



PEX 8112RDK-R

Hardware Reference Manual

(For Board Revision 1.0)

Version 1.0

May 2007

Website: <http://www.plxtech.com>
Support: <http://www.plxtech.com/support>

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PREFACE

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ABOUT THIS MANUAL

This document describes the PLX PEX 8112RDK-R, the PEX 8112 Reverse Bridge RDK board Rapid Development Kit, from a hardware perspective. It contains a description of all major functional circuit blocks on the board and also is a reference for the creation of software for this product. This manual also includes a complete bill of materials and schematics.

REVISION HISTORY

Date	Version	Comments
May 2007	1.0	Initial release. Supports Board Revision 1.0.

1. General Information

The PLX PEX 8112RDK-R is a Rapid Development Kit based on the PEX 8112, a single-lane, PCI Express-to-PCI bridge device. The PEX 8112RDK-R provides a complete hardware and software development platform to facilitate getting designs up and running quickly, lowering risk and reducing time-to-market. The PEX 8112RDK-R allows the PEX 8112 bridge device upstream PCI port to be connected to a host system slot by way of a standard PCI edge connector (the PEX 8112RDK-R is designed to plug into a PCI motherboard slot). In Reverse Mode Bridge implementation, the secondary side of the PEX 8112 bridge device is the PCI Express downstream port. The PEX 8112RDK-R allows a single PCI Express adapter to be plugged into the downstream port, by way of a standard PCI Express Card Electromechanical (CEM) connector (Refer to Figure 1: PEX8112RDK-R – Component Side View for details)

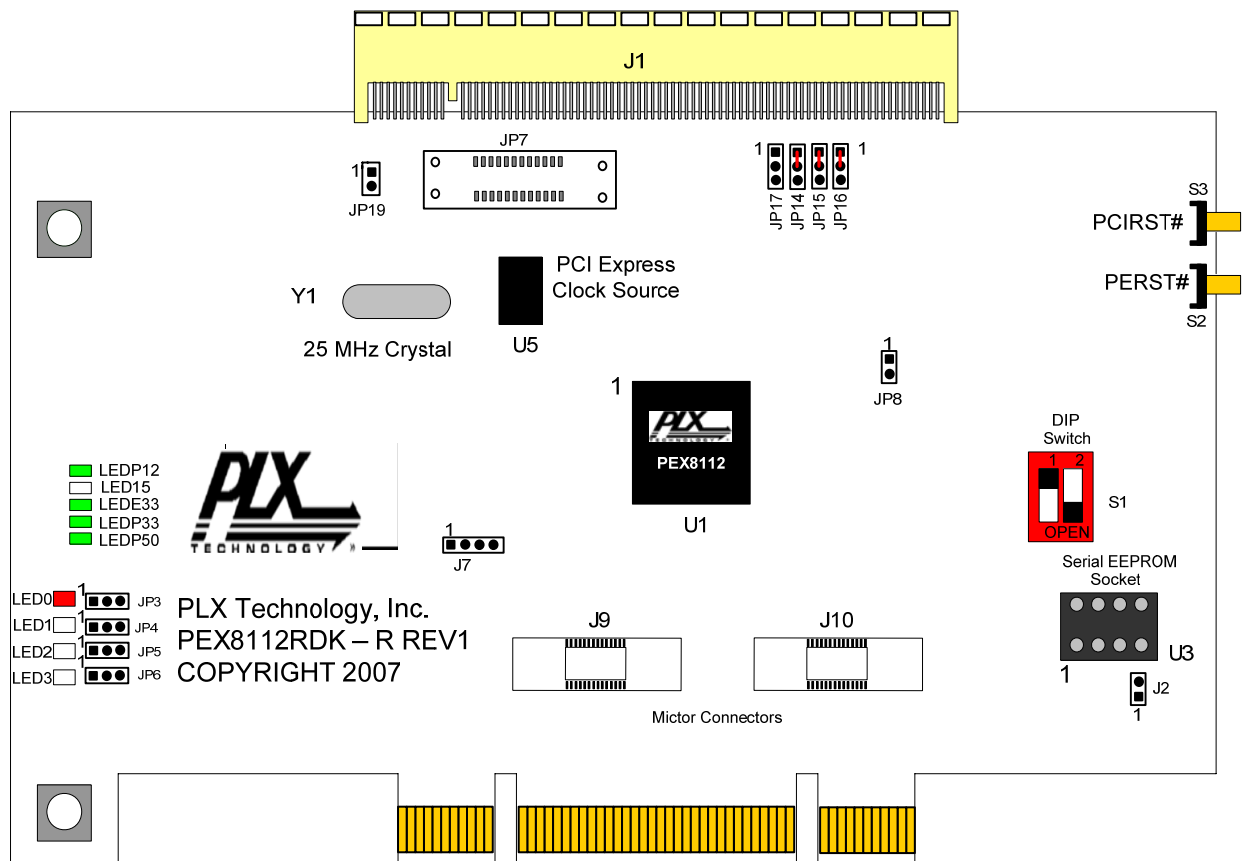


Figure 1. PEX 8112RDK-R – Component Side View

1.1 PEX 8112 Features

- Compliant to the following specifications:
 - *PCI Express Base Specification, Revision 1.0a*
 - *PCI Express to PCI Bridge Specification, Revision 1.0*
 - *PCI Local Bus Specification, Revision 3.0*
- Small package, enabling compact design
- Supports Reverse and Forward Bridging, allowing systems to migrate to PCI Express and leverage software compatibility

Note: The PEX 8112RDK-R is for Reverse Mode designs. For Forward Mode designs, refer to the PEX 8112RDK-F.

- Integrated PCI Express interface with x1 link, dual-simplex 2.5 Gbps SerDes
- Single PCI Express port, capable of x1 link width
- Single PCI Bus segment supporting PCI protocol at 32-bit/66 MHz
- Low power consumption, meeting designers' demands for reduced power draws
- 3.3V I/O and 5V tolerant PCI
- Serial EEPROM configuration option with Serial Peripheral Interface (SPI)
- 8-KB general-purpose shared RAM

1.2 PEX 8112RDK-R Features

- PLX PCI-to-PCI Express bridge device in a 13 mm x 13 mm, 144-ball PBGA package
- Form factor based on the *PCI Local Bus Specification, Revision 3.0*
- Single 32-bit PCI Edge connector for insertion into standard 32-bit PCI motherboard slot
- Single PCI Express slot on secondary side – slot is *PCI Express Card Electromechanical (CEM) Specification, Revision 1.1*-compliant and accommodates PCI Express adapters with edge connector widths up to x16

Note: The Reverse Bridge supports a maximum downstream PCI Express link width of x1; The PEX8112RDK-R accommodates the following PCI Express adapter link widths – x1, x2, x4, x8, and x16.

- DIP switches for PEX 8112 hardware configuration
- Socketable SPI serial EEPROM (3.3V devices supported)
- Onboard probing points and logic analyzer connections
- LEDs for link status visual inspection

2. PEX 8112RDK-R System Architecture

The PEX 8112RDK-R assists customers in evaluating PLX Technology's PEX 8112 PCI-to-PCI Express bridge device, and to facilitate early development of customer designs with the PEX 8112. The usage configuration is reverse bridging between a PCI base board and PCI Express add-in card. The PEX 8112RDK-R is designed to showcase all PEX 8112 features when operating in Reverse Bridge mode.

The PEX 8112RDK-R's form factor is based on the *PCI Local Bus Specification, Revision 3.0*. The PEX 8112RDK-R is able to plug into a standard 3.3V, 5V, or universal-keyed PCI slot of a host system, and supports 32-bit transfers at up to 66 MHz. The PCI Express interface is provided by an x16 PCI Express slot connector, into which a PCI Express card can be inserted. Only the first lane of the slot is routed to the PEX 8112. The lane runs 2.5 Gbps, compliant with the PCI Express Gen 1 specification. The PEX 8112RDK-R appears to the host as a PCI-to-PCI bridge. A PCI Express card plugged into the PEX 8112RDK-R appears to the host to be sitting on a PCI Bus, behind a PCI-to-PCI bridge. The host system can treat the PCI Express card as a standard PCI card.

Board power, as well as +3.3VDC to the PCI Express connector, is provided through the PCI edge connector. Power to the PCI Express connector for +12VDC, up to 500 mA, is provided directly from the +5 VDC from the PCI edge connector. Alternatively, the +12VDC power to the PCI Express connector can be provided by populating the JP18, JP19 and C63. The PEX 8111RDK-R requires +3.3VDC, +5VDC, and +12VDC for operation.

3. PEX 8112RDK-R Hardware Architecture

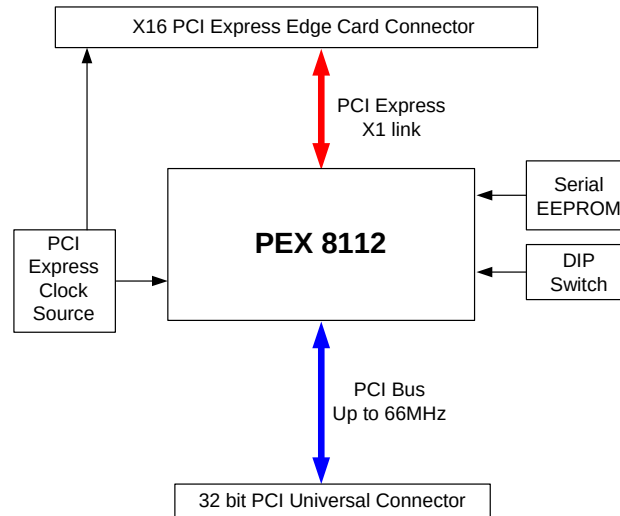


Figure 2. PEX 8112RDK Hardware Architecture

3.1 PEX 8112 PCI Express Bridge Device

The PEX 8112 is a high-performance bridge, designed to the *PCI Express-to-PCI Bridge Specification 1.0*, that enables designers to migrate legacy PCI Bus interfaces to the new advanced serial PCI Express. The PEX 8112 is capable of operating in Forward and Reverse Bridging modes. Reverse bridging enables designers to utilize the latest PCI Express silicon with widely entrenched PCI host systems. Reverse bridging also allows the host processor to reside on the PCI Bus; the PEX 8112 accepts configuration cycles from the PCI Bus and manages the PCI Express interface as a secondary entity within the PCI software model. The PEX 8112 bridge device is housed in a 13 x 13 mm, 144-ball PBGA package. Ball spacing is 1.0 mm. No additional cooling is required.

3.2 Serial EEPROM

The PEX 8112 bridge device has an SPI EEPROM interface, which can be used to load configuration data from a serial EEPROM on power-up. However, a serial EEPROM is not needed to bring up the PEX 8112. This interface is connected to an 8-pin DIP socket (U3), which houses the serial EEPROM. A pull-up resistor (R3) on the EERDDATA ball produces a value of FFh if there is no serial EEPROM installed.

The PEX 8112 supports up to 16-MB serial EEPROMs, utilizing 1, 2, or 3-byte addressing. The PEX 8112 automatically determines the appropriate addressing mode. The SPI operates at up to 25 MHz and can directly interface with the PEX 8112. The Atmel AT25640 device is recommended. Other compatible 128-byte serial EEPROMs include the Atmel AT25010A, Catalyst CAT25C01, and ST Microelectronics M95010W.

3.3 PCI Express Interface

The PCI Express interface is provided by an x16 female straddle-mount slot connector. Only the first lane is routed to the PEX 8112. The slot connector provides +12 VDC and +3.3 VDC, RefClk, and PERST# to PCI Express add-in cards. The PCI Express lanes are laid out as 100-Ohm, controlled-impedance, microstrip-differential pairs. Within a pair, trace length mismatch is not greater than 0.005". Pair-to-pair, trace-length mismatch is less than 0.25".

3.3.1 RefClk

PCI Express RefClk is generated onboard by a clock synthesizer, using a 25-MHz crystal for the seed frequency. The PEX 8112RDK-R uses the IC557G-03 part from Integrated Circuit systems, Inc., though any comparable synthesizer is sufficient. RefClk is fanned out to the PEX 8112 and the PCI Express connector. RefClk routing is laid out as a 100-Ohm, controlled-impedance, microstrip-differential pair. Trace length mismatch within this pair is less than 0.005".

3.3.2 PERST#

PERST# is the fundamental Reset signal to the PCI Express edge connector, from the PEX 8112.

3.4 PCI Interface

The PEX 8112RDK-R has a male PCI card edge connector. The interface operates in a PCI 32-bit slot, at up to 66 MHz. The interface also provides the PEX 8112RDK-R with power for the board and the PEX 8112, as well as the PCI Express card slot if the PCI Express add-in card is 29W or less (3.3 VDC at 7.0A maximum, 12 VDC at 500 mA maximum).

3.5 LED Indicators

The PEX 8112RDK-R provides several LED indicators, including power-on indication and programmable PEX 8112 GPIO lane status indication. Table 1 provides a quick explanation of each LED indicator.

Table 1. PEX 8112RDK-R LED Indicators

Indicator Type	Location	LED ON
Board Power Indication	LEDE33	PCIE 3.3V power is on
	LEDP33	3.3 VCC power is on
	LEDP50	5 VCC power is on
GPIO	LED0	Output OFF (0) – Link Down ON (1) – Link Up
	LED1	Input
	LED2	Input
	LED3	Input

Note: LED15 is for internal testing use only and is unpopulated.

3.6 PEX 8112RDK-R Power

The PEX 8112 RDK-R has three power domains:

- PEX 8112 bridge device power
- PCI Express x16 slot connector power
- Board power for support circuitry

3.6.1 PEX 8112 Bridge Device Power

The PEX 8112 bridge device power consists of the following:

- VDD Core +1.5 VDC $\pm$ 0.15V
- VDD I/O +3.3 VDC $\pm$ 10%
- VIO Clamp +5 VDC for 5V PCI
 +3.3 VDC for 3.3V PCI

3.7 PMEOUT# and WAKEIN# Signals

Power Management Event (PME) messages from the PCI Express interface are translated to the PME# signal on the PCI Bus. The **PWRMNGCSR** register *PME Status* bit (Address 44h, bit 15) is set when one or more of the following conditions is met:

- PCI Express PME message is received
- WAKEIN# signal is asserted
- Beacon is detected
- Link transitions to the L2/L3 Ready state

The PMEOUT# signal is asserted whenever the *PME Status* bit is set and PME is enabled. The PMEOUT# and WAKEIN# balls are used only when the PEX 8112 is in Reverse Bridge Mode.

4. PEX 8112RDK-R Mechanical Architecture

4.1 Monitoring Point, Indicator, Control, and DIP Switch Summary

This section summarizes the interfaces available on the PEX 8112RDK-R for controlling and monitoring PEX 8112 performance.

4.1.1 Monitoring Points

- Eight ground post holes, scattered across the PEX 8112RDK-R to provide probe reference points
- Voltages to the PEX 8112 can be monitored at the following locations:
 - TP16 (1.5 VCC)
 - TP17 (PCI Express 5 VCC)
 - TP18 (PCI Express 3.3 VCC)
- J7 – Test points for TCK, TDI, TDO, and TMS
- J9, J10 – Mictor connectors, to connect to logic analyzer for PCI signal captures

4.1.2 Indicators

- GPIO indicators – LED[3:0]

4.1.3 Controls

Table 2. PEX 8112RDK-R Default Jumper Settings

Jumper	Factory Setting	Description
J2	OPEN	Pull-up WP# on the serial EEPROM
JP3	OPEN	Pull-up (1-2) or pull-down (2-3) GPIO0
JP4	OPEN	Pull-up (1-2) or pull-down (2-3) GPIO1
JP5	OPEN	Pull-up (1-2) or pull-down (2-3) GPIO2
JP6	OPEN	Pull-up (1-2) or pull-down (2-3) GPIO3
JP8	OPEN	Do not ground M66EN
JP14	1-2	Pull-up the buffer gate input connected to GPIO2
JP15	1-2	Pull-up the buffer gate input connected to GPIO3
JP16	2-3	the buffer OE# is driven by U11 (D_FF)
JP17	OPEN	Do not ground BAR0ENB# Note: BAR0ENB# can be set by connecting JP17 or programmed through the serial EEPROM

4.1.4 DIP Switches

The PEX 8112RDK-R contains one user-controllable DIP switch (S1) for mode control. Each DIP switch position can be ON (closed, 0) or OFF (open, 1). Figure 3 illustrates the switch S1 assignments in default position. Figure 3. Switch S1 Default Settings

Table 3 defines the functions associated with each switch position.

Figure 3. Switch S1 Default Settings

Table 3. Switch S1 Functional Description and Position Settings

SW1 Functional Description	Switch Position Settings	
Bridge Select	1: FORWARD	
	Value	Function
	0 (default)	Reverse Bridge Mode
	1	Forward Bridge Mode
External Arbiter Enable	2: EXTARB	
	Value	Function
	0	PCI Slots request bus from PEX 8112 internal arbiter
	1 (default)	PEX 8112 requests bus from external arbiter

4.1.5 4.1.5 Tact Switches

The PEX 8112RDK-R contains two user-controllable Tact switches (S1 and S3) for reset control. The S2 switch can be pressed to ground PERST#. The S3 switch can be pressed to ground PCIRST#

4.2 PEX 8112RDK-R Layout Information

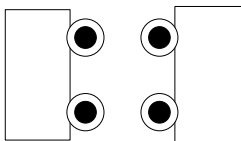
4.2.1 Trace Routing Design Rules

The characteristic trace impedances are within the PCI Express specification (100 Ohm $\pm 5\%$) for the differential, and within the PCI specification (57 Ohm $\pm 5\%$) for the single-ended.

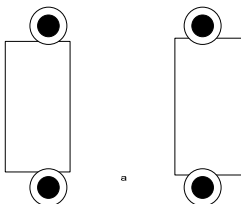
4.2.2 Power Decoupling

Power decoupling is provided by two means – plane capacitance (provided by the PCB stackup) and discrete decoupling capacitors. Plane capacitance filters noise above approximately 100 MHz. The footprints for the discrete decoupling capacitors are designed such that the inductance between the pad and plane is reduced by careful via placement. (Refer to Figure 4.)

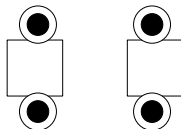
1206 Package - Low Volt - 0.87 nH



1206 Package - High Volt - 0.94 nH



0603 Package - 4 Via - 0.58 nH



0603 Package - 2 Via - 0.78 nH

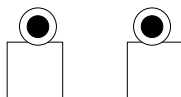


Figure 4. Decoupling Capacitor Footprints

4.2.3 PCB Stackup

The PEX 8112RDK-R is a 6-layer, 62-mil thick PCB. The target signal impedance for all routing layers is 60 Ohms $\pm 15\%$ single-ended impedance and 100 Ohms $\pm 5\%$ differential. (Refer to Figure 5.)

This PCB stack-up was chosen for many reasons. The power/ground plane arrangement provides capacitance to filter noise above 100 MHz from the supply voltages.

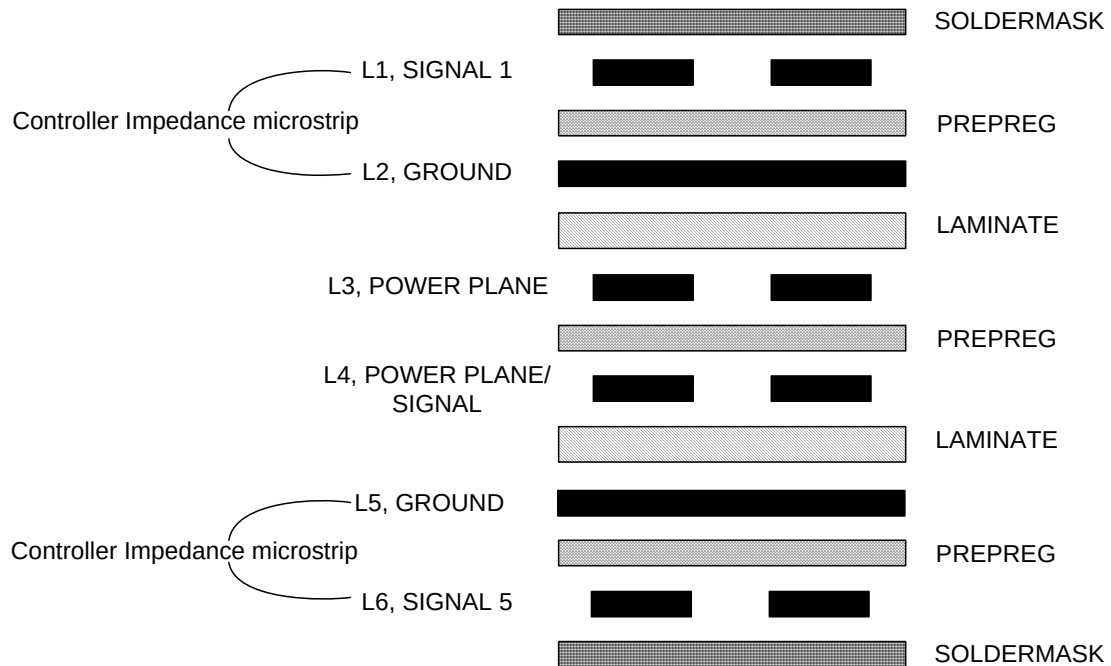


Figure 5. PEX 8112RDK-R Stackup

4.3 MidBus LAI Footprints

The PEX 8112RDK-R has one half-size MidBus LAI footprint site (JP7), which can be used to probe the high-speed PCI Express serial lanes, or populated with a shroud that allows third-party PCI Express logic analyzers to view the serial data.

5. References

The following is a list of documentation to provide further details.

- PLX Technology, Inc.
870 Maude Ave., Sunnyvale, CA 94085 USA
Tel: 408 774-9060 or 800 759-3735, Fax: 408 774-2169, <http://www.plxtech.com>
 - *PEX 8112 Data Book, Version 0.90 or higher*
 - *PEX 8112RDK-F Hardware Reference Manual*
- PCI Special Interest Group (PCI-SIG)
5440 SW Westgate Drive #217, Portland, OR 97221 USA
Tel: 503 291-2569, Fax: 503 297-1090, <http://www.pcisig.com>
 - *PCI Express Base Specification, Revision 1.0a*
 - *PCI Express to PCI Bridge Specification, Revision 1.0*
 - *PCI Local Bus Specification, Revision 3.0*
 - *PCI Express Card Electromechanical (CEM) Specification, Revision 1.1*

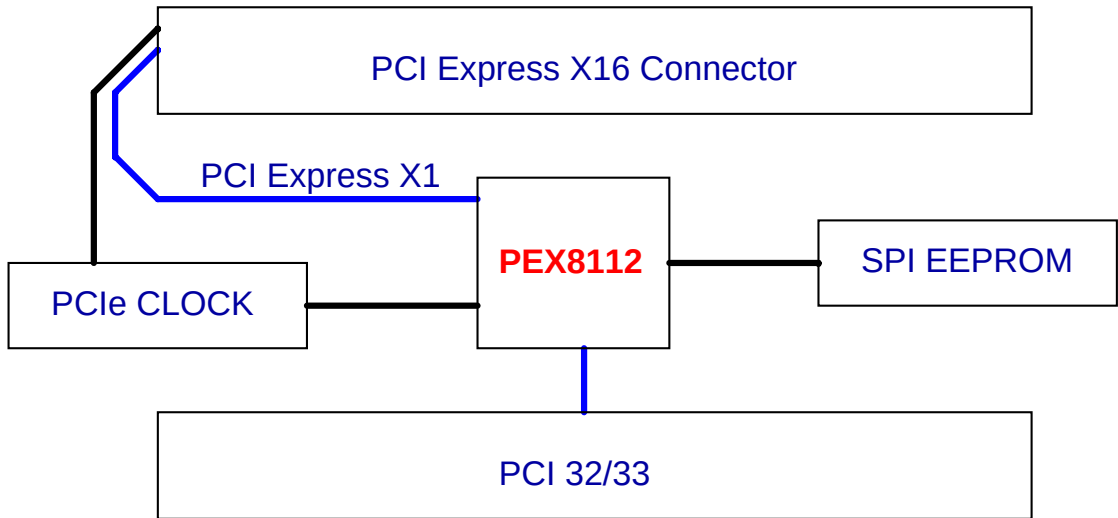
6. Bill of Materials and Schematics

The following pages contain the PEX 8112RDK-R bill of materials and Schematics.

PLX Part #: PEX 8112RDK-R						
Product Name: PEX 8112RDK-R						
Item #	Qty	Man.	Manufacturer's Part #	Description	Package Type	Component Designator(s)
Surface Mount Components						
1	1	PLX Technology	PEX 8112-AA66BC	IC, 1-lane, 4-port, PCI Express bridge	SMT, 144-ball Standard BGA	U1
2	1	ICS	ICS557G-03	PCI Express Clock Source	16-pin	U5
3	1	National	LP2992AIM5-1.5	IC, Regulator 1.5V	SMT, SOT23-5	U4
4	1	TI	SN74AC74PWR	IC, Dual EDG-TRG D F-F	SMT, 14-pin TSSOP	U11
5	1	TI	SN74HC125DBR	IC, Quad BUS BUFF TRI-ST	SMT, 14-pin SSOP	U12
6	1	Texas Instruments	SN74LV08APWR	IC, Quad 2-IN AND GATE	SMT, 14-pin TSSOP	U7
7	1	Adex	CONN-PCIEXP-16X-SM	PCI Express edge connector	Straddle-mount	J1
8	1	ECS	ECS-250-18-5P-F	Crystal, 25 MHz	SMD	Y1
9	2	AMP	2-767004-2	Connector, Mictor	SMD	J9, J10
10	4	Chicago	CMD17-21VRC/TR8	LED, red	SMT, 0805	LED0, LED1, LED2, LED3
11	4	Chicago	CMD17-21VGC/TR8	LED, green	SMT, 0805	LEDP12, LEDE33, LEDP33, LEDP50
12	1	muRata	LQH32CN470K53	Inductor, 47 μ H, 10%	SMT, 1210	L1
13	1	Panasonic	2SA1022	PNP transistor	3-pin	Q1
14	1	CTS	742C083101JTR	Resistor Network, 100 Ohms, 8-pin, isolated	SMT, 8-pin	RN8
15	1	CTS	742C083271JTR	Resistor Network, 100 Ohms, 8-pin, isolated	SMT, 8-pin	RN9
16	3	CTS	742C083103J	Resistor Network, 10K Ohms, 8-pin, isolated	SMT, 8-pin	RN7, RN10, RN11
17	13	Panasonic	ERJ-6GEY0R00V	Resistor, zero Ohms, 1/8W	SMT, 0805	R5, R11, R12, R35, R37, R39, R45, R46, R47, R48, R49, R50, R76
18	1	Panasonic	ERJ-6RSJR18V	Resistor, 0.18 Ohms, 1/8W, 5%	SMT, 0805	R2
19	4	Panasonic	ERJ-6ENF49R9V	Resistor, 49.9 Ohms, 1/16W, 1%	SMT, 0805	R16, R17, R20, R21
20	14	Panasonic	ERJ-6GEYJ103V	Resistor, 10K Ohms,	SMT, 0805	R3, R4, R7, R8, R9, R15, R23, R24, R38,

Item #	Qty	Man.	Manufacturer's Part #	Description	Package Type	Component Designator(s)
				1/8W, 5%		R68, R71, R72, R73, R75
21	1	Panasonic	ERJ-6GEYJ122V	Resistor, 1.2K Ohms, 1/8W, 5%	SMT, 0805	R77
22	1	Panasonic	ERJ-6GEYJ105V	Resistor, 1M Ohms, 1/8W, 5%	SMT, 0805	R1
23	2	Panasonic	ERJ-6GEYJ331V	Resistor, 330 Ohms, 1/8W, 5%	SMT, 0805	R41, R53
24	1	Panasonic	ERJ-6GEYJ511V	Resistor, 510 Ohms, 1/8W, 5%	SMT, 0805	R52
25	1	Panasonic	ERJ-6GEYJ512V	Resistor, 5.1K Ohms, 1/8W, 5%	SMT, 0805	R54
26	1	Panasonic	ERJ-6GEYJ100V	Resistor, 10 Ohms, 1/8W, 5%	SMT, 0805	R13
27	1	Susumu Co.	RR1220P-471-D	Resistor, 475 Ohms, 1/8W, 0.5%	SMT, 0805	R22
28	4	Panasonic	ERJ-6GEYJ330V	Resistor, 33 Ohms, 1/8W, 5%	SMT, 0805	R55, R56, R57, R58
29	2	Panasonic	ECU-V1H100JCN	Capacitor, ceramic, 10 pF, 50V, 5%, NPO	SMT, 0805	C41, C42
30	2	Panasonic	ECJ-GVB1C105K	Capacitor, ceramic, 1.0 μ F, 16V, 10%, X5R	SMT, 0805	C33, C5
31	5	Kemet	T495D476K020AS	Capacitor, 47 μ F, tantalum, 20V	SMT, CASED	C4, C15, C49, C57, C59
32	4	Kemet	T494B106K016AS	Capacitor, 10 μ F, tantalum, 16V	SMT, CASEB	C3, C32, C43, C47
33	2	Panasonic	ECJ-0EB1A104K	Capacitor, ceramic, 0.1 μ F, 10V, 10%, X5R	SMT, 0402	C1, C2
34	32	Panasonic	ECJ-2VB1C104K	Capacitor, ceramic, 0.1 μ F, 16V, 10%, X7R	SMT, 0805	C6, C7, C8, C9, C10, C11, C12, C13, C14, C16, C18, C20, C22, C24, C26, C28, C30, C34, C35, C36, C37, C44, C45, C46, C50, C51, C55, C56, C58, C60, C61, C62
35	8	Panasonic	ECJ-2VB1H102K	Capacitor, ceramic, 0.001 μ F, 50V, 10%, X7R	SMT, 0805	C17, C19, C21, C23, C25, C27, C29, C31
36	4	Panasonic	ECJ-2VB1H103K	Capacitor, ceramic, 0.01 μ F, 50V, 10%, X7R	SMT, 0805	C38, C39, C40, C48
37	1	AVX	TPSD476K025R0150	Cap. lo ESR Tantalum 47 μ F, 25V, 10%	SMT, Case D	C52
38	2	MuRata	GRM216R61E105KA12D	Cap. Ceramic 1.0 μ F, 25V, 10%, X5R	SMT, 0805	C53, C54

Item #	Qty	Man.	Manufacturer's Part #	Description	Package Type	Component Designator(s)
Through-Hole Components						
39	1	Mill-Max	110-93-308-41-001000	DIP socket	TH, 8-pin DIP	U3
40	1	Grayhill	76SB02S	DIP switch 2-pos	TH, 4-pin	S1
41	2	Omron	B3F-3152	Tact Switch	TH, 4-pin Rt Angle	S2, S3
42	3	Samtec	TSW-102-07-GS	Header, 2-pin, single row, 0.1", unshrouded	TH, 2-pin	J2, JP8, JP17
43	7	Samtec	TSW-103-07-GS	Header, 3-pin, single row, 0.1", unshrouded	TH, 3-pin	JP3, JP4, JP5, JP6, JP14, JP15, JP16,
44	1	Sullins	PZC04SAAN	Header, 4-pin, single row, 0.1", unshrouded	TH, 4-pin	J7
Manually Inserted Components						
45	1	Atmel	AT25640	SPI Serial EEPROM	DIP, 8-pin	U3
46	3	AMP/Tyco	382811-6	Shunt, 100mil pitch, 15u gold	2-pin	JP14(1-2), JP15(1-2), JP16(2-3)
Miscellaneous Components						
47	1	PLX Technology	PEX 8112 RDK-R	PEX 8112RDK-R Bare Board Rev 3.0	PCI add-in card	
48	2	Building Fasteners	PMS 440 0025 PH	Screw, philips, 4-40, 3/16" for PCI bracket		
49	1	Ksystone	9203	PCI bracket		
Parts that Should NOT Be Assembled						
50	0	Chicago	CMD17-21VGC/TR8	LED, green clear, 2.1V 20mA	SMT, 0805	LED15
51	0			CONN. ½ size midbus	SMT	JP7
52	0	Panasonic	ERJ-6GEYJ103V	Res. 10K, 1/8W, 5%	SMT 0805	R14, R18, R19
53	0	Panasonic	ERJ-6GEY0R00V	Res. Zero ohm, 1/8W, 5%	SMT 0805	R36, R70
54	0	Panasonic	2SD0602 AQL	Trans NPN GP AMP 50VCEO	SMD, 3-pin MINI	Q2
55	0	Panasonic	ERJ-6GEYJ331V	Resistor, 330 Ohms, 1/8W, 5%	SMT, 0805	R40
56	0	Samtec	TSW-102-07-GS	Header, 1x2 100mil	2-pin, TH	JP19
57	0	Molex	53109-0410	Header, PCB mount, 4 contacts, 0.2" pitch	6-pin TH	JP18
58	0	TBD	TBD	Capacitor, 1000uF	2-pin TH	C63

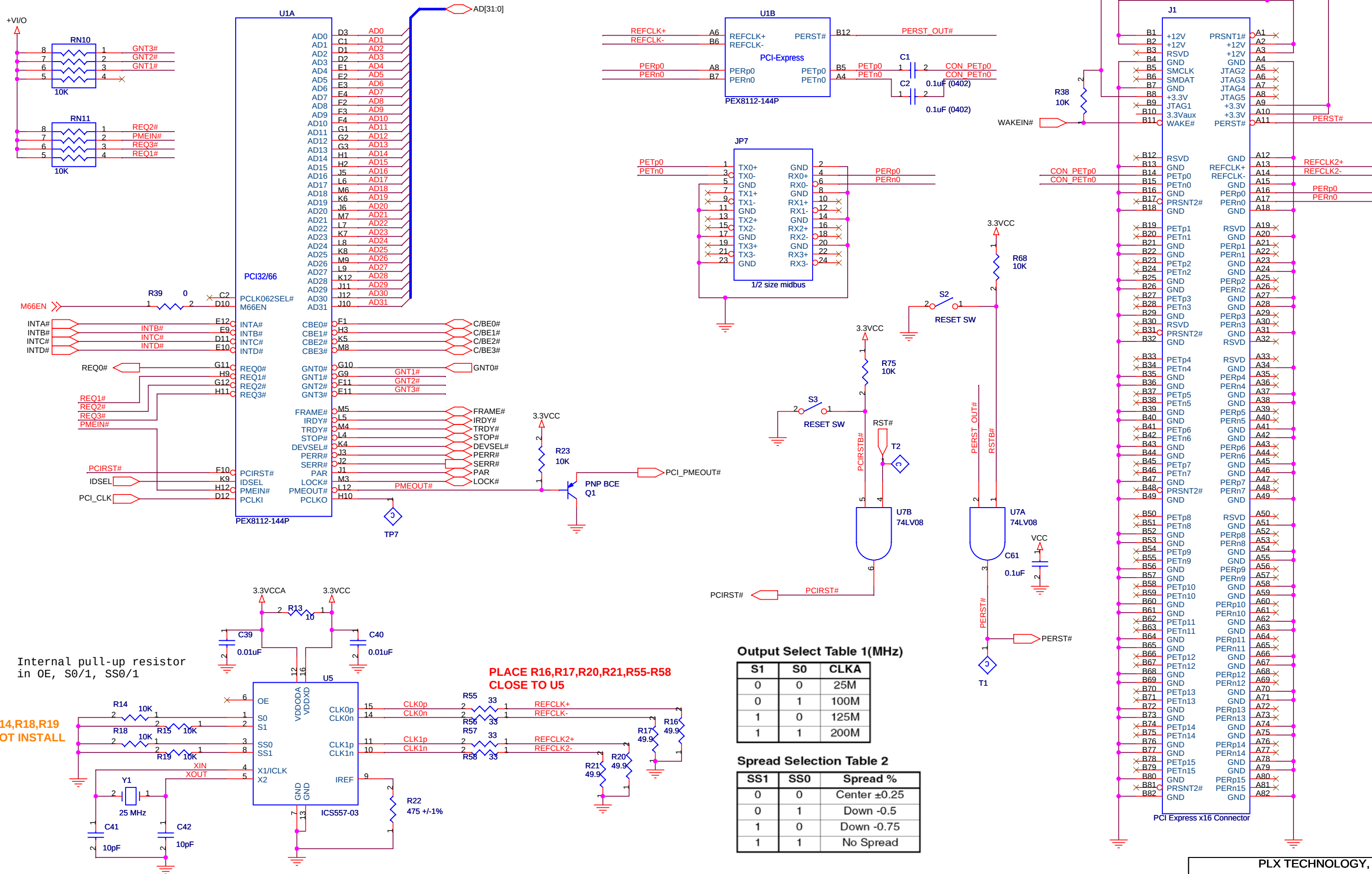


ECN HISTORY		
ECN NUMBER	DATE	NOTE
1.0	6/1/2007	Initial release

PEX8112RDK-Reverse Bridge

- 01- Title Page
- 02- PEX8112 part 1
- 03- PEX8112 part 2
- 04- PCI edge finger
- 05- Power and misc.

PEX8112 (PCI and PCI Express)



Output Select Table 1(MHz)

S1	S0	CLKA
0	0	25M
0	1	100M
1	0	125M
1	1	200M

Spread Selection Table 2

SS1	SS0	Spread %
0	0	Center ±0.25
0	1	Down -0.5
1	0	Down -0.75
1	1	No Spread

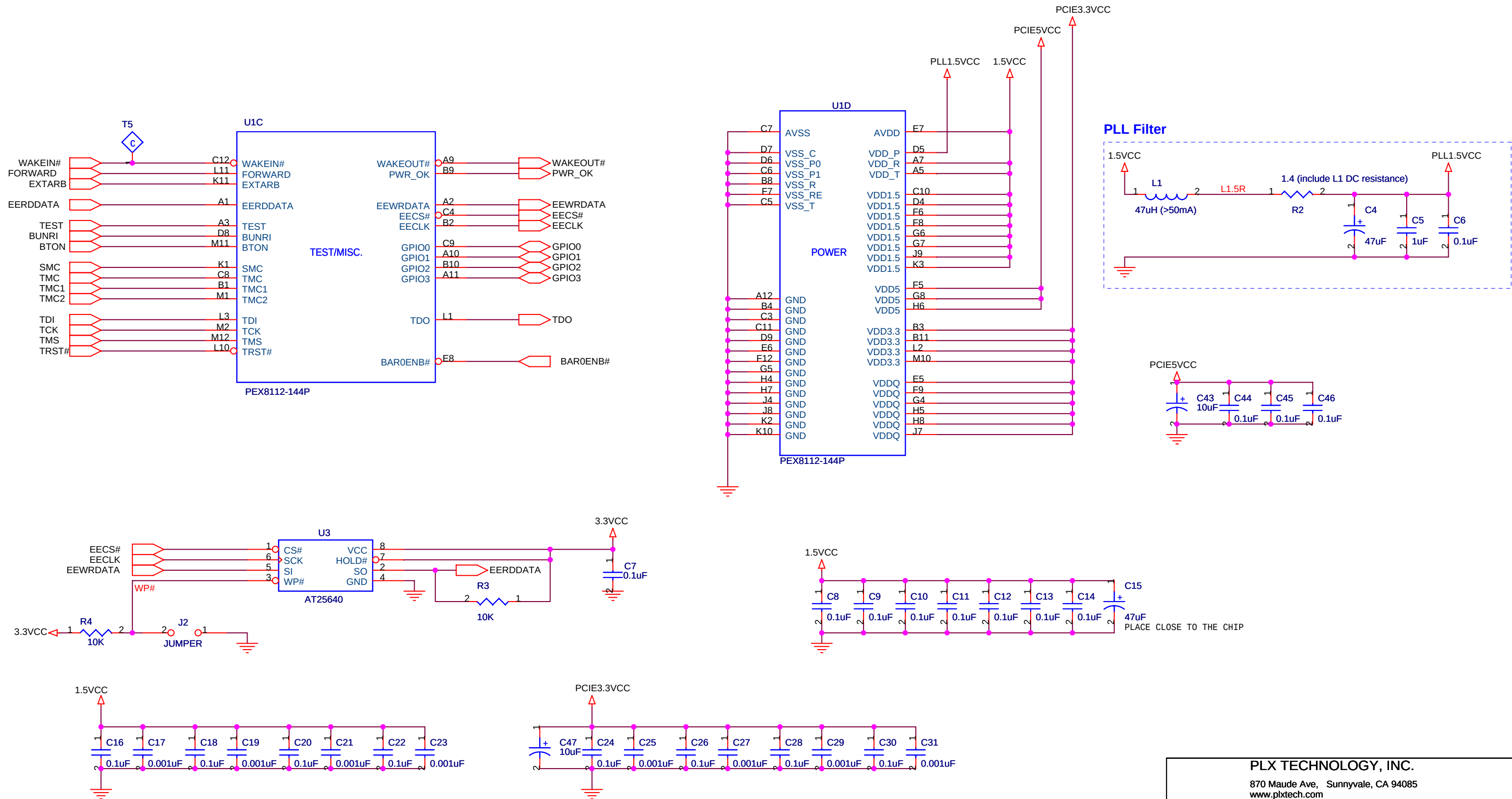
PLX TECHNOLOGY, INC.

870 Maude Ave, Sunnyvale, CA 94085
www.plxtech.com

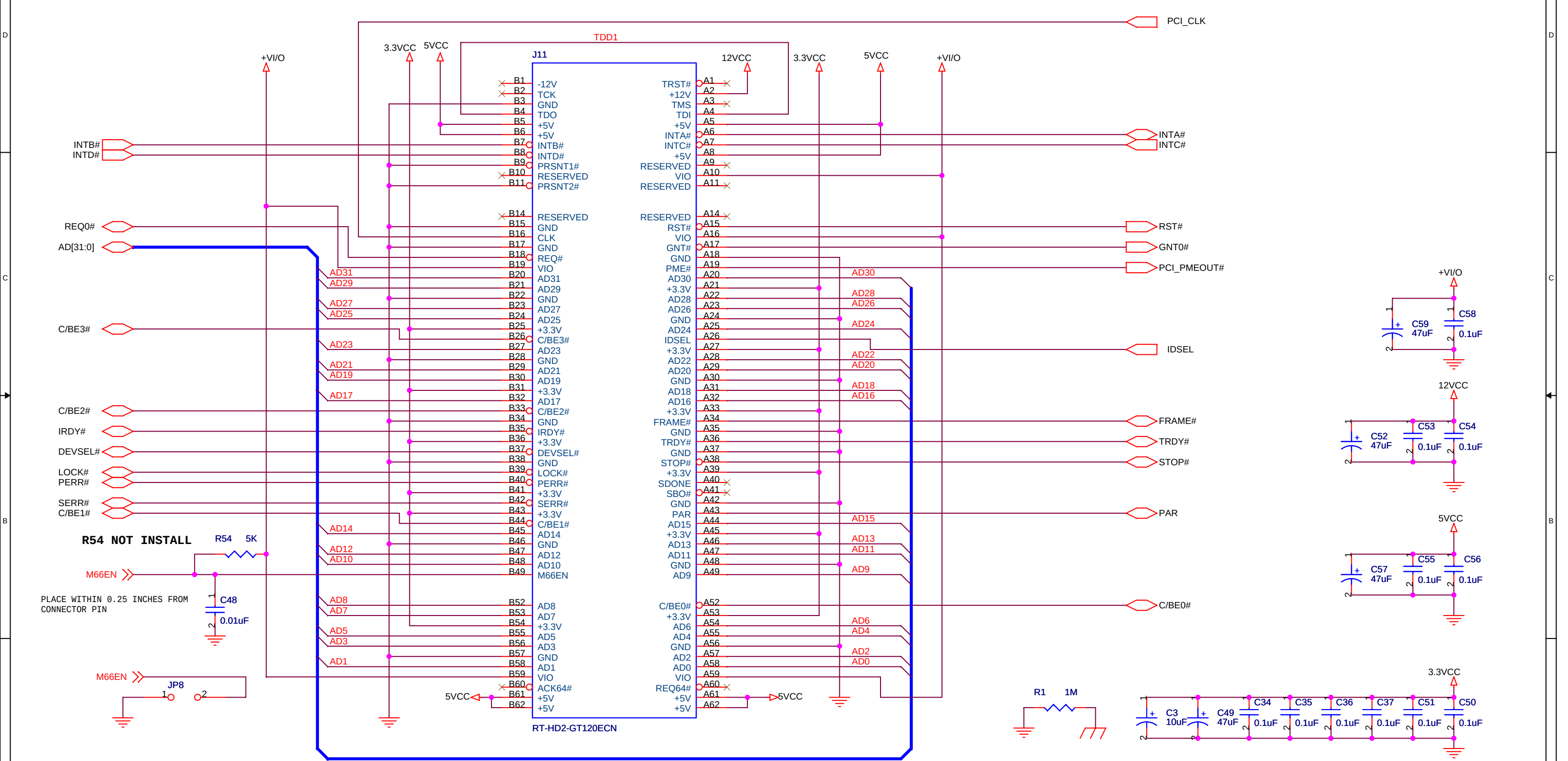
PEX8112 (PCI and PCI Express)

Size Custom Document Number 91-0079-000-A Rev 1.0
Date: Friday, May 04, 2007 Sheet 2 of 5

PEX8112 (Power and Misc.)

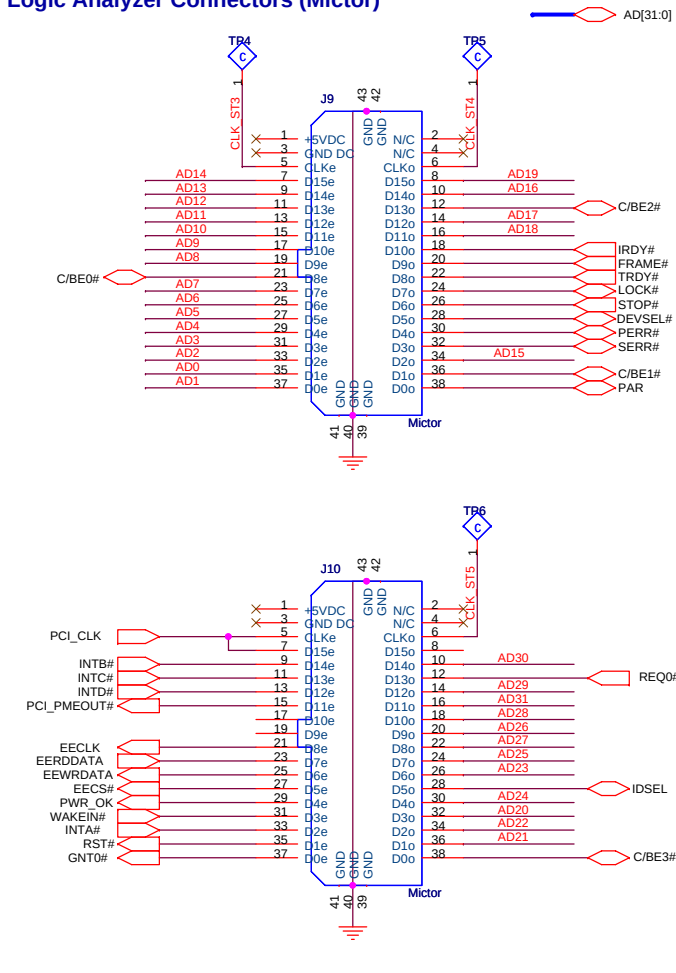


PCI Edge Finger

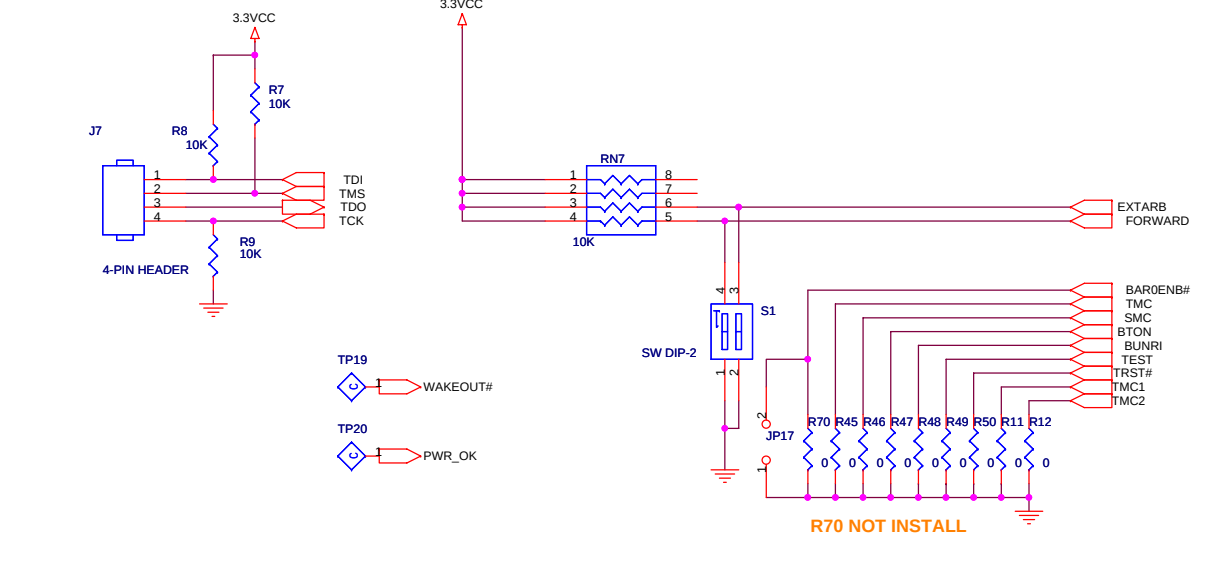


POWER and Misc.

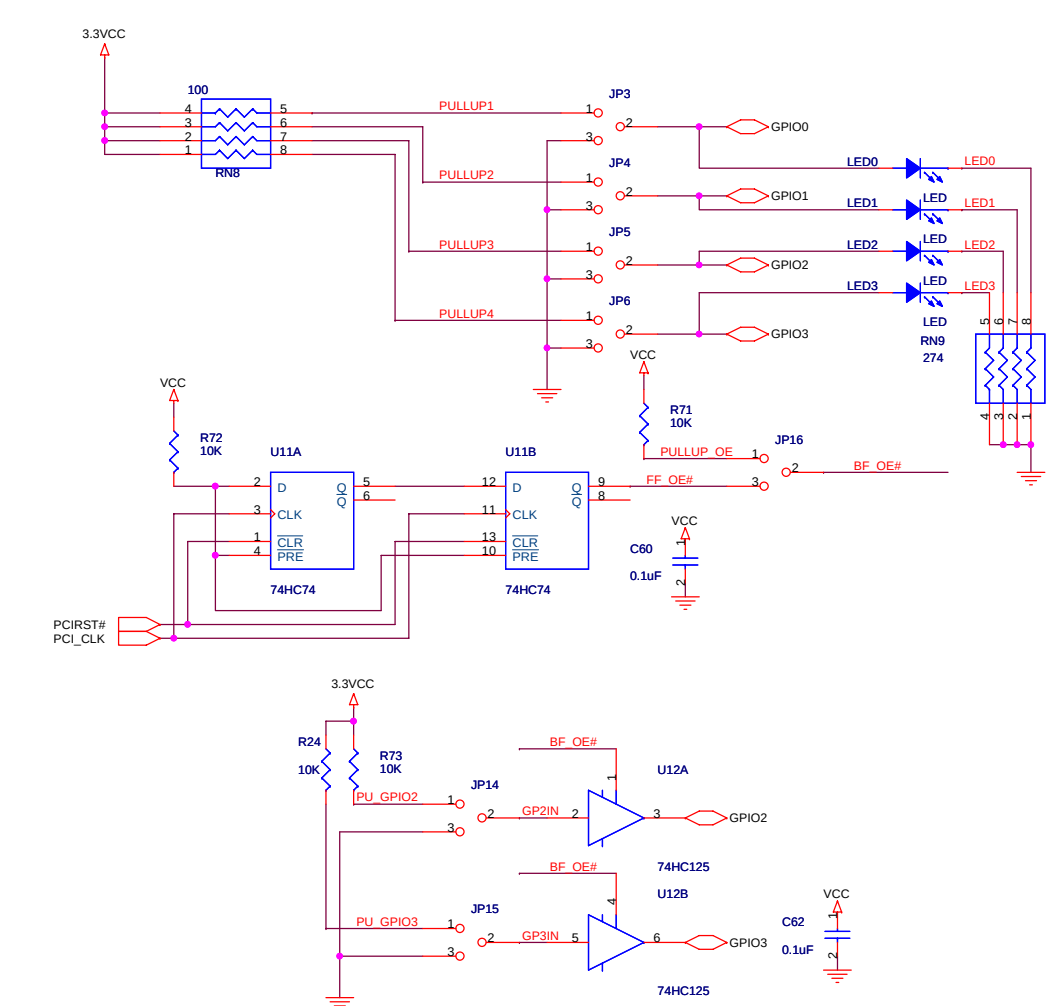
Logic Analyzer Connectors (Mictor)



TESTs



GPIOs



POWER

