

# B0688-RD2-2900, MCDP2900 DP to HDMI Converter


PCB# 0691

SCHEMATIC	SHEET
01. Contents, Revision History	1
02. Block Diagram	2
03. MCDP2900	3
04. Regulators & Power	4

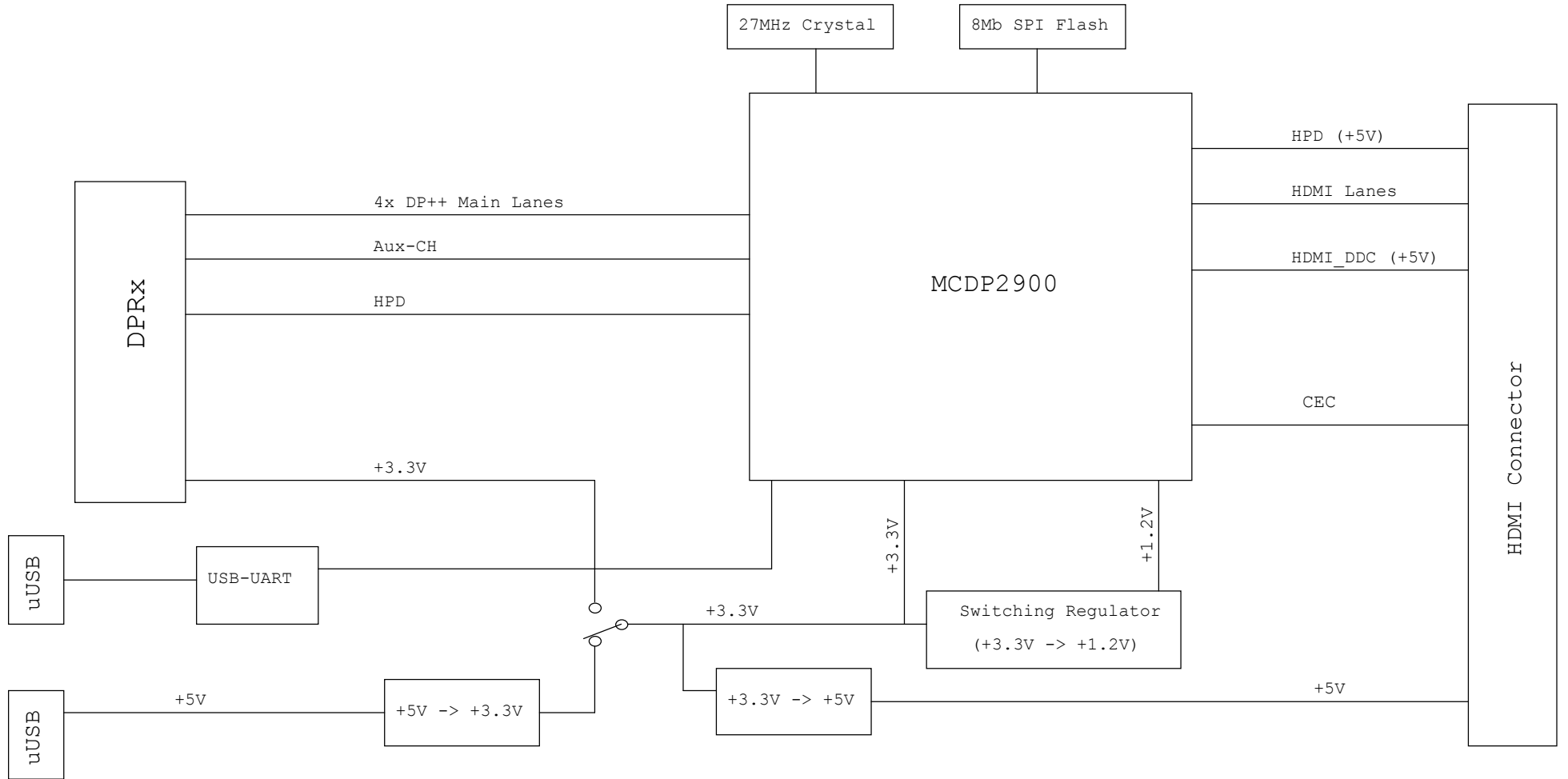
## Revision History

Date	Version	Comments
5/17/2016	Rev. A	<p>Preliminary Release</p> <p>This schematic is same as B0685-RD1-2900 except listed below.</p> <ol style="list-style-type: none"> <li>1.Added R44=510 ohm to HDMI_HPD path.</li> <li>2.Connected GPIO1 and CN6 [Pin2] and removed R17.</li> <li>3.Changed R6 from 47K to 20K.</li> <li>4. Remove R9 (GPIO2_33 open).</li> <li>5. Added terminals (TP1 : EXTERNAL_RESET_CONTROL1 TP305 :EXTERNAL_RESET_CONTROL2).</li> <li>6. Removed R7=0 ohm. 7. Added CN9 (4pin connector) for I2C.</li> <li>8. Added "GPIO2_33" to CN6.</li> <li>9. Added capacitor 0.2pF for adjustment of intra-pair skew. ( C303,C304,C305,C306). 10. Added JP3 (3pin header)].</li> <li>11. Added R47=20 ohm.</li> <li>12. Added "Dummy Footprint" ( C307, C308, C309, C310, C311,C312).</li> </ol>
6/23/2016	Rev. A1	<ol style="list-style-type: none"> <li>1. Changed a component number from CN9 to JP4.</li> <li>2. Put "No connect " on pin1 of CN9.</li> </ol>
5/1/2017	Rev. B	<ol style="list-style-type: none"> <li>1. Changed resistor value from 5.1 ohm to 8.2 ohm. (R35, R36, R37, R38, R39, R40, R41, R42)</li> <li>2. Removed capacitors, C303, C304, C305 and C306. (Dummy : C307, C308, C309, C310, C311, C312).</li> <li>3. Added 0.5pF capacitors to HDMI_TX differential pairs. ( i.e. between negative line and positive line ) C313, C314, C315, C316</li> <li>4. Cut the connection between pin G8 (VDD12_ON) of U1A and R13. Connected terminal of R13 to +3V3_DVDD. Changed R13 Value (10K -&gt; 20K).</li> <li>5. Block diagram (page2): Removed the signal line (VDD12_ON to Switching regulator).</li> <li>6. Put common mode filters : L601, L602, L603, L604</li> </ol>
03/014/2020	Rev. 03a	Update to Kinetic format.

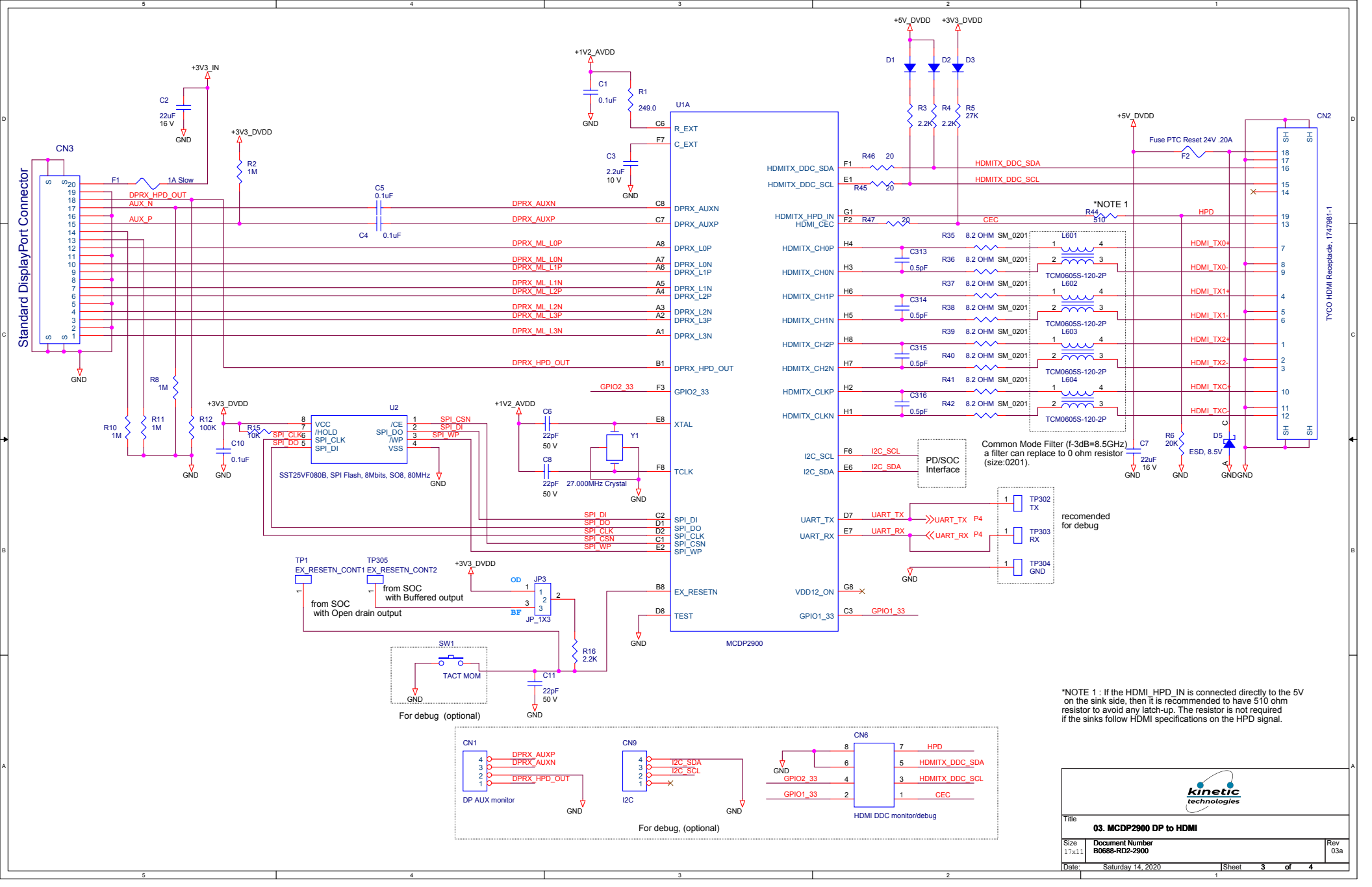


		
Title		
<b>01. Contents</b>		
Size	Document Number	Rev
B	B0688-RD2-2900	03a
Date:	Saturday 14, 2020	Sheet 1 of 4

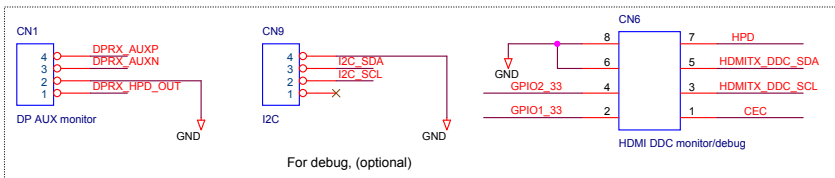
# Reference Circuit for DP to HDMI Converter

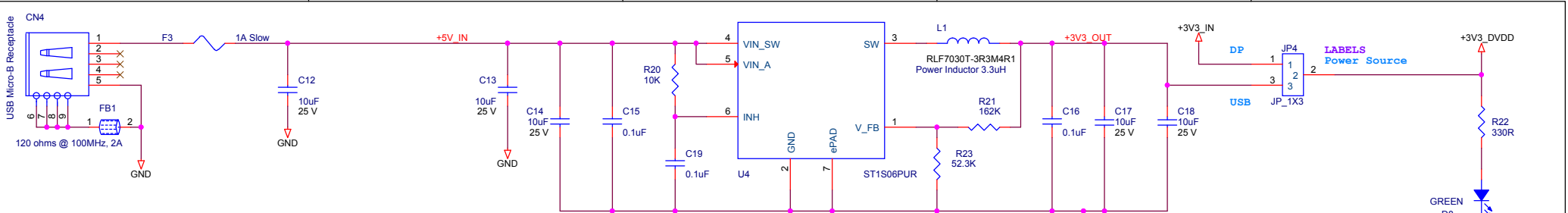


Title		
02. Block Diagram		
Size	Document Number	Rev
B	B0688-RD2-2900	03a
Date:	Saturday 14, 2020	Sheet 2 of 4

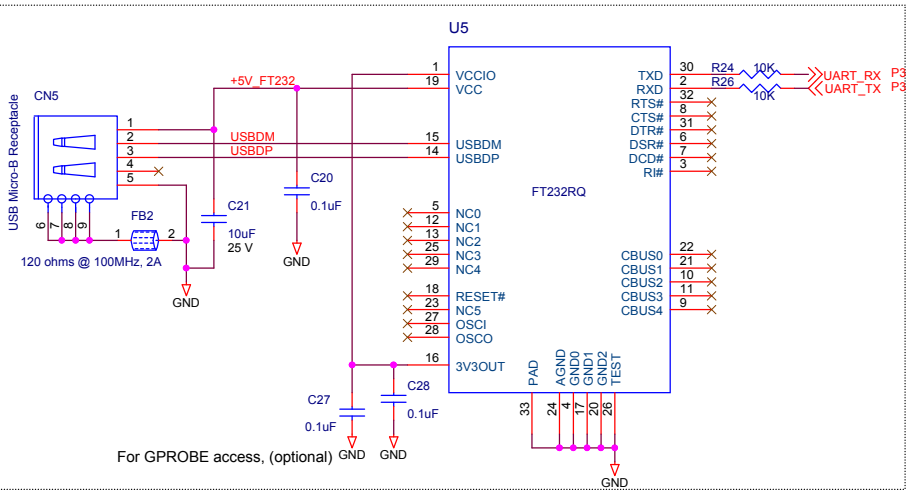


\*NOTE 1: If the HDMI HPD\_IN is connected directly to the 5V on the sink side, then it is recommended to have 510 ohm resistor to avoid any latch-up. The resistor is not required if the sinks follow HDMI specifications on the HPD signal.

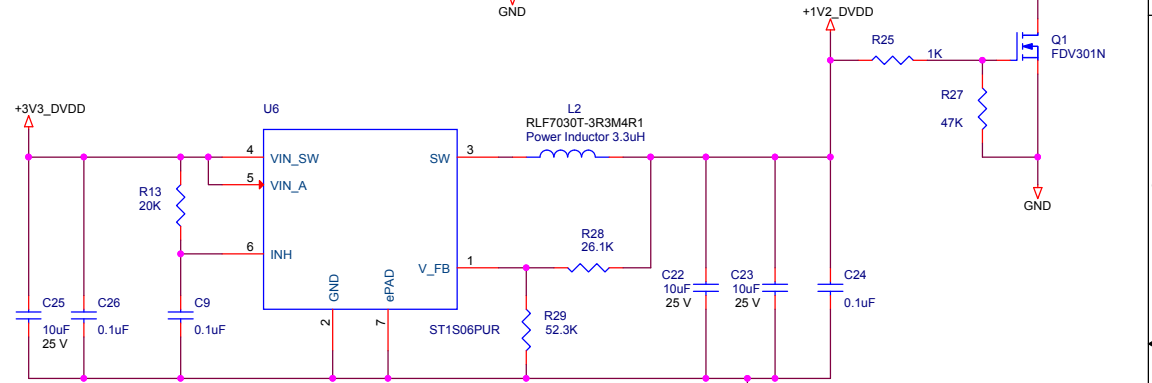




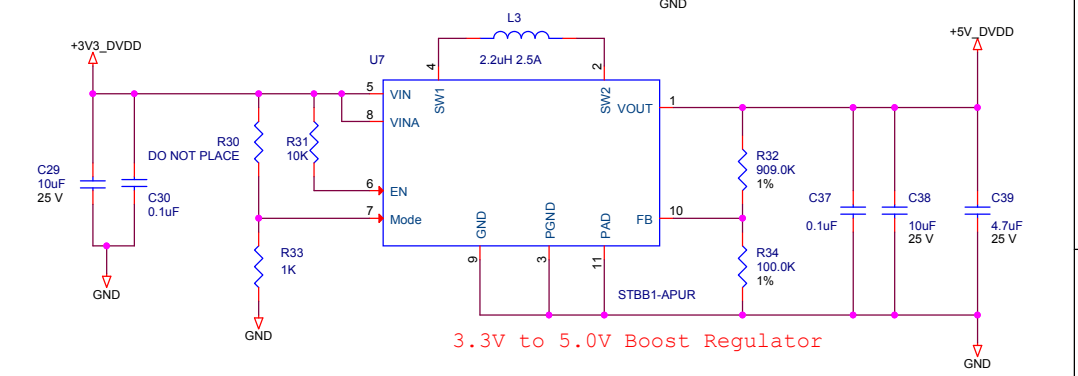
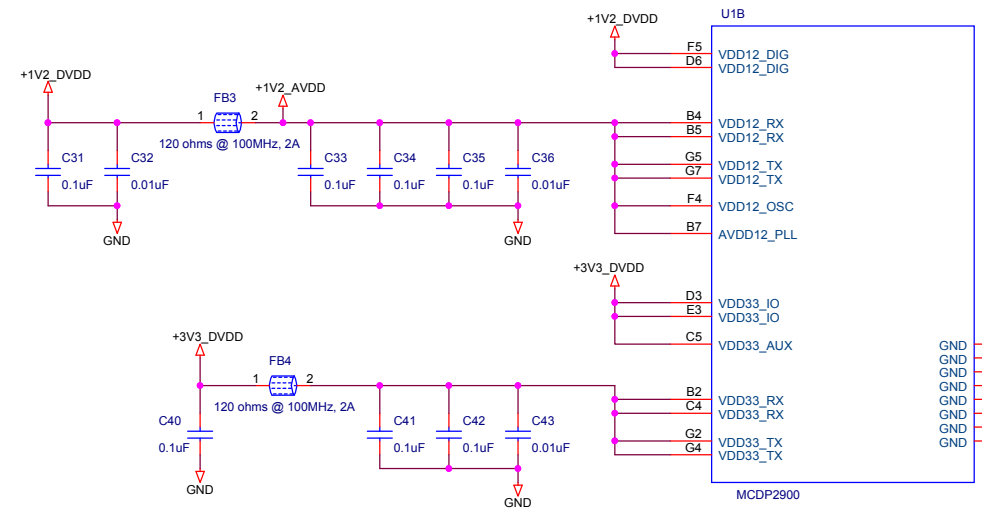
USB 5V Power to 3.3V Buck Regulator



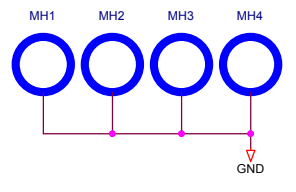
For GPROBE access, (optional)



3.3V to 1.2V Buck Regulator



3.3V to 5.0V Boost Regulator



Title <b>04. Regulators and USB-UART</b>		
Size B	Document Number B0688-RD2-2900	Rev 03a
Date: Saturday 14, 2020	Sheet 4	of 4