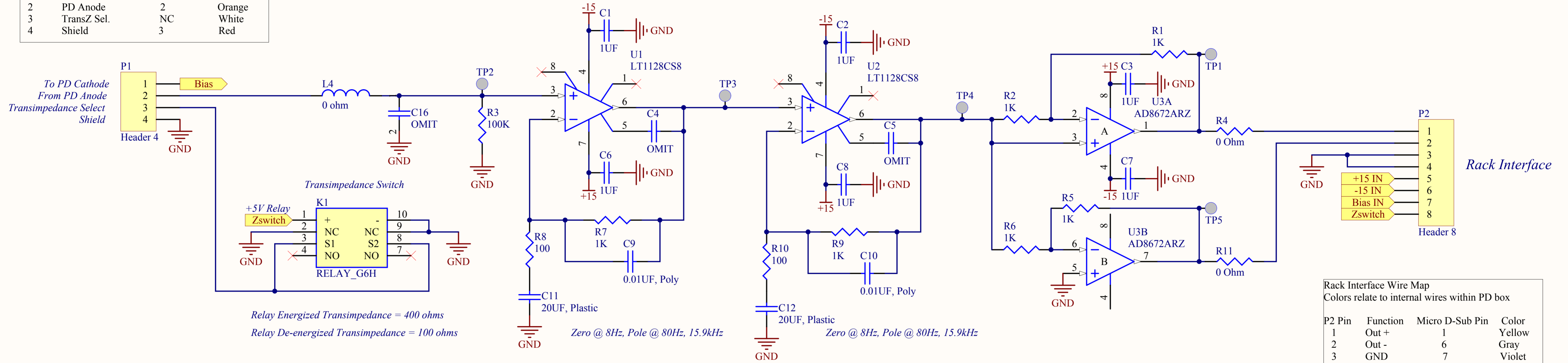


In-vacuum OMC DC Photodetector

PD Interface Wire Map
Colors relate to internal wires within PD box

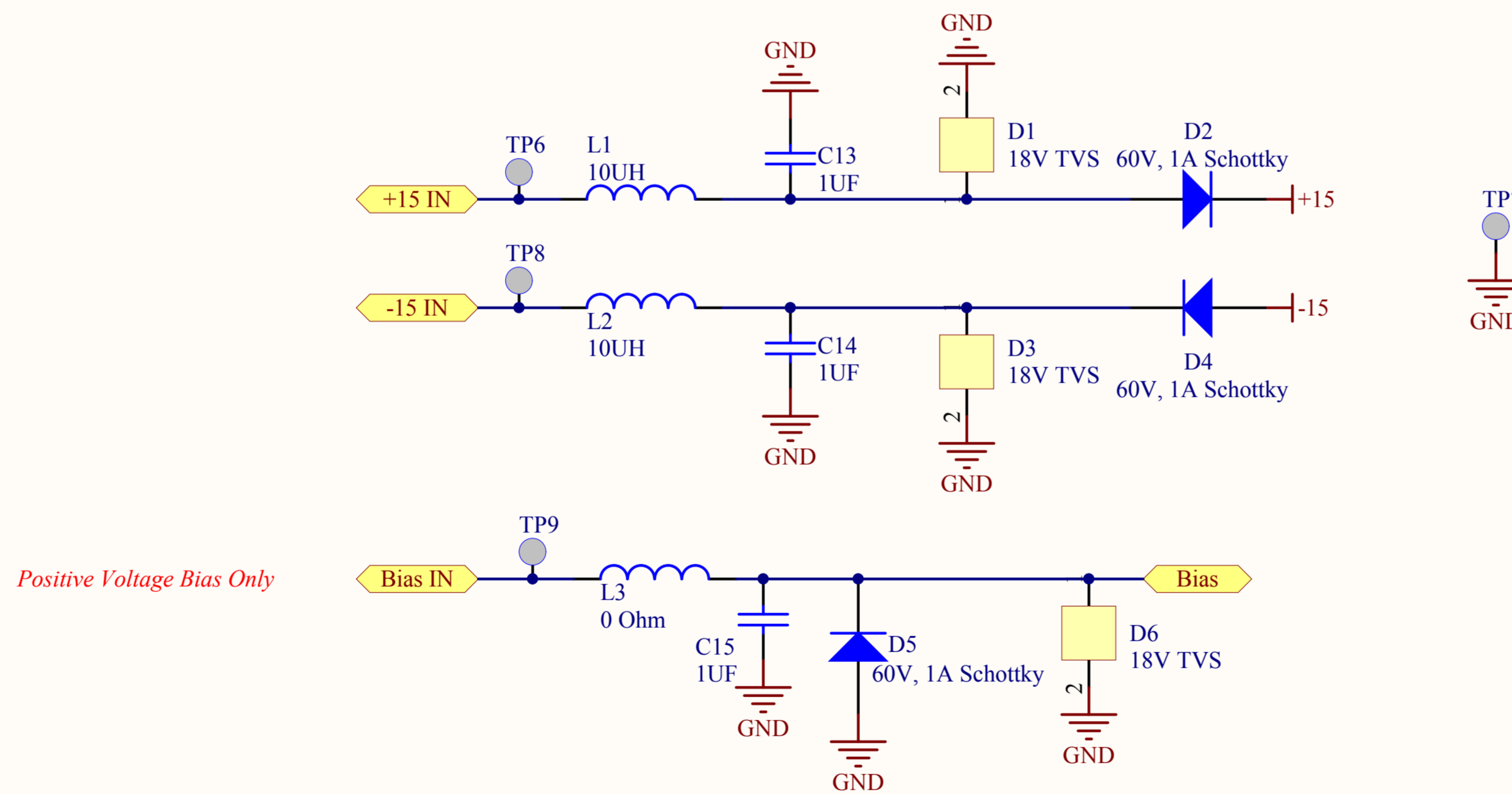
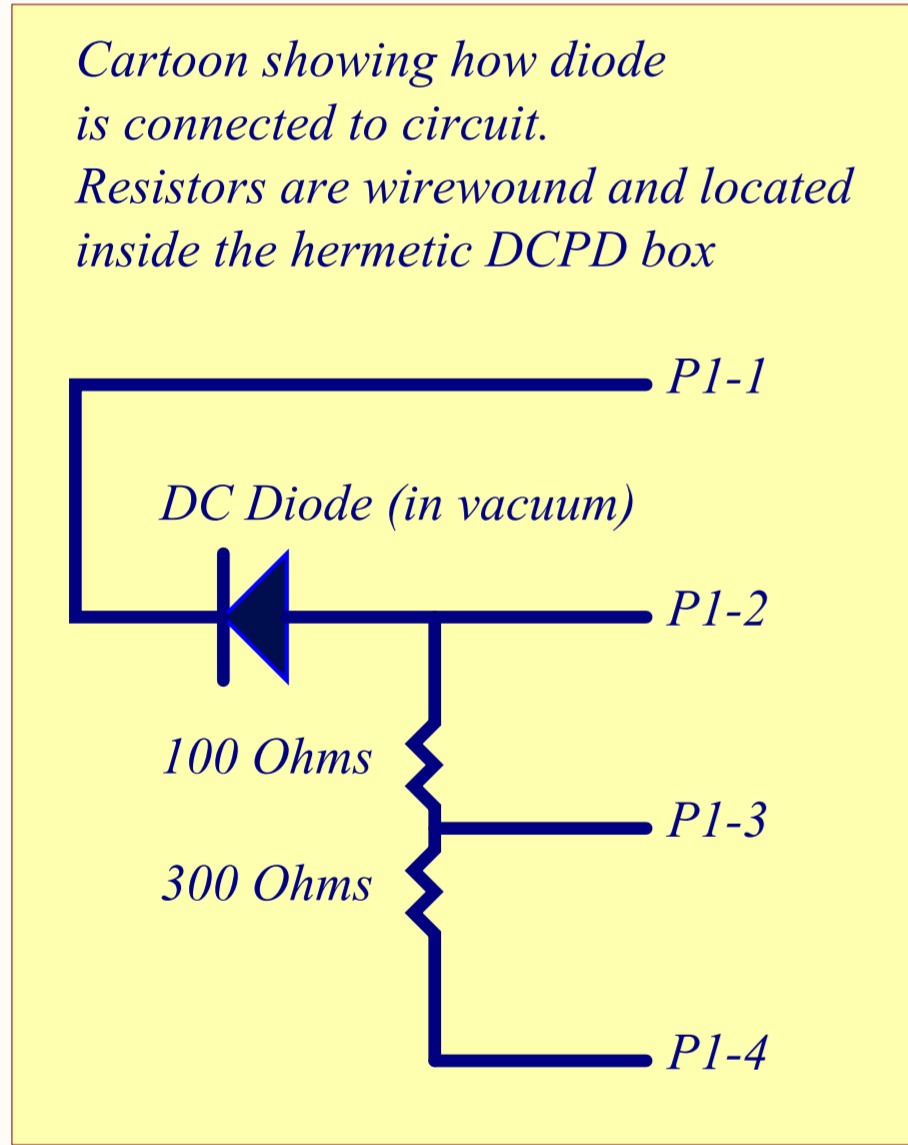
P1 Pin	Function	Micro D-Sub Pin	Color
1	PD Cathode	1	Yellow
2	PD Anode	2	Orange
3	TransZ.Sel.	NC	White
4	Shield	3	Red



Relay Energized Transimpedance = 400 ohms
Relay De-energized Transimpedance = 100 ohms

Rack Interface Wire Map
Colors relate to internal wires within PD box

P2 Pin	Function	Micro D-Sub Pin	Color
1	Out +	1	Yellow
2	Out -	6	Gray
3	GND	7	Violet
4	GND	8	Blue
5	+15V	2	Orange
6	-15V	3	Red
7	BIAS +V	4	Brown
8	ZSwitch	9	Green



Quiescent Current Draw
+15V = ~30mA
-15V = ~30mA

Revision History:

Rev. A: Initial Release

Rev. B: Fixed missing connection to relay. Changed operating state of relay in high power mode to relay de-energized to lower power consumption.

Rev. B1: Changed front end transimpedance selection from 100/200 ohms to 100/400 ohms. Changed output differential driver from AD826AR to AD8672 for lower noise performance. U1 and U2 changed from LT1028 to LT1128 to reduce unity gain peaking. C4 and C5 removed. C9 and C10 changed from 4.7pF to 10nF for bandwidth limiting and reduction of potential bias coupling instability. L3 was changed from 10uH to zero ohms to avoid noise peaking on the bias line.

Rev. B2: Changed TVS D6 from a 12 volt part to an 18 volt part to allow higher bias voltages on the DCPD.

Rev. B3: Added cartoon to schematic detailing the way the photodiode and transimpedance resistors hook to the circuit.

Last Edited: 8 Jan. 2009

Title In-vacuum DC PD for OMC			* * *	
Size: B	DCC Number: D060572	Revision: B3	Engineer: RS Abbott	Date: 1/8/2009
File: C:\Rich's Files\Mycadfiles\ISC\DC_readout\DCPD\DCPD.SchDoc				Time: 5:15:40 PM
				Sheet 1 of 1

D060572-B
DCPD Pre-amp

