

B0642-SCH-01

RD3-2650 -- Mystique STDP2650 (DP to HDMI) Reference Design

PCB# 400-626

## Revision History

SCHEMATIC	SHEET
01. Contents, Revision History	1
02. Block Diagram	2
03. Regulators	3
04. DPRX Input	4
05. STDP2650 System Section	5
06. STDP2650 Power Section	6
07. HDMI Output	7

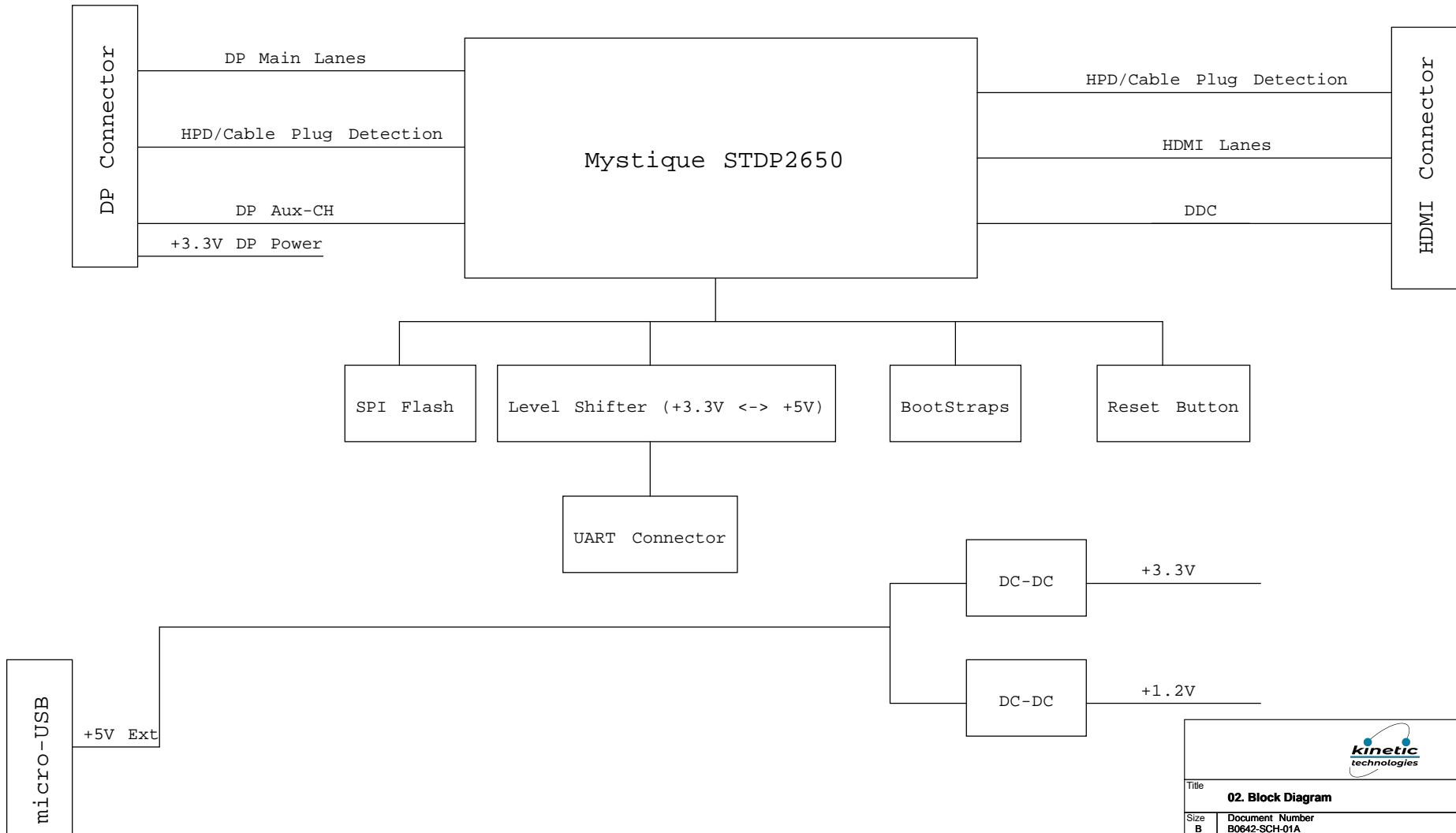
Date	Version	Comments
12/4/2011	Rev. A	Preliminary release.
12/14/2012	Rev. B	Add MOSFET to control AVDD33_TX and AVDD12_TX Change the HDMI Termination Scheme
9/24/2014	Rev. B	Changed TitleBlocks
11/14/2014	Rev. C	Removed R507, C504 and Swapped pin at Q601,Q602
6/8/2016	Rev. C1	Changed U301 from STBB1PUR to STBB1-APUR. Changed Q701A and Q701B from SiB914 to SiB912DK
10/7/2016	Rev. D	Swapped Drain and Source pins of Q601 and Q602 back to Rev. B connection.
03/13/2020	Rev. 03a	Update to Kinetic format.

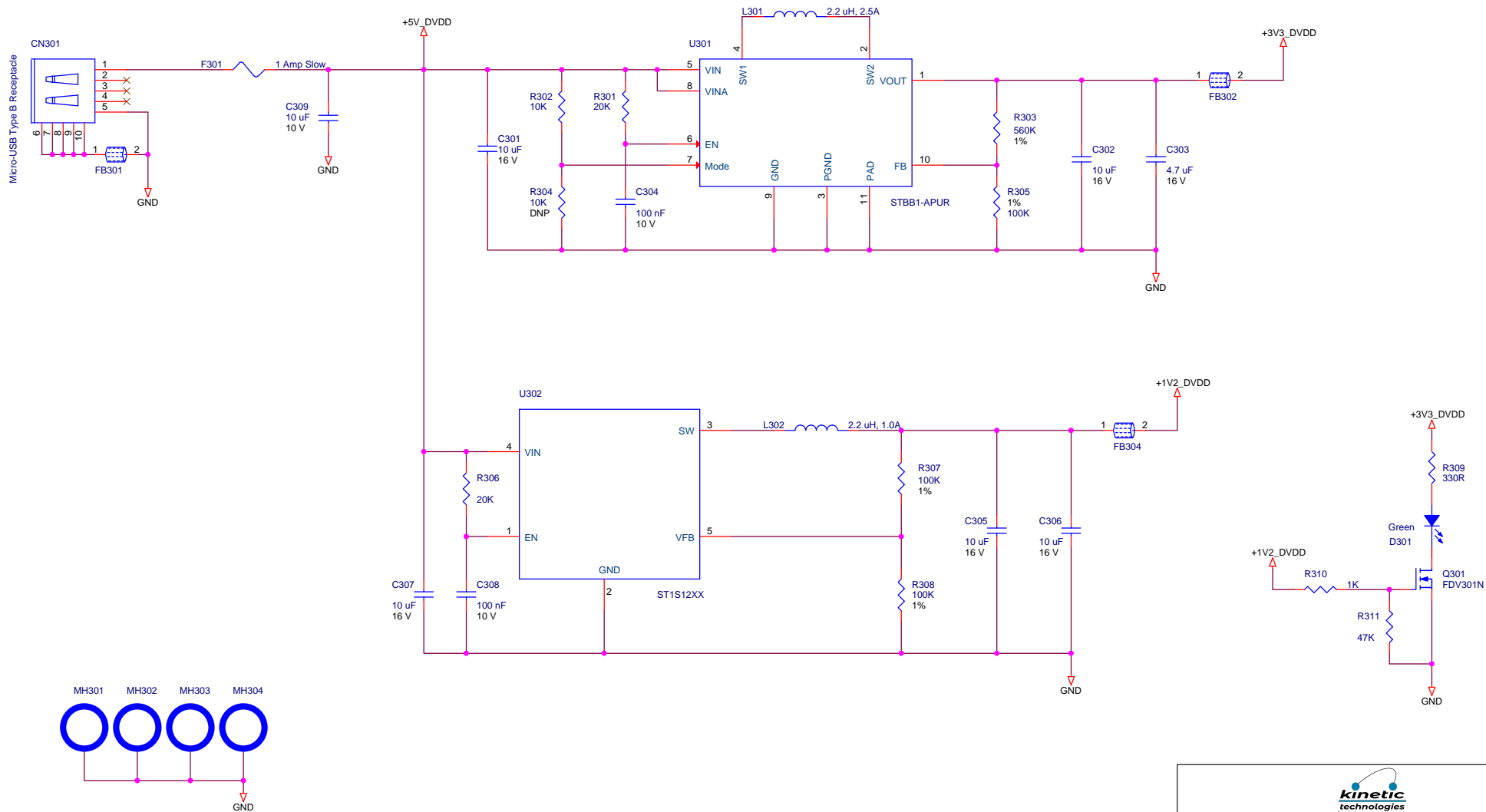
### Layout Notes:

1. 50 ohms impedance on all LVTTTL traces
2. 100 ohms differential impedance on all HDMI trace pairs
3. 100 ohms differential impedance on all DP trace pairs



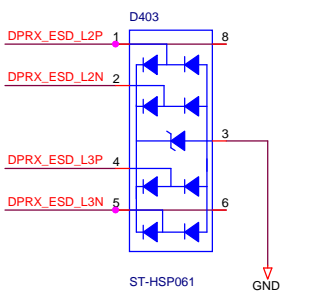
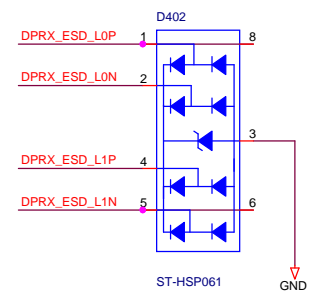
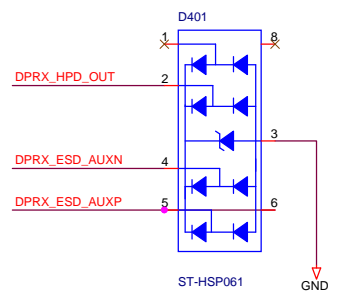
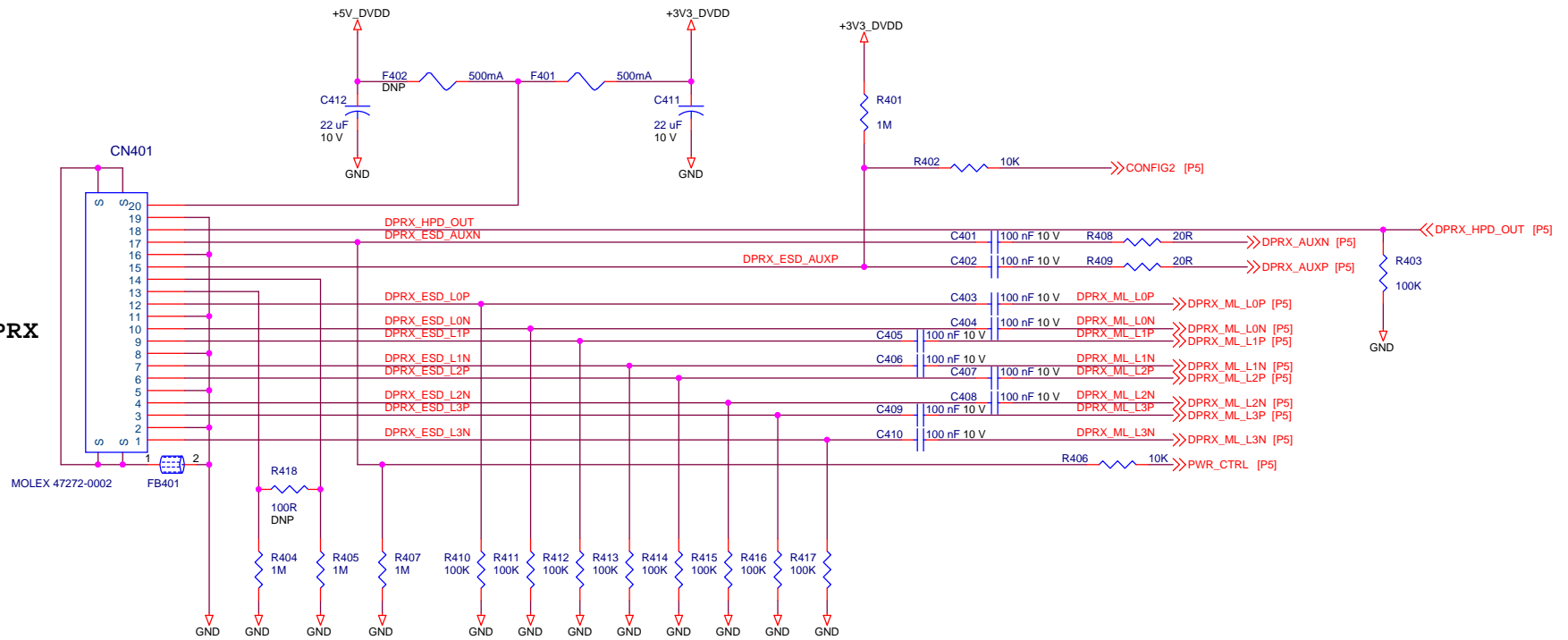
Title		
<b>01. Contents</b>		
Size B	Document Number B0642-SCH-01A	Rev 03a
Date: Friday, March 13, 2020	Sheet 1 of 7	



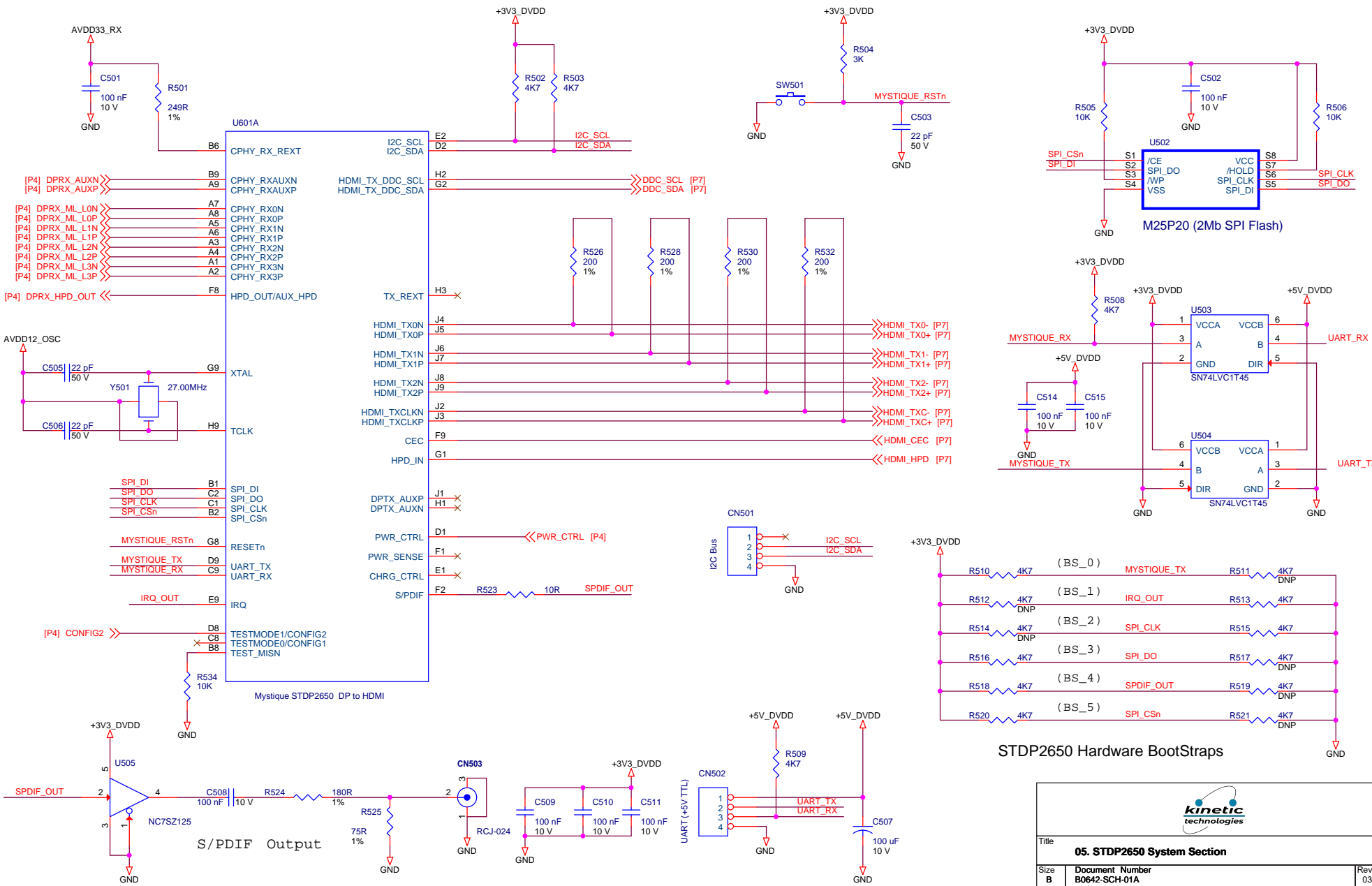


Title		
<b>03. Regulators</b>		
Size	Document Number	Rev
B	B0642-SCH-01A	03a
Date:	Friday, March 13, 2020	Sheet 3 of 7

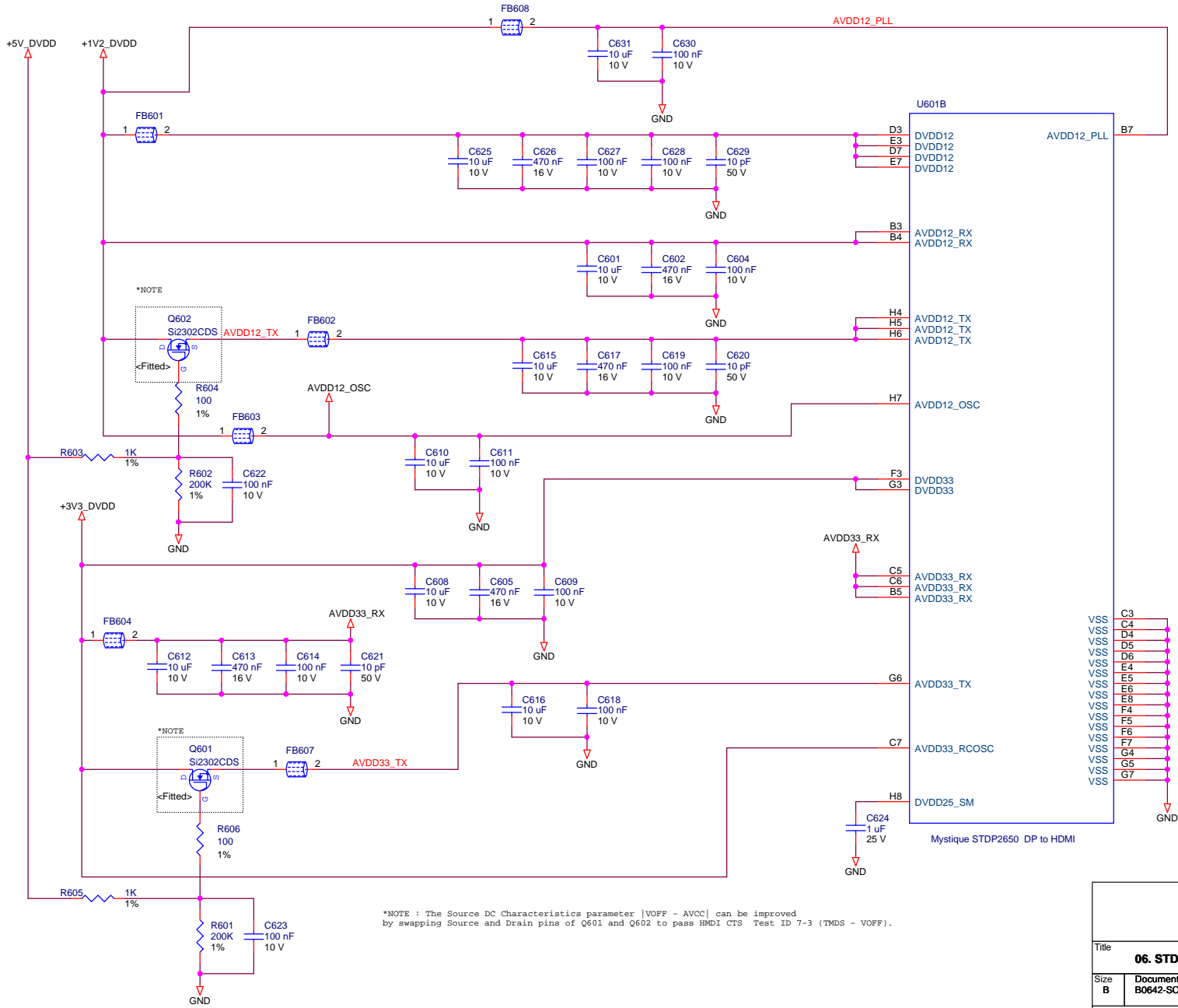
# DPRX



Title		
04. DPRX Input		
Size B	Document Number	Rev 03a
	B0642-SCH-01A	
Date:	Friday, March 13, 2020	Sheet 4 of 7



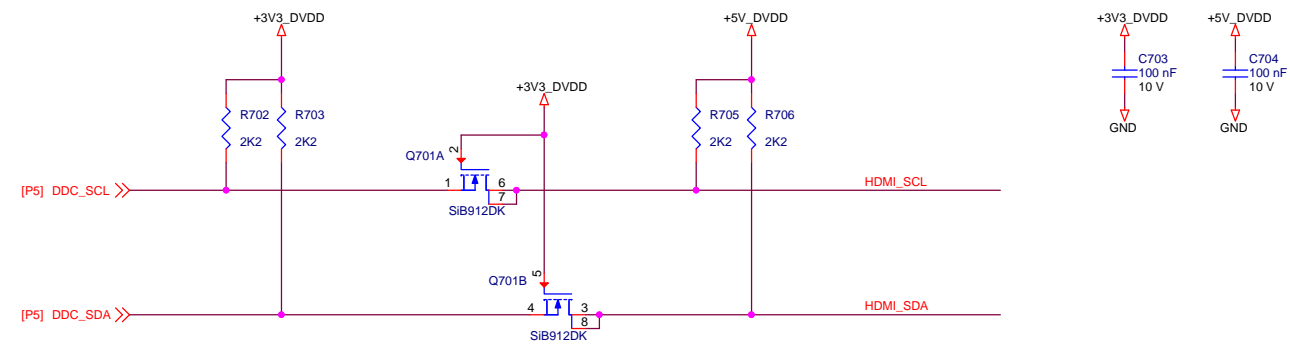
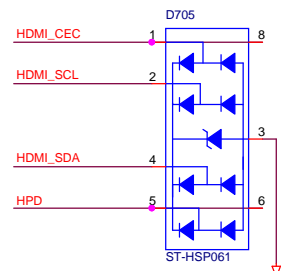
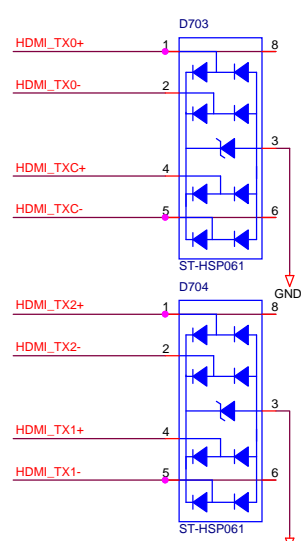
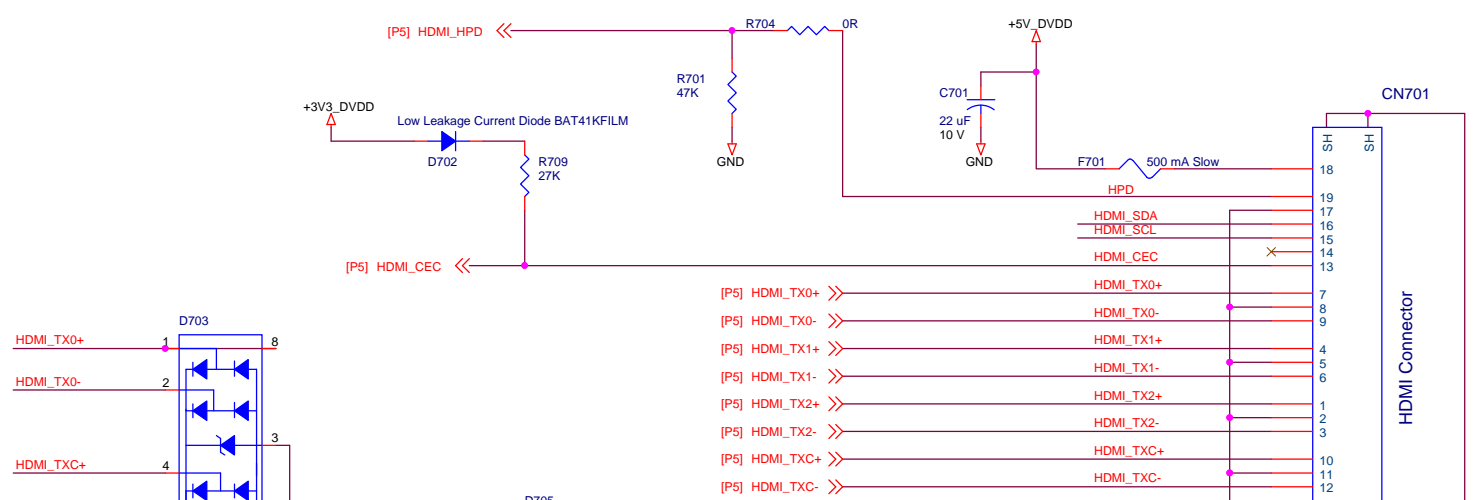
<b>05. STDP2650 System Section</b>		
Size B	Document Number B0642-SCH-01A	Rev 03a
Date:	Friday, March 13, 2020	Sheet 5 of 7



\*NOTE : The Source DC Characteristics parameter |VOFF - AVCC| can be improved by swapping Source and Drain pins of Q601 and Q602 to pass HDMI CTS Test ID 7-3 (TMS - VOFFP).



<b>06. STDP2650 Power Section</b>		
Size B	Document Number B0642-SCH-01A	Rev 03a
Date:	Friday, March 13, 2020	Sheet 6 of 7



Title		
07. HDMI Output		
Size B	Document Number	Rev 03a
	B0642-SCH-01A	
Date:	Friday, March 13, 2020	Sheet 7 of 7