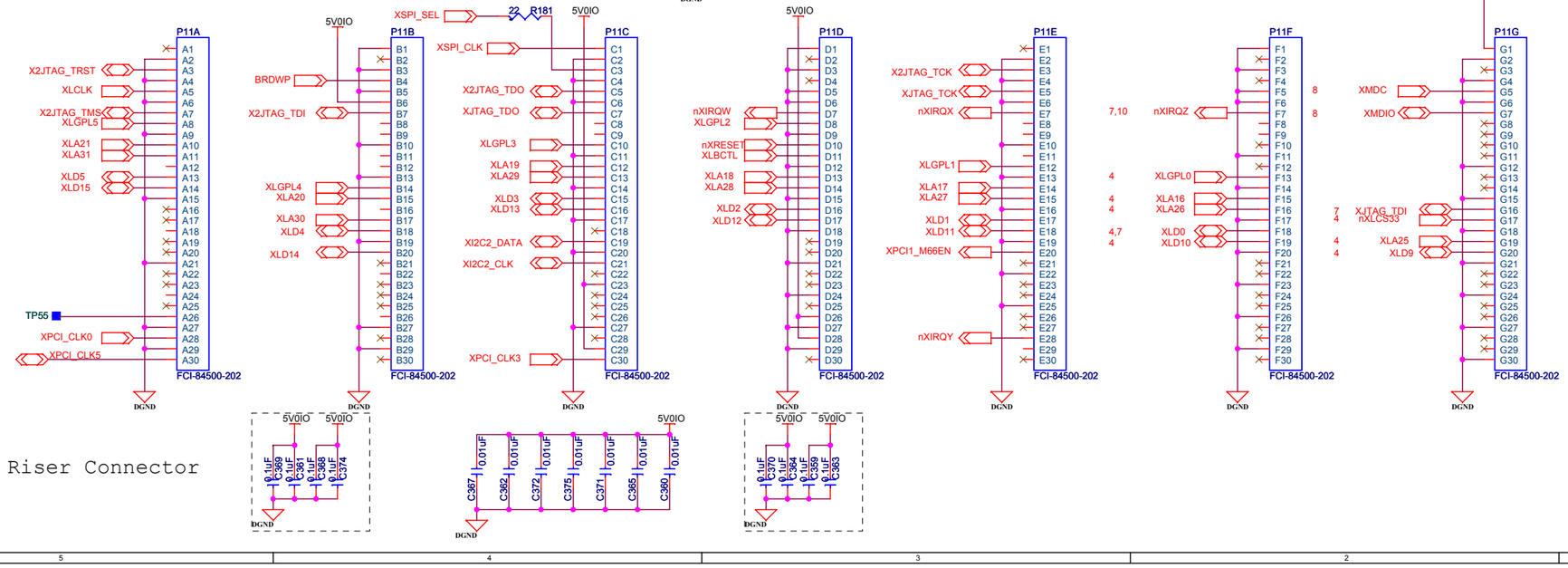
LEFT-LEFT Riser Connector



3.3VIO



PCI2 Bus, Local Bus



RIGHT Riser Connector

Freescale Semiconductor Israel Ltd.		
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Title	MPC8360EA_MDS_PB LL & R	
Size C	Document Number: Riser Connectors	Rev PILOT
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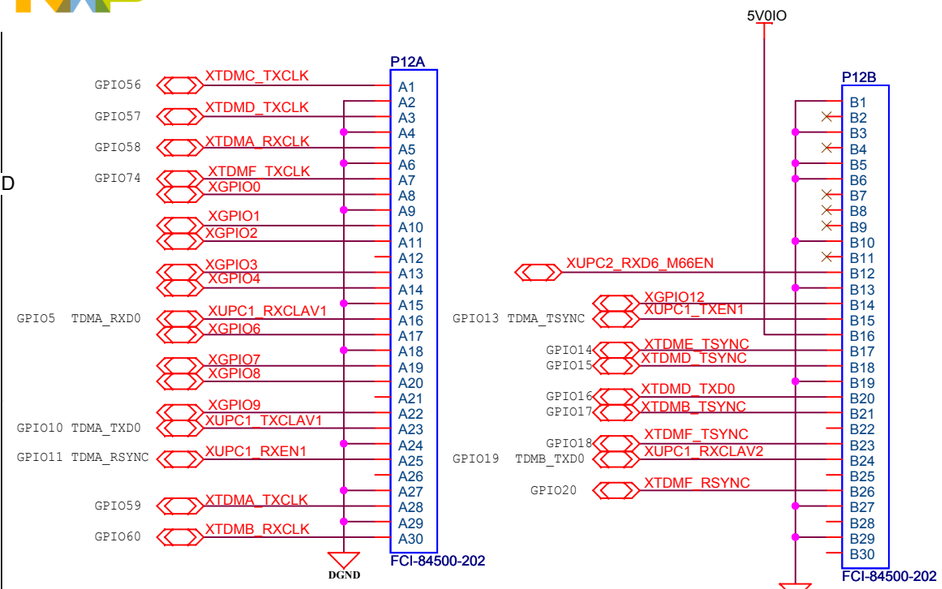

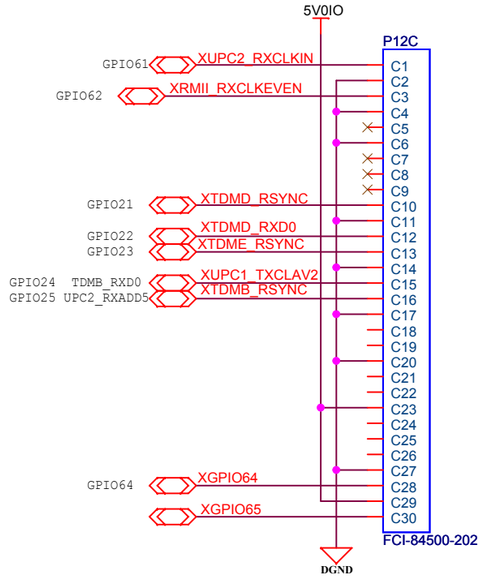

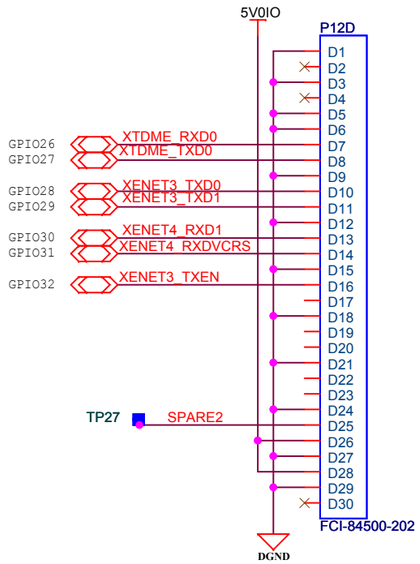

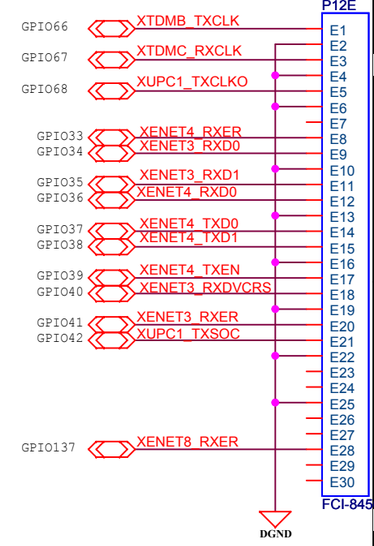

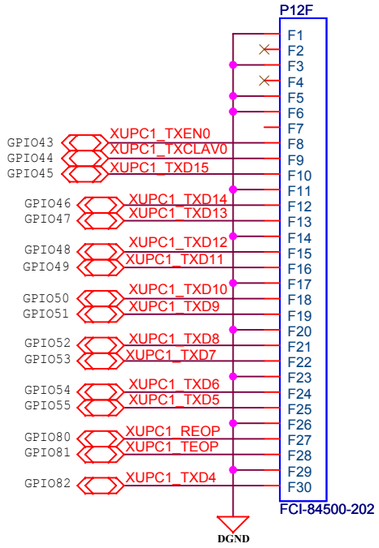

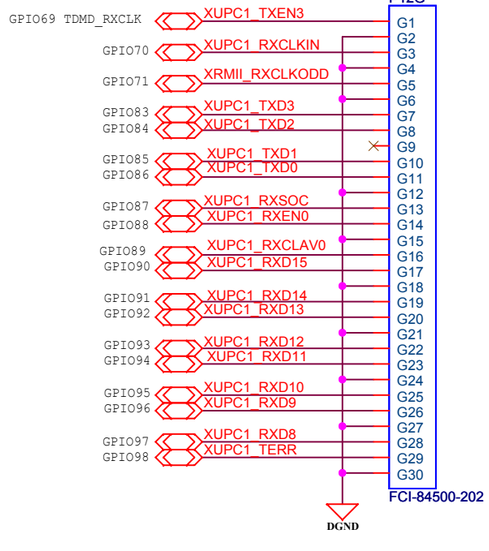

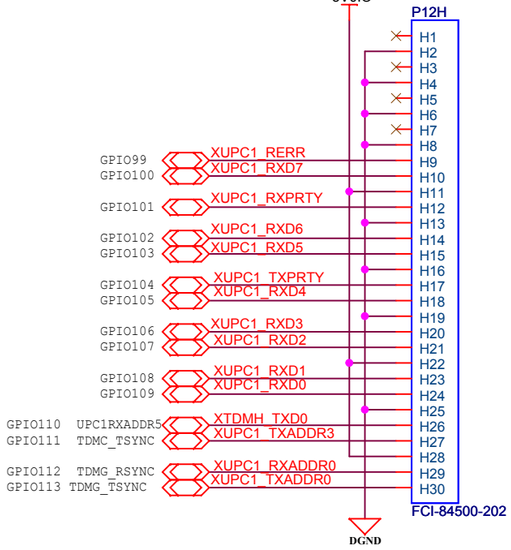

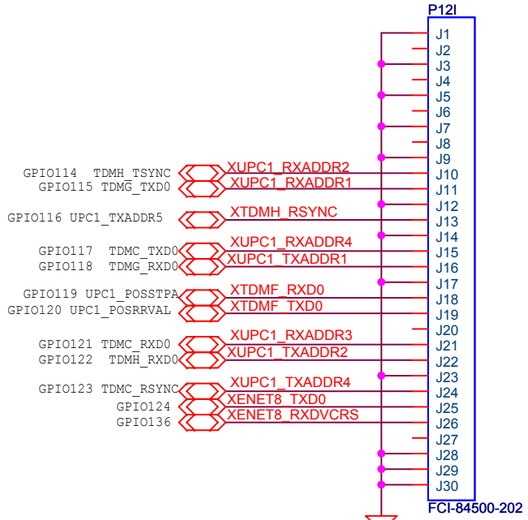

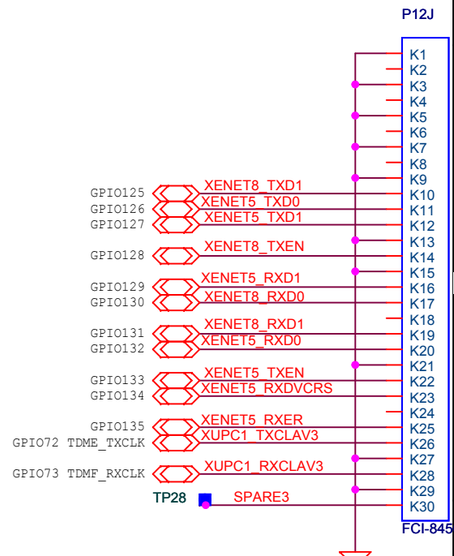

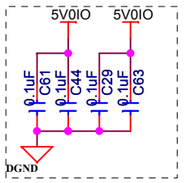

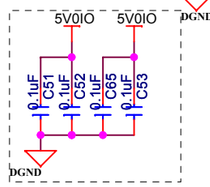

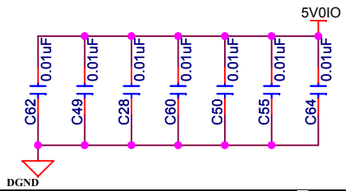

Freescale Semiconductor Israel Ltd.		
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Title	MPC8360EA_MDS_PB	
Size A3	Document Number RISER_CONN_LEFT	Rev PROTO2
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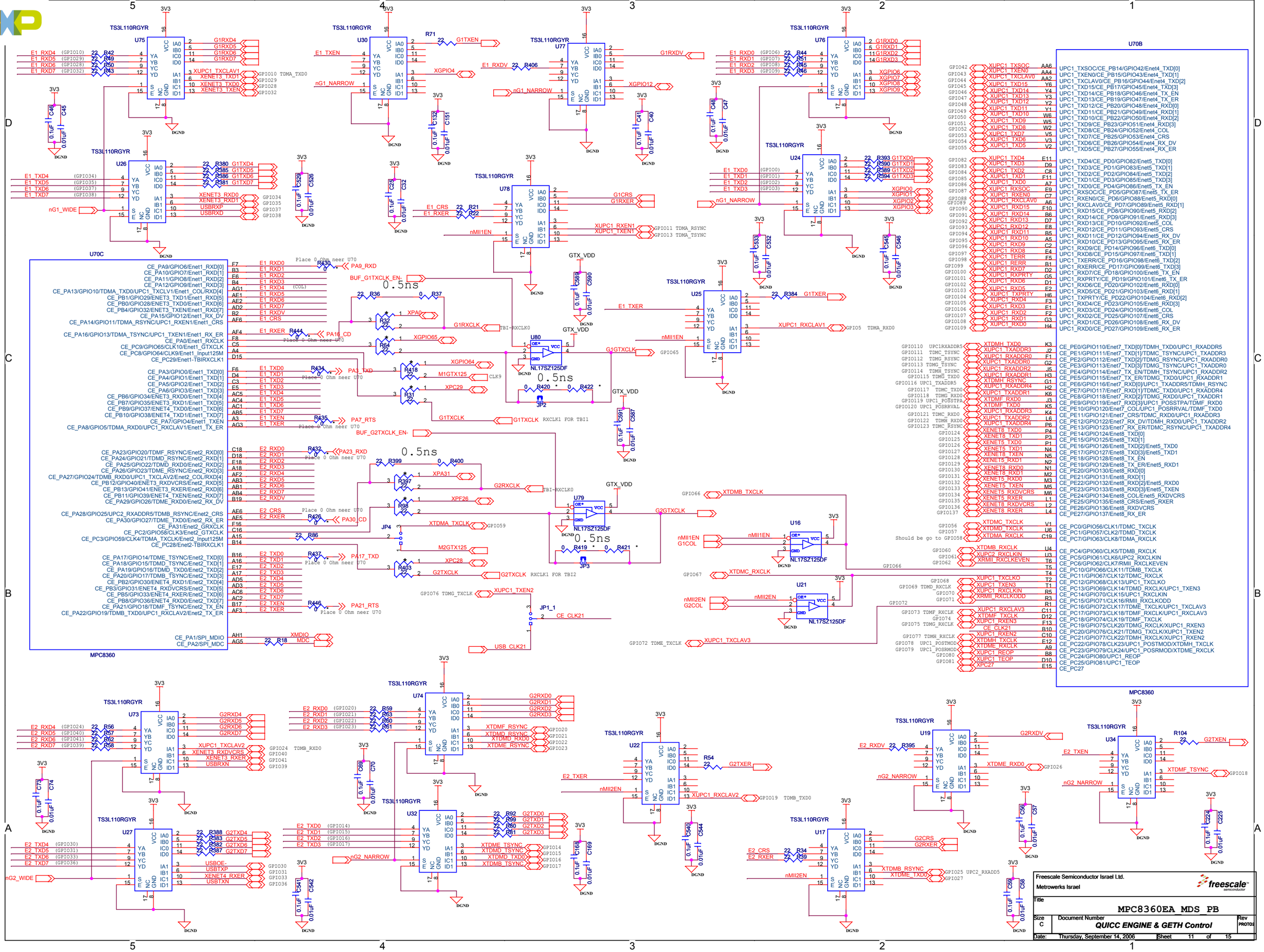
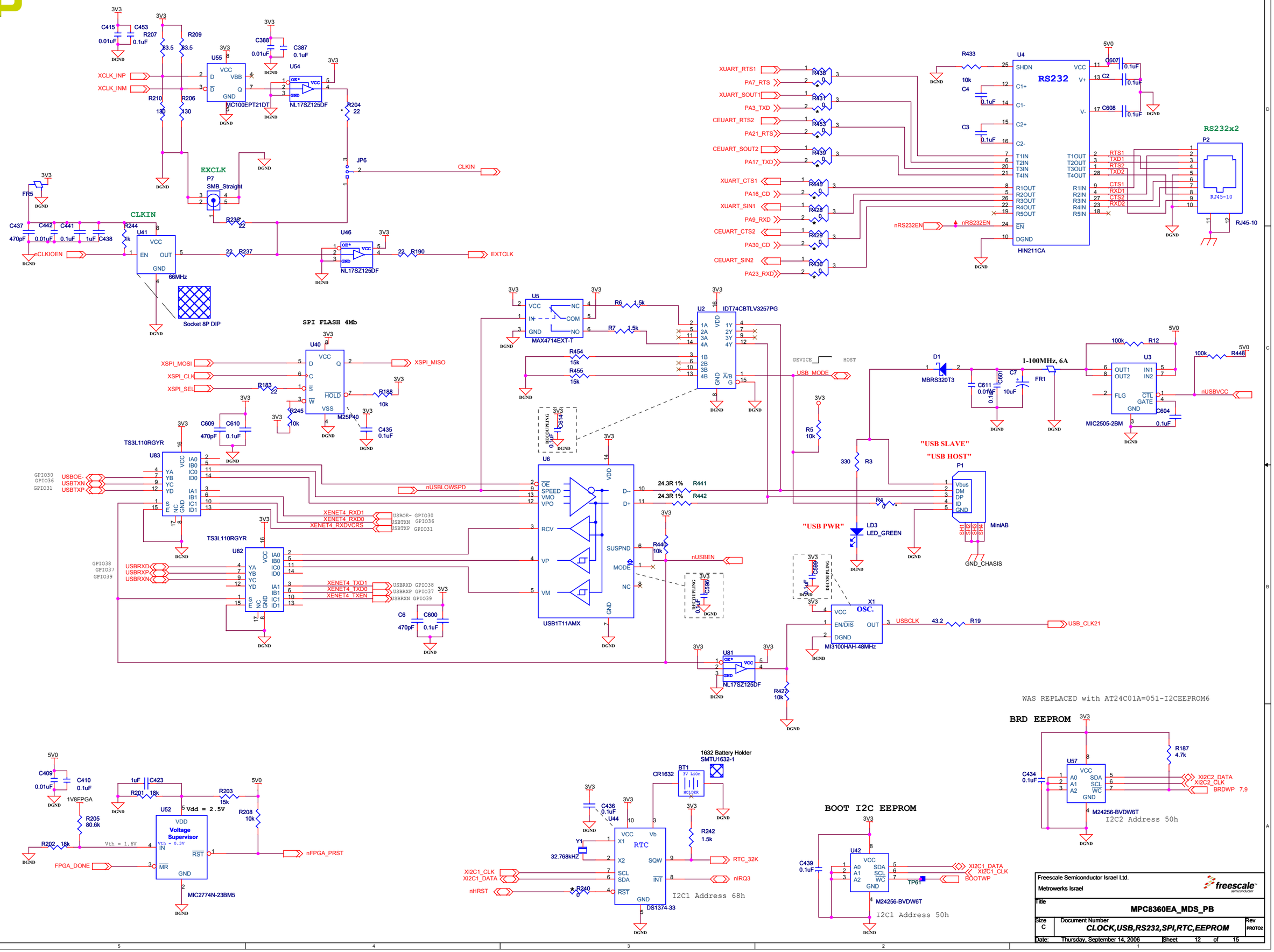

TS3L110RGYR
U75
U26
U30
U77
U76
U24
U78
U25
U70C
MPC8360
U70B
U73
U74
U22
U19
U34
U27
U32
U17
U80
U79
U16
U21
NL17SZ125DF
E1_RXD4 (GPIO10)
E1_RXD5 (GPIO29)
E1_RXD6 (GPIO28)
E1_RXD7 (GPIO32)
E1_TXD4 (GPIO34)
E1_TXD5 (GPIO35)
E1_TXD6 (GPIO37)
E1_TXD7 (GPIO38)
nG1_WIDE
E1_TXEN
nG1_NARROW
E1_RXDV
E1_CRS
E1_RXER
E1_TXER
nMII1EN
E1_RXD0 (GPIO6)
E1_RXD1 (GPIO7)
E1_RXD2 (GPIO8)
E1_RXD3 (GPIO9)
E1_TXD0 (GPIO0)
E1_TXD1 (GPIO1)
E1_TXD2 (GPIO2)
E1_TXD3 (GPIO3)
nG1_NARROW
nMII2EN
G1COL
G2COL
E2_RXD4 (GPIO24)
E2_RXD5 (GPIO40)
E2_RXD6 (GPIO41)
E2_RXD7 (GPIO39)
E2_TXD4 (GPIO30)
E2_TXD5 (GPIO31)
E2_TXD6 (GPIO33)
E2_TXD7 (GPIO36)
nG2_WIDE
E2_RXD0 (GPIO20)
E2_RXD1 (GPIO21)
E2_RXD2 (GPIO22)
E2_RXD3 (GPIO23)
E2_TXD0 (GPIO14)
E2_TXD1 (GPIO15)
E2_TXD2 (GPIO16)
E2_TXD3 (GPIO17)
nG2_NARROW
E2_RXDV
E2_TXEN
E2_CRS
E2_RXER
E2_TXER
nMII2EN
XUPC1_TXCLAV1
XUPC1_RXCLAV1
XUPC1_TXCLAV2
XUPC1_RXCLAV2
XUPC1_RXEN1
XUPC1_TXEN1
XUPC1_TXEN2
XUPC1_RXCLAV3
XUPC1_TXCLAV3
XENET3_TXD1
XENET3_TXD0
XENET3_TXEN
XENET3_RXD0
XENET3_RXD1
XENET3_RXDVCRS
XENET3_RXER
XENET4_RXER
XENET4_TXER
USBRXP
USBRXD
USBRXN
USBOE-
USBTXP
USBTXN
XMDIO
MDC
XPA0
XPA31
XPF26
XPC29
XPC28
XPGPIO4
XPGPIO12
XPGPIO0
XPGPIO1
XPGPIO2
XPGPIO3
XPGPIO64
XPGPIO65
M1GTX125
M2GTX125
XTDMA_TXCLK
XUPC1_TXEN2
CE_CLK21
USB_CLK21
XTDMB_TXCLK
XTDMC_RXCLK
XTDMF_TXCLK
XTDME_RXCLK
XTDMH_TXCLK
XTDMH_RXSYNC
XTDMF_RXD0
XTDMF_TXD0
XTDMC_TXCLK
XTDMD_TXCLK
XTDMA_RXCLK
XTDMB_RXCLK
XTDMD_RXCLK
XTDMF_RXCLK
XTDMH_RXCLK
XTDME_TXCLK
XTDMD_RSYNC
XTDMF_RSYNC
XTDMB_RSYNC
XTDME_RSYNC
XTDMD_TXD0
XTDMB_TXD0
XTDME_TXD0
XTDME_RXD0
XPC27
G1TXEN
G1RXDV
G1CRS
G1RXER
G1TXER
G1GTXCLKG2GTXCLK
G1TXCLK
G2TXCLK
G1RXCLK
G2RXCLK
TBI-RXCLK0
RXCLK1 FOR TBI2
TXCLK1 FOR TBI1
G1RXD0
G1RXD1
G1RXD2
G1RXD3
G1RXD4
G1RXD5
G1RXD6
G1RXD7
G1TXD0
G1TXD1
G1TXD2
G1TXD3
G1TXD4
G1TXD5
G1TXD6
G1TXD7
G2RXD0
G2RXD1
G2RXD2
G2RXD3
G2RXD4
G2RXD5
G2RXD6
G2RXD7
G2TXD0
G2TXD1
G2TXD2
G2TXD3
G2TXD4
G2TXD5
G2TXD6
G2TXD7
XGPIO6
XGPIO7
XGPIO8
XGPIO9
XGPIO10
XGPIO11
XGPIO12
XGPIO13
PA9_RXD
PA10_CD
PA11_RXCLK
PA12_RX_DV
PA13_TXD0
PA14_RXD1
PA15_RXD2
PA16_RXD3
PA17_RXCLK
PA18_RX_DV
PA19_RXD0
PA20_RXD1
PA21_RXD2
PA22_RXD3
PA23_RXD
PA24_RXD4
PA25_RXD5
PA26_RXD6
PA27_RXD7
PA30_CD
PA3_RXD0
PA4_RXD1
PA5_RXD2
PA6_RXD3
PA7_RXCLK
PA8_RX_DV
PA3_TXD
PA7_RTS
PA17_TXD
PA21_RTS
BUF_G1TXCLK_EN-
BUF_G2TXCLK_EN-
0.5ns
Place 0 Ohm neer U70
Should be go to GPIO58
DGND
GTX_VDD
3V3



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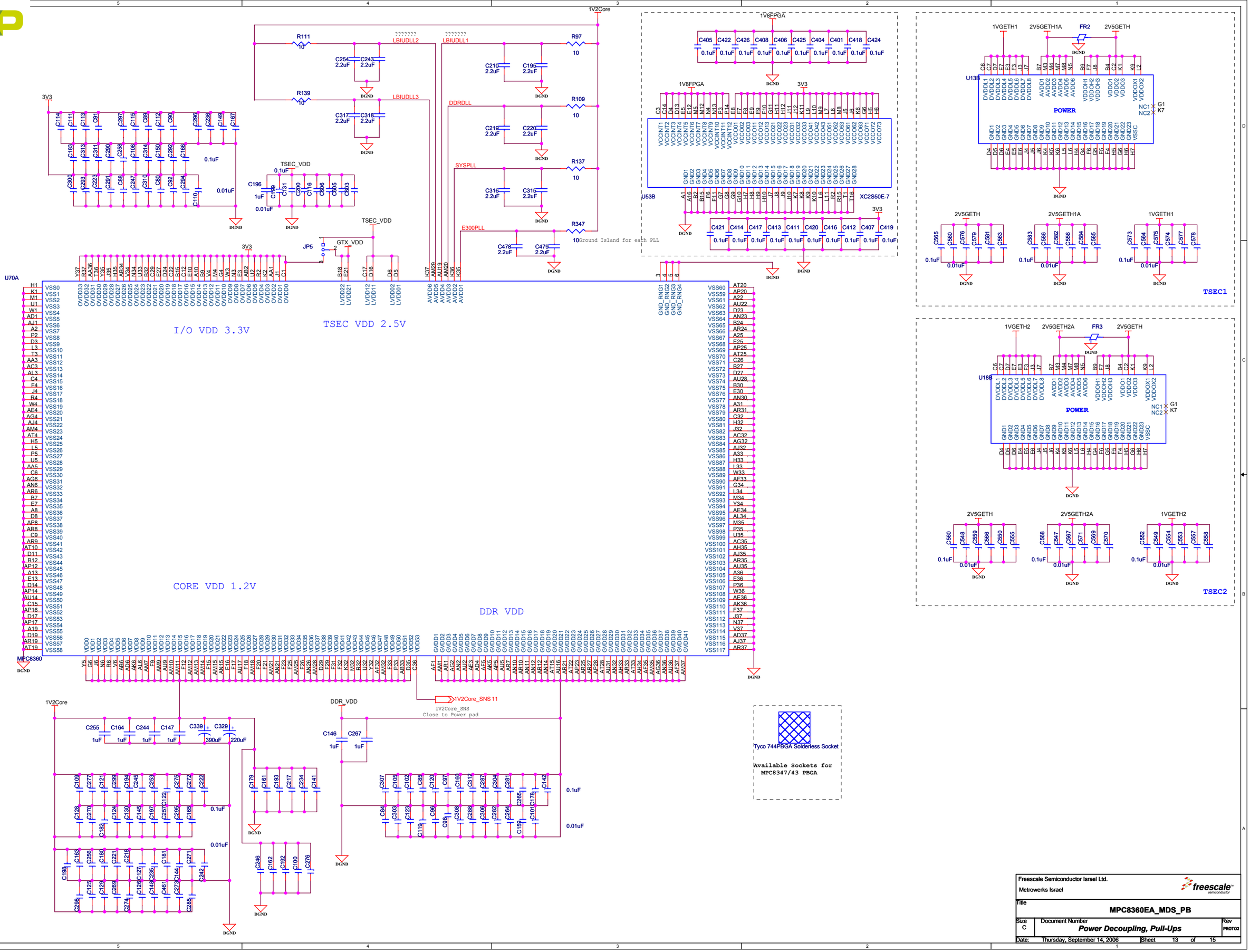
Title: MPC8360EA_MDS_PB

Size: C | Document Number: CLOCK,USB,RS232,SPI,RTC,EEPROM | Rev: PROTO2

Date: Thursday, September 14, 2006 | Sheet 12 of 15



Freescale Semiconductor Israel Ltd.	
Metrowerks Israel	freescale semiconductor
Title	MPC8360EA_MDS_PB
Size C	Document Number: Power Decoupling, Pull-Ups — Rev PROTO2
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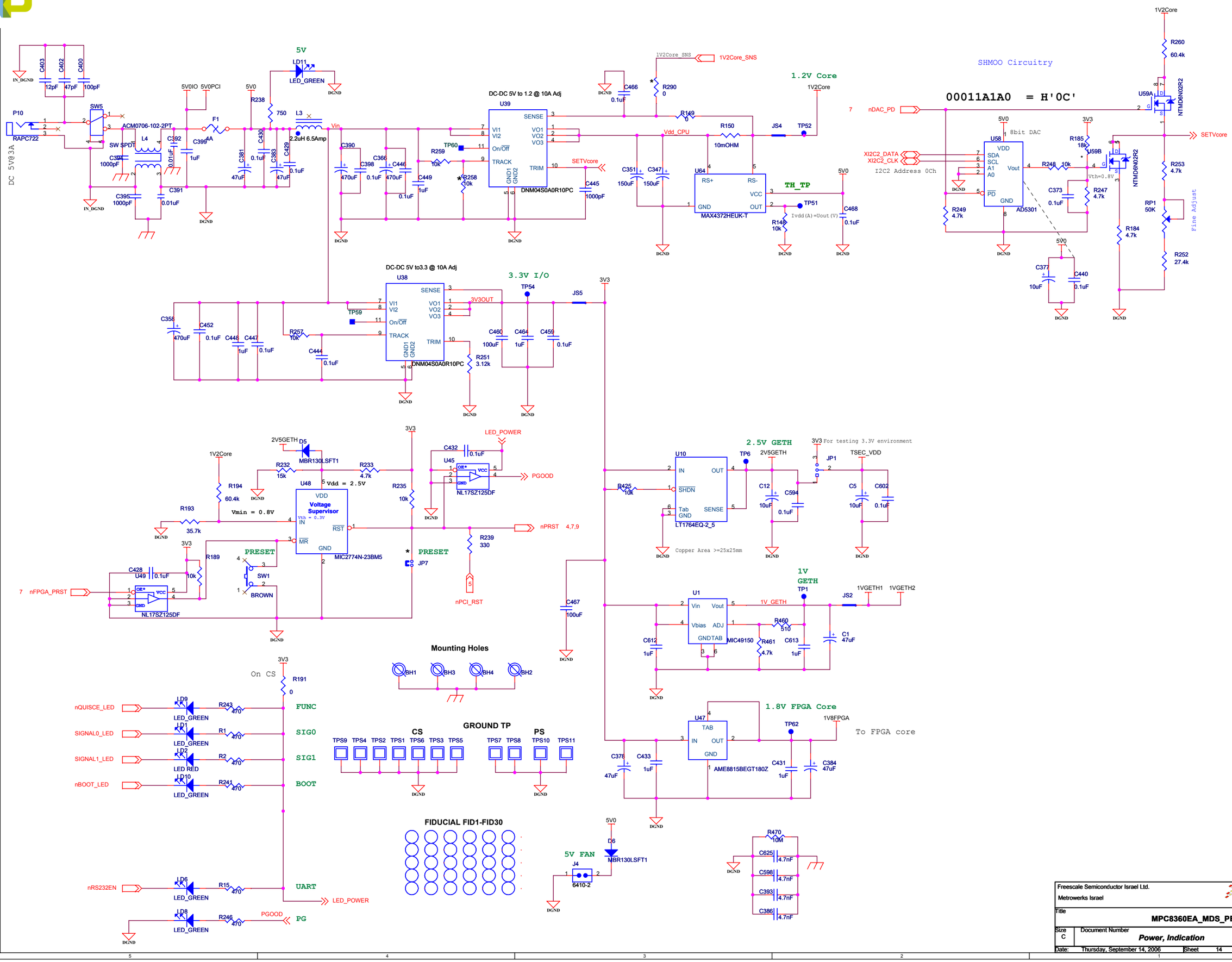
5V
DC-DC 5V to 1.2 @ 10A Adj
1.2V Core
SHMOO Circuitry
00011A1A0 = H'0C'
DC-DC 5V to3.3 @ 10A Adj
3.3V I/O
2.5V GETH
1V GETH
1.8V FPGA Core
To FPGA core
5V FAN
Mounting Holes
FIDUCIAL FID1-FID30
GROUND TP
PRESET
Vmin = 0.8V
Vdd = 2.5V
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MPC8360EA_MDS_PB
Power, Indication
Thursday, September 14, 2006
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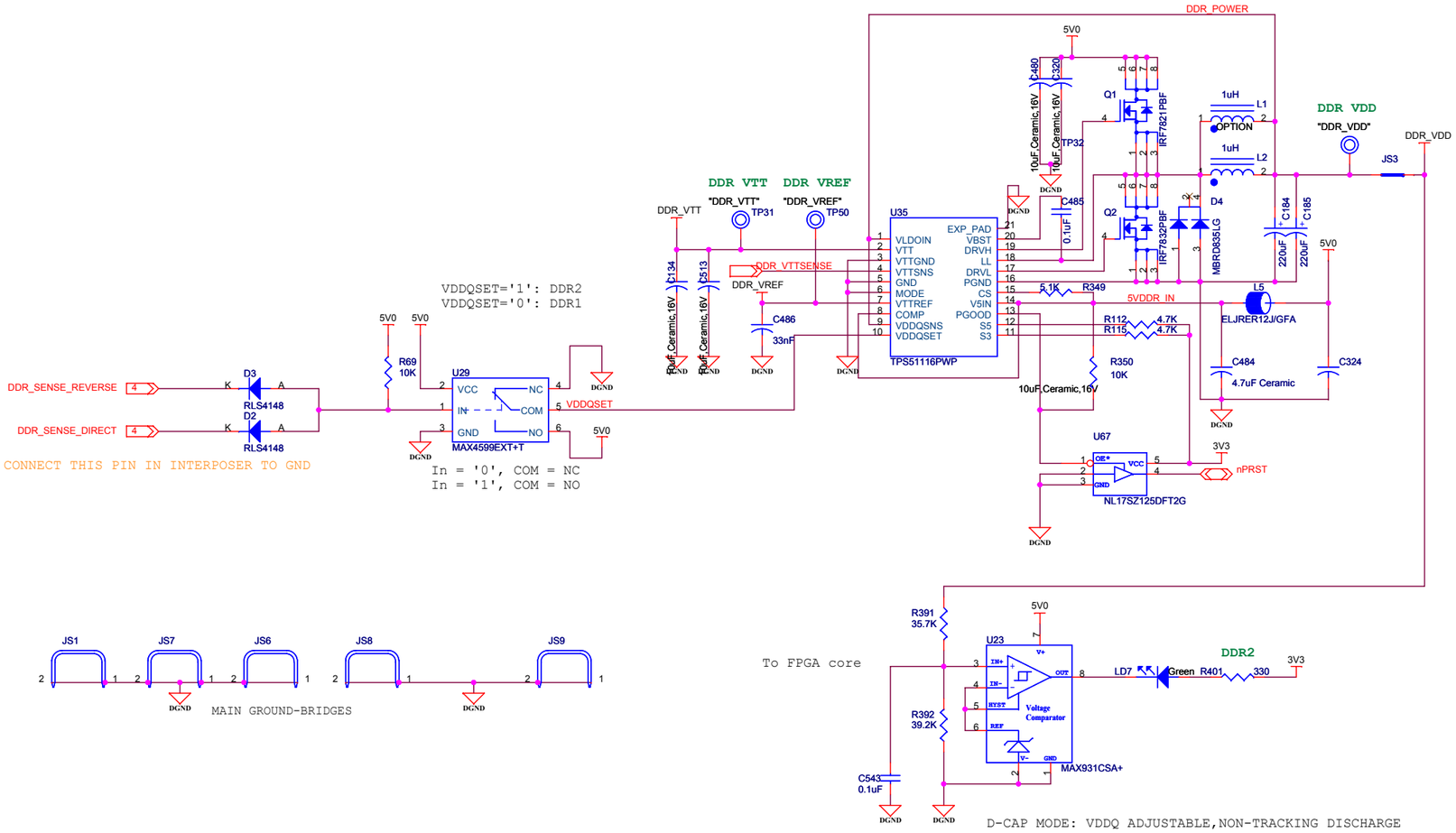

D-CAP MODE: VDDQ ADJUSTABLE,NON-TRACKING DISCHARGE
MODE='0': Non Tracking Discharge
S3,S5='1': VDDQ, VTTREF, VTT are ON
VDDQSET='1': DDR2
VDDQSET='0': DDR1

Freescale Semiconductor Israel Ltd.		
Metrowerks Israel		
Title	MPC8360EA_MDS_PB	
Size C	Document Number *SODIMM DDR Module*	Rev PROTO2
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