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LPC812 Demo Board

## LabTool (add-on board to LPC-Link 2)

UL = UnLoaded = normally not mounted component.

Default jumper settings are indicated in the schematic.  
However, always check jumper positions on actual boards  
since there is no guarantee that all jumpers are in default place.

### Rev B

Added inrush-current limit.

### Rev A

First public release



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Document Number:

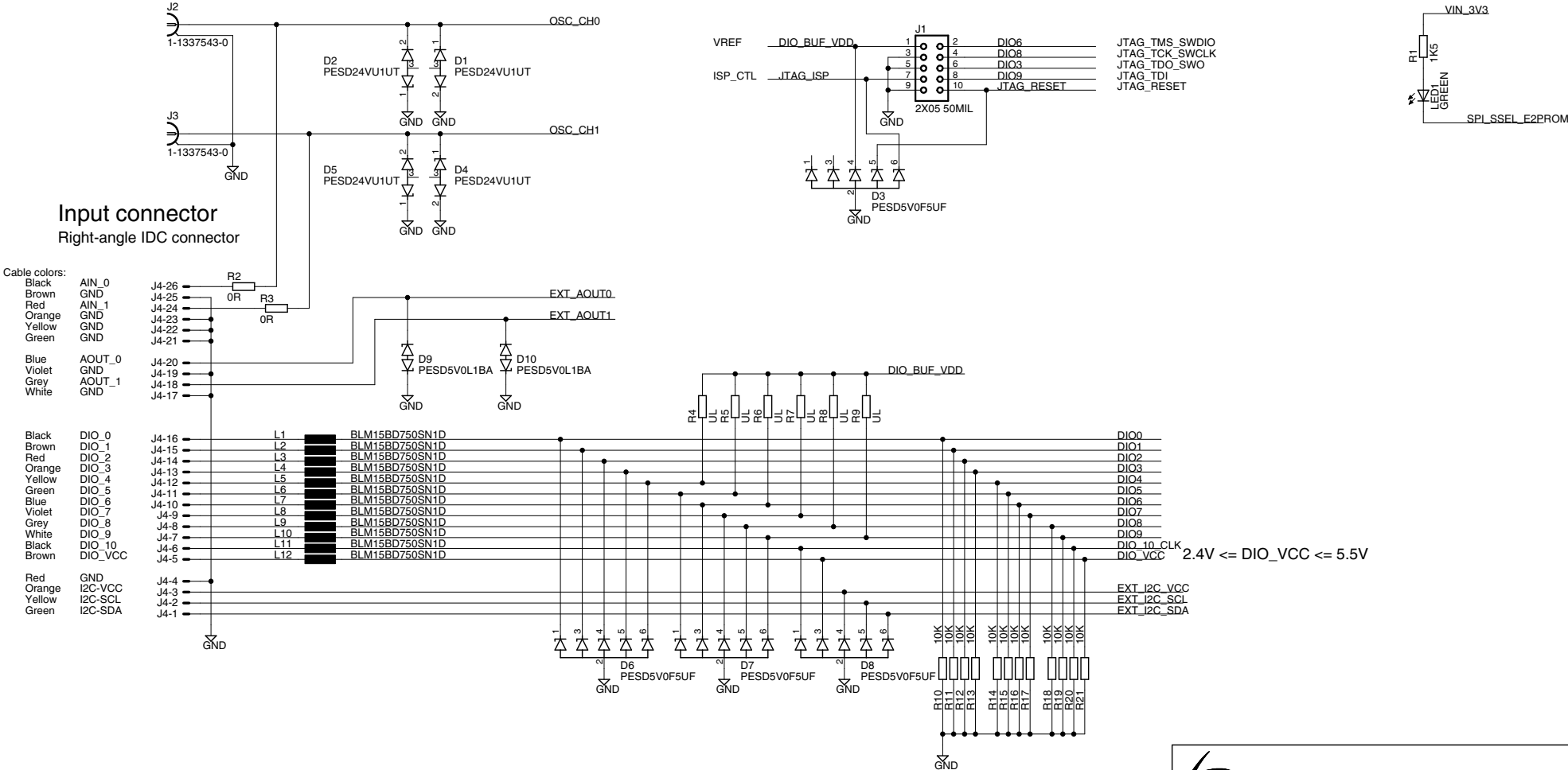
Date: 2013-12-05 09:17:46


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# External Connectors and ESD protection

## SWD/JTAG interface extended from LPC-Link 2

## Status LED





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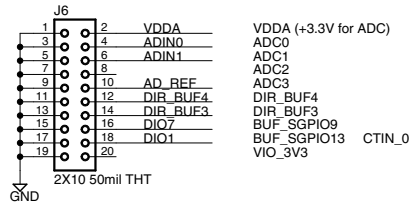
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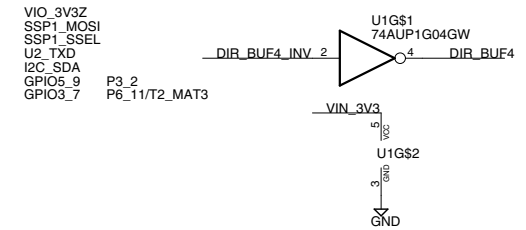
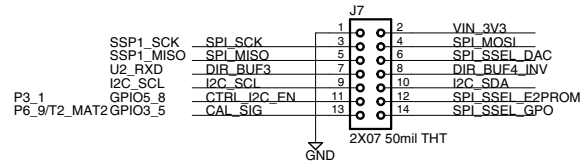
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# Connectors (x3) to LPC-Link 2

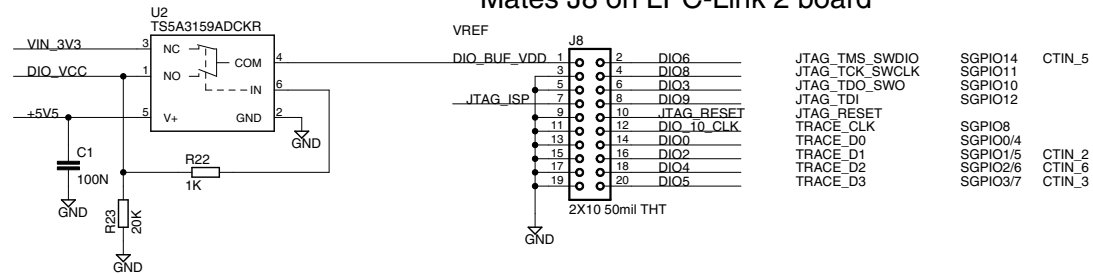
**Analog and Digital signals**  
 (female connector, 50 mil pitch)  
 Mates J4 on LPC-Link 2 board



**Serial Expansion Connector**  
 (female connector, 50 mil pitch)  
 Mates J3 on LPC-Link 2 board



**Trace Connector**  
 (female connector, 50 mil pitch)  
 Mates J8 on LPC-Link 2 board



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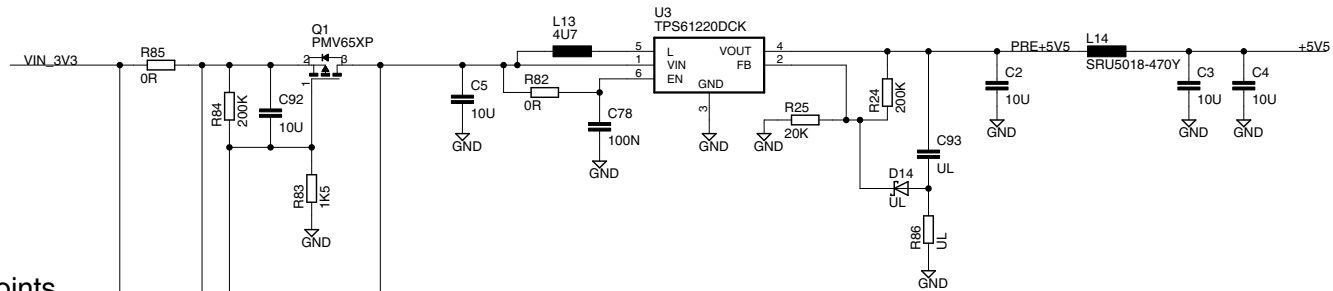
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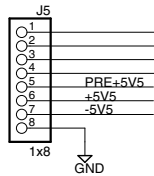
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# Power supplies

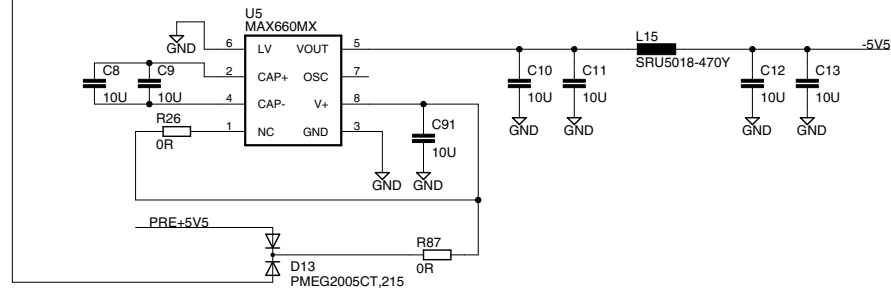
## +5.5V, 150mA Supply



Test points



## -5.5V, 100mA Supply



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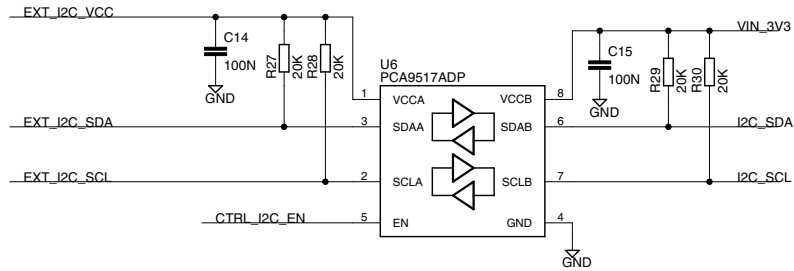
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# I2C buffer

0.9-5.5V VCC range    Max 400kHz



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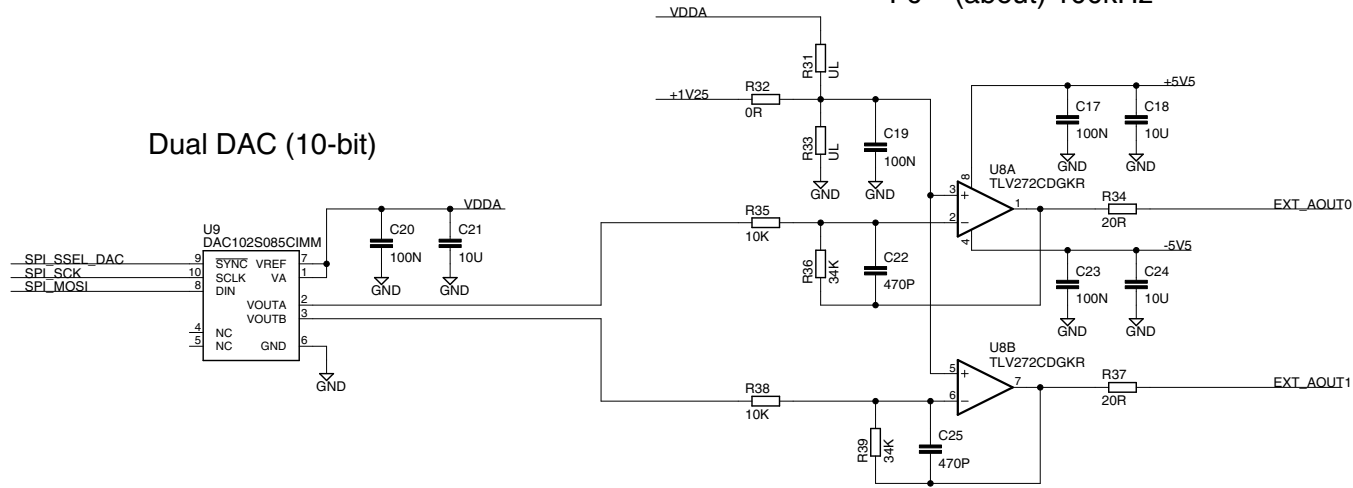
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# Analog Outputs and Calibration Signal

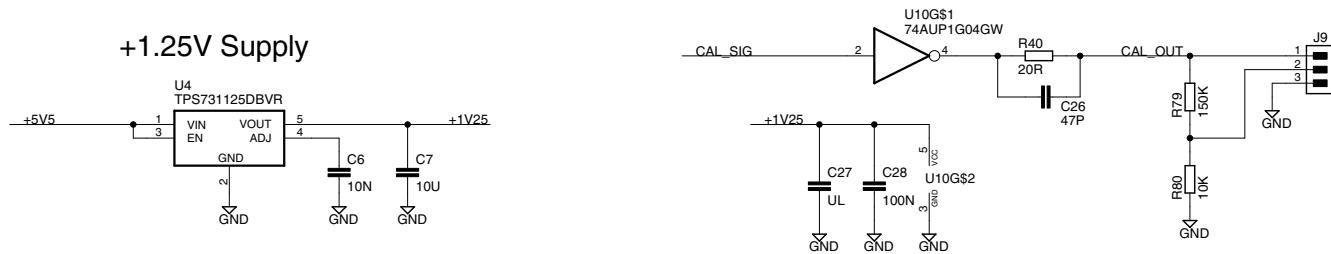
## Analog outputs

$V_{in} = 0-3.3V$ ,  $V_{out} = +5$  to  $-5V$   
 $F_c = (\text{about}) 100kHz$



## Calibration output

### +1.25V Supply



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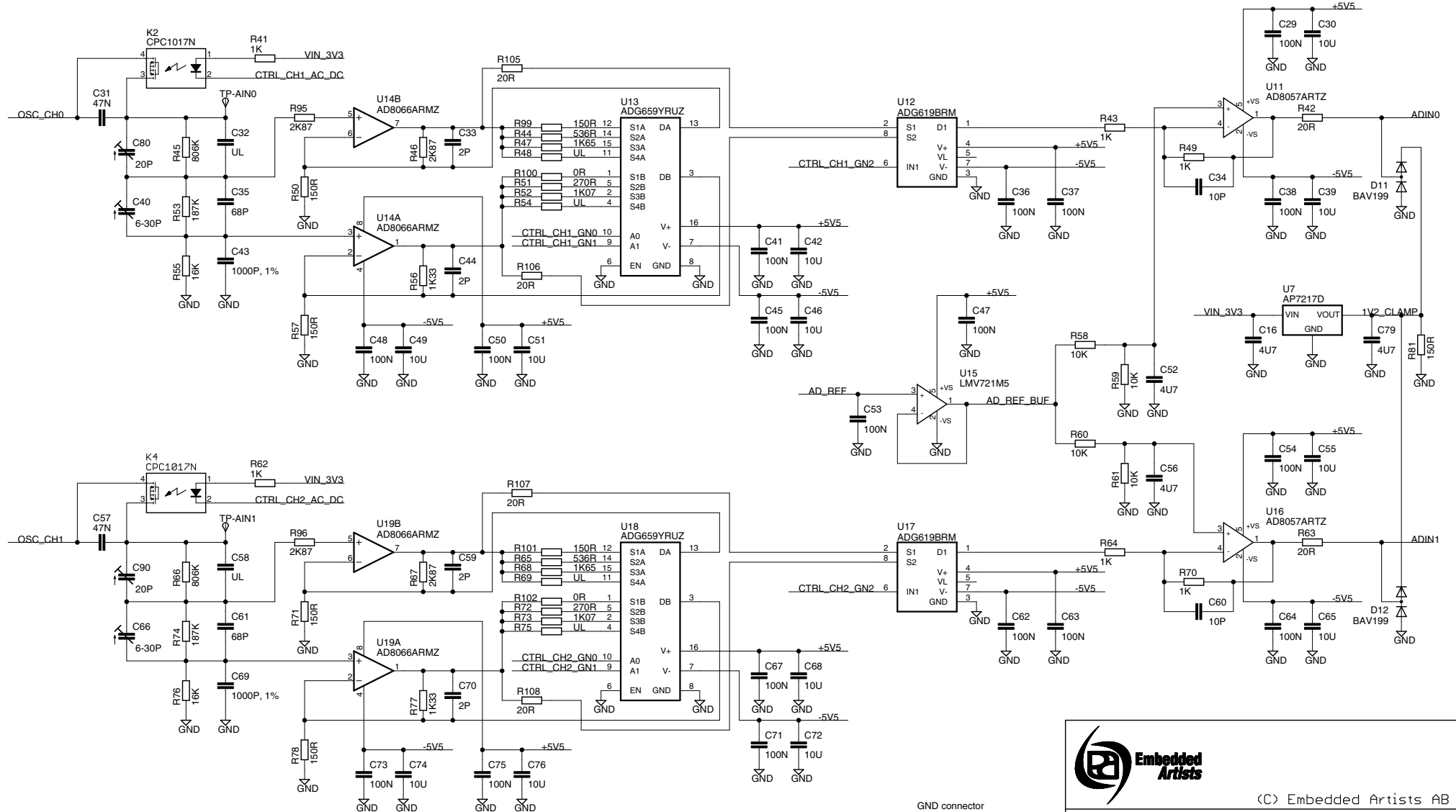
# Oscilloscope inputs

**+25V**    **x0.016/0.2, 1M imp.**

**x1/2.5/5/10**  
**x2/4/8/20**

**+0.4V**

**AD\_REF(0.5V)+0.4V**



GND connector  
(Keystone 5016K)  
TP3  
GND

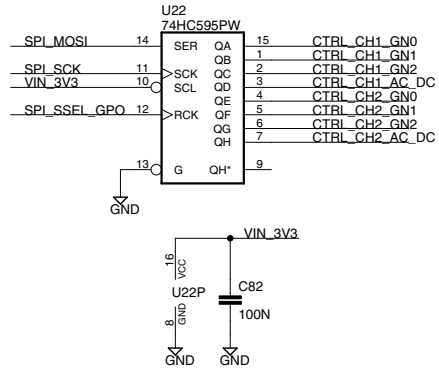
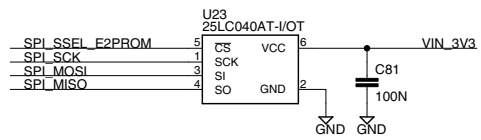


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# Control signals

## 4kbit EEPROM



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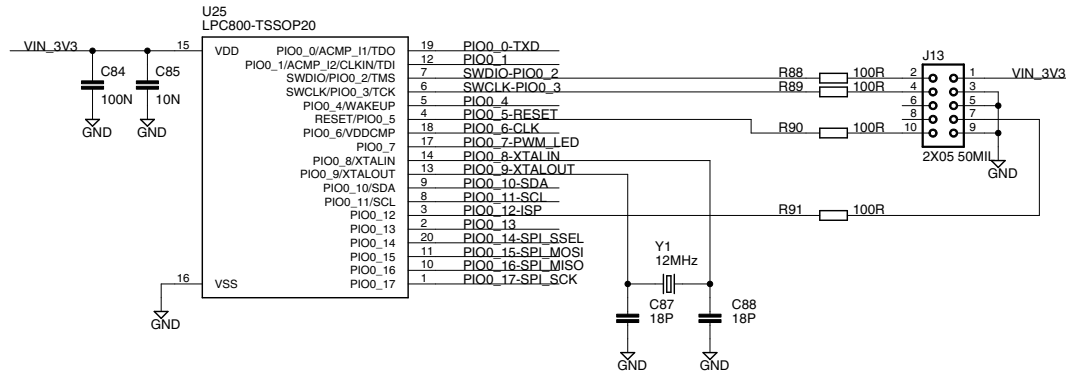
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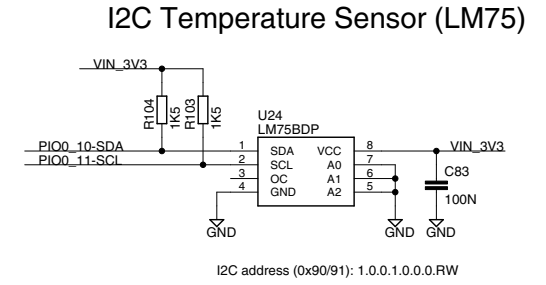
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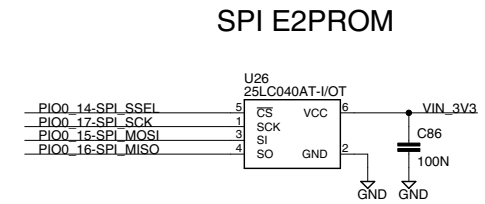
# LPC812 Demo Board



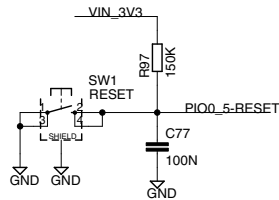
SWD interface



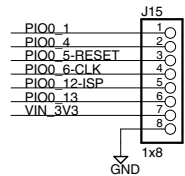
I2C Temperature Sensor (LM75)



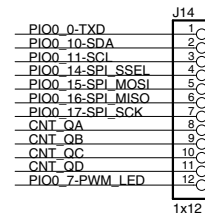
SPI E2PROM



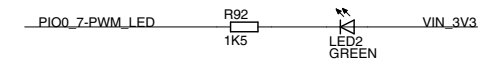
Internal signals



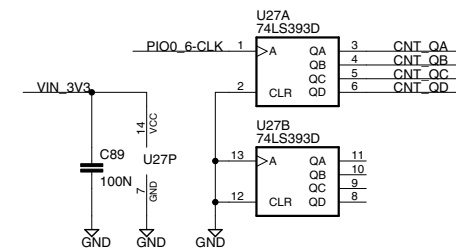
Connector for demo signals



PWM-controlled LED



Counter



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