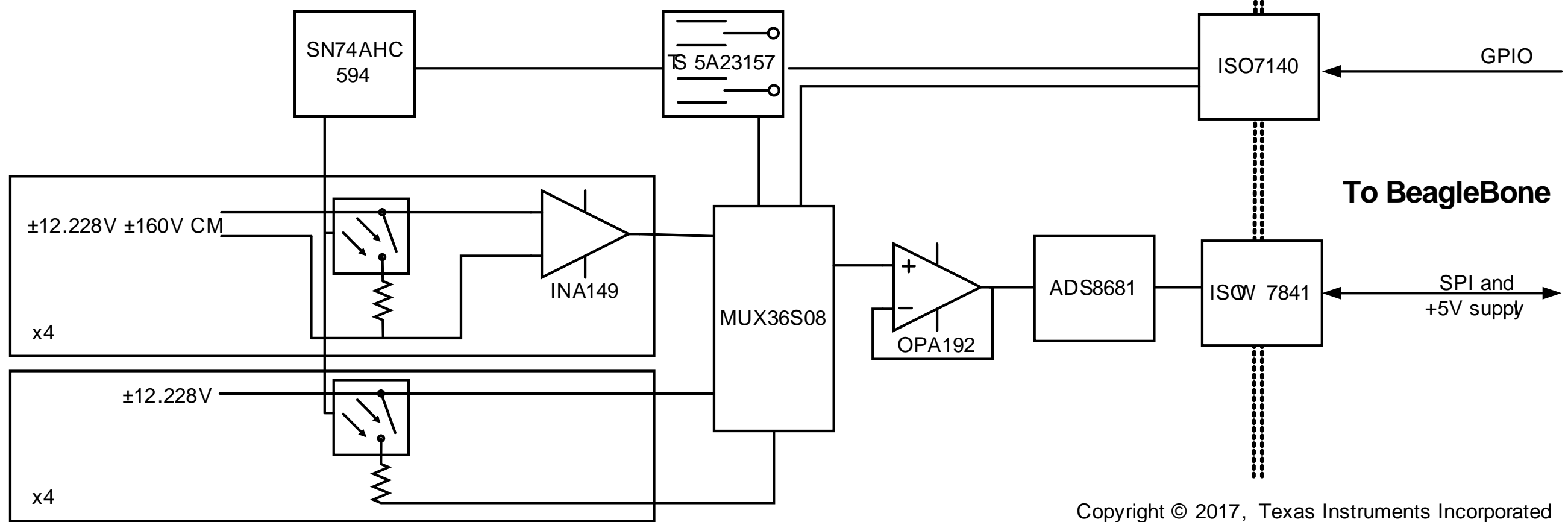
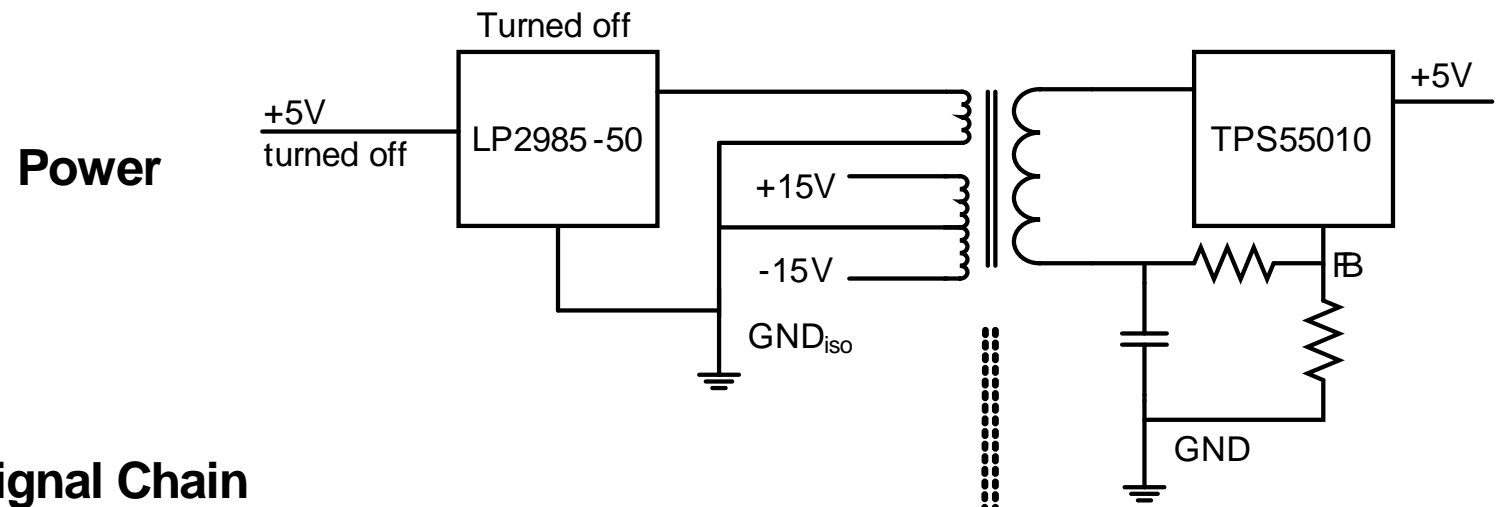


Revision History	
Revision	Notes

# TDA -01333

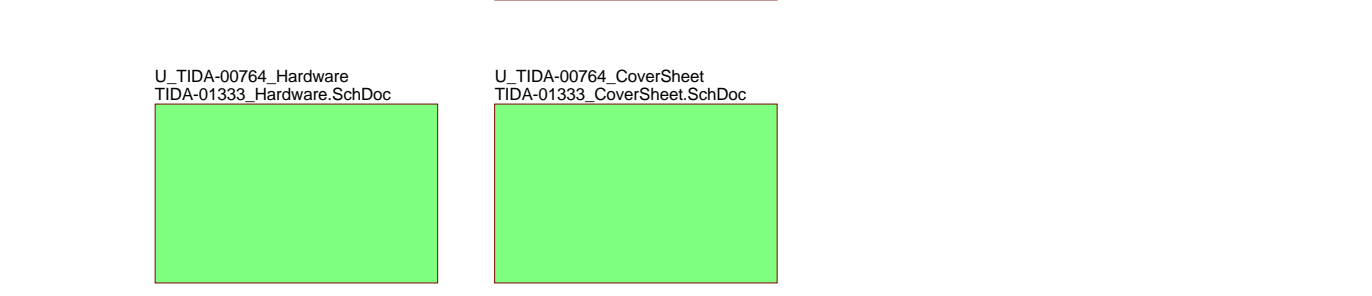
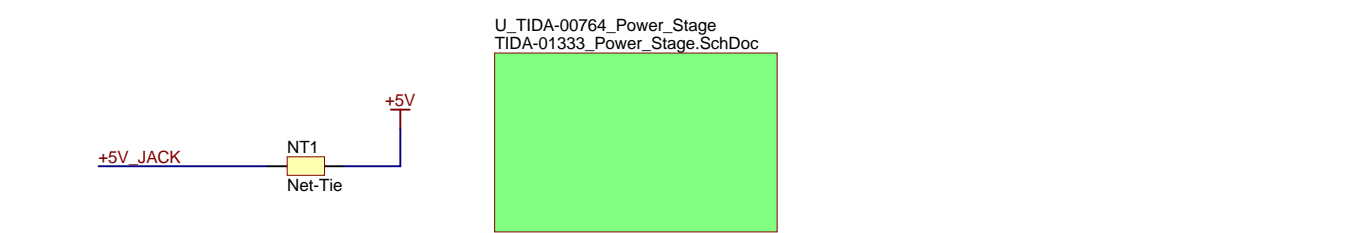
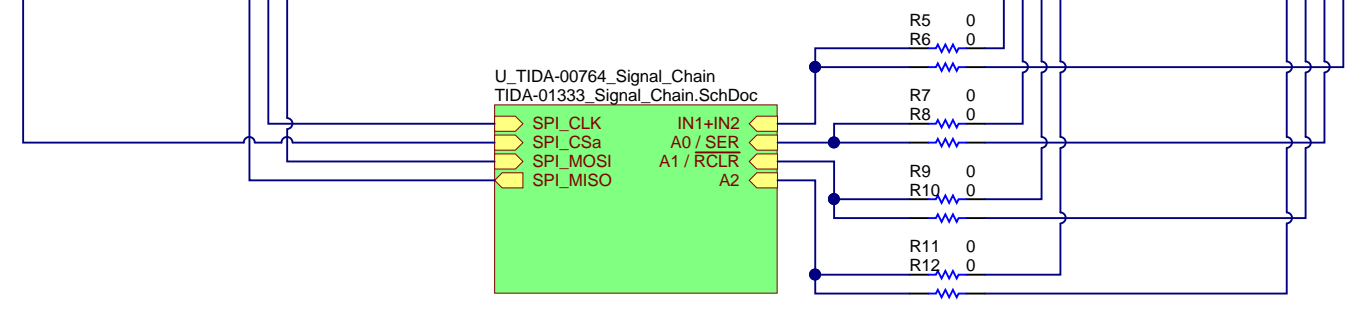
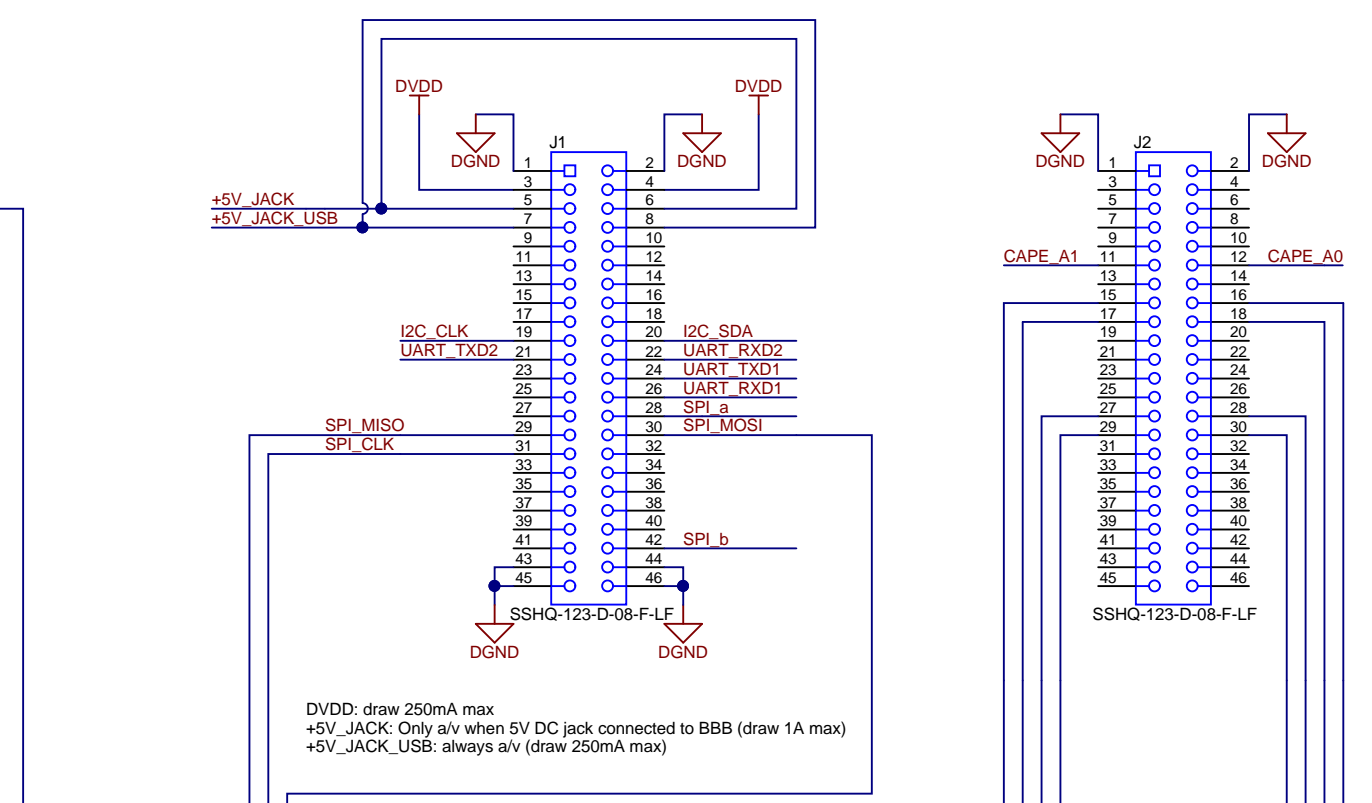
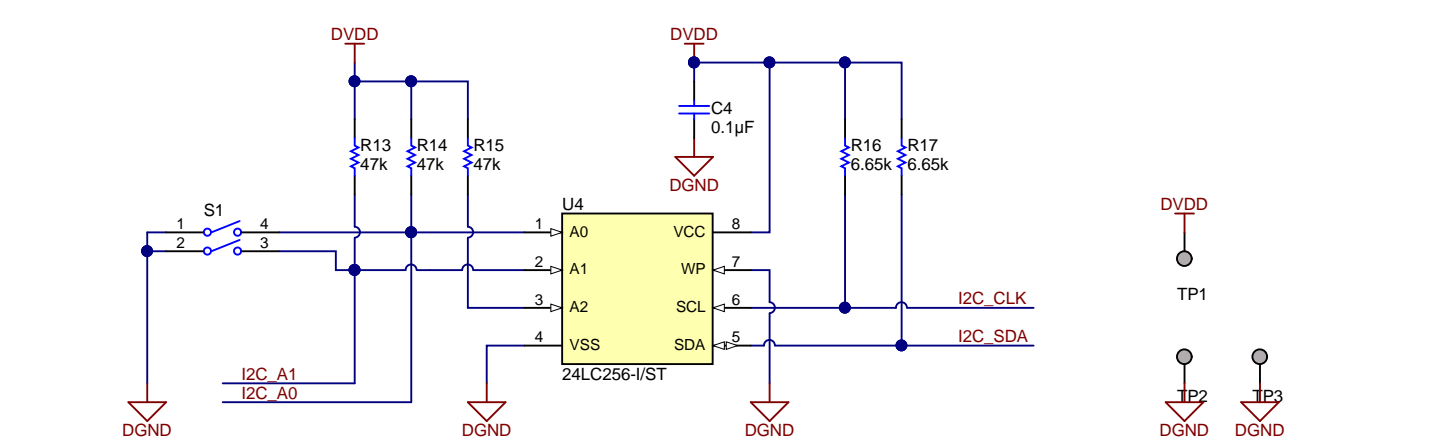
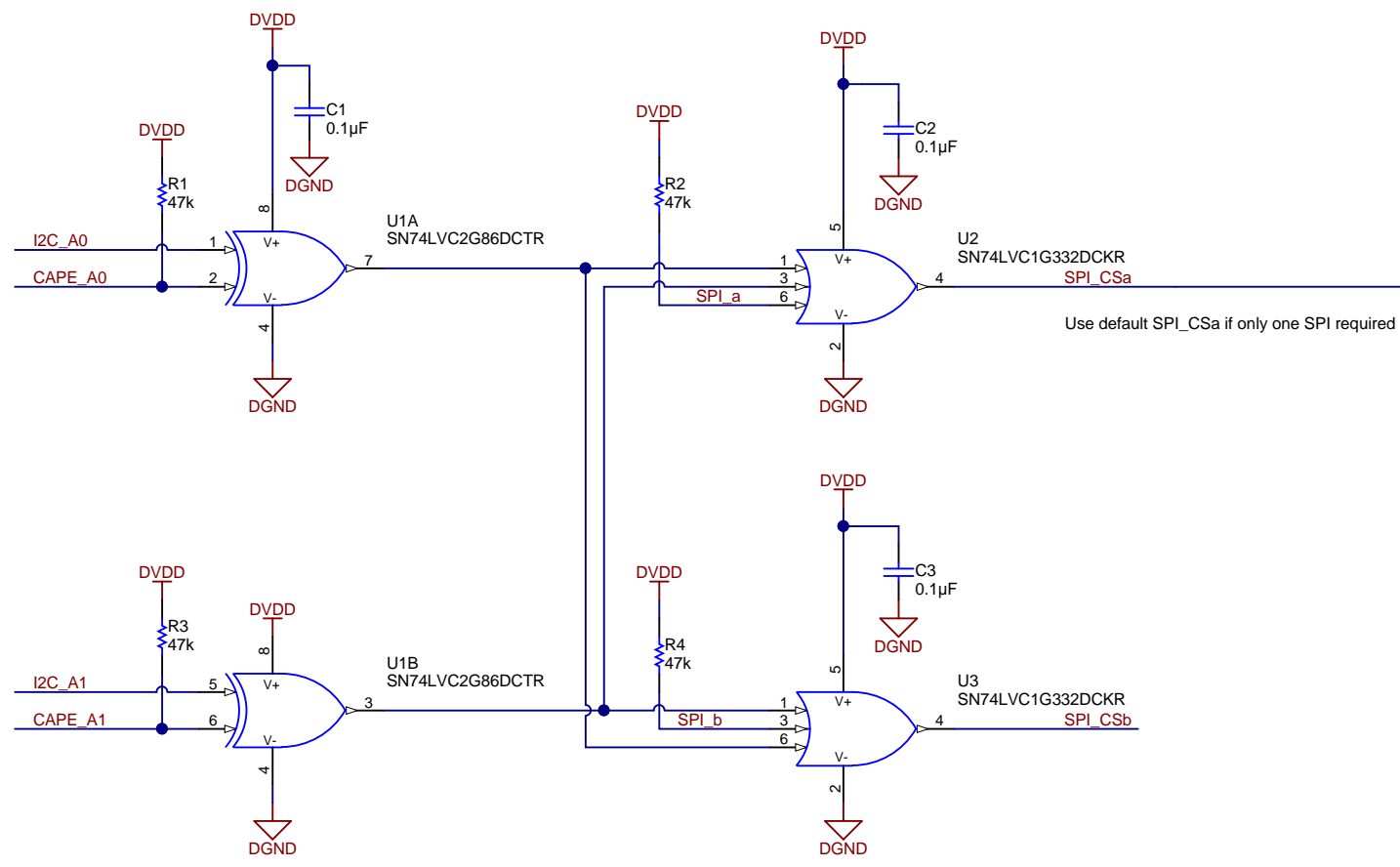
## 8-ch Isolated High Voltage Analog Input Module with ISOW7841 Reference Design

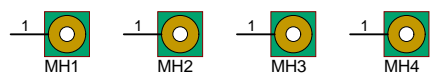


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TID #: TIDA-01333	Project Title: 8-ch Isolated High Voltage Analog Input Module with	Sheet Title: Block Diagram	
Number: TIDA-01333	Rev: E1	Assembly Variant: 001	
SVN Rev: Version control disabled	File: TIDA-01333_CoverSheet_SchDoc	Size: B	
Drawn By: Tobias Puetz	Engineer: Tobias Puetz	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	

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PCB Number: TIDA-01333  
PCB Rev: E1

PCB LOGO  
Logo1

PCB LOGO  
Logo2


Label Table	
Variant	Label Text
001	TIDA-01333

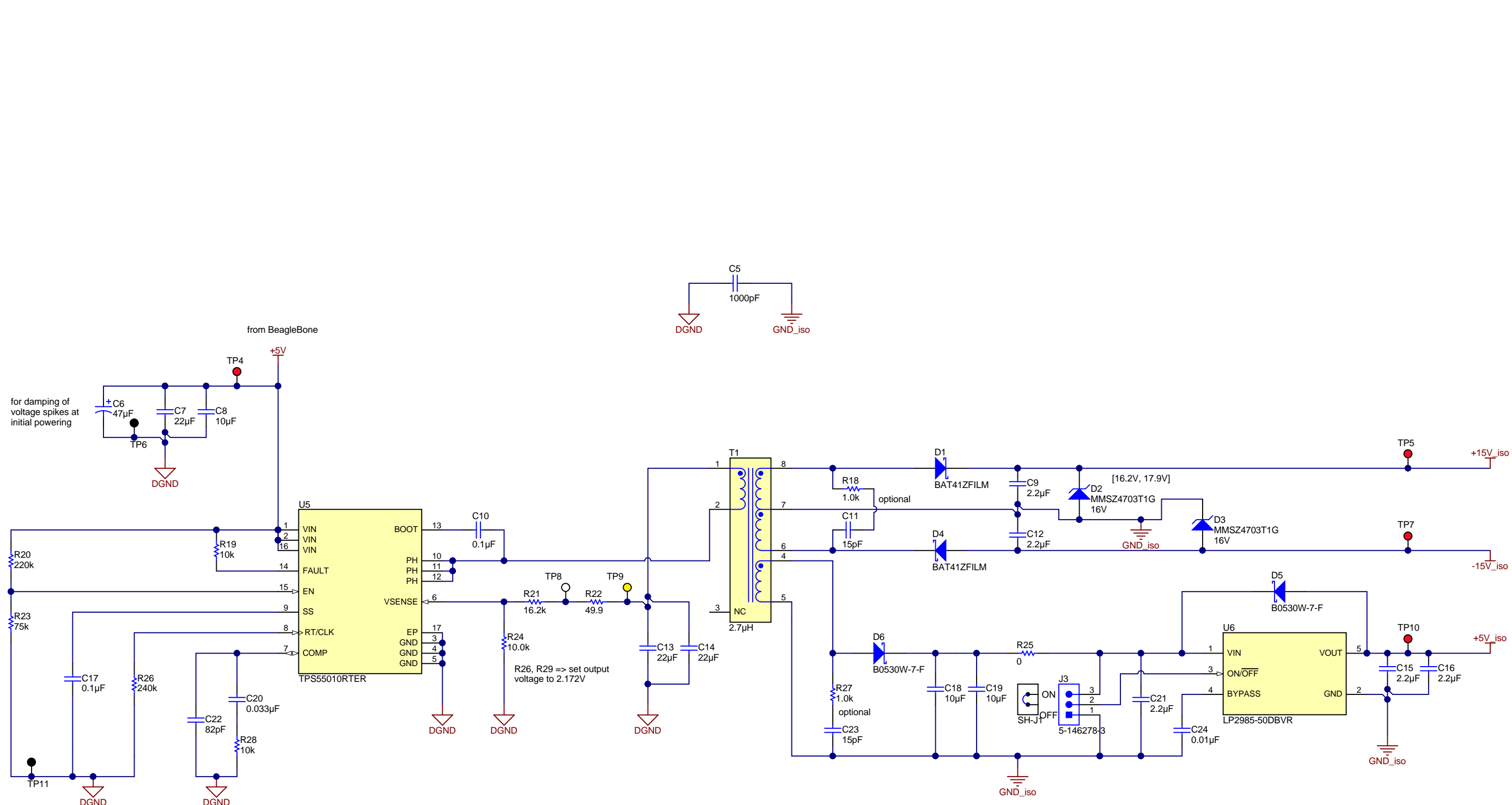
ZZ1  
Assembly Note  
 This Assembly Note will show in the PcbDoc and associated outputs

ZZ2  
Assembly Note  
 This Assembly Note will show in the PcbDoc and associated outputs

ZZ3  
Assembly Note  
 This Assembly Note will show in the PcbDoc and associated outputs

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TID #: TIDA-01333	Project Title: 8-ch Isolated High Voltage Analog Input Module with		
Number: TIDA-01333	Rev: E1	Sheet Title: Hardware	
SVN Rev: Version control disabled	Assembly Variant: 001	Sheet: 3 of 10	
Drawn By: Tobias Puetz	File: TIDA-01333_Hardware.SchDoc	Size: B	
Engineer: Tobias Puetz	Contact: http://www.ti.com/support		



for damping of voltage spikes at initial powering

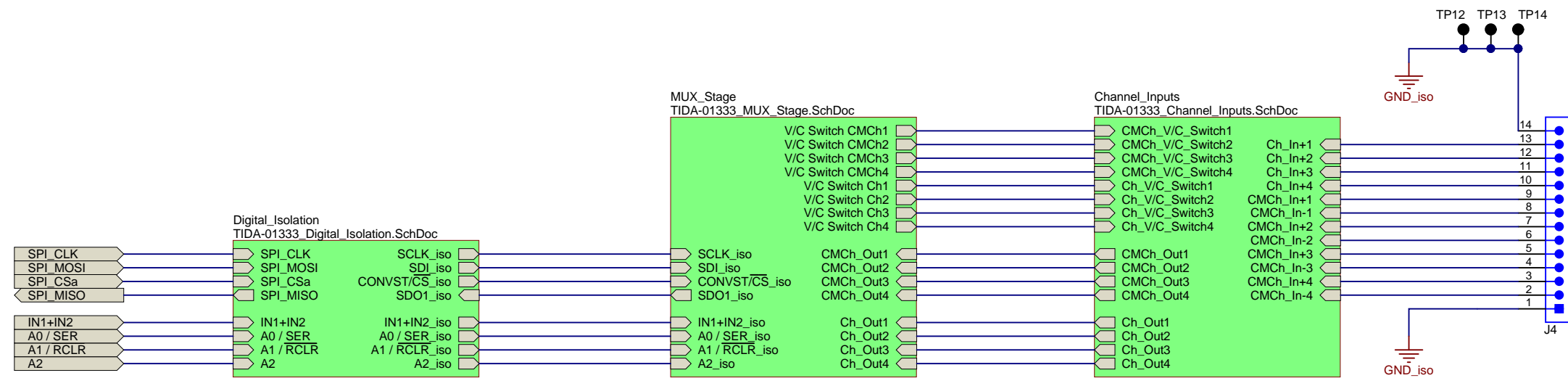
R20, R23 => set UVLO to 3.5V, operation starts at 4.5V  
 C17 => set slow start to 35ms  
 R26 => set operating switching frequency to 400kHz  
 C20, C22, R28 => compensation

R26, R29 => set output voltage to 2.172V

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TID #: TIDA-01333	Project Title: 8-ch Isolated High Voltage Analog Input Module with	
Number: TIDA-01333	Rev: E1	Sheet Title: Power Stage
SVN Rev: Version control disabled	Assembly Variant: 001	Sheet: 4 of 10
Drawn By: Tobias Puetz	File: TIDA-01333_Power_Stage.SchDoc	Size: B
Engineer: Tobias Puetz	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	

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TID #: TIDA-01333	Project Title: 8-ch Isolated High Voltage Analog Input Module with	Sheet Title: Signal Chain	
Number: TIDA-01333	Rev: E1	Assembly Variant: 001	Sheet: 5 of 10
SVN Rev: Version control disabled	File: TIDA-01333_Signal_Chain.SchDoc	Size: B	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>
Drawn By: Tobias Puetz	Engineer: Tobias Puetz		

A

B

C

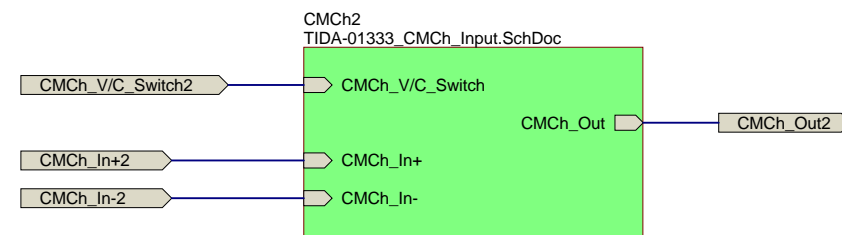
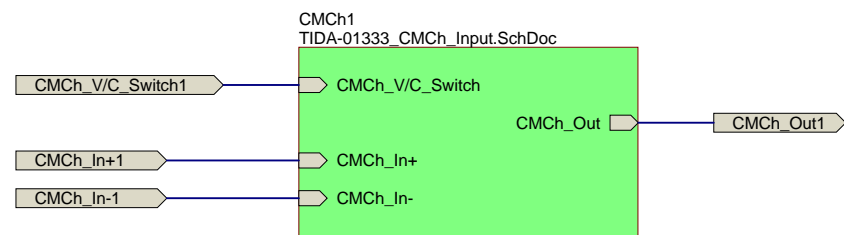
D

A

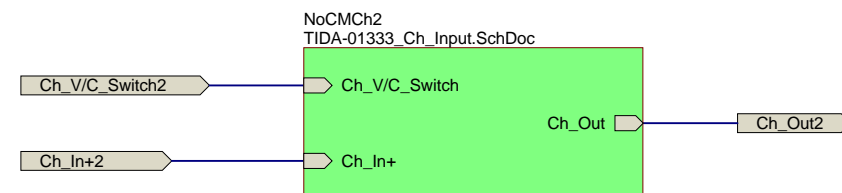
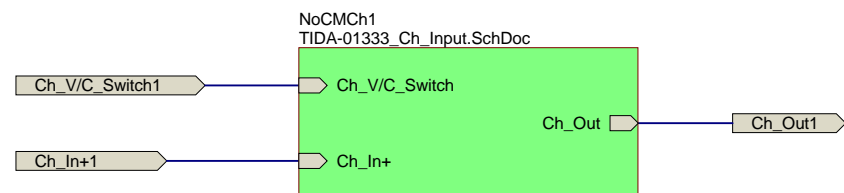
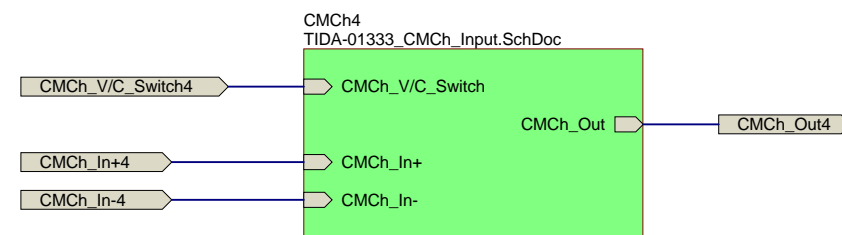
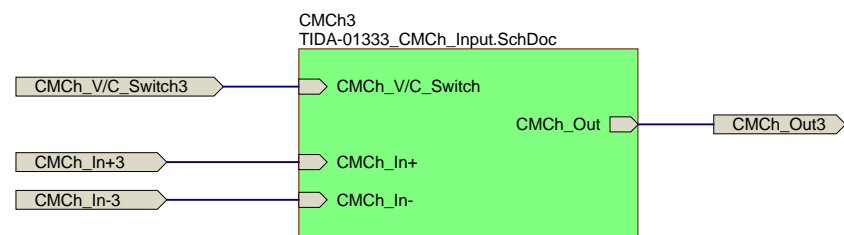
B

C

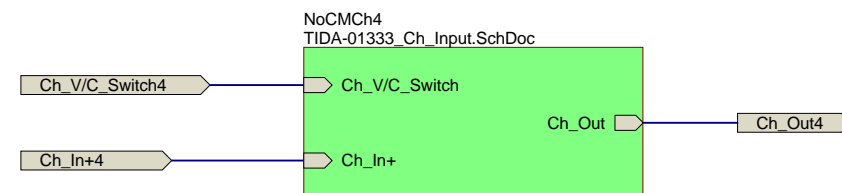
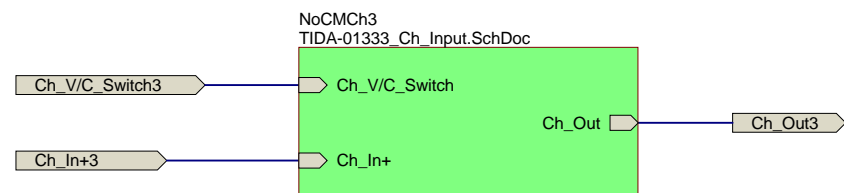
D



Channels with Common Mode



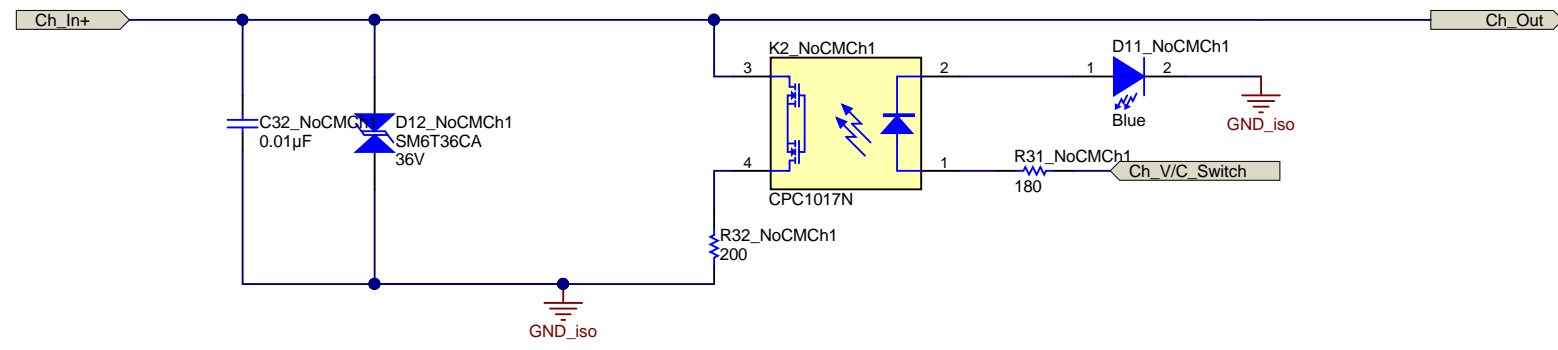
Channels without Common Mode




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Number: TIDA-01333	Rev: E1	Sheet Title: Channel Inputs
SVN Rev: Version control disabled	Assembly Variant: 001	Sheet: 6 of 10
Drawn By: Tobias Puetz	File: TIDA-01333_Channel_Inputs.SchDoc	Size: B
Engineer: Tobias Puetz	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	

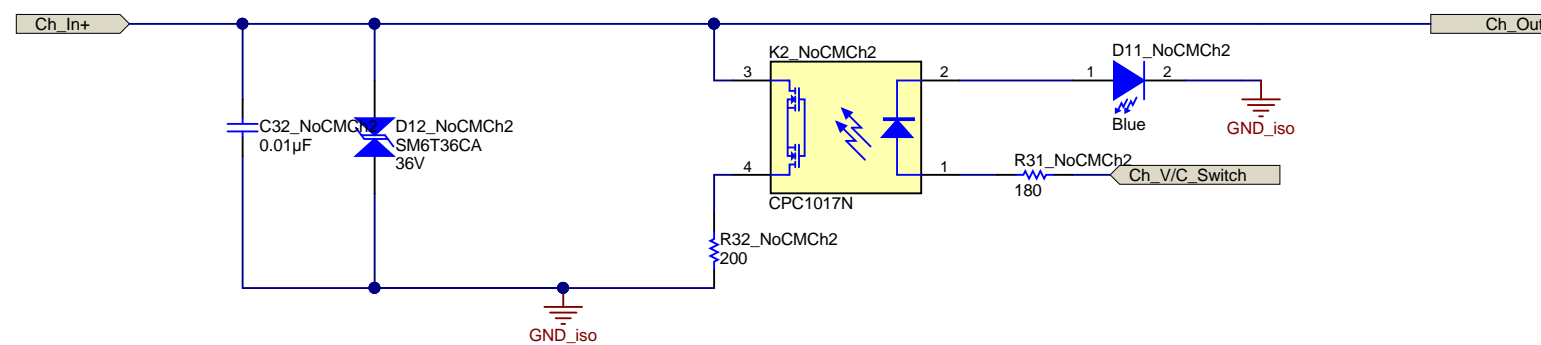


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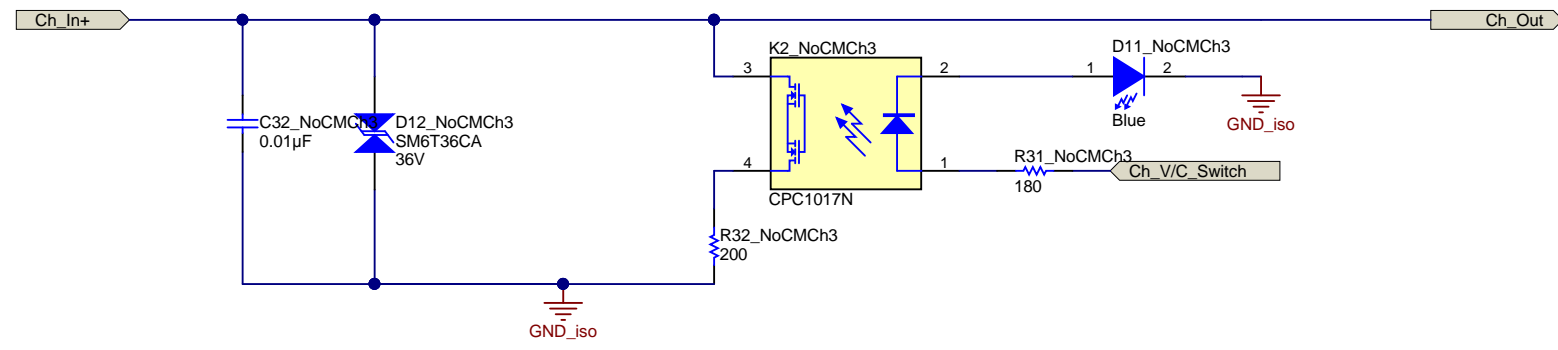
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Number: TIDA-01333	Rev: E1	Sheet Title: NoCM Ch Input	© Texas Instruments 2016
SVN Rev: Version control disabled	Assembly Variant: 001	Size: B	
Drawn By: Tobias Puetz	File: TIDA-01333_Ch_Input.SchDoc	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	
Engineer: Tobias Puetz			




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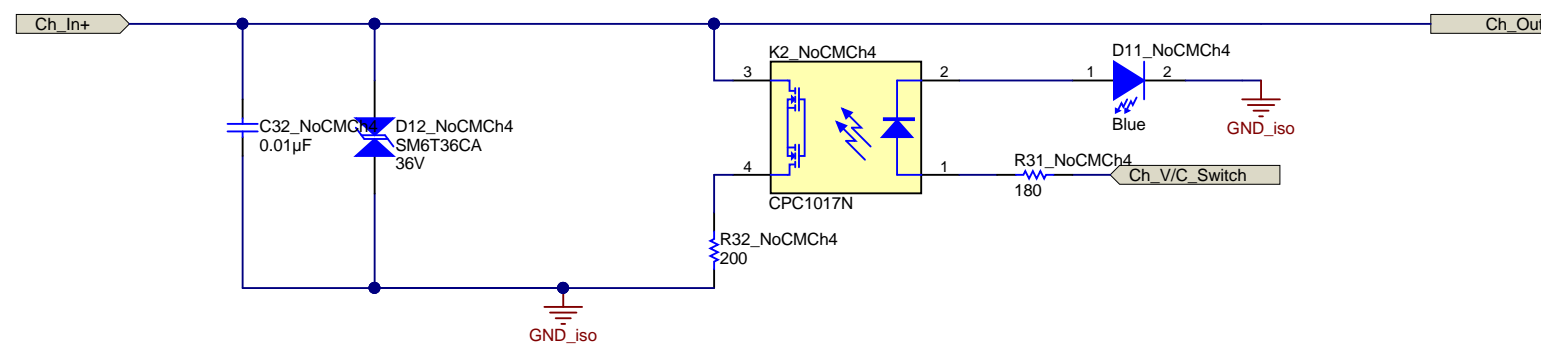
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Number: TIDA-01333	Rev: E1	Sheet Title: NoCM Ch Input	Size: B Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>
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Drawn By: Tobias Puetz	Engineer: Tobias Puetz	Engineer: Tobias Puetz	






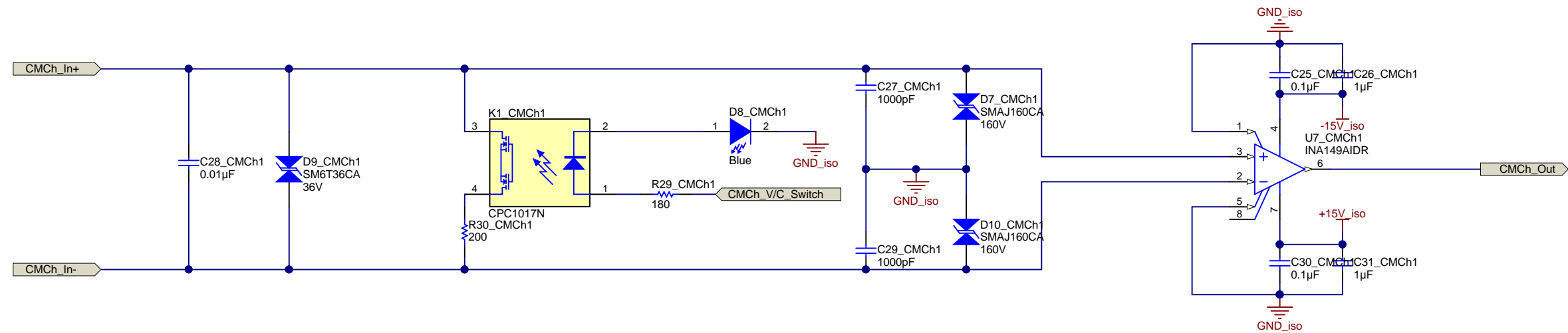
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Number: TIDA-01333	Rev: E1	Sheet Title: NoCM Ch Input	Size: B
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Drawn By: Tobias Puetz	Engineer: Tobias Puetz		




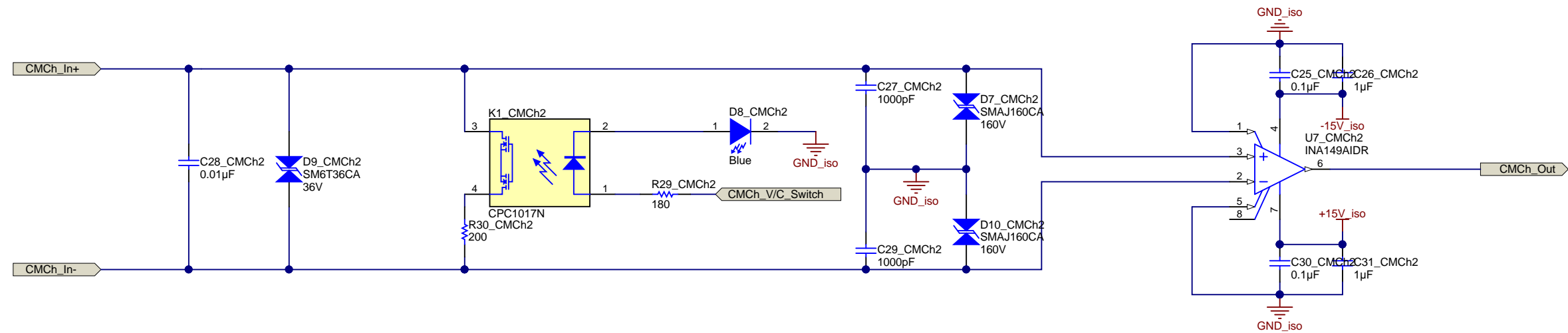
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Drawn By: Tobias Puetz	Engineer: Tobias Puetz		




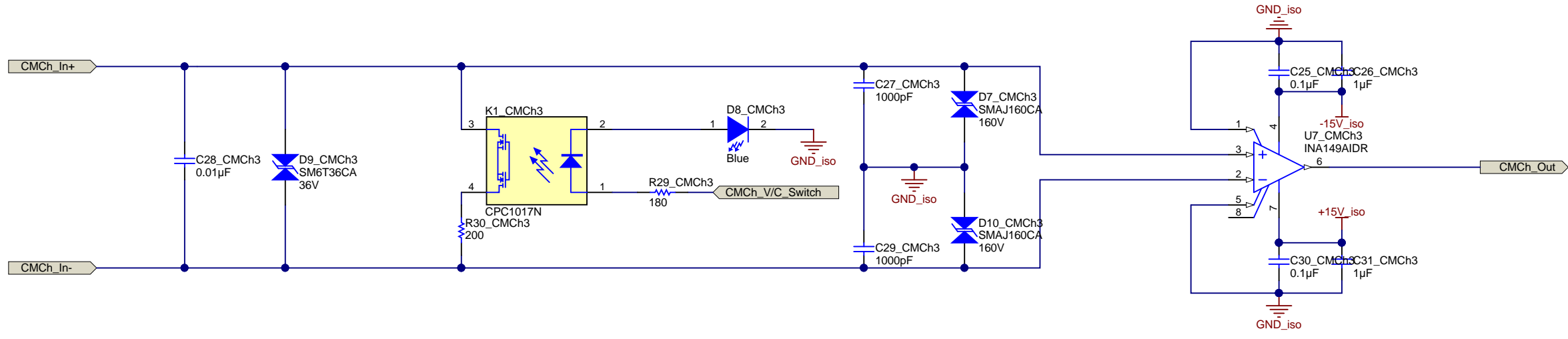
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TID #: TIDA-01333	Project Title: 8-ch Isolated High Voltage Analog Input Module with	Sheet: 8 of 10	
Number: TIDA-01333	Rev: E1	Sheet Title: CM Ch Input	
SVN Rev: Version control disabled	Assembly Variant: 001	Size: B	
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Engineer: Tobias Puetz			



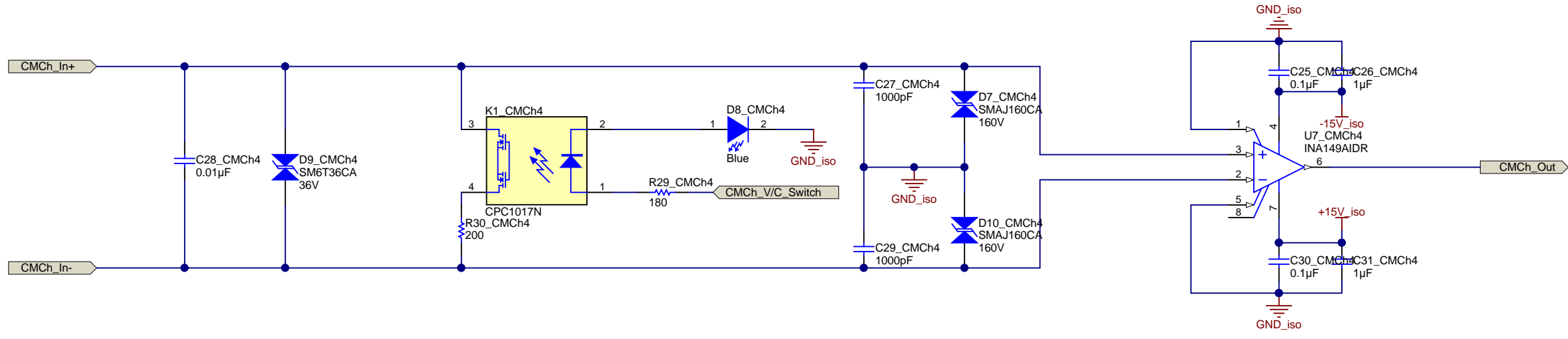
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Number: TIDA-01333	Rev: E1	Sheet Title: CM Ch Input	
SVN Rev: Version control disabled	Assembly Variant: 001	Sheet: 8 of 10	
Drawn By: Tobias Puetz	File: TIDA-01333_CMCh_Input.SchDoc	Size: B	
Engineer: Tobias Puetz	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>		




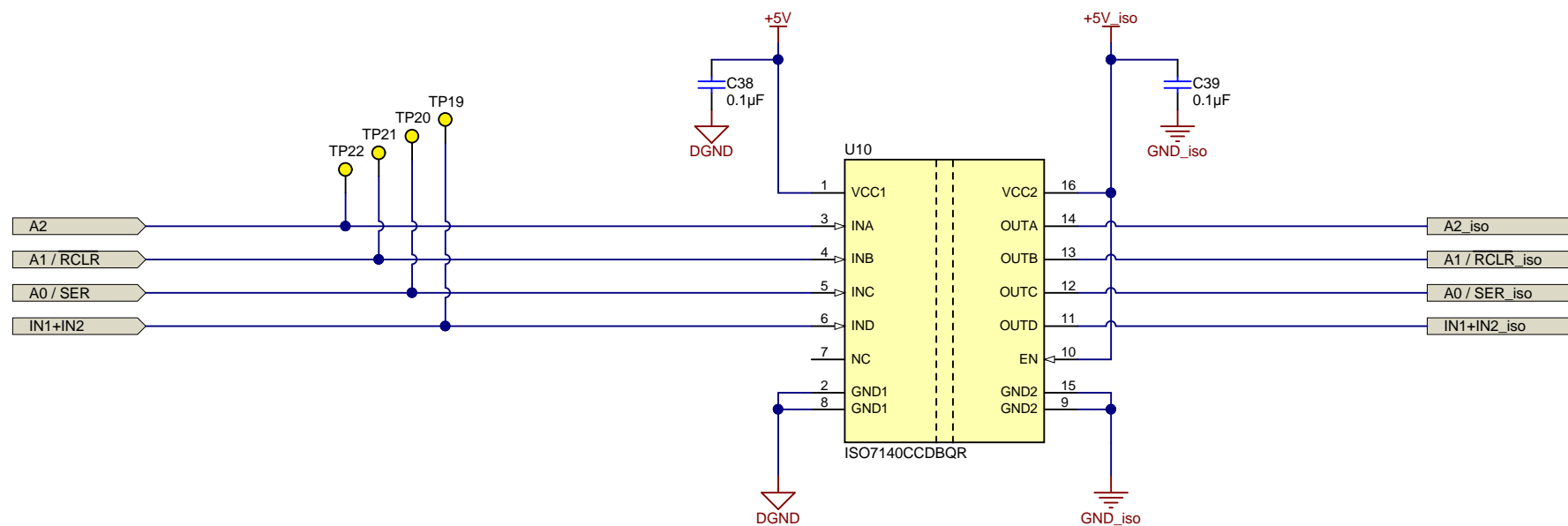
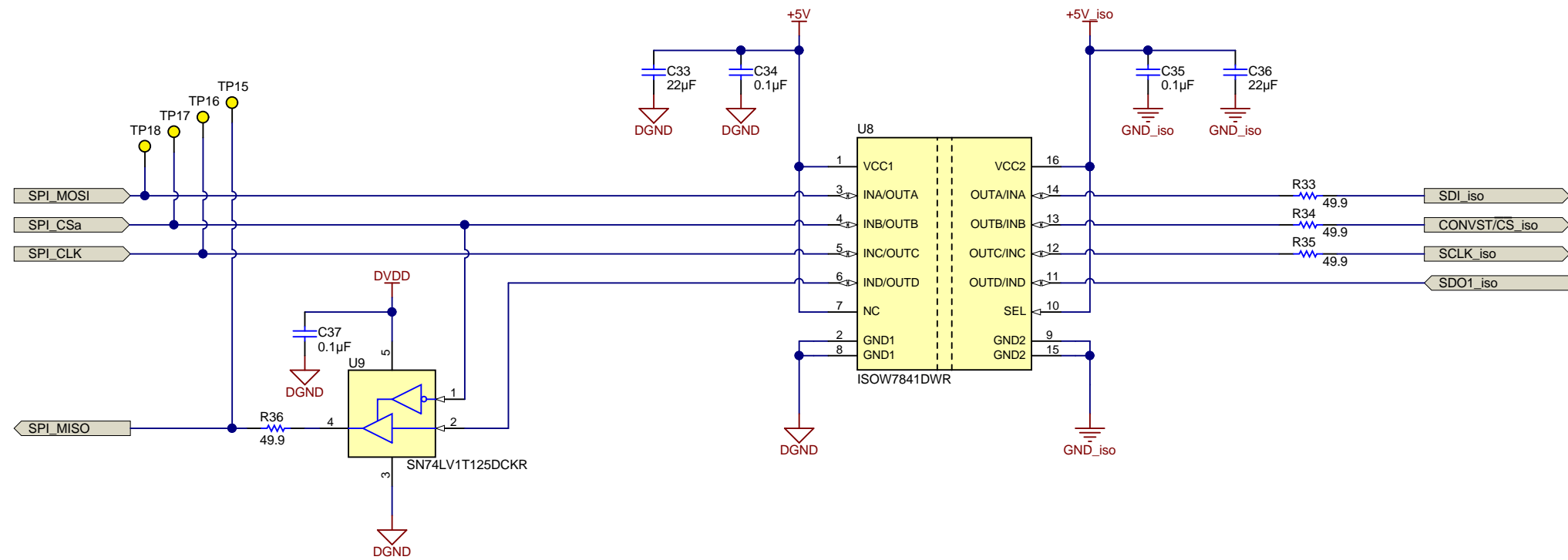
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Drawn By: Tobias Puetz	Engineer: Tobias Puetz	Contact: http://www.ti.com/support	




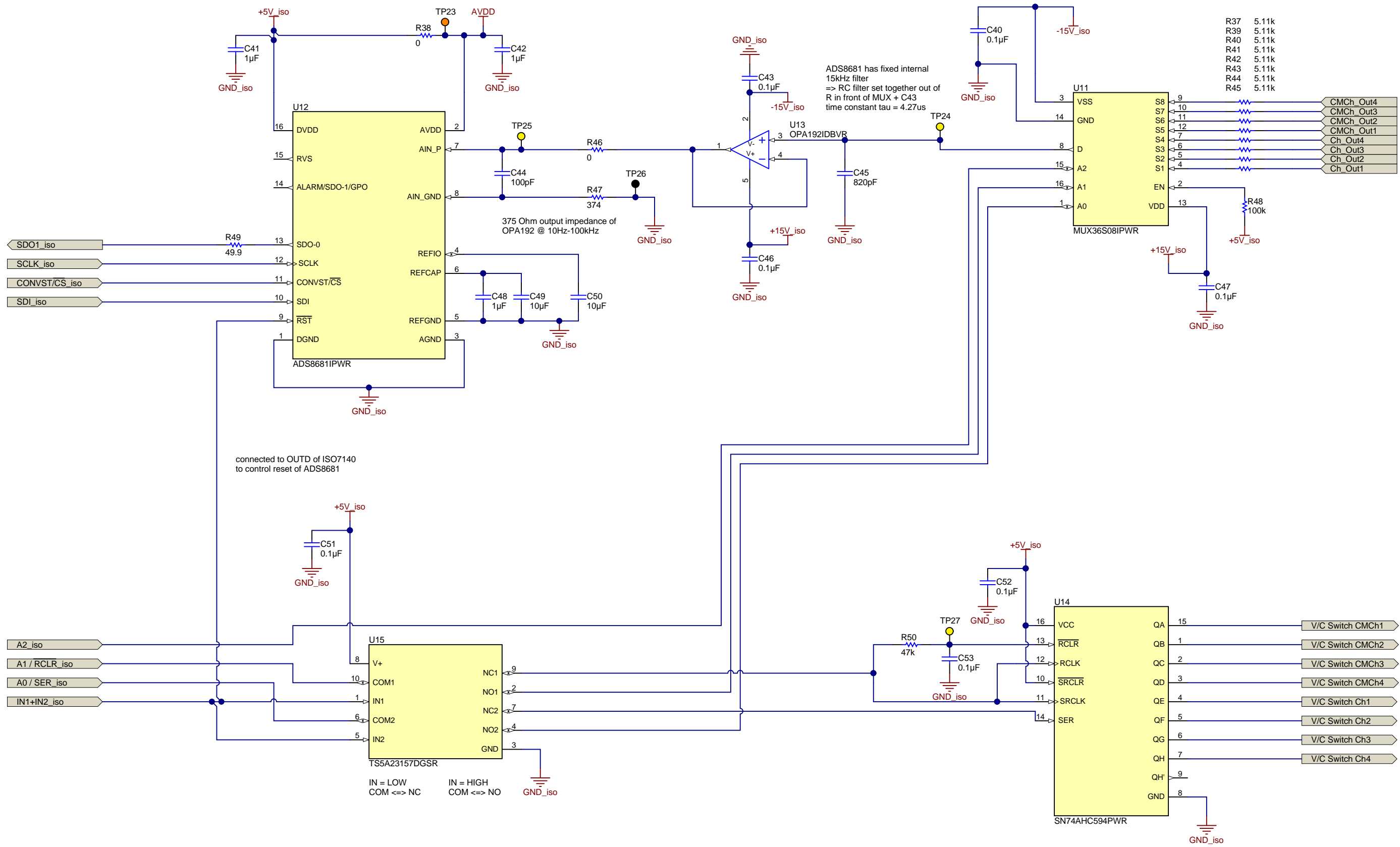
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TID #: TIDA-01333	Project Title: 8-ch Isolated High Voltage Analog Input Module with	Sheet Title: CM Ch Input	
Number: TIDA-01333	Rev: E1	Assembly Variant: 001	Sheet: 8 of 10
SVN Rev: Version control disabled	File: TIDA-01333_CMCh_Input.SchDoc	Size: B	
Drawn By: Tobias Puetz	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>		



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TID #: TIDA-01333	Project Title: 8-ch Isolated High Voltage Analog Input Module with	Sheet Title: Digital Isolation	
Number: TIDA-01333	Rev: E1	Assembly Variant: 001	Sheet: 9 of 10
SVN Rev: Version control disabled	File: TIDA-01333_Digital_Isolation_SchDoc	Size: B	Engineer: Tobias Puetz
Drawn By: Tobias Puetz	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>		



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