

**Voltage Regulator Equations**

$$LM337 V_o = -1.25(1 + Radj/120) + (50\mu A * Radj)$$

$$LM317 V_o = 1.25(1 + Radj/249) + (100\mu A * Radj)$$

5V Reference

RF Current Source

Gain = 18mA/V

RF Test Output

Local DC Monitor

Resonance @ 29.5MHz

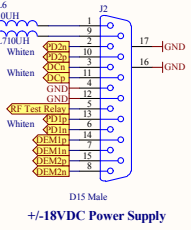
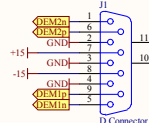
Resonance @ 3.125MHz

Optional Notch

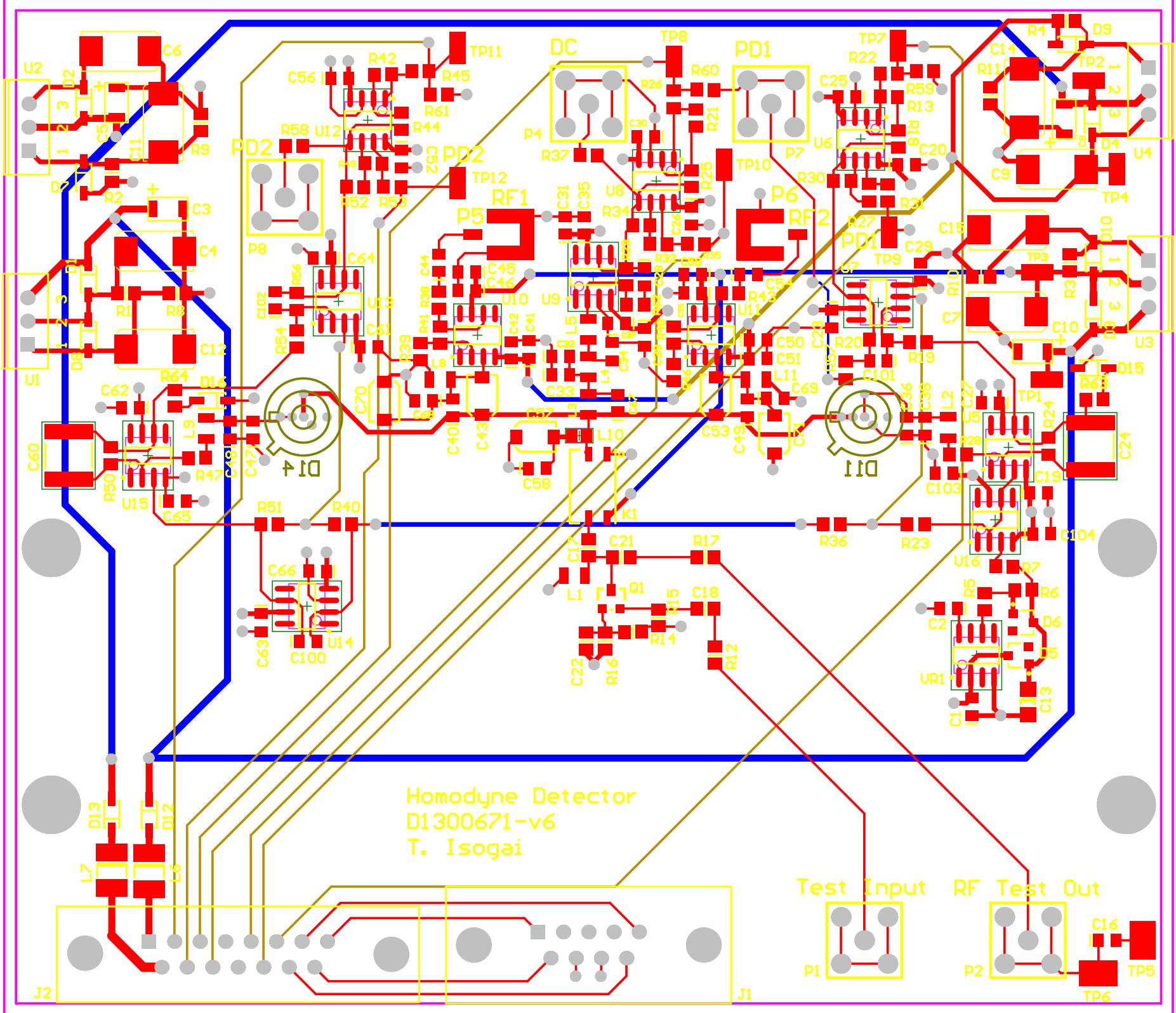
To make it single ended output, do not solder R25 and U8, and change the resistors such that R34 + R32 + R35 = 50 Ohm and R60 = 0 Ohm.

To make it single ended output, do not solder R18 and U6, and change the resistors such that R30 + R27 + R31 = 50 Ohm and R59 = 0 Ohm.

To make it single ended output, do not solder R44 and U12, and change the resistors such that R52 + R49 + R53 = 50 Ohm and R61 = 0 Ohm.

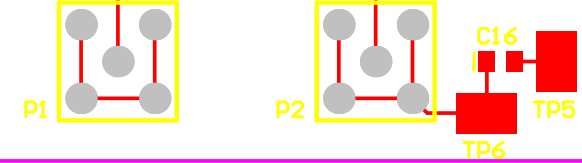


Title	Homodyne Detector		
Size	Number	Revision	
C	LIGO-D1300671	v6	
Date:	2/7/2018	Sheet of	1
File:	C:\restored\Homodyne_SchDoc	Drawn By:	Tomoki Itoqui



Homodyne Detector  
D1300671-v6  
T. Isogai

Test Input RF Test Out



J2

J1