| COMPUTER GENERATED DRAWING - DO NOT REVISE MANUALLY | | | |
|---|---|---|---|
| REVISIONS | | | |
| REV | DESCRIPTION | DATE | APPROVED |
| A | INITIAL RELEASE | 10/13/2023 | R. PERRY |

# DLPDLCR160CPEVM
# FORMATTER BOARD

| | | | |
|---|---|---|---|
| DWN | Roger Perry | DATE | JAN-31-2023 |
| ENGR | Roger Perry | | JAN-31-2023 |
| SYS | Roger Perry | | JAN-31-2023 |
| APVD | Jeff Dennis | | JAN-31-2023 |
| QA | | | |

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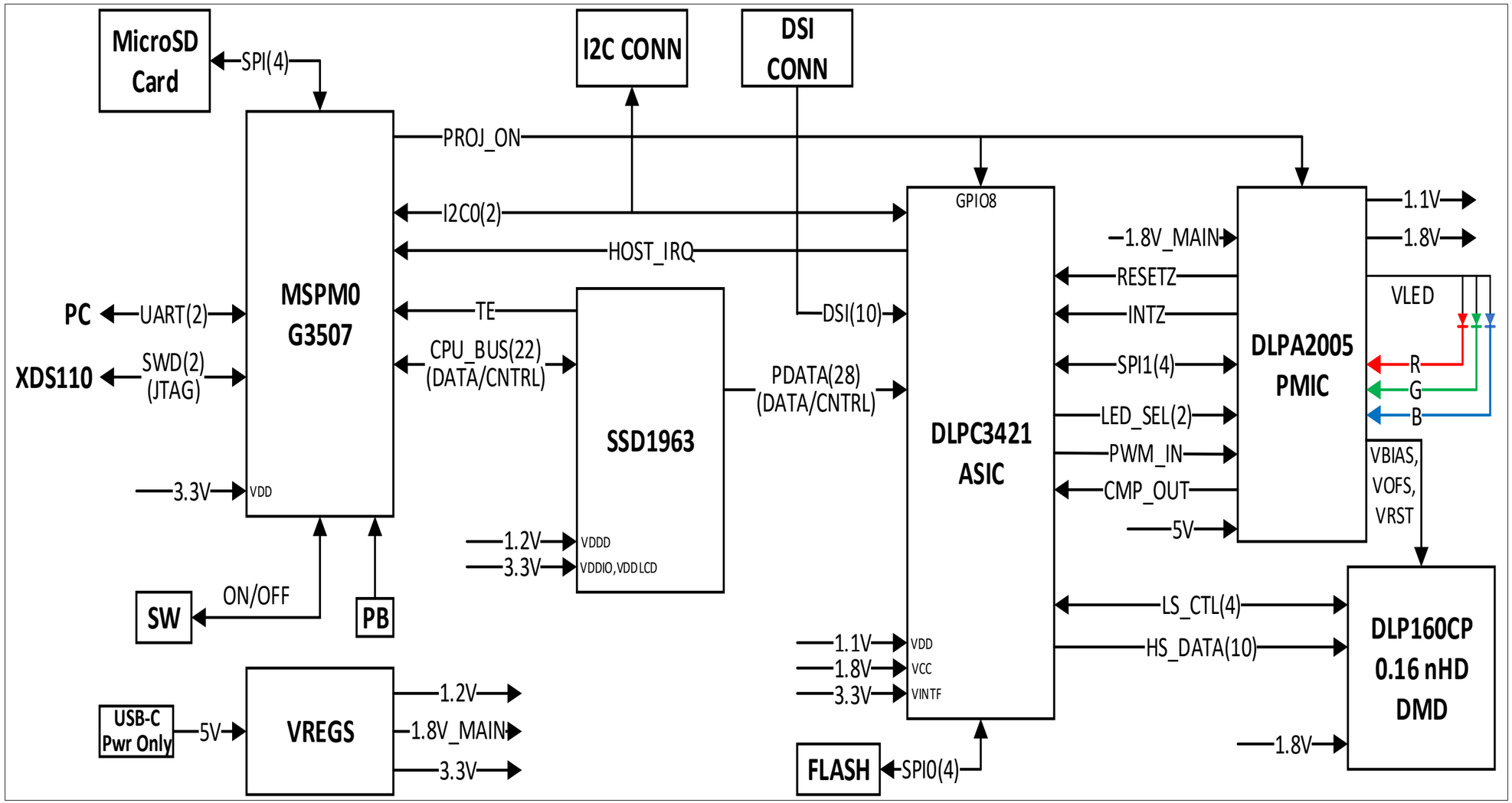
TITLE DLPDLCR160CPEVM FORMATTER BOARD

DRAWING NO DLP094 REV A

11 x 17 | Cadence Allegro v17.2 | SHEET 1 of 10




BLOCK DIAGRAM

| | | | | |
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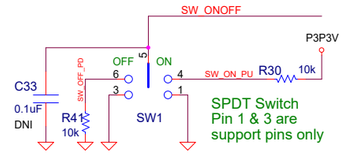
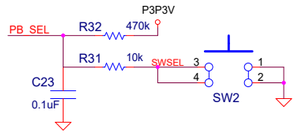
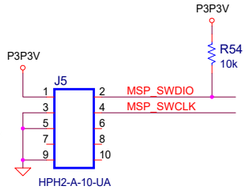
## POWER ON SWITCH



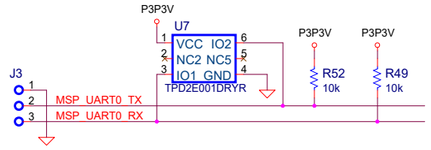

## PUSH-BUTTON SWITCH



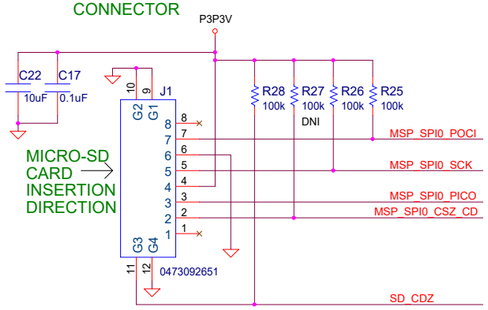

## MSPM0 PROG & DEBUG

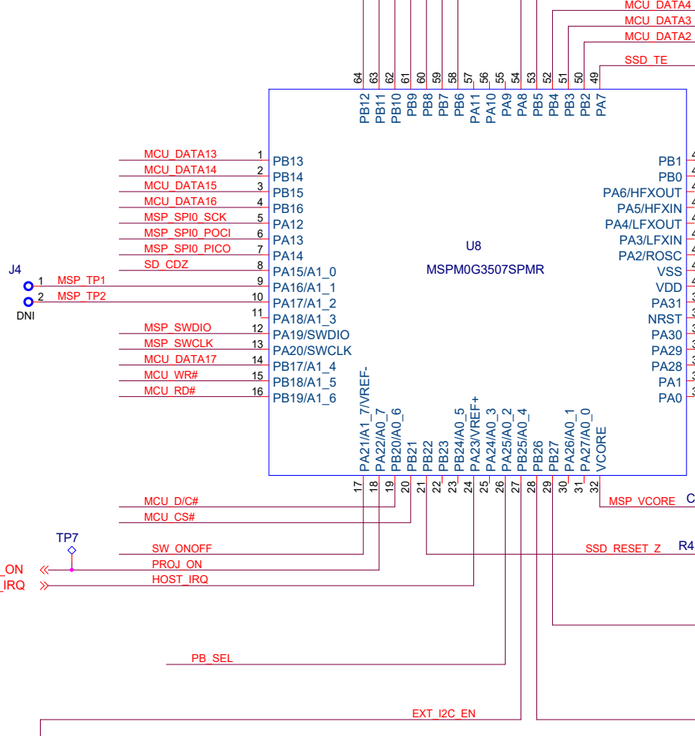


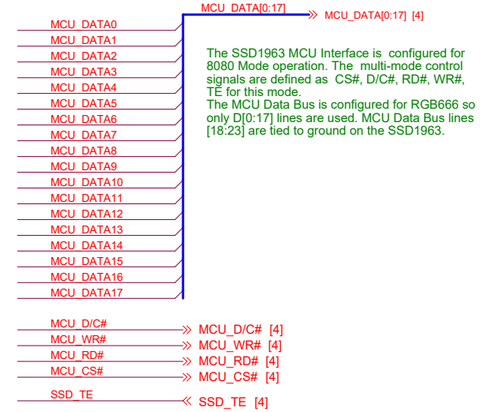

## MSPM0 UART




## MICRO-SD CARD HALF-HEIGHT CONNECTOR

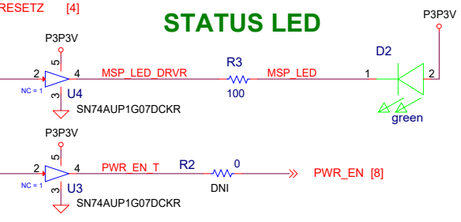


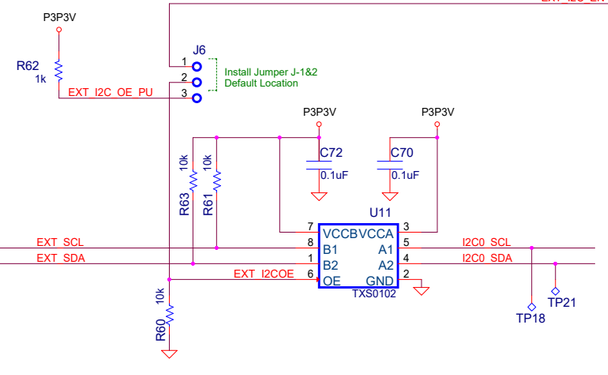




The SSD1963 MCU Interface is configured for 8080 Mode operation. The multi-mode control signals are defined as CS#, D/C#, RD#, WR#, TE for this mode.
The MCU Data Bus is configured for RGB666 so only D[0:17] lines are used. MCU Data Bus lines [18:23] are tied to ground on the SSD1963.

## STATUS LED




MSPM0, JTAG, Micro SD CARD I/F, ETC

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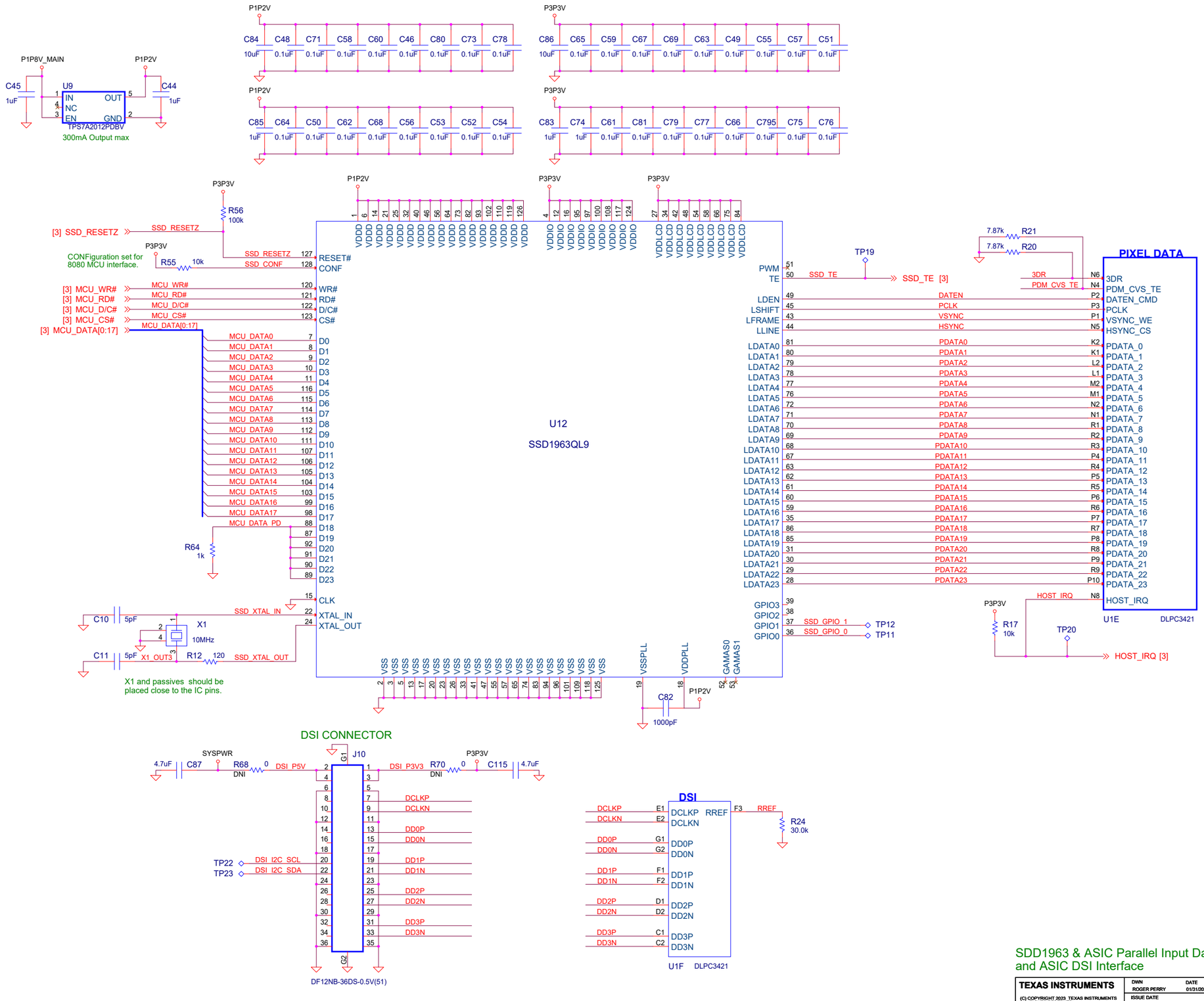


SDD1963 & ASIC Parallel Input Data Interface and ASIC DSI Interface

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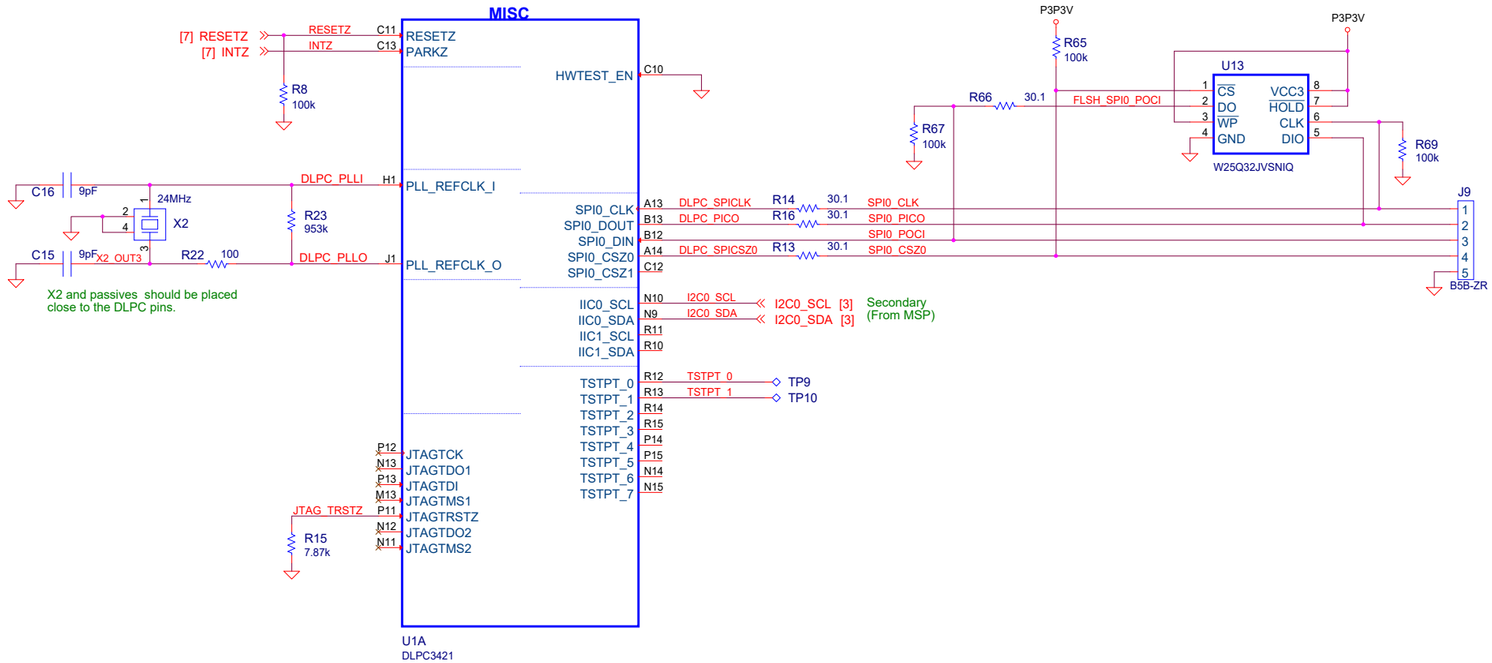
# DLPC3421 Clock, Reset, SPI and Flash Memory




DLPC3421, Flash

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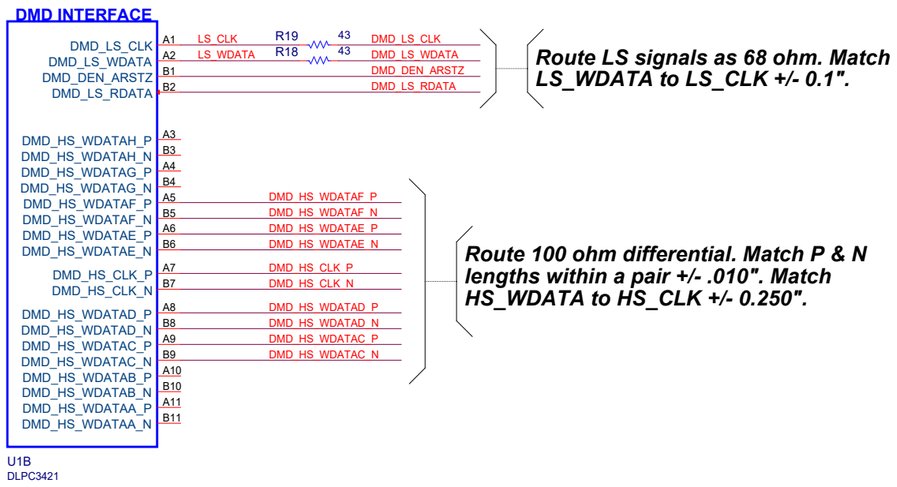
**Use DMD mapping option 2 in the DLPC342x.**

| ASIC Pin Name | | DMD Signal Name |
|---|---|---|
| DMD_HS_WDATA_F_P | => | HS_WDATA1_P |
| DMD_HS_WDATA_F_N | => | HS_WDATA1_N |
| DMD_HS_WDATA_E_P | => | HS_WDATA0_P |
| DMD_HS_WDATA_E_N | => | HS_WDATA0_N |
| DMD_HS_CLK_P | => | HS_CLK_P |
| DMD_HS_CLK_N | => | HS_CLK_N |
| DMD_HS_WDATA_D_P | => | HS_WDATA3_P |
| DMD_HS_WDATA_D_N | => | HS_WDATA3_N |
| DMD_HS_WDATA_C_P | => | HS_WDATA2_P |
| DMD_HS_WDATA_C_N | => | HS_WDATA2_N |

## DMD INTERFACE

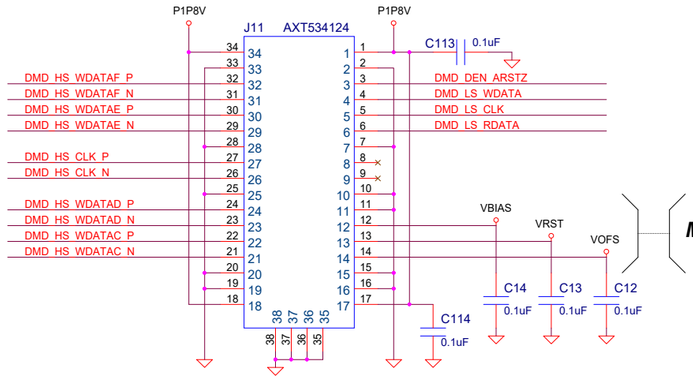



U1B
DLPC3421

***Route LS signals as 68 ohm. Match LS_WDATA to LS_CLK +/- 0.1".***

***Route 100 ohm differential. Match P & N lengths within a pair +/- .010". Match HS_WDATA to HS_CLK +/- 0.250".***

J11 is on BOTTOM side of PCB.
Pin 34 of AXT534 mates to pin 1 of AXT634 on DMD Flex Cable.




***Minimum width is 0.015".***

DMD INTERFACE

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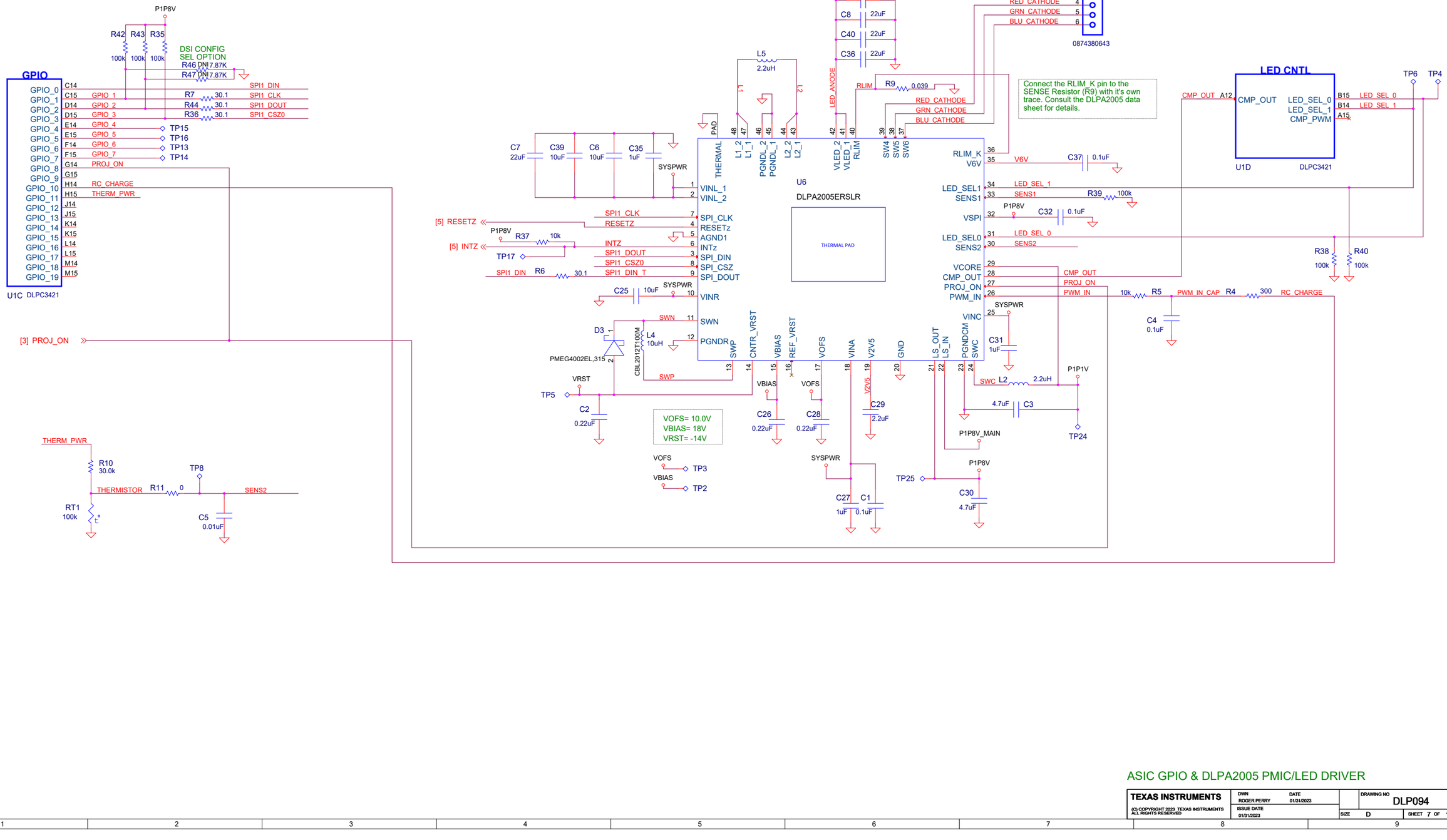


ASIC GPIO & DLPA2005 PMIC/LED DRIVER

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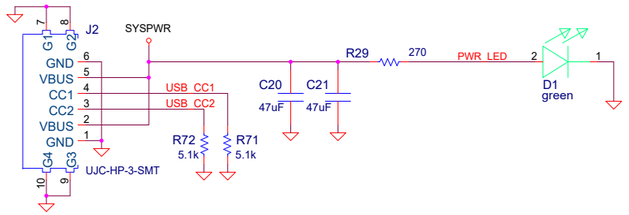
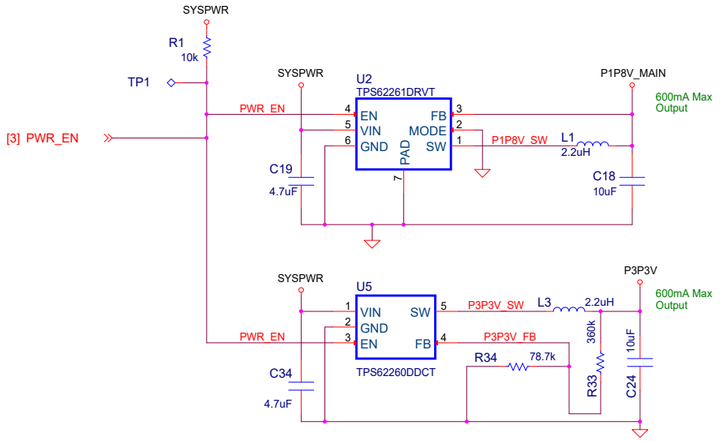
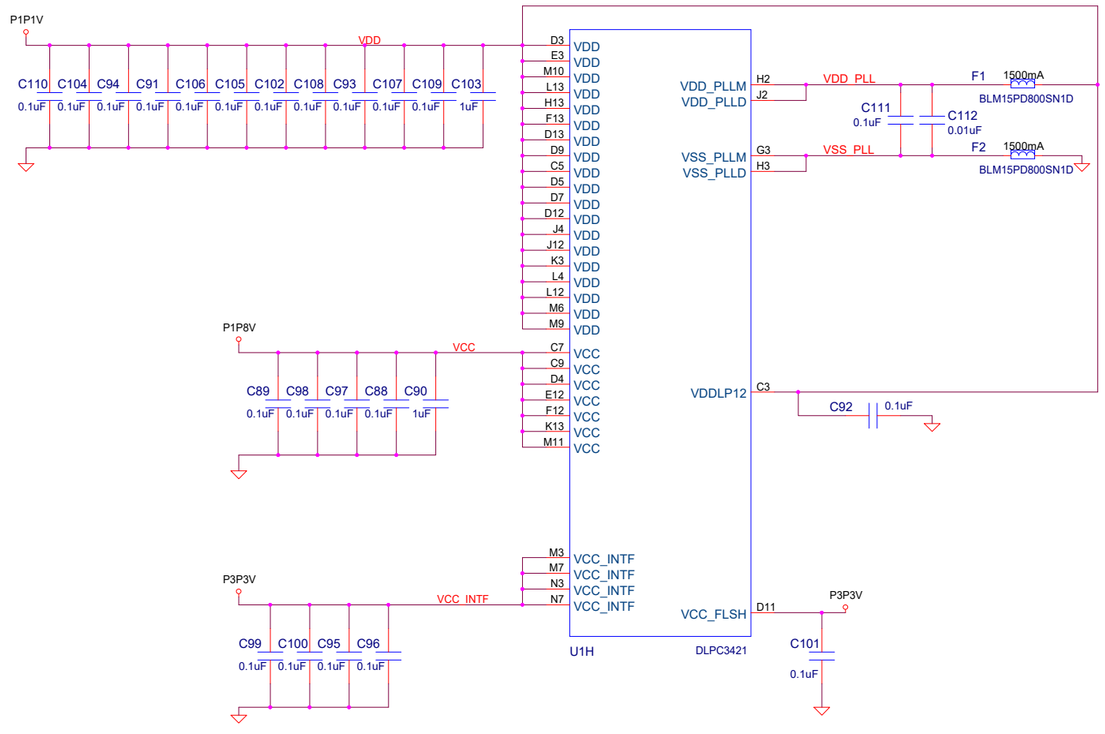
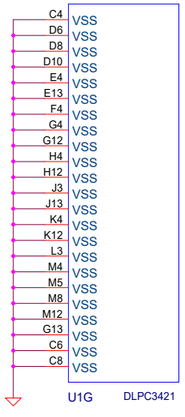
## EXTERNAL POWER INPUT

**USB - TYPE C**
**POWER ONLY**
**5V @ 3A MAX**




TPGND1 TPGND2

DLPC3421 POWER & GND

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## REVISIONS

REVISION HISTORY

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