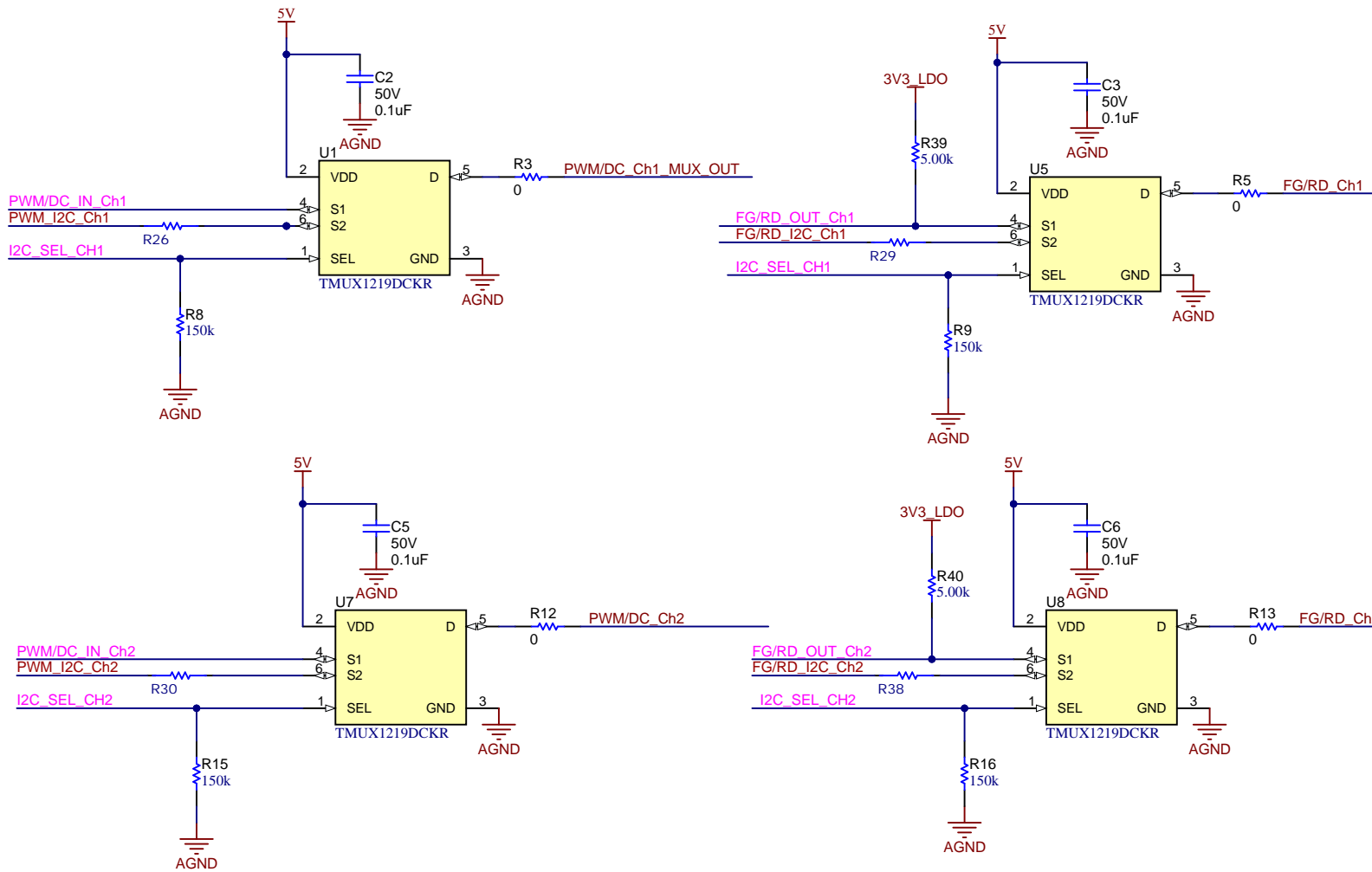
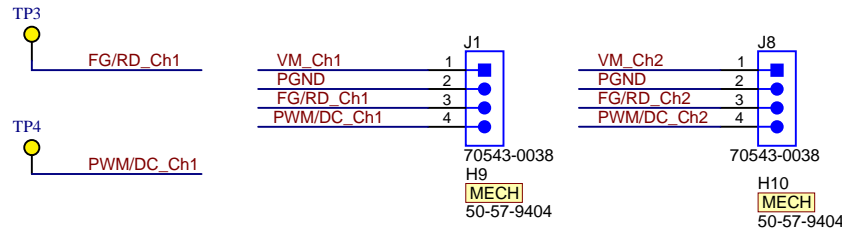


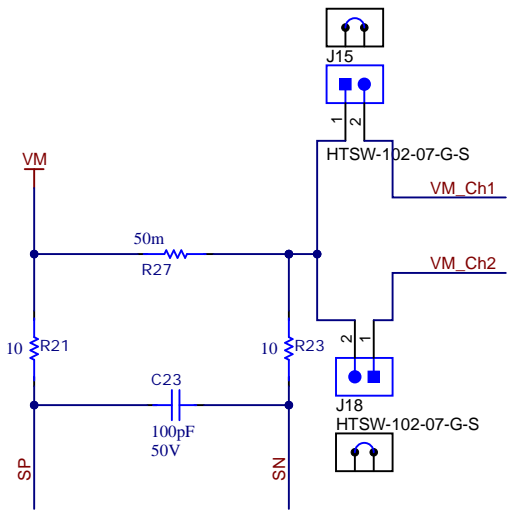
I2C/(PWM, FG) MUXing



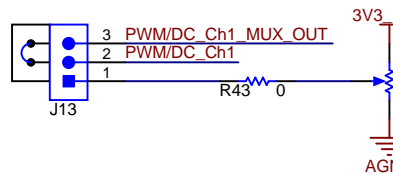
DEVICE CONNECTORS



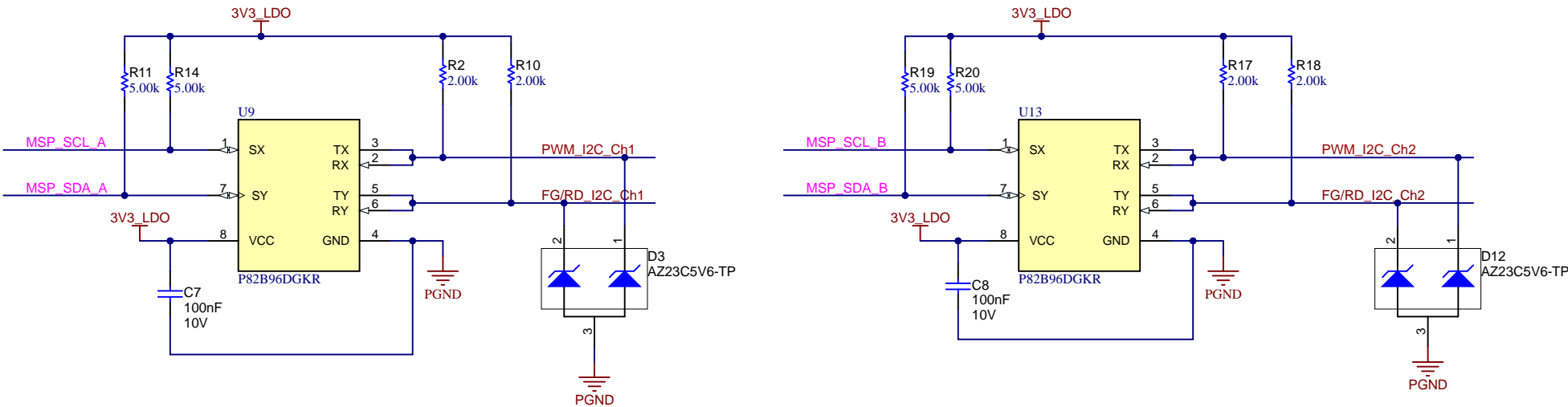
VM CSA RESISTOR



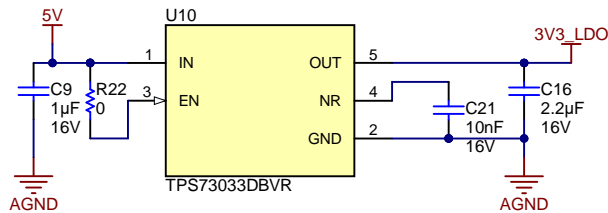
EXT SPEED INPUT



I2C BUFFERING (MCU <-> MC12x)



3.3V LDO



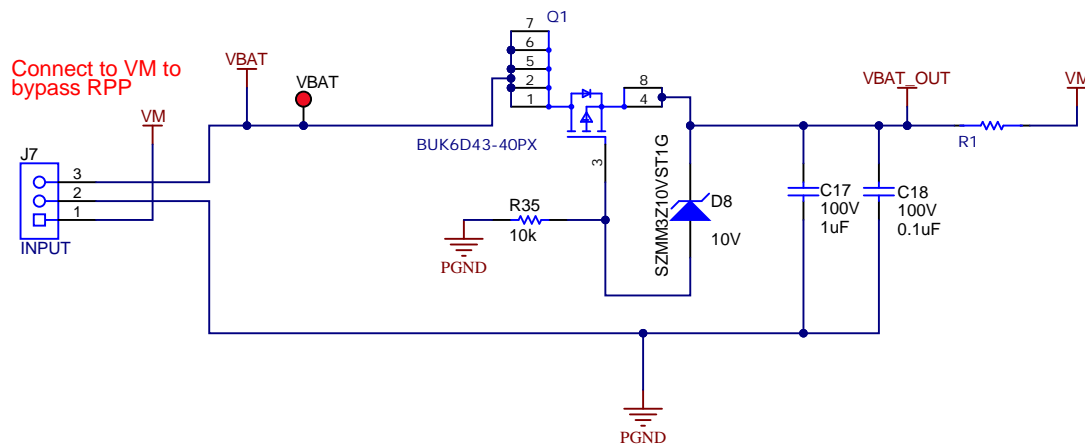
Texas Instruments and/or its licensors do not warrant the accuracy or completeness of this specification or any information contained therein. Texas Instruments and/or its licensors do not warrant that this design will meet the specifications, will be suitable for your application or fit for any particular purpose, or will operate in an implementation. Texas Instruments and/or its licensors do not warrant that the design is production worthy. You should completely validate and test your design implementation to confirm the system functionality for your application.

|                                 |   |                       |
|---------------------------------|---|-----------------------|
| Orderable: MC121EVM             | Designed for: Public Release                    | Mod. Date: 11/13/2025 |
| TID #: N/A                      | Project Title: MC121EVM                         |                       |
| Number: MC121EVM                | Rev: D  | Sheet Title:          |
| SVN Rev: Not in version control | Assembly Variant: 001                           | Sheet: 3 of 5         |
| Drawn By:                       | File: MD109-001_DRIVER_AND_CONNECTORS_Schematic |                       |
| Engineer: Eldho                 | Contact: http://www.ti.com/support              |                       |

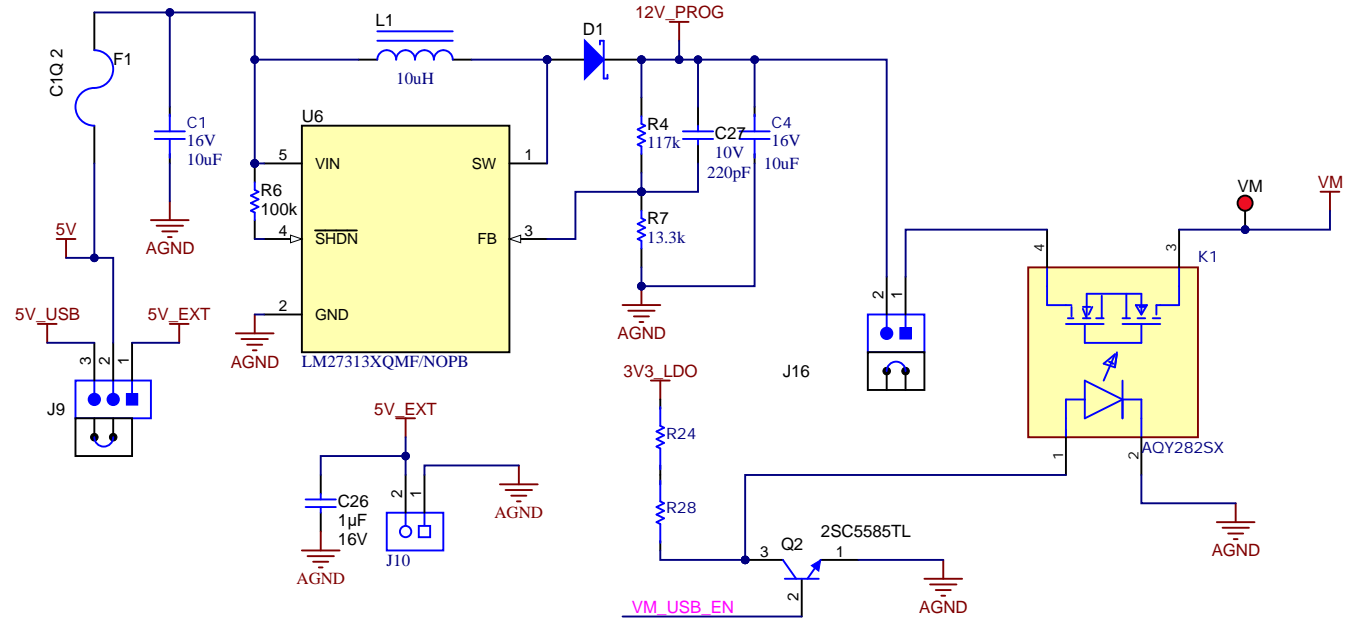
## MAIN SUPPLY

4.5-V to 35-V Operation  
40V ABS MAX

Reverse Polarity Protection

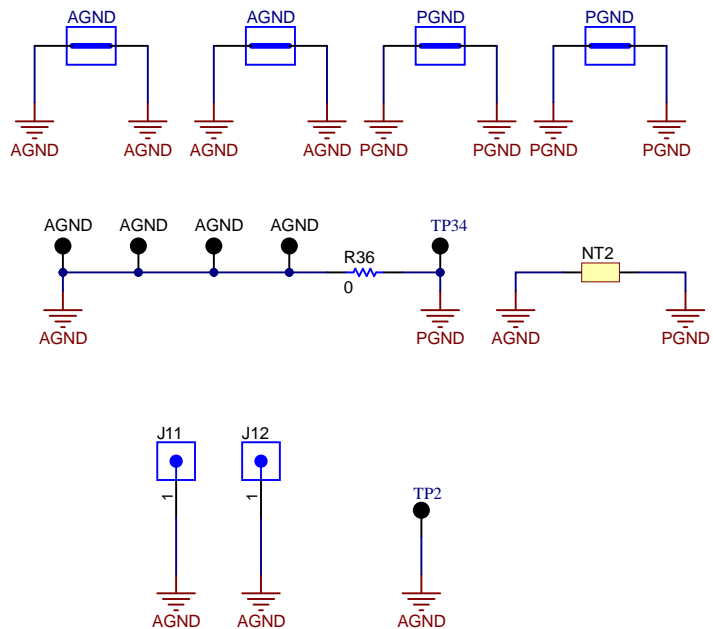


## 5V USB/INPUT <-> 12V BOOST

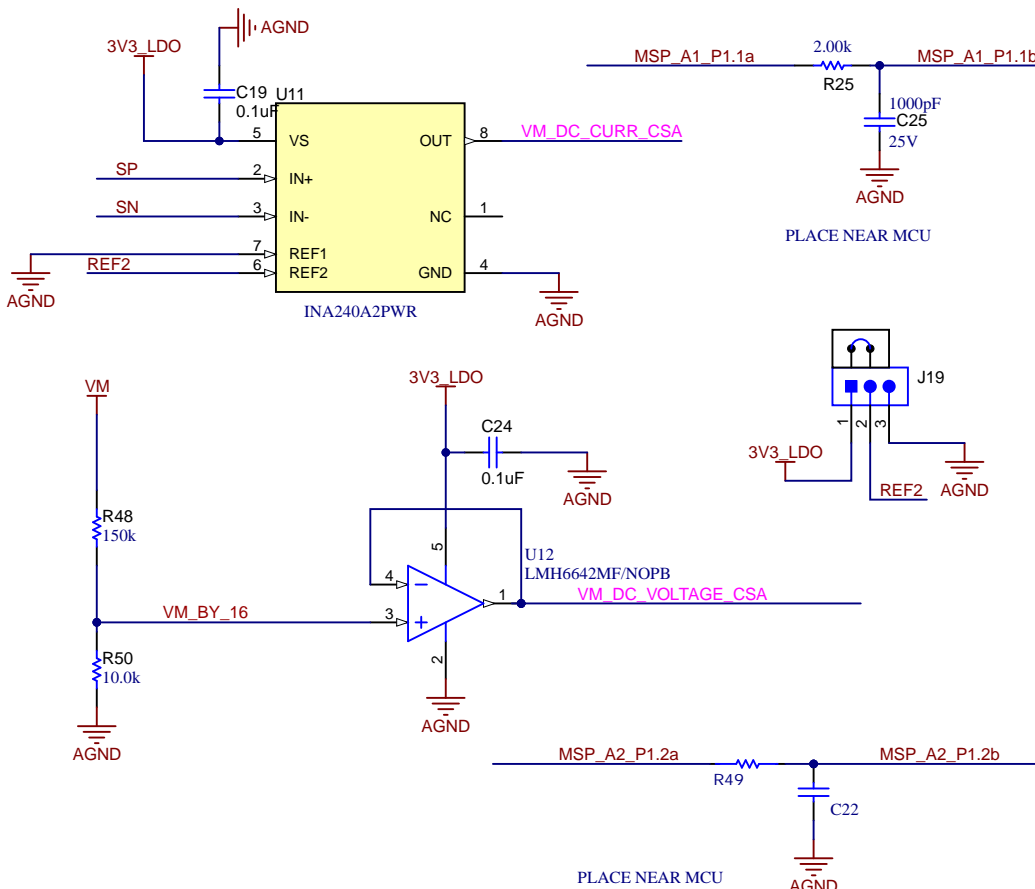


## CONNECTORS

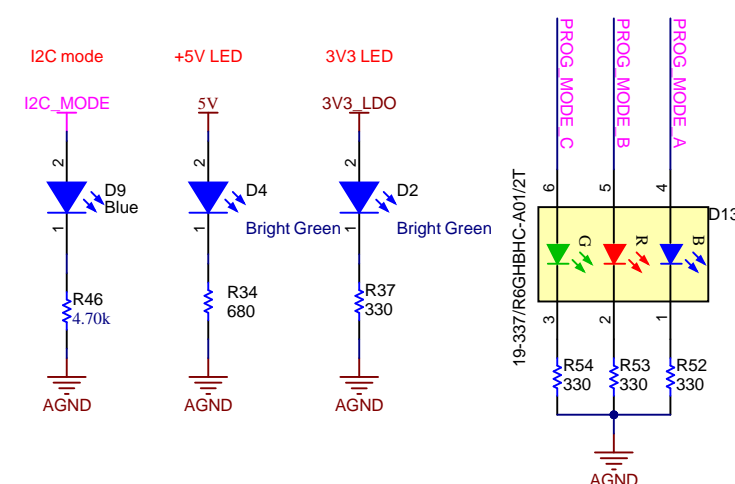
Grounding



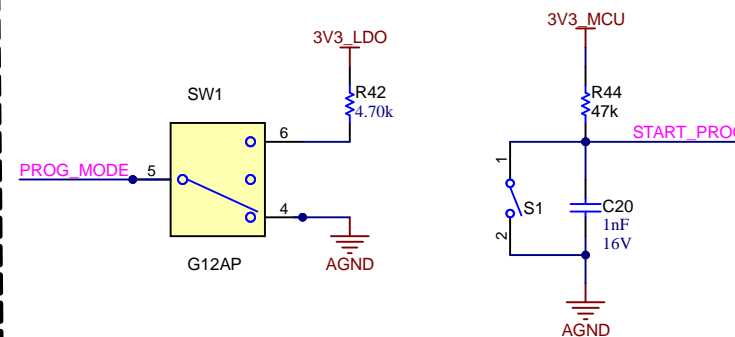
## VM CSA & VOLTAGE SENSE



## STATUS LEDs

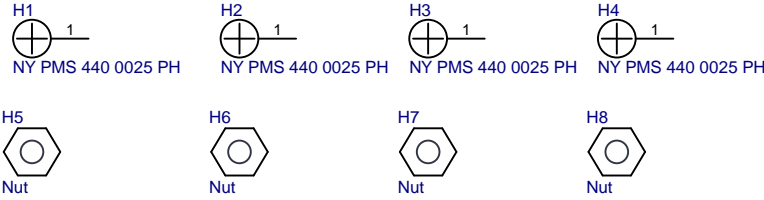


## Programmer Switches



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|                                 |  |                       |
|---------------------------------|--|-----------------------|
| Orderable: MC121EVM             | Designed for: Public Release   | Mod. Date: 11/13/2025 |
| TID #: N/A                      | Project Title: MC121EVM  |                       |
| Number: MC121EVM                | Rev: D   | Sheet Title:          |
| SVN Rev: Not in version control | Assembly Variant: 001  | Sheet: 4 of 5         |
| Drawn By:                       | File: MD109-001_POWER.SchDoc   | Size: B               |
| Engineer: Eldho                 | Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a> |                       |



PCB Number: MC121EVM  
PCB Rev: D



LBL1  
PCB Label  
THT-14-423-10



| Variant/Label Table |            |
|---------------------|------------|
| Variant             | Label Text |
| 001                 | MC121EVM   |
| 002                 | MC121Q1EVM |
|                     |            |
|                     |            |
|                     |            |
|                     |            |
|                     |            |

ZZ1  
Label Assembly Note  
This Assembly Note is for PCB labels only

ZZ2  
Assembly Note  
These assemblies are ESD sensitive, ESD precautions shall be observed.

ZZ3  
Assembly Note  
These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.

ZZ4  
Assembly Note  
These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.