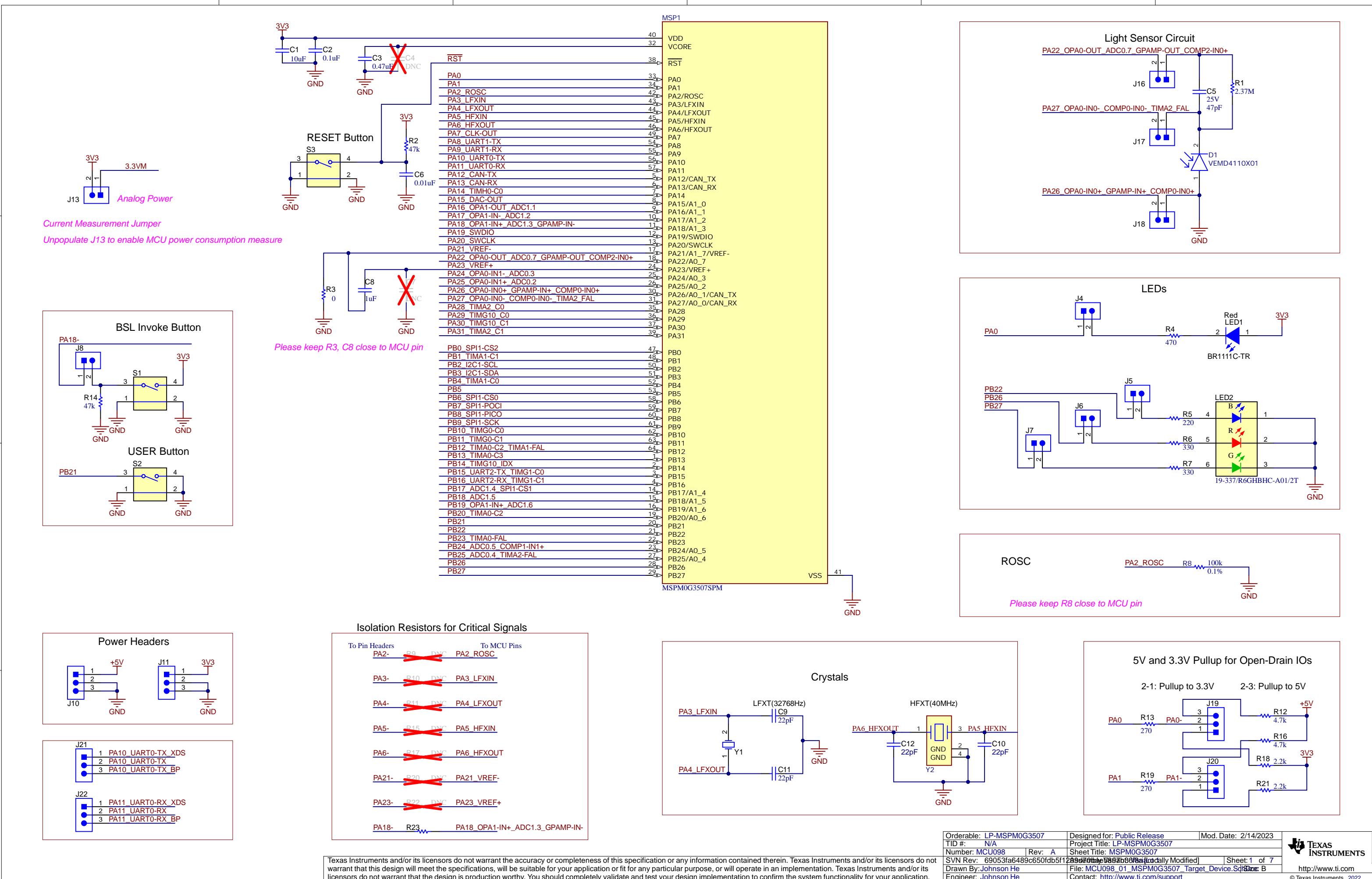
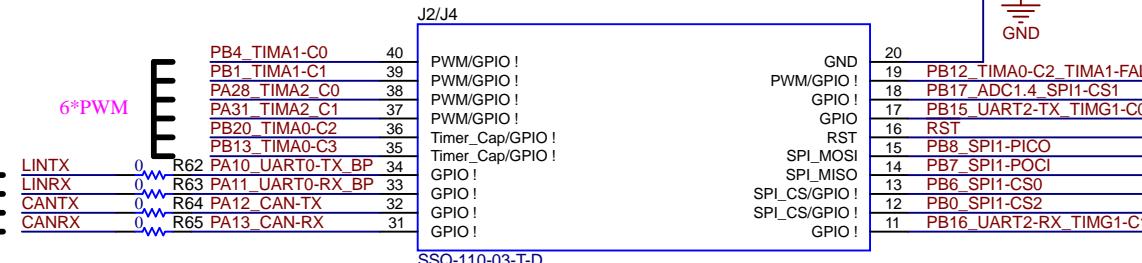
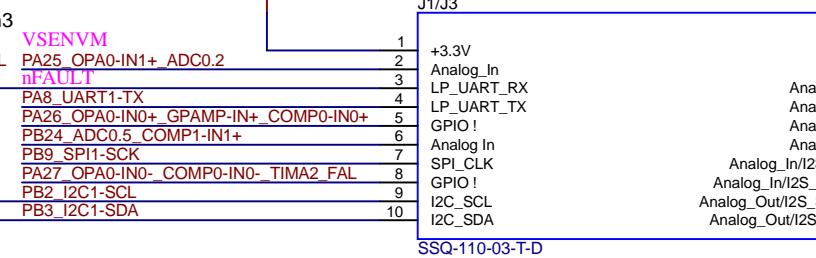
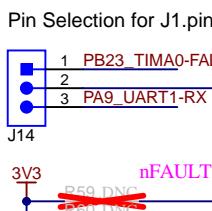


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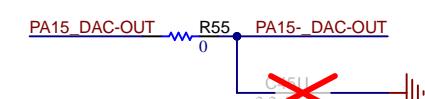
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TID #: N/A	Project Title: LP-MSPM0G3507	
Number: MCU098	Rev: A	Sheet Title: MSPM0G3507
SVN Rev: 69053fa6489c650fdb5f12a8e00bae58ab80ea [Locally Modified]		Sheet 1 of 7
Drawn By: Johnson He	File: MCU098_01_MSPM0G3507_Target_Device.Sch	Size: B
Engineer: Johnson He	Contact: http://www.ti.com/support	© Texas Instruments 2022



## BoosterPack Connectors



### RC Filter for DAC Output



**Motor Phase Voltage**  
**Motor Phase Current**  
**1/2/3 ISEN algorithm**

Pin Selection for J3.pin29

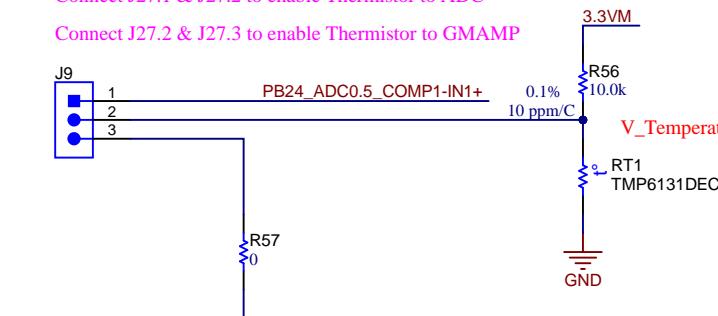
J15 is to flexibly adopt 1 ISEN algorithm, 2 ISENs algorithm and 3 ISENs algorithm  
Some DRV BP the ISENA/B/C is 26 27 28, some is 27 28 29

**HALL-A or SPI**  
**HALL-B or SPI**  
**SPI**  
**HALL-C or SPI**  
**SPI**

### Thermistor Circuit

Connect J27.1 & J27.2 to enable Thermistor to ADC

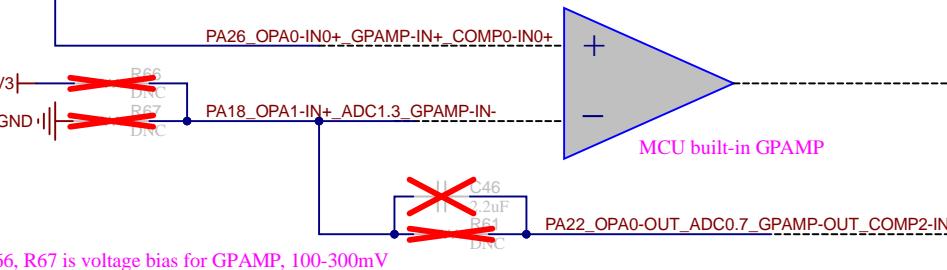
Connect J27.2 & J27.3 to enable Thermistor to GMAMP



GPAMP can work in Buffer mode or Amplify mode via change R57, R61, R66, R67, C46

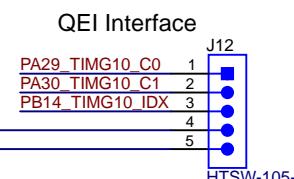
### GPAMP Test Circuit

This GPAMP can used in Thermistor or Motor Control(3 ISEN algoritm)

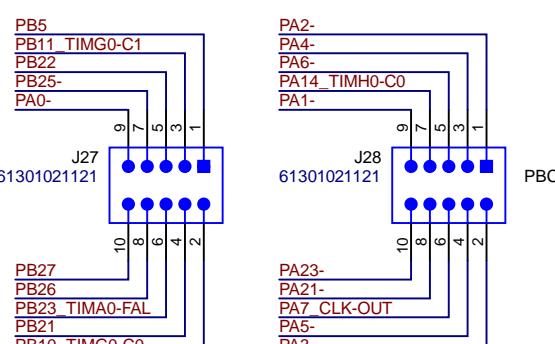


R66, R67 is voltage bias for GPAMP, 100-300mV

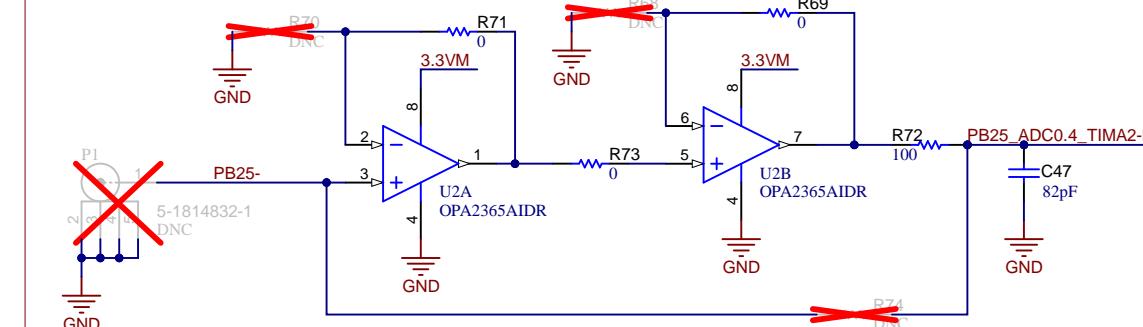
### Pin headers at the Low Side of the Board



PA19, PA20 are SWDIO, SWDCLK for debug/programming interface. They are on J101.pin14, pin16

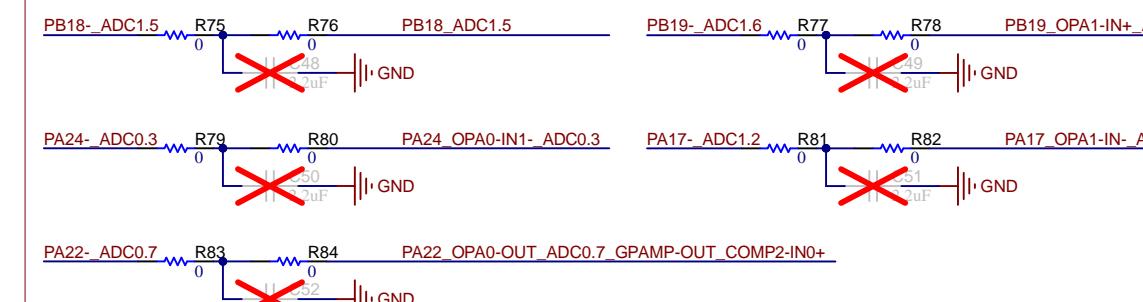


### ADC Input with Active Buffer



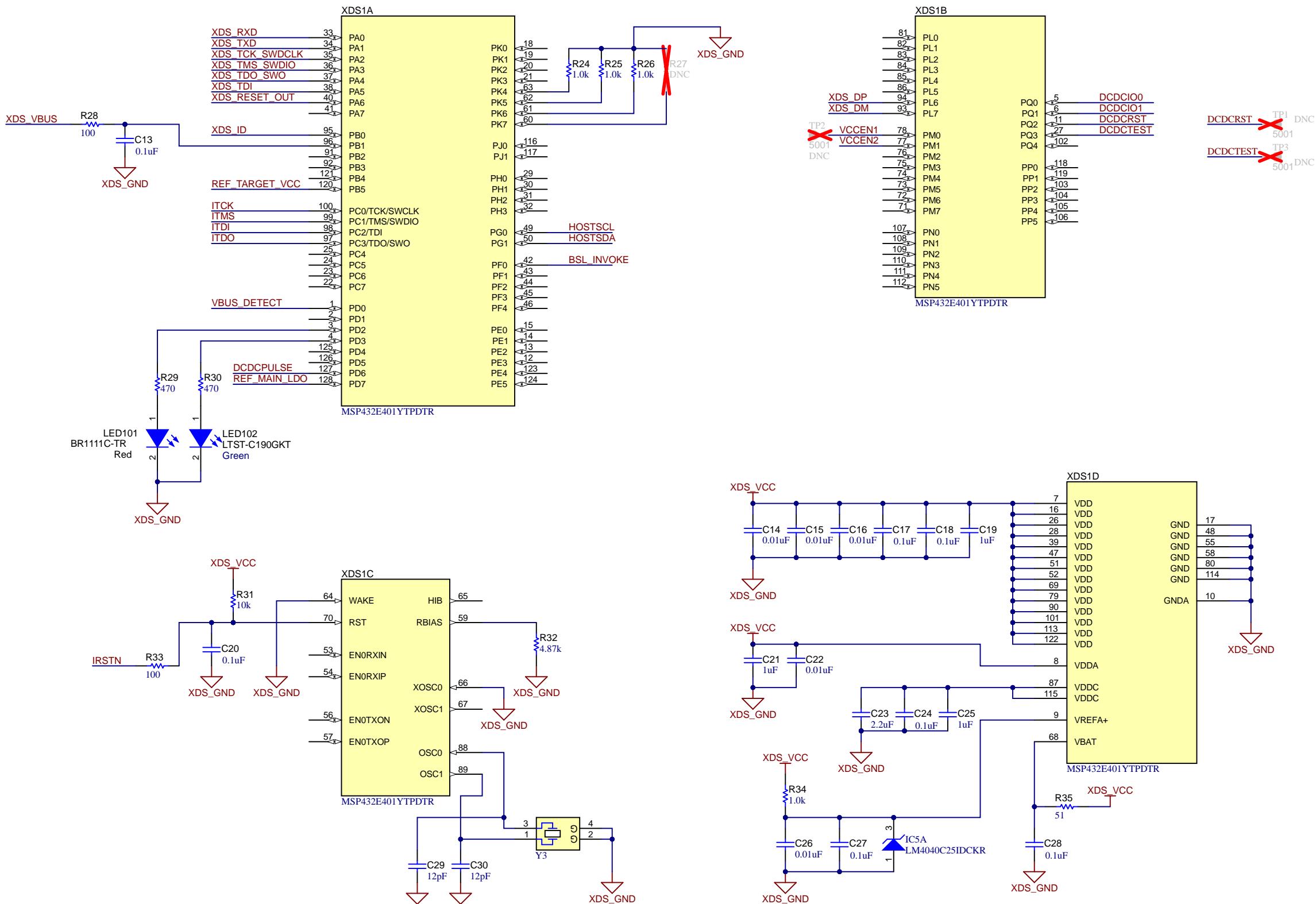
Default OPA2365 is populated for the ADC input test;  
If OPA2365 is NOT used, R72 need to be taken off and R74 0-ohm to be populated;

### RC Filter for ADC Input



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TID #:	N/A	Project Title: LP-MSPM0G3507
Number: MCU098	Rev: A	Sheet Title: BoosterPack Connectors
SVN Rev:	Assembly Variant: Variant 1	Sheet: 2 of 7
Drawn By: Johnson He	File: MCU098_02_BoosterPack_Connectors.SchDoc	Size: B
Engineer: Johnson He	Contact: http://www.ti.com/support	© Texas Instruments 2022

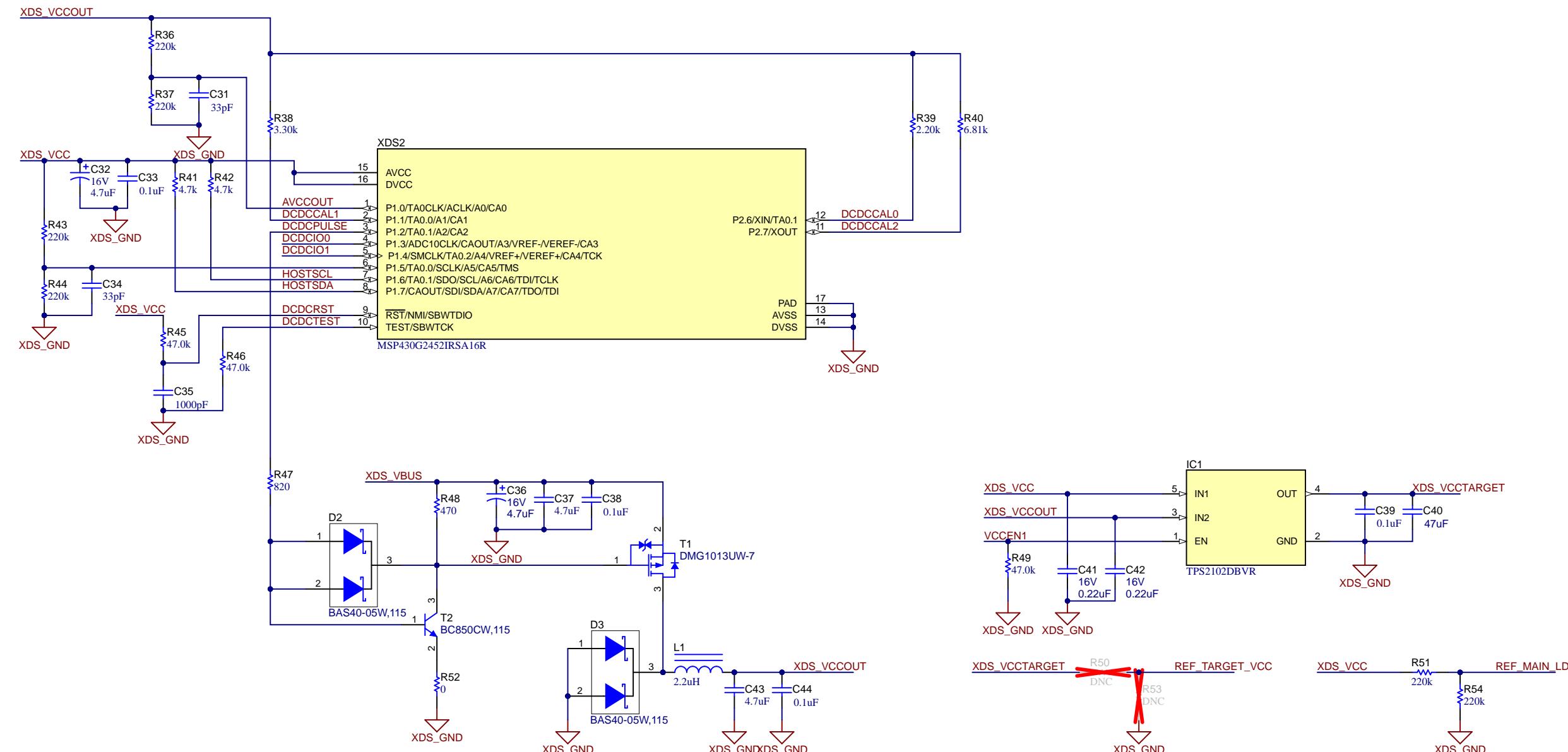


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TID #: N/A	Project Title: LP-MSPMG3507		
Number: MCU098	Rev: A	Sheet Title: XDS110-ET Debug Probe	
SVN Rev:	Assembly Variant: Variant 1	Sheet: 3 of 7	
Drawn By: Johnson He	File: MCU098_03_XDS110_Debug_Probe.SchDoc	Size: B	
Engineer: Johnson He	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>		

## Software-controlled DCDC converter

Energy measurement method protected under U.S. Patent  
Application 13/329,073 and subsequent patent applications



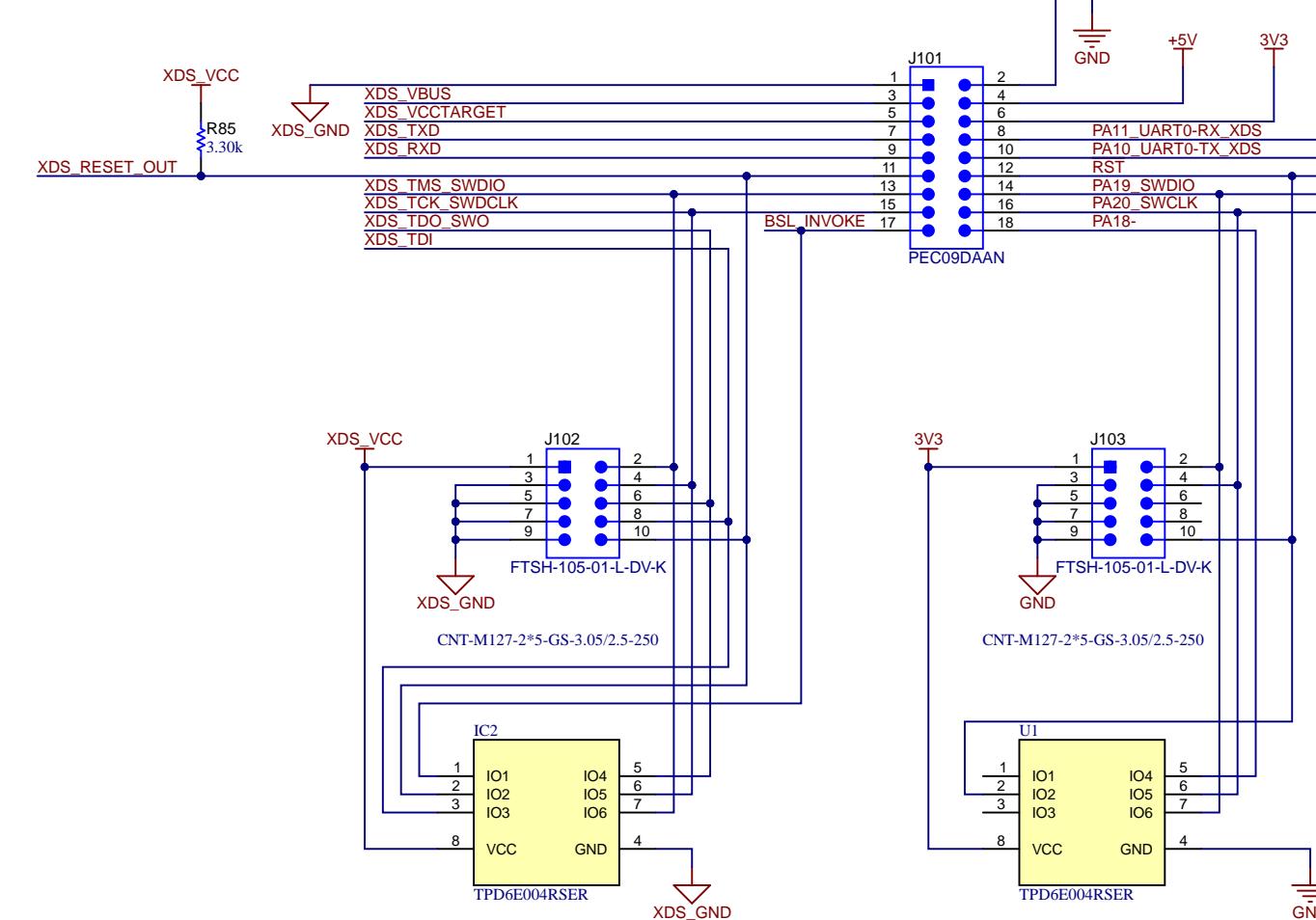
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Number: MCU098	Rev: A	Sheet Title: XDS110-ET_EnergyTrace
SVN Rev:	Assembly Variant: Variant 1	Sheet: 4 of 7
Drawn By: Johnson He	File: MCU098_04_XDS110-ET_EnergyTrace.SchD	Size: B
Engineer: Johnson He	Contact: http://www.ti.com/support	

A

A

XDS110-ET &lt;----&gt; LaunchPad



B

B

C

C

D

D

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Number: MCU098	Rev: A	Sheet Title: XDS110-ET Interface
SVN Rev:	Assembly Variant: Variant 1	Sheet: 5 of 7
Drawn By: Johnson He	File: MCU098_05_XDS110_Target_Interface.Sch	Dot Size: B
Engineer: Johnson He	Contact: http://www.ti.com/support	© Texas Instruments 2022

A

A

B

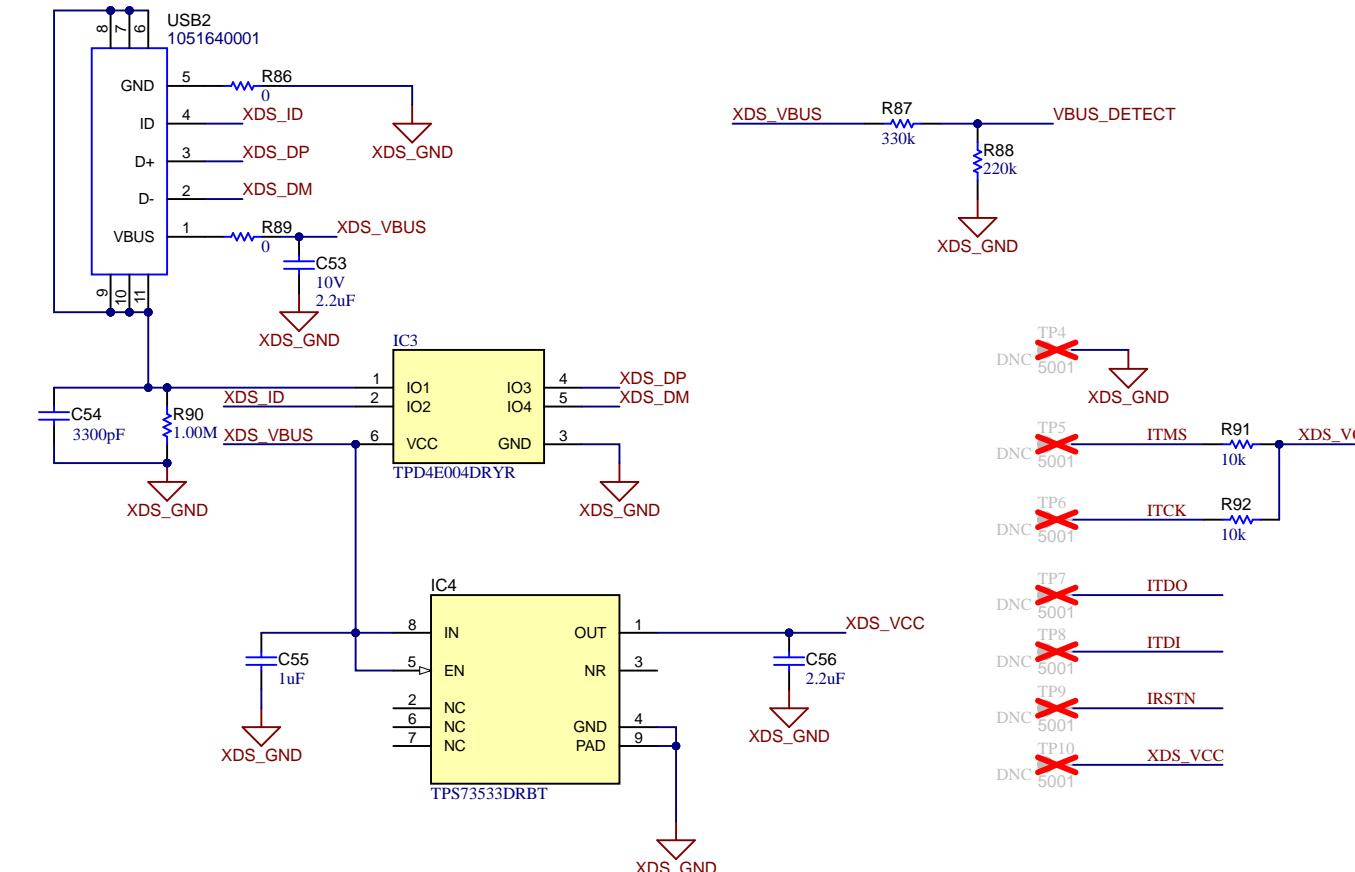
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C

C

D

D



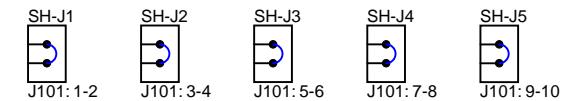
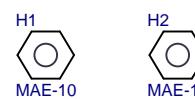
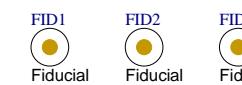
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Number: MCU098	Rev: A	Sheet Title: XDS110-ET USB Power
SVN Rev:	Assembly Variant: Variant 1	Sheet: 6 of 7
Drawn By: Johnson He	File: MCU098_06_XDS110-ET_USB_Power.SchDd	Size: B
Engineer: Johnson He	Contact: http://www.ti.com/support	© Texas Instruments 2022

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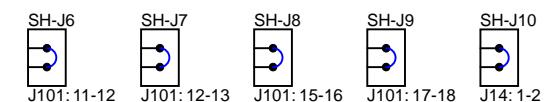
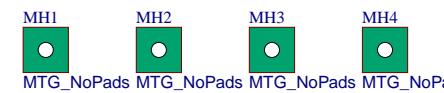
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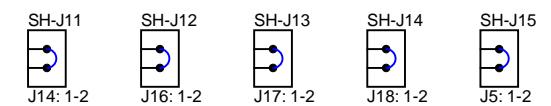


PCB Number: MCU098  
PCB Rev: A

Printed Circuit Board



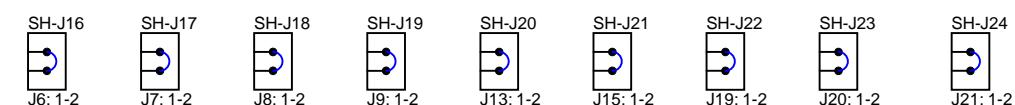
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LOGO  
Texas Instruments



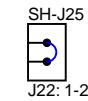
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LOGO  
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Logo6  
PCB  
LOGO  
FCC disclaimer

Logo7  
PCB  
LOGO  
WEEE logo



USB1  
MECH  
AK67421-0.3



ZZ1

**Assembly Note**

These assemblies are ESD sensitive, ESD precautions shall be observed.

ZZ2

**Assembly Note**

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

ZZ3

**Assembly Note**

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

ZZ4

**Assembly Note**

Place a click-in Standoff (MAE-10, KangYang) in hole MH1/MH2

C

C

D

D

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TID #: N/A	Project Title: LP-MSPM0G3507	
Number: MCU098	Rev: A	Sheet Title: Hardware
SVN Rev:	Assembly Variant: Variant 1	Sheet: 7 of 7
Drawn By: Johnson He	File: MCU098_07_Hardware.SchDoc	Size: B
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