



# Legal Notice

The content of this document is furnished for informational use only, is subject to change without notice, and should not be construed as a commitment by MaxLinear, Inc. MaxLinear, Inc. assumes no responsibility or liability for any errors or inaccuracies that may appear in the informational content contained in this guide. Complying with all applicable copyright laws is the responsibility of the user. Without limiting the rights under copyright, no part of this document may be reproduced into, stored in, or introduced into a retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording, or otherwise), or for any purpose, without the express written permission of MaxLinear, Inc.


Maxlinear, Inc. does not recommend the use of any of its products in life support applications where the failure or malfunction of the product can reasonably be expected to cause failure of the life support system or to significantly affect its safety or effectiveness. Products are not authorized for use in such applications unless MaxLinear, Inc. receives, in writing, assurances to its satisfaction that: (a) the risk of injury or damage has been minimized; (b) the user assumes all such risks; (c) potential liability of MaxLinear, Inc. is adequately protected under the circumstances.

MaxLinear, Inc. may have patents, patent applications, trademarks, copyrights, or other intellectual property rights covering subject matter in this document. Except as expressly provided in any written license agreement from MaxLinear, Inc., the furnishing of this document does not give you any license to these patents, trademarks, copyrights, or other intellectual property.

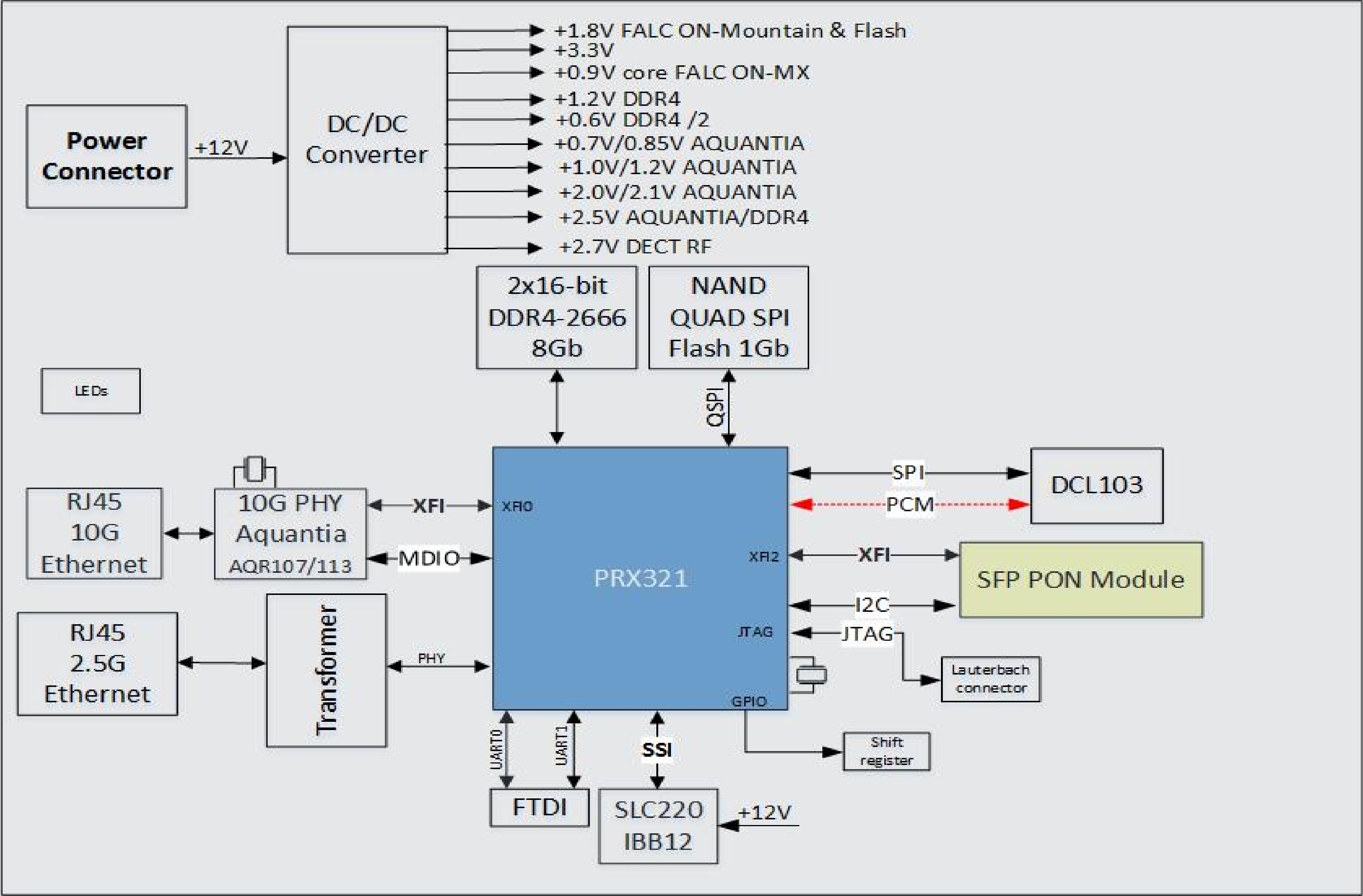
MaxLinear, the MaxLinear logo, and any MaxLinear trademarks, MxL, Full-Spectrum Capture, FSC, G.now, AirPHY, Puma, AnyWAN, and the MaxLinear logo are all on the products sold, are all trademarks of MaxLinear, Inc. or one of MaxLinear's subsidiaries in the U.S.A. and other countries. All rights reserved. Other company trademarks and product names appearing herein are the property of their respective owners.

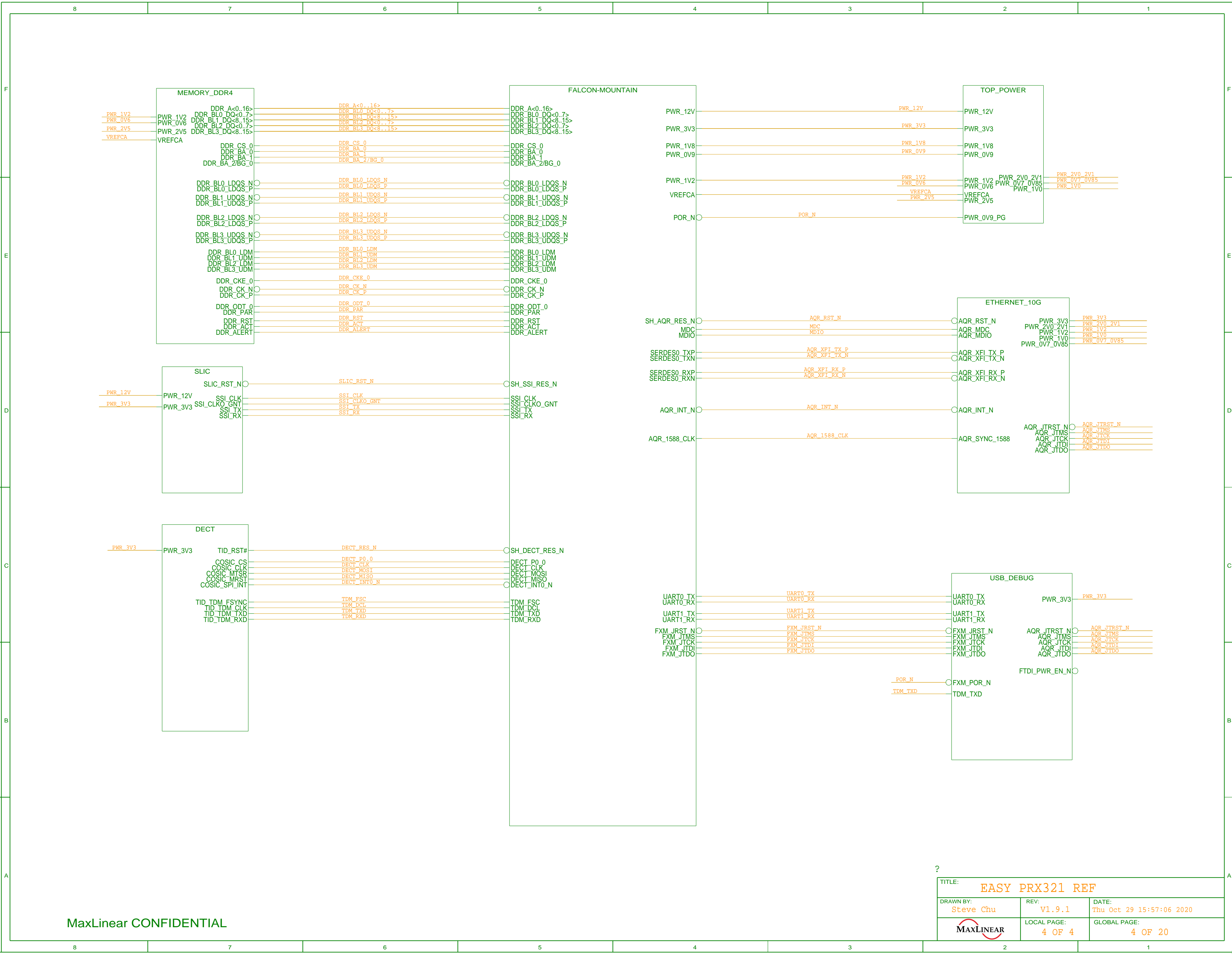
©2020 MaxLinear, Inc. All rights reserved.

MaxLinear, Inc.  
5966 La Place Court, Suite 100  
Carlsbad, CA 92008  
760.692.0711 p.  
760.444.8598 f.  
www.maxlinear.com

TITLE: EASY PRX321 REF		
DRAWN BY: Steve Chu	REV: V1.9.1	DATE: Thu Oct 29 17:01:08 2020
	LOCAL PAGE: 2 OF 4	GLOBAL PAGE: 2 OF 20

BLOCK DIAGRM OF BUSINESS SFU REFERENCE SYSTEM





[illegible]

MaxLinear CONFIDENTIAL




LOCAL PAGE:

1 OF 1

GLOBAL PAGE:

5 OF 20

<div>?</div> <div>TITLE: EASY PRX321 REF</div>		
<div>DRAWN BY: Steve Chu</div>	<div>REV: V1.9.1</div>	<div>DATE: Wed Sep 15 14:31:29 2021</div>
<div>  </div>	<div>LOCAL PAGE: 1 OF 1</div>	<div>GLOBAL PAGE: 5 OF 20</div>

[illegible]

POWER SUPPLY FOR FOR DDR4 SDRAM

The schematic diagram illustrates the power supply circuit for DDR4 SDRAM. It features three main regulators:

- TLV62085 (U5):** A switching regulator that takes PWR\_3V3 as input. It is configured with a 10uF capacitor (C24) at the input, a 499K resistor (R143) at the feedback, and a 0.47uH inductor (L2) at the output. The output is PWR\_1V2, which is also connected to PWR\_1V2\_PG. A 22uF capacitor (C25) is connected to the output.
- LP5900TL (U16):** An LDO regulator that takes PWR\_1V2 as input. It is configured with a 0.47uF capacitor (C129) at the input, a 44.2K resistor (R80) at the feedback, and a 0.47uF capacitor (C130) at the output. The output is PWR\_2V5.
- TPSS1206 (EU2):** An LDO regulator that takes PWR\_1V2 as input. It is configured with a 10uF capacitor (C127) at the input, a 10uF capacitor (C128) at the feedback, and a 10uF capacitor (C131) at the output. The output is PWR\_0V6.

The circuit also includes several other components and connections:

- Inputs:** PWR\_3V3, PWR\_1V2\_EN\_N, and PWR\_1V2\_PG.
- Outputs:** PWR\_1V2\_PG, PWR\_1V2, PWR\_2V5, and PWR\_0V6.
- Capacitors:** C24 (10uF), C25 (22uF), C129 (0.47uF), C130 (0.47uF), C127 (10uF), C128 (10uF), and C131 (10uF).
- Resistors:** R143 (499K), R79 (22.1K), and R80 (44.2K).
- Inductor:** L2 (0.47uH).


MaxLinear CONFIDENTIAL

TITLE: EASY PRX321 REF		
DRAWN BY: Steve Chu	REV: V1.9.1	DATE: Wed Sep 15 14:31:27 2021
MAXLINEAR	LOCAL PAGE: 1 OF 1	GLOBAL PAGE: 7 OF 20

MaxLinear CONFIDENTIAL

LOCAL PAGE: 3

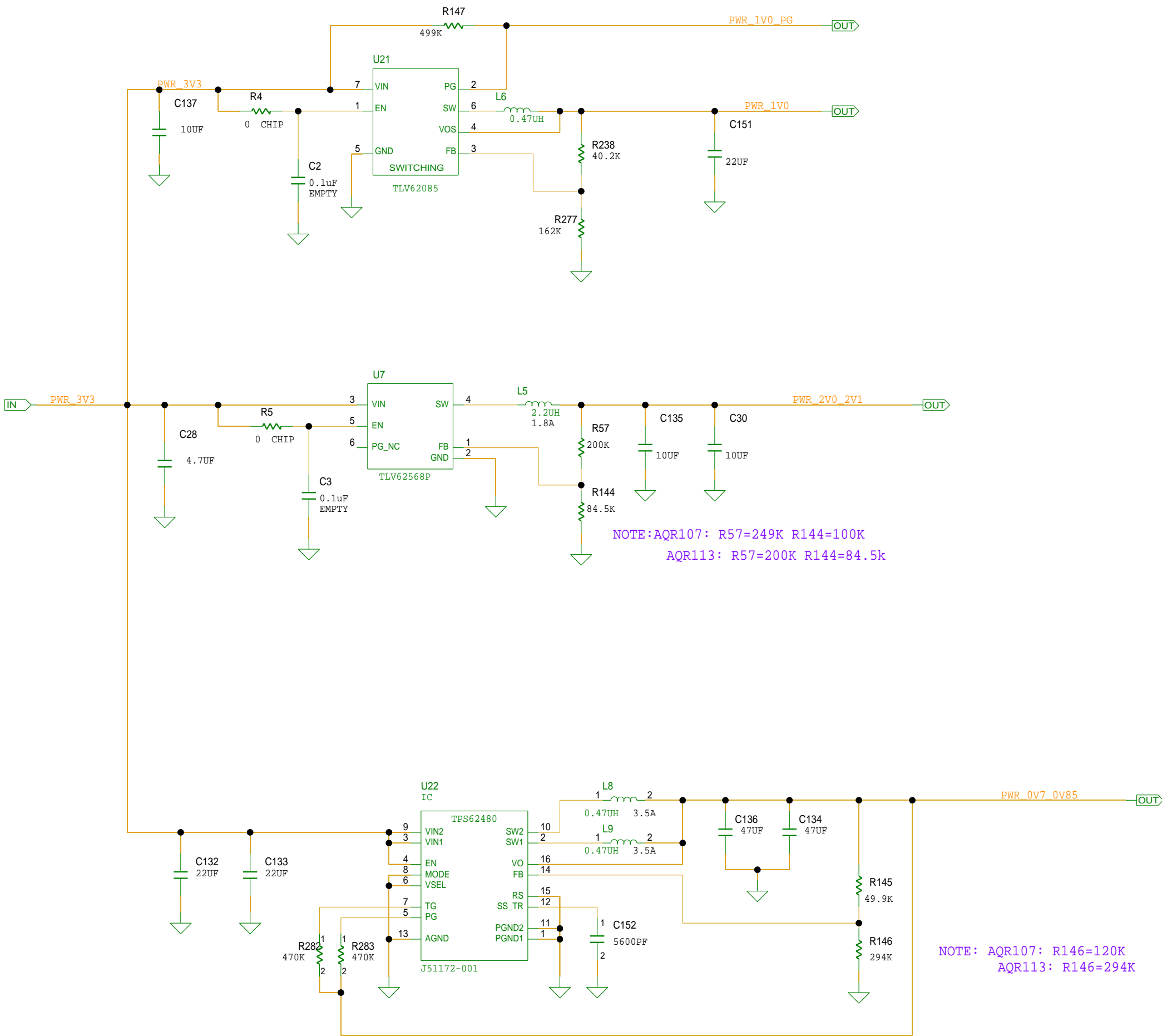
GLOBAL PAGE: 25 20

TITLE: <b>EASY PRX321 REF</b>		
DRAWN BY: <b>Steve Chu</b>	REV: <b>V1.9.1</b>	DATE: <b>Wed Sep 15 14:31:27 2021</b>
	LOCAL PAGE: <b>1 OF 1</b>	GLOBAL PAGE: <b>7 OF 20</b>

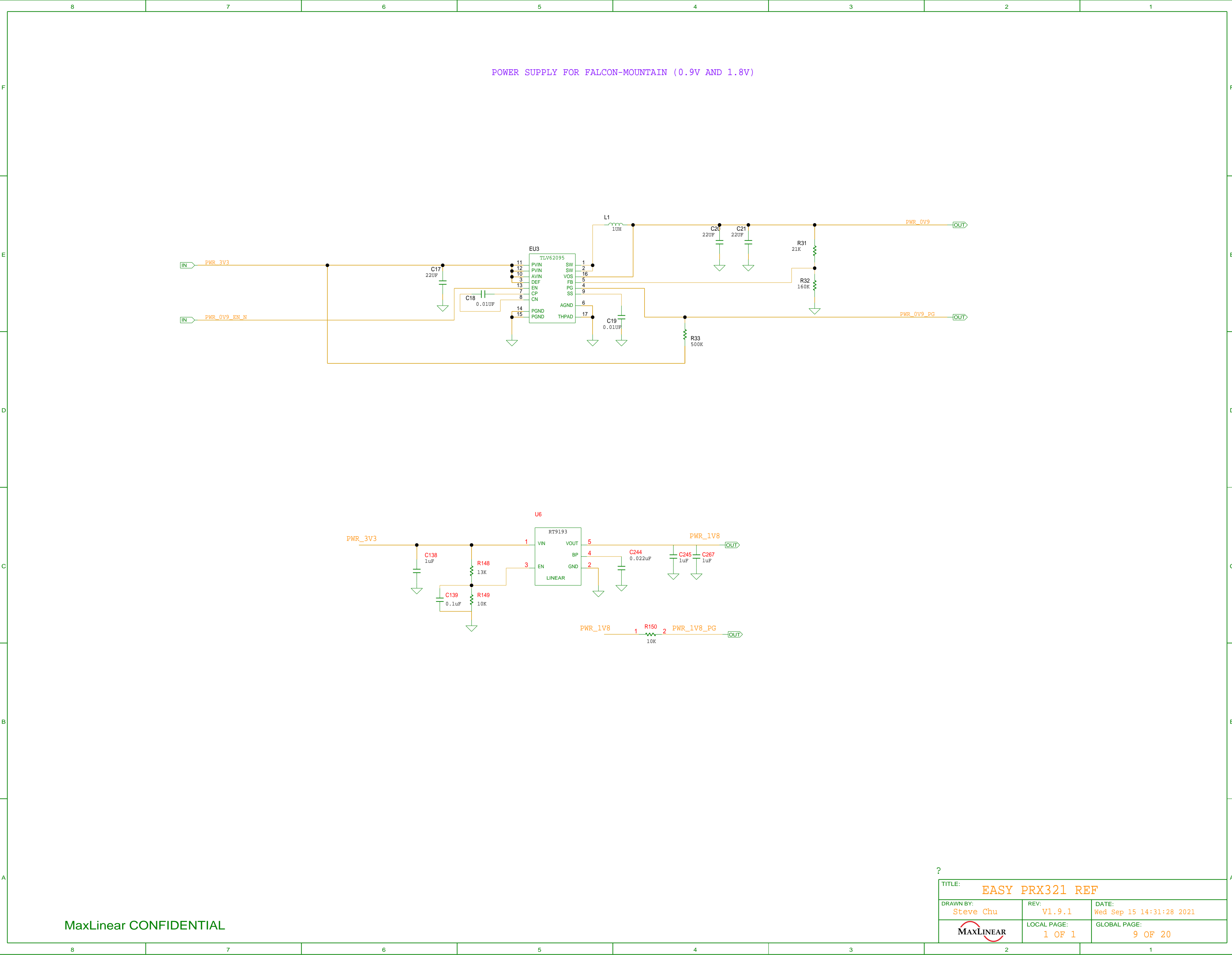


POWER SUPPLY FOR AQUANTIA PHY

All power rails must be enabled within 100ms. The 0.7V and 1.0V rails must come up first followed by 2.0V and 3.3V rails.

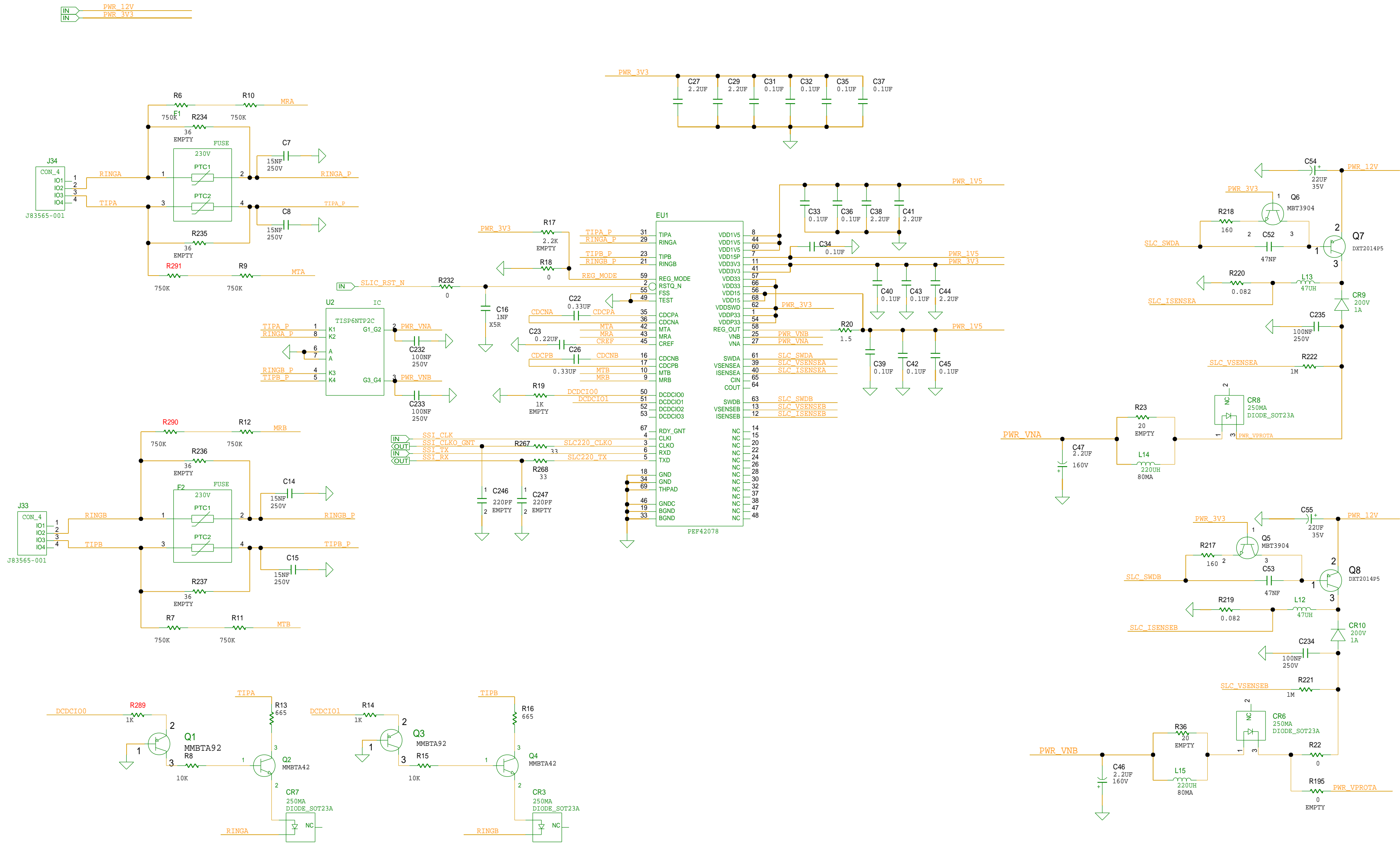




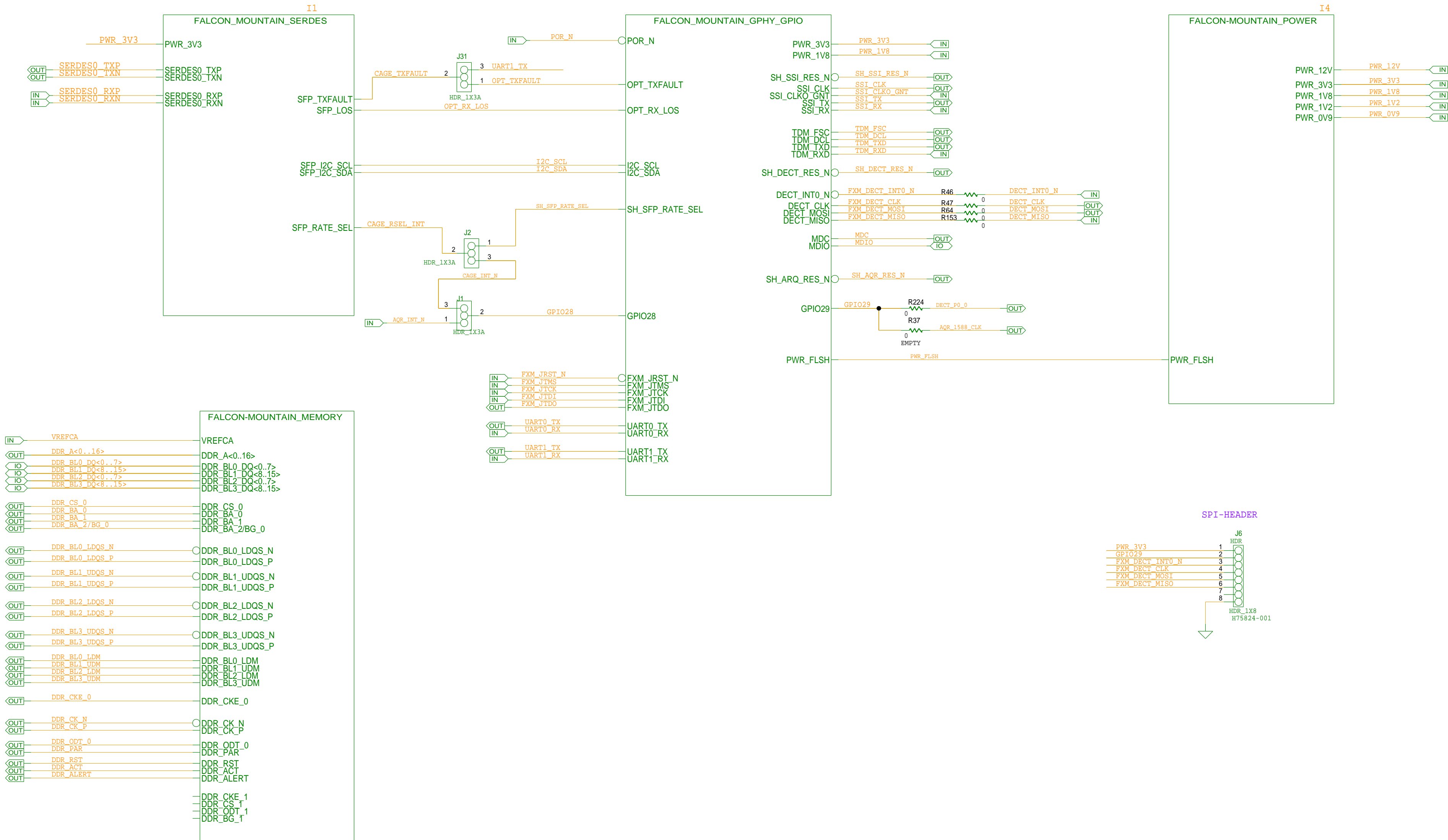




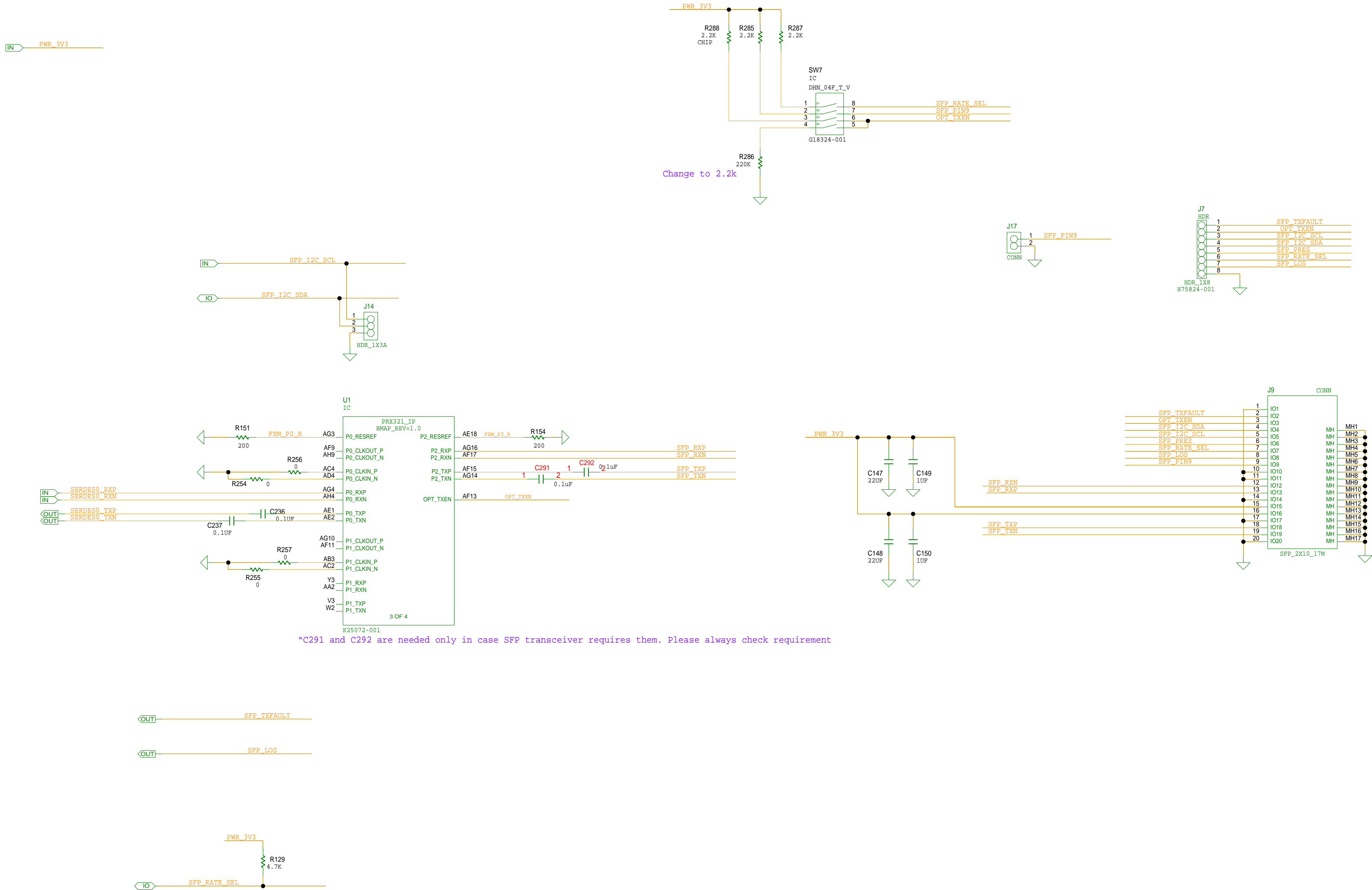
SLC220-IBB12/SLC220-CIBB12



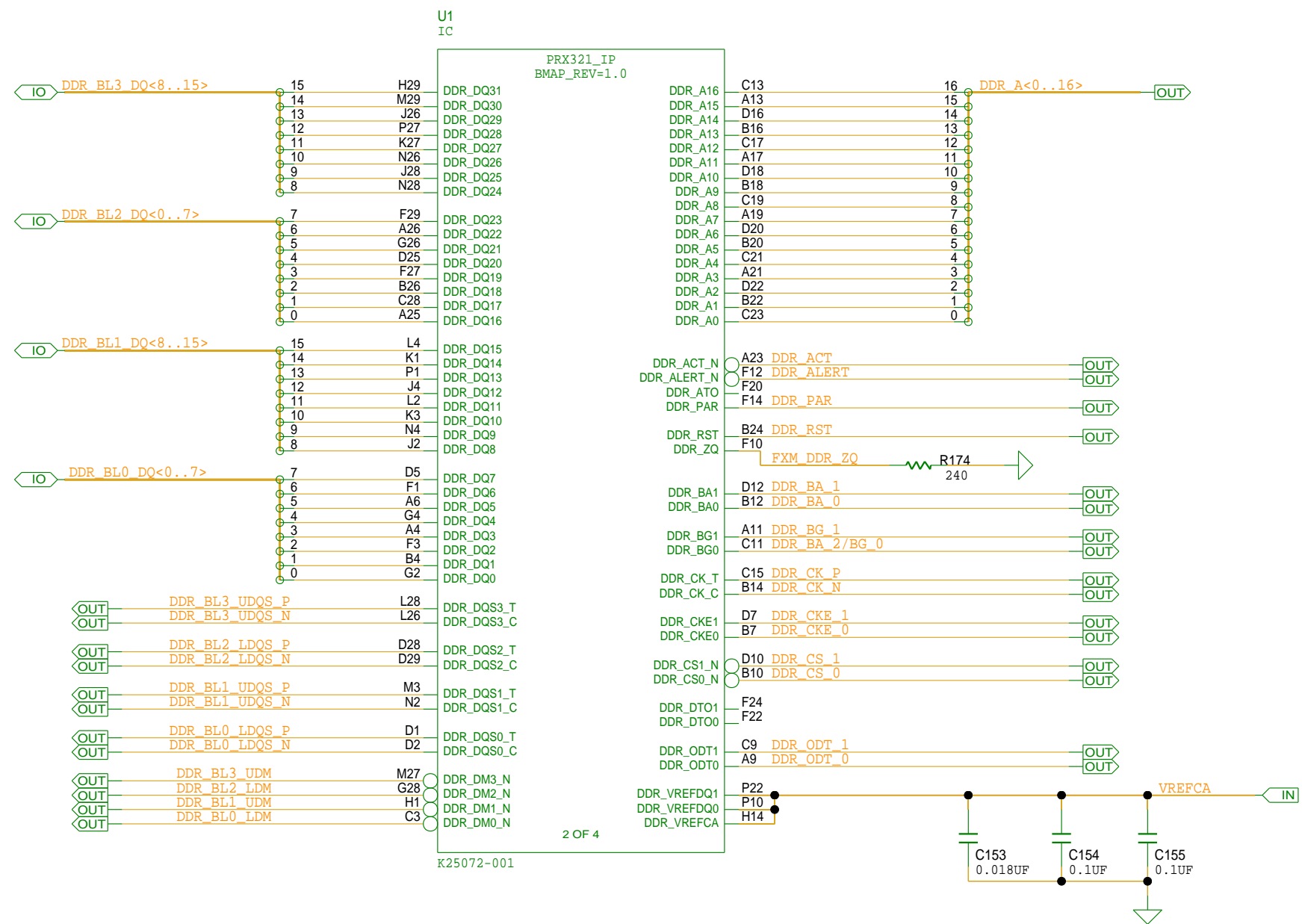
FALCON-MOUNTAIN TOP SHEET



FALCON-MOUNTAIN OPTICAL INTERFACE WITH SFP AND XFP

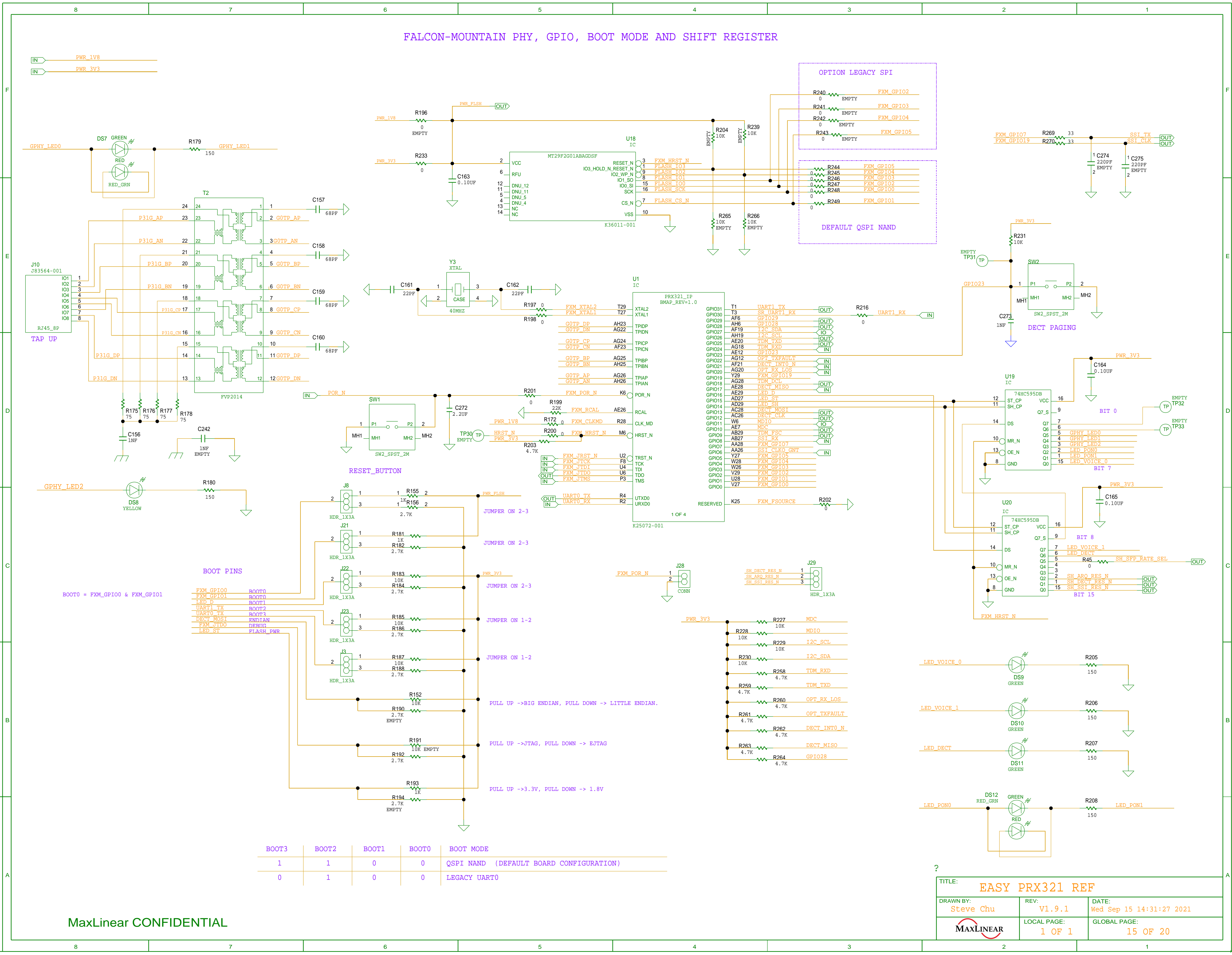


FALCON-MOUNTAIN DDR MEMORY INTERFACE



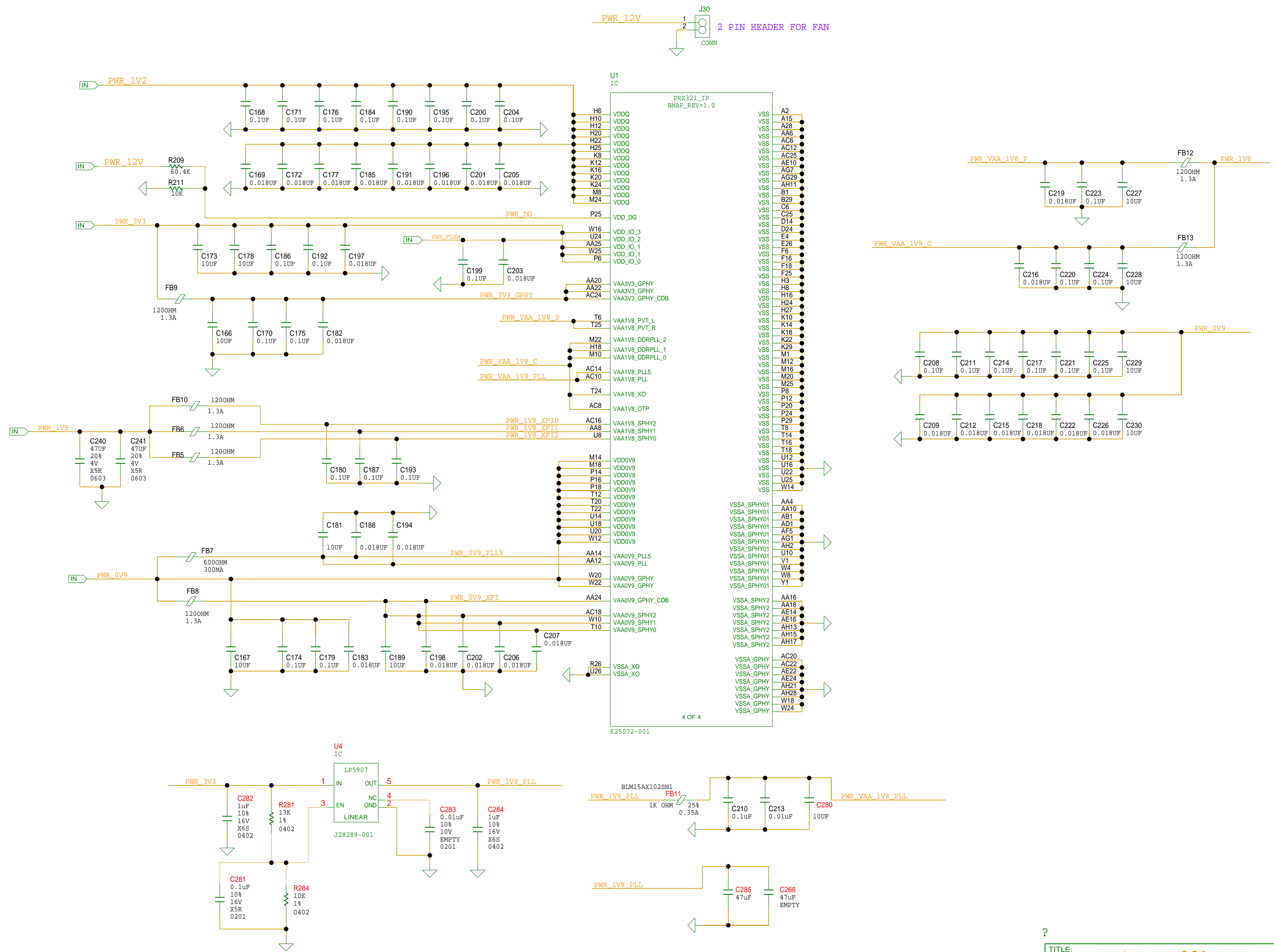


FALCON-MOUNTAIN PHY, GPIO, BOOT MODE AND SHIFT REGISTER

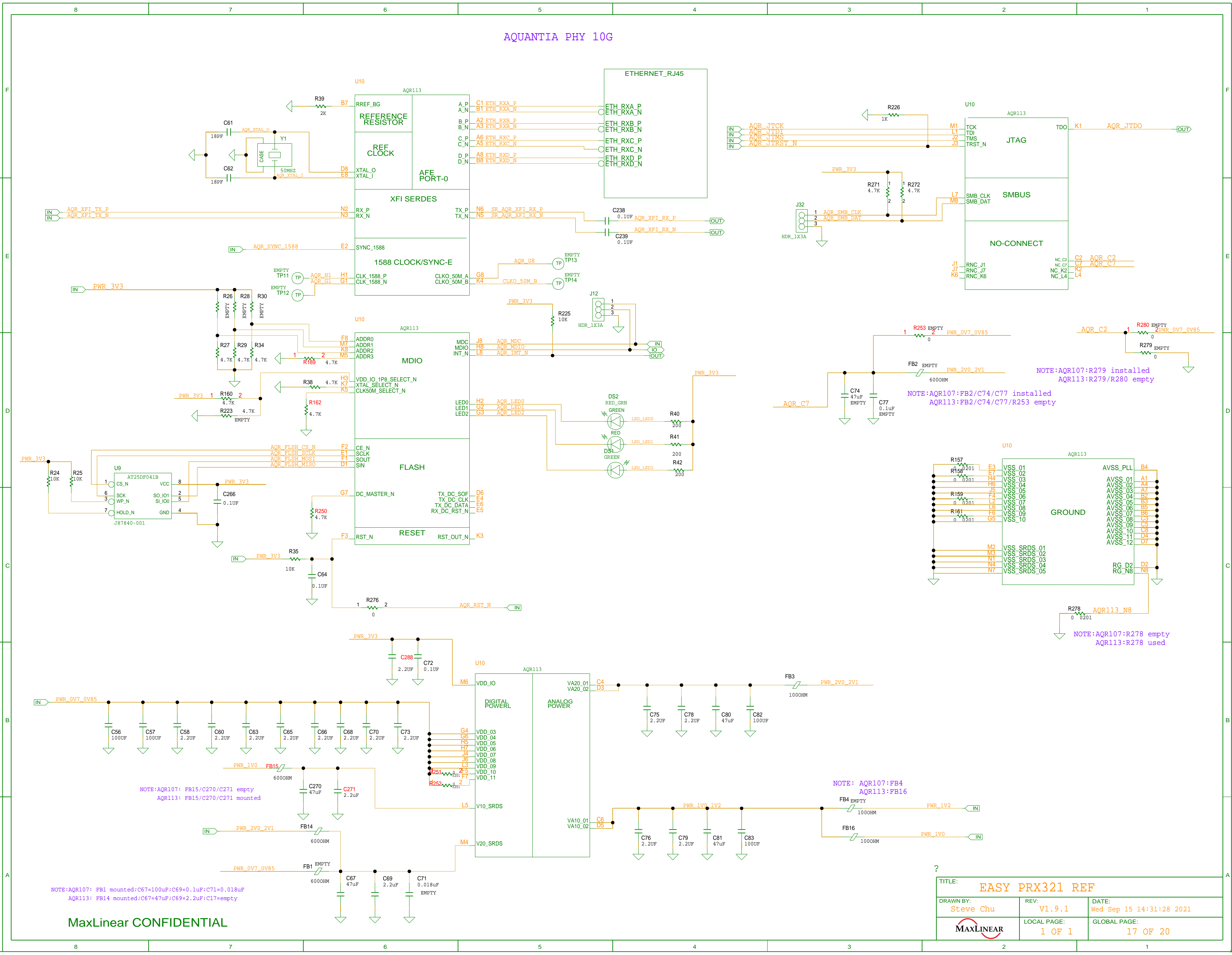




FALCON-MOUNTAIN POWER SUPPLY

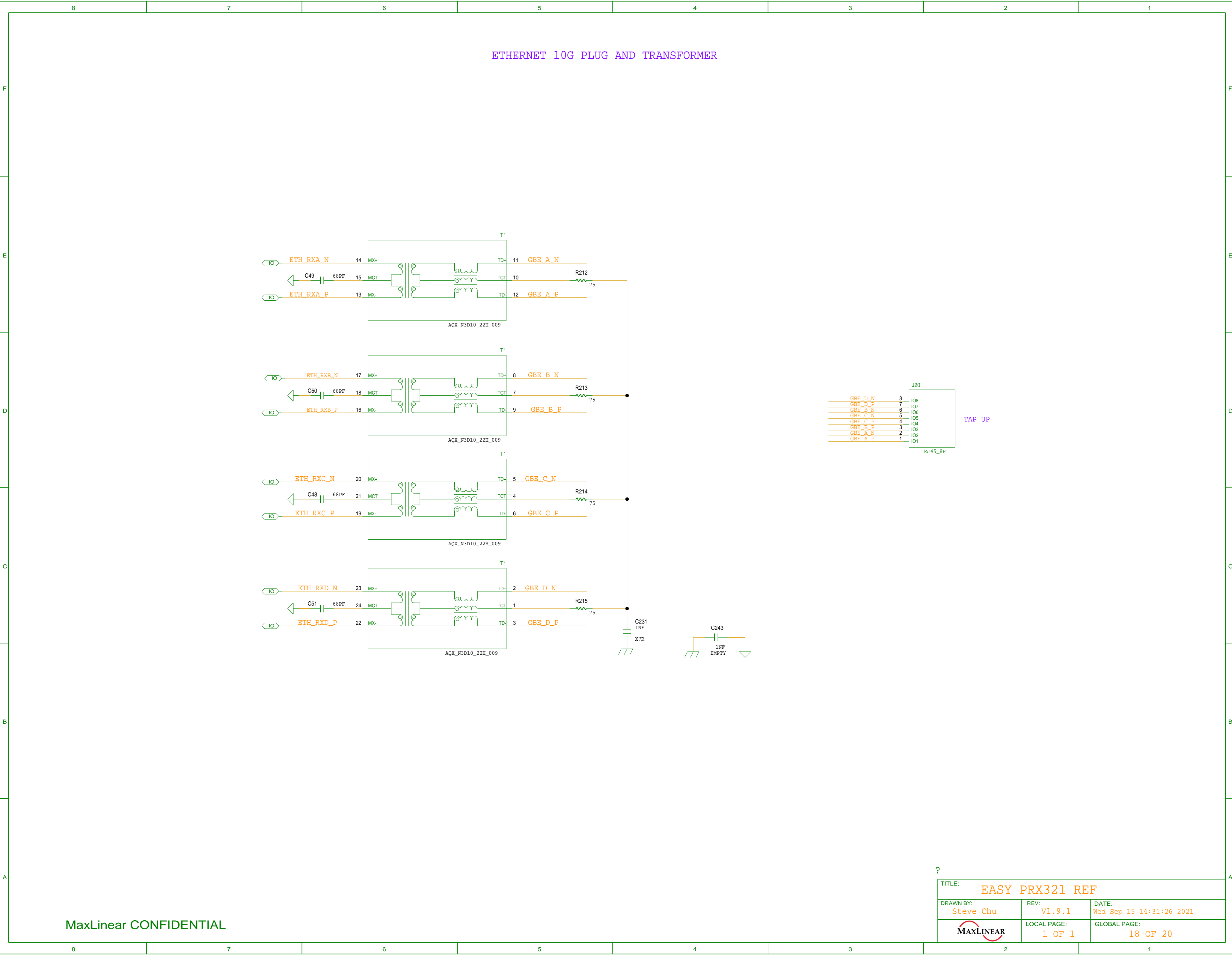


# AQUANTIA PHY 10G

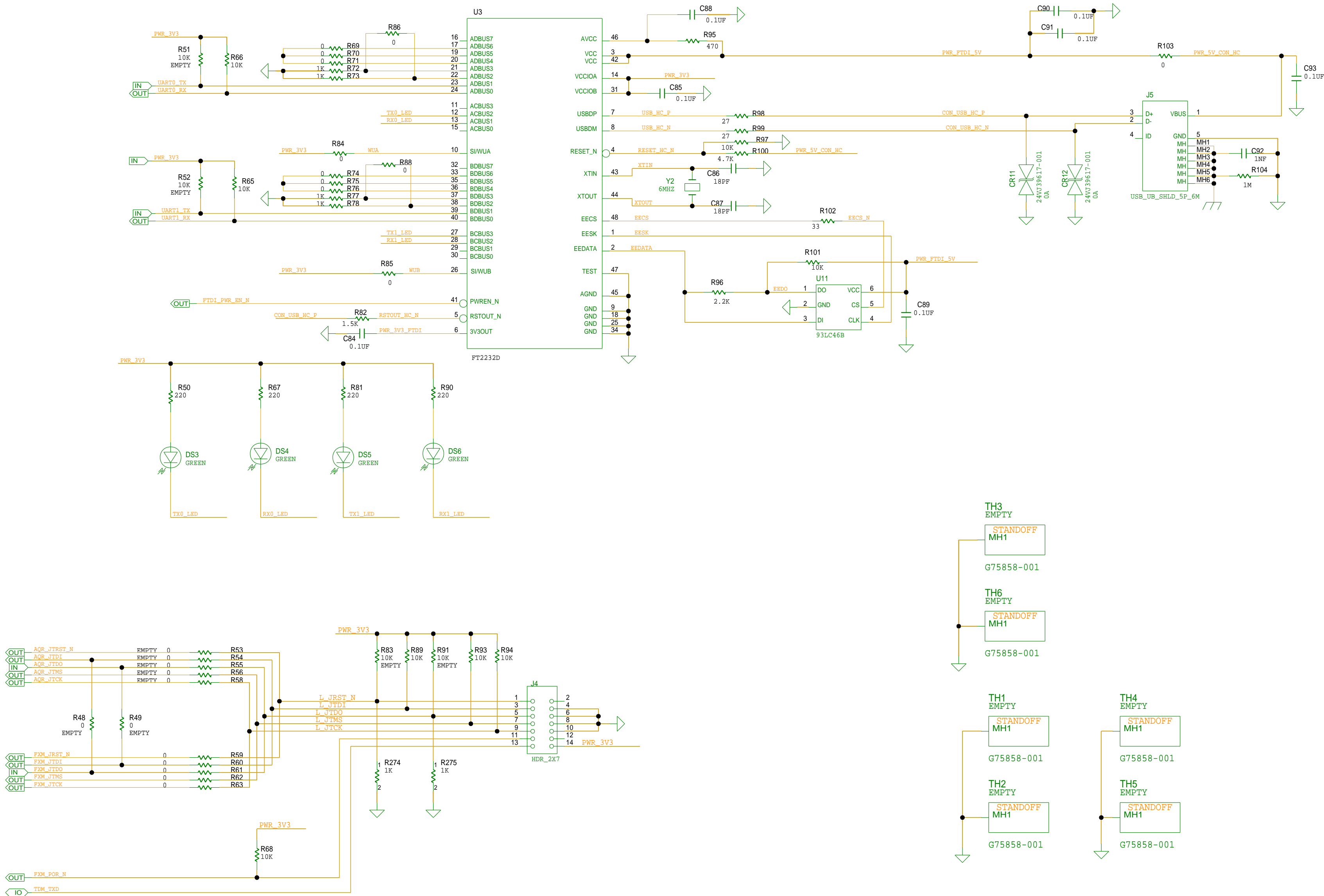


MaxLinear CONFIDENTIAL

TITLE: EASY PRX321 REF		
DRAWN BY: Steve Chu	REV: V1.9.1	DATE: Wed Sep 15 14:31:28 2021
MAXLINEAR	LOCAL PAGE: 1 OF 1	GLOBAL PAGE: 17 OF 20



2 X UART TO USB AND LAUTERBACH DEBUG CONNECTOR



2X DDR4 SDRAM

