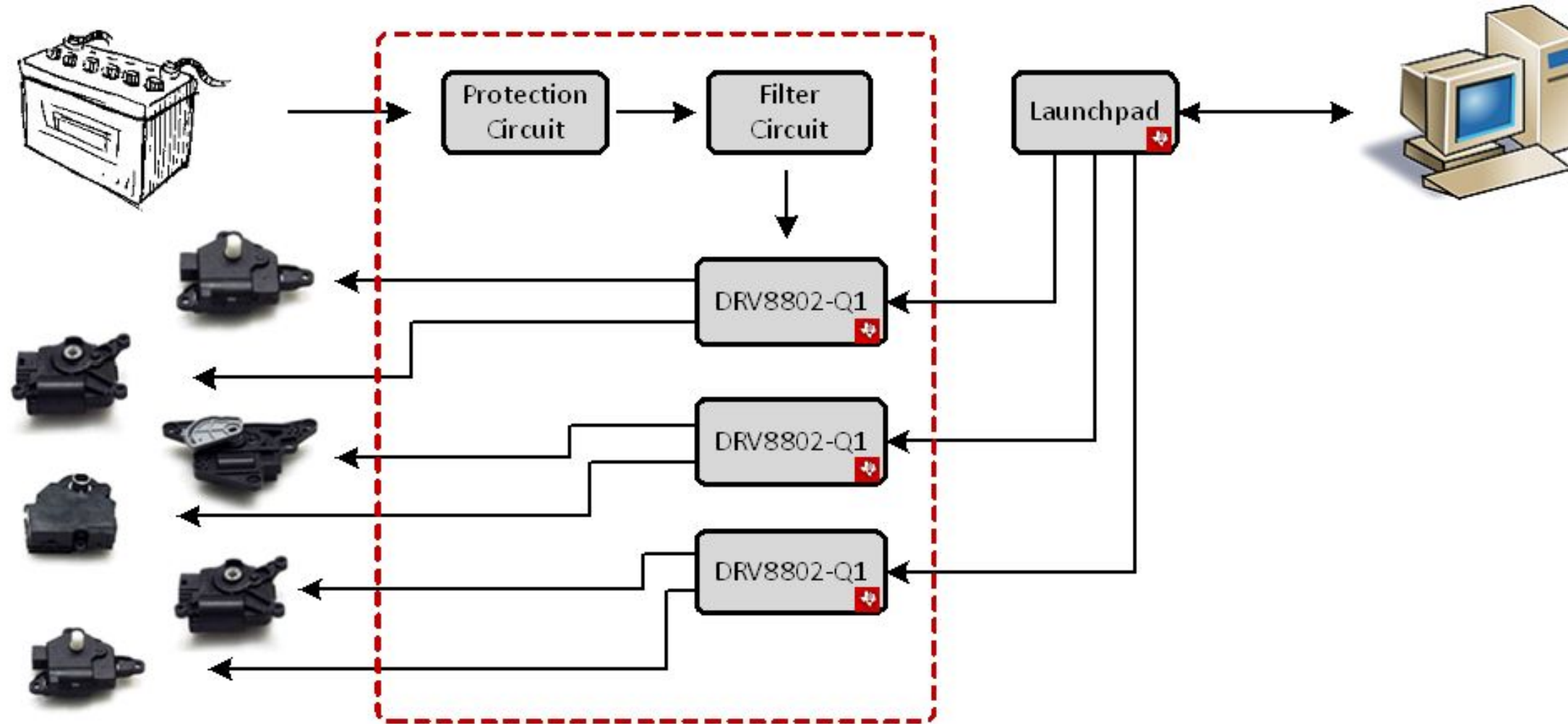


Revision History

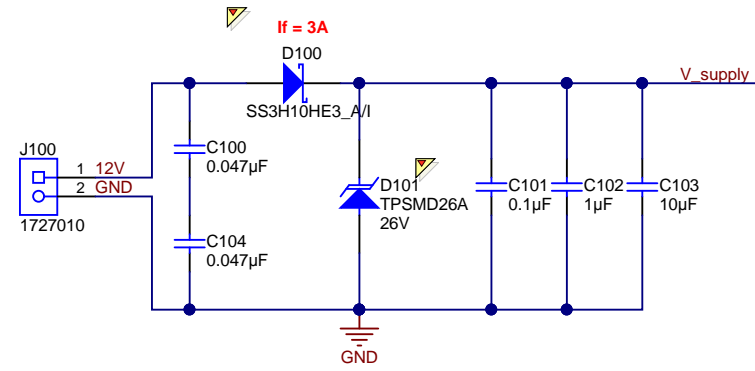
Rev	ECN #	Approved Date	Approved by	Notes
N/A	N/A	N/A	N/A	N/A



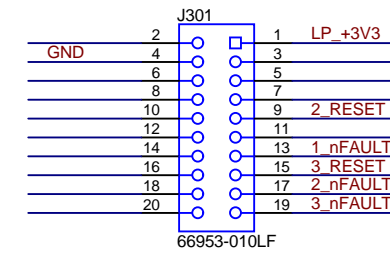
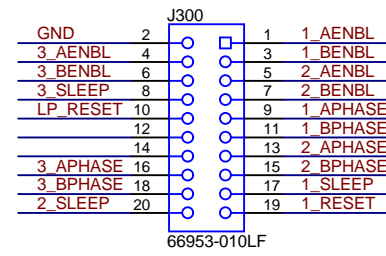
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TID #: TIDA-01357	Project Title: Automotive HVAC Multiple Flap Actuator / Damper	Sheet Title:	
Number: TIDA-01357	Rev: E1	Assembly Variant: 001	Sheet: 1 of 3
SVN Rev: Version control disabled	File: TIDA-01357_CoverSheet.SchDoc	Size: B	
Drawn By: Levan Bidzishvili	Contact: http://www.ti.com/support		

1. Protection Circuit



3. Connectors (µC <-> BoosterPack)

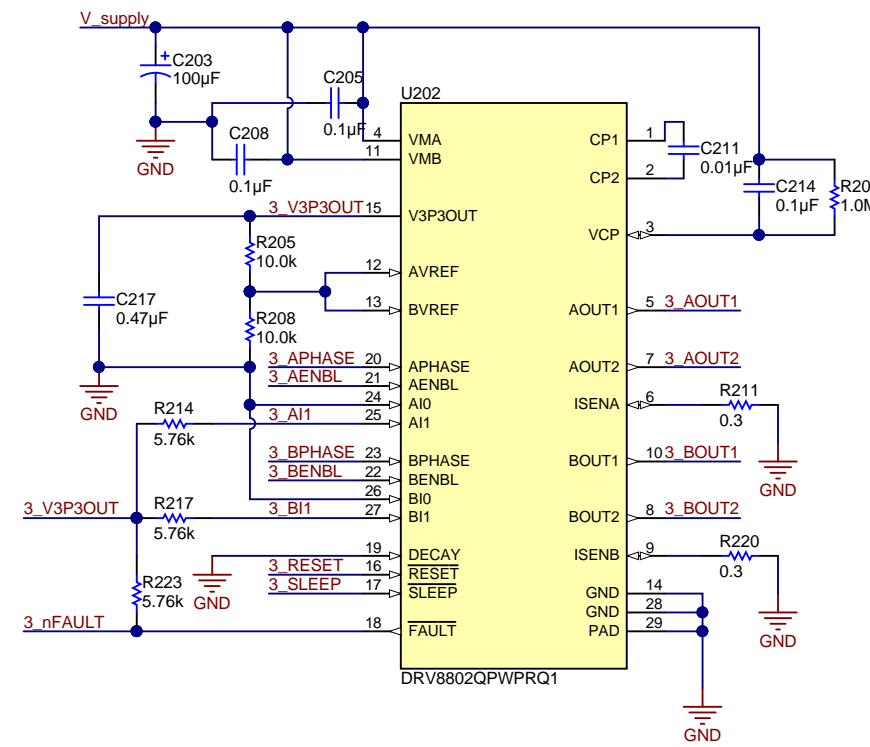
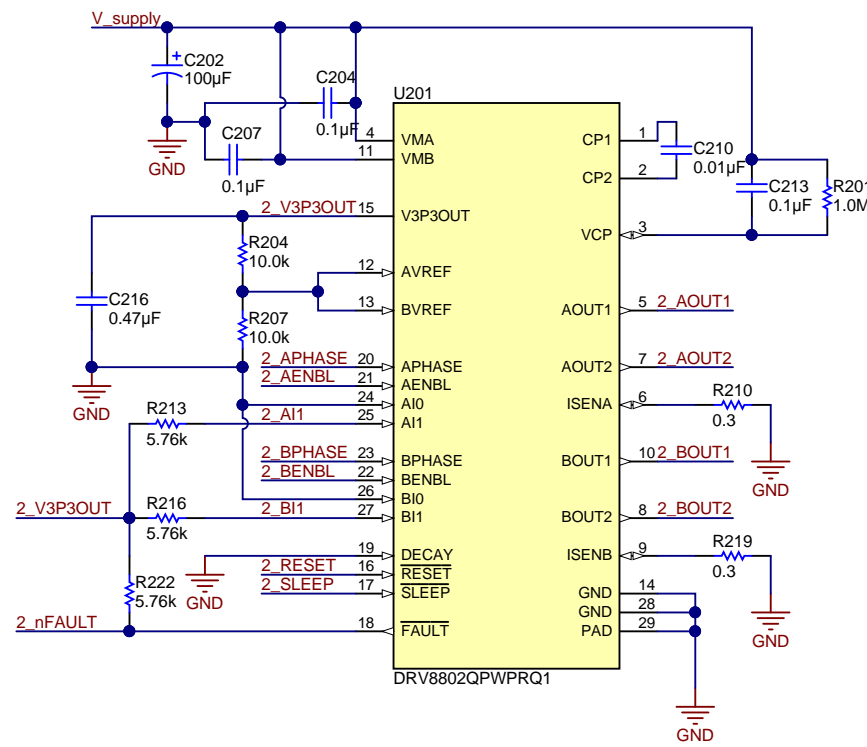
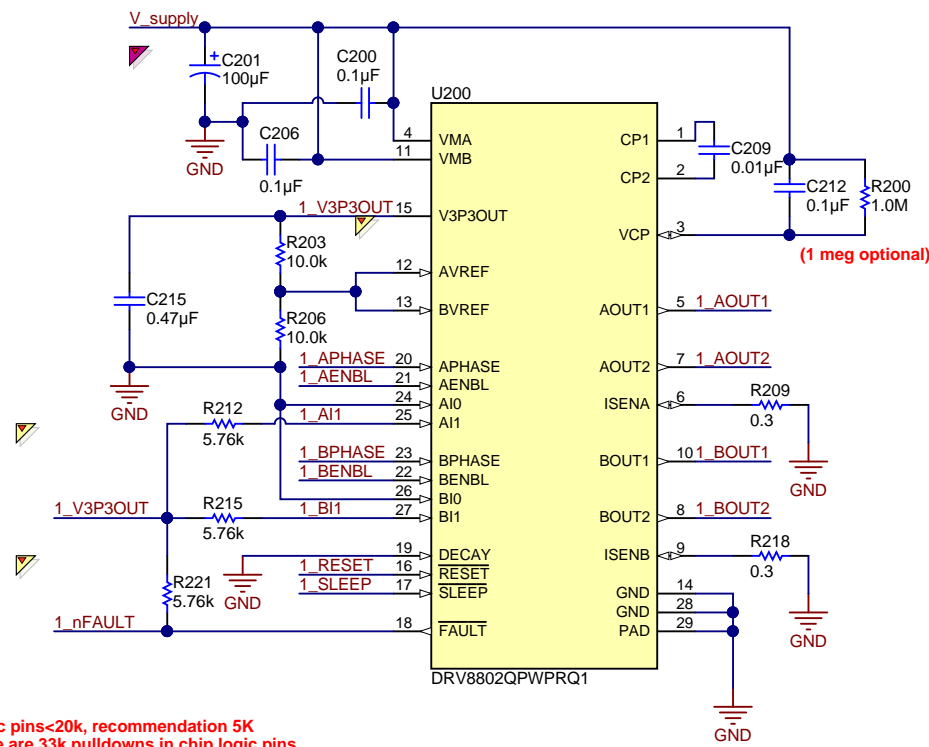


2. Motor driver circuit (3 x DRV8802-Q1)

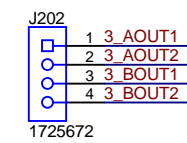
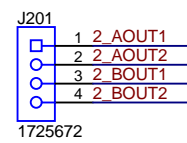
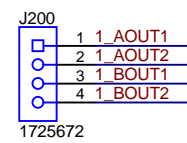
with this configuration the output current of each H-bridge is fixed to one value, which goes up to 0.4A. (I_{chop} = 0.417A).
Decay mode - slow decay.

DRV8802,
Internal PWM frequency = 50Khz

R(isense) = 0.3 Ohm
V(ref) = 3.3 / 2 = 1.65
I(chop) = V(vref) / (5 * R(isense)) = 1.099 A
AI1 & AI0 allows to scale the current level: 0.38%, 0.71%, 100%
AI1=1 & AI0=0 => 1.099A * 0.38 = 0.4176A



logic pins < 20k, recommendation 5K
there are 33k pull-downs in chip logic pins





PCB Number: TIDA-01357
PCB Rev: E1

PCB LOGO
Texas Instruments

PCB LOGO
Pb-Free Symbol

PCB LOGO
FCC disclaimer

Variant/Label Table	
Variant	Label Text
001	ChangeMe!
002	ChangeMe!

LBL1
PCB Label
Size: 0.65" x 0.20 "

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.

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TID #: TIDA-01357	Project Title: Automotive HVAC Multiple Flap Actuator / Damper		
Number: TIDA-01357 Rev: E1	Sheet Title:		
SVN Rev: Version control disabled	Assembly Variant: 001	Sheet: 3 of 3	
Drawn By: Levan Bidzishvili	File: TIDA-01357_EVM_Hardware.SchDoc	Size: B	
Engineer: Levan Bidzishvili	Contact: http://www.ti.com/support		

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