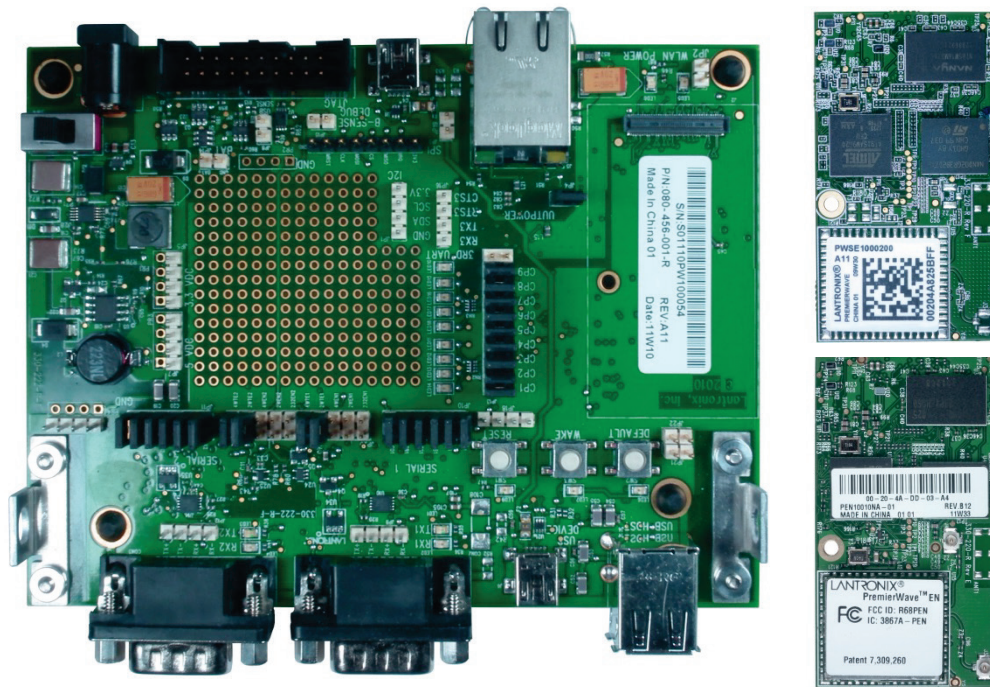




PremierWave®

Embedded System on Module

Evaluation Board User Guide

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Disclaimer and Revisions

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- ◆ Reorient or relocate the receiving antenna.
- ◆ Increase the separation between the equipment and receiver.
- ◆ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ◆ Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. This device is intended only for OEM Integrators.

Revision History

Date	Rev.	Comments
January 2011	A	Initial Document.
February 2011	B	Updated the evaluation board block diagram image.
July 2011	C	Corrected description of WLAN signal
September 2013	D	Corrected pin number information.
June 2014	E	Updated JP20 jumper setting information and included new information pertaining to the PremierWave SE1000 module.

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1. Introduction

About this Guide

This guide provides the information needed to use a Lantronix® PremierWave® Embedded System on module with the Development Kit. The intended audience are the engineers responsible for integrating the PremierWave EN evaluation board into their product.

Notes: For evaluation of Linux OS based turnkey application, one of the following is required:

- ♦ **PremierWave EN Development Kit** (Lantronix PN: PWDK1000-01) for Ethernet and wireless applications which would include the evaluation board, power supply, RS-232 cable, CAT 5e cable and USB cable [A-B]. This kit does not include the PW-EN module.
- ♦ **PremierWave EN Evaluation Board** (Lantronix PN: PWEV1000-01) for Ethernet only applications which would include the evaluation board and power supply. The board does not include the PremierWave EN module.

Additional Documentation

Visit the Lantronix web site at www.lantronix.com/support/documentation for the latest documentation and the following additional documentation.

Document	Description
PremierWave Embedded System on Module Evaluation Board Quick Start	Instructions for getting the PremierWave EN and PremierWave SE1000 modules up and running on the evaluation board.
PremierWave Embedded System on Module Integration Guide	Provides information for integrating the PremierWave EN and PremierWave SE1000 system on modules on a customer platform.
PremierWave EN Embedded System on Module Data Sheet	Provides a quick reference to PremierWave EN module technical specifications.
PremierWave EN Embedded System on Module User Guide	Provides information needed to configure, use, and build Linux applications on the PremierWave EN module.
PremierWave EN Embedded System on Module Command Reference	Provides a list and description of PremierWave EN module commands.
PremierWave SE1000 Embedded System on Module User Guide	Provides information needed to configure, use, and build Linux applications on the PremierWave SE1000 embedded system on module.
PremierWave SE1000 Embedded System on Module Command Reference	Provides a list and description of PremierWave SE1000 embedded system on module commands.

2. Development Kit

Using a PremierWave EN or PremierWave SE1000 evaluation board sample and the PremierWave EN Development Kit, you can get familiar with the product and understand how to integrate the PremierWave embedded system on module into a given product design.

Contents of the Kit

The PremierWave EN Development Kit contains the following items:

- ◆ PremierWave EN Evaluation Board
- ◆ 12V wall adaptor (Lantronix P/N 520-090-R)
- ◆ RS-232 cable, DB9F/F, null modem (Lantronix P/N 500-164-R)
- ◆ CAT5 Ethernet Cable (Lantronix P/N 500-110-R)
- ◆ USB Type A to Mini-Type B Cable (Lantronix P/N 500-205-R)
- ◆ 2.15dBi Dual Band Antenna (Lantronix P/N 930-033-R)
- ◆ U.FL to RP-SMA RF Cable (Lantronix P/N 500-182-R)

Note: You must obtain a PremierWave EN or PremierWave SE1000 sample separately for use with this Development Kit.

Part Numbers

PWDK1000-01 PremierWave EN Development Kit

PWEV1000-01 PremierWave EN Evaluation Board

PEN100100A-01 PremierWave EN 802.11 a/b/g/n with internal antenna, bulk pack

PEN10010SA-01 PremierWave EN 802.11 a/b/g/n with internal antenna, sample

PEN10010NA-01 PremierWave EN 802.11 a/b/g/n without internal antenna, bulk pack

PEN10010NASA-01 PremierWave EN 802.11 a/b/g/n without internal antenna, sample

PWSE1000100B PremierWave SE1000 with Ethernet 10/100, 64 MB flash bulk pack

PWSE1000200B PremierWave SE1000 with Ethernet 10/100, 256 MB flash bulk pack

PWSE1000200S PremierWave SE1000 with Ethernet 10/100, 256 MB flash sample

Evaluation Board Description

The PremierWave EN evaluation board provides a test platform for the Lantronix PremierWave system on module products. The evaluation board uses 12V power from a wall adapter. The evaluation board includes all necessary regulators to power the 3.3V PremierWave embedded system on module and the 5V USB Host ports. The evaluation board has the following features:

- ◆ Two DB9 serial port connectors driven by multi-protocol RS232 and RS485 (2-wire and 4-wire) transceivers at rates up to 1Mbps. Serial port modes are configured by on-board jumpers.
- ◆ One RJ45 10/100 Ethernet port
- ◆ A Dual USB Host port connector.

- ◆ One Mini-Type B USB device port connector for connection to the PremierWave EN USB device port.
- ◆ A second Mini-Type B USB device port connector for connection to the PremierWave EN CPU serial debug port via an onboard serial to USB converter.
- ◆ One JTAG port connector connected to the PremierWave EN module CPU for code level debugging.
- ◆ LEDs for each of the configurable pins.
- ◆ Access to all logic level IO signals on the PremierWave embedded system on module via header pins for measurements and connections to other places.

The figure below shows the PremierWave EN evaluation board and highlights all of the various connectors and configuration jumpers. The following table lists each of the connectors and jumper headers along with their function. Further description and pin assignments are included in subsequent sections.

Figure 2-1 PremierWave EN Evaluation Board Block Diagram

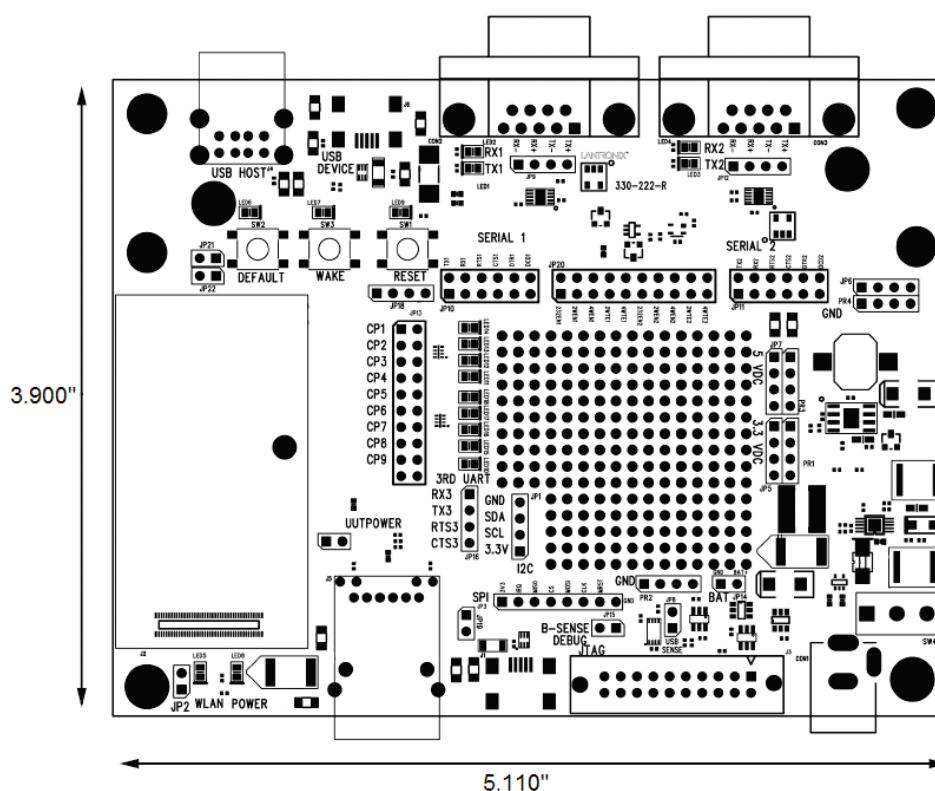


Figure 2-2 Pin Locations of PremierWave EN Module (Top View)

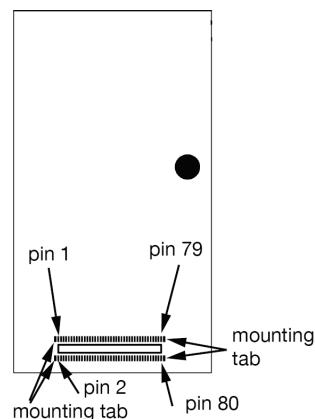


Table 2-1 Evaluation Board Connectors, Header and Switches

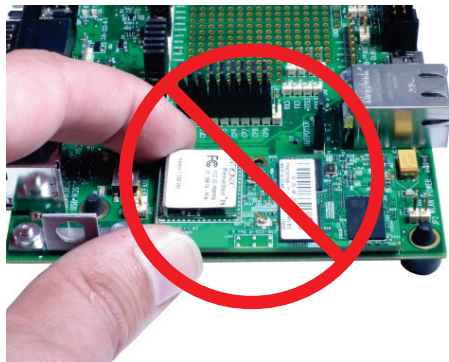
Ref Des.	Connector/Header Function
CON1	Board Power Connect to external 12V wall adapter power supply.
CON2	Serial Port DB9 Standard RS232/RS485 serial port connector.
CON3	Serial Port DB9 Standard RS232/RS485 serial port connector.
J1	USB Mini Type B Connects to on board USB to Serial converter. The serial port side connects to the serial debug port on the PremierWave embedded system on module.
J2	PremierWave Embedded System on Module PremierWave EN or PremierWave SE1000 module is installed on this connector.
J3	JTAG Header Allows for run time debug of the PremierWave embedded system on module through connection to the module CPU JTAG port.
J4	Dual USB Host Port Connects to both of the PremierWave EN module USB Host ports.
J5	RJ45 Ethernet Port Connects to the PremierWave embedded system on module Ethernet port.
J6	USB Mini Type B Connects to the PremierWave embedded system on module USB device port.
JP1	I2C Breakout Provides access to the PremierWave embedded system on module I2C interface.
JP2	Reserved Do not install or connect to any other signal.
JP3	SPI Breakout Provides access to the PremierWave embedded system on module SPI interface.
JP4	Module Power Jumper Provides power to the PremierWave embedded system on module. Must be installed.
JP5	3.3V Power Provides access to the evaluation board 3.3V power rail.
JP6	Ground Provides access to the evaluation board Ground.
JP7	5V Power Provides access to the evaluation board 5V power rail.
JP8	USB Device Port Power Status to CP7 When installed routes CP7 to the USB device port board power status. Signal will be pulled high when the evaluation board is powered from J6.
JP9	Port 1 RS485 Breakout Provides access to the serial port 1 RS485 signals.
JP10	Serial Port 1 Connection Breakout When installed routes the serial port 1 logic level signals to the port 1 RS232/RS485 serial transceivers.
JP11	Serial Port 2 Connection Breakout When installed routes the serial port 2 logic level signals to the port 2 RS232/RS485 serial transceivers.
JP12	Port 2 RS485 Breakout Provides access to the serial port 2 RS485 signals.
JP13	LED Breakout When installed routes configurable pins CP1 to CP9 to LEDs.
JP14	Alternate Power Header Provides a connection point for an alternate 6 to 30Vdc power source when the 12V

Ref Des.	Connector/Header Function
	wall cube is not applied to CON1.
JP15	Alternate Power Status to CP8 When installed routes CP8 to the alternate board power status. Signal will be pulled high when the evaluation board is powered from JP14.
JP16	Serial Port 3 Breakout Provides access to PremierWave embedded system on module serial port 3 signals.
JP18	Ground Provides access to the evaluation board Ground.
JP20	Serial Port Configuration Controls the mode of the Port 1 and Port 2 RS232 and RS485 transceivers. The PremierWave embedded system on module serial port mode is set separately by software.
JP21	Host Port A Power When installed disables power to USB Host Port A.
JP22	Host Port B Power When installed disables power to USB Host Port B.
SW1	Module Reset When pushed, asserts the PremierWave embedded system on module hardware reset causing the module to reboot.
SW2	Module Reset to Defaults When pushed, asserts the reset to default function of the PremierWave embedded system on module.
SW3	Module Wake Up When pushed, asserts the PremierWave embedded system on module wake up pin. This function is only active when the module is in low power shutdown mode.
SW4	Evaluation Board Power Switch When switched, either turns on or off the power to the evaluation board.

Installation of the PremierWave System on Module

The PremierWave embedded system on module installs into connector J2 of the PremierWave EN evaluation board. Install the standoff prior to installing the PremierWave embedded system on module. Align the module mounting hole with the standoff and gently push down on the PremierWave EN module above the J2 connector. Hold the module with four fingers near each module corner to keep the board as level as possible during installation. See the figures below for proper module installation. When removing the PremierWave embedded system on module from the evaluation board, grasp the module along the long edges as close as possible to the module ends utilizing both hands. Once again, hold the module with both hands to keep it as level as possible during removal. Gently tug the module as shown in the figure below. Do not attempt to remove the PremierWave embedded system on module by grasping and pulling the module from the short end opposite the module connector as this may cause damage to the J2 evaluation board connector.

Figure 2-3 *Potentially Harming the PremierWave Embedded System on Module By Not Handling with Both Hands*



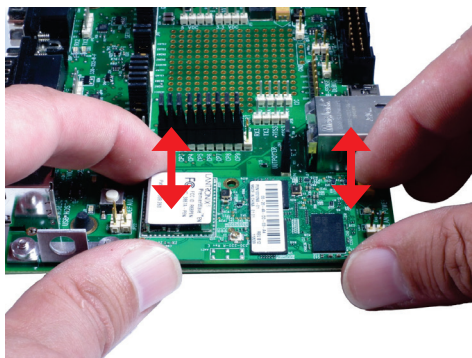
PremierWave EN Module



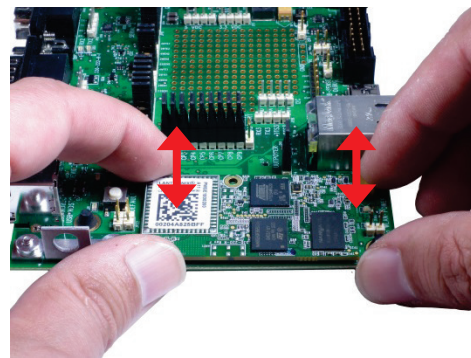
PremierWave SE1000 Module

Note: Utilize **both hands** when installing or removing the PremierWave embedded system on module to avoid damage.

Figure 2-4 *Correctly Install and Remove the PremierWave Embedded System on Module Using Both Hands*



PremierWave EN Module



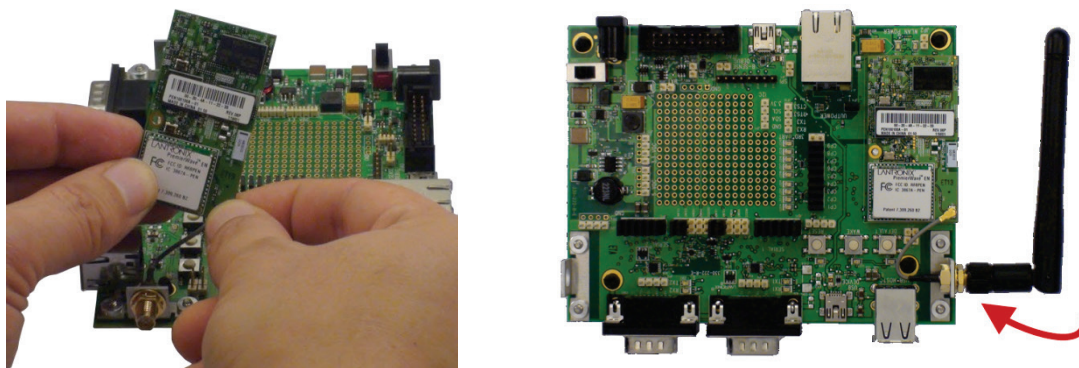
PremierWave SE1000 Module

RF Antenna Brackets

Note: This section applies only to the PremierWave EN system on module and not the PremierWave SE1000 module.

There are two mounting brackets on the PremierWave EN evaluation board for installing swivel type antennas. Included with the kit is a U.FL to RP-SMA RF cable (Lantronix P/N 500-180-R). Also included with the kit is a dual band swivel type antenna (Lantronix P/N 930-033-R). Insert the RP-SMA cable end into the mounting bracket and fix into place with the accompanying washer and nut. It is recommended that the u.FL connector be installed on the PremierWave EN module prior to seating the module on the evaluation board. Screw the antenna onto the RP-SMA cable connector protruding from the mounting bracket. The U.FL end of the RF cable can be installed into the desired U.FL port on the PremierWave EN module.

Figure 2-5 RF Antenna and Mounting Bracket Installation



Serial Port 1 and 2 RS232/RS485 Interfaces

The evaluation board has two multiprotocol RS-232/RS485 ports for connection to the PremierWave EN internal UARTs. The ports are DB9 type connectors labeled CON2 and CON3. Included with the kit is a DB9 to DB9 null modem cable (Lantronix P/N 500-164-R). The null modem cable can be used to connect either CON2 or CON3 directly to a standard PC RS232 serial port.

The tables below list the RS232/RS485 signals and corresponding pins on the evaluation board DB9 connectors. All signals at CON2 and CON3 are level-shifted by multiprotocol transceivers. The RS485 pins are also brought out on JP9 and JP12.

Table 2-2 RS-232 Signals on Serial Ports

PremierWave EN Evaluation Board PIN FUNCTION	DB9 Pin #
Serial Port	
TX_232 (Data Out)	3
RX_232 (Data In)	2
CTS_232 (HW Flow Control Input)	8
RTS_232 (HW Flow Control Output)	7
DTR_232 (Modem Control Output)	4
DCD_232 (Modem Control Input)	1
GND (Ground)	5

Table 2-3 RS-485 4-Wire Signals on Serial Ports

PremierWave EN Evaluation Board	DB9 Pin #	JP9/12 Pin #
PIN FUNCTION		
Serial Port		
TX- (Data Out)	3	3
RX+ (Data In)	2	2
TX+ (Data Out)	7	4
RX- (Data In)	8	1
GND (Ground)	5	

Table 2-4 RS-485 2-Wire Signals on Serial Ports

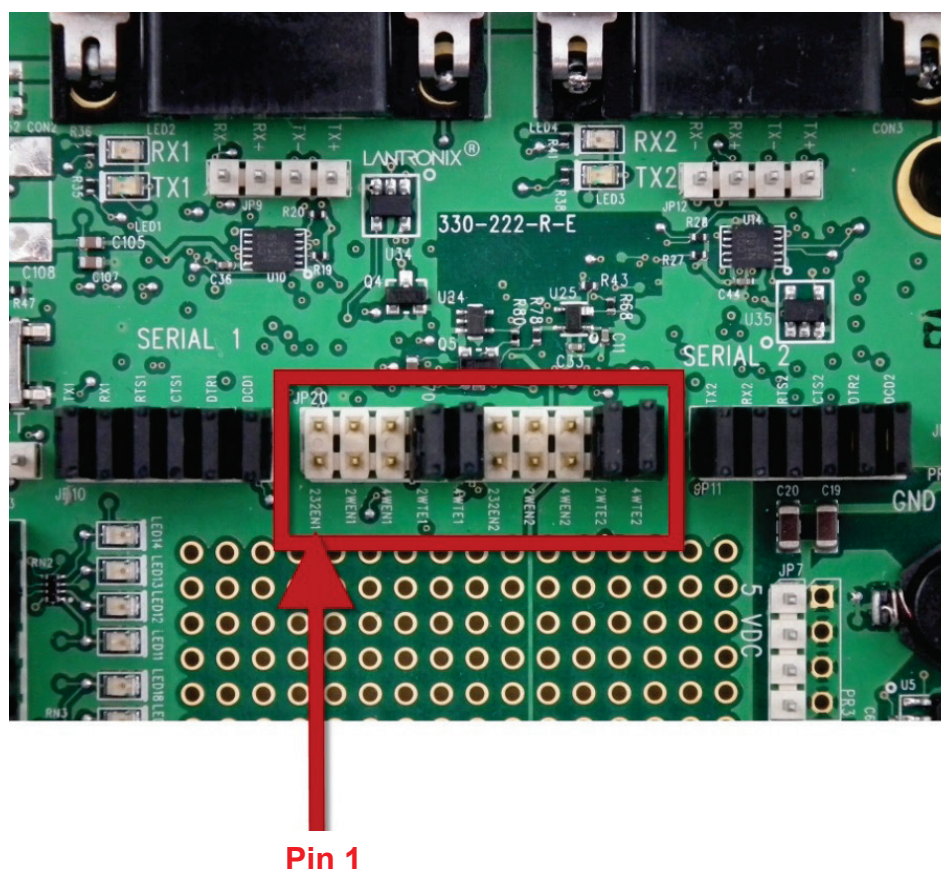
PremierWave EN Evaluation Board	DB9 Pin #	JP9/12 Pin #
PIN FUNCTION		
Serial Port		
TX-/RX- (Data IO)	3	3
TX+/RX+ (Data IO)	7	4
GND (Ground)	5	

The DB9 ports are configured for RS232, RS485 (4-wire), or RS485 (2-wire) by jumper settings on JP20. In addition, in RS485 mode each port has a jumper selectable 120 ohm termination. [Table 2-5](#) lists the correct jumper installation for each mode.

Note: It is recommended to always power up the evaluation board with the RS232 jumper settings and then switch the JP20 jumpers to the RS485 2-wire and 4-wire settings after the unit has powered up.

Table 2-5 JP20 Jumper Settings for Serial Port 1 (CON2)

PremierWave Embedded System on Evaluation Board Serial Port Mode					
JP20 Setting	1 to 2	3 to 4	5 to 6	7 to 8	9 to 10
RS232	OUT	OUT	OUT	IN	IN
RS485 2-wire without 120 ohm	IN	IN	OUT	IN	IN
RS485 2-wire with 120 ohm	IN	IN	OUT	OUT	IN
RS485 4-wire without 120 ohm	IN	OUT	IN	IN	IN
RS485 4-wire with RX 120 ohm	IN	OUT	IN	IN	OUT

Figure 2-6 JP20 Header**Pin 1**

All of the PremierWave EN module serial port signals can be used as configurable pins. Jumper headers JP10 and JP11 have been included to allow for each of the serial port signals to be connected or disconnected from the serial port transceiver. The tables below list the JP10 and JP11 serial port signal connections. Install jumper or remove as needed for desired function.

Table 2-6 JP20 Jumper Settings for Serial Port 2 (CON3)

PremierWave EN Evaluation Board Serial Port Mode					
JP20 Setting	11 to 12	13 to 14	15 to 16	17 to 18	19 to 20
RS232	OUT	OUT	OUT	IN	IN
RS485 2-wire without 120 ohm	IN	IN	OUT	IN	IN
RS485 2-wire with 120 ohm	IN	IN	OUT	OUT	IN
RS485 4-wire without 120 ohm	IN	OUT	IN	IN	IN
RS485 4-wire with RX 120 ohm	IN	OUT	IN	IN	OUT

Table 2-7 JP10 Serial Port Break Out Header

PWEN Module J2 Pin	PremierWave EN Module PIN FUNCTION	JP10 Pin #	JP10 Pin #	CON2 Evaluation Board Function
6	Serial port TX1 or configurable pin	2	1	RS232/RS485 TX
10	Serial port RX1 or configurable pin	4	3	RS232/RS485 RX
8	Serial port RTS1 or TX enable or configurable pin	6	5	RS232 RTS, RS485 TX Enable
12	Serial port CTS1	8	7	RS232 CTS
14	Configurable pin CP1 or Serial port DTR1	10	9	RS232 DTR
16	Configurable pin CP2 or Serial port DCD1	12	11	RS232 DCD

Figure 2-7 JP10 Header

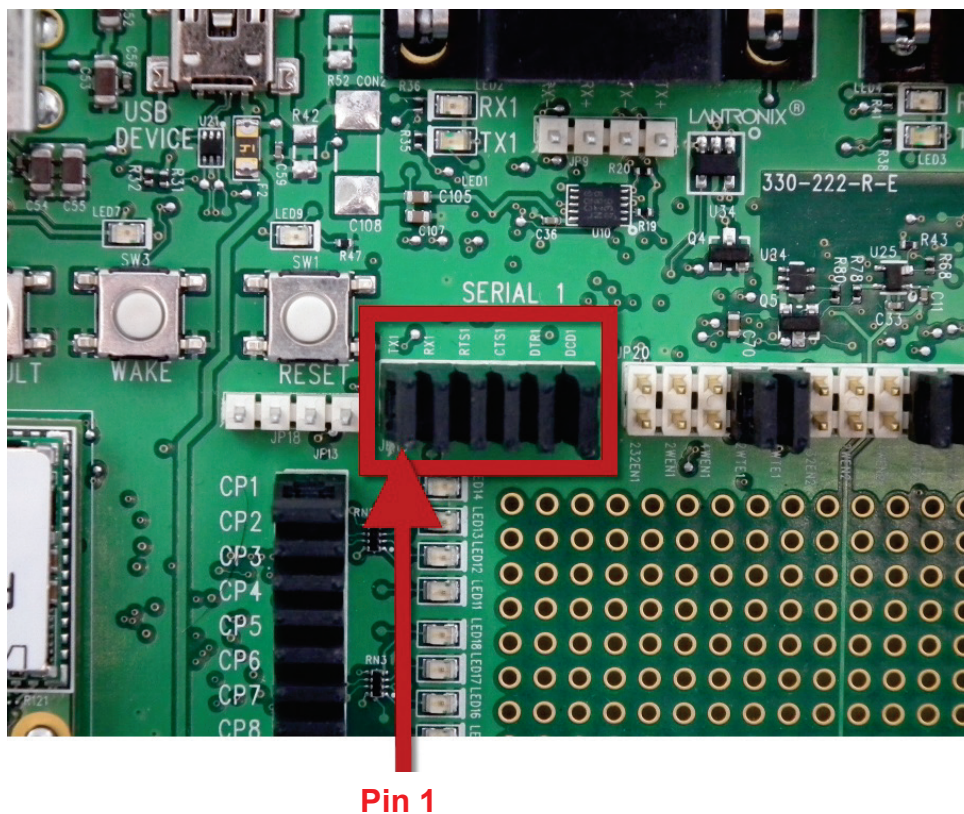
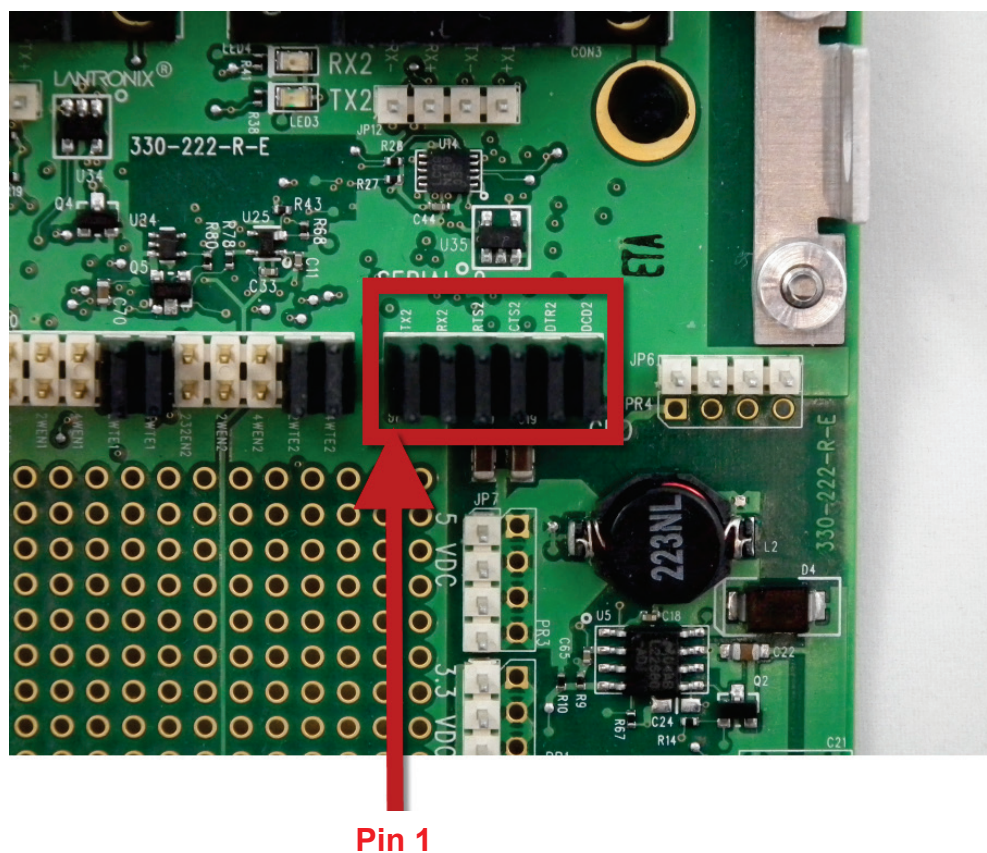


Table 2-8 JP11 Serial Port Break Out Header

PWEN Module J2 Pin	PremierWave EN Module PIN FUNCTION	JP11 Pin #	JP11 Pin #	CON3 Evaluation Board Function
24	Serial port TX2 or configurable pin	2	1	RS232/RS485 TX
28	Serial port RX2 or configurable pin	4	3	RS232/RS485 RX
26	Serial port RTS2 or TX enable or configurable pin	6	5	RS232 RTS, RS485 TX Enable
30	Serial port CTS2	8	7	RS232 CTS
18	Configurable pin CP3 or Serial port DTR2	10	9	RS232 DTR
20	Configurable pin CP4 or Serial port DCD2	12	11	RS232 DCD

Figure 2-8 JP11 Header



Pin 1

Serial Port 3 Interface

In addition to serial ports 1 and 2, the PremierWave embedded system on module and evaluation board has a third 3.3V logic level only serial port available. The connections for serial port 3 are available on JP16. The table below shows the pin assignments for JP16. The logic signals may also be used as general purpose IO.

Table 2-9 JP16 Serial Port 3 Signal Connections

PWEN Module J2 Pin	PremierWave EN Module PIN FUNCTION	JP16 Pin #
32	Configurable pin CP5 or RX3 Input	1
27	Configurable pin CP6 or TX3 Output	2
38	Configurable pin CP8 or RTS3 Output	3
42	Configurable pin CP9 or CTS3 Input	4

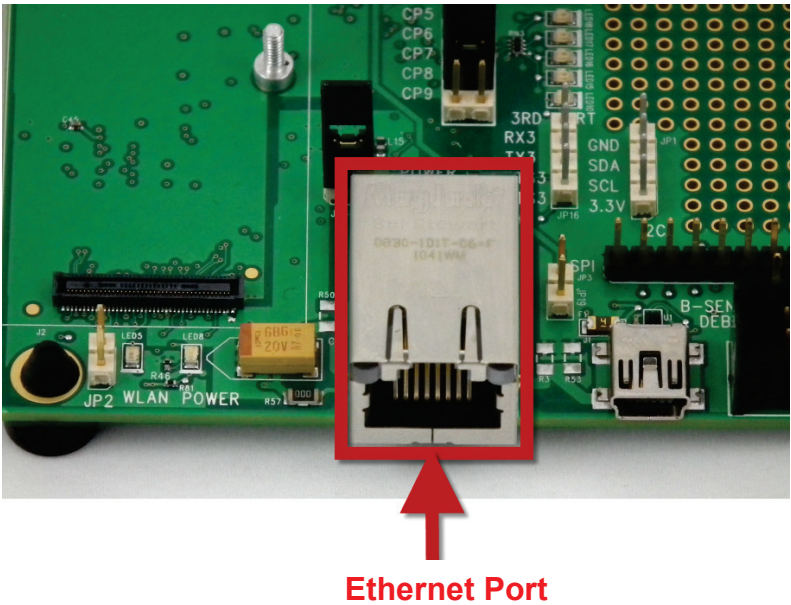
Ethernet Port

The PremierWave EN evaluation board includes one RJ45 with integrated magnetics for connection to the PremierWave EN module 10/100Mbps Ethernet interface. Connector J5 is the Ethernet port. LEDs are built into J5 for link, speed, and activity indication. The Green LED will be on when a 100Mbps connection is present and off for a 10Mbps connection. The Yellow LED will be ON when a link is present and will blink when there is activity.

Table 2-10 J5 Ethernet LED Functionality

LED	Description
Left/Yellow	Link/activity LED Solid yellow for link Blink for activity
Right Green	Speed Solid Green for 100 Mbps Off for 10 Mbps

Figure 2-9 Ethernet Port



USB Debug Port

The PremierWave EN evaluation board includes a USB device port connected to the PremierWave embedded system on module serial debug port through a USB to serial converter. The USB debug port is the J1 USB Mini-Type B connector. This port allows boot message monitoring and control on any PC with an available USB Host port. Connect the USB cable (*Lantronix P/N 500-205-R*) included in the kit to J1 of the evaluation board and the Host port of your PC.

In order to access the unit through the USB port, you will need to install the USB-to-Serial VCP driver from FTDI. It is available in the installation directory of DeviceInstaller 4.3.0.2 and later versions, for installation. It can also be obtained from the FTDI website provided below. Once installed, you will be able to view the PremierWave EN boot messages as well as provide command inputs through any PC terminal program, such as Tera Term. The terminal settings for the USB virtual COM port will be 115200 baud, 8-bit, no parity, 1 stop bit and no flow control.

Download FTDI USB to serial drivers at this website:
<http://www.ftdichip.com/Drivers/VCP.htm>

USB Dual Host Ports

The PremierWave embedded system on module has two USB 2.0 full speed host ports for connection to downstream USB devices. These ports are brought out to the evaluation board through the dual type A connector, J4. The evaluation board integrates a 5V power source and 500mA current limiter to provide power for each host port. The USB Host port functionality is not available when the PremierWave embedded system on module is powered from the USB device port, connector J6. Power for the host ports is enabled by default. Install jumpers JP21 and JP22 to disable the power to the host port connector, J4.

USB Device Port

The PremierWave embedded system on module has one USB 2.0 device port for connection to an upstream USB host port. The device port is brought out on the evaluation board through J6. The power from the host port supplied via a USB cable to J6 may be used to power the evaluation board. Install JP19 to allow input power from J6. When this is done the USB host port functionality on J4 is not available. Due to port power limitations on the connecting PC USB host port, it is not recommended to power the evaluation board from J6 when the PremierWave embedded system on module wireless mode is enabled.

I2C Interface

The PremierWave embedded system on module has one I2C interface for connection to external devices such as I2C sensors, EEPROM, IO expanders, etc. The I2C interface pins may also be used as general purpose IO. The I2C pins are available on the evaluation board on JP1. The table below lists the JP1 connections.

Table 2-11 JP1 I2C Signal Connections

PremierWave Module J2 Pin	PremierWave Embedded System on Module PIN FUNCTION	JP1 Pin #
	3.3V Power	1
31	I2CSCL or configurable pin	2
33	I2CSDA or configurable pin	3
	Ground	4

SPI Interface

The PremierWave embedded system on module has one SPI interface for connection to external devices such as an external CPU, SPI memory, or other device. The SPI interface pins may also be used as general purpose IO. The SPI interface on the PremierWave embedded system on module may act as either master or slave. The SPI pins are available on the evaluation board on JP3. The table below lists the JP3 connections.

Table 2-12 JP3 SPI Signal Connections

PremierWave Module J2 Pin	PremierWave Embedded System on Module PIN FUNCTION	JP3 Pin #
	3.3V Power	1
37	Interrupt(active low) or configurable pin	2
39	Master In/Slave Out or configurable pin	3
41	Chip Select(active low) or configurable pin	4
43	Master Out/Slave In or configurable pin	5
45	Clock or configurable pin	6
2	PWEN Module Reset	7
	Ground	8

JTAG Debugger Interface

Connector J3 on the PremierWave EN evaluation board allows for run time code debugging of the installed PremierWave embedded system on module. Install an ARM debugger cable plug into J3.

Power Supply

The evaluation board provides several options for input power. Included with the kit is a 12V wall adapter. The 12V wall adapter plugs into CON1. JP14 may be used as an alternate 6 to 30Vdc power input. In addition, the PremierWave EN evaluation board may be powered using the USB device port on J6 for USB applications. It is not recommended to use the J6 USB port to power the PremierWave EN evaluation board when the PremierWave EN wireless mode is enabled.

Jumper JP4 allows for the current measurements of the PremierWave EN module installed on J2. JP4 must be installed for proper operation of the installed PremierWave EN module.

Table 2-13 Evaluation Board Power Options

Power Options	Power Source
Option 1	Barrel Plug at CON1. 12V Wall adapter supplied with Development Kit.
Option 2	6 to 30Vdc. Apply 6 to 30Vdc power source at JP14.
Option 3	Power from USB Device Port Install JP19 and connect the USB device port J6 to a PC USB Host port using a USB cable. This is not recommended for the wireless PremierWave EN modules due to power consumption.

The evaluation board integrates OR'ing circuitry to switch between the different supplies. The OR'ing circuitry will use the highest available power rail from CON1, JP14, or J6 to power the board. Status signals from the OR'ing circuitry are available to alert the PremierWave EN module when the different input power sources are used. These status signals can be input to the PremierWave EN module on configurable pins. The table below lists the power source status signals and the jumper settings to input them to the PremierWave EN module.

Table 2-14 Evaluation Board Jumper Options

PremierWave Module J2 Pin	Jumper Function	Jumper
44	When installed routes CP7 to the USB device port board power status. Signal will be pulled high when the evaluation board is powered off J6.	JP8
36	When installed routes CP8 to the alternate board power status. Signal will be pulled high when the evaluation board is powered off JP14.	JP15

The evaluation board generates 3.3V and 5V for use by the on-board circuitry. The 3.3V power signal is available on jumper header JP5. The 5V power signal is available on JP7 and the signal ground is available on JP6 and JP18.

LEDs

The PremierWave EN evaluation board includes several LEDs for signal and unit status. The table below lists all of the LEDs and their function. Signals for configurable pins CP1 to CP9 are routed to LEDs through jumper header JP13 as described in the table.

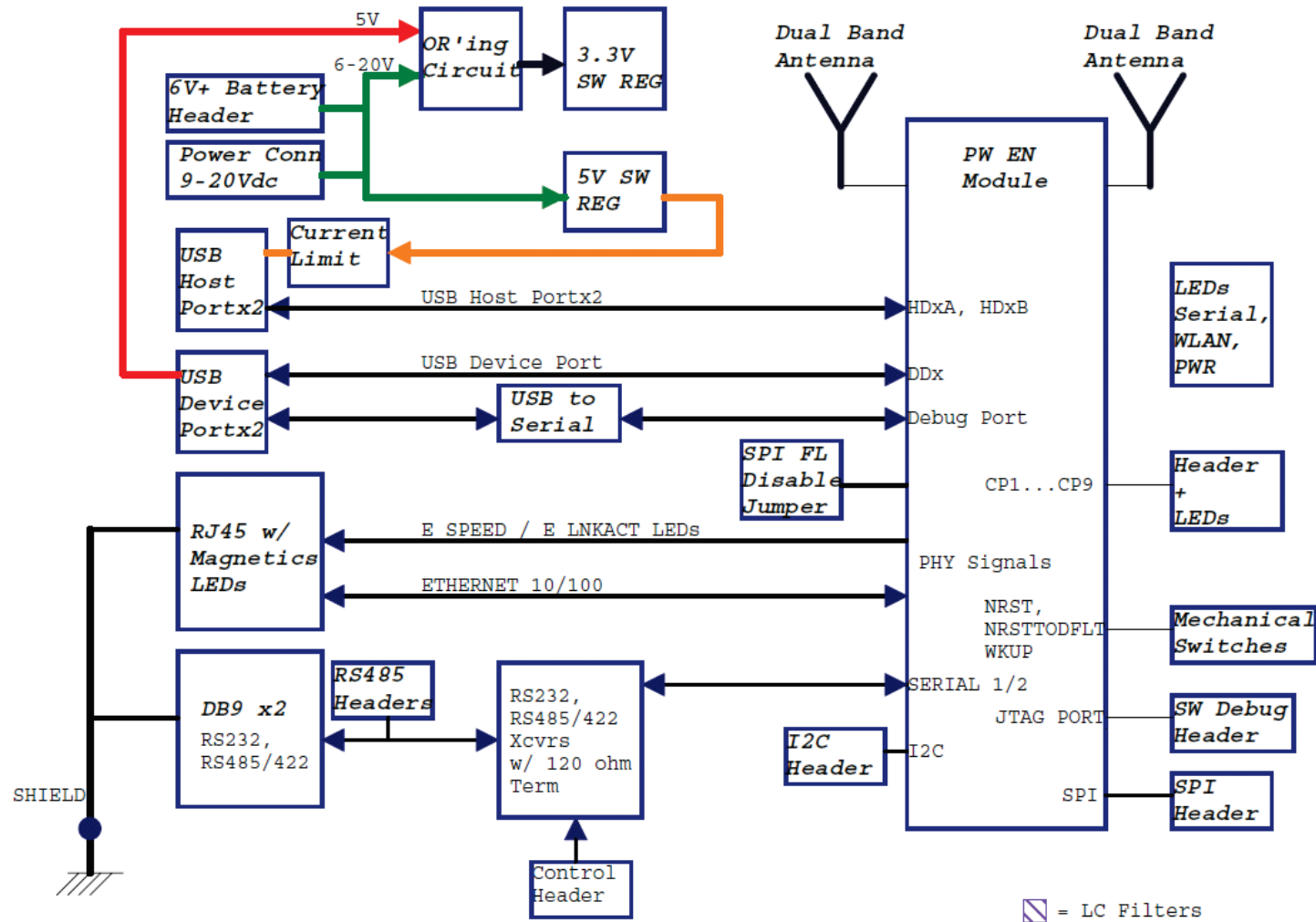
Table 2-15 LEDs Signals and Statuses

J2 Pin	LED Ref Design	Color	LED Function
23	J5	Yellow	Ethernet Link and Activity. LED is ON when a link is detected and blinks for activity.
21	J5 Green	Green	Ethernet Speed. LED is on for 100Mbps connection and off for 10Mbps connection.
	LED1	Green	Serial Port 1 TX activity. LED blinks for activity on signal TX1.
	LED2	Yellow	Serial Port 1 RX activity. LED blinks for activity on signal RX1
	LED3	Green	Serial Port 2 TX activity. LED blinks for activity on signal TX2.
	LED4	Yellow	Serial Port 2 RX activity. LED blinks for activity on signal RX2
25	LED5	Orange	WLAN Status. LED is ON when WLAN is enabled.
4	LED6	Orange	Reset to Default. LED is ON when NRSTTODFLT signal is asserted by SW2.
46	LED7	Orange	Wake Up. LED is ON when module wake up is asserted by SW3.
	LED8	Blue	3.3V Power. LED is ON when the evaluation board 3.3V regulator is ON.
2	LED9	Orange	Reset. LED is ON when module is in reset or power down state.
42	LED10	Yellow	CP9. LED is ON when JP 13, jumper 17 to 18, is stuffed and signal CP9 is high.
20	LED11	Yellow	CP4. LED is ON when JP 13, jumper 7 to 8, is stuffed and signal CP4 is high.
18	LED12	Yellow	CP3. LED is ON when JP 13, jumper 5 to 6, is stuffed and signal CP3 is high.

J2 Pin	LED Ref Design	Color	LED Function
16	LED13	Yellow	CP2. LED is ON when JP 13, jumper 3 to 4, is stuffed and signal CP2 is high.
14	LED14	Yellow	CP1. LED is ON when JP 13, jumper 1 to 2, is stuffed and signal CP1 is high.
38	LED15	Yellow	CP8. LED is ON when JP 13, jumper 15 to 16, is stuffed and signal CP8 is high.
44	LED16	Yellow	CP7. LED is ON when JP 13, jumper 13 to 14, is stuffed and signal CP7 is high.
27	LED17	Yellow	CP6. LED is ON when JP 13, jumper 11 to 12, is stuffed and signal CP6 is high.
32	LED18	Yellow	CP5. LED is ON when JP 13, jumper 9 to 10, is stuffed and signal CP5 is high.

Evaluation Board Schematic

Figure 2-10 Evaluation Board Schematic, Part 1 of 8



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Figure 2-12 Evaluation Board Schematic, Part 3 of 8

NOTE: Components in the same circuit shall be placed close together in the manner as drawn in the schematic, except where noted otherwise.

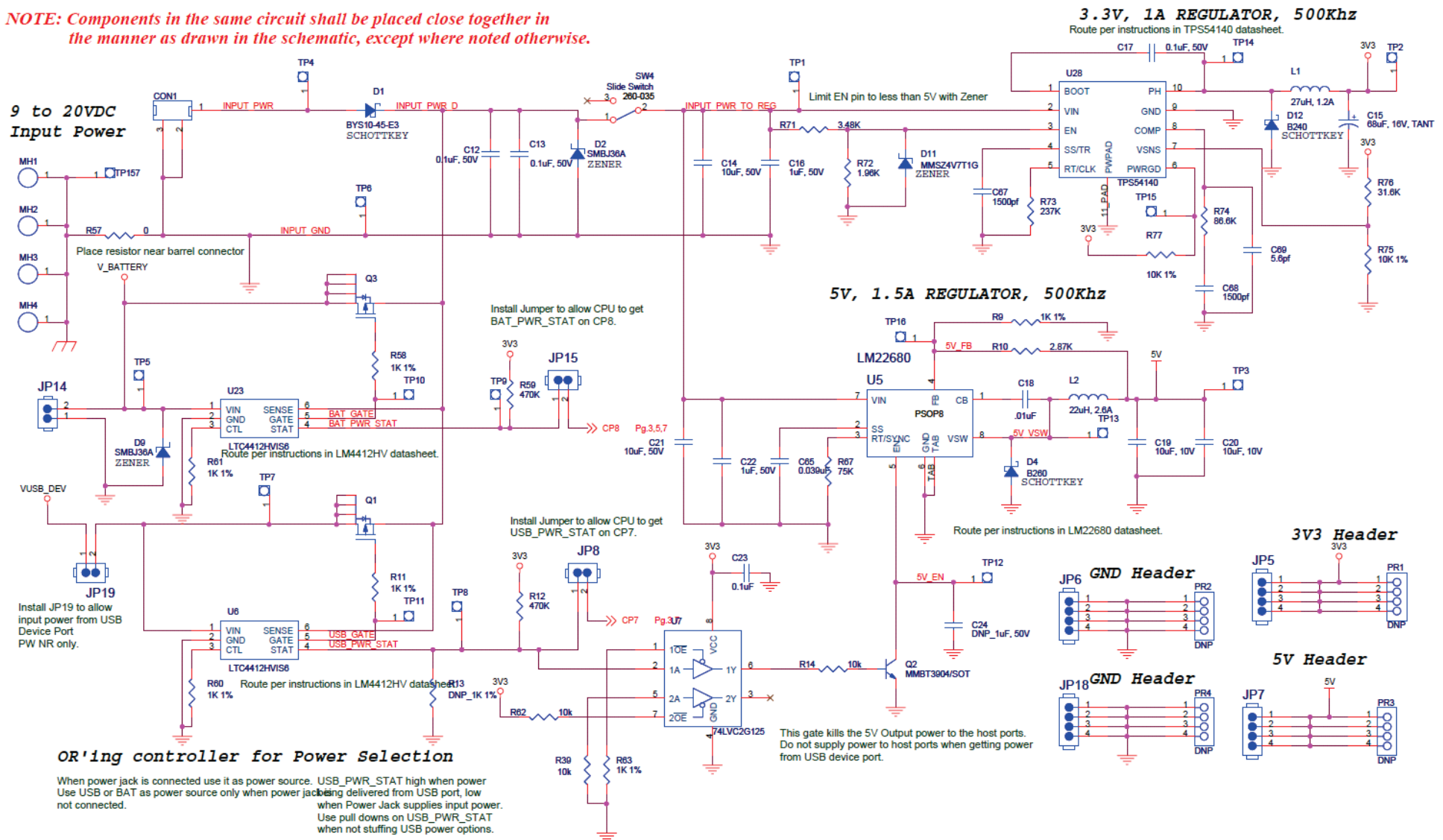




Figure 2-14 Evaluation Board Schematic, Part 5 of 8

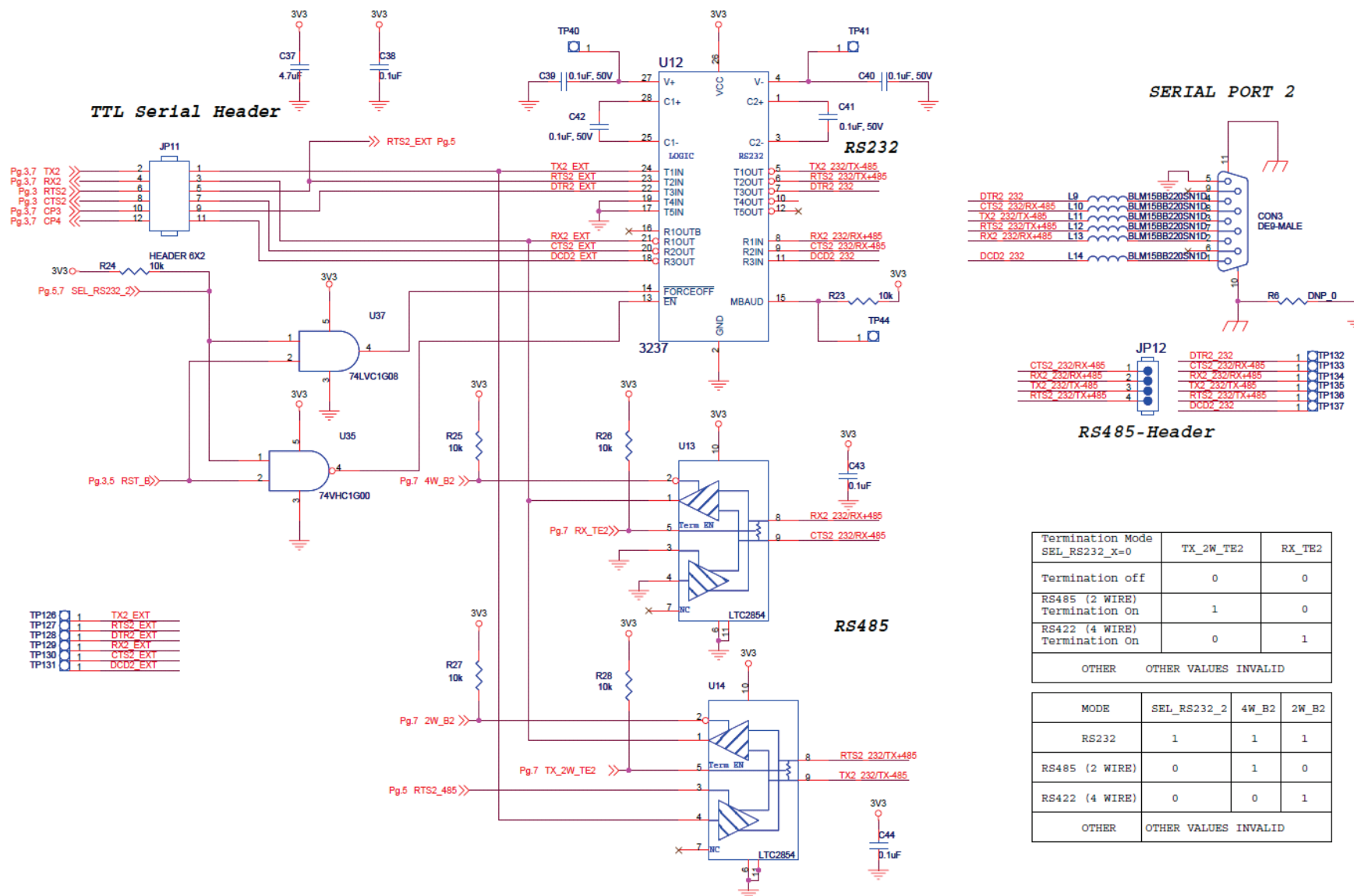


Figure 2-15 Evaluation Board Schematic, Part 6 of 8

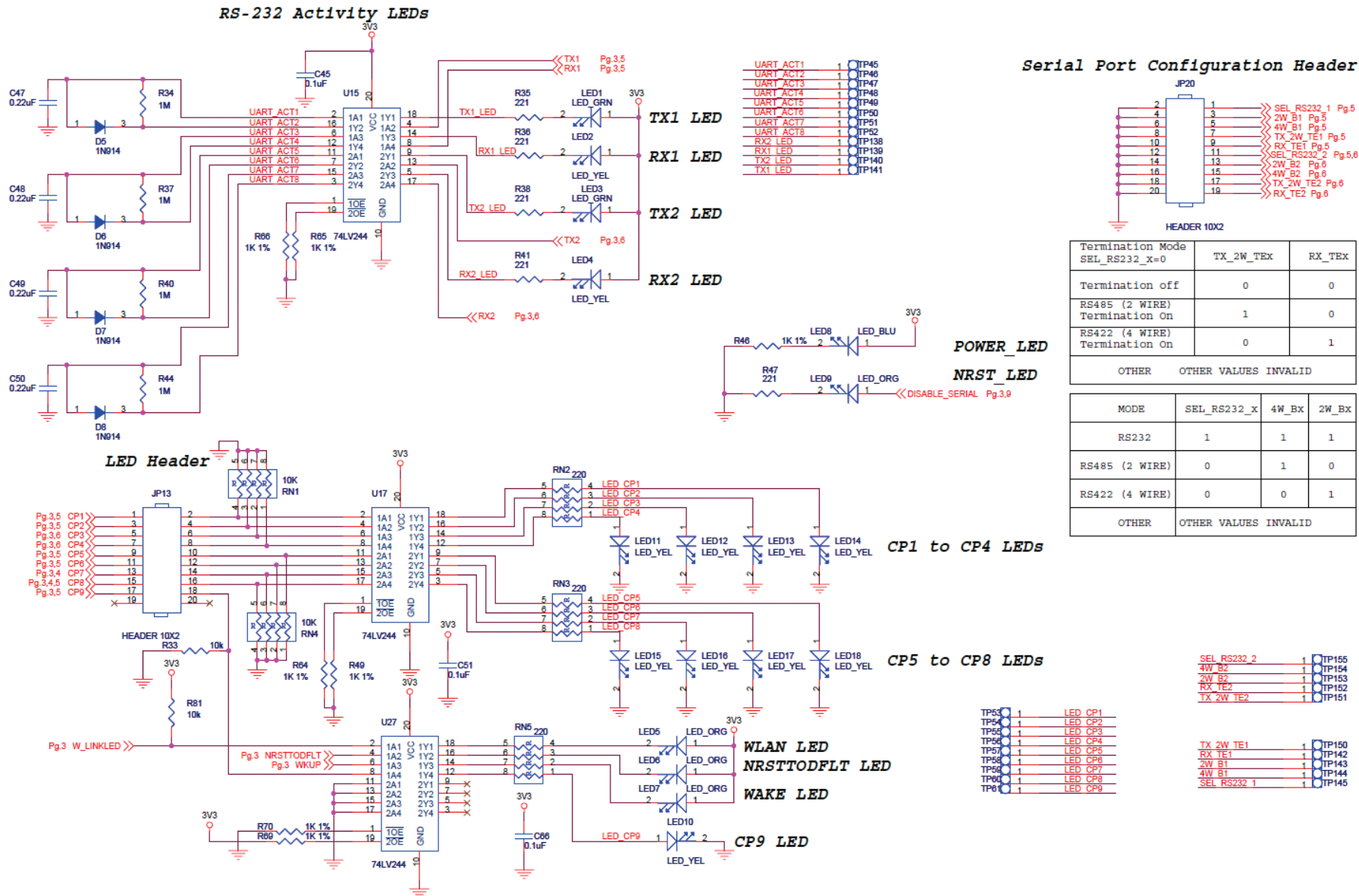
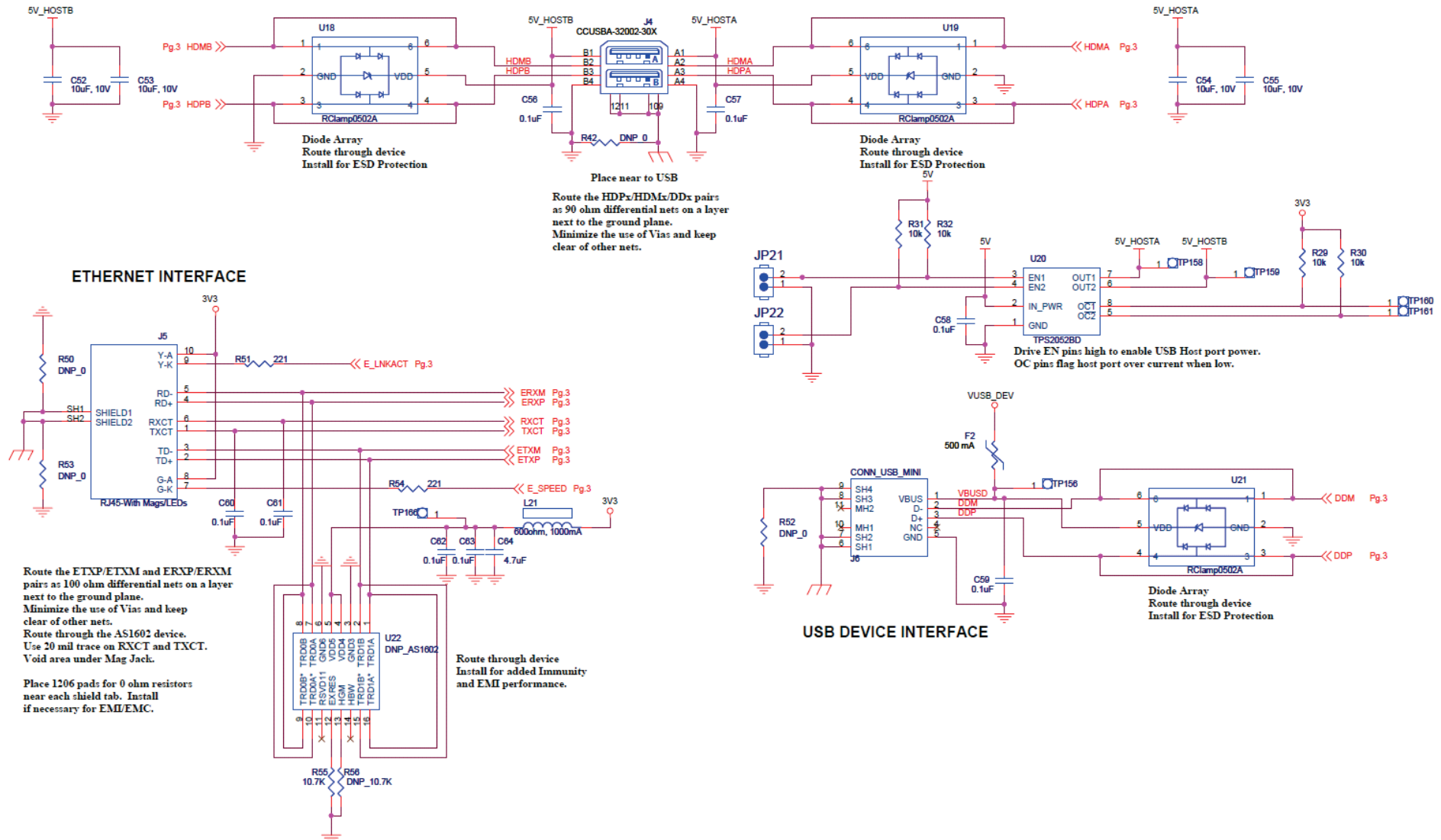
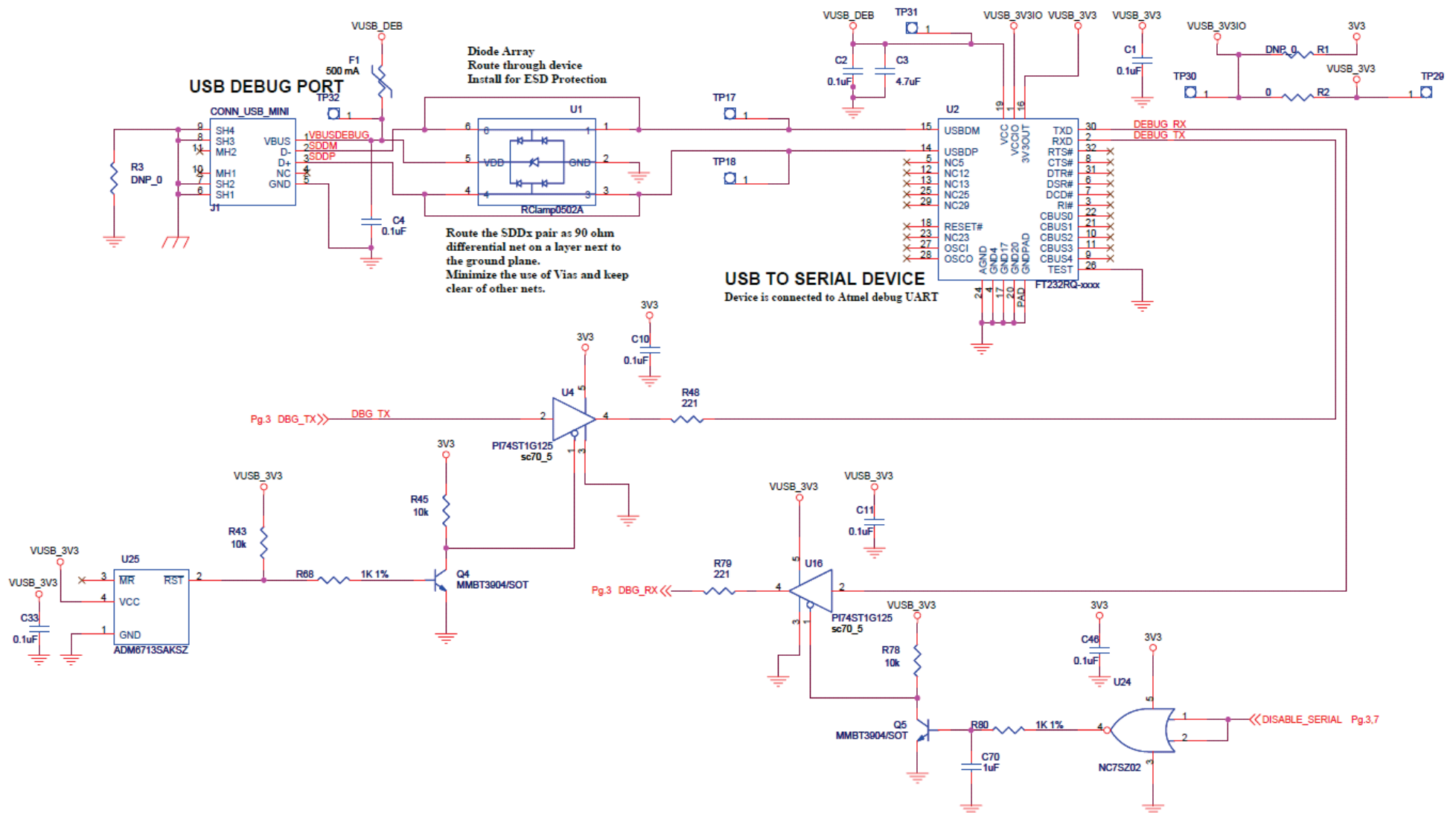


Figure 2-16 Evaluation Board Schematic, Part 7 of 8

USB HOST INTERFACE



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A: Warranty

For details on the Lantronix warranty and replacement policy, go to our web site at www.lantronix.com/support/warranty.