



**ON Semiconductor®**

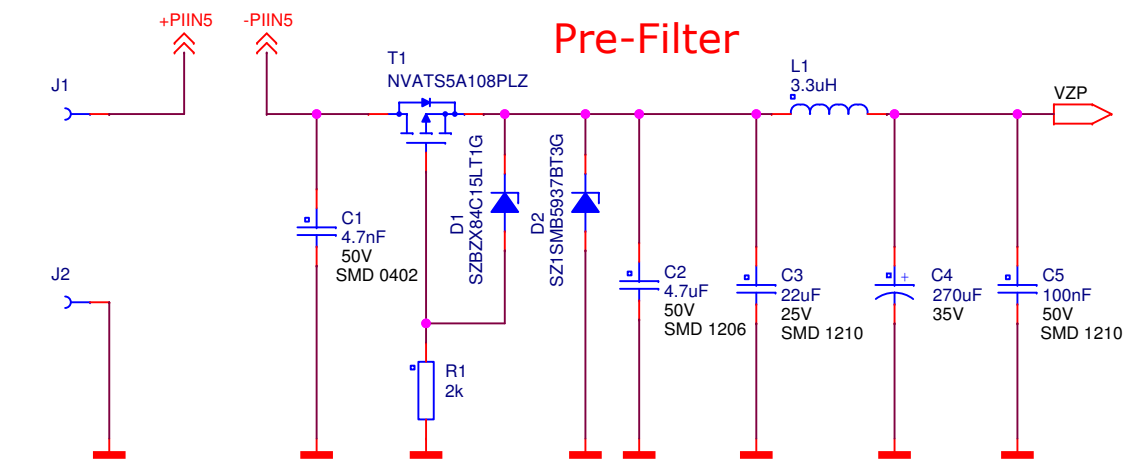
# **AUTOMOTIVE ADAS PREREGULATOR**

## **OPN#: STR-ADAS-PREREGULATOR-GEVB**

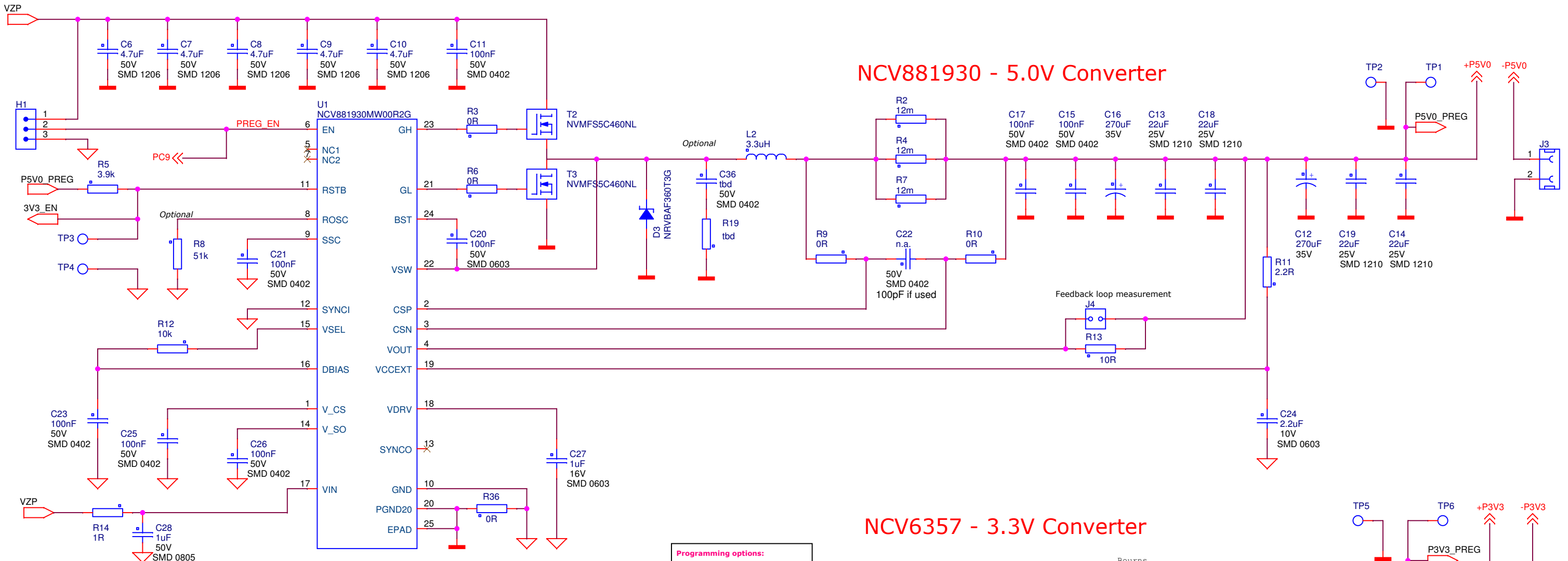
<b>ON Semiconductor</b>		
Title AUTOMOTIVE ADAS PREREGULATOR		
Size A3	Document Number STR-ADAS-PREREGULATOR-GEVB	Rev 0
Date:	Monday, August 05, 2019	Sheet 1 of 3

# Automotive ADAS Preregulator

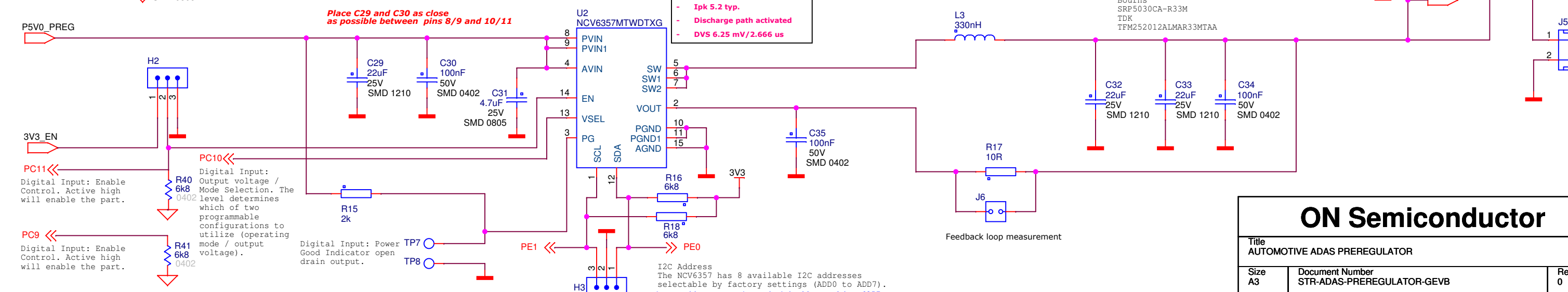
## Pre-Filter



## NCV881930 - 5.0V Converter



## NCV6357 - 3.3V Converter



**Programming options:**

- Ipk 5.2 typ.
- Discharge path activated
- DVS 6.25 mV/2.666 us

Bourns  
SRP5030CA-R33M  
TDK  
TFM252012ALMAR33MTAA

**PC9** Digital Input: Enable Control. Active high will enable the part.

**PC10** Digital Input: Output voltage / Mode Selection. The level determines which of two programmable configurations to utilize (operating mode / output voltage).

**PC11** Digital Input: Enable Control. Active high will enable the part.

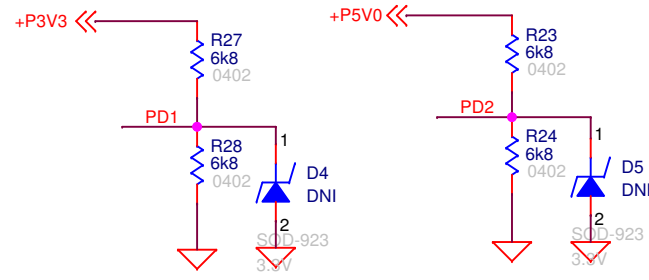
**PE1** Digital Input: Power Good Indicator open drain output.

**I2C Address**  
The NCV6357 has 8 available I2C addresses selectable by factory settings (ADD0 to ADD7).  
<https://www.onsemi.com/pub/Collateral/NCV6357-D.PDF>

<b>ON Semiconductor</b>		
Title AUTOMOTIVE ADAS PREREGULATOR		
Size A3	Document Number STR-ADAS-PREREGULATOR-GEVB	Rev 0
Date:	Friday, August 09, 2019	Sheet 2 of 3

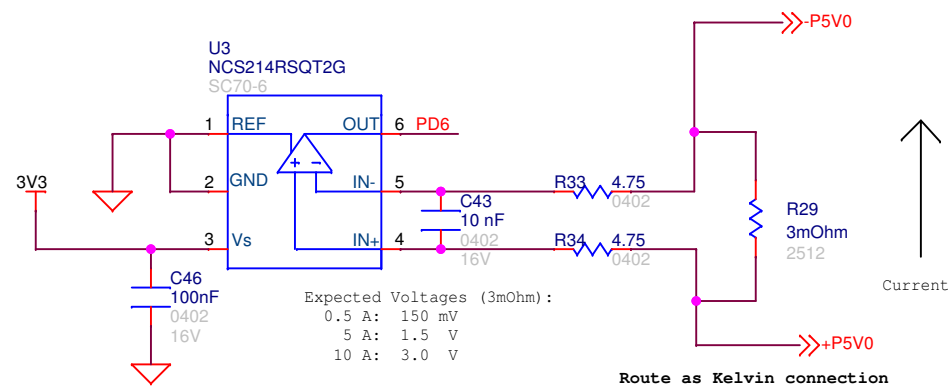
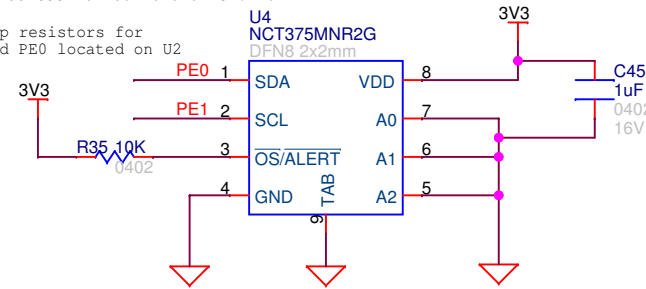
# Strata Assisted

## Telemetry Circuits

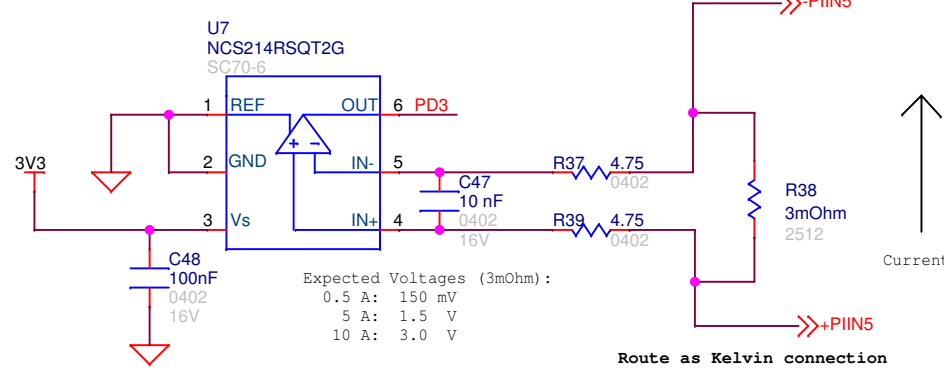


Slave Address for U5 NCI375 is 0x48

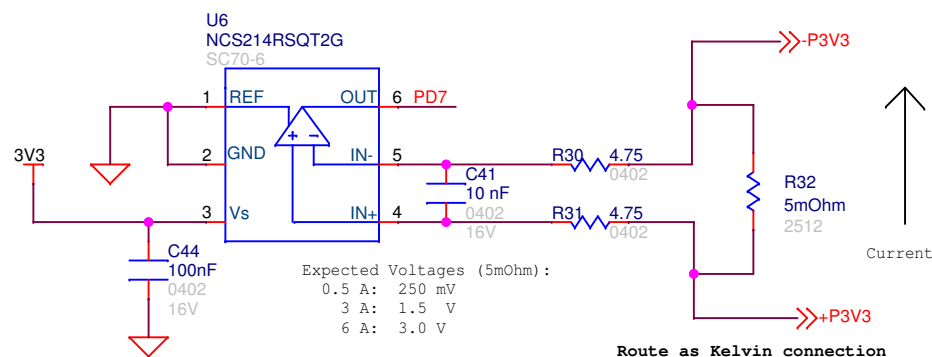
Pull up resistors for PE1 and PE0 located on U2



Route as Kelvin connection

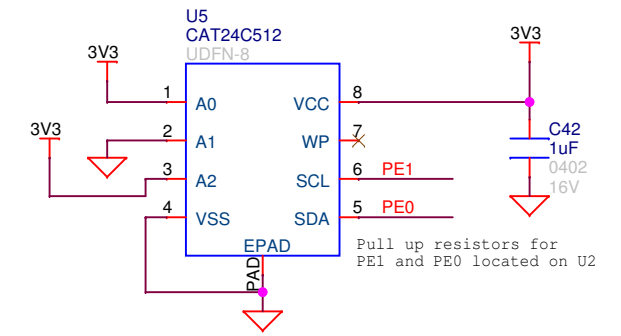
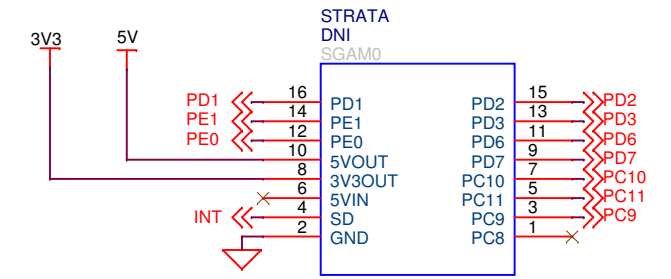


Route as Kelvin connection



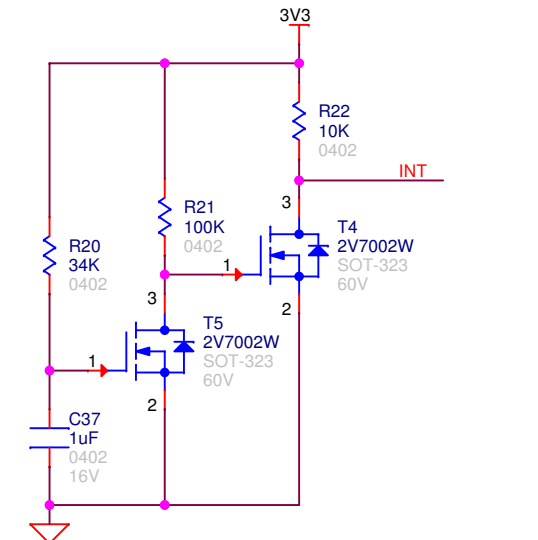
Route as Kelvin connection

## Strata Assisted Connection Circuit



Connect A0, A1, and A2 depending on type of PCB

- Slave address
- 000 - 0x50 - General purpose
  - 001 - 0x51 - Reserved
  - 010 - 0x52 - Reserved
  - 011 - 0x53 - Reserved
  - 100 - 0x54 - Front end (ACDC)
  - 101 - 0x55 - Middle (DCDC) <-Slave Addressed Used
  - 110 - 0x56 - Other logic
  - 111 - 0x57 - Strata use only (DLT board)



Pulse INT on plug event  
 34k, 1uF = 50ms negative pulse  
 System can also mask INT for level based interrupt  
 Pull gate of Q2 low to disable pulse INT events

## ON Semiconductor

Title AUTOMOTIVE ADAS PREREGULATOR		
Size A3	Document Number STR-ADAS-PREREGULATOR-GEVB	Rev 2
Date: Monday, August 12, 2019	Sheet 3	of 3