

P-ROC

Pinball - Remote Operations Controller
Revision 3.0

Designed by Gerry Stellenberg

This board is designed to control the real-time signals on a pinball machine. An FPGA handles the logic functions and communicates with a host over USB. Major circuits include:

- Direct Switch Inputs
- Switch Matrix
- Burst Switch Drivers/Inputs
- Direct Output Drivers
- Multiplexed Output Drivers

This board is compatible with WPC, WPC-95, Stern Whitestar, and Stern S.A.M. systems and acts as a replacement for the CPU board in those systems.

Page 1:
Description
Page Summaries
Power Supplies

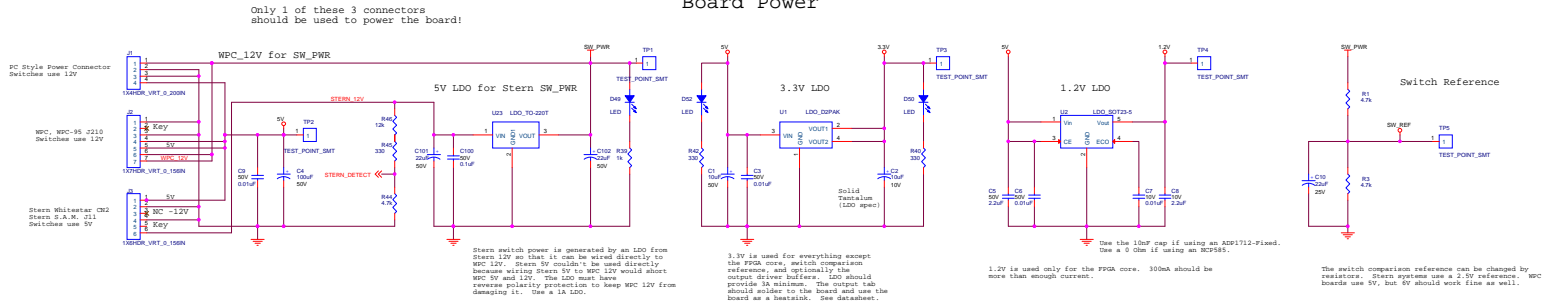
Page 2:
Direct Switch Inputs
0-15
Stern Switch Matrix
Column Inputs [8-15]

Page 3:
Direct Switch Inputs
16-31

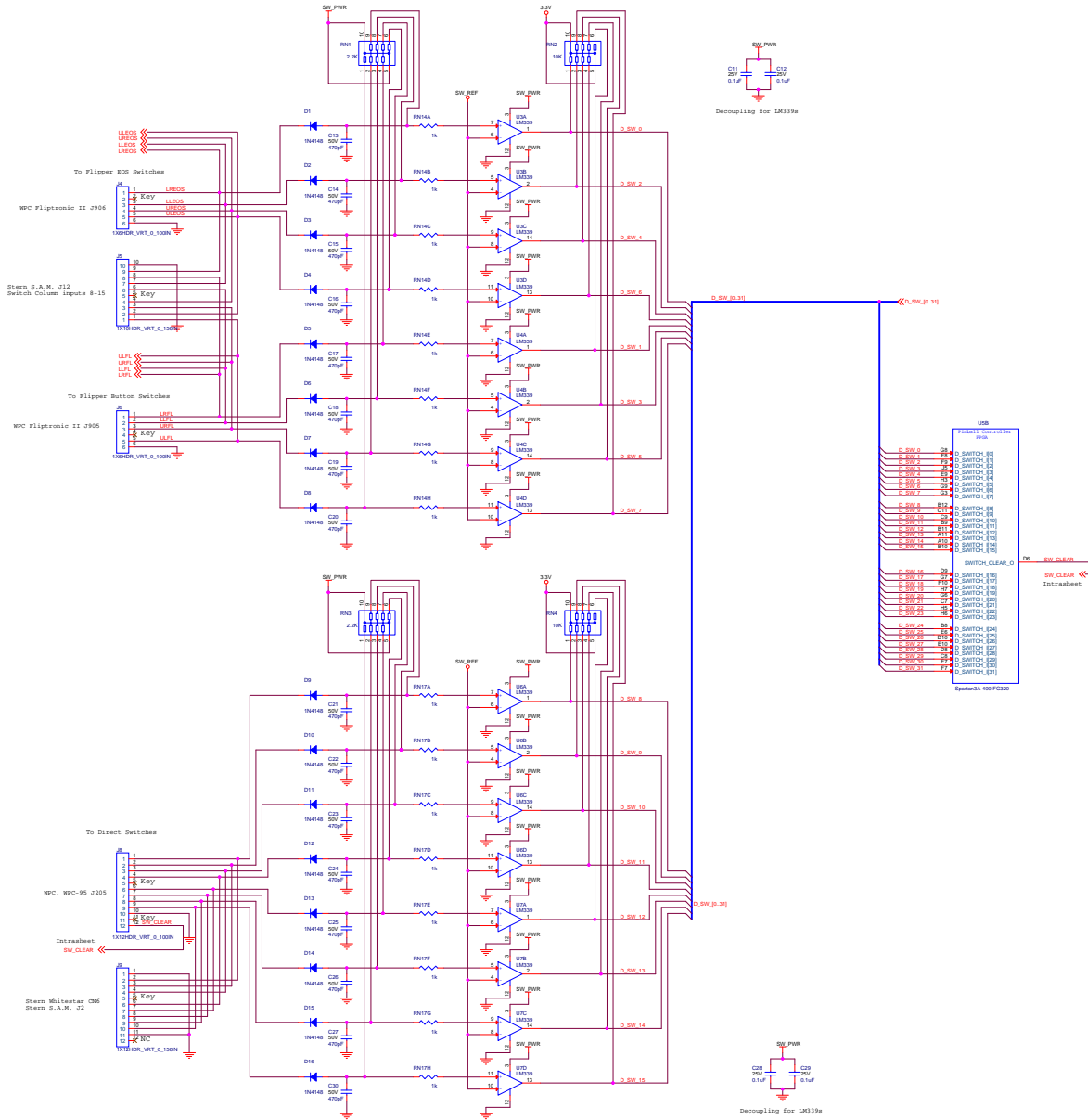
Page 4:
Switch Matrix
Burst Switch Inputs
Burst Switch Outputs

Page 5:
USB
Direct Output Drivers
Muxed Output Drivers
FPGA - Miscellaneous
FPGA Power

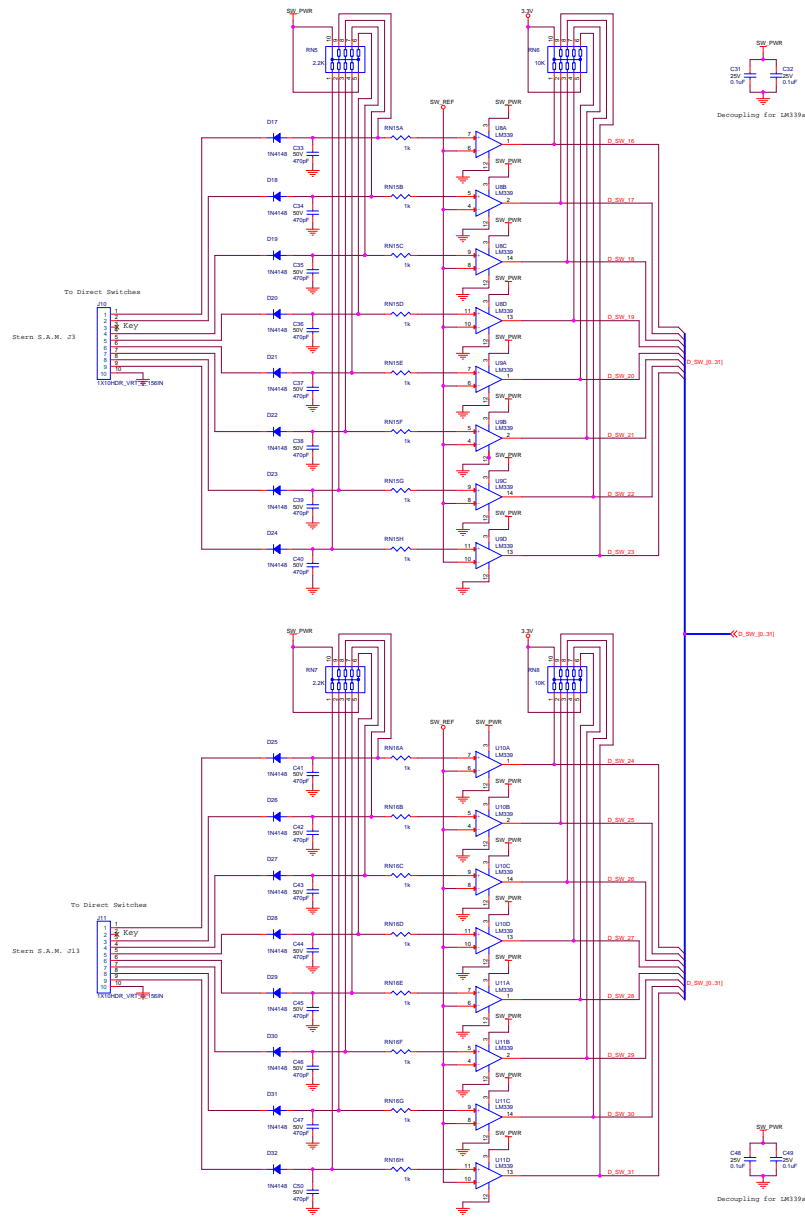
Board Power



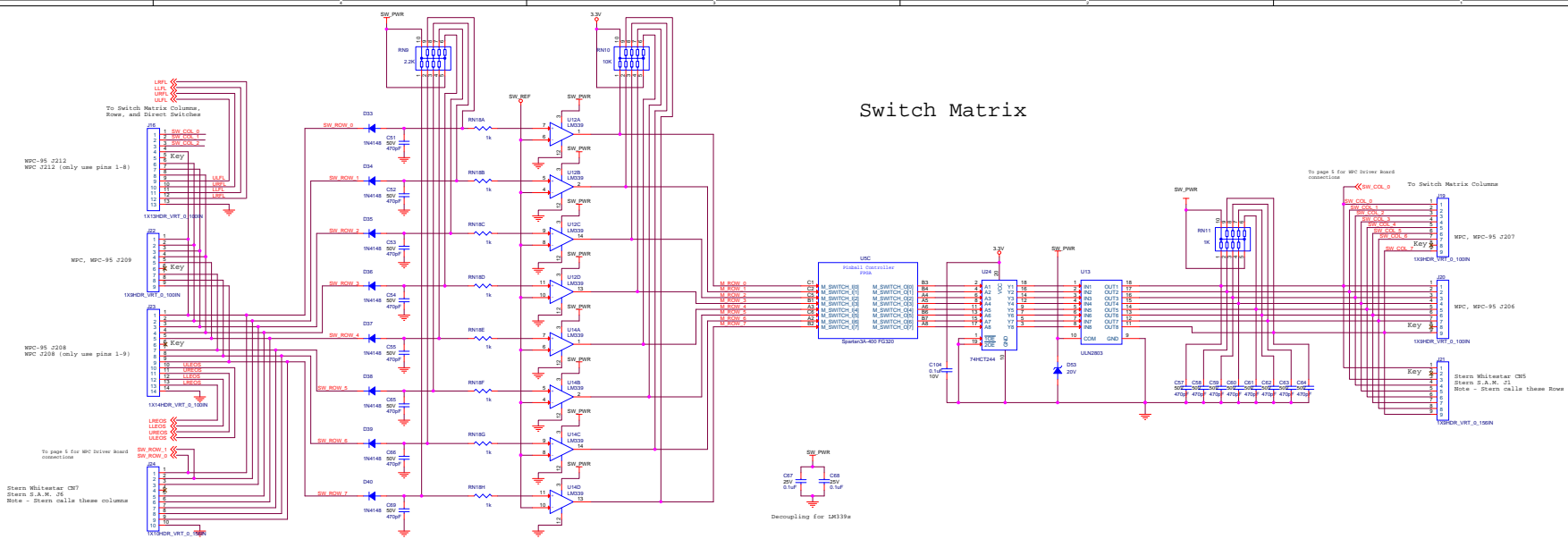
Direct Switch Inputs 0-15



Direct Switch
Inputs 16-31



Switch Matrix



To Switch Matrix Columns, Rows, and Drive Switches

WPC-95 J212
WPC-2212 (only use pins 1-8)

14339CHR_VRT_d_100N

WPC, WPC-95 J209

14339CHR_VRT_d_100N

WPC-95 J208
WPC-2208 (only use pins 1-9)

14339CHR_VRT_d_100N

To page 1 for WPC driver board connections

14339CHR_VRT_d_100N

WPC, WPC-95 J207

14339CHR_VRT_d_100N

WPC, WPC-95 J206

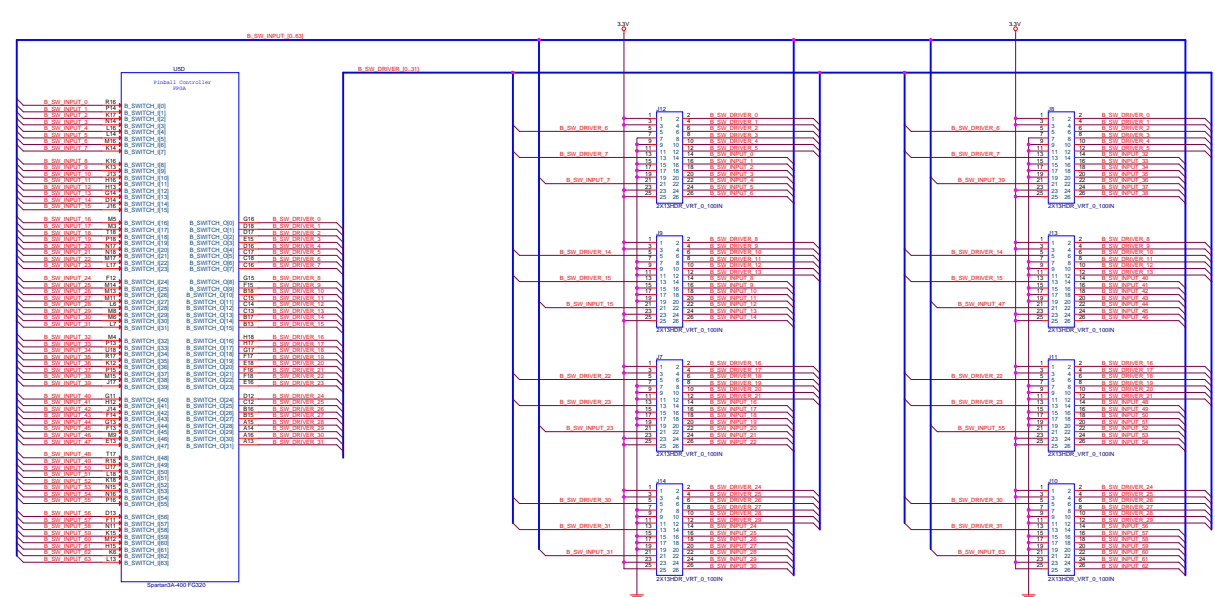
14339CHR_VRT_d_100N

Key

Stern Whitestar Q15
Stern S.A.M. 21
Rose - Stern calls these Rows

14339CHR_VRT_d_100N

Burst Switch Connections



P-BCC Switch Matrix & Burst Switch Connections			
Doc ID	Document Number		15
Rev	1.0		
Date	Monday, Apr 11, 2011	Page	1 of 1

