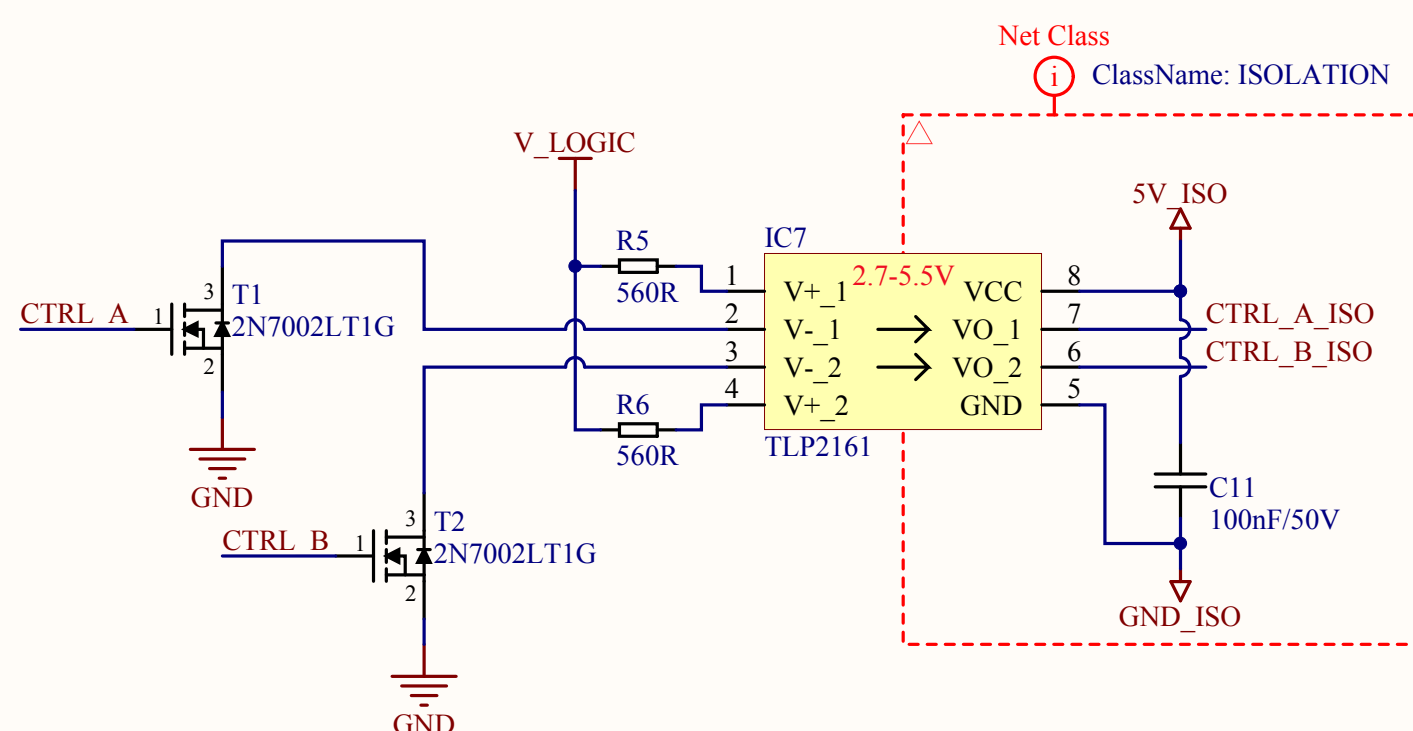
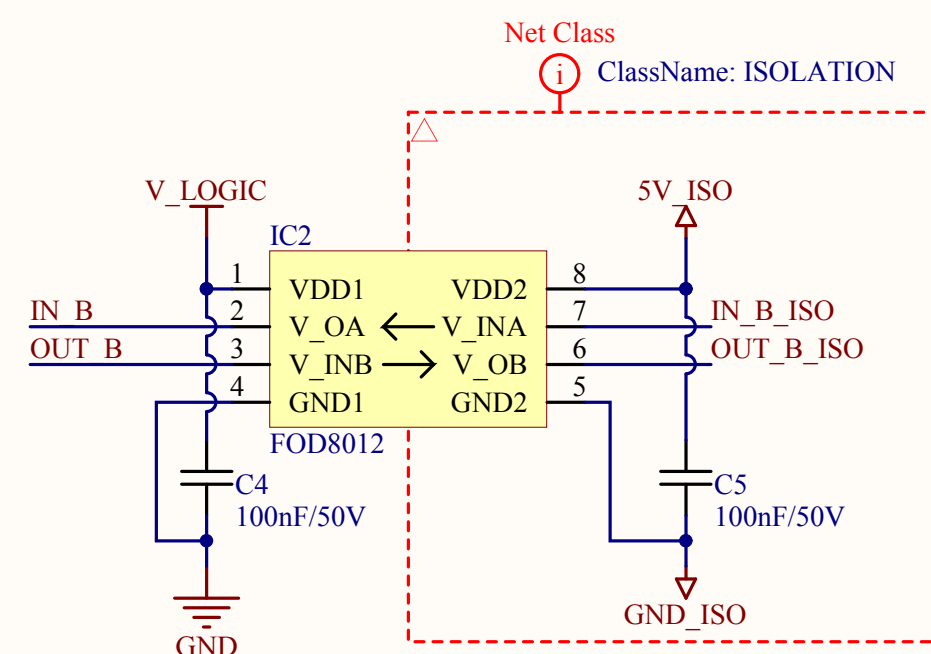
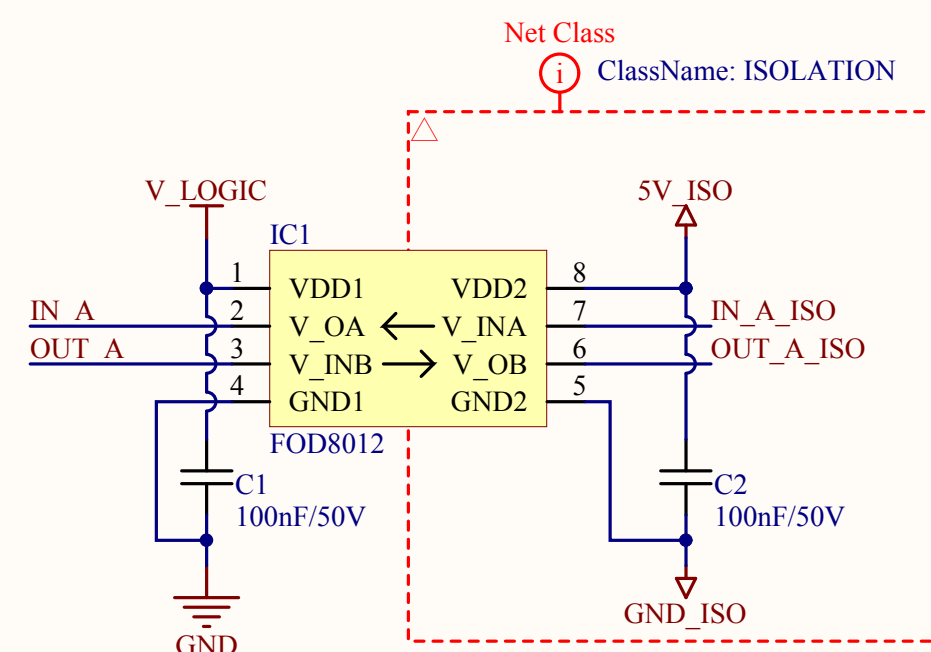


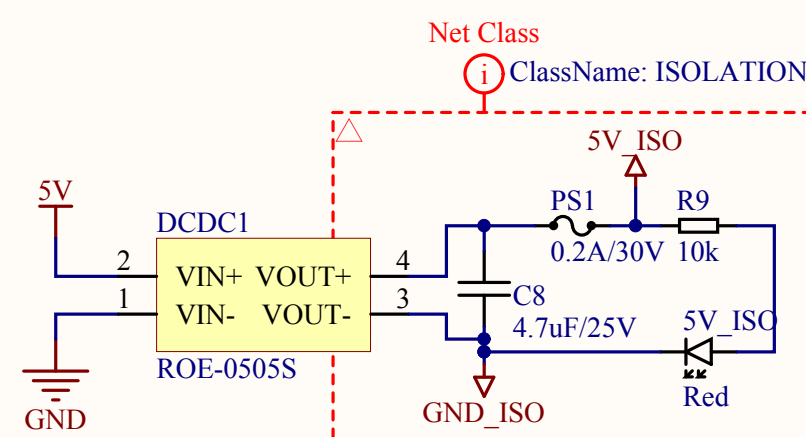
## GPIO



CTRL_A	CTRL_B	Mode
0	0	A in, B In
0	1	A in, B Out
1	0	A out, B in
1	1	A out, B out

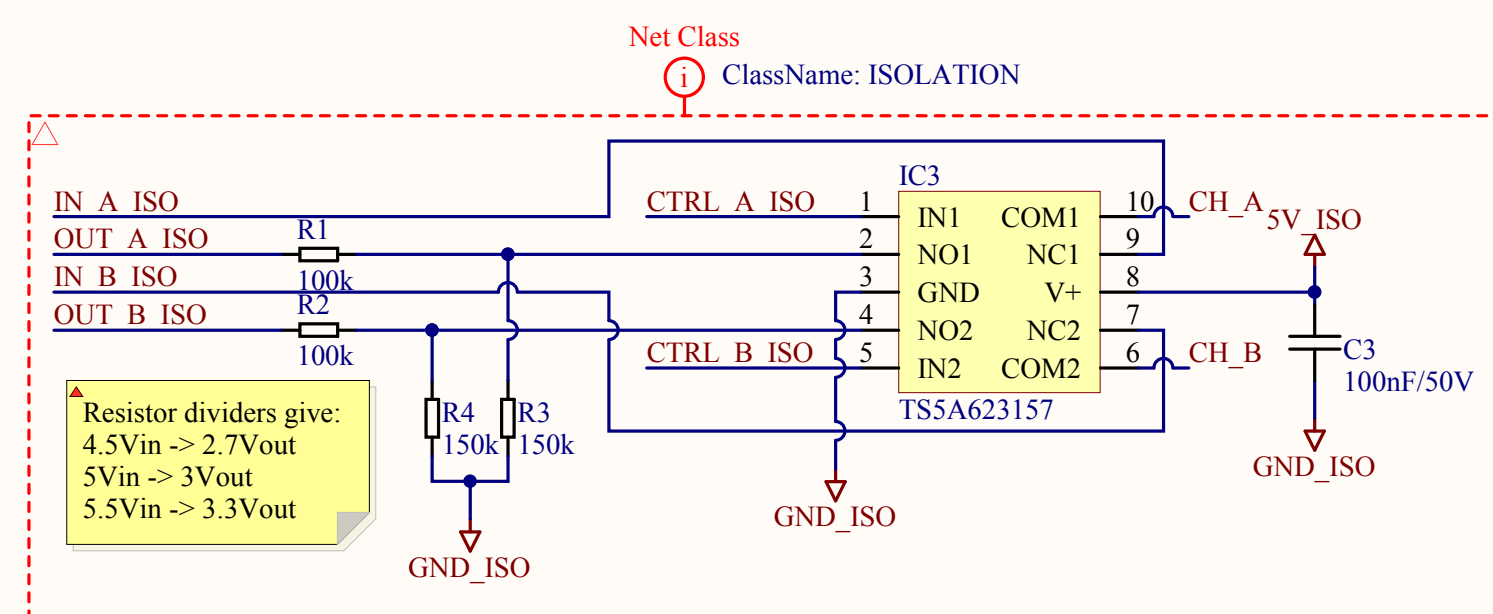
▲ TLP2161 V\_forward: 1.5V typ.  
Recommended current: 2-6mA  
Max current: 10mA  
@5V\_logic -> 6.25mA  
@3.3V\_logic -> 3.21mA

▲ TLP2161:  
LED On -> Output Low  
LED Off -> Output High



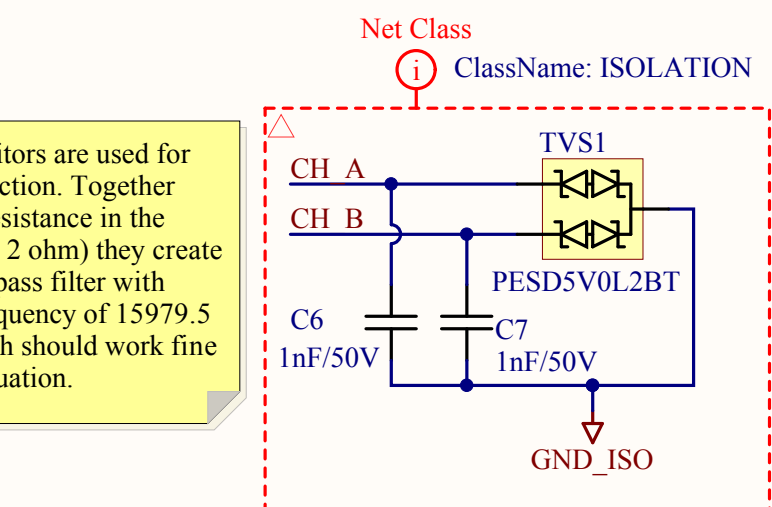
▲ Current Usage 5V\_ISO:  
TLP2160: 5 mA max  
FOD8012: 2x8 mA max = 16 mA  
TS5A623157: 10-150mA ???  
= 168 mA max

ROE-0505S 200mA out max  
-> 200-168 = 32 mA left

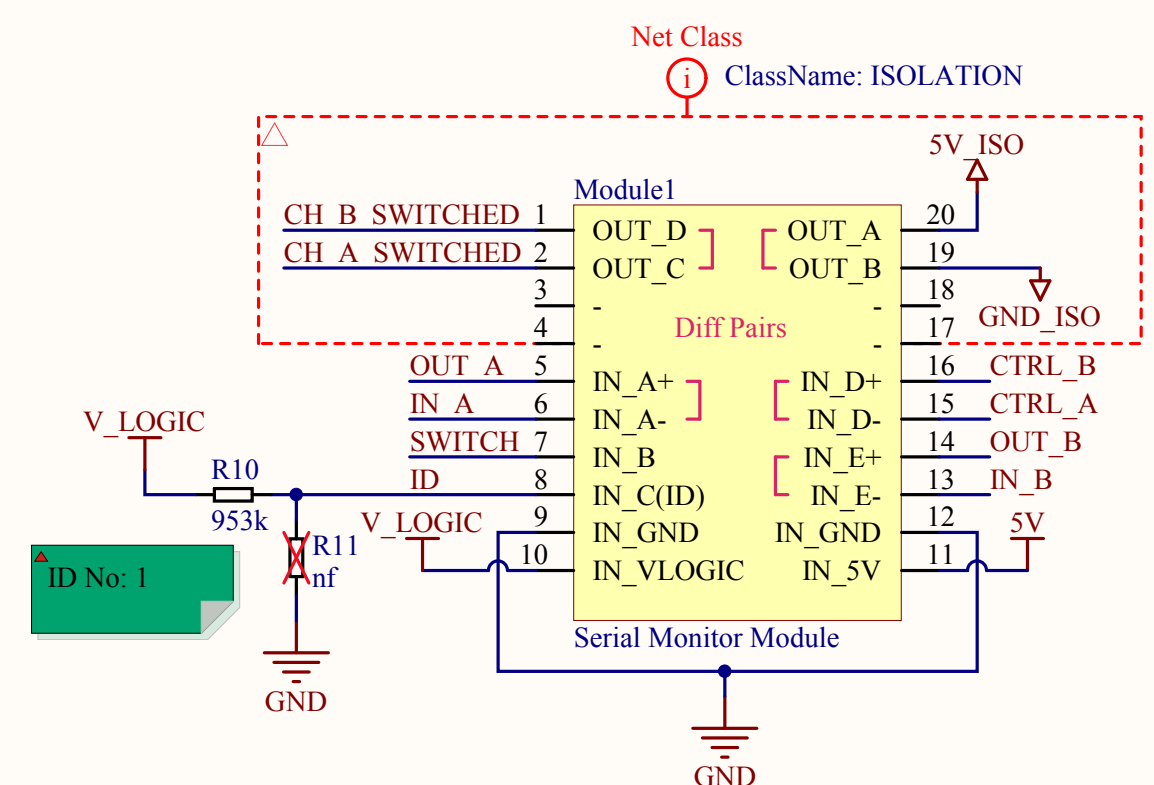
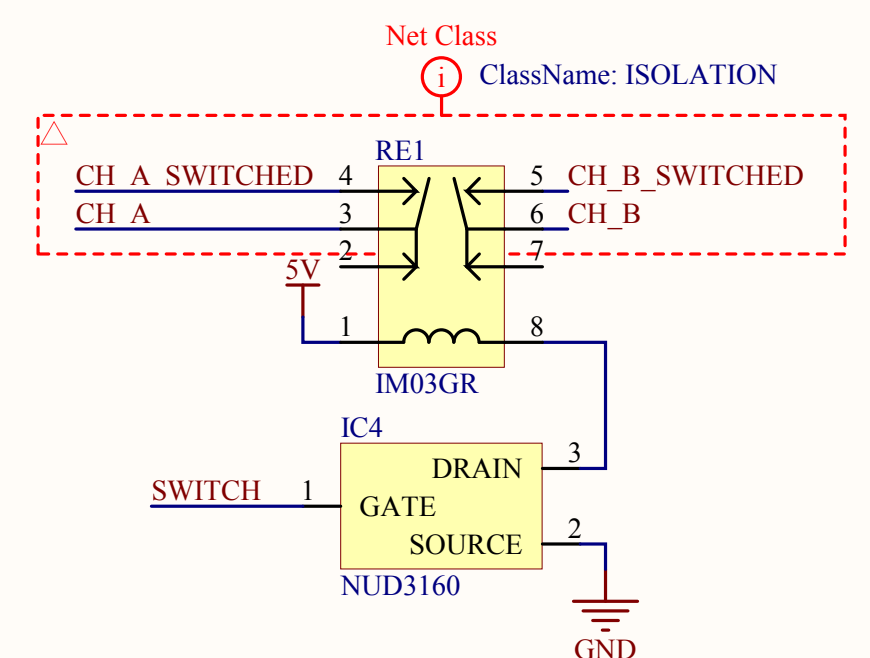


▲ Resistor dividers give.  
 $4.5V_{in} \rightarrow 2.7V_{out}$   
 $5V_{in} \rightarrow 3V_{out}$   
 $5.5V_{in} \rightarrow 3.3V_{out}$

- ▲ Resistor divider on outputs so that the they can be compatible with 3.3V logic



▲ The capacitors are used for ESD protection. Together with the resistance in the cable (1 to 2 ohm) they create a RC low pass filter with cut-off frequency of 15979.5 MHz which should work fine for this situation.



Title: Power		
Size: A3	Number: 1	Revision: Rev 1
Date: 6/2/2015	Time: 2:14:02 PM	Sheet 1 of 1
File: Serial Monitor GPIO Module Schematic.SchDoc		