

redpitaya

Red Pitaya d.o.o.
Velika pot 22
5250 Solkan
Slovenia

www.redpitaya.com

Electrical schematics for:

name: Red Pitaya
version: V1.0.1
variant: Release1

Copyright 2014, Red Pitaya d.o.o. All Rights Reserved.

By exception, this version of document may be freely reproduced, distributed, republished, displayed, posted, transmitted or copied in any form or by any means, as is without modifications in its contents, without the prior written permission of Red Pitaya d.o.o.

Red Pitaya and the Red Pitaya logo are registered trademarks of Red Pitaya d.o.o. All trademarks and trade names are the properties of their respective owners and Red Pitaya d.o.o. disclaims any proprietary interest or right in trademarks, service marks and trade names other than its own.

Red Pitaya is not responsible for typographical or other errors or omissions or for direct, indirect, incidental or consequential damages related to this material or resulting from its use.

Red Pitaya makes no warranty or representation respecting this material, which is provided on an "AS IS" basis.

RED PITAYA HEREBY DISCLAIMS ALL WARRANTIES OR LIABILITY OF ANY KIND WITH RESPECT THERETO, INCLUDING, WITHOUT LIMITATION, REPRESENTATIONS REGARDING ACCURACY AND COMPLETENESS, ALL IMPLIED WARRANTIES AND CONDITIONS OF MERCHANTABILITY, SUITABILITY OR FITNESS FOR A PARTICULAR PURPOSE, TITLE AND/OR NON-INFRINGEMENT.

This material is not designed, intended or authorized for use in any applications in which the failure of the product could result in personal injury, death or property damage.

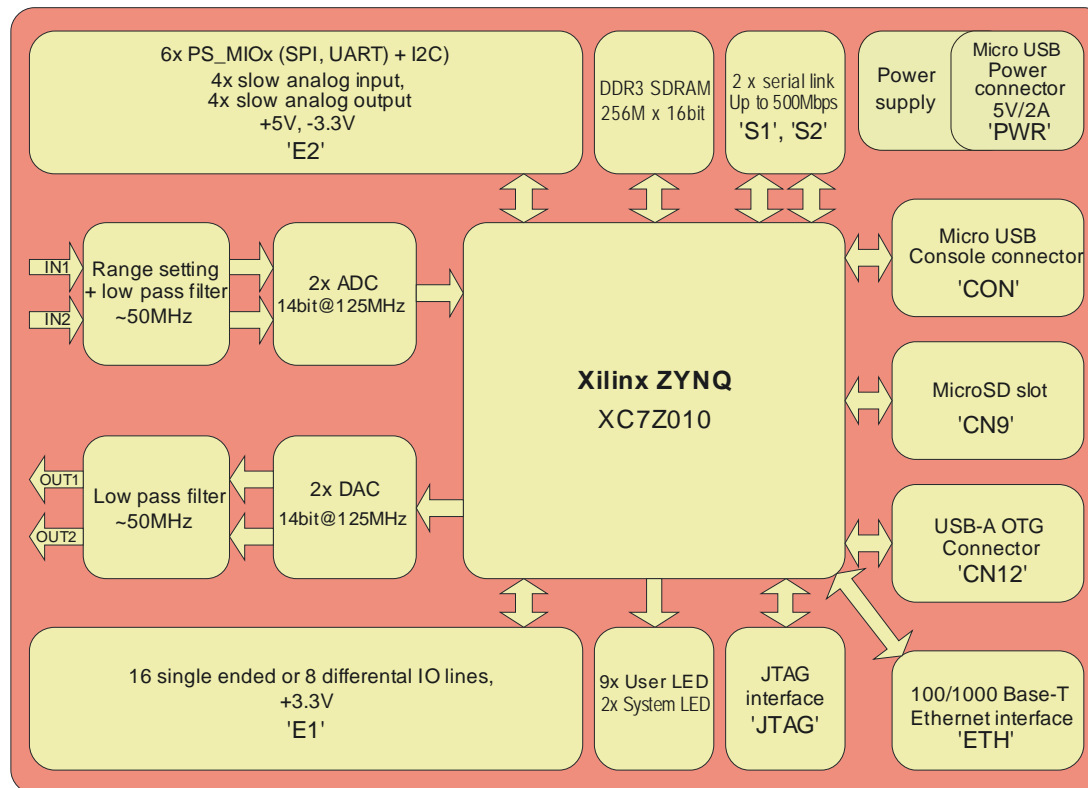
Any party using or selling products for use in any such applications do so at their sole risk and agree that Red Pitaya is not liable, in whole or in part, for any claim or damage arising from such use, and agree to fully indemnify, defend and hold harmless Red Pitaya from and against any and all claims, damages, loss, cost, expense or liability arising out of or in connection with the use or performance of products in such applications.

Designer:	B.B., B.R., Z.L.	Document:	Red_Pitaya_Schematics_v1.0.1	Sheet 1 of 9
Drawn By:	Z.L.	Modif. Date:	6.3.2014	SCHEMATIC
Approved By:	R.U.	Print Date:	6.3.2014	Size: A4 H

Red Pitaya



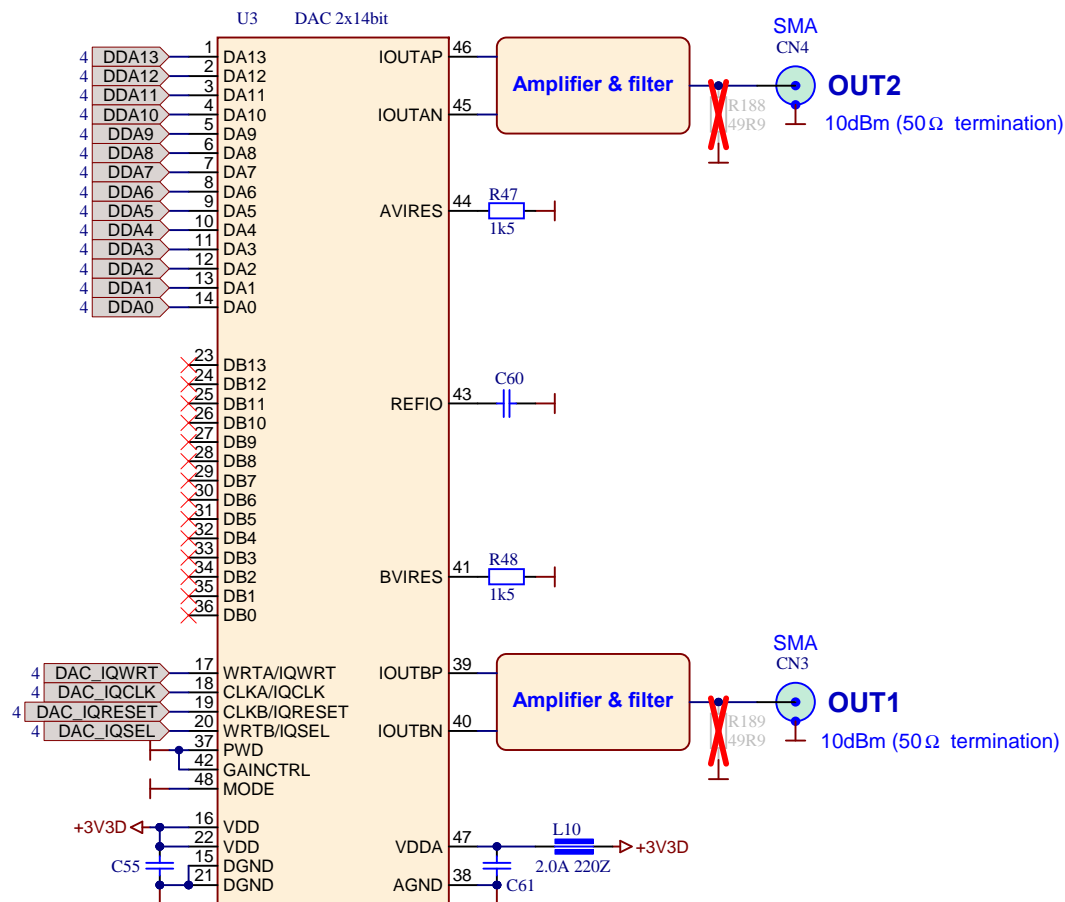
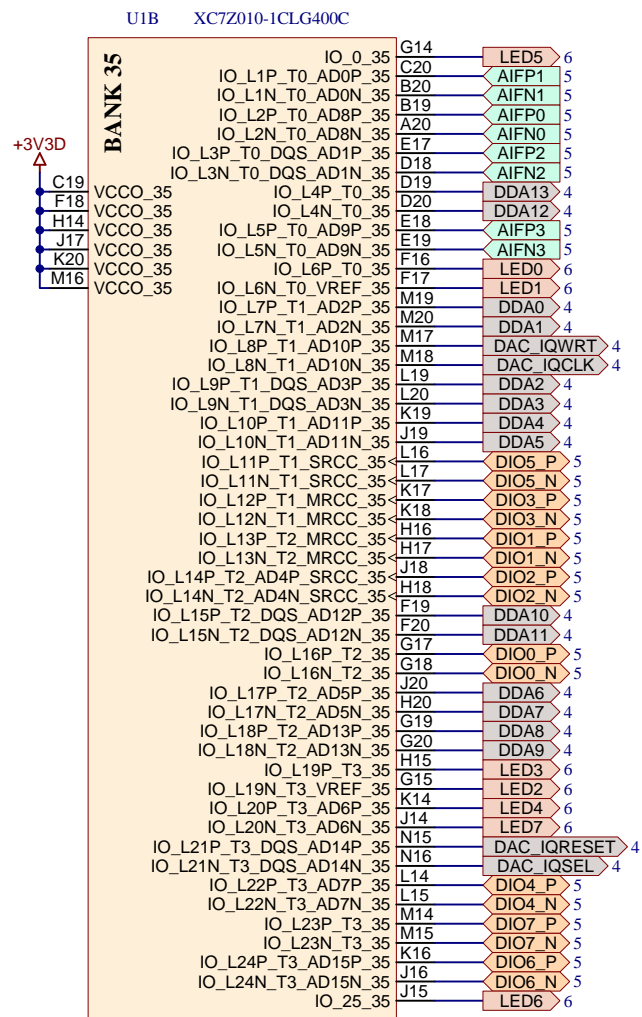
redpitaya



Designer: B.B., B.R., Z.L.	Document: Red_Pitaya_Schematics_v1.0.1	Sheet 2 of 9
Drawn By: Z.L.	Modif. Date: 6.3.2014	SCHEMATIC
Approved By: R.U.	Print Date: 6.3.2014	Size: A4 H

Red Pitaya v1.0 block schematics





Designer: B.B., B.R., Z.L.
Drawn By: Z.L.
Approved By: R.U.

Document: Red_Pitaya_Schematics_v1.0.1
Modif. Date: 6.3.2014
Print Date: 6.3.2014

Sheet 4 of 9
SCHEMATIC
Size: A4 H

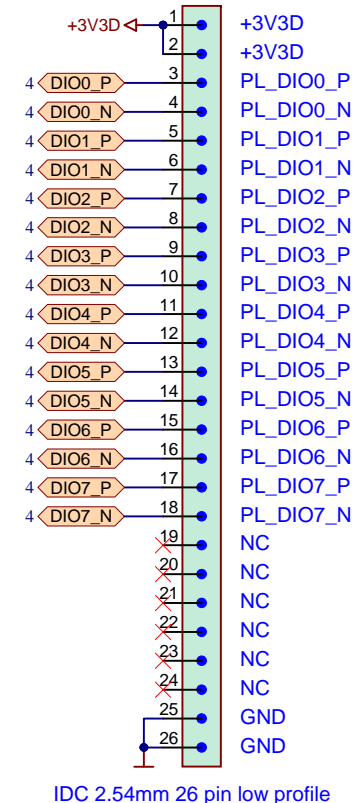
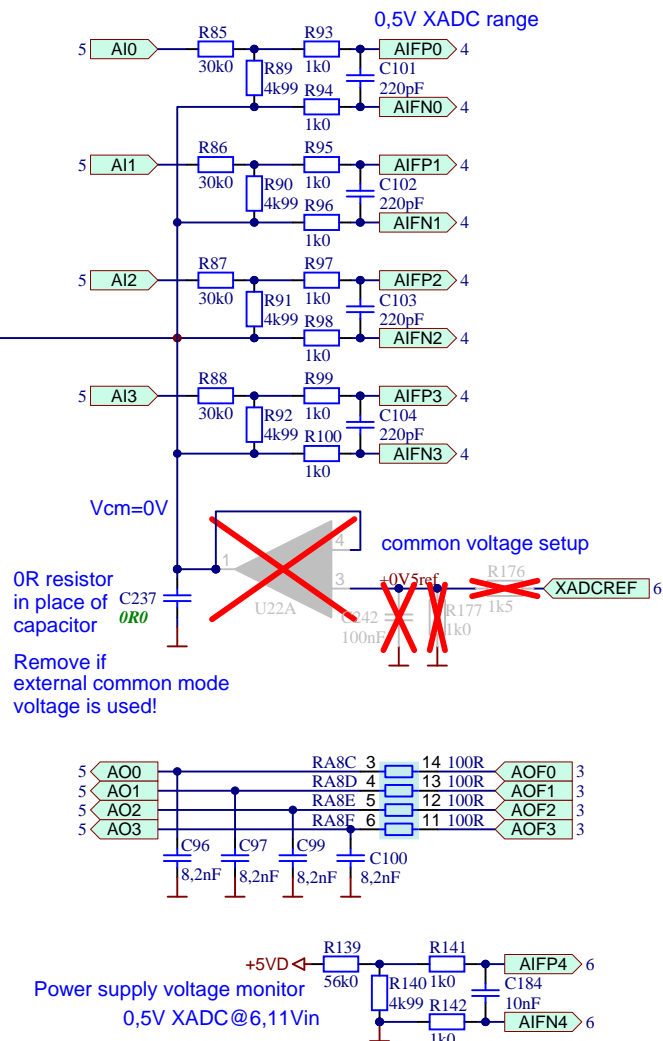
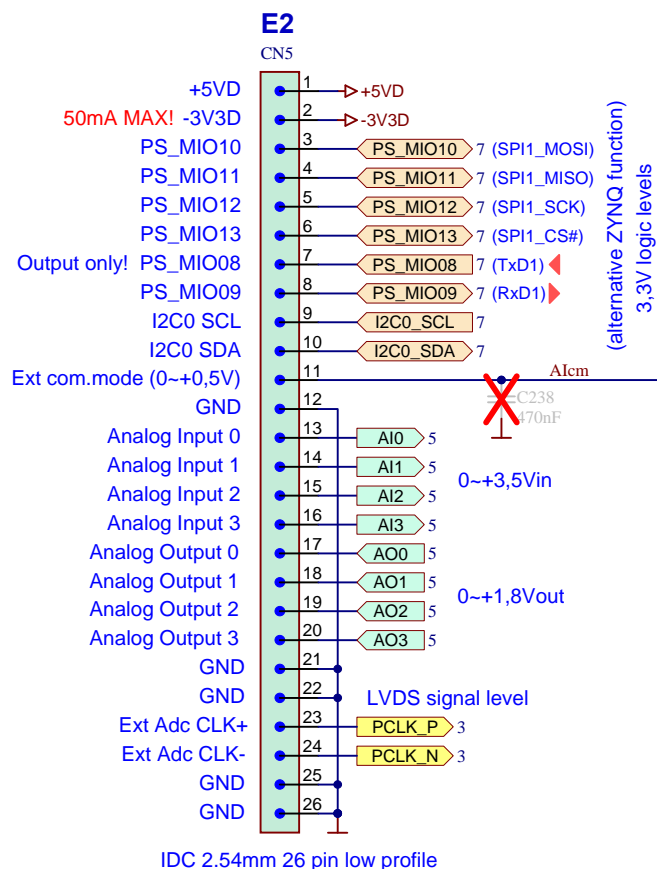


Analog back-end and digital-analog converter, FPGA bank 35

Note: number next to port symbol indicates the sheet where the signal is connected

PS_MIO08 is output only and at power-up must be low level (no external pull-ups)!

16 single ended or
8 differential digital I/O
with 3,3V logic levels

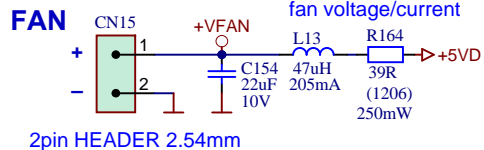
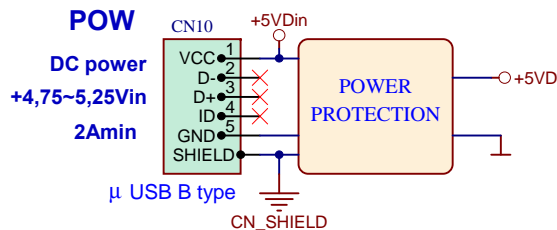


Designer: B.B., B.R., Z.L.	Document: Red_Pitaya_Schematics_v1.0.1	Sheet 5 of 9
Drawn By: Z.L.	Modif. Date: 6.3.2014	SCHEMATIC
Approved By: R.U.	Print Date: 6.3.2014	Size: A4 H

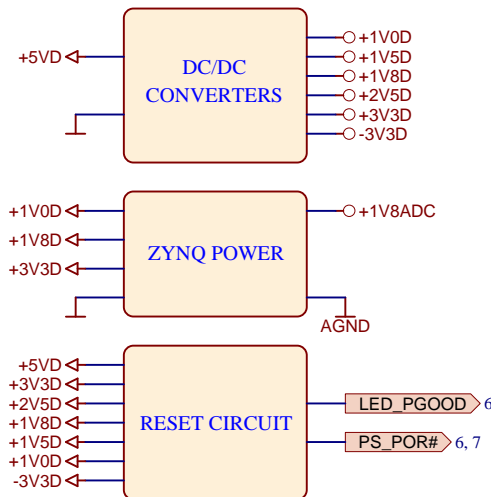
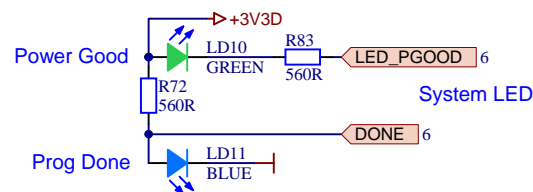
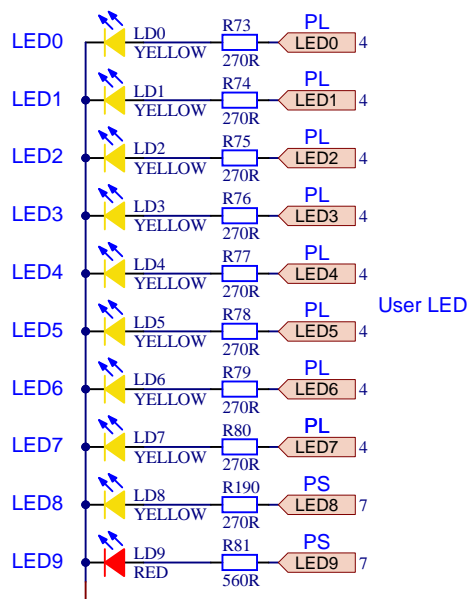
Note: number next to port symbol indicates the sheet where the signal is connected

I/O digital, I/O slow analog, Extension connectors

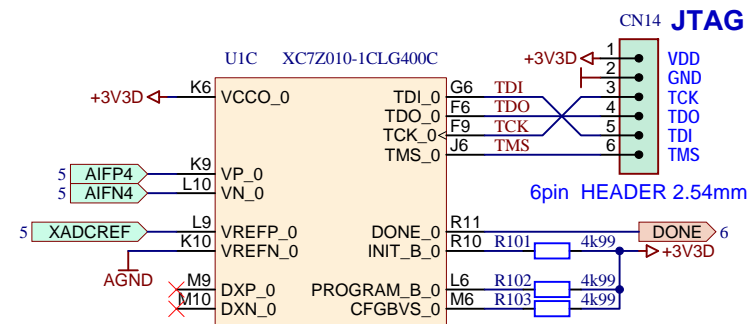
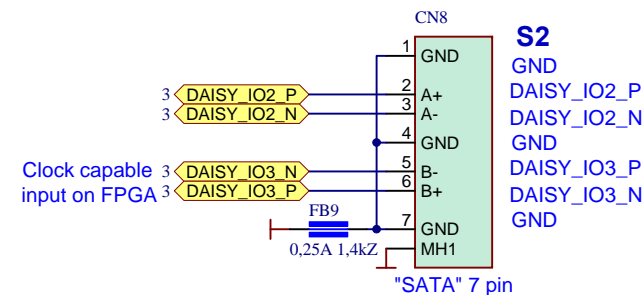
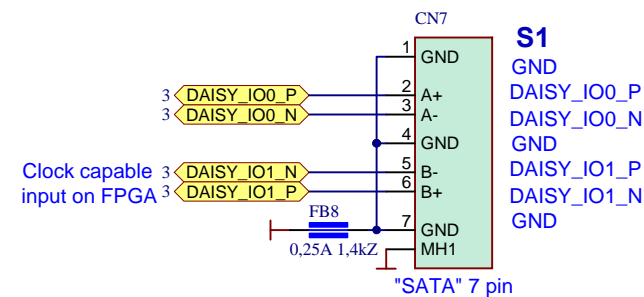
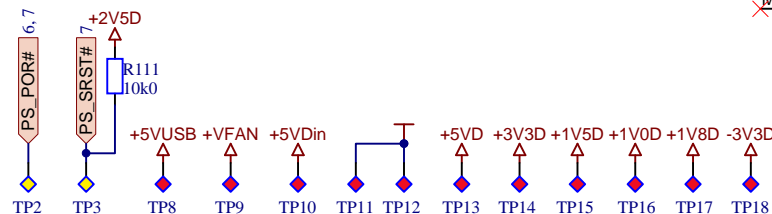




R164 defined for fan 3,3V 40mA,
change resistance for different
fan voltage/current



All power supply voltages must be within tolerances
to activate Power Good and Power-On Reset signal

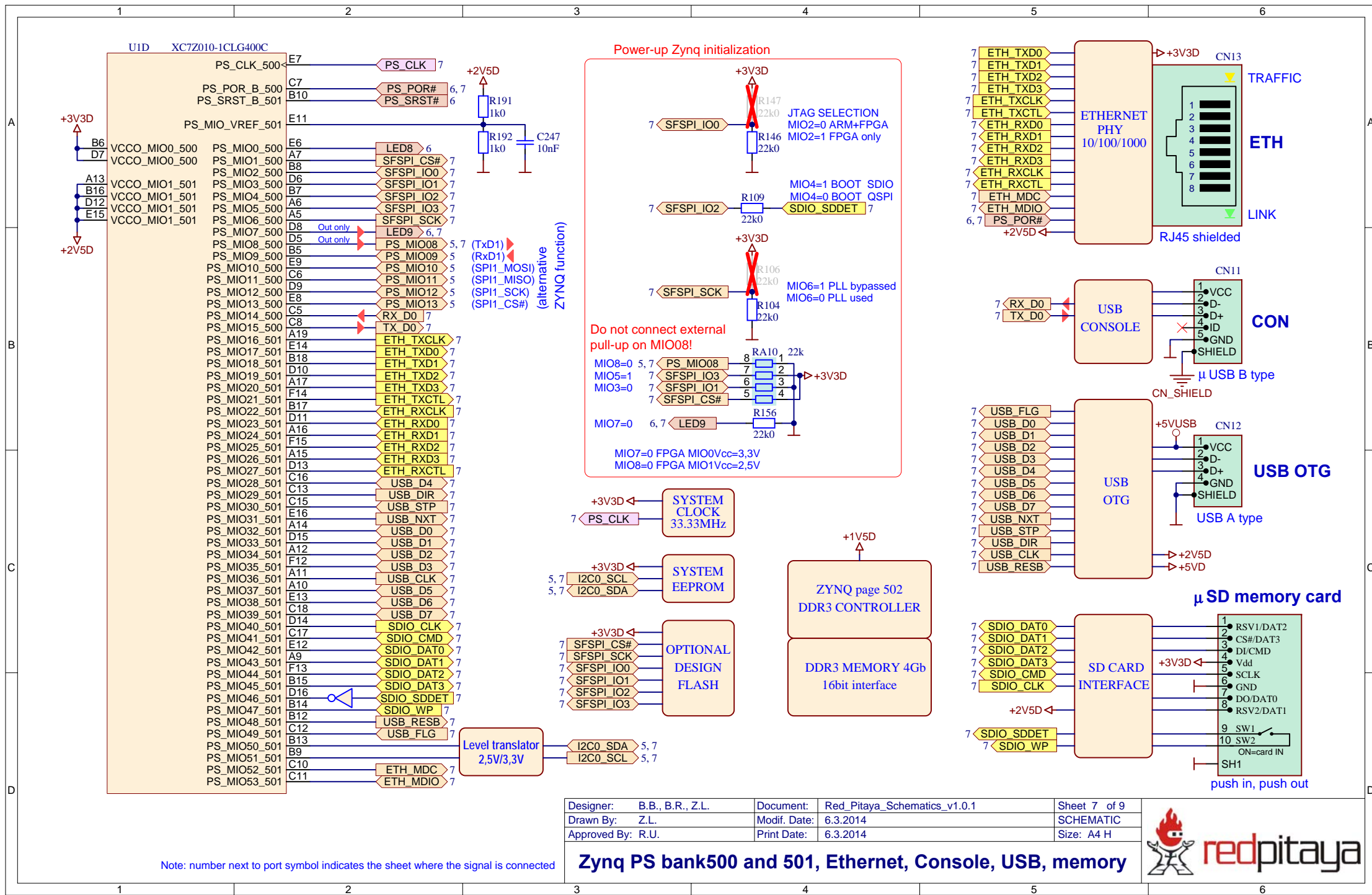


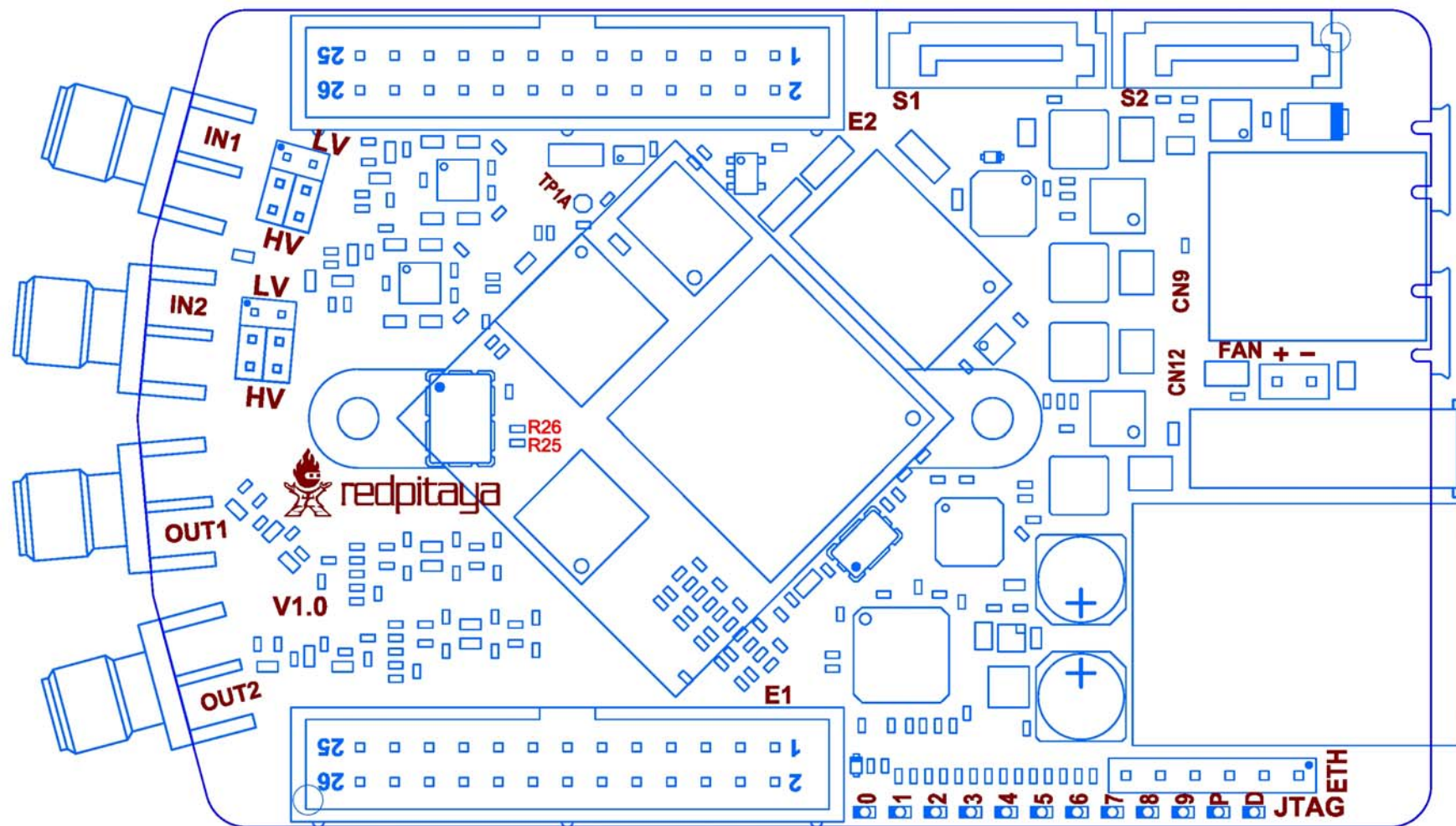
Designer: B.B., B.R., Z.L.	Document: Red_Pitaya_Schematics_v1.0.1	Sheet 6 of 9
Drawn By: Z.L.	Modif. Date: 6.3.2014	SCHEMATIC
Approved By: R.U.	Print Date: 6.3.2014	Size: A4 H

LED, Power, Fan, Serial I/O, JTAG, testpoints



Note: number next to port symbol indicates the sheet where the signal is connected

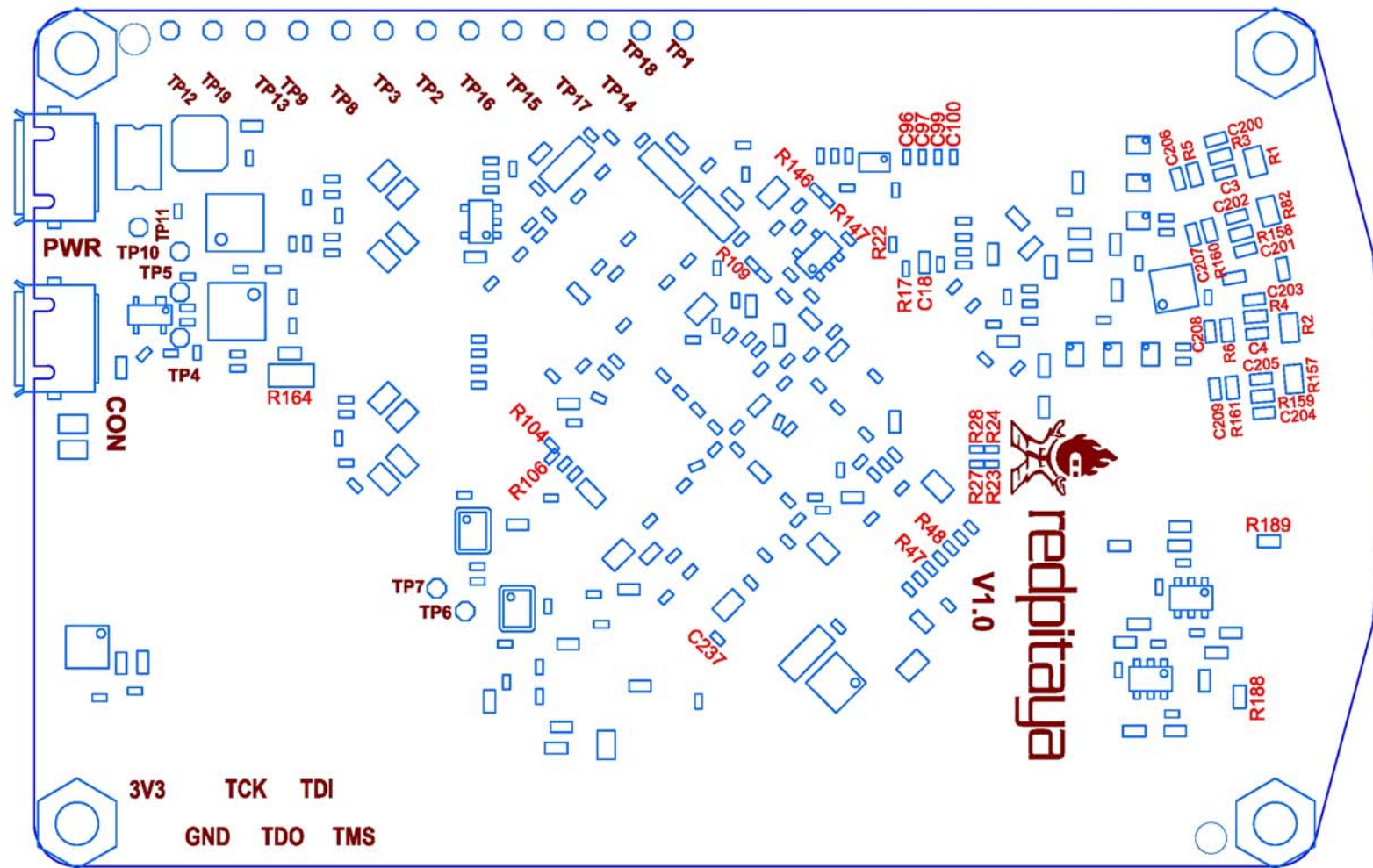




Designer: B.B., B.R., Z.L.	Document: Red_Pitaya_Schematics_v1.0.1	Sheet 8 of 9
Drawn By: Z.L.	Modif. Date: 6.3.2014	SCHEMATIC
Approved By: R.U.	Print Date: 6.3.2014	Size: A4 H

Top Assembly





Designer: B.B., B.R., Z.L.	Document: Red_Pitaya_Schematics_v1.0.1	Sheet 9 of 9
Drawn By: Z.L.	Modif. Date: 6.3.2014	SCHEMATIC
Approved By: R.U.	Print Date: 6.3.2014	Size: A4 H

Bottom Assembly

